

RETURN WITH BID

State of _____)
) ss.
County of _____)

AFFIDAVIT

_____, of _____,
(name of affiant) *(bidder)*

being first duly sworn upon oath, states as follows:

1. That I am the _____ of _____
(Officer or position) *(Bidder)*
and have personal knowledge of the facts herein stated.
2. That, if selected under this bid proposal, _____ will
(Bidder)
maintain a business office in the State of Illinois which will be located in _____
County, Illinois.
3. That this business office will serve as the primary place of employment for any persons
employed in the construction contemplated by this bid proposal.
4. That this Affidavit is given as a requirement of state law as provided in Section 30-22(8) of
the Illinois Procurement Code.

(Signature)

(Printed name of Affiant)

This instrument was signed and attested before me on the _____ day of _____, 20 ____

by _____.
(Notary Public Name)

(Notary Public Signature)

(NOTARY SEAL)

BID PROPOSAL INSTRUCTIONS

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

PREQUALIFICATION

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

WHO CAN BID ?

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

REQUESTS FOR AUTHORIZATION TO BID

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

WHAT CONSTITUTES WRITTEN AUTHORIZATION TO BID?

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

ABOUT AUTHORIZATION TO BID

Firms that have not received an Authorization to Bid or Not For Bid Report within a reasonable time of complete and correct original document submittal should contact the Department as to the status. Firms unsure as to authorization status should call the Prequalification Section of the Bureau of Construction at the number listed at the end of these instructions.

ADDENDA AND REVISIONS

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

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

The Internet is the Department's primary way of doing business. The subscription service emails are an added courtesy the Department provides. It is suggested that bidders check IDOT's website at <http://www.dot.il.gov/desenv/delett.html> before submitting final bid information.

IDOT IS NOT RESPONSIBLE FOR ANY E-MAIL FAILURES.

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

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

STANDARD GUIDELINES FOR SUBMITTING BIDS

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

BID SUBMITTAL CHECKLIST

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

Proposal Bid Bond – (Insert after the proposal signature page) Submit your proposal Proposal Bid Bond (if applicable) using the current Proposal Bid Bond form provided in the proposal package. The Power of Attorney page should be stapled to the Proposal Bid Bond. If you are using an electronic bond, include your bid bond number on the Proposal Bid Bond and attach the Proof of Insurance printed from the Surety’s Web Site.

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

The Bid Letting is now available in streaming Audio/Video from the IDOT Web Site. A link to the stream will be placed on the main page of the current letting on the day of the Letting. The stream will not begin until 10 AM. The actual reading of the bids does not begin until approximately 10:30 AM.

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

QUESTIONS: pre-letting up to execution of the contract

Contractor pre-qualification	217-782-3413
Small Business, Disadvantaged Business Enterprise (DBE)	217-785-4611
Contracts, Bids, Letting process or Internet downloads	217-782-7806
Estimates Unit.....	217-785-3483
Aeronautics.....	217-785-8515
IDNR (Land Reclamation, Water Resources, Natural Resources).....	217-782-6302

QUESTIONS: following contract execution

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

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Proposal Submitted By
Name
Address
City

Letting February 28, 2014

NOTICE TO PROSPECTIVE BIDDERS

This proposal can be used for bidding purposes by only those companies that request and receive written AUTHORIZATION TO BID from IDOT's Central Bureau of Construction.

BIDDERS NEED NOT RETURN THE ENTIRE PROPOSAL

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



**Illinois Department
of Transportation**

Springfield, Illinois 62764

**Contract No. 70A53
MCLEAN County
Section FUNKS GROVE RA IMP 2014-1
Route FAI 55
District 5 Construction Funds**

PLEASE MARK THE APPROPRIATE BOX BELOW:

- A Bid Bond is included.
- A Cashier's Check or a Certified Check is included.
- An Annual Bid Bond is included or is on file with IDOT.

Prepared by

S

Checked by

(Printed by authority of the State of Illinois)

Page intentionally left blank

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PROPOSAL

TO THE DEPARTMENT OF TRANSPORTATION

1. Proposal of _____

Taxpayer Identification Number (Mandatory) _____ a

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

**Contract No. 70A53
MCLEAN County
Section FUNKS GROVE RA IMP 2014-1
Route FAI 55
District 5 Construction Funds**

This project consists of repairs and renovations to the sanitary treatment system at Funks Grove Rest Area on I-55 in McLean County.

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

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6. **COMBINATION BIDS.** The undersigned bidder 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 contract 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 will 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. **AUTHORITY TO DO BUSINESS IN ILLINOIS.** Section 20-43 of the Illinois Procurement Code (the Code) (30 ILCS 500/20-43) provides that a person (other than an individual acting as a sole proprietor) must be a legal entity authorized to do business in the State of Illinois prior to submitting the bid.
9. **EXECUTION OF CONTRACT:** The Department of Transportation will, in accordance with the rules governing Department procurements, execute the contract and shall be the sole entity having the authority to accept performance and make payments under the contract. Execution of the contract by the Chief Procurement Officer (CPO) or the State Purchasing Officer (SPO) is for approval of the procurement process and execution of the contract by the Department. Neither the CPO nor the SPO shall be responsible for administration of the contract or determinations respecting performance or payment there under except as otherwise permitted in the Code.

10. **The services of a subcontractor will be used.**

Check box Yes
 Check box No

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

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT
 NUMBER - 70A53

State Job # - C-95-008-14

Project Number

Route

County Name - MCLEAN - -

FAI 55

Code - 113 - -

District - 5 - -

Section Number - FUNKS GROVE RA IMP 2014-1

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
XX000372	TEMP AGGREGATE	TON	410.000				
XX003470	SANITARY CLEANOUT 6	EACH	2.000				
XX005498	SANITARY CLEANOUT 4	EACH	6.000				
XX006247	SAN SEW REMOVAL	FOOT	400.000				
XX006377	SEPTIC TANK TO BE PUMPED	EACH	2.000				
XX007026	FENCE REM & REINSTALL	FOOT	30.000				
XX008550	REM REPL STONE RIPRAP	SQ YD	140.000				
X0320374	PLUG EX SAN SEWERS	EACH	4.000				
X0325279	CLASS SI CONC (MISC)	CU YD	5.000				
X0327701	LAG DEW SLUD PMP DISP	EACH	2.000				
X0327702	DEMO STR LAG CONT STR	EACH	3.000				
X0327703	DEMO STR DOSING BOX	EACH	1.000				
X0327704	DEMO STR EFFLUENT STR	EACH	1.000				
X0327705	MODIFY EX CHLOR MH	EACH	1.000				
X0327706	AERATION	EACH	1.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT
 NUMBER - 70A53

State Job # - C-95-008-14

Project Number

Route

County Name - MCLEAN- -

FAI 55

Code - 113 - -

District - 5 - -

Section Number - FUNKS GROVE RA IMP 2014-1

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
X0327707	FLOW METER	EACH	1.000				
X0327708	ELECTRICAL SYST UPGRD	L SUM	1.000				
X0327709	SAND FILT SAND MED BD	TON	615.000				
X0327710	SAND FILT PIPE 4 PERF	FOOT	290.000				
X0327711	SIPHON SYSTEM	EACH	2.000				
X0327712	LAG 2 LEV CONTR GATE	L SUM	1.000				
X0327713	LAG 1 LEV CONTR GATE	L SUM	1.000				
X0327714	BYPASS VALV 6 DIA RIS	EACH	4.000				
X0327715	BYPASS VALV 8 DIA RIS	EACH	3.000				
X0327716	REPL EX 8 PLUG VLV MH	EACH	3.000				
X0327717	LAG 2 COVER SYST COMP	L SUM	1.000				
X0327718	SANITARY CLEANOUT 8	EACH	3.000				
X6026055	SAN MANHOLE SPL	EACH	4.000				
Z0056800	SAN SEW 6	FOOT	100.000				
Z0056900	SAN SEW 8	FOOT	430.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT
 NUMBER - 70A53

State Job # - C-95-008-14

Project Number

Route

County Name - MCLEAN- -

FAI 55

Code - 113 - -

District - 5 - -

Section Number - FUNKS GROVE RA IMP 2014-1

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
20101000	TEMPORARY FENCE	FOOT	30.000				
20200100	EARTH EXCAVATION	CU YD	490.000				
20400800	FURNISHED EXCAVATION	CU YD	90.000				
25000100	SEEDING CL 1	ACRE	1.000				
25100105	MULCH METHOD 1	ACRE	1.000				
28000250	TEMP EROS CONTR SEED	POUND	90.000				
28100105	STONE RIPRAP CL A3	SQ YD	140.000				
28200200	FILTER FABRIC	SQ YD	140.000				
60100080	FRENCH DRAINS	CU YD	60.000				
60107600	PIPE UNDERDRAINS 4	FOOT	570.000				
66900200	NON SPL WASTE DISPOSL	CU YD	490.000				
67100100	MOBILIZATION	L SUM	1.000				

CONTRACT NUMBER

70A53

THIS IS THE TOTAL BID

\$ _____

NOTES:

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

RETURN WITH BID

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

I. GENERAL

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

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

C. In addition to all other remedies provided by law, failure to comply with any assurance, failure to make any disclosure or the making of a false certification shall be grounds for the CPO to void the contract, and may result in the suspension or debarment of the bidder or subcontractor. If a false certification is made by a subcontractor the contractor's submitted bid and the executed contract may not be declared void unless the contractor refuses to terminate the subcontract upon the State's request after a finding that the subcontractor's certification was false.

I acknowledge, understand and accept these terms and conditions.

II. ASSURANCES

The assurances hereinafter made by the bidder are each a material representation of fact upon which reliance is placed should the Department enter into the contract with the bidder.

A. Conflicts of Interest

Section 50-13. Conflicts of Interest.

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

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

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

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

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

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

RETURN WITH BID

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

B. Negotiations

Section 50-15. Negotiations.

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

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

C. Inducements

Section 50-25. Inducement.

Any person who offers or pays any money or other valuable thing to any person to induce him or her not to 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.

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

D. Revolving Door Prohibition

Section 50-30. Revolving door prohibition.

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

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

E. Reporting Anticompetitive Practices

Section 50-40. Reporting anticompetitive practices.

When, for any reason, any vendor, bidder, contractor, CPO, SPO, designee, elected official, or State employee suspects collusion or other anticompetitive practice among any bidders, offerors, contractors, proposers, or employees of the State, a notice of the relevant facts shall be transmitted to the Attorney General and the CPO.

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

F. Confidentiality

Section 50-45. Confidentiality.

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

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

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G. Insider Information

Section 50-50. Insider information.

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

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

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

III. CERTIFICATIONS

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

A. Bribery

Section 50-5. Bribery.

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

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

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

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

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

(2) the business demonstrates to the governmental entity with which it seeks to contract, or which is signatory to the contract which the subcontract relates, and that entity finds that the commission of the offense was not authorized, requested, commanded, or performed by a director, officer, or high managerial agent on behalf of the business as provided in paragraph (2) of subsection (a) of Section 5-4 of the Criminal Code of 2012.

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

(d) Certification. Every bid submitted to and contract executed by the State, and every subcontract subject to Section 20-120 of the Code shall contain a certification by the contractor or the subcontractor, respectively, that the contractor or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the CPO may declare the related contract void if any certifications required by this Section are false. A contractor who makes a false statement, material to the certification, commits a Class 3 felony.

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

B. Felons

Section 50-10. Felons.

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

(b) Certification. Every bid submitted to and contract executed by the State and every subcontract subject to Section 20-120 of the Code shall contain a certification by the bidder or contractor or subcontractor, respectively, that the bidder, contractor, or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the CPO may declare the related contract void if any of the certifications required by this Section are false.

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C. Debt Delinquency

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

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

D. Prohibited Bidders, Contractors and Subcontractors

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

The bidder or contractor or subcontractor, respectively, certifies in accordance with 30 ILCS 500/50-10.5 that no officer, director, partner or other managerial agent of the contracting business has been convicted of a felony under the Sarbanes-Oxley Act of 2002 or a Class 3 or Class 2 felony under the Illinois Securities Law of 1953 or if in violation of Subsection (c) for a period of five years from the date of conviction. Every bid submitted to and contract executed by the State and every subcontract subject to Section 20-120 of the Code shall contain a certification by the bidder, contractor, or subcontractor, respectively, that the bidder, contractor, or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the CPO shall declare the related contract void if any of the certifications completed pursuant to this Section are false.

E. Section 42 of the Environmental Protection Act

The bidder or contractor or subcontractor, respectively, certifies in accordance with 30 ILCS 500/50-14 that the bidder, contractor, or subcontractor, is not barred from being awarded a contract or entering into a subcontract under this Section which prohibits the bidding on or entering into contracts with the State of Illinois or a State agency, or entering into any subcontract, that is subject to the Code by a person or business found by a court or the Pollution Control Board to have committed a willful or knowing violation of Section 42 of the Environmental Protection Act for a period of five years from the date of the order. The bidder or contractor or subcontractor, respectively, acknowledges that the CPO may declare the contract void if this certification is false.

F. Educational Loan

Section 3 of the Educational Loan Default Act provides 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.

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

G. Bid-Rigging/Bid Rotating

Section 33E-11 of the Criminal Code of 2012 provides:

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

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

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

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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.

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

H. International Anti-Boycott

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

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

I. Drug Free Workplace

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

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

J. Disclosure of Business Operations in Iran

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

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

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

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

Check the appropriate statement:

Company has no business operations in Iran to disclose.

Company has business operations in Iran as disclosed the attached document.

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

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

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

L. Political Contributions and Registration with the State Board of Elections

Sections 20-160 and 50-37 of the Code regulate political contributions from business entities and any affiliated entities or affiliated persons bidding on or contracting with the state. Generally under Section 50-37, any business entity, and any affiliated entity or affiliated person of the business entity, whose current year contracts with all state agencies exceed an awarded value of \$50,000, are prohibited from making any contributions to any political committees established to promote the candidacy of the officeholder responsible for the awarding of the contracts or any other declared candidate for that office for the duration of the term of office of the incumbent officeholder or a period 2 years after the termination of the contract, whichever is longer. Any business entity and affiliated entities or affiliated persons whose state contracts in the current year do not exceed an awarded value of \$50,000, but whose aggregate pending bids and proposals on state contracts exceed \$50,000, either alone or in combination with contracts not exceeding \$50,000, are prohibited from making any political contributions to any political committee established to promote the candidacy of the officeholder responsible for awarding the pending contract during the period beginning on the date the invitation for bids or request for proposals is issued and ending on the day after the date of award or selection if the entity was not awarded or selected. Section 20-160 requires certification of registration of affected business entities in accordance with procedures found in Section 9-35 of The Election Code.

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

The undersigned bidder certifies that it has registered as a business with the State Board of Elections and acknowledges a continuing duty to update the registration in accordance with the above referenced statutes. If the business entity is required to register, the CPO shall verify that it is in compliance on the date the bid or proposal is due. The CPO shall not accept a bid or proposal if the business entity is not in compliance with the registration requirements.

These requirements and compliance with the above referenced statutory sections are a material part of the contract, and any breach thereof shall be cause to void the contract under Section 50-60 of the Code. This provision does not apply to Federal-aid contracts.

M. Lobbyist Disclosure

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

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

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

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

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

Bidder has not hired any person required to register pursuant to the Illinois Lobbyist Registration Act in connection with this contract.

Or

Bidder has hired the following persons required to register pursuant to the Illinois Lobbyist Registration Act in connection with the contract:

Name and address of person: _____
All costs, fees, compensation, reimbursements and other remuneration paid to said person: _____

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

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

The CPO may void the bid, or contract, respectively, if it is later determined that the bidder or subcontractor rendered a false or erroneous disclosure. A contractor or subcontractor may be suspended or debarred for violations of the Code. Furthermore, the CPO may void the contract and the surety providing the performance bond shall be responsible for completion of the contract.

B. Financial Interests and Conflicts of Interest

1. Section 50-35 of the Code provides that all bids of more than \$25,000 shall be accompanied by disclosure of the financial interests of the bidder. This disclosed information for the successful bidder, will be maintained as public information subject to release by request pursuant to the Freedom of Information Act, filed with the Procurement Policy Board, and shall be incorporated as a material term of the contract. Furthermore, pursuant to Section 5-5, the Procurement Policy Board may review a proposal, bid, or contract and issue a recommendation to void a contract or reject a proposal or bid based on any violation of the Code or the existence of a conflict of interest as provided in subsections (b) and (d) of Section 50-35.

The financial interests to be disclosed shall include ownership or distributive income share that is in excess of 5%, or an amount greater than 60% of the annual salary of the Governor, of the bidding entity or its parent entity, whichever is less, unless the contractor or bidder is a publicly traded entity subject to Federal 10K reporting, in which case it may submit its 10K disclosure in place of the prescribed disclosure. If a bidder is a privately held entity that is exempt from Federal 10K reporting, but has more than 200 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any person or entity holding any ownership share that is in excess of 5%. The disclosure shall include the names, addresses, and dollar or proportionate share of ownership of each person making the disclosure, their instrument of ownership or beneficial relationship, and notice of any potential conflict of interest resulting from the current ownership or beneficial interest of each person making the disclosure having any of the relationships identified in Section 50-35 and on the disclosure form.

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

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

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

C. Disclosure Form Instructions

Form A Instructions for Financial Information & Potential Conflicts of Interest

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

1. Does anyone in your organization have a direct or beneficial ownership share of greater than 5% of the bidding entity or parent entity? YES ___ NO ___
2. Does anyone in your organization have a direct or beneficial ownership share of less than 5%, but which has a value greater than 60% of the annual salary of the Governor? YES ___ NO ___
3. Does anyone in your organization receive more than 60% of the annual salary of the Governor of the bidding entity's or parent entity's distributive income? YES ___ NO ___

(Note: Distributive income is, for these purposes, any type of distribution of profits. An annual salary is not distributive income.)

4. Does anyone in your organization receive greater than 5% of the bidding entity's or parent entity's total distributive income, but which is less than 60% of the annual salary of the Governor? YES ___ NO ___

(Note: Only one set of forms needs to be completed 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 of Form A must be signed and dated by a person that is authorized to execute contracts for your company.

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

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

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

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

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

**ILLINOIS DEPARTMENT
OF TRANSPORTATION**

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

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

Disclosure of the information contained in this Form is required by the Section 50-35 of the Code (30 ILCS 500). Vendors desiring to enter into a contract with the State of Illinois must disclose the financial information and potential conflict of interest information as specified in this Disclosure Form. This information shall become part of the publicly available contract file. This Form A must be completed for bids in excess of \$25,000, and for all open-ended contracts. **A publicly traded company may submit a 10K disclosure (or equivalent if applicable) in satisfaction of the requirements set forth in Form A. See Disclosure Form Instructions.**

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

DISCLOSURE OF FINANCIAL INFORMATION

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

FOR 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 State Toll Highway Authority? Yes ___ No ___

2. Are you currently appointed to or employed by any agency of the State of Illinois? If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds 60% of the annual salary of the Governor, provide the name the State agency for which you are employed and your annual salary. _____

RETURN WITH BID

3. If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds 60% of the annual salary of the Governor, are you entitled to receive (i) more than 7 1/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of 100% of the annual salary of the Governor?
Yes ___ No ___

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

(b) State employment of spouse, father, mother, son, or daughter, including contractual employment 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 State Toll Highway Authority?
Yes ___ No ___

2. Is your spouse or any minor children currently appointed to or employed by any agency of the State of Illinois? If your spouse or minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, provide the name of your spouse and/or minor children, the name of the State agency for which he/she is employed and his/her annual salary. _____

3. If your spouse or any minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, are you entitled to receive (i) more than 7 1/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of 100% of the annual salary of the Governor?
Yes ___ No ___

4. If your spouse or any minor children are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, are you and your spouse or minor children entitled to receive (i) more than 15 % in the aggregate of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of two times the salary of the Governor?
Yes ___ No ___

(c) Elective status; the holding of elective office of the State of Illinois, the government of the United States, any unit of local government authorized by the Constitution of the State of Illinois or the statutes of the State of Illinois currently or in the previous 3 years.
Yes ___ No ___

(d) Relationship to anyone holding elective office currently or in the previous 2 years; spouse, father, mother, son, or daughter.
Yes ___ No ___

(e) Appointive office; the holding of any appointive government office of the State of Illinois, the United States of America, or any unit of local government authorized by the Constitution of the State of Illinois or the statutes of the State of Illinois, which office entitles the holder to compensation in excess of the expenses incurred in the discharge of that office currently or in the previous 3 years.
Yes ___ No ___

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

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

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

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

3. Communication Disclosure.

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

Name and address of person(s): _____

RETURN WITH BID

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

Name of person(s): _____

Nature of disclosure: _____

APPLICABLE STATEMENT

This Disclosure Form A is submitted on behalf of the INDIVIDUAL named on previous page. Under penalty of perjury, I certify the contents of this disclosure to be true and accurate to the best of my knowledge.

Completed by: _____ Date _____
Signature of Individual or Authorized Representative

NOT APPLICABLE STATEMENT

Under penalty of perjury, I have determined that no individuals associated with this organization meet the criteria that would require the completion of this Form A.

This Disclosure Form A is submitted on behalf of the CONTRACTOR listed on the previous page.

_____ Date _____
Signature of Authorized Representative

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

RETURN WITH BID

ILLINOIS DEPARTMENT OF TRANSPORTATION

Form B Other Contracts & Financial 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 Code (30 ILCS 500). This information shall become part of the publicly available contract file. This Form B must be completed for bids in excess of \$25,000, and for all open-ended contracts.

DISCLOSURE OF OTHER CONTRACTS AND PROCUREMENT RELATED INFORMATION

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

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

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

THE FOLLOWING STATEMENT MUST BE CHECKED

Signature of Authorized Representative, Date

OWNERSHIP CERTIFICATION

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

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

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

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

**Contract No. 70A53
MCLEAN County
Section FUNKS GROVE RA IMP 2014-1
Route FAI 55
District 5 Construction Funds**

PART II. WORKFORCE PROJECTION - continued

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

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

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

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

PART III. AFFIRMATIVE ACTION PLAN

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

Company _____ 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 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

Contract No. 70A53

MCLEAN County

Section FUNKS GROVE RA IMP 2014-1

Route FAI 55

District 5 Construction Funds

PROPOSAL SIGNATURE SHEET

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

(IF AN INDIVIDUAL) Firm Name _____
Signature of Owner _____
Business Address _____

(IF A CO-PARTNERSHIP) Firm Name _____
By _____
Business Address _____
Name and Address of All Members of the Firm:

(IF A CORPORATION)
(IF A JOINT VENTURE, USE THIS SECTION FOR THE MANAGING PARTY AND THE SECOND PARTY SHOULD SIGN BELOW) Corporate Name _____
By _____
Signature of Authorized Representative
Typed or printed name and title of Authorized Representative _____
Attest _____
Signature
Business Address _____

(IF A JOINT VENTURE) Corporate Name _____
By _____
Signature of Authorized Representative
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.



This Annual Proposal Bid Bond shall become effective at 12:01 AM (CDST) on _____ and shall be valid until _____ 11:59 PM (CDST).

KNOW ALL PERSONS BY THESE PRESENTS, That We _____

as PRINCIPAL, and _____

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

THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH that whereas, the PRINCIPAL may submit bid proposal(s) to the STATE OF ILLINOIS, acting through the Department of Transportation, for various improvements published in the Transportation Bulletin during the effective term indicated above.

NOW, THEREFORE, if the Department shall accept the bid proposal(s) of the PRINCIPAL; and if the PRINCIPAL shall, within the time and as specified in the bidding and contract documents; 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 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 has caused this instrument to be signed by its officer _____ day of _____ A.D., _____

In TESTIMONY WHEREOF, the said SURETY has caused this instrument to be signed by its officer _____ day of _____ A.D., _____

(Company Name)

(Company Name)

By _____
(Signature and Title)

By _____
(Signature of Attorney-in-Fact)

Notary for PRINCIPAL

Notary for SURETY

STATE OF _____
COUNTY OF _____

STATE OF _____
COUNTY OF _____

Signed and attested before me on _____ (date)

Signed and attested before me on _____ (date)

by _____
(Name of Notary Public)

by _____
(Name of Notary Public)

(Seal) _____
(Signature of Notary Public)

(Seal) _____
(Signature of Notary Public)

(Date Commission Expires)

(Date Commission Expires)

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

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

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



Item No. _____

Letting Date _____

KNOW ALL PERSONS BY THESE PRESENTS, That We _____

as PRINCIPAL, and _____

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

THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH that whereas, the PRINCIPAL has submitted a bid proposal to the STATE OF ILLINOIS, acting through the Department of 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; 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 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 has caused this instrument to be signed by its officer
_____ day of _____ A.D., _____.

In TESTIMONY WHEREOF, the said SURETY has caused this instrument to be signed by its officer
_____ day of _____ A.D., _____.

(Company Name)

(Company Name)

By _____
(Signature and Title)

By _____
(Signature of Attorney-in-Fact)

Notary for PRINCIPAL

Notary for SURETY

STATE OF _____
COUNTY OF _____

STATE OF _____
COUNTY OF _____

Signed and attested before me on _____ (date)
by _____
(Name of Notary Public)

Signed and attested before me on _____ (date)
by _____
(Name of Notary Public)

(Seal) _____
(Signature of Notary Public)

(Seal) _____
(Signature of Notary Public)

(Date Commission Expires)

(Date Commission Expires)

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



(1) Policy

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

(2) Obligation

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

(3) Project and Bid Identification

Complete the following information concerning the project and bid:

Route _____

Section _____

Project _____

County _____

Letting Date _____

Contract No. _____

Letting Item No. _____

Total Bid _____

Contract DBE Goal _____ (Percent) _____ (Dollar Amount)

(4) Assurance

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

- Meets or exceeds contract award goals and has provided documented participation as follows:
Disadvantaged Business Participation _____ percent

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

- Failed to meet contract award goals and has included good faith effort documentation to meet the goals and that my company has provided participation as follows:
Disadvantaged Business Participation _____ percent

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

_____ Company

By _____

Title _____

Date _____

The "as read" Low Bidder is required to comply with the Special Provision.

Submit only one utilization plan for each project. The utilization plan shall be submitted in accordance with the special provision.

Bureau of Small Business Enterprises
2300 South Dirksen Parkway
Springfield, Illinois 62764

Local Let Projects
Submit forms to the
Local Agency



Illinois Department of Transportation

DBE Participation Statement

Subcontractor Registration _____

Letting _____

Participation Statement

Item No. _____

(1) Instructions

Contract _____

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

(2) Work

Pay Item No.	Description	Quantity	Unit Price	Total
Total				

(3) Partial Payment Items

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

(4) Commitment

The undersigned certify that the information included herein is true and correct, and that the DBE firm listed below has agreed to perform a commercially useful function in the work of the contract item(s) listed above and to execute a contract with the prime contractor. The undersigned further understand that no changes to this statement may be made without prior approval from the Department's Bureau of Small Business Enterprises and that complete and accurate information regarding actual work performed on this project and the payment therefore must be provided to the Department.

Signature for Prime Contractor

Signature for DBE Firm

Title _____

Title _____

Date _____

Date _____

Contact _____

Contact _____

Phone _____

Phone _____

Firm Name _____

Firm Name _____

Address _____

Address _____

City/State/Zip _____

City/State/Zip _____

E _____

WC _____

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

PROPOSAL ENVELOPE



PROPOSALS

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

Item No.	Item No.	Item No.

Submitted By:

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. 70A53
MCLEAN County
Section FUNKS GROVE RA IMP 2014-1
Route FAI 55
District 5 Construction Funds**



Illinois Department of Transportation

SUBCONTRACTOR DOCUMENTATION

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

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

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

RETURN WITH SUBCONTRACT

STATE ETHICAL STANDARDS GOVERNING SUBCONTRACTORS

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

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

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

A. Bribery

Section 50-5. Bribery.

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

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

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

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

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

(2) the business demonstrates to the governmental entity with which it seeks to contract, or which is signatory to the contract to which the subcontract relates, and that entity finds that the commission of the offense was not authorized, requested, commanded, or performed by a director, officer, or high managerial agent on behalf of the business as provided in paragraph (2) of subsection (a) of Section 5-4 of the Criminal Code of 2012.

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

(d) Certification. Every bid submitted to and contract executed by the State, and every subcontract subject to Section 20-120 of the Code shall contain a certification by the contractor or the subcontractor, respectively, that the contractor or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the CPO may declare the related contract void if any certifications required by this Section are false. A contractor who makes a false statement, material to the certification, commits a Class 3 felony.

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

B. Felons

Section 50-10. Felons.

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

Certification. Every bid submitted to and contract executed by the State and every subcontract subject to Section 20-120 of the Code shall contain a certification by the bidder or contractor or subcontractor, respectively, that the bidder, contractor, or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the CPO may declare the related contract void if any of the certifications required by this Section are false.

RETURN WITH SUBCONTRACT

C. Debt Delinquency

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

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

D. Prohibited Bidders, Contractors and Subcontractors

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

The bidder or contractor or subcontractor, respectively, certifies in accordance with 30 ILCS 500/50-10.5 that no officer, director, partner or other managerial agent of the contracting business has been convicted of a felony under the Sarbanes-Oxley Act of 2002 or a Class 3 or Class 2 felony under the Illinois Securities Law of 1953 or if in violation of Subsection (c) for a period of five years from the date of conviction. Every bid submitted to and contract executed by the State and every subcontract subject to Section 20-120 of the Code shall contain a certification by the bidder, contractor, or subcontractor, respectively, that the bidder, contractor, or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the CPO shall declare the related contract void if any of the certifications completed pursuant to this Section are false.

E. Section 42 of the Environmental Protection Act

The bidder or contractor or subcontractor, respectively, certifies in accordance with 30 ILCS 500/50-14 that the bidder, contractor, or subcontractor, is not barred from being awarded a contract or entering into a subcontract under this Section which prohibits the bidding on or entering into contracts with the State of Illinois or a State agency, or entering into any subcontract, that is subject to the Code by a person or business found by a court or the Pollution Control Board to have committed a willful or knowing violation of Section 42 of the Environmental Protection Act for a period of five years from the date of the order. The bidder or contractor or subcontractor, respectively, acknowledges that the CPO may declare the contract void if this certification is false.

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

_____ Name of Subcontracting Company		
_____ Authorized Officer	_____ Date	

RETURN WITH SUBCONTRACT
SUBCONTRACTOR DISCLOSURES

I. DISCLOSURES

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

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

B. Financial Interests and Conflicts of Interest

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

The financial interests to be disclosed shall include ownership or distributive income share that is in excess of 5%, or an amount greater than 60% of the annual salary of the Governor, of the subcontracting entity or its parent entity, whichever is less, unless the subcontractor is a publicly traded entity subject to Federal 10K reporting, in which case it may submit its 10K disclosure in place of the prescribed disclosure. If a subcontractor is a privately held entity that is exempt from Federal 10K reporting, but has more than 200 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any person or entity holding any ownership share that is in excess of 5%. The disclosure shall include the names, addresses, and dollar or proportionate share of ownership of each person making the disclosure, their instrument of ownership or beneficial relationship, and notice of any potential conflict of interest resulting from the current ownership or beneficial interest of each person making the disclosure having any of the relationships identified in Section 50-35 and on the disclosure form.

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

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

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

C. Disclosure Form Instructions

Form A Instructions for Financial Information & Potential Conflicts of Interest

If the subcontractor is a publicly traded entity subject to Federal 10K reporting, the 10K Report may be submitted to meet the requirements of Form A. If a subcontractor is a privately held entity that is exempt from Federal 10K reporting, but has more than 200 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any person or entity holding any ownership share that is in excess of 5%. If a subcontractor is not subject to Federal 10K reporting, the subcontractor must determine if any individuals are required by law to complete a financial disclosure form. To do this, the subcontractor should answer each of the following questions. A "YES" answer indicates Form A must be completed. If the answer to each of the following questions is "NO", then the 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 subcontracting company. Note: These questions are for assistance only and are not required to be completed.

1. Does anyone in your organization have a direct or beneficial ownership share of greater than 5% of the bidding entity or parent entity? YES ___ NO ___
2. Does anyone in your organization have a direct or beneficial ownership share of less than 5%, but which has a value greater than 60% of the annual salary of the Governor? YES ___ NO ___
3. Does anyone in your organization receive more than 60% of the annual salary of the Governor of the subcontracting entity's or parent entity's distributive income? YES ___ NO ___

(Note: Distributive income is, for these purposes, any type of distribution of profits. An annual salary is not distributive income.)

4. Does anyone in your organization receive greater than 5% of the subcontracting entity's or parent entity's total distributive income, but which is less than 60% of the annual salary of the Governor? YES ___ NO ___

(Note: Only one set of forms needs to be completed per person per subcontract even if a specific individual would require a yes answer to more than one question.)

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

If the answer to each of the above questions is "NO", then the 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.

RETURN WITH SUBCONTRACT

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

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

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

RETURN WITH SUBCONTRACT

ILLINOIS DEPARTMENT OF TRANSPORTATION

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

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

Disclosure of the information contained in this Form is required by the Section 50-35 of the Code (30 ILCS 500). Subcontractors desiring to enter into a subcontract of a State of Illinois contract must disclose the financial information and potential conflict of interest information as specified in this Disclosure Form.

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

DISCLOSURE OF FINANCIAL INFORMATION

1. Disclosure of Financial Information. The individual named below has an interest in the SUBCONTRACTOR (or its parent) in terms of ownership or distributive income share in excess of 5%, or an interest which has a value of more than 60% of the annual salary of the Governor.

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 State Toll Highway Authority? Yes ___ No ___

2. Are you currently appointed to or employed by any agency of the State of Illinois? If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds 60% of the annual salary of the Governor, provide the name the State agency for which you are employed and your annual salary.

RETURN WITH SUBCONTRACT

3. If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds 60% of the annual salary of the Governor, are you entitled to receive (i) more than 7 1/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of 100% of the annual salary of the Governor?
Yes ___ No ___

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

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

Yes ___ 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 60% of the annual salary of the Governor, provide the name of your spouse and/or minor children, the name of the State agency for which he/she is employed and his/her annual salary. _____

3. If your spouse or any minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, as of 7/1/07) are you entitled to receive (i) more then 7 1/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of 100% of the annual salary of the Governor?
Yes ___ No ___

4. If your spouse or any minor children are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, are you and your spouse or minor children entitled to receive (i) more than 15 % in the aggregate of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of two times the annual salary of the Governor?
Yes ___ No ___

(c) Elective status; the holding of elective office of the State of Illinois, the government of the United States, any unit of local government authorized by the Constitution of the State of Illinois or the statutes of the State of Illinois currently or in the previous 3 years.
Yes ___ No ___

(d) Relationship to anyone holding elective office currently or in the previous 2 years; spouse, father, mother, son, or daughter.
Yes ___ No ___

(e) Appointive office; the holding of any appointive government office of the State of Illinois, the United States of America, or any unit of local government authorized by the Constitution of the State of Illinois or the statutes of the State of Illinois, which office entitles the holder to compensation in excess of the expenses incurred in the discharge of that office currently or in the previous 3 years.
Yes ___ No ___

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

(g) Employment, currently or in the previous 3 years, as or by any registered lobbyist of the State government.
Yes ___ No ___

RETURN WITH SUBCONTRACT

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

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

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

3 Communication Disclosure.

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

Name and address of person(s): _____

RETURN WITH SUBCONTRACT

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

Name of person(s): _____

Nature of disclosure: _____

APPLICABLE STATEMENT

This Disclosure Form A is submitted on behalf of the INDIVIDUAL named on previous page. Under penalty of perjury, I certify the contents of this disclosure to be true and accurate to the best of my knowledge.

Completed by: _____ Date _____
Signature of Individual or Authorized Officer

NOT APPLICABLE STATEMENT

Under penalty of perjury, I have determined that no individuals associated with this organization meet the criteria that would require the completion of this Form A.

This Disclosure Form A is submitted on behalf of the SUBCONTRACTOR listed on the previous page.

_____ Date _____
Signature of Authorized Officer

RETURN WITH SUBCONTRACT

ILLINOIS DEPARTMENT OF TRANSPORTATION

Form B
Subcontractor: Other Contracts & Financial Related Information Disclosure

Form with fields: Subcontractor Name, Legal Address, City, State, Zip, Telephone Number, Email Address, Fax Number (if available)

Disclosure of the information contained in this Form is required by the Section 50-35 of the Code (30 ILCS 500). This information shall become part of the publicly available contract file. This Form B must be completed for subcontracts with a total value of \$50,000 or more, from subcontractors identified in Section 20-120 of the Code, and for all open-ended contracts.

DISCLOSURE OF OTHER CONTRACTS, SUBCONTRACTS, AND PROCUREMENT RELATED INFORMATION

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

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

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

THE FOLLOWING STATEMENT MUST BE CHECKED

Signature box with fields: Signature of Authorized Representative, Date

OWNERSHIP CERTIFICATION

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

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

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



NOTICE TO BIDDERS

1. TIME AND PLACE OF OPENING BIDS. Sealed proposals for the improvement described herein will be received by the Department of Transportation. Electronic bids are to be submitted to the electronic bidding system (icx-Integrated Contractors Exchange). Paper-based bids are to be submitted to the Chief Procurement Officer for the Department of Transportation in care of the Chief Contracts Official at the Harry R. Hanley Building, 2300 South Dirksen Parkway, in Springfield, Illinois until 10:00 o'clock a.m. February 28, 2014. 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. 70A53
MCLEAN County
Section FUNKS GROVE RA IMP 2014-1
Route FAI 55
District 5 Construction Funds**

This project consists of repairs and renovations to the sanitary treatment system at Funks Grove Rest Area on I-55 in McLean County.

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

Ann L. Schneider,
Secretary

INDEX
FOR
SUPPLEMENTAL SPECIFICATIONS
AND RECURRING SPECIAL PROVISIONS

Adopted January 1, 2014

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

ERRATA Standard Specifications for Road and Bridge Construction (Adopted 1-1-12) (Revised 1-1-14)

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STATE OF ILLINOIS

SPECIAL PROVISIONS

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction," adopted January 1, 2012, the latest edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways," and the "Manual of Test Procedures for Materials" in effect on the date of invitation for bids, and the Supplemental Specifications and Recurring Special Provisions indicated on the Check Sheet included herein which apply to and govern the construction of FAI Route 55 (I-55), Project C-95-008-14, Section: Funks Grove RA Imp 2014-1, in Mc Lean County, **Contract No. 70A53** and in case of conflict with any part or parts of said Specifications, the said Special Provisions shall take precedence and shall govern.

LOCATION OF PROJECT

The project is located in McLean County in central Illinois, south of Bloomington, along I-55. The rest area is located on the west side of the interstate, at mile marker 149, adjacent to the Funks Grove Nature Area.

DESCRIPTION OF WORK

1. Remove and dispose of all sand filter media and materials. Rehabilitate sand filter with new media and underdrains. Install a dosing siphon to improve operations and extend reliability of the sand filter.
2. Remove and replace inoperable flow control valves, structure and related piping from wastewater treatment lagoons with new operable control systems.
3. Clean and empty septic tanks.
4. Remove existing inadequate effluent aeration system and install a new Effluent Aeration and Metering Structure. Install new post filtration effluent aeration system and an effluent flow meter system.
5. Install a new HDPE cover on Lagoon 2 to prevent algae growth which inhibits and deteriorates the performance of the facility.

6. Replace inoperable lagoon influent / by-pass valves.
7. Place the seeding and mulch at the Temporary Aggregate access areas, as well as areas disturbed by construction equipment.

COMPLETION DATE

The Contractor shall complete all work on or before July 31, 2014. Multiple crews and/or extended work hours may be needed to ensure that this work is completed by July 31, 2014.

TRAFFIC CONTROL PLAN

The facility is currently closed to public.

If construction operation result in impacts to I-55 traffic, traffic control shall be in accordance with the applicable sections of the Standard Specifications for Road and Bridge Construction, the applicable guidelines contained in the Illinois Manual on Uniform Traffic Control Devices for Streets and Highways these Special Provisions and any special details and highway standards contained herein and in the plans.

STATUS OF UTILITIES

<u>Name & Address of Utility</u>	<u>Type</u>	<u>Location</u>	<u>Adjustment or Relocation</u>
--	-------------	-----------------	---

Utility adjustments or relocations should not be required by this project. **The Illinois Underground Utility Facilities Damage Prevention Act** requires persons excavating to contact the one call system (J.U.L.I.E 800-892-0123 or 811) before digging.

Toll Free J.U.L.I.E. Telephone Number (800) 892-0123
* = J.U.L.I.E. Member

PLUG EXISTING SANITARY SEWERS

Description. This work shall consist of plugging the existing sewer pipes to be abandoned in place to prevent flow into or out of the treatment systems. The work shall be performed in accordance with the applicable section of the Standard Specifications (for Road and Bridge Construction) as well as all applicable sections of the current edition of the Standard Specifications for Water and Sewer Main Construction in Illinois, and as herein specified.

Existing sewers shall be removed as indicated in the section SANITARY SEWER REMOVAL, as necessary to allow the installation of the new features and facilities. Existing pipes which are partially demolished / removed and shall remain, shall be securely sealed with class SI concrete. The fresh plug shall be rodded back at least two (2) feet to assure a good seal. Once the concrete plug has set the remaining pipe shall be backfilled with trench backfill according to the Standard Specifications for trench backfill.

Materials: Not applicable

Method of Measurement. The methods of measurement for shall be per EACH - PLUG EXISTING SANITARY SEWERS that is installed.

Basis of Payment. All sanitary sewer plugging and materials required, as specified herein, shall be included and paid for at the contract unit price per EACH – PLUG EXISTING SANITARY SEWER

SANITARY CLEANOUT, 8 INCH

Description. This work shall consist of installing eight (8) inch sanitary cleanouts at the locations indicated on the plans. The items shall include all the labor, materials and equipment necessary for a complete installation in accordance with the Section 563 of the Standard Specifications (for Road and Bridge Construction) as well as all applicable sections of the current edition of the Standard Specifications for Water and Sewer Main Construction in Illinois, and as herein specified.

Materials: The pipe and fittings shall consist of the same materials as specified in the SANITARY PIPE, 8 INCH section of these special provisions. The installation shall consist of an 8 inch sanitary tee fitting, sufficient 8" pipe riser to reach the required finished grade, an 8" cleanout adaptor, a threaded cleanout cap, and a threaded or glued plug for the tag end of the cleanout tee. The clean out will extend to 3" above finished grade of the surrounding ground.

SPECIAL NOTE: For the plug end of SANITARY CLEANOUT, 8" installed in the low end of the Sand Filter Dosing Headers Pipes, a 3/8" diameter hole shall be drilled into the invert of the plug, to allow trapped flow to dissipate, and prevent damage to the piping.

Method of Measurement. The methods of measurement shall be per EACH – SANITARY CLEANOUT, 8" that is installed.

Basis of Payment. All 8" sanitary cleanouts, as specified herein, shall be paid at the contract unit price per EACH – SANITARY CLEANOUT 8"

SANITARY CLEANOUT, 6 INCH

Effective: December 13, 2013

Description. This work shall consist of installing SIX (6) INCH sanitary cleanouts at the locations indicated on the plans. The items shall include all the labor, materials and equipment necessary for a complete installation in accordance with the Section 563 of the Standard Specifications (for Road and Bridge Construction) as well as all applicable sections of the current edition of the Standard Specifications for Water and Sewer Main Construction in Illinois, and as herein specified.

Materials: The pipe and fittings shall consist of the same materials as specified in the SANITARY PIPE, 6 INCH section of these special provisions. The installation shall consist of a 6 inch sanitary tee fitting, sufficient 6" pipe riser to reach the required finished grade, a 6" cleanout adaptor, a threaded cleanout cap, and a threaded or glued plug for the tag end of the cleanout tee. The clean out will extend to 3" above finished grade of the surrounding ground.

Method of Measurement. The methods of measurement for shall be per EACH – SANITARY CLEANOUT, 6" that is installed.

Basis of Payment. All 6" sanitary cleanouts, as specified herein, shall be paid at the contract unit price per EACH – SANITARY CLEANOUT 6"

SANITARY CLEANOUT, 4 INCH

Description. This work shall consist of installing four (4) inch sanitary cleanouts at the locations indicated on the plans. The items shall include all the labor, materials and equipment necessary for a complete installation in accordance with the Section 563 of the Standard Specifications (for Road and Bridge Construction) as well as all applicable sections of the current edition of the Standard Specifications for Water and Sewer Main Construction in Illinois, and as herein specified.

Materials: The pipe and fittings shall consist of the same materials as specified in the SANITARY PIPE, 4 INCH section of these special provisions. The installation shall consist of a 4 inch sanitary tee fitting, sufficient 4" pipe riser to reach the required finished grade, a 4" cleanout adaptor, a threaded cleanout cap, and a threaded or glued plug for the tag end of the cleanout tee. The clean out will extend to 2" above finished grade of the surrounding ground.

Method of Measurement. The methods of measurement for shall be per EACH – SANITARY CLEANOUT, 4" that is installed.

Basis of Payment. All 4" sanitary cleanout s, as specified herein, shall be paid at the contract unit price per EACH – SANITARY CLEANOUT 4"

FENCE REMOVAL AND REINSTALLATION

Description. This work shall consist of the removal, safe storage, and reinstallation of the existing chain link fence as locations determined by the Engineer, as indicated on the plans. Installation of the existing fence shall be performed in accordance with applicable Articles of SECTIONS 641 and 664 of the Standard Specifications (for Road and Bridge Construction), and the applicable details of HIGHWAY STANDARD 664001, and as herein specified.

The contractor shall remove, store, protect and reinstall the existing chain link fence in a workman like manner to avoid damaging the material. Any repair or touchup required shall be performed by the Contractor using a method approved by the Engineer and at the Contractor's Expense. If any fence materials are damaged by the Contractor, they shall be replaced with the same type of materials at the Contractor's Expense.

The proposed location for the FENCE REMOVAL AND REINSTALLATION is indicated on the plans with the final determination to be made by the Engineer. Concrete Foundations shall be constructed and installed according to the details of HIGHWAY STANDARD 664001 or as otherwise directed by the Engineer.

Materials: Per Section 664 of the Standard Specifications.

Method of Measurement. The methods of measurement for shall be per FOOT of FENCE REMOVAL AND REINSTALLATION,

Basis of Payment. The cost for the FENCE REMOVAL AND REINSTALLATION shall be paid at the contract unit price per FOOT, which shall include all labor, storage, materials, and equipment, and shall include all bases, foundations and backfill.

REMOVE AND REPLACE STONE RIPRAP

Description. This work shall consist of the removal, safe storage, and replacement of the existing stone riprap material from the berm dividing the sand media filter beds. The materials included in this section are existing but should be in close accordance with SECTION 1005. STONE AND BROKEN CONCRETE FOR EROSION PROTECTION, SEDIMENT CONTROL, AND ROCKFILL of the Standard Specifications (for Road and Bridge Construction), and as herein specified. The installation shall also be in accordance with SECTION 281. RIPRAP of the Standard Specifications (for Road and Bridge Construction), and as herein specified.

The existing STONE RIPRAP shall be removed, stored, out of the work area near the start of the project demolition phase. When appropriate this material shall be returned and replaced as the top layer on the revised and renovated berm between the sand filter beds. Additional riprap material may be necessary to complete the renovation. This material is described in Supplemental Specification STONE RIPRAP, CLASS A3, which closely matches the existing material specifications.

Materials: Not applicable

Method of Measurement. The methods of measurement for shall be per SQUARE YARD of REMOVE AND REPLACE STONE RIPRAP, which is successfully REPLACED to the berm.

Basis of Payment. The additional riprap material and installation, as specified herein, shall be paid at the contract unit price per SQUARE YARD – REMOVE AND REPLACE STONE RIPRAP for replaced materials.

STONE RIPRAP, CLASS A3

Description. This work shall consist of material and placement of additional stone riprap for the berm between the sand filters. The materials included in this section shall be in accordance with SECTION 1005. STONE AND BROKEN CONCRETE FOR EROSION PROTECTION, SEDIMENT CONTROL, AND ROCKFILL of the Standard Specifications (for Road and Bridge Construction), and as herein specified. The installation shall also be in accordance with SECTION 281. RIPRAP of the Standard Specifications (for Road and Bridge Construction), and as herein specified. The existing STONE RIPRAP shall be removed, stored and replaced as identified in the REMOVE AND REPLACE STONE RIPRAP section of these special provision.

Materials: The material in this section shall meet gradation RR-3, to match the existing material as closely as possible. The material under this section shall be additional material to supplement the existing, and replaced materials to provide a complete installation of the renovated / expanded berm.

Method of Measurement. The methods of measurement shall be per SQUARE YARD of STONE RIPRAP, CLASS A3 installed at 8" depth.

Basis of Payment. The additional riprap material and installation, as specified herein, shall be paid at the contract unit price per SQUARE YARD – STONE RIPRAP, CLASS A3.

SANITARY SEWER REMOVAL

Description. This work shall consist of excavation, removal and demolition of existing sanitary sewer pipes. The pipes to be removed are as indicated on the plan sheet with the intent to clear the area to install the new SANITARY SEWER, 6" and SANITARY SEWER, 8" for the renovation of the facility. The demolition shall follow in accordance with the applicable subsections of SECTION 551. STORM SEWER REMOVAL AND INSTALLATION of the Standard Specifications (for Road and Bridge Construction), and as herein specified. Existing pipes to be abandoned in place shall be plugged according to SECTION PLUG EXISTING SANITARY SEWERS, as described herein.

Materials: Not applicable

Method of Measurement. The methods of measurement shall be per FOOT of SANITARY SEWER REMOVAL.

Basis of Payment. The SANITARY SEWER REMOVAL, as specified herein, shall be paid at the contract unit price per LINEAL FOOT.

CLASS SI CONCRETE (MISCELLANEOUS)

Description. This work and materials shall be as described in Sections 1020 and 1021 of the Standard Specifications (for Road and Bridge Construction), and additionally, as herein specified. The Class SI Concrete shall be concrete placed and formed as shown on the plans to serve as energy dissipaters for the diffuser / distribution system of the Sand Filters. The Class SI Concrete shall be formed on top of the appropriate depth of the sand filters and cast-in-place. Grades shall be as indicated on the detail plans sheets within 1/4 inch of identified plans grade and slopes, and coordinated with the SAND FILTER - SAND MEDIA BED, as described herein the Special Provisions for this project. Maintaining required slopes and providing positive drainage along the concrete energy dissipaters is critical to the successful operation of the facility. Differences between plan grades, slopes, and maintaining the intended drainage and flow patterns shall be evaluated by the Engineer prior to final installation. The final grading of the SAND FILTER - SAND MEDIA BED shall follow the removal from the forms for the CLASS SI CONCRETE work.

Materials: Shall be Class SI Concrete.

Method of Measurement. The methods of measurement shall be per CUBIC YARD of CLASS SI CONCRETE.

Basis of Payment. The CLASS SI CONCRETE (MISCELLANEOUS), as specified herein, shall be paid at the contract unit price per CUBIC YARD.

DEMOLITION OF STRUCTURES

Description. This work shall consist of excavation, demolition and removal of existing sanitary sewer structure in several locations, as indicated on the plans. The structures to be removed are as indicted on the plan sheet with the noted designation for each type and number of structures. The intent is to remove failed, inoperable and incompatible structures from the facility. This work shall be in close accordance with the SANITARY SEWER REMOVAL, as described herein, and also with the installation of the features described in the special provision SANITARY SEWERS – STRUCTURES, PIPE AND EQUIPMENT for the renovation of the facility. The demolition shall follow in accordance with the applicable sub-sections of SECTION 605. REMOVING OR FILLING EXISTING MANHOLES, CATCH BASINS, AND INLETS of the Standard Specifications (for Road and Bridge Construction), and as herein specified. Existing pipes to be abandoned in place shall be plugged according to SECTION PLUG EXISTING SANITARY SEWERS, as described herein.

Method of Measurement. The methods of measurement shall be per EACH structure of the given types, as follows:

- A. DEMOLITION OF STRUCTURES: LAGOON CONTROL STRUCTURE
- B. DEMOLITION OF STRUCTURES: DOSING BOX
- C. DEMOLITION OF STRUCTURES: EFFLUENT STRUCTURE

Basis of Payment. The item DEMOLITION OF STRUCTURES, as specified herein, shall be paid at the contract unit price per EACH for EACH STRUCTURE of the given identified type.

SANITARY SEWERS – STRUCTURES, PIPE AND EQUIPMENT

Description. This section describes the material and work necessary for Sanitary Sewer structures, pipes and related equipment for the upgrade and renovations of the wastewater treatment systems with the renovations to the wastewater treatment facility structures. Some work related to this is also covered in applicable parts of Section 602 of the IDOT Standard specifications. This Section is related to the Special Provisions for FRP Grating, Lagoon Level Control Slide Gates and the Siphon System.

Materials:

Structures:

- A. Precast Concrete Structures
 1. Description: ASTM C 47, precast, reinforced concrete, of depth indicated, with provision for sealant joints.
 2. Dimensions as indicated on the details.
 3. Ballast: Increase thickness of precast concrete sections or add concrete to base section, as required to prevent flotation.
 4. Base Section: 9-inch minimum thickness for floor slab and 6-inch minimum thickness for walls and base riser section; with separate base slab or base section with integral floor.
 5. Riser Sections: 6-inch minimum thickness, of length to provide depth indicated.
 6. Top: flat-slab-top type as indicated on the drawings. 8 inch minimum thickness
 7. Joint Sealant: ASTM C 990, bitumen or butyl rubber.
 8. Resilient Pipe Connectors: ASTM C 923 cast or fitted into manhole walls, for each pipe connection.
 9. Steps: Individual FRP steps or FRP ladder whereindicated. Steps shall be wide enough to allow worker to place both feet on one step and designed to prevent lateral slippage off step. Cast or anchor steps into sidewalls at 12- to 16-inch intervals.
 10. Precast Mix shall include appropriate waterproofing additive, such as Xypex or approved equal to prevent corrosion of the concrete structure in the wastewater.

Pipe and Fittings:

A PVC PIPE AND FITTINGS

1. PVC Type Sewer Piping:

- a. Pipe: ASTM D 3034 PVC sewer pipe with bell-and-spigot ends for gasketed joints.
- b. Fittings: ASTM D 3034, PVC with bell ends.
- c. Gaskets: ASTM F 477, elastomeric seals.
- d. Solid wall pipes shall be SDR 26 or Schedule 80
- e. Perforated wall pipes shall be SDR 35 or Schedule 40

Valves and Accessories:

A. Plug Valves.

1. Valves shall be eccentric plug valves and shall meet the following minimum requirements:

- a. Non-lubricated eccentric type with resilient-faced plugs.
- b. End connection as shown on the plans
- c. Port areas for valves through 20"; minimum 80% of full pipe area.
- d. Valve bodies; ASTM A 126 Class B cast iron.
- e. Bodies 411 and larger shall be furnished with a 1/8" welded overlay seat of not less than 90% pure nickel.
- f. Plugs; ASTM A 126 Class 8 cast iron, one-piece construction, and resilient-faced with neoprene or hycar.
- g. Replaceable sleeve type metal bearings and shall be of sintered, oil impregnated permanently lubricated type 316 ASTM A 7 43 Grade CF-SM.
- h. Shaft seals shall be multiple V-ring type, externally adjustable, re-packable without removing the bonnet or actuator from the valve and re-packable under pressure.
- i. Pressure ratings: 175 psi through 12".
- j. Manual valves 6" and larger shall be equipped with gear actuators. All gearing shall be enclosed in a semi-steel housing suitable for running in a lubricant with seals provided on all shafts. Actuator shaft and quadrant to be supported on permanently lubricated bronze bearings.
- k. All exposed nuts, bolts and washers shall be stainless steel.
- l. All buried valves shall be furnished with valve box and extension stem with operating nut.
- m. All valves shall be furnished with tee handles.

Method of Measurement. The methods of measurement for payment for the SANITARY SEWERS – STRUCTURES, PIPE AND EQUIPMENT shall be as follows:

- A. Structures shall be installed and counted when
 1. Installation is completed at each specific location.
 2. The FRP Grating for each structure is completed.
 3. Concrete or Grout Fill, as per the plans, shall be completed.
 3. Additional systems, such as Lagoon Level Control Gates, or Siphon Systems are completed.
- B. Pipe shall be measured to the nearest foot.
 1. For the 4" Diffuser pipes, measurement begins at the center of the wye fitting on the 8" dosing header pipe.
- C. Valves, 6 and 8 inch, shall be installed and counted, each when installation is completed.

Basis of Payment. The work and material for SANITARY SEWERS – STRUCTURES, PIPE AND EQUIPMENT will be paid per the breakdown as follows:

- A. Structures:
 1. SANITARY MANHOLE, SPECIAL
 2. Each structure on the plans has a unique detail
 3. Completion shall include:
 - a. FRP Gratings / Covers and Concrete Grout, which are paid as a part of the structure installation.
 - b. Final / Complete installation of related equipment, such as gates, level control weirs, and other equipment identified to be paid separately.
- B. Piping:
 1. SANITARY SEWER 8" – Per FOOT for
 - a. Sanitary Filter Dosing Header Pipe.
 - b. Sanitary Sewer Pipe to be installed.
 2. SANITARY SEWER 6" – Per FOOT for the sand filter discharge manifold and the start of the dosing structure headers
 3. SAND FILTER DOSING DIFFUSER PIPES – 4" PVC – PERFORATED – Per FOOT for the Diffusers. Price shall include
 - a. The 30 Foot perforated diffuser pipe section.
 - b. The 5 to 6 foot length of solid walled 4" Sanitary Sewer Pipe and Fittings to connect the diffuser pipe to the 8" Sanitary Sewer Header from the Dosing Structure.

- B. Valves:
1. BY-PASS / FLOW CONTROL VALVES - 6" DIAMETER WITH RISERS – Per EACH for 6" plug valves for the sand filter piping.
 2. BY-PASS / FLOW CONTROL VALVES - 8" DIAMETER WITH RISERS – Per EACH for 8" plug valves on piping between the lagoons and sand filter.
 3. REPLACE EXISTING 8" PLUG VALVES IN MANHOLES – Per EACH to replace inoperable plug valves in the existing lagoon bypass manholes.

FRP GRATING

Description. This section describes the material and work necessary to install the FRP Grating for use with the renovations to the wastewater treatment facility structures. The grating will provide a corrosion-proof access covers and platforms for the operation of the new facility structures and equipment. Work related to this is also related to the Supplemental Special Provision Section for Sanitary Sewers - Structures, Pipes and Equipment.

Materials: shall be according to the following:

- A. GLASS-FIBER-REINFORCED PLASTIC GRATINGS
1. Molded Glass-Fiber-Reinforced Gratings: Bar gratings made by placing glass-fiber strands that have been saturated with thermosetting plastic resin in molds in alternating directions to form interlocking bars without voids and with high resin content.
 - a. Configuration: 1-1/2-inch- (38-mm-) square mesh, 1-1/2 inches (38 mm) thick. (Note: thickness may be increased to comply with structural performance requirements.)
 - b. Resin: Vinyl Ester or Polyester (as recommended by manufacturer to provide the corrosion resistance, strength and other physical properties required for the intended environment).
 - c. Color: Manufacturer's Standard Color
 - d. Traffic Surface: Non-slip surface with a concave, meniscus profile on the top of each bar providing maximum slip resistance.
 2. Fabricate cutouts in grating sections for penetrations indicated. Arrange cutouts to permit grating removal without disturbing items penetrating gratings.
 3. Grating bar intersections are to be filleted to a minimum radius of 1/16 inch to eliminate local stress concentrations and the possibility of resin cracking at these locations.
 4. Grating to be fire retardant with a tested flame spread rating of 25 or less when tested in accordance with ASTM E84.

B. FASTENERS

1. General: Unless otherwise indicated, provide Type 316 stainless-steel fasteners for use on this project. Select fasteners for type, grade, and class required.
2. Stainless-Steel Bolts and Nuts: Regular hexagon-head annealed stainless-steel bolts, nuts, and, where indicated, flat washers; ASTM F 593 (ASTM F 738M) for bolts and ASTM F 594 (ASTM F 836M) for nuts, Alloy Group 2 (A4).
3. Post-Installed Anchors: Torque-controlled expansion anchors or chemical anchors capable of sustaining, without failure, a load equal to four times the load imposed when installed in concrete, as determined by testing according to ASTM E 488, conducted by a qualified independent testing agency.
 - a. Material for Locations where Stainless Steel is Indicated: Alloy Group 2 (A4) stainless-steel bolts, ASTM F 593 (ASTM F 738M), and nuts, ASTM F 594 (ASTM F 836M).

C. GRATING SUPPORTS

1. Frames and Supports for Glass-Fiber-Reinforced Plastic Gratings: Fabricate from metal shapes, plates, and bars of welded construction to sizes, shapes, and profiles indicated and as necessary to receive gratings. Miter and weld connections for perimeter angle frames. Cut, drill, and tap units to receive hardware and similar items.
 - a. Unless otherwise indicated, fabricate from stainless steel (Type 316) or hot-dipped galvanized steel (as indicated).

D. FABRICATION

1. Shop Assembly: Fabricate grating sections in shop to greatest extent possible to minimize field splicing and assembly. Disassemble units only as necessary for shipping and handling limitations. Use connections that maintain structural value of joined pieces. Clearly mark units for reassembly and coordinated installation.
2. Cut, drill, and punch material cleanly and accurately. Remove burrs and ease edges to a radius of approximately 1/32 inch (1 mm) unless otherwise indicated. Remove sharp or rough areas on exposed surfaces.
3. Form from materials of size, thickness, and shapes indicated, but not less than that needed to support indicated loads.
4. Provide for anchorage of type indicated; coordinate with supporting structure. Fabricate and space the anchoring devices to secure gratings, frames, and supports rigidly in place and to support indicated loads.
5. Ensure all field and shop fabricated grating cuts are coated with vinyl ester resin to provide maximum corrosion resistance in accordance with the manufacturer's instructions.

E. GRATING SUPPORTS

1. Frames and Supports for Glass-Fiber-Reinforced Plastic Gratings: Fabricate from metal shapes, plates, and bars of welded construction to sizes, shapes, and profiles indicated and as necessary to receive gratings. Miter and weld connections for perimeter angle frames. Cut, drill, and tap units to receive hardware and similar items.
 - a. Unless otherwise indicated, fabricate from stainless steel (Type 316) or hot-dipped galvanized steel (as indicated).

References:

- A. ASTM D-635-Standard Test Method for Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position
- B. ASTM D-495-High Voltage, Low-Current, Dry Arc Resistance of Solid Electrical Insulation
- C. ASTM D-696-Coefficient of Linear Thermal Expansion for Plastics
- D. ASTM E-84-Surface Burning Characteristics of Building Materials

Quality Assurance: Qualifications of Manufacturer: Submit Qualifications of Manufacturer documentation certifying that the FRP manufacturer has a minimum of 5 years experience in manufacturing FRP products.

Installation: General:

- A. Fastening to In-Place Construction: Provide anchorage devices and fasteners where necessary for securing gratings to in-place construction. Include threaded fasteners for concrete and masonry inserts, through-bolts, lag bolts, and other connectors.
- B. Cutting, Fitting, and Placement: Perform cutting, drilling, and fitting required for installing gratings. Set units accurately in location, alignment, and elevation; measured from established lines and levels and free of rack.
- C. Provide temporary bracing or anchors in formwork for items that are to be built into concrete.

Installation: Installing Glass-Fiber-Reinforced Plastic Gratings:

- A. Comply with manufacturer's written instructions for installing gratings. Use manufacturer's standard stainless-steel anchor clips and hold-down devices for bolted connections. _

Field Quality Control:

- A. Verify actual locations of walls and other construction contiguous with gratings by field measurements before fabrication.

Method of Measurement. The FRP Gratings are a part of the new system structures, and shall be included in the cost of the structures.

Basis of Payment. This work will be paid for as a part of the cost of the completed structures. The related structures are covered in the Special Provisions for SANITARY SEWERS, STRUCTURES, PIPES AND EQUIPMENT and paid under SANITARY MANHOLE, SPECIAL.

LEVEL CONTROL SLIDE GATES

Description: This section describes the material and work necessary to install the Level Control Slide Gates into the outlet control structures for the wastewater treatment lagoons with the renovations to the wastewater treatment facility structures. These gates will provide a corrosion-proof level control mechanism to adjust operation and level of the treatment facility. Supplemental Special Provision Section Sanitary Sewer Structures, Pipes and Equipment is related to this section.

Materials:

- A. Manufacturers: Provide products manufactured by
 - 1. Warminster Fiberglass Company; P.O Box 188, Southampton PA 18966-0188,
 - 2. Plasti-Fab, Inc. 9665 SW Tualatin Sherwood Rd (P.O. Box 100) Tualatin, Oregon 97062-0100
 - 3. or an approved equal. Equal products shall be compatible with the design criteria for mounting, durability (corrosion resistance), operation and size.

- B. Gate
 - 1. Sluice gate body shall be manufactured of fiberglass reinforced polyester totally encapsulating an internal reinforcing structure.
 - 2. Each gate shall be molded individually to the exact dimensions specified. Seams and joints in and on the body are not acceptable.
 - 3. Sluice gates shall be manufactured of reinforced thermoset plastic.
 - 4. Gate body shall have UV Stabilizing pigment in the Resin to provide long-term protection from UV.
 - 5. Fiberglass reinforced polyester resin with resin-rich surface, ribbed as necessary to withstand maximum water heads to be encountered, using molded-in structural members. Bolted or bonded ribs will not be acceptable.

- C. Guide Frames:
1. Pultruded fiberglass reinforced polyester resin with resin-rich surface.
 2. Guides shall be fabricated from vinyl ester resin FRP / T-304L / T-316L / PREN super duplex stainless steel and shall have a slot suitable for mating with the gate body.
 3. One-piece molded construction, with mitered corners adequately bonded and laminated together.
 4. Type: Surface mounted with stainless steel anchor bolts.
 5. The head rail shall be affixed so as to allow the gate to be removed from the guide without disassembly.
 6. The head rail shall have a maximum deflection of 1/4" (6mm) when subjected to a horizontal force of four times the 40 lb. (2.8 ksc) maximum hand wheel pull.
- D. Handwheel Operator
1. Operators shall be sized to start the gate moving under a maximum head pressure with a pull of not more than 40 lbs (2.8 ksc).
 2. A manual hand wheel / crank shall be supplied that is compatible with the lift.
 3. Acceptable Handwheels
 - a. Type I fiberglass hand-wheel with bronze lift nut.
 - b. Type II fiberglass hand-wheel with bronze lift nut and ball bearings.
 - c. Cast iron hand-wheel with PVC coating.
- E. Operating Stems
1. Each slide gate shall be equipped with a rising operating stem. The stem shall be Type 304L / 316L / PREN super duplex stainless steel.
 2. The stem will have Acme threads and shall be provided with adjustable stop collars to limit upward and downward travel.
 3. Stems shall have a maximum L/R of 200.
 4. Stem guides with bronze or FRP bushings shall be used to maintain an L/R of 200.
- F. Seals
1. The gate shall be equipped with elastomeric seals to reduce leakage.
 2. Elastomeric J-seals shall be made of molded or extruded neoprene / EPDM having a hardness range of 55 to 65 shore A durometer and conforming to ASTM spec. D-2000 having a maximum compression set of 25%, and low temperature brittleness to meet suffix F-17 (-400).

G. Installation

1. Thoroughly clean and remove all shipping materials prior to setting.
2. Install Gates per Manufacturer's recommendations.
3. Operate all valves from fully opened to totally closed.
4. Ensure that products are installed plumb and true, free of warp or twist, within tolerances specified by the manufacturer and as indicated in the contract documents.
5. Surface and Flange Mounted Guides: Install guides with expansion anchors of type specified. Position guides at the required elevation, plumb and true, free of twist or warp.

H. Adjust and Clean

1. Clean surfaces in accordance with manufacturer's instructions.
2. Remove trash and debris, and leave the site in a clean condition.

Method of Measurement. The Level Control – Slide Gates shall be installed as a complete system into each of the new lagoon control structures.

Basis of Payment. The work and material for each Lagoon Level Control Slide Gate will be paid for separately as a complete system. The breakdown is as follows:

LAGOON 2 LEVEL CONTROL - SLIDE GATE COMPLETE
LAGOON 1 LEVEL CONTROL - SLIDE GATE COMPLETE

SIPHON SYSTEM

Description. This section describes the material and work necessary to install the Siphon System for the sand filter dual siphon dosing structure as a part of the wastewater treatment system renovation. The dual siphon system will naturally alternate the dosing between the two sand filters.

Materials:

Siphon Manufacturer:

- A. The siphons shall be provided as a complete system from a single manufacture.
- B. Acceptable Manufacturers:
 - 1. Fluid Dynamic Siphons, Inc., 1405 E. Olive Court, Unit B, Fort Collins, CO 80524
 - 2. Orenco Systems, Inc., 814 Airway Avenue, Sutherlin, Oregon 97479
 - 3. Approved Equal System. Equal system shall be compatible with physical size and material properties; hydraulic capacities, and installation and operational parameters of the proposed alternating siphon system. Alternate systems shall not require power to operate.

Siphon Materials:

- A. The Siphon is manufactured from chemical resistant materials which are unaffected by the fluids found in domestic sewage.
- B. The siphon traps and bells shall each be a single piece molded from black high density polyethylene.
- C. The vent piping is constructed from schedule 40 PVC pipe and fittings.
- D. Bolts and fasteners shall be stainless steel.

Installation:

- A. Install siphon per manufacturer's instructions.
- B. Set the siphon trap in concrete, being sure that it is plumb and level and that the long leg of the trap extends above the floor the correct distance (please refer to the drawing).
- C. The overflow pipe and the outlet pipe must be connected to the outlet of the siphon using a gasketed fitting. It is not possible to solvent weld the fitting to the high density polyethylene with which the siphon is constructed.
- D. The discharge pipe must not run uphill.
- E. With the 1/4-20 bolts started into the trap, place the bell over the trap and rotate it till the slots in the collar of the bell line up with the bolts in the trap. Push the bell down and rotate it. Tighten the bolts.
- F. For dual alternating siphon installations
 - 1. Both siphons and traps shall be set at the same elevation.
 - 2. Both traps shall be plumb and level.
 - 3. The dual siphons shall NOT discharge into the same line or an interconnecting line. This will prevent alternating operation.

Field Test and Quality Control:

- A. Upon completion of the installation, the siphon systems shall be primed with water and tested, following the manufacturer's recommendations and requirements for testing.
- B. The test shall consist of filling the dosing tank with water and observing the siphons operate and alternate.
- C. A minimum of three dosing cycles shall be observed to ensure that the systems alternate properly.

Method of Measurement. The dual siphon systems are two identical, complete systems. Each system will be installed as a complete system into the dosing structure. Payment shall be for each installation as a complete system.

Basis of Payment. The work and material for each siphon systems will be paid as an individual complete system under pay item: SIPHON SYSTEM

LAGOON COVER SYSTEM

Description. This section describes the materials and work necessary to provide and install the cover system over the wastewater treatment lagoon, specifically lagoon 2. The work shall include furnishing equipment, material and supplies to complete the work as specified herein. The modular insulated floating cover supplier shall furnish a submittal package to the engineer for approval prior to fabrication. The submittal package shall include a layout drawing; individual system component drawings; details of the integration of the modular insulated floating cover with other components, as specified herein; individual component cut-sheets; and product warranty. The modular insulated floating cover supplier shall conduct a survey of the design waterline and submit a fabrication layout for approval. Supplier shall verify fabrication dimensions using MicroStation, AutoCAD or similar design software. Submittal shall be made in a DXF format.

Materials:

Acceptable Systems / Basis of Design:

- A. The system is based on the system proposed by Lemna Technologies, Inc., Minneapolis, Minnesota.
- B. Acceptable alternate systems, such as Industrial & Environmental Concepts, or other floating cover systems may be considered.
- C. Acceptable alternate substitutions requests and submittals shall include documentation of meeting all design criteria and specifications, calculations, shop drawings and shall delineate modifications to the design.
- D. Acceptable substitutions shall not require any power or mechanical operations for the cover systems.

Cover System Products:

A. MODULAR INSULATED FLOATING COVER SYSTEM

1. The modular insulated floating cover system shall consist of insulated casings, cable, fasteners, sand tubes, perimeter anchors, and pulling posts (where required).
2. The modular insulated floating cover system shall not require a gas collection system. The cover system shall be installed so that gases are not trapped beneath the cover but are allowed to escape vertically through the overlap spaces of adjacent casings.
3. The modular insulated floating cover system shall consist of multiple casings placed over wastewater that includes sewage and/or industrial waste, where the casings are removably fastened/ linked to each other.
4. The modular insulated floating cover system shall not require a rainwater collection trench or water pumping equipment. The cover system shall be designed to allow rainwater to drain through the overlap spaces of adjacent casings. No water shall pool on top of the cover.
5. The modular insulated floating cover system shall consist of a plurality of HDPE geomembrane casings removably linked together, with rectangular insulation panels sealed inside the casings.
6. The modular insulated cover shall allow for the liquid level within the basin to fluctuate, as specified by the engineer.
7. The modular insulated floating cover shall be designed in such a manner to support snow loads typical of the intended installed environment. The cover shall perform well in cold environments and be able to withstand freeze/thaw conditions without damage to the cover or its components.
8. The modular cover shall be designed in such a manner to withstand wind-loading conditions typical to the site environment. Supplier shall show evidence their design has been effective in performing successfully under similar wind conditions. In the event wind velocity reduction structures are required, cover supplier shall provide design options to engineer.
9. The modular cover shall be capable of covering only a portion of the water surface (if required), with one edge floating freely. The modular cover shall allow for partially covered ponds to be further covered at a later date without any modification to the existing cover or additional expense other than the additional cover and installation labor required.
10. The modular insulated floating cover shall consist of individual modular casings connected by either looped geomembrane fasteners inserted through factory-drilled openings or by wedge-welded seams.

B. CASINGS

1. The casings and cover shall be fabricated in such a manner that each section of the modular cover can be individually displaced or removably linked with fasteners, to allow access to the water surface.
2. With the exception of field modifications, all fabrication and welding of the modular insulated floating cover casings shall be performed in a climate-controlled building. All straight welds on the sides of cover sections shall be double-fusion wedge welds. Corner and detail welds shall be extrusion welds.
3. The modular insulated floating cover system shall consist of multiple casings placed over wastewater that includes sewage and/or industrial waste, where the casings are removably fastened/ linked to each other and each contains, but is not completely filled with, insulation material sealed inside it.
4. Each modular casing shall be secured to all adjacent casings. The entire modular insulated cover shall be secured to the sides of the basin in such a manner that allows for removal and reinstallation of the insulated cover.
5. Individual casings shall be independently buoyant, thereby requiring no additional support or buoyancy.
6. The modular insulated floating cover shall be composed of casings fabricated from two sheets of 40 mil High Density Polyethylene (HDPE) geomembrane, which shall encapsulate insulation that provides a thermal barrier and flotation. The HDPE shall meet the standards for HDPE geomembrane in accordance with ASTM D638, D1004, D1603, D4833, D5199 and D5596.
7. The HDPE geomembrane of each casing shall have insulation sealed inside each casing by a weld. The casing is to be welded closed in such a manner that it provides a cavity in which to contain the insulation. The insulation shall be closed cell Expanded Polystyrene (EPS) with an R-rating, as noted on the drawings. The insulation shall be rectangular panels.
8. If required, walkway casings shall be provided. Walkway casings shall be constructed of 40mil textured HDPE and contain 3.9" of insulation. Walkway casings are designed to provide extra flotation to a worker needing access to in-basin equipment.
9. Individual modular casings shall not exceed 7.5 feet (width) and 52 feet (length).

C. FASTENERS AND FASTENER STOPS

1. Fasteners shall be fabricated of 30-mil XR-5 geomembrane with a honeycomb scrim and have a 10-year Ultraviolet resistance. Fasteners shall link adjacent casings together and each casing to anchor cables. Fasteners shall be fabricated in a manner that will allow cables to be threaded through the fastener loops on top of the casings.
2. The casings shall overlap, and the fasteners shall allow adjacent casings to be removably linked together.
3. The fasteners are placed through pairs of adjacent openings in casings.
4. Fastener stops shall consist of an HDPE disk and shall prevent fasteners from being pulled through the fastener holes of the modular casings.

D. CABLE

1. Cable shall anchor the linked casings over the wastewater basin, and shall be attached to perimeter anchors.
2. Cable shall be 1/8-inch diameter 7 x 19 stranded stainless steel, black PVC coated to 3/16 inch, and have a tensile strength of 1700 pounds.
3. Stainless steel cable clamps shall secure the cabling to the anchoring system and where splices and loops are required.

E. SAND TUBES

1. Pre-filled sand tubes shall be supplied to weight the cover perimeter and body against wind uplift. Perimeter sand tube locations shall have (2) HDPE straps welded to the modular cover, body sand tubes attached by fastener. The free ends of the HDPE straps shall be fastened to the sandtube.
2. Sand tubes shall be 10-foot long HDPE sleeves filled with sand and shall weigh between 60 and 110 lbs. The sleeves shall be wedge welded along its length and across its ends to form an enclosed tube.

F. PERIMETER ANCHORS

1. Perimeter anchors shall be installed along the perimeter of the basin. The perimeter anchor shall be a 30" long carbon steel earth anchor. On the lower end of the earth anchor shall be welded a 4" diameter helical screw plate. The upper end of the earth anchor shall be looped to provide an attachment point for the cover anchor cable. The perimeter anchors shall be installed so that the entire anchor is below ground to avoid interference with vehicle or foot traffic on the pond berm.

G. PULLING POSTS

1. Pulling post anchors shall be installed along the perimeter of the basin at the center of each column of casings as shown on the drawings. Each pulling post anchor shall consist of 3500 psi concrete and a schedule 40 PVC pipe with a 4" inside diameter. Concrete shall be poured in place, flush with grade, 3 feet deep and 1 foot in diameter. The pipe shall be 2 feet long, embedded in the concrete, centered on the anchorage and flush with grade. The base of pipe shall be capped with a plastic sheet to prevent concrete from entering the pipe. Care shall be taken to keep the pulling post anchor clear of debris over its entire length.

H. Installation:

1. The installer of the cover system shall furnish all materials, tools, equipment and services necessary to fabricate and install a modular insulated floating cover system.
2. Only assembly and attachment of the modular casings shall be allowed on-site. To facilitate ease of installation and removal, modular casings shall not exceed 7.5 feet in width and 52 feet in length. The casings shall be installed in an overlapping relationship to adjacent casings.

3. The modular insulated floating cover shall be capable of being installed in a basin at its high operating water depth. Modular casings shall be assembled and connected on shore and pulled into position in the basin.
 4. The modular insulated floating cover casings shall be filled with rectangular shaped sections of insulation.
 5. The modular insulated floating cover shall be anchored to shore using PVC coated stainless steel cable or approved alternative.
 6. Each section of cover shall be individually removable linked without affecting the structural integrity of the rest of the cover system.
 7. Where appropriate, multiple individual casings shall be welded together to facilitate installation and/or operation of the modular insulated floating cover.
 8. The modular insulated floating cover supplier shall provide installation supervision services as a part of overall cover supply.
 9. The modular insulated floating cover supplier shall provide technological wastewater treatment start-up services as a part of overall cover supply.
 10. The modular insulated floating cover supplier shall provide unloading, storage, and installation manual.
 11. The modular insulated floating cover supplier shall provide an operation and maintenance manual.
- I. Warranty:
- The modular insulated floating cover supplier shall warrant to buyer that all components furnished will be free from defects in materials and workmanship for a period of twelve (12) months from the date of shipment. In the event of material or workmanship failure, supplier shall either repair or replace the damaged or defective components or services or refund payments to buyer for the components or services found to be defective.

Method of Measurement. The Lagoon Cover System will be installed as a complete system, lump sum.

Basis of Payment. This work will be paid for at the contract as a lump sum price, for this to PROVIDE AND INSTALL LAGOON 2 COVER SYSTEM COMPLETE

SAND FILTER - SAND MEDIA BED

Description.

This work shall consist of furnishing all materials to replace the waste water treatment sand filter media, and replace it with appropriate new media at the locations shown on the plans or designated by the Engineer. The use of this media is intended for waste water treatment systems for polishing of final effluent from rest area following septic systems and facultative lagoon systems.

Materials.

Materials shall be according to the following.

- A. Satisfactory Media Soil Classifications: Soil Classification Groups GW, GP, GM, SW, SP, and SM according to ASTM D 2487, or a combination of these groups; free of rock or gravel larger than 2 inches in any dimension, debris, waste, frozen materials, vegetation, and other deleterious matter
- B. Filter Material: Narrowly graded mixture of natural or crushed gravel, or crushed stone and natural sand, as follows:
 - 1. Sieve / Size Characteristics of Filtering Media:
 - (a) Filter sand shall be clean, washed with <1% clay content by weight.
 - (b) The effective size shall be 0.20 mm to 0.75 mm, per ASTM D448.
 - (c) The uniformity coefficient shall be less than or equal to 3.5
 - 2. The material provided must not exceed any of the following mineral content percentages as determined by a petrographic analysis of the material
 - (a) Limestone or Calcite not to exceed 15%
 - (b) Dolomite not to exceed 20%
 - (c) Friable Sandstone not to exceed 10%
 - (d) Shale, Bituminous Coal or Mica Schist not to exceed 5%
 - (e) A petrograph analysis of the material provided may be required by the Engineer. Testing shall be according to ASTM C295-65 and shall be done by an approved laboratory.
- C. Quality Control:
 - 1. The Contractor will provide written certification identifying the source, type and gradation of the filter media materials prior to placement
 - 2. Inspection and testing will be performed as necessary to determine the acceptability of the material.
 - 3. The Engineer will approve the source and material submittal
- D. Preparation:
 - 1. Protect surround grade, structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earth moving operations.
 - 2. Protect and maintain erosion and sedimentation controls during earth moving operations.
 - 3. Protect subgrades and foundation soils from freezing temperatures and frost. Remove temporary protection before placing subsequent materials
- E. Dewatering:
 - 1. Prevent surface water and ground water from entering excavations, from ponding on prepared subgrades, and from flooding Project site and surrounding area.
 - 2. Protect subgrades from softening, undermining, washout, and damage by rain or water accumulation.

a. Reroute surface water runoff away from excavated areas. Do not allow water to accumulate in excavations. Do not use excavated trenches as temporary drainage ditches.

F. Excavation of Existing Media:

1. Excavate existing media to indicated elevations and dimensions within a tolerance of plus or minus 1 inch. Contractor Do not disturb perimeter soils If applicable, extend excavations a sufficient distance from structures for placing and removing concrete formwork, for installing services and other construction, and for inspections.
2. Excavations for under-drain gravel media trenches: Minimize disturbance of the bottom and sides of existing drain trenches. Excavate by hand as needed to final grades.

G. Subgrade Inspection:

1. Notify Engineer when excavations have reached required subgrade.
2. If Engineer determines that unsatisfactory soil is present, continue excavation and replace with compacted backfill or fill material as directed.
 - (a).Proof-roll replaced areas of subgrade with a pneumatic-tired to identify soft pockets and areas of excess yielding. Do not proof-roll wet or saturated subgrades.
3. Excavate soft spots, unsatisfactory soils, and areas of excessive pumping or rutting, as determined by Engineer, and replace with compacted backfill or fill as directed.
4. Authorized additional excavation and replacement material will be paid for according to IDOT standard Specifications for changes in the Work.
5. Reconstruct subgrades damaged by freezing temperatures, frost, rain, accumulated water, or construction activities, as directed by Engineer, without additional compensation.

H. Storage of Media Materials:

1. Stockpile imported filter media materials in a manner to prevent intermixing with other material. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust, material losses.
2. Stockpile soil materials away from edge of excavations. Do not store within drip line of remaining trees, or near other excavation.

I. Backfill

1. Place and compact backfill in excavations promptly, but not before completing the following:
 - (a) Construction below finish grade including, where applicable, sub-drainage piping.
 - (b) Surveying locations of underground utilities for Record Documents.
 - (c) Testing and inspecting underground utilities.
 - (d) Removing trash and debris.
2. Place backfill on subgrades free of mud, frost, snow, or ice.

- J. Compaction of Media Fill
1. Place backfill and fill soil materials in layers not more than 8 inches in loose depth for material compacted by heavy compaction equipment, and not more than 4 inches in loose depth for material compacted by hand-operated tampers.
 2. Place backfill and fill soil materials evenly on all sides of the sand filters to required elevations, and uniformly along the full length of each filter.
 3. Compact soil materials to not less than the following percentages of maximum dry unit weight according to ASTM D 1557:
 - (a) Under Energy Dissipaters, scarify and re-compact top 6 inches below subgrade and compact each layer of backfill or fill soil material at 95 percent.
 - (b) For other areas of the Sand Filter, scarify and re-compact top 6 inches below subgrade and compact each layer of backfill or fill soil material at 90 percent.
- K. Grading
1. General: Uniformly grade areas to a smooth surface, free of irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and elevations indicated.
 - (a) Provide a smooth transition between adjacent existing grades and new grades.
 - (b) Cut out soft spots, fill low spots, and trim high spots to comply with required surface tolerances.
 2. Site Rough Grading: Slope grades to direct rain water runoff away from sand filters, where possible, and to prevent ponding. Finish subgrades to required elevations within the following tolerances:
 - (a) Sand Filter Division Berm and Surrounding Areas: Plus or minus 1 inch (0.08 Foot)
 - (b) Energy Dissipaters and Sand Filter Surfaces: Plus or minus ½ inch (0.04 Foot).
- L. Subsurface Drainage:
1. Sub-drainage Pipe: As specified in IDOT Standard Specification Section 601. Pipe shall be 4 inch diameter perforated PVC pipe.
- M. Drainage Backfill:
1. Place and compact aggregate material, per special provision FRENCH DRAINS, over subsurface drain, as shown on the plans.
- N. Field Quality Control:
1. Testing Agency: Contractor will engage a qualified geotechnical engineering testing agency to perform tests and inspections.
 2. Allow testing agency to inspect and test subgrades and each fill or backfill layer. Proceed with subsequent earth moving only after test results for previously completed work comply with requirements.

3. Testing agency will test compaction of soils in place according to ASTM D 1556, ASTM D 2167, ASTM D 2922, and ASTM D 2937, as applicable. Tests will be performed at the following locations and frequencies:
 - (a) At subgrade and at each compacted fill and backfill layer, at least two (2) tests in each filter.
 - (b) When testing agency reports that subgrades, fills, or backfills have not achieved degree of compaction specified, scarify and moisten or aerate, or remove and replace soil materials to depth required; re-compact and re-test until specified compaction is obtained.

Method of Measurement. Sand Filter Media shall be measured for payment by the placed volume determined by the area and depth, and converted to weight in tons. The units of measurement will be in Tons.

Basis of Payment. This work will be paid for at the contract unit price, per ton for SAND FILTER - SAND MEDIA BED

MODIFY EXISTING CHLORINATION MANHOLE

Description. This section describes the material and work necessary to clean and modify (and repurpose) the existing chlorination manhole structure. Items within this section are additionally described in Sections 602 and 605, of the Standard Specifications.

Installation:

- A. The remaining pieces of equipment from the tablet chlorinator, the baffle, tubing, and snout pipe on the outlet shall be removed and disposed of properly.
- B. The interior of the manhole shall be jet-power pressure washed to remove any sediment, loose concrete or other debris to provide a clean interior surface.
- C. Any leaks or deteriorated areas of concrete or leaks at risers sections shall be patched and sealed. Any unused or abandoned penetrations in the manhole wall shall also be patched and sealed water tight.
- D. Deteriorated or damaged manhole steps shall be removed. Any new steps shall be epoxied into place per the step and epoxy manufacturers' requirements; and per the requirements for manhole steps within IDOT Section 602.
- E. The influent pipe penetration shall be core drilled to allow the new pipe connection of the SANITARY PIPE, 6" at the appropriate elevation, per the plans. The pipe shall be grouted into place using non-shrink water tight grout.
- F. The lower section of the manhole (no longer need as a wet-well) shall be filled with 2 +/- CY of Class SI concrete. This Concrete shall be included with the cost of the Modify Existing Chlorination Manhole, and is not a part of the separate unit price.

Method of Measurement. The methods of measurement for shall be EACH for the MODIFY EXISTING CHLORINATION MANHOLE, as a single complete installation.

Basis of Payment. The modification of the existing chlorination manhole shall be paid at the contract unit price per EACH for MODIFY EXISTING CHLORINATION MANHOLE.

AERATION

Description: This section describes the materials, equipment and work related to the installation of the post filter aeration system. This includes the aerator/blower, piping, diffusers, and related systems and connections to the power and control systems.

Summary: The aeration system shall be installed as a complete system. The system shall operate on the 120 VAC, 60 Hz, 20A system, to provide aeration to boost the Dissolved Oxygen (D.O.) levels in the treated effluent from the sand filters. The system shall include the compressor (aerator or blower), air distribution piping, diffuser(s), controls and panels, cover and enclosures for the equipment and all related appurtenances and accessories. Controls and equipment shall be housed in NEMA 4X Stainless Steel weather proof enclosures. Incoming power service shall be protected by a service disconnect as provided in the Electrical Specifications. The enclosure shall include a 100W cabinet heater with its own circuit breaker for operator shut down during warm weather.

Equipment:

- A. Basis of Design:
 - 1. The aeration system is the Aera-Vent model WWA1000, as manufactured by Precision Systems, Calumet City, Illinois; or approved equal.
 - 2. Approved equal system must provide documentation of meeting all specifications, and have field experience with operating systems showing proper operation. Alternate equipment submittals must include the reference list with phone numbers and contact names.
- B. Control System:
 - 1. The aeration system shall function primarily using a manual, on-off timer cycle. The aeration control timer shall have an independently adjustable on and off cycle with a range of .05 seconds to 30 hours.
 - 2. The controls shall also include a manual override with "RUN" and "OFF" positions for maintenance, and service checks.

- C. Aeration Compressor:
1. The aeration compressor shall be a 1/3 HP unit with an output capacity of 3.18 cfm against design operating pressure. The operating voltage shall be 1/60/120 VAC. The compressor shall be of the oil less design with high strength low lift stainless steel valves and permanently lubricated, sealed bearings. The compressor shall have Teflon piston rings and skirts for optimum volumetric efficiency. A fifty micron inlet air filter shall be provided.
- D. Aeration Piping and Diffuser:
1. The diffuser(s) and piping assembly inside of the wet well shall be completely constructed of stainless steel, to prevent corrosion in the sewage wet well. The diffusers and piping shall be suspended above the floor of the wet well at the elevation shown on the plans. The air diffuser(s) will be of a coarse air type with deflector shield and dual range diffuser outlet ports. Each aerating assembly shall have (1) 3/4" male NPT discharge. A stainless steel pipe bracket shall be supplied for the 3/4" aeration pipe. The diffuser(s) and pipe mount bracket(s) are provided; their installation is the responsibility of the installing Contractor. The supply and installation of all other piping, fittings, and bracketing, external to the control panel, required to place the unit into operation, are also the responsibility of the installing Contractor.
- E. Installation and Start-up:
1. Equipment is to be installed in accordance with manufacturer's instructions, approved submittal drawings and the Contract Documents.
 2. The manufacturer's representative shall perform initial start-up and calibration of the aeration system. Adjustment and fine tuning of the timers shall be provided. Instructions shall be given to the operator advising the method of timer adjustment to allow for proper setting of the timers based on the customer's actual station configuration.
- F. Equipment and Warranty
1. The manufacturer shall warrant the aeration systems for a period of one year, beginning with date of start-up, not to exceed 18 months from date of shipment. Warranty shall cover defective parts only. Labor to remove and install is by others.
 2. All products shall be guaranteed to be free from defects in workmanship and materials for a period of one year, beginning with date of start-up, not to exceed 18 months from date of shipment, whichever occurs first.
 3. Start-up of the equipment being performed by the Manufacturer's authorized representative.

Method of Measurement. The methods of measurement for shall be EACH for the AERATION SYSTEM, as a single complete installation.

Basis of Payment. The aeration system shall be installed as a single complete system and shall be paid at the contract unit price per EACH for the AERATION SYSTEM.

FLOW METER

Description. This section describes the materials, equipment and work related to the installation of the effluent flow metering and recording systems. This includes the level sensor, flow meter controls, overflow weir, conduit and wiring, chart recorder, and related systems and connections to the power and control systems.

Summary: The flow meter system shall be installed as a complete system. The system shall operate on the 120 VAC, 60 Hz, 20A system. The system shall include the all the necessary equipment, controls, conduits and wiring for a complete and operable system. All of the electronic equipment, chart recorder, and control panels, shall be housed in the Lagoon Control Panel NEMA 4X Stainless Steel weather proof enclosures. Incoming power service shall be protected by a service disconnect as provided in the Electrical Specifications.

Equipment:

A. Basis of Design:

1. Acceptable manufacturers for the flow meter system are Rosemount series equipment by Emerson Process Management, Siemens or approved equal systems.
2. Approved equal system must provide documentation of meeting all specifications, and have field experience with operating systems showing proper operation. Alternate equipment submittals must include the reference list with phone numbers and contact names.

B. Level Sensors:

1. The level sensors shall be ultrasonic, "time of flight" measuring the level within the stilling chamber section of the aeration structure. This shall be a Rosemount 3107 or Approved Equal.
2. The Sensor shall have a minimum range of 1 foot, and an accuracy of 0.1 inch.
3. The pulse rate for the sensor shall be 1.0 per second with a range 0.5 to 2.0 seconds.
4. Sensor shall be PVC Coated, with a 1" NPT mounting thread.
5. Cables shall be 2-core shielded and factory fitted, and PVC coated. A minimum of 50 feet of cable shall be provided; Cable shall field adjusted to final length.

5. The sensor shall operate on 12-40 vdc and shall provide a 4-20 mA output to the controller and chart recorder.
- C. Control / Meter Unit:
1. The control meter unit shall be a logging unit, such as a Rosemount 3493 or Approved Equal. It shall be a panel mount style unit run on AC power provided from the panel. Power shall be 115 Vac, 10 VA nominal, 18 VA maximum.
 2. The control logging unit shall be mounted in the Lagoon Control Panel NEMA 4X enclosure.
 3. The input shall be a 4 to 20 mA or HART digital signal. Output from the unit shall be a 4 to 20 mA signal, for connection to the chart recorder.
 4. The unit shall include a dot matrix LCD display, minimum 32 x 122 pixels, backlit.
 5. Unit shall output current flows the chart recorder, and be capable of displaying the current, and peak flow rates, as well as the total monthly flow (volumes).
- D. Chart Recorder:
1. Shall be a Foxboro or Approved Equal, 2 pen, Circular Chart recorder.
 2. The recorder shall be capable of recording 2, 4-20 mA signals on 12 inch circular charts, for a period of not less than 31 days per chart.
 2. Display accuracy shall be 0.1% of input span, and recording accuracy shall be 0.25% of input span.
 3. The chart recorder shall be mounted within the Lagoon Control Panel NEMA 4X enclosure along with the related control and monitoring equipment.
- E. Stainless Steel V Notch Weir.
1. The flow will be measured via the depth passing over / through the measuring weir. The weir shall be sharp crested with a notch (total angle) of 22.5°, as shown on the drawings.
 2. The weir plate shall be made of stainless steel and secured with stainless steel bolts and hardware. The bolts shall be epoxied into the concrete weir wall, and shall be at least 2.5 inches from the face of concrete notch.
 3. The weir v-notch shall have a minimum depth of 18 inches, and width (at the top) of 9 inches. The Stainless steel plate shall extend beyond the square notch at least 4 inches to each side of the notch.
 4. A water proof seal shall be provided between the face of the steel notch plate and the face of the concrete wall.

Installation:

- A. Equipment is to be installed in accordance with manufacturer's instructions, approved submittal drawings and the Contract Documents.
- B. The manufacturer's representative shall perform initial start-up and calibration of the aeration system. Adjustment and fine tuning of the timers shall be provided. Instructions shall be given to the operator advising the method of timer adjustment to allow for proper setting of the timers based on the customer's actual station configuration.

Warranty:

- A. The manufacturer shall warrant the flow meter system for a period of one year, beginning with date of start-up, not to exceed 18 months from date of shipment. Warranty shall cover defective parts only. Labor to remove and install is by others.
- B. All products shall be guaranteed to be free from defects in workmanship and materials for a period of one year, beginning with date of start-up, not to exceed 18 months from date of shipment, whichever occurs first.
- C. Start-up of the equipment being performed by the Manufacturer's authorized representative.

Method of Measurement. The methods of measurement for shall be EACH for the FLOW METER, as a single complete installation.

Basis of Payment. The flow metering system shall be installed as a single complete system and shall be paid at the contract unit price per EACH for FLOW METER.

ELECTRICAL SYSTEM UPGRADE

Description: This section describes the materials, equipment and work related to the installation of the Electrical System Upgrade. This section includes: Grounding and Bonding, Identification, Conduit and Cables, Raceways and Boxes, Wiring Devices, Surge Protection for Low Voltage Electrical Power Circuits, Panelboard, and Low Voltage, includes the aerator/blower, piping, diffusers, and related systems and connections to the power and control systems. This work is related to the General / Standard Specifications, and to the sections on AERATION, and the FLOW METER systems.

Additionally, this section covers the following items:

- A. All grounding and bonding systems and equipment
- B. Electrical Identification of: Raceways; Power and Control Cables; Conductors; Underground-Line Warning Tape; Warning Labels and Signs; Instruction Signs; Equipment Identification Labels; and Miscellaneous Identification Products.
- C. Building wires and cables rated 600 V and less; and Connectors, splices, and terminations rated 600 V and less.
- D. Metal conduits, tubing, and fittings; Nonmetal conduits, tubing, and fittings; Boxes, enclosures, and cabinets; Handholes and boxes for exterior underground cabling.
- E. Receptacles, receptacles with integral GFCI, and associated device plates.
- F. Section includes field-mounted SPDs for low-voltage (120 to 600 V) power distribution and control equipment.

- G. Circuit breakers to be installed in existing lighting and appliance branch-circuit panelboards.
- H. Dry-type Distribution Transformers rated 600 V and less, with capacities up to 1000 kVA.

Definitions:

- A. GRC: Galvanized rigid steel conduit.
- B. GFCI: Ground-fault circuit interrupter.
- C. Pigtail: Short lead used to connect a device to a branch-circuit conductor.
- D. Inominal: Nominal discharge current.
- E. MCOV: Maximum continuous operating voltage.
- F. Mode(s), also Modes of Protection: The pair of electrical connections where the VPR applies.
- G. MOV: Metal-oxide varistor; an electronic component with a significant non-ohmic current-voltage characteristic.
- H. OCPD: Overcurrent protective device.
- I. SCCR: Short-circuit current rating.
- J. SPD: Surge protective device.
- K. VPR: Voltage protection rating.

Quality Assurance:

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. Comply with NFPA 70.
- C. Comply with UL 467 for grounding and bonding materials and equipment.
- D. Comply with ANSI A13.1.
- E. Comply with 29 CFR 1910.144 and 29 CFR 1910.145.
- F. Comply with ANSI Z535.4 for safety signs and labels.
- G. Adhesive-attached labeling materials, including label stocks, laminating adhesives, and inks used by label printers, shall comply with UL 969.
- H. Comply with NEMA PB 1.
- I. Source Limitations: Obtain each transformer type through one source from a single manufacturer
- J. Comply with IEEE C57.12.91, "Test Code for Dry-Type Distribution and Power Transformers."

Submittals:

- A. Products submittals for each type of product indicated.
 - 1. For Surge Protection for Low Voltage Electrical Power Circuits include:
 - a. Rated capacities, operating characteristics, electrical characteristics, and furnished specialties and accessories.
 - b. Copy of UL Category Code VZCA certification, as a minimum, listing the tested values for VPRs, Inominal ratings, MCOVs, type designations, OCPD requirements, model numbers, system voltages, and modes of protection
 - 2. For Transformers include rated nameplate data, capacities, weights, dimensions, minimum clearances, installed devices and features, and performance for each type and size of transformer indicated
- B. Shop Drawings for custom enclosures and cabinets. Include plans, elevations, sections, and attachment details.
- C. Field Quality Control Reports.

Construction:

- A. GROUNDING AND BONDING
 - 1. Manufacturers: Subject to compliance with requirements, provide products by the following:
 - a. Burndy; Part of Hubbell Electrical Systems.
 - b. Dossert; AFL Telecommunications LLC.
 - c. ERICO International Corporation.
 - d. Fushi Copperweld Inc.
 - e. Galvan Industries, Inc.; Electrical Products Division, LLC.
 - f. Harger Lightning and Grounding.
 - g. ILSCO.
 - h. O-Z/Gedney; A Brand of the EGS Electrical Group.
 - i. Robbins Lightning, Inc.
 - j. Siemens Power Transmission & Distribution, Inc.
 - 2. SYSTEM DESCRIPTION
 - a. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
 - b. Comply with UL 467 for grounding and bonding materials and equipment.
 - 3. CONDUCTORS
 - a. Insulated Conductors: Copper or tinned-copper wire or cable insulated for 600 V unless otherwise required by applicable Code or authorities having jurisdiction.
 - b. Bare Copper Conductors:
 - 1) Solid Conductors: ASTM B 3.
 - 2) Stranded Conductors: ASTM B 8.
 - 3) Tinned Conductors: ASTM B 33.

4. CONNECTORS
 - a. Listed and labeled by an NRTL acceptable to authorities having jurisdiction for applications in which used and for specific types, sizes, and combinations of conductors and other items connected.
 - b. Bolted Connectors for Conductors and Pipes: Copper or copper alloy.
 - c. Welded Connectors: Exothermic-welding kits of types recommended by kit manufacturer for materials being joined and installation conditions.
 5. GROUNDING ELECTRODES
 - a. Ground Rods: Copper-clad steel; 3/4 inch by 10 feet (19 mm by 3 m).
- B. ELECTRICAL IDENTIFICATION
1. POWER AND CONTROL RACEWAY IDENTIFICATION MATERIALS
 - a. Comply with ANSI A13.1 for minimum size of letters for legend and for minimum length of color field for each raceway size.
 - b. Colors for Raceways Carrying Circuits at 600 V or Less:
 - 1) Black letters on an orange field.
 - 2) Legend: Indicate voltage and system or service type.
 - c. Vinyl Labels for Raceways Carrying Circuits at 600 V or Less: Preprinted, flexible label laminated with a clear, weather- and chemical-resistant coating and matching wraparound clear adhesive tape for securing ends of legend label.
 - d. Snap-Around Labels for Raceways Carrying Circuits at 600 V or Less: Slit, pretensioned, flexible, preprinted, color-coded acrylic sleeve, with diameter sized to suit diameter of raceway or cable it identifies and to stay in place by gripping action.
 - e. Snap-Around, Color-Coding Bands for Raceways Carrying Circuits at 600 V or Less: Slit, pretensioned, flexible, solid-colored acrylic sleeve, 2 inches (50 mm) long, with diameter sized to suit diameter of raceway or cable it identifies and to stay in place by gripping action.
 - f. Tape and Stencil for Raceways Carrying Circuits More Than 600 V: 4-inch- (100-mm-) wide black stripes on 10-inch (250-mm) centers diagonally over orange background that extends full length of raceway or duct and is 12 inches (300 mm) wide. Stop stripes at legends.
 - g. Metal Tags: Brass or aluminum, 2 by 2 by 0.05 inch (50 by 50 by 1.3 mm), with stamped legend, punched for use with self-locking cable tie fastener.
 - h. Write-On Tags: Polyester tag, 0.010 inch (0.25 mm) thick, with corrosion-resistant grommet and cable tie for attachment to conductor or cable.
 - 1) Marker for Tags: Permanent, waterproof, black ink marker recommended by tag manufacturer.

2. POWER AND CONTROL CABLE IDENTIFICATION MATERIALS
 - a. Comply with ANSI A13.1 for minimum size of letters for legend and for minimum length of color field for each cable size.
 - b. Vinyl Labels: Preprinted, flexible label laminated with a clear, weather- and chemical-resistant coating and matching wraparound clear adhesive tape for securing ends of legend label.
 - c. Self-Adhesive, Self-Laminating Polyester Labels: Preprinted, 3-mil- (0.08-mm-) thick flexible label with acrylic pressure-sensitive adhesive that provides a clear, weather- and chemical-resistant, self-laminating, protective shield over the legend. Labels sized to fit the cable diameter such that the clear shield overlaps the entire printed legend.
 - d. Heat-Shrink Preprinted Tubes: Flame-retardant polyolefin tube with machine-printed identification label. Sized to suit diameter of and shrinks to fit firmly around cable it identifies. Full shrink recovery at a maximum of 200 deg F (93 deg C). Comply with UL 224.
 - e. Metal Tags: Brass or aluminum, 2 by 2 by 0.05 inch (50 by 50 by 1.3 mm), with stamped legend, punched for use with self-locking cable tie fastener.
 - f. Write-On Tags: Polyester tag, 0.010 inch (0.25 mm) thick, with corrosion-resistant grommet and cable tie for attachment to conductor or cable.
 - 1) Marker for Tags: Permanent, waterproof, black ink marker recommended by tag manufacturer.
 - g. Snap-Around Labels: Slit, pretensioned, flexible, preprinted, color-coded acrylic sleeve, with diameter sized to suit diameter of cable it identifies and to stay in place by gripping action.
 - h. Snap-Around, Color-Coding Bands: Slit, pretensioned, flexible, solid-colored acrylic sleeve, 2 inches (50 mm) long, with diameter sized to suit diameter of cable it identifies and to stay in place by gripping action.
3. CONDUCTOR IDENTIFICATION MATERIALS
 - a. Color-Coding Conductor Tape: Colored, self-adhesive vinyl tape not less than 3 mils (0.08 mm) thick by 1 to 2 inches (25 to 50 mm) wide.
 - b. Self-Adhesive, Self-Laminating Polyester Labels: Write-on, 3-mil- (0.08-mm-) thick flexible label with acrylic pressure-sensitive adhesive that provides a clear, weather- and chemical-resistant, self-laminating, protective shield over the legend. Labels sized to fit the conductor diameter such that the clear shield overlaps the entire printed legend.
 - c. Snap-Around Labels: Slit, pretensioned, flexible, preprinted, color-coded acrylic sleeve, with diameter sized to suit diameter of conductor it identifies and to stay in place by gripping action.

- d. Snap-Around, Color-Coding Bands: Slit, pretensioned, flexible, solid-colored acrylic sleeve with diameter sized to suit diameter of conductor it identifies and to stay in place by gripping action.
 - e. Heat-Shrink Preprinted Tubes: Flame-retardant polyolefin tube with machine-printed identification label. Sized to suit diameter of and shrinks to fit firmly around conductor it identifies. Full shrink recovery at a maximum of 200 deg F (93 deg C). Comply with UL 224.
 - f. Marker Tapes: Vinyl or vinyl-cloth, self-adhesive wraparound type, with circuit identification legend machine printed by thermal transfer or equivalent process.
 - g. Write-On Tags: Polyester tag, 0.010 inch (0.25 mm) thick, with corrosion-resistant grommet and cable tie for attachment to conductor or cable.
 - 1) Marker for Tags: Permanent, waterproof, black ink marker recommended by tag manufacturer.
4. UNDERGROUND-LINE WARNING TAPE
- a. Tape:
 - 1) Recommended by manufacturer for the method of installation and suitable to identify and locate underground electrical utility lines.
 - 2) Printing on tape shall be permanent and shall not be damaged by burial operations.
 - 3) Tape material and ink shall be chemically inert, and not subject to degrading when exposed to acids, alkalis, and other destructive substances commonly found in soils.
 - b. Color and Printing:
 - 1) Comply with ANSI Z535.1 through ANSI Z535.5.
 - 2) Inscriptions for Red-Colored Tapes: ELECTRIC LINE, HIGH VOLTAGE,.
5. WARNING LABELS AND SIGNS
- a. Comply with NFPA 70 and 29 CFR 1910.145.
 - b. Self-Adhesive Warning Labels: Factory-printed, multicolor, pressure-sensitive adhesive labels, configured for display on front cover, door, or other access to equipment unless otherwise indicated.
6. INSTRUCTION SIGNS
- a. Engraved, laminated acrylic or melamine plastic, minimum 1/16 inch (1.6 mm) thick for signs up to 20 sq. inches (129 sq. cm) and 1/8 inch (3.2 mm) thick for larger sizes.
 - 1) Engraved legend with black letters on white face.
 - 2) Punched or drilled for mechanical fasteners.
 - 3) Framed with mitered acrylic molding and arranged for attachment at applicable equipment.

- b. Adhesive Film Label: Machine printed, in black, by thermal transfer or equivalent process. Minimum letter height shall be 3/8 inch (10 mm).
 - c. Adhesive Film Label with Clear Protective Overlay: Machine printed, in black, by thermal transfer or equivalent process. Minimum letter height shall be 3/8 inch (10 mm). Overlay shall provide a weatherproof and UV-resistant seal for label.
7. EQUIPMENT IDENTIFICATION LABELS
- a. Adhesive Film Label: Machine printed, in black, by thermal transfer or equivalent process. Minimum letter height shall be 3/8 inch (10 mm).
 - b. Adhesive Film Label with Clear Protective Overlay: Machine printed, in black, by thermal transfer or equivalent process. Minimum letter height shall be 3/8 inch (10 mm). Overlay shall provide a weatherproof and UV-resistant seal for label.
 - c. Self-Adhesive, Engraved, Laminated Acrylic or Melamine Label: Adhesive backed, with white letters on a dark-gray background. Minimum letter height shall be 3/8 inch (10 mm).
 - d. Engraved, Laminated Acrylic or Melamine Label: Punched or drilled for screw mounting. White letters on a dark-gray background. Minimum letter height shall be 3/8 inch (10 mm).
8. CABLE TIES
- a. General-Purpose Cable Ties: Fungus inert, self-extinguishing, one piece, self-locking, Type 6/6 nylon.
 - 1) Minimum Width: 3/16 inch (5 mm).
 - 2) Tensile Strength at 73 deg F (23 deg C), According to ASTM D 638: 12,000 psi (82.7 MPa).
 - 3) Temperature Range: Minus 40 to plus 185 deg F (Minus 40 to plus 85 deg C).
 - 4) Color: Black except where used for color-coding.
9. MISCELLANEOUS IDENTIFICATION PRODUCTS
- a. Paint: Comply with requirements in painting Sections for paint materials and application requirements. Select paint system applicable for surface material and location (exterior or interior).
 - b. Fasteners for Labels and Signs: Self-tapping, stainless-steel screws or stainless-steel machine screws with nuts and flat and lock washers.

C. CONDUCTORS, SPLICES AND CABLES

1. CONDUCTORS AND CABLES

- a. Manufacturers: Subject to compliance with requirements, provide products by the following:
 - 1) Alcan Products Corporation; Alcan Cable Division.
 - 2) Alpha Wire.
 - 3) Belden Inc.
 - 4) Encore Wire Corporation.
 - 5) General Cable Technologies Corporation.
 - 6) Southwire Incorporated.
- b. Copper Conductors: Comply with NEMA WC 70/ICEA S-95-658.
- c. Conductor Insulation: Comply with NEMA WC 70/ICEA S-95-658 for Type THHN-2-THWN-2.

2. CONNECTORS AND SPLICES

- a. Manufacturers: Subject to compliance with requirements, provide products by the following:
 - 1) AFC Cable Systems, Inc.
 - 2) Gardner Bender.
 - 3) Hubbell Power Systems, Inc.
 - 4) Ideal Industries, Inc.
 - 5) IIsco; a branch of Bardes Corporation.
 - 6) NSi Industries LLC.
 - 7) O-Z/Gedney; a brand of the EGS Electrical Group.
 - 8) 3M; Electrical Markets Division.
 - 9) Tyco Electronics.
- b. Description: Factory-fabricated connectors and splices of size, ampacity rating, material, type, and class for application and service indicated.

D. RACEWAYS AND BOXES

1. METAL CONDUITS, TUBING, AND FITTINGS

- a. Manufacturers: Subject to compliance with requirements, provide products by the following:
 - 1) AFC Cable Systems, Inc.
 - 2) Allied Tube & Conduit.
 - 3) Anamet Electrical, Inc.
 - 4) Electri-Flex Company.
 - 5) O-Z/Gedney.
 - 6) Picoma Industries.

- 7) Republic Conduit.
 - 8) Robroy Industries.
 - 9) Southwire Company.
 - 10) Thomas & Betts Corporation.
 - 11) Western Tube and Conduit Corporation.
 - 12) Wheatland Tube Company.
- b. Listing and Labeling: Metal conduits, tubing, and fittings shall be listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- c. GRC: Comply with ANSI C80.1 and UL 6.
- d. LFMC: Flexible steel conduit with PVC jacket and complying with UL 360.
- e. Fittings for Metal Conduit: Comply with NEMA FB 1 and UL 514B.
- 1) Conduit Fittings for Hazardous (Classified) Locations: Comply with UL 886 and NFPA 70.
 - 2) Expansion Fittings: PVC or steel to match conduit type, complying with UL 651, rated for environmental conditions where installed, and including flexible external bonding jumper.
- f. Joint Compound for GRC: Approved, as defined in NFPA 70, by authorities having jurisdiction for use in conduit assemblies, and compounded for use to lubricate and protect threaded conduit joints from corrosion and to enhance their conductivity.

2. NONMETALLIC CONDUITS, TUBING, AND FITTINGS

- a. Manufacturers: Subject to compliance with requirements, provide products by the following:
- 1) AFC Cable Systems, Inc.
 - 2) Anamet Electrical, Inc.
 - 3) Arco Corporation.
 - 4) CANTEX Inc.
 - 5) CertainTeed Corporation.
 - 6) Condux International, Inc.
 - 7) Electri-Flex Company.
 - 8) Kraloy.
 - 9) Lamson & Sessions; Carlon Electrical Products.
 - 10) Niedax-Kleinhuis USA, Inc.
 - 11) RACO; Hubbell.
 - 12) Thomas & Betts Corporation.
- b. Listing and Labeling: Nonmetallic conduits, tubing, and fittings shall be listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

- c. RNC: Type EPC-40-PVC, complying with NEMA TC 2 and UL 651 unless otherwise indicated.
- d. LFNC: Comply with UL 1660.
- e. Solvent cements and adhesive primers shall have a VOC content of 510 and 550 g/L or less, respectively, when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

3. **BOXES, ENCLOSURES, AND CABINETS**

- a. Manufacturers: Subject to compliance with requirements, provide products by the following:
 - 1) Adalet.
 - 2) Cooper Technologies Company; Cooper Crouse-Hinds.
 - 3) EGS/Appleton Electric.
 - 4) Erickson Electrical Equipment Company.
 - 5) FSR Inc.
 - 6) Hoffman.
 - 7) Hubbell Incorporated.
 - 8) Kraloy.
 - 9) Milbank Manufacturing Co.
 - 10) Mono-Systems, Inc.
 - 11) O-Z/Gedney.
 - 12) RACO; Hubbell.
 - 13) Robroy Industries.
 - 14) Spring City Electrical Manufacturing Company.
 - 15) Stahlin Non-Metallic Enclosures.
 - 16) Thomas & Betts Corporation.
 - 17) Wiremold / Legrand.
- b. General Requirements for Boxes, Enclosures, and Cabinets: Boxes, enclosures, and cabinets installed in wet locations shall be listed for use in wet locations.
- c. Sheet Metal Outlet and Device Boxes: Comply with NEMA OS 1 and UL 514A.
- d. Cast-Metal Outlet and Device Boxes: Comply with NEMA FB 1, ferrous alloy, Type FD, with gasketed cover.

- e. Cabinets:
 - 1) NEMA 250, Type 4x Stainless Steel 304 steel box with removable interior panel and removable front, finished inside and out with manufacturer's standard enamel.
 - 2) Hinged door in front cover with flush latch and concealed hinge.
 - 3) Key latch.
 - 4) Metal barriers to separate wiring of different systems and voltage.
- 4. HANDHOLES AND BOXES FOR EXTERIOR UNDERGROUND WIRING
 - a. General Requirements for Handholes and Boxes:
 - 1) Boxes and handholes for use in underground systems shall be designed and identified as defined in NFPA 70, for intended location and application.
 - 2) Boxes installed in wet areas shall be listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
 - b. Polymer-Concrete Handholes and Boxes with Polymer-Concrete Cover: Molded of sand and aggregate, bound together with polymer resin, and reinforced with steel, fiberglass, or a combination of the two.
 - 1) Manufacturers: Subject to compliance with requirements, provide products by the following:
 - a) Armorcast Products Company.
 - b) Carson Industries LLC.
 - c) NewBasis.
 - d) Oldcastle Precast, Inc.
 - e) Quazite: Hubbell Power System, Inc.
 - f) Synertech Moulded Products.
 - 2) Standard: Comply with SCTE 77.
 - 3) Configuration: Designed for flush burial with open bottom unless otherwise indicated.
 - 4) Cover: Weatherproof, secured by tamper-resistant locking devices and having structural load rating consistent with enclosure and handhole location.
 - 5) Cover Finish: Nonskid finish shall have a minimum coefficient of friction of 0.50.
 - 6) Cover Legend: Molded lettering, "ELECTRIC.".
 - 7) Conduit Entrance Provisions: Conduit-terminating fittings shall mate with entering ducts

E. WIRING DEVICES

1. MANUFACTURERS

- a. Manufacturers' Names: Shortened versions (shown in parentheses) of the following manufacturers' names are used in other Part 2 articles:
- 1) Cooper Wiring Devices; Division of Cooper Industries, Inc. (Cooper).
 - 2) Hubbell Incorporated; Wiring Device-Kellems (Hubbell).
 - 3) Leviton Mfg. Company Inc. (Leviton).
 - 4) Pass & Seymour/Legrand (Pass & Seymour).
- b. Source Limitations: Obtain each type of wiring device and associated wall plate from single source from single manufacturer.

2. GENERAL WIRING-DEVICE REQUIREMENTS

- a. Wiring Devices, Components, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- b. Comply with NFPA 70.
- c. Devices that are manufactured for use with modular plug-in connectors may be substituted under the following conditions:
- 1) Connectors shall comply with UL 2459 and shall be made with stranding building wire.
 - 2) Devices shall comply with the requirements in this Section.

3. STRAIGHT-BLADE RECEPTACLES

- a. Convenience Receptacles, 125 V, 20 A: Comply with NEMA WD 1, NEMA WD 6 Configuration 5-20R, UL 498, and FS W-C-596.
- 1) Products: Subject to compliance with requirements, provide the following:
 - a) Cooper; 5351 (single), CR5362 (duplex).
 - b) Hubbell; HBL5351 (single), HBL5352 (duplex).
 - c) Leviton; 5891 (single), 5352 (duplex).
 - d) Pass & Seymour; 5361 (single), 5362 (duplex).

4. GFCI RECEPTACLES

- a. General Description:
- 1) Straight blade, feed-through type.
 - 2) Comply with NEMA WD 1, NEMA WD 6, UL 498, UL 943 Class A, and FS W-C-596.
 - 3) Include indicator light that shows when the GFCI has malfunctioned and no longer provides proper GFCI protection.

- b. Duplex GFCI Convenience Receptacles, 125 V, 20 A:
 - 1) Products: Subject to compliance with requirements, provide the following:
 - a) Cooper; VGF20.
 - b) Hubbell; GFR5352L.
 - c) Pass & Seymour; 2095.
 - d) Leviton; 7590.

5. WALL PLATES

- a. Single and combination types shall match corresponding wiring devices.
 - 1) Plate-Securing Screws: Metal with head color to match plate finish.
 - 2) Material for Finished Spaces: Steel with white baked enamel, suitable for field painting.
 - 3) Material for Unfinished Spaces: Galvanized steel.
 - 4) Material for Damp Locations: Cast aluminum with spring-loaded lift cover, and listed and labeled for use in wet and damp locations.
- b. Wet-Location, Weatherproof Cover Plates: NEMA 250, complying with Type 3R, weather-resistant, die-cast aluminum with lockable cover.

6. FINISHES

- a. Device Color:
 - 1) Wiring Devices Connected to Normal Power System: White unless otherwise indicated or required by NFPA 70 or device listing.
- b. Wall Plate Color: For plastic covers, match device color.

F. SURGE PROTECTION FOR LOW-VOLTAGE ELECTRICAL POWER CIRCUITS

1. GENERAL SPD REQUIREMENTS

- a. SPD with Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- b. Comply with NFPA 70.
- c. Comply with UL 1449.
- d. MCOV of the SPD shall be the nominal system voltage.

2. PANEL SUPPRESSORS

- a. Manufacturers: Subject to compliance with requirements, provide products by the following:
 - 1) ABB France.
 - 2) Advanced Protection Technologies Inc. (APT).
 - 3) Eaton Corporation.
 - 4) Emerson Electric Co.
 - 5) GE Zenith Controls.
 - 6) LEA International; Protection Technology Group.
 - 7) Leviton Manufacturing Co., Inc.
 - 8) PowerLogics, Inc.
 - 9) Schneider Electric Industries SAS.
 - 10) Siemens Industry, Inc.
- b. SPDs: Comply with UL 1449, Type 2.
 - 1) Include LED indicator lights for power and protection status.
 - 2) Internal thermal protection that disconnects the SPD before damaging internal suppressor components.
- c. Peak Surge Current Rating: The minimum single-pulse surge current withstand rating per phase shall not be less than 100 kA. The peak surge current rating shall be the arithmetic sum of the ratings of the individual MOVs in a given mode.
- d. Comply with UL 1283.
- e. Protection modes and UL 1449 VPR for 240/120-V, single-phase, three-wire circuits shall not exceed the following:
 - 1) Line to Neutral: 700 V.
 - 2) Line to Ground: 700 V.
 - 3) Neutral to Ground: 700 V.
 - 4) Line to Line: 1200 V.
- f. SCCR: Equal or exceed 100 kA.
- g. Inominal Rating: 10 kA.

3. ENCLOSURES

- a. Indoor Enclosures: NEMA 250, Type 1, for installation within an overall NEMA 4X enclosure.

4. CONDUCTORS AND CABLES

- a. Power Wiring: Same size as SPD leads, complying with Section 16120 "Conductors and Cables."

G. PANELBOARDS

1. LIGHTING AND APPLIANCE BRANCH-CIRCUIT PANELBOARDS

- a. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1) Square D; a brand of Schneider Electric.
- b. Branch Overcurrent Protective Devices: Bolt-on circuit breakers, replaceable without disturbing adjacent units.
- c. Molded-Case Circuit Breaker (MCCB): Comply with UL 489, with interrupting capacity to meet available fault currents.
 - 1) Thermal-Magnetic Circuit Breakers: Inverse time-current element for low-level overloads, and instantaneous magnetic trip element for short circuits. Adjustable magnetic trip setting for circuit-breaker frame sizes 250 A and larger.

H. LOW-VOLTAGE TRANSFORMERS

1. MANUFACTURERS

- a. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1) ACME Electric Corporation; Power Distribution Products Division.
 - 2) Challenger Electrical Equipment Corp.; a division of Eaton Corp.
 - 3) Controlled Power Company.
 - 4) Eaton Electrical Inc.; Cutler-Hammer Products.
 - 5) Federal Pacific Transformer Company; Division of Electro-Mechanical Corp.
 - 6) General Electric Company.
 - 7) Hammond Co.; Matra Electric, Inc.
 - 8) Magnetek Power Electronics Group.
 - 9) Micron Industries Corp.
 - 10) Myers Power Products, Inc.
 - 11) Siemens Energy & Automation, Inc.
 - 12) Sola/Hevi-Duty.
 - 13) Square D; Schneider Electric.

2. GENERAL TRANSFORMER REQUIREMENTS

- a. Description: Factory-assembled and -tested, air-cooled units for 60-Hz service.
- b. Cores: Grain-oriented, non-aging silicon steel.
- c. Coils: Continuous windings without splices except for taps.
 - 1) Internal Coil Connections: Brazed or pressure type.
 - 2) Coil Material: Aluminum.

3. DISTRIBUTION TRANSFORMERS
 - a. Comply with NEMA ST 20, and list and label as complying with UL 1561.
 - b. Cores: One leg per phase.
 - c. Enclosure: Totally enclosed, non-ventilated, NEMA 250, Type 2.
 - 1) Core and coil shall be encapsulated within resin compound, sealing out moisture and air.
 - d. Transformer Enclosure Finish: Comply with NEMA 250.
 - 1) Finish Color: Gray.
 - e. Taps for Transformers Smaller Than 3 kVA: None.
 - f. Insulation Class: 220 deg C, UL-component-recognized insulation system with a maximum of 150 deg C rise above 40 deg C ambient temperature.
 - g. Wall Brackets: Manufacturer's standard brackets.
4. IDENTIFICATION DEVICES
 - a. Nameplates: Engraved, laminated-plastic or metal nameplate for each distribution transformer, mounted with corrosion-resistant screws. Nameplates and label products are specified in Section 16075 "Electrical Identification."
5. SOURCE QUALITY CONTROL
 - a. Test and inspect transformers according to IEEE C57.12.91.

Installation:

- A. GROUNDING AND BONDING
 1. APPLICATIONS
 - a. Conductors: Install solid conductor for No. 8 AWG and smaller, and stranded conductors for No. 6 AWG and larger unless otherwise indicated.
 - b. Conductor Terminations and Connections:
 - 1) Pipe and Equipment Grounding Conductor Terminations: Bolted connectors.
 - 2) Underground Connections: Welded connectors except at test wells and as otherwise indicated.
 - 3) Connections to Ground Rods at Test Wells: Bolted connectors.
 - 4) Connections to Structural Steel: Welded connectors.
 2. EQUIPMENT GROUNDING
 - a. Install insulated equipment grounding conductors with all feeders and branch circuits.

3. INSTALLATION
 - a. Grounding Conductors: Route along shortest and straightest paths possible unless otherwise indicated or required by Code. Avoid obstructing access or placing conductors where they may be subjected to strain, impact, or damage.
 - b. Ground Rods: Drive rods until tops are 2 inches (50 mm) below finished floor or final grade unless otherwise indicated.
 - 1) Interconnect ground rods with grounding electrode conductor below grade and as otherwise indicated. Make connections without exposing steel or damaging coating if any.
- B. ELECTRICAL IDENTIFICATION
 1. INSTALLATION
 - a. Verify identity of each item before installing identification products.
 - b. Location: Install identification materials and devices at locations for most convenient viewing without interference with operation and maintenance of equipment.
 - c. Apply identification devices to surfaces that require finish after completing finish work.
 - d. Self-Adhesive Identification Products: Clean surfaces before application, using materials and methods recommended by manufacturer of identification device.
 - e. Attach signs and plastic labels that are not self-adhesive type with mechanical fasteners appropriate to the location and substrate.
 - f. Attach plastic raceway and cable labels that are not self-adhesive type with clear vinyl tape with adhesive appropriate to the location and substrate.
 - g. System Identification Color-Coding Bands for Raceways and Cables: Each color-coding band shall completely encircle cable or conduit. Place adjacent bands of two-color markings in contact, side by side. Locate bands at changes in direction, at penetrations of walls and floors, at 50-foot (15-m) maximum intervals in straight runs, and at 25-foot (7.6-m) maximum intervals in congested areas.
 - h. Aluminum Wraparound Marker Labels and Metal Tags: Secure tight to surface of conductor or cable at a location with high visibility and accessibility.

- i. Cable Ties: For attaching tags. Use general-purpose type, except as listed below:
 - 1) Outdoors: UV-stabilized nylon.
- j. Underground-Line Warning Tape: During backfilling of trenches install continuous underground-line warning tape directly above line at 6 to 8 inches (150 to 200 mm) below finished grade. Use multiple tapes where width of multiple lines installed in a common trench exceeds 16 inches (400 mm) overall.
- k. Painted Identification: Comply with requirements in painting Sections for surface preparation and paint application.

2. IDENTIFICATION SCHEDULE

- a. Accessible Raceways and Cables within Buildings: Identify the covers of each junction and pull box of the following systems with self-adhesive vinyl labels with the wiring system legend and system voltage. System legends shall be as follows:
 - 1) Power.
- b. Power-Circuit Conductor Identification, 600 V or Less: For conductors in vaults, pull and junction boxes, manholes, and handholes, use color-coding conductor tape to identify the phase.
 - 1) Color-Coding for Phase Identification, 600 V or Less: Use colors listed below for ungrounded feeder and branch-circuit conductors.
 - a) Color shall be factory applied.
 - b) Colors for 208/120-V Circuits:
 - 1.) Phase A: Black.
 - 2.) Phase B: Red.
 - 3.) Phase C: Blue.
 - c) Field-Applied, Color-Coding Conductor Tape: Apply in half-lapped turns for a minimum distance of 6 inches (150 mm) from terminal points and in boxes where splices or taps are made. Apply last two turns of tape with no tension to prevent possible unwinding. Locate bands to avoid obscuring factory cable markings.
- c. Install instructional sign including the color-code for grounded and ungrounded conductors using adhesive-film-type labels.
- d. Control-Circuit Conductor Identification: For conductors and cables in pull and junction boxes, manholes, and handholes, use write-on tags with the conductor or cable designation, origin, and destination.

- e. Control-Circuit Conductor Termination Identification: For identification at terminations provide self-adhesive, self-laminating polyester labels with the conductor designation.
- f. Conductors to Be Extended in the Future: Attach write-on tags to conductors and list source.
- g. Locations of Underground Lines: Identify with underground-line warning tape for power, lighting, communication, and control wiring and optical fiber cable.
 - 1) Limit use of underground-line warning tape to direct-buried cables.
 - 2) Install underground-line warning tape for both direct-buried cables and cables in raceway.
- h. Operating Instruction Signs: Install instruction signs to facilitate proper operation and maintenance of electrical systems and items to which they connect. Install instruction signs with approved legend where instructions are needed for system or equipment operation.
- i. Equipment Identification Labels: On each unit of equipment, install unique designation label that is consistent with wiring diagrams, schedules, and the Operation and Maintenance Manual. Apply labels to disconnect switches and protection equipment, central or master units, control panels, control stations, terminal cabinets, and racks of each system. Systems include power, lighting, control, communication, signal, monitoring, and alarm systems unless equipment is provided with its own identification.
 - 1) Labeling Instructions:
 - a) Indoor Equipment: Engraved, laminated acrylic or melamine label. Unless otherwise indicated, provide a single line of text with 1/2-inch- (13-mm-) high letters on 1-1/2-inch- (38-mm-) high label; where two lines of text are required, use labels 2 inches (50 mm) high.
 - b) Outdoor Equipment: Engraved, laminated acrylic or melamine label.
 - 2) Equipment to Be Labeled:
 - a) Enclosures and electrical cabinets.

C. CONDUCTORS AND CABLES

1. CONDUCTOR MATERIAL APPLICATIONS

- a. Feeders: Copper. Solid for No. 10 AWG and smaller; stranded for No. 8 AWG and larger.
- b. Branch Circuits: Copper. Solid for No. 12 AWG and smaller; stranded for No. 10 AWG and larger, except VFC cable, which shall be extra flexible stranded.

2. CONDUCTOR INSULATION AND MULTICONDUCTOR CABLE APPLICATIONS AND WIRING METHODS
 - a. Exposed Feeders: Type THHN-2-THWN-2, single conductors in raceway.
 - b. Feeders Concealed in Concrete, below Slabs-on-Grade, and Underground: Type THHN-2-THWN-2, single conductors in raceway.
 - c. Exposed Branch Circuits, Including in Crawlspace: Type THHN-2-THWN-2, single conductors in raceway.
 - d. Branch Circuits Concealed in Concrete, below Slabs-on-Grade, and underground: Type THHN-2-THWN-2, single conductors in raceway.
3. INSTALLATION OF CONDUCTORS AND CABLES
 - a. Conceal cables in finished walls, ceilings, and floors unless otherwise indicated.
 - b. Complete raceway installation between conductor and cable termination points according to Section 16130 "Raceways and Boxes" prior to pulling conductors and cables.
 - c. Use manufacturer-approved pulling compound or lubricant where necessary; compound used must not deteriorate conductor or insulation. Do not exceed manufacturer's recommended maximum pulling tensions and sidewall pressure values.
 - d. Use pulling means, including fish tape, cable, rope, and basket-weave wire/cable grips, that will not damage cables or raceway.
 - e. Install exposed cables parallel and perpendicular to surfaces of exposed structural members, and follow surface contours where possible.
 - f. Support cables according to Section 16073 "Hangers and Supports for Electrical Systems."
 - g. Complete cable tray systems installation according to Section 16139 "Cable Trays" prior to installing conductors and cables.
4. CONNECTIONS
 - a. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A-486B.
 - b. Make splices, terminations, and taps that are compatible with conductor material and that possess equivalent or better mechanical strength and insulation ratings than unspliced conductors.
 - c. Wiring at Outlets: Install conductor at each outlet, with at least 6 inches (150 mm) of slack.

5. IDENTIFICATION

- a. Identify and color-code conductors and cables according to Section 16075 "Electrical Identification."
- b. Identify each spare conductor at each end with identity number and location of other end of conductor, and identify as spare conductor.

D. RACEWAYS AND BOXES

1. RACEWAY APPLICATION

- a. Outdoors: Apply raceway products as specified below unless otherwise indicated:
 - 1) Exposed Conduit: GRC.
 - 2) Concealed Conduit, Aboveground: GRC.
 - 3) Underground Conduit: RNC, Type EPC-40-PVC,.
 - 4) Connection to Vibrating Equipment (Including Transformers and Hydraulic, Pneumatic, Electric Solenoid, or Motor-Driven Equipment): LFMC.
- b. Indoors: Apply raceway products as specified below unless otherwise indicated:
 - 1) Exposed: GRC.
- c. Connection to Vibrating Equipment (Including Transformers and Hydraulic, Pneumatic, Electric Solenoid, or Motor-Driven Equipment): LFMC.
- d. Minimum Raceway Size: 3/4-inch (21-mm) trade size.
- e. Raceway Fittings: Compatible with raceways and suitable for use and location.
 - 1) Rigid and Intermediate Steel Conduit: Use threaded rigid steel conduit fittings unless otherwise indicated. Comply with NEMA FB 2.10.

2. INSTALLATION

- a. Comply with NECA 1 and NECA 101 for installation requirements except where requirements on Drawings or in this article are stricter. Comply with NECA 102 for aluminum conduits. Comply with NFPA 70 limitations for types of raceways allowed in specific occupancies and number of floors.
- b. Keep raceways at least 6 inches (150 mm) away from parallel runs of flues and steam or hot-water pipes. Install horizontal raceway runs above water and steam piping.
- c. Complete raceway installation before starting conductor installation.
- d. Comply with requirements in Section 16073 "Hangers and Supports for Electrical Systems" for hangers and supports.

- e. Arrange stub-ups so curved portions of bends are not visible above finished slab.
- f. Install no more than the equivalent of three 90-degree bends in any conduit run except for control wiring conduits, for which fewer bends are allowed. Support within 12 inches (300 mm) of changes in direction.
- g. Install conduits parallel or perpendicular to building lines.
- h. Support conduit within 12 inches (300 mm) of enclosures to which attached.
- i. Threaded Conduit Joints, Exposed to Wet, Damp, Corrosive, or Outdoor Conditions: Apply listed compound to threads of raceway and fittings before making up joints. Follow compound manufacturer's written instructions.
- j. Terminate threaded conduits into threaded hubs or with locknuts on inside and outside of boxes or cabinets. Install bushings on conduits up to 1-1/4-inch (35mm) trade size and insulated throat metal bushings on 1-1/2-inch (41-mm) trade size and larger conduits terminated with locknuts. Install insulated throat metal grounding bushings on service conduits.
- k. Install raceways square to the enclosure and terminate at enclosures with locknuts. Install locknuts hand tight plus 1/4 turn more.
- l. Do not rely on locknuts to penetrate nonconductive coatings on enclosures. Remove coatings in the locknut area prior to assembling conduit to enclosure to assure a continuous ground path.
- m. Cut conduit perpendicular to the length. For conduits 2-inch (53-mm) trade size and larger, use roll cutter or a guide to make cut straight and perpendicular to the length.
- n. Install pull wires in empty raceways. Use polypropylene or monofilament plastic line with not less than 200-lb (90-kg) tensile strength. Leave at least 12 inches (300 mm) of slack at each end of pull wire. Cap underground raceways designated as spare above grade alongside raceways in use.
- o. Install raceway sealing fittings at accessible locations according to NFPA 70 and fill them with listed sealing compound. For concealed raceways, install each fitting in a flush steel box with a blank cover plate having a finish similar to that of adjacent plates or surfaces. Install raceway sealing fittings according to NFPA 70.

- p. Install devices to seal raceway interiors at accessible locations. Locate seals so no fittings or boxes are between the seal and the following changes of environments. Seal the interior of all raceways at the following points:
 - 1) Where conduits pass from warm to cold locations, such as boundaries of refrigerated spaces.
 - 2) Where an underground service raceway enters a building or structure.
 - 3) Where otherwise required by NFPA 70.
- q. Comply with manufacturer's written instructions for solvent welding RNC and fittings.
- r. Fasten junction and pull boxes to or support from building structure. Do not support boxes by conduits.

3. INSTALLATION OF UNDERGROUND CONDUIT

- a. Direct-Buried Conduit:
 - 1) Excavate trench bottom to provide firm and uniform support for conduit. Prepare trench bottom as specified in Section 02300 "Earthwork" for pipe less than 6 inches (150 mm) in nominal diameter.
 - 2) Install backfill as specified in Section 02300 "Earthwork."
 - 3) After installing conduit, backfill and compact. Start at tie-in point, and work toward end of conduit run, leaving conduit at end of run free to move with expansion and contraction as temperature changes during this process. Firmly hand tamp backfill around conduit to provide maximum supporting strength. After placing controlled backfill to within 12 inches (300 mm) of finished grade, make final conduit connection at end of run and complete backfilling with normal compaction as specified in Section 02300 "Earthwork."
 - 4) Install manufactured duct elbows for stub-ups at poles and equipment and at building entrances through floor unless otherwise indicated. Encase elbows for stub-up ducts throughout length of elbow.

- 5) Install manufactured rigid steel conduit elbows for stub-ups at poles and equipment and at building entrances through floor.
 - a) Couple steel conduits to ducts with adapters designed for this purpose, and encase coupling with 3 inches (75 mm) of concrete for a minimum of 12 inches (300 mm) on each side of the coupling.
 - b) For stub-ups at equipment mounted on outdoor concrete bases and where conduits penetrate building foundations, extend steel conduit horizontally a minimum of 60 inches (1500 mm) from edge of foundation or equipment base. Install insulated grounding bushings on terminations at equipment.
 - 6) Warning Planks: Bury warning planks approximately 12 inches (300 mm) above direct-buried conduits but a minimum of 6 inches (150 mm) below grade. Align planks along centerline of conduit.
 - 7) Underground Warning Tape: Comply with requirements in Section 16075 "Electrical Identification."
4. INSTALLATION OF UNDERGROUND HANDHOLES AND BOXES
- a. Install hand holes and boxes level and plumb and with orientation and depth coordinated with connecting conduits to minimize bends and deflections required for proper entrances.
 - b. Unless otherwise indicated, support units on a level bed of crushed stone or gravel, graded from 1/2-inch (12.5-mm) sieve to No. 4 (4.75-mm) sieve and compacted to same density as adjacent undisturbed earth.
 - c. Elevation: In paved areas, set so cover surface will be flush with finished grade. Set covers of other enclosures 1 inch (25 mm) above finished grade.
 - d. Install hand holes with bottom below frost line, below grade.
 - e. Install removable hardware, including pulling eyes, cable stanchions, cable arms, and insulators, as required for installation and support of cables and conductors and as indicated. Select arm lengths to be long enough to provide spare space for future cables but short enough to preserve adequate working clearances in enclosure.
 - f. Field-cut openings for conduits according to enclosure manufacturer's written instructions. Cut wall of enclosure with a tool designed for material to be cut. Size holes for terminating fittings to be used, and seal around penetrations after fittings are installed.

5. PROTECTION

- a. Protect coatings, finishes, and cabinets from damage and deterioration.
 - 1) Repair damage to galvanized finishes with zinc-rich paint recommended by manufacturer.

E. WIRING DEVICES

1. INSTALLATION

- a. Comply with NECA 1, including mounting heights listed in that standard, unless otherwise indicated.
- b. Coordination with Other Trades:
 - 1) Protect installed devices and their boxes. Do not place wall finish materials over device boxes and do not cut holes for boxes with routers that are guided by riding against outside of boxes.
 - 2) Keep outlet boxes free of plaster, drywall joint compound, mortar, cement, concrete, dust, paint, and other material that may contaminate the raceway system, conductors, and cables.
 - 3) Install device boxes in brick or block walls so that the cover plate does not cross a joint unless the joint is troweled flush with the face of the wall.
 - 4) Install wiring devices after all wall preparation, including painting, is complete.
- c. Conductors:
 - 1) Do not strip insulation from conductors until right before they are spliced or terminated on devices.
 - 2) Strip insulation evenly around the conductor using tools designed for the purpose. Avoid scoring or nicking of solid wire or cutting strands from stranded wire.
 - 3) The length of free conductors at outlets for devices shall meet provisions of NFPA 70, Article 300, without pigtails.
 - 4) Existing Conductors:
 - a) Cut back and pigtail, or replace all damaged conductors.
 - b) Straighten conductors that remain and remove corrosion and foreign matter.
 - c) Pig tailing existing conductors is permitted, provided the outlet box is large enough.

- d. Device Installation:
 - 1) Replace devices that have been in temporary use during construction and that were installed before building finishing operations were complete.
 - 2) Keep each wiring device in its package or otherwise protected until it is time to connect conductors.
 - 3) Do not remove surface protection, such as plastic film and smudge covers, until the last possible moment.
 - 4) Connect devices to branch circuits using pigtails that are not less than 6 inches (152 mm) in length.
 - 5) When there is a choice, use side wiring with binding-head screw terminals. Wrap solid conductor tightly clockwise, two-thirds to three-fourths of the way around terminal screw.
 - 6) Use a torque screwdriver when a torque is recommended or required by manufacturer.
 - 7) When conductors larger than No. 12 AWG are installed on 15- or 20-A circuits, splice No. 12 AWG pigtails for device connections.
 - 8) Tighten unused terminal screws on the device.
 - 9) When mounting into metal boxes, remove the fiber or plastic washers used to hold device-mounting screws in yokes, allowing metal-to-metal contact.
- e. Receptacle Orientation:
 - 1) Install ground pin of vertically mounted receptacles down, and on horizontally mounted receptacles to the right.

2. GFCI RECEPTACLES

- a. Install non-feed-through-type GFCI receptacles where protection of downstream receptacles is not required.

3. IDENTIFICATION

- a. Comply with Section 16075 "Electrical Identification."
- b. Identify each receptacle with panel board identification and circuit number. Use hot, stamped or engraved machine printing with [black] [white] [red]-filled lettering on face of plate, and durable wire markers or tags inside outlet boxes.

- F. SURGE PROTECTION FOR LOW-VOLTAGE ELECTRICAL POWER CIRCUITS
 - 1. INSTALLATION
 - a. Comply with NECA 1.
 - b. Install an OCPD or disconnect as required to comply with the UL listing of the SPD.
 - c. Install SPDs with conductors between suppressor and points of attachment as short and straight as possible, and adjust circuit-breaker positions to achieve shortest and straightest leads. Do not splice and extend SPD leads unless specifically permitted by manufacturer. Do not exceed manufacturer's recommended lead length. Do not bond neutral and ground.
 - d. Use crimped connectors and splices only. Wire nuts are unacceptable.
 - e. Wiring:
 - 1) Power Wiring: Comply with wiring methods in Section 16120 "Conductors and Cables."
 - 2) Controls: Comply with wiring methods in Section 16120 "Conductors and Cables."
 - 2. STARTUP SERVICE
 - a. Complete startup checks according to manufacturer's written instructions.
 - b. Do not perform insulation-resistance tests of the distribution wiring equipment with SPDs installed. Disconnect SPDs before conducting insulation-resistance tests, and reconnect them immediately after the testing is over.
 - c. Energize SPDs after power system has been energized, stabilized, and tested.
- G. PANELBOARDS
 - 1. EXAMINATION
 - a. Examine elements and surfaces to receive panel boards for compliance with installation tolerances and other conditions affecting performance of the Work.
 - b. Proceed with installation only after unsatisfactory conditions have been corrected.
 - 2. INSTALLATION
 - a. Install overcurrent protective devices and controllers not already factory installed.
 - b. Install filler plates in unused spaces.
 - c. Arrange conductors in gutters into groups and bundle and wrap with wire ties.
 - d. Comply with NECA 1.

3. IDENTIFICATION
 - a. Identify field-installed conductors, interconnecting wiring, and components; provide warning signs complying with Section 16075 "Electrical Identification."
 - b. Create a directory to indicate installed circuit loads; incorporate Owner's final room designations. Obtain approval before installing. Use a computer or typewriter to create directory; handwritten directories are not acceptable.
 - c. Panel board Nameplates: Label each panel board with a nameplate complying with requirements for identification specified in Section 16075 "Electrical Identification."
- H. LOW VOLTAGE TRANSFORMERS
 1. EXAMINATION
 - a. Examine conditions for compliance with enclosure- and ambient-temperature requirements for each transformer.
 - b. Verify that field measurements are as needed to maintain working clearances required by NFPA 70 and manufacturer's written instructions.
 - c. Proceed with installation only after unsatisfactory conditions have been corrected.
 2. INSTALLATION
 - a. Install wall-mounting transformers level and plumb with wall brackets fabricated by transformer manufacturer.
 3. CONNECTIONS
 - a. Ground equipment according to Section 16060 "Grounding and Bonding."
 - b. Connect wiring according to Section 16120 "Conductors and Cables."
 4. ADJUSTING
 - a. Output Settings Report: Prepare a written report recording output voltages and tap settings.
 5. CLEANING
 - a. Vacuum dirt and debris; do not use compressed air to assist in cleaning.

Field Quality Control:

- A. GROUNDING and BONDING
 - 1. Tests and Inspections:
 - a. After installing grounding system but before permanent electrical circuits have been energized, test for compliance with requirements.
 - b. Inspect physical and mechanical condition. Verify tightness of accessible, bolted, electrical connections with a calibrated torque wrench according to manufacturer's written instructions.
 - c. Prepare dimensioned Drawings locating each ground rod, and other grounding electrodes. Identify each by letter in alphabetical order, and key to the record of tests and observations. Include the number of rods driven and their depth at each location, and include observations of weather and other phenomena that may affect test results. Describe measures taken to improve test results.
 - 2. Grounding system will be considered defective if it does not pass tests and inspections.
- B. CONDUCTORS AND CABLES
 - 1. Perform the following tests and inspections:
 - a. After installing conductors and cables and before electrical circuitry has been energized, test for compliance with requirements.
 - b. Perform each visual and mechanical inspection and electrical test stated in NETA Acceptance Testing Specification. Certify compliance with test parameters.
 - 2. Test and Inspection Reports: Prepare a written report to record the following:
 - a. Procedures used.
 - b. Results that comply with requirements.
 - c. Results that do not comply with requirements and corrective action taken to achieve compliance with requirements.
 - 3. Cables will be considered defective if they do not pass tests and inspections.
- C. WIRING DEVICES
 - 1. Tests for Convenience Receptacles:
 - a. Line Voltage: Acceptable range is 105 to 132 V.
 - b. Percent Voltage Drop under 15-A Load: A value of 6 percent or higher is unacceptable.
 - c. Ground Impedance: Values of up to 2 ohms are acceptable.
 - d. GFCI Trip: Test for tripping values specified in UL 1436 and UL 943.

- e. Using the test plug, verify that the device and its outlet box are securely mounted.
- f. Tests shall be diagnostic, indicating damaged conductors, high resistance at the circuit breaker, poor connections, inadequate fault current path, defective devices, or similar problems. Correct circuit conditions, remove malfunctioning units and replace with new ones, and retest as specified above.
- 2. Wiring device will be considered defective if it does not pass tests and inspections.
- 3. Prepare test and inspection reports.
- D. SURGE PROTECTION FOR LOW-VOLTAGE ELECTRICAL POWER CIRCUITS
 - 1. Perform the following tests and inspections with the assistance of a factory-authorized service representative.
 - a. Compare equipment nameplate data for compliance with Drawings and Specifications.
 - b. Inspect anchorage, alignment, grounding, and clearances.
 - c. Verify that electrical wiring installation complies with manufacturer's written installation requirements.
 - 2. An SPD will be considered defective if it does not pass tests and inspections.
 - 3. Prepare test and inspection reports.
- E. PANELBOARDS
 - 1. Tests and Inspections:
 - a. Perform each visual and mechanical inspection and electrical test stated in NETA Acceptance Testing Specification. Certify compliance with test parameters.
 - b. Correct malfunctioning units on-site, where possible, and retest to demonstrate compliance; otherwise, replace with new units and retest.
 - 2. Panel boards will be considered defective if they do not pass tests and inspections.
- F. LOW VOLTAGE TRANSFORMERS
 - 1. Perform tests and inspections and prepare test reports.
 - 2. Tests and Inspections:
 - a. Perform each visual and mechanical inspection and electrical test stated in NETA Acceptance Testing Specification. Certify compliance with test parameters.
 - 3. Remove and replace units that do not pass tests or inspections and retest as specified above.

Method of Measurement. The methods of measurement for shall be LUMP SUM for the ELECTRICAL SYSTEM UPGRADES, as a single complete installation.

Basis of Payment. The electrical system upgrades shall be installed as a single complete system and shall be paid at the contract unit price per LUMP SUM for ELECTRICAL SYSTEM UPGRADES.

FRENCH DRAINS

Description. This work shall consist of installing compacted, sand-filled trenches using filter aggregate of various sizes and depths which shall surround the PIPE UNDERDRAINS, 4 INCH, as shown on the construction detail. The French Drains shall be installed under the sand filter beds, for the purpose of draining the filtered effluent from the beds. The work shall be performed in accordance with the applicable parts of Section 601 of the Standard Specifications (for Road and Bridge Construction) as well as all applicable sections of the current edition of the Standard Specifications for Water and Sewer Main Construction in Illinois, and as herein specified.

Materials. The drainage backfill shall be placed and compacted over subsurface drain, as shown on the plans, with the following gradation sizes and thicknesses.

1. Bedding Course: 3 inch lift of CA-5 (1-1/2 inch size)
2. Base Courses: 4" lift and 3" lift of CA-5 (1-1/2 inch size)
3. Intermediate Course: 3" lift of CA-11 (1 inch size)
4. Top Course: 3" lift of CA-16 (3/8 inch size)

Method of Measurement. The methods of measurement shall be per CUBIC YARD of FRENCH DRAINS that is installed.

Basis of Payment. All French drain installation, as specified herein, shall be paid at the contract unit price per CUBIC YARD for FRENCH DRAINS.

PIPE UNDERDRAINS, 4 INCH

Description. This work shall consist of installing 4-inch PVC pipe into compacted, sand-filled trenches as shown on the construction detail. The underdrains shall be installed in the FRENCH DRAINS located under the sand filter beds, for the purpose of draining the filtered effluent from the beds. The work shall be performed in accordance with the applicable parts of Section 601 of the Standard Specifications (for Road and Bridge Construction) as well as all applicable sections of the current edition of the Standard Specifications for Water and Sewer Main Construction in Illinois, and as herein specified.

Materials. The pipe and fittings for the underdrains shall be PVC pipe conforming to ASTM D 3034. Underdrain pipe shall be SDR 26 or schedule 80.

Method of Measurement. The methods of measurement for shall be per foot of UNDERDRAINS, 4 INCH that is installed.

Basis of Payment. All underdrain installation, as specified herein, shall be paid at the contract unit price per foot for PIPE UNDERDRAIN, 4 INCH.

TEMPORARY AGGREGATE

Description. This work shall consist of furnishing and placing crushed stone with a gradation number of CA 6, conforming to Article 1004.01 of the Standard Specifications, for the purpose of maintaining access to the site during the construction period.

When the use of the temporary approaches is discontinued, the aggregate placed in construction and maintenance shall be removed and disposed of as specified in Article 202.03 of the Standard Specifications.

Materials. The material shall consist of crushed stone with a gradation number of CA 6, conforming to Article 1004.01 of the Standard Specifications.

Method of Measurement. The methods of measurement shall be per ton of TEMPORARY AGGREGATE that is installed.

Basis of Payment. All temporary aggregate, as specified herein, shall be paid at the contract unit price per ton for TEMPORARY AGGREGATE, and shall only be paid for once, regardless of the number of times it is used for temporary access.

SEPTIC TANK TO BE PUMPED

Description. This work shall consist of pumping and the complete removal and disposal of the existing septic tanks and leach fields at the locations shown on the plans and as directed by the engineer. The work shall be done in accordance with the applicable sections of the "Private Sewage Disposal Licensing Act and Code", current edition, set forth by the Illinois Department of Public Health. The Contractor will be responsible for notifying the McLean County Health Department a minimum of 48 hours prior to starting the removal of the septage from the septic tanks.

Materials. None.

Method of Measurement. The methods of measurement shall be per each for SEPTIC TANK TO BE PUMPED.

Basis of Payment. All septage removal, as specified herein, shall be paid at the contract unit price per each for SEPTIC TANK TO BE PUMPED.

LAGOON DEWATERING, SLUDGE PUMPING AND DISPOSAL

Description. This work shall consist of pumping and the complete removal and disposal of the effluent and sludge located within the existing lagoons, at the locations shown on the plans and as directed by the engineer. The work shall be done in accordance with the applicable sections of the "Private Sewage Disposal Licensing Act and Code", current edition, set forth by the Illinois Department of Public Health. The Contractor will be responsible for notifying the Mc Lean County Health Department a minimum of 48 hours prior to starting the removal of the septage from the lagoons.

Materials. None.

Method of Measurement. The methods of measurement shall be per each for LAGOON DEWATERING, SLUDGE PUMPING AND DISPOSAL.

Basis of Payment. All septage removal, as specified herein, shall be paid at the contract unit price per each for LAGOON DEWATERING, SLUDGE PUMPING AND DISPOSAL.

DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION (BDE)

Effective: September 1, 2000

Revised: August 2, 2011

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 Illinois Unified Certification Program (IL UCP) DBE Directory.

STATE OBLIGATION. This Special Provision will also be used by the Department to satisfy the requirements of the Business Enterprise for Minorities, Females, and Persons with Disabilities Act, 30 ILCS 575. When this Special Provision is used to satisfy state law requirements on 100 percent state-funded contracts, the federal government has no involvement in such contracts (not a federal-aid contract) and no responsibility to oversee the implementation of this Special Provision by the Department on those contracts. DBE participation on 100 percent state-funded contracts will not be credited toward fulfilling the Department's annual overall DBE goal required by the US Department of Transportation to comply with the federal DBE program requirements.

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, sub recipient, or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of contracts funded in whole or in part with federal or state funds. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate.

OVERALL GOAL SET FOR THE DEPARTMENT. As a requirement of compliance with 49 CFR Part 26, the Department has set an overall goal for DBE participation in its federally assisted contracts. That goal applies to all federal-aid funds the Department will expend in its federally assisted contracts for the subject reporting fiscal year. The Department is required to make a good faith effort to achieve the overall goal. The dollar amount paid to all approved DBE companies performing work called for in this contract is eligible to be credited toward fulfillment of the Department's overall goal.

CONTRACT GOAL TO BE ACHIEVED BY THE CONTRACTOR. This contract includes a specific DBE utilization goal established by the Department. The goal has been included because the Department has determined that the work of this contract has subcontracting opportunities that may be suitable for performance by DBE companies. The determination is based on an assessment of the type of work, the location of the work, and the availability of DBE companies to do a part of the work. The assessment indicates that, in the absence of unlawful discrimination, and in an arena of fair and open competition, DBE companies can be expected to perform **2.00%** of the work. This percentage is set as the DBE participation goal for this contract. Consequently, in addition to the other award criteria established for this contract, the Department will only award this contract to a bidder who makes a good faith effort to meet this goal of DBE participation in the performance of the work. A bidder makes a good faith effort for award consideration if either of the following is done in accordance with the procedures set for in this Special Provision:

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

DBE LOCATOR REFERENCES. Bidders shall consult the IL UCP DBE Directory as a reference source for DBE-certified companies. In addition, the Department maintains a letting and item specific DBE locator information system whereby DBE companies can register their interest in providing quotes on particular bid items advertised for letting. Information concerning DBE companies willing to quote work for particular contracts may be obtained by contacting the Department's Bureau of Small Business Enterprises at telephone number (217)785-4611, or by visiting the Department's website at www.dot.il.gov.

BIDDING PROCEDURES. Compliance with this Special Provision is a material bidding requirement. The failure of the bidder to comply will render the bid not responsive.

- (a) The bidder shall submit a Disadvantaged Business Utilization Plan on Department forms SBE 2025 and 2026 with the bid.
- (b) The Utilization Plan shall indicate that the bidder either has obtained sufficient DBE participation commitments to meet the contract goal or has not obtained enough DBE participation commitments in spite of a good faith effort to meet the goal. The Utilization Plan shall further provide the name, telephone number, and telefax number of a responsible official of the bidder designated for purposes of notification of plan approval or disapproval under the procedures of this Special Provision.
- (c) The Utilization Plan shall include a DBE Participation Commitment Statement, Department form SBE 2025, for each DBE proposed for the performance of work to achieve the contract goal. For bidding purposes, submission of the completed SBE 2025 forms, signed by the DBEs and faxed to the bidder will be acceptable as long as the original is available and provided upon request. All elements of information indicated on the said form shall be provided, including but not limited to the following:
 - (1) The names and addresses of DBE firms that will participate in the contract;
 - (2) A description, including pay item numbers, of the work each DBE will perform;
 - (3) The dollar amount of the participation of each DBE firm participating. The dollar amount of participation for identified work shall specifically state the quantity, unit price, and total subcontract price for the work to be completed by the DBE. If partial pay items are to be performed by the DBE, indicate the portion of each item, a unit price where appropriate and the subcontract price amount;

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

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

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

- (2) Selecting portions of the work to be performed by DBE companies in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the prime Contractor might otherwise prefer to perform these work items with its own forces.
- (3) Providing interested DBE companies with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.
- (4) a. Negotiating in good faith with interested DBE companies. It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBE companies that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBE companies to perform the work.

b. A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBE companies is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also the ability or desire of a bidder to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Bidders are not, however, required to accept higher quotes from DBE companies if the price difference is excessive or unreasonable.
- (5) Not rejecting DBE companies as being unqualified without sound reasons based on a thorough investigation of their capabilities. The bidder's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the bidder's efforts to meet the project goal.
- (6) Making efforts to assist interested DBE companies in obtaining bonding, lines of credit, or insurance as required by the recipient or Contractor.
- (7) Making efforts to assist interested DBE companies in obtaining necessary equipment, supplies, materials, or related assistance or services.

- (8) Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBE companies.
- (b) If the Department determines that the apparent successful bidder has made a good faith effort to secure the work commitment of DBE companies to meet the contract goal, the Department will award the contract provided that it is otherwise eligible for award. If the Department determines that the bidder has failed to meet the requirements of this Special Provision or that a good faith effort has not been made, the Department will notify the responsible company official designated in the Utilization Plan that the bid is not responsive. The notification shall include a statement of reasons for the determination.
- (c) The bidder may request administrative reconsideration of a determination adverse to the bidder within the five working days after the receipt of the notification date of the determination by delivering the request to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764 (Telefax: (217)785-1524). Deposit of the request in the United States mail on or before the fifth business day shall not be deemed delivery. The determination shall become final if a request is not made and delivered. A request may provide additional written documentation and/or argument concerning the issues raised in the determination statement of reasons, provided the documentation and arguments address efforts made prior to submitting the bid. The request will be forwarded to the Department's Reconsideration Officer. The Reconsideration Officer will extend an opportunity to the bidder to meet in person in order to consider all issues of documentation and whether the bidder made a good faith effort to meet the goal. After the review by the Reconsideration Officer, the bidder will be sent a written decision within ten working days after receipt of the request for consideration, explaining the basis for finding that the bidder did or did not meet the goal or make adequate good faith efforts to do so. A final decision by the Reconsideration Officer that a good faith effort was made shall approve the Utilization Plan submitted by the bidder and shall clear the contract for award. A final decision that a good faith effort was not made shall render the bid not responsive.

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 percent goal credit for that portion of the work performed by the DBE's own forces, including the cost of materials and supplies. Work that a DBE subcontracts to a non-DBE does not count toward the DBE goals.
- (b) DBE as a joint venture Contractor: 100 percent goal credit for that portion of the total dollar value of the contract equal to the distinct, clearly defined portion of the work performed by the DBE's own forces.
- (c) DBE as a subcontractor: 100 percent goal credit for the work of the subcontract performed by the DBE's own forces, including the cost of materials and supplies, excluding the purchase of materials and supplies or the lease of equipment by the DBE subcontractor from the prime Contractor or its affiliates. Work that a DBE subcontractor in turn subcontracts to a non-DBE does not count toward the DBE goal.
- (d) DBE as a trucker: 100 percent goal credit for trucking participation provided the DBE is responsible for the management and supervision of the entire trucking operation for which it is responsible. At least one truck owned, operated, licensed, and insured by the DBE must be used on the contract. Credit will be given for the following:
 - (1) The DBE may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE. The DBE who leases trucks from another DBE receives credit for the total value of the transportation services the lessee DBE provides on the contract.
 - (2) The DBE may also lease trucks from a non-DBE firm, including from an owner-operator. The DBE who leases trucks from a non-DBE are entitled to credit only for the fee or commission is receives as a result of the lease arrangement.
- (e) DBE as a material supplier:
 - (1) 60 percent goal credit for the cost of the materials or supplies purchased from a DBE regular dealer.
 - (2) 100 percent goal credit for the cost of materials of supplies obtained from a DBE manufacturer.
 - (3) 100 percent credit for the value of reasonable fees and commissions for the procurement of materials and supplies if not a regular dealer or manufacturer.

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

- (a) NO AMENDMENT. 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) TERMINATION OR REPLACEMENT. The Contractor shall not terminate or replace a DBE listed on the approved Utilization Plan, or perform with other forces work designated for a listed DBE except as provided in the Special Provision.
- (c) CHANGES TO WORK. Any deviation from the DBE condition-of-award or contract plans, specifications, or special provisions must be approved, in writing, by the Department as provided elsewhere in the Contract. The Contractor shall notify affected DBEs in writing of any changes in the scope of work which result in a reduction in the dollar amount condition-of-award to the contract. Where the revision includes work committed to a new DBE subcontractor, not previously involved in the project, then a Request for Approval of Subcontractor, Department form BC 260A, must be signed and submitted. If the commitment of work is in the form of additional tasks assigned to an existing subcontract, then a new Request for Approval of Subcontractor shall not be required. However, the Contractor must document efforts to assure that the existing DBE subcontractor is capable of performing the additional work and has agreed in writing to the change.

- (d) ALTERNATIVE WORK METHODS. In addition to the above requirements for reductions in the condition of award, additional requirements apply to the two cases of Contractor-initiated work substitution proposals. Where the contract allows alternate work methods which serve to delete or create underruns in condition of award DBE work, and the Contractor selects that alternate method or, where the Contractor proposes a substitute work method or material that serves to diminish or delete work committed to a DBE and replace it with other work, then the Contractor must demonstrate one of the following:
- (1) That the replacement work will be performed by the same DBE (as long as the DBE is certified in the respective item of work) in a modification of the condition of award;
or
 - (2) That the DBE is aware that its work will be deleted or will experience underruns and has agreed in writing to the change. If this occurs, the Contractor shall substitute other work of equivalent value to a certified DBE or provide documentation of good faith efforts to do so; or
 - (3) That the DBE is not capable of performing the replacement work or has declined to perform the work at a reasonable competitive price. If this occurs, the Contractor shall substitute other work of equivalent value to a certified DBE or provide documentation of good faith efforts to do so.
- (e) TERMINATION AND REPLACEMENT PROCEDURES. The Contractor shall not terminate or replace a DBE subcontractor listed in the approved Utilization Plan without prior written consent. This includes, but is not limited to, instances in which the Contractor seeks to perform work originally designated for a DBE subcontractor with its own forces or those of an affiliate, a non-DBE firm, or with another DBE firm. Written consent will be granted only if the Bureau of Small Business Enterprises agrees, for reasons stated in its concurrence document, that the Contractor has good cause to terminate or replace the DBE firm. Before transmitting to the Bureau of Small Business Enterprises any request to terminate and/or substitute a DBE subcontractor, the Contractor shall give notice in writing to the DBE subcontractor, with a copy to the Bureau, of its intent to request to terminate and/or substitute, and the reason for the request. The Contractor shall give the DBE five days to respond to the Contractor's notice. The DBE so notified shall advise the Bureau and the Contractor of the reasons, if any, why it objects to the proposed termination of its subcontract and why the Bureau should not approve the Contractor's action. If required in a particular case as a matter of public necessity, the Bureau may provide a response period shorter than five days.

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

- (1) The listed DBE subcontractor fails or refuses to execute a written contract;
- (2) The listed DBE subcontractor fails or refuses to perform the work of its subcontract in a way consistent with normal industry standards. Provided, however, that good cause does not exist if the failure or refusal of the DBE subcontractor to perform its work on the subcontract results from the bad faith or discriminatory action of the prime contractor;
- (3) The listed DBE subcontractor fails or refuses to meet the prime Contractor's reasonable, nondiscriminatory bond requirements;
- (4) The listed DBE subcontractor becomes bankrupt, insolvent, or exhibits credit unworthiness;
- (5) The listed DBE subcontractor is ineligible to work on public works projects because of suspension and debarment proceedings pursuant 2 CFR Parts 180, 215 and 1,200 or applicable state law.
- (6) You have determined that the listed DBE subcontractor is not a responsible contractor;
- (7) The listed DBE subcontractor voluntarily withdraws from the projects and provides to you written notice of its withdrawal;
- (8) The listed DBE is ineligible to receive DBE credit for the type of work required;
- (9) A DBE owner dies or becomes disabled with the result that the listed DBE contractor is unable to complete its work on the contract;
- (10) Other documented good cause that compels the termination of the DBE subcontractor. Provided, that good cause does not exist if the prime Contractor seeks to terminate a DBE it relied upon to obtain the contract so that the prime Contractor can self-perform the work for which the DBE contractor was engaged or so that the prime Contractor can substitute another DBE or non-DBE contractor after contract award.

When a DBE is terminated, or fails to complete its work on the Contract for any reason the Contractor shall make a good faith effort to find another DBE to substitute for the original DBE to perform at least the same amount of work under the contract as the terminated DBE to the extent needed to meet the established Contract goal.

- (f) PAYMENT RECORDS. The Contractor shall maintain a record of payments for work performed to the DBE participants. The records shall be made available to the Department for inspection upon request. After the performance of the final item of work or delivery of material by a DBE and final payment therefore to the DBE by the Contractor, but not later than thirty calendar days after payment has been made by the Department to the Contractor for such work or material, the Contractor shall submit a DBE Payment Agreement on Department form SBE 2115 to the Regional Engineer. If full and final payment has not been made to the DBE, the DBE Payment Agreement shall indicate whether a disagreement as to the payment required exists between the Contractor and the DBE or if the Contractor believes that the work has not been satisfactorily completed. If the Contractor does not have the full amount of work indicated in the Utilization Plan performed by the BDE companies indicated in the Utilization Plan and after good faith efforts are reviewed, the Department may deduct from contract payments to the Contractor the amount of the goal not achieved as liquidated and ascertained damages. The Contractor may request an administrative reconsideration of any amount deducted as damages pursuant to subsection (h) of this part.
- (g) ENFORCEMENT. The Department reserves the right to withhold payment to the Contractor to enforce the provisions of this Special Provision. Final payment shall not be made on the contract until such time as the Contractor submits sufficient documentation demonstrating achievement of the goal in accordance with this Special Provision or after liquidated damages have been determined and collected.
- (h) RECONSIDERATION. 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.

LRFD STORM SEWER BURIAL TABLES (BDE)

Effective: November 1, 2013

Revise Article 550.02 of the Standard Specifications to read as follows:

"Item	Article Section
(a) Clay Sewer Pipe	1040.02
(b) Extra Strength Clay Pipe	1040.02
(c) Concrete Sewer, Storm Drain, and Culvert Pipe	1042
(d) Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe	1042
(e) Reinforced Concrete Elliptical Culvert, Storm Drain, and Sewer Pipe (Note 1)	1042
(f) Reinforced Concrete Arch Culvert, Storm Drain, and Sewer Pipe (Note 1)	1042
(g) Polyvinyl Chloride (PVC) Pipe	1040.03
(h) Corrugated Polyvinyl Chloride (PVC) Pipe with a Smooth Interior	1040.03
(i) Corrugated Polypropylene (CPP) Pipe with Smooth Interior	1040.07
(j) Rubber Gaskets and Preformed Flexible Joint Sealants for Concrete Pipe	1056
(k) Mastic Joint Sealer for Pipe	1055
(l) External Sealing Band	1057
(m) Fine Aggregate (Note 2)	1003.04
(n) Coarse Aggregate (Note 3)	1004.05
(o) Reinforcement Bars and Welded Wire Fabric	1006.10
(p) Handling Hole Plugs	1042.16
(q) Polyethylene (PE) Pipe with a Smooth Interior	1040.04
(r) Corrugated Polyethylene (PE) Pipe with a Smooth Interior	1040.04

Note 1. The class of elliptical and arch pipe used for various storm sewer sizes and heights of fill shall conform to the requirements for circular pipe.

Note 2. The fine aggregate shall be moist.

Note 3. The coarse aggregate shall be wet.”

Revise the table for permitted materials in Article 550.03 of the Standard Specifications as follows:

"Class	Materials
A	Rigid Pipes: Clay Sewer Pipe Extra Strength Clay Pipe Concrete Sewer, Storm Drain, and Culvert Pipe Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe Reinforced Concrete Elliptical Culvert, Storm Drain, and Sewer Pipe Reinforced Concrete Arch Culvert, Storm Drain, and Sewer Pipe
B	Rigid Pipes: Clay Sewer Pipe Extra Strength Clay Pipe Concrete Sewer, Storm Drain, and Culvert Pipe Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe Reinforced Concrete Elliptical Culvert, Storm Drain, and Sewer Pipe Reinforced Concrete Arch Culvert, Storm Drain, and Sewer Pipe Flexible Pipes: Polyvinyl Chloride (PVC) Pipe Corrugated Polyvinyl Chloride Pipe (PVC) with a Smooth Interior Polyethylene (PE) Pipe with a Smooth Interior Corrugated Polyethylene (PE) Pipe with a Smooth Interior Corrugated Polypropylene (CPP) Pipe with a Smooth Interior”

Replace the storm sewers tables in Article 550.03 of the Standard Specifications with the following:

STORM SEWERS																
KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED																
FOR A GIVEN PIPE DIAMETERS AND FILL HEIGHTS OVER THE TOP OF THE PIPE																
Nominal Diameter in.	Type 1								Type 2							
	Fill Height: 3' and less With 1' minimum cover								Fill Height: Greater than 3' not exceeding 10'							
	RCCP	CSP	ESCP	PVC	CPVC	PE	CPE	CPP	RCCP	CSP	ESCP	PVC	CPVC	PE	CPE	CPP
10	NA	3	X	X	X	X	X	NA	NA	1	*X	X	X	X	X	NA
12	IV	NA	X	X	X	X	X	X	II	1	*X	X	X	X	X	X
15	IV	NA	NA	X	X	NA	X	X	II	1	*X	X	X	NA	X	X
18	IV	NA	NA	X	X	X	X	X	II	2	X	X	X	X	X	X
21	III	NA	NA	X	X	NA	NA	NA	II	2	X	X	X	NA	NA	NA
24	III	NA	NA	X	X	X	X	X	II	2	X	X	X	X	X	X
27	III	NA	NA	NA	NA	NA	NA	NA	II	3	X	NA	NA	NA	NA	NA
30	IV	NA	NA	X	X	X	X	X	II	3	X	X	X	X	X	X
33	III	NA	NA	NA	NA	NA	NA	NA	II	NA	X	NA	NA	NA	NA	NA
36	III	NA	NA	X	X	X	X	X	II	NA	X	X	X	X	NA	X
42	II	NA	X	X	NA	X	X	NA	II	NA	X	X	NA	X	NA	NA
48	II	NA	X	X	NA	X	X	X	II	NA	X	X	NA	X	NA	NA
54	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA

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60	II	NA	NA	NA	NA	NA	NA	X	II	NA	NA	NA	NA	NA	NA	X
66	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
72	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
78	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
84	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
90	II	NA	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA
96	II	NA	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA
102	II	NA	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA
108	II	NA	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA

RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe

CSP Concrete Sewer, Storm drain, and Culvert Pipe

PVC Polyvinyl Chloride Pipe

CPVC Corrugated Polyvinyl Chloride Pipe

ESCP Extra Strength Clay Pipe

PE Polyethylene Pipe with a Smooth Interior

CPE Corrugated Polyethylene Pipe with a Smooth Interior

CPP Corrugated Polypropylene pipe with a Smooth Interior

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

NA This material is Not Acceptable for the given pipe diameter and fill height.

* May also use Standard Strength Clay Pipe

STORM SEWERS (Metric)																
KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED																
FOR A GIVEN PIPE DIAMETERS AND FILL HEIGHTS OVER THE TOP OF THE PIPE																
Nominal Diameter in.	Type 1								Type 2							
	Fill Height: 1 m' and less With 300 mm minimum cover								Fill Height: Greater than 1 m not exceeding 3 m							
	RCCP	CSP	ESCP	PVC	CPVC	PE	CPE	CPP	RCCP	CSP	ESCP	PVC	CPVC	PE	CPE	CPP
250	NA	3	X	X	X	X	X	NA	NA	1	*X	X	X	X	X	NA
300	IV	NA	X	X	X	X	X	X	II	1	*X	X	X	X	X	X
375	IV	NA	NA	X	X	NA	X	X	II	1	*X	X	X	NA	X	X
450	IV	NA	NA	X	X	X	X	X	II	2	X	X	X	X	X	X
525	III	NA	NA	X	X	NA	NA	NA	II	2	X	X	X	NA	NA	NA
600	III	NA	NA	X	X	X	X	X	II	2	X	X	X	X	X	X
675	III	NA	NA	NA	NA	NA	NA	NA	II	3	X	NA	NA	NA	NA	NA
750	IV	NA	NA	X	X	X	X	X	II	3	X	X	X	X	X	X
825	III	NA	NA	NA	NA	NA	NA	NA	II	NA	X	NA	NA	NA	NA	NA
900	III	NA	NA	X	X	X	X	X	II	NA	X	X	X	X	NA	X
1050	II	NA	X	X	NA	X	X	NA	II	NA	X	X	NA	X	NA	NA
1200	II	NA	X	X	NA	X	X	X	II	NA	X	X	NA	X	NA	NA
1350	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
1500	II	NA	NA	NA	NA	NA	NA	X	II	NA	NA	NA	NA	NA	NA	X

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1650	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
1800	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
1950	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
2100	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
2250	II	NA	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA
2400	II	NA	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA
2550	II	NA	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA
2700	II	NA	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA

RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe

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CPVC Corrugated Polyvinyl Chloride Pipe

ESCP Extra Strength Clay Pipe

PE Polyethylene Pipe with a Smooth Interior

CPE Corrugated Polyethylene Pipe with a Smooth Interior

CPP Corrugated Polypropylene pipe with a Smooth Interior

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

NA This material is Not Acceptable for the given pipe diameter and fill height.

* May also use Standard Strength Clay Pipe

STORM SEWERS																
KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED																
FOR A GIVEN PIPE DIAMETERS AND FILL HEIGHTS OVER THE TOP OF THE PIPE																
Nominal Diameter in.	Type 3								Type 4							
	Fill Height: Greater than 10' not exceeding 15'								Fill Height: Greater than 15' not exceeding 20'							
	RCCP	CSP	ESCP	PVC	CPVC	PE	CPE	CPP	RCCP	CSP	ESCP	PVC	CPVC	PE	CPP	
10	NA	2	X	X	X	X	X	NA	NA	3	X	X	X	X	NA	
12	III	2	X	X	X	X	NA	X	IV	NA	NA	X	X	X	NA	
15	III	3	X	X	X	NA	NA	X	IV	NA	NA	X	X	NA	X	
18	III	NA	X	X	X	X	NA	X	IV	NA	NA	X	X	X	NA	
21	III	NA	NA	X	X	NA	NA	NA	IV	NA	NA	X	X	NA	NA	
24	III	NA	NA	X	X	X	NA	NA	IV	NA	NA	X	X	X	NA	
27	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA	
30	III	NA	NA	X	X	X	NA	X	IV	NA	NA	X	X	X	NA	
33	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA	
36	III	NA	NA	X	X	X	NA	NA	IV	NA	NA	X	X	X	NA	
42	III	NA	NA	X	NA	X	NA	NA	IV	NA	NA	X	NA	X	NA	
48	III	NA	NA	X	NA	X	NA	NA	IV	NA	NA	X	NA	X	NA	
54	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA	

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60	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
66	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
72	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
78	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
84	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
90	III	NA	NA	NA	NA	NA	NA	NA	1680	NA	NA	NA	NA	NA	NA
96	III	NA	NA	NA	NA	NA	NA	NA	1690	NA	NA	NA	NA	NA	NA
102	IV	NA	NA	NA	NA	NA	NA	NA	1700	NA	NA	NA	NA	NA	NA
108	1360	NA	NA	NA	NA	NA	NA	NA	1710	NA	NA	NA	NA	NA	NA

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CPVC Corrugated Polyvinyl Chloride Pipe

ESCP Extra Strength Clay Pipe

PE Polyethylene Pipe with a Smooth Interior

CPE Corrugated Polyethylene Pipe with a Smooth Interior

CPP Corrugated Polypropylene pipe with a Smooth Interior

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

NA This material is Not Acceptable for the given pipe diameter and fill height.

* May also use Standard Strength Clay Pipe

Note RCCP with a number instead of a Roman numeral shall be furnished according to AASHTO M170 Section 6. This number represents the D-load to produce a 0.01 in crack.

STORM SEWERS (metric)																
KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED																
FOR A GIVEN PIPE DIAMETERS AND FILL HEIGHTS OVER THE TOP OF THE PIPE																
Nominal Diameter in.	Type 3								Type 4							
	Fill Height: Greater than 3 m not exceeding 4.5 m								Fill Height: Greater than 4.5 m not exceeding 6 m							
	RCCP	CSP	ESCP	PVC	CPVC	PE	CPE	CPP	RCCP	CSP	ESCP	PVC	CPVC	PE	CPP	
250	NA	2	X	X	X	X	X	NA	NA	3	X	X	X	X	NA	
300	III	2	X	X	X	X	NA	X	IV	NA	NA	X	X	X	NA	
375	III	3	X	X	X	NA	NA	X	IV	NA	NA	X	X	NA	X	
450	III	NA	X	X	X	X	NA	X	IV	NA	NA	X	X	X	NA	
525	III	NA	NA	X	X	NA	NA	NA	IV	NA	NA	X	X	NA	NA	
600	III	NA	NA	X	X	X	NA	NA	IV	NA	NA	X	X	X	NA	
675	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA	
750	III	NA	NA	X	X	X	NA	X	IV	NA	NA	X	X	X	NA	
825	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA	
900	III	NA	NA	X	X	X	NA	NA	IV	NA	NA	X	X	X	NA	
1050	III	NA	NA	X	NA	X	NA	NA	IV	NA	NA	X	NA	X	NA	
1200	III	NA	NA	X	NA	X	NA	NA	IV	NA	NA	X	NA	X	NA	
1350	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA	

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1500	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
1650	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
1800	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
1950	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
2100	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
2250	III	NA	NA	NA	NA	NA	NA	NA	80	NA	NA	NA	NA	NA	NA
2400	III	NA	NA	NA	NA	NA	NA	NA	80	NA	NA	NA	NA	NA	NA
2550	IV	NA	NA	NA	NA	NA	NA	NA	80	NA	NA	NA	NA	NA	NA
2700	70	NA	NA	NA	NA	NA	NA	NA	80	NA	NA	NA	NA	NA	NA

RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe

CSP Concrete Sewer, Storm drain, and Culvert Pipe

PVC Polyvinyl Chloride Pipe

CPVC Corrugated Polyvinyl Chloride Pipe

ESCP Extra Strength Clay Pipe

PE Polyethylene Pipe with a Smooth Interior

CPE Corrugated Polyethylene Pipe with a Smooth Interior

CPP Corrugated Polypropylene pipe with a Smooth Interior

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

NA This material is Not Acceptable for the given pipe diameter and fill height.

* May also use Standard Strength Clay Pipe

Note RCCP with a number instead of a Roman numeral shall be furnished according to AASHTO M170 Section 6. This number represents the metric D-load to produce a 25.4 micro-meter crack.

STORM SEWERS								
KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED								
FOR A GIVEN PIPE DIAMETERS AND FILL HEIGHTS OVER THE TOP OF THE PIPE								
Nominal Diameter in.	Type 5			Type 6			Type 7	
	Fill Height: Greater than 20' not exceeding 25'			Fill Height: Greater than 25' not exceeding 30'			Fill Height: Greater than 30' not exceeding 35'	
	RCCP	PVC	CPVC	RCCP	PVC	CPVC	RCCP	CPVC
10	NA	X	X	NA	X	X	NA	X
12	IV	X	X	V	X	X	V	X
15	IV	X	X	V	X	X	V	X
18	IV	X	X	V	X	X	V	X
21	IV	X	X	V	X	X	V	X
24	IV	X	X	V	X	X	V	X
27	IV	NA	NA	V	NA	NA	V	NA
30	IV	X	X	V	X	X	V	X
33	IV	NA	NA	V	NA	NA	V	NA
36	IV	X	X	V	X	X	V	X
42	IV	X	NA	V	X	NA	V	NA
48	IV	X	NA	V	X	NA	V	NA
54	IV	NA	NA	V	NA	NA	V	NA

60	IV	NA	NA	V	NA	NA	V	NA
66	IV	NA	NA	V	NA	NA	V	NA
72	V	NA	NA	V	NA	NA	V	NA
78	2020	NA	NA	2370	NA	NA	2730	NA
84	2020	NA	NA	2380	NA	NA	2740	NA
90	2030	NA	NA	2390	NA	NA	2750	NA
96	2040	NA	NA	2400	NA	NA	2750	NA
102	2050	NA	NA	2410	NA	NA	2760	NA
108	2060	NA	NA	2410	NA	NA	2770	NA

RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe

PVC Polyvinyl Chloride Pipe

CPVC Corrugated Polyvinyl Chloride Pipe

ESCP Extra Strength Clay Pipe

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

NA This material is Not Acceptable for the given pipe diameter and fill height.

Note RCCP with a number instead of a Roman numeral shall be furnished according to AASHTO M170 Section 6. This number represents the D-load to produce a 0.01 in crack.

STORM SEWERS (metric)								
KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED								
FOR A GIVEN PIPE DIAMETERS AND FILL HEIGHTS OVER THE TOP OF THE PIPE								
Nominal Diameter in.	Type 5			Type 6			Type 7	
	Fill Height: Greater than 20' not exceeding 25'			Fill Height: Greater than 25' not exceeding 30'			Fill Height: Greater than 30' not exceeding 35'	
	RCCP	PVC	CPVC	RCCP	PVC	CPVC	RCCP	CPVC
250	NA	X	X	NA	X	X	NA	X
300	IV	X	X	V	X	X	V	X
375	IV	X	X	V	X	X	V	X
450	IV	X	X	V	X	X	V	X
525	IV	X	X	V	X	X	V	X
600	IV	X	X	V	X	X	V	X
675	IV	NA	NA	V	NA	NA	V	NA
750	IV	X	X	V	X	X	V	X
825	IV	NA	NA	V	NA	NA	V	NA
900	IV	X	X	V	X	X	V	X
1050	IV	X	NA	V	X	NA	V	NA
1200	IV	X	NA	V	X	NA	V	NA
1350	IV	NA	NA	V	NA	NA	V	NA
1500	IV	NA	NA	V	NA	NA	V	NA

1650	IV	NA	NA	V	NA	NA	V	NA
1800	V	NA	NA	V	NA	NA	V	NA
1950	100	NA	NA	110	NA	NA	130	NA
2100	100	NA	NA	110	NA	NA	130	NA
2250	100	NA	NA	110	NA	NA	130	NA
2400	100	NA	NA	120	NA	NA	130	NA
2550	100	NA	NA	120	NA	NA	130	NA
2700	100	NA	NA	120	NA	NA	130	NA

RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe

PVC Polyvinyl Chloride Pipe

CPVC Corrugated Polyvinyl Chloride Pipe

ESCP Extra Strength Clay Pipe

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

NA This material is Not Acceptable for the given pipe diameter and fill height.

Note RCCP with a number instead of a Roman numeral shall be furnished according to AASHTO M170 Section 6. This number represents the metric D-load to produce a 25.4 micro-meter crack.

Revise the sixth paragraph of Article 550.06 of the Standard Specifications to read:

“PVC, PE and CPP pipes shall be joined according to the manufacturer’s specifications.”

Revise the first and second paragraphs of Article 550.08 of the Standard Specifications to read:

“550.08 Deflection Testing for Storm Sewers. All PVC, PE, and CPP storm sewers shall be tested for deflection not less than 30 days after the pipe is installed and the backfill compacted. The testing shall be performed in the presence of the Engineer.

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

Revise the fifth paragraph of Article 550.08 to read as follows.

“The outside diameter of the mandrel shall be 95 percent of the base inside diameter. For all PVC pipe the base inside diameter shall be defined using ASTM D 3034 methodology. For all PE and CPP pipe, the base inside diameter shall be defined as the average inside diameter based on the minimum and maximum tolerances specified in the corresponding ASTM or AASHTO material specifications.”

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

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

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

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

“(c) PE Profile Wall Pipe for Insertion Lining. The pipe shall be according to ASTM F 894. When used for insertion lining of pipe culverts, the pipe liner shall have a minimum pipe stiffness of 46 psi (317 kPa) at five percent deflection for nominal inside diameters of 42 in. (1050 mm) or less. For nominal inside diameters of greater than 42 in. (1050 mm), the pipe liner shall have a minimum pipe stiffness of 32.5 psi (225 kPa) at five percent deflection. All sizes shall have wall construction that presents essentially smooth internal and external surfaces.

(d) PE Pipe with a Smooth Interior. The pipe shall be according to ASTM F 714 (DR 32.5) with a minimum cell classification of PE 335434 as defined in ASTM D 3350. The section properties shall be according to the manufacturer pre-submitted geometric properties on file with the Department. The manufacturer shall submit written certification that the material meets those properties and the resin used to manufacture the pipe meets or exceeds the minimum cell classification requirements.”

Add the following to Section 1040 of the Standard Specifications:

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

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

PAYROLLS AND PAYROLL RECORDS (BDE)

Effective: January 1, 2014

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

“STATEMENTS AND PAYROLLS

The payroll records shall include the worker’s name, the worker’s address, the worker’s telephone number when available, the worker’s social security number, the worker’s classification or classifications, the worker’s gross and net wages paid in each pay period, the worker’s number of hours worked each day, the worker’s starting and ending times of work each day. However, any Contractor or subcontractor who remits contributions to a fringe benefit fund that is not jointly maintained and jointly governed by one or more employers and one or more labor organization must additionally submit the worker’s hourly wage rate, the worker’s hourly overtime wage rate, the worker’s hourly fringe benefit rates, the name and address of each fringe benefit fund, the plan sponsor of each fringe benefit, if applicable, and the plan administrator of each fringe benefit, if applicable.

The Contractor and each subcontractor shall submit payroll records to the Engineer each week from the start to the completion of their respective work, except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead, the payrolls shall include an identification number for each employee (e.g., the last four digits of the employee’s social security number). In addition, starting and ending times of work each day may be omitted from the payroll records submitted to the Engineer. 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 five years from the later of the date of final payment under the contract or completion of the contract, records of the wages paid to his/her workers. The payroll records shall include the worker's name, the worker's address, the worker's telephone number when available, the worker's social security number, the worker's classification or classifications, the worker's gross and net wages paid in each pay period, the worker's number of hours worked each day, the worker's starting and ending times of work each day. However, any contractor or subcontractor who remits contributions to a fringe benefit fund that is not jointly maintained and jointly governed by one or more employers and one or more labor organization must additionally submit the worker's hourly wage rate, the worker's hourly overtime wage rate, the worker's hourly fringe benefit rates, the name and address of each fringe benefit fund, the plan sponsor of each fringe benefit, if applicable, and the plan administrator of each fringe benefit, if applicable. Upon seven business days' notice, these records shall be available at a location within the State, during reasonable hours, for inspection by the Department or the Department of Labor; and Federal, State, or local law enforcement agencies and prosecutors.

3. Submission of Payroll Records. The Contractor and each subcontractor shall submit payroll records to the Engineer each week from the start to the completion of their respective work, except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall include an identification number for each employee (e.g., the last four digits of the employee's social security number). In addition, starting and ending times of work each day may be omitted from the payroll records submitted to the Engineer. 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, or an officer, employee, or officer thereof, which avers that: (i) he or she has examined the records and 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 A 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."

PORTLAND CEMENT CONCRETE EQUIPMENT (BDE)

Effective: November 1, 2013

Add the following to the first paragraph of Article 1103.03(a)(5) of the Standard Specifications to read:

"As an alternative to a locking key, the start and finish time for mixing may be automatically printed on the batch ticket. The start and finish time shall be reported to the nearest second."

PROGRESS PAYMENTS (BDE)

Effective: November 2, 2013

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

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

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

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

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

REINFORCEMENT BARS (BDE)

Effective: November 1, 2013

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

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

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

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

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

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

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

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

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

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

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

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

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

REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES (BDE)

Effective: January 1, 2012

Revised: November 2, 2012

Revise Article 669.01 of the Standard Specifications to read:

“669.01 Description. This work shall consist of the transportation and proper disposal of contaminated soil and water. This work shall also consist of the removal, transportation, and proper disposal of underground storage tanks (UST), their content and associated underground piping to the point where the piping is above the ground, including determining the content types and estimated quantities.”

Revise Article 669.08 of the Standard Specifications to read:

“669.08 Contaminated Soil and/or Groundwater Monitoring. The Contractor shall hire a qualified environmental firm to monitor the area containing the regulated substances. The affected area shall be monitored with a photoionization detector (PID) utilizing a lamp of 10.6eV or greater or a flame ionization detector (FID). Any field screen reading on the PID or FID in excess of background levels indicates the potential presence of contaminated material requiring handling as a non-special waste, special waste, or hazardous waste. No excavated soils can be taken to a clean construction and demolition debris (CCDD) facility or an uncontaminated soil fill operation with detectable PID or FID meter readings that are above background. The PID or FID meter shall be calibrated on-site and background level readings taken and recorded daily. All testing shall be done by a qualified engineer/technician. Such testing and monitoring shall be included in the work. The Contractor shall identify the exact limits of removal of non-special waste, special waste, or hazardous waste. All limits shall be approved by the Engineer prior to excavation. The Contractor shall take all necessary precautions.

Based upon the land use history of the subject property and/or PID or FID readings indicating contamination, a soil or groundwater sample shall be taken from the same location and submitted to an approved laboratory. Soil or groundwater samples shall be analyzed for the contaminants of concern, including pH, based on the property's land use history or the parameters listed in the maximum allowable concentration (MAC) for chemical constituents in uncontaminated soil established pursuant to Subpart F of 35 Illinois Administrative Code 1100.605. The analytical results shall serve to document the level of soil contamination. Soil and groundwater samples may be required at the discretion of the Engineer to verify the level of soil and groundwater contamination.

Samples shall be grab samples (not combined with other locations). The samples shall be taken with decontaminated or disposable instruments. The samples shall be placed in sealed containers and transported in an insulated container to the laboratory. The container shall maintain a temperature of 39 °F (4 °C). All samples shall be clearly labeled. The labels shall indicate the sample number, date sampled, location and elevation, and any other observations.

The laboratory shall use analytical methods which are able to meet the lowest appropriate practical quantitation limits (PQL) or estimated quantitation limit (EQL) specified in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods", EPA Publication No. SW-846 and "Methods for the Determination of Organic Compounds in Drinking Water", EPA, EMSL, EPA-600/4-88/039. For parameters where the specified cleanup objective is below the acceptable detection limit (ADL), the ADL shall serve as the cleanup objective. For other parameters the ADL shall be equal to or below the specified cleanup objective."

Replace the first two paragraphs of Article 669.09 of the Standard Specifications with the following:

"669.09 Contaminated Soil and/or Groundwater Management and Disposal. The management and disposal of contaminated soil and/or groundwater shall be according to the following:

- (a) Soil Analytical Results Exceed Most Stringent MAC. When the soil analytical results indicate that detected levels exceed the most stringent maximum allowable concentration (MAC) for chemical constituents in uncontaminated soil established pursuant to Subpart F of 35 Illinois Administrative Code 1100.605, the soil shall be managed as follows:
 - (1) When analytical results indicate inorganic chemical constituents exceed the most stringent MAC but they are still considered within area background levels by the Engineer, the excavated soil can be utilized within the construction limits as fill, when suitable. Such soil excavated for storm sewers can be placed back into the excavated trench as backfill, when suitable, unless trench backfill is specified. If the soils cannot be utilized within the construction limits, they shall be managed and disposed of off-site as a non-special waste, special waste, or hazardous waste as applicable.

- (2) When analytical results indicate chemical constituents exceed the most stringent MAC but do not exceed the MAC for a Metropolitan Statistical Area (MSA) County, the excavated soil can be utilized within the construction limits as fill, when suitable, or managed and disposed of off-site as “uncontaminated soil” at a CCDD facility or an uncontaminated soil fill operation within an MSA County provided the pH of the soil is within the range of 6.25 - 9.0, inclusive.

 - (3) When analytical results indicate chemical constituents exceed the most stringent MAC but do not exceed the MAC for an MSA County excluding Chicago, or the MAC within the Chicago corporate limits, the excavated soil can be utilized within the construction limits as fill, when suitable, or managed and disposed of off-site as “uncontaminated soil” at a CCDD facility or an uncontaminated soil fill operation within an MSA County excluding Chicago or within the Chicago corporate limits provided the pH of the soil is within the range of 6.25 - 9.0, inclusive.

 - (4) When analytical results indicate chemical constituents exceed the most stringent MAC but do not exceed the MAC for an MSA County excluding Chicago, the excavated soil can be utilized within the construction limits as fill, when suitable, or managed and disposed of off-site as “uncontaminated soil” at a CCDD facility or an uncontaminated soil fill operation within an MSA County excluding Chicago provided the pH of the soil is within the range of 6.25 - 9.0, inclusive.

 - (5) When the Engineer determines soil cannot be managed according to Articles 669.09(a)(1) through (a)(4) above, the soil shall be managed and disposed of off-site as a non-special waste, special waste, or hazardous waste as applicable.
- (b) Soil Analytical Results Do Not Exceed Most Stringent MAC. When the soil analytical results indicate that detected levels do not exceed the most stringent MAC but the pH of the soil is less than 6.25 or greater than 9.0, the excavated soil can be utilized within the construction limits or managed and disposed of off-site as “uncontaminated soil” according to Article 202.03. However the excavated soil cannot be taken to a CCDD facility or an uncontaminated soil fill operation.

- (c) Groundwater. When groundwater analytical results indicate the detected levels are above Appendix B, Table E of 35 Illinois Administrative Code 742, the most stringent Tier 1 Groundwater Remediation Objectives for Groundwater Component of the Groundwater Ingestion Route for Class 1 groundwater, the groundwater shall be managed off-site as a special waste.

All groundwater encountered within lateral trenches may be managed within the trench and allowed to infiltrate back into the ground. If the groundwater cannot be managed within the trench it must be removed as a special or hazardous waste. The Contractor is prohibited from managing groundwater within the trench by discharging it through any existing or new storm sewer. The Contractor shall install backfill plugs within the area of groundwater contamination.

One backfill plug shall be placed down gradient to the area of groundwater contamination. Backfill plugs shall be installed at intervals not to exceed 50 ft (15 m). Backfill plugs are to be 4 ft (1.2 m) long, measured parallel to the trench, full trench width and depth. Backfill plugs shall not have any fine aggregate bedding or backfill, but shall be entirely cohesive soil or any class of concrete. The Contractor shall provide test data that the material has a permeability of less than 10^{-7} cm/sec according to ASTM D 5084, Method A or per another test method approved by the Engineer.”

Revise Article 669.14 of the Standard Specifications to read:

“669.14 Final Environmental Construction Report. At the end of the project, the Contractor will prepare and submit three copies of the Environmental Construction Report on the activities conducted during the life of the project, one copy shall be submitted to the Resident Engineer, one copy shall be submitted to the District's Environmental Studies Unit, and one copy shall be submitted with an electronic copy in Adode.pdf format to the Geologic and Waste Assessment Unit, Bureau of Design and Environment, IDOT, 2300 South Dirksen Parkway, Springfield, Illinois 62764. The technical report shall include all pertinent information regarding the project including, but not limited to:

- (a) Measures taken to identify, monitor, handle, and dispose of soil or groundwater containing regulated substances, to prevent further migration of regulated substances, and to protect workers,

- (b) Cost of identifying, monitoring, handling, and disposing of soil or groundwater containing regulated substances, the cost of preventing further migration of regulated substances, and the cost for worker protection from the regulated substances. All cost should be in the format of the contract pay items listed in the contract plans (identified by the preliminary environmental site investigation (PESA) site number),

- (c) Plan sheets showing the areas containing the regulated substances,

- (d) Field sampling and testing results used to identify the nature and extent of the regulated substances,

- (e) Waste manifests (identified by the preliminary environmental site investigation (PESA) site number) for special or hazardous waste disposal, and

- (f) Landfill tickets (identified by the preliminary environmental site investigation (PESA) site number) for non-special waste disposal.”

Revise the second paragraph of Article 669.16 of the Standard Specifications to read:

“The transportation and disposal of soil and other materials from an excavation determined to be contaminated will be paid for at the contract unit price per cubic yard (cubic meter) for NON-SPECIAL WASTE DISPOSAL, SPECIAL WASTE DISPOSAL, or HAZARDOUS WASTE DISPOSAL.”

REMOVAL AND DISPOSAL OF SURPLUS MATERIALS (BDE)

Effective: November 2, 2012

Revise the first four paragraphs of Article 202.03 of the Standard Specifications to read:

“202.03 Removal and Disposal of Surplus, Unstable, Unsuitable, and Organic Materials. Suitable excavated materials shall not be wasted without permission of the Engineer. The Contractor shall dispose of all surplus, unstable, unsuitable, and organic materials, in such a manner that public or private property will not be damaged or endangered.

Suitable earth, stones and boulders naturally occurring within the right-of-way may be placed in fills or embankments in lifts and compacted according to Section 205. Broken concrete without protruding metal bars, bricks, rock, stone, reclaimed asphalt pavement with no expansive aggregate, or uncontaminated dirt and sand generated from construction or demolition activities may be used in embankment or in fill. If used in fills or embankments, these materials shall be placed and compacted to the satisfaction of the Engineer; shall be buried under a minimum of 2 ft (600 mm) of earth cover (except when the materials include only uncontaminated dirt); and shall not create an unsightly appearance or detract from the natural topographic features of an area. Broken concrete without protruding metal bars, bricks, rock, or stone may be used as riprap as approved by the Engineer. If the materials are used for fill in locations within the right-of-way but outside project construction limits, the Contractor must specify to the Engineer, in writing, how the landscape restoration of the fill areas will be accomplished. Placement of fill in such areas shall not commence until the Contractor's landscape restoration plan is approved by the Engineer.

Aside from the materials listed above, all other construction and demolition debris or waste shall be disposed of in a licensed landfill, recycled, reused, or otherwise disposed of as allowed by State or Federal laws and regulations. When the Contractor chooses to dispose of uncontaminated soil at a clean construction and demolition debris (CCDD) facility or at an uncontaminated soil fill operation, it shall be the Contractor's responsibility to have the pH of the material tested to ensure the value is between 6.25 and 9.0, inclusive. A copy of the pH test results shall be provided to the Engineer.

A permit shall be obtained from IEPA and made available to the Engineer prior to open burning of organic materials (i.e., plant refuse resulting from pruning or removal of trees or shrubs) or other construction or demolition debris. Organic materials originating within the right-of-way limits may be chipped or shredded and placed as mulch around landscape plantings within the right-of-way when approved by the Engineer. Chipped or shredded material to be placed as mulch shall not exceed a depth of 6 in. (150 mm).”

TRACKING THE USE OF PESTICIDES (BDE)

Effective: August 1, 2012

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

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

WEEKLY DBE TRUCKING REPORTS (BDE)

Effective: June 2, 2012

The Contractor shall provide a weekly report of Disadvantaged Business Enterprise (DBE) trucks hired by the Contractor or subcontractors (i.e. not owned by the Contractor or subcontractors) that are used on the jobsite; or used for the delivery and/or removal of equipment/material to and from the jobsite. The jobsite shall also include offsite locations, such as plant sites or storage sites, when those locations are used solely for this contract.

The report shall be submitted on the form provided by the Department within ten business days following the reporting period. The reporting period shall be Monday through Sunday for each week reportable trucking activities occur. The report shall be submitted to the Engineer and a copy shall be provided to the district EEO Officer.

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

ILLINOIS DEPARTMENT OF LABOR

**PREVAILING WAGES FOR
A7 @5 B COUNTY
EFFECTIVE FEBRUARY 2014**

The Prevailing rates of wages are included in the Contract proposals which are subject to Check Sheet #5 of the Supplemental Specifications and Recurring Special Provisions. The rates have been ascertained and certified by the Illinois Department of Labor for the locality in which the work is to be performed and for each craft or type of work or mechanic needed to execute the work of the Contract. As required by Prevailing Wage Act (820 ILCS 130/0.01, et seq.) and Check Sheet #5 of the Contract, not less than the rates of wages ascertained by the Illinois Department of Labor and as revised during the performance of a Contract shall be paid to all laborers, workers and mechanics performing work under the Contract. Post the scale of wages in a prominent and easily accessible place at the site of work.

If the Illinois Department of Labor revises the prevailing rates of wages to be paid as listed in the specification of rates, the contractor shall post the revised rates of wages and shall pay not less than the revised rates of wages. Current wage rate information shall be obtained by visiting the Illinois Department of Labor web site at <http://www.state.il.us/agency/idol/> or by calling 312-793-2814. It is the responsibility of the contractor to review the rates applicable to the work of the contract at regular intervals in order to insure the timely payment of current rates. Provision of this information to the contractor by means of the Illinois Department of Labor web site satisfies the notification of revisions by the Department to the contractor pursuant to the Act, and the contractor agrees that no additional notice is required. The contractor shall notify each of its subcontractors of the revised rates of wages.

Mclean County Prevailing Wage for February 2014

(See explanation of column headings at bottom of wages)

Trade Name	RG	TYP	C	Base	FRMAN	M-F>8	OSA	OSH	H/W	Pensn	Vac	Trng
=====	==	===	=	=====	=====	=====	===	===	=====	=====	=====	=====
ASBESTOS ABT-GEN		BLD		30.220	31.220	1.5	1.5	2.0	7.700	9.290	0.000	0.800
ASBESTOS ABT-GEN		HWY		32.080	32.630	1.5	1.5	2.0	7.700	9.290	0.000	0.800
ASBESTOS ABT-MEC		BLD		32.140	34.640	1.5	1.5	2.0	11.17	10.76	0.000	0.720
BOILERMAKER		BLD		36.000	39.000	2.0	2.0	2.0	7.070	14.69	0.000	0.350
BRICK MASON		BLD		29.820	31.320	1.5	1.5	2.0	8.300	11.60	0.000	0.580
CARPENTER		BLD		30.050	32.300	1.5	1.5	2.0	7.700	13.91	0.000	0.520
CARPENTER		HWY		31.000	33.250	1.5	1.5	2.0	7.700	14.96	0.000	0.520
CEMENT MASON		ALL		30.590	31.590	1.5	1.5	2.0	6.300	11.00	0.000	0.600
CERAMIC TILE FNSHER		BLD		29.750	0.000	1.5	1.5	2.0	8.300	9.500	0.000	0.580
ELECTRIC PWR EQMT OP		ALL		38.300	45.290	1.5	1.5	2.0	6.150	10.73	0.000	0.380
ELECTRIC PWR GRNDMAN		ALL		26.280	45.290	1.5	1.5	2.0	5.790	7.360	0.000	0.260
ELECTRIC PWR LINEMAN		ALL		42.540	45.290	1.5	1.5	2.0	6.280	11.92	0.000	0.430
ELECTRIC PWR TRK DRV		ALL		27.560	45.290	1.5	1.5	2.0	5.830	7.720	0.000	0.280
ELECTRICIAN		BLD		34.950	38.340	1.5	1.5	2.0	5.600	10.05	0.000	0.870
ELECTRONIC SYS TECH		BLD		29.420	31.170	1.5	1.5	2.0	5.350	7.330	0.000	0.400
ELEVATOR CONSTRUCTOR		BLD		41.070	46.200	2.0	2.0	2.0	12.73	13.46	3.290	0.600
FENCE ERECTOR	E	ALL		31.610	33.510	1.5	1.5	2.0	8.840	9.020	0.000	0.900
GLAZIER		BLD		31.670	33.670	1.5	1.5	2.0	9.950	7.700	0.000	1.250
HT/FROST INSULATOR		BLD		42.850	45.350	1.5	1.5	2.0	11.17	11.96	0.000	0.720
IRON WORKER	E	ALL		31.610	33.510	1.5	1.5	2.0	8.840	9.020	0.000	0.900
IRON WORKER	W	BLD		31.010	32.910	1.5	1.5	2.0	9.390	12.26	0.000	0.540
IRON WORKER	W	HWY		34.580	36.580	1.5	1.5	2.0	9.390	12.26	0.000	0.390
LABORER		BLD		29.220	30.220	1.5	1.5	2.0	7.700	9.290	0.000	0.800
LABORER		HWY		31.080	31.630	1.5	1.5	2.0	7.700	9.290	0.000	0.800
LABORER, SKILLED		BLD		29.220	30.220	1.5	1.5	2.0	7.700	9.290	0.000	0.800
LABORER, SKILLED		HWY		31.080	31.630	1.5	1.5	2.0	7.700	9.290	0.000	0.800
LATHER		BLD		30.050	32.300	1.5	1.5	2.0	7.700	13.91	0.000	0.520
MACHINERY MOVER	W	HWY		34.580	36.580	1.5	1.5	2.0	9.390	12.26	0.000	0.390
MACHINIST		BLD		43.920	46.420	1.5	1.5	2.0	6.760	8.950	1.850	0.000
MARBLE FINISHERS		BLD		29.750	0.000	1.5	1.5	2.0	8.300	9.500	0.000	0.580
MARBLE MASON		BLD		31.510	32.760	1.5	1.5	2.0	8.300	9.500	0.000	0.580
MILLWRIGHT		BLD		30.300	32.550	1.5	1.5	2.0	7.700	14.09	0.000	0.520
MILLWRIGHT		HWY		31.820	34.070	1.5	1.5	2.0	7.700	14.64	0.000	0.520
OPERATING ENGINEER		BLD	1	36.000	39.000	1.5	1.5	2.0	6.750	16.60	0.000	3.000
OPERATING ENGINEER		BLD	2	33.490	39.000	1.5	1.5	2.0	6.750	16.60	0.000	3.000
OPERATING ENGINEER		BLD	3	29.340	39.000	1.5	1.5	2.0	6.750	16.60	0.000	3.000
OPERATING ENGINEER		HWY	1	36.000	39.500	1.5	1.5	2.0	6.750	16.60	0.000	3.000
OPERATING ENGINEER		HWY	2	33.490	39.500	1.5	1.5	2.0	6.750	16.60	0.000	3.000
OPERATING ENGINEER		HWY	3	29.340	39.500	1.5	1.5	2.0	6.750	16.60	0.000	3.000
PAINTER		ALL		33.000	35.000	1.5	1.5	1.5	10.00	8.200	0.000	1.350
PAINTER SIGNS		BLD		33.920	38.090	1.5	1.5	1.5	2.600	2.710	0.000	0.000
PILEDRIVER		BLD		30.550	32.800	1.5	1.5	2.0	7.700	13.91	0.000	0.520
PILEDRIVER		HWY		32.000	34.250	1.5	1.5	2.0	7.700	14.96	0.000	0.520
PIPEFITTER		BLD		39.650	42.820	1.5	1.5	2.0	7.000	10.15	0.000	1.850
PLASTERER		BLD		30.000	32.000	1.5	1.5	2.0	7.100	13.83	0.000	0.490
PLUMBER		BLD		39.650	42.820	1.5	1.5	2.0	7.000	10.15	0.000	1.850
ROOFER		BLD		29.580	31.060	1.5	1.5	2.0	8.450	7.220	0.000	0.250
SHEETMETAL WORKER		BLD		32.150	33.760	1.5	1.5	2.0	8.270	14.18	0.000	0.780
SIGN HANGER	W	HWY		34.580	36.580	1.5	1.5	2.0	9.390	12.26	0.000	0.390
SPRINKLER FITTER		BLD		37.120	39.870	1.5	1.5	2.0	8.420	8.500	0.000	0.350
STEEL ERECTOR	W	HWY		34.580	36.580	1.5	1.5	2.0	9.390	12.26	0.000	0.390
SURVEY WORKER		ALL		31.080	31.630	1.5	1.5	2.0	7.700	9.290	0.000	0.800
TERRAZZO FINISHER		BLD		29.750	0.000	1.5	1.5	2.0	8.300	9.500	0.000	0.580
TERRAZZO MASON		BLD		31.510	32.760	1.5	1.5	2.0	8.300	9.500	0.000	0.580
TILE MASON		BLD		31.510	32.760	1.5	1.5	2.0	8.300	9.500	0.000	0.580
TRUCK DRIVER		O&C	1	24.980	0.000	1.5	1.5	2.0	10.30	4.840	0.000	0.250

TRUCK DRIVER	O&C	2	25.340	0.000	1.5	1.5	2.0	10.30	4.840	0.000	0.250	
TRUCK DRIVER	O&C	3	25.510	0.000	1.5	1.5	2.0	10.30	4.840	0.000	0.250	
TRUCK DRIVER	O&C	4	25.740	0.000	1.5	1.5	2.0	10.30	4.840	0.000	0.250	
TRUCK DRIVER	O&C	5	26.420	0.000	1.5	1.5	2.0	10.30	4.840	0.000	0.250	
TRUCK DRIVER	N	ALL	1	35.650	36.200	1.5	1.5	2.0	7.250	6.319	0.000	0.250
TRUCK DRIVER	N	ALL	2	35.800	36.200	1.5	1.5	2.0	7.250	6.319	0.000	0.250
TRUCK DRIVER	N	ALL	3	36.000	36.200	1.5	1.5	2.0	7.250	6.319	0.000	0.250
TRUCK DRIVER	N	ALL	4	36.200	36.200	1.5	1.5	2.0	7.250	6.319	0.000	0.250
TRUCK DRIVER	S	ALL	1	31.230	0.000	1.5	1.5	2.0	10.30	4.840	0.000	0.250
TRUCK DRIVER	S	ALL	2	31.680	0.000	1.5	1.5	2.0	10.30	4.840	0.000	0.250
TRUCK DRIVER	S	ALL	3	31.890	0.000	1.5	1.5	2.0	10.30	4.840	0.000	0.250
TRUCK DRIVER	S	ALL	4	32.180	0.000	1.5	1.5	2.0	10.30	4.840	0.000	0.250
TRUCK DRIVER	S	ALL	5	33.020	0.000	1.5	1.5	2.0	10.30	4.840	0.000	0.250

Legend: RG (Region)
TYP (Trade Type - All,Highway,Building,Floating,Oil & Chip,Rivers)
C (Class)
Base (Base Wage Rate)
FRMAN (Foreman Rate)
M-F>8 (OT required for any hour greater than 8 worked each day, Mon through Fri.
OSA (Overtime (OT) is required for every hour worked on Saturday)
OSH (Overtime is required for every hour worked on Sunday and Holidays)
H/W (Health & Welfare Insurance)
Pensn (Pension)
Vac (Vacation)
Trng (Training)

Explanations

MCLEAN COUNTY

FENCE ERECTOR - See Ironworkers.

IRONWORKERS (EAST) - That part of the county East of a diagonal line from Heyworth to a point half way between Chenoa and Weston.

TEAMSTERS (NORTH) - North of a straight line starting on the west side where Route 24 crosses McClean County line in a southeasterly direction to the most south-southwestern corner of Livingston County.

The following list is considered as those days for which holiday rates of wages for work performed apply: New Years Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day, Christmas Day and Veterans Day in some classifications/counties. Generally, any of these holidays which fall on a Sunday is celebrated on the following Monday. This then makes work performed on that Monday payable at the

appropriate overtime rate for holiday pay. Common practice in a given local may alter certain days of celebration. If in doubt, please check with IDOL.

Oil and chip resealing (O&C) means the application of road oils and liquid asphalt to coat an existing road surface, followed by application of aggregate chips or gravel to coated surface, and subsequent rolling of material to seal the surface.

EXPLANATION OF CLASSES

ASBESTOS - GENERAL - removal of asbestos material/mold and hazardous materials from any place in a building, including mechanical systems where those mechanical systems are to be removed. This includes the removal of asbestos materials/mold and hazardous materials from ductwork or pipes in a building when the building is to be demolished at the time or at some close future date.

ASBESTOS - MECHANICAL - removal of asbestos material from mechanical systems, such as pipes, ducts, and boilers, where the mechanical systems are to remain.

CERAMIC TILE FINISHER, MARBLE FINISHER, TERRAZZO FINISHER

Assisting, helping or supporting the tile, marble and terrazzo mechanic by performing their historic and traditional work assignments required to complete the proper installation of the work covered by said crafts. The term "Ceramic" is used for naming the classification only and is in no way a limitation of the product handled. Ceramic takes into consideration most hard tiles.

ELECTRONIC SYSTEMS TECHNICIAN

Installation, service and maintenance of low-voltage systems which utilizes the transmission and/or transference of voice, sound, vision, or digital for commercial, education, security and entertainment purposes for the following: TV monitoring and surveillance, background/foreground music, intercom and telephone interconnect, field programming, inventory control systems, microwave transmission, multi-media, multiplex, radio page, school, intercom and sound burglar alarms and low voltage master clock systems.

Excluded from this classification are energy management systems, life safety systems, supervisory controls and data acquisition systems not intrinsic with the above listed systems, fire alarm systems, nurse call systems and raceways exceeding fifteen feet in length.

LABORER, SKILLED - BUILDING

The skilled laborer building (BLD) classification shall encompass the following types of work, irrespective of the site of the work: tending of carpenters in unloading, handling, stockpiling and distribution operations, also other building crafts, mixing, handling, and conveying of all materials used by masons, plasterers and other building construction crafts, whether done by hand or by any process. The drying of plastering when done by salamander heat, and the cleaning and clearing of all debris. All work pertaining to and in preparation of asbestos abatement and removal. The building of scaffolding and staging for masons and plasterers. The excavations for buildings and all other construction, digging, of trenches, piers, foundations and holes, digging, lagging, sheeting, cribbing, bracing and propping of foundations, holes, caissons, cofferdams, and dikes, the setting of all guidelines for machine or hand excavation and subgrading. The mixing, handling, conveying, pouring, vibrating,

gunniting and otherwise applying of concrete, whether by hand or other method of concrete for any walls, foundations, floors, or for other construction concrete sealant men. The wrecking, stripping, dismantling, and handling of concrete forms and false work, and the building of centers for fireproofing purposes. Boring machine, gas, electric or air in preparation for shoving pipe, telephone cable, and so forth, under highways, roads, streets and alleys. All hand and power operating cross cut saws when used for clearing. All work in compressed air construction. All work on acetylene burners in salvaging. The blocking and tamping of concrete. The laying of sewer tile and conduit, and pre-cast materials. The assembling and dismantling of all jacks and sectional scaffolding, including elevator construction and running of slip form jacks. The work of drill running and blasting, including wagon drills. The wrecking, stripping, dismantling, cleaning, moving and oiling of forms. The cutting off of concrete piles. The loading, unloading, handling and carrying to place of installation of all rods, (and materials for use in reinforcing) concrete and the hoisting of same and all signaling where hoist is used in this type of construction coming under the jurisdiction of the Laborers' Union. And, all other labor work not awarded to any other craft. Mortar mixers, kettlemen and carrier of hot stuff, tool crib men, watchmen (Laborer), firemen or salamander tenders, flagmen, deck hands, installation and maintenance of temporary gas-fired heating units, gravel box men, dumpmen and spotters, fencing Laborers, cleaning lumber, pit men, material checkers, dispatchers, unloading explosives, asphalt plant laborers, writer of scale tickets, fireproofing laborers, janitors, asbestos abatement and removal laborers, handling of materials treated with oil, creosote, chloride, asphalt, and/or foreign material harmful to skin or clothing, Laborers with de-watering systems, gunnite nozzle men, laborers tending masons with hot material or where foreign materials are used, Laborers handling masterplate or similar materials, laser beam operator, concrete burning machine operator, material selector men working with firebrick or combustible material, dynamite men, track laborers, cement handlers, chloride handlers, the unloading and laborers with steel workers and re-bars, concrete workers (wet), luteman, asphalt raker, curb asphalt machine operator, ready mix scalemen, permanent, portable or temporary plant drilling machine operator, plaster tenders, underpinning and shoring of buildings, fire watch, signaling of all power equipment, to include trucks excavating equipment, etc., tree topper or trimmer when in connection to construction, tunnel helpers in free air, batch dumpers, kettle and tar men, tank cleaners, plastic installers, scaffold workers, motorized buggies or motorized unit used for wet concrete or handling of building materials, sewer workers, rod and chain men, vibrator operators, mortar mixer operator, cement silica, clay, fly ash, lime and plasters, handlers (bulk or bag), cofferdam workers, on concrete paving, placing, cutting and tying of reinforcing, deck hand, dredge hand and shore laborers, bankmen on floating plant, asphalt workers with machine & layers, grade checker, power tools, caisson workers, lead man on sewer work, welders, cutters, burners and torch men, chain saw operators, paving breaker, jackhammer and drill operator, layout man and/or drainage tile layer, steel form setters -- street and highway, air tamping hammerman, signal man on crane, concrete saw operator, screen man on asphalt pavers, front end man on chip spreader, multiple concrete duct -- lead man.

LABORER, SKILLED - HIGHWAY

The skilled laborer heavy and highway (HWY) classification shall encompass the following types of work, irrespective of the site of the work: handling of materials treated with oil, creosote, asphalt and/or any foreign materials harmful to skin or clothing, track

laborers, chloride handlers, the unloading and loading with steel workers and re-bars, concrete workers (wet), tunnel helpers in free air, batch dumpers, mason tenders, kettle and tar men, plastic installers, scaffold workers, motorized buggies or motorized unit used for wet concrete or handling of building materials, laborers with de-watering systems, sewer workers plus depth, rod and chainmen, vibrator operators, mortar mixer operators, cement silica, clay, fly ash, lime and plasters, handlers (bulk or bag), cofferdam workers plus depth, on concrete paving, placing, cutting and tying or reinforcing, deck hand, dredge hand shore laborers, bankmen on floating plant, asphalt workers with machine, and layers, grade checker, power tools, stripping of all concrete forms excluding paving forms, dumpmen and spotters, when necessary, caisson workers plus depth, gunnite nozzle men, welders, cutters, burners and torchmen, chain saw operators, paving breaker, jackhammer and drill operators, layout man and/or drainage tile layer, steel form setters - street and highway, air tamping hammerman, signal man on crane, concrete saw operator, screedman on asphalt pavers, front end man on chip spreader, multiple concrete duct, luteman, asphalt raker, curb asphalt machine operator, ready mix scalemen (portable or temporary plant), laser beam operator, concrete burning machine operator, and coring machine operator.

SURVEY WORKER - Operated survey equipment including data collectors, G.P.S. and robotic instruments, as well as conventional levels and transits.

TRUCK DRIVER - BUILDING, HEAVY AND HIGHWAY CONSTRUCTION - SOUTH

Class 1. Drivers on 2 axle trucks hauling less than 9 ton. Air compressor and welding machines and brooms, including those pulled by separate units, truck driver helpers, warehouse employees, mechanic helpers, greasers and tiremen, pickup trucks when hauling materials, tools, or workers to and from and on-the-job site, and fork lifts up to 6,000 lb. capacity.

Class 2. Two or three axle trucks hauling more than 9 ton but hauling less than 16 ton. A-frame winch trucks, hydrolift trucks, vector trucks or similar equipment when used for transportation purposes. Fork lifts over 6,000 lb. capacity, winch trucks, four axle combination units, and ticket writers.

Class 3. Two, three or four axle trucks hauling 16 ton or more. Drivers on water pulls, articulated dump trucks, mechanics and working forepersons, and dispatchers. Five axle or more combination units.

Class 4. Low Boy and Oil Distributors.

Class 5. Drivers who require special protective clothing while employed on hazardous waste work.

TRUCK DRIVER - BUILDING, HEAVY AND HIGHWAY CONSTRUCTION - NORTH

Class 1. Two or three Axle Trucks. A-frame Truck when used for transportation purposes; Air Compressors and Welding Machines, including those pulled by cars, pick-up trucks and tractors; Ambulances; Batch Gate Lockers; Batch Hopperman; Car and Truck Washers; Carry-alls; Fork Lifts and Hoisters; Helpers; Mechanics Helpers and Greasers; Oil Distributors 2-man operation; Pavement Breakers; Pole Trailer, up to 40 feet; Power Mower Tractors; Self-propelled Chip Spreader; Skipman; Slurry Trucks, 2-man operation; Slurry Truck Conveyor Operation, 2 or 3 man; Teamsters; Unskilled dumpman; and Truck Drivers hauling warning lights, barricades, and

portable toilets on the job site.

Class 2. Four axle trucks; Dump Crets and Adgetors under 7 yards; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment under 16 cubic yards; Mixer Trucks under 7 yards; Ready-mix Plant Hopper Operator, and Winch Trucks, 2 Axles.

Class 3. Five axle trucks; Dump Crets and Adgetors 7 yards and over; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnatrailers or turnapulls when pulling other than self-loading equipment or similar equipment over 16 cubic yards; Explosives and/or Fission Material Trucks; Mixer Trucks 7 yards or over; Mobile Cranes while in transit; Oil Distributors, 1-man operation; Pole Trailer, over 40 feet; Pole and Expandable Trailers hauling material over 50 feet long; Slurry trucks, 1-man operation; Winch trucks, 3 axles or more; Mechanic--Truck Welder and Truck Painter.

Class 4. Six axle trucks; Dual-purpose vehicles, such as mounted crane trucks with hoist and accessories; Foreman; Master Mechanic; Self-loading equipment like P.B. and trucks with scoops on the front. TRUCK DRIVER - OIL AND CHIP RESEALING ONLY.

This shall encompass laborers, workers and mechanics who drive contractor or subcontractor owned, leased, or hired pickup, dump, service, or oil distributor trucks. The work includes transporting materials and equipment (including but not limited to, oils, aggregate supplies, parts, machinery and tools) to or from the job site; distributing oil or liquid asphalt and aggregate; stock piling material when in connection with the actual oil and chip contract. The Truck Driver (Oil & Chip Resealing) wage classification does not include supplier delivered materials.

OPERATING ENGINEERS - BUILDING

Class 1. Cranes; Overhead Cranes; Gradall; All Cherry Pickers; Mechanics; Central Concrete Mixing Plant Operator; Road Pavers (27E - Dual Drum - Tri Batchers); Blacktop Plant Operators and Plant Engineers; 3 Drum Hoist; Derricks; Hydro Cranes; Shovels; Skimmer Scoops; Koehring Scooper; Drag Lines; Backhoe; Derrick Boats; Pile Drivers and Skid Rigs; Clamshells; Locomotive Cranes; Dredge (all types) Motor Patrol; Power Blades - Dumore - Elevating and similar types; Tower Cranes (Crawler-Mobile) and Stationary; Crane-type Backfiller; Drott Yumbo and similar types considered as Cranes; Caisson Rigs; Dozer; Tournadozer; Work Boats; Ross Carrier; Helicopter; Turnapulls - all and similar types; Scoops (all sizes); Pushcats; Endloaders (all types); Asphalt Surfacing Machine; Slip Form Paver; Rock Crusher; Heavy Equipment Greaser; CMI, CMI Belt Placer, Auto Grade & 3 Track and similar types; Side Booms; Multiple Unit Earth Movers; Creter Crane; Trench Machine; Pump-crete-Belt Crete-Squeeze Cretes-Screw-type Pumps and Gypsum; Bulker & Pump - Operator will clean; Formless Finishing Machine; Flaherty Spreader or similar types; Screed Man on Laydown Machine; Wheel Tractors (industrial or Farm-type w/Dozer-Hoe-Endloader or other attachments); F.W.D. & Similar Types; Vermeer Concrete Saw.

Class 2. Dinkeys; Power Launches; PH One-pass Soil Cement Machine (and similar types); Pugmill with Pump; Backfillers; Euclid Loader; Forklifts; Jeeps w/Ditching Machine or other attachments; Tuneluger; Automatic Cement and Gravel Batching Plants; Mobile Drills (Soil Testing) and similar types; Gurries and Similar Types; (1) and (2) Drum Hoists (Buck Hoist and Similar Types); Chicago Boom; Boring Machine & Pipe Jacking Machine; Hydro Boom; Dewatering System; Straw

Blower; Hydro Seeder; Assistant Heavy Equipment Greaser on Spread; Tractors (Track type) without Power Unit pulling Rollers; Rollers on Asphalt -- Brick Macadem; Concrete Breakers; Concrete Spreaders; Mule Pulling Rollers; Center Stripper; Cement Finishing Machines & CMI Texture & Reel Curing Machines; Cement Finishing Machine; Barber Green or similar loaders; Vibro Tamper (All similar types) Self-propelled; Winch or Boom Truck; Mechanical Bull Floats; Mixers over 3 Bag to 27E; Tractor pulling Power Blade or Elevating Grader; Porter Rex Rail; Clary Screed; Truck Type Hoptoe Oilers; Fireman; Spray Machine on Paving; Curb Machines; Truck Crane Oilers; Oil Distributor; Truck-Mounted Saws.

Class 3. Air Compressor; Power Subgrader; Straight Tractor; Trac Air without attachments; Herman Nelson Heater, Dravo, Warner, Silent Glo, and similar types; Roller: Five (5) Ton and under on Earth or Gravel; Form Grader; Crawler Crane & Skid Rig Oilers; Freight Elevators - permanently installed; Pump; Light Plant; Generator; Conveyor (1) or (2) - Operator will clean; Welding Machine; Mixer (3) Bag and Under (Standard Capacity with skip); Bulk Cement Plant; Oiler on Central Concrete Mixing Plant.

OPERATING ENGINEERS - HEAVY AND HIGHWAY CONSTRUCTION

CLASS 1. Cranes; Hydro Cranes; Shovels; Crane Type Backfiller; Tower, Mobile, Crawler, & Stationary Cranes; Derricks; Hoists (3 Drum); Draglines; Drott Yumbo & Similar Types considered as Cranes; 360 Degree Swing Excavator (Shears, Grapples, Movacs, etc.); Back Hoe; Derrick Boats; Pile Driver and Skid Rigs; Clam Shell; Locomotive - Cranes; Road Pavers - Single Drum - Dual Drum - Tri Batcher; Motor Patrols & Power Blades - Dumore - Elevating & Similar Types; Mechanics; Central Concrete Mixing Plant Operator; Asphalt Batch Plant Operators and Plant Engineers; Gradall; Caisson Rigs; Skimmer Scoop - Koering Scooper; Dredges (all types); Hoptoe; All Cherry Pickers; Work Boat; Ross Carrier; Helicopter; Dozer; Tournadozer; Tournapulls - all and similar types; Operation of Concrete and all Recycle Machines; Multiple Unit Earth Movers; Scoops (all sizes); Pushcats; Endloaders (all types); Asphalt Surfacing Machine; Slip Form Paver; Rock Crusher; Operation of Material Crusher, Screening Plants, and Tunnel Boring Machine; Heavy Equipment Greaser (top greaser on spread); CMI, Auto Grade, CMI Belt Placer & 3 Track and Similar Types; Side Booms; Asphalt Heater & Planer Combination (used to plane streets); Wheel Tractors (with Dozer, Hoe or Endloader Attachments); CAT Earthwork Compactors and Similar Types; Blaw Knox Spreader and Similar Types; Trench Machines; Pump Crete - Belt Crete - Squeeze Crete - Screw Type Pumps and Gypsum (operator will clean); Creter Crane; Operation of Concrete Pump Truck; Formless Finishing Machines; Flaherty Spreader or Similar Types; Screed Man on Laydown Machine; Vermeer Concrete Saw; Operation of Laser Screed; Span Saw; Dredge Leverman; Dredge Engineer; Lull or Similar Type; Hydro-Boom Truck; Operation of Guard Rail Machine; and Starting Engineer on Pipeline or Construction (11 or more pieces) including: Air Compressor (Trailer Mounted), All Forced Air Heaters (regardless of Size), Water Pumps (Greater than 4-1/2" or Total Discharge Over 4-1/2"), Light Plants, Generators (Trailer Mounted - Excluding Decontamination Trailer), Welding Machines (Any Size or Mode of Power), Conveyor, Mixer (any size), Stud Welder, Power Pac, etc, and Ground Heater (Trailer Mounted).

CLASS 2. Bulker & Pump; Power Launches; Boring Machine & Pipe Jacking Machine; Dinkeys; Operation of Carts, Powered Haul Unit for a Boring Machine; P & H One Pass Soil Cement Machines and Similar Types; Wheel Tractors (Industry or Farm Type - Other); Back Fillers; Euclid Loader; Fork Lifts; Jeep w/Ditching Machine or Other Attachments; Tunneluger;

Automatic Cement & Gravel Batching Plants; Mobile Drills - Soil Testing and Similar Types; Pugmill with Pump; All (1) and (2) Drum Hoists; Dewatering System; Straw Blower; Hydro-Seeder; Bump Grinders (self-propelled); Assistant Heavy Equipment Greaser; Apsco Spreader; Tractors (Track-Type) without Power Units Pulling Rollers; Rollers on Asphalt - Brick or Macadam; Concrete Breakers; Concrete Spreaders; Cement Strippers; Cement Finishing Machines & CMI Texture & Reel Curing Machines; Vibro-Tampers (All Similar Types Self-Propelled); Mechanical Bull Floats; Self-Propelled Concrete Saws; Truck Mounted Power Saws; Operation of Curb Cutters; Mixers - Over Three (3) Bags; Winch and Boom Trucks; Tractor Pulling Power Blade or Elevating Grader; Porter Rex Rail; Clary Screed; Mule Pulling Rollers; Pugmill without Pump; Barber Greene or Similar Loaders; Track Type Tractor w/Power Unit attached (minimum); Fireman; Spray Machine on Paving; Curb Machines; Paved Ditch Machine; Power Broom; Self-Propelled Sweepers; Self-Propelled Conveyors; Power Subgrader; Oil Distributor; Straight Tractor; Truck Crane Oiler; Truck Type Oilers; Directional Boring Machine; Horizontal Directional Drill; Articulating End Dump Vehicles; Starting Engineer on Pipeline or Construction (6 -10 pieces) including: Air Compressor (Trailer Mounted), All Forced Air Heaters (regardless of Size), Water Pumps (Greater than 4-1/2" or Total Discharge Over 4-1/2"), Light Plants, Generators (Trailer Mounted - Excluding Decontamination Trailer), Welding Machines (Any Size or Mode of Power), Conveyor, Mixer (any size), Stud Welder, Power Pac, etc., and Ground Heater (Trailer Mounted).

CLASS 3. Straight Framed Truck Mounted Vac Unit (separately powered); Trac Air Machine (without attachments); Rollers - Five Ton and Under on Earth and Gravel; Form Graders; Bulk Cement Plant; Oilers; and Starting Engineer on Pipeline or Construction (3 - 5 pieces) including: Air Compressor (Trailer Mounted), All Forced Air Heaters (regardless of Size), Water Pumps (Greater than 4-1/2" or Total Discharge Over 4-1/2"), Light Plants, Generators (Trailer Mounted - Excluding Decontamination Trailer), Welding Machines (Any Size or Mode of Power), Conveyor, Mixer (any size), Stud Welder, Power Pac, etc., and Ground Heater (Trailer Mounted).

Other Classifications of Work:

For definitions of classifications not otherwise set out, the Department generally has on file such definitions which are available. If a task to be performed is not subject to one of the classifications of pay set out, the Department will upon being contacted state which neighboring county has such a classification and provide such rate, such rate being deemed to exist by reference in this document. If no neighboring county rate applies to the task, the Department shall undertake a special determination, such special determination being then deemed to have existed under this determination. If a project requires these, or any classification not listed, please contact IDOL at 217-782-1710 for wage rates or clarifications.

LANDSCAPING

Landscaping work falls under the existing classifications for laborer, operating engineer and truck driver. The work performed by landscape plantsman and landscape laborer is covered by the existing classification of laborer. The work performed by landscape operators (regardless of equipment used or its size) is covered by the classifications of operating engineer. The work performed by landscape truck drivers (regardless of size of truck driven) is covered by the classifications of truck driver.