# 42

September 18, 2020 Letting

## Notice to Bidders, Specifications and Proposal



Contract No. 76M61 Various Counties Section DIST 8 ELECTRICAL 2021-1 Various Routes District 8 Construction Funds





#### **NOTICE TO BIDDERS**

- 1. TIME AND PLACE OF OPENING BIDS. Electronic bids are to be submitted to the electronic bidding system (iCX-Integrated Contractors Exchange). All bids must be submitted to the iCX system prior to 12:00 p.m. September 18, 2020 prevailing time at which time the bids will be publicly opened from the iCX SecureVault.
- 2. DESCRIPTION OF WORK. The proposed improvement is identified and advertised for bids in the Invitation for Bids as:

Contract No. 76M61 Various Counties Section DIST 8 ELECTRICAL 2021-1 Various Routes District 8 Construction Funds

Repair and maintenance of electrical equipment at pump stations in various locations within District 8.

- **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

Omer Osman, Acting Secretary

#### INDEX

### FOR SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS

#### Adopted January 1, 2020

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

#### ERRATA Standard Specifications for Road and Bridge Construction

(Adopted 4-1-16) (Revised 1-1-20)

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

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#### **STATE OF ILLINOIS**

#### SPECIAL PROVISIONS

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction," adopted April 1, 2016, 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 Various Routes; Section Dist 8 Electrical 2021-1; Various Counties; Contract No. 76M61 and in case of conflict with any part or parts of said Specifications, the said Special Provisions shall take precedence and shall govern.

#### LOCATION OF PROJECT

This project is located in Region 5/District 8; Madison, Clinton, Marion, Washington and St. Clair Counties.

#### DESCRIPTION OF PROJECT

This project is to repair and maintain the electrical equipment at pump stations at various locations in Region 5/District 8.

#### SUBMITTAL OF EEO/LABOR DOCUMENTATION

Effective: April 2016

This work shall be done in accordance with Check Sheets No. 1, 3 and 5 of the IDOT Supplemental Specifications and Recurring Special Provisions and the "Weekly DBE Trucking Reports (BDE)" Special Provision, except as here-in modified.

#### PAYROLL AND STATEMENT OF COMPLIANCE:

Certified payroll, (FORM SBE 48 OR AN APPROVED FACSIMILE) and the Statement of Compliance, (FORM SBE 348) shall be submitted by two methods:

- 1. By Mail (United States Postal Service): The ORIGINAL of the certified payroll and the Statement of Compliance for the Prime Contractor and each Subcontractor shall be submitted by mail to the Regional Engineer for District 8.
- 2. Electronically: Scan both the ORIGINAL of the certified payroll and the Statement of Compliance to the same PDF file and email to the District at the email address designated by the District EEO Officer.

SBE 48 and SBE 348 forms shall be submitted weekly and will be considered late if received after midnight seven (7) business days after the payroll ending date.

#### WEEKLY DBE TRUCKING REPORT:

The Weekly DBE Trucking Report, (FORM SBE 723) shall be submitted electronically. Scan the form to a PDF file and email to the District at the email address designated by the District EEO Officer.

SBE 723 forms shall be submitted weekly and will be considered late if received after midnight ten (10) business days following the reporting period.

#### MONTHLY LABOR SUMMARY & MONTHLY CONTRACT ACTIVITY REPORTS:

The Monthly Labor Summary Report (MLSR) shall be submitted by one of two methods:

- 1. For contractors having IDOT contracts valued in the aggregate at \$250,000 or less, the report may be typed or clearly handwritten using Form D8 PI0148. Submit the ORIGINAL report by mail to the Regional Engineer for District Eight. Contractors also have the option of using the method #2 outlined below.
- 2. For contractors having IDOT contracts valued in the aggregate at more than \$250,000, the report must be submitted in a specific "Fixed Length Comma Delimited ASCII Text File Format". This file shall be submitted by e-mail using specific file formatting criteria provided by the District EEO Officer. Contractors must submit a sample text file to District 8 for review at least fourteen (14) days prior to the start of construction.

The Monthly Contract Activity Report (MCAR) may be typed or clearly handwritten using Form D8 PI0149.

The Monthly Labor Summary Report and the Monthly Contract Activity Report shall be submitted concurrently. If the method of transmittal is method #1 above then both the MLSR and the MCAR shall be mailed together in the same envelope. If the method of transmittal is method #2 above then the MCAR shall be scanned to a .pdf file and attached to the email containing the MLSR .txt file.

The MLSR and MCAR must be submitted for each consecutive month, for the duration of the project, and will be considered late if received after midnight ten (10) calendar days following the reporting period.

#### REQUEST FOR APPROVAL OF SUBCONTRACTOR:

The ORIGINAL and one copy of the Request for Approval of Subcontractor (FORM BC 260A) shall be submitted to the District at the IDOT Preconstruction Conference.

#### SUBSTANCE ABUSE PREVENTION PROGRAM CERTIFICATION:

The ORIGINAL and one copy of the Substance Abuse Prevention Program Certification (FORM BC 261) shall be submitted to the District at the IDOT Preconstruction Conference.

The Contractor is required to follow submittal procedures as provided by the EEO Officer at the preconstruction conference and to follow all revisions to those procedures as issued thereafter.

If a report is rejected, it is the contractor's responsibility to make required adjustments and/or corrections and resubmit the report. Reports not submitted and accepted within the established timeframes will be considered late.

Disclosure of this information is necessary to accomplish the statutory purpose as outlined under 23CFR part 230 and 41CFR part 60.4 and the Illinois Human Rights Act. Disclosure of this information is REQUIRED. Failure to comply with this special provision may result in the withholding of payments to the contractor, and/or cancellation, termination, or suspension of the contract in whole or part.

#### This Special Provision must be included in each subcontract agreement.

ALL HARD COPY FORMS TO BE SUBMITTED TO:

Region 5 Engineer Illinois Department of Transportation ATTN: EEO/LABOR OFFICE 1102 Eastport Plaza Drive Collinsville, IL 62234-6198

Compliance with this Special Provision shall be included in the cost of the contract and no additional compensation will be allowed for any costs incurred.

#### TERM OF CONTRACT

The term of this Contract shall commence on January 1<sup>st</sup>, 2021 and terminate on January 1<sup>st</sup>, 2022. All services contracted for prior to the termination date must be completed and invoiced to IDOT within 30 calendar days of the termination date.

Project Contact:

James Wessel Illinois Department of Transportation 1102 Eastport Plaza Drive Collinsville, IL 62234 Phone (618) 346-3272 Fax (618) 346-3266 Nex Talk (888) 642-3449 Email: james.wessel@illinois.gov

#### **TERMINATION FOR CAUSE**

The State may terminate this Contract, in whole or in part, immediately upon notice to the Contractor if it is determined that the actions, or failure to act, of the Contractor, its agents, employees or subcontractors have caused, or reasonably could cause jeopardy to health, safety, or property. If Contractor fails to perform to the State's satisfaction any material requirement of this Contract or is in violation of a material provision of this Contract, the State shall provide written notice to the Contractor requesting that the breach or noncompliance be remedied within the period of time specified in the State's written notice. If the breach or noncompliance is not remedied by that date the State may either: (a) immediately terminate the Contract without additional written notice or, (b) enforce the terms and conditions of the Contract, and in either event seek any available legal or equitable remedies and damages.

#### PRE-CONSTRUCTION MEETING

A Pre-Construction Meeting will be mandatory and will be held prior to start of work on this contract. Contact Phillip Pete Sawyer at 618-346-3275 to schedule meeting.

#### GENERAL

These specifications are prepared by the Department for the purpose of entering into a contract for providing repair of electrical equipment at pump stations within District 8; and, to have a qualified and capable Contractor readily available for emergencies, subject to the terms and conditions contained in this Contract/Proposal. Work covered by this contract shall be performed on electrical facilities located within the District.

The work shall consist of repairing or replacing damaged electrical devices, servicing malfunctioning motors and pumps, repairing outages, adding new facilities and providing whatever electrical services that are requested at locations described in a work order from the Illinois Department of Transportation.

All work performed and materials supplied shall be in accordance with the latest edition of the "Standard Specifications for Road and Bridge Construction" (http://www.dot.il.gov), the latest editions of the "Manual on Uniform Traffic Control Devices for Streets and Highways" (http://mutcd.fhwa.dot.gov), and the National Electrical Code (http://www.nfpa.org) in effect at the time a work order is issued.

#### ASSIGNMENT OF WORK

Nothing in this contract shall be construed to provide the Contractor the exclusive right to service the Department's electrical/pump facilities in this region/district. The Department reserves the right to perform any and all work on these electrical devices with its own forces or to assign another Contractor to work within this service area.

#### WORK ORDERS

All work to be performed by the Contractor shall be on a call-out basis, normally being initiated with a telephone call, or e-mailed message, and followed by a written work order authorizing the work. The work order shall show the date and time of issuance, type of facility, location and a description of the service required or the problem reported.

The Contractor shall be available to respond to calls for service at all times, to include Saturdays, Sundays, and holidays, to correct any malfunction of equipment or effect any temporary emergency repair to damaged equipment resulting from any cause.

The Contractor shall designate at least four (4) responsible representatives of his organization to whom the Department may issue work orders and instructions. The Contractor shall provide the Department with the names and telephone numbers of these representatives. One of these representatives shall be available at all times.

If the Contractor determines that the work needed to restore facility operation is beyond the scope of the initiating telephone call or e-mailed message, and is well within the terms and conditions of the other provisions of this contract, the Contractor shall proceed with that work. Otherwise, the Contractor shall contact the Department before proceeding with the work.

The date and time the Contractor's work crew arrives at the location on the work order and the date and time the requested work is completed shall be noted on the Contractor's billing invoice submitted to the Department for payment. If the work is not completed on the first trip, the Contractor shall record on the invoice the arrival and departure dates and times for all subsequent work crews until the work order is completed.

The Contractor shall advise Mr. Phillip Sawyer or his successor at 618-346-3275 during normal work hours or the District 8 Communications office at 618-346-3233 after normal work hours upon arrival or departure of the site of all emergency service calls and provide the status of work. Normal work hours, for the purposes of this contract shall be hours during which the Contractor is not required to pay overtime labor rates.

#### PARTS AND MATERIALS

Parts and materials supplied by the Contractor, which have a retail value under \$25.00 per unit, shall be considered included in the contract and no additional compensation shall be paid. The price charged by the Contractor for non-incidental parts or materials with a retail value over \$25.00 per unit shall be the actual cost to the Contractor, to which 15 percent may be added. The actual billing invoices from the suppliers of these items must be submitted as documentation of parts and materials costs. When such parts and materials are furnished by the Contractor, the material shall be of the best grade of its respective kind, for the intended purpose. The Contractor is expected to make a good faith effort to purchase the parts and materials supplied by them at the lowest possible price. The transportation of the parts and material to the contract, except for certain repairs, or when a special piece of equipment is required to properly transport the item(s).

Parts and materials may be furnished by the Department when available and practical, unless otherwise specified by this contract. The transportation of Department supplied parts and materials to the location on the work order by the Contractor shall be considered incidental to the contract. The Department, at its discretion, may increase or decrease the quantities or kinds of materials supplied to the Contractor. In order to expedite the repair of an installation, the Department reserves the right to deliver parts, materials, and equipment directly to the Contractor's shop or to the job site.

#### TRAVEL EXPENSE

The Contractor shall not be reimbursed for travel expenses, including "port to port" charges, incurred in fulfilling obligations under this contract. All such charges are to be included and paid for as part of the unit costs contained herein.

#### EQUIPMENT

The Contractor shall submit unit costs for this contract for equipment to be used in the execution of this contract.

If the Department authorizes the Contractor to use a piece of machinery or equipment that does not have a contract unit price and is not considered incidental to the contract, payment shall be made in accordance with Article 109.04 (b) (4) of the Standard Specifications for Road and Bridge Construction.

Standard equipment operating costs for fuel, lubricants, wear & tear, loss of equipment, repairs, servicing, filters, tires, etc. are to be included in the contract unit price. No additional compensation for these operating expenses will be allowed.

All Contractor work crews shall be equipped with a cellular telephone to facilitate communications with work crews and to verify operating conditions of essential electrical facilities. If more than one vehicle is being used for a work order, only the crew leader will be required to be equipped with a cellular telephone. The Contractor shall provide the Department with the cellular telephone number being used in the execution of each work order. The Department reserves the rights to use the cellular telephone to contact a Contractor's work crew for their location and to request a report on the status of a work order. All costs associated with this requirement shall be included in the contract.

#### WARRANTIES FOR SUPPLIES AND SERVICES

The Vendor/Contractor warrants that the supplies furnished under this Contract will:

- Conform to the State's manufacturing standards, specification, drawings, samples or descriptions furnished by the State, including but not limited to all specifications attached as exhibits hereto.
- Be merchantable, of good quality and workmanship, free from defects for a period of twelve months or longer if specified in writing, and fit and sufficient for the intended use. Comply with all federal and state laws, regulations and ordinances pertaining to the manufacturing, packing, labeling, sale and delivery of the supplies.
- Be of good title and be free and clear of all liens and encumbrances.
- Not infringe any patent, copyright or other intellectual property rights of any third party.

Vendor/Contractor agrees to reimburse the State for supplies to meet such warranties. The Vendor/Contractor shall insure that all manufacturers' warranties are transferred to the State and shall provide a copy of the warranty. These warranties shall be in addition to all other warranties, express, implied or statutory, and shall survive the State's payment, acceptance, inspection or failure to inspect the supplies.

#### LABOR, TOOLS, AND EQUIPMENT

The Contractor shall furnish all labor, tools, equipment and other incidentals necessary or convenient to the successful completion of work orders and the carrying out of all duties and obligations imposed by the contract.

All Contractor work crews shall be equipped with a cellular telephone to facilitate communications with work crews and to verify operating conditions of essential Intelligent Transportations System facilities. Only the crew leader will be required to be equipped with a cellular telephone. The Contractor shall provide the Department with the cellular number being used in the execution of each work order. The Department reserves the rights to use the cellular telephone to contact a Contractor's work crew for their location and to request a report on the status of a work order. No additional compensation for cellular telephone expenses will be allowed.

Only labor onsite at work locations shall be eligible for payment. Labor rates for JOURNEYMAN ELECTRICIAN and APPRENTICE ELECTRICIAN shall be inclusive of (but not limited too) all regular and premium time, insurance, benefits, overhead, and profit. The Department will specify in the JOURNEYMAN ELECTRICIAN and/or APPRENTICE ELECTRICIAN pay items will be utilized on each individual work order.

The time allowed for the truck pay items included in this contract, shall be the actual time the truck(s) is onsite at the work location (while work is underway). Truck rates include (but are not limited to) the cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs, overhaul and maintenance of any kind, depreciation, storage overhead, profits, insurance, and all incidentals.

#### JOURNEYMAN ELECTRICIAN: STRAIGHT TIME WAGES

This unit shall be eligible for payment only when labor is performed onsite at appropriate work location. Labor will be measured to the nearest 0.25 hour for each JOURNEYMAN ELECTRICIAN approved for use on the applicable work order. Labor rates for JOURNEYMAN ELECTRICIAN shall be inclusive of (but not limited to) all regular and premium time, insurance, benefits, overheard, and profit.

The JOURNEYMAN ELECTRICIAN shall furnish all labor, tools, equipment and other incidentals necessary or convenient to the successful completion of work orders and the carrying out of all duties and obligations imposed by the contract. Also, the JOURNEYMAN ELECTRICIAN shall be required to carry a cellular telephone to facilitate communications with work crews and to verify operation conditions of essential Intelligent Transportations System facilities. The Department reserves the rights to use the cellular telephone to contact the JOURNEYMAN ELECTRICIAN for his or her location and to request a report on the status of a work order. No additional compensation for cellular telephone expenses will be allowed.

This work will be paid for as a part of the contract unit price per hour for JOURNEYMAN ELECTRICIAN.

#### APPRENTICE ELECTRICIAN: STRAIGHT TIME WAGES

This unit shall be eligible for payment only when labor is performed onsite at appropriate work location. Labor will be measured to the nearest 0.25 hour for each APPRENTICE ELECTRICIAN approved for use on the applicable work order. Labor rates for APPRENTICE ELECTRICIAN shall be inclusive of (but not limited to) all regular and premium time, insurance, benefits, overheard, and profit.

APPRENTICE ELECTRICIANS utilized as part of this contract must follow the criteria listed below:

- 1. All apprentice electricians shall work within the guidelines of the Apprentice Program.
- 2. Apprentice electricians may only be utilized for routine maintenance tasks included but not limited to traffic camera lens cleaning, filter cleaning and/or replacement, light post inspection and repair, and other various duties associated with routine maintenance.
- 3. Apprentice electricians may not be utilized for any ITS controller cabinet maintenance or repair. Apprentices are prohibited from performing any work of this nature unless under direct supervision of a journeyman electrician.
- 4. Apprentice electricians will be allowed to respond to emergency calls to assist a journeyman electrician when needed.
- 5. Apprentice electricians must be directly supervised at all times by a qualified vendor representative.
- 6. The Department reserves the right to limit the number of apprentices used in execution of this contract.
- 7. The Department reserves the right to restrict work performed for this contract by apprentice electricians.

The APPRENTICE ELECTRICIAN shall furnish all labor, tools, equipment and other incidentals necessary or convenient to the successful completion of work orders and the carrying out of all duties and obligations imposed by the contract unless already provided by the JOURNEYMAN ELECTRICIAN.

This work will be paid for as a part of the contract unit price per hour for APPRENTICE ELECTRICIAN.

#### PICK-UP TRUCK

The time allowed for the truck pay item included in this contract shall be the actual time the truck(s) is onsite at the work location (while work is underway). Truck usage will be measured to the nearest 0.25 hour for each PICK-UP TRUCK approved for use on the applicable work order. Truck rates include (but are not limited to) the cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs, overhaul and maintenance of any kind, depreciation, storage, overhead, profits, insurance, and all incidentals.

This work will be paid for as a part of the contract unit price per hour for PICK-UP TRUCK.

#### ARROWBOARD (TRAILER MOUNTED)

The ARROWBOARD (TRAILER MOUNTED) shall meet the requirements of Articles 701.15(i) and 1106.02. The time allowed for ARROWBOARD (TRAILER MOUNTED) shall be the actual time the attenuator is in use at the work location. Labor will be measured to the nearest 0.25 hour for each ARROWBOARD (TRAILER MOUNTED) approved for use on the applicable work order.

This work will be paid for as a part of the contract unit price per hour for ARROWBOARD (TRAILER MOUNTED).

#### TRUCK CRANE

The time allowed for the truck crane pay item included in this contract shall be the actual time the truck(s) is onsite at the work location (while work is underway). Truck usage will be measured to the nearest 0.25 hour for each TRUCK CRANE approved for use on the application work order. Truck rates include (but are not limited to) the cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs, overhaul and maintenance of any kind, depreciation, storage, overhead, profits, insurance, and all incidentals.

This work will be paid for as a part of the contract unit price per hour for TRUCK CRANE.

#### ATTENUATOR, CRASH (TRUCK MOUNTED)

The ATTENUATOR, CRASH (TRUCK MOUNTED) shall meet the requirements of Articles 701.15(h) and 1106.02. The time allowed for ATTENUATOR, CRASH (TRUCK MOUNTED) shall be the actual time the attenuator is in use at the work location. Labor will be measured to the nearest 0.25 hour for each ATTENUATOR, CRASH (TRUCK MOUNTED) approved for use on the applicable work order.

This work will be paid for as a part of the contract unit price per hour for ATTENUATOR, CRASH (TRUCK MOUNTED).

#### BUCKET TRUCK

The time allowed for the truck pay item included in this contract shall be the actual time the truck(s) is onsite at the work location (while work is underway). Truck usage will be measured to the nearest 0.25 hour for each BUCKET TRUCK (LENGTH LESS THAN 35 FEET) or BUCKET TRUCK (LENGTH 35 TO 65 FEET) approval for use on the applicable work order. Truck rates include (but are not limited to) the cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs, overhaul and maintenance of any kind, depreciation, storage, overhead, profits, insurance, and all incidentals.

This work will be paid for as a part of the contract unit price per hour for BUCKET TRUCK (LENGTH LESS THAN 35 FEET) or BUCKET TRUCK (LENGTH 35 TO 65 FEET).

#### SUBMERSIBLE MIXER

This work will consist of furnishing a submersible mixer.

#### PART 1 – GENERAL SYSTEM DESCRIPTION

#### PERFORMANCE REQUIREMENTS

Minimum Capacity: 5,167 GPM Maximum Propeller Rotating Speed: 875 RPM Minimum Motor Nameplate HP: 6.0 HP Minimum Axial Thrust: 928 N Minimum Shaft Power (transmitted to mixed media): 5.0 HP Electrical Service: 460 Volt, 60Hz, 3 phase

#### QUALITY ASSURANCE – REFERENCED STANDARDS:

American Iron & Steel Institute (AISI) American Society for Testing and Materials (ASTM) Factory Mutual (FM) National Fire Protection Agency (NFPA) National Electric Code (NEC) National Electrical Manufacturers Association (NEMA) Anti-Friction Bearing Manufacturers Association (AFBMA) International Standards Organization (ISO) – ISO9001

#### WARRANTY

The mixer manufacturer shall warrant the mixer and motor to the Owner against defects in workmanship and materials for a period of one (1) year from date of first beneficial use or eighteen (18) months from shipment (whichever comes first). The manufacturer's warranty shall be in published form, and shall apply to all similar units. A copy of the warranty shall be provided to the Owner at startup.

#### PART 2 – PRODUCTS

#### ACCEPTABLE MANUFACTURERS

Subject to compliance with the Contract Documents, the following must a KSB Model Amamix to be compatible with existing hardware and equipment. All products, whether named as "acceptable" or proposed as "equal" must fully comply with these specifications. Standard product must be modified, if required, for compliance. The Contractor shall base his bid price on product offered by KSB, Inc. for purposes of determining the successful bidder on this project. The Contractor may submit, with the bid, an alternate proposal with applicable deduct if any for supplying product other than KSB. Alternate proposals must include a clear statement of each point of difference between the proposed alternate product and these specifications. The Owner and Engineer reserve the right to reject any bid not based on KSB product.

#### MATERIALS

Propeller Motor/Propeller Shaft Motor Housing Motor Casing Cover Casing Cover O-Rings/Seals Fasteners Outer Seal Faces Inner Seal Faces Power Cable Jacket Guide Rail (Mast) Support Frame Mast Mounting Brackets Lifting Cable Lifting Davit	Stainless Steel, ASTM A276 Type 316 Stainless Steel, ASTM A276 Type 316 Stainless Steel, ASTM A276 Type 316 Duplex Stainless Steel, ASTM A890 CD 4MCU Stainless Steel, ASTM A276 Type 316 Viton (FPM) Stainless Steel, ASTM A276 Type 316Ti Silicon Carbide/Silicon Carbide Silicon Carbide/Silicon Carbide Chloroprene with non-wicking filters Stainless Steel, ASTM A276 Type 304 or 316 Stainless Steel, ASTM A276 Type 316 Stainless Steel, ASTM A276 Type 316 Stainless Steel, ASTM A276 Type 304 or 316 Stainless Steel, ASTM A276 Type 304 or 316
Oil (seal lubrication)	winch Ecologically safe, mineral or paraffin base

#### ACCESSORIES

#### **POWER CABLE**

Provide 60 ft of power/control cable with each mixer, suitable for submersible application, sized in accordance with NEC requirements. Provide cable terminal box on side of motor housing, with cable entry sealed to insure that no entry of moisture is possible into the high-voltage motor/terminal area even if the cable is damaged or severed below water level. Cable entries providing only rubber grommet (external cable jacket) seals will not be accepted. Non-metallic snap-on fasteners shall be provided to fix the power/control cable to the static support cable to prevent movement of the cable. The mixer manufacturer shall provide a cable support bracket suitable for supporting the entire weight of the power/control cable from a hook near the upper mast bracket. A cable plug and receptacle shall be an integral design of the submersible mixer allowing the mechanics to easily replace or service the mixer without needing an electrician. The plug and receptacle eliminates re-wiring errors and ensures operator safety.

#### **TEMPERATURE PROTECTION**

Furnish temperature monitoring devices in motor windings for use in conjunction with and supplemental to external motor overload protection. Arrange controls to shut down pump should any of the monitors detect high temperature and automatically reset once motor temperature returns to normal. Set temperature monitors at levels recommended by mixer manufacturer.

#### SEAL LEAK DETECTION

Provide two (2) detectors in the motor's stator cavity, one at each end, which allows a control panel mounted relay to indicate leakage into the motor.

#### "PumpSafe" MOTOR SENSOR MONITORING RELAY

The pump supplier shall furnish all relays required for monitoring all motor sensors. The relays shall be installed by others in the motor control panel and properly wired in accordance with pump manufacturer's instructions. Relays shall mount in standard 12-pin socket bases (provided) and shall operate on available control voltage of 24-240 VAC. If relays require an input voltage that is not available in the motor control panel an adequate transformer (with fused input) shall be provided by the pump supplier. Relays shall have a power consumption of no more than 2.8 watt and shall be UL approved. Relays shall be modular in design, with each relay monitoring no more than two motor sensor functions.

Each relay module shall include a dual color (red/green) LED to indicate the status of each monitored sensor. Green will indicate "status OK"; red will indicate a failure or alarm condition. A self-corrected fault will allow the relay output contacts to reset and cause the LED to change from a steady alarm indication to a flashing signal. The LED shall continue to flash until locally cleared, providing the operator an indication of a potential intermittent fault. Each relay shall also include a power-on LED and both "test" and "reset" pushbuttons.

An independent fail-safe (switch on power loss) form-C output contact shall be included for each monitored sensor to provide a normally-open/normally-closed dry contact to initiate a remote alarm device or shut down the motor. Contacts shall be rated for 5 amps at 120 volt.

#### FABRICATION

#### MAJOR COMPONENTS

Furnish major components (motor housing, motor end caps) of solid thick cross section material as specified with smooth surfaces devoid of blow holes and other irregularities. Designs employing sheet-metal sheathing over cast or fabricated components and/or plastic end caps will be considered inferior and will not be acceptable.

#### PROPELLER (WITH EVERCLEAN BLADES)

To maximize back streaming, optimize mixing, and minimize fouling the propeller shall be completely open to the mixed media, and diffuser devices such as jet rings and shrouds shall not be used. Propeller shall be of material specified, with thick cross section to resist abrasion and to permit displacement of the stagnation point along the leading edge. Each blade shall be contoured such that the tangent line at any point on the leading edge is equal or less steep relative to the circumferential direction than the resulting force, causing fibrous materials to always slide toward the outer radius of the propeller.

#### PROPELLER SHAFT SEALS

The critical area where the propeller shaft enters the mixed media shall be sealed by two totally independent mechanical shaft seals, each with its own independent single spring system. An oil-filled chamber shall separate the seals and provide lubrication. Single mechanical seals or rotary lip seals shall not be considered adequate for this critical sealing area.

#### BEARINGS

The motor shaft shall be supported by two bearing sets sized to provide a B10 of 100,000 hours at all anticipated axial and radial loadings. Shaft bearings shall be sealed/shielded (permanently lubricated).

#### MAINTENANCE INTERVAL

The complete mixer unit shall be designed for operation with scheduled maintenance intervals not less than 16,000 running hours (or 2 years whichever occurs first). This scheduled maintenance interval shall be clearly stated in the mixer manufacturer's standard operation and maintenance manual supplied with the mixer.

#### MOTOR

Motor shall be squirrel cage, induction in design, housed in a completely watertight and air filled chamber, with a min 1.15 service factor. Insulate the motor stator with, at minimum, Class F insulation rated for 311 Degrees F. Provide temperature protection and seal leak detection as specified above. Motors shall be designed, rated and warranted for continuous operation and shall be capable of sustaining at least 20 evenly spaced starts per hour. Operating for extended periods in a dry mode shall not damage the motor or seals.

#### FACTORY TESTS

Prior to shipment the mixer manufacturer shall check each unit for proper balance and alignment, quiet vibration-free operation, proper electrical characteristics, and satisfactory performance.

This item will be paid for at the contract unit price per each for SUBMERSIBLE MIXER.

#### CIRCUIT BREAKER

This work will consist of furnishing a circuit breaker.

#### POWER CIRCUIT BREAKERS – MAGNUM DS

- A. Protective devices shall be drawout low-voltage power air-circuit breakers, Cutler-Hammer type Magnum DS or approved equal. Frame ratings shall be 2000 amperes. The 800, 1600, 2000 and 3200 ampere frame power circuit breakers shall be provided in the same physical frame size; while 4000, 5000, and 6000 ampere frame power circuit breakers shall be provided in a second physical frame size. Both physical frame sizes shall have a common height and depth. All breakers shall be UL listed for application in their intended enclosures for 100% of their continuous ampere rating.
- B. Breakers shall be electrically operated as indicated on the drawings.
- C. Electrically operated breakers shall be complete with 120 motor operators; the charging time of the motor shall not exceed 6 seconds. The ac source shall be taken from a control power transformer internal to the switchgear assembly.

- D. All circuit breakers shall have a minimum symmetrical interrupting capacity of 65,000 amperes. To ensure a fully selective system, all circuit breakers shall have 30-cycle short-time withstand ratings equal to their symmetrical interrupting ratings through 85,000 amperes, regardless of whether equipped with instantaneous trip protection or not.
- E. All power circuit breakers shall be constructed and tested in accordance with ANSI C37.13, C37.16, C37.17, C37.50, UL 1066 and NEMA SG-3 standards. The circuit breakers shall carry a UL label.
- F. The circuit breakers shall be provided with trip units as specified in Paragraph 2.02 A through 2.03 X.
- G. Provide a Digitrip 1150 Trip Unit.
- H. To facilitate lifting, the power circuit breaker shall have integral handles on the side of the breaker. The power circuit breaker shall have a closing time of not more than 3 cycles. The primary contacts shall have an easily accessible wear indicator to indicate contact erosion.
- I. The power circuit breaker shall have three windows in the front cover to clearly indicate any electrical accessories that are mounted in the breaker. The accessory shall have a label that will indicate its function and voltage. The accessories shall be plug and lock type and UL listed for easy field installation. They shall be modular in design and shall be common to all frame sizes and ratings.
- J. The breaker control interface shall have color-coded visual indicators to indicate contact open or closed positions as well as mechanism charged and discharged positions. Manual control pushbuttons on the breaker face shall be provided for opening and closing the breaker. The power circuit breaker shall have a "Positive On" feature. The breaker flag will read "Closed" if the contacts are welded and the breaker is attempted to be tripped or opened.
- K. The current sensors shall have a back cover window that will permit viewing the sensor rating on the back of the breaker. A rating plug will offer indication of the rating on the front of the trip unit.
- L. A position indicator shall be located on the faceplate of the breaker. This indicator shall provide color indication of the breaker position in the cell. These positions shall be Connect (Red), Test (Yellow), and Disconnect (Green). The levering door shall be interlocked so that when the breaker is in the closed position, the breaker levering-in door shall not open.
- M. Each power circuit breaker shall offer sixty (60) front mounted dedicated secondary wiring points. Each wiring point shall have finger safe contacts, which will accommodate #10 AWG maximum field connections with ring tongue or spade terminals or bare wire.
- N. For drawout applications the breaker cell shall be equipped with drawout rails and primary and secondary disconnecting contacts. The stationary part of the primary disconnecting devices for each power circuit breaker shall consist of a set of contacts extending to the rear through a glass polyester insulating support barrier; corresponding moving finger contacts suitably spaced shall be furnished on the

power circuit breaker studs which engage in only the connected position. The assembly shall provide multiple silver-to-silver full floating high-pressure point contacts with uniform pressure on each finger maintained by springs.

- 1. The secondary disconnecting devices shall consist of plug-in connectors mounted on the removable unit and engaging floating plug-in connectors at the front of the compartment. The secondary disconnecting devices shall be gold- plated and pin and socket contact engagement shall be maintained in the "connected" and "test" positions.
- 2. The removable power circuit breaker element shall be equipped with disconnecting contacts, wheels and interlocks for drawout application.

It shall have four (4) positions: CONNECTED, TEST, DISCONNECTED and REMOVED all of which permit closing the compartment door. The breaker drawout element shall contain a worm gear levering "in" and "out" mechanism with removable lever crank. Mechanical interlocking shall be provided so that the breaker is in the tripped position before levering "in" or "out" of the cell. The breaker shall include an optional provision for key locking open to prevent manual or electric closing. Padlocking shall secure the breaker in the connected, test or disconnected position by preventing levering.

#### 2.02 TRIP UNIT

- A. Each low-voltage power circuit breaker and insulated case circuit breaker shall be equipped with a solid-state tripping system consisting of three current sensors, microprocessor-based trip device and flux-transfer shunt trip. Current sensors shall provide operation and signal function. The trip unit shall use microprocessor-based technology to provide the basic adjustable time-current protection functions. True rms sensing circuit protection shall be achieved by analyzing the secondary current signals received from the circuit breaker current sensors and initiating trip signals to the circuit breaker trip actuators when predetermined trip levels and time delay settings are reached. Interchangeable current sensors with their associated rating plug shall establish the continuous trip rating of each circuit breaker. The trip unit shall be Cutler-Hammer type Digitrip RMS 1150+.
- B. The trip unit shall have an information system that provides LEDs to indicate mode of trip following an automatic trip operation. The indication of the mode of trip shall be retained after an automatic trip. A reset button shall be provided to turn off the LED indication after an automatic trip.
- C. The trip unit shall be provided with a display panel, including a representation of the time/current curve that will indicate the protection functions. The unit shall be continuously self-checking and provide a visual indication that the internal circuitry is being monitored and is fully operational.
- D. The trip unit shall be provided with a making-current release circuit. The circuit shall be armed for approximately two cycles after breaker closing and shall operate for all peak fault levels above 25 times the ampere value of the rating plug.

- E. Trip unit shall have selectable thermal memory for enhanced circuit protection.
- F. Complete system selective coordination shall be provided by the addition of the following individually adjustable time/current curve shaping solid-state elements:
  - 1. All circuit breakers shall have adjustments for long delay pickup and time
  - 2. All circuit breakers shall have individual adjustments for short delay pickup and time, and include I<sup>2</sup>t settings
  - 3. Breaker shall have an adjustable instantaneous pickup
  - 4. Breaker shall have individually adjustable ground fault current pickup and time, and include l<sup>2</sup>t settings or ground alarm only
- G. The trip unit shall have provisions for a single test kit to test each of the trip functions.
- H. The trip unit shall provide zone interlocking for the short-time delay and ground fault delay trip functions for improved system coordination.

The zone interlocking system shall restrain the tripping of an upstream breaker and allow the breaker closest to the fault to trip with no intentional time delay. In the event that the downstream breaker does not trip, the upstream breaker shall trip after a preset time delay.

- I. The trip unit shall have an information system that utilizes battery backup LEDs to indicate mode of trip following an automatic trip operation. The indication of the mode of trip shall be retained after an automatic trip operation. The indication of the mode of trip shall be retained after an automatic trip. A test pushbutton shall energize a LED to indicate the battery status.
- J. Breakers shall have individually adjustable ground fault alarm only.
- K. The trip unit shall have a 4-character LCD display showing phase, neutral, and ground current. The accuracy of these readings shall be +/- 2% of full scale.
- L. The trip unit shall be equipped to permit communication via a network twisted pair to the LAN system provided in the equipment for remote monitoring and control. All monitored parameters shall be transmitted.
- M. The trip unit shall include a power/relay module, which shall supply control power to the readout display. Following an automatic trip operation of the circuit breaker, the trip unit shall maintain the cause of trip history and the mode of trip LED indication as long as its internal power supply is available. An internal relay shall be programmable to provide contacts for remote ground alarm indication.
- N. The trip unit shall include a voltage transformer module, suitable for operation up to 600V, 50/60 Hz. The primary of the power relay module shall be connected internally to the line side of the circuit breaker through a dielectric test disconnect plug.
- O. The display for the trip units shall be a 24-character LED display.

- P. Metering display accuracy of the complete system, including current sensors, auxiliary CTs, and the trip unit, shall be +/- 1% of full scale for current values. Metering display accuracy of the complete system shall be +/- 2% of full scale for power and energy values.
- Q. The unit shall be capable of monitoring the following data:
  - 1. Instantaneous value of phase, neutral and ground current
  - 2. Instantaneous value of line-to-line voltage
  - 3. Minimum and maximum current values
  - 4. Watts, vars, VA, watthours, varhours, and VA hours, Peak demand, Present demand
  - 5. Energy consumption.
  - 6. Crest factor, power factor, percent total harmonic distortion, and harmonic values of all phases through the 31st harmonic.
- R. An adjustable high load alarm shall be provided, adjustable from 50 to 100% of the long delay pickup setting.
- S. The trip unit shall contain an integral test pushbutton. A keypad shall be provided to enable the user to select the values of test currents within a range of available settings.

The protection functions shall not be affected during test operations. The breaker may be tested in the TRIP or NO TRIP test mode.

- T. Programming may be done via a keypad at the faceplate of the unit or via the communication network.
- U. System coordination shall be provided by the following microprocessor-based programmable time-current curve shaping adjustments. The short-time pickup adjustment shall be dependent on the long delay setting.
  - 1. Programmable long-time setting
  - 2. Programmable long-time delay with selectable  $I^{2}$ t or  $I^{4}$ t curve shaping
  - 3. Programmable short-time setting
  - 4. Programmable short-time delay with selectable flat or I<sup>2</sup>t curve shaping, and zone selective interlocking
  - 5. Programmable instantaneous setting
  - 6. Programmable ground fault setting trip or ground fault setting alarm
  - 7. Programmable ground fault delay with selectable flat or I<sup>2</sup>t curve shaping and zone selective interlocking
- V. The trip unit shall offer a three-event trip log that will store the trip data, and shall time and date stamp the event.
- W. The trip unit shall have the following advanced features integral to the trip unit:
  - 1. Adjustable undervoltage release
  - 2. Adjustable overvoltage release
  - 3. Reverse load and fault current

- 4. Reverse sequence voltage alarm
- 5. Underfrequency
- 6. Overfrequency
- 7. Voltage phase unbalance and phase loss during current detection
- X. The proposed breaker must meet the current LV Switch gear requirements. This item will be paid for at the contract unit price per each for CIRCUIT BREAKER.

#### **RESPONSE TIMES**

The Department may establish an expected response time for the requested service at the time a work order is issued. If, however, the Contractor is not given a definitive response time, the following are to apply:

1. Emergency Service Calls - Work crew shall be at the location on the work order within one and one-half hours of notification during normal work hours and within two hours of notification after normal work hours.

Normal work hours, for the purposes of this contract shall be hours during which the Contractor is not required to pay overtime labor rates.

Emergency Service Calls are defined as all traffic signals at an intersection dark or malfunctioning, dark flashing beacons, knocked down traffic signal or highway lighting standards or controllers and knocked down, damaged flashing beacon installations or as designated by the Department.

- 2. Non-Emergency Traffic Signal/Flashing Beacon Calls respond within 24 hours of issuance.
- 3. Outages respond within five (5) working days of issuance.

Working day, when used in connection with this contract, shall mean any day the offices of the Department are open for normal business.

4. Routine Work Items - complete work within 30 days of the date work order was issued.

It shall be the Contractor's responsibility to promptly notify the Department, if for any reason, the Contractor cannot meet either the response time established at the issuance of the work order, or the response times established herein.

#### FAILURE TO MEET RESPONSE TIME /LIQUIDATED DAMAGES

Time is of the essence when responding to a work order issued by the Department for an emergency service call. Failure to respond and make repairs in a timely manner will cause public inconvenience, endanger the public safety, and subject the Department to public criticism.

Emergency service calls shall be responded to as designated in the above section. In the event of a breach of the designated response times by the Contractor, the Contractor and Department agree that an amount of actual damage is difficult to ascertain. Therefore, the Contractor and the Department agree that in the event the Contractor fails to meet the required response time for an emergency service call, the Contractor shall be liable to the Department for liquidated damages as specified in the following amounts which are reasonable and proportionate to the amount of the work order:

Work Order Amount: Liquidated Damages for:

From:	To:	Each 15 Minutes*
\$0	\$ 500	\$ 25
\$ 500	\$1000	\$ 50
\$1000	and over	\$100

\* After applicable response time expires

#### CONTROL OF WORK

The Department shall conduct frequent inspections of the respective systems and installations to determine if the servicing is being performed by the Contractor promptly and satisfactorily, and in the manner specified in the contract.

The Contractor shall at all times provide a force of qualified personnel sufficient, in the opinion of the Department, to perform the work and specialized operations required and described herein. A working knowledge will be required in basic electrical circuits, solid state circuits, D.C. applications, field testing equipment, and local/national electrical codes. The Department of Transportation shall be the sole judge as to the qualifications and credentials of the Contractor's personnel.

The Department reserves the right to require the Contractor to remove any employee from his/her assignment on the job site based upon conduct, carelessness, insubordination, incompetence, inefficiency or any other conditions deemed to be contrary to the best interest of the State of Illinois.

The Department reserves the right to place maximum or minimum limits on the work force and/or equipment utilized by the Contractor to execute a work order. The Contractor's employees shall be prepared to cooperate with such inspections and shall provide whatever information is requested concerning the work in progress.

Each work day, the Contractor shall provide the Department a schedule of contract work activities for the day. The schedule will show the location, type of work and estimate of when each work crew will be at the location on the work order. This information shall be faxed to 618/346-3295 & 618/346-3295 by 8:30 a.m.

#### TRAFFIC CONTROL AND PROTECTION

The Contractor shall utilize the proper traffic control and protection procedures required by applicable State standards, to properly protect his workmen and the motoring public, when work is being performed on or near the roadway. Traffic control and protection will be provided by the Contractor utilizing available pay items listed in this contract. Signs and mountings, barricades and cones used for traffic control and protection are incidental to the contract and will not be paid for separately. Traffic control and protection is incidental to the unit cost of all Routine Work Items.

All Contractor vehicles used to fulfill the conditions of this contract shall be marked with no less than a total of 75 feet of 6" wide high intensity retroreflective conspicuous markings on the sides and rear of the vehicle. The color of these marking shall contrast the color of the vehicle. Each vehicle shall be equipped with front and rear strobes, one side will be amber and the other side will be white.

Lane closures will not be allowed during peak traffic periods from 6:00 a.m. to 9:00 a.m. and from 3:00 p.m. to 6:00 p.m., Monday through Friday, or at other times of peak traffic volumes, except to respond to an emergency call, or upon approval from the Department.

The Contractor shall submit a work zone lane closure request form for work in the areas designated on form to the Department before 2:00 p.m. the day before the work zone will be implemented. This form may be faxed to 618-346-3266. The Department will review the request and will either approve or reject the request. If the Department rejects the request, the Contractor will not be allowed to implement the work zone. A work zone lane closure request form is not needed when the Contractor is responding to an emergency call or upon approval from the Department.

If the Contractor fails to have all lanes of traffic open during the peak hours for traffic or conducts operations that will impede the flow of traffic during peak hours, a monetary penalty shall be assessed to the Contractor. The penalty shall be \$1000 for each 15-minute period or a portion thereof during the peak hours.

#### CONTRACTOR'S REPRESENTATIVE

The Contractor shall designate a service representative to serve as the key contact person for the Department of Transportation in the execution of this contract. The service representative shall monitor the daily activities of the contract and be available to discuss and respond to any problems that may arise. The services of this person shall be considered incidental to the contract and no additional compensation shall be allowed.

#### SUPERVISION OF WORK FORCE

The Contractor shall provide adequate supervision to his work force to insure that workers and materials are utilized in an efficient manner. This is to include, but not limited to, insuring that knowledgeable and experienced workers are matched to related servicing tasks, that the proper type of service vehicle is sent for each work order, and that service vehicles are equipped with the parts, materials, and equipment required to complete the work order. No additional allowance will be made for general superintendence of the work force used on this contract.

#### **ROUTINE WORK ITEMS**

The Contractor shall complete the routine work items as described in this section.

#### **TEST EQUIPMENT**

The Contractor shall provide all of his own testing instruments, as required, to service the electrical facilities of the Department.

All required test equipment shall be considered incidental to the contract and no additional compensation will be allowed.

#### SMALL TOOLS

Individual pieces of equipment not listed in the Department's Schedule of Average Annual Equipment Ownership Expense booklet, and having a replacement value of \$1,000.00 or less, shall be considered to be tools or small equipment and no payment will be made for their use on this contract.

#### WAIVER OF LIEN

The Department may, at its discretion, require Waivers of Lien for materials or authorized subcontracted work prior to payment for any goods or services.

#### PROTECTIVE GEAR AND CLOTHING

The Contractor shall be responsible for providing their workmen any necessary protective gear or clothing which may be required in the execution of a work order. Such gear or clothing could include, but not be limited to, dust masks, breathing apparatus, electrically insulated gloves, protective gloves and clothing for chemicals, etc. The cost to provide protective gear or clothing shall not be paid for separately, but shall be considered included in this contract.

#### CONFINED SPACE ENTRY

The enclosed areas of bridge structures and pylons are considered to be confined spaces. The Contractor shall comply with all OSHA requirements relative to confined space entry. An oxygen deficient, toxic, explosive or flammable atmosphere may exist within this confined space. Atmosphere testing shall be conducted prior to entry and continuously while employees are working within a confined space. The Contractor shall inform the Department of who will serve as the rescue responder in an emergency and what system will be used to notify the responder that an emergency exists. Compliance with this Provision shall be considered included in this contract and no additional compensation will be allowed.

#### INVOICES

The amount shown on each invoice shall be in accordance with the rates established in the Summary of Quantities section. Any invoices/bills issued by the Contractor to the Department pursuant to this contract shall be sent to the following address:

Illinois Department of Transportation District 8/Operations Attn: Christine Trucano 1102 Eastport Plaza Drive Collinsville, IL 62234

Separate billing invoices shall be submitted by the Contractor for each individual work order. The Department will provide the Contractor a computer software database that shall be used by the Contractor to prepare the billing invoices.

By the 5<sup>th</sup> working day of each month, the Contractor shall submit the actual invoice, or an accurate estimate of cost for the work order, for services performed or assigned during the preceding month. The Contractor shall submit an invoice for each work order within two (2) weeks after completion of the work.

The Contractor shall submit four (4) copies of each invoice. All invoices shall contain the location of service, work order number, date work occurred, and if applicable, a detail of the amount and cost of labor, equipment and materials (either Department or Contractor supplied) utilized to complete the requested service, a description of the service performed and the total cost of the work. For invoices requiring itemization a subtotal for labor, equipment and materials shall be shown. A copy of the work order shall accompany each invoice.

When apprentice electricians perform work for this contract, the Contractor shall submit the apprentice electrician's on the job training hours and the corresponding work order(s) with the invoice(s).

Final payment will not be made until all services are completed and accepted by the Department.

For Routine Work Items, the invoice shall also include the unit price for the routine work item, plus detailed information about any deficiencies which were found and corrected while performing the routine work item, and a listing and price for parts used other than those required by the routine work item description.

For Non-Routine Work (Regular Work Orders) labor and equipment usage shall be billed to the nearest quarter hour.

The Contractor shall also attach a copy of the invoice showing their cost for any parts or materials, with a unit cost of \$25.00 or more, which are not considered incidental or have no contract unit price. See the Parts and Materials provision of this contract for the definition of incidental parts and materials.

#### SOFTWARE

The Department will provide the Contractor a computer software database the Contractor shall use to prepare billing invoices for work done under this contract. This software is intended to standardize the billing format and provide the Department with electronic record keeping capabilities for electrical maintenance activities.

This requirement is considered included in the contract and no additional compensation will be paid.

#### SCHEDULE OF WORK

Any work performed on State premises shall be done during the hours designated by the State and performed in a manner that does not interfere with the State and its personnel.

#### WARRANTIES FOR SUPPLIES AND SERVICES

Contractor warrants that the supplies furnished under this Contract (a) will conform to the State's manufacturing standards, specifications, drawing, samples or descriptions furnished by the State, including but not limited to all specifications attached as exhibits hereto, (b) will be merchantable, of good quality and workmanship, free from defects for a period of twelve months or longer if specified in writing, and fit and sufficient for the intended use (c) will comply with all federal and state laws, regulations and ordinances pertaining to the manufacturing, packing, labeling, sale and delivery of the supplies (d) will be of good title and be free and clear of all liens and encumbrances and (e) will not infringe any patent, copyright or other intellectual property rights of any third party. Contractor agrees to reimburse the State for any losses, costs, damages or expenses, including without limitations, reasonable attorney's fees and expenses, arising from failure of the supplies to meet such warranties. Contractor shall insure that all manufacturers' warranties are transferred to the State and shall provide a copy of the warranty. These warranties shall be in addition to all other warranties, express, implied or statutory, and shall survive the State's payment, acceptance, inspection or failure to inspect the supplies.

Contractor warrants that all services will be performed in a good and professional manner to industry standards by trained and competent personnel. Contractor shall monitor performances of each individual and shall reassign immediately any individual who is not performing to professional standards, who is not efficient or effective in performing the work of the contract, who is disruptive or not respectful of others in the workplace, or who in any way violates the Contract or State policies.

#### EXPENSES

Unless otherwise agreed upon and stated herein, this Contract does not allow for reimbursement of any expense incurred by Contractor, including but not limited to telephone or other communications device, postage, copying, travel, transportation, lodging, food and per diem.

#### ΤΑΧ

Contractor shall not bill for any taxes unless accompanied by proof the State is subject to the tax. If necessary, Contractor may request the applicable Agency's Illinois tax exemption number and federal tax exemption information.

#### PAYMENT TERMS AND CONDITIONS

By submitting an invoice, Contractor certifies that the supplies or services provided meet all requirements of the Contract, and the amount billed and expenses incurred are as allowed in the Contract. Invoices for services performed and expenses incurred through June 30 of any year must be submitted to the State no later than July 31 of that year; otherwise Contractor may have to seek payment through the Illinois Court of Claims (30 ILCS 105/25). All invoices are subject to statutory offset (30 ILCS 210).

Payments, including late payment charges, will be paid in accordance with the State "Prompt Payment Act" (30 ILCS 540) and rules (74 III. Adm. Code 900) when applicable. Payments delayed at the beginning of the State's fiscal year (July and August payments) because of the appropriation process shall not be considered a breach.

#### STATUS OF UTILITIES TO BE ADJUSTED

#### NO UTILITIES TO BE ADJUSTED

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

If any utility adjustment or removal has not been completed when required by the Contractor's operation, the Contractor should notify the Engineer in writing. A request for an extension of time will be considered to the extent the Contractor's operations were affected.

#### COMPENSABLE DELAY COSTS (BDE)

Effective: June 2, 2017

Revised: April 1, 2019

Revise Article 107.40(b) of the Standard Specifications to read:

"(b) Compensation. Compensation will not be allowed for delays, inconveniences, or damages sustained by the Contractor from conflicts with facilities not meeting the above definition; or if a conflict with a utility in an unanticipated location does not cause a shutdown of the work or a documentable reduction in the rate of progress exceeding the limits set herein. The provisions of Article 104.03 notwithstanding, compensation for delays caused by a utility in an unanticipated location will be paid according to the provisions of this Article governing minor and major delays or reduced rate of production which are defined as follows.

- (1) Minor Delay. A minor delay occurs when the work in conflict with the utility in an unanticipated location is completely stopped for more than two hours, but not to exceed two weeks.
- (2) Major Delay. A major delay occurs when the work in conflict with the utility in an unanticipated location is completely stopped for more than two weeks.
- (3) Reduced Rate of Production Delay. A reduced rate of production delay occurs when the rate of production on the work in conflict with the utility in an unanticipated location decreases by more than 25 percent and lasts longer than seven calendar days."

Revise Article 107.40(c) of the Standard Specifications to read:

- "(c) Payment. Payment for Minor, Major, and Reduced Rate of Production Delays will be made as follows.
  - (1) Minor Delay. Labor idled which cannot be used on other work will be paid for according to Article 109.04(b)(1) and (2) for the time between start of the delay and the minimum remaining hours in the work shift required by the prevailing practice in the area.

Equipment idled which cannot be used on other work, and which is authorized to standby on the project site by the Engineer, will be paid for according to Article 109.04(b)(4).

(2) Major Delay. Labor will be the same as for a minor delay.

Equipment will be the same as for a minor delay, except Contractor-owned equipment will be limited to two weeks plus the cost of move-out to either the Contractor's yard or another job and the cost to re-mobilize, whichever is less. Rental equipment may be paid for longer than two weeks provided the Contractor presents adequate support to the Department (including lease agreement) to show retaining equipment on the job is the most economical course to follow and in the public interest.

(3) Reduced Rate of Production Delay. The Contractor will be compensated for the reduced productivity for labor and equipment time in excess of the 25 percent threshold for that portion of the delay in excess of seven calendar days. Determination of compensation will be in accordance with Article 104.02, except labor and material additives will not be permitted.

Payment for escalated material costs, escalated labor costs, extended project overhead, and extended traffic control will be determined according to Article 109.13."

Revise Article 108.04(b) of the Standard Specifications to read:

- "(b) No working day will be charged under the following conditions.
  - (1) When adverse weather prevents work on the controlling item.
  - (2) When job conditions due to recent weather prevent work on the controlling item.

- (3) When conduct or lack of conduct by the Department or its consultants, representatives, officers, agents, or employees; delay by the Department in making the site available; or delay in furnishing any items required to be furnished to the Contractor by the Department prevents work on the controlling item.
- (4) When delays caused by utility or railroad adjustments prevent work on the controlling item.
- (5) When strikes, lock-outs, extraordinary delays in transportation, or inability to procure critical materials prevent work on the controlling item, as long as these delays are not due to any fault of the Contractor.
- (6) When any condition over which the Contractor has no control prevents work on the controlling item."

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

"(f) Basis of Payment. After resolution of a claim in favor of the Contractor, any adjustment in time required for the work will be made according to Section 108. Any adjustment in the costs to be paid will be made for direct labor, direct materials, direct equipment, direct jobsite overhead, direct offsite overhead, and other direct costs allowed by the resolution. Adjustments in costs will not be made for interest charges, loss of anticipated profit, undocumented loss of efficiency, home office overhead and unabsorbed overhead other than as allowed by Article 109.13, lost opportunity, preparation of claim expenses and other consequential indirect costs regardless of method of calculation.

The above Basis of Payment is an essential element of the contract and the claim cost recovery of the Contractor shall be so limited."

Add the following to Section 109 of the Standard Specifications.

"**109.13 Payment for Contract Delay.** Compensation for escalated material costs, escalated labor costs, extended project overhead, and extended traffic control will be allowed when such costs result from a delay meeting the criteria in the following table.

Contract Type	Cause of Delay	Length of Delay	
Working Days Article 108.04(b)(3) o Article 108.04(b)(4)		No working days have been charged for two consecutive weeks.	
Completion Date	Article 108.08(b)(1) or Article 108.08(b)(7)		

Payment for each of the various costs will be according to the following.

(a) Escalated Material and/or Labor Costs. When the delay causes work, which would have otherwise been completed, to be done after material and/or labor costs have increased, such increases will be paid. Payment for escalated material costs will be limited to the increased costs substantiated by documentation furnished by the Contractor. Payment for escalated labor costs will be limited to those items in Article 109.04(b)(1) and (2), except the 35 percent and 10 percent additives will not be permitted.

- (b) Extended Project Overhead. For the duration of the delay, payment for extended project overhead will be paid as follows.
  - (1) Direct Jobsite and Offsite Overhead. Payment for documented direct jobsite overhead and documented direct offsite overhead, including onsite supervisory and administrative personnel, will be allowed according to the following table.

Original Contract Amount	Supervisory and Administrative Personnel		
Up to \$5,000,000	One Project Superintendent		
Over \$ 5,000,000 - up to \$25,000,000	One Project Manager, One Project Superintendent or Engineer, and One Clerk		
Over \$25,000,000 - up to \$50,000,000	One Project Manager, One Project Superintendent, One Engineer, and One Clerk		
Over \$50,000,000	One Project Manager, Two Project Superintendents, One Engineer, and One Clerk		

- (2) Home Office and Unabsorbed Overhead. Payment for home office and unabsorbed overhead will be calculated as 8 percent of the total delay cost.
- (c) Extended Traffic Control. Traffic control required for an extended period of time due to the delay will be paid for according to Article 109.04.

When an extended traffic control adjustment is paid under this provision, an adjusted unit price as provided for in Article 701.20(a) for increase or decrease in the value of work by more than ten percent will not be paid.

Upon payment for a contract delay under this provision, the Contractor shall assign subrogation rights to the Department for the Department's efforts of recovery from any other party for monies paid by the Department as a result of any claim under this provision. The Contractor shall fully cooperate with the Department in its efforts to recover from another party any money paid to the Contractor for delay damages under this provision."

#### CONSTRUCTION AIR QUALITY – DIESEL RETROFIT (BDE)

Effective: June 1, 2010

Revised: November 1, 2014

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

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

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

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

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

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

- a) Included on the U.S. Environmental Protection Agency (USEPA) *Verified Retrofit Technology List* (<u>http://www.epa.gov/cleandiesel/verification/verif-list.htm</u>), or verified by the California Air Resources Board (CARB) (<u>http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm</u>); or
- b) Retrofitted with a non-verified diesel retrofit emission control device if verified retrofit emission control devices are not available for equipment proposed to be used on the project, and if the Contractor has obtained a performance certification from the retrofit device manufacturer that the emission control device provides a minimum PM emission reduction of 50 percent.

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

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

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

with emissions control devices shall be made available to the Engineer for visual inspection of the device installation, prior to being used on the jobsite.

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

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

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

#### **Diesel Retrofit Deficiency Deduction**

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

The deficiency will be based on lack of diesel retrofit emissions control.

If a Contractor accumulates three diesel retrofit deficiency deductions for the same piece of equipment in a contract period, the Contractor will be shutdown until the deficiency is corrected. Such a shutdown will not be grounds for any extension of the contract time, waiver of penalties, or be grounds for any claim.

#### DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION (BDE)

Effective: September 1, 2000

Revised: March 2, 2019

<u>FEDERAL OBLIGATION</u>. The Department of Transportation, as a recipient of federal financial assistance, is required to take all necessary and reasonable steps to ensure nondiscrimination in the award and administration of contracts. Consequently, the federal regulatory provisions of 49 CFR Part 26 apply to this contract concerning the utilization of disadvantaged business enterprises. For the purposes of this Special Provision, a disadvantaged business enterprise (DBE) means a business certified by the Department in accordance with the requirements of 49 CFR Part 26 and listed in the Illinois Unified Certification Program (IL UCP) DBE Directory.

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

<u>CONTRACTOR ASSURANCE</u>. The Contractor makes the following assurance and agrees to include the assurance in each subcontract the Contractor signs with a subcontractor.

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

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

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

<u>CONTRACT GOAL TO BE ACHIEVED BY THE CONTRACTOR</u>. This contract includes a specific DBE utilization goal established by the Department. The goal has been included because the Department has determined 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, in the absence of unlawful discrimination and in an arena of fair and open competition, DBE companies can be expected to perform **0.00**% 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 enough DBE participation has been obtained to meet the goal or,
- (b) The bidder documents a good faith effort has been made to meet the goal, even though the effort did not succeed in obtaining enough DBE participation to meet the goal.

<u>DBE LOCATOR REFERENCES</u>. Bidders shall consult the IL UCP DBE Directory as a reference source for DBE-certified companies. In addition, the Department maintains a letting and item specific DBE locator information system whereby DBE companies can register their interest in providing quotes on particular bid items advertised for letting. Information concerning DBE companies willing to quote work for particular contracts may be obtained by contacting the

Department's Bureau of Small Business Enterprises at telephone number (217) 785-4611, or by visiting the Department's website at:

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

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

The bidder shall submit a DBE Utilization Plan (form SBE 2026), and a DBE Participation Statement (form SBE 2025) for each DBE company proposed for the performance of work to achieve the contract goal, with the bid. If the Utilization Plan indicates the contract goal will not be met, documentation of good faith efforts shall also be submitted. The documentation of good faith efforts must include copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor is selected over a DBE for work on the contract. The required forms and documentation must be submitted as a single .pdf file using the "Integrated Contractor Exchange (iCX)" application within the Department's "EBids System".

The Department will not accept a Utilization Plan if it does not meet the bidding procedures set forth herein and the bid will be declared not responsive. In the event the bid is declared not responsive, the Department may elect to cause the forfeiture of the penal sum of the bidder's proposal guaranty and may deny authorization to bid the project if re-advertised for bids.

GOOD FAITH EFFORT PROCEDURES. The contract will not be awarded until the Utilization Plan is approved. All information submitted by the bidder must be complete, accurate and adequately document enough DBE participation has been obtained or document the good faith efforts of the bidder, in the event enough DBE participation has not been obtained, before the Department will commit to the performance of the contract by the bidder. The Utilization Plan will be approved by the Department if the Utilization Plan documents sufficient commercially useful DBE work to meet the contract goal or the bidder submits sufficient documentation of a good faith effort to meet the contract goal pursuant to 49 CFR Part 26, Appendix A. This means 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 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 Contractor might otherwise prefer to perform these work items with its own forces.
- (3) Providing interested DBE companies with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.
- (4) a. Negotiating in good faith with interested DBE companies. It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBE companies that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBE companies to perform the work.
  - b. A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBE companies is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also the ability or desire of a bidder to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Bidders are not, however, required to accept higher quotes from DBE companies if the price difference is excessive or unreasonable. In accordance with the above Bidding Procedures, the documentation of good faith efforts must include copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor was selected over a DBE for work on the contract.
- (5) Not rejecting DBE companies as being unqualified without sound reasons based on a thorough investigation of their capabilities. The bidder's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the bidder's efforts to meet the project goal.
- (6) Making efforts to assist interested DBE companies in obtaining bonding, lines of credit, or insurance as required by the recipient or Contractor.
- (7) Making efforts to assist interested DBE companies in obtaining necessary equipment, supplies, materials, or related assistance or services.
- (8) Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBE companies.

- (b) If the Department determines the bidder has made a good faith effort to secure the work commitment of DBE companies to meet the contract goal, the Department will award the contract provided it is otherwise eligible for award. If the Department determines 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 will also include a statement of reasons for the adverse determination. If the Utilization Plan is not approved because it is deficient as a technical matter, unless waived by the Department, the bidder will be notified and will be allowed no more than a five calendar day period to cure the deficiency.
- (c) The bidder may request administrative reconsideration of an adverse determination by emailing the Department at "DOT.DBE.UP@illinois.gov" within the five calendar days after the receipt of the notification of the determination. The determination shall become final if a request is not made on or before the fifth calendar day. A request may provide additional written documentation or argument concerning the issues raised in the determination statement of reasons, provided the documentation and arguments address efforts made prior to submitting the bid. The request will be reviewed by the Department's Reconsideration Officer. The Reconsideration Officer will extend an opportunity to the bidder to meet in person 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 reconsideration, explaining the basis for finding that the bidder did or did not meet the goal or make adequate good faith efforts to do so. A final decision by the Reconsideration Officer that a good faith effort was made shall approve the Utilization Plan submitted by the bidder and shall clear the contract for award. A final decision that a good faith effort was not made shall render the bid not responsive.

<u>CALCULATING DBE PARTICIPATION</u>. The Utilization Plan values represent work anticipated to be performed and paid for upon satisfactory completion. The Department is only able to count toward the achievement of the overall goal and the contract goal the value of payments made for the work actually performed by DBE companies. In addition, a DBE must perform a commercially useful function on the contract to be counted. A commercially useful function is generally performed when the DBE is responsible for the work and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. The Department and Contractor are governed by the provisions of 49 CFR Part 26.55(c) on questions of commercially useful functions as it affects the work. Specific counting guidelines are provided in 49 CFR Part 26.55, the provisions of which govern over the summary contained herein.

- (a) DBE as the Contractor: 100 percent goal credit for that portion of the work performed by the DBE's own forces, including the cost of materials and supplies. Work that a DBE subcontracts to a non-DBE does not count toward the DBE goals.
- (b) DBE as a joint venture Contractor: 100 percent goal credit for that portion of the total dollar value of the contract equal to the distinct, clearly defined portion of the work performed by the DBE's own forces.
- (c) DBE as a subcontractor: 100 percent goal credit for the work of the subcontract performed by the DBE's own forces, including the cost of materials and supplies, excluding the purchase of materials and supplies or the lease of equipment by the DBE

subcontractor from the Contractor or its affiliates. Work that a DBE subcontractor in turn subcontracts to a non-DBE does not count toward the DBE goal.

- (d) DBE as a trucker: 100 percent goal credit for trucking participation provided the DBE is responsible for the management and supervision of the entire trucking operation for which it is responsible. At least one truck owned, operated, licensed, and insured by the DBE must be used on the contract. Credit will be given for the following:
  - (1) The DBE may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE. The DBE who leases trucks from another DBE receives credit for the total value of the transportation services the lessee DBE provides on the contract.
  - (2) The DBE may also lease trucks from a non-DBE firm, including from an owneroperator. The DBE who leases trucks from a non-DBE is entitled to credit only for the fee or commission is receives as a result of the lease arrangement.
- (e) DBE as a material supplier:
  - (1) 60 percent goal credit for the cost of the materials or supplies purchased from a DBE regular dealer.
  - (2) 100 percent goal credit for the cost of materials of supplies obtained from a DBE manufacturer.
  - (3) 100 percent credit for the value of reasonable fees and commissions for the procurement of materials and supplies if not a DBE regular dealer or DBE manufacturer.

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

- (a) <u>NO AMENDMENT</u>. No amendment to the Utilization Plan may be made without prior written approval from the Department's Bureau of Small Business Enterprises. All requests for amendment to the Utilization Plan shall be emailed to the Department at <u>DOT.DBE.UP@illinois.gov</u>.
- (b) <u>CHANGES TO WORK</u>. Any deviation from the DBE condition-of-award or contract plans, specifications, or special provisions must be approved, in writing, by the Department as provided elsewhere in the Contract. The Contractor shall notify affected DBEs in writing of any changes in the scope of work which result in a reduction in the

dollar amount condition-of-award to the contract. Where the revision includes work committed to a new DBE subcontractor, not previously involved in the project, then a Request for Approval of Subcontractor, Department form BC 260A or AER 260A, must be signed and submitted. If the commitment of work is in the form of additional tasks assigned to an existing subcontract, a new Request for Approval of Subcontractor will not be required. However, the Contractor must document efforts to assure the existing DBE subcontractor is capable of performing the additional work and has agreed in writing to the change.

- (c) <u>SUBCONTRACT</u>. The Contractor must provide copies of DBE subcontracts to the Department upon request. Subcontractors shall ensure that all lower tier subcontracts or agreements with DBEs to supply labor or materials be performed in accordance with this Special Provision.
- (d) <u>ALTERNATIVE WORK METHODS</u>. In addition to the above requirements for reductions in the condition of award, additional requirements apply to the two cases of Contractorinitiated work substitution proposals. Where the contract allows alternate work methods which serve to delete or create underruns in condition of award DBE work, and the Contractor selects that alternate method or, where the Contractor proposes a substitute work method or material that serves to diminish or delete work committed to a DBE and replace it with other work, then the Contractor must demonstrate one of the following:
  - (1) 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) The DBE is aware 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) 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) <u>TERMINATION AND REPLACEMENT PROCEDURES</u>. The Contractor shall not terminate or replace a DBE listed on the approved Utilization Plan, or perform with other forces work designated for a listed DBE except as provided in this Special Provision. The Contractor shall utilize the specific DBEs listed to perform the work and supply the materials for which each is listed unless the Contractor obtains the Department's written consent as provided in subsection (a) of this part. Unless Department consent is provided for termination of a DBE subcontractor, the Contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the DBE in the Utilization Plan.

As stated above, the Contractor shall not terminate or replace a DBE subcontractor listed in the approved Utilization Plan without prior written consent. This includes, but is not limited to, instances in which the Contractor seeks to perform work originally designated for a DBE subcontractor with its own forces or those of an affiliate, a non-DBE firm, or with another DBE firm. Written consent will be granted only if the Bureau of Small Business Enterprises agrees, for reasons stated in its concurrence document, that the Contractor has good cause to terminate or replace the DBE firm. Before transmitting to the Bureau of Small Business Enterprises any request to terminate and/or substitute a

DBE subcontractor, the Contractor shall give notice in writing to the DBE subcontractor, with a copy to the Bureau, of its intent to request to terminate and/or substitute, and the reason for the request. The Contractor shall give the DBE five days to respond to the Contractor's notice. The DBE so notified shall advise the Bureau and the Contractor of the reasons, if any, why it objects to the proposed termination of its subcontract and why the Bureau should not approve the Contractor's action. If required in a particular case as a matter of public necessity, the Bureau may provide a response period shorter than five days.

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

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

When a DBE is terminated or fails to complete its work on the Contract for any reason, the Contractor shall make a good faith effort to find another DBE to substitute for the original DBE to perform at least the same amount of work under the contract as the terminated DBE to the extent needed to meet the established Contract goal. The good faith efforts shall be documented by the Contractor. If the Department requests documentation under this provision, the Contractor shall submit the documentation within seven days, which may be extended for an additional

seven days if necessary at the request of the Contractor. The Department will provide a written determination to the Contractor stating whether or not good faith efforts have been demonstrated.

- (f) <u>FINAL PAYMENT</u>. 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 30 calendar days after payment has been made by the Department to the Contractor for such work or material, the Contractor shall submit a DBE Payment Agreement on Department form SBE 2115 to the Resident Engineer. If full and final payment has not been made to the DBE, the DBE Payment Agreement shall indicate whether a disagreement as to the payment required exists between the Contractor and the DBE or if the Contractor believes the work has not been satisfactorily completed. If the Contractor does not have the full amount of work indicated in the Utilization Plan performed by the DBE companies indicated in the Utilization Plan and after good faith efforts are reviewed, the Department may deduct from contract payments to the Contractor the amount of the goal not achieved as liquidated and ascertained damages. The Contractor may request an administrative reconsideration of any amount deducted as damages pursuant to subsection (h) of this part.
- (g) <u>ENFORCEMENT</u>. The Department reserves the right to withhold payment to the Contractor to enforce the provisions of this Special Provision. Final payment shall not be made on the contract until such time as the Contractor submits sufficient documentation demonstrating achievement of the goal in accordance with this Special Provision or after liquidated damages have been determined and collected.
- (h) <u>RECONSIDERATION</u>. Notwithstanding any other provision of the contract, including but not limited to Article 109.09 of the Standard Specifications, the Contractor 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. The result of the reconsideration process is not administratively appealable to the U.S. Department of Transportation.

# DISPOSAL FEES (BDE)

Effective: November 1, 2018

Replace Articles 109.04(b)(5) - 109.04(b)(8) of the Standard Specifications with the following:

- "(5) Disposal Fees. When the extra work performed includes paying for disposal fees at a clean construction and demolition debris facility, an uncontaminated soil fill operation or a landfill, the Contractor shall receive, as administrative costs, an amount equal to five percent of the first \$10,000 and one percent of any amount over \$10,000 of the total approved costs of such fees.
- (6) Miscellaneous. No additional allowance will be made for general superintendence, the use of small tools, or other costs for which no specific allowance is herein provided.
- (7) Statements. No payment will be made for work performed on a force account basis until the Contractor has furnished the Engineer with itemized statements of the cost of such

force account work. Statements shall be accompanied and supported by invoices for all materials used and transportation charges. However, if materials used on the force account work are not specifically purchased for such work but are taken from the Contractor's stock, then in lieu of the invoices, the Contractor shall furnish an affidavit certifying that such materials were taken from his/her stock, that the quantity claimed was actually used, and that the price and transportation claimed represent the actual cost to the Contractor.

Itemized statements at the cost of force account work shall be detailed as follows.

- a. Name, classification, date, daily hours, total hours, rate, and extension for each laborer and foreman. Payrolls shall be submitted to substantiate actual wages paid if so requested by the Engineer.
- b. Designation, dates, daily hours, total hours, rental rate, and extension for each unit of machinery and equipment.
- c. Quantities of materials, prices and extensions.
- d. Transportation of materials.
- e. Cost of property damage, liability and workmen's compensation insurance premiums, unemployment insurance contributions, and social security tax.
- (8) Work Performed by an Approved Subcontractor. When extra work is performed by an approved subcontractor, the Contractor shall receive, as administrative costs, an amount equal to five percent of the total approved costs of such work with the minimum payment being \$100.
- (9) All statements of the cost of force account work shall be furnished to the Engineer not later than 60 days after receipt of the Central Bureau of Construction form "Extra Work Daily Report". If the statement is not received within the specified time frame, all demands for payment for the extra work are waived and the Department is released from any and all such demands. It is the responsibility of the Contractor to ensure that all statements are received within the specified time regardless of the manner or method of delivery."

#### EQUIPMENT PARKING AND STORAGE (BDE)

Effective: November 1, 2017

Replace the first paragraph of Article 701.11 of the Standard Specifications with the following.

"**701.11 Equipment Parking and Storage.** During working hours, all vehicles and/or nonoperating equipment which are parked, two hours or less, shall be parked at least 8 ft (2.5 m) from the open traffic lane. For other periods of time during working and for all nonworking hours, all vehicles, materials, and equipment shall be parked or stored as follows.

- (a) When the project has adequate right-of-way, vehicles, materials, and equipment shall be located a minimum of 30 ft (9 m) from the pavement.
- (b) When adequate right-of-way does not exist, vehicles, materials, and equipment shall be located a minimum of 15 ft (4.5 m) from the edge of any pavement open to traffic.

- (c) Behind temporary concrete barrier, vehicles, materials, and equipment shall be located a minimum of 24 in. (600 mm) behind free standing barrier or a minimum of 6 in. (150 mm) behind barrier that is either pinned or restrained according to Article 704.04. The 24 in. or 6 in. measurement shall be from the base of the non-traffic side of the barrier.
- (d) Behind other man-made or natural barriers meeting the approval of the Engineer."

### **MOBILIZATION (BDE)**

Effective: April 1, 2020

Replace Articles 671.02(a), (b), and (c) of the Standard Specifications with the following:

- "(a) Upon execution of the contract, 90 percent of the pay item will be paid.
- (b) When 90 percent of the adjusted contract value is earned, the remaining ten percent of the pay item will be paid along with any amount bid in excess of six percent of the original contract amount."

### REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES (BDE)

Effective: January 1, 2019

Revised: January 1, 2020

Revise Section 669 of the Standard Specifications to read:

#### **"SECTION 669. REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES**

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

**669.02 Equipment.** The Contractor shall notify the Engineer of the delivery of all excavation, storage, and transportation equipment to a work area location. The equipment shall comply with OSHA and American Petroleum Institute (API) guidelines and shall be furnished in a clean condition. Clean condition means the equipment does not contain any residual material classified as a non-special waste, non-hazardous special waste, or hazardous waste. Residual materials include, but are not limited to, petroleum products, chemical products, sludges, or any other material present in or on equipment.

Before beginning any associated soil or groundwater management activity, the Contractor shall provide the Engineer with the opportunity to visually inspect and approve the equipment. If the equipment contains any contaminated residual material, decontamination shall be performed on the equipment as appropriate to the regulated substance and degree of contamination present according to OSHA and API guidelines. All cleaning fluids used shall be treated as the contaminant unless laboratory testing proves otherwise.

**669.03 Pre-Construction Submittals and Qualifications.** Prior to beginning this work, or working in areas with regulated substances, the Contractor shall submit a "Regulated

Substances Pre-Construction Plan (RSPCP)" to the Engineer for review and approval using form BDE 2730. The form shall be signed by an Illinois licensed Professional Engineer or Professional Geologist.

As part of the RSPCP, the Contractor(s) or firm(s) performing the work shall meet the following qualifications.

(a) Regulated Substances Monitoring. Qualification for environmental observation and field screening of regulated substances work and environmental observation of UST removal shall require either pre-qualification in Hazardous Waste by the Department or demonstration of acceptable project experience in remediation and operations for contaminated sites in accordance with applicable Federal, State, or local regulatory requirements using BDE 2730.

Qualification for each individual performing regulated substances monitoring shall require a minimum of one-year of experience in similar activities as those required for the project.

(b) Underground Storage Tank Removal. Qualification for underground storage tank (UST) removal work shall require licensing and certification with the Office of the State Fire Marshall (OSFM) and possession of all permits required to perform the work. A copy of the permit shall be provided to the Engineer prior to tank removal.

The qualified Contractor(s) or firm(s) shall also document it does not have any current or former ties with any of the properties contained within, adjoining, or potentially affecting the work.

The Engineer will require up to 21 calendar days for review of the RSPCP. The review may involve rejection or revision and resubmittal; in which case, an additional 21 days will be required for each subsequent review. Work shall not commence until the RSPCP has been approved by the Engineer. After approval, the RSPCP shall be revised as necessary to reflect changed conditions in the field and documented using BDE 2730A "Regulated Substances Pre-Construction Plan (RSPCP) Addendum" and submitted to the Engineer for approval.

# CONSTRUCTION REQUIREMENTS

**669.04 Regulated Substances Monitoring.** Regulated substances monitoring includes environmental observation and field screening during regulated substances management activities at the contract specific work areas. As part of the regulated substances monitoring, the monitoring personnel shall perform and document the applicable duties listed on form BDE 2732 "Regulated Substances Monitoring Daily Record (RSMDR)".

- (a) Environmental Observation. Prior to beginning excavation, the Contractor shall mark the limits of the contract specific work areas. Once work begins, the monitoring personnel shall be present on-site continuously during the excavation and loading of material.
- (b) Field Screening. Field screening shall be performed during the excavation and loading of material from the contract specific work areas, except for material classified according to Article 669.05(b)(1) or 669.05(c) where field screening is not required.

Field screening shall be performed with either a photoionization detector (PID) (minimum 10.6eV lamp) or a flame ionization detector (FID), and other equipment as appropriate, to monitor for potential contaminants associated with regulated substances. The PID or FID shall be calibrated on-site, and background level readings taken and recorded daily, and as field and weather conditions change. Field screen readings on the PID or FID in excess of background levels indicates the potential presence of regulated substances requiring handling as a non-special waste, special waste, or hazardous waste. PID or FID readings may be used as the basis of increasing the limits of removal with the approval of the Engineer but shall in no case be used to decrease the limits.

**669.05 Regulated Substances Management and Disposal.** The management and disposal of soil and/or groundwater containing regulated substances shall be according to the following:

- (a) Soil Analytical Results Exceed Most Stringent MAC. When the soil analytical results indicate detected levels exceed the most stringent maximum allowable concentration (MAC) for chemical constituents in soil established pursuant to Subpart F of 35 III. Adm. Code 1100.605, the soil shall be managed as follows:
  - (1) When analytical results indicate inorganic chemical constituents exceed the most stringent MAC, but still considered within area background levels by the Engineer, the excavated soil can be utilized within the right-of-way as embankment or fill, when suitable. If the soils cannot be utilized within the right-of-way, they shall be managed and disposed of at a landfill as a non-special waste.
  - (2) When analytical results indicate inorganic chemical constituents exceed the most stringent MAC but do not exceed the MAC for a Metropolitan Statistical Area (MSA) County identified in 35 III. Admin. Code 742 Appendix A. Table G, the excavated soil can be utilized within the right-of-way as embankment or fill, when suitable, or managed and disposed of at a clean construction and demolition debris (CCDD) facility or an uncontaminated soil fill operation (USFO) 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 rightof-way as embankment or fill, when suitable, or managed and disposed of off-site at a CCDD facility or an USFO 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 right-of-way as embankment or fill, when suitable, or managed and disposed of off-site at a CCDD facility or an USFO 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 669.05(a)(1) through (a)(4) above and the materials do not contain special waste or hazardous waste, as determined by the Engineer, the soil shall be managed and disposed of at a landfill as a non-special waste.

- (6) When analytical results indicate soil is hazardous by characteristic or listing pursuant to 35 III. Admin. Code 721, contains radiological constituents, or the Engineer otherwise determines the soil cannot be managed according to Articles 669.05(a)(1) through (a)(5) above, the soil shall be managed and disposed of off-site as a 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, the excavated soil can be utilized within the right-of-way as embankment or fill, when suitable, or managed and disposed of off-site according to Article 202.03. However, the excavated soil cannot be taken to a CCDD facility or an USFO for any of the following reasons.
  - (1) The pH of the soil is less than 6.25 or greater than 9.0.
  - (2) The soil exhibited PID or FID readings in excess of background levels.
- (c) Soil Analytical Results Exceed Most Stringent MAC but Do Not Exceed Tiered Approach to Corrective Action Objectives (TACO) Residential. When the soil analytical results indicate that detected levels exceed the most stringent MAC but do not exceed TACO Tier 1 Soil Remediation Objectives for Residential Properties pursuant to 35 III. Admin. Code 742 Appendix B Table A, the excavated soil can be utilized within the right-of-way as embankment or fill, when suitable, or managed and disposed of off-site according to Article 202.03. However, the excavated soil cannot be taken to a CCDD facility or an USFO.
- (d) Groundwater. When groundwater analytical results indicate the detected levels are above Appendix B, Table E of 35 III. Admin. 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 or hazardous waste as applicable. Special waste groundwater shall be containerized and trucked to an off-site treatment facility, or may be discharged to a sanitary sewer or combined sewer when permitted by the local sewer authority. Groundwater discharged to a sanitary sewer or combined sewer shall be pre-treated to remove particulates and measured with a calibrated flow meter to comply with applicable discharge limits. A copy of the permit shall be provided to the Engineer prior to discharging groundwater to the sanitary sewer or combined sewer.

Groundwater encountered within 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 may be discharged to a sanitary sewer or combined sewer when permitted by the local sewer authority, or it shall be containerized and trucked to an off-site treatment facility as a special waste or hazardous waste. The Contractor is prohibited from discharging groundwater within the trench through a 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<sup>-7</sup> cm/sec according to ASTM D 5084, Method A or per another test method approved by the Engineer.

The Contractor shall use due care when transferring contaminated material from the area of origin to the transporter. Should releases of contaminated material to the environment occur (i.e., spillage onto the ground, etc.), the Contractor shall clean-up spilled material and place in the appropriate storage containers as previously specified. Clean-up shall include, but not be limited to, sampling beneath the material staging area to determine complete removal of the spilled material.

The Contractor shall provide engineered barriers, when required, and shall include materials sufficient to completely line excavation surfaces, including sloped surfaces, bottoms, and sidewall faces, within the areas designated for protection.

The Contractor shall obtain all documentation including any permits and/or licenses required to transport the material containing regulated substances to the disposal facility. The Contractor shall coordinate with the Engineer on the completion of all documentation. The Contractor shall make all arrangements for collection and analysis of landfill acceptance testing. The Contractor shall coordinate waste disposal approvals with the disposal facility.

The Contractor shall provide the Engineer with all transport-related documentation within two days of transport or receipt of said document(s). For management of special or hazardous waste, the Contractor shall provide the Engineer with documentation that the Contractor is operating with a valid Illinois special waste transporter permit at least two weeks before transporting the first load of contaminated material.

Transportation and disposal of material classified according to Article 669.05(a)(5) or 669.05(a)(6) shall be completed each day so that none of the material remains on-site by the close of business, except when temporary staging has been approved.

Any waste generated as a special or hazardous waste from a non-fixed facility shall be manifested off-site using the Department's county generator number provided by the Bureau of Design and Environment. An authorized representative of the Department shall sign all manifests for the disposal of the contaminated material and confirm the Contractor's transported volume. Any waste generated as a non-special waste may be managed off-site without a manifest, a special waste transporter, or a generator number.

The Contractor shall select a landfill permitted for disposal of the contaminant within the State of Illinois. The Department will review and approve or reject the facility proposed by the Contractor to use as a landfill. The Contractor shall verify whether the selected disposal facility is compliant with those applicable standards as mandated by their permit and whether the disposal facility is presently, has previously been, or has never been, on the United States Environmental Protection Agency (U.S. EPA) National Priorities List or the Resource Conservation and Recovery Act (RCRA) List of Violating Facilities. The use of a Contractor selected landfill shall in no manner delay the construction schedule or alter the Contractor's responsibilities as set forth.

**669.06** Non-Special Waste Certification. An authorized representative of the Department shall sign and date all non-special waste certifications. The Contractor shall be responsible for providing the Engineer with the required information that will allow the Engineer to certify the waste is not a special waste.

(a) Definition. A waste is considered a non-special waste as long as it is not:

- (1) a potentially infectious medical waste;
- (2) a hazardous waste as defined in 35 III. Admin. Code 721;
- (3) an industrial process waste or pollution control waste that contains liquids, as determined using the paint filter test set forth in subdivision (3)(A) of subsection (m) of 35 III. Admin. Code 811.107;
- (4) a regulated asbestos-containing waste material, as defined under the National Emission Standards for Hazardous Air Pollutants in 40 CFR Part 61.141;
- (5) a material containing polychlorinated biphenyls (PCB's) regulated pursuant to 40 CFR Part 761;
- (6) a material subject to the waste analysis and recordkeeping requirements of 35 III. Admin. Code 728.107 under land disposal restrictions of 35 III. Admin. Code 728;
- (7) a waste material generated by processing recyclable metals by shredding and required to be managed as a special waste under Section 22.29 of the Environmental Protection Act; or
- (8) an empty portable device or container in which a special or hazardous waste has been stored, transported, treated, disposed of, or otherwise handled.
- (b) Certification Information. All information used to determine the waste is not a special waste shall be attached to the certification. The information shall include but not be limited to:
  - (1) the means by which the generator has determined the waste is not a hazardous waste;
  - (2) the means by which the generator has determined the waste is not a liquid;
  - (3) if the waste undergoes testing, the analytic results obtained from testing, signed and dated by the person responsible for completing the analysis;
  - (4) if the waste does not undergo testing, an explanation as to why no testing is needed;
  - (5) a description of the process generating the waste; and
  - (6) relevant material safety data sheets.

**669.07 Temporary Staging.** Soil classified according to Articles 669.05(a)(2), (b)(1), or (c) may be temporarily staged at the Contractor's option. Soil classified according to Articles 669.05(a)(1), (a)(3), (a)(4), (a)(5), (a)(6), or (b)(2) shall be managed and disposed of without temporary staging to the greatest extent practicable. If circumstances beyond the Contractor's control require temporary staging of these latter materials, the Contractor shall request approval from the Engineer in writing.

Temporary staging shall be accomplished within the right-of-way and the Contractor's means and methods shall be described in the approved or amended RSPCP. Staging areas

shall not be located within 200 feet (61 m) of a public or private water supply well; nor within 100 feet (30 m) of sensitive environmental receptor areas, including wetlands, rivers, streams, lakes, or designated habitat zones.

The method of staging shall consist of containerization or stockpiling as applicable for the type, classification, and physical state (i.e., liquid, solid, semisolid) of the material. Materials of different classifications shall be staged separately with no mixing or co-mingling.

When containers are used, the containers and their contents shall remain intact and inaccessible to unauthorized persons until the manner of disposal is determined. The Contractor shall be responsible for all activities associated with the storage containers including, but not limited to, the procurement, transport, and labeling of the containers. The Contractor shall not use a storage container if visual inspection of the container reveals the presence of free liquids or other substances that could cause the waste to be reclassified as a hazardous or special waste.

When stockpiles are used, they shall be covered with a minimum 20-mil plastic sheeting or tarps secured using weights or tie-downs. Perimeter berms or diversionary trenches shall be provided to contain and collect for disposal any water that drains from the soil. Stockpiles shall be managed to prevent or reduce potential dust generation.

When staging non-special waste, special waste, or hazardous waste, the following additional requirements shall apply:

- (a) Non-Special Waste. When stockpiling soil classified according to Article 669.05(a)(1) or 669.05(a)(5), an impermeable surface barrier between the materials and the ground surface shall be installed. The impermeable barrier shall consist of a minimum 20-mil plastic liner material and the surface of the stockpile area shall be clean and free of debris prior to placement of the liner. Measures shall also be taken to limit or discourage access to the staging area.
- (b) Special Waste and Hazardous Waste. Soil classified according to Article 669.05(a)(6) shall not be stockpiled but shall be containerized immediately upon generation in containers, tanks or containment buildings as defined by RCRA, Toxic Substances Control Act (TSCA), and other applicable State or local regulations and requirements, including 35 III. Admin. Code Part 722, Standards Applicable to Generators of Hazardous Waste.

The staging area(s) shall be enclosed (by a fence or other structure) to restrict direct access to the area, and all required regulatory identification signs applicable to a staging area containing special waste or hazardous waste shall be deployed.

Storage containers shall be placed on an all-weather gravel-packed, asphalt, or concrete surface. Containers shall be in good condition and free of leaks, large dents, or severe rusting, which may compromise containment integrity. Containers must be constructed of, or lined with, materials that will not react or be otherwise incompatible with the hazardous or special waste contents. Containers used to store liquids shall not be filled more than 80 percent of the rated capacity. Incompatible wastes shall not be placed in the same container or comingled.

All containers shall be legibly labeled and marked using pre-printed labels and permanent marker in accordance with applicable regulations, clearly showing the date of waste generation, location and/or area of waste generation, and type of waste. The

Contractor shall place these identifying markings on an exterior side surface of the container.

Storage containers shall be kept closed, and storage pads covered, except when access is needed by authorized personnel.

Special waste and hazardous waste shall be transported and disposed within 90 days from the date of generation.

**669.08 Underground Storage Tank Removal.** For the purposes of this section, an underground storage tank (UST) includes the underground storage tank, piping, electrical controls, pump island, vent pipes and appurtenances.

Prior to removing an UST, the Engineer shall determine whether the Department is considered an "owner" or "operator" of the UST as defined by the UST regulations (41 III. Adm. Code Part 176). Ownership of the UST refers to the Department's owning title to the UST during storage, use or dispensing of regulated substances. The Department may be considered an "operator" of the UST if it has control of, or has responsibility for, the daily operation of the UST. The Department may however voluntarily undertake actions to remove an UST from the ground without being deemed an "operator" of the UST.

In the event the Department is deemed not to be the "owner" or "operator" of the UST, the OSFM removal permit shall reflect who was the past "owner" or "operator" of the UST. If the "owner" or "operator" cannot be determined from past UST registration documents from OSFM, then the OSFM removal permit will state the "owner" or "operator" of the UST is the Department. The Department's Office of Chief Counsel (OCC) will review all UST removal permits prior to submitting any removal permit to the OSFM. If the Department is not the "owner" or "operator" of the UST then it will not register the UST or pay any registration fee.

The Contractor shall be responsible for obtaining permits required for removing the UST, notification to the OSFM, using an OSFM certified tank contractor, removal and disposal of the UST and its contents, and preparation and submittal of the OSFM Site Assessment Report in accordance with 41 III. Admin. Code Part 176.330.

The Contractor shall contact the Engineer and the OSFM's office at least 72 hours prior to removal to confirm the OSFM inspector's presence during the UST removal. Removal, transport, and disposal of the UST shall be according to the applicable portions of the latest revision of the "American Petroleum Institute (API) Recommended Practice 1604".

The Contractor shall collect and analyze tank content (sludge) for disposal purposes. The Contractor shall remove as much of the regulated substance from the UST system as necessary to prevent further release into the environment. All contents within the tank shall be removed, transported and disposed of, or recycled. The tank shall be removed and rendered empty according to IEPA definition.

The Contractor shall collect soil samples from the bottom and sidewalls of the excavated area in accordance with 35 III. Admin. Code Part 734.210(h) after the required backfill has been removed during the initial response action, to determine the level of contamination remaining in the ground, regardless if a release is confirmed or not by the OSFM on-site inspector.

In the event the UST is designated a leaking underground storage tank (LUST) by the OSFM's inspector, or confirmation by analytical results, the Contractor shall notify the Engineer and the District Environmental Studies Unit (DESU). Upon confirmation of a release of

contaminants and notifications to the Engineer and DESU, the Contractor shall report the release to the Illinois Emergency Management Agency (IEMA) (e.g., by telephone or electronic mail) and provide them with whatever information is available ("owner" or "operator" shall be stated as the past registered "owner" or "operator", or the IDOT District in which the tank is located and the DESU Manager).

The Contractor shall perform the following initial response actions if a release is indicated by the OSFM inspector:

- (a) Take immediate action to prevent any further release of the regulated substance to the environment, which may include removing, at the Engineer's discretion, and disposing of up to 4 ft (1.2 m) of the contaminated material, as measured from the outside dimension of the tank;
- (b) Identify and mitigate fire, explosion and vapor hazards;
- (c) Visually inspect any above ground releases or exposed below ground releases and prevent further migration of the released substance into surrounding soils and groundwater; and
- (d) Continue to monitor and mitigate any additional fire and safety hazards posed by vapors and free product that have migrated from the tank excavation zone and entered into subsurface structures (such as sewers or basements).

The tank excavation shall be backfilled according to applicable portions of Sections 205, 208, and 550 with a material that will compact and develop stability. All uncontaminated concrete and soil removed during tank extraction may be used to backfill the excavation, at the discretion of the Engineer.

After backfilling the excavation, the site shall be graded and cleaned.

**669.09 Regulated Substances Final Construction Report.** Not later than 90 days after completing this work, the Contractor shall submit a "Regulated Substances Final Construction Report (RSFCR)" to the Engineer using form BDE 2733 and required attachments. The form shall be signed by an Illinois licensed Professional Engineer or Professional Geologist.

**669.10 Method of Measurement.** Non-special waste, special waste, and hazardous waste soil will be measured for payment according to Article 202.07(b) when performing earth excavation, Article 502.12(b) when excavating for structures, or by computing the volume of the trench using the maximum trench width permitted and the actual depth of the trench.

Groundwater containerized and transported off-site for management, storage, and disposal will be measured for payment in gallons (liters).

Backfill plugs will be measured in cubic yards (cubic meters) in place, except the quantity for which payment will be made shall not exceed the volume of the trench, as computed by using the maximum width of trench permitted by the Specifications and the actual depth of the trench, with a deduction for the volume of the pipe.

Engineered Barriers will be measured for payment in square yards (square meters).

**669.11 Basis of Payment.** The work of preparing, submitting and administering a Regulated Substances Pre-Construction Plan will be paid for at the contract lump sum price for REGULATED SUBSTANCES PRE-CONSTRUCTION PLAN.

Regulated substances monitoring, including completion of form BDE 2732 for each day of work, will be paid for at the contract unit price per calendar day, or fraction thereof to the nearest 0.5 calendar day, for REGULATED SUBSTANCES MONITORING.

The installation of engineered barriers will be paid for at the contract unit price per square yard (square meter) for ENGINEERED BARRIER.

The work of UST removal, soil excavation, soil and content sampling, the management of excavated soil and UST content, and UST disposal, will be paid for at the contract unit price per each for UNDERGROUND STORAGE TANK REMOVAL.

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.

The transportation and disposal of groundwater from an excavation determined to be contaminated will be paid for at the contract unit price per gallon (liter) for SPECIAL WASTE GROUNDWATER DISPOSAL or HAZARDOUS WASTE GROUNDWATER DISPOSAL. When groundwater is discharged to a sanitary or combined sewer by permit, the cost will be paid for according to Article 109.05.

Backfill plugs will be paid for at the contract unit price per cubic yard (cubic meter) for BACKFILL PLUGS.

Payment for temporary staging of soil classified according to Articles 669.05(a)(1), (a)(3), (a)(4), (a)(5), (a)(6), or (b)(2) will be paid for according to Article 109.04. The Department will not be responsible for any additional costs incurred, if mismanagement of the staging area, storage containers, or their contents by the Contractor results in excess cost expenditure for disposal or other material management requirements.

Payment for accumulated stormwater removal and disposal will be according to Article 109.04. Payment will only be allowed if appropriate stormwater and erosion control methods were used.

Payment for decontamination, labor, material, and equipment for monitoring areas beyond the specified areas, with the Engineer's prior written approval, will be according to Article 109.04.

When the waste material for disposal requires sampling for landfill disposal acceptance, the samples shall be analyzed for TCLP VOCs, SVOCs, RCRA metals, pH, ignitability, and paint filter test. The analysis will be paid for at the contract unit price per each for SOIL DISPOSAL ANALYSIS using EPA Methods 1311 (extraction), 8260B for VOCs, 8270C for SVOCs, 6010B and 7470A for RCRA metals, 9045C for pH, 1030 for ignitability, and 9095A for paint filter.

The work of preparing, submitting and administering a Regulated Substances Final Construction Report will be paid for at the contract lump sum price REGULATED SUBSTANCES FINAL CONSTRUCTION REPORT."

# SPEED DISPLAY TRAILER (BDE)

Effective: April 2, 2014

Revised: January 1, 2017

Revise the third paragraph of Article 701.11 of the Standard Specifications to read:

"When not being utilized to inform and direct traffic, sign trailers, speed display trailers, arrow boards, and portable changeable message boards shall be treated as nonoperating equipment."

Add the following to Article 701.15 of the Standard Specifications:

"(m) Speed Display Trailer. A speed display trailer is used to enhance safety of the traveling public and workers in work zones by alerting drivers of their speed, thus deterring them from driving above the posted work zone speed limit."

Add the following to Article 701.20 of the Standard Specifications:

"(k) When speed display trailers are shown on the Standard, this work will not be paid for separately but shall be considered as included in the cost of the Standard.

For all other speed display trailers, this work will be paid for at the contract unit price per calendar month or fraction thereof for each trailer as SPEED DISPLAY TRAILER."

Add the following to Article 1106.02 of the Standard Specifications:

"(o) Speed Display Trailer. The speed display trailer shall consist of a LED speed indicator display with self-contained, one-direction radar mounted on an orange see-through trailer. The height of the display and radar shall be such that it will function and be visible when located behind concrete barrier.

The speed measurement shall be by radar and provide a minimum detection distance of 1000 ft (300 m). The radar shall have an accuracy of  $\pm 1$  mile per hour.

The speed indicator display shall face approaching traffic and shall have a sign legend of "YOUR SPEED" immediately above or below the speed display. The sign letters shall be between 5 and 8 in. (125 and 200 mm) in height. The digital speed display shall show two digits (00 to 99) in mph. The color of the changeable message legend shall be a yellow legend on a black background. The minimum height of the numerals shall be 18 in. (450 mm), and the nominal legibility distance shall be at least 750 ft (250 m).

The speed indicator display shall be equipped with a violation alert that flashes the displayed detected speed when the work zone posted speed limit is exceeded. The speed indicator shall have a maximum speed cutoff. On roadway facilities with a normal posted speed limit greater than or equal to 45 mph, the detected speeds of vehicles traveling more than 25 mph over the work zone speed limit shall not be displayed. On facilities with normal posted speed limit of less than 45 mph, the detected speeds of vehicles traveling more than 15 mph over the work zone speeds limit shall not be displayed. On any roadway facility if detected speeds are less than 25 mph, they shall not be displayed. The display shall include automatic dimming for nighttime operation.

The speed indicator measurement and display functions shall be equipped with the power supply capable of providing 24 hours of uninterrupted service."

## SUBCONTRACTOR AND DBE PAYMENT REPORTING (BDE)

Effective: April 2, 2018

Add the following to Section 109 of the Standard Specifications.

"**109.14 Subcontractor and Disadvantaged Business Enterprise Payment Reporting.** The Contractor shall report all payments made to the following parties:

- (a) first tier subcontractors;
- (b) lower tier subcontractors affecting disadvantaged business enterprise (DBE) goal credit;
- (c) material suppliers or trucking firms that are part of the Contractor's submitted DBE utilization plan.

The report shall be made through the Department's on-line subcontractor payment reporting system within 21 days of making the payment."

# SUBCONTRACTOR MOBILIZATION PAYMENTS (BDE)

Effective: November 2, 2017 Revised: April 1, 2019

Replace the second paragraph of Article 109.12 of the Standard Specifications with the following:

"This mobilization payment shall be made at least seven days prior to the subcontractor starting work. The amount paid shall be at the following percentage of the amount of the subcontract reported on form BC 260A submitted for the approval of the subcontractor's work.

Value of Subcontract Reported on Form BC 260A	Mobilization Percentage
Less than \$10,000	25%
\$10,000 to less than \$20,000	20%
\$20,000 to less than \$40,000	18%
\$40,000 to less than \$60,000	16%
\$60,000 to less than \$80,000	14%
\$80,000 to less than \$100,000	12%
\$100,000 to less than \$250,000	10%
\$250,000 to less than \$500,000	9%
\$500,000 to \$750,000	8%
Over \$750,000	7%"

# TRAFFIC CONTROL DEVICES - CONES (BDE)

Effective: January 1, 2019

Revise Article 701.15(a) of the Standard Specifications to read:

"(a) Cones. Cones are used to channelize traffic. Cones used to channelize traffic at night shall be reflectorized; however, cones shall not be used in nighttime lane closure tapers or nighttime lane shifts."

Revise Article 1106.02(b) of the Standard Specifications to read:

"(b) Cones. Cones shall be predominantly orange. Cones used at night that are 28 to 36 in. (700 to 900 mm) in height shall have two white circumferential stripes. If non-reflective spaces are left between the stripes, the spaces shall be no more than 2 in. (50mm) in width. Cones used at night that are taller than 36 in. (900 mm) shall have a minimum of two white and two fluorescent orange alternating, circumferential stripes with the top stripe being fluorescent orange. If non-reflective spaces are left between the stripes, the spaces shall be no more than 3 in. (75 mm) in width.

The minimum weights for the various cone heights shall be 4 lb for 18 in. (2 kg for 450 mm), 7 lb for 28 in. (3 kg for 700 mm), and 10 lb for 36 in. (5 kg for 900 mm) with a minimum of 60 percent of the total weight in the base. Cones taller than 36 in. shall be weighted per the manufacturer's specifications such that they are not moved by wind or passing traffic."

# TRAFFIC SPOTTERS (BDE)

Effective: January 1, 2019

Revise Article 701.13 of the Standard Specifications to read:

**\*701.13 Flaggers and Spotters.** Flaggers shall be certified by an agency approved by the Department. While on the job site, each flagger shall have in his/her possession a current driver's license and a current flagger certification I.D. card. For non-drivers, the Illinois Identification Card issued by the Secretary of State will meet the requirement for a current driver's license. This certification requirement may be waived by the Engineer for emergency situations that arise due to actions beyond the Contractor's control where flagging is needed to maintain safe traffic control on a temporary basis. Spotters are defined as certified flaggers that provide support to workers by monitoring traffic.

Flaggers and spotters shall be stationed to the satisfaction of the Engineer and be equipped with a fluorescent orange, fluorescent yellow/green, or a combination of fluorescent orange and fluorescent yellow/green vest meeting the requirements of ANSI/ISEA 107-2004 or ANSI/ISEA 107-2010 for Conspicuity Class 2 garments. Flaggers shall be equipped with a stop/slow traffic control sign. Spotters shall be equipped with a loud warning device. The warning sound shall be identifiable by workers so they can take evasive action when necessary. Other types of garments may be substituted for the vest as long as the garments have a manufacturer's tag identifying them as meeting the ANSI Class 2 requirement. The longitudinal placement of the flagger may be increased up to 100 ft (30 m) from that shown on the plans to improve the visibility of the flagger. Flaggers shall not encroach on the open lane of traffic unless traffic has been stopped. Spotters shall not encroach on the open lane of traffic, nor interact with or control the flow of traffic.

For nighttime flagging, flaggers shall be illuminated by an overhead light source providing a minimum vertical illuminance of 10 fc (108 lux) measured 1 ft (300 mm) out from the flagger's chest. The bottom of any luminaire shall be a minimum of 10 ft (3 m) above the pavement. Luminaire(s) shall be shielded to minimize glare to approaching traffic and trespass light to adjoining properties. Nighttime flaggers shall be equipped with fluorescent orange or fluorescent orange and fluorescent yellow/green apparel meeting the requirements of ANSI/ISEA 107-2004 or ANSI/ISEA 107-2010 for Conspicuity Class 3 garments.

Flaggers and spotters shall be provided per the traffic control plan and as follows.

(a) Two-Lane Highways. Two flaggers will be required for each separate operation where two-way traffic is maintained over one lane of pavement. Work operations controlled by flaggers shall be no more than 1 mile (1600 m) in length. Flaggers shall be in sight of each other or in direct communication at all times. Direct communication shall be obtained by using portable two-way radios or walkie-talkies.

The Engineer will determine when a side road or entrance shall be closed to traffic. A flagger will be required at each side road or entrance remaining open to traffic within the operation where two-way traffic is maintained on one lane of pavement. The flagger shall be positioned as shown on the plans or as directed by the Engineer.

(b) Multi-Lane Highways. At all times where traffic is restricted to less than the normal number of lanes on a multilane pavement with a posted speed limit greater than 40 mph and the workers are present, but not separated from the traffic by physical barriers, a flagger or spotter shall be furnished as shown on the plans. Flaggers shall warn and direct traffic. Spotters shall monitor traffic conditions and warn workers of errant approaching vehicles or other hazardous conditions as they occur. One flagger will be required for each separate activity of an operation that requires frequent encroachment in a lane open to traffic. One spotter will be required for each separate activity with workers near the edge of the open lane or with their backs facing traffic.

Flaggers will not be required when no work is being performed, unless there is a lane closure on two-lane, two-way pavement."

# WEEKLY DBE TRUCKING REPORTS (BDE)

Effective: June 2, 2012

Revised: April 2, 2015

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

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

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

# WORK ZONE TRAFFIC CONTROL DEVICES (BDE)

Effective: March 2, 2020

Add the following to Article 701.03 of the Standard Specifications:

"(q) Temporary Sign Supports ......1106.02"

Revise the third paragraph of Article 701.14 of the Standard Specifications to read:

"For temporary sign supports, the Contractor shall provide a FHWA eligibility letter for each device used on the contract. The letter shall provide information for the set-up and use of the device as well as a detailed drawing of the device. The signs shall be supported within 20 degrees of vertical. Weights used to stabilize signs shall be attached to the sign support per the manufacturer's specifications."

Revise the first paragraph of Article 701.15 of the Standard Specifications to read:

**"701.15 Traffic Control Devices.** For devices that must meet crashworthiness standards, the Contractor shall provide a manufacturer's self-certification or a FHWA eligibility letter for each Category 1 device and a FHWA eligibility letter for each Category 2 and Category 3 device used on the contract. The self-certification or letter shall provide information for the set-up and use of the device as well as a detailed drawing of the device."

Revise the first six paragraphs of Article 1106.02 of the Standard Specifications to read:

**"1106.02 Devices.** Work zone traffic control devices and combinations of devices shall meet crashworthiness standards for their respective categories. The categories are as follows.

Category 1 includes small, lightweight, channelizing and delineating devices that have been in common use for many years and are known to be crashworthy by crash testing of similar devices or years of demonstrable safe performance. These include cones, tubular markers, plastic drums, and delineators, with no attachments (e.g. lights). Category 1 devices manufactured after December 31, 2019 shall be MASH-16 compliant. Category 1 devices manufactured on or before December 31, 2019, and compliant with NCHRP 350 or MASH 2009, may be used on contracts let before December 31, 2024.

Category 2 includes devices that are not expected to produce significant vehicular velocity change but may otherwise be hazardous. These include vertical panels with lights, barricades, temporary sign supports, and Category 1 devices with attachments (e.g. drums with lights). Category 2 devices manufactured after December 31, 2019 shall be MASH-16 compliant. Category 2 devices manufactured on or before December 31, 2019, and compliant with NCHRP 350 or MASH 2009, may be used on contracts let before December 31, 2024.

Category 3 includes devices that are expected to cause significant velocity changes or other potentially harmful reactions to impacting vehicles. These include crash cushions (impact attenuators), truck mounted attenuators, and other devices not meeting the definitions of Category 1 or 2. Category 3 devices manufactured after December 31, 2019 shall be MASH-16 compliant. Category 3 devices manufactured on or before December 31, 2019, and compliant with NCHRP 350 or MASH 2009, may be used on contracts let before December 31, 2029. Category 3 devices shall be crash tested for Test Level 3 or the test level specified.

Category 4 includes portable or trailer-mounted devices such as arrow boards, changeable message signs, temporary traffic signals, and area lighting supports. It is preferable for Category 4 devices manufactured after December 31, 2019 to be MASH-16 compliant; however, there are currently no crash tested devices in this category, so it remains exempt from the NCHRP 350 or MASH compliance requirement.

For each type of device, when no more than one MASH-16 compliant is available, an NCHRP 350 or MASH-2009 compliant device may be used, even if manufactured after December 31, 2019."

Revise Articles 1106.02(g), 1106.02(k), and 1106.02(l) to read:

- "(g) Truck Mounted/Trailer Mounted Attenuators. The attenuator shall be approved for use at Test Level 3. Test Level 2 may be used for normal posted speeds less than or equal to 45 mph.
- (k) Temporary Water Filled Barrier. The water filled barrier shall be a lightweight plastic shell designed to accept water ballast and be on the Department's qualified product list.

Shop drawings shall be furnished by the manufacturer and shall indicate the deflection of the barrier as determined by acceptance testing; the configuration of the barrier in that test; and the vehicle weight, velocity, and angle of impact of the deflection test. The Engineer shall be provided one copy of the shop drawings.

(I) Movable Traffic Barrier. The movable traffic barrier shall be on the Department's qualified product list.

Shop drawings shall be furnished by the manufacturer and shall indicate the deflection of the barrier as determined by acceptance testing; the configuration of the barrier in that test; and the vehicle weight, velocity, and angle of impact of the deflection test. The Engineer shall be provided one copy of the shop drawings. The barrier shall be capable of being moved on and off the roadway on a daily basis."

# **REVISIONS TO THE ILLINOIS PREVAILING WAGE RATES**

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

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