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January 16, 2026 Letting

Notice to Bidders, Specifications and Proposal

Contract No. 62Y09
WILL County
Section 2025-1066-I
Route FAP 607,FAU 297A
District 1 Construction Funds

Prepared by

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Checked by

(Printed by authority of the State of Illinois)

Illinois Department of Transportation

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. January 16, 2026 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. 62Y09
   WILL County
   Section 2025-1066-I
   Route FAP 607,FAU 297A
   District 1 Construction Funds

This is an advance procurement of selective mechanical, electrical, and structural components for the existing rolling movable bridges at Jackson Street and Jefferson Street over the Des Plaines River, Structure Number 099- 0239 and 099-0166 in Will County.

3. **INSTRUCTIONS TO BIDDERS**. (a) This Notice, the invitation for bids, proposal and letter of award shall, together with all other documents in accordance with Article 101.09 of the Standard Specifications for Road and Bridge Construction, become part of the contract. Bidders are cautioned to read and examine carefully all documents, to make all required inspections, and to inquire or seek explanation of the same prior to submission of a bid.

   (b) State law, and, if the work is to be paid wholly or in part with Federal-aid funds, Federal law requires the bidder to make various certifications as a part of the proposal and contract. By execution and submission of the proposal, the bidder makes the certification contained therein. A false or fraudulent certification shall, in addition to all other remedies provided by law, be a breach of contract and may result in termination of the contract.

4. **AWARD CRITERIA AND REJECTION OF BIDS**. This contract will be awarded to the lowest responsive and responsible bidder considering conformity with the terms and conditions established by the Department in the rules, Invitation for Bids and contract documents. The issuance of plans and proposal forms for bidding based upon a prequalification rating shall not be the sole determinant of responsibility. The Department reserves the right to determine responsibility at the time of award, to reject any or all proposals, to readvertise the proposed improvement, and to waive technicalities.

By Order of the
Illinois Department of Transportation

Gia Biagi,
Secretary

INDEX
FOR
SUPPLEMENTAL SPECIFICATIONS
AND RECURRING SPECIAL PROVISIONS

Adopted January 1, 2026

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

ERRATA Standard Specifications for Road and Bridge Construction
(Adopted 1-1-22) (Revised 1-1-26)

SUPPLEMENTAL SPECIFICATIONS

RECURRING SPECIAL PROVISIONS

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

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STATE OF ILLINOIS

SPECIAL PROVISIONS

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction," adopted January 1, 2022, 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 FAU Route 297A & FAP Route 607 (Jackson St & US 30 (Jefferson St)), Section 2025-1066-I, Will County, Contract No. 62Y09 and in case of conflict with any part or parts of said Specifications, the said Special Provisions shall take precedence and shall govern.

FAU Route 297A & FAP Route 607 (Jackson St & US 30 (Jefferson St))
Section 2025-1066-I
Will County
Contract No. 62Y09

LOCATION OF PROJECT

The project is at two (2) bridges:

- Location 1 - Jackson Street Movable Bridge over the Des Plaines River, Structure Number 099-0239.
- Location 2 - Jefferson Street Movable Bridge over the Des Plaines River, Structure Number 099-0166.

In the City of Joliet in Will County.

DESCRIPTION OF PROJECT

This is an advance procurement of selective mechanical, electrical, and structural components for the existing rolling movable bridges at Jackson Street and Jefferson Street over the Des Plaines River, Structure Number 099-0239 and 099-0166 and various others as shown on the contract drawings. The work to be performed under this contract includes the furnishing of the machinery and motor brakes for the movable structures.

DISTRICT COORDINATION

The Contractor shall coordinate with the Department all aspects of procuring and delivering to the designated sites. The Contractor is responsible for all labor, permits, weatherproof storage, and equipment to deliver all contract materials and components.

The brake systems, generator, and other components included in this contract shall be delivered in a weatherproof container/packaging capable of storing the parts for several years at a Department facility or yard. The Contractor is to coordinate the details of the weatherproofing type, size, insulation, and waterproof requirements with the Department, and all costs shall be included under the corresponding pay items.

Delivery location to be coordinated and approved by the Department. Possible locations are identified as the Stevenson Maintenance Yard located at 8630 Joliet Road, McCook, IL 60525 or the District Bridge Office located at 1101 Biesterfield Road, Elk Grove Village, IL 60007. The Contractor shall coordinate with the Bureau of Maintenance at (847) 705-4162, and Jason Sedlacek at (708) 485-2446 all access, equipment restrictions, and schedule four (4) weeks prior to delivery.

COMPLETION DATE (VIA CALENDAR DAYS) (BDE)

Effective: April 1, 2008

The Contractor shall complete all work on or before the completion date of this contract which will be based upon **270** calendar days.

The completion date will be determined by adding the specified number of calendar days to the date the Contractor begins work, or to the date ten days after execution of the contract, whichever is earlier, unless a delayed start is granted by the Engineer.

TRAFFIC GATES

Description. This item consists of all equipment, tools, labor, and materials to furnish and deliver Traffic Gates system as shown on the Plans, complete with all incidental work to complete the work as shown on the Drawings, Specifications and as directed by the Department.

Materials. Traffic gate construction shall meet the following requirements:

1) Traffic Gate Arm

   Each traffic gate shall have a 4” square, 6005-T5 aluminum extruded tubing. Maximum arm length shall be 40’ from the centerline of the housing. Stainless steel truss cables and a damping type bumper rod shall be furnished with longer arms at the discretion of the manufacturer. Front and rear arm surfaces shall be covered with alternating red and white high intensity reflective sheeting. Stripes shall be 16” wide, and vertical according to MUTCD. Remaining exposed surfaces shall be painted white.

The arm base shall be designed with a shear pin mechanism to minimize damage to the gate and vehicle in the event of a collision. In the event of an impact, the shear pin shall break, allowing the arm to swing approximately 75 to 80 degrees. At the full open position, a spring-loaded latch shall engage, preventing the arm from swinging back into traffic. Arm shall be easily reset by manually releasing the latch, rotating the arm back into position and replacing the shear pin.

A pair of carbon steel channels, hot dip galvanized, painted aluminum, shall be rigidly affixed to the ends of the main arm shaft. The channels and a steel crossmember shall provide a sturdy mount for the arm, arm base assembly and counterweights.
At the rear end of the side arm channels, hot dip galvanized counterweights shall be mounted to balance the arm. Counterweights shall be sectional and shall permit at least 10% adjustment.

The main arm shaft shall be 2” diameter AISI 4140 high strength alloy steel with a minimum tensile strength of 140,000 psi. The shaft shall be mounted in heavy duty relubricable ball bearings.

Traffic gate arm channels and supports shall be galvanized or painted in accordance with the requirements specified herein for painting structural steel.

2) Traffic Gate Housing

Each traffic gate shall have a welded steel stand arranged to provide a watertight housing for the motor, disconnect switch, gear train, limit switch, and fuses for traffic lights. The traffic gate stands shall be hot-dip galvanized after fabrication. Gear reducers for driving the arms shall be totally enclosed in oil-tight steel housings and shall be automatically lubricated. Oil sight gages shall be provided. Watertight, gasketed doors shall be provided for access to the operating equipment.

All internal wiring for each traffic gate shall be brought to numbered terminal blocks inside the housing for the connection of external circuits.

Each traffic gate housing shall be bolted to its concrete or steel base as indicated on the plans.

Doors shall be provided on the roadway and sidewalk side of the housing, large enough for convenient removal of the largest component of the operating mechanism. Each door shall be equipped with neoprene gaskets, 2 safety interlock switches, silicon bronze hinges with stainless steel pins, stainless steel catches and bolts, and hockey puck type padlocks with common keys to the traffic gate locks.

Each traffic gate housing shall be equipped with a thermostatically controlled heater; switched service light; and duplex, 15-ampere, 120-volt, Specification Grade GFI receptacle. A 15-ampere circuit breaker shall protect the above units and be mounted in the traffic gate housing.

Each traffic gate housing shall be furnished with removable doors.

3) Traffic Gate Hand Crank

A hand crank shall be provided for manual operation of each traffic gate and stored inside the traffic gate housing. A hand crank limit switch with 1 NO and 1 NC contacts shall be provided to prevent electrical operation of traffic gates while hand cranking. Insertion of the crank or operation of a manual operation button shall release the brake and make the electrical controls inoperative.

4) Traffic Gate Transmission

The transmission shall be a fully enclosed, all gear, direct drive unit running in an oil bath. The drive train shall not use belts or chains and shall be connected to the arm shaft with an adjustable connecting rod having self-aligning ball ends. The connecting rod material shall be ASTM A311 Class B high strength, fatigue resistant steel.

5) Traffic Gate Limit Switch

An 8-circuit limit switch shall be provided in each traffic gate operated by the traffic gate mechanism. Each limit switch shall be a rotary, cam-type, switch; and it shall be gear driven from the transmission. The contacts shall be quick-break with silver alloy buttons. The limit switch shaft shall be stainless steel, and cams shall be secured thereto with set screws.

6) Traffic Gate Motor and Brake

The motor shall be furnished as part of the traffic gate by the traffic gate manufacturer. Each motor shall be a totally-enclosed, 480-volt, three-phase, 60-cycle, ball-bearing induction motor not less than 3/4 HP, and shall be capable of withstanding instant reversal when running at full speed. Each motor and gear train shall be capable of opening and closing the traffic gate in about 13 seconds. A motor-mounted, spring-set, 480 VAC, solenoid-release, disc brake shall be provided for stopping and holding the mechanism. The drive mechanism and motor brake shall be capable of holding the gate vertical against a wind load of 146 kilograms-per-meter. A watertight disconnect switch shall be provided to permit disconnecting the motor and brake from the incoming power. The switch shall be Pass & Seymour Cat. No. 7813-EX, or Engineer approved equal manufactured by O- Z/Gedney or Crouse Hinds.

Each traffic gate motor shall be controlled by a magnetic reversing contactor, electrically and mechanically interlocked, and shall be protected by a three-element, thermal overload relay, with automatic reset to be provided under a different item. This equipment shall be mounted in the motor control center as specified within.

7) Traffic Gate Foundation

Traffic gate foundations will be as shown on the plans. Payment for foundations and all conduit to run power to the traffic gate and traffic signal shall be included under this item.

8) Each gate will be B&B Roadway Model VW-4 or equal manufactured by Federal Signal Corporation or equal approved by the Engineer

Construction Requirements. Store materials in a dry, protected, area with blocking to maintain flatness. Report damaged material or material in non-conformance with project specifications and plans to the delivering carrier and manufacturer.

Method of Measurement. This work will be measured for payment in units of each for each Traffic Gates assembly delivered.

Basis of Payment. This work will be made at the contract unit price per EACH for TRAFFIC GATES.

STEEL GRID DECK

Description. This item consists of all equipment, tools, labor, and materials to fabricate and deliver steel roadway gratings for the movable spans of the bascule bridge, as shown on the Plans, complete with all appurtenant work, including galvanizing the grating and described herein. This work shall be performed in accordance with the applicable portions of Section 505 of the Standard Specifications and as directed by the Department.

Any modifications or substitutions required to accommodate the work must be submitted to the Engineer for approval prior to ordering materials. Modifications shall be made at no additional cost.

Materials. Grating shall be heavy duty 5" deep four-way galvanized construction and shall meet the following requirements:

1. All steel shall be ASTM A709 Grade 50 or A572 Grade 50.
2. All roadway grating shall be of the same type and from the same manufacturer.
3. Tolerances shall not exceed the following:
   a. + 1/8” for width of panels
   b. + 1/4” inch for length of panels
   c. The panels shall be rectangular with a tolerance not to exceed ½” across the diagonals.
4. The grid shall be fabricated with pipe sleeves for access to the hold down plate for field connections to the roadway stringers within the areas of half concrete infill. The sleeves shall be located at each roadway stringer connection point.
5. Prior to fabrication of the grating, the Contractor shall furnish shop drawings to the Engineer for approval as required by Article 505.03 of the Standard Specifications.
6. All welding shall comply with the requirements of the American Welding Society ANSI/AASHTO-AWS D1.5 Bridge Welding Code and shall he perform by a certified welder.
7. Upon completion of the fabrication of the grating panels and just prior to galvanizing, the gratings shall be free of grease, dirt, weld spatter, loose rust and scale, and shall be cleaned of oil by application of naphtha or benzene. Surfaces shall be entirely dry before hot-dip galvanizing.
8. Following fabrication and preparation of a panel, it shall be hot dipped galvanized in accordance with the requirements of ASTM A123. The zinc coating shall be applied at the average rate of not less than 2.0 ounces per square foot and no single sample of the required number shall show less than 1.8 ounces.

Quality Assurance. Manufacturer and furnishing the Steel Grid bridge decking to conform to the following minimum codes and standards:

1. Welding to meet AWS D1.5 Bridge Welding Code standards for fabrication and installation.
2. Manufacturer must have an AWS Certified Welding Inspector present during manufacturing.

Construction Requirements. Store materials in a dry, protected, with blocking to maintain flatness. Report damaged material or material in non-conformance with project specifications and plans to the delivering carrier and manufacturer.

Method of Measurement. This work will be measured for payment in square feet, furnished. Measurement will be out to out of grid deck, including trim bars. No deducts will be made for expansion joints or gaps between panels.

Basis of Payment. This work will be paid for at the contract unit price per square feet of STEEL GRID DECK. This include all hardware required for the future installation as shown on the plans.

FIBER OPTIC CABLE, MICRO, 96 FIBERS, SINGLE MODE

Description. This item consists of all equipment, tools, labor, and materials to fabricate and deliver a single-mode, 96 fiber optic cable of the number of fibers shown in the plans and as directed by the Department.

Other ancillary components, required to complete the fiber optic cable plant, including but not limited to, moisture and water sealants, cable caps, delineator post, etc., shall be included in the cost of fiber optic cable and will not be paid for separately.

Materials. The single-mode, fiber optic cable shall incorporate a loose, buffer-tube design. The cable shall be an accepted product of the United States Department of Agriculture Rural Utilities Service (RUS) 7 CFR 1755.900 and meet the requirements of ANSI/ICEA Standard for Fiber Optic Outside Plant Communications Cable, ANSI/ICEA S-87-640-1999 for a single sheathed, non-armored cable, and shall be new, unused and of current design and manufacture.

Fibers.

The cables shall use dispersion unshifted fibers. The optical and physical characteristics of the un-cabled fibers shall include:

The single-mode fiber shall meet EIA/TIA-492CAAA, "Detail Specification for Class IVa Dispersion-Unshifted Single-Mode Optical Fibers," and ITU recommendation G.652.D,

"Characteristics of a single-mode optical fiber cable."

Physical Construction		
Requirement	Units	Value
Cable Diameter	mm	8.6
Buffer Tube Diameter	mm	1.5
Colored Fiber Nominal Diameter	µm	253 – 259
Mode Field Diameter (1310 nm)	µm	9.2 ± 0.4
Mode Field Diameter (1550 nm)	µm	10.4 ± 0.5
Minimum Bending Radius (Installation)	mm	170

Optical Characteristics				
Requirement			Units	Value
Cabled Fiber Attenuation		1310 nm	dB/km	< 0.4
		1550 nm		< 0.3
Point Discontinuity		1310 nm	dB	< 0.1
		1550 nm		< 0.1
Macrobend Attenuation	Turns	Mandrel OD	dB	
	1	32 ± 2 mm		< 0.05 at 1550 nm
	100	50 ± 2 mm		< 0.05 at 1310 nm
	100	50 ± 2 mm		< 0.10 at 1550 nm
	100	60 ± 2 mm		< 0.05 at 1550 nm
	100	60 ± 2 mm		< 0.05 at 1625 nm
Cable Cutoff Wavelength (X_{ccf})			nm	< 1260
Zero Dispersion Wavelength (X_o)			nm	$1302 < X_o < 1322$
Zero Dispersion Slope (S_o)			$ps/(nm^2 \cdot km)$	< 0.089
Total Dispersion		1550 nm	ps/(nm•km)	< 3.5
		1285-1330 nm		< 17.5
		1625 nm		< 21.5
Cabled Polarization Mode Dispersion			ps/km^{-2}	< 0.2
IEEE 802.3 GbE – 1300 nm Laser Distance			m	up to 5000
Water Peak Attenuation: 1383 ± 3 nm			dB/km	< 0.4

Cable Construction.

The number of fibers in each cable shall be as specified.

Optical fibers shall be placed inside a loose buffer tube. The nominal outer diameter of the buffer tube shall be 1.5 mm. Each buffer tube shall contain up to 12 fibers. The fibers shall not adhere to the inside of the buffer tube.

Each fiber shall be distinguishable by means of color coding in accordance with TIA/EIA-598-B, "Optical Fiber Cable Color Coding." The fibers shall be colored with ultraviolet (UV) curable inks.

Buffer tubes containing fibers shall be color coded with distinct and recognizable colors in accordance with TIA/EIA-598-B, "Optical Fiber Cable Color Coding."

In buffer tubes containing multiple fibers, the colors shall be stable across the specified storage and operating temperature range and shall not be subject to fading or smearing onto each other. Colors shall not cause fibers to stick together

The buffer tubes shall be resistant to external forces and shall meet the buffer tube cold bend and shrinkback requirements of 7 CFR 1755.900.

Fillers may be included in the cable core to lend symmetry to the cable cross-section where needed. Fillers shall be placed so that they do not interrupt the consecutive positioning of the buffer tubes. In dual layer cables, any fillers shall be placed in the inner layer. Fillers shall be nominally 1.5 mm in outer diameter.

The central member shall consist of a dielectric, glass reinforced plastic (GRP) rod (optional steel central member). The purpose of the central member is to provide tensile strength and prevent buckling. The central member shall be overcoated with a thermoplastic when required to achieve dimensional sizing to accommodate buffer tubes/fillers.

Each buffer tube shall contain a water-swellable yarn for water-blocking protection. The water-swellable yarn shall be non-nutritive to fungus, electrically non-conductive, and homogeneous. It shall also be free from dirt or foreign matter. This yarn will preclude the need for other water-blocking material; the buffer-tube shall be gel-free. The optical fibers shall not require cleaning before placement into a splice tray or fan-out kit.

Buffer tubes shall be stranded around the dielectric central member using the reverse oscillation, or "S-Z", stranding process.

The cables shall contain one ripcord under the sheath for easy sheath removal.
Tensile strength shall be provided by the central member, and additional dielectric yarns as required.

The cables shall be sheathed with medium density polyethylene (MDPE). Jacketing material shall be applied directly over the tensile strength members (as required). The polyethylene shall contain carbon black to provide ultraviolet light protection and shall not promote the growth of fungus.

The MDPE jacket material shall be as defined by ASTM D1248, Type II, Class C, Category 4 and Grades J4, E7 and E8.

The jacket or sheath shall be free of holes, splits, and blisters.

The cable jacket shall contain no metal elements and shall be of a consistent thickness.

Cable jackets shall be marked with the manufacturer’s name, month and year of manufacture, sequential meter or foot markings, a telecommunication handset symbol as required by Section 350G of the National Electrical Safety Code (NESC), fiber count, and fiber type. The actual length of the cable shall be within -0/+1% of the length markings. The print color shall be white, with the exception that cable jackets containing one or more co-extruded white stripes, which shall be printed in light blue. The height of the marking shall be approximately 2.5 mm.

The maximum pulling tension shall be 1335 N (300 lbf) during installation (short term) and 400 N (90 lbf) long term installed.

The shipping, storage, and operating temperature range of the cable shall be -40°C to +70°C.

The installation temperature range of the cable shall be –15°C to +60°C.

General Cable Performance Specifications.

The fiber optic cable manufacturer shall provide documentation and certify that the fiber optic cable complies with the following EIA-455-*xxx* Fiber Optic Test Procedures (FOTP):

When tested in accordance with FOTP-3, "*Procedure to Measure Temperature Cycling Effects on Optical Fibers, Optical Cable, and Other Passive Fiber Optic Components*," the change in attenuation at extreme operational temperatures (-40°C and +70°C) shall not exceed 0.15 dB/km at 1550 nm for single-mode fiber and 0.3 dB/km at 1300 nm for multimode fiber.

When tested in accordance with FOTP-82, "*Fluid Penetration Test for Fluid-Blocked Fiber Optic Cable*," a one meter length of unaged cable shall withstand a one meter static head or equivalent continuous pressure of water for one hour without leakage through the open cable end.

When tested in accordance with FOTP-81, "*Compound Flow (Drip) Test for Filled Fiber Optic Cable*," the cable shall exhibit no flow (drip or leak) of filling and/or flooding material at 70°C.

When tested in accordance with FOTP-41, "*Compressive Loading Resistance of Fiber Optic Cables*," the cable shall withstand a minimum compressive load of 220 N/cm (125 lbf/in) applied uniformly over the length of the sample. The 220 N/cm (125 lbf/in) load shall be applied at a rate of 2.5 mm (0.1 in) per minute. The load shall be maintained for a period of 1 minute. The load shall then be decreased to 110 N/cm (63 lbf/in). Alternatively, it is acceptable to remove the 220 N/cm (125 lbf/in) load entirely and apply the 110 N/cm (63 lbf/in) load within five minutes at a rate of 2.5 mm (0.1 in) per minute. The 110 N/cm (63 lbf/in) load shall be maintained for a period of 10 minutes. Attenuation measurements shall be performed before release of the 110 N/cm (63 lbf/in) load. The change in attenuation shall not exceed 0.15 dB at 1550 nm for single-mode fibers and 0.30 dB at 1300 nm for multimode fiber.

When tested in accordance with FOTP-104, "*Fiber Optic Cable Cyclic Flexing Test*," the cable shall withstand 25 mechanical flexing cycles around a sheave diameter not greater than 20 times the cable diameter. The change in attenuation shall not exceed 0.15 dB at 1550 nm for single-mode fiber and 0.30 dB at 1300 nm for multimode fiber.

When tested in accordance with FOTP-25, "*Repeated Impact Testing of Fiber Optic Cables and Cable Assemblies*," except that the number of cycles shall be two at three locations along a one meter cable length and the impact energy shall be atleast 4.4 Nm (in accordance with ICEA S-87-640)", the change in attenuation shall not exceed 0.15 dB at 1550 nm for single-mode fiber and 0.30 dB at 1300 nm for multimode fiber.

When tested in accordance with FOTP-33, "*Fiber Optic Cable Tensile Loading and Bending Test*," using a maximum mandrel and sheave diameter of 560 mm, the cable shall withstand a rated tensile load of 2670N (601 lbf) and residual load of 30% of the rated installation load. The axial fiber strain shall be ≤ 60% of the fiber proof level after completion of 60 minute conditioning and while the cable is under the rated installation load. The axial fiber strain shall be ≤ 20% of the fiber proof level after completion of 10 minute conditioning and while the cable is under the residual load. The change in attenuation at residual load and after load removal shall not exceed 0.15 dB at 1550 nm for single mode fiber and 0.30 dB at 1300 nm for multimode fiber.

When tested in accordance with FOTP-85, "*Fiber Optic Cable Twist Test*," a length of cable no greater than 2 meters shall withstand 10 cycles of mechanical twisting. The change in attenuation shall not exceed 0.15 dB at 1550 nm for single-mode fiber and 0.30 dB at 1300 nm for multimode fiber.

When tested in accordance with FOTP-37, "*Low or High Temperature Bend Test for Fiber Optic Cable*," the cable shall withstand four full turns around a mandrel of ≤ 20 times the cable diameter after conditioning for four hours at test temperatures of -30°C and +60°C. Neither the inner or outer surfaces of the jacket shall exhibit visible cracks, splits, tears, or other openings. The change in attenuation shall not exceed 0.30 dB at 1550 nm for single mode fiber and 0.50 dB at 1300 nm for multimode fiber.

Quality Assurance Provision.

All cabled optical fibers > 1000 meters in length shall be 100% attenuation tested. The attenuation of each fiber shall be provided with each cable reel. The cable manufacturer shall be TL 9000 registered.

Packaging.

Top and bottom ends of the cable shall be available for testing. Both ends of the cable shall be sealed to prevent the ingress of moisture. Each reel shall have a weather resistant reel tag attached identifying the reel and cable. The reel tag shall include the following information:

- Cable Number
- Gross Weight
- Shipped Cable Length in Meters
- Job Order Number
- Product Number
- Customer Order Number
- Date Cable was Tested
- Manufacturer Order Number
- Cable Length Markings
    - a: Top (inside end of cable)
    - b: Bottom (outside end of cable)

The reel (one flange) marking shall include:

- Manufacturer
- Country of origin
- An arrow indicating proper direction of roll when handling
- Fork lift-handling illustration
- Handling Warnings.

Each cable shall be accompanied by a cable data sheet. The cable data sheet shall include the following information:

- Manufacturer Cable Number
- Manufacturer Product Number
- Manufacturer Factory Order Number
- Customer Name
- Customer Cable Number
- Customer Purchase Order Number
- Mark for Information
- Ordered Length
- Maximum Billable Length
- Actual Shipped Length
- Measured Attenuation of Each Fiber

The cable shall be capable of withstanding a minimum-bending radius of 20 times its outer diameter during installation and 10 times its outer diameter during operation without changing the characteristics of the optical fibers.

The cable shall meet all of specified requirements under the following conditions:

- Shipping/storage temperature: -58° F to +158° F (-50° C to +70° C)
- Installation temperature: -22° F to +158° F (-30° C to +70° C)
- Operating temperature: -40° F to +158° F (-40° C to +70° C)
- Relative humidity from 0% to 95%, non-condensing

Optical Patch Cords and Pigtails.

The optical patch cords and pigtails shall comply with the following:

- The optical patch cords shall consist of a section of single fiber, jacketed cable equipped with optical connectors at both ends.
- The factory installed connector furnished as part of the optical patch cords and pigtails shall meet or exceed the requirements for approved connectors specified herein.
- The fiber portion of each patch cord and pigtail shall be a single, jacketed fiber with optical properties identical to the optical cable furnished under this contract.
- The twelve fiber single-mode fiber optic cable shall be installed as a pigtail with factory installed **SC** compatible connectors.
- The patch cords shall comply with Telcordia GR-326-CORE

Connectors.

The optical connectors shall comply with the following:

- All connectors shall be factory installed **SC** compatible connectors. Field installed connectors shall not be allowed.
- Maximum attenuation 0.4dB, typical 0.2dB.
- No more than 0.2dB increase in attenuation after 1000 insertions.
- Attenuation of all connectors will be checked and recorded at the time of installation with an insertion test minimum 5 times checked with an OTDR.
- All fibers shall be connectorized at each end.
- All fibers shall terminate at a fiber patch panel
- Unused fibers will be protected with a plastic cap to eliminate dust and moisture.
- Termination shall be facilitated by splicing factory OEM pigtails on the end of the bare fiber utilizing the fusion splicing method. Pigtails shall be one meter in length.

CONSTRUCTION REQUIREMENTS

Experience Requirements.

Personnel involved in the installation, splicing and testing of the fiber optic cables shall meet the following requirements:

- A minimum of three (3) years experience in the installation of fiber optic cables, including fusion splicing, terminating and testing single mode fibers.

- Install two systems where fiber optic cables are outdoors in conduit and where the systems have been in continuous satisfactory operation for at least two years. The Contractor shall submit as proof, photographs or other supporting documents, and the names, addresses and telephone numbers of the operating personnel who can be contacted regarding the installed fiber optic systems.

- One fiber optic cable system (which may be one of the two in the preceding paragraph), which the Contractor can arrange for demonstration to the Department representatives and the Engineer.

Personnel involved in testing shall have been trained by the manufacturer of the fiber optic cable test equipment to be used, in fiber optic cable testing procedures. Proof of this training shall be submitted to the Engineer for approval. In addition, the Contractor shall submit documentation of the testing procedures and a copy of the test equipment operation manual for approval by the Engineer.

Method of Measurement. Fiber optic cable will be measured for payment in feet, furnished and tested.

Basis of Payment. This work will be paid for at the contract unit price per foot for FIBER OPTIC CABLE, MICRO, 96 FIBERS, SINGLE MODE.

EMERGENCY GENERATOR WITH AUTOMATIC TRANSFER SWITCH, LOCATION 1

Description. This item consists of all equipment, tools, labor, and materials to fabricate and deliver a diesel engine-driven stand-by generation system with the capacity as shown in the plans. The auxiliary power generator shall be Rehlko 250REOZJE, equivalent Caterpillar model, or approved equal meeting the requirements of the Contract Plans, these Special Provisions and as directed by the Department.

Work includes engine-generator set, automatic regulators, automatic transfer switch, standard water cooling systems, residential exhaust systems, water circulating systems, electric starters with battery and battery chargers, provision for remote monitoring and control by ATS (Automatic Transfer Switch) and PLC systems, exercisers, integrated (skid mounted) fuel tanks, and full weatherproof/sound attenuating enclosures.

The generator will be installed at an elevation at or above 600 feet above sea level, and ambient temperatures between 20 and 100°F; continuous rating using engine-mounted radiators. Furnish systems completely assembled by one manufacturer and supplied as a package.

Materials. The Auxiliary Power Generator system shall meet the following requirements:

- Engine
  - Water-cooled in-line or V-type, four stroke cycle, compression ignition Diesel internal combustion engine, with an idle speed of 1,800 RPM.
  - Provide an engine with enough capacity to operate at 10% overload for one hour at specified elevation and ambient limits and designed for use of No. 2 fuel oil.
  - Provide unit with suitable spring-type vibration isolators and mounted on structural steel base.
  - Provide isochronous type governor to maintain engine speed within 0.25%, steady state, and 0.25%, no load to full load, with recovery to steady state within 2 seconds following sudden load changes.
  - Provide the engine with the following safety devices: engine shutdown on high water temperature, low oil pressure, over speed, and engine over crank. Set limits as recommended by the manufacturer.
  - Provide DC starting system with positive engagement starter motor. Include remote starting control circuit, with MANUAL-OFF-REMOTE selector switch on the local engine-generator control panel. If required by the manufacturer, provide a thermal circulation type water heater with integral thermostatic control, sized to maintain engine jacket water at 90°F, and suitable for operation on 120 V_{AC}. Provide radiator using glycol coolant, with blower type fan, sized to maintain safe engine temperature in ambient temperature of 110°F. Radiator air flow restriction of 0.5 inch of water maximum.
  - Engine exhaust shall be internally mounted and silenced. Sound attenuation shall be 85 dBA or less at three feet. Mount the engine-generator set on vibration dampeners.
  - Provide heavy duty, diesel starting type lead-acid storage batteries, 170 A/hour minimum capacity. Match battery voltage to starting system. Include necessary cables and clamps. Provide a plastic coated metal or wooden tray treated for electrolyte resistance, constructed to contain spillage of electrolyte. Current limiting type battery charger designed to float at 2.17 V per cell and equalize at 2.33 V per cell. Include overload protection, full wave rectifier, DC voltmeter and ammeter, and 120 V_{AC} fused input. Provide wall mounted NEMA Type 1 enclosure.

- Generator
  - Ensure the system is equipped with an ANSI/NEMA MG 1; three phase, 4-pole, 12 lead, reconnectable brushless synchronous generator with brushless exciter, rated as shown in the Contract Documents, at 0.80 power factor, 60 Hz, with ANSI/NEMA MG 1, Class F insulation and Temperature Rise of 105°C. continuous. Directly connect the stator to the engine flywheel housing and drive the rotor through a semi-flexible driving flange to ensure permanent alignment. Include generator mounted volts-per-hertz exciter-regulator to match engine and generator characteristics, with voltage regulation plus or minus 1% from no load to full load.
  - Provide a molded case circuit breaker on generator output with integral thermal and instantaneous magnetic trip in each pole sized as shown in the Plans. Include battery-voltage operated shunt trip and connection to open circuit breaker on engine failure. Mount unit in NEMA Type 1 enclosure.
  - Provide generator controllers that are compatible with ATS's and remote operation as required.
  - Verify with the generator manufacturer that the available starting capacity is adequate for the requirements of the connected loads including for the starting and running of flux vector drives for span motors.

- Automatic Transfer Switch (ATS)
  - Provide electrically-operated, mechanically-held in both normal power and stand-by position ATS with mechanically-operated, mechanically held transfer switch connected to bypass automatic switch.
  - Provide a unit that is capable of transfer under full load operation.
  - Provide an ATS that is compatible with the engine generator.
  - Provide a visual indicator to determine whether the main contacts are open or closed.
  - Mount the ATS in a NEMA Type 1 gasketed cabinet with a key locking door. Mount controls in a dead front swing-out panel which, when opened, exposes all system components.
  - Provide industrial type pilot devices and relays rated 10 A with self-cleaning contacts.
  - Provide fully rated ATS to protect all types of loads, inductive and resistive, from loss of continuity of power, without de-rating, either open or enclosed and have withstand, closing, and interrupting ratings sufficient for voltage of the system and the available short circuit at the point of application in the Plans.
  - Ensure the ATS provides complete protection with field adjustable solid-state voltage sensing logic to monitor each phase of the normal power supply.
  - Provide a factory set close differential adjustment set to drop out when the monitored voltage drops below 70% of normal and initiate load transfer when the emergency source becomes available. Upon restoration of the normal source to a pickup level of 90%, the logic initiates automatic re-transfer of the load circuits to the normal power source provided a bridge operation sequence is not initiated.
  - Wire the ATS so that it obtains its operating current from the source to which the load is being transferred.
  - Provide mechanically and electrically interlocked ATS so that a neutral position is not possible when under electrical operation.
  - Provide positive interlock so that it is not possible for load circuits to be connected to normal and emergency sources simultaneously, regardless of whether the switch is electrically or manually operated.

- Provide the ATS with a neutral position for load circuit maintenance.
- Provide an Automatic Sequence of Operation as follows: Initiate Time Delay to start Stand-by Engine Generator upon initiation by normal source monitor.
- Provide an adjustable Time Delay to Start Stand-by Generator. Initiate Transfer of Load to Stand-by Source upon initiation by normal source monitor and permission by stand-by source monitor.
- Provide an adjustable Time Delay Before Transfer to Stand-by Power Source. Initiate Retransfer of Load to Normal Source when a bridge operation sequence is not initiated.
- Provide a Time Delay before Transfer to Normal Power with an adjustable bypass time delay in the event of stand-by source failure.
- Provide an adjustable Time Delay Before Engine Shut Down as per engine-generator manufacturer's recommendation.
- Provide an Engine-Generator Exerciser to Start engine-generator every seven days and run for 30 minutes before shutting down. Bypass exerciser control if normal power source fails during exercising period.
- Provide indicating lights and mount in cover of enclosure to indicate NORMAL SOURCE AVAILABLE, STAND-BY SOURCE AVAILABLE, and SWITCH POSITION and include a test switch to simulate failure of normal power source.
- ATS shall be programmed to monitor each line of normal source voltage and frequency, initiate transfer when voltage drops below 90% or frequency varies more than 3% from rated nominal value.
- ATS shall be programmed to monitor each line of stand-by source voltage and frequency, inhibit transfer when voltage is below 85% or frequency varies more than 5% from rated nominal value.
- Provide ATS controllers capable of interfacing to the integrated bridge control system for remote monitoring and control as required in the Contract Documents.
- Provide all hardware and power/signaling cabling for remote controls and remote monitoring.

- Panels
  - Provide a generator control panel, complete with: oil pressure gauge, water temperature gauge, low oil pressure alarm contacts, high water temperature alarm contacts, low oil pressure shut down contacts, high water temperature shut down contacts, overspeed shut down contacts, and cranking limiter relay.
  - Provide totally enclosed, ventilated, metal panel mounted on unit with channel or angle finished in enamel applied over corrosion resistant primer, complete with hinged door, ground bus, battery operated service light to illuminate panel under power outage condition, and incorporating: output circuit breaker; digital readouts for frequency, AC output voltage, and AC output amperage at a minimum; output voltage adjustment rheostat; engine running time meter; and an auxiliary relay, 3PDT, which operates when engine runs, with contact terminals pre-wired to terminal strip. Provide generator control panel complete with: Engine OFF-START-AUTO selector switch; cranking limiter; and trouble horn and double pole, double throw silencing switch with red indicating light.

- Provide illuminated annunciators with engraved nameplates reading: Low oil pressure alarm, high water temperature alarm, low oil pressure shut down, high water temperature shut down, overspeed shut down, over cranking shut down, low fuel, and fuel tank leak. Provide locking type annunciators with manual reset button for DC operation from battery bank incorporating contacts for remote indication. Provide contacts so that when shut down occurs from one set of shut down contacts, subsequent operation of shut down contacts are locked off from operating annunciators. Provide lamp test feature. Operation of the silencing switch silences the trouble alarm but does not turn the pilot light OFF. On return to normal and resetting of annunciators, trouble horn to sound again until switch is returned to normal position.
- Provide a remote alarm panel in a NEMA 1 enclosure to be installed in the operator's room. Provide panel conforming to NFPA 110.

- Fuel Supply
  - Provide skid mounted, under engine-generator set, fuel tank sized to hold enough fuel for 24 hours of operation at 100% load, with all supports, guards, sunshades, loading valves, and other features required by local codes and ordinances.
  - Provide tank with sight-level gauge.
  - Provide UL listed double walled tank.
  - Provide a leak detector device with alarm contacts to detect leakage within the outer wall of the tank. Location of leak detector is to be approved by the Engineer.
  - Provide a fuel level switch with contacts for remote alarm when 25% of fuel remains in the tank.

- Transient Protection and Grounding
  - Provide a regulator to protect the generator from transient spikes generated by SCR devices.
  - Provide positive equipment ground for system components.

- Enclosure
  - Provide enclosure as a packaged set (engine, alternator, fuel tank, enclosure, etc.) from the generator manufacturer.
  - Provide zinc plated 4-gauge steel enclosure with lockable access doors.
  - Enclosure shall fully protect the generator engine, cooling fans, alternator, fuel tank, control panel, batteries, and charger while allowing for control panel viewing through windows.
  - Provide an externally mounted emergency stop button mounted on the enclosure.

Construction Requirements

- Test and certify the performance of the system by the factory as to the full power rating, stability, voltage, and frequency regulation. Test unit at full load with a 0.80 power factor. Submit results of tests.
- Perform a dielectric absorption test on generator winding with respect to ground prior to and after storage period. Determine and record a polarization index. Submit copies of test results to the Engineer.

Delivery and Storage

- Generator shall be prepared for storage for a period of not less than two years.
- Contractor shall coordinate with manufacturer regarding delivery date and off-site storage requirements such that the manufacturer warranty period is initiated when the generator and associated equipment is commissioned.

Method Of Measurement. The method of measurement for all quantities described in the Contract Plans and in this Technical Special Provision relating to electrical work will be measured and paid at the Contract lump sum price.

Basis Of Payment. This Item shall be paid for at the contract unit price per Each for EMERGENCY GENERATOR WITH AUTOMATIC TRANSFER SWITCH, LOCATION 1. No additional payment will be made for equipment and materials necessary to deliver the unit to designated location by the Department.

FURNISHING MACHINERY BRAKES LOCATION NO. 1

Description. This work consists of furnishing all materials, labor, tools, delivery, weatherproof containment, and all incidental work to complete the work as shown on the Drawings, Specifications and directed by the Department.

Materials. The Location No. 1 motor brakes shall be thrustor-operated pad type drum brakes that are thrustor released and spring set. The brakes shall meet the following requirements:

- Mondel 300M 16” BT/E – ED121 or approved equal.
- Rated torque of 1400 ft-lbs. Setting torque of 1250 ft-lbs. For alternative proposed brake assemblies, the brake torque settings shall not be less than 60% nor more than 90% of their continuous rated capacity for normal operation.

All brakes shall have the following features:

- Thrustor motors shall be 230/460V, 3-Phase, 60 Hz and integral with the thrustor units.
- External and infinitely adjustable mechanical time delays for setting the brake with a minimum range from 0.6 to 6 seconds.
- External torque springs with brake torque scales in English units.
- Shoes to be provided with non-asbestos, high torque molded linings as recommended by the brake manufacturer.
- All hinge points shall be equipped with maintenance free bushings.
- Provide corrosion-resistant fittings of non-corrodible metal surfaces and hardware.
- Latching hand releases. The applied force at the hand release required to release the brake shall not exceed 50 pounds. The hand release shall be operable without removing the brake cover. The hand release shall not require removable levers or wrenches to operate.
- NEMA 3R covers. The cover shall not impede operation of the hand release mechanism when installed. The cover shall be mounted to the brake assembly and not require bolting to a separate support.

- Stainless steel pins and related hardware.
- Thrustors shall include stainless steel push rods.
- The oil used in the thrusters shall be synthetic oil suitable for operation at ambient temperatures between -25°C and 50°C from a cold start.
- All items to be coated with the manufacturer's special paint and application process required for corrosive atmospheres.
- All brakes shall be equipped with three (3) limit switches: one (1) switch to indicate when the brake is fully set, one (1) to indicate when the brake is fully released, and one (1) to indicate when the brake is hand released. The limit switches shall be shop assembled with the brake and shipped as one assembly. The limit switches shall be lever type limit switches. Each limit switch assembly shall be provided with a factory potted pigtail connection cable.
- Stainless steel or brass nameplates permanently affixed to each brake must be engraved with, but not limited to, the following information:
  - Manufacturer
  - Model number
  - Specified brake torque (per Contract Drawings)
  - Maximum brake torque
  - Brake lining material
- Stainless steel or brass nameplates permanently affixed to each brake actuating device must be engraved with, but not limited to, the following information:
  - Manufacturer
  - Model number
  - Push capacity of the actuator
  - Recommended reserve stroke of the actuator
  - Maximum stroke of the actuator
  - Minimum reserve stroke
  - Volts, phase, Hz, Watts
  - Type of fluid required in the reservoir
- Provide two spare brake pads for future use at either brake assembly.
- Provide a thermostat and a thermostatically-controlled space heater, suitable for 120 volts, single phase, and 60 Hz operation, shall be provided with the brake assembly. The heater is to be independent of the cover, to be secured to the support at the time of brake installation.

<u>Shop Testing.</u>

- The brake manufacturer shall confirm the orientation of the brake thrustor to ensure satisfactory operation at all leaf operating angles, from 0 to 71 degrees, for both left and right-hand configurations.
- The brake manufacturer shall perform a shop test to verify the torque produced by the brake assembly does not vary by more than 10% of the setting torque over the range of bridge operation from 0 to 71 degrees. Based on the results of these tests, the brake manufacturer shall provide a recommended torque setting for the 0 degrees position (bridge seated).

Construction Requirements. There are no construction requirements associated with this work.

Method of Measurement. This work will be measured for payment in units of each for each machinery brake assembly.

Basis of Payment. This Item shall be paid for at the contract unit price of each for FURNISHING MACHINERY BRAKES LOCATION NO. 1. Price shall be payment in full for all materials, labor, tools, delivery, weatherproof containment, and all incidental work to complete the work as shown on the Drawings, Specifications and directed by the Department.

FURNISHING MACHINERY BRAKES LOCATION NO. 2

Description. This work consists of furnishing all materials, labor, tools, delivery, weatherproof containment, and all incidental work to complete the work as shown on the Drawings, Specifications and directed by the Department.

Materials. The Location No. 2 machinery brakes shall be thrustor-operated pad type disc brakes that are thrustor released and spring set. The brakes shall meet the following requirements:

- Mondel 28”-DT2-ED80 or approved equal.
- Rated torque of 2,150 ft-lbs. Setting torque of 1800 ft-lbs. For alternative proposed brake assemblies, the brake torque settings shall not be less than 60% nor more than 90% of their continuous rated capacity for normal operation.

All brakes shall have the following features:
- Thrustor motors shall be 230/460V, 3-Phase, 60 Hz and integral with the thrustor units.
- External and infinitely adjustable mechanical time delays for setting the brake with a minimum range from 0.6 to 6 seconds.
- External torque springs with brake torque scales in English units.
- Shoes to be provided with non-asbestos, high torque molded linings as recommended by the brake manufacturer.
- All hinge points shall be equipped with maintenance free bushings.
- Provide corrosion-resistant fittings of non-corrodible metal surfaces and hardware.
- Latching hand releases. The applied force at the hand release required to release the brake shall not exceed 50 pounds. The hand release shall be operable without removing the brake cover. The hand release shall not require removable levers or wrenches to operate.
- NEMA 3R covers. The cover shall not impede operation of the hand release mechanism when installed. The cover shall be mounted to the brake assembly and not require bolting to a separate support.
- Stainless steel pins and related hardware.
- Thrustors shall include stainless steel push rods.
- The oil used in the thrusters shall be synthetic oil suitable for operation at ambient temperatures between -25°C and 50°C from a cold start.

- All items to be coated with the manufacturer's special paint and application process required for corrosive atmospheres.
- All brakes shall be equipped with three (3) limit switches: one (1) switch to indicate when the brake is fully set, one (1) to indicate when the brake is fully released, and one (1) to indicate when the brake is hand released. The limit switches shall be shop assembled with the brake and shipped as one assembly. The limit switches shall be lever type limit switches. Each limit switch assembly shall be provided with a factory potted pigtail connection cable.
- Stainless steel or brass nameplates permanently affixed to each brake must be engraved with, but not limited to, the following information:
  - Manufacturer
  - Model number
  - Specified brake torque (per Contract Drawings)
  - Maximum brake torque
  - Brake lining material
- Stainless steel or brass nameplates permanently affixed to each brake actuating device must be engraved with, but not limited to, the following information:
  - Manufacturer
  - Model number
  - Push capacity of the actuator
  - Recommended reserve stroke of the actuator
  - Maximum stroke of the actuator
  - Minimum reserve stroke
  - Volts, phase, Hz, Watts
  - Type of fluid required in the reservoir
- Provide two spare brake pads for future use at either brake assembly.
- Provide a thermostat and a thermostatically-controlled space heater, suitable for 120 volts, single phase, and 60 Hz operation, shall be provided with the brake assembly. The heater is to be independent of the cover, to be secured to the support at the time of brake installation.

Shop Testing.

- The brake manufacturer shall confirm the orientation of the brake thrustor to ensure satisfactory operation at all leaf operating angles, from 0 to 71 degrees, for both left and right-hand configurations.
- The brake manufacturer shall perform a shop test to verify the torque produced by the brake assembly does not vary by more than 10% of the setting torque over the range of bridge operation from 0 to 71 degrees. Based on the results of these tests, the brake manufacturer shall provide a recommended torque setting for the 0 degrees position (bridge seated).

Construction Requirements. There are no construction requirements associated with this work.

Method of Measurement. This work will be measured for payment in units of each for each machinery brake assembly.

Basis of Payment. This Item shall be paid for at the contract unit price of each for FURNISHING MACHINERY BRAKES LOCATION NO. 2. Price shall be payment in full for all materials, labor, tools, delivery, weatherproof containment, and all incidental work to complete the work as shown on the Drawings, Specifications and directed by the Department.

FURNISHING MOTOR BRAKES LOCATION NO. 1

Description. This work consists of furnishing all materials, labor, tools, delivery, weatherproof containment, and all incidental work to complete the work as shown on the Drawings, Specifications and directed by the Department.

Materials. The Location No. 1 motor brakes shall be thrustor-operated pad type drum brakes that are thrustor released and spring set. The brakes shall meet the following requirements:

- Mondel 300M 13" BT/E – ED50/6 or approved equal.
- Rated torque of 550 ft-lbs. Setting torque of 450 ft-lbs. For alternative proposed brake assemblies, the brake torque settings shall not be less than 60% nor more than 90% of their continuous rated capacity for normal operation.

All brakes shall have the following features:

- Thrustor motors shall be 230/460V, 3-Phase, 60 Hz and integral with the thrustor units.
- External and infinitely adjustable mechanical time delays for setting the brake with a minimum range from 0.6 to 6 seconds.
- External torque springs with brake torque scales in English units.
- Shoes to be provided with non-asbestos, high torque molded linings as recommended by the brake manufacturer.
- All hinge points shall be equipped with maintenance free bushings.
- Provide corrosion-resistant fittings of non-corrodible metal surfaces and hardware.
- Latching hand releases. The applied force at the hand release required to release the brake shall not exceed 50 pounds. The hand release shall be operable without removing the brake cover. The hand release shall not require removable levers or wrenches to operate.
- NEMA 3R covers. The cover shall not impede operation of the hand release mechanism when installed. The cover shall be mounted to the brake assembly and not require bolting to a separate support.
- Stainless steel pins and related hardware.
- Thrustors shall include stainless steel push rods.
- The oil used in the thrusters shall be synthetic oil suitable for operation at ambient temperatures between -25°C and 50°C from a cold start.
- All items to be coated with the manufacturer's special paint and application process required for corrosive atmospheres.
- All brakes shall be equipped with three (3) limit switches: one (1) switch to indicate when the brake is fully set, one (1) to indicate when the brake is fully released, and one (1) to indicate when the brake is hand released. The limit switches shall be shop assembled with the brake and shipped as one assembly. The limit switches shall be lever type limit switches. Each limit switch assembly shall be provided with a factory potted pigtail connection cable.
- Stainless steel or brass nameplates permanently affixed to each brake must be engraved with, but not limited to, the following information:
  - Manufacturer
  - Model number
  - Specified brake torque (per Contract Drawings)
  - Maximum brake torque
  - Brake lining material

- Stainless steel or brass nameplates permanently affixed to each brake actuating device must be engraved with, but not limited to, the following information:
  - Manufacturer
  - Model number
  - Push capacity of the actuator
  - Recommended reserve stroke of the actuator
  - Maximum stroke of the actuator
  - Minimum reserve stroke
  - Volts, phase, Hz, Watts
  - Type of fluid required in the reservoir
- Provide two spare brake pads for future use at either brake assembly.
- Provide a thermostat and a thermostatically-controlled space heater, suitable for 120 volts, single phase, and 60 Hz operation, shall be provided with the brake assembly. The heater is to be independent of the cover, to be secured to the support at the time of brake installation.

Shop Testing.

- The brake manufacturer shall confirm the orientation of the brake thrustor to ensure satisfactory operation at all leaf operating angles, from 0 to 71 degrees, for both left and right-hand configurations.
- The brake manufacturer shall perform a shop test to verify the torque produced by the brake assembly does not vary by more than 10% of the setting torque over the range of bridge operation from 0 to 71 degrees. Based on the results of these tests, the brake manufacturer shall provide a recommended torque setting for the 0 degrees position (bridge seated).

Construction Requirements. There are no construction requirements associated with this work.

Method of Measurement. This work will be measured for payment in units of each for each machinery brake assembly.

Basis of Payment. This Item shall be paid for at the contract unit price of each for FURNISHING MOTOR BRAKES LOCATION NO. 1. Price shall be payment in full for all materials, labor, tools, delivery, weatherproof containment, and all incidental work to complete the work as shown on the Drawings, Specifications and directed by the DEPARTMENT.

FURNISHING MOTOR BRAKES LOCATION NO. 2

Description. This work consists of furnishing all materials, labor, tools, delivery, weatherproof containment, and all incidental work to complete the work as shown on the Drawings, Specifications and directed by the Department.

Materials. The Location No. 2 motor brakes shall be thrustor-operated pad type disc brakes that are thrustor released and spring set. The brakes shall meet the following requirements:

- Mondel 19.7”-DT2-ED30 or approved equal.
- Rated torque of 500 ft-lbs. Setting torque of 450 ft-lbs. For alternative proposed brake assemblies, the brake torque settings shall not be less than 60% nor more than 90% of their continuous rated capacity for normal operation.

All brakes shall have the following features:

- Thrustor motors shall be 230/460V, 3-Phase, 60 Hz and integral with the thrustor units.
- External and infinitely adjustable mechanical time delays for setting the brake with a minimum range from 0.6 to 6 seconds.
- External torque springs with brake torque scales in English units.
- Shoes to be provided with non-asbestos, high torque molded linings as recommended by the brake manufacturer.
- All hinge points shall be equipped with maintenance free bushings.
- Provide corrosion-resistant fittings of non-corrodible metal surfaces and hardware.
- Latching hand releases. The applied force at the hand release required to release the brake shall not exceed 50 pounds. The hand release shall be operable without removing the brake cover. The hand release shall not require removable levers or wrenches to operate.
- NEMA 3R covers. The cover shall not impede operation of the hand release mechanism when installed. The cover shall be mounted to the brake assembly and not require bolting to a separate support.
- Stainless steel pins and related hardware.
- Thrustors shall include stainless steel push rods.
- The oil used in the thrusters shall be synthetic oil suitable for operation at ambient temperatures between -25°C and 50°C from a cold start.
- All items to be coated with the manufacturer's special paint and application process required for corrosive atmospheres.
- All brakes shall be equipped with three (3) limit switches: one (1) switch to indicate when the brake is fully set, one (1) to indicate when the brake is fully released, and one (1) to indicate when the brake is hand released. The limit switches shall be shop assembled with the brake and shipped as one assembly. The limit switches shall be lever type limit switches. Each limit switch assembly shall be provided with a factory potted pigtail connection cable.
- Stainless steel or brass nameplates permanently affixed to each brake must be engraved with, but not limited to, the following information:
  - Manufacturer
  - Model number
  - Specified brake torque (per Contract Drawings)
  - Maximum brake torque
  - Brake lining material

- Stainless steel or brass nameplates permanently affixed to each brake actuating device must be engraved with, but not limited to, the following information:
  - Manufacturer
  - Model number
  - Push capacity of the actuator
  - Recommended reserve stroke of the actuator
  - Maximum stroke of the actuator
  - Minimum reserve stroke
  - Volts, phase, Hz, Watts
  - Type of fluid required in the reservoir
- Provide two spare brake pads for future use at either brake assembly.
- Provide a thermostat and a thermostatically-controlled space heater, suitable for 120 volts, single phase, and 60 Hz operation, shall be provided with the brake assembly. The heater is to be independent of the cover, to be secured to the support at the time of brake installation.

Shop Testing.

- The brake manufacturer shall confirm the orientation of the brake thrustor to ensure satisfactory operation at all leaf operating angles, from 0 to 71 degrees, for both left and right-hand configurations.
- The brake manufacturer shall perform a shop test to verify the torque produced by the brake assembly does not vary by more than 10% of the setting torque over the range of bridge operation from 0 to 71 degrees. Based on the results of these tests, the brake manufacturer shall provide a recommended torque setting for the 0 degrees position (bridge seated).

Construction Requirements. There are no construction requirements associated with this work.

Method of Measurement. This work will be measured for payment in units of each for each machinery brake assembly.

Basis of Payment. This Item shall be paid for at the contract unit price of each for FURNISHING MOTOR BRAKES LOCATION NO. 2. Price shall be payment in full for all materials, labor, tools, delivery, weatherproof containment, and all incidental work to complete the work as shown on the Drawings, Specifications and directed by the Department.

FURNISHING RACK AND PINION

Description. This work shall consist of furnishing all labor, materials, tools, delivery, all incidental work, and equipment necessary for the fabrication and delivery of the rack and pinion for structure number 099-9904. This work shall be completed as shown on the contract Drawings, Specifications, and as directed by the Department.

General Requirements.

Construction Requirements

- The Contractor shall verify all dimensions in the field prior to ordering and fabrication in order to ensure proper future installation.
- Shop drawings for all replacement items shall be prepared, approved and distributed in accordance with the provisions of the Standard Specifications. The shop drawing submission shall include the name of the fabricator and the fabricator's technical specifications.
- No material or equipment shall be ordered or fabricated prior to approval by the Department of shop drawings, fabrication procedures and specifications.
- Detailed field measurements of the elevations and relative positions of the existing pinions and pinion shafts. A reference line shall be established through the centers of the pinions and the alignment of the pinion shafts to the reference line and of the reference line to the structure shall be established with a resolution of 1/64”.

Materials.

Basis of Machinery Design

- The design of new machinery shall conform to the applicable requirements of AASHTO Standard Specifications for Movable Highway Bridges.
- The design of the operating machinery is based upon the existing 40 h.p. electric motors operating at 870 rpm and a maximum torque not exceeding 150% of rated full load torque.
- The Shop Drawings are available at the Illinois Department of Transportation Field Office at 105 Bridge St., in Joliet, Illinois.

Measurement and Verification

- Dimensions indicated on the Contract Drawings are nominal and are intended for guidance only. All variations from the nominal dimensions on the Contract Drawings shall be noted on the shop drawings.
- The Contractor shall verify all dimensions of the existing bridge (SN 099-9904) machinery and shall integrate on the shop drawings.

Coatings

- Rust-inhibiting coatings for temporary protection of machined surfaces shall be as manufactured by one of the following companies, or approved equal:
  - E.F. Houghton & Company, Valley Forge, PA; RustVeto344
  - Cosomoline 1058, Sanchez, Inc. Chicago, IL; No-Ox-Id "A", Special "X"
  - A.W. Chesterton Company, Stoneham, MA; Heavy-Duty Rust Guard
  - Texaco, Houston, TX; Metal Protective Oil L.

Material Requirements

- Fasteners
  - All high strength bolts shown on the mechanical drawings shall be machinery fit unless otherwise noted. All high strength bolts shall meet the requirements of ASTM A449 Type 2.
  - Holes in shims and fills for machinery parts shall be reamed or drilled to the same tolerances as the connected parts at final assembly.

- Rack and Pinion

The rack and pinion shall be machined, cut or hobbed from a solid steel forging conforming to the material specification on the Contract Drawings. The sides and outside diameter of the rack and pinion shall be finished and the pitch circle shall be scribed on both sides 1/32 inch deep with a V-pointed tool. The working surfaces of all teeth shall be true to the proper profile, accurately spaced on the true pitch circle, smooth and free from tool marks. Machining burrs shall be removed from all edges of the teeth and the top edges of all teeth shall be rounded to 1/32 inch radius. Except as otherwise provided herein or indicated on the Contract Drawings, the rack and pinion shall be cut and mounted to meet the requirement for accuracy of AGMA Standard 390.03 Gear Classifications Manual for the specified class, with an AGMA Quality Number 7 or better.

- Machinery Shims
  - Where shown on the drawings, all machinery shims required for leveling and alignment of equipment shall be steel, neatly trimmed to the dimensions of the assembled parts and drilled for all bolts that pass through the shims.
  - Sufficient thickness shall be furnished to secure 1/64 inch variations of the shim allowance plus one shim equal to the full allowance.
  - Shims shall be provided without bolt holes and shall be drilled and reamed in the field to the same fit as the other connected components.
  - Shims shall be shown and fully dimensioned and detailed on the shop drawings.

Delivery and Storage.

- Protection for Shipment
  - All finished metal surfaces and unpainted metal surfaces that could be damaged by corrosion shall be coated with the rust-inhibiting preservative as soon as practicable after finishing. All shims shall be coated prior to shipment with the rust-inhibiting preservative.
  - The Engineer shall approve the methods and materials used for protection. The Contractor shall submit in advance an outline of the methods and materials to be used for this purpose. All equipment shall be properly protected per the manufacturer's recommendation when stored and as directed by the Department.

Method of Measurement. The lump sum price bid for Furnishing Rack and Pinion shall include the cost of furnishing all labor, materials, machinery, field inspection, cleaning, necessary shims, coating, storing, delivering, and all necessary incidentals for the work herein described and the Contract Drawings.

Basis of Payment. This Item shall be paid for at the contract unit price per lump sum for Furnishing Rack and Pinion. No additional payment will be made for shop and field inspection and all necessary shop and field measurement required to develop the rack and pinon.

ELECTRIC INCINERATING TOILET

Description. This work consists of furnishing all materials, labor, tools, delivery, weatherproof containment, and all incidental work to complete the work as shown on the Drawings, Specifications and as directed by the Department.

Materials. The Electric Incinerating Toilet shall meet the following requirements:

- Incinolet model TR or approved equal
- Power: One unit shall be 120V (2000 watts) and the second unit 240V (3500 watts) model.
- Dimensions: Approximately 15" W x 20" D x 24" H (381mm x 508mm x 610mm).
- Weight: Around 85 lbs (34 kg).
- Materials: Built with stainless steel for durability.
- Ventilation: Includes a 3-inch diameter ventpipe and an internal fan for extracting combustion byproducts.
- Odor Control: Features a platinum-type catalyst, similar to an automobile's catalytic converter, to manage smoke and odor emissions.
- Ash Disposal: Incinerated waste is reduced to sterile ash, which can be disposed of with household garbage.
- Operation: Pressing the button initiates a burn cycle using a heater and blower, with the unit capable of being used during this cycle.
- Maintenance: Requires occasional cleaning of surfaces and emptying the ash pan at least weekly.
- Installation: Uses a rubber coupling and PVC pipe to connect the vent to a wall-mounted dryer flap.
- Liner Requirement: A paper bowl liner is needed for each use to contain waste and liquids during the burn cycle

Method of Measurement. This work will be measured for payment in units of each for each Electric Incinerating Toilet assembly delivered.

Basis of Payment. This work will be made at the contract unit price per EACH for ELECTRIC INCINERATING TOILET.

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) or 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)	The Contractor has been granted a minimum two week extension of contract time, according to Article 108.08.

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: January 1, 2025

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 according to the table below.

Horsepower Range	Model Year and Older
50-99	2003
100-299	2002
300-599	2000
600-749	2001
750 and up	2005

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* (https://www.epa.gov/verified-diesel-tech/verified-technologies-list-clean-diesel),
or verified by the California Air Resources Board (CARB) (http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm); 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.

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%"

SUBMISSION OF BIDDERS LIST INFORMATION (BDE)
Effective: January 2, 2025 Revised: March 2, 2025

In accordance with 49 CFR 26.11(c) all DBE and non-DBEs who bid as prime contractors and subcontractors shall provide bidders list information, including all DBE and non-DBE firms from whom the bidder has received a quote or bid to work as a subcontractor, whether or not the bidder has relied upon that bid in placing its bid as the prime contractor.

The bidders list information shall be submitted with the bid using the link provided within the "Integrated Contractor Exchange (iCX)" application of the Department's "EBids System".

SUBMISSION OF PAYROLL RECORDS (BDE)

Effective: April 1, 2021 Revised: November 2, 2023

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

"STATEMENTS AND PAYROLLS

The payroll records shall include the worker's name, social security number, last known address, telephone number, email address, classification(s) of work actually performed, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof), daily and weekly number of hours actually worked in total, deductions made, and actual wages paid.

The Contractor and each subcontractor shall submit certified payroll records to the Department each week from the start to the completion of their respective work, except that full social security numbers, last known addresses, telephone numbers, and email addresses shall not be included on weekly submittals. Instead, the payrolls need only include an identification number for each employee (e.g., the last four digits of the employee's social security number). The submittals shall be made using LCPtracker Pro software. The software is web-based and can be accessed at https://lcptracker.com/. When there has been no activity during a work week, a payroll record shall still be submitted with the appropriate option ("No Work", "Suspended", or "Complete") selected."

STATE CONTRACTS. Revise Item 3 of Section IV of Check Sheet #5 of the Recurring Special Provisions to read:

"3. Submission of Payroll Records. The Contractor and each subcontractor shall, no later than the 15th day of each calendar month, file a certified payroll for the immediately preceding month to the Illinois Department of Labor (IDOL) through the Illinois Prevailing Wage Portal in compliance with the State Prevailing Wage Act (820 ILCS 130). The portal can be found on the IDOL website at https://www2.illinois.gov/idol/Laws-Rules/CONMED/Pages/Prevailing-Wage-Portal.aspx. Payrolls shall be submitted in the format prescribed by the IDOL.

In addition to filing certified payroll(s) with the IDOL, the Contractor and each subcontractor shall certify and submit payroll records to the Department each week from the start to the completion of their respective work, except that full social security numbers shall not be included on weekly submittals. Instead, the payrolls shall include an identification number for each employee (e.g., the last four digits of the employee's social security number). In addition, starting and ending times of work each day may be omitted from the payroll records submitted. The submittals shall be made using LCPtracker Pro software. The software is web-based and can be accessed at https://lcptracker.com/. When there has been no activity during a work week, a payroll record shall still be submitted with the appropriate option ("No Work", "Suspended", or "Complete") selected."

IDOT TRAINING PROGRAM GRADUATE ON-THE-JOB TRAINING SPECIAL PROVISION

Effective: August 1, 2012 Revised: February 2, 2017

In addition to the Contractor's equal employment opportunity (EEO) affirmative action efforts undertaken as required by this Contract, the Contractor is encouraged to participate in the incentive program described below to provide additional on-the-job training to certified graduates of the IDOT pre-apprenticeship training program, as outlined in this Special Provision.

IDOT funds, and various Illinois community colleges operate, pre-apprenticeship training programs throughout the State to provide training and skill-improvement opportunities to promote the increased employment of minority groups, disadvantaged persons and women in all aspects of the highway construction industry. The intent of this IDOT Pre-Apprenticeship Training Program Graduate (TPG) special provision (Special Provision) is to place these certified program graduates on the project site for this Contract in order to provide the graduates with meaningful on-the-job training. Pursuant to this Special Provision, the Contractor must make every reasonable effort to recruit and employ certified TPG trainees to the extent such individuals are available within a practicable distance of the project site.

Specifically, participation of the Contractor or its subcontractor in the Program entitles the participant to reimbursement for graduates' hourly wages at $15.00 per hour per utilized TPG trainee, subject to the terms of this Special Provision. Reimbursement payment will be made even though the Contractor or subcontractor may also receive additional training program funds from other non-IDOT sources for other non-TPG trainees on the Contract, provided such other source does not specifically prohibit the Contractor or subcontractor from receiving reimbursement from another entity through another program, such as IDOT through the TPG program. With regard to any IDOT funded construction training program other than TPG, however, additional reimbursement for other IDOT programs will not be made beyond the TPG Program described in this Special Provision when the TPG Program is utilized.

No payment will be made to the Contractor if the Contractor or subcontractor fails to provide the required on-site training to TPG trainees, as solely determined by IDOT. A TPG trainee must begin training on the project as soon as the start of work that utilizes the relevant trade skill and the TPG trainee must remain on the project site through completion of the Contract, so long as training opportunities continue to exist in the relevant work classification. Should a TPG trainee's employment end in advance of the completion of the Contract, the Contractor must promptly notify the IDOT District EEO Officer for the Contract that the TPG's involvement in the Contract has ended. The Contractor must supply a written report for the reason the TPG trainee involvement terminated, the hours completed by the TPG trainee on the Contract, and the number of hours for which the incentive payment provided under this Special Provision will be, or has been claimed for the separated TPG trainee.

Finally, the Contractor must maintain all records it creates as a result of participation in the Program on the Contract, and furnish periodic written reports to the IDOT District EEO Officer that document its contractual performance under and compliance with this Special Provision. Finally, through participation in the Program and reimbursement of wages, the Contractor is not relieved of, and IDOT has not waived, the requirements of any federal or state labor or employment law applicable to TPG workers, including compliance with the Illinois Prevailing Wage Act.

Method of Measurement: The unit of measurement is in hours.

Basis of Payment: This work will be paid for at the contract unit price of $15.00 per hour for each utilized certified TPG Program trainee (TRAINEES TRAINING PROGRAM GRADUATE). The estimated total number of hours, unit price, and total price must be included in the schedule of prices for the Contract submitted by Contractor prior to beginning work. The initial number of TPG trainees for which the incentive is available for this contract is **4**.

The Department has contracted with several educational institutions to provide screening, tutoring and pre-training to individuals interested in working as a TPG trainee in various areas of common construction trade work. Only individuals who have successfully completed a Pre-Apprenticeship Training Program at these IDOT approved institutions are eligible to be TPG trainees. To obtain a list of institutions that can connect the Contractor with eligible TPG trainees, the Contractor may contact: HCCTP TPG Program Coordinator, Office of Business and Workforce Diversity (IDOT OBWD), Room 319, Illinois Department of Transportation, 2300 S. Dirksen Parkway, Springfield, Illinois 62764. Prior to commencing construction with the utilization of a TPG trainee, the Contractor must submit documentation to the IDOT District EEO Officer for the Contract that provides the names and contact information of the TPG trainee(s) to be trained in each selected work classification, proof that that the TPG trainee(s) has successfully completed a Pre-Apprenticeship Training Program, proof that the TPG is in an Apprenticeship Training Program approved by the U.S. Department of Labor Bureau of Apprenticeship Training, and the start date for training in each of the applicable work classifications.

To receive payment, the Contractor must provide training opportunities aimed at developing a full journeyworker in the type of trade or job classification involved. During the course of performance of the Contract, the Contractor may seek approval from the IDOT District EEO Officer to employ additional eligible TPG trainees. In the event the Contractor subcontracts a portion of the contracted work, it must determine how many, if any, of the TPGs will be trained by the subcontractor. Though a subcontractor may conduct training, the Contractor retains the responsibility for meeting all requirements imposed by this Special Provision. The Contractor must also include this Special Provision in any subcontract where payment for contracted work performed by a TPG trainee will be passed on to a subcontractor.

Training through the Program is intended to move TPGs toward journeyman status, which is the primary objective of this Special Provision. Accordingly, the Contractor must make every effort to enroll TPG trainees by recruitment through the Program participant educational institutions to the extent eligible TPGs are available within a reasonable geographic area of the project. The Contractor is responsible for demonstrating, through documentation, the recruitment efforts it has undertaken prior to the determination by IDOT whether the Contractor is in compliance with this Special Provision, and therefore, entitled to the Training Program Graduate reimbursement of $15.00 per hour.

Notwithstanding the on-the-job training requirement of this TPG Special Provision, some minimal off-site training is permissible as long as the offsite training is an integral part of the work of the contract, and does not compromise or conflict with the required on-site training that is central to the purpose of the Program. No individual may be employed as a TPG trainee in any work classification in which he/she has previously successfully completed a training program leading to journeyman status in any trade, or in which he/she has worked at a journeyman level or higher.

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 http://www.state.il.us/agency/idol/ or by calling 312-793-2814. It is the responsibility of the contractor to review the rates applicable to the work of the contract at regular intervals in order to insure the timely payment of current rates. Provision of this information to the contractor by means of the Illinois Department of Labor web site satisfies the notification of revisions by the Department to the contractor pursuant to the Act, and the contractor agrees that no additional notice is required. The contractor shall notify each of its subcontractors of the revised rates of wages.