124

June 13, 2025 Letting

## Notice to Bidders, Specifications and Proposal



Contract No. 76R61
Various Counties
Section DIST 8 ITS 2026-1
Various Routes
District 8 Construction Funds

# 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. June 13, 2025 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. 76R61
Various Counties
Section DIST 8 ITS 2026-1
Various Routes
District 8 Construction Funds

Maintenance and service of all ITS equipment at various locations throughout District 8.

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

By Order of the Illinois Department of Transportation

Gia Biagi, Acting Secretary

## INDEX FOR SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS

## Adopted January 1, 2025

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

ERRATA Standard Specifications for Road and Bridge Construction

(Adopted 1-1-22) (Revised 1-1-25)

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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 Various Routes, Section Dist 8 ITS 2026-1, Various Counties, Contract No. 76R61, and in case of conflict with any part or parts of said Specifications, the said Special Provisions shall take precedence and shall govern.

Various Routes
Section Dist 8 ITS 2026-1
Various Counties
Contract No. 76R61

#### **LOCATION OF PROJECT**

This project is located at various locations throughout District 8/Region 5 and as directed by the Engineer.

## **DESCRIPTION OF PROJECT**

The Contractor shall repair, replace, maintain and service the entire Department's ITS equipment including but not limited to the following:

- Surveillance Cameras, Vehicle Detectors, Dynamic Message Signs, Advanced Traffic Management Systems, Fiber Optic Communications and Ethernet Networks, TMC Servers, TMC Workstations
- All peripheral equipment and scheduled preventative maintenance as directed by the individual work orders issued by the Department's Representative

#### SUBMITTAL OF EEO/LABOR DOCUMENTATION

Effective: April 2016

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

## PAYROLL AND STATEMENT OF COMPLIANCE:

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

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

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

## **WEEKLY DBE TRUCKING REPORT:**

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

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

## MONTHLY LABOR SUMMARY & MONTHLY CONTRACT ACTIVITY REPORTS:

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

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

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

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

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

## REQUEST FOR APPROVAL OF SUBCONTRACTOR:

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

## SUBSTANCE ABUSE PREVENTION PROGRAM CERTIFICATION:

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

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

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

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

This special provision must be included in each subcontract agreement.

ALL HARD COPY FORMS TO BE SUBMITTED TO:

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

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

#### TRAFFIC CONTROL PLAN

Effective: July 12, 1993 Revised: May 12, 1997

Traffic control shall be in accordance with the applicable sections of the "Standard Specifications for Road and Bridge Construction", the applicable guidelines contained in the "National Manual on Uniform Traffic Control Devices for Streets and Highways", Illinois Supplement to the National Manual of Uniform Traffic Control Devices, these special provisions, and any special details and highway standards contained herein and in the plans.

Special attention is called to Articles 107.09 and 107.14 of the "Standard Specifications for Road and Bridge Construction" and the following highway standards relating to traffic control:

701001	701006	701106	701201	701206	701301
701400	701401	701406	701421	701422	701446
701451	701456	701601	701606	701701	701901

In addition, the following special provision(s) will also govern traffic control for this project:

Speed Display Trailer
Short Term and Temporary Pavement Markings
Work Zone Traffic Control Devices
Vehicle and Equipment Warning Lights

#### START WORK/COMPLETION DATE

This contract will start on August 1, 2025. All work on this contract shall be completed on or before <u>August 31, 2026</u>. Should the Contractor fail to complete all work by August 31, 2026, the Contractor shall be liable in accordance with Article 108.09 of the Standard Specifications.

#### WORK ORDERS/START OF WORK

All work to be performed by the Contractor shall be on a call-out basis. Requests for emergency service calls may be initiated, by the Department, with a telephone call, faxed message, or email and followed by a written work order authorizing the work. The work order shall show the date and time of issuance, type of facility, location, and a description of the service required or the problem reported, and pay item(s).

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

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

If at the time the service being performed appears to need additional work of a minor nature (not to exceed \$500.00), the Contractor shall proceed with that work. If it appears that the additional work could result in a substantial addition or charge to the current work order, the Contractor shall contact the Department's District contact before proceeding with the additional work.

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

The Contractor shall advise the Traffic Management Center Engineer at 618-346-3285 or the Traffic Operations Engineer at 618-346-3283 during normal work hours or the District 8 Traffic Management Center at 618-346-3233 after normal work hours upon arrival or departure of the site of all emergency service calls and provide the status of work. Normal work hours, for the purposes of this contract shall be hours during which the Contractor is not required to pay overtime labor rates.

<b>( ) 3. 1. 1.</b>	Department sportation	Work Order	ITS 1	
Requested By:		Date:	Time:	
Assigned To:		Received From:		
Estimated Cost:				
Location:				
Problem:				
	Ref/Accident #:		Claim #:	
Remarks:	Ref/Accident #:		Claim #:	
Remarks:	Ref/Accident #:		Claim#:	
Remarks:	Ref/Accident #:		Claim #:	
Remarks:	Ref/Accident #:		Claim #:	
Remarks:	Ref/Accident #:		Claim #:	
Remarks:	Ref/Accident #:		Claim #:	
Remarks:	Ref/Accident #:		Claim #:	

#### **QUANTITIES**

The quantities specified in this contract indicate the estimated amount of work required for the duration of this contract. This is merely an estimate to allow contractors to establish unit prices and permit the Department to determine the low bidder. It shall be understood that the unit prices of this contract shall prevail throughout the period of this contract regardless of the quantity.

#### PARTS AND MATERIALS

The Contractor shall submit unit costs for this contract for parts and materials to be used in the execution of this contract. Parts and Materials supplied by the Contractor, which have a retail value under \$100.00 per unit, shall be considered included in the contract and no additional compensation is allowed.

If the Contractor encounters a need for a part or material not listed in this contract or is not considered incidental part, the Contractor shall immediately contact the Department. If this part or material is deemed necessary, the Contractor must supply a billing invoice from the supplier showing actual cost of the item as documentation. Payment shall be made in accordance with Article 109.04(b)(3) of the Standard Specifications for Road and Bridge Construction.

When such parts and materials are furnished by the Contractor, the material shall be of the best grade of its respective kind, for the intended purpose. The Contractor is expected to make a good faith effort to purchase the parts and materials supplied by them at the lowest possible price. The transportation of the parts and materials to the location on the work order by the Contractor shall be considered incidental to the contract, except for certain knockdown repairs, or when a special piece of equipment is required to properly transport the item(s).

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

#### WARRANTIES FOR SUPPLIES AND SERVICES

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

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

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

## LABOR, TOOLS, AND EQUIPMENT

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

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

Labor rates for journeyman electrician and apprentice electrician shall be inclusive of (but not limited too) all regular and premium time, insurance, benefits, overhead, and profit. The Department will specify in the Journeyman Electrician and/or Apprentice Electrician pay items will be utilized on each individual work order.

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

#### JOURNEYMAN ELECTRICIAN

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

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

This work will be paid for as a part of the contract unit price per HOUR for JOURNEYMAN ELECTRICIAN, JOURNEYMAN ELECTRICIAN (WEEKLY OVERTIME RATE), and JOURNEYMAN ELECTRICIAN (SUNDAY AND HOLIDAY OVERTIME RATE).

#### APPRENTICE ELECTRICIAN

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

Apprentice electrician utilized as part of this contract must follow the criteria listed below:

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

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

This work will be paid for as a part of the contract unit price per HOUR for APPRENTICE ELECTRICIAN, APPRENTICE ELECTRICIAN (WEEKLY OVERTIME RATE), and APPRENTICE ELECTRICIAN (SUNDAY AND HOLIDAY OVERTIME RATE).

#### PICK-UP TRUCK

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

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

#### **BUCKET TRUCK**

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

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

## ATTENUATOR, CRASH

The attenuators shall meet the requirements of Articles 701.15(h) and 1106.02.

The time allowed shall be the actual time the attenuator is in use at the work locations. Labor will be measured to the nearest 0.25 hour for each attenuator approved for use on the applicable work order.

This work will be paid for at the contract unit price per HOUR for ATTENUATOR, CRASH (TRUCK MOUNTED).

#### **RESPONSE TIME**

The Department will define the expected response times at the time of issuing the work order based on the following:

Level 1 – Emergency Service Calls – Work crew/staff shall be at the location on the work order or remotely logged in within one and one-half hours of notification during normal work hours and within two hours of notification after normal work hours and complete work within 3 hours of arrival. Normal work hours, for the purposes of this contract shall be hours during which the Contractor is not required to pay overtime labor rates.

Level 2 – Priority Non-Emergency Service Calls – Respond within 24 hours of issuance, complete work within 3 days.

Level 3 – Routine Work Items – Complete work within 30 days of the date work order was issued.

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

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

Should the Contractor fail to respond and/or complete a work order on time, or such extended time as may have been allowed by the Department, a monetary deduction will be applied to monies due or that may become due the Contractor. The value of the monetary deduction will be as follows:

For Level 1 (Emergency Service Calls):

\\\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	1: :1 ( ID
Work Order Amount	<u>Liquidated Damages for Each 15 Minutes*</u>

From \$0 to \$500.00 \$25.00 From \$500.00 to \$1000.00 \$50.00 From \$1000.00 and Over \$100.00

For Level 2 (Priority Non-Emergency Service Calls) and Level 3 (Routine Work Items):

From \$0 to \$500.00 \$250.00 From \$500.00 to \$1000.00 \$500.00 From \$1000.00 and Over \$1000.00

For calculating the LeveL 2 and Level 3 monetary deduction, a day shall be any day or portion of, excluding the following:

<sup>\*</sup>After applicable response time or completion time expires

<sup>\*</sup>After applicable response time or completion time expires

- A. When adverse weather at the field site prevents work on the controlling item of a work order.
- B. When conditions at the field site due to recent weather conditions prevent work on the controlling item of a work order.
- C. When work on the controlling item has been suspended by an act or omission by the Department or Engineer.

#### **CONTROL OF WORK**

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

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

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

#### CONTRACTOR'S REPRESENTATIVE

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

## **WORK ITEMS**

The Contractor will be responsible for performing typical work items as specified below. The Contractor should expect to be routinely issued work orders for many of the work items described below. The Contractor will be responsible for adhering response times when performing these work items. The following list is not all-inclusive and its intent is only to give the Contractor information as to what type of work they will be responsible for:

- Inspecting and cleaning surveillance camera installations.
- Cleaning a surveillance camera environmental enclosure and seals.
- Inspecting and cleaning video detector installations.
- Calibrating video detector camera installations.
- Inspecting and cleaning dynamic message sign installations.

- Washing, inspecting, and reinstalling the intake and exhaust filters in truss mounted dynamic message signs.
- Replacing the filters in truss mounted dynamic message signs.
- Inspecting, cleaning and re-sealing controller cabinet installations.
- Replacing existing controller cabinet locks with new controller cabinet locks.
- Locating and marking the location of underground cables.
- Resetting the power at existing controller cabinet installations.
- Troubleshooting and repairing surveillance camera, video vehicle detector, micro loop detector, fiber optic communication, radio communication, side-fire radar detector, and dynamic message sign locations so they are back in normal operation and functioning to the satisfaction of the Engineer.
- All detectors, cameras, dynamic signs, and highway advisory radio system are controlled by equipment in the ITS Equipment Room (Rm 120B) or the TMC control room (Rm118). This equipment is used to control CCTV surveillance cameras, collect vehicle detector data, provide travel/congestion times to dynamic message signs and highway advisory radio system manage and disseminate incidents/events and manage and disseminate DMS and amber alerts after completion. Hardware includes several device inputs and outputs; one video wall controller, one Highway Advisory Radio (HAR) server, one Wavetronix Data Collector and Translator server, one internet work station, two streaming video to web servers, one web server and application, ten Axis video servers, one 360 Surveillance Camerleon ITS server, Cornet and Impath video encoders, Cornet and Impath video decoders, twelve 40" LCD monitors in addition to seven Windows 7 client workstation pc's with LCD monitors, one Tyco Video Recorder, two Raritan Keyboard/Video/Mouse switches, a minimum of 17 Cisco WS-C2955S-12, 2 Cisco WS-C3550-12G, 11 Cisco WS-3750-12S, 9 Cisco WS-CE500G - 12TC, 10 Cisco IE3000, Ethernet switches and all ancillary equipment including GBIC and SFP modules, and Click 301 serial to Ethernet converters and Wavetronic Click 200/202 surge protectors/power supplies.
- The Contractor may be asked to service or enhance the functionality of any ITS equipment.

#### ITS CONTROL EQUIPMENT VENDOR QUALIFICATIONS

Minimum requirements include response times as listed, 24/7 on-call service capability, on-line monitoring and intervention capabilities, experience in programming using the existing software, ongoing experience with the hardware of the typed installed, and qualified ongoing experience with the software of the type installed. At the pre-construction meeting, the Contractor shall submit for approval, to the District 8 Intelligent Transportation Engineer or designee, a qualified representative to perform systems support and maintenance of the ITS control equipment. The Vendor shall meet the following requirements:

- Have experience in data acquisition, specifically (Wavetronic Data Collector, Microsoft Windows server 2005/2008, Cameleon ITS version 2012).
- Have experience in the software environment similar to that of TMC.

 Have 3 continuous years of maintenance and support of similar systems in size and Microsoft environments.

Have working knowledge of the Cisco Command language and CNA software and have experience in multicast routing. The Vendor shall submit, to the Engineer, resumes of the qualified personnel listed to work on the ITS control equipment. Resumes shall list pervious projects and specific duties/responsibilities the individuals were responsible for as part of the project. The list shall include the projects' contact person, organization, title and current phone or e-mail information. The resumes shall be submitted at the pre-construction meeting.

#### **KNOCKDOWN DEBRIS**

The debris from damaged ITS equipment such as cameras, detection devices, and dynamic message signs (DMS) shall remain the property of the Department. The Contractor shall transport knockdown debris to the Department's facility at <u>9601 ST. CLAIR AVE, FAIRVIEW HEIGHTS, IL.</u> This debris can be delivered after each knockdown repair or held at the Contractor's shop and delivered periodically to the Department's facility. The Contractor should notify the Department when knockdown debris is to be delivered so personnel will be available to direct unloading.

#### KNOCKDOWN DOCUMENTATION

The Contractor shall provide the Department with photographs of all on site knockdown debris to document the damage for third party claims. The photographs may be Polaroid-type instant pictures or digital images and should have the number of views necessary to properly detail the motorist caused damage. Three or more photographs are required for adequate documentation. Identifying information should be included in the photographs as much as possible.

This requirement shall be considered included with this contract and no additional compensation shall be allowed.

## **TEST EQUIPMENT**

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

The Contractor shall use the established procedures as defined by the manufacturer or standard practice to determine the integrity of equipment. The Department shall be provided with the testing procedures used upon request.

All required test equipment shall be included in the contract and no additional compensation will be allowed.

## **NUMBERING SYSTEM**

The Contractor shall use the Department's ITS numbering system on all reports, correspondence and billing invoices.

## WHERE SERVICES ARE TO BE PERFORMED

Services may be performed at (but not limited to) the following locations:

Surveillance Cameras			
Numerical Location	Textural Locations		
PSBC00.3A.01C	I-55/64 @ MP 0.3 (PSB)		
IL300.1A.02C	IL 3 @ 8th St.		
PSBC00.9A.03C	I-55/64 @ MP 0.9 (Tudor Ave.)		
MLKB00.7A.04C	MLK Bridge		
PSBC02.4A.05C	I-55/64 @ MP 2.4 (3rd. St.)		
006402.8A.06C	I-55/64 @ MP 2.8 (Merge)		
006403.9A.07C	I-64 @ MP 2.9 (15th) (Old 10th/MP 3.1)		
006404.5A.08C	I-64 @ MP 4.5 (25th St.)		
006405.6A.09C	I-64 @ MP 5.6 (E of 25th St.)		
025520.2A.10C	I-64 @ I-255		
557003.8A.19C	I-55/70 @ MP 3.8 (IL 203)		
557005.9A.20C	I-55/70 @ MP 5.9 (W of IL 111)		
557007.0A.21C	I-55/70 @ MP 7.0 (E of IL 111)		
557008.8A.22C	I-55/70 @ MP 8.8 (Fairmont Ave.)		
025524.7A.23C	I-55/70 @ I-255		
027001.0A.24C	I-270 @ MP 1.0		
027002.0A.25C	I-270 @ MP 2.0		
027002.4A.26C	I-270 @ MP 2.4 (IL 3)		
027003.2A.27C	I-270 @ MP 3.2 (St. Thomas)		
027004.5A.28C	I-270 @ MP 4.5 (IL 203)		
027005.9A.29C	I-270 @ MP 5.9 (IL 111)		
557012.7A.30C	I-55/70 @ MP 12.7		
025530.9A.30C	I-270 @ I-255		
557013.4A.33C	I-55/70 @ MP 13.4		
557014.6A.34C	I-55/70 @ MP 14.6		
557015.9A.35C	I-55/70 @ MP 15.9		
025516.8A.37C	I-255 @ MP 16.8 (IL 15)		
025504.4A.38C	I-255 @ MP 4.4 (JB Bridge)		
557008.0A.39C	I-55/70 @ MP 8.0		
557005.2A.40C	I-55/70 @ MP 5.2 (Landfill)		
557003.2A.41C	I-55/70 @ MP 3.2 (Exchange)		
PSBC01.7A.42C	I-55/64 @ MP 1.7		
006406.3A.43C	I-64 @ MP 6.3		
025522.0A.44C	I-255 @ MP 22.0		
025523.5A.45C	I-255 @ MP 23.5 (Collinsville Rd)		

557010.3A.46C	I-55/70 @ MP 10.3 (W of IL 157)
025525.6A.47C	I-255 @ MP 25.6 (Horseshoe Lk Rd)
025526.6A.48C	I-255 @ MP 26.6
025527.6A.49C	I-255 @ MP 27.6
025528.4A.50C	I-255 @ MP 28.4
025529.3A.51C	I-255 @ MP 29.3
557012.3A.52C	I-55/70 @ MP 12.3 (DMS)
027000.5A.52C	I-270 @ MP 0.5
006700.0A.53C	Clark Bridge North End
006700.0A.54C	Clark Bridge South End
007001.4A.55C	I-70 @ MP 1.4 (Industrial Drive)
007001.9A.56C	I-70 @ MP 1.9 (IL 3)
XXXXXX.XX.57C	McKinley Bridge
XXXXXX.XX.58C	McKinley Bridge
PSBC00.4A.59C	I-55/64 @ MP 0.4 (PSB)
025504.2A.62C	I-255 @ MP 4.2 (JB Bridge)
557017.0A.36C	I-55/70 @ MP 17.0
557017.6A.37C	I-55/70 @ MP 17.6
557019.1A.38C	I-55/70 @ MP 19.1
557019.7A.39C	I-55/70 @ MP 19.7
557022.0A.60C	I-55 @ MP 22.0
XXXXXX.XX.14C	East Hallway
XXXXXX.XX.13C	Entrance to TMC
027009.0A.63C	I-270 @ MP 9.0
027009.0A.64C	I-270 @ MP 9.9
027009.0A.65C	I-270 @ MP 10.8
027009.0A.66C	I-270 @ MP 12.0
027009.0A.67C	I-270 @ MP 12.6

Dynamic Message Signs (DMS)			
Numerical Location	Textual Location		
006410.8W.01S	WB I-64 BETWEEN IL 157 AND IL 159		
557012.3W.02S	WB I-55/70 BETWEEN IL 157 AND IL 162		
027008.4W.03S	WB I-270 JUST WEST OF IL 159		
PSBC01.4E.04S	EB I-55/70/64 1 MI EAST OF PSB		
005522.0S.05S	SB I-55 JUST SOUTH OF IL 143		
007016.7W.06S	WB I-70 EAST OF I-55		
006404.8W.07S	I-64 WB EAST OF 25TH STREET		
557005.3W.08S	WB I-55/70 BEWEEN IL 111 AND IL 203		
007000.9E.09S	EB I-70 JUST EAST OF STAN MUSIAL BRIDGE		

Video Detectors				
Numerical Location	Textual Location			
PSBC00.3W.01D	I-55/70/64 AT POPLAR STREET BRIDGE			
PSBC00.3E.02D	I-55/70/64 AT POPLAR STREET BRIDGE			
PSBC00.9W.03D	I-55/70/64 AT 13TH AND TUDOR AVENUE RAMP			
PSBC00.9W.04D	I-55/70/64 AT 13TH AND TUDOR AVENUE RAMP			
PSBC00.9E.05D	I-55/70/64 AT 13TH AND TUDOR AVENUE RAMP			
PSBC00.9E.09D	I-55/70/64 AT 13TH AND TUDOR AVENUE RAMP			
PSBC01.5W.06D	I-55/70/64 JUST EAST OF 13TH AND TUDOR AVE RAMP			

Side-fire Microwave Radar Detectors		
Numerical Location Textual Location		
MLKB00.7A.04R	MARTIN LUTHER KING BRIDGE	
006403.1A.16R	I-64 AT 10TH STREET	
006404.5A.17R	I-64 AT 25TH STREET	
006405.6A.18R	I-64 JUST WEST OF IL 111	
006406.3A.19R	I-64 AT MILE POST 6.3	
557003.2A.23R	I-55/70 AT EXCHANGE	
557003.8A.24R	I-55/70 at IL 203	
PSBC02.4W.25R	I-55/70/64 AT 3RD ST	
PSBC02.4E.25R	I-55/70/64 AT 3RD ST	
557005.2W.26R	I-55/70 AT MILE POST 5.2	
557010.3A.31R	I-55/70 JUST EAST OF I-255	
557012.3A.32R	I-55/70 1 MI N OF IL 157	
557012.7S.33R	I-55/70 AT MILE POST 12.7	
557013.4S.34R	I-55/70 AT MILE POST 13.4	
557013.9S.35R	I-55/70 AT MILE POST 13.9	
557014.6N.36R	I-55/70 AT MILE POST 14.6	
557015.2N.37R	I-55/70 AT MILE POST 15.2	
557015.9N.38R	I-55/70 AT MILE POST 15.9	
557017.0N.39R	I-55/70 AT MILE POST 17.0 (US 40)	
557017.6N.40R	I-55/70 AT MILE POST 17.6	
025520.2A.43R	I-64 AT I-255	
025522.0A.44R	I-255 AT MILE POST 22.0	
025523.5A.45R	I-255 AT COLLINSVILLE RD	
025524.7A.46R	I-255 AT I-55/70 INTERCHANGE	
025525.6A.47R	I-255 AT HORSESHOE LK RD	
025526.6A.48R	I-255 AT MILE POST 26.6	
025527.6A.49R	I-255 AT MILE POST 27.6	
025528.4A.50R	I-255 AT MILE POST 28.4	
025529.3A.51R	I-255 AT MILE POST 29.3	
025530.9A.52R	I-255 AT I-270	
027000.5A.62R	I-270 AT MILE POST 0.5	
027001.1A.64R	I-270 AT MILE POST 1.1	
027001.7A.66R	I-270 AT MILE POST 1.7	
027002.4A.67R	I-270 AT IL 3	

027003.2A.69R	I-270 AT ST. THOMAS ROAD
027004.5A.70R	I-270 AT IL 203
027005.9A.71R	I-270 AT IL 111
027007.4A.73R	I-270 AT I-255
027008.4A.74R	I-270 AT MILE POST 8.4
027004.1A.75R	I-270 WEST OF IL 203
006408.2A.81R	I-64 AT MILE POST 8.2
006409.5A.82R	I-64 AT MILE POST 9.5
006410.8A.84R	I-64 AT MILE POST 10.8 (DMS)
MLKB00.3A.91R	MARTIN LUTHER KING BRIDGE
557018.6N.92R	I-55/70 AT MILE POST 18.6
557019.1S.93R	I-55/70 AT MILE POST 19.1
005519.7N.94R	I-55 AT MILE POST 19.7
025504.2A.95R	I-255 AT MILE POST 4.2
025504.8A.96R	I-255 AT MILE POST 4.8
025505.8A.97R	I-255 AT MILE POST 5.8
025507.1A.98R	I-255 AT MILE POST 7.1

Microloop Radar Detectors		
Numerical Location	Textual Location	
557009.1A.30D(WB)	I-55/70 AT FAIRMONT LANE	
557009.1A.30D(EB)	I-55/70 AT FAIRMONT LANE	
557008.0A.29D(WB)	I-55/70 AT MILEPOST 8	
557008.0A.29D(EB)	I-55/70 AT MILEPOST 8	
557007.0A.28D(WB)	I-55/70 JUST EAST OF IL 111	
557007.0A.28D(EB)	I-55/70 JUST EAST OF IL 111	
557005.9A.27D(WB)	I-55/70 JUST WEST OF IL 111	
557005.9A.27D(EB)	I-55/70 JUST WEST OF IL 111	
	FIELD EQUIPMENT NUMBERING SYSTEM	
	EXAMPLE: 006402.8W.11D	
<b>0064</b> 02.8W.11D	Designates highway where field equipment is located	
0064 <b>02.8</b> W.11D	Designates mile marker where field equipment is located	
006402.8 <b>W.</b> 11D Designates direction of traffic video detector is monitoring or direction		
traffic viewing dynamic message sign		
006402.8W. <b>11</b> D	Number assigned to field equipment	
006402.8W.11 <b>D</b>	D = Video Detector	
	S = Dynamic Message Sign	
	R= Microwave Radar Vehicle Detector	
	C = P/T/Z Surveillance Camera	

PSBC - Poplar Street Bridge Complex (where Interstates 55/70/64 merge before crossing over Miss. River)

MLKB - Martin Luther King Bridge
IL3 - IL 3 Ramp onto Poplar Street Complex Bridge
Bowman Pump Station, 728 Exchange Avenue, East St. Louis

Missouri Avenue Pump Station, 200 Missouri Avenue, East St. Louis

## **CLOSED CIRCUIT TELEVESION DOME CAMERA, HD**

<u>Description</u>. This work shall consist of furnishing and installing an IP based remote controlled video system at a location shown in the plans. The work shall include a color camera, dome assembly, all mounting hardware, connectors, cables, power injectors, and related equipment necessary to complete the installation according to the manufacturer's specifications.

Materials. The PTZ camera shall be one of the following approved models:

- TKH Security Solutions PD1103Z2-E
- AXIS Q6055-E
- Cohu 4220HD

The Contractor shall furnish the required number of power injectors for the camera make and model selected, including operation of the camera heater, as well as all required mounting hardware, connectors, patch cables, and power supplies. The system shall have anonymous FTP capabilities disabled by the vendor/equipment supplier or provide a feature for the user to disable the functionality through the standard internal menu.

<u>Installation</u>. The camera shall be installed as shown on the plans, either on the luminaire arm near the luminaire, or on the combination mast arm assembly pole, angled toward the center of the intersection using a mounting bracket compatible with the camera and procured from one of the approved camera manufacturers. When installed on the pole, the camera shall be mounted to provide a minimum of 12 inches clear space between face of the pole and the camera housing. When installed on the luminaire arm, the camera shall be installed with a 30-degree tilt-adjustable bracket. The camera and any external hardware and housing shall be installed with stainless steel straps.

All holes drilled into signal poles, mast arms, or posts shall require rubber grommets to prevent the chafing of wires.

The Contractor shall contact the Traffic Engineer prior to installing the camera and associated wiring, to receive final approval on the camera location. If the remote controlled video system will be connected to the Gigabit Ethernet network, then a Layer II (Datalink) Switch and/or a Layer III (Network) Switch shall be required. Layer II and Layer III switches shall be installed as shown on the plans. Contractor to coordinate with IDOT Electric Maintenance Contractor and Network Engineer for proper set up and IP configuration.

<u>Basis of Payment</u>. This work will be paid for at the contract unit price per EACH for CLOSED CIRCUIT TELEVESION DOME CAMERA, HD. The unit price shall include all associated equipment, hardware, cables, materials and labor required to install the complete system in place and in operation to the satisfaction of the Engineer.

#### FIBER OPTIC CABLE SPLICE

<u>Description.</u> The Contractor will splice optical fibers from different cable sheaths and protect them with a splice closure at the locations shown on the plans. Fiber splicing consists of in-line fusion splices for all fibers described in the cable plan at the particular location.

Two splices are identified. A mainline splice includes all fibers in the cable sheath. In a lateral splice, the buffer tubes in the mainline cable are dressed out and those fibers identified on the plans are accessed in and spliced to lateral cables.

<u>Splice Closures</u>. Splice closures shall be designed for use under the most severe conditions such as moisture, vibration, impact, cable stress and flex temperature extremes as demonstrated by successfully passing the factory test procedures and minimum specifications listed below:

Physical Requirements. The closures shall provide ingress for up to four cables in a butt configuration. The closure shall prevent the intrusion of water without the use of encapsulates.

The closure shall be capable of accommodating splice organizer trays that accept mechanical, or fusion splices. The splice closure shall have provisions for storing fiber splices in an orderly manner, mountings for splice organizer assemblies, and space for excess or un-spliced fiber. Splice organizers shall be re-enterable. The splice case shall be UL rated.

Closure re-entry and subsequent reassembly shall not require specialized tools or equipment. Further, these operations shall not require the use of additional parts.

<u>Basis of Payment</u>. This work will be paid for at the contract unit price per EACH for FIBER OPTIC CABLE SPLICE.

## **CAMERA POLE, 55 FT.**

The camera pole shall be galvanized steel. This item will be paid for at the contract unit cost per EACH for CAMERA POLE, 55 FT. which price shall include all equipment, labor and materials required to furnish and install the camera pole described above.

## **CABINET, MODEL 332**

<u>Description</u>. This work shall consist of furnishing and installing a Model 332 cabinet for field equipment including fiber optic communications, inductive loop detector stations, changeable message signs, and CCTV dome camera as shown on the plans and as hereinafter provided.

<u>Materials</u>. Cabinet, Model 332 shall be an aluminum, durable, weatherproof enclosure with nominal outside dimensions of 66 in high X 24 in wide X 30 in deep. Cabinet, Model 332 shall consist of the following components: double door each equipped with a lock for front and rear cabinet entry, housing, mounting cage, service panel, thermostatically controlled fan, all necessary mounting hardware and wiring, and other equipment as shown on the plans and specified in these provisions. All bolts, nuts, washers, screws, hinges, and hinge pins that are

subject to corrosion shall be stainless steel unless otherwise specified. All equipment under this item shall be in accordance with Section 1074.03 of the Standard Specifications, except as modified herein.

Cabinet Components. The housing and the mounting cage assembly shall conform to those of the Model 334 cabinet provisions of the "Traffic Signal Control Equipment Specifications" (TSCES) issued by the State of California's Department of Transportation and to all addenda thereto current at the time of project advertising. The housing shall be rainproof with the top of the enclosure crowned to prevent standing water. All exterior seams for the enclosure and doors shall be continuously welded and smooth. The housing shall have no provisions for a police panel or door.

The cabinet shall have single front and rear doors, each equipped with a lock. The enclosure door frames shall be double flanged out on all four sides and shall have strikers to hold tension on and form a firm seal between the door gasketing and the frame. The front and rear doors shall be provided with catches to hold the door open at both 90° and 180° ±10°. Gasketing shall be provided on all door openings and shall be dust tight. For horizontal support and bolt attachment, cage bottom support mounting angles shall be provided on either side, level with the bottom edge of the door.

The latching handles on the doors shall have provisions for padlocking in the closed position. When the door is closed and latched, the door shall be locked. The locks and handles shall be on the right side of the front door and left side of the rear door. The lock and lock support shall be rigidly mounted to the door. The locks shall be Corbin #2, and two keys shall be supplied to the Department with each lock. The keys shall be removable in the locked position only.

The front and rear doors shall be provided with louvered vents. A removable and reusable air filter shall be housed behind the door vents. The filter filtration area shall cover the vent opening area, and the filter shell shall be provided to fit over the filter providing mechanical support for the filter. The shell shall be louvered to direct the incoming air downward.

The intake (including filter with shell) and exhaust areas shall pass a minimum of 60 cubic feet of air per minute for housing #1 and 26 cubic feet of air per minute for housing #2. The thermostatically controlled fan with ball or roller bearings shall be mounted within the housing and be vented. The fan shall provide a capacity of at least 150 cubic feet of free air delivery per minuteof ventilation. The fan shall be thermostatically controlled and activated when the temperature inside the cabinet exceeds 75°F and shut off when the temperature is less than 64°F. In addition, the fan shall be manually adjustable for automatic turning on and off. The fan circuit shall be protected at 125% of the fan motor ampacity.

The housing shall, also, be equipped with a heating element installed in the bottom front of the cabinet and mounted along the side of the rack. The heating element shall draw 500 watts and have an output of at least 1,700 BTU/hr. The heater shall have a built-in quick response thermostat with sealed contacts that has a temperature control range of 40°F to 100°F and have a built-in thermal cut-off to automatically shut-off the heater in the event of overheating.

All subassemblies shall be mounted in removable 19 in EIA self-standing rack assemblies. The EIA rack portion of the cage shall consist of two pairs of continuous, adjustable, equipment mounting angles that comply with Standard EIA RS-310-B. The cage shall be centered within the cabinet and bolted to the cabinet at four points.

Each cabinet shall be equipped with two shelves and one slide out keyboard tray. Shelves shall be the full width of the rack and 12" in. deep. The shelves shall be designed to support a minimum of 50 pounds.

The cabinet shall be equipped with one rack mounted 96 fiber enclosure equipped with 96 single mode ST ferrules.

Each cabinet shall be equipped with one fluorescent lighting fixture mounted to the inside top front portion of the cabinet. The fixture shall have an F-15-T-8 cool white lamp; operated from a normal power factor, UL listed cold weather ballast. A door-activated switch shall be installed to turn the cabinet light on when the front door is opened. The door switch shall be on a separate circuit by itself and used only to turn on the cabinet light.

Each cabinet shall be supplied with a heavy-duty plastic envelope to store plans, wiring diagrams, schematics, etc. This envelope shall have metal grommets, so that it hangs from the door hooks. The envelope shall have minimum dimensions of 10 in x 15 in.

Foundations shall conform to those shown on the plan sheets.

## Construction Requirements.

The Contractor shall deliver the Cabinet Model 332 mounted on a plyboard-shipping pallet that is bolted to the cabinet base. The cabinet shall be enclosed in a slipcover cardboard packaging shell. The housing doors shall be blocked to prevent movement during transportation to the site.

The Contractor shall securely fasten the cabinet onto the new concrete foundation at the locations shown on the plans. The Contractor shall confirm the orientation of the cabinet installation and its front door side with the Engineer prior to installation. Stainless-steel bolted connections shall be provided with lock-washers, locking nuts, or other approved means to prevent the connection nuts from backing off. Dissimilar materials shall be isolated from one another by stainless steel fittings.

The Contractor shall make all power connections to the cabinet in accordance with the plans and as required. The neutral bus shall be isolated from the cabinet and equipment ground. It shall terminate at the neutral lug ultimately attached to the meter pedestal. All conductors used in cabinet wiring shall terminate with properly sized non-insulated (if used, for DC logic only) or clear insulated spring-spade type terminals, except when soldered to a through-panel solder lug on the rear side of the terminal block or as specified otherwise. All conductors, except those which can be readily traced, shall be labeled. Labels attached to each end of the conductor shall identify the destination of the other end of the conductor. Cabling shall be routed to prevent conductors from being in contact with metal edges. Cabling shall be arranged so that any removable assembly may be removed without disturbing conductors not associated with that assembly.

<u>Cabinet Acceptance Test</u> - In addition to the environmental and design approval tests specified in the FHWA Type 170 Traffic Signal Control System Hardware Specification, the following water spray test shall be performed for each type of cabinet:

Spray water from a point directly overhead at an angle of 60° from the vertical axis of the cabinet. Repeat for each of eight equally spaced positions around the cabinet for a period of five minutes in each position. The water shall be sprayed using a domestic type- sprinkling nozzle at a rate of

no less than 10 gal/min per minute per square foot of surface area. The cabinet shall then be inspected for leakage. Evidence of water leakage shall be cause for rejection.

<u>Documentation</u>. Shop drawings and wiring showing the proposed layout of each type of cabinet shall be submitted to the Engineer for approval prior to the start of fabrication. Wiring lists for the internal manufacturer cut sheets for all electrical equipment included in each type of cabinet shall be included in the submission.

Four copies of drawings showing the wiring for each cabinet shall be provided. One copy shall be placed in the clear plastic envelope furnished as part of the cabinet. The other three copies shall be delivered to the Engineer.

<u>Method of Measurement</u>. Cabinet, Model 332 will be measured as a unit, completely installed and operational.

<u>Basis of Payment</u>. This work will be paid for at the contract unit price per EACH for CABINET, MODEL 332.

## STATUS OF UTILITIES TO BE ADJUSTED

## NO UTILITIES TO BE ADJUSTED

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

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

## CEMENT, FINELY DIVIDED MINERALS, ADMIXTURES; CONCRETE, AND MORTAR (BDE)

Effective: January 1, 2025

Revise the first paragraph of Article 285.05 of the Standard Specifications to read:

"285.05 Fabric Formed Concrete Revetment Mat. The grout shall consist of a mixture of cement, fine aggregate, and water so proportioned and mixed as to provide a pumpable slurry. Fly ash or ground granulated blast furnace (GGBF) slag, and concrete admixtures may be used at the option of the Contractor. The grout shall have an air content of not less than 6.0 percent nor more than 9.0 percent of the volume of the grout. The mix shall obtain a compressive strength of 2500 psi (17,000 kPa) at 28 days according to Article 1020.09."

Revise Article 302.02 of the Standard Specifications to read:

"302.02 Materials. Materials shall be according to the following.

	Item	Article/Section
(a)	Cement	1001
(b)	Water	1002
(c)	Hydrated Lime	1012.01
(d)	By-Product, Hydrated Lime	1012.02
(e)	By-Product, Non-Hydrated Lime	1012.03
(f)	Lime Slurry	1012.04
(g)	Fly Ash	1010
(h)	Soil for Soil Modification (Note 1)	1009.01
(i)	Bituminous Materials (Note 2)	1032

Note 1. This soil requirement only applies when modifying with lime (slurry or dry).

Note 2. The bituminous materials used for curing shall be emulsified asphalt RS-2, CRS-2, HFE 90, or HFE 150; rapid curing liquid asphalt RC-70; or medium curing liquid asphalt MC-70 or MC-250."

Revise Article 312.07(c) of the Standard Specifications to read:

"(c) Cement	.1001"
Add Article 312.07(i) of the Standard Specifications to read:	
"(i) Ground Granulated Blast Furnace (GGBF) Slag	.1010"

Revise the first paragraph of Article 312.09 of the Standard Specifications to read:

"312.09 Proportioning and Mix Design. At least 60 days prior to start of placing CAM II, the Contractor shall submit samples of materials to be used in the work for proportioning and testing. The mixture shall contain a minimum of 200 lb (120 kg) of cement per cubic yard (cubic meter). Cement may be replaced with fly ash or ground granulated blast furnace (GGBF) slag according to Article 1020.05(c)(1) or 1020.05(c)(2), respectively, however the minimum cement content in the mixture shall be 170 lbs/cu yd (101 kg/cu m). Blends of coarse and fine aggregates will be

permitted, provided the volume of fine aggregate does not exceed the volume of coarse aggregate. The Engineer will determine the proportions of materials for the mixture according to the "Portland Cement Concrete Level III Technician Course" manual. However, the Contractor may substitute their own mix design. Article 1020.05(a) shall apply, and a Level III PCC Technician shall develop the mix design."

Revise Article 352.02 of the Standard Specifications to read:

## "352.02 Materials. Materials shall be according to the following.

Item	Article/Section
(a) Cement (Note 1)	1001
(b) Soil for Soil-Cement Base Course	
(c) Water	1002
(d) Bituminous Materials (Note 2)	

Note 1. Bulk cement may be used for the traveling mixing plant method if the equipment for handling, weighing, and spreading the cement is approved by the Engineer.

Note 2. The bituminous materials used for curing shall be emulsified asphalt RS-2, CRS-2, HFE 90, or HFE 150; rapid curing liquid asphalt RC-70; or medium curing liquid asphalt MC-70 or MC-250."

Revise Article 404.02 of the Standard Specifications to read:

## "404.02 Materials. Materials shall be according to the following.

Item	Article/Section
(a) Cement	1001
(b) Water	1002
(c) Fine Aggregate	1003.08
(d) Bituminous Material (Tack Coat)	1032.06
(e) Emulsified Asphalts (Note 1) (Note 2)	1032.06
(f) Fiber Modified Joint Sealer	1050.05
(g) Additives (Note 3)	

Note 1. When used for slurry seal, the emulsified asphalt shall be CQS-1h according to Article 1032.06(b).

Note 2. When used for micro-surfacing, the emulsified asphalt shall be CQS-1hP according to Article 1032.06(e).

Note 3. Additives may be added to the emulsion mix or any of the component materials to provide the control of the quick-traffic properties. They shall be included as part of the mix design and be compatible with the other components of the mix.

Revise the last sentence of the fourth paragraph of Article 404.08 of the Standard Specifications to read:

"When approved by the Engineer, the sealant may be dusted with fine sand, cement, or mineral filler to prevent tracking."

Revise Note 2 of Article 516.02 of the Standard Specifications to read:

"Note 2. The sand-cement grout mix shall be according to Section 1020 and shall be a 1:1 blend of sand and cement comprised of a Type I, IL, or II cement at 185 lb/cu yd (110 kg/cu m). The maximum water cement ratio shall be sufficient to provide a flowable mixture with a typical slump of 10 in. (250 mm)."

Revise Note 2 of Article 543.02 of the Standard Specifications to read:

"Note 2. The grout mixture shall be 6.50 hundredweight/cu yd (385 kg/cu m) of cement plus fine aggregate and water. Fly ash or ground granulated blast furnace (GGBF) slag may replace a maximum of 5.25 hundredweight/cu yd (310 kg/cu m) of the cement. The water/cement ratio, according to Article 1020.06, shall not exceed 0.60. An air-entraining admixture shall be used to produce an air content, according to Article 1020.08, of not less than 6.0 percent nor more than 9.0 percent of the volume of the grout. The Contractor shall have the option to use a water-reducing or high range water-reducing admixture."

Revise Article 583.01 of the Standard Specifications to read:

"583.01 Description. This work shall consist of placing cement mortar along precast, prestressed concrete bridge deck beams as required for fairing out any unevenness between adjacent deck beams prior to placing of waterproofing membrane and surfacing."

Revise Article 583.02(a) of the Standard Specifications to read:

"(a		Cement	.10	0	1	l
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Revise the first paragraph of Article 583.03 of the Standard Specifications to read:

**583.03 General.** This work shall only be performed when the air temperature is 45 °F (7 °C) and rising. The mixture for cement mortar shall consist of three parts sand to one part cement by volume. The amount of water shall be no more than that necessary to produce a workable, plastic mortar."

Revise Note 2/ in Article 1003.01(b) of the Standard Specifications to read:

"2/ Applies only to sand. Sand exceeding the colorimetric test standard of 11 (Illinois Modified AASHTO T 21) will be checked for mortar making properties according to Illinois Modified ASTM C 87 and shall develop a compressive strength at the age of 14 days when using Type I, IL, or II cement of not less than 95 percent of the comparable standard.

Revise the second sentence of Article 1003.02(e)(1) of the Standard Specifications to read:

"The test will be performed with Type I, IL, or II portland cement having a total equivalent alkali content (Na<sub>2</sub>O + 0.658K<sub>2</sub>O) of 0.90 percent or greater."

Revise the first sentence of the second paragraph of Article 1003.02(e)(3) of the Standard Specifications to read:

"The ASTM C 1293 test shall be performed with Type I, IL, or II portland cement having a total equivalent alkali content (Na<sub>2</sub>O + 0.658K<sub>2</sub>O) of 0.80 percent or greater."

Revise the second sentence of Article 1004.02(g)(1) of the Standard Specifications to read:

"The test will be performed with Type I, IL, or II portland cement having a total equivalent alkali content (Na<sub>2</sub>O + 0.658K<sub>2</sub>O) of 0.90 percent or greater."

Revise Article 1017.01 of the Standard Specifications to read:

"1017.01 Requirements. The mortar shall be high-strength according to ASTM C 387 and shall have a minimum 80.0 percent relative dynamic modulus of elasticity when tested by the Department according to Illinois Modified AASHTO T 161 or AASHTO T 161 when tested by an independent lab. The high-strength mortar shall have a water-soluble chloride ion content of less than 0.40 lb/cu yd (0.24 kg/cu m). The test shall be performed according to ASTM C 1218, and the high-strength mortar shall have an age of 28 to 42 days at the time of test. The ASTM C 1218 test shall be performed by an independent lab a minimum of once every five years, and the test results shall be provided to the Department. Mixing of the high-strength mortar shall be according to the manufacturer's specifications. The Department will maintain a qualified product list."

Revise the fourth sentence of Article 1018.01 of the Standard Specifications to read:

"The ASTM C 1218 test shall be performed by an independent lab a minimum of once every five years, and the test results shall be provided to the Department."

Revise Article 1019.02 of the Standard Specifications to read:

"1019.02 Materials. Materials shall be according to the following.

Item	Article/Section
(a) Cement	1001
(b) Water	1002
(c) Fine Aggregate for Controlled Low-Strength Material (CLSM)	
(d) Fly Ash	1010
(e) Ground Granulated Blast Furnace (GGBF) Slag	1010
(f) Admixtures (Note 1)	

Note 1. The air-entraining admixture may be in powder or liquid form. Prior to approval, a CLSM air-entraining admixture will be evaluated by the Department. The admixture shall be able to meet the air content requirements of Mix 2. The Department will maintain a qualified product list."

Revise Article 1019.05 of the Standard Specifications to read:

"1019.05 Department Mix Design. The Department mix design shall be Mix 1, 2, or 3 and shall be proportioned to yield approximately one cubic yard (cubic meter).

Mix 1	
Cement	50 lb (30 kg)
Fly Ash – Class C or F, and/or GGBF Slag	125 lb (74 kg)
Fine Aggregate – Saturated Surface Dry	2900 lb (1720 kg)
Water	50-65 gal (248-322 L)
Air Content	No air is entrained

Mix 2	
Cement	125 lb (74 kg)
Fine Aggregate – Saturated Surface Dry	2500 lb (1483 kg)
Water	35-50 gal (173-248 L)
Air Content	15-25 %

Mix 3	
Cement	40 lb (24 kg)
Fly Ash – Class C or F, and/or GGBF Slag	125 lb (74 kg)
Fine Aggregate – Saturated Surface Dry	2500 lb (1483 kg)
Water	35-50 gal (179-248 L)
Air Content	15-25 %"

Revise Article 1020.04, Table 1, Note (8) of the Standard Specifications to read:

"(8) In addition to the Type III portland cement, 100 lb/cu yd of ground granulated blast-furnace slag and 50 lb/cu yd of microsilica (silica fume) shall be used. For an air temperature greater than 85 °F, the Type III portland cement may be replaced with Type I, IL, or II portland cement."

Revise Article 1020.04, Table 1 (Metric), Note (8) of the Standard Specifications to read:

"(8) In addition to the Type III portland cement, 60 kg/cu m of ground granulated blast-furnace slag and 30 kg/cu m of microsilica (silica fume) shall be used. For an air temperature greater than 30 °C, the Type III portland cement may be replaced with Type I, IL, or II portland cement."

Revise the second paragraph of Article 1020.05(a) of the Standard Specifications to read:

"For a mix design using a portland-pozzolan cement, portland blast-furnace slag cement, portland-limestone cement, or replacing portland cement with finely divided minerals per Articles 1020.05(c) and 1020.05(d), the Contractor may submit a mix design with a minimum portland cement content less than 400 lbs/cu yd (237 kg/cu m), but not less than 375 lbs/cu yd (222 kg/cu m), if the mix design is shown to have a minimum relative dynamic modulus of elasticity of 80 percent determined according to AASHTO T 161. Testing shall be performed by an independent laboratory accredited by AASHTO re:source for Portland Cement Concrete."

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

"Corrosion inhibitors and concrete admixtures shall be according to the qualified product lists."

Delete the fourth and fifth sentences of the second paragraph of Article 1020.05(b) of the Standard Specifications.

Revise the third sentence of the second paragraph of Article 1020.05(b)(5) of the Standard Specifications to read:

"The qualified product lists of concrete admixtures shall not apply."

Revise second paragraph of Article 1020.05(b)(10) of the Standard Specifications to read:

"When calcium nitrite is used, it shall be added at the rate of 4 gal/cu yd (20 L/cu m) and shall be added to the mix immediately after all compatible admixtures have been introduced to the batch. Other corrosion inhibitors shall be added per the manufacturer's specifications."

Delete the third paragraph of Article 1020.05(b)(10) of the Standard Specifications.

Revise Article 1020.15(b)(1)c. of the Standard Specifications to read:

"c. The minimum portland cement content in the mixture shall be 375 lbs/cu yd (222 kg/cu m). When the total of organic processing additions, inorganic processing additions, and limestone addition exceed 5.0 percent in the cement, the minimum portland cement content in the mixture shall be 400 lbs/cu yd (237 kg/cu m). For a drilled shaft, foundation, footing, or substructure, the minimum portland cement may be reduced to as low as 330 lbs/cu yd (196 kg/cu m) if the concrete has adequate freeze/thaw durability. The Contractor shall provide freeze/thaw test results according to AASHTO T 161, and the relative dynamic modulus of elasticity of the mix design shall be a minimum of 80 percent. Testing shall be performed by an independent laboratory accredited by AASHTO re:source for Portland Cement Concrete. Freeze/thaw testing will not be required for concrete that will not be exposed to freezing and thawing conditions as determined by the Engineer."

Revise Article 1021.01 of the Standard Specifications to read:

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

Concrete admixtures shall be on one of the Department's qualified product lists. Unless otherwise noted, admixtures shall have successfully completed and remain current with the AASHTO Product Eval and Audit Concrete Admixture (CADD) testing program. For admixture submittals to the Department; the product brand name, manufacturer name, admixture type or types, an electronic link to the product's technical data sheet, and the NTPEP testing number which contains an electronic link to all test data shall be provided. In addition, a letter shall be

submitted certifying that no changes have been made in the formulation of the material since the most current round of tests conducted by AASHTO Product Eval and Audit. After 28 days of testing by AASHTO Product Eval and Audit, air-entraining admixtures may be provisionally approved and used on Departmental projects. For all other admixtures, unless otherwise noted, the time period after which provisionally approved status may be earned is 6 months.

The manufacturer shall include the following in the submittal to the AASHTO Product Eval and Audit CADD testing program: the manufacturing range for specific gravity, the midpoint and manufacturing range for residue by oven drying, and manufacturing range of pH. The submittal shall also include an infrared spectrophotometer trace no more than five years old.

For air-entraining admixtures according to Article 1021.02, the specific gravity allowable manufacturing range established by the manufacturer shall be according to AASHTO M 194. For residue by oven drying and pH, the allowable manufacturing range and test methods shall be according to AASHTO M 194.

For admixtures according to Articles 1021.03, 1021.04, 1021.05, 1021.06, 1021.07, and 1021.08, the pH allowable manufacturing range established by the manufacturer shall be according to ASTM E 70. For specific gravity and residue by oven drying, the allowable manufacturing range and test methods shall be according to AASHTO M 194.

All admixtures, except chloride-based accelerators, shall contain a maximum of 0.3 percent chloride by weight (mass) as determined by an appropriate test method. To verify the test result, the Department will use Illinois Modified AASHTO T 260, Procedure A, Method 1.

Prior to final approval of an admixture, the Engineer reserves the right to request a sample for testing. The test and reference concrete mixtures tested by the Engineer will contain a cement content of 5.65 cwt/cu yd (335 kg/cu m). For freeze-thaw testing, the Department will perform the test according to Illinois Modified AASHTO T 161. The flexural strength test will be performed according to AASHTO T 177. If the Engineer decides to test the admixture, the manufacturer shall submit AASHTO T 197 water content and set time test results on the standard cement used by the Department. The manufacturer may select their lab or an independent lab to perform this testing. The laboratory is not required to be accredited by AASHTO.

Random field samples may be taken by the Department to verify an admixture meets specification. A split sample will be provided to the manufacturer if requested. Admixtures that do not meet specification requirements or an allowable manufacturing range established by the manufacturer shall be replaced with new material."

Revise Article 1021.03 of the Standard Specifications to read:

"1021.03 Retarding and Water-Reducing Admixtures. The admixture shall be according to the following.

- (a) Retarding admixtures shall be according to AASHTO M 194, Type B (retarding) or Type D (water-reducing and retarding).
- (b) Water-reducing admixtures shall be according to AASHTO M 194, Type A.
- (c) High range water-reducing admixtures shall be according to AASHTO M 194, Type F (high range water-reducing) or Type G (high range water-reducing and retarding)."

Revise Article 1021.05 of the Standard Specifications to read:

"1021.05 Self-Consolidating Admixtures. Self-consolidating admixture systems shall consist of either a high range water-reducing admixture only or a high range water-reducing admixture combined with a separate viscosity modifying admixture. The one or two component admixture system shall be capable of producing a concrete that can flow around reinforcement and consolidate under its own weight without additional effort and without segregation.

High range water-reducing admixtures shall be according to AASHTO M 194, Type F.

Viscosity modifying admixtures shall be according to AASHTO M 194, Type S (specific performance)."

Revise Article 1021.06 of the Standard Specifications to read:

"1021.06 Rheology-Controlling Admixture. Rheology-controlling admixtures shall be capable of producing a concrete mixture with a lower yield stress that will consolidate easier for slipform applications used by the Contractor. Rheology-controlling admixtures shall be according to AASHTO M 194, Type S (specific performance)."

Revise Article 1021.07 of the Standard Specifications to read:

- "1021.07 Corrosion Inhibitor. The corrosion inhibitor shall be according to one of the following.
  - (a) Calcium Nitrite. Corrosion inhibitors shall contain a minimum 30 percent calcium nitrite by weight (mass) of solution and shall comply with either the requirements of AASHTO M 194, Type C (accelerating) or the requirements of ASTM C 1582. The corrosion inhibiting performance requirements of ASTM C 1582 shall not apply.
  - (b) Other Materials. The corrosion inhibitor shall be according to ASTM C 1582.

For submittals requiring testing according to ASTM M 194, Type C (accelerating), the admixture shall meet the requirements of the AASHTO Product Eval and Audit CADD testing program according to Article 1021.01.

For submittals requiring testing according to ASTM C 1582, a report prepared by an independent laboratory accredited by AASHTO re:source for portland cement concrete shall be provided. The report shall show the results of physical tests conducted no more than five years prior to the time of submittal, according to applicable specifications. However, ASTM G 109 test information specified in ASTM C 1582 is not required to be from an independent accredited lab. All other information in ASTM C 1582 shall be from an independent accredited lab. Test data and other information required to be submitted to AASHTO Product Eval and Audit according to Article 1021.01, shall instead be submitted directly to the Department."

Add Article 1021.08 of the Standard Specifications as follows:

"1021.08 Other Specific Performance Admixtures. Other specific performance admixtures shall, at a minimum, be according to AASHTO M 194, Type S (specific performance). The

Department also reserves the right to require other testing, as determined by the Engineer, to show evidence of specific performance characteristics.

Initial testing according to AASHTO M 194 may be conducted under the AASHTO Product Eval and Audit CADD testing program according to Article 1021.01, or by an independent laboratory accredited by AASHTO re:source for Portland Cement Concrete. In either case, test data and other information required to be submitted to AASHTO Product Eval and Audit according to Article 1021.01, shall also be submitted directly to the Department. The independent accredited lab report shall show the results of physical tests conducted no more than five years prior to the time of submittal, according to applicable specifications."

Revise Article 1024.01 of the Standard Specifications to read:

"1024.01 Requirements for Grout. The grout shall be proportioned by dry volume, thoroughly mixed, and shall have a minimum temperature of 50 °F (10 °C). Water shall not exceed the minimum needed for placement and finishing.

Materials for the grout shall be according to the following.

Item	Article/Section
(a) Cement	1001
(b) Water	1002
(c) Fine Aggregate	
(d) Fly Ash	1010
(e) Ground Granulated Blast Furnace (GGBF) Slag	
(f) Concrete Admixtures	

Revise Note 1 of Article 1024.02 of the Standard Specifications to read:

"Note 1. Nonshrink grout shall be according to Illinois Modified ASTM C 1107.

The nonshrink grout shall have a water-soluble chloride ion content of less than 0.40 lb/cu yd (0.24 kg/cu m). The test shall be performed according to ASTM C 1218, and the grout shall have an age of 28 to 42 days at the time of test. The ASTM C 1218 test shall be performed by an independent lab a minimum of once every five years, and the test results shall be provided to the Department. Mixing of the nonshrink grout shall be according to the manufacturer's specifications. The Department will maintain a qualified product list."

Revise Article 1029.02 of the Standard Specifications to read:

" 1029.02 **Materials.** Materials shall be according to the following.

Item	Article/Section
(a) Cement	1001
(b) Fly Ash	1010
(c) Ground Granulated Blast Furnace (GGBF) Slag	1010
(d) Water	1002
(e) Fine Aggregate	1003
(f) Concrete Admixtures	1021
(g) Foaming Agent (Note 1)	

Note 1. The manufacturer shall submit infrared spectrophotometer trace and test results indicating the foaming agent meets the requirements of ASTM C 869 in order to be on the Department's qualified product list. Submitted data/results shall not be more than five years old."

Revise the second paragraph of Article 1103.03(a)(4) the Standard Specifications to read:

"The dispenser system shall provide a visual indication that the liquid admixture is actually entering the batch, such as via a transparent or translucent section of tubing or by independent check with an integrated secondary metering device. If approved by the Engineer, an alternate indicator may be used for admixtures dosed at rates of 25 oz/cwt (1630 mL/100 kg) or greater, such as accelerating admixtures, corrosion inhibitors, and viscosity modifying admixtures."

Revise the first two sections of Check Sheet #11 of the Supplemental Specifications and Recurring Special Provisions to read:

"<u>Description</u>. This work shall consist of filling voids beneath rigid and composite pavements with cement grout.

<u>Materials</u>. Materials shall be according to the following Articles of Division 1000 - Materials of the Standard Specifications:

Item	Article/Section
(a) Cement	1001
(b) Water	
(c) Fly Ash	
(d) Ground Granulated Blast Furnace (GGBF) Slag	1010
(e) Admixtures	
(f) Packaged Rapid Hardening Mortar or Concrete	1018"

Revise the third paragraph of Materials Note 2 of Check Sheet #28 of the Supplemental Specifications and Recurring Special Provisions to read:

"The Department will maintain a qualified product list of synthetic fibers, which will include the minimum required dosage rate. For the minimum required fiber dosage rate based on the Illinois Modified ASTM C 1609 test, a report prepared by an independent laboratory accredited by AASHTO re:source for Portland Cement Concrete shall be provided. The report shall show results of tests conducted no more than five years prior to the time of submittal."

# **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* (<a href="https://www.epa.gov/verified-diesel-tech/verified-technologies-list-clean-diesel">https://www.epa.gov/verified-diesel-tech/verified-technologies-list-clean-diesel</a>),
  - 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.

#### **DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION (BDE)**

Effective: September 1, 2000 Revised: January 2, 2025

- 1. OVERVIEW AND GENERAL OBLIGATION. The Department of Transportation, as a recipient of federal financial assistance, is required to take all necessary and reasonable steps to ensure nondiscrimination in the award and administration of contracts. Consequently, the federal regulatory provisions of 49 CFR Part 26 apply to this contract concerning the utilization of disadvantaged business enterprises. For the purposes of this Special Provision, a disadvantaged business enterprise (DBE) means a business certified in accordance with the requirements of 49 CFR Part 26 and listed in the Illinois Unified Certification Program (IL UCP) DBE Directory. Award of the contract is conditioned on meeting the requirements of 49 CFR Part 26, and failure by the Contractor to carry out the requirements of Part 26 is a material breach of the contract and may result in the termination of the contract or such other remedies as the Department deems appropriate.
- 2. <u>CONTRACTOR ASSURANCE</u>. All assurances set forth in FHWA 1273 are hereby incorporated by reference and will be physically attached to the final contract and all subcontracts.
- 3. CONTRACT GOAL TO BE ACHIEVED BY THE CONTRACTOR. The Department has determined the work of this contract has subcontracting opportunities that may be suitable for performance by DBE companies and that, in the absence of unlawful discrimination and in an arena of fair and open competition, DBE companies can be expected to perform 0.00 % of the work. This percentage is set as the DBE participation goal for this contract. Consequently, in addition to the other award criteria established for this contract, the Department will only award this contract to a bidder who makes a good faith effort to meet this goal of DBE participation in the performance of the work in accordance with the requirements of 49 CFR 26.53 and SBE Memorandum No. 24-02.
- 4. <u>IDENTIFICATION OF CERTIFIED DBE</u>. Information about certified DBE Contractors can be found in the Illinois UCP Directory. Bidders can obtain additional information and assistance with identifying DBE-certified companies at the Department's website or by contacting the Department's Bureau of Small Business Enterprises at (217) 785-4611.
- 5. <u>BIDDING PROCEDURES</u>. Compliance with this Special Provision and SBE Policy Memorandum 24-02 is a material bidding requirement. The following shall be included with the bid.
  - (a) DBE Utilization Plan (form SBE 2026) documenting enough DBE participation has been obtained to meet the goal, or a good faith effort has been made to meet the goal even though the efforts did not succeed in obtaining enough DBE participation to meet the goal.
  - (b) Applicable DBE Participation Statement (form SBE 2023, 2024, and/or 2025) for each DBE firm the bidder has committed to perform the work to achieve the contract goal.

The required forms and documentation shall be submitted as a single .pdf file using the "Integrated Contractor Exchange (iCX)" application within the Department's "EBids System".

The Department will not accept a bid if it does not meet the bidding procedures set forth herein and the bid will be declared non-responsive. A bidder declared non-responsive for failure to

meet the bidding procedures will not give rise to an administrative reconsideration. In the event the bid is declared non-responsive, the Department may elect to cause the forfeiture of the penal sum of the bidder's proposal guaranty and may deny authorization to bid the project if re-advertised for bids.

6. <u>UTILZATION PLAN EVALUATION</u>. The contract will not be awarded until the Utilization Plan is approved. All information submitted by the bidder must be complete, accurate, and adequately document the bidder has committed to DBE participation sufficient to meet the goal, or that the bidder has made good faith efforts to do so, in the event the bidder cannot meet the goal, in order for the Department to commit to the performance of the contract by the bidder.

The Utilization Plan will be approved by the Department if the Utilization Plan documents sufficient commercially useful DBE work to meet the contract goal or the Department determines, based upon the documentation submitted, that the bidder has made a good faith effort to meet the contract goal pursuant to 49 CFR Part 26, Appendix A and the requirements of SBE 2026.

If the Department determines that a good faith effort has not been made, the Department will notify the responsible company official designated in the Utilization Plan of that determination in accordance with SBE Policy Memorandum 24-02.

- 7. CALCULATING DBE PARTICIPATION. The Utilization Plan values represent work the bidder commits to have performed by the specified DBEs and paid for upon satisfactory completion. The Department is only able to count toward the achievement of the overall goal and the contract goal the value of payments made for the work actually performed by DBE firms. In addition, a DBE must perform a commercially useful function on the contract to be counted. A commercially useful function is generally performed when the DBE is responsible for the work and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. The Department and Contractor are governed by the provisions of 49 CFR Part 26.55(c) on questions of commercially useful functions as it affects the work. Specific guidelines for counting goal credit are provided in 49 CFR Part 26.55. In evaluating Utilization Plans for award the Department will count goal credit as set forth in Part 26 and in accordance with SBE Policy Memorandum 24-02.
- 8. CONTRACT COMPLIANCE. The Contractor must utilize the specific DBEs listed to perform the work and supply the materials for which each DBE is listed in the Contractor's approved Utilization Plan, unless the Contractor obtains the Department's written consent to terminate the DBE or any portion of its work. The DBE Utilization Plan approved by SBE is a condition-of-award, and any deviation to that Utilization Plan, the work set forth therein to be performed by DBE firms, or the DBE firms specified to perform that work, must be approved, in writing, by the Department in accordance with federal regulatory requirements. Deviation from the DBE Utilization Plan condition-of-award without such written approval is a violation of the contract and may result in termination of the contract or such other remedy the Department deems appropriate. The following administrative procedures and remedies govern the compliance by the Contractor with the contractual obligations established by the Utilization Plan.
  - (a) NOTICE OF DBE PERFORMANCE. The Contractor shall provide the Engineer with at least three days advance notice of when all DBE firms are expected to perform the work committed under the Contractor's Utilization Plan.

- (b) SUBCONTRACT. If awarded the contract, the Contractor is required to enter into written subcontracts with all DBE firms indicated in the approved Utilization Plan and must provide copies of fully executed DBE subcontracts to the Department upon request. Subcontractors shall ensure that all lower tier subcontracts or agreements with DBEs to supply labor or materials be performed in accordance with this Special Provision.
- (c) PAYMENT TO DBE FIRMS. The Department is prohibited by federal regulations from crediting the participation of a DBE included in the Utilization Plan toward either the contract goal or the Department's overall goal until the amount to be applied toward the goal has been paid to the DBE. The Contractor shall document and report all payments for work performed by DBE certified firms in accordance with Article 109.11 of the Standard Specifications. All records of payment for work performed by DBE certified firms shall be made available to the Department upon request.
- (d) FINAL PAYMENT. After the performance of the final item of work or trucking, or delivery of material by a DBE and final payment to the DBE by the Contractor, but not later than 30 calendar days after payment has been made by the Department to the Contractor for such work or material, the Contractor shall submit a DBE Payment Agreement (form SBE 2115) to the Engineer. If the Contractor does not have the full amount of work indicated in the Utilization Plan performed by the DBE companies indicated in the Utilization Plan and after good faith efforts are reviewed, the Department may deduct from contract payments to the Contractor the amount of the goal not achieved as liquidated and ascertained damages.
- (g) ENFORCEMENT. The Department reserves the right to withhold payment to the Contractor to enforce the provisions of this Special Provision. Final payment shall not be made on the contract until such time as the Contractor submits sufficient documentation demonstrating achievement of the goal in accordance with this Special Provision or after liquidated damages have been determined and collected.

#### ILLINOIS WORKS APPRENTICESHIP INITIATIVE - STATE FUNDED CONTRACTS (BDE)

Effective: June 2, 2021 Revised: April 2, 2024

Illinois Works Jobs Program Act (30 ILCS 559/20-1 et seq.). For contracts having an awarded contract value of \$500,000 or more, the Contractor shall comply with the Illinois Works Apprenticeship Initiative (30 ILCS 559/20-20 to 20-25) and all applicable administrative rules. The goal of the Illinois Apprenticeship Works Initiative is that apprentices will perform either 10% of the total labor hours actually worked in each prevailing wage classification or 10% of the estimated labor hours in each prevailing wage classification, whichever is less. Of this goal, at least 50% of the labor hours of each prevailing wage classification performed by apprentices shall be performed by graduates of the Illinois Works Pre-Apprenticeship Program, the Illinois Climate Works Pre-Apprenticeship Program, or the Highway Construction Careers Training Program.

The Contractor may seek from the Department of Commerce and Economic Opportunity (DCEO) a waiver or reduction of this goal in certain circumstances pursuant to 30 ILCS 559/20-20(b). The Contractor shall ensure compliance during the term of the contract and will be required to report on and certify its compliance. An apprentice use plan, apprentice hours, and a compliance

certification shall be submitted to the Engineer on forms provided by the Department and/or DCEO.

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

Effective: January 1, 2024 Revised: April 1, 2024

Revise the first paragraph of Article 669.04 of the Standard Specifications to read:

"669.04 Regulated Substances Monitoring. Regulated substances monitoring includes environmental observation and field screening during regulated substances management activities. The excavated soil and groundwater within the work areas shall be managed as either uncontaminated soil, hazardous waste, special waste, or non-special waste.

As part of the regulated substances monitoring, the monitoring personnel shall perform and document the applicable duties listed on form BDE 2732 "Regulated Substances Monitoring Daily Record (RSMDR)"."

Revise the first two sentences of the nineteenth paragraph of Article 669.05 of the Standard Specifications to read:

"The Contractor shall coordinate waste disposal approvals with the disposal facility and provide the specific analytical testing requirements of that facility. The Contractor shall make all arrangements for collection, transportation, and analysis of landfill acceptance testing."

Revise the last paragraph of Article 669.05 of the Standard Specifications to read:

"The Contractor shall select a permitted landfill facility or CCDD/USFO facility meeting the requirements of 35 III. Admin. Code Parts 810-814 or Part 1100, respectively. The Department will review and approve or reject the facility proposed by the Contractor based upon information provided in BDE 2730. The Contractor shall verify whether the selected facility is compliant with those applicable standards as mandated by their permit and whether the facility is presently, has previously been, or has never been, on the United States Environmental Protection Agency (U.S. EPA) National Priorities List or the Resource Conservation and Recovery Act (RCRA) List of Violating Facilities. The use of a Contractor selected facility shall in no manner delay the construction schedule or alter the Contractor's responsibilities as set forth."

Revise the first paragraph of Article 669.07 of the Standard Specifications to read:

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

Topsoil for re-use as final cover which has been field screened and found not to exhibit PID readings over daily background readings as documented on the BDE 2732, visual staining or odors, and is classified according to Articles 669.05(a)(2), (a)(3), (a)(4), (b)(1), or (c) may be temporarily staged at the Contractor's option."

Add the following paragraph after the sixth paragraph of Article 669.11 of the Standard Specifications.

"The sampling and testing of effluent water derived from dewatering discharges for priority pollutants volatile organic compounds (VOCs), priority pollutants semi-volatile organic compounds (SVOCs), or priority pollutants metals, will be paid for at the contract unit price per each for VOCS GROUNDWATER ANALYSIS using EPA Method 8260B, SVOCS GROUNDWATER ANALYSIS using EPA Methods 6010B and 7471A. This price shall include transporting the sample from the job site to the laboratory."

Revise the first sentence of the eight paragraph of Article 669.11 of the Standard Specifications to read:

"Payment for temporary staging of soil classified according to Articles 669.05(a)(1), (a)(3), (a)(4), (a)(5), (a)(6), or (b)(2) to be managed and disposed of, if required and approved by the Engineer, will be paid according to Article 109.04."

# SHORT TERM AND TEMPORARY PAVEMENT MARKINGS (BDE)

Effective: April 1, 2024 Revised: April 2, 2024

Revise Article 701.02(d) of the Standard Specifications to read:

"(d) Pavement Marking Tapes (Note 3) ......1095.06"

Add the following Note to the end of Article 701.02 of the Standard Specifications:

"Note 3. White or yellow pavement marking tape that is to remain in place longer than 14 days shall be Type IV tape."

Revise Article 703.02(c) of the Standard Specifications to read:

Add the following Note to the end of Article 703.02 of the Standard Specifications:

"Note 1. White or yellow pavement marking tape that is to remain in place longer than 14 days shall be Type IV tape."

Revise Article 1095.06 of the Standard Specifications to read:

"1095.06 Pavement Marking Tapes. Type I white or yellow marking tape shall consist of glass spheres embedded into a binder on a foil backing that is precoated with a pressure sensitive adhesive. The spheres shall be of uniform gradation and distributed evenly over the surface of the tape.

Type IV tape shall consist of white or yellow tape with wet reflective media incorporated to provide immediate and continuing retroreflection in wet and dry conditions. The wet retroreflective media shall be bonded to a durable polyurethane surface. The patterned surface shall have approximately  $40 \pm 10$  percent of the surface area raised and presenting a near vertical face to traffic from any direction. The channels between the raised areas shall be substantially free of exposed reflective elements or particles.

Blackout tape shall consist of a matte black, non-reflective, patterned surface that is precoated with a pressure sensitive adhesive.

(a) Color. The white and yellow markings shall meet the following requirements for daylight reflectance and color, when tested, using a color spectrophotometer with 45 degrees circumferential/zero degree geometry, illuminant D65, and two degree observer angle. The color instrument shall measure the visible spectrum from 380 to 720 nm with a wavelength measurement interval and spectral bandpass of 10 nm.

Color	Daylight Reflectance %Y
White	65 min.
Yellow *	36 - 59

\*Shall match Aerospace Material Specification Standard 595 33538 (Orange Yellow) and the chromaticity limits as follows.

Х	0.490	0.475	0.485	0.530
У	0.470	0.438	0.425	0.456

(b) Retroreflectivity. The white and yellow markings shall be retroreflective. Reflective values measured in accordance with the photometric testing procedure of ASTM D 4061 shall not be less than those listed in the table below. The coefficient of retroreflected luminance, R<sub>L</sub>, shall be expressed as average millicandelas/footcandle/sq ft (millicandelas/lux/sq m), measured on a 3.0 x 0.5 ft (900 mm x 150 mm) panel at 86 degree entrance angle.

Coefficient of Retroreflected Luminance, R <sub>L</sub> , Dry					
Type I			Type IV		
Observation Angle	White	Yellow	Observation Angle	White	Yellow
0.2°	2700	2400	0.2°	1300	1200
0.5°	2250	2000	0.5°	1100	1000

Wet retroreflectance shall be measured for Type IV under wet conditions according to ASTM E 2177 and meet the following.

Wet Retroreflectance, Initial R <sub>L</sub>		
Color R <sub>L</sub> 1.05/88.76		
White 300		
Yellow 200		

- (c) Skid Resistance. The surface of Type IV and blackout markings shall provide a minimum skid resistance of 45 BPN when tested according to ASTM E 303.
- (d) Application. The pavement marking tape shall have a precoated pressure sensitive adhesive and shall require no activation procedures. Test pieces of the tape shall be applied according to the manufacturer's instructions and tested according to ASTM D 1000, Method A, except that a stiff, short bristle roller brush and heavy hand pressure will be substituted for the weighted rubber roller in applying the test pieces to the metal test panel. Material tested as directed above shall show a minimum adhesion value of 750 g/in. (30 g/mm) width at the temperatures specified in ASTM D 1000. The adhesive shall be resistant to oils, acids, solvents, and water, and shall not leave objectionable stains or residue after removal. The material shall be flexible and conformable to the texture of the pavement.
- (e) Durability. Type IV and blackout tape shall be capable of performing for the duration of a normal construction season and shall then be capable of being removed intact or in large sections at pavement temperatures above 40 °F (4 °C) either manually or with a roll-up device without the use of sandblasting, solvents, or grinding. The Contractor shall provide a manufacturer's certification that the material meets the requirements for being removed after the following minimum traffic exposure based on transverse test decks with rolling traffic.
  - (1) Time in place 400 days
  - (2) ADT per lane 9,000 (28 percent trucks)
  - (3) Axle hits 10,000,000 minimum

Samples of the material applied to standard specimen plates will be measured for thickness and tested for durability in accordance with ASTM D 4060, using a CS-17 wheel and 1000-gram load, and shall meet the following criteria showing no significant change in color after being tested for the number of cycles indicated.

Test	Type I	Type IV	Blackout
Minimum Initial Thickness, mils (mm)	20 (0.51)	65 (1.65) <sup>1/</sup> 20 (0.51) <sup>2/</sup>	65 (1.65) <sup>1/</sup> 20 (0.51) <sup>2/</sup>
Durability (cycles)	5,000	1,500	1,500

- 1/ Measured at the thickest point of the patterned surface.
- 2/ Measured at the thinnest point of the patterned surface.

The pavement marking tape, when applied according to the manufacturer's recommended procedures, shall be weather resistant and shall show no appreciable fading, lifting, or shrinkage during the useful life of the marking. The tape, as applied, shall be of good appearance, free of cracks, and edges shall be true, straight, and unbroken.

- (f) Sampling and Inspection.
  - (1) Sample. Prior to approval and use of Type IV pavement marking tape, the manufacturer shall submit a notarized certification from an independent laboratory, together with the results of all tests, stating that the material meets the requirements

as set forth herein. The independent laboratory test report shall state the lot tested, the manufacturer's name, and the date of manufacture.

After initial approval by the Department, samples and certification by the manufacturer shall be submitted for each subsequent batch of Type IV tape used. The manufacturer shall submit a certification stating that the material meets the requirements as set forth herein and is essentially identical to the material sent for qualification. The certification shall state the lot tested, the manufacturer's name, and the date of manufacture.

(2) Inspection. The Contractor shall provide a manufacturer's certification to the Engineer stating the material meets all requirements of this specification. All material samples for acceptance tests shall be taken or witnessed by a representative of the Bureau of Materials and shall be submitted to the Engineer of Materials, 126 East Ash Street, Springfield, Illinois 62704-4766 at least 30 days in advance of the pavement marking operations."

# SPEED DISPLAY TRAILER (BDE)

Effective: April 2, 2014 Revised: January 1, 2022

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

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

Add the following to Article 701.15 of the Standard Specifications:

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

Add the following to Article 701.20 of the Standard Specifications:

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

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

Add the following to Article 1106.02 of the Standard Specifications:

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

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

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

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

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

# SUBCONTRACTOR AND DBE PAYMENT REPORTING (BDE)

Effective: April 2, 2018

Add the following to Section 109 of the Standard Specifications.

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

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

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

#### SUBCONTRACTOR MOBILIZATION PAYMENTS (BDE)

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

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

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

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

# 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

<u>FEDERAL AID CONTRACTS</u>. 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 <a href="https://lcptracker.com/">https://lcptracker.com/</a>. 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."

<u>STATE CONTRACTS</u>. 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 15<sup>th</sup> 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 <a href="https://www2.illinois.gov/idol/Laws-Rules/CONMED/Pages/Prevailing-Wage-Portal.aspx">https://www2.illinois.gov/idol/Laws-Rules/CONMED/Pages/Prevailing-Wage-Portal.aspx</a>. 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 <a href="https://lcptracker.com/">https://lcptracker.com/</a>. 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."

# **SURVEYING SERVICES (BDE)**

Effective: April 1, 2025

Delete the fourth paragraph of Article 667.04 of the Standard Specifications.

Delete Section 668 of the Standard Specifications.

### **VEHICLE AND EQUIPMENT WARNING LIGHTS (BDE)**

Effective: November 1, 2021 Revised: November 1, 2022

Add the following paragraph after the first paragraph of Article 701.08 of the Standard Specifications:

"The Contractor shall equip all vehicles and equipment with high-intensity oscillating, rotating, or flashing, amber or amber-and-white, warning lights which are visible from all directions. In accordance with 625 ILCS 5/12-215, the lights may only be in operation while the vehicle or equipment is engaged in construction operations."

#### **WEEKLY DBE TRUCKING REPORTS (BDE)**

Effective: June 2, 2012 Revised: January 2, 2025

The following applies to all Disadvantaged Business Enterprise (DBE) trucks on the project, whether they are utilized for DBE goal credit or not.

The Contractor shall notify the Engineer at least three days prior to DBE trucking activity.

The Contractor shall submit a weekly report of DBE trucks hired by the Contractor or subcontractors (i.e. not owned by the Contractor or subcontractors) to the Engineer on Department form "SBE 723" within ten business days following the reporting period. The reporting period shall be Sunday through Saturday for each week reportable trucking activities occur.

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

### WORK ZONE TRAFFIC CONTROL DEVICES (BDE)

Effective: March 2, 2020 Revised: January 1, 2025

Add the following to Article 701.03 of the Standard Specifications:

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

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

"For temporary sign supports, the Contractor shall provide a FHWA eligibility letter for each device used on the contract. The letter shall provide information for the set-up and use of the device as well as a detailed drawing of the device. The signs shall be supported within 20 degrees

of vertical. Weights used to stabilize signs shall be attached to the sign support per the manufacturer's specifications."

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

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

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

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

Category 1 includes small, lightweight, channelizing and delineating devices that have been in common use for many years and are known to be crashworthy by crash testing of similar devices or years of demonstrable safe performance. These include cones, tubular markers, plastic drums, and delineators, with no attachments (e.g. lights). Category 1 devices shall be MASH compliant.

Category 2 includes devices that are not expected to produce significant vehicular velocity change but may otherwise be hazardous. These include vertical panels with lights, barricades, temporary sign supports, and Category 1 devices with attachments (e.g. drums with lights). Category 2 devices shall be MASH compliant.

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

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

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

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

"(g) Truck Mounted/Trailer Mounted Attenuators. The attenuator shall be approved for use at Test Level 3. Test Level 2 may be used for normal posted speeds less than or equal to 45 mph.

(k) Temporary Water Filled Barrier. The water filled barrier shall be a lightweight plastic shell designed to accept water ballast and be on the Department's qualified product list.

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

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

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

# REVISIONS TO THE ILLINOIS PREVAILING WAGE RATES

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

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