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Letting March 7, 2025

Notice to Bidders, Specifications and Proposal



**Contract No. 87875
DEKALB County
Section 23-00049-00-PV (Sandwich)
Route FAU 5413 (Main Street)
Project SW3W-266 ()
District 3 Construction Funds**

Prepared by

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Checked by

(Printed by authority of the State of Illinois)



**Illinois Department
of Transportation**

NOTICE TO BIDDERS

1. **TIME AND PLACE OF OPENING BIDS.** Electronic bids are to be submitted to the electronic bidding system (iCX-Integrated Contractors Exchange). All bids must be submitted to the iCX system prior to 12:00 p.m. March 7, 2025 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. 87875
DEKALB County
Section 23-00049-00-PV (Sandwich)
Project SW3W-266 ()
Route FAU 5413 (Main Street)
District 3 Construction Funds**

Reconstruction of Main Street between BNSF Railroad and Knights Road in Sandwich. Work includes fulldepth pavement reclamation, PCC and HMA Pavement, sidewalks, curb & gutter, and storm sewers.

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 re-advertise the proposed improvement, and to waive technicalities.

By Order of the
Illinois Department of Transportation

Omer Osman,
Secretary

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FOR
SUPPLEMENTAL SPECIFICATIONS
AND RECURRING SPECIAL PROVISIONS

Adopted January 1, 2025

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

ERRATA Standard Specifications for Road and Bridge Construction (Adopted 1-1-22) (Revised 1-1-25)

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FAU ROUTE 5413
SECTION 23-00049-00-PV
CONTRACT NO. 87875
CITY OF SANDWICH
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BDE SPECIAL PROVISIONS

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

<u>File Name</u>	<u>Pg.</u>	<u>Special Provision Title</u>	<u>Effective</u>	<u>Revised</u>
80099		<input type="checkbox"/> Accessible Pedestrian Signals (APS)	April 1, 2003	Jan. 1, 2022
80274		<input type="checkbox"/> Aggregate Subgrade Improvement	April 1, 2012	April 1, 2022
80192		<input type="checkbox"/> Automated Flagger Assistance Device	Jan. 1, 2008	April 1, 2023
80173	67	<input checked="" type="checkbox"/> Bituminous Materials Cost Adjustments	Nov. 2, 2006	Aug. 1, 2017
80426		<input type="checkbox"/> Bituminous Surface Treatment with Fog Seal	Jan. 1, 2020	Jan. 1, 2022
80241		<input type="checkbox"/> Bridge Demolition Debris	July 1, 2009	
50531		<input type="checkbox"/> Building Removal	Sept. 1, 1990	Aug. 1, 2022
50261		<input type="checkbox"/> Building Removal with Asbestos Abatement	Sept. 1, 1990	Aug. 1, 2022
* 80460	69	<input checked="" type="checkbox"/> Cement, Finely Divided Minerals, Admixtures, Concrete, and Mortar	Jan. 1, 2025	
80384	80	<input checked="" type="checkbox"/> Compensable Delay Costs	June 2, 2017	April 1, 2019
80198		<input type="checkbox"/> Completion Date (via calendar days)	April 1, 2008	
80199		<input type="checkbox"/> Completion Date (via calendar days) Plus Working Days	April 1, 2008	
* 80461		<input type="checkbox"/> Concrete Barrier	Jan. 1, 2025	
80453		<input type="checkbox"/> Concrete Sealer	Nov. 1, 2023	
* 80261		<input type="checkbox"/> Construction Air Quality – Diesel Retrofit	June 1, 2010	Jan. 1, 2025
* 80029	84	<input checked="" type="checkbox"/> Disadvantaged Business Enterprise Participation	Sept. 1, 2000	Jan. 2, 2025
80229		<input type="checkbox"/> Fuel Cost Adjustment	April 1, 2009	Aug. 1, 2017
80452		<input type="checkbox"/> Full Lane Sealant Waterproofing System	Nov. 1, 2023	
80447		<input type="checkbox"/> Grading and Shaping Ditches	Jan 1, 2023	
80433		<input type="checkbox"/> Green Preformed Thermoplastic Pavement Markings	Jan. 1, 2021	Jan. 1, 2022
* 80456	87	<input checked="" type="checkbox"/> Hot-Mix Asphalt	Jan. 1, 2024	Jan. 1, 2025
80446	89	<input checked="" type="checkbox"/> Hot-Mix Asphalt – Longitudinal Joint Sealant	Nov. 1, 2022	Aug. 1, 2023
80438		<input type="checkbox"/> Illinois Works Apprenticeship Initiative – State Funded Contracts	June 2, 2021	April 2, 2024
80450		<input type="checkbox"/> Mechanically Stabilized Earth Retaining Walls	Aug. 1, 2023	
80441	91	<input checked="" type="checkbox"/> Performance Graded Asphalt Binder	Jan 1, 2023	
80459		<input type="checkbox"/> Preformed Plastic Pavement Marking	June 2, 2024	
34261	96	<input checked="" type="checkbox"/> Railroad Protective Liability Insurance	Dec. 1, 1986	Jan. 1, 2022
80455	97	<input checked="" type="checkbox"/> Removal and Disposal of Regulated Substances	Jan. 1, 2024	April 1, 2024
80445	99	<input checked="" type="checkbox"/> Seeding	Nov. 1, 2022	
80457	105	<input checked="" type="checkbox"/> Short Term and Temporary Pavement Markings	April 1, 2024	April 2, 2024
* 80462		<input type="checkbox"/> Sign Panels and Appurtenances	Jan. 1, 2025	
80448	109	<input checked="" type="checkbox"/> Source of Supply and Quality Requirements	Jan. 2, 2023	
80340		<input type="checkbox"/> Speed Display Trailer	April 2, 2014	Jan. 1, 2022
80127		<input type="checkbox"/> Steel Cost Adjustment	April 2, 2004	Jan. 1, 2022
80397	110	<input checked="" type="checkbox"/> Subcontractor and DBE Payment Reporting	April 2, 2018	
80391	111	<input checked="" type="checkbox"/> Subcontractor Mobilization Payments	Nov. 2, 2017	April 1, 2019
* 80463	112	<input checked="" type="checkbox"/> Submission of Bidders List Information	Jan. 2, 2025	Mar. 2, 2025
80437	113	<input checked="" type="checkbox"/> Submission of Payroll Records	April 1, 2021	Nov. 2, 2023
80435		<input type="checkbox"/> Surface Testing of Pavements – IRI	Jan. 1, 2021	Jan. 1, 2023
20338	115	<input checked="" type="checkbox"/> Training Special Provisions	Oct. 15, 1975	Sept. 2, 2021
80429		<input type="checkbox"/> Ultra-Thin Bonded Wearing Course	April 1, 2020	Jan. 1, 2022
80439	118	<input checked="" type="checkbox"/> Vehicle and Equipment Warning Lights	Nov. 1, 2021	Nov. 1, 2022
80458		<input type="checkbox"/> Waterproofing Membrane System	Aug. 1, 2024	
* 80302	119	<input checked="" type="checkbox"/> Weekly DBE Trucking Reports	June 2, 2012	Jan. 2, 2025
80454		<input type="checkbox"/> Wood Sign Support	Nov. 1, 2023	
* 80427	120	<input checked="" type="checkbox"/> Work Zone Traffic Control Devices	Mar. 2, 2020	Jan. 1, 2025
80071		<input type="checkbox"/> Working Days	Jan. 1, 2002	

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 F.A.U. Route 5413 (Main Street), Section 23-00049-00-PV, in DeKalb County, and in case of conflict with any part, or parts, of said Specifications, the said Special Provisions shall take precedence and shall govern

IDOT CONTRACT: 87875

LOCATION OF PROJECT

Improvements are proposed on Main Street between BNSF Railroad Right of Way and Knights Road within the City of Sandwich, IL.

DESCRIPTION OF PROJECT

The project consists of but is not limited to: earth excavation, pavement pulverization, full depth pavement reclamation, preparation of subbase, soil modification, Portland Cement Concrete Pavement, HMA pavement courses, curb and sidewalk removal & replacement, HMA and PCC driveway removal & replacement, sewer construction, water main construction, restoration, and the necessary appurtenant construction.

COMPLETION DATE

The Final Completion date for this project will be June 13, 2026. All work associated with this project shall be completed on or before June 13, 2026. This work shall include but is not limited to: all punch list work determined necessary by the Engineer and Owner and demobilization of all equipment and materials from the project limits.

INTERIM COMPLETION DATE

There will be an interim completion date for this project of November 21, 2025. All underground utilities including storm sewer, sanitary sewer, water main, and all service connections must be completed by this date. Additionally, all other work on the west side of the roadway including sidewalk and curb replacement, driveway replacement, full-depth reclamation, and asphalt binder course must be completed by this date. The roadway will be reopened to two-way traffic by November 21, 2025, and will remain open to two-way traffic over the winter shutdown until work commences in 2026.

LOCAL WASTE COLLECTION SERVICES

The Contractor shall coordinate the various waste collection companies servicing the Sandwich area within the project limits if there is a potential interruption of waste collection services. Coordination includes providing notification to the local waste collection companies regarding changes in staging and access. The various waste collection companies servicing Sandwich, IL include:

Community Disposal..... 815-786-7151
Groot Industries.....630-587-4673
Waste Management.....800-747-2278

The Contractor shall allow for the waste collection services to access to all properties within the project limits and will maintain continuous access to all refuse and recycling bins set out for pickup throughout the duration of the project and during each stage of the project.

This work will not be paid for separately but will be included in the cost of the various pay items associated with the improvements.

BRUSH COLLECTION SERVICES

The Contractor shall coordinate activities with the City if there is a potential interruption of brush collection services. This work will not be paid for separately but will be included in the cost of the various pay items associated with the improvements.

SCHOOL TRANSPORTATION SERVICES

The Contractor shall coordinate activities with Sandwich School District 430 if there is a potential interruption of student transportation services. The District should be notified 48-hours in advance of interruptions at (815) 786-2187. The Contractor

shall make all necessary accommodations for special needs students who are typically picked up at their residence. This work will not be paid for separately but will be included in the cost of the various pay items associated with the improvements.

CONSTRUCTION NOISE

Revise the second paragraph of Article 107.35 of the Standard Specifications to read:

Construction within 1000 feet of an occupied residence, motel, hospital, or similar receptor shall be confined to the period beginning at 7:00 a.m. and ending at 8:00 p.m. Monday through Friday and from 7:00 a.m. to 5:00 p.m. on Saturday. No work of any kind shall be done on Sundays. These time restrictions shall not apply to maintenance or operation of safety and traffic-control devices such as barricades, signs, and lighting, or to construction of an emergency nature. However, starting up of equipment does apply.

WINTER SHUTDOWN

The following provisions shall apply for winter shutdown.

The Contractor shall be responsible for stabilizing all disturbed areas in accordance with regulations found in the Illinois Urban Manual and to the satisfaction of Engineer. All items for temporary stabilization shall remain in place and shall be maintained by the Contractor for the duration of winter shutdown. All temporary stockpiles shall be removed from the site prior to the shutdown.

The cost of all labor, materials, and equipment required under this special provision regarding winter shutdown shall be the responsibility of the Contractor and is not eligible for payment by the City.

USE OF FIRE HYDRANTS

Revise the first paragraph of Article 107.18 of the Standard Specifications to read:

The use of fire hydrants by the Contractor shall not be permitted. If water is needed, the Contractor shall make an application to the proper authorities, and shall conform to the municipal ordinances, rules, or regulations concerning their use. It is incumbent upon the Contractor to notify any and all subcontractors of this Special Provision.

WORKSITE MAINTENANCE AND CLEANUP

The Contractor shall be responsible to maintain the job site free of any debris and deleterious material. The material needed to complete the work shall also be maintained in an orderly manner. All foreign materials deposited or accumulated on or in the public right of way or private property shall be cleaned up daily and as instructed by the Engineer. Failure to complete the clean-up within the 24 hours will result in completion of the work by the City at the Contractor's expense. Actual costs incurred by the City for performing this work will be deducted from the monies due to the Contractor.

STORAGE OF MATERIAL AND EQUIPMENT

At no time shall the Contractor store material and equipment in areas other than those specified by the Engineer. All damage as determined by the Engineer outside the construction limits or damages within the construction limits shall be restored by the Contractor at his own expense.

The Contractor shall provide and maintain, for the duration of the contract, barricades and warning lights at all material storage areas and around construction equipment associated with the project. This will not be paid for separately but will be included in the cost of the various pay items associated with the improvements.

DUST CONTROL WATERING

This work shall consist of the exclusive control of dust resulting from construction operations by the uniform application of sprinkled water by the Contractor in accordance with Article 107.36 of the Standard Specifications. Watering for dust control

shall be performed no less than once a week as well as when directed by the Engineer. If the contractor fails to perform watering within 24 hours of a request by the Engineer, the Engineer shall assess an Erosion Control Deficiency Deduction. This will not be paid for separately but will be included in the cost of the various pay items associated with the improvements.

STREET SWEEPING

This work shall consist of the cleaning of streets impacted by Contract operations. This sweeping and cleaning shall be performed by a mechanical street sweeper or equipment attachment that meets the satisfaction of the Engineer. Street sweeping will be performed on a weekly basis and as directed by the Engineer. If the contractor fails to perform street sweeping within 24 hours of a request by the Engineer, the Engineer shall assess an Erosion Control Deficiency Deduction.

This will not be paid for separately but will be included in the cost of the various pay items associated with the improvements.

VANDALIZED OR DAMAGED ITEMS

The Contractor shall be responsible for protecting against and repairing or replacing to the satisfaction of the Engineer, all contract items that were vandalized or defaced. Removal and replacement of the item to the nearest construction joint shall be required.

CLEAN CONSTRUCTION OR DEMOLITION DEBRIS

A soil analysis was performed for this project and a completed IEPA LPC-663 form will be provided to the awarded Contractor for use for the disposal of material generated from this project. It is the Contractor's responsibility to locate and dispose of the material at a permitted CCDD facility in accordance with the criteria set forth in 35 Illinois Administrative Code (IAC) 1100 as amended on August 27, 2012.

If the desired CCDD facility requires additional sampling and testing, it is the Contractor's responsibility to provide the additional sampling and testing necessary for appropriate disposal. The Contractor shall not be compensated for the additional sampling, testing, or paperwork necessary as required by the CCDD facility. This will be included in the cost of the contract.

CLASS D PATCHING

Description. This work shall consist of the completion of pavement patching to restore pavement over trenches in locations where underground utilities have been removed or installed. This work shall be in accordance with the applicable portions of Section 442 of the Standard Specifications, and the following.

Construction Requirements. All patches will be completed within 48 hours of the completion of utility installation and trench backfill.

Method of Measurement. Pavement removal as well as removal of backfill materials and replacement with asphalt of the specified depth of patch will be measured for payment in place, and the area computed in square yards.

Basis of Payment. This work will be paid for at the contract unit price for CLASS D PATCHES of the type and thickness specified.

DUCTILE IRON WATER MAIN

Description. This work shall consist of furnishing and installing water main of the size and type specified along with any necessary fittings and pipe restraint. This work shall be in accordance with the applicable portions of Section 561 of the Standard Specifications, "Standard Specifications for Water and Sewer Construction in Illinois" (2020 Edition), the details contained in the plans, and the following.

Materials. Materials shall be as follows:

1. Water mains and fittings shall be constructed of ductile iron pipe conforming to the following specifications:
 - a. Bell and spigot pipe: ANSI 21.51 (AWWA C151) Class 52.
 - b. Pit casted pipe shall not be allowed.
 - c. Pipe and fittings shall have an outside bituminous coating with an inside cement lining in accordance with ANSI A21.4 (AWWA C104) Specifications.
 - d. Shall have a rated working pressure of three hundred fifty (350) pound per square inch plus a surge

allowance of one hundred (100) psi. Thickness design shall be in conformance with ANSI/AWWA C150 requirements.

2. Pipe joints shall be mechanical joint or push on joint ductile iron pipe and fittings in accordance with ANSI A21.11 (AWWA C111). Retainer glands shall be required on all fittings. Lengths of pipe restraint shall be determined from manufacturers installation specifications.

All water main pipe and fittings shall be stamped manufactured in the United States of America. The contractor shall submit catalog cuts for the water main pipe and fittings for approval by the Engineer before the start of construction.

Thrust blocking shall be provided as designated in Section 41 of the Standard Specifications for Water and Sewer Construction in Illinois and shall be accomplished using a joint restraint system consisting of MEGALUG mechanical joint restraints designed for the type of piping on which it shall be installed. Mechanical thrust restraint shall utilize multiple gripping wedges incorporated into a follower gland meeting the applicable requirements of ANSI/AWWA C110/A21.10-03. Preformed concrete block thrust blocking shall be provided at all bends greater than 10 degrees, at all mechanical joint connections, and at all fire hydrants. Poured-in-place concrete thrust blocks are not allowed.

A continuous, 10-gauge solid insulated copper tracer wire shall be installed along all water main and hydrant branch lines. The tracer wire shall be carefully placed along the top of the pipe and securely taped in three locations at approximately six foot spacing along the pipe prior to placing initial backfill. Any splices in the copper wire shall be soldered and fitted with an insulated watertight boot. Tracer wire shall be brought to grade at all fire hydrants along the outside of the hydrant barrel and terminated in a flush-type access box. Wire connection to the access box shall have a minimum of 24" of slack to permit removal of the lid with the wire intact.

Testing. All construction and testing of the water main and related appurtenances shall conform to the applicable requirements of Section 41 of the Standard Specifications for Water and Sewer Construction in Illinois. The Engineer and the City Water Department shall be notified by the Contractor a minimum of forty-eight hours prior to the start of any testing. Testing shall take place for the entire length of water main constructed and shall consist of the following tests:

- Pressure Test
- Leakage Test
- Fire Service Test

The pressure and leakage tests for all water mains shall be conducted at a pressure of 150 psi. Tapped plugs with temporary flushing risers may be required for testing the water main. Proper blocking must be in place during testing. All water mains and appurtenances shall be tested at 150 psi for a two-hour period. The Contractor shall submit a map identifying all of the water main pressure tested, identifying multiple pressure tests if they are used.

The leakage test shall be completed in accordance with Section 41-2.14C of the Standard Specifications for Water and Sewer Construction in Illinois.

All fire service testing described below shall require a minimum of forty-eight hours' notice to the Water Department and the Building Inspector. The City must be notified and will be present to witness all tests. The fire service shall be subjected to a hydrostatic pressure of 200 psi or 50 psi in excess of the system working pressure, whichever is greater, and shall maintain that pressure without loss for two hours. (NFPA 13, Chapter 10.10.2.2.1)

All testing shall be completed prior to the removal of the existing main. The Engineer shall be notified a minimum of 24 hours prior to the execution of any testing procedure. Should the Contractor fail to notify the Engineer, the tests shall be repeated under the Engineer's supervision at the Contractor's expense.

Disinfection. Disinfection of the water main shall conform to Section 41-2.15 of the Standard Specifications for Water and Sewer Construction in Illinois. The Engineer and the City shall be notified a minimum of 24 hours prior to any disinfection-related work. All water mains and appurtenances shall be disinfected before they are put into service. The installer is responsible for disinfecting the mains. After completion of the leakage testing, disinfection of the water main shall be in accordance with AWWA C651-99,

Standard for Disinfection of Water Mains. Disinfection of the water main shall use the liquid chlorine form and the continuous feed method. 50 ppm concentration at the start; 25 ppm after 24 hours.

After final flushing of the disinfected water main, bacteriological testing shall be performed in accordance with AWWA C651-99 and the provisions of the Illinois Environmental Protection Agency Public Water Supply Construction Permit. The chlorine residual at the time of bacteriological testing shall not be in excess of that residual present at the points of connection to the existing system. The City may collect their own additional samples for verification of contractor's results. Original bacteriological test results from the testing laboratory, certified by the Illinois Department of Public Health, are to be submitted to the City. The Contractor shall also submit a map of the water main identifying all of the sample locations. All water mains must be shown to be free of bacterial contamination before being placed into service. Satisfactory disinfection is demonstrated when two consecutive water samples, collected at least twenty-four hours apart, indicate no bacterial contamination. The original test results, the sample location map, and the construction permit shall all be transmitted by the City to the Illinois Environmental Protection Agency for approval of the IEPA water main permit.

The cost to provide all disinfection and testing shall be included in the price of water main.

Construction Requirements. All water main components shall be installed to maintain a minimum depth of 5.5 feet below proposed finished grade to the top of pipe. Variations from these standards will require approval of the Engineer.

All water main and sewer horizontal and vertical separation shall conform to the latest version of the Standard Specifications for Water & Sewer Construction in Illinois. Reference to these standards should be made when it is impossible to meet separation requirements for casing pipe requirements. Where the proposed water main cannot maintain the required separation from the existing sanitary and storm sewers, the water main of the size and type specified shall be placed in a casing pipe which extends a minimum of ten feet to each side of the crossing or as specified in the plans.

Existing pipelines shall be properly supported during construction of the water main so that cracking and leakage or failure of the existing pipeline does not occur. Fittings (bends, tees, crosses, etc.) in all ductile iron pipe systems shall be restrained to prevent joint separation. Thrust restraint design shall be in accordance with the procedures of the AWWA Manual of Water Supply Practices - M41, Second Edition. Dead end water main ends with caps or plugs shall be mechanically restrained for three joints prior to the dead end in addition to concrete thrust blocking. Restraint harness for push-on bells of ductile iron pipe shall be used on all water main pipe joints within proposed encasement pipe.

Pipe bedding, haunching, and initial backfill shall be of gradation CA-7 from 4 inches below the pipe to a depth 12" above the top of pipe as shown on the detail for Trench Backfill, Special included in the plans.

The contractor shall notify the Engineer of any planned shutdown of existing water mains a minimum of 48 hours in advance of this work. The Contractor shall also provide written notification a minimum of 48 hours in advance of shutdowns to all residents affected by planned shutdowns. Residents shall not be without water supply for a period lasting more than 4 hours at any given time. Water main shutdowns shall not occur without approval by the Engineer and proper notification to residents affected.

No new water main should be connected to the existing water main unless the new water main can be pressure tested separately. Connection to an existing water main shall be done by pressure connection only unless authorized by the Engineer. Pressure connection and valve shall be located within the valve vault. No pressure connection shall be within 3 feet of an existing water main joint. If a pressure connection cannot be made, a cut in sleeve and tee connection shall be used. All fittings shall be swabbed out with a chlorine solution of at least 50 mg/L as approved by the City of Sandwich Public Works Department.

Method of Measurement. Water main will be measured for payment in place in feet. The length measured will include stops fittings and valves.

Water main installed in casing pipe will be measured for payment in place in feet of water main pipe installed within the ends of water main encasement.

Basis of Payment. All of the above, except for water main encasement pipe and water main installed within casing pipe, will be paid for at the contract unit price for DUCTILE IRON WATER MAIN of the diameter specified which price will include all excavation, installation, fittings, polyethylene encasement, thrust blocking, tracer wire, tracer wire access boxes, testing, disinfection, cutting, capping, and connections to existing water mains to remain in place.

Water main installed within encasement pipe will be paid for DUCTILE IRON WATER MAIN, RESTRAINED JOINT PIPE of the diameter specified.

WATER VALVES

Description. This work shall consist of furnishing and installing valves in vaults, of the size and type specified. This work shall be in accordance with the applicable portions of the Standard Specifications for Water and Sewer Construction in Illinois, the details contained in the plans, and the following.

Materials. All water valves shall be in accordance with Section 42 of the Standard Specifications for Water and Sewer Construction in Illinois and meet the following requirements:

Type: Resilient Wedge Gate Valve
Size: 6" to 12" Diameter
Connections: Mechanical Joint per AWWA C111
Operating Nut: 2" Square – Open Left
Stem: Non-Rising Stem
Coating: Exterior Epoxy and Interior Epoxy Coating per AWWA C550
Seals: O-ring seals
Wedge: Solid iron encapsulated with rubber
Approved manufacturers and models include:
Mueller A2360-XX Resilient Wedge Gate Valve with MJ Ends

All below grade factory installed bolts and fasteners shall be 304-grade stainless steel.

The Contractor shall provide catalog cuts for all appurtenant items pertaining to water valves prior to the start of construction for approval by the Engineer.

Basis of Payment. This work will be paid for at the contract unit price per each for WATER VALVES of the size specified, which price will include all labor, materials, and equipment necessary to complete this item in accordance with the plans and specifications.

TAPPING VALVES AND SLEEVES 10"

Description. This work shall consist of installing tapping connections of the proposed water main to the existing live water main at locations designated on the plans. This work shall be in accordance with the requirements of Section 46 of the Standard Specifications for Water and Sewer Construction in Illinois.

Materials. Tapping sleeves shall be ductile iron with mechanical joint connections meeting the following requirements:

- Outlet flange drilling complies with ASME/ANSI B16.42 class 150
- Certified ANSI/NSF 61
- Ductile Iron body with ¾" NPT test plug

All nuts, bolts and washers shall be Type 304 stainless steel or better. Tapping sleeves shall be rated with a working pressure of 150 psi and be capable of withstanding a test pressure of 225 psi. A test port shall be provided to facilitate pressure testing the apparatus prior to cutting the main. All tapping connections shall be located within a precast concrete valve vault. Tapping valves shall meet the following criteria:

Tapping Valve – Valves shall meet the requirements of AWWA C509.
Type: Resilient Wedge Tapping Valve
Connections: Mechanical Joint x Flanged End
Operating Nut: 2" Square – Open Left
Stem: Non-Rising Stem
Coating: Interior and Exterior Epoxy Coating per AWWA C550
Seals: O-ring seals
Wedge: Solid iron encapsulated with rubber

Valve vaults shall be in accordance with the special provision for VALVE VAULTS.

The Contractor shall provide catalog cuts for all appurtenant items pertaining to tapping valves and valve vaults prior to the start of construction for approval by the Engineer.

Construction Requirements. All water taps shall require a minimum of 48 hours notice to the City Water Department prior to this work being performed. This item shall include making a permanent branch connection to the existing water main by performing a live tap of the existing pipe while in continuous service. This shall include preparation of the site and the existing pipe, furnishing, placement and set-up of the tapping sleeve, tapping valve, tapping machine and ancillary equipment, testing the equipment prior to making the tap and performing the tapping procedure.

The site of the proposed tap shall be excavated to the dimensions necessary to install and secure the tapping equipment and support the existing pipe. The tapping equipment shall be supported such that it does not impose any external load upon the existing pipe. The existing pipe shall be excavated around its full circumference to provide for placement of the tapping sleeve. The existing pipe shall be supported as required to compensate for the removed pipe bedding, haunch and backfill removed.

The Contractor shall be responsible for verifying the size and type of existing water main to be tapped prior to procuring the tapping sleeve. The full circumference of the outer surface of the existing main within the limits of the tapping sleeve shall be thoroughly cleaned. The outer surface of the existing watermain and the inner surface of the tapping sleeve and gasket shall be disinfected with a 1% chlorine solution prior to installation.

The complete apparatus, including the tapping sleeve, tapping valve, and tapping machine shall be pressure tested to 120 psi as a complete unit prior to cutting the main. Following completion of the pressure connection, the tapping sleeve and valve shall be placed within a valve vault. Trench backfill, consisting of CA-7, shall be placed around the outside of the structure, and compacted up to existing grade to maintain vehicular access in accordance with the provisions for TRENCH BACKFILL, SPECIAL.

Method of Measurement. Pressure connections will be measured per each pressure connection installed. Valve Vaults will be measured separately in place per each.

Basis of Payment. This work will be paid for at the contract unit price per each for TAPPING VALVES AND SLEEVES of the size specified which price will include all labor, equipment, materials, excavation, preparation, pipe supports, tapping sleeve, tapping valve, bedding, backfill and all ancillary materials and equipment. This will also include the use of the tapping machine, disposal of surplus materials and all testing.

Valve Vaults will be paid for per each according to the special provision for VALVE VAULTS.

ADJUSTING WATER SERVICE LINES

Description: This work shall consist of furnishing and installing new water service lines to adjust for conflicts due to installation of new storm sewer utilities as they are found in the field. This work shall be in accordance with Section 562 of the Standard Specifications, the applicable portions of the Standard Specifications for Water and Sewer Construction in Illinois, the details in the plans, and the provisions herein.

Materials. Materials shall be in accordance with the WATER SERVICES CONNECTION (SHORT AND LONG) special provision located herein.

Construction Requirements. Water service lines in conflict with the proposed storm sewer shall be removed and replaced between the existing corporation stop and curb stop. Replacement of the corporation stop and curb stop shall only occur with the approval of the Engineer. All water service lines shall be installed at a minimum depth of 5.5 feet and shall be continuous without joints from the corporation stop to the curb stop.

Selected granular backfill material shall be used where the trench is in existing or proposed pavements and for all trenches outside of existing or proposed pavements where the inner edge of the trench is within two (2) feet of the edge of the pavements, curb, gutter, curb and gutter, stabilized shoulder, or sidewalk. Where selected granular material is not required, suitable material excavated from the trench may be used. All trench backfill in required locations shall be CA-6 crushed stone or crushed gravel and compacted to 90% of modified proctor. Backfilling shall be in accordance with Section 20 of the

Standard Specifications for Water and Sewer Construction in Illinois, Method 1 only deposited in uniform layers not exceeding six (6) inches thick (loose material). Each layer shall be compacted. Locations where trenches cross the road shall contain trench backfill that is brought up to existing grade in order to maintain vehicular access.

The Contractor shall provide catalog cuts for all appurtenant items for water services prior to the start of construction.

Proposed water services shall be installed out of driveways where possible. The letter "W" shall be imprinted in the curb at the location of all water service crossings.

All water service taps shall require a minimum of forty-eight hours' notice to the City Water Department to have time to properly notify residents. No existing water service may be shut down without consent of the Engineer and/or the City. The City or the Engineer shall be present to witness the service taps. An Illinois licensed plumber shall be required to be present during, and to inspect, all proposed water service line connections to existing water service lines and water mains

Method of Measurement. Water service lines will be measured in place for payment in feet.

Basis of Payment. This work will be paid for at the contract unit price per foot for ADJUSTING WATER SERVICE LINES which price will include the cost of all copper tubing, fittings, connections, service clamps, pavement removal, trench excavation, trench backfill and all labor (including any hand digging), materials, and equipment to make a complete and finished installation.

FIRE HYDRANTS TO BE REMOVED

Description: This work shall consist of the removal of existing fire hydrants at locations shown on the plans or as directed by the Engineer.

Construction Requirements. The hydrant, auxiliary valve and lead pipe to the water main shall be removed. The City shall be notified a minimum of one week in advance of the required shutdown.

Trench backfill for this item will not be paid for separately but will be included in the cost of this item.

The removed fire hydrants shall be delivered to the City yard as directed by the Engineer. Delivery shall be included in the cost of this item.

Basis of Payment. This work will be paid for at the contract unit price each for FIRE HYDRANTS TO BE REMOVED, which price will be payment in full for all labor, equipment, and materials for complete removal.

DOMESTIC WATER SERVICE BOXES TO BE ADJUSTED

Description. This work shall be in accordance with the applicable portions of Section 602 of the Standard Specifications and the following.

Materials. Broken service (curb) boxes shall be replaced with materials meeting the following criteria:

- Curb Box – Curb boxes to be extension type.
- Minimum $\pm 6"$ of adjustment (72" long to 60" long for 5'-6" cover)
- Minneapolis base thread pattern
- Cast iron construction with brass pentagon plug

Construction Requirements. Existing domestic water service boxes shall be adjusted so that the top of the box is flush with the adjacent finished surface. In the event any service box is found to be broken, the Contractor shall furnish a new service (curb) box in accordance with the materials section of this special provision.

After adjustment, the valve box shall be clean and the operating nut readily accessible.

Basis of Payment. This work will be paid for at the contract unit price per each for DOMESTIC WATER SERVICE BOXES TO BE ADJUSTED.

VALVE VAULTS

Description. This work shall consist of furnishing and installing valve vaults, of the size and type specified. This work will be in accordance with the applicable portions of the Standard Specifications for Water and Sewer Construction in Illinois, the details contained in the plans, and the following.

Materials. Valve vaults shall be precast concrete meeting the requirements of Section 32-4 of the Standard Specifications for Water and Sewer Construction in Illinois and the details in the plans. A maximum of 8-inches of adjusting rings shall be used. All valve vault structures shall have lids furnished with "WATER" cast into the top surface and contain a concealed pick hole. The valve shall be supported on concrete blocks. All wall penetrations shall be filled and finished smooth with non-shrink grout and barrel sections shall be sealed using a butyl rubber or rubber strip to form a water-tight seal.

Basis of Payment. This work will be paid for at the contract unit price per each for VALVE VAULTS of the size, type, and frame and grate specified, which price will include all labor, materials, and equipment necessary to complete this item in accordance with the plans and specifications.

VALVE BOXES TO BE ADJUSTED

Description. This work shall be in accordance with the applicable portions of Section 602 of the Standard Specifications and the following:

Materials. Broken valve boxes shall be replaced with materials meeting the following criteria:

Valve Box shall be a two-piece screw-type.
Material: Cast Iron – no welded threads
Lid: "WATER"
Extension: 39" to 60" (assuming 5'-6" cover)
Adapter: Rubber Valve Box Adaptor

Construction Requirements. Existing valve boxes shall be adjusted so that the top of the box is flush with the adjacent finished surface. After adjustment, the valve box shall be clean and the operating nut readily accessible.

In the event any valve box is found to be broken, the Contractor shall furnish and replace the broken valve box with a new valve box in accordance with the Materials section of this special provision.

Basis of Payment. This work will be paid for at the contract unit price per each for VALVE BOXES TO BE ADJUSTED. No additional compensation will be allowed for replacing broken valve boxes with those furnished by the City.

REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES (PROJECT SPECIFIC)

Description. This work shall consist of the removal and disposal of regulated substances according to Section 669 of the Standard Specifications as revised below.

Contract Specific Sites. The excavated soil and groundwater within the areas listed below shall be managed as either "uncontaminated soil", hazardous waste, special waste or non-special waste. For stationing, the lateral distance is measured from centerline and the farthest distance is the offset distance or construction limit, whichever is less.

Soil Disposal Analysis. When the waste material requires sampling for landfill disposal acceptance, the Contractor shall secure a written list of the specific analytical parameters and analytical methods required by the landfill. The Contractor shall collect and analyze the required number of samples for the parameters required by the landfill using the appropriate analytical procedures. A copy of the required parameters and analytical methods (from landfill email or on landfill letterhead) shall be provided as Attachment 4A of the BDE 2733 (Regulated Substances Final Construction Report). The price shall include all sampling materials and effort necessary for collection and management of the samples, including transportation of samples from the job site to the laboratory. The Contractor shall be responsible for determining the specific disposal facilities to be utilized; and collect and analyze any samples required for disposal facility acceptance using a NELAP certified analytical laboratory registered with the State of Illinois.

The following contract specific work area shall be monitored by the Environmental Firm for soil contamination.

Site 1 – Railroad Corridor; Main Street, south of Center Street, City of Sandwich

- Station 9+10 to 11+00. The Engineer has determined this material meets the criteria of and shall be managed in accordance with Article 669.05 a(5). Contaminants of concern sampling parameters: Metals (Arsenic and Lead), Mercury, and BNAs (2,4-Dinitrotoluene, 3,3'-Dichlorobenzidine, 4,6-Dinitro-2-methylphenol, Benzo(a)pyrene).

Site 7 – Fussy Cleaners; 90 Main Street, City of Sandwich

- Station 11+00 to 13+50. The Engineer has determined this material meets the criteria of and shall be managed in accordance with Article 669.05 a(5). Contaminants of concern sampling parameters: Metals (Arsenic and Lead), Mercury, and BNAs (Benzo(a)pyrene).

Site 9 – Shell Gas Station and Uptown Automotive; 110 and 120 Main Street, City of Sandwich

- Station 13+50 to 16+48. The Engineer has determined this material meets the criteria of and shall be managed in accordance with Article 669.05 a(5). Contaminants of concern sampling parameters: Contaminants of concern sampling parameters: Metals (Lead) and BNAs (3,3'-Dichlorobenzidine, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Dibenzo(a,h)anthracene, Indeno(1,2,3-cd)pyrene, Pentachlorophenol).
- Station 16+48 to 19+00. The Engineer has determined this material meets the criteria of and shall be managed in accordance with Article 669.05 a(5). Contaminants of concern sampling parameters: Contaminants of concern sampling parameters: BNAs (3,3'-Dichlorobenzidine, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Dibenzo(a,h)anthracene, Indeno(1,2,3-cd)pyrene, Pentachlorophenol), and pesticides/herbicides.

Work Zones

Three distinct OSHA HAZWOPER work zones (exclusion, decontamination, and support) shall apply to projects adjacent to or within sites with documented leaking underground storage tank (LUST) incidents, or sites under management in accordance with the requirements of the Site Remediation Program (SRP), Resource Conservation and Recovery Act (RCRA), or Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), or as deemed necessary. For this project, the work zones apply for the following HLR-PESA Sites: **None**

Additional information on the above Sites 1, 7, and 9 are available from Hampton, Lenzini and Renwick, Inc.

PROPOSED STORM SEWER CONNECTION TO EXISTING MANHOLE

Description: This work shall consist of making a storm sewer connection to the existing manhole as directed in Sections 502 and 550 of the Standard Specifications.

Materials: Materials shall be in accordance with Section 1024 of the Standard Specifications.

Construction Requirements: The Contractor shall carefully core into the existing structure at the line and grades as shown on the Contract Drawings. After the storm sewer is installed, the manhole shall be mortared with a non-shrink concrete grout.

Basis of Payment: The work shall be paid for at the contract unit price each for PROPOSED STORM SEWER CONNECTION TO EXISTING MANHOLE.

CONNECTION TO EXISTING MANHOLE

Description: This work shall consist of making a sanitary sewer connection to the existing manhole as directed in Sections 502 and 550 of the Standard Specifications.

Materials: Materials shall be in accordance with Section 1024 of the Standard Specifications.

Construction Requirements: The Contractor shall carefully core into the existing structure at the line and grades as shown on the Contract Drawings. After the sanitary sewer is installed, the manhole shall be mortared with a non-shrink concrete grout. Contractor shall provide for bypass pumping during construction of connection of proposed storm sewer to existing manhole.

Basis of Payment: The work shall be paid for at the contract unit price each for CONNECTION TO EXISTING MANHOLE.

SANITARY SEWER SERVICE REMOVAL AND REPLACEMENT

Description: This work shall consist of the removal and replacement of sanitary sewer services in conflict with proposed water main and storm sewer utilities being installed as found in the field. This work shall be in accordance with the applicable portions of Section 551 of the Standard Specifications, the Standard Specifications for Water and Sewer Construction in Illinois, and the following provisions.

Materials: Sanitary sewer pipe shall be in accordance with the special provision for SANITARY SEWER.

Trench Backfill Shall be in accordance with the TRENCH BACKFILL, SPECIAL detail in the plans and special provision.

Couplings for joining pipes of dissimilar materials shall be "non-shear" flexible rubber with stainless steel bands and shall meet the approval of the Engineer.

Construction Requirements: This item shall consist of the work and materials necessary to remove and replace sanitary sewer services in accordance with the Standard Specifications for Water and Sewer Construction in Illinois meeting the approval of the Engineer.

Method of Measurement: This item will be measured in place per each sanitary sewer services removed and replaced.

Basis of Payment: This work will be paid for the contract unit price per each for SANITARY SEWER SERVICE REMOVAL AND REPLACEMENT. This price will include the cost of all removal, pipe, fittings, trench backfill, connections, materials, equipment, and labor (including any hand digging) required to make a complete and finished installation.

TELEVISION INSPECTION OF SEWER

Description. This work shall consist of televising all sanitary sewer service lines from the service cleanout to the main sanitary line prior to the installation of the water main and storm sewer.

Construction Requirements. The Contractor shall furnish a videotape of a televised inspection of the interior of all sanitary sewer service lines located within the project limits to the Engineer. This film will be used by the Engineer to determine where service line pipe is to be removed and replaced.

Basis of Payment: This work will be paid for the contract unit price per foot for TELEVISION INSPECTION OF SEWER.

WASHOUT BASIN

Description. This work shall consist of providing and maintaining a concrete truck washout to contain concrete liquids when chutes of concrete trucks are rinsed out after delivery of concrete to the construction site. The washout facility functions to consolidate solids for disposal and prevent the runoff of liquids associated with concrete. The plans include details for constructing non-portable facilities.

General Requirements. The Contractor shall submit a plan for his/her proposed concrete truck washout facility to the Engineer for approval at least 10 days prior to the first concrete pour. The concrete truck washout facility shall be in place prior to any delivery of concrete to the construction site. The concrete truck washout shall be located at least 50 feet from storm drain structures, open drainage facilities, or water bodies. Each facility is to be located away from construction traffic or access areas to prevent disturbance or tracking. A sign shall be installed adjacent to each concrete truck washout to inform concrete equipment operators of the designated washout facility.

Design. Two types of concrete truck washout facilities are available for use on this project:

1. Prefabricated portable facilities as approved by the Engineer
2. Non-portable facilities
 - a. Above Grade: Constructed using barrier wall and polyethylene sheeting. Barrier walls are constructed to create a berm with a single sheet of 10-mil polyethylene sheeting which is free of holes, tears, or other defects which may compromise the impermeability of the material. Sandbags are used to hold the sheeting

- b. in place on top of the berm. Sheeting must extend over the entire basin and berm to prevent discharge of liquids or solids.
- c. Below Grade: Constructed via excavation and the use of polyethylene sheeting and sandbags. A pit is first excavated at a designated location with a single sheet of 10-mil polyethylene sheeting which is free of holes tears, or other defects, which may compromise the impermeability of the material. Sandbags are placed around the perimeter to hold the sheeting in place to prevent discharge of liquids or solids.

3. Size of Concrete Truck Washouts: The number and size of the concrete truck washout facilities is to be determined by the Contractor. It is his/her responsibility to provide enough storage for the excess concrete and water produced from the construction activities.

Inspection, Maintenance and Removal.

- 1. Concrete truck washout facilities shall be inspected by the Engineer during his/her weekly erosion and sediment control inspection per the requirements of the SWPPP. The inspector is to ensure there are no leaks, spills, and the capacity of the facility has not yet been compromised.
- 2. Any overflowing of the concrete truck washout onto the ground shall be cleaned up and removed within 24 hours of discovery.
- 3. If a rain or snow event is forecasted, a non-collapsing, non-water collecting cover shall be placed over the concrete truck washout and secured to prevent accumulation and overflow of the facility.
- 4. Contents of each facility are not to exceed 75% of the design capacity. If contents reach 75% capacity, discontinue pouring concrete until the facility has been cleaned out.
- 5. The slurry shall be allowed to evaporate and then be removed from the site in a safe manner, for example with a vacuum truck. All hardened material shall be removed and disposed of properly.
- 6. If a lined facility is used, immediately replace the liner if it becomes damaged.
- 7. Remove the concrete truck washout facilities when they are no longer needed and restore the disturbed areas to their original condition.
- 8. The locations of these facilities and any changes to the locations shall be shown on the SWPPP.

Basis of Payment. This work will be paid for at the contract unit price per lump sum for WASHOUT BASIN.

SANITARY SEWER REMOVAL

Description. This work shall consist of the removal of sanitary sewers.

Construction Requirements. Existing sanitary sewers shall be removed and disposed of according to Article 202.03. Excavation of trenches shall be performed according to the applicable requirements of Article 550.04 and the Trench Backfill, Special detail in the plans.

Method of Measurement. Removal of sanitary sewers will be measured in place in feet.

Basis of Payment. This work will be paid for at the contract unit price per foot for SANITARY SEWER REMOVAL of the size specified, which price will include all labor, materials, and equipment necessary to complete this item in accordance with the plans and specifications.

NON-PRESSURE CONNECTION TO EXISTING WATER MAIN

Description. This work shall consist of non-pressure connections to existing water mains complete in place, including sawcutting, and removal and disposal of existing pavements; excavation; removal and disposal of waste excavated materials; trench dewatering, including erosion and siltation control for discharge resulting from all pumping operations; protection, replacement, or repair of utilities; removal of existing plugs or caps; cutting and removal of the pipe if necessary; bracing; bedding and covering of pipe; testing; disinfection; finish grading;

including backfilling and compacting excavated material or trench backfill material, but not including the valve vault or fittings. The maximum time allowable per connection for water pressure shut off is two (2) hours. Each connection must be made within two (2) hours. Public works staff shall be notified a minimum 48 hours prior to the planned water disruption.

Basis of Payment. This work will be paid for at the contract unit price each for NON-PRESSURE CONNECTION TO EXISTING WATER MAIN of the pipe or valve size shown.

SANITARY SEWER BYPASS PUMPING

Description. This work shall consist of developing and implementing a temporary pumping system to divert sanitary sewer flow around the work area while installation of the proposed work is performed. The work will be in accordance with all applicable local, state, and federal regulations.

Requirements. The contractor shall design the bypass system to handle the flows of the existing system and shall submit a bypass pumping plan to the City of Sandwich Public Works Department for approval prior to the completion of any sanitary sewer removal and installation. The plan shall be approved by the City of Sandwich Public Works Department before construction of the sanitary sewers can begin. The Contractor shall have adequate standby equipment available and ready for immediate operation and use in the event of an emergency or breakdown. The bypass pumping system shall be capable of handling flows up to 200 gallons per minute. The system shall be designed to minimize impacts to vehicular and pedestrian traffic flow. If road or sidewalk crossing are necessary, they shall be coordinated with the traffic control plan. The contractor shall provide a spill prevention and emergency response plan to City of Sandwich Public Works Department for their approval. Contact information (direct phone numbers) shall be provided for a contractor representative who will be available at all times to respond in the case that the bypass pumping system shall be run outside of normal working hours.

Materials. Provide fully automatic, self-priming or submersible pumps. The pumps may be electric or diesel powered. All pumps used must be constructed to allow dry running for long periods of time to accommodate the cyclical nature of effluent flows. The Contractor shall provide the necessary stop/start controls for each pump.

Installation and Removal. The temporary bypass pumping system shall be installed in a manner that will minimize impacts to existing utilities and facilities. The contractor shall protect and cause repair of all damages to utilities, the pumping system, and the sewer system resulting from his actions. The sewers on Main Street will need to be bypassed in the following two locations:

1. Station 16+34 to Station 19+52, 8" Sanitary Sewer
2. Station 40+70 to Station 44+20, 8" Sanitary Sewer

Access to residences shall be always maintained. Adhere to all OSHA and other requirements for working in confined spaces. Blocking or plugging of sewage flows shall incorporate a primary and secondary plugging device. When plugging is no longer needed, the plugging or blocking devices shall be removed in a manner that permits the flow to slowly return to normal without any surcharge or major disturbances downstream. Upon completion of bypass pumping, the contractor shall remove all equipment and materials and restore areas disturbed by the temporary operations to their previous existing condition.

Operation. It is essential that operation of the existing sanitary sewer system is not interrupted at any time throughout the duration of the project. The contractor shall provide, operate, and maintain all temporary facilities necessary for a complete system that will intercept the sewage flow before it reaches the point where it impacts the work, carry it past the work, and return it to the existing sewer downstream of the work. Sewage will be pumped from upstream manholes to downstream manholes. The downstream manholes may be on a different sewer line than the upstream manholes if approved by the City of Sandwich. Bypass flow will be maintained so that it does not surcharge or cause damage to the existing sewer system and public and private property. In the event of a surcharge or any other malfunction of the temporary system, the spill prevention and emergency response plan shall be implemented immediately. The system shall be capable of operating 24 hours per day.

Basis of Payment. This work will be paid for at the contract lump sum price for SANITARY SEWER BYPASS PUMPING, at the designated locations, which price will include all labor, materials, equipment, and energy costs necessary to install, operate, maintain, and remove the system in accordance with the plans and specifications.

SANITARY SEWER SERVICE, 6" PVC, COMPLETE

Description: This work shall consist of the installation of new sanitary service laterals associated with the removal and replacement of existing sanitary sewer mains. Work under this item shall include all labor, equipment, tools, and materials required to transfer services from the existing sanitary sewer service to the proposed sanitary sewer main. This work shall be in accordance with the applicable portions of the Standard Specifications for Road and Bridge Construction, the Standard Specifications for Water and Sewer Construction in Illinois, and the following provisions.

Materials: Sanitary sewer pipe shall be in accordance with the special provision for SANITARY SEWER 6".

Trench Backfill Shall be in accordance with the TRENCH BACKFILL, SPECIAL detail in the plans and special provision. Couplings for joining pipes of dissimilar materials shall be "non-shear" flexible rubber with stainless steel bands and shall meet the approval of the Engineer.

Construction Requirements: All new sanitary sewer services shall be installed from the point of connection to the proposed sanitary sewer main to a point of connection at the right-of-way line as identified through televising the sewer main and as directed by the Engineer.

The Contractor must provide 48 hours' notice to the City Sewer Department to have time to properly notify residents of disruptions in sanitary sewer service due to sanitary sewer removal and replacement. No existing sewer service may be disrupted without the consent of the Engineer and/or the City. The Contractor must reconnect sanitary sewer services to the newly constructed sanitary sewer main immediately upon the installation of the new sanitary sewer main.

Method of Measurement: This item will be measured in place per each for SANITARY SEWER SERVICE 6", COMPLETE.

Basis of Payment: This work will be paid for the contract unit price per each for SANITARY SEWER SERVICE 6", COMPLETE. This price will include the cost of all removal, fittings, trench backfill, connections, materials, equipment, and labor (including any hand digging) required to make a complete and finished installation. Sanitary sewer service pipe will be paid for at the contract unit price per foot for SANITARY SEWER 6".

TRENCH BACKFILL, SPECIAL

Description. This work shall consist of the furnishing, placing, and mechanically compacting backfill for excavated trenches within paved areas pertaining to water main and sanitary pipes. This work shall be in accordance with the applicable portions of Section 208 of the Standard Specifications, Section 20 of the Standard Specifications for Water and Sewer Construction in Illinois, the TRENCH BACKFILL, SPECIAL detail contained in the plans, and the following.

Materials. All trench backfill in required locations shall be crushed CA-7 except that the top 6" of backfill shall be capped with crushed CA-6 material.

Construction Requirements. Selected granular backfill material shall be used where the trench is in existing or proposed pavements and for all trenches outside of existing or proposed pavements where the inner edge of the trench is within two (2) feet of the edge of the pavements, curb, gutter, curb and gutter, stabilized shoulder, or sidewalk. Where selected granular material is not required, suitable material excavated from the trench may be used as determined by the Engineer.

Trench backfill shall also be used in the excavation around manholes, catch basins, inlets, valve vaults, and other appurtenances when any part of that excavation is within 2 feet of any existing or proposed pavement.

Backfilling shall be in accordance with Section 20 of the Standard Specifications for Water and Sewer Construction in Illinois, Method 1 only deposited in uniform layers not exceeding six (6) inches thick (loose material). Each layer shall be compacted to 90% of modified proctor. Locations where trenches cross the road or any other paved surface shall contain trench backfill that is brought up to existing grade in order to maintain vehicular or pedestrian access. Removal and disposal of the top layer of trench backfill to install proposed paved features shall be included in the unit cost of this item.

Method of Measurement. This work will be measured for payment and the area computed in cubic yards in accordance with the details included in the plans.

Basis of Payment. This work will be paid for at the contract unit price per cubic yard for TRENCH BACKFILL, SPECIAL.

TEMPORARY ACCESSES

Description. This work shall consist of the installation, maintenance of, and final removal and disposal of temporary accesses for residential, commercial, and roadway accesses during the course of staged construction. This work shall be in accordance with the applicable portions of Article 402 of the Standard Specifications and the following.

Materials. All aggregate surface course material shall be crushed CA-6 and shall be installed in accordance with the applicable portions of Article 402 of the Standard Specifications.

Construction Requirements. The contractor shall construct and maintain aggregate surface course for temporary access to private entrances, commercial entrances and roads according to Article 402.07 and as directed by the Engineer. The aggregate surface course shall be constructed to the dimensions and grades specified below, except as modified by the plans or as directed by the Engineer.

(a) Private Entrance. The minimum width shall be 12 ft (3.6 m). The minimum compacted thickness shall be 6 in. (150 mm). The maximum grade shall be eight percent, except as required to match the existing grade.

(b) Commercial Entrance. The minimum width shall be 24 ft (7.2 m). The minimum compacted thickness shall be 9 in. (230 mm). The maximum grade shall be six percent, except as required to match the existing grade.

(c) Road. The minimum width shall be 24 ft (7.2 m). The minimum compacted thickness shall be 9 in. (230 mm). The grade and elevation shall be the same as the removed pavement, except as required to meet the grade of any new pavement constructed.

Maintaining the temporary access shall include relocating and/or regrading the aggregate surface coarse for any operation that may disturb or remove the temporary access. The same type and gradation of material used to construct the temporary access shall be used to maintain it.

When use of the temporary access is discontinued, the aggregate shall be removed and utilized in the permanent construction or disposed of according to Article 202.03.

Method of Measurement. Aggregate surface course for temporary access will be measured for payment as each for every private entrance, commercial entrance or road constructed for the purpose of temporary access. If a residential drive, commercial entrance, or road is to be constructed under multiple stages, the aggregate needed to construct the second or subsequent stages will not be measured for payment but shall be included in the cost per each of the type specified.

Basis of Payment. Aggregate surface course for temporary access will be paid for at the contract unit price per each for TEMPORARY ACCESS (PRIVATE ENTRANCE), TEMPORARY ACCESS (COMMERCIAL ENTRANCE) or TEMPORARY ACCESS (ROAD).

EXPLORATION TRENCH, SPECIAL

This work shall consist of constructing a trench for the purpose of verifying clearances and locations of existing utilities and storm sewers. The exploration trench shall be constructed at the locations directed by the Engineer or as shown on the plans.

The depth of the trench shall be variable. The width of the trench shall be sufficient to allow proper investigation and verification of utility clearances and locations.

After the trench has been inspected by the Engineer, the excavated material shall be used to backfill the trench in a manner satisfactory to the Engineer. Any excess materials shall be disposed of according to Article 202.03 of the Standard Specifications. Areas within 2 feet of pavement, existing or proposed, shall be backfilled as TRENCH BACKFILL.

This work will be paid for at the contract unit price per foot for EXPLORATION TRENCH, SPECIAL.

PCC SIDEWALK, 5 INCH, SPECIAL

Description. This work shall consist of the placement of proposed sidewalk curb ramps at locations which are to be improved to current ADA/PROWAG standards as stated in the contract documents and/or as directed by the Engineer. The work shall be done in accordance with applicable portions of Section 424 of the Standard Specifications, the details in the plans, and the following.

Construction Requirements. Any excavation required to the depth of the subbase for the purposes of meeting ADA requirements, topsoil shaping and grading, excavation to match into existing parkways, excavation in advance of placement of topsoil, placing aggregate subbase course to the proper elevation and thickness, all form work, and placement of P.C.C. material for the proposed sidewalk curb ramp shall be considered included in the cost of the work. Topsoil shaping, grading, and excavation to match existing landscaped areas shall be completed in all areas disturbed by removals and areas which are not disturbed by removals but are necessary for creating or restoring the landscaped areas to a uniform slope and shall be in accordance with the "SIDEWALK DETAIL" standard detail provided in the contract plans. Any excavated material shall be disposed of at a suitable offsite location.

Any damage to the existing pavement, facilities, or property remaining in place due to forming methods or the removal operation shall be replaced to the satisfaction of the Engineer at the Contractor's own expense.

All sidewalk curb ramps shall include a minimum 4-inch aggregate subbase in accordance with Section 351 of the Standard specifications meeting gradation CA 6.

All sidewalk curb ramps shall be in accordance with the plans and provided details, and the "IDOT Accessible Public Right-of-Way Field Guide" Published in January of 2016.

Expansion joints shall be placed where the sidewalk abuts existing sidewalk, curbs, and between concrete driveway pavement.

Method of Measurement. This work will be measured for payment in place and the area computed in square feet. Side curbs will be measured for payment in place along the horizontal top as PORTLAND CEMENT CONCRETE SIDEWALK, 5-INCH, SPECIAL and the area computed in square feet.

Basis of Payment. This work will be paid for at the contract unit price per square foot for PORTLAND CEMENT CONCRETE SIDEWALK, 5-INCH, SPECIAL which prices will include all labor, equipment, material, and incidentals necessary to complete the work as described above.

HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH

Description.

This work shall consist of removing a portion of the existing hot-mix asphalt concrete surface course in accordance with the applicable portions of Section 440 and 1101 of the Standard Specifications, this special provision, details in the plans and as directed by the Engineer. This work shall be performed for the purpose of milling asphalt pavement down to the proposed elevation of the proposed reclaimed subgrade in advance of full depth reclamation operations. The cold milled salvaged aggregate resulting from this operation shall become the property of the Contractor.

Equipment.

The machine used for milling and planing shall be a self-propelled grinding machine having a minimum 12' (3.6 m) wide drum at least 28" (710 mm) in diameter. When a milling width in excess of 12' is required and the Contractor's milling machine is less than the required width shown in the plans, the remaining area shall be milled with a machine capable of meeting the requirements of this special provision. Milling attachments used with skid steer tractors will not be allowed for longitudinal areas to mill additional widths.

Construction Requirements.

An automatic grade control device shall be used when milling mainline pavement and shall be capable of controlling the elevation of the drum relative to either a preset grade control stringline or a grade reference device traveling on the adjacent pavement surface. The automatic grade control device may be utilized only on one side of the machine with an automatic slope control device controlling the opposite side. The traveling grade reference device shall not be less than 30 feet (9 m) in length. When milling crossroads, turn lanes, intersections, crossovers, or other miscellaneous areas, the Engineer may permit the matching shoe. The Contractor, at his option, may also substitute an approved 6' wide (1.8 m) machine for areas other than mainline pavement.

The Contractor shall mill at a variable depth at the centerline to a depth of 5" below the proposed finished centerline grade and project its milling cross slope to a depth 5" below the existing edge of pavement at the face of curb or edge of pavement.

Method of Measurement:

(a) Contract Quantities. The requirements for the use of Contract Quantities shall be Article 202.07(a) of the Standard Specifications.

(b) Measured Quantities. Cold milling and planing will be measured and the area computed in Square Yards (Square Meters) of surface.

Basis of Payment:

The cold milling and planing will be paid for at the contract unit price per Square Yard (Square Meter) for HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH. Payment as specified will include variations in depth of cuts due to differences between existing and proposed and pavement crown and centerline profile and no additional compensation will be allowed.

WATER MAIN ENCASEMENT

Description. This work shall consist of furnishing and installing casing pipe where water main and sewer separation requirements cannot be met. This work shall be in accordance with the applicable portions of the Standard Specifications for Water and Sewer Construction in Illinois, the details contained in the plans, and the following.

Materials. Water main encasement material shall be C905 PVC conforming to AWWA C05, DR 18 (235 psi) with a minimum inner diameter of 20". The water main shall be installed through the center of the encasement pipe using stainless steel casing spacers. A minimum of two supports shall be used per pipe for lengths up to 12.5 feet, and a minimum of three supports shall be used for lengths greater than 12.5 feet, or per manufacturer's recommendation.

Restraint harness for push-on bells of ductile iron pipe shall be used on all water main pipe joints within the proposed encasement pipe. The ends of the encasement pipe shall be sealed using a pull over type rubber end seal secured with stainless steel bands to preclude entrance of foreign material into the encasement, which might prevent ready removal of the water main at some future date. The Contractor may install larger-diameter pipe than called for above, if he believes it would be beneficial to placement or pipe stability, at no extra cost.

Basis of Payment. This work will be measured for payment in place in feet as WATER MAIN ENCASEMENT.

The water main installed within the casing pipe will be paid for at the contract unit price per foot for DUCTILE IRON WATER MAIN, 10" RESTRAINED JOINT PIPE of the diameter specified, which price will include the joint restraints.

The Contractor shall provide catalog cuts for all appurtenant items pertaining to WATER MAIN ENCASEMENT and DUCTILE IRON WATER MAIN, 10" RESTRAINED JOINT PIPE prior to the start of construction for approval by the Engineer.

WATER MAIN LINE STOP

Description. This work shall be in accordance with "Standard Specifications for Water and Sewer Main Construction in Illinois", City of Sandwich requirements, and the special provision for "DUCTILE IRON WATER MAIN" except as modified herein.

The work shall be in accordance with manufacturer's recommendations and consists of the installation of line stops in existing water mains complete, including locating existing mains; sawcutting, and removal and disposal of existing pavements; excavation; removal and disposal of waste excavated materials; protection, repair, or replacement of existing utilities; dewatering, including erosion and sedimentation control methods and devices to provide protection to the environment from all pumping operations; sheeting; shoring; tapping of pipes to install line stop plugs; installation of line stops; and temporary fencing, plating, barricades, and other items needed to provide traffic control and protection.

Method of Measurement. This work shall be measured for payment per each for WATER MAIN LINE STOP, of the diameter specified.

Basis of Payment. This work shall be paid for at the contract unit price per each WATER MAIN LINE STOP, of the diameter specified, which price shall be payment in full for performing all work as specified herein and as shown on the plans and details or as determined by the Engineer.

WATER SERVICES CONNECTION (SHORT AND LONG)

Description: This work shall consist of furnishing and installing new water service lines, corporation stops and saddles, and and boxes of the required size and removing existing curb stops and boxes in accordance with Section 562 of the Standard Specifications, the applicable portions of the Standard Specifications for Water and Sewer Construction in Illinois, the details in the plans, and the provisions herein.

Materials. Corporation stops, curb stops, curb boxes, and copper tubing shall meet the following criteria:

Corporation Stops:

Corporation Valves shall meet the requirements of Section 40-2.06C of the Standard Specifications for Water and Sewer Construction in Illinois, AWWA C800 and the following:

Inlet Connection: AWWA Taper Thread

Outlet Connection: Compression Fitting

Approved Manufacturers:

A.Y. McDonald

Curb Stop:

Curb Valves shall meet the requirements of Section 40-2.06C of the Standard Specifications for Water and Sewer Construction in Illinois, AWWA C800 and the following

Quarter Turn Check

Minneapolis top thread pattern

Inlet Connection: Compression Fitting

Outlet Connection: Compression Fitting

Approved Manufacturers:

A.Y. McDonald

Copper Tubing shall be 1" Minimum Diameter Type K Soft Copper Tubing in accordance with Section 40- 2.06A of the Standard Specifications for Water and Sewer Construction in Illinois.

Curb Box – Curb boxes to be extension type.

Minimum $\pm 6"$ of adjustment (72" long to 60" long for 5'-6" cover)

Minneapolis base thread pattern

Cast iron construction with brass pentagon plug

The Contractor shall provide catalog cuts for all appurtenant items for water services prior to the start of construction.

Construction Requirements. Both trenchless and open cut methods of construction will be allowed for the construction of this item.

The Contractor shall provide and install Type K copper service pipe, a curb stop, a corporation stop, and curb box for each service as shown on the plans and in standard drawing No. 17.

All water service taps are to be a minimum of 1" minimum in diameter. The Contractor shall make every effort to determine the size of existing water services. All existing water services less than 1" diameter will be reduced to the existing diameter between the curb box and the existing service line. The Contractor shall provide sufficient fittings to make this connection. All water service lines and corporation stops shall be installed at a minimum depth of 5.5 feet and shall be continuous without joints from the corporation stop to the curb stop. Compression type fittings with stainless steel inserts shall be used at all applicable fittings. Flare fittings shall not be accepted.

Tapping saddles for ductile iron pipe shall be used for each service tap. Tapping saddles shall be installed a minimum of 3 feet from the edge of the saddle to any pipe joint or other saddle.

Selected granular backfill material shall be used where the trench is in existing or proposed pavements and for all trenches outside of existing or proposed pavements where the inner edge of the trench is within two (2) feet of the edge of the pavements, curb, gutter, curb and gutter, stabilized shoulder, or sidewalk. Where selected granular material is not required, suitable material excavated from the trench may be used. All trench backfill in required locations shall be CA-6 crushed stone

or crushed gravel and compacted to 90% of modified proctor. Backfilling shall be in accordance with Section 20 of the Standard Specifications for Water and Sewer Construction in Illinois, Method 1 only deposited in uniform layers not exceeding six (6) inches thick (loose material). Each layer shall be compacted. Locations where trenches cross the road shall contain trench backfill that is brought up to existing grade in order to maintain vehicular access.

Proposed water services shall be installed out of driveways where possible. The letter "W" shall be imprinted in the curb at the location of all water service crossings.

All water service taps shall require a minimum of forty-eight hours' notice to the City Water Department to have time to properly notify residents. Water services may not be shut down until after 8:00 Am and after giving final notification to the resident of the property. No existing water service may be shut down without consent of the Engineer and/or the City. The City or the Engineer shall be present to witness the service taps. An Illinois licensed plumber shall be required to be present during, and to inspect, all proposed water service line connections to existing water service lines and water mains.

Method of Measurement. Water service lines will be measured for payment per each service connection.

Basis of Payment. This work will be paid for at the contract unit price per each for WATER SERVICE (SHORT) of the size specified on the short side of the proposed water main and WATER SERVICE CONNECTION (LONG) of the size specified on the long side of the proposed water main which price will include the cost of all copper tubing, corporation stop, curb stop, curb box, fittings, connections, saddle, service clamps, tapping, blocking, pavement removal, trench excavation, trench backfill and all labor (including any hand digging), materials, and equipment to make a complete and finished installation.

CUT AND CAP EXISTING WATER MAIN

Description. This work shall be done in accordance with the current edition of the Standard Specs Water and Sewer Construction in Illinois insofar as applicable and the following provisions. This work shall consist of "cutting and capping" existing water main at the locations shown on the plans or as directed by the Engineer.

Basis of Payment. This work shall be paid for at the contract unit price per each for CUT AND CAP EXISTING WATERMAIN for all sizes of water main to be cut and capped, which price shall include all labor, equipment, trench backfill, and fittings to complete the work.

FIRE HYDRANT COMPLETE

Description. This work shall consist of furnishing and installing new fire hydrants in accordance with the Standard Specifications for Water and Sewer Construction in Illinois insofar as applicable and the details in the plans at locations shown on the plans or as directed by the Engineer.

Materials. Fire hydrants, auxiliary valves and valve boxes shall meet the following criteria:

Fire Hydrant – Fire hydrants shall meet the requirements of AWWA C502.

Pumper Nozzle: Two (dual Storz) pumper nozzles - 4½" Diameter NH Thread

Main Valve Opening: 5¼" Diameter

Burial Depth: 6'-0" (assuming 5'-6" cover)

Inlet Connection: 6" Diameter Mechanical Joint per AWWA C111

Operating Nut: 1½" Pentagon – Open Left

Exterior Coating: Yellow (Sherwin Williams Yellow KEM 400 F75YH1.)

Interior Coating: Epoxy Coating per AWWA C550

Approved Manufacturers and models:

Mueller A425 5-1/4VO HYD 6'0"B 0X6MJ

Auxiliary Valve – Valves shall meet the requirements of AWWA C509.

Type: Resilient Wedge Gate Valve

Size: 6" Diameter

Connections: Mechanical Joint per AWWA C111

Operating Nut: 2" Square – Open Left

Stem: Non-Rising Stem

Coating: Exterior Epoxy and Interior Epoxy Coating per AWWA C550

Seals: O-ring seals

Wedge: Solid iron encapsulated with rubber

Approved Manufacturers and models:
Mueller A2360-20 Resilient Wedge Gate Valve with MJ Ends

Valve Box – Valve box to be two-piece screw-type.
Material: Cast Iron – no welded threads
Lid: “WATER”
Extension: 39” to 60” (assuming 5’-6” cover)
Adapter: Rubber Valve Box Adaptor

Hydrants shall be connected to water mains with a minimum diameter of 6” DIWM CL 52 pipe. All hydrants shall also include a “Hydrfinder” standard hydrant locator, installed. Valve boxes shall have a valve box stabilizer installed.

The Contractor shall provide catalog cuts for all appurtenant items for the fire hydrant assembly for approval by the Engineer prior to the start of construction.

Construction Requirements. Fire hydrants complete shall include the hydrant assembly, the auxiliary valve, and the branch line off the main. The maximum distance between hydrants shall not exceed 300 feet. A fire hydrant shall be located at each intersection and at the end of a cul-de-sac. The pumper nozzle shall be oriented to face the street. No obstructions (signage, street light poles, etc.) shall be installed within 4’-0” of the fire hydrant. Centerline distance between the auxiliary valve stem and the hydrant barrel shall not be less than 2’-0”. Fire hydrants shall be rodded to the tee for the hydrant lead and all joints are to be mechanically restrained along the hydrant branch line. All costs associated with providing thrust blocking shall be included in the unit cost of this pay item.

Direct connection of the auxiliary valve to the water main tee may be required as directed by the Engineer and approved by the City.

Fire hydrants shall be installed with a maximum of one extension kit used, and a maximum extension of 12”. Fire hydrant extension kits must be of the same manufacture as the hydrant and must be installed according to the manufacturer’s specifications using original manufacturer parts.

The center of the fire hydrant shall be set at the locations indicated on the plans. All hydrants shall be oriented so that the pumper nozzle faces the roadway. All hydrants and any required adjustment fittings shall receive one coat of rustproof base yellow paint prior to final Engineer acceptance.

All fire hydrants that have yet to be approved for use must be covered and identified as being “NOT IN SERVICE”. Identification bags shall be N.I.S. BAGS. N.I.S. BAGS shall be made of 27” x 42” x 4 mil rugged polypropylene material, orange in color and in bold print clearly show in very large, easy-to-read print the words “NOT IN SERVICE”. Tie Straps shall be provided to firmly secure bags to the hydrant. If the bag is removed for flushing, testing, or for any other reason prior to full operation, it shall be re-bagged.

Basis of Payment. This work will be paid for at the contract unit price each for FIRE HYDRANT COMPLETE, which price will be payment in full for all labor and materials required to complete the installation including auxiliary valve and cast-iron valve box and adjusting the barrel length to provide 18 to 24 inches between the pump nozzle and ground.

VALVE BOXES TO BE REMOVED

Description. This work shall consist of the removal and disposal of existing valve boxes at locations shown on the plans or as directed by the Engineer. The work shall be done in accordance with the applicable portions of Section 605 of the Standard Specifications and the Standard Specifications for Water and Sewer Construction in Illinois.

Construction Requirements. All water shutdowns shall be coordinated with the City of Sandwich. The void formed by the removal of these items shall be filled with trench backfill material in accordance with the special provision TRENCH BACKFILL (SPECIAL).

Method of Measurement. All work and materials necessary to remove valve boxes and backfill removal locations will not be measured for payment but will be considered incidental to this item.

Basis of Payment. This work will be paid for at the contract unit price per each for VALVE BOXES TO BE REMOVED which price shall include all labor, equipment, and materials necessary to perform said work.

VALVE BOX

Description. This work shall consist of furnishing and installing water main valve boxes at the locations shown on the Plans and in accordance with the Plan details or as directed by the Engineer. This work shall construct valve boxes on water main valves that range in size from 4" to 12". This work shall not include valve boxes for the auxiliary 6" valves associated with new fire hydrants.

Construction Requirements. New valve boxes of the appropriate size shall be fitted to 4" to 10" water main valves as shown on the Plan details. Valve boxes shall be adjusted so that the top of the box is flush with the adjacent finished surface. After adjustment, the valve box shall be clean and the operating nut readily accessible. All valve boxes shall be cast iron, two-piece threaded assemblies designed to be raised or lowered by rotating the top portion of the assembly. This work includes furnishing and installing a new valve stabilizer box and a stay-out style of box cover with the word "WATER" stamped on the cover. Where valve boxes are located within sidewalk, driveway pavement, curb, or roadway pavement, the valve box shall be backfilled with materials meeting the Engineer's approval and the disturbed pavement, sidewalk or curb shall be satisfactorily patched.

Materials. Valve Box Materials shall meet the following criteria:

Valve Box shall be a two-piece screw-type.

Material: Cast Iron – no welded threads Lid: "WATER"

Extension: 39" to 60" (assuming 5'-6" cover) Adapter: Rubber Valve Box Adaptor

Method of Measurement. This work will be measured for payment per each.

Basis of Payment. This work shall be paid for at the contract unit price per each for VALVE BOX, regardless of the diameter of the water main and size of valve, which payment will be full compensation for all materials, labor, tools and equipment necessary to complete the work as specified.

FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)

Description. This work shall consist of adjusting frames and lids in accordance with the applicable portions of Section 603 of the Standard Specifications and the following.

Construction Requirements. Prior to the full-depth reclamation operations, the Contractor shall remove all frames and lids of manholes and water valves including a minimum of 12 inches of pavement from around the structure. After removal, the Contractor shall place a suitable metal plate over the manhole and water valve locations and backfill the area with a temporary hot-mix or cold-mix asphalt mixture. Metal plates shall be affixed to structures such that they are not disturbed or removed during reclamation operations. The Contractor shall then complete the full-depth reclamation operations and placement of all HMA lifts except the surface course.

Prior to placing the surface course, the Contractor shall reinstall the frames and lids and water valves and adjust them to the finished pavement elevation. The adjustment shall be performed with High Density Polyethylene (HDPE) plastic adjusting rings and ring wedges. No concrete adjusting rings will be permitted. Where necessary HDPE adjusting rings with a wedge design shall be furnished for sloping surfaces and if needed, approved plastic shims shall be used for the final adjustment. Mastic or an approved butyl-rubber joint sealant shall be used between all adjusting rings, at the top of the brick or concrete manhole, beneath casting, etc. The size of the preformed flexible butyl-based sealants shall be as follows: 1) between all

adjusting rings the 3/8" round sealant shall be used. 2) between the casting and the top of the adjusting ring or at the top of the brick or concrete manhole the 3 1/2"x3/8" sealant shall be used. The bottom flange of the existing casting and all adjusting rings shall be encapsulated with a heat shrinkable manhole encapsulation system in strict accordance with the manufacturer's recommendations.

Upon the adjustment of the existing frame to final grade the final and completed adjustment shall include saw cutting and removing the pavement materials in an approximate 4' x 4' area around the structure that is rotated to be diamond shaped in the direction of traffic and pouring a 10" minimum depth of concrete in the space around the casting. Each lid shall be protected so that concrete is not splattered on the lid when placing and finishing the concrete.

The excavated area around the manholes and water valves shall be filled with Class PP-1 or PP-2 concrete. The concrete placed for the adjustment shall be protected by at least two (2) Type II barricades for a minimum of 72 hours prior to allowing traffic to pass over the adjustment location.

Contractor shall have the option of first removing the existing frame and lid for all drainage and utility structures and covering the structure opening with a steel plate during the Hot-Mix Asphalt Surface Removal but shall do so with no additional compensation.

Method of Measurement. This work will be measured for payment per each frame and lid to be adjusted within the pavement scheduled for full depth reclamation operations.

Basis of Payment. This work will be paid for at the contract unit price per each for FRAMES AND LIDS TO BE ADJUSTED (SPECIAL) which price will include all labor, equipment, and materials necessary to perform a complete adjustment in accordance with the above.

TRAFFIC CONTROL PLAN

Description. Traffic control shall be in accordance with the applicable sections of the Standard Specifications, the Supplemental Specifications, the "Illinois Manual on Uniform Traffic Control Devices for Streets and Highways", any special details, and Highway Standards contained in the plans, and the Special Provisions contained herein.

Special attention is called to Articles 107.09 and 107.14 of the Standard Specifications and the following Highway Standards, Details, Quality Standard for Work Zone Traffic Control Devices, Recurring Special Provisions, and Special Provisions contained herein as they relate to traffic control.

Revise Article 701.10 of the Standard Specifications to read: "The Contractor shall conduct inspections of the worksite at a frequency that shall allow for the timely replacement of any traffic control device that has become displaced, worn, or damaged. A sufficient quantity of replacement devices, based on vulnerability to damage, shall be readily available to meet this requirement." Delete Articles 701.19(d) and Article 701.20(g) of the Standard Specifications

Revise the last paragraph of Article 701.13 of the Standard Specifications to read: "Flaggers are required only when workers are present."

Standard Drawings.

701006, 701011, 701301, 701311, 701501, 701801, 701901

Standard Specifications and Recurring Special Provisions.

Work Zone Traffic Control and Protection (Section 701) Work Zone Traffic Control Surveillance (LRS3)

Project Special Provisions.

Work Zone Control
Maintenance of Roadways
Access to Driveways and Entrances
Detour Signing

Details.

720-8 Temporary Information Signing

At the preconstruction meeting, the Contractor shall furnish the name of the individual in his direct employee who is to be responsible for the installation and maintenance of the traffic control for this project. If the actual installation and maintenance are to be accomplished by a subcontractor, consent shall be requested of the Engineer at the time of the submittal of bids. This shall not relieve the Contractor of the foregoing requirement for a responsible individual in his direct employment. The City will provide the Contractor the name of its representative who will be responsible for the administration of the Traffic Control Plan.

The Contractor shall notify the City at least 72 hours in advance of beginning work. When lane assignments conflict with existing pavement markings, approved traffic control devices such as signs, cones, barrels, barricades, etc. shall be used to delineate traffic lanes.

Basis of Payment. This work will be paid for at the contract Lump Sum price for TRAFFIC CONTROL AND PROTECTION, (SPECIAL), which price will be payment in full for all labor, materials, and equipment, required to complete the work as specified herein.

WORK ZONE CONTROL

Description. This work shall be done in accordance with Section 701 of the Standard Specifications insofar as applicable and the following provisions.

Construction Requirements. This work shall include furnishing, installing, maintaining, relocating, and removing all traffic control devices used for the purpose of regulating, warning, or directing traffic during the construction or maintenance of this improvement.

The Contractor will be responsible for the proper location, installation, and arrangement of all traffic control devices. Special attention shall be given to advance warning signs during construction operations in order to keep lane assignments consistent with barricade placement at all times. The Contractor will be required to cover all traffic control devices which are inconsistent with lane assignment patterns during the transition from one construction stage to another.

Construction signs referring to daytime lane closures during working hours shall be removed or covered during non-working hours.

The Contractor shall be responsible for coordination of all traffic control work on this project with adjoining or overlapping projects and for coordination of barricade placement necessary to provide a uniform traffic detour pattern. When directed by the Engineer, the Contractor will be required to remove all traffic control devices which were furnished, installed, and maintained by him under this contract, and such devices shall remain the property of the Contractor. All traffic control devices shall remain in place until specific authorization for relocation or removal is received from the Engineer.

The Contractor shall ensure that all applicable traffic control devices installed by him are operational 24 hours a day, including Sundays and holidays.

The Contractor shall provide a manned telephone on a continuous 24-hour-a-day basis to receive notification of any deficiencies regarding traffic control and protection and shall dispatch personnel, materials, and equipment to correct any such deficiencies. The Contractor shall be required to respond to any call from the City or Resident Engineer concerning any request for improving or correcting traffic control devices and begin making the requested corrections within two (2) hours from the time of notification.

The Contractor is to plan his work so that there will be no open holes in the pavement and that all barricades have been removed from the pavement during non-working hours. Steel plates over trenches will be permitted; however, they must be of sufficient strength and stability to accommodate all traffic.

The governing factor in the execution and staging of work for this project is to provide the motoring public with the safest possible travel conditions along the roadway through this construction zone. The Contractor shall so arrange his operations as to keep the closing of any lane of the roadway to a minimum. Temporary road closures may be used with the approval of the Engineer. See the Typical Road Closure Detail for road closure requirements.

Basis of Payment. This work will not be paid for separately but will be included in the contract lump sum price for TRAFFIC CONTROL AND PROTECTION (SPECIAL) which cost will include provisions for all labor, materials, transportation, handling, and incidentals necessary to furnish, install, maintain, and remove all traffic control devices indicated in the plans, specifications or required by the Engineer, as specified herein.

Revisions in the phasing of construction or maintenance operations requested by the Engineer may require traffic control to be installed in accordance with standards and/or designs other than those included in the plans. In such cases, the standards and/or design will be made available to the Contractor at least one week in advance of the change in traffic control. Payment for traffic control required by these standards and/or design will be in accordance with Article 109.04 of the Standard Specifications.

Revisions in the phasing of construction or maintenance operations requested by the Contractor may require traffic control to be installed in accordance with standards and/or designs other than those included in the plans. Revisions or modifications to the traffic control shown in the contract shall be submitted by the Contractor for approval by the Engineer.

MAINTENANCE OF ROADWAYS

Description. This work shall consist of maintaining the existing pavement and shoulders for the length of this project.

Construction Requirements. Beginning on the date that the Contractor begins work on this project, he shall assume responsibility for the normal maintenance of all existing roadways within the limits of the improvement. This normal maintenance shall include but it not limited to pothole patching, shoulder repairs, replacement of damaged signs and all repair work deemed necessary by the Engineer but shall not include snow removal operations. Traffic control and protection for

this work shall be provided by the Contractor as required by the Traffic Control and Protection Special Provision, the plans, and the Engineer.

Basis of Payment. This work will not be paid for separately but will be included in the contract lump sum price for TRAFFIC CONTROL AND PROTECTION (SPECIAL) which cost will include provisions for all labor, equipment, and materials required to provide roadway maintenance as specified herein.

ACCESS TO DRIVEWAYS AND ENTRANCES

Description. This work shall consist of maintaining access to private and commercial entrances during concrete curb, sidewalk, and driveway construction.

Construction Requirements. Prior to removals the contractor will provide written notification regarding planned disruption of access to residents and commercial property owners. During removal and replacement operations for concrete curb, sidewalk, and driveways the contractor shall remove existing curb, driveway, and sidewalk on one side of the access and construct new curb, driveway, and sidewalk prior to completing removals on the other side of the access. This sequence will be followed to maintain access to the property throughout the duration of work.

Basis of Payment. This work will not be paid for separately but will be included in the contract lump sum price for TRAFFIC CONTROL AND PROTECTION (SPECIAL) which cost will include provisions for all labor, equipment, and materials required to provide roadway maintenance as specified herein. In the event that the contractor fails to maintain partial access in accordance with this provision, the Engineer shall assess a Traffic Control Deficiency Deduction.

If items of work have not been provided for in the contract or otherwise specified for payment, such items - including the accompanying traffic control and protection required by the Engineer - will be paid for in accordance with Article 109.04 of the Standard Specifications.

DETOUR SIGNING

Description. This work shall consist of providing, installing, maintaining, and removing the signs shown in the plans for the detour of southbound Main Street.

Materials. The materials for the signs and posts shall be in accordance with Sections 720 and 729 or 730 of the Standard Specifications insofar as applicable.

Construction Requirements. Signs shall be installed at the locations shown in the plans or as directed by the Engineer and kept covered until the detour is placed in effect. Once the detour is placed in effect, the signs shall be uncovered and barricades placed as shown on the Detour Plan and Detour Detail. All signs, lights, and barricades shall be maintained in working order 24 hours per day, 7 days per week by the Contractor.

When the detour is no longer needed, as approved by the Engineer, the signs shall be covered or removed.

Basis of Payment. This work will not be paid for separately but will be included in the contract lump sum price for TRAFFIC CONTROL AND PROTECTION (SPECIAL), which will be payment in full for providing, installing, maintaining, and removing all signs necessary for the detour shown in the plans.

LIGHTING SPECIAL PROVISIONS

This work shall be done in accordance with Section 800 of the "Standard Specifications for Road and Bridge Construction," adopted January 1, 2022, and the following special provisions. Special attention is called to Section 801, Electrical Requirements.

SHOP DRAWINGS AND CATALOG CUTS

The Contractor shall submit to the City and the Engineer for approval electronic shop drawings and catalog cuts of the lighting items including:

Cables
Splices
Fuses
Conduits
Handhole
Type 1 Light Standard*

The electronic submittals shall be made to the City and the Engineer. The Engineer will review the submittal and notify the Contractor no later than 14 days after the award of the contract if the shop drawings and catalog cuts are acceptable. The Contractor may elect to submit the shop drawings and catalog cuts with the Proposal.

The Contractor shall order the materials as soon as approval is received from the City to assure timely delivery. No extension of time will be granted because the materials have not been delivered.

CONDUIT SPLICE

Description.

This item shall consist of splicing two polyvinyl chloride (PVC) unit duct type conduits together at the location shown on the plans.

Materials and Construction Requirements.

The splice shall be waterproof made with a clamp on type coupler made from PVC with corrosion resistant stainless-steel band clamps and locking rings. The coupler shall be UL listed for underground PVC conduit connections in wet locations. Prior to splicing, the ends of the conduits shall be beveled per the Manufacturers installation requirements.

This work shall include locating existing conduit, excavating, and backfill. The Contractor shall record location of the conduit splice and include it on the Record Drawings.

Basis of Payment.

This work shall be paid for at the contract unit price each for CONDUIT SPLICE.

LIGHT POLE, SPECIAL

Description.

This item shall consist of furnishing and installing an aluminum ornamental pole and arm with a cast aluminum base, wiring, fuses, LED pendant luminaire, flag holder, wreath brackets, and GFI festoon outlet as shown in the detail in the plans on a new concrete foundation.

Materials Requirements.

The light pole, luminaire, and accessories shall be the following items with the corresponding product model numbers. All luminaires for this item and all other Light Standard items shall be from a single manufacturer, Sternberg Lighting. The luminaire shall be free from all defects in materials and workmanship for a period of seven (7) years from the date of manufacture. The luminaire shall be installed per the manufacturer's instructions and recommendations.

Arm Roadway Fixture: 1531LED, Flared (F)

1531LED Omega decorative downlight fixture

Light Source: -24L40T4-MDL018-FG

Array: 24 LEDS, 90W for MD_014, 120 W for MD_018 (24L)

Color Temp: 4000K (40)

Distribution: Type 4 (T4)

Driver: Multi-Volt Dimmable Low-Range Driver, 120-277V, 180mA (MDL018)

Lens: Flat Glass (FG)

Roadway Options: -HSHS

Hangstraight: Horizontal HS Spike Finial (HSHS)

Arm: 1A, CSA6

One 6' Luminaire Arm

Pole: /7625ARTF/16SF/RPBP/

Model: 7601 Oxford (/76)

Height: 25 Ft (25)

Shaft Material: Aluminum (A)

Shaft Type: Round Tapered Fluted 16 Sharp Flutes (RTF/16SF)

Finial: Tall Decorative Post Finial, Tapered Shaft (RPBP)

Accessories: WHK, FH, GFILP-IUC

2 Wreath Hooks placed at 16'-0" and 14'-0"

1 Flag Pole Holder placed at 12'-0"

1 GFCI duplex receptacle and low-profile in-use cover at 13'-0"

Finish: BKT

Black Textured finish

This work shall include locating existing conduit, excavating, and backfill. The Contractor shall record location of the conduit splice and include it on the Record Drawings.

Pole Wiring.

Pole wiring shall be color-coded Type XLP-USE, 600-volt insulation, 90 degrees Centigrade, single conductor, #10 stranded copper wire. All wires shall be continuous from the luminaire or festoon to the pole handhole. In-line fuses shall be installed in the base of the pole for both the lighting (2 amps), and the festoon outlets (5 amps) in such a manner as to be easily accessible for future maintenance.

Spare Parts.

The following spare parts in the quantities shown shall be provided to the City of Sandwich. A payment of 25% will be withheld from the contract unit price until delivery of these items to the City.

- Lighting fuses, 2 amps, eight (8) each.
- Festoon outlet fuses, 5 amps, eight (8) each.
- Tamper-proof stainless-steel screws for access doors, ten (10) each.

Basis of Payment.

This item shall be paid for at the contract unit price each for LIGHT POLE, SPECIAL which shall be payment in full for the work described herein.

REMOVE AERIAL CABLE

Description.

This work shall consist of removal and disposal of existing aerial cables. This will include removal of all wiring and connections to the associated light poles. Any damage sustained to the light pole during removal operations shall be repaired or replaced in kind to the satisfaction of the Engineer.

The Contractor shall remove all cable from the job site and dispose of it at no additional cost to the City.

Method of Measurement.

Removal of aerial cable will be measured for payment in Feet. Measurements shall be in a straight line from pole to pole as measured on the ground. Individual conductors, including messenger wire, will not be measured for payment.

Basis of Payment.

This work will be paid for at the contract unit price per Foot for REMOVE AERIAL CABLE.

REMOVE EXISTING LIGHT POLE

Description.

This item shall consist of removing an existing lighting unit.

Removal.

This work shall be done in accordance with Section 842 of the Standard Specifications insofar as applicable. This work shall not be done until authorized by the Engineer. This work shall include removal of the existing light standard and luminaire.

Delivery.

The lighting unit shall be delivered to the City yard at the water tower at 750 North Duvick Avenue, Sandwich, Illinois. The delivery shall be made during normal business hours. The City shall be given 24 hours' notice to arrange for personnel to receive the delivery.

Method of Measurement. This item will be measured in place per each for each existing light pole removed.

Basis of Payment.

This work will be paid for at the contract unit price per each for REMOVE EXISTING LIGHT POLE.

MAINTAIN EXISTING LIGHTING SYSTEM

Replace Article 801.11 and 801.12 of the Standard Specifications with the following:

Effective the date the Contractor's activities (electrical or otherwise) at the job site begin, the Contractor shall be responsible for the proper operation and maintenance of all existing and proposed lighting systems which are part of, or which may be affected by the work until final acceptance or as otherwise determined by the Engineer.

Before performing any excavation, removal, or installation work (electrical or otherwise) at the site, the Contractor shall initiate a request for a maintenance transfer and preconstruction inspection, as specified elsewhere herein, to be held in the presence of the Engineer and a representative of the party or parties responsible for maintenance of any lighting systems which may be affected by the work. The request for the maintenance preconstruction inspection shall be made no less than seven (7) calendar days prior to the desired inspection date.

Existing lighting systems, when depicted on the plans, are intended only to indicate the general equipment installation of the systems involved and shall not be construed as an exact representation of the field conditions. It remains the Contractor's responsibility to visit the site to confirm and ascertain the exact condition of the electrical equipment and systems to be maintained.

Maintenance of Existing Lighting Systems

Existing lighting systems. Existing lighting systems shall be defined as any lighting system or part of a lighting system in service at the time of contract Letting. The contract drawings indicate the general extent of any existing lighting, but whether indicated or not, it remains the Contractor's responsibility to ascertain the extent of effort required for compliance with these specifications and failure to do so will not be justification for extra payment or reduced responsibilities.

Existing Lighting Systems Requiring Maintenance.

City of Sandwich – Center Street and Main Street – Full Maintenance:

- Lighting Controller on Center Street between Main Street and Wells Street
- Seventeen light poles along Center Street from Green Street to Main Street
- Three light poles along Main Street from Center Street to 2nd Street

Extent of Maintenance.

Partial Maintenance. Unless otherwise indicated, if the number of circuits affected by the contract is equal to or less than 40% of the total number of circuits in a given controller and the controller is not part of the contract work, the Contractor needs only to maintain the affected circuits. The affected circuits shall be isolated by means of in-line waterproof fuse holders as specified elsewhere and as approved by the Engineer.

Full Maintenance. If the number of circuits affected by the contract is greater than 40% of the total number of circuits in a given controller, or if the controller is modified in any way under the contract work, the Contractor shall maintain the entire controller and all associated circuits.

Maintenance of Proposed Lighting Systems

Proposed Lighting Systems. Proposed lighting systems shall be defined as any lighting system or part of a lighting system, temporary or permanent, which is to be constructed under this contract.

The Contractor shall be fully responsible for maintenance of all items installed under this contract. Maintenance shall include, but not be limited to, any equipment failures or malfunctions as well as equipment damage either by the motoring public, Contractor operations, vandalism, or other means. The potential cost of replacing or repairing any malfunctioning, damaged, or vandalized equipment shall be included in the bid price of this item and will not be paid for separately.

Lighting System Maintenance Operations

The Contractor's responsibility shall include the maintenance of all lighting units (including sign lighting), cable runs, lighting controls and service. In the case of a pole knockdown or sign light damage caused by normal vehicular traffic, the Contractor shall promptly clear the lighting unit and circuit discontinuity and restore the system to service. The equipment shall then be re-set by the contractor within the time limits specified herein.

If the equipment damaged by normal vehicular traffic, not contractor operations, is beyond repair and cannot be re-set, the contractor shall replace the equipment in kind with payment made for such equipment under Article 109.04. If the equipment damaged by any construction operations, not normal vehicular traffic, is beyond repair and cannot be re-set, the contractor shall replace the equipment in kind and the cost of the equipment shall be included in the cost of this pay item and shall not be paid for separately.

Responsibilities shall also include weekly night-time patrol of the lighting system, with patrol reports filed immediately with the Engineer and with deficiencies corrected within 24 hours of the patrol. Patrol reports shall be presented on standard forms as designated by the Engineer. Uncorrected deficiencies may be designated by the Engineer as necessitating emergency repairs as described elsewhere herein.

The following chart lists the maximum response, service restoration, and permanent repair time the Contractor will be allowed to perform corrective action on specific lighting system equipment.

INCIDENT OR PROBLEM	SERVICE RESPONSE TIME	SERVICE RESTORATION TIME	PERMANENT REPAIR TIME
Control cabinet out	1 hour	4 hours	7 Calendar days
Hanging mast arm	1 hour to clear	N/A	7 Calendar days
Radio problem	1 hour	4 hours	7 Calendar days
Motorist caused damage or leaning light pole 10 degrees or more	1 hour to clear	4 hours	7 Calendar days
Circuit out – Needs to reset breaker	1 hour	4 hours	N/A
Circuit out – Cable trouble	1 hour	24 hours	21 Calendar days
Outage of 3 or more successive lights	1 hour	4 hours	N/A
Outage of 75% of lights on one tower	1 hour	4 hours	N/A
Outage of light nearest RR crossing approach, Islands and gores	1 hour	4 hours	N/A
Outage (single or multiple) found on night outage survey or reported to EMC	N/A	N/A	7 Calendar days

- **Service Response Time** -- amount of time from the initial notification to the Contractor until a patrolman physically arrives at the location.
- **Service Restoration Time** – amount of time from the initial notification to the Contractor until the time the system is fully operational again (In cases of motorist caused damage the undamaged portions of the system are operational.)
- **Permanent Repair Time** – amount of time from initial notification to the Contractor until the time permanent repairs are made if the Contractor was required to make temporary repairs to meet the service restoration requirement.

Failure to provide this service will result in liquidated damages of \$500 per day per occurrence. In addition, the City reserves the right to assign any work not completed within this timeframe to City staff. All costs associated to repair this uncompleted work shall be the responsibility of the Contractor. Failure to pay these costs to the City within one month after the incident will result in additional liquidated damages of \$500 per month per occurrence. Unpaid bills will be deducted from any monies owed to the Contractor. Repeated failures and/or a gross failure of maintenance shall result in City staff being directed to correct all deficiencies and the resulting costs deducted from any monies owed the contractor.

Damage caused by the Contractor's operations shall be repaired at no additional cost to the Contract.

Operation of Lighting

The lighting shall be operational every night, dusk to dawn. Duplicate lighting systems (such as temporary lighting and proposed new lighting) shall not be operated simultaneously. Lighting systems shall not be kept in operation during long daytime periods.

Method of Measurement

The contractor shall demonstrate to the satisfaction of the Engineer that the lighting system is fully operational prior to submitting a pay request. Failure to do so will be grounds for denying the pay request. Months in which the lighting systems are not maintained and not operational will not be paid for. Payment shall not be made retroactively for months in which lighting systems were not operational.

Basis of Payment

This work shall be paid for at the contract Lump Sum price for MAINTAIN EXISTING LIGHTING SYSTEM which shall be payment in full for all work listed herein or as directed by the Owner.

FULL-DEPTH RECLAMATION WITH CEMENT

Description. This work shall consist of pulverizing and mixing any remaining existing flexible pavement after the milling operations, base material and/or subgrade soil, cement, and water in accordance with the applicable portions of Section 302 and 352 of the Standard Specifications, as included within this specification, and in conformity with the lines, grades,

thickness, and typical cross sections shown on the plans. Cement-treated subgrade shall be constructed in a series of parallel lanes such that longitudinal and transverse joints are minimized.

Equipment. The equipment used shall be capable of pulverizing the existing bituminous pavement to a minimum 95 percent passing a two-inch sieve and mixing it with the underlying aggregate base course and soils by means of rotary mixing to a depth of 12 inches. The mixing machine shall be capable of maintaining a uniform depth of cut and producing a homogeneous and uniformly blended mixture.

General Construction Requirements. The existing bituminous courses that remain after milling operations shall be pulverized with the underlying base materials and/or subgrade soil to the specified depths and widths in conformance to the Plans and Special Provisions. The asphalt surfacing and underlying base/soil materials shall be pulverized such that 95 percent of the material exclusive of rock and aggregate shall pass a 2-inch sieve, or to the satisfaction of the Engineer. The pulverized material shall be free of roots, sod, weeds, wood and construction debris.

The actual depth of pulverization will be determined in the field and may be adjusted to accommodate field conditions, but the minimum depth to be pulverized and mixed shall be 12 inches.

Rubberized crack filler, pavement markers, loop wires, thermoplastic markers and other similar materials shall be removed from the roadway as observed during the pulverization/mixing process. Residual materials that cannot be completely removed from the processed materials may be incorporated into the prepared base if the Contractor can demonstrate that those added materials will not adversely affect the performance of the base. Any such materials retained in the mixture shall be appropriately sized and blended so as not to adversely affect the appearance or strength of the base.

Preparation of Base. Trimming and disposal of excess material, if required, shall be performed on the mixture of pulverized asphalt concrete, base materials and subgrade soil prior to cement treatment. Excess pulverized material is the surplus that results after trimming and grading the pulverized section to the lines and grades shown on the plans. The subgrade should be trimmed sufficiently to allow for the added cement volume, width of base according to plan, proper material compaction, and subsequent layers of leveling and surface course asphalt overlays.

Once this material has been thoroughly mixed and trimmed, it shall be graded to a uniform cross section and compacted with a vibratory roller to a minimum of 95% of a field compacted modified Proctor provided by the Contractor and to the satisfaction of the Engineer. The subgrade stability shall be verified by proof rolling with a fully loaded tandem-axle truck.

Any water necessary to achieve the required compaction shall be furnished by the Contractor.

At locations adjacent to driveways, entrances, or side streets, the base course shall be graded such that the entire thickness of proposed bituminous courses can be placed to match the existing surface of the existing driveway, entrance or side street. In addition to signing required by the Special Provision for Traffic Control and Protection, **LOOSE GRAVEL signs (W8-7)** shall be provided in advance of the area being prepared.

Contractor Submittals. At the time of bid, the Contractor shall furnish the following information regarding the subgrade cement treatment to the Engineer. Approval of the cement source and the Contractor (or Subcontractor) performing the subgrade cement treatment is at the discretion of the Engineer.

1. The proposed source and supplier of cement with supplier's certificate of compliance.
2. Description and specifications of the proposed construction equipment, construction methods, expected production rates, and planned sequence of subgrade treatment.
3. Prior soil-cement project experience of the Contractor (or Subcontractor) performing the subgrade cement treatment.
4. Quality Control Plan detailing testing and inspection procedures on the cement treatment that will ensure compliance with the project specifications.
5. During the cement treatment work, the Contractor shall furnish the following information to the City on a daily basis:
6. Certified weight tickets of cement delivered to the site and spread and mixed into the subgrade.
7. A summary of the quantity of cement used each day, areas treated and compacted, and areas with curing completed.

Application. Cement shall be distributed with a non-pressurized mechanical vane-feed spreader equipped with on-board scales and controls capable of spreading the cement at a prescribed weight per unit area. Cement shall not be spread upon

the prepared material more than 2 hours prior to the mixing operation. No traffic other than the mixing equipment shall be allowed to pass over the spread cement until the mixing operation is completed.

Cement shall be applied at a rate of not less than 7.00 percent based on the in-place dry unit weight of soil and for the depth of subgrade treatment shown on the plans to achieve a 500 psi compressive strength for the cement treated subbase. For estimating purposes, an in-place dry unit weight of soil of 125 pcf should be used as a basis for the application rate. The contractor shall verify dry unit weight prior to distribution of the cement.

The cement content shall vary no more than 0.5 percent under and not more than 1.0 percent over the specified cement content (6.5% to 8.0%).

However, the moving average of the rate of cement content tests/inspections shall not be less than the specified cement content. The Engineer reserves the right to increase the rate of application of cement from the specified rate during the progress of construction as necessary to maintain the desired characteristic of the stabilized subgrade.

Mixing. Mixing of the soil, cement, and water shall be done with a four-wheel drive rotary mixer. The mixing machine shall have equipment provisions for introducing water at the time of mixing through a metering device.

The full depth of the treated subgrade shall be mixed a minimum of two times with the approved mixing machine. At least one of the two mixes shall be done while introducing water into the soil through the metering device on the mixer. Water shall be added to the subgrade during mixing to provide a moisture content not less than 3 percentage points below nor more than one percentage point above (-1 to +3 of OMC) the optimum moisture of the soil-cement mixture to ensure proper chemical action.

Finishing and Curing. After the final layer of cement treated subgrade has been compacted, it shall be brought to the required lines and grades in accordance with the plans and shall be kept moist. The completed section shall then be finished by rolling with a steel drum or other suitable roller approved by the Engineer. However, trimming (cuts only) can be completed within 24 hours of mixing.

The completed cement treated subgrade shall be surfaced with a curing seal consisting of SS or CSS grade asphalt emulsion at a rate of 0.12 to 0.20 gallons per square yard of surface until completion of micro-cracking. The cement treated subgrade shall be kept free from heavy traffic during the curing period or until the asphalt concrete surfacing is placed, whichever is less, unless otherwise directed by the Engineer.

Should additional curing be required, curing shall continue until the completion of micro-cracking, unless otherwise directed by the Engineer.

Maintenance and Repair. The Contractor shall maintain, at his/her own expense, the entire cement treated subgrade in good condition from the start of work until all the work has been completed, cured, and accepted by the Engineer. If the soil-cement is damaged, it shall be repaired by removing and replacing the entire depth of affected layers in the damaged area. Feathering shall not be permitted for repair of low areas.

Method of Measurement. This work will be measured in place and the area computed in square yards. PORTLAND CEMENT will be measured for payment in tons, but payment will not be made for cement more than 105 percent of the amount specified by the Engineer.

Basis of Payment. This work will be paid for at the contract unit price per square yard for FULL-DEPTH RECLAMATION WITH CEMENT, and will include all costs for all pulverizing, and mixing of the existing pavement and underlying materials; verifying unit weight of pulverized material, for all water; for all spreading, compacting and trimming to the proper grade as shown on the plans and as specified; for all haul away of all excess pulverized and cement treated material; curing, protection and sealing of the cement treated subgrade. PORTLAND CEMENT will be paid for at the contract unit price per ton.

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TEMPORARY INFORMATION SIGNING

(Effective: September 24, 2013, Revised July 31, 2020)

Description. This work shall consist of the furnishing, installation, maintenance, and removal of temporary information signs.

Materials. Materials shall be according to the applicable portions of Section 701 of the Standard Specifications and as shown on the plans.

Construction Requirements. The temporary information signs shall be in place at least one week prior to the beginning of construction activities that impact traffic flow and shall remain in place until the completion of the project. If all lanes are open for an extended period of time during the project the Contractor shall cover the signs until lane closures resume. If the project is shut down for the winter the signs shall read "Road Work Resumes Spring XXXX".

Signs shall be installed according to the requirements of Section 701.

Method of Measurement: This work will be measured for payment in square feet in place. The auxiliary sign panel will not be measured for payment.

Basis of Payment. This work will be paid for at the contract unit price per square foot for TEMPORARY INFORMATION SIGNING.

SANITARY SEWER

Description. This work shall consist of constructing sanitary sewer in accordance with the applicable portions of Section 551 of the Standard Specifications, the Standard Specifications for Water and Sewer Construction in Illinois, and the following provisions.

Materials. All sanitary sewer pipe shall be polyvinyl chloride (PVC) conforming to ASTM 3034 type PSM for sizes 4" – 15" and ASTM F-679 (latest edition) for sizes 18" – 27". The pipe shall have a minimum standard dimension ratio (SDR) of 26 and a minimum cell classification of 12454-B or 12364-C conforming to ASTM D 1784. All joints shall contain flexible elastomeric seals and conform to ASTM D 3212 and F 477.

Method of Measurement. Sanitary sewer pipe will be measured in place per foot. No deductions in length will be made for tees, fittings, or manholes. Where sanitary sewers are connected to manholes or special structures, the length of sanitary sewer shall extend to the nearest inside wall of the manhole or special structure.

Basis of Payment. This work will be paid for at the contract unit price per foot for SANITARY SEWER of the size specified, which price will include all labor, materials, equipment, and fittings necessary to complete this item in accordance with the plans and specifications.

RIGHT OF ENTRY TO BNSF RAILWAY PROPERTY, DOT/AAR NO. 079 601 F CONTRACT 87875

It is the Contractor's responsibility to become familiar with and to follow all requirements described in Section 107 of the Standard Specifications, titled Legal Regulations and Responsibility to the Public.

The Contractor shall confer with the Railroad Engineer and shall procure and pay all fees for required railroad permits and licenses in accordance with Article 107.04 of the Standard Specifications. These fees will not be reimbursed by the Department and will be included in the cost of other applicable pay items in the contract. The BNSF Railway Company contact person is Mr. Jake Rzewnicki, Manager of Public Projects, (913) 551-4275 or Jacob.Rzewnicki@BNSF.com.

The Application For Roadway Surfacing/Resurfacing can found at <https://bnsf.railpermitting.com>. As of January 22, 2019, the processing fee for the Application For Roadway Surfacing/Resurfacing is \$800.00, but this number is subject to change. The Contractor should confirm this cost and any other costs with Jones Lang LaSalle Brokerage, Inc at the time of bid. It is the contractor's responsibility to comply with all requirements listed in the BNSF's ROADWAY SURFACING/RESURFACING PROCESS INSTRUCTIONS in the link listed above. No compensation will be made for changes to the cost of application fees between time of bid and time of construction.

The Contractor shall confer with the Railroad Engineer relative to railroad requirements for clearances, operation, and general safety regulation in accordance with Article 107.12 of the Standards Specifications. For all railroad-highway work as indicated in the contract proposal, the Contractor shall obtain Railroad Protective Liability and Property Damage Liability insurance in accordance with Article 107.11 of the Standard Specifications and as specified elsewhere in the Specials. The cost for providing insurance, as noted elsewhere, will be paid for at the contract unit price per Lump Sum for RAILROAD PROTECTIVE LIABILITY INSURANCE.

Any of the contractor's employees working on railroad right of way, shall be required to complete the eRailSafe program as outlined at <https://www.everifile.com/>. Any costs associated with this training will no be paid for separately and shall be included in the cost of other applicable pay items in the contract.

The services of railroad flaggers will be required when the Contractor's operations will encroach on or over the Railroad's right-of-way or come within 25' of the tracks. The Contractor shall pay for the cost of providing railroad flaggers and be reimbursed for applicable charges in accordance with Articles 107.12 and 109.05. The railroad flagger contact person is Mr. Dustin Hartz, (815) 875-7369 (cell), Dustin.Hartz@BNSF.com. A minimum of 72 hours' notice is requested.

1B

STATUS OF UTILITIES TO BE ADJUSTED

(Effective January 1, 2007; Revised January 24, 2011)

<u>Name & Address of Utility</u>	<u>Type</u>	<u>Location</u>	<u>Estimated Date Relocation Complete</u>
ComEd One Lincoln Center Oakbrook Terrace, IL 60548	Trench Conflict	35+01, 26' RT to 38+16, 26' RT	NA ComEd will brace poles during storm sewer construction

The above represents the best information of the Department and is only included for the convenience of the bidder. The applicable provisions of Section 102 and Articles 105.07, 107.20, 107.37, 107.38, 107.39, 107.40, and 108.02 of the Standard Specifications for Road and Bridge Construction shall apply.

The estimated utility relocation dates should be part of the progress schedule submitted by the Contractor.

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

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

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

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

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

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

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

METHOD OF MEASUREMENT: The unit of measurement is in hours.

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

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

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

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

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

State of Illinois
Department of Transportation
Bureau of Local Roads and Streets

SPECIAL PROVISION
FOR
INSURANCE

Effective: February 1, 2007
Revised: August 1, 2007

All references to Sections or Articles in this specification shall be construed to mean specific Section or Article of the Standard Specifications for Road and Bridge Construction, adopted by the Department of Transportation.

The Contractor shall name the following entities as additional insured under the Contractor's general liability insurance policy in accordance with Article 107.27:

City of Sandwich

The entities listed above and their officers, employees, and agents shall be indemnified and held harmless in accordance with Article 107.26.

State of Illinois
DEPARTMENT OF TRANSPORTATION
Bureau of Local Roads & Streets
SPECIAL PROVISION
FOR
LOCAL QUALITY ASSURANCE/ QUALITY MANAGEMENT QC/QA
Effective: January 1, 2022

Replace the first five paragraphs of Article 1030.06 of the Standard Specifications with the following:

“1030.06 Quality Management Program. The Quality Management Program (QMP) will be Quality Control / Quality Assurance (QC/QA) according to the following.”

Delete Article 1030.06(d)(1) of the Standard Specifications.

Revise Article 1030.09(g)(3) of the Standard Specifications to read:

“(3) If core testing is the density verification method, the Contractor shall provide personnel and equipment to collect density verification cores for the Engineer. Core locations will be determined by the Engineer following the document “Hot-Mix Asphalt QC/QA Procedure for Determining Random Density Locations” at density verification intervals defined in Article 1030.09(b). After the Engineer identifies a density verification location and prior to opening to traffic, the Contractor shall cut a 4 in. (100 mm) diameter core. With the approval of the Engineer, the cores may be cut at a later time.”

Revise Article 1030.09(h)(2) of the Standard Specifications to read:

“(2) After final rolling and prior to paving subsequent lifts, the Engineer will identify the random density verification test locations. Cores or nuclear density gauge testing will be used for density verification. The method used for density verification will be as selected below.

Density Verification Method	
<input type="checkbox"/>	Cores
<input checked="" type="checkbox"/>	Nuclear Density Gauge (Correlated when paving \geq 3,000 tons per mixture)

Density verification test locations will be determined according to the document “Hot-Mix Asphalt QC/QA Procedure for Determining Random Density Locations”. The density testing interval for paving wider than or equal to 3 ft (1 m) will be 0.5 miles (800 m) for lift thicknesses of 3 in. (75 mm) or less and 0.2 miles (320 m) for lift thicknesses greater than 3 in. (75 mm). The density testing interval for paving less than 3 ft (1 m) wide will be 1 mile (1,600 m). If a day’s paving will be less than the prescribed density testing interval, the length of the day’s paving will be the interval for that day. The density testing interval for mixtures used for patching will be 50 patches with a minimum of one test per mixture per project.

If core testing is the density verification method, the Engineer will witness the Contractor coring, and secure and take possession of all density samples at the

density verification locations. The Engineer will test the cores collected by the Contractor for density according to Illinois Modified AASHTO T 166 or AASHTO T 275.

If nuclear density gauge testing is the density verification method, the Engineer will conduct nuclear density gauge tests. The Engineer will follow the density testing procedure detailed in the document "Illinois Modified ASTM D 2950, Standard Test Method for Density of Bituminous Concrete In-Place by Nuclear Method".

A density verification test will be the result of a single core or the average of the nuclear density tests at one location. The results of each density test must be within acceptable limits. The Engineer will promptly notify the Contractor of observed deficiencies."

Revise the seventh paragraph and all subsequent paragraphs in Section D. of the document "Hot-Mix Asphalt QC/QA Initial Daily Plant and Random Samples" to read:

"Mixtures shall be sampled from the truck at the plant by the Contractor following the same procedure used to collect QC mixture samples (Section A). This process will be witnessed by the Engineer who will take custody of the verification sample. Each sample bag with a verification mixture sample will be secured by the Engineer using a locking ID tag. Sample boxes containing the verification mixture sample will be sealed/taped by the Engineer using a security ID label."



Route	Marked Route	Section Number
FAU 5413	Main Street	23-0049-00-PV
Project Number	County	Contract Number
SW3W(266)	DeKalb	87875

This plan has been prepared to comply with the provisions of the National Pollutant Discharge Elimination System (NPDES) Permit No. ILR10 (Permit ILR10), issued by the Illinois Environmental Protection Agency (IEPA) for storm water discharges from construction site activities.

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

Signature	Date
	12/11/2024

Print Name	Title	Agency
Troy Strange	Project Manager	Hampton, Lenzini, & Renwick, Inc.

Note: Guidance on preparing each section of BDE 2342 can be found in Chapter 41 of the IDOT Bureau of Design and Environment (BDE) Manual. Chapter 41 and this form also reference the IDOT Drainage Manual which should be readily available.

I. Site Description:

A. Provide a description of the project location; include latitude and longitude, section, town, and range:

The project is located along Main Street, Sandwich IL, between Knights Road and the BNSF rail.
Lat/Long: 41.651627, -88.621916. Township/Range/Section: 37N/5E/26

B. Provide a description of the construction activity which is the subject of this plan. Include the number of construction stages, drainage improvements, in-stream work, installation, maintenance, removal of erosion measures, and permanent stabilization:

The project will reconstruct and improve North Main Street in downtown Sandwich, starting at Knights Road south to Center Street. The project will include an urban cross section with curb and gutter, sidewalk, and storm sewer improvements throughout the corridor.

C. Provide the estimated duration of this project:

14 Months

D. The total area of the construction site is estimated to be 6.1 acres.

The total area of the site estimated to be disturbed by excavation, grading or other activities is 0.5 acres.

E. The following are weighted averages of the runoff coefficient for this project before and after construction activities are completed; see Section 4-102 of the IDOT Drainage Manual:

0.5; 0.5

F. List all soils found within project boundaries; include map unit name, slope information, and erosivity:

(154A) Flanagan silt loam, 0 to 2 percent slopes, 0.32; (171A) Catlin silt loam, 0 to 2 percent slopes, 0.32

G. If wetlands were delineated for this project, provide an extent of wetland acreage at the site; see Phase I report:

N/A

H. Provide a description of potentially erosive areas associated with this project:

The roadway and sidewalks while under reconstruction could pose erosive risk.

I. The following is a description of soil disturbing activities by stages, their locations, and their erosive factors (e.g., steepness of slopes, length of slopes, etc.):

Roadway reconstruction, sidewalk reconstruction, installation of water main and storm sewer will necessitate some level of soil disturbance throughout the project area. No areas are considered highly erosive within the project area.

J. See the erosion control plans and/or drainage plans for this contract for information regarding drainage patterns, approximate slopes anticipated before and after major grading activities, locations where vehicles enter or exit the site and controls to prevent offsite sediment tracking (to be added after contractor identifies locations), areas of soil disturbance, the location of major structural and non-structural controls identified in the plan, the location of areas where stabilization practices are expected to occur, surface waters (including wetlands) , and locations where storm water is discharged to surface water including wetlands.

K. Identify who owns the drainage system (municipality or agency) this project will drain into:

City of Sandwich

L. The following is a list of General NPDES ILR40 permittees within whose reporting jurisdiction this project is located:

City of Sandwich

M. The following is a list of receiving water(s) and the ultimate receiving water(s) for this site. In addition, include receiving waters that are listed as Biologically Significant Streams by the Illinois Department of Natural Resources (IDNR). The location of the receiving waters can be found on the erosion and sediment control plans:

Tributary to Little Rock Creek, ultimate receiving waters is the Fox River

N. Describe areas of the site that are to be protected or remain undisturbed. These areas may include steep slopes (i.e., 1:3 or steeper), highly erodible soils, streams, stream buffers, specimen trees, natural vegetation, nature preserves, etc. Include any commitments or requirements to protect adjacent wetlands.

For any storm water discharges from construction activities within 50-feet of Waters of the U.S. (except for activities for water-dependent structures authorized by a Section 404 permit, describe: a) How a 50-foot undisturbed natural buffer will be provided between the construction activity and the Waters of the U.S. or b) How additional erosion and sediment controls will be provided within that area.

N/A

O. Per the Phase I document, the following sensitive environmental resources are associated with this project and may have the potential to be impacted by the proposed development. Further guidance on these resources is available in Section 41-4 of the BDE Manual.

N/A

☐ 303(d) Listed receiving waters for suspended solids, turbidity, or siltation.

The name(s) of the listed water body, and identification of all pollutants causing impairment:

N/A

Provide a description of how erosion and sediment control practices will prevent a discharge of sediment resulting from a storm event equal to or greater than a twenty-five (25) year, twenty-four (24) hour rainfall event:

N/A

Provide a description of the location(s) of direct discharge from the project site to the 303(d) water body:

N/A

Provide a description of the location(s) of any dewatering discharges to the MS4 and/or water body:

N/A

☐ Applicable Federal, Tribal, State, or Local Programs

N/A

☐ Floodplain

N/A

☐ Historic Preservation

N/A

☐ Receiving waters with Total Maximum Daily Load (TMDL) for sediment, total suspended solids, turbidity or siltation

TMDL (fill out this section if checked above)

The name(s) of the listed water body:

N/A

Provide a description of the erosion and sediment control strategy that will be incorporated into the site design that is consistent with the assumptions and requirements of the TMDL:

N/A

If a specific numeric waste load allocation has been established that would apply to the project's discharges, provide a description of the necessary steps to meet that allocation:

N/A

☐ Threatened and Endangered Species/Illinois Natural Areas (INAI)/Nature Preserves

N/A

☐ Other

N/A

☐ Wetland

N/A

P. The following pollutants of concern will be associated with this construction project:

☒ Antifreeze / Coolants

☒ Concrete

☐ Concrete Curing Compounds

☒ Concrete Truck Waste

☒ Fertilizers / Pesticides

☐ Paints

☒ Petroleum (gas, diesel, oil, kerosene, hydraulic oil / fluids)

☐ Soil Sediment

☒ Solid Waste Debris

☐ Solvents

☐ Waste water from cleaning construction equipments

☐ Other (Specify) _____

☐ Other (Specify) _____

☐ Other (Specify) _____

☐ Other (Specify) _____

☐ Other (Specify) _____

II. Controls:

This section of the plan addresses the controls that will be implemented for each of the major construction activities described in Section I.C above and for all use areas, borrow sites, and waste sites. For each measure discussed, the Contractor will be responsible for its implementation as indicated. The Contractor shall provide to the Resident Engineer a plan for the implementation of the measures indicated. The Contractor, and subcontractors, will notify the Resident Engineer of any proposed changes, maintenance, or modifications to keep construction activities compliant with the Permit ILR10. Each such Contractor has signed the required certification on forms which are attached to, and are a part of, this plan:

A. **Erosion and Sediment Controls:** At a minimum, controls must be coordinated, installed and maintained to:

1. Minimize the amount of soil exposed during construction activity;
2. Minimize the disturbance of steep slopes;
3. Maintain natural buffers around surface waters, direct storm water to vegetated areas to increase sediment removal and maximize storm water infiltration, unless infeasible;
4. Minimize soil compaction and, unless infeasible, preserve topsoil.

B. **Stabilization Practices:** Provided below is a description of interim and permanent stabilization practices, including site- specific scheduling of the implementation of the practices. Site plans will ensure that existing vegetation is preserved where attainable and disturbed portions of the site will be stabilized. Stabilization practices may include but are not limited to: temporary seeding, permanent seeding, mulching, geotextiles, sodding, vegetative buffer strips, protection of trees, preservation of mature vegetation, and other appropriate measures. Except as provided below in II.B.1 and II.B.2, stabilization measures shall be initiated **immediately** where construction activities have temporarily or permanently ceased, but in no case more than **one (1) day** after the construction activity in that portion of the site has temporarily or permanently ceases on all disturbed portions of the site where construction will not occur for a period of fourteen (14) or more calendar days.

1. Where the initiation of stabilization measures is precluded by snow cover, stabilization measures shall be initiated as soon as practicable.
2. On areas where construction activity has temporarily ceased and will resume after fourteen (14) days, a temporary stabilization method can be used.

The following stabilization practices will be used for this project:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Erosion Control Blanket / Mulching | <input type="checkbox"/> Temporary Turf (Seeding, Class 7) |
| <input type="checkbox"/> Geotextiles | <input type="checkbox"/> Temporary Mulching |
| <input checked="" type="checkbox"/> Permanent Seeding | <input type="checkbox"/> Vegetated Buffer Strips |
| <input type="checkbox"/> Preservation of Mature Seeding | <input type="checkbox"/> Other (Specify) _____ |
| <input checked="" type="checkbox"/> Protection of Trees | <input type="checkbox"/> Other (Specify) _____ |
| <input checked="" type="checkbox"/> Sodding | <input type="checkbox"/> Other (Specify) _____ |
| <input checked="" type="checkbox"/> Temporary Erosion Control Seeding | <input type="checkbox"/> Other (Specify) _____ |

Describe how the stabilization practices listed above will be utilized during construction:

Areas or embankments having slopes greater than 3H:1V shall be stabilized with sod, mat, or blanket in combination with seeding. All temporary and permanent erosion-control measures must be maintained and repaired by the contractor as needed within 24 hours of discovery.

Describe how the stabilization practices listed above will be utilized after construction activities have been completed:

Disturbed areas shall be stabilized with temporary or permanent measures as soon as practical in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 7 days after the construction activity.

C. **Structural Practices:** Provided below is a description of structural practices that will be implemented, to the degree attainable, to divert flows from exposed soils, store flows or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Such practices may include but are not limited to: perimeter erosion barrier, earth dikes, drainage swales, sediment traps, ditch checks, subsurface drains, pipe slope drains, level spreaders, storm drain inlet protection, rock outlet protection, reinforced soil retaining systems, gabions, and temporary or permanent sediment basins. The installation of these devices may be subject to Section 404 of the Clean Water Act.

- | | |
|--|---|
| <input type="checkbox"/> Aggregate Ditch | <input checked="" type="checkbox"/> Stabilized Construction Exits |
| <input type="checkbox"/> Concrete Revetment Mats | <input type="checkbox"/> Stabilized Trench Flow |
| <input type="checkbox"/> Dust Suppression | <input type="checkbox"/> Slope Mattress |
| <input checked="" type="checkbox"/> Dewatering Filtering | <input type="checkbox"/> Slope Walls |

- ☐ Gabions
- ☐ In-Stream or Wetland Work
- ☐ Level Spreaders
- ☐ Paved Ditch
- ☐ Permanent Check Dams
- ☐ Perimeter Erosion Barrier
- ☐ Permanent Sediment Basin
- ☐ Retaining Walls
- ☐ Riprap
- ☐ Rock Outlet Protection
- ☐ Sediment Trap
- ☒ Storm Drain Inlet Protection

- ☐ Temporary Ditch Check
- ☐ Temporary Pipe Slope Drain
- ☐ Temporary Sediment Basin
- ☐ Temporary Stream Crossing
- ☐ Turf Reinforcement Mats
- ☐ Other (Specify) _____
- ☐ Other (Specify) _____
- ☐ Other (Specify) _____
- ☐ Other (Specify) _____
- ☐ Other (Specify) _____
- ☐ Other (Specify) _____
- ☐ Other (Specify) _____

Describe how the structural practices listed above will be utilized during construction:

A stabilized mat of aggregate underlain with filter cloth (or other appropriate measure) shall be located at any point where traffic will be entering or leaving a construction site to or from a public right-of-way, street, alley, or parking area.

Describe how the structural practices listed above will be utilized after construction activities have been completed:

Disturbed areas shall be stabilized with temporary or permanent measures as soon as practical in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 7 days after the construction activity.

D. Treatment Chemicals

Will polymer flocculants or treatment chemicals be utilized on this project: ☐ Yes ☒ No

If yes above, identify where and how polymer flocculants or treatment chemicals will be utilized on this project.

E. Permanent (i.e., Post-Construction) Storm Water Management Controls: Provided below is a description of measures that will be installed during the construction process to control volume and pollutants in storm water discharges that will occur after construction operations have been completed. The installation of these devices may be subject to Section 404 of the Clean Water Act.

- Such practices may include but are not limited to: storm water detention structures (including wet ponds), storm water retention structures, flow attenuation by use of open vegetated swales and natural depressions, infiltration of runoff on site, and sequential systems (which combine several practices).

The practices selected for implementation were determined based on the technical guidance in Chapter 41 (Construction Site Storm Water Pollution Control) of the IDOT BDE Manual. If practices other than those discussed in Chapter 41 are selected for implementation or if practices are applied to situations different from those covered in Chapter 41, the technical basis for such decisions will be explained below.

- Velocity dissipation devices will be placed at discharge locations and along the length of any outfall channel as necessary to provide a non-erosive velocity flow from the structure to a water course so that the natural physical and biological characteristics and functions are maintained and protected (e.g., maintenance of hydrologic conditions such as the hydroperiod and hydrodynamics present prior to the initiation of construction activities).

Description of permanent storm water management controls:

Inlet filters shall be used on all existing drainage structures, or as required by the engineer. Any loose material deposited in the flow line of drainage structures, which obstructs the natural flow of water shall be removed at the close of each working day, prior to acceptance of the improvement. All drainage structures shall be free of dirt and debris.

F. Approved State or Local Laws: The management practices, controls and provisions contained in this plan will be in accordance with

DOT specifications, which are at least as protective as the requirements contained in the IEPA's Illinois Urban Manual. Procedures and requirements specified in applicable sediment and erosion site plans or storm water management plans approved by local officials shall be described or incorporated by reference in the space provided below. Requirements specified in sediment and erosion site plans, site permits, storm water management site plans or site permits approved by local officials that are applicable to protecting surface water resources are, upon submittal of an NOI, to be authorized to discharge under the Permit ILR10 incorporated by reference and are enforceable under this permit even if they are not specifically included in the plan.

Description of procedures and requirements specified in applicable sediment and erosion site plans or storm water management plans

All applicable local and state laws shall be followed as shown in the plans and specifications, or by direction of the Engineer.

G. Contractor Required Submittals: Prior to conducting any professional services at the site covered by this plan, the Contractor and each subcontractor responsible for compliance with the permit shall submit to the Resident Engineer a Contractor Certification Statement, BDE 2342A.

1. The Contractor shall provide a construction schedule containing an adequate level of detail to show major activities with implementation of pollution prevention BMPs, including the following items:
 - Approximate duration of the project, including each stage of the project
 - Rainy season, dry season, and winter shutdown dates
 - Temporary stabilization measures to be employed by contract phases
 - Mobilization time-frame
 - Mass clearing and grubbing/roadside clearing dates
 - Deployment of Erosion Control Practices
 - Deployment of Sediment Control Practices (including stabilized cons
 - Deployment of Construction Site Management Practices (including concrete washout facilities, chemical storage, refueling locations, etc.)
 - Paving, saw-cutting, and any other pavement related operations
 - Major planned stockpiling operation
 - Time frame for other significant long-term operations or activities that may plan non-storm water discharges as dewatering, grinding, etc
 - Permanent stabilization activities for each area of the project
2. During the pre-construction meeting, the Contractor and each subcontractor shall provide, as an attachment to their signed Contractor Certification Statement, a discussion of how they will comply with the requirements of the permit in regard to the following items and provide a graphical representation showing location and type of BMPs to be used when applicable:
 - Temporary Ditch Checks - Identify what type and the source of Temporary Ditch Checks that will be installed as part of the project. The installation details will then be included with the SWPPP.
 - Vehicle Entrances and Exits - Identify type and location of stabilized construction entrances and exits to be used and how they will be maintained.
 - Material Delivery, Storage and Use - Discuss where and how materials including chemicals, concrete curing compounds, petroleum products, etc. will be stored for this project.
 - Stockpile Management - Identify the location of both on-site and off-site stockpiles. Discuss what BMPs will be used to prevent pollution of storm water from stockpiles.
 - Waste Disposal - Discuss methods of waste disposal that will be used for this project.
 - Spill Prevention and Control - Discuss steps that will be taken in the event of a material spill (chemicals, concrete curing compounds, petroleum, etc.)
 - Concrete Residuals and Washout Wastes - Discuss the location and type of concrete washout facilities to be used on this project and how they will be signed and maintained.
 - Litter Management - Discuss how litter will be maintained for this project (education of employees, number of dumpsters, frequency of dumpster pick-up, etc.).
 - Vehicle and Equipment Fueling - Identify equipment fueling locations for this project and what BMPs will be used to ensure containment and spill prevention.
 - Vehicle and Equipment Cleaning and Maintenance - Identify where equipment cleaning and maintenance locations for this project and what BMPs will be used to ensure containment and spill prevention.
 - Dewatering Activities - Identify the controls which will be used during dewatering operations to ensure sediments will not leave the construction site.
 - Polymer Flocculants and Treatment Chemicals - Identify the use and dosage of treatment chemicals and provide the Resident Engineer with Material Safety Data Sheets. Describe procedures on how the chemicals will be used and identify who will be responsible for the use and application of these chemicals. The selected individual must be trained on the established procedures.
 - Additional measures indicated in the plan.

III. Maintenance:

When requested by the Contractor, the Resident Engineer will provide general maintenance guides (e.g., IDOT Erosion and Sediment Control Field Guide) to the Contractor for the practices associated with this project. Describe how all items will be checked for structural integrity, sediment accumulation and functionality. Any damage or undermining shall be repaired immediately. Provide specifics on how repairs will be made. The following additional procedures will be used to maintain, in good and effective operating conditions, the vegetation, erosion and sediment control measures and other protective measures identified in this plan. It will be the Contractor's responsibility to attain maintenance guidelines for any manufactured BMPs which are to be installed and maintained per manufacture's specifications.

Illinois Urban Manual standards will be followed.

IV. Inspections:

Qualified personnel shall inspect disturbed areas of the construction site including Borrow, Waste, and Use Areas, which have not yet been finally stabilized, structural control measures, and locations where vehicles and equipment enter and exit the site using IDOT Storm Water Pollution Prevention Plan Erosion Control Inspection Report, BC 2259. Such inspections shall be conducted at least once every seven (7) calendar days and within twenty-four (24) hours of the end of a storm or by the end of the following business or work day that is 0.5 inch or greater or equivalent snowfall.

Inspections may be reduced to once per month when construction activities have ceased due to frozen conditions. Weekly inspections will recommence when construction activities are conducted, or if there is 0.5" or greater rain event, or a discharge due to snowmelt occurs.

If any violation of the provisions of this plan is identified during the conduct of the construction work covered by this plan, the Resident Engineer shall notify the appropriate IEPA Field Operations Section office by email at: epa.swnoncomp@illinois.gov, telephone or fax within twenty-four (24) hours of the incident. The Resident Engineer shall then complete and submit an "Incidence of Non-Compliance" (ION) report for the identified violation within five (5) days of the incident. The Resident Engineer shall use forms provided by IEPA and shall include specific information on the cause of noncompliance, actions which were taken to prevent any further causes of noncompliance, and a statement detailing any environmental impact which may have resulted from the noncompliance. All reports of non-compliance shall be signed by a responsible authority in accordance with Part VI. G of the Permit ILR10.

The Incidence of Non-Compliance shall be mailed to the following address:

Illinois Environmental Protection Agency
Division of Water Pollution Control
Attn: Compliance Assurance Section
1021 North Grand East
Post Office Box 19276
Springfield, Illinois 62794-9276

V. Failure to Comply:

Failure to comply with any provisions of this Storm Water Pollution Prevention Plan will result in the implementation of a National Pollutant Discharge Elimination System/Erosion and Sediment Control Deficiency Deduction against the Contractor and/or penalties under the Permit ILR10 which could be passed on to the Contractor.



Illinois Environmental Protection Agency

1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276 • (217) 782-3397

Division of Public Water Supplies Application for Construction Permit

The regulations referenced in this application are taken from the Illinois Environmental Protection Act, 2007. All subsequent rules, regulations, and violations listed in this document can be found within the Act. This application may be completed online, a copy saved locally, and printed before it is signed and mailed to the Illinois EPA.

1. Name of Public Water Supply: City of Sandwich
2. Facility ID: IL0374850 County: DeKalb
3. Location of Project: Main Street from BSNF ROW to Knights Road
4. Title of Plans: Main Street Improvements

Number of Construction Drawings: 127

5. Documents being Submitted:
- | | |
|--|--|
| <input checked="" type="checkbox"/> Application for Construction Permit | <input type="checkbox"/> Engineer's Design Summary |
| <input checked="" type="checkbox"/> Schedule A - Cost Estimate | <input type="checkbox"/> Schedule C-I Well Drilling Only |
| <input checked="" type="checkbox"/> Schedule B - Water Main Construction | <input type="checkbox"/> Schedule C-II Well Completion |
| <input type="checkbox"/> Specifications | <input type="checkbox"/> Permit Fee (Applicable Water Main Only) |
| <input checked="" type="checkbox"/> Construction Drawings | |

6. Scope of Project:

The proposed improvements include abandoning, replacing, and upsizing the existing 4" water main to 10" as well as installing new valves, hydrants, and services.

7. Illinois Commerce Commission: Are you a privately owned water company subject to Illinois Commerce Commission rules? ☐ Yes ☒ No
8. Infringement on **Other Public Water Supplies**: Will any part of this project be located within the boundaries of an area served by another PWS? ☐ Yes ☒ No

9. Certifications

NOTE: Each person signing this application certifies that the information in the application is complete and accurate, and that the text of the application has not been changed from the Agency's official construction permit application form.

9.1) Certificate by Design Engineer

I hereby certify that I am familiar with the information contained in this application, and that to the best of my knowledge and belief such information is true, complete and accurate.

Name Troy C. Strange Registration Number 062.068568

Firm Hampton, Lenzini, and Renwick, Inc.

Address 1707 N. Randall Road

City Elgin State IL Zip 60123

Phone Number (847) 697-6700 Email (optional) tstrange@hlreng.com


Signature

11/13/2024

Date

9.2) Certificate by Applicant(s) to Construct

I hereby certify that I have read and thoroughly understand the conditions and requirements of this submittal. I/the representative company hereby agree to conform with the Standard Conditions and any Special Conditions made part of this Construction Permit.

Name City of Sandwich

Address 144 East Railroad Street

City Sandwich State IL Zip 60548 Phone Number (815) 786-9321


Signature

11/13/2024

Date

9.3) Water Main Fees

Section 16.1 of the Illinois Environmental Protection Act (Act) requires the Agency to collect a fee for certain applications for the installation or extension of water mains. There are no permit fees for other improvements (for example, treatment facilities) to public water supply systems and only certain water main projects are affected. The Agency will not approve any construction application without the required fee. Except for the conditions listed in Section 9.4, the following fee schedule applies per Section 16.1(d) of the Act:

Fee : Total Length of Water Main

- ☒ \$ 0 : 200 feet or less
- ☐ \$ 240 : Greater than 200 feet but not more than 1,000 feet
- ☐ \$ 720 : Greater than 1,000 feet, but not more than 5,000 feet
- ☐ \$ 1200 : Greater than 5,000 feet

Please check the appropriate fee; make check or money order payable to: *Treasurer, State of Illinois* and submit along with this application. Any fee remitted to the Agency shall not be refunded at any time or for any reason, either in whole or in part.

9.4) Water Main Fee Exceptions - READ CAREFULLY BEFORE SIGNING THE FOLLOWING

The Water Main Permit fee does not apply to:

- a. Any Department, Agency or Unit of State Government.
- b. Any unit of local government where all of the following conditions are met:
 - i. The cost of the installation or extension is paid wholly from monies of the unit of local government, state grants or loans, federal grants or loans, or any combination thereof.
 - ii. The unit of local government is not given monies, reimbursed or paid, either in whole or in part, by another person (except for State grants or loans or federal grants or loans).

I, City of Sandwich, Todd Latham hereby certify that this project meets the above criteria.
(Unit of local government & signature of authorized official)

DO NOT SIGN HERE UNLESS PROJECT MEETS FEE EXCEPTION CRITERIA.

9.5) Agreement to Furnish Water (this section must be completed if applicable)

The City of Sandwich has agreed to furnish water to the area in which
(City, Town, Village, Water Company or Water Authority)

water main extensions are proposed by City of Sandwich
(Applicant to construct)

according to plans titled Main Street Improvements
prepared by Hampton, Lenzini, and Renwick, Inc.
(Engineering Firm)

The undersigned acknowledges the public water supply's responsibility for examining the plans and specifications to determine the proposed extensions meet local laws, regulations, and ordinances.

[Signature] Mayor 11/13/2024
Signature of authorized public water supply official Title Date

9.6) Certification by Owner(s) of Completed Public Water Supply Improvement(s)

I hereby certify that I have read and thoroughly understand the conditions and requirements of this submittal. I hereby agree to accept ownership of the project upon satisfactory completion.

City of Sandwich IL0374850
Name of Public Water Supply Facility ID

144 East Railroad Street Sandwich IL 60548
Address City State Zip

[Signature] 11/13/2024
Signature of authorized public water supply official Date

Todd Latham Mayor
Printed name of authorized public water supply official Printed title of authorized public water supply official

NOTE: Applications signed by a person other than a responsible municipal official, corporation officer, or owner, must be accompanied by evidence of authority to sign the applications, unless documentation of such authority is on file with the Division of Public Water Supplies.

Felony Warning: Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony (415 ILCS 5/44(h)).

This Agency is authorized to require this information under Illinois Compiled Statutes, 415 ILCS 5/39 (2000). Disclosure of this information is required under that Section. Failure to do so may prevent this form from being processed and could result in your application being denied.



Illinois Environmental Protection Agency

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Division of Public Water Supplies, Permit Section Schedule B - Water Main Construction

This form may be completed within Acrobat, a copy saved locally, and printed before it is signed. You may also complete a printed copy manually. Submit the completed and signed form to the Illinois EPA, Division of Public Water Supplies, Permit Section at the address listed above.

Name of Public Water Supply: City of Sandwich

ID# IL: 0374850

Project Title: Main Street Reconstruction

1. Check the appropriate boxes to indicate the specifications to be used for the water main:

- A. Standard Specifications for Water and Sewer Main Construction in Illinois (2014 Edition) ☒
- B. Engineer's approved specifications on file with this Agency ☐
- C. Public Water Supply approved specifications on file with this Agency ☐
- D. Specifications submitted with the plan documents ☒

2. Existing Population served by present supply: 7,300

3. Population to be served by water main extension: _____

4. Average daily pumpage from water works: 0.7 (MGD)

5. Maximum day pumpage from water works: 1 (MGD)

6. Capacity of water works: 1.1 (MGD)

7. Capacity of raw water source: 2.4 (MGD)

8. Capacity of existing line(s) at connection point(s): 0.2 (MGD)

9. Capacity of proposed water main extension or system: 0.5 (MGD)

10. Normal expected operating pressure on proposed water main extension: 56 (PSI)

11. Minimum expected operating pressure on proposed water main extension: 50 (PSI)

12. Pressure at point of connection at present maximum demand: 56 (PSI)

13. Calculated pressure at point of connection under maximum demand conditions after installation of water main: 56 (PSI)

14. Water mains to be installed must be listed below:

Pipe size (inches)	6	8	10	12		
Total Length (feet)	26	285	2,795	14		

15. Provide the general material specifications and type of joints:

Ductile Iron Pipe Class 52 meeting AWWA C151 Standards with Mechanical or Push-On Joints meeting AWWA C111 requirements. Pipe will be cement mortar lined per AWWA C104. Mechanical joints at all fittings.

This Agency is authorized to request this information under 415 ILCS 5/4(b)(2012). Disclosure of this information is voluntary and no penalties will result from the failure to provide the information. However, the absence of the information could prevent your application from being processed or could result in denial of your application from being or could result in denial of your application for certification. This form has been approved by the Forms Management Center.

16. Depth of Cover: Minimum of 5.5'

17. Disinfection:

A. Chemical Used: Chlorine

B. Initial Disinfectant Concentration: 50 (mg/L)

C. Final Disinfectant Concentration: 25 (mg/L)

D. Retention Time: 24 (hrs)

E. Provisions must be made for collection of water samples to be collected for bacteriological analysis on two consecutive days taken at 24-hour intervals.

18. Sewer and Water Separation:

Minimum horizontal and vertical separation requirements of this Agency to be followed: ☒ Yes ☐ No

If "No", explain provisions for protection of water main:

19. List all deviations from this Agency's design criteria and state justifications for deviations.

20. Is this project located in a flood plain? ☐ Yes ☒ No *(Please locate the project site using the FEMA Map Service Center website at: <https://msc.fema.gov/>.)*

If yes, contact the Illinois Department of Natural Resources, Division of Water Resources Management for further permit requirements.

EXHIBIT A
BORING/CORE LOCATION PLAN

**BORING/CORE LOCATION PLAN
PROPOSED NORTH MAIN STREET IMPROVEMENTS
EAST CENTER STREET TO WEST KNIGHTS ROAD
SANDWICH, ILLINOIS
SEPTEMBER, 2024
TSC JOB NO. L-97,276**

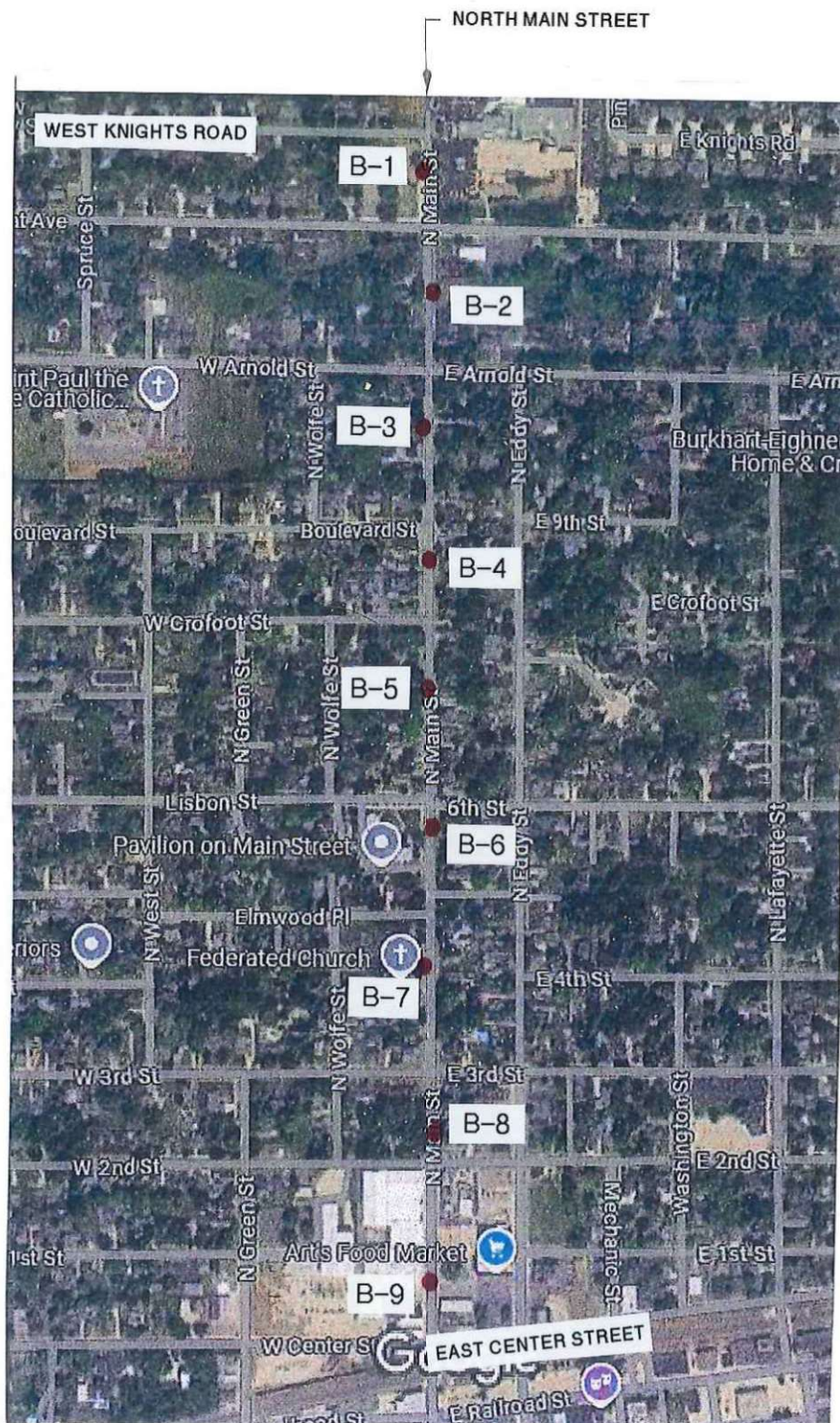


EXHIBIT B

**BORING LOGS, LEGEND FOR BORING LOGS, IDH TEXTURAL CLASSIFICATION
CHART AND AASHTO AND UNIFIED SOIL CLASSIFICATION SYSTEMS CHARTS**

PROJECT **North Main Street Improvements, E. Center St. to W. Knights Rd., Sandwich, IL**CLIENT **Hampton, Lenzini and Renwick Inc., 380 Shepard Drive, Elgin, IL**STARTED **07/01/2024** FINISHED **07/01/2024** DRILL RIG NO. **334**JOB **L-97,276**

BORING		ELEVATIONS		WATER LEVEL OBSERVATIONS	
1	GROUND SURFACE			▽ WHILE DRILLING	Dry
	END OF BORING			▽ AT END OF BORING	Dry

100'S of W. Knights Road, 6'W of centerline of N. Main St.

Depth (ft.)	Lithology	Length	Recovery	SAMPLE		N	WC (%)	Qp (tsf)	Qu (tsf)	γ DRY (pcf)	DEPTH (ft)	ELEV.	SOIL DESCRIPTIONS
				NO.	TYPE								
0											0.3		3.8" Hot-Mix Asphalt Surface Courses
											1.4		13" Crushed Stone Base Course
				1	SS	8	14.6	3.0			3.0		Very stiff brown silty CLAY, trace to little sand, moist (CL) Silty Clay Loam A-6
				2	SS	6	22.5	1.5			5.0		Stiff brown silty CLAY, trace gravel and sand, moist (CL) Silty Clay Loam A-6 (16) Lab Sample #2
5				3	SS	10	12.5	4.5					Hard brown very silty CLAY, little sand, trace gravel, moist (CL-ML) Silty Loam A-4
													End of Boring at 6.5'
													<u>Pavement Core Results</u> Top Lift: 1.1" Hot-Mix Asphalt Surface Bottom Lift: 2.7" Hot-Mix Asphalt Surface
10													

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

PROJECT **North Main Street Improvements, E. Center St. to W. Knights Rd., Sandwich, IL**CLIENT **Hampton, Lenzini and Renwick Inc., 380 Shepard Drive, Elgin, IL**STARTED **07/01/2024** FINISHED **07/01/2024** DRILL RIG NO. **334**JOB **L-97,276**

BORING
2

ELEVATIONS

GROUND SURFACE _____

END OF BORING _____

▽ WHILE DRILLING

▽ AT END OF BORING

WATER LEVEL OBSERVATIONS

Dry**Dry**

1022 N. Main Street, 5'E of centerline

Depth (ft.)	Lithology	Length	Recovery	SAMPLE		N	WC (%)	Qp (tsf)	Qu (tsf)	γ DRY (pcf)	DEPTH (ft)	ELEV.	SOIL DESCRIPTIONS
				NO.	TYPE								
0											0.3		3.3" Hot-Mix Asphalt Surface Courses
													18" Crushed Stone Base Course
				1	SS	7	22.6	2.0			1.8		Very stiff to stiff brown silty CLAY, trace gravel and sand, moist (CL) Silty Clay Loam A-6 (16) Lab Sample #2
				2	SS	4	23.9	1.5			5.0		Stiff brown very silty CLAY, little sand, moist (CL) Silty Loam A-4
5				3	SS	7	19.1	1.75					
													End of Boring at 6.5'
													<u>Pavement Core Results</u> Top Lift: 1.5" Hot-Mix Asphalt Surface Bottom Lift: 1.8" Hot-Mix Asphalt Surface
10													

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

PROJECT **North Main Street Improvements, E. Center St. to W. Knights Rd., Sandwich, IL**CLIENT **Hampton, Lenzini and Renwick Inc., 380 Shepard Drive, Elgin, IL**STARTED **07/01/2024** FINISHED **07/01/2024** DRILL RIG NO. **334**JOB **L-97,276****BORING****ELEVATIONS****WATER LEVEL OBSERVATIONS****3**

GROUND SURFACE _____

▽ WHILE DRILLING

Dry

END OF BORING _____

▽ AT END OF BORING

Dry

931 N. Main Street, 5'W of centerline

Depth (ft.)	Lithology	Length	Recovery	SAMPLE		N	WC (%)	Qp (tsf)	Qu (tsf)	γ DRY (pcf)	DEPTH (ft)	ELEV.	SOIL DESCRIPTIONS
				NO.	TYPE								
0													10.0" Hot-Mix Asphalt and Binder Courses
											0.8		8" Sand and Gravel Base Course
				1	SS	8	13.2	3.0			1.5		Very stiff to stiff brown to grayish-brown silty CLAY, trace gravel and sand, moist (CL) Silty Clay Loam A-6
				2	SS	5	20.5	1.5					
5				3	SS	10	12.4	1.5			5.0		Stiff light brown very silty CLAY, little sand, moist (CL-ML) Silty Loam A-4
													End of Boring at 6.5'
													<u>Pavement Core Results</u> Top Lift: 1.8" Hot-Mix Asphalt Surface 2nd Lift: 2.0" Hot-Mix Asphalt Surface 3rd Lift: 2.8" Hot-Mix Asphalt Binder (delaminated/disbonded from bottom lift of HMA) Bottom Lift: 3.4" Hot-Mix Asphalt Binder
10													

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

PROJECT **North Main Street Improvements, E. Center St. to W. Knights Rd., Sandwich, IL**CLIENT **Hampton, Lenzini and Renwick Inc., 380 Shepard Drive, Elgin, IL**STARTED **07/01/2024** FINISHED **07/01/2024** DRILL RIG NO. **334**JOB **L-97,276****BORING****ELEVATIONS****WATER LEVEL OBSERVATIONS****4**

GROUND SURFACE _____

▽ WHILE DRILLING _____

Dry

END OF BORING _____

▽ AT END OF BORING _____

Dry

816 N. Main Street, 4'E of centerline

Depth (ft.)	Lithology	Length	Recovery	SAMPLE		N	WC (%)	Qp (tsf)	Qu (tsf)	γ DRY (pcf)	DEPTH (ft)	ELEV.	SOIL DESCRIPTIONS
				NO.	TYPE								
0													9.8" Hot-Mix Asphalt Surface and Binder Courses
0.8													5" Sand and Gravel Base Course
1.2				1	SS	10	11.7	3.75					FILL - Dark brown and brown very silty CLAY, some sand, little gravel and crushed stone, moist (CL-ML) Loam A-4
3.0				2	SS	9	18.0	3.75	2.91				Very stiff light gray and rusty brown silty CLAY, trace sand, moist (CL) Silty Clay Loam A-6
5.0				3	SS	5	19.8	0.5					Soft to medium stiff sandy CLAY, trace gravel, very moist (CL) Sandy Clay A-6
6.5													End of Boring at 6.5'
													<u>Pavement Core Results</u> Top Lift: 1.8" Hot-Mix Asphalt Surface 2nd Lift: 1.3" Hot-Mix Asphalt Surface 3rd Lift: 3.0" Hot-Mix Asphalt Binder 4th Lift: 2.7" Hot-Mix Asphalt Binder (delaminated/disbonded from bottom lift of HMA) Bottom Lift: 1.0" Hot-Mix Asphalt Binder
10													

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

PROJECT **North Main Street Improvements, E. Center St. to W. Knights Rd., Sandwich, IL**CLIENT **Hampton, Lenzini and Renwick Inc., 380 Shepard Drive, Elgin, IL**STARTED **07/01/2024** FINISHED **07/01/2024** DRILL RIG NO. **334**JOB **L-97,276****BORING****ELEVATIONS****WATER LEVEL OBSERVATIONS****5**

GROUND SURFACE _____

▽ WHILE DRILLING

Dry

END OF BORING _____

▽ AT END OF BORING

Dry

703 N. Main Street, 6"W of centerline

Depth (ft.)	Lithology	Length	Recovery	SAMPLE		N	WC (%)	Qp (tsf)	Qu (tsf)	γ DRY (pcf)	DEPTH (ft)	ELEV.	SOIL DESCRIPTIONS
				NO.	TYPE								
0											0.4		4.5" Hot-Mix Asphalt Surface Courses
											1.4		12" Crushed Stone Base Course
				1	SS	4	5.0				3.0		FILL - Dark brown and light brown silty, clayey SAND, little gravel and crushed stone, trace organic, moist (SC-SM) Sandy Loam A-4
				2	SS	6	23.5	2.0	1.71		5.0		Stiff to very stiff brown silty CLAY, trace gravel and sand, moist (CL) Silty Clay Loam A-6 (16) Lab Sample #2
5				3	SS	7	16.6	1.0					Medium stiff to stiff brown very silty CLAY, little to some sand, very moist (CL) Silty Loam A-4
													End of Boring at 6.5'
													<u>Pavement Core Results</u> Top Lift: 1.4" Hot-Mix Asphalt Surface 2nd Lift: 1.9" Hot-Mix Asphalt Surface Bottom Lift: 1.2" Hot-Mix Asphalt Surface
10													

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

PROJECT **North Main Street Improvements, E. Center St. to W. Knights Rd., Sandwich, IL**CLIENT **Hampton, Lenzini and Renwick Inc., 380 Shepard Drive, Elgin, IL**STARTED **07/01/2024** FINISHED **07/01/2024** DRILL RIG NO. **334**JOB **L-97,276**

BORING		ELEVATIONS		WATER LEVEL OBSERVATIONS	
6	GROUND SURFACE		▽ WHILE DRILLING	Dry	
	END OF BORING		▽ AT END OF BORING	Dry	

Depth (ft.)	Lithology	Length	Recovery	518 N. Man Street, 6'E of centerline					DEPTH (ft)	ELEV.	SOIL DESCRIPTIONS
				SAMPLE NO.	TYPE	N	WC (%)	Qp (tsf)	Qu (tsf)	γ DRY (pcf)	
0											4.5" Hot-Mix Asphalt Surface Courses
									0.4		
											16" Crushed Stone Base Course
				1	SS	5	19.2	1.75	1.7		
											Stiff brown silty CLAY, trace sand, moist (CL) Silty Clay Loam A-6
									3.0		
				2	SS	6	11.0				Loose brown silty, clayey SAND, little gravel, moist (SC-SM) Sandy Loam A-6 (3) Lab Sample #1
5											
				3	SS	8	11.7		5.0		Loose brown silty, clayey SAND, trace gravel, moist (SC-SM) Sandy Loam A-4 (0) Lab Sample #3
											End of Boring at 6.5'
											<u>Pavement Core Results</u> Top Lift: 1.7" Hot-Mix Asphalt Surface (delaminated/disbonded from 2nd lift of HMA) 2nd Lift: 1.5" Hot-Mix Asphalt Surface Bottom Lift: 1.3" Hot-Mix Asphalt Surface
10											

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

PROJECT **North Main Street Improvements, E. Center St. to W. Knights Rd., Sandwich, IL**CLIENT **Hampton, Lenzini and Renwick Inc., 380 Shepard Drive, Elgin, IL**STARTED **07/01/2024** FINISHED **07/01/2024** DRILL RIG NO. **334**JOB **L-97,276**

BORING		ELEVATIONS		WATER LEVEL OBSERVATIONS	
7	GROUND SURFACE		▽ WHILE DRILLING	Dry	
	END OF BORING		▽ AT END OF BORING	Dry	

Depth (ft.)	Lithology	Length	Recovery	406 N. Main Street, 11'W of centerline					DEPTH (ft)	ELEV.	SOIL DESCRIPTIONS
				SAMPLE NO.	TYPE	N	WC (%)	Qp (tsf)	Qu (tsf)	γ DRY (pcf)	
0											5.8" Hot-Mix Asphalt Surface and Binder Courses
											15" Sand and Gravel Base Course
				1	SS	7	17.5				1.7
				2	SS	6	21.9				5.0
				3	SS	8	11.3				
5											Loose brown silty, clayey SAND, little gravel, moist (SC-SM) Sandy Loam A-6 (3) Lab Sample #1
											Loose brown silty, clayey SAND, trace gravel, moist (SC-SM) Sandy Loam A-4 (0) Lab Sample #3
											End of Boring at 6.5'
											<u>Pavement Core Results</u> Top Lift: 1.5" Hot-Mix Asphalt Surface 2nd Lift: 1.9" Hot-Mix Asphalt Surface Bottom Lift: 2.4" Hot-Mix Asphalt Binder
10											

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

PROJECT **North Main Street Improvements, E. Center St. to W. Knights Rd., Sandwich, IL**CLIENT **Hampton, Lenzini and Renwick Inc., 380 Shepard Drive, Elgin, IL**STARTED **07/01/2024** FINISHED **07/01/2024** DRILL RIG NO. **334**JOB **L-97,276**
BORING
8

ELEVATIONS

WATER LEVEL OBSERVATIONS

GROUND SURFACE _____

▽ WHILE DRILLING

Dry

END OF BORING _____

▽ AT END OF BORING

Dry

202 N. Main Street, 8'E of centerline

Depth (ft.)	Lithology	Length	Recovery	SAMPLE		N	WC (%)	Qp (tsf)	Qu (tsf)	γ DRY (pcf)	DEPTH (ft)	ELEV.	SOIL DESCRIPTIONS
				NO.	TYPE								
0											0.4		4.8" Hot-Mix Asphalt Surface Courses
											1.3		11" Crushed Stone Base Course
				1	SS	12	15.8						Medium dense brown silty, clayey SAND, little gravel, moist (SC-SM) Sandy Loam A-6 (3) Lab Sample #1
				2	SS	6	18.5	1.5			3.5		Stiff brown very silty CLAY, little sand, moist (CL) Silty Loam A-4
5				3	SS	9	10.5				5.0		Loose brown silty, clayey SAND, trace gravel, moist (SC-SM) Sandy Loam A-4
													End of Boring at 6.5'
													<u>Pavement Core Results</u> Top Lift: 1.9" Hot-Mix Asphalt Surface 2nd Lift: 1.5" Hot-Mix Asphalt Surface (delaminated/disbonded from bottom lift of HMA) Bottom Lift: 1.4" Hot-Mix Asphalt Surface
10													

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

PROJECT **North Main Street Improvements, E. Center St. to W. Knights Rd., Sandwich, IL**CLIENT **Hampton, Lenzini and Renwick Inc., 380 Shepard Drive, Elgin, IL**STARTED **07/01/2024**FINISHED **07/01/2024**DRILL RIG NO. **334**JOB **L-97,276****BORING****ELEVATIONS****WATER LEVEL OBSERVATIONS****9**

GROUND SURFACE _____

▽ WHILE DRILLING

Dry

END OF BORING _____

▽ AT END OF BORING

Dry

95 N. Main Street, 7'W of centerline

Depth (ft.)	Lithology	Length Recovery	SAMPLE		N	WC (%)	Qp (tsf)	Qu (tsf)	γ DRY (pcf)	DEPTH (ft)	ELEV.	SOIL DESCRIPTIONS
			NO.	TYPE								
0										0.4		4.8" Hot-Mix Asphalt Surface and Binder Courses
										1.4		12" Crushed Stone Base Course
			1	SS	19	10.5				3.0		FILL - Dark brown and brown silty, clayey SAND, little gravel and crushed stone, trace organic, moist (SC-SM) Sandy Loam A-4
			2	SS	5	21.4	0.5	105		5.0		Black clayey TOPSOIL, trace to little fine sand, moist (OL) Silty Loam A-4
5			3	SS	9	20.3	2.0					Very stiff brown very silty CLAY, trace to little sand, moist (CL) Silty Loam A-4
												End of Boring at 6.5'
												<u>Pavement Core Results</u> Top Lift: 1.1" Hot-Mix Asphalt Surface 2nd Lift: 1.5" Hot-Mix Asphalt Surface Bottom Lift: 2.2" Hot-Mix Asphalt Binder
10												

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.



TESTING SERVICE CORPORATION

LEGEND FOR BORING LOGS



FILL



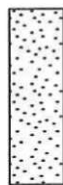
TOPSOIL



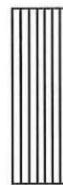
PEAT



GRAVEL



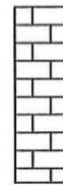
SAND



SILT



CLAY



DOLOMITE

SAMPLE TYPE

SS = Split Spoon
ST = Thin-Walled Tube
A = Auger
MC = Macro-Core (Geo Probe)

WATER LEVELS:

▼ While Drilling
▼ End of Boring
▼ 24 Hours

FIELD AND LABORATORY TEST DATA

N = Standard Penetration Resistance in Blows per Foot
WC = In-Situ Water Content
Qu = Unconfined Compressive Strength in Tons per Square Foot
* Pocket Penetrometer Measurement: Maximum Reading = 4.5 tsf
Y_{DRY} = Dry Unit Weight in Pounds per Cubic Foot

SOIL DESCRIPTION

MATERIAL

BOULDER
COBBLE
Coarse GRAVEL
Small GRAVEL
Coarse SAND
Medium SAND
Fine SAND
SILT and CLAY

PARTICLE SIZE RANGE

Over 12 inches
12 inches to 3 inches
3 inches to $\frac{3}{4}$ inch
 $\frac{3}{4}$ inch to No. 4 Sieve
No. 4 Sieve to No. 10 Sieve
No. 10 Sieve to No. 40 Sieve
No. 40 Sieve to No. 200 Sieve
Passing No. 200 Sieve

COHESIVE SOILS

<u>CONSISTENCY</u>	<u>Qu (tsf)</u>
Very Soft	Less than 0.25
Soft	0.25 to 0.5
Medium Stiff	0.5 to 1.0
Stiff	1.0 to 2.0
Very Stiff	2.0 to 4.0
Hard	4.0 and over

COHESIONLESS SOILS

<u>RELATIVE DENSITY</u>	<u>N (bpf)</u>
Very Loose	0 - 3
Loose	4 - 9
Medium Dense	10 - 29
Dense	30 - 49
Very Dense	50 and over

MODIFYING TERM

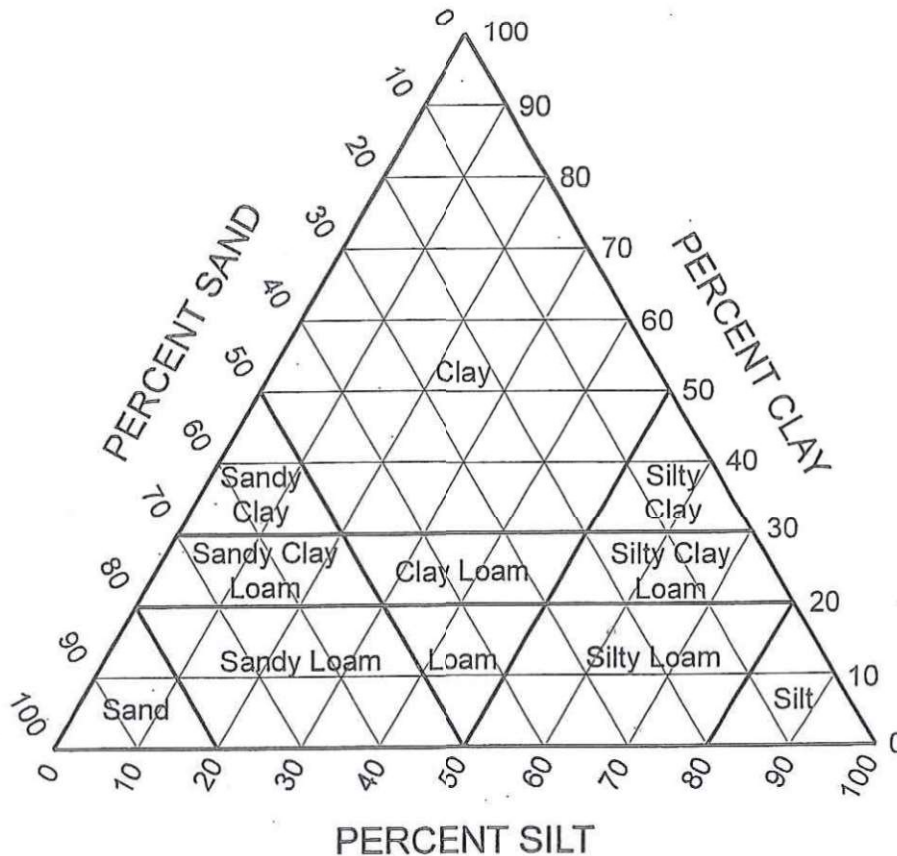
Trace
Little
Some

PERCENT BY WEIGHT

1 - 10
10 - 20
20 - 35

IDOT TEXTURAL CLASSIFICATION CHART

FIELD SOIL IDENTIFICATION



SIZE LIMITS

SAND: 2.0 to 0.074 mm SILT: 0.074 to 0.002 mm CLAY: Below 0.002 mm

Soil Type Abbreviations

Sa = Sand
Si = Silt
C = Clay
L = Loam
SaC = Sandy Clay

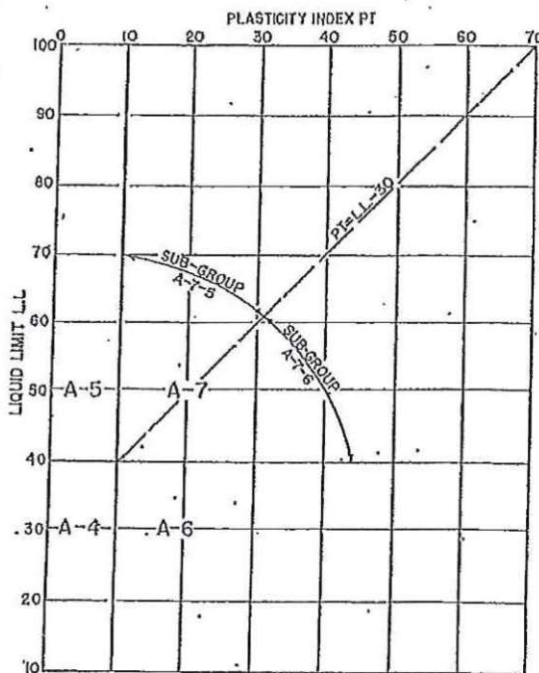
SaCL = Sandy Clay Loam
SaL = Sandy Loam
SiC = Silty Clay
SiL = Silty Loam
SiCL = Silty Clay Loam
CL = Clay Loam

TESTING SERVICE CORPORATION AASHTO CLASSIFICATION CHART

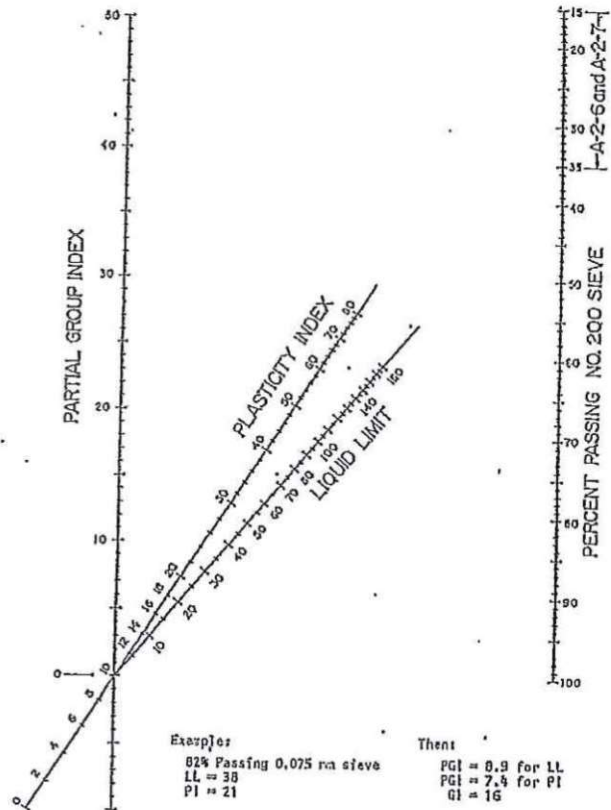
Group Index (GI) = $(F-35)[0.2+0.005(LL-40)]+0.01(F-15)(PI-10)$
where F = % Passing 0.075 mm sieve, LL = Liquid Limit,
and PI = Plasticity Index

When working with A-2-6 and A-2-7 subgroups the Partial Group Index (PGI) is determined from the PI only.

When the combined Partial Group Indices are negative, the Group Index should be reported as zero.



Liquid Limit and Plasticity Index Ranges for the A-1, A-2, A-3, A-4, A-5, A-6 and A-7 Subgrade Groups



Examples

82% Passing 0.075 mm sieve
LL = 38
PI = 21

Then

PGI = 8.9 for LL
PGI = 7.4 for PI
GI = 16

AASHTO SOIL CLASSIFICATION SYSTEM

General Classification	Granular Materials (35% or less passing No. 200)							Silt-Clay Materials (more than 35% passing No. 200)			
Group Classification	A-1		A-3	A-2				A-4	A-5	A-6	A-7
	A-1-a	A-1-b		A-2-4	A-2-5	A-2-6	A-2-7				A-7-5, A-7-6
Sieve analysis, % passing: No. 10 No. 40 No. 200	50 max 30 max 15 max	..... 50 max 25 max	..... 51 min 10 max	..... ..... 35 max	..... ..... 35 max	..... ..... 35 max	..... ..... 35 max	..... ..... 36 min	..... ..... 36 min	..... ..... 36 min	..... ..... 36 min
Characteristics of frac- tion passing No. 40: Liquid limit Plasticity Index	..... 6 max		..... N.P.	40 max 10 max	41 min 10 max	40 max 11 min	41 min 11 min	40 max 10 max	41 min 10 max	40 max 11 min	41 min 11 min†
Usual types of signifi- cant constituent ma- terials	Stone fragments, . gravel and sand		Fine sand	Silty or clayey gravel and sand				Silty soils		Clayey soils	
General rating as sub- grade	Excellent to good					Fair to poor					

† Plasticity Index of A-7-5 subgroup is equal to or less than LL minus 30. Plasticity Index of A-7-6 subgroup is greater than LL minus 30.

BITUMINOUS MATERIALS COST ADJUSTMENTS (BDE)

Effective: November 2, 2006

Revised: August 1, 2017

Description. Bituminous material cost adjustments will be made to provide additional compensation to the Contractor, or credit to the Department, for fluctuations in the cost of bituminous materials when optioned by the Contractor. The bidder shall indicate with their bid whether or not this special provision will be part of the contract.

The adjustments shall apply to permanent and temporary hot-mix asphalt (HMA) mixtures, bituminous surface treatments (cover and seal coats), and preventative maintenance type surface treatments that are part of the original proposed construction, or added as extra work and paid for by agreed unit prices. The adjustments shall not apply to bituminous prime coats, tack coats, crack filling/sealing, joint filling/sealing, or extra work paid for at a lump sum price or by force account.

Method of Adjustment. Bituminous materials cost adjustments will be computed as follows.

$$CA = (BPI_P - BPI_L) \times (\%AC_V / 100) \times Q$$

Where: CA = Cost Adjustment, \$.

BPI_P = Bituminous Price Index, as published by the Department for the month the work is performed, \$/ton (\$/metric ton).

BPI_L = Bituminous Price Index, as published by the Department for the month prior to the letting for work paid for at the contract price; or for the month the agreed unit price letter is submitted by the Contractor for extra work paid for by agreed unit price, \$/ton (\$/metric ton).

%AC_V = Percent of virgin Asphalt Cement in the Quantity being adjusted. For HMA mixtures, the % AC_V will be determined from the adjusted job mix formula. For bituminous materials applied, a performance graded or cutback asphalt will be considered to be 100% AC_V and undiluted emulsified asphalt will be considered to be 65% AC_V.

Q = Authorized construction Quantity, tons (metric tons) (see below).

For HMA mixtures measured in square yards: $Q, \text{ tons} = A \times D \times (G_{mb} \times 46.8) / 2000$. For HMA mixtures measured in square meters: $Q, \text{ metric tons} = A \times D \times (G_{mb} \times 1) / 1000$. When computing adjustments for full-depth HMA pavement, separate calculations will be made for the binder and surface courses to account for their different G_{mb} and % AC_V.

For bituminous materials measured in gallons: $Q, \text{ tons} = V \times 8.33 \text{ lb/gal} \times SG / 2000$

For bituminous materials measured in liters: $Q, \text{ metric tons} = V \times 1.0 \text{ kg/L} \times SG / 1000$

Where: A = Area of the HMA mixture, sq yd (sq m).

D = Depth of the HMA mixture, in. (mm).

G_{mb} = Average bulk specific gravity of the mixture, from the approved mix design.

V = Volume of the bituminous material, gal (L).
SG = Specific Gravity of bituminous material as shown on the bill of lading.

Basis of Payment. Bituminous materials cost adjustments may be positive or negative but will only be made when there is a difference between the BPI_L and BPI_P in excess of five percent, as calculated by:

$$\text{Percent Difference} = \{(BPI_L - BPI_P) \div BPI_L\} \times 100$$

Bituminous materials cost adjustments will be calculated for each calendar month in which applicable bituminous material is placed; and will be paid or deducted when all other contract requirements for the work placed during the month are satisfied. The adjustments shall not apply during contract time subject to liquidated damages for completion of the entire contract.

80173

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) Cement1001”

Add Article 312.07(i) of the Standard Specifications to read:

“(i) Ground Granulated Blast Furnace (GGBF) Slag1010”

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	1009.03
(c) Water	1002
(d) Bituminous Materials (Note 2)	1032

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) Cement1001”

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 ($\text{Na}_2\text{O} + 0.658\text{K}_2\text{O}$) 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 ($\text{Na}_2\text{O} + 0.658\text{K}_2\text{O}$) 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 ($\text{Na}_2\text{O} + 0.658\text{K}_2\text{O}$) 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) 1003.06
- (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	1003.02
(d) Fly Ash	1010
(e) Ground Granulated Blast Furnace (GGBF) Slag.....	1010
(f) Concrete Admixtures	1021”

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:

“Description. This work shall consist of filling voids beneath rigid and composite pavements with cement grout.

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

Item	Article/Section
(a) Cement	1001
(b) Water	1002
(c) Fly Ash	1010
(d) Ground Granulated Blast Furnace (GGBF) Slag.....	1010
(e) Admixtures	1021
(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.”

80460

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."

80384

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. CONTRACTOR ASSURANCE. 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 5% 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. IDENTIFICATION OF CERTIFIED DBE. 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. BIDDING PROCEDURES. 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. UTILIZATION PLAN EVALUATION. 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.

HOT-MIX ASPHALT (BDE)

Effective: January 1, 2024

Revised: January 1, 2025

Revise the first and second paragraphs of Articles 1030.06(c)(2) of the Standard Specifications to read:

“(2) Personnel. The Contractor shall provide a QC Manager who shall have overall responsibility and authority for quality control. This individual shall maintain active certification as a Hot-Mix Asphalt Level II technician.

In addition to the QC Manager, the Contractor shall provide sufficient personnel to perform the required visual inspections, sampling, testing, and documentation in a timely manner. Mix designs shall be developed by personnel with an active certification as a Hot-Mix Asphalt Level III technician. Technicians performing mix design testing and plant sampling/testing shall maintain active certification as a Hot-Mix Asphalt Level I technician. The Contractor may provide a technician trainee who has successfully completed the Department's "Hot-Mix Asphalt Trainee Course" to assist in the activities completed by a Hot-Mix Asphalt Level I technician for a period of one year after the course completion date. The Contractor may also provide a Gradation Technician who has successfully completed the Department's "Gradation Technician Course" to run gradation tests only under the supervision of a Hot-Mix Asphalt Level II Technician. The Contractor shall provide a Hot-Mix Asphalt Density Tester who has successfully completed the Department's "Nuclear Density Testing" course to run all nuclear density tests on the job site.”

Revise the second paragraph of Articles 1030.07(a)(11) and 1030.08(a)(9) of the Standard Specifications to read:

“When establishing the target density, the HMA maximum theoretical specific gravity (G_{mm}) will be based on the running average of four available Department test results for that project. If less than four G_{mm} test results are available, an average of all available Department test results for that project will be used. The initial G_{mm} will be the last available Department test result from a QMP project. If there is no available Department test result from a QMP project, the Department mix design verification test result will be used as the initial G_{mm} .”

Revise Article 1030.09(g)(2) of the Standard Specifications to read:

“(2) The Contractor shall complete split verification sample tests listed in the Limits of Precision table in Article 1030.09(h)(1).”

In the Supplemental Specifications, replace the revision for the end of the third paragraph of Article 1030.09(h)(2) with the following:

“When establishing the target density, the HMA maximum theoretical specific gravity (G_{mm}) will be the Department mix design verification test result.”

Revise the tenth paragraph of Article 1030.10 of the Standard Specifications to read:

“Production is not required to stop after a test strip has been constructed.”

80456

HOT-MIX ASPHALT – LONGITUDINAL JOINT SEALANT (BDE)

Effective: November 1, 2022

Revised: August 1, 2023

Add the following after the second sentence in the eighth paragraph of Article 406.06(h)(2) of the Standard Specifications:

“If rain is forecasted and traffic is to be on the LJS or if pickup/tracking of the LJS material is likely, the LJS shall be covered immediately following its application with FA 20 fine aggregate mechanically spread uniformly at a rate of 1.5 ± 0.5 lb/sq yd (0.75 ± 0.25 kg/sq m). Fine aggregate landing outside of the LJS shall be removed prior to application of tack coat.”

Add the following after the first sentence in the ninth paragraph of Article 406.06(h)(2) of the Standard Specifications:

“LJS half-width shall be applied at a width of 9 ± 1 in. (225 ± 25 mm) in the immediate lane to be placed with the outside edge flush with the joint of the next HMA lift. The vertical face of any longitudinal joint remaining in place shall also be coated.”

Add the following after the eleventh paragraph of Article 406.06(h)(2) of the Standard Specifications:

“LJS Half-Width Application Rate, lb/ft (kg/m) ^{1/}			
Lift Thickness, in. (mm)	Coarse Graded Mixture (IL-19.0, IL-19.0L, IL-9.5, IL-9.5L, IL-4.75)	Fine Graded Mixture (IL-9.5FG)	SMA Mixture (SMA-9.5, SMA-12.5)
$\frac{3}{4}$ (19)	0.44 (0.66)		
1 (25)	0.58 (0.86)		
$1 \frac{1}{4}$ (32)	0.66 (0.98)	0.44 (0.66)	
$1 \frac{1}{2}$ (38)	0.74 (1.10)	0.48 (0.71)	0.63 (0.94)
$1 \frac{3}{4}$ (44)	0.82 (1.22)	0.52 (0.77)	0.69 (1.03)
2 (50)	0.90 (1.34)	0.56 (0.83)	0.76 (1.13)
$\geq 2 \frac{1}{4}$ (60)	0.98 (1.46)		

1/ The application rate includes a surface demand for liquid. The thickness of the LJS may taper from the center of the application to a lesser thickness on the edge of the application, provided the correct width and application rate are maintained.”

Revise the second paragraph of Article 406.13(b) of the Standard Specifications to read:

“Aggregate for covering tack, LJS, or FLS will not be measured for payment.”

Add the following to the end of the second paragraph of Article 406.14 of the Standard Specifications:

“Longitudinal joint sealant (LJS) half-width will be paid for at the contract unit price per foot (meter) for LONGITUDINAL JOINT SEALANT, HALF-WIDTH.”

80446

PERFORMANCE GRADED ASPHALT BINDER (BDE)

Effective: January 1, 2023

Revise Article 1032.05 of the Standard Specifications to read:

“1032.05 Performance Graded Asphalt Binder. These materials will be accepted according to the Bureau of Materials Policy Memorandum, “Performance Graded Asphalt Binder Qualification Procedure.” The Department will maintain a qualified producer list. These materials shall be free from water and shall not foam when heated to any temperature below the actual flash point. Air blown asphalt, recycle engine oil bottoms (ReOB), and polyphosphoric acid (PPA) modification shall not be used.

When requested, producers shall provide the Engineer with viscosity/temperature relationships for the performance graded asphalt binders delivered and incorporated in the work.

- (a) Performance Graded (PG) Asphalt Binder. The asphalt binder shall meet the requirements of AASHTO M 320, Table 1 “Standard Specification for Performance Graded Asphalt Binder” for the grade shown on the plans and the following.

Test	Parameter
Small Strain Parameter (AASHTO PP 113) BBR, ΔT_c , 40 hrs PAV (40 hrs continuous or 2 PAV at 20 hrs)	-5 °C min.

- (b) Modified Performance Graded (PG) Asphalt Binder. The asphalt binder shall meet the requirements of AASHTO M 320, Table 1 “Standard Specification for Performance Graded Asphalt Binder” for the grade shown on the plans.

Asphalt binder modification shall be performed at the source, as defined in the Bureau of Materials Policy Memorandum, “Performance Graded Asphalt Binder Qualification Procedure.”

Modified asphalt binder shall be safe to handle at asphalt binder production and storage temperatures or HMA construction temperatures. Safety Data Sheets (SDS) shall be provided for all asphalt modifiers.

- (1) Polymer Modification (SB/SBS or SBR). Elastomers shall be added to the base asphalt binder to achieve the specified performance grade and shall be either a styrene-butadiene diblock, triblock copolymer without oil extension, or a styrene-butadiene rubber. The polymer modified asphalt binder shall be smooth, homogeneous, and be according to the requirements shown in Table 1 or 2 for the grade shown on the plans.

Table 1 - Requirements for Styrene-Butadiene Copolymer (SB/SBS) Modified Asphalt Binders		
Test	Asphalt Grade SB/SBS PG 64-28 SB/SBS PG 70-22	Asphalt Grade SB/SBS PG 64-34 SB/SBS PG 70-28 SB/SBS PG 76-22 SB/SBS PG 76-28
Separation of Polymer ITP, "Separation of Polymer from Asphalt Binder" Difference in °F (°C) of the softening point between top and bottom portions	4 (2) max.	4 (2) max.
TESTS ON RESIDUE FROM ROLLING THIN FILM OVEN TEST (AASHTO T 240)		
Elastic Recovery ASTM D 6084, Procedure A, 77 °F (25 °C), 100 mm elongation, %	60 min.	70 min.

Table 2 - Requirements for Styrene-Butadiene Rubber (SBR) Modified Asphalt Binders		
Test	Asphalt Grade SBR PG 64-28 SBR PG 70-22	Asphalt Grade SB/SBS PG 64-34 SB/SBS PG 70-28 SBR PG 76-22 SBR PG 76-28
Separation of Polymer ITP, "Separation of Polymer from Asphalt Binder" Difference in °F (°C) of the softening point between top and bottom portions	4 (2) max.	4 (2) max.
Toughness ASTM D 5801, 77 °F (25 °C), 20 in./min. (500 mm/min.), in.-lbs (N-m)	110 (12.5) min.	110 (12.5) min.
Tenacity ASTM D 5801, 77 °F (25 °C), 20 in./min. (500 mm/min.), in.-lbs (N-m)	75 (8.5) min.	75 (8.5) min.
TESTS ON RESIDUE FROM ROLLING THIN FILM OVEN TEST (AASHTO T 240)		
Elastic Recovery ASTM D 6084, Procedure A, 77 °F (25 °C), 100 mm elongation, %	40 min.	50 min.

- (2) Ground Tire Rubber (GTR) Modification. GTR modification is the addition of recycled ground tire rubber to liquid asphalt binder to achieve the specified performance grade. GTR shall be produced from processing automobile and/or truck tires by the ambient

grinding method or micronizing through a cryogenic process. GTR shall not exceed 1/16 in. (2 mm) in any dimension and shall not contain free metal particles, moisture that would cause foaming of the asphalt, or other foreign materials. A mineral powder (such as talc) meeting the requirements of AASHTO M 17 may be added, up to a maximum of four percent by weight of GTR to reduce sticking and caking of the GTR particles. When tested in accordance with Illinois Modified AASHTO T 27 “Standard Method of Test for Sieve Analysis of Fine and Coarse Aggregates” or AASHTO PP 74 “Standard Practice for Determination of Size and Shape of Glass Beads Used in Traffic Markings by Means of Computerized Optical Method”, a 50 g sample of the GTR shall conform to the following gradation requirements.

Sieve Size	Percent Passing
No. 16 (1.18 mm)	100
No. 30 (600 µm)	95 ± 5
No. 50 (300 µm)	> 20

GTR modified asphalt binder shall be tested for rotational viscosity according to AASHTO T 316 using spindle S27. GTR modified asphalt binder shall be tested for original dynamic shear and RTFO dynamic shear according to AASHTO T 315 using a gap of 2 mm.

The GTR modified asphalt binder shall meet the requirements of Table 3.

Table 3 - Requirements for Ground Tire Rubber (GTR) Modified Asphalt Binders		
Test	Asphalt Grade GTR PG 64-28 GTR PG 70-22	Asphalt Grade GTR PG 76-22 GTR PG 76-28 GTR PG 70-28
TESTS ON RESIDUE FROM ROLLING THIN FILM OVEN TEST (AASHTO T 240)		
Elastic Recovery ASTM D 6084, Procedure A, 77 °F (25 °C), 100 mm elongation, %	60 min.	70 min.

- (3) Softener Modification (SM). Softener modification is the addition of organic compounds, such as engineered flux, bio-oil blends, modified vegetable oils, glycol amines, and fatty acid derivatives, to the base asphalt binder to achieve the specified performance grade. Softeners shall be dissolved, dispersed, or reacted in the asphalt binder to enhance its performance and shall remain compatible with the asphalt binder with no separation. Softeners shall not be added to modified PG asphalt binder as defined in Articles 1032.05(b)(1) or 1032.05(b)(2).

An Attenuated Total Reflectance-Fourier Transform Infrared spectrum (ATR-FTIR) shall be collected for both the softening compound as well as the softener modified

asphalt binder at the dose intended for qualification. The ATR-FTIR spectra shall be collected on unaged softener modified binder, 20-hour Pressurized Aging Vessel (PAV) aged softener modified binder, and 40-hour PAV aged softener modified binder. The ATR-FTIR shall be collected in accordance with Illinois Test Procedure 601. The electronic files spectral files (in one of the following extensions or equivalent: *.SPA, *.SPG, *.IRD, *.IFG, *.CSV, *.SP, *.IRS, *.GAML, *. [0-9], *.IGM, *.ABS, *.DRT, *.SBM, *.RAS) shall be submitted to the Central Bureau of Materials.

Softener modified asphalt binders shall meet the requirements in Table 4.

Table 4 - Requirements for Softener Modified Asphalt Binders	
Test	Asphalt Grade
	SM PG 46-28 SM PG 46-34 SM PG 52-28 SM PG 52-34 SM PG 58-22 SM PG 58-28 SM PG 64-22
Small Strain Parameter (AASHTO PP 113) BBR, ΔT_c , 40 hrs PAV (40 hrs continuous or 2 PAV at 20 hrs)	-5°C min.
Large Strain Parameter (Illinois Modified AASHTO T 391) DSR/LAS Fatigue Property, $\Delta|G^*|_{peak}$, 40 hrs PAV (40 hrs continuous or 2 PAV at 20 hrs)	≥ 54 %

The following grades may be specified as tack coats.

Asphalt Grade	Use
PG 58-22, PG 58-28, PG 64-22	Tack Coat"

Revise Article 1031.06(c)(1) and 1031.06(c)(2) of the Standard Specifications to read:

“(1) RAP/RAS. When RAP is used alone or RAP is used in conjunction with RAS, the percentage of virgin ABR shall not exceed the amounts listed in the following table.

HMA Mixtures - RAP/RAS Maximum ABR % ^{1/2/}			
Ndesign	Binder	Surface	Polymer Modified Binder or Surface ^{3/}
30	30	30	10
50	25	15	10
70	15	10	10
90	10	10	10

1/ For Low ESAL HMA shoulder and stabilized subbase, the RAP/RAS ABR shall not exceed 50 percent of the mixture.

- 2/ When RAP/RAS ABR exceeds 20 percent, the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent ABR would require a virgin asphalt binder grade of PG 64-22 to be reduced to a PG 58-28).
- 3/ The maximum ABR percentages for ground tire rubber (GTR) modified mixes shall be equivalent to the percentages specified for SBS/SBR polymer modified mixes.
- (2) FRAP/RAS. When FRAP is used alone or FRAP is used in conjunction with RAS, the percentage of virgin asphalt binder replacement shall not exceed the amounts listed in the following table.

HMA Mixtures - FRAP/RAS Maximum ABR % ^{1/ 2/}			
Ndesign	Binder	Surface	Polymer Modified Binder or Surface ^{3/}
30	55	45	15
50	45	40	15
70	45	35	15
90	45	35	15
SMA	- -	- -	25
IL-4.75	- -	- -	35

- 1/ For Low ESAL HMA shoulder and stabilized subbase, the FRAP/RAS ABR shall not exceed 50 percent of the mixture.
- 2/ When FRAP/RAS ABR exceeds 20 percent for all mixes, the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent ABR would require a virgin asphalt binder grade of PG 64-22 to be reduced to a PG 58-28).
- 3/ The maximum ABR percentages for GTR modified mixes shall be equivalent to the percentages specified for SBS/SBR polymer modified mixes.”

Add the following to the end of Note 2 of Article 1030.03 of the Standard Specifications.

“A dedicated storage tank for the ground tire rubber (GTR) modified asphalt binder shall be provided. This tank shall be capable of providing continuous mechanical mixing throughout and/or recirculation of the asphalt binder to provide a uniform mixture. The tank shall be heated and capable of maintaining the temperature of the asphalt binder at 300 °F to 350 °F (149 °C to 177 °C). The asphalt binder metering systems of dryer drum plants shall be calibrated with the actual GTR modified asphalt binder material with an accuracy of ± 0.40 percent.”

RAILROAD PROTECTIVE LIABILITY INSURANCE (BDE)

(Effective December 1, 1986; Revised January 1, 2022)

Description. Railroad Protective Liability and Property Damage Liability Insurance shall be carried according to Article 107.11 of the Standard Specifications. A separate policy is required for each railroad unless otherwise noted.

NAMED INSURED & ADDRESS	NUMBER & SPEED OF PASSENGER TRAINS	NUMBER & SPEED OF FREIGHT TRAINS
The Burlington Northern & Santa Fe Railway Company 2500 Lou Mienk Drive Building AOB-1 Fort Worth, TX 76132	10 Amtrak per day at 79 MPH	15 Freights per day at 60 MPH 20 Intermodals per day at 69 MPH
Class 1 RR (Y or N): Y DOT/AAR No.: 079 601 F RR Division: Chicago	RR Mile Post: 56.15 RR Sub-Division: Mendota	
For Freight/Passenger Information Contact: Jake Rzewnicki		Phone: (913) 551-4275 Jacob.Rzewnicki@BNS
F.com For Insurance Information Contact: Rosa Martinez		Phone: (214) 303-8519

Basis of Payment. Providing Railroad Protective Liability and Property Damage Liability Insurance will be paid for at the contract unit price per Lump Sum for RAILROAD PROTECTIVE LIABILITY INSURANCE.

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 Ill. 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 Method 8270C, or RCRA METALS 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."

80455

SEEDING (BDE)

Effective: November 1, 2022

Revise Article 250.07 of the Standard Specifications to read:

“250.07 Seeding Mixtures. The classes of seeding mixtures and combinations of mixtures will be designated in the plans.

When an area is to be seeded with two or more seeding classes, those mixtures shall be applied separately on the designated area within a seven day period. Seeding shall occur prior to placement of mulch cover. A Class 7 mixture can be applied at any time prior to applying any seeding class or added to them and applied at the same time.

TABLE 1 - SEEDING MIXTURES			
Class - Type	Seeds	lb/acre (kg/hectare)	
1 Lawn Mixture 1/	Kentucky Bluegrass	100	(110)
	Perennial Ryegrass	60	(70)
	<i>Festuca rubra</i> ssp. <i>rubra</i> (Creeping Red Fescue)	40	(50)
1A Salt Tolerant Lawn Mixture 1/	Kentucky Bluegrass	60	(70)
	Perennial Ryegrass	20	(20)
	<i>Festuca rubra</i> ssp. <i>rubra</i> (Creeping Red Fescue)	20	(20)
	<i>Festuca brevipila</i> (Hard Fescue)	20	(20)
	<i>Puccinellia distans</i> (Fults Saltgrass or Salty Alkaligrass)	60	(70)
1B Low Maintenance Lawn Mixture 1/	Turf-Type Fine Fescue 3/	150	(170)
	Perennial Ryegrass	20	(20)
	Red Top	10	(10)
	<i>Festuca rubra</i> ssp. <i>rubra</i> (Creeping Red Fescue)	20	(20)
2 Roadside Mixture 1/	<i>Lolium arundinaceum</i> (Tall Fescue)	100	(110)
	Perennial Ryegrass	50	(55)
	<i>Festuca rubra</i> ssp. <i>rubra</i> (Creeping Red Fescue)	40	(50)
	Red Top	10	(10)
2A Salt Tolerant Roadside Mixture 1/	<i>Lolium arundinaceum</i> (Tall Fescue)	60	(70)
	Perennial Ryegrass	20	(20)
	<i>Festuca rubra</i> ssp. <i>rubra</i> (Creeping Red Fescue)	30	(20)
	<i>Festuca brevipila</i> (Hard Fescue)	30	(20)
	<i>Puccinellia distans</i> (Fults Saltgrass or Salty Alkaligrass)	60	(70)
3 Northern Illinois Slope Mixture 1/	<i>Elymus canadensis</i>	5	(5)
	(Canada Wild Rye) 5/		
	Perennial Ryegrass	20	(20)
	Alsike Clover 4/	5	(5)
	<i>Desmanthus illinoensis</i>	2	(2)
	(Illinois Bundleflower) 4/ 5/		
	<i>Schizachyrium scoparium</i>	12	(12)
	(Little Bluestem) 5/		
	<i>Bouteloua curtipendula</i>	10	(10)
	(Side-Oats Grama) 5/		
	<i>Puccinellia distans</i> (Fults Saltgrass or Salty Alkaligrass)	30	(35)
	Oats, Spring	50	(55)
3A Southern Illinois Slope Mixture 1/	Slender Wheat Grass 5/	15	(15)
	Buffalo Grass 5/ 7/	5	(5)
	Perennial Ryegrass	20	(20)
	<i>Elymus canadensis</i>	20	(20)
	(Canada Wild Rye) 5/		
	<i>Panicum virgatum</i> (Switchgrass) 5/	10	(10)
	<i>Schizachyrium scoparium</i>	12	(12)
	(Little Blue Stem) 5/		
	<i>Bouteloua curtipendula</i>	10	(10)
	(Side-Oats Grama) 5/		
	<i>Dalea candida</i>	5	(5)
	(White Prairie Clover) 4/ 5/		
	<i>Rudbeckia hirta</i> (Black-Eyed Susan) 5/	5	(5)
	Oats, Spring	50	(55)

Class – Type		Seeds	lb/acre (kg/hectare)
4	Native Grass 2/ 6/	<i>Andropogon gerardi</i>	4 (4)
		(Big Blue Stem) 5/	
		<i>Schizachyrium scoparium</i>	5 (5)
		(Little Blue Stem) 5/	
		<i>Bouteloua curtipendula</i>	5 (5)
		(Side-Oats Grama) 5/	
		<i>Elymus canadensis</i>	1 (1)
		(Canada Wild Rye) 5/	
		<i>Panicum virgatum</i> (Switch Grass) 5/	1 (1)
		<i>Sorghastrum nutans</i> (Indian Grass) 5/	2 (2)
4A	Low Profile Native Grass 2/ 6/	Annual Ryegrass	25 (25)
		Oats, Spring	25 (25)
		Perennial Ryegrass	15 (15)
		<i>Schizachyrium scoparium</i>	5 (5)
		(Little Blue Stem) 5/	
		<i>Bouteloua curtipendula</i>	5 (5)
		(Side-Oats Grama) 5/	
		<i>Elymus canadensis</i>	1 (1)
		(Canada Wild Rye) 5/	
		<i>Sporobolus heterolepis</i>	0.5 (0.5)
4B	Wetland Grass and Sedge Mixture 2/ 6/	Annual Ryegrass	25 (25)
		Oats, Spring	25 (25)
		Wetland Grasses (species below) 5/	6 (6)
		<u>Species:</u>	<u>% By Weight</u>
		<i>Calamagrostis canadensis</i> (Blue Joint Grass)	12
		<i>Carex lacustris</i> (Lake-Bank Sedge)	6
		<i>Carex slipata</i> (Awl-Fruited Sedge)	6
		<i>Carex stricta</i> (Tussock Sedge)	6
		<i>Carex vulpinoidea</i> (Fox Sedge)	6
		<i>Eleocharis acicularis</i> (Needle Spike Rush)	3
		<i>Eleocharis obtusa</i> (Blunt Spike Rush)	3
		<i>Glyceria striata</i> (Fowl Manna Grass)	14
		<i>Juncus effusus</i> (Common Rush)	6
		<i>Juncus tenuis</i> (Slender Rush)	6
		<i>Juncus torreyi</i> (Torrey's Rush)	6
		<i>Leersia oryzoides</i> (Rice Cut Grass)	10
		<i>Scirpus acutus</i> (Hard-Stemmed Bulrush)	3
		<i>Scirpus atrovirens</i> (Dark Green Rush)	3
		<i>Bolboschoenus fluviatilis</i> (River Bulrush)	3
		<i>Schoenoplectus tabernaemontani</i> (Softstem Bulrush)	3
		<i>Spartina pectinata</i> (Cord Grass)	4

Class – Type	Seeds	lb/acre (kg/hectare)
5	Forb with Annuals Mixture 2/ 5/ 6/	Annuals Mixture (Below) Forb Mixture (Below)
		1 (1) 10 (10)
	Annuals Mixture - Mixture not exceeding 25 % by weight of any one species, of the following:	
	<i>Coreopsis lanceolata</i> (Sand Coreopsis) <i>Leucanthemum maximum</i> (Shasta Daisy) <i>Gaillardia pulchella</i> (Blanket Flower) <i>Ratibida columnifera</i> (Prairie Coneflower) <i>Rudbeckia hirta</i> (Black-Eyed Susan)	
	Forb Mixture - Mixture not exceeding 5 % by weight PLS of any one species, of the following:	
	<i>Amorpha canescens</i> (Lead Plant) 4/ <i>Anemone cylindrica</i> (Thimble Weed) <i>Asclepias tuberosa</i> (Butterfly Weed) <i>Aster azureus</i> (Sky Blue Aster) <i>Symphyotrichum leave</i> (Smooth Aster) <i>Aster novae-angliae</i> (New England Aster) <i>Baptisia leucantha</i> (White Wild Indigo) 4/ <i>Coreopsis palmata</i> (Prairie Coreopsis) <i>Echinacea pallida</i> (Pale Purple Coneflower) <i>Eryngium yuccifolium</i> (Rattlesnake Master) <i>Helianthus mollis</i> (Downy Sunflower) <i>Heliopsis helianthoides</i> (Ox-Eye) <i>Liatris aspera</i> (Rough Blazing Star) <i>Liatris pycnostachya</i> (Prairie Blazing Star) <i>Monarda fistulosa</i> (Prairie Bergamot) <i>Parthenium integrifolium</i> (Wild Quinine) <i>Dalea candida</i> (White Prairie Clover) 4/ <i>Dalea purpurea</i> (Purple Prairie Clover) 4/ <i>Physostegia virginiana</i> (False Dragonhead) <i>Potentilla arguta</i> (Prairie Cinquefoil) <i>Ratibida pinnata</i> (Yellow Coneflower) <i>Rudbeckia subtomentosa</i> (Fragrant Coneflower) <i>Silphium laciniatum</i> (Compass Plant) <i>Silphium terebinthinaceum</i> (Prairie Dock) <i>Oligoneuron rigidum</i> (Rigid Goldenrod) <i>Tradescantia ohiensis</i> (Spiderwort) <i>Veronicastrum virginicum</i> (Culver's Root)	

Class – Type		Seeds	lb/acre (kg/hectare)
5A	Large Flower Native Forb Mixture 2/ 5/ 6/	Forb Mixture (see below)	5 (5)
	<u>Species:</u>	<u>% By Weight</u>	
	<i>Aster novae-angliae</i> (New England Aster)	5	
	<i>Echinacea pallida</i> (Pale Purple Coneflower)	10	
	<i>Helianthus mollis</i> (Downy Sunflower)	10	
	<i>Heliopsis helianthoides</i> (Ox-Eye)	10	
	<i>Liatris pycnostachya</i> (Prairie Blazing Star)	10	
	<i>Ratibida pinnata</i> (Yellow Coneflower)	5	
	<i>Rudbeckia hirta</i> (Black-Eyed Susan)	10	
	<i>Silphium laciniatum</i> (Compass Plant)	10	
	<i>Silphium terebinthinaceum</i> (Prairie Dock)	20	
	<i>Oligoneuron rigidum</i> (Rigid Goldenrod)	10	
5B	Wetland Forb 2/ 5/ 6/	Forb Mixture (see below)	2 (2)
	<u>Species:</u>	<u>% By Weight</u>	
	<i>Acorus calamus</i> (Sweet Flag)	3	
	<i>Angelica atropurpurea</i> (Angelica)	6	
	<i>Asclepias incarnata</i> (Swamp Milkweed)	2	
	<i>Aster puniceus</i> (Purple Stemmed Aster)	10	
	<i>Bidens cernua</i> (Beggarticks)	7	
	<i>Eutrochium maculatum</i> (Spotted Joe Pye Weed)	7	
	<i>Eupatorium perfoliatum</i> (Boneset)	7	
	<i>Helenium autumnale</i> (Autumn Sneezeweed)	2	
	<i>Iris virginica shrevei</i> (Blue Flag Iris)	2	
	<i>Lobelia cardinalis</i> (Cardinal Flower)	5	
	<i>Lobelia siphilitica</i> (Great Blue Lobelia)	5	
	<i>Lythrum alatum</i> (Winged Loosestrife)	2	
	<i>Physostegia virginiana</i> (False Dragonhead)	5	
	<i>Persicaria pensylvanica</i> (Pennsylvania Smartweed)	10	
	<i>Persicaria lapathifolia</i> (Curlytop Knotweed)	10	
	<i>Pycnanthemum virginianum</i> (Mountain Mint)	5	
	<i>Rudbeckia laciniata</i> (Cut-leaf Coneflower)	5	
	<i>Oligoneuron riddellii</i> (Riddell Goldenrod)	2	
	<i>Sparganium eurycarpum</i> (Giant Burreed)	5	
6	Conservation Mixture 2/ 6/	<i>Schizachyrium scoparium</i> (Little Blue Stem) 5/ <i>Elymus canadensis</i> (Canada Wild Rye) 5/ Buffalo Grass 5/ 7/ Vernal Alfalfa 4/ Oats, Spring	5 (5) 2 (2) 5 (5) 15 (15) 48 (55)
6A	Salt Tolerant Conservation Mixture 2/ 6/	<i>Schizachyrium scoparium</i> (Little Blue Stem) 5/ <i>Elymus canadensis</i> (Canada Wild Rye) 5/ Buffalo Grass 5/ 7/ Vernal Alfalfa 4/ Oats, Spring <i>Puccinellia distans</i> (Fults Saltgrass or Salty Alkaligrass)	5 (5) 2 (2) 5 (5) 15 (15) 48 (55) 20 (20)
7	Temporary Turf Cover Mixture	Perennial Ryegrass Oats, Spring	50 (55) 64 (70)

Notes:

- 1/ Seeding shall be performed when the ambient temperature has been between 45 °F (7 °C) and 80 °F (27 °C) for a minimum of seven (7) consecutive days and is forecasted to be the same for the next five (5) days according to the National Weather Service.
- 2/ Seeding shall be performed in late fall through spring beginning when the ambient temperature has been below 45 °F (7 °C) for a minimum of seven (7) consecutive days and ending when the ambient temperature exceeds 80 °F (27 °C) according to the National Weather Service.
- 3/ Specific variety as shown in the plans or approved by the Engineer.
- 4/ Inoculation required.
- 5/ Pure Live Seed (PLS) shall be used.
- 6/ Fertilizer shall not be used.
- 7/ Seed shall be primed with KNO_3 to break dormancy and dyed to indicate such.

Seeding will be inspected after a period of establishment. The period of establishment shall be six (6) months minimum, but not to exceed nine (9) months. After the period of establishment, areas not exhibiting 75 percent uniform growth shall be interseeded or reseeded, as determined by the Engineer, at no additional cost to the Department."

80445

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:

“(c) Pavement Marking Tapes (Note 1) 1095.06”

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 ± 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.

x	0.490	0.475	0.485	0.530
y	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_L , 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_L , 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_L	
Color	R_L 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) ^{1/} 20 (0.51) ^{2/}	65 (1.65) ^{1/} 20 (0.51) ^{2/}
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."

80457

SOURCE OF SUPPLY AND QUALITY REQUIREMENTS (BDE)

Effective: January 2, 2023

Add the following to Article 106.01 of the Standard Specifications:

“The final manufacturing process for construction materials and the immediately preceding manufacturing stage for construction materials shall occur within the United States. Construction materials shall include an article, material, or supply that is or consists primarily of the following.

- (a) Non-ferrous metals;
- (b) Plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables);
- (c) Glass (including optic glass);
- (d) Lumber;
- (e) Drywall.

Items consisting of two or more of the listed construction materials that have been combined through a manufacturing process, and items including at least one of the listed materials combined with a material that is not listed through a manufacturing process shall be exempt.”

80448

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.”

80397

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%”

80391

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”.

80463

SUBMISSION OF PAYROLL RECORDS (BDE)

Effective: April 1, 2021

Revised: November 2, 2023

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

“STATEMENTS AND PAYROLLS

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

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

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

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

In addition to filing certified payroll(s) with the IDOL, the Contractor and each subcontractor shall certify and submit payroll records to the Department each week from the start to the completion of their respective work, except that full social security numbers shall not be included on weekly submittals. Instead, the payrolls shall include an identification number for each employee (e.g., the last four digits of the employee’s social security number). In addition, starting and ending times of work each day may be omitted from the payroll records submitted. The submittals shall be made using LCPTracker Pro software. The software is web-based and can be accessed at <https://lcptracker.com/>.

When there has been no activity during a work week, a payroll record shall still be submitted with the appropriate option (“No Work”, “Suspended”, or “Complete”) selected.”

80437

TRAINING SPECIAL PROVISIONS (BDE)

Effective: October 15, 1975

Revised: September 2, 2021

This Training Special Provision supersedes Section 7b of the Special Provision entitled "Specific Equal Employment Opportunity Responsibilities," and is in implementation of 23 U.S.C. 140(a).

As part of the Contractor's equal employment opportunity affirmative action program, training shall be provided as follows:

The Contractor shall provide on-the-job training aimed at developing full journeyman in the type of trade or job classification involved. The number of trainees to be trained under this contract will be 4. In the event the Contractor subcontracts a portion of the contract work, it shall determine how many, if any, of the trainees are to be trained by the subcontractor, provided however, that the Contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The Contractor shall also ensure that this Training Special Provision is made applicable to such subcontract. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training.

The number of trainees shall be distributed among the work classifications on the basis of the Contractor's needs and the availability of journeymen in the various classifications within the reasonable area of recruitment. Prior to commencing construction, the Contractor shall submit to the Illinois Department of Transportation for approval the number of trainees to be trained in each selected classification and training program to be used. Furthermore, the Contractor shall specify the starting time for training in each of the classifications. The Contractor will be credited for each trainee it employs on the contract work who is currently enrolled or becomes enrolled in an approved program and will be reimbursed for such trainees as provided hereinafter.

Training and upgrading of minorities and women toward journeyman status is a primary objective of this Training Special Provision. Accordingly, the Contractor shall make every effort to enroll minority trainees and women (e.g. by conducting systematic and direct recruitment through public and private sources likely to yield minority and women trainees) to the extent such persons are available within a reasonable area of recruitment. The Contractor will be responsible for demonstrating the steps it has taken in pursuance thereof, prior to a determination as to whether the Contractor is in compliance with this Training Special Provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

No employee shall be employed as a trainee in any classification in which he or she has successfully completed a training course leading to journeyman status or in which he or she has been employed as a journeyman. The Contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used, the Contractor's records should document the findings in each case.

The minimum length and type of training for each classification will be as established in the training program selected by the Contractor and approved by the Illinois Department of Transportation and the Federal Highway Administration. The Illinois Department of Transportation and the Federal Highway Administration shall approve a program, if it is reasonably calculated to meet the equal employment opportunity obligations of the Contractor and to qualify the average trainee for journeyman status in the classification concerned by the end of the training period. Furthermore, apprenticeship programs registered with the U.S. Department of Labor, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau and training programs approved by not necessarily sponsored by the U.S. Department of Labor Employment Training Administration shall also be considered acceptable provided it is being administered in a manner consistent with the equal employment obligations of Federal-aid highway construction contracts. Approval or acceptance of a training program shall be obtained from the State prior to commencing work on the classification covered by the program. It is the intention of these provisions that training is to be provided in the construction crafts rather than clerk-typists or secretarial-type positions. Training is permissible in lower level management positions such as office engineers, estimators, timekeepers, etc., where the training is oriented toward construction applications. Training in the laborer classification may be permitted provided that significant and meaningful training is provided and approved by the Illinois Department of Transportation and the Federal Highway Administration. Some offsite training is permissible as long as the training is an integral part of an approved training program and does not comprise a significant part of the overall training.

Except as otherwise noted below, the Contractor will be reimbursed 80 cents per hour of training given an employee on this contract in accordance with an approved training program. As approved by the Engineer, reimbursement will be made for training of persons in excess of the number specified herein. This reimbursement will be made even though the Contractor receives additional training program funds from other sources, provided such other source does not specifically prohibit the Contractor from receiving other reimbursement. Reimbursement for offsite training indicated above may only be made to the Contractor where he does one or more of the following and the trainees are concurrently employed on a Federal-aid project; contributes to the cost of the training, provides the instruction to the trainee or pays the trainee's wages during the offsite training period.

No payment shall be made to the Contractor if either the failure to provide the required training, or the failure to hire the trainee as a journeyman, is caused by the Contractor and evidences a lack of good faith on the part of the Contractor in meeting the requirement of this Training Special Provision. It is normally expected that a trainee will begin his training on the project as soon as feasible after start of work utilizing the skill involved and remain on the project as long as training opportunities exist in his work classification or until he has completed his training program.

It is not required that all trainees be on board for the entire length of the contract. A Contractor will have fulfilled his responsibilities under this Training Special Provision if he has provided acceptable training to the number of trainees specified. The number trained shall be determined on the basis of the total number enrolled on the contract for a significant period.

Trainees will be paid at least 60 percent of the appropriate minimum journeyman's rate specified in the contract for the first half of the training period, 75 percent for the third quarter of the training period, and 90 percent for the last quarter of the training period, unless apprentices or trainees in an approved existing program are enrolled as trainees on this project. In that case, the appropriate rates approved by the Departments of Labor or Transportation in connection with the existing program shall apply to all trainees being trained for the same classification who are covered by this Training Special Provision.

The Contractor shall furnish the trainee a copy of the program he will follow in providing the training. The Contractor shall provide each trainee with a certification showing the type and length of training satisfactorily complete.

The Contractor shall provide for the maintenance of records and furnish periodic reports documenting its performance under this Training Special Provision.

For contracts with an awarded contract value of \$500,000 or more, the Contractor is required to comply with the Illinois Works Apprenticeship Initiative (30 ILCS 559/20-20 to 20-25) and all applicable administrative rules to the extent permitted by Section 20-20(g). For federally funded projects, the number of trainees to be trained under this contract, as stated in the Training Special Provisions, will be the established goal for the Illinois Works Apprenticeship Initiative 30 ILCS 559/20-20(g). The Contractor shall make a good faith effort to meet this goal. For federally funded projects, the Illinois Works Apprenticeship Initiative will be implemented using the FHWA approved OJT procedures. The Contractor must comply with the recordkeeping and reporting obligations of the Illinois Works Apprenticeship Initiative for the life of the project, including the certification as to whether the trainee/apprentice labor hour goals were met.

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

Basis of Payment. This work will be paid for at the contract unit price of 80 cents per hour for TRAINEES. The estimated total number of hours, unit price, and total price have been included in the schedule of prices.

20338

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.”

80439

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.

80302

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.

(l) 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.”

80427

REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

- I. General
- II. Nondiscrimination
- III. Non-segregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
- XI. Certification Regarding Use of Contract Funds for Lobbying
- XII. Use of United States-Flag Vessels:

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under title 23, United States Code, as required in 23 CFR 633.102(b) (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services). 23 CFR 633.102(e).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider. 23 CFR 633.102(e).

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services) in accordance with 23 CFR 633.102. The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in solicitation-for-bids or request-for-proposals documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract). 23 CFR 633.102(b).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work

performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract. 23 CFR 633.102(d).

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

II. NONDISCRIMINATION (23 CFR 230.107(a); 23 CFR Part 230, Subpart A, Appendix A; EO 11246)

The provisions of this section related to 23 CFR Part 230, Subpart A, Appendix A are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR Part 60, 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR Part 60, and 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR Part 230, Subpart A, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal Employment Opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (see 28 CFR Part 35, 29 CFR Part 1630, 29 CFR Parts 1625-1627, 41 CFR Part 60 and 49 CFR Part 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140, shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR Part 35 and 29 CFR Part 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract. 23 CFR 230.409 (g)(4) & (5).

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, sexual orientation, gender identity, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action or are substantially involved in such action, will be made fully cognizant of and will implement the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to ensure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action

within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs (i.e., apprenticeship and on-the-job training programs for the geographical area of contract performance). In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. 23 CFR 230.409. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide

sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants /

Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established thereunder. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment:

The contractor shall not discriminate on the grounds of race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors, suppliers, and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurances Required:

a. The requirements of 49 CFR Part 26 and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.

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

- (1) Withholding monthly progress payments;
- (2) Assessing sanctions;
- (3) Liquidated damages; and/or
- (4) Disqualifying the contractor from future bidding as non-responsible.

c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E are incorporated by reference. 49 CFR Part 21.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women.

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of more than \$10,000. 41 CFR 60-1.5.

As prescribed by 41 CFR 60-1.8, the contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location under the contractor's control where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway

Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA- 1273 format and FHWA program requirements.

1. Minimum wages (29 CFR 5.5)

a. *Wage rates and fringe benefits.* All laborers and mechanics employed or working upon the site of the work (or otherwise working in construction or development of the project under a development statute), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act ([29 CFR part 3](#))), the full amount of basic hourly wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. As provided in paragraphs (d) and (e) of 29 CFR 5.5, the appropriate wage determinations are effective by operation of law even if they have not been attached to the contract. Contributions made or costs reasonably anticipated for bona fide fringe benefits under the Davis-Bacon Act ([40 U.S.C. 3141\(2\)\(B\)](#)) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.e. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics must be paid the appropriate wage rate and fringe benefits on the wage determination for the classification(s) of work actually performed, without regard to skill, except as provided in paragraph 4. of this section. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided*, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph 1.c. of this section) and the Davis-Bacon poster (WH-1321) must be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. *Frequently recurring classifications.* (1) In addition to wage and fringe benefit rates that have been determined to be prevailing under the procedures set forth in [29 CFR part 1](#), a wage determination may contain, pursuant to § 1.3(f), wage and fringe benefit rates for classifications of laborers and mechanics for which conformance requests are regularly submitted pursuant to paragraph 1.c. of this section, provided that:

(i) The work performed by the classification is not performed by a classification in the wage determination for which a prevailing wage rate has been determined;

(ii) The classification is used in the area by the construction industry; and

(iii) The wage rate for the classification bears a reasonable relationship to the prevailing wage rates contained in the wage determination.

(2) The Administrator will establish wage rates for such classifications in accordance with paragraph 1.c.(1)(iii) of this section. Work performed in such a classification must be paid at no less than the wage and fringe benefit rate listed on the wage determination for such classification.

c. *Conformance.* (1) The contracting officer must require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract be classified in conformance with the wage determination. Conformance of an additional classification and wage rate and fringe benefits is appropriate only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is used in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) The conformance process may not be used to split, subdivide, or otherwise avoid application of classifications listed in the wage determination.

(3) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken will be sent by the contracting officer by email to DBAconformance@dol.gov. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(4) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer will, by email to DBAconformance@dol.gov, refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(5) The contracting officer must promptly notify the contractor of the action taken by the Wage and Hour Division

under paragraphs 1.c.(3) and (4) of this section. The contractor must furnish a written copy of such determination to each affected worker or it must be posted as a part of the wage determination. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 1.c.(3) or (4) of this section must be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

d. *Fringe benefits not expressed as an hourly rate.*

Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor may either pay the benefit as stated in the wage determination or may pay another bona fide fringe benefit or an hourly cash equivalent thereof.

e. *Unfunded plans.* If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided*, That the Secretary of Labor has found, upon the written request of the contractor, in accordance with the criteria set forth in § 5.28, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

f. *Interest.* In the event of a failure to pay all or part of the wages required by the contract, the contractor will be required to pay interest on any underpayment of wages.

2. Withholding (29 CFR 5.5)

a. *Withholding requirements.* The contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for the full amount of wages and monetary relief, including interest, required by the clauses set forth in this section for violations of this contract, or to satisfy any such liabilities required by any other Federal contract, or federally assisted contract subject to Davis-Bacon labor standards, that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to Davis-Bacon labor standards requirements and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld. In the event of a contractor's failure to pay any laborer or mechanic, including any apprentice or helper working on the site of the work all or part of the wages required by the contract, or upon the contractor's failure to submit the required records as discussed in paragraph 3.d. of this section, the contracting agency may on its own initiative and after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with paragraph

2.a. of this section or Section V, paragraph 3.a., or both, over claims to those funds by:

- (1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;
- (2) A contracting agency for its procurement costs;
- (3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;
- (4) A contractor's assignee(s);
- (5) A contractor's successor(s); or
- (6) A claim asserted under the Prompt Payment Act, [31 U.S.C. 3901–3907](#).

3. Records and certified payrolls (29 CFR 5.5)

a. Basic record requirements (1) Length of record retention. All regular payrolls and other basic records must be maintained by the contractor and any subcontractor during the course of the work and preserved for all laborers and mechanics working at the site of the work (or otherwise working in construction or development of the project under a development statute) for a period of at least 3 years after all the work on the prime contract is completed.

(2) *Information required.* Such records must contain the name; Social Security number; last known address, telephone number, and email address of each such worker; each worker's correct 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 of the types described in [40 U.S.C. 3141\(2\)\(B\)](#) of the Davis-Bacon Act); daily and weekly number of hours actually worked in total and on each covered contract; deductions made; and actual wages paid.

(3) *Additional records relating to fringe benefits.* Whenever the Secretary of Labor has found under paragraph 1.e. of this section that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in [40 U.S.C. 3141\(2\)\(B\)](#) of the Davis-Bacon Act, the contractor must maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits.

(4) *Additional records relating to apprenticeship.* Contractors with apprentices working under approved programs must maintain written evidence of the registration of apprenticeship programs, the registration of the apprentices, and the ratios and wage rates prescribed in the applicable programs.

b. Certified payroll requirements (1) Frequency and method of submission. The contractor or subcontractor must submit weekly, for each week in which any DBA- or Related Acts-covered work is performed, certified payrolls to the contracting

agency. The prime contractor is responsible for the submission of all certified payrolls by all subcontractors. A contracting agency or prime contractor may permit or require contractors to submit certified payrolls through an electronic system, as long as the electronic system requires a legally valid electronic signature; the system allows the contractor, the contracting agency, and the Department of Labor to access the certified payrolls upon request for at least 3 years after the work on the prime contract has been completed; and the contracting agency or prime contractor permits other methods of submission in situations where the contractor is unable or limited in its ability to use or access the electronic system.

(2) *Information required.* The certified payrolls submitted must set out accurately and completely all of the information required to be maintained under paragraph 3.a.(2) of this section, except that full Social Security numbers and last known addresses, telephone numbers, and email addresses must not be included on weekly transmittals. Instead, the certified payrolls need only include an individually identifying number for each worker (e.g., the last four digits of the worker's Social Security number). The required weekly certified payroll information may be submitted using Optional Form WH-347 or in any other format desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division website at <https://www.dol.gov/sites/dolgov/files/WHDLegacy/files/wh347.pdf> or its successor website. It is not a violation of this section for a prime contractor to require a subcontractor to provide full Social Security numbers and last known addresses, telephone numbers, and email addresses to the prime contractor for its own records, without weekly submission by the subcontractor to the contracting agency.

(3) *Statement of Compliance.* Each certified payroll submitted must be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor, or the contractor's or subcontractor's agent who pays or supervises the payment of the persons working on the contract, and must certify the following:

(i) That the certified payroll for the payroll period contains the information required to be provided under paragraph 3.b. of this section, the appropriate information and basic records are being maintained under paragraph 3.a. of this section, and such information and records are correct and complete;

(ii) That each laborer or mechanic (including each helper and apprentice) working on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in [29 CFR part 3](#); and

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification(s) of work actually performed, as specified in the applicable wage determination incorporated into the contract.

(4) *Use of Optional Form WH-347.* The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 will satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(3) of this section.

(5) *Signature.* The signature by the contractor, subcontractor, or the contractor's or subcontractor's agent must be an original handwritten signature or a legally valid electronic signature.

(6) *Falsification.* The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under [18 U.S.C. 1001](#) and [31 U.S.C. 3729](#).

(7) *Length of certified payroll retention.* The contractor or subcontractor must preserve all certified payrolls during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

c. *Contracts, subcontracts, and related documents.* The contractor or subcontractor must maintain this contract or subcontract and related documents including, without limitation, bids, proposals, amendments, modifications, and extensions. The contractor or subcontractor must preserve these contracts, subcontracts, and related documents during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

d. *Required disclosures and access (1) Required record disclosures and access to workers.* The contractor or subcontractor must make the records required under paragraphs 3.a. through 3.c. of this section, and any other documents that the contracting agency, the State DOT, the FHWA, or the Department of Labor deems necessary to determine compliance with the labor standards provisions of any of the applicable statutes referenced by § 5.1, available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and must permit such representatives to interview workers during working hours on the job.

(2) *Sanctions for non-compliance with records and worker access requirements.* If the contractor or subcontractor fails to submit the required records or to make them available, or refuses to permit worker interviews during working hours on the job, the Federal agency may, after written notice to the contractor, sponsor, applicant, owner, or other entity, as the case may be, that maintains such records or that employs such workers, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available, or to permit worker interviews during working hours on the job, may be grounds for debarment action pursuant to § 5.12. In addition, any contractor or other person that fails to submit the required records or make those records available to WHD within the time WHD requests that the records be produced will be precluded from introducing as evidence in an administrative proceeding under [29 CFR part 6](#) any of the required records that were not provided or made available to WHD. WHD will take into consideration a reasonable request from the contractor or person for an extension of the time for submission of records. WHD will determine the reasonableness of the request and may consider, among other things, the location of the records and the volume of production.

(3) *Required information disclosures.* Contractors and subcontractors must maintain the full Social Security number and last known address, telephone number, and email address

of each covered worker, and must provide them upon request to the contracting agency, the State DOT, the FHWA, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or other compliance action.

4. Apprentices and equal employment opportunity (29 CFR 5.5)

a. *Apprentices (1) Rate of pay.* Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship (OA), or with a State Apprenticeship Agency recognized by the OA. A person who is not individually registered in the program, but who has been certified by the OA or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice, will be permitted to work at less than the predetermined rate for the work they perform in the first 90 days of probationary employment as an apprentice in such a program. In the event the OA or a State Apprenticeship Agency recognized by the OA withdraws approval of an apprenticeship program, the contractor will no longer be permitted to use apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(2) *Fringe benefits.* Apprentices must be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringe benefits must be paid in accordance with that determination.

(3) *Apprenticeship ratio.* The allowable ratio of apprentices to journeymen on the job site in any craft classification must not be greater than the ratio permitted to the contractor as to the entire work force under the registered program or the ratio applicable to the locality of the project pursuant to paragraph 4.a.(4) of this section. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in paragraph 4.a.(1) of this section, must be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under this section must be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(4) *Reciprocity of ratios and wage rates.* Where a contractor is performing construction on a project in a locality other than the locality in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyworker's hourly rate) applicable within the locality in which the construction is being performed must be observed. If there is no applicable ratio or wage rate for the locality of the project, the ratio and wage rate specified in the contractor's registered program must be observed.

b. *Equal employment opportunity.* The use of apprentices and journeymen under this part must be in conformity with

the equal employment opportunity requirements of Executive Order 11246, as amended, and [29 CFR part 30](#).

c. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. 23 CFR 230.111(e)(2). The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeyworkers shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract as provided in 29 CFR 5.5.

6. Subcontracts. The contractor or subcontractor must insert FHWA-1273 in any subcontracts, along with the applicable wage determination(s) and such other clauses or contract modifications as the contracting agency may by appropriate instructions require, and a clause requiring the subcontractors to include these clauses and wage determination(s) in any lower tier subcontracts. The prime contractor is responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this section. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and may be subject to debarment, as appropriate. 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract as provided in 29 CFR 5.5.

9. Disputes concerning labor standards. As provided in 29 CFR 5.5, disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility. a. By entering into this contract, the contractor certifies that neither it nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of [40 U.S.C. 3144\(b\)](#) or § 5.12(a).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of [40 U.S.C. 3144\(b\)](#) or § 5.12(a).

c. The penalty for making false statements is prescribed in the U.S. Code, Title 18 Crimes and Criminal Procedure, [18 U.S.C. 1001](#).

11. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#);

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#);

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#); or

d. Informing any other person about their rights under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#).

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

Pursuant to 29 CFR 5.5(b), the following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchpersons and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek. 29 CFR 5.5.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph 1. of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages and interest from the date of the underpayment. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or

mechanic, including watchpersons and guards, employed in violation of the clause set forth in paragraph 1. of this section, in the sum currently provided in 29 CFR 5.5(b)(2)* for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1. of this section.

* \$31 as of January 15, 2023 (See 88 FR 88 FR 2210) as may be adjusted annually by the Department of Labor, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990.

3. Withholding for unpaid wages and liquidated damages

a. *Withholding process.* The FHWA or the contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for any unpaid wages; monetary relief, including interest; and liquidated damages required by the clauses set forth in this section on this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract subject to the Contract Work Hours and Safety Standards Act that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to the Contract Work Hours and Safety Standards Act and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with Section IV paragraph 2.a. or paragraph 3.a. of this section, or both, over claims to those funds by:

- (1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;
- (2) A contracting agency for its repurchase costs;
- (3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;
- (4) A contractor's assignee(s);
- (5) A contractor's successor(s); or
- (6) A claim asserted under the Prompt Payment Act, [31 U.S.C. 3901](#)–3907.

4. Subcontracts. The contractor or subcontractor must insert in any subcontracts the clauses set forth in paragraphs 1. through 5. of this section and a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor is responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1. through 5. In the

event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and associated liquidated damages and may be subject to debarment, as appropriate.

5. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the Contract Work Hours and Safety Standards Act (CWHSSA) or its implementing regulations in this part;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under CWHSSA or this part;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under CWHSSA or this part; or

d. Informing any other person about their rights under CWHSSA or this part.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" in paragraph 1 of Section VI refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions: (based on longstanding interpretation)

- (1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
- (2) the prime contractor remains responsible for the quality of the work of the leased employees;

- (3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
- (4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), the contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. Pursuant to 23 CFR 635.116(c), the contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract. (based on long-standing interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR Part 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract. 23 CFR 635.108.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and

health standards (29 CFR Part 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704). 29 CFR 1926.10.

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR Part 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 11, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT (42 U.S.C. 7606; 2 CFR 200.88; EO 11738)

This provision is applicable to all Federal-aid construction contracts in excess of \$150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.327.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.327.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200. 2 CFR 180.220 and 1200.220.

1. Instructions for Certification – First Tier Participants:

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction. 2 CFR 180.320.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default. 2 CFR 180.325.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances. 2 CFR 180.345 and 180.350.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900-180.1020, and 1200. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction. 2 CFR 180.330.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold. 2 CFR 180.220 and 180.300.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (<https://www.sam.gov/>). 2 CFR 180.300, 180.320, and 180.325.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default. 2 CFR 180.325.

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.335;.

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property, 2 CFR 180.800;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification, 2 CFR 180.700 and 180.800; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default. 2 CFR 180.335(d).

(5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements).

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

* * * * *

3. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders, and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200). 2 CFR 180.220 and 1200.220.

a. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which

this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances. 2 CFR 180.365.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900 – 180.1020, and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contractor). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated. 2 CFR 1200.220 and 1200.332.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold. 2 CFR 180.220 and 1200.220.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (<https://www.sam.gov>), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily

excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment. 2 CFR 180.325.

* * * * *

4. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

a. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(1) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355;

(2) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(3) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)

b. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal.

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XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000. 49 CFR Part 20, App. A.

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or

cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

XII. USE OF UNITED STATES-FLAG VESSELS:

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels. 46 CFR 381.7.

2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b)(1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS
PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY
SYSTEM OR APPALACHIAN LOCAL ACCESS**

ROAD CONTRACTS (23 CFR 633, Subpart B, Appendix B)
This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.