# 173

Letting April 26, 2024

### Notice to Bidders, Specifications and Proposal



Contract No. 93818
MORGAN County
Section 17-00126-01-RS (Jacksonville)
Route FAU 8171 (West State Street)
Project A6US-085 ()
District 6 Construction Funds

Prepared by

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## 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. April 26, 2024 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. 93818
MORGAN County
Section 17-00126-01-RS (Jacksonville)
Project A6US-085 ()
Route FAU 8171 (West State Street)
District 6 Construction Funds

HMA resurfacing with Curb & Gutter, sidewalks, storm sewers, lighting, signage and streetscape improvements on West State Street from Church Street to Sandy Street in Jacksonville.

- 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

#### **CONTRACT 93818**

## INDEX FOR SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS

#### Adopted January 1, 2024

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 1-1-24)

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#### LOCAL ROADS AND STREETS RECURRING SPECIAL PROVISIONS

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#### **BDE SPECIAL PROVISIONS**

The following special provisions indicated by an "X" are applicable to this contract. An  $^{\star}$  indicates a new or revised special provision for the letting.

<u>File</u> Name	<u>Pg.</u>	Special Provision Title	<b>Effective</b>	Revised
80099		Accessible Pedestrian Signals (APS)	April 1, 2003	Jan. 1, 2022
80274		Aggregate Subgrade Improvement	April 1, 2012	April 1, 2022
80192		Automated Flagger Assistance Device	Jan. 1, 2008	April 1, 2023
80173		Bituminous Materials Cost Adjustments	Nov. 2, 2006	Aug. 1, 2017
80426		Bituminous Surface Treatment with Fog Seal	Jan. 1, 2020	Jan. 1, 2022
80241		☐ Bridge Demolition Debris	July 1, 2009	
50531		■ Building Removal	Sept. 1, 1990	Aug. 1, 2022
50261		Building Removal with Asbestos Abatement	Sept. 1, 1990	Aug. 1, 2022
80449	51	Cement, Type IL	Aug. 1, 2023	
80384	52	Compensable Delay Costs	June 2, 2017	April 1, 2019
80198		Completion Date (via calendar days)	April 1, 2008	
80199		Completion Date (via calendar days) Plus Working Days	April 1, 2008	
80453		Concrete Sealer	Nov. 1, 2023	N 4 0044
80261		Construction Air Quality – Diesel Retrofit	June 1, 2010	Nov. 1, 2014
80434	<b>50</b>	Corrugated Plastic Pipe (Culvert and Storm Sewer)	Jan. 1, 2021	M 0 0040
80029	56	Disadvantaged Business Enterprise Participation	Sept. 1, 2000	Mar. 2, 2019
80229 80452		Full Lane Sealant Waterproofing System	April 1, 2009	Aug. 1, 2017
80447		Full Lane Sealant Waterproofing System	Nov. 1, 2023 Jan 1, 2023	
80433		<ul><li>Grading and Shaping Ditches</li><li>Green Preformed Thermoplastic Pavement Markings</li></ul>	Jan. 1, 2021	Jan. 1, 2022
80443		High Tension Cable Median Barrier Removal	April 1, 2022	Jan. 1, 2022
80456	66	Hot-Mix Asphalt	Jan. 1, 2024	
80446	00	Hot-Mix Asphalt – Longitudinal Joint Sealant	Nov. 1, 2024	Aug. 1, 2023
* 80438		Illinois Works Apprenticeship Initiative – State Funded Contracts	June 2, 2021	April 2, 2024
80045		Material Transfer Device	June 15, 1999	Jan. 1, 2022
80450		Mechanically Stabilized Earth Retaining Walls	Aug. 1, 2023	,
80441	67	Performance Graded Asphalt Binder	Jan 1, 2023	
80451	72	Portland Cement Concrete	Aug. 1, 2023	
3426I		Railroad Protective Liability Insurance	Dec. 1, 1986	Jan. 1, 2022
* 80455	73	Removal and Disposal of Regulated Substances	Jan. 1, 2024	April 1, 2024
80445		Seeding	Nov. 1, 2022	
* 80457	75	Short Term and Temporary Pavement Markings	April 1, 2024	
80448	78	Source of Supply and Quality Requirements	Jan. 2, 2023	
80340		Speed Display Trailer	April 2, 2014	Jan. 1, 2022
80127		Steel Cost Adjustment	April 2, 2014	Jan. 1, 2022
80397	79	Subcontractor and DBE Payment Reporting	April 2, 2018	A 'I 4 0040
80391	80	Subcontractor Mobilization Payments	Nov. 2, 2017	April 1, 2019
80437	81	Submission of Payroll Records	April 1, 2021	Nov. 2, 2023
80435		Surface Testing of Pavements – IRI	Jan. 1, 2021	Jan. 1, 2023
80410	02	<ul><li>☐ Traffic Spotters</li><li>☐ Training Special Provisions</li></ul>	Jan. 1, 2019	Sant 2 2021
20338 80429	83	<ul><li>☑ Training Special Provisions</li><li>☐ Ultra-Thin Bonded Wearing Course</li></ul>	Oct. 15, 1975	Sept. 2, 2021
80439	86	<ul> <li>☑ Vehicle and Equipment Warning Lights</li> </ul>	April 1, 2020 Nov. 1, 2021	Jan. 1, 2022 Nov. 1, 2022
80302	87	<ul> <li>✓ Verticle and Equipment Warning Lights</li> <li>✓ Weekly DBE Trucking Reports</li> </ul>	June 2, 2012	Nov. 1, 2022 Nov. 1, 2021
80454	01	Wood Sign Support	Nov. 1, 2023	140V. 1, 2021
80427	88	<ul><li>Wood Sight Support</li><li>Work Zone Traffic Control Devices</li></ul>	Mar. 2, 2020	
80071	90	Working Days	Jan. 1, 2002	
230. 1		<u> </u>	1, 2002	

#### **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 invitations of bids, and the Supplemental Specifications and Recurring Special Provisions indicated on the check sheet included herein which apply to and govern the construction of Section 17-00126-01-RS in the City of Jacksonville, and in case of conflict with any part or parts of said Specifications, the said Special Provisions shall take precedence and shall govern.

<u>DESCRIPTION OF WORK:</u> This project consists of milling and resurfacing West State Street in the City of Jacksonville. Also included shall be curb and gutter removal and replacement, sidewalk removal and replacement, storm sewer and watermain improvements, lighting improvements, pavement marking, signing, streetscape, and associated work.

<u>J.U.L.I.E.:</u> The toll-free telephone number of Joint Utility Locating Information for Excavators is 800-892-0123 or 811.

**TRAFFIC CONTROL:** Traffic control shall be in accordance with the applicable sections of the standard specifications for road and bridge construction, the applicable guidelines contained in the Illinois Manual on Uniform Traffic Control Devices for Streets and Highways, these special provisions, and any special details and Highway Standards contained herein and in the plans.

Special attention is called to Article 107.09 and Sections 701 through 703 of the Standard Specifications for Road and Bridge Construction and the following Highway Standards:

The contractor shall be responsible for the traffic control devices at all times during construction activities and shall coordinate the items of work to keep traffic hazards and/or inconveniences to a minimum.

All advance-warning signs shall be in new or like new condition at the start of the project. All warning signs shall be 48 inches by 48 inches and have a black legend on a fluorescent orange reflectorized background.

Signposts shall be 100 x 100 mm (4 x 4 in.) wood posts according to Article 1007.05 or metal posts in accordance with Article 1006.29.

Advance warning signs shall be erected at each end of the Section to safeguard the public, while warning signs shall be erected notifying traffic of construction of this project. All barricades and signs required shall be furnished by the Contractor.

The Contractor shall allow access to private property along all portions of the road or sidewalk where no other public way provides access. Open holes, trenches and drop offs shall be fenced and barricaded to protect local traffic and pedestrians. Flagger(s) will be required when work encroaches on the open lane(s). No Parking signs shall be erected to prohibit on-street parking within the work zone.

Traffic control and protection shall be in accordance with the standards, details, and special provisions in the plans, and as directed by the Engineer. This work shall be paid for at the contract lump sum price for TRAFFIC CONTROL AND PROTECTION, (SPECIAL), which price shall be payment in full for all materials, labor and equipment required to complete this item as specified. Flaggers required at side roads and entrances remaining open to traffic, as well as those required due to temporary lane closures will not be paid for separately but shall be included in the cost of TRAFFIC CONTROL AND PROTECTION, (SPECIAL). Additional barricades required by the Engineer shall also be included in the cost of TRAFFIC CONTROL AND PROTECTION, (SPECIAL).

#### STATUS OF UTILITIES TO BE ADJUSTED:

Name and Address of Utility	Туре	Location	Estimated Date Relocation Completed
City of Jacksonville 200 W. Douglas Avenue Jacksonville, IL 62650	Water & Sewer	Throughout Project	During Construction
Ameren CIPS 700 Jersey Street Quincy, IL 62306	Electric (Aerial) Gas (Buried)	Throughout Project	During Construction
Frontier Communications 330 W. Beecher Avenue Jacksonville, IL 62650	Communications	Throughout Project	During Construction
Mediacom Cable Massey Lane Jacksonville, IL 62650	Communications	Throughout Project	During Construction
Windstream 739 5 <sup>th</sup> Street Springfield, IL 62703	Communications	Throughout Project	During Construction
Metro Communications 8 S. Washington Street Sullivan, IL 61951	Communications	Throughout Project	During Construction
i3 Broadband 400 W. Morton Avenue Jacksonville, IL 62650	Communications	Throughout Project	During Construction
Vero Fiber Networks 1023 Walnut Street Boulder, Colorado 80302	Communications	Throughout Project	During Construction

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

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

**PRESERVING PROPERTY MARKERS:** The existing property corner markers located along this Section shall be protected by the Contractor. Any such monuments destroyed by the Contractor's operation shall be replaced by a Registered Land Surveyor at no additional cost to the City.

Any expense, inconveniences, or delays caused the Contractor in complying with this Special Provision will be considered included in the cost per CUBIC YARD of EARTH EXCAVATION, and no additional compensation shall be permitted.

**HAND GRADING:** Grading shall be done by hand around light poles, utility poles, sign posts, shrubs, trees or other natural or man-made objects where shallow fills or cuts are adjacent to the items. The decision as to items to remain in place shall be as directed by the Engineer.

This work will not be paid for separately but shall be considered included in the cost per CUBIC YARD for EARTH EXCAVATION and no additional compensation will be allowed.

**<u>DEBRIS:</u>** All debris of any type, large or small, encountered during any excavation shall be removed by the Contractor and disposed of at a site off the right of way.

This work will not be paid for separately but shall be considered as included in the cost of the pay item for which the work is being completed.

**STRINGLINE:** Some or all of the milling and/or binder on this Section is intended as the first step toward establishing the proposed profile grade. In these locations which are shown in the plans, the milling and binder will be controlled by stringline(s) erected, maintained, and removed and disposed of by the Contractor.

The cost of providing, erecting, maintaining, removing, disposing of, and employing the stringline as the grade control will not be paid for separately, but shall be considered as included in the pay item involved.

<u>COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12 (ABUTTING EXISTING PAVEMENT):</u> This work shall consist of removing existing curb/gutter and pavement and constructing Combination Concrete Curb and Gutter that abuts existing pavement.

For areas where existing pavement is removed beyond the minimum necessary to construct the proposed combination curb and gutter, the Contractor shall provide Class C Pavement Patching between the edge of the gutter flag and edge of the sawcut. This work shall be completed in accordance with Section 442 of the Standard Specifications and as directed by the Engineer.

Prior to removal of any existing curb/gutter for construction of the new combination concrete curb and gutter, the contractor shall longitudinally sawcut the existing pavement to provide a clean square edge for construction of the proposed curb and gutter. In areas of existing pavement where there is no existing curb/gutter, the existing pavement shall be sawcut longitudinally to provide a clean square edge for construction of the proposed curb and gutter. Saw cutting of the existing pavement shall be completed in accordance with the applicable portion of Section 442 of the Standard Specifications.

The proposed construction of the Combination Concrete Curb and Gutter shall be constructed as specified in the plans, IDOT Highway Standard 606001, Section 606 of the Standard Specifications and as directed by the Engineer.

This work shall be paid for in accordance with Section 606 of the Standard Specifications. Additionally, the work necessary to construct the proposed Combination Concrete Curb and Gutter adjacent to existing pavement including sawcuts, pavement removal, earth excavation, aggregate subbase, pavement patching, tie/dowel bars shall not be paid for separately but shall be included in the per FOOT for COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12 (ABUTTING EXISTING PAVEMENT).

**PRIMING OPERATIONS WITHIN THE BUSINESS DISTRICT:** Care shall be taken by the Contractor during priming within the limits of this section. Consideration shall be given by the Contractor for manners of performing priming operations in these areas to minimize tracking of the prime and tack coat by pedestrian traffic into adjacent businesses.

The Contractor shall use emulsion tack coat, tack before store hours, tack after store hours, gap tack at pedestrian crossings, tack just far enough ahead of his asphalt laydown operation to assure that the tack coat breaks or tack on weekends when businesses are closed. Care shall also be used in these areas not to tack more area than can be overlaid in one day's operation.

Any inconveniences incurred by the Contractor in complying with this Special Provision will be considered included in the cost per pound for BITUMINOUS MATERIALS (TACK COAT) and no additional compensation will be allowed.

**SIDEWALK AND DRIVEWAY PAVEMENT:** This work shall be performed in accordance with Sections 423 and 424 of the Standard Specifications and as follows:

Construction joints shall be hand tooled  $1\frac{1}{2}$ " deep and located as described in the plans. Expansion joints shall be  $\frac{1}{2}$ " thick, full depth,  $\frac{1}{4}$ " from the surface with sealer to fill the void. Locations shall be as indicated in the plans, no greater than 30' on-center, and as directed by the Engineer. The finish surface shall be medium-broomed, perpendicular to building façade and pedestrian traffic flow according to the plans and as directed by the Engineer.

All ADA curb ramps shall be thickened to 8" along sections adjacent to depressed curb and gutter, and as directed by the Engineer. No additional compensation shall be allowed for additional sidewalk thicknesses at depressed curb ramp locations.

All labor, equipment, and materials necessary to perform the work as described herein shall be paid for at the Contract unit price per SQUARE FOOT for PORTLAND CEMENT CONCRETE SIDEWALK 4 INCH.

Sidewalk through proposed driveways shall be paid for at the Contract unit price per SQUARE YARD for PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT of the thickness specified.

<u>PORTLAND CEMENT CONCRETE PAVEMENT 9" (SPECIAL):</u> This work applies to colored and stamped concrete surfaces as well as non-stamped natural colored concrete located in the cross walks within the street and consists of preparation of sub-base, forming, placing, and finishing concrete as shown in the plans and as directed by the Engineer.

#### Submittals:

- (a) The following items shall be submitted and approved prior to operations:
  - 1. Proposed concrete mix,
  - 2. Proposed color additive and sealers
  - 3. Proposed stamp pattern.
- (b) A test section of 10 square foot per color shall be provided for evaluation by the Engineer. Sections shall be prepared with integral color, stamped with release agent, and coated with antiskid agent and sealer. Additional test section(s) shall be provided if needed to achieve the desired quality.
- (c) The following items shall be submitted during operations:
  - 1. Concrete load tickets
  - 2. Concrete sample test results.

#### Products:

- (a) Concrete: Portland cement concrete in compliance with SI in accordance with Section 1020 Portland Cement Concrete, IDOT Standard Specifications.
- (b) SGS Integral Color shall be fine ground pure mineral pigments, color Colony Red as detailed in the plans for the area of application, specifically designed for coloring concrete as manufactured by Solomon Colors, 4050 Color Plant Road, Springfield, IL 62702 (t) 800-624-0261, www.solomoncolors.com.
- (c) Color Release Agent, if applicable, shall be a dry hydrophobic powder and iron oxide coloring, color Charcoal as detailed in the plans, specifically designed as a color release agent as manufactured by Solomon Colors, 4050 Color Plant Road, Springfield, IL 62702 (t) 800-624-0261, www.solomoncolors.com.
- (d) Concrete Sealer shall be according to Section 1026 Concrete Sealer, IDOT Standard Specifications.
- (e) Anti-Skid Agent shall be compatible with selected Sealer.
- (f) Stamp shall be as detailed in the plans, brick running bond using form "Running Bond New 1/4" Joints" (FM-5140) manufactured by Solomon Colors, 4050 Color Plant Road, Springfield, IL 62702 (t) 800-624-0261, www.solomoncolors.com.

#### Construction Requirements:

- (a) Colored, stamped concrete shall match that provided in the Downtown Square and South Main Street projects.
- (b) Construction shall be in compliance with Section 424 Portland Cement Concrete Sidewalk, IDOT Standard Specifications and these specifications.
  - (c) Construction joints shall be hand tooled as shown in the plans.
  - (d) Expansion joints shall be ½" thick, full depth, ¼" from the surface with sealer to fill the void.
  - (e) Colored concrete shall be integrally and uniformly colored to achieve manufacturer's color guide.
  - (f) Concrete surface shall be stamped to provide full depth impression. Color release agent shall be used as detailed in the plans to achieve appearance to match the approved test section.
  - (g) Surface shall have antiskid agent and sealer applied.
  - (h) Finish Surface
    - 1. All surfaces shall drain.
    - 2. Tolerance. No greater than 1" in 10' from lines and grades shown on plan.
  - (i) Upon completion, the contractor shall take particular care not to damage the pavement surface with other construction operations by covering the pavement with an appropriate protective cover material. Rollers, bituminous prime trucks, concrete trucks, and trucks carrying HMA shall not be allowed to track over the pavement.

Basis of Payment: This work will be paid for at the contract unit price per SQUARE YARD for PORTLAND CEMENT CONCRETE PAVEMENT 9" (SPECIAL) which price shall include all equipment, materials, and labor, including base preparation, coloring, pouring, and finishing/stamping, to complete this work as specified to the satisfaction of the Engineer.

**BRICK PAVERS:** This work consist of installation of pavers as detailed in the plans and as directed by the Engineer including preparation of sub-base, concrete base slab with weep holes, setting sand, and concrete unit pavers.

#### Submittals:

- (a) The following items shall be submitted and approved prior to operations:
  - 1. Cut sheets for proposed unit pavers

- 2. Unit paver samples: minimum of 5 pavers representing full range of paver coloration and list of equipment anticipated for the work.
- (b) The following items shall be submitted during operations:
  - Concrete load tickets
  - 2. Concrete sample test results

#### Products:

- (a) Pavers to be furnished shall be in accordance with Article 1042.15(d) and the following:
  - 1. Pavers to match those provided in the Downtown Square and Main Street projects and be IDOT certified pre-cast concrete products.
  - 2. Pavers shall be rectangular pavers with dimensions of 7.875" x 3.875" x 2.375" with beveled edges and spacer lugs.
  - 3. Pavers shall be Holland Premier Paver, color: Heritage Brown as manufactured by Unilock, 301 E. Sullivan Road, Aurora, IL 60504, 716/822-6074.
- (b) Setting sand shall be fine crushed stone aggregate gradation FA8 in accordance with Section 1003 Fine Aggregate, IDOT Standard Specifications.
- (c) Concrete base shall be in accordance with Section 1020 Portland Cement Concrete, Type SI, IDOT Standard Specifications.

#### Construction Requirements:

- (a) Time of operation. Pavers shall be installed when the base can be properly prepared and when setting sand is dry.
- (b) Concrete base shall include the following in accordance with Section 424 PC Concrete Sidewalk, IDOT Standard Specification.
  - 1. Preparation of grade
  - 2. Forming, pouring, and finishing of concrete base
  - 3. Coarse broom base surface
  - 4. Drainage holes as shown on project plans

#### (c) Sand Base

- 1. Setting Sand shall be placed over concrete base to a fluffed-up thickness of ½" minimum to 1" maximum.
- 2. Sand shall be screeded over the entire area to provide a smooth and uniformly sloped surface.

#### (d) Paver Installation

1. Pavers shall be laid on an area of freshly screeded sand. It is recommended that an area of pavers be installed and vibrated in place the same day.

- 2. Pavers shall be set according to the manufacturer's recommendation in patterns shown on plans.
- 3. Pavers shall be cut as necessary to fill paved areas. Cuts shall be at precise angles with no chipping or broken edges. Maximum gap between pavers and adjacent pavements shall be 3/8".
- 4. Sand shall be swept between joints. Paved areas shall be mechanically vibrated to achieve a uniform surface. The process shall be repeated until joints are completely filled and the surface is smooth and uniform.
- 5. Surface shall be carefully checked. Any cracked or broken pavers shall be removed and replaced.

Pavers will be paid for at the Contract unit price per SQUARE FOOT for BRICK PAVERS which price shall include all equipment, materials, and labor, including concrete base slab, setting sand, pavers, drainage weep holes, and other associated work to complete this item as specified and to the satisfaction of the Engineer.

**CONCRETE CURB TYPE B (SPECIAL):** This work shall consist of construction of a barrier type curb of varying height at the locations specified in the plans.

The work shall be completed in accordance with the details in the plans, Highway Standard 606001, Section 606 of the IDOT Standard Specifications, and as directed by the Engineer.

The concrete curb as described shall be paid for at the Contract unit price per FOOT for CONCRETE CURB, TYPE B (SPECIAL) which shall include all labor, equipment, and materials, including excavation and reinforcement bars, necessary to complete the work to the satisfaction of the Engineer.

**REMOVAL OF UNCLASSIFIED MATERIAL:** The existing railroad ties/timbers, sign bases, and other unclassified materials not called out in the Summary of Quantities shall be removed as designated by the Engineer. The material removed as required in this Special Provision shall be disposed of outside the limits of the right of way in accordance with Article 202.03 of the Standard Specifications and as directed by the Engineer.

This work will not be paid for separately but shall be considered included in the cost per CUBIC YARD for EARTH EXCAVATION and no additional compensation will be allowed.

**PAVEMENT REMOVAL OVER EXISTING WATER MAINS:** At pavement removal locations over existing water mains, pavement breaking using impact equipment will not be permitted. This restriction will apply to pavement being removed within 10 feet of a water main location. The method of removal will be approved by the Engineer and will be included in the unit cost of the removal pay item.

### <u>SAWCUTTING PAVEMENT, SIDEWALK, CURB AND COMBINATION CURB AND GUTTER:</u> Prior to removal of any of the above items, the joint between that portion to remain and that

Prior to removal of any of the above items, the joint between that portion to remain and that portion to be removed shall be neatly sawed to obtain a vertical edge.

This work shall not be paid for separately but considered included in the cost of the item being removed.

<u>CURB REMOVAL:</u> This work shall consist of removing concrete curb and gutter, concrete curb and stone curb at locations indicated on the plans and as directed by the Engineer and in accordance with the applicable portions of Section 440 of the Standard Specifications.

This work shall be paid for at the contract unit price per FOOT for CURB REMOVAL in accordance with Article 440.08 of the Standard Specifications.

**STORM SEWER REMOVAL:** This work shall consist of the removal of existing storm sewers as shown in the plans, and as directed by the Engineer. This work shall be completed in accordance with Section 551 of the Standard Specifications and as directed by the Engineer.

Trench backfill and pavement patching for storm sewer removal will not be paid for separately but will be included in the cost for the associated Storm Sewer Removal.

This work shall be paid for at the unit cost per FOOT for STORM SEWER REMOVAL of the size specified, which price shall include all labor, material, and equipment necessary to complete the removal, backfilling, and patching to the satisfaction of the Engineer.

**REMOVING INLETS AND MANHOLES:** This work shall consist of removing inlets and manholes at the locations shown on the plans in accordance with the applicable portions of Section 605 of the Standard Specifications.

At locations designated by the Engineer the flow in the existing storm sewer system shall be maintained through the area where the inlet is to be removed. The work of removing existing inlets where flow is to be maintained shall be in accordance with Article 605.03 of the Standard Specifications.

All voids created after removing inlets and manholes shall be filled with trench backfill in accordance with Section 208 of the Standard Specifications. This additional work shall be included in the cost of the item being removed.

<u>FIRE HYDRANTS TO BE REMOVED:</u> This work shall consist of the removal of existing fire hydrants as shown in the plans and as directed by the Engineer.

This work item shall be completed in accordance with the applicable portion of Section 564 of the Standard Specifications and to the satisfaction of the Engineer. The exposed water main shall be capped and thrust blocking installed as specified in the Special Provision for WATER MAIN ABANDONMENT. Fire hydrants shall be carefully removed by the Contractor and shall

become the property of the City of Jacksonville and shall be removed from the job site by the City.

This work shall be paid for at the Contract unit price per EACH for FIRE HYDRANTS TO BE REMOVED which price shall include all labor, equipment, and material necessary to complete the work as specified herein and to the satisfaction of the Engineer.

**HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH:** This work shall consist of the partial removal of the hot-mix asphalt surfacing of the existing pavement at the locations shown on the plans.

This work shall be performed in accordance with the Special Provision for Stringline and Section 440 of the Standard Specifications.

This work will be paid for at the Contract unit price per SQUARE YARD for HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH, which price shall include all labor and equipment, including stringline, necessary to complete the work to the satisfaction of the Engineer.

<u>PAVEMENT PATCHING:</u> This work shall consist of temporary aggregate patching, and final patching of the existing roadway after water main and storm sewer installation. This work shall be completed in accordance with Section 442 of the Standard Specifications and as directed by the Engineer.

For those areas to be patched as a result of water main and storm sewer removal and installation, a temporary aggregate or permanent pavement patch will be allowed until the appropriate stage for construction of the pavement(s).

The quantity for PAVEMENT PATCHING, TYPE II and TYPE III, 8 INCH is estimated, and is included to account for any pavement failures not apparent from the surface.

As shown in the details in the plans and as directed by the Engineer, the patches shall be tied into adjacent existing concrete pavement.

All patches shall be a minimum of 8" thick subsequent to milling operations. If the Contractor chooses to construct patches prior to milling, no additional compensation will be allowed for the required additional thickness.

This work shall be paid for at the Contract unit price per SQUARE YARD for CLASS C PATCHES of the type and thickness specified, which price shall include all equipment, labor and material necessary to construct the final patching area. Temporary aggregate and tie bars will not be considered for separate payment but considered included in the cost of CLASS C PATCHES.

Additional patching required to address local pavement failures will be paid for at the Contract unit price per SQUARE YARD for PAVEMENT PATCHING, 8 INCH, of the size and type specified, which price shall include all equipment, labor, and material necessary to construct the

patches, including any temporary aggregate or tie bars required herein or requested by the Engineer.

<u>WATER DISTRIBUTION SYSTEM:</u> This item shall consist of furnishing and installing water main, water services, fire hydrants, fittings, valves, valve boxes, line stops, water main casing and other appurtenances necessary to complete the work; said water main and appurtenances being of the type, classes, sizes and dimensions required on the plans; all items being furnished and installed at the places designated on the plans or by the Engineer, in accordance with these specifications and the plans.

This item shall include in the bid price per linear foot of water main in place, the cost of common excavation and trench backfill, the cost of class C patches, temporary aggregate, and tie bars required in the pavement patching section herein, the cost of furnishing and installing all trench bracing, all fittings required to complete the water main as shown on the plans, encasement of water main under existing sewer as shown on the plans and the material for and the making of all joints including all connections to existing mains.

This work shall be performed in accordance with, and the materials shall comply with the applicable portions of the Standard Specifications for Water and Sewer Main Construction in Illinois, Eighth Edition, dated 2020 and the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, dated January 1, 2022.

#### **MATERIALS**

#### <u>GENERAL</u>

The Contractor shall provide all materials required to construct a potable water main with fire hydrants, valves and fittings, valve boxes, thrust blocking, line stops, water main encasement, disinfecting and testing materials meeting regulatory requirements in accordance with:

- 1. Illinois Environmental Protection Agency:
  - a. Technical Policy Statements, Nov. 1, 1985.
  - b. "Recommended Standards for Water Works," 2003 Edition.
- 2. American Water Works Association (AWWA):
  - a. Cement Mortar Lining for Ductile Iron and Gray Iron Pipe and Fittings for Water (ANSI/AWWA C104/A21.4-90).
  - b. Rubber Gasket Joints for Ductile Iron and Gray Iron Pressure Pipe and Fittings (ANSI/AWWA C111/A21.11.90).
  - c. Standard for Disinfecting Water Mains (ANSI/AWWA C651-92).
  - d. Installation of Gray and Ductile Cast Iron Water Mains and Appurtenances (ANSI/AWWA C600-87).

- e. Resilient Seated Gate Valves 3" through 12" NPS for Water and Sewage Systems (ANSI/AWWA C509-87).
- f. Dry Barrel Fire Hydrants (ANSI/AWWA C502-85).
- g. Ductile Iron and Gray-Iron fittings, 3 in. through 48 in. for water and other liquids (ANSI/AWWA C110/A21.10-93).
- 3. Specifications for Polyvinyl Chloride (PVC) Plastic Pipe (SDR-PR and Class T) (ASTM D2241).
- 4. Underground Installation of Thermoplastic Pressure Piping (ASTM D2774-72).
- 5. "Standard Specifications for Water and Sewer Main Construction in Illinois," Eighth Edition, dated 2020.
- 6. American Water Works Association ANSI/AWWA C900-89, Polyvinyl Chloride (PVC) Pressure Pipe, 4 in. through 12 in. for Water Distribution.
- 7. Standard Specification for Polyethylene (PE) Plastic Tubing (ASTM D2737-21)

The Contractor shall transport, deliver, unload, store and handle all materials in a manner to prevent damage to the materials or the work. All damaged, broken or otherwise defective materials will be rejected. Store all circular rubber gaskets and special lubricants in packaged materials with the manufacturer's name, brand and all other applicable data plainly marked thereon.

<u>PVC WATER MAIN PIPE:</u> Pressure polyvinyl chloride pipe (PVC) of the size shown on the drawings shall be made from clear, virgin, Type 1, Grade 1 resin conforming to the latest revision of ASTM D1784. It shall be bell and spigot using a rubber gasket in accordance with ASTM F477 and be suitable for use at maximum hydrostatic working pressure of 150 psi at 73 degrees F. All pipes shall meet the requirements set forth in AWWA C900 with Dimension Ratio of DR18 and bear the National Sanitation Foundation seal for potable water. Fittings for PVC water main shall be ductile iron bolted mechanical joint with retainer glands in accordance with AWWA C110/ANSI A21.10. Compact filling conforming to ANSI/AWWA C153/A21.53-88 are acceptable. Fittings shall not be paid for separately but considered included in the cost of the water main of the size specified.

<u>DUCTILE IRON WATER PIPE:</u> Ductile iron water pipe shall be cement lined in accordance with AWWA C104/ANSI A21.4 and AWWA C151/ANSI A21.51; Class 52 in accordance with AWWA C150/150/ANSI A21.50. Fittings for ductile iron pipe for underground installations shall be bell and spigot or mechanical joint in accordance with AWWA C110/ANSI A21.10, with joints in accordance with AWWA C111/ANSI A21.11. Fittings for ductile iron pipes, which are not underground, shall be flanged in accordance with AWWA C110/ANSI A21.10, with joints in accordance with AWWA C115/ANSI A21.15 or ANSI B16.1, 125 lb., ASTM A-395. Restrained joint for ductile iron pipe in accordance with ANSI/AWWA C151/A21.51, ANSI/AWWA C110/A21.10, ANSI/AWWA C111/A21.11 and ANSI/AWWA C153/A21.53. Where indicated, restrained joint class 53 pipe shall be rated for 350 psi working pressure.

FIRE HYDRANT AND VALVE (SPECIAL): Fire hydrants shall be dry barrel with a flangible section near the ground line designed to break on impact. The fire hydrant shall be in accordance with AWWA C502. Fire hydrants shall have a 6-inch mechanical joint inlet connection. Two 2-1/2-inch hose nozzles and one 6" pumper nozzle shall be fitted with cast iron threaded caps with operating nuts of the same design and proportions as the hydrant stem nut. Caps shall be threaded to fit the corresponding nozzles and shall be fitted with suitable gaskets for positive water tightness under test pressures. All hydrants shall include tee, auxiliary 6-inch gate valve and box as specified below and shall not be paid for separately but included in the cost of FIRE HYDRANT AND VALVE (SPECIAL). Fire hydrants shall be purchased from the City of Jacksonville Water Department. Joints for the fire hydrants and auxiliary 6-inch gate valve shall be mechanical with joint in accordance with AWWA A21.11 with retaining glands.

<u>VALVES WITH VALVE BOXES:</u> The minimum requirements for all gate valves shall, in design, material and workmanship, conform to the standards of AWWA C509. All materials used in the manufacture of waterworks gate valves shall conform to the AWWA standards designed for each material listed.

- 1. The gate valves shall be standard pattern and shall have the name or mark of the manufacturer, size and working pressure plainly cast in raised letters on the valve body.
- 2. Valves for underground installation shall be mechanical joint in accordance with AWWA C110/ANSI A21.10, with joints in accordance with AWWA C111/ANSI A21.11 with retainer glands.
- 3. The valve bodies shall be cast iron, mounted with approved non-corrosive materials. All wearing surfaces shall be bronze or other non-corrosive material, and there shall be no moving bearing or moving contact surfaces, or moving iron in contact with iron.
- 4. Contact surfaces shall be machined and finished in the best workmanlike manner, and all wearing surfaces shall be easily renewable.
- 5. Gate valves shall be non-rising stem, resilient wedge style Mueller A-2360 with stainless steel bolts. All valves shall open by turning the operator counterclockwise.

Valve boxes of sufficient length to permit operation of the valves shall be supplied with the valves for underground installation. The cast iron valve box shall be of the extension type, Mueller #H-10360 with length sufficient to extend from the water main up to the surface of the finished grade, provided with a detachable iron lid at least six inches in diameter. The word "WATER" shall be cast on the lid of each box. A plastic alignment device shall be placed on valve stem prior to valve box placement. Valve boxes shall not be paid for separately but considered included in the cost of the valve of the size specified.

THRUST BLOCKING: Construct poured concrete thrust blocking at all bends in piping equal to or greater than 11-1/4° and at hydrant locations. The concrete blocking shall be poured against undisturbed earth. Thrust block bearing surface shall be of size as shown on drawings and as directed by the Engineer. Concrete shall be Class SI, in accordance with the applicable requirements of Sections 503 and 1020 of the Illinois Department of Transportation "Standard"

Specifications for Road and Bridge Construction". The cost of providing thrust blocking shall be considered included in the cost of the water main. Wrap all fittings in 6 mil plastic to act as bond breaker between the concrete and valve or fitting.

<u>TRACER WIRE:</u> Provide a #10 single strand coated copper tracer wire suitable for underground installation over all water mains constructed under this contract.

Wire shall be installed directly with the water main before placing any backfill. Wire shall terminate and begin at ground level within the valve boxes. Care shall be exercised during installation to not kink, twist, smash or otherwise weaken or break the wire. Installation shall be subject to the satisfaction of the Engineer. Before acceptance, the tracer wire installations shall be tested for electrical continuity. The Contractor will be responsible for conducting all tests and repairing or replacing all faulty installations to the satisfaction of the Engineer. The cost of providing tracer wire shall be considered included in the cost of the water main.

<u>4" WATER SERVICE CONNECTIONS:</u> Water service connections shall consist of a 4" PVC or ductile iron water service pipe attached to the proposed main using an appropriate tee fitting, reducer, and thrust blocking. The service shall be extended through the basement wall of the business and connected to the existing service using the appropriate reducer fitting. If PVC watermain is used, the material must be transitioned to ductile iron for the last ten feet such that metal pipe is provided +/- five feet on either side of the building penetration. A 4" gate valve with valve box shall be installed immediately after the connection of the service to the main. Trenches shall be backfilled with Trench Backfill.

#### 1" AND 2" WATER SERVICE CONNECTIONS:

- A. Tapping Saddle shall be a Mueller H-13000 Bronze tapping saddle.
- B. 1" and 2" service corporations and curb stops shall be Mueller compression type (Minneapolis Pattern) of size specified in the plans.
- C. The Contractor shall have the option of using 1" and 2" Type K copper service pipe, which shall be in accordance with Section 40-2.06A of the "Standard Specifications for Water and Sewer Main Construction in Illinois", and as shown in the plans.
- D. The Contractor shall also have the option of using 1" and 2" copper tube size (CTS) polyethylene tubing rated for use with water at 73.4°F at a minimum working pressure of 200 PSI. It shall be marked in accordance with ASTM D-2737 and carry the seal of the National Sanitation Foundation (NSF). It shall be fitted with stainless steel inserts at all fittings and connections. Joints shall not be permitted.

Any proposed water services that are under existing roadways shall be bored. The cost of boring is to be included in the per foot price. All service pipe, valve, valve boxes, and fittings shall be in accordance with PVC WATER MAIN, VALVES AND VALVE BOXES, and THRUST BLOCKING as described herein.

<u>LINESTOPS:</u> Furnish and install linestops for the pipe diameter specified. This work shall be completed, tested and ready for service prior to the installation of water mains or

appurtenances. The static pressure at the installation site is approximately 75 psi. Prior to line stop removal, line stops shall be closed to check for installed valve leaks.

#### **CONSTRUCTION METHODS**

<u>GENERAL:</u> The contractor shall provide trenching, excavation, backfilling, compaction, removal of excess excavation, removal of existing water main and appurtenances as necessary, installation of water main and appurtenances, thrust blocking, disinfecting, and testing, cast in place concrete and all other work necessary to complete the installation of the water main. No additional compensation will be allowed due to encounters with buried brick, concrete walls from existing basements/vaults.

TRENCHING, BACKFILLING AND COMPACTION. This work shall be performed and executed as follows:

#### **INSPECTION:**

A. Examine the area where and conditions under which trenching, backfilling, and compacting for utilities are to be performed. Notify Engineer in writing of conditions detrimental to proper and timely completion of the work.

#### **EXCAVATION OR TRENCH FOR PIPE OR CONDUIT:**

- A. Excavation shall be made by open cut. The sides of the trench shall be kept as nearly vertical as possible, especially from the trench floor to the level of 12 inches above the top of the pipe. Excavation shall be in accordance with Section 20 of the "Standard Specifications for Water and Sewer Main Construction in Illinois".
- B. Trenches shall be excavated to a depth that will provide a covering of not less than 4'-6" or as shown in the drawings, measured from the top of the pipe barrel to the finish grade of the ground. Trench bottoms shall have a minimum width of the pipe plus 12 inches.
- C. Provide and maintain such sheeting and bracing to support the sides of the excavation, and to prevent movement which might injure personnel, damage the pipe, or delay the work.

#### BACKFILL BELOW CENTERLINE OF PIPE OR CONDUIT:

1. Granular cradle and pipe cradle materials shall be in accordance with the details shown on the drawings and in accordance with Sections 20-2.20C of the "Standard Specifications for Water and Sewer Main Construction in Illinois" and in accordance with Section 208 of the "Standard Specifications for Road and Bridge Construction".

2. Granular cradle and pipe cradle shall be placed and compacted in accordance with Sections 20-2.20B of the "Standard Specifications for Water and Sewer Main Construction in Illinois".

#### BACKFILL ABOVE CENTERLINE OF PIPE OR CONDUIT:

- 1. After completion of pressure and leakage tests specified elsewhere, the exposed pipe and joints shall be backfilled by hand, together with tamping, until fill has progressed to a minimum depth of 12 inches above the top of the pipe.
- 2. Backfill above the centerline of pipe or conduit shall be placed and compacted in accordance with Section 20-2.21B, of the "Standard Specifications for Water and Sewer Main Construction in Illinois" and as specified in paragraph 3 below.
- 3. Backfilling under existing or proposed roads, parking areas, sidewalks, other improved surfaces or at locations shown on the drawings shall be entirely aggregate for trench backfill as specified in Section 208 of the "Standard Specifications for Road and Bridge Construction.

<u>DISPOSAL OF SURPLUS AND UNDESIRABLE EXCAVATION MATERIAL:</u> All surplus excavated material not required for backfilling the excavation shall be removed and deposited and graded in accordance with Section 202.03 of the "Standard Specifications for Road and Bridge Construction". All undesirable material, including rocks, trees, stumps, etc. shall be removed and deposited in accordance with Section 202.03 of the "Standard Specifications for Road and Bridge Construction".

<u>PAYMENT:</u> Costs for work required by this specification section shall be included in the cost of the pipeline installation and no additional compensation will be allowed.

#### INSTALLATION

#### **COORDINATION:**

A. Coordinate installation of water line with all other crafts to alignment, depth and service locations and as shown on the drawings. Damage done to other utilities including, but not limited to telephone, cable, electrical and natural gas shall be addressed as specified in Article 107.39 of the Standard Specifications for Road and Bridge Construction.

#### **INSTALLATION:**

#### A. Laying of Pipe

1. All installations shall conform to lines and grade shown on the drawings. Valves and special fittings shall be placed where shown on the drawings unless their

location is changed by the Engineer. When field conditions dictate deviation from the drawings, no change shall be made without written authorization of the Engineer.

- 2. No pipe shall be laid in water or when, in the opinion of the Engineer, trench conditions are unsuitable. When pipe laying is stopped at night or for any other reason, watertight plugs shall be used to exclude dirt, water, small animals, and other foreign material from the pipe.
- 3. Prior to starting work, have the manufacturer furnish instructions in the proper assembly and installation of the pipe. Such instructions shall in no way be construed to assume all or any part of the Contractor's responsibility for proper installation.
- 4. All pipe, fittings and accessories shall be carefully placed into the trench by suitable equipment in such manner to prevent damage to pipe and fittings. A granular cradle shall extend completely around all ductile iron fittings to help prevent corrosion.
- 5. In distributing the material at the site of the work, each piece shall be unloaded opposite or near the place where it is to be laid in the trench. All pipes shall be loaded and unloaded piece-meal by hand or in bundles by lifting with hoists or skidding so as to avoid shock or damage. Under no circumstances shall pipe materials be dropped. Pipe handled on skidways shall not be skidded or rolled against pipe already on the ground.
- 6. Bedding and backfilling shall be as specified previously.
- 7. Before any length of pipe is placed in the trench, a careful inspection shall be made of the interior of the pipe to see that no foreign material is in the pipe. In order to properly remove all foreign material, swabs of necessary length shall be available at all times.
- 8. All pipes shall be lowered carefully into the trench, properly aligned, and properly jointed by use of suitable tools and equipment, in a manner to prevent damage to pipe materials and protective coatings and linings.
- 9. Under no circumstances shall pipe materials or fittings be dropped or dumped into the trench. The pipe and fittings shall also be inspected to determine if they are sound and free from cracks. Laying of pipe shall be commenced immediately after excavation is started.
- 10. Pipe shall be laid with bell ends facing in the direction of laying, unless the main is being laid down a steep incline, in which case the bell ends shall face uphill.
- 11. All lumps, blisters and excess coating shall be removed from the joint of each pipe; and the outside and inside of all joints shall be wire brushed and wiped clean and dry and free from oil and grease before the pipe is laid.

12. Avoid field cutting of pipe if at all possible. When pipe is to be cut in the field, the cut end shall be conditioned so that it can be used to make up the next joint. Bevel the outside of the cut 3/16 inch to ¼ inch at an angle of approximately 30 degrees to prevent damage to the gasket.

#### B. Jointing:

- 1. Remove all foreign matter from the socket, making sure the gasket seat is clean.
- 2. The gasket shall be wiped clean with a clean cloth, flexed, and properly placed in the socket for a snug fit in the retainer seat.
- 3. Apply lubricant furnished by the pipe manufacturer on the surface of the gasket which will come in contact with the plain end of the pipe to be laid.
- 4. Clean the plain end of the pipe and apply a thin film of lubricant about one inch wide around the circumference of the pipe. Keep the pipe free of ground or trench sides to prevent foreign matter from clinging to the lubricant.
- 5. The plain end of the pipe shall be aligned and carefully entered into the socket until it contacts the gasket. This is the starting position for the final assembly of the joint.
- 6. Joint assembly shall then be completed by jacking the plain end of the entering pipe past the gasket (which is thereby compressed) until it contacts the bottom of the socket. A system of marking the pipe shall be used to make certain the assembled joint is at the proper depth.

#### C. Laying of Pipe on Curves:

- 1. Long radius curves, either horizontal or vertical, may be laid with standard pipe by deflections at the joints. When the pipe is shown curved on the drawings and no special fittings are shown, the curves can be made by deflection of the joints as shown on the drawings with standard lengths of pipe. Where shorter lengths are required, the drawings will indicate maximum lengths that can be used. No pipes shall be laid on curve without written authorization of the Engineer.
- 2. When rubber gasketed pipe is laid on a curve, the pipe shall be jointed in a straight alignment and then deflected to the curved alignment. Trenches shall be made wider on curves for this purpose.

#### D. Valve Boxes and Valves for Underground Installation:

1. The valve boxes shall be set in position during backfilling operations so they will be in a vertical alignment to the gate valve operating stem. A plastic alignment device shall be placed on valve stem prior to valve box placement. The lower casting of the unit shall be installed first in such a manner as to be cushioned and to not rest directly upon the body of the gate valve or upon the water main. The

upper casting of the unit shall then be placed in proper alignment and to such an elevation that its top will be final grade.

- 2. All valve boxes shall be installed flush with sidewalks, drives or finish grade.
- All gate valves shall be inspected upon delivery in the field to insure proper working order before installation. They shall be set and jointed to the pipe in a manner as set forth in the AWWA Standards for the type of connection ends furnished.
- 4. Buried valves shall be installed in a vertical position and be provided with a standard valve chamber in a cast iron valve box so arranged that no shock will be transmitted to the valve or strain on pipe joints. The box shall be centered over the operating nut, and the cast iron box cover shall be set flush with the roadbed or finished surface.

#### E. Hydrants

1. Hydrants shall be installed at the locations shown on the drawings. They shall be plumb and shall be set so that the lowest hose connection is at least 15 inches above the surrounding finish grade. All hydrants shall be inspected in the field upon delivery to the job to insure proper operation before installation. A minimum of ¼ cubic yard of 1" gravel shall be placed at and around the base of the hydrant to insure proper drainage of the hydrant after use. The blocking of the hydrant shall conform with the blocking detail shown on the drawings. A layer of filter fabric shall be placed over the gravel drain field. Care shall be taken to ensure that weep holes are not covered by concrete blocking or filter fabric.

#### F. Thrust Blocking

- 1. Where any section of water line is provided with concrete reaction blocking, the hydrostatic pressure test shall not be made until at least two days have elapsed after the concrete reaction blocking was installed.
- G. Installation procedures shall also follow methods as specified in ASTM D-2774 and ANSI/AWWA C600 in combination with the manufacturer's recommendations.

#### **HORIZONTAL SEPARATION-WATER MAINS AND SEWERS:**

- A. Water mains shall be located at least ten feet horizontally from any existing or proposed drain, storm sewer, sanitary sewer, combined sewer, or sewer service connection.
- B. Water mains may be located closer than ten feet to a sewer line when:
  - 1. Local conditions prevent a lateral separation of ten feet; and
  - 2. The water main invert is at least 18 inches above the crown of the sewer; and

- 3. The water main is either in a separate trench or in the same trench on an undisturbed earth shelf located to one side of the sewer.
- C. When it is impossible to meet (A) or (B) above, both the water main and drain or sewer shall be encased in a slip-on or mechanical joint ductile iron pipe or PVC pipe equivalent to water main standards of construction. The drain or sewer shall be pressure tested to the maximum expected surcharge head before backfilling.

#### **VERTICAL SEPARATION – WATER MAINS AND SEWERS:**

- A. A water main shall be separated from a sewer so that its invert is a minimum of 18 inches above the crown of the drain or sewer whenever water mains cross storm sewers, sanitary sewers or sewer service connections. The vertical separation shall be maintained for that portion of the water main located within ten feet horizontally of any sewer or drain crossed. A length of water main pipe shall be centered over the sewer to be crossed with joints equidistant from the sewer or drain.
- B. Both the water main and sewer shall be encased in slip-on or mechanical joint ductile iron pipe or PVC pipe equivalent to water main standards of construction when:
  - 1. It is impossible to obtain the proper vertical separation as described in (A) above; or
  - 2. The water main passes under a sewer or drain.
- C. A vertical separation of 18 inches between the invert of the sewer or drain and the crown on the water main shall be maintained where a water main crosses under a sewer. Support the sewer or drain lines to prevent settling and breaking the water main, as shown on the plans, or as directed by the Engineer.
- D. Construction shall extend on each side of the crossing until the perpendicular distance from the water main to the sewer or drain line is at least ten feet.

#### **TESTING:**

#### A. Hydrostatic Test

1. Backfill shall be placed over the pipe except at the joints. The pipe shall be slowly filled with water. Care shall be taken to expel all the air from the pipes. The pipes shall be tapped at high points to vent the air. Pressure of 125 psi, measured at the point of lowest elevation, shall be applied for not less than two hours; and all pipe, fittings, valves, hydrants, and joints shall be carefully examined for defects. Leaking joints shall be remade and then retested. Test pressure shall be 125 psi.

- 2. No pipe installation shall be accepted unless and until the leakage, determined under the test pressure, is less than that allowed in Section 41-2.13C in the "Standard Specifications for Water and Sewer Main Construction in Illinois".
- 3. The test shall be made between valves and shall be made within 10 working days of the completion of such sections of lines. To determine the rate of leakage, furnish a suitable pump, pressure gauge and water meter or other appliance for measuring the amount of water pumped. The instruments shall be tested for accuracy as frequently as directed by the Engineer. Contractor shall furnish all the labor and materials to make the tests and to perform all testing work incidental to the Contract.
- B. All other water line appurtenances shall be tested at the factory in accordance with the applicable AWWS Standard stated in Section 760-2.1 of this special provision. Accept all material upon delivery and ensure its proper operation at substantial completion.

#### **DISINFECTION:**

- A. Disinfection of valves, hydrants and piping shall be conducted in accordance with the materials and methods specified in AWWA C651. In the process of disinfecting newly laid pipe, all valves or other appurtenances shall be operated while the pipeline is filled with the chlorinating agent.
- B. Following disinfection, all chlorinated water shall be thoroughly flushed from the newly laid pipeline at its extremities until the replacement water throughout its length shall, upon test, be proved comparable in quality to the water served the public from the existing water supply system. Bacteriological testing shall be as required by the Illinois Environmental Protection Agency. Two passing tests a minimum of 24 hours apart will be required.
- C. Upon completion of testing and disinfection, Contractor shall leave all lines full of water ready for use by the Owner. The cost to disinfect including all water required shall be considered included in the cost of the Contract.

#### **RESTORATION AND CLEAN-UP:**

- A. Upon completion of the water distribution system, all excavated areas shall be restored by reseeding, replacement of aggregate base course, and/or pavement replacement as required. All areas will be left in a condition to not restrict drainage. Regrade all ditches and side slopes. Reseeding shall be in accordance with Section 250 of the IDOT Standard Specifications for Road & Bridge Construction.
- B. Upon completion of the work, inspect the entire installation. Correct all defective work. Replace all damaged and defective parts with new materials.

C. Upon completion of installation and at such other times as directed, remove all surplus materials, debris, empty cartons, rubbish, and legally dispose of same off the site.

#### PAYMENT:

A. Payment for the installation of pipes, valves, line stops and hydrants shall be at the Contractor Unit Price Bid for the respective items. The Unit Price Bid shall include excavation and trench backfill for the pipeline whether it is by trenching or open cut. All work required for the complete installation, ready for use, of this water distribution system shall be included in the Unit Prices Bid.

<u>CONCRETE THRUST BLOCKING:</u> Handling, proportioning, batching, mixing, testing and placing the cast-in-place concrete for thrust blocking shall be performed in accordance with the applicable requirements of Section 1020 and of the construction requirements of Section 503 of the "Standard Specifications for Road and Bridge Construction". The concrete shall have a minimum compressive strength of 3,500 psi at 14 days.

Basis of Payment: Payment will be made at the contract unit price per linear foot for each kind of water main/service pipe of the type, class, and size designated. Payment will also be made for the installation of valves (including valve boxes), line stops, and fire hydrants (including auxiliary valves and valve boxes) of the types and sizes designated at the contract unit price per each for the respective items. Trench backfill and pavement patching will not be paid for separately but considered included in the cost of the respective item.

These prices shall be full compensation for furnishing all materials required as shown in the plans and for all preparation, assembly, and installation of these materials; and for all testing, disinfecting, cleanup, and restoration; and for all labor, equipment, tools, trench backfill, pavement patching, and incidentals necessary to complete the installation of this water distribution system, ready for use, and accepted by the Engineer.

Payment will be made at the contract unit price for the following items:

WATER MAIN 6" - per foot

WATER MAIN 10" - per foot

WATER MAIN LINE STOP 6" - per each

WATER MAIN LINE STOP 10" - per each

FIRE HYDRANT AND VALVE (SPECIAL) - per each

WATER VALVES 4" - per each

WATER VALVES 6" - per each

WATER VALVES 10" – per each

WATER SERVICE LINE 1" – per foot

WATER SERVICE LINE 2" – per foot

WATER SERVICE LINE 4" – per foot

**STAGING OF WATER MAIN HYDROSTATIC TEST:** The contractor shall conduct hydrostatic testing of the water main constructed prior to conducting paving patching operations. Leaking joints shall be repaired and re-tested prior to conducting paving patching operations.

Costs for work required by this special provision will not be paid for separately but shall be considered included in the cost of the water distribution system pay items involved.

<u>WATER MAIN ABANDONMENT:</u> This work shall consist of abandoning existing water mains in place and the removal of existing water mains, fittings, valves, meters, boxes, yard hydrants, and associated appurtenances associated with construction of the proposed water main/services and storm sewer as shown in the plans and as directed by the Engineer.

The work items shall include shutting off all valves and corporation stops. All exposed service lines and water mains to be abandoned that are exposed as a result of other construction activities shall be capped and thrust blocking installed. All service risers/boxes shall be removed to 2' below the limits of the proposed improvements. All work shall be as specified herein, as directed by the Engineer to meet the satisfaction of the City of Jacksonville.

Backfilling under existing or proposed roads, sidewalks, or other improved surfaces shall be completed using Trench Backfill as specified in Section 208 of the Standard Specifications.

All abandoned water main that conflicts with the operation or maintenance of existing or proposed sanitary or storm sewer, including manholes and all associated appurtenances, shall be removed as to not interfere with the service to remain as specified and to the satisfaction of the Engineer.

This work shall be paid for at the Contract unit price per EACH for WATER MAIN ABANDONMENT which price shall include all labor, equipment, and materials, including trench backfill, to complete this item as specified and to the satisfaction of the Engineer. The removal of existing water mains, regardless of size of material encountered, fittings, valves, meters, boxes, and associated appurtenances shall not be paid for separately but considered included in the cost of WATER MAIN ABANDONMENT.

**STORM SEWER (WATER MAIN REQUIREMENTS):** This work shall consist of constructing a storm sewer to meet water main standards, as required by the IEPA requirements or if otherwise specified. The work shall be performed in accordance with applicable parts of Section 550 of the Standard Specifications, applicable sections of the current edition of the

IEPA Regulations (35 III. Adm. Code 653.119), the applicable sections of the current edition of the Standard Specifications for Water and Sewer Main Construction in Illinois, and as herein specified.

This provision shall govern the installation of all storm sewers which do not meet IEPA criteria for separation distance between storm sewers and water mains. Separation criteria for storm sewers placed adjacent to water mains and water services are as follows:

- 1. Water mains and water service lines shall be located at least 10 feet horizontally from any existing or proposed drain, storm sewer, or sewer service connection.
- 2. Water mains and water service lines may be located closer than 10 feet to a sewer line when:
  - A. Local conditions prevent a lateral separation of 10 foot, and
  - B. The water main or water service invert is 18 inches above the crown of the sewer, and
  - C. The water main or water service is either in a separate trench or in the same trench on an undisturbed earth shelf located to one side of the sewer.
- 3. A water main or water service shall be separated from a sewer so that its invert is a minimum of 18 inches above the crown of the drain or sewer whenever water mains or services cross storm sewers, sanitary sewers, or sewer service connections. The vertical separation shall be maintained for that portion of the water main, or water services located 10 feet horizontally of any sewer or drain crossed.

When it is impossible to meet 1, 2, and 3 above, the storm sewer shall be constructed of concrete pressure pipe, slip-on or mechanical joint ductile iron pipe, or PVC pipe equivalent to water main standards of construction. Construction shall extend on each side of the crossing until the perpendicular distance from the water main or water service to the sewer or drain line is at least 10 feet. Storm sewer meeting water main requirements shall be constructed of the following pipe materials:

#### Concrete Pressure Pipe

Concrete pressure pipe shall conform to the latest AWWA Standard C300, C301, C302, or C303.

Joints shall conform to Article 41-2.07B of the "Standard Specifications for Water and Sewer Main Construction in Illinois."

#### Ductile Iron Pipe

Ductile-iron pipe shall conform to ANSI A 21.51 (AWWA C151), class or thickness designed per ANSI A 21.50 (AWWA C150), tar (seal) coated and/or cement lined per ANSI A 21.4 (AWWA C104), with a mechanical or rubber ring (slip seal or push on) joints.

Joints for ductile iron pipe shall be in accordance with the following applicable specifications.

Mechanical Joints - AWWA C111 and C600
 Push-On Joints - AWWA C111 and C600

#### Plastic Pipe

Plastic pipe shall be marked with the manufacturer's name (or trademark); ASTM or AWWA specification; Schedule Number, Dimension Ration (DR) Number or Standard Dimension Ration (SDR) Number; and Cell Class. The pipe and fittings shall also meet NSF Standard 14, and bear the NSF seal of approval. Fittings shall be compatible with the type of pipe used. The plastic pipe options shall be in accordance with the following:

- 1. Polyvinyl Chloride (PVC) conforming to ASTM D 1785. Schedule 80 is required for all pipe sizes, except when the pipe is to be threaded, and then it shall be Schedule 120. It shall be made from PVC compound meeting ASTM D 1784, Class 12454.
- 2. Polyvinyl Chloride (PVC) conforming to ASTM D 2241. SDR 26 or less is required for all pipe sizes. It shall be made from PVC compound meeting ASTM D 1784, Class 12454.
- 3. Chlorinated Polyvinyl Chloride (CPVC) conforming to ASTM F 441. Schedule 80 is required for all pipe sizes. Threaded joints are not allowed. It shall be made from CPVC compound meeting ASTM D 1784, Class 23447.
- 4. Chlorinated Polyvinyl Chloride (CPVC) conforming to ASTM F 442. SDR 26 or less is required for all pipe sizes. It shall be made from CPVC compound meeting ASTM D 1484, Class 23447.
- 5. Polyvinyl Chloride (PVC) conforming to ANSI/AWWA C900. DR 25 or less is required for all pipe sizes. It shall be made from PVC compound meeting ASTM D 1784, Class 12454.
- Polyvinyl Chloride (PVC) conforming to ANSI/AWWA C905. DR 26 or less is required for all pipe sizes. It shall be made from PVC compound meeting ASTM D 1784, Class 12454.

Joining of plastic pipe shall be by push-on joint, solvent welded joint, heated welded joint, flanged joint, or threaded joint, in accordance with the pipe manufacturer's instructions and industry standards. Special precautions shall be taken to ensure clean, dry contact surfaces when making solvent or heat welded joints. Adequate setting time shall be allowed for maximum strength.

Elastomeric seals (gaskets) used for push-on joints on plastic pipes shall comply with ASTM F 447.

Solvent cement shall be specific for the plastic pipe material and shall comply with ASTM D 2564 (PVC) or ASTM F 493 (CPVC) and be approved by NSF.

For water-sewer crossings only, storm sewer meeting water main requirements may also be constructed of reinforced concrete sewer pipe. The sewer pipe shall conform to ASTM C 76 with a rubber gasket meeting ASTM C 443. The pipe class shall meet the requirements of Section 550 of the Standard Specifications for Road and Bridge Construction.

This work will be measured and paid for at the Contract unit price per FOOT for STORM SEWER (WATER MAIN REQUIREMENTS) of the diameter specified.

**STORM SEWER CONNECTIONS:** The cost of connecting existing storm sewers to the proposed drainage system shall be considered included in the cost of the proposed storm sewers or drainage structures involved. No additional compensation will be allowed.

**EXISTING DRAINAGE PIPES:** All existing drainage pipes, tiles or downspouts which may be encountered during construction of the proposed improvement shall be connected to the storm sewer as detailed in the plans and to the satisfaction of the Engineer. All trenches shall be filled with trench backfill as specified in Section 550 of the Standard Specifications. The type of materials permitted for Storm Sewer (Special) shall be according to Article 550.03 for storm sewers, Type 2.

Basis of Payment: This work shall be paid for at the Contract unit price per FOOT of STORM SEWERS (SPECIAL) of the diameter specified which price shall include all equipment, labor, and material, including trench backfill necessary to connect existing drain tiles/pipes to the storm sewer as specified herein and to the satisfaction of the Engineer.

**TEMPORARY DRAINAGE INTO PROPOSED DRAINAGE STRUCTURES:** This work shall consist of providing temporary drainage into any proposed drainage structure that is to be constructed in sag locations. These sag locations shall also be interpreted to include side streets.

Concrete curb and gutter shall not be placed at sag inlet locations until hot-mix asphalt binder has been placed to allow for drainage into structure.

This work will not be paid for separately but shall be considered as included in the Contract unit price for the various pay items involved and no additional compensation will be allowed.

**TELESCOPING STEEL SIGN SUPPORT (SPECIAL):** This work shall consist of furnishing and installing telescoping steel sign supports for ground-mounted signs utilizing a telescoping base section as specified in Sections 728 and 731 of the Standard Specifications, and as directed by the Engineer.

The steel pipe and the base shall be coated as specified below. Color of the coating shall be black. The coating shall be applied only after the steel pipe and base have been fabricated. The final product shall not contain cracks in the coating, ripples in the curved areas, nor any damage due to fabrication and or shipping. When specified, telescoping steel sign supports

shall be secured to existing sidewalks using the base shown in Highway Standard 731001-01. All bases shall not be paid for separately.

- (a) Steel shall be shot blast to near white steel and then an iron phosphate pre-treatment shall be applied.
- (b) Primer shall be a thermosetting epoxy powder coating (Corvel Zinc Gray 13-7004) electrostatically applied and cured six minutes at 250°F. (121°C.). The primer thickness shall be 1.8-10 mils (45-250  $\mu$ m).
- (c) Topcoat shall be triglycidly isocyanurate (TGIC) polyester powder coating, electrostatically applied and cured in an oven for 20 minutes at 250°F. (121°C.). The total of all the coatings shall be 8-10 mils (200-250 μm).

Basis of Payment: This work shall be paid for per unit foot of TELESCOPING STEEL SIGN SUPPORT (SPECIAL) which price shall include all material, equipment, and labor necessary to complete this work as specified to the satisfaction of the Engineer.

**EXISTING SIGNS TO BE REMOVED:** This work shall consist of the removal of existing sign panels, sign panel assemblies, and supports that conflict with the final signing as shown in the plans and as directed by the Engineer. This work shall be completed in accordance with Section 724 of the Standard Specifications. Sign panels removed shall become the property of the City of Jacksonville.

This work shall not be paid for separately but considered included in the cost of SIGN PANEL – TYPE 1 and no additional compensation shall be allowed.

**LIGHTING ASSEMBLY (SPECIAL):** This work consists of providing and installing decorative cast aluminum poles, clam shell bases, arms, caps, luminaries, internal pole wiring for the luminaries, and GFI receptacle outlets as shown in the plans and as directed by the Engineer.

#### Submittals:

- (a) The following items shall be submitted and approved prior to operations:
  - (1) Product cut sheets
  - (2) Engineer sealed footing drawing.

Warranty: Light fixtures and decorative poles shall have the manufacturer's 5-year limited warranty.

#### Products:

(a) Lighting Assembly (Special)

- 1. Poles shall be cast aluminum alloy. The shaft shall be 27' high, straight tapered from 8.6-4.68". Four hot dipped galvanized "L" type non-quick release anchor bolts shall be provided for each light pole.
- 2. A lockable GFI 2-outlet receptacle shall be mounted 4' off the ground at the base of each pole.
- 3. 2 banner arms shall be provided on each pole to accommodate a 30"x60" banner. When poles are located at street corners, a 24"x6" two-sided Broadway B246 wayfinding sign with green background 11' from the ground to the bottom of the sign.
- 4. The Clam Shell Base shall be Birmingham 9701SS, 54" high, base diameter 27".
- 5. Roadway Arm shall be Model CBA, 8' long.
- 6. Caps for poles shall be 4" dia. Ball Cap.
- 7. Luminaire (1) to be 1910LEDLBS Reno Series, a decorative downlight fixture which consists of a decorative cast aluminum fitter, a spun aluminum shade and lens. The luminaire has LED light sources with down lighting optics.
- 8. Model#
  1A-1910LEDLBS-5P-4A1R40T3-MDL03-A-HSHB/CBA8/9727SRTS/BCC4/1-GFI
  IUC/1-HDBA/PG as manufactured by Sternberg Lighting, 555 Lawrence Ave.
  Roselle, IL 60172, 847/588-3400, www.sternberglighting.com. All metal parts shall be park green.
- (c) Concrete for footing shall be in accordance with Section 1020 Portland Cement Concrete, Type SI, IDOT Standard Specifications.
- (d) Reinforcement shall be in accordance with Section 1006.10 Concrete Reinforcement Bars, Fabric, and Strand, IDOT Standard Specifications.

#### Construction Requirements:

- (a) Poles shall be set on concrete bases using anchor bolts provided by manufacturer. Bolts shall be securely set in concrete with epoxy grout recommended by manufacturer.
- (b) Fluted base cover shall clamp around base plate and lower shaft of the pole assembly. Secure with 6 tamper-proof stainless-steel screws. Access door in base shall be secured with 2 tamper-proof stainless-steel screws according to manufacturer's instructions.
- (c) All components shall be installed according to the manufacturer's instructions.
- (d) Any scuffing or surface marring shall be repaired to the satisfaction of the Engineer.

Measurement: This work will be measured by the number of units installed.

Single Light fixture mount, pole with banner arms, and base will be paid for at the Contract unit price per EACH for LIGHTING ASSEMBLY (SPECIAL) which price shall include equipment, materials and labor including foundation to complete this item as specified to the satisfaction of the Engineer.

**ORNAMENTAL LIGHT UNIT, COMPLETE:** This work consists of providing and installing decorative cast aluminum poles, luminaries, internal pole wiring for the luminaries, and GFI receptacle outlets as shown on the plans and as directed by the Engineer.

#### Submittals:

- (a) The following items shall be submitted and approved prior to operations:
  - 1. Product cut sheets
  - 2. Engineer sealed footing drawing.

Warranty: Light fixtures and decorative poles shall have the manufacturer's 5-year limited warranty.

#### Products:

- (a) Ornamental Light Unit, Complete
  - Poles shall be 12-feet high cast aluminum alloy. The shaft shall be smooth tapered. Four hot dipped galvanized "L" type anchor bolts shall be provided for each light pole.
  - 2. Base shall be Birmingham 7700 cast aluminum alloy.
  - 3. When poles are located at street corners, a 24"x6" two-sided Broadway B246 wayfinding sign with green background 10' from the ground to the bottom of the sign.
  - 4. A lockable GFI 2-outlet receptacle shall be mounted 4' off the ground at the base of each pole.
  - 5. Luminaire to be Old Town Series, 16" x 40½". The acorn is supplied with a cast aluminum finial and a solid, cast aluminum roof which includes optimized heat sinks to provide maximum life and performance for the LED light sources. The acorn is sealed to the cast aluminum roof to provide a moisture-free and bug-free optics chamber for the LED light sources and Rated IP65.
  - 6. Poles, bases and fixtures shall be model #PT-A850SRLED-5P-3ARC40T5-MDL03-A/7712T5-.125/1-GFILPIUC/PG as manufactured by Sternberg Lighting, 555 Lawrence Ave. Roselle, IL 60172, 847/588-3400, www.sternberglighting.com. All metal parts shall be park green.
- (b) Concrete for footing shall be in accordance with Section 1020 Portland Cement Concrete, Type SI, IDOT Standard Specifications.
- (c) Reinforcement shall be in accordance with Section 1006.10 Concrete Reinforcement Bars, Fabric, and Strand, IDOT Standard Specifications.

#### Construction Requirements:

- (a) Poles shall be set on concrete bases using anchor bolts provided by manufacturer. Bolts shall be securely set in concrete with epoxy grout recommended by manufacturer.
- (b) All components shall be installed according to the manufacturer's instructions.

(c) Any scuffing or surface marring shall be repaired to the satisfaction of the Engineer.

This work will be paid for at the Contract unit price per EACH for ORNAMENTAL LIGHT UNIT, COMPLETE which price shall include equipment, materials and labor including foundation to complete this item as specified to the satisfaction of the Engineer.

**TREES:** This work shall consist of providing and installing trees, excavating unacceptable material, and placing topsoil if necessary, applying herbicide, staking trees, and providing maintenance as specified herein and as directed by the Engineer. All work shall be completed in accordance with Section 253 and 254 of the Standard Specifications and the following:

#### Submittals:

- (a) The following items shall be submitted and approved prior to operations:
  - 1. Proposed sources of trees and digital photos of trees
  - 2. One cubic foot sample proposed topsoil
- (b) The following items shall be submitted during operations:
  - 1. Tags from all fertilizer
  - 2. Peat moss and manure used in the project
  - 3. Tags from all trees showing species, size, and source.

#### Products:

- (a) All trees shall be approved by the Engineer prior to installation; shall be clearly marked as to source, species, size, specimen quality; conform to the species and sizes specified; have a growth habit representative of that species; and be free from diseases, insect pests, and injuries.
  - 1. Balled and Burlapped (B&B) Plants shall:
    - a. Be grown in a nursery with climatic conditions similar to those at the project site. B&B plants grown south of the St. Louis latitude will not be accepted.
    - b. Have a single leader unless otherwise specified.
    - c. Have been pruned frequently while growing in the nursery to avoid forked leaders, low or uneven branching, asymmetric growth, crossed limbs, scars from pruning, etc.
    - d. Be dug only when plants are dormant.
    - e. Be dug in accordance with best nursery practices.
    - f. Have solid earthen balls that encompass the fibrous and feeding roots of the plant.

#### (b) Backfill Mixture

1. Backfill Mixture for planting holes shall be a uniform mixture of eight (8)

- parts rich topsoil provided by the Contractor from which all foreign material and particles greater than 1" in any dimension have been removed, one (1) part peat moss and one (1) part manure.
- 2. Peat moss shall be free from foreign material such as soil and wood and shall have uniform particle sizes not exceeding 1/4" in any dimension.
- 3. Manure shall be well rotted, unleached horse or cattle manure free from foreign material and containing no phytotoxic substances.
- (c) Gravel shall be ½" to 1" diameter, light to medium brown color with angular shape.
- (d) Geotextile fabric to be 6 oz. woven fabric according to Section 1080 Fabric Materials, IDOT Standard Specifications.
- (e) Fertilizer shall be slow-release granular form and contain 14% nitrogen, 14% phosphoric acid and 14% potash.
- (f) Pre-emergent herbicide shall be a slow-release granular type specifically recommended for use in newly planted areas.
- (g) Water may be obtained by Contractor from metered hydrants. Prior to use of hydrants, a meter shall be obtained from the Jacksonville Water Department by contacting the Water Superintendent at 479-4615 or 479-4660.

#### Delivery, storage, and handling

- (a) Plant material shall be delivered to the site on the same day it is scheduled for installation.
- (b) All Plant Material shall be transported and handled to avoid physical damage and desiccation of the plants. Protective covering shall be used during shipment.
- (c) At the site plants shall be kept in the shade and protected from weather and mechanical damage. Roots shall be kept moist. The name of one plant of each variety shall be clearly marked.
- (d) All packaged material shall be delivered in containers showing the weight, analysis and name of manufacturer. Material shall be protected from deterioration during delivery and storage at the site.
- (e) During installation, material shall be handled to avoid damage to all plant parts. Should any plant parts be accidentally damaged during operations, the Engineer shall decide if immediate replacement is required.

#### Construction Requirements:

- (a) Time of operation. Planting shall be done when the climatic and soil conditions are appropriate, as confirmed by the Engineer.
- (b) Layout

- 1. It shall be the Contractor's responsibility to locate utilities prior to layout and to avoid any conflicts and damage.
- 2. Contractor shall stake the location of each tree and the perimeter of each shrub and planting bed to the satisfaction of the Engineer.

#### (c) Tree Excavation and Topsoil Backfill

- 1. Excavations for plants shall have near vertical sides and flat bottoms.
- 2. Contractor shall protect excavations and not leave unprotected overnight.
- 3. Excavations for trees shall be 12" on all sides of root ball. Excavations for shrubs shall be 6" on all sides of root ball. If existing excavated soil is not approved excavate to the following dimensions and backfill with approved backfill mixture:
  - a. Trees in grates: 4' deep by the length and width of the tree grate.
- 4. Contractor shall dispose of excess excavated material off the site.

#### (d) Tree Planting

- 1. Plants shall be set in excavations at the same level at which they were grown. Adjust plants and backfill with topsoil.
- 2. Burlap around balled and burlapped (B&B) plants shall be opened completely at the top, pulled back and tucked around the sides of the ball.
- 3. 10 grams (of actual fertilizer nutrients) for each ½" of plant diameter shall be placed firmly in the backfill mixture.
- 4. Topsoil shall be placed in lifts of 12 inches around root balls and firmly tamped.

#### (e) Tree Saucers of Soil

1. Trees. A rim of soil 4" high, 8" wide and 4 feet in diameter shall be formed round each tree to form a saucer.

#### (f) Tree Watering

- 1. Plants shall be thoroughly watered within 4 hours of installation. Watering and other maintenance shall continue per these specifications.
- 2. Pre-emergent Herbicide. All areas for mulch shall be treated with pre-emergent herbicide according to approved application rate prior to placement of mulch.

#### (g) Gravel Mulch over Tree in Grate

- 1. Install geotextile fabric over entire soil surface and extend 2" up the perimeter sides of the concrete tree grate border.
- 2. Place gravel as shown on project plans, 2" deep.

#### (h) Tree Pruning

 Pruning and limbing-up shall be done when plants are dormant, except for mechanical damage that will be repaired immediately, using good nursery practices.

- 2. Plants shall be pruned to remove any damaged branches, irregular branching, crossed limbs, etc. and result in a symmetric shape typical of the species. Trimmings shall be disposed of off-site.
- 3. Shade trees shall be limbed-up 1/3 the height of the tree or a maximum of 7-8 feet above the ground.

#### (i) Plant Support

1. Tree staking is not required at the time of planting. If trees begin to lean for any reason, right the tree and stake according to project drawings.

#### (j) Watering

1. After the initial installation and associated watering, Contractor shall set irrigation system to provide optimal watering for plants. Contractor shall continue watering of plants according to maintenance requirements.

#### (k) Maintenance

#### 1. Duration

a. Contractor shall carefully monitor and maintain the condition of plant material for a period of 45 days or until project acceptance, whichever is longer.

#### 2. Watering

a. Water with the amount and frequency to optimize plant establishment.

Plants generally require 10 gallons for each tree every 4 days. Water in a manner to achieve infiltration of water, avoiding run-off.

#### 3. Weeding

- a. Contractor shall keep planting areas weed-free.
- b. Generally, weeding shall be done by hand pulling. Any use of herbicides must be approved by the Engineer in advance and applicators must be licensed for commercial use of herbicides.

#### 4. Insects, Disease, Fungus

- a. Should problems with the plant material develop such as insect infestation, disease or fungus, Contractor shall immediately notify the Engineer and discuss remedies available.
- b. Contractor shall proceed expeditiously with selected treatment of affected areas and continue treatment until the problem is resolved.
- c. Contractor shall have state licensed applicators for treatment products as needed.

#### 5. Fill of Settlement Areas

a. Any areas that settle shall be restored to finish grade by filling with topsoil and replacing surface improvements.

Trees will be paid for at the Contract unit price per EACH for TREES of the species, root type, and plant size specified. Payment for work shall include all labor, equipment, and materials necessary to complete the work as specified herein and to the satisfaction of the Engineer. The payment schedule shall be in accordance with Article 253.17 of the Standard Specifications. Gravel mulch, fertilizer, topsoil backfill mixture, excavation, and maintenance will not be paid for separately, but considered included in the cost of the item being planted.

**TREE GRATES:** This work shall consist of furnishing and installing Tree Grates.

#### Submittals:

- (a) The following items shall be submitted and approved prior to operations:
  - 1. Product cut sheets for each item.

Warranty: Product warranties shall apply.

#### Products:

#### (a) Tree Grates

- 1. Tree grates shall be 36" wide by 60" long in two sections with ½" maximum square opening for pedestrian safety and ADA compliance. Tree opening to be 18" square.
- Material shall be cast from 100% recycled iron, unfinished.
- 3. Tree grates shall be Distinctive Creations Model #R-8820 as manufactured by Neenah Foundry, 2121 Brooks Avenue, Neenah, WI 54956, (t) 800-558-5075, <a href="https://www.neenahfoundry.com">www.neenahfoundry.com</a> to match Town Square and Main Street projects.
- 4. All steel components to be certified American steel as approved by IDOT.
- (b) All steel components shall be in accordance with Article 106.01 Source of Supply and Quality Requirements, IDOT Standard Specifications.
- (c) Concrete for footings shall be in accordance with Section 1020 Portland Cement Concrete, Type SI.
- (d) Reinforcement shall be in accordance with Section 1006.10 Concrete Reinforcement Bars, Fabric, and Strand.
- (e) Aggregate shall be in accordance with Section 1003 Fine Aggregates and Section 1004 Coarse Aggregates.

#### Construction Requirements:

(a) Tree grate frame shall be formed and poured according to plans. Grates shall be carefully set on frame as shown on plans.

(b) Any scuffing or other surface marring shall be repaired to the satisfaction of the Engineer.

Tree Grates will be paid for at the contract unit price per each for TREE GRATES which price shall include all equipment, materials, and labor, including tree grate frame and reinforced concrete frame, to complete this item as specified and to the satisfaction of the Engineer.

**BOLLARDS:** This work consists of furnishing and installing cast aluminum bollards as detailed in the plans and as directed by the Engineer.

#### Submittals:

- (a) The following items shall be submitted and approved prior to operations:
  - Product cut sheets.

Warranty: For a period of two years following acceptance of project contractor shall warranty against faulty installation and deterioration of bollards. Bollards also shall have the manufacturer's 5-year limited warranty.

#### Products:

- (a) Bollards
  - 1. Bollards shall be cast aluminum alloy, with a floor cast as an integral part of the base and bollard cap welded in place. The lower base shall be octagonal and transitions to a fluted upper section. Base diameter shall be 16" and overall height shall be 58-1/2". The finish shall be black.
  - 2. Four hot dipped galvanized "L" type non-quick release anchor bolts shall be provided for each bollard.
  - 3. Bollards shall be Manchester custom unlighted bollard Model #6701B-58.5"/BK as manufactured by Sternberg Lighting, 555 Lawrence Ave, Roselle, IL 60172, (t) 847-588-3400, www.sternberglighting.com
- (b) Concrete for footing shall be in accordance with Section 1020 Portland Cement Concrete, Type SI, IDOT Standard Specifications.
- (c) Reinforcement shall be in accordance with Section 1006.10 Concrete Reinforcement Bars, Fabric, and Strand, IDOT Standard Specifications.

#### Construction Requirements

- (a) Bollard shall be set in footings as shown on plans using anchor bolts provided by manufacturer. Bolts shall be securely set in concrete with epoxy grout recommended by manufacturer.
- (b) Any scuffing or surface marring shall be repaired to the satisfaction of the Engineer.

This work will be paid for at the Contract unit price per EACH for BOLLARDS which price shall include all equipment, materials, and labor, including foundation, to complete this item as specified and to the satisfaction of the Engineer.

<u>ORNAMENTAL STREETSCAPE STRUCTURE:</u> This work consists of furnishing and installing a prefabricated ornamental streetscape arch structure as detailed in the plans and as directed by the Engineer.

#### Submittals:

- (a) The following items shall be submitted and approved prior to operations:
  - 1. Shop drawings for structure.
  - 2. Sealed plans for structure, anchors, and footings.
  - 3. Shop drawings for LED light fixtures.

Warranty: For a period of two years following acceptance of project contractor shall warranty against faulty installation and deterioration. Any applicable product warranties shall also apply.

#### Products:

- (a) Ornamental Streetscape Structure
  - 1. Structure shall be rolled steel construction, prefabricated, drilled and packaged for on-site erection.
  - 2. Contractor shall provide fabricator with project plans and specifications, wiring plan and outlet placement and all other necessary information.
  - 3. All electrical wiring shall be inside structural members. Contractor shall wire prior to structure installation.
  - 4. Steel components shall be shotblasted, etched, phosphatized, preheated and electrostatically powder coated with TGIS polyester power coatings. Color shall be black.
- (b) LED Light strand fixtures
  - 1. Strand of flat-black LED nodes, custom 63' length with 12" on-center node spacing, Color Kinetics model number 500-000012-SPECIAL.
  - 2. Black marquee/accessory mounting kit, Color Kinetics model number 101-000057-04.
  - 3. Semi-frosted marquee lens, 2700K warm light, Color Kinetics model number 999-007997-05.
  - 4. Black marquee/accessory spacers, Color Kinetics model number 101-000075-03.
  - 5. Power supply shall be a Rhino PSP24-120C.
  - 6. Lights shall be controlled by photocell synchronized with street light fixtures.
- (c) All steel components shall be in accordance with Article 106.01 Source of Supply and Quality Requirements, IDOT Standard Specifications.

- (d) Concrete for footing shall be in accordance with Section 1020 Portland Cement Concrete, Type SI.
- (e) Reinforcement shall be in accordance with Section 1006.10 Concrete Reinforcement Bars, Fabric, and Strand.
- (f) A lockable GFI 2-outlet receptacle shall be mounted at both bases.

#### Construction Requirements:

- (a) Structure shall be installed according to fabricator's recommendations.
- (b) All field assembly fasteners shall be stainless steel huck bolts.
- (c) Anchors and footings shall be constructed according to sealed plans provided by the Contractor.
- (d) Contractor shall take particular care while erecting structure to avoid flexing of structure and cracking of the powder coat. If cracking of the powder coat occurs the structure shall be disassembled and have the powder coating process repeated.
- (e) Lights and all associated items shall be installed according to plans and manufacturer's recommendations.

Basis of Payment: Structure will be paid for at the Contract unit price of EACH for ORNAMENTAL STREETSCAPE STRUCTURE which price shall include all equipment, materials, and labor, including foundation and LED lights, to complete this item as specified and to the satisfaction of the Engineer.

<u>CONCRETE RAMPS:</u> This work shall consist of constructing concrete ramps at the location shown on the plans. This work shall be performed in accordance with the applicable portions of Section 424 of the Standard Specifications and with the details shown in the plans.

Concrete ramps will be paid for at the Contract unit price per SQUARE FOOT, measured as specified, for PORTLAND CEMENT CONCRETE SIDEWALK, 4 INCH, which price shall be payment in full for all labor, equipment, and materials, including concrete, reinforcement bars, backfill, expansion joints, etc. required to complete this item as specified and as directed by the Engineer.

<u>DECORATIVE STEEL RAILING:</u> This work shall consist of furnishing and installing decorative handrails at the locations shown in the plans and described in this Special Provision. Except as noted herein, this work shall be in accordance with the applicable provisions of Section 509 of the Standard Specifications.

Prior to ordering and manufacturing handrails, the contractor will be responsible for field measuring and submitting shop drawings for review and approval by the Engineer.

Mounting means and methods shall be determined by the contractor and approved by the Engineer at the time of construction.

#### Submittals:

- (a) The following items shall be submitted and approved prior to operations:
  - 1. Product cut sheets,
  - 2. Fully detailed shop drawings including Engineer sealed footing drawings.

Warranty: Product warranties shall apply.

#### Products:

#### (a) Decorative Steel Railing

- 1. Ornamental steel railing, 4' high with 3 rails, rings and top ornamentation, nominal 48" ht., 95-1/2" long.
- 2. Posts 2-1/2" square.
- 3. Brackets BB310 Commercial Line Boulevard.
- 4. 5" square x 1/4" thick powder coated steel post base anchor plate to secure fence post to concrete as manufactured by fence manufacturer.
- 5. Railing and posts galvanized iron, with epoxy base coating, color to be black. Hardware to match.
- 6. Railing to match product used on the East State Street Improvement projects.
- 7. Railing shall be Aegis Plus, Majestic Style as manufactured by Ameristar, 1555 N. Mingo Rd., Tulsa, OK 74116, (t) 800/321-8724 www.ameristarfence.com.

#### (b) Railing Materials

- Steel for railing framework (tubular pickets, rails and posts) shall conform to the requirements of ASTM A924/A924M with minimum yield strength of 50,000 psi. The steel shall be hot-dip galvanized to meet requirements of ASTM A653/A653M with a minimum zinc coating weight of 0.90 oz/ft3, Coating Designation G-90.
- 2. Material for pickets shall be 3/4" square x 16 Ga. tubing. Cross-sectional shall be 1.5" square with minimum thickness of 14 Ga. Picket holes shall be spaced 4.7" o.c. Picket retaining rods shall be 0.125" diameter galvanized steel. Posts shall be a minimum 2-1/2" square x 12 Ga. High quality PVC grommets shall be supplied to seal all picket-to-rail intersection.
- 3. The manufactured galvanized framework shall be subjected to the PermaCoat thermal stratification coating process. Coating shall meet the manufacturer's published Performance Standards.
- 4. All steel components to be certified American steel as approved by IDOT.

#### (c) Railing Fabrication

1. Pickets, rails, and posts shall be pre-cut to specified lengths. Rails shall be pre-punched to accept pickets.

- 2. Grommets shall be inserted into the pre-punched holes in the rails, and pickets shall be inserted through the grommets so that pre-drilled holes in pickets align with the internal upper raceway of the rails. Retaining rods shall be inserted into each rail so they pass through the pre-drilled holes in each picket to complete the assembly.
- 3. Completed panels shall be capable of supporting a 400 lb. load applied mid-span without deformation.
- (d) All steel components shall be in accordance with Article 106.01 Source of Supply and Quality Requirements, IDOT Standard Specifications.
- (e) Concrete for footing shall be in accordance with Section 1020 Portland Cement Concrete, Type SI, IDOT Standard Specifications.
- (f) Reinforcement shall be in accordance with Section 1006.10 Concrete Reinforcement Bars, Fabric, and Strand, IDOT Standard Specifications.

#### Construction Requirements:

- (a) Railing Footing
  - 1. Excavate concrete footings to dimensions shown on plans.
  - 2. Any excavations left open to be well secured.
  - Pour concrete curb footing.
  - 4. Set steel fence posts using anchor base plates according to plan and manufacturer's recommendations.

#### (b) Panels

- 1. Panels shall be securely attached. Panels shall be straight and true. Panels shall be handled to avoid scrapes, scratches, and other damage. Damaged panels may be rejected.
- Attach panels to posts using panel brackets and bolt-on hardware supplied by manufacturer.

#### (c) Finishing

1. Any minor scuffing shall be touched-up with coating to match recommended by fence manufacturer. Unacceptable repairs may be rejected.

This work will be paid for at the Contract unit price per FOOT for DECORATIVE STEEL RAILING which price shall include all equipment, materials, and labor to complete this item as specified and to the satisfaction of the Engineer.

<u>DECORATIVE SIGN POST:</u> This work consists of furnishing and installing decorative cast aluminum sign poles, aluminum frames, and sign panels as specified in the plans and as directed by the Engineer.

#### Submittals:

- (a) The following items shall be submitted and approved prior to operations:
  - 1. Product cut sheets.

Warranty: For a period of two years following acceptance of project Contractor shall warranty against faulty installation and deterioration of sign frames. Decorative poles also shall have the manufacturer's 5-year limited warranty.

#### Products:

- (a) Decorative Sign Post
  - 1. Ornamental base and post shall be Birmingham style 7710T5/BCC4 with a 4" ball center cap. Heights shall vary by location, see Signage and Striping Sheets for details.
  - 2. Posts shall be manufactured by Sternberg Lighting, 555 Lawrence Ave. Roselle, IL 60172, 847/588-3400, <a href="www.sternberglighting.com">www.sternberglighting.com</a>. The post and base shall be park green.
- (b) Sign Frames
  - 1. Sign Frames shall be one-piece fully backed aluminum frames matching the size and shape of signs, Color to match frames used on Town Square and South Main Street projects.
  - 2. Sign Frames shall be manufactured by Sternberg Lighting, 555 Lawrence Ave, Roselle, IL 60172, 847/588-3400, <a href="https://www.sternberglighting.com">www.sternberglighting.com</a>.
- (c) All metal components shall be in accordance with Article 106.01 Source of Supply and Quality Requirements, IDOT Standard Specifications.
- (d) Concrete for footing shall be in accordance with Section 1020 Portland Cement Concrete, Type SI, IDOT Standard Specifications.
- (e) Reinforcement shall be in accordance with Section 1006.10 Concrete Reinforcement Bars, Fabric, and Strand, IDOT Standard Specifications.

#### Construction Requirements:

- (a) Poles shall be set using anchor bolts provided by manufacturer. Bolts shall be securely set in concrete with epoxy grout recommended by manufacturer.
- (b) Sign frames and signs shall be installed on pole according to manufacturer's installation instructions.
- (c) Any scuffing or surface marring shall be repaired to the satisfaction of the Owner.

This work will be paid for at the Contract unit price per EACH for DECORATIVE SIGN POST, which price shall include all equipment, materials, and labor, including all posts, sign frames, and footings necessary to complete this item as specified and to the satisfaction of the Engineer.

**BASEMENT VAULTS:** At locations where vaults exist under existing sidewalk which is to be replaced, the existing sidewalk shall be removed, all openings in the wall at the building line shall be sealed closed with a concrete retaining wall, the vault filled with trench backfill, and new sidewalk then constructed.

This sidewalk to be removed may consist of plain concrete sidewalk or reinforced concrete sidewalk. The sidewalk removal at the building lines shall be in accordance with the details shown in the plans and as directed by the Engineer. The Contractor shall take care not to damage store fronts, bearing walls, supporting beams, or any other supporting members vital to the structural support of the building or the aesthetic value of the façade of the building.

All openings in the bearing wall at the building line shall be closed by constructing a concrete retaining wall adjacent to the opening in accordance with the detail shown in the plans, and the applicable portions of Section 503 of the Standard Specifications. The wall shall be formed and constructed in such a manner so that no additional pressures are exerted on the bearing wall. Steel forms with metal snap ties will be permissible. After the forms have been removed, the wall shall be temporarily braced to prevent tipping toward the street until the vault is backfilled.

All loose material in partition walls and the retaining wall at the street line shall be removed and disposed of prior to filling the vault. All voids under the pavement shall be filled with compacted trench backfill. Concrete floors in the vaults shall be broken for drainage purposes. The vault shall then be filled with trench backfill to the subgrade elevation of the proposed sidewalk.

The P.C.C. sidewalk shall be constructed to the lines and grades determined by the Engineer at the time of construction, in accordance with the details shown in the plans and in accordance with the applicable portions of Section 424 of the Standard Specifications. The joint at the building line shall be sealed in accordance with the details shown in the plans.

Any damage to bearing walls or buildings caused due to the Contractor's operations shall be replaced or repaired by the Contractor at no additional cost to the City.

All excavation for the retaining wall, broken concrete, bricks, or other debris removed from the vaults shall be disposed of outside the limits of the right of way at locations approved by the Engineer.

Frames and grates removed with existing sidewalk and not to be incorporated into the improvement shall become the property of the City of Jacksonville. The frames and grates shall be stockpiled at a location designated by the Contractor for removal by City personnel.

Sidewalk removed shall be paid for at the Contract unit price per SQUARE FOOT, measured in place, for SIDEWALK REMOVAL, which price includes payment in full for the removal and disposal of all concrete or reinforced concrete sidewalk. The concrete retaining wall shall be paid for at the Contract unit price per SQUARE FOOT of surface area, measured from the top of

the footing to the top of the wall, for RETAINING WALL (SPECIAL), which price shall include all Class SI Concrete, reinforcement bars, excavation, concrete, and reinforcement bars, for footings, forming and bracing the wall, and all other material and labor required to complete the wall. Trench backfill shall be paid for at the Contract unit price per CUBIC YARD for TRENCH BACKFILL, which price shall include all labor, material, and equipment required to complete this item. The proposed sidewalk shall be paid for at the Contract unit price per SQUARE FOOT for PORTLAND CEMENT CONCRETE SIDEWALK, 4 INCH, measured in place, which price includes payment in full for all material, labor, equipment, joints, etc. required to complete this item. The removal and disposal of all debris removed from the vaults will not be paid for separately but shall be included in the cost of the backfill.

<u>LIGHTING CONTROLLER, SPECIAL:</u> This work shall consist of furnishing and installing an electrical lighting controller, in accordance with the details in the plans, and Sections 825 and 1068.01 of the Standard Specifications for Road and Bridge Construction.

The controller enclosure shall be mounted on a concrete foundation, which shall be included in the cost of the LIGHTING CONTROLLER, SPECIAL. The enclosure shall be unpainted aluminum and have a single door.

The lighting controller shall utilize a photocell for lighting operation.

Basis of Payment: This work will be paid for at the contract unit price each for LIGHTING CONTROLLER, SPECIAL, as specified herein.

MANHOLES TO BE RECONSTRUCTED: This work shall be performed in accordance with Section 602 of the Standard Specifications, as shown in the plans and as directed by the Engineer, as well as further described herein:

Structures to be reconstructed shall be removed in its entirety to either the invert of the lowest existing storm sewer to be removed, or to the lowest invert of proposed storm sewer. Cast-in-place or precast Class SI concrete sections will then be constructed around the proposed storm sewer laterals and the structure will be reconstructed to the proposed profile grade with a flat slab top and type 1 frame and lid, closed lid, to the satisfaction of the Engineer. Any voids created during the removal process shall be filled with trench backfill in accordance with Section 208 of the Standard Specifications.

All labor, material, and equipment required to perform the work described herein, including all frames, lids, flat slab tops, excavation, and trench backfill shall be paid for at the Contract unit price per EACH for MANHOLES TO BE RECONSTRUCTED.

**REMOVE EXISTING HANDHOLE:** This work shall be performed in accordance with Section 895 of the Standard Specifications and as further specified herein:

Any existing conduit within the handhole to be removed shall be plugged or capped with cement or other material approved by the Engineer.

All labor, equipment, and materials necessary to perform the work as described herein shall be paid for at the Contract unit price per EACH for REMOVE EXISTING HANDHOLE.

**HANDHOLE TO BE ADJUSTED:** This work shall consist of adjusting the existing frames and lids of existing handholes to the proposed grade of the sidewalk.

If it is determined by the Engineer that for any reason the existing handhole is not able to be salvaged, the Contractor shall reconstruct the structure to the proposed grade using a frame and lid approved by the Engineer.

All labor, materials, and equipment necessary to perform the work as described herein shall be paid for at the Contract unit price per EACH for HANDHOLE TO BE ADJUSTED.

**REMOVE EXISTING TRAFFIC CONTROLLER AND CABINET:** This work shall consist of removing the abandoned traffic controller, cabinet, and foundation located on the southwest quadrant of the W State Street and Church Street intersection.

The existing controller, cabinet, and foundation shall be removed and disposed of off of right-of-way at a location approved by the Engineer. All conduit and wire shall be removed to a minimum of 2' below the existing grade line. Any abandoned conduit to remain in place shall be capped or plugged with cement or another material approved by the Engineer. All voids created shall be filled with trench backfill in accordance with Section 208 of the Standard Specifications.

All labor, materials, and equipment necessary to perform the work as described herein, including trench backfill, shall be paid for at the Contract unit price per EACH for REMOVE EXISTING TRAFFIC CONTROLLER AND CABINET.

**REMOVE AND RELOCATE EXISTING MONUMENT:** This work shall consist of removing and relocating the existing stone monument in the southwest quadrant of the W State Street and Church Street intersection.

Care shall be taken to not damage the stone during removal activities. The proposed location of the monument shall be south of the proposed sidewalk at a location specified by the Engineer within public right-of-way. A new 4" 3'x3' PCC slab shall be constructed in accordance with Section 424 of the Standard Specifications, and the monument shall be secured to the slab through methods approved by the Engineer.

All labor, materials, and equipment necessary to perform the work as described herein, including the PCC slab, shall be paid for at the Contract unit price per EACH for REMOVE AND RELOCATE EXISTING MONUMENT.

<u>HANDHOLE:</u> This work shall be done in accordance with Section 814 of the Standard Specifications, except as modified herein:

All handholes and double handholes shall be made of composite concrete in accordance with Section 1088.05 of the Standard Specifications and suitable for occasional vehicular traffic. No other materials shall be permitted.

All labor, equipment, and materials necessary to perform the work as described herein shall be paid for at the Contract unit price per EACH for HANDHOLE or DOUBLE HANDHOLE.

## 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 Jacksonville			
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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				
	Cores			
X	X Nuclear Density Gauge (Correlated when			
	paving ≥ 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."

#### 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 (TRAINES 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 <u>2</u>.

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

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

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

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

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#### **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
	One Project Manager,
Over \$50,000,000	Two Project Superintendents,
Over \$30,000,000	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: March 2, 2019

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

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

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

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

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

OVERALL GOAL SET FOR THE DEPARTMENT. As a requirement of compliance with 49 CFR Part 26, the Department has set an overall goal for DBE participation in its federally assisted contracts. That goal applies to all federal-aid funds the Department will expend in its federally assisted contracts for the subject reporting fiscal year. The Department is required to make a

good faith effort to achieve the overall goal. The dollar amount paid to all approved DBE companies performing work called for in this contract is eligible to be credited toward fulfillment of the Department's overall goal.

CONTRACT GOAL TO BE ACHIEVED BY THE CONTRACTOR. This contract includes a specific DBE utilization goal established by the Department. The goal has been included because the Department has determined the work of this contract has subcontracting opportunities that may be suitable for performance by DBE companies. The determination is based on an assessment of the type of work, the location of the work, and the availability of DBE companies to do a part of the work. The assessment indicates, in the absence of unlawful discrimination and in an arena of fair and open competition, DBE companies can be expected to perform 3.00% of the work. This percentage is set as the DBE participation goal for this contract. Consequently, in addition to the other award criteria established for this contract, the Department will only award this contract to a bidder who makes a good faith effort to meet this goal of DBE participation in the performance of the work. A bidder makes a good faith effort for award consideration if either of the following is done in accordance with the procedures set for in this Special Provision:

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

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

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

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

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

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

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

- (a) The following is a list of types of action that the Department will consider as part of the evaluation of the bidder's good faith efforts to obtain participation. These listed factors are not intended to be a mandatory checklist and are not intended to be exhaustive. Other factors or efforts brought to the attention of the Department may be relevant in appropriate cases and will be considered by the Department.
  - (1) Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBE companies that have the capability to perform the work of the contract. The bidder must solicit this interest within sufficient time to allow the DBE companies to respond to the solicitation. The bidder must determine with certainty if the DBE companies are interested by taking appropriate steps to follow up initial solicitations.
  - (2) Selecting portions of the work to be performed by DBE companies in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the Contractor might otherwise prefer to perform these work items with its own forces.
  - (3) Providing interested DBE companies with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.

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

bidder has failed to meet the requirements of this Special Provision or that a good faith effort has not been made, the Department will notify the responsible company official designated in the Utilization Plan that the bid is not responsive. The notification will also include a statement of reasons for the adverse determination. If the Utilization Plan is not approved because it is deficient as a technical matter, unless waived by the Department, the bidder will be notified and will be allowed no more than a five calendar day period to cure the deficiency.

(c) The bidder may request administrative reconsideration of an adverse determination by emailing the Department at "DOT.DBE.UP@illinois.gov" within the five calendar days after the receipt of the notification of the determination. The determination shall become final if a request is not made on or before the fifth calendar day. A request may provide additional written documentation or argument concerning the issues raised in the determination statement of reasons, provided the documentation and arguments address efforts made prior to submitting the bid. The request will be reviewed by the Department's Reconsideration Officer. The Reconsideration Officer will extend an opportunity to the bidder to meet in person to consider all issues of documentation and whether the bidder made a good faith effort to meet the goal. After the review by the Reconsideration Officer, the bidder will be sent a written decision within ten working days after receipt of the request for reconsideration, explaining the basis for finding that the bidder did or did not meet the goal or make adequate good faith efforts to do so. A final decision by the Reconsideration Officer that a good faith effort was made shall approve the Utilization Plan submitted by the bidder and shall clear the contract for award. A final decision that a good faith effort was not made shall render the bid not responsive.

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

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

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

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

- (a) <u>NO AMENDMENT</u>. No amendment to the Utilization Plan may be made without prior written approval from the Department's Bureau of Small Business Enterprises. All requests for amendment to the Utilization Plan shall be emailed to the Department at DOT.DBE.UP@illinois.gov.
- (b) <u>CHANGES TO WORK</u>. Any deviation from the DBE condition-of-award or contract plans, specifications, or special provisions must be approved, in writing, by the Department as provided elsewhere in the Contract. The Contractor shall notify affected DBEs in writing of any changes in the scope of work which result in a reduction in the dollar amount condition-of-award to the contract. Where the revision includes work committed to a new DBE subcontractor, not previously involved in the project, then a Request for Approval of Subcontractor, Department form BC 260A or AER 260A, must be signed and submitted. If the commitment of work is in the form of additional tasks assigned to an existing subcontract, a new Request for Approval of Subcontractor will not be required. However, the Contractor must document efforts to assure the existing DBE subcontractor is capable of performing the additional work and has agreed in writing to the change.
- (c) <u>SUBCONTRACT</u>. The Contractor must provide copies of DBE subcontracts to the Department upon request. Subcontractors shall ensure that all lower tier subcontracts or agreements with DBEs to supply labor or materials be performed in accordance with this Special Provision.
- (d) <u>ALTERNATIVE WORK METHODS</u>. In addition to the above requirements for reductions in the condition of award, additional requirements apply to the two cases of Contractorinitiated work substitution proposals. Where the contract allows alternate work methods which serve to delete or create underruns in condition of award DBE work, and the Contractor selects that alternate method or, where the Contractor proposes a substitute work method or material that serves to diminish or delete work committed to a DBE and replace it with other work, then the Contractor must demonstrate one of the following:
  - (1) The replacement work will be performed by the same DBE (as long as the DBE is certified in the respective item of work) in a modification of the condition of award; or
  - (2) The DBE is aware its work will be deleted or will experience underruns and has agreed in writing to the change. If this occurs, the Contractor shall substitute other work of equivalent value to a certified DBE or provide documentation of good faith efforts to do so; or
  - (3) The DBE is not capable of performing the replacement work or has declined to perform the work at a reasonable competitive price. If this occurs, the Contractor shall substitute other work of equivalent value to a certified DBE or provide documentation of good faith efforts to do so.

(e) TERMINATION AND REPLACEMENT PROCEDURES. The Contractor shall not terminate or replace a DBE listed on the approved Utilization Plan, or perform with other forces work designated for a listed DBE except as provided in this Special Provision. The Contractor shall utilize the specific DBEs listed to perform the work and supply the materials for which each is listed unless the Contractor obtains the Department's written consent as provided in subsection (a) of this part. Unless Department consent is provided for termination of a DBE subcontractor, the Contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the DBE in the Utilization Plan.

As stated above, the Contractor shall not terminate or replace a DBE subcontractor listed in the approved Utilization Plan without prior written consent. This includes, but is not limited to, instances in which the Contractor seeks to perform work originally designated for a DBE subcontractor with its own forces or those of an affiliate, a non-DBE firm, or with another DBE firm. Written consent will be granted only if the Bureau of Small Business Enterprises agrees, for reasons stated in its concurrence document, that the Contractor has good cause to terminate or replace the DBE firm. Before transmitting to the Bureau of Small Business Enterprises any request to terminate and/or substitute a DBE subcontractor, the Contractor shall give notice in writing to the DBE subcontractor, with a copy to the Bureau, of its intent to request to terminate and/or substitute, and the reason for the request. The Contractor shall give the DBE five days to respond to the Contractor's notice. The DBE so notified shall advise the Bureau and the Contractor of the reasons, if any, why it objects to the proposed termination of its subcontract and why the Bureau should not approve the Contractor's action. If required in a particular case as a matter of public necessity, the Bureau may provide a response period shorter than five days.

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

- (1) The listed DBE subcontractor fails or refuses to execute a written contract;
- (2) The listed DBE subcontractor fails or refuses to perform the work of its subcontract in a way consistent with normal industry standards. Provided, however, that good cause does not exist if the failure or refusal of the DBE subcontractor to perform its work on the subcontract results from the bad faith or discriminatory action of the Contractor;
- (3) The listed DBE subcontractor fails or refuses to meet the Contractor's reasonable, nondiscriminatory bond requirements;
- (4) The listed DBE subcontractor becomes bankrupt, insolvent, or exhibits credit unworthiness:
- (5) The listed DBE subcontractor is ineligible to work on public works projects because of suspension and debarment proceedings pursuant 2 CFR Parts 180, 215 and 1200 or applicable state law.

- (6) The Contractor has determined the listed DBE subcontractor is not a responsible contractor;
- (7) The listed DBE subcontractor voluntarily withdraws from the projects and provides written notice to the Contractor of its withdrawal;
- (8) The listed DBE is ineligible to receive DBE credit for the type of work required;
- (9) A DBE owner dies or becomes disabled with the result that the listed DBE subcontractor is unable to complete its work on the contract;
- (10) Other documented good cause that compels the termination of the DBE subcontractor. Provided, that good cause does not exist if the Contractor seeks to terminate a DBE it relied upon to obtain the contract so that the Contractor can self-perform the work for which the DBE contractor was engaged or so that the Contractor can substitute another DBE or non-DBE contractor after contract award.
  - When a DBE is terminated or fails to complete its work on the Contract for any reason, the Contractor shall make a good faith effort to find another DBE to substitute for the original DBE to perform at least the same amount of work under the contract as the terminated DBE to the extent needed to meet the established Contract goal. The good faith efforts shall be documented by the Contractor. If the Department requests documentation under this provision, the Contractor shall submit the documentation within seven days, which may be extended for an additional seven days if necessary at the request of the Contractor. The Department will provide a written determination to the Contractor stating whether or not good faith efforts have been demonstrated.
- (f) FINAL PAYMENT. After the performance of the final item of work or delivery of material by a DBE and final payment therefore to the DBE by the Contractor, but not later than 30 calendar days after payment has been made by the Department to the Contractor for such work or material, the Contractor shall submit a DBE Payment Agreement on Department form SBE 2115 to the Resident Engineer. If full and final payment has not been made to the DBE, the DBE Payment Agreement shall indicate whether a disagreement as to the payment required exists between the Contractor and the DBE or if the Contractor believes the work has not been satisfactorily completed. If the Contractor does not have the full amount of work indicated in the Utilization Plan performed by the DBE companies indicated in the Utilization Plan and after good faith efforts are reviewed, the Department may deduct from contract payments to the Contractor the amount of the goal not achieved as liquidated and ascertained damages. The Contractor may request an administrative reconsideration of any amount deducted as damages pursuant to subsection (h) of this part.
- (g) <u>ENFORCEMENT</u>. The Department reserves the right to withhold payment to the Contractor to enforce the provisions of this Special Provision. Final payment shall not be

made on the contract until such time as the Contractor submits sufficient documentation demonstrating achievement of the goal in accordance with this Special Provision or after liquidated damages have been determined and collected.

(h) <u>RECONSIDERATION</u>. Notwithstanding any other provision of the contract, including but not limited to Article 109.09 of the Standard Specifications, the Contractor may request administrative reconsideration of a decision to deduct the amount of the goal not achieved as liquidated damages. A request to reconsider shall be delivered to the Contract Compliance Section and shall be handled and considered in the same manner as set forth in paragraph (c) of "Good Faith Effort Procedures" of this Special Provision, except a final decision that a good faith effort was not made during contract performance to achieve the goal agreed to in the Utilization Plan shall be the final administrative decision of the Department. The result of the reconsideration process is not administratively appealable to the U.S. Department of Transportation.

### **HOT-MIX ASPHALT (BDE)**

Effective: January 1, 2024

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  $G_{mm}$ ."

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<sub>mm</sub>) 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."

## 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, ΔTc, 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 styrenebutadiene 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			
Asphalt Grade SB/SBS PG 64-28 SB/SBS PG			
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),	440 (40 =)	440 (40 =)	
20 in./min. (500 mm/min.), inlbs (N-m)	110 (12.5) min.	110 (12.5) min.	
Tenacity			
ASTM D 5801, 77 °F (25 °C),	()	( )	
20 in./min. (500 mm/min.), inlbs (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 GTR PG 70 GTR PG 70			
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		
Asphalt Grade		alt Grade
	SM PG 46-28	SM PG 46-34
Test	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, ΔTc, 40 hrs PAV (40 hrs	-5°C min.	
continuous or 2 PAV at 20 hrs)		
Large Strain Parameter (Illinois Modified	> FA 0/	
AASHTO T 391) DSR/LAS Fatigue		
Property, $\Delta  G^* $ peak $\tau$ , 40 hrs PAV		2 34 70
(40 hrs continuous or 2 PAV at 20 hrs)		

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 <sup>3/</sup>
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 <sup>3/</sup>
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  $\pm 0.40$  percent."

# PORTLAND CEMENT CONCRETE (BDE)

Effective: August 1, 2023

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."

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

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

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

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

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

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

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

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

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

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

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

Topsoil for re-use as final cover which has been field screened and found not to exhibit PID readings over daily background readings as documented on the BDE 2732, visual staining or

odors, and is classified according to Articles 669.05(a)(2), (a)(3), (a)(4), (b)(1), or (c) may be temporarily staged at the Contractor's option."

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

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

## SHORT TERM AND TEMPORARY PAVEMENT MARKINGS (BDE)

Effective: April 1, 2024

Revise Article 1095.06 of the Standard Specifications to read:

"1095.06 Pavement Marking Tapes. Type IV tape shall consist of white or yellow tape with wet reflective media incorporated to provide immediate and continuing retroreflection in wet and dry conditions. The wet retroreflective media shall be bonded to a durable polyurethane surface. The patterned surface shall have approximately  $40 \pm 10$  percent of the surface area raised and presenting a near vertical face to traffic from any direction. The channels between the raised areas shall be substantially free of exposed reflective elements or particles.

Blackout marking tape shall consist of a matte black, non-reflective, patterned surface that is precoated with a pressure sensitive adhesive. The surface of the blackout pavement marking tape shall provide a minimum skid resistance value of 45 BPN when tested according to ASTM E 303.

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

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

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

Х	0.490	0.475	0.485	0.530
У	0.470	0.438	0.425	0.456

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

Coefficient of Retroreflected Luminance, R <sub>L</sub> , Dry		
Observation Angle	White	Yellow
0.2°	1300	1200
0.5°	1100	1000

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

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

- (c) Skid Resistance. The surface of Type IV markings shall provide an average minimum skid resistance of 50 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. The pavement marking 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 the Engineer certification, from the manufacturer of the tape, that the material to be furnished 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 Federal Test Method Standard No. 141A, Method 6192, using a CS-17 wheel and 1000-gram load, and shall meet the following criteria for minimum initial thickness and for durability, showing no significant change in color after being tested for the number of cycles indicated.

Test	White	Yellow	Blackout
Initial Thickness, mils (mm)	20 (0.51)	20 (0.51)	65 (1.65) <sup>1/</sup> 10 (0.25) <sup>2/</sup>
Durability (cycles)	1,500	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."

# 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."

# SUBCONTRACTOR AND DBE PAYMENT REPORTING (BDE)

Effective: April 2, 2018

Add the following to Section 109 of the Standard Specifications.

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

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

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

# **SUBCONTRACTOR MOBILIZATION PAYMENTS (BDE)**

Effective: November 2, 2017

Revised: April 1, 2019

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

following:

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

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

## SUBMISSION OF PAYROLL RECORDS (BDE)

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

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

# "STATEMENTS AND PAYROLLS

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

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

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

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

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

### 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 **2**. 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.

<u>Basis of Payment</u>. 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.

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

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

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

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

## WEEKLY DBE TRUCKING REPORTS (BDE)

Effective: June 2, 2012 Revised: November 1, 2021

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

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

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

### **WORK ZONE TRAFFIC CONTROL DEVICES (BDE)**

Effective: March 2, 2020

Add the following to Article 701.03 of the Standard Specifications:

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

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

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

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

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

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

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

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

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

Category 3 includes devices that are expected to cause significant velocity changes or other potentially harmful reactions to impacting vehicles. These include crash cushions (impact

attenuators), truck mounted attenuators, and other devices not meeting the definitions of Category 1 or 2. Category 3 devices manufactured after December 31, 2019 shall be MASH-16 compliant. Category 3 devices manufactured on or before December 31, 2019, and compliant with NCHRP 350 or MASH 2009, may be used on contracts let before December 31, 2029. Category 3 devices shall be crash tested for Test Level 3 or the test level specified.

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

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

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

- "(g) Truck Mounted/Trailer Mounted Attenuators. The attenuator shall be approved for use at Test Level 3. Test Level 2 may be used for normal posted speeds less than or equal to 45 mph.
- (k) Temporary Water Filled Barrier. The water filled barrier shall be a lightweight plastic shell designed to accept water ballast and be on the Department's qualified product list.
  - Shop drawings shall be furnished by the manufacturer and shall indicate the deflection of the barrier as determined by acceptance testing; the configuration of the barrier in that test; and the vehicle weight, velocity, and angle of impact of the deflection test. The Engineer shall be provided one copy of the shop drawings.
- (I) Movable Traffic Barrier. The movable traffic barrier shall be on the Department's qualified product list.

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

# WORKING DAYS (BDE)

Effective: January 1, 2002

The Contractor shall complete the work within 140 working days.

#### REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

- 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
- 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 designbuild 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 designbuilder 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, preapprenticeship, 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 nonminority 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 <a href="Form FHWA-1391">Form FHWA-1391</a>. 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 <a href="mailto:DBAconformance@dol.gov">DBAconformance@dol.gov</a>. 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 <code>DBAconformance@dol.gov</code>, 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 reprocurement 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, <u>31</u> 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 <a href="https://www.dol.gov/sites/dolgov/files/WHD/">https://www.dol.gov/sites/dolgov/files/WHD/</a> legacy/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 journeyworkers 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 journeyworkers 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  $\underline{40}$   $\underline{\text{U.s.c. }3144(b)}$  or  $\S$  5.12(a).
- c. The penalty for making false statements is prescribed in the U.S. Code, Title 18 Crimes and Criminal Procedure, <u>18</u> <u>U.S.C. 1001</u>.
- **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  $\underline{29\ CFR\ part\ 1}$  or  $\underline{3}$ ;
- 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 reprocurement 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, <u>31</u> 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 lowertier 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 EYELLISION

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 (<a href="https://www.sam.gov/">https://www.sam.gov/</a>). 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 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).
- 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 (<a href="https://www.sam.gov/">https://www.sam.gov/</a>), 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.

\* \* \* \* \*

# 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.
- 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
- 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.