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Letting June 11, 2021

Notice to Bidders, Specifications and Proposal

Contract No. 61H05
DUPAGE County
Section 15-00061-00-BR (Elk Grove Village)
Route MUN 1210 (Brickvale Drive)
Project B3N9-565 ()
District 1 Construction Funds

Prepared by	F
Checked by	

(Printed by authority of the State of Illinois)

Illinois Department of Transportation

NOTICE TO BIDDERS

1. **TIME AND PLACE OF OPENING BIDS.** Electronic bids are to be submitted to the electronic bidding system (iCX-Integrated Contractors Exchange). All bids must be submitted to the iCX system prior to 12:00 p.m. June 11, 2021 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. 61H05
   DUPAGE County
   Section 15-00061-00-BR (Elk Grove Village)
   Project B3N9-565 ()
   Route MUN 1210 (Brickvale Drive)
   District 1 Construction Funds

Replace the culverts carrying Brickvale Drive over Willow Creek with precast concrete box culvert, 0.10 mile south of Devon Ave. in Elk Grove Village.

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,
Acting Secretary

INDEX
FOR
SUPPLEMENTAL SPECIFICATIONS
AND RECURRING SPECIAL PROVISIONS

Adopted January 1, 2021

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

SUPPLEMENTAL SPECIFICATIONS

RECURRING SPECIAL PROVISIONS

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

LOCAL ROADS AND STREETS RECURRING SPECIAL PROVISIONS

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

INDEX OF SPECIAL PROVISIONS

BDE SPECIAL PROVISIONS

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

	File Name	Pg.		Special Provision Title	Effective	Revised
	80099			Accessible Pedestrian Signals (APS)	April 1, 2003	April 1, 2020
	80274			Aggregate Subgrade Improvement	April 1, 2012	April 1, 2016
	80192			Automated Flagger Assistance Device	Jan. 1, 2008	
	80173			Bituminous Materials Cost Adjustments	Nov. 2, 2006	Aug. 1, 2017
	80246			Bituminous Surface Treatment with Fog Seal	Jan. 1, 2020	
*	80436	143	X	Blended Finely Divided Minerals	April 1, 2021	
	80241			Bridge Demolition Debris	July 1, 2009	
	5026I			Building Removal-Case I (Non-Friable and Friable Asbestos)	Sept. 1, 1990	April 1, 2010
	5048I			Building Removal-Case II (Non-Friable Asbestos)	Sept. 1, 1990	April 1, 2010
	5049I			Building Removal-Case III (Friable Asbestos)	Sept. 1, 1990	April 1, 2010
	5053I			Building Removal-Case IV (No Asbestos)	Sept. 1, 1990	April 1, 2010
	80425			Cape Seal	Jan. 1, 2020	Jan. 1, 2021
	80384	144	X	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	
	80293	148	X	Concrete Box Culverts with Skews > 30 Degrees and Design Fills ≤ 5 Feet	April 1, 2012	July 1, 2016
	80311			Concrete End Sections for Pipe Culverts	Jan. 1, 2013	April 1, 2016
	80261	171	X	Construction Air Quality – Diesel Retrofit	June 1, 2010	Nov. 1, 2014
	80387			Contrast Preformed Plastic Pavement Marking	Nov. 1, 2017	
	80434			Corrugated Plastic Pipe (Culvert and Storm Sewer)	Jan. 1, 2021	
	80029	174	X	Disadvantaged Business Enterprise Participation	Sept. 1, 2000	Mar. 2, 2019
	80402	184	X	Disposal Fees	Nov. 1, 2018	
	80378			Dowel Bar Inserter	Jan. 1, 2017	Jan. 1, 2018
	80421			Electric Service Installation	Jan. 1, 2020	
	80415	186	X	Emulsified Asphalts	Aug. 1, 2019	
	80423	189	X	Engineer's Field Office Laboratory	Jan. 1, 2020	
	80229			Fuel Cost Adjustment	April 1, 2009	Aug. 1, 2017
	80417			Geotechnical Fabric for Pipe Underdrains and French Drains	Nov. 1, 2019	
	80420			Geotextile Retaining Walls	Nov. 1, 2019	
	80433			Green Preformed Thermoplastic Pavement Markings	Jan. 1, 2021	
	80304			Grooving for Recessed Pavement Markings	Nov. 1, 2012	Nov. 1, 2020
	80422			High Tension Cable Median Barrier	Jan. 1, 2020	Nov. 1, 2020
	80416			Hot-Mix Asphalt – Binder and Surface Course	July 2, 2019	Nov. 1, 2019
	80398	192	X	Hot-Mix Asphalt – Longitudinal Joint Sealant	Aug. 1, 2018	Nov. 1, 2019
	80406			Hot-Mix Asphalt – Mixture Design Verification and Production (Modified for I-FIT Data Collection)	Jan. 1, 2019	Jan. 2, 2021
	80347			Hot-Mix Asphalt – Pay for Performance Using Percent Within Limits – Jobsite Sampling	Nov. 1, 2014	July 2, 2019
	80383			Hot-Mix Asphalt – Quality Control for Performance	April 1, 2017	July 2, 2019
	80411			Luminaires, LED	April 1, 2019	
	80393	196	X	Manholes, Valve Vaults, and Flat Slab Tops	Jan. 1, 2018	Mar. 1, 2019
	80045			Material Transfer Device	June 15, 1999	Aug. 1, 2014
	80418			Mechanically Stabilized Earth Retaining Walls	Nov. 1, 2019	Nov. 1, 2020
	80424			Micro-Surfacing and Slurry Sealing	Jan. 1, 2020	Jan. 1, 2021
	80428	198	X	Mobilization	April 1, 2020	
	80412			Obstruction Warning Luminaires, LED	Aug. 1, 2019	
	80430	199	X	Portland Cement Concrete – Haul Time	July 1, 2020	
	80359			Portland Cement Concrete Bridge Deck Curing	April 1, 2015	Nov. 1, 2019
	80431			Portland Cement Concrete Pavement Patching	July 1, 2020	
	80432			Portland Cement Concrete Pavement Placement	July 1, 2020	

	File Name	Pg.		Special Provision Title	Effective	Revised
	80300			Preformed Plastic Pavement Marking Type D - Inlaid	April 1, 2012	April 1, 2016
	3426I			Railroad Protective Liability Insurance	Dec. 1, 1986	Jan. 1, 2006
	80157			Railroad Protective Liability Insurance (5 and 10)	Jan. 1, 2006	
	80306	200	X	Reclaimed Asphalt Pavement (RAP) and Reclaimed Asphalt Shingles (RAS)	Nov. 1, 2012	Jan. 2, 2021
	80407	210	X	Removal and Disposal of Regulated Substances	Jan. 1, 2019	Jan. 1, 2020
	80419	221	X	Silt Fence, Inlet Filters, Ground Stabilization and Riprap Filter Fabric	Nov. 1, 2019	April 1, 2020
	80395			Sloped Metal End Section for Pipe Culverts	Jan. 1, 2018	
	80340			Speed Display Trailer	April 2, 2014	Jan. 1, 2017
	80127	227	X	Steel Cost Adjustment	April 2, 2014	Aug. 1, 2017
	80408			Steel Plate Beam Guardrail Manufacturing	Jan. 1, 2019	
	80413			Structural Timber	Aug. 1, 2019	
	80397	230	X	Subcontractor and DBE Payment Reporting	April 2, 2018	
	80391	231	X	Subcontractor Mobilization Payments	Nov. 2, 2017	April 1, 2019
*	80437			Submission of Payroll Records	April 1, 2021	
*	80435			Surface Testing of Pavements – IRI	Jan. 1, 2021	April 1, 2021
	80298	232	X	Temporary Pavement Marking	April 1, 2012	April 1, 2017
	80409	235	X	Traffic Control Devices – Cones	Jan. 1, 2019	
	80410			Traffic Spotters	Jan. 1, 2019	
*	20338	236	X	Training Special Provisions	Oct. 15, 1975	June 2, 2021
	80318			Traversable Pipe Grate for Concrete End Sections	Jan. 1, 2013	Jan. 1, 2018
	80429			Ultra-Thin Bonded Wearing Course	April 1, 2020	
	80288	239	X	Warm Mix Asphalt	Jan. 1, 2012	April 1, 2016
	80302	241	X	Weekly DBE Trucking Reports	June 2, 2012	April 2, 2015
	80414			Wood Fence Sight Screen	Aug. 1, 2019	April 1, 2020
	80427	242	X	Work Zone Traffic Control Devices	Mar. 2, 2020	
	80071			Working Days	Jan. 1, 2002	

The following special provisions are in the 2021 Supplemental Specifications and Recurring Special Provisions.

File Name	Special Provision Title	New Location(s)	Effective	Revised
80277	Concrete Mix Design – Department Provided	Check Sheet #37	Jan. 1, 2012	April 1, 2016
80405	Elastomeric Bearings	Article 1083.01	Jan. 1, 2019	
80388	Equipment Parking and Storage	Article 701.11	Nov. 1, 2017	
80165	Moisture Cured Urethane Paint System	Article 1008.06	Nov. 1, 2006	Jan. 1, 2010
80349	Pavement Marking Blackout Tape	Articles 701.04, 701.19(f), 701.20(j) and 1095.06	Nov. 1, 2014	April 1, 2016
80371	Pavement Marking Removal	Articles 783.02-783.04, 783.06 and 1101.13	July 1, 2016	
80389	Portland Cement Concrete	Article 1020.04 Table 1 and Note 4	Nov. 1, 2017	
80403	Traffic Barrier Terminal, Type 1 Special	Articles 631.04 and 631.12	Nov. 1, 2018	

The following special provisions have been deleted from use.

File Name	Special Provision Title	Effective	Revised
80317	Surface Testing of Hot-Mix Asphalt Overlays	Jan 1, 2013	Aug. 1, 2019

STATE OF ILLINOIS

SPECIAL PROVISIONS

The following Special Provisions supplement the “Standard Specifications for Road and Bridge Construction”, adopted April 1, 2016 (hereinafter referred to as the "Standard Specifications"); the latest edition of the “Manual on Uniform Traffic Control Devices for Streets and Highways” (MUTCD); the “Manual of Test Procedures for Materials” in effect on the date of invitation for bids; and the “Supplemental Specifications and Recurring Special Provisions”, adopted January 1, 2021, indicated on the Check Sheet included here in which apply to and govern the construction of FAU 1210 (Brickvale Drive), Section 15-00061-00-BR, Project No. B3N9(565), Contract No. 61H05, and in case of conflict with any part or parts of said specifications, the said Special Provisions shall take precedence and shall govern.

LOCATION OF PROJECT

This project is located in the Village of Elk Grove Village, DuPage County. The project limits are on Brickvale Drive from 900’ south of Devon Avenue to Devon Avenue. The project has a total gross and net length of 866.8 feet (0.164 miles).

DESCRIPTION OF PROJECT

The work consists of removal and replacement of the dual corrugated metal pipe culverts with a dual cell, pre-cast concrete box culvert (SN 022-7471), installation of ductile iron water main, replacement of the HMA pavement, concrete curb and gutter, and sidewalks, HMA pavement resurfacing, and all incidental and collateral work necessary to complete the project as shown on the plans and as described herein.

COMPLETION DATE PLUS WORKING DAYS

Effective: September 30, 1985
Revised: January 1, 2007

Revise Article 108.05 (b) of the Standard Specifications as follows:

"When a completion date plus working days is specified, the Contractor shall complete all contract items and safely open all roadways to traffic by 11:59 PM on October 29, 2021 except as specified herein.

The Contractor will be allowed to complete all clean-up work and punch list items within 5 working days after the completion date for opening the roadway to traffic. Under extenuating circumstances the Engineer may direct that certain items of work, not affecting the safe opening of the roadway to traffic, may be completed within the working days allowed for clean up work and punch list items. Temporary lane closures for this work may be allowed at the discretion of the Engineer.

Article 108.09 or the Special Provision for “Failure to Complete the Work on Time”, if included in this contract, shall apply to both the completion date and the number of working days.

BP PIPELINES REQUIREMENTS (EGV)

This Project is located adjacent to an existing BP Pipeline underground facility. No conflicts with the pipeline are anticipated, however BP Pipeline’s requirements for work near their facilities shall be followed by the Contractor. These requirements can be found in the approval letter contained within these contract documents.

No extra compensation will be allowed the Contractor for any expense incurred by complying with the requirements of this Special Provision.

FEDERAL AVIATION AUTHORITY REQUIREMENTS

Because of the proximity of this project to O’Hare Airport, the Federal Aviation Authority has reviewed the project and made a Determination of No Hazard to Air Navigation for Temporary Structure. A copy of the approval is included in the contract documents. The approval was based on a maximum construction equipment height of 35 feet. If the Contractor elects to use equipment that will exceed this height, he/she shall be responsible for obtaining approval from the FAA.

No extra compensation or time extension will be allowed the Contractor for complying with the requirements of this Special Provision.

US ARMY CORPS OF ENGINEERS SECTION 404 PERMIT (EGV)

This project requires a US Army Corps of Engineers (USACE) 404 permit that has been obtained by the Village. As a condition of this permit, the Contractor will need to submit an in-stream work plan to the Village and the Kane-DuPage Soil & Water Conservation District for approval. Guidelines on acceptable in-stream work techniques can be found on the USACE website. The USACE defines and determines in-stream work. The cost of all materials and labor necessary to comply with the above provisions to prepare and implement an in-stream work plan will not be paid for separately, but shall be considered as included in the unit bid prices of the contract and no additional compensation will be allowed.

PUBLIC CONVENIENCE AND SAFETY (DIST 1)

Effective: May 1, 2012
Revised: July 15, 2012

Add the following to the end of the fourth paragraph of Article 107.09:

"If the holiday is on a Saturday or Sunday, and is legally observed on a Friday or Monday, the length of Holiday Period for Monday or Friday shall apply."

Add the following sentence after the Holiday Period table in the fourth paragraph of Article 107.09:

"The Length of Holiday Period for Thanksgiving shall be from 5:00 AM the Wednesday prior to 11:59 PM the Sunday After"

Delete the fifth paragraph of Article 107.09 of the Standard Specifications:

"On weekends, excluding holidays, roadways with Average Daily Traffic of 25,000 or greater, all lanes shall be open to traffic from 3:00 P.M. Friday to midnight Sunday except where structure construction or major rehabilitation makes it impractical."

MAINTENANCE OF ROADWAYS

Effective: September 30, 1985 Revised: November 1, 1996

Beginning on the date that work begins on this project, the Contractor shall assume responsibility for normal maintenance of all existing roadways within the limits of the improvement. This normal maintenance shall include all repair work deemed necessary by the Engineer, but shall not include snow removal operations. Traffic control and protection for maintenance of roadways will be provided by the Contractor as required by the Engineer.

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

MAINTENANCE OF ACCESS (EGV)

This work shall be in accordance with Article 107.09 of the Standard Specifications, insofar as applicable, and the following provisions:

Access to properties shall be continual or interrupted only for a period less than two (2) hours unless otherwise shown on the plans or approved by the Engineer. The Contractor shall adjust construction operations adjacent to these driveways to meet this requirement. The Contractor may completely close one access point to a non-residential property with the permission of the Engineer if another existing driveway will serve the loading and parking area(s).

The Contractor shall be responsible for contacting adjacent property owners to determine access or schedule restrictions of the property.

PROTECTION OF EXISTING INFRASTRUCTURE (EGV)

This work shall consist of the protection of the existing concrete sidewalks, driveway aprons and concrete pavers during the construction from damage by the Contractor's trucks, excavating equipment, placement of bituminous tack coat and any other equipment used by the Contractor.

When removing curb and gutter, pavement or any other structure, the Contractor shall take every precaution necessary to ensure that there will be no damage to underground public or private utilities. Under no circumstances will the use of a frost ball concrete breaker be allowed.

The Contractor shall use plywood sheets, wood planks or other approved material to protect the existing sidewalk and aprons from damage by the Contractor's equipment and trucks. Sand shall be used to protect concrete pavers and concrete crosswalks in the roadway.

The Contractor shall provide sufficient planking or other approved materials needed to protect the existing concrete surfaces from damage during construction.

The Contractor may ride his equipment on the sidewalk area, but not on the top of the curb unless he can prove that no damage will result to the curb.

If any asphalt or bituminous materials are required, the Contractor shall place protection over all concrete pavers and concrete crosswalks within the vicinity of the job or as requested by the Engineer as coordinated with the Village. Cleaning afterward with environmentally safe chemicals if required or directed by the Engineer, shall not be paid for separately, but shall be at the Contractor's own expense.

The cost to furnish, place, move and dispose of plywood, planking, or other approved materials needed to continually protect and clean the existing roadways, concrete sidewalk, aprons and curb and gutter will not be paid for separately, but shall be considered included in the cost of the various HMA and concrete pay items.

KEEPING ROADS OPEN TO TRAFFIC

All roads shall remain open to traffic. Except for the lane closure shown for the culvert installation, the Contractor may close one (through traffic) lane because of construction only between the hours of 9:00 AM and 3:00 PM. The Contractor shall maintain one-way traffic during these restricted hours on two lane highways with the use of signs and flaggers as shown on the applicable Traffic Control Standard. On multi-lane highways the Contractor shall maintain at least one (through traffic) lane in each

direction with the use of signs, barricades, and arrow boards as shown on the Traffic Control Standards. All lanes of traffic will be maintained between 3:00 PM and 9:00 AM and when no construction activities are being carried out.

The restricted lane closure time may be adjusted by the Resident Engineer. The Contractor shall provide a start and end time and a procedure plan 48 hours prior to the lane(s) to be closed. The Resident Engineer will notify the Contractor 24 hours in advance with the decision.

If the Contractor fails to provide notification or disregards the decision by the Resident Engineer, a Traffic Control Deficiency Charge will be applied per Article 105.03 of the Standard Specifications.

STATUS OF UTILITIES (D-1)

Effective: June 1, 2016
Revised: January 1, 2020

Utility companies and/or municipal owners located within the construction limits of this project have provided the following information regarding their facilities and the proposed improvements. The tables below contain a description of specific conflicts to be resolved and/or facilities which will require some action on the part of the Department's contractor to proceed with work. Each table entry includes an identification of the action necessary and, if applicable, the estimated duration required for the resolution.

UTILITIES TO BE ADJUSTED

Conflicts noted below have been identified by following the suggested staging plan included in the contract. The company has been notified of all conflicts and will be required to obtain the necessary permits to complete their work; in some instances, resolution will be a function of the construction staging. The responsible agency must relocate, or complete new installations as noted below; this work has been deemed necessary to be complete for the Department's contractor to then work in the stage under which the item has been listed.

Pre-Stage

STAGE / LOCATION	TYPE	DESCRIPTION	RESPONSIBLE AGENCY	DURATION OF TIME
Sta. 14+68 to Sta. 16+90, LT	Telephone	Relocation of buried communication line, removal of pedestal	AT&T	18 Days
Sta. 13+40 to Sta. 18+60, RT	Gas	Relocation of 520' underground 4" gas main	NICOR	5 Days

Stage 1

No conflicts to be resolved

Stage 2

No conflicts to be resolved.

Stage 3

No conflicts to be resolved.

Pre-Stage: 23 Days Total Installation
Stage 1: 0 Days Total Installation
Stage 2: 0 Days Total Installation
Stage 3: 0 Days Total Installation

The following contact information is what was used during the preparation of the plans as provided by the Agency/Company responsible for resolution of the conflict.

Agency/Company Responsible to Resolve Conflict	Name of contact	Phone	E-mail address
AT&T	Larry Smith	847-867-9403	Ls6243@att.com
Nicor	Chip Parrott	630-388-3319	cparrot@southernco.com

UTILITIES TO BE WATCHED AND PROTECTED

The areas of concern noted below have been identified by following the suggested staging plan included for the contract. The information provided is not a comprehensive list of all remaining utilities, but those which during coordination were identified as ones which might require the Department's contractor to take into consideration when making the determination of the means and methods that would be required to construct the proposed improvement. In some instances, the contractor will be responsible to notify the owner in advance of the work to take place so necessary staffing on the owner's part can be secured.

Stage 1

STAGE / LOCATION	TYPE	DESCRIPTION	OWNER
Sta. 15+43, 24' LT – Sta. 16+70, 30' LT	Buried communication lines	Existing communication lines in area – exercise caution during excavation	AT&T

Stage 2

STAGE / LOCATION	TYPE	DESCRIPTION	OWNER
Sta. 10+80, 14' RT	Buried communication line	Existing communication line crossing proposed water main – exercise caution during excavation	AT&T
Sta. 11+08, 13' RT	Buried communication line	Existing communication line crossing proposed water main – exercise caution during excavation	AT&T
Sta. 11+80, 25' LT	Communication pedestal and buried lines	Existing AT&T pedestal in proximity to water service line and box excavation; exercise caution during excavation	AT&T
Sta. 12+49, 13' RT	Buried communication line	Existing communication line crossing proposed water main – exercise caution during excavation	AT&T
Sta. 13+24, 13' RT	Buried communication line	Existing communication line crossing proposed water main – exercise caution during excavation	AT&T
Devon Avenue, approx.. 50' south of Devon centerline	Buried petroleum line	Existing high-pressure petroleum line running east-west along south side of Devon Avenue – exercise caution during excavation	BP
Brickvale Drive (project extents), 7' west of East right-of-way line	Buried gas main	Existing gas main along east side of Brickvale Drive – exercise caution during excavation	Nicor

Stage 3

No facilities requiring extra consideration.

The following contact information is what was used during the preparation of the plans as provided by the owner of the facility.

Agency/Company Responsible to Resolve Conflict	Name of contact	Phone	E-mail address
AT&T	Larry Smith	847-867-9403	Ls6243@att.com
BP	Sarah Watson	312-809-3112	Sarah.watson1@bp.com
Comcast	Martha Gieras	224-229-5862	Martha_gieras@cable.comcast.com
ComEd	Likowo Ndobedi	630-890-0883	Likowo.ndobedi@comed.com
Nicor	Chip Parrott	630-388-3319	cparrot@southernco.com

The above represents the best information available to the Department and is included for the convenience of the bidder. The days required for conflict resolution should be considered in the bid as this information has also been factored into the timeline identified for the project when setting the completion date. The applicable portions of the Standard Specifications for Road and Bridge Construction shall apply.

Estimated duration of time provided above for the first conflicts identified will begin on the date of the executed contract regardless of the status of the utility relocations. The responsible agencies will be working toward resolving subsequent conflicts in conjunction with contractor activities in the number of days noted.

The estimated relocation duration must be part of the progress schedule submitted by the contractor. A utility kickoff meeting will be scheduled between the Department, the Department's contractor and the utility companies when necessary. The Department's contractor is responsible for contacting J.U.L.I.E. prior to all excavation work.

AVAILABILITY OF REPORTS

☐ No project specific reports were prepared.

When applicable, the following checked reports and record information is available for Bidders' reference upon request:

☐ Record structural plans

☑ Preliminary Site Investigation (PSI)

☑ Preliminary Environmental Site Assessment (PESA)

☑ Soils / Geotechnical Report

☐ Boring Logs

☐ Pavement Cores

☐ Location Drainage Study (LDS)

☑ Hydraulic Report

☐ Noise Analysis

☐ Other:

Those seeking these reports should request access from:

Mr. Brian Lovering
Chief Infrastructure Engineer
Village of Elk Grove Village
847.734.8800
blovering@elkgrove.org

SAW CUTTING (EGV)

The Contractor shall saw cut pavement, curb and gutter, driveways, sidewalk, and patches to separate the existing material to be removed by means of an approved concrete saw to a depth as shown on the plans or as directed by the Engineer. This work shall be included in the cost of the item being removed.

The Contractor shall be required to saw vertical cuts so as to form clean vertical joints. Should the Contractor deface any edge, a new sawed joint shall be provided and any additional work, including removal and replacement, shall be done at the Contractor's expense.

PROTECTION OF EXISTING TREES (EGV)

The Contractor shall be responsible for taking measures to minimize damage to the tree limbs, tree trunks, and tree roots at each work site. All such measures shall be included in the contract price for other work except that payment will be made for TEMPORARY FENCE, TREE ROOT PRUNING, and TREE PRUNING.

All work, materials and equipment shall conform to Section 201 and 1081 of the Standard Specifications except as modified herein.

All tree protection, tree removal, tree pruning and root pruning shall be completed before construction operations commence in any area. At no time shall the Contractor prune or remove any trees unless specifically directed by the Engineer.

A. Earth Saw Cut of Tree Roots (Root Pruning):

1. Whenever proposed excavation falls within a drip-line of a tree, the Contractor shall:

    a. Root prune 6-inches behind and parallel to the proposed edge of trench a neat, clean vertical cut to a minimum depth directed by the Engineer through all affected tree roots.

    b. Root prune to a maximum width of 4-inches using a root cutting wheel. Trenching machines will not be permitted.

    c. Exercise care not to cut any existing utilities.

    d. If during construction it becomes necessary to expose tree roots which have not been precut, the Engineer shall be notified and the Contractor shall provide a clean, vertical cut at the proper root location, nearer the tree trunk, as necessary, by means of hand-digging and trimming with chain saw or hand saw. Ripping, shredding, shearing, chopping or tearing will not be permitted.

e. Top Pruning: When thirty percent (30%) or more of the root zone is pruned, an equivalent amount of the top vegetative growth or the plant material shall be pruned off within one (1) week following root pruning.

2. Whenever curb and gutter is removed for replacement, or excavation for removal of or construction of a structure is within the drip line/root zone of a tree, the Contractor shall:

a. Root prune 6-inches behind the curbing so as to neatly cut the tree roots.

b. Depth of cut shall be 12 inches for curb removal and replacement and 24 inches for structural work. Any roots encountered at a greater depth shall be neatly saw cut at no additional cost.

c. Locations where earth saw cutting of tree roots is required will be marked in the field by the Engineer.

3. All root pruning work is to be performed through the services of a licensed arborist to be approved by the Engineer.

Root pruning will be paid for at the contract unit price each for TREE ROOT PRUNING, which price shall be payment for all labor, materials and equipment.

Tree limb pruning will be paid for at the contract unit price per each for TREE PRUNING (1 TO 10 INCH DIAMETER) and/or TREE PRUNING (OVER 10 INCH DIAMETER), which price shall include labor, materials, and equipment.

B. Temporary Fence:

1. The Contractor shall erect a temporary fence around all trees within the construction area to establish a “tree protection zone” before any work begins or any material is delivered to the jobsite. No work is to be performed (other than root pruning), materials stored or vehicles driven or parked within the “tree protection zone”.

2. The exact location and establishment of the “tree protection zone” fence shall be approved by the Engineer prior to setting the fence.

3. The fence shall be erected on three sides of the tree at the drip-line of the tree or as determined by the Engineer.

4. All work within the “tree protection zone” shall have the Engineer’s prior approval. All slopes and other areas not regarded should be avoided so that unnecessary damage is not done to the existing turf, tree root system ground cover.

5. The grade within the “tree protection zone” shall not be changed unless approved by the Engineer prior to making said changes or performing the work.

The fence shall be similar to wood lath snow fence (48 inches high), plastic poly-type or and other type of highly visible barrier approved by the Engineer. This fence shall be properly maintained and shall remain up until final restoration, unless the Engineer directs removal otherwise. Tree fence shall be supported using T-Post style fence posts. Utilizing re-bar as a fence post will not be permitted.

Temporary fence will be paid for at the contract unit price per foot for TEMPORARY FENCE, which price shall include furnishing, installing, maintaining, and removing.

C. Tree Limb Pruning:

1. The Contractor shall inspect the work site in advance and arrange with the Roadside Development Unit (847.705.4171) to have any tree limbs pruned that might be damaged by equipment operations at least one week prior to the start of construction. Any tree limbs that are broken by construction equipment after the initial pruning must be pruned correctly within 72 hours.

2. Top Pruning: When thirty percent (30%) or more of the root zone of a tree is pruned, an equivalent amount of the top vegetative growth or the plant material shall be pruned off within one (1) week following root pruning.

Tree limb pruning will be paid for at the contract unit price per each for TREE PRUNING (1 TO 10 INCH DIAMETER) and/or TREE PRUNING (OVER 10 INCH DIAMETER), which price shall include labor, materials, and equipment.

D. Removal of Driveway Pavement and Sidewalk:

1. In order to minimize the potential damage to the tree root system(s), the Contractor will not be allowed to operate any construction equipment or machinery within the “tree protection zone” located between the curb or edge of pavement and the right-of-way property line.

2. Sidewalk to be removed in the areas adjacent to the “tree protection zones” shall be removed with equipment operated from the street pavement. Removal equipment shall be Gradall (or similar method), or by hand or a combination of these methods. The method of removal shall be approved by the Engineer prior to commencing any work.

3. Any pavement or pavement related work that is removed shall be immediately disposed of from the area and shall not be stockpiled or stored within the parkway area under any circumstances.

E. Backfilling:

1. Prior to placing the topsoil and/or sod, in areas outside the protection zone, the existing ground shall be disked to a depth no greater than one (1"), unless otherwise directed by the Engineer. No grading will be allowed within the drip-line of any tree unless directed by the Engineer.

F. Damages:

1. In the event that a tree not scheduled for removal is injured such that potential irreparable damage may ensure, as determined by the Roadside Development Unit, the Contractor shall be required to remove the damage tree and replace it on a three to one (3:1) basis, at his/her own expense. The Roadside Development Unit will select replacement trees from the pay items already established in the contract.

2. The Contractor shall place extreme importance upon the protection and care of trees and shrubs which are to remain during all times of this improvement. It is of paramount importance that the trees and shrubs which are to remain are adequately protected by the Contractor and made safe from harm and potential damage from the operations and construction of this improvement. If the Contractor is found to be in violation of storage or operations within the "tree protection zone" or construction activities not approved by the Engineer, a penalty shall be levied against the Contractor with the monies being deducted from the contract. The amount of the penalty shall be in accordance with the Erosion Control Deficiency Deduction as defined in Article 105.03 of the Standard Specifications with a Gravity Adjustment Factor of 0.25.

TRENCH BACKFILL (EGV)

This work shall be performed in accordance with Section 208 of the Standard Specifications with the following modifications:

Materials. The material used for trench backfill shall be gradation CA-6 coarse aggregate.

Construction Requirements. All trenches in the locations shown on the plans shall be backfilled with selected granular backfill to a point not less than two (2) feet from the outside edges of existing and proposed pavement and sidewalk.

Trench backfill shall be placed from the top of the pipe to the bottom of the pavement base course or P.C.C. pavement.

Backfilling shall be performed in accordance to Section 20 of the Standard Specifications for Water and Sewer Main Construction in Illinois, current edition. After the installation of the granular bedding, from the top of the pipe to 4-inches below the pipe, the final backfill shall be performed in accordance to Section 20-4.06B Method 1.

Method of Measurement. Trench backfill shall be measured on a cubic yard basis, measured in place, except that the quantity for which payment will be made shall not exceed the volume of the trench as computed by using the maximum width as stated in Section 20-4.05 of the Standard Specifications for Water and Sewer Main Construction in Illinois, current edition, and the length for which the Trench Backfill is required along the water or sewer main pipe. The depth shall be calculated from the top of pipe to the bottom of the pavement base course or P.C.C. pavement. The granular material used from the top of pipe to 4-inches below the pipe shall be considered granular bedding and shall be included in the cost of the pipe.

IDOT Trench Backfill Tables shall not be used to calculate trench backfill.

Basis of Payment. This work shall be paid for at the contract unit price per cubic yard for TRENCH BACKFILL. Payment shall be full compensation for all materials, labor, and equipment to place and compact the material as shown on the plans and as specified. Payment will be made for the installation of trench backfill to the bottom of the pavement base course or P.C.C. pavement. The required granular bedding shall be paid under the associated sewer or water main pay items.

SUPPLEMENTAL WATERING

This work will include watering turf, trees, shrubs, vines, and perennials at the rates specified and as directed by the Engineer.

Schedule: Watering will only begin after the successful completion of all period of establishment requirements. Water trees, shrubs, vines, perennials, plugs, and sod every 7 days throughout the growing season (April 1 to November 30). The Engineer may direct the Contractor to adjust the watering rate and frequency depending upon weather conditions.

Watering must be completed in a timely manner. When the Engineer directs the Contractor to do supplemental watering, the Contractor must begin the watering operation within 48 hours of notice. **The Contractor shall give an approximate time window of twenty-four (24) hour of when they will begin at the work location to the Engineer. The Engineer shall be present during the watering operation.** A minimum of 10 units of water per day must be applied until the work is complete.

Should the Contractor fail to complete the work on a timely basis or within such extended times as may have been allowed by the Department, the Contractor shall be liable to the Department liquidated damages as outlined in the **"Failure to Complete Plant Care and Establishment Work on Time" special provision.**

In fixing the damages as set out herein, the desire is to establish a mode of calculation for the work since the Department's actual loss, in the event of delay, cannot be predetermined, would be difficult of ascertainment, and a matter of argument and unprofitable litigation. This said mode is an equitable rule for measurement of the Department's actual loss and fairly takes into account the loss of the trees if the

watering is delayed. The Department shall not be required to provide any actual loss in order to recover these liquidated damages provided herein, as said damages are very difficult to ascertain. Furthermore, no provision of this clause shall be construed as a penalty, as such is not the intention of the parties.

A calendar day is every day shown on the calendar and starts at 12:00 midnight and ends at the following 12:00 midnight, twenty-four hours later.

Source of Water: The Contractor shall notify the Engineer of the source of water used and provide written certification that the water does not contain chemicals harmful to plant growth.

Rate of Application: The normal rates of application for watering are as follows. The Engineer will adjust these rates as needed depending upon weather conditions.

35 gallons per tree
25 gallons per large shrub
15 gallons per small shrub
4 gallons per vine
3 gallons per perennial plant (Gallon)
2 gallons per perennial plant (Quart)
2 gallons per perennial plant (Plug)
3 gallons per square foot for Sodded Areas

Method of Application: A spray nozzle that does not damage small plants must be used when watering all vegetation. Water shall be applied at the base of the plant to keep as much water as possible off plant leaves. An open hose may be used to water trees, shrubs, and seedlings if mulch and soil are not displaced by watering. The water shall be applied to individual plants in such a manner that the plant hole shall be saturated without allowing the water to overflow beyond the earthen saucer. Watering of plants in beds shall be applied in such a manner that all plant holes are uniformly saturated without allowing the water flow beyond the periphery of the bed. Water shall slowly infiltrate into soil and completely soak the root zone. The Contractor must supply metering equipment as needed to assure the specified application rate of water.

Method of Measurement: Supplemental watering will be measured in units of 1000 gallons (3,785 liters) of water applied as directed.

Basis of Payment: This work will be paid for at the contract unit price per unit of SUPPLEMENTAL WATERING, measured as specified. Payment will include the cost of all water, equipment and labor needed to complete the work specified herein and to the satisfaction of the Engineer.

AGGREGATE SUBGRADE IMPROVEMENT (D-1)

Effective: February 22, 2012
Revised: April 1, 2016

Add the following Section to the Standard Specifications:

"**SECTION 303. AGGREGATE SUBGRADE IMPROVEMENT**

303.01 Description. This work shall consist of constructing an aggregate subgrade improvement.

303.02 Materials. Materials shall be according to the following.

Item	Article/Section
(a) Coarse Aggregate	1004.07
(b) Reclaimed Asphalt Pavement (RAP) (Notes 1, 2 and 3)	1031

Note 1. Crushed RAP, from either full depth or single lift removal, may be mechanically blended with aggregate gradation CS 01 but shall not exceed 40 percent by weight of the total product. The top size of the Coarse RAP shall be less than 4 in. (100 mm) and well graded.

Note 2. RAP having 100 percent passing the 1 1/2 in (37.5 mm) sieve and being well graded, may be used as capping aggregate in the top 3 in. (75 mm) when aggregate gradation CS 01 is used in lower lifts. When RAP is blended with any of the coarse aggregates, the blending shall be done with mechanically calibrated feeders. The final product shall not contain more than 40 percent by weight of RAP.

Note 3. The RAP used for aggregate subgrade improvement shall be according to the current Bureau of Materials and Physical Research Policy Memorandum, "Reclaimed Asphalt Pavement (RAP) for Aggregate Applications".

303.03 Equipment. The vibratory machine shall be according to Article 1101.01, or as approved by the Engineer. The calibration for the mechanical feeders shall have an accuracy of ± 2.0 percent of the actual quantity of material delivered.

303.04 Soil Preparation. The stability of the soil shall be according to the Department's Subgrade Stability Manual for the aggregate thickness specified.

303.05 Placing Aggregate. The maximum nominal lift thickness of aggregate gradation CS 01 shall be 24 in. (600 mm).

303.06 Capping Aggregate. The top surface of the aggregate subgrade shall consist of a minimum 3 in. (75 mm) of aggregate gradations CA 06 or CA 10. When Reclaimed Asphalt Pavement (RAP) is used, it shall be crushed and screened where 100 percent is passing the 1 1/2 in. (37.5 mm) sieve and being well graded. RAP that has been fractionated to size will not be permitted for use in capping. Capping aggregate will not be required when the aggregate subgrade improvement is used as a

cubic yard pay item for undercut applications. When RAP is blended with any of the coarse aggregates, the blending shall be done with mechanically calibrated feeders.

303.07 Compaction. All aggregate lifts shall be compacted to the satisfaction of the Engineer. If the moisture content of the material is such that compaction cannot be obtained, sufficient water shall be added so that satisfactory compaction can be obtained.

303.08 Finishing and Maintenance of Aggregate Subgrade Improvement. The aggregate subgrade improvement shall be finished to the lines, grades, and cross sections shown on the plans, or as directed by the Engineer. The aggregate subgrade improvement shall be maintained in a smooth and compacted condition.

303.09 Method of Measurement. This work will be measured for payment according to Article 311.08.

303.10 Basis of Payment. This work will be paid for at the contract unit price per cubic yard (cubic meter) for AGGREGATE SUBGRADE IMPROVEMENT or at the contract unit price per square yard (square meter) for AGGREGATE SUBGRADE IMPROVEMENT, of the thickness specified.

Add the following to Section 1004 of the Standard Specifications:

" **1004.07 Coarse Aggregate for Aggregate Subgrade Improvement.** The aggregate shall be according to Article 1004.01 and the following.

(a) Description. The coarse aggregate shall be crushed gravel, crushed stone, or crushed concrete. The top 12 inches of the aggregate subgrade improvement shall be 3 inches of capping material and 9 inches of crushed gravel, crushed stone or crushed concrete. In applications where greater than 36 inches of subgrade material is required, rounded gravel, meeting the CS01 gradation, may be used beginning at a depth of 12 inches below the bottom of pavement.

(b) Quality. The coarse aggregate shall consist of sound durable particles reasonably free of deleterious materials. Non-mechanically blended RAP may be allowed up to a maximum of 5.0 percent.

(c) Gradation.

(1) The coarse aggregate gradation for total subgrade thicknesses of 12 in. (300 mm) or greater shall be CS 01.

Grad No.	COARSE AGGREGATE SUBGRADE GRADATIONS Sieve Size and Percent Passing				
	8”	6”	4”	2”	#4
CS 01	100	97 ± 3	90 ± 10	45 ± 25	20 ± 20

Grad No.	COARSE AGGREGATE SUBGRADE GRADATIONS (Metric)				
	Sieve Size and Percent Passing				
	200 mm	150 mm	100 mm	50 mm	4.75 mm
CS 01	100	97 ± 3	90 ± 10	45 ± 25	20 ± 20

The 3 in. (75 mm) capping aggregate shall be gradation CA 6 or CA 10.

DRAINAGE AND INLET PROTECTION UNDER TRAFFIC (DISTRICT 1)

Effective: April 1, 2011
Revised: April 2, 2011

Add the following to Article 603.02 of the Standard Specifications:

“(i) Temporary Hot-Mix Asphalt (HMA) Ramp (Note 1) …….....1030
(j) Temporary Rubber Ramps (Note 2)

Note 1. The HMA shall have maximum aggregate size of 3/8 in. (95 mm).

Note 2. The rubber material shall be according to the following.

Property	Test Method	Requirement
Durometer Hardness, Shore A	ASTM D 2240	75 ±15
Tensile Strength, psi (kPa)	ASTM D 412	300 (2000) min
Elongation, percent	ASTM D 412	90 min
Specific Gravity	ASTM D 792	1.0 - 1.3
Brittleness, °F (°C)	ASTM D 746	-40 (-40)”

Revise Article 603.07 of the Standard Specifications to read:

"**603.07 Protection Under Traffic.** After the casting has been adjusted and the Class PP concrete has been placed, the work shall be protected by a barricade and two lights according to Article 701.17(e)(3)b.

When castings are under traffic before the final surfacing operation has been started, properly sized temporary ramps shall be placed around the drainage and/or utility castings according to the following methods.

(a) Temporary Asphalt Ramps. Temporary hot-mix asphalt ramps shall be placed around the casting, flush with its surface and decreasing to a featheredge in a distance of 2 ft (600 mm) around the entire surface of the casting.

(b) Temporary Rubber Ramps. Temporary rubber ramps shall only be used on roadways with permanent posted speeds of 40 mph or less and when the height of the casting to be protected meets the proper sizing requirements for the rubber ramps as shown below.

Dimension	Requirement
Inside Opening	Outside dimensions of casting + 1 in. (25 mm)
Thickness at inside edge	Height of casting ± 1/4 in. (6 mm)
Thickness at outside edge	1/4 in. (6 mm) max.
Width, measured from inside opening to outside edge	8 1/2 in. (215 mm) min

Placement shall be according to the manufacturer's specifications.

Temporary ramps for castings shall remain in place until surfacing operations are undertaken within the immediate area of the structure. Prior to placing the surface course, the temporary ramp shall be removed. Excess material shall be disposed of according to Article 202.03."

COARSE AGGREGATE FOR BACKFILL, TRENCH BACKFILL AND BEDDING (D-1)

Effective: November 1, 2011
Revised: November 1, 2013

This work shall be according to Section 1004.05 of the Standard Specifications except for the following:

Reclaimed Asphalt Pavement (RAP) maybe blended with gravel, crushed gravel, crushed stone crushed concrete, crushed slag, chats, crushed sand stone or wet

bottom boiler slag. The RAP used shall be according to the current Bureau of Materials and Physical Research Policy Memorandum, "Reclaimed Asphalt Pavement (RAP) for Aggregate Applications". The RAP shall be uniformly graded and shall pass the 1.0 in. (25 mm) screen. When RAP is blended with any of the coarse aggregate listed above, the blending shall be done mechanically with calibrated feeders. The feeders shall have an accuracy of ± 2.0 percent of the actual quantity of material delivered. The final blended product shall not contain more than 40 percent by weight RAP.

The coarse aggregate listed above shall meet CA 6 and CA 10 gradations prior to being blended with the processed and uniformly graded RAP. Gradation deleterious count shall not exceed 10% of total RAP and 5% of other by total weight.

FRICTION AGGREGATE (D-1)

Effective: January 1, 2011
Revised: November 1, 2019

Revise Article 1004.03(a) of the Standard Specifications to read:

"**1004.03 Coarse Aggregate for Hot-Mix Asphalt (HMA).** The aggregate shall be according to Article 1004.01 and the following.

(a) Description. The coarse aggregate for HMA shall be according to the following table.

Use	Mixture	Aggregates Allowed
Class A	Seal or Cover	Allowed Alone or in Combination [5/]: Gravel Crushed Gravel Carbonate Crushed Stone Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag Crushed Concrete
HMA Low ESAL	Stabilized Subbase or Shoulders	Allowed Alone or in Combination [5/]: Gravel Crushed Gravel Carbonate Crushed Stone Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag[1/] Crushed Concrete

<table>
<tr><th>Use</th><th>Mixture</th><th colspan="2">Aggregates Allowed</th></tr>
<tr><td>HMA High ESAL
Low ESAL</td><td>Binder IL-19.0 or IL-19.0L

SMA Binder</td><td colspan="2"><u>Allowed Alone or in Combination</u> [5/ 6/]:

Crushed Gravel
Carbonate Crushed Stone[2/]
Crystalline Crushed Stone
Crushed Sandstone
Crushed Slag (ACBF)
Crushed Concrete[3/]</td></tr>
<tr><td>HMA High ESAL
Low ESAL</td><td>C Surface and Binder IL-9.5 or IL-9.5L

SMA Ndesign 50 Surface</td><td colspan="2"><u>Allowed Alone or in Combination</u> [5/]:

Crushed Gravel
Carbonate Crushed Stone[2/]
Crystalline Crushed Stone
Crushed Sandstone
Crushed Slag (ACBF)
Crushed Steel Slag[4/]
Crushed Concrete[3/]</td></tr>
<tr><td rowspan="5">HMA High ESAL</td><td rowspan="5">D Surface and Binder IL-9.5

SMA Ndesign 50 Surface</td><td colspan="2"><u>Allowed Alone or in Combination</u> [5/]:

Crushed Gravel
Carbonate Crushed Stone (other than Limestone)[2/]
Crystalline Crushed Stone
Crushed Sandstone
Crushed Slag (ACBF)
Crushed Steel Slag[4/]
Crushed Concrete[3/]</td></tr>
<tr><td colspan="2"><u>Other Combinations Allowed:</u></td></tr>
<tr><td>Up to...</td><td>With...</td></tr>
<tr><td>25% Limestone</td><td>Dolomite</td></tr>
<tr><td>50% Limestone</td><td>Any Mixture D aggregate other than Dolomite</td></tr>
<tr><td>75% Limestone</td><td>Crushed Slag (ACBF) or Crushed Sandstone</td></tr>
</table>

<table>
<tr><th>Use</th><th>Mixture</th><th colspan="2">Aggregates Allowed</th></tr>
<tr><td rowspan="5">HMA
High
ESAL</td><td rowspan="5">E Surface
IL-9.5

SMA
Ndesign 80
Surface</td><td colspan="2"><u>Allowed Alone or in Combination</u> [5/ 6/]:

Crystalline Crushed Stone
Crushed Sandstone
Crushed Slag (ACBF)
Crushed Steel Slag

No Limestone.</td></tr>
<tr><td colspan="2"><u>Other Combinations Allowed:</u></td></tr>
<tr><td>Up to...</td><td>With...</td></tr>
<tr><td>50% Dolomite[2/]</td><td>Any Mixture E aggregate</td></tr>
<tr><td>75% Dolomite[2/]</td><td>Crushed Sandstone, Crushed Slag (ACBF), Crushed Steel Slag, or Crystalline Crushed Stone</td></tr>
<tr><td>75% Crushed Gravel[2/] or Crushed Concrete[3/]</td><td>Crushed Sandstone, Crystalline Crushed Stone, Crushed Slag (ACBF), or Crushed Steel Slag</td></tr>
<tr><td rowspan="3">HMA
High
ESAL</td><td rowspan="3">F Surface
IL-9.5

SMA
Ndesign 80
Surface</td><td colspan="2"><u>Allowed Alone or in Combination</u> [5/ 6/]:

Crystalline Crushed Stone
Crushed Sandstone
Crushed Slag (ACBF)
Crushed Steel Slag
No Limestone.</td></tr>
<tr><td colspan="2"><u>Other Combinations Allowed</u>:</td></tr>
<tr><td>Up to...</td><td>With...</td></tr>
</table>

Use	Mixture	Aggregates Allowed	
		50% Crushed Gravel[2/], Crushed Concrete[3/], or Dolomite[2/]	Crushed Sandstone, Crushed Slag (ACBF), Crushed Steel Slag, or Crystalline Crushed Stone

1/ Crushed steel slag allowed in shoulder surface only.
2/ Carbonate crushed stone (limestone) and/or crushed gravel shall not be used in SMA Ndesign 80. In SMA Ndesign 50, carbonate crushed stone shall not be blended with any of the other aggregates allowed alone in Ndesign 50 SMA binder or Ndesign 50 SMA surface.
3/ Crushed concrete will not be permitted in SMA mixes.
4/ Crushed steel slag shall not be used as leveling binder.
5/ When combinations of aggregates are used, the blend percent measurements shall be by volume."
6/ Combining different types of aggregate will not be permitted in SMA Ndesign 80."

HOT-MIX ASPHALT BINDER AND SURFACE COURSE (D-1)

Effective: November 1, 2019
Revised: November 1, 2020

Description. This work shall consist of constructing a hot-mix asphalt (HMA) binder and/or surface course on a prepared base. Work shall be according to Sections 406 and 1030 of the Standard Specifications, except as modified herein.

Materials. Revise Article 1004.03(c) to read:

" (c) Gradation. The coarse aggregate gradations shall be as listed in the following table.

Use	Size/Application	Gradation No.
Class A-1, A-2, & A-3	3/8 in. (10 mm) Seal	CA 16 or CA 20
Class A-1	1/2 in. (13 mm) Seal	CA 15
Class A-2 & A-3	Cover Coat	CA 14
HMA High ESAL	IL-19.0; Stabilized Subbase IL-19.0	CA 11 1/
	SMA 12.5 2/	CA 13 4/, CA 14, or CA 16
	SMA 9.5 2/	CA 13 3/4/ or CA 16 3/
	IL-9.5	CA 16, CM 13 4/
	IL-9.5FG	CA 16
HMA Low ESAL	IL-19.0L	CA 11 1/
	IL-9.5L	CA 16

1/ CA 16 or CA 13 may be blended with the CA 11.

2/ The coarse aggregates used shall be capable of being combined with stone sand, slag sand, or steel slag sand meeting the FA/FM 20 gradation and mineral filler to meet the approved mix design and the mix requirements noted herein.

3/ The specified coarse aggregate gradations may be blended.

4/ CA 13 shall be 100 percent passing the 1/2 in. (12.5mm) sieve."

Revise Article 1004.03(e) of the Supplemental Specifications to read:

"(e) Absorption. For SMA the coarse aggregate shall also have water absorption ≤ 2.0 percent."

HMA Nomenclature. Revise the "High ESAL" portion of the table in Article 1030.01 to read:

"High ESAL	Binder Courses	IL-19.0, IL-9.5, IL-9.5FG, IL-4.75, SMA 12.5, Stabilized Subbase IL-19.0
	Surface Courses	IL-9.5, IL-9.5FG, SMA 12.5, SMA 9.5"

Revise Article 1030.02 of the Standard Specifications and Supplemental Specifications to read:

"**1030.02 Materials.** Materials shall be according to the following.

Item	Article/Section
(a) Coarse Aggregate	1004.03
(b) Fine Aggregate	1003.03
(c) RAP Material	1031
(d) Mineral Filler	1011
(e) Hydrated Lime	1012.01
(f) Slaked Quicklime (Note 1)	
(g) Performance Graded Asphalt Binder (Note 2)	1032
(h) Fibers (Note 3)	
(i) Warm Mix Asphalt (WMA) Technologies (Note 4)	

Note 1. Slaked quicklime shall be according to ASTM C 5.

Note 2. The asphalt binder shall be an SBS PG 76-28 when the SMA is used on a full-depth asphalt pavement and SBS PG 76-22 when used as an overlay, except where modified herein. The asphalt binder shall be a SBS PG 76-22 for IL-4.75, except where modified herein. The elastic recovery shall be a minimum of 80.

Note 3. A stabilizing additive such as cellulose or mineral fiber shall be added to the SMA mixture according to Illinois Modified AASHTO M 325. The stabilizing additive shall meet the Fiber Quality Requirements listed in Illinois Modified AASHTO M 325. Prior to approval and use of fibers, the Contractor shall submit a notarized certification by the producer of these materials stating they meet these requirements. Reclaimed Asphalt Shingles (RAS) may be used in Stone Matrix Asphalt (SMA) mixtures designed with an SBA polymer modifier as a fiber additive if the mix design with RAS included meets AASHTO T305 requirements. The RAS shall be from a certified source that produces either Type I or Type 2. Material shall meet requirements noted herein and the actual dosage rate will be determined by the Engineer.

Note 4. Warm mix additives or foaming processes shall be selected from the Department's Qualified Producer List, "Technologies for the Production of Warm Mix Asphalt (WMA)"."

Mixture Design. Revise Article 1030.04(a)(1) of the Standard Specifications and the Supplemental Specifications to read:

High ESAL, MIXTURE COMPOSITION (% PASSING) 1/										
Sieve Size	IL-19.0 mm		SMA 12.5		SMA 9.5		IL-9.5mm		IL-4.75 mm	
	min	max	min	max	min	max	min	max	min	max
1 1/2 in (37.5 mm)										
1 in. (25 mm)		100								
3/4 in. (19 mm)	90	100		100						
1/2 in. (12.5 mm)	75	89	80	100		100		100		100
3/8 in. (9.5 mm)				65	90	100	90	100		100
#4 (4.75 mm)	40	60	20	30	36	50	34	69	90	100
#8 (2.36 mm)	20	42	16	24 4/	16	32 4/	34 5/	52 2/	70	90
#16 (1.18 mm)	15	30					10	32	50	65
#30 (600 μm)			12	16	12	18				
#50 (300 μm)	6	15					4	15	15	30
#100 (150 μm)	4	9					3	10	10	18
#200 (75 μm)	3	6	7.0	9.0 3/	7.5	9.5 3/	4	6	7	9 3/
#635 (20 μm)			≤ 3.0		≤ 3.0					
Ratio Dust/Asphalt Binder		1.0		1.5		1.5		1.0		1.0

1/ Based on percent of total aggregate weight.

2/ The mixture composition shall not exceed 44 percent passing the #8 (2.36 mm) sieve for surface courses with Ndesign = 90.

3/ Additional minus No. 200 (0.075 mm) material required by the mix design shall be mineral filler, unless otherwise approved by the Engineer.

4/ When establishing the Adjusted Job Mix Formula (AJMF) the percent passing the #8 (2.36 mm) sieve shall not be adjusted above the percentage stated on the table.

5/ When establishing the Adjusted Job Mix Formula (AJMF) the percent passing the #8 (2.36 mm) sieve shall not be adjusted below 34 percent.

Revise Article 1030.04(b)(1) of the Standard Specifications to read:

"(1) High ESAL Mixtures. The target value for the air voids of the HMA shall be 4.0 percent, for IL-4.75 it shall be 3.5 percent and for Stabilized Subbase it shall be 3.0 percent at the design number of gyrations. The voids in the mineral aggregate (VMA) and voids filled with asphalt binder (VFA) of the HMA design shall be based on the nominal maximum size of the aggregate in the mix and shall conform to the following requirements.

VOLUMETRIC REQUIREMENTS High ESAL				
	Voids in the Mineral Aggregate (VMA), % minimum			Voids Filled with Asphalt Binder (VFA), %
Ndesign	IL-19.0; Stabilized Subbase IL-19.0	IL-9.5	IL-4.75 1/	
50	13.5	15.0	18.5	65 – 78 2/
70				65 - 75
90				

1/ Maximum draindown for IL-4.75 shall be 0.3 percent.

2/ VFA for IL-4.75 shall be 72-85 percent."

Revise the table in Article 1030.04(b)(3) to read:

"VOLUMETRIC REQUIREMENTS, SMA 12.5 1/ and SMA 9.5 1/			
Ndesign	Design Air Voids Target %	Voids in the Mineral Aggregate (VMA), % min.	Voids Filled with Asphalt (VFA), %
80 4/	3.5	17.0 2/	75 - 83
		16.0 3/	

1/ Maximum draindown shall be 0.3 percent. The draindown shall be determined at the JMF asphalt binder content at the mixing temperature plus 30 °F.

2/ Applies when specific gravity of coarse aggregate is ≥ 2.760.

3/ Applies when specific gravity of coarse aggregate is < 2.760.

4/ Blending of different types of aggregate will not be permitted. For surface course, the coarse aggregate can be crushed steel slag, crystalline crushed stone or crushed sandstone. For binder course, coarse aggregate shall be crushed stone (dolomite), crushed gravel, crystalline crushed stone, or crushed sandstone.

Add to the end of Article 1030.05 (d) (2) a. of the Standard Specifications:

"During production, the Contractor shall test SMA mixtures for draindown according to AASHTO T305 at a frequency of 1 per day of production."

Revise the last paragraph of Article 1102.01 (a) (5) of the Standard Specifications to read:

"IL-4.75 and Stone Matrix Asphalt (SMA) mixtures which contain aggregate having absorptions greater than or equal to 2.0 percent, or which contain steal slag sand, shall have minimum surge bin storage plus haul time of 1.5 hours."

Quality Control/Quality Assurance (QC/QA). Revise the third paragraph of Article 1030.05(d)(3) to read:

"If the Contractor and Engineer agree the nuclear density test method is not appropriate for the mixture, cores shall be taken at random locations determined according to the QC/QA document "Determination of Random Density Test Site Locations". Core densities shall be determined using the Illinois Modified AASHTO T 166 or T 275 procedure."

Add the following paragraphs to the end of Article 1030.05(d)(3):

"Longitudinal joint density testing shall be performed at each random density test location. Longitudinal joint testing shall be located at a distance equal to the lift thickness or a minimum of 4 in. (100 mm), from each pavement edge (i.e. for a 5 in. (125 mm) lift the near edge of the density gauge or core barrel shall be within 5 in. (125 mm) from the edge of pavement). Longitudinal joint density testing shall be performed using either a correlated nuclear gauge or cores.

a. Confined Edge. Each confined edge density shall be represented by a one-minute nuclear density reading or a core density and shall be included in the average of density readings or core densities taken across the mat which represents the Individual Test.

b. Unconfined Edge. Each unconfined edge joint density shall be represented by an average of three one-minute density readings or a single core density at the given density test location and shall meet the density requirements specified herein. The three one-minute readings shall be spaced 10 ft (3 m) apart longitudinally along the unconfined pavement edge and centered at the random density test location.

When a longitudinal joint sealant (LJS) is applied, longitudinal joint density testing will not be required on the joint(s) sealed."

Revise the second table in Article 1030.05(d)(4) and its notes to read:

"DENSITY CONTROL LIMITS			
Mixture Composition	Parameter	Individual Test (includes confined edges)	Unconfined Edge Joint Density, minimum
IL-4.75	Ndesign = 50	93.0 – 97.4 % 1/	91.0%
IL-9.5FG	Ndesign = 50 - 90	93.0 – 97.4 %	91.0%
IL-9.5	Ndesign = 90	92.0 – 96.0 %	90.0%
IL-9.5, IL-9.5L,	Ndesign < 90	92.5 – 97.4 %	90.0%
IL-19.0	Ndesign = 90	93.0 – 96.0 %	90.0%
IL-19.0, IL-19.0L	Ndesign < 90	93.0 2/ – 97.4 %	90.0%
SMA	Ndesign = 80	93.5 – 97.4 %	91.0%

1/ Density shall be determined by cores or by correlated, approved thin lift nuclear gauge.

2/ 92.0 % when placed as first lift on an unimproved subgrade."

Equipment. Add the following to Article 1101.01 of the Standard Specifications:

"(h) Oscillatory Roller. The oscillatory roller shall be self-propelled and provide a smooth operation when starting, stopping, or reversing directions. The oscillatory roller shall be able to operate in a mode that will provide tangential impact force with or without vertical impact force by using at least one drum. The oscillatory roller shall be equipped with water tanks and sprinkling devices, or other approved methods, which shall be used to wet the drums to prevent material pickup. The drum(s) amplitude and frequency of the tangential and vertical impact force shall be approximately the same in each direction and meet the following requirements:

(1) The minimum diameter of the drum(s) shall be 42 in. (1070 mm);

(2) The minimum length of the drum(s) shall be 57 in. (1480 mm);

(3) The minimum unit static force on the drum(s) shall be 125 lb/in. (22 N/m); and

(4) The minimum force on the oscillatory drum shall be 18,000 lb (80 kN)."

Construction Requirements.

Add the following to Article 406.03 of the Standard Specifications:

"(j) Oscillatory Roller .....1101.01"

Revise the third paragraph of Article 406.05(a) to read:

"All depressions of 1 in. (25 mm) or more in the surface of the existing pavement shall be filled with binder. At locations where heavy disintegration and deep spalling exists, the area shall be cleaned of all loose and unsound material, tacked, and filled with binder (hand method)."

Revise Article 406.05(c) to read.

"(c) Binder (Hand Method). Binder placed other than with a finishing machine will be designated as binder (hand method) and shall be compacted with a roller to the satisfaction of the Engineer. Hand tamping will be permitted when approved by the Engineer."

Revise the special conditions for mixture IL-4.75 in Article 406.06(b)(2)e. to read:

"e. The mixture shall be overlaid within 5 days of being placed."

Revise Article 406.06(d) to read:

"(d) Lift Thickness. The minimum compacted lift thickness for HMA binder and surface courses shall be as follows.

MINIMUM COMPACTED LIFT THICKNESS	
Mixture Composition	Thickness, in. (mm)
IL-4.75	3/4 (19) - over HMA surfaces 1/ 1 (25) - over PCC surfaces 1/
IL-9.5FG	1 1/4 (32)
IL-9.5, IL-9.5L	1 1/2 (38)
SMA 9.5	1 3/4 (45)
SMA 12.5	2 (51)
IL-19.0, IL-19.0L	2 1/4 (57)

1/ The maximum compacted lift thickness for mixture IL-4.75 shall be 1 1/4 in. (32 mm)."

Revise Table 1 and Note 3/ of Table 1 in Article 406.07(a) of the Standard Specifications to read:

"TABLE 1 - MINIMUM ROLLER REQUIREMENTS FOR HMA				
	Breakdown Roller (one of the following)	Intermediate Roller	Final Roller (one or more of the following)	Density Requirement
Binder and Surface 1/	V_D, P 3/, T_B, 3W, O_T, O_B	P 3/, O_T, O_B	V_S, T_B, T_F, O_T	As specified in Articles: 1030.05(d)(3), (d)(4), and (d)(7).
IL-4.75 and SMA 4/ 5/	T_B, 3W, O_T	- -	T_F, 3W, O_T	
Bridge Decks 2/	T_B	- -	T_F	As specified in Articles 582.05 and 582.06.

3/ A vibratory roller (V_D) or oscillatory roller (O_T or O_B) may be used in lieu of the pneumatic-tired roller on mixtures containing polymer modified asphalt binder.

5/ The Contractor shall provide two steel-wheeled tandem (T_B) or three-wheel (3W) rollers for breakdown, except one of the (T_B) or (3W) rollers shall be 84 inches (2.14 m) wide and a weight of 315 pound per linear inch (PLI) (5.63 kg/mm). 3W, T_B and T_F rollers shall be a minimum of 280 lb/in. (50 N/mm). The 3W and T_B rollers shall be operated at a uniform speed not to exceed 3 mph (5 km/h), with the drive roll for T_B rollers nearest the paver and maintain an effective rolling distance of not more than 150 ft (45 m) behind the paver."

Add the following to EQUIPMENT DEFINITION in Article 406.07(a) contained in the Errata of the Supplemental Specifications:

"O_T - Oscillatory roller, tangential impact mode. Maximum speed is 3.0 mph (4.8 km/h) or 264 ft/min (80 m/min).

O_B - Oscillatory roller, tangential and vertical impact mode, operated at a speed to produce not less than 10 vertical impacts/ft (30 impacts/m)."

Delete last sentence of the second paragraph of Article 1102.01(a) (4) b. 2.

Add to the end of Article 1102.01 (a) (4) b. 2.:

"As an option, collected dust (baghouse) may be used in lieu of manufactured mineral filler according to the following:

(a.) Sufficient collected dust (baghouse) is available for production of the SMA mix for the entire project.

(b.) A mix design was prepared based on collected dust (baghouse).

Production Testing. Revise first paragraph of Article 1030.06(a) of the Standard Specifications to read:

"(a) High ESAL Mixtures. A test strip of 300 ton (275 metric tons), except for SMA mixtures it will be 400 ton (363 metric ton), will be required for each mixture on each contract at the beginning of HMA production for each construction year according to the Manual of Test Procedures for Materials "Hot Mix Asphalt Test Strip Procedures". At the request of the Producer, the Engineer may waive the test strip if previous construction during the current construction year has demonstrated the constructability of the mix using Department test results."

Method of Measurement:

Add the following after the fourth paragraph of Article 406.13 (b):

"The plan quantities of SMA mixtures shall be adjusted using the actual approved binder and surface Mix Design's G_{mb}."

Basis of Payment. Replace the second through the fifth paragraphs of Article 406.14 with the following:

"HMA binder and surface courses will be paid for at the contract unit price per ton (metric ton) for MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS; HOT-MIX ASPHALT BINDER COURSE (HAND METHOD), of the Ndesign specified; HOT-MIX ASPHALT BINDER COURSE, of the mixture composition and Ndesign specified; HOT-MIX ASPHALT SURFACE COURSE, of the mixture composition, friction aggregate, and Ndesign specified; POLYMERIZED HOT-MIX ASPHALT BINDER COURSE (HAND METHOD), of the Ndesign specified; POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, of the mixture composition and Ndesign specified; POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, of the mixture composition, friction aggregate, and Ndesign specified; POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, STONE MATRIX ASPHALT, of the mixture composition and Ndesign specified; POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, STONE MATRIX ASPHALT, of the mixture composition, friction aggregate, and Ndesign specified."

HAMBURG WHEEL AND TENSILE STRENGTH RATIO TESTING (D-1)

Effective: December 1, 2020

Revise Article 1030.04(d) of the Standard Specifications to read:

"(d) Verification Testing. During mixture design, prepared samples shall be submitted to the District laboratory for verification testing. The required testing, and number and size of prepared samples submitted, shall be according to the following tables.

High ESAL – Required Samples for Verification Testing	
Mixture	Hamburg Wheel Testing [1/ 2/]
Binder	total of 3 - 160 mm tall bricks
Surface	total of 4 - 160 mm tall bricks

1/ The compacted gyratory bricks for Hamburg wheel testing shall be 7.5 ± 0.5 percent air voids.

2/ If the Contractor does not possess the equipment to prepare the 160 mm tall brick(s), twice as many 115 mm tall compacted gyratory bricks will be acceptable.

New and renewal mix designs shall meet the following requirements for verification testing.

(1) Hamburg Wheel Test. The maximum allowable rut depth shall be 0.5 in. (12.5 mm). The minimum number of wheel passes at the 0.5 in. (12.5 mm) rut depth criteria shall be based on the high temperature binder grade of the mix as specified in the mix requirements table of the plans.

Illinois Modified AASHTO T 324 Requirements [1/]	
PG Grade	Minimum Number of Wheel Passes
PG 58-xx (or lower)	5,000
PG 64-xx	7,500
PG 70-xx	15,000
PG 76-xx (or higher)	20,000

1/ When produced at temperatures of 275 ± 5 °F (135 ± 3 °C) or below, loose warm mix asphalt shall be oven aged at 270 ± 5 °F (132 ± 3 °C) for two hours prior to gyratory compaction of Hamburg wheel specimens.

2/ For IL-4.75 binder course, the minimum number of wheel passes shall be reduced by 5,000.

(2) Tensile Strength. Tensile strength testing shall be according to the Illinois Modified AASHTO T 283 procedure. The minimum allowable conditioned tensile strength shall be 60 psi (415 kPa) for non-polymer modified performance graded (PG) asphalt binder and 80 psi (550 kPa) for polymer modified PG asphalt binder, except polymer modified PG XX-28 or lower asphalt binders which shall have a minimum tensile strength of 70 psi (483 kPa). The maximum allowable unconditioned tensile strength shall be 200 psi (1380 kPa).

If a mix fails the Department's verification testing, the Contractor shall make necessary changes to the mix and provide passing Hamburg wheel and tensile strength test results from a private lab. The Department will verify the passing results."

Delete paragraph six, seven and eight of Article 1030.06(a).

Add the following to the end of Article 1030.06(a) of the Standard Specifications to read:

"Mixture sampled to represent the test strip shall include approximately 60 lb (27 kg) of additional material for the Department to conduct Hamburg wheel testing. Within two working days after sampling, the Contractor shall deliver prepared samples to the District laboratory for verification testing. The required number and size of prepared samples submitted for the Hamburg wheel testing shall be according to the "High ESAL - Required Samples for Verification Testing" table in Article 1030.04(d) above.

Mixture sampled during production for Hamburg wheel will be tested by the Department. The Hamburg wheel results shall meet the requirements specified in Article 1030.04(d) above.

Upon notification by the Engineer of a failing Hamburg wheel test and prior to restarting production, the Contractor shall make necessary adjustments approved by the Engineer to the mixture production and submit another mixture sample for the Department to conduct Hamburg wheel testing. Prior produced material may be paved out provided all other mixture criteria is being met. Upon consecutive failing Hamburg wheel tests, no additional mixture shall be produced until the Engineer receives passing Hamburg wheel test results.

The Department may conduct additional Hamburg wheel testing on production material as determined by the Engineer."

GROUND TIRE RUBBER (GTR) MODIFIED ASPHALT BINDER (D-1)

Effective: June 26, 2006
Revised: April 1, 2016

Add the following to the end of article 1032.05 of the Standard Specifications:

"(c) Ground Tire Rubber (GTR) Modified Asphalt Binder. A quantity of 10.0 to 14.0 percent GTR (Note 1) shall be blended by dry unit weight with a PG 64-28 to make a GTR 70-28 or a PG 58-28 to make a GTR 64-28. The base PG 64-28 and PG 58-28 asphalt binders shall meet the requirements of Article 1032.05(a). Compatible polymers may be added during production. The GTR modified asphalt binder shall meet the requirements of the following table.

Test	Asphalt Grade GTR 70-28	Asphalt Grade GTR 64-28
Flash Point (C.O.C.), AASHTO T 48, °F (°C), min.	450 (232)	450 (232)
Rotational Viscosity, AASHTO T 316 @ 275 °F (135 °C), Poises, Pa·s, max.	30 (3)	30 (3)
Softening Point, AASHTO T 53, °F (°C), min.	135 (57)	130 (54)
Elastic Recovery, ASTM D 6084, Procedure A (sieve waived) @ 77 °F, (25 °C), aged, ss, 100 mm elongation, 5 cm/min., cut immediately, %, min.	65	65

Note 1. GTR shall be produced from processing automobile and/or light truck tires by the ambient grinding method. GTR shall not exceed 1/16 in. (2 mm) in any dimension and shall contain no free metal particles or other 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, *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

Add the following to the end of Note 1. 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 must be capable of providing continuous mechanical mixing throughout by continuous agitation and recirculation of the asphalt binder to provide a uniform mixture. The tank shall be heated and capable of maintaining the temperature of the asphalt binder at 300 °F to 350 °F (149 °C to 177 °C). The asphalt binder metering systems of dryer drum plants shall be calibrated with the actual GTR modified asphalt binder material with an accuracy of ± 0.40 percent."

Revise 1030.02(c) of the Standard Specifications to read:

"(c) RAP Materials (Note 5) ……..…..1031"

Add the following note to 1030.02 of the Standard Specifications:

Note 5. When using reclaimed asphalt pavement and/or reclaimed asphalt shingles, the maximum asphalt binder replacement percentage shall be according to the most recent special provision for recycled materials.

ADJUSTMENTS AND RECONSTRUCTIONS

Effective: March 15, 2011

Revise the first paragraph of Article 602.04 to read:

"**602.04 Concrete.** Cast-in-place concrete for structures shall be constructed of Class SI concrete according to the applicable portions of Section 503. Cast-in-place concrete for pavement patching around adjustments and reconstructions shall be constructed of Class PP-1 concrete, unless otherwise noted in the plans, according to the applicable portions of Section 1020."

Revise the third, fourth and fifth sentences of the second paragraph of Article 602.11(c) to read:

"Castings shall be set to the finished pavement elevation so that no subsequent adjustment will be necessary, and the space around the casting shall be filled with Class PP-1 concrete, unless otherwise noted in the plans, to the elevation of the surface of the base course or binder course. HMA surface or binder course material shall not be allowed. The pavement may be opened to traffic according to Article 701.17(e)(3)b."

Revise Article 603.05 to read:

"**603.05 Replacement of Existing Flexible Pavement.** After the castings have been adjusted, the surrounding space shall be filled with Class PP-1 concrete, unless otherwise noted in the plans, to the elevation of the surface of the base course or binder course. HMA surface or binder course material shall not be allowed. The pavement may be opened to traffic according to Article 701.17(e)(3)b."

Revise Article 603.06 to read:

"**603.06 Replacement of Existing Rigid Pavement.** After the castings have been adjusted, the pavement and HMA that was removed, shall be replaced with Class PP-1 concrete, unless otherwise noted in the plans, not less than 9 in. (225 mm) thick. The pavement may be opened to traffic according to Article 701.17(e)(3)b.

The surface of the Class PP concrete shall be constructed flush with the adjacent surface."

Revise the first sentence of Article 603.07 to read:

"**603.07 Protection Under Traffic.** After the casting has been adjusted and the Class PP concrete has been placed, the work shall be protected by a barricade and two lights according to Article 701.17(e)(3)b."

DUCTILE IRON WATER MAIN (EGV)

Rev: July 1, 2019

Description. The Contractor shall furnish and install the proposed water main of the diameter specified at the locations shown on the plans. The water main shall include excavation, granular bedding, installation of the water main, testing and chlorination of the water main, backfill and compaction of the trench required for a complete and operational water main.

Materials. Water main pipe, unless otherwise specified shall be of the following materials:

Lining – Cement - mortar lined ductile iron pipe, push-on type, conforming to the requirements of A.N.S.I. specification A.21.4 (AWWA C-104 - Class 52.)

Coating – The exterior of ductile iron pipe shall be coated with a layer of arc-sprayed zinc per ISO 8179, with a minimum mass of 200 g/m2 of pipe surface area. The zinc coating system shall conform in every respect to ISO 8179-1 "Ductile iron pipes - External zinc-based coating - Part 1: Metallic zinc with finishing layer, Second edition 2004-06-01." A standard finishing layer of asphaltic coating shall be applied to protect the zinc coating in accordance with AWWA C-151.

Water main Joints - Sections of water main pipe shall be connected by means of push-on joints, consisting of bells cast integrally with the pipe, which have interior angular recesses conforming to the shape and dimension of a rubber sealing gasket. The interior dimension shall admit the insertion of the spigot end of the joining pipe in a manner that will compress the gasket tightly between the bell of the pipe and the inserted spigot, thus securing the gasket and sealing the joint. Such push-on joints shall be of the following makes, conforming to the requirements of A.N.S.I. - A.21.51 (AWWA C-151).

(1) Super Belltite - as supplied by Clow Corporation.

(2) Fastite - as supplied by American Cast Iron Pipe Co.

(3) Tyton - as supplied by the U.S. Pipe and Foundry Co.

(4) Ring-Tite - as supplied by Johns-Manville Corporation.

The lubricant used in conjunction with the push-on joints shall be of material that is recommended by the suppliers specified above, or an acceptable commercially processed animal fat or vegetable shortening.

Fasteners – All below grade fasteners shall be stainless steel Type 304.

All materials shall meet the “Buy American” provision of the American Recovery and Reinvestment Act of 2009.

Construction Methods. The water main shall be installed as detailed on the plans and in accordance with the applicable provisions of the Standard Specifications for Water and Sewer Main Construction in Illinois, current edition. The water main shall be installed to the grades shown on the plans and shall have a nominal minimum depth of cover of five feet, six inches (5'-6"). The excavation for the water main shall be made using trench equipment or other suitable excavating equipment.

Granular bedding shall be placed along the entire length of all water mains from four (4) inches below the water main to the top of water main. Material shall be gradation CA-7 course aggregate. The bedding material shall be included in the cost of DUCTILE IRON WATER MAIN.

If the excavation has been made deeper than necessary, the water main shall be laid at the lower depth, and no additional cost shall be charged to the Village for the extra excavation, trench backfill, or for subsequent adjustments to fire hydrants, valve vaults or domestic water services. All excavated materials not needed for backfilling the trenches shall be disposed of by the Contractor.

All trenches within areas of proposed pavement or where shown on the plans shall be backfilled with trench backfill to a point not less than two (2) feet from the outside edges of existing and proposed paved surfaces.

Non-pavement areas shall be backfilled from the top of the water main with originally excavated material free from rocks, frozen material or large clods and shall be carefully placed and compacted to prevent damage to or the dislodging of the water main pipe.

Backfilling shall be performed in accordance to Section 20 of the Standard Specifications for Water and Sewer Main Construction in Illinois, current edition. After the installation of the granular bedding the final backfill shall be deposited in uniform lifts not exceeding 12 inch in depth, loose measurement, and each lift shall be compacted by mechanical means to the satisfaction of the Engineer.

Where possible, the water main must be laid at least 10 feet horizontally from any sewer. In the event this is not possible, less than 10 feet is permissible provided the water main invert is at least 18 inches above the crown of the sewer in a separate trench or on a shelf of undisturbed earth in the same trench.

Where proper clearance, as described above, is not possible to obtain, the sewer must be of ductile iron or PVC-SDR-21 pipe pressure tested to the maximum expected surcharge head to assure water tightness before backfilling.

Where a water main must cross a sanitary service or sewer, the invert of the water main shall be a minimum of 18 inches above the crown of the sewer for at least 10 feet each side of the crossing.

Where proper vertical separation is not obtainable or the water main must pass under a sewer, the sewer must be of ductile iron or PVC-SDR-21 pipe or PVC-SDR-21 casing pipe for a minimum distance of 10 feet each side of the crossing. In making such crossing, a length of water main pipe shall be centered over the sewer so that the joints will be equidistant from the sewer. Casing spacers shall be used to slide the pipe into and support the pipe inside the carrier pipe. The blowing of sand or pea gravel into the pipe is not required with the use of casing spacers. The ends of the casing pipe shall be grouted closed with concrete. Wood skids are not approved. Where the water main must cross under a sewer, a vertical separation of 18 inches must be maintained between the pipes, along with the means to support larger sized sewer lines to prevent their settling and breaking the water main.

Separation from sewers shall conform to Sections 41-2.01 of the Standard Specifications for Water and Sewer Main Construction in Illinois, current edition.

Water in the trench shall be removed during pipe laying and jointing operations. Provisions shall be made to prevent floating of the pipe. Trench water shall not be allowed to enter the pipe at any time.

Adequate provisions shall be made for safely storing and protecting all water pipe prior to the actual installation in the trench. Care shall be taken to prevent damage to the pipe castings, both inside and out. Provisions shall be made to keep the inside of the pipe clean throughout its storage period and to keep mud and/or debris from being deposited therein. All pipe shall be thoroughly cleaned on the inside before laying.

Proper equipment shall be used for the safe handling, conveying, and laying of the pipe. All pipes shall be carefully lowered into the trench, piece by piece, by means of suitable tools or equipment, in such a manner as to prevent damage to water main materials and protective coatings and linings. Under no circumstances shall water main material be dropped or dumped into the trench.

The pipe shall be inspected for defects. All lumps, blisters, and excess coal tar coating shall be removed from the ends of each pipe and the inside of the bell.

When connecting joints, all portions of the joining materials and the socket and spigot ends of the joining pipe shall be wiped clean of all foreign materials. The actual assembly of the joint shall be in accordance with the manufacturer's installation instructions. During the construction and until joining operations are complete, the open ends of all pipes shall be at all times protected and sealed with temporary water tight plugs.

The entire section of the pipe shall be pushed forward to seat the spigot end into the bell. After the section of pipe is inserted into the bell (when joining pipe to mechanical joint fittings) the gasket shall then be pressed into place within the bell, being careful to have the gasket evenly located around the entire joint.

Pressure Testing and Disinfection of Water Main. When a section of pipe and appurtenances have been completed the Contractor shall furnish proper appliances and facilities for testing and flushing the same, without injury to the work or surrounding territory. He/she shall test by filling the pipe with clean water under a minimum hydrostatic pressure of one hundred fifty (150) pounds per square inch for two (2) hours. All testing shall be in conformance with Sections 41-2.14 of the Standard Specifications for Water and Sewer Main Construction in Illinois, current edition.

After completion of the pressure test the Contractor shall conduct a leakage test to determine the quantity of water lost by leakage under the specified test pressure. All testing shall be in conformance with Sections 41-2.14C of the Standard Specifications for Water and Sewer Main Construction in Illinois, current edition.

When pressure and leak tests are completed and prior to being placed into service, the water main pipe and appurtenances shall be disinfected by a method of chlorination approved by the Engineer and following the requirements of the above noted sections and the requirements of the Illinois EPA. Liquid chlorine is required.

Any defects, cracks or leakage that may develop or may be discovered, either in the joints or in the body of the castings, shall be promptly repaired by the Contractor at his/her own expense and the section shall be retested.

Method of Measurement. Water main (of the diameters specified) will be measured per foot in place. Water main shall be measured along the centerline of the water main from the center of the valve to the center of the valve, fittings, or end of the pipe.

Basis of Payment. Payment for water main shall be made at the contract unit price per foot bid for DUCTILE IRON WATER MAIN of the diameters specified. Payment shall be full compensation for excavation, bedding, installation of water main, backfill, compacting, pressure testing, chlorination and all labor materials and equipment as shown on the plans and as specified herein to construct a complete and operational water main.

Granular bedding as specified shall be included in the cost of the water main. Payment for granular trench backfill shall be made at the contract unit price bid per cubic yard for TRENCH BACKFILL. Payment for sleeves shall be made at the contract unit prices per foot for CASING PIPE, OPEN CUT, of the size indicated.

WATER SERVICE LINE (EGV)
WATER SERVICE CONNECTION (EGV)
CURB STOPS (EGV)
DOMESTIC WATER SERVICE BOXES (EGV)
Rev: January 27, 2017

Description. Work under this item shall include all materials and labor required for transferring existing copper water services to the new water main. Included in this item are the costs of tapping the new water main, installation of a new corporation stop,

installation of new curb stop and connection to existing service line. The required copper piping and installation of a new curb stop and domestic water service box (Buffalo boxes, B-boxes) shall be paid for separately.

Materials.
Water service lines shall be Type "K" copper tubing of the size indicated on the plans.

Corporation stops shall be AY McDonald 74701B Corporation Valve (AWWA Taper x Straight Flare) or Mueller 300 Ball Corporation Valve, B-25000N (AWWA Taper x Straight Flare).

Curb stops shall be AY McDonald 76100, 300 PSI (Flare x Flare), Minneapolis Pattern Ball Valve or Mueller 300 Ball Curb Valve, B-25154N (Flare x Flare), Minneapolis Thread Top.

B-Boxes shall be AY McDonald Curb Box Minneapolis Pattern 5623, 5623L lid. One and one-half inch upper body for services one inch or less and two inch upper body for services between 1 1/2 inches and 2 inches. All components in contact with potable water shall have no lead and comply with the latest requirements of the Federal Safe Drinking Water Act.

Stainless steel tapping saddles shall be used on PVC water mains.

Construction Methods. All service lines shall be installed at a minimum depth of 5 1/2 feet below finished grade. All copper services shall be augered or directionally bored under any roadway or sidewalk that is not shown to be removed and replaced. B-box extensions shall only be used with the approval of the Village. Should B-box extensions be required due to improper construction methods by the contractor, the extensions will be installed but will not be measured for payment.

The work shall be done only when directed by the Engineer, and may have to be performed on weekends and/or off hours. No additional compensation shall be due to the contractor for performing this work on weekends and/or off hours.

Method of Measurement. Water service lines will be measured per foot in place from the connection point at the proposed water main to the connection point at the existing water service.

Basis of Payment. Payment for the connection of services shall include all materials and labor required for transferring existing services to the new water main including corporation stops, compression fitting, and tapping saddles, but excluding new copper piping, curb stops, and replacement B-boxes. The cost of relocating existing services shall be paid for at the contract unit price for each WATER SERVICE CONNECTION of the size indicated on the plans.

Curb stops will be paid for at the contract unit price per each for CURB STOP of the size indicated on the plans.

Copper piping used in the transfer of services shall be paid for at the contract unit price per foot of WATER SERVICE LINE of the size indicated on the plans.

The cost of installing a new buffalo box shall be paid for at the contract unit price for each DOMESTIC WATER SERVICE BOXES indicated on the plans.

Buffalo Box Extensions, when required and approved by the Engineer, shall be included in the cost of the pay item DOMESTIC WATER SERVICE BOXES.

FIRE HYDRANT WITH AUXILIARY VALVE AND BOX (EGV)

Rev: November 11, 2020

Description. This item shall consist of furnishing fire hydrants with auxiliary valves with valve boxes and installing them at the location shown on the engineering drawings and in accordance with the Standard Specifications for Water and Sewer Main Construction in Illinois, current edition.

Materials

1. Fire Hydrants

Fire hydrants shall be East Jordan Iron Works Water Master 5BR250 with Plain End Connection with auxiliary valve attached (MJ x MJ) and valve box. The fire hydrant shall be designed to withstand, without leaking or damage to the hydrant, a hydraulic pressure of 300 pounds per square inch and an operating pressure of 150 pounds per square inch. All hydrants and any required fittings shall receive one (1) coat of red paint as recommended by the manufacturer prior to final acceptance.

Fire hydrants shall conform to AWWA Standard C-502 with breakaway traffic flange. They shall be of cast iron, bronze mounted, with two 2-1/2" bronze hose connections and a 4-1/2” bronze pumper connection. All hydrants shall have a five and one quarter inch minimum valve opening with an eight inch minimum diameter barrel.

Each hydrant shall be provided with a drain that will leave no water standing in the barrel of the hydrant when the hydrant is closed. This drain shall close tightly before the hydrant begins to open. The hose and pumper connections shall be securely leaded and locked into the hydrant and each shall be provided with a suitable cast iron threaded cover securely attached to the hydrant by a steel chain.

A suitable tee meeting the requirements of the special provision WATER MAIN FITTINGS shall be placed in the water main opposite each of the fire hydrants and shall be connected with the hydrant by means of the valve and connecting pipe.

All below grade fasteners shall be stainless steel Type 304.

All materials shall meet the “Buy American” provision of the American Recovery and Reinvestment Act of 2009.

2. Auxiliary Valves and Valve Box (MJ x MJ)
Auxiliary valves shall be "Double Face Valves" in accordance with the special provision for Gate Valve and Vaults of these project specifications with the following exceptions. These valves shall come complete with a cast iron valve box and cover produced by the same manufacturer producing the valve. The auxiliary valves shall be six (6) inches in diameter. The word "Water" shall be imprinted on the valve box cover. Valve Boxes shall have a rubber adapter boot installed in the valve prior to installation of the Valve Box. The rubber adapter boot shall be “Multi-Fit Adaptor” manufactured by Adaptor Inc.

All materials shall meet the “Buy American” provision of the American Recovery and Reinvestment Act of 2009.

Construction Methods. Each hydrant shall be set on a flat stone or concrete thrust block not less than 24 inches by 24 inches by 4 inches in thickness. A minimum of 3/4 cubic yard of 1 ½” wash stone shall be placed around the base of the hydrant in order to provide drainage for the hydrant drain.

All hydrants shall be set plumb and shall have their nozzles parallel with edge of pavement; the pumper connection shall be facing the edge of pavement. Hydrants shall be set to the established grade, with nozzles eighteen (18 inches) above the ground or as directed by the Village.

Fire hydrant extensions shall only be used with the approval of the Village. Should fire hydrant extensions be required due to improper construction methods by the Contractor, the extensions will be installed but will not be measured for payment.

All excavation around the fire hydrant and auxiliary valve shall be backfilled to the natural line or finished grade as rapidly as possible. The backfill material shall consist of the excavated material or granular trench backfill as herein specified. All backfill material shall be deposited in the excavation in a manner that will not cause damage to the fire hydrant or auxiliary valve. Any depressions which may develop within the area involved in a construction operation due to settlement of backfill material shall be filled in a manner consistent with standard practice.

Method of Measurement. Measurement for the fire hydrant with auxiliary valve and box complete and including all appurtenances shall be measured on a per each basis at each location.

Basis of Payment. Payment for furnishing and installing the fire hydrant with auxiliary valve and box, multi-fit rubber boot adapter, drainage stone, thrust block, all appurtenances, granular trench backfill, and backfilling shall be at the contract unit price per each FIRE HYDRANT WITH AUXILIARY VALVE AND BOX.

Six (6) inch water main connection pipe as specified shall be measured for payment on a per foot basis under DUCTILE IRON WATER MAIN (MODIFIED).

Fire hydrant extensions when required and approved by the Engineer shall be paid for at the contract unit price per foot for FIRE HYDRANT EXTENSION.

GATE VALVE (EGV)
VALVE VAULT, TYPE A, TYPE 1 FRAME, CLOSED LID (EGV)

Rev: July 1, 2019

Description. The Contractor shall furnish and install gate valves of the diameter specified at the locations shown on the plans. This item shall include the installation of the concrete vault, and frame and lid. Gate valves and vaults shall be as specified herein, as detailed on the drawings and as required by the Standard Specifications for Water and Sewer Main Construction in Illinois, current edition.

Materials.
All water valves shall be Mueller series A-2361-20, ANSI/AWWA C509, iron body resilient wedge gate valves. All valves shall be rated for 300-psi test pressure and 150 psi working pressure.

Valves shall conform to Underwriters' Laboratories, Inc. Standard UL-262 for Gate Valves for Fire Protection, and Factory Mutual Research FM Approval Standard Class Numbers 1120 and 1130, for Fire Service Water Control Valves.

Wedges shall be constructed of ductile iron, fully encapsulated in nitrite rubber except for guide and wedge nut areas.

Wedge rubber shall be molded in place and bonded to the ductile iron portion, and shall not be mechanically attached with screws, rivets, or similar fasteners.

Wedge shall seat against seating surfaces arranged symmetrically about the centerline of the operating stem, so that seating is equally effective regardless of direction of pressure unbalance across the wedge.

All seating surfaces in body shall be inclined to the vertical at a minimum angle of 32 degrees (when stem is in a vertical position) to eliminate abrasive wear of rubber sealing surfaces. The stem shall be sealed by at least two O-rings; all stem seals shall be replaceable with valve fully open and while subjected to full pressure.

All below grade fasteners shall be stainless steel Type 304.

Waterway shall be smooth and shall have no depressions or cavities in seat area where foreign material can lodge and prevent closure or sealing.

Valve vaults shall be constructed of precast concrete with a tapered concentric section as detailed on the plans and in accordance with the Standard Specifications for Water and Sewer Main Construction in Illinois, current edition. Flexible gasketed couplings (rubber boot) shall be precast into the structures, shall be used on all vaults, and shall conform to ASTM C-923. Steps are not required in vaults.

Manhole frames and lids shall be Neenah R-1713 with Type B lid, East Jordan 1050 with Type A lid. "Water" shall be marked on all lids and they shall have 1/2" pick holes.

Concrete adjustment rings less than 4 inches thick shall not be allowed. High Density Polyethylene (HDPE) plastic adjusting rings and ring wedges, manufactured by Ladtech, Inc., shall be used for all adjustments less than 4" or in combination with 4 inch minimum concrete adjustment rings. Vertical adjustment shall not exceed eight (8) inches. Bricks shall not be used.

Joints between precast elements, adjusting rings, and frames shall be sealed with butyl rubber joint sealer.

Contractor shall submit shop drawings of valves, vaults, manhole frames, and lids to the Village.

Four (4) inches of granular bedding shall be provided and shall be included in the cost of the valve vault.

All materials shall meet the "Buy American" provision of the American Recovery and Reinvestment Act of 2009.

Construction Methods. Gate valves shall be installed in the vertical position, supported on a concrete pedestal as shown on the drawings. Valve vaults shall be constructed at the locations and to the grades shown on the plans. It shall be the Contractor's responsibility to assure that the finished elevation of the valve vault is flush with the adjacent proposed ground line. Valve vault construction shall meet the requirements of Section 44 of the Standard Specifications for Water and Sewer Main Construction in Illinois, current edition. Butyl rubber joint sealer shall be used between all valve sections, adjusting rings and frame and cover. The space between the sides of the excavation and the walls of the valve vault shall be backfilled to the natural line of the finished surface as rapidly as possible. The backfill material shall consist of trench backfill as herein specified, or shown on the engineering drawings. All backfill material shall be deposited in the excavation in a manner that will not cause damage to the valve vault. Any depressions that may develop within the area involved in a construction operation due to settlement of the backfill material shall be filled in a manner consistent with standard practice.

Basis of Payment. Gate valves shall be paid for at the contract unit price per each for GATE VALVE of the size indicated on the plans. Valve vaults and lids shall be paid for at the contract unit price per each for VALVE VAULT, TYPE A, 5'-DIAMETER, TYPE 1 FRAME, CLOSED LID. Payment shall be full compensation for all materials, labor, and equipment to complete the item as detailed on the plans and as specified.

COMBINATION CONCRETE CURB AND GUTTER (MODIFIED) (EGV)

Description. This work shall consist of the construction of combination concrete curb and gutter of various types, as directed by the Engineer. This work shall be done in accordance with Section 606 of the Standard Specifications, IDOT Highway Standard No. 606001, and the details included in the plans.

Materials. Materials shall comply with the requirements of Sections 1006, 1020 and 1051 of the Standard Specifications.

The new curb and gutter, when greater than 5 feet in length, shall be tied to the existing curb and gutter with two #8 (1 inch) epoxy coated tie bars (18" long), drilled and grouted into the existing curb and gutter end. Two continuous #4 reinforcement bars shall be installed throughout combination concrete curb and gutters. A minimum 6" overlap shall be required when more than one bar is required. The Engineer must inspect and approve the base and formwork before any concrete is poured. A minimum 24 hour notice shall be provided for form work inspection.

When the existing, adjacent pavement is full depth asphalt, a maximum 6 inch width of the pavement shall be removed to allow for forming of the curb and gutter. This void shall be replaced with concrete, poured monolithically with the adjacent curb and gutter. The top of the concrete within the void shall be placed at the elevation of the bottom of the resurfacing thickness. The cost of the saw cutting to remove the pavement, the pavement removal, and the replacement with concrete shall be included in the cost of COMBINATION CONCRETE CURB AND GUTTER (MODIFIED).

Depressed curb for driveway openings, sidewalk ramps accessible to the disabled, and any other designated areas shall be constructed at the locations shown on the Plans or as designated by the Engineer. No additional compensation will be made for depressed curbs.

Method of Measurement. Combination concrete curb and gutter will be measured for payment in feet in the flow line of the gutter, which measurement will include drainage castings incorporated in the curb and gutter.

Basis of Payment. This work will be paid for at the contract unit price per foot of COMBINATION CONCRETE CURB AND GUTTER (MODIFIED) of the type specified.

PLANTING WOODY PLANTS

This work shall consist of planting woody plants as specified in Section 253 of the Standard Specifications with the following revisions:

Delete Article 253.03 Planting Time and substitute the following:

Spring Planting. This work shall be performed between March 15th and May 31st except that evergreen planting shall be performed between March 15th and April 30th in the northern zone.

Add the following to Article 253.03 (a) (2) and (b):

All plants shall be obtained from Illinois Nurserymen's Association or appropriate state chapter nurseries. All trees and shrubs shall be dug prior to leafing out (bud break) in the spring or when plants have gone dormant in the fall, except for the following species which are only to be dug prior to leafing out in the spring:

- Maple (Acer spp.)
- Buckeye (Aesculus spp.)
- Serviceberry (Amelanchier spp.)
- Birch (Betulus spp.)
- American Hornbeam (Carpinus caroliana)
- Hickory (Carya spp.)
- Hawthorn (Crataegus spp.)
- Walnut (Juglans spp.)
- Tuliptree (Liriodendron spp.)
- Crabapple (Malus spp.)
- Black Tupelo (Nyssa sylvatica)
- American Hophornbeam (Ostraya virginiana)
- Oak (Quercus spp.)
- Sassafras (Sassafras albidum)
- Baldcypress (Taxodium distichum)
- American Linden (Tilia americana)

Fall Planting. This work shall be performed between October 1 and November 30 except that evergreen planting shall be performed between August 15 and October 15.

Planting dates are dependent on species of plant material and weather. Planting might begin or end prior or after above dates as approved by the Engineer. Do not plant when soil is muddy or during frost.

Add the following to Article 253.05 Transportation:

Cover plants during transport with a 70% shade mesh heavy duty tarp to prevent desiccation. Plant material transported without cover shall be automatically rejected. During loading and unloading, plants shall be handled such that stems are not stressed, scraped or broken and that root balls are kept intact.

Delete the third sentence of Article 253.07 and substitute the following:

Trees must be installed first to establish proper layout and to avoid damage to other plantings such as shrubs and perennials.

The Contractor shall be responsible for all plant layout. The layout must be performed by qualified personnel. The planting locations must be laid out as shown in the landscape plan. This will require the use of an engineer's scale to determine some dimensions. Tree locations within each planting area shall be marked with a different color stake/flag and labeled to denote the different tree species. Shrub beds limits must be painted.

All utilities shall have been marked prior to contacting the Roadside Development Unit. The Engineer will contact the Roadside Development Unit at (847) 705-4171 to approve the layout prior to installation. Allow a minimum of seven (7) working days prior to installation for approval.

Delete the first paragraph to Article 253.08 Excavation of Plant Holes and substitute with the following:

Protect structures, utilities, sidewalks, bicycle paths, knee walls, fences, pavements, utility boxes, other facilities, lawns and existing plants from damage caused by planting operations. Excavation of the planting hole may be performed by hand, machine excavator, or auger.

The excavated material shall not be stockpiled on turf, in ditches, or used to create enormous water saucer berms around newly installed trees or shrubs. Remove all excess excavated subsoil from the site and dispose as specified in Article 202.03.

Delete the second sentence of Article 253.08 Excavation of Plant Holes (a) and the third paragraph of Article 253.08(b) and substitute with the following:

Excavation of planting hole width. Planting holes for trees, shrubs, and vines shall be three times the diameter of the root mass and with 45-degree sides sloping down to the base of the root mass to encourage rapid root growth. Roots can become deformed by the edge of the hole if the hole is too small and will hinder root growth.

Planting holes dug with an auger shall have the sides cut down with a shovel to eliminate the glazed, smooth sides and create sloping sides.

Excavation of planting hole depth. The root flare shall be visible at the top of the root mass. If the trunk flare is not visible, carefully remove soil from around the trunk until the root flare is visible without damaging the roots. Remove excess soil until the top of the root mass exposes the root collar.

The root flare shall always be slightly above the surface of the surrounding soil. The depth of the hole shall be equal to the depth of the root mass minus 2” allowing the tree or shrub to sit 2” higher than the surrounding soil surface for trees.

For stability, the root mass shall sit on existing undisturbed soil. If the hole was inadvertently dug too deep, backfill and recompact the soil to the correct depth.

Excavation of planting hole on slopes. Excavate away the slope above the planting hole to create a flattened area uphill of the planting hole to prevent the uphill roots from being buried too deep. Place the excess soil on the downslope of the planting hole to extend the planting shelf to ensure roots on the downhill side of the tree remain buried. The planting hole shall be three times the diameter of the root mass and saucer shaped. The hole may be a bit elongated to fit the contour of the slope as opposed to the typical round hole on flat ground.

Add backfill to create a small berm on the downhill portion of the planting shelf to trap water and encourage movement into the soil to increase water filtration around the tree. Smooth out the slope above the plant where you have cut into the soil so the old slope and the new slope transition together smoothly.

Add the following to Article 253.08 Excavation of Plant Holes (b):

When planting shrubs in shrub beds and vines in a vine bed as shown on the plans or as directed by the Engineer, spade a planting bed edge at approximately a 45-degree angle and to a depth of approximately 3-inches around the perimeter of the shrub bed prior to placement of the mulch. Remove any debris created in the spade edging process and dispose of as specified in Article 202.03.

Delete Article 253.09 (b) Pruning and substitute with the following:

Deciduous Shrubs. Shrubs shall be pruned to remove dead, conflicting, or broken branches and shall preserve the natural form of the shrub.

Delete the third and fourth paragraphs of Article 253.10 Planting Procedures and Article 253.10 (a) and substitute the following:

Approved watering equipment shall be at the site of the work and in operational condition PRIOR TO STARTING the planting operation and DURING all planting operations OR PLANTING WILL NOT BE ALLOWED.

All plants shall be placed in a plumb position and avoid the appearance of leaning. Confirm the tree is straight from two directions prior to backfilling.

Before the plant is placed in the hole, any paper or cardboard trunk wrap shall be removed. Check that the trunk is not damaged. Any soil covering the tree's root flare shall be removed to expose the crown prior to planting.

Check the depth of the root ball in the planting hole. With the root flare exposed, the depth of the hole shall be equal to the depth of the root mass minus 2" allowing the tree or shrub to sit 2" higher than the surrounding soil surface for trees. The root flare shall always be slightly above the surface of the surrounding soil. For stability, the root ball shall sit on existing undisturbed soil. If the hole was inadvertently dug too deep, backfill and recompact the soil to the correct depth.

After the plant is place in the hole, all cords and burlap shall be removed from the trunk. Remove the wire basket from the top three quarters (3/4) of the root ball. The remaining burlap shall be loosened and scored to provide the root system quick contact with the soil. All ropes or twine shall be removed from the root ball and tree trunk. All materials shall be disposed of properly.

The plant hole shall be backfilled with the same soil that was removed from the hole. Clay soil clumps shall be broken up as much as possible. Where rocks, gravel, heavy clay or other debris are encountered, clean topsoil shall be used. Do not backfill excavation with subsoil.

The hole shall be 1/3 filled with soil and firmly packed to assure the plant remains in plumb, then saturated with water. After the water has soaked in, complete the remaining backfill in 8" lifts, tamping the topsoil to eliminate voids, and then the hole shall be saturated again. Maintain plumb during backfilling. Backfill to the edge of the

root mass and do not place any soil on top of the root mass. Visible root flare shall be left exposed, uncovered by the addition of soil.

Add the following to Article 253.10 (b):

After removal of the container, inspect the root system for circling, matted or crowded roots at the container sides and bottom. Using a sharp knife or hand pruners, prune, cut, and loosen any parts of the root system requiring corrective action.

Delete the first sentence of Article 253.10(e) and substitute with the following:

Water Saucer. All plants placed individually and not specified to be bedded with other plants, shall have a water saucer constructed of soil by mounding up the soil 4-inches high x 8-inches wide outside the edge of the planting hole.

Delete Article 253.11 and substitute the following:

Individual trees, shrubs, shrub beds, and vines shall be mulched within 48 hours after being planted. No weed barrier fabric will be required for tree and shrub plantings.

The mulch shall consist of wood chips or shredded tree bark free not to exceed two (2) inches in its largest dimension, free of foreign matter, sticks, stones, and clods. Mulch shall be aged in stockpiles for a minimum of four (4) months where interior temperatures reach a minimum of 140-degrees. The mulch shall be free from inorganic materials, contaminants, fuels, invasive weed seeds, disease, harmful insects such as emerald ash borer or any other type of material detrimental to plant growth. A sample must be supplied to the Roadside Development Unit for approval prior to performing any work. Allow a minimum of seven (7) working days prior to installation for approval.

Mulch shall be applied at a depth of 4-inches around all plants within the entire mulched bed area or around each individual tree forming a minimum 5-foot diameter mulch ring around each tree. An excess of 4-inches of mulch is unacceptable and excess shall be removed. Mulch shall not be tapered so that no mulch shall be placed within 6-inches of the shrub base or trunk to allow the root flare to be exposed and shall be free of mulch contact.

Care shall be taken not to bury leaves, stems, or vines under mulch material. All finished mulch areas shall be left smooth and level to maintain uniform surface and appearance. After the mulch placement, any debris or piles of material shall be immediately removed from the right of way, including raking excess mulch out of turf areas in accordance with Article 202.03.

Delete Article 253.12 Wrapping and substitute the following:

Within 48 hours after planting, screen mesh shall be wrapped around the trunk of all deciduous trees with a caliper of 1-inch or greater. Multi-stem or clump form trees, with individual stems having a caliper of 1-inch or greater, shall have each stem wrapped separately. The screen mesh shall be secured to itself with staples or single wire strands tied to the mesh. Trees shall be wrapped at time of planting, before the

installation of mulch. The lower edge of the screen wire shall be in continuous contact with the ground and shall extend up to a minimum of 36-inches or to the lowest major branch, whichever is less. Replacement plantings shall not be wrapped.

Delete Article 253.13 Bracing and substitute with the following:

Unless otherwise specified by the Engineer, within 48 hours after planting all deciduous and evergreen trees, with the exception of multi-stem or clump form specimens, over 8-feet in height shall require three 6-foot long steel posts equally spaced from each other and adjacent to the outside of the ball. The posts shall be driven vertically to a depth of 18-inches below the bottom of the hole. The anchor plate shall be aligned perpendicular to a line between the tree and the post. The tree shall be firmly attached to each post with a double guy of 14-gauge steel wire. The portion of the wire in contact with the tree shall be encased in a hose of a type and length approved by the Engineer.

During the life of the contract, within 72 hours the Contractor shall straighten any tree that deviates from a plumb position. The Contractor shall adjust backfill compaction and install or adjust bracing on the tree as necessary to maintain a plumb position. Replacement trees shall not be braced.

Delete the second sentence of the first paragraph of Article 253.14 Period of Establishment and substitute the following:

This period shall begin in April and end in November of the same year.

Delete the last sentence of the first paragraph of Article 253.15 Plant Care and substitute the following:

This may require pruning, cultivating, tightening and repairing supports, repair of wrapping, and furnishing and applying sprays as necessary to keep the plants free of insects and disease. The Contractor shall provide plant care a minimum of every two weeks, or within 3 days following notification by the Engineer. All requirements for plant care shall be considered as included in the cost of the contract.

Delete the first paragraph of Article 253.15 Plant Care (a) and substitute with the following:

During plant care additional watering shall be performed at least every two weeks during the months of May through December. The contractor shall apply a minimum of 35 gallons of water per tree, 25 gallons per large shrub, 15 gallons per small shrub, and 4 gallons per vine. The Engineer may direct the Contractor to adjust the watering rate and frequency depending upon weather conditions.

Add the following to Article 253.15 Plant Care (c):

The contractor shall correct any vine growing across the ground plane that should be growing up desired vertical element (noise wall, retaining wall, fence, knee wall, etc.). Work may include but is not limited to carefully weaving vines through fence and/or taping vines to vertical elements.

Add the following to Article 253.15 Plant Care (d):

The contractor shall inspect all trees, shrubs, and vines for pests and diseases at least every two weeks during the months of initial planting through final acceptance. Contractor must identify and monitor pest and diseases and determine action required to maintain the good appearance, health and, top performance of all plant material. Contractor shall notify the Engineer with their inspection findings and recommendations within twenty-four hours of findings. The recommendations for action by the Contractor must be reviewed and by the Engineer for approval/rejection. All approved corrective activities will be included in the cost of the contract and shall be performed within 48 hours following notification by the Engineer.

Delete Article 253.16 Method of Measurement and substitute with the following:

Trees, shrubs, evergreens, vines, and seedlings will be measured as each individual plant.

(a) This work will be measured for initial payment, in place, for plant material found to be in live and healthy condition by June 1.

(b) This work will be measured for final payment, in place, for plant material found to be in live and healthy condition upon final acceptance by the department.

Delete Article 253.17 Basis of Payment and substitute the following:

This work will be paid for at the contract unit price per each for TREES, SHRUBS, EVERGREENS, or VINES, of the species, root type, and plant size specified; and per unit for SEEDLINGS.

The unit price shall include the cost of all materials, mulch, equipment, labor, plant care, watering, and disposal required to complete the work as specified herein and to the satisfaction of the Engineer. Payment will be made according to the following schedule.

(a) Initial Payment. Upon completion of planting, mulch covering, wrapping, and bracing, 75 percent of the pay item(s) will be paid.

(b) Final Payment. After the successful completion of all required replacement plantings, clean-up work and receipt of the "Final Acceptance of Landscape Work" memorandum from the Bureau of Maintenance, or upon execution of a third-party bond, the remaining 25 percent of the pay item(s) will be paid.

REQUIRED INSPECTION OF WOODY PLANT MATERIAL

Delete Article 1081.01(a)(5) and substitute the following:
The place of growth for all material, and subsequent inspection, must be located within 200 miles of the project.

Delete Article 1081.01(c)(1) and substitute the following:
Inspection of plant material will be made at the nursery by the Engineer, or a duly authorized representative of the Department; all plant material must be in the ground of the nursery supplying the material.

Delete Article 1081.06(b) and substitute the following:
Planting. The mulch shall consist of fine grade shredded tree bark meeting Article 1081.06(b) of the Standard Specifications and the approval of the Engineer.

The Contractor shall submit plant inspection forms and allow a minimum of 30 calendar days advance notice of the plant material to be inspected. Written certification by the Nursery will be required certifying that the plants are true to their species and/or cultivar specified in the plans.

The Department reserves the right to place identification seals on any or all plants selected. No trees shall be delivered without IDOT seal. Plant material not installed within 60 days of initial inspection will be required to be re-inspected.

FAILURE TO COMPLETE THE PLANT CARE AND ESTABLISHMENT WORK ON TIME

Should the Contractor fail to complete the plant care and/or supplemental watering work within the scheduled time frame as specified in the Special Provision for “Planting Woody Plants”, “Planting Perennial Plants”, “Perennial Plant Care”, and “Supplemental Watering“, or within 36 hours notification from the Engineer, or within such extended times as may have been allowed by the Department, the Contractor shall be liable to the Department in the amount of:

- $50.00 per tree/per day
- $40.00 per large shrub/per day
- $35.00 per small shrub/per day
- $20.00 per vine/per day
- $20.00 per perennial/per day
- $20.00 per sq yd sod/per day

not as penalty but as liquidated damages, for each calendar day or a portion thereof of overrun in the contract time or such extended time as may have been allowed.

In fixing the damages as set out herein, the desire is to establish a mode of calculation for the work since the Department’s actual loss, in the event of delay, cannot be predetermined, would be difficult of ascertainment, and a matter of argument and unprofitable litigation. This said mode is an equitable rule for measurement of the Department’s actual loss and fairly takes into account the loss of the tree(s) if the watering or plant care is delayed. The Department shall not be required to provide any actual loss in order to recover these liquidated damages provided herein, as said damages are very difficult to ascertain. Furthermore, no provision of this clause shall be construed as a penalty, as such is not the intention of the parties.

A calendar day is every day shown on the calendar and starts at 12:00 midnight and ends at the following 12:00 midnight, twenty-four hours later.

REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES

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

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

Site #: Tributary to Willow Creek (SED-1)

- Station 16+90 to Station 16+55 from 0 feet to 55 feet LT. This material meets the criteria of Article 669.05(a)(4) and shall be managed in accordance to Article 669.05. Potential contaminants of concern sampling parameters: PNAs.

Site #: Tributary to Willow Creek (SED-2)

- Station 15+50 to Station 16+16 from 0 feet to 55 feet RT. This material meets the criteria of Article 669.05(a)(5) and shall be managed in accordance to Article 669.05. Potential contaminants of concern sampling parameters: benzo(a)anthracene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene.

Site #: 11 (SB-1)

- Station 16+55 to Station 18+28 from 0 feet to 30 feet LT. This material meets the criteria of Article 669.05(a)(2) and shall be managed in accordance to Article 669.05. Potential contaminants of concern sampling parameters: benzo(a)pyrene.

Work Zones

Three distinct OSHA HAZWOPER work zones (exclusion, decontamination, and support) shall apply to projects adjacent to or within sites with documented leaking underground storage tank (LUST) incidents, or sites under management in accordance with the requirements of the Site Remediation Program (SRP), Resource Conservation and Recovery Act (RCRA), or Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), or as deemed necessary. For this project, the work zones apply for the following ISGS PESA Sites**:**

None

Additional information on the above sites is available from the Village of Elk Grove Village.

SANITARY SEWER, DUCTILE IRON (EGV)

Rev: November 17, 2015

Description. This work shall consist of open cut construction of sanitary sewer. All sanitary sewer material specifications shall meet the "Standard Specifications For Water And Sewer Main Construction In Illinois", current edition. All sanitary sewers shall be Ductile Iron pipe and fittings. All pipe shall conform to ANSI A21.51, class thickness designed per ANSI A 21.50, cement lined with bituminous coating per ANSI A 21.4, with push on joints per ANSI A21.11.

Granular bedding shall be placed along the entire length of the sewer from four (4) inches below the sewer pipe to the top of sewer pipe. The bedding material shall be included in the cost of SANITARY SEWER, DUCTILE IRON.

Non-shear flexible type couplings shall be used to connect sewer pipes of different material or different size. The Contractor shall place a flat stone or concrete thrust block not less than 24 inches by 24 inches by 4 inches in thickness under the connection.

Construction Methods. The Contractor shall maintain flow through the existing sanitary sewers within the project limits during the construction of the proposed sanitary sewer. Flow must be maintained at all times, unless otherwise approved by the Village. This includes all bypass piping and/or pumping required for the installation of the proposed manholes and sanitary sewer. The Contractor shall monitor upstream manholes and lift stations and prevent excessive surcharge conditions. The Contractor shall be responsible for continuity of sanitary sewer service to each facility connected to the section of sewer during the execution of the work. If sewage backup occurs and enters buildings, the Contractor shall be solely responsible for clean-up, repair, property damage costs, and claims. The Contractor shall relocate the temporary bypass piping as required to construct the proposed improvements. Based on the flow within the sewers, this work may need to be performed during overnight hours or on weekend days. No additional compensation shall be allowed for work during these hours.

At the preconstruction meeting, the Contractor shall submit his plan for the construction of the proposed sewer, the connections to the existing sewers, and how he/she will maintain the existing flow. Prior to starting any work on the sanitary sewer, the Contractor shall obtain approval of the plan from the Village. Forty-eight hours advance notice is required prior to beginning any sanitary sewer work.

The Contractor shall be responsible for maintaining a safe work environment during the construction of the sanitary sewer and maintaining the existing sewer flow. Any sewage spills shall be reported to the appropriate agencies and all clean-up shall meet the requirements of the Village and the IEPA. All clean-up work, including disposal costs, shall be included in the cost of SANITARY SEWER, DUCTILE IRON.

Sanitary Sewer Testing

The following testing shall be performed by the Contractor in accordance with the noted sections of the Standard Specifications for Water and Sewer Main Construction in Illinois:

1) Exfiltration of air under pressure per Section 31-1.13(A)
   or
2) Infiltration test per Section 31-1.13(B)

All testing must be performed in the presence of the Village.

All sanitary sewers eight (8) inches or larger shall be televised upon completion. All sanitary sewer services eight (8) inches or larger and having a minimum of two (2) manholes shall also be televised upon completion. A copy of the video tape shall be furnished to the Village for their records within three (3) days after the sewer is televised.

Method of Measurement. Sanitary sewer will be measured on a per linear foot basis, from the inside wall of the downstream manhole to the inside wall of the upstream manhole, or from the upstream point of connection to the existing sanitary sewer to the downstream connection.

Basis of Payment. This work will be paid for at the contract unit price per linear foot for SANITARY SEWER, DUCTILE IRON, of the size specified. The contract unit price shall include the costs for all work, including but not limited to the costs for labor, materials, supplies, equipment, bedding material, all excavation, disposal and backfill. All dewatering and/or sheeting or shoring required to do the work as specified shall not be paid for separately, but shall be included in the contract unit price of this item.

Payment for granular trench backfill shall be made at the contract unit price bid per cubic yard for TRENCH BACKFILL.

SANITARY SEWER REMOVAL (EGV)

Description. This work shall consist of the removal and disposal of existing gravity flow sanitary sewer pipe, regardless of the pipe material, at the locations shown on the plans or as directed by the Engineer. This work shall be performed in accordance with Section 551 of the Standard Specifications.

At locations where the existing sanitary sewer has been lined, this item shall include removal of both the original pipe and the internal lining.

The existing pipe, and internal lining if present, shall be shall saw cut at the removal limits in a manner that will not damage the remaining pipe. If the existing pipe or liner is damaged, as determined by the Engineer, additional pipe and liner shall be removed and replaced by the Contractor at no cost to the contract.

Method of Measurement. This work will be measured for payment in place in feet.

Basis of Payment. This work will be paid for at the contract unit price per foot for SANITARY SEWER REMOVAL of the size specified.

CASING PIPE, OPEN CUT, 24" PVC (EGV)

Description. The Contractor shall furnish and install PVC sleeves at locations shown on the plans or where required by the Engineer to meet the water and sewer separation requirements of Section 41-2.01 of the Standard Specifications for Water and Sewer Main Construction in Illinois, current edition. Water main shall be installed within the casing using casing spacers with restraints manufactured by Cascade Waterworks, Mfg. A minimum of 3 spacers shall be required for each section of main within the casing.

Materials. PVC-SDR-21 pipe shall be used for all sleeves, and the ends shall be sealed by a watertight masonry cap or a method approved by the Engineer.

Method of Measurement. PVC sleeves will be measured for payment in place in feet.

Basis of Payment. This work will be paid for at the contract unit price per linear foot for CASING PIPE, OPEN CUT, 24" PVC. The contract unit price shall include the costs for all work, including but not limited to the costs for labor, materials, sleeve pipe, casing spacers, supplies, end seals and equipment. Payment for water main shall be paid separately at the contract unit prices for DUCTILE IRON WATER MAIN.

PRECAST BOX CULVERT END SECTION (EGV)

Description. This work shall consist of constructing precast box culvert end sections as shown on the plans or as directed by the Engineer, in accordance with the applicable portions of Section 540 of the Standard Specifications.

The excavation and backfilling for precast box culvert end section shall be according to Section 502.

The contractor shall be responsible for diverting the water flow from the construction area using a method meeting the approval of the Engineer.

Shop drawings and calculations shall be submitted shall be submitted according to Article 1042.03(b) for all precast concrete box culverts sections, precast or cast-in-place end sections, headwalls and cast-in-place collars.

Method of Measurement. This work will be measured for payment for each PRECAST BOX CULVERT END SECTION shown on the plans.

Basis of Payment. This work will be paid for at the contract unit price per each for PRECAST BOX CULVERT END SECTION.

WATER MAIN FITTINGS (EGV)

Rev: July 1, 2019

Description. The Contractor shall furnish and install ductile iron fittings to connect water main pipe as shown on the plans, described in this Special Provision and in accordance with the Standard Specifications for Water and Sewer Main Construction in Illinois, current edition.

Materials.
Fittings shall be compact, ductile iron with mechanical joints rated 250 psi per AWWA C153/ANSI 21.53. (Clow, Tyler, American, or U.S. Pipe)

Coating – The exterior of all fittings shall be coated with a layer of arc-sprayed zinc per ISO 8179, with a minimum mass of 200 g/m2 of pipe surface area. A standard finished layer of asphaltic coating shall be applied to protect the zinc coating in accordance with AWWA C-151.

Fasteners – All below grade fasteners shall be stainless steel Type 304.

All materials shall meet the “Buy American” provision of the American Recovery and Reinvestment Act of 2009.

Construction Methods.
All bends of 11 1/4 degrees or greater and all tees and plugs shall be thrust protected to prevent movement of the lines under pressure. Thrust protection at bends, tees, solid sleeves, caps, valves and hydrants shall be done through the use of Mega Lugs Mechanical Joint Restraints by EPPA Iron.

Thrust blocking at bends, tees, caps, valves and hydrants using Portland Cement Concrete shall only be allowed with the approval of the Engineer. A minimum of 12 inches of Portland Cement Concrete shall be placed between solid ground and the fittings, and shall be anchored in such a manner that pipe and fitting joints will be accessible for repair. Thrust block installation shall be in accordance with Section 41-2.10 and Standard Drawing #12 of the Standard Specifications for Water and Sewer Main Construction in Illinois, current edition.

Retainer glands when installed at other locations along the main and directed by the Engineer shall be paid for at the contract unit price per pound for WATER MAIN FITTINGS. The Contractor may use additional retainer glands at his/her own expense.

Method of Measurement. Water main fittings will be measured by weight in pounds of actual fittings installed. In lieu of weighing the fittings at the job site, the fittings may be delivered with a letter from the manufacturer certifying the weight of each type and size of fitting, subject to the review of the Engineer. Mega Lugs and thrust blocks shall not be measured for payment.

Basis of Payment. Payment shall include all materials, labor, and equipment to connect the fittings to the main pipe and shall include all work associated with construction of

the joint restraints or thrust blocks and shall be made at the contract unit price per pound for WATER MAIN FITTINGS.

EXPLORATION TRENCH, SPECIAL (EGV)

Description. This item shall consist of excavating a trench at locations designated by the Engineer for the purpose of locating existing tile lines or other underground facilities within the limits of the proposed improvement. The trench shall be deep enough to expose the line but not more than one foot deeper than the line, and the width of the trench shall be sufficient to allow proper investigation to determine if the line needs to be relocated or replaced.

The exploration trench shall be backfilled with gradation CA 6 stone, the cost of which shall be included in the item of EXPLORATION TRENCH, SPECIAL.

Basis of Payment. This work will be paid for at the contract unit price per foot for EXPLORATION TRENCH, SPECIAL, regardless of the depth required, and no extra compensation will be allowed for any delays, inconveniences or damages sustained by the Contractor in performing the work.

ORNAMENTAL FENCE (EGV)

Description. This work shall consist of furnishing and installing a steel fence, gates and accessories as shown on the plans.

Materials.

A. The steel material for the fence framework (i.e.., tubular pickets, rails and posts) shall meet the following:

I. Galvanized after forming:
   a. Conform to the requirements of ASTM A1011/1011M
   b. Minimum yield strength of 50,000 psi.
   c. The exterior shall be hot-dip galvanized with a 0.45 oz/ft2 minimum zinc weight.
   d. The interior surface shall be coated with a minimum 81% normal zinc pigmented coating, 0.3 mils minimum thickness.

II. Galvanized prior forming
   a. Conform to the requirements of ASTM A924/A924M
   b. Minimum yield strength of 50,000 psi.
   c. The steel shall be hot-dip galvanized to meet the requirements of ASTM A653/A653M with a minimum zinc coating weight of 0.90 oz/ft2, Coating Designation G-90.

B. The manufactured galvanized framework shall be subjected to a thermal stratification coating process (high-temperature, in-line, multi-stage, multi-layer)

including as a minimum, a six-stage pretreatment/wash (with zinc phosphate), an electrostatic spray application of an epoxy base, and a separate electrostatic spray application of a polyester finish. The base coat shall be a zinc-rich thermosetting epoxy powder coating (gray in color) with a minimum thickness of 2 mils. The topcoat shall be a “no-mar” TGIC polyester powder coat finish with a minimum thickness of 2 mils. The color shall be as specified on the standard drawing included in the plans. The stratification-coated framework shall be capable of meeting the performance requirements for each quality characteristic shown in the following table.

Quality Characteristics	ASTM Test Method	Performance Requirements
Adhesion	D3359 – Method B	Adhesion (Retention of Coating) over 90% of test area (Tape and knife test).
Corrosion Resistance	B117 & D1654	Corrosion Resistance over 3,500 hours (Scribed per D1654; failure mode is accumulation of ⅛" coating loss from scribe or medium #8 blisters).
Impact Resistance	D2794	Impact Resistance over 60 inch lb. (Forward impact using 0.625" ball).
Weathering Resistance	D822, D2244, D523 (60° Method)	Weathering Resistance over 1,000 hours (Failure mode is 60% loss of gloss or color variance of more than 3 delta-E color units).

Table 1 – Coating Performance Requirements

C. The material for the fence pickets shall be 1” square x 16 gauge tubing. The cross-sectional shape of the rails shall conform to the manufacturer’s design with outside cross section dimensions of 1.75” square and a minimum thickness of 14 gauge. Picket holes in the horizontal rail shall be spaced 4.98” on center. The picket retaining rods shall be made of 0.125” diameter galvanized steel. The minimum post size shall be 2½” square x 12 gauge. High quality PVC grommets shall be supplied to seal all picket-to-rail intersections.

The manufacturer's literature (or shop drawings and specifications) shall be submitted to the Engineer prior to ordering the fence.

General. Installation of the fence shall be according to the applicable portions of Section 664 [Chain Link Fence] of the “Standard Specifications”, except as follows:

1. Dimensions and design details are as shown on the plans.

2. At some locations, the fencing shall be attached to concrete retaining walls. The attachment methods shall conform to the requirements of the “AASHTO LRFD (Load and Resistance Factor Design) Bridge Design Specifications” (AASHTO 2007) Section 13, “Railings”. The allowable attachment methods include using mounting brackets and anchors.

3. Fence post installation in soil shall be done using concrete footings as shown on the plans.

Fence Fabrication:

A. The pickets, rails and posts shall be precut to specified lengths. The horizontal rails shall be pre-punched to accept the pickets.

B. The grommets shall be inserted into the pre-punched holes in the rails and the pickets shall be inserted through the grommets so that the pre-drilled picket holes align with the internal upper raceway of the horizontal rails. (Note: This can best be accomplished by using an alignment template.) Retaining rods shall be inserted into each horizontal rail so that they pass through the predrilled holes in each picket completing the panel assembly.

C. The completed panels shall be capable of supporting a 600lb load (applied at midspan) without any permanent deformation. Panels with rings shall be biasable to a 12.5% change in grade. Panels without rings shall be biasable to a 25% change in grade.

D. Gates shall be fabricated using the same components as the fence system. The panel material and gate ends will have the same outside cross section dimensions as the horizontal rail. All rail and upright intersections shall be joined by welding. Picket and rail intersections shall be joined by welding or the same retaining rod used for the panel assembly.

Installation. The fence posts shall be set according to the spacing shown in Table 2, ±½“, depending on the nominal span specified.

Span	6’ Nominal (67¾" Rail)				8’ Nominal (92⅝" Rail)			
Post Size	2½"	3"	2½"	3"	2½"	3"	2½"	3"
Bracket Type	Standard (BB301)		Angle (BB304)		Standard (BB301)		Angle (BB304)	
Post Settings ± ½” o.c.	71½"	72"	73"	73½"	96"	96½"	97½"	98"

Table 2 – Post Spacing Requirements

For installations that must be raked to follow sloping grades, the post spacing dimension must be measured along the grade. Fence panels shall be attached to posts with brackets supplied by the manufacturer. For fencing installed in soil, posts shall be set in concrete footings having a minimum depth of 36”.

For fence installed on top of a concrete retaining wall, posts shall be set by methods such as plated posts. The anchor method shall conform to the requirements of the “AASHTO LRFD (Load and Resistance Factor Design) Bridge Design Specifications” (AASHTO 2007), Section 13, “Railings”. The Contractor shall provide shop drawings of the anchor method to the Engineer for review and approval.

Fence Installation Maintenance. When cutting/drilling rails or posts adhere to the following steps to seal the exposed surfaces:

1) Remove all metal shavings from cut area.
2) Apply custom finish paint matching fence color.

Gate Installation. Gate posts shall be spaced according to the manufacturers' gate drawings, dependent on standard out to out gate leaf dimensions and gate hardware selected. Type and quantity of gate hinges shall be based on the application; weight, height, and number of gate cycles. The manufacturers' gate drawings shall identify the necessary gate hardware required for the application. Gate hardware shall be provided by the manufacture of the gate and shall be installed per manufacturer's recommendations

Gate posts shall be spaced according to the gate openings specified in the construction plans. The fence panels shall be attached to the posts using mechanically fastened panel brackets supplied by the manufacturer.

Method of Measurement. Ornamental Fence will be measured for payment in feet along the top of the fence from center to center of the end posts.

Basis of Payment. This work will be paid for at the contract unit price per foot for ORNAMENTAL FENCE. The unit price shall include furnishing and installing the fence, including all fence connections, connection to a retaining wall (where required), concrete foundations, fence openings and gates (where indicated) and electric grounding. The unit price shall also include all equipment, materials and labor required to install the fence.

SEEDING (MODIFIED)

Description. This work shall consist of preparing the seed bed and furnishing and placing the seed and other materials required in seeding operations at the locations shown on the plans. This work shall be performed in accordance with Section 250 of the Standard Specifications with the following modifications:

Materials. Seeding species shall be supplied as pure live seed (PLS). Seed species and seeding rates are shown below. Materials shall be according to the following:

1) All native seed material shall be true to genus and species, and shall be of Midwestern genotype. Unless otherwise approved in writing by the Engineer, native plant seed shall have an origin within 150 miles of the project site.

2) Native seed shall meet the requirements of Article 1081.02 of the Standard Specifications and the applicable sections of the following references:

   a. American Association of Nurserymen, Inc. (AAN) Standard; American Standard for Nursery Stock (ANSI Z60.1-1990);
   b. American Joint Committee on Horticultural Nomenclature, Standardized Plant Names, second edition, 1942; and
   c. Wilhelm, Gerould and Laura Rericha. Flora of the Chicago Region,

2017.

If a discrepancy between these reference standards and this special provision persists, the more restrictive requirement shall govern.

3) Species substitution requests must be submitted to the Engineer a minimum of two weeks prior to delivery and application.

4) All seed packaging shall be tagged showing seed species, sources, and weights. The seed weights shall be based on PLS percentage for all species. All seed shall be furnished in sealed containers and protected from moisture.

5) All native seed shall be handled and packed as appropriate per plant species, with regard to: soil and climate conditions present at the time and place of packing; soil and climate conditions present at the project site; length of transit time to the project site; and length of time the seed will be stored at the project site.

6) The Engineer shall inspect native seed at the time of delivery for disease and insect infestation.

7) On-site storage of native seed shall be at the Contractor's own risk. All native plant seed shall be applied within one week after delivery. Delayed seeding shall require precautions to protect and maintain healthy conditions of native seed. Seed shall be stored in a shaded area when ambient temperatures exceed 72 degrees F. Damage to native seed stock while stored on-site shall be Contractor's responsibility and no additional compensation will be accepted for replacement.

Seeding, Class 4A (Modified)

SCIENTIFIC NAME	COMMON NAME	OZ./ACRE
Grasses (6 lbs/acre):		
Andropogon gerardii	BIG BLUESTEM	24.00
Bouteloua curtipendula	SIDE-OATS GRAMA	32.00
Elymus virginicus	VIRGINIA WILD RYE	32.00
Hystrix patula	BOTTLEBRUSH GRASS	16.00
Schizachyrium scoparium	LITTLE BLUESTEM	32.00
Sorghastrum nutans	INDIAN GRASS	8.00
Sporobolus heterolepis	PRAIRIE DROPSEED	16.00
TOTAL:		**160.00**
		10.00 lbs/acre
Cover:		
Avena sativa	SEED OATS	320.00

Secale cereale	RYE	320.00
TOTAL:		**320.00**
		20.00 lbs/acre

Seeding, Class 5 (Modified)		
Forbs:		
Ageratina altissima	WHITE SNAKEROOT	4.80
Campanulastrum americanum	TALL BELLFLOWER	4.80
Eutrochium purpureum	PURPLE JOE PYE WEED	3.20
Helianthus strumosus	SAVANNA SUNFLOWER	2.40
Heliopsis helianthoides	FALSE SUNFLOWER	4.80
Liatris aspera	ROUGH BLAZING STAR	6.40
Monarda fistulosa	WILD BERGAMOT	6.80
Oligoneuron rigidum	STIFF GOLDENROD	2.40
Penstemon digitalis	FOXGLOVE BEARD TONGUE	4.80
Ratibida pinnata	YELLOW CONEFLOWER	8.00
Rudbeckia hirta	BLACK-EYED SUSAN	4.80
Solidago speciosa	SHOWY GOLDENROD	3.20
Symphyotrichum laeve	SMOOTH BLUE ASTER	4.80
Symphyotrichum oolentangiense	SKY-BLUE ASTER	3.20
Tradescantia ohiensis	COMMON SPIDERWORT	1.60
TOTAL:		**66.00**
		4.13 lbs/acre

Construction Requirements. Conservation tillage or no till planting methods shall be used for seedbed preparation. Methods may include Grain Drill Type R, no till drill, or broadcast seeding into a lightly tilled soil surface, of which shall be followed by impressing seed into soil with a cultipacker roller.

Spring seeding shall require proper stratification and/or scarification to break seed dormancy. Spring seeding times shall be preferentially conducted in early spring, as soon as the soil is free of frost and in a workable condition, but no later than June 15th. Fall seeding times shall be conducted in late September, October, or November allowing seed to stratify naturally in soil. Outside these seeding times, the cover crop seed matrix shall be applied, and the permanent seed matrix shall then be applied in the first available planting season. Application of the cover crop shall not be paid for

separately, but shall be included in the cost of the permanent seeding.

Fertilizers shall not be applied within 35 feet of the tributary to Willow Creek.

When planting installation of an area has been completed, the area shall be cleared of all debris, soil piles, and containers within 24 hours.

Method of Measurement. Seeding of the class specified will be measured in acres of surface area seeded.

Basis of Payment. This work will be paid for at the contract unit price per ACRE for SEEDING CLASS 4A (MODIFIED) and SEEDING CLASS 5 (MODIFIED).

EROSION CONTROL BLANKET, SPECIAL

This Special Provision revises Section 251 of the Standard Specifications for Road and Bridge Construction to eliminate the use of Excelsior Blanket for Erosion Control Blanket. This work shall consist of furnishing, transporting, and placing 100 % biodegradable leno weave erosion control blanket over seeded areas with biodegradable anchors as detailed on the plans, according to Section 251 except as modified herein.

Delete Article 1081.10(a) Excelsior Blanket.

Delete Article 1081.10 (b) Knitted Straw Mat and substitute the following:

> Knitted Straw Mat. Knitted straw mat shall be a machine-produced mat of 100% clean, weed free agricultural straw. The blanket shall be of consistent thickness with the straw evenly distributed over the entire area of the blanket with a functional longevity of up to 12 months. The blanket shall be covered on top and bottom sides with a 100% biodegradable woven natural organic fiber netting. No plastic netting will be allowed.
>
> The top and bottom netting shall consist of machine directional strands formed from two intertwined yarns with cross directional strands interwoven through the twisted machine strands (leno weave) to form an approximate 0.50 x 1.0 (1.27 x 2.54 cm) mesh. Joints shall be movable joints, not fixed or welded.
>
> The blanket shall be sewn together on 1.50-inch (3.81 cm) to 2-inch centers with 100% biodegradable thread. The blanket shall be manufactured with a colored thread stitched along both outer edges (approximately 2-5 inches (5-12.5cm) from the edge) as an overlap guide for adjacent mats.

Delete Article 1081.10(d) Wire Staples.

Add the following to Article 1081.10 (e) Wood Stakes:

The 100% biodegradable hardwood stake shall exhibit ample rigidity to enable being driven into hard ground, with sufficient flexibility to resist breakage. The wooden stake shall be a minimum of 6 inches in length with a 1.25 inch head to hold the blanket in place. Biodegradable plastic stakes nor metal wire stakes will be allowed.

Add the following to Article 251.06 Method of Measurement:

Erosion Control Blanket, Special will be measured for payment in place in square yards of actual surface areas covered.

Add the following to Article 251.07 Basis of Payment:

This work will be paid for at the contract unit price per square yard for EROSION CONTROL BLANKET, SPECIAL.

PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 8 INCH (SPECIAL) (EGV)

Description. This work shall consist of the construction of Portland Cement Concrete driveways at the locations designated on the plans in accordance with Section 423 of the Standard Specifications and the details included in the plans.

The Contractor shall machine-saw a perpendicular joint between that portion of a driveway to be removed and that which is to remain in place. If the Contractor removes or damages the existing driveway or parking area outside the limits designated by the Engineer for removal and replacement, the Contractor will be required to repair or replace that portion at his/her own expense to the Engineer's satisfaction. All required excavation shall be included in the contract unit price for this item. Removal of the existing driveway pavement will be paid for separately.

Materials. Materials shall comply with the requirements of Sections 1006, 1020 and 1051 of the Standard Specifications. High-early strength concrete, meeting the requirements of Class PP-1 concrete, shall be required.

Commercial driveways shall consist of 8" of concrete with 6" x 6" x #6 wire mesh.

Method of Measurement. Measurement for concrete driveway shall be per square yard.

Basis of Payment. Payment for PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 8 INCH, SPECIAL shall be made at the contract unit price per square yard. Payment shall be full compensation for all materials including labor, equipment and materials to complete the item as shown on the plans and as specified. Removal of the existing driveway pavement shall be paid for as DRIVEWAY PAVEMENT REMOVAL. Granular subbase under the driveway will be measured separately for payment as SUBBASE GRANULAR MATERIAL, TYPE B, 8".

PORTLAND CEMENT CONCRETE SIDEWALK, SPECIAL (EGV)

Description. This work shall consist of the construction of Portland Cement Concrete sidewalks at the locations designated on the plans in accordance with Section 424 of the Standard Specifications with the following modifications.

Materials. Materials shall comply with the requirements of Sections 1006, 1020 and 1051 of the Standard Specifications.

All sidewalk constructed over a utility trench shall be reinforced with three #4 rebars which extend 5 feet beyond the trench walls.

All forms used for sidewalk shall be 2" x 6" lumber, 2" x 10" lumber, or approved metal forms. The Engineer must inspect and approve the base and formwork before any concrete is poured. A minimum 24 hour notice shall be provided for formwork inspection.

All proposed sidewalk and sidewalk curb ramps shall be constructed to the slopes and grades shown on the IDOT Highway Standards. The proposed sidewalk limits shown on the plans are approximate. The Engineer shall make the final determination of the sidewalk replacement limits in the field.

The maximum cross slope at any point in the traversable area of the sidewalk, including the area through driveways, shall be 2.00%. All areas of new sidewalk that exceed this maximum shall be removed and replaced at the Contractor's expense.

Side curbs adjacent to sidewalks, when shown on the plans, the IDOT Highway Standards, or required by the Engineer, shall be included in the measured area and paid for as PORTLAND CEMENT CONCRETE SIDEWALK of the thickness specified.

Method of Measurement. This work will be measure for payment in place and the area computed in square feet.

Basis of Payment. This work will be paid for at the contract unit price per square foot for PORTLAND CEMENT CONCRETE SIDEWALK, SPECIAL, of the thickness specified.

AGGREGATE SURFACE COURSE FOR TEMPORARY ACCESS

Effective: April 1, 2001
Revised: January 2, 2007

Revise Article 402.10 of the Standard Specifications to read:

"**402.10 For Temporary Access.** The contractor shall construct and maintain aggregate surface course for temporary access to private entrances, commercial entrances and roads according to Article 402.07 and as directed by the Engineer.

The aggregate surface course shall be constructed to the dimensions and grades specified below, except as modified by the plans or as directed by the Engineer.

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

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

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

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

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

Add the following to Article 402.12 of the Standard Specifications:

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

Revise the second paragraph of Article 402.13 of the Standard Specifications to read:

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

Partial payment of the each amount bid for temporary access, of the type specified, will be paid according to the following schedule:

(a) Upon construction of the temporary access, sixty percent of the contract unit price per each, of the type constructed, will be paid.

(b) Subject to the approval of the Engineer for the adequate maintenance and removal of the temporary access, the remaining forty percent of the pay item will be paid upon the permanent removal of the temporary access."

CONNECTION TO EXISTING WATER MAIN (EGV)

Rev: January 19, 2017

Description. Under this item the Contractor shall connect the proposed water main to the existing water main at the locations shown on the plans, as specified herein and described in Section 41 of the Standard Specifications for Water and Sewer Main Construction in Illinois, current edition.

This item of work shall include locating and closing existing valves to isolate the connection point to the existing water main, cutting the existing water main (including the work involved for the cut-in tee), removal and disposal of the required length of existing main and restoring the existing water main to service.

Materials. Gate valves and fittings shall be in accordance with the special provisions for GATE VALVES and WATER MAIN FITTINGS.

Construction Methods. For each segment of water main being installed, the main shall be initially connected to the existing main at only one point as indicated on the plans. This connection point shall be valved and shall be the source of water for flushing, chlorinating and testing.

All other connections to the existing mains shall be done after the proposed main has been tested and passed for leakage and bacteriological contamination.

The Contractor shall be responsible for determining the type and outside diameter of existing water main pipe in order to obtain the proper fittings. Connections to existing mains shall have no visible leakage.

The work shall be done only when directed by the Engineer, and may have to be performed on weekends and/or off hours. No additional compensation shall be due to the Contractor for performing this work on weekends and/or off hours.

Method of Measurement. Measurement shall be made once on a per each basis at each location regardless of the number of pipes to be connected at each location.

Basis of Payment. Payment for the work associated with connecting to existing mains shall be at the contract unit price each for CONNECTION TO EXISTING WATER MAIN, of the size specified. Payment shall be made once at each location regardless of the number of pipes to be connected at each location.

Payment for valves, sleeve fittings and pipe used to connect to the existing water mains shall be paid separately at the contract unit prices for GATE VALVE, WATER MAIN FITTINGS and DUCTILE IRON WATER MAIN.

COMBINATION CONCRETE CURB AND GUTTER (SPECIAL) (EGV)

Description. This work shall consist of the construction of combination concrete curb and gutter of various types, as directed by the Engineer. This work shall be done in accordance with Section 606 of the Standard Specifications, IDOT Highway Standard No. 606001, and the details included in the plans.

Materials. Materials shall comply with the requirements of Sections 1006, 1020 and 1051 of the Standard Specifications. High-early strength concrete, meeting the requirements of Class PP-1 concrete, shall be required.

The new curb and gutter, when greater than 5 feet in length, shall be tied to the existing curb and gutter with two #8 (1 inch) epoxy coated tie bars (18" long), drilled and grouted into the existing curb and gutter end. Two continuous #4 reinforcement bars shall be installed throughout combination concrete curb and gutters. A minimum 6" overlap shall be required when more than one bar is required. The Engineer must inspect and approve the base and formwork before any concrete is poured. A minimum 24 hour notice shall be provided for form work inspection.

When the existing, adjacent pavement is full depth asphalt, a maximum 6 inch width of the pavement shall be removed to allow for forming of the curb and gutter. This void shall be replaced with concrete, poured monolithically with the adjacent curb and gutter. The top of the concrete within the void shall be placed at the elevation of the bottom of the resurfacing thickness. The cost of the saw cutting to remove the pavement, the pavement removal, and the replacement with concrete shall be included in the cost of COMBINATION CONCRETE CURB AND GUTTER (SPECIAL).

Depressed curb for driveway openings, sidewalk ramps accessible to the disabled, and any other designated areas shall be constructed at the locations shown on the Plans or as designated by the Engineer. No additional compensation will be made for depressed curbs.

Method of Measurement. Combination concrete curb and gutter will be measured for payment in feet in the flow line of the gutter, which measurement will include drainage castings incorporated in the curb and gutter.

Basis of Payment. This work will be paid for at the contract unit price per foot of COMBINATION CONCRETE CURB AND GUTTER (SPECIAL) of the type specified.

ENGINEER'S FIELD OFFICE, TYPE A (MODIFIED) (EGV)

Description. This work shall consist of furnishing and maintaining a Type A field office in accordance with Section 670 of the Standard Specifications:

The field office shall be located within a 1 mile radius of the construction site and within the corporate limits of Elk Grove Village.

Basis of Payment. This work will be paid for at the contract unit price per each month for ENGINEER'S FIELD OFFICE, TYPE A (MODIFIED.

CONCRETE TRUCK WASHOUT (EGV)

Description. The Contractor shall take sufficient precautions to prevent pollution of streams, lakes, reservoirs, and wetlands with fuels, oils, bitumens, calcium chloride, or other harmful materials according to Article 107.23 of the "Standard Specifications".

General. To prevent pollution by residual concrete and/or the by-product of washing out the concrete trucks, concrete washout facilities shall be constructed and maintained on any project which includes cast-in-place concrete items. The concrete washout shall be constructed, maintained, and removed according to this special provision. Concrete washout facilities shall be required regardless of the need for NPDES permitting. ON projects requiring NPDES permitting, concrete washout facilities shall also be addressed in the Storm Water Pollution Prevention Plan.

The concrete washout facility shall be constructed on the job site in accordance with Illinois Urban Manual practice standard for Temporary Concrete Washout Facility (Code 954). The Contractor may elect to use a pre-fabricated portable concrete washout structure. The Contractor shall submit a plan for the concrete washout facility, to the Engineer for approval, a minimum of 10 calendar days before the first concrete pour. The working concrete washout facility shall be in place before any delivery of concrete to the site. The Contractor shall ensure that all concrete washout activities are limited to the designated area.

The concrete washout facility shall be located no closer than 50 feet from any environmentally sensitive areas, such as water bodies, wetlands, and/or other areas indicated on the plans. Adequate signage shall be placed at the washout facility and elsewhere as necessary to clearly indicate the location of the concrete washout facility to the operators of concrete trucks.

The concrete washout facility shall be adequately sized to fully contain the concrete washout needs of the project. The contents of the concrete washout facility shall not exceed 75% of the facility capacity. Once the 75% capacity is reached, concrete placement shall be discontinued until the facility is cleaned out. Hardened concrete shall be removed and properly disposed of outside the right-of-way. Slurry shall be allowed to evaporate, or shall be removed and properly disposed of outside the right-of-way. The Contractor shall immediately replace damaged basin liners or other washout facility components to prevent leakage of concrete waste from the washout facility. Concrete washout facilities shall be inspected by the Contractor after each use. Any and all spills shall be reported to the Engineer and cleaned up immediately. The Contractor shall remove the concrete washout facility when it is no longer needed.

Basis of Payment. The cost of all materials required and all labor necessary to comply with the above will be paid for at the lump sum price for CONCRETE TRUCK WASHOUT. The unit price shall include all labor, equipment and materials necessary to complete the work, regardless of the number washout facilities required.

REMOVE AND RELOCATE LAWN SPRINKLER SYSTEM (EGV)

Description. Work under this item shall consist of removing and replacing portions of a lawn sprinkler system that is required to be replaced as a result of construction operations and not as a result of Contractor negligence.

The Contractor shall inventory all existing lawn sprinkler systems that are proposed to be relocated and replaced in the presence of the Engineer. The Contractor shall take all necessary precautions to protect existing lawn sprinkler systems that are to remain in place. The Contractor shall replace only that portion of the lawn sprinkler system that is required by legitimate construction operations and approved by the Engineer. The replacement sections of the lawn sprinkler system shall be compatible with the existing system. The Engineer shall approve locations of the replacement appurtenances prior to demolition activities. Once the replacement sprinklers are replaced and have been tested by the Contractor in the presence of the Engineer, the item will be measured for payment.

The Contractor shall be responsible for coordinating all work involving the sprinkler systems with the business owners. The Contractor shall obtain written approval of any relocations or repairs from the business owners prior to final payment.

Method of Measurement. This work shall be measured for payment in feet of sprinkler system relocated.

Basis of Payment. This work shall be paid for at the contract unit price per foot for REMOVE AND RELOCATE LAWN SPRINKLER SYSTEM in accordance with the plans and as described herein for all materials (including sprinkler heads and valves) and labor necessary to complete the work.

PVC CASING PIPE 4” (EGV)

Description. The Contractor shall furnish and install PVC sleeves for water services at locations shown on the plans or where required by the Engineer to meet the water and sewer separation requirements of Section 41-2.01 of the Standard Specifications for Water and Sewer Main Construction in Illinois, current edition. Water services shall be installed within the casing using casing spacers with restraints. A minimum of 3 spacers shall be required for each section of main within the casing.

Materials. PVC-SDR-21 pipe shall be used for all sleeves, and the ends shall be sealed by a watertight masonry cap or a method approved by the Engineer.

Method of Measurement. PVC sleeves will be measured for payment in place in feet.

Basis of Payment. This work will be paid for at the contract unit price per linear foot for PVC CASING PIPE 4”. The contract unit price shall include the costs for all work, including but not limited to the costs for labor, materials, sleeve pipe, casing spacers,

supplies, end seals and equipment. Payment for water services shall be paid separately at the contract unit prices for WATER SERVICE LINE of the size indicated.

WATER MAIN TO BE ABANDONED (EGV)

Rev: January 19, 2017

Description. After the completion of the proposed water main and the transfer of all water services to the new water main, the existing water mains are to be abandoned in place. This work shall be performed according to the applicable provisions of Section 561 of the Standard Specifications and as directed by the Engineer.

The water main shall be cut, capped, and the ends blocked with concrete, at locations directed by the Engineer. All caps or plugs shall have retainer glands and thrust blocking installed to keep them in place. Thrust blocks shall be poured concrete of the dimensions shown on the details and in accordance with Section 41-2.10 and Standard Drawing #12 of the Standard Specifications for Water and Sewer Main Construction in Illinois, current edition. Any existing water main that is cut for the convenience of the Contractor shall be abandoned as noted above. Removal of water main where indicated on the plans or as directed by the Engineer shall be included in the cost of WATER MAIN TO BE ABANDONED.

Existing fire hydrants, auxiliary valves, and boxes shall be completely removed.

Existing water services, either ductile or cast iron pipes, shall be abandoned as noted above. Existing copper water services shall have the b-box removed to a minimum depth of two (2) feet below grade.

Existing valve vaults and valve boxes shall be removed to a minimum depth of two (2) feet below the surface grade and filled with concrete, stone, or sand to the top of the removed section.

All salvageable materials shall become Village property and shall be delivered to the Elk Grove Village Public Works Department at 450 E. Devon Avenue, Elk Grove Village, IL 60007.

The Contractor shall dispose of all materials not salvageable outside the limits of the project.

The subsequent voided areas shall be backfilled with granular trench backfill, compacted as provided in the Standard Specifications to a depth of six inches (6") below the surface.

Materials. All caps or plugs shall be ductile iron or cast iron designed to fit water main, of the size indicated on the plans, with mechanical joints rated 250 psi per AWWA C110/ANSI 21.10.

All below grade fasteners shall be stainless steel Type 304.

All materials shall meet the “Buy American” provision of the American Recovery and Reinvestment Act of 2009.

Basis of Payment. Payment for the work associated with WATER MAIN TO BE ABANDONED shall be a lump sum amount, which sum shall constitute payment in full for the removal, delivery of salvageable parts, the cutting, capping and blocking of the water main to be abandoned, and the backfilling of the excavated area, all as specified herein, and all other labor, equipment, tools, and materials necessary to complete this item as specified.

STABILIZED CONSTRUCTION ENTRANCE (EGV)

Description. The Contractor shall construct, maintain, and remove aggregate surface course for temporary access to the construction site according to Article 402.07 and as directed by the Engineer. The entrance shall be constructed per the details included in the plan set.

The locations of the entrance shall be limited to the designated areas either shown on the plans or otherwise designated by the Engineer.

Method of Measurement. This work shall be measured for payment in square yard.

Basis of Payment. This work shall be paid for at the contract unit price of square yard for STABILIZED CONSTRUCTION ENTRANCE.

DRAINAGE AND UTILITY STRUCTURES TO BE ADJUSTED OR RECONSTRUCTED (EGV)

Description. This work shall consist of adjusting or reconstructing drainage and utility structures in accordance with Section 602 of the Standard Specifications, with the following modifications:

Adjustment or reconstruction will be made with existing frames and grates or lids unless otherwise specified. New frames and grates or lids will be paid for separately when shown on the plans.

When new frames are installed, the existing frames shall be removed by the Contractor and transported to the Village’s Public Works facility at 600 Landmeier Road, Elk Grove. This work shall be included in the cost of DRAINAGE & UTILITY STRUCTURES TO BE ADJUSTED or DRAINAGE & UTILITY STRUCTURES TO BE RECONSTRUCTED.

Concrete adjustment rings less than 4 inches thick shall not be allowed. High Density Polyethylene (HDPE) plastic adjusting rings and ring wedges shall be used for all adjustments less than 4” or in combination with 4 inch minimum concrete adjustment rings. Bricks shall not be used.

Basis of Payment. When adjustment or reconstruction is specified, this work will be paid for at the contract unit price per each for DRAINAGE & UTILITY STRUCTURES TO BE ADJUSTED or DRAINAGE & UTILITY STRUCTURES TO BE RECONSTRUCTED; regardless of the type of structure or type of frame and lid or grate, which price shall include resetting the frame with grate or lid, and excavation and backfill, except excavation in rock.

DRAINAGE STRUCTURES AND STORM SEWERS (EGV)

Whenever during construction operations any loose material is deposited in the flow line of drainage structures such that the natural flow of water is obstructed, it shall be removed at the close of each working day. At the conclusion of construction operations, all utility structures shall be free from dirt and debris. The cost of all materials required and all labor necessary to comply with these provisions will not be paid for separately, but shall be considered as included in the cost of the storm sewers installed and drainage structures installed, adjusted, or reconstructed as part of this project.

The Contractor shall furnish all labor, equipment and material necessary for dewatering trench excavations as well as shoring trench walls during storm sewer operations. The cost to comply with the above shall be included in the cost of the storm sewers and drainage structures installed as part of this project.

The cost of making storm sewer connections to existing or proposed storm sewer or drainage structures shall be included in the cost of the storm sewer or drainage structure being constructed.

When existing drainage facilities are disturbed, the Contractor shall provide and maintain temporary outlets and connections for all private or public drains, sewers or catch basins. The Contractor shall provide facilities to take in all storm water which will be received by these drains and sewers and discharge the same. The Contractor shall provide and maintain an efficient pumping plant, if necessary, and a temporary outlet. The Contractor shall be prepared at all times to dispose of the water received from temporary connections until such time as the permanent connections with sewers are built and in service. This work will not be paid for separately, but shall be included in the cost of the storm sewers and drainage structures installed as part of this project.

Top of frame (“rim”) elevations given on the plans are only to assist the Contractor in determining the approximate overall height of each structure. Frames on all new structures shall be adjusted to the final elevations of the areas in which they are located. This work will not be paid for separately, but shall be included in the cost of the drainage structures installed as part of this project.

During construction, the Contractor encounters or otherwise becomes aware of any sewers, underdrains, or field drains within the right-of-way other than those shown on the plans, he shall so inform the Engineer, who shall direct the work necessary to maintain or replace the facilities in service and to protect them from damage during construction if maintained. Existing facilities to be maintained that are damaged

because of the non-compliance with this provision shall be replaced at the Contractor's own expense. Should the Engineer have directed the replacement of a facility, the necessary work and payment shall be in accordance with Sections 550 and 601, and Article 104.02 of the Standard Specifications.

TEMPORARY INFORMATION SIGNING

Effective: November 13, 1996
Revised: January 29, 2020

Description.
This work shall consist of furnishing, installing, maintaining, relocating for various states of construction and eventually removing temporary informational signs. Included in this item may be ground mount signs, skid mount signs, truss mount signs, bridge mount signs, and overlay sign panels which cover portions of existing signs.

Materials.
Materials shall be according to the following Articles of Section 1000 - Materials:

	Item	Article/Section
a.)	Sign Base (Note 1)	1090
b.)	Sign Face (Note 2)	1091
c.)	Sign Legends	1091
d.)	Sign Supports	1093
e.)	Overlay Panels (Note 3)	1090.02

Note 1. The Contractor may use 5/8 inch (16 mm) instead of 3/4 inch (19 mm) thick plywood.
Note 2. The sign face material shall be in accordance with the Department's Fabrication of Highway Signs Policy.
Note 3. The overlay panels shall be 0.08 inch (2 mm) thick.

GENERAL CONSTRUCTION REQUIREMENTS

Installation.
The sign sizes and legend sizes shall be verified by the Contractor prior to fabrication.

Signs which are placed along the roadway and/or within the construction zone shall be installed according to the requirements of Article 701.14 and Article 720.04. The signs shall be 7 ft (2.1 m) above the near edge of the pavement and shall be a minimum of 2 ft (600 mm) beyond the edge of the paved shoulder. A minimum of two (2) posts shall be used.

The attachment of temporary signs to existing bridges, sign structures or sign panels shall be approved by the Engineer. Any damage to the existing signs and/or structures due to the Contractor's operations shall be repaired or signs replaced, as determined by the Engineer, at the Contractor's expense.

Method of Measurement.
This work shall be measured for payment in square feet (square meters) edge to edge (horizontally and vertically).

All hardware, posts or skids, supports, bases for ground mounted signs, connections, which are required for mounting these signs will be included as part of this pay item.

Basis Of Payment.
This work shall be paid for at the contract unit price per square foot (square meter) for TEMPORARY INFORMATION SIGNING.

STORM SEWERS (WATER MAIN REQUIREMENTS) (EGV)

Description. This work shall consist of the installation of watermain quality pipe in areas where the storm sewer line crosses above the watermain. All work shall be performed in accordance with Section 550 of the Standard Specifications and Section 40 of the "Standard Specifications for Water and Sewer Main Construction in Illinois," 7th edition.

Materials. All pipe materials shall conform to Section 40-2 of the Standard Specifications for Water and Sewer Main Construction in Illinois, 7th edition. The materials shall be approved by the Engineer prior to their installation. The watermain quality pipe shall be connected to the storm sewer pipe on both ends by use of non-shear mission couplings with stainless steel bands or a method approved by the Engineer. The cost of these connections shall be included in the cost of STORM SEWERS (WATER MAIN REQUIREMENTS).

Basis of Payment. This work shall be measured and paid for at the contract unit price per foot for STORM SEWERS (WATER MAIN REQUIREMENTS) of the size specified which price shall include all labor, equipment, and materials necessary to perform said work.

TEMPORARY PAVEMENT
Effective: March 1, 2003
Revised: April 10, 2008

Description. This work shall consist of constructing a temporary pavement at the locations shown on the plans or as directed by the engineer.

The contractor shall use either Portland cement concrete according to Sections 353 and 354 of the Standard Specifications or HMA according to Sections 355, 356, 406 of the Standard Specifications, and other applicable HMA special provisions as contained herein. The HMA mixtures to be used shall be specified in the plans. The thickness of the Temporary Pavement shall be as described in the plans. The contractor shall have the option of constructing either material type if both Portland cement concrete and HMA are shown in the plans.

Articles 355.08 and 406.11 of the Standard Specifications shall not apply.

The removal of the Temporary Pavement, if required, shall conform to Section 440 of the Standard Specification.

Method of Measurement. Temporary pavement will be measured in place and the area computed in square yards (square meters).

Basis of Payment. This work will be paid for at the contract unit price per square yard (square meter) for TEMPORARY PAVEMENT and TEMPORARY PAVEMENT (INTERSTATE).

Removal of temporary pavement will be paid for at the contract unit price per square yard (square meter) for PAVEMENT REMOVAL.

TRAFFIC CONTROL PLAN

Effective: September 30, 1985
Revised: January 1, 2007

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

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

The Contractor shall contact the District One Bureau of Traffic at least 72 hours in advance of beginning work.

STANDARDS:

701006-05 Off-Road Operations, 2L, 2W, 15' to 24" From Edge of Pavement
701301-04 Lane Closure, 2L, 2W, Short Time Operations
701311-03 Lane Closure, 2L, 2W, Moving Operations – Day Only
701501-06 Urban Lane Closure, 2L, 2W, Undivided
701801-06 Sidewalk, Corner, or Crosswalk Closure
701901-08 Traffic Control Devices
782006-01 Guardrail and Barrier Wall Reflector Mounting Details

DETAILS:

Traffic Control and Protection for Side Roads, Intersections & Driveways (TC-10)
District One Typical Pavement Markings (TC-13)
Driveway Entrance Signing (TC-26)

SPECIAL PROVISIONS:

"Public Convenience and Safety (Dist 1)"
"Temporary Information Signing"
"Maintenance of Roadways"
"Maintenance of Access"
"Traffic Control and Protection (Arterials)"
LRS 3: Work Zone Traffic Control Surveillance
"Temporary Pavement Marking (BDE)"
"Traffic Control Devices – Cones (BDE)"
"Work Zone Traffic Control Devices (BDE)"

TRAFFIC CONTROL AND PROTECTION (ARTERIALS)

Effective: February 1, 1996
Revised: March 1, 2011

Specific traffic control plan details and Special Provisions have been prepared for this contract. This work shall include all labor, materials, transportation, handling and incidental work necessary to furnish, install, maintain and remove all traffic control devices required as indicated in the plans and as approved by the Engineer.

When traffic is to be directed over a detour route, the Contractor shall furnish, erect, maintain and remove all applicable traffic control devices along the detour route according to the details shown in the plans.

Method of Measurement: All traffic control (except Traffic Control and Protection (Expressways)) and temporary pavement markings) indicated on the traffic control plan details and specified in the Special Provisions will be measured for payment on a lump sum basis.

Basis of Payment: All traffic control and protection will be paid for at the contract lump sum price for TRAFFIC CONTROL AND PROTECTION (SPECIAL).

Temporary pavement markings will be paid for separately unless shown on a Standard.

UNIT DUCT
Effective: January 1, 2012

Revise the first paragraph of Article 810.04 to read:

"The unit duct shall be installed at a minimum depth of 30-inches (760 mm) unless otherwise directed by the Engineer."

Revise Article 1088.01(c) to read:

"(c) Coilable Nonmetallic Conduit.

General:

The duct shall be a plastic duct which is intended for underground use and which can be manufactured and coiled or reeled in continuous transportable lengths and uncoiled for further processing and/or installation without adversely affecting its properties of performance. The duct shall be a plastic duct which is intended for underground use and can be manufactured and coiled or reeled in continuous transportable lengths and uncoiled for further processing and/or installation without adversely affecting its properties of performance.

The duct shall be made of high density polyethylene which shall meet the requirements of ASTM D 2447, for schedule 40. The duct shall be composed of black high density polyethylene meeting the requirements of ASTM D 3350, Class C, Grade P33. The wall thickness shall be in accordance with Table 2 for ASTM D 2447.

The duct shall be UL Listed per 651-B for continuous length HDPE coiled conduit. The duct shall also comply with NEC Article 354.100 and 354.120.

Submittal information shall demonstrate compliance with the details of these requirements.

Dimensions:

Duct dimensions shall conform to the standards listed in ASTM D2447. Submittal information shall demonstrate compliance with these requirements.

Nominal Size		**Nominal I.D.**		**Nominal O.D.**		**Minimum Wall**	
mm	in	mm	in	mm	in	mm	in
31.75	1.25	35.05	1.380	42.16	1.660	3.556 +0.51	0.140 +0.020
38.1	1.50	40.89	1.610	48.26	1.900	3.683 +0.51	0.145 +0.020

Nominal Size		Pulled Tensile	
mm	in	N	lbs
31.75	1.25	3322	747
38.1	1.50	3972	893

Marking:

As specified in NEMA Standard Publication No. TC-7, the duct shall be clearly and durably marked at least every 3.05 meters (10 feet) with the material designation (HDPE for high density polyethylene), nominal size of the duct and the name and/or trademark of the manufacturer.

Performance Tests:

Polyethylene Duct testing procedures and test results shall meet the requirements of UL 651. Certified copies of the test report shall be submitted to the Engineer prior to the installation of the duct. Duct crush test results shall meet or exceed the following requirements:

Duct Diameter		Min. force required to deform sample 50%	
mm	in	N	lbs
35	1.25	4937	1110
41	1.5	4559	1025

WIRE AND CABLE

Effective: January 1, 2012

Add the following to the first paragraph of Article 1066.02(a):

"The cable shall be rated at a minimum of 90°C dry and 75°C wet and shall be suitable for installation in wet and dry locations, and shall be resistant to oils and chemicals."

Revise the Aerial Electric Cable Properties table of Article 1066.03(a)(3) to read:

Aerial Electric Cable Properties

Phase Conductor				Messenger wire	
Size AWG	Stranding	Average Insulation Thickness		Minimum Size AWG	Stranding
		mm	mils		
6	7	1.1	(45)	6	6/1
4	7	1.1	(45)	4	6/1
2	7	1.1	(45)	2	6/1
1/0	19	1.5	(60)	1/0	6/1
2/0	19	1.5	(60)	2/0	6/1
3/0	19	1.5	(60)	3/0	6/1
4/0	19	1.5	(60)	4/0	6/1

Add the following to Article 1066.03(b) of the Standard Specifications:

"Cable sized No. 2 AWG and smaller shall be U.L. listed Type RHH/RHW and may be Type RHH/RHW/USE. Cable sized larger than No. 2 AWG shall be U.L. listed Type RHH/RHW/USE."

Revise Article 1066.04 to read:

"Aerial Cable Assembly. The aerial cable shall be an assembly of insulated aluminum conductors according to Section 1066.02 and 1066.03. Unless otherwise indicated, the cable assembly shall be composed of three insulated conductors and a steel reinforced bare aluminum conductor (ACSR) to be used as the ground conductor. Unless otherwise indicated, the code word designation of this cable assembly is "Palomino". The steel reinforced aluminum conductor shall conform to ASTM B-232. The cable shall be assembled according to ANSI/ICEA S-76-474."

Revise the second paragraph of Article 1066.05 to read:

"The tape shall have reinforced metallic detection capabilities consisting of a woven reinforced polyethylene tape with a metallic core or backing."

MAINTENANCE OF LIGHTING SYSTEMS

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

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

Before performing any excavation, removal, or installation work (electrical or otherwise) at the site, the Contractor shall initiate a request for a maintenance transfer and preconstruction inspection, as specified elsewhere herein, to be held in the presence of the Engineer and a representative of the party or parties responsible for maintenance of any lighting systems which may be affected by the work. During the maintenance preconstruction inspection, the party responsible for existing maintenance shall perform testing of the existing system in accordance with Article 801.13a. The Contractor shall request a date for the preconstruction inspection no less than fourteen (14) days prior to the desired date of the inspection.

The Engineer will document all test results and note deficiencies. All substandard equipment will be repaired or replaced by the existing maintenance contractor, or the Engineer can direct the Contractor to make the necessary repairs under Section109.04.

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

Maintenance of Existing Lighting Systems

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

Extent of Maintenance.

Partial Maintenance. Unless otherwise 'indicated, if the number of circuits affected by the contract is equal to or less than 40% of the total number of circuits in a given controller and the controller is not part of the contract

work, the Contractor needs only to maintain the affected circuits within the project limits. The project limits are defined as those limits indicated in the contract plans. Equipment outside of the project limits, on the affected circuits shall be maintained and paid for under Article 109.04. The affected circuits shall be isolated by means of in-line waterproof fuse holders as specified elsewhere and as approved by the Engineer. The unaffected circuits and the controller will remain under the maintenance of the Village.

Full Maintenance. If the number of circuits affected by the contract is greater than 40% of the total number of circuits in a given controller, or if the controller is modified in any way under the contract work, the Contractor shall maintain the entire controller and all associated circuits within the project limits. Equipment outside of the project limits shall be maintained and paid for under Article 109.04.

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

Maintenance of Proposed Lighting Systems

Proposed Lighting Systems. Proposed lighting systems shall be defined as any lighting system or part of a lighting system, temporary or permanent, which is to be constructed under this contract regardless of the project limits indicated in the plans.

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

Lighting System Maintenance Operations

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

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

beyond repair and cannot be re-set, the contractor shall replace the equipment in kind and the cost of the equipment shall be included in the cost of this pay item and shall not be paid for separately.

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

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

INCIDENT OR PROBLEM	SERVICE RESPON SETIME	SERVICE RESTORATION TIME	PERMANENT REPAIR TIME
Control cabinet out	1 hour	4 hours	7 Calendar days
Hanging mast arm	1 hour to clear	na	7 Calendar days
Radio problem	1 hour	4 hours	7 Calendar days
Motorist caused damage or leaning light pole 10 degrees or more	1 hour to clear	4 hours	7 Calendar days
Circuit out – Needs to reset breaker	1 hour	4 hours	na
Circuit out – Cable trouble	1 hour	24 hours	21 Calendar days
Outage of 3 or more successive lights	1 hour	4 hours	na
Outage of 75% of lights on one tower	1 hour	4 hours	na
Outage of light nearest RR crossing approach, Islands and gores	1 hour	4 hours	na

Outage (single or multiple) found on night outage survey or reported to EMC	na	na	7 Calendar days
Navigation light outage	na	na	24 hours

- **Service Response Time** -- amount of time from the initial notification to the Contractor until a patrolman physically arrives at the location.

- **Service Restoration Time** – amount of time from the initial notification to the Contractor until the time the system is fully operational again (In cases of motorist caused damage the undamaged portions of the system are operational.)

- **Permanent Repair Time** – amount of time from initial notification to the Contractor until the time permanent repairs are made if the Contractor was required to make temporary repairs to meet the service restoration requirement.

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

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

Operation of Lighting

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

Method of Measurement

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

Basis of Payment. Maintenance of lighting systems shall be paid for at the contract unit price per calendar month for **MAINTENANCE OF LIGHTING SYSTEM.**

IDOT TRAINING PROGRAM GRADUATE ON-THE-JOB TRAINING SPECIAL PROVISION
Effective: August 1, 2012 Revised: February 2, 2017

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

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

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

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

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

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

BASIS OF PAYMENT: This work will be paid for at the contract unit price of $15.00 per hour for each utilized certified TPG Program trainee (TRAINEES TRAINING PROGRAM GRADUATE). The estimated total number of hours, unit price, and total price must be included in the schedule of prices for the Contract submitted by Contractor prior to beginning work. The initial number of TPG trainees for which the incentive is available for this contract is _1____.

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.

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:

Village of Elk Grove Village

Cook County

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

Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2020-AGL-17346-OE

Issued Date: 09/08/2020

Brian Lovering, P.E.
Village of Elk Grove Village
600 Landmeier Road
Elk Grove Village, IL 60007

****DETERMINATION OF NO HAZARD TO AIR NAVIGATION FOR TEMPORARY STRUCTURE****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Construction Equipment Excavator
Location:	Village of Elk Grove Village, IL
Latitude:	41-59-33.00N NAD 83
Longitude:	87-57-13.00W
Heights:	670 feet site elevation (SE)
	35 feet above ground level (AGL)
	705 feet above mean sea level (AMSL)

This aeronautical study revealed that the temporary structure does not exceed obstruction standards and would not be a hazard to air navigation provided the condition(s), if any, in this letter is (are) met:

SEE ATTACHMENT FOR ADDITIONAL CONDITION(S) OR INFORMATION

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power or the addition of other transmitters, requires separate notice to the FAA. This determination includes all previously filed frequencies and power for this structure.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of a structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination did not include an evaluation of the permanent structure associated with the use of this temporary structure. If the permanent structure will exceed Title 14 of the Code of Federal Regulations, part 77.9, a separate aeronautical study and FAA determination is required.

This determination concerns the effect of this temporary structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

A copy of this determination will be forwarded to the Federal Aviation Administration Flight Procedures Office if the structure is subject to the issuance of a Notice To Airman (NOTAM).

If you have any questions, please contact our office at (816) 329-2527, or marla.wierman@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-AGL-17346-OE

Signature Control No: 447652765-450384097 (TMP)
Marla Wierman
Technician

Proposal: To construct and/or operate a(n) Construction Equipment to a height of 35 feet above ground level, 705 feet above mean sea level.

Location: The structure will be located 2.28 nautical miles northwest of ORD Airport reference point.

Part 77 Obstruction Standard(s) Exceeded and Aeronautical Impacts, if any:

Aeronautical study revealed that the temporary structure will not exceed any Part 77 obstruction standard. Aeronautical study confirmed that the temporary structure will have no effect on any existing or proposed arrival, departure or en route instrument/visual flight rules (IFR/VFR) operations or procedures. Additionally, aeronautical study confirmed that the temporary structure will have no physical or electromagnetic effect on the operation of air navigation and communications facilities and will not impact any airspace and routes used by the military. Based on this aeronautical study, the FAA finds that the temporary structure will have no adverse effect on air navigation and will not impact any aeronautical operations or procedures.

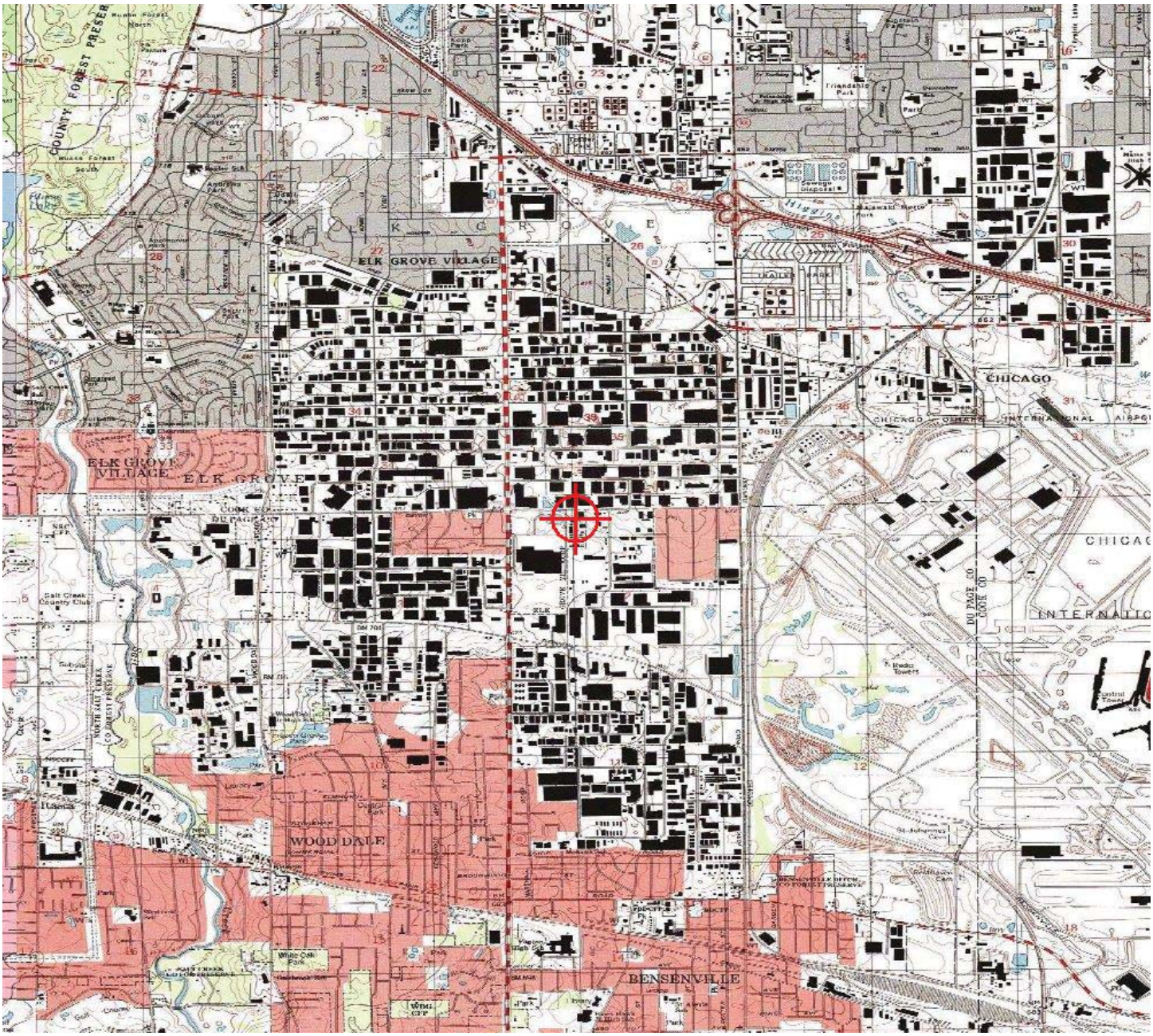
Based on this aeronautical study, the structure would not constitute a substantial adverse effect on aeronautical operations or procedures because it will be temporary. The temporary structure would not be considered a hazard to air navigation provided all of the conditions specified in this determination are strictly met.

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/ lighting are accomplished on a voluntary basis, we recommend it be installed in accordance with FAA Advisory circular 70/7460-1 L Change 2.

This determination expires on 03/08/2022 unless extended, revised, or terminated by the issuing office.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

TOPO Map for ASN 2020-AGL-17346-OE



DEPARTMENT OF THE ARMY
CHICAGO DISTRICT, CORPS OF ENGINEERS
231 SOUTH LASALLE STREET
CHICAGO, ILLINOIS 60604-1437

REPLY TO
ATTENTION OF:

October 20, 2020

Operations Division
Regulatory Branch
LRC-2020-886

SUBJECT: Authorization for replacement of existing dual metal barrel culverts with dual concrete box culverts at Brickvale Drive over Willow Creek, Elk Grove Village, DuPage County, Illinois (Latitude 41.992428, Longitude -87.953595)

Brian Lovering, P.E.
Elk Grove Village
Department of Public Works
Elk Grove Village, Illinois 60007

Dear Mr. Lovering, P.E.:

This office has verified that your proposed activity complies with the terms and conditions of Regional Permit 3 and the General Conditions for all activities authorized under the Regional Permit Program.

This verification expires three (3) years from the date of this letter and covers only your activity as described in your notification and as shown on the plans entitled "Brickvale Drive, Wetland and Buffer Impact Exhibit" dated 7/17/2020, prepared by State of Illinois Department of Transportation. Caution must be taken to prevent construction materials and activities from impacting waters of the United States beyond the scope of this authorization. If you anticipate changing the design or location of the activity, you should contact this office to determine the need for further authorization.

Please be aware that the activity may not be completed until you submit the following information to our office:

1. Prior to the commencement of any work, you shall receive a determination by Kane/DuPage County Soil and Water Conservation District that the Soil Erosion and Sediment Control (SESC) plans meet technical standards.

Upon receipt of the above information, the activity may be completed without further authorization from this office provided the activity is conducted in compliance with the terms and conditions of the RPP, including conditions of water quality certification issued under Section 401 of the Clean Water Act by the Illinois Environmental Protection Agency (IEPA). If the design, location, or purpose of the project is changed, you should contact this office to determine the need for further authorization

The following special conditions are a requirement of your authorization:

1. You shall undertake and complete the project as described in the plans titled, “Brickvale Drive, Wetland and Buffer Impact Exhibit” dated 7/17/2020, prepared by State of Illinois Department of Transportation, including all relevant documentation to the project plans as proposed.

2. This authorization is contingent upon implementing and maintaining soil erosion and sediment controls in a serviceable condition throughout the duration of the project. You shall comply with the Kane/DuPage County Soil and Water Conservation District's (SWCD) written and verbal recommendations regarding the soil erosion and sediment control (SESC) plan and the installation and maintenance requirements of the SESC practices on-site.

    a. You shall schedule a preconstruction meeting with SWCD to discuss the SESC plan and the installation and maintenance requirements of the SESC practices on the site. You shall contact the SWCD at least 10 calendar days prior to the preconstruction meeting so that a representative may attend.
    b. You shall notify the SWCD of any changes or modifications to the approved plan set. Field conditions during project construction may require the implementation of additional SESC measures. If you fail to implement corrective measures, this office may require more frequent site inspections to ensure the installed SESC measures are acceptable.
    c. Prior to commencement of any in-stream work, you shall submit constructions plans and a detailed narrative to the SWCD that disclose the contractor's preferred method of cofferdam and dewatering method. Work in the waterway shall NOT commence until the SWCD notifies you, in writing, that the plans have been approved.

3. Under no circumstances shall the Contractor prolong final grading and shaping so that the entire project can be permanently seeded at one time. Permanent stabilization within the wetland and stream buffers identified in the plans shall be initiated immediately following the completion of work. Final stabilization of these areas should not be delayed due to utility work to be performed by others.

4. Please note that this site is within the aboriginal homelands of several American Indian Tribes. If any cultural, archaeological or historical resources are unearthed during activities authorized by this permit, work in that area must be stopped immediately and the Corps, State Historic Preservation Office and/or Tribal Historic Preservation Office must be contacted for further instruction. The Corps will initiate the coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing on the National Register of Historic Places.

5. You are responsible for all work authorized herein and for ensuring that all contractors are aware of the terms and conditions of this authorization.

6. A copy of this authorization must be present at the project site during all phases of construction.

7. You shall notify this office of any proposed modifications to the project, including revisions to any of the plans or documents cited in this authorization. You must receive approval from this office before work affected by the proposed modification is performed.

8. You shall notify this office prior to the transfer of this authorization and liabilities associated with compliance with its terms and conditions.

9. Work in the waterway should be timed to take place during low or no-flow conditions. Low flow conditions are flow at or below the normal water elevation.

10. The plan will be designed to allow for the conveyance of the 2-year peak flow past the work area without overtopping the cofferdam. The Corps has the discretion to reduce this requirement if documented by the applicant to be infeasible or unnecessary.

11. Water shall be isolated from the in-stream work area using a cofferdam constructed of non-erodible materials (steel sheets, aqua barriers, rip rap and geotextile liner, etc.). Earthen cofferdams are not permissible.

12. The cofferdam must be constructed from the upland area and no equipment may enter flowing water at any time. If the installation of the cofferdam cannot be completed from shore and access is needed to reach the area to be coffered, other measures, such as the construction of a causeway, will be necessary to ensure that equipment does not enter the water. Once the cofferdam is in place and the isolated area is dewatered, equipment may enter the coffered area to perform the required work.

13. If bypass pumping is necessary, the intake hose shall be placed on a stable surface or floated to prevent sediment from entering the hose. The bypass discharge shall be placed on a non-erodible, energy dissipating surface prior to rejoining the stream flow and shall not cause erosion. Filtering of bypass water is not necessary unless the bypass water has become sediment-laden as a result of the current construction activities.

14. During dewatering of the coffered work area, all sediment-laden water must be filtered to remove sediment. Possible options for sediment removal include baffle systems, anionic polymers systems, dewatering bags, or other appropriate methods. Water shall have sediment removed prior to being re-introduced to the downstream waterway. A stabilized conveyance from the dewatering device to the waterway must be identified in the plan. Discharge water is considered clean if it does not result in a visually identifiable degradation of water clarity.

15. The portion of the side slope that is above the observed water elevation shall be stabilized as specified in the plans prior to accepting flows. The substrate and toe of slope that has been disturbed due to construction activities shall be restored to proposed or pre-construction conditions and fully stabilized prior to accepting flows.

This verification does not obviate the need to obtain all other required Federal, state, or local approvals before starting work. Please note that Section 401 Water Quality Certification has been issued by IEPA for this RP. If you have any questions regarding Section 401 certification, please contact Mr. Darin LeCrone at IEPA Division of Water Pollution Control, Permit Section #15, by telephone at (217) 782-0610.

Once you have completed the authorized activity, please sign and return the enclosed compliance certification. If you have any questions, please contact Ms. Brielle Cummings of my staff by telephone at (312) 846-5545, or email at Brielle.K.Cummings@usace.army.mil.

Sincerely,

MCLAURIN.DIEDRA.L.1230340362

Digitally signed by MCLAURIN.DIEDRA.L.1230340362
Date: 2020.10.20 14:36:53 -05'00'

Diedra L. McLaurin
Team Leader, West Section
Regulatory Branch

Enclosures

Copy Furnished:

DuPage County Stormwater Management (Jenna Fahey)
Kane/DuPage SWCD (Patrick McPartlan)
Civiltech Engineering (Tom Liliensiek)

PERMIT COMPLIANCE

CERTIFICATION

Permit Number: LRC-2020-886

Permittee: Brian Lovering, P.E.
Elk Grove Village

Date: October 20, 2020

I hereby certify that the work authorized by the above-referenced permit has been completed in accordance with the terms and conditions of said permit and if applicable, compensatory wetland mitigation was completed in accordance with the approved mitigation plan.[1]

_____ _____

PERMITTEE DATE

Upon completion of the activity authorized by this permit and any mitigation required by the permit, this certification must be signed and returned to the following address:

U.S. Army Corps of Engineers
Chicago District, Regulatory Branch
231 South LaSalle Street, Suite 1500
Chicago, Illinois 60604-1437

Please note that your permitted activity is subject to compliance inspections by Corps of Engineers representatives. If you fail to comply with this permit, you may be subject to permit suspension, modification, or revocation.

[1] If compensatory mitigation was required as part of your authorization, you are certifying that the mitigation area has been graded and planted in accordance with the approved plan. You are acknowledging that the maintenance and monitoring period will begin after a site inspection by a Corps of Engineers representative or after thirty days of the Corps' receipt of this certification. You agree to comply with all permit terms and conditions, including additional reporting requirements, for the duration of the maintenance and monitoring period.

Kane-DuPage Soil & Water Conservation District

November 23, 2020

Tom Liliensiek, P.E.
Civiltech Engineering, Inc.
30 N. Lasalle Suite 3220
Chicago, IL 60602

KDSWCD project number: 20e042
USACE Number: LRC-2020-886
KDSWCD Approval Date: 11/23/2020
Date of Revised Plans: N/A

Dear Mr. Liliensiek,

The Kane-DuPage Soil & Water Conservation District has received your application for Soil Erosion and Sediment Plan review for the Brickvale Over Willow Creek in Elk Grove Village, IL. **KDSWCD approval is contingent upon:**

1. The means, methods, and locations for any dewatering and/or in-stream work should be coordinated with and approved by KDSWCD

2. A turbidity curtain may be requested as a correctional measure, depending on the status of the site. All operations related to the turbidity curtain shall follow Illinois Urban Manual practice standard 917.

3. All cofferdam procedures will follow the Illinois Urban Manual practice standard 803

4. If the plans require revision based on the concurrent review by USACE and these revisions result in significant changes to the plans, revised plans must be submitted to KDSWCD for re-review.

This letter and a copy of the updated plans located at the construction office on site will serve to certify the erosion and sediment control plans meet technical standards. As a reminder, KDSWCD will visit the site several times during the course of construction to assess compliance with the specifications. We will be glad to address specific issues that may arise during the course of construction.

Sincerely,

Patrick J. McPartlan

Digitally signed by Patrick J. McPartlan
Date: 2020.11.23 11:19:20 -06'00'

ECC:

Brielle Cummings, USACE
Kathleen Chernich, USACE

DUPAGE COUNTY

Watershed Management
Water Quality
Floodplain Mapping
Regulatory Services
Flood Operations & Maintenance

STORMWATER MANAGEMENT

630-407-6700
stormwatermgmt@dupageco.org
www.dupageco.org/swm

Feb 1, 2021 Rev. 2/22/2021

TO: Jim Stran, Building and Zoning Manager
DuPage County, 421 N. County Farm Road, Wheaton, IL 60187

RE: Certification for Stormwater Management Certification No. SM2020-1067

Community Tracking No: 20-15-0001 - Brickvale Dr Culvert Replacement Stormwater Certification
Waiver Community: Elk Grove Village - Non
LRC Number: 2020-886

PPN: NA

(NOTE: THIS IS NOT A PERMIT - A Building Permit must be picked up prior to any on site work.)

DuPage County Stormwater Management (DCSM) received the following stormwater application/submittal:

Applicant: Thomas Liliensiek, Civiltech Engineering, Inc., tliliensiek@civiltechinc.com

Owner: Brian Lovering - Elk Grove Village, BLovering@elkgrove.org

Project Location:
Brickvale Drive crossing a Tributary to Willow Creek

Stormwater Certification:
Staff has completed its review of this application and hereby certifies the attached documents for compliance with the May 2019 DuPage County Countywide Stormwater and Floodplain Ordinance. Based upon our Certification of the documents listed on the attachment, your community may issue permits for the above referenced development, with the attached general and special conditions.

Enclosed, please find certified copies of the submittal for your use. Please forward at least one certified submittal onto the developer at the time of permit issuance.

Respectfully,
Clayton Heffter
Clayton Heffter, Stormwater Permitting Manager 421 N. County Farm Road, Wheaton, IL 60187

cc.
Applicant: Thomas Liliensiek, Civiltech Engineering, Inc., tliliensiek@civiltechinc.com
Owner: Brian Lovering – Elk Grove Village, Blovering@elkgrove.org
Brielle Cummings, US Army Corps of Engineers, Brielle.k.cummings@usace.army.mil
Mary Jo Pye, Stormwater Administrator, Village of Elk Grove Village, mpye@elkgrove.org

DUPAGE COUNTY STORMWATER MANAGEMENT
CERTIFICATION LETTER ATTACHMENT

Stormwater Management Certification No: **SM2020-1067**
Brickvale Drive Culvert Replacement
Waiver Community: Elk Grove Village - Non
Community Tracking Number: 20-15-0001 - Brickvale Dr Culvert Replacement

PPN: NA

USACE LRC No: LRC-2020-886

Project Coordinator: David Winklebleck 630-407-6678

PROJECT DESCRIPTION:
The existing dual cell CMP culverts will be replaced with dual cell concrete box culverts

CERTIFIED DOCUMENTS:

1. Stormwater Management Certification Application, as assigned Tracking No. SM2020-1067/20-15-0001.
2. Stormwater Management Permit Submittal entitled "DuPage County Stormwater & Floodplain Management Permit Application for Brickvale Drive Culvert Replacement," as prepared by Civiltech Engineering, Inc. for Elk Grove Village.
3. Plan set entitled "Plans for Proposed Federal Aid Highway Mun Route 1210 (Brickvale Drive) over Willow Creek Culvert Replacement Section 15-00061-00-BR Project B3N9(565)," as prepared by Civiltech, dated January 11, 2021 consisting of 54 sheets.
4. Plan set entitled "Brickvale Drive Landscaping Plan," as prepared by State of Illinois Department of Transportation, dated January 5, 2021, consisting of one sheet.

SPECIAL CONDITIONS OF PERMIT:
N/A

GENERAL CONDITIONS:

1. Per Section 15-58.B of the CSFPO, temporary erosion and sediment control measures shall be functional and consistent with Article VII of the CSFPO and the NPDES Stormwater Permit in effect prior to land disturbance activities. Therefore, the developer shall notify DuPage County and request/receive a site inspection of all required sediment and erosion control devices, prior to the commencement of construction activities.
2. Per Section 15-27.C.3, "Site runoff storage and compensatory storage facilities shall be either constructed before or concurrently with general construction. The facilities shall be functional prior to or concurrent with any building construction that increases a site's total impervious area." In addition, per Section 15-40.A of the CSFPO, the requirement for Record Drawings (Section 15-47.B) applies to all developments that construct stormwater facilities, or include wetland, buffer or flood plain onsite. Therefore, upon construction of the development, as-built drawings of the site must be submitted to the DuPage County for review and approval. The as-built drawings must be prepared, signed and sealed by an Illinois registered land surveyor or professional engineer.

CC:

Brielle Cummings, USACE, Brielle.k.cummings@usace.army.mil
Brian Lovering – Elk Grove Village, Blovering@elkgrove.org
Thomas Liliensiek, Civiltech Engineering, Inc., tliliensiek@civiltechinc.com
Mary Jo Pye, Stormwater Administrator, Village of Elk Grove Village, mpye@elkgrove.org
File : SM2020-1067/ 20-15-0001 - Brickvale Dr Culvert Replacement

PERMIT NUMBER	20-12-10515-C	ISSUE DATE	12-22-20
BOND NUMBER	Indemnification	EXPIRATION DATE	12-22-21

HIGHWAY PERMIT

Cook County Department of Transportation and Highways Permits Office
George W. Dunne Cook County Office Building
69 W. Washington, 24th Floor, Chicago, Illinois 60602

312.603.1670
312.603.9943
hwy.permits@cookcountyil.gov

1. Owner(s): **Village of Elk Grove Village (Brian Lovering)**

2. Project Description: Installation of Temporary Construction Signage

3. Permit Type:
   - A. Construction ☒
   - B. Individual Maintenance and Repair ☐
   - C. Annual Maintenance and Repair ☐
   - D. Tree Trimming ☐

4. Emergency Permit: ☐ (check only if emergency as described is in the PWO, e.g. hazards in the public way)

5. Pavement Breaks: ☐ Yes ☒ No

6. County Highway Impacted:

Road Name	Road No.	Section No.	Limits or Cross Street
Devon Avenue	B11	17	Brickvale Avenue

7. Permission:

The Cook County Transportation and Highways Department hereby grants permission and authority to
- ☒ install, construct, and operate the following described facilities; or
- ☐ maintain and repair the following described facilities; or
- ☐ trim trees

in the following geographical area as stated in item 3 above in Cook County, Illinois; on County Highway(s) stated in item 6 above subject to the general conditions and any special conditions attached to this permit, and subject to the Public Way Ordinance, as well as all laws defined therein and in conformance with all submittals made pursuant to the application process, as modified at the request of the Cook County Department of Transportation and Highways, per plans prepared by:

Engineer/Architect Civiltech Engineering, Inc. Job No.: 15-00061-00-BR

Titled: Brickvale Drive Improvements

Dated: 8/26/20 and final revision date of: R'ved 12-4-20 Is finally approved.

8. Approved Work:

Permitted Work	Level #	Fee
Signage (Construction)	2	$ 500.00
		$ 0.00
		$ 0.00
	Total Fee	Waived

This Permit will not be issued until receipt of all applicable fees is confirmed by the Department of Revenue.

PERMIT NUMBER	20-12-10515-C	ISSUE DATE	12-22-20
BOND NUMBER	Indemnification	EXPIRATION DATE	12-22-21

This permit includes and is subject to the "General Conditions and CCDOTH Construction Notes for Permit Work" attached hereto and incorporated into this Permit.

9. Note (Additional Rules and Special Conditions as Follows):

1. The Owner(s) assumes all responsibility and acknowledges the County of Cook is free from any liability as a result of the permit work.
2. The County has no objection to the installation of the construction ahead warning signs along Devon Avenue for the proposed Brickvale Drive work/application.
3. Two-way traffic is required to be maintained at all times along Devon Avenue.
4. No lane closures are allowed along Devon Avenue/application.
5. Include all applicable IDOT and IDOT-District 1 traffic control standards for traffic control devices and for traffic control during Brickvale Drive construction.
6. Cook County Right-of-Way to be restored with 4" topsoil, fertilizer and sod.
7. The above-mentioned work is to be done by City/Village forces or contractor/s working for the City/Village under the "Hold Harmless Agreement" on file with the Cook County Transportation and Highways Department Permit Office.
8. This permit only authorizes the work listed on the permit that is within Cook County ROW.
9. The detour route shall be conspicuously marked and all signing shall be in accordance with the "Manual on Uniform Traffic Control Devices".
10. Notification must be given to any and all municipalities involved in this permit. Owner must notify local fire and police departments and local hospitals of this detour.
11. Signs are to be erected, maintained and removed by the Owner.
12. All cleaning of pavement and right of way shall be the responsibility of the Owner.
13. Notify motorists of road closure 10 days in advance.
14. The Owner assumes all responsibility and acknowledges the County of Cook is free from any liabilities that may occur during or as a result of this installation.

PERMIT NUMBER	20-12-10515-C	ISSUE DATE	12-22-20
BOND NUMBER	Indemnification	EXPIRATION DATE	12-22-21

The work authorized by this Permit shall be completed by the expiration date as shown on page 1 or above; otherwise this Permit becomes null and void.

Owner's Signature — Date: 12/22/2020

(Village of Elk Grove Village)

Colby J Basham — Owner's Name (printed)

Director of Public Works — Owner's Title

Applicable Fee(s) Received. Application approved and Permit granted:

Superintendent of Cook County Department of Transportation and Highways

12/22/2020

Approved Date

A COPY OF THIS PERMIT MUST BE KEPT ON THE JOB SITE DURING CONSTRUCTION

This Permit is not effective unless and until the Cook County Superintendent of Transportation and Highways has signed this Permit. If, per the Cook County Transportation and Highways Department, municipal acceptance is required, then this Permit is not effective unless and until the municipality has signed this Permit.

COUNTY OF COOK

TRANSPORTATION AND HIGHWAYS DEPARTMENT

General Conditions and CCDOTH Construction Notes for Permit Work

General Conditions

1. Definition of "Owner": The "Owner" is the Name/s listed on the Cook County Transportation and Highways Department (CCDOTH) Permit as "Owner/s". The "Owner" is the "Grantee" listed in the Public Way Regulatory Ordinance (the "Ordinance"), Chapter 66.

2. Capitalized terms used in this Permit and not otherwise defined herein shall have the meanings ascribed to them in the Public Way Regulatory Ordinance (the "Ordinance"), Chapter 66, Article III, and Sections 50 et seq. of the Cook County Code. Requirements set forth in these General Conditions are in addition to and not in limitation of the requirements of the Ordinance.

3. The CCDOTH Permit is only applicable for the work shown on the final approved submitted plans on Cook County Right of Way (ROW). The permit does not release the Owner from fulfilling the requirements of any other laws or other required permitting relating to the permitted work. It is the responsibility of the Owner to acquire all other applicable approvals and/or permits required for the proposed work in the submitted plans. Copies of the applicable approvals and/or permits shall be submitted to CCDOTH for the permit file.

4. The Owner shall fulfill all requirements set forth in the permit application and its instructions, including without limitation, permit fees, insurance and bonding are a condition of this Permit. Issuance of this Permit, without the fulfillment of all requirements by Owner shall not act as a waiver of Owner's obligation to comply with such requirements, unless approval in writing of such change is given by the Cook County Superintendent of Transportation and Highways.

5. The Permit can be revoked pursuant to the terms of the Ordinance or at the discretion of the Cook County Superintendent of Transportation and Highways.

6. The Owner shall provide two days advance notice prior to the start of work to the CCDOTH Permit Office. Email the notice to hwy.permits@cookcountyil.gov .

7. No changes, alterations, or revisions to the Permitted Work are allowed unless approved in writing by the Cook County Superintendent of Transportation and Highways or his designee.

8. If Owner discovers during the progress of the Permitted Work that subterranean conditions prohibit the construction of said improvement in and along the alignment as outlined in the plans, it is expressly understood that all Permitted Work shall cease until a proposed revised alignment has been approved by the CCDOTH and the Permit has been modified.

9. The Owner shall furnish all material to do all work required and pay all costs which may be incurred in connection with such work and shall prosecute the same diligently and without delay to completion. See Ordinance for additional requirements as to work in the Public Way.

10. All construction methods and construction materials shall be in accordance with the latest version of the Illinois Department of Transportation (IDOT) Standard Specifications for Road and Bridge Construction, IDOT Supplemental Specifications and Recurring Special Provisions, IDOT Standards, Cook County Special Provisions and Cook County Standards.

11. Upon completion of the Permitted Work, Owner shall in a timely manner, (but in no event more than 30 days unless another time frame is directed by the CCDOTH Permits Division) restore the Public Way substantially to the same condition in which it was before the Permitted Work started. The work includes but is not limited to removing all debris, rubbish, materials, apparatus, tools, and equipment, as well as all excess excavated materials, from the Public Way.

12. Should future construction and operation of the highways by CCDOTH require alteration or relocation of the Owner's Facilities, such change shall be made by the Owner, its successor or assigns upon the written request of the Superintendent of CCDOTH without expense to said County or State. Requirements for any such requested alteration or relocation are further detailed in the Ordinance.
13. The Owner, its successor and assigns, assume all risk and liability for accidents and damages that may accrue to persons and property, during the prosecution of the work or any time thereafter, by reason of the location, construction, installation, operation, maintenance, repair and work referred to herein, and the Owner, by acceptance of the Permit, agrees to indemnify and save harmless Cook County from any such claims for damages and from all costs and expenses incurred on account thereof and in connection therewith.
14. In accordance with the Ordinance, and agreement by the Owner, the Owner acknowledges and agrees that the Permit is null and void if the Owner is delinquent in the payment of any tax or fee administered by the Cook County.
15. The Owner shall furnish the CCDOTH Permits Division one as-built PDF in 22"x34" format. The issued permit plans and any issued addendum plans will become the as-built plans if the owner on this permit does not submit as-built plans by the expiration date of the permit or by the last permit extension date.
16. Notify CCDOTH Permits office in writing for final inspection. The letter can be emailed to hwy.permits@cookcountyil.gov

CCDOTH Construction Notes

Curb and Gutter (PCC)

1. PCC Pavement mix designs shall be per the IDOT Standard Specifications for Road and Bridge Construction art 1020.04
2. In the removal of curb and gutter, the use of any type of concrete breaker that will damage the underground structures will not be permitted.
3. Saw cut the full depth of curb and gutter at the limits of removal.
4. Construct curb and gutter in accordance with IDOT standard 606001. Provide a tied longitudinal construction joint in accordance with IDOT standard 420001, using 30" long #6 (3/4" Dia.) deformed epoxy coated tie bars at 36-inch centers.

Drainage

5. The drainage systems shall always be kept clean and free of debris.
6. The Owner shall be responsible for providing positive drainage.
7. CCDOTH reserves the right to make connections to the proposed storm sewer for the purpose of draining the highway.
8. As a condition of granting this permit, which includes the point discharge of storm water onto the Cook County Transportation and Highways Right Of Way, the Owner hereby grants permission to the Cook County Transportation and Highways Department to enter onto private property to inspect the detention control structure.

Erosion Control and Landscaping

9. The parkway shall always be kept clean and free of debris.
10. Any disturbed areas within Cook County ROW require erosion control blanket prior to final landscaping per current Illinois Environmental Protection Agency (IEPA) standards.

11. Cook County Right-of-Way to be restored with 4” topsoil, fertilizer and sod. This note supersedes any note in the plans.

Excavation and Backfill

12. The Owner shall manage the excavation, transport, and disposal of all excavated materials (i.e. soil, debris, etc.) in accordance with local, state, and federal regulations.
13. As a condition of this permit, the Owner shall request CCDOTH to identify sites in the Right-of-Way where a Highway Authority Agreement governs access to soil that exceeds the Tier 1 residential remediation objectives of 35 Ill. Adm. Code 742. The Owner shall take all measures necessary to protect human health (including worker safety) and the environment during and after any access to such soil.
14. All trenches within Cook County ROW shall be trench backfilled with FA-6 sand in accordance with Method 1 in accordance with Article 550.07 of the (IDOT) Standard Specifications for Road and Bridge Construction.

Median (PCC)

15. PCC Pavement mix designs shall be per the IDOT Standard Specifications for Road and Bridge Construction art 1020.04
16. In the removal of median, the use of any type of concrete breaker that will damage the underground structures will not be permitted.
17. Saw cut the full depth of median at the limits of removal.
18. Construct median in accordance with IDOT standard 606301. Provide a tied longitudinal construction joint in accordance with IDOT standard 420001, using 30” long #6 (3/4” Dia.) epoxy coated deformed tie bars at 36-inch centers.

Pavement, All

19. Saw cut the full depth of pavement at the limits of removal.
20. In the removal of pavement, the use of any type of concrete breaker that will damage the underground structures will not be permitted.
21. The pavement shall always be kept clean and free of debris.
22. Where a median opening is provided, the pavement shall be crowned at the centerline using a one percent cross slope.
23. Unless specified in the Permit, no equipment other than pneumatic-tired equipment used during the installation shall be permitted to stop or operate on the pavement nor shall any excavated materials be stored temporarily or otherwise on the CCDOTH pavement.
24. All pavement patch openings that are open to traffic shall be immediately surfaced with a temporary bituminous patch at least three inches in thickness. This patch then must be inspected daily and additional bituminous patch material must be placed, daily if necessary, to maintain the patched area at the same elevation as the adjacent undisturbed pavement for a period of not less than 30 days. After 30 days, permanent replacement in kind shall be made to the base course and pavement surface.

Pavement, Entrance (Driveways, Side Streets)

25. PCC Pavement mix designs shall be per the IDOT Standard Specifications for Road and Bridge Construction art 1020.04

26. HMA surface and binder course mix designs shall be per IDOT D1 Hot Mix Selection Table. Link:http://www.idot.illinois.gov/doing-business/procurements/engineering-architectural-professional-services/Consultants-Resources/highway-standards-and-district-specific-standards Path: /District Specific Standards/District 1/D1PavementDesign/HMA Selection Table(Most Recent Date)
27. For entrance installations, the Owner shall remove earth to its full depth, starting at the edge of the pavement, for the full dimensions of the proposed entrance, and replace with materials to be used in the construction of the entrance.
28. The entrance radius meeting the edge of shoulder or the back of curb must terminate 3' from the property line extended to the edge of shoulder or the back of curb. If this requirement cannot be met, a letter from the neighboring property authorizing the encroachment must be submitted.
29. The CCDOTH reserves the right to restrict access to permitted entrances on future roadway improvements.
30. The Owner acknowledges that if or when the County of Cook improves the highway the pavement composition at the above-mentioned entrance(s) may be substituted.

Pavement, Hot Mix Asphalt (HMA) Pavement, Patching, and Resurfacing
All

31. HMA surface and binder course mix designs shall be per IDOT D1 Hot Mix Selection Table. Link:http://www.idot.illinois.gov/doing-business/procurements/engineering-architectural-professional-services/Consultants-Resources/highway-standards-and-district-specific-standards Path: /District Specific Standards/District 1/D1PavementDesign/HMA Selection Table(Most Recent Date)

Pavement

32. HMA Full Depth Pavement thickness shall be 12-inch on a 12-inch thick aggregate subgrade improvement. The HMA Pavement shall be built per the IDOT Standard Specifications for Road and Bridge Construction Art 407. The aggregate subgrade improvement shall be built per the IDOT Bureau of Design and Environment (BDE) Special Provision Aggregate Subgrade Improvement. Link:https://idot.illinois.gov/doing-business/procurements/engineering-architectural-professional-services/Consultants-Resources/design-and-environment-bde-special-provisions Path:/Aggregate Subgrade Improvement.

Patching

33. HMA Patching shall match the existing pavement thickness. The length shall be the greater of 6 feet (measured parallel to the centerline) or 12 inches wider than the pavement opening. The patch width shall be the full lane width of each lane affected. The pavement opening shall be saw-cut to the full depth of the pavement at the limits of removal. The HMA Pavement Patch shall be in accordance with Section 442 Pavement Patching of the Standard Specifications. Class D Patches shall be used for HMA pavements and HMA bases.
34. For roadways with HMA surface regardless of HMA or PCC base, HMA surface shall be placed a minimum of 6 inches longer on each side of the pavement patch.

Resurfacing

35. HMA Mill and Resurface Pavement thickness shall be per the approved permit plans. HMA Resurfacing shall be built per the IDOT Standard Specifications for Road and Bridge Construction Art 406.

Pavement, Portland Cement Concrete (PCC) Pavement, Patching
All

36. PCC Pavement mix designs shall be per the IDOT Standard Specifications for Road and Bridge Construction art 1020.04

Pavement

37. PCC Pavement thickness shall be 10 inches on a 12-inch thick aggregate subgrade improvement. The PCC Pavement shall be built per the IDOT Standard Specifications for Road and Bridge Construction Art 420. The aggregate subgrade improvement shall be built per the IDOT BDE Special Provision Aggregate Subgrade Improvement. Link:https://idot.illinois.gov/doing-business/procurements/engineering-architectural-professional-services/Consultants-Resources/design-and-environment-bde-special-provisions Path:/Aggregate Subgrade Improvement.

38. Where the proposed pavement or median abuts the existing pavement, median or curb and gutter longitudinally, provide a tied longitudinal construction joint in accordance with IDOT standard 420001, using 30" long #6 (3/4" Dia.) epoxy coated deformed tie bars at 36 inch centers. Keyed joints as shown on standard 420001 shall not be allowed.

39. Provide transverse sawed contraction joints every 15 feet in accordance with IDOT standard 420001, using 18" long #12 (1-1/2" Dia.) smooth epoxy coated dowel bars at 12-inch centers and align proposed joints with existing joints. If a proposed joint is located less than 6 feet from an existing joint, then the existing pavement or median shall be removed and replaced up to the existing joint.

Patching

40. PCC Patching shall match the existing pavement thickness. The length shall be the greater of 6 feet (measured parallel to the centerline) or 12 inches wider than the pavement opening. The patch width shall be the full lane width of each lane affected. The pavement opening shall be saw-cut to the full depth of the pavement at the limits of removal. The PCC Pavement Patch shall be in accordance with Section 442 Pavement Patching of the Standard Specifications. Class B Patches shall be used for concrete pavement and concrete bases.

41. Pavement patches greater than or equal to 15SY shall use pavement fabric in accordance with IDOT standard 420701 and provide 3 ½ inches of clearance between the pavement surface and the top of the fabric.

42. Pavement patches longer than 11ft 3inches shall be tied longitudinally to the abutting existing pavement, median or curb and gutter provide using 30" long #6 (3/4" Dia.) epoxy coated deformed tie bars at 36-inch centers.

43. Where the proposed pavement or median abuts the existing PCC pavement or median transversally, provide a transverse joint in accordance with IDOT standard 442101, using 18" long #12 (1-1/2" Dia.) smooth epoxy coated dowel bars at 12 inch centers.

Pavement Marking

44. Modified Urethane Pavement Marking shall be used for the proposed pavement marking per IDOT Standard Specifications for Road and Bridge Construction Art 780 and 1095.

45. Water Blaster and Vacuum Recovery method shall be used for removal of pavement marking per IDOT Standard Specifications for Road and Bridge Construction Art 783 and 1101.

46. The Modified Urethane Pavement Marking installation shall be done no later than December 15 per IDOT Standard Specifications for Road and Bridge Construction Art 780.12. The minimum winter performance period extends to May 1 the next year. If pavement markings are in before Dec 15 and the permit work is not completed by May 1 the next year, the performance period will last until a request for final inspection is made. The Permits inspector will do the final pavement marking inspection during the final inspection for the whole permit. The permit cannot be closed out until this requirement is met.

Sidewalk and Bus Shelters

47. In the removal of sidewalk and bus shelter pads, the use of any type of concrete breaker that will damage the underground structures will not be permitted.

48. All proposed bus shelter and bus shelter pads must meet the current IDOT Bureau of Design and Environment (BDE) Manual and IDOT Bureau of Local Roads (BLR) Manual, Public Rights-of-Way Accessibility Guidelines (PROWAG) and Americans with Disabilities Act **(**ADA) requirements.

49. All proposed sidewalk (crosswalk) shall be ramped in compliance with the current IDOT BDE Manual, IDOT BLR Manual, PROWAG and ADA requirements.

50. All proposed curb ramps shall be inspected after construction. IDOT form D1 PD0031 (link: www.idot.illinois.gov/home/resources/Forms-Folder/d Path:/District 1/ D1 PD0031) shall be filled out for each location. If there are any deficiencies the deficiencies shall be fixed, and the form refilled out for the location until the curb ramp is compliant. A copy of the final form shall be submitted to the CCDOTH Permits office at hwy.permits@cookcountyil.gov for the permit file. CCDOTH Permits office will forward the completed forms to the Cook County ADA Coordinator for the Cook County ADA file.

51. All The following CCDOTH Special Provision shall apply to all sidewalk.

    - 310 Detectable Warnings (Special), Cast Iron. (provided in permit review)

52. The following CCDOTH Standard shall apply to all sidewalk.

    - C-9 Cook County PCC Sidewalk Construction (Expansion Joints) Detail (provided in permit review.)

53. Proposed sidewalk shall be 8" thick through driveways and at curb ramps.

54. Concrete sidewalks shall be continuous through all driveways with a maximum cross slope of 1.5%.

Traffic Control

55. Owner shall provide and maintain at its own expense, such temporary roads, and approaches, as may be necessary to provide access to driveways, houses, buildings, or other property abutting the site of the Permitted Work. Access shall not be blocked.

56. No temporary lane closures or temporary traffic detours relating to Permitted Work will be allowed between the hours of 6 a.m. to 9 a.m. and 3 p.m. to 6:30 p.m., (other than as allowed for emergency maintenance per the Ordinance).

57. All signs shall conform to the latest Manual on Uniform Traffic Control Devices (MUTCD) and Illinois Supplemental to the Manual on Uniform Traffic Control Devices (MUTCD)

58. All traffic control devices shall conform to the latest IDOT Standard Specifications for Road and Bridge Construction, IDOT Highway Standards, and the IDOT approved product list.

59. All lane closures shall be in accordance with the latest IDOT Highway Standards.

60. The Owner shall conduct its operations in a manner so as to insure the minimum hindrance to traffic, using the pavement and at no time shall its operations obstruct more than one half (1/2) of the available pavement width.

61. When existing traffic control signs such as stop signs, stop ahead signs, and crossroad signs are removed in the progress of the Permitted Work, said signs shall be immediately reset as close as possible to their original location. After the completion of the Permitted Work has been approved, said traffic control signs shall be restored to their original position and condition. If modifications are needed a revised signage plan can be submitted to Permits for review and approval.

Traffic Signals, Lighting, Other Electrical

62. To ensure proper installation, the owner shall hire an inspector for all electrical work. The inspector shall be independent from the contractors working on the permit. The inspector's purpose is to ensure the contractor is installing the electrical items per the plans and specifications. The inspector shall be familiar with the field installation inspection, material inspection and documenting requirements of the Cook County, IDOT, and/or Municipal electrical work items on the permit. The work items may include but are not limited to Traffic Signal items, Traffic Signal Interconnect items, Flashing Beacon items, Lighting items, etc.

63. Care is to be taken as not to damage any of the existing traffic signal conduits, fiber cables and equipment. If any of the traffic signal conduits, cables and/or equipment is damaged, the Contractor shall repair and/or replace the conduits, cables and/or equipment at no cost to the County.

64. Cook County is not a member of JULIE (Joint Utility Locating Information for Excavators). For location information on Cook County Traffic Signal equipment, Traffic Signal Interconnect equipment, Flashing Beacons equipment, Lighting equipment, etc., please contact the Mechanical, Electrical, Architectural and Landscaping (MELA) Division at 312-603-1734.

65. If this contract requires the services of an electrical contractor, the Contractor shall be responsible at his/her own expense for locating existing IDOT and CCDOTH facilities prior to performing any work. If this contract does not require the services of electrical contractor, the Contractor may request one free locate for existing IDOT and CCDOTH electrical facilities from the Electrical Maintenance Contractor(s) prior to the start of any work. Additional requests may be at the expense of the Contractor. The location of underground traffic facilities does not relieve the Contractor of their responsibility to repair any facilities damaged during construction at their expense.

Utilities, All

66. It shall be the responsibility of the Owner to co-ordinate with utility companies sharing the Cook County ROW and relocate the existing power poles, fire hydrants, guardrail and appurtenances as needed for the proposed permit work. There shall be no cost to the county.

67. As a requirement of this permit all utility owners (private and government) shall maintain a membership with J.U.L.I.E. locating service until the utility is completely removed from Cook County ROW.

Utilities, Aerial

68. All aerial lines crossings or parallel must have a minimum clearance of 18'3".

69. Pole owner permission is required for all cable, conduit, and other appurtenance connection to a pole.

70. Proposed aerial cable shall not block the existing traffic signal heads.

71. Proposed aerial cable shall not touch existing traffic signal equipment.

Utilities Underground

72. All auger pits and excavations shall be as far away from the edge of pavement or back of curb as possible, and wood or steel sheeting shall be used. Auger pits shall be protected with concrete barrier walls if within clear zones. The ends of the concrete barrier walls shall be protected with crash attenuators. The barrier wall and crash attenuators design shall meet IDOT BDE Manual and IDOT BLR Manual Design requirements. Open holes left overnight shall fenced off and covered.

73. All external casing voids shall be pressure grouted or filled with trench backfill using pumping or jetting outside of the casing. The inside of the casing shall be sealed or filled using the external void procedures.

74. A minimum depth of 42 inches shall be maintained from the ground surface to the top of the conduit, cable, or pipe and a minimum depth of 36 inches from the true flow line of the drainage ditch to the top of the conduit, cable or pipe.

75. Proposed underground utilities running parallel to existing water main or sanitary sewer shall adjust the alignment if the utility is within 5 feet of the outer wall of the water main or sanitary sewer. The proposed utility shall maintain 5 feet or greater while running parallel to the existing water main or sanitary sewer. The distance between parallel or crossing sanitary or storm sewer with water main shall meet IEPA requirements.

Winter Moratorium Condition

76. During the winter months, (November 1 through April 15) the CCDOTH imposes a moratorium for the open cutting of pavement due to snow removal and the scarcity of ready mixes required to properly restore the pavement. This includes observation holes over existing utility facilities while performing directional bore operations, as well as lane closures for manhole access.

77. Each request to open cut the pavement or require a lane closure will be decided on a case by case basis. Should the request be approved, the following measures will be taken and adhered to:

    • Unless it is a dire emergency, no lane closures will be set up or work performed within the pavement areas on days that snow is predicted, or if the snow has yet been removed from the pavement.

    • There will be no overnight lane closures, unless approved in advance by CCDOTH.

    • All restoration must be completed by the end of each workday or backfill is required. The use of steel plates is prohibited. The temporary pavement patch size shall be backfilled with flowable fill (per Section 1019 of the Standard Specifications for Road and Bridge Construction).

    • All temporary pavement restorations will be permanently restored in the following Spring.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
1021 North Grand Avenue, East; Post Office Box 19276; Springfield, IL 62794-9276
Division of Public Water Supplies Telephone 217/782-1724

PUBLIC WATER SUPPLY CONSTRUCTION PERMIT

SUBJECT: ELK GROVE VILLAGE (IL0314400)

Permit Issued to:
Village of Elk Grove Village
450 East Devon Avenue
Elk Grove Village, Illinois 60007

PERMIT NUMBER: 0189-FY2021

DATE ISSUED: November 18, 2020
PERMIT TYPE: Water Main Extension

The issuance of this permit is based on plans and specifications prepared by the engineers/architects indicated and are identified as follows. This permit is issued for the construction and/or installation of the public water supply improvements described in this document, in accordance with the provisions of the Environmental Protection Act, Title IV, Sections 14 through 17, and Title X, Sections 39 and 40, and is subject to the conditions printed on the last page of this permit and the ADDITIONAL CONDITIONS listed below.

FIRM: Civiltech Engineering Inc.
NUMBER OF PLAN SHEETS: 43
TITLE OF PLANS: "Plans for Proposed Federal Aid Highway - MUN Route 1210 (Brickvale Drive)"
APPLICATION RECEIVED DATE: August 26, 2020

PROPOSED IMPROVEMENTS:

*** The installation of approximately 900 feet of 12-inch and 139 feet of 6-inch diameter water main located at the intersection of Brickvale Drive and E. Devon Avenue ***

ADDITIONAL CONDITIONS:

1. A lead informational notice must be given to each potentially affected residence at least 14 days prior to the permitted water main work. The notification must satisfy the requirements of Section 17.11 of the Environmental Protection Act. If notification is required to a residence that is a multidwelling building, posting at the primary entrance way to the building shall be sufficient. If the community water supply serves a population less than 3,301, alternative notification means may be utilized in lieu of an individual written notification. Refer to Section 17.11 for alternative notification requirements. Enclosed is suggested language for the notice. If this project involves water service to a significant proportion of non-English speaking consumers, the notification must contain information in the appropriate language regarding the importance and how to obtain a translated copy. The Responsible Operator in Charge of the community water system is responsible for preparing the notice. A copy of the notice used must be submitted to the Agency with the Application for Operating Permit.

2. All water mains shall be satisfactorily disinfected prior to use pursuant to Ill. Adm. Code, Title 35, Subtitle F, Section 602.310. Two consecutive sets of samples collected at least 24 hours apart must show the absence of coliform bacteria. The samples must be collected from every 1,200 feet of new water main along each branch and from the end of the line. An operating permit must be obtained before the project is placed in service.

3. This permit approval is for the Application, Schedule B, and 43 plan sheets received on August 26, 2020 and 1 revised plan sheet submitted as additional information on November 13, 2020.

DCC:TTL

cc: Civiltech Engineering Inc.
Elgin Regional Office
Cook County Health Department
IDPH/DEH – Plumbing and Water Quality Program

David C. Cook, P.E.
Manager, Permit Section
Division of Public Water Supplies

STANDARD CONDITIONS FOR CONSTRUCTION/DEVELOPMENT PERMITS
ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

The Illinois Environmental Protection Agency Act (415 ILCS 5/39) grants the Environmental Protection Agency authority to impose conditions on permits which it issues.

These standard conditions shall apply to all permits which the Agency issues for construction or development projects which require permits under the Division of Water Pollution Control, Air Pollution Control, Public Water Supplies and Land Pollution Control. Special conditions may also be imposed by the separate divisions in addition to these standard conditions.

1. Unless this permit has been extended or it has been voided by a newly issued permit, this permit will expire one year after this date of issuance unless construction or development on this project has started on or prior to that date. (See standard condition #8 below)

2. The construction or development of facilities covered by this permit shall be done in compliance with applicable provisions of Federal laws and regulations, the Illinois Environmental Protection Act, and Rules and Regulations adopted the Illinois Pollution Control Board.

3. There shall be no deviations from the approved plans and specifications unless a written request for modification of the project, along with plans and specifications as required, shall have been submitted to the Agency and a supplemental written permit issued.

4. The permittee shall allow any agent duly authorized by the Agency upon the presentation of credentials:

   a. to enter at reasonable times the permittee's premises where actual or potential effluent, emission or noise sources are located or where any activity is to be conducted pursuant to this permit.

   b. to have access to and copy at reasonable times any records required be kept under the terms and conditions of this permit.

   c. to inspect at reasonable times, including during any hours or operation of equipment constructed or operated under this permit, such equipment or monitoring methodology or equipment required to be kept, used, operated, calibrated and maintained under this permit.

   d. to obtain and remove at reasonable times samples of any discharge or emission of pollutants.

   e. to enter at reasonable times and utilize any photographic, recording, testing, monitoring or other equipment for the purpose of preserving, testing, monitoring, or recording any activity, discharge, or emission authorized by this permit.

5. The issuance of this permit:

   a. shall not be considered as in any manner affecting the title of the permits upon which the permitted facilities are to be located;

   b. does not release the permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the proposed facilities;

   c. does not release the permittee from compliance with the other applicable statues and regulations of the United States, of the State of Illinois, or with applicable local laws, ordinances and regulations;

   d. does not take into consideration or attest to the structural stability of any units or parts of the project;

   e. in no manner implies or suggests that the Agency (or its officers, agents or employees) assumes any liability directly or indirectly for any loss due to damage, installation, maintenance, or operation of the proposed equipment or facility.

6. These standard conditions shall prevail unless modified by special conditions.

7. The Agency may file a complaint with Board of modification, suspension or revocation of a permit:

   a. upon discovery that the permit application misrepresentation or false statements or that all relevant facts were not disclosed; or

   b. upon finding that any standard or special conditions have been violated; or

   c. upon any violation of the Environmental Protection Act or any Rules or Regulation effective thereunder as a result of the construction or development authorized by this permit.

8. Division of Public Water Supply Construction Permits expire one year from date of issuance or renewal, unless construction has started. If construction commences within one year from date of issuance or renewal, the permit expires five years from the date of permit issuance or renewal. A request for extension shall be filed prior to the permit expiration date.

Lead Informational Notice

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Dear Water Customer: Today's Date:_____

Our water system will soon begin a water line maintenance and/or construction project that may affect the lead content of your potable water supply. Lead, a metal found in natural deposits, is harmful to human health, especially young children. The most common exposure to lead is swallowing or breathing in lead paint chips and dust. However, lead in drinking water can also be a source of lead exposure. In the past, lead was used in some water service lines and household plumbing materials. Lead in water usually occurs through corrosion of plumbing products containing lead; however, disruption (construction or maintenance) of lead service lines may also temporarily increase lead levels in the water supply. This disruption may be sometimes caused by water main maintenance/replacement. As of June 19, 1986, new or replaced water serviced lines and new household plumbing materials could not contain more than 8% lead. Lead content was further reduced on January 4, 2014, when plumbing materials must now be certified as "lead-free" to be used (weighted average of wetted surface cannot be more than 0.25% lead).

The purpose of this notice is for informational purposes only. While it's not known for certain whether or not this particular construction project will adversely affect the lead (if present) plumbing in and outside your home, below describes some information about the project and some preventative measures you can take to help reduce the amount of lead in drinking water.

Project Start Date:_____ Project expected to be completed by:_____

Project location and description:

_____

_____

_____

What you can do to reduce lead exposure in drinking water during this construction project:

Run your water to flush out lead. If the plumbing in your home is accessible; you may be able to inspect your own plumbing to determine whether or not you have a lead service line. Otherwise, you will most likely have to hire a plumber.

- If you do not have a lead service line, running the water for 1 – 2 minutes at the kitchen tap should clear the lead from your household plumbing to the kitchen tap. Once you have done this, fill a container with water and store it in the refrigerator for drinking, cooking, and preparing baby formula throughout the day.
- If you do have a lead service line, flushing times can vary based on the length of your lead service line and the plumbing configuration in your home. The length of lead service lines varies considerably. Flushing for at least 3 – 5 minutes is recommended.

Use cold water for drinking, cooking, and preparing baby formula. Do not cook with or drink water from the hot water tap; lead dissolves more easily into hot water. Do not use water from the hot water tap to make baby formula.

Look for alternative sources or treatment of water. You may want to consider purchasing bottled water or a water filter that is certified to remove "total lead".

Clean and remove any debris from faucet aerators on a regular basis.

Do not boil water to remove lead. Boiling water will not reduce lead.

Purchase lead-free faucets and plumbing components.

Remove the entire lead service line.

Test your water for lead. Call us at: _____to find out how to get your water tested for lead. While we do not do the testing, we can provide a list of laboratories certified to do the testing. Laboratories will send you the bottles for sample collection. Please note that we are not affiliated with the laboratories and they will charge you a fee.

- If test results indicate a lead level above 15 ug/L, bottled water should be used by pregnant women, breast-feeding women, young children, and formula-fed infants.

bp

BP Pipelines (North America) Inc.
30 South Wacker Drive
Suite 900
Chicago, IL 60606

September 30, 2020

Illinois Department of Transportation
Attn: Azzam Hamden
201 West Center Court
Schaumburg, IL 60196-1096

RE: Consent for Brickvale Drive Culvert and Watermain Replacement
DuPage County, IL
BP Ref: 4008_0338 / Log #12092

Dear Mr. Hamden:

Thank you for contacting BP Pipelines regarding your proposed project. BP has reviewed the information you provided regarding the culvert, watermain, and spot replacement of storm sewer, sanitary sewer, curb, gutter, and sidewalk on Brickvale Drive. (attached hereto as Exhibit A) and has determined your proposed activity, from BP's perspective, and subject to the following terms and conditions, is clear to proceed:

Prior to any activity near the pipeline right-of-way, Marcus Jamerson, BP's Damage Prevention Specialist must be contacted to locate and flag the pipeline. Marcus or his designated representative must be on site at all times when working in close proximity of the pipeline. Marcus can be reached at (312) 231-2609.

A copy of this letter must be onsite at all times, all construction workers and equipment operators must be made aware of the requirements herein. Failure to have a copy of the approval letter onsite may result in a stop work order until the construction team is made aware of the conditions and requirements required in this Approval Letter.

If the BP Damage Prevention Specialist, in his/her sole discretion, determines that Illinois Department of Transportation (hereafter referred to as IDOT) activities could result in damage to the pipeline, such Damage Prevention Specialist will notify IDOT, their operator or contractor. IDOT herein acknowledges that the BP Damage Prevention Specialist shall have full authority to stop any of IDOT's excavation or construction related activities in close proximity to the BP pipeline if in the BP Damage Prevention Specialist's sole opinion, IDOT's activities could result in damage to the BP pipeline.

Should the scope of your project change and it become necessary to operate or stage equipment in close proximity to BP's right-of-way, a list of the proposed equipment, and when applicable revised drawings, must be submitted to BP for review and analysis. The

change(s) to your scope of project cannot proceed until BP provides written approval for the contemplated changes in scope and/or equipment.

Note: Unless otherwise stipulated herein, no equipment will be allowed on or near BP's pipeline without prior written approval from BP.

Per relevant state law, 811, the national One-Call number, must be contacted, prior to commencement of any approved excavation related activities.

For your further reference, included with this letter, is BP's Excavation and Construction Guidelines for your review. If you have any questions or concerns, please contact Blake Patrick at (872) 245-3915 or Blake Patrick@bp.com.

Best regards,

Blake Patrick
R/W Agent

BP: sw

bp

BP Pipelines (North America) Inc.
30 South Wacker Drive
Suite 900
Chicago, IL 60606

Excavation Specific Requirements

1. No excavation or construction activity will be permitted in the vicinity of a pipeline until all appropriate communications have been made with BP's field operations and the Right-of-Way Department. A formal engineering assessment may be required.

2. There shall be no excavation or backfilling within the pipeline right-of-way for any reason without a representative of BP on site giving permission.

3. In some instances, excavation and other construction activities around certain pipelines can be conducted safely only when the pipeline operating pressure has been reduced. Contractors are therefore cautioned that excavation which exposes or significantly reduces the cover over a pipeline may have to be delayed until the reduced operating pressures are achieved.

General Construction Activities

1. The contractor shall not be permitted to transport construction materials or equipment longitudinally over the pipeline.

2. Where it is necessary for construction equipment (*i.e.*, tractors, backhoes, dump trucks, etc.) or equipment transporting construction materials to cross the pipeline, the crossing of the pipeline right-of-way shall be at, or as near to, a 90˚ angle as is feasible.

3. To gain access to the job site, the contractor shall submit a plan indicating where construction equipment will cross the pipeline, along with the depth of the pipe at the crossings, any proposed ramping over the pipeline, together with the following specifications for the equipment: type and weight of equipment; for track equipment – track width and length; for wheeled equipment – number of axles (single or tandem axles). BP will perform a stress factor calculation to determine if the equipment can safely cross the pipeline. If crossing of the pipeline is allowed, special measures may need to be taken to ensure the integrity of the pipeline.

4. No track type construction equipment shall be permitted to pivot or turn directly over the top of the pipeline.

5. A scraper or pan type tractor shall not be used for removal of soil within ten feet (10') of the centerline of the pipeline. Rubber tire or small track type equipment is an acceptable alternative.

6. A sheepsfoot roller shall not be used for compaction purposes within five feet (5') or directly above the centerline of the pipeline.

7. No vibratory rollers shall be used within three feet (3') of the centerline of the pipeline until the compacted cover over the pipeline has reached a depth of three and one-half feet (3 ½').

Huff & Huff Incorporated
A Subsidiary of GZA

GEOTECHNICAL
ENVIRONMENTAL
ECOLOGICAL
WATER
CONSTRUCTION MANAGEMENT

915 Harger Road
Suite 330
Oak Brook, IL 60523
T: 630.684.9100
F: 630.684.9120
www.huffnhuff.com
www.gza.com

To: David J. Kreeger, P.E. – Civlitech Engineering. Inc

From: Jeremy J. Reynolds, P.G. - Huff & Huff, Inc.

Date: October 22, 2020

Re: CCDD LPC-663 Brickvale Drive Watermain Improvement Project

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Huff & Huff, Inc., a subsidiary of GZA, Inc. provided services in support of a Form LPC-663 for the Brickvale Drive Watermain Improvements Project. Fourteen (14) potentially impacted properties (PIPs) were identified to exist near the Project Area, which is along the extent Brickvale Drive over Willow Creek in Elk Grove, Illinois. Therefore, the LPC-663 form was utilized and twelve (12) locations within the existing right-of-way (ROW) and two (2) sediment samples were collected within the Project Are in proximity to the PIPs. Four (4) soil borings were advance and two (2) sediment samples were collected from within the ROW on June 4, 2020 and an additional eight (8) soil borings were advanced within the existing ROW on September 29, 2020. Soils were screened in the field using a photoionization detector (PID). Soil samples were submitted for the analysis of one or more of the following contaminants of concern associated with the identified PIPs: volatile organic compounds (VOCs); polynuclear aromatic compounds (PNAs); RCRA metals; and TCLP chromium. Samples were also analyzed for soil pH using laboratory analysis to assess CCDD suitability of Project Corridor soils.

Fourteen samples were submitted for soil pH analysis and are considered representative of the Project Corridor. The pH results ranged from 7.29 to 8.99 within the acceptable 6.25 to 9.00 range. Therefore, soils from this Project Corridor are considered to achieve the CCDD soil pH criteria.

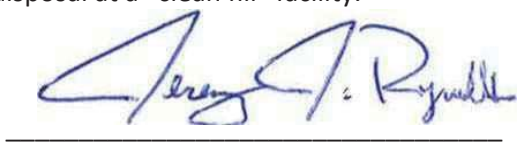
Soils within the area characterized by SED-2 are considered to be (a)(5) soils per Article 669.05 of IDOT Standard Specifications for Road and Bridge Construction, which must be managed and disposed of off-site as non-special waste or special waste. The (a)(5) soils associated with SED-2 are considered ineligible for disposal at a CCDD facility.

Sediment sample location SED-1 contained PNA concentrations that exceeded select MAC values with indeno(1,2,3-cd)pyrene exceeding the MAC for locations within the Chicago corporate limits. Soils within the areas characterized by SED-1 are considered to be *(a)(4) soils per Article 669.05 of IDOT Standard Specifications for Road and Bridge Construction, which can be utilized within the right-of-way as embankment or fill, when suitable or managed and disposed of off-site at a CCDD facility or an USFO within an MSA County excluding Chicago provided the pH of the soil is within the range of 6.25-9.0, inclusive.* The (a)(4) soils are considered to correspond with the sediment from the area of Willow Creek not defined by the SED-2 result.

It should be noted that boring location SB-1 had concentrations of benzo(a)pyrene that exceeded the most stringent MAC value. Soils within the area characterized by SB-1 are considered to be *(a)(2) soils per Article 669.05 of IDOT Standard Specifications for Road and Bridge Construction, which can be utilized within the right-of-way as embankment or fill, when suitable or managed and disposed of off-site at a CCDD facility or an USFO within an MSA County excluding Chicago, within the Chicago corporate limits, and in a populated area in a*

non-MSA county, provided the pH of the soil is within the range of 6.25-9.0, inclusive. The (a)(2) soils associated with SB-1 are considered to expand the entire width of the planned improvements and extend from Willow Creek to approximately 65 feet north of Willow Creek.

The remaining soil samples achieve applicable remedial objectives and the maximum allowable concentration (MAC) values for assessing suitability for off-site final disposition at a clean construction or demolition debris (CCDD) facility. Should soils be encountered within the areas identified as CCDD acceptable that are not representative of the soils encountered during the PSI boring activities (odors, staining, or debris), those soils would need to be reassessed prior to disposal at a "clean fill" facility.



Jeremy J. Reynolds, P.G.
Associate Principal

Illinois Environmental Protection Agency

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

Uncontaminated Soil Certification
by Licensed Professional Engineer or Licensed Professional Geologist
for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663
Revised in accordance with 35 Ill. Adm. Code 1100, as
amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: Brickvale Drive Watermain Project Office Phone Number, if available: 630-773-3900

Physical Site Location (address, including number and street):
Brickvale Drive (Extent)

City: Elk Grove State: IL Zip Code: 60007

County: Cook Township:

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.99184 Longitude: - 87.95357
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

◯ GPS ◯ Map Interpolation ◯ Photo Interpolation ◯ Survey ☑ Other

Google Earth Approximation

IEPA Site Number(s), if assigned: BOL: BOW: BOA:

Approximate Start Date (mm/dd/yyyy): Approximate End Date (mm/dd/yyyy):

Estimated Volume of debris (cu. Yd.):

II. Owner/Operator Information for Source Site

Site Owner

Name: Elk Grove Village
Street Address: 901 Wellington Avenue
PO Box:
City: Elk Grove State: IL
Zip Code: 60007 Phone: 630-773-3900
Contact: Brian A. Lovering, P.E.
Email, if available: BLovering@elkgrove.org

Site Operator

Name:
Street Address:
PO Box:
City: State:
Zip Code: Phone:
Contact:
Email, if available:

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed $50,000 for the violation and an additional civil penalty of not to exceed $10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: Brickvale Drive Watermain Project Latitude: 41.99184 Longitude: - 87.95357

Uncontaminated Soil Certification

III. Basis for Certification and Attachments

For each item listed below, reference the attachments to this form that provide the required information.

a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a)]:

A database review was completed in the Huff & Huff GZA 2020 PESA for the Project Area, which consists of industrial and commercial properties. H&H/GZA identified fourteen (14) potentially impacted properties (PIPs) in connection with the Project Area. Refer to the attachments for additional information.

b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0,including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201 (g), 1100.205(a), 1100.610]:

Twelve soil samples and two sediment were collected from the Project Area by Huff & Huff/GZA at various locations. Samples were analyzed for one or more of; VOCs, PNAs, Total RCRA metals, and pH. Results achieve the CCDD requirements except at SED-2 which is identified as ineligible for CCDD disposal. Refer to the October 2020 PSI for additional information.

IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Jeremy Reynolds (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

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

Company Name:	Huff & Huff a subsidiary of GZA GeoEnvironmental
Street Address:	915 Harger Road
City:	Oakbrook State: IL Zip Code: 60523
Phone:	630-684-9100

Jeremy J. Reynolds
Printed Name:

Licensed Professional Engineer or
Licensed Professional Geologist Signature:

Oct 22, 2020
Date:

P.E or L.P.G. Seal:

Uncontaminated Soil Certification
by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation.
LPC-663
Owner: Elk Grove Village, IL
Project Name: Brickvale Drive Watermain Replacement Project

III. Basis for Certification and Attachments

Explain the basis upon which you are certifying that the soil from this site is uncontaminated soil.

This form pertains to soils excavated from the Brickvale Drive Watermain Replacement Project. The improvements are proposed along the extent of Brickvale Drive over Willow Creek in Elk Grove, IL. The proposed improvements include sanitary sewer, watermain, storm sewer, and drainage improvements along the entire length of the Project Corridor. At this time, the maximum depth of excavation for the proposed improvements is anticipated to be approximately 8ft to 12ft bgs.

Maps depicting the Project Area location, identified sites, and sample locations are included in **Attachment A**, and a photo log of site reconnaissance is included in **Attachment B**.

The following information presents a summary of the records review, the identified PIPs, and other nearby sites. The 2020 PESA is included in **Attachment C**. The analyses conducted and results are summarized at the end of this narrative. The laboratory analytical reports are included in **Attachment D**.

Historic Aerials
Aerial photographs of the Project Corridor were reviewed on a publicly available source. The earliest photograph available is dated 1938. Photographs from 1952, 1954, 1962, 1967, 1972, 1974, 1981, 1993, 1999, 2005, 2006, 2007, 2009, 2010, 2011, and 2012 were also reviewed. A general discussion of the aerials is provided below.

1938 The Project Corridor is not depicted in the present-day location. The surrounding area is in use as agricultural land with Willow Creek running in the present-day location.

1952 The 1952 aerial photograph is similar to the 1938 aerial photograph with small development of small residential farmhouses in the surrounding vicinity.

1954 The 1952 aerial photograph is similar to the 1952 aerial photograph.

1962 The 1962 aerial photograph is similar to the 1952 aerial photograph.

1967 The 1967 aerial photograph is similar to the 1972 aerial photograph. Development of industrial buildings to the north of the Project Corridor has taken place.

1972 The 1972 aerial photograph depicts the Project Corridor in the present-day location. Multiple industrial style buildings with similar footprints to present-day are located at the southern end of the Project Corridors. Large scale development of industrial buildings took place to north of the Project Corridor.

1974 The 1974 aerial photograph is similar to the 1972 aerial photograph with further development in the surrounding area. Sears, Roebuck & Co (Site A) is developed with a detention pond and is located to the west of the Project Corridor.

1981 The Project Corridor in the 1981 aerial photograph the same amount of industrial buildings are located adjacent to the Project Corridor. Significant further development had taken place in the surrounding vicinity. The area to the north is fully developed with industrial buildings in a similar footprint to present-day. Industrial development also took place to the south of the Project Corridor and a large building and parking lot are located to the east of the Project Corridor.

1993 The Project Corridor in the 1993 aerial photograph is fully developed with the commercial and industrial style buildings that are similar to the present-day footprint. Further development of the industrial properties to the east and the south has taken place.

1999 In the 1999 aerial photograph further development of the surrounding vicinity has taken place with industrial buildings. The southeast corner adjoining to the Project Corridor was developed with industrial buildings that are similar to the present-day building footprints.

2005-2012 The 2005-2012 aerial photographs are similar to the 1999 aerial photograph and depict present-day conditions of the Project Corridor.

Records Search

Per the H&H/GZA 2020 PESA, the following site descriptions and table summarizes the identified PIPs that are adjacent to the Project Area.

Table-1 Summary of Sites Identified to be Potentially Impacted Properties

Site ID	Site Name	Address	Reason(s)
1	Buchanan Energy Headquarters	2500 Brickvale Drive	Large loading bay on west side and tanker trucks observed at the site during site reconnaissance
2	Kelly Scrapping, Hydronics Piping Corp	2470 & 2480 Brickvale Drive	RCRA Non-Gen (Ignitable Waste) database listing, and proximity to Project Corridor
3	ITW Ramsey/Red Head	2471 Brickvale Drive	RCRA SQG (Ignitable Waste, Corrosive Waste, Nonhalogenated Solvents), SPILLS database listings, and proximity to Project Corridor
4	Amber Engineering (per DuPage Co. Tax Information)	2450 Brickvale Drive	Drums identified during site reconnaissance
5	Ansimag Inc.	2451 Brickvale Drive	RCRA CESQG (Corrosive Waste) database listing, and proximity to Project Corridor
6	Amber Engineering & Manufacturing Co.	2380 Brickvale Drive	Drums identified during site reconnaissance, large loading bays, association with Site 8
8	Amber Engineering	2401 Brickvale Drive	RCRA CESQG (Ignitable waste, Nonhalogenated solvents) database listing, and proximity to Project Corridor
11	Petroleum Pipeline	Adjacent to the north end of Project Corridor	Buried Petroleum Pipeline
12	Chem-Plate Industries Inc, Best Metal Extrusions	1990 E Devon Avenue	RCRA SQG (Benzene, Tetrachloroethylene, trichlorethylene, sulfuric acid, cyanide, metals), SPILLS, Tier2 database listings, and proximity to Project Corridor
13	ACL Inc	1960 E Devon Avenue	RCRA Non-Gen (Ignitable Waste) database listing, and proximity to Project Corridor.

Site ID	Site Name	Address	Reason(s)
A	Liberty Business Park, CenterPoint Properties, Sears Roebuck & Co.	2525 Busse Road	CERCLIS, CERCLIS NFRAP, RCRA Non-Gen, LUST, UST, and SEMS Archive database listings
F	WW Grainger Inc 142, Crown Body Works Inc	880 Devon Avenue	RCRA CESQG (Ignitable, cadmium, mercury, acid, benzene, methyl ethyl ketone, nonhalogenated solvents) database listing, and proximity to Project Corridor
G	NJR Trucking	850 Devon Avenue	SPILLS database listing, and proximity to Project Corridor
L	Libra Industries Inc, Coach & Car Equipment Corp.	1951 Arthur Avenue	RCRA LQG, UST, Fed Drycleaners, REM Assess, SRP, Inst, and Eng database listings, and proximity to the Project Corridor

Buchanan Energy Headquarters (Site ID 1)

This site is listed under the operator name of "Buchanan Energy Headquarters" which is located at 2500 Brickvale Drive adjoining to the south end of the Project Corridor. The site was identified during site reconnaissance as containing large tanker trucks and large loading bays on the west side of the building. Trucks were observed entering and leaving the site.

Based on the available information, observations during site reconnaissance, and location adjoining to the Project Corridor, **this site is considered a PIP.**

Kelly Scraping / Hydronics Piping Corp (Site ID 2)

The site is listed under the operator names of "Kelly Scraping", and "Hydronics Piping Corp" which is located at 2470 & 2480 Brickvale Drive adjoining to the west of the Project Corridor. The site was listed in the RCRA Non-Gen database for ignitable waste. The site has no records of violations or enforcements associated with the facility. The database listings identified receiving dates of 1983, and 1990.

Based on the available information, database listing, and location adjoining to the Project Corridor, **this site is considered a PIP.**

ITW Ramsey / Red Head (Site ID 3)

The site is listed under the operator names of "ITW Ramsey", and "Red Head" which is located at 2471 Brickvale Drive adjoining to the east of the Project Corridor. The site was listed in the RCRA SQG, SPILLS and Air Permits databases. The RCRA SQG database listing is for ignitable waste, corrosive waste, and spent nonhalogenated solvents. The site has no record of violations associated with the facility. The SPILLS database listing is for the release of approximately 50 gallons of MMA (methyl-methacrylate) due to the overloading of a bulk container.

Based on the available information, database listings, and location adjoining to the Project Corridor, **this site is considered a PIP.**

Unknown (Site ID 4)

The site is located at 2450 Brickvale Drive adjoining to the west of the Project Corridor. The site was not listed in any databases. The site was identified during site reconnaissance to August 7, 2020 for having four 55-gallon drums within the loading bay of the Site. The site also looked to include industrial activities within the building as viewed from the public sidewalk.

Based on the available information, drums within the loading bay, and location adjoining to the Project Corridor, **this site is considered a PIP.**

Ansimag Inc. (Site ID 5)

The site is listed under the operator names of "Ansimag Inc" which is located at 2451 Brickvale Drive adjoining to the east of the Project Corridor. The site was listed in the RCRA CESQG database for generating corrosive waste. The site has no record of violations associated with the facility.

Based on the available information, database listing, and location adjoining to the Project Corridor, **this site is considered a PIP.**

Amber Engineering & Manufacturing Co – (West) (Site ID 6)

The site was identified during site reconnaissance as "Amber Engineering & Manufacturing Co" and is located at 2400 Brickvale Drive adjacent to the west of the Project Corridor. The site is occupied by a commercial building and at the time of site reconnaissance it was also seen at the time of site reconnaissance the association with the site at 2401 Brickvale Drive (Site ID 8) was also apparent as forklifts were noted carrying materials between the two facilities. The site was not associated with database listings but was identified during site reconnaissance to have old rusting 55-gallon drums with unknown contents. The building has large loading bays that are used to house materials and products from Site #8.

Based on the available information and the good housekeeping noted during site reconnaissance, **this site is considered a PIP.**

Amber Engineering & Manufacturing Co (East) (Site ID 8)

The site is listed under the operator names of "Amber Engineering & Manufacturing" which is located at 2401 Brickvale Drive adjoining to the east of the Project Corridor. The site was listed in the RCRA CESQG database for generating ignitable waste. The database listing associates the site with spent non-halogenated solvents including toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitpropropane. The site has no record of violations associated with the facility. The database identified a receiving date of 1991. The site was identified during site reconnaissance as having industrial activities taking place within the facility.

Based on the available information, database listing, a receiving date from approximately 30 years ago, and location adjoining to the Project Corridor**, this site is considered a PIP.**

Petroleum Pipeline (Site ID 11)

At the time of site reconnaissance, a petroleum pipeline was observed to be running along E. Devon Avenue adjacent to the north end of the Project Corridor. The pipeline contains potentially hazardous materials that if broken would be a potential concern.

Based on the available information, location adjacent to the Project Corridor, and pipeline containing hazardous materials, **this site is considered a PIP**.

Chem-Plate Industries / Best Metal Extrusions / Hydrite Chemical Co / V.C. Tank Lines (Site ID 12)

The site is listed under the operator names of "Chem-Plate Industries", "Best Metal Extrusions", "Hydrite Chemical Co" and "V.C. Tanks Lines" which is located at 1990 E Devon Avenue adjoining to the northwest of the Project Corridor. The site was listed in the RCRA LQG, RCRA SQG, SPILLS, and Tier2 databases. The RCRA SQG database listing associates the site with the following hazardous wastes: wastewater sludges from electroplating operations, spent cyanide plating bath solutions, spent stripping and cleaning bath solutions, benzene, tetrachloroethylene, trichlorethylene, ignitable waste, spent halogenated solvents, and corrosive waste. Chem-Plate Industries was listed as a large quantity generator with a first receiving date of 1983 and was considered a large quantity generator until 2010. There are violations dated May 2020 associated with Chem-Plate Industries which include General-Generators (262.A), and Generators-Records/Reporting (262.D).

The SPILLS database listing is associated with V.C. Tank likes for the release of approximately 50 gallons of hydrochloric acid due to a bad transfer hose from a truck. The SPILLS listing associated with Chem-Plate Industries is due to the release of and unknown amount of sodium hydrosulfite mixed with water due the sand/liner failure in a drum. A second SPILLS database listing is associated with Chem Plate Industries which associates the site with a release of approximately 200 – gallons of used motor oil due to a valve being left open. Chem Plate Industries is also associated for Tier2 database listings relating to petroleum lubricating quench oil, and sulfuric acid

Based on the available information, database listing, and location adjoining to the Project Corridor, **this site is considered a PIP.**

ACL Inc (Site ID 13)

The site is listed under the operator name of "ACL Inc." and is located at 1960 E Devon Avenue. This site is located adjoining to the north northwest of the Project Corridor. The site is listed in the RCRA Non-Gen database for containing ignitable waste. The site was a large quantity generator with the receiving date in 1991. The site has no record of violations associated with the facility.

Based on the available information, database listing, and location adjoining to the Project Corridor, **this site is considered a PIP.**

Liberty Business Park / CenterPoint Properties / Sears, Roebuck & Co. (Site ID A)

The site is listed under the operator names of "Liberty Business Park", "CenterPoint Properties", and "Sears, Roebuck & Co." and is located at 2525 Busse Road. This site is located approximately 200 feet west southwest of the Project Corridor. The site is listed in the CERCLIS, CERCLIS NFRAP, RCRA Non-Gen, LUST, UST, and SEMS Archive databases. The CERCLIS NFRAP database listing has a completed date of July 30, 1998 and therefore no further remediation is planned at this site. The RCRA Non-Gen database listing associates the site with containing ignitable waste, spent halogenated solvents used in degreasing (F001) and spend halogenated solvents (F002). The site is not associated with any violations or enforcement actions.

The site is listed in the LUST database twice for the release of used oil and petroleum. Both of the LUST listings received NFR letters in February 1998. The site is also associated with the following USTs:

- Two 20,000 – gallon heating oil tanks; removed in September 1997.

Based on the available information, database listings, and location within the vicinity of the Project Corridor, **this site is considered a PIP.**

WW Grainger Inc / Crown Body Works Inc / NJR Trucking (Site ID F, G)

The site is listed under the operator names of "WW Grainger Inc" and "Crown Body Works" which is located at 880-900 Devon Avenue approximately 175 feet to the east of the Project Corridor. The site was also listed under "NJR Trucking" which is located at 850 Devon Avenue. The database listings were discovered to be within the same building during site reconnaissance. The site was listed in the RCRA CESQG and SPILLS databases. The RCRA CESQG database listing associates the site with generating ignitable waste, cadmium, mercury, 2,4-Dichlorophenozyacetic acid, benzene, methyl ethyl ketone, and spent nonhalogenated solvents. The database did not associate the site with records of violation.

The site is listed in the SPILLS database due to the release of approximately 80 – gallons of diesel fuel due to a traffic accident. The site was identified during site reconnaissance as an industrial building and identified during the review of the historic aerials as being present in the 1992 aerial photograph with a similar footprint as present-day.

Based on the available information, database listing, and location within the vicinity of the Project Corridor, this site is considered a PIP.

Libra Industries Inc. / Coach & Car Equipment Corp. (Site ID L)

The site is listed under the operator names of "Libra Industries" and "Coach & Car Equipment Corp" which is located at 1951 Arthur Avenue approximately 500 feet to the north of the Project Corridor. The site was listed in the RCRA LQG, UST, FED Drycleaners, LUST Document, REM Assesses, SRP, and ENG/INST databases. The RCRA LQG associates the site as a generator of the following hazardous wastes spent nonhalogenated solvents, tetrachloroethylene, and spent halogenated solvents. The ENG/INST database listing are related to the SRP database listing for the site which received an NFR on March 31, 2004. The SRP database listing shows the site land used to be zoned industrial/commercial and that the building is on a slab.

The site is listed in the UST database and is associated with the following:

- One 1,000 – gallon hazardous substance tank; removed January 10, 1991
- Two 285 – gallon tanks of an unknown substance; removed January 10, 1991

Based on the available information, database listing, and location within the vicinity of the Project Corridor, **this site is considered a PIP.**

Analytical Summary

In order to assess impacts to Project Area soils from the identified PIPs, and to assess CCDD suitability of soils for pH, soil borings were advanced within the Project Area to max depths of eight to twelve feet bgs. Soils were screened continuously using a PID meter and representative soil samples were collected. The PID readings are summarized in the following table.

PID Screening Summary

Soil Boring	Depth, ft	PID Reading, ppm	Soil Boring	Depth, ft	PID Reading, ppm
SB-1	0-1'	0.0	SB-3	0-1'	0.0
	1-3'	**0.0**		**1-3'**	**0.0**
	3-5'	0.0		3-5'	0.0
	5-7'	0.0		5-7'	0.0
	7-10'	0.0		7-10'	0.0
	10-12'	NR		10-12'	0.0
SB-2	0-1'	0.0	SB-4	0-1'	0.0
	1-3'	0.0		1-3'	0.0
	3-5'	0.0		3-5'	0.0
	5-7'	0.0		5-7'	0.0
	7-10'	0.0		**7-10'**	**0.0**
	10-12'	**0.0**		10-12'	NR
SB-5	0-1'	0.0	SB-6	0-1'	0.0
	1-3'	0.0		1-3'	0.0
	3-5'	**0.0**		3-5'	0.0
	5-7'	0.0		5-7'	0.0
	7-10'	0.0		**7-10'**	**0.0**
	10-12'	0.0		10-12'	NR
SB-7	0-1'	0.0	SB-8	0-1'	0.0
	1-3'	**0.0**		1-3'	0.0
	3-5'	0.0		3-5'	0.0
	5-7'	0.0		5-7'	0.0
	7-10'	0.0		**7-10'**	**0.0**
	10-12'	0.0		10-12'	0.0
SB-9	0-1'	0.0	SB-10	0-1'	0.0
	1-3'	**0.0**		**1-3'**	**0.0**
	3-5'	0.0		3-5'	0.0
	5-7'	0.0		5-7'	0.0
	7-8'	0.0		7-8'	0.0
SB-11	0-1'	0.0	SB-12	0-1'	0.0
	1-3'	0.0		1-3'	0.0
	3-5'	0.0		3-5'	0.0
	5-7'	**0.0**		5-7'	0.0
	7-8'	0.0		**7-8'**	**0.0**

Bold indicates sample submitted for analytical testing.

VOCs

Twelve soil samples [SB-1 (1-3'), SB-2 (10-12'), SB-3 (1-3'), SB-4 (7-10'), SB-5 (3-5'), SB-8 (7-10'), SB-9 (1-3'), SB-10 (1-3'), SB-11 (5-7'), and SB-12 (7-8')] and two sediment samples from Willow Creek [SED-1, and SED-2] were analyzed for VOCs. Sample SED-2 had detections of acetone and carbon disulfide which achieved the MAC values. The remaining VOC results are below detection limits for the samples analyzed, achieving their MAC values

PNAs

Twelve soil samples [SB-1 (1-3'), SB-2 (10-12'), SB-3 (1-3'), SB-4 (7-10'), SB-5 (3-5'), SB-8 (7-10'), SB-9 (1-3'), SB-10 (1-3'), SB-11 (5-7'), and SB-12 (7-8')] and two sediment samples from Willow Creek [SED-1, and SED-2] were analyzed for PNAs.

PNAs were detected in three of the fourteen samples. The sample SED-2 contained benzo(a)anthracene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene above their respective least stringent MAC values. Based on the benzo(a)anthracene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene concentrations, **the SED-2 sample location is not eligible for CCDD disposal.** The sample SED-2 also contained benzo(a)pyrene and dibenzo(a,h)anthracene at concentrations that achieved the MAC value for sites within a populated area in an MSA county excluding Chicago.

The sample SED-1 contained benzo(a)anthracene, benzo(b)fluoranthene, benzo(a)pyrene, and indeno(1,2,3-cd)pyrene at concentrations exceeding the MAC values for disposal within a populated area in a non-MSA county as well as locations outside of a populated area. The dibenzo(a,h)anthracene concentration in SED-1 also exceeds the MAC value for locations outside a populated area.

The sample SB-1 (1-3') contained benzo(a)pyrene at a concentration exceeding the most stringent MAC value (outside a populated area). Based on the location of the Project Corridor, disposal of spoils at a location outside of a populated area is not anticipated. Disposal at a CCDD facility outside of a populated area would necessitate the SED-1 and SB-1 (1-3') areas would be associated with an exclusion zone.

The remaining PNAs achieve the most stringent MACs.

Total RCRA Metals

Twelve soil samples and two sediment sample from Willow Creek were analyzed for total RCRA metals. The following samples were analyzed and had detectable concentrations of one or more metals: SB-1 (1-3'), SB-2 (10-12'), SB-3 (1-3'), SB-4 (7-10'), SB-5 (3-5'), SB-8 (7-10'), SB-9 (1-3'), SB-10 (1-3'), SB-11 (5-7'), SB-12 (7-8'), SED-1, and SED-2.

Soil samples SED-1 and SED-2 contained total chromium concentrations (30.4 mg/kg & 40.1 mg/kg) which exceed the default MAC value for CCDD disposal. These samples were further analyzed for TCLP chromium and the samples were not detected above the laboratory detection limits. Therefore, the samples are considered to achieve the MAC value for CCDD disposal. The remaining metal results achieved their respective MAC values.

Soil pH

The laboratory analytical reports are provided in Appendix D. CCDD regulations require soil pH between 6.25 and 9.00 to be acceptable for disposal at a CCDD or soil-only facility. Four samples were submitted for soil pH analysis and are considered

representative of the Project Corridor. The pH results ranged from 7.29 to 8.99, within the acceptable 6.25 to 9.00 range. Therefore, soils from this Project Corridor are considered to achieve the CCDD soil pH criteria. Therefore, soils from this Project Corridor are considered to achieve the CCDD soil pH criteria.

CCDD Assessment

Based on the detections of several PNAs that exceed the MACs in the sediment at SED-1, an exclusion zone has been established around this boring location. The sediment generated from this location is certified for CCDD disposal at a facility within a populated area in an MSA county excluding Chicago. Based on the detection of a PNA that exceeded a MAC value at SB-1, an exclusion zone has been established around this boring location. The sediment generated from this location is certified for CCDD disposal at a facility within a populated are in an MSA county and within a populated area in a non-MSA county. Based on the detection of several PNAs at SED-2, an exclusion zone has been established around this location. The spoils generated from this location are **NOT** certified for CCDD disposal but if disturbed must be managed as a non-special waste with final disposition at a Subtitle D Sanitary Landfill.

Soils within the area characterized by SED-2 are considered to be (a)(5) soils per Article 669.05 of IDOT Standard Specifications for Road and Bridge Construction, which must be managed and disposed of off-site as non-special waste or special waste. The (a)(5) soils associated with SED-2 are considered to be part of the exclusion zone.

Sediment sample location SED-1 contained PNA concentrations that exceeded select MAC values with indeno(1,2,3-cd)pyrene exceeding the MAC for locations within the Chicago corporate limits. Soils within the areas characterized by SED-1 are considered to be *(a)(4) soils per Article 669.05 of IDOT Standard Specifications for Road and Bridge Construction, which can be utilized within the right-of-way as embankment or fill, when suitable or managed and disposed of off-site at a CCDD facility or an USFO within an MSA County excluding Chicago provided the pH of the soil is within the range of 6.25-9.0, inclusive.* The (a)(4) soils are considered to correspond with the sediment from the area of Willow Creek not defined by the SED-2 result.

It should be noted that boring location SB-1 had concentrations of benzo(a)pyrene that exceeded the most stringent MAC value. Soils within the area characterized by SB-1 are considered to be *(a)(2) soils per Article 669.05 of IDOT Standard Specifications for Road and Bridge Construction, which can be utilized within the right-of-way as embankment or fill, when suitable or managed and disposed of off-site at a CCDD facility or an USFO within an MSA County excluding Chicago, within the Chicago corporate limits, and in a populated area in a non-MSA county, provided the pH of the soil is within the range of 6.25-9.0, inclusive.* The (a)(2) soils associated with SB-1 are considered to expand the entire width of the planned improvements and extend from Willow Creek to approximately 65 feet north of Willow Creek.
Based on the location of the Project Corridor, disposal of spoils at a location outside of a populated area is not anticipated. Disposal at a CCDD facility outside of a populated area, within a populated area in a non-MSA county, and Chicago corporate limits would necessitate the SED-1 area to be associated with an exclusion zone. Disposal at a CCDD facility outside of a populated area would necessitate the SB-1 area to be associated with an exclusion zone.

Should soils be encountered within the areas identified as CCDD acceptable that are not representative of the soils encountered during the PSI boring activities (odors, staining, or debris), those soils would need to be reassessed prior to disposal at a “clean fill” facility.

ATTACHMENT A

Project Figures

Topo Source: INHS/USGS 7.5-minute DRG, Elmhurst 1:24,000 Quadrangles, 1998

Legend

Project Limits

Huff & Huff, Inc.

Figure 1-1
Site Location Map
Brickvale Drive Water Main
Replacement Project
Elk Grove, DuPage County, Illinois

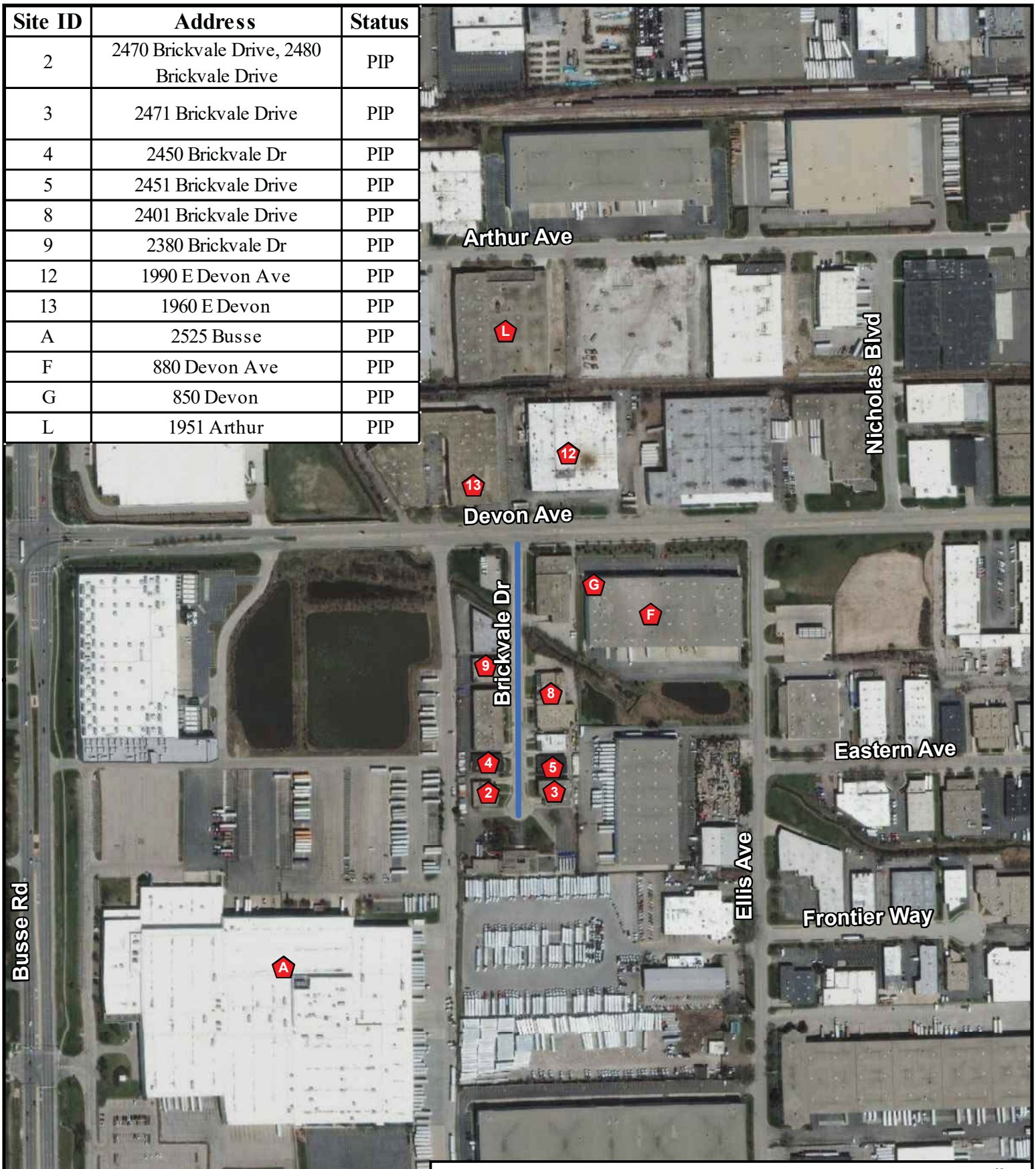
J:\81.0220092.71 CivTch Brickvale Drive Water-Ph II, PSI, CCDD Supp\Figures\CivTech_BrickvaleDr_PSI_Topo

Huff & Huff, Inc.

Figure 1-2
Site Layout Map
Brickvale Drive Water Main
Replacement Project
Elk Grove, DuPage County, Illinois

J:\81.0220092.71 CivTch Brickvale Drive Water-Ph II, PSI, CCDD Supp\Figures\CivTech_BrickvaleDr_PSI_SLM

Site ID	Address	Status
2	2470 Brickvale Drive, 2480 Brickvale Drive	PIP
3	2471 Brickvale Drive	PIP
4	2450 Brickvale Dr	PIP
5	2451 Brickvale Drive	PIP
8	2401 Brickvale Drive	PIP
9	2380 Brickvale Dr	PIP
12	1990 E Devon Ave	PIP
13	1960 E Devon	PIP
A	2525 Busse	PIP
F	880 Devon Ave	PIP
G	850 Devon	PIP
L	1951 Arthur	PIP



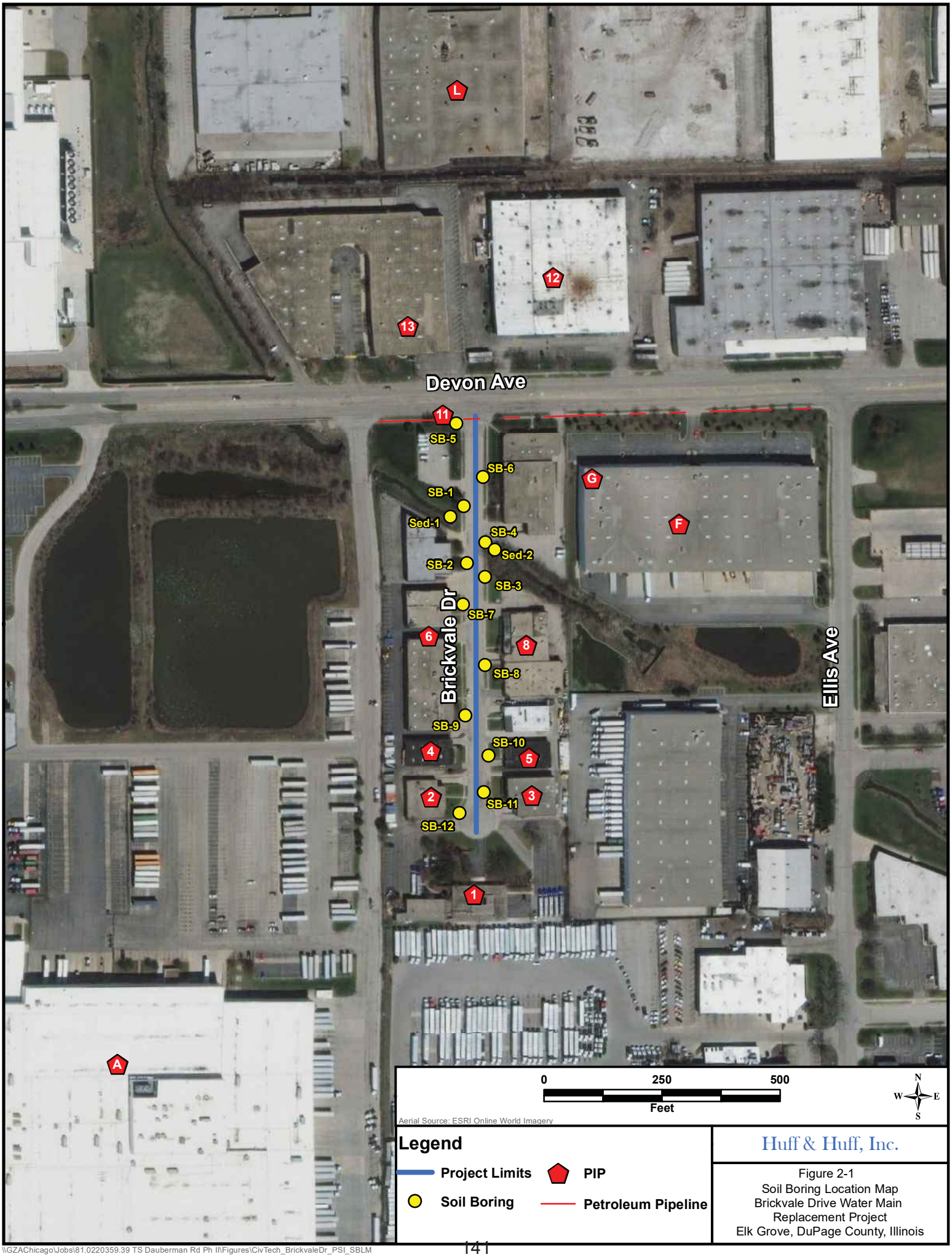
Legend

- Project Limits
- PIP

Huff & Huff, Inc.

Figure 1-3
Potentially Impacted Properties Map
Brickvale Drive Water Main
Replacement Project
Elk Grove, DuPage County, Illinois

\\GZAChicago\Jobs\81.0220359.39 TS Dauberman Rd Ph II\Figures\CivTech_BrickvaleDr_PSI_PIP



Huff & Huff, Inc.

Figure 2-1
Soil Boring Location Map
Brickvale Drive Water Main
Replacement Project
Elk Grove, DuPage County, Illinois

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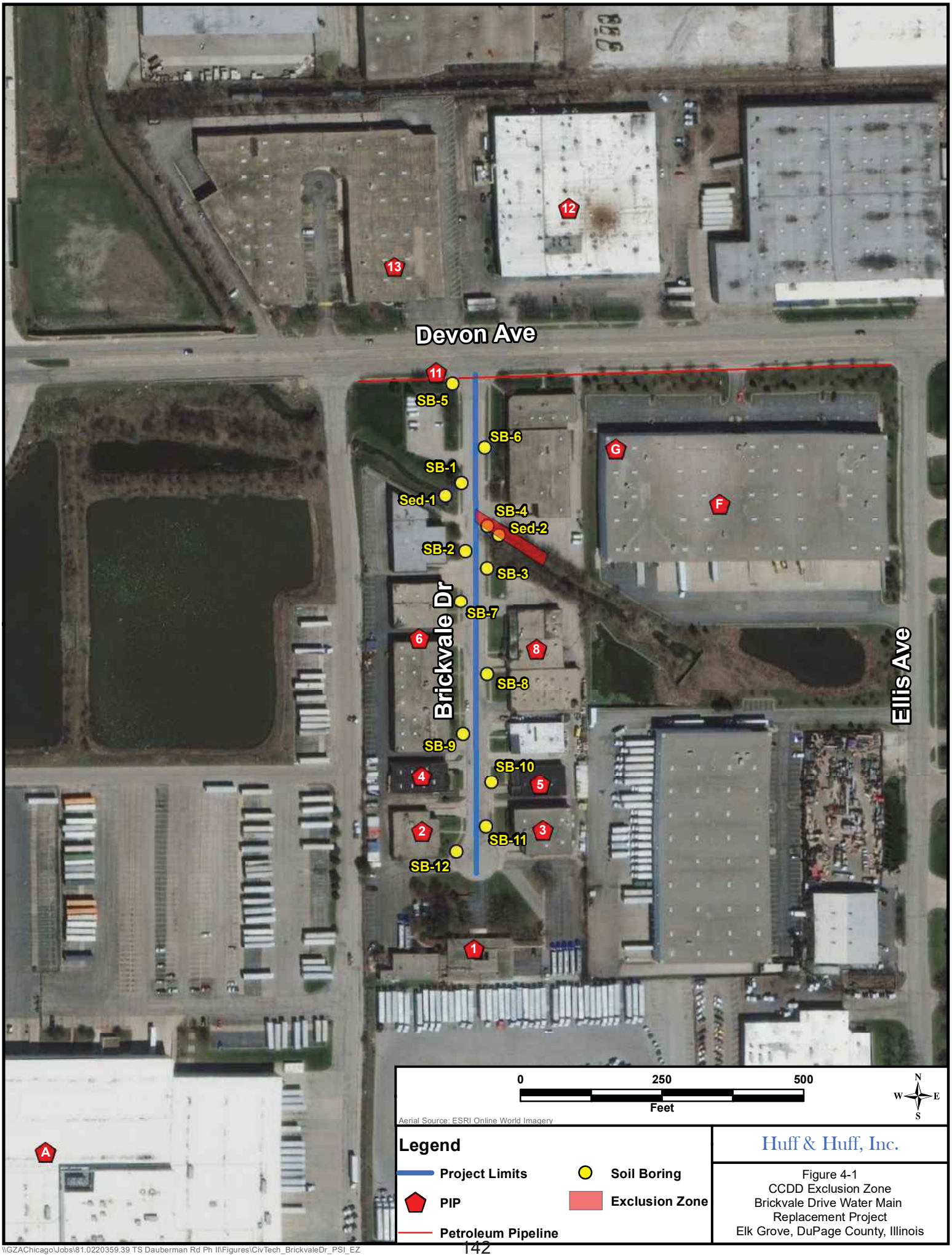

Huff & Huff, Inc.

Figure 4-1
CCDD Exclusion Zone
Brickvale Drive Water Main
Replacement Project
Elk Grove, DuPage County, Illinois

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BLENDED FINELY DIVIDED MINERALS (BDE)

Effective: April 1, 2021

Revise the second paragraph of Article 1010.01 of the Standard Specifications to read:

"Different sources or types of finely divided minerals shall not be mixed or used alternately in the same item of construction, except as a blended finely divided mineral product according to Article 1010.06."

Add the following article to Section 1010 of the Standard Specifications:

"**1010.06 Blended Finely Divided Minerals.** Blended finely divided minerals shall be the product resulting from the blending or intergrinding of two or three finely divided minerals. Blended finely divided minerals shall be according to ASTM C 1697, except as follows.

(a) Blending shall be accomplished by mechanically or pneumatically intermixing the constituent finely divided minerals into a uniform mixture that is then discharged into a silo for storage or tanker for transportation.

(b) The blended finely divided mineral product will be classified according to its predominant constituent or the manufacturer's designation and shall meet the chemical requirements of its classification. The other finely divided mineral constituent(s) will not be required to conform to their individual standards."

80436

COMPENSABLE DELAY COSTS (BDE)

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

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

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

(1) Minor Delay. A minor delay occurs when the work in conflict with the utility in an unanticipated location is completely stopped for more than two hours, but not to exceed two weeks.

(2) Major Delay. A major delay occurs when the work in conflict with the utility in an unanticipated location is completely stopped for more than two weeks.

(3) Reduced Rate of Production Delay. A reduced rate of production delay occurs when the rate of production on the work in conflict with the utility in an unanticipated location decreases by more than 25 percent and lasts longer than seven calendar days."

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

"(c) Payment. Payment for Minor, Major, and Reduced Rate of Production Delays will be made as follows.

(1) Minor Delay. Labor idled which cannot be used on other work will be paid for according to Article 109.04(b)(1) and (2) for the time between start of the delay and the minimum remaining hours in the work shift required by the prevailing practice in the area.

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

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

Equipment will be the same as for a minor delay, except Contractor-owned equipment will be limited to two weeks plus the cost of move-out to either the

Contractor's yard or another job and the cost to re-mobilize, whichever is less. Rental equipment may be paid for longer than two weeks provided the Contractor presents adequate support to the Department (including lease agreement) to show retaining equipment on the job is the most economical course to follow and in the public interest.

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

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

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

"(b) No working day will be charged under the following conditions.

(1) When adverse weather prevents work on the controlling item.

(2) When job conditions due to recent weather prevent work on the controlling item.

(3) When conduct or lack of conduct by the Department or its consultants, representatives, officers, agents, or employees; delay by the Department in making the site available; or delay in furnishing any items required to be furnished to the Contractor by the Department prevents work on the controlling item.

(4) When delays caused by utility or railroad adjustments prevent work on the controlling item.

(5) When strikes, lock-outs, extraordinary delays in transportation, or inability to procure critical materials prevent work on the controlling item, as long as these delays are not due to any fault of the Contractor.

(6) When any condition over which the Contractor has no control prevents work on the controlling item."

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

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

other than as allowed by Article 109.13, lost opportunity, preparation of claim expenses and other consequential indirect costs regardless of method of calculation.

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

Add the following to Section 109 of the Standard Specifications.

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

Contract Type	Cause of Delay	Length of Delay
Working Days	Article 108.04(b)(3) or Article 108.04(b)(4)	No working days have been charged for two consecutive weeks.
Completion Date	Article 108.08(b)(1) or Article 108.08(b)(7)	The Contractor has been granted a minimum two week extension of contract time, according to Article 108.08.

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

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

(b) Extended Project Overhead. For the duration of the delay, payment for extended project overhead will be paid as follows.

(1) Direct Jobsite and Offsite Overhead. Payment for documented direct jobsite overhead and documented direct offsite overhead, including onsite supervisory and administrative personnel, will be allowed according to the following table.

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

	One Clerk
Over $50,000,000	One Project Manager, Two Project Superintendents, One Engineer, and One Clerk

(2) Home Office and Unabsorbed Overhead. Payment for home office and unabsorbed overhead will be calculated as 8 percent of the total delay cost.

(c) Extended Traffic Control. Traffic control required for an extended period of time due to the delay will be paid for according to Article 109.04.

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

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

80384

CONCRETE BOX CULVERTS WITH SKEWS > 30 DEGREES AND DESIGN FILLS ≤ 5 FEET (BDE)

Effective: April 1, 2012
Revised: July 1, 2016

Revise the second paragraph of Article 540.04 of the Standard Specifications to read:

"Unless otherwise noted on the plans, the Contractor shall have the option, when a cast-in-place concrete box culvert is specified, of constructing the box culvert using precast box culvert sections when the design cover is 6 in. (150 mm) minimum. The precast box culvert sections shall be designed for the same design cover shown on the plans for cast-in-place box culvert**;** shall be of equal or larger size opening, and shall satisfy the design requirements of ASTM C 1577."

Add the following after the seventh paragraph of Article 540.06 of the Standard Specifications:

"Precast concrete box culverts with skews greater than 30 degrees and having design covers less than or equal to 5 ft are not covered by the standard design table shown in ASTM C 1577. The design table provided herein is provided to address this design range. The same notes, reinforcement configurations, clearances, and requirements of ASTM C 1577 apply to this special design table. A box designated 7 x 6 x 8 indicates a span of 7 ft, a rise of 6 ft, and top slab, bottom slab, walls and haunches of 8 in. unless otherwise noted on the tables.

3 ft x 2 ft x 4 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", in.
0<2*	0.17	1.10	0.30	0.10	0.28	0.17	0.92	0.14	
2<3	0.14	0.18	0.19	0.10					31
3-5	0.10	0.12	0.12	0.10					29

*top slab 7.0 in., bottom slab 6.0 in.

3 ft x 3 ft x 4 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", in.
0<2*	0.17	1.17	0.33	0.10	0.31	0.17	0.92	0.14	
2<3	0.10	0.22	0.22	0.10					31
3-5	0.10	0.14	0.14	0.10					31

*top slab 7.0 in., bottom slab 6.0 in.

4 ft x 2 ft x 5 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", in.
0<2*	0.21	0.88	0.26	0.12	0.28	0.18	0.89	0.14	
2<3	0.20	0.21	0.20	0.12					33
3-5	0.13	0.13	0.14	0.12					32

*top slab 7.5 in., bottom slab 6.0 in.

4 ft x 3 ft x 5 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", in.
0<2*	0.18	1.02	0.31	0.12	0.32	0.18	0.87	0.14	
2<3	0.16	0.25	0.24	0.12					38
3-5	0.12	0.16	0.17	0.12					34

*top slab 7.5 in., bottom slab 6.0 in.

4 ft x 4 ft x 5 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", in.
0<2*	0.18	1.08	0.34	0.12	0.34	0.18	0.86	0.14	
2<3	0.13	0.28	0.27	0.12					38
3-5	0.12	0.18	0.19	0.12					38

*top slab 7.5 in., bottom slab 6.0 in.

5 ft x 2 ft x 6 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", in.
0<2*	0.27	0.63	0.23	0.14	0.24	0.19	0.19	0.17	
2<3	0.25	0.22	0.20	0.14					37
3-5	0.17	0.15	0.15	0.14					35

*top slab 8.0 in., bottom slab 7.0 in.

5 ft x 3 ft x 6 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", in.
0<2*	0.20	0.72	0.27	0.14	0.29	0.19	.0.71	0.17	
2<3	0.21	0.26	0.25	0.14					37
3-5	0.14	0.18	0.18	0.14					35

*top slab 8.0 in., bottom slab 7.0 in.

5 ft x 4 ft x 6 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", in.
0<2*	0.19	0.78	0.30	0.14	0.31	0.19	0.70	0.17	
2<3	0.18	0.30	0.28	0.14					45
3-5	0.14	0.20	0.21	0.14					40

*top slab 8.0 in., bottom slab 7.0 in.

5 ft x 5 ft x 6 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", in.
0<2*	0.19	0.82	0.33	0.14	0.34	0.19	0.69	0.17	
2<3	0.16	0.33	0.32	0.14					45
3-5	0.14	0.22	0.23	0.14					45

*top slab 8.0 in., bottom slab 7.0 in.

6 ft x 2 ft x 7 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", in.
0<2*	0.33	0.51	0.21	0.17	0.23	0.19	0.61	0.17	
2<3	0.31	0.22	0.22	0.17					42
3-5	0.22	0.17	0.17	0.17					41

*top slab 8.0 in.

6 ft x 3 ft x 7 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", in.
0<2*	0.27	0.58	0.26	0.17	0.27	0.19	0.58	0.17	
2<3	0.26	0.27	0.27	0.17					41
3-5	0.18	0.19	0.20	0.17					39

*top slab 8.0 in.

6 ft x 4 ft x 7 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", in.
0<2*	0.25	0.64	0.30	0.17	0.30	0.19	0.57	0.17	
2<3	0.23	0.31	0.31	0.17					42
3-5	0.17	0.22	0.23	0.17					41

*top slab 8.0 in.

6 ft x 5 ft x 7 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in. / ft								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", in.
0<2*	0.23	0.68	0.33	0.17	0.32	0.19	0.56	0.17	
2<3	0.20	0.34	0.35	0.17					52
3-5	0.17	0.24	0.25	0.17					48

*top slab 8.0 in.

6 ft x 6 ft x 7 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", in.
0<2*	0.21	0.72	0.37	0.17	0.34	0.19	0.55	0.17	
2<3	0.18	0.37	0.38	0.17					52
3-5	0.17	0.26	0.28	0.17					52

*top slab 8.0 in.

7 ft x 2 ft x 8 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", in.
0<2	0.38	0.60	0.26	0.19	0.22	0.19	0.75	0.19	
2<3	0.38	0.24	0.24	0.19					46
3-5	0.27	0.19	0.19	0.19					44

7 ft x 3 ft x 8 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", in.
0<2	0.36	0.57	0.32	0.19	0.25	0.19	0.71	0.19	
2<3	0.33	0.29	0.30	0.19					44
3-5	0.23	0.21	0.21	0.19					42

7 ft x 4 ft x 8 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", in.
0<2	0.34	0.61	0.37	0.19	0.27	0.19	0.70	0.19	
2<3	0.29	0.34	0.34	0.19					44
3-5	0.21	0.24	0.25	0.19					42

7 ft x 5 ft x 8 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", in.
0<2	0.32	0.65	0.42	0.19	0.30	0.19	0.69	0.19	
2<3	0.26	0.37	0.38	0.19					49
3-5	0.19	0.27	0.28	0.19					46

7 ft x 6 ft x 8 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", in.
0<2	0.29	0.69	0.46	0.19	0.32	0.19	0.67	0.19	
2<3	0.23	0.40	0.42	0.19					59
3-5	0.19	0.29	0.30	0.19					55

7 ft x 7 ft x 8 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", in.
0<2	0.27	0.73	0.50	0.19	0.34	0.19	0.65	0.19	
2<3	0.21	0.43	0.45	0.19					59
3-5	0.19	0.31	0.33	0.19					59

8 ft x 2 ft x 8 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", in.
0<2	0.47	0.50	0.29	0.19	0.23	0.19	0.61	0.19	
2<3	0.51	0.30	0.31	0.19					50
3-5	0.36	0.22	0.22	0.19					48

8 ft x 3 ft x 8 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	“M”, in.
0<2	0.43	0.49	0.35	0.19	0.26	0.19	0.58	0.19	
2<3	0.45	0.36	0.37	0.19					48
3-5	0.32	0.26	0.27	0.19					45

8 ft x 4 ft x 8 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	“M”, in.
0<2	0.40	0.52	0.40	0.19	0.29	0.19	0.57	0.19	
2<3	0.40	0.42	0.43	0.19					45
3-5	0.28	0.30	0.31	0.19					45

8 ft x 5 ft x 8 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	“M”, in.
0<2	0.37	0.56	0.45	0.19	0.31	0.19	0.56	0.19	
2<3	0.36	0.46	0.47	0.19					48
3-5	0.26	0.33	0.34	0.19					45

8 ft x 6 ft x 8 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	“M”, in.
0<2	0.34	0.61	0.49	0.19	0.33	0.19	0.56	0.19	
2<3	0.33	0.50	0.52	0.19					56
3-5	0.24	0.36	0.37	0.19					50

8 ft x 7 ft x 8 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	“M”, in.
0<2	0.32	0.65	0.53	0.19	0.35	0.19	0.56	0.19	
2<3	0.30	0.53	0.56	0.19					65
3-5	0.22	0.38	0.40	0.19					61

8 ft x 8 ft x 8 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	“M”, in.
0<2	0.30	0.69	0.57	0.19	0.36	0.19	0.55	0.19	
2<3	0.28	0.56	0.59	0.19					65
3-5	0.20	0.40	0.43	0.19					65

9 ft x 2 ft x 9 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	“M”, in.
0<2	0.46	0.35	0.26	0.22	0.22	0.22	0.47	0.22	
2<3	0.58	0.32	0.32	0.22					55
3-5	0.41	0.23	0.23	0.22					52

9 ft x 3 ft x 9 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	“M”, in.
0<2	0.42	0.35	0.32	0.22	0.23	0.22	0.47	0.22	
2<3	0.52	0.38	0.39	0.22					52
3-5	0.37	0.27	0.28	0.22					49

9 ft x 4 ft x 9 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	“M”, in.
0<2	0.38	0.38	0.36	0.22	0.25	0.22	0.47	0.22	
2<3	0.47	0.44	0.45	0.22					52
3-5	0.33	0.31	0.32	0.22					49

9 ft x 5 ft x 9 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	“M”, in.
0<2	0.35	0.41	0.41	0.22	0.28	0.22	0.47	0.22	
2<3	0.43	0.49	0.50	0.22					49
3-5	0.30	0.35	0.36	0.22					49

9 ft x 6 ft x 9 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in. / ft								
	As1	As2	As3	As4	As5	As6	As7	As8	“M”, in.
0<2	0.32	0.44	0.44	0.22	0.29	0.22	0.47	0.22	
2<3	0.39	0.53	0.54	0.22					55
3-5	0.28	0.38	0.39	0.22					52

9 ft x 7 ft x 9 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in. / ft								
	As1	As2	As3	As4	As5	As6	As7	As8	“M”, in.
0<2	0.30	0.46	0.48	0.22	0.31	0.22	0.45	0.22	
2<3	0.36	0.56	0.59	0.22					64
3-5	0.26	0.40	0.42	0.22					58

9 ft x 8 ft x 9 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", in.
0<2	0.28	0.49	0.52	0.22	0.33	0.22	0.45	0.22	
2<3	0.33	0.60	0.63	0.22					72
3-5	0.24	0.43	0.45	0.22					72

9 ft x 9 ft x 9 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", in.
0<2	0.27	0.51	0.55	0.22	0.34	0.22	0.45	0.22	
2<3	0.31	0.63	0.66	0.22					72
3-5	0.23	0.45	0.48	0.22					72

10 ft x 2 ft x 10 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", in.
0<2	0.46	0.29	0.24	0.24	0.24	0.24	0.34	0.24	
2<3	0.66	0.33	0.34	0.24					59
3-5	0.46	0.24	0.24	0.24					59

10 ft x 3 ft x 10 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	“M”, in.
0<2	0.44	0.33	0.30	0.24	0.24	0.24	0.24	0.24	
2<3	0.59	0.40	0.41	0.24					59
3-5	0.42	0.29	0.29	0.24					56

10 ft x 4 ft x 10 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	“M”, in.
0<2	0.40	0.36	0.35	0.24	0.24	0.24	0.24	0.24	
2<3	0.54	0.46	0.47	0.24					56
3-5	0.38	0.33	0.34	0.24					52

10 ft x 5 ft x 10 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	“M”, in.
0<2	0.37	0.39	0.39	0.24	0.26	0.24	0.24	0.24	
2<3	0.49	0.51	0.52	0.24					52
3-5	0.35	0.36	0.38	0.24					52

10 ft x 6 ft x 10 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	“M”, in.
0<2	0.34	0.42	0.43	0.24	0.28	0.24	0.42	0.24	
2<3	0.45	0.55	0.57	0.24					56
3-5	0.33	0.40	0.41	0.24					52

10 ft x 7 ft x 10 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	“M”, in.
0<2	0.32	0.44	0.46	0.24	0.30	0.24	0.24	0.24	
2<3	0.42	0.59	0.62	0.24					59
3-5	0.31	0.42	0.45	0.24					56

10 ft x 8 ft x 10 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in. / ft								
	As1	As2	As3	As4	As5	As6	As7	As8	“M”, in.
0<2	0.30	0.47	0.50	0.24	0.31	0.24	0.24	0.24	
2<3	0.39	0.63	0.66	0.24					75
3-5	0.29	0.45	0.48	0.24					66

10 ft x 9 ft x 10 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	“M”, in.
0<2	0.28	0.49	0.53	0.24	0.33	0.24	0.24	0.24	
2<3	0.37	0.66	0.70	0.24					79
3-5	0.27	0.47	0.51	0.24					79

10 ft x 10 ft x 10 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	“M”, in.
0<2	0.27	0.51	0.56	0.24	0.34	0.24	0.24	0.24	
2<3	0.35	0.69	0.74	0.24					79
3-5	0.26	0.50	0.54	0.24					79

11 ft x 2 ft x 11 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	“M”, in.
0<2	0.50	0.27	0.26	0.26	0.26	0.26	0.26	0.26	
2<3	0.73	0.35	0.35	0.26					67
3-5	0.52	0.26	0.26	0.26					63

11 ft x 3 ft x 11 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", in.
0<2	0.45	0.31	0.29	0.26	0.26	0.26	0.26	0.26	
2<3	0.67	0.42	0.43	0.26					63
3-5	0.47	0.30	0.31	0.26					60

11 ft x 4 ft x 11 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", in.
0<2	0.41	0.34	0.33	0.26	0.26	0.26	0.26	0.26	
2<3	0.61	0.48	0.49	0.26					60
3-5	0.43	0.35	0.35	0.26					56

11 ft x 5 ft x 11 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", in.
0<2	0.38	0.37	0.37	0.26	0.26	0.26	0.26	0.26	
2<3	0.56	0.53	0.54	0.26					56
3-5	0.40	0.38	0.39	0.26					56

11 ft x 6 ft x 11 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", in.
0<2	0.35	0.40	0.40	0.26	0.26	0.26	0.26	0.26	
2<3	0.52	0.58	0.60	0.26					56
3-5	0.37	0.42	0.43	0.26					56

11 ft x 7 ft x 11 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", in.
0<2	0.33	0.42	0.43	0.26	0.28	0.26	0.26	0.26	
2<3	0.48	0.62	0.64	0.26					60
3-5	0.35	0.44	0.47	0.26					56

11 ft x 8 ft x 11 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", in.
0<2	0.31	0.45	0.47	0.26	0.30	0.26	0.26	0.26	
2<3	0.45	0.66	0.69	0.26					67
3-5	0.33	0.47	0.50	0.26					63

11 ft x 9 ft x 11 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	“M”, in.
0<2	0.30	0.47	0.50	0.26	0.31	0.26	0.26	0.26	
2<3	0.43	0.69	0.73	0.26					85
3-5	0.31	0.49	0.53	0.26					70

11 ft x 10 ft x 11 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	“M”, in.
0<2	0.28	0.49	0.53	0.26	0.33	0.26	0.26	0.26	
2<3	0.41	0.73	0.77	0.26					86
3-5	0.30	0.52	0.56	0.26					86

11 ft x 11 ft x 11 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	“M”, in.
0<2	0.27	0.51	0.56	0.26	0.34	0.26	0.26	0.26	
2<3	0.39	0.76	0.81	0.26					86
3-5	0.29	0.55	0.59	0.26					86

12 ft x 2 ft x 12 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	“M”, in.
0<2	0.51	0.29	0.29	0.29	0.29	0.29	0.29	0.29	
2<3	0.81	0.37	0.37	0.29					71
3-5	0.57	0.29	0.29	0.29					68

12 ft x 3 ft x 12 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	“M”, in.
0<2	0.46	0.29	0.29	0.29	0.29	0.29	0.29	0.29	
2<3	0.74	0.44	0.44	0.29					68
3-5	0.53	0.32	0.32	0.29					64

12 ft x 4 ft x 12 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	“M”, in.
0<2	0.42	0.33	0.31	0.29	0.29	0.29	0.29	0.29	
2<3	0.68	0.50	0.51	0.29					64
3-5	0.49	0.36	0.37	0.29					60

12 ft x 5 ft x 12 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", in.
0<2	0.39	0.35	0.34	0.29	0.29	0.29	0.29	0.29	
2<3	0.63	0.55	0.56	0.29					64
3-5	0.45	0.40	0.41	0.29					60

12 ft x 6 ft x 12 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", in.
0<2	0.36	0.38	0.38	0.29	0.29	0.29	0.29	0.29	
2<3	0.59	0.60	0.62	0.29					60
3-5	0.42	0.44	0.45	0.29					56

12 ft x 7 ft x 11 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", in.
0<2	0.34	0.41	0.42	0.29	0.29	0.29	0.29	0.29	
2<3	0.55	0.65	0.67	0.29					60
3-5	0.40	0.47	0.49	0.29					60

12 ft x 8 ft x 12 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	“M”, in.
0<2	0.32	0.43	0.45	0.29	0.29	0.29	0.29	0.29	
2<3	0.52	0.69	0.72	0.29					67
3-5	0.38	0.50	0.52	0.29					64

12 ft x 9 ft x 12 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	“M”, in.
0<2	0.30	0.45	0.47	0.29	0.29	0.29	0.29	0.29	
2<3	0.49	0.73	0.76	0.29					75
3-5	0.36	0.52	0.56	0.29					68

12 ft x 10 ft x 12 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	“M”, in.
0<2	0.29	0.48	0.50	0.29	0.30	0.29	0.29	0.29	
2<3	0.46	0.76	0.80	0.29					93
3-5	0.34	0.55	0.59	0.29					79

12 ft x 11 ft x 12 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	“M”, in.
0<2	0.29	0.50	0.53	0.29	0.32	0.29	0.29	0.29	
2<3	0.44	0.79	0.85	0.29					91
3-5	0.33	0.57	0.62	0.29					79

12 ft x 12 ft x 12 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	“M”, in.
0<2	0.29	0.52	0.56	0.29	0.33	0.29	0.29	0.29	
2<3	0.43	0.83	0.89	0.29					93
3-5	0.32	0.60	0.65	0.29					93”

80293

CONSTRUCTION AIR QUALITY – DIESEL RETROFIT (BDE)

Effective: June 1, 2010
Revised: November 1, 2014

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

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

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

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

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

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

a) Included on the U.S. Environmental Protection Agency (USEPA) *Verified Retrofit Technology List* (http://www.epa.gov/cleandiesel/verification/verif-list.htm), or verified by the California Air Resources Board (CARB) (http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm); or

b) Retrofitted with a non-verified diesel retrofit emission control device if verified retrofit emission control devices are not available for equipment proposed to be used on the project, and if the Contractor has obtained a performance certification from the retrofit

device manufacturer that the emission control device provides a minimum PM emission reduction of 50 percent.

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

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

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

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

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

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

Diesel Retrofit Deficiency Deduction

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

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

If a Contractor accumulates three diesel retrofit deficiency deductions for the same piece of equipment in a contract period, the Contractor will be shutdown until the deficiency is corrected.

Such a shutdown will not be grounds for any extension of the contract time, waiver of penalties, or be grounds for any claim.

80261

DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION (BDE)

Effective: September 1, 2000
Revised: March 2, 2019

FEDERAL OBLIGATION. The Department of Transportation, as a recipient of federal financial assistance, is required to take all necessary and reasonable steps to ensure nondiscrimination in the award and administration of contracts. Consequently, the federal regulatory provisions of 49 CFR Part 26 apply to this contract concerning the utilization of disadvantaged business enterprises. For the purposes of this Special Provision, a disadvantaged business enterprise (DBE) means a business certified 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.

CONTRACTOR ASSURANCE. 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 15.00 % 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.

DBE LOCATOR REFERENCES. 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.

BIDDING PROCEDURES. 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) NO AMENDMENT. 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) CHANGES TO WORK. 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) SUBCONTRACT. 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) ALTERNATIVE WORK METHODS. In addition to the above requirements for reductions in the condition of award, additional requirements apply to the two cases of Contractor-initiated 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) ENFORCEMENT. The Department reserves the right to withhold payment to the Contractor to enforce the provisions of this Special Provision. Final payment shall not be

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

(h) RECONSIDERATION. 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.

80029

DISPOSAL FEES (BDE)

Effective: November 1, 2018

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

"(5) Disposal Fees. When the extra work performed includes paying for disposal fees at a clean construction and demolition debris facility, an uncontaminated soil fill operation or a landfill, the Contractor shall receive, as administrative costs, an amount equal to five percent of the first $10,000 and one percent of any amount over $10,000 of the total approved costs of such fees.

(6) Miscellaneous. No additional allowance will be made for general superintendence, the use of small tools, or other costs for which no specific allowance is herein provided.

(7) Statements. No payment will be made for work performed on a force account basis until the Contractor has furnished the Engineer with itemized statements of the cost of such force account work. Statements shall be accompanied and supported by invoices for all materials used and transportation charges. However, if materials used on the force account work are not specifically purchased for such work but are taken from the Contractor's stock, then in lieu of the invoices, the Contractor shall furnish an affidavit certifying that such materials were taken from his/her stock, that the quantity claimed was actually used, and that the price and transportation claimed represent the actual cost to the Contractor.

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

a. Name, classification, date, daily hours, total hours, rate, and extension for each laborer and foreman. Payrolls shall be submitted to substantiate actual wages paid if so requested by the Engineer.

b. Designation, dates, daily hours, total hours, rental rate, and extension for each unit of machinery and equipment.

c. Quantities of materials, prices and extensions.

d. Transportation of materials.

e. Cost of property damage, liability and workmen's compensation insurance premiums, unemployment insurance contributions, and social security tax.

(8) Work Performed by an Approved Subcontractor. When extra work is performed by an approved subcontractor, the Contractor shall receive, as administrative costs, an amount equal to five percent of the total approved costs of such work with the minimum payment being $100.

(9) All statements of the cost of force account work shall be furnished to the Engineer not later than 60 days after receipt of the Central Bureau of Construction form “Extra Work Daily Report”. If the statement is not received within the specified time frame, all demands for payment for the extra work are waived and the Department is released from any and all such demands. It is the responsibility of the Contractor to ensure that all statements are received within the specified time regardless of the manner or method of delivery.”

80402

EMULSIFIED ASPHALTS (BDE)

Effective: August 1, 2019

Revise Article 1032.06 of the Standard Specifications to read:

"**1032.06 Emulsified Asphalts.** Emulsified asphalts will be accepted according to the current Bureau of Materials Policy Memorandum, "Emulsified Asphalt Acceptance Procedure". These materials shall be homogeneous and shall show no separation of asphalt after thorough mixing, within 30 days after delivery, provided separation has not been caused by freezing. They shall coat the aggregate being used in the work to the satisfaction of the Engineer and shall be according to the following requirements.

(a) Anionic Emulsified Asphalt. Anionic emulsified asphalts RS-1, RS-2, HFRS-2, SS-1h, and SS-1 shall be according to AASHTO M 140, except as follows.

(1) The cement mixing test will be waived when the emulsion is being used as a tack coat.

(2) The Solubility in Trichloroethylene test according to AASHTO T 44 may be run in lieu of Ash Content and shall meet a minimum of 97.5 percent.

(b) Cationic Emulsified Asphalt. Cationic emulsified asphalts CRS-1, CRS-2, CSS-1h, and CSS-1 shall be according to AASHTO M 208, except as follows.

(1) The cement mixing test will be waived when the emulsion is being used as a tack coat.

(2) The Solubility in Trichloroethylene test according to AASHTO T 44 may be run in lieu of Ash Content and shall meet a minimum of 97.5 percent.

(c) High Float Emulsion. High float emulsions HFE-90, HFE-150, and HFE-300 are medium setting and shall be according to the following table.

Test	HFE-90	HFE-150	HFE-300
Viscosity, Saybolt Furol, at 122 °F (50 °C), (AASHTO T 59), SFS [1/]	50 min.	50 min.	50 min.
Sieve Test, No. 20 (850 µm), retained on sieve, (AASHTO T 59), %	0.10 max.	0.10 max.	0.10 max.
Storage Stability Test, 1 day, (AASHTO T 59), %	1 max.	1 max.	1 max.
Coating Test (All Grades), (AASHTO T 59), 3 minutes	stone coated thoroughly		
Distillation Test, (AASHTO T 59): Residue from distillation test to 500 °F (260 °C), %	65 min.	65 min.	65 min.
Oil distillate by volume, %	7 max.	7 max.	7 max.

Characteristics of residue from distillation test to 500 °F (260 °C): Penetration at 77 °F (25 °C), (AASHTO T 49), 100 g, 5 sec, dmm	90-150	150-300	300 min.
Float Test at 140 °F (60 °C), (AASHTO T 50), sec.	1200 min.	1200 min.	1200 min.

1/ The emulsion shall be pumpable.

(d) Penetrating Emulsified Prime. Penetrating Emulsified Prime (PEP) shall be according to AASHTO T 59, except as follows.

Test	Result
Viscosity, Saybolt Furol, at 77 °F (25 °C), SFS	75 max.
Sieve test, retained on No. 20 (850 µm) sieve, %	0.10 max.
Distillation to 500 °F (260 °C) residue, %	38 min.
Oil distillate by volume, %	4 max.

The PEP shall be tested according to the current Bureau of Materials Illinois Laboratory Test Procedure (ILTP), "Sand Penetration Test of Penetrating Emulsified Prime (PEP)". The time of penetration shall be equal to or less than that of MC-30. The depth of penetration shall be equal to or greater than that of MC-30.

(e) Delete this subparagraph.

(f) Polymer Modified Emulsified Asphalt. Polymer modified emulsified asphalts, e.g. SS-1hP, CSS-1hP, CRS-2P (formerly CRSP), CQS-1hP (formerly CSS-1h Latex Modified) and HFRS-2P (formerly HFP) shall be according to AASHTO M 316, except as follows.

(1) The cement mixing test will be waived when the polymer modified emulsion is being used as a tack coat.

(2) CQS-1hP (formerly CSS-1h Latex Modified) emulsion for micro-surfacing treatments shall use latex as the modifier.

(3) Upon examination of the storage stability test cylinder after standing undisturbed for 24 hours, the surface shall show minimal to no white, milky colored substance and shall be a homogenous brown color throughout.

(4) The distillation for all polymer modified emulsions shall be performed according to AASHTO T 59, except the temperature shall be 374 ± 9 °F (190 ± 5 °C) to be held for a period of 15 minutes and measured using an ASTM 16F (16C) thermometer.

(5) The specified temperature for the Elastic Recovery test for all polymer modified emulsions shall be 50.0 ± 1.0 °F (10.0 ± 0.5 °C).

(6) The Solubility in Trichloroethylene test according to AASHTO T 44 may be run in lieu of Ash Content and shall meet a minimum of 97.5 percent.

(g) Non-Tracking Emulsified Asphalt. Non-tracking emulsified asphalt NTEA (formerly SS-1vh) shall be according to the following.

Test	Requirement
Saybolt Viscosity at 77 °F (25 °C), (AASHTO T 59), SFS	20-100
Storage Stability Test, 24 hr, (AASHTO T 59), %	1 max.
Residue by Distillation, 500 ± 10 °F (260 ± 5 °C), or Residue by Evaporation, 325 ± 5 °F (163 ± 3 °C), (AASHTO T 59), %	50 min.
Sieve Test, No. 20 (850 µm), (AASHTO T 59), %	0.3 max.
Tests on Residue from Evaporation	
Penetration at 77 °F (25 °C), 100 g, 5 sec, (AASHTO T 49), dmm	40 max.
Softening Point, (AASHTO T 53), °F (°C)	135 (57) min.
Ash Content, (AASHTO T 111), % 1/	1 max.

1/ The Solubility in Trichloroethylene test according to AASHTO T 44 may be run in lieu of Ash Content and shall meet a minimum of 97.5 percent

The different grades are, in general, used for the following.

Grade	Use
SS-1, SS-1h, RS-1, RS-2, CSS-1, CRS-1, CRS-2, CSS-1h, HFE-90, SS-1hP, CSS-1hP, NTEA (formerly SS-1vh)	Tack Coat
PEP	Prime Coat
RS-2, HFE-90, HFE-150, HFE-300, CRS-2P (formerly CRSP), HFRS-2P (formerly HFP), CRS-2, HFRS-2	Bituminous Surface Treatment
CQS-1hP (formerly CSS-1h Latex Modified)	Micro-Surfacing Slurry Sealing Cape Seal”

80415

ENGINEER'S FIELD OFFICE AND LABORATORY (BDE)

Effective: January 1, 2020

Revise the last sentence of the first paragraph of Article 670.01 of the Standard Specifications to read:

"The building shall remain available for use until released by the Engineer."

Revise the fifth and sixth paragraphs of Article 670.02 of the Standard Specifications to read:

"Sanitary facilities shall include hot and cold potable running water, lavatory and toilet as an integral part of the office where available. A portable toilet, if necessary, shall be serviced once per week. Solid waste disposal consisting of two waste baskets and an outside trash container of sufficient size to accommodate a weekly provided pick-up service.

In addition, the following furniture and equipment meeting the approval of the Engineer shall be furnished."

Revise Article 670.02(b) through 670.02(r) of the Standard Specifications to read:

"(b) One desk with minimum working surface of 48 x 72 in. (1.2 x 1.8 m).

(c) Two free standing four drawer legal size file cabinets with lock and an underwriters' laboratories insulated file device 350 degrees one hour rating.

(d) Table(s) and chairs capable of seating 10 people.

(e) One equipment cabinet of minimum inside dimension of 44 in. (1100 mm) high x 24 in. (600 mm) wide x 30 in. (750 mm) deep with lock. The walls shall be of steel with a 3/32 in. (2 mm) minimum thickness with concealed hinges and enclosed lock constructed in such a manner as to prevent entry by force. The cabinet assembly shall be permanently attached to a structural element of the field office in a manner to prevent theft of the entire cabinet.

(f) One refrigerator with a minimum size of 14 cu ft (0.40 cu m) with a freezer unit.

(g) One electric desk type tape printing calculator.

(h) A minimum of two communication paths. The configuration shall include:

(1) Internet Connection. An internet service connection with a wireless router capable of providing service to a minimum of five devices. The internet service shall be for unlimited data with a minimum internet data download speed of 25 megabits per second. For areas where this minimum download speed is not available, the maximum speed available for the area shall be provided.

(2) Telephone Line. One landline touch tone telephone with voicemail or answering machine. The telephone shall have an unpublished number.

(i) One plain paper wireless color printer capable of reproducing prints up to 11 x 17 in. (280 x 432 mm) with an automatic feed tray. Separate paper trays for letter size and 11 x 17 in. (280 x 432 mm) paper shall be provided. The wireless printer shall also be equipped to copy in color and scan documents.

(j) One electric water cooler dispenser.

(k) One first-aid cabinet fully equipped.

(l) One microwave oven (minimum 700 watt) with a turntable and 1 cu ft (0.03 cu m) minimum capacity.

(m) One fire-proof safe, 0.5 cu ft (0.01 cu m) minimum capacity.

(n) One electric paper shredder.

(o) One post mounted rain gauge, located on the project site for each 5 miles (8 km) of project length."

Revise the last sentence of the first paragraph of Articles 670.04 and 670.05 of the Standard Specifications to read:

"Doors and windows shall be equipped with locks."

Revise Article 670.04(c) through 670.04(n) of the Standard Specifications to read:

"(c) Two folding chairs.

(d) One equipment cabinet of minimum inside dimension of 44 in. (1100 mm) high x 24 in. (600 mm) wide x 30 in. (750 mm) deep with lock. The walls shall be of steel with a 3/32 in. (2 mm) minimum thickness with concealed hinges and enclosed lock constructed to prevent entry by force. The cabinet assembly shall be permanently attached to a structural element of the field office to prevent theft of the entire cabinet.

(e) A minimum of two communication paths. The configuration shall include:

(1) Internet Connection. An internet service connection with a wireless router capable of providing service to a minimum of five devices. The internet service shall be for unlimited data with a minimum internet download speed of 25 megabits per second. For areas where this minimum download speed is not available, the maximum speed available for the area shall be provided.

(2) Telephone Line. One land line touch tone telephone with voicemail or answering machine. The telephone shall have an unpublished number.

(f) One electric desk type tape printing calculator.

(g) One first-aid cabinet fully equipped.

(h) One plain paper wireless color printer capable of reproducing prints up to 11 x 17 in. (280 x 432 mm) with an automatic feed tray. Separate paper trays for letter size and 11 x 17 in. (280 x 432 mm) paper shall be provided. The wireless printer shall also be equipped to copy in color and scan documents.

(i) A portable toilet meeting Federal, State, and local health department requirements shall be provided, maintained clean and in good working condition, and shall be stocked with lavatory and sanitary supplies at all times. The portable toilet shall be serviced once per week.

(j) One electric water cooler dispenser.

(k) One refrigerator with a minimum size of 14 cu ft (0.45 cu m) with a freezer unit.

(l) One microwave oven (minimum 700 watt) with a turntable and 1 cu ft (0.03 cu m) minimum capacity."

Revise Article 670.05(f) of the Standard Specifications to read:

"(f) One landline touch tone telephone with voicemail or an answering machine. The telephone shall have an unpublished number."

Delete the last sentence of the second paragraph of Article 670.06 of the Standard Specifications.

Revise the fifth sentence of the first paragraph of Article 670.07 of the Supplemental Specifications to read:

"This price shall include all utility costs and shall reflect the salvage value of the building or buildings, equipment, and furniture which remain the property of the Contractor after release by the Engineer, except the Department will pay that portion of the monthly long distance and monthly local telephone, when combined, exceed $250."

80423

HOT-MIX ASPHALT – LONGITUDINAL JOINT SEALANT (BDE)

Effective: August 1, 2018
Revised: November 1, 2019

Add the following to Article 406.02 of the Standard Specifications.

"(d) Longitudinal Joint Sealant (LJS) .....1032"

Add the following to Article 406.03 of the Standard Specifications.

"(k) Longitudinal Joint Sealant (LJS) Pressure Distributor (Note 2)
(l) Longitudinal Joint Sealant (LJS) Melter Kettle (Note 3)

Note 2. When a pressure distributor is used to apply the LJS, the distributor shall be equipped with a heating and recirculating system along with a functioning auger agitating system or vertical shaft mixer in the hauling tank to prevent localized overheating. The distributor shall be equipped with a guide or laser system to aid in proper placement of the LJS application.

Note 3. When a melter kettle is used to transport and apply the LJS, the melter kettle shall be an oil jacketed double-boiler with agitating and recirculating systems. Material from the kettle may be dispensed through a pressure feed wand with an applicator shoe or through a pressure feed wand into a hand-operated thermal push cart."

Revise Article 406.06(g)(2) of the Standard Specifications to read:

"(2) Longitudinal Joints. Unless prohibited by stage construction, any HMA lift shall be complete before construction of the subsequent lift. The longitudinal joint in all lifts shall be at the centerline of the pavement if the roadway comprises two lanes in width, or at lane width if the roadway is more than two lanes in width.

When stage construction prohibits the total completion of a particular lift, the longitudinal joint in one lift shall be offset from the longitudinal joint in the preceding lift by not less than 3 in. (75 mm). The longitudinal joint in the surface course shall be at the centerline of the pavement if the roadway comprises two lanes in width, or at lane width if the roadway is more than two lanes in width.

A notched wedge longitudinal joint shall be used between successive passes of HMA binder course that has a difference in elevation of greater than 2 in. (50 mm) between lanes on pavement that is open to traffic.

The notched wedge longitudinal joint shall consist of a 1 to 1 1/2 in. (25 to 38 mm) vertical notch at the lane line, a 9 to 12 in. (230 to 300 mm) wide uniform taper sloped toward and extending into the open lane, and a second 1 to 1 1/2 in. (25 to 38 mm) vertical notch at the outside edge.

The notched wedge longitudinal joint shall be formed by the strike off device on the paver. The wedge shall then be compacted by the joint roller.

Tack coat shall be applied to the entire surface of the notched wedge joint immediately prior to placing the adjacent lift of binder. The material shall be uniformly applied at a rate of 0.05 to 0.1 gal/sq yd (0.2 to 0.5 L/sq m).

When the use of longitudinal joint sealant (LJS) is specified, the surface to which the LJS is applied shall be thoroughly cleaned and dry. The LJS may be placed before or after the tack coat. When placed after the tack coat, the tack shall be fully cured prior to placement of the LJS.

The LJS shall be applied in a single pass with a pressure distributor, melter kettle, or hand applied from a roll. At the time of installation, the pavement surface temperature and the ambient temperature shall be a minimum of 40 °F (4 °C) and rising.

The LJS shall be applied at a width of 18 in. (450 mm) ± 1 1/2 in. (38 mm) and centered ± 2 in. (± 50 mm) under the joint of the next HMA lift to be constructed. If the LJS flows more than 2 in. (50 mm) from the initial placement width, LJS placement shall stop and remedial action shall be taken.

When starting another run of LJS placement, suitable release paper shall be placed over the previous application of LJS to prevent doubling up of thickness of LJS.

The application rate of LJS shall be according to the following.

LJS Application Table			
Overlay Thickness in. (mm)	Coarse Graded Application Rate 1/ (IL-19.0, IL-19.0L, IL-9.5, IL-9.5L, IL-4.75) lb/ft (kg/m)	Fine Graded Application Rate 1/ lb/ft (kg/m)	SMA Mixtures 1/ 2/
3/4 (19)	0.88 (1.31)		
1 (25)	1.15 (1.71)		
1 1/4 (32)	1.31 (1.95)	0.88 (1.31)	
1 1/2 (38)	1.47 (2.19)	0.95 (1.42)	1.26 (1.88)
1 3/4 (44)	1.63 (2.43)	1.03 (1.54)	1.38 (2.06)
2 (50)	1.80 (2.68)	1.11 (1.65)	1.51 (2.25)
≥ 2 1/4 (60)	1.96 (2.92)		

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

2/ If the joint is between SMA and either Coarse Graded or Fine Graded, the SMA rate shall be used.

The Contractor shall furnish to the Engineer a bill of lading for each tanker supplying material to the project. The application rate of LJS shall be verified within the first 1000 ft (300 m) of the day's placement and every 12,000 ft (3600 m) thereafter. A suitable paper or pan shall be placed at a random location in the path of the LJS. After application of the LJS, the paper or pan shall be picked up, weighed, and the application rate calculated. The tolerance between the application rate shown in the LJS Application Table and the calculated rate shall be ± 10 percent. The LJS shall be replaced in the area where the sample was taken.

A 1 qt (1 L) sample shall be taken from the pressure distributor or melting kettle at the jobsite once for each contract and sent to the Central Bureau of Materials.

The LJS shall be suitable for construction traffic to drive on without pickup or tracking of the LJS within 30 minutes of placement. If pickup or tracking occurs, LJS placement shall stop and damaged areas shall be repaired.

Prior to paving, the Contractor shall ensure the paver end plate and grade control device is adequately raised above the finished height of the LJS.

The LJS shall not flush to the final surface of the HMA pavement."

Add the following paragraph after the second paragraph of Article 406.13(b) of the Standard Specifications.

"Application of longitudinal joint sealant (LJS) will be measured for payment in place in feet (meters)."

Add the following paragraph after the first paragraph of Article 406.14 of the Standard Specifications.

"Longitudinal joint sealant will be paid for at the contract unit price per foot (meter) for LONGITUDINAL JOINT SEALANT."

Add the following to Section 1032 of the Standard Specifications.

"**1032.12 Longitudinal Joint Sealant (LJS).** Longitudinal joint sealant (LJS) will be accepted according to the current Bureau of Materials and Physical Research Policy Memorandum, "Performance Graded Asphalt Binder Acceptance Procedure" with the following exceptions: Article 3.1.9 and 3.4.1.4 of the policy memorandum will be excluded. The bituminous material used for the LJS shall be according to the following table. Elastomers shall be added to a base asphalt and shall be either a styrene-butadiene diblock or triblock copolymer without oil extension, or a styrene-butadiene rubber. Air blown asphalt, acid modification, or other modifiers will not be allowed. LJS in the form of pre-formed rollout banding may also be used.

Test	Test Requirement	Test Method
Dynamic shear @ 88°C (unaged), G*/sin δ, kPa	1.00 min.	AASHTO T 315
Creep stiffness @ -18°C (unaged), Stiffness (S), MPa m-value	300 max. 0.300 min.	AASHTO T 313
Ash, %	1.0 – 4.0	AASHTO T 111
Elastic Recovery, 100 mm elongation, cut immediately, 25°C, %	70 min.	ASTM D 6084 (Procedure A)
Separation of Polymer, Difference in °C of the softening point (ring and ball)	3 max.	ITP Separation of Polymer from Asphalt Binder”

80398

MANHOLES, VALVE VAULTS, AND FLAT SLAB TOPS (BDE)

Effective: January 1, 2018
Revised: March 1, 2019

Description. In addition to those manufactured according to the current standards included in this contract, manholes, valve vaults, and flat slab tops manufactured prior to March 1, 2019, according to the previous Highway Standards listed below will be accepted on this contract:

Product	Previous Standards		
Precast Manhole Type A, 4' (1.22 m) Diameter	602401-05	602401-04	602401-03
Precast Manhole Type A, 5' (1.52 m) Diameter	602402-01	602402	602401-03
Precast Manhole Type A, 6' (1.83 m) Diameter	602406-09	602406-08	602406-07
Precast Manhole Type A, 7' (2.13 m) Diameter	602411-07	602411-06	602411-05
Precast Manhole Type A, 8' (2.44 m) Diameter	602416-07	602416-06	602416-05
Precast Manhole Type A, 9' (2.74 m) Diameter	602421-07	602421-06	602421-05
Precast Manhole Type A, 10' (3.05 m) Diameter	602426-01	602426	
Precast Valve Vault Type A, 4' (1.22 m) Diameter	602501-04	602501-03	602501-02
Precast Valve Vault Type A, 5' (1.52 m) Diameter	602506-01	602506	602501-02
Precast Reinforced Concrete Flat Slab Top	602601-05	602601-04	

The following revisions to the Standard Specifications shall apply to manholes, valve vaults, and flat slab tops manufactured according to the current standards included in this contract:

Revise Article 602.02(g) of the Standard Specifications to read:

"(g) Structural Steel (Note 4) 1006.04

Note 4. All components of the manhole joint splice shall be galvanized according to the requirements of AASHTO M 111 or M 232 as applicable."

Add the following to Article 602.02 of the Standard Specifications:

"(s) Anchor Bolts and Rods (Note 5) 1006.09

Note 5. The threaded rods for the manhole joint splice shall be according to the requirements of ASTM F 1554, Grade 55, (Grade 380)."

Revise the second paragraph of Article 1042.10 of the Standard Specifications to read:

"Catch basin Types A, B, C, and D; Manhole Type A; Inlet Types A and B; Drainage Structures Types 1, 2, 3, 4, 5, and 6; Valve Vault Type A; and reinforced concrete flat slab top (Highway Standard 602601) shall be manufactured according to AASHTO M 199 (M 199M), except the minimum wall thickness shall be as shown on the plans. Additionally, catch basins, inlets, and drainage structures shall have a minimum concrete compressive strength of 4500 psi

(31,000 kPa) at 28 days and manholes, valve vaults, and reinforced concrete flat slab tops shall have a minimum concrete compressive strength of 5000 psi (34,500 kPa) at 28 days."

80393

MOBILIZATION (BDE)

Effective: April 1, 2020

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

"(a) Upon execution of the contract, 90 percent of the pay item will be paid.

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

80428

PORTLAND CEMENT CONCRETE – HAUL TIME (BDE)

Effective: July 1, 2020

Revise Article 1020.11(a)(7) of the Standard Specifications to read:

"(7) Haul Time. Haul time shall begin when the delivery ticket is stamped. The delivery ticket shall be stamped no later than five minutes after the addition of the mixing water to the cement, or after the addition of the cement to the aggregate when the combined aggregates contain free moisture in excess of two percent by weight (mass). If more than one batch is required for charging a truck using a stationary mixer, the time of haul shall start with mixing of the first batch. Haul time shall end when the truck is emptied for incorporation of the concrete into the work. The maximum haul time shall be as follows.

Concrete Temperature at Point of Discharge, °F (°C)	Maximum Haul Time 1/ (minutes)	
	Truck Mixer or Truck Agitator	Nonagitator Truck
50 - 64 (10 - 17.5)	90	45
> 64 (> 17.5) - without retarder	60	30
> 64 (> 17.5) - with retarder	90	45

1/ To encourage start-up testing for mix adjustments at the plant, the first two trucks will be allowed an additional 15 minutes haul time whenever such testing is performed.

For a mixture which is not mixed on the jobsite, a delivery ticket shall be required for each load. The following information shall be recorded on each delivery ticket: (1) ticket number; (2) name of producer and plant location; (3) contract number; (4) name of Contractor; (5) stamped date and time batched; (6) truck number; (7) quantity batched; (8) amount of admixture(s) in the batch; (9) amount of water in the batch; and (10) Department mix design number.

For concrete mixed in jobsite stationary mixers, the above delivery ticket may be waived, but a method of verifying the haul time shall be established to the satisfaction of the Engineer."

80430

RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES (BDE)

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

Revise Section 1031 of the Standard Specifications to read:

"SECTION 1031. RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES

1031.01 Description. Reclaimed asphalt pavement and reclaimed asphalt shingles shall be according to the following.

(a) Reclaimed Asphalt Pavement (RAP). RAP is the material produced by cold milling or crushing an existing hot-mix asphalt (HMA) pavement. The Contractor shall supply written documentation that the RAP originated from routes or airfields under federal, state, or local agency jurisdiction.

(b) Reclaimed Asphalt Shingles (RAS). RAS is the material produced from the processing and grinding of preconsumer or post-consumer shingles. RAS shall be a clean and uniform material with a maximum of 0.5 percent unacceptable material by weight of RAS, as defined in the Bureau of Materials Policy Memorandum, "Reclaimed Asphalt Shingle (RAS) Sources". RAS shall come from a facility source on the Department's "Qualified Producer List of Certified Sources for Reclaimed Asphalt Shingles" where it shall be ground and processed to 100 percent passing the 3/8 in. (9.5 mm) sieve and 93 percent passing the #4 (4.75 mm) sieve based on a dry shake gradation. RAS shall be uniform in gradation and asphalt binder content and shall meet the testing requirements specified herein. In addition, RAS shall meet the following Type 1 or Type 2 requirements.

(1) Type 1. Type 1 RAS shall be processed, preconsumer asphalt shingles salvaged from the manufacture of residential asphalt roofing shingles.

(2) Type 2. Type 2 RAS shall be processed post-consumer shingles only, salvaged from residential, or four unit or less dwellings not subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP).

1031.02 Stockpiles. RAP and RAS stockpiles shall be according to the following.

(a) RAP Stockpiles. The Contractor shall construct individual RAP stockpiles meeting one of the following definitions. Stockpiles shall be sufficiently separated to prevent intermingling at the base. Stockpiles shall be identified by signs indicating the type as listed below (i.e. "Homogeneous Surface").

Prior to milling, the Contractor shall request the Department provide documentation on the quality of the RAP to clarify the appropriate stockpile.

(1) Fractionated RAP (FRAP). FRAP shall consist of RAP from Class I, HMA (High and Low ESAL) mixtures. The coarse aggregate in FRAP shall be crushed aggregate and may represent more than one aggregate type and/or quality but shall be at least C quality. FRAP shall be fractionated prior to testing by screening into a minimum of two size fractions with the separation occurring on or between the No. 4 (4.75 mm) and 1/2 in. (12.5 mm) sieves. Agglomerations shall be minimized such that 100 percent of the RAP in the coarse fraction shall pass the maximum sieve size specified for the mixture composition of the mix design.

(2) Homogeneous. Homogeneous RAP stockpiles shall consist of RAP from Class I, HMA (High and Low ESAL) mixtures and represent: 1) the same aggregate quality, but shall be at least C quality; 2) the same type of crushed aggregate (either crushed natural aggregate, ACBF slag, or steel slag); 3) similar gradation; and 4) similar asphalt binder content. If approved by the Engineer, combined single pass surface/binder millings may be considered "homogeneous" with a quality rating dictated by the lowest coarse aggregate quality present in the mixture.

(3) Conglomerate. Conglomerate RAP stockpiles shall consist of RAP from Class I, HMA (High and Low ESAL) mixtures. The coarse aggregate in this RAP shall be crushed aggregate and may represent more than one aggregate type and/or quality but shall be at least C quality. This RAP may have an inconsistent gradation and/or asphalt binder content prior to processing. Conglomerate RAP shall be processed prior to testing by crushing to where all RAP shall pass the 5/8 in. (16 mm) or smaller screen. Conglomerate RAP stockpiles shall not contain steel slag.

(4) Conglomerate "D" Quality (Conglomerate DQ). Conglomerate DQ RAP stockpiles shall be according to Articles 1031.02(a)(1)-1031.02(a)(3), except they may also consist of RAP from HMA shoulders, bituminous stabilized subbases, or HMA (High or Low ESAL) binder mixture. The coarse aggregate in this RAP may be crushed or round but shall be at least D quality. This RAP may have an inconsistent gradation and/or asphalt binder content.

(5) Non-Quality. RAP stockpiles that do not meet the requirements of the stockpile categories listed above shall be classified as "Non-Quality".

RAP/FRAP containing contaminants, such as earth, brick, sand, concrete, sheet asphalt, non-bituminous surface treatment (i.e. high friction surface treatments), pavement fabric, joint sealants, plant cleanout, etc., will be unacceptable unless the contaminants are removed to the satisfaction of the Engineer. Sheet asphalt shall be stockpiled separately.

(b) RAS Stockpiles. Type 1 and Type 2 RAS shall be stockpiled separately and shall not be intermingled. Each stockpile shall be signed indicating what type of RAS is present.

Unless otherwise specified by the Engineer, mechanically blending manufactured sand (FM 20 or FM 22) or fine FRAP up to an equal weight of RAS with the processed RAS will be permitted to improve workability. The sand shall be B quality or better from an

approved Aggregate Gradation Control System source. The sand shall be accounted for in the mix design and during HMA production.

Records identifying the shingle processing facility supplying the RAS, RAS type, and lot number shall be maintained by project contract number and kept for a minimum of three years.

Additional processed RAP/FRAP/RAS shall be stockpiled in a separate working pile, as designated in the QC Plan, and only added to the original stockpile after the test results for the working pile are found to meet the requirements specified in Articles 1031.03 and 1031.04.

1031.03 Testing. RAP/FRAP and RAS testing shall be according to the following.

(a) RAP/FRAP Testing. When used in HMA, the RAP/FRAP shall be sampled and tested either during or after stockpiling.

(1) During Stockpiling. For testing during stockpiling, washed extraction samples shall be run at the minimum frequency of one sample per 500 tons (450 metric tons) for the first 2,000 tons (1,800 metric tons) and one sample per 2,000 tons (1,800 metric tons) thereafter. A minimum of five tests shall be required for stockpiles less than 4,000 tons (3,600 metric tons).

(2) After Stockpiling. For testing after stockpiling, the Contractor shall submit a plan for approval to the Department proposing a satisfactory method of sampling and testing the RAP/FRAP pile either in-situ or by restockpiling. The sampling plan shall meet the minimum frequency required above and detail the procedure used to obtain representative samples throughout the pile for testing.

Each sample shall be split to obtain two equal samples of test sample size. One of the two test samples from the final split shall be labeled and stored for Department use. The Contractor shall perform a washed extraction on the other test sample according to Illinois Modified AASHTO T 164. The Engineer reserves the right to test any sample (split or Department-taken) to verify Contractor test results.

(b) RAS Testing. RAS or RAS blended with manufactured sand shall be sampled and tested during stockpiling according to the Bureau of Materials Policy Memorandum, “Reclaimed Asphalt Shingle (RAS) Source”.

Samples shall be collected during stockpiling at the minimum frequency of one sample per 200 tons (180 metric tons) for the first 1,000 tons (900 metric tons) and one sample per 500 tons (450 metric tons) or a minimum of once per week, whichever is more frequent, thereafter. A minimum of five samples are required for stockpiles less than 1,000 tons (900 metric tons).

Before testing, each sample shall be split to obtain two test samples. One of the two test samples from the final split shall be labeled and stored for Department use. The

Contractor shall perform a washed extraction and test for unacceptable materials on the other test sample according to Illinois Modified AASHTO T 164. The Engineer reserves the right to test any sample (split or Department-taken) to verify Contractor test results.

The Contractor shall obtain and make available all of the test results from the start of the original stockpile.

1031.04 Evaluation of Tests. Evaluation of test results shall be according to the following.

(a) Limits of Precision. The limits of precision between the Contractor's and the Department's split sample test results shall be according to the following.

Test Parameter	Limits of Precision		
% Passing	RAP	FRAP	RAS
1/2 in. (12.5 mm)	6.0 %	5.0 %	
# 4 (4.75 mm)	6.0 %	5.0 %	
# 8 (2.36 mm)	4.0 %	3.0 %	4.0 %
# 30 (600 µm)	3.0 %	2.0 %	4.0 %
# 200 (75 µm)	2.5 %	2.2 %	4.0 %
Asphalt Binder	0.4 %	0.3 %	3.0 %
G_{mm}	0.035	0.030	

If the test results are outside the above limits of precision, the Department will immediately investigate.

(b) Evaluation of RAP/FRAP Test Results. All of the extraction results shall be compiled and averaged for asphalt binder content and gradation, and when applicable G_{mm}. Individual extraction test results, when compared to the averages, will be accepted if within the tolerances listed below.

Parameter	FRAP/Homogeneous/ Conglomerate
1 in. (25 mm)	
1/2 in. (12.5 mm)	± 8 %
# 4 (4.75 mm)	± 6 %
# 8 (2.36 mm)	± 5 %
# 16 (1.18 mm)	
# 30 (600 µm)	± 5 %
# 200 (75 µm)	± 2.0 %
Asphalt Binder	± 0.4 % 1/
G_{mm}	± 0.03 2/

1/ The tolerance for FRAP shall be ± 0.3 percent.

2/ For stockpile with slag or steel slag present as determined in the current Manual of Test Procedures Appendix B 21, "Determination of Aggregate Bulk (Dry) Specific Gravity (Gsb) of Reclaimed Asphalt Pavement (RAP) and Reclaimed Asphalt Shingles (RAS)".

If more than 20 percent of the test results for an individual parameter (individual sieves, G_{mm}, and/or asphalt binder content) are out of the above tolerances, the RAP/FRAP shall not be used in HMA unless the RAP/FRAP representing the failing tests is removed from the stockpile. All test data and acceptance ranges shall be sent to the Department for evaluation.

With the approval of the Engineer, the ignition oven may be substituted for solvent extractions according to the document "Calibration of the Ignition Oven for the Purpose of Characterizing Reclaimed Asphalt Pavement (RAP)".

(c) Evaluation of RAS and RAS Blended with Manufactured Sand or Fine FRAP Test Results. All of the test results, with the exception of percent unacceptable materials, shall be compiled and averaged for asphalt binder content and gradation. Individual test results, when compared to the averages, will be accepted if within the tolerances listed below.

Parameter	RAS
# 8 (2.36 mm)	± 5 %
# 16 (1.18 mm)	± 5 %
# 30 (600 µm)	± 4 %
# 200 (75 µm)	± 2.5 %
Asphalt Binder Content	± 2.0 %

If more than 20 percent of the test results for an individual parameter (individual sieves and/or asphalt binder content) are out of the above tolerances, or if the unacceptable material exceeds 0.5 percent by weight of material retained on the No. 4 (4.75 mm) sieve, the RAS or RAS blend shall not be used in Department projects. All test data and acceptance ranges shall be sent to the Department for evaluation.

1031.05 Quality Designation of Aggregate in RAP/FRAP.

(a) RAP. The aggregate quality of the RAP for homogeneous, conglomerate, and conglomerate DQ stockpiles shall be set by the lowest quality of coarse aggregate in the RAP stockpile and are designated as follows.

(1) RAP from Class I, HMA (High ESAL), or (Low ESAL) IL-9.5L surface mixtures are designated as containing Class B quality coarse aggregate.

(2) RAP from Class I binder, HMA (High ESAL) binder, or (Low ESAL) IL-19.0L binder mixtures are designated as containing Class C quality coarse aggregate.

(3) RAP from BAM stabilized subbase and BAM shoulders are designated as containing Class D quality coarse aggregate.

(b) FRAP. If the Engineer has documentation of the quality of the FRAP aggregate, the Contractor shall use the assigned quality provided by the Engineer.

If the quality is not known, the quality shall be determined as follows. Coarse and fine FRAP stockpiles containing plus No. 4 (4.75 mm) sieve coarse aggregate shall have a maximum tonnage of 5,000 tons (4,500 metric tons). The Contractor shall obtain a representative sample witnessed by the Engineer. The sample shall be a minimum of 50 lb (25 kg). The sample shall be extracted according to Illinois Modified AASHTO T 164 by a consultant laboratory prequalified by the Department for the specified testing. The consultant laboratory shall submit the test results along with the recovered aggregate sample to the District Office. Consultant laboratory services will be at no additional cost to the Department. The District will forward the sample to the Central Bureau of Materials Aggregate Lab for MicroDeval Testing, according to ITP 327. A maximum loss of 15.0 percent will be applied for all HMA applications.

1031.06 Use of RAP/FRAP and/or RAS in HMA. The use of RAP/FRAP and/or RAS shall be the Contractor's option when constructing HMA in all contracts.

(a) RAP/FRAP. The use of RAP/FRAP in HMA shall be as follows.

(1) Coarse Aggregate Size. The coarse aggregate in all RAP shall be equal to or less than the nominal maximum size requirement for the HMA mixture to be produced.

(2) Steel Slag Stockpiles. Homogeneous RAP stockpiles containing steel slag will be approved for use in all HMA (High ESAL and Low ESAL) surface and binder mixture applications.

(3) Use in HMA Surface Mixtures (High and Low ESAL). RAP/FRAP stockpiles for use in HMA surface mixtures (High and Low ESAL) shall be FRAP or homogeneous in which the coarse aggregate is Class B quality or better. FRAP from conglomerate stockpiles shall be considered equivalent to limestone for frictional considerations. Known frictional contributions from plus No. 4 (4.75 mm) homogeneous FRAP stockpiles will be accounted for in meeting frictional requirements in the specified mixture.

(4) Use in HMA Binder Mixtures (High and Low ESAL), HMA Base Course, and HMA Base Course Widening. RAP/FRAP stockpiles for use in HMA binder mixtures (High and Low ESAL), HMA base course, and HMA base course widening shall be FRAP, homogeneous, or conglomerate, in which the coarse aggregate is Class C quality or better.

(5) Use in Shoulders and Subbase. RAP/FRAP stockpiles for use in HMA shoulders and stabilized subbase (HMA) shall be FRAP, homogeneous, or conglomerate.

(6) When the Contractor chooses the RAP option, the percentage of RAP shall not exceed the amounts indicated in Article 1031.06(c)(1) below for a given Ndesign.

(b) RAS. RAS meeting Type 1 or Type 2 requirements will be permitted in all HMA applications as specified herein.

(c) RAP/FRAP and/or RAS Usage Limits. Type 1 or Type 2 RAS may be used alone or in conjunction with RAP or FRAP in HMA mixtures up to a maximum of 5.0 percent by weight of the total mix.

(1) RAP/RAS. When RAP is used alone or RAP is used in conjunction with RAS, the percentage of virgin asphalt binder replacement (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
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).

(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
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).

1031.07 HMA Mix Designs. At the Contractor's option, HMA mixtures may be constructed utilizing RAP/FRAP and/or RAS material meeting the detailed requirements specified herein.

(a) RAP/FRAP and/or RAS. RAP/FRAP and/or RAS mix designs shall be submitted for verification. If additional RAP/FRAP and/or RAS stockpiles are tested and found that no more than 20 percent of the individual parameter test results, as defined in Article 1031.04, are outside of the control tolerances set for the original RAP/FRAP and/or RAS stockpile and HMA mix design, and meets all of the requirements herein, the additional RAP/FRAP and/or RAS stockpiles may be used in the original mix design at the percent previously verified.

(b) RAS. Type 1 and Type 2 RAS are not interchangeable in a mix design.

The RAP, FRAP, and RAS stone bulk specific gravities (G_{sb}) shall be according to the "Determination of Aggregate Bulk (Dry) Specific Gravity (G_{sb}) of Reclaimed Asphalt Pavement (RAP) and Reclaimed Asphalt Shingles (RAS)" procedure in the Department's Manual of Test Procedures for Materials.

1031.08 HMA Production. HMA production utilizing RAP/FRAP and/or RAS shall be as follows.

To remove or reduce agglomerated material, a scalping screen, gator, crushing unit, or comparable sizing device approved by the Engineer shall be used in the RAP/FRAP and/or RAS feed system to remove or reduce oversized material.

If the RAP/FRAP and/or RAS control tolerances or QC/QA test results require corrective action, the Contractor shall cease production of the mixture containing RAP/FRAP and/or RAS and either switch to the virgin aggregate design or submit a new mix design.

(a) RAP/FRAP. The coarse aggregate in all RAP/FRAP used shall be equal to or less than the nominal maximum size requirement for the HMA mixture being produced.

(b) RAS. RAS shall be incorporated into the HMA mixture either by a separate weight depletion system or by using the RAP weigh belt. Either feed system shall be interlocked with the aggregate feed or weigh system to maintain correct proportions for all rates of production and batch sizes. The portion of RAS shall be controlled accurately to within

± 0.5 percent of the amount of RAS utilized. When using the weight depletion system, flow indicators or sensing devices shall be provided and interlocked with the plant controls such that the mixture production is halted when RAS flow is interrupted.

(c) RAP/FRAP and/or RAS. HMA plants utilizing RAP/FRAP and/or RAS shall be capable of automatically recording and printing the following information.

(1) Dryer Drum Plants.

a. Date, month, year, and time to the nearest minute for each print.

b. HMA mix number assigned by the Department.

c. Accumulated weight of dry aggregate (combined or individual) in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).

d. Accumulated dry weight of RAP/FRAP/RAS in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).

e. Accumulated mineral filler in revolutions, tons (metric tons), etc. to the nearest 0.1 unit.

f. Accumulated asphalt binder in gallons (liters), tons (metric tons), etc. to the nearest 0.1 unit.

g. Residual asphalt binder in the RAP/FRAP/RAS material as a percent of the total mix to the nearest 0.1 percent.

h. Aggregate and RAP/FRAP/RAS moisture compensators in percent as set on the control panel. (Required when accumulated or individual aggregate and RAP/FRAP/RAS are recorded in a wet condition.)

i. A positive dust control system shall be utilized when the combined contribution of reclaimed material passing the No. 200 sieve exceeds 1.5 percent.

(2) Batch Plants.

a. Date, month, year, and time to the nearest minute for each print.

b. HMA mix number assigned by the Department.

c. Individual virgin aggregate hot bin batch weights to the nearest pound (kilogram).

d. Mineral filler weight to the nearest pound (kilogram).

e. RAP/FRAP/RAS weight to the nearest pound (kilogram).

f. Virgin asphalt binder weight to the nearest pound (kilogram).

g. Residual asphalt binder in the RAP/FRAP/RAS material as a percent of the total mix to the nearest 0.1 percent.

The printouts shall be maintained in a file at the plant for a minimum of one year or as directed by the Engineer and shall be made available upon request. The printing system will be inspected by the Engineer prior to production and verified at the beginning of each construction season thereafter.

1031.09 RAP in Aggregate Applications. RAP in aggregate applications shall be according to the Bureau of Materials Policy Memorandum, "Reclaimed Asphalt Pavement (RAP) for Aggregate Applications" and the following.

(a) RAP in Aggregate Surface Course and Aggregate Wedge Shoulders, Type B. The use of RAP in aggregate surface course (temporary access entrances only) and aggregate wedge shoulders, Type B shall be as follows.

(1) Stockpiles and Testing. RAP stockpiles may be any of those listed in Article 1031.02, except "Non-Quality" and "FRAP". The testing requirements of Article 1031.03 shall not apply.

(2) Gradation. One hundred percent of the RAP material shall pass the 1 1/2 in. (37.5 mm) sieve. The RAP material shall be reasonably well graded from coarse to fine. RAP material that is gap-graded or single sized will not be accepted.

(b) RAP in Aggregate Subgrade Improvement (ASI). RAP in ASI shall be according to Article 1031.06, except "Conglomerate DQ" and "Non-Quality" may be used."

80306

REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES (BDE)

Effective: January 1, 2019
Revised: January 1, 2020

Revise Section 669 of the Standard Specifications to read:

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

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

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

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

669.03 Pre-Construction Submittals and Qualifications. Prior to beginning this work, or working in areas with regulated substances, the Contractor shall submit a "Regulated Substances Pre-Construction Plan (RSPCP)" to the Engineer for review and approval using form BDE 2730. The form shall be signed by an Illinois licensed Professional Engineer or Professional Geologist.

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

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

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

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

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

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

CONSTRUCTION REQUIREMENTS

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

(a) Environmental Observation. Prior to beginning excavation, the Contractor shall mark the limits of the contract specific work areas. Once work begins, the monitoring personnel shall be present on-site continuously during the excavation and loading of material.

(b) Field Screening. Field screening shall be performed during the excavation and loading of material from the contract specific work areas, except for material classified according to Article 669.05(b)(1) or 669.05(c) where field screening is not required.

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

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

(a) Soil Analytical Results Exceed Most Stringent MAC. When the soil analytical results indicate detected levels exceed the most stringent maximum allowable concentration (MAC) for chemical constituents in soil established pursuant to Subpart F of 35 Ill. Adm. Code 1100.605, the soil shall be managed as follows:

(1) When analytical results indicate inorganic chemical constituents exceed the most stringent MAC, but still considered within area background levels by the Engineer, the excavated soil can be utilized within the right-of-way as embankment or fill, when suitable. If the soils cannot be utilized within the right-of-way, they shall be managed and disposed of at a landfill as a non-special waste.

(2) When analytical results indicate inorganic chemical constituents exceed the most stringent MAC but do not exceed the MAC for a Metropolitan Statistical Area (MSA) County identified in 35 Ill. Admin. Code 742 Appendix A. Table G, the excavated soil can be utilized within the right-of-way as embankment or fill, when suitable, or managed and disposed of at a clean construction and demolition debris (CCDD) facility or an uncontaminated soil fill operation (USFO) within an MSA County provided the pH of the soil is within the range of 6.25 - 9.0, inclusive.

(3) When analytical results indicate chemical constituents exceed the most stringent MAC but do not exceed the MAC for an MSA County excluding Chicago, or the MAC within the Chicago corporate limits, the excavated soil can be utilized within the right-of-way as embankment or fill, when suitable, or managed and disposed of off-site at a CCDD facility or an USFO within an MSA County excluding Chicago or within the Chicago corporate limits provided the pH of the soil is within the range of 6.25 - 9.0, inclusive.

(4) When analytical results indicate chemical constituents exceed the most stringent MAC but do not exceed the MAC for an MSA County excluding Chicago, the excavated soil can be utilized within the right-of-way as embankment or fill, when suitable, or managed and disposed of off-site at a CCDD facility or an USFO within an MSA County excluding Chicago provided the pH of the soil is within the range of 6.25 - 9.0, inclusive.

(5) When the Engineer determines soil cannot be managed according to Articles 669.05(a)(1) through (a)(4) above and the materials do not contain special waste or hazardous waste, as determined by the Engineer, the soil shall be managed and disposed of at a landfill as a non-special waste.

(6) When analytical results indicate soil is hazardous by characteristic or listing pursuant to 35 Ill. Admin. Code 721, contains radiological constituents, or the Engineer otherwise determines the soil cannot be managed according to Articles 669.05(a)(1)

through (a)(5) above, the soil shall be managed and disposed of off-site as a special waste or hazardous waste as applicable.

(b) Soil Analytical Results Do Not Exceed Most Stringent MAC. When the soil analytical results indicate that detected levels do not exceed the most stringent MAC, the excavated soil can be utilized within the right-of-way as embankment or fill, when suitable, or managed and disposed of off-site according to Article 202.03. However, the excavated soil cannot be taken to a CCDD facility or an USFO for any of the following reasons.

(1) The pH of the soil is less than 6.25 or greater than 9.0.

(2) The soil exhibited PID or FID readings in excess of background levels.

(c) Soil Analytical Results Exceed Most Stringent MAC but Do Not Exceed Tiered Approach to Corrective Action Objectives (TACO) Residential. When the soil analytical results indicate that detected levels exceed the most stringent MAC but do not exceed TACO Tier 1 Soil Remediation Objectives for Residential Properties pursuant to 35 Ill. Admin. Code 742 Appendix B Table A, the excavated soil can be utilized within the right-of-way as embankment or fill, when suitable, or managed and disposed of off-site according to Article 202.03. However, the excavated soil cannot be taken to a CCDD facility or an USFO.

(d) Groundwater. When groundwater analytical results indicate the detected levels are above Appendix B, Table E of 35 Ill. Admin. Code 742, the most stringent Tier 1 Groundwater Remediation Objectives for Groundwater Component of the Groundwater Ingestion Route for Class 1 groundwater, the groundwater shall be managed off-site as a special waste or hazardous waste as applicable. Special waste groundwater shall be containerized and trucked to an off-site treatment facility, or may be discharged to a sanitary sewer or combined sewer when permitted by the local sewer authority. Groundwater discharged to a sanitary sewer or combined sewer shall be pre-treated to remove particulates and measured with a calibrated flow meter to comply with applicable discharge limits. A copy of the permit shall be provided to the Engineer prior to discharging groundwater to the sanitary sewer or combined sewer.

Groundwater encountered within trenches may be managed within the trench and allowed to infiltrate back into the ground. If the groundwater cannot be managed within the trench, it may be discharged to a sanitary sewer or combined sewer when permitted by the local sewer authority, or it shall be containerized and trucked to an off-site treatment facility as a special waste or hazardous waste. The Contractor is prohibited from discharging groundwater within the trench through a storm sewer. The Contractor shall install backfill plugs within the area of groundwater contamination.

One backfill plug shall be placed down gradient to the area of groundwater contamination. Backfill plugs shall be installed at intervals not to exceed 50 ft (15 m). Backfill plugs are to be 4 ft (1.2 m) long, measured parallel to the trench, full trench width and depth. Backfill plugs shall not have any fine aggregate bedding or backfill, but shall be entirely cohesive

soil or any class of concrete. The Contractor shall provide test data that the material has a permeability of less than 10^{-7} cm/sec according to ASTM D 5084, Method A or per another test method approved by the Engineer.

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

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

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

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

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

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

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

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

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

(1) a potentially infectious medical waste;

(2) a hazardous waste as defined in 35 Ill. Admin. Code 721;

(3) an industrial process waste or pollution control waste that contains liquids, as determined using the paint filter test set forth in subdivision (3)(A) of subsection (m) of 35 Ill. Admin. Code 811.107;

(4) a regulated asbestos-containing waste material, as defined under the National Emission Standards for Hazardous Air Pollutants in 40 CFR Part 61.141;

(5) a material containing polychlorinated biphenyls (PCB's) regulated pursuant to 40 CFR Part 761;

(6) a material subject to the waste analysis and recordkeeping requirements of 35 Ill. Admin. Code 728.107 under land disposal restrictions of 35 Ill. Admin. Code 728;

(7) a waste material generated by processing recyclable metals by shredding and required to be managed as a special waste under Section 22.29 of the Environmental Protection Act; or

(8) an empty portable device or container in which a special or hazardous waste has been stored, transported, treated, disposed of, or otherwise handled.

(b) Certification Information. All information used to determine the waste is not a special waste shall be attached to the certification. The information shall include but not be limited to:

(1) the means by which the generator has determined the waste is not a hazardous waste;

(2) the means by which the generator has determined the waste is not a liquid;

(3) if the waste undergoes testing, the analytic results obtained from testing, signed and dated by the person responsible for completing the analysis;

(4) if the waste does not undergo testing, an explanation as to why no testing is needed;

(5) a description of the process generating the waste; and

(6) relevant material safety data sheets.

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

Temporary staging shall be accomplished within the right-of-way and the Contractor's means and methods shall be described in the approved or amended RSPCP. Staging areas shall not be located within 200 feet (61 m) of a public or private water supply well; nor within 100 feet (30 m) of sensitive environmental receptor areas, including wetlands, rivers, streams, lakes, or designated habitat zones.

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

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

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

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

(a) Non-Special Waste. When stockpiling soil classified according to Article 669.05(a)(1) or 669.05(a)(5), an impermeable surface barrier between the materials and the ground surface shall be installed. The impermeable barrier shall consist of a minimum 20-mil plastic liner material and the surface of the stockpile area shall be clean and free of debris prior to placement of the liner. Measures shall also be taken to limit or discourage access to the staging area.

(b) Special Waste and Hazardous Waste. Soil classified according to Article 669.05(a)(6) shall not be stockpiled but shall be containerized immediately upon generation in containers, tanks or containment buildings as defined by RCRA, Toxic Substances Control

Act (TSCA), and other applicable State or local regulations and requirements, including 35 Ill. Admin. Code Part 722, Standards Applicable to Generators of Hazardous Waste.

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

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

All containers shall be legibly labeled and marked using pre-printed labels and permanent marker in accordance with applicable regulations, clearly showing the date of waste generation, location and/or area of waste generation, and type of waste. The Contractor shall place these identifying markings on an exterior side surface of the container.

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

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

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

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

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

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

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

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

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

In the event the UST is designated a leaking underground storage tank (LUST) by the OSFM's inspector, or confirmation by analytical results, the Contractor shall notify the Engineer and the District Environmental Studies Unit (DESU). Upon confirmation of a release of contaminants and notifications to the Engineer and DESU, the Contractor shall report the release to the Illinois Emergency Management Agency (IEMA) (e.g., by telephone or electronic mail) and provide them with whatever information is available ("owner" or "operator" shall be stated as the past registered "owner" or "operator", or the IDOT District in which the tank is located and the DESU Manager).

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

(a) Take immediate action to prevent any further release of the regulated substance to the environment, which may include removing, at the Engineer's discretion, and disposing of up to 4 ft (1.2 m) of the contaminated material, as measured from the outside dimension of the tank;

(b) Identify and mitigate fire, explosion and vapor hazards;

(c) Visually inspect any above ground releases or exposed below ground releases and prevent further migration of the released substance into surrounding soils and groundwater; and

(d) Continue to monitor and mitigate any additional fire and safety hazards posed by vapors and free product that have migrated from the tank excavation zone and entered into subsurface structures (such as sewers or basements).

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

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

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

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

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

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

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

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

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

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

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

The transportation and disposal of soil and other materials from an excavation determined to be contaminated will be paid for at the contract unit price per cubic yard (cubic meter) for

NON-SPECIAL WASTE DISPOSAL, SPECIAL WASTE DISPOSAL, or HAZARDOUS WASTE DISPOSAL.

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

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

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

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

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

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

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

80407

SILT FENCE, INLET FILTERS, GROUND STABILIZATION AND RIPRAP FILTER FABRIC (BDE)

Effective: November 1, 2019
Revised: April 1, 2020

Revise Article 280.02(m) and add Article 280.02(n) so the Standard Specifications read:

"(m) Above Grade Inlet Filter (Fitted)..... 1081.15(j)
(n) Above Grade Inlet Filter (Non-Fitted).....1081.15(k)"

Revise the last sentence of the first paragraph in Article 280.04(c) of the Standard Specifications to read:

"The protection shall be constructed with hay or straw bales, silt filter fence, above grade inlet filters (fitted and non-fitted), or inlet filters.

Revise the first sentence of the second paragraph in Article 280.04(c) of the Standard Specifications to read:

"When above grade inlet filters (fitted and non-fitted) are specified, they shall be of sufficient size to completely span and enclose the inlet structure."

Revise Article 1080.02 of the Standard Specifications to read:

"**1080.02 Geotextile Fabric.** The fabric for silt filter fence shall consist of woven fabric meeting the requirements of AASHTO M 288 for unsupported silt fence.

The fabric for ground stabilization shall consist of woven yarns or nonwoven filaments of polyolefins or polyesters. Woven fabrics shall be Class 2 and nonwoven fabrics shall be Class 1 according to AASHTO M 288.

The physical properties for silt fence and ground stabilization fabrics shall be according to the following.

PHYSICAL PROPERTIES			
	Silt Fence Woven [1/]	Ground Stabilization Woven [2/]	Ground Stabilization Nonwoven [2/]
Grab Strength, lb (N) [3/] ASTM D 4632	123 (550) MD 101 (450) XD	247 (1100) min. [4/]	202 (900) min. [4/]
Elongation/Grab Strain, % ASTM D 4632 [4/]	49 max.	49 max.	50 min.
Trapezoidal Tear Strength, lb (N) ASTM D 4533 [4/]	--	90 (400) min.	79 (350) min.

Puncture Strength, lb (N) ASTM D 6241 [4/]	--	494 (2200) min.	433 (1925) min.
Apparent Opening Size, Sieve No. (mm) ASTM D 4751 [5/]	30 (0.60) max.	40 (0.43) max.	40 (0.43) max.
Permittivity, sec^{-1} ASTM D 4491	0.05 min.		
Ultraviolet Stability, % retained strength after 500 hours of exposure ASTM D 4355	70 min.	50 min.	50 min.

1/ NTPEP results or manufacturer's certification to meet test requirements.

2/ NTPEP results to meet test requirements. Manufacturer shall have public release status and current reports on laboratory results in Test Data of NTPEP's DataMine.

3/ MD = Machine direction. XD = Cross-machine direction.

4/ Values represent the minimum average roll value (MARV) in the weaker principle direction, MD or XD.

5/ Values represent the maximum average roll value."

Revise Article 1080.03 of the Standard Specifications to read:

"**1080.03 Filter Fabric.** The filter fabric shall consist of woven yarns or nonwoven filaments of polyolefins or polyesters. Woven fabrics shall be Class 3 for riprap gradations RR 4 and RR 5, and Class 2 for RR 6 and RR 7 according to AASHTO M 288. Woven slit film geotextiles (i.e. geotextiles made from yarns of a flat, tape-like character) shall not be permitted. Nonwoven fabrics shall be Class 2 for riprap gradations RR 4 and RR 5, and Class 1 for RR 6 and RR 7 according to AASHTO M 288. After forming, the fabric shall be processed so that the yarns or filaments retain their relative positions with respect to each other. The fabric shall be new and undamaged.

The filter fabric shall be manufactured in widths of not less than 6 ft (2 m). Sheets of fabric may be sewn together with thread of a material meeting the chemical requirements given for the yarns or filaments to form fabric widths as required. The sheets of filter fabric shall be sewn together at the point of manufacture or another approved location.

The filter fabric shall be according to the following.

PHYSICAL PROPERTIES [1/]				
	Gradation Nos. RR 4 & RR 5		Gradation Nos. RR 6 & RR 7	
	Woven	Nonwoven	Woven	Nonwoven
Grab Strength, lb (N) ASTM D 4632 [2/]	180 (800) min.	157 (700) min.	247 (1100) min.	202 (900) min.
Elongation/Grab Strain, % ASTM D 4632 [2/]	49 max.	50 min.	49 max.	50 min.
Trapezoidal Tear Strength, lb (N) ASTM D 4533 [2/]	67 (300) min.	56 (250) min.	90 (400) min.	79 (350) min.
Puncture Strength, lb (N) ASTM D 6241 [2/]	370 (1650) min.	309 (1375) min.	494 (2200) min.	433 (1925) min.
Ultraviolet Stability, % retained strength after 500 hours of exposure - ASTM D 4355	50 min.			

1/ NTPEP results to meet test requirements. Manufacturer shall have public release status and current reports on laboratory results in Test Data of NTPEP's DataMine.

2/ Values represent the minimum average roll value (MARV) in the weaker principle direction [machine direction (MD) or cross-machine direction (XD)].

As determined by the Engineer, the filter fabric shall meet the requirements noted in the following after an onsite investigation of the soil to be protected.

Soil by Weight (Mass) Passing the No. 200 sieve (75 µm), %	Apparent Opening Size, Sieve No. (mm) - ASTM D 4751 [1/]	Permittivity, sec^{-1} ASTM D 4491
49 max.	60 (0.25) max.	0.2 min.
50 min.	70 (0.22) max.	0.1 min.

1/ Values represent the maximum average roll value."

Revise Article 1081.15(h)(3)a of the Standard Specifications to read:

"a. Inner Filter Fabric Bag. The inner filter fabric bag shall be constructed of woven yarns or nonwoven filaments made of polyolefins or polyesters with a minimum silt and debris capacity of 2.0 cu ft (0.06 cu m). Woven fabric shall be Class 3 and nonwoven fabric shall be Class 2 according to AASHTO M 288. The fabric bag shall be according to the following.

PHYSICAL PROPERTIES		
	Woven	Nonwoven
Grab Strength, lb (N) ASTM D 4632 1/	180 (800) min.	157 (700) min.
Elongation/Grab Strain, % ASTM D 4632 1/	49 max.	50 min.
Trapezoidal Tear Strength, lb (N) ASTM D 4533 1/	67 (300) min.	56 (250) min.
Puncture Strength, lb (N) ASTM D 6241 1/	370 (1650) min.	309 (1375) min.
Apparent Opening Size, Sieve No. (mm) ASTM D 4751 2/	60 (0.25) max.	
Permittivity, sec^{-1} ASTM D 4491	2.0 min.	
Ultraviolet Stability, % retained strength after 500 hours of exposure – ASTM D 4355	70 min.	

1/ Values represent the minimum average roll value (MARV) in the weaker principle direction [machine direction (MD) or cross-machine direction (XD)].

2/ Values represent the maximum average roll value."

Revise Article 1081.15(i)(1) of the Standard Specifications to read:

"(i) Urethane Foam/Geotextile. Urethane foam/geotextile shall be triangular shaped having a minimum height of 10 in. (250 mm) in the center with equal sides and a minimum 20 in. (500 mm) base. The triangular shaped inner material shall be a low density urethane foam. The outer geotextile fabric cover shall consist of woven yarns or nonwoven filaments made of polyolefins or polyesters placed around the inner material and shall extend beyond both sides of the triangle a minimum of 18 in. (450 mm). Woven filter fabric shall be Class 3 and nonwoven filter fabric shall be Class 2 according to AASHTO M 288.

(1) The geotextile shall meet the following properties.

PHYSICAL PROPERTIES		
	Woven	Nonwoven
Grab Strength, lb (N) ASTM D 4632 1/	180 (800) min.	157 (700) min.
Elongation/Grab Strain, % ASTM D 4632 1/	49 max.	50 min.
Trapezoidal Tear Strength, lb (N) ASTM D 4533 1/	67 (300) min.	56 (250) min.
Puncture Strength, lb (N) ASTM D 6241 1/	370 (1650) min.	309 (1375) min.

Apparent Opening Size, Sieve No. (mm) ASTM D 4751 2/	30 (0.60) max.
Permittivity, sec^{-1} ASTM D 4491	2.0 min.
Ultraviolet Stability, % retained strength after 500 hours of exposure – ASTM D 4355	70 min.

1/ Values represent the minimum average roll value (MARV) in the weaker principle direction [machine direction (MD) or cross-machine direction (XD)].

2/ Values represent the maximum average roll value."

Add the following to Article 1081.15(i) of the Standard Specifications.

"(3) Certification. The manufacturer shall furnish a certificate with each shipment of urethane foam/geotextile assemblies stating the amount of product furnished and that the material complies with these requirements."

Revise the title and first sentence of Article 1081.15(j) of the Standards Specifications to read:

"(j) Above Grade Inlet Filters (Fitted). Above grade inlet filters (fitted) shall consist of a rigid polyethylene frame covered with a fitted geotextile filter fabric."

Revise Article 1081.15(j)(2) of the Standard Specifications to read:

(2) Fitted Geotextile Filter Fabric. The fitted geotextile filter fabric shall consist of woven yarns or nonwoven filaments made of polyolefins or polyesters. Woven filter fabric shall be Class 3 and nonwoven filter fabric shall be Class 2 according to AASHTO M 288. The filter shall be fabricated to provide a direct fit to the frame. The top of the filter shall integrate a coarse screen with a minimum apparent opening size of 1/2 in. (13 mm) to allow large volumes of water to pass through in the event of heavy flows. The filter shall have integrated anti-buoyancy pockets capable of holding a minimum of 3.0 cu ft (0.08 cu m) of stabilization material. Each filter shall have a label with the following information sewn to or otherwise permanently adhered to the outside: manufacturer's name, product name, and lot, model, or serial number. The fitted geotextile filter fabric shall be according to the table in Article 1081.15(h)(3)a above."

Add Article 1081.15(k) to the Standard Specifications to read:

"(k) Above Grade Inlet Filters (Non-Fitted). Above grade inlet filters (non-fitted) shall consist of a geotextile fabric surrounding a metal frame. The frame shall consist of either a) a circular cage formed of welded wire mesh, or b) a collapsible aluminum frame, as described below.

(1) Frame Construction.

a) Welded Wire Mesh Frame. The frame shall consist of 6 in. x 6 in. (150 mm x 150 mm) welded wire mesh formed of #10 gauge (3.42 mm) steel conforming to ASTM A 185. The mesh shall be 30 in. (750 mm) tall and formed into a 42 in. (1.05 m) minimum diameter cylinder.

b) Collapsible Aluminum Frame. The collapsible aluminum frame shall consist of grade 6036 aluminum. The frame shall have anchor lugs that attach it to the inlet grate, which shall resist movement from water and debris. The collapsible joints of the frame shall have a locking device to secure the vertical members in place, which shall prevent the frame from collapsing while under load from water and debris.

(2) Geotextile Fabric. The geotextile fabric shall consist of woven yarns or nonwoven filaments made of polyolefins or polyesters. The woven filter fabric shall be a Class 3 and the nonwoven filter fabric shall be a Class 2 according to AASHTO M 288. The geotextile fabric shall be according to the table in Article 1081.15(h)(3)a above.

(3) Geotechnical Fabric Attachment to the Frame.

a) Welded Wire Mesh Frame. The woven or nonwoven geotextile fabric shall be wrapped 3 in. (75 mm) over the top member of a 6 in. x 6 in. (150 mm x 150 mm) welded wire mesh frame and secured with fastening rings constructed of wire conforming to ASTM A 641, A 809, A 370, and A 938 at 6 in. (150 mm) on center. The fastening rings shall penetrate both layers of geotextile and securely close around the steel mesh. The geotextile shall be secured to the sides of the welded wire mesh with fastening rings at a spacing of 1 per sq ft (11 per sq m) and securely close around a steel member.

b) Collapsible Aluminum Frame. The woven or nonwoven fabric shall be secured to the aluminum frame along the top and bottom of the frame perimeter with strips of aluminum secured to the perimeter member, such that the anchoring system provides a uniformly distributed stress throughout the geotechnical fabric.

(4) Certification. The manufacturer shall furnish a certificate with each shipment of above grade inlet filter assemblies stating the amount of product furnished and that the material complies with these requirements."

80419

STEEL COST ADJUSTMENT (BDE)

Effective: April 2, 2004
Revised: August 1, 2017

Description. Steel cost adjustments will be made to provide additional compensation to the Contractor, or a credit to the Department, for fluctuations in steel prices when optioned by the Contractor. The bidder shall indicate with their bid whether or not this special provision will be part of the contract. Failure to indicate "Yes" for any item of work will make that item of steel exempt from steel cost adjustment.

Types of Steel Products. An adjustment will be made for fluctuations in the cost of steel used in the manufacture of the following items:

Metal Piling (excluding temporary sheet piling)
Structural Steel
Reinforcing Steel

Other steel materials such as dowel bars, tie bars, mesh reinforcement, guardrail, steel traffic signal and light poles, towers and mast arms, metal railings (excluding wire fence), and frames and grates will be subject to a steel cost adjustment when the pay items they are used in have a contract value of $10,000 or greater.

The adjustments shall apply to the above items when they are part of the original proposed construction, or added as extra work and paid for by agreed unit prices. The adjustments shall not apply when the item is added as extra work and paid for at a lump sum price or by force account.

Documentation. Sufficient documentation shall be furnished to the Engineer to verify the following:

(a) The dates and quantity of steel, in lb (kg), shipped from the mill to the fabricator.

(b) The quantity of steel, in lb (kg), incorporated into the various items of work covered by this special provision. The Department reserves the right to verify submitted quantities.

Method of Adjustment. Steel cost adjustments will be computed as follows:

$SCA = Q \times D$

Where: SCA = steel cost adjustment, in dollars
Q = quantity of steel incorporated into the work, in lb (kg)
D = price factor, in dollars per lb (kg)

$D = MPI_M - MPI_L$

Where: MPI_M = The Materials Cost Index for steel as published by the Engineering News-Record for the month the steel is shipped from the mill. The indices will be converted from dollars per 100 lb to dollars per lb (kg).

MPI_L = The Materials Cost Index for steel as published by the Engineering News-Record for the month prior to the letting for work paid for at the contract price; or for the month the agreed unit price letter is submitted by the Contractor for extra work paid for by agreed unit price,. The indices will be converted from dollars per 100 lb to dollars per lb (kg).

The unit weights (masses) of steel that will be used to calculate the steel cost adjustment for the various items are shown in the attached table.

No steel cost adjustment will be made for any products manufactured from steel having a mill shipping date prior to the letting date.

If the Contractor fails to provide the required documentation, the method of adjustment will be calculated as described above; however, the MPI_M will be based on the date the steel arrives at the job site. In this case, an adjustment will only be made when there is a decrease in steel costs.

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

$$\text{Percent Difference} = \{(MPI_L - MPI_M) \div MPI_L\} \times 100$$

Steel cost adjustments will be calculated by the Engineer and will be paid or deducted when all other contract requirements for the items of work are satisfied. Adjustments will only be made for fluctuations in the cost of the steel as described herein. No adjustment will be made for changes in the cost of manufacturing, fabrication, shipping, storage, etc.

The adjustments shall not apply during contract time subject to liquidated damages for completion of the entire contract.

Attachment

Item	Unit Mass (Weight)
Metal Piling (excluding temporary sheet piling)	
Furnishing Metal Pile Shells 12 in. (305 mm), 0.179 in. (3.80 mm) wall thickness)	23 lb/ft (34 kg/m)
Furnishing Metal Pile Shells 12 in. (305 mm), 0.250 in. (6.35 mm) wall thickness)	32 lb/ft (48 kg/m)
Furnishing Metal Pile Shells 14 in. (356 mm), 0.250 in. (6.35 mm) wall thickness)	37 lb/ft (55 kg/m)
Other piling	See plans
Structural Steel	See plans for weights (masses)
Reinforcing Steel	See plans for weights (masses)
Dowel Bars and Tie Bars	6 lb (3 kg) each
Mesh Reinforcement	63 lb/100 sq ft (310 kg/sq m)
Guardrail	
Steel Plate Beam Guardrail, Type A w/steel posts	20 lb/ft (30 kg/m)
Steel Plate Beam Guardrail, Type B w/steel posts	30 lb/ft (45 kg/m)
Steel Plate Beam Guardrail, Types A and B w/wood posts	8 lb/ft (12 kg/m)
Steel Plate Beam Guardrail, Type 2	305 lb (140 kg) each
Steel Plate Beam Guardrail, Type 6	1260 lb (570 kg) each
Traffic Barrier Terminal, Type 1 Special (Tangent)	730 lb (330 kg) each
Traffic Barrier Terminal, Type 1 Special (Flared)	410 lb (185 kg) each
Steel Traffic Signal and Light Poles, Towers and Mast Arms	
Traffic Signal Post	11 lb/ft (16 kg/m)
Light Pole, Tenon Mount and Twin Mount, 30 - 40 ft (9 – 12 m)	14 lb/ft (21 kg/m)
Light Pole, Tenon Mount and Twin Mount, 45 - 55 ft (13.5 – 16.5 m)	21 lb/ft (31 kg/m)
Light Pole w/Mast Arm, 30 - 50 ft (9 – 15.2 m)	13 lb/ft (19 kg/m)
Light Pole w/Mast Arm, 55 - 60 ft (16.5 – 18 m)	19 lb/ft (28 kg/m)
Light Tower w/Luminaire Mount, 80 - 110 ft (24 – 33.5 m)	31 lb/ft (46 kg/m)
Light Tower w/Luminaire Mount, 120 - 140 ft (36.5 – 42.5 m)	65 lb/ft (97 kg/m)
Light Tower w/Luminaire Mount, 150 - 160 ft (45.5 – 48.5 m)	80 lb/ft (119 kg/m)
Metal Railings (excluding wire fence)	
Steel Railing, Type SM	64 lb/ft (95 kg/m)
Steel Railing, Type S-1	39 lb/ft (58 kg/m)
Steel Railing, Type T-1	53 lb/ft (79 kg/m)
Steel Bridge Rail	52 lb/ft (77 kg/m)
Frames and Grates	
Frame	250 lb (115 kg)
Lids and Grates	150 lb (70 kg)

80127

SUBCONTRACTOR AND DBE PAYMENT REPORTING (BDE)

Effective: April 2, 2018

Add the following to Section 109 of the Standard Specifications.

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

(a) first tier subcontractors;

(b) lower tier subcontractors affecting disadvantaged business enterprise (DBE) goal credit;

(c) material suppliers or trucking firms that are part of the Contractor's submitted DBE utilization plan.

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

80397

SUBCONTRACTOR MOBILIZATION PAYMENTS (BDE)

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

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

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

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

80391

TEMPORARY PAVEMENT MARKING (BDE)

Effective: April 1, 2012
Revised: April 1, 2017

Revise Article 703.02 of the Standard Specifications to read:

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

(a) Pavement Marking Tape, Type I and Type III 1095.06
(b) Paint Pavement Markings 1095.02
(c) Pavement Marking Tape, Type IV ..... 1095.11"

Revise the second paragraph of Article 703.05 of the Standard Specifications to read:

"Type I marking tape or paint shall be used at the option of the Contractor, except paint shall not be applied to the final wearing surface unless authorized by the Engineer for late season applications where tape adhesion would be a problem. Type III or Type IV marking tape shall be used on the final wearing surface when the temporary pavement marking will conflict with the permanent pavement marking such as on tapers, crossovers and lane shifts."

Revise Article 703.07 of the Standard Specifications to read:

"**703.07 Basis of Payment.** This work will be paid for as follows.

a) Short Term Pavement Marking. Short term pavement marking will be paid for at the contract unit price per foot (meter) for SHORT TERM PAVEMENT MARKING. Removal of short term pavement markings will be paid for at the contract unit price per square foot (square meter) for SHORT TERM PAVEMENT MARKING REMOVAL.

b) Temporary Pavement Marking. Where the Contractor has the option of material type, temporary pavement marking will be paid for at the contract unit price per foot (meter) for TEMPORARY PAVEMENT MARKING of the line width specified, and at the contract unit price per square foot (square meter) for TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS.

Where the Department specifies the use of pavement marking tape, the Type III or Type IV temporary pavement marking will be paid for at the contract unit price per foot (meter) for PAVEMENT MARKING TAPE, TYPE III or PAVEMENT MARKING TAPE, TYPE IV of the line width specified and at the contract unit price per square feet (square meter) for PAVEMENT MARKING TAPE, TYPE III - LETTERS AND SYMBOLS or PAVEMENT MARKING TAPE, TYPE IV – LETTERS AND SYMBOLS.

Removal of temporary pavement markings will be paid for at the contract unit price per square foot (square meter) for TEMPORARY PAVEMENT MARKING REMOVAL.

When temporary pavement marking is shown on the Standard, the cost of the temporary pavement marking and its removal will be included in the cost of the Standard."

Add the following to Section 1095 of the Standard Specifications:

"**1095.11 Pavement Marking Tape, Type IV.** The temporary, preformed, patterned markings shall consist of a white or yellow tape with wet retroreflective media incorporated to provide immediate and continuing retroreflection during both wet and dry conditions. The tape shall be manufactured without the use of heavy metals including lead chromate pigments or other similar, lead-containing chemicals.

The white and yellow Type IV marking tape shall meet the Type III requirements of Article 1095.06 and the following.

(a) Composition. The retroreflective pliant polymer pavement markings shall consist of a mixture of high-quality polymeric materials, pigments and glass beads distributed throughout its base cross-sectional area, with a layer of wet retroreflective media bonded to a durable polyurethane topcoat surface. The patterned surface shall have approximately 40% ± 10% 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 beads or particles.

(b) Retroreflectance. The white and yellow markings shall meet the following for initial dry and wet retroreflectance.

(1) Dry Retroreflectance. Dry retroreflectance shall be measured under dry conditions according to ASTM D 4061 and meet the values described in Article 1095.06 for Type III tape.

(2) Wet Retroreflectance. Wet retroreflectance shall be measured under wet conditions according to ASTM E 2177 and meet the values shown in the following table.

Wet Retroreflectance, Initial R_L

Color	R_L 1.05/88.76
White	300
Yellow	200

(c) 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 a 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 minimum
*Yellow	36-59

*Shall match Federal 595 Color No. 33538 and the chromaticity limits as follows.

x	0.490	0.475	0.485	0.530
y	0.470	0.438	0.425	0.456

(d) Skid Resistance. The surface of the markings shall provide an average minimum skid resistance of 50 BPN when tested according to ASTM E 303.

(e) Sampling, Testing, Acceptance, and Certification. Prior to approval and use of the wet reflective, temporary, removable pavement marking tape, the manufacturer shall submit a notarized certification from an independent laboratory, together with the results of all tests, stating that the material meets the requirements as set forth herein. The certification test report shall state the lot tested, manufacturer's name, and date of manufacture.

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

All costs of testing (other than tests conducted by the Department) shall be borne by the manufacturer."

80298

TRAFFIC CONTROL DEVICES - CONES (BDE)

Effective: January 1, 2019

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

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

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

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

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

80409

TRAINING SPECIAL PROVISIONS (BDE)

Effective: October 15, 1975
Revised: June 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 1. 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 estimated total project cost of $500,000 or more, the Contractor is required to comply with the Illinois Works Apprenticeship Initiative (30 ILCS 559/20-20 to 20-25) and all applicable administrative rules to the extent permitted by Section 20-20(g). For federally funded projects, the number of trainees to be trained under this contract, as stated in the Training Special Provisions, will be the established goal for the Illinois Works Apprenticeship Initiative 30 ILCS 559/20-20(g). The Contractor shall make a good faith effort to meet this goal. For federally funded projects, the Illinois Works Apprenticeship Initiative will be implemented using the FHWA approved OJT procedures. The Contractor must comply with the recordkeeping and reporting obligations of the Illinois Works Apprenticeship Initiative for the life of the project, including the certification as to whether the trainee/apprentice labor hour goals were met.

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

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

20338

WARM MIX ASPHALT (BDE)

Effective: January 1, 2012
Revised: April 1, 2016

Description. This work shall consist of designing, producing and constructing Warm Mix Asphalt (WMA) in lieu of Hot Mix Asphalt (HMA) at the Contractor's option. Work shall be according to Sections 406, 407, 408, 1030, and 1102 of the Standard Specifications, except as modified herein. In addition, any references to HMA in the Standard Specifications, or the special provisions shall be construed to include WMA.

WMA is an asphalt mixture which can be produced at temperatures lower than allowed for HMA utilizing approved WMA technologies. WMA technologies are defined as the use of additives or processes which allow a reduction in the temperatures at which HMA mixes are produced and placed. WMA is produced by the use of additives, a water foaming process, or combination of both. Additives include minerals, chemicals or organics incorporated into the asphalt binder stream in a dedicated delivery system. The process of foaming injects water into the asphalt binder stream, just prior to incorporation of the asphalt binder with the aggregate.

Approved WMA technologies may also be used in HMA provided all the requirements specified herein, with the exception of temperature, are met. However, asphalt mixtures produced at temperatures in excess of 275 °F (135 °C) will not be considered WMA when determining the grade reduction of the virgin asphalt binder grade.

Equipment.

Revise the first paragraph of Article 1102.01 of the Standard Specifications to read:

"**1102.01 Hot-Mix Asphalt Plant.** The hot-mix asphalt (HMA) plant shall be the batch-type, continuous-type, or dryer drum plant. The plants shall be evaluated for prequalification rating and approval to produce HMA according to the current Bureau of Materials and Physical Research Policy Memorandum, "Approval of Hot-Mix Asphalt Plants and Equipment". Once approved, the Contractor shall notify the Bureau of Materials and Physical Research to obtain approval of all plant modifications. The plants shall not be used to produce mixtures concurrently for more than one project or for private work unless permission is granted in writing by the Engineer. The plant units shall be so designed, coordinated and operated that they will function properly and produce HMA having uniform temperatures and compositions within the tolerances specified. The plant units shall meet the following requirements."

Add the following to Article 1102.01(a) of the Standard Specifications.

"(11) Equipment for Warm Mix Technologies.

a. Foaming. Metering equipment for foamed asphalt shall have an accuracy of ± 2 percent of the actual water metered. The foaming control system shall be electronically interfaced with the asphalt binder meter.

b. Additives. Additives shall be introduced into the plant according to the supplier's recommendations and shall be approved by the Engineer. The system for introducing the WMA additive shall be interlocked with the aggregate feed or weigh system to maintain correct proportions for all rates of production and batch sizes."

Mix Design Verification.

Add the following to Article 1030.04 of the Standard Specifications.

"(e) Warm Mix Technologies.

(1) Foaming. WMA mix design verification will not be required when foaming technology is used alone (without WMA additives). However, the foaming technology shall only be used on HMA designs previously approved by the Department.

(2) Additives. WMA mix designs utilizing additives shall be submitted to the Engineer for mix design verification."

Construction Requirements.

Revise the second paragraph of Article 406.06(b)(1) of the Standard Specifications to read:

"The HMA shall be delivered at a temperature of 250 to 350 °F (120 to 175 °C). WMA shall be delivered at a minimum temperature of 215 °F (102 °C)."

Basis of Payment.

This work will be paid at the contract unit price bid for the HMA pay items involved. Anti-strip will not be paid for separately, but shall be considered as included in the cost of the work.

80288

WEEKLY DBE TRUCKING REPORTS (BDE)

Effective: June 2, 2012
Revised: April 2, 2015

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

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

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

80302

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.

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

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

80427

REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (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).

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.

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

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal 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).

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.

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. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 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 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, 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 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, 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 230, 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 (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 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 35 and 29 CFR 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.

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, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection

for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

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

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who 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.

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, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure 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. 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, 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, 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 there under. 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, 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 and 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. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor 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 contracting agency deems appropriate.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more.

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, 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). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

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

a. All laborers and mechanics employed or working upon the site of the work, 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 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.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. 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 shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). 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 classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH–1321) shall 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. (1) The contracting officer shall 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 shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore 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 utilized 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) 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 shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. 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.

(3) 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 shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour 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.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall 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.

c. 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 shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. 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, 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.

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, 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.

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, 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 section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) 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 section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall 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. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b. (1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g. , the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH–347 is available for this purpose from the Wage and Hour Division Web site at http://www.dol.gov/esa/whd/forms/wh347instr.htm or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed 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 Regulations, 29 CFR part 3;

(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 of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, 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 may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed 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 Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall 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 the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall 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, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. 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. 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 journeymen 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.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 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.

9. Disputes concerning labor standards. 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 he or she) 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 section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

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 watchmen 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.

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. 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 watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of $10 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.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contacting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or 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, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

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” 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:

(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.

2. 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. 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.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

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 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.

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 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).

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 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 1, 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

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.
2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost $25,000 or more – as defined in 2 CFR Parts 180 and 1200.

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.

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.

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.

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 and 1200. “First Tier Covered Transactions” refers to any covered transaction between a grantee or subgrantee 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 grantee or subgrantee 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.

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.

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. 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 Excluded Parties List System website (https://www.epls.gov/), which is compiled by the General Services Administration.

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. 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) 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;

(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; 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.

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. **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)

a. By signing and submitting this proposal, the prospective lower tier 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.

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 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 grantee or subgrantee 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 grantee or subgrantee 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.

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.

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 Excluded Parties List System website (https://www.epls.gov/), which is compiled by the General Services Administration.

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.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall 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 20).

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.

ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

Contract Provision - Cargo Preference Requirements

In accordance with Title 46 CFR § 381.7 (b), the contractor 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.

(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 Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.

(3) To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract."

Provisions (1) and (2) apply to materials or equipment that are acquired solely for the project. The two provisions do not apply to goods or materials that come into inventories independent of the project, such as shipments of Portland cement, asphalt cement, or aggregates, when industry suppliers and contractors use these materials to replenish existing inventories.

MINIMUM WAGES FOR FEDERAL AND FEDERALLY ASSISTED CONSTRUCTION CONTRACTS

This project is funded, in part, with Federal-aid funds and, as such, is subject to the provisions of the Davis-Bacon Act of March 3, 1931, as amended (46 Sta. 1494, as amended, 40 U.S.C. 276a) and of other Federal statutes referred to in a 29 CFR Part 1, Appendix A, as well as such additional statutes as may from time to time be enacted containing provisions for the payment of wages determined to be prevailing by the Secretary of Labor in accordance with the Davis-Bacon Act and pursuant to the provisions of 29 CFR Part 1. The prevailing rates and fringe benefits shown in the General Wage Determination Decisions issued by the U.S. Department of Labor shall, in accordance with the provisions of the foregoing statutes, constitute the minimum wages payable on Federal and federally assisted construction projects to laborers and mechanics of the specified classes engaged on contract work of the character and in the localities described therein.

General Wage Determination Decisions, modifications and supersedes decisions thereto are to be used in accordance with the provisions of 29 CFR Parts 1 and 5. Accordingly, the applicable decision, together with any modifications issued, must be made a part of every contract for performance of the described work within the geographic area indicated as required by an applicable DBRA Federal prevailing wage law and 29 CFR Part 5. The wage rates and fringe benefits contained in the General Wage Determination Decision shall be the minimum paid by contractors and subcontractors to laborers and mechanics.