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November 9, 2018 Letting

Notice to Bidders, Specifications and Proposal



Contract No. 61F04 KANE County Section 18-00215-22-CH Route FAU 2298 (Longmeadow Parkway) District 1 Construction Funds

Prepared by	s
Checked by	
(Printed by authority of the State of	i Illinois)



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 10:00 a.m. November 9, 2018 prevailing time at which time the bids will be publicly opened from the iCX SecureVault.
- 2. DESCRIPTION OF WORK. The proposed improvement is identified and advertised for bids in the Invitation for Bids as:

Contract No. 61F04 KANE County Section 18-00215-22-CH Route FAU 2298 (Longmeadow Parkway) District 1 Construction Funds

construct a portion of Long Meadow Parkway on a new alignment, widen and reconstruct IL 25, including the intersection with Bolz Road. Located near the intersection of IL 25 and Bolz Road in the Village of Carpentersville.

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

By Order of the Illinois Department of Transportation

Randall S. Blankenhorn, Secretary

CONTRACT 61F04

INDEX FOR SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS

Adopted January 1, 2018

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

ERRATA Standard Specifications for Road and Bridge Construction (Adopted 4-1-16) (Revised 1-1-18)

SUPPLEMENTAL SPECIFICATIONS

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CHECK SHEET FOR RECURRING SPECIAL PROVISIONS

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

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BDE SPECIAL PROVISIONS

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

<u>Fil</u> Nan	<u>e</u> ne	<u>Pg.</u>		Special Provision Title	Effective	<u>Revised</u>
80	0099			Accessible Pedestrian Signals (APS)	April 1, 2003	Jan. 1, 2014
80)382	164	Х	Adjusting Frames and Grates	April 1, 2017	
80)274			Aggregate Subgrade Improvement	April 1, 2012	April 1, 2016
80)192			Automated Flagger Assistance Device	Jan. 1, 2008	-
80)173	166	Х	Bituminous Materials Cost Adjustments	Nov. 2, 2006	Aug. 1, 2017
80)241			Bridge Demolition Debris	July 1, 2009	
50)26I			Building Removal-Case I (Non-Friable and Friable Asbestos)	Sept. 1, 1990	April 1, 2010
50)481			Building Removal-Case II (Non-Friable Asbestos)	Sept. 1, 1990	April 1, 2010
50)491			Building Removal-Case III (Friable Asbestos)	Sept. 1, 1990	April 1, 2010
50)531			Building Removal-Case IV (No Asbestos)	Sept. 1, 1990	April 1, 2010
80)366			Butt Joints	July 1, 2016	
80)386			Calcium Aluminate Cement for Class PP-5 Concrete Patching	Nov. 1, 2017	NL 4 0040
^ 80	1396	400	V	Class A and B Patching	Jan. 1, 2018	NOV. 1, 2018
80	1384	168	X	Compensable Delay Costs	June 2, 2017	
80	198			Completion Date (via calendar days)	April 1, 2008	
80	199			Completion Date (via calendar days) Plus working Days	April 1, 2008	Luby 1 2016
00	1293			Concrete box Curverts with Skews > 30 Degrees and Design Fills ≤ 5	April 1, 2012	July 1, 2016
80	1311			Concrete End Sections for Pine Culverts	lan 1 2013	April 1 2016
80	077			Concrete Mix Design – Department Provided	Jan 1 2012	April 1, 2016
80)261	172	Х	Construction Air Quality – Diesel Retrofit	June 1 2010	Nov 1 2014
80)387		~	Contrast Preformed Plastic Pavement Marking	Nov 1 2017	1101. 1, 2011
80	029	175	Х	Disadvantaged Business Enterprise Participation	Sept. 1, 2000	April 2, 2018
* 80)402	186	X	Disposal Fees	Nov. 1, 2018	, p , _ o . o
80)378	188	Х	Dowel Bar Inserter	Jan. 1, 2017	Jan. 1, 2018
80)388	195	Х	Equipment Parking and Storage	Nov. 1, 2017	
80)229	196	Х	Fuel Cost Adjustment	April 1, 2009	Aug. 1, 2017
80)304			Grooving for Recessed Pavement Markings	Nov. 1, 2012	Nov. 1, 2017
80)246	199	Х	Hot-Mix Asphalt – Density Testing of Longitudinal Joints	Jan. 1, 2010	Aug. 1, 2018
80)398			Hot-Mix Asphalt – Longitudinal Joint Sealant	Aug. 1, 2018	
* 80)399	201	Х	Hot-Mix Asphalt – Oscillatory Roller	Aug. 1, 2018	Nov. 1, 2018
80)347			Hot-Mix Asphalt – Pay for Performance Using Percent Within Limits -	Nov. 1, 2014	Aug. 1, 2018
				Jobsite Sampling		
80)383			Hot-Mix Asphalt – Quality Control for Performance	April 1, 2017	Nov. 1, 2017
80)376	203	X	Hot-Mix Asphalt – Tack Coat	Nov. 1, 2016	
80)392	204	Х	Lights on Barricades	Jan. 1, 2018	
80)336	000	V	Longitudinal Joint and Crack Patching	April 1, 2014	April 1, 2016
80	1393	206	X	Mannoles, Valve Vaults, and Flat Slab Tops	Jan. 1, 2018	March 2, 2018
80	0400	208	~	Mast Arm Assembly and Pole	Aug. 1, 2018	Aug 1 2014
00	1040 1204			Matel Elered End Section for Dine Culverte	June 15, 1999	Aug. 1, 2014
80	1394			Moisture Cured Urothane Point System	Jan. 1, 2016	April 1, 2010
80	100			Pavement Marking Blackout Tane	Nov. 1, 2000	Jan. 1, 2010 Δpril 1, 2016
80	1371	209	x	Pavement Marking Blackout rape	luly 1 2016	April 1, 2010
80	390	210	X	Payments to Subcontractors	Nov 2 2017	
80)377	211	X	Portable Changeable Message Signs	Nov. 1 2016	April 1 2017
80)389	212	X	Portland Cement Concrete	Nov. 1, 2017	
80)359			Portland Cement Concrete Bridge Deck Curing	April 1, 2015	Nov. 1. 2017
					, , = = • •	-, =

<u>File</u> Name	<u>Pg.</u>		Special Provision Title	Effective	Revised
80401			Portland Cement Concrete Pavement Connector for Bridge Approach Slab	Aug. 1, 2018	
80385	213	Х	Portland Cement Concrete Sidewalk	Aug. 1, 2017	
80300			Preformed Plastic Pavement Marking Type D - Inlaid	April 1, 2012	April 1, 2016
80328	214	Х	Progress Payments	Nov. 2, 2013	
3426I			Railroad Protective Liability Insurance	Dec. 1, 1986	Jan. 1, 2006
80157			Railroad Protective Liability Insurance (5 and 10)	Jan. 1, 2006	
80306			Reclaimed Asphalt Pavement (RAP) and Reclaimed Asphalt Shingles (RAS)	Nov. 1, 2012	Jan. 1, 2018
80395			Sloped Metal End Section for Pipe Culverts	Jan. 1, 2018	
80340			Speed Display Trailer	April 2, 2014	Jan. 1, 2017
80127	215	Х	Steel Cost Adjustment	April 2, 2014	Aug. 1, 2017
80397	218	Х	Subcontractor and DBE Payment Reporting	April 2, 2018	
80391	219	Х	Subcontractor Mobilization Payments	Nov. 2, 2017	
80317			Surface Testing of Hot-Mix Asphalt Overlays	Jan. 1, 2013	April 1, 2016
80298	220	Х	Temporary Pavement Marking (NOTE: This special provision was previously named <i>"Pavement Marking Tape Type IV"</i> .)	April 1, 2012	April 1, 2017
20338	223	Х	Training Special Provision	Oct. 15, 1975	
* 80403			Traffic Barrier Terminal, Type 1 Special	Nov. 1, 2018	
80318			Traversable Pipe Grate for Concrete End Sections (Note: This special provision was previously named "Traversable Pipe Grate")	Jan. 1, 2013	Jan. 1, 2018
80288	226	Х	Warm Mix Asphalt	Jan 1 2012	April 1 2016
80302	228	X	Weekly DBF Trucking Reports	June 2 2012	April 2 2015
80071	220		Working Days	Jan. 1, 2002	, p 2, 2010

The following special provisions are in the 2018 Supplemental Specifications and Recurring Special Provisions.

<u>File</u> Name	Special Provision Title	New Location	Effective	<u>Revised</u>
80368	Light Tower	Article 1069.08	July 1, 2016	
80369	Mast Arm Assembly and Pole	Article 1077.03(a)(1)	July 1, 2016	
80338	Portland Cement Concrete Partial Depth Hot-Mix Asphalt Patching	Recurring CS #35	April 1, 2014	April 1, 2016
80379	Steel Plate Beam Guardrail	Articles 630.02, 630.05, 630.06, and 630.08	Jan. 1, 2017	
80381	Traffic Barrier Terminal, Type 1 Special	Article 631.04	Jan. 1, 2017	
80380	Tubular Markers	Articles 701.03, 701.15, 701.18, and 1106.02	Jan. 1, 2017	

GUIDE BRIDGE SPECIAL PROVISION INDEX/CHECK SHEET

Effective as of the: June 15, 2018 Letting

Pg		File Name	Title	Effective	Revised
#					
		GBSP 4	Polymer Modified Portland Cement Mortar	June 7, 1994	Apr 1, 2016
		GBSP 12	Drainage System	June 10, 1994	Jun 24, 2015
		GBSP 13	High-Load Multi-Rotational Bearings	Oct 13, 1988	Apr 1, 2016
		GBSP 14	Jack and Remove Existing Bearings	April 20, 1994	April 13, 2018
		GBSP 15	Three Sided Precast Concrete Structure	July 12, 1994	Dec 21, 2016
		GBSP 16	Jacking Existing Superstructure	Jan 11, 1993	April 13, 2018
		GBSP 17	Bonded Preformed Joint Seal	July 12, 1994	Jan 1, 2007
		GBSP 18	Modular Expansion Joint	May 19, 1994	Dec 29, 2014
		GBSP 21	Cleaning and Painting Contact Surface Areas of Existing Steel	June 30, 2003	April 13, 2018
			Structures		
		GBSP 25	Cleaning and Painting Existing Steel Structures	Oct 2, 2001	Apr 22, 2016
		GBSP 26	Containment and Disposal of Lead Paint Cleaning Residues	Oct 2, 2001	Apr 22, 2016
		GBSP 28	Deck Slab Repair	May 15, 1995	April 13, 2018
		GBSP 29	Bridge Deck Microsilica Concrete Overlay	May 15, 1995	Oct 20, 2017
		GBSP 30	Bridge Deck Latex Concrete Overlay	May 15, 1995	Oct 20, 2017
		GBSP 31	Bridge Deck High-Reactivity Metakaolin (HRM) Conc Overlay	Jan 21, 2000	Oct 20, 2017
		GBSP 33	Pedestrian Truss Superstructure	Jan 13, 1998	Dec 29, 2014
		GBSP 34	Concrete Wearing Surface	June 23, 1994	Oct 4, 2016
		GBSP 35	Silicone Bridge Joint Sealer	Aug 1, 1995	Oct 15, 2011
		GBSP 45	Bridge Deck Thin Polymer Overlay	May 7, 1997	Feb 6, 2013
229	Х	GBSP 51	Pipe Underdrain for Structures	May 17, 2000	Jan 22, 2010
		GBSP 53	Structural Repair of Concrete	Mar 15, 2006	Apr 1, 2016
		GBSP 55	Erection of Curved Steel Structures	June 1, 2007	
		GBSP 56	Setting Piles in Rock	Nov 14, 1996	Apr 1, 2016
		GBSP 59	Diamond Grinding and Surface Testing Bridge Sections	Dec 6, 2004	Mar 29, 2017
		GBSP 60	Containment and Disposal of Non-Lead Paint Cleaning	Nov 25, 2004	Apr 22, 2016
			Residues		
		GBSP 61	Slipform Parapet	June 1, 2007	Apr 22, 2016
		GBSP 67	Structural Assessment Reports for Contractor's Means and	Mar 6, 2009	Oct 5, 2015
			Methods		
		GBSP 71	Aggregate Column Ground Improvement	Jan 15, 2009	Oct 15, 2011
		GBSP 72	Bridge Deck Fly Ash or GGBF Slag Concrete Overlay	Jan 18, 2011	Oct 20, 2017
		GBSP 75	Bond Breaker for Prestressed Concrete Bulb-T Beams	April 19, 2012	
230	Х	GBSP 77	Weep Hole Drains for Abutments, Wingwalls, Retaining Walls	April 19, 2012	Oct 22, 2013
			And Culverts	_	_
		GBSP 78	Bridge Deck Construction	Oct 22, 2013	Dec 21, 2016
		GBSP 79	Bridge Deck Grooving (Longitudinal)	Dec 29, 2014	Mar 29, 2017
		GBSP 81	Membrane Waterproofing for Buried Structures	Oct 4, 2016	April 13, 2018
		GBSP 82	Metallizing of Structural Steel	Oct 4, 2016	Oct 20, 2017
		GBSP 83	Hot Dip Galvanizing for Structural Steel	Oct 4, 2016	Oct 20, 2017
	<u> </u>	GBSP 85	Micropiles	Apr 19, 1996	Oct 5, 2015
	<u> </u>	GBSP 86	Drilled Shafts	Oct 5, 2015	Oct 4, 2016
	<u> </u>	GBSP 87	Lightweight Cellular Concrete Fill	Nov 11, 2011	Apr 1, 2016
	<u> </u>	GBSP 88	Corrugated Structural Plate Structures	Apr 22, 2016	April 13, 2018
		GBSP 89	Pretormed Pavement Joint Seal	Oct 4, 2016	
	<u> </u>	GBSP 90	Three Sided Precast Concrete Structure (Special)	Dec 21, 2016	April 13, 2018
		GBSP 91	Crosshole Sonic Logging Testing of Drilled Shafts	Apr 20, 2016	
		GBSP 92	Thermal Integrity Profile Testing of Drilled Shafts	Apr 20, 2016	

<u>Pg</u> #	\checkmark	File Name	Title	Effective	Revised
<u></u>		GBSP 93	Preformed Bridge Joint Seal	Dec 21, 2016	April 13, 2018
		GBSP 94	Warranty for Cleaning and Painting Steel Structures	Mar 3, 2000	Nov 24, 2004
		GBSP 95	Bituminous Coated Aggregate Slopewall	April 13, 2018	

LIST ANY ADDITIONAL SPECIAL PROVISIONS BELOW

The following Guide Bridge Special Provisions have been incorporated into the 2016 Standard Specifications:

File	Title	Std Spec
Name		Location
GBSP32	Temporary Sheet Piling	522
GBSP38	Mechanically Stabilized Earth Retaining Walls	522
GBSP42	Drilled Soldier Pile Retaining Wall	522
GBSP43	Driven Soldier Pile Retaining Wall	522
GBSP44	Temporary Soil Retention System	522
GBSP46	Geotextile Retaining Walls	522
GBSP57	Temporary Mechanically Stabilized Earth Retaining Walls	522
GBSP62	Concrete Deck Beams	504
GBSP64	Segmental Concrete Block Wall	522
GBSP65	Precast Modular Retaining Wall	522
GBSP73	Cofferdams	2017 Supp
GBSP74	Permanent Steel Sheet Piling (LRFD)	522
GBSP76	Granular Backfill for Structures	2017 Supp
GBSP80	Fabric Reinforced Elastomeric	1028
GBSP84	Precast, Prestressed Concrete Beams	2017 Supp

The following Guide Bridge Special Provisions have been discontinued or have been superseded:

File	Title	Disposition:
Name		
GBSP70	Braced Excavation	Use TSRS per Sec 522
GBSP95	Bridge Deck Concrete Sealer	Use July 1, 2012 version for
		Repair projects only

STATE OF ILLINOIS

SPECIAL PROVISIONS

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction," adopted April 1, 2016, the latest edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways", and the "Manual of Test Procedures of Materials" in effect on the date of invitation of bids, and the "Supplemental Specifications and Recurring Special Provisions" indicated on the Check Sheet included here in which apply to and govern the construction of Longmeadow Parkway Roadway Corridor Construction Section C3, from and including IL Rte 25 to west of IL Rte 62, IDOT Contract 61F04, Section 18-00215-22-CH, Job No. C-91-189-18, and in case of conflict with any parts, or parts of said Specifications, the said Special Provisions shall take precedence and shall govern.

LOCATION OF PROJECT

The project is located near the intersection of Illinois Route 25 and Bolz Road in the Village of Carpentersville, Illinois in the County of Kane. The work involved includes 2,133.39 linear feet of improvements on Illinois Route 25, 147.46 linear feet of improvements on Bolz Road, and 1,332.10 linear feet of new corridor construction of Longmeadow Parkway, for a total net and gross length of 3,612.95 linear feet (0.68 miles).

DESCRIPTION OF PROJECT

The project consists of constructing a portion of Longmeadow Parkway on a new alignment, widening and reconstructing Illinois Route 25, including the intersection with Bolz Road. Proposed Longmeadow Parkway will consist of an urban section with two lanes in each direction separated by a variable width barrier/landscaped median, and auxiliary turn lanes for the intersection with Illinois Route 25 (Jointed PCC). Illinois Route 25 will be widened and reconstructed, to include auxiliary turn lanes for future access to Longmeadow Parkway (Jointed PCC). Bolz Road (HMA) will be reconstructed to tie into the improvements on Illinois 25.

A new storm sewer system will be provided along Longmeadow Parkway and Illinois Route 25.

Traffic signal improvements will include the construction of underground infrastructure, foundations, conduit, etc.

A soldier pile retaining wall will be constructed along the south side of Longmeadow Parkway, east of Illinois Route 25.

Additional work will include signing installation, pavement marking, extensive tree plantings, landscaping, as well as all incidental and collateral work as described in these special provisions and shown on the plans.

COOPERATION BY CONTRACTOR

The Contractor should take note of Article 105.08 of the "Standard Specifications". The Longmeadow Parkway Corridor Construction Project is broken into multiple sections and may require the Contractor on this section to work concurrently with adjacent Contractors.

- Section D (IDOT Contract 61D16) is immediately adjacent to the east project limits.
- Section C2 (IDOT Contract TBD) is immediately adjacent to the west project limits.

WORKING HOURS

This project is located within the Village of Carpentersville, IL. The Contractor is permitted to work on the project between the hours of 7:00am and 7:00pm, Monday through Friday, between 7:00am and 5:00pm on Saturday, and no work is allowed on Sundays. If the Contractor wishes to work outside of these hours, they must obtain written approval from both the Village of Carpentersville and the Engineer.

Village of Carpentersville Kevin Gray – Village Engineer 1075 Tamarak Drive Carpentersville, IL. 60110 224-293-1613

INTERIM COMPLETION DATE – ENVIRONMENTAL RESTRICTIONS

The Contractor shall take note that forested areas can be cleared only between the dates of **October 15th** and **March 14th** to avoid the active season for the Rusty Patched Bumble Bee. Due to the letting schedule of this Contract, tree removal work shall be scheduled to take place immediately following the Notice to Proceed, and completed prior to the March 14th deadline.

AVAILABLE 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) State Route (IL-25)
- ☑ Preliminary Site Investigation (PSI) Local Route (Longmeadow Parkway)
- ☑ Preliminary Environmental Site Assessment (PESA) State Route (IL-25)
- Preliminary Environmental Site Assessment (PESA) Local Route (Longmeadow Parkway)
- Soils/Geotechnical Report
- ⊠ Boring Logs
- Pavement Cores
- ☑ Location Drainage Study (LDS)
- ⊠ Hydraulic Report
- \boxtimes Noise Analysis
- ☑ Other: LPC-663 Analytical Report State Route (IL-25)
- ☑ Other: LPC-663 Analytical Report Local Route (Longmeadow Parkway)

Those seeking these reports should request access via email from:

Kane County Division of Transportation c/o Michael Zakosek, P.E. 41W011 Burlington Road St. Charles, Illinois 60175 Email: zakosekmike@co.kane.il.us Office:(630) 406-7346 Hours 7:30 AM to 4:30 PM (Monday-Friday)

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 **November 1st, 2019** except as specified herein.

The Contractor will be allowed to complete all clean-up work and punch list items within 10 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.

RESTRICTION ON WORKING DAYS AFTER A COMPLETION DATE

Effective: January 21, 2003 Revised: January 1, 2007

All temporary lane closures during the period governed by working days after a completion date will not be permitted during the hours of 6:00 a.m. to 8:30 a.m. and 4:30 p.m. to 6:00 p.m. Monday through Friday.

All lane closure signs shall not be erected any earlier than one-half (1/2) hour before the starting hours listed above. Also, these signs should be taken down within one-half (1/2) hour after the closure is removed.

<u>Failure to Open Traffic Lanes to Traffic</u>: Should the Contractor fail to completely open and keep open all the traffic lanes to traffic in accordance with the limitations specified above, the Contractor shall be liable and shall pay to the Department the amount of \$250 per lane blocked, not as a penalty but as liquidated and ascertained damages, for each and every 15 minute interval or a portion thereof that a lane is blocked outside the allowable time limitations. The Department may deduct such damages from any monies due the Contractor. These damages shall apply during the period governed by working days after a completion date and any extensions of that contract time.

STATUS OF UTILITIES (D-1)

Effective: June 1, 2016

Utility companies and/or municipal owners located within the construction limits of this project have provided the following information in regard to 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.

UTILTIES 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 in the action column; 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.

STAGE / LOCATION	ТҮРЕ	DESCRIPTION	RESPONSIBLE AGENCY	ACTION
607+97 Rt to 617+13 Rt	Buried F.O. and Telephone	Conflict with proposed improvements and temporary widening.	AT&T	Relocation between these two stations by AT&T. (12 days)
611+94 Rt	Handhole	Existing handhole in conflict with proposed temporary widening.	AT&T	Handhole to be removed and F.O. crossing IL-25 to be abandoned. (1 day)
611+54 Rt	Utility Pole and guy with aerial electric (12KV).	Existing utility pole with guy wire and aerial electric in conflict with proposed improvements and temporary ditch.	ComEd	To be relocated by ComEd. (3 days)

Stage 1

611+37 Lt	Existing 2 PE	Needs to be tapped and extended across IL-25, and south to Cherokee.	Nicor	To be installed by Nicor. Portion of existing 2" along IL- 25 north of Cherokee to be abandoned. (9 days)

Stage 2A

STAGE / LOCATION	ТҮРЕ	DESCRIPTION	RESPONSIBLE AGENCY	ACTION
613+15 Lt	Utility Pole with aerial electric (34/12KV)	Existing utility pole in conflict with proposed island.	ComEd	To be relocated by ComEd. (5 days)
614+98 Lt	Utility Pole with aerial electric (34/12KV)	Existing utility pole in conflict with proposed improvements.	ComEd	To be relocated by ComEd (5 days)
616+91 Lt	Utility Pole with aerial electric (34/12KV)	Existing utility pole in conflict with proposed improvements.	ComEd	To be relocated by ComEd (5 days)
618+01 Lt	Utility Pole with aerial electric (34/12KV)	Existing utility pole in conflict with proposed improvements.	ComEd	To be relocated by ComEd (5 days)
611+99 Lt	Handhole	Existing handhole in conflict with proposed temporary widening.	AT&T	To be removed and F.O. crossing IL-25 to be abandoned. (1 day)
613+15 Lt	Utility Pole with aerial facility.	Existing utility pole in conflict with proposed island.	Comcast	Joint Pole to be relocated by ComEd. Comcast to transfer facility. (2 days)
614+98 Lt	Utility Pole with aerial facility.	Existing utility pole in conflict with proposed improvements.	Comcast	Joint Pole to be relocated by ComEd. Comcast to transfer facility. (2 days)

Longmeadow Parkway Roadway Corridor Construction - Section C3 Kane County Section No. 18-00215-22-CH

616+91 Lt	Utility Pole with aerial facility.	Existing utility pole in conflict with proposed improvements.	Comcast	Joint Pole to be relocated by ComEd. Comcast to transfer facility. (2 days)
618+01 Lt	Utility Pole with aerial facility.	Existing utility pole in conflict with proposed improvements.	Comcast	Joint Pole to be relocated by ComEd. Comcast to transfer facility. (2 days)
611+90 to 618+10	4" Gas	Existing 4" gas in conflict with proposed improvements.	Nicor	To be relocated by Nicor. (16 days)

Stage 1: 25 Days Total Installation Stage 2A: 45 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	Name of	Address	Phone	e-mail address
Responsible to	contact			
Resolve Conflict				
Comcast	Martha Gieras	688 Industrial Dr. Elmhurst, IL. 60126	224-229-5862	Martha_Gieras@cable.comcast .com
ComEd	Adam Sadkowski	2 Lincoln Center Oakbrook Terrace, IL. 60181	630-985-4043	Adam.sadkowski@ComEd.com
NICOR	Bruce Koppang	1844 Ferry Road Naperville, IL. 60563	630-388-3046	BKoppan@southernco.com
AT&T	Hector Garcia	1000 Commerce Dr. Oak Brook, IL. 60523	630-573-5465	Hg2929@att.com

Village of Kevin Gra Carpentersville	y 1075 Tamarak Dr Carpentersvil le, IL. 60110	224-293-1613	kgray@cville.org
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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 owners part can be secured.

All Stages

STAGE / LOCATION	ТҮРЕ	DESCRIPTION	OWNER	ACTION
All	Existing 8" Watermain and associated Valve Vaults and Valve Boxes.	When the Contractor engages in work with existing watermain facilities and associated structures/valves, contact the Village of Carpentersville.	Village of Carpentersville.	Contact the Village of Carpentersville.

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

Agency/Company	Name o	of	Address	Phone	e-mail address
Responsible to	contact				
Resolve Conflict					
Comcast	Martha Gieras		688 Industrial Dr. Elmhurst, IL. 60126	224-229-5862	Martha_Gieras@cable.comcast .com

ComEd	Adam Sadkowski	2 Lincoln Center Oakbrook Terrace, IL. 60181	630-985-4043	Adam.sadkowski@ComEd.com
NICOR	Bruce Koppang	1844 Ferry Road Naperville, IL. 60563	630-388-3046	BKoppan@southernco.com
AT&T	Hector Garcia	1000 Commerce Dr. Oak Brook, IL. 60523	630-573-5465	Hg2929@att.com
Village of Carpentersville	Kevin Gray	1075 Tamarak Dr Carpentersvill e, IL. 60110	224-293-1613	kgray@cville.org

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 taken into account 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 in the action column 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 dates 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. The Department's contractor is responsible for contacting J.U.L.I.E. prior to any and all excavation work.

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.

KEEPING ARTERIAL ROADWAYS OPEN TO TRAFFIC (LANE CLOSURES ONLY)

Effective: January 22, 2003 Revised: August 10, 2017

The Contractor shall provide the necessary traffic control devices to warn the public and to delineate the work zone as required in these Special Provisions, the Standard Specifications, the State Standards, and the District Details.

Arterial lane closures shall be in accordance with the Standard Specifications, Highway Standards, District Details, and the direction of the Engineer. The Contractor shall request and

gain approval from the Engineer seventy-two (72) hours in advance of all long-term (24 hrs. or longer) lane closures.

Arterial lane closures not shown in the staging plans will not be permitted during peak traffic volume hours.

Peak traffic volume hours are defined as weekdays (Monday through Friday) from

6:00 AM to 8:30 AM and 4:30 PM to 6:00 PM.

Private vehicles shall not be parked in the work zone. Contractor's equipment and/or vehicles shall not be parked on the shoulders or in the median during non-working hours. The parking of equipment and/or vehicles on State right-of-way will only be permitted at locations approved by the Engineer in accordance with Articles 701.08 and 701.11 of the Standard Specifications.

Should the Contractor fail to completely open and keep open all the traffic lanes to traffic in accordance with the limitations specified above, the Contractor shall be liable to the Department for the amount of:

One lane or ramp blocked = **\$1000.00**

Two lanes blocked = **\$2500.00**

Not as a penalty but as liquidated and ascertained damages for each and every 15 minute interval or a portion thereof that a lane is blocked outside the allowable time limitations. Such damages may be deducted by the Department from any monies due the Contractor. These damages shall apply during the contract time and during any extensions of the contract time.

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.

<u>Method of Measurement:</u> 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.

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

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-RD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
701011-04	OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701101-05	OFF-RD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT
	EDGE
701106-02	OFF-RD OPERATIONS, MULTILANE, MORE THAN 15' AWAY
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-03	LANE CLOSURE 2L, 2W MOVING OPERATIONS - DAY ONLY
701426-09	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER.,
	FOR SPEEDS \geq 45 MPH
701501-06	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701601-09	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH
	NONTRAVERSABLE MEDIAN
701602-09	URBAN LANE CLOSURE, MULTILANE, 2W WITH BIDIRECTIONAL
	LEFT TURN LANE
701701-10	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701901-07	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
782006	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING
	DETAILS

DETAILS:

- TC10 Traffic control protection for sideroads, intersections, and driveways
- TC13 District One typical pavement markings
- TC14 Traffic control and protection at turn bays (to remain open to traffic)
- TC16 Short term pavement marking letters and symbols
- TC22 Arterial road information sign
- TC26 Driveway entrance signing

SPECIAL PROVISIONS:

- **BDE Special Provisions**
- BDE 80388 Equipment Parking and Storage
- BDE 80392 Lights on Barricades
- BDE 80371 Pavement Marking Removal
- BDE 80377 Portable Changeable Message Signs
- BDE 80298 Temporary Pavement Marking

IDOT Special Provisions

Keeping Arterial Roadways Open to Traffic (Lane Closures Only) Traffic Control and Protection (Arterials) Temporary Information Signing Public Convenience and Safety Maintenance of Roadways Temporary Pavement Cooperation by Contractor

25200200 SUPPLEMENTAL WATERING

Description: This work will include watering turf, trees, shrubs, vines and perennial plants 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 and will continue through the construction year growing season as directed by the Engineer.

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 24 hours of notice. A minimum of 10 units of water per day must be applied until the work is complete.

Damage to plant material that is a result of the Contractor's failure to water in a timely way must be repaired or replaced at the Contractor's expense.

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.

Trees:	35 gallons per tree
Seeding, Class 2A	10 gallons per sq yd
All other seed areas	3 gallons per sq yd

Method of Application: A spray nozzle that does not damage small plants must be used when watering perennial plants or turf. 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 vines if mulch and soil are not displaced by watering. Water shall trickle slowly 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.

SECTION 253 PLANTING WOODY PLANTS

Revise Section 253 of the Standard Specifications as follows:

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

"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. The Engineer will contact the Roadside Development Unit at (847) 705-4171 to approve the layout prior to installation. Allow a minimum of seven working (7) days prior to installation for approval."

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

"The Contractor is responsible for plant care until receipt of the "Final Acceptance of Landscape Work" memorandum from the Bureau of Maintenance. The Contractor shall properly care for all plants including weeding, watering, adjusting of braces, repair of water saucers, or other work which is necessary to maintain the health, vigor, and satisfactory appearance of the plantings. 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 the following:

"During plant care watering shall be performed at least every two weeks beginning in May until receipt of the "Final Acceptance of Landscape Work" memorandum from the Bureau of Maintenance. The contractor shall apply a minimum of 35 gallons of water per tree, 25 gallons per large shrub, and 15 gallons per small shrub. The Engineer may direct the Contractor to adjust the watering rate and frequency depending upon weather conditions."

Revise Basis of Payment as follows:

"Basis of Payment: This work shall be paid for at the contract unit price per each for TREES (PER INDIVIDUAL PLANT CODE PAY ITEM) and no additional compensation will be allowed. Refer to material list on planting plans for individual tree and shrub species.

50300285 FORM LINER TEXTURED SURFACE

Description: This work shall consist of the construction of form liner textured surfaces on designated surfaces in the contract plans. The same style of form liner shall be used on all surfaces to receive form liner textured surface within the project limits.

Materials: The materials shall be according to Article 503.02 of the "Standard Specifications" and the following:

Form liners shall duplicate closely the appearance of natural stone masonry and be nonrepeating. Seam lines or match lines caused from two or more molds coming together will not be apparent when viewing final wall.

The molds shall not compress more than $\frac{1}{4}$ inch when concrete is poured at a rate of 10 vertical feet per hour. The molds shall be removable without causing deterioration of surface or underlying concrete.

Form liners shall be high quality, highly reusable, and capable of withstanding anticipated concrete pour pressures without causing leakage or causing physical defects. Form liners shall attach easily to pour-in-place forms and be removable without causing concrete surface damage or weakness in the substrate. Form release agents shall be non-staining, non-residual, non-reactive and shall not contribute to the degradation of the form liner material.

The forms shall be constructed so that the completed concrete structures conform to the shape, lines and dimensions of the members of the approved pattern. The forms shall be properly braced or tied together to maintain position and shape. The forms shall be made sufficiently tight to prevent leakage of the mortar. The formwork shall have the strength and stability to ensure finished concrete dimensions within the tolerances specified herein.

The following form liner suppliers and patterns have been pre-approved for Form Liner Textured Surface:

Manufacturer	Pattern Number	Pattern Name
Sika Greenstreak Inc. 3400 Tree Court Industrial Blvd. St. Louis, Missouri 63122-6614 (800)325-9504 usa.sika.com	Pattern Number 477	Meramec Drystack Stone

Pre-approval of the form liner does not include material acceptance at the job site.

The form ties shall be made of either metal or fiberglass. Metal ties, which result in a portion of the tie permanently embedded in the concrete, shall be designed to separate at least one inch back from finished surface, leaving only a neat hole that can be plugged with patching material. Contractor shall submit the type of form ties to the Engineer for approval prior to use in this work.

Concrete used for the cast-in-place concrete designated to receive form liner textured surfaces shall contain a high range water-reducing admixture according to Article 1021.03(c) of the "Standard Specifications" to obtain a 5" to 7" slump.

Submittals: Upon approval of the form liner plans and installation procedure in accordance with Article 503.06(a), the Contractor shall submit three 6' by 6' (minimum) mock-up cast concrete panels of the simulated stone masonry finish of the Form Liner Textured Surface for approval by the Engineer. Include an area to demonstrate wall mold butt joint. The mock-up panels shall also include the concrete staining and anti-graffiti coating as indicated in the Special Provision for STAINING CONRETE STRUCTURES and ANTI- GRAFFITI PROTECTION SYSTEM.

The sample panels shall be delivered and positioned on the job site at a location to be determined by the Engineer. The approved form liners shall be used throughout the project to replicate natural stone surfaces unless otherwise noted in the plans. The approved mock-ups shall be the standard for replicated natural stone surfaces where required throughout the project.

Construction Requirements: The work shall be performed according to the applicable portions of Article 503.06 of the "Standard Specifications" with emphasis on Article 503.06(a), except as modified herein, and the following:

The form liners shall be installed according to the manufacturers' recommendations to achieve the highest quality concrete appearance possible. The form liners shall withstand the concrete placement pressures without leakage, physical or visual defects.

The Contractor shall clean the form liners, removing any buildup prior to each use. The Contractor shall inspect each form for blemishes or tears and make repairs as needed following manufacturer's recommendations.

The Contractor shall install the form liners with less than ¹/₄ inch separation between them. The molds shall be attached securely to the forms following manufacturer's recommendations. The form liner panels shall be attached to each other with flush seams and seams filled as necessary to eliminate visible evidence of seams in the cast concrete.

The liner butt joints shall be blended into the pattern so as to eliminate visible vertical or horizontal seams and conspicuous form butt joint marks. The liner joints shall fall within pattern joints or reveals. The finished textures shall be continuous without visual disruption and properly aligned over adjacent and multiple liner panels. Continuous or single liner panels shall be used where liner joints may interrupt the intended pattern. Panel remnants shall not be pieced together.

The Contractor shall notify the Engineer at least 48 hours prior to placing concrete. Concrete shall not be placed until the Engineer has inspected the formwork and the placement of reinforcing bars for compliance with the plans.

The Contractor shall apply the form release agent to all surfaces of the form liner which will come in contact with concrete, according to the manufacturer's recommendations.

The Contractor shall employ proper consolidation methods to ensure the highest quality finish. Internal vibration shall be achieved with a vibrator of appropriate size, the highest frequency and low to moderate amplitude. Concrete placement shall be in lifts not to exceed 1.5 feet. Internal vibrator operation shall be at appropriate intervals and depths and withdrawn slowly enough to assure a minimal amount of surface air voids and the best possible finish without causing segregation. An external form vibrator may be required to assure the proper results. The use of an external form vibrator must be approved by the form liner manufacturer and the Department. The Contractor shall coordinate concrete pours to prevent visible differences between individual pours or batches. Concrete pours shall be continuous between construction or expansion joints. Cold joints shall not occur within continuous form liner pattern fields.

The form liners shall be stripped between 12 and 24 hours as recommended by the manufacturer. When stripping the forms, the Contractor shall avoid creating defects in finished surface.

Wall ties shall be coordinated with the liner and form to achieve the least visible result. Place form ties at thinnest points of molds (high points of finished wall). Neatly patch the remaining hole after disengaging the protruding portion of the tie so that it will not be visible after coloring the concrete surface.

Where an expansion joint must occur at a point other than rustication joints, such as at the face of concrete texture, which is to have the appearance of stone, consult manufacturer for proper treatment of expansion material.

Curing methods shall be according to Article 1020.13 of the "Standard Specifications" and compatible with the desired aesthetic result. The use of curing compounds will not be allowed. No rubbing of flat areas or other repairs should be required after form removal. The finished exposed formed concrete surfaces shall be free of visible vertical seams, horizontal seams, and butt joint marks. Grinding and chipping of finished formed surfaces shall be avoided.

Releasing Form Liners: Products and application procedures for form liner release agents shall be approved by the form liner manufacturer. Release agents shall not cause swelling of the form liner material or delamination of the form liner. Release agents shall not stain the concrete or react with the form liner material. Release agent shall coat form liner with a thin film. Following application of release agent, the form liner surface shall be cleaned of excess amounts of release agent using compressed air. Buildup of release agent caused by reuse of a form liner shall be removed at least every 5 uses.

Form liners shall release without leaving particles or pieces of form liner material on concrete and without pulling or breaking concrete from the textured surface. The concrete and textured surfaces exposed by removing form liners shall be protected from damage. Form stripping and related construction shall avoid creating defects in the concrete.

All concrete shall be cured in conformance with the "Standard Specifications" except that curing compounds will not be allowed.

Method of Measurement: This work will be measured for payment in place and the area computed in square feet. Measurement will include all costs associated with providing the aesthetic treatment on the walls including the furnishing, installing, stripping and reusing the form liner and providing the required submittals.

Cast concrete form liner mock-ups with finished stained and anti-graffiti coated surfaces will not be measured for payment but will be included in the square foot price for this item. Required adjustments or corrections needed to address mock-up form liner comments and the cost for additional mock-ups, if required, will also be included in the square foot price for this item.

Basic of Payment: The work will be paid for at the contract unit price per square foot for FORM LINER TEXTURED SURFACE.

60108204 PIPE UNDERDRAINS, TYPE 2, 4"

Description: This work shall consist of constructing pipe underdrains of the type and size specified at the locations shown on the plans. This work shall be performed according to the applicable portions of Section 601 of the "Standard Specifications", IDOT Standard 601001-05, and as specified herein.

601.04 Pipe Drain Installation. Add the following to this Article.

"The top of pipe underdrains shall be placed a minimum of 6" below the Aggregate Subgrade Improvement layer.

Method of Measurement: This work will be measured for payment according to Article 601.07 of the "Standard Specifications".

Basis of Payment: This work will be paid for according to Article 601.08 of the "Standard Specifications". The cost of making pipe underdrain connections to drainage structures and pipes shall not be paid for separately but shall be included in the cost of the pipe underdrain.

SECTION 669 REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES

This work shall be according to Article 669 of the Standard Specifications and the following:

<u>Qualifications.</u> The term environmental firm shall mean an environmental firm with at least five (5) documented leaking underground storage tank (LUST) cleanups or that is pre-qualified in hazardous waste by the Department. Documentation includes but not limited to verifying remediation and special waste operations for sites contaminated with gasoline, diesel, or waste oil in accordance with all Federal, State, or local regulatory requirements and shall be provided to the Engineer for approval. The environmental firm selected shall not be a former or current consultant or have any ties with any of the properties contained within and/or adjacent to this construction project.

<u>General.</u> This Special Provision will likely require the Contractor to subcontract for the execution of certain activities.

All contaminated materials shall be managed as either "uncontaminated soil" or non-special waste. <u>This work shall include monitoring and potential sampling, analytical testing, and management of a material contaminated by regulated substances.</u> The Environmental Firm shall continuously monitor all soil excavation for worker protection and soil contamination. <u>Phase I Preliminary Engineering information is available through the District's Environmental Studies Unit or Kane County Division of Transportation</u>. Soil samples or analysis without the approval of the Engineer will be at no additional cost to the Department. The lateral distance is measured from centerline and the farthest distance is the offset distance or construction limit whichever is less.

The Contractor shall manage any excavated soils and sediment within the following areas:

Site 1586V/B-24 (Residential Land No. 6)

- Station 605+20 to Station 606+90 (CL Illinois Route 25), 0 to 60 feet LT (Residences, PESA Site 1586V/B-24, 49-81 Alameda Drive, Carpentersville). This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)pyrene, Benzo(b)fluoranthene, Dibenzo(a,h)anthracene, and Manganese.
- Station 606+90 to Station 610+00 (CL Illinois Route 25), 0 to 60 feet LT (Residences, PESA Site 1586V/B-24, 49-81 Alameda Drive, Carpentersville). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)pyrene and Manganese.
- Station 610+00 to Station 611+00 (CL Illinois Route 25), 0 to 65 feet LT (Residences, PESA Site 1586V/B-24, 49-81 Alameda Drive, Carpentersville). This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)pyrene.
- Station 611+00 to Station 611+60 (CL Illinois Route 25), 0 to 65 feet LT (Residences, PESA Site 1586V/B-24, 49-81 Alameda Drive, Carpentersville). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)pyrene.

Site 1586V/B-23 (Residential Land No. 5)

• Station 605+20 to Station 606+90 (CL Illinois Route 25), 0 to 65 feet RT (Residences, PESA Site 1586V/B-23, 2011-2013 Cherokee Court, Carpentersville). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)pyrene, and Manganese.

Site 1586V/B-21 (Residential Land No. 4)

• Station 606+90 to Station 608+40 (CL Illinois Route 25), 0 to 80 feet RT (Residences, PESA Site 1586V/B-21, 2017-2023 Cherokee Road, Carpentersville). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)pyrene, and Dibenzo(a,h)anthracene.

Site 1586V/B-20 (Residential Land No. 3)

• Station 608+40 to Station 609+60 (CL Illinois Route 25), 0 to 80 feet RT (Residences, PESA Site 1586V/B-20, 2020-2026 Cherokee Road, Carpentersville). This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Dibenzo(a,h)anthracene, Indeno(1,2,3-cd)pyrene, and Manganese.

Site 1586V/B-18 (Skeeters Saloon)

• Station 609+60 to Station 609+90 (CL Illinois Route 25), 0 to 75 feet RT (Skeeters Saloon, PESA Site 1586V/B-18, 1691 J.F. Kennedy Drive, Carpentersville). This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, and Manganese.

Site 1586V/B-17 (Commercial Building)

Station 609+90 to Station 611+60 (CL Illinois Route 25), 0 to 55 feet RT (Commercial Building, PESA Site 1586V/B-17, 1695 J.F. Kennedy Drive, Carpentersville). This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Indeno(1,2,3-cd)pyrene, and Manganese.

Site 1586V/B-16 (Vacant Land No. 4)

- Station 611+60 to Station 613+05 (CL Illinois Route 25), 0 to 70 feet LT (Vacant Land, PESA Site 1586V/B-16, 1700-1800 blocks of J.F. Kennedy Drive, Carpentersville). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)pyrene.
- Station 614+55 to Station 618+90 (CL Illinois Route 25), 0 to 80 feet LT (Vacant Land, PESA Site 1586V/B-16, 1700-1800 blocks of J.F. Kennedy Drive, Carpentersville). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)pyrene, and Manganese.
- Station 618+90 to Station 620+95 (CL Illinois Route 25), 0 to 70 feet LT (Vacant Land, PESA Site 1586V/B-16, 1700-1800 blocks of J.F. Kennedy Drive, Carpentersville). This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)pyrene, Benzo(b)fluoranthene, and Manganese.
- Station 620+95 to Station 623+30 (CL Illinois Route 25), 0 to 70 feet LT (Vacant Land, PESA Site 1586V/B-16, 1700-1800 blocks of J.F. Kennedy Drive, Carpentersville). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)pyrene.

Site 1586V/B-15 (Vacant Land No. 3)

• Station 611+60 to Station 611+90 (CL Illinois Route 25), 0 to 55 feet RT (Vacant Land, PESA Site 1586V/B-15, 1700-1800 blocks of J.F. Kennedy Drive, Carpentersville). This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)pyrene, and Benzo(b)fluoranthene.

- Station 611+90 to Station 614+00 (CL Illinois Route 25), 0 to 70 feet RT (Vacant Land, PESA Site 1586V/B-15, 1700-1800 blocks of J.F. Kennedy Drive, Carpentersville). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)pyrene, Lead, and Manganese.
- Station 617+10 to Station 618+00 (CL Illinois Route 25), 0 to 55 feet RT (Vacant Land, PESA Site 1586V/B-15, 1700-1800 blocks of J.F. Kennedy Drive, Carpentersville). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Arsenic.

Exclusion zone from proposed Longmeadow Parkway Station 2274+50 to 2277+00

• Station 2274+50 to Station 2277+00 (entire Longmeadow Parkway right-of-way), 3 to 4 foot depth. This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Arsenic.

67201000 SEALING ABANDONED WATER WELLS

Description: This work shall consist of sealing abandoned water wells and removing and disposing of associated structures in which the well and appurtenances are contained as well as any concrete foundations associated with the structure.

General Requirements: Work shall be performed according to the "Illinois Water Well Construction Code" (77 Illinois Administrative Code 920) and well abandonment shall be performed by a licensed water well driller. The well driller shall apply for a permit to seal a water well from the Kane County Health Department prior to commencing work and submit the completed permit once abandonment is complete.

Construction Requirements: Contractor shall verify well type, diameter, depth, and if any well obstructions exist prior to abandonment. Contractor to disinfect well and provide a water tight seal (neat cement grout or any bentonite product manufactured for water well sealing) from the bottom of the well to within 2' of proposed grade. Contractor shall cut and cap (welded metal cap or threaded cap) the existing well at a depth of 2' below proposed grade and backfill with native soil and topsoil. All buried abandoned well utilities (including electrical and water) shall be removed at no additional cost.

Method of Measurement: This work shall be measured for payment per each for the abandoned wells including removal of all buried accessory utilities and the structure in which the well is housed, and the securement of necessary permits as described herein.

Basis of Payment: This work shall be paid for at the contract unit price per each for SEALING ABANDONED WATER WELLS.

85000205 MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION (SPECIAL)

Description: This work shall consist of the monitoring and maintenance of existing or newly-constructed traffic signal infrastructure and appurtenances.

Prior to the transfer of maintenance of the site and following the construction of traffic signal equipment defined in this Contract, the Contractor shall propose a means to protect, bury or secure from damage all exposed permanent traffic signal elements so defined by the Engineer, including but not limited to all exposed bolts, foundations, and ends of conduit. Means of protection shall be approved by the Engineer in advance of installation.

Once installed, Contractor shall be responsible for the condition of the means of protection, as well as the protected elements, until the transfer of maintenance to the Owner or another party as directed by the Engineer.

Basis of Payment: All work defined or referenced above, including all materials and labor required, will be paid for at the contract unit price per each for MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION (SPECIAL). Payment shall be made in equal parts, the first upon the installation of means of protection and the second upon transfer of maintenance.

89501510 RELOCATE EXISTING FLASHING BEACON

Description: This work shall consist of the removal and relocation of existing flashing beacons attached to existing sign posts.

Construction Requirements: The existing flashing beacon, conduits and all associated appurtenances shall be relocated along with the signs and sign post. The flashing beacon, along with the signs may be temporarily mounted during construction staging until the signs, post, and flashing beacon can be installed in its final proposed location. The Contractor may need to extend existing conduits and/or wiring to facilitate the relocation of the existing flashing beacon. Removal of existing concrete foundations and placement of a new concrete foundation for the final placement of the sign post in which the flashing beacon is attached shall be included in this work.

Method of Measurement: This work will be measured for payment per each flashing beacon relocated. Relocation during staging shall not be measured separately, only relocation to the final proposed location.

Basis of Payment: This work will be paid for at the contract unit price per each for RELOCATE EXISTING FLASHING BEACON.
X0321865 ANTI-GRAFFITI PROTECTION SYSTEM

Description: This work shall consist of the furnishing and application of an anti-graffiti coating to exposed concrete surfaces designated on the plans.

General Requirements: The following anti-graffiti coating manufactures have been preapproved to provide the anti- graffiti coating system:

Monopole Incorporated 4661 Alger Street Los Angeles, CA 90039 (815) 500-8585 Product: Permashield Premium Graffiti Control System Item 5600/5650

Product features shall include: Zero VOC, 10 year unlimited warranty for graffiti removals, binary prime coat, non-yellowing, non-chalking and breathable.

The anti-graffiti coating shall consist of a permanent, color stable, UV, stain, chemical and abrasion resistant coating. The removal of graffiti from the protected surfaces shall be accomplished by applying a separate removal agent as recommended by the manufacturer of the permanent coating. The removal agent shall have the capability of completely removing all types of paints and stains. After graffiti removal there shall be no damage to the anti-graffiti coating or the surface to which it is applied. Additionally, there shall be no evidence of ghosting, shadowing, or staining of the protected surface.

Qualifications: The anti-graffiti coating shall be a product that has been commercially available for a period of at least five (5) years. Contractor shall apply the material to a test patch following the manufacturer's recommendation. After the manufacturer's recommended curing period, the Engineer will apply various types of graffiti materials to the coating. After three (3) days the removal agent shall be used to remove the graffiti. If after graffiti removal the anti-graffiti coating is clean and undamaged, with no evidence of ghosting, shadowing or staining, then the anti-graffiti coating is approved for use.

Surface Preparation: Prior to application of the anti-graffiti coating, all designated surfaces shall be cleaned of loose debris, previous coatings (except staining) and all foreign matter by a method as recommended by the coating manufacturer and approved by the Engineer. All surfaces shall be thoroughly clean, dry and free of dust that might prevent penetration of the coating. New concrete should be thoroughly cured before application of the coating. Glossy, glazed and slick troweled surfaces of unstained concrete should be lightly etched or abraded before application of the coating. Concrete surfaces shall be properly sealed according to the manufacturer's recommendations, so the application of the system does not produce any noticeable long-term change in color of the surfaces being treated. A technical representative of the manufacturer shall be present to approve surface preparation and application of the anti-graffiti coating.

Weather Conditions: Coatings shall not be applied in the rain, snow, fog or mist, nor shall they be applied if these conditions are expected within twelve (12) hours of application. Coatings shall not be applied when the surface or air temperatures are less than 40° F nor greater than 100° F, or is expected to exceed these temperatures within twelve (12) hours of application.

Application: The manufacturer's product data sheets and application guides shall be submitted to the Engineer prior to coating application. All information contained in the data sheets and application guides shall be strictly followed. All coatings shall be applied in the presence of the Engineer. Film thickness shall be measured by the Contractor in the presence of the Engineer and shall be according to the manufacturer's recommendation. Application of the clear protective coating shall take place after the application and curing of the concrete staining as appropriate for the surface to be treated (see the special provision for STAINING CONCRETE STRUCTURES).

In a contrasting color of the same anti-graffiti system, the name of the system used and the date of application shall be stenciled in letters not to exceed 2 inches high. The location of the stencil shall be near one end of the work at the bottom of the surface to be protected. For projects greater than 3,000 sq. ft. the stencil shall be periodically repeated once for every 3,000 sq. ft. near the bottom at the locations designated by the Engineer.

Cleaning Agent: The Contractor shall supply the Engineer with an initial quantity of the removal agent and written instructions for its use, as recommended by the manufacturer for graffiti removal. The amount shall be furnished at a rate of one (1) gallon per 81 sq. yd. of treated surface.

Method of Measurement: This work will be measured in place per square foot of surface area upon which the anti-graffiti coating has been applied and accepted by the Engineer. No surface area will be measured for payment for areas below final grade. Applying anti-graffiti coating to mock-up will not be measured for payment.

Basis of Payment: This Work will be paid for at the contract unit price per square foot for ANTI-GRAFFITI COATING which shall be payment in full for the cleaning of designated surfaces, the application of the anti-graffiti coating, supplying the manufacturer's technical representative and supplying the initial quantity of cleaning agent.

X0322917 PROPOSED STORM SEWER CONNECTION TO EXISTING MANHOLE

Description: This work shall consist of providing a connection to an existing manhole on the plans. This pay item shall include providing all time, labor, and materials to make the proposed connection. All time, labor, excavation, materials, necessary to complete the operation are considered included in this pay item.

For purposes of this contract, all connections will be paid for at the same unit cost regardless of size of sewer pipe to be connected.

Method of Measurement/Basis of Payment: This work shall be paid for at the contract unit price per EACH for PROPOSED STORM SEWER CONNECTION TO EXISTING MANHOLE made.

X0324993 SEPARATION JOINT WITH SLEEPER SLAB

Description: This work shall consist of constructing a Separation Joint and a PCC Sleeper Slab at the locations shown on the plans or as directed by the Engineer. This work shall be performed in accordance with **Section 420** of the "Standard Specifications" insofar as applicable, the details in the plans, and the following provisions:

Construction Requirements: The joint filler shall consist of a sheet of ¹/₂" (13mm) bituminous preformed fiber joint filler conforming to Article 1051.03 of the "Standard Specifications".

The joint shall be sealed with a hot pour joint sealer conforming to Article 1050.02 of the "Standard Specifications".

A single layer of felt roofing paper shall serve as a bond breaker.

The joint shall continue through the combination concrete curb and gutter as detailed in the plans.

The 4" Granular Subbase Type B shall be compacted according to Art. 311.06(b) and shall be compacted to 95% Standard Proctor Density per ASTM D968. The ground beneath the granular subbase shall be undisturbed. If existing ground conditions exist such that they are not suitable for construction of the subbase and PCC sleeper slab, the material shall be removed and replaced with approved backfill material until desired results are obtained as determined by the Engineer.

Reinforcement Bars shall meet the requirements of Art. 1006.10. All reinforcement bars shall be epoxy coated.

Method of Measurement: This work shall be measured for payment in feet along the center of the sleeper slab from end to end. Joint filler, joint sealer, bond breaker, granular subbase, excavation, and reinforcement bars shall not be measured separately, but shall be included in the item Separation Joint With Sleeper Slab. Undercuts required below the proposed granular subbase shall be measured in place as Removal and Disposal of Unsuitable Material and the undercut backfill shall be measured in place as Aggregate Subgrade Improvement.

Basis of Payment: This work shall be paid for at the contract unit price per foot for SEPARATION JOINT WITH SLEEPER SLAB.

Undercuts shall be paid for at the contract unit price per cu yd for REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL and AGGREGATE SUBGRADE IMPROVEMENT.

X0325349 TEMPORARY CONCRETE BARRIER (TO REMAIN PERMANENTLY)

Description: This work shall consist of furnishing, placing, and maintaining precast concrete barrier that will remain in place at the end of this Contract. The general intent of this barrier is to be placed at the road closure on the west and east returns of Longmeadow Parkway at Illinois Route 25. Placement shall be according to the plans and as approved by the Engineer.

Materials: Materials shall be according to Article 704.02 of the "Standard Specifications".

Construction Requirements: Work shall be performed according to Article(s) 704.03 and 704.04, except that the last paragraph of Article 704.04 shall not apply.

Temporary concrete barrier shall not be pinned to completed pavement. Upon completion of the Contract, the temporary concrete barrier will become property of Kane County.

Method of Measurement: This work will be measured for payment in feet in place along the centerline of the barrier.

Basis of Payment: This work will be paid for at the contract unit price per foot for TEMPORARY CONCRETE BARRIER (TO REMAIN PERMANENTLY). *The unit price shall include furnishing, placing, maintaining and subsequently leaving the barrier in place at the end of the Contract.*

X2501100SEEDING, CLASS 3 (SPECIAL)X2501750SEEDING, CLASS 4 (SPECIAL)

Description: This work shall consist of Seeding of Class 3 (Special), 4 (Special) and 4B (Special) in areas as shown on the plans or a directed by the Engineer.

All work, materials, and equipment shall conform to Sections 250 and 1081 of the "Standard Specifications" except as modified herein.

Each Seeding Class (Special) seed mixture shall be supplied in separate bags of the three mixture components: Temporary Cover, Permanent Grasses, and Forbs. All native species will be local genotype and verified that original seed collection source will be from a radius of 150 miles from the project site. Fertilizer is not required.

Article 250.07 Seeding Mixtures – Delete sentence 4. Add the following to Table 1 – Seeding Mixtures:

CLASS – TY	PE SEEDS	PURE LIVE SEED LB/ACRE
3 (Special)		
	<u>Native Grass</u>	25.0
	Bouteloua curtipendula	
	(Side-Oats Grama)	10.0
	Elymus canadensis	5.0
	(Canada Wild Rye)	5.0
	(Little Divertere)	10.0
	(Little Bluestem)	10.0
	Temporary Cover	30.0
	Avena sativa (November 1 to May 31)	
	(Annual Oats)	30.0
	OR	
	Lolium multipflorum (June 1 to October 31))
	(Annual Rye)	30.0
	Native Forbs	2.80
	Asclepias tuberosa	
	(Butterfly Weed)	0.10
	Asclepias verticillata	
	(Whorled Milkweed)	0.25
	Astragalus canadensis	
	(Canada Milk Vetch)	0.25

Baptisia leucantha	
(White Wild Indigo)	0.10
Coreopsis lanceolata	
(Sand Coreopsis)	0.25
Dalea candida	
(White Prairie Clover)	0.25
Dalea purpurea	
(Purple Prairie Clover)	0.25
Monarda fistulosa	
(Wild Bergamot)	0.25
Rudbeckia hirta	
(Black-Eyed Susan)	0.50
Symphyotrichum oolentangiensis	
(Sky Blue Aster)	0.10
Symphyotrichum oolentangiensis	
(Sky Blue Aster)	0.25
Verbena stricta	
(Hoary Vervain)	0.25

4 (Special)

Native Grass	22.0
Andropogon gerardii	
(Big Bluestem)	4.0
Bouteloua curtipendula	
(Side-Oats Grama)	5.0
Elymus canadensis	
(Canada Wild Rye)	3.0
Panicum virgatum	
(Switch Grass)	3.0
Schizachyrium scoparium	
(Little Bluestem)	5.0
Sorghastrum nutans	
(Indian Grass)	2.0
<u>Temporary Cover</u>	30.0
Avena sativa (November 1 to May 31)	
(Annual Oats)	30.0
OR	
Lolium multipflorum (June 1 to October 31)	
(Annual Rye)	30.0
Native Forbs	2.75

Asclepias syriaca	
(Common Milkweed)	0.25
Dalea candida	
(White Prairie Clover)	0.10
Dalea purpurea	
(Purple Prairie Clover)	0.10
Desmodium illinoensis	
(Illinois Bundleflower)	0.25
Heliopsis helianthoides	
(Ox-eye Sunflower)	0.25
Monarda fistulosa	
(Bergamot)	0.25
Penstemon digitalis	
(Foxglove Beardtongue)	0.25
Ratibida pinnata	
(Yellow Coneflower)	0.50
Rudbeckia hirta	
(Black-Eyed Susan)	0.50
Solidago rigida	
(Stiff Goldenrod)	0.25
Symphyotrichum novae-angliae	
(New England Aster)	0.25

Notes:

- 1. The seeding time for this work shall be October 15 to June 1. Seeding done outside of this time frame will not be measured for payment. No seed shall be sown during high winds or when the ground is not in proper condition for seeding, such as when raining or when the ground is covered with snow.
- 2. Purity and germination tests no older than twelve months of the date of sowing must be submitted to verify all bulk seed required to achieve LB PLS specified.
- 3. The seedbed shall be prepared and approved by the Engineer prior to seeding. The Contractor shall delineate the perimeter of the seedbed with wooden lathe. The wooden lathe shall remain in place.
- 4. The Engineer must witness the delivery of seed with original labels attached in the field. Provide to the Engineer the seed labels from the bags in which the seed is delivered in.
- 5. Temporary cover seed shall be kept separate from the native seed mixture. It shall be mixed on site under the direction of the Engineer.
- 6. In order to eliminate potential introduction of invasive or exotic species, all equipment used on the planting site shall be free of mud and/or plant material. This includes tires, mower decks, undercarriage, etc.
- 7. The Temporary cover (Cover Crop) shall be thoroughly mixed with native grass seed mix of each class and seeded using a mechanical seeder that applies the seed uniformly at a depth of 1/4 inch. Second, the native forb seed shall be thoroughly mixed with 2 bushels

of moistened horticultural grade vermiculite per acre and uniformly seeded at a depth of 1/8 inch. The seedbed shall be immediately mulched as specified.

- 8. Within two hours after the seeding and mulching are complete, water shall be applied at a rate of 5 gal/sq yd.
- 9. The Contractor shall have on hand enough equipment to completely water all seeded areas in two days at the watering rate specified above. The Engineer will make periodic checks of the Contractor's watering equipment to determine its adequacy and operating condition.
- 10. All watering described shall be done with a spray application. An open-end hose will not be acceptable. The method of watering shall meet the approval of the Engineer.
- 11. Supplemental Watering: During periods exceeding 26 degree C (80 degree F) or subnormal rainfall (less than 1" of rainfall per week) supplemental watering may be required after the initial watering and prior to acceptance of the work. Supplemental watering shall be performed when directed by the Engineer. Water shall be applied at the rate specified by the Engineer within 24-hour notice.

If specified seed material is unavailable, the Engineer shall approve the substitutes in writing. Adjustments will be made at no cost to the contract. Approval of substitutes shall in no way waive any requirements of the contract.

Method of Measurement: This work will be measured in acres of surface area seeded.

Initial watering of seeded areas as described will not be measured for payment.

Seeding, native forb mix horticultural grade vermiculite will not be measured for payment.

Supplemental watering will be measured for payment as specified in the Special Provision for SUPPLEMENTAL WATERING.

Basis of Payment: This work will be paid for at the contract unit price per acre for SEEDING, (SPECIAL) of the class specified.

X2503110 MOWING (SPECIAL)

Revised on: 9/28/2017

Description: This work shall consist of mowing all grassed, turfed, and/or temporary seeded areas within the project right-of-way limits to keep floral resources from blooming, or as directed by the Engineer. The equipment used shall be capable of adequately mowing all areas surrounding existing trees and shredding all regeneration of brush 2 inches in diameter or less to the satisfaction of the Engineer. Mowing shall be completed weekly, between March 15th and October 14th. The mowed area(s) shall be no greater than approximately 3-inches in height or as approved by the Engineer.

Method of Measurement: Each mowing occurrence will be paid for separately.

Basis of Payment: This work shall be paid for at the contract unit price per ACRE for MOWING (SPECIAL), which price shall include all labor, material, and equipment necessary to complete the work described above.

X2511630 EROSION CONTROL BLANKET (SPECIAL)

Description: This work shall consist of furnishing, transporting, installing, and maintaining erosion control blanket over seeded areas.

Typical locations to be used in conjunction with permanent seeding in areas where the finish grades are 3:1 or flatter and in low-flow channel lining applications as shown on the plans.

Materials: Materials shall be according to the following.

A single net straw blanket from the following list of approved materials shall be used:

- (a) Tensar/North American Green S75BN
- (b) ADS Geosynthetics 00S2AN
- (c) Western Excelsior Corporation Excel SR-1AN (All-Natural)
- (d) American Excelsior Company Premier Single Straw
- (e) East Coast Erosion Control ECS-1B
- (f) ErosionControlBlanket.com S31 BD "Big Daddy"

Construction Requirements: The furnishing, transporting, and placing of erosion control blanket shall be performed according to **Article 251.04** of the "Standard Specifications".

Each blanket shall be secured with a 12" degradable stake. Securing devices are not paid for separately but included in the cost of the pay item.

Method of Measurement: This work will be measured for payment in place in square yards.

Basis of Payment: This work will be paid for at the contract unit price per square yard for EROSION CONTROL BLANKET (SPECIAL). *The unit price shall include all equipment, materials, and labor required to furnish and place the erosion control blanket as described*

X2800302 TEMPORARY DITCH CHECKS (SPECIAL)

Description: This work shall consist of constructing, maintaining, and removing temporary ditch checks.

General: The work shall be performed according to Section 280 of the "Standard Specifications", the details shown in the plans, and the following:

The temporary ditch check shall be triangular shaped, urethane foam covered with a geotextile fabric. The temporary ditch check shall be installed on a geotextile fabric apron. The temporary ditch check shall have a triangle base 16" - 20" wide and a minimum triangle height of 10". The temporary ditch checks shall be installed at the locations specified on the Erosion Control Plan, and/or as directed by the Engineer. The temporary ditch check installation shall be according to the detail shown on the plans and the manufacturer's recommendations.

The geotextile fabric shall conform to Article 1080.05 of the "Standard Specifications", for Geotechnical Fabric for French Drains.

The temporary ditch checks shall remain in place until just before placing the final landscaping in the ditch area. The Contractor shall not remove the temporary ditch checks if it is raining and/or rain is in the immediate forecast.

The ditch checks shall become the property of the Contractor upon their removal.

Method of Measurement: Temporary Ditch Checks (Special) will be measured in place and the length calculated in feet for each ditch check section actually installed.

Basis of Payment: This work will be paid for at the contract unit price per foot for TEMPORARY DITCH CHECKS (SPECIAL). The unit price shall include all labor, equipment and materials necessary for their installation, maintenance, and removal.

X4240800 DETECTABLE WARNINGS (SPECIAL)

Description: This work shall consist of furnishing and installing detectable warnings in accessibility ramps.

Materials: The detectable warnings shall be cast iron panels of the sizes shown on the plans and shall meet the following material specification:

The detectable warning plate shall be constructed of gray iron meeting the requirements of Article

1006.14 of the "Standard Specifications" and ASTM A48, CLASS 35B; or cast ductile iron meeting the requirements of Article 1006.15 of the "Standard Specifications".

The coating system shall consist of a rust inhibiting epoxy primer and a finish coat. The epoxy primer shall have the following properties:

Property	Test Method	Performance
Humidity	ASTM D1735	1000 Hours Minimum
Water Immersion	ASTM D870	250 Hours Minimum
Corrosion Resistance (Salt Spray)	ASTM B117	1000 Hours Minimum

Cold Rolled Steel Lab Panels

The finish coat shall be a powder coat and shall have the following properties:

Property	Test Method	Performance
Color		Federal Yellow
Corrosion Resistance (Salt Spray)	ASTM B117	1000 Hours Minimum

Cold Rolled Steel Lab Panels

General: The installation of detectable warnings shall meet the requirements of Article 424.09 of the "Standard Specifications". Grey iron plates shall be installed in concrete accessibility ramps only.

Ductile iron plates may be installed in either concrete or hot-mix asphalt (HMA) accessibility ramps.

Method of Measurement: This work will be measured for payment in place installed, in square feet. The concrete area under the detectable warnings will be measured for payment as PORTLAND CEMENT CONCRETE SIDEWALK of the thickness specified, with no deductions made for the detectable warnings panels located within the ramp.

Basis of Payment: This work will be paid for at the contract unit price per square foot of DETECTABLE WARNINGS (SPECIAL). The unit price shall include all equipment, materials and labor required to install the panels.

X4403700 MEDIAN REMOVAL (SPECIAL)

Description: This work shall consist of the complete removal of existing monolithically-poured solid concrete barrier curbed median at the locations shown on the plans. This work shall be performed in accordance with Article 440.03 and Article 440.06 of the "Standard Specifications".

Method of Measurement: This work will be measured 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 Feet for MEDIAN REMOVAL (SPECIAL).

X5030290 STAINING CONCRETE STRUCTURES

Description: This work shall consist of staining the Form Liner Textured Surface as shown on the plans to replicate the look of actual stone masonry. The staining shall match the color variations present in natural limestone, accurately simulating the appearance of real stone including the multiple colors, shades, flecking, and veining that is apparent in real stone. It shall also simulate the colors that may be present from aging, such as staining from oxidation, rusting and/or organic staining from soil and vegetation. An example of the desired staining is shown below.



Materials: The stain shall create a surface finish that is breathable (allowing water vapor transmission), and that resists deterioration from water, acid, alkali, fungi, sunlight, and/or weathering. The stain shall be odor free and V.O.C. compliant. The stain shall meet the requirements for weathering resistance of 2000 hours accelerated exposure.

Store concrete stain materials in an area where temperatures will not be less than $50^{\circ}F(10^{\circ}C)$ or more than $100^{\circ}F(38^{\circ}C)$ and in accordance with OSHA and local Fire Code Requirements. Deliver materials in original and sealed containers, clearly marked with the manufacturer's name, brand name, type of material, batch number, and date of manufacture.

Submittal: Contractor shall submit to the Engineer for approval evidence of the selected subcontractor's five years experience making color stains to match natural stone colors on concrete surfaces.

Upon receipt of notification of the style of form liner to be used the Contractor shall submit a proposed procedure for obtaining the simulated finish using the approved architectural form liner style and stain (see the Special Provision for FORM LINER TEXTURED SURFACE). The procedure shall include plans and details for the form liner pattern and dimensions, and be submitted for the Engineer's approval no later than 30 calendar days from the date of notification of approval of the style type. If such plans and details are not satisfactory to the Engineer and Kane County, the Contractor shall make any changes as may be required by the Engineer or Kane County at no additional cost to the Department.

Upon approval of the form liner plans and details, the Contractor shall submit three 6' by 6' (minimum) mock-up cast concrete panel of the simulated stone masonry finish including the staining. One of the strained panels shall also include Anti-Graffiti Protection System (see the Special Provision for ANTI-GRAFFITI PROTECTION SYSTEM). The sample panels shall be delivered and positioned on the job site at a location to be determined by the Engineer. The approved sample panel shall be the standard for concrete staining to replicate the look of actual stone masonry throughout the project (see the Special Provision for FORM LINER TEXTURED SURFACE).

General: The surfaces to be stained shall be structurally sound, clean, dry, and fully cured. The concrete shall be at least 30 days old prior to applying the stain. Curing agents must be removed a minimum of 14 days prior to staining to allow the concrete to dry out.

Temperature and relative humidity conditions shall meet the manufacturer's application instructions. Do not apply the stain under rainy conditions or within three (3) days after surfaces became wet from rainfall or other moisture. Do not apply when the weather is foggy or overcast.

The concrete surface shall be cleaned prior to the applying the stain materials. The methods and materials used for cleaning the substrate shall be as recommended by the manufacturer of the water- repellent stain. The Contractor shall insure that the surface is free of latency, dirt, dust, grease, efflorescence, paint, or other foreign material. The Contractor shall not use sandblasting as a cleaning method. The preferred method to remove latency is pressure washing with water, at a minimum 3000 psi (3-4 gal/min), using fan nozzle. The nozzle should be positioned perpendicular to and at a distance of 1-2 feet from the concrete surface. The cleaned surface shall be free of blemished, discoloration, surface voids and unnatural form marks.

The stain shall be thoroughly mixed according to the manufacturer's directions using an airdriven or other explosion-proof power mixer. Mix all containers thoroughly prior to application. Do not thin the material. Materials shall be applied at the rate as recommended by the manufacturer. Absorption rates may be increased or decreased depending upon the surface texture and porosity of the substrate so as to achieve even staining. A test area of 10 square feet shall be prepared and the stain applied to the surface to verify the surface preparation, adhesion and color. Once the Engineer has approved the results from the test area the application of the stain to the rest of the exposed surfaces may be completed.

Take precautions to ensure that workman and work areas are adequately protected from fire and health hazards resulting from handling, mixing and application of materials. Furnish all the necessary equipment to complete the work. Provide drop cloths and other forms of protection necessary to protect all adjoining work and surfaces to render them completely free of overspray and splash from the concrete stain work. Any surfaces, which have been damaged or splattered, shall be cleaned, restored, or replaced to the satisfaction of the Engineer.

Schedule the color stain application with earthwork and back-filling of any wall areas making sure that all simulated stone texture that might fall below grade is colored prior to back-filling. Delay adjacent plantings until color application is completed. Coordinate work to permit coloring applications without interference from other trades. Where exposed soil or pavement is adjacent which may splatter dirt or soil from rainfall, or where surface may be subject to over-spray from other processes, provide temporary cover of completed work.

Anti-Graffiti Protection System shall be applied to the final exposed surface (see the Special Provision for ANTI- GRAFFITI PROTECTION SYSTEM).

Method of Measurement: The exposed surfaces will be measured in place and the area computed in square feet. Staining mock-ups will not be measured for payment.

Basis of Payment: This work will be paid for at the contract unit price per square foot for STAINING CONCRETE STRUCTURES.

X5610900 DUCTILE IRON WATER MAIN, 8" DIAMETER, RESTRAINED JOINT PIPE

Description: This work shall consist of constructing a restrained joint watermain system at the locations shown on the plans. The end of the pipe shall be plugged and thrust blocked for future expansion.

Materials: All materials shall be domestic and according to the following:

- a. Pipe Shall be minimum thickness Class 52 Ductile Iron complying with ANSI/AWWA C151/A21.51 and ANSI/AWWA C150/A21.50, with cement coating in accordance with ANSI/AWWA C104/A21.4. Minimum lay length of 18 feet.
- b. Fittings/Plugs Ductile iron with mechanical joints complying with ANSI A21.10 or A21.53 SSB-Compact. Cement lined in accordance with ANSI/AWWA C104/A21.4.
- c. Joints Mechanical joints complying with ANSI/AWWA C111/A21.11.
- d. Tracer Wire Trace-Safe Water Blocking Tracer Wire System in conjunction with conductive wedges.
- e. Valves Valves 3-inch through 16-inch shall be gate valves designed in accordance with AWWA C515 with a ductile iron body, and seat type with non-rising stem and O- ring packing. Valves installed in vaults shall have ANSI Class 125 flange ends or mechanical joint ends. Valves buried shall have mechanical joint ends. Valves shall be Clow or Waterous as shown on the plan details.
- f. Valve Box EJIW-664-S or Tyler 664-S (domestic)
- g. Valve Box Stabilizer As manufactured by Valve Box Stabilizer Inc., Joliet II. (815-722-2517)
- h. Pipe Restraint EBAA Mega-Lug, Series 1100 (no exceptions) for all MJ fittings (precast concrete thrust block restraint is required in conjunction with Mega-Lugs)
- i. All ductile iron pipe and fittings shall be encased in polyethylene sheets of not less than 8 mil thick and complying with ANSI/AWWA C105/A21.5 at the discretion of the Village Engineer.

General: The construction of water mains, including protection from sewers, pressure testing, and disinfection, shall be according to the "Standard Specifications for Water and Sewer Main Construction in Illinois" latest edition and these special provisions. Excavation shall be according to the applicable requirements of Article 550.04 of the "Standard Specifications". Backfilling around joints shall not be performed until the pressure testing has been completed and passed.

Construction Requirements: <u>Pipe Bedding:</u> Crushed gravel or crushed stone complying with the requirements of Section 1004, Illinois Department of Transportation, "Standard Specifications for Road and Bridge Construction", latest edition: The gradation shall be either CA-7, CA-8, CA-11 or CA-13. The pipe shall be laid so that it will be uniformly supported, and the entire length of the pipe barrel will have full bearing. No blocking of any kind shall be used to adjust the pipe to grade. Bedding shall be required for all water main construction and shall be a minimum thickness of four inches (4") under the pipe barrel and two inches under pipe bells.

Backfill to one foot (1') above the top of the pipe shall be done with acceptable bedding material as indicated above or crushed gravel or stone complying with gradation CA-6 of the Illinois Department of Transportation's Standard Specifications for Road and Bridge Construction. placed in six-inch (6") lifts compacted to ninety-five percent (95%) maximum density as determined according to ASTM D1557.

Meg-A-Lug pipe restraints shall be used to protect water main piping from moving at change of directions, plugs, caps, tees, valves, fire hydrants and bends of 11¹/₄ degree or greater. In addition to the Meg-A-Lug Pipe Restraining System, pre-cast concrete thrust blocks shall be used.

Water mains and appurtenances shall be installed in conformance with AWWA C-600, the material manufacturer's recommendations, the Standard Specifications for Water and Sewer Main construction in Illinois and this section.

Trench backfill shall be required in all locations where the water main trench is under or within two feet (2') of existing or proposed pavements including but not limited to streets, sidewalks and driveway. The trench backfill shall be placed in lifts no exceeding eight inches (8") and shall be mechanically compacted to do not less than ninety-five percent (95%) of the standard laboratory density. Backfilling shall not be done in freezing weather nor made with frozen material.

Where water is encountered in the trench, it shall be removed during pipe-laying and joint operations. Trench water shall not be allowed to enter the pipe at any time.

All connections to the existing water system shall be made under full water service pressure unless otherwise approved by the Village Engineer. See CONNECTION TO EXISTING WATER MAIN 12.

<u>Required Water Main Locator</u>: Secure an insulated No. 6 AWG, single strand, single conductor, locator wire to the top of the all water mains. The locator wire shall be brought up inside the valve so no person shall have to enter the valve vault to attach the pipe locator. The locator wire shall be brought up inside the valve vaults and fastened to the inside of the top of the cone so that no person shall have to enter the valve vault to attach the pipe locator. Locator wire connections must be connected by wire connectors approved by the Village Engineer. A locator box shall be installed at all changes in direction of the main where valve vaults are not required. Continuity testing and documentation of the locator wire must be performed with satisfactory results prior to acceptance into the maintenance period and again prior to the expiration of the maintenance

period. In addition, brass wedges are to be installed at all required locations to provide electrical continuity between all pipe and fittings.

All newly laid pipe shall be subjected to a hydrostatic pressure of one hundred fifty (150) pounds per square inch for a duration period of two hours. Each valve isolated section of pipe shall be filled with water and the specified test pressure shall be applied by means of a pump connected to the pipe. Before applying the specified test pressure, all air shall be expelled from the pipe. The pipe must be pressurized and stabilized at a minimum of 150 PSI when the two hour test begins. If no PSI drop is recorded at the end of the first hour the test is complete with a passing result. However, if a pressure drop is recorded the test will continue for the duration of the two hours. Allowable make-up water will be determined by the Village representative according to the AWWA standard listed below for allowable leakage per 1000 feet in gallons per hour.

(Linear footage X GPH X 2 Hours)/1000

Pipe Size	3	4	6	8	10	12
GPH	.28	.37	.55	.74	.92	1.1

If the required amount of make-up water is less then the allowable amount of makeup water the test is complete with a passing result.

NOTE: If at any time after the test begins, a drop of 5 PSI or greater is recorded, the test is complete with a failing result regardless of the allowable make-up.

Leakage is defined as the quantity of water required to be supplied to the newly laid pipe necessary to re-establish the specified leakage test pressure.

All leaks shall be repaired until tight. Any cracked or defective pipes, fittings, valves, or fire hydrants discovered as a result of this pressure test shall be removed and replaced and the test repeated until satisfactory results are obtained.

All pressure tests shall be done in the presence of a representative of the Water Superintendent.

<u>Preliminary Flushing</u>: Prior to chlorination, the main shall be flushed as thoroughly as possible with the water pressure and outlets available. Flushing shall be done after the pressure test is made. It must be understood that such flushing removes only the lighter solids and cannot be relied upon to remove heavy material allowed to get into the main during laying. If no fire hydrant is installed at the end of the main, a tap should be provided large enough to effect a velocity in the main of at least 2.5 feet per second.

<u>Disinfection</u>: Water main disinfection will be in accordance with the State of Illinois Rules and Regulations Title 35, Subtitle F. Chapter II, Section 652.203 of the Technical Policy Statement.

The following procedures will be followed when disinfection of new water main is required.

- 1. The contractor shall provide and install corporation cocks with a copper-tube gooseneck assembly for the purpose of sample collection. Fire hydrants shall not be used as sample points. Corporation cocks will be located at a point not more than 10 feet from the beginning of the new main and approximately every 1,000 feet thereafter. Branch and dead end mains less than 1000 feet shall also have corporation cocks not more than 10 feet from the end of the main. The Water Superintendent may require additional corporation cocks at various locations depending on the configuration of the system. All contractors are advised to contact the Water Superintendent prior to installing corporation cocks for testing.
- 2. Water from the existing distribution system shall be made to flow at a constant rate into the new main.
- 3. At a point not more than 10 feet downstream from the beginning of the new main the water entering the new main will receive a dose of chorine fed at a constant rate such that the water will have not less than 25 mf/l free chlorine.
- 4. During the application of chlorine, valves shall be positioned so that the strong chlorine solution in the main being treated will not flow into water mains in active service. Chlorine application shall not cease until the entire main is filled with heavily Chlorinated water. The chlorinated water shall be retained in the main for at least 24 hours, and at the end of the 24 hour period the treated water in all portions of the main shall have a residual of not less than 10 mg/l free chlorine.
- 5. After the applicable retention period, heavily chlorinated water shall be flushed from the main until chlorine residuals are consistent with that of the existing system.
- 6. The environment to which the chlorinated water is to be discharged shall be inspected. If there are any questions that the chlorinated discharge will cause damage to the environment, then an approved neutralizing agent shall be applied to the water being wasted to thoroughly neutralize the chlorine residual in the water.
- 7. A minimum of twenty-four hours after the final flush and before the water main is placed into service, 1 set of samples shall be collected from approved sample points. Each sample will be tested for bacterial quality, and show the absence of coliform organisms. If all samples tested for bacterial quality are satisfactory the main may be placed into service.
- 8. If at any sample point the bacterial quality is unsatisfactory, that sample point will be required to resample. The system may be flushed prior to resampling. Resampling

will consist of two consecutive samples collected 24 hours apart. Each sample will be tested for bacterial quality and show the absence of coliform organisms. If all samples tested for bacterial quality are satisfactory the main may be placed in service. If samples are unsatisfactory repeat resampling procedures.

9. All system flushing, chlorine injecting and sampling will be done in the presence of a representative of the Water Superintendent. A representative of the Water Superintendent will deliver all samples to a certified lab of the Village's choice.

Method of Measurement: This work will be measured for payment in accordance with Article 561.04 of the "Standard Specifications".

Basis of Payment: This work will be paid for in accordance with Article 561.05 of the "Standard Specifications".

Fittings, bends, plugs, restraints, and all other associated items as described herein will not be paid for separately.

X5630712 CONNECTION TO EXISTING WATER MAIN 12

Description: This work shall consist of connecting a proposed water main facility to an existing water main facility under full service pressure, according to the Village of Carpentersville details shown on the plans (Pressure Connection W-3 012908) and as described herein.

Materials: All materials shall be domestic and according to the following:

- a. Clow F-5207, Cascade CXTEX, or Romac SST-full stainless-steel 12" x 8" tapping sleeve for D.I., full stainless clamps for A.C.
- b. C-515 resilient wedge Clow F-6100 of C-515 resilient wedge Clow of Waterous 8".
- c. Valve Vault: Materials shall be according to Article 602.02 of the "Standard Specifications", the detail for Pressure Connection W-3 012908, and the following:
 - i. Valve vaults shall consist of precast reinforced concrete sections meeting ASTM C478 standards, split base with bottom barrel section being "Doghouse" type.
 - ii. Valve vault steps shall consist of a copolymer plastic with a continuous ¹/₂-inch steel reinforcement as manufactured by M.A. Industries, Inc.
 - Frames and lids for valve vaults shall be Neenah R-1713, Type B, self-sealing, or East Jordan Iron Works 1050Z1, with recessed pick holes, and embossed "WATER" and "Carpentersville".
 - iv. PSX Direct Drive rubber boot connector manufactured by Press-Seal Corporation.
 - v. Adco WY-64 Butyl Sealant for barrel sections joints and adjustment ring joints. Adapter Inc. Internal/External Chimney Seal in paved areas as shown on the plans.

d. All other associated materials shall be according to the specification for DUCTILE IRON WATER MAIN, 8" DIAMETER, RESTRAINED JOINT PIPE and the details shown on the plans.

General Requirements: Unless otherwise approved by the Village Engineer of Carpentersville, all connections to the existing water system shall be made under full water service pressure. Operation of water valves by the Contractor is forbidden.

Method of Measurement: This work will be measured for payment per each location requiring a connection of a proposed water main to an existing water main, performed under full service pressure. All associated materials required to complete the connection as shown on the plans and described herein will not be measured separately, including valves and valve vaults.

Basis of Payment: This work will be paid for at the contract unit price per each for CONNECTION TO EXISTING WATER MAIN of the size specified.

X5640150 FIRE HYDRANT ASSEMBLY COMPLETE

Description: This work shall consist of installing a fire hydrant assembly, including all associated items as shown in detail W-2 022818 as shown on the plans, including an 8" x 6" M.J. tee and 6" D.I. lead pipe, and as described herein.

Materials: All materials shall be domestic and according to the following:

- a. Fire hydrants shall be dry barrel type with breakaway type flange and auxiliary gate valves and shall conform to AWWA C502.
 - a. Clow Medallion F2545. The fire hydrant shall have a flanged shoe for bury less than 6 feet and an M.J. shoe, minimum 24", maximum 36" stub with Mega-Lug, for bury greater than 6 feet.
 - b. Fire hydrants shall have two (2), two and one-half inch (2-1/2") hose outlets and one four and one-half (4-1/2") national standard thread outlet.
 - c. Fire hydrants shall have a main valve opening of five and one-quarter inches (5-1/4").
 - d. Fire hydrants shall have a 6-inch auxiliary resilient seat type gate valve in accordance with AWWA C515 with a ductile iron body, non-rising stem and O-ring packing. Valve shall be Clow resilient wedge gate valve.
 - e. Auxiliary Valve Box shall be a Tyler 664-S or EJIW-664 and shall include a valve box stabilizer as manufactured by Valve Box Stabilizer, Inc. Lid should read "WATER".
 - f. Fire hydrant shall be painted Safety Red, with one full application per hydrant. Primer shall be Safety Gray, with one full application per hydrant.

- i. Paint Rust-Oleum High Performance 9800 System DTM Urethane Mastic
- ii. Primer Rust-Oleum High Performance 9100 System DTM Epoxy Matic.
- g. All other materials shall be according to the special provision for DUCTILE IRON WATER MAIN, 8" DIAMETER, RESTRAINED JOINT PIPE.

Construction Requirements: Fire hydrants shall have a minimum of one (1) cubic yard of onequarter (1/4) to three-quarters (3/4) inch of washed river stone placed at the base of the fire hydrant to provide drainage at the barrel. The top of the stone shall be covered with eight (8) mil thick polyethylene plastic prior to backfilling around the fire hydrant.

Auxiliary valves shall be connected to fire hydrants.

The break line flange of fire hydrants shall be not less than one inch (1") nor more than three inches (3") above finished ground elevation. Fire hydrants in street rights-of-way shall be placed not less than three feet (3"), nor more than five feet (5") from back of curb.

Zinc anodes shall be installed on every other bolt of each mechanical joint fitting.

Precast concrete thrust blocking shall be installed against undisturbed earth as shown on the plan details.

Basis of Payment: This work will be paid for at the contract unit price per each for FIRE HYDRANT ASSEMBLY COMPLETE and will include all materials as shown on the plan details and described herein.

X6050500 REMOVE FRAME AND GRATES, SPECIAL

Description: This work shall consist of the removal and disposal of existing frames and grates/lids from drainage structures that are to remain in service during staging, and prior to their ultimate removal or adjustment to finished grades.

General: Following removal of the frame and grate/lid, the structure shall be plated to allow for backfilling and placement of temporary pavement. The Contractor shall clean out any material that is deposited in the structure during removal of the frame and grate/lid and shall ensure a proper seal of the plate to the structure to prevent material entering the structure after backfilling.

Disposal of Excess Material: All material resulting from the removal of existing frames and grates/lids shall be disposed of by the Contractor according to Article 202.03 of the "Standard Specifications".

Method of Measurement: This work will be measured for payment per each frame and grate/lid removed.

Basis of Payment: This work will be paid for at the contract unit price per each for REMOVE FRAME AND GRATES, SPECIAL.

X7830050 RAISED REFLECTIVE PAVEMENT MARKER, REFLECTOR REMOVAL

Description: This work shall be done according to **Section 783** of the "Standard Specifications" insofar as applicable and according to the following provisions:

General Requirements: Removal of reflectors shall be as shown at the locations provided in the plans. For existing pavement markers beyond reconstruction limits where the existing pavement is to remain, only the reflector shall be removed.

Care should be taken to try to minimize any damage to the existing base castings. If the existing base castings are in such a condition that as determined by the Engineer are not suitable to receive a new reflector, the entire casting and reflector shall be removed and replaced following construction staging.

Damage to the existing pavement shall be repaired according to Art. 406.05 of the "Standard Specifications" and to the satisfaction of the Engineer.

Method of Measurement: This work shall be measured for payment as each for individual reflectors removed.

Basis of Payment: This work shall be paid for at the contract unit price per each for RAISED REFLECTIVE PAVEMENT MARKER, REFLECTOR REMOVAL. Repair to damaged pavement shall not be paid for separately but shall be included in the cost of Raised Reflective Pavement Marker, Reflector Removal.

XX008865 PERMEABLE PLASTIC BERM

Description: This work shall consist of furnishing, installing, and removing a permeable plastic berm. The plastic berm may be used in conjunction with erosion control mat, sediment bags and other components of a water treatment train and/or as a temporary ditch check while establishing final landscaping.

For this project the Permeable Plastic Berms shall be used for:

A component of a water treatment train
A temporary ditch check while establishing final landscaping

Materials: The permeable plastic berm shall be constructed of High Density Polyethylene (HDPE) with a UV inhibitor. The permeable plastic berm shall have 35-40% porosity. The berm shall be a minimum of $8\frac{3}{4}$ " tall.

General: The work shall be performed according to Section 280 of the "Standard Specifications", and the manufacturer's recommendations.

Temporary Ditch Check:

The permeable plastic berm shall be used as a temporary ditch check in ditch lines where the erosion control blanket has been placed and the seeding operations performed. The permeable plastic berms shall be placed in the locations of the Temporary Ditch Checks and/or as directed by the Engineer. Their installation shall be according to the detail shown on the plans and the manufacturer's recommendations. After the final landscaping has been established to the satisfaction of the Engineer the permeable plastic berm shall be removed by the Contractor. The permeable plastic berm shall become the property of the Contractor upon removal.

Method of Measurement: The Permeable Plastic Berm will be measured in place and the length calculated in feet for each permeable plastic berm actually installed.

Basis of Payment: This work will be paid for at the contract unit price per foot for PERMEABLE PLASTIC BERM. The unit price shall include all labor, equipment and materials necessary for the installation, maintenance, and removal of the plastic berm.

Z0002750 BARRICADES, TYPE III

Description: This work shall consist of furnishing and installing permanent Type III barricades, per IDOT Standard 701901, at the locations shown on the plans and as directed by the Engineer. The purpose of these barricades is to close Longmeadow Parkway at the end of the Contract.

Basis of Payment: This work will be paid for at the contract unit price per each for BARRICADES, TYPE III. Barricades will remain in place at the conclusion of this Contract.

Z0013796 SEDIMENT CONTROL, STABILIZED CONSTRUCTION ENTRANCE

Description: This work shall consist of constructing a stabilized construction entrance, including furnishing, installing, maintaining and removing a stabilized pad of aggregate underlain with filter fabric, as shown on the plans or directed by the Engineer.

Materials: The materials used shall meet the requirements of the following:

- Aggregate: The aggregate shall be limited to IDOT Coarse Aggregate Gradation CA-1, CA-2, CA-3 or CA-4.
- Filter Fabric: The filter fabric shall be made of synthetic polymers composed of at least 85 percent by weight polypropylene, polyesters, polyamides, polyethylene, polyolefins, or polyvinylidene-chlorides. The geotextile shall be free of any chemical treatment or coating that significantly reduces its porosity. Fibers shall contain stabilizers and/or inhibitors to enhance resistance to ultraviolet lights.

Construction Requirements: The aggregate shall be at least six inches thick. The aggregate shall not be placed until the entrance area has been inspected and approved by the Engineer.

The aggregate shall be dumped and spread into place in approximately horizontal layers. The layer(s) shall not exceed three feet in thickness. The aggregate shall be placed in such a manner as to produce a reasonably homogeneous stable fill that contains no segregated pockets of larger or smaller fragments or large unfilled space caused by bridging of larger fragments. No compaction shall be required beyond that resulting from the placing and spreading operations.

The construction entrance shall follow the dimensions shown on the plans and/or have a minimum width of 14 feet for one-way and 20 feet for two-way traffic, and a minimum length of 100 feet.

All surface water flowing or diverted toward the construction entrance shall be piped across the entrance. Any pipe used for this will be considered included in the unit price for SEDIMENT CONTROL, STABILIZED CONSTRUCTION ENTRANCE. The stabilized construction entrance shall have positive drainage away from the roadway.

The entrance shall remain in place and be maintained until the disturbed area is stabilized. Any sediment spilled onto public right-of-way(s) shall be removed immediately. All removed materials shall be disposed of outside the limits of the right-of-way according to Article 202.03 of the "Standard Specifications" and/or as directed by the Engineer.

Maintenance may include the removal of sediment clogged aggregate and replacement with fresh aggregate as directed by the Engineer.

Method of Measurement: The Stabilized Construction Entrance will be measured in place and the area computed in square yards.

Basis of Payment: This work will be paid for at the contract unit price per square yard for SEDIMENT CONTROL, STABILIZED CONSTRUCTION ENTRANCE. The unit price shall include all material, including filter fabric, labor, equipment and any other items required to install, maintain, and remove the construction entrance.

Z0019600 DUST CONTROL WATERING

Description: This work shall be according to Article 107.36 of the "Standard Specifications" insofar as applicable and the following provisions.

General Requirements: This item shall be used strictly for dust control measures generated by construction activities, and not as a means of achieving compaction of earth embankments, or for compacting of aggregate bases.

Revise Article 107.36(d) of the "Standard Specifications" as follows:

"(d) Dust shall be controlled by the uniform application of sprinkled/sprayed clean water and shall be applied only when directed by the Engineer. All equipment used to transport and discharge the clean water shall meet the approval of the Engineer, and shall have a metering device that allows for the accurate measurement of the amount of clean water discharged".

If the Contractor wishes to obtain water from existing fire hydrants, Article 107.18 of the "Standard Specifications" shall be strictly adhered to.

Method of Measurement: This work shall be measured for payment in units of gallons of water applied. One unit is equal to 1,000 gallons of water applied.

Basis of Payment: This work shall be paid for at the contract unit price per unit for DUST CONTROL WATERING. The unit price shall include all equipment, materials, and labor required to procure and apply the clean water.

Z0022800 FENCE REMOVAL

Description: This work shall consist of the removal and disposal of all existing fence from the project site as shown on the plans or as directed by the Engineer. This work shall also include backfilling of the resulting void left from the removal of all fence posts.

General Requirements: The contractor shall remove all components of the existing fence including any concrete used to anchor fence posts, bracing, guy wires, posts, or gates. All material shall be disposed of according to **Article 202.03** of the "Standard Specifications".

Backfilling if the resulting void from post removals shall be accomplished with materials and methods approved by the Engineer.

Method of Measurement: This work shall be measured for payment in feet along the top of the fence including any length occupied by gates.

Basis of Payment: This work shall be paid for at the contract unit price per foot for FENCE REMOVAL, and shall include all equipment, materials, and labor required to remove and dispose of the fence.

Z0023202 SEDIMENT CONTROL, DRAINAGE STRUCTURE INLET FILTER CLEANING

Description: This work shall consist of cleaning sediment out of a drainage structure inlet filters when directed by the Engineer. The Engineer will be the sole judge of the need for cleaning based on the rate that debris and silt has collected at each inlet filter.

Cleaning of the inlet filter shall consist of inspecting, cleaning (includes removal and proper disposal of debris and silt that has accumulated) by vactoring, removing and dumping, or any other method that has been approved by the Engineer.

For purposes of this contract, it is anticipated that inlet filter cleaning will be performed three times for each inlet filters on the project. Some filters may require no cleaning, others will require multiple cleanings. The Contractor may use some or all quantity for this pay item.

Trapped sediment and accumulated silt shall be disposed of according to Article 202.03 of the "Standard Specifications".

Basis of Payment: This work shall be paid at the contract unit price for EACH for SEDIMENT CONTROL, DRAINAGE STRUCTURE INLET FILTER CLEANING.

Z0062458 TEMPORARY PAVEMENT (VARIABLE DEPTH)

Description: This work shall consist of constructing a temporary pavement of variable depth at the locations shown on the plans or as directed by the Engineer for the purpose of facilitating construction staging between new and existing pavements. Additional Temporary Pavement (Variable Depth) may be needed in addition to that shown on the plans to provide for an acceptable transition between pavement structures. The Engineer shall determine the locations necessary for additional Temporary Pavement (Variable Depth).

Work shall be done in accordance with **Section 406** of the "Standard Specifications" insofar as applicable and the following provisions:

The Temporary Pavement (Variable Depth) mix design shall be the same as Hot-Mix Asphalt Binder Course, IL-19.0, N70 and shall be installed according to the details in the plans.

The removal of Temporary Pavement (Variable Depth), if required, shall conform to Section 440 of the "Standard Specifications".

Method of Measurement: This work shall be paid for at the contract unit price per Ton for Temporary Pavement (Variable Depth) necessary to facilitate construction staging.

Basis of Payment: This work shall be paid for at the contract unit price per ton for TEMPORARY PAVEMENT (VARIABLE DEPTH). Removal of temporary pavement (variable depth) no longer needed shall be included in the unit cost per ton for TEMPORARY PAVEMENT (VARIABLE DEPTH).

Z0066700 STABILIZED DRIVEWAYS 10"

Description: This work shall consist of preparing subgrades, placing and compacting aggregate subbases, and furnishing, placing and compacting hot-mix asphalt driveway pavement, at locations shown on the plans and as directed by the Engineer.

This work shall conform to the applicable Sections of Articles 311, 355 and 406.

Indicated driveways to be stabilized shall be constructed to a nominal thickness of 10 inches for a commercial entrance. Each shall have a minimum 2" thick surface course (HMA Surface Course, Mix "D", N50) with the balance constructed using 8" hot mix asphalt base course (HMA Binder IL-19 mm). Aggregate and bituminous material prime/tack coats shall be applied according to Article 406 and as directed by the Engineer. The driveway shall be constructed on a 6 inch compacted aggregate subbase conforming to the applicable Sections of Article 311 for Subbase Granular Materials Type B.

Method of Measurement: This work shall be measured for payment per square yard for completed Stabilized Driveways 10". HMA surface course, HMA base course, aggregate base course, aggregate prime coats, HMA tack coats, subgrade preparation and all other work necessary to complete this work as described will not be measured separately.

Basis of Payment: This work shall be paid for at the contract unit price per square yard for STABILIZED DRIVEWAYS 10".

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."

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	
(b) Reclaimed Asphalt Pavement (RAP) (Notes 1, 2 and 3	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.

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

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

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

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."

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 \pm 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.

EMBANKMENT I

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

<u>Description</u>. This work shall be according to Section 205 of the Standard Specifications except for the following.

<u>Material</u>. All material shall be approved by the District Geotechnical Engineer. The proposed material must meet the following requirements.

- a) The laboratory Standard Dry Density shall be a minimum of 90 lb/cu ft (1450 kg/cu m) when determined according to AASHTO T 99 (Method C).
- b) The organic content shall be less than ten percent determined according to AASHTO T 194 (Wet Combustion).
- c) Soils which demonstrate the following properties shall be restricted to the interior of the embankment and shall be covered on both the sides and top of the embankment by a minimum of 3 ft (900 mm) of soil not considered detrimental in terms of erosion potential or excess volume change.
 - 1) A grain size distribution with less than 35 percent passing the number 75 um (#200) sieve.
 - 2) A plasticity index (PI) of less than 12.
 - 3) A liquid limit (LL) in excess of 50.
- d) Reclaimed asphalt shall not be used within the ground water table or as a fill if ground water is present.
- e) The RAP used shall be according to the current Bureau of Materials and Physical Research Policy Memorandum, "Reclaimed Asphalt Pavement (RAP) for Aggregate Applications". Gradation deleterious count shall not exceed 10% of total RAP and 5% of other by total weight.

CONSTRUCTION REQUIREMENTS

<u>Samples</u>. Embankment material shall be sampled, tested, and approved before use. The contractor shall identify embankment sources, and provide equipment as the Engineer requires, for the collection of samples from those sources. Samples will be furnished to the Geotechnical Engineer a minimum of three weeks prior to use in order that laboratory tests for approval and compaction can be performed. Embankment material placement cannot begin until tests are completed and approval given.

<u>Placing Material</u>. In addition to Article 202.03, broken concrete, reclaimed asphalt with no expansive aggregate, or uncontaminated dirt and sand generated from construction or demolition

activities shall be placed in 6 inches (150 mm) lifts and disked with the underlying lift until a uniform homogenous material is formed. This process also applies to the overlaying lifts. The disk must have a minimum blade diameter of 24 inches (600 mm).

When embankments are to be constructed on hillsides or existing slopes that are steeper than 3H:1V, steps shall be keyed into the existing slope by stepping and benching as shown in the plans or as directed by the engineer.

<u>Compaction</u>. Soils classification for moisture content control will be determined by the Soils Inspector using visual field examination techniques and the IDH Textural Classification Chart.

When tested for density in place each lift shall have a maximum moisture content as follows.

- a) A maximum of 110 percent of the optimum moisture for all forms of clay soils.
- b) A maximum of 105 percent of the optimum moisture for all forms of clay loam soils.

<u>Stability.</u> The requirement for embankment stability in Article 205.04 will be measured with a Dynamic Cone Penetrometer (DCP) according to the test method in the IDOT Geotechnical Manual. The penetration rate must be equal or less than 1.5 inches (38 mm) per blow.

<u>Basis of Payment.</u> This work will not be paid separately but will be considered as included in the various items of excavation.

FRICTION AGGREGATE (D-1)

Effective: January 1, 2011 Revised: April 29, 2016

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	

Use	Mixture	Aggregates Allowed		
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		
HMA High ESAL Low ESAL	Binder IL-19.0 or IL-19.0L SMA Binder	Allowed Alone or in Combination ^{5/6/} : Crushed Gravel Carbonate Crushed Stone ^{2/} Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF)		
HMA High ESAL Low ESAL	C Surface and Leveling Binder IL-9.5 or IL-9.5L SMA Ndesign 50 Surface	Allowed Alone or in Combination ^{5/} : Crushed Gravel Carbonate Crushed Stone ^{2/} Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag ^{4/} Crushed Concrete ^{3/}		
HMA High ESAL	D Surface and Leveling Binder IL-9.5 SMA Ndesign 50 Surface	Allowed Alone or in Combination 5/: Crushed Gravel Carbonate Crushed Stone (other than Limestone) ^{2/} Crystalline Crushed Stone Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag ^{4/} Crushed Concrete ^{3/} Other Combinations Allowed: With		
		25% Limestone 50% Limestone	Dolomite Any Mixture D aggregate other than Dolomite	
Use	Mixture	Aggregates Allowed		
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		75% Limestone	Crushed Slag (ACBF) or Crushed Sandstone	
HMA High ESAL	E Surface IL-9.5	Allowed Alone or in Combination ^{5/6/} :		
	SMA Ndesign 80 Surface	Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag No Limestone.		
		Other Combinations A	llowed:	
		Up to	With	
		50% Dolomite ^{2/}	Any Mixture E aggregate	
		75% Dolomite ^{2/}	Crushed Sandstone, Crushed Slag (ACBF), Crushed Steel Slag, or Crystalline Crushed Stone	
		75% Crushed Gravel ^{2/} or Crushed Concrete ^{3/}	Crushed Sandstone, Crystalline Crushed Stone, Crushed Slag (ACBF), or Crushed Steel Slag	
HMA	F Surface	Allowed Alone or in Co	ombination ^{5/6/} :	
	SMA Ndesign 80 Surface	Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag No Limestone.		
		Other Combinations Allowed:		
		Up to	With	

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."

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.,	65	65
cut immediately, %, min.		

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 \pm 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.

HMA MIXTURE DESIGN REQUIREMENTS (D-1)

Effective: January 1, 2013 Revised: January 1, 2018

1) Design Composition and Volumetric Requirements

Revise the table in Article 406.06(d) of the Standard Specifications to read:

"MINIMUM COMPACTED LIFT THICKNESS				
Mixture Composition	Thickness, in. (mm)			
IL-4.75	3/4 (19)			
SMA-9.5, IL-9.5, IL-9.5L	1 1/2 (38)			
SMA-12.5	2 (50)			
IL-19.0, IL-19.0L	2 1/4 (57)"			

Revise the table in Article 1004.03(c) of the Standard Specifications to read:

"Use	Size/Application	Gradation No.
Class A-1, 2, & 3	3/8 in. (10 mm) Seal	CA 16
Class A-1	1/2 in. (13 mm) Seal	CA 15
Class A-2 & 3	Cover	CA 14
HMA High ESAL	IL-19.0	CA 11 ^{1/}
0	IL-9.5	CA 16, CA 13 ^{3/}
HMA Low ESAL	IL-19.0L	CA 11 ^{1/}
	IL-9.5L	CA 16
	Stabilized Subbase	
	or Shoulders	
SMA ^{2/}	1/2 in. (12.5mm)	CA13 ^{3/} , CA14 or CA16
	Binder & Surface	
	IL 9.5	CA16, CA 13 ^{3/}
	Surface	

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

- 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/ 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." 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."

Revise the nomenclature table in Article 1030.01 of the Standard Specifications to read:

"High ESAL	IL-19.0 binder;
	IL-9.5 surface; IL-4.75; SMA-12.5,
	SMA-9.5
Low ESAL	IL-19.0L binder; IL-9.5L surface;
	Stabilized Subbase (HMA) ^{1/} ;
	HMA Shoulders ^{2/}

1/ Uses 19.0L binder mix.

2/ Uses 19.0L for lower lifts and 9.5L for surface lift."

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	
(b) Fine Aggregate	
(c) RAP Material	
(d) Mineral Filler	
(e) Hydrated Lime	
(f) Slaked Quicklime (Note 1)	
(g) Performance Graded Asphalt Binder (Note 2)	
(h) Fibers (Note 3)	
(i) Marm Mix Asphalt (MMA) Technologies (Note	(1)

(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 an Elvaloy or 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 current Bureau of Materials and Physical Research Approved List, "Warm Mix Asphalt Technologies"."

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	SM IL-12	IA ^{4/} .5 mm	SM IL-9.	IA ^{4/} 5 mm	IL-9.	5 mm	IL-4.7	'5 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 ^{5/}	16	325/	34 ^{6/}	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/}
Ratio Dust/Asphalt Binder		1.0		1.5		1.5		1.0		1.0

"(1) High ESAL Mixtures. The Job Mix Formula (JMF) shall fall within the following limits.

- 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/ The maximum percent passing the #635 (20 μ m) sieve shall be \leq 3 percent.

- 5/ 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.
- 6/ 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 and for IL-4.75 it shall be 3.5 percent at the design number of gyrations. The VMA and 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 ESAI						
	Voids ii	n the Mineral Age	gregate	Voids Filled		
		(VMA),		with Asphalt		
		% minimum		Binder		
Ndesign		IL-4.75 ^{1/}				
_	IL-19.0	IL-19.0 IL-9.5				
50		65 – 78 ^{2/}				
70	13.5	65 75				
90	10.0	10.0		05 - 75		

- 1/ Maximum Draindown for IL-4.75 shall be 0.3 percent
- 2/ VFA for IL-4.75 shall be 72-85 percent"

Replace Article 1030.04(b)(3) of the Standard Specifications with the following:

"(3) SMA Mixtures.

Volumetric Requirements SMA ^{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/} 16.0 ^{3/}	75 - 83			

- 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."

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).

2) Design Verification and Production

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

"(d) Verification Testing. High ESAL, IL-4.75, and SMA mix designs submitted for verification will be tested to ensure that the resulting mix designs will pass the required criteria for the Hamburg Wheel Test (IL mod AASHTO T-324) and the Tensile Strength Test (IL mod AASHTO T-283). The Department will perform a verification test on gyratory specimens compacted by the Contractor. If the mix fails the Department's verification test, the Contractor shall make the necessary changes to the mix and resubmit compacted specimens to the Department for verification. If the mix fails again, the mix design will be rejected.

All new and renewal mix designs will be required to be tested, prior to submittal for Department verification and shall meet the following requirements:

(1)Hamburg Wheel Test criteria. 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.

Asphalt Binder Grade	# Repetitions	Max Rut Depth (mm)
PG 70 -XX (or higher)	20,000	12.5
PG 64 -XX (or lower)	10,000	12.5

Illinois Modified AASHTO T 324 Requirements ^{1/}

- 1/ When produced at temperatures of 275 ± 5 °F (135 ± 3 °C) or less, 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.
- Note: For SMA Designs (N-80) the maximum rut depth is 6.0 mm at 20,000 repetitions. For IL 4.75mm Designs (N-50) the maximum rut depth is 9.0mm at 15,000 repetitions.
- (2) Tensile Strength Criteria. 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. The maximum allowable unconditioned tensile strength shall be 200 psi (1380 kPa)."

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

"(a) High ESAL, IL-4.75, WMA, and SMA Mixtures. For each contract, a 300 ton (275 metric tons) test strip, except for SMA mixtures it will be 400 ton (363 metric ton), will be required at the beginning of HMA production for each mixture at the beginning of 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."

Add the following after the sixth paragraph in Article 1030.06 (a) of the Standard Specifications:

"The Hamburg Wheel test shall also be conducted on all HMA mixtures from a sample taken within the first 500 tons (450 metric tons) on the first day of production or during start up with a split reserved for the Department. The mix sample shall be tested according to the Illinois Modified AASHTO T 324 and shall meet the requirements specified herein. Mix production shall not exceed 1500 tons (1350 metric tons) or one day's production, whichever comes first, until the testing is completed and the mixture is found to be in conformance. The requirement to cease mix production may be waived if the plant produced mixture demonstrates conformance prior to start of mix production for a contract.

If the mixture fails to meet the Hamburg Wheel criteria, no further mixture will be accepted until the Contractor takes such action as is necessary to furnish a mixture meeting the criteria"

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 fourth paragraph of Article 406.14 of the Standard Specifications with the following:

"Stone matrix asphalt will be paid for at the contract unit price per ton (metric ton) for POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, STONE MATRIX ASPHALT, of the mixture composition and Ndesign specified; and POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, STONE MATRIX ASPHALT, of the mixture composition and Ndesign specified."

RECLAIMED ASPHALT PAVEMENT FOR NON-POROUS EMBANKMENT AND BACKFILL

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

Add the following sentence to Article 1004.05 (a) of the Standard Specifications:

"Reclaimed Asphalt Pavement (RAP) may be used as aggregate in Non-porous Granular Embankment and Backfill. The Rap material shall be reclaimed asphalt pavement material resulting from the cold milling or crushing of an existing hot-mix bituminous concrete pavement structure, including shoulders. RAP containing contaminants such as earth, brick, concrete, sheet asphalt, sand, or other materials identified by the Department will be unacceptable until the contaminants are thoroughly removed.

Add the following sentence to Article 1004.05 (c)(2) of the Standard Specifications:

"One hundred percent of the RAP when used shall pass the 3 inch (75 mm) sieve. The RAP shall be well graded from coarse to fine. RAP that is gap-graded or single-sized will not be accepted."

RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES (D-1)

Effective: November 1, 2012 Revise: January 1, 2018

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 resulting from cold milling or crushing an existing hot-mix asphalt (HMA) pavement. RAP will be considered processed FRAP after completion of both crushing and screening to size. 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). Reclaimed asphalt shingles (RAS). RAS is 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, as defined in Central Bureau of Materials Policy Memorandum, "Reclaimed Asphalt Shingle (RAS) Sources", by weight of RAS. All RAS used shall come from a Central Bureau of Materials approved processing facility where it shall be ground and processed to 100 percent passing the 3/8 in. (9.5 mm) sieve and 90 percent passing the #4 (4.75 mm) sieve. RAS 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, sealed RAP stockpiles meeting one of the following definitions. Additional processed RAP (FRAP) shall be stockpiled in a separate working pile, as designated in the QC Plan, and only added to the sealed stockpile when test results for the working pile are complete and are found to meet tolerances specified herein for the original sealed FRAP stockpile. Stockpiles shall be sufficiently separated to prevent intermingling at the base. All stockpiles (including unprocessed RAP and FRAP) shall be identified by signs indicating the type as listed below (i.e. "Non- Quality, FRAP -#4 or Type 2 RAS", etc...).
 - (1) Fractionated RAP (FRAP). FRAP shall consist of RAP from Class I, HMA (High and Low ESAL) or equivalent 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. All FRAP shall be processed prior to testing and sized into fractions with the separation occurring on or between the #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 mix the FRAP will be used in.

- (2) Restricted FRAP (B quality) stockpiles shall consist of RAP from Class I, HMA (High ESAL), or HMA (High ESAL). If approved by the Engineer, the aggregate from a maximum 3.0 in. (75 mm) single combined pass of surface/binder milling will be classified as B quality. All millings from this application will be processed into FRAP as described previously.
- (3) Conglomerate. Conglomerate RAP stockpiles shall consist of RAP from Class I, HMA (High and Low ESAL) or equivalent 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. All conglomerate RAP shall be processed (FRAP) prior to testing. Conglomerate RAP stockpiles shall not contain steel slag or other expansive material as determined by the Department.
- (4) Conglomerate "D" Quality (DQ). Conglomerate DQ RAP stockpiles shall consist of RAP from HMA shoulders, bituminous stabilized subbases or HMA (Low ESAL)/HMA (Low ESAL) IL-19.0L 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. Conglomerate DQ RAP stockpiles shall not contain steel slag or other expansive material as determined by the Department.
- (5) Non-Quality. RAP stockpiles that do not meet the requirements of the stockpile categories listed above shall be classified as "Non-Quality".

RAP or FRAP containing contaminants, such as earth, brick, sand, concrete, sheet asphalt, bituminous surface treatment (i.e. chip seal), 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 be sufficiently separated to prevent intermingling at the base. Each stockpile shall be signed indicating what type of RAS is present.

However, a RAS source may submit a written request to the Department for approval to blend mechanically a specified ratio of Type 1 RAS with Type 2 RAS. The source will not be permitted to change the ratio of the blend without the Department prior written approval. The Engineer's written approval will be required, to mechanically blend RAS with any fine aggregate produced under the AGCS, up to an equal weight of RAS, to improve workability. The fine aggregate shall be "B Quality" or better from an approved Aggregate Gradation Control System source. The fine aggregate shall be one that is approved for use in the HMA mixture and 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.

1031.03 Testing. FRAP and RAS testing shall be according to the following.

- (a) FRAP Testing. When used in HMA, the FRAP shall be sampled and tested either during processing or after stockpiling. It shall also be sampled during HMA production.
 - (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 2000 tons (1800 metric tons) and one sample per 2000 tons (1800 metric tons) thereafter. A minimum of five tests shall be required for stockpiles less than 4000 tons (3600 metric tons).
 - (2) Incoming Material. For testing as incoming material, washed extraction samples shall be run at a minimum frequency of one sample per 2000 tons (1800 metric tons) or once per week, whichever comes first.
 - (3) After Stockpiling. For testing after stockpiling, the Contractor shall submit a plan for approval to the District 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.

Before extraction, each field sample of FRAP, shall be split to obtain two 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 extract the other test sample according to Department procedure. The Engineer reserves the right to test any sample (split or Department-taken) to verify Contractor test results.

- (b) RAS Testing. RAS shall be sampled and tested during stockpiling according to Central Bureau of Materials Policy Memorandum, "Reclaimed Asphalt Shingle (RAS) Sources". The Contractor shall also sample as incoming material at the HMA plant.
 - (1) During Stockpiling. Washed extraction and testing for unacceptable materials shall be run at the minimum frequency of one sample per 200 tons (180 metric tons) for the first 1000 tons (900 metric tons) and one sample per 1000 tons (900 metric tons) thereafter. A minimum of five samples are required for stockpiles less than 1000 tons (900 metric tons). Once a ≤ 1000 ton (900 metric ton), five-sample/test stockpile has been established it shall be sealed. Additional incoming RAS shall be in a separate working pile as designated in the Quality Control plan and only added to the sealed stockpile when the test results of the working pile are complete and are found to meet the tolerances specified herein for the original sealed RAS stockpile.
 - (2) Incoming Material. For testing as incoming material at the HMA plant, washed extraction shall be run at the minimum frequency of one sample per 250 tons (227 metric tons). A minimum of five samples are required for stockpiles less than

1000 tons (900 metric tons). The incoming material test results shall meet the tolerances specified herein.

The Contractor shall obtain and make available all test results from start of the initial stockpile sampled and tested at the shingle processing facility in accordance with the facility's QC Plan.

Before extraction, each field sample shall be split to obtain two 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 extract the other test sample according to Department procedures. The Engineer reserves the right to test any sample (split or Department-taken) to verify Contractor test results.

1031.04 Evaluation of Tests. Evaluation of test results shall be according to the following.

(a) Evaluation of FRAP Test Results. All test results shall be compiled to include asphalt binder content, gradation and, when applicable (for slag), G_{mm}. A five test average of results from the original pile will be used in the mix designs. Individual extraction test results run thereafter, shall be compared to the average used for the mix design, and will be accepted if within the tolerances listed below.

Parameter	FRAP
No. 4 (4.75 mm)	± 6 %
No. 8 (2.36 mm)	± 5 %
No. 30 (600 μm)	± 5 %
No. 200 (75 μm)	\pm 2.0 %
Asphalt Binder	\pm 0.3 %
G _{mm}	\pm 0.03 ^{1/}

1/ For stockpile with slag or steel slag present as determined in the current Manual of Test Procedures Appendix B 21, "Determination of Reclaimed Asphalt Pavement Aggregate Bulk Specific Gravity".

If any individual sieve and/or asphalt binder content tests are out of the above tolerances when compared to the average used for the mix design, the FRAP stockpile shall not be used in Hot-Mix Asphalt unless the FRAP representing those tests is removed from the stockpile. All test data and acceptance ranges shall be sent to the District for evaluation.

The Contractor shall maintain a representative moving average of five tests to be used for Hot-Mix Asphalt production.

With the approval of the Engineer, the ignition oven may be substituted for extractions according to the ITP, "Calibration of the Ignition Oven for the Purpose of Characterizing Reclaimed Asphalt Pavement (RAP)" or Illinois Modified AASHTO T-164-11, Test Method A.

(b) Evaluation of RAS 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. A five test average of results from the original pile will be used in the mix designs. Individual test results run thereafter, when compared to the average used for the mix design, will be accepted if within the tolerances listed below.

Parameter	RAS
No. 8 (2.36 mm)	± 5 %
No. 16 (1.18 mm)	± 5 %
No. 30 (600 µm)	±4%
No. 200 (75 μm)	± 2.5 %
Asphalt Binder Content	± 2.0 %

If any individual sieve and/or asphalt binder content tests are out of the above tolerances when compared to the average used for the mix design, the RAS shall not be used in Hot-Mix Asphalt unless the RAS representing those tests is removed from the stockpile. All test data and acceptance ranges shall be sent to the District for evaluation.

(c) Quality Assurance by the Engineer. The Engineer may witness the sampling and splitting conduct assurance tests on split samples taken by the Contractor for quality control testing a minimum of once a month.

The overall testing frequency will be performed over the entire range of Contractor samples for asphalt binder content and gradation. The Engineer may select any or all split samples for assurance testing. The test results will be made available to the Contractor as soon as they become available.

The Engineer will notify the Contractor of observed deficiencies.

Differences between the Contractor's and the Engineer's split sample test results will be considered acceptable if within the following limits.

Test Parameter	Acceptable Limits of Precision	
% Passing:1/	FRAP	RAS
1/2 in.	5.0%	
No. 4	5.0%	
No. 8	3.0%	4.0%
No. 30	2.0%	4.0%
No. 200	2.2%	4.0%
Asphalt Binder Content	0.3%	3.0%
G _{mm}	0.030	

1/ Based on washed extraction.

In the event comparisons are outside the above acceptable limits of precision, the Engineer will immediately investigate.

(d) Acceptance by the Engineer. Acceptable of the material will be based on the validation of the Contractor's quality control by the assurance process.

1031.05 Quality Designation of Aggregate in RAP and FRAP.

- (a) RAP. The aggregate quality of the RAP for homogeneous, conglomerate, and conglomerate "D" quality 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 HMA (Low ESAL) IL-19.0L binder mixture is designated as Class D quality coarse aggregate.
 - (3) RAP from Class I, HMA (High ESAL) binder mixtures, bituminous base course mixtures, and bituminous base course widening mixtures are designated as containing Class C quality coarse aggregate.
 - (4) RAP from bituminous 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. Fractionated RAP stockpiles containing plus #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 to the District Office. The cost for this testing shall be paid by the Contractor. 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. The fine aggregate portion of the fractionated RAP shall not be used in any HMA mixtures that require a minimum of "B" quality aggregate or better, until the coarse aggregate fraction has been determined to be acceptable thru a MicroDeval Testing.

1031.06 Use of FRAP and/or RAS in HMA. The use of FRAP and/or RAS shall be the Contractor's option when constructing HMA in all contracts.

- (a) FRAP. The use of FRAP in HMA shall be as follows.
 - (1) Coarse Aggregate Size (after extraction). The coarse aggregate in all FRAP shall be equal to or less than the nominal maximum size requirement for the HMA mixture to be produced.

- (2) Steel Slag Stockpiles. FRAP stockpiles containing steel slag or other expansive material, as determined by the Department, shall be homogeneous and will be approved for use in HMA (High ESAL and Low ESAL) mixtures regardless of lift or mix type.
- (3) Use in HMA Surface Mixtures (High and Low ESAL). FRAP stockpiles for use in HMA surface mixtures (High and Low ESAL) shall have coarse aggregate that is Class B quality or better. FRAP shall be considered equivalent to limestone for frictional considerations unless produced/screened to minus 3/8 inch.
- (4) Use in HMA Binder Mixtures (High and Low ESAL), HMA Base Course, and HMA Base Course Widening. FRAP stockpiles for use in HMA binder mixtures (High and Low ESAL), HMA base course, and HMA base course widening shall be FRAP in which the coarse aggregate is Class C quality or better.
- (5) Use in Shoulders and Subbase. FRAP stockpiles for use in HMA shoulders and stabilized subbase (HMA) shall be FRAP, Restricted FRAP, conglomerate, or conglomerate DQ.
- (b) RAS. RAS meeting Type 1 or Type 2 requirements will be permitted in all HMA applications as specified herein.
- (c) FRAP and/or RAS Usage Limits. Type 1 or Type 2 RAS may be used alone or in conjunction with FRAP in HMA mixtures up to a maximum of 5.0 percent by weight of the total mix.

When FRAP is used alone or FRAP is used in conjunction with RAS, the percent of virgin asphalt binder replacement (ABR) shall not exceed the amounts indicated in the table below for a given N Design.

HMA Mixtures ^{1/2/4/}	Maximum % ABR		
Ndesign	Binder/Leveling	Surface	Polymer
	Dilidei		
30L	50	40	30
50	40	35	30
70	40	30	30
90	40	30	30
4.75 mm N-50			40
SMA N-80			30

Max Asphalt Binder Replacement for FRAP with RAS Combination

- 1/ For Low ESAL HMA shoulder and stabilized subbase, the percent asphalt binder replacement shall not exceed 50 % of the total asphalt binder in the mixture.
- 2/ When the binder replacement exceeds 15 % for all mixes, except for SMA and IL-4.75, the high and low virgin asphalt binder grades shall

each be reduced by one grade (i.e. 25 % binder replacement using a virgin asphalt binder grade of PG64-22 will be reduced to a PG58-28). When constructing full depth HMA and the ABR is less than 15 %, the required virgin asphalt binder grade shall be PG64-28.

- 3/ When the ABR for SMA or IL-4.75 is 15 % or less, the required virgin asphalt binder shall be SBS PG76-22 and the elastic recovery shall be a minimum of 80. When the ABR for SMA or IL-4.75 exceeds 15%, the virgin asphalt binder grade shall be SBS PG70-28 and the elastic recovery shall be a minimum of 80.
- 4/ When FRAP or RAS is used alone, the maximum percent asphalt binder replacement designated on the table shall be reduced by 10 %.

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) FRAP and/or RAS. FRAP and /or RAS mix designs shall be submitted for verification. If additional FRAP or RAS stockpiles are tested and found to be within tolerance, as defined under "Evaluation of Tests" herein, and meet all requirements herein, the additional FRAP or RAS stockpiles may be used in the original 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 specific gravities (G_{sb}) shall be according to the "Determination of Aggregate Bulk (Dry) Specific Gravity (G_{sb}) or 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 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 RAS and FRAP feed system to remove or reduce oversized material.

If during mix production, corrective actions fail to maintain FRAP, RAS or QC/QA test results within control tolerances or the requirements listed herein the Contractor shall cease production of the mixture containing FRAP or RAS and conduct an investigation that may require a new mix design.

(a) 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.

- (b) HMA Plant Requirements. HMA plants utilizing 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 RAS and FRAP 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 RAS and FRAP material as a percent of the total mix to the nearest 0.1 percent.
 - h. Aggregate RAS and FRAP moisture compensators in percent as set on the control panel. (Required when accumulated or individual aggregate and RAS and FRAP are printed in wet condition.)
 - i. When producing mixtures with FRAP and/or RAS, a positive dust control system shall be utilized.
 - j. Accumulated mixture tonnage.
 - k. Dust Removed (accumulated to the nearest 0.1 ton (0.1 metric ton))
 - (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).
 - f. RAS and FRAP weight to the nearest pound (kilogram).
 - g. Virgin asphalt binder weight to the nearest pound (kilogram).

h. Residual asphalt binder in the RAS and FRAP 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 Surface Course and Aggregate Wedge Shoulders, Type B. The use of RAP or FRAP in aggregate surface course and aggregate shoulders shall be as follows.

- (a) 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. RAP used shall be according to the current Central Bureau of Materials Policy Memorandum, "Reclaimed Asphalt Pavement (RAP) for Aggregate Applications".
- (b) Gradation. The RAP material shall meet the gradation requirements for CA 6 according to Article 1004.01(c), except the requirements for the minus No. 200 (75 μm) sieve shall not apply. The sample for the RAP material shall be air dried to constant weight prior to being tested for gradation."

SLIPFORM PAVING (D-1)

Effective: November 1, 2014

Revise Article 1020.04 Table 1, Note (5) of Standard Specifications to read:

"The slump range for slipform construction shall be 1/2 to 1 1/2 in."

Revise Article 1020.04 Table 1 (metric), Note (5) of Standard Specifications to read:

"The slump range for slipform construction shall be 13 to 40 mm."

STORM SEWER ADJACENT TO OR CROSSING WATER MAIN

Effective: February 1, 1996 Revised: January 1, 2007

This work consists of constructing storm sewer adjacent to or crossing a water main, at the locations shown on the plans. The material and installation requirements shall be according to the latest edition of the "Standard Specifications for Water and Sewer Main Construction in Illinois", and the applicable portions of Section 550 of the Standard Specifications; which may include concrete collars and encasing pipe with seals if required.

Pipe materials shall meet the requirements of Sections 40 and 41-2.01 of the "Standard Specifications for Water and Sewer Main Construction in Illinois", except PVC pipe will not be allowed. Ductile-Iron pipe shall meet the minimum requirements for Thickness Class 50.

Encasing of standard type storm sewer, according to the details for "Water and Sewer Separation Requirements (Vertical Separation)" in the "STANDARD DRAWINGS" Division of the "Standard

Specifications for Water and Sewer Main Construction in Illinois", may be used for storm sewers crossing water mains.

<u>Basis of Payment</u>: This work will be paid according to Article 550.10 of the Standard Specifications, except the pay item shall be STORM SEWER (WATER MAIN REQUIREMENTS), of the diameter specified.

TEMPORARY INFORMATION SIGNING

Effective: November 13, 1996 Revised: January 2, 2007

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:

ltem	Article/Section
Sign Base (Notes 1 & 2)	1090
Sign Face (Note 3)	1091
Sign Legends	1092
Sign Supports	1093
Overlay Panels (Note 4)	1090.02
	<u>Item</u> Sign Base (Notes 1 & 2) Sign Face (Note 3) Sign Legends Sign Supports Overlay Panels (Note 4)

- Note 1. The Contractor may use 5/8 inch (16 mm) instead of 3/4 inch (19 mm) thick plywood.
- Note 2. Type A sheeting can be used on the plywood base.
- Note 3. All sign faces shall be Type A except all orange signs shall meet the requirements of Article 1106.01.
- Note 4. The overlay panels shall be 0.08 inch (2 mm) thick.

GENERAL CONSTRUCTION REQUIRMENTS

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 sign structures or sign panels shall be approved by the Engineer. Any damage to the existing signs due to the Contractor's operations shall be repaired or signs replaced, as determined by the Engineer, at the Contractor's expense. Signs which are placed on overhead bridge structures shall be fastened to the handrail with stainless steel bands. These signs shall rest on the concrete parapet where possible. The Contractor shall furnish mounting details for approval by the Engineer.

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.

TEMPORARY PAVEMENT

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

<u>Description</u>. 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.

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

<u>Basis of Payment.</u> 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 SIGNAL GENERAL REQUIREMENTS

Effective: May 22, 2002 Revised: March 25, 2016 800.01TS

These Traffic Signal Special Provisions and the "District One Standard Traffic Signal Design Details" supplement the requirements of the State of Illinois "Standard Specifications for Road and Bridge Construction." The intent of these Special Provisions is to prescribe the materials and construction methods commonly used for traffic signal installations.

- All material furnished shall be new unless otherwise noted herein.
- Traffic signal construction and maintenance work shall be performed by personnel holding current IMSA Traffic Signal Technician Level II certification. A copy of the certification shall be immediately available upon request of the Engineer.
- The work to be done under this contract consists of furnishing, installing and maintaining all traffic signal work and items as specified in the Plans and as specified herein in a manner acceptable and approved by the Engineer.

Definitions of Terms.

Add the following to Section 101 of the Standard Specifications:

101.56 Vendor. Company that sells a particular type of product directly to the contractor or the Equipment Supplier.

101.57 Equipment supplier. Company that supplies, represents and provides technical support for IDOT District One approved traffic signal controllers and other related equipment. The Equipment Supplier shall be located within IDOT District One and shall:

- Be full service with on-site facilities to assemble, test and trouble-shoot traffic signal controllers and cabinet assemblies.
- Maintain an inventory of IDOT District One approved controllers and cabinets.
- Be staffed with permanent sales and technical personnel able to provide traffic signal controller and cabinet expertise and support.
- Technical staff shall hold current IMSA Traffic Signal Technician Level III certification and shall attend traffic signal turn-ons and inspections with a minimum 14 calendar day notice.

Submittals.

Revise Article 801.05 of the Standard Specifications to read:

All material approval requests shall be submitted electronically through the District's SharePoint System unless directed otherwise by the Engineer. Electronic material submittals shall follow the District's Traffic Operations Construction Submittals guidelines. General requirements include:

- 1. All material approval requests shall be made prior to or no later than the date of the preconstruction meeting. A list of major traffic signal items can be found in Article 801.05. Material or equipment which is similar or identical shall be the product of the same manufacturer, unless necessary for system continuity. Traffic signal materials and equipment shall bear the U.L. label whenever such labeling is available.
- 2. Product data and shop drawings shall be assembled by pay item. Only the top sheet of each pay item submittal will be stamped by the Department with the review status, except

shop drawings for mast arm pole assemblies and the like will be stamped with the review status on each sheet.

- 3. Original manufacturer published product data and shop drawing sheets with legible dimensions and details shall be submitted for review.
- 4. When hard copy submittals are necessary, four complete copies of the manufacturer's descriptive literatures and technical data for the traffic signal materials shall be submitted. For hard copy or electronic submittals, the descriptive literature and technical data shall be adequate for determining whether the materials meet the requirements of the plans and specifications. If the literature contains more than one item, the Contractor shall indicate which item or items will be furnished.
- 5. When hard copy submittals are necessary for structural elements, four complete copies of the shop drawings for the mast arm assemblies and poles, and the combination mast arm assemblies and poles showing, in detail, the fabrication thereof and the certified mill analyses of the materials used in the fabrication, anchor rods, and reinforcing materials shall be submitted.
- 6. Partial or incomplete submittals will be returned without review.
- 7. Certain non-standard mast arm poles and special structural elements will require additional review from IDOT's Central Office. Examples include ornamental/decorative, non-standard length mast arm pole assemblies and monotube structures. The Contractor shall account for the additional review time in his schedule.
- 8. The contract number or permit number, project location/limits and corresponding pay code number must be on each sheet of correspondence, catalog cuts and mast arm poles and assemblies drawings.
- 9. Where certifications and/or warranties are specified, the information submitted for approval shall include certifications and warranties. Certifications involving inspections, and/or tests of material shall be complete with all test data, dates, and times.
- 10. After the Engineer reviews the submittals for conformance with the design concept of the project, the Engineer will stamp the drawings indicating their status as 'Approved', 'Approved-As-Noted', 'Disapproved', or 'Incomplete'. Since the Engineer's review is for conformance with the design concept only, it is the Contractor's responsibility to coordinate the various items into a working system as specified. The Contractor shall not be relieved from responsibility for errors or omissions in the shop, working, layout drawings, or other documents by the Department's approval thereof. The Contractor must still be in full compliance with contract and specification requirements.
- 11. The Contractor shall secure approved materials in a timely manner to assure construction schedules are not delayed.
- 12. All submitted items reviewed and marked 'APPROVED AS NOTED', 'DISAPPROVED', or 'INCOMPLETE' are to be resubmitted in their entirety, unless otherwise indicated within the submittal comments, with a disposition of previous comments to verify contract compliance at no additional cost to the contract.
- 13. Exceptions to and deviations from the requirements of the Contract Documents will not be allowed. It is the Contractor's responsibility to note any deviations from Contract requirements at the time of submittal and to make any requests for deviations in writing to the Engineer. In general, substitutions will not be acceptable. Requests for substitutions must demonstrate that the proposed substitution is superior to the material or equipment required by the Contract Documents. No exceptions, deviations or substitutions will be permitted without the approval of the Engineer.
- 14. Contractor shall not order major equipment such as mast arm assemblies prior to Engineer approval of the Contractor marked proposed traffic signal equipment locations to assure

proper placement of contract required traffic signal displays, push buttons and other facilities. Field adjustments may require changes in proposed mast arm length and other coordination.

Marking Proposed Locations.

Revise "Marking Proposed Locations for Highway Lighting System" of Article 801.09 to read "Marking Proposed Locations for Highway Lighting System and Traffic Signals."

Add the following to Article 801.09 of the Standard Specifications:

It shall be the contractor's responsibility to verify all dimensions and conditions existing in the field prior to ordering materials and beginning construction. This shall include locating the mast arm foundations and verifying the mast arms lengths.

Inspection of Electrical Systems.

Add the following to Article 801.10 of the Standard Specifications:

(c) All cabinets including temporary traffic signal cabinets shall be assembled by an approved equipment supplier in District One. The Department reserves the right to request any controller and cabinet to be tested at the equipment supplier's facility prior to field installation, at no extra cost to this contract.

Maintenance and Responsibility.

Revise Article 801.11 of the Standard Specifications to read:

- Existing traffic signal installations and/or any electrical facilities at all or various a. locations may be altered or reconstructed totally or partially as part of the work on this Contract. The Contractor is hereby advised that all traffic control equipment, presently installed at these locations, may be the property of the State of Illinois, Department of Transportation, Division of Highways, County, Private Developer, Municipality or Transit Agency in which they are located. Once the Contractor has begun any work on any portion of the project, all traffic signals within the limits of this contract or those which have the item "Maintenance of Existing Traffic Signal Installation," "Temporary Traffic Signal Installation(s)" and/or "Maintenance of Existing Flashing Beacon Installation," shall become the full responsibility of the The Contractor shall supply the Engineer, Area Traffic Signal Contractor. Maintenance and Operations Engineer, IDOT ComCenter and the Department's Electrical Maintenance Contractor with two 24-hour emergency contact names and telephone numbers.
- b. Automatic Traffic Enforcement equipment such as red lighting running and railroad crossing camera systems are owned and operated by others and the Contractor shall not be responsible for maintaining this equipment.
- c. Regional transit, County and other agencies may also have equipment connected to existing traffic signal or peripheral equipment such as PTZ cameras, switches, transit signal priority (TSP and BRT) servers and other devices that shall be included with traffic signal maintenance at no additional cost to the contract.

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- d. When the project has a pay item for "Maintenance of Existing Traffic Signal Installation," "Temporary Traffic Signal Installation(s)" and/or "Maintenance of Existing Flashing Beacon Installation," the Contractor must notify both the Area Traffic Signal Maintenance and Operations Engineer at (847) 705-4424 and the Department's Electrical Maintenance Contractor, of their intent to begin any physical construction work on the Contract or any portion thereof. This notification must be made a minimum of seven (7) working days prior to the start of construction to allow sufficient time for inspection of the existing traffic signal installation(s) and transfer of maintenance to the Contractor. The Department will attempt to full-fill the Contractor's inspection date request(s), however workload and other conditions may prevent the Department from accommodating specific dates or times. The Contractor shall not be entitled to any other compensation if the requested inspection date(s) cannot be scheduled by the Department. If work is started prior to an inspection, maintenance of the traffic signal installation(s) will be transferred to the Contractor without an inspection. The Contractor will become responsible for repairing or replacing all equipment that is not operating properly or is damaged at no cost to the owner of the traffic signal. Final repairs or replacement of damaged equipment must meet the approval of the Engineer prior to or at the time of final inspection otherwise the traffic signal installation will not be accepted.
- e. The Contractor is advised that the existing and/or temporary traffic signal installation must remain in operation during all construction stages, except for the most essential down time. Any shutdown of the traffic signal installation, which exceeds fifteen (15) minutes, must have prior approval of the Engineer. Approval to shut down the traffic signal installation will only be granted during the period extending from 10:00 a.m. to 3:00 p.m. on weekdays. Shutdowns shall not be allowed during inclement weather or holiday periods.
- f. The Contractor shall be fully responsible for the safe and efficient operation of the traffic signals and other equipment noted herein. Any inquiry, complaint or request by the Department, the Department's Electrical Maintenance Contractor or the public, shall be investigated and repairs begun within one hour. Failure to provide this service will result in liquidated damages of \$1000 per day per occurrence. In addition, the Department 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 \$1000 per month per occurrence. Unpaid bills will be deducted from the cost of The Department may inspect any signalizing device on the the Contract. Department's highway system at any time without notification.
- g. Any proposed activity in the vicinity of a highway-rail grade crossing must adhere to the guidelines set forth in the current edition of the Manual on Uniform Traffic Control Devices (MUTCD) regarding work in temporary traffic control zones in the vicinity of highway-rail grade crossings which states that lane restrictions, flagging, or other operations shall not create conditions where vehicles can be queued across the railroad tracks. If the queuing of vehicles across the tracks cannot be

avoided, a uniformed law enforcement officer or flagger shall be provided at the crossing to prevent vehicles from stopping on the tracks, even if automatic warning devices are in place.

- h. The Contractor shall be responsible to clear snow, ice, dirt, debris or other condition that obstructs visibility of any traffic signal display or access to traffic signal equipment.
- i. The Contractor shall maintain the traffic signal in normal operation during short or long term loss of utility or battery back-up power at critical locations designated by the Engineer. Critical locations may include traffic signals interconnected to railroad warning devices, expressway ramps, intersection with an SRA route, critical corridors or other locations identified by the Engineer. Temporary power to the traffic signal must meet applicable NEC and OSHA guidelines and may include portable generators and/or replacement batteries. Temporary power to critical locations shall not be for separately but shall be included in the contract.

Damage to Traffic Signal System.

Add the following to Article 801.12(b) of the Standard Specifications to read:

Any traffic signal control equipment damaged or not operating properly from any cause shall be replaced with new equipment meeting current District One traffic signal specifications and provided by the Contractor at no additional cost to the Contract and/or owner of the traffic signal system, all as approved by the Engineer. Final replacement of damaged equipment must meet the approval of the Engineer prior to or at the time of final inspection otherwise the traffic signal installation will not be accepted. Cable splices are only allowed at the bases pf post and mast arms.

Temporary replacement of damaged or knockdown of a mast arm pole assembly shall require construction of a full or partial span wire signal installation or other method approved by the Engineer to assure signal heads are located overhead and over traveled pavement. Temporary replacement of mast arm mount signals with post mount signals will not be permitted.

Automatic Traffic Enforcement equipment, such as Red Light Enforcement cameras, detectors, and peripheral equipment, damaged or not operating properly from any cause, shall be the responsibility of the municipality or the Automatic Traffic Enforcement company per Permit agreement.

Traffic Signal Inspection (TURN-ON).

Revise Article 801.15(b) of the Standard Specifications to read:

It is the intent to have all electric work completed and equipment field tested by the Equipment Supplier prior to the Department's "turn-on" field inspection. If in the event the Engineer determines work is not complete and the inspection will require more than two (2) hours to complete, the inspection shall be canceled and the Contractor will be required to reschedule at another date. The maintenance of the traffic signals will not be accepted until all punch list work is corrected and re-inspected.

When the road is open to traffic, except as otherwise provided in Section 850 of the Standard Specifications, the Contractor may request a turn-on and inspection of the completed traffic signal installation at each separate location. This request must be made to the Area Traffic Signal Maintenance and Operations Engineer at (847) 705-4424 a minimum of seven (7) working days prior to the time of the requested inspection. The Department will attempt to full-fill the Contractor's turn-on and inspection date request(s), however workload and other conditions may prevent the Department from accommodating specific dates or times. The Contractor shall not be entitled to any other compensation if the requested turn-on and inspection date(s) cannot be scheduled by the Department. The Department will not grant a field inspection until written or electronic notification is provided from the Contractor that the equipment has been field tested and the intersection is operating according to Contract requirements. The Contractor must invite local fire department personnel to the turn-on when Emergency Vehicle Preemption (EVP) is included in the project. When the contract includes the item RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM, OPTIMIZE TRAFFIC SIGNAL SYSTEM, or TEMPORARY TRAFFIC SIGNAL TIMINGS, the Contractor must notify the SCAT Consultant of the turn-on/detour implementation schedule, as well as stage changes and phase changes during construction.

The Contractor must have all traffic signal work completed and the electrical service installation connected by the utility company prior to requesting an inspection and turn-on of the traffic signal installation. The Contractor shall be responsible to provide a police officer to assist with traffic control at the time of testing.

The Contractor shall provide a representative from the control equipment vendor's office who is knowledgeable of the cabinet design and controller functions to attend the traffic signal inspection for both permanent and temporary traffic signal turn-ons.

Upon demonstration that the signals are operating and all work is completed in accordance with the Contract and to the satisfaction of the Engineer, the Engineer will then allow the signals to be placed in continuous operation. The Agency that is responsible for the maintenance of each traffic signal installation will assume the maintenance upon successful completion of this inspection.

The District requires the following Final Project Documentation from the Contractor at traffic signal turn-ons in electronic format in addition to hard copies where noted. A CD/DVD shall be submitted with separate folders corresponding to each numbered title below. The CD/DVD shall be labelled with date, project location, company and contract or permit number. Record Drawings, Inventory and Material Approvals shall be submitted prior to traffic signal turn-on for review by the Department as described here-in.

Final Project Documentation:

- 1. Record Drawings. Signal plans of record with field revisions marked in red ink. One hard copy set of 11"x17" record drawings shall also be provided.
- 2. Inventory. Inventory of new and existing traffic signal equipment including cabinet types and devices within cabinets in an Excel spread sheet format. One hard copy shall also be provided.
- 3. Pictures. Digital pictures of a minimum 12M pixels of each intersection approach showing all traffic signal displays and equipment. Pictures shall include controller cabinet equipment in enough detail to clearly identify manufacture and model of major equipment.

- 4. Field Testing. Written notification from the Contractor and the equipment vendor of satisfactory field testing with corresponding material performance measurements, such as for detector loops and fiber optic systems (see Article 801.13). One hard copy of all contract required performance measurement testing shall also be provided.
- 5. Materials Approval. The material approval letter. A hard copy shall also be provided.
- 6. Manuals. Operation and service manuals of the signal controller and associated control equipment. One hard copy shall also be provided.
- 7. Cabinet Wiring Diagram and Cable Logs. Five (5) hard copies 11" x 17" of the cabinet wiring diagrams shall be provided along with electronic pdf and dgn files of the cabinet wiring diagram. Five hard copies of the cable logs and electronic excel files shall be provided with cable #, number of conductors and spares, connected device/signal head and intersection location.
- 8. Controller Programming Settings. The traffic signal controller's timings; backup timings; coordination splits, offsets, and cycles; TBC Time of Day, Week and Year Programs; Traffic Responsive Program, Detector Phase Assignment, Type and Detector Switching; and any other functions programmable from the keyboard. The controller manufacturer shall also supply a printed form, not to exceed 11" x 17" for recording that data noted above. The form shall include a location, date, manufacturer's name, controller model and software version. The form shall be approved by the Engineer and a minimum of three (3) copies must be furnished at each turn-on. The manufacturer must provide all programming information used within the controller at the time of turn-on.
- 9. Warrantees and Guarantees. All manufacturer and contractor warrantees and guarantees required by Article 801.14.
- 10. GPS coordinate of traffic signal equipment as describe in the Record Drawings section herein.

Acceptance of the traffic signal equipment by the Department shall be based upon inspection results at the traffic signal "turn on", completeness of the required documentation and successful operation during a minimum 72 hour "burn-in" period following activation of the traffic signal. If approved, traffic signal acceptance shall be verbal at the "turn on" inspection followed by written correspondence from the Engineer. The Contractor shall be responsible for all traffic signal equipment and associated maintenance thereof until Departmental acceptance is granted.

All equipment and/or parts to keep the traffic signal installation operating shall be furnished by the Contractor. No spare traffic signal equipment is available from the Department.

All punch list work shall be completed within two (2) weeks after the final inspection. The Contractor shall notify the Electrical Maintenance Contractor to inspect all punch list work. Failure to meet these time constraints shall result in liquidated damage charges of \$500 per month per incident.

All cost of work and materials required to comply with the above requirements shall be included in the pay item bid prices, under which the subject materials and signal equipment are paid, and no additional compensation will be allowed. Materials and signal equipment not complying with the above requirements shall be subject to removal and disposal at the Contractor's expense.

Record Drawings.

The requirements listed for Electrical Installation shall apply for Traffic Signal Installations in Article 801.16. Revise the 2nd paragraph of Article 801.16 of the Standard Specifications to read:

"When the work is complete, and seven days before the request for a final inspection, the reduced-size set of contract drawings, stamped "RECORD DRAWINGS", shall be submitted to the Engineer for review and approval and shall be stamped with the date and the signature of the Contractor's supervising Engineer or electrician. The record drawings shall be submitted in PDF format on CDROM as well as hardcopy for review and approval. If the contract consists of multiple intersections, each intersection shall be saved as an individual PDF file with TS# and location name in its file name.

In addition to the record drawings, copies of the final catalog cuts which have been Approved or Approved as Noted shall be submitted in PDF format along with the record drawings. The PDF files shall clearly indicate the pay item either by filename or PDF Table of Contents referencing the respective pay item number for multi-item PDF files. Specific part or model numbers of items which have been selected shall be clearly visible."

As part of the record drawings, the Contractor shall inventory all traffic signal equipment, new or existing, on the project and record information in an Excel spreadsheet. The inventory shall include equipment type, model numbers, software manufacturer and version and quantities.

Add the following to Article 801.16 of the Standard Specifications:

"In addition to the specified record drawings, the Contactor shall record GPS coordinates of the following traffic signal components being installed, modified or being affected in other ways by this contract:

- All Mast Arm Poles and Posts
- Traffic Signal Wood Poles
- Rail Road Bungalow
- UPS
- Handholes
- Conduit roadway crossings
- Controller Cabinets
- Communication Cabinets
- Electric Service Disconnect locations
- CCTV Camera installations
- Fiber Optic Splice Locations
- Conduit Crossings

Datum to be used shall be North American 1983.

Data shall be provided electronically and in print form. The electronic format shall be compatible with MS Excel. Latitude and Longitude shall be in decimal degrees with a minimum of 6 decimal places. Each coordinate shall have the following information:

- File shall be named: TSXXX-YY-MM-DD (i.e. TS22157_15-01-01)
- Each intersection shall have its own file
- Row 1 should have the location name (i.e. IL 31 @ Klausen)
- Row 2 is blank
- Row 3 is the headers for the columns
- Row 4 starts the data
- Column A (Date) should be in the following format: MM/DD/YYYY
- Column B (Item) as shown in the table below
- Column C (Description) as shown in the table below
- Column D and E (GPS Data) should be in decimal form, per the IDOT special provisions

Examples:

Date	ltem	Description	Latitude	Longitude
01/01/2015	MP (Mast Arm Pole)	NEQ, NB, Dual, Combination Pole	41.580493	-87.793378
01/01/2015	HH (Handhole)	Heavy Duty, Fiber, Intersection, Double	41.558532	-87.792571
01/01/2015	ES (Electrical Service)	Ground mount, Pole mount	41.765532	-87.543571
01/01/2015	CC (Controller Cabinet)		41.602248	-87.794053
01/01/2015	RSC (Rigid Steel Crossing)	IL 31 east side crossing south leg to center HH at Klausen	41.611111	-87.790222
01/01/2015	PTZ (PTZ)	NEQ extension pole	41.593434	-87.769876
01/01/2015	POST (Post)		41.651848	-87.762053
01/01/2015	MCC (Master Controller Cabinet)		41.584593	-87.793378
01/01/2015	COMC (Communication Cabinet)		41.584600	-87.793432
01/01/2015	BBS (Battery Backup System)		41.558532	-87.792571
01/01/2015	CNCR (Conduit Crossing)	4-inch IL 31 n/o of Klausen	41.588888	-87.794440

Prior to the collection of data, the contractor shall provide a sample data collection of at least six data points of known locations to be reviewed and verified by the Engineer to be accurate within 1 foot. Upon verification, data collection can begin. Data collection can be made as construction progresses, or can be collected after all items are installed. If the data is unacceptable the contractor shall make corrections to the data collection equipment and or process and submit the data for review and approval as specified.

Accuracy. Data collected is to be mapping grade. A handheld mapping grade GPS device shall be used for the data collection. The receiver shall support differential correction and data shall have a minimum 1 foot accuracy after post processing.

GPS receivers integrated into cellular communication devices, recreational and automotive GPS devices are not acceptable.

The GPS shall be the product of an established major GPS manufacturer having been in the business for a minimum of 6 years."

Delete the last sentence of the 3rd paragraph of Article 801.16.

Locating Underground Facilities.

Revise Section 803 to the Standard Specifications to read:

<u>IDOT traffic signal facilities are not part of any of the one-call locating service such as J.U.L.I.E</u> <u>or Digger.</u> If this Contract requires the services of an Electrical Contractor, the Contractor shall be responsible at his/her own expense for locating existing IDOT electrical facilities prior to performing any work. If this Contract does not require the services of an Electrical Contractor, the Contractor may request one free locate for existing IDOT electrical facilities from the District One Electrical Maintenance Contractor 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.

The exact location of all utilities shall be field verified by the Contractor before the installation of any components of the traffic signal system. For locations of utilities, locally owned equipment, and leased enforcement camera system facilities, the local Counties or Municipalities may need to be contacted: in the City of Chicago contact Digger at (312) 744-7000 and for all other locations contact J.U.L.I.E. at 1-800-892-0123 or 811.

Restoration of Work Area.

Add the following article to Section 801 of the Standard Specifications:

801.17 Restoration of work area. Restoration of the traffic signal work area shall be included in the related pay items such as foundation, conduit, handhole, underground raceways, etc. All roadway surfaces such as shoulders, medians, sidewalks, pavement, etc. shall be replaced in kind. All damage to mowed lawns shall be replaced with an approved sod, and all damage to unmowed fields shall be seeded. All brick pavers disturbed in the work area shall be restored to their original configuration as directed by the Engineer. All damaged brick pavers shall be replaced with a comparable material approved by the Engineer. Restoration of the work area shall be included in the contract without any extra compensation allowed to the Contractor.

Bagging Signal Heads.

Light tan colored traffic and pedestrian signal reusable covers shall be used to cover dark/unenergized signal sections and visors. Covers shall be made of outdoor fabric with urethane coating for repelling water, have elastic fully sewn around the cover ends for a tight fit over the visor, and have a minimum of two straps with buckles to secure the cover to the backplate. A center mesh strip allows viewing without removal for signal status testing purposes. Covers shall include a message indicating the signal is not in service.

SERVICE INSTALLATION (TRAFFIC SIGNALS)

Effective: May 22, 2002 Revised: June 15, 2016 805.01TS

Revise Section 805 of the Standard Specifications to read:

Description.

This work shall consist of all materials and labor required to install, modify, or extend the electric service installation. All installations shall meet the requirements of the "District One Standard Traffic Signal Design Details".

<u>General.</u>

The electric service installation shall be the electric service disconnecting means and it shall be identified as suitable for use as service equipment.

The electric utility contact information is noted on the plans and represents the current information at the time of contract preparation. The Contractor must request in writing for service and/or service modification within 10 days of contract award and must follow-up with the electric utility to assure all necessary documents and payment are received by the utility. The Contractor shall forward copies of all correspondence between the contractor and utility company to the Engineer and Area Traffic Signal Maintenance and Operations Engineer. The service agreement and sketch shall be submitted for signature to the IDOT's Traffic Operations Programs Engineer.

Materials.

- General. The completed control panel shall be constructed in accordance with UL Std. 508A, Industrial Control Panel, and carry the UL label. Wire terminations shall be UL listed.
- b. Enclosures.
 - Pole Mounted Cabinet. The cabinet shall be UL 50, NEMA Type 4X, unfinished single door design, fabricated from minimum 0.080-inch (2.03 mm) thick Type 5052 H-32 aluminum. Seams shall be continuous welded and ground smooth. Stainless steel screws and clamps shall secure the cover and assure a watertight seal. The cover shall be removable by pulling the continuous stainless steel hinge pin. The cabinet shall have an oil-resistant gasket and a lock kit shall be provided with an internal O-ring in the locking mechanism assuring a watertight and dust-tight seal. The cabinet shall be sized to adequately house all required components with extra space for arrangement and termination of wiring. A minimum size of 14-inches (350 mm) high, 9inches (225 mm) wide and 8-inches (200 mm) in depth is required. The cabinet shall be channel mounted to a wooden utility pole using assemblies recommended by the vendor.
 - 2. Ground Mounted Cabinet. The cabinet shall be UL 50, NEMA Type 3R unfinished single door design with back panel. The cabinet shall be fabricated from Type 5052 H-32 aluminum with the frame and door 0.125-inch (3.175 mm) thick, the top 0.250-inch (6.350 mm) thick and the bottom 0.500-inch (12.70 mm) thick. Seams shall be continuous welded and ground smooth. The

door and door opening shall be double flanged. The door shall be approximately 80% of the front surface, with a full length tamperproof stainless steel .075-inch (1.91 mm) thick hinge bolted to the cabinet with stainless steel carriage bolts and nylocks nuts. The locking mechanism shall be slam-latch type with a keyhole cover. The cabinet shall be sized to adequately house all required components with extra space for arrangement and termination of wiring. A minimum size of 40-inches (1000 mm) high, 16-inches (400 mm) wide and 15-inches (375 mm) in depth is required. The cabinet shall be mounted upon a square Type A concrete foundation as indicated on the plans. The foundation is paid for separately.

- 3. All enclosures shall include a green external power indicator LED light with circuitry as shown in the Electrical Service-Panel Diagram detail sheet. For pole mounted service enclosures, the power indicator light shall be mounted as shown in the detail. For ground mounted enclosures, the power indicator light shall be mounted on the side of the enclosure most visible from the major roadway.
- c. Electric Utility Meter Housing and Riser. The electric meter housing and meter socket shall be supplied and installed by the contractor. The contractor is to coordinate the work to be performed and the materials required with the utility company to make the final connection at the power source. Electric utility required risers, weather/service head and any other materials necessary for connection shall also be included in the pay item. Materials shall be in accordance with the electric utility's requirements. For ground-mounted service, the electric utility meter housing shall be mounted to the enclosure. The meter shall be supplied by the utility company. Metered service shall not be used unless specified in the plans.
- d. Surge Protector. Overvoltage protection, with LED indicator, shall be provided for the 120 volt load circuit by the means MOV and thermal fusing technology. The response time shall be <5n seconds and operate within a range of –40C to +85C. The surge protector shall be UL 1449 Listed.
- e. Circuit Breakers. Circuit breakers shall be standard UL listed molded case, thermalmagnetic bolt-on type circuit breakers with trip free indicating handles. 120 volt circuit breakers shall have an interrupting rating of not less than 65,000 rms symmetrical amperes. Unless otherwise indicated, the main disconnect circuit breaker for the traffic signal controller shall be rated 60 amperes, 120 V and the auxiliary circuit breakers shall be rated 10 amperes, 120 V.
- f. Fuses, Fuseholders and Power Indicating Light. Fuses shall be small-dimensional cylindrical fuses of the dual element time-delay type. The fuses shall be rated for 600 V AC and shall have a UL listed interrupting rating of not less than 10,000 rms symmetrical amperes at rated voltage. The power indicating light shall be LED type with a green colored lens and shall be energized when electric utility power is present.
- g. Ground and Neutral Bus Bars. A single copper ground and neutral bus bar, mounted on the equipment panel shall be provided. Ground and neutral conductors shall be separated on the bus bar. Compression lugs, plus 2 spare lugs, shall be sized to

accommodate the cables with the heads of the connector screws painted green for ground connections and white for neutral connections.

- h. Utility Services Connection. The Contractor shall notify the Utility Company marketing representative a minimum of 30 working days prior to the anticipated date of hook-up. This 30 day advance notification will begin only after the Utility Company marketing representative has received service charge payments from the Contractor. Prior to contacting the Utility Company marketing representative for service connection, the service installation controller cabinet and cable must be installed for inspection by the Utility Company.
- i. Ground Rod. Ground rods shall be copper-clad steel, a minimum of 10 feet (3.0m) in length, and 3/4 inch (20mm) in diameter. Ground rod resistance measurements to ground shall be 25 ohms or less. If necessary additional rods shall be installed to meet resistance requirements at no additional cost to the contract.

Installation.

- a. General. The Contractor shall confirm the orientation of the traffic service installation and its door side with the engineer, prior to installation. All conduit entrances into the service installation shall be sealed with a pliable waterproof material.
- b. Pole Mounted. Brackets designed for pole mounting shall be used. All mounting hardware shall be stainless steel. Mounting height shall be as noted on the plans or as directed by the Engineer.
- c. Ground Mounted. The service installation shall be mounted plumb and level on the foundation and fastened to the anchor bolts with hot-dipped galvanized or stainless steel nuts and washers. The space between the bottom of the enclosure and the top of the foundation shall be caulked at the base with silicone.

Basis of Payment.

The service installation shall be paid for at the contract unit price each for SERVICE INSTALLATION of the type specified which shall be payment in full for furnishing and installing the service installation complete. The CONCRETE FOUNDATION, TYPE A, which includes the ground rod, shall be paid for separately. SERVICE INSTALLATION, POLE MOUNTED shall include the 3/4 inch (20mm) grounding conduit, ground rod, and pole mount assembly. Any charges by the utility companies shall be approved by the engineer and paid for as an addition to the contract according to Article 109.05 of the Standard Specifications.

COILABLE NON-METALLIC CONDUIT

Effective: May 22, 2002 Revised: July 1, 2015 810.01TS

Description.

This work shall consist of furnishing and installing empty coilable non-metallic conduit (CNC).

General.

The CNC installation shall be in accordance with Sections 810 and 811 of the Standard Specifications except for the following:

Add the following to Article 810.03 of the Standard Specifications:

CNC meeting the requirements of NEC Article 353 shall be used for detector loop raceways to the handholes.

Add the following to Article 811.03 of the Standard Specifications:

On temporary traffic signal installations with detector loops, CNC meeting the requirements of NEC Article 353 shall be used for detector loop raceways from the saw-cut to 10 feet (3m) up the wood pole, unless otherwise shown on the plans

Basis of Payment.

All installations of CNC for loop detection shall be included in the contract and not paid for separately.

UNDERGROUND RACEWAYS

Effective: May 22, 2002 Revised: July 1, 2015 810.02TS

Revise Article 810.04 of the Standard Specifications to read:

"Installation. All underground conduits shall have a minimum depth of 30-inches (700 mm) below the finished grade."

Add the following to Article 810.04 of the Standard Specifications:

"All metal conduit installed underground shall be Rigid Steel Conduit unless otherwise indicated on the plans."

Add the following to Article 810.04 of the Standard Specifications:

"All raceways which extend outside of a structure or duct bank but are not terminated in a cabinet, junction box, pull box, handhole, post, pole, or pedestal shall extend a minimum or 300 mm (12") or the length shown on the plans beyond the structure or duct bank. The end of this extension shall be capped and sealed with a cap designed for the conduit to be capped.
The ends of rigid metal conduit to be capped shall be threaded, the threads protected with full galvanizing, and capped with a threaded galvanized steel cap.

The ends of rigid nonmetallic conduit and coilable nonmetallic conduit shall be capped with a rigid PVC cap of not less than 3 mm (0.125") thick. The cap shall be sealed to the conduit using a room-temperature-vulcanizing (RTV) sealant compatible with the material of both the cap and the conduit. A washer or similar metal ring shall be glued to the inside center of the cap with epoxy, and the pull cord shall be tied to this ring."

HANDHOLES

Effective: January 01, 2002 Revised: July 1, 2015 814.01TS

Description.

Add the following to Section 814 of the Standard Specifications:

All conduits shall enter the handhole at a depth of 30 inches (762 mm) except for the conduits for detector loops when the handhole is less than 5 feet (1.52 m) from the detector loop. All conduit ends should be sealed with a waterproof sealant to prevent the entrance of contaminants into the handhole.

Steel cable hooks shall be coated with hot-dipped galvanization in accordance with AASHTO Specification M111. Hooks shall be a minimum of 1/2 inch (13 mm) diameter with two 90 degree bends and extend into the handhole at least 6 inches (152 mm). Hooks shall be placed a minimum of 12 inches (305 mm) below the lid or lower if additional space is required.

Precast round handholes shall not be used unless called out on the plans.

The cover of the handhole frame shall be labeled "Traffic Signals" with legible raised letters.

Revise the third paragraph of Article 814.03 of the Standard Specifications to read:

"Handholes shall be constructed as shown on the plans and shall be cast-in-place, or precast concrete units. Heavy duty handholes shall be either cast-in-place or precast concrete units."

Add the following to Article 814.03 of the Standard Specifications:

"(c) Precast Concrete. Precast concrete handholes shall be fabricated according to Article 1042.17. Where a handhole is contiguous to a sidewalk, preformed joint filler of 1/2 inch (13 mm) thickness shall be placed between the handhole and the sidewalk."

Cast-In-Place Handholes.

All cast-in-place handholes shall be concrete, with inside dimensions of 21-1/2 inches (546 mm) minimum. Frames and lid openings shall match this dimension.

For grounding purposes the handhole frame shall have provisions for a 7/16 inch (11 mm) diameter stainless steel bolt cast into the frame. The covers shall have a stainless steel threaded stint extended from the eye hook assembly for the purpose of attaching the grounding conductor to the handhole cover.

The minimum wall thickness for heavy duty hand holes shall be 12 inches (305mm).

Precast Round Handholes.

All precast handholes shall be concrete, with inside dimensions of 30 inches (762mm) diameter. Frames and covers shall have a minimum opening of 26 inches (660mm) and no larger than the inside diameter of the handhole.

For grounding purposes the handhole frame shall have provisions for a 7/16 inch (11 mm) diameter stainless steel bolt cast into the frame. For the purpose of attaching the grounding conductor to the handhole cover, the covers shall either have a 7/16 inch (11 mm) diameter stainless steel bolt cast into the cover or a stainless steel threaded stint extended from an eye hook assembly. A hole may be drilled for the bolt if one cannot be cast into the frame or cover. The head of the bolt shall be flush or lower than the top surface of the cover.

The minimum wall thickness for precast heavy duty hand holes shall be 6 inches (152 mm).

Precast round handholes shall be only produced by an approved precast vendor.

Materials.

Add the following to Section 1042 of the Standard Specifications:

"1042.17 Precast Concrete Handholes. Precast concrete handholes shall be according to Articles 1042.03(a)(c)(d)(e)."

CONCRETE FOUNDATIONS

Effective: May 22, 2002 Revised: July 01, 2015 878.01TS

Add the following to Article 878.03 of the Standard Specifications:

All anchor bolts shall be according to Article 1006.09, with all anchor bolts hot dipped galvanized a minimum of 12 in. (300 mm) at the threaded end.

Foundations used for Combination Mast Arm Poles shall provide an extra 2-1/2 inch (65 mm) raceway.

No foundation is to be poured until the Resident Engineer gives his/her approval as to the depth of the foundation.

Add the following to the first paragraph of Article 878.05 of the Standard Specifications:

The price shall include a concrete apron in front of the cabinet and UPS as shown in the plans or as directed by the engineer.

DETECTOR LOOP

Effective: May 22, 2002 Revised: January 5, 2016 886.01TS

Procedure.

A minimum of seven (7) working days prior to the Contractor cutting loops, the Contractor shall mark the proposed loop locations and contact the Area Traffic Signal Maintenance and Operations Engineer (847) 705-4424 to inspect and approve the layout. When preformed detector loops are installed, the Contractor shall have them inspected and approved prior to the pouring of the Portland cement concrete surface, using the same notification process as above.

Installation.

Revise Article 886.04 of the Standard Specifications to read:

Loop detectors shall be installed according to the requirements of the "District One Standard Traffic Signal Design Details." Saw-cuts (homeruns on preformed detector loops) from the loop to the edge of pavement shall be made perpendicular to the edge of pavement when possible in order to minimize the length of the saw-cut (homerun on preformed detector loops) unless directed otherwise by the Engineer or as shown on the plan.

The detector loop cable insulation shall be labeled with the cable specifications.

Each loop detector lead-in wire shall be labeled in the handhole using a water proof tag, from an approved vendor, secured to each wire with nylon ties.

Resistance to ground shall be a minimum of 100 mega-ohms under any conditions of weather or moisture. Inductance shall be more than 50 and less than 700 microhenries. Quality readings shall be more than 5.

- (a) Type I. All loops installed in new asphalt pavement shall be installed in the binder course and not in the surface course. The edge of pavement, curb and handhole shall be cut with a 1/4 inch (6.3 mm) deep x 4 inches (100 mm) saw cut to mark location of each loop cable.
- (b) Loop sealant shall be two-component thixotropic chemically cured polyurethane from an approved vendor. The sealant shall be installed 1/8 inch (3 mm) below the pavement surface. If installed above the surface the excess shall be removed immediately.
- (c) Preformed. This work shall consist of furnishing and installing a rubberized or cross linked polyethylene heat resistant preformed traffic signal loop in accordance with the Standard Specifications, except for the following:
- (d) Preformed detector loops shall be installed in new pavement constructed of Portland cement concrete using mounting chairs or tied to re-bar or the preformed detector loops may be placed in the sub-base. Loop lead-ins shall be extended to a temporary protective enclosure near the proposed handhole location. The protective enclosure shall provide sufficient protection from other construction activities and may be buried for additional protection.

- (e) Handholes shall be placed next to the shoulder or back of curb when preformed detector loops enter the handhole. CNC, included in this pay item, shall be used to protect the preformed lead-ins from back of curb to the handhole.
- (f) Preformed detector loops shall be factory assembled with ends capped and sealed against moisture and other contaminants. The loop configurations and homerun lengths shall be assembled for the specific application. The loop and homerun shall be constructed using 11/16 inch (17.2 mm) outside diameter (minimum), 3/8 inch (9.5 mm) inside diameter (minimum) Class A oil resistant synthetic cord reinforced hydraulic hose with 250 psi (1.720 kPa) internal pressure rating or a similarly sized XLPE cable jacket. Hose for the loop and homerun assembly shall be one continuous piece. No joints or splices shall be allowed in the hose except where necessary to connect homeruns to the loops. This will provide maximum wire protection and loop system strength. Hose tee connections shall be heavy duty high temperature synthetic rubber. The tee shall be of proper size to attach directly to the hose, minimizing glue joints. The tee shall have the same flexible properties as the hose to insure that the whole assembly can conform to pavement movement and shifting without cracking or breaking. For XLPE jacketed preformed loops, all splice connections shall be soldered, sealed, and tested before being sealed in a high impact glass impregnated plastic splice enclosure. The wire used shall be #16 THWN stranded copper. The number of turns in the loop shall be application specific. Homerun wire pairs shall be twisted a minimum of four turns per foot. No wire splices will be allowed in the preformed loop assembly. The loop and homeruns shall be filled and sealed with a flexible sealant to insure complete moisture blockage and further protect the wire. The preformed loops shall be constructed to allow a minimum of 6.5 feet of extra cable in the handhole.

Method of Measurement.

Add the following to Article 886.05 of the Standard Specifications:

Preformed detector loops will be measured along the detector loop embedded in the pavement, rather than the actual length of the wire. Detector loop measurements shall include the saw cut and the length of the detector loop wire to the edge of pavement. The detector loop wire, including all necessary connections for proper operations, from the edge of pavement to the handhole, shall be included in the price of the detector loop. CNC, trench and backfill, and drilling of pavement or handholes shall be included in detector loop quantities.

Basis of Payment.

This work shall be paid for at the contract unit price per foot (meter) for DETECTOR LOOP, TYPE I or PREFORMED DETECTOR LOOP as specified in the plans, which price shall be payment in full for furnishing and installing the detector loop and all related connections for proper operation.

IDOT TRAINING PROGRAM GRADUATE ON-THE-JOB TRAINING SPECIAL PROVISION (TPG)

Effective: August 1, 2012

Revised: February 1, 2014

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

It is the policy of IDOT to fund IDOT pre-apprenticeship training programs throughout Illinois to provide training and skill-improvement opportunities to assure the increased participation of minority groups, disadvantaged persons and women in all phases of the highway construction industry. The intent of this IDOT Training Program Graduate (TPG) Special Provision is to place certified graduates of these IDOT funded pre-apprentice training programs on IDOT project sites when feasible, and provide the graduates with meaningful on-the-job training intended to lead to journey-level employment. IDOT and its sub-recipients, in carrying out the responsibilities of a state contract, shall determine which construction contracts shall include "Training Program Graduate Special Provisions." To benefit from the incentives to encourage the participation in the additional on-the-job training under this Training Program Graduate Special Provision, the Contractor shall make every reasonable effort to employ certified graduates of IDOT funded Pre-apprenticeship Training Programs to the extent such persons are available within a reasonable recruitment area.

Participation pursuant to IDOT's requirements by the Contractor or subcontractor in this Training Program Graduate (TPG) Special Provision entitles the Contractor or subcontractor to be reimbursed at \$15.00 per hour for training given a certified TPG on this contract. As approved by the Department, reimbursement will be made for training persons as specified herein. This reimbursement will be made even though the Contractor or subcontractor may receive additional training program funds from other sources for other trainees, provided such other source does not specifically prohibit the Contractor or subcontractor from receiving other reimbursement. For purposes of this Special Provision the Contractor is not relieved of requirements under applicable federal law, the Illinois Prevailing Wage Act, and is not eligible for other training fund reimbursements in addition to the Training Program Graduate (TPG) Special Provision reimbursement.

No payment shall be made to the Contractor if the Contractor or subcontractor fails to provide the required training. It is normally expected that a TPG will begin training on the project as soon as feasible after start of work utilizing the skill involved and remain on the project through completion of the contract, so long as training opportunities exist in his work classification or until he has completed his training program. Should the TPG's employment end in advance of the completion of the contract, the Contractor shall promptly notify the designated IDOT staff member under this Special Provision that the TPG's involvement in the contract has ended and supply a written report of the reason for the end of the involvement, the hours completed by the TPG under 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 TPG.

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

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 certified TRAINEES TRAINING PROGRAM GRADUATE. The estimated total number of hours, unit price and total price have been included in the schedule of prices.

The Contractor shall provide training opportunities aimed at developing full journeyworker in the type of trade or job classification involved. The initial number of TPGs for which the incentive is available under this contract is (One) 1. During the course of performance of the Contract the Contractor may seek approval from the Department for additional incentive eligible TPGs. In the event the Contractor subcontracts a portion of the contract work, it shall determine how many, if any, of the TPGs 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 insure that this Training Program Graduate Special Provision is made applicable to such subcontract if the TPGs are to be trained by a subcontractor and that the incentive payment is passed on to each subcontractor.

For the Contractor to meet the obligations for participation in this TPG incentive program under this Special Provision, the Department has contracted with several entities to provide screening, tutoring and pre-training to individuals interested in working in the applicable construction classification and has certified those students who have successfully completed the program and are eligible to be TPGs. A designated IDOT staff member, the Director of the Office of Business and Workforce Diversity (OBWD), will be responsible for providing assistance and referrals to the Contractor for the applicable TPGs. For this contract, the Director of OBWD is designated as the responsible IDOT staff member to provide the assistance and referral services related to the placement for this Special Provision. For purposes of this Contract, contacting the Director of OBWD and interviewing each candidate he/she recommends constitutes reasonable recruitment.

Prior to commencing construction, the Contractor shall submit to the Department for approval the TPGs to be trained in each selected classification. Furthermore, the Contractor shall specify the starting time for training in each of the classifications. No employee shall be employed as a TPG in any classification in which he/she has successfully completed a training course leading to journeyman status or in which he/she has been employed as a journeyman. Notwithstanding the on-the-job training purpose of this TPG Special Provision, some offsite training is permissible as long as the offsite training is an integral part of the work of the contract and does not comprise a significant part of the overall training.

Training and upgrading of TPGs of IDOT pre-apprentice training programs is intended to move said TPGs toward journeyman status and is the primary objective of this Training Program Graduate Special Provision. Accordingly, the Contractor shall make every effort to enroll TPGs by recruitment through the IDOT funded TPG programs to the extent such persons are available within a reasonable area of recruitment. The Contractor will be responsible for demonstrating the steps that it has taken in pursuance thereof, prior to a determination as to whether the Contractor is in compliance and entitled to the Training Program Graduate Special Provision \$15.00 an hour incentive.

The Contractor or subcontractor shall provide each TPG with a certificate showing the type and length of training satisfactorily completed.

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:

County of Kane

Village of Carpentersville

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



Storm Water Pollution Prevention Plan



Route	Marked Route	Section
FAU 2298	Longmeadow Parkway	18-00215-22-CH
Project Number	County	Contract Number
	Kane	61F04

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

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

Print Name	Title	Agency			
Carl Schoedel, P.E.	County Engineer	Kane County DOT			
Signature		Date			
		July 2.4 2018			

I. Site Description

A. Provide a description of the project location (include latitude and longitude):

The project is located near the intersection of Illinois Route 25 and Bolz Road in the Village of Carpentersville, Illinois in the County of Kane. The work involved includes 1,800.06 linear feet of improvements on Illinois Route 25, 147.46 linear feet of improvements on Bolz Road, and 1,332.10 linear feet of new corridor construction of Longmeadow Parkway, for a total net and gross length of 3,279.62 linear feet (0.62 miles).

Latitude: 42 deg 08 min 22 sec / Longitude: 88 deg 15 min 28 sec / Section 11, Township 42N, R08E

B. Provide a description of the construction activity which is subject of this plan:

The project consists of constructing a portion of Longmeadow Parkway on a new alignment, widening and reconstructing Illinois Route 25, including the intersection with Bolz Road. Proposed Longmeadow Parkway will consist of an urban section with two lanes in each direction separated by a variable width barrier/landscaped median, and auxiliary turn lanes for the intersection with Illinois Route 25 (Jointed PCC). A new storm sewer system will be provided along Longmeadow Parkway and Illinois Route 25 in conjunction with concrete curb and gutter. In addition, open ditch drainage will be utilized. Stormwater detention is provided in compliance with Kane County and IDOT requirements. Water quality runoff volume retention is also provided in compliance with Kane County requirements. Temporary and permanent soil erosion and sediment control is provided for a stage by stage basis. This project does not include any impacts to Wetland boundaries.

C. Provide the estimated duration of this project:

110 working days, 9 months

D. The total area of the construction site is estimated to be 15 acres.

The total area of the site estimated to be disturbed by excavation, grading or other activities is 11.5 acres.

E. The following is a weighted average of the runoff coefficient for this project after construction activities are completed:

Weighted C = 0.65

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

791B - Rush silt loam, 2 to 4 percent slopes.

- 361B Kidder loam, 2 to 4 percent slope.
- 361C2 Kidder loam, 4 to 6 percent slopes, eroded.
- 361D2 Kidder loam, 6 to 12 percent slopes, eroded.

327D2 - Fox loam, 6 to 12 percent slopes, eroded.

791A - Rush silt loam, 0 to 2 percent slopes.

327C2 - Fox silt loam, 4 to 6 percent slopes, eroded.

G. Provide an aerial extent of wetland acreage at the site:

This project does not impact existing wetlands. There is an existing wetland on the east side of IL-25, but it is north of the project limits and will not be impacted by this project.

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

Portions of Longmeadow Parkway east of IL-25 will require significant cut, resulting is substantial back slopes to tie into the existing grades.

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

Stage 1 - Construction of temporary ditch on east side of IL-25 required for construction of temporary pavement widening. Foreslope/Backslope of 3:1 to tie into existing ground within ROW. Tree removals only between October 15th and Mar 14th, so likely to take place in Stage 1 as well. Stage 2 (A-C) - Construction of the west side of IL-25. 3:1 foreslopes/backslopes for open ditch

drainage.

Stage 3 - Construction of east side of IL-25 as well as Longmeadow Parkway east of IL-25. 3:1 foreslopes/backslopes for open ditch drainage. Included construction of solider pile retaining wall on south side of Longmeadow Parkway.

Stage 4 - minimal soil disturbing activities. Mainly work within curb to curb.

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

IL-25 = Illinois DOT / Longmeadow Parkway = Kane County DOT

- L. The following is a list of General NPDES ILR40 permittees within whose reporting jurisdiction this project is located. Kane County DOT, Illinois DOT, Village of Carpentersville
- M. The following is a list of receiving water(s) and the ultimate receiving water(s) for this site. The location of the receiving waters can be found on the erosion and sediment control plans:

West of 25 - Tributaries to the Fox River, ultimately the Fox River / East of IL-25 - Headwaters to Spring Creek/Lake

N. Describe areas of the site that are to be protected or remain undisturbed. These areas may include steep slopes, highly erodible soils, streams, stream buffers, specimen trees, natural vegetation, nature preserves, etc.

All areas outside of the grading limits of the proposed improvement and all areas outside of the proposed ROW shall be protected and remain undisturbed.

- O. The following sensitive environmental resources are associated with this project, and may have the potential to be impacted by the proposed development:
 - Floodplain
 - Wetland Riparian
 - Threatened and Endangered Species
 - Historic Preservation
 - 303(d) Listed receiving waters for suspended solids, turbidity, or siltation
 - Receiving waters with Total Maximum Daily Load (TMDL) for sediment, total suspended solids, turbidity, or siltation
 - Applicable Federal, Tribal, State or Local Programs
 - Other
 - 1. 303(d) Listed receiving waters (fill out this section if checked above):
 - a. The name(s) of the listed water body, and identification of all pollutants causing impairment:
 - b. Provide a description of how erosion and sediment control practices will prevent a discharge of sediment resulting from a storm event equal to or greater than a twenty-five (25) year, twenty-four (24) hour rainfall event:
 - c. Provide a description of the location(s) of direct discharge from the project site to the 303(d) water body:
 - d. Provide a description of the location(s) of any dewatering discharges to the MS4 and/or water body:
 - 2. TMDL (fill out this section if checked above)
 - a. The name(s) of the listed water body:
 - b. Provide a description of the erosion and sediment control strategy that will be incorporated into the site design that is consistent with the assumptions and requirements of the TMDL:
 - c. If a specific numeric waste load allocation has been established that would apply to the project's discharges, provide a description of the necessary steps to meet the allocation:
- P. The following pollutants of concern will be associated with this construction project:

\boxtimes	Soil Sediment	\times	Petroleum (gas, diesel, oil, kerosene, hydraulic oil / fluids)
\boxtimes	Concrete	\boxtimes	Antifreeze / Coolants
\boxtimes	Concrete Truck waste	\boxtimes	Waste water from cleaning construction equipment
\boxtimes	Concrete Curing Compounds		Other (specify)
	Solid waste Debris		Other (specify)
\boxtimes	Paints		Other (specify)
\boxtimes	Solvents		Other (specify)
\times	Fertilizers / Pesticides		Other (specify)
Control	ls		

П.

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

- A. Erosion and Sediment Controls: At a minimum, controls must be coordinated, installed, and maintained to:
 - 1. Minimize the amount of soil exposed during construction activity;
 - 2. Minimize the disturbance of steep slopes;
 - 3. Maintain natural buffers around surface waters, direct storm water to vegetated areas to increase sediment removal and maximize storm water infiltration, unless infeasible;
 - 4. Minimize soil compaction and, unless infeasible, preserve topsoil.
- B. Stabilization Practices: Provided below is a description of interim and permanent stabilization practices, including site- specific scheduling of the implementation of the practices. Site plans will ensure that existing vegetation is preserved where attainable and disturbed portions of the site will be stabilized. Stabilization practices may include but are not limited to: temporary seeding, permanent seeding, mulching, geotextiles, sodding, vegetative buffer strips, protection of trees, preservation of mature vegetation, and other appropriate measures. Except as provided below in II(B)(1) and II(B)(2), stabilization measures shall be initiated immediately where construction activities have temporarily or permanently ceased, but in no case more than one (1) day after the construction activity in that portion of the site has temporarily or permanently ceases on all disturbed portions of the site where construction will not occur for a period of fourteen (14) or more calendar days.
 - 1. Where the initiation of stabilization measures is precluded by snow cover, stabilization measures shall be initiated as soon as practicable.
 - 2. On areas where construction activity has temporarily ceased and will resume after fourteen (14) days, a temporary stabilization method can be used.

The following stabilization practices will be used for this project:

Preservation of Mature Vegetation	Erosion Control Blanket / Mulching
Vegetated Buffer Strips	Sodding
Protection of Trees	Geotextiles
⊠ Temporary Erosion Control Seeding	Other (specify) Dust Control Watering
Temporary Turf (Seeding, Class 7)	Other (specify)
☑ Temporary Mulching	Other (specify)
Permanent Seeding	Other (specify)

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

All disturbed areas will be stabilized with Mulch, Method 3 along with Temporary Seeding within 7 calendar days of initial disturbance. Additional temporary seeding will be placed as directed by the Engineer.

Permanent Seeding along with the applicable Erosion Control Blanket will be installed once the location has been completed to the finished grades as shown on the plans. Various erosion control blankets have been provided depending on steepness of slopes, flow rates through ditches, etc. Dust Control Watering will be utilized to minimize the airborne transfer of sediment

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

Permanent seeding and erosion control blanket will be incorporated into the final stabilization of the site. Temporary Seeding, Temporary Mulching, and Dust Control Watering will be utilized throughout construction activities until final stabilization has occurred.

C. Structural Practices: Provided below is a description of structural practices that will be implemented, to the degree

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

The following stabilization practices will be used for this project:

5	
Perimeter Erosion Barrier	Rock Outlet Protection
🔀 Temporary Ditch Check	🔀 Riprap
Storm Drain Inlet Protection	Gabions
Sediment Trap	Slope Mattress
Temporary Pipe Slope Drain	🔀 Retaining Walls
Temporary Sediment Basin	Slope Walls
Temporary Stream Crossing	Concrete Revetment Mats
Stabilized Construction Exits	Level Spreaders
Turf Reinforcement Mats	⊠ Other (specify) Permeable Plastic Berms
Permanent Check Dams	Other (specify)
Permanent Sediment Basin	Other (specify)
Aggregate Ditch	Other (specify)
Paved Ditch	Other (specify)

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

Perimeter Erosion Barrier will be placed to prevent off-site transfer of silt/sediment, as well as provide a visual delineation of the project boundaries.

Temporary Ditch Checks will be installed in ditch lines to reduce runoff velocity and trap silt to prevent transfer off-site. Following placement of erosion control blanket, Permeable Plastic Berms will be installed in place of the Temporary Ditch Checks.

Storm inlets will be protected whether located in a curb line (drop in baskets) or in a grassed area (surrounded by silt fence). These will be maintained and sediment removed as necessary. Stabilized Construction Exits will be installed as shown on the plans, and as approved by the Engineer. These shall be maintained throughout construction as described in the Special Provisions. At the outlet end of flared end section, RipRap will be placed to dissipate flow energy and prevent erosion. RipRap gradation and flare size has been appropriately sized in accordance with BDE manual. A Soldier Pile Retaining Wall will be installed on the south side of Longmeadow Parkway, east of IL-25, to fit within the ROW. See structural plans for more details.

Describe how the structural practices listed above will be utilized after construction activities have been completed: Temporary features, such as Perimeter Erosion Barrier, Temporary Ditch Checks (and Permeable Plastic Berms), and Inlet Protection (drop-in baskets, silt fence) will be removed following final stabilization of disturbed areas. RipRap for outlet protection will remain in place, as will the Solider Pile Retaining Wall.

D. Treatment Chemicals

Will polymer flocculents or treatment chemicals be utilized on this project:	🗌 Yes	🖂 No
--	-------	------

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

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

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

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

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

Description of permanent storm water management controls:

Infiltration of stormwater will be enhanced by the use of open vegetated swales. Site Drainage east of IL-25 will discharge into the detention basin constructed as part of Longmeadow Parkway Section D. Outlet protection in the form of RipRap is proposed at all storm sewer outlet ends.

F. **Approved State or Local Laws:** The management practices, controls, and provisions contained in this plan will be in accordance with IDOT specifications, which are at least as protective as the requirements contained in the Illinois Environmental Protection Agency's Illinois Urban Manual. Procedures and requirements specified in applicable sediment and erosion site plans or storm water management plans approved by local officials shall be described or incorporated by reference in the space provided below. Requirements specified in sediment and erosion site plans, site permits, storm water management site plans or site permits approved by local officials that are applicable to protecting surface water resources are, upon submittal of an NOI, to be authorized to discharge under the Permit ILR10 incorporated by reference and are enforceable under this permit even if they are not specifically included in the plan.

Description of procedures and requirements specified in applicable sediment and erosion site plans or storm water management plans approved by local officials:

The soil erosion and sediment control for this site must meet the requirements of the following agencies:

- Kane-Dupage Soil and Water Conservation District
- Kane County Division of Transportation
- Illinois Department of Transportation
- Illinois EPA
- Army Corps of Engineers
- G. **Contractor Required Submittals:** Prior to conducting any professional services at the site covered by this plan, the Contractor and each subcontractor responsible for compliance with the permit shall submit to the Resident Engineer a Contractor Certification Statement, BDE 2342a.
 - 1. The Contractor shall provide a construction schedule containing an adequate level of detail to show major activities with implementation of pollution prevention BMPs, including the following items:
 - Approximate duration of the project, including each stage of the project
 - Rainy season, dry season, and winter shutdown dates
 - Temporary stabilization measures to be employed by contract phases
 - Mobilization time frame
 - Mass clearing and grubbing/roadside clearing dates
 - Deployment of Erosion Control Practices
 - Deployment of Sediment Control Practices (including stabilized construction entrances/exits)
 - Deployment of Construction Site Management Practices (including concrete washout facilities, chemical storage, refueling locations, etc.)
 - Paving, saw-cutting, and any other pavement related operations
 - Major planned stockpiling operations
 - Time frame for other significant long-term operations or activities that may plan non-storm water discharges such as dewatering, grinding, etc.
 - Permanent stabilization activities for each area of the project
 - 2. The Contractor and each subcontractor shall provide, as an attachment to their signed Contractor Certification Statement, a discussion of how they will comply with the requirements of the permit in regard to the following items and provide a graphical representation showing location and type of BMPs to be used when applicable:

- Vehicle Entrances and Exits Identify type and location of stabilized construction entrances and exits to be used and how they will be maintained.
- Material delivery, Storage, and Use Discuss where and how materials including chemicals, concrete curing compounds, petroleum products, etc. will be stored for this project.
- Stockpile Management Identify the location of both on-site and off-site stockpiles. Discuss what BMPs will be used to prevent pollution of storm water from stockpiles.
- Waste Disposal Discuss methods of waste disposal that will be used for this project.
- Spill Prevention and Control Discuss steps that will be taken in the event of a material spill (chemicals, concrete curing compounds, petroleum, etc.).
- Concrete Residuals and Washout Wastes Discuss the location and type of concrete washout facilities to be used on this project and how they will be signed and maintained.
- Litter Management Discuss how litter will be maintained for this project (education of employees, number of dumpsters, frequency of dumpster pick-up, etc.).
- Vehicle and Equipment Cleaning and Maintenance Identify where equipment cleaning and maintenance locations for this project and what BMPs will be used to ensure containment and spill prevention.
- Dewatering Activities Identify the controls which will be used during dewatering operations to ensure sediments will not leave the construction site.
- Polymer Flocculants and Treatment Chemicals Identify the use and dosage of treatment chemicals and provide the Resident Engineer with Material Safety Data Sheets. Describe procedures on how the chemicals will be used and identify who will be responsible for the use and application of these chemicals. The selected individual must be trained on the established procedures.
- Additional measures indicated in the plan.

III. Maintenance

When requested by the Contractor, the Resident Engineer will provide general maintenance guides to the Contractor for the practices associated with this project. The following additional procedures will be used to maintain, in good and effective operating conditions, the vegetation, erosion and sediment control measures and other protective measures identified in this plan. It will be Contractor's responsibility to attain maintenance guidelines for any manufactured BMPs which are to be installed and maintained per manufacture's specifications.

Perimeter Erosion Barrier will be maintained and repaired as necessary, and accumulated silt removed as directed by the Engineer.

Temporary Seeding and Mulch, Method 3 shall be placed in all disturbed areas within 7 days of initial disturbance. Additional Temporary Seeding shall be placed as directed by the Engineer.

Inlet Filters shall be cleaned as described in the Contract, and as directed by the Engineer.

Stabilized Construction Entrances shall be maintained as described in the Contract and as directed by the Engineer.

Maintenance shall be in accordance with Article 280.05 of the Standard Specifications.

IV. Inspections

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

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

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

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

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

Additional Inspections Required:

V. Failure to Comply

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





Prior to conducting any professional services at the site covered by this contract, the Contractor and every subcontractor must complete and return to the Resident Engineer the following certification. A separate certification must be submitted by each firm. Attach to this certification all items required by Section II.G of the Storm Water Pollution Prevention Plan (SWPPP) which will be handled by the Contractors/subcontractor completing this form.

Route	Marked Route	Section
FAU 2298	Longmeadow Parkway	18-00215-22-CH
Project Number	County	Contract Number
	Kane	61F04

This certification statement is a part of SWPPP for the project described above, in accordance with the General NPDES Permit No. ILR10 issued by the Illinois Environmental Protection Agency.

I certify under penalty of law that I understand the terms of the Permit No. ILR10 that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification.

In addition, I have read and understand all of the information and requirements stated in SWPPP for the above mentioned project; I have received copies of all appropriate maintenance procedures; and, I have provided all documentation required to be in compliance with the Permit ILR10 and SWPPP and will provide timely updates to these documents as necessary.

Sub-Contractor

Print Name	Signature
Title	Date
Name of Firm	Telephone
Street Address	City/State/Zip

Items which the Contractor/subcontractor will be responsible for as required in Section II.G. of SWPPP:



Storm Water Pollution Prevention Plan Erosion Control Inspection Report

Date	e of Inspection:			⊂ County:	Kane		eho	ri –
Name of Inspector:			Section: 18-00215-22-CH					
Type of Inspection: Weekly			Route:	Route: FAU 2298				
	:	>0.5" Precip. □] Precip. Amt: "	District:	One			
Con	tractor:			Contract N	o: <u>61F04</u>			
Sub	s:			Job No.	C-91-189-18			
				Project:				
NPD	ES/ESC Defici	ency Deduction:	\$	NPDES Pe	rmit No:			
Tota	I Disturbed Are	a:	acre	Ready for F	-inal Cover:		acre	
				Final Cove	r Established:		acre	•
Eros	sion and Sedin	nent Control Pra	actices					
Item	# / BMP					YES	NO	N/A
1.	Slopes: Do	all slopes and exercise and exe	cposed areas where soil disturb ed, and not permanently stabili	oing activities	have temporarily or dequate temporary seed or			
	P 0	ther stabilization	in accordance with the NPDES	6 permitted 7	and 14 day rule?			
2.	Ditches Ar Do	e all ditches (exi all ditches have	sting and temporary) clear of se adequate stabilization and stru	ediment and/ uctural practi	′or debris? ces in place?			
3.	Perimeter Erc	osion Barrier:	Are all perimeter erosion barr Has perimeter barrier no long	iers in good Jer needed b	working order? een removed and the area			
		tab Chaska			ulting and rO			
4.	I. Temporary Ditch Checks: Are all temporary ditch checks in good Are the current ditch checks adequate 1			adequate to	control erosion?			
5.	Temp Diversi Slope Drains:	ons/ Are all T	emporary Diversions and Slope	e Drains func	tioning properly?			
6.	Inlet Protection	on: Are ALL Are ALL	inlet protection devices in good inlet filters less than 25% full a	l working ord nd fabric und	ler? bbstructed?			
7.	Sediment Basins/Traps	Are ALL Does su	sediment basins/traps in good fficient capacity exist for the de	working orde sign stormwa	er? ater event?			
8.	Areas of Inte	rest – Wetland/I Has the	Prairie/Tree Preservation: contractor remained clear of all	designated	"no entrv" areas?			
		Are all "r	o intrusion" areas adequately r	narked to pre	event accidental entry?			
9.	Stock Piles:	Are all stockp to minimi	iles properly situated and main ze discharge of materials or res	tained to pre idue in case	vent runoff and protected of erosion?			
10.	Borrow/Wast Sites:	te Are a c	ll borrow and waste locations, in ompliance with NPDES require	ncluding thos ments?	se located offsite, in			
11.	11. Other Installations: Are all other BMP installations show (note in comments)			n in the plan	s properly functioning?			
Gen	eral Site Maint	enance Require	ed of the Permit					
12.	Vehicle Tracking:	Is the site free f road areas Are Stabilized C Are Stabilized C	rom mud, sediment and debris throughout the site? Construction field entrances pro Construction field entrances in g	from the veh perly located jood working	icles entering/leaving off ? condition?			

...

ltem	Item # / BMP				N/A
13. Concrete Washout Areas:		Are concrete washout areas adequately signed and maintained? Has all washout occurred only at designated washout locations?			
14.	Staging/Storage Areas:	Are all staging/storage facilities free of litter, leaking containers, leaking equipment, spills, etc?			
15.	Fuel/Chemical Storage:	Are all fuels and chemicals stored only in designated locations? Are all designated locations free of evidence of leaks and or spills?			
16.	Previous Inspection Follow Up:	Have all corrections from the last report been properly completed? If not, has a NPDES/ESC Deficiency Deduction been assessed?			
17.	7. Update SWPPP: Have all changes to the projects SWPPP been noted on the graphic site plan, signed and dated?				
18.	Off-site Has sediment Dischare of If Yes, has the	or other pollutants of concern been released from the project site? Illinois Environmental Protection Agency been notified within 24 hours			
Sediment: of your observation of the discharge and an Incidence of Non-Compliance (IC mailed within 5 days?		ervation of the discharge and an incidence of Non-Compliance (ION) in 5 days?			

Specific Instructions Related to "No" Answers From Above:

ltem #	Station or Station to Station	Practice	Comments/Actions Required	Time for Repair

Other Comments:

Additional Pages (Attached As Needed)			
Outfalls / Receiving Waters	Other:		
Drainage Structure/Ditch Check Locations			
Additional Instructions to Contractor			
If the answer to any of Items 1-16 above is "No", Repairs and stabilization are to be completed wi NPDES/ESC Deficiency Deduction will be asses	, the contractor is thin 24 hours of th ssed for each note	hereby ordered to correct the o is report (or as indicated abov d deficiency until the required	leficiency. e) or the DAILY action is completed.
Inspector's Signature		Date/Time:	
Contractor's Signature		Date/Time:	
Original: Project File cc: Contractor			
Printed on: 7/30/2018	Page 2 of 2 114		BC 2259 (Rev. 05/15/09)



Rev 6/2016

Illinois Environmental Protection Agency

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

Division of Water Pollution Control Notice of Intent (NOI) for General Permit to Discharge Storm Water Associated with Construction Site Activities

This fillable form may be completed online, a copy saved locally, printed and signed before it is submitted to the Permit Section at the above address. For Office Use Only

OWNER INFORMATION				Permit No. ILR10	
Company/Owner Name: Kane County D	ivision of Tran	sportation			
Mailing Address: <u>41 W 011 Burlington F</u>	load		P	hone: 630-584-1170	
City: St. Charles	State: IL	Zip: 60175	F	ax: 630-584-5265	
Contact Person: Carl Schoedel, P.E.			E-mail: schoe	delcarl@co.kane.il.us	
Owner Type (select one) County					
CONTRACTOR INFORMATION			MS4	Community: 🕢 Yes 🔿 No	
Contractor Name:					
Mailing Address:			F	Phone:	
City:	State:	Zip:	F	ax:	
CONSTRUCTION SITE INFORMAT	ION				
Select One: 💿 New 🔿 Change	e of informatio	n for: ILR10			
Project Name: Longmeadow Parkway	: 18-00215-22	2-CH	C	ounty: Kane	
Street Address: Longmeadow Parkwa	y & IL-25	City: Carper	tersville	IL Zip: <u>60110</u>	
Latitude: <u>42</u> <u>08</u> <u>22</u>	Longitude:	8815	28	11 T42N R08E	
(Deg) (Min) (Sec)		(Deg) (Mi	n) (Sec)	Section Township Range	
Approximate Construction Start Date	Feb 4, 2019	9 Approxir	nate Constructi	on End DateNov 15, 2019	
Total size of construction site in acres: 15					
If less than 1 acre, is the site part of a larger common plan of development?					
○ Yes ⊘ No				5 of more acres - \$750	
STORM WATER POLLUTION PREV	ENTION PL	AN (SWPPP)			
Has the SWPPP been submitted to the A	gency?		⊘ Yes	s 🔿 No	
(Submit SWPPP electronically to: epa.co	onstilr10swppp(@illinois.gov)		Other	
Location of SWPPP for viewing: Address	: On Site				
SWPPP contact information:				Inspector qualifications:	
Contact Name:					
Phone: 630-584-1170 Fa	x: <u>630-584-5</u>	265	_ E-mail:		
Project inspector, if different from above				Inspector qualifications:	
Inspector's Name:					
Phone: Fa>	c		E-mail:		
IL 532 2104 WPC 623 Box 6/2016 WPC 673	require this informal result in: a civil per plation continues (4 peen approved by th	tion under Section 4 and naity of not to exceed \$3 15 ILCS 5/42) and may ne Forms Management	d Title X of the Environ 50,000 for the violation also prevent this form t Center.	mental Protection Act (415 ILCS 5/4, 5/39). Failure to and an additional civil penalty of not to exceed \$10,000 fo from being processed and could result in your application Page 1 of	

Page 1 of 3

TYPE OF CONSTRUCTION (select one)

Construction Type Transportation

SIC Code:

Type a detailed description of the project:

The project consists of constructing a portion of Longmeadow Parkway on a new alignment, widening and reconstructing Illinois Route 25, including the intersection with Bolz Road. Proposed Longmeadow Parkway will consist of an urban section with two lanes in each direction separated by a variable width barrier/landscaped median, and auxiliary turn lanes for the intersection with Illinois Route 25 (Jointed PCC). A new storm sewer system will be provided along Longmeadow Parkway and Illinois Route 25 in conjunction with concrete curb and gutter. In addition, open ditch drainage will be utilized.

HISTORIC PRESERVATION AND ENDANGERED SPECIES COMPLIANCE

Has the project been submitted to the following state agencies to satisfy applicable requirements for compliance with Illinois law on:

Historic Preservation Agency	🕢 Yes	🔿 No	
Endangered Species	🕢 Yes	🔿 No	

RECEIVING WATER INFORMATION

Does your storm water discharg	e directly to:	✓ Waters of the	e State	or
Owner of storm sewer system:	Kane County	DOT / Illinois DO	T / Villag	e of Carpentersville
Name of closest receiving water	body to which	n you discharge:	Fox Rive	er / Spring Creek

Mail completed form to: Illinois Environmental Protection Agency Division of Water Pollution Control Attn: Permit Section Post Office Box 19276 Springfield, Illinois 62794-9276 or call (217) 782-0610 FAX: (217) 782-9891

Or submit electronically to: epa.constilr10swppp@illinois.gov

I certify under penalty of law that this document and all attachments were prepared under my direction and supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage this system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. In addition, I certify that the provisions of the permit, including the development and implementation of a storm water pollution prevention plan and a monitoring program plan, will be complied with.

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))

Owner Signature:

Date:

Carl Schoedel, P.E. Printed Name:

County Engineer Title:

Page 2 of 3

INSTRUCTIONS FOR COMPLETION OF CONSTRUCTION ACTIVITY NOTICE OF INTENT (NOI) FORM

Submit original, electronic or facsimile copies. Facsimile and/or electronic copies should be followed-up with submission of an original signature copy as soon as possible. Please write "copy" under the "For Office Use Only" box in the upper right hand corner of the first page.

This fillable form may be completed online, a copy saved locally, printed and signed before it is submitted to the Permit Section at:

Illinois Environmental Protection Agency Division of Water Pollution Control Permit Section Post Office Box 19276 Springfield, Illinois 62794-9276 or call (217) 782-0610

FAX: (217) 782-9891

Or submit electronically to: epa.constilr10swppp@illinois.gov

Reports must be typed or printed legibly and signed.

Any facility that is not presently covered by the General NPDES Permit for Storm Water Discharges From Construction Site Activities is considered a new facility.

If this is a change in your facility information, renewal, etc., please fill in your permit number on the appropriate line, changes of information or permit renewal notifications do not require a fee.

NOTE: FACILITY LOCATION IS NOT NECESSARILY THE FACILITY MAILING ADDRESS, BUT SHOULD DESCRIBE WHERE THE FACILITY IS LOCATED.

Use the formats given in the following examples for correct form completion:

Example		Format		
Section	12	1 or 2 numerical digits		
Township	12N	1 or 2 numerical digits followed by "N" or "S"		
Range	12W	1 or 2 numerical digits followed by "E" or "W"		

For the Name of Closest Receiving Waters, do not use terms such as ditch or channel. For unnamed tributaries, use terms which include at least a named main tributary such as "Unnamed Tributary to Sugar Creek to Sangamon River."

Submission of initial fee and an electronic submission of Storm Water Pollution Prevention Plan (SWPPP) for Initial Permit prior to the Notice of Intent being considered complete for coverage by the ILR10 General Permits. Please make checks payable to: Illinois EPA at the above address.

Construction sites with less than 5 acres of land disturbance - fee is \$250.

Construction sites with 5 or more acres of land disturbance - fee is \$750.

SWPPP should be submitted electronically to: <u>epa.constilr10swppp@illinois.gov</u>. When submitting electronically, use Project Name and City as indicated on NOI form.

Illinois Environmental Protection Agency

Bureau of Water • 1021 N. Grand Avenue E. • P.O. Box 19276 • Springfield • Illinois • 62794-9276

Division of Water Pollution Control

epa.swnoncomp@illinois.gov					For Office	Use Only
Permittee Information:					Permit No	II R 10
Name: Kane County Division of Transportation	1				Fermit No.	
Street Address: 41 W 011 Burlington Road					P.O. Box:	
City: <u>St. Charles</u> State: <u>IL</u>	Zip Code	: <u>60175</u>	Co	unty: Kane		
Phone: 630-584-1170 Email: 9	schoedelca	arl@co.kar	e.il.us			
Construction Site Information:						
Site Name: Longmeadow Parkway : 18-00215-22-	CH					
Street Address: Longmeadow Parkway & IL-25	7: 0 1	00140				
City: Carpentersville State: IL		:00110				
_atitude: <u>42</u> 08 <u>22</u> Longitude:	88	15	28	11	T42N	R08E
(Deg) (Min) (Sec)	(Deg)	(Min)	(Sec)	Section	Township	Range
Jause of Non-Compliance						
Environmental Impact Resulting From the Non-C	Complianc	e				
			N 0.			
Actions Taken to Reduce the Environmental Impa	act Result	ing From 1	he Non-Co	mpliance		
Any person who knowingly makes a false, fictitious, o commits a Class 4 felony. A second or subsequent o	or fraudulei ffense afte	nt material r convictio	statement, c n is a Class	orally or in w 3 felony. (4	riting, to the l 15 ILCS 5/44(h	llinois EP))
Owner Signature:				Date:	<u>.</u>	
Carl Schoedel, P.E.			County End	aineer		
Printed Name:				Title:		
L 532 2105 WPC 524 Rev. 10/2011						
This Agency is authorized to require this information under Section nformation may result in: a civil penalty of not to exceed \$50,000 vhich the violation continues (415 ILCS 5/42) and may also preve has been approved by the Forms Management Center.	n 4 and Title for the violat nt this form fr	X of the Envir ion and an ac rom being pro	onmental Prot ditional civil pe cessed and co	ection Act (415 enalty of not to ould result in ye	5 ILCS 5/4, 5/39) exceed \$10,000 our application be	. Failure to for each da eing denied
	1	18				
	1	18				

DIVISION OF WATER POLLUTION CONTROL ILLINOIS ENVIRONMENTAL PROTECTION AGENCY FIELD OPERATIONS SECTION

GUIDELINES FOR COMPLETION OF INCIDENCE OF NON-COMPLIANCE (ION) FORM

Complete and submit this form for any violation of the Storm Water Pollution Prevention Plan observed during any inspection conducted, including those not required by the SWPPP. Please adhere to the following guidelines:

Initial submission within 24 hours by email, telephone or fax (see region fax numbers) of any incidence of noncompliance for any violation. Submit email copy to: <u>epa.swnoncomp@illinois.gov</u>. After 24 hours notification, submit signed original ION within 5 days to the following address:

Illinois Environmental Protection Agency Division of Water Pollution Control Compliance Assurance #19 Post Office Box 19276 Springfield, Illinois 62794-9276

FIELD OPERATIONS HEADQUARTERS Bruce Yurdin, Manager Phone: 217/782-3362 Fax: 217/785-1225 EMAIL: epa.swnoncomp@illinois.gov

Region 1 - ROCKFORD Chuck Corley, Manager Phone: 815/987-7760 Fax: 815/987-7005

Region 2 - DESPLAINES Jay Patel, Manager Phone: 847/294-4000 Fax: 847/294-4058

Region 3 - PEORIA Jim Kammueller, Manager Phone: 309/693-5463 Fax: 309/693-5467

Region 4 - CHAMPAIGN Joe Koronkowski, Manager Phone: 217/278-5800 Fax: 217/278-5808

Region 5 - SPRINGFIELD Bruce Yurdin, FOS Manager Phone: 217/782-3362 Fax: 217/785-1225

Region 6 - COLLINSVILLE Bruce Yurdin, FOS Manager Phone: 217/782-3362 Fax: 217/785-1225

Region 7- MARION Byron Marks, Manager Phone: 618/993-7200 Fax: 618/997-5467





Illinois Environmental Protection Agency

Bureau of Water • 1021 North Grand Avenue East • P.O. Box 19276 • S	pringfield • Illinois • 62794-9276
Division of Water Pollution Con NOTICE OF TERMINATION (NC of Coverage under the General Permit for Storm Water I Construction Site Activities	trol DT) Discharges Associated with
This fillable form may be completed online, a copy saved locally, printed and Section at the above address.	I signed before it is submitted to the Permit
OWNER INFORMATION	Permit No. ILR10
Owner Name: Kane County Division of Transportation	
Owner Type (select one) County	
Mailing Address: 41 W 011 Burlington Road	Phone: 630-584-1170
City: St. Charles State: IL Zip: 60175	Fax: <u>630-584-5265</u>
Contact Person: Carl Schoedel, P.E. E-mail: schoede	carl@co.kane.il.us
CONTRACTOR INFORMATION	
Contractor Name:	
Mailing Address:	Phone:
City: State: Zip:	_ Fax:
CONSTRUCTION SITE INFORMATION	
Facility Name: Longmeadow Parkway : 18-00215-22-CH	
Street Address: Longmeadow Parkway & IL-25	
City: Carpentersville IL Zip: 60110	County: Kane
NPDES Storm Water General Permit Number: ILR10	
Latitude: <u>42</u> 08 22 Longitude: <u>88</u> <u>15</u> <u>28</u>	<u>11 T42N R08E</u>
(Deg) (Min) (Sec) (Deg) (Min) (Sec	c) Section Township Range
DATE PROJECT HAS BEEN COMPLETED AND STABILIZED:	

NOTE: Coverage under this permit cannot be terminated without the completion date.

I certify under penalty of law that disturbed soils at the identified facility have been finally stabilized or that all storm water discharges associated with industrial activity from the identified facility that are authorized by an NPDES general permit have otherwise been eliminated. I understand that by submitting this notice of termination, that I am no longer authorized to discharge storm water associated with industrial activity by the general permit, and that discharging pollutants in storm water associated with industrial activity to Waters of the State is unlawful under the Environmental Protection Act and the Clean Water Act where the discharge is not authorized by an NPDES Permit.

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))

<u>.</u>	Owner Signature:	Date:
Mail completed for	m to: Illinois Environmental Protection Agend Division of Water Pollution Control, Att 1021 North Grand Avenue East P.O. Box 19276 Springfield, Illinois 62794-9276	cy n: Permit Section (Do not submit additional documentation unless requested)
ا الـ 532 2102 WPC 621 Rev 12/11	This Agency is authorized to require this information unc Failure to disclose this information may result in: a civil not to exceed \$10,000 for each day during which the vio processed and could result in your application being der	ter Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). penalty of not to exceed \$50,000 for the violation and an additional civil penalty of lation continues (415 ILCS 5/42) and may also prevent this form from being nied. This form has been approved by the Forms Management Center.

GUIDELINES FOR COMPLETION OF NOTICE OF TERMINATION (NOT) FORM

Please adhere to the following guidelines:

Submit original, electronic or facsimile copies. Facsimile and/or electronic copies should be followed-up with submission of an original signature copy as soon as possible.

Submit completed forms to:

Illinois Environmental Protection Agency Division of Water Pollution Control, Attn: Permit Section 1021 North Grand Avenue East P.O. Box 19276 Springfield, Illinois 62794-9276 or call (217) 782-0610 FAX: (217) 782-9891

Or submit electronically to: epa.constilr10swppp@illinois.gov

Reports must be typed or printed legibly and signed.

NOTE: FACILITY LOCATION IS NOT NECESSARILY THE FACILITY MAILING ADDRESS, BUT SHOULD DESCRIBE WHERE THE FACILITY IS LOCATED.

Use the formats given in the following examples for correct form completion.

Example		Format		
Section	12	1 or 2 numerical digits		
Township	12N	1 or 2 numerical digits followed by "N" or "S"		
Range	12W	1 or 2 numerical digits followed by "E" or "W"		

Final stabilization has occurred when:

- (a) all soil disturbing activities at the site have been completed;
- (b) a uniform perennial vegetative cover with a density of 70% of the native background vegetative cover for the area has been established on all unpaved areas not covered by permanent structures; or
- (c) equivalent permanent stabilization measures have been employed.



Illinois Department of Natural Resources

www.dnr.illinois.gov

One Natural Resources Way Springfield, Illinois 62702-1271

Bruce Rauner, Governor

Wayne A. Rosenthal, Director

August 30, 2017

Mr. Thomas C. Brooks Bureua of Design and Environment Natural Resources Unit Illinois Department of Transportation 2300 South Dirksen Parkway Springfield, IL 62674

Re: Longmeadow Parkway Sequence Number: 12662 A-D **IDNR EcoCAT Project Number: 1510710** Alternate Project Number(s): 1502159 (OWR) **County: Kane County**

Dear Mr. Brooks:

This letter concerns the Endangered Species Consultation for the Longmeadow Parkway, located in Kane County. This project was submitted for consultation in accordance with the Illinois Endangered Species Protection Act [520 ILCS 10/11], the Illinois Natural Areas Preservation Act [525 ILCS 30/17], and Title 17 Illinois Administrative Code Part 1075.

The project was re-opened due to the listing of the Rusty Patched Bumble Bee (Bombus affinis).

E&T Review

The following protected resources occur in the vicinity of the project area and proposed action: Blanding's Turtle (Emydoidea blandingii) and the Rusty Patched Bumble Bee (Bombus affinis)

Per the requested fish and mussel surveys conducted in August of 2016 for this project site, no T&E species were collected and the Department has no additional recommendations for T&E fish or mussels based on these findings.

The Department has reviewed the Environmental Assessment Reevaluation and concurs with the commitments made for Blanding's Turtles and in-stream work restriction dates.

The Department has reviewed the updated IDOT Natural Resources Review (NRR) Memorandum dated 08/30/2017 and concurs with the commitments made for Rusty Patched Bumble Bees.

Therefore, consultation under 17 Ill. Adm. Code Part 1075 is terminated.

This consultation is valid for two years unless new information becomes available that was not previously considered; the proposed action is modified; or additional species, essential habitat, or Natural Areas are identified in the vicinity. If the project has not been implemented within two years of the date of this letter, or any of the above listed conditions develop, a new consultation is necessary.

The natural resource review reflects the information existing in the Illinois Natural Heritage Database at the time of the project submittal, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project's implementation, you must comply with the applicable statutes and regulations. Also, note that termination does not imply IDNR's authorization or endorsement of the proposed action.

Please contact me if you have questions regarding this review.

Sincerely,

Sheldon R. Fairfield Impact Assessment Section Division of Ecosystems & Environment Phone: (217) 782-0031



Illinois Department of Transportation

Memorandum

То:	Maureen E. Kastl	Attn:	Greg S. Lupton
From:	Maureen M. Addis	By:	Thomas C. Brooks
Subject:	Natural Resources Re	view – Upo	date the
Date:	08-30-2017		
			0

Longmeadow Parkway T 42N, R 8E, S 1-12 Seq. No. 12662 A-D Kane County

IDNR

We updated our review of the Longmeadow Parkway project for segments B-2, C and D. These segments are scheduled for construction the autumn of 2017. Segments A-1 and A-2/B-1 have previously been coordinated with IDNR and USFWS and consultation was terminated. Segment A-1 has been constructed and Segment A-2/B-1 is currently under constructed.

The Longmeadow Parkway project consists of the construction of a new roadway and 1600-ft bridge crossing of the Fox River. A bike path, open space, drainage and floodplain storage will be included.

The entire project requires a total of 216.31 acres of land acquisition. In-stream work is required in the Fox River. A total of 45.3 ac of trees will be removed as a result of this project. Land cover in the project area is agricultural, residential, riparian and forested land.

<u>Review for Illinois Endangered Species Protection and Illinois Natural</u> <u>Areas Preservation – Part 1075</u>

We updated our review to include the rusty patched bumble bee (RPBB). The species was listed as endangered under the federal Endangered Species Act effective 03-21-2017. Consultation with the Illinois Department of Natural Resources for endangered species was most recently updated and terminated on 10-12-2016.

In our review we consulted The Rusty Patched Bumble Bee (*Bombus affinis*): Interagency Cooperation under Section 7(a)(2) of the Endangered Species Act, Voluntary Implementation Guidance Version 1.1, US Fish and Wildlife Service, 03-21-2017. We also queried the Illinois Natural Heritage Database data. The database shows records of occurrences of the species in the vicinity of Longmeadow Parkway, the closest of which is approximately 1,500 feet from the boundary of segment C. We initiated a field survey to locate potential suitable habitat within the limits of segments B-2, C and D. Field biologists followed their own methods and those in Rusty-patched Bumble Bee Habitat Assessment Form and Guide by the Xerces Society, 2017. No **high-potential habitats** were identified within segments B-2, C or D. We determined that segments B-2, C and D will not adversely affect the federally and state endangered rusty patched bumble bee. A copy of the survey report is attached to this memorandum.

To aid in conserving the species we have committed to implement the following measures:

- A. Construction:
 - forested areas will be cleared between October 15 and March 14 to avoid the RPBB active season
 - grassed areas within the project construction limits will be mowed weekly from March 15 to October 14 the year of construction to keep floral resources from blooming
 - no parking or staging should occur outside the project construction limits between the east side of IL 31 and the Fox River
 - temporary fence shall be placed along the construction limits from the east side of IL 31 and the Fox River to prohibit encroachment

B. Post-construction:

- from IL 31 and the Fox River 15 feet of right of way from the edge of pavement must be mowed in accordance to the IDOT mowing policy
- if mowing during the active flight season, create a mosaic of patches with variable vegetation structure
- The IDOT and Kane County intend to create roadside habitats that are favorable to the rusty patched bumble bee. The general approach to landscaping Longmeadow Parkway in sections B-2, C and D is to plant IDOT class 2A (salt tolerant roadside mixture) on the highway embankment and where the right-of-way allows, class 3 (special), class 4 (special), or class 4B (special). Many of the plant species listed at

https://www.fws.gov/midwest/endangered/insects/rpbb/plants.html are included on the roadside seed mixes.

This review for compliance with 17 III. Adm. Code Part 1075 is valid for two years unless new information becomes available that was not previously considered; the proposed improvement is modified; or additional species, essential habitat, or Natural Areas are identified in the vicinity. If the proposed improvement has not been implemented within two years of the date of this memorandum, or any of the above listed conditions develop, a new review will be necessary.

Review for Illinois Interagency Wetland Policy Act - Part 1090

There will be 4.16 ac of permanent wetland impacts to 11 wetland sites as a result of this project. Mitigation has been approved to occur at a wetland bank site in the Fox River Basin as well as through a cooperative project between KDOT and the Forest Preserve District of Kane County. A portion of this project occurs on new alignment. As such, it qualifies as a Standard Review Action and coordination with IDNR was required. This office coordinated the wetland information with IDNR and received concurrence on March 31, 2015 via email. **Consultation under Part 1090 is closed**.

Attachment— RPBB survey report

cc: Sheldon Fairfield, IDNR

ΤВ



DEPARTMENT OF THE ARMY

PERMIT

PERMITTEE: Carl Schoedel, Kane County Division of Transportation

APPLICATION: LRC-2013-839

ISSUING OFFICE: U.S. Army Corps of Engineers, Chicago District

DATE:

You are hereby authorized to perform work in accordance with the terms and conditions specified below.

Note: The term "you" and its derivatives, as used in this authorization, means the permittee or any future transferee. The term "this office" refers to the U.S. Army Corps of Engineers, Chicago District.

PROJECT DESCRIPTION: Proposed Longmeadow Parkway corridor, including 5.6 miles of roadway and a new bridge over the Fox River, as described in your notification and as shown on the five sets of plans titled:

Section A-1: "State of Illinois, Department of Transportation, Division of Highways, Volume 1, Plans for Proposed Federal-Aid Highway, F.A.U. 2298 (Longmeadow Parkway), Section 13-00215-00-PV, Project RS-CMM-4003(396), Huntley Road to Randall Road, New Construction, Kane County, C-91-063-15", dated August 10, 2015, prepared by Hampton, Lenzini and Renwick, Inc., and Thomas Engineering Group.

Sections A2-B1: "State of Illinois, Department of Transportation, Plans for Proposed Federal-Aid Highway, FAU 2298 Longmeadow Parkway to Karen Drive, FAP 336 (Randall Road), Section 13-00215-10-PV, Project RS-M-4003(397), Roadway Widening and Reconstruction, Kane County, C-91-064-15", dated October 28, 2016, prepared by Bollinger, Lach & Associates, Inc.

Section B2: "State of Illinois, Department of Transportation, Plans for Proposed Federal-Aid Highway, FAP 361 (Longmeadow Parkway) & FAP 336 (Randall Road), Section 13-00215-10-PV, Roadway Widening and Reconstruction, Kane County, C-91-393-94", dated October 9, 2015, prepared by Bollinger, Lach & Associates, Inc.

Section C: "State of Illinois, Department of Transportation, Division of Highways, Volume 1, Plans for Proposed Federal-Aid Highway, FAP 361 (Longmeadow Parkway),

Section 13-00215-20-BR, Project Number M-0019(008), Roadway Corridor Construction, Kane County, C-91-513-08", dated March 5, 2015, prepared by Crawford, Murphy & Tilly.

Section D: "State of Illinois, Department of Transportation, Division of Highways, Plans for Proposed Federal-Aid Highway, FAU 2298 (Longmeadow Parkway), Section 13-00215-30-PV, IL Route 25 to IL Route 62, Roadway Corridor Construction, Kane County, C-91-066-15", dated April 22, 2016, prepared by Burns McDonnell.

To offset project impacts to jurisdictional wetlands, approximately 12.052 acres of certified credits has been purchased from both Blackberry Creek Headwaters Mitigation Bank (9.45 credits) and Slough Creek Mitigation Bank (2.602 credits), as indicated in the correspondence from V3 (Blackberry Creek, dated September 7, 2016) and Ecologic Planning (Slough Creek, dated August 22, 2016).

PROJECT LOCATION: Longmeadow Parkway, From Approximately Huntley Road to Route 62, Located in Algonquin, Barrington Hills, Carpentersville, and unincorporated Kane County, IL, (Sections 1 and 12, T42N, R7E and Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, and 12 T42N, R8E, 3rd PM)

GENERAL CONDITIONS:

- 1. The time limit for completing the authorized work ends on December 1, 2023. If you find that you need more time to complete the authorized activity(s), submit your request for a time extension to this office for consideration at least 60 days before the above date is reached.
- 2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
- 3. If you discover any previously unknown historic or archaeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and State coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.
- 4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.
- 5. You shall comply with the water quality certification issued under Section 401 of the

Clean Water Act by the Illinois Environmental Protection Agency for the project. Conditions of the certification are conditions of this authorization. For your convenience, a copy of the certification is attached if it contains such conditions.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being accomplished in accordance with the terms and conditions of your permit.

The following special conditions are a requirement of your authorization:

- 1. This authorization is based on the materials submitted as part of application number LRC-2013-839. Failure to comply with the terms and conditions of this authorization may result in suspension and revocation of your authorization.
- 2. You shall undertake and complete the project as described in the plans titled:

Section A-1: "State of Illinois, Department of Transportation, Division of Highways, Volume 1, Plans for Proposed Federal-Aid Highway, F.A.U. 2298 (Longmeadow Parkway), Section 13-00215-00-PV, Project RS-CMM-4003(396), Huntley Road to Randall Road, New Construction, Kane County, C-91-063-15", dated August 10, 2015, prepared by Hampton, Lenzini and Renwick, Inc., and Thomas Engineering Group.

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3. This site is within the aboriginal homelands of several American Indian Tribes. If any human remains, Native American cultural items or archaeological evidence are

discovered during any phase of this project, interested Tribes request immediate consultation with the entity of jurisdiction for the location of discovery. In such case, please contact Ms. Kimberly Kubiak of my staff by telephone at 312-846-5541, or email at kimberly.j.kubiak@usace.army.mil.

- 4. To avoid potential impacts to the northern long-eared bat (*Myotis septentrionalis*), tree clearing (trees 3" DBH or greater) shall only occur between October 1 and March 31 of any construction year.
- 5. To avoid any potential impacts to smallmouth bass (*Micropterus dolomieu*) and other fishes, no in-stream work shall occur between April 1 and June 30. Once the causeway is in place, all work in the Fox River shall be contained within the causeway.
- 6. To mitigate for the removal of approximately 5,765 trees, you shall replace the trees at a 2:1 ratio for a total of 11,530 trees, in accordance with the memo dated March 3, 2016, prepared by Hampton, Lenzini, and Renwick, Inc.
 - a. Trees are to be planted within the road right-of-way and on other nearby public land;
 - b. Any tree plantings on Forest Preserve land shall be coordinated with and approved by the Forest Preserve District of Kane County;
 - c. The final tree mitigation plan must be reviewed and approved by the U.S. Fish and Wildlife Service;
 - d. Planted trees that do not survive shall be replaced according to contract requirements and any agreements with both the Forest Preserve District of Kane County and the U.S. Fish and Wildlife Service.
- 7. You shall educate construction crews and all on-site personnel about Blanding's turtles (*Emydoidea blandingii*), and discuss the site management plan for responding to turtle encounters. If a turtle is encountered on site, crews must immediately stop construction in the surrounding area and contact appropriate staff at the Illinois Department of Natural Resources.
- 8. At Sleepy Hollow Road and Highmeadow Lane, work will be limited to late October to late March, when Blanding's turtles are hibernating, to prevent injuring turtles. If work is necessary outside of this window, exclusionary fencing will be installed along the construction limits to prevent turtles from entering the area. Daily inspections will occur daily for the first two weeks and be maintained weekly throughout the construction period, to confirm that fencing is properly installed and to check for the presence of any turtles. Trenches shall be covered at the end of each work day. At the beginning of each day, trenches and excavations shall be inspected to ensure no turtles or other herpetofauna have become trapped within.
- 9. Prior to the installation of any causeway, the stream substrate shall be inspected for the presence of any mussel species. These animals shall be collected and relocated to a suitable nearby location in accordance with any guidance from the Illinois Department of

Natural Resources (IDNR). If any state threatened or endangered species are encountered, stop work and contact the IDNR.

- 10. After project construction any disturbed Fox River substrate will be restored to preconstruction conditions.
- 11. 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 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 onsite.
 - a. You shall schedule a preconstruction meeting with the SWCD to discuss the SESC plan and the installation and maintenance requirements of the SESC practices on the site.
 - 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 construction 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.
- 12. Ditches near Route 31 shall be lined with clay to reduce the amount of chlorides reaching nearby shallow groundwater and sensitive wetland areas. You shall notify the SWCD prior to backfilling these ditches to field-confirm the presence of cut-off walls within the trench.
- 13. You shall fully implement the practices identified in the Best Management Practices (BMP) Three-Year Maintenance and Monitoring (M&M) Plan titled, "Best Management Practices (BMP), Management and Monitoring Plan, USACE # LRC-2013-839, Longmeadow Parkway, Algonquin, Barrington Hills, Carpentersville, & Unincorporated Kane County, Illinois" dated December 2016, prepared by Kane County Division of Transportation and Huff & Huff, Inc., within the first year of project construction. All BMP's shall meet performance criteria in accordance with the approved document. Your responsibility to complete the plan will not be considered fulfilled until you have demonstrated BMP success and have received written verification of that success from the U.S. Army Corps of Engineers.
- 14. You shall provide written notification to this office and to the SWCD at least ten (10) days prior to the commencement of work indicating the start date and estimated end date of construction.

- 15. You are responsible for all work authorized herein and for ensuring that all contractors are aware of the terms and conditions of this authorization.
- 16. A copy of this authorization must be present at the project site during all phases of construction.
- 17. 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.
- 18. You shall notify this office prior to the transfer of this authorization and liabilities associated with compliance with its terms and conditions. The transferee must sign the authorization in the space provided and forward a copy of the authorization to this office.
- 19. The permittee understands and agrees that, if future operations by the United States require removal, relocation, or other alteration of the structure or work authorized herein, or if, in the opinion of the Secretary of the Army or his authorized representative said structure or work shall cause unreasonable obstruction to the free navigation of the navigable water, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.
- 20. 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.
- 21. The plan will be designed to allow for the conveyance of the 2-year peak flow past the work area without overtopping the causeway. The Corps has the discretion to reduce this requirement if documented by the applicant to be infeasible or unnecessary.
- 22. Water shall be isolated from the in-stream work area using a causeway constructed of non-erodible materials (steel sheets, aqua barriers, rip rap and geotextile liner, etc.). Earthen cofferdams or causeways are not permissible.
- 23. The causeway must be constructed from the upland area and no equipment may enter flowing water at any time. If the installation of the causeway cannot be completed from shore and access is needed to reach the area of the causeway, other measures, such as the construction of a causeway, will be necessary to ensure that equipment does not enter the water.
- 24. 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
- 7 -

become sediment-laden as a result of the current construction activities.

- 25. 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.
- 26. 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 preconstruction conditions and fully stabilized prior to accepting flows.

Further Information:

1. Congressional Authorities. You have been authorized to undertake the activity described above pursuant to:

(X) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).

(X) Section 404 of the Clean Water Act (33 U.S.C. 1344).

() Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this Authorization.

a. This permit does not obviate the need to obtain other federal, state, or local authorizations required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability. The Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities

undertaken by or on the behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modifications, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in the reliance on the information you provided.

5. Reevaluation of Permit Decision. The office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

a. You fail to comply with the terms and conditions of this permit.

b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (see 4 above).

c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General Condition 1 established a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this authorization.

PERMITTEE Carl Schoedel Kane County Division of Transportation

LRC-2013-839

Corps Authorization Number

This authorization becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

For and on behalf of Christopher T. Drew Colonel, U.S. Army District Commander

If the structures or work authorized by this authorization are still in existence at the time the property is transferred, the terms and conditions of this authorization will continue to be binding on the new owner(s) of the property. To validate the transfer of this authorization and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below. The document shall be attached to a copy of the permit and submitted to the Corps.

TRANSFEREE

DATE

ADDRESS

TELEPHONE

2.6.2017 DATE

DATE

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY



 1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397

 BRUCE RAUNER, GOVERNOR

 ALEC MESSINA, ACTING DIRECTOR

217/782-3362

JAN 18 2017

U.S. Army Corps of Engineers, Chicago District Regulatory Branch 231 South LaSalle Street, Suite 1500 Chicago, IL 60604

Re: Kane County Division of Transportation (Kane County) Longmeadow Parkway – Fox River, Tributaries to the Fox River and Unnamed Wetlands Log # C-0396-14 [CoE appl. # 2013-00839]

Gentlemen:

This Agency received a request on September 15, 2014 from the Kane County Division of Transportation requesting necessary comments concerning the Longmeadow Parkway impacting the Fox River, tributaries to the Fox River and unnamed wetlands. We offer the following comments.

Based on the information included in this submittal, it is our engineering judgment that the proposed project may be completed without causing water pollution as defined in the Illinois Environmental Protection Act, provided the project is carefully planned and supervised.

These comments are directed at the effect on water quality of the construction procedures involved in the above described project and are <u>not</u> an approval of any discharge resulting from the completed facility, nor an approval of the design of the facility. These comments do <u>not</u> supplant any permit responsibilities of the applicant toward the Agency.

This Agency hereby issues certification under Section 401 of the Clean Water Act (PL 95-217), subject to the applicant's compliance with the following conditions:

- 1. The applicant shall not cause:
 - a. violation of applicable water quality standards of the Illinois Pollution Control Board, Title 35, Subtitle C: Water Pollution Rules and Regulations;
 - b. water pollution defined and prohibited by the Illinois Environmental Protection Act; or
 - c. interference with water use practices near public recreation areas or water supply intakes.
- 2. The applicant shall provide adequate planning and supervision during the project construction period for implementing construction methods, processes and cleanup procedures necessary to prevent water pollution and control erosion.
- 3. Any spoil material excavated, dredged or otherwise produced must not be returned to the waterway but must be deposited in a self-contained area in compliance with all state statutes, regulations and permit requirements with no discharge to waters of the State unless a permit has been issued by this Agency. Any backfilling must be done with clean material and placed in a manner to prevent violation of applicable water quality standards. Contaminated soils shall not be placed in waterways.

- 4. All areas affected by construction shall be mulched and seeded as soon after construction as possible. The applicant shall undertake necessary measures and procedures to reduce erosion during construction. Interim measures to prevent erosion during construction shall be taken and may include the installation of staked straw bales, sedimentation basins and temporary mulching. All construction within the waterway shall be constructed during zero or low flow conditions. The applicant shall be responsible for obtaining an NPDES Storm Water Permit prior to initiating construction if the construction activity associated with the project will result in the disturbance of 1 (one) or more acres, total land area. An NPDES Storm Water Permit may be obtained by submitting a properly completed Notice of Intent (NOI) form by certified mail to the Agency's Division of Water Pollution Control, Permit Section.
- 5. The applicant shall implement erosion control measures consistent with the "Illinois Urban Manual" (IEPA/USDA, NRCS; 2016).
- 6. The proposed work shall be constructed with adequate erosion control measures (i.e., silt fences, straw bales, etc.) to prevent transport of sediment and materials to the adjoining wetlands and downstream.
- 7. Asphalt, bituminous material and concrete with protruding material such as reinforcing bar or mesh shall not be 1) used for backfill, 2) placed on shorelines/streambanks, or 3) placed in waters of the State.
- 8. The mitigation plan received by the Agency on January 4, 2017 in an email entitled "Longmeadow Parkway - Wetland Mitigation Questions" shall be implemented. Modifications to the mitigation plan must be submitted to the Agency for approval. The permittee shall submit annual reports by July 1 of each calendar year on the status of the mitigation. The first annual report shall include a hydric soils determination that represents the soils at the completion of initial construction for the wetland mitigation site(s). The permittee shall monitor the mitigation for 5 years after the completion of initial construction. A final report shall be submitted within 90 days after completion of a 5-year monitoring period. Each annual report and the final report shall include the following: IEPA Log No., date of completion of initial construction, representative photographs, floristic quality index, updated topographic maps, description of work in the past year, the performance standards for the mitigation as stated in the mitigation plan, and the activities remaining to complete the mitigation plan. For wetland mitigation sites containing non-hydric soils at the time of initial construction, the final report shall include a hydric soils determination that represents the soils at the end of the 5-year monitoring period. For mitigation provided by purchase of mitigation banking credits, in lieu of the above monitoring and reporting, the permittee shall submit written proof from the mitigation bank that the mitigation credits have been purchased within thirty (30) days of said purchase. The subject reports and proof of purchase of mitigation credits shall be submitted to:

Illinois Environmental Protection Agency Bureau of Water Permit Section 1021 North Grand Avenue East Post Office Box 19276 Springfield, Illinois 62794-9276

This certification becomes effective when the Department of the Army, Corps of Engineers, includes the above conditions # 1 through # 8 as conditions of the requested permit issued pursuant to Section 404 of PL 95-217.

Page No. 3 Log #C-0396-14

This certification does not grant immunity from any enforcement action found necessary by this Agency to meet its responsibilities in prevention, abatement, and control of water pollution.

Sincerely

Alan Keller, P.E. Manager, Permit Section Division of Water Pollution Control

SAK:TJF:0396-14docx

cc: IEPA, Records Unit IEPA, DWPC, FOS, Des Plaines IDNR, OWR, Bartlett USEPA, Region 5 Mr. Carl Schoedel, Kane County Division of Transportation, 41W011 Burlington Road, St. Charles, IL 60175 Ms. Nikki Pisula, Huff & Huff, Inc., 915 Harger Road, Suite 330, Oak Brook, IL 60523 Ms. Kelly Farley, Crawford Murphy and Tilly, 550 North Commons Drive, Suite 116, Aurora, IL 60504 Ms. Amy McSwane, Hampton, Lenzini and Renwick, 380 Shepard Drive, Elgin, IL 60123



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

Division of Public Water Supplies Application for Construction Permit

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

1. Name of Public Water Supply	Village of Carpentersville	
2. Facility ID:	IL County:Kane	
3. Location of Project:	Approximately 143 Feet north of IL Route 2	25 and Longmeadow Parkway Intersection
4. Title of Plans:	Plans For Proposed Federal Aid Highway -	Longmeadow Parkway at IL Rte 25 Intersection In
Number of Construction Draw	ings:14	
5. Documents being Submitted:	Application for Construction Permit	Engineer's Design Summary
	✓ Schedule A - Cost Estimate	Schedule C-I Well Drilling Only
	✓ Schedule B - Water Main Construction	Schedule C-II Well Completion
	Specifications	Permit Fee (Applicable Water Main Only)
	Construction Drawings	
6. Scope of Project:		
This work includes installatior existing 12" water main which	n of 121 lineal feet of 8" water main with fitting i includes installation of 12"x8" tapping sleeve	gs, fire hydrant and pressure connection to e, 8" gate valve and vault.
7. Illinois Commerce Commission Commerce Commission rules	n: Are you a privately owned water company ?	subject to Illinois OYes ONo

8. Infringement on Other Public Water Supplies: Will any part of this project be located within the ⊖Yes No boundaries of an area served by another PWS?

9. Certifications

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

9.1) Certificate by Design Engineer						
I hereby certify that I am familiar with and belief such information is true, co	the information conta omplete and accurate	ined in this applicati	ion, and that to the	best of my knowledge		
Name Chris P Dagiantis, P.	Registration	Number 062.054123				
Firm <u>Crawford</u> , Murphy & T						
Address <u>550 N. Commons Dri</u>	ve, Suite 116					
City Aurora			State IL	Zip <u>60504</u>		
Phone Number(630) 820-1022	Phone Number(630) 820-1022 Email (optional)					
	Signature			Date		
9.2) Certificate by Applicant(s) to Construct	st					
I hereby certify that I have read and t representative company hereby agre this Construction Permit.	horoughly understand e to conform with the	I the conditions and Standard Conditions	requirements of thi s and any Special (s submittal. I/the Conditions made part of		
Name Kevin Gray, PE CFM, Assi	stant Director of Publi	c Works/Village Eng	jineer			
Address 1075 Tamarak Drive						
City Carpentersville	State IL	Zip 60110	Phone Nun	nber (224) 293-1613		
	Signature			Data		
	Olghatare		La construction de la constructi			
9.3) Water Main Fees						
Section 16.1 of the Illinois Environmental Protection Act (Act) requires the Agency to collect a fee for certain applications for the installation or extension of water mains. There are no permit fees for other improvements (for example, treatment facilities) to public water supply systems and only certain water main projects are affected. The Agency will not approve any construction application without the required fee. Except for the conditions listed in Section 9.4, the following fee schedule applies per Section 16.1(d) of the Act:						
F	ee:Total Length of	Water Main				
• \$	0 : 200 feet or less					
○ \$ 24	10 : Greater than 200	feet but not more the	an 1,000 feet			
○\$72	20 : Greater than 1,00	0 feet, but not more	than 5,000 feet			
○ \$120	00 : Greater than 5,00	0 feet				
Please check the appropriate fee; ma this application. Any fee remitted to th part.	ake check or money o ne Agency <u>shall not</u> b	rder payable to: <i>Tre</i> e refunded at any tir	asurer, State of Illir ne or for any reaso	<i>oois</i> and submit along with n, either in whole or in		

3.4) Water Main Lee Exceptions - READ CAREL OFF	BEFORE SIGNING THE FOLLOWIN	G
The Water Main Permit fee does not apply to:		
a. Any Department, Agency or Unit of State	Government.	
b. Any unit of local government where all of	the following conditions are met:	
 The cost of the installation or exte grants or loans, federal grants or 	ension is paid wholly from monies of th loans, or any combination thereof.	e unit of local government, state
ii. The unit of local government is no person (except for State grants or	ot given monies, reimbursed or paid, e r loans or federal grants or loans.	ither in whole or in part, by another
Ι,	hereby certify that this pro	oject meets the above criteria.
(Unit of local government & signature of authorized o	official)	
DO NOT SIGN HERE UNLESS	S PROJECT MEETS FEE EXCEPTION	N CRITERIA.
9.5) Agreement to Furnish Water (this section must be	completed if applicable)	
The Village of Carpentersville	has agreed to furnish	water to the area in which
(City, Town, Village, Water Company or Water	Authority)	
water main extensions are proposed by Kevin G	ray, PE CFM, Assistant Director of Pu	blic Works/Village Engin e
(Applicant	to construct)	
according to plans titled <u>Plans For Proposed Fed</u>	eral Aid Highway - Longmeadow Park	way at IL Rte 25 Interse🗬
prepared by Crawford, Murphy & Tilly, Inc.		
prepared by Crawford, Murphy & Tilly, Inc. (Engineering Firm)		
The undersigned acknowledges the public water side the proposed extensions meet local lav	supply's responsibility for examining thws, regulations, and ordinances.	ne plans and specifications to
prepared by Crawford, Murphy & Tilly, Inc. (Engineering Firm) The undersigned acknowledges the public water sidetermine the proposed extensions meet local lav Signature of authorized public water supply officient	supply's responsibility for examining th ws, regulations, and ordinances.	ne plans and specifications to
Prepared by Crawford, Murphy & Tilly, Inc. (Engineering Firm) The undersigned acknowledges the public waters determine the proposed extensions meet local lav Signature of authorized public water supply offic	supply's responsibility for examining the second structure of the second struc	ne plans and specifications to
Prepared by Crawford, Murphy & Tilly, Inc. (Engineering Firm) The undersigned acknowledges the public waters determine the proposed extensions meet local lav Signature of authorized public water supply offic 9.6) Certification by Owner(s) of Completed Public Wat I hereby certify that I have read and thoroughly un agree to accept ownership of the project upon sat	supply's responsibility for examining the sequence of the sequ	ne plans and specifications to
Prepared by Crawford, Murphy & Tilly, Inc. (Engineering Firm) The undersigned acknowledges the public waters determine the proposed extensions meet local lav Signature of authorized public water supply offic 9.6) Certification by Owner(s) of Completed Public Wat I hereby certify that I have read and thoroughly ur agree to accept ownership of the project upon sat Village of Carpentersville	supply's responsibility for examining the second se	ne plans and specifications to Date Date L
9.6) Certification by Owner(s) of Completed Public Water I hereby certify that I have read and thoroughly un agree to accept ownership of the project upon sat Village of Carpentersville Name of Public Water Supply	supply's responsibility for examining the ws, regulations, and ordinances.	ne plans and specifications to Date Date Date IL Facility ID
Prepared by Crawford, Murphy & Tilly, Inc. (Engineering Firm) The undersigned acknowledges the public waters determine the proposed extensions meet local lav Signature of authorized public water supply offic 9.6) Certification by Owner(s) of Completed Public Wat I hereby certify that I have read and thoroughly un agree to accept ownership of the project upon sat Village of Carpentersville Name of Public Water Supply Tamarak Drive	supply's responsibility for examining the ws, regulations, and ordinances.	ne plans and specifications to Date Date L L Facility ID IL 60110
prepared by Crawford, Murphy & Tilly, Inc. (Engineering Firm) The undersigned acknowledges the public water sidetermine the proposed extensions meet local law Signature of authorized public water supply offic 9.6) Certification by Owner(s) of Completed Public Water I hereby certify that I have read and thoroughly unagree to accept ownership of the project upon sate Village of Carpentersville Name of Public Water Supply Tamarak Drive Address	supply's responsibility for examining the ws, regulations, and ordinances.	ne plans and specifications to Date Date Date IL Facility ID IL State Zip
prepared by Crawford, Murphy & Tilly, Inc. (Engineering Firm) The undersigned acknowledges the public waters determine the proposed extensions meet local law Signature of authorized public water supply offic 9.6) Certification by Owner(s) of Completed Public Wat I hereby certify that I have read and thoroughly ur agree to accept ownership of the project upon sat Village of Carpentersville Name of Public Water Supply Tamarak Drive Address	supply's responsibility for examining the ws, regulations, and ordinances.	he plans and specifications to Date Date Date IL Facility ID IL State Date Date Date

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

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

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

IEPA - DIVISION OF PUBLIC WATER SUPPLIES - PERMIT SECTION SCHEDULE A - ENGINEER=S COST ESTIMATE

Requests by various agencies and state and federal representatives for information on the cost of water works improvements have been numerous. Therefore, we feel there is a need for obtaining and compiling this information. We would appreciate your cooperation by supplying us with this data with each set of plans and specifications. Please submit the cost data with each of your projects sent in for approval.

1. Name of Public Water Supply Village of Carpentersville

sol	<u>RCE</u>		
А.	Stream intake, impoundment.	\$	_
В.	Well (s).	<u>\$</u>	_
C.	Others	<u>\$</u>	
		IOIAL	\$ 0.00
TREA	ATMENT_		
А.	Aeration facilities and detention basins.	<u>\$</u>	
B.	High service pumps.	\$	
C.	Filtration and/or ion exchange softening	\$	
D.	Mixing and settling basins and/or flocculation		
	equipment.	\$	
E.	Chlorination and fluoridation equipment.	\$	_
F.	Recarbonation, chemical feeders, chemical		
	handling equipment	<u>\$</u>	
G.	Lab, buildings and miscellaneous.	\$	_
		TOTAL	<u>\$</u> 0.00
WA	STE DISPOSAL FACILITIES		
А.	Pumps and piping.	\$	
В.	Holding structures	\$	
C.	Treatment unit.	\$	
		TOTAL	\$ 0.00
	RAGE		
<u>А</u>	Ground level tank(s)	\$	
В.	Elevated tank(s).	\$	_
C.	Pressure tank(s).	\$	
		TOTAL	\$ 0.00
DIST	<u>RIBUTION SYSTEM</u>		
А.	Feeder mains, booster pump(s) and station(s).	<u>\$</u>	
B.	Water main extension(s)	<u>\$</u>	_
Ċ.	Complete distribution.	<u>\$ 36,463.00</u>	
		IOIAL	\$ 30,463.00

IL 532-0843

This Agency is authorized to require this information under Illinois Compiled Statutes, 1415 ILCS 5/39 (1998). Disclosure of this information is required under that Section. Failure to do so may prevent this form from being processed and could result in your application being denied. This form has been approved by the Forms Management Center.



Bureau of Water • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

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

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

Name of Public Water Supply:	Village of Carpentersville	10	ID# IL:0890200		
Project Title:	Longmeadow Parkway at IL Route 25 Intersection	n L			
1. Check the appropriate boxes to	indicate the specifications to be used for the water	main:			
A. Standard Specifications	ofor Water and Sewer Main Construction in Illinois	(2014 Edition)			
B. Engineer's approved sp	pecifications on file with this Agency		\boxtimes		
C. Public Water Supply ap	proved specifications on file with this Agency		\boxtimes		
D. Specifications submitte	d with the plan documents		\boxtimes		
2. Existing Population served by p	resent supply:	38,291			
3. Population to be served by wate	er main extension:	0			
4. Average daily pumpage from wa	ater works:	2.5 (N	/IGD)		
5. Maximum day pumpage from w	ater works:	4.5 (N	/IGD)		
6. Capacity of water works:		7.77 (N	/IGD)		
7. Capacity of raw water source:		9.9 (N	/IGD)		
8. Capacity of existing line(s) at co	nnection point(s):	4.75 (N	/IGD)		
9. Capacity of proposed water mai	n extension or system:	4.75 (N	/IGD)		
10. Normal expected operating pre	essure on proposed water main extension:	51 (P	PSI)		
11. Minimum expected operating p	pressure on proposed water main extension:	46 (P	PSI)		
12. Pressure at point of connection	n at present maximum demand:	51 (P	PSI)		
13. Calculated pressure at point of conditions after installation of water	connection under maximum demand	<u>46</u> (P	PSI)		
14 Motor mains to be installed mu	int he listed helews				

Water mains to be installed must be listed below:

Pipe size (inches)	8"			
Total Length (feet)	121			

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

Class 52 Ductile Iron pipe - ANSI/AWWA C151/A21.51 & C150/A21.50; Fittings - ANSI-AWWA C153/A21.53 SSB-COMPACT; Mechanical Joints - ANSI/AWWA C111/A21.11; Restraints - ANSI/AWWA C110/A21.10; Cement coating - ANSI/AWWA C14/ A21.4; Valves - AWWA C515.

II 532-0159 PWS 56 4/2015

Schedule B (cont'd)

16. Depth of Cover: 5.5' Minimum

17. Disinfection:

- A. Chemical Used: Chlorine Solution
- B. Initial Disinfectant Concentration: 25 (mg/L)
- C. Final Disinfectant Concentration: 10 (mg/L)
- D. Retention Time: 24 (hrs)

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

18. Sewer and Water Separation:

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

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

N/A

N/A

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



Illinois Environmental Protection Agency

Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

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 III. 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 III. 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

IL 532-2922

(Describe the location of the source of the uncontaminated soil)

Project Name:	Longmeadow Pkwy from Hur	ntley Rd to IL 62	Office Pho	one Number, if ava	ailable:		
Physical Site Lo	ocation (address, inclduding r	number and street):					
1700 to 1800 bl	ocks of J.F. Kennedy Drive (ISGS Site No. 1586	iV/B-15)				
City: Barringtor	n Hills State:		Zip Code:				
County: <u>Kane</u>		г	ownship:	- 	II		
Lat/Long of app	roximate center of site in dec	imal degrees (DD.c	ldddd) to five dec	imal places (e.g.,	40.67890), -90.123	45):
Latitude: 42	.140396611 Longitude:	-88.257656451					
(D	ecimal Degrees)	(-Decimal Degree	es)				
Identify how t	he lat/long data were determ	ined:					
🛛 GPS	Map Interpolation	Photo Interpolation	Survey	Other			
IEPA Site Numb	per(s), if assigned: BO	L:	BOW:		BOA:		
II Owner/O	perator Information for	Source Site					
	Site Owner	Course One		Site	e Operate	or	
Name:	Illinois Department of Trans	portation	Name:	Illinois Departme	nt of Trai	nsportatio	n
Street Address:	201 West Center Court		Street Address:	201 West Center	Court		
PO Box:	NE LA		PO Box:		<u> </u>		
City:	Schaumburg	State: IL	City:	Schaumburg		State:	<u>IL</u>
Zip Code:	60196-1096 Phone: 8	47-705-4101	Zip Code:	60196-1096	Phone:	847-705-	-4101
Contact:	Sam Mead	-	Contact:	Sam Mead		2	
Email, if availab	le: Sam.Mead@illinois.gov		Email, if availab	le: <u>Sam.Mea</u> d@il	linois.gov	/	

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 LPC 663 Rev. 8/2012 Management Center.

Project Name: Longmeadow Pkwy from Huntley Rd to IL 62

Latitude: <u>42.140396611</u> Longitude: -88.257656451

Uncontaminated Site 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 III. Adm. Code 1100.610(a)]:

LOCATIONS VL3-3 AND VL3-5 WERE SAMPLED ADJACENT TO ISGS SITE No. 1586V/B-15. SEE FIGURE 4-1 AND TABLE 4-1 OF THE FINAL PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 III. 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 III. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

TESTAMERICA ANALYTICAL REPORT - JOB ID: 500-103820-1. ALSO SEE FIGURE 4-1 OF THE FINAL PRELIMINARY SITE INVESTIGATION REPORT.

IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I. William F. Karlovitz, P.E. (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 III. 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:	Weston Solutions, Inc.					
Street Address:	300 Circle Plaza; Suite 202					*
City:	Mundelein	State:	IL	Zip Code: 600	060	
Phone:	(224) 864-7200				ad	Profes
William F. Karlovitz, P.E. Printed Name: Collection Licensed Professional E Licensed Professional C	Engineer or Geologist Signature:		/8	July 2010 Date:		No.

P.E. or L.P.G. Seal:

Summary Table of ISGS Site No. 1586V/B-15 Comparison of Detected Constituents to Applicable Reference Concentrations Soil Analytical Results Illinois Department of Transportation Longmeadow Parkway from west of Huntley/Boyer Road to Illinois Route 62 Algonquin, Barrington Hills, and Carpentersville, Kane County, Illinois

Field Sample ID	VL3-3(0-6)-111015	VL3-5(0-6)-111015	
Sample Date	11/10/2015	11/10/2015	
Location ID	VL3-3	VL3-5	Soil Reference
Depth	0 - 6	0 - 6	Concentrations ^A
Location Code	1586V/B-15	1586V/B-15	
Parameter			
Laboratory pH (s.u.)	8.79	8.84	<6.25.>9.0
VOCs (ug/kg)	None E	Detected	,
SVOCs (ug/kg)			
Benzo(a)anthracene	ND	18 J	900 / 1100 / 1800
Benzo(a)pyrene	ND	21 J	90 / 1300 / 2100
Benzo(b)fluoranthene	ND	34 J	900 / 1500 / 2100
Chrysene	ND	26 J	88000
Fluoranthene	ND	39	3100000
Pyrene	ND	31 J	2300000
Total Metals (mg/kg)			
Antimony, Total	0.4 J	0.3 J	5
Arsenic, Total	3.7	4.9	11.3 / 13
Barium, Total	7.9	42	1500
Beryllium, Total	0.16 J	0.36	22
Cadmium, Total	0.2	0.26	5.2
Calcium, Total	140000 J-	28000 J-	
Chromium, Total	4.2 J	8.7 J	21
Cobalt, Total	2.8	6	20
Copper, Total	8 J+	13 J+	2900
Iron, Total	6500 J+	10000 J+	15000 / 15900
Lead, Total	4.4	33	107
Magnesium, Total	51000 J	18000 J	325000
Manganese, Total	260 J-	360 J-	630 / 636
Mercury, Total	ND	0.021	0.89
Nickel, I otal	6.5	13	100
Potassium, Total	370 J+	580 J+	
Sodium, Total	290	670	
Vanadium, Total	8.4	16	550
	20	53	5100
Aroopio TCLP	ND	ND	0.05
Arsenic, TCLP		ND 0.42 I	0.05
Bandlium TCLP	0.11 J	0.43 J	2
Codmium TCLP	ND	ND	0.004
		ND	0.005
		ND	1
		0.015	0.65
			5
Lead TCLP	ND	ND	0.0075
Manganese TCLP	12.1	0.11.1	0.15
Mercury, TCI P	ND	ND	0.002
Nickel, TCLP	0.015	ND	0 1
Zinc. TCLP	0.084 J	0.35	5
SPLP Metals (mg/l)			-
Arsenic, SPLP	ND	0.041 J	0.05
Barium, SPLP	ND	0.46 J	2
Beryllium, SPLP	ND	ND	0.004
Cadmium, SPLP	ND	ND	0.005
Chromium, SPLP	ND	0.11	0.1
Cobalt, SPLP	ND	0.02 J	1
Copper, SPLP	ND	0.1	0.65
Iron, SPLP	ND	110 J+	5
Lead, SPLP	ND	0.11	0.0075
Manganese, SPLP	ND	1.1	0.15
Mercury, SPLP	ND	ND	0.002
Nickel, SPLP	ND	0.096	0.1
Zinc, SPLP	ND	0.54 B	5

Summary Table of ISGS Site No. 1586V/B-15

Comparison of Detected Constituents to Applicable Reference Concentrations

Soil Analytical Results

Illinois Department of Transportation

Longmeadow Parkway from west of Huntley/Boyer Road to Illinois Route 62

Algonquin, Barrington Hills, and Carpentersville, Kane County, Illinois

Notes:

- --- not applicable or value not available.
 ^A Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.
- ND Constituent not detected above the reporting limit.

J - Estimated concentration.

- J- Estimated concentration, biased low.
- J+ Estimated concentration, biased high.
- Shaded values indicate concentration **exceeds** Reference Concentration.

Page 1 of 2



Illinois Environmental Protection Agency

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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 III. 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 III. 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

II 532-2922

(Describe the location of the source of the uncontaminated soil)

Office Ph	one Number, if available:
t):	
586V/B-16)	
Zip Code:	
Township:	
D.ddddd) to five dec	cimal places (e.g., 40.67890, -90.12345):
rees)	
n 🗌 Survey	Other
BOW:	BOA:
	Site Operator
Name:	Illinois Department of Transportation
Street Address	201 West Center Court
PO Box:	
City:	Schaumburg State: IL
-	
Zip Code:	60196-1096 Phone: 847-705-4101
Zip Code: Contact:	60196-1096 Phone: <u>847-705-4101</u> Sam Mead
	Office Ph t): 86V/B-16) Zip Code: Township: D.ddddd) to five dea ees) n Survey BOW: Name: Street Address PO Box: City:

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 LPC 663 Rev. 8/2012 Management Center.

Project Name: Longmeadow Pkwy from Huntley Rd to IL 62

Latitude: <u>42.141853496</u> Longitude: -88.257902312

Uncontaminated Site 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 III. Adm. Code 1100.610(a)]:

LOCATION VL4-2 WAS SAMPLED ADJACENT TO ISGS SITE No. 1586V/B-16. SEE FIGURE 4-1 AND TABLE 4-1 OF THE FINAL PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 III. 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 III. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

TESTAMERICA ANALYTICAL REPORT - JOB ID: 500-103747-1. ALSO SEE FIGURE 4-1 OF THE FINAL PRELIMINARY SITE INVESTIGATION REPORT.

IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I. William F. Karlovitz, P.E. (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 III. 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:	Weston Solutions, Inc.			•	
Street Address:	300 Circle Plaza; Suite 202				
City:	Mundelein	State:	IL	Zip Code: <u>60060</u>	
Phone:	(224) 864-7200				1 Pros
William F. Karlovitz, P.E.	·····			· · ,	580 F10/65
Printed Nam Licensed Professiona Licensed Professiona	I Engineer or I Geologist Signature:		311	May 2016 Date:	WILLIAM F. WILLIAM F. No. 062-052500
					vieer of the

150

P.E. or L.P.G. Seal:

Summary Table of ISGS Site No. 1586V/B-16 Comparison of Detected Constituents to Applicable Reference Concentrations Soil Analytical Results Illinois Department of Transportation Longmeadow Parkway from West of Huntley/Boyer Road to IL Route 62 Algonquin, Barrington Hills, and Carpentersville, Kane County, Illinois

Field Sample ID	VL4-2(0-6)-110915	
Sample Date	11/9/2015	
Location ID	VL4-2	Soil Reference
Depth	0 - 6	Concentrations ^A
Location Code	1586V/B-16	
Parameter		
Laboratory pH (s.u.)	8.24	<6.25,>9.0
VOCs (ug/kg)		
Acetone	58	25000
Methyl ethyl ketone	5.1 J	
SVOCS (Ug/kg)	26	570000
Acenaphthylopo	26 J	570000
Anthracene	140	 1 20E±07
Benzo(a)anthracene	530	900 / 1100 / 1800
Benzo(a)pyrene	610	90 / 1300 / 2100
Benzo(b)fluoranthene	1000	900 / 1500 / 2100
Benzo(g,h,i)perylene	180	
Benzo(k)fluoranthene	460	9000
Chrysene	620	88000
Dibenzo(a,h)anthracene	89 J+	90 / 200 / 420
Dibenzofuran	48 J	
Fluoranthene	1000	3100000
Fluorene	54	560000
Indeno(1,2,3-cd)pyrene	340 J+	900 / 900 / 1600
Naphthalene, SVOC	9 J	1800
Phenanthrene	450	
Pyrene Total Motals (mg/kg)	2100	2300000
Antimony Total	0.31	5
Antimony, Total	58 -	11 3 / 13
Barium Total	53	1500
Bervllium. Total	0.33 J-	22
Cadmium. Total	0.21 J-	5.2
Calcium, Total	68000 J	
Chromium, Total	9.4 J-	21
Cobalt, Total	6.4	20
Copper, Total	13 J-	2900
Iron, Total	11000 J	15000 / 15900
Lead, Total	20 J	107
Magnesium, I otal	24000 J	325000
Manganese, I otal	350 J+	630 / 636
Nickol Total	0.015 J	0.89
Potassium Total	730 14	100
Selenium Total	0.5.1-	13
Sodium, Total	770 J	
Vanadium, Total	18	550
Zinc, Total	36	5100
TCLP Metals (mg/l)		
Arsenic, TCLP	ND	0.05
Barium, TCLP	0.83	2
Cadmium, TCLP	ND	0.005
Chromium, TCLP	ND	0.1
Cobalt, TCLP	0.015 J	1
	0.01 J	0.65
	0.21	D 0075
Leau, ICLM Manganese TCLP	6.5	0.0075
Mercury TCLP		0.15
Nickel TCLP	0.012	0.002
Selenium, TCLP	ND	0.05
Zinc, TCLP	0.14 J-	5

Summary Table of ISGS Site No. 1586V/B-16 Comparison of Detected Constituents to Applicable Reference Concentrations **Soil Analytical Results Illinois Department of Transportation** Longmeadow Parkway from West of Huntley/Boyer Road to IL Route 62 Algonquin, Barrington Hills, and Carpentersville, Kane County, Illinois

Field Sample ID	VL4-2(0-6)-110915		
Sample Date	11/9/2015		
Location ID	VL4-2	Soil Reference	
Depth	0 - 6	Concentrations ^A	
Location Code	1586V/B-16		
Parameter			
SPLP Metals (mg/l)			
Arsenic, SPLP	0.032 J	0.05	
Barium, SPLP	0.54	2	
Beryllium, SPLP	ND	0.004	
Cadmium, SPLP	0.0024 J	0.005	
Chromium, SPLP	0.094	0.1	
Cobalt, SPLP	0.031	1	
Copper, SPLP	0.11	0.65	
Iron, SPLP	97 J+	5	
Lead, SPLP	0.31	0.0075	
Manganese, SPLP	1.2	0.15	
Mercury, SPLP	ND	0.002	
Nickel, SPLP	0.091	0.1	
Zinc, SPLP	0.32	5	

Notes:

 --- - not applicable or value not available.
 ^A - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

J- - Estimated concentration, biased low.

J+ - Estimated concentration, biased high.

Shaded values indicate concentration **exceeds** Reference Concentration.

Page 1 of 2



Illinois Environmental Protection Agency

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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 III. 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 III. 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: Longmeadow Pkwy from Huntley Rd to IL 6	Office Phone Number, if available:
Physical Site Location (address, inclduding number and str	reet):
1004 to 1018 Chippewa Circle (ISGS Site No. 1586V/B-24	4)
City: Carpentersville State: IL	Zip Code:
County: Kane	Township:
Lat/Long of approximate center of site in decimal degrees ((DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):
Latitude: <u>42.139355505</u> Longitude: <u>-88.2579965</u>	15
(Decimal Degrees) (-Decimal De	egrees)
Identify how the lat/long data were determined:	
🔀 GPS 🔲 Map Interpolation 🔲 Photo Interpola	ation 🔲 Survey 🔲 Other
IEPA Site Number(s), if assigned: BOL:	BOW: BOA:
II. Owner/Operator Information for Source Sit	te
Site Owner	Site Operator
Name: Illinois Department of Transportation	Name: Illinois Department of Transportation
Street Address: 201 West Center Court	Street Address: 201 West Center Court
PO Box:	PO Box:
City: Schaumburg State: IL	City: Schaumburg State: IL
Zip Code: 60196-1096 Phone: 847-705-4101	Zip Code: <u>60196-1096</u> Phone: <u>847-705-4101</u>
Contact: Sam Mead	Contact: Sam Mead
Email, if available: Sam.Mead@illinois.gov	Email, if available: Sam.Mead@illinois.gov

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 LPC 663 Rev. 8/2012 Management Center. 153

Project Name: Longmeadow Pkwy from Huntley Rd to IL 62

Latitude: <u>42.139355505</u> Longitude: -88.257996515

Uncontaminated Site Certification

III. Basis for Certification and Attachments

For each item listed below, reference the attachments to this form that provide the required information.

 A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 III. Adm. Code 1100.610(a)]:

LOCATION RL6-1 WAS SAMPLED ADJACENT TO ISGS SITE No. 1586V/B-24. SEE FIGURE 4-1 AND TABLE 4-1 OF THE FINAL PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 III. 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 III. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

TESTAMERICA ANALYTICAL REPORT - JOB ID: 500-103747-1. ALSO SEE FIGURE 4-1 OF THE FINAL PRELIMINARY SITE INVESTIGATION REPORT.

IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I. William F. Karlovitz, P.E. (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 III. 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:	Weston Solutions, Inc.		
Street Address:	300 Circle Plaza; Suite 202		2
City:	Mundelein	State: <u>IL</u> Zip Code: <u>60060</u>	
Phone:	(224) 864-7200	,	1 Dros
William F. Karlovitz, P.E.			580 F10/800
Printed Name:	als	31 MAY 2016	WILLIAM F. O KARLOVITZ
Licensed Professional E Licensed Professional (Engineer or Geo logi st Signature:	Date:	062-052500 . S

P.E. or L.P.G. Seal:

Summary Table of ISGS Site No. 1586V/B-24 Comparison of Detected Constituents to Applicable Reference Concentrations Soil Analytical Results Illinois Department of Transportation Longmeadow Parkway from West of Huntley/Boyer Road to IL Route 62 Algonquin, Barrington Hills, and Carpentersville, Kane County, Illinois

Field Sample ID	RI 6-1(0-2)-110915	
Sample Date	11/9/2015	
L ocation ID	RI 6-1	Soil Reference
Denth	0 - 2	Concentrations ^A
Location Code	1586V/B-24	Concentrations
Parameter	100017821	-
	8.01	<u>~6 25 >9 0</u>
	None Detected	<0.23,>9.0
	None Delected	
Anthracene	21	1 20E±07
Ronzo(a)anthracono	140	900 / 1100 / 1800
Bonzo(a)pyrono	140	900 / 1100 / 1800
Bonzo(b)fluoranthono	320	907 13007 2100
Benzo(a h i)pervlene	200	300 / 1300 / 2100
Benzo(k)fluoranthene	120	9000
Chrysono	210	88000
Eluoranthene	210	310000
Indeno(1.2.3-cd)nyrene	180 1+	900 / 900 / 1600
Deponthrone	150 5+	300/300/1000
Durana	540	230000
Total Metals (mg/kg)		200000
Antimony Total	0.29	5
Antinony, rotal	57 -	11 3 / 13
Rarium Total	<u> </u>	1500
Bonyllium Total	05 -	22
Cadmium Total	0.3 0- 0.34 ,I-	5.2
Calcium Total	27000	
Chromium Total	14 -	21
Cobalt Total	8	20
Copper Total	0	2900
Iron Total	13000	15000 / 15900
Lead Total	28.1	10007 10300
Magnesium Total	16000 .1	325000
Manganese Total	350.1+	630 / 636
Mercury Total	0.027	0.89
Nickel Total	19	100
Potassium Total	820.1+	
Selenium Total	0.42,1	1.3
Sodium Total	580.1	
Vanadium Total	22	550
Zinc Total	49	5100
TCL P Metals (mg/l)	<u></u>	0100
Arsenic TCLP	ND	0.05
Rarium TCI P	0.66	2
Cadmium TCLP	ND	0.005
	ND	0.000
Cobalt TCLP	ND	1
Copper TCLP	0.013.1	0.65
	ND	5
	ND	0.0075
Manganese TCLP	0.069	0.15
Mercury TCLP	ND	0.002
Nickel TCLP	ND	0.002
	ND	0.05
Zinc, TCLP	0.17 J-	5

Summary Table of ISGS Site No. 1586V/B-24 Comparison of Detected Constituents to Applicable Reference Concentrations **Soil Analytical Results Illinois Department of Transportation** Longmeadow Parkway from West of Huntley/Boyer Road to IL Route 62 Algonquin, Barrington Hills, and Carpentersville, Kane County, Illinois

Field Sample ID	RL6-1(0-2)-110915	
Sample Date	11/9/2015	
Location ID	RL6-1	Soil Reference
Depth	0 - 2	Concentrations ^A
Location Code	1586V/B-24	
Parameter		
SPLP Metals (mg/l)		
Arsenic, SPLP	0.035 J	0.05
Barium, SPLP	0.69	2
Beryllium, SPLP	0.0042	0.004
Cadmium, SPLP	0.0027 J	0.005
Chromium, SPLP	0.12	0.1
Cobalt, SPLP	0.022 J	1
Copper, SPLP	0.09	0.65
Iron, SPLP	100 J+	5
Lead, SPLP	0.086	0.0075
Manganese, SPLP	0.59	0.15
Mercury, SPLP	ND	0.002
Nickel, SPLP	0.086	0.1
Zinc, SPLP	0.61	5

Notes:

 --- - not applicable or value not available.
 ^A - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

J- - Estimated concentration, biased low.

J+ - Estimated concentration, biased high.

Shaded values indicate concentration **exceeds** Reference Concentration.

2

Illinois Environmental Protection Agency

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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 III. 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 III. 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: Longme	adow Parkway Project (Section C3)	Office Pho	one Number, if available: 630-584-1170		
Physical Site Location	(address, inclduding number and str	eet):			
Longmeadow Parkway	Section C3 from Sta. 2269+67.9 to	2283+00 (Approx. 50	feet west of IL25 extending ~ 1,282' ease/NE)		
City: Algonquin	State: IL	Zip Code: 60102	2		
County: Kane Township: Dundee					
Lat/Long of approximat	e center of site in decimal degrees (DD.ddddd) to five dec	imal places (e.g., 40.67890, -90.12345):		
Latitude: 42.139894	Longitude: -88.277790				
(Decimal I	Degrees) (-Decimal De	egrees)			
Identify how the lat/lo	ng data were determined:				
🗌 GPS 🛛 Map	Interpolation 🔲 Photo Interpola	tion 🗌 Survey	Other		
Google Earth (lat/Lo	ng is approximate centerline of IL25	in center of corridor).			
IEPA Site Number(s), if	assigned: BOL:	BOW:	BOA:		
II. Owner/Operato	r Information for Source Sit	6			
	Site Owner	-	Site Operator		
Name: Kane (County Division of Transportation	Name:	Kane County Division of Transportation		
Street Address: 41W01	1 Burlington Road	_ Street Address:	41W011 Burlington Road		
PO Box:		PO Box:			
City: St. Cha	arles State: IL	_ City:	St. Charles State: IL		
Zip Code: 60175	Phone: 630-584-1170	Zip Code:	60175 Phone: 630-584-1170		
Contact: Carl Se	choedel, PE, Dir. of Trans. Co. Eng.	Contact:	Carl Schoedel, PE, Dir. of Trans. Co. Eng.		
Email, if available: Scho	pedelCarl@co.kane.il.us	Email, if availab	le: SchoedelCarl@co.kane.il.us		

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 LPC 663 Rev. 8/2012 Management Center. Project Name: Longmeadow Parkway Project (Section C3)

Latitude: <u>42.139894</u> Longitude: -88.277790

Uncontaminated Site 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 III. Adm. Code 1100.610(a)]:

Based on PESA (Sept. 2014) and PSI (Jan. 2015) two PIPs were identified in Section C3. A total of 4 borings were completed within Section C3 of the larger Project Corridor to address the PIPs and / or for non-PIP areas. Laboratory analysis included pH, BTEX, PNAs, and RCRA metals (total analysis method).

b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 III. 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 III. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

A total of four (4) soil pH samples were collect from the four (4) borings within section C3 including CCDD-C-17, CCDD-C-24, CCDD-C-25, and CCDD-C-26 with results ranging from 7.09 to 7.54. BTEX and PNAs were either not detected or achieve MAC values. RCRA metals results achieve MACs except at CCDD-C-25 (3-4 ft), but achieves at interval above and below.

IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I. Jeremy J. Reynolds, P.G. (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 III. 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, Inc., a subsidiary of GZA GeoEnvironmental, Inc.			
Street Address:	915 Harger Road, Suite 330			
City:	Oak Brook	State:	IL Zip Code: 60523	
Phone:	630-684-9100			PROFESSIO
Jeremy J. Reynolds, P.G. Printed Name: Licensed Professional E Licensed Professional G	Engineer or Beologist Signature:		<u>8/8/18</u> Date:	JEREMY J. REYNOLDS 196-001170



August 8, 2018 CCDD LPC-663 Form Longmeadow Parkway Section C3 (Sta. 2269+67.9 to Sta. 2283+00) — Kane County, IL Narrative Page [1

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

Project Owner: Kane County Division of Transportation (KDOT)

Project Name: Longmeadow Parkway Project – SECTION C3 (Sta. 2269+67.9 to Sta. 2283+00)

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 excavated soils generated from Section C3 of the proposed Project Corridor of Longmeadow Parkway in Kane County, from Station 2269+67.9 to Station 2283+00 with limits described as extending from approximately the west side of IL-25 and extending east approximately 1,332 feet into a wooded/open space area.

The planned improvements along Section C3 of the larger Project Corridor involve an extension and reconstruction of Longmeadow Parkway as a four-lane highway. Other Sections (A, B, B2, C1, C2 and D) have their own respective CCDD documents (Sections A, B, B2, and D have previously been submitted to CCDD facilities for pre-approval). The attached Site Location Map (Figure 1-1) depicts the entire Project Corridor and Section C3 of the Project Corridor covered by this CCDD document.

A Preliminary Environmental Site Assessment (PESA) was conducted for the entire Project Corridor, including Section C3, (September 2014) following the general protocols associated with ASTM E1527-13, which is a standard environmental site assessment methodology and IDOT procedures. These protocols are consistent with the PESA procedures outlined by the Illinois Department of Transportation (IDOT) in BDE #66-10A and the "Manual for Conducting Preliminary Environmental Site Assessments for Illinois Department of Transportation Highway Projects." The referenced PESA was completed for the Local Roads portions of the project, IDOT/ISGS also completed PESAs for the portions of the Project Corridor under IDOT jurisdiction.

The Local Roads portion PESA included a database search of nearby impacted properties to cover the entire project area and included review of historical aerial maps to confirm past land-use practices. In addition, a site visit was completed to verify the database findings and confirm distances to the nearest identified potentially impacted properties (PIPs). Based on a review of the historic documentation and the site reconnaissance, 12 PIPs were identified within 500 feet of the entire Project Corridor and only 2 PIPs identified within Section C3. Specifically, the PIPs identified within Section C3 include Night Shift Transmission / Discount Muffler Brakes and More / Skeeter's Saloon (PESA Site #29) and fly dumping noted in the field east of IL-25 (PESA Site #31). Any soils generated from other Section C Contract (ie adjacent C2 to the west along the quarry property) are excluded from certification under the C3 Contract document.

The Local Roads portion PESA was followed by a Preliminary Site Investigation (PSI) of the Project Corridor, report dated May 2015. The PSI included advancing 34 soil borings to depths consistent with the project plans to address the PIPs along the entire project corridor and/or specifically for CCDD purposes in areas without PIPs identified. Four (4) of the borings were completed within Section C3, including CCDD-C-17; CCDD-C-24; CCDD-C-25; and CCDD-C-26. Similar to the Local



Roads PESA, the referenced PSI was only conducted for the Local Roads portion of the project and IDOT has performed a PSI for portions of the Project Corridor under their jurisdiction.

Due to the age of the prior documents, H&H obtained an updated database search of the C3 Contract corridor on July 19, 2018. No additional PIPs were identified, corroborating the prior due diligence.

The sample depth selected for analytical testing was dependent on PID screening in the field, with preference given to the highest PID result of all samples collected in conjunction with proposed project excavation depth considerations. Analyses were selected based on the identified PIPs and included benzene, toluene, ethyl benzene, and total xylenes (BTEX), polynuclear aromatic compounds (PNAs), resource conservation and recovery act (RCRA) metals via total analysis method, and soil pH. The PIPs identified in the Preliminary Environmental Site Assessment (PESA) Report were used to identify the contaminants of concern (COC) for the Project Corridor.

Due to the timing of the completed PESA and PSI activities, an updated database review was completed in July 2018 to confirm the prior findings. The following information presents a summary of the records review specific to Section C3, which had two (2) PIPs associated, including: Night Shift Transmission / Discount Muffler Brakes and More / Skeeter's Saloon (PESA Site #29) and fly dumping noted in the field east of IL-25 (PESA Site #31). The Project Area is depicted in the Figures included in **Attachment A**.

Justification in Support of CCDD Determination

The nine items listed as the minimum considerations for determining acceptance at a CCDD facility have been met based on historical research and site reconnaissance and none of the conditions are true or present for the project corridor. Evidence to support this determination is included below.

A database search was conducted for the entire Longmeadow Parkway Project Corridor, including coverage of Section C3. In addition, publicly available historical aerial photographs were reviewed to determine land-use within the Project Area, and a site visit was completed to verify the database findings, confirm distances to the nearest identified sites from the database review, and the collection of four samples for BTEX, PNAs, RCRA metals and soil pH. Based on arsenic detected above the MAC value in one sample, an additional 3 samples were analyzed for arsenic to refine the exclusion zone.

Records Search

Historic aerial photographs were examined during the PESA, from the years 1939, 1954, 1961, 1967, 1974, 1980, 1988, 1999, 2005, 2009, and 2012. Aerial photographs depict the area with similar conditions dating back to 1999. Contract C3 area was open space / agricultural land since at least 1939 through 1954. By 1961, the area adjacent to the south of C3 was developed into a residential neighborhood. By 1988 the quarry west of C3 had expanded eastward in close proximity to IL25 and was subsequently developed into a residential neighborhood by 2005. The majority of C3 area is still open space in 2018.

On February 28, 2014, a record search was performed by Environmental Risk Information Services (ERIS) as part of the PESA. Based on the data presented in the PESA, 2 PIPs were identified associated with Section C3 of the Project Area. Due to the age of the document, H&H obtained an updated database document. **Attachment B** contains the portion of the PESA that summarizes the identified PIPs and also the 2018 database information.



Property Name	Site #	PIP(s)	Address	
Night Shift Transmission / Discount Muffler Brakes & More / Skeeter's Saloon	29	LUST, potential past chemical use, AST, drum	1695 IL Route 25	
Dumping / waste piles	31	Dumping visible on aerials	Vacant land between IL25 and IL62	

SUMMARY OF PESA FINDINGS (SECTION C3)

Night Shift Transmission/Discount Muffler Brakes & More/Skeeter's Saloon (Site 29)

This site is located at 1695 Illinois Rt. 25, near the intersection of Rt. 25 and Bolz Road. Night Shift Transmission is listed in the ERIS database report as being located at Rt. 25 and Boltz Road. The site appears in the IEPA BOL database with IEPA BOL #0890205046. The site also appears in the OSFM UST and LUST databases with facility ID #2032216 and IEMA Incident # 932242. According to the OSFM database, five USTs were removed from the site in 1993. At the time of this removal, a used oil release was detected and Incident # 932242 was assigned to the site. According to the IEPA database, an NFR with no restrictions was received for this incident on January 27, 1994.

According to a previous PESA prepared for the Project Corridor in 2005, a gasoline station formerly occupied this site. The PESA also states that during site visits, a plastic tote, a rusty drum, a pile of waste tires, and a 250-gallon waste oil AST were noted along the east side of the building.

During the site visit on April 4, 2014, Discount Muffler Brakes and More was found to be located at this site. A sign indicated that Skeeter's Saloon was located behind the site. According to a previous PESA, the Skeeter's Saloon property is listed as a tavern and an auto repair shop in the 1980 and 1984 city directories.

During the site visit, one pole-mounted transformer was observed at the northwest corner of the site. Tires could be seen piled up along the west side of the building. The site was paved and the pavement was in good condition. The AST, drum, and plastic tote mentioned in the previous PESA were not observed during this site visit.

The following PIPs were identified at this site: Former use as a gasoline station and auto repair shop, former LUST incident, potential past chemical use, formerly observed AST and drum.

Possible dumping/waste piles (Site 31)

The 2013 aerial view of the site on Google Earth showed some possible fly dumping north of the Project Corridor between Elgin Road (Rt. 25) and Algonquin Road (Rt. 62). The aerial view of the Project Corridor appeared to show waste piles located on the open area approximately 750 east of the intersection of Elgin Road and Bolz Road.

During the site visit on April 4, 2014, this area was not easily accessible. The area is bordered by a heavily wooded area to the west, residential properties to the south, the Woodland Elementary School to the east, and open land/wooded area to the north. The area was accessed on foot as much as possible from the west (from the intersection of Elgin Road and Bolz Road.

The following PIPs were identified at this site: waste piles on aerial view.



Analytical Results

Four (4) soil borings (CCDD-C-17, CCDD-C-24, CCDD-C-25, and CCDD-C-26), depicted on Figure 2-1, were advanced along the Project Corridor in Section C3 for CCDD consideration and to address two REC/PIPs identified in the PESA. One sample from each boring was analyzed for BTEX, PNAs, RCRA metals, and soil pH to address the PIPs. Field assessment of each soil sample was conducted including use of a photoionization detector (PID) and all PID results were indicating background readings with no elevated PID readings noted. The following table summarizes the constituents analyzed by boring and depth.

Sample ID/Depth (ft)	PIP Investigated	BTEX	RCRA Metals	PNAs	Soil pH
CCDD-C-24 (1-2)	Night Shift Transmission / Discount Muffler	Х	Х	Х	Х
CCDD-C-25 (3-4)	Brakes & More / Skeeter's Saloon	х	Х	х	х
CCDD-C-26 (4-5)	Dumping / waste piles	х	Х	Х	Х
CCDD-C-17 (2-3)		Х	Х	Х	Х

ANALYTICAL SUMMARY TABLE

<u>BTEX</u>

The BTEX results from all four samples were below detection limits and therefore achieve the MACs. The BTEX results are summarized in the tables in **Attachment C.**

<u>PNAs</u>

The PNA results from CCDD-C-25, CCDD-C-26, and CCDD-C-17 were below detection limits and therefore achieve the MACs. Three PNAs were detected in CCDD-C-24, including benzo(a)anthracene, benzo(b)fluoranthene, and benzo(k)fluoranthene. However, the results were all below their most stringent respective MAC values. The PNA results are summarized in the tables in **Attachment C.**

RCRA Metals

RCRA metals were detected in each of the four samples but all results achieve their respective MAC values with the exception of arsenic detected at 13.1 mg/kg at CCDD-C-25 (3 to 4 feet). Based on this result, supplemental arsenic analysis was conducted on other depth intervals to provide delineation, including at CCDD-C-24 (3 to 4 feet), CCDD-C-25 (2 to 3 feet) and CCDD-C-25 (4 to 5 feet). All supplemental arsenic results achieve the MAC value of 13 mg/kg.



<u>Soil pH</u>

All soil samples collected from Section C3 have pH results within the MAC range of 6.25 to 9.0 (7.09 to 7.54). The soil pH results are summarized below.

Sample ID/Depth (ft)	Soil pH
CCDD-C-24 (1 to 2)	7.09
CCDD-C-25 (3 to 4)	7.54
CCDD-C-26 (4 to 5)	7.43
CCDD-C-17 (2 to 3)	7.36

CCDD Determination

In summary, soil from Section C3 of the Project Corridor has been analyzed for BTEX, PNAs, RCRA metals, and soil pH. All soil results from Section C3 achieve MACs for all compounds analyzed including the soil pH requirements for CCDD disposal except for arsenic detected at CCDD-C-25 (3 to 4 feet).

With the exception of arsenic detected at CCDD-C-25 (3 to 4 feet), all results achieve the MAC values. Therefore, soils from Section C3 are considered acceptable for final disposition consideration at a Clean Construction and Demolition Debris (CCDD) or soil only facility other than the identified exclusion zone centered at CCDD-C-25 (Sta. 2274+50 to Sta. 2277+00) from 3 to 4 feet deep.

Soils from adjacent Contract C2 area to the west (quarry property along Bolz Road) and the IDOT jurisdiction along IL-25 are explicitly excluded from this document. IDOT has prepared their own LPC-663 Form documentation for work along IL-25.

Should conditions within the Project Corridor change, such as unusual staining, odors, or if loads become rejected, additional analytical assessment may be required for final disposition of spoils from this Project Corridor.

ADJUSTING FRAMES AND GRATES (BDE)

Effective: April 1, 2017

Add the following to Article 602.02 of the Standard Specifications:

"(s)	High Density Expanded Polystyrene Adjusting Rings	
	with Polyurea Coating (Note 4)	1043.04
(1)		4040 05

(t) Expanded Polypropylene (EPP) Adjusting Rings (Note 5) 1043.05

Note 4. High density expanded polystyrene adjusting rings with polyurea coating shall meet the design load requirements of AASHTO HS20/25. The rings may be used to adjust the frames and grates of drainage and utility structures up to a maximum of 6 in. (150 mm). They shall be installed and sealed underneath the frames according to the manufacturer's specifications.

Note 5. Riser rings fabricated from EPP may be used to adjust the frames and grates of drainage and utility structures up to a maximum of 6 in. (150 mm). An adhesive meeting ASTM C 920, Type S, Grade N5, Class 25 shall be used with EPP adjustment rings. The top ring of the adjustment stack shall be a finish ring with grooves on the lower surface and flat upper surface. The joints between all manhole adjustment rings and the frame and cover shall be sealed using the approved adhesive. In lieu of the use of an adhesive, an internal or external mechanical frame-chimney seal may be used for watertight installation. EPP adjustment rings shall not be used with heat shrinkable infiltration barriers."

Add the following to Section 1043 of the Standard Specifications:

"1043.04 High Density Expanded Polystyrene Adjusting Rings with Polyurea Coating. High density expanded polystyrene adjustment rings with polyurea coating shall be designed and tested to meet or exceed an HS25 wheel load according to the AASHTO Standard Specifications for Highway Bridges (AASHTO M306 HS-25). The raw material suppliers shall provide certifications of quality or testing using the following ASTM standards, and upon request, certify that only virgin material was used in the manufacturing of the expanded polystyrene rings.

Bhysical Branarty	Test Standard	Value		
Physical Property	Test Standard	3.0 lb/cu ft	4.5 lb/cu ft	
Compression Resistance	ASTM D 1621			
at 10% deformation		50 - 70	70 - 90	
at 5% deformation		45 - 60	60 - 80	
at 2% deformation		15 - 20	20 - 40	
Flexural Strength	ASTM D 790	90 - 120	130 - 200	
Water Absorption	ASTM D 570	2.0%	1.7%	
Coefficient of Linear Expansion	ASTM D 696	2.70E-06 in./in./ºF	2.80E-06 in./in./ºF	
Sheer Strength	ASTM D 732	55	80	

Tensile Strength	ASTM D 1623	70 - 90	130 - 140
Water Vapor Transmission	ASTM C 355	0.82 – 0.86 perm – in.	

High density expanded polystyrene adjustment rings with polyurea coating shall have no void areas, cracks, or tears. The actual diameter or length shall not vary more than 0.125 in. (3 mm) from the specified diameter or length. Variations in height are limited to \pm 0.063 in. (\pm 1.6 mm). Variations shall not exceed 0.25 in. (6 mm) from flat (dish, bow, or convoluting edge) or 0.125 in. (3 mm) for bulges or dips in the surface.

1043.05 Expanded Polypropylene (EPP) Adjusting Rings. The EPP adjusting rings shall be manufactured using a high compression molding process to produce a minimum finished density of 7.5 lb/cu ft (120 g/l). The EPP rings shall be made of materials meeting ASTM D 3575 and ASTM D 4819-13. The grade adjustments shall be designed and tested according to the AASHTO Standard Specifications for Highway Bridges (AASHTO M 306 HS-25).

Grade rings shall contain upper and lower keyways (tongue and groove) for proper vertical alignment and sealing. The top ring, for use directly beneath the cast iron frame, shall have keyways (grooves) on the lower surface with a flat upper surface.

Adhesive or sealant used for watertight installation of the manhole grade adjustment rings shall meet ASTM C 920, Type S, Grade NS, Class 25, Uses NT, T, M, G, A, and O.

EPP adjustment rings shall have no void areas, cracks, or tears. The actual diameter or length shall not vary more than 0.125 in. (3 mm) from the specified diameter or length. Variations in height are limited to \pm 0.063 in. (\pm 1.6 mm). Variations shall not exceed 0.25 in. (6 mm) from flat (dish, bow, or convoluting edge) or 0.125 in. (3 mm) for bulges or dips in the surface."

80382

BITUMINOUS MATERIALS COST ADJUSTMENTS (BDE)

Effective: November 2, 2006 Revised: August 1, 2017

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

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

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

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

Where: CA = Cost Adjustment, \$.

- BPI₽ = Bituminous Price Index, as published by the Department for the month the work is performed, \$/ton (\$/metric ton).
- BPI = Bituminous Price Index, as published by the Department for the month prior to the letting for work paid for at the contract price; or for the month the agreed unit price letter is submitted by the Contractor for extra work paid for by agreed unit price, \$/ton (\$/metric ton).
- %ACv = Percent of virgin Asphalt Cement in the Quantity being adjusted. For HMA mixtures, the % AC_{V} will be determined from the adjusted job mix formula. For bituminous materials applied, a performance graded or cutback asphalt will be considered to be 100% AC_v and undiluted emulsified asphalt will be considered to be 65% AC_V.
- Q = Authorized construction Quantity, tons (metric tons) (see below).

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

For bituminous materials measured in gallons:	Q, tons = V x 8.33 lb/gal x SG / 2000
For bituminous materials measured in liters:	Q, metric tons = $V \times 1.0 \text{ kg/L} \times \text{SG} / 1000$

Where: A

- = Area of the HMA mixture, sq yd (sq m). D
 - = Depth of the HMA mixture, in. (mm).
- = Average bulk specific gravity of the mixture, from the approved mix design. G_{mb}

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

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

Percent Difference = {(BPI_L - BPI_P) \div BPI_L} × 100

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

80173

COMPENSABLE DELAY COSTS (BDE)

Effective: June 2, 2017

Revise Article 107.40(b) of the Standard Specifications to read:

- "(b) Compensation. Compensation will not be allowed for delays, inconveniences, or damages sustained by the Contractor from conflicts with facilities not meeting the above definition; or if a conflict with a utility in an unanticipated location does not cause a shutdown of the work or a documentable reduction in the rate of progress exceeding the limits set herein. The provisions of Article 104.03 notwithstanding, compensation for delays caused by a utility in an unanticipated location will be paid according to the provisions of this Article governing minor and major delays or reduced rate of production which are defined as follows.
 - (1) Minor Delay. A minor delay occurs when the work in conflict with the utility in an unanticipated location is completely stopped for more than two hours, but not to exceed two weeks.
 - (2) Major Delay. A major delay occurs when the work in conflict with the utility in an unanticipated location is completely stopped for more than two weeks.
 - (3) Reduced Rate of Production Delay. A reduced rate of production delay occurs when the rate of production on the work in conflict with the utility in an unanticipated location decreases by more than 25 percent and lasts longer than seven calendar days."

Revise Article 107.40(c) of the Standard Specifications to read:

- "(c) Payment. Payment for Minor, Major, and Reduced Rate of Production Delays will be made as follows.
 - (1) Minor Delay. Labor idled which cannot be used on other work will be paid for according to Article 109.04(b)(1) and (2) for the time between start of the delay and the minimum remaining hours in the work shift required by the prevailing practice in the area.

Equipment idled which cannot be used on other work, and which is authorized to standby on the project site by the Engineer, will be paid for according to Article 109.04(b)(4).

(2) Major Delay. Labor will be the same as for a minor delay.

Equipment will be the same as for a minor delay, except Contractor-owned equipment will be limited to two weeks plus the cost of move-out to either the Contractor's yard or another job and the cost to re-mobilize, whichever is less.
Rental equipment may be paid for longer than two weeks provided the Contractor presents adequate support to the Department (including lease agreement) to show retaining equipment on the job is the most economical course to follow and in the public interest.

(3) Reduced Rate of Production Delay. The Contractor will be compensated for the reduced productivity for labor and equipment time in excess of the 25 percent threshold for that portion of the delay in excess of seven calendar days. Determination of compensation will be in accordance with Article 104.02, except labor and material additives will not be permitted.

Payment for escalated material costs, escalated labor costs, extended project overhead, and extended traffic control will be determined according to Article 109.13."

Revise Article 108.04(b) of the Standard Specifications to read:

- "(b) No working day will be charged under the following conditions.
 - (1) When adverse weather prevents work on the controlling item.
 - (2) When job conditions due to recent weather prevent work on the controlling item.
 - (3) When conduct or lack of conduct by the Department or its consultants, representatives, officers, agents, or employees; delay by the Department in making the site available; or delay in furnishing any items required to be furnished to the Contractor by the Department prevents work on the controlling item.
 - (4) When delays caused by utility or railroad adjustments prevent work on the controlling item.
 - (5) When strikes, lock-outs, extraordinary delays in transportation, or inability to procure critical materials prevent work on the controlling item, as long as these delays are not due to any fault of the Contractor.
 - (6) When any condition over which the Contractor has no control prevents work on the controlling item."

Revise Article 109.09(f) of the Standard Specifications to read:

"(f) Basis of Payment. After resolution of a claim in favor of the Contractor, any adjustment in time required for the work will be made according to Section 108. Any adjustment in the costs to be paid will be made for direct labor, direct materials, direct equipment, direct jobsite overhead, direct offsite overhead, and other direct costs allowed by the resolution. Adjustments in costs will not be made for interest charges, loss of anticipated profit, undocumented loss of efficiency, home office overhead and unabsorbed overhead other than as allowed by Article 109.13, lost opportunity, preparation of claim expenses and other consequential indirect costs regardless of method of calculation.

The above Basis of Payment is an essential element of the contract and the claim cost recovery of the Contractor shall be so limited."

Add the following to Section 109 of the Standard Specifications.

"**109.13 Payment for Contract Delay.** Compensation for escalated material costs, escalated labor costs, extended project overhead, and extended traffic control will be allowed when such costs result from a delay meeting the criteria in the following table.

Contract Type	Cause of Delay	Length of Delay
Working Days	Article 108.04(b)(3) or Article 108.04(b)(4)	No working days have been charged for two consecutive weeks.
Completion Date	Article 108.08(b)(1) or Article 108.08(b)(7)	The Contractor has been granted a minimum two week extension of contract time, according to Article 108.08.

Payment for each of the various costs will be according to the following.

- (a) Escalated Material and/or Labor Costs. When the delay causes work, which would have otherwise been completed, to be done after material and/or labor costs have increased, such increases will be paid. Payment for escalated material costs will be limited to the increased costs substantiated by documentation furnished by the Contractor. Payment for escalated labor costs will be limited to those items in Article 109.04(b)(1) and (2), except the 35 percent and 10 percent additives will not be permitted.
- (b) Extended Project Overhead. For the duration of the delay, payment for extended project overhead will be paid as follows.
 - (1) Direct Jobsite and Offsite Overhead. Payment for documented direct jobsite overhead and documented direct offsite overhead, including onsite supervisory and administrative personnel, will be allowed according to the following table.

Original Contract Amount	Supervisory and Administrative Personnel
Up to \$5,000,000	One Project Superintendent
Over \$ 5,000,000 - up to \$25,000,000	One Project Manager, One Project Superintendent or Engineer, and One Clerk
Over \$25,000,000 - up to \$50,000,000	One Project Manager, One Project Superintendent, One Engineer, and

	One Clerk
	One Project Manager,
Over \$50,000,000	Two Project Superintendents,
0ver \$50,000,000	One Engineer, and
	One Clerk

- (2) Home Office and Unabsorbed Overhead. Payment for home office and unabsorbed overhead will be calculated as 8 percent of the total delay cost.
- (c) Extended Traffic Control. Traffic control required for an extended period of time due to the delay will be paid. For working day contracts the payment will be made according to Article 109.04. For completion date contracts, an adjustment will be determined as follows.

Extended Traffic Control occurs between April 1 and November 30:

ETCP Adjustment () = TE x ($%/100 \times CUP / OCT$)

Extended Traffic Control occurs between December 1 and March 31:

ETCP Adjustment (\$) = TE x 1.5 (%/100 x CUP / OCT)

Where: TE = Duration of approved time extension in calendar days.

% = Percent maintenance for the traffic control, % (see table below).

CUP = Contract unit price for the traffic control pay item in place during the delay.

OCT = Original contract time in calendar days.

Original Contract Amount	Percent Maintenance
Up to \$2,000,000	65%
\$2,000,000 to \$10,000,000	75%
\$10,000,000 to \$20,000,000	85%
Over \$20,000,000	90%

When an ETCP adjustment is paid under this provision, an adjusted unit price as provided for in Article 701.20(a) for increase or decrease in the value of work by more than ten percent will not be paid.

Upon payment for a contract delay under this provision, the Contractor shall assign subrogation rights to the Department for the Department's efforts of recovery from any other party for monies paid by the Department as a result of any claim under this provision. The Contractor shall fully cooperate with the Department in its efforts to recover from another party any money paid to the Contractor for delay damages under this provision."

CONSTRUCTION AIR QUALITY – DIESEL RETROFIT (BDE)

Effective: June 1, 2010

Revised: 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* (<u>http://www.epa.gov/cleandiesel/verification/verif-list.htm</u>), or verified by the California Air Resources Board (CARB) (<u>http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm</u>); or
- b) Retrofitted with a non-verified diesel retrofit emission control device if verified retrofit emission control devices are not available for equipment proposed to be used on the project, and if the Contractor has obtained a performance certification from the retrofit

device manufacturer that the emission control device provides a minimum PM emission reduction of 50 percent.

Note: Large cranes (Crawler mounted cranes) which are responsible for critical lift operations are exempt from installing retrofit emission control devices if such devices adversely affect equipment operation.

Diesel powered off-road equipment with engine ratings of 50 hp and above, which are unable to be retrofitted with verified emission control devices or if performance certifications are not available which will achieve a minimum 50 percent PM reduction, may be granted a waiver by the Department if documentation is provided showing good faith efforts were made by the Contractor to retrofit the equipment.

Construction shall not proceed until the Contractor submits a certified list of the diesel powered off-road equipment that will be used, and as necessary, retrofitted with emission control devices. The list(s) shall include (1) the equipment number, type, make, Contractor/rental company name; and (2) the emission control devices make, model, USEPA or CARB verification number, or performance certification from the retrofit device manufacturer. Equipment reported as fitted with emissions control devices shall be made available to the Engineer for visual inspection of the device installation, prior to being used on the jobsite.

The Contractor shall submit an updated list of retrofitted off-road construction equipment as retrofitted equipment changes or comes on to the jobsite. The addition or deletion of any diesel powered equipment shall be included on the updated list.

If any diesel powered off-road equipment is found to be in non-compliance with any portion of this special provision, the Engineer will issue the Contractor a diesel retrofit deficiency deduction.

Any costs associated with retrofitting any diesel powered off-road equipment with emission control devices shall be considered as included in the contract unit prices bid for the various items of work involved and no additional compensation will be allowed. The Contractor's compliance with this notice and any associated regulations shall not be grounds for a claim.

Diesel Retrofit Deficiency Deduction

When the Engineer determines that a diesel retrofit deficiency exists, a daily monetary deduction will be imposed for each calendar day or fraction thereof the deficiency continues to exist. The calendar day(s) will begin when the time period for correction is exceeded and end with the Engineer's written acceptance of the correction. The daily monetary deduction will be \$1,000.00 for each deficiency identified.

The deficiency will be based on lack of diesel retrofit emissions control.

If a Contractor accumulates three diesel retrofit deficiency deductions for the same piece of equipment in a contract period, the Contractor will be shutdown until the deficiency is corrected.

Such a shutdown will not be grounds for any extension of the contract time, waiver of penalties, or be grounds for any claim.

DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION (BDE)

Effective: September 1, 2000 Revised: April 2, 2018

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

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

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

<u>OVERALL GOAL SET FOR THE DEPARTMENT</u>. 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.

<u>CONTRACT GOAL TO BE ACHIEVED BY THE CONTRACTOR</u>. This contract includes a specific DBE utilization goal established by the Department. The goal has been included because the Department has determined that 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 that, in the absence of unlawful discrimination, and in an arena of fair and open competition, DBE companies can be expected to perform <u>18.00</u>% 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 that enough DBE participation has been obtained to meet the goal or,
- (b) The bidder documents that a good faith effort has been made to meet the goal, even though the effort did not succeed in obtaining enough DBE participation to meet the goal.

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

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

<u>BIDDING PROCEDURES</u>. Compliance with this Special Provision is required prior to the award of the contract and the failure of the low bidder to comply will render the bid not responsive.

In order to assure the timely award of the contract, the low bidder shall submit:

- (a) The bidder shall submit a DBE Utilization Plan on completed Department forms SBE 2025 and 2026.
 - (1) The final Utilization Plan must be submitted within five calendar days after the date of the letting in accordance with subsection (a)(2) of Bidding Procedures herein.

(2) To meet the five day requirement, the bidder may send the Utilization Plan electronically by scanning and sending to <u>DOT.DBE.UP@illinois.gov</u> or faxing to (217) 785-1524. The subject line must include the bid Item Number and the Letting date. The Utilization Plan should be sent as one .pdf file, rather than multiple files and emails for the same Item Number. It is the responsibility of the bidder to obtain confirmation of email or fax delivery.

Alternatively, the Utilization Plan may be sent by certified mail or delivery service within the five calendar day period. If a question arises concerning the mailing date of a Utilization Plan, the mailing date will be established by the U.S. Postal Service postmark on the certified mail receipt from the U.S. Postal Service or the receipt issued by a delivery service when the Utilization Plan is received by the Department. It is the responsibility of the bidder to ensure the postmark or receipt date is affixed within the five days if the bidder intends to rely upon mailing or delivery to satisfy the submission day requirement. The Utilization Plan is to be submitted to:

Illinois Department of Transportation Bureau of Small Business Enterprises Contract Compliance Section 2300 South Dirksen Parkway, Room 319 Springfield, Illinois 62764

The Department will not accept a Utilization Plan if it does not meet the five day submittal requirement and the bid will be declared not responsive. In the event the bid is declared not responsive due to a failure to submit a Utilization Plan or failure to comply with the bidding procedures set forth herein, 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. The Department reserves the right to invite any other bidder to submit a Utilization Plan at any time for award consideration.

- (b) The Utilization Plan shall indicate that the bidder either has obtained sufficient DBE participation commitments to meet the contract goal or has not obtained enough DBE participation commitments in spite of a good faith effort to meet the goal. The Utilization Plan shall further provide the name, telephone number, and telefax number of a responsible official of the bidder designated for purposes of notification of Utilization Plan approval or disapproval under the procedures of this Special Provision.
- (c) The Utilization Plan shall include a DBE Participation Commitment Statement, Department form SBE 2025, for each DBE proposed for the performance of work to achieve the contract goal. For bidding purposes, submission of the completed SBE 2025 forms, signed by the DBEs and scanned or faxed to the bidder will be acceptable as long as the original is available and provided upon request. All elements of information indicated on the said form shall be provided, including but not limited to the following:

- (1) The names and addresses of DBE firms that will participate in the contract;
- (2) A description, including pay item numbers, of the work each DBE will perform;
- (3) The dollar amount of the participation of each DBE firm participating. The dollar amount of participation for identified work shall specifically state the quantity, unit price, and total subcontract price for the work to be completed by the DBE. If partial pay items are to be performed by the DBE, indicate the portion of each item, a unit price where appropriate and the subcontract price amount;
- (4) DBE Participation Commitment Statements, form SBE 2025, signed by the bidder and each participating DBE firm documenting the commitment to use the DBE subcontractors whose participation is submitted to meet the contract goal;
- (5) If the bidder is a joint venture comprised of DBE companies and non-DBE companies, the Utilization Plan must also include a clear identification of the portion of the work to be performed by the DBE partner(s); and,
- (6) If the contract goal is not met, evidence of good faith efforts; 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.

<u>GOOD FAITH EFFORT PROCEDURES</u>. The contract will not be awarded until the Utilization Plan submitted by the apparent successful bidder is approved. All information submitted by the bidder must be complete, accurate and adequately document that enough DBE participation has been obtained or document that 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. The Utilization Plan will not be approved by the Department if the Utilization Plan does not document sufficient DBE participation to meet the contract goal unless the apparent successful bidder documented in the Utilization Plan that it made a good faith effort to meet the goal. This means that 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 that 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 prime 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 subsection (c)(6) of 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 that the apparent successful 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 that it is otherwise eligible for award. If the Department determines that 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 shall include a statement of reasons for the 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 in order to cure the deficiency.
- (c) The bidder may request administrative reconsideration of a determination adverse to the bidder within the five working days after the receipt of the notification date of the determination by delivering the request to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764 (Telefax: (217) 785-1524). Deposit of the request in the United States mail on or before the fifth business day shall not be deemed delivery. The determination shall become final if a request is not made and delivered. 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 forwarded to the Department's Reconsideration Officer. The Reconsideration Officer will extend an opportunity to the bidder to meet in person in order 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.

<u>CALCULATING DBE PARTICIPATION</u>. 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 prime 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 owneroperator. 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.

<u>CONTRACT COMPLIANCE</u>. 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 be come the amended contract goal. All work indicated for performance by an approved DBE shall be performed, managed, and supervised by the DBE executing the DBE Participation Commitment Statement.

- (a) <u>NO AMENDMENT</u>. No amendment to the Utilization Plan may be made without prior written approval from the Department's Bureau of Small Business Enterprises. All requests for amendment to the Utilization Plan shall be submitted to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764. Telephone number (217) 785-4611. Telefax number (217) 785-1524.
- (b) <u>CHANGES TO WORK</u>. Any deviation from the DBE condition-of-award or contract plans, specifications, or special provisions must be approved, in writing, by the Department as provided elsewhere in the Contract. The Contractor shall notify affected DBEs in writing of any changes in the scope of work which result in a reduction in the dollar amount condition-of-award to the contract. Where the revision includes work committed to a new DBE subcontractor, not previously involved in the project, then a Request for Approval of Subcontractor, Department form BC 260A or AER 260A, must be signed and submitted. If the commitment of work is in the form of additional tasks assigned to an existing subcontract, than a new Request for Approval of Subcontractor shall not be required. However, the Contractor must document efforts to assure that the existing DBE subcontractor is capable of performing the additional work and has agreed in writing to the change.

- (c) <u>SUBCONTRACT</u>. The Contractor must provide DBE subcontracts to IDOT upon request. Subcontractors shall ensure that all lower tier subcontracts or agreements with DBEs to supply labor or materials be performed in accordance with this Special Provision.
- (d) <u>ALTERNATIVE WORK METHODS</u>. In addition to the above requirements for reductions in the condition of award, additional requirements apply to the two cases of Contractorinitiated work substitution proposals. Where the contract allows alternate work methods which serve to delete or create underruns in condition of award DBE work, and the Contractor selects that alternate method or, where the Contractor proposes a substitute work method or material that serves to diminish or delete work committed to a DBE and replace it with other work, then the Contractor must demonstrate one of the following:
 - (1) That 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) That the DBE is aware that 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) That 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) <u>TERMINATION AND REPLACEMENT PROCEDURES</u>. 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 prime contractor;
- (3) The listed DBE subcontractor fails or refuses to meet the prime 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) You have determined that the listed DBE subcontractor is not a responsible contractor;
- (7) The listed DBE subcontractor voluntarily withdraws from the projects and provides to you written notice 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 prime Contractor seeks to terminate a DBE it relied upon to obtain the contract so that the prime Contractor can self-perform the work for which the DBE contractor was engaged or so that the prime 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 shall provide a written determination to the Contractor stating whether or not good faith efforts have been demonstrated.

- (f) <u>FINAL PAYMENT</u>. 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 thirty 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 that the work has not been satisfactorily completed. If the Contractor does not have the full amount of work indicated in the Utilization Plan performed by the DBE companies indicated in the Utilization Plan and after good faith efforts are reviewed, the Department may deduct from contract payments to the Contractor the amount of the goal not achieved as liquidated and ascertained damages. The Contractor may request an administrative reconsideration of any amount deducted as damages pursuant to subsection (h) of this part.
- (g) <u>ENFORCEMENT</u>. The Department reserves the right to withhold payment to the Contractor to enforce the provisions of this Special Provision. Final payment shall not be made on the contract until such time as the Contractor submits sufficient documentation demonstrating achievement of the goal in accordance with this Special Provision or after liquidated damages have been determined and collected.
- (h) <u>RECONSIDERATION</u>. Notwithstanding any other provision of the contract, including but not limited to Article 109.09 of the Standard Specifications, the Contractor my 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.

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."

DOWEL BAR INSERTER (BDE)

Effective: January 1, 2017 Revised: January 1, 2018

Add the following to Article 420.03 of the Standard Specifications.

Revise the first paragraph of Article 420.05(b)(1) of the Supplemental Specifications to read:

"Preformed or Drilled Holes. If applicable, the tie bars shall be installed after the dowel bars have been tested with the MIT Scan-2 device according to Article 420.05(c)(2)b.2. The tie bars shall be installed with a nonshrink grout or chemical adhesive providing a minimum pull-out strength as follows."

Revise Article 420.05(c) of the Standard Specifications to read:

"(c) Transverse Contraction Joints. Transverse contraction joints shall consist of planes of weakness created by sawing grooves in the surface of the pavement and shall include load transfer devices consisting of dowel bars. Transverse contraction joints shall be according to the following."

Revise Article 420.05(c)(2) of the Standard Specifications to read:

- "(2) Dowel Bars. Dowel Bars shall be installed parallel to the centerline of the pavement and parallel to the proposed pavement surface. Installation shall be according to one of the following methods.
 - a. Dowel Bar Assemblies. The assembly shall act as a rigid unit with each component securely held in position relative to the other members of the assembly. The entire assembly shall be held securely in place by means of nails which shall penetrate the stabilized subbase. At least ten nails shall be used for each 10, 11, or 12 ft (3, 3.3, or 3.6 m) section of assembly.

Metal stakes shall be used instead of nails, with soil or granular subbase. The stakes shall loop over or attach to the top parallel spacer bar of the assembly and penetrate the subgrade or subbase at least 12 in. (300 mm).

At the location of each dowel bar assembly, the subgrade or subbase shall be reshaped and re-tamped when necessary.

Prior to placing concrete, any deviation of the dowel bars from the correct horizontal or vertical alignment (horizontal skew or vertical tilt) greater than 3/8 in. in 12 in (9 mm in 300 mm) shall be corrected and a light coating of oil shall be uniformly applied to all dowel bars.

Care shall be exercised in depositing the concrete at the dowel bar assemblies so the horizontal and vertical alignment will be retained.

b. Dowel Bar Insertion. The dowel bars may be placed in the pavement slab with a mechanical dowel bar inserter (DBI) attached to a formless paver for pavements ≥ 7.0 in. (175 mm) in thickness. A light coating of oil shall be uniformly applied to all dowel bars.

The DBI shall insert the dowel bars with vibration into the plastic concrete after the concrete has been struck off and consolidated without deformation of the slab. After the bars have been inserted, the concrete shall be refinished and no voids shall exist around the dowel bars. The forward movement of the paver shall not be interrupted by the inserting of the dowel bars.

The location of each row of dowel bars shall be marked in a manner to facilitate where to insert the bars, and where to saw the transverse joint.

- 1. Placement Tolerances for Dowel Bars. The DBI shall place the dowel bars in the concrete pavement within the following tolerances.
 - (a.)Longitudinal Translation (Mislocation). Longitudinal translation (mislocation) shall be defined as the position of the center of the dowel bar along the longitudinal axis, in relation to the sawed joint.

The quality control tolerance for longitudinal translation shall not exceed 2.0 in (50 mm). If this tolerance is exceeded, adjustments shall be made to the paving operation.

Any joint having two or more dowel bars with an embedment length less than 4.0 in. (100 mm) within 12 in. (300 mm) of the same wheelpath will be considered unacceptable. The left and right wheelpaths shall be determined by excluding the middle 2.5 ft (0.8 m) of the pavement lane, and by excluding the outer 1.0 ft (0.3 m) measured from each pavement lane edge. Any joint having an average dowel bar embedment length less than 5.25 in. (130 mm) will also be considered unacceptable. Embedment length shall be defined as the length of dowel bar embedded on the short side of the sawed joint. An unacceptable joint shall be replaced with a minimum of 6 ft (1.8 m) of pavement centered over the joint according to Section 442 for Class B patches.

(b.) Horizontal Translation (Mislocation). Horizontal translation (mislocation) shall be defined as the difference in the actual dowel bar location parallel to the longitudinal or edge joint from its theoretical position as shown on the plans.

The quality control tolerance for horizontal translation shall not exceed 2.0 in. (50 mm). If this tolerance is exceeded, adjustments shall be made to the paving operation.

Any joint having a dowel bar with a translation greater than 4.0 in. (100 mm) will be considered unacceptable, but may remain in place unless the Engineer determines the joint will not function. If the joint is unable to remain in place, the joint shall be replaced with a minimum of 6 ft (1.8 m) of pavement centered over the joint according to Section 442 for Class B patches.

(c.) Vertical Translation (Mislocation). Vertical translation (mislocation) shall be defined as the difference in the vertical position of the dowel bar relative to the theoretical midpoint of the slab.

The quality control tolerance for vertical translation shall be as shown in the following table. If these tolerances are exceeded, adjustments shall be made to the paving operation.

		Vertical	Vertical
	Dowol Par	Translation	Translation
Pavement Thickness	Dower Dai	Tolerance	Tolerance
	Diametei	Above	Below
		Midpoint	Midpoint
≥7 in. to <8 in.	1.25 in.	0.25 in.	0.5 in.
(≥175 mm to <200 mm)	(31 mm)	(6 mm)	(13 mm)
≥8 in. to <9 in.	1.50 in.	0.25 in.	0.5 in.
(≥200 mm to <225 mm)	(38 mm)	(6 mm)	(13 mm)
≥9 in. to <10 in.	1.50 in.	0.75 in.	0.75 in.
(≥225 mm to <250 mm)	(38 mm)	(19 mm)	(19 mm)
≥10 in.	1.50 in.	0.75 in.	1.0 in.
(≥250 mm)	(38 mm)	(19 mm)	(25 mm)

Any joint having a dowel bar with top concrete cover less than T/3, where T is slab thickness, will be considered unacceptable. Any joint having 2 or more dowel bars with bottom concrete cover less than 2.0 in. (50 mm) will also be considered unacceptable. An unacceptable joint shall be replaced with a minimum of 6 ft (1.8 m) of pavement according to Section 442 for Class B patches.

(d.) Vertical Tilt or Horizontal Skew (Misalignment). Vertical tilt or horizontal skew (misalignment) shall be defined as the difference in position of the dowel bar ends with respect to each other. Vertical tilt is measured in the vertical axis whereas horizontal skew is measured in the horizontal axis. Misalignment shall be measured in terms of a joint score. The joint score shall be defined as the degree of misalignment evaluated for a single transverse joint for each lane of pavement. The joint score shall be determined as follows:

Joint Score =
$$\left(1 + \left(\frac{x}{x-n}\right)\sum_{i=1}^{x-n} W_i\right)$$

where:

- W_i = weighting factor (Table 1) for dowel *i*
- x = number of dowels in a single joint
- *n* = number of dowels excluded from the joint score calculation due to measurement interference

Single Dowel Misalignment – The degree of misalignment applicable to a single dowel bar, calculated as:

Single Dowel Misalignment = $\sqrt{(Horizontal Skew)^2 + (Vertical Tilt)^2}$

Table 1. Weighting Factors in Joint Score Determination			
Single Dowel Bar Misalignment (SDM)	W, Weighting Factor		
SDM ≤ 0.6 in. (15 mm) 0			
0.6 in. (15 mm) < SDM ≤ 0.8 in. (20 mm)	2		
0.8 in. (20 mm) < SDM ≤ 1 in. (25 mm) 4			
1 in. (25 mm) < SDM ≤ 1.5 in. (38 mm) 5			
1.5 in. (38 mm) < SDM 10			

The quality control tolerance for vertical tilt or horizontal skew shall not exceed 0.6 in. (15 mm). If the tolerance is exceeded for either one, adjustments shall be made to the paving operation.

Any joint having a dowel bar with a vertical tilt or horizontal skew greater than 1.5 in. (38 mm) shall be cut. If more than one dowel bar is required to be cut in the joint, the joint will be considered unacceptable and shall be replaced with a minimum of 6 ft (1.8 m) of pavement centered over the joint according to Section 442 for Class B patches.

Single dowel bar misalignment shall be controlled to provide the joint scores shown in the following table.

Number of Dowel Bars in the Joint	Maximum Joint Score
< 5	4
≥ 5 but ≤ 9	8
> 9	12

A joint score greater than the specified maximum will be considered locked. Three consecutive joints with a score greater than the specified maximum total score will all be considered unacceptable.

Three consecutive locked joints shall be corrected by selecting one joint and cutting a dowel bar. Preference shall be given to cutting a dowel bar within the middle 2.5 ft (0.8 m) of the pavement lane to avoid the wheelpaths. If none of the three locked joints will have a joint score less than or equal to the specified maximum after selecting one dowel bar to cut, one of the joints shall be replaced with a minimum of 6 ft (1.8 m) of pavement centered over the joint according to Section 442 for Class B patches.

- (e.) For unacceptable work, the Contractor may propose alternative repairs for consideration by the Engineer.
- 2. Testing of Dowel Bar Placement. The placement of the dowel bars shall be tested within 24 hours of paving with a calibrated MIT Scan-2 device according to "Use of Magnetic Tomography Technology to Evaluate Dowel Placement" (Publication No. FHWA-IF-06-006) by the Federal Highway Administration.

A trained operator shall perform the testing, and all testing shall be performed in the presence of the Engineer. The device shall be calibrated to the type and size dowel bar used in the work according to the manufacturer's instructions. Calibration documentation shall be provided to the Engineer prior to construction. The device shall be recalibrated and/or validate readings as required by the Engineer. The device may be utilized as a process control and make necessary adjustments to ensure the dowel bars are placed in the correct location.

- (a.) Test Section. Prior to start of production paving, a test section consisting of 30 transverse joints shall be constructed. The test section may be performed on the actual pavement, but production paving shall not begin until an acceptable test section has been constructed. The test section will be considered acceptable when all of the following are met:
 - 90 percent of the dowel bars meet the quality control tolerance for longitudinal, horizontal, or vertical translation (mislocation);
 - (2.) 90 percent of the dowel bars meet the quality control tolerance for vertical tilt or horizontal skew deviation (misalignment); and
 - (3.) none of the joints are considered unacceptable prior to a corrective measure for mislocation or misalignment.

If the test section fails, another test section consisting of 30 joints shall be constructed.

The test section requirement may be waived by the Engineer if the Contractor has constructed an acceptable test section and successfully used the DBI on a Department contract within the same calendar year.

(b.) Production Paving. After the test section is approved, production paving may begin. The mislocation and misalignment of each dowel bar for the first ten joints constructed, and every tenth joint thereafter, shall be tested.

If two consecutive days of paving result in 5 percent or more of the joints on each day being unacceptable prior to a corrective measure, production paving shall be discontinued and a new test section shall be constructed.

If any joint is found to be unacceptable prior to a corrective measure, testing of additional joints on each side of the unacceptable joint shall be performed until acceptable joints are found.

- (c.) Test Report. Test reports shall be provided to the Engineer within two working days of completing each day's testing. The test report shall include the following.
 - (1.)Contract number, placement date, county-route-section, direction of traffic, scan date, Contractor, and name of individual performing the tests.
 - (2.) Provide the standard report generated from the on-board printer of the imaging technology used for every dowel and joint measured.
 - (3.) For every dowel measured, provide the joint identification number, lane number and station, dowel bar number or x-location, direction of testing and reference joint location/edge location, longitudinal translation, horizontal translation, vertical translation, vertical tilt, and horizontal skew.
 - (4.) Identify each dowel bar with a maximum longitudinal, horizontal, or vertical translation that has been exceeded. Identify each dowel bar with a maximum vertical tilt or horizontal skew deviation that has been exceeded.
 - (5.) Joint Score Details: Provide the joint identification number, lane number, station, and calculated joint score for each joint.

- (6.)Locked Joint Identification: Identify each joint where the maximum joint score is exceeded.
- (d.) Exclusions. Exclude the following from dowel bar mislocation and misalignment measurements.
 - (1.) Transverse construction joints (headers).
 - (2.)Dowel bars within 24 in. (610 mm) of metallic manholes, inlets, metallic castings, or other nearby or underlying steel reinforced objects.
 - (3.) The outside dowel bar when tie bars are installed with mechanical equipment in fresh concrete. For tie bar installations involving preformed or drilled holes, installation of the tie bar shall be performed after testing with the MIT Scan-2 device.
 - (4.) Joints located directly under high voltage power lines.
 - (5.)Subject to the approval of the Engineer, any other contributors to magnetic interference.
- (e.) Deficiency Deduction. When the Contractor has cut 25 dowel bars to correct unacceptable joints, the Contractor shall be liable and shall pay to the Department a deficiency deduction of \$500.00 for the cost of the bars. Thereafter, an additional deficiency deduction of \$20.00 for each additional bar cut will be assessed."

Add the following to Section 1103 of the Standard Specifications.

"**1103.20 Mechanical Dowel Bar Inserter.** The mechanical dowel bar inserter (DBI) shall be self-contained and supported on the formless paver with the ability to move separately from the paver. The DBI shall be equipped with insertion forks along with any other devices necessary for finishing the concrete the full width of the pavement. The insertion forks shall have the ability to vibrate at a minimum frequency of 3000 VPM."

EQUIPMENT PARKING AND STORAGE (BDE)

Effective: November 1, 2017

Replace the first paragraph of Article 701.11 of the Standard Specifications with the following.

"**701.11 Equipment Parking and Storage.** During working hours, all vehicles and/or nonoperating equipment which are parked, two hours or less, shall be parked at least 8 ft (2.5 m) from the open traffic lane. For other periods of time during working and for all nonworking hours, all vehicles, materials, and equipment shall be parked or stored as follows.

- (a) When the project has adequate right-of-way, vehicles, materials, and equipment shall be located a minimum of 30 ft (9 m) from the pavement.
- (b) When adequate right-of-way does not exist, vehicles, materials, and equipment shall be located a minimum of 15 ft (4.5 m) from the edge of any pavement open to traffic.
- (c) Behind temporary concrete barrier, vehicles, materials, and equipment shall be located a minimum of 24 in. (600 mm) behind free standing barrier or a minimum of 6 in. (150 mm) behind barrier that is either pinned or restrained according to Article 704.04. The 24 in. or 6 in. measurement shall be from the base of the non-traffic side of the barrier.
- (d) Behind other man-made or natural barriers meeting the approval of the Engineer."

FUEL COST ADJUSTMENT (BDE)

Effective: April 1, 2009 Revised: August 1, 2017

<u>Description</u>. Fuel cost adjustments will be made to provide additional compensation to the Contractor, or a credit to the Department, for fluctuations in fuel 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 category of work will make that category of work exempt from fuel cost adjustment.

<u>General</u>. The fuel cost adjustment shall apply to contract pay items as grouped by category. The adjustment shall only apply to those categories of work checked "Yes", and only when the cumulative plan quantities for a category exceed the required threshold. Adjustments to work items in a category, either up or down, and extra work paid for by agreed unit price will be subject to fuel cost adjustment only when the category representing the added work was subject to the fuel cost adjustment. Extra work paid for at a lump sum price or by force account will not be subject to fuel cost adjustment. Category descriptions and thresholds for application and the fuel usage factors which are applicable to each are as follows:

- (a) Categories of Work.
 - (1) Category A: Earthwork. Contract pay items performed under Sections 202, 204, and 206 including any modified standard or nonstandard items where the character of the work to be performed is considered earthwork. The cumulative total of all applicable item plan quantities shall exceed 25,000 cu yd (20,000 cu m). Included in the fuel usage factor is a weighted average 0.10 gal/cu yd (0.50 liters/cu m) factor for trucking.
 - (2) Category B: Subbases and Aggregate Base Courses. Contract pay items constructed under Sections 311, 312 and 351 including any modified standard or nonstandard items where the character of the work to be performed is considered construction of a subbase or aggregate, stabilized or modified base course. The cumulative total of all applicable item plan quantities shall exceed 5000 tons (4500 metric tons). Included in the fuel usage factor is a 0.60 gal/ton (2.50 liters/metric ton) factor for trucking.
 - (3) Category C: Hot-Mix Asphalt (HMA) Bases, Pavements and Shoulders. Contract pay items constructed under Sections 355, 406, 407 and 482 including any modified standard or nonstandard items where the character of the work to be performed is considered HMA bases, pavements and shoulders. The cumulative total of all applicable item plan quantities shall exceed 5000 tons (4500 metric tons). Included in the fuel usage factor is 0.60 gal/ton (2.50 liters/metric ton) factor for trucking.
 - (4) Category D: Portland Cement Concrete (PCC) Bases, Pavements and Shoulders. Contract pay items constructed under Sections 353, 420, 421 and 483 including any

modified standard or nonstandard items where the character of the work to be performed is considered PCC base, pavement or shoulder. The cumulative total of all applicable item plan quantities shall exceed 7500 sq yd (6000 sq m). Included in the fuel usage factor is 1.20 gal/cu yd (5.94 liters/cu m) factor for trucking.

- (5) Category E: Structures. Structure items having a cumulative bid price that exceeds \$250,000 for pay items constructed under Sections 502, 503, 504, 505, 512, 516 and 540 including any modified standard or nonstandard items where the character of the work to be performed is considered structure work when similar to that performed under these sections and not included in categories A through D.
- (b) Fuel Usage Factors.

English Units		
Category	Factor	Units
A - Earthwork	0.34	gal / cu yd
B – Subbase and Aggregate Base courses	0.62	gal / ton
C – HMA Bases, Pavements and Shoulders	1.05	gal / ton
D – PCC Bases, Pavements and Shoulders	2.53	gal / cu yd
E – Structures	8.00	gal / \$1000
Metric Units Category A - Earthwork B – Subbase and Aggregate Base courses C – HMA Bases, Pavements and Shoulders D – PCC Bases, Pavements and Shoulders E – Structures	Factor 1.68 2.58 4.37 12.52 30.28	Units liters / cu m liters / metric ton liters / metric ton liters / cu m liters / \$1000

(c) Quantity Conversion Factors.

Category	Conversion	Factor
В	sq yd to ton sq m to metric ton	0.057 ton / sq yd / in depth 0.00243 metric ton / sq m / mm depth
С	sq yd to ton sq m to metric ton	0.056 ton / sq yd / in depth 0.00239 m ton / sq m / mm depth
D	sq yd to cu yd sq m to cu m	0.028 cu yd / sq yd / in depth 0.001 cu m / sq m / mm depth

Method of Adjustment. Fuel cost adjustments will be computed as follows.

 $CA = (FPI_P - FPI_L) \times FUF \times Q$

where: CA = Cost Adjustment, \$	Where:	CA	= Cost Adjustment, \$
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- FPI_P = Fuel Price Index, as published by the Department for the month the work is performed, \$/gal (\$/liter)
- FPI_L = Fuel Price Index, as published by the Department for the month prior to the letting for work paid for at the contract price; or for the month the agreed unit price letter is submitted by the Contractor for extra work paid for by agreed unit price, \$/gal (\$/liter)
- FUF = Fuel Usage Factor in the pay item(s) being adjusted
- Q = Authorized construction Quantity, tons (metric tons) or cu yd (cu m)

The entire FUF indicated in paragraph (b) will be used regardless of use of trucking to perform the work.

<u>Basis of Payment</u>. Fuel cost adjustments may be positive or negative but will only be made when there is a difference between the FPI_L and FPI_P in excess of five percent, as calculated by:

Percent Difference = { $(FPI_L - FPI_P) \div FPI_L$ } × 100

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

HOT-MIX ASPHALT - DENSITY TESTING OF LONGITUDINAL JOINTS (BDE)

Effective: January 1, 2010 Revised: August 1, 2018

<u>Description</u>. This work shall consist of testing the density of longitudinal joints as part of the quality control/quality assurance (QC/QA) of hot-mix asphalt (HMA). Work shall be according to Section 1030 of the Standard Specifications except as follows.

<u>Quality Control/Quality Assurance (QC/QA)</u>. Delete the second and third sentence of the third paragraph of Article 1030.05(d)(3) of the Standard Specifications.

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

"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 oneminute 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 Density Control Limits table in Article 1030.05(d)(4) of the Standard Specifications to read:

"Mixture	Parameter	Individual Test	Unconfined Edge
Composition		(includes confined	Joint Density
		edges)	Minimum
IL-4.75	Ndesign = 50	93.0 – 97.4% ^{1/}	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 = 50 & 80	93.5 – 97.4%	91.0%"

HOT-MIX ASPHALT – OSCILLATORY ROLLER (BDE)

Effective: August 1, 2018 Revised: November 1, 2018

Add the following to Article 406.03 of the Standard Specifications:

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		
Level Binder: (When the density requirements of Article 406.05(c) do not apply.)	P ^{3/}		V _S , P ^{3/} , T _B , T _F , 3W, O _T	To the satisfaction of the Engineer.		
Binder and Surface ^{1/} Level Binder ^{1/} : (When the density requirements of Article 406.05(c) apply.)	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/	Т _{в,} 3W, О _т		T _F , 3W, O _T			
Bridge Decks ^{2/}	Тв		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 pneumatictired roller on mixtures containing polymer modified asphalt binder."

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)."

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)48 in. (1200 mm);
 - (2) The minimum length of the drum(s) shall be 57 in. (1480 mm)66 in. (1650 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)."; and
 - (5) Self-adjusting eccentrics, and reversible eccentrics on non-driven drum(s)."

HOT-MIX ASPHALT – TACK COAT (BDE)

Effective: November 1, 2016

Revise Article 1032.06(a) of the Standard Specifications to read:

"(a) Anionic Emulsified Asphalt. Anionic emulsified asphalts shall be according to AASHTO M 140. SS-1h emulsions used as a tack coat shall have the cement mixing test waived."

LIGHTS ON BARRICADES (BDE)

Effective: January 1, 2018

Revise Article 701.16 of the Standard Specifications to read:

***701.16 Lights.** Lights shall be used on devices as required in the plans, the traffic control plan, and the following table.

Circumstance	Lights Required	
Daylight operations	None	
First two warning signs on each approach to the work involving a nighttime lane closure and "ROUGH GROOVED SURFACE" (W8-I107) signs	Flashing mono-directional lights	
Devices delineating isolated obstacles, excavations, or hazards at night (Does not apply to patching)	Flashing bi-directional lights	
Devices delineating obstacles, excavations, or hazards exceeding 100 ft (30 m) in length at night (Does not apply to widening)	Steady burn bi-directional lights	
Channelizing devices for nighttime lane closures on two-lane roads	None	
Channelizing devices for nighttime lane closures on multi-lane roads	None	
Channelizing devices for nighttime lane closures on multi-lane roads separating opposing directions of traffic	None	
Channelizing devices for nighttime along lane shifts on multilane roads	Steady burn mono-directional lights	
Channelizing devices for night time along lane shifts on two lane roads	Steady burn bi-directional lights	
Devices in nighttime lane closure tapers on Standards 701316 and 701321	Steady burn bi-directional lights	
Devices in nighttime lane closure tapers	Steady burn mono-directional lights	
Devices delineating a widening trench	None	
Devices delineating patches at night on roadways with an ADT less than 25,000	None	
Devices delineating patches at night on roadways with an ADT of 25,000 or more	None	

Batteries for the lights shall be replaced on a group basis at such times as may be specified by the Engineer."

Delete the fourth sentence of the first paragraph of Article 701.17(c)(2) of the Standard Specifications.

Revise the first paragraph of Article 603.07 of the Standard Specifications to read:
"603.07 Protection Under Traffic. After the casting has been adjusted and Class SI concrete has been placed, the work shall be protected by a barricade for at least 72 hours."

MANHOLES, VALVE VAULTS, AND FLAT SLAB TOPS (BDE)

Effective: January 1, 2018 Revised: March 2, 2018

<u>Description</u>. Manholes, valve vaults, and flat slab tops manufactured according to the current or previous Highway Standards listed below will be accepted on this contract:

Product	Current Standard	Previous Standard
Precast Manhole Type A, 4' (1.22 m) Diameter	602401-04	602401-03
Precast Manhole Type A, 5' (1.52 m) Diameter	602402	602401-03
Precast Manhole Type A, 6' (1.83 m) Diameter	602406-08	602406-07
Precast Manhole Type A, 7' (2.13 m) Diameter	602411-06	602411-05
Precast Manhole Type A, 8' (2.44 m) Diameter	602416-06	602416-05
Precast Manhole Type A, 9' (2.74 m) Diameter	602421-06	602421-05
Precast Manhole Type A, 10' (3.05 m) Diameter	602426	n/a
Precast Valve Vault Type A, 4' (1.22 m) Diameter	602501-03	602501-02
Precast Valve Vault Type A, 5' (1.52 m) Diameter	602506	602501-02
Precast Reinforced Concrete Flat Slab Top	602601-05	602601-04

When manufacturing to the current standards, the following revisions to the Standard Specifications shall apply:

Revise Article 602.02(g) of the Standard Specifications to read:

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)."

Add the following paragraph after the first paragraph of Article 602.07 of the Standard Specifications:

"Threaded rods connecting precast sections shall be brought to a snug tight condition."

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 according to AASHTO M 199 (M 199M), except the minimum wall thickness shall be 3 in. (75 mm). 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."

MAST ARM ASSEMBLY AND POLE (BDE)

Effective: August 1, 2018

Revise the first sentence of Article 1077.03(b) of the Standard Specifications to read:

"Anchor rods shall be according to Article 1006.09, Grade 105, and shall be threaded a minimum of 7 1/2 in. (185 mm) at one end and threaded a minimum of 2 in. (50 mm) with matching hex head nut at the other end."

PAVEMENT MARKING REMOVAL (BDE)

Effective: July 1, 2016

Revise Article 783.02 of the Standard Specifications to read:

"783.02 Equipment. Equipment shall be according to the following.

Item	Article/Section
(a) Grinders (Note 1)	
(b) Water Blaster with Vacuum Recovery	[,]

Note 1. Grinding equipment shall be approved by the Engineer."

Revise the first paragraph of Article 783.03 of the Standard Specifications to read:

"783.03 Removal of Conflicting Markings. Existing pavement markings that conflict with revised traffic patterns shall be removed. If darkness or inclement weather prohibits the removal operations, such operations shall be resumed the next morning or when weather permits. In the event of removal equipment failure, such equipment shall be repaired, replaced, or leased so removal operations can be resumed within 24 hours."

Revise the first and second sentences of the first paragraph of Article 783.03(a) of the Standard Specifications to read:

"The existing pavement markings shall be removed by the method specified and in a manner that does not materially damage the surface or texture of the pavement or surfacing. Small particles of tightly adhering existing markings may remain in place, if in the opinion of the Engineer, complete removal of the small particles will result in pavement surface damage."

Revise the first paragraph of Article 783.04 of the Standard Specifications to read:

"**783.04 Cleaning.** The roadway surface shall be cleaned of debris or any other deleterious material by the use of compressed air or water blast."

Revise the first paragraph of Article 783.06 of the Standard Specifications to read:

"**783.06 Basis of Payment.** This work will be paid for at the contract unit price per each for RAISED REFLECTIVE PAVEMENT MARKER REMOVAL, or at the contract unit price per square foot (square meter) for PAVEMENT MARKING REMOVAL – GRINDING and/or PAVEMENT MARKING REMOVAL – WATER BLASTING."

Delete Article 1101.13 from the Standard Specifications.

PAYMENTS TO SUBCONTRACTORS (BDE)

Effective: November 2, 2017

Add the following to the end of the fourth paragraph of Article 109.11 of the Standard Specifications:

"If reasonable cause is asserted, written notice shall be provided to the applicable subcontractor and/or material supplier and the Engineer within five days of the Contractor receiving payment. The written notice shall identify the contract number, the subcontract or material purchase agreement, a detailed reason for refusal, the value of payment being withheld, and the specific remedial actions required of the subcontractor and/or material supplier so that payment can be made."

PORTABLE CHANGEABLE MESSAGE SIGNS (BDE)

Effective: November 1, 2016 Revised: April 1, 2017

Revise the second paragraph of Article 701.20(h) of the Standard Specifications to read:

"For all other portable changeable message signs, this work will be paid for at the contract unit price per calendar day for each sign as CHANGEABLE MESSAGE SIGN."

Revise this second sentence of the first paragraph of Article 1106.02(i) of the Standard Specifications to read:

"The message panel shall be a minimum of 7 ft (2.1 m) above the edge of pavement in urban areas and a minimum of 5 ft (1.5 m) above the edge of pavement in rural areas, present a level appearance, and be capable of displaying up to eight characters in each of three lines at a time."

PORTLAND CEMENT CONCRETE (BDE)

Effective: November 1, 2017

Revise the Air Content % of Class PP Concrete in Table 1 Classes of Concrete and Mix Design Criteria in Article 1020.04 of the Standard Specifications to read:

"TABLE 1. CLASSES OF CONCRETE AND MIX DESIGN CRITERIA		
Class of Conc.	Use	Air Content %
PP	Pavement Patching Bridge Deck Patching (10)	
	PP-1	
	PP-2	
	PP-3	4.0 - 8.0"
	PP-4	
	PP-5	

Revise Note (4) at the end of Table 1 Classes of Concrete and Mix Design Criteria in Article 1020.04 of the Standard Specifications to read:

"(4) For all classes of concrete, the maximum slump may be increased to 7 in (175 mm) when a high range water-reducing admixture is used. For Class SC, the maximum slump may be increased to 8 in. (200 mm). For Class PS, the maximum slump may be increased to 8 1/2 in. (215 mm) if the high range water-reducing admixture is the polycarboxylate type."

PORTLAND CEMENT CONCRETE SIDEWALK (BDE)

Effective: August 1, 2017

Revise the first paragraph of Article 424.12 of the Standard Specifications to read:

"424.12 Method of Measurement. This work will be measured for payment in place and the area computed in square feet (square meters). Curb ramps, including side curbs and side flares, will be measured for payment as sidewalk. No deduction will be made for detectable warnings located within the ramp."

PROGRESS PAYMENTS (BDE)

Effective: November 2, 2013

Revise Article 109.07(a) of the Standard Specifications to read:

"(a) Progress Payments. At least once each month, the Engineer will make a written estimate of the quantity of work performed in accordance with the contract, and the value thereof at the contract unit prices. The amount of the estimate approved as due for payment will be vouchered by the Department and presented to the State Comptroller for payment. No amount less than \$1000.00 will be approved for payment other than the final payment.

Progress payments may be reduced by liens filed pursuant to Section 23(c) of the Mechanics' Lien Act, 770 ILCS 60/23(c).

If a Contractor or subcontractor has defaulted on a loan issued under the Department's Disadvantaged Business Revolving Loan Program (20 ILCS 2705/2705-610), progress payments may be reduced pursuant to the terms of that loan agreement. In such cases, the amount of the estimate related to the work performed by the Contractor or subcontractor, in default of the loan agreement, will be offset, in whole or in part, and vouchered by the Department to the Working Capital Revolving Fund or designated escrow account. Payment for the work shall be considered as issued and received by the Contractor or subcontractor on the date of the offset voucher. Further, the amount of the offset voucher shall be a credit against the Department's obligation to pay the Contractor, the Contractor's obligation to pay the subcontractor, and the Contractor's or subcontractor's total loan indebtedness to the Department. The offset shall continue until such time as the entire loan indebtedness is satisfied. The Department will notify the Contractor and Fund Control Agent in a timely manner of such offset. The Contractor or subcontractor shall not be entitled to additional payment in consideration of the offset.

The failure to perform any requirement, obligation, or term of the contract by the Contractor shall be reason for withholding any progress payments until the Department determines that compliance has been achieved."

STEEL COST ADJUSTMENT (BDE)

Effective: April 2, 2004 Revised: August 1, 2017

<u>Description</u>. 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.

<u>Types of Steel Products</u>. 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.

<u>Documentation</u>. 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 X 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.

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

Percent Difference = { $(MPI_L - MPI_M) \div MPI_L$ } × 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	
ltem	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	Y
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)

SUBCONTRACTOR AND DBE PAYMENT REPORTING (BDE)

Effective: April 2, 2018

Add the following to Section 109 of the Standard Specifications.

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

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

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

SUBCONTRACTOR MOBILILATION PAYMENTS (BDE)

Effective: November 2, 2017

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

"This mobilization payment shall be made at least 14 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%"

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	

Wet Retroreflectance, Initial R_L

(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
у	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."

TRAINING SPECIAL PROVISIONS (BDE) 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, he 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 insure 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 employed by him 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 that he 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 has successfully completed a training course leading to journeyman status or in which he 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 gualify 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, Manpower Administration, Bureau of Apprenticeship and Training 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 then 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 will provide for the maintenance of records and furnish periodic reports documenting his performance under this Training Special Provision.

<u>METHOD OF MEASUREMENT</u> The unit of measurement is in hours.

<u>BASIS OF PAYMENT</u> This work will be paid for at the contract unit price of 80 cents per hour for TRAINEES. The estimated total number of hours, unit price and total price have been included in the schedule of prices.

WARM MIX ASPHALT (BDE)

Effective: January 1, 2012 Revised: April 1, 2016

<u>Description</u>. 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.

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.

PIPE UNDERDRAINS FOR STRUCTURES

Effective: May 17, 2000 Revised: January 22, 2010

<u>Description</u>. This work shall consist of furnishing and installing a pipe underdrain system as shown on the plans, as specified herein, and as directed by the Engineer.

Materials. Materials shall meet the requirements as set forth below:

The perforated pipe underdrain shall be according to Article 601.02 of the Standard Specifications. Outlet pipes or pipes connecting to a separate storm sewer system shall not be perforated.

The drainage aggregate shall be a combination of one or more of the following gradations, FA1, FA2, CA5, CA7, CA8, CA11, or CA13 thru 16, according to Sections 1003 and 1004 of the Standard Specifications.

The fabric surrounding the drainage aggregate shall be Geotechnical Fabric for French Drains according to Article 1080.05 of the Standard Specifications.

<u>Construction Requirements.</u> All work shall be according to the applicable requirements of Section 601 of the Standard Specifications except as modified below.

The pipe underdrains shall consist of a perforated pipe drain situated at the bottom of an area of drainage aggregate wrapped completely in geotechnical fabric and shall be installed to the lines and gradients as shown on the plans.

<u>Method of Measurement.</u> Pipe Underdrains for Structures shall be measured for payment in feet (meters), in place. Measurement shall be along the centerline of the pipe underdrains. All connectors, outlet pipes, elbows, and all other miscellaneous items shall be included in the measurement. Concrete headwalls shall be included in the cost of Pipe Underdrains for Structures, but shall not be included in the measurement for payment.

<u>Basis of Payment.</u> This work will be paid for at the contract unit price per foot (meter) for PIPE UNDERDRAINS FOR STRUCTURES of the diameter specified. Furnishing and installation of the drainage aggregate, geotechnical fabric, forming holes in structural elements and any excavation required, will not be paid for separately, but shall be included in the cost of the pipe underdrains for structures.

WEEP HOLE DRAINS FOR ABUTMENTS, WINGWALLS, RETAINING WALLS AND CULVERTS

Effective: April 19, 2012 Revised: October 22, 2013

Delete the last paragraphs of Articles 205.05 and 502.10 and replace with the following.

"If a geocomposite wall drain according to Section 591 is not specified, a prefabricated geocomposite strip drain according to Section 1040.07 shall be placed at the back of each drain hole. The strip drain shall be 24 inches (600 mm) wide and 48 inches (1.220 m) tall. The strip drain shall be centered over the drain hole with the bottom located 12 inches (300 mm) below the bottom of the drain hole. All form boards or other obstructions shall be removed from the drain holes before placing any geocomposite strip drain."

Revise the last sentence of the first paragraph of Article 503.11 to read as follows.

"Drain holes shall be covered to prevent the leakage of backfill material according to Article 502.10."

Revise the title of Article 1040.07 to Geocomposite Wall Drains and Strip Drains.

REVISIONS TO THE ILLINOIS PREVAILING WAGE RATES

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

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