

120

April 23, 2021 Letting

Notice to Bidders, Specifications and Proposal



**Illinois Department
of Transportation**

**Contract No. 66L52
GRUNDY County
Section 2021-1 POLLINATOR PRES AND REST
Route FAI 80
District 3 Construction Funds**

Prepared by

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Checked by

(Printed by authority of the State of Illinois)



- 1. TIME AND PLACE OF OPENING BIDS.** Electronic bids are to be submitted to the electronic bidding system (iCX-Integrated Contractors Exchange). All bids must be submitted to the iCX system prior to 12:00 p.m. April 23, 2021 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. 66L52
GRUNDY County
Section 2021-1 POLLINATOR PRES AND REST
Route FAI 80
District 3 Construction Funds**

This pollinator project is located at Three Rivers Rest Areas on I-80 west of Minooka. This work will include herbicide, seeding, planting, landscaping and maintenance.

- 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

Omer Osman,
Acting Secretary

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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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 for Materials" in effect on the date of invitation for bids, and the Supplemental Specifications and Recurring Special Provisions indicated on the Check Sheet included herein which apply to and govern the construction of FAI Route 80 (I-80), Section 2021-1 Pollinator Pes & Rest, Grundy County, Contract No. 66L52 and in case of conflict with any part or parts of said Specifications, the said Special Provisions shall take precedence and shall govern.

Contract No. 66L52

LOCATION OF PROJECT

This project is located along FAI 80 (I-80) at the Three Rivers Rest Area sites west of Minooka, IL. The eastbound rest area is located at approximately mile post 116.7 and the westbound rest area is located at approximately mile post 118.7.

DESCRIPTION OF PROJECT

This project consists of up to two (2) herbicide applications within the proposed seeding and planting areas, seed bed preparation including soil amendments, landscape bed preparation including removal of existing vegetation and replacement of soils, native seed installation, erosion blanket installation, installation of plug and gallon sized perennials, installation of shrubs, installation of ornamental trees, and maintenance of seeded and landscaped areas for a period of two (2) growing seasons.

START DATE

Mowing work shall commence on or around June 30th, 2021. The first herbicide application shall commence on or around July 28th, 2021. The follow-up herbicide application shall occur on or around August 25th, 2021. Plant and seed installation shall occur on or around September 15th, 2021. Plant Watering and Interim Landscape Maintenance shall commence upon final inspection, Landscape Maintenance and Supplemental Watering shall commence April 1st, 2022.

COMPLETION DATE PLUS WORKING DAYS

All work associated with a fall installation timeline shall be completed by October 1st, 2021 plus an additional five (5) working days for any jobsite restoration and removing of any traffic control devices. All work associated with Landscape Maintenance shall be completed by November 30th, 2023.

PROSECUTION OF WORK

This contract is to be completed as directed by the Engineer. The Engineer must be present during all work. Any work completed without the Engineer present will not be measured for payment.

In addition to the Engineer, the following materials and/or work shall be approved by the Roadside Management Specialist:

- Herbicide products and assessment of herbicide application coverage
- Seeding area and plant location layouts
- Seed bed preparation prior to seeding
- All seeds and plants
- All soil amendments
- Mulch products
- Engineered soil products
- Plant bed preparation prior to planting
- Inspections of Landscape Maintenance activities, including assessments of performance criteria within seeded areas

QUANTITIES

The quantities specified in this contract are estimated. Payment will be made only for the actual quantities completed.

The Contractor is hereby informed and shall understand that payment will be made only for actual quantities utilized and accepted as satisfactory.

Payment for work will be made in accordance with the items listed in the Summary of Quantities in the plans.

WILDFLOWER SEEDING (SPECIAL)

DESCRIPTION: This work shall consist of two (2) spray applications of non-selective herbicide to eliminate existing vegetation, preparation of the seed bed, integration of soil amendments, and the installation of native seed. Priorities include the preparation of planting areas for good seed-to-soil contact and installing an even coverage of high-quality native seed. The intent is to develop a dense stand of native seedlings with minimal weed content prior to final acceptance.

EXPERIENCE: All work shall be performed by a Contractor with at least five (5) years of documented experience in planting of native species for the purposes of ecological restoration and shall be able to demonstrate their knowledge in the field.

MATERIALS:

SOIL AMENDMENTS

Uniform in composition, dry, and free-flowing. Fertilizer which becomes caked or otherwise damaged making it not suitable for use will not be accepted.

When requested by the Engineer, Contractor shall provide Certifications and/or analysis data for specified soil amendment products prior to installation.

Inorganic Fertilizers and Soil Amendments:

Fertilizer Blend (5-1-5) – A blended granular fertilizer with a nutrient ratio of 5-1-5

Gypsum – Derived from mined Gypsum with a minimum 90 percent Calcium Sulfate, pelletized with 90 percent passing through No. 50 (0.30-mm) sieve.

Hi-Cal Lime – Pulverized limestone with a minimum 30 percent Calcium, pelletized with 90 percent passing through No. 50 (0.30-mm) sieve. Ground dolomitic limestone is not acceptable.

Monoammonium Phosphate (MAP) 11-52-0

Sulphate of Potash (SOP) 0-0-50

Urea (46-0-0) – Granular nitrogen fertilizer derived from Urea and stabilized with dicyandiamide and N-(n-butyl) thiophosphoric triamide.

Organic Fertilizers and Soil Amendments:

Mycorrhizal Inoculants – Granular form of endomycorrhizal inoculum that are prepared for direct soil application. Minimum of 300 propagules/gram of live *Rhizophagus intraradices* spores, such as RTI AM 120 Standard, Mykos Gold, or equal. Certifications of live spore analysis shall be supplied to the District prior to seed installation.

Rhizobial Inoculants – Solid, peat-based inoculants (granular or powder form) that are prepared for seed or direct soil application. Each legume species requires a specific species and strain of rhizobia inoculum, Contractor is responsible for working with their seed supplier to ensure the correct strains of inoculum for specified legume species are provided. Certifications of live spore analysis shall be supplied to the District prior to seed installation.

Soil amendments for this project shall be as follows:

EB BASIC PRAIRIE & WET PRAIRIE AREAS ADJACENT TO INTERSTATE		
Product Description	Application Rate	Application Times
Fertilizer Blend (5-1-5)	10#/1,000 s.f.	Prior to Seed Installation
SOP (0-0-50)	4#/1,000 s.f.	Prior to Seed Installation

EB BASIC PRAIRIE & WET PRAIRIE AREAS ADJACENT TO BUILDING		
Product Description	Application Rate	Application Times
Gypsum	15#/1,000 s.f.	Prior to Seed Installation
Urea	3#/1,000 s.f.	Prior to Seed Installation
MAP (11-52-0)	4#/1,000 s.f.	Prior to Seed Installation
SOP (0-0-50)	4#/1,000 s.f.	Prior to Seed Installation

WB BASIC PRAIRIE & WET PRAIRIE AREAS ADJACENT TO INTERSTATE		
Product Description	Application Rate	Application Times
Fertilizer Blend (5-1-5)	10#/1,000 s.f.	Prior to Seed Installation
SOP (0-0-50)	4#/1,000 s.f.	Prior to Seed Installation

WB BASIC PRAIRIE & WET PRAIRIE AREAS ADJACENT TO BUILDING		
Product Description	Application Rate	Application Times
Urea	3#/1,000 s.f.	Prior to Seed Installation
MAP (11-52-0)	4#/1,000 s.f.	Prior to Seed Installation
SOP (0-0-50)	4#/1,000 s.f.	Prior to Seed Installation

NATIVE SEED

The Contractor must have all native seed delivered **from the supplier** in the original unopened packaging to the Illinois Department of Transportation's Landscape Yard, located at 1203 N 30th Road, Ottawa, IL 61350, along with the summary of seed testing data five (5) working days prior to the start of the contract. Call Andy Stahr, Roadside Management Specialist @ 815-587-2043-, Monday-Friday (7:00am – 3:30pm) to schedule native seed drop-off.

Native seed shall be supplied by a company with a minimum of five (5) years documented experience specializing in the lawful harvest, processing, storage, and shipping of native species.

Seed supplier's facility shall have the capacity to maintain optimal conditions for seed viability and freshness, including but not limited to the ability to control temperature and humidity in each work area, from receiving through seed cleaning, processing, stock shelves, and long-term storage. The District may require inspection of seed supplier's facility prior to shipping of materials.

Native seed shall meet all applicable requirements of Section 1081 of the Standard Specifications. Where conflicts occur between the Standard Specification and the Special Provision, the Special Provision shall prevail.

The names of species required under this Contract conform to those used in the "Flora of the Chicago Region", (Willhelm & Rericha, 2017). Names of varieties not included therein conform generally with names accepted in the nursery trade. All seeds shall be of straight species, no horticultural varieties shall be acceptable.

All seeds shall comply with the Federal Seed Act.

For each seed mix, the following two seed types are specified;

- Seed Type 1
The Contractor shall guarantee that all Type 1 seed originates from no more than 600 miles from the center-point of District 3 (Kinsman, IL).
- Seed Type 2
The Contractor shall guarantee that all Type 2 seed originates from a county no more than 200 miles from the center-point of District 3 (Kinsman, IL). These areas include eastern Iowa, southern Wisconsin, northern Illinois, western Indiana, southwest Michigan, and northeast Missouri. The District's preference is for the Contractor to utilize seed with an origin as close to the project site as possible, however acceptable Type 2 seed can originate from any of the following identified Counties (See Exhibit 1):

Illinois – Adams, Alexander, Bond, Boone, Brown, Bureau, Calhoun, Carroll, Cass, Champaign, Christian, Clark, Clay, Clinton, Coles, Cook, Crawford, Cumberland, DeKalb, DeWitt, Douglas, DuPage, Edgar, Edwards, Effingham, Fayette, Ford, Franklin, Fulton, Gallatin, Greene, Grundy, Hamilton, Hancock, Hardin, Henderson, Henry, Iroquois, Jackson, Jasper, Jefferson, Jersey, Jo Daviess, Kane, Kankakee, Kendall, Knox, Lake, LaSalle, Lawrence, Lee, Livingston, Logan, Macon, Macoupin, Madison, Marion, Marshall, Mason, McDonough, McHenry, McLean, Menard, Mercer, Montgomery, Morgan, Moultrie, Ogle, Peoria, Piatt, Pike, Putnam, Richland, Rock Island, Sangamon, Schuyler, Scott, Shelby, St. Clair, Stark, Stephenson, Tazewell, Union, Vermilion, Wabash, Warren, Washington, Wayne, Whiteside, Will, Winnebago, and Woodford

Indiana – Adams, Allen, Bartholomew, Benton, Blackford, Boone, Brown, Carroll, Cass, Clay, Clinton, Daviess, Decatur, DeKalb, Delaware, Elkhart, Fayette, Fountain, Fulton, Gibson, Grant, Greene, Hamilton, Hancock, Hendricks, Henry, Howard, Huntington, Jackson, Jasper, Jay, Johnson, Knox, Kosciusko, LaGrange, Lake, LaPorte, Lawrence, Madison, Marion, Marshall, Martin, Miami, Monroe, Montgomery, Morgan, Newton, Noble, Orange, Owen, Parke, Pike, Porter, Pulaski, Putnam, Randolph, Rush, St. Joseph, Starke, Shelby, Steuben, Sullivan, Tippecanoe, Tipton, Vermillion, Vigo, Wabash, Warren, Wayne, Wells, White, and Whitley

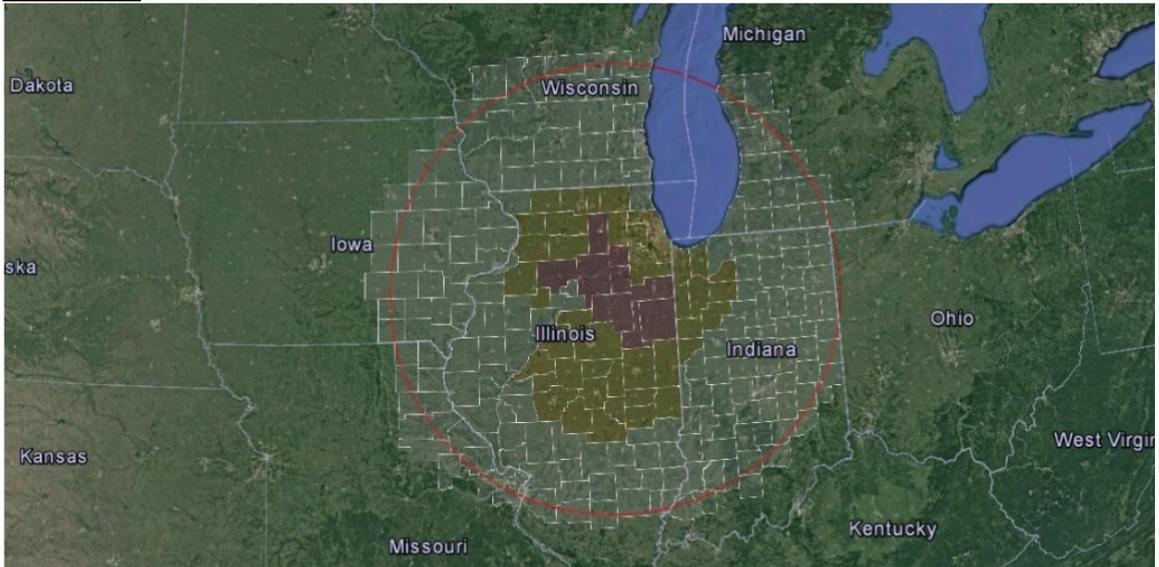
Iowa – Allamakee, Benton, Black Hawk, Buchanan, Cedar, Clay, Clinton, Davis, Delaware, Des Moines, Dubuque, Fayette, Henry, Iowa, Jackson, Jefferson, Johnson, Jones, Keokuk, Lee, Linn, Louisa, Mahaska, Muscatine, Poweshiek, Scott, Tama, Van Buren, Wapello, and Washington

Michigan – Allegan, Barry, Berrien, Branch, Calhoun, Cass, Hillsdale, Kalamazoo, Kent, Keweenaw, Muskegon, Newaygo, Oceana, Ottawa, St. Joseph, and Van Buren

Missouri – Audrain, Clark, Knox, Lewis, Lincoln, Marion, Monroe, Montgomery, Pike, Ralls, St. Charles, St. Louis, Scotland, and Shelby

Wisconsin – Adams, Calumet, Columbia, Crawford, Dane, Dodge, Fond Du Lac, Grant, Green Lake, Iowa, Jackson, Jefferson, Juneau, Kenosha, LaFayette, Manitowoc, Marinette, Marquette, Milwaukee, Monroe, Ozaukee, Racine, Richland, Rock, Sauk, Sheboygan, Vernon, Walworth, Washington, Waukesha, Waushara, and Winnebago

EXHIBIT 1



All native seed shall be provided on a pure live seed (PLS) basis. Products shall contain documentation of PLS testing and, if required, adjustment of the seed weights to provide 100% PLS standards. If rounding is required during PLS adjustment calculations, the adjustment shall always be rounded up. PLS adjustment must be based on seed test results dated no more than 12 months prior to the stated delivery date. Minimum PLS percentage for any species shall be 70%.

Seed containing noxious weeds will not be accepted. Seed containing weed seed in excess of 0.5% will not be accepted.

All “bearded” or “fluffy” species (such as *Anemone*, *Asclepias*, *Solidago*, *Solidago*, *Symphyotrichum*, etc.) shall be provided as de-fluffed seed.

All “hulled” species (such as *Dalea*, *Desmodium*, *Lespedeza*, etc.) shall be provided as de-hulled seed.

All seed shall be shipped in sealed packaging as individual species, seed that has been mixed prior to delivery to the District will not be accepted. Seed packaging shall be transparent (i.e., clear, re-sealable plastic bags) so that the seed is clearly visible for easy inspection of quality. If the quantity of seed ordered will not fit in two (2) large clear re-sealable plastic bags the use of opaque woven polypropylene bags will be permitted.

Each package containing seed shall be legibly tagged as to Vendor name & address, species scientific name, species common name, lot number, PLS value (%), specified quantity, and PLS adjusted quantity. Information provided on seed packaging shall correspond to the approved seed test certificates. Seed not grown by the Vendor must be clearly indicated and accompanied by the name and address of the company which grew the seed.

The Native Seed Mixtures for this project shall be as follows:

Basic Prairie Seed Mix for Dry-Mesic Soils (Non-Sandy Soils)

Grasses & Sedges						
CODE	SCIENTIFIC NAME	COMMON NAME	PLS OZ/ACRE	% OF MIX	SEED TYPE	SURFACE SOWN
				by Seed Count		
ANDGER	Andropogon gerardii	Big Bluestem	8.00	2.41%	1	
BOUCUR	Bouteloua curtipendula	Side-oats Grama	56.00	10.11%	1	
CXMOLE	Carex molesta	Field Oval Sedge	8.00	6.02%	2	
ELYCAN	Elymus canadensis	Canada Wild Rye	16.00	2.50%	1	
PANVIR	Panicum virgatum	Switch Grass	2.00	0.84%	1	
SCHSCO	Schizachyrium scoparium	Little Bluestem	32.00	14.44%	1	

Flowers						
CODE	SCIENTIFIC NAME	COMMON NAME	PLS OZ/ACRE	% OF MIX	SEED TYPE	SURFACE SOWN
				by Seed Count		
ASCSYR	Asclepias syriaca	Common Milkweed	4.00	0.48%	2	
CHAFAS	Chamaecrista fasciculata	Partridge Pea	16.00	1.30%	1	
CORLAN	Coreopsis lanceolata	Sand Coreopsis	4.00	2.41%	2	
CORTRI	Coreopsis tripteris	Tall Coreopsis	1.00	0.42%	2	
DESCAA	Desmodium canadense	Showy Tick Trefoil	2.00	0.33%	2	
ECHPAL	Echinacea pallida	Pale Purple Coneflower	6.00	0.94%	2	
ECHPUR	Echinacea purpurea	Purple Coneflower	16.00	3.18%	2	
ERYYUC	Eryngium yuccifolium	Rattlesnake Master	3.00	0.68%	2	
HELHEL	Heliopsis helianthoides	False Sunflower	12.00	2.27%	2	
MONFIS	Monarda fistulosa	Wild Bergamot	2.00	4.21%	2	
OLIRIG	Oligoneuron rigidum	Stiff Goldenrod	3.00	3.70%	2	
PARINT	Parthenium integrifolium	Wild Quinine	4.00	0.84%	2	
PENDIG	Penstemon digitalis	Foxglove Beardtongue	1.00	3.91%	2	X

RATPIN	Ratibida pinnata	Yellow Coneflower	6.00	5.41%	2	
RUDHIR	Rudbeckia hirta	Black-eyed Susan	8.00	22.14%	1	
RUDSUB	Rudbeckia subtomentosa	Sweet Black-eyed Susan	1.00	1.29%	2	
SILINT	Silphium integrifolium	Rosin Weed	0.25	0.01%	2	
SILLAC	Silphium laciniatum	Compass Plant	0.50	0.01%	2	
SYMLAE	Symphyotrichum laeve	Smooth Blue Aster	2.00	3.31%	2	
SYMNOV	Symphyotrichum novae-angliae	New England Aster	1.00	1.99%	2	
TRAOHI	Tradescantia ohiensis	Ohio Spiderwort	4.00	0.96%	2	
VERSTR	Verbena stricta	Hoary Vervain	1.50	1.26%	2	X
ZIZAUR	Zizia aurea	Golden Alexanders	8.00	2.65%	2	X
			228.25	100.00%		

Basic Wet Prairie Seed Mix for Mesic-Wet Soils (Non-Sandy Soils)

Grasses & Sedges						
CODE	SCIENTIFIC NAME	COMMON NAME	PLS OZ/ACRE	% OF MIX	SEED TYPE	SURFACE SOWN
				by Seed Count		
ANDGER	Andropogon gerardii	Big Bluestem	2.00	0.36%	1	
BOUCUR	Bouteloua curtipendula	Side-oats Grama	32.00	3.43%	1	
CXMOLE	Carex molesta	Field Oval Sedge	8.00	3.57%	2	
CXSCOP	Carex scoparia	Lance-fruited Oval Sedge	4.00	6.00%	2	
CXVULP	Carex vulpinoidea	Brown Fox Sedge	4.00	7.15%	2	X
ELYCAN	Elymus canadensis	Canada Wild Rye	4.00	0.37%	1	
ELYVIR	Elymus virginicus	Virginia Wild Rye	12.00	0.90%	1	
PANVIR	Panicum virgatum	Switch Grass	1.00	0.25%	1	
SCHSCO	Schizachyrium scoparium	Little Bluestem	48.00	12.86%	1	
SCIATR	Scirpus atrovirens	Dark-green Bulrush	2.00	16.44%	2	X

Flowers						
CODE	SCIENTIFIC NAME	COMMON NAME	PLS OZ/ACRE	% OF MIX	SEED TYPE	SURFACE SOWN

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Grundy County
Contract No. 66L52

				by Seed Count		
ASCINC	<i>Asclepias incarnata</i>	Swamp Milkweed	16.00	1.37%	2	
ASCSYR	<i>Asclepias syriaca</i>	Common Milkweed	4.00	0.29%	2	
BOLAST	<i>Boltonia asteroides</i>	False Aster	0.25	0.71%	2	X
CHAFAS	<i>Chamaecrista fasciculata</i>	Partridge Pea	16.00	0.77%	1	
CORLAN	<i>Coreopsis lanceolata</i>	Sand Coreopsis	1.50	0.54%	2	
CORTRI	<i>Coreopsis tripteris</i>	Tall Coreopsis	3.00	0.75%	2	
DESCAA	<i>Desmodium canadense</i>	Showy Tick Trefoil	2.00	0.20%	2	
DRYARG	<i>Dryocallis arguta</i>	Prairie Cinquefoil	0.125	0.51%	2	X
ERYYUC	<i>Eryngium yuccifolium</i>	Rattlesnake Master	8.00	1.07%	2	
EUPPER	<i>Eupatorium perfoliatum</i>	Boneset	0.50	1.43%	2	X
EUTGRA	<i>Euthamia graminifolia</i>	Grass-leaved Goldenrod	1.00	6.25%	2	X
HELAUT	<i>Helenium autumnale</i>	Sneezeweed	0.50	1.16%	2	X
LIAPYC	<i>Liatris pycnostachya</i>	Prairie Blazing Star	8.00	1.57%	2	
MONFIS	<i>Monarda fistulosa</i>	Wild Bergamot	1.00	1.25%	2	
OLIRIG	<i>Oligoneuron rigidum</i>	Stiff Goldenrod	2.00	1.47%	2	
PENDIG	<i>Penstemon digitalis</i>	Foxglove Beardtongue	0.50	1.16%	2	X
PHYVIR	<i>Physostegia virginiana</i>	Obedient Plant	4.00	0.79%	2	
PYCVIR	<i>Pycnanthemum virginianum</i>	Virginia Mountain Mint	1.00	3.93%	2	X
RUDHIR	<i>Rudbeckia hirta</i>	Black-eyed Susan	8.00	13.15%	1	
RUDSUB	<i>Rudbeckia subtomentosa</i>	Sweet Black-eyed Susan	1.00	0.77%	2	
RUDTRI	<i>Rudbeckia triloba</i>	Brown-eyed Susan	0.50	0.30%	2	
SILTER	<i>Silphium terebinthinaceum</i>	Prairie Dock	1.00	0.02%	2	
SYMNOV	<i>Symphotrichum novae-angliae</i>	New England Aster	2.00	2.36%	2	
VERHAS	<i>Verbena hastata</i>	Blue Vervain	1.00	1.66%	2	X
VERFAS	<i>Vernonia fasciculata</i>	Common Ironweed	1.00	0.43%	2	
VERVIR	<i>Veronicastrum virginicum</i>	Culver's Root	0.25	3.57%	2	X
ZIZAUR	<i>Zizia aurea</i>	Golden Alexanders	6.00	1.18%	2	X

207.13	100.00%
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HERBICIDE

The Contractor must have all chemicals delivered **from the supplier** in the original unopened packaging to the Illinois Department of Transportation's Morris Yard, located at 1821 N Division St, Morris, IL 60450, along with the certification of analysis five (5) working days prior to the start of the contract. Call Steve Niemann, Field Engineer @ 815-942-0351, Monday-Friday (7:00am – 3:30pm) to schedule chemical drop-off.

Weeds shall be sprayed in two separate applications as described below:

BROADCAST SPRAY APPLICATION #1

Glyphosate, N-(phosphonomethyl) glycine, in the form of its isopropylamine salt 53.8% (AquaNeat or equal approved by the Engineer) shall be applied at a rate of ninety-six (96) ounces per acre.

Diquat dibromide [6,7-dihydrodipyrido(1,2-a:2',1'-c) pyrazinedium dibromide] 37.3% (Diquat SPC 2 L or equal approved by the Engineer) shall be applied at a rate of thirty-two (32) ounces per acre.

Alkyl Aryl Polyalkoxylated nonionic surfactant, and free fatty acids 90% (Premier 90 or equal approved by the Engineer) shall be applied at a rate of sixteen (16) ounces per acre.

Super concentrated, temporary, and nontoxic blue spray pattern indicator (Super Signal Blue or equal approved by the Engineer) shall be added to the mix at a rate of thirty-two (32) ounces per 100 gallons of spray mixture. Spray pattern indicators shall be formulated to provide visual evidence of where a spray application has been made, to dissipate with sunlight or moisture, and to not permanently stain vegetation, soil, or human skin.

This mixture shall be applied in thirty (30) gallons of water per acre and uniformly applied at such a rate that each acre will receive ninety-six (96) ounces of AquaNeat or equal, thirty-two (32) ounces of Diquat SPC 2 L or equal, and non-ionic surfactant. This mixture shall be continuously agitated during spraying operations.

SPOT SPRAY APPLICATION #1

Triisopropanolammonium salt of 2-pyridine carboxylic acid, 4-amino-3,6-dichloro 40.6% (Milestone or equal approved by the Engineer) shall be applied at a rate of thirty-five hundredths (0.35) ounces per gallon of spray mixture.

Clopyralid: 3,6-dichloro-2-pyridinecarboxylic acid, monoethanolamine salt 40.9% (Transline or equal approved by the Engineer) shall be applied at a rate of fifty hundredths (0.50) ounces per gallon of spray mixture.

Alkyl Aryl Polyalkoxylated nonionic surfactant, and free fatty acids 90% (Premier 90 or equal approved by the Engineer) shall be applied at a rate of two (2) ounces per gallon of spray mixture.

Super concentrated, temporary, and nontoxic blue spray pattern indicator (Super Signal Blue or equal approved by the Engineer) shall be added to the mix at a rate of four (4) ounces per gallon of spray mixture. Spray pattern indicators shall be formulated to provide visual evidence of where a spray application has been made, to dissipate with sunlight or moisture, and to not permanently stain vegetation, soil, or human skin.

This mixture shall be applied as a spot-spray application targeting hard-to-control broadleaf weed species, such as teasel or Canada thistle. Due to the potential residual properties of these herbicide products, application to site soils shall be avoided through a highly targeted approach by the Contractor.

BROADCAST SPRAY APPLICATION #2

Glyphosate, N-(phosphonomethyl)glycine, in the form of its isopropylamine salt 53.8% (AquaNeat or equal approved by the Engineer) shall be applied at a rate of ninety six (96) ounces per acre.

Alkyl Aryl Polyalkoxylated nonionic surfactant, and free fatty acids 90% (Premier 90 or equal approved by the Engineer) shall be applied at a rate of sixteen (16) ounces per acre.

Super concentrated, temporary, and nontoxic blue spray pattern indicator (Super Signal Blue or equal approved by the Engineer) shall be added to the mix at a rate of thirty two (32) ounces per 100 gallons of spray mixture. Spray pattern indicators shall be formulated to provide visual evidence of where a spray application has been made, to dissipate with sunlight or moisture, and to not permanently stain vegetation, soil, or human skin.

This mixture shall be applied in thirty (30) gallons of water per acre and uniformly applied at such a rate that each acre will receive ninety six (96) ounces of AquaNeat or equal and non-ionic surfactant. This mixture shall be continuously agitated during spraying operations. All products are stated in liquid measure.

All products are stated in liquid measure.

Potable water shall be used on the contract. No water will be allowed to be pumped from nearby creeks, ponds, or other bodies of water. The Contractor shall provide a list of source locations where the potable water will be obtained to the Engineer at the pre-construction conference. All proposed sources of water shall be approved by the Engineer prior to mixing of herbicides.

The Contractor shall submit a certification of analysis to the Engineer stating that the compounds of each proprietary product supplied is as specified. The certification of analyses shall be submitted to the Engineer five (5) business days prior to the start of the work.

The Contractor shall download the Material Safety Data Sheets for each herbicide, become familiar with the safety hazards, follow the handling & safety instructions, and provide this information to their field personnel.

EXECUTION: Native seed shall be planted during one of the following timeframes, the site preparation timeline detailed below shall be constructed based on an appropriate seeding timeframe:

Spring Planting: March 1st – June 30th

Fall Planting: September 15th – December 31st

Contractor shall utilize equipment having low unit pressure ground contact within planting areas. They shall take precautions to ensure that equipment and vehicles do not damage the grading, utilities, structures, or existing trees and shrubs during planting operations. Any damage shall be repaired by the Contractor at no additional cost.

The capacity of the equipment shall be sufficient to perform the work and in the time period as specified herein, and as approved by the Engineer.

Spray mixture tanks shall have sight gauges calibrated in English units for easy measurement, and mechanical or by-pass agitation systems to ensure thorough and continuous mixing of the chemicals.

Spray nozzles shall be selected which are designed to reduce potential herbicide drift. Improved flat fan nozzles or large capacity flooding nozzles shall be used which are capable of delivering up to 100 GPA at pressures of 20-40 PSI.

Pumps shall be capable of delivering up to 100 GPA at pressures of 20-40 PSI, and to keep the spray pattern full and steady without pulsation.

Eleven (11) weeks prior to the targeted seeding date, Contractor shall mow all proposed seeding areas to a height of four inches (4"). Use of a sickle-type mower is preferred; if using a rotary mower, the Contractor shall rake and remove any thatch that is greater than one inch (1") thick.

Prior to starting herbicide work, the Contractor shall furnish Illinois Pesticide ID Cards (signed and dated) to the Engineer as visual proof that all personnel on the job are licensed Applicators or Operators by the Illinois Department of Agriculture, Bureau of Environmental Programs under the provisions of the Illinois Pesticide Act. The Illinois Department of Agriculture Aquatics license will be required of the person on site supervising the Operators on using pesticides in standing or running water. The Engineer shall record in the project records books the name and license number of each person. If the personnel on the job do not have the proper license, the job will be postponed until personnel who carry the proper license are on the job, with no extra working days awarded to the Contractor.

Herbicide spraying will not be allowed when temperatures exceed 85°F or are under 45°F, when wind velocities exceed ten (10) miles per hour, when foliage is wet or rain is eminent, when visibility is poor, or during legal holiday periods unless prior approval is received from the Engineer. There shall be no spraying during periods of rainfall and spraying shall be halted, in accordance with the herbicide manufacturer's instructions, prior to periods of rainfall. Spraying shall be in accordance with the applicable portions of Section 107. Within 48 hours of the application of herbicides, the Contractor shall complete and return to the Engineer, IDOT Operations form "OPER 2720", Pesticide Application Daily Spray Record (Rev. 07/06/17).

Off-road vehicles shall be equipped with off-road/high flotation tires that allow the vehicle to travel in soft roadside conditions. If the off-road vehicles are not equipped with flotation type tires, the job will be postponed until the equipment can travel the roadside areas without rutting and getting stuck with no extra working days rewarded to the Contractor. The tank on all spray equipment shall be equipped with tight-fitting lids which will prevent the contents from splashing or spilling out. The Contractor will be required to have all equipment in proper working order before starting the job. An inspection of on-road, off-road, and hand-spray units will be done by the Resident Engineer prior to starting any work. If equipment is not working properly, the Contractor will be required to fix the problem prior to starting the contract. The Contractor will be required to demonstrate the calibration of his equipment up to forty-eight (48) hours prior to the time of spraying operations are to begin.

Seven (7) weeks prior to the targeted seeding date, planting areas identified for non-selective herbicide application shall be treated with an application of the AquaNeat or equal + Diquat SPC 2 L or equal herbicide mixture resulting in a complete kill of all existing vegetation. Broadcast or “Boom” spraying of herbicide is acceptable under these conditions; precautions shall be taken to eliminate damage to non-target areas from overspray.

Seven (7) weeks prior to the targeted seeding date, limited spot applications of the Milestone or equal + Transline or equal herbicide mixture shall be utilized on existing hard-to-control weed species within the planting areas identified for non-selective herbicide application. Species targeted for spot applications are mainly teasel, thistle, wild parsnip, and others as identified by the Engineer.

Three (3) weeks prior to the targeted seeding date, planting areas identified for non-selective herbicide application shall be treated with a second application using the AquaNeat or equal herbicide mixture resulting in a complete kill of all existing vegetation. Broadcast or “Boom” spraying of herbicide is acceptable under these conditions; precautions shall be taken to eliminate damage to non-target areas from overspray.

Prior to seeding, remove dead biomass within planting areas using a landscape rake or other method approved by the Engineer.

Once dead biomass is removed from the planting areas, spread soil amendments within planting areas using a broadcast spreader, such as the Herd Model 750 or equal, or other method approved by the Engineer.

Immediately after spreading soil amendments, scarify the soil within planting areas in a manner that will integrate amendments into the top layer of soil and prepare a seedbed that will allow good seed-to-soil contact. Soil scarification may be achieved with a landscape rake, Harley rake, box blade, etc. Disking or tilling is not acceptable.

Blend the native seed into mixes appropriate for the seed installation method being used.

Seed mixed for use with a mechanized rangeland dropseeder shall be constructed as two separate blends for each specified seed mixture:

Blend 1A – Seed to be planted using the small seed box shall be mixed with a mycorrhizal and rhizobial inoculant as a carrier. The rate of mycorrhizal inoculant shall be 40 LBS/acre minimum, rhizobial inoculants shall be as per the rates recommended by the seed supplier.

Blend 1B – Seed blended for the large or grass seed box shall be mixed with an appropriate cover crop as a carrier. Spring installations shall utilize 40 LBS/acre of Spring Oats (*Avena sativa*) as cover crop, fall installations shall utilize 20 LBS/acre of a wheat x tall wheatgrass hybrid (*Triticum aestivum* x *Elytrigia elongata*) such as ReGreen or equal.

Seed mixed for hand or mechanized broadcasting shall be constructed as three separate blends for each specified seed mixture:

Blend 2A – 1/2 of all grass species mixed with an appropriate cover crop and other inert material as needed for an appropriate carrier.

Blend 2B – 1/2 of all grass species + 1/3 of remaining species (sedges, rushes, forbs) with the exception of any species indicated as “Surface Sown” in the Native Seed Mixtures found in the Materials Section of this Special Provision.

Blend 2C – All remaining species.

Seed used for hand or mechanized broadcasting shall be mixed with a mycorrhizal inoculant at 40 LBS/acre minimum, a rhizobial inoculant at rates recommended by the seed supplier, and an appropriate cover crop. Spring installations shall utilize 40 LBS/acre of Spring Oats (*Avena sativa*) as cover crop, fall installations shall utilize 20 LBS/acre of a wheat x tall wheatgrass hybrid (*Triticum aestivum* x *Elytrigia elongata*) such as ReGreen or equal.

Seed shall be drop-seeded by a rangeland type dropseeder designed to plant native grass and forb seed (such as the Greenscape 600 Conservation Seeder or equal). Seed shall be installed in two (2) separate runs where each application of seed shall overlap the previous application by one half (1/2) the weight to insure double coverage of seeded areas (example: seed in a north to south direction @ ten pounds per acre, then overlap by seeding in an east to west direction @ ten pounds per acre, resulting in a total coverage of twenty pounds per acre [twenty pounds per acre is an example only, see the Native Seed Mixtures in the Materials Section of this Special Provision for actual project seeding rates].) Each planting run shall overlap by a minimum of six (6) inches. Some seed species require exposure to sunlight for germination, these species shall be planted separately, after dropseeding, utilizing the broadcasting method.

If site conditions prohibit the use of mechanized dropseeding equipment, hand broadcasting of seed is acceptable on exposed soil only. If seed is hand broadcast, it shall be mixed with an equal amount of inert material as a carrier (such as sand, vermiculite, rice hulls, etc.) to enable an even distribution of seed. A mechanical broadcast seeder with appropriate agitation may also be utilized, such as the Herd Model 750 or equal. When using this seeding method, seed shall be broadcast in three (3) separate applications:

Broadcast “Blend 2A” of the specified seed mix. Drag the seeding area utilizing a drag rake, drag harrow, or similar equipment approved by the Engineer. Work native seed into the soil achieving a final planting depth between 0.25” (1/4”) – 0.5” (1/2”).

Broadcast “Blend 2B” of the specified seed mix. Lightly drag the seeding area utilizing a drag rake, drag harrow, or similar equipment approved by the Engineer. Work the native seed into the soil achieving a final planting depth between 0.0625” (1/16”) – 0.25” (1/4”).

Broadcast “Blend 2C” of the specified seed mix directly atop prepared seedbed. Do not drag or rake.

Do not sow seed in areas where standing water is present, during adverse weather, or when wind speeds exceed ten (10) miles per hour unless otherwise approved by the Engineer.

Hydroseeding of Native Seed is not acceptable.

Roll planting areas within twelve (12) hours after seed installation, or as soon as site conditions permit. The use of the cultipacker on the dropseeder meets this requirement.

RESTRICTIONS: Storage of materials shall be prohibited within environmentally sensitive areas as determined by the Engineer.

Herbicide applications shall be restricted to hand spraying within 100 feet from abutments and waterways.

METHOD OF MEASUREMENT: This work will be measured for payment in acres of surface area seeded.

The exact locations of seeding will be determined in the field by the Engineer, and the quantities will be adjusted accordingly.

BASIS OF PAYMENT: This work will be paid for at the contract unit price per acre for WILDFLOWER SEEDING (SPECIAL).

EROSION CONTROL BLANKET (SPECIAL)

MATERIALS: Erosion Control Blankets shall be a Knitted Straw Mat as per Standard Specification Section 1081.10b, Excelsior Blankets are not acceptable.

EXECUTION: Install Erosion Control Blankets within all areas of WILDFLOWER SEEDING (SPECIAL) per Standard Specification Section 251.04.

METHOD OF MEASUREMENT: As per Standard Specification Section 251.06b.

BASIS OF PAYMENT: As per Standard Specification Section 251.07.

WILDFLOWER INTERSEEDING (SPECIAL)

DESCRIPTION: This work shall consist of two (2) spray applications of selective herbicide to eliminate existing grass species, preparation of the seed bed, integration of soil amendments, and the installation of native seed. Priorities include the preparation of planting areas for good seed-to-soil contact and installing an even coverage of high-quality native seed. The intent is to develop a dense stand of native seedlings with minimal weed content prior to final acceptance.

EXPERIENCE: All work shall be performed by a Contractor with at least five (5) years of documented experience in planting of native species for the purposes of ecological restoration and shall be able to demonstrate their knowledge in the field.

MATERIALS:

SOIL AMENDMENTS

Uniform in composition, dry, and free-flowing. Fertilizer which becomes caked or otherwise damaged making it not suitable for use will not be accepted.

When requested by the Engineer, Contractor shall provide Certifications and/or analysis data for specified soil amendment products prior to installation.

Inorganic Fertilizers and Soil Amendments:

Hi-Cal Lime – Pulverized limestone with a minimum 30 percent Calcium, pelletized with 90 percent passing through No. 50 (0.30-mm) sieve. Ground dolomitic limestone is not acceptable.

Monoammonium Phosphate (MAP) 11-52-0

Sulphate of Potash (SOP) 0-0-50

Urea (46-0-0) – Granular nitrogen fertilizer derived from Urea and stabilized with dicyandiamide and N-(n-butyl) thiophosphoric triamide.

Organic Fertilizers and Soil Amendments:

Mycorrhizal Inoculants – Granular form of endomycorrhizal inoculum that are prepared for direct soil application. Minimum of 300 propagules/gram of live *Rhizophagus intraradices* spores, such as RTI AM 120 Standard, Mykos Gold, or equal. Certifications of live spore analysis shall be supplied to the District prior to seed installation.

Rhizobial Inoculants – Solid, peat-based inoculants (granular or powder form) that are prepared for seed or direct soil application. Each legume species requires a specific species and strain of rhizobia inoculum, Contractor is responsible for working with their seed supplier to ensure the correct strains of inoculum for specified legume species are provided. Certifications of live spore analysis shall be supplied to the District prior to seed installation.

Soil amendments for this project shall be as follows:

WB BASIC SAVANNA AREAS		
Product Description	Application Rate	Application Times
Hi-Cal Lime	50#/1,000 s.f.	Prior to Seed Installation
Urea	3#/1,000 s.f.	Prior to Seed Installation
MAP (11-52-0)	4#/1,000 s.f.	Prior to Seed Installation
SOP (0-0-50)	4#/1,000 s.f.	Prior to Seed Installation

NATIVE SEED

The Contractor must have all native seed delivered **from the supplier** in the original unopened packaging to the Illinois Department of Transportation’s Landscape Yard, located at 1203 N 30th Road, Ottawa, IL 61350, along with the summary of seed testing data five (5) working days prior to the start of the contract. Call Andy Stahr, Roadside Management Specialist @ 815-587-2043-, Monday-Friday (7:00am – 3:30pm) to schedule native seed drop-off.

Native seed shall be supplied by a company with a minimum of five (5) years documented experience specializing in the lawful harvest, processing, storage, and shipping of native species.

Seed supplier’s facility shall have the capacity to maintain optimal conditions for seed viability and freshness, including but not limited to the ability to control temperature and humidity in each work area, from receiving through seed cleaning, processing, stock shelves, and long-term storage. The District may require inspection of seed supplier’s facility prior to shipping of materials.

Native seed shall meet all applicable requirements of Section 1081 of the Standard Specifications. Where conflicts occur between the Standard Specification and the Special Provision, the Special Provision shall prevail.

The names of species required under this Contract conform to those used in the “Flora of the Chicago Region”, (Willhelm & Rericha, 2017). Names of varieties not included therein conform generally with names accepted in the nursery trade. All seeds shall be of straight species, no horticultural varieties shall be acceptable.

All seeds shall comply with the Federal Seed Act.

For each seed mix, the following two seed types are specified;

- Seed Type 1
The Contractor shall guarantee that all Type 1 seed originates from no more than 600 miles from the center-point of District 3 (Kinsman, IL).
- Seed Type 2
The Contractor shall guarantee that all Type 2 seed originates from a county no more than 200 miles from the center-point of District 3 (Kinsman, IL). These areas include eastern Iowa, southern Wisconsin, northern Illinois, western Indiana, southwest Michigan, and northeast Missouri. The District's preference is for the Contractor to utilize seed with an origin as close to the project site as possible, however acceptable Type 2 seed can originate from any of the following identified Counties (See Exhibit 1):

Illinois – Adams, Alexander, Bond, Boone, Brown, Bureau, Calhoun, Carroll, Cass, Champaign, Christian, Clark, Clay, Clinton, Coles, Cook, Crawford, Cumberland, DeKalb, DeWitt, Douglas, DuPage, Edgar, Edwards, Effingham, Fayette, Ford, Franklin, Fulton, Gallatin, Greene, Grundy, Hamilton, Hancock, Hardin, Henderson, Henry, Iroquois, Jackson, Jasper, Jefferson, Jersey, Jo Daviess, Kane, Kankakee, Kendall, Knox, Lake, LaSalle, Lawrence, Lee, Livingston, Logan, Macon, Macoupin, Madison, Marion, Marshall, Mason, McDonough, McHenry, McLean, Menard, Mercer, Montgomery, Morgan, Moultrie, Ogle, Peoria, Piatt, Pike, Putnam, Richland, Rock Island, Sangamon, Schuyler, Scott, Shelby, St. Clair, Stark, Stephenson, Tazewell, Union, Vermilion, Wabash, Warren, Washington, Wayne, Whiteside, Will, Winnebago, and Woodford

Indiana – Adams, Allen, Bartholomew, Benton, Blackford, Boone, Brown, Carroll, Cass, Clay, Clinton, Daviess, Decatur, DeKalb, Delaware, Elkhart, Fayette, Fountain, Fulton, Gibson, Grant, Greene, Hamilton, Hancock, Hendricks, Henry, Howard, Huntington, Jackson, Jasper, Jay, Johnson, Knox, Kosciusko, LaGrange, Lake, LaPorte, Lawrence, Madison, Marion, Marshall, Martin, Miami, Monroe, Montgomery, Morgan, Newton, Noble, Orange, Owen, Parke, Pike, Porter, Pulaski, Putnam, Randolph, Rush, St. Joseph, Starke, Shelby, Steuben, Sullivan, Tippecanoe, Tipton, Vermillion, Vigo, Wabash, Warren, Wayne, Wells, White, and Whitley

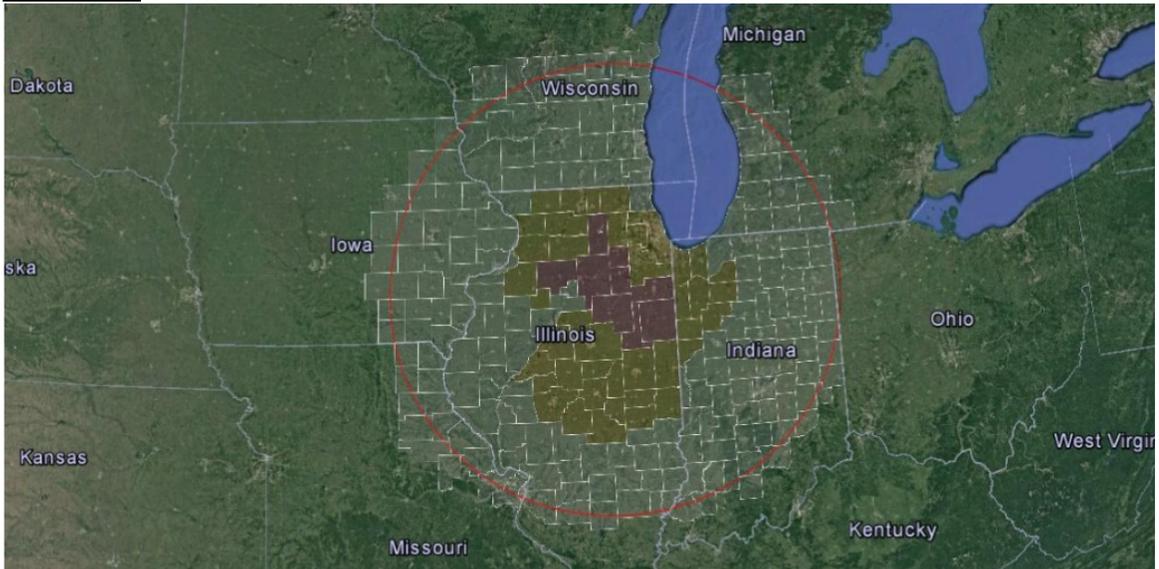
Iowa – Allamakee, Benton, Black Hawk, Buchanan, Cedar, Clay, Clinton, Davis, Delaware, Des Moines, Dubuque, Fayette, Henry, Iowa, Jackson, Jefferson, Johnson, Jones, Keokuk, Lee, Linn, Louisa, Mahaska, Muscatine, Poweshiek, Scott, Tama, Van Buren, Wapello, and Washington

Michigan – Allegan, Barry, Berrien, Branch, Calhoun, Cass, Hillsdale, Kalamazoo, Kent, Keweenaw, Muskegon, Newaygo, Oceana, Ottawa, St. Joseph, and Van Buren

Missouri – Audrain, Clark, Knox, Lewis, Lincoln, Marion, Monroe, Montgomery, Pike, Ralls, St. Charles, St. Louis, Scotland, and Shelby

Wisconsin – Adams, Calumet, Columbia, Crawford, Dane, Dodge, Fond Du Lac, Grant, Green Lake, Iowa, Jackson, Jefferson, Juneau, Kenosha, LaFayette, Manitowoc, Marinette, Marquette, Milwaukee, Monroe, Ozaukee, Racine, Richland, Rock, Sauk, Sheboygan, Vernon, Walworth, Washington, Waukesha, Waushara, and Winnebago

EXHIBIT 1



All native seed shall be provided on a pure live seed (PLS) basis. Products shall contain documentation of PLS testing and, if required, adjustment of the seed weights to provide 100% PLS standards. If rounding is required during PLS adjustment calculations, the adjustment shall always be rounded up. PLS adjustment must be based on seed test results dated no more than 12 months prior to the stated delivery date. Minimum PLS percentage for any species shall be 70%.

Seed containing noxious weeds will not be accepted. Seed containing weed seed in excess of 0.5% will not be accepted.

All “bearded” or “fluffy” species (such as *Anemone*, *Asclepias*, *Solidago*, *Solidago*, *Symphyotrichum*, etc.) shall be provided as de-fluffed seed.

All “hulled” species (such as *Dalea*, *Desmodium*, *Lespedeza*, etc.) shall be provided as de-hulled seed.

All seed shall be shipped in sealed packaging as individual species, seed that has been mixed prior to delivery to the District will not be accepted. Seed packaging shall be transparent (i.e., clear, re-sealable plastic bags) so that the seed is clearly visible for easy inspection of quality. If the quantity of seed ordered will not fit in two (2) large clear re-sealable plastic bags the use of opaque woven polypropylene bags will be permitted.

Each package containing seed shall be legibly tagged as to Vendor name & address, species scientific name, species common name, lot number, PLS value (%), specified quantity, and PLS adjusted quantity. Information provided on seed packaging shall correspond to the approved seed test certificates. Seed not grown by the Vendor must be clearly indicated and accompanied by the name and address of the company which grew the seed.

The Native Seed Mixtures for this project shall be as follows:

Basic Savanna/Open Woodland Seed Mix for Dry-Mesic Soils (Non-Sandy Soils)

Grasses & Sedges						
CODE	SCIENTIFIC NAME	COMMON NAME	PLS OZ/ACRE	% OF MIX	SEED TYPE	SURFACE SOWN
				by Seed Count		
BOUCUR	<i>Bouteloua curtipendula</i>	Side-oats Grama	32.00	4.78%	1	
CXCEPH	<i>Carex cephalophora</i>	Short-headed Bracted Sedge	4.00	3.19%	2	
CXGRAL	<i>Carex gracillima</i>	Purple-sheathed Graceful Sedge	2.00	5.08%	2	X
CXNORM	<i>Carex normalis</i>	Spreading Oval Sedge	8.00	4.98%	2	
ELYCAN	<i>Elymus canadensis</i>	Canada Wild Rye	4.00	0.52%	1	
ELYVIL	<i>Elymus villosus</i>	Silky Wild Rye	16.00	2.19%	2	
HYPAT	<i>Hystrix patula</i>	Bottlebrush Grass	32.00	6.06%	2	
SCHSCO	<i>Schizachyrium scoparium</i>	Little Bluestem	48.00	17.93%	1	
Flowers						
CODE	SCIENTIFIC NAME	COMMON NAME	PLS OZ/ACRE	% OF MIX	SEED TYPE	SURFACE SOWN
				by Seed Count		
AGASCR	<i>Agastache scrophulariaefolia</i>	Purple Giant Hyssop	0.50	1.16%	2	X
AGEALT	<i>Ageratina altissima</i>	White Snakeroot	0.25	0.93%	2	X
ALLCER	<i>Allium cernuum</i>	Nodding Onion	4.00	0.76%	2	
ANECYL	<i>Anemone cylindrica</i>	Thimbleweed	0.50	0.32%	2	X
AQUCAN	<i>Aquilegia canadensis</i>	Wild Columbine	1.00	0.95%	2	
ASCTUB	<i>Asclepias tuberosa</i>	Butterfly Weed	8.00	0.86%	2	
CAMAME	<i>Campanulastrum americanum</i>	American Bellflower	1.00	4.23%	2	X
CHAFAS	<i>Chamaecrista fasciculata</i>	Partridge Pea	16.00	1.08%	1	
CORLAN	<i>Coreopsis lanceolata</i>	Sand Coreopsis	2.00	1.00%	2	
CORTRI	<i>Coreopsis tripteris</i>	Tall Coreopsis	1.00	0.35%	2	
DESCAA	<i>Desmodium canadense</i>	Showy Tick Trefoil	2.00	0.27%	2	
ECHPUR	<i>Echinacea purpurea</i>	Purple Coneflower	16.00	2.63%	2	
ERYYUC	<i>Eryngium yuccifolium</i>	Rattlesnake Master	2.00	0.37%	2	

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EUTPUR	<i>Eutrochium purpureum</i>	Purple Joe Pye Weed	0.50	0.52%	2	
GERMAC	<i>Geranium maculatum</i>	Wild Geranium	4.00	0.50%	2	
HELSTR	<i>Helianthus strumosus</i>	Pale-leaved Sunflower	4.00	0.55%	2	
HELHEL	<i>Heliopsis helianthoides</i>	False Sunflower	16.00	2.51%	2	
LIASCN	<i>Liatris scariosa nieuwlandii</i>	Savanna Blazing Star	0.50	0.13%	2	
MONFIS	<i>Monarda fistulosa</i>	Wild Bergamot	1.00	1.74%	2	
OLIRIG	<i>Oligoneuron rigidum</i>	Stiff Goldenrod	0.50	0.51%	2	
PARINT	<i>Parthenium integrifolium</i>	Wild Quinine	3.00	0.52%	2	
PENCAL	<i>Penstemon calycosus</i>	Smooth Beardtongue	0.50	1.12%	2	
RATPIN	<i>Ratibida pinnata</i>	Yellow Coneflower	1.00	0.75%	2	
RUDHIR	<i>Rudbeckia hirta</i>	Black-eyed Susan	8.00	18.33%	1	
RUDSUB	<i>Rudbeckia subtomentosa</i>	Sweet Black-eyed Susan	1.00	1.07%	2	
SOLULM	<i>Solidago ulmifolia</i>	Elm-leaved Goldenrod	0.50	1.62%	2	X
SYMDRU	<i>Symphotrichum drummondii</i>	Drummond's Aster	1.00	1.99%	2	
SYMLAE	<i>Symphotrichum laeve</i>	Smooth Blue Aster	0.25	0.34%	2	
SYMCHO	<i>Symphotrichum shortii</i>	Short's Aster	0.75	1.12%	2	
TRAOHI	<i>Tradescantia ohioensis</i>	Ohio Spiderwort	3.00	0.60%	2	
VERSTR	<i>Verbena stricta</i>	Hoary Vervain	0.50	0.35%	2	X
VERVIR	<i>Veronicastrum virginicum</i>	Culver's Root	0.25	4.98%	2	X
ZIZAUR	<i>Zizia aurea</i>	Golden Alexanders	4.00	1.10%	2	X
			250.50	100.00%		

Basic Savanna/Open Woodland Seed Mix for Mesic-Wet Soils (Non-Sandy Soils)

Grasses & Sedges						
CODE	SCIENTIFIC NAME	COMMON NAME	PLS OZ/ACRE	% OF MIX	SEED TYPE	SURFACE SOWN
				by Seed Count		
ANDGER	Andropogon gerardii	Big Bluestem	2.00	0.48%	1	
CXCEPH	Carex cephalophora	Short-headed Bracted Sedge	1.00	0.77%	2	
CXGRAL	Carex gracillima	Purple-sheathed Graceful Sedge	2.00	4.91%	2	X
CXNORM	Carex normalis	Spreading Oval Sedge	8.00	4.81%	2	
CXTENE	Carex tenera	Narrow-leaved Oval Sedge	8.00	3.85%	2	
ELYVIL	Elymus villosus	Silky Wild Rye	8.00	1.06%	2	
ELYVIR	Elymus virginicus	Virginia Wild Rye	12.00	1.21%	1	
GLYSTR	Glyceria striata	Fowl Manna Grass	2.00	4.33%	2	X
HYPAT	Hystrix patula	Bottlebrush Grass	32.00	5.85%	2	
SCHSCO	Schizachyrium scoparium	Little Bluestem	48.00	17.31%	1	
Flowers						
CODE	SCIENTIFIC NAME	COMMON NAME	PLS OZ/ACRE	% OF MIX	SEED TYPE	SURFACE SOWN
				by Seed Count		
ALLCER	Allium cernuum	Nodding Onion	6.00	1.10%	2	
ANVIR	Anemone virginiana	Tall Thimbleweed	1.00	0.67%	2	X
BLEHIR	Blephilia hirsuta	Hairy Wood Mint	0.50	2.89%	2	X
CAMAME	Campanulastrum americanum	American Bellflower	1.00	4.09%	2	X
CHAFAS	Chamaecrista fasciculata	Partridge Pea	16.00	1.04%	1	
CORTRI	Coreopsis tripteris	Tall Coreopsis	4.00	1.35%	2	
ECHPUR	Echinacea purpurea	Purple Coneflower	8.00	1.27%	2	
ERYUC	Eryngium yuccifolium	Rattlesnake Master	4.00	0.72%	2	
EUTPUR	Eutrochium purpureum	Purple Joe Pye Weed	0.25	0.25%	2	
GERMAC	Geranium maculatum	Wild Geranium	4.00	0.48%	2	

HELSTR	Helianthus strumosus	Pale-leaved Sunflower	2.00	0.26%	2	
HELHEL	Heliopsis helianthoides	False Sunflower	16.00	2.42%	2	
LIASPI	Liatris spicata	Marsh Blazing Star	2.00	0.53%	2	
MONFIS	Monarda fistulosa	Wild Bergamot	2.00	3.37%	2	
OLIRIG	Oligoneuron rigidum	Stiff Goldenrod	0.50	0.49%	2	
PENDIG	Penstemon digitalis	Foxglove Beardtongue	0.50	1.56%	2	X
RUDHIR	Rudbeckia hirta	Black-eyed Susan	8.00	17.70%	1	
RUDSUB	Rudbeckia subtomentosa	Sweet Black-eyed Susan	1.50	1.55%	2	
RUDTRI	Rudbeckia triloba	Brown-eyed Susan	0.50	0.41%	2	
SOLULM	Solidago ulmifolia	Elm-leaved Goldenrod	1.00	3.13%	2	X
SYMDRU	Symphyotrichum drummondii	Drummond's Aster	0.25	0.48%	2	
SYMURO	Symphyotrichum urophyllum	Arrow-leaved Aster	1.00	3.25%	2	X
THADAS	Thalictrum dasycarpum	Purple Meadow Rue	1.00	0.26%	2	
VERFAS	Vernonia fasciculata	Common Ironweed	0.50	0.29%	2	
VERVIR	Veronicastrum virginicum	Culver's Root	0.25	4.81%	2	X
ZIZAUR	Zizia aurea	Golden Alexanders	4.00	1.06%	2	X
			208.75	100.00%		

Seed mixes may be modified by the Engineer based on results of selective herbicide operations, any modifications would include a reduction of rates and/or species and will not increase costs to the Contractor.

HERBICIDE

The Contractor must have all chemicals delivered **from the supplier** in the original unopened packaging to the Illinois Department of Transportation's Morris Yard, located at 1821 N Division St, Morris, IL 60450, along with the certification of analysis five (5) working days prior to the start of the contract. Call Steve Niemann, Field Engineer @ 815-942-0351, Monday-Friday (7:00am – 3:30pm) to schedule chemical drop-off.

Weeds shall be sprayed in two separate applications as described below:

BROADCAST SPRAY APPLICATION #1

Clethodim 26.4% (Volunteer or equal approved by the Engineer) shall be applied at a rate of sixteen (16) ounces per acre.

Alkyl Aryl Polyalkoxylated nonionic surfactant, and free fatty acids 90% (Premier 90 or equal approved by the Engineer) shall be applied at a rate of sixteen (16) ounces per acre.

Super concentrated, temporary, and nontoxic blue spray pattern indicator (Super Signal Blue or equal approved by the Engineer) shall be added to the mix at a rate of thirty-two (32) ounces per 100 gallons of spray mixture. Spray pattern indicators shall be formulated to provide visual evidence of where a spray application has been made, to dissipate with sunlight or moisture, and to not permanently stain vegetation, soil, or human skin.

This mixture shall be applied in thirty (30) gallons of water per acre and uniformly applied at such a rate that each acre will receive sixteen (16) ounces of Volunteer or equal and non-ionic surfactant. This mixture shall be continuously agitated during spraying operations.

SPOT SPRAY APPLICATION #1

Triisopropanolammonium salt of 2-pyridine carboxylic acid, 4-amino-3,6-dichloro 40.6% (Milestone or equal approved by the Engineer) shall be applied at a rate of thirty-five hundredths (0.35) ounces per gallon of spray mixture.

Clopyralid: 3,6-dichloro-2-pyridinecarboxylic acid, monoethanolamine salt 40.9% (Transline or equal approved by the Engineer) shall be applied at a rate of fifty hundredths (0.50) ounces per gallon of spray mixture.

Alkyl Aryl Polyalkoxylated nonionic surfactant, and free fatty acids 90% (Premier 90 or equal approved by the Engineer) shall be applied at a rate of two (2) ounces per gallon of spray mixture.

Super concentrated, temporary, and nontoxic blue spray pattern indicator (Super Signal Blue or equal approved by the Engineer) shall be added to the mix at a rate of four (4) ounces per gallon of spray mixture. Spray pattern indicators shall be formulated to provide visual evidence of where a spray application has been made, to dissipate with sunlight or moisture, and to not permanently stain vegetation, soil, or human skin.

This mixture shall be applied as a spot-spray application targeting broadleaf weed species throughout the planting area. Due to the potential residual properties of these herbicide products, application to site soils shall be avoided through a highly targeted approach by the Contractor.

BROADCAST SPRAY APPLICATION #2

Clethodim 26.4% (Volunteer or equal approved by the Engineer) shall be applied at a rate of sixteen (16) ounces per acre.

Alkyl Aryl Polyalkoxylated nonionic surfactant, and free fatty acids 90% (Premier 90 or equal approved by the Engineer) shall be applied at a rate of sixteen (16) ounces per acre.

Super concentrated, temporary, and nontoxic blue spray pattern indicator (Super Signal Blue or equal approved by the Engineer) shall be added to the mix at a rate of thirty-two (32) ounces per 100 gallons of spray mixture. Spray pattern indicators shall be formulated to provide visual evidence of where a spray application has been made, to dissipate with sunlight or moisture, and to not permanently stain vegetation, soil, or human skin.

This mixture shall be applied in thirty (30) gallons of water per acre and uniformly applied at such a rate that each acre will receive sixteen (16) ounces of Volunteer or equal and non-ionic surfactant. This mixture shall be continuously agitated during spraying operations.

All products are stated in liquid measure.

Potable water shall be used on the contract. No water will be allowed to be pumped from nearby creeks, ponds, or other bodies of water. The Contractor shall provide a list of source locations where the potable water will be obtained to the Engineer at the pre-construction conference. All proposed sources of water shall be approved by the Engineer prior to mixing of herbicides.

The Contractor shall submit a certification of analysis to the Engineer stating that the compounds of each proprietary product supplied is as specified. The certification of analyses shall be submitted to the Engineer five (5) business days prior to the start of the work.

The Contractor shall download the Material Safety Data Sheets for each herbicide, become familiar with the safety hazards, follow the handling & safety instructions, and provide this information to their field personnel.

EXECUTION: Native seed shall be planted during one of the following timeframes, the site preparation timeline detailed below shall be constructed based on an appropriate seeding timeframe:

Spring Planting: March 1st – June 30th

Fall Planting: September 15th – December 31st

Contractor shall utilize equipment having low unit pressure ground contact within planting areas. They shall take precautions to ensure that equipment and vehicles do not damage the grading, utilities, structures, or existing trees and shrubs during planting operations. Any damage shall be repaired by the Contractor at no additional cost.

The capacity of the equipment shall be sufficient to perform the work and in the time period as specified herein, and as approved by the Engineer.

Spray mixture tanks shall have sight gauges calibrated in English units for easy measurement, and mechanical or by-pass agitation systems to ensure thorough and continuous mixing of the chemicals.

Spray nozzles shall be selected which are designed to reduce potential herbicide drift. Improved flat fan nozzles or large capacity flooding nozzles shall be used which are capable of delivering up to 100 GPA at pressures of 20-40 PSI.

Pumps shall be capable of delivering up to 100 GPA at pressures of 20-40 PSI, and to keep the spray pattern full and steady without pulsation.

Eleven (11) weeks prior to the targeted seeding date, Contractor shall mow all proposed seeding areas to a height of four inches (4"). Use of a sickle-type mower is preferred; if using a rotary mower, the Contractor shall rake and remove any thatch that is greater than one inch (1") thick.

Prior to starting herbicide work, the Contractor shall furnish Illinois Pesticide ID Cards (signed and dated) to the Engineer as visual proof that all personnel on the job are licensed Applicators or Operators by the Illinois Department of Agriculture, Bureau of Environmental Programs under the provisions of the Illinois Pesticide Act. The Illinois Department of Agriculture Aquatics license will be required of the person on site supervising the Operators on using pesticides in standing or running water. The Engineer shall record in the project records books the name and license number of each person. If the personnel on the job do not have the proper license, the job will be postponed until personnel who carry the proper license are on the job, with no extra working days awarded to the Contractor.

Herbicide spraying will not be allowed when temperatures exceed 85°F or are under 45°F, when wind velocities exceed ten (10) miles per hour, when foliage is wet or rain is eminent, when visibility is poor, or during legal holiday periods unless prior approval is received from the Engineer. There shall be no spraying during periods of rainfall and spraying shall be halted, in accordance with the herbicide manufacturer's instructions, prior to periods of rainfall. Spraying shall be in accordance with the applicable portions of Section 107. Within 48 hours of the application of herbicides, the Contractor shall complete and return to the Engineer, IDOT Operations form "OPER 2720", Pesticide Application Daily Spray Record (Rev. 07/06/17).

Off-road vehicles shall be equipped with off-road/high flotation tires that allow the vehicle to travel in soft roadside conditions. If the off-road vehicles are not equipped with flotation type tires, the job will be postponed until the equipment can travel the roadside areas without rutting and getting stuck with no extra working days rewarded to the Contractor. The tank on all spray equipment shall be equipped with tight-fitting lids which will prevent the contents from splashing or spilling out. The Contractor will be required to have all equipment in proper working order before starting the job. An inspection of on-road, off-road, and hand-spray units will be done by the Resident Engineer prior to starting any work. If equipment is not working properly, the Contractor will be required to fix the problem prior to starting the contract. The Contractor will be required to demonstrate the calibration of his equipment up to forty-eight (48) hours prior to the time of spraying operations are to begin.

Seven (7) weeks prior to the targeted seeding date, planting areas identified for selective herbicide application shall be treated with an application of the Volunteer or equal herbicide mixture resulting in a complete kill of all existing grass species. Broadcast or "Boom" spraying of herbicide is acceptable under these conditions; precautions shall be taken to eliminate damage to non-target areas from overspray.

Seven (7) weeks prior to the targeted seeding date, limited spot applications of the Milestone or equal + Transline or equal herbicide mixture shall be utilized on existing broadleaf species within the planting areas identified for selective herbicide application.

Three (3) weeks prior to the targeted seeding date, planting areas identified for non-selective herbicide application shall be treated with a second application of the Volunteer or equal herbicide mixture resulting in a complete kill of all existing grass species. Broadcast or "Boom" spraying of herbicide is acceptable under these conditions; precautions shall be taken to eliminate damage to non-target areas from overspray.

Prior to seeding, remove dead biomass within planting areas using a landscape rake or other method approved by the Engineer.

Once dead biomass is removed from the planting areas, spread soil amendments within planting areas using a broadcast spreader, such as the Herd Model 750 or equal, or other method approved by the Engineer.

Immediately after spreading soil amendments, scarify the soil within planting areas in a manner that will integrate amendments into the top layer of soil and prepare a seedbed that will allow good seed-to-soil contact. Soil scarification may be achieved with a landscape rake or drag harrow. These planting areas contain a large number of mature oak trees that may be sensitive to heavy-handed site preparation activities. Methods that disturb more than one-half inch ($\frac{1}{2}$ ") of soil or that result in soil compaction are not acceptable, including disking or tilling.

Blend the native seed into mixes appropriate for the seed installation method being used.

Seed mixed for use with a mechanized rangeland dropseeder shall be constructed as two separate blends for each specified seed mixture:

Blend 1A – Seed to be planted using the small seed box shall be mixed with a mychorrizal and rhizobial inoculant as a carrier. The rate of mychorrizal inoculant shall be 40 LBS/acre minimum, rhizobial inoculants shall be as per the rates recommended by the seed supplier.

Blend 1B – Seed blended for the large or grass seed box shall be mixed with an appropriate cover crop as a carrier. Spring installations shall utilize 40 LBS/acre of Spring Oats (*Avena sativa*) as cover crop, fall installations shall utilize 20 LBS/acre of a wheat x tall wheatgrass hybrid (*Triticum aestivum* x *Elytrigia elongata*) such as ReGreen or equal.

Seed mixed for hand or mechanized broadcasting shall be constructed as three separate blends for each specified seed mixture:

Blend 2A – 1/2 of all grass species mixed with an appropriate cover crop and other inert material as needed for an appropriate carrier.

Blend 2B – 1/2 of all grass species + 1/3 of remaining species (sedges, rushes, forbs) with the exception of any species indicated as “Surface Sown” in the Native Seed Mixtures found in the Materials Section of this Special Provision.

Blend 2C – All remaining species.

Seed used for hand or mechanized broadcasting shall be mixed with a mychorrizal inoculant at 40 LBS/acre minimum, a rhizobial inoculant at rates recommended by the seed supplier, and an appropriate cover crop. Spring installations shall utilize 40 LBS/acre of Spring Oats (*Avena sativa*) as cover crop, fall installations shall utilize 20 LBS/acre of a wheat x tall wheatgrass hybrid (*Triticum aestivum* x *Elytrigia elongata*) such as ReGreen or equal.

Seed shall be drop-seeded by a rangeland type dropseeder designed to plant native grass and forb seed (such as the Greenscape 600 Conservation Seeder or equal). Seed shall be installed in two (2) separate runs where each application of seed shall overlap the previous application by one half (1/2) the weight to insure double coverage of seeded areas (example: seed in a north to south direction @ ten pounds per acre, then overlap by seeding in an east to west direction @ ten pounds per acre, resulting in a total coverage of twenty pounds per acre [twenty pounds per acre is an example only, see the Native Seed Mixtures in the Materials Section of this Special Provision for actual project seeding rates].) Each planting run shall overlap by a minimum of six (6) inches. Some seed species require exposure to sunlight for germination, these species shall be planted separately, after dropseeding, utilizing the broadcasting method.

If site conditions prohibit the use of mechanized dropseeding equipment, hand broadcasting of seed is acceptable on exposed soil only. If seed is hand broadcast, it shall be mixed with an equal amount of inert material as a carrier (such as sand, vermiculite, rice hulls, etc.) to enable an even distribution of seed. A mechanical broadcast seeder with appropriate agitation may also be utilized, such as the Herd Model 750 or equal. When using this seeding method, seed shall be broadcast in three (3) separate applications:

Broadcast "Blend 2A" of the specified seed mix. Drag the seeding area utilizing a drag rake, drag harrow, or similar equipment approved by the Engineer. Work native seed into the soil achieving a final planting depth between 0.25" (1/4") – 0.5" (1/2").

Broadcast "Blend 2B" of the specified seed mix. Lightly drag the seeding area utilizing a drag rake, drag harrow, or similar equipment approved by the Engineer. Work the native seed into the soil achieving a final planting depth between 0.0625" (1/16") – 0.25" (1/4").

Broadcast "Blend 2C" of the specified seed mix directly atop prepared seedbed. Do not drag or rake.

Do not sow seed in areas where standing water is present, during adverse weather, or when wind speeds exceed ten (10) miles per hour unless otherwise approved by the Engineer.

Hydroseeding of Native Seed is not acceptable.

Roll planting areas within twelve (12) hours after seed installation, or as soon as site conditions permit. The use of the cultipacker on the dropseeder meets this requirement.

RESTRICTIONS: Storage of materials shall be prohibited within environmentally sensitive areas as determined by the Engineer.

Herbicide applications shall be restricted to hand spraying within one hundred (100) feet from waterways and within fifteen (15) feet of existing mature oak trees.

METHOD OF MEASUREMENT: This work will be measured for payment in acres of surface area seeded.

The exact locations of seeding will be determined in the field by the Engineer, and the quantities will be adjusted accordingly.

BASIS OF PAYMENT: This work will be paid for at the contract unit price per acre for WILDFLOWER INTERSEEDING (SPECIAL).

PLANTING BED PREPARATION (SPECIAL)

DESCRIPTION: This work shall consist of two (2) years of landscape maintenance on newly planted native landscape areas, including mulch management/topdressing, dead-heading, weed pulling, mowing, herbicide applications, and supplemental seeding. Landscape Maintenance priority is to approach eradication of invasive and weedy species, establish and encourage the healthy growth of native species, and increase overall site biodiversity. The intent is to develop a dense stand of desirable native species with minimal weed content and no threat from invasive species or aggressive native species.

Prior to beginning work, Contractor shall submit a proposed work schedule to the Engineer outlining when the tasks and materials required as part of this Special Provision will be completed.

EXPERIENCE: All work shall be performed by a Contractor with at least five (5) years of documented experience in the maintenance of landscape beds and in the maintenance of native species for the purposes of ecological restoration, they shall be able to demonstrate their knowledge in the field.

MATERIALS:

ENGINEERED SOIL

Uniform in composition, dry, and fully mixed by supplier prior to delivery to the site.

Engineered soil mixture shall be CMS AG or equal blended mix with the following material ratios:

Product Description	Percentage of Mix By Dry Weight
Topsoil (Standard Specification 1081.05a)	60%
FM20 Sand (Standard Specification 1003.01c)	20%
Southern Pine Bark Fines Screened to 3/8" or smaller	20%

HERBICIDE

The Contractor must have all chemicals delivered **from the supplier** in the original unopened packaging to the Illinois Department of Transportation's Morris Yard, located at 1821 N Division St, Morris, IL 60450, along with the certification of analysis five (5) working days prior to the start of the contract. Call Steve Niemann, Field Engineer @ 815-942-0351, Monday-Friday (7:00am – 3:30pm) to schedule chemical drop-off.

Existing vegetation shall be sprayed in a single application as described below:

BROADCAST SPRAY APPLICATION #1

Glyphosate, N-(phosphonomythyl) glycine, in the form of its isopropylamine salt 53.8% (AquaNeat or equal approved by the Engineer) shall be applied at a rate of ninety-six (96) ounces per acre.

Alkyl Aryl Polyalkoxylated nonionic surfactant, and free fatty acids 90% (Premier 90 or equal approved by the Engineer) shall be applied at a rate of sixteen (16) ounces per acre.

Super concentrated, temporary, and nontoxic blue spray pattern indicator (Super Signal Blue or equal approved by the Engineer) shall be added to the mix at a rate of thirty-two (32) ounces per 100 gallons of spray mixture. Spray pattern indicators shall be formulated to provide visual evidence of where a spray application has been made, to dissipate with sunlight or moisture, and to not permanently stain vegetation, soil, or human skin.

All products are stated in liquid measure.

Potable water shall be used on the contract. No water will be allowed to be pumped from nearby creeks, ponds, or other bodies of water. The Contractor shall provide a list of source locations where the potable water will be obtained to the Engineer at the pre-construction conference. All proposed sources of water shall be approved by the Engineer prior to mixing of herbicides.

The Contractor shall submit a certification of analysis to the Engineer stating that the compounds of each proprietary product supplied is as specified. The certification of analyses shall be submitted to the Engineer five (5) business days prior to the start of the work.

The Contractor shall download the Material Safety Data Sheets for each herbicide, become familiar with the safety hazards, follow the handling & safety instructions, and provide this information to their field personnel.

MULCH

Composted Leaf Mulch product comprised of deciduous leaf material that has been produced in an Illinois Environmental Protection Agency (IEPA) regulated facility in accordance with the IEPA requirements. Mulch shall be mature (actively composted for six months minimum at a temperature slightly above air temperatures) and humic (organic material that is no longer rapidly degrading). Mulch shall be ground to a medium to fine texture, placed in windrows for composting and shall be naturally heated to ensure that harmful pathogens and weed seeds present have been rendered inert. Mature leaf mulch shall be a dark, friable, partially decomposed substance that has an earthy odor. Prior to shipping the mulch shall be screened to ensure a high-quality end product, visible fibers should be short and dark with no discernable particles of leaf material. Mulch shall be free of undesirable seeds, large chunks of debris, soil, and moldy chunks. Upon request, the Contractor shall submit mulch samples to the Engineer for approval prior to installation. Mulch shall conform to the following:

Organic Content – 25% to 100% by dry weight, does not contain fecal coliform populations exceeding 1000 MPN per gram of total solids (dry weight basis)

Natural Inert Material – s <5% by dry weight of woody or green yard debris material

Man-Made Inert Material – <1% by dry weight of man-made materials; mulch shall be free of any materials which pose a definite hazard to human health due to physical characteristics, such as glass or metal shards

Bulk Density – 630 to 812 kg/m³

Moisture Content – 30% to 60% by total weight

pH between 6.5 and 8.5

Maximum particle length of six inches (6”), with 100% passing a one-half inch (1/2”) sieve and 0% passing a No. 16 sieve.

EXECUTION: Contractor shall utilize equipment having low unit pressure ground contact within planting areas. They shall take precautions to ensure that equipment and vehicles do not damage the grading, utilities, structures, or existing trees and shrubs during planting operations. Any damage shall be repaired by the Contractor at no additional cost.

The capacity of the equipment shall be sufficient to perform the work and in the time period as specified herein, and as approved by the Engineer.

Spray mixture tanks shall have sight gauges calibrated in English units for easy measurement, and mechanical or by-pass agitation systems to ensure thorough and continuous mixing of the chemicals.

Spray nozzles shall be selected which are designed to reduce potential herbicide drift. Improved flat fan nozzles or large capacity flooding nozzles shall be used which are capable of delivering up to 100 GPA at pressures of 20-40 PSI.

Pumps shall be capable of delivering up to 100 GPA at pressures of 20-40 PSI, and to keep the spray pattern full and steady without pulsation.

Prior to starting herbicide work, the Contractor shall furnish Illinois Pesticide ID Cards (signed and dated) to the Engineer as visual proof that all personnel on the job are licensed Applicators or Operators by the Illinois Department of Agriculture, Bureau of Environmental Programs under the provisions of the Illinois Pesticide Act. The Illinois Department of Agriculture Aquatics license will be required of the person on site supervising the Operators on using pesticides in standing or running water. The Engineer shall record in the project records books the name and license number of each person. If the personnel on the job do not have the proper license, the job will be postponed until personnel who carry the proper license are on the job, with no extra working days awarded to the Contractor.

Herbicide spraying will not be allowed when temperatures exceed 85°F or are under 45°F, when wind velocities exceed ten (10) miles per hour, when foliage is wet or rain is eminent, when visibility is poor, or during legal holiday periods unless prior approval is received from the Engineer. There shall be no spraying during periods of rainfall and spraying shall be halted, in accordance with the herbicide manufacturer's instructions, prior to periods of rainfall. Spraying shall be in accordance with the applicable portions of Section 107. Within 48 hours of the application of herbicides, the Contractor shall complete and return to the Engineer, IDOT Operations form "OPER 2720", Pesticide Application Daily Spray Record (Rev. 07/06/17).

Off-road vehicles shall be equipped with off-road/high flotation tires that allow the vehicle to travel in soft roadside conditions. If the off-road vehicles are not equipped with flotation type tires, the job will be postponed until the equipment can travel the roadside areas without rutting and getting stuck with no extra working days rewarded to the Contractor. The tank on all spray equipment shall be equipped with tight-fitting lids which will prevent the contents from splashing or spilling out. The Contractor will be required to have all equipment in proper working order before starting the job. An inspection of on-road, off-road, and hand-spray units will be done by the Resident Engineer prior to starting any work. If equipment is not working properly, the Contractor will be required to fix the problem prior to starting the contract. The Contractor will be required to demonstrate the calibration of his equipment up to forty-eight (48) hours prior to the time of spraying operations are to begin.

BED LAYOUT

Prior to herbicide application, Contractor shall layout all locations of planting beds utilizing pin flags and marker paint. Planting area layout shall be approved by the Engineer, Contractor shall make any adjustments required by the Engineer prior to approval.

HERBICIDE APPLICATION

Planting beds shall be treated with an application of AquaNeat or equal herbicide mixture resulting in a complete kill of all existing vegetation. Broadcast or “Boom” spraying of herbicide is acceptable under these conditions; precautions shall be taken to eliminate damage to non-target areas from overspray.

REMOVAL OF PLANTS, TIMBERS, ROCK, AND SOIL EXCAVATION

Remove existing tree roots, shrubs, and other existing vegetation from within the planting bed areas. Remove all existing landscape edge timbers, weed fabric, landscape stone, and any other debris from within the planting bed areas. All removed vegetation and debris shall be disposed of off-site.

Set the edges of the planting bed with a spaded bed edge by cutting at the outer edge of the bed with a straight vertical cut approximately six inches (6”) deep, then making an angled cut from the inside portion of the bed to the bottom of the vertical cut. Remove the excess soil from the bed and dispose of off-site.

Remove twelve inches (12”) of soil from throughout the bed and dispose of it off-site. Scarify the remaining soils and eliminate any compaction.

SOIL PLACEMENT

Place the engineered soil mix throughout the planting bed in two-inch (2”) lifts, lightly compacting the soil between each lift.

INSTALL PLANTS AND MULCH

Install plants per the following Standard Specification Sections:

TREES and SHRUBS – Section 253
PERENNIALS – Section 254

As per Standard Specification 254.07, mulch shall be included with the installation of PERENNIALS.

Composted Leaf Mulch shall meet the approval of the Engineer.

METHOD OF MEASUREMENT: This work will be measured for payment in square feet of surface area prepared for landscape planting.

The exact locations of PLANTING BED PREPARATION will be determined in the field by the Engineer, and the quantities will be adjusted accordingly.

BASIS OF PAYMENT: This work will be paid for at the contract unit price per square foot for PLANTING BED PREPARATION.

PLANT WATERING

DESCRIPTION: This work shall consist of applying water to newly installed PERENNIALS immediately upon planting.

MATERIALS: Potable water shall be used on the contract. No water will be allowed to be pumped from nearby creeks, ponds, or other bodies of water. The Contractor shall provide a list of source locations where the potable water will be obtained to the Engineer at the pre-construction conference. All proposed sources of water shall be approved by the Engineer prior to installing plants.

EXECUTION: Immediately after planting and mulch installation, the plants shall be watered with at least 1 gallon (5 liters) of water per plant.

Watering of plants in beds shall be applied in such a manner that all plant holes are uniformly saturated without allowing the water to flow beyond the periphery of the bed.

METHOD OF MEASUREMENT: This work will be measured for payment as a single application.

Watering will be verified in the field by the Engineer.

BASIS OF PAYMENT: This work will be paid for at the contract unit price per unit for PLANT WATERING.

PRE-EMERGENCE HERBICIDE

DESCRIPTION: This work shall consist of the application of a pre-emergent herbicide to planting beds following mulch placement.

MATERIALS:

The following herbicide products are approved for pre-emergent applications:

Trifluralin: a,a,a-trifluoro-2,6-dinitro-N,N-dipropyl-p-toluidine 2.0%; isoxaben: N-[3-(1-ethyl-1-methylpropyl)-5-isoxazolyl]-2,6-dimethoxybenzaide and isomers 0.5% (Snapshot 2.5TG or equal), pre-emergent herbicide for use in mulched landscape beds only.

Other products as needed with proper justification and approval by the Engineer.

EXECUTION: Pre-emergent herbicide applications are required within all landscape beds immediately after mulch has been placed, they must not be applied to seeded areas.

Granular Pre-Emergent Herbicide Broadcast Application utilizes a hand-held broadcast spreader to apply granular pre-emergence herbicide products without selectivity. Ensure that granular herbicide application equipment is properly calibrated prior to beginning work. Some pre-emergent herbicides must be worked into the mulch and/or watered-in after application, Contractor shall apply according to the product label.

METHOD OF MEASUREMENT: This work will be measured for payment in square yards of surface area seeded.

The exact locations of pre-emergent herbicide application will be determined in the field by the Engineer, and the quantities will be adjusted accordingly.

BASIS OF PAYMENT: This work will be paid for at the contract unit price per square yard for PRE-EMERGENCE HERBICIDE.

LANDSCAPE MAINTENANCE

DESCRIPTION: This work shall consist of two (2) years of landscape maintenance on newly planted native landscape areas, including mulch management/topdressing, dead-heading, weed pulling, mowing, herbicide applications, and supplemental seeding. Landscape Maintenance priority is to approach eradication of invasive and weedy species, establish and encourage the healthy growth of native species, and increase overall site biodiversity. The intent is to develop a dense stand of desirable native species with minimal weed content and no threat from invasive species or aggressive native species.

Prior to beginning work, Contractor shall submit a proposed work schedule to the Engineer outlining when the tasks and materials required as part of this Special Provision will be completed.

EXPERIENCE: All work shall be performed by a Contractor with at least five (5) years of documented experience in the maintenance of landscape beds and in the maintenance of native species for the purposes of ecological restoration, they shall be able to demonstrate their knowledge in the field.

MATERIALS:

SOIL AMENDMENTS

Uniform in composition, dry, and free-flowing. Fertilizer which becomes caked or otherwise damaged making it not suitable for use will not be accepted.

When requested by the Engineer, Contractor shall provide Certifications and/or analysis data for specified soil amendment products prior to installation.

Inorganic Fertilizers and Soil Amendments:

Elemental Sulfur – Granular, biodegradable, containing a minimum of 90 percent sulfur, and with a minimum of 99 percent passing through No. 6 (3.35-mm) sieve and a maximum of 10 percent passing through No. 40 (0.425-mm) sieve.

Gypsum – Derived from mined Gypsum with a minimum 90 percent Calcium Sulfate, pelletized with 90 percent passing through No. 50 (0.30-mm) sieve.

Hi-Cal Lime – Pulverized limestone with a minimum 30 percent Calcium, pelletized with 90 percent passing through No. 50 (0.30-mm) sieve. Ground dolomitic limestone is not acceptable.

Monoammonium Phosphate (MAP) 11-52-0

Sulphate of Potash (SOP) 0-0-50

Soil amendments for this project shall be as follows:

EB BASIC PRAIRIE & WET PRAIRIE AREAS ADJACENT TO INTERSTATE		
Product Description	Application Rate	Application Times
Elemental Sulfur	4#/1,000 s.f.	October 15 th , 2021
SOP (0-0-50)	4#/1,000 s.f.	April 2022

EB BASIC PRAIRIE & WET PRAIRIE AREAS ADJACENT TO BUILDING		
Product Description	Application Rate	Application Times
Gypsum	15#/1,000 s.f.	April 2022
Elemental Sulfur	4#/1,000 s.f.	October 15 th , 2021
SOP (0-0-50)	4#/1,000 s.f.	April 2022

WB BASIC PRAIRIE & WET PRAIRIE AREAS ADJACENT TO INTERSTATE		
Product Description	Application Rate	Application Times
Elemental Sulfur	4#/1,000 s.f.	October 15 th , 2021
SOP (0-0-50)	4#/1,000 s.f.	April 2022

WB BASIC SAVANNA AREAS		
Product Description	Application Rate	Application Times
Hi-Cal Lime	15#/1,000 s.f.	April 2022
MAP (11-52-0)	4#/1,000 s.f.	April 2022
SOP (0-0-50)	4#/1,000 s.f.	April 2022

NATIVE SEED

If required for supplemental seeding to meet performance criteria, native seed materials shall follow the Special Provisions for WILDFLOWER SEEDING (SPECIAL) and WILDFLOWER INTERSEEDING (SPECIAL).

HERBICIDE

The following herbicide products are approved during the Landscape Maintenance term:

2,4-Dichlorophenoxyacetic acid, choline salt 56.3% (FreeLexx 2,4-D Amine or equal approved by the Engineer).

Clethodim 26.4% (Volunteer or equal approved by the Engineer).

Clopyralid: 3,6-dichloro-2-pyridinecarboxylic acid, monoethanolamine salt 40.9% (Transline or equal approved by the Engineer).

Diquat dibromide [6,7-dihydrodipyrido(1,2-a:2',1'-c) pyrazinedium dibromide] 37.3% (Diquat SPC 2 L or equal approved by the Engineer).

Glyphosate, N-(phosphonomethyl) glycine, in the form of its isopropylamine salt 53.8% (AquaNeat or equal approved by the Engineer).

Triclopyr:2-[(3,5,6-trichloro-2-pyridinyl)oxy] acetic acid, buoxyethyl ester 60.45% (Garlon 4 Ultra or equal approved by the Engineer).

Triclopyr:2-[(3,5,6-trichloro-2-pyridinyl)oxy] acetic acid, triethylamine salt 44.4% (Garlon 3A or equal approved by the Engineer).

Triclopyr:3,5,6-trichloro-2-pyridinyloxyacetic acid, butoxyethyl ester 61.6% (Element 4 or equal approved by the Engineer).

Triclopyr choline:2-[(3,5,6-trichloro-2-pyridinyl)oxy] acetic acid, choline salt 54.75% (Vastlan or equal approved by the Engineer).

Trifluralin: a,a,a-trifluoro-2,6-dinitro-N,N-dipropyl-p-toluidine 2.0%; isoxaben: N-[3-(1-ethyl-1-methylpropyl)-5-isoxazolyl]-2,6-dimethoxybenzaide and isomers 0.5% (Snapshot 2.5TG or equal), pre-emergent herbicide for use in mulched landscape beds only.

Triisopropanolammonium salt of 2-pyridine carboxylic acid, 4-amino-3,6-dichloro 40.6% (Milestone or equal approved by the Engineer).

Other products as needed with proper justification and approval by the Engineer.

Herbicide shall be mixed with water, oils, surfactants, anti-foaming agents, and/or other adjuvants in order to achieve the appropriate potency and/or to increase penetration and persistence at the specified rate of the manufacturer, in accordance with the label, and in accordance with all applicable regulations. The following adjuvant products are approved during the maintenance term:

Alkyl Aryl Polyalkoxylated nonionic surfactant, and free fatty acids 90% (Premier 90 or equal approved by the Engineer).

Basal Oil containing a 100% blend of all-natural Vegetable Oils (JLB Oil Plus or equal approved by the Engineer).

MSO – A blend of methylated soybean oil and a highly effective emulsifier package producing a 100% active ingredient product (Alligare MSO 1 or equal approved by the Engineer).

Other products as needed with proper justification and approval by the Engineer.

All water-based herbicides shall contain a super concentrated, temporary, and nontoxic blue spray pattern indicator (Super Signal Blue or equal approved by the Engineer) added to the mix at a rate of thirty-two (3.2) ounces per gallon of spray mixture. Water-based spray pattern indicators shall be formulated to provide visual evidence of where a spray application has been made, to dissipate with sunlight or moisture, and to not permanently stain vegetation, soil, or human skin.

All oil-based herbicides shall contain a super concentrated red spray pattern indicator (BasOil Red or equal approved by the Engineer) added to the mix at a rate of two and one-half (2.5) ounces per gallon of spray mixture.

Dyes shall be eliminated from herbicides used directly adjacent to walkways or other high-visibility or sensitive structures that could potentially become stained by the dye.

Potable water shall be used on the contract. No water will be allowed to be pumped from nearby creeks, ponds, or other bodies of water. The Contractor shall provide a list of source locations where the potable water will be obtained to the Engineer at the pre-construction conference. All proposed sources of water shall be approved by the Engineer prior to mixing of herbicides.

The Contractor shall submit a certification of analysis to the Engineer stating that the compounds of each proprietary product supplied is as specified. The certification of analyses shall be submitted to the Engineer five (5) business days prior to the start of the work.

The Contractor shall download the Material Safety Data Sheets for each herbicide, become familiar with the safety hazards, follow the handling & safety instructions, and provide this information to their field personnel.

MULCH

Composted Leaf Mulch product comprised of deciduous leaf material that has been produced in an Illinois Environmental Protection Agency (IEPA) regulated facility in accordance with the IEPA requirements. Mulch shall be mature (actively composted for six months minimum at a temperature slightly above air temperatures) and humic (organic material that is no longer rapidly degrading). Mulch shall be ground to a medium to fine texture, placed in windrows for composting and shall be naturally heated to ensure that harmful pathogens and weed seeds present have been rendered inert. Mature leaf mulch shall be a dark, friable, partially decomposed substance that has an earthy odor. Prior to shipping the mulch shall be screened to ensure a high-quality end product, visible fibers should be short and dark with no discernable particles of leaf material. Mulch shall be free of undesirable seeds, large chunks of debris, soil, and moldy chunks. Upon request, the Contractor shall submit mulch samples to the Engineer for approval prior to installation. Mulch shall conform to the following:

Organic Content – 25% to 100% by dry weight, does not contain fecal coliform populations exceeding 1000 MPN per gram of total solids (dry weight basis)

Natural Inert Material – s <5% by dry weight of woody or green yard debris material

Man-Made Inert Material - <1% by dry weight of man-made materials; mulch shall be free of any materials which pose a definite hazard to human health due to physical characteristics, such as glass or metal shards

Bulk Density – 630 to 812 kg/m³

Moisture Content – 30% to 60% by total weight

pH between 6.5 and 8.5

Maximum particle length of six inches (6”), with 100% passing a one-half inch (1/2”) sieve and 0% passing a No. 16 sieve.

EXECUTION: NATURAL AREAS MAINTENANCE: Begin immediately upon final inspection of WILDFLOWER SEEDING (SPECIAL) and WILDFLOWER INTERSEEDING (SPECIAL) work and continue for two (2) full growing seasons until final inspection of the LANDSCAPE MAINTENANCE work. A “growing season” shall be the months of April – November. Maintenance of installations that receive final inspection prior to July 15th will be considered maintenance of one full growing season. Installations receiving final inspection after July 15th will require interim maintenance throughout the remaining growing season plus two (2) full growing seasons of maintenance starting the year following final inspection.

GENERAL CONDITIONS

The Contractor shall keep a log of all maintenance activities performed during the contract period and shall submit it to the Engineer on a monthly basis.

Chemicals used will have the lowest environmental impact for the task at hand. Organic or cultural practices will be used whenever practical.

Contractor shall utilize equipment having low unit pressure ground contact within planting areas. They shall take precautions to ensure that equipment and vehicles do not damage the grading, utilities, structures, or existing trees and shrubs during planting operations. Any damage shall be repaired by the Contractor at no additional cost.

The capacity of the equipment shall be sufficient to perform the work and in the time period as specified herein, and as approved by the Engineer.

Spray mixture tanks shall have sight gauges calibrated in English units for easy measurement, and mechanical or by-pass agitation systems to ensure thorough and continuous mixing of the chemicals.

Spray nozzles shall be selected which are designed to reduce potential herbicide drift. Improved flat fan nozzles or large capacity flooding nozzles shall be used which are capable of delivering up to 100 GPA at pressures of 20-40 PSI.

Pumps shall be capable of delivering up to 100 GPA at pressures of 20-40 PSI, and to keep the spray pattern full and steady without pulsation.

Prior to starting herbicide work, the Contractor shall furnish Illinois Pesticide ID Cards (signed and dated) to the Engineer as visual proof that all personnel on the job are licensed Applicators or Operators by the Illinois Department of Agriculture, Bureau of Environmental Programs under the provisions of the Illinois Pesticide Act. The Illinois Department of Agriculture Aquatics license will be required of the person on site supervising the Operators on using pesticides in standing or running water. The Engineer shall record in the project records books the name and license number of each person. If the personnel on the job do not have the proper license, the job will be postponed until personnel who carry the proper license are on the job, with no extra working days awarded to the Contractor.

Herbicide spraying will not be allowed when temperatures exceed 85°F or are under 45°F, when wind velocities exceed ten (10) miles per hour, when foliage is wet or rain is eminent, when visibility is poor, or during legal holiday periods unless prior approval is received from the Engineer. There shall be no spraying during periods of rainfall and spraying shall be halted, in accordance with the herbicide manufacturer's instructions, prior to periods of rainfall. Spraying shall be in accordance with the applicable portions of Section 107. Within 48 hours of the application of herbicides, the Contractor shall complete and return to the Engineer, IDOT Operations form "OPER 2720", Pesticide Application Daily Spray Record (Rev. 07/06/17).

Damage caused by herbicide applications may require supplemental seed. Site preparation and planting after herbicide applications shall be as per the WILDFLOWER SEEDING (SPECIAL) and/or WILDFLOWER INTERSEEDING (SPECIAL) Special Provisions.

Off-road vehicles shall be equipped with off-road/high flotation tires that allow the vehicle to travel in soft roadside conditions. If the off-road vehicles are not equipped with flotation type tires, the job will be postponed until the equipment can travel the roadside areas without rutting and getting stuck with no extra working days rewarded to the Contractor. The tank on all spray equipment shall be equipped with tight-fitting lids which will prevent the contents from splashing or spilling out. The Contractor will be required to have all equipment in proper working order before starting the job. An inspection of on-road, off-road, and hand-spray units will be done by the Resident Engineer prior to starting any work. If equipment is not working properly, the Contractor will be required to fix the problem prior to starting the contract. The Contractor will be required to demonstrate the calibration of his equipment up to forty-eight (48) hours prior to the time of spraying operations are to begin.

TRACTOR MOWING

All mowing shall be conducted in accordance with all applicable codes and by personnel with appropriate training in safety and in the use of the machinery being utilized.

Tractor mowing shall be conducted with a conventional rotary mower, sickle type mower, or a flail type mower, however in order to reduce thatch, at no time shall more than six (6) inches (height) of vegetation be cut in a pass.

If mowing results in excessive thatch being produced after mowing, the Contractor shall rake, collect and dispose of excessive cut vegetation off-site at no additional cost.

If mowing results in "knock-down" rather than severed vegetation, the Contractor shall re-mow all areas at no additional cost, ensuring that vegetation is severed.

On slopes that are too steep to mow, around structures (trees, fencing, buildings, etc.), and in areas that are too wet to mow, mowing shall be conducted with the use of a hand-held gas-powered brush cutter or walk-behind brush cutter (such as Brush Hog, etc.) only.

Damage caused to landscape material or other structures shall be repaired/replaced by the Contractor at no additional cost.

SPOT MOWING

Spot mowing shall be conducted with the use of a hand-held gas-powered brush cutter and/or walk-behind brush cutters (such as Brush Hog, etc.) targeting areas containing a mix of weed species and mature/flowering desirable native species. Spot mowing shall be utilized to eliminate the reproduction of non-native and non-desirable native species by not allowing the dispersal of seed from those targeted species.

Species targeted for spot mowing shall include removal of plant reproductive parts (e.g. flower stalks, un-developed seed heads, etc.). Spot mowing of perennial species shall be conducted in concert with or shall be followed up with herbicide applications.

Spot-mown vegetative materials shall be left on-site in a manner that will not allow regeneration or seed set of the mown species.

Damage caused to landscape material or other structures shall be repaired/replaced by the Contractor at no additional cost.

MOWING TIMING

Mowing is a key aspect in achieving positive results. Mowing must be conducted by the Contractor on a consistent basis and must respond to seasonal weather. Vegetation shall be high-mown as follows:

First Growing Season: Kept under twelve (12) inches. A minimum of five (5) mowing events will be required.

Second Growing Season: Areas with high annual/biennial weed content shall be kept under twenty-four (24) inches. Areas with scattered annual/biennial weed content and high desirable native content shall be spot mown, ensuring that non-native/weedy species are not allowed to develop viable seed. A minimum of seven (7) mowing events will be required.

A “mowing event” shall be defined as an on-site event where all required mowing activities for the treatment of target species are conducted. A single “event” does not necessarily mean a single “visit” and may include the application of multiple techniques, may include multiple on-site visits and/or may include multiple days.

Mowing shall commence during late May/early June and subsequently two-four weeks apart or any time the planting area grows to a height exceeding the above limitations, any time a large number of weed species begin to flower, or as otherwise directed by the Engineer. Mowing shall be conducted prior to weed species developing viable seed.

It is the Contractor’s responsibility to monitor the site in order to determine when mowing is required. However, if the Engineer determines at any time that the project site requires mowing, they will notify the Contractor. No later than three (3) business days following notification, the Contractor shall conduct the requested mowing.

SPOT HERBICIDE APPLICATIONS

Small scattered populations or individual specimens of undesirable species shall be controlled with spot herbicide applications. Large scale colonization shall not be allowed. The following methods are appropriate:

Backpack Spray Treatments – Contractor shall utilize a 5-gallon backpack style sprayer, such as Birchmeier Senior or equal.

Hand Wicking – In areas of high-quality native vegetation where desirable species are directly adjacent to targeted plants, or where the growth habit of the target plant makes it impossible to avoid off-target damage, the appropriate herbicide shall be selectively wiped onto the target plant utilizing a sponge-wicking applicator or a cloth glove saturated with herbicide worn over an appropriate chemical resistant glove (a common technique referred to as “hand-wicking”).

BROADCAST HERBICIDE APPLICATIONS

Where a broad-scale application is needed because large colonies of the target species have become established, broadcast applications by large tank-equipped spray-gun, all-terrain vehicle (ATV) or tractor may be utilized to treat undesirable species. All broadcast herbicide applications must be approved by the Engineer prior to implementation, the following methods are appropriate:

Broad-Spectrum Herbicide Broadcast Application – This method utilizes a large tank-equipped spray-gun and/or an ATV or tractor equipped with a boom-sprayer to apply large amounts of AquaNeat or equal, which will result in complete kill of all vegetation.

Selective Herbicide Broadcast Application – This method utilizes a large tank-equipped spray-gun and/or an ATV or tractor equipped with a boom-sprayer to apply large amounts of a selective herbicide, such as Volunteer or equal, resulting in a complete kill of only those targeted species.

A “large colony of target species” shall be defined as a target plant population whose aerial coverage is such that a broad-spectrum chemical can be broadcast without inflicting any damage to adjacent native vegetation.

HERBICIDE APPLICATION TIMING

Herbicide applications must be conducted by the Contractor on a consistent basis and must respond to seasonal weather and to the life-cycle of each target species. The Contractor shall conduct a minimum of seven (7) herbicide application events to treat non-native and weedy vegetation. An “application event” shall be defined as an on-site herbicide application event where all required herbicide activities for the treatment of target species are conducted. A single “event” does not necessarily mean a single “visit” and may include the application of multiple products, may include multiple on-site visits and/or may include multiple days.

HAND WEEDING

In the event that herbicide applications cannot, or should not, be performed due to social, cultural, environmental, or as otherwise directed by the Engineer, target weed species shall be removed by hand.

Species targeted for complete hand weeding shall include removal of all plant parts from the soil, including the above ground growth and all roots or rhizomes present in the ground.

Species targeted for partial hand weeding shall include removal of plant reproductive parts (e.g., seed heads). Partial hand weeding shall be conducted in concert with or shall be followed up with herbicide applications.

Removed vegetative materials shall be discarded off-site, unless the Engineer authorizes the materials to be left on-site in a manner that will not cause a messy appearance and will not allow regeneration or seed set of the removed species.

Hand weeding shall never result in excessive soil disturbance.

TREATMENT OF WOODY SPECIES

The Contractor shall conduct woody species herbicide treatments to all re-sprouts, re-growth, or other remaining live plants of all non-native or weedy species throughout maintenance operations until performance criteria have been achieved.

Woody species treatment methods during the growing season may be a foliar application using an appropriate herbicide, such as Garlon 3A or equal.

Woody species herbicide treatments during the dormant season may be applied with cut-stem and/or basal bark application using an appropriate herbicide, such as Garlon 4 Ultra or equal.

Cut-Stump Treatment: Chain saws, brush clearing saws, handsaws and loppers may be used to cut the target woody species. Upon approval by the Engineer, small walk behind mower-type brush cutters may be utilized provided that their use does not result in rutting or pitting of the soil while in operation. After cutting down the target species apply Garlon 4 Ultra or equal in a 20-30% solution in basal oil, to the stump. *Lonicera spp.* shall be treated with AquaNeat or equal in a non-diluted, full-strength concentration to the stump. Treat the cut area around the edge with herbicide so the cambium layer will take up the active ingredient. Herbicide shall be applied immediately after cutting.

Basal Bark Treatment: Apply Garlon 4 Ultra or equal in a 20-30% solution in basal oil directly to the trunk of the woody target species that are one inch or less at the base. *Lonicera spp.* shall be treated with AquaNeat or equal in a non-diluted, full-strength concentration. Apply herbicide directly to the tree trunk, around the entire circumference, at 6" above the soil until thoroughly wet near the ground plane but not to the point of runoff. Apply during dormancy, except when snow or water prevents spraying to the ground plane. Optimal results are achieved when applications are made to young stems which have not developed the thicker bark characteristic of slower growing older trees.

Wherever possible herbicide applications to woody species shall be accomplished by utilizing wick or sponge-type applicators.

Disposal of cuttings and other materials shall be completed simultaneously with the initial woody species herbicide treatment(s).

All cuttings longer than one (1) foot in length and/or larger than one (1) inch in diameter shall be removed from the project site. Smaller cuttings and cutting debris that have been shredded or chipped by the use of hand-held mechanical equipment may be left on site. Cuttings and cutting debris shall not be allowed to accumulate to a depth that will smother existing desirable native species, prevent existing desirable native species from emerging or prevent good seed-to-soil contact in newly seeded areas (approximately one-half inch (1/2") maximum depth).

EXECUTION: LANDSCAPE BED MAINTENANCE: Begin immediately upon final inspection of TREE, SHRUB, EVERGREEN, and PERENNIAL PLANTS work and continue for two (2) full growing seasons until final inspection. A "growing season" shall be the months of April – November. Maintenance of installations that receive final inspection prior to July 15th will be considered maintenance of one full growing season. Installations receiving final inspection after July 15th will require interim maintenance throughout the remaining growing season plus two (2) full growing seasons of maintenance starting the year following final inspection.

GENERAL CONDITIONS

Same as for "Natural Areas Maintenance" above.

MULCH MANAGEMENT

Landscape beds shall receive a new mulch dressing by May 1st of each growing season. Mulch dressing shall be Composted Leaf Mulch applied at a minimum of one (1) inch thick.

Landscape bed mulch shall be turned over a minimum of two (2) times per growing season, or as otherwise directed by the Engineer.

EDGING

Landscaped beds shall be edged during the first maintenance visit and as otherwise necessary throughout each growing season. A minimum of three (3) landscape bed edging occurrences shall be conducted each growing season; the Engineer may require additional edging.

PRUNING AND DEAD-HEADING

Planted trees and shrubs shall be pruned a minimum of three (3) times per growing season to remove dead or damaged branches, to develop a natural form and improve the health of the plant.

Spent flower heads of perennial flowering plants shall be removed a minimum of three (3) times per growing season.

Pruning and dead-head debris shall be discarded off-site.

All herbaceous plant material (flowers and grasses) shall be cut back to ground level and removed from the site by November 30th of each growing season, unless otherwise directed by the Engineer.

HERBICIDE APPLICATIONS – PRE-EMERGENT

Granular Pre-Emergent Herbicide Broadcast Application utilizes a hand-held broadcast spreader to apply granular pre-emergence herbicide products without selectivity. Ensure that granular herbicide application equipment is properly calibrated prior to beginning work. Some pre-emergent herbicides must be worked into the mulch and/or watered-in after application, Contractor shall apply according to the product label.

Pre-emergent herbicide applications must be conducted by the Contractor on a consistent basis and must respond to seasonal weather. Pre-emergent herbicide applications are required within all landscape beds, they must not be applied to seeded areas.

A minimum of three (3) pre-emergent herbicide application events will be required within all landscape beds each growing season. The first shall be in conjunction with the annual mulch dressing, the other two shall be applied after each time the mulch is turned over. An “application event” shall be defined as an on-site herbicide application event where all required herbicide activities for the treatment of target species are conducted. A single “event” does not necessarily mean a single “visit” and may include the application of multiple products, may include multiple on-site visits and/or may include multiple days.

HERBICIDE APPLICATION – POST-EMERGENT

Small scattered populations or individual specimens of undesirable species within landscape beds shall be controlled with spot herbicide applications. Large scale colonization shall not be allowed.

Backpack Spray Treatments – Contractor shall utilize a 5-gallon backpack style sprayer, such as Birchmeier Senior or equal.

Post-emergent herbicide applications shall be conducted by the Contractor on a consistent basis and must respond to seasonal weather and to the life-cycle of each target species.

A minimum of four (4) herbicide application events will be required each growing season. Hand weeding target species within landscape beds will fulfill a required application event, see the "Hand Weeding" section of this document. An "application event" shall be defined as an on-site herbicide application event where all required herbicide activities for the treatment of target species are conducted. A single "event" does not necessarily mean a single "visit" and may include the application of multiple products, may include multiple on-site visits and/or may include multiple days.

HAND WEEDING

In the event that weed content exceeds a height of four (4) inches, exceeds ten percent (10%) coverage of the landscape bed and/or herbicide applications cannot, or should not, be performed due to social, cultural, environmental, or other verified reasons, target weed species shall be removed by hand:

A minimum of twelve (12) hand weeding events will be required within landscape areas each growing season. A "hand weeding event" shall be defined as an on-site event where all weeds within the landscape beds are pulled and/or cut as defined herein. A single "event" does not necessarily mean a single "visit" and may include multiple on-site visits and/or may include multiple days.

Species targeted for complete hand weeding shall include removal of all plant parts from the soil, including the above ground growth and all roots or rhizomes present in the ground. Removed vegetative materials shall be discarded off-site.

Species targeted for partial hand weeding shall include removal of plant reproductive parts (e.g., seed heads) to be discarded off-site. Partial hand weeding shall be conducted in concert with or shall be followed up with herbicide applications.

Hand weeding of landscape beds shall occur as often as necessary to ensure that landscape beds appear neat, tidy, and weed-free.

FERTILIZERS AND SOIL AMENDMENTS

Landscape bed fertilizer applications and/or soil amendments shall be based upon soil test results. Contractor shall test the soils twice each growing season, once in March and once in August.

Soil testing professional shall be: Dirt-N-Turf Consulting, Inc.
Contact: David Marquardt, BSPC
PH: 630-251-1511
e-mail: dave@dir-n-turf.com

- or equal

Submit soil test results and corresponding fertilizer/amendment recommendations to the Engineer within thirty (30) days of sampling.

Implement recommended fertilizer/amendment applications within fourteen (14) days of submitting soil test results or as otherwise directed by the Engineer. Typically, fertilizer/amendment applications shall be implemented in either spring or fall when rainfall is anticipated, if applications are recommended outside of this timeframe supplemental watering may be required.

OVERSEEDING AND RE-PLANTING

Overseeding or re-planting in areas of herbicide application and/or in under-performing areas may be necessary for compliance with the performance section of this document.

If over-seeding is required to meet performance criteria, site preparation and seed installation shall follow the Special Provisions for WILDFLOWER SEEDING (SPECIAL) and WILDFLOWER INTERSEEDING (SPECIAL).

PERFORMANCE CRITERIA FOR WILDFLOWER SEEDING AND INTERSEEDING: Measures of species dominance, richness, coverage, composition, and/or distribution shall be determined by the Engineer.

Throughout the maintenance term:

Zero (0) aggressive native species, non-native species, nor invasive species shall be allowed to become established on the site and/or be allowed to colonize.

With the exception of planted cover crops, none of the top five (5) dominant species within any planting area shall be aggressive native, non-native or invasive species (See Appendix-A). Dominance shall be determined by ocular assessment using meander methodology.

Within three (3) months of seed installation or by June 1st of the following year if seed installation is completed in the fall:

Total vegetative aerial cover in all areas seeded with cover crop shall be greater to or equal than seventy-five percent (75%) as measured using meander methodology.

By the end of the first (1st) growing season, in addition to fulfilling the above:

Total vegetative aerial cover in all WILDFLOWER SEEDING AND INTERSEEDING areas shall be greater to or equal to ninety percent (90%) as measured using meander methodology.

Twenty-five percent (25%) of the WILDFLOWER SEEDING AND INTERSEEDING species installed within each plant community shall be alive and apparent.

By the end of the second (2nd) growing season, in addition to fulfilling the above:

There shall be no area(s) greater than 0.25 m² that is devoid of vegetation.

There shall be no rills, gullies or other evidence of significant or on-going erosion or areas of high erosion potential present throughout the project area.

Fifty percent (50%) of the WILDFLOWER SEEDING AND INTERSEEDING species installed within each plant community shall be alive and apparent.

Native vegetative aerial cover within WILDFLOWER SEEDING AND INTERSEEDING planting areas shall be at least seventy-five percent (75%) as measured using meander methodology and ocular assessment.

To ensure species richness at the local level, any given square meter (1.0 m²) within WILDFLOWER SEEDING AND INTERSEEDING planting areas shall contain a minimum of three (3) different acceptable species and shall include at least one (1) species seeded as specified.

The following standards shall be achieved for each plant community:

Basic Prairie Seed Mix for Dry-Mesic Soils (Non-Sandy Soil)

Total FQI – 5.9
Total Mean C Value – 2.2
Native FQI – 7.8
Native Mean C Value – 3.7

Basic Prairie Seed Mix for Mesic-Wet Soils (Non-Sandy Soil)

Total FQI – 8.3
Total Mean C Value – 2.2
Native FQI – 11.0
Native Mean C Value – 3.6

Basic Savanna/Open Woodland Seed Mix for Dry-Mesic Soils (Non-Sandy Soil)
[Values exclude data for existing trees]

Total FQI – 8.0
Total Mean C Value – 2.4
Native FQI – 10.7
Native Mean C Value – 4.1

Basic Savanna/Open Woodland Seed Mix for Mesic-Wet Soils (Non-Sandy Soil)
[Values exclude data for existing trees]

Total FQI – 8.9
Total Mean C Value – 2.4
Native FQI – 11.8
Native Mean C Value – 3.9

REMEDIATION

If native planting areas fail to meet the terms of the performance criteria described above, the Contractor shall develop and submit to the Engineer, a remedial action plan that takes into consideration the site goals and specific deficiencies causing the remedial action. Contractor will implement the approved remedial action plan and submit a report that describes the remedial action taken. If remedial seeding or planting is required, the Contractor will not be required to perform additional remedial seeding or planting in the same area for a minimum of one growing season. After one full growing season following the remedial planting, the performance criteria must be met or additional remedial action must be taken. Final acceptance shall not be granted until all planting areas meet performance criteria and/or meets the stated intent of this provision.

RESTRICTIONS: Storage of materials shall be prohibited within environmentally sensitive areas as determined by the Engineer.

Herbicide applications shall be restricted to hand spraying within one hundred (100) feet from waterways and within fifteen (15) feet of landscape beds and existing trees.

METHOD OF MEASUREMENT: This work will be measured for payment based on the number of calendar months in each growing season (8 MONTHS, APRIL-NOVEMBER).

The completion of a calendar month of work shall be based on the number of Contractor visits, work completed, and materials used according to the Contractor's proposed maintenance schedule and as determined in the field by the Engineer.

BASIS OF PAYMENT: This work will be paid for at the contract unit price per Calendar Month for LANDSCAPE MAINTENANCE.

APPENDIX A – LIST OF TARGET WEED SPECIES (NON-NATIVE, WEEDY NATIVE, AND INVASIVE SPECIES)

It is the responsibility of the Contractor to locate, identify, and eradicate any species that may endanger the successful establishment and long-term health of the specified native plant communities within the project area/site. Following is a list of common invasive, weedy and aggressive native species typically encountered during ecological restoration efforts that can inhibit the successful establishment of desirable native species. This list is not representative of the site and should not be considered an inventory. The listed species shall at no time be allowed to dominate any portion of the project site.

Acer negundo	BOXELDER ³
Acer platanoides	NORWAY MAPLE
Achillea spp.	YARROW ³
Aegopodium podagraria	GOUTWEED
Agrostis gigantea	REDTOP
Agrostis stolonifera	CREEPING BENTGRASS ³
Ailanthus altissima	TREE OF HEAVEN
Alliaria petiolata	GARLIC MUSTARD
Alnus glutinosa	EUROPEAN BLACK ALDER
Ambrosia artemisiifolia	COMMON RAGWEED ^{1,3}
Ambrosia trifida	GIANT RAGWEED ^{1,3}
Anthriscus sylvestris	WILD CHERVIL
Arctium minus	COMMON BURDOCK
Berberis thunbergii	JAPANESE BARBERRY
Brassica nigra	BLACK MUSTARD ²
Bromus inermis	SMOOTH BROME
Bromus tectorum	DOWNY BROME
Butomus umbellatus	FLOWERING RUSH
Cannabis sativa	MARIJUANA ¹
Carduus nutans	MUSK THISTLE ¹
Celastrus orbiculatus	ASIAN BITTERSWEET ¹
Centaurea maculosa	SPOTTED KNAPWEED
Chenopodium album	LAMB'S QUARTERS ²
Cirsium arvense	CANADA THISTLE ¹

<i>Cirsium vulgare</i>	BULL THISTLE
<i>Conium maculatum</i>	POISON HEMLOCK ¹
<i>Cornus racemosa</i>	GRAY DOGWOOD ³
<i>Cynanchum louiseae</i>	BLACK SWALLOW-WORT
<i>Cynanchum rossicum</i>	PALE SWALLOW-WORT
<i>Cyperus esculentus</i>	YELLOW NUTSEDGE ³
<i>Dactylis glomerata</i>	ORCHARDGRASS
<i>Daucus carota</i>	QUEEN ANNE'S LACE ²
<i>Dioscorea oppositifolia</i>	CHINESE YAM
<i>Dipsacus</i> spp.	TEASEL ¹
<i>Echinochloa crus-galli</i>	BARNYARD GRASS
<i>Egeria densa</i>	BRAZILIAN WATERWEED
<i>Eichhornia crassipes</i>	WATER HYACINTH
<i>Elaeagnus angustifolia</i>	RUSSIAN OLIVE ¹
<i>Elaeagnus pungens</i>	THORNY OLIVE ¹
<i>Elaeagnus umbellata</i>	AUTUMN OLIVE ¹
<i>Elymus repens</i>	QUACKGRASS
<i>Erigeron canadensis</i>	MARE'S TAIL ³
<i>Erigeron annuus</i>	ANNUAL FLEABANE ³
<i>Erigeron strigosus</i>	DAISY FLEABANE ³
<i>Euonymus alatus</i>	BURNING BUSH
<i>Euonymus fortunei</i>	WINTERCREEPER
<i>Euphorbia esula</i>	LEAFY SPURGE
<i>Fallopia japonica</i>	JAPANESE KNOTWEED ¹
<i>Fallopia sachalinensis</i>	GIANT KNOTWEED ¹
<i>Fallopia × bohemica</i>	BOHEMIAN KNOTWEED ¹
<i>Frangula alnus</i>	GLOSSY BUCKTHORN
<i>Hedera helix</i>	ENGLISH IVY
<i>Hemerocallis fulva</i>	ORANGE DAYLILY
<i>Heracleum mantegazzianum</i>	GIANT HOGWEED ¹
<i>Hesperis matronalis</i>	DAMES ROCKET
<i>Humulus japonicus</i>	JAPANESE HOPS
<i>Hydrilla verticillata</i>	HYDRILLA
<i>Hydrocharis morsus-ranae</i>	EUROPEAN FROGBIT
<i>Hypericum perforatum</i>	COMMON ST. JOHN'S WORT
<i>Ipomoea purpurea</i>	MORNING GLORY ²
<i>Iris pseudacorus</i>	YELLOW IRIS
<i>Lespedeza cuneata</i>	SERICEA LESPEDEZA
<i>Ligustrum</i> spp. (non-native)	PRIVET (non-native)
<i>Lolium multiflorum</i>	ANNUAL RYE/ITALIAN RYEGRASS
<i>Lonicera</i> spp.	HONEYSUCKLE (non-native) ¹
<i>Lotus corniculatus</i>	BIRDS FOOT TREFOIL
<i>Lysimachia nummularia</i>	MONEYWORT
<i>Lythrum salicaria</i>	PURPLE LOOSESTRIFE
<i>Marsilea quadrifolia</i>	EUROPEAN WATERCLOVER

<i>Medicago lupulina</i>	BLACK MEDIC
<i>Medicago sativa</i>	ALFALFA
<i>Melilotus albus</i>	WHITE SWEET CLOVER
<i>Melilotus officinalis</i>	YELLOW SWEET CLOVER
<i>Microstegium vimineum</i>	JAPANESE STILTGRASS
<i>Morus alba</i>	WHITE MULBERRY
<i>Myosotis sylvatica</i>	GARDEN FORGET-ME-NOT
<i>Myriophyllum aquaticum</i>	PARROT FEATHER
<i>Myriophyllum spicatum</i>	EURASIAN WATERMILFOIL
<i>Myosotis scorpioides</i>	WATER FORGET-ME-NOT
<i>Najas minor</i>	BRITTLE WATERNYMPH
<i>Nepeta cataria</i>	CATNIP
<i>Nymphoides peltata</i>	YELLOW FLOATING HEART
<i>Oenothera biennis</i>	EVENING PRIMROSE ³
<i>Onopordum acanthium</i>	SCOTCH THISTLE
<i>Pastinaca sativa</i>	WILD PARSNIP
<i>Phalaris arundinacea</i>	REED CANARY GRASS
<i>Phragmites australis</i> (non-native)	COMMON REED (non-native)
<i>Pistia stratiotes</i>	WATER LETTUCE
<i>Poa pratensis</i>	KENTUCKY BLUEGRASS
<i>Populus alba</i>	WHITE POPLAR
<i>Populus deltoides</i>	COTTONWOOD ³
<i>Potamogeton crispus</i>	CURLY-LEAF PONDWEED
<i>Pueraria montana</i> var. <i>lobata</i>	KUDZU ¹
<i>Ranunculus ficaria</i>	LESSER CELANDINE ¹
<i>Rhamnus cathartica</i>	COMMON BUCKTHORN
<i>Robinia pseudoacacia</i>	BLACK LOCUST
<i>Rorippa nasturtium</i>	WATERCRESS
<i>Rumex acetosella</i>	SHEEP SORREL
<i>Rumex crispus</i>	CURLY DOCK
<i>Rosa multiflora</i>	MULTIFLORA ROSE
<i>Rubus</i> spp.	RASPBERRY/BLACKBERRY ³
<i>Salix interior</i>	SANDBAR WILLOW ³
<i>Saponaria officinalis</i>	BOUNCING BET
<i>Schedonorus arundinaceus</i>	TALL FESCUE
<i>Securigaria varia</i>	CROWN VETCH
<i>Setaria</i> spp.	FOXTAIL/MILLET ²
<i>Silene latifolia</i> var. <i>alba</i>	BLADDER CAMPION
<i>Solidago altissima</i>	TALL GOLDENROD ³
<i>Solidago canadensis</i>	CANADA GOLDENROD ³
<i>Solidago sempervirens</i>	SEASIDE GOLDENROD
<i>Sonchus arvensis</i>	PERENNIAL SOWTHISTLE ¹
<i>Sorghum alnum</i>	COLUMBUS GRASS ¹
<i>Sorghum halepense</i>	JOHNSONGRASS ¹
<i>Symphotrichum lateriflorum</i>	SIDE FLOWERING ASTER ³

<i>Symphotrichum pilosum</i>	HAIRY ASTER ³
<i>Tamarix</i> spp.	SALT CEDAR ¹
<i>Tanacetum vulgare</i>	COMMON TANSY
<i>Taraxacum officinalis</i>	COMMON DANDELION ²
<i>Thlaspi arvense</i>	FIELD PENNYCRESS ²
<i>Torilis japonica</i>	JAPANESE HEDGE PARSLEY
<i>Toxicodendron radicans</i>	POISON IVY ³
<i>Trifolium pratense</i>	RED CLOVER ²
<i>Trifolium repens</i>	WHITE CLOVER ²
<i>Typha angustifolia</i>	NARROWLEAF CATTAIL ³
<i>Typha latifolia</i>	COMMON CATTAIL ³
<i>Ulmus pumila</i>	SIBERIAN ELM
<i>Verbascum blattaria</i>	MOTH MULLEIN ²
<i>Verbascum thapsus</i>	COMMON MULLEIN ²
<i>Vinca minor</i>	PERIWINKLE
<i>Xanthium strumarium</i>	ROUGH COCKLEBUR

¹Species classified as a Noxious Weed in the State of Illinois as of the date of this document

²Species considered common weeds requiring control, not specifically considered invasive

³Species considered native (or questionably native) in the State of Illinois, but often has an aggressive growth behavior that may require control on a case-by-case basis.

APPENDIX B – GLOSSARY OF TERMS USED IN THIS SPECIAL PROVISION

Acceptable Species: Vegetative species that have been seeded or planted as specified and/or volunteer native species with a C-value of 2 or greater, except for any of those species listed in Appendix-A.

Aerial coverage: The vegetation covering the ground surface above the ground surface; including all leaves, stems, flower parts, etc. Aerial coverage can be visualized by considering a bird's-eye view of the vegetation.

Cover: The vertical projection of vegetation from the ground as viewed from above.

Density: Numbers of individuals or stems per unit area.

Dominant Species: Plant species or species groups, which by means of their number, coverage or size, have considerable influence or control upon the conditions or existence of associated species.

Erosion: The washing away or dislodging of soil by water, wind or ice.

Established: Establish is defined in botany as a species being allowed to thrive and reproduce.

Growing Season: The part of a calendar year during which rainfall and temperature allow plants to grow. In the Midwest the growing season typically occurs between the months of April thru October or November.

Invasive Species: An undesirable species of plant or animal, often non-native, that competes with desirable, native plants and animals for light, space, water, food and nutrients. An invasive species, left untreated, will destroy the integrity of an ecosystem and will often become the only plant or animal inhabiting a particular landscape.

Native Species: 1) an indigenous species that is normally found as part of a particular ecosystem; 2) a species that was present in a defined North American area prior to European settlement.

Ocular Assessment: The act of making a professional judgment about something based on what is physically seen by the observer's eyes.

Plant Community: A group of plants that need a particular set of environmental conditions (i.e., light, soil type, moisture) in order to thrive. Examples include dry prairie, mesic prairie, wet prairie, wetland, emergent, savanna, dry-mesic woodland, etc.

Planting Area: The physical area(s) of a project site receiving site preparation, planting and/or stewardship activities. A plant community may consist of multiple planting areas.

Vigorous: Well-rooted in soil and displaying healthy, strong vegetative growth.

Weedy Native: A native species that displays weedy characteristics, such as: 1.) an excessive growth habit that may inhibit the healthy growth of other more desirable native species; 2.) the ability to produce an abundance of seed, spread rapidly, and inhibit the healthy growth of other more desirable native species; 3.) an extensive root system or other vegetative structure that spreads aggressively above or below ground; 4.) the ability to produce chemicals that are toxic to surrounding plants (allelopathy); or 5.) a poor aesthetic or appearance.

SUPPLEMENTAL WATERING

DESCRIPTION: This work shall consist of additional watering applications to planting beds regularly for eight (8) continuous weeks following installation. This replaces the watering requirement of Standard Specification section 254.08 Period of Establishment.

MATERIALS: Potable water shall be used on the contract. No water will be allowed to be pumped from nearby creeks, ponds, or other bodies of water. The Contractor shall provide a list of source locations where the potable water will be obtained to the Engineer at the pre-construction conference. All proposed sources of water shall be approved by the Engineer prior to installing plants.

EXECUTION: Additional applications of water shall be performed at least three (3) times within every seven (7) days for eight (8) weeks following installation. Water shall be applied at the rate of two (2) gallons per square yard (9 liters per square meter), covering every square yard of every planting bed during each application. Should excess moisture prevail, the Engineer may delete any or all of the additional watering cycles. In severe weather, the Engineer may require additional watering.

Watering of plants in beds shall be applied in such a manner that all plant holes are uniformly saturated without allowing the water to flow beyond the periphery of the bed.

METHOD OF MEASUREMENT: This work will be measured for payment per application.

Watering will be verified in the field by the Engineer.

BASIS OF PAYMENT: This work will be paid for at the contract unit price per unit for SUPPLEMENTAL WATERING.

COMPENSABLE DELAY COSTS (BDE)

Effective: June 2, 2017

Revised: April 1, 2019

Revise Article 107.40(b) of the Standard Specifications to read:

“(b) Compensation. Compensation will not be allowed for delays, inconveniences, or damages sustained by the Contractor from conflicts with facilities not meeting the above definition; or if a conflict with a utility in an unanticipated location does not cause a shutdown of the work or a documentable reduction in the rate of progress exceeding the limits set herein. The provisions of Article 104.03 notwithstanding, compensation for delays caused by a utility in an unanticipated location will be paid according to the provisions of this Article governing minor and major delays or reduced rate of production which are defined as follows.

- (1) Minor Delay. A minor delay occurs when the work in conflict with the utility in an unanticipated location is completely stopped for more than two hours, but not to exceed two weeks.
- (2) Major Delay. A major delay occurs when the work in conflict with the utility in an unanticipated location is completely stopped for more than two weeks.
- (3) Reduced Rate of Production Delay. A reduced rate of production delay occurs when the rate of production on the work in conflict with the utility in an unanticipated location decreases by more than 25 percent and lasts longer than seven calendar days.”

Revise Article 107.40(c) of the Standard Specifications to read:

“(c) Payment. Payment for Minor, Major, and Reduced Rate of Production Delays will be made as follows.

- (1) Minor Delay. Labor idled which cannot be used on other work will be paid for according to Article 109.04(b)(1) and (2) for the time between start of the delay and the minimum remaining hours in the work shift required by the prevailing practice in the area.

Equipment idled which cannot be used on other work, and which is authorized to standby on the project site by the Engineer, will be paid for according to Article 109.04(b)(4).

- (2) Major Delay. Labor will be the same as for a minor delay.

Equipment will be the same as for a minor delay, except Contractor-owned equipment will be limited to two weeks plus the cost of move-out to either the Contractor’s yard or another job and the cost to re-mobilize, whichever is less. Rental equipment may be paid for longer than two weeks provided the Contractor presents adequate support to the Department (including lease agreement) to show retaining equipment on the job is the most economical course to follow and in the public interest.

- (3) Reduced Rate of Production Delay. The Contractor will be compensated for the reduced productivity for labor and equipment time in excess of the 25 percent threshold for that portion of the delay in excess of seven calendar days. Determination of compensation will be in accordance with Article 104.02, except labor and material additives will not be permitted.

Payment for escalated material costs, escalated labor costs, extended project overhead, and extended traffic control will be determined according to Article 109.13.”

Revise Article 108.04(b) of the Standard Specifications to read:

“(b) No working day will be charged under the following conditions.

- (1) When adverse weather prevents work on the controlling item.
- (2) When job conditions due to recent weather prevent work on the controlling item.
- (3) When conduct or lack of conduct by the Department or its consultants, representatives, officers, agents, or employees; delay by the Department in making the site available; or delay in furnishing any items required to be furnished to the Contractor by the Department prevents work on the controlling item.
- (4) When delays caused by utility or railroad adjustments prevent work on the controlling item.
- (5) When strikes, lock-outs, extraordinary delays in transportation, or inability to procure critical materials prevent work on the controlling item, as long as these delays are not due to any fault of the Contractor.
- (6) When any condition over which the Contractor has no control prevents work on the controlling item.”

Revise Article 109.09(f) of the Standard Specifications to read:

“(f) Basis of Payment. After resolution of a claim in favor of the Contractor, any adjustment in time required for the work will be made according to Section 108. Any adjustment in the costs to be paid will be made for direct labor, direct materials, direct equipment, direct jobsite overhead, direct offsite overhead, and other direct costs allowed by the resolution. Adjustments in costs will not be made for interest charges, loss of anticipated profit, undocumented loss of efficiency, home office overhead and unabsorbed overhead other than as allowed by Article 109.13, lost opportunity, preparation of claim expenses and other consequential indirect costs regardless of method of calculation.

The above Basis of Payment is an essential element of the contract and the claim cost recovery of the Contractor shall be so limited.”

Add the following to Section 109 of the Standard Specifications.

“109.13 Payment for Contract Delay. Compensation for escalated material costs, escalated labor costs, extended project overhead, and extended traffic control will be allowed when such costs result from a delay meeting the criteria in the following table.

Contract Type	Cause of Delay	Length of Delay
Working Days	Article 108.04(b)(3) or Article 108.04(b)(4)	No working days have been charged for two consecutive weeks.
Completion Date	Article 108.08(b)(1) or Article 108.08(b)(7)	The Contractor has been granted a minimum two week extension of contract time, according to Article 108.08.

Payment for each of the various costs will be according to the following.

- (a) Escalated Material and/or Labor Costs. When the delay causes work, which would have otherwise been completed, to be done after material and/or labor costs have increased, such increases will be paid. Payment for escalated material costs will be limited to the increased costs substantiated by documentation furnished by the Contractor. Payment for escalated labor costs will be limited to those items in Article 109.04(b)(1) and (2), except the 35 percent and 10 percent additives will not be permitted.
- (b) Extended Project Overhead. For the duration of the delay, payment for extended project overhead will be paid as follows.
 - (1) Direct Jobsite and Offsite Overhead. Payment for documented direct jobsite overhead and documented direct offsite overhead, including onsite supervisory and administrative personnel, will be allowed according to the following table.

Original Contract Amount	Supervisory and Administrative Personnel
Up to \$5,000,000	One Project Superintendent
Over \$ 5,000,000 - up to \$25,000,000	One Project Manager, One Project Superintendent or Engineer, and One Clerk
Over \$25,000,000 - up to \$50,000,000	One Project Manager, One Project Superintendent, One Engineer, and One Clerk
Over \$50,000,000	One Project Manager, Two Project Superintendents, One Engineer, and One Clerk

(2) Home Office and Unabsorbed Overhead. Payment for home office and unabsorbed overhead will be calculated as 8 percent of the total delay cost.

(c) Extended Traffic Control. Traffic control required for an extended period of time due to the delay will be paid for according to Article 109.04.

When an extended traffic control adjustment is paid under this provision, an adjusted unit price as provided for in Article 701.20(a) for increase or decrease in the value of work by more than ten percent will not be paid.

Upon payment for a contract delay under this provision, the Contractor shall assign subrogation rights to the Department for the Department's efforts of recovery from any other party for monies paid by the Department as a result of any claim under this provision. The Contractor shall fully cooperate with the Department in its efforts to recover from another party any money paid to the Contractor for delay damages under this provision."

DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION (BDE)

Effective: September 1, 2000

Revised: March 2, 2019

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

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

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

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

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

OVERALL GOAL SET FOR THE DEPARTMENT. As a requirement of compliance with 49 CFR Part 26, the Department has set an overall goal for DBE participation in its federally assisted contracts. That goal applies to all federal-aid funds the Department will expend in its federally assisted contracts for the subject reporting fiscal year. The Department is required to make a good faith effort to achieve the overall goal. The dollar amount paid to all approved DBE companies performing work called for in this contract is eligible to be credited toward fulfillment of the Department's overall goal.

CONTRACT GOAL TO BE ACHIEVED BY THE CONTRACTOR. This contract includes a specific DBE utilization goal established by the Department. The goal has been included because the Department has determined the work of this contract has subcontracting opportunities that may be suitable for performance by DBE companies. The determination is based on an assessment of the type of work, the location of the work, and the availability of DBE companies to do a part of the work. The assessment indicates, in the absence of unlawful discrimination and in an arena of fair and open competition, DBE companies can be expected to perform 0.00% of the work. This percentage is set as the DBE participation goal for this contract. Consequently, in addition to the other award criteria established for this contract, the Department will only award this contract to a bidder who makes a good faith effort to meet this goal of DBE participation in the performance of the work. A bidder makes a good faith effort for award consideration if either of the following is done in accordance with the procedures set for in this Special Provision:

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

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

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

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

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

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

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

- (a) The following is a list of types of action that the Department will consider as part of the evaluation of the bidder’s good faith efforts to obtain participation. These listed factors are not intended to be a mandatory checklist and are not intended to be exhaustive. Other factors or efforts brought to the attention of the Department may be relevant in appropriate cases and will be considered by the Department.
 - (1) Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBE companies that have the capability to perform the work of the contract. The bidder must solicit this interest within sufficient time to allow the DBE companies to respond to the solicitation. The bidder must determine with certainty if the DBE companies are interested by taking appropriate steps to follow up initial solicitations.

- (2) Selecting portions of the work to be performed by DBE companies in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the Contractor might otherwise prefer to perform these work items with its own forces.
- (3) Providing interested DBE companies with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.
- (4) a. Negotiating in good faith with interested DBE companies. It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBE companies that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBE companies to perform the work.
 - b. A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBE companies is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also the ability or desire of a bidder to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Bidders are not, however, required to accept higher quotes from DBE companies if the price difference is excessive or unreasonable. In accordance with the above Bidding Procedures, the documentation of good faith efforts must include copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor was selected over a DBE for work on the contract.
- (5) Not rejecting DBE companies as being unqualified without sound reasons based on a thorough investigation of their capabilities. The bidder's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the bidder's efforts to meet the project goal.
- (6) Making efforts to assist interested DBE companies in obtaining bonding, lines of credit, or insurance as required by the recipient or Contractor.
- (7) Making efforts to assist interested DBE companies in obtaining necessary equipment, supplies, materials, or related assistance or services.

- (8) Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBE companies.
- (b) If the Department determines the bidder has made a good faith effort to secure the work commitment of DBE companies to meet the contract goal, the Department will award the contract provided it is otherwise eligible for award. If the Department determines the bidder has failed to meet the requirements of this Special Provision or that a good faith effort has not been made, the Department will notify the responsible company official designated in the Utilization Plan that the bid is not responsive. The notification will also include a statement of reasons for the adverse determination. If the Utilization Plan is not approved because it is deficient as a technical matter, unless waived by the Department, the bidder will be notified and will be allowed no more than a five calendar day period to cure the deficiency.
- (c) The bidder may request administrative reconsideration of an adverse determination by emailing the Department at "DOT.DBE.UP@illinois.gov" within the five calendar days after the receipt of the notification of the determination. The determination shall become final if a request is not made on or before the fifth calendar day. A request may provide additional written documentation or argument concerning the issues raised in the determination statement of reasons, provided the documentation and arguments address efforts made prior to submitting the bid. The request will be reviewed by the Department's Reconsideration Officer. The Reconsideration Officer will extend an opportunity to the bidder to meet in person to consider all issues of documentation and whether the bidder made a good faith effort to meet the goal. After the review by the Reconsideration Officer, the bidder will be sent a written decision within ten working days after receipt of the request for reconsideration, explaining the basis for finding that the bidder did or did not meet the goal or make adequate good faith efforts to do so. A final decision by the Reconsideration Officer that a good faith effort was made shall approve the Utilization Plan submitted by the bidder and shall clear the contract for award. A final decision that a good faith effort was not made shall render the bid not responsive.

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

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

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

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

- (1) The replacement work will be performed by the same DBE (as long as the DBE is certified in the respective item of work) in a modification of the condition of award; or
 - (2) The DBE is aware its work will be deleted or will experience underruns and has agreed in writing to the change. If this occurs, the Contractor shall substitute other work of equivalent value to a certified DBE or provide documentation of good faith efforts to do so; or
 - (3) The DBE is not capable of performing the replacement work or has declined to perform the work at a reasonable competitive price. If this occurs, the Contractor shall substitute other work of equivalent value to a certified DBE or provide documentation of good faith efforts to do so.
- (e) TERMINATION AND REPLACEMENT PROCEDURES. The Contractor shall not terminate or replace a DBE listed on the approved Utilization Plan, or perform with other forces work designated for a listed DBE except as provided in this Special Provision. The Contractor shall utilize the specific DBEs listed to perform the work and supply the materials for which each is listed unless the Contractor obtains the Department's written consent as provided in subsection (a) of this part. Unless Department consent is provided for termination of a DBE subcontractor, the Contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the DBE in the Utilization Plan.

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

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

- (1) The listed DBE subcontractor fails or refuses to execute a written contract;
- (2) The listed DBE subcontractor fails or refuses to perform the work of its subcontract in a way consistent with normal industry standards. Provided, however, that good cause does not exist if the failure or refusal of the DBE subcontractor to perform its work on the subcontract results from the bad faith or discriminatory action of the Contractor;

- (3) The listed DBE subcontractor fails or refuses to meet the Contractor's reasonable, nondiscriminatory bond requirements;
- (4) The listed DBE subcontractor becomes bankrupt, insolvent, or exhibits credit unworthiness;
- (5) The listed DBE subcontractor is ineligible to work on public works projects because of suspension and debarment proceedings pursuant 2 CFR Parts 180, 215 and 1200 or applicable state law.
- (6) The Contractor has determined the listed DBE subcontractor is not a responsible contractor;
- (7) The listed DBE subcontractor voluntarily withdraws from the projects and provides written notice to the Contractor of its withdrawal;
- (8) The listed DBE is ineligible to receive DBE credit for the type of work required;
- (9) A DBE owner dies or becomes disabled with the result that the listed DBE subcontractor is unable to complete its work on the contract;
- (10) Other documented good cause that compels the termination of the DBE subcontractor. Provided, that good cause does not exist if the Contractor seeks to terminate a DBE it relied upon to obtain the contract so that the Contractor can self-perform the work for which the DBE contractor was engaged or so that the Contractor can substitute another DBE or non-DBE contractor after contract award.

When a DBE is terminated or fails to complete its work on the Contract for any reason, the Contractor shall make a good faith effort to find another DBE to substitute for the original DBE to perform at least the same amount of work under the contract as the terminated DBE to the extent needed to meet the established Contract goal. The good faith efforts shall be documented by the Contractor. If the Department requests documentation under this provision, the Contractor shall submit the documentation within seven days, which may be extended for an additional seven days if necessary at the request of the Contractor. The Department will provide a written determination to the Contractor stating whether or not good faith efforts have been demonstrated.

- (f) **FINAL PAYMENT.** After the performance of the final item of work or delivery of material by a DBE and final payment therefore to the DBE by the Contractor, but not later than 30 calendar days after payment has been made by the Department to the Contractor for such work or material, the Contractor shall submit a DBE Payment Agreement on Department form SBE 2115 to the Resident Engineer. If full and final payment has not been made to the DBE, the DBE Payment Agreement shall indicate whether a disagreement as to the payment required exists between the Contractor and the DBE or if the Contractor believes the work has not been satisfactorily completed. If the Contractor does not have the full amount of work indicated in the Utilization Plan performed by the DBE companies indicated in the Utilization Plan and after good faith efforts are reviewed, the Department may deduct from contract payments to the Contractor the amount of the goal not achieved as liquidated and ascertained damages. The Contractor may request an administrative reconsideration of any amount deducted as damages pursuant to subsection (h) of this part.
- (g) **ENFORCEMENT.** The Department reserves the right to withhold payment to the Contractor to enforce the provisions of this Special Provision. Final payment shall not be made on the contract until such time as the Contractor submits sufficient documentation demonstrating achievement of the goal in accordance with this Special Provision or after liquidated damages have been determined and collected.
- (h) **RECONSIDERATION.** Notwithstanding any other provision of the contract, including but not limited to Article 109.09 of the Standard Specifications, the Contractor may request administrative reconsideration of a decision to deduct the amount of the goal not achieved as liquidated damages. A request to reconsider shall be delivered to the Contract Compliance Section and shall be handled and considered in the same manner as set forth in paragraph (c) of "Good Faith Effort Procedures" of this Special Provision, except a final decision that a good faith effort was not made during contract performance to achieve the goal agreed to in the Utilization Plan shall be the final administrative decision of the Department. The result of the reconsideration process is not administratively appealable to the U.S. Department of Transportation.

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."

MOBILIZATION (BDE)

Effective: April 1, 2020

Replace Articles 671.02(a), (b), and (c) of the Standard Specifications with the following:

“(a) Upon execution of the contract, 90 percent of the pay item will be paid.

(b) When 90 percent of the adjusted contract value is earned, the remaining ten percent of the pay item will be paid along with any amount bid in excess of six percent of the original contract amount.”

REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES (BDE)

Effective: January 1, 2019

Revised: January 1, 2020

Revise Section 669 of the Standard Specifications to read:

“SECTION 669. REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES

669.01 Description. This work shall consist of the transportation and proper disposal of regulated substances. This work shall also consist of the removal, transportation, and proper disposal of underground storage tanks (UST), their contents and associated underground piping to the point where the piping is above the ground, including determining the content types and estimated quantities.

669.02 Equipment. The Contractor shall notify the Engineer of the delivery of all excavation, storage, and transportation equipment to a work area location. The equipment shall comply with OSHA and American Petroleum Institute (API) guidelines and shall be furnished in a clean condition. Clean condition means the equipment does not contain any residual material classified as a non-special waste, non-hazardous special waste, or hazardous waste. Residual materials include, but are not limited to, petroleum products, chemical products, sludges, or any other material present in or on equipment.

Before beginning any associated soil or groundwater management activity, the Contractor shall provide the Engineer with the opportunity to visually inspect and approve the equipment. If the equipment contains any contaminated residual material, decontamination shall be performed on the equipment as appropriate to the regulated substance and degree of contamination present according to OSHA and API guidelines. All cleaning fluids used shall be treated as the contaminant unless laboratory testing proves otherwise.

669.03 Pre-Construction Submittals and Qualifications. Prior to beginning this work, or working in areas with regulated substances, the Contractor shall submit a “Regulated Substances Pre-Construction Plan (RSPCP)” to the Engineer for review and approval using form BDE 2730. The form shall be signed by an Illinois licensed Professional Engineer or Professional Geologist.

As part of the RSPCP, the Contractor(s) or firm(s) performing the work shall meet the following qualifications.

- (a) **Regulated Substances Monitoring.** Qualification for environmental observation and field screening of regulated substances work and environmental observation of UST removal shall require either pre-qualification in Hazardous Waste by the Department or demonstration of acceptable project experience in remediation and operations for contaminated sites in accordance with applicable Federal, State, or local regulatory requirements using BDE 2730.

Qualification for each individual performing regulated substances monitoring shall require a minimum of one-year of experience in similar activities as those required for the project.

- (b) **Underground Storage Tank Removal.** Qualification for underground storage tank (UST) removal work shall require licensing and certification with the Office of the State Fire Marshall (OSFM) and possession of all permits required to perform the work. A copy of the permit shall be provided to the Engineer prior to tank removal.

The qualified Contractor(s) or firm(s) shall also document it does not have any current or former ties with any of the properties contained within, adjoining, or potentially affecting the work.

The Engineer will require up to 21 calendar days for review of the RSPCP. The review may involve rejection or revision and resubmittal; in which case, an additional 21 days will be required for each subsequent review. Work shall not commence until the RSPCP has been approved by the Engineer. After approval, the RSPCP shall be revised as necessary to reflect changed conditions in the field and documented using BDE 2730A “Regulated Substances Pre-Construction Plan (RSPCP) Addendum” and submitted to the Engineer for approval.

CONSTRUCTION REQUIREMENTS

669.04 Regulated Substances Monitoring. Regulated substances monitoring includes environmental observation and field screening during regulated substances management activities at the contract specific work areas. As part of the regulated substances monitoring, the monitoring personnel shall perform and document the applicable duties listed on form BDE 2732 “Regulated Substances Monitoring Daily Record (RSMDR)”.

- (a) **Environmental Observation.** Prior to beginning excavation, the Contractor shall mark the limits of the contract specific work areas. Once work begins, the monitoring personnel shall be present on-site continuously during the excavation and loading of material.

- (b) Field Screening. Field screening shall be performed during the excavation and loading of material from the contract specific work areas, except for material classified according to Article 669.05(b)(1) or 669.05(c) where field screening is not required.

Field screening shall be performed with either a photoionization detector (PID) (minimum 10.6eV lamp) or a flame ionization detector (FID), and other equipment as appropriate, to monitor for potential contaminants associated with regulated substances. The PID or FID shall be calibrated on-site, and background level readings taken and recorded daily, and as field and weather conditions change. Field screen readings on the PID or FID in excess of background levels indicates the potential presence of regulated substances requiring handling as a non-special waste, special waste, or hazardous waste. PID or FID readings may be used as the basis of increasing the limits of removal with the approval of the Engineer but shall in no case be used to decrease the limits.

669.05 Regulated Substances Management and Disposal. The management and disposal of soil and/or groundwater containing regulated substances shall be according to the following:

- (a) Soil Analytical Results Exceed Most Stringent MAC. When the soil analytical results indicate detected levels exceed the most stringent maximum allowable concentration (MAC) for chemical constituents in soil established pursuant to Subpart F of 35 Ill. Adm. Code 1100.605, the soil shall be managed as follows:
- (1) When analytical results indicate inorganic chemical constituents exceed the most stringent MAC, but still considered within area background levels by the Engineer, the excavated soil can be utilized within the right-of-way as embankment or fill, when suitable. If the soils cannot be utilized within the right-of-way, they shall be managed and disposed of at a landfill as a non-special waste.
 - (2) When analytical results indicate inorganic chemical constituents exceed the most stringent MAC but do not exceed the MAC for a Metropolitan Statistical Area (MSA) County identified in 35 Ill. Admin. Code 742 Appendix A. Table G, the excavated soil can be utilized within the right-of-way as embankment or fill, when suitable, or managed and disposed of at a clean construction and demolition debris (CCDD) facility or an uncontaminated soil fill operation (USFO) within an MSA County provided the pH of the soil is within the range of 6.25 - 9.0, inclusive.
 - (3) When analytical results indicate chemical constituents exceed the most stringent MAC but do not exceed the MAC for an MSA County excluding Chicago, or the MAC within the Chicago corporate limits, the excavated soil can be utilized within the right-of-way as embankment or fill, when suitable, or managed and disposed of off-site at a CCDD facility or an USFO within an MSA County excluding Chicago or within the Chicago corporate limits provided the pH of the soil is within the range of 6.25 - 9.0, inclusive.

- (4) When analytical results indicate chemical constituents exceed the most stringent MAC but do not exceed the MAC for an MSA County excluding Chicago, the excavated soil can be utilized within the right-of-way as embankment or fill, when suitable, or managed and disposed of off-site at a CCDD facility or an USFO within an MSA County excluding Chicago provided the pH of the soil is within the range of 6.25 - 9.0, inclusive.
 - (5) When the Engineer determines soil cannot be managed according to Articles 669.05(a)(1) through (a)(4) above and the materials do not contain special waste or hazardous waste, as determined by the Engineer, the soil shall be managed and disposed of at a landfill as a non-special waste.
 - (6) When analytical results indicate soil is hazardous by characteristic or listing pursuant to 35 Ill. Admin. Code 721, contains radiological constituents, or the Engineer otherwise determines the soil cannot be managed according to Articles 669.05(a)(1) through (a)(5) above, the soil shall be managed and disposed of off-site as a special waste or hazardous waste as applicable.
- (b) Soil Analytical Results Do Not Exceed Most Stringent MAC. When the soil analytical results indicate that detected levels do not exceed the most stringent MAC, the excavated soil can be utilized within the right-of-way as embankment or fill, when suitable, or managed and disposed of off-site according to Article 202.03. However, the excavated soil cannot be taken to a CCDD facility or an USFO for any of the following reasons.
- (1) The pH of the soil is less than 6.25 or greater than 9.0.
 - (2) The soil exhibited PID or FID readings in excess of background levels.
- (c) Soil Analytical Results Exceed Most Stringent MAC but Do Not Exceed Tiered Approach to Corrective Action Objectives (TACO) Residential. When the soil analytical results indicate that detected levels exceed the most stringent MAC but do not exceed TACO Tier 1 Soil Remediation Objectives for Residential Properties pursuant to 35 Ill. Admin. Code 742 Appendix B Table A, the excavated soil can be utilized within the right-of-way as embankment or fill, when suitable, or managed and disposed of off-site according to Article 202.03. However, the excavated soil cannot be taken to a CCDD facility or an USFO.
- (d) Groundwater. When groundwater analytical results indicate the detected levels are above Appendix B, Table E of 35 Ill. Admin. Code 742, the most stringent Tier 1 Groundwater Remediation Objectives for Groundwater Component of the Groundwater Ingestion Route for Class 1 groundwater, the groundwater shall be managed off-site as a special waste or hazardous waste as applicable. Special waste groundwater shall be containerized and trucked to an off-site treatment facility, or may be discharged to a sanitary sewer or combined sewer when permitted by the local sewer authority. Groundwater discharged to a sanitary sewer or combined sewer shall be pre-treated to remove particulates and measured with a calibrated flow meter to comply with applicable discharge limits. A copy of the permit shall be provided to the Engineer prior to discharging groundwater to the sanitary sewer or combined sewer.

Groundwater encountered within trenches may be managed within the trench and allowed to infiltrate back into the ground. If the groundwater cannot be managed within the trench, it may be discharged to a sanitary sewer or combined sewer when permitted by the local sewer authority, or it shall be containerized and trucked to an off-site treatment facility as a special waste or hazardous waste. The Contractor is prohibited from discharging groundwater within the trench through a storm sewer. The Contractor shall install backfill plugs within the area of groundwater contamination.

One backfill plug shall be placed down gradient to the area of groundwater contamination. Backfill plugs shall be installed at intervals not to exceed 50 ft (15 m). Backfill plugs are to be 4 ft (1.2 m) long, measured parallel to the trench, full trench width and depth. Backfill plugs shall not have any fine aggregate bedding or backfill, but shall be entirely cohesive soil or any class of concrete. The Contractor shall provide test data that the material has a permeability of less than 10^{-7} cm/sec according to ASTM D 5084, Method A or per another test method approved by the Engineer.

The Contractor shall use due care when transferring contaminated material from the area of origin to the transporter. Should releases of contaminated material to the environment occur (i.e., spillage onto the ground, etc.), the Contractor shall clean-up spilled material and place in the appropriate storage containers as previously specified. Clean-up shall include, but not be limited to, sampling beneath the material staging area to determine complete removal of the spilled material.

The Contractor shall provide engineered barriers, when required, and shall include materials sufficient to completely line excavation surfaces, including sloped surfaces, bottoms, and sidewall faces, within the areas designated for protection.

The Contractor shall obtain all documentation including any permits and/or licenses required to transport the material containing regulated substances to the disposal facility. The Contractor shall coordinate with the Engineer on the completion of all documentation. The Contractor shall make all arrangements for collection and analysis of landfill acceptance testing. The Contractor shall coordinate waste disposal approvals with the disposal facility.

The Contractor shall provide the Engineer with all transport-related documentation within two days of transport or receipt of said document(s). For management of special or hazardous waste, the Contractor shall provide the Engineer with documentation that the Contractor is operating with a valid Illinois special waste transporter permit at least two weeks before transporting the first load of contaminated material.

Transportation and disposal of material classified according to Article 669.05(a)(5) or 669.05(a)(6) shall be completed each day so that none of the material remains on-site by the close of business, except when temporary staging has been approved.

Any waste generated as a special or hazardous waste from a non-fixed facility shall be manifested off-site using the Department's county generator number provided by the Bureau of Design and Environment. An authorized representative of the Department shall sign all manifests for the disposal of the contaminated material and confirm the Contractor's transported volume. Any waste generated as a non-special waste may be managed off-site without a manifest, a special waste transporter, or a generator number.

The Contractor shall select a landfill permitted for disposal of the contaminant within the State of Illinois. The Department will review and approve or reject the facility proposed by the Contractor to use as a landfill. The Contractor shall verify whether the selected disposal facility is compliant with those applicable standards as mandated by their permit and whether the disposal facility is presently, has previously been, or has never been, on the United States Environmental Protection Agency (U.S. EPA) National Priorities List or the Resource Conservation and Recovery Act (RCRA) List of Violating Facilities. The use of a Contractor selected landfill shall in no manner delay the construction schedule or alter the Contractor's responsibilities as set forth.

669.06 Non-Special Waste Certification. An authorized representative of the Department shall sign and date all non-special waste certifications. The Contractor shall be responsible for providing the Engineer with the required information that will allow the Engineer to certify the waste is not a special waste.

- (a) Definition. A waste is considered a non-special waste as long as it is not:
- (1) a potentially infectious medical waste;
 - (2) a hazardous waste as defined in 35 Ill. Admin. Code 721;
 - (3) an industrial process waste or pollution control waste that contains liquids, as determined using the paint filter test set forth in subdivision (3)(A) of subsection (m) of 35 Ill. Admin. Code 811.107;
 - (4) a regulated asbestos-containing waste material, as defined under the National Emission Standards for Hazardous Air Pollutants in 40 CFR Part 61.141;
 - (5) a material containing polychlorinated biphenyls (PCB's) regulated pursuant to 40 CFR Part 761;
 - (6) a material subject to the waste analysis and recordkeeping requirements of 35 Ill. Admin. Code 728.107 under land disposal restrictions of 35 Ill. Admin. Code 728;
 - (7) a waste material generated by processing recyclable metals by shredding and required to be managed as a special waste under Section 22.29 of the Environmental Protection Act; or

- (8) an empty portable device or container in which a special or hazardous waste has been stored, transported, treated, disposed of, or otherwise handled.
- (b) Certification Information. All information used to determine the waste is not a special waste shall be attached to the certification. The information shall include but not be limited to:
 - (1) the means by which the generator has determined the waste is not a hazardous waste;
 - (2) the means by which the generator has determined the waste is not a liquid;
 - (3) if the waste undergoes testing, the analytic results obtained from testing, signed and dated by the person responsible for completing the analysis;
 - (4) if the waste does not undergo testing, an explanation as to why no testing is needed;
 - (5) a description of the process generating the waste; and
 - (6) relevant material safety data sheets.

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

Temporary staging shall be accomplished within the right-of-way and the Contractor's means and methods shall be described in the approved or amended RSPCP. Staging areas shall not be located within 200 feet (61 m) of a public or private water supply well; nor within 100 feet (30 m) of sensitive environmental receptor areas, including wetlands, rivers, streams, lakes, or designated habitat zones.

The method of staging shall consist of containerization or stockpiling as applicable for the type, classification, and physical state (i.e., liquid, solid, semisolid) of the material. Materials of different classifications shall be staged separately with no mixing or co-mingling.

When containers are used, the containers and their contents shall remain intact and inaccessible to unauthorized persons until the manner of disposal is determined. The Contractor shall be responsible for all activities associated with the storage containers including, but not limited to, the procurement, transport, and labeling of the containers. The Contractor shall not use a storage container if visual inspection of the container reveals the presence of free liquids or other substances that could cause the waste to be reclassified as a hazardous or special waste.

When stockpiles are used, they shall be covered with a minimum 20-mil plastic sheeting or tarps secured using weights or tie-downs. Perimeter berms or diversionary trenches shall be provided to contain and collect for disposal any water that drains from the soil. Stockpiles shall be managed to prevent or reduce potential dust generation.

When staging non-special waste, special waste, or hazardous waste, the following additional requirements shall apply:

- (a) Non-Special Waste. When stockpiling soil classified according to Article 669.05(a)(1) or 669.05(a)(5), an impermeable surface barrier between the materials and the ground surface shall be installed. The impermeable barrier shall consist of a minimum 20-mil plastic liner material and the surface of the stockpile area shall be clean and free of debris prior to placement of the liner. Measures shall also be taken to limit or discourage access to the staging area.
- (b) Special Waste and Hazardous Waste. Soil classified according to Article 669.05(a)(6) shall not be stockpiled but shall be containerized immediately upon generation in containers, tanks or containment buildings as defined by RCRA, Toxic Substances Control Act (TSCA), and other applicable State or local regulations and requirements, including 35 Ill. Admin. Code Part 722, Standards Applicable to Generators of Hazardous Waste.

The staging area(s) shall be enclosed (by a fence or other structure) to restrict direct access to the area, and all required regulatory identification signs applicable to a staging area containing special waste or hazardous waste shall be deployed.

Storage containers shall be placed on an all-weather gravel-packed, asphalt, or concrete surface. Containers shall be in good condition and free of leaks, large dents, or severe rusting, which may compromise containment integrity. Containers must be constructed of, or lined with, materials that will not react or be otherwise incompatible with the hazardous or special waste contents. Containers used to store liquids shall not be filled more than 80 percent of the rated capacity. Incompatible wastes shall not be placed in the same container or comingled.

All containers shall be legibly labeled and marked using pre-printed labels and permanent marker in accordance with applicable regulations, clearly showing the date of waste generation, location and/or area of waste generation, and type of waste. The Contractor shall place these identifying markings on an exterior side surface of the container.

Storage containers shall be kept closed, and storage pads covered, except when access is needed by authorized personnel.

Special waste and hazardous waste shall be transported and disposed within 90 days from the date of generation.

669.08 Underground Storage Tank Removal. For the purposes of this section, an underground storage tank (UST) includes the underground storage tank, piping, electrical controls, pump island, vent pipes and appurtenances.

Prior to removing an UST, the Engineer shall determine whether the Department is considered an "owner" or "operator" of the UST as defined by the UST regulations (41 Ill. Adm. Code Part 176). Ownership of the UST refers to the Department's owning title to the UST during storage, use or dispensing of regulated substances. The Department may be considered an "operator" of the UST if it has control of, or has responsibility for, the daily operation of the UST. The Department may however voluntarily undertake actions to remove an UST from the ground without being deemed an "operator" of the UST.

In the event the Department is deemed not to be the "owner" or "operator" of the UST, the OSFM removal permit shall reflect who was the past "owner" or "operator" of the UST. If the "owner" or "operator" cannot be determined from past UST registration documents from OSFM, then the OSFM removal permit will state the "owner" or "operator" of the UST is the Department. The Department's Office of Chief Counsel (OCC) will review all UST removal permits prior to submitting any removal permit to the OSFM. If the Department is not the "owner" or "operator" of the UST then it will not register the UST or pay any registration fee.

The Contractor shall be responsible for obtaining permits required for removing the UST, notification to the OSFM, using an OSFM certified tank contractor, removal and disposal of the UST and its contents, and preparation and submittal of the OSFM Site Assessment Report in accordance with 41 Ill. Admin. Code Part 176.330.

The Contractor shall contact the Engineer and the OSFM's office at least 72 hours prior to removal to confirm the OSFM inspector's presence during the UST removal. Removal, transport, and disposal of the UST shall be according to the applicable portions of the latest revision of the "American Petroleum Institute (API) Recommended Practice 1604".

The Contractor shall collect and analyze tank content (sludge) for disposal purposes. The Contractor shall remove as much of the regulated substance from the UST system as necessary to prevent further release into the environment. All contents within the tank shall be removed, transported and disposed of, or recycled. The tank shall be removed and rendered empty according to IEPA definition.

The Contractor shall collect soil samples from the bottom and sidewalls of the excavated area in accordance with 35 Ill. Admin. Code Part 734.210(h) after the required backfill has been removed during the initial response action, to determine the level of contamination remaining in the ground, regardless if a release is confirmed or not by the OSFM on-site inspector.

In the event the UST is designated a leaking underground storage tank (LUST) by the OSFM's inspector, or confirmation by analytical results, the Contractor shall notify the Engineer and the District Environmental Studies Unit (DESU). Upon confirmation of a release of contaminants and notifications to the Engineer and DESU, the Contractor shall report the release to the Illinois Emergency Management Agency (IEMA) (e.g., by telephone or electronic mail) and provide them with whatever information is available ("owner" or "operator" shall be stated as the past registered "owner" or "operator", or the IDOT District in which the tank is located and the DESU Manager).

The Contractor shall perform the following initial response actions if a release is indicated by the OSFM inspector:

- (a) Take immediate action to prevent any further release of the regulated substance to the environment, which may include removing, at the Engineer's discretion, and disposing of up to 4 ft (1.2 m) of the contaminated material, as measured from the outside dimension of the tank;
- (b) Identify and mitigate fire, explosion and vapor hazards;
- (c) Visually inspect any above ground releases or exposed below ground releases and prevent further migration of the released substance into surrounding soils and groundwater; and
- (d) Continue to monitor and mitigate any additional fire and safety hazards posed by vapors and free product that have migrated from the tank excavation zone and entered into subsurface structures (such as sewers or basements).

The tank excavation shall be backfilled according to applicable portions of Sections 205, 208, and 550 with a material that will compact and develop stability. All uncontaminated concrete and soil removed during tank extraction may be used to backfill the excavation, at the discretion of the Engineer.

After backfilling the excavation, the site shall be graded and cleaned.

669.09 Regulated Substances Final Construction Report. Not later than 90 days after completing this work, the Contractor shall submit a "Regulated Substances Final Construction Report (RSFCR)" to the Engineer using form BDE 2733 and required attachments. The form shall be signed by an Illinois licensed Professional Engineer or Professional Geologist.

669.10 Method of Measurement. Non-special waste, special waste, and hazardous waste soil will be measured for payment according to Article 202.07(b) when performing earth excavation, Article 502.12(b) when excavating for structures, or by computing the volume of the trench using the maximum trench width permitted and the actual depth of the trench.

Groundwater containerized and transported off-site for management, storage, and disposal will be measured for payment in gallons (liters).

Backfill plugs will be measured in cubic yards (cubic meters) in place, except the quantity for which payment will be made shall not exceed the volume of the trench, as computed by using the maximum width of trench permitted by the Specifications and the actual depth of the trench, with a deduction for the volume of the pipe.

Engineered Barriers will be measured for payment in square yards (square meters).

669.11 Basis of Payment. The work of preparing, submitting and administering a Regulated Substances Pre-Construction Plan will be paid for at the contract lump sum price for REGULATED SUBSTANCES PRE-CONSTRUCTION PLAN.

Regulated substances monitoring, including completion of form BDE 2732 for each day of work, will be paid for at the contract unit price per calendar day, or fraction thereof to the nearest 0.5 calendar day, for REGULATED SUBSTANCES MONITORING.

The installation of engineered barriers will be paid for at the contract unit price per square yard (square meter) for ENGINEERED BARRIER.

The work of UST removal, soil excavation, soil and content sampling, the management of excavated soil and UST content, and UST disposal, will be paid for at the contract unit price per each for UNDERGROUND STORAGE TANK REMOVAL.

The transportation and disposal of soil and other materials from an excavation determined to be contaminated will be paid for at the contract unit price per cubic yard (cubic meter) for NON-SPECIAL WASTE DISPOSAL, SPECIAL WASTE DISPOSAL, or HAZARDOUS WASTE DISPOSAL.

The transportation and disposal of groundwater from an excavation determined to be contaminated will be paid for at the contract unit price per gallon (liter) for SPECIAL WASTE GROUNDWATER DISPOSAL or HAZARDOUS WASTE GROUNDWATER DISPOSAL. When groundwater is discharged to a sanitary or combined sewer by permit, the cost will be paid for according to Article 109.05.

Backfill plugs will be paid for at the contract unit price per cubic yard (cubic meter) for BACKFILL PLUGS.

Payment for temporary staging of soil classified according to Articles 669.05(a)(1), (a)(3), (a)(4), (a)(5), (a)(6), or (b)(2) will be paid for according to Article 109.04. The Department will not be responsible for any additional costs incurred, if mismanagement of the staging area, storage containers, or their contents by the Contractor results in excess cost expenditure for disposal or other material management requirements.

Payment for accumulated stormwater removal and disposal will be according to Article 109.04. Payment will only be allowed if appropriate stormwater and erosion control methods were used.

Payment for decontamination, labor, material, and equipment for monitoring areas beyond the specified areas, with the Engineer's prior written approval, will be according to Article 109.04.

When the waste material for disposal requires sampling for landfill disposal acceptance, the samples shall be analyzed for TCLP VOCs, SVOCs, RCRA metals, pH, ignitability, and paint filter test. The analysis will be paid for at the contract unit price per each for SOIL DISPOSAL ANALYSIS using EPA Methods 1311 (extraction), 8260B for VOCs, 8270C for SVOCs, 6010B and 7470A for RCRA metals, 9045C for pH, 1030 for ignitability, and 9095A for paint filter.

The work of preparing, submitting and administering a Regulated Substances Final Construction Report will be paid for at the contract lump sum price REGULATED SUBSTANCES FINAL CONSTRUCTION REPORT.”

SUBCONTRACTOR AND DBE PAYMENT REPORTING (BDE)

Effective: April 2, 2018

Add the following to Section 109 of the Standard Specifications.

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

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

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

SUBCONTRACTOR MOBILIZATION PAYMENTS (BDE)

Effective: November 2, 2017

Revised: April 1, 2019

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

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

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

SUBMISSION OF PAYROLL RECORDS (BDE)

Effective: April 1, 2021

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

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

TRAFFIC CONTROL DEVICES - CONES (BDE)

Effective: January 1, 2019

Revise Article 701.15(a) of the Standard Specifications to read:

“(a) Cones. Cones are used to channelize traffic. Cones used to channelize traffic at night shall be reflectorized; however, cones shall not be used in nighttime lane closure tapers or nighttime lane shifts.”

Revise Article 1106.02(b) of the Standard Specifications to read:

“(b) Cones. Cones shall be predominantly orange. Cones used at night that are 28 to 36 in. (700 to 900 mm) in height shall have two white circumferential stripes. If non-reflective spaces are left between the stripes, the spaces shall be no more than 2 in. (50mm) in width. Cones used at night that are taller than 36 in. (900 mm) shall have a minimum of two white and two fluorescent orange alternating, circumferential stripes with the top stripe being fluorescent orange. If non-reflective spaces are left between the stripes, the spaces shall be no more than 3 in. (75 mm) in width.

The minimum weights for the various cone heights shall be 4 lb for 18 in. (2 kg for 450 mm), 7 lb for 28 in. (3 kg for 700 mm), and 10 lb for 36 in. (5 kg for 900 mm) with a minimum of 60 percent of the total weight in the base. Cones taller than 36 in. shall be weighted per the manufacturer’s specifications such that they are not moved by wind or passing traffic.”

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.

WORK ZONE TRAFFIC CONTROL DEVICES (BDE)

Effective: March 2, 2020

Add the following to Article 701.03 of the Standard Specifications:

“(q) Temporary Sign Supports 1106.02”

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

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

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

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

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

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

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

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

Category 3 includes devices that are expected to cause significant velocity changes or other potentially harmful reactions to impacting vehicles. These include crash cushions (impact attenuators), truck mounted attenuators, and other devices not meeting the definitions of Category 1 or 2. Category 3 devices manufactured after December 31, 2019 shall be MASH-16 compliant. Category 3 devices manufactured on or before December 31, 2019, and compliant with NCHRP 350 or MASH 2009, may be used on contracts let before December 31, 2029. Category 3 devices shall be crash tested for Test Level 3 or the test level specified.

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

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

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

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

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

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

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

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

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.