



Illinois Department of Transportation

2300 South Dirksen Parkway / Springfield, Illinois / 62764

November 17, 2014

SUBJECT: FAI Route 90/94/290 (I-90/94/290)
Project ACNHPP-000V(002)
Section 2013-074I
Cook County
Contract No. 60X62
Item No. 4, November 21, 2014 Letting
Addendum A

NOTICE TO PROSPECTIVE BIDDERS:

Attached is an addendum to the plans or proposal. This addendum involves revised and/or added material.

1. Replaced the Schedule of Prices
2. Revised page ii of the Table of Contents to the Special Provisions
3. Revised pages 3, 11-15, 21-33, 39-54, 64-69 and 75-84 of the Special Provisions
4. Added page 112 to the Special Provisions
5. Revised sheets 3-8, 21, 24, 29-35, 37 and 38 of the Plans

Prime contractors must utilize the enclosed material when preparing their bid and must include any Schedule of Prices changes in their bidding proposal.

Bidders using computer-generated bids are cautioned to reflect any and all Schedule of Prices changes, if involved, into their computer programs.

Very truly yours,

John D. Baranzelli, P.E.
Acting Engineer of Design and Environment

A handwritten signature in black ink, appearing to read "Ted B. Walschleger" with a small "P.E." to the right.

By: Ted B. Walschleger, P. E.
Engineer of Project Management

cc: John Fortmann, Region 1, District 1; Tim Kell; Estimates

MS/kf

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT
 NUMBER - 60X62

State Job # - C-91-150-14

County Name - COOK--

Code - 31 - -

District - 1 - -

Section Number - 2013-074I

Project Number
 ACNHPP-000V/002/
 *REVISED: NOVEMBER 7, 2014

Route
 FAI 90
 FAI 94
 FAI 290

| Item Number | Pay Item Description | Unit of Measure | Quantity | x | Unit Price | = | Total Price |
|---------------|-----------------------|-----------------|----------|---|------------|---|-------------|
| A2000224 | T-ACERX FREM MM 3 | EACH | 4.000 | | | | |
| A2002368 | T-BETULA NIGRA 7' | EACH | 5.000 | | | | |
| A2003220 | T-CORYLUS COLU 2-1/2 | EACH | 4.000 | | | | |
| A2006432 | T-QUERC ALBA 4 | EACH | 1.000 | | | | |
| A2007632 | T-TAXODIUM DIS 4 | EACH | 5.000 | | | | |
| A2018620 | T-ULMUS CARP MO HE 3 | EACH | 3.000 | | | | |
| A2018724 | T-ULMUS CARP MO 4 | EACH | 4.000 | | | | |
| *REV B2000767 | T-AMEL X GF AB CF 8' | EACH | 3.000 | | | | |
| *DEL B2001770 | T-CRAT CRU-VAR IN 8MH | EACH | 13.000 | | | | |
| *ADD B2001772 | T-CRAT CRU-VAR IN 8 C | EACH | 13.000 | | | | |
| *ADD C2C010G3 | S-BUD DAVID PEA CG 3G | EACH | 3.000 | | | | |
| *DEL C2C010G6 | S-BUDDLEIA DAV P CG5G | EACH | 3.000 | | | | |
| *ADD C2C03725 | S-HYPER KALM AMES 5GC | EACH | 40.000 | | | | |
| *ADD C2C03933 | S-ILEX VERT RS 24 CG5 | EACH | 100.000 | | | | |
| *DEL C2C040G7 | S-ITEA VIRG LH 30 C | EACH | 34.000 | | | | |

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|---------------|------------------------|-----------------|----------|---|------------|---|-------------|
| *ADD C2C041G3 | S-ITEA VIRG SLH CG 3G | EACH | 34.000 | | | | |
| C2C058G3 | S-RHUS AROMA GL CG 3G | EACH | 283.000 | | | | |
| *DEL G2C10928 | S-SYRINGA MEY PAL CG3 | EACH | 283.000 | | | | |
| C2000138 | S-AESCLUSUS PAR 3 1/2' | EACH | 6.000 | | | | |
| *DEL C2001840 | S-CORNUS SERI IS CG3G | EACH | 55.000 | | | | |
| *ADD C2001846 | S-CORNUS SERI IS RT 3 | EACH | 75.000 | | | | |
| *DEL C2003730 | S-HYPER-KALM AMES CG3 | EACH | 40.000 | | | | |
| *DEL C2003920 | S-ILEX VERT RS 24"C | EACH | 401.000 | | | | |
| *DEL C2003924 | S-ILEX VERT RS 30"C | EACH | 61.000 | | | | |
| *ADD C2003936 | S-ILEX VERT WR 3' | EACH | 61.000 | | | | |
| *ADD C2010930 | S-SYRINGA M P 2-1/2' | EACH | 48.000 | | | | |
| C2011938 | S-VIBURN DEN RS 3 1/2 | EACH | 37.000 | | | | |
| *DEL C2015300 | S-JUNIPERUS CK CG 3G | EACH | 700.000 | | | | |
| *ADD C2015312 | S-J CHIN KLLY CMPT 3G | EACH | 900.000 | | | | |
| *REV K0012970 | PERENNIAL PLNT BULB T | UNIT | 141.000 | | | | |

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| *REV K0012974 | P PL ORN T 3" POT | UNIT | 30.000 | | | | |
| *REV K0012990 | P PL ORNAMENT T GAL P | UNIT | 9.900 | | | | |
| *DEL K0012992 | P PL ORNAMENT T 2G P | UNIT | 0.300 | | | | |
| *DEL K0013003 | P PL PRAIRIE T 3" POT | UNIT | 13.000 | | | | |
| *REV K0013020 | P PL PRAIRIE TY GAL P | UNIT | 8.900 | | | | |
| *DEL K0013022 | PERENN PLNT PT 2GAL | UNIT | 4.800 | | | | |
| *REV K0013080 | P PL SEDG MDW T GAL P | UNIT | 9.300 | | | | |
| *DEL K0013082 | P PL SDG MDW T 2G POT | UNIT | 2.200 | | | | |
| *REV K0026700 | TREE CARE | EACH | 84.000 | | | | |
| *REV K0026810 | SHRUB CARE | EACH | 3,174.000 | | | | |
| *REV K0026850 | PERENNIAL PLANT CARE | SQ YD | 16,648.000 | | | | |
| K0029618 | WEED CONT BROADLF TRF | GALLON | 5.000 | | | | |
| K0029634 | WEED CONTR PRE-EM GRN | POUND | 208.000 | | | | |
| *REV K0036118 | MULCH PLACEMENT 3 | SQ YD | 27.000 | | | | |
| K1003660 | MOWING CYCLES | EACH | 36.000 | | | | |

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|---------------|-----------------------|-----------------|-----------|---|------------|---|-------------|
| XX003885 | IRRIGATION SYSTEM | L SUM | 1.000 | | | | |
| XX007408 | PRECAST WALL TYPE A | FOOT | 91.000 | | | | |
| XX007409 | PRECAST WALL TYPE B | FOOT | 41.000 | | | | |
| XX007410 | PRECAST WALL TYPE C | FOOT | 110.000 | | | | |
| X0327802 | PLNTG SOIL MIX F&P 12 | SQ YD | 2,328.000 | | | | |
| *REV X0327808 | PLNTG SOIL MIX F&P 18 | SQ YD | 1,006.000 | | | | |
| *REV X0327814 | PLNTG SOIL MIX F&P 24 | SQ YD | 696.000 | | | | |
| X0327820 | PLNTG SOIL MIX F&P 30 | SQ YD | 809.000 | | | | |
| X0327880 | WAYFINDING SIGN SP | L SUM | 1.000 | | | | |
| X0370080 | COMB C&G B V.12(CDOT) | FOOT | 20.000 | | | | |
| X6640200 | TEMP CH LK FENCE | FOOT | 1,424.000 | | | | |
| X7010216 | TRAF CONT & PROT SPL | L SUM | 1.000 | | | | |
| Z0013797 | STAB CONSTR ENTRANCE | SQ YD | 54.000 | | | | |
| Z0013798 | CONSTRUCTION LAYOUT | L SUM | 1.000 | | | | |
| Z0019600 | DUST CONTROL WATERING | UNIT | 50.000 | | | | |

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| Z0030850 | TEMP INFO SIGNING | SQ FT | 16.000 | | | | |
| Z0076600 | TRAINEES | HOUR | 1,000.000 | | 0.800 | | 800.000 |
| Z0076604 | TRAINEES TPG | HOUR | 1,000.000 | | 15.000 | | 15,000.000 |
| 20100110 | TREE REMOV 6-15 | UNIT | 13.000 | | | | |
| 20101000 | TEMPORARY FENCE | FOOT | 890.000 | | | | |
| 20101200 | TREE ROOT PRUNING | EACH | 9.000 | | | | |
| 20101300 | TREE PRUN 1-10 | EACH | 15.000 | | | | |
| 20101350 | TREE PRUN OVER 10 | EACH | 3.000 | | | | |
| 20200100 | EARTH EXCAVATION | CU YD | 1,025.000 | | | | |
| *REV 20201200 | REM & DISP UNS MATL | CU YD | 632.000 | | | | |
| *REV 20400800 | FURNISHED EXCAVATION | CU YD | 1,508.000 | | | | |
| 21001000 | GEOTECH FAB F/GR STAB | SQ YD | 55.000 | | | | |
| *REV 21101800 | COMPOST F & P 1 | SQ YD | 2,511.000 | | | | |
| 21301052 | EXPLOR TRENCH 52 | FOOT | 100.000 | | | | |
| 25000400 | NITROGEN FERT NUTR | POUND | 4.000 | | | | |

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| 25000600 | POTASSIUM FERT NUTR | POUND | 4.000 | | | | |
| 25100115 | MULCH METHOD 2 | ACRE | 1.000 | | | | |
| 25200110 | SODDING SALT TOLERANT | SQ YD | 2,328.000 | | | | |
| *REV 25200200 | SUPPLE WATERING | UNIT | 175.400 | | | | |
| 28000250 | TEMP EROS CONTR SEED | POUND | 98.000 | | | | |
| 28000400 | PERIMETER EROS BAR | FOOT | 471.000 | | | | |
| 28000510 | INLET FILTERS | EACH | 10.000 | | | | |
| 31101200 | SUB GRAN MAT B 4 | SQ YD | 36.000 | | | | |
| 31101400 | SUB GRAN MAT B 6 | SQ YD | 194.000 | | | | |
| 31101810 | SUB GRAN MAT B 12 | SQ YD | 55.000 | | | | |
| 42300400 | PCC DRIVEWAY PAVT 8 | SQ YD | 194.000 | | | | |
| 42400200 | PC CONC SIDEWALK 5 | SQ FT | 36.000 | | | | |
| 50300225 | CONC STRUCT | CU YD | 50.400 | | | | |
| 50300254 | RUBBED FINISH | SQ FT | 1,328.000 | | | | |
| 50300300 | PROTECTIVE COAT | SQ YD | 249.000 | | | | |

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| 50800205 | REINF BARS, EPOXY CTD | POUND | 5,090.000 | | | | |
| 60107600 | PIPE UNDERDRAINS 4 | FOOT | 130.000 | | | | |
| 60255500 | MAN ADJUST | EACH | 2.000 | | | | |
| 66900200 | NON SPL WASTE DISPOSL | CU YD | 1,200.000 | | | | |
| 66900450 | SPL WASTE PLNS/REPORT | L SUM | 1.000 | | | | |
| 66900530 | SOIL DISPOSAL ANALY | EACH | 4.000 | | | | |
| *DEL 67000400 | ENGR FIELD OFFICE A | CAL MO | 34.000 | | | | |
| 67100100 | MOBILIZATION | L SUM | 1.000 | | | | |
| 73400200 | DRILL SHAFT CONC FDN | CU YD | 21.300 | | | | |

| | |
|---|-----|
| COMBINATION CURB AND GUTTER TYPE B V.12 (CDOT) | 38 |
| TEMPORARY CHAIN LINK FENCE | 39 |
| IRRIGATION SYSTEM | 40 |
| MUSHROOM COMPOST FURNISH AND PLACE..... | 54 |
| PLANTING SOIL MIX FURNISH AND PLACE | 55 |
| PRECAST WALL TYPE A, B & C | 59 |
| WAYFINDING SIGN, SPECIAL | 64 |
| FABRICATION, CONSTRUCTION AND ERECTION REQUIREMENTS..... | 69 |
| STABILIZED CONSTRUCTION ENTRANCE..... | 70 |
| AIR QUALITY COMPLIANCE | 70 |
| CONSTRUCTION AIR QUALITY – DUST CONTROL | 72 |
| STORM WATER POLLUTION PREVENTION PLAN..... | 76 |
| CONSTRUCTION AIR QUALITY – DIESEL RETROFIT (BDE) | 85 |
| CONTRACT CLAIMS (BDE)..... | 87 |
| DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION (BDE)..... | 88 |
| GRANULAR MATERIALS (BDE)..... | 98 |
| PAYROLLS AND PAYROLL RECORDS (BDE) | 99 |
| PORTLAND CEMENT CONCRETE EQUIPMENT (BDE)..... | 101 |
| PROGRESS PAYMENTS (BDE) | 101 |
| QUALITY CONTROL/QUALITY ASSURANCE OF CONCRETE MIXTURES (BDE)..... | 102 |
| REINFORCEMENT BARS (BDE) | 102 |
| REMOVAL AND DISPOSAL OF SURPLUS MATERIALS (BDE)..... | 104 |
| TRACKING THE USE OF PESTICIDES (BDE)..... | 105 |
| TRAINING SPECIAL PROVISIONS (BDE) | 105 |
| IDOT TRAINING PROGRAM GRADUATE ON-THE-JOB TRAINING SPECIAL PROVISION (TPG) | 108 |
| WEEKLY DBE TRUCKING REPORTS (BDE)..... | 110 |
| MENTOR-PROTÉGÉ PROGRAM (BDE) | 111 |
| SOIL MOISTURE MONITORING OF LANDSCAPED AREAS | 112 |

Revised 11/17/14

ADDITIONAL INSURED

Add the following paragraph at the end of Article 107.27 – Insurance, of the Standard Specifications for Road and Bridge Construction dated January 1, 2012:

The Contractor shall name The Board of Trustees of the University of Illinois, its elected and appointed trustees, officers and officials, employees, agents, successors, and assignees as additional insured in the Contractor's comprehensive general liability insurance and all risk property insurance policies.

The Contractor and the Engineer shall mail, by certified mail, an executed copy of the Certificate of Insurance to the University of Illinois at Chicago (UIC) prior to the start of construction on this project noted above. The address will be provided by the Engineer.

All costs related to this requirement will be paid for under Article 109.04 – Payment for Extra Work.

SUBMITTALS

There are elements of construction that may require long lead times between order and delivery to the project site for installation. The Contractor must prioritize timely submittals of shop drawings to minimize any delays in project execution.

Shop drawings for precast walls, irrigation system and wayfinding sign structure must be submitted within four (4) weeks of the award of the contract. Material samples for the irrigation system must be submitted within four (4) weeks of the award of the contract. No additional compensation and no extension of calendar days will be made due to delays in receiving the materials to the project area because of incomplete or delayed shop drawing submittals.

The Contractor shall provide notice to the Engineer concerning shop drawing submittal schedules and when shop drawing submittal deadlines may be delayed.

WINTER WORK

No adjustment will be made in the contract unit prices for any concrete if winter work is necessary to meet the required completion dates specified in the contract.

Revised 11/17/14

WEED CONTROL, PRE-EMERGENT GRANULAR HERBICIDE

Effective: July 29, 2002

Revised: February 7, 2007

Description: This work shall consist of spreading a pre-emergent granular herbicide in place of weed barrier fabric in areas as shown on the plans or as directed by the Engineer. This item will be used in mulched plant beds and mulch rings.

Delete Article 253.11 and substitute the following:

Within 48 hours after planting, mulch shall be placed around all plants in the entire mulched bed or saucer area specified to a depth of 4 inches (100 mm). No weed barrier fabric will be required for tree and shrub planting. Pre-emergent Herbicide will be used instead of weed barrier fabric. The Pre-emergent Herbicide shall be applied prior to mulching. Mulch shall not be in contact with the base of the trunk.

Materials: The pre-emergent granular herbicide (Snapshot 2.5 TG or equivalent) shall contain the chemicals Trifluralin 2% active ingredient and Isoxaben with 0.5% active ingredient. The herbicide label shall be submitted to the Engineer for approval at least seventy-two (72) hours prior to application.

Method: The pre-emergent granular herbicide shall be used in accordance with the manufacturer's directions on the package. The granules are to be applied prior to mulching.

Apply the granular herbicide using a drop or rotary-type designed to apply granular herbicide or insecticides. Calibrate application equipment to use according to manufacturer's directions. Check frequently to be sure equipment is working properly and distributing granules uniformly. Do not use spreaders that apply material in narrow concentrated bands. Avoid skips or overlaps as poor weed control or crop injury may occur. More uniform application may be achieved by spreading half of the required amount of product over the area and then applying the remaining half in swaths at right angles to the first. Apply the granular herbicide at the rate of 100 lbs/acre (112 kg/ha) or 2.3 lbs/1000 sq. ft. (11.2 kg/1000 sq. meters).

Method of Measurement: Pre-emergent granular herbicide will be measured in place in Pounds (Kilograms) of Pre-emergent Granular Herbicide applied. Areas treated after mulch placement shall not be measured for payment.

Basis of Payment: This work will be paid for at the contract unit price per pound (kilogram) of WEED CONTROL, PRE-EMERGENT GRANULAR HERBICIDE.

PROTECTION OF EXISTING TREES

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

Revised 11/17/14

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

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

1. Whenever proposed excavation falls within a drip-line of a tree, the Contractor shall:
 - a. Root prune 6-inches behind and parallel to the proposed edge of trench a neat, clean vertical cut to a minimum depth directed by the Engineer through all affected tree roots.
 - b. Root prune to a maximum width of 4-inches using a "Vermeer" wheel, or other similar machine. Trenching machines will not be permitted.
 - c. Exercise care not to cut any existing utilities.
 - d. If during construction it becomes necessary to expose tree roots which have not been pre-cut, the Engineer shall be notified and the Contractor shall provide a clean, vertical cut at the proper root location, nearer the tree trunk, as necessary, by means of hand-digging and trimming with chain saw or hand saw. Ripping, shredding, shearing, chopping, twisting, or tearing will not be permitted.
 - e. Top Pruning: When thirty percent (30%) or more of the root zone is pruned, an equivalent amount of the top vegetative growth or the plant material shall be pruned off within one (1) week following root pruning.
2. Whenever curb and gutter is removed for replacement, or excavation for removal of or construction of a structure is within the drip line/root zone of a tree, the Contractor shall:
 - a. Root prune 6-inches behind the curbing so as to neatly cut the tree roots.
 - b. Depth of cut shall be 12 inches for curb removal and replacement and 24 inches for structural work. Any roots encountered at a greater depth shall be neatly saw cut at no additional cost.
 - c. Locations where earth saw cutting of tree roots is required will be marked in the field by the Engineer.
3. All root pruning work is to be performed through the services of a licensed arborist to be approved by the Engineer in writing.

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

Revised 11/17/14

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

B. Temporary Fence:

1. The Contractor shall erect a temporary fence around all trees within the construction area to establish a "tree protection zone" before any work begins or any material is delivered to the jobsite. No work is to be performed (other than root pruning), materials stored or vehicles driven or parked within the "tree protection zone". See detail.
2. The exact location and establishment of the "tree protection zone" fence shall be approved by the Engineer prior to setting the fence, roughly corresponding to dripline of existing tree to remain.
3. The fence shall be erected on three or four sides of the tree at the drip-line of the tree or as determined by the Engineer.
4. All work within the "tree protection zone" shall have the Engineer's prior approval. All slopes and other areas not regarded should be avoided so that unnecessary damage is not done to the existing turf, tree root system ground cover.
5. The grade within the "tree protection zone" shall not be changed unless approved by the Engineer prior to making said changes or performing the work.

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

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

C. Tree Limb Pruning:

1. The Contractor shall inspect the work site in advance and arrange with the Roadside Development Unit (847.705.4171) to have any tree limbs pruned that might be damaged by equipment operations at least one week prior to the start of construction. Any tree limbs that are broken by construction equipment after the initial pruning must be pruned correctly within 72 hours.
2. Top Pruning: When thirty percent (30%) or more of the root zone of a tree is pruned, an equivalent amount of the top vegetative growth or the plant material shall be pruned off within one (1) week following root pruning.

Revised 11/17/14

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

D. Removal of Driveway Pavement and Sidewalk:

1. In order to minimize the potential damage to the trunk or the tree root system(s), the Contractor will not be allowed to operate any construction equipment or machinery within the "tree protection zone" located between the curb or edge of pavement and the right-of-way property line.
2. Sidewalk to be removed in the areas adjacent to the "tree protection zones" shall be removed with equipment operated from the street pavement. Removal equipment shall be Gradall (or similar method), or by hand or a combination of these methods. The method of removal shall be approved by the Engineer prior to commencing any work.
3. Any pavement or pavement related work that is removed shall be immediately disposed of from the area and shall not be stockpiled or stored within the parkway area under any circumstances.

E. Backfilling:

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

F. Damages:

1. In the event that a tree not scheduled for removal is injured such that potential irreparable damage may ensure, as determined by the Roadside Development Unit, the Contractor shall be required to remove the damage tree and replace it on a three to one (3:1) basis, at his own expense. The Roadside Development Unit will select replacement trees from the pay items already established in the contract.
2. The Contractor shall place extreme importance upon the protection and care of trees and shrubs which are to remain during all times of this improvement. It is of paramount importance that the trees and shrubs which are to remain are adequately protected by the Contractor and made safe from harm and potential damage from the operations and construction of this improvement. If the Contractor is found to be in violation of storage or operations within the "tree protection zone" or construction activities not approved by the Engineer, a penalty shall be levied against the Contractor with the monies being deducted from the contract. The amount of the penalty shall be two hundred fifty dollars (\$250.00) per occurrence per day or value of replacement of plant material damaged, whichever is greater.

Revised 11/17/14

SUPPLEMENTAL WATERING

Scope: This work will include watering turf, trees, shrubs, and perennial plants at the rates specified and as directed by the Engineer.

Schedule: Watering will only begin after the successful completion of all period of establishment requirements. Supplemental watering should be used at any time after initial watering to keep turf, trees, shrubs and perennials in a live healthy condition while it is establishing in the non-irrigated areas.

Watering must be completed in a timely manner. When the Engineer directs the Contractor to do supplemental watering, the Contractor must begin the watering operation within 24 hours of notice. Damage to plant material that is a result of the Contractor's failure to water in a timely way must be repaired or replaced at the Contractor's expense.

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

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

- Turf: 3 gallons per square foot
- Trees: 10 gallons per inch caliper or 5 gallons per foot in height
- Shrubs: 10 gallons per shrub
- Ornamental Grasses: 3 gallons per square foot
- Perennial Plants and Groundcovers: 3 gallons per square foot
- Vines: 3 gallons per vine

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

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

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

Revised 11/17/14

- Station 3704+75 to Station 3707+00 0 to 70 feet RT (Mixed-Use Building, PESA Site 2515-211, 833-843 West Van Buren Street). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene, Lead, Manganese.
- Station 3704+75 to Station 3707+00 0 to 70 feet LT (UIC, PESA Site 2515-209, 400-412 South Peoria Street). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene, Lead, and Manganese.

LANDSCAPE CONSTRUCTION WORK AND LANDSCAPE ESTABLISHMENT WORK

The Contractor shall complete each Phase of the work in accordance with the CALENDAR OF LANDSCAPE CONSTRUCTION AND ESTABLISHMENT WORK specified in the plans.

INTERIM COMPLETION DATE FOR PHASE ONE

The Contractor shall schedule his/her operations in order to complete all Phase I work on or before October 31, 2015.

INTERIM COMPLETION DATE FOR PHASE TWO

The Contractor shall schedule his/her operations in order to complete all Phase II work on or before May 31, 2016.

INTERIM COMPLETION DATE FOR PHASE THREE

The Contractor shall schedule his/her operations in order to complete all Phase III work on or before June 15, 2016.

INTERIM COMPLETION DATE FOR PHASE FOUR

The Contractor shall schedule his/her operations in order to complete all Phase IV work on or before September 15, 2016.

INTERIM COMPLETION DATE FOR PHASE FIVE

The Contractor shall schedule his/her operations in order to complete all Phase V work on or before November 15, 2016.

INTERIM COMPLETION DATE FOR PHASE SIX

The Contractor shall schedule his/her operations in order to complete all Phase VI work on or before May 15, 2017

INTERM COMPLETION DATE FOR PHASE SEVEN

The Contractor shall schedule his/her operations in order to complete all Phase VII work on or before July 31, 2017

COMPLETION DATE FOR PHASE EIGHT

The Contractor shall schedule his/her operations in order to complete all Phase VIII work on or before October 31, 2017.

Revised 11/17/14

FAILURE TO COMPLETE LANDSCAPE CONSTRUCTION AND LANDSCAPE ESTABLISHMENT WORK

Should the Contractor fail to complete the Phase I work on or before the completion date stipulated in the Contract, or within such extended time as may have been allowed, the Contractor shall be liable to the Department in the amount of \$1,025, not as a penalty but as liquidated damages, for each calendar day or portion thereof, of overrun in the Phase I time or such extended time as may have been allowed.

Should the Contractor fail to complete the Phase II work on or before the completion date stipulated in the Contract, or within such extended time as may have been allowed, the Contractor shall be liable to the Department in the amount of \$1,025, not as a penalty but as liquidated damages, for each calendar day or portion thereof, of overrun in the Phase II time or such extended time as may have been allowed.

Should the Contractor fail to complete the Phase III work on or before the completion date stipulated in the Contract, or within such extended time as may have been allowed, the Contractor shall be liable to the Department in the amount of \$1,025, not as a penalty but as liquidated damages, for each calendar day or portion thereof, of overrun in the Phase III time or such extended time as may have been allowed.

Should the Contractor fail to complete the Phase IV work on or before the completion date stipulated in the Contract, or within such extended time as may have been allowed, the Contractor shall be liable to the Department in the amount of \$1,025,, not as a penalty but as liquidated damages, for each calendar day or portion thereof, of overrun in the Phase IV time or such extended time as may have been allowed.

Should the Contractor fail to complete the Phase V work on or before the completion date stipulated in the Contract, or within such extended time as may have been allowed, the Contractor shall be liable to the Department in the amount of \$1,025, not as a penalty but as liquidated damages, for each calendar day or portion thereof, of overrun in the Phase V time or such extended time as may have been allowed.

Should the Contractor fail to complete the Phase VI work on or before the completion date stipulated in the Contract, or within such extended time as may have been allowed, the Contractor shall be liable to the Department in the amount of \$1,025, not as a penalty but as liquidated damages, for each calendar day or portion thereof, of overrun in the Phase VI time or such extended time as may have been allowed.

Should the Contractor fail to complete the Phase VII work on or before the completion date stipulated in the Contract, or within such extended time as may have been allowed, the Contractor shall be liable to the Department in the amount of \$1,025, not as a penalty but as liquidated damages, for each calendar day or portion thereof, of overrun in the Phase VII time or such extended time as may have been allowed.

Revised 11/17/14

Should the Contractor fail to complete the Phase VIII work on or before the completion date stipulated in the Contract, or within such extended time as may have been allowed, the Contractor shall be liable to the Department in the amount of \$1,025, not as a penalty but as liquidated damages, for each calendar day or portion thereof, of overrun in the Phase VIII time or such extended time as may have been allowed.

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

PLANTING WOODY PLANTS

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

Delete Article 253.03 Planting Time and substitute the following:

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

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

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

- Maple (Acer spp.)
- Hawthorn (Crataegus spp.)
- Bald Cypress (Taxodium distichum)
- Birch (Betula spp.)
- Turkish Filbert (Corylus colurna)
- Oak (Quercus spp.)
- Elm (Ulmus spp.)

Delete Article 253.03 (b) and substitute the following:

Fall Planting. No fall planting will be allowed without written request by the Contractor and written approval by the Engineer.

Planting dates are dependent on species of plant material and weather. Planting might begin or end prior or after above dates as approved by the Engineer. Do not plant when soil is muddy or during frost. No plant material shall be installed prior to the final grade of the planting soil. Trees must be installed first to establish proper layout and to avoid damage to other plantings. Shrubs must be installed second to establish proper layout and to avoid damage to perennials, ornamental grasses, and groundcovers.

Revised 11/17/14

All plant material not planted according to the specified seasonal date shall require prior written approval from the Engineer. Failure to secure such approval shall result in the rejection of the plant material and replacement at no additional cost to the Department.

Add the following to Article 253.05 Transportation:

Cover plants during transport. Plant material transported without cover shall be automatically rejected. Engineer to be present at delivery of trees and shrubs to provide acceptance of plant material.

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

The Contractor shall be responsible for all plant layout. The layout must be performed by qualified personnel. The planting locations must be laid out as shown in the landscape plan. This will require the use of an engineer's scale to determine some dimensions. Tree locations within each planting area shall be marked with a different color stake/flag and labeled to denote the different tree species. Shrub beds limits must be painted. The Engineer will contact the Roadside Development Unit at (847) 705-4171 to approve the layout prior to installation. Allow a minimum of seven working (7) days prior to installation for approval.

Delete Article 253.08 Excavation of Plant Holes and substitute the following:

No plant material shall be installed before below-ground irrigation system components have been installed and are operational.

Protect irrigation system components, structures, utilities, sidewalks, walls, planters, fences, pavements, utility boxes, other facilities, lawns and existing plants from damage caused by planting operations.

Holes for trees shall be dug at the location indicated by the marking stakes. Holes for shrubs shall be dug within the marked outline of the planting bed. The spacing of plants will be designated on the plans and/or landscape schedule. Spacing shall be measured form center-to-center, and alternate rows shall be staggered.

Excavate with sides vertical, bottom flat but with high center for drainage. Deglaze sides and loosen bottom. The diameter of the hole shall be 15 wide for all shade, ornamental and evergreen trees and 1 foot wider than the root ball for shrubs. The depth of the hole shall be such that the top of the root ball is 2 to 3 inches above finished grade (allowing for settling). Remove all excavated subsoil from the site and dispose as specified in Article 202.03. The excavated material shall not be stockpiled on turf or in ditches. See planting details.

See civil drawings for limits of structural backfill and wall foundations.

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

Trees, shrubs, and vines shall be thoroughly watered with a method approved by the Engineer.

Revised 11/17/14

Approved watering equipment shall be at the site of the work and in operational condition PRIOR TO STARTING the planting operation and DURING all planting operations OR PLANTING WILL NOT BE ALLOWED. Plant material will be rejected if installed after a prolonged period without irrigation.

Set plants in the excavated hole with top of ball 2 to 3 inches above finished grade. Add and tamp by hand soil as required under ball to achieve plumb. Untie all cords binding burlap to trunk. Remove all burlap and wire baskets from top ½ of the root ball. Where rocks, gravel, heavy clay or other debris are encountered, clean top soil shall be used. Do not backfill excavation with subsoil.

Place backfill in 6 inch-thick layers. Work each layer by hand to compact backfill and eliminate voids. Maintain plumb during backfilling. When backfill is approximately 2/3 complete, saturate backfill with water and repeat until no more water can be absorbed. Place and hand compact remainder of backfill and thoroughly water again. Visible root flair shall be left exposed, uncovered by the addition of soil. By mounding up the soil around the hole, create a saucer depression around the tree to hold future water.

Delete Article 253.11 and substitute the following:

Within 48 hours after planting, all plants in the entire mulched bed or saucer areas shall be mulched with 3 inches of fine grade Shredded Hardwood Bark Mulch. No weed barrier fabric will be required for tree and shrub planting. Pre-emergent Granular Herbicide will be used instead of weed barrier fabric. The Pre-emergent Granular Herbicide shall be applied prior to mulch application. See specification for Weed Control, Pre-Emergent Granular Herbicide.

Hardwood bark mulch shall be clean, finely shredded mixed-hardwood bark not to exceed two (2) inches in its largest dimension, free of foreign matter, sticks, stones, and clods. All hardwood mulch shall be processed through a hammer mill. A sample and request for material inspection form must be supplied to the Engineer for approval prior to performing any work.

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

Delete Article 253.12 Wrapping and substitute the following:

Any paper or cardboard trunk wrap must be removed before placing the tree in the tree hole in order to inspect the condition of the trunks. Within 24 hours, a layer of commercial screen wire mesh shall be wrapped around the trunk of all deciduous trees. All other plants planted individually shall be similarly wrapped when directed by the Engineer. The screen wire shall be secured to itself with staples or single wire strands tied to the mesh. Trees shall be wrapped at time of planting, before the installation of mulch. The lower edge of the screen wire shall be in continuous contact with the ground and shall extend up to the lowest major branch.

Revised 11/17/14

Add the following to Article 253.13 Bracing:

Trees required to be braced shall be braced within 24 hours of planting.

Add the following to the first paragraph of Article 253.14 Period of Establishment:

Prior to being accepted, the plants shall endure a period of establishment. This period shall begin in at time of installation and end in September of the same year.

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

Begin plant care when the final grade has been achieved in any one location. The Contractor is responsible for plant care until receipt of the "Final Acceptance of Landscape Work" memorandum from the Bureau of Maintenance. The Contractor shall properly care for all plants including weeding, watering, adjusting of braces, repair of water saucers, or other work which is necessary to maintain the health, vigor, and satisfactory appearance of the plantings. This may require pruning, cultivating, tightening and repairing supports, repair of wrapping, and furnishing and applying sprays as necessary to keep the plants free of insects and disease. The Contractor shall provide plant care a minimum of every two weeks, or within 3 days following notification by the Engineer. All requirements for proper plant care during the Period of Establishment shall be considered as included in the cost of the contract.

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

During plant care additional watering shall be performed at least every two weeks during the months of May through December. The contractor shall apply a minimum of 30 gallons of water per 3" caliper tree, 40 gallons per 4" caliper tree and 8' height tree, 35 gallons per 7' height tree, 25 gallons per large shrub, 15 gallons per small shrub, and 3 gallons per vine. The Engineer may direct the Contractor to adjust the watering rate and frequency depending upon weather conditions.

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

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

Revised 11/17/14

Delete Article 253.17 Basis of Payment and substitute the following:

This work will be paid for 75% of the contract unit price each for several kinds and sizes of trees and shrubs found to be alive and healthy condition by May 31st, as specified in Article 253.14. The remaining 25% of the contract unit price each will be paid for after the successful completion of all required replacement plantings and clean-up work and receipt of the "Final Acceptance of Landscape Work" memorandum from the Bureau of Maintenance. The unit price shall include the cost of all material, equipment, labor, plant care, disposal and incidental required to complete the work as specified herein and to the satisfaction of the Engineer. Payment for Shredded Mulch shall be included in contract unit price of the woody plant pay item. The placement of Pre-emergent Herbicide shall be paid for at the contract unit price for WEED CONTROL, PRE-EMERGENT GRANULAR HERBICIDE.

REQUIRED INSPECTION OF WOODY PLANT MATERIAL

Delete Article 1081.01(a)(5) and substitute the following:

The place of growth for all material, and subsequent inspection, must be located within 200 miles of the project.

Delete Article 1081.01(c)(1) and substitute the following:

Inspection of plant material will be made at the nursery by the Engineer, or a duly authorized representative of the Department; all plant material must be in the field of the nursery supplying the material. The Contractor shall submit plant inspection forms on the date specified in the CALENDAR OF LANDSCAPE CONSTRUCTION AND ESTABLISHMENT WORK in the plans. Written certification by the Nursery will be required certifying that the plants are true to their species and/or cultivar specified in the plans. The Department reserves the right to place identification seals on any or all plants selected. No trees shall be delivered without IDOT seal. Plant material not installed within 60 days of initial inspection will be required to be re-inspected.

PLANTING PERENNIAL PLANTS

Delete Article 254.03(a) Planting Time and replace with the following:

Planting Time. With the exception of bulb type plants, the following shall apply: Plantings shall be installed during Spring 2016. No fall planting will be allowed without written request by the Contractor and written approval by the Engineer.

All bulb type plantings located within all Stages shall be installed during Fall 2016.

Planting times for the various types of perennial plants shall be as follows:

- (a) Bulb Type. Bulb type plants shall be planted between October 15 and November 15.
- (b) Ornamental Type, Sedge Type, and Prairie Type plants shall be planted between May 1 and June 15.

Revised 11/17/14

Delete Article 254.05 Layout of Planting and replace with the following:

When plants are specified to be planted in prepared soil planting beds, the planting bed shall be approved by the Engineer prior to planting. The Contractor shall be responsible for all plant layout. The layout must be performed by qualified personnel. The planting locations must be laid out as shown in the landscape plan and/or landscape schedule. This will require the use of an engineer's scale to determine some dimensions. Bed limits must be painted. Landscape Architect shall be present at time of installation to approve layout of plant beds and vegetation prior to planting. The Engineer will contact the Roadside Development Unit at (847) 705-4171 to approve the layout prior to installation. Allow a minimum of seven (7) days prior to installation for coordination.

Add the following to Article 254.06 Planting Procedures:

When planting perennials in bed areas shown on the plans or as directed by the Engineer, the following work shall be performed prior to planting:

- All existing turf shall be cut out 2 inches below the existing soil line, and disposed of as specified in Article 202.03.
- Spade a planting bed edge at approximately a 45 degree angle and to a depth of approximately three (3) inches around the perimeter of the perennial bed. Remove any debris created in the spade edging process and dispose of as specified in Article 202.03.
- Do not plant when soil is saturated with water or muddy.
- No plant material shall be installed before below-ground irrigation system has been installed and is operational. Excavation for planting should be coordinated with irrigation system. Contractor to repair any damage to the irrigation system due to planting.
- Trees and shrubs must be installed first to establish proper layout and to avoid damage to other plantings. See planting details.
- Perennial plants shall be planted by a hand method approved by the Engineer. Open holes sized to accommodate roots, place plants at proper elevation and backfill with planting soil, working carefully to avoid damage to roots and to leave no voids. Build up a small water basin of soil around each plant.
- Immediately after planting, thoroughly water plant beds. Do not wash soil onto crowns of plants.

Revised 11/17/14

Delete the first sentence of Article 254.07 Mulching and substitute the following:

Within 24 hours, the entire perennial plant bed shall be mulched with 3 inches of fine grade Shredded Hardwood Bark Mulch. Hardwood bark mulch shall be clean, finely shredded mixed-hardwood bark not to exceed two (2) inches in its largest dimension, free of foreign matter, sticks, stones, and clods. All hardwood mulch shall be processed through a hammer mill. Hardwood bark not processed through a hammer mill shall not be accepted. A mulch sample shall be submitted to the Engineer for approval 72 hours prior to placing. Care shall be taken to place the mulch so as not to smother the plants.

Add the following to Article 254.07 Mulching:

Pre-emergent Herbicide shall be used in the perennial beds after the placement of mulch. See specification for Weed Control, Pre-emergent Herbicide.

Delete Article 254.08 (b) Period of Establishment and substitute the following:

Perennial plants must undergo a 30-day period of establishment. Additional watering shall be performed not less than twice a week for four weeks following installation. If the irrigation system is not able to provide enough water to establish the plants, the Contractor will provide supplemental watering at no additional charge. Water shall be applied at the rate of 3 gallons per square foot. 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. The Contractor shall notify the Engineer with any concerns regarding overwatering, drainage, or lack of sufficient watering of plants.

A spray nozzle that does not damage small plants must be used when watering perennial plants. Water shall be applied at the base of the plant to keep as much water as possible off plant leaves. Watering of plants in beds shall be applied in such a manner that all plant holes are uniformly saturated without allowing water to flow beyond the periphery of the bed. The plants to be watered and the method of application will be approved by the Engineer. Force of dispersal shall not disrupt the soil, mulch, or plant stability. The Contractor will not be relieved in any way from the responsibility for unsatisfactory plants due to the amount of watering.

Revised 11/17/14

Add the following Article 254.09 Period of Establishment:

During the period of establishment, weeds and grass growth shall be removed from within the mulched perennial beds. This weeding shall be performed a minimum of once per week or within 48 hours following notification by the Engineer during the 30 day period of establishment. The Contractor will not be relieved in any way from the responsibility for unsatisfactory plants due to the extent of weeding.

The weeding may be hand pulled or performed in any manner approved by the Engineer in writing provided the weed and grass growth, including their roots and stems, are removed from the area specified. Mulch disturbed by the weeding operation shall be replaced to its original condition. All debris that results from this operation must be removed from the right-of-way and disposed of at the end of each day in accordance with Article 202.03.

Add the following to Article 254.09 Method of Measurement:

- a) Disposal of sod and debris (rock, stones, gravel, concrete, bottles, plastic bags, etc.) removed from the perennial planting bed as specified in Article 202.03.
- b) Compost will be measured for payment as specified in Compost Furnish and Place, 1”.

Add the following to Article 254.10 Basis of Payment:

- a) Compost will be paid for as specified in Compost Furnish and Place, 1”.
- b) Pre-emergent Herbicide will be paid for as specified in Weed Control, Pre-emergent Herbicide.
- c) Payment for Shredded Mulch shall be included in contract unit price of the perennial plant pay item.
- d) The unit price shall include the cost of all materials, equipment, labor, plant care, removal, disposal and incidentals required to complete the work as specified herein and to the satisfaction of the Engineer.

WOODY PLANT CARE

Description: This work shall consist of weeding, replenishing mulch, debris removal and disposal, insect control, pruning, edging, removal of tree stakes and wires from replacement trees, and other plant care work items for each work cycle as described herein and as directed by the Engineer. The work required for each work cycle shall be scheduled to be complete and acceptable at the time of inspection.

Revised 11/17/14

Inspection Date: Woody plant care will be inspected on the date specified in the CALENDAR OF CONSTRUCTION AND ESTABLISHMENT WORK in the plans. The work required for each work cycle must be 100 percent complete on the inspection date. Partial inspections will not be made.

Work Cycle Requirements:

- Tree beds and shrub beds and tree saucers must be 100 percent weed-free and clear of debris to be acceptable. Control weeds in planting beds by pulling entire plant and roots.
- Straighten and guy any trees that have shifted over the winter.
- Dead branches, sucker growth and broken or objectionable branches on trees and shrubs must be pruned prior to bud break or when dormant.
- Do not prune shrubs into manicured shapes (cubes or globes).
- Dead plants must be removed and properly disposed of.
- Wood mulch must be replenished to maintain a 3 inch depth around woody plants. See details.
- Plants must be sprayed to eliminate any insect infestation.
- Plantings that have been growing for one season must have all stakes, wires, tree wrap, and tags/labels removed.
- Beds and tree saucers must have a neatly spaded edge between the mulched bed or saucer and the turf.
- Mulch must be raked out of turf surrounding the mulched bed or saucer.
- Remove any debris caught in trees or shrubs without damaging plant.
- All debris which results from this operation must be removed from the right-of-way and adjacent walkways at the end of each day.

Method of Measurement: This work will be measured for payment as each tree (shade, intermediate, or evergreen) and each shrub cared for to the satisfaction of the Engineer on the inspection date specified in the plans. Measurement for payment of this work will be performed on the inspection date specified in the plans. If the inspection discloses any work as being unsatisfactory, the Engineer will give the Contractor the necessary instructions for correction of same, and the Contractor shall immediately comply with such instructions and correct the unsatisfactory work on the inspection date. Work that is not acceptable on the inspection date will not be measured for payment. Individual shrubs/trees within a shrub bed will not be measured for payment if any portion of the shrub/trees bed has not been cared for to the satisfaction of the Engineer. Each tree care and shrub care work cycle specified in the CALENDAR OF CONSTRUCTION AND ESTABLISHMENT WORK in the plans will be measured separately for payment.

Basis of Payment: This work will be paid for at the contract unit price each for TREE CARE and SHRUB CARE which price shall include all materials, equipment, and labor necessary to complete the work specified.

Revised 11/17/14

PERENNIAL PLANT CARE

Description: This work shall consist of weeding, replenishing mulch, trimming and other perennial plant care work items for each work cycle as described herein and as directed by the Engineer. The work required for each work cycle shall be scheduled to be complete and acceptable at the time of inspection.

Inspection Date: Perennial plant care will be inspected on the date specified in the CALENDAR OF LANDSCAPE CONSTRUCTION AND ESTABLISHMENT WORK in the plans. Perennial Plant Care shall be performed every 30 days and will only begin after the successful completion of all period of establishment requirements. The work required for each work cycle must be 100 percent complete on the inspection date. Inspections of partially completed areas will not be performed. Perennial plant care will be inspected on a schedule as directed by the Engineer.

Work Cycle Requirements:

- Perennial plant beds must be 100 percent weed-free and clear of litter and debris to be acceptable. Control weeds in landscaped areas by pulling the entire plant and roots. (The Contractor may apply a pre-emergent herbicide, approved by the Engineer, during Spring perennial plant care cycles). Disturbed areas shall be raked level and mulch adjusted.
- Dead flowers, stems, and leaves must be trimmed and removed.
- Trim dead tips of ground covers.
- Plants must be free of insect infestations and sprayed if necessary.
- Monitor mulch depths to maintain a three-inch (75 mm) depth around perennial plants (no more, no less). Rake mulch any away from perennial crowns.
- Finely shredded hardwood bark mulch must be replenished to maintain a (3") three-inch depth around perennial plants, if necessary. Hardwood mulch shall not exceed (2") two inches in its largest dimension, free of foreign matter, sticks, stones and clods. (Mulch must be approved by the Engineer prior to placement).
- Beds must have a neatly spaded edge between the mulched bed and the turf.
- Mulch must be raked out of turf surrounding the mulched bed.
- In the spring (April), cut back ornamental grasses to six (6) inches in height. Cut down any perennial left up over the winter to a height of six (6) inches or less and remove any dead leaves around the crowns of the plants. Rake beds free of accumulated debris, dead leaves, and other material, leaving mulch in place and being careful not to damage emerging bulb foliage and flowers. Rake back any mulch that covers plant crowns.
- Fall clean-up (October 15 – November 15; depending upon weather conditions and condition of plant material), cut back perennials leaving 3 to 4 inches height foliage as soon as foliage has died back or at discretion of the Engineer. Do not cut into plant crowns. Do not cut back any perennial with winter interest (ornamental grasses, Echinacea/Rudbeckia seed heads/Sedum/Liriope/Heuchera/Asclepias).
- Remove litter and other debris. All drain inlets must be kept clean and draining freely. All walls, pavement, curb and gutters, and concrete pads are to be left clean and swept free of all debris.

Revised 11/17/14

- All debris that results from this operation must be removed from the right-of-way and adjacent walkways and disposed of in accordance with Article 202.03 at the end of each day.
- Identify and monitor pest and disease levels and determine action required to maintain the good appearance, health, and top performance of all plant material.
- Do not cut back the Narcissus, tulips, or Alliums. Let the foliage die back to the ground.

Method of Measurement: The work will be measured for payment of surface area cared for to the satisfaction of the Engineer on the inspection date specified in the plans. The area will be computed in square yards. Measurement for payment of this work will be performed on the inspection date specified in the plans or by Engineer.

If the inspection discloses any work as being unsatisfactory, the Engineer will give the Contractor the necessary instructions in writing for correction of same, and the Contractor shall immediately comply with such instructions and correct the unsatisfactory work on the inspection date. Work that is not acceptable on the inspection date will not be measured for payment. Individual perennial plant areas within a perennial plant bed will not be measured for payment if any portion of the perennial plant bed has not been cared for to the satisfaction of the Engineer. Each perennial plant care work cycle specified in the plans will be measure separately for payment.

Basis of Payment: This work will be paid for at the contract unit price per square yards for PERENNIAL PLANT CARE, which price shall include all materials, equipment, labor, removal, disposal and incidentals required to complete the work as specified herein and to the satisfaction of the Engineer.

GENERAL REQUIREMENTS FOR WEED CONTROL SPRAYING

Experience:

The Contractor shall have previous experience with the use of weed control chemicals. He/she shall have had at least one (1) season's experience in the use of their chemicals in spraying highway right-of-way or at least three (3) season's experience in their use in farm or custom spraying. The Contractor shall observe and comply with all sections of the Illinois Custom Spray Law, including licensing.

Equipment:

The equipment used shall consist of a vehicle-mounted tank, pump, spray bar and handgun, plus any other accessories needed to complete the specified work. Spraying shall be done through multiple low-pressure flooding or broad jet nozzles mounted on spray bars operated not more than 36" above the ground. If different sizes or types of nozzles are used to make up the spray pattern, the pressure, sizes and capacities shall be adjusted to provide a uniform rate of application for each segment of the spray pattern. Hand spray guns may be used for spraying areas around traffic control devices, lighting standard and similar inaccessible areas. Maximum speed of the spray vehicle during application of chemical shall be five (5) miles per hour.

Revised 11/17/14

Materials: Materials shall meet the applicable requirements of Division 1000 of the Standard Specifications.

Construction Requirements: Meet applicable requirements of Section 606 of the Standard Specifications. Construct combination concrete curb and gutter type B V.12 (CDOT) at the locations, widths and thickness shown on the Plans.

Method of Measurement: COMBINATION CURB AND GUTTER TYPE B V.12 (CDOT) will be measured for payment in feet along the flow line of the gutter and along the face of the concrete curb, which measurement will include drainage castings incorporated in various curbs and gutters.

Basis of Payment: This work will be paid for at the contract unit price per foot for COMBINATION CURB AND GUTTER TYPE B V.12 (CDOT).

TEMPORARY CHAIN LINK FENCE

Description. This work shall consist of furnishing, installing, maintaining, relocating and removing temporary chain link fence and gates. Temporary chain link fence shall be used to provide access control around the Peoria Street Bridge during construction. The fence and gates are to be installed at locations as specified on the plans or as directed by the Engineer. Work under this item shall be performed according to Section 664 of the IDOT Standard Specifications for Road and Bridge Construction, except as herein modified.

General Requirements. The Temporary Chain Link Fence shall be at least 8 feet in height. The Temporary Chain Link Fence shall be self-standing without the need to disturb the surface ground by excavation when adjacent to areas where no proposed work is to take place. The stand shall be made of galvanized steel pipe or similar materials. The Temporary Chain Link Fence may be anchored into existing pavement or sidewalk where the sidewalk or pavement is shown to be removed. Each fence panel shall be made from welded wire panels or out of chain link fence materials. All the necessary bases, panel clamps and bolts shall be included and installed in accordance to the manufacturer specifications and to the satisfaction of the Engineer.

The Temporary Chain Link Fence shall utilize opaque fabric meshing affixed to the chain link fence face. The fabric meshing shall allow passage of air but shall contain dust and dirt. The mesh fabric shall be the full height of the fence and cover the entire length of the fence including any gated opening. The fabric meshing and fence shall not contain any advertisement. The color of the fabric shall be approved by the Engineer. Graphics on fabric to be approved by the Roadside Development Unit.

Gates shall be installed where stabilized construction entrances are proposed or at locations approved by the Engineer to provide Contractor access to the work area. The gates shall be locked at the end of each work day.

Revised 11/17/14

Method of Measurement. Temporary Chain Link Fence shall be measured for payment in feet, along the top of the fence from center to center of end posts, including the length occupied by gates.

Basis of Payment. Temporary Chain Link Fence will be paid for at the contract unit price per foot for TEMPORARY CHAIN LINK FENCE for which said price shall include all labor, materials, equipment, furnishing, installing, maintaining and incidentals necessary for placement, relocation and removal and disposal of the temporary chain link fence and gates.

IRRIGATION SYSTEM

Description. This work includes installation of the irrigation system as indicated on the drawings and as specified herein.

Contractor shall submit required shop drawings for approval by the Engineer prior to commencement of any work on this item that has changed from the original design.

This work shall include all labor, material, equipment, tools, transportation, permits, and services to construct the irrigation system as designed and per approved shop drawings, in accordance with sections 561, 562, 563, and 565 of the Standard Specification for Road and Bridge Construction and the Standard Construction Details, except as herein modified.

Sprinkler lines shown on the drawings are essentially diagrammatic. Spacing of the sprinkler heads or quick coupling valves are shown on the drawings and shall be exceeded only with the permission of the Engineer.

The irrigation system shall include a controlled valve distribution system. Contractor shall furnish and install equipment as common in the industry, associated piping and incidentals as shown and specified.

The system shall be designed such that water at no time run off or spray onto the pavement. Contractor is responsible for field adjustments and final spray head nozzles selections.

This work shall include monitoring and adjusting the completed system to assure healthy plant development.

Water Services.

The Water Service Components to be provided by others as shown on the plans. There is a 2" existing PVC line which crosses Harrison Street at the west end of the project site that will be re-used. Contractor is to verify existing water pressure at the main and notify the Engineer of the results in writing if it is less than 60 psi static pressure. The locations of Water Service Components are shown on the plans schematically. The location of the Water Service Components will need to be verified in the field.

Electrical Services.

The electric service will be provided by others as shown on the plans.

Revised 11/17/14

Codes and Standards.

Codes: All plumbing work shall be installed within applicable provisions of the Chicago building code.

All devices and their installation must be in accordance with the Illinois Plumbing Code 2014 and Chicago Plumbing Code 2004. The contractor shall coordinate all plumbing work with the University of Illinois at Chicago.

Standards: Items listed to conform to ASTM, ANSI, or manufactures recommendations, for installation.

Any permits for the installation or construction of the work included under this contract which are required by any of the legally constituted authorities having jurisdiction, shall be obtained and paid for by the Contractor, each at the proper time. He shall also arrange for and pay all costs concerning any inspections and examinations required by these authorities.

In all cases where inspection of the sprinkler system work is required and/or where portions of the work are specified to be performed under the direction and/inspection of the Engineer, the Contractor shall notify the Engineer at least 48 hours in advance of the time and such inspection and/or direction is required.

Any necessary re-excavation or alterations to the system needed because of failure of the Contractor to have the required inspections, in the opinion of the Engineer, shall be performed at the "Contractor's" own expense.

Submittals.

Any required shop drawings for design changes shall be prepared by the Contractor. Submit samples unless directed otherwise by the Engineer.

Material Sample List: Include valves, sprinklers, wire, wire connectors, pipe, fittings, valve boxes, swing joints and quick couplers to be used on the project prior to purchasing materials. Quantities of material need not be included.

Manufacturer's Data: Submit manufacturer's catalog cuts, specifications, and operating instructions for the equipment mentioned above and equipment shown on the materials list.

Project Record (As-Built) Drawings.

The Contractor is to provide the University of Illinois at Chicago (Owner) a scaled drawing of the completed field "As-Built" of the system.

All components of the system are to be drawn and referenced to a fixed location on the site.

Components of the system but not limited to, sprinkler heads, electric valves, isolation valves, all PVC piping, quick couplers, PVC pipe sizing, grounding, power wire routes and size and 24v wire routes or decoder routes from the controller to the electric valves including common runs.

All PVC piping shall be referenced in the trench for lengths of run, change in direction and distance and locations of all components referenced in feet from a known point.

Revised 11/17/14

Two final hard copies of the overall drawings with dimension and notes are to be provided to the Owner and one copy of the As-Built in AutoCAD 2013 digital format at the same scale drawing as provided to the Contractor. The Contractor is to provide individual controller sequencing sheets in a 24" x 36" size and 8 ½" x 11" format. Both submittals shall be laminated and placed as directed by the Owner's Representative.

Rules and Regulations.

Work and materials shall be in accordance with the latest edition of the National Electric Code, the Uniform Plumbing Code, and applicable laws and regulations of the governing authorities.

When the contract documents call for materials or construction of a better quality or larger size than required by the above-mentioned rules and regulations, provide the quality and size required by the contract documents.

Quality Assurance.

The Contractor shall maintain continuously a competent superintendent, satisfactory to the Engineer, with authority to act for him in all matters pertaining to the work. The Contractor shall coordinate his work with the other trades.

The Contractor shall confine his operations to the area to be improved and to the areas allotted him by the Owner's representative for material and equipment storage.

The Contractor shall have a minimum of 5 years experience installing irrigation systems of comparable size and complexity within Chicagoland Area. The contractor shall also have suitable financial status to meet obligations for this project.

Delivery, Storage and Handling.

Deliver irrigation system components in manufacturer's original undamaged and unopened containers with labels intact and legible.

Deliver plastic piping in bundles, packaged to provide adequate protection of pipe ends either threaded or plain. Store and handle materials to prevent damage and deterioration.

Provide secure, locked storage for valves, sprinkler heads and similar components that cannot be immediately replaced, to prevent installation delays.

Materials.

Manufacturers and Minimum Requirements.

Use materials that are new and without flaws or defects of any type, and which are the best of their class and kind. All material overages at the completion of the installation are the property of the Contractor and are to be removed from the site.

Each major component of equipment shall have manufacturer's name, address, catalog and serial number permanently attached in a conspicuous place.

The same brand or manufacturer shall be used for each specific application of valves, fittings, controls, and other equipment as specified.

Revised 11/17/14

All materials shall be new and of the quality specified.

All equipment shall be listed, approved or rated by a nationally recognized testing and rating bureau of recognized manufacturer's association responsible for setting industry standards. All electrical equipment and apparatus shall be U.L. listed.

Acceptable irrigation manufacturers – Hunter, RainBird or approved equal, but must be approved as equal to that product shown on the plans and in the specifications prior to bidding.

It is the intent of this specification to establish a uniform equipment pallet for this and phases of the project. Substitutions will only be allowed if in the opinion of the Engineer it is deemed to be equal or an upgrade and offers the same features that were originally specified.

PVC or Polyethylene Piping & Fittings.

PVC Mainline Piping and Open Trench Sleeving: Use rigid, unplasticized polyvinyl chloride (PVC) 1120, 1220 National Sanitation Foundation (NSF) approved pipe, extruded from material meeting the requirements of Cell Classification 12454-A or 12454-B, ASTM Standard D1784, with an integral belled end. Use Class 200, SDR-21, conforming to the dimensions and tolerances established by ASTM Standard D2241 for all main lines and sleeving within the medians. Sleeving under concrete or roadways is to be galvanized steel. Sleeving under walks to be PVC sleeving shall be equal to twice that of the pipe being sleeved. Minimum wire sleeve shall be 2" or as indicated. Sleeve wire and pipe separately.

Use solvent weld pipe for mainline pipe with a nominal diameter 2 1/2" inches and less or where a pipe connection occurs in a sleeve. Use Schedule 40, Type 1, PVC solvent weld fittings conforming to ASTM Standard D2466 and D1784. Use primer approved by the pipe manufacturer. Solvent cement to conform to ASTM Standard D2564.

Provide pipe homogeneous throughout and free from visible cracks, holes, foreign materials, blisters, wrinkles and dents.

Provide pipe continuously and permanently marked with manufacturer's name and trademark, size schedule and type of pipe working pressure at 73 degrees F. and (NSF) approval.

Pipe sizes referenced in the construction documents are minimum sizes, and may be increased at the option of the Contractor at no cost to the Department.

All pipes damaged or rejected because of defects shall be removed from the site at the time of said rejection.

Polyethylene Pipe-PE Lateral Lines: All polyethylene (PE) pipe shall be virgin, high impact, polyethylene pipe, having minimum 100 PSI working pressure rating. All polyethylene pipe shall be continuously and permanently marked with manufacturer's name, material, size, and schedule of type.

Pipe shall conform to U.S. Department of Commerce Commercial Standard CS207-60, at latest revision. Material shall conform to all requirements of Commercial Standard (CS256-63), at latest revision.

Revised 11/17/14

Polyethylene insert pipe fittings shall be constructed of Schedule 80 and shall conform to ASTM D2466. Polyethylene pipe shall be secured to fitting by means of two (2) stainless steel hose clamps for fittings of 1.5" and 2". Fittings 1" and smaller shall use one (1) stainless steel crimp clamp or approved methods.

Install piping per manufacturers' recommendations and thrust blocking requirements.

If conditions are appropriate and rock free for vibratory plowing, the contractor may plow lateral piping, but must get the Engineer's approval prior to installation.

Specialized Pipe and Fittings:

All above grade pipe shall be copper pipe: Use Type "M" rigid conforming to ASTM Standard B88. Use wrought copper or cast bronze fitting, soldered or threaded per the installation details. Use 95% tin and 5% antimony solder.

Galvanized steel pipe: Use Schedule 40 conforming to ASTM Standard A120. Use galvanized, threaded, standard weight malleable iron fittings.

S-80 PVC fittings may be used and may be threaded or solvent weld. S-80 TOE nipples with S-80 couplings for plastic to metal connections. S-80 nipples cut in half will not be allowed.

Low-Density Polyethylene Hose: Use pipe specifically intended for use as a flexible swing joint, such as Funny Pipe or Swing Joint. Color: Black.

Use spiral barb fittings supplied by the same manufacturer as the hose.

Assemblies calling for threaded pipe connections shall use PVC Schedule 80 nipples and PVC Schedule 40 threaded fittings.

Use only Teflon-type tape on plastic threads.

Irrigation Controller.

The controller is existing and will be re-used. Wiring of new system will conform to work with existing controlbox. Contractor to confirm that the existing controller has two spare signal stations.

Electric Control Valves.

All valves shall be of globe or globe/angle configuration with a female pipe thread inlet and outlet connections. Diaphragm assembly shall be sonically welded to form a solid-piece component. The diaphragm shall be of rubber construction to retain flexibility and provide maximum sealing throughout its area.

Electric valves shall be 1" & 1.5" Hunter PGV Globe series electric valve series, RainBird PGA 1" & 1.5" or approved equal. The valve shall have a manual flow control with a hand-operated, rising-type flow control stem with control wheel/handle and an internal manual bleed assembly. Size per plan.

Revised 11/17/14

All parts shall be serviceable without removing valve from line. Valve may be installed at any angle without affecting valve operation.

22" solenoid lead wires shall be attached to a 24 VAC solenoid with waterproof molded coil capable of being removed by turning coil. Valve shall be held normally closed by internal water pressure with manual bleed screw.

The legend and flow arrow shall be applied at all valve locations. Valve numbering shall be located so as to be conspicuous and legible. The controller and valve numbering can be engraved in black on a yellow plastic tag. The tag size shall be standard size of 2.25" x 2.66".

The system will require the use of "Doublers" to be able to utilize the existing 24v wiring in place. The "Doubler" is to use one existing 24 v wire and split it into two signals using a jumper and open terminal in the controller. See plans for zones to be "Doubled".

Spray Heads

The spray head sprinklers shall be a 12" RainBird 1812 PRS-SAM Series, Hunter PRS30-CV, Hunter PRS40-CV or approved equal for spray heads in planting areas and 4" RainBird 1804 PRS-SAM Series, Hunter PRS40-CV or approved equal for spray heads in turf areas. Sprinkler shall be mounted flush with final finish grade as noted on irrigation plans.

Retraction shall be achieved by a heavy-duty stainless steel retraction spring. Sprinkler shall have a riser seal and a wiper. Sprinkler housing shall be of high impact molded plastic. Sprinkler shall have a large strainer so as to prevent nozzle clogging. Sprinkler shall be constructed such that it is serviceable from top in that drive assembly, screen, and all internal components are accessible throughout top of sprinkler without disturbing case installation. The sprinkler shall have a built-in pressure regulation device to regulate nozzle pressure regardless of the inlet pressure. The sprinkler shall have a drain check valve for up to 10 feet of elevation change.

Type and location of nozzles shall be Rain Bird MPR, HE Van, HUNTER Prospray, Hunter MP Rotator Nozzles or approved equal. Nozzles vary.

Quick Coupler Valves

Valves shall be 1" Hunter HQ-44RC, RainBird 44-RC series valves or approved equal. The quick coupling shall have a yellow vinyl cover. The matching Key shall be Hunter HK44 and HS-1 hose swivel or RainBird HK44 key and SH-1 hose swivel or approved equal. The quick coupler is to have stabilizer wings. If the valve does not have stabilizers originally installed, use attachable stabilizers manufactured by LEEMCO.

Quick coupler valves are to be mounted on a Spears swing joint with brass male threads and placed in a 10" round valve box. The valve box is to be filled with 3/8" clear pea gravel as detailed. Ensure proper height when backfilling.

Revised 11/17/14

Swing Joints

Swing Joints riser assemblies shall have a working pressure rating of 315 psi @73F. The swing joint shall have two O-rings at each swivel joint. The inlet and outlet sockets and threads conforming to ASTM standards D 2467 and D 2464, respectively. The body wall thickness of all components conforming to ASTM D 2464.

The swing joint riser assemblies will be molded of Rigid Poly (vinyl) Chloride (PVC) Type 1, Cell Classification 12454-B per ASTM Standard D 1784. It shall be manufactured in such a way, that both the male and female O-ring sealing areas be free from mold parting lines. The burst pressure tested per ASTM D2467 and the long term pressure tested at 1,000psi for 1,000 hours.

The swing joint shall have a three year warranty for the swing joint riser. The sprinkler swing joint shall have a minimum length 10" riser and quick coupler swing joints shall have a minimum length 12" riser for quick couplers and be by Spears, Dura or approved equal. The threads shall correlate to sprinklers, quick couplers and related components.

Solvent Weld Fittings.

Solvent weld PVC fittings shall be Schedule 40, ASTM D-2466 and ASTM D-1784. PVC Schedule-40 fittings shall be produced from PVC Type 1, Cell Classification 1245B. Fittings shall be manufactured by Spears or approved equal. All solvents and cements shall be that recommended by the manufacturer.

S-80 PVC fittings may be used and may be threaded or solvent weld. S-80 TOE Nipples with S-80 couplings for plastic to metal connections. (S-80 nipples cut in half will not be allowed)

Gate Valves.

Isolation valves 3" and smaller shall be ductile iron resilient seated globe valves. Valve body and restraint clamps shall be constructed of ductile iron per ASTM A-536, Grade65-42-12. Epoxy coating on all interior and exterior surfaces shall be fusion bonded epoxy, 10-12 mil thickness. Valve mechanism and hardware shall be made of 100% 304-series stainless steel. The valve stem shall be fine threaded stainless steel, O-ring sealed for ease of operation. Valve outlet shall be deep bell gasket and equipped with integrally cast joint restraint clamps to securely fasten pipe to the valve. Restraint shall have blunt cast serrations. Valve shall be made by LEEMCO or approved equal.

Control Wiring.

Use American Wire Gage #14 AWG standard direct burial wire. All signal wire shall include a solid copper conductor and polyethylene (PE) or PVC insulation. It shall be rated for 600 volts and manufactured by Paige, Barron or approved equal. All common wires shall be #14 AWG

Color: Wire color shall be continuous over its entire length. See drawing for color coding of control wire.

Splices: Use 3M DBY, 3M DBR with waterproof sealant. Wire connector to be of plastic construction.

Revised 11/17/14

Wire markers: pre-numbered or labeled with indelible non-fading ink, made of permanent, non-fading material.

All wiring to be installed following existing local and state codes.

Valve Boxes.

Valve boxes shall be manufactured by RainBird, Old Castle or approved equal and shall be rectangular, 12" /w 6" extension or 6" and 10" round and have "T" lid tops.

Valve box shall be of a size that provides adequate space for valve repairs. For decoder systems, one valve per 12" rectangular box, for 24v systems, a maximum of 2 electric valves per 12" rectangular valve box. A 10" round valve box may be used for isolation valves, quick couplers and wire drops only.

The valve box cover shall have the component markings engraved or heat stamped into the cover. Use the following symbols for corresponding components in the valve box.

GV – for Gate Valves
EV – for Electric Valves
WS – for Wire Splice
EW – for Extra Wire Drop
- Zone number

The final valve numbering shall also be branded into the tops with electric valves. Contractor may find an example of the branding tool at Brand New Industries Inc. Product # VB2x3.

The lids and boxes will be green when in turf and black when in plantings.

Detectible Tape

All mainlines and sleeves are to have a detectible metallic tracer tape placed 6" from the surface. The tape shall be 3" wide and indicate buried water below. Sleeves shall have tape brought just below the surface at the ends for ease of locating or terminated in valve boxes. Loop tape into and out of all valve boxes.

Other Components.

Tools and Extra Equipment: The Contractor is to provide to the Engineer, two (2) sets of tools to repair and work on all equipment specified in this irrigation section.

The Contractor is to provide the Owner with two (2) sprinkler heads of each type specified, (1) nozzle of each type and designation used, (1) electric valve of each size used.

The Contractor shall provide to the Owner, one (1) 4' wrench for the gate valve.

Provide one (1) key and hose swivel to the owner.

Other Materials: Provide imported fill material as required to complete this work at the Contractor's cost. Provide other materials or equipment shown on the drawings or installation details, which are part of the irrigation system, although such items may not have been referenced in these specifications.

Construction.

Inspection and Reviews.

Site Inspections: The bidder acknowledges that he has examined the site, plans and specifications, and the submission of a proposal shall be considered evidence that examination has been made.

Verify construction site conditions and note irregularities affecting work of this section. It shall be the contracting installer's responsibility to report to the Engineer any deviations between drawings, specifications and the site. Failure to do so before the installing of equipment and resulting in replacing and/or relocation of equipment shall be done at the Contractor's expense.

Examine final grades and installation conditions. Do not start irrigation system work until unsatisfactory conditions are corrected.

Beginning work of this section implies acceptance of existing conditions.

Utility Locations: The exact location of all existing utilities and structures and underground utilities are not indicated on the drawings; their locations shall be determined by the Contractor, and he shall conduct his work so as to prevent interruption of service or damage to them.

Arrange for and coordinate with local authorities the location of all underground utilities. Repair any underground utilities damaged during construction. Make repairs at no additional cost above the contract price.

The Contractor shall protect existing structures and utility services and be responsible for their replacement if damaged by him.

Excavation, Trenching and Backfilling.

Excavating shall be considered unclassified and shall include all materials encountered, except materials that cannot be excavated by normal mechanical means.

Excavate to permit the pipes to be laid at the intended elevations and to permit work space for installing connections and fittings.

Minimum cover (distance from top of pipe or control wire to finish grade):

12-inch over mainline pipe.

6-inch over control wire, follow local and state requirements if they dictate a deeper bury depth.

12-inch over lateral pipe to sprinklers with PE piping.

PVC mainlines or PVC, PE lateral pipes 2 1/2" and smaller may be pulled into the soil using a vibratory plow device specifically manufactured for pipe pulling, if in the opinion of the Landscape Architect that conditions are suitable. Minimum burial depths equals minimum cover listed above provided soil moisture content and other conditions are suitable to allow for full depth of the right to determine suitability or conditions.

Backfill only after lines have been reviewed and tested.

Revised 11/17/14

Excavated material is generally satisfactory for backfill. Backfill shall be free from rubbish, vegetable matter, and stones larger than 2 inches in maximum dimension. Remove material not suitable for backfill. Backfill placed next to pipe shall be free of sharp objects, which may damage the pipe.

Backfill unsleeved pipe by depositing the backfill material equally on both sides of the pipe in 6-inch layers and compacting each layer to 95% Standard Proctor Density, ASTM D698-78. Use of water for compaction, "puddling," will not be permitted.

Enclose pipe and wiring beneath roadways, walks, curbs, etc., in sleeves. Minimum compaction of backfill for sleeves shall be 95% Standard Proctor Density. ASTM D698-78. Use of water for compaction around sleeve, "puddling," will not be permitted.

Dress backfilled areas to original grade. Incorporate excess backfill into existing site grades.

Where utilities conflict with irrigation trenching and pipe work, contact the Engineer for trench depth adjustments.

Provide approved fine grained earth fill or sand to point 4" above the top of pipe where soil conditions are rocky or otherwise objectionable.

Excavate trenches and install piping and backfill during the same working day. Do not leave open trenches or partially-filled trenches open overnight.

The Contractor will be responsible for all finish and fine grading of trenches, disturbed areas around sprinklers heads, electric valves and any other excavated or disturbed areas by the Contractor. Contractor will also be responsible for all trench settling throughout the project during the one-year warranty period. If settling occurs, the contractor will repair and bring back to originally set grade.

When additional backfill material is needed to replace the unsuitable materials, it will be the Contractor's responsibility and expense to supply such material. It will also be the Contractor's responsibility to dispose of the unsuitable material.

Assembling pipe and Fittings.

General: Keep pipe free from dirt and pipe scale. Cut pipe ends square and debur. Clean pipe ends. Keep ends of assembled pipe capped. Removed caps only when necessary to continue assembly.

All mainline and continuously pressurized pipe is to be installed using open trenches. Lateral pipe may be installed by "Plowing" if soil conditions permit, and soils do not contain gravel, rock, construction debris, or other potential damaging material.

Trenches may be curved to change direction or avoid obstructions within the limits of the curvature of the pipe.

Mainline and Fittings: Use only strap-type friction wrenches for threaded plastic pipe.

PVC Solvent Weld Pipe: Use a primer and solvent cement. Join pipe in a manner recommended by the manufacturer and in accordance with accepted industry practices.

Cure for 30 minutes before handling and 24 hours before allowing water in pipe. Snake pipe from side to side within the trench.

Fittings: The uses of cross type fittings are not permitted.

Lateral Pipe and Fittings: Use only strap-type friction wrenches for threaded plastic pipe.

PVC Pipe: Join pipe in the manner recommended by manufacturer and in accordance with accepted industry practice. Snake pipe from side to side within the trench.

Installation of Sprinkler and Irrigation Components.

Remote Control Valve (RCV) Assembly: Flush mainline before installation of RCV assembly.

Install where indicated on the drawing. Wire connectors and waterproof sealant shall be used to connect control wires to remote control valve wire. Install connectors and sealant per the manufacturer's recommendations.

Install only one RCV to a valve box. Locate valve box at least 12 inches from and align with nearby walls and edges of paved areas. Group RCV assemblies together where practical. Arrange grouped valve boxes in rectangular patterns. Allow at least 12 inches between valve boxes.

Adjust RCV to regulate the downstream operating pressure. Attach ID tag with controller station number to control wiring.

Sprinkler Assembly: Flush lateral pipe before installing sprinkler assembly. Install per the installation details at locations shown on the drawings.

Locate rotor sprinklers 6 inches from adjacent walls, fences or edges of paved areas. Locate spray sprinklers 3 inches from adjacent walls, fences or edges of paved areas. Install sprinklers perpendicular to the finish grade.

Supply appropriate nozzle or adjust arc of coverage of each sprinkler for best performance. Adjust the radius of throw of each sprinkler for best performance.

Installation of Control System Components.

Irrigation Controller Unit: The location of the controller unit as depicted on the drawings is approximate the Engineer will determine the exact site location during sprinkler layout review.

Attach wire markers to the ends of control wires inside the controller unit housing. Label wires with the identification numbers (see drawings) of the remote control valve to which the control wire is connected. Connect control wires to the corresponding controller terminal.

Control Wire: For 24 v systems, bundle control wires where two or more are in the same trench. Bundle with pipe wrapping tape at 15-foot intervals.

Control wiring may be chiseled into the soil using a vibratory plow device specifically manufactured for pipe pulling and wire installation. Appropriate chisel must be used so that wire is fed into a chute on the chisel, and wire is not subject to pulling tension. Minimum burial depth must equal minimum cover previously listed.

Provide a 24-inch excess length of wire in an 8-inch diameter loop at each 90-degree change of direction, at both ends of sleeves and at 100-foot intervals along continuous runs of wiring. Do not tie wiring loop.

Coil 24-inch length of wire within each remote control valve box.

For 24 v systems, install common ground wire and one control wire for each remote control valve. Multiple valves on a single control wire are not permitted.

If a control wire must be spliced, make splice with wire connectors and waterproof sealant, installed per the manufacturer's instructions. Locate splice in a valve box that contains an irrigation valve assembly, or in a separate 10-inch round valve box.

Use same procedure for connection to valves as for in-line splices.

Protect wire not installed with PVC mainline pipe with a continuous run of warning tape placed in the backfill six inches above the wiring.

Installation of Other Components.

Tools and Spare Parts: Prior to the review at completion of construction, supply to the owner operating keys, servicing tools, spare parts, test equipment and any other items indicated in general notes on the drawings.

Other Materials: Install other materials or equipment shown on the drawings or installation details which are part of the irrigation system, even though such items may not have been referenced in these specifications.

Balancing and Adjusting.

The Contractor will be responsible for the balancing and adjustments of the various components of the system so the overall operation of the system is the most efficient. Including, but not limited to, the synchronization of the controllers, valves and sprinkler adjustments. Coordinate controller setup with the Engineer.

Requirements for Substantial Completion.

Cleaning Equipment and Premises: Thoroughly clean all parts of the piping, valves and equipment. Remove all construction debris, excess materials and equipment.

Revised 11/17/14

Operating and Maintenance Manuals: Contractor shall furnish to Owner, two operating manuals for furnished equipment. Information sheets shall be bound in standard three-ring binders labeled to show Contractor's name, address, regular business phone number, emergency phone number and date. Operating manuals shall be submitted prior to completion of work to allow time for review. Manual shall contain following information:

List (keyed with identification numbers used) each item of equipment which requires service, giving the name of the item, model number, manufacturer's name and address, and providing the name, address and phone number of the nearest representative of authorized service organization.

Cut sheets to be included for the following, but not limited to: electric valves, isolation valves, swing joints, valve boxes, controllers and sprinkler heads.

A copy of the shop drawing if changes in the design are required.

A complete operating and maintenance manual, parts list, wiring diagrams, lubrication requirements, and service instructions for each major item.

Complete control diagrams with description of all operation sequences and control devices.

Properly executed registrations and registered manufacturer's warranties.

After completion of work and when Owner has had sufficient time to examine operating manuals and become somewhat familiar with operation of equipment, a meeting will be arranged by the Contractor with the Owner for purpose of instructing Owner in proper maintenance of system and to answer questions he/she may have regarding its operation. Prior to this meeting, contractor shall have programmed a base program for all stations and run times.

It will be the responsibility of the Irrigation Contractor to provide a reliable communication system (i.e.: Two way radios or remote radio control activation system) for Substantial Completion, final acceptance and all periodic site visits. Once the controllers are operational, the contractor will be required to have a tablet device on site to operate the system. This tablet is to be accessible to the designer for any walk throughs that are scheduled.

If a site visit to verify Substantial Completion and final acceptance has been scheduled and the Architect or Irrigation Consultant arrives at the site and determines that the irrigation system is not substantially complete or ready for final acceptance (all system components in place, operational and checked) the Contractor shall be responsible for all costs incurred by the Architect or Irrigation Consultant to visit the site. Reimbursable expenses include but are not limited to the following: Mileage, airfare, consultants' time, parking fee, meals, rental car, etc. All incurred expenses will be deducted from the final contract amount. Notice for inspection shall be, at least, 7 days in advance.

Revised 11/17/14

Acceptance

Instruct the Owner's designated personnel in the operation of the system, including adjustment of sprinklers, controller(s), valves, pump controls and moisture sensing controls, etc. Once contractor has trained the owner's representative, the system is fully operational and has completed the punch list, the project will be accepted. A written acceptance and date will be provided, which will begin the warranty and maintenance periods.

Hydrostatic Testing.

Notify the Engineer three days in advance of testing.

Pipelines jointed with rubber gaskets or threaded connections may be subjected to a pressure test at any time after partial completion of backfill. Pipelines jointed with solvent-welded PVC joints shall be allowed to cure at least 24 hours before testing.

Subsections of mainline pipe may be tested independently, subject to the review of the engineer/landscape architect/owner's representative.

Furnish clean, clear water, pumps, labor, fittings, and equipment necessary to conduct test or retests.

Cap riser of mainline components for volumetric pressure tests. Backfill to prevent pipe from moving under pressure. Expose coupling and fitting. Purge all air from the pipeline before test.

Subject mainline pipe to the anticipated operating pressure for two hours. Maintain constant pressure. Test complete system under full line pressure. Pressure must be maintained with less than 2lbs loss in the system for 4 hours. If the system does not hold pressure, repair leaks and retest system until the system maintains pressure.

All necessary testing equipment shall be furnished by the Contractor. Cement or caulking to seal leaks is prohibited.

Activate each remote control valve in sequence from controller. Replace defective remote control valve, solenoid, wiring, or appurtenance to correct operational deficiencies.

Replace, adjust, or move water emission devices to correct operational or coverage deficiencies.

Repeat test(s) until each lateral passes all tests. Repeat tests, replace components, and correct deficiencies at no additional cost to the owner.

Guarantee / Warranty and Replacement.

It shall be the Contractor's responsibility to ensure and guarantee satisfactory operation of the entire system and the workmanship and restoration of the area. The entire system shall be guaranteed to be complete and perfect in every detail for a period of one year from the date of its acceptance and he hereby agrees to repair or replace any such defects occurring within that year, free of expense to the Owner.

Minor maintenance and adjustment shall be by the Owner.

Make repairs with in seven (7) days of notification form the Owner's Representative or owner.

Contract documents govern replacements identically as with new work. Make replacements at no additional cost to the contract price.

Guarantee/warranty applies to originally installed materials, equipment, and replacements made during the guarantee/warranty period.

Demonstration, Winterization and Spring Start-up.

Coordinate the winterization and start-up with the Owner's landscape maintenance personal.

Contractor shall winterize the system the first year as part of this contract, and will provide written instructions to the Owner for future service and maintenance.

Return to the site during the subsequent spring season and demonstrate to the Owner the proper procedures for the system start-up, operation and proper maintenance. Repair any damage caused in improper winterization at no additional cost to the owner.

After completion, testing and acceptance of the system, the Contractor will instruct the Owner's personnel in the operation and maintenance of the system.

Measurement. The contract unit price for irrigation system shall be measured per complete system installed and tested.

Basis of Payment. This work shall be paid for at the contract unit price per lump sum for IRRIGATION SYSTEM including all labor, material, equipment, and services necessary for providing the landscape irrigation systems in a serviceable, fully operational manner, including, but not limited to, excavation, backfilling, sprinkler heads, solenoid control valves, isolation valves, valve boxes, automatic controls, system testing, owner personnel training, piping, equipment identification, plumbing permits, inspection fees, valve tags, charts, supports, sleeves, fittings, valves, and accessories.

MUSHROOM COMPOST FURNISH AND PLACE

This work shall consist of furnishing, excavation, and placing compost as specified in Section 211 of the Standard Specifications with the following revisions:

Delete the first sentence of Article 211.01 Description and substitute the following:

This work shall consist of furnishing, transporting and placing mushroom compos to the depth specified in areas as shown in the plans or as directed by the Engineer.

Delete the first sentence of the first paragraph of Article 211.04 Placing Topsoil and Compost and substitute the following:

Mushroom compost shall not be placed until the area to be covered has been shaped, trimmed and finished according to Section 212.

Method of Measurement. This Work will be measured for payment, completed in place, per linear foot along face of the wall at the base.

Precast Wall Type A, Type B & Type C, will be measured per linear foot along front face of the wall at the base.

Basis of Payment. This Work will be paid for at the Contract unit price per linear foot for PRECAST WALL TYPE A, PRECAST WALL TYPE B and PRECAST WALL TYPE C. Payment is full compensation for furnishing and placing all materials, joint material, and for all labor, tools, equipment and incidentals necessary to complete this item of work.

The cost of rubbed finish is included with PRECAST WALL TYPE A, PRECAST WALL TYPE B and PRECAST WALL TYPE C.

WAYFINDING SIGN, SPECIAL

Description. This work shall consist of the complete design, submittal of Shop and Working Drawings, furnishing all materials, testing, warranties, labor, and equipment necessary to construct a wayfinding sign structure at the location shown in the Plans, in accordance with the Special Provisions, the Standard Specifications, and the Contractor's accepted Shop and Working Drawings. The wayfinding sign structure supports shall not be anchored or mounted in any way to the bridge deck and shall be free standing at the location shown in the Plans, as described in this Special Provision, and as accepted by the Engineer.

Definitions.

System Supplier: The manufacturer or supplier responsible for the design of the structural elements of the wayfinding sign structure capable of meeting the requirements of the Work.

Wayfinding sign structure: A structure designed to support all video, electrical, HVAC, and other integral components which together are capable of displaying real-time video and data feeds as controlled by the University of Illinois at Chicago. The structure shall consist of the structural frame to accommodate the components but shall not include any of the components. The components will be procured and installed at a later date outside the scope of this contract.

Service Life: The limit of time in which the wayfinding sign structure satisfactorily provides its intended function. Over this time the wayfinding sign structure shall:

- Provide the required support for the video screens, electrical components, HVAC equipment, etc.
- Meet the original specified material requirements
- Meet all structural and safety requirements
- Meet construction requirements

Revised 11/17/14

Coordination with Others

The final owner and operator of the wayfinding sign structure is the University of Illinois at Chicago (UIC). The Contractor shall note that coordination with UIC is expected and shall anticipate several iterations of coordination and review by the University. All coordination is to be considered included in the cost of the wayfinding sign structure.

General Requirements:

1. The Contractor shall submit a complete description detailing the proposed type of wayfinding sign structure to the Department. New construction methods will be allowed for consideration should they meet the specified requirements of this special provision. This submittal shall include name(s) of the Design Consulting firm and/or the name(s) of wayfinding sign structure supplier(s) that will perform the design together with their qualifications.
2. This work shall consist of the complete design, submittal of Shop and Working Drawings, furnishing all materials, and erecting the wayfinding sign structure at the location shown in the Plans and in accordance with the requirements of the Plans, this Special Provision, the Standard Specifications, and the Contractor's accepted Shop and Working Drawings. The wayfinding sign structure designs may be innovative and shall provide the same desired essential aesthetics, functions and characteristics of the facility including, but not limited to, service life, reliability, economy of operation, ease of maintenance, any necessary standardized features, desired appearance and required design standards.
4. The Contractor shall identify the Design Consulting Firm, Manufacturer or Supplier of the proprietary wayfinding sign structure system that is to perform the design of the wayfinding sign structure. If the Contractor proposes to utilize more than one firm to provide these services, the Contractor shall identify all proposed firms. The Contractor shall indicate the roles of each of the individual design firms and their subconsultants.

The Design Consulting Firm(s) shall meet the following minimum qualifications:

- Experience in sign structure design
- Sufficiently staffed and capable of performing the required structural design in accordance with the Contract documents
- All insurance requirement as stated in Article 107.27 of the Standard Specifications for Road and Bridge Construction
- The Department's designer of record for this contract and their Sub-Consultants shall be excluded as the Design Consulting Firm

Suppliers of proprietary wayfinding sign structure systems must have an equivalent level of expertise and will be allowed to perform the design work providing the responsible designer is a Licensed Structural Engineer registered in the State of Illinois with three (3) years of relevant experience.

Revised 11/17/14

6. The wayfinding sign structure shall be designed to safely support all wind loads on the wayfinding sign structure and any other temporary or permanent loads. Bearing loads shall be accounted for during all aspects of the wayfinding sign structure's service life, including but not limited to; fabrication, storage, transportation, placement and final location.
7. The Contractor shall verify the location of all existing utilities and structures and shall take all necessary precautions to perform the work in such a manner as to not damage existing utilities or structures, located near or beneath the wayfinding sign structure. Any damage to existing utilities or structures shall be repaired at no cost to the Department.
8. Any adjustments to other work items shown in the Plans or additional pay items required to erect the wayfinding sign structure per the Contractor's accepted design shall be his responsibility subject to review by the Department. Additional costs for any adjustments shall be the responsibility of the Contractor and shall be included in the lump sum bid price for the wayfinding sign structure.
9. If the wayfinding sign structure system manufacturer, supplier, or designer needs additional information to complete the design, the Contractor shall be responsible for obtaining such information at no additional cost to the Department.
10. The wayfinding sign structure shall be designed for a minimum service life of 50 years based on the consideration of the potential long-term effects of weathering, corrosion, spray from de-icing chemicals, and other potentially deleterious environmental factors on each of the material components comprising the wayfinding sign structure system.
11. The wayfinding sign structure material shall be manufactured from fire retardant material that meets State and local requirements.
12. The wayfinding sign structure shall be designed with due consideration of the aesthetic environment in which the sign is located.

MATERIALS

Structural Steel

Structural steel shall be fabricated and erected in accordance with Section 505 of the Standard Specifications for Road and Bridge Construction, the System supplier's recommendations and as approved by the Engineer.

Unless otherwise specified, structural steel shall conform to ASTM A 709 (ASSHTO M 270) Grade 36, and as specified in Article 1006.04 of the Standard Specifications. Structural steel exposed to weathering shall be hot-dip galvanized in accordance with ASTM A 123 (AASHTO M 111).

Galvanized surfaces shall be prepared in accordance with the paint manufacturer's recommendations.

Revised 11/17/14

Anchor Bolt Assemblies

Anchor bolts shall be cast-in-place and shall conform to Article 1006.09 of the Standard Specifications. If the anchor bolts in accordance with the Standard Specifications have insufficient shear or tensile strength by maximum dimensions, they may conform to the requirements of ASTM F1554. Hooked anchor bolts are not allowed. Anchor bolt assemblies shall be furnished with either anchorage plates meeting Article 1006.09 of the Standard Specifications, or plate washers in accordance with ASTM A 572 (AASHTO M223) Grade 50. Anchor plates and plate washers shall be hot-dip galvanized after fabrication in accordance with ASTM A 153 (AASHTO M 232).

Fasteners and Hardware

Hardware and fasteners shall be installed in accordance with the System Supplier's recommendations and as approved by the Engineer.

Miscellaneous fasteners and hardware shall conform to Article 1006.08 of the Standard Specifications and shall be galvanized steel in accordance with ASTM A153 (AASHTO M232). All fasteners used with treated wood products shall be stainless steel or hot-dipped galvanized per AASHTO M232, Class C, except the minimum weight of Zinc coating shall be 2.0 oz./sq. ft.

Fasteners for structural steel, other than anchor bolts, shall be high strength structural bolts in conformance with ASTM A 325 (AASHTO M 164), Type I and shall be mechanically galvanized in accordance with ASTM A 153 (AASHTO M 232).

SUBMITTALS

General

Submittals shall be in conformance with the special provision for Submittals except as modified herein.

System Supplier Certification

The Contractor shall submit the following documents for the Department's review, within four (4) weeks after the award of the Contract:

1. Specifications for all materials, including trade names of the products along with the name and address of the each Supplier, and the name of the System Manufacturer's contact person.
2. Specifications regarding installation procedures and sequence of construction.
3. A list of representative projects performed by this Contractor, including key client contacts.
4. The anticipated reaction forces the wayfinding sign structure applies to the supporting bridge deck.

Revised 11/17/14

The Department reserves the right to request a physical sample of the wayfinding sign structure proposed by the Contractor prior to the issuance of the Notice to Proceed.

Design Calculations, Shop Drawings, and Working Drawings

The Contractor shall submit detailed Shop and Working Drawings for the wayfinding sign structure no later than four (4) weeks after the award of the Contract, or no later than 90 days prior to the scheduled start of erection of the wayfinding sign structure, whichever date is earlier. Working drawings and shop drawings including calculations shall be prepared and submitted in accordance with Article 105.04 of the Standard Specifications for Road and Bridge Construction. The design calculations, shop drawings, and working drawings shall be submitted under the seal of a Structural Engineer currently licensed by the State of Illinois. The Department reserves the right to require proof of licensure.

The Contractor shall also provide the Department with an electronic format copy of the final accepted Shop Drawings including the Structural Engineer seal and signature, in a MicroStation and/or Acrobat PDF, or other format approved by the Department.

Samples

Prior to commencing design and preparation of Shop Drawings, the Contractor shall submit a mock-up of the wayfinding sign structure to the Department for their review and approval. If the test mock-up is not approved, additional mock-ups shall be furnished until a satisfactory mock-up is obtained, at no additional cost to the Department. The mock-up approved by the Department shall then be the standard of comparison for the finished structure. The Contractor shall consider in his schedule a 30-calendar day period from the date the submittal is received by the Engineer to the expected date of return with comment. This 30-day review period shall be considered with any resubmittal, and such resubmittals shall not be considered cause for an extension of time to the Contract.

Warranties

The Contractor shall submit all System Supplier's warranties for materials incorporated into the Work as specified herein.

The workmanship guaranty shall be for a minimum period of 3 years starting from the date of final completion of the Work. In the event any defects occur, the Contractor shall complete the repairs at his expense within 60 days of written notification of such defects.

The materials shall be impervious to road salt and calcium chloride for a 5-year Manufacturer/System Supplier warranty period. In the event the material fails to meet the aforementioned requirement within the 5-year warranty period, the Manufacturer/System Supplier shall complete the repairs at his expense within 60 days of written notification of such defects.

Revised 11/17/14

FABRICATION, CONSTRUCTION AND ERECTION REQUIREMENTS

The Contractor shall obtain technical assistance from the System Supplier during the progress of the Work.

Delivery, Storage, and Handling

The Contractor shall inspect all materials and allow the Engineer to inspect all materials as the materials arrive at the project site. The Contractor shall follow the System Supplier's recommendations in regards to protecting the materials from damage due to excessive temperatures, sunlight, moisture, dirt and debris. Any materials damaged during storage or installation shall be promptly replaced at no additional cost to the Department.

Erection and Application

Comply with NCMA {and BIA} recommendations and practices. Do not use frozen or ice coated materials. At end of each day or at shutdown, cover the wayfinding sign structure not enclosed or sheltered with clear polyethylene minimum 6 mil thick. Extend down each side of the structure a minimum of 16 inches and secure. Provide and maintain heat sufficient to assure temperature above 32 Deg F within protected areas, and remove all temporary facilities after completion of work.

Method of Measurement. This work will not be measured for payment.

Individual components of the WAYFINDING SIGN, SPECIAL as described and as shown on the plans will not be measured for payment.

Basis of Payment. This work completely installed and accepted as described in this Special Provision and as shown on the Contract Plans will be paid for at the Contract lump sum price for WAYFINDING SIGN, SPECIAL. This payment shall be considered to be full compensation for all work including the development of shop drawings, working drawings and design calculations; program physical sample (mock-up); removal and disposal of the mock-up; furnishing and installing bolts, hardware, and fasteners, testing; samples; casting, storing, transporting and erecting the supports; technical assistance from the manufacturer; preparing and furnishing warranties; and furnishing all labor, equipment, tools and incidentals necessary to complete the Work as specified.

All components required to erect the wayfinding sign structure shall be considered as part of the work in the Contract lump sum price for the wayfinding sign structure and not be paid for separately.

Revised 11/17/14

STORM WATER POLLUTION PREVENTION PLAN



**Illinois Department
of Transportation**

Storm Water Pollution Prevention Plan

| | | | |
|---------|------------------------|--------------|----------------------|
| Route | <u>F.A.I 90/94/290</u> | Marked Rte. | <u>Peoria Street</u> |
| Section | <u>2013-074I</u> | Project No. | <u></u> |
| County | <u>Cook</u> | Contract No. | <u>60X62</u> |

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

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

John Fortmann, PE
Print Name
Deputy Director of Highways, Region One Engineer
Title
Illinois Department of Transportation
Agency


Signature
10-6-14
Date

I. Site Description:

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

Peoria Street Aesthetics at I-290/Congress Parkway in the City of Chicago, Cook County, Illinois.

The project is located along Peoria Street from north of Harrison Street to south of Van Buren Street. The gross and net lengths of the project are 648.02 feet (0.123 miles) and 374.02 feet (0.071 miles), respectively.

Latitude: 41° 52' 31.87" N
Longitude: 87° 38' 58.22" W

The design, installation, and maintenance of BMPs at these locations are within an area where annual erosivity (R value) is less than or equal to 160. Erosivity is less than 5 in all two-week periods between October 12 and April 15, which would qualify for a construction rainfall erosivity waiver under the USEPA Construction General Permit requirements. At these locations, erosivity is highest in spring and summer, April 16 - October 11.

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

The work consists of retaining wall construction and landscaping north and south of the Peoria Street Bridge (SN 016-1708) over Interstate 290 and the CTA Blue Line from Harrison Street to south of Van Buren Street.

Work includes retaining wall construction, landscaping, irrigation system replacement, erosion control and protection, special waste excavation, earth excavation and embankment, removal of existing improvements, traffic control and protection, urban enhancements and all incidental and collateral work necessary to complete the improvements as shown on the Plans and as described herein.

- C. Provide the estimated duration of this project:

34 months

- D. The total area of the construction site is estimated to be 1.68 acres.

The total area of the site estimated to be disturbed by excavation, grading or other activities is 1.02 acres.

II. Controls:

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

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

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

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

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

The following stabilization practices will be used for this project:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Preservation of Mature Vegetation | <input checked="" type="checkbox"/> Erosion Control Blanket / Mulching |
| <input type="checkbox"/> Vegetated Buffer Strips | <input checked="" type="checkbox"/> Sodding |
| <input checked="" type="checkbox"/> Protection of Trees | <input type="checkbox"/> Geotextiles |
| <input checked="" type="checkbox"/> Temporary Erosion Control Seeding | <input checked="" type="checkbox"/> Other (specify) Shrubs |
| <input type="checkbox"/> Temporary Turf (Seeding, Class 7) | <input checked="" type="checkbox"/> Other (specify) Perennials |
| <input checked="" type="checkbox"/> Temporary Mulching | <input checked="" type="checkbox"/> Other (specify) Mulch Method 2 |
| <input type="checkbox"/> Permanent Seeding | <input type="checkbox"/> Other (specify) |

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

Refer to the Erosion and Sedimentation Control staging plan sheets for the contract specific stabilization practices called out for temporary conditions during construction. Stabilization controls runoff volume and velocity, peak runoff rates and volumes of discharge to minimize exposed soil, disturbed slopes, sediment discharges from construction, and provides for natural buffers and minimization of soil compaction. Existing vegetated areas where disturbance can be avoided will not require stabilization.

Preservation of Mature Vegetation - Mature vegetation shall be preserved as specified in the contract and at the direction of the Engineer.

Protection of Trees - Trees shall be protected as shown in the plans and at the direction of the Engineer.

Temporary Erosion Control Seeding - This item will be applied to all bare areas every seven days to minimize the amount of exposed surface areas. Earth stockpiles shall be temporarily seeded if they are to remain unused for more than 14 days. Within the construction limits, areas which may be susceptible to erosion as determined by the

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Engineer shall remain undisturbed until full scale construction is underway to prevent unnecessary soil erosion. Bare and sparsely vegetated ground in highly erodible areas as determined by the Engineer shall be temporarily seeded at the beginning of construction where no construction activities are expected within seven days.

Temporary Mulching - Mulch is applied to temporary erosion control seeding to allow for the seeding to take hold in the ground and grow. Without the mulching, the seeding will be displaced by wind and rain and therefore would not grow. Mulch will be paid separately and shall conform to Section 251 of the Standard Specifications.

Mulch Method 2 – Mulch Method 2 should be applied to slopes for temporary stabilization prior to seasons when Temporary Seed will not germinate, for example mid-July and in February.

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

Refer to the Landscaping plan sheets for the contract specific stabilization practices used for permanent conditions after construction activities. All areas disturbed by construction will be stabilized with sodding or woody/perennial plants with mulch immediately following the finished grading.

Mulching - This shall be placed around all woody plants and in all perennial plant beds.

Sodding - This shall be placed as specified in the contract and at the direction of the Engineer.

Woody Plants – Trees and shrubs will be planted at locations shown in the plans. Mulch shall be placed around the woody plants as shown in the plans and as directed by the Engineer.

Perennial Plants – Perennials will be planted at locations shown in the plans. Mulch shall be placed around the perennial plants as shown in the plans and as directed by the Engineer.

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

The following structural practices will be used for this project:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Perimeter Erosion Barrier | <input type="checkbox"/> Rock Outlet Protection |
| <input type="checkbox"/> Temporary Ditch Check | <input type="checkbox"/> Riprap |
| <input checked="" type="checkbox"/> Storm Drain Inlet Protection | <input type="checkbox"/> Gabions |
| <input type="checkbox"/> Sediment Trap | <input type="checkbox"/> Slope Mattress |
| <input type="checkbox"/> Temporary Pipe Slope Drain | <input type="checkbox"/> Retaining Walls |
| <input type="checkbox"/> Temporary Sediment Basin | <input type="checkbox"/> Slope Walls |
| <input type="checkbox"/> Temporary Stream Crossing | <input type="checkbox"/> Concrete Revetment Mats |
| <input checked="" type="checkbox"/> Stabilized Construction Exits | <input type="checkbox"/> Level Spreaders |
| <input type="checkbox"/> Turf Reinforcement Mats | <input type="checkbox"/> Other (specify) |
| <input type="checkbox"/> Permanent Check Dams | <input type="checkbox"/> Other (specify) |
| <input type="checkbox"/> Permanent Sediment Basin | <input type="checkbox"/> Other (specify) |
| <input type="checkbox"/> Aggregate Ditch | <input type="checkbox"/> Other (specify) |
| <input type="checkbox"/> Paved Ditch | <input type="checkbox"/> Other (specify) |

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

Refer to the Erosion and Sedimentation Control plan sheets for the contract specific structural practices for temporary conditions during construction.

Perimeter Erosion Barrier - Silt fences shall be placed along the contour at the limits in an effort to contain silt and runoff from leaving the site. Silt fence shall not be installed in areas of concentrated flow such as across ditches. The barrier will be constructed at the beginning of construction. Damage to silt fence by traffic or snow plowing should be immediately fixed by the Contractor.

Storm Drain Inlet - Sediment filters will be placed in all open lid inlets, catch basins and manholes during construction and shall be cleaned on a regular basis.

Stabilized Construction Exits - Stabilized Construction Exits or Entrances will be provided by the Contractor. The entrance shall be maintained in a condition which shall prevent tracking or flowing of sediment onto Public-Right-Of-Way. Periodic inspection and needed maintenance shall be provided after heavy use and each rainfall event.

All work associated with installation and maintenance of concrete washouts is incidental to the contract and should not be paid for separately.

All erosion control products furnished shall be installed specifically as recommended by the manufacturer for the use specified in the erosion control plan prior to the approval and use of the product. The Contractor shall submit to the Engineer a notarized certification by the producer stating the intended use of the product and that the physical properties required for this application are met or exceeded. The Contractor shall provide manufacturer installation procedures to facilitate the Engineer in construction inspection.

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

Once construction is completed and the vegetation has been established, the perimeter erosion barrier will be removed and areas disturbed by the removal will be stabilized with seeding and erosion control blanket / mulching.

D. Treatment Chemicals

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

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

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

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

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

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

Description of permanent storm water management controls:

The Phase I Location Drainage Study indicates no modifications are planned for Pump Station #5. The tailwater conditions representing the South Branch of Chicago River (outfall for Pump Station #5) will not be modified from existing to proposed conditions. The drainage area for Pump Station #5 is along I-290 from the western extent at Central Avenue to the eastern extent at Des Plaines Street within the Circle Interchange.

Phosphorous fertilizer has been eliminated from the project to reduce project impacts on the receiving waters.

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

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

All management practices, controls, and other provisions provided in this plan are in accordance with "IDOT Standard Specification for Road and Bridge Construction" and "Illinois Urban Manual."

- G. **Contractor Required Submittals:** Prior to conducting any professional services at the site covered by this plan, the Contractor and each subcontractor responsible for compliance with the permit shall submit to the Resident Engineer a Contractor Certification Statement, BDE 2342a.
1. The Contractor shall provide a construction schedule containing an adequate level of detail to show major activities with implementation of pollution prevention BMPs, including the following items:
 - Approximate duration of the project, including each stage of the project
 - Rainy season, dry season, and winter shutdown dates
 - Temporary stabilization measures to be employed by contract phases
 - Mobilization timeframe
 - Mass clearing and grubbing/roadside clearing dates
 - Deployment of Erosion Control Practices
 - Deployment of Sediment Control Practices (including stabilized construction entrances/exits)
 - Deployment of Construction Site Management Practices (including concrete washout facilities, chemical storage, refueling locations, etc.)
 - Paving, saw-cutting, and any other pavement related operations
 - Major planned stockpiling operations
 - Timeframe for other significant long-term operations or activities that may plan non-storm water discharges such as dewatering, grinding, etc.
 - Permanent stabilization activities for each area of the project
 2. The Contractor and each subcontractor shall provide, as an attachment to their signed Contractor Certification Statement, a discussion of how they will comply with the requirements of the permit in regard to the following items and provide a graphical representation showing location and type of BMPs to be used when applicable:
 - Vehicle Entrances and Exits – Identify type and location of stabilized construction entrances and exits to be used and how they will be maintained.
 - Material Delivery, Storage and Use – Discuss where and how materials including chemicals, concrete curing compounds, petroleum products, etc. will be stored for this project.
 - Stockpile Management – Identify the location of both on-site and off-site stockpiles. Discuss what BMPs will be used to prevent pollution of storm water from stockpiles.
 - Waste Disposal – Discuss methods of waste disposal that will be used for this project.
 - Spill Prevention and Control – Discuss steps that will be taken in the event of a material spill (chemicals, concrete curing compounds, petroleum, etc.)
 - Concrete Residuals and Washout Wastes – Discuss the location and type of concrete washout facilities to be used on this project and how they will be signed and maintained.
 - Litter Management – Discuss how litter will be maintained for this project (education of employees, number of dumpsters, frequency of dumpster pick-up, etc.).
 - Vehicle and Equipment Fueling – Identify equipment fueling locations for this project and what BMPs will be used to ensure containment and spill prevention.
 - Vehicle and Equipment Cleaning and Maintenance – Identify where equipment cleaning and maintenance locations for this project and what BMPs will be used to ensure containment and spill prevention.

- Dewatering Activities – Identify the controls which will be used during dewatering operations to ensure sediments will not leave the construction site.
- Polymer Flocculants and Treatment Chemicals – Identify the use and dosage of treatment chemicals and provide the Resident Engineer with Material Safety Data Sheets. Describe procedures on how the chemicals will be used and identify who will be responsible for the use and application of these chemicals. The selected individual must be trained on the established procedures.
- Additional measures indicated in the plan.

III. Maintenance:

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

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

The Contractor will be responsible for the inspection, maintenance and repair of all sedimentation and erosion control measures. If the Engineer notices or is notified of an erosion or sedimentation deficiency, the Engineer will notify the Contractor to correct it. All Offsite Borrow, Waste, and Use areas are part of the construction site and are to be inspected according to the language in this section and Section IV.

Inspection of these areas shall be made at least once every seven days and within 24 hours of the end of each 0.5 inches or greater rainfall, or an equivalent snowfall. Additionally during winter months, all measures should be checked after each significant snowmelt. Any necessary repairs or cleanup to maintain the effectiveness of said measures shall be made immediately. The project shall additionally be inspected by the Construction Field Engineer on a bi-weekly basis to determine that the erosion control efforts are in place and effective and if other erosion control work is necessary.

All erosion and sediment control measures shall be maintained in accordance with the IDOT Erosion and Sediment Control Field Guide for Construction Inspection:

<http://www.idot.illinois.gov/Assets/uploads/files/Transportation-System/Manuals-Guides-&-Handbooks/Highways/Environment/Erosion and Sediment Control Field Guide for Construction Inspection.pdf>

In additional, the following link may also be useful for maintenance:

<http://www.idot.illinois.gov/transportation-system/environment/erosion-and-sediment-control>

Seeding - All erodible bare earth will be temporarily seeded on a weekly basis to minimize the amount of erodible surface within the contract limits. Construction equipment shall be stored and fueled only at designated locations. All necessary measures shall be taken to contain any fuel or pollution runoff in compliance with environmental law and EPA Water Quality Regulations. Leaking equipment or supplies shall be immediately repaired or removed from the site. On a weekly basis, the Engineer shall inspect the project to determine whether erosion control efforts are in place and effective and if additional control measures are necessary. Sediment collected during construction by the various temporary erosion control systems shall be disposed on the site on a regular basis as directed by the Engineer and stabilized accordingly.

Temporary Erosion Control Seeding - Reapply seed if stabilization has not been achieved. Apply temporary mulch to hold seed in place if seed has been washed away or found to be concentrated in ditch bottoms. Restore rills, greater than 4 inches deep, as quickly as possible on slopes steeper than 1V:4H to prevent sheet-flow from becoming concentrated flow patterns.

Perimeter Erosion Barrier - This shall be inspected every 7 calendar days and after a storm event of 0.5 inch or greater (including snowfall). Repair when tears, gaps, leaning or undermining occur and restore erosion barrier taut. Repair or replace any missing or broken stakes immediately. Sediment will be removed if the integrity of the fencing is in jeopardy. Remove once permanent stabilization is established since it will no longer be necessary.

Erosion Control Blanket - Repair damage due to water running beneath the blanket and restore when displacement occurs. Reseeding may be necessary. Replace and re-staple all displaced erosion control blankets immediately.

Mulching - Temporary mulch is to be inspected by the Resident Engineer and Contractor every 7 calendar days and after a storm event of 0.5 inch or greater (including snowfall). If straw is blown or washed away, erosion control blanket curls or slides down a slope, or hydraulic mulch washes away, maintenance of this item will be required.

Sodding - Limit foot traffic to low use for the first two to three weeks. Ensure irrigation rate does not result in runoff. Install salt-tolerant sod where needed. Replace when >25% of any individual piece of sod is no longer viable. Restore areas where rolling edges are present or sod is displaced.

Protection of trees/temporary tree protection - Any protective measures which are knocked down shall be repaired immediately. Trim any cuts, skins, scrapes or bruises to the bark of the vegetation and utilize local nursery accepted procedures to seal damaged bark. Prune all tree branches broken, severed, or damaged during construction. Smoothly cut, perpendicular to the root, all cut, broken, or severed during construction, roots 1 inch or greater in diameter. Cover roots exposed during excavation with moist earth and/or backfill immediately to prevent roots from drying.

Storm Drain Inlet Protection - Remove sediment from inlet filter basket when it is 25% full or 50% of the fabric pores are covered with silt. Remove ponded water on road surfaces immediately. Clean filter if standing water is present longer than one hour after a rain event. Remove trash accumulated around or on top of practice. When filter is removed for cleaning, replace filter if any tear is present.

Stabilization Construction Exits - Replenish stone or replace exit if vehicles continue to track sediment onto the roadway from the construction site. Sweep sediment on roadway from construction activities immediately. Use street sweeping in conjunction with this BMP to remove sediment not removed by the stabilized construction exit.

Material Delivery and Storage - Document the various types of materials delivered and their storage locations in the SWPPP. Update the SWPPP when significant changes occur to material storage or handling locations and when they have been removed. Cleanup spills immediately. Remove empty containers.

IV. Inspections:

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

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

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

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

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

Additional Inspections Required:

All Offsite Borrow, Waste, and Use areas are part of the construction site and are to be inspected according to the language in this section

V. Failure to Comply:

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

SOIL MOISTURE MONITORING OF LANDSCAPED AREAS

The Contractor is responsible for monitoring moisture in all planting beds in order to adjust irrigation and hand-watering. These beds include irrigated and non-irrigated landscaped areas. The Contractor shall be responsible for the adjustment of all irrigation controllers as well as the scheduling of all other watering. Any supplemental watering required in irrigated areas due to poor coverage of system shut down is considered incidental to landscape maintenance.

Using a probe or moisture meter, monitor the plant root balls and surrounding soils of each area to assure consistent and adequate moisture content in each planting bed.

During the Spring (April 15 to May 31) and Autumn (September 15 to October 15), monitor planting areas a minimum of once per week.

During the Summer (June 1 to September 15) or when daytime temperatures exceed ninety (90) degrees Fahrenheit for more than two (2) consecutive days, monitor the planting areas a minimum of twice per week.

Submit all moisture monitor readings to the Resident Engineer.

The contractor shall immediately notify the Engineer, of excessive moisture or drought conditions. If the landscape area is irrigated, the Contractor shall make and inform the Resident Engineer of the necessary adjustments to the irrigation system. All adjustments to the irrigation system will be included in the cost of the Irrigation System pay item. Any supplemental watering required in irrigated locations shall be incidental to the Irrigation System pay item.

Watering of newly installed plant material is included in the cost of installing of each tree, shrub, and perennial plant pay item. It is the responsibility of the Contractor to assure no plant material is lost due to lack of water or overwatering. Any loss of newly installed plant material determined by the Engineer to be due to lack of water or overwatering is the responsibility of the Contractor to replace at no additional cost to this Contract.

Added 11/17/14