



DATE: January 13, 2017

ADDENDUM NO. 3

Notice to All Persons and Firms proposing to Submit a Bid or Furnish Materials for City of Maryland Heights **McKelvey Woods Trail Phase II Bid No. 2017-02 (Federal Project No. STP5401 (659))**

The City of Maryland Heights is making the following revisions and/or clarifications to the specifications for this project.

1. JSP 41-1 refers to St. Louis County specification Section 607.10 which only goes up to 7' high fence. The bid documents are requiring 8' high & 12' high fence on this project. Do additional details or information need to be developed and/or considered?

JSP 41 modified. See document attached.

Pay Item 41A – 8-foot Galvanized Chain-Link Fence

- Fencing to match existing chain link materials and height of fence at the site.
- Contractor to match the fencing materials located parallel to trail from station 78+00 to 82+00, left.
- Fencing to be installed raked at all locations.
- Detail shown on C-509.
- Materials and Shop Drawings for Fencing pay item 41A to be submitted by Contractor to City 14-calendar days prior to installation.

Pay Item 41B – 8-foot Galvanized Chain-Link Fence with Barbed Wire

- Same fencing materials matched for Pay Item 41A to be used for 41B.
- Application to include 3-strand barb-wire on top for security.
- Include 3-strand barb wire with this pay item.
- Detail shown on C-509.
- Materials and Shop Drawings for Fencing pay item 41B to be submitted by Contractor to City 14-calendar days prior to installation.

Pay Item 41C – 12-foot Vinyl Coated Chain Link Fence with Mesh Screen

- The design intent of the 12-foot high fence is to provide a golf ball protection barrier with a chain link fence fabric backing.
- Chain link fence materials anticipated to match Pay Items 41A with a black vinyl coating on all components. Contractor to determine when components to be changed due to 12-ft height.
- Golf netting to be attached to chain link fence fabric.
- Material pre-approved for golf netting is as follows:
 - ci Fabrics:
 - § 3/4-inch Square – Knotted Nylon
 - § Edging: Rope edge

- **Item Number: 15**
- **<http://www.cifabrics.com/golf-net.html>**
- **Contact Information**
 2325 Marconi Court
 San Diego, CA 92154-7241
 Phone: (800) 622-7169
 Fax: (619) 661-1607
 E-mail: info@cifabrics.com

- **12-ft high fencing detailed on Sheet C-505.**
- **All fencing materials to be black (posts, chain link fabric, golf ball fabric, fasteners, etc.).**
- **Materials and Shop Drawings for Fencing pay item 41C to be submitted by Contractor to City 14-calendar days prior to installation.**

2. Can additional clarification be provided for the type of screening that is desired on the 12' high fence?

See Response 1 above.

3. Item 40 & 41 are detailed on Sheet C-648 which is a common St. Louis County detail. However, JSP-47A & 47B seem to describe something much different. Please clarify what is desired for this pay item.

Striping and signage is detailed on sheet C-648.

Pay Item 40, Aluminum Handrail for Steps Clarification:

- **Detail on sheet C-510 shows bid item 40.**
- **Detail on sheet C-510 shows show general orientation and bolt mounting option.**
- **Aluminum Handrail shall follow specification JSP-47A.**
- **Handrail to be black in color.**
- **Aluminum Handrail to be used as a handrail on each side of the concrete steps.**
- **Contractor has option to embed Handrail directly in concrete or use base plate and bolts.**
- **Contractor to identify handrail foundation type on shop drawings.**
- **Contractor's shop drawing for Decorative Pedestrian Guardrail to be reviewed by City.**

Pay Items 41A, 41B, 41C, 41D, 41E Fencing Clarification

- **See Response 1 above.**

Pay Item 47A, Trail Signs Clarification

- **Follow specifications for this pay item. Advised to review the following items:**
 - **All trail signs to be design, manufactured, and installed as per Exterior Design Standards as published by Great Rivers Greenway District.**
 - **Submit pre-fabrications submittals for each trail sign.**
 - **Footing design to be submitted as completed by a Missouri PE for signage. Minimum one footing design for the largest sign on the longest post. Contractor shall determine sign(s) to submit designs on.**
 - **Obtain All Trail Signs from Image Manufacturing Group.**

Pay Item 47B, Roadway Signs Clarification

- **Follow specifications for this pay item.**
- **All roadway signs shall be AASHTO compliant.**
- **Submit pre-fabrication submittals for each roadway sign OR provide certification that all signs are AASHTO compliant**
- **Install roadway signs per MoDOT requirements.**

4. Where on Sheets C-505A & C-505B can the 8' high plus barbwire fence be found as listed/described on Sheet 2B-1 for Item 29? Is this a mistake or a possible double up of the 12' high vinyl fence for Item 30?

The quantity was double counted. The quantity of 104 linear feet for sheet C-505A & C-505B will be located as per discretion of Construction Manager.

5. How would you propose we estimate the Tree Protection Plan? The bid unit is 15, but it doesn't appear any of the trees needing protection have been identified in the plans.

In Creve Coeur Park pay item 98, Temporary Barrier shall be used to protect trees by the contractor. See Addendum 2 for revised quantity of Temporary Barrier. Also, trees requiring protection on sheet C-101 that are also encircled with Tree Protection or Temporary Barrier. These trees are utilized for climbing by park users at special events.

The locations of Tree Protection shown on landscape plan that is redundant with this continual Temporary Barrier in Creve Coeur Park will be a quantity to be installed as per direction of Construction Manager.

In areas outside Creve Coeur Park, the landscaping sheets (L-101 to L-123) show tree protection locations and specify that any tree within 50-ft of the grading limits is to be protected.

Station Range 80+00 to 113+00 Notes:

- **Tree clearing activity shall be limited to within the slope limits and addition clearing areas identified in Addendum 2.**
- **Trees would be identified for protection by Construction Manager (tape ran around trees or other measure to mark)**
- **Tree Protection would be installed up after trees marked are completed.**

6. Plan sheet L-001, Landscaping note 5 discusses aggregate mulch and how it should match the existing on-site product. What is the onsite product and where is it located?

Mulch to be used to match existing used at the site. Double ground hardwood mulch is acceptable replacement for the aggregate mulch discussed in Landscape note 5 on Plan Sheet L-001.

CITY OF MARYLAND HEIGHTS



Cliff Baber, P.E.
Construction Manager

JSP-41A – 8’ GALVANIZED CHAIN-LINK FENCE

JSP-41B – 8’ GALVANIZED CHAIN-LINK FENCE WITH BARBED WIRE

JSP-41C – 12’ VINYL COATED CHAIN-LINK FENCE WITH MESH SCREEN

JSP-41D – GALVANIZED CHAIN-LINK DOUBLE SWING GATE WITH BARBED WIRE (8-FOOT HEIGHT)

JSP-41E – VINYL COATED CHAIN-LINK SINGLE SWING GATE (12-FOOT HEIGHT)

01. SCOPE

This work shall include furnishing and erecting Chain-Link Fence or Chain-Link Fence Gates.

All vinyl coating fence products shall be black in color.

All chain link fencing and gates shall be raked to follow the finished grade of the surface.

Where called for on the Project Drawings, in the details, or as instructed by the Project Engineer, erect Chain-Link Fence or Chain-Link Fence Gates.

Include grounding system for all sections of fences and gates.

02. MATERIALS

Material shall match existing chain link fence materials used at the site. Match fence **the fencing materials located parallel to trail from station 78+00 to 82+00, left.** ~~conform to the Saint Louis County Standard Specifications, Division 1000 Materials Details, specifically as follows:~~

~~Section 1043.2 – Chain-Link Fence Material~~

~~Section 1043.2.5 – Post, Braces, Rails and Gate Frames~~

Mesh screen material will be used adjacent to a golf course and shall be able to withstand being struck by a golf ball without degradation such as tearing or ripping. Mesh screen material shall be designed as golf ball blocking material. Mesh material submittal shall be provided to Engineer. **Mesh shall be mounted to black vinyl coated chain link fence fabric. All fasteners shall match the color of each finished fence or gate (galvanized metal or black).**

03. PERFORMANCE REQUIREMENTS

A. Delegated Design: Design chain-link fences and gates, including grounding system, by a qualified professional engineer, using structural performance requirements and design criteria indicated.

B. Structural Performance: Chain-link fence and gate framework shall be designed in accordance with strength requirements contained in ASTM F669.

04. SUBMITTALS

- A. Product Data: For each type of product indicated. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for chain-link fences and gates (match existing type of fence components for any section of fencing).
 - i. Chain-link fence and gate fabric, posts, rails, braces, tension rods, extension arms, barbed wire, fittings, and attachments.
 - ii. Grounding system conductors, connectors, and grounding rods.
- B. Delegated-Design Submittal: For chain-link fences and gate framework indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.
- C. Product Certificates: For each type of chain-link fence, from manufacturer.

05. PRODUCTS

CHAIN-LINK FENCE FABRIC

- A. General: Provide fabric in one-piece heights measured between top and bottom of outer edge of selvage knuckle or twist.
 - 1. Fabric Height: As indicated on Drawings.
 - 2. Steel Wire Fabric: Wire with a diameter to match existing.
 - a. Mesh Size: match existing.
 - b. Fabric: match existing fabric.
Color: Match existing.
 - 3. Selvage: Knuckled at both selvages.
 - 4. Barbed Wire: Steel Barbed Wire: Comply with ASTM A 121, for three-strand barbed wire, 0.099-inch- diameter line wire with 0.080-inch-diameter, four-point round barbs spaced not more than 5 inches o.c.
 - a. Aluminum Coating: Type A.
 - b. Zinc Coating: Type Z, Class 3

2.02 FENCE FRAMING

- B. Steel Posts and Framework: Comply with the following.
 - 1. Fence Height: match existing.

2. Light Industrial Strength:
 - a. Line Post: minimum 2.875 inches in diameter or match existing, whichever is greater.
 - b. End, Corner and Pull Post: minimum 2.875 inches in diameter or match existing, whichever is greater.
 - c. Gate Post: minimum 6.625 inches in diameter or match existing, whichever is greater.
3. Framework Members:
 - a. Top/bottom Rail: minimum 1.66 inches in diameter or match existing, whichever is greater.
 - b. Tension Wire: 7-gage coated coil-spring wire, metal and finish to match fabric.
 - c. Diagonal adjustable rod braces: minimum 3/8 inch in diameter or match existing, whichever is greater.
 - d. Stretcher bars: One piece, full height of fabric. Minimum 3/16-inch x 3/4-inch or match existing, whichever is greater.
4. Metallic Coating for Steel Framing: match existing.

BARBED WIRE AND SUPPORTING ARMS:

- A. Supporting Arms:
 1. One for each post.
 2. Single arm at 45° with vertical, sloping to inside of fence.
 3. Constructed for attaching three rows of barbed wire to each arm and designed as a weathertight closure cap where tubular posts are used.
- B. Barbed Wire: Comply with ASTM A 121, for two-strand barbed wire, 0.099-inch-diameter line wire with 0.080-inch-diameter, four-point round barbs spaced not more than 5 inches o.c.
 1. Three rows, two-strand, 12-1/2-gage steel wire with 14-gage, 4-point barbs 5 inches oc.
 2. Metal and finish to match fabric.

GATES:

A. Manual-Swing:

1. Framing:

- a. Fabricate perimeter frames of gates from metal and finish to match fence framework.
- b. Provide intermediate horizontal and vertical members for proper gate operation and for attachment of fabric, hardware, and accessories. Space so that frame members are not more than 8 feet apart unless otherwise indicated.
- c. Frames assembled by welding or watertight galvanized steel rigid fittings.
- d. Provide with same fabric as for fence. Install fabric with stretcher bars at vertical and top and bottom edges.
- e. Diagonal cross bracing of 3/8-inch diameter adjustable truss rods to ensure frame rigidity without sag or twist.
- f. Where barbed wire is indicated or specified, extend gate end members 1 foot above top members to receive barbed wire.

2. Hardware:

- a. Hinges of pressed or forged steel, or malleable iron, nonlift-off type, offset to permit 180° gate opening, 1-1/2 pair per leaf.
- b. Latches and Gate Stops: Double- leaf.
 - i. Plunger-bar type latch, full gate height, designed to engage gate stop of flush-plate type, with anchors.
 - ii. Padlock eyes an integral part of latch.
 - iii. Keeper to automatically engage gate leaf and secure free end of gate in open position.

CONCRETE

- A. Minimum 4,000 psi concrete (compressive strength) to be used for all fencing footings.

FENCE GROUNDING SYSTEM

- A. Conductors, Connectors, and Grounding Rods: Comply with industry standard performance requirements and design criteria. Design to be performed by the qualified professional engineer and approved by the Engineer.

06. EXECUTION

Field Measurements: Verify layout information for chain-link fences and gates as shown on Drawings in relation to existing structures. Verify dimensions by field measurements. Indicate fence removal limits in the field and gain Construction Manager's approval prior to removal activities.

Pre-installation Conference: Conduct conference at Project site.

Contractor shall carefully erect Chain-Link Fence or Chain-Link Fence Gate as indicated on the plans and at locations designated by Engineer. Contractor shall verify the location and the appropriate height of the Chain-Link Fence or type of Chain-Link Fence Gate to erect.

Underground Utilities: Verify underground utility locations prior to excavating for fence/gate post foundations.

All materials and construction requirements shall conform to the Saint Louis County current edition of Standard Specifications for Highway Construction. (*Section 607.10*)

CHAIN-LINK FENCE INSTALLATION

- A. Fence: Follow general contour of ground and properly align. Install as indicated.
- B. Post Excavation: When setting posts in paved areas, core-drill holes full-depth through existing pavement. The diameter of the holes shall be no more than 4-inches greater than the diameter of the concrete foundation for each post.
- C. Post Setting: Set posts in concrete at indicated spacing into firm, undisturbed soil.
1. Verify that posts are set plumb, aligned, and at correct height and spacing, and hold in position during setting with concrete or mechanical devices.
 2. Concrete Fill: Place concrete around posts to dimensions indicated and vibrate or tamp for consolidation. Protect aboveground portion of posts from concrete splatter.

- a. Concrete: Extend 2 inches above grade; trowel-finish, shape and smooth to shed water.
 3. Temporarily brace until concrete in bases has set.
- D. Terminal Posts: Locate terminal end, corner, and gate posts per dimensions on plans.
- E. Line Posts: Space line posts uniformly at maximum 10 foot o.c.
- F. Post Bracing and Intermediate Rails:
1. Install at each end, pull and gate post, and each side of each corner post.
 2. Install after concrete in post bases has set.
 3. Install so posts are plumb when diagonal rod is under tension.
- G. Top Rails:
1. Run continuously through post caps or barbed wire supporting arms.
 2. Install expansion couplings at each joint.
- H. Intermediate and Bottom Rails: Install and secure to posts with fittings.
- I. Chain-Link Fabric: Apply fabric to outside of enclosing framework. Leave 1 inch between finish grade or surface and bottom selvage unless otherwise indicated. Pull fabric taut and tie to posts, rails, and tension wires. Anchor to framework so fabric remains under tension after pulling force is released.
- J. Stretcher Bars: Thread through fabric and secure to end, corner, pull, and gate posts with tension bands spaced not more than 15 inches o.c.
- K. Barbed Wire: Install barbed wire uniformly spaced, angled toward security side of fence. Pull wire taut, install securely to extension arms, and secure to end post or terminal arms.

3.02 GATE INSTALLATION

- A. Manual Swing Gate:
1. Install plumb and level.
 2. Install all hardware, tracks, framing, supports, and appurtenances as required.
 3. Install keepers, ground-set items, and flush plate in concrete for anchorage.
 4. Adjust and lubricate as necessary for smooth operation.

3.04 GROUNDING SYSTEM INSTALLATION

- A. **Conductors, Connectors, and Grounding Rods:** Install in accordance with industry standard installation requirements.

07. METHOD OF MEASUREMENT

Each location of “**Galvanized 8’ Chain-Link Fence**” completed shall be measured to the nearest linear foot.

Each location of “**Galvanized 8’ Chain-Link Fence with Barbed Wire**” completed shall be measured to the nearest linear foot.

Each location of “**Vinyl Coated 12’ Chain-Link Fence with Mesh Screen**” completed shall be measured to the nearest linear foot.

Each location of “**Galvanized Chain-Link Fence Gate with Barbed Wire (8-foot Height)**” shall be measured per each regardless of the gate width.

Each location of “**Vinyl Coated Chain-Link Fence Gate (12-foot Height)**” shall be measured per each regardless of the gate width.

08. BASIS OF PAYMENT

Payment for “**Galvanized 8’ Chain-Link Fence**” will be made by the linear foot at the contract unit bid price, and paid for under item number: **JSP-41A**. Cost for “**Galvanized 8’ Chain-Link Fence**” shall include all costs for labor, concrete, foundation, equipment, materials, delivery, excavation, disposal, delivery, etc.

Payment for “**Galvanized 8’ Chain-Link Fence with Barbed Wire**” will be made by the linear foot at the contract unit bid price, and paid for under item number: **JSP-41B**. Cost for “**Galvanized 8’ Chain-Link Fence with Barbed Wire**” shall include all costs for labor, concrete, foundation, equipment, materials, delivery, excavation, disposal, delivery, etc.

Payment for “**Vinyl Coated 12’ Chain-Link Fence with Mesh Screen**” will be made by the linear foot at the contract unit bid price, and paid for under item number: **JSP-41C**. Cost for “**Vinyl Coated 12’ Chain-Link Fence with Mesh Screen**” shall include all costs for labor, concrete, foundation, equipment, materials, delivery, excavation, disposal, delivery, etc.

Payment for “**Galvanized Chain-Link Double Swing Gate with Barbed Wire (8-Foot Height)**” will be made per each at the contract unit bid price, and paid for under item number: **JSP-41D**. Cost for “**Galvanized Chain-Link Double Swing Gate with Barbed Wire (8-Foot Height)**” shall include all costs for labor, concrete, foundation, equipment, materials, delivery, excavation, disposal, delivery, etc.

Payment for “**Vinyl Coated Chain-Link Single Swing Gate (12-Foot Height)**” will be made per each at the contract unit bid price, and paid for under item number: **JSP-41E**. Cost for “**Vinyl Coated Chain-Link Single Swing Gate (12-Foot Height)**” shall include all costs for labor, concrete, foundation, equipment, materials, delivery, excavation, disposal, delivery, etc.

<< *End of JSP-41* >>