



**SHAWNEE MISSION  
SCHOOL DISTRICT**

Return sealed envelope to:

Shawnee Mission Unified Schools  
Purchasing Department  
8200 W. 71<sup>st</sup> Street  
Shawnee Mission, Kansas 66204

**ATTN: EVERETT MORGAN**

**E-MAILED OR FAXED BIDS  
WILL NOT BE ACCEPTED.**

DATE: April 9, 2017

BID NO. 17-016

BID TITLE: INDIAN CREEK FENCE

Bids will be accepted until and then publicly opened on:

Date: **May 9, 2017**

Day: **Tuesday**

Time: **10:00 am**

**Terms, conditions and specifications under which bids  
are requested are included. Please review thoroughly.**

You are invited to bid on INDIAN CREEK FENCE for the Shawnee Mission Unified Schools per the enclosed terms, conditions and specifications, F.O.B. Destination, Freight Prepaid and Add. **FREIGHT COSTS MUST BE INCLUDED IN THE BID PRICE(S).**

We are enclosing only one copy of the bid specifications. Please return (2) completed bid form(s).

Unit bid price shall govern whenever a discrepancy occurs in the extended bid price on the Bid Summary page. Bid will be awarded:  X  All-or-None,   Item-by-Item,   Groups of Items, or   Groups & by-Item. Payment will be made **ON COMPLETION** of Purchase Order. **DO NOT INCLUDE SALES TAX.**

Any questions regarding the specifications and the bid procedures should be directed to Tim Wilcoxon @ email; timwilcoxon@smsd.org. **PHONE: (913) 993-8508.**

**THIS BID IS NOT TRANSFERABLE**

**NOTE:** Bid Number and Name of Bidder must appear on the front of sealed envelope. ***Faxed bids will not be accepted.*** Bids must be received in the Purchasing Office prior to bid opening. If sending by U.S. Postal Service, please allow a minimum of 24 hours for your bid to be processed and delivered to the Purchasing Office by the Administrative Mail Center. It is the responsibility of the bidder to ensure delivery of bids to the Purchasing Department. Bidders shall hold all bid prices firm for acceptance for 90 calendar days after date of bid opening.

**Bid results will be posted on the [smsd.org](http://smsd.org) website within approximately 5 working days after the bid opening. Go to Public Information; Purchasing/Bidding; Bids and Bid Summaries. Additionally, you may review the bid results in the Purchasing Office during the hours of 8:00 AM to 4:30 PM.**

**NOTICE OF "NO RESPONSE FORM"**

**BID NO. 17-016**

**VENDORS WHO RESPOND TO THIS INVITATION WITH A COMPLETED NOTICE OF "NO RESPONSE" FORM WILL REMAIN ON OUR MAILING LIST, IF REQUESTED.**

**VENDORS MAKING NO RESPONSE AT ALL WILL BE REMOVED FROM OUR MAILING LIST.**

**Dear Vendor:**

Please check (✓) the appropriate box below, complete the remainder of this form and return it **NO LATER THAN** the scheduled Bid/Proposal/or Quote Date and Time.

***Our company cannot provide the products, supplies and/or services*** listed in this bid, proposal or quote. Please **MOVE** our name and address to the following category(ies) so that we may bid at a later date \_\_\_\_\_

***We have chosen NOT to submit a response at this time***, but would like to remain on your bid list for this product category. We did not submit a response because:  
Reason(s): \_\_\_\_\_

***Please REMOVE our name*** from all SMSD bid lists until further notice.  
Reason(s): \_\_\_\_\_

**COMPANY NAME:** \_\_\_\_\_

**REPRESENTATIVE (please print):** \_\_\_\_\_

**ADDRESS:** \_\_\_\_\_ **PHONE (\_\_\_\_\_)** \_\_\_\_\_

**AUTHORIZED SIGNATURE:** \_\_\_\_\_

**TITLE:** \_\_\_\_\_ **DATE:** \_\_\_\_\_

**PLEASE RETURN THIS FORM ONLY TO:**

**Shawnee Mission Unified School District #512  
Purchasing Department  
Notice of "NO RESPONSE"  
8200 W. 71<sup>st</sup> Street  
Shawnee Mission, KS 66204  
OR  
Fax to: 913/993-6225**

**SHAWNEE MISSION PUBLIC SCHOOLS  
8200 W. 71<sup>st</sup> Street  
SHAWNEE MISSION, KS 66204**

**5% BID SECURITY FORM**

**Bid Security issued to:** Shawnee Mission Public Schools, in the amount of **5%** of the total amount of your Bid shall accompany your Bid as a guarantee that, if awarded all or part of the Bid, your firm will enter into contract to supply the items per the Bid Specifications. **Cashier checks & certified checks should be made payable to Shawnee Mission USD #512.**

This Bid Security is to be made payable to Shawnee Mission Public Schools. If the firm awarded the Bid defaults in entering into a contract for the purchase of those items as specified, the Bid Security will become the property of the School District. Bids not accepted within ninety (90) days after the time set for submission will have their Bid Securities returned.

**PLEASE NOTE:** Should you submit a cashiers or certified check instead of a bid bond, the following steps will be used by SMSD in the handling of that check:

- 1) SMSD will deposit your check into a SMSD bank account within 2-3 days after bid opening.
- 2) Within four (4) weeks after board approval of the bid, a district check shall be mailed to the non-successful bidder(s) to reimburse them for the exact amount of their cashiers/certified check.
- 3) Within four (4) weeks after the completion of a formal written and properly signed contract, or the issuance of a SMSD purchase order, a district check shall be mailed to the successful bidder(s) for the exact amount of their cashiers/certified check.

**NOTE: IF SUCH SECURITY IS NOT ENCLOSED WITH THE BID, IT WILL BE CAUSE FOR REJECTION OF THE BID.**

\_\_\_\_\_  
**Company**

\$ \_\_\_\_\_  
**Amount of Total Bid**

\_\_\_\_\_  
**Address**

\$ \_\_\_\_\_  
**Amount of Bid Bond**

\_\_\_\_\_  
**City, State, Zip Code**

\_\_\_\_\_ **Bid Security attached to this form. (Please send the two together.)**

\_\_\_\_\_  
**Signature of Authorized Rep.**

\_\_\_\_\_  
**Phone**

\_\_\_\_\_  
**Please Print Name**

\_\_\_\_\_  
**Position**

**BID FORM**

**BID No. 17-016**

BID OF: \_\_\_\_\_

A CORPORATON ORGANIZED AND EXISTING UNDER THE LAWS  
OF THE \_\_\_\_\_

A PARTNERSHIP CONSISTING OF \_\_\_\_\_

\_\_\_\_\_ PARTNERS:

OR: A SOLE PROPRIETOR; HERINAFTER CALLED THE BIDDER.

TO: SHAWNEE MISSION PUBLIC SCHOOLS  
ATTN: MR. EVERETT MORGAN  
8200 W. 71<sup>st</sup> Street  
SHAWNEE MISSION KS 66204

The undersigned acknowledges that he has received and familiarized himself with the following:  
Request for Bid  
Shawnee Mission Public School District #512

Bid Number 17-016 for **Indian Creek Fence**

ADDENDA NO(s): \_\_\_\_\_ Received

The undersigned further acknowledges that he has familiarized himself with local conditions affecting the cost of the work at each place where the work is to be done.

In submitting this bid, the undersigned agrees:

1. To furnish all material, labor, tools, expendable equipment, supervision, permits, and all utility and transportation services necessary to perform and complete, in a workmanlike manner, all of the work required in accord with the bid documents for the consideration hereinafter set forth. Length of fence to be installed has been measured and field verified by bidder.
2. To hold his bid open for sixty (60) days after receipt of bids and to accept the provisions of the instructions to bidders regarding disposition of bid security.
3. **Contactors shall include in their bid proposal an allowance of 15% of bid amount for unforeseen conditions and revisions. It is understood that if such allowance is not utilized by this contract a subsequent deductive change order shall be executed to return any unused allowance funds to the school district.**
4. To coordinate schedule and site work with the Owners on site general contractor for constructing building renovations. Work shall commence upon Board of Education approval (estimated to be May 23, 2017) and receipt of the District issued Purchase Order. All work is to be complete not later August 1, 2017 unless approved by owner.
5. To accept the assessment of liquidated damages of \$250 for each calendar day which the work is not complete, beginning with the first calendar day after the indicated completion date.
6. All materials to be non-proprietary, as specified, or approval equal.

1. Lump Sum Base Bid: \_\_\_\_\_ Dollars

(\$ \_\_\_\_\_).

2. 15% Allowance Amount: \_\_\_\_\_ Dollars

(\$ \_\_\_\_\_).

Total Bid Amount (1. plus 2. Above): \_\_\_\_\_ Dollars

(\$ \_\_\_\_\_).

(Indicate bid in both numbers and words. In the case of a discrepancy between the two, the amount shown in words shall govern.)

In submitting this bid, it is understood that the right to reject any and all bids and to waive irregularities in the bidding has been reserved by the owner.

Date this \_\_\_\_\_ day of \_\_\_\_\_, 2016.

\_\_\_\_\_  
Name of Bidder

\_\_\_\_\_  
Address of Bidder

\_\_\_\_\_  
Authorized Officer

\_\_\_\_\_  
Area Code/Telephone Number

\_\_\_\_\_  
Email Address

\_\_\_\_\_  
Website

**Terms and Conditions**

A. Bid Requirements and Considerations:

1. The Board of Education reserves the right to reject any or all bids, to accept any item or items in the bid, and to waive any informality in bids.
2. Each bid must be completed on SMSD bid forms.
3. Alternate bids will be considered only if the alternate properly meets specifications outlined in the bid.
4. Each bid shall be accompanied by bid security in the amount of five percent (5%) of the base bid, made payable unconditionally to the school district. This security will be submitted as evidence of good faith as a guarantee that, if awarded the contract, the bidder will execute required bonds and insurance within ten (10) days after receipt of Notice to Proceed.
5. Each bidder shall carefully examine the bidding documents and thoroughly inform himself with all requirements prior to submitting a bid. Should a bidder find discrepancies or ambiguities in, or omission from bidding documents, or should he be in doubt as to their meaning, he will at one and at least three days prior to bid date, notify the school district. Any subsequent addenda sent to bidders will become part of the contract documents.
6. Prior to submitting a bid, each bidder shall examine and thoroughly familiarize himself with all existing conditions; including applicable laws, codes, ordinances, rules, and regulations that will affect his work. Bidders shall visit the site, examine the existing conditions, and shall ascertain by reasonable means, all conditions that will in any manner affect the work. Contractors and/or bidders are required to check in with building authorities at the school immediately upon entering the school premises.
7. Prices quoted are to be free of all Federal, state, and local taxes, unless otherwise imposed by a governmental body and applicable to the work or material. The school district will obtain from the State of Kansas a sales tax exemption certificate number. The sales tax exemption certificate will permit the contractor to purchase materials for incorporation into this project without paying sales tax, provided that the contractor furnishes the certificate number to the supplier.
8. When submitting a substitute article as equal, the full name and illustrated description must be given. The Board of Education reserves the right, however, to decide upon its suitability for the intended use. Upon request, samples of substitute articles must be submitted.
9. Envelopes containing bids must be sealed and marked on the lower-left hand corner with the firm name and address of the bidder, bid number, bid opening date, and bid opening time.
  - a. No special effort shall be made to sort incoming mail for potential bids.
  - b. Bids not at the appointed place at time of bid opening will be rejected.
  - c. Faxed Bid/Proposals will not be accepted as sealed bids.

10. If bid is accepted, USD #512 must be supplied with seller's employer identification number of social security number, per IRS regulations.
11. Each contractor is responsible for his/her own worker's compensation and liability insurance coverage. Shawnee Mission Unified School District #512 assumes this COVERAGE IS INCLUDED IN THE PRICE OF EACH BID TOTAL.
12. Any catalog, brand name or manufacturer's reference used herein is intended to be descriptive and not restrictive. Offers on any reputable manufacturers regularly produced product which is similar and substantially equivalent will be considered. SMSD reserves the right to make final decisions as to the acceptability of comparable items.
13. Vendors who do not bid, but wish to remain on our bid list, should notify the Shawnee Mission USD #512 Purchasing Department in writing using the enclosed "Notice of No Response" form. Failure to do so may result in removal from this list.
14. If required by the bid form, the contractor shall submit with his bid a list of subcontractors and other persons or organizations that will perform work on this project.

B. Form and Requirements of the Contract:

1. The form of contract will be a Purchase Order issued by Shawnee Mission School District. In submitting his bid for consideration, each bidder agrees to commence work as soon as practical upon receipt of the school district purchase order and subsequent execution of applicable bonds and certificates of insurance.
2. The district shall not be responsible for any goods delivered or services performed without its purchase order signed by an authorized representative of the Purchasing Department.
3. The contractor shall not commence work under this contract until he has obtained the owner's approval of a certificate of insurance providing evidence that he has obtained all the insurance required under this section, at least equal to the limits set forth hereinafter, with an insurance company acceptable to the owner.

All policies shall provide for ten (10) days written notice to the owner prior to effective date of any changes affecting the policy. Two copies of the certificate of insurance in a form acceptable to the owner shall be delivered to the owner. The contractor shall not allow any subcontractor to commence work until the subcontractor has obtained insurance coverage similar to that required of the contractor.

4. For projects with a value of \$20,000 or more; subsequent to award, the contractor shall furnish Performance Bond, Labor and Materials Payment Bond, and Kansas Statutory Bond covering the faithful performance of the contract and the payment of all obligations arising thereunder. All such bonds shall be submitted to the school district prior to the commencement of any contract work.
5. Contracts entered into on the basis of submitted bids are revocable if contrary to law.
6. The laws of the State of Kansas shall govern any contracts resulting from this bid. Actions must be filed in the Johnson County Courthouse in Johnson County, Kansas.

7. The seller shall provide the standard patent infringement indemnity clause which shall hold and save the Board of Education and its officers, agents, servants, and employees, harmless from liability of any patented, or unpatented invention, process, article, or appliance manufactured, or used, in the performance of the contract, including its use by the Board of Education.

C. General Work Requirements.

1. The contractor will be required to start the work per the schedule included herein. Liquidated damages as stated on the bid form will be assessed for each consecutive calendar day which the work is not complete, beginning with the first day beyond the completion time stated. Completion is the owner's ability to utilize the facility for its intended purpose. Shawnee Mission Public Schools will be the sole judge of completion.
2. The owner reserves the right and may delay work if scheduling between school administration and contractor cannot be resolved.
3. It will be the contractor's responsibility to have the approaching licenses and permits required by the state and/or municipality in which the work will be performed. It is also the contractor's responsibility to make certain all work and material meets local and state codes. Bidders shall include permit fees in their bid.
4. The contractor shall observe and comply with all ordinances, laws, and regulations, and shall protect and indemnify the owner against any claim or liability arising from or based on any violation of the same. The contractor shall comply with all regulations of agencies having jurisdiction with respect to sanitation and safety during construction.
5. All items shall be new and unused, unless otherwise specified by the district, and in first class condition.
6. Contractor shall be responsible for protection of the adjacent spaces during all phases of the project, demolition material storage and new construction.
7. All items furnished must be of their respective kinds, and will be free from defects in material and workmanship. Items will be subject to our inspection and approval at any time. Items furnished must be manufactured in compliance with all existing legal or governmental directives.
8. All work shall be of the highest quality. The contractor and subcontractor shall check their work regularly for quality and conformance as the work is in progress. Unsatisfactory work shall be corrected immediately.
9. The contractor shall promptly correct work rejected by the owner or failing to conform to the requirements of the contract documents, whether observed before or after substantially completion and whether or not fabricated, installed or completed. The contractor shall bear all costs of correcting such rejected work, including additional testing and inspections and compensation for owner services and expenses made necessary thereby.
10. As work is completed by the contractor/subcontractor, it shall be his responsibility to remove all excess material, equipment and debris from the premises.



D. Miscellaneous Requirements

The law requires that Section 1 through 5 of KSA 44-1030 (as follows) are to be included in all contracts to which our agency is a party: Except those with contractors, vendors or suppliers whose cumulative dollar total in any fiscal year is \$5,000.00 or less, or who have fewer than four (4) employees:

1. The contractor shall observe the provisions of the Kansas act against discrimination and shall not discriminate against any person in the performance of work under the present contract because of race, religion, color, sex, physical handicap unrelated to such person's ability to engage in the particular work, national origin or ancestry;
2. In all solicitations or advertisements for employees, the contractor shall include the phrase, "equal opportunity employer" or similar phrase to be approved by the commission;
3. If the contractor fails to comply with the manner in which the contractor reports to the commission in accordance with the provisions of KSA 1976 Supp .44-1030, as amended, the contractor shall be deemed to have breached the present contract and it may be canceled, terminated or suspended, in whole or in part, by the contracting agency;
4. If the contractor is found guilty of violation of the Kansas act against discrimination under a decision or order of the commission which has become final, the contractor shall be deemed to have breached the present contract and it may be canceled, terminated or suspended, in whole or in part, by the contract and it may be canceled, terminated or suspended, in whole or in part, by the contracting agency; and
5. The contractor shall include the provisions or paragraphs one (1) through (4) inclusively of this subsection (a) in every subcontract or purchase order so that such provisions will be binding upon such subcontractor or vendor.

E. Payments to the Contractor:

In order for payment to occur on the "Payment Release Date", the vendor's INVOICE and the "BLUE" receiving copy of the Shawnee Mission purchase order must be received into the Business Office by the school cut-off date (preferably earlier) so that sufficient time is allowed for the payment to actually be processed through the Accounts Payable system.

**INVOICES MUST BE SUBMITTED TO THE APPROPRIATE PROJECT MANAGER  
THREE DAYS PRIOR TO THE SCHOOL CUT-OFF DATE.**

### CONTRACTOR AND VENDOR CODE OF CONDUCT

Shawnee Mission School District requests that all contractor and vendor employees conduct themselves in an acceptable manner while performing work on school district property. The following items are prohibited on school district properties:

1. Physical or verbal contact with students or non-designated staff.
2. All school district properties are tobacco free. All tobacco, including smokeless tobacco, is prohibited. There are no designated areas for tobacco use. Contractors are required to post no tobacco signs. Smoking will not be permitted inside private vehicles which are on school district property. Workers may be required to sign a consent form acknowledging no tobacco use on the property. Violators may be required to leave the work site.
3. Drugs and/or alcohol consumed or present on district properties.
4. Firearms and hunting items.
5. Foul or abrasive language.

Additionally, all workers shall wear appropriate clothing on all parts of the body. All workers shall utilize areas for vehicle access and parking, material storage, etc. All workers shall wear nametags identifying their name and the name of the company they are representing.

### INSURANCE REQUIREMENTS

- A. Worker's Compensation Insurance: Worker's Compensation and Employer's Liability Insurance as required by law to cover fully all employees.
- B. Bodily Injury and Property Damage Insurance: A comprehensive general bodily injury and property damage policy, including automobiles, covering the work to be performed. The policy shall be written to provide damage arising from one accident, with not less than \$1,000,000 aggregate damages to, or destruction of property during the policy period; except, in case of automobile damage coverage, the minimum provided shall be not less than \$1,000,000 bodily injury and \$1,000,000 property damage per accident for any vehicle used on the project, whether owned, hired or non-owned.
- C. Special Insurance: Contractor for General Construction work shall take out and maintain insurance providing a minimum coverage of \$1,000,000 for the following hazards:

Where the work to be performed involves excavation or other underground work or construction, the property damage insurance provided shall cover all injury to or destruction of property below the surface of the ground, such as wires, conduits, pipes, mains, sewers, etc., caused by the contractor's operations, or injury to or destruction of property above or below ground resulting therefrom.

Property damage insurance shall also cover the collapse of, or structural injury to, any building or structures on or adjacent to the owner's premises, or the injury to or destruction of equipment and/or property resulting therefrom, caused by the removal of other buildings, structures, or supports, or by excavation below the ground, where the construction of a new structure or the demolition of any existing structure involves any of the foregoing designated hazards and in all cases where the contract provides for alterations in, additions to, or the underpinning of, and existing structure or structures.

- D. Subcontractor's Insurance: If a part of this contract is sublet, the contractor shall either cover any or all subcontractors in his insurance policies; or require each subcontractor to secure insurance which will protect him against all applicable hazards not covered by the contractor's insurance.

Certificate and Maintenance of Insurance: The contractor shall submit three (3) copies of Certificate of Insurance to the owner. The required insurance shall be maintained in force until the project is completed.

**SHAWNEE MISSION PUBLIC SCHOOLS  
ACCOUNTS PAYABLE SCHEDULE**

<b>School Cut Off</b>	<b>Payments Released</b>
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(To be provided)

ATTACHMENTS

Notes for Indian Creek Fence

Site Plan

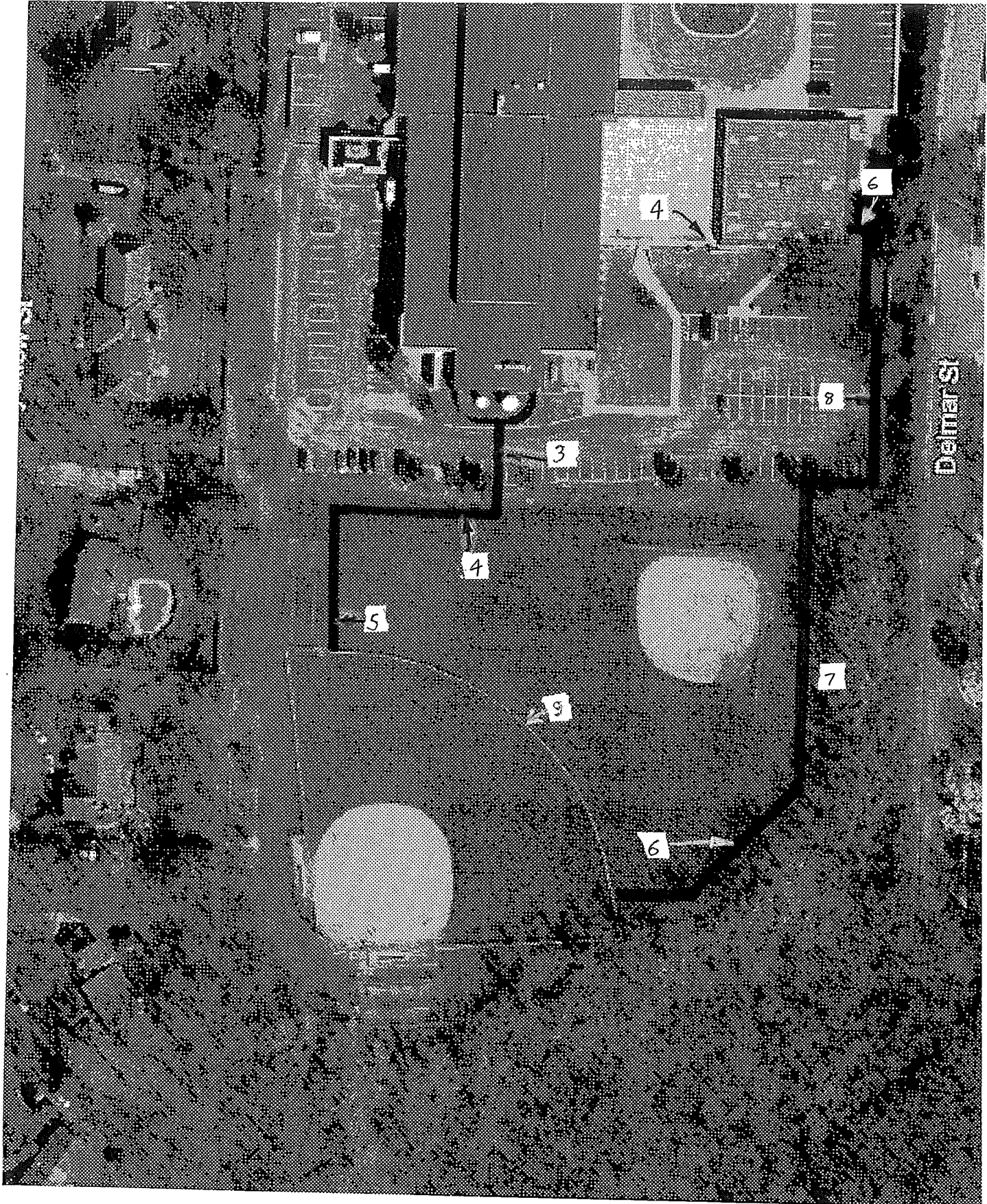
Section 323113 – CHAIN LINK FENCE AND GATES

Please note that actual length of fence requires field verification by bidder.

**Notes for Indian Creek Fence**

Reference numbers to site plan

1. Provide and install approximately 950 LF of 5 ft tall galvanized chain link fence and gates in the approximate locations shown on the attached sketch. Disregard specification reference to vinyl coating. Field measure and verify actual length of fence to be installed prior to bidding.
2. Verify actual locations with SMSD O&M field staff prior to installation.
3. 20 ft wide double vehicle access gate.
4. Pedestrian gate.
5. 10 ft wide access gate.
6. 8 ft wide mower gate.
7. Locate fence to provide an approximate 10 ft wide mower strip between tree line and fence.
8. Remove and replace existing fence at retaining wall. Include tree and brush removal as required in the cost.
9. Existing outfield fence to remain.



Delmar St

1

2

3

4

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## SECTION 323113 - CHAIN LINK FENCES AND GATES

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section Includes:
  - 1. Polymer-coated chain-link fences (323113.A02).
  - 2. Swing gates (323113.A03).
- B. Related Sections:
  - 1. Section 033000 "Cast-in-Place Concrete" for cast-in-place concrete for post footings.

#### 1.2 PERFORMANCE REQUIREMENTS

- A. Structural Performance: Chain-link fence and gate framework shall withstand the effects of gravity loads and the following loads and stresses within limits and under conditions indicated according to ASCE/SEI 7:
  - 1. Minimum Post Size: Determine according to ASTM F 1043 for framework up to 6 feet high, and post spacing not to exceed 10 feet.

#### 1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work.
- C. Samples: For each fence material and for each color specified.
  - 1. Provide Samples 8 to 12 inches in length for linear materials and 12 inches square for fence fabric.

#### 1.4 INFORMATIONAL SUBMITTALS

- A. Product Certificates: For each type of chain-link fence and gate, from manufacturer.
- B. Product Test Reports: For framing strength according to ASTM F 1043.
- C. Sample of special warranty.

#### 1.5 CLOSEOUT SUBMITTALS

- A. Operation and maintenance data.

#### 1.6 QUALITY ASSURANCE

- A. Preinstallation Conference: Conduct conference at Project site.

#### 1.7 PROJECT CONDITIONS

- A. Field Measurements: Verify layout information for chain-link fences and gates shown on Drawings in relation to property survey and existing structures. Verify dimensions by field measurements.

#### 1.8 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which Installer agrees to repair or replace components of chain-link fences and gates that fail in materials or workmanship within specified warranty period.
  - 1. Failures include, but are not limited to, deterioration of metals, metal finishes, and other materials beyond normal weathering.
  - 2. Warranty Period: Two (2) years from date of Substantial Completion.

## PART 2 - PRODUCTS

### 2.1 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. Comply with CLFMI Product Manual and with requirements indicated below:
1. Fabric Height: 6'-0".
  2. Steel Wire Fabric: Wire with a diameter of 0.148 inch.
    - a. Mesh Size: 2 inches.
    - b. Polymer-Coated Fabric: ASTM F 668, Class 2a over zinc-coated steel wire.
      - 1) Color: Black, complying with ASTM F 934.
    - c. Coat selvage ends of fabric that is metallic coated before the weaving process with manufacturer's standard clear protective coating.
  3. Selvage: Knuckled at both selvages.

### 2.2 FENCE FRAMING

- A. Posts and Rails: Comply with ASTM F 1043 for framing, including rails, braces, and line; terminal; and corner posts. Provide members with minimum dimensions and wall thickness according to ASTM F 1043 or ASTM F 1083 based on the following:
1. Fence Height: 72 inches.
  2. Heavy Industrial Strength: Material Group IA, round steel pipe, Schedule 40.
    - a. Line Post: 2.375 inches in diameter.
    - b. End, Corner and Pull Post: 2.875 inches in diameter.
  3. Horizontal Framework Members: Top rails complying with ASTM F 1043.
    - a. Top Rail: 1.66 inches in diameter.
  4. Brace Rails: Comply with ASTM F 1043.
  5. Metallic Coating for Steel Framing:
    - a. Type A, consisting of not less than minimum 2.0-oz./sq. ft. average zinc coating per ASTM A 123/A 123M or 4.0-oz./sq. ft. zinc coating per ASTM A 653/A 653M.
  6. Polymer coating over metallic coating.
    - a. Color: Black, complying with ASTM F 934.

### 2.3 TENSION WIRE

- A. Polymer-Coated Steel Wire: 0.177-inch- diameter, tension wire complying with ASTM F 1664, Class 2a over zinc-coated steel wire.
1. Color: Black, complying with ASTM F 934.

### 2.4 SWING GATES

- A. General: ASTM F 900 for gate posts and double swing gate types.
1. Gate Leaf Width: As indicated.
  2. Gate Fabric Height: 72 inches.
  3. Framework Member Sizes and Strength: Based on gate fabric height 6 feet.
- B. Pipe and Tubing:
1. Zinc-Coated Steel: ASTM F 1043 and ASTM F 1083; protective black PVC coating and finish to match fence framework.
  2. Gate Posts: Round tubular steel.
  3. Gate Frames and Bracing: Round tubular steel.
- C. Frame Corner Construction: Welded for vehicular gates and assembled with corner fittings for pedestrian gates.
- D. Hardware:
1. Hinges: 180-degree swing in direction indicated. Basis-of-Design Products: Hinges shall be manufactured by "Cox Hinges."
  2. Latches permitting operation from one sides of gate. Refer to detail on Drawings. Basis-of-Design Products for latches is "DAK."
  3. Cane Bolt "Gate Stop": Provide gate stops for pedestrian gates consisting of mushroom-type flush plate with anchors, set in concrete, and designed to engage a center drop rod or plunger bar. Include a locking device and padlock eyes as an integral part of latch, permitting both gate leaves to be locked with a single padlock.



4. Keeper: Provide a keeper for vehicular gates that automatically engages gate leaf and holds it in the open position until manually released.
5. Padlock: Lockable and unlockable from both sides of gate with key.
6. Closer: Manufacturer's standard.
7. Exit Device: Manufacturer's standard as acceptable to Architect.

## 2.5 FITTINGS

- A. General: Comply with ASTM F 626.
- B. Post Caps: Provide for each post.
  1. Provide line post caps with loop to receive tension wire or top rail.
- C. Rail and Brace Ends: For each gate, corner, pull, and end post.
- D. Rail Fittings: Provide the following:
  1. Top Rail Sleeves: Pressed-steel or round-steel tubing not less than 6 inches long.
  2. Rail Clamps: Line and corner boulevard clamps for connecting intermediate rails in the fence line-to-line posts.
- E. Tension and Brace Bands: Pressed steel.
- F. Tension Bars: Steel, length not less than 2 inches shorter than full height of chain-link fabric. Provide one bar for each gate and end post, and two for each corner and pull post, unless fabric is integrally woven into post.
- G. Truss Rod Assemblies: Steel, hot-dip galvanized after threading rod and turnbuckle or other means of adjustment.
- H. Tie Wires, Clips, and Fasteners: According to ASTM F 626.
  1. Standard Round Wire Ties: For attaching chain-link fabric to posts, rails, and frames, complying with the following:
    - a. Hot-Dip Galvanized Steel: 0.106-inch- diameter wire; galvanized coating thickness matching coating thickness of chain-link fence fabric.
- I. Finish:
  1. Metallic Coating for Pressed Steel or Cast Iron: Not less than 1.2 oz. /sq. ft. zinc.
    - a. Polymer coating over metallic coating.

## 2.6 GROUT AND ANCHORING CEMENT

- A. Nonshrink, Nonmetallic Grout: Premixed, factory-packaged, nonstaining, noncorrosive, nongaseous grout complying with ASTM C 1107. Provide grout, recommended in writing by manufacturer, for exterior applications.
- B. Erosion-Resistant Anchoring Cement: Factory-packaged, nonshrink, nonstaining, hydraulic-controlled expansion cement formulation for mixing with potable water at Project site to create pourable anchoring, patching, and grouting compound. Provide formulation that is resistant to erosion from water exposure without needing protection by a sealer or waterproof coating and that is recommended in writing by manufacturer, for exterior applications.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine areas and conditions, with Installer present, for compliance with requirements for a verified survey of property lines and legal boundaries, site clearing, earthwork, pavement work, and other conditions affecting performance of the Work.
  1. Do not begin installation before final grading is completed unless otherwise permitted by Architect.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 PREPARATION

- A. Stake locations of fence lines, gates, and terminal posts. Do not exceed intervals of 500 feet or line of sight between stakes. Indicate locations of utilities, lawn sprinkler system, underground structures, benchmarks, and property monuments.

### 3.3 INSTALLATION, GENERAL

- A. Install chain-link fencing to comply with ASTM F 567 and more stringent requirements indicated.
  - 1. Install fencing on established boundary lines inside property line.

### 3.4 CHAIN-LINK FENCE INSTALLATION

- A. General: Presence of hard matter and rock shall be assumed.
- B. Post Excavation: Drill or hand-excavate holes for posts to diameters and spacing indicated, in firm, undisturbed soil. Excavation for posts shall not be less than 3 feet in depth.
- 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. Concealed Concrete: Top 2 inches below grade to allow covering with surface material.
    - b. Extend post to specified excavation depth, but not closer than 3 inches to bottom of concrete.
- D. Terminal Posts: Locate terminal end, corner, and gate posts per ASTM F 567 and terminal pull posts at changes in horizontal or vertical alignment of 30 degrees or more.
- E. Line Posts: Space line posts uniformly at 10 feet max. o.c.
- F. Tension Wire: Install according to ASTM F 567, maintaining plumb position and alignment of fencing. Pull wire taut, without sags. Fasten fabric to tension wire with 0.120-inch- diameter hog rings of same material and finish as fabric wire, spaced a maximum of 24 inches o.c. Install tension wire in locations indicated before stretching fabric. Provide horizontal tension wire at the following locations:
  - 1. Extended along bottom of fence fabric. Install bottom tension wire within 6 inches of bottom of fabric and tie to each post with not less than same diameter and type of wire.
- G. Top Rail: Install according to ASTM F 567, maintaining plumb position and alignment of fencing. Run rail continuously through line post caps, bending to radius for curved runs and terminating into rail end attached to posts or post caps fabricated to receive rail at terminal posts. Provide expansion couplings as recommended in writing by fencing manufacturer.
- H. Chain-Link Fabric: Apply fabric to inside 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.
- I. Tension or 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.
- J. Tie Wires: Use wire of proper length to firmly secure fabric to line posts and rails. Attach wire at one end to chain-link fabric, wrap wire around post a minimum of 180 degrees, and attach other end to chain-link fabric per ASTM F 626. Bend ends of wire to minimize hazard to individuals and clothing.
  - 1. Maximum Spacing: Tie fabric to line posts at 12 inches o.c. and to braces at 24 inches o.c.
- K. Fasteners: Install nuts for tension bands and carriage bolts on the side of the fence opposite the fabric side. Peen ends of bolts or score threads to prevent removal of nuts.

### 3.5 GATE INSTALLATION

- A. Install gates according to manufacturer's written instructions, level, plumb, and secure for full opening without interference. Attach fabric as for fencing. Attach hardware using tamper-resistant or concealed means. Install ground-set items in concrete for anchorage. Adjust hardware for smooth operation and lubricate where necessary.

3.6 ADJUSTING

- A. Gates: Adjust gates to operate smoothly, easily, and quietly, free of binding, warp, excessive deflection, distortion, nonalignment, misplacement, disruption, or malfunction, throughout entire operational range. Confirm that latches and locks engage accurately and securely without forcing or binding.
- B. Lubricate hardware, gate operator, and other moving parts.

3.7 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's personnel to adjust, operate, and maintain chain-link fences and gates.

**END OF SECTION 323113**