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Project # 24026 – SJCPL Centre Branch Renovations
1150 Kern Rd, South Bend, IN 46614

ADDENDUM No. 1
October 07, 2024

This addendum and MEP addendum hereby becomes part of the Contract Documents. Each bidder shall acknowledge receipt of this addendum by number on the Bid Form.

It is each Prime Contractor's responsibility to notify all subcontractors of this addendum and provide copies for all sets of plans in their possession.

Item Description

1. **General Items:**
   - (a) Pre-bid meeting occurred on site on October 01, 2024. The pre-bid agenda and sign-in sheet are attached to this addendum. Questions and answers from the pre-bid meeting are listed here:
     - (i) Question: Are there any WBE or minority business requirements for bidders?
     - (ii) Answer: No requirements.
     - (iii) Question: Clarify names/numbers of alternates shown on the Landscaping plans.
     - (iv) Answer: A modified alternates spec section and bid form will be released.
     - (v) Question: What is the final day for questions to be submitted?
     - (vi) Answer: The final addendum will be released no later than October 21. Questions must be submitted on or before that date.
     - (vii) Question: Is the owner or contractor responsible for removing collection from shelves as needed?
     - (viii) Answer: The owner will remove and store collection where shelves are being dismantled. Most shelves will retain the collection on them. Shelves and collection materials will be lifted and moved together. We will confirm whether the owner will provide the lift system that can move the assembled shelves in one piece.
     - (ix) There was discussion focused on whether the owner would be occupying the building or not during construction, with a handful of questions centered around that topic. Be advised that the owner will be closing the building down to all public patrons and staff during construction.
       a. Contractors can use the front doors to move materials and sit a dumpster outside the front door. Any damage to the exterior sidewalk and parking surfaces shall be repaired by the contractor at completion of the work.
       b. There is no need to maintain negative pressure at areas of work or provide temporary walls, but the contractor shall provide temporary covers to protect all shelving and collection materials as well as dust protection from staff areas to

remain untouched and at return air ductwork to protect existing mechanical equipment to remain.

(b) We worked with an Andersen representative during design to develop a scope of work for replacement. He can be contacted here:
  (i) Kellan Dillon Kellan.dillon@andersencorp.com 847-570-4069

(c) The owner has provided the following information for the hydraulic jack shelf movers.
  (i) JET Equipment and Tools JHJ-2 No. 453301 Hydraulic Jack.
  (ii) Dave Heidt is the SJCPL Collections Services Manager and can provide on-site training for proper operation. D.Heidt@SJCPL.org

(d) The owner has offered the product information for the projection screen in the Large Meeting Room 102 for reference:
  (i) BenQ LK970 4K Projector
  (ii) https://www.benq.com/en-us/business/projector/lk970/specifications.html

2. **Specification 004113 – Bid Form**
   (a) **Modification:** See attached bid form for added and updated project alternates. See attached specification 0123000 for updated alternate descriptions.

3. **Specification 004313 – Bid Form**
   (b) **Modification:** Contractors should use AIA form A310-2010 for their bid bond submission.

4. **Specification 012300 – Alternates**
   (a) **Addition:** See attached specification section for added and updated project alternates.

5. **Specification 323113 – Chain Link Fences and Gates**
   (a) Addition: Add this specification section in its entirety to the construction documents.

6. **Specification 323119 – Decorative Metal Fences and Gates**
   (b) Addition: Add this specification section in its entirety to the construction documents.

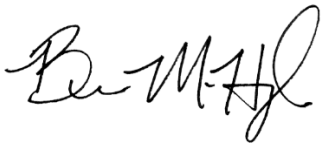
7. **Sheet G-101 – First Floor Composite/Phasing Plan**
   (a) **Modification:** Delete all notes related to the owner keeping the building open during construction. No temporary walls are required to separate areas of work.
   (b) **Clarification:** The existing library shelves shall remain and can be moved and stacked immediately next to each other without need to access materials.
   (c) **Clarification:** Existing staff spaces and mechanical equipment shall be protected from construction dust/debris. Any/all cleaning and repair of damage shall be completed by the contractor.

8. **Attachments:**
   (a) Pre-Bid Sign-in sheet and agenda.
   (b) **Architectural Specifications:** 004113, 004313
   (c) **Landscape Specifications:** 323113, 323119

End of Addendum

Sincerely,

MKM architecture + design



Benjamin D. McHugh, AIA,
Associate

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SJCPL CENTRE RENOVATION - PRE-BID MEETING AGENDA

St. Joe County Public Library – Centre Branch
1150 E. Kern Rd., South Bend, IN 46614

October 01, 2024 | 10:00 AM

A. *Description of Project*: The project consists of interior renovations consisting of new rooms, finishes, casework, and MEP improvements. The project also includes exterior renovations consisting of EIFS repair, window replacement, and landscape upgrades. The work extents are indicated in the Contract Documents.

B. *Bid Submission*: Bids will be due no later than **2:45 PM on Wednesday, October 23, 2024** at the SJCPL Main Branch Library, located at 304 S. Main Street, South Bend, IN 46601 at the Third Floor Administrative Offices. Bid envelopes shall contain the project name, bidder's name, address, account number, and shall be addressed to the St. Joe County Public Library. Bids shall be guaranteed for sixty (60) days and should be submitted in duplicate on the Account Bid Proposal Form and Indiana State Board of Accounts Form 96 with attached Financial Statements, properly signed and notarized Non-Collusion Affidavit, as well as all other requirements. See specifications for more information. Bids will be opened publicly at 3:00 PM and read aloud at the Community Learning Center – Classroom D at 305 S. Michigan St., South Bend, IN 46601.

C. *Schedule*: Mobilization can begin after contract has been awarded and signed. Construction assumed to begin November, 2024.

D. *Notice to Bidders*: This project does not have a pre-defined wage scale.

E. *Questions and Clarifications*: Questions are to be emailed to Ben McHugh (BMcHugh@MKMdesign.com).

F. *Access to the Building:* All bidders are free to access the public area of the Library during regularly scheduled hours. If any bidder would like to schedule a time to visit the building to review non-public areas, requests should be filed with the Architect via email.

G. *Access to Project Documents*: All contract documents can be accessed by contacting the Eastern Engineering Planroom, located at 1239 North Wells Street, Fort Wayne, Indiana 46808 (260-426-3119). Prints can be purchased through http://easternengineering.com

H. *Addenda*: All official addenda will be issued through the Eastern Engineering virtual plan room. Hardcopies will also be available at the library for reference and review.

I. *Bonds*: The cost of the bonds is to be included within the base bid. Performance, Labor, and Material Payment Bonds will be required by the Owner for 100% of the contract amount.

J. *Tax Exemption*: The Owner is exempt of all state and local taxes. Therefore, the state and local taxes are not to be included within bids. The Owner's Tax Exempt Number will be supplied to the successful bidder.

K. Questions

cc: Stephanie Murphy, All Plan Holders, MKM File

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435 E. Brackenridge St.
Fort Wayne, IN 46802
260.422.0783

3500 Depauw Blvd., Ste. 1089
Indianapolis, IN 46268
317.792.5020

mkmdesign.com
info@mkmdesign.com

ST. JOE COUNTY PUBLIC LIBRARY – CENTRE BRANCH RENOVATION
PRE-BID MEETING SIGN-IN
October 01, 2024 at 10:00 AM

NAME	REPRESENTING	
Greg Hicks	Gibson Lewis	Email ghicks@gl.nceusa.com phone 5743235703
Luke Romine	Brant Brown	Email bids@bbgc.us phone 574-340-A27
Brad Romine	Brown & Brown	Email brad@bbgc.us phone 574-862-2171
Dave Poston	majority Builders	Email phone 574-291-2091
Kevin Einspahr	Majority Builders	Email Keinspahr@majority[illegible] phone 574-276-2180
Rob Kuntz	The Robert Henry Corp.	Email RKUNTZ@ROBERT HENRY CORP.Co phone 574-238-7155
Michelle Wilburn	Wilburn Const. Co., LLC	Email mwilburn@att.net phone 574-315-8288
Michael Krizman	DLZ	Email MKrizman@dlz.com phone 574-236-4400
Zachery Harrison	DLZ	Email zharrison@dlz.com phone 574-245-1655
Joe Goepfrich	SJCPL	Email j.goepfrich@sjcpl.org phone 574-386-8524
Lisa OBrien	SJCPL	Email lobrien@sjcpl.org phone 574-280-4760
Casey Kline	Weigand	Email Ckline@weigandconstruction.com phone 260-600-8541
Matt Potter	Gibson Lewis	Email mpotter@gl.nceusa.com phone 574-229-8581
		Email phone

SECTION 004113 - BID FORM

Bids will be received until 2:45 p.m. local time (EDT), October 23, 2024 for the "SJCPL Centre Renovations". Bids shall be delivered to SJCPL Main Branch Library – Third Floor Administrative Office

Bidder Company Name, Address and Phone Number:

BASE BID (including Taxes, fees, unit prices, permits, allowances, etc). $_____

Allowance 1: Misc. Stone Repair (Included in Base Bid) **$ 7,500.00**

Alternate 1: Light Fixtures **DEDUCT $**_____

Alternate 2: Landscaping

2A: Paved Path Alternate **DEDUCT $**_____

2B: Remove Boulder Climb **DEDUCT $**_____

2C: Remove Stump Steppers **DEDUCT $**_____

2D: Remove Stump Seats **DEDUCT $**_____

2E: Fencing Alternate **DEDUCT $**_____

Alternate 3: Exterior Window Replacement **DEDUCT $**_____

Owner reserves the right to choose any combination of Alternates as part of the "scope of work".

Anticipated start date: _____

Anticipated calendar days to Substantial Completion (for all phases): _____

Bid Submission Checklist:

- ☐ Sealed Envelope
- ☐ Bid Form
- ☐ State Form No. 96

- ☐ Bid Security Certificate
- ☐ Financial Statement

1.1 CONTRACTOR'S LICENSE

A. The undersigned further states that it is a duly licensed contractor, for the type of work proposed herein and that all fees, permits, etc., pursuant to submitting this proposal have been paid in full.

1.2 SUBMISSION OF BID

A. Respectfully submitted this ____ day of _____, 2024.

B. Submitted By:_____(Bidding firm or corporation).

C. Authorized Signature:_____(Handwritten signature).

D. Signed By:_____(Type or print name).

E. Title:_____(Owner/Partner/President/Vice President).

F. Witnessed By:_____(Handwritten signature).

G. Attest:_____(Handwritten signature).

H. By:_____(Type or print name).

I. Title:_____(Corporate Secretary or Assistant Secretary).

J. Street Address:_____.

K. City, State, Zip:_____.

L. Phone:_____.

M. License No.:_____.

N. Federal ID No.:_____(Affix Corporate Seal Here).

NOTES:

Requests for substitutions must be complete and received by the architect not less than five business days before bid date.

1. Refer to the Bid Terms and Condition for additional information.
2. Most specification sections in the Project Manual contain requirements for qualifications, quality assurance and/or accepted products and materials. In submitting a bid each bidder warrants that all materials, suppliers, and subcontractors meet the stated requirements. Rejection by Architect or Owner of any materials, supplier, or subcontractor failing to meet the requirements will not be cause for any increase in project cost or schedule.
3. Guarantee of Prices: By signing and submitting a proposal, Bidder agrees to guarantee the bids (prices) for sixty (60) consecutive days from date of submittal and to enter into an agreement with the Owner to perform work for the stated bid sums at any time during this period. Further, the Bidder agrees to guarantee Alternate Bid Sums for those Alternate Bids not initially acceptable in the Notice of Award or Agreement for an additional sixty (60) days from the date of Notice of Award.
4. No bidder, after being awarded the contract, shall be allowed any extra compensation for reason of his failure to inform himself/herself fully, prior to his bidding, of all requirements of the contract documents, drawings, specifications, and the circumstances of the building site.
5. Bidders represent that at the time bids are submitted for consideration, have no questions regarding ambiguity and are submitting bids that will result in a project completed as per the intent of the plans and specifications.
6. Failure to bid requested alternates not listed as optional may be considered justification for rejection of the entire bid.

Bidder's Authorized Signature: _____

Printed Name and Title: _____

Addenda Received: _____

_____

_____

_____

END OF SECTION 004113

SECTION 012300 – ALTERNATES

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements for alternates.

1.2 DEFINITIONS

A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the bidding requirements that may be added to or deducted from the base bid amount if the Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.

1. Alternates described in this Section are part of the Work only if enumerated in the Agreement.
2. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternates into the Work. No other adjustments are made to the Contract Sum.

1.3 PROCEDURES

A. Coordination: Revise or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.

1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.

B. Execute accepted alternates under the same conditions as other work of the Contract.

C. Schedule: A schedule of alternates is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF ALTERNATES

A. Alternate No. 1: 2x2 Lighting Fixtures

1. ***Base Bid:*** Provide lighting fixtures as shown on the Lighting Plan and schedule.
2. ***Alternate*****:** Deduct to change all 2x2 type A light fixtures throughout the project to type B flat panel.

B. Alternate No. 2A: Landscaping – Paved Path Alternate

1. ***Base Bid:*** Provide a concrete paved sidewalk as shown on the drawings.
2. ***Alternate*****:** Deduct – Provide a decomposed granite walk in lieu of the concrete sidewalk.

C. Alternate No. 2B: Landscaping – Remove Boulder Climb

1. ***Base Bid:*** Provide the boulder climb as shown on the drawings.
2. ***Alternate*****:** Deduct the boulder climb materials / labor and portion of 12” deep wood chip fall zone.

D. Alternate No. 2C: Landscaping – Remove Stump Steppers

1. ***Base Bid:*** Provide the stump steppers as shown on the drawings.
2. ***Alternate*****:** Deduct the Stump Stepper materials / labor.

E. Alternate No. 2D: Landscaping – Remove Stump Seats

1. ***Base Bid:*** Provide the Stump Seats as shown on the drawings.
2. ***Alternate*****:** Deduct the Stump Seats materials / labor.

F. Alternate No. 2E: Landscaping – Fencing Alternate

1. ***Base Bid:*** Provide the 6’ tall aluminum picket fence as shown on the drawings.
2. ***Alternate*****:** Deduct the Stump Stepper materials / labor.

G. Alternate No. 3: Exterior Windows

1. ***Base Bid:*** Perform the work as shown in the drawings to remove and replace existing exterior windows and clad wood doors.
2. ***Alternate:*** Deduct – Provide a black vinyl coated chain link fence in lieu of the aluminum picket fence.

END OF SECTION 012300

SECTION 323113 - CHAIN LINK FENCES AND GATES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Chain-link fences.

B. Related Requirements:

1. Section 033000 "Cast-in-Place Concrete" for cast-in-place concrete footings**.**

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for the following:

a. Fence and gate posts, rails, and fittings.
b. Chain-link fabric, reinforcements, and attachments.

B. Shop Drawings: For each type of fence and gate assembly.

1. Include plans, elevations, sections, details, and attachments to other work.
2. Include accessories, hardware, and operational clearances.

C. Samples for Initial Selection: For each type of factory-applied finish.

1.4 INFORMATIONAL SUBMITTALS

A. Product Certificates: For each type of chain-link fence, and gate.

B. Product Test Reports: For framework strength according to ASTM F1043, for tests performed by manufacturer**.**

C. Field quality-control reports.

D. Sample Warranty: For special warranty.

1.5 QUALITY ASSURANCE

A. Testing Agency Qualifications: For testing fence grounding; member company of NETA or an NRTL.

1. Testing Agency's Field Supervisor: Certified by NETA to supervise on-site testing.

1.6 FIELD 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.

1.7 WARRANTY

A. Special Warranty: Manufacturer 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, the following:

a. Failure to comply with performance requirements.
b. Deterioration of metals, metal finishes, and other materials beyond normal weathering.

2. Warranty Period: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Delegated Design: Engage a qualified professional engineer design chain-link fence and gate frameworks.

B. Structural Performance: Chain-link fence and gate frameworks shall withstand the design wind loads and stresses for fence height(s) and under exposure conditions indicated according to ASCE/SEI 7.

1. Design Wind Load: per Manufacturer’s specifications.

a. Minimum Post Size: Determine according to ASTM F1043 for post spacing not to exceed 10 feet (3 m) for Material Group IA, ASTM F1043, Schedule 40 steel pipe

b. Minimum Post Size and Maximum Spacing: Determine according to CLFMI WLG 2445, based on mesh size and pattern specified.

C. Lightning Protection System: Maximum resistance-to-ground value of 25 ohms at each grounding location along fence under normal dry conditions.

2.2 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 according to "CLFMI Product Manual" and requirements indicated below:

1. Fabric Height: **As indicated on Drawings**.
2. Steel Wire for Fabric: Wire diameter of 9 gauge.

a. Mesh Size: **2-1/8 inches (54 mm)** or [**2 inches (50 mm)**.
b. Vinyl-Coated Fabric: 11.5 gauge over **aluminum**-coated wire.

1) Color: **Black**, according to ASTM F934.

2.3 FENCE FRAMEWORK

A. Posts and Rails: ASTM F1043 for framework, including rails, braces, and line; terminal; and corner posts. Provide members with minimum dimensions and wall thickness according to ASTM F1043 based on the following:

1. Fence Height: 72 inches (1830 mm).
2. Light-Industrial-Strength Material: **Group IC-L, round steel pipe, electric-resistance-welded pipe**

hapes.

a. Line Post: **1 5/8 inches in diameter**. 0.055” thickness.
b. End, Corner, and Pull Posts: **2.5 inches dia.** . 0.055” thickness.

3. Horizontal Framework Members: **top** rails according to ASTM F1043.

a. Top Rail: **1.66 inches (42 mm) in diameter**.
4. Metallic Coating for Steel Framework:

a. Type A: Not less than minimum 2.0-oz./sq. ft. (0.61-kg/sq. m) average zinc coating according to ASTM A123/A123M or 4.0-oz./sq. ft. (1.22-kg/sq. m) zinc coating according to ASTM A653/A653M.
b. Type B: Zinc with organic overcoat, consisting of a minimum of 0.9 oz./sq. ft. (0.27 kg/sq. m) of zinc after welding, a chromate conversion coating, and a clear, verifiable polymer film.
c. External, Type B: Zinc with organic overcoat, consisting of a minimum of 0.9 oz./sq. ft. (0.27 kg/sq. m) of zinc after welding, a chromate conversion coating, and a clear, verifiable polymer film. Internal, Type D, consisting of

81 percent, not less than 0.3-mil- (0.0076-mm-) thick, zinc-pigmented coating.

d. Type C: Zn-5-Al-MM alloy, consisting of not less than 1.8-oz./sq. ft. (0.55-kg/sq. m) coating.

e. Coatings: Any coating above.

5. Polymer coating over metallic coating.

a. Color: **Match chain-link fabric**according to ASTM F934.

2.4 TENSION WIRE

A. Metallic-Coated Steel Wire: 0.177-inch- (4.5-mm-) diameter, marcelled tension wire according to ASTM A817 or ASTM A824, with the following metallic coating:

1. Type II: Zinc coated (galvanized) by hot-dip process, with the following minimum coating weight:

a. Matching chain-link fabric coating weight.

2.5 SWING GATES

A. General: ASTM F900 for gate posts and **single** swing gate types.

1. Gate Leaf Width: **36 inches (914 mm)**.

Options in "Framework Member Sizes and Strength" Subparagraph below are dimensional values set by ASTM F900 to determine default sizes and weights of framework members.

2. Framework Member Sizes and Strength: Based on gate fabric height **of 72 inches (1830 mm)** .

B. Pipe and Tubing:

1. Gate Posts: **Round tubular steel**.
2. Gate Frames and Bracing: **Round tubular steel**.

C. Frame Corner Construction: [**Welded**] [**or**] [**assembled with corner fittings**].

D. Hardware:

1. Hinges: **180-degree inward** swing.
2. Latch: Permitting operation from both sides of gate **with provision for padlocking accessible from both sides of gate**].

2.6 FITTINGS

A. Provide fittings according to ASTM F626.

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 (152 mm) long.
2. Rail Clamps: Line and corner boulevard clamps for connecting rails to posts.

E. Tension and Brace Bands: **Pressed steel**.

F. Tension Bars: **Steel**, length not less than 2 inches (50 mm) 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 F626.

1. Standard Round Wire Ties: For attaching chain-link fabric to posts, rails, and frames, according to the following:

a. Hot-Dip Galvanized Steel: 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. (366 g/sq. m) of zinc.

a. Polymer coating over metallic coating.

2. Aluminum: Mill finish.

2.7 GROUT AND ANCHORING CEMENT

A. Nonshrink, Nonmetallic Grout: Factory-packaged, nonstaining, noncorrosive, nongaseous grout complying with ASTM C1107/C1107M. Provide grout, recommended in writing by manufacturer, for exterior applications.

B. Anchoring Cement: Factory-packaged, nonshrink, nonstaining, hydraulic-controlled expansion cement formulation for mixing with 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 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 Landscape 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 (152 m) or line of sight between stakes. Indicate locations of utilities, lawn sprinkler system, underground structures, benchmarks, and property monuments.

3.3 CHAIN-LINK FENCE INSTALLATION

A. Install chain-link fencing according to ASTM F567 and more stringent requirements specified.

1. Install fencing where indicated on plans.

B. Post Excavation: Drill or hand-excavate holes for posts to diameters and spacings indicated, in firm, undisturbed soil.

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: Place top of concrete 2 inches (50 mm**)** below grade to allow covering with surface material.

D. Terminal Posts: Install terminal end, corner, and gate posts according to ASTM F567 and terminal pull posts at changes in horizontal or vertical alignment of as indicated on Drawings. For runs exceeding 500 feet (152 m), space pull posts an equal distance between corner or end posts.

E. Line Posts: Space line posts uniformly at 10 feet (3 m) o.c.

F. Post Bracing and Intermediate Rails: Install according to ASTM F567, maintaining plumb position and alignment of fence posts. Diagonally brace terminal posts to

adjacent line posts with truss rods and turnbuckles. Install braces at end and gate posts and at both sides of corner and pull posts.

1. Locate horizontal braces at midheight of fabric 72 inches (1830 mm) or higher, on fences with top rail, and at two-third fabric height on fences without top rail. Install so posts are plumb when diagonal rod is under proper tension.

G. Tension Wire: Install according to ASTM F567, maintaining plumb position and alignment of fence posts. Pull wire taut, without sags. Fasten fabric to tension wire with 0.120-inch- (3.05-mm-) diameter hog rings of same material and finish as fabric wire, spaced a maximum of 24 inches (610 mm) o.c. Install tension wire in locations indicated before stretching fabric. Provide horizontal tension wire at the following locations:

1. Extended along top and bottom of fence fabric. Install top tension wire through post cap loops. Install bottom tension wire within 6 inches (152 mm) of bottom of fabric and tie to each post with not less than same diameter and type of wire.

H. Top Rail: Install according to ASTM F567, maintaining plumb position and alignment of fence posts. 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.

I. Intermediate and Bottom Rails: Secure to posts with fittings.

J. Chain-Link Fabric: Apply fabric to outside of enclosing framework. Leave 1-inch (25-mm) bottom clearance 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.

K. 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 (380 mm) o.c.

L. 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 according to ASTM F626. Bend ends of wire to minimize hazard to individuals and clothing.

1. Maximum Spacing: Tie fabric to line posts at 12 inches (300 mm) o.c. and to braces at 24 inches (610 mm) o.c.

Fasteners: Install nuts for tension bands and carriage bolts on the side of fence opposite the fabric side.

3.4 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.

3.5 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 and other moving parts.

3.6 DEMONSTRATION

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

END OF SECTION 323113

SECTION 323119 - DECORATIVE METAL FENCES AND GATES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:
   1. Decorative aluminum fences.
   2. Swing gates.
   3. Metal Railing Fence

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Shop Drawings: For fencing and gates.

   1. Include plans, elevations, sections, gate locations, and post spacing.

C. Samples: For each fence material and for each color specified.

   1. Provide Samples 12 inches (300 mm) in length for linear materials.

1.4 INFORMATIONAL SUBMITTALS

A. Field quality-control reports.

B. Product Test Reports: For decorative metallic-coated-steel tubular picket fences, including finish, indicating compliance with referenced standard.

1.5 CLOSEOUT SUBMITTALS

A. Maintenance Data: For gate operators to include in maintenance manuals.

1.6 QUALITY ASSURANCE

A. Installer Qualifications: Fabricator of products.

1. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Wind Loading:

1. Fence Height: 6 feet (0 to 1.83 m).

2.2 DECORATIVE ALUMINUM FENCES

A. Decorative Aluminum Fences: Fences made from aluminum extrusions.

1. Aluminum Fence with spear/arrow decorative pickets to be approved by Owner.

B. Posts: Square extruded tubes.

1. Line Posts: 2 by 2 in
2. End and Corner Posts: 2-1/2 by 2-1/2 inches (64 by 64 mm)
3. Swing Gate Posts: 2-1/2 by 2-1/2 inches (64 by 64 mm).

C. Post Caps: Aluminum castings that cover entire top of posts, project at least 1/4 inch (6 mm) beyond posts.

D. Rails: Extruded-aluminum channels, 1-3/16 by 1-1/2 inches (38 by 38 mm.

E. Pickets: Extruded-aluminum tubes, 3/4 inch (19 mm) square.

1. Alternate terminating tops of pickets at top rail for flush top appearance or extend pickets beyond top rail as indicated and terminate with cast-aluminum spear point finial.
2. Picket Spacing: 3 7/8 inches (98 mm).

F. Fasteners: Manufacturer's standard concealed fastening system.

G. Fasteners: Manufacturer's standard tamperproof, corrosion-resistant, color-coated fasteners matching fence components with resilient polymer washers.

H. Fabrication: Assemble fences into sections by fastening pickets to rails.

1. Fabricate sections with clips welded to rails for field fastening to posts.
2. Drill clips for fasteners before finishing.

I. Finish: powder coating.

2.3 SWING GATES

A. Gate Configuration: Single leaf

B. Gate Frame Height: 72 inches (1830 mm)

C. Gate Opening Width: 60 inches (1524 mm)

D. Aluminum Frames and Bracing: Fabricate members from square extruded-aluminum tubes 1-1/2 by 1-1/2 inches (38 by 38 mm)

E. Additional Rails: Provide as indicated, complying with requirements for fence rails.

F. Infill: Comply with requirements for adjacent fence.

G. Picket Size, Configuration, and Spacing: Comply with requirements for adjacent fence.

H. Hardware: Latches permitting operation from one side of gate, hinges, and keepers for each gate leaf more than 5 feet (1.52 m) wide. Fabricate latches with integral eye openings for padlocking.

1. Padlock to be provided by Owner.

I. Hinges: BHMA A156.1, Grade 1, suitable for exterior use.

1. Function: 39 - Full surface, triple weight, antifriction bearing.
2. Material: Wrought steel, forged steel, cast steel, or malleable iron; galvanized.

J. Galvanizing: For items other than hardware that are indicated to be galvanized, hot-dip galvanize to comply with ASTM A123/A123M. For hardware items, hot-dip galvanize to comply with ASTM A153/A153M.

K. Aluminum Finish: Baked enamel or powder coating.

2.4 ALUMINUM

A. Aluminum, General: Provide alloys and tempers with not less than the strength and durability properties of alloy and temper designated in paragraphs below for each aluminum form required.

B. Extrusions: ASTM B221 (ASTM B221M), Alloy 6063-T5.

C. Tubing: ASTM B429/B429M, Alloy 6063-T6.

D. Plate and Sheet: ASTM B209 (ASTM B209M), Alloy 6061-T6.

E. Die and Hand Forgings: ASTM B247 (ASTM B247M), Alloy 6061-T6.

F. Castings: ASTM B26/B26M, Alloy A356.0-T6.

2.5 ALUMINUM FINISHES

A. Powder-Coat Finish: AAMA 2603 except with a minimum dry film thickness of 2 mils (0.05 mm). Comply with coating manufacturer's written instructions for cleaning, conversion coating, and applying and finish.

1. Color: Black

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas and conditions, with Installer present, for compliance with requirements for site clearing, earthwork, pavement work, construction layout, and other conditions affecting performance of the Work.

B. Do not begin installation before final grading is completed unless otherwise permitted by Landscape Architect.

C. 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 (152.5 m) or line of sight between stakes. Indicate locations of utilities, lawn sprinkler system, underground structures, benchmarks, and property monuments.

3.3 DECORATIVE FENCE INSTALLATION

A. Install fences according to manufacturer's written instructions.

B. Install fences by setting posts as indicated and fastening rails and infill panels to posts.

C. Post Excavation: Drill or hand-excavate holes for posts in firm, undisturbed soil. Excavate holes to a diameter of not less than 4 times post size and a depth of not less than 24 inches (600 mm) plus 3 inches (75 mm) for each foot (300 mm) or fraction of a foot (300 mm) that fence height exceeds 4 feet (1.2 m).

D. Post Setting: Set posts by mechanically driving into soil 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. Mechanically Driven Posts: Drive into soil to depth of 36 inches (914 mm) Protect post top to prevent distortion.

3. Surface Mounted Posts: Per Manufacturer’s Instructions.

4. Space posts uniformly at 6 feet (1.83 m) o.c.

3.4 GATE INSTALLATION

A. Install gates according to manufacturer's written instructions, level, plumb, and secure for full opening without interference. 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.

3.5 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 and other moving parts.

END OF SECTION 323119