

ADDENDUM NO. 2

DATE: June 1, 2021
PROJECT: SMSD AG Barn
LOCATION: 1633 Staffordshire Rd. Stafford, Texas 77477.
PROJECT NO. N090120
DISTRIBUTION:
DELIVERED VIA: Download
NO. PAGES: see attached
PREPARED BY: Smith & Company Architects, Inc



6/1/2021

This addendum form is a part of the Specifications for the New SMSD AG Barn project #N090120 for the Stafford Municipal School District Bid documents posted on May 14, 2021, for the subject project and modifies/add to them as noted below.

PRE-BID MEETING:

1. Pre-Bid meeting Sign In Sheet dated 5.25.2021
2. Pre Bid Question and Answers dated 5.25.2021

CHANGES TO PROJECT MANUAL

1. Delete pages 13 – Sect. VII Submission Requirements; pages 17 & 18 – Sect. X Evaluation; pages 20 & 25 – Sect. XIII Submission check list; and page 29 - Exhibit B – Bid Bond & Bonding Letter of the RFP #21 – 002, issued May 18, 2021 and replace with the attached sheets pages 13 – Sect. VII Submission Requirements; pages 17 & 18 – Sect. X Evaluation; pages 20 & 25 – Sect. XIII Submission check list; and page 29 - Exhibit B – Bid Bond & Bonding Letter of the RFP #21 - 002 issued June 1, 2021.

SPECIFICATIONS:

1. Add Specification Section 323113 Chain Link Fence and Gates dated June 1, 2021

END OF ADDENDUM NO.2



Stafford Municipal School District
"The Best Little School District in Texas"



PLANNING
ENGINEERING
PROGRAM MANAGEMENT

Date: 25 May 2021

Stafford Municipal School District
RFP#21 - 002: Request for Competitive Sealed Proposals
for

SMSD: New AG Barn & Community Center Renovation Projects
Topic: Pre - Proposal Conference

Sign-in Sheet

Name - printed (legibly)	Company/Organization	Phone	Email
MICHAEL SCOTT	LAN	773.617.7639	MJSCOTT@LAN-INC.COM
BUCK BASS	BASS	281.342.2022	BUCK@BASSCONSTRUCTION.COM BASSCONSTRUCTION.COM
OSCAR GOMEZ	SAS	281-901-6005	estimating@seamlessmfa.com
Joseph Harold	Greabury Const.	832.721.2000	Joseph@gccorp.net
David Williamson	Nash Industries	281 829 9815	bids@nashindustriesinc.com
Tivius Ruiz	E Contractors	713-493-2500	RFP@EContractors.com
Juarez White	Smith & Co Arch	713-524-4202	jwhite@sc-arch.com



Stafford Municipal School District

Date: 25 May 2021



**RFP#21 - 002: Request for Competitive Sealed Proposals
for Stafford MSD AG Barn Project & Community Center Renovation
Topic: Pre – Proposal Conference**

Sign-in Sheet

Name – printed (legibly)	Company/Organization	Phone	Email
Michael Scott	LAN	(773) 617-7639	mjscott@lan-inc.com
Victor Fleming	LAN	(832) 244-4245	vcfleming@lan-inc.com
Juarez White	Smith & Company Architects	(713) 524-4202	jwhite@sc-arch.com
Buck Bass	Bass Construction	(281) 392-2022	bids@bassconstruction.com
Oscar Gomez	Jamail & Smith Construction	(281) 901-6005	estimating@jamailsmith.com
Joseph Harold	Gadberry Construction	(832) 721-2606	joseph@gccorp.net
David Williamson	Nash Industries	(281) 829-4815	bids@nashindustriesinc.com
Julius Ruiz	E-Contractors	(713) 493-2500	rfp@econtractors.com

PRE-BID MEETING Q&A – MAY 25, 2021:

- Discussed and provided explanation of allowances on each project. All GC's are to include allowance part of base bid.
 - AG Barn –
 - Owner Betterment Allowance - \$50,000
 - Community Center
 - Owner Betterment Allowance - \$50,000
 - Vinyl Wall covering (graphic wall) Allowance - \$10,000
 - Metal fabrications for folding panel partition Allowance - \$10,000
- Permit status – AG Barn project is currently being reviewed by City of Stafford. Community Center project will be submitted for review by City of Stafford on 5/26/21.
- Questions & Answers during meeting:
 - Are GC's required to remove contents from building as part of contract? No. SMSD will remove the contents from the building prior to the start of construction
 - Will a re-bid of this project happen if the projects come in over budget? In the event that this happens, SMSD will decide if a rebid is to happen.

Victor C. Fleming

Program Manager



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j) Within the past 7 years, has your organization, any officer or principal of your organization, or any predecessor filed for bankruptcy? (if yes, please detail).

2. Bonding

a) Provide name of bonding company and name and address of agent.

b) What is the currently available bonding capacity of your company (bonding limit minus current obligations)? Respondent must provide a letter of statement from a bonding company that the general contractor is eligible to obtain both payment and performance bonds of the types described in this RFP. See **Section XV Exhibit B – BID BOND AND BONDING** Letter for bond requirements.

E. Personnel

1. Given the scope and schedule of the project, identify the personnel proposed, specifically the Project Manager, Job Superintendent or Superintendent(s), and Field Operations personnel proposed to work on the project. Prior to contracting, the Owner may interview the Project Manager/Job Superintendent who will be assigned to the project. Please reference these personnel to projects listed in items VII.C.3.b) and VII.C.3.c) where possible.

a) Provide a resume and references for each individual, stating:

(1) Proposed role on this project

(2) Description of responsibilities for this proposed role (what will this person do?)

(3) Relevant past project experience list with role that makes this individual the best choice for this project (Client, cost, seasonal construction schedule, repairs, renovations, new construction, HVAC, etc.)

(4) General background information: education, years of experience, registrations, affiliations, prior two (2) employers and years of service history

(5) Last three (3) completed or ongoing project assignments

(6) Contact information (Name, title, email address, phone number) for Owner's representative or Architect who could address questions regarding this individual for the last three (3) completed or ongoing projects.

2. Provide an organizational chart outlining all personnel who will be assigned to the project and their responsibilities.

F. Additional Information

1. Letters of Recommendation: Furnish five (5) letters of recommendation from past or current K-12 Texas school district customers of the respondent, preferably from those projects listed in section VII.C.3.b) and VII.C.3.c).

2. Furnish any additional content not requested by other sections of this RFP that demonstrates the qualifications of your company

the contribution, gift, donation, or other item of value within ten calendar days after becoming aware of the conflict with this policy.

Formal Complaints. This policy is not intended to prohibit contractors or their representatives from issuing formal complaints or concerns about potential conflicts of interest during the code of silence. Any such complaints or concerns should be communicated in writing to the chief financial officer.

X. EVALUATION

- A. The Owner will conduct a comprehensive evaluation of all responsive submissions timely received in response to this RFP. The Owner may appoint a selection committee to perform the evaluation.
- B. Each submission will be analyzed to determine overall responsiveness, qualifications under the RFP and Respondent’s cost proposal. Respondents will be scored based upon the criteria listed in this RFP. The Owner may request additional information from Respondent’s at any time prior to final approval of a selected Respondent. Final approval of a selected Respondent is subject to the action of the Board of Trustees of the Owner.
- C. The Owner reserves the right to conduct all research it deems necessary as part of its evaluation of Respondents including their previous clients.
- D. In accordance with Section 2269.155 of the Tex. Gov’t Code, the Owner will utilize the following criteria in the evaluation of responses:

Points Value	Category	Evaluation Method	Reference Section
40	Proposed Amount for Base Proposal	Respondent will receive a pro-rated share of the total available points in this category. A formula will be used as follows: (1-“Cost Factor” * points available in the category). A floor of zero points will be used in cases where “Cost Factor” is greater than 1. “Cost Factor” is determined as follows: ((Your base price proposal minus minimum of all base price proposals)/minimum of all base price proposals)	XIV
15	Evaluation of Company References	Respondent’s references and stated project contacts will be sent a request to participate in a survey of your company. The weighted average overall score for your company will be used to allocate a pro-rated share of the total available points in this category. If 4 or fewer responses are received, your company will earn zero points for this category. You are responsible for accuracy of email address. A formula will be used as follows: (“Reference Factor” * points available in the category). “Reference Factor” is determined as follows: (Your average overall score/maximum possible average overall score)	VII.C.3.b), VII.C.3.c)

15	History of Company Performance	Respondent demonstrates consistent and average past and current workload to staff ratio, showing ability to adequately staff the work and company stability. Respondent shows no past history of claims, suits and failure to perform. Respondent shows ability to maintain cost with no cost increases. Respondent shows positive safety EMR score, relative to other respondents. Positive asset to liability ratio. Adequate bonding capacity.	VII.C.3.a), VII.C.3.b)(13), VII.C.3.c)(11), VII.C.4, VII.C.3.b)(14), VII.C.3.c)(12), VII.C.3.b)(8), VII.C.3.b)(9), VII.C.3.b)(10), VII.C.3.c)(8), VII.C.3.c)(9), VII.C.5, VII.D.1, VII.D.2, VII.G.1
15	Company Project Experience and Qualifications	Respondent <u>company</u> demonstrates similar company project experience by showing high proportion of Fort Bend and Harris County region work, projects of comparable cost, complexity and timeframe to the work in the RFP. Respondent demonstrates high proportion of past experience with subcontractors named in proposal.	VII.C.3.a), VII.C.3.b), VII.C.3.b)(15), VII.C.3.c)(13), VII.C.3.c), VII.C.3.d), XXVIII
15	Individual personnel project experience and qualifications	Respondent <u>individual personnel</u> proposed for the work in the RFP demonstrate similar project experience by showing high proportion of Fort Bend and Harris County region work, projects of comparable cost, complexity and timeframe to the work in the RFP. Organizational approach to the project is clear.	VII.E.1.a), VII.E.2

XI. AWARD OF CONTRACT AND RESERVATION OF RIGHTS

- A. The Form of Contract will be AIA Document A101 – 2017 and Exhibit A, as modified by Owner, attached as EXHIBIT S, and AIA Document A201-2017, as modified by Owner, attached as EXHIBIT T, including incorporated reference files. Any exceptions to the AIA Documents, as modified by Owner, must be clearly indicated by the proposer in EXHIBIT G - DEVIATION AND EXCEPTIONS FORM. Each Proposer, by making its proposal, represents that the Proposer has read, understands, and agrees to the AIA Documents, as modified by Owner.
- B. The Contract, if awarded, will be awarded to the Respondent whose Submission is deemed most advantageous and to provide the best value to the Owner, upon approval of the Owner’s Board of Trustees.
- C. The Owner may accept any Submission in whole or in part. If subsequent negotiations are conducted, they shall not constitute a rejection or alternate RFP on the part of the Owner; however, final selection of a Respondent is subject to approval by the Owner’s Board of Trustees.
- D. The Owner reserves the right to reject any or all Submissions received in response to this RFP and to waive informalities and irregularities in the Submissions received. The Owner also reserves the right to terminate this RFP, and reissue a subsequent Solicitation, and/or remedy technical errors in the RFP Process.

XIII. SUBMISSION CHECKLIST

Use this checklist to ensure that all required documents have been included in the submission and that they are properly tabbed and appear in the correct order.

PART 1 RESPONSE		
Document	Page Limit	Initial to indicate document is attached to submission
VII.A Letter of Interest	Unlimited	
VII.B Executive Summary	Unlimited	
VII.C Submission Questionnaire	Unlimited	
VII.D Financial Information	Unlimited	
VII.E Personnel	Unlimited	
VII.H Optional Information.	Unlimited	
EXHIBIT A –PROPOSAL FORM	Unlimited	
EXHIBIT B – BID BOND and BONDING LETTER	Unlimited	
EXHIBIT C - FELONY CONVICTION NOTIFICATION	Unlimited	
EXHIBIT D - ACKNOWLEDGMENT FORM - NON-COLLUSION STATEMENT	Unlimited	
EXHIBIT E – PROOF OF INSURABILITY	Unlimited	
EXHIBIT F - SIGNATURE PAGE AND DECLARATION OF COMPLIANCE	Unlimited	
EXHIBIT G - DEVIATION AND EXCEPTIONS FORM	Unlimited	
EXHIBIT H – CERTIFICATE OF RESIDENCY	Unlimited	
EXHIBIT I - VENDOR STATEMENT OF DEBARMENT/SUSPENSION	Unlimited	
EXHIBIT J – REQUEST FOR TAXPAYER IDENTIFICATION NUMBER	Unlimited	
EXHIBIT K - Form 1295-Certificate Of Interested Parties.	Unlimited	
EXHIBIT L – CONFLICT OF INTEREST DISCLOSURE STATEMENT	Unlimited	

EXHIBIT M - CERTIFICATION REGARDING TERRORIST ORGANIZATIONS <u>AND</u> <u>BOYCOTT OF ISRAEL</u>		
PART 1 RESPONSE		
EXHIBIT O - KEY SUBCONTRACTORS	Unlimited	
EXHIBIT P - BID ALTERNATES FORM	Unlimited	

Submit with Part 1

Company: _____

Address: _____

City ST Zip

Telephone: _____ Fax: _____ Email: _____

Printed Name/Title: _____ Signature: _____

State whether firm is a: Corporation Partnership Individual

XV. EXHIBIT B – BID BOND AND BONDING LETTER

A bond in the amount of five (5) percent of the proposal issued by an acceptable surety licensed to do business in the State of Texas shall be submitted with each proposal. A certified check or bank draft payable to the Owner or negotiable U.S. Government Bonds (as par value) may be submitted in lieu of the Proposal Bond. Respondents are advised that performance and payment bonds are required for each project.

The bond or its comparable, will be returned to the Respondent as soon as practical after the opening of the proposals.

Furnish Bid Bond.

Furnish a letter of statement from a bonding company that the general contractor is eligible to obtain both payment and performance bonds of the types described in this RFP. See Section XV Exhibit B - Bid Bond and Bonding Letter, for bond requirements.

KNOW ALL MEN BY THESE PRESENTS, that we the undersigned, _____ as PRINCIPAL, and _____, as SURETY are held and firmly bound unto _____ hereinafter called the "Owner", in the penal sum of _____ Dollars, (\$ _____), lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Principal has submitted the Accompanying Bid, dated _____, for _____,

NOW, THEREFOR, if the Principal shall not withdraw said Bid within the period specified therein after the opening of the same, or, if no period be specified, within thirty (30) days after the said opening, and shall within the period specified therefor, or if no period be specified, within ten (10) days after the prescribed forms are presented to him for signature, enter into a written contract with the Owner in accordance with the Bid as accepted, and give bond with good and sufficient surety or sureties, as may be required, for the faithful performance and proper fulfillment of such contract; or in the event of the withdrawal of said Bid within the period specified, or the failure to enter into such Contract and give such bond within the time specified, if the Principal shall pay the Owner the difference between the amount specified in said Bid and the amount for which the local Public Agency may procure the required work or supplies or both, if the latter be in excess of the former, then the above obligation shall be void and of no effect, otherwise to remain in full force and virtue.

IN WITNESS THEREOF, the above-bounded parties have executed this instrument under their several seals this _____ day of _____, the name and corporate seal of each corporate party being hereto affixed and these present signed by its undersigned representative, pursuant to authority of its governing body.

(SEAL)

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.
 - 2. Swing, motor-operated gates.
 - 3. Horizontal-slide, motor-operated gates.

1.3 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Project site.
 - 1. Inspect and discuss electrical roughing-in, equipment bases, and other preparatory work specified elsewhere.
 - 2. Review sequence of operation for each type of gate operator.
 - 3. Review coordination of interlocked equipment specified in this Section and elsewhere.
 - 4. Review required testing, inspecting, and certifying procedures.

1.4 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.
 - c. Gates and hardware.
 - d. Gate operators, including operating instructions and motor characteristics.
- 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, gate operation, and operational clearances.

3. Gate Operator: Show locations and details for installing operator components, switches, and controls. Indicate motor size, electrical characteristics, drive arrangement, mounting, and grounding provisions.
4. Wiring Diagrams: For power, signal, and control wiring.

1.5 INFORMATIONAL SUBMITTALS

- A. Product Certificates: For each type of chain-link fence, operator, and gate.
- B. Product Test Reports: For framework strength according to ASTM F1043, for tests performed by manufacturer and witnessed by a qualified testing agency or a qualified testing agency.
- C. Field quality-control reports.
- D. Sample Warranty: For special warranty.

1.6 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For gate operators to include in emergency, operation, and maintenance manuals.

1.7 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.
- B. Emergency Access Requirements: According to requirements of authorities having jurisdiction for gates with automatic gate operators serving as a required means of access.

1.8 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.

1.9 WARRANTY

- A. Special Warranty: 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, the following:
 - a. Failure to comply with performance requirements.

- b. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
 - c. Faulty operation of gate operators and controls.
2. Warranty Period: 15 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. 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: As indicated on Drawings.
 - 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.

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 0.113 inch (2.87 mm).
 - a. Zinc-Coated Fabric: ASTM A392, Type II, Class 1, 1.2 oz./sq. ft. (366 g/sq. m) with zinc coating applied before weaving.
 3. Selvage: Knuckled at both selvages.

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: As indicated on Drawings.
 2. Heavy-Industrial-Strength Material: Group IV, Alternative Design.
 - a. Line Post: 2.875 inches (73 mm) in diameter.
 - b. End, Corner, and Pull Posts: 2.875 inches (73 mm) in diameter.

3. Horizontal Framework Members: Intermediate top and bottom rails according to ASTM F1043.
 - a. Top Rail: 1.25 by 1.63 inches (32 by 41 mm).
4. Metallic Coating for Steel Framework:
 - a. 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.

2.4 SWING GATES

- A. General: ASTM F900 for gate posts and single swing gate types.
 1. Gate Leaf Width: As indicated.
 2. Framework Member Sizes and Strength: Based on gate fabric height as indicated.
- B. Pipe and Tubing:
 1. Zinc-Coated Steel: ASTM F1043 and ASTM F1083; manufacturer's standard protective coating and finish.
 2. Gate Posts: Rectangular tubular steel, Rectangular tubular aluminum.
 3. Gate Frames and Bracing: Rectangular tubular steel.
- C. Frame Corner Construction: Welded or assembled with corner fittings.
- D. Extended Gate Posts and Frame Members: Fabricate gate posts and frame end members to extend 12 inches (300 mm) above top of chain-link fabric at both ends of gate frame to attach barbed wire assemblies.
- E. Hardware:
 1. Hinges: 180-degree inward swing.
 2. Lock: Manufacturer's standard internal device.

2.5 HORIZONTAL-SLIDE GATES

- A. General: ASTM F1184 for gate posts and single sliding gate types. Provide automated vehicular gates according to ASTM F2200.
 1. Classification: Type II Cantilever Slide, Class 2 with internal roller assemblies.
 - a. Gate Frame Width and Height: As indicated.
- B. Pipe and Tubing:

1. Zinc-Coated Steel: Protective coating and finish to match fence framework.
 2. Gate Posts: ASTM F1184. Provide rectangular tubular steel posts.
 3. Gate Frames and Bracing: Rectangular tubular steel.
- C. Frame Corner Construction: Welded or assembled with corner fittings.
- D. Extended Gate Posts and Frame Members: Extend gate posts and frame end members above top of chain-link fabric at both ends of gate frame 12 inches (300 mm) as required to attach barbed wire assemblies.
- E. Hardware:
1. Hangers, Roller Assemblies, and Stops: Fabricated from galvanized steel.
 2. Lock: Manufacturer's standard internal device.

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 intermediate and bottom rails to posts.
- E. Barbed Wire Arms: Pressed steel or cast iron with clips, slots, or other means for attaching strands of barbed wire, and means for attaching to posts for each post unless otherwise indicated, and as follows:
1. Provide line posts with arms that accommodate top rail or tension wire.
 2. Provide corner arms at fence corner posts unless extended posts are indicated.
 3. Single-Arm Type: Type I, slanted arm.
- F. 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: 0.148-inch- (3.76-mm-) diameter wire; galvanized coating thickness matching coating thickness of chain-link fence fabric.

G. Finish:

1. Metallic Coating for Pressed Steel or Cast Iron: Not less than 1.2 oz./sq. ft. (366 g/sq. m) of zinc.

2.7 BARBED WIRE

- A. Polymer-Coated, Galvanized-Steel Barbed Wire: ASTM F1665, two-strand barbed wire, 0.080-inch- (2.03-mm-) diameter line wire with 0.080-inch- (2.03-mm-) diameter, four-point, round galvanized-steel barbs spaced not more than 5 inches (127 mm) o.c.:

1. Polymer Coating: Class 1 over zinc coated steel wire.
 - a. Color: Match chain-link fabric according to ASTM F934.

2.8 GATE OPERATORS

- A. Operators: Factory-assembled, automatic, gate-operating system designed for gate size, type, weight, and frequency of use. Control system shall have characteristics suitable for Project conditions, with control stations, safety devices, and weatherproof enclosures.

1. Operator design shall allow for removal of cover or motor without disturbing limit-switch adjustment and without affecting auxiliary emergency operation.
2. Electronic components shall have built-in troubleshooting diagnostic feature.
3. Unit shall be designed and wired for both right-hand/left-hand opening, permitting universal installation.

- B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

- C. UL Standard: Manufacture and label gate operators according to UL 325.

- D. Motors: Comply with NEMA MG 1.

1. Duty: Continuous duty at ambient temperature of 40 deg C and at altitude of 3300 feet (1000 m) above sea level.
2. Capacity and Torque Characteristics: Sufficient to start, accelerate, and operate connected loads at designated speeds, at installed altitude and environment, with indicated operating sequence, and without exceeding nameplate ratings or considering service factor.
3. Service Factor: 1.15.
4. Electrical Characteristics:
 - a. Horsepower: 1.
5. Mechanical Slide Gate Operators:

- a. Duty: Medium duty, commercial/industrial.
 - b. Frequency of Use: 10 cycles per hour.
 - c. Operating Type: Roller chain, with manual release.
- E. Obstruction Detection Devices: Provide each motorized gate with automatic safety sensor(s). Activation of sensor(s) causes operator to immediately function as follows:
1. Action: Reverse gate in both opening and closing cycles and hold until clear of obstruction.
 2. Internal Sensor: Built-in torque or current monitor senses gate is obstructed.
- F. Limit Switches: Adjustable switches, interlocked with motor controls and set to automatically stop gate at fully open and fully closed positions.
- G. Emergency Release Mechanism: Quick-disconnect release of operator drive system, permitting manual operation if operator fails. Control circuit power is disconnected during manual operation.
1. Type: Integral fail-safe release, allowing gate to be pushed open without mechanical devices, keys, cranks, or special knowledge.
- H. Accessories:
1. Battery Backup System: Battery-powered drive and access-control system, independent of primary drive system.
 - a. Fail Safe: Gate opens and remains open until power is restored.
 - b. Fail Secure: Gate cycles on battery power, then fail safe when battery is discharged.
 2. Fire box.
 3. Instructional, Safety, and Warning Labels and Signs: Manufacturer's standard for components and features specified.
 4. Equipment Bases/Pads: Cast-in-place or precast concrete, depth not less than 12 inches (300 mm) 6 to 12 inches (150 to 300 mm) below frost line or detail on Drawings, dimensioned and reinforced according to gate-operator component manufacturer's written instructions and as indicated on Drawings.

2.9 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.

2.10 GROUNDING MATERIALS

- A. Connectors and Grounding Rods: Listed and labeled for complying with UL 467.
 - 1. Connectors for Below-Grade Use: Exothermic welded type.
 - 2. Grounding Rods: Copper-clad steel, 5/8 by 96 inches (16 by 2440 mm).

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and conditions, with Installer present, for compliance with requirements for a certified 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 (152 m) or line of sight between stakes. Indicate locations of utilities, lawn sprinkler system, underground structures, benchmarks, and property monuments.

CHAIN-LINK FENCE INSTALLATION

- B. Install chain-link fencing according to ASTM F567 and more stringent requirements specified.
 - 1. Install fencing on established boundary lines inside property line.
- C. Post Excavation: Drill or hand-excavate holes for posts to diameters and spacings indicated, in firm, undisturbed soil.
- D. 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 as indicated on Drawings to allow covering with surface material.
- E. Line Posts: Space line posts uniformly at 96 inches (2440 mm) 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. 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.
- H. Chain-Link Fabric: Apply fabric to outside of enclosing framework. Leave 1-inch (25-mm) 2-inch (50-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.
- 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 (380 mm) o.c.
- J. 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.

3.3 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.

3.4 GATE-OPERATOR INSTALLATION

- A. Install gate operators according to manufacturer's written instructions, aligned and true to fence line and grade.
- B. Excavation: Hand-excavate holes for posts, pedestals, and equipment bases/pads, in firm, undisturbed soil to dimensions and depths and at locations according to gate-operator component manufacturer's written instructions and as indicated.

- C. Vehicle Loop Detector System: Cut grooves in pavement, bury, and seal wire loop according to manufacturer's written instructions. Connect to equipment operated by detector.
- D. Ground electric-powered motors, controls, and other devices according to NFPA 70 and manufacturer's written instructions.

3.5 GROUNDING AND BONDING

- A. Fence and Gate Grounding:
 - 1. Ground for fence and fence posts shall be a separate system from ground for gate and gate posts.
 - 2. Install ground rods and connections at maximum intervals of 1500 feet (450 m).
 - 3. Fences within 100 Feet (30 m) of Buildings, Structures, Walkways, and Roadways: Ground at maximum intervals of 750 feet (225 m).
 - 4. Ground fence on each side of gates and other fence openings.
 - a. Bond metal gates to gate posts.
- B. Protection at Crossings of Overhead Electrical Power Lines: Ground fence at location of crossing and at a ground rod located a maximum distance of 150 feet (45 m) on each side of crossing.
- C. Grounding Method: At each grounding location, drive a grounding rod vertically until the top is 6 inches (152 mm) below finished grade. Connect rod to fence with No. 6 AWG conductor. Connect conductor to each fence component at grounding location.
 - 1. Make grounding connections to each barbed wire strand with wire-to-wire connectors designed for this purpose.
- D. Connections:
 - 1. Make connections with clean, bare metal at points of contact.
 - 2. Make aluminum-to-steel connections with stainless-steel separators and mechanical clamps.
 - 3. Make aluminum-to-galvanized-steel connections with tin-plated copper jumpers and mechanical clamps.
 - 4. Make above-grade ground connections with mechanical fasteners.
 - 5. Make below-grade ground connections with exothermic welds.
 - 6. Coat and seal connections having dissimilar metals with inert material to prevent future penetration of moisture to contact surfaces.

3.6 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage qualified testing agency to perform tests.
- B. Prepare test reports.

3.7 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. Automatic Gate Operator: Energize circuits to electrical equipment and devices, start units, and verify proper motor rotation and unit operation.
 - 1. Hydraulic Operator: Purge operating system, adjust pressure and fluid levels, and check for leaks.
 - 2. Test and adjust operators, controls, alarms, and safety devices. Replace damaged and malfunctioning controls and equipment.
 - 3. Lubricate operator and related components.
- C. Lubricate hardware and other moving parts.

3.8 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