



**BROWARD COUNTY HOUSING AUTHORITY  
SOLICITATION NUMBER QR 17-251  
QUOTATION REQUEST**

**FENCE REPLACEMENT AT TWIN OAKS APARTMENTS**

**DATE OF ISSUE: FEBRUARY 2, 2017**

**QUOTE DUE DATE: FEBRUARY 16, 2017, 2:00 PM, EST**

**CONTACT: ANTHONY J. CARIVEAU, MPA, CPPO, CPPB, FCCN  
PURCHASING DIRECTOR  
BROWARD COUNTY HOUSING AUTHORITY  
4780 NORTH STATE ROAD 7  
LAUDERDALE LAKES, FL 33319  
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E-MAIL: acariveau@bchafll.org**

# FENCE REPLACEMENT AT TWIN OAKS APARTMENTS

## 1. INTRODUCTION

The Broward County Housing Authority (herein after, "BCHA") is a Public Housing Agency established in June 1969 under the U.S. Housing Act of 1937 and Chapter 421 of the Florida Statutes and is an Independent Special District of the State of Florida.

The mission of Broward County Housing Authority, its affiliates and instrumentalities (hereinafter, jointly referred to as "BCHA") is to create, provide and increase high quality housing opportunities for Broward County residents through effective and responsive management and responsible stewardship of public and private funds.

The United States Department of Housing and Urban Development ("HUD"), a federal agency, partially funds and monitors operations of the BCHA. Nothing contained in this RFQ or in the contract resulting from the selection process shall be construed to create any contractual relationship between the successful Proposer and HUD.

BCHA maintains a website at <http://www.bchafl.org> with information for clients, landlords, prospective business partners, and the public at large.

## 2. STATEMENT OF WORK

The Broward County Housing Authority (BCHA) as a Public Housing Authority existing under Florida statutes, and on behalf of related instrumentalities and single asset affiliated entities are actively soliciting quotations from qualified, licensed and insured contractors to provide **Fencing Service** at its Twin Oaks Apartments location 4350-4352 and 4360-4370 NE 29<sup>th</sup> Street, Lauderdale Lakes, Fl. 33313 in Broward County Florida, in accordance with the specifications as set forth in this quotation request.

## 3. CONTRACTOR RESPONSIBILITIES

**3.1 Standard Service Requirements:** Except as specifically excluded, contractor shall be responsible for providing all services, permits (if required), licenses, materials, labor, supplies, tools and equipment necessary to meet the service requirements contained within this solicitation. The awarded contractor shall be familiar with all laws and regulations that may in any way affect the work. The cost/fees for permits must be included in the contractor's price and paid for by the contractor.

3.1.1 The Contractor shall be responsible for obtaining any permits required.

3.1.2 The cost/fees for permits must be included in the contractor's price and paid for by the contractor.

3.1.3 Contractor will be held responsible for (but not limited to) damage to sprinkler/ irrigation systems, sidewalks, power lines, parked cars, buildings, etc.

3.1.4 The Contractor must cordon off work area as needed for safe operation of equipment

3.1.5 Contractor may not leave any holes or trenches uncovered after work hours.

- 3.1.6 Contractor may not use any water or electricity from the site.
  - 3.1.7 Contractor will report any ensuing damage to property directly to the Property Manager or Contact Person.
  - 3.1.8 Contractor will remove any and all construction debris from BCHA sites daily. BCHA dumpsters and trash receptacles MAY NOT be used for this purpose.
  - 3.1.9 Contractor must provide competent supervision.
  - 3.1.10 Contractor must provide qualified and experienced staff to perform all work.
  - 3.1.11 Contractor will be responsible for informing their workmen that under no circumstances are they permitted to accept food or drink from any tenant.
  - 3.1.12 Contractor will perform work between the hours of 8:00AM and 5:00PM Monday through Friday.
  - 3.1.13 Contractor must furnish all tools and materials and will operate, maintain, and repair all equipment necessary to perform work required within this solicitation.
  - 3.1.14 Contractor MAY NOT store equipment or materials at any BCHA site without permission.
  - 3.1.15 Contractor will provide a work order for each location on a per service basis and have it signed by a BCHA authorized person indicating completion and satisfaction of work performed. A copy of the work order is to be left on site and a copy is to be submitted with invoices.
  - 3.1.16 All employees of the Contractor shall be considered to be, at all times the sole employees of the Contractor, under his sole direction and not an employee or agent of BCHA. BCHA may require the Contractor to remove an employee if it deems the employee to be careless, incompetent, insubordinate or otherwise objectionable and whose continued employment on BCHA property is not in the best interest of BCHA.
  - 3.1.17 At least one employee of the Contractor, assigned to any BCHA site must be able to fluently speak, read and communicate in the English language or the Contractor must provide a translator for communication at the Contractor's expense.
  - 3.1.18 Contractor will perform tasks specified within Scope of Work above at locations below.
- 3.2 **Personnel:** All employees of the contractor shall be considered to be, at all times the sole employees of the Contractor, under his sole direction and not an employee or agent of BCHA. BCHA may require the contractor to remove an employee if it deems the employee to be careless, incompetent, insubordinate or otherwise objectionable and whose continued employment on BCHA property is not in the best interest of BCHA.
- 3.3 **Employee Identification:** Contractor's personnel must be appropriately attired, courteous and conduct themselves in a professional manner consistent with UPCS requirements. While working on BCHA property, all contractors' inspectors shall wear clearly displayed photo identification badges at shirt pocket height showing they are employees of the contractor. The badges shall be provided by the contractor at the contractor's expense.

- 3.4 Contractor shall be responsible for informing their personnel that under no circumstances are they permitted to accept food or drink from any tenant.
- 3.5 Smoking is **NOT** permitted in any BCHA residential unit or facility.
- 3.6 Contractor's employees must call Property Manager to check in and provide them with the following information: Company name, Building name and nature of work to be performed.
- 3.7 **Davis Bacon Wages are NOT applicable for this project**
- 3.8 **HUD General Conditions:** Bidders are subject to General Conditions for Construction Contracts, HUD Form 5370-EZ, at <http://portal.hud.gov/hudportal/documents/huddoc?id=5370-EZ.docx>.
- 3.9 Contractor shall fully complete the work within **45 days** from the issue date of the permit. No grace period shall be honored unless previously established and written authorization is granted by the Project Manager.
- 3.10 In the event that the contractor fails to complete the work within the timeframe set forth, and in compliance with the specifications and requirements contained within this solicitation, BCHA reserves the right to pursue alternate remedies which may include the termination of the contract for default.

#### **4. LICENSING AND INSURANCE INFORMATION**

- 4.1 Before a contract pursuant to this Quotation Request (QR) is executed, the apparent successful Contractor must hold all necessary, applicable professional licenses required by the State of Florida and all regulatory agencies necessary to complete the Service. The Contractor shall obtain, at the Contractor's expense, any permits, certificates and licenses as may be required in the performance of work specified. All required licenses shall remain active and valid during the entire duration of the subsequent contract. BCHA may require any or all Contractors to submit evidence of proper licensure.
- 4.2 A copy of the contractor's business license allowing the contractor to provide such services within Broward County, Florida;
- 4.3 An original certificate evidencing the contractor's current worker's compensation carrier and coverage amount. BCHA will not accept state waiver of worker's compensation insurance liability;
- 4.4 An original certificate evidencing General Liability coverage evidencing a minimum of \$1,000,000 each occurrence, general aggregate minimum limit of \$1,000,000, together with damage to premises and fire damage of \$50,000 and medical expenses any one person of \$5,000 with a deductible of not greater than \$1,000;
- 4.5 An original certificate showing the contractor's vehicle insurance coverage in a combined single limit of \$1,000,000. For every vehicle utilized during the term of this contract, when not owned by the entity, each vehicle must have evidence of vehicle insurance coverage with limits of no less than \$50,000/\$100,000 and medical pay of \$5,000 must each be furnished with the proposer's response.
- 4.6 Contractor agrees, and hereby authorizes its insurer, to notify BCHA of any substantial change in such insurance coverage described herein. Substantial change includes, but not limited to, events such as cancellation, non-renewal, reduction in coverage, or receipt of a claim against such coverage with potential recovery in excess of twenty percent (20%) of available coverage. BCHA shall be notified at least 30 days in advance of cancellation, non-renewal or adverse change;

- 4.7 The premium cost of all insurance purchased by the Contractor for protection against risks assumed by virtue of the contract shall be borne by the Contractor and is not reimbursable by BCHA;
- 4.8 BCHA reserves the right, but not the obligation, to review and revise any insurance requirements, including limits, coverages and endorsements, based upon insurance market conditions affecting the availability and affordability of coverage. Additionally, BCHA reserves the right, but not the obligation, to review and reject any insurance policies, certificates of insurance, or insurer failing to meet the criteria stated herein;

## **5. CONTACTS:**

For technical questions regarding the commodities/services listed in this quote, contact Bill Sipala (Construction Manager) at 954-739-1114 ext. 1310 or 954-547-7639.

For information regarding bidding procedures, terms and conditions, contact Anthony Cariveau at 954-739-1114 ext. 1316 or by email at: [acariveau@bchafl.org](mailto:acariveau@bchafl.org).

## **6. CONTRACT SERVICE STANDARD**

All work performed pursuant to this solicitation must conform and comply with all applicable federal, state, and local laws, statutes, and regulations.

## **7. CONTRACT PAYMENT**

- 7.1.1 Following the performance of work, the contractor will submit an invoice to Accounts Payable Department, Broward County Housing Authority, 4780 N. State Road 7, Lauderdale Lakes, Florida, 33319 or by email at [payments@bchafl.org](mailto:payments@bchafl.org).
- 7.1.2 Contractor's invoices shall reflect the prices established for the items on this Contract for all orders placed by BCHA even though the Contract number and/or correct prices may not be referenced on each order. Only properly submitted invoices will be officially processed for payment. Invoices submitted without required information will be returned for entry of the missing information and will not be paid until properly completed.
- 7.1.3 All invoices must be itemized showing: Contractor's name, remit to address, purchase order number, service location, site name and prices per the contract, itemized in order to facilitate contract auditing.
- 7.1.4 Each invoice must detail the service and location at which performed, accompanied by a copy of the work order signed by the BCHA Contact Person indicating satisfactory completion of work.
- 7.1.5 BCHA will pay the properly completed and authorized invoice within thirty (30) days of receipt. BCHA will pay invoices by check.
- 7.1.6 All checks will be mailed.

## **8. SCOPE OF WORK**

### **8.1 General Requirements**

The Broward County Housing Authority (BCHA) is actively soliciting proposals from qualified, experienced, licensed and insured contractors and fence installation

professionals to remove existing fences and install new fences at Twin Oaks Apartments, 4350-4352 & 4360-4370 NW 29<sup>th</sup> Street, Lauderdale Lakes, FL 33313 location in Broward County Florida. Prices quoted shall include all labor, materials, permits and any costs associated with the disposal of the existing fences. All work shall meet the latest requirements of the South Florida Building Code.

**Twin Oaks Apartments**

- Demolish and remove 165 lineal feet of 4’ high chain link fencing and one gate, across the entire length of the south side of the property. See sketch on the attached survey.
- Supply and install 165 lineal feet of new four-foot high, green vinyl coated chain link fence, per the attached specifications.
- Supply and install one new 4’ wide, green or black vinyl coated, gate in the middle of the 4’ high fence.
- Demolish and remove 198 lineal feet of 6’ high wood fencing across the entire west side property line. See sketch on the attached survey.
- Supply and install 198 lineal feet of new six-foot high, green or black vinyl coated chain link fence, with green or black full privacy slats, per the attached specifications.

**9. SOLICITATION BACKGROUND AND ANTICIPATED SCHEDULE**

- 9.1.1 BCHA is seeking to obtain quotations from firms qualified to perform services as described within the Scope of Work at location listed above.
- 9.1.2 This solicitation is subject to the BCHA Procurement Policy, as revised September 18, 2013, a copy of which will be provided upon request.

**10. SITE VISIT**

It is highly recommended that proposers visit the project site. BCHA will not be held responsible for incorrect fee proposals due to contractor’s misunderstanding of requirements, measurements, and services required. BCHA staff will only be available to show the site at the time listed below.

- 10.1.1 Should bidder not visit site, BCHA will not be held responsible for incorrect fee bids due to contractor’s misunderstanding of requirements, size and services required at the site.

Location	Date & Time	Site Contact
Twin Oaks Apartment: 4350 - 4352 & 4360 - 4370 NE 29 <sup>th</sup> Street, Lauderdale Lakes, FL 33313	<b>2/9/2017 @ 10:00 AM – 10:30 AM</b>	Bill Sipala (Project Mgr.) Tel: 954-547-7639

**11. BID SUBMISSION:**

**Bid submission should include pages 1 through 8 of this solicitation. Do not submit Attachment A. All required sections should be completed. Bidder is responsible for the completeness of all forms and the submission of the required documents.**

**REMAINDER OF PAGE INTENTIONALLY LEFT BLANK**

**12. PROPOSED FEES**

All prices submitted are to be on the form below.

- A. Instructions: Please indicate the cost:
- B. Price shall include all labor, materials, equipment, permits and associated costs.
- C. Schedule of value and time schedule may be requested prior to award.

DESCRIPTION	Total Price
<b>6ft Vinyl Coated Chain link fence with slats</b> All labor, materials, equipment, permits and associated costs as per Scope of Work.	\$ _____ Lump Sum (Base Bid)
<b>4ft Vinyl Coated Chain link fence with a gate</b> All labor, material, equipment, permits and associated costs as per Scope of Work.	\$ _____ Lump Sum

**TOTAL**      \$ \_\_\_\_\_  
Lump Sum

**Deduct:**

Provide a deduct, from the base bid lump sum cost of the 6ft vinyl coated chain link fence with slats, to install a 6ft high **wood shadowbox** fence per code:

\$(\_\_\_\_\_)      \$ \_\_\_\_\_  
 Deduction from Base      Total  
 Bid Lump Sum

**Contract award will be made to the responsive and responsible bidder that submits the lowest cost; in this case, the lowest calculated cost. In the event that all responsive and responsible bids exceed the budget for this project, Bid Deduct shall be deducted from all bids and the lowest responsive and responsible bid shall be determined.**

By completing and submitting this form and all other documents within this bid submission, the undersigned proposer hereby certifies and understands that:

1. He/she is verifying that all information provided herein is, to the best of his/her knowledge, true and accurate, and that if BCHA discovers that any information entered herein to be false, such shall entitle BCHA to not consider or make award of to cancel any award with the undersigned party;
2. He/she is agreeing to abide by all terms and conditions pertaining to this solicitation document as issued by BCHA including an agreement to execute a contract form; and
3. He/she has the ability to sign and bind the firm or company to the services to be performed within the fees proposed.

Signature	
Title	
Date Signed	
Printed Name	
Firm or Company	
Telephone #	



**ACCURATE LAND SURVEYORS, INC.**

L.B. #3635

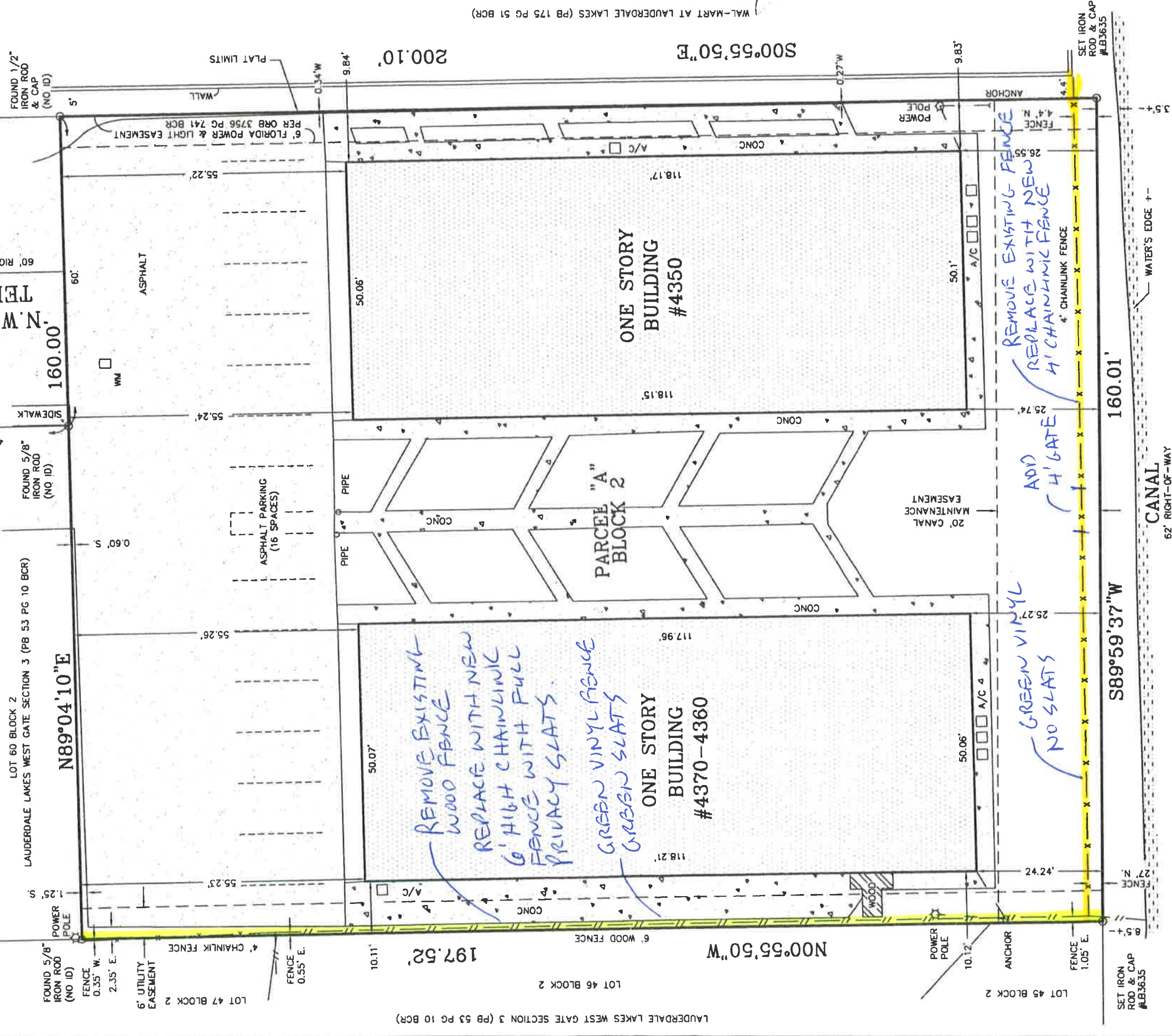
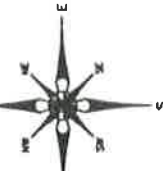
SHEET 2 OF 2

TEL. (954) 782-1441  
FAX. (954) 782-1442

1150 E. ATLANTIC BLVD.  
POMPANO BEACH, FLORIDA 33060



GRAPHIC SCALE  
1"=20'



**NOTES:**

- UNLESS OTHERWISE NOTED FIELD MEASUREMENTS ARE IN AGREEMENT WITH RECORD MEASUREMENTS.
- BEARINGS SHOWN HEREON ARE BASED ON A BEARING OF N89°04'10"E ALONG THE N. LINE OF PARCEL A PB 53, PG 10, BROWARD COUNTY PUBLIC RECORDS.
- THE LANDS SHOWN HEREON WERE NOT ABSTRACTED FOR OWNERSHIP, RIGHTS-OF-WAY, EASEMENTS, OR OTHER MATTERS OF RECORDS BY ACCURATE LAND SURVEYORS, INC.
- OWNERSHIP OF FENCES AND WALLS IF ANY NOT DETERMINED.
- THIS DRAWING IS THE PROPERTY OF ACCURATE LAND SURVEYORS, INC. AND SHALL NOT BE USED FOR REPRODUCTION IN WHOLE OR IN PART WITHOUT WRITTEN AUTHORIZATION.
- THIS SURVEY CONSISTS OF A MAP AND TEXT REPORT. ONE IS NOT VALID WITHOUT THE OTHER.
- THIS SURVEY IS MADE FOR THE EXCLUSIVE USE OF THE CERTIFIED HEREON. TO BE VALID ONE YEAR FROM THE DATE OF SURVEY AS SHOWN.
- THIS SURVEY REFLECTS ALL LEGIBLE, PLOTTABLE, RECORDED MATTERS OF SURVEY PER SCHEDULE B2 OF OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY COMMITMENT NUMBER 10-2014-003010 EFFECTIVE MARCH 10, 2014 AT 11:00 P.M.

**CERTIFICATION:**

This is to certify that I have recently surveyed the property described in the foregoing title caption and have set or found monuments as indicated on this sketch and that said above ground survey and sketch are accurate and correct to the best of my knowledge and belief. I further certify that this survey meets Minimum Technical Standards under Rule 5J-17 adopted by the Florida Board of Land Surveyors, January 11th, 2010.



*Robert L. Thompson*  
ROBERT L. THOMPSON (PRESIDENT)  
PROFESSIONAL SURVEYOR AND MAPPER No. 3869 - STATE OF FLORIDA

REVISIONS	
DATE	BY

DATE OF SURVEY 03/24/14	DRAWN BY SP	CHECKED BY JMS	FIELD BOOK
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14-0858 SCALE 1"=20' SKETCH NUMBER SU-14-0858

THIS SURVEY IS MADE FOR MORTGAGE AND TITLE PURPOSES ONLY AND SHOULD NOT BE USED FOR DESIGN OR CONSTRUCTION PURPOSES.

**TYPE OF SURVEY: BOUNDARY**

**JOB NUMBER: SU-14-0858**

**LEGAL DESCRIPTION:**

PARCEL A, BLOCK 2 OF LAUDERDALE LAKES WEST GATE SECTION NO. 3, ACCORDING TO THE MAP OR PLAT THEREOF, AS RECORDED IN PLAT BOOK 53, PAGE 10 PUBLIC RECORDS OF BROWARD COUNTY, FLORIDA.

**ADDRESS: 4350-4370 NW 29TH STREET LAUDERDALE LAKES, FL 33313**

**FLOOD ZONE: AH**

**BASE FLOOD ELEVATION: 8'NGVD**

**CONTROL PANEL NUMBER: 120043-0204-F**

**EFFECTIVE: REVISED: 10/2/1997**

**LOWEST FLOOR ELEVATION: #4350 FLOOR 8.40'NGVD (#4370 FLOOR 8.39'NGVD)**

**GARAGE FLOOR ELEVATION: N/A**

**LOWEST ADJACENT GRADE : 8.00'NGVD**

**HIGHEST ADJACENT GRADE : 8.06'NGVD**

**REFERENCE BENCH MARK: BCBM#453 ELEV: 7.96'NGVD**

**CERTIFY TO:**

1. GOREN, CHEROF, DOODY & EZROL, P.A.
2. OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY
3. BUILDING BETTER COMMUNITIES, INC. A FLORIDA NOT FOR PROFIT CORPORATION

4.  
5.  
6.

**EASEMENTS ACCORDING TO THE FORGOING DESCRIBED COMMITMENT:**

- 6' UTILITY EASEMENT ALONG THE WEST BOUNDARY
- 20' CANAL MAINTENANCE EASEMENT ALONG THE SOUTH BOUNDARY
- 6' FLORIDA POWER AND LIGHT EASEMENT ALONG THE EAST BOUNDARY PER ORB 3756, PG 741 B.C.R.

**ABOVE GROUND ENCROACHMENTS:**

ASPHALT PARKING, CONCRETE WALK, WOOD DECK AND FENCE IN 6' UTILITY EASEMENT ALONG THE WEST BOUNDARY

FENCE IN 20' CANAL MAINTENANCE EASEMENT ALONG THE SOUTH BOUNDARY

ASPHALT PARKING, CONCRETE WALK AND FENCE IN 6' FLORIDA POWER AND LIGHT EASEMENT ALONG THE EAST BOUNDARY PER ORB 3756, PG 741 B.C.R.

ASPHALT PARKING IN ROAD RIGHT-OF-WAY ALONG THE NORTH BOUNDARY

**THIS SURVEY REFLECTS ALL LEGIBLE, PLOTTABLE, RECORDED MATTERS OF SURVEY PER SCHEDULE B2 OF OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY COMMITMENT NUMBER 10-2014-003010 EFFECTIVE MARCH 10, 2014 AT 11:00 P.M.**

**NOTICE:**

THIS SURVEY IS MADE FOR MORTGAGE AND TITLE PURPOSES ONLY AND SHOULD NOT BE USED FOR DESIGN OR CONSTRUCTION PURPOSES.

**NOTES:**

1. THIS SURVEY CONSISTS OF A MAP AND A TEXT REPORT. ONE IS NOT VALID WITHOUT THE OTHER.
2. OWNERSHIP OF FENCE AND WALLS IF ANY, NOT DETERMINED.
3. THIS SURVEY IS MADE FOR THE EXCLUSIVE USE OF THE CERTIFIED HEREON. TO BE VALID ONE YEAR FROM THE DATE OF SURVEY AS SHOWN HEREON.

A	=	CENTRAL ANGLE	OR ±	=	ELEVATIONS BASED ON NGVD 1929
AB	=	ARC LENGTH		=	SQUARE FEET
R	=	ARC BEARING		=	PERMANENT CONTROL POINT
RW	=	RIGHT OF WAY		=	PALM BEACH COUNTY RECORDS
P.C.	=	POINT OF CURVATURE		=	PLAT
P.T.	=	POINT OF TANGENCY		=	NAIL & DISC
WM	=	WATER METER		=	POINT OF COMMENCEMENT
OH	=	OVERHANG		=	POINT OF BEGINNING
N	=	NORTH		=	FOUND
S	=	SOUTH		=	CHATTahoochee
E	=	EAST		=	FLORIDA POWER & LIGHT
W	=	WEST		=	ELEVATION
B.M	=	BENCHMARK		=	MANHOLE
FH	=	FIRE HYDRANT		=	EASEMENT
ofs	=	OFFSET		=	ELECTRIC
SEC.	=	SECTION			
TWP	=	TOWNSHIP			
RGE	=	RANGE			

**LEGEND OF ABBREVIATIONS:**

D.B.	=	DEED BOOK	MAINT.	=	MAINTENANCE
CLF	=	CHAIN LINK FENCE	B.C.R.	=	BROWARD COUNTY RECORDS
WF	=	WOOD FENCE	D.C.R.	=	DADE COUNTY RECORDS
BLVD.	=	BOULEVARD	P.B.	=	PLAT BOOK
AD	=	ASSUMED DATUM	O.R.B.	=	OFFICIAL RECORDS BOOK
I.M.	=	IRON PIPE	F.F.	=	FINISHED FLOOR
I.R.	=	IRON ROD	ENCH.	=	ENCROACH
P.R.M.	=	PERMANENT REFERENCE MONUMENT		=	CHAIN LINK FENCE
N.G.V.D.	=	NATIONAL GEODETIC VERTICAL DATUM		=	WOOD FENCE
U.E.	=	UTILITY EASEMENT		=	METAL FENCE
D.E.	=	DRAINAGE EASEMENT		=	PVC FENCE
A.E.	=	ANCHOR EASEMENT		=	CONCRETE FENCE
GAR.	=	GARAGE		=	CONCRETE WALL
C/L	=	CENTERLINE		=	WIRE FENCE
(M)	=	MEASURED			
LP	=	LIGHT POLE			



## SECTION 02821 - 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 1 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. This Section includes the following:
  - 1. Chain-Link Fences (Residential)
  - 2. Gates: swing.

#### 1.3 PERFORMANCE REQUIREMENTS

- A. Structural Performance: Provide chain-link fences and gates capable of withstanding the effects of gravity loads and the following loads and stresses within limits and under conditions indicated:
  - 1. Minimum Post Size and Maximum Spacing for Wind Velocity Pressure: Determine based on mesh size and pattern specified, and on the following minimum design wind pressures and according to CLFMI WLG 2445:
    - a. Wind Speed: In accordance with the Florida Building Code latest edition.
    - b. Fence Height: 48 inches
    - c. Line Post Group: IA, ASTM F 1043, Schedule 40 steel pipe.
    - d. Wind Exposure Category: C Insert category.

#### 1.4 SUBMITTALS

- A. Product Data: Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for chain-link fences and gates.
  - 1. Fence and gate posts, rails, and fittings.
  - 2. Chain-link fabric, reinforcements, and attachments.
  - 3. Gates and hardware.
- B. Shop Drawings: Show locations of fences, gates, posts, rails, tension wires, details of extended posts, extension arms, gate swing, or other operation, hardware, and accessories. Indicate materials, dimensions, sizes, weights, and finishes of components. Include plans, gate elevations, sections, details of post anchorage, attachment, bracing, and other required installation and operational clearances



- C. Samples:
  - 1. Polymer-coated steel wire for fabric.
  - 2. Polymer coating on framing and accessories.
- D. Maintenance Data: For polymer finishes.

## 1.5 QUALITY ASSURANCE

- A. Installer Qualifications: An experienced installer who has completed chain-link fences and gates similar in material, design, and extent to those indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.
  - 1. Engineering Responsibility: Preparation of data for chain-link fences and gates, including Shop Drawings, based on testing and engineering analysis of manufacturer's standard units in assemblies similar to those indicated for this Project.

## 1.6 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.

## PART 2 - PRODUCTS

### 2.1 CHAIN-LINK FENCE FABRIC

- A. General: Height indicated on Drawings. Comply with ASTM A 392, CLFMI CLF 2445, and requirements indicated below:
  - 1. Steel Wire Fabric: Polymer-coated wire with a diameter of **0.148 inch (3.76 mm)**.
    - a. Mesh Size: **1 inches (25.4 mm)**.
    - b. Metallic (Zinc) Coating: ASTM A 392, Type II.
    - c. Polymer Coating: ASTM F 668, Class 2a over metallic-coated steel wire.
      - 1) Color: Olive green, complying with ASTM F 934.
  - 2. Selvage: Knuckled at both selvages.

### 2.2 RESIDENTIAL FENCE AND GATE FRAMING

- A. **Note, all the post sizes and thicknesses are suggested minimum as a bases of design, contractor to increase these sizes where required to meet wind requirements per the Florida Building Code.**

- B. Posts and Rails: Round cold-formed, electric-resistance-welded, steel pipe or tubing, with minimum yield strength of **45,000 psi (310 MPa)** and with outside dimension, minimum wall thickness, and weight complying with ASTM F 761 or ASTM F 654 for the following fence height and strength and stiffness requirements:
1. Fence Height: **6 feet (1.83 m) and 4 feet (1.22 m)**.
  2. Duty Rating: Medium.
  3. Tube or Pipe Diameter and Thickness: According to ASTM F 761.
  4. Tube Size and Thickness: According to ASTM F 654.
    - a. Top Rail: **1.66 inches (42 mm)**.
    - b. Line Post: **1.87 inches (47.5 mm)**.
    - c. Terminal Post: **2.375 inches (60 mm)**.
    - d. Gate Post: **2.5 inches (63.5 mm)**
    - e. Bottom Rail: **1.66 inches (42 mm)**.
    - f. Tube or Pipe Thickness: **0.065 inch (1.7 mm)**.
  5. Gate: Comply with ASTM F 654 and the following:
    - a. Type: I, single swing, steel frame tubing.
    - b. Fabric Height: as required to match fencing.
    - c. Leaf Width: As indicated.
  6. Hardware: Latches permitting operation from both sides of gate, hinges center stops. Fabricate latches with integral eye openings for padlocking; padlock accessible from both sides of gate.
    - a. Install latch at top interior of gate (child resistant).
    - b. Door closer

## 2.3 FITTINGS

- A. General: Comply with ASTM F 626.
- B. Post and Line Caps: Provide for each post.
1. Line post caps with loop to receive tension wire or top rail.
- C. Rail and Brace Ends: Attach rails securely to 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 bottom 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 (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 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- (2.69-mm-)** 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. (366 g /sq. m)** zinc.

#### 2.4 POLYMER FINISHES

- A. Supplemental Color Coating: In addition to specified metallic coatings for steel, provide fence components with polymer coating.
- B. Metallic-Coated Steel Framing and Fittings: Comply with ASTM F 626 and ASTM F 1043 for polymer coating applied to exterior surfaces and, except inside cap shapes, to exposed interior surfaces.
- C. Color: Olive green, complying with ASTM F 934.

#### 2.5 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.
  - 1. Do not begin installation before final grading is completed, unless otherwise permitted by Architect.

3.2 Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.3 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.

### 3.4 INSTALLATION, GENERAL

- A. General: Install chain-link fencing to comply with ASTM F 567 and more stringent requirements specified.
  - 1. Install fencing on established boundary lines inside property line.
- 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. Concrete Fill: Place concrete around posts to dimensions indicated and vibrate or tamp for consolidation. Protect aboveground portion of posts from concrete splatter.
  - 2. Provide depth and width required to sustain as require to sustain wind requirements as set per the Florida Building Code.
- 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.
- E. Line Posts: Space line posts uniformly at 5feet o.c.
- F. Post Bracing Rails: Install according to ASTM F 567. Install braces at end and gate posts and at both sides of corner and pull posts.
- G. Top Rail: Install according to ASTM F 567.
- H. Bottom Rails: Install, spanning between posts.

- I. Chain-Link Fabric: Apply fabric to outside of enclosing framework. Leave 1 inch (25.4 mm) between finish grade or surface and bottom selvage, unless otherwise indicated.
- J. Tie Wires: Attach wire per ASTM F 626. Bend ends of wire to minimize hazard to individuals and clothing.
- 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.
  - 1. Install door closure onto gate and post.

### 3.6 ADJUSTING

- A. Gate: Adjust gate 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.

END OF SECTION 02821