ADDENDUM NO. 2 Page 1

HUFFMAN ARCHITECTS, PA 632 PERSHING ROAD RALEIGH, NORTH CAROLINA 27608 PHONE (919) 740-5669

#### TO: ALL PRIME BIDDERS OF RECORD

This Addendum forms a part of the Contract Documents and modifies the original Project Manual and Construction Documents dated May 16, 2024. Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification. This addendum consists of five pages (5) pages and five (5) 8 ½" x 11" and one (1) 11"x17" attachments. All documents are distributed digitally.

#### **BID DOCUMENTS**

### Item No. Description

- 1. Section 01 3100 PROJECT MANAGEMENT AND COORDINATION Make the following revisions:
  - 1.4 A. Change to read "The General Contractor must have experience with a minimum of one LEED Silver project of similar size and complexity as this project."
- Section 01 8113 SUSTAINABILITY DESIGN REQUIRMENTS LEED v4 BD+C, NEW CONSTRUCTION Make the following revisions:
  - 1.8 A. Change to read "The General Contractor must have experience with a minimum of one LEED Silver project of similar size and complexity as this project."
- 3. Section 04 2000 UNIT Masonry Make the following revisions:
  - a. Add line 2.4.A.1.c "Subject to compliance with the specifications, including LEED requirements, add Johnson Concrete Products as a listed manufacturer.
  - Change 2.4.E.4 to read "Color: Basis of design shall be Adams Concrete Polished Face Block color 4202.
- 4. Section 08 8000 GLAZING Make the following revisions:
  - a. Delete section 2.2.C Winborne-Debris-Impact Resistance in its entirety.
  - b. Add the following section:

## 2.10 INSULATING-GLASS TYPES

A. Glass Type: Double Glazed Clear Solar Control Insulating Glass Unit. Basis of Design: Solarban® 90 \* 6mm (2) | Argon1/2" (12.7mm) | Clear 6mm ]

- 1. Conformance: ASTM E 2190
- 2. Outdoor Lite: Basis of Design Clear float glass as manufactured by Vitro Architectural Glass.
  - Conformance: ASTM C 1036, Type 1, Class 1, Quality q3.
  - b. Glass Thickness: 6mm (1/4")
  - c. Magnetic Sputter Vacuum Deposition Coating (MSVD): ASTM C 1376.
  - d. Coating: Solarban® 90 on Surface # 2
  - e. Heat-Treatment: Tempered; ASTM C 1048, Kind FT; Safety Glazing meets ANSI Z97.1 and CPSC 16CFR-1201.
- 3. Interspace Content: Argon 1/2" (12.7mm)
- 4. Indoor Lite: Clear float glass. Basis of Design: Vitro Architectural Glass
  - a. Conformance: ASTM C 1036, Type 1, Class 1, Quality q3.
  - Heat-Treatment: Tempered; ASTM C 1048, Kind FT; Safety Glazing meets ANSI Z97.1 and CPSC 16CFR-1201.
  - c. Glass Thickness: 6mm (1/4")
- 5. Performance Requirements:
  - a. Visible Light Transmittance: 51 percent minimum.
  - b. Winter Nighttime U-Factor: 0.24 (Btu/hr\*ft2\*°F) maximum.
  - c. Summer Daytime U-Factor: 0.21 Btu/hr\*ft2\*°F) maximum
  - d. Shading Coefficient: 0.26 maximum.
  - e. Solar Heat Gain Coefficient: 0.23 maximum.
  - f. Outdoor Visible Light Reflectance: 12 percent maximum.

ADDENDUM NO. 2 Page 2

## **DRAWINGS**

#### Item No. Description

- 1. G102 LIFE SAFETY PLAN Make the following revisions:
  - WALL LEGEND Change "SEMI-RECESSED FIRE EXTINGUISHER AND CABINET- SEE NOTE 6" to "SEMI-RECESSED FIRE EXTINGUISHER AND CABINET- SEE NOTE 5"
- 2. A403 ENLARGED KITCHN PLANS AND ELEVATIONS Make the following revisitions.
  - Modify ELEVATION KITCHEN 3 per the attached bulletin drawing BD-01 5/A403 ELEVATION KITCHEN 3 R1.

## **CLARIFICATIONS**

#### Item No. Description

- 1. There will be a third addendum to follow to address all remaining outstanding questions and substitution requests.
- 2. I see that there is mention of commissioning, but there's no specific section for it in the specs. Is third-party commissioning required for this project? And if so, is it known who is hiring the commissioning? Please advise.

Response: Commissioning is being provided by Atlantec. The General Contractor is not required to hire the commissioning agent.

- 3. Key Notes #8 on drawing E201, indicates "Optional" standby generator. Is the Generator/ATS an Alternate?

  Response: The Generator/ATS is not an alternate and must be included in the base bid. The 'optional' is not related to the contract, it is per NEC 702 'Optional Standby Systems'.
- 4. Regarding the LEED certification required for the Fire Station #3 project, does the LEED certified person have to be on site or can they work from office and still meet criteria? Please advise, thanks.

Response: The General Contractor is not required to have a LEED certified person on staff. The General Contractor must have experience with a minimum of one LEED Silver project of similar size and complexity as this project.

- 5. Is the BDA Survey the only item, for the BDA System, to be in the Base Bid.
  - Response: The BDA Survey and the entire BDA System installation is to be included in the base bid.
- 2. Is there supposed to be an Alternate to add the BDA System, if the Survey indicates its required?

Response: The BDA Survey and the entire BDA System installation is to be included in the base bid. There is no alternate for the BDA System.

3. Is the Speaker System wire to be run "Open Air"? We do not see any indication that conduit is required.

Response: All low voltage wiring including Cat 6, Speaker wires, Fire Alarm, etc., are allowed to run exposed in accessible ceiling space. For areas with no ceiling, all wiring shall be in conduits. See notes in 1/E101, 1/E102. These requirements apply to all trades.

4. Is there any more information for the "Big Ass" fan and low voltage controller than what is shown on the Symbol Legend on E301?

Response: In detail 1/E102: See assigned circuits: P1B-13,15,17 for voltage, phase requirements. See key note #6 for controller wiring.

5. There are 52" fan shown in the Dorm Rooms. Symbol Legend indicates "Ceiling fan with no light", to be selected by Architect. Can we get a little more info?

Response: The basis of design for the Dorm Room 52" Ceiling Fans shall be the 120-volt Lucian Ceiling Fan, 52", 5 Blades, 3 speeds (pull chain), with a brushed nickel finish.

6. Is window J set to have shades as well?

Response: No, shades are not to be installed on Window J.

ADDENDUM NO. 2 Page 3

- 7. The site plan has (white) beside concrete in the legend....please confirm this is not referring to any colored concrete.
  Response: This is referring to colored concrete as white concrete must be utilized in the areas denoted on the site plan to account for a specific solar reflectance value needed to meet LEED credit requirements.
- 8. The specs only mention stone wool board insulation...please confirm if this or typical polystyrene rigid insulation is to be used for slab installation

Response: Stone wool board insulation similar to ROCKWOOL Comfortboard shall be used for the slab insulation.

9. Structural steel framing spec 051200 states that a qualified fabricator must participate in the AISC Quality Certification Program. Can this cert be waived for the fabrication and erector?

Response: Plant certification, as stated in Spec 051200, section 1.9.A is required.

10. Drawing G102 wall legend shows a "semi-recessed fire extinguisher and cabinet – see note 6"; however, the note 6 below describes metal studs and batt insulation. Please advise if this coded note is to say "see note - 5" and verify the owner is to provide the extinguisher - we are only to supply the cabinet and installation.

Response: The note should say "SEE NOTE 5". Yes, the Owner is providing the fire extinguishers to be installed by the contractor. The Contractor is to supply and install the fire extinguisher cabinets.

11. Per A103, note 2, plaque to be provided by artist. However, the plaque specification 101416 calls for fabrication. Please confirm if all plaques will be supplied by the artist and contractor is to install only. Or just the walkway plaques are provided by the artist and the dedication plaques at the entrance are to be furnished and installed. erector?

Response: Only the walkway plaques are provided by the artist and installed by the contractor. The building plaques on A134 shall be contractor provided and installed.

12. Drawing A201 and A202 detail 2 notes a generator enclosure but appears to be pointing to the brick veneer. Detail 1/A202 notes a screen wall around the generator, but no other details. There is a metal slats screen delegated design in spec 055000, but our understanding is this spec is for the metal slat screens at the south elevation, not the generator enclosure. Please advise of the parameters, details and specs of the screen walls vs screen enclosures.

Response: The elevations on A201 and A202 are referencing a screen wall that surrounds the generator. See 3/A425 WALL SECTION @ GENERATOR SCREEN WALLS for information on the screen walls to surround the generator. The metal slat screen wall indicated in 05 5000 is in reference to the wall at the outdoor BBQ area adjacent to Kitchen 109A. See 2/A425 for reference.

13. The lighting plan on E101 has a question mark"?" at the large ceiling fan in the apparatus bay. Please confirm/advise the controlling at this location.

Response: The "?" is a typo. Information on the 16' Fan is shown on E102. The large ceiling fan is considered power equipment not light equipment. The fan is powered by ck# P1B-13, 15,17. The control switch is shown with SF2 KEY NOTES #6. The fan description is shown on Sheet E301 SYMBOL LEGEND 16' Industrial Fan.

14. There are ceiling fans noted on building/interior sections elevations (A301/A212) and on the electrical legend/plans (E301, E101); however, they are not denoted on the architectural reflected ceiling plan legend (only depicted). Please confirm and verify the ceiling fan details on the E301 legend are to be used.

Response: Yes, the ceiling fan details on the E301 legend shall be used.

15. Section 1233000 – Concrete Countertops: Where are these countertops located? We have not found any tops listed as concrete countertops. Can you give us the details and where these countertops are shown on the plans?

Response: The concrete countertop is located at the exterior BBQ area adjacent to Kitchen 109A. Please see Wall Section 2/A435, Detail 4/A425, and Sheet A504 for the concrete countertop details.

16. Section 1255000 – Furniture: You state that the furniture is Owner furnished and contractor installed. However, we cannot find any listing of the furniture for us to install. Can you give us a list of furniture that we are responsible to install?

Response: Please see the FURNITURE LEGEND on Sheet A135 for a list of Owner furnished and Contractor installed furniture.

ADDENDUM NO. 2 Page 4

17. Do you all have any information in your drawings or specs on what the temporary Safety Fencing surrounding the site needs to be?

Response: Please see the attached specification section 32 3113 - CHAIN-LINK FENCES AND GATES (GALVANIZED) for information on the required chain-link Safety Fencing that is to surround the site.

18. The civil site plan C3.0 only show 9 bollards; however, the architectural plan A101 only shows 8 - none shown at the EV power pad. Also, the north elevation architectural sections calls for 1 other bollard in front of 128B and depicts one in front of the storefront windows, but are not shown on the civil, nor the architectural floor plan. Please confirm the quantity and locations of bollards.

Response: C3.0 shall be used for the locations of the (9) exterior bollards.

A101 shall be used for the location of the (8) bollards in Apparatus Bay 138.

The bollards shown on 2/A201 North Elevation are the bollards located at the Apparatus Bay. They are not at the Storefront or Door 128B.

19. Sheet A101 item #21 calls for the GC to furnish and install the radio tower. Is there a spec on this or any details? I see the footing design but nothing else.

Response: The basis of design for the 65' radio tower is the ROHN 65G Tower. Please see 1/S501.

20. Sheet A121 Item #6 calls for the PV Panels. Is this to be furnished and installed by the GC too? Is there a spec or detail on this?

Response: Yes, the PV panels are to be furnished and installed by the contractor. See the electrical sheets and 2/E201 for PV System Requirements.

21. What about the brick allowance? Can we get an allowance for this? The specs call for 3 3/4" x 2 3/8" x 24 5/8" is that correct? Also, it call for color to be selected by the architect.

Response: No allowance for the brick will be provided. The basis of design for the Calcium Silicate Face Brick is the Linear Series by Arriscraft International, and the color and texture shall be Forged Steel smooth. The Linear Series comes in random lengths up to 2'.

22. The 52" Fans, with no light, also appear to be wire into the Lighting Control system?

Response: It uses the local low voltage switch to control via local relay. See note 4.C for programming requirements.

23. Specifications indicate that Dimensional Letter Signage and Panel Signage should be provided by approved manufacturers. Please confirm it is acceptable that Signage contractors outside of the approved list provide their own signage as long as they conform to the specified requirements.

Response: Yes, additional signage contractors will be acceptable as long as they meet all specification requirements.

24. On the decorative block it calls for a ground face but does not give us a color selection. They will need that before they can price it out. Is there an allowance or can you give us a color selection. The plans call for the block to be 4" thick with 12" wide and 24" long. Is that correct?

Response: Yes, the Decorative CMU shall be the nominal dimensions of 4" thick x 12" tall x 24" long. The color basis of design shall be Adams Concrete Polished Face Block color 4202.

25. Is there a Division 28 Fire Alarm Spec's?

Response: There is not a fire alarm specification. All information is on the plans.

26. Spec Sections 064115, 064120, 081416, &123619 stipulate that the subcontractor must be a participant in an AWI Certification Program. This will drastically limit the number of subcontractors able to bid on the project, in turn, driving up cost. Please advise if this spec section can be revised to 'meet AWI certification standards' or have the AWI certification requirement removed completely.

Response: Participation in the AWI Certification Program is not required. However, all AWI certification standards must be met. A letter indicating all AWI certification standards will be meet must be provided with the submittals.

## **ATTACHMENTS**

## Item No. Description

1. Specification Section 32 3113 - CHAIN-LINK FENCES AND GATES (GALVANIZED)

## **END OF ADDENDUM NUMBER TWO**



#### **Huffman Architects, PA**

## SECTION 32 3113 - CHAIN-LINK FENCES AND GATES (GALVANIZED)

#### **PART 1 - GENERAL**

#### 1.1 RELATED DOCUMENTS

A. The provisions of the Contract Documents apply to the work of this Section.

#### 1.2 WORK INCLUDED

A. Temporary Galvanized steel chain link fence and gates.

#### 1.3 SUBMITTALS

- A. Product Data: Submit manufacturer's technical data, and installation instruction for fencing, fabric, gates and accessories.
- B. Shop Drawings: Submit shop drawings indicating location of fence (with dimensions), height, post locations, details of post installation, gate sing, hardware and accessories.
- C. Samples: None required

#### 1.4 QUALITY ASSURANCE

- A. Installer Qualifications: Engage 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.
- B. Source Limitations for Chain-Link Fences and Gates: Obtain each color, grade, finish, type, and variety of component for chain-link fences and gates from one source with resources to provide chain-link fences and gates of consistent quality in appearance and physical properties.

## 1.5 PROJECT CONDITIONS

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

#### **PART 2 - PRODUCTS**

#### 2.1 GENERAL:

- A. Subject to compliance with requirements, manufacturers offering products which may be incorporated in the work include, but are not limited to, the following:
  - 1. Galvanized Steel Fencing and Fabric:
    - a) Allied Tube and Conduit Corp.
    - b) American Chain Link Fence Company
    - c) American Tube Company
    - d) Anchor Fence, Inc.
    - e) Century Tube Corp.

## **CHAIN-LINK FENCES AND GATES (GALVANIZED)**

32 3113-1

# City of Raleigh, NC FIRE STATION 3

**Huffman Architects, PA** 

f) Cyclone Fence Div./USX Corp.

#### 2.2 FABRIC:

- A. Steel Fabric: Comply with Chain Link Fence Manufacturers Institute (CLMFI) Product Manual. Provide one-piece fabric widths. Wire size includes zinc coating.
- B. Size: 2-inch diamond mesh, 9-gauge (0.148-inch diameter) wire.
- C. Galvanized Steel Finish: ASTM A 392, Class I, with not less than 1.2 oz. zinc per sq. ft. of uncoated wire surface.
- D. Selvage shall be knuckled at the top and bottom.

#### 2.3 FRAMING:

- A. Strength requirements for posts and rails shall conform to ASTM F 669.
- B. Pipe shall be straight, true to section, material and sizes specified.
- C. Steel Framework, General: Posts, rails, braces and gate frames.
  - Type II Pipe: Manufactured from steel conforming to ASTM A 569 or A 446, grade D, cold formed, electric welded with minimum yield strength of 50,000 p.s.i. and triple coated with minimum 0.9 oz. Zinc per square foot after welding, a chromatic conversion coating and a clear polymer overcoat. Corrosion protection on inside surfaces shall protect the metal from corrosion when subjected to the salt spray test of ASTM B 117 for 300 hours with the end point of 5% Red Rust.
- D. End, Corner and Pull Posts:
  - 1. For fabric height up to 6' 2.375" OD Type II steel pipe (3.12 lb/ft).
- E. Line Posts:
  - 1. For fabric height up to 6' 1.90" OD Type II steel pipe (2.28 lb/ft).
- F. Gate Posts:
  - 1. Provide posts for supporting single gate leaf, or one leaf of a double gate installation, for nominal gate widths as follows:
    - a) 6' and Under: 2.875" OD Type II steel pipe (4.64lb/ft).
    - b) Over 6': 4.000" OD Type II steel pipe (8.65 lb/ft).
- G. Top & Bottom Rail:
  - 1. Manufacturer's longest lengths, with expansion-type couplings, approximately 6" long, for each joint. Provide means for attaching rail securely to each gate corner, pull, & end post.
    - a) Galvanized Steel: 1-1/4" NPS (1.66" OD) Type II steel pipe.
- H. Intermediate and/or Center Rail:
  - Same material as top rail. Manufacturer's standard galvanized steel cap required for each end.

#### 2.4 FITTINGS AND ACCESSORIES:

- A. Material: Comply with ASTM F 626. Mill finished galvanized steel, to suit manufacturer's standards.
  - 1. Zinc Coating: Unless specified otherwise, galvanize steel fence fittings and accessories in accordance with ASTM A 153, with zinc weights indicated.

## **CHAIN-LINK FENCES AND GATES (GALVANIZED)**

# City of Raleigh, NC FIRE STATION 3

#### **Huffman Architects, PA**

- B. Tension Wire: 7 gauge (0.177"diameter) metallic coated steel marcelled tension wire conforming to ASTM A 824 with finish to match fabric.
  - 1. Type II Zinc Coated, Class 2, with a minimum coating weight of 1.2 oz. per sq. ft. of uncoated wire.

#### C. Wire Ties:

- 1. 9 gauge [0.148" (3.76mm)] galvanized steel wire for attachment of fabric to line posts.
- 2. Double wrap 13 gauge [0.092" (2.324mm)] for rails and braces.
- 3. Hog ring ties of 12-1/2 gauge [0.0985" (2.502mm)] for attachment of fabric to tension wire.

## D. Post Brace Assembly:

- Manufacturer's standard adjustable brace at end of gate posts and at both sides of corner and pull posts, with horizontal brace located at mid height of fabric. Provide same material as top rail for brace, and truss to line posts with 0.375" diameter rod and adjustable tightener. Manufacturer's standard galvanized steel cap required for each end.
- E. Post and Line Caps: Weathertight closure cap required for each post. If top rail is required, use line post caps with loop.
- F. Tension or Stretcher Bars: Hot-dip galvanized steel with minimum length 2" less than full height of fabric, minimum cross section of 3/16" by 3/4" and minimum 1.2 oz. zinc coating per sq. ft. of surface area. One bar is required for each gate and end post and two for each corner and pull post, except where fabric is integrally woven into post.
- G. Tension and Brace Bands: Minimum <sup>3</sup>/<sub>4</sub>" wide hot-dip galvanized steel with minimum 1.2 oz. zinc coating per sq. ft. of surface area.
  - 1. Tension bands: Minimum 14 gauge (0.074") thick.
  - 2. Tension and Brace bands: Minimum 12 gauge (0.105") thick.
- H. Nuts and bolts shall be galvanized.

#### 2.5 POST SETTING MATERIALS

A. Comply with the requirements for NCDOT Class A, 3000 psi concrete.

### 2.6 GATES:

## A. Fabrication:

- Fabricate perimeter frames of gates from metal and finish to match fence framework. Utilize
  fusion or stainless steel welded connections to form a rigid one-piece unit. Assemble gate
  frames by welding, providing security against removal or breakage of connections. Provide
  horizontal and vertical members to ensure proper gate operation and attachment of fabric,
  hardware and accessories. Space frame members maximum of 8' apart unless otherwise indicated.
- 2. Provide same fabric as for fence. Install fabric with stretcher bars at vertical edges and at top and bottom edges. Attach stretcher hooks to gate frame at not more than 15" o.c. Install diagonal cross-bracing consisting of 3/8" diameter adjustable length truss rods on gates to ensure frame rigidity without sag or twist.
- B. Swing Gates: Comply with ASTM F 900.
  - 1. Fabricate perimeter frames of minimum 1.90" OD Type II steel pipe.
- C. Gate Hardware: Provide hardware and accessories for each gate, galvanized per ASTM A 153, and in accordance with the following:

## **CHAIN-LINK FENCES AND GATES (GALVANIZED)**

- 1. Hinges: Size and material to suit gate size, non-lift-off type, offset to permit 180 degrees gate opening. Provide 1-1/2 pair of hinges for each leaf over 6' nominal height.
- 2. Latch: Forked type to permit operation from either side of gate, with padlock eye as integral part of latch.
- 3. Keeper: Provide keeper that automatically engages gate leaf and holds it in open position until manually released.
- 4. Double Gates: Provide gate stops for double gates, consisting of mushroom type flush plate with anchors, set in concrete, and designed to engage center drop rod or plunger bar. Ensure plunger bar cannot be removed without tools. Include locking device and padlock eyes as integral part of latch, permitting both gate leaves to be locked with single padlock.
- 5. Hardware materials: hot dipped galvanized steel or malleable iron shapes to suit gate size.
- 6. Gate posts: Steel pipe ASTM F1083 standard weight schedule 40 minimum yield strength of 25,000 PSI size as indicated. Hot dipped galvanized with minimum 1.8 oz/ft² of zinc.

#### **PART 3 - EXECUTION**

#### 3.1 INSTALLATION:

- A. General: Install fence in compliance with ASTM F 567 and manufacturers recommendations. Do not begin installation and erection before final grading is completed, unless otherwise permitted. Apply fabric to outside of framework, unless otherwise indicated.
- B. Locate terminal post at each fence termination and change in horizontal or vertical direction of 30° or more, or as indicated on plans.

#### C. Excavation:

- 1. Drill or hand excavate (using post hole digger) holes for posts to diameters and spacing indicated, in firm, undisturbed or compacted soil.
- 2. Holes in asphalt or concrete surfaces will be cut by core-drilling with a bit of diameter at least equal to the required hole diameter. Holes in concrete may be formed prior to placing concrete.
- 3. Excavate holes for each post to minimum diameter recommended by fence manufacturer, but not less than 4 times largest cross-section of post.
- 4. Excavate hole to depths approximately 6" lower than post bottom, with bottom of posts set not less than 36" below finish grade surface.

#### D. Setting Posts:

- 1. Space 10' o.c. maximum, unless otherwise indicated.
- 2. Center and align posts in hole, 6" above bottom of excavation.
- 3. Protect portions of concrete posts above ground from concrete splatter. Place concrete around post and vibrate or tamp for consolidation. Check each post for vertical and top alignment, and hold in position during placement and finishing operations.
- 4. Extend concrete above grade and slope all around (dome) to allow for drainage away from post. Uniformly and neatly texture the concrete surface with a broom finish. Remove any spilled or splashed concrete from the post and surrounding area immediately.

# E. Top Rails:

1. Run rail continuously through line post caps, bending to radius for curved runs and at other posts terminating into rail end attached to posts or post caps fabricated to receive rail. Provide expansion couplings as recommended by fencing manufacturer.

#### F. Center Rails:

1. Install in one place between posts and flush with post on fabric side, using rail ends and special offset fittings where necessary. Install center rails on fence 12' or taller, or as indicated on plans.

#### G. Bottom Rails:

1. Install in one piece between posts and flush with post on fabric side, using rail ends and special offset fittings when necessary.

#### H. Brace Assemblies:

1. Install braces so posts are plumb when diagonal rod is under proper tension.

## I. Top and Bottom Tension Wire:

1. Install tension wires through post cap loops before stretching fabric and tie to each post cap with not less than same gauge and type of wire. Pull wire taut, without sags. Fasten fabric to tension wire, using 11 - ga. galvanized steel hog rings spaced maximum 24" o.c. Install where top and bottom rails are not specified on plans.

#### J. Fabric:

Leave approximately 2" between finish grade and bottom selvage. Pull fabric taut and tie to
posts, rails and tension wires. Attach fabric with wire ties to line posts at 12"-15" (381mm)
o.c. and to rails, braces, and tension wire at 24" (600 mm) o.c. Install fabric on security side
of fence, unless otherwise indicated, and anchor to framework so that fabric remains in tension after pulling force is released.

## K. Stretcher Bars:

1. Thread through fabric 4" o.c., and secure to end, corner, pull and gate posts with tension bands spaced maximum 15" o.c.

#### L. Accessories:

- 1. Tie Wires: Use U-shaped wire, conforming to diameter of pipe to which attached, clasping pipe and fabric firmly with ends twisted at least 2 full turns. Bend ends of wire to minimize hazard to persons or clothing.
- 2. Fasteners: Install nuts on side of fence opposite fabric side for added security.

### M. Fasteners:

1. Install nuts for tension bands and hardware bolts on site of fence opposite fabric side. Peen ends of bolts or score threads to prevent removal of nuts.

#### N. Gates:

1. Install gates plumb, level, and secure for full opening without interference. Install ground-set items in concrete for anchorage. Adjust hardware for smooth operation and lubricate where necessary.

#### 3.2 FINISHING

- A. Remove and replace sections of damaged fence and fittings. Minor aesthetic damage may be touched up with a suitable spray on material.
- B. Clean up debris and unused material and remove from the site.

#### **END OF SECTION 32 3113**

## **CHAIN-LINK FENCES AND GATES (GALVANIZED)**

