



# COLLIN COUNTY

Office of the Purchasing Agent  
2300 Bloomdale Road  
Suite 3160  
McKinney, Texas 75071  
[www.collincountytx.gov](http://www.collincountytx.gov)

COLLIN COUNTY, TEXAS

ADDENDUM No. Two (2)

IFB No. 2021-239

INVITATION FOR BID

FOR

CONSTRUCTION, COLLIN COUNTY ADULT DETENTION FACILITY, PHASE 1 ADDITION

DATE: AUGUST 9, 2021

NOTICE TO ALL PROSPECTIVE BIDDERS:

PLEASE MAKE THE FOLLOWING CHANGES TO THE INVITATION FOR BID:

ADD DOCUMENT: ARCHITECT'S ADDENDUM 1  
DELETE DOCUMENT: SECTION 01 22 00  
REPLACE WITH: SECTION 01 22 00 ADDENDUM 1  
DELETE DOCUMENT: SECTION 07 20 00  
REPLACE WITH: SECTION 07 20 00 ADDENDUM 1  
DELETE DOCUMENT: SECTION 07 54 23  
REPLACE WITH: SECTION 07 54 23 ADDENDUM 1  
DELETE DOCUMENT: SECTION 11 19 00  
REPLACE WITH: SECTION 11 19 00 ADDENDUM 1  
ADD DOCUMENT: DRAWING S301  
ADD DOCUMENT: DRAWING S306  
DELETE DOCUMENT: DRAWING A101  
REPLACE WITH: DRAWING A101 ADDENDUM 1  
ADD DOCUMENT: DRAWING A103  
DELETE DOCUMENT: DRAWING A290

REPLACE WITH: DRAWING A290 ADDENDUM 1  
ADD ATTRIBUTE: #21-ADDENDUM No. 2 ACKNOWLEDGEMENT  
ADD LINE ITEM: #7.7, STATE UNIT PRICE FOR CASING, FOR EACH FOOT NOT UTILIZED  
DELETE DOCUMENT: SECTION 004100-BID FORM ADDENDUM 1  
REPLACE WITH: SECTION 004100-BID FORM ADDENDUM 2

ALL OTHER TERMS AND CONDITIONS OF THE BID AND SPECIFICATIONS REMAIN THE SAME.

SINCERELY,  
MICHELLE CHARNOSKI, NIGP-CPP, CPPB  
PURCHASING AGENT

JDG

**ADDENDUM NO. 1**

**TO**

**Collin Count Adult Detention Facility, Phase 1  
McKinney, Texas**

August 6, 2021

Project: 21913.00  
From: Brinkley Sargent Wiginton Architects, Inc.  
To: Bidders of Record

This Addendum forms a part of the Contract Documents and modifies the original Bidding Documents.

**PROJECT MANUAL MODIFICATIONS**

**Item No. 1. Item No. 1. Section 01 22 00 Unit Prices**

A. An additional unit cost has been added.

**Item No. 2. Section 07 20 00 Insulation**

A. Paragraph 2.02.L was modified.

**Item No. 3. Section 07 54 23 Thermoplastic Roof System**

A. Several modifications were made to this section.

**Item No. 4. Section 11 19 00 Detention**

A. Several modifications were made to this section.

**DRAWINGS MODIFICATIONS**

Note to bidders on drawing modifications: Any revision made to a sheet as part of this Addendum, regardless of the scale of the modification, results in the reissuance of that full sheet. The description for the revisions follows below, but the full sheet is reissued to allow revised sheets to simply be substituted for the sheets originally issued.

**Item No. 5. Sheet – S301, S306**

A. Submitted for inclusion.

**Item No. 6. Sheet – A101**

A. Temporary fencing added to site plan.

**Item No. 7. Sheet – A103**

A. Submitted for inclusion.

**Item No. 8. Sheet – A290**

A. Downspout connection to splash block or civil notes added.

**ADDENDUM 1 ATTACHMENTS:**

**Specification Sections as listed above**

**Drawing Sheets as listed above.**

**END OF ADDENDUM**

SECTION 01 22 00 UNIT PRICES \*ADD1

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for unit prices.
- ~~B. \*AD1 Related Requirements:~~
  - ~~1. Section 01 21 00 "Allowances" for procedures for using unit prices to adjust quantity allowances.~~

1.2 DEFINITIONS

- A. Unit price is an amount incorporated into the Agreement, applicable during the duration of the Work as a price per unit of measurement for materials, equipment, or services, or a portion of the Work, added to or deducted from the Contract Sum by appropriate modification, if the scope of Work or estimated quantities of Work required by the Contract Documents are increased or decreased.

1.3 PROCEDURES

- A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, overhead, and profit.
- B. Measurement and Payment: See individual Specification Sections for work that requires establishment of unit prices. Methods of measurement and payment for unit prices are specified in those Sections.
- C. Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to Contractor.
- D. List of Unit Prices: A schedule of unit prices is included in Part 3. Specification Sections referenced in the schedule contain requirements for materials described under each unit price.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF UNIT PRICES

A. Unit Price for Piers, Each Foot for Types:	Add	Reduced
1. P1	_____	_____
2. P2	_____	_____
3. P4	_____	_____
B. *AD1 Casing, for each foot not utilized		_____

END OF SECTION

PART 1 – GENERAL

1.01 SUMMARY

- A. Section Includes
  - 1. Furnish all labor, materials, services and equipment required in conjunction with or properly incidental to the complete installation of sound attenuating, thermal and fire safing insulation described herein and/or as shown on the Drawings
- B. Related Sections
  - 1. Section 03 30 00: Cast- In- Place Concrete
  - 2. Section 04 22 00: Concrete Unit Masonry
  - 3. Section 06 16 53: Sheathing
  - 4. Section 09 29 00: Gypsum Board Systems

1.02 SUBMITTALS

- A. Submit complete product data.

1.03 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Deliver materials in manufacturer's original, unopened packaging, complete with identifying labels intact and legible.
- B. Store materials in protected, dry area; protect from damage until used.

1.04 JOB CONDITIONS

- A. Do not install insulation until building is substantially water and weather tight.

PART 2 – PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. United States Gypsum.
- B. Owens-Corning Fiberglas.
- C. Manville Corporation.

2.02 MATERIALS

- A. Batt Insulation: JM Formaldehyde-Free Unfaced Batts; ASTM C665, Type I; with maximum flame-spread and smoke-developed indices of 25 and 50, respectively; and of the following properties:
  - 1. Thermal Resistance (R-Value): R13 at studs up to and including 4" thickness; R19 for larger cavities and for 6" studs [unless additional insulation is shown/noted].
  - 2. Combustion Characteristics: Passes ASTM E136.
  - 3. Critical Radiant Flux: ASTM E970, greater than 0.11 Btu/sq. ft. s (0.12 W/cm sq.).
  - 4. Water Vapor Sorption: ASTM C1104, 5 percent or less.
  - 5. Odor Emission: Passes ASTM C1304.
  - 6. Corrosiveness: Passes ASTM C665.
  - 7. Fungi Resistance: Passes ASTM C1338.
- B. Acoustical Insulation

1. Fiberglass or mineral fiber complying with ASTM C665, Type I; containing no formaldehyde.
  2. Size: 2½ inch thickness; unless indicated otherwise. Locate in walls and ceilings of toilet, electrical and mechanical rooms and where indicated on Drawings.
  3. Acceptable Manufacturers: Owens Corning Fiberglas; Manville; or USG.
- C. Fire Safing and Mineral Fiber Insulation
1. Mineral fiber complying with ASTM C665, Type I.
  2. 4 lbs./cu. ft. density.
  3. Fire Hazard Classification per ASTM E84.
    - a. Flame Spread: 25.
    - b. Smoke Developed: 50.
  4. Semi-rigid mineral fiber felt or fiber glass.
  5. Size: 4 inches thick.
  6. Acceptable Products: "Thermafiber Safing Insulation", USG.
- D. Rigid Foam Plastic Insulation
1. Closed cell polyisocyanurate insulation board with plain factory applied finish foil both sides, square edges, complying with ASTM C1289, Type 1 Class 1 & 2. Aged thermal resistance, R = 5.5 per 1" nominal thickness at 140 degrees F. mean temperature aged 90 days per ASTM C177, C236, and C518.
  2. Size: 48 in. x 96 in.; thickness as noted on drawings; minimum 2 in. thickness.
  3. Acceptable Product:
    - a. "Thermax Insulation Board", Dow /Celotex Corp.
    - b. "Energy Shield Board", Atlas Roofing Corporation
    - c. "Hunter Xci Foil", Hunter
    - d. "Johns Manville AP Foil-Faced Board", Johns Manville
    - e. "Thermasheath-3", Rmax
  4. Adhesive: SCM Glidden-Durkee LN 601 Liquid Nails, B.F. Goodrich PL200, or H.B. Fuller Max Bond.
  5. Tape: Celotex Thermax Tape, 2" wide.
- E. Insulation Adhesive: Type as recommended by insulation manufacturer.
- F. Rubber Deck Closure
1. Closure, Inc., Houston, Texas; EPDM closed all rubber; configuration to match deck.
- G. Impaling Pins
1. Galvanized sheet metal with impaling pins and retainer washers.
  2. Size and type to suit application and insulation thickness.
  3. Approved by manufacturer of insulation for intended use.
- H. Pin Adhesive: High strength, resilient adhesive, having a drying time of 0 to 30 minutes (rapid initial set), and 24 hours final set.
1. Compatible with insulation adhesive, insulation and substrate.
  2. Non-corrosive to galvanized steel.
- I. Curtainwall Insulation
1. Mineral fiber complying with ASTM C665, Type I.
  2. Size: 1½" minimum thickness, min. R 6.5.
  3. FSP scrim-poly reinforced foil facing vapor retarder.
  4. Acceptable Products: Thermafiber mineral fiber curtainwall insulation, CW90, USG.
- J. Rockwool Insulation
1. Acceptable Manufacturer: RockWool; USG; BASF
  2. Product: Rockwool Comfortboard 80 [Basis of Design]



3. ASTM C612 Compliant. 0 flame spread; 0 smoke developed. ASTM C795 Corrosion Resistance.
4. Density 8 lb.
5. Thermal Resistance: R 13 at 3.5" thickness, Utilize this thickness UNO
6. Moisture absorption: -0.05% per ASTM C1104
7. Acoustical: .94 at 1000 Hz per ASTM C423

K. Insulation at Topping Slab Assembly

1. Owens Corning Foamular Extruded Polystyrene XPS; min. 2" thick; min. R= 5 per inch; 604 XPS with min. 60 psi compressive strength and built in drainage channels.

L. \*Closed Cell Spray Foam Insulation at the Vehicular Sallyport Soffit/ Ceiling

1. Henry Permax 2.0 HFO or Johns Manville Corbond IV sprayed polyurethane foam; 2 lb./ft<sup>3</sup> density; 3" thick UNO; seamless, monolithic and durable to create an air barrier and provide insulation. Minimum 1 3/4" thickness; applied utilizing manufacturer recommendations.
2. Top with compatible intumescent ignition barrier coating that is an approved component and is recommended by the manufacturer for full code compliance for the application.

## PART 3 – EXECUTION

### 3.01 INSPECTION

- A. Check surfaces to receive rigid foam plastic insulation to assure that they are in uniform plane; and free of mortar chips, debris, grease, oil or other items.

### 3.02 INSTALLATION

- A. Comply with insulation manufacturer's written instructions applicable to products and application indicated.
- B. Install insulation that is undamaged, dry, and unsoiled and that has not been left exposed at any time to ice, rain, and snow.
- C. Extend insulation in thickness indicated to envelop entire area to be insulated. Cut and fit tightly around obstructions and fill voids with insulation. Remove projections that interfere with placement.
- D. Water-Piping Coordination: If water piping is located within insulated exterior walls, coordinate location of piping to ensure that it is placed on warm side of insulation and insulation encapsulates piping.
- E. For preformed insulating units, provide sizes to fit applications indicated and selected from manufacturer's standard thicknesses, widths, and lengths. Apply single layer of insulation units to produce thickness indicated unless multiple layers are otherwise shown or required to make up total thickness.
- F. Install insulation after plumbing, heating, ventilating and electrical services are in place. Fit insulation tight within spaces and tight to and behind mechanical and electrical services within plane of insulation. Leave no gaps or voids.
- G. Cut and trim insulation neatly, to fit spaces. Use batts free of ripped backs or edges.
- H. Cut insulation oversize to ensure tight butt joints when installed. Cut insulation to fit around protrusions and irregularly shaped projections.
- I. Insulation within metal stud systems installed full height and width in such manner that voids or openings do not occur. Insulation required for full width between studs, including cavity of each stud.

- J. Install fire safing insulation of proper size on safing clips or wire hangers spaced as needed, leaving no voids.
- K. Install fire safing insulation between concrete structure or structural deck and fire rated partitions extending full height to underside of structure. Pack each void tightly for full thickness of wall. Also, install at full height partitions, or cut drywall in profile of the deck and provide acoustical sealant at any voids.
- L. Install rubber deck closure between deck at perimeter walls to provide airtight enclosure.
- M. Install acoustical and thermal insulation in accordance with manufacturer's recommendations. The following guidelines represent minimum standards:
  - 1. Friction fit two-side supported fiberglass batts up to 8'-0" tall; above that height, provide supplemental support with impaling pins adhered to one side of drywall.
  - 2. At one-side supported applications, do either of the following:
    - a. Flanged FS-25 facing product screwed to studs with drywall screws at 2'-0" o.c.
    - b. Batt's up to 24" wide: Apply impaling pins to substrate with impaling pin adhesive. Space impaling pins 4" from each corner and one at each edge at mid-span.
    - c. Blankets up to 48" wide: Apply impaling pins to substrate with impaling pin adhesive. Space impaling pins 4" from each corner, one at each edge at mid-span, and at quarter points vertically in center of span.
    - d. Apply insulation, pressing insulation boards firmly into adhesive through impaling pins without bending them. Butt insulation boards tightly. Install retainers to pins.
  - 3. Place foil facing exposed to view. Tape joints of foil faced insulation or staple flanges together to seal joint.
- N. Provide acoustical insulation above all restroom ceilings.
- O. Install rigid foam insulation with either non conductive type Z profile studs or with adhesive directly to substrate. Apply adhesive to both insulation board and substrate following manufacturer's recommendations. Tape all joints in insulation to provide air-tight barrier. Butt edges and ends tight to adjacent boards and protrusions.

END OF SECTION

PART 1 – GENERAL

1.01 DESCRIPTION

- A. Section Includes
  - 1. \*AD1 Installation of roof insulation, tapered insulation where shown, and tapered crickets as required at steel deck and structural concrete roof decks.
  - 2. At all areas, new fully-adhered 60 mil reinforced TPO thermoplastic single ply system utilizing heat-welded seams and prefabricated flashing accessories. TPO-coated sheet metal flashings where recommended by the manufacturer and required for proper termination.
  - 3. The applicator is solely responsible for the accuracy of all measurements and estimates of material, quantities, and sizes.
  - 4. The roofing system shall be fire rated- part of a 1 hour assembly.

1.02 REFERENCE STANDARDS

- A. American Society for Testing and Materials (ASTM) ASTM C-1289 - Insulation Board, Thermal, Polyisocyanurate Foam Faced with Asphalt/Glass Mat, or Polymer Glass Mat on Both Sides of Foam.
- B. Underwriters Laboratories - U.L. Class A Fire Rating for the entire roof system. The system shall be listed in the current U.L. Building Materials Directory.
- C. Factory Mutual Engineering Corp.: Class I, Wind Rating, 1-90 Approval, as determined in accordance with FMRC Standard 4470.
- D. The manufacturer may use independent testing organizations other than FM, such as Miami-Dade or Florida Building Code to provide evidence that the wind uplift resistance of the roof system complies with local building code requirements.
- E. Insulation Fasteners shall be tested and approved by Factory Mutual in accordance with their Standard 4470.

1.03 QUALITY ASSURANCE

- A. Installer: Currently approved, in writing, by the manufacturer of roofing system prior to award of roofing contract.

1.04 PRE-ROOFING CONFERENCE

- A. Hold roofing pre-construction conference at project site not more than one week prior to beginning roofing. Coordinate meeting time to occur with regularly scheduled progress meetings.
- B. Attendance is mandatory for roofing sub-contractor, roofing foreman, contractor's superintendent, roofing manufacturer's representative (in the event that a manufacturer's guarantee is requested), Architect's representative, mechanical sub-contractor, sheet metal subcontractor, and anyone else responsible for items penetrating or in contact with the roof.
- C. Agenda:
  - 1. Review in detail Architect's specifications, roof plans and all roof and flashing details.
  - 2. If a manufacturer's specification is used, review and resolve all deviations or differences from Architect's specifications.
  - 3. Review and understand Factory Mutual and Underwriters Laboratories requirements and resolve all conflicts between the FM or UL specifications and Architect's / manufacturer's specifications.

4. Review roof plans for slope, deck type, drainage, membrane attachment, expansion joints flashing and details. Resolve all conflicts between what is considered good roofing practice and specifications.
5. Review proposed roofing system and recommended work practices for its installation.
6. Study all plans to determine whether different roof areas have different requirements.
7. Designate which areas on the site will be available for use as storage and working areas.
8. Review procedure to be followed to provide proper protection of roof system during and after the construction of the roof.

#### 1.05 SUBMITTALS

- A. Manufacturer's recommended methods of installation and data to demonstrate compliance with specified requirements.
- B. Letter from manufacturer referencing project and stating that the specified system will qualify for all specified guarantees/warranties when the system is installed by the roofing contractor.

#### 1.06 DELIVERY, STORAGE & HANDLING

- A. Store materials in a cool, dry place.
- B. Place insulation on raised surface and protect with waterproof tarpaulins, with sufficient air circulation to prevent condensation.
- C. Do not install wet or damaged insulation.
- D. Store solvents, adhesives, tape materials and sealants in a cool, dry area between 45 and 95 degrees F.
- E. Handle roll materials to prevent damage to ends.
- F. Allow no unlabeled materials on site.

#### 1.07 PROJECT CONDITIONS

- A. Removal of debris
  1. Prior to commencing work, provide and locate where directed, a dumpster or dump truck adjacent to the building.
  2. Construct an enclosed chute from the roof for removal of debris from the roof area.
  3. Have waste removed from premises and legally disposed of.
  4. Deliver dumpster to site for further use.
- B. Do not start roof installation if rain is imminent, or ambient temperature is below 45 degrees F.
- C. If rain occurs during roof membrane application, cease operations and protect deck, insulation, penetrations and membrane from water damage and intrusion.
- D. Remove and replace all material that has been subject to moisture.
- E. Protect finished surfaces of building from damage by the installation of the roofing system.
- F. Protect completed roofing and flashing from damage by subsequent roofing installation and construction traffic.
- G. In event of damage, immediately make all repairs and replacements required by Architect/Owner.

- H. Comply with all applicable code, fire and safety regulations.
- I. Provide and maintain an adequate number of fire extinguishers on the roof.

#### 1.08 WARRANTY

- A. Provide Roofing Contractor's Two year Warranty covering leaks attributed to defects in material and/or workmanship.
- B. Manufacturer's Guarantee includes materials and workmanship to maintain roof in a watertight condition. Provide non-prorated, No Dollar Limit guarantee that covers membrane, roof insulation, flashings and manufacturer supplied accessories. Provide Thirty (30) Year No Dollar Limit Roofing System Guarantee from the manufacturer. Guarantee to run from the date of substantial completion. Minimum 75 MPH wind speed coverage
  - 1. No Owner signature on warranty shall be required.
- C. Guarantee to cover all components in the roofing system, including, but not limited to roof insulation, insulation fasteners, adhesives, sealants, field and flashing membrane, and [primary manufacturer-supplied] roof expansion joints.

#### PART 2 – PRODUCTS

##### 2.01 ACCEPTABLE MANUFACTURERS, subject to the requirements stated herein,

- A. Base Roofing System – contingent upon manufacturer meeting wind uplift performance requirements:
  - 1. Johns Manville Fully Adhered TPO Roof System [Basis of Design]
  - 2. Carlisle
  - 3. Firestone

##### 2.02 MATERIALS

- A. Insulation Fasteners: Screws and metal plates shall be tested and approved by Factory Mutual in accordance with their standard 4470 and listed in the current FM Approval Guide as such. Plates shall be plastic, self-locking as approved by membrane manufacturer.
- B. Class I, Polyisocyanurate Foam Faced with Asphalt/Glass Mat, or Polymer Glass Mat on Both Sides of Foam and complying with ASTM C-1289. Thermal Resistance to be determined by CAN/ULC –S770-09 (2014 standard) Long-Term Thermal Resistance (LTTR). Minimum thickness two staggered layers of 2.5-inches, minimum R of 13.9 per layer for a total of 27.8. Johns Manville ENRGY 3.
- C. Tapered Insulation (as required for crickets, etc):
  - 1. Factory Tapered Johns Manville Iso 1 polyisocyanurate foam, conforming to ASTM C-1289, as supplied by Johns Manville Roofing Systems.
- D. Membrane Roofing
  - 1. Seams shall be completed only by heat-welding in strict compliance with manufacturer's published recommendations. Flashings shall be JM TPO Membrane or JM TPO-Clad Metal as required and illustrated in Johns Manville's published.
  - 2. Color: gray and white.
  - 3. Membrane securement fasteners: No. 15 Johns Manville High Load Fasteners with 2 3/8-inch round, barbed galvanized steel discs. JM High Load Plates.
  - 4. Field Seams shall be heat welded.

5. Edge Sealant: To be used at all non-factory edges and at end laps. Johns Manville TPO Sealant.
- E. Cover Board: High-density poly-iso insulation as provided by primary roofing manufacturer. ¼ - inch 150 psi or ½-inch 100 psi board is acceptable. Maximum board dimension is 4' x 4'. JM Invinsa Cover Board.
  1. Provide at all roof surfaces.
  2. Roofing system shall be 1 hour rated.
- F. Base Flashing
  1. Flashings shall be Johns Manville TPO reinforced 60 mil field membrane along with the appropriate JM TPO accessories. Pre-formed inside and outside corners are required.
  2. Pipe Boots shall be Johns Manville TPO Vent Pipe Boots.
  3. Adhesives and miscellaneous sealants should be used as called for in the manufacturer's specifications.
- G. Roof Walk: Pre-formed TPO walk pads as supplied by roofing manufacturer; contrasting color.
  1. Provide at any locations where one roof drains onto another.
  2. Provide at location shown- and at a minimum from roof access to RTU's.
- H. Pitch Pans / Filler: Wrap penetrations with pre-formed boots or detail membrane wherever possible. Where no other solution exists, go with pitch pans. Johns Manville pre-formed TPO Pitch Pans and Pourable Sealer.
- I. Expansion Joints: Construct per manufacturer's published details using a polypropylene rod that measures 1-inch larger than the maximum joint opening.
- J. Lumber for Nailers and Curbing shall be number 2 yellow pine.
- K. Yellow Safety Strip: Provide Firestone QuickSeam (peel and stick) Safety Strip; 5.5" wide, at any step downs on the roof; install 12" from the dropdown [at the high side of the transition].
- L. All other materials not specifically described, but required for a complete and proper installation of roofing, shall be selected by approved manufacturer and subject to the approval of Architect/Owner.

## PART 3 – EXECUTION

### 3.01 PREPARATION

- A. Surface Preparation:
  1. Inspect deck closely for:
    - Sufficiently dry to receive roofing system
    - Smooth and proper finish to receive roof system
    - Damaged areas
    - Proper slope
 Unacceptable areas should be brought to the attention of the General Contractor and the Architect and must be corrected prior to installation of the roofing system.
  2. Ensure that wood blocking has been installed as detailed in the plans and specifications.
  3. Make sure that all counterflashing receivers, curbs, etc., are constructed in such a manner as to provide a minimum 8-inch base flashing height measured from the finished roof's surface to the top of the base flashing membrane.
  4. Sump insulation 2" at all active roof drains and scuppers. Do not sump overflow drains. Provide just enough slope at overflow scuppers and overflow drains so water does not pond.

5. Ensure insulation is installed to slope to drain; there shall be no ponding evident within 4 hours of a moisture event.

### 3.02 MEMBRANE INSTALLATION

- A. At end of each day's work, protect installed roofing and insulation by closing off the edge of the system with water cut-off.
- B. Remove water cut-off sealants completely and clean prior to resuming roofing application.
- C. Allow field sheets to relax for a minimum of 30 minutes before securing membrane.
- D. Starting at low edge, begin applying the sheets. Field laps shall be constructed so that a minimum 1.5-inch lap can be continuously heat-welded. Edges, where the reinforcing membrane has been cut, shall be covered with Seam Sealant the same day.
- E. At all intersections with vertical walls, curbs, etc., and at all penetrations (drains, pipes, etc.) secure the membrane using No. 15 Johns Manville High Load Fasteners with 2 3/8-inch round, barbed galvanized steel discs. UltraGard High Load Plates. Cover fasteners with a heat-welded membrane as prescribed above.
- F. Johns Manville fully adhered TPO system specification shall be an integral part of this specification.
- G. Quality Control of Seams: All seams must be checked for integrity with a blunt-ended probe. Any openings or "fishmouths" shall be repaired with a hand-held hot air tool fitted with a narrow nozzle tip and with a roller. Each day, several sections of seams welded that day shall be pulled apart by the roofing contractor to test the quality of welds. Should the welds be deficient (i.e., the weld pulls apart rather than the sheet coming apart), a more thorough examination of the work performed must be carried out and necessary repairs made.

### 3.03 FLASHING INSTALLATION

- A. Preparation: Inspect walls, curb heights, counter flashings, etc., and check for conformance with minimum base flashing height of eight (8) -inches. Non-conforming areas must be corrected prior to installation of flashing.
- B. All metal edging, scuppers and overflows must be constructed with TPO-Clad Metal. All TPO-Clad metal shall be fabricated to form hemmed edges to prevent sharp metal edges from cutting the membrane, except when in conjunction with wood nailers.
- C. Membrane flashings shall be fully-adhered using TPO Membrane Adhesive. All wall and curb flashings shall be secured at their top edge in strict accordance with Johns Manville Flashing Specifications.
- D. Install flashing in accordance with roofing manufacturer's specification.
- E. All pipes shall be flashed with Johns Manville's Vent Pipe Flashing Boots.
- F. Roof walk: Install TPO Walkway material over clean, dry surfaces. Lay out areas where the material is to be installed with most of the material oriented so that it is placed between field seams. Fully adhere center area of the sheet and then heat weld a 1.5-inch continuous (watertight) perimeter of the pad. Check seams for voids that might prevent water tightness.

### 3.04 PROTECTION OF PROPERTY

- A. Protective Coverings
  - 1. Install protective coverings at paving and building walls adjacent to hoist prior to starting the work.
  - 2. Lap protective coverings at least 6 inches, secure against the wind, and vent to prevent the collection of moisture on covered surfaces.
  - 3. Keep protective coverings in place for the duration of roofing work.
- B. Special Protection
  - 1. Provide approved special protection or prevent heavy traffic by other trades on completed work at all times.

### 3.05 INSPECTION

- A. Have an authorized representative of manufacturer supplying the roofing system perform Two (2) In-Progress Inspections and provide written confirmation. Copy Architect with inspection reports; and include in the close-out documentation.
- B. Additionally, authorized representative of manufacturer supplying the roofing system shall perform a Final Inspection in the presence of the Owner's representative and provide written confirmation.

### 3.06 CLEANING

- A. At substantial completion provide a clean fully reflective roof.

END OF SECTION



PART1 – GENERAL

1.01 SECTION INCLUDES

- A. Detention equipment and systems including:
  - 1. Furnishing of embeds required for proper installation of detention equipment and coordination with other phases of the work for Detention Equipment Contractor (DEC). Furnished items only.
  - 2. Anchors, accessories, inserts, fasteners and welding necessary for proper installation of detention equipment, unless otherwise noted.
  - 3. Supervision during installation of detention equipment and embeds.
  - 4. Steel plates and supports where indicated or required for use with specified detention equipment.
  - 5. Miscellaneous detention equipment & furnishings.
  - 6. Steel plate access panels.
  - 7. Filling voids and open joints between metal surfaces where contraband could be concealed such as field assembled joints not completely closed by welding. Voids shall be filled with epoxy joint filler. (Pick-Proof)
- B. Detention (security) hollow metal including:
  - 1. Detention hollow metal doors and windows, and frames for doors, windows, side lites, skylight guards, borrowed lites, windows and related openings.
  - 2. Metal trim, closures and light boxes used in conjunction with detention hollow metal work.
- C. Detention (security) hardware including:
  - 1. Detention grade hinges, pulls, push plates, closers and doorstops.
  - 2. Detention grade electric and mechanical locks and monitoring switches.
  - 3. Weather-stripping, thresholds and smoke/fire gaskets.
- D. Security glazing and accessories.

1.02 RELATED SECTIONS

- A. Final field painting of shop primed steel items - Section 09 90 00.
- B. Electronic security system – Section 28 05 10.
- C. Electrical power supply and raceway systems - Division 26

1.03 REFERENCES

- A. ASTM Standards
  - 1. ASTM A36 - Structural Steel.
  - 2. ASTM A167 - Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip.
  - 3. ASTM A366 - Steel, Carbon, Cold-Rolled Sheet, Commercial Quality.
  - 4. ASTM A525 - General Requirements for Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process.
  - 5. ASTM A526 - Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process, Commercial Quality.
  - 6. ASTM A568 - General Requirements for Steel, Carbon and High-Strength Low-Alloy Hot-Rolled Sheet and Cold-Rolled Sheet.
  - 7. ASTM A569 - Steel, Carbon (0.15 Maximum, Percent), Hot-Rolled Sheet and Strip, Commercial Quality.
  - 8. ASTM A627 - Homogeneous Tool-Resisting Steel Bars for Security Applications.
  - 9. ASTM A629 - Tool-Resisting Steel Flat Bars and Shapes for Security Applications.
  - 10. ASTM B209 - Aluminum and Aluminum-Alloy Sheet and Plate.
  - 11. ASTM B221 - Aluminum and Aluminum-Alloy Bar, Rod and Wire. 11 1900 - 2
  - 12. ASTM E152 - Fire Tests of Door Assemblies.

- B. HMMA 840-87 - Installation and Storage of Hollow Metal Doors and Frames.
- C. HMMA 863-87 - Detention Security Hollow Metal Doors and Frames.

#### 1.04 SUBMITTALS

- A. Procedures for submittals: Division 1.
- B. Product Data: Manufacturer's product data sheets or standard details for:
  - 1. Stock equipment items and products.
  - 2. Hardware items.
  - 3. Security fasteners.
  - 4. Sealant, shop primer and similar products.
  - 5. Security glazing and accessories.
- C. Shop Drawings:
  - 1. Shop drawings must exhibit all dimensions, configurations of material, sizes, assembly methods, spacing of anchors and embeds, joinery, finishes, alloy, thickness of material hardware and joinery with adjacent work.
  - 2. Shop drawing submittal package shall contain as a minimum the following:
    - a. Key plan for all detention doors, access panels, and other devices with detention locks. Show side-lites and borrowed lite windows and include glazing types.
    - b. Hardware schedule for all detention doors indicating architects door number and hardware set number, list of hardware contained within each set number, finishes, degree of opening of each door and a catalog data sheet on each piece of hardware.
    - c. Detention hollow metal schedule and drawings including detail and section drawings, anchorage details and elevations of each door type indicating glazing openings, food passes, shutters and any other required door options.
    - d. Embed plan indicating dimensioned location of all embeds to be located in floor slab, walls and roof deck with details of each embed type.
    - e. Equipment floor plans identifying each piece of equipment and location of it.
    - f. Equipment drawings showing sizes, finishes and details of all furniture and equipment.
    - g. Any other applicable schedules and specifications sheets.
  - 3. Indicate welding requirements and other means of providing anchorage and attachment of equipment.
  - 4. Wiring diagram and electrical characteristics for each locking device.
  - 5. Setting diagrams and dimensional layouts indicating location and proper installation of embeds.
- D. Detention Door Hardware Schedule:
  - 1. Indicate hardware items for each detention hardware set heading.
  - 2. Schedule shall be in a vertical format, coded schedules are not acceptable.
  - 3. Provide product data sheets illustrating each detention hardware item.
  - 4. Complete Keying Schedule.
- E. Glazing: provide two samples of each type of glazing used; 12" x 12".
- F. Templates: upon receipt of the approved hardware schedule, the DEC shall promptly provide the hardware manufacturer's templates to the hollow metal door manufacturer and any others requiring said information.
- G. Packing and Marking: Each item of detention hardware shall be packaged and marked according to the set numbers on the approved hardware schedule. Shipping cartons shall be marked "Detention Hardware - (project name)".
- H. Quality Control Submittals: For information only.

1. Certificates: Certification that fire rated door assemblies bear UL or Warnock Hersey Label for scheduled fire rating.
  2. Test Reports: Certified test reports of an independent testing laboratory evidencing that detention hollow metal doors meet or exceed specified design criteria and that security glazing meets specification requirements.
  3. Label Construction Certification: Manufacturer's certification for oversize doors or doors not otherwise suitable for fire rating. Certify that door and frame assembly has been constructed with materials and methods equivalent to requirements for labeled openings per ASTM E152.
  4. HMMA 840-87 - Installation and Storage of Hollow Metal Doors and Frames.
  5. HMMA 863-87 - Detention Security Hollow Metal Doors and Frames.
    - a. Scheduled fire rating.
    - b. Test Reports: Certified test reports of an independent testing laboratory evidencing that detention hollow metal doors meet or exceed specified design criteria and that security glazing meets specification requirements.
    - c. Label Construction Certification: Manufacturer's certification for oversize doors or doors not otherwise suitable for fire rating. Certify that door and frame assembly has been constructed with materials and methods equivalent to requirements for labeled openings per ASTM E152.
    - d. Manufacturer's installation instructions.
- I. Contract Closeout Submittals: Refer to Section 01 70 00.
1. Operating and maintenance data: Include following, as applicable, for each type of detention door operating and locking system and detention hardware:
    - a. Operating instructions.
    - b. Record wiring diagram for locking device wiring.
    - c. Lubrication and maintenance requirements.
    - d. Spare parts list.
  2. Owner instruction reports.
  3. Warranty.
  4. Letter verifying that extra materials have been delivered.

#### 1.05 QUALITY ASSURANCE

- A. In order to establish the standard of quality required, and to help assure a coordinated project, only DEC's with a proven record of successful projects shall be considered for this portion of the work. The following DEC's are pre-qualified to perform the work described in this section of specifications:
1. Sustainable Security Solutions, San Antonio
  2. Pauly Jail Building Company, Noblesville, Indiana
  3. CML Security – San Antonio, Texas
- B. Any qualified DEC not listed above as pre-qualified and wishing to submit a bid on this section of the specifications must have an established reputation for dependable performance, quality products, prompt maintenance service and readily available spare parts. Bidders for this section must further be prepared to satisfy the Owner and the Architect that they possess adequate staff, facilities and finances to complete this work timely. Applications to become a DEC pre-qualified to bid this work shall be submitted in writing, not less than fourteen (14) days prior to bid date. Only pre-qualified DEC's listed above, or approved by Addendum, will be allowed to bid on this project. Verbal approval will not satisfy this requirement. All DEC's, whether pre-qualified or added by addendum, must comply with all state laws concerning work in the state where project is located. Applications to become a pre-qualified DEC shall contain the following information:
1. A list of ten (10) installations, equal to or larger in scope than this project and constructed with products similar to those specified herein, in which the firm furnished and installed the detention equipment. The minimum period of operation for each of the facilities shall be twelve (12) months.
  2. For each of these ten (10) facilities list:
    - a. Name and location of project
    - b. Date of occupancy by the Owner

- c. Name, address and phone number of the Architect, Owner's representative, and General Contractor
  - d. Dollar amount of the detention contract
  - e. List, with phone numbers, of suppliers of hollow metal and locking devices, if other than applicant
  - 3. A list of all jobs in the past five - (5) years in which the applicant firm has been involved in litigation or been assessed liquidated damages and the status thereof.
  - 4. An audited financial statement, covering the applicant firm's most recently completed fiscal year, which reflects a net worth at least equal to the value of this section of the work.
  - 5. Letter from Surety Company verifying that applicant firm has bonding capacity available in excess of the value of this project that will be allocated to this project if subject DEC is awarded the job.
- C. The Owner or Architect reserve the right to disqualify any applicant that does not comply with all of the requirements of this section.
- D. Voluntary alternates will be cause for disqualification of DEC.
- E. Detention Equipment Manufacturers: Detention equipment will be accepted only from manufacturers listed or accepted in accordance with these Specifications. Provide products of a single manufacturer for each item of detention equipment.
- F. Regulatory Requirements: Provide work in compliance with latest editions (and revisions thereto) of following codes and requirements:
- 1. Federal, state and local codes and ordinances bearing on work at project location.
  - 2. National Electric Code.
  - 3. ADA/TAS.
  - 4. Requirements of regulatory agencies having jurisdiction at project location.
- G. Detention Hollow Metal Door Design Criteria: 3'-0" x 7'-0" x 2 in. thick door weighing not more than 13 lbs. per sq. ft. shall meet or exceed following design criteria when tested by an independent testing laboratory.
- 1. Static Load: Under a static load of 14,000 lbs., at quarter points, maximum permitted center span deflection of 0.58 in. with maximum permanent deflection of 0.015 in.
  - 2. Rack (twist): Under a concentrated load of 7500 lbs., on one unsupported corner, maximum deflection of door shall not exceed 3.55 in. with no failure of construction or welds.
  - 3. Test 3 - Impact Load Test: A 3'-0" x 7'-0" door, frame, and hardware assembly shall be constructed and rigidly mounted in vertical position such that door and locking hardware are operable. The door shall swing on 1-1/2 pair of full mortised butt hinges, and shall be locked using a Folger Adam #60, 70 or 80 series lock with bolt size not to exceed 2 in. high x 3/4 in. wide, and latch throw not to exceed 3/4 in.
    - a. A door ram pendulum system capable of delivering consistent impacts of up to 200-ft. lbs. shall be constructed such that impacts may be delivered to any area of assembly. The pendulum ram system shall be positioned opposite door side of assembly such that door swings away from ram. While hanging at rest, the ram shall be positioned such that striking nose shall be made from C1010-1020 low carbon steel, the striking surface area which shall not exceed 4.0 sq. in.
    - b. With the door closed and locked and above testing arrangement secured, following series of impacts shall be performed on the assembly:
      - of Energy Position and Order of Impact Impacts (ft. lbs.)
      - On door within 6 in. of bolt 400 200
      - On door within 6 in. of middle hinge 50 200
    - c. The door shall remain closed and locked throughout testing procedure, and assembly shall not be damaged such that the forcible egress can be obtained. After testing is completed, the door shall be capable of being unlocked and operated such that normal egress can be obtained.
  - 4. Removable Glazing Stop: No more than one broken fastener when tested in accordance with NAAMM Standard HMDF-1-85, paragraph 1.04D.
- H. Coordination Responsibilities:

1. Provide coordination between detention equipment work, electronic systems and related mechanical and electrical work to insure that functioning elements of detention equipment and mechanical and electrical systems are properly interfaced and connected to electronic systems.
2. Coordinate Progress Schedules, including dates for submittals and for delivery of products.
3. Participate in progress meetings and coordination meetings. Report on progress of work subject to coordination requirements, and any needed changes in schedules. Transmit minutes of meetings to concerned entities.
4. Review shop drawings, product data, wiring diagrams, templates, and sample submittals for coordination with detention equipment and hardware. Verify that electronics equipment and controls are interfaced to properly operate and monitor detention hardware.

#### 1.06 DELIVERY, STORAGE AND HANDLING

- A. For items of equipment to be installed as a part of work under other sections of Specifications, deliver such items to project site in a timely manner so as to not delay the normal progress of work.
- B. Protect materials from damage in transit and at the job site.
- C. Store materials at a job site in dry, well-ventilated area, off ground, and under cover to protect from damage by weather. Take special care to prevent damage of operable equipment and controls as applicable.
- D. Storage:
  1. Protect all materials during storage on the job and during and after installation.
  2. Store all materials in a secure, dry, locked storage area.
  3. Place all material on planking or blocking, at least 4" off ground, 2" off a paved area or floor slab.
  4. Provide, by means of wood strips, a space of at least 1/4" between all units for air circulation.
  5. Do not stack material flat. Store doors and frames in an upright position with heads uppermost.
  6. Place no more than five (5) single opening frames and three (3) multi-opening frames in a group.
  7. Do not permit cardboard or paper containers or wrappings to become wet. If this should occur, remove them immediately.
  8. Adhere to manufacturers recommendations for storage.
- E. Handling:
  1. The DEC is responsible to unload, and distribute to installation locations the detention hollow metal doors and frames, embeds, and other miscellaneous detention items.
  2. Coordinate with the Construction Manager to have the applicable Contractor install all embeds, anchor plates, hollow metal frames, access door frames and back boxes for electronic equipment.
  3. Remove protective materials, and clean all finished surfaces using clear water and a nonabrasive detergent.

#### 1.07 PROJECT CONDITIONS

- A. Drawings show arrangement and location of items of equipment. If it is necessary to vary from arrangement shown, because of structural, mechanical, electrical or other considerations, make such variations only after approval of Architect and at no additional expense to Owner.
- B. Field verifies dimensions.
- C. Measure recesses and openings and provide trim pieces, fillers, closures in sizes required.
- D. Furnish reviewed Shop Drawings, setting diagrams and other information required for proper installation of detention equipment specified to be installed under other sections.

## 1.08 WARRANTY

- A. Provide joint written warranty of Contractor and equipment manufacturer, on a single document, which shall warrant detention equipment provided under this Section of Specifications for a period of one year from date of Final Acceptance.
- B. Provide a written warranty on security glazing warranting against plastic and glass delamination coating failure, yellowing and loss of light transmission for a period of five years from the date of final acceptance.
- C. Warranty shall cover defects in fabrication, installation and system design, including costs involved to repair or replace the damaged or defective item(s).

## 1.09 MAINTENANCE CONTRACT

- A. As a part of Work of this Section, provide Owner with maintenance service on detention hardware, at no additional cost, for a period of 12 months after Final Acceptance.
- B. Service shall include adjustment and repair or replacement of worn or defective parts, components, or equipment including labor, freight and related expenses. Normal service shall be performed within 7 days after each written request from Owner. Service does not include repairs resulting from misuse or abuse.
- C. The DEC shall also provide emergency service during the warranty period, including a maximum 48-hour response time to calls requiring visits to the facility.

## PART 2 - PRODUCTS

### 2.01 MANUFACTURERS, subject to the requirements stated herein;

- A. Detention Equipment & Furniture: may be furnished by any pre-qualified detention equipment contractor. Pre-qualification does not relieve firm from supplying all equipment in compliance with plans and specifications.
- B. Detention Hollow Metal Doors and Frames (including frames for security-glazed vision panels):
  - 1. Trussbilt Incorporated
  - 2. American Steel Products
  - 3. Titan Steel Door Company.
  - 4. \*<sup>AD1</sup> Claborn Manufacturing.
- C. Detention (Security) Wire Mesh and Frames:
  - 1. The G-S Company
    - a. [Basis of Design] Sure-Guard severe duty partition
  - 2. Kane Manufacturing Company
  - 3. Peterson Detention Inc.
  - 4. Any pre-qualified detention equipment contractor
  - 5. \*<sup>AD1</sup> Claborn Manufacturing.
- D. Detention Door Locks and Hardware: Detention hardware items as scheduled in Detention Door Hardware Schedule:
  - 1. Southern Folger Company
  - 2. R. R. Brink Locking Systems
  - 3. AirTeq
- E. Security Glazing:

1. Global Security Glazing
  2. Allied Protective Glazing / LTI Group
- F. Commercial Non-Detention Hardware: Heavy-duty closers, doorstop, aluminum thresholds, plate and weather-stripping are based on products and catalog numbers from the following manufacturers:
1. LCN or Norton (for door closers) except as otherwise scheduled
  2. Glynn Johnson, Stanley or Hager (for doorstops)
  3. Pemko (for thresholds and weather-stripping), Rockwood, National Guard, or Reese
- G. Locks and hardware items of same type shall be products of a single manufacturer unless otherwise noted.
- H. Modesty Panels: Peterson Detention stainless steel – as detailed.
1. \*AD<sup>1</sup> Claborn Manufacturing.
- I. Substitutions: Under provisions of Division 1.
- J. Detention Furnishings
1. Southern Folger
  2. Viking
  3. Norix
  4. Fabcor
  5. Bob Barker.
  6. \*AD<sup>1</sup> Claborn Manufacturing.
- K. Detention Windows.
1. Sherwood Windows Group [sherwoodwindows.com](http://sherwoodwindows.com) [Basis of Design]
  2. Hopes

## 2.02 MATERIALS

- A. General:
1. Material required for specified work shall be new and produced especially for detention use and shall conform to accepted standards of detention equipment industry, but in no case of lesser quality than specified requirement.
  2. Electrical components, including motors, switches, relays, and controls, shall be best of their kind and quality, manufactured by recognized manufacturers, and constructed to operate on electrical current characteristics as indicated on Drawings for such work.
- B. Steel (except stainless steel):
1. Steel Plate: Mild steel plate, ASTM A36, thickness scheduled.
  2. Steel Shapes: Mild steel, ASTM A36, unless otherwise noted.
  3. Sheet Steel (for hollow metal security/detention doors, frames and other sheet fabrication): Commercial quality carbon steel, cold rolled, ASTM A366 or hot rolled ASTM A569, and complying with ASTM A568. Provide stretcher leveled steel sheet for faces of hollow metal detention doors.
  4. Galvanized Sheet Steel: Commercial quality carbon steel zinc coated, ASTM A526 and ASTM A525 with minimum A90 zinc-alloy coating or G90 zinc coating, mill phosphatized. Provide stretcher leveled steel sheet for faces of hollow metal detention doors.
- C. Stainless Steel: ASTM A167, Type 304 or 316, gauge (thickness) as specified or noted on Drawings; 14 gage minimum.
- D. Shop Primer:
1. Steel Surfaces: Top quality, rust-resistant metal primer, free of lead, compatible with finish coats.
  2. Galvanized Surfaces: Dust-zinc oxide primer.

- E. Fasteners and Anchors:
  - 1. As recommended and furnished by detention equipment manufacturer for each condition adequate to maintain integrity of security or detention provided by item to be fastened or anchored.
  - 2. Exposed fasteners shall be tamper-resistant security fasteners, torx head with pin configuration. Provide one style fastener throughout. Furnish Owner with quantity of 3 special tools required to remove tamper-resistant security fasteners.
- F. Epoxy Joint Filler: Epoxy sealant; paintable.
- G. Galvanized Repair Coating: Carbo Zinc No. 11 by Carboline; Galv-Weld Alloy by Galv-Weld Products, or ZRC Cold Galvanizing Compound by ZRC Chemical Products Company.

## 2.03 DETENTION HOLLOW METAL FABRICATION, GENERAL

- A. General:
  - 1. Fabricate detention hollow metal and steel units rigid, neat in appearance and free of defects, warp or buckle. Accurately form metal to required sizes and profiles.
  - 2. Wherever practicable, fit and assemble units in the manufacturer's plant. Clearly identify work that cannot be permanently factory-assembled before shipment to assure proper assembly at project site.
  - 3. Weld exposed joints continuously, grind, dress, and make smooth, flush and invisible. Metallic filler to conceal manufacturing defects is not acceptable.
- B. Hardware Preparation:
  - 1. Prepare doors and frames to receive mortised and concealed detention hardware, including cutouts, reinforcing, drilling and tapping in accordance with templates supplied with hardware.
  - 2. Reinforce units to receive surface-applied hardware. Drilling and tapping for surface-applied hardware may be done at project site.
  - 3. Where electrically operated hardware is required, provide hardware enclosures and junction boxes and interconnect using UL approved ¾" diameter conduit, elbows and connectors.
  - 4. Provide junction boxes to facilitate proper installation of wiring. Coordinate with Construction Manager if access plates required. Access plates if required shall be same gauge as frame and fastened with a minimum of six #10-32 allen or torx head with pin drive tamperproof machines screws, but not to exceed 6 in. o.c. Debur conduit ends at factory.
  - 5. Connect conduit to lock pockets and boxes with compression type, grout tight, fittings.
- C. Shop Painting:
  - 1. Clean, treat and paint exposed surfaces of fabricated hollow metal units, including galvanized surfaces.
  - 2. Clean steel surfaces of mill scale, rust, oil, grease, dirt and other foreign materials before the application of the shop coat of paint.
  - 3. Apply pretreatment to cleaned metal surfaces; using cold phosphate solution (SSPC-PT2), hot phosphate solution (SSPC-PT4) or basic zinc chromate-vinyl butyral solution (SSPC-PT3).
  - 4. Apply shop coat of prime paint within time limits recommended by pretreatment manufacturer. Apply a smooth coat of even consistency to provide a uniform dry film thickness of not less than 2.0 mils.
  - 5. Fire-Rated Assemblies: Provide fire-rated hollow metal doors and frames inspected and tested as fire door assemblies, complete with type of fire door hardware to be used. Identify each fire door and frame with a recognized label, indicating applicable fire rating of both door and frame, based on ASTM E152 for exposures scheduled.

## 2.04 DETENTION HOLLOW METAL DOORS AND PANELS

- A. Qualities: Doors and panels fabricated to at a minimum meet the specified detention door performance criteria and Guide Specifications for Detention Security Hollow Metal Doors and Frames – NAAM Standard HMMA 863-04.
- B. Fabrication:



1. Provide flush design doors and panels, 2-in. thick, seamless hollow construction, unless otherwise indicated.
  2. Fabricate from commercial quality leveled cold or hot rolled face sheets.
    - a. Exterior doors and frames: Galvanized steel, ASTM-A653 G60 coated or Galvaneled steel, ASTM A653, A60 coated. Utilize this at kitchen doors and frames.
    - b. Shower and wet area doors and frames: Galvanized steel, ASTM-A653 G90 coated or Galvaneled steel, ASTM A653, A90 coated
    - c. Interior doors and frames: Cold or hot rolled steel, ASTM-A366/A366M or ASTM-A569/A569M.
  3. Provide sound insulation filler of fiberboard, mineral-wool or other approved noncombustible material solidly packed full door height to fill voids between inner core reinforcing members.
  4. Construct panels and doors with smooth, flush surfaces, without visible joints or seams on exposed faces or stile edges. Edges at top, bottom and sides shall finish flush.
  5. Reinforce inside of doors and panels with vertical, hot-rolled or formed, not less than 28 gauge steel channel-shaped sections. Space vertical reinforcing not to exceed 4-in. o.c. and extend full door height. Spot-weld at not more than 2 3/4" o.c horizontally and 3" o.c. vertically to both face sheets.
- C. Metal Gauges, Face Sheets: 14 gauge typical; with 12 gauge at jail perimeter doors.
- D. Door Edges:
1. Reinforce tops, sides and bottoms of doors and panels with 10 ga. thick, steel channels, spot-welded to outer sheets.
  2. Return outer edges of door face sheets at edges to a close fit and continuously weld and grind smooth.
  3. Finish top and bottom of doors closed flush.
  4. Provide overlapping astragals where scheduled.
- E. Hardware Reinforcement: Reinforcement door for required hardware, as follows:
1. Provide a reinforced pocket in each door receiving mortised locks. Protect lock on each side with 1/8-in. thick steel plate welded inside door faces.
  2. Provide a 1/4" thick hinge-reinforcing channel, swaged where required (but not more than necessary) to pass mortise butts. Securely weld an additional 3/16 in. x 1 1/2" x 10 in. angle, drilled and tapped to receive mortise template hinges, inside edge channel at top butt location.
  3. Weld reinforcing plate, minimum 3/8 in. x 1-1/2 in. x 10 in., inside door for pull reinforcing.
  4. Provide minimum 12 ga. reinforcing, welded inside door faces for other hardware items.
  5. Where electrical wiring (for limit switches, electrical locks, electric hinges) pass through doors, provide factory-installed junction boxes and conduit or raceways.
- F. Clearances: Fabricate hollow metal doors accurately with following clearances:
1. Jambs and Head: 1/8 in.
  2. Meeting Edges, Pairs of Doors: 1/8 in.
  3. Bottom: 3/4", where no threshold.
  4. Bottom: Over threshold 1/8 in.
- G. Speaking Apertures: Consisting of a rectangular pattern, minimum 1 inch high by 4 inches wide (25 mm high by 102 mm wide), of 1/4-inch- (6-mm-) diameter holes. Locate holes in both face sheets directly across from each other and spaced not more than 1 inch (25 mm) o.c. vertically and horizontally. Provide 0.067-inch- (1.7-mm-) thick, pressed-steel baffles in interior of detention door between hole patterns to prevent passage of objects.
1. Provide at all inmate holding room doors and where noted.
  2. At doors with shutters these should occur within the shuttered/ covered portion.

## 2.05 DETENTION HOLLOW METAL FRAMES

- A. Fabrication: Provide security hollow metal frames for doors, windows, transoms, side-lights, borrowed lights and other scheduled openings.
1. Fabricate frames of full-welded unit construction, with corners mitered, reinforced, continuously welded full depth and width of frame, unless otherwise indicated.

2. Fabricate from commercial quality leveled cold or hot rolled face sheets:
    - a. Exterior Frames: Galvanized steel, ASTM A525, G90 coated.
    - b. Interior Frames: Cold or hot rolled steel, ASTM A366 or A569; G90 at wet locations like kitchens, laundry, rooms with shower within 15 feet of the door and other wet locations.
- B. Metal Gauges: 12 gauge.
- C. Hardware Reinforcement: Reinforcement frames for required hardware, as follows:
1. For mortise butts, provide a minimum ¼" x 1½" x 10-in. reinforcing plate, offset at each hinge location and factory drilled and tapped. Brace top hinge reinforcement additionally with a 3/16-in. back-up angle welded behind the offset reinforcement and to inside of frame trim.
  2. Provide lock or keeper preparation in accordance with the recommendations of lock manufacturer, with minimum 10 gauge steel reinforcement. Protect cut-outs and reinforcements with pressed steel mortar guards on inside of frame. Lock pocket cover plate to be flush mounted.
- D. Mullions and Transom Bars:
1. Provide closed or tubular mullions and transom bars where indicated, with no visible seams or joints on faces.
  2. Fasten mullions and transom bars at crossings and to jambs by welding.
- E. Reinforce joints between frame members with concealed clip angles or sleeves of same metal and thickness as frame.
- F. Guards: Provide 26 gauge steel mortar guards or dust cover boxes, welded to frame, at back of finish hardware and electrical cutouts. Provide mortar guards at all screw holes.
- G. Electrical Requirements: Provide a factory-installed junction box or enclosure behind each item of electrical hardware and connecting conduit between junction boxes on same frame.
- H. Fire-rated Assemblies: Provide fire-rated hollow metal doors and frames inspected and tested as fire door assemblies, complete with type of fire hardware to be used. Identify each fire door and frame with a recognized label, indicating applicable fire rating of both door and frame. Construct assemblies to comply with NFPA Standard No. 80, and as herein specified. Where "clean" labels are not possible due to security considerations, provide doors and frames with metal labels certifying that the construction conforms to label requirements. Where door assembly is indicated to be fire-rated but cannot for any reason, DEC shall make it known to architect before fabrication.

## 2.06 DETENTION HOLLOW METAL ANCHORS

- A. Jamb Anchors: Furnish jamb anchors to secure frames to adjacent construction, formed of minimum 10 gauge galvanized sheet steel.
1. Masonry Construction: Adjustable, non-removable, flat steel, not less than 1½" in. wide by 8 in. long (Adjust length and profile as needed for different wall conditions). Furnish at least 4 anchors per jamb up to 7'-6" height; 5 anchors up to 8'-0" jamb height; one additional anchor for each 18 in. or fraction thereof over 8'-0" height. Anchors shall be tied into masonry walls with vertical reinforcing rods.
  2. In-Place Concrete or Masonry: Anchor frame jambs with minimum 3/8 in. concealed bolts into expansion shields or inserts at 6 in. from top and bottom and 16 in. o.c., unless otherwise shown. Reinforce frames at anchor locations. Apply removable stop to cover anchor bolts, otherwise, weld bolt head, fill and grind smooth.
  3. Fire-rated Assemblies: Provide strap anchors required to meet UL requirements.
- B. Floor Anchors: Provide floor anchors for each jamb and mullion, which extends to the floor, formed of minimum 12 gauge steel sheet. Clip type anchors, with 2 holes to receive fasteners, welded to the bottom of jambs and mullions.

- C. Head Reinforcing: For frames over 4'-0" wide in masonry wall openings, provide continuous steel channel or angle stiffener, minimum 12 gauge for the full width of the opening, welded to the back of frame at the head. Do not use such head stiffeners as lintels or load-carrying members.
- D. Spreader Bars: Provide removable spreader bar across the bottom of frames, tack welded to jambs and mullions.

#### 2.07 DETENTION HOLLOW METAL STOPS AND MISCELLANEOUS TRIM

- A. Provide stops around solid and glazed panels in hollow metal units. Provide flashing, metal closures and miscellaneous trim used in conjunction with hollow metal.
- B. Form stops, flashing, closures and miscellaneous trim of steel of the same gauge as associated items to which they are installed, but not less than 10 gage in thickness.
- C. Provide non-removable stops on detention inmate side and removable stops opposite. Factory drill stops for round head or button head machine screws and secure at factory with slotted flat head machine screws. Provide tamper resistant security fasteners to install glass and panels in field. Locate fasteners not more than 2 in. from each end of stop and not more than 8 in. on center.

#### 2.08 DETENTION HARDWARE: (Not All Locks Listed Are Necessarily Used On This Project)

- A. General Requirements: Provide hardware for detention doors and other detention equipment as indicated in Detention Hardware Schedule and Contract Documents
  - 1. Hardware Finish: US32D unless otherwise noted.
  - 2. Aluminum Finish: Clear anodized finish on thresholds, weather seal items and closers.
  - 3. Fire Rated Openings: Provide hardware for fire-rated openings in accordance with NFPA Standard 80. Provide only hardware which has been tested and listed by UL and bears appropriate label or symbol for types and sizes of doors required and complies with requirements of door and frame label and function of opening.
- B. Acceptable Manufacturer: Except as otherwise specified herein, or in the General Conditions, the equipment and materials of this Section shall be products of the following manufacturers, subject to compliance with specification requirements and provided each manufacturer meets all requirements of the Quality Assurance Section of this specification. Supply products of one manufacturer for each type of item required.
  - 1. Detention Locks: Southern Folger, R. R. Brink, AirTeq. With a preference to a local manufacturer [within 120 miles]. If not a local manufacturer provide 3 times as many maintenance locks.
  - 2. Locking Devices and Operators: Southern Folger, R. R. Brink, AirTeq
  - 3. Door Position & Monitoring Switches: Southern Folger, Willo, R. R. Brink, AirTeq
  - 4. Pulls and Hinges: Southern Folger, Willo, R. R. Brink, AirTeq
  - 5. Closers: LCN, Norton
  - 6. Thresholds: Reese, National Guard (NG), Pemko, Rockwood
  - 7. Weather-stripping and Smoke Gaskets: Reese, National Guard (NG), Pemko
  - 8. Stops: Glynn Johnson (GJ), Hager & Stanley, AirTeq; DonJo; Viking; wall mounted only and shall provide open-door-to-wall clearances as required by the TCJS.
- C. For the purpose of conciseness the hardware specified herein is listed using product numbers as manufactured by Southern Folger of San Antonio, Texas. Successful acceptable manufacturer shall provide products, which are equivalent in quality and function to the Southern Folger products listed herein in every respect.
- D. Fasteners:
  - 1. Manufacturer hardware to conform to published template, generally prepared for machine screw installation. Do not provide hardware, which has been prepared for self-tapping or sheet metal screws.

2. Furnish screws for installation with each hardware item. Exposed screw heads, whether door is open or closed, shall be torx head with pin security. Screws shall be finished to match applied hardware item. Provide two sets of security wrenches for each size screw used.

2.09 DETENTION HARDWARE SETS (SWING DOORS AND REMOTELY CONTROLLED SWINGING DOORS)

- A. Reference Detention Door Hardware – General Requirements for additional information.
- B. Lock:
  1. Provide G90 galvanized bodies at all locks.
  2. Provide appropriate lock mounting for locks in hollow metal, plate and wood doors.
  3. Provide lever handles at all mortise locks.
  4. Provide half cycle holdback at typical doors, D function at fire doors. Provide mechanical key holdback at holding area cell doors; provide electric key function where designated.
- C. Reference Detention Door Hardware - General Requirements for additional information.
- D. Provide appropriate lock mounting for locks in hollow metal, plate and wood doors.
- E. Provide internal door position switches to monitor lockbolt and deadlock actuator.
- F. Provide key cylinder extension at locks keyed both sides or stop side.
  1. Molex connectors: Provide prewired molex connectors at all electrical locks. Provide half cycle holdback feature for unlock [instance] and open [remaining unlocked continuously, until switched back to locked position].
  2. Lock voltages: Provide 24 V locks unless indicated otherwise.
- G. Detention Hardware Sets (Provide half-cycle holdback on all locks where allowed)

D-01

- 4- SS 204 FMSS x 4 ½ X 4 ½ Hinges
- 1- SS 10120AM-1 Electro-Mechanical Deadlock – half cycle holdback
- 1- LCN 2215- DPS Concealed Closer with DPS
- 1- Recessed Flush Pull (Push side) SS 2145
- 1- Surface mounted pull SS 212C
- 4- Ives SR 64 Silencers
- 1- Detention Door Stop- typical- at locations where walls occur at 90 degree open position provide the Viking stop mounted near the top of the door [above 6'-8']; at corridor and other locations provide DonJo 1463, mounted with 6" clear beneath leading edge of door and adjacent walls.
- 1- SS 1017A-1 Food Pass Lock
- 1- Stanley 314 Heavy Duty Piano Hinge – Stainless Steel

D-2

- 4- SS 204 FMSS x 4 ½ X 4 ½ Hinges
- 1- SS 10120AM-1 Electro-Mechanical Deadlock – half cycle holdback
- 1- LCN 2215- DPS Concealed Closer with DPS
- 1- Recessed Flush Pull (Push side) SS 2145 or built into the door
- 1- Surface mounted pull SS 212C
- 4- Ives SR 64 Silencers
- 1- Detention Door Stop
- 1- SS 1017A-1 Food Pass Lock
- 1- Stanley 314 Heavy Duty Piano Hinge – Stainless Steel
- 1- Pass-Proof Threshold

D-03

- 4- SS 204 FMSS x 4 ½ X 4 ½ Hinges
- 1- SS 10120AM-1 Electro-Mechanical Deadlock – half cycle holdback
- 1- LCN 2215- DPS Concealed Closer with DPS
- 1- Recessed Flush Pull (Push side) SS 2145
- 1- Surface mounted pull SS 212C
- 4- Ives SR 64 Silencers
- 1- Detention Door Stop

D-04

- 4- SS 204 FMSS x 4 ½ X 4 ½ Hinges
- 1- SS 10120AM-1 Electro-Mechanical Deadlock – half cycle holdback
- 1- LCN 2215- DPS Concealed Closer with DPS
- 1- Recessed Flush Pull (Push side) SS 2145 or built into the door
- 1- Surface mounted pull SS 212C
- 4- Ives SR 64 Silencers
- 1- Detention Door Stop
- 1- Pass-Proof Threshold

D-05

- 4- SS 204 FMSS x 4 ½ X 4 ½ Hinges
- 1- SS 10120AM-2 Electro-Mechanical Deadlock – half cycle holdback
- 1- LCN 2215-DPS concealed closer with DPS
- 2- Surface mounted pull SS 212C
- 4- Ives SR 64 Silencers
- 1- Detention Door Stop

D-06

- 4- SS 204 FMSS x 4 ½ X 4 ½ Hinges
- 1- SS 10120 AM- 2 Electro-Mechanical Deadlock
- 1- LCN 2215-DPS concealed closer with DPS
- 2- Surface mounted pull SS 212C
- 3- Ives SR 64 Silencers
- 1- Detention Door Stop
- 1- Threshold
- 1- Weatherstripping
- 1- Door Sweep
- 1- Rain Drip at exterior doors

D-07

- 4- SS 204 FMSS x 4 ½ X 4 ½ Hinges
- 1- SS 10300M-1 Electro-Mechanical Deadlock
- 1- LCN 2215-DPS concealed closer with DPS
- 1- Recessed Flush Pull (Push side) SS 2145
- 1- Surface mounted pull SS 212C
- 4- Ives SR 64 Silencers
- 1- Detention Door Stop

- D-08
- 4- SS 204 FMSS x 4 ½ X 4 ½ Hinges
  - 1- SS 10300M-1 Electro-Mechanical Deadlock – half cycle holdback, and electric key function (LEK)
  - 1- LCN 2215-DPS concealed closer with DPS
  - 1- Recessed Flush Pull (Push side) SS 2145
  - 1- Surface mounted pull SS 212C
  - 4- Ives SR 64 Silencers
  - 1- Detention Door Stop
  - 1- Pass-Proof Threshold
- D-09 Slider
- 1- 3165 LX.6 – 2 Electric Locking System
- Note: At fire rated doors to vehicle sally port provide door bottom sweep, threshold and weather stripping at jambs.
- D-10
- 4- SS 204 FMSS x 4 ½ X 4 ½ Hinges, one electric
  - SS 10603E Electrically Operated Institutional Mortise Lockset Storeroom/passage function.
  - 1- LCN 2215- DPS Concealed Closer with DPS
  - 4- Ives SR 64 Silencers
  - 1- Pemko 315DN Door Sweep
  - 1- Detention Door Stop
- D-11
- 4- SS 204 FMSS x 4 ½ X 4 ½ Hinges, one electric
  - SS 10605E Electrically Operated Institutional Mortise Lockset Storeroom/Storeroom function.
  - 1- LCN 2215- DPS Concealed Closer with DPS
  - 4- Ives SR 64 Silencers
  - 1- Pemko 315DN Door Sweep
  - 1- Detention Door Stop
- D-12
- 4- SS 204 FMSS x 4 ½ X 4 ½ Hinges
  - 1- SS 1080-2 Deadlock, 804CL
  - 2- Surface mounted pull SS 212C
  - 1- Overhead stop/ hold-open
  - 1- Weatherstripping
  - 1- Pemko 315DN Door Sweep
  - 1- Threshold
  - 1- Rain Drip
  - 1- Detention Door Stop
  - 200 MRS Door Position Switch
- D-13
- 4- 204FMSS hinges
  - 1- 1080A-1 Deadlock
  - 1- 4CL Keeper Switch
  - 1- LCN 2215- DPS Concealed Closer with DPS
  - 1- 200MRS DPS
  - 1- 214S Recess Door pull
  - 1- Detention Door Stop
  - 4- Door silencers

D-14

2 204 FMSS hinges  
1 1010AM Deadlock  
1 4CL Keeper Switch  
1 200 MRS Door Position Switch  
1 212C Door Pull  
1 Detention Door Stop  
Door silencers

D-15

1 SS 1080-2 Deadlock, 804CL, keyed two sides  
No padlock  
Hinges per roof hatch manufacturer  
1 200 MRS Door Position Switch  
Micro switch  
1 4CL Keeper Switch  
Door silencers  
Keyway weather protector cover plate at exterior

H. Functions

1. Locks to operate electrically through either constant duty motors, or constant duty solenoids. Locks to be remotely unlocked electrically by momentary contact switch, or mechanically operated by key at the lock.
2. Refer to the requirements of the Emergency Release function of the door control system. The electrically controlled locks shall be furnished with the capabilities of a half cycle function when controlled with the Emergency Release control function and a full cycle function with the normal door control function.
3. Full Cycle Operation (Standard)
  - a. When a momentary signal is applied to the full cycle input, the latchbolt shall retract, locking the door if closed and allowing the door to be slam-locked if open.
  - b. When a maintained signal is applied to the full cycle input, the latchbolt shall retract. The latchbolt shall remain mechanically retracted as long as the full cycle input is present. When the signal is removed, the latchbolt shall extend, locking the door if closed and allowing the door to be slam-locked if open.
4. Half Cycle Operation
  - c. When a momentary signal is applied to the unlock input, the latchbolt shall retract. The latchbolt shall remain mechanically retracted. When power is removed, the latchbolt remains retracted.
  - d. When a momentary signal is applied to the lock input, the latchbolt shall extend, locking the door if closed and allowing the door to be slam-locked if open.
5. Manual Operation
  - e. Each lock shall have local manual key override lock/unlock feature. Keyed one side (K1), Keyed two sides (K2).
  - f. Rotating the key shall mechanically retract the latchbolt. Removing the key shall extend the bolt, locking the door if closed and allowing the door to be slam-locked if open.
6. Mechanical
  - g. Lock shall operate as a fail-secure slam-lock. Unlocks when energized.
  - h. Lock body shall be made of steel or stainless steel.
  - i. Lock shall be supplied with a security ring to protect the key cylinder. The security ring will be supplied unpainted for installation in the hollow metal frame by the hollow metal manufacturer.
  - j. Cylinder extensions shall be provided for locks keyed two sides or keyed stop side.
7. Electrical
  - k. Lock shall operate when supplied with 24 VDC + 10%, - 5%.
  - l. Power consumption: 3.3A stalled; .32A running.
  - m. Lock shall be provided with a lock status switch to provide interlocking capabilities.

- n. Switches shall be of the snap acting mechanical type, UL listed and rated at 5 amps.
  - o. Locks shall be factory wired to a plug disconnect.
  - p. Lock status switch shall be capable of providing the following indications:
    - 1). Deadlocked indication
    - 2). Unsecured indication
8. Features: Where specified by the security hardware/door schedule, the following features shall be provided:
- q. Remote Latch Holdback (RLHB): Latchbolt is retracted by the push of a button at the control panel and remains mechanically retracted until button is pushed a second time.
  - r. Key Operated Mechanical Latch Holdback (KLHB): Latchbolt is retracted locally by key and remains mechanically retracted until relocked by key.
  - s. Key Switch (KS): Door is electrically unlocked by key operated switch at the lock.
- I. Access Door Lock – Southern/Folger 1010AM: For swinging doors. Lock shall have the following:
- 1. Size - 4¼" x 1¼" x 3"
  - 2. Finish - Electroplated, zinc
  - 3. Case - 8620 mild steel
  - 4. Cover - - Cold rolled steel
  - 5. Cylinder – Mogul
- J. Food Pass Latchbolt – Southern/Folger 1017AM: For hinged food pass doors. Lock shall have the following:
- 1. Size - 4" x 1¼" x 2¾"
  - 2. Finish - Electroplated, zinc
  - 3. Case - Stainless steel
  - 4. Cover - Cold rolled steel
  - 5. Cylinder - Mogul
- K. Door Closer/Door Position Switch – LCN 2210AVB D.P.S. Series: Heavy-duty hydraulic concealed door closer with adjustable position switch mounted integrally within the closer unit. Unit shall be designed to mortise in 4" head of detention hollow metal frame and standard 2" detention hollow metal door.
- 1. Closer shall have the following features:
    - a. Full rack and pinion hydraulic operation.
    - b. Separate hydraulic control of closing and latching speeds.
    - c. Adjustable hydraulic back check to cushion opening swing.
    - d. Tamper-proof regulation switch adjustment.
    - e. Adjustable spring power (may be increased 50%).
    - f. High strength cast iron cylinder.
    - g. Quiet low friction track and roller combination.
    - h. Total concealment when door is closed.
    - i. Heavy duty arm.
    - j. Allow up to 170 degrees of opening - maximum.
  - 2. Door Position Switch shall have following features:
    - a. Positive mechanical indication.
    - b. Switch shall be factory adjusted to monitor door position within 1/2" from the leading edge of the door to the doorstop, but can be field adjusted by simple rack and pinion mechanism.
    - c. Self-adjusting over-travel.
    - d. Switch is single pole, double throw micro type with a rating of 5 amps at 125V to 250V. Shall be suitable for 24 VDC systems with battery backup.
    - e. Furnish with color-coded wires with a pair of cable connectors.
  - 3. Finish - Faceplate shall be US32D with matching security screws. Arm shall be painted.
- L. Continuous Piano Hinge - Stanley 314: Heavy-duty hinge for use on food passes, access panels, etc.
- 1. Made of extra heavy steel for welding to frame and door.
  - 2. Finish –Stainless Steel.



- M. Institutional Hinges – Southern/Folger 204 FMSS Hinge: Each door shall be hung FM (Full Mortise) as follows:
1. Hinges to 4½" X 4½" with .180 leaf thickness having a minimum tensile strength exceeding 62,000 psi and a minimum yield strength of 52,000 psi.
  2. Each hinge to have 2 sets of permanently lubricated stanite and #300 series stainless steel anti-friction bearings for high frequency heavy weight doors. Stainless steel pintles to be through hardened and centerless ground and have a single shear strength exceeding 5,600 lbs.
  3. Stainless steel cross pin through pintle to prevent disassembly, must be positioned so as to be inaccessible when doors are closed and must not extend though the entire barrel.
  4. All hinges to conform to ANSI A156.7 "Template Hinge Dimensions," and exceed requirements of ANSI A156.1 "Butts and Hinges" for Grade 1 heavy weight anti-friction bearing hinges.
  5. Furnish flat head torx security machine screws, stainless steel.
  6. Overall hinge thickness 7/16"; clearance between leaves 1/16"; depth of mortises .180".
  7. Furnish 1-1/2 pair per door except provide one additional hinge on doors over 3'-0" wide and over 90" high.
  8. Finish - US32D.
- N. Door Pull: Southern/Folger - 212: - Raised door pull for detention use, shall be of high strength and ample size and shape to handle heavy doors and resist abuse.
1. Unit shall be cast of solid manganese bronze.
  2. Size - 8-1/4" long X 2-1/4" deep.
  3. Furnish with two 3/18"-16 flathead security screws.
  4. Finish to be US32D.
- O. Flush Pull: Southern/Folger - 214: - Recessed door pull for use on sliding doors where pull must be flush and for the inmate side of doors to eliminate protruding knobs or handles in high security areas.
1. Unit shall be a 5" high X 4" wide x 1/8" thick solid bronze casting.
  2. Integral pocket grip shall be recessed a depth of 1".
  3. Furnish with four ¼"-20 flathead security screws.
  4. Finish to be US32D.
- P. Thresholds: Standard heavy-duty aluminum weatherseal thresholds with maximum ½" height.
- Q. Weatherseals: Gasketing for rated doors and sound doors- at head and jambs, Pemko Manufacturing Co. No. S88 Silicone Seal or Reese No. 797. After installation, razor cut gasketing into pieces not over 12 in. lengths at doors with inmate access.
- R. Door stops: Position wall mounted and frame mounted stops to occur very near to the top of the door and near to fully extended location of the door- with full face of stop engaging the door. Utilize wall mounted stops at locations where wall occur within 8" of the hinge face of the frame [butt side end of the door]. Utilize frame stops at interior locations where perpendicular walls don't occur. Utilize floor stops at exterior locations where perpendicular walls do not occur, and where noted.
1. Floor Stops: Don Jo 1463
  2. Wall Stops: Viking DS 2000. 2½" diameter stop protruding 6" from face of wall.
  3. Frame Stops: Viking DS 3000; welded to frame prior to any field painting.
- S. Door position switch: Southern Steel 200MRS – tamper-proof unit with actuating magnet mortised into door and frame head.
- T. Viewers at Doors: Door Scope model DS/2000 [www.doorscope.com](http://www.doorscope.com) 2 3/8" diameter with 168 degree view. Black, UNO.
- U. Fasteners: Hardware shall be complete with all necessary security screws, bolts, anchors or other fastenings for proper application. Such fastenings shall be of suitable size and type, and shall harmonize wit hardware as to material and finish. Security screws shall be used to install smoke gaskets, door bottoms and weather-stripping.

V. Finishes: Typically all exposed hardware shall have US32D finish.

## 2.10 KEYING

### A. Keys and keying:

1. Establish separate key system for security hardware.
2. Keying will be determined at a joint meeting of Architect/Owner and Detention Equipment subcontractor.
3. Following meeting. Detention Equipment Subcontractor will submit complete keying schedule for Architect/Owner review and approval
4. Each key shall be stamped with keying identification number.
5. Furnish six keys for each key code and three master keys (and grand masters if desired).
6. Keys shall be delivered only to Owner's representative and a signed receipt obtained.

### B. Key control system:

1. Cabinet Telkee
  - a. Provide high security manipulation resistant combination lock
  - b. Provide appropriate leaves for system.
  - c. Provide fillings and accessories
2. Install in Master Control Room
3. Provide complete system set up.
  - a. Install keys
  - b. Provide dual tag system
  - c. Provide 3-way cross index system
  - d. Instruct Owner's personnel in proper usage
4. Capacity:
  - a. Provide sufficient space in cabinet to accommodate all keys to be kept at that location including master and extra keys.
  - b. Cabinet to accommodate paracentric, mogul and standard sized keys.
  - c. Provide for 25 percent expansion for each key type and for additional keys.

## 2.11 SLIDING CORRIDOR DOOR DEVICES

### A. Components:

1. Rack and pinion drive system standard size doors. Motors shall be 1/20 horsepower, single phase 60 Hertz as produced by a nationally recognized manufacturer at typical doors.
2. All roller chain drives are to be No.41 size.
3. Hanger guides to be 1/4" thick steel plate.
4. Cover to interlock with track support and a clearance of not more than 1/4".
5. Hanger support rollers to be turned from solid steel, 3 3/4" O.D. grooved 3/8 IN deep to engage 1/2" cold drawn track. Formed track not acceptable.
6. Rollers to have anti-friction ball bearing with hardened members and grease shield on both sides.
7. Door hanger bolts to be high alloy treated steel with eccentric brushing for adjustment and an automatic type self-locking nut.
8. Paint entire assembly except track, lockhead assembly, rollers, and drive mechanism with rust inhibiting primer.

### B. Mechanism housing:

1. The horizontal mechanism housings shall be constructed of 7 GA mild sheet steel.
2. Housing covers shall be constructed of 10 GA sheet steel. All openings in housings are to be baffled.
3. All removable housing covers will be fastened to the track box with minimum 3/8 IN diameter tamper-resistant fasteners spaced 2 IN from edges and 12 IN O.C.
4. The vertical lock column housing shall be constructed of 7 GA sheet steel. The vertical lock column cover shall be constructed of 10 GA sheet steel, removable only when the horizontal cover has been removed.

- C. Provide electrical terminal blocks in mechanical housings. Provide required wire from electrical components to terminal blocks and terminate at this point. Contractor to supply and terminate all other wire as indicated.
  - 1. All connections mechanically secure.
  - 2. Terminate all stranded wire with solderless, crimp on, insulated terminals properly sized for gauge and type wire and screw terminal.
  - 3. Coordinate with Division 26 and 28.
    - a. Base:
      - (1) Southern/Folger 3165LX.b at 3'-0" to 4'-6" wide doors. 115V
      - (2) Southern Folger D Corridor model at wider doors. 208V
    - b. Optional:
      - (1) Brink
      - (2) AirTeq
    - c. Function:
      - (1) Unlock, open and lock open a 3 FT - 0 IN wide door opening in not more than five seconds.
      - (2) Unlock, close and deadlock close a 3 FT - 0 IN wide door opening in not more than five seconds.
      - (3) Stop movement of any door in mid-travel without interrupting operation of other doors, leaving the door fixed at that point, so the door cannot be moved by hand in either direction.
      - (4) Instantly reverse the direction of movement of any single door without disrupting the movement of the remaining doors in the group.
      - (5) Blocking of one door shall not interfere with the operation of any other door in the group. When blocking object is removed, the door will automatically continue movement to the open or closed position.
      - (6) Sallyport or vestibule doors shall be interlocked so that only one door can be opened at a time.
      - (7) Normal force exerted by a door in travel is 40 LBS plus 10 percent.
      - (8) Each door shall automatically deadlock closed at two concealed points at the rear of the door. Front locking will not be acceptable.
      - (9) Individual doors may be unlocked manually at the door without interfering with the electrical operation of other doors.
      - (10) Door weight not to exceed 350 LBS.
    - d. Key functions. Typically controlled by locking control panel. No LEK local locking function unless specifically indicated. Emergency mechanical key release both sides P-2; pilaster; paracentric.

2.12 SPARE STOCK: DEC shall provide additional locks and hardware, neatly packaged and clearly identified, for future use by the Owner as follows:

- A. Two (2) Electro-Mechanical Locks of each type and two (2) mechanical locks of each type (one of each hand for each lock type). 2 locks with keys on one side and 2 with keys on both sides. See also requirement for additional locks if not a local manufacturer.
- B. Six (6) hinges of each type.
- C. Two (2) closer/DPS (one each hand)
- D. Twenty-five (25) of each type, size, and finish of security screws used on the installed detention equipment and three (3) sets of all wrenches required.
- E. DEC shall inventory spare stock with Owner at project completion and obtain a signed receipt.

2.13 TOOL RESISTANT STEEL GRATINGS

- A. Horizontal bars:
  1. 2-1/4 IN x 3/8 IN TR flat steel bars, ASTM-A627
  2. Produced especially for security use.
- B. Vertical bars:
  1. 7/8 IN diameter TR ribbed steel bars, ASTM-A629
- C. Steel Grating Door, fabrication:
  1. Space ribbed round bars at 6 IN OC.
  2. Space flat bars at 12 IN OC.
  3. Pass ribbed round bars through flat bars.
  4. Interlock intersections without reducing bar diameter.
  5. Pipe sleeves, swedging, calking, friction or welding at intersections of bars is not permitted.
  6. Provide grating frame fabricated of flat bars to match other flat bars.
  7. Weld all bars to frame.
  8. When flat bar length exceeds 4 FT provide WT 4 x 6.5 intermediate support member at right angles.
- D. Steel Grating doors:
  1. Refer to Drawings and details for location of steel grating doors and mode of operation.
  2. Materials and construction same as for gratings.
  3. Furnish stops and frames of similar material.
  4. Provide mounting boxes for hardware, conduit raceway for electric locks, keeper switches, and door position switches.
  5. Provide drilled and tapped holes in door members and reinforcing plates to receive all hardware and operating devices.
  6. Provide steel grating doors per DOOR SCHEDULE
- E. Factory finish (primer):
  1. Clean all surfaces.
  2. Apply phosphate coating.
  3. Apply rust inhibitive primer, thickness as recommended by manufacturer.

#### 2.14 SECURITY MESH

- A. Woven Wire Security Mesh:
  1. Manufacturers: Viking Products [www.vikingfab.com](http://www.vikingfab.com) or Kane.
  2. Wire mesh: 2¼" x 2¼" x ¼" diameter double crimped wire mesh
  3. Frame: 2½" x 1¾" x 12 gauge.
  4. Finish: Galvanized G90, or powder coated
  5. Frame shall be laser cut and notched for wire rods to pass through (min. 1"), rods shall be welded to the inside of the frame. Frame corners shall be mitered, and continuously welded and ground smooth.

#### 2.15 DETENTION FURNISHINGS AND ACCESSORIES

- A. Drawings: Refer to plans for locations and detailing for construction and setting of all security furnishings and accessories.
- B. Speaking Devices in Glass: Refer to 10 00 00 Miscellaneous Specialties
- C. Transaction Drawer: Refer to 10 00 00 Miscellaneous Specialties
- D. Mirrors: Refer to 10 80 00 Toilet and Bath Accessories
- E. Food and Cuff Passes: 16" wide and 5" high clear opening, doors where indicated on the drawings. SS203FP hinge, SS262 Food Pass door or similar.
- F. Door Shutter: Hinged 10 gauge bent sheet steel shutters shall be mounted over observation windows and/or speaking devices where indicated on the drawings. Shutters shall be hung on continuous piano

hinges of suitable size and strength and shall be equipped with a hand pull and latch. (Latches to be friction-type). Sliding shutters are not allowed.

- G. Package Pass: Refer to 10 00 00 Miscellaneous Specialties
- H. Shower Seat: Refer to 10 80 00 Toilet and Bath Accessories
- I. Detention Grab-bars: Refer to 10 80 00 Toilet and Bath Accessories
- J. Safety Clothes Hook: Refer to 10 80 00 Toilet and Bath Accessories
- K. Drawings: Refer to plans for locations and detailing for construction and setting of all security furnishings and accessories.
- L. Finish: For security furnishings and accessories all tool marks and surface imperfections shall be dressed clean by grinding, filling and sanding as necessary to make all faces, edges, and connections smooth, level, and free of all irregularities. All surfaces shall be thoroughly cleaned of rust, oil or other impurities, treated to insure maximum paint adhesion and coated on all exposed surfaces with a rust inhibitive primer.
- M. EQ-701: DETENTION BUNK: As detailed on the drawings; mounted or wall mounted units as shown on drawings
  1. Frame and/or brackets: min. 14 gauge square steel tubing, sizes as follows:
  2. Frames: min. 1 ½” with closer caps welded in place
  3. Wall brackets (where required): min. 7 gauge steel wall gussets securely welded to bunk deck
  4. Deck: One piece sheet steel, min. 10 gauge, with end and sides turned up and hemmed down to form 6 gauge vertical section. Deck attaches to each post or bracket with 3/8” thick connector plates and 2 tamper resistant bolts.
  5. Bed deck to be capable of supporting 1,500 pounds with deflection at center of side rail not to exceed ¼” and no permanent deformation.
  6. Bunking Hardware: Sleeve connector with tamper-proof fastener for each post. Provide one set for every two beds.
  7. Floor Connectors: formed angles attached to each leg with punched hole for attachment to floor.
  8. Provide continuous embeds for all wall mounted bunk brackets
- N. EQ-702-W: DETENTION WALL MOUNTED BENCH – Norix Model IBW-XX. Last two digits indicate length. Stainless Steel detention bench with w/12 gauge top and fully welded construction, without cuff rings. Secure bench to wall. [Norix; [www.norix.com](http://www.norix.com) ]. Or fabricate per detail referenced in drawing schedule, contractor’s option.
- O. EQ-704: FLOOR MOUNTED STOOL – Model SF1000. Stainless Steel stool with 14 ga. Stainless steel 12” diameter top. 11 ga. Steel pipe support. Welded construction and secured to recessed embed plated in floor. 18” high. [Viking Products; [www.vikingfab.com](http://www.vikingfab.com)]
- P. EQ-706-X: WALL MOUNTED SWING STOOL – Model SW2000. Last two digits indicate length of arm. Stainless steel stool with steel wall mount. 14 ga. Stainless steel 12” diameter top secured to hinged support, fully welded steel construction with steel pivot block and steel pivot rod. Mount at 18” AFF. [Viking Products; [www.vikingfab.com](http://www.vikingfab.com)] Refer to plan for swing arm length from wall to center of seat.
- Q. EQ-709: WALL MOUNTED DESK - Norix Model D560-401. Maintain 6” horizontal clearance between front edge of desk and front edge of stool. Or fabricate per detail referenced in drawing schedule, contractor’s option.

- R. EQ-711: SECURITY ACCESS PANELS - Door to be fabricated from 3/16" steel plate with continuous 3/16" thick angle frame embedded in masonry. Provide continuous piano type hinge and a detention deadbolt lock (SS 1010) with keys. Refer to detail referenced in drawing schedule.
- S. EQ-720: VIDEO VISITATION – Vendor furnished, vendor installed.
- T. EQ-721: ATTORNEY VIDEO VISITATION – Owner furnished, owner installed, provide rough-in for owner installation, refer to electrical and technology drawings.
- U. EQ-2561-R6: DETENTION PISTOL LOCKER – Southern Folger, Model 605-6. Fully recessed, 6 compartment. Cut, formed, welded and ground smooth steel. Primed Finish Body front and sides: 7 gauge steel. Body back: 10 gauge steel. Drawer fronts: 7 gauge steel. Drawer sides and backs: 10 gauge steel. Compartment size 6" H x 1'-1-1/2" W x 4-1/2" D with individually keyed and master keyed pin tumbler snap lock. [www.southernfolger.com]
- V. EQ-5462-4: 4-SEAT TABLE – Model TS40000. Stainless Steel 4 person spider table with 14 ga. Stainless steel seat and table tops. 14 ga. Table supports, welded construction and secured to recessed embed plated in floor. [Viking Products; [www.vikingfab.com](http://www.vikingfab.com)]

## 2.16 SECURITY GLAZING

### A. Materials:

1. General requirements:
  - a. All glass and other glazing materials shall be from new stock, free from chips, cracks, scratches, or other defects that mar appearance or impair strength and performance. Factory label each pane showing type, thickness and identifying "attack" side of glazing units.
  - b. Sealants and glazing tapes shall be compatible with all plastics and interlayers of laminated glass. Consult glazing manufacturer.
2. Products:
  - a. Tempered Glass: Thickness as scheduled; shall meet or exceed the requirements of ANSI Standard Z97.1. Clear or reflective as scheduled.
  - b. Laminated Glass: Thickness as scheduled; shall meet or exceed the requirements of ANSI Standard Z97.1.
  - c. Wired Glass: 1/4" thick; welded diamond mesh.
  - d. Monolithic & Laminated polycarbonate: Thickness and color shall be as scheduled and must be tested and approved as a CC-1 rated light transmitting plastic by the ICC. All polycarbonate to have a minimum 10 year warranty on delamination, coating failure, yellowing, breakage, abrasion resistance and loss of light transmission.
  - e. Chemically Strengthened Glass. Clear. ASTM C1422. Use only with laminated applications.
3. Glass Schedule:
  - a. Glazing Type **H**: Multi-ply clear glass laminate with mar-resistant laminated polycarbonate glazing; ASTM 1915, Grade 1;; 26.29 lbs./s.f.
    - (1) Thickness: 2.350" nominal.
    - (2) Global DBP 08
    - (3) At locations designated **HM or H1** provide a mirrored layer facing the corridor/detainee in addition to the makeup indicated.
    - (4) At locations designated **H2** an insulated divided light in addition to the makeup indicated.
  - b. Glazing Type **M**: Clear glass clad laminated polycarbonate glazing; ASTM 1915; 6.1 lbs./s.f.
    - (1) Thickness: .647"- .778". 3/4" nominal.
    - (2) Global SP 019.
    - (3) At locations designated with **MM or M1** [mirrored/reflective] provide a one way mirror in addition to the makeup indicated.
    - (4) At locations designated **MMI** provide a one way mirror and an insulated divided light.
    - (5) At locations designated **TM** provide Type M glazing inboard incorporated into an insulated unit with a 1/2" air space and a 1/4" clear tempered outboard lite. Exterior glazed, unless noted otherwise.

- c. Glazing Type L: 7/16" laminated glass. Used at cell doors and other locations with small borrowed lites that are not perimeter doors [5" or less dimension]. Chemically- strengthened clear glass laminated to each side of 1/8" polycarbonate. Clear.
  - (1) At locations noted L1 provide an additional 1/4" thick mirror makeup.
- d. Glazing Type F. UL labeled for rating as scheduled. Global Clear Inferno-Lite FRP-4540 for 3/4 hour installations; 1" composite thickness.
- e. Insulated Glass- at locations shown.

B. Execution:

- 1. Preparation:
  - a. Verify that other trades have completed their work. Check that glazing angles and glass are free of imperfections or damage that would prevent proper installation of glass. Products shall be installed only in a window system with fully functioning weep system.
  - b. Examine surfaces to ascertain that surfaces are dry, free of oils, waxes and foreign substances.
  - c. Report any surfaces or defects that would impair a satisfactory installation. Proceed only after all defects corrected. Starting work shall constitute acceptance of surfaces.
  - d. Verify sizes required prior to cutting or fabrication of glazing material specified. Coordinate with supplier and installers of framing, windows, doors, etc., to receive glass. Field measure as required for accurate fit within tolerances established by material manufacturers.
  - e. No attempt shall be made to change the size of the security glass units after they leave the factory. All glass must be clean cut. Nipping to remove flares or to reduce oversized dimensions of any type glass will not be permitted.
  - f. Do not install if temperature is below 40 degrees F.
- 2. Installation:
  - a. Install all glazing material and related glazing accessories in strict accordance with manufacturer's instructions outlined for this project and approved submittals. Provide watertight and airtight installation where exposed to weather. Provide airtight installation for interior locations.
  - b. Set and secure glazing material without springing. Install plumb, straight, square and level and in proper alignment with related work. Install securely to prevent rattling, breakage or displacement and while allowing for expansion and contraction. Maintain required clearances and support for glazing units preapproved shop drawings and manufacturer's instructions, and notify Architect immediately, in writing, if discrepancies exist beyond tolerances coordinated by material manufacturers on approved submittals.
  - c. Place 1/4" thick setting blocks under the bottom edge of the glazing units at the unit's quarter points. The setting blocks shall be slightly wider than the glazing unit.
  - d. Apply glazing tape to the fixed frame and removable stop in continuous strips. Hold top of tape 1/8" down from top of glazing stops.
  - e. Verify proper orientation of Glazing Units in the opening to ensure "attack" side is on the proper side as noted or as directed by Architect.
  - f. Use all sealing and glazing accessories in strict accordance with recommendations and instructions of glass fabricator for conditions applicable to this project. Clean and prepare contact surfaces as recommended by manufacturer.
- 3. Adjust and Clean:
  - a. Check installed glazing material for looseness and weather tightness. Correct deficiencies.
  - b. Clean all glazing materials before acceptance in accordance with applicable manufacturer's instructions and recommendations.
  - c. Replace all broken, scratched, chipped, marred or otherwise damaged glazing units.

## 2.17 INTERIOR DETENTION SEALANTS/CAULK

A. Interior Detention Sealant/Caulk:

- 1. Description: Two component, 100 percent solids epoxy sealant; identified by manufacturer as resistant to being picked by sharp tools. Product shall be compatible with epoxy paint.
- 2. Movement: For moving joints, use product with movement capabilities.

3. Available Manufacturers and Products:
  - a. Dayton Superior; Prison-Loc
  - b. Euclid Chemical Company; EUCO #452-P.
  - c. Sika Corp.; Sikadur No. 23, Lo-Mod Gel
  - d. Sika Corp.; Sikadur No. 31, Hi-Mod Gel

## 2.18 EXTERIOR DETENTION WINDOWS

- A. Sherwood Window Group [www.sherwoodwindows.com](http://www.sherwoodwindows.com) Model DSW 6060; fixed, fully thermally broken, aluminum detention security windows with a stainless steel interior cladding
  1. Interior glazing- type M
  2. Exterior glazing 1" insulated; bronze tinted with Low e coating at #2 surface Guardian SunGuard SNX 62/27

## 2.19 FABRICATION:

- A. General:
  1. Fabricate items to be rigid, neat in appearance and free of defects, warp or buckle. Accurately form metal to required sizes and profiles. Weld exposed joints continuously, grind, dress, and make smooth, flush and invisible.
  2. Fabricate components of detention equipment in accordance with Specification requirements and reviewed Shop Drawings.
  3. Form exposed work true in line and level with accurate angles and surfaces and straight sharp edges. Ease exposed edges to a radius of approximately 1/32-in. unless otherwise shown. Form bent-metal corners to the smallest radius possible without causing grain separation or otherwise impairing the work.
  4. Welding shall be in accordance with recommendations and standards of American Welding Society. Provide arc welding in fabrication work where practical and where scheduled on Drawings. Weld corners and seams continuously.
  5. Clean surfaces to be welded free of loose scale, rust, oil, grease, paint, or other foreign matter. Welds shall show uniform section and smoothness of weld metal without overlaps and craters.
  6. Grind exposed welds smooth and flush to match and blend with adjoining surfaces. Plug welds shall be ground smooth where exposed to view.
  7. Visual inspection of edges and fillets and butt joint welds shall indicate good fusion width and penetration into base metals. Precautions shall be taken to minimize stresses and distortions due to heat.
  8. Grind smooth burrs, edges, and rough spots. Carefully match exposed work to produce continuity of line and profiles. Work that cannot be permanently assembled in shop shall be fitted, disassembled for shipment.
  9. Cut, reinforce, drill and tap metal work indicated to receive finish hardware and similar items or work. Cut holes in strict accordance with templates.
- B. Shop Painting:
  1. Provide shop primer on detention equipment except aluminum, bronze, or stainless steel finish hardware or other accessory items and parts of work scheduled to be furnished enameled or plated.
  2. Prepare surfaces by solvent cleaning (SSPC SP1) and power tool cleaning (SSPC SP3) to remove oil, grease, loose scale, rust, weld spatters and other foreign matter.
  3. Pretreat surfaces using cold phosphate solution (SSPC-PT2) hot phosphate solution (SSPC-PT4).
  4. Apply one shop coat of rust-resistant metallic primer, minimum 2.0 dry mil film thickness.

## PART 3 EXECUTION



### 3.01 EXAMINATION AND PREPARATION FOR INSTALLATION

5. Prior to start of building construction, coordinate size and location of openings to be provided in building walls to permit transfer of detention equipment into buildings for installation.
6. Examine surface and conditions of building in field, which relate to installation of detention equipment.
7. Lay out work accurately and completely. Verify dimensions.
8. Do not proceed with installation until discrepancies or unsatisfactory conditions are corrected.
9. Coordinate electrical work required to be connected to detention equipment items.

### 3.02 INSTALLATION

- A. Installation: The DEC shall install all detention hardware. All butts, locks, plates, strikes, pulls, closers, etc. shall be neatly and accurately mortised flush, properly placed and accurately aligned to provide smooth and quiet operation without sticking, binding, hanging, or rattling. All doors shall be hung with equal clearance at jambs and heads.
- B. Install detention equipment in accordance with reviewed Shop Drawings, manufacturer's printed instructions, and as specified, under direct supervision of subcontractor's full time installation supervisor.
- C. Do not start detention equipment installation until building areas to receive detention equipment are broom clean and properly lighted, exterior enclosing walls are in place, exterior windows glazed, and roof completely installed to prevent weather damage to locking mechanisms and other mechanical parts of detention equipment.
- D. Cut holes necessary in detention equipment for proper installation of plumbing, fire protection, mechanical and electrical work.
  1. Lay out and cut holes during installation of detention equipment and prior to finish painting.
  2. Holes sized and located accurately on the detention equipment by subcontractor requiring such holes.
- E. Attachment and Connection of Detention Equipment:
  1. Provide as detailed and required to complete installation and maintain the security provisions of detention equipment. Install items plumb, level, square and aligned accurately with related construction. Provide welding, riveting, bolting or other fasteners as applicable, noted and approved for connections and attachments.
  2. Riveting and Bolting: Rivets not otherwise specified shall be 3/8 in. diameter, accurately spaced from 4 in. to 6 in. o.c., as nature of the work required, and well driven down to completely fill holes. Holes shall be punched not to exceed 1/16 in. larger in diameter than rivet used and holes not matching properly shall be reamed. Countersunk flathead rivets or clipped heads may be used where necessary for mechanical or other reasons. Where legs of stiffening angles or other shapes are not exposed to inmates or to public view, they may be bolted together where practical with 3/8-in. diameter bolts spaced not more than 6-in. o.c. Where bolted work does not reduce security, special 3/8 in. diameter tamper-resistant security bolts may be used where heads are exposed to inmates and where nuts are not accessible to inmates or exposed to view. Other recognized detention equipment manufacturers' standard shapes, connections and methods of construction may be used subject to Architect's approval.
  3. Welding: Electric arc and resistance welding may be used in erection of this work where practical and where security is equal to or stronger than riveting and where reasonably neat workmanship is possible. Welding shall be executed in a neat workmanlike manner in accordance with standards established by the American Welding Society. Clean loose scale, rust, oil or other foreign matter.

Weld shall show uniform sections, good penetration, smoothness of weld metal and minimum of craters, porosity and clinkers. Exposed welds shall be ground smooth.

4. Exposed screws used for attachment of hardware items and other detention equipment shall be specified tamper-resistant security screws.
5. Effectively isolate dissimilar metals and materials where necessary to prevent corrosion by electrolytic action or other causes.
6. Install hardware furnished under this section in accordance with reviewed hardware schedule and hardware templates furnished by hardware manufacturer.
7. Coordinate work provided with other work relating to detention equipment.

F. Detention Hollow Metal:

1. Install detention hollow metal units and accessories in accordance with reviewed Shop Drawings, HMMA 840, and as specified and detailed.
2. Set work accurately in position, plumbed, aligned, and braced securely until permanent anchors are set. After wall construction is complete, remove temporary braces and spreaders leaving surfaces smooth and undamaged.
3. Securely anchor detention door frames, door sidelight frames, and detention window frames to adjacent construction with anchors or welding as detailed and required for rigid attachment. Where welding is required for anchorage to detention frames, provide 1 in. welds at maximum 8 in. o.c. unless otherwise noted on the Drawings.
4. Fit exposed connections accurately together to form tight hairline joints. Weld connections, which are not to be left as exposed joints, but cannot be shop welded because of shipping size limitations. Grind exposed joints smooth and touch-up shop paint coat. Touch-up galvanized surfaces with galvanized repair coating.
5. Fill detention doorframes, sidelights and detention window frames in masonry or concrete walls solid with mortar.

G. Detention Access Doors: Set plumb, level and secure in accordance with reviewed Shop Drawings. Coordinate locations with other work.

### 3.03 INTERIOR DETENTION SEALANT SCHEDULE

A. Rooms

1. Cells of every type; holding rooms.
2. Dayrooms, including adjacent toilets and showers.
3. Processing rooms, or any other rooms where inmates would routinely be left unescorted or continuously supervised.

B. Locations: Floor, wall, and ceiling joints, spaces, cracks between similar and dissimilar materials, including, but not limited to following:

1. Open floor-to-wall, wall-to-wall, and wall-to-ceiling joints.
2. Metal door frames.
3. Metal window frames.
4. Detention furniture.
5. Plumbing fixtures.
6. Toilet accessories.
7. Toilet partitions and privacy screens.
8. Air diffusers and grilles.
9. Brackets and mounting plates for equipment.
10. Benches.
11. Block control/expansion joints.

C. Paint all sealant to match adjacent wall surfaces- utilize compatible epoxy type paint.

### 3.04 CLEAN AND ADJUST

- A. After installation of detention equipment, clean surfaces to receive field painting. Clean prefinished material in accordance with manufacturer's instructions. Touch-up damaged shop primer with shop primer. Use galvanized repair paint at galvanized finishes.
- B. Check operation of movable items of equipment for proper operation and coordinate checking of electrical signals and controls for proper operation. Make adjustments required prior to Final Inspection Acceptance and Substantial Completion.
- C. Test and adjust door position and locking device status switches in conjunction with electronic systems testing.
- D. Adjust operable and hardware for proper operation. Leave doors and operating hardware in complete, operating order and free of defects.

### 3.05 FIELD QUALITY CONTROL

- A. Field Quality Control Tests: Conduct performance tests on each locking device and control lock to ensure that systems operate properly, free of defects. Conduct tests in presence of Owner, Architect and entities supplying system components.

### 3.06 DEMONSTRATION

- A. Instruct Owner's designated personnel on proper operation and maintenance of detention equipment, including hands-on demonstration. Instruct Owner on removal and replacement of locks.
- B. Use operating and maintenance manual as basis of instruction and demonstration.
- C. Deliver to Owner keys and special tools required for operation and maintenance of equipment and accessories at time of instruction and demonstration.
- D. Video instructions, edit and then deliver to Owner.
- E. Provide minimum of 8 hours of instruction prior to Substantial Completion and 4 after.

END OF SECTION



## Section 004100-Bid Form Addendum 2



## Collin County Purchasing

### **2021-239 Addendum 2**

#### **Construction, Collin County Adult Detention Facility, Phase 1 Addition**

Issue Date: 7/13/2021

Questions Deadline: 8/20/2021 12:00 PM (CT)

Response Deadline: 8/26/2021 02:00 PM (CT)

Collin County Purchasing

#### **Contact Information**

Contact: JD Griffin, CPPB Senior Buyer

Address: Purchasing

Admin. Building

Ste. 3160

2300 Bloomdale Rd.

Ste. 3160

McKinney, TX 75071

Phone: (972) 548-4116

Fax: (972) 548-4694

Email: [jgriffin@co.collin.tx.us](mailto:jgriffin@co.collin.tx.us)

## Event Information

Number: 2021-239 Addendum 2  
Title: Construction, Collin County Adult Detention Facility, Phase 1 Addition  
Type: Invitation for Bid - Construction  
Issue Date: 7/13/2021  
Question Deadline: 8/20/2021 12:00 PM (CT)  
Response Deadline: 8/26/2021 02:00 PM (CT)  
Notes: SCOPE OF WORK INCLUDES all materials, labor, equipment and services to produce or be incorporated in such construction. Contract will be a general contract for an addition of approximately 97,000 square feet to an existing adult detention facility which includes a new vehicular sallyport, book-in and inmate processing, a 180 bed orientation housing unit, connection corridor to the existing building, and associated renovations in the existing facility; and related sitework.

[Log in to view bid documents.](#)

## Ship To Information

Address: Adult Detention Facility  
4300 Community Ave.  
McKinney, TX 75071

## Billing Information

Address: Auditor  
Admin. Building  
Ste. 3100  
2300 Bloomdale Rd.  
Ste. 3100  
McKinney, TX 75071

## Bid Activities

### Pre-Bid Conference and Site-Walk

7/28/2021 10:00:00 AM (CT)

A PRE-BID CONFERENCE and SITE-WALK will be held by Collin County on Wednesday, July 28, 2021 at 10:00 AM at Collin County Adult Detention Facility Training Room (meet in lobby), 4300 Community Ave., McKinney, TX 75071 in order for bidders to ask questions regarding the proposed work and view the jobsite. It is the bidder's responsibility to review the site and documents to gain a full understanding of the requirements of the bid.

### Site-Walk

8/4/2021 10:00:00 AM (CT)

A SITE-WALK will be held by Collin County on Wednesday, August 4, 2021 at 10:00 AM at Collin County Adult Detention Facility (meet under the archway between buildings), 4300 Community Ave., McKinney, TX 75071 in order for bidders to view the jobsite.

## Bid Attachments

### Addendum 2\_2021-239.pdf

Addendum 2

[View Online](#)

### Architect's Addendum 1.pdf

Architect's Addendum 1

[View Online](#)

### 01 22 00 Unit Prices Addendum 1.pdf

Section 01 22 00 Addendum 1

[View Online](#)

### 07 20 00 Insulation Addendum 1.pdf

Section 07 20 00 Addendum 1

[View Online](#)

**07 54 23 Thermoplastic Roof System (TPO) Addendum 1.pdf**

Section 07 54 23 Addendum 1

[View Online](#)

**11 19 00 Detention Addendum 1.pdf**

Section 11 19 00 Addendum 1

[View Online](#)

**S301 - TYPICAL CONCRETE DETAILS.pdf**

Drawing S301

[View Online](#)

**S306 - CONCRETE DETAILS.pdf**

Drawing S306

[View Online](#)

**A101 - SITE PLAN Addendum 1.pdf**

Drawing A101 Addendum 1

[View Online](#)

**A103 - TEMPORARY SITE FENCING.pdf**

Drawing A103

[View Online](#)

**201254 - Drawing Sheet List Bid Set.pdf**

Drawing Sheet List

[View Online](#)

**Addendum 1\_2021-239.pdf**

Addendum 1

[View Online](#)

**7-28-21\_Pre-Bid Conference Sign-In Sheet.pdf**

7-28-21 Pre-Bid Conference Sign-In Sheet

[View Online](#)

**8-4-21\_Site-Walk Sign-In Sheet.pdf**

8-4-21 Site-Walk Sign-In Sheet

[View Online](#)

**004100-Bid Form Addendum 1.pdf**

Section 004100-Bid Form Addendum 1

[View Online](#)

**LEGAL\_NOTICE\_IFB\_2021-239.doc**

Legal Notice

[Download](#)

**PROJECT MANUAL\_2021-239.pdf**

Project Manual

[View Online](#)

**CVR - COVER SHEET.pdf**

Drawing Cover Sheet

[View Online](#)

**02 Civil-Landscape Drawings.pdf**

Civil-Landscape Drawings

[View Online](#)

**03 Structural Drawings.pdf**

Structural Drawings

[View Online](#)

**04 Architecture Drawings.pdf**

Architecture Drawings

[View Online](#)

**05 Detention Drawings.pdf**

Detention Drawings

[View Online](#)

**06 Plumbing Drawings.pdf**

Plumbing Drawings

[View Online](#)

**07 Fire Protection Drawings.pdf**

Fire Protection Drawings

[View Online](#)

**08 Mechanical Drawings.pdf**

Mechanical Drawings

[View Online](#)

**09 Electrical Drawings.pdf**

Electrical Drawings

[View Online](#)

**09 Tech Drawings.pdf**

Tech Drawings

[View Online](#)

**10 Security Drawings.pdf**

Security Drawings

[View Online](#)

**201254 - 2018 IECC - Lighting COMCheck - Bid Set.pdf**

Lighting COMCheck

[View Online](#)

**201254 - 2018 IECC - Mechanical COMCheck - Signed 2021.04.09.pdf**

Mechanical COMCheck

[View Online](#)

**A290 - ROOF PLAN Addendum 1.pdf**

Drawing A290 Addendum 1

[View Online](#)

**Requested Attachments**

---

**Conflict of Interest Questionnaire**

**W-9**

*(Attachment required)*

**Bid Bond**

*(Attachment required)*

**BID SECURITY:** All Bidders must submit, prior to the bid opening time, a Certified Check, Cashier’s Check or acceptable Bid Bond payable without recourse to Collin County in the amount of not less than five percent (5%) of the total bid plus alternates as submitted.

1. Bid Bond, certified check or Cashier’s Check may be mailed or delivered to the Office of the Collin County Purchasing Agent, Collin County Administration Building, 2300 Bloomdale Road, Ste 3160, McKinney, TX 75071 and shall be delivered in an envelope, marked plainly on the outside with the Bid Name and Number.
2. Bidders submitting a bid via Collin County eBid shall upload a Bid Bond at <https://collincountytx.ionwave.net>

Regardless of delivery method, all Bid Bonds shall be received prior to the bid opening time to be considered. Failure to submit a copy of bid security prior to bid opening shall be cause for rejection of bid.

The original Bid Bond shall be received in the Collin County Purchasing Department no later than close of business on the third working day after the bid opening. Late receipt of original Bid Bond shall be cause for rejection of bid.

**Bid Attributes**

---

<b>1</b>	<p><b>eBid Notice</b></p> <p>Collin County exclusively uses IonWave Technologies, Inc. (Collin County eBid) for the notification and dissemination of all solicitations. The receipt of solicitations through any other means may result in your receipt of incomplete specifications and/or addendums which could ultimately render your bid/proposal non-compliant. Collin County accepts no responsibility for the receipt and/or notification of solicitations through any other means. Please initial.</p> <hr/> <hr/> <hr/> <p><i>(Required: Maximum 1000 characters allowed)</i></p>
----------	---



**2 Contact Information**

List the contact name, email address and phone number of the main person(s) Collin County should contact in reference to this solicitation. Contact(s) shall be duly authorized by the company, corporation, firm, partnership or individual to respond to any questions, clarification, and or offers in response to this solicitation.

---

---

---

---

---

---

*(Required: Maximum 4000 characters allowed)*

**3 Calendar Days Bid**

Please state the consecutive calendar days bid from notice to proceed through completion of project.

*(Required: Numbers only)*

**4 Exceptions**

Do you take exception to the specifications? If so, by separate attachment, please state your exceptions.

Yes  No

*(Required: Check only one)*

**5 Bonding Requirement Acknowledgement**

I understand that the bonding requirements of this solicitation are required and are included in the submitted pricing. A bond certificate (payment, performance, and/or maintenance) as stated in the specification document shall be submitted to the Purchasing department if I am awarded all or a portion of the resulting contract. Please initial.

---

---

---

*(Required: Maximum 1000 characters allowed)*

**6 Insurance Acknowledgement – Construction/Public Works**

I understand that the insurance requirements of this solicitation are required and are included in the submitted pricing. The Contractor shall furnish certificates of insurance for both the Contractor and any subcontractor to the Purchasing department if awarded all or a portion of the resulting contract. Please initial.

---

---

---

*(Required: Maximum 1000 characters allowed)*

**7 Subcontractors**

State the business name of all subcontractors and the type of work they will be performing under this contract. If you are fully qualified to self-perform the entire contract, please respond with "Not Applicable-Self Perform".

---

---

---

---

---

---

*(Required: Maximum 4000 characters allowed)*

**8 Reference No. 1**

List a company or governmental agency, other than Collin County, where these same/like products/services, as stated herein, have been provided. Texas references preferred. Include the following: Company/Entity, Contact, Address, City/State/Zip, Phone, and E-Mail.

---

---

---

---

---

---

---

---

*(Required: Maximum 4000 characters allowed)*

**9 Reference No. 2**

List a company or governmental agency, other than Collin County, where these same/like products/services, as stated herein, have been provided. Texas references preferred. Include the following: Company/Entity, Contact, Address, City/State/Zip, Phone, and E-Mail.

---

---

---

---

---

---

---

---

*(Required: Maximum 4000 characters allowed)*

**10 Reference No. 3**

List a company or governmental agency, other than Collin County, where these same/like products/services, as stated herein, have been provided. Texas references preferred. Include the following: Company/Entity, Contact, Address, City/State/Zip, Phone, and E-Mail.

---

---

---

---

---

---

---

---

*(Required: Maximum 4000 characters allowed)*

**1**  
**1** **Preferential Treatment**

The County of Collin, as a governmental agency of the State of Texas, may not award a contract to a nonresident bidder unless the nonresident's bid is lower than the lowest bid submitted by a responsible Texas resident bidder by the same amount that a Texas resident bidder would be required to underbid a nonresident bidder to obtain a comparable contract in the state in which the nonresident's principal place of business is located (Government Code, Title 10, V.T.C.A., Chapter 2252, Subchapter A).

1. Is your principal place of business in the State of Texas?
2. If your principal place of business is not in Texas, in which State is your principal place of business?
3. If your principal place of business is not in Texas, does your state favor resident bidders (bidders in your state) by some dollar increment or percentage?
4. If your state favors resident bidders, state by what dollar amount or percentage.

---

---

---

---

---

---

*(Required: Maximum 4000 characters allowed)*

**1**  
**2** **Debarment Certification**

I certify that neither my company nor an owner or principal of my company has been debarred, suspended or otherwise made ineligible for participation in Federal Assistance programs under Executive Order 12549, "Debarment and Suspension," as described in the Federal Register and Rules and Regulations. Please initial.

---

---

---

*(Required: Maximum 1000 characters allowed)*

**1**  
**3** **Immigration and Reform Act**

I declare and affirm that my company is in compliance with the Immigration and Reform Act of 1986 and all employees are legally eligible to work in the United States of America. I further understand and acknowledge that any non-compliance with the Immigration and Reform Act of 1986 at any time during the term of this contract will render the contract voidable by Collin County. Please initial.

---

---

---

*(Required: Maximum 1000 characters allowed)*

**1**  
**4** **Disclosure of Certain Relationships**

Chapter 176 of the Texas Local Government Code requires that any vendor considering doing business with a local government entity disclose the vendor's affiliation or business relationship that might cause a conflict of interest with a local government entity. Subchapter 6 of the code requires a vendor to file a conflict of interest questionnaire (CIQ) if a conflict exists. By law this questionnaire must be filed with the records administrator of Collin County no later than the 7th business day after the date the vendor becomes aware of an event that requires the statement to be filed. A vendor commits an offense if the vendor knowingly violates the code. An offense under this section is a misdemeanor. By submitting a response to this request, the vendor represents that it is in compliance with the requirements of Chapter 176 of the Texas Local Government Code. Please send completed forms to the Collin County County Clerk's Office located at 2300 Bloomdale Rd., Suite 2104, McKinney, TX 75071. Please initial.

---

---

---

*(Required: Maximum 1000 characters allowed)*

**1**  
**5** **Anti-Collusion Statement**

Bidder certifies that its Bid/Proposal is made without prior understanding, agreement, or connection with any corporation, firm, or person submitting a Bid/Proposal for the same materials, services, supplies, or equipment and is in all respects fair and without collusion or fraud. No premiums, rebates or gratuities permitted; either with, prior to, or after any delivery of material or provision of services. Any such violation may result in Agreement cancellation, return of materials or discontinuation of services and the possible removal from bidders list. Please initial.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
*(Required: Maximum 1000 characters allowed)*

**1**  
**6** **Disclosure of Interested Parties**

Section 2252.908 of the Texas Government Code requires a business entity entering into certain contracts with a governmental entity to file with the governmental entity a disclosure of interested parties at the time the business entity submits the signed contract to the governmental entity. Section 2252.908 requires the disclosure form (Form 1295) to be signed by the authorized agent of the contracting business entity, acknowledging that the disclosure is made under oath and under penalty of perjury. Section 2252.908 applies only to a contract that requires an action or vote by the governing body of the governmental entity before the contract may be signed or has a value of at least \$1 million. Section 2252.908 provides definitions of certain terms occurring in the section. Section 2252.908 applies only to a contract entered into on or after January 1, 2016. Please initial.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
*(Required: Maximum 1000 characters allowed)*

**1**  
**7** **Notification Survey**

In order to better serve our offerors, the Collin County Purchasing Department is conducting the following survey. We appreciate your time and effort expended to submit your bid. Should you have any questions or require more information please call (972) 548-4165. How did you receive notice of this request?

- Plano Star Courier     Plan Room     Collin County eBid Notification     Collin County Website  
 Other

*(Required: Check only one)*

**1**  
**8** **Bid Bond Acknowledgement**

I understand that accompanying this bid, is a certified check, cashier's check or Bid Bond in the amount of five percent (5%) of the total amount bid. Bidders submitting a bid via Collin County eBid shall upload a Bid Bond at <https://collincountytx.ionwave.net>. Regardless of delivery method, all Bid Bonds shall be received prior to the bid opening time to be considered.

I understand that the original Bid Bond shall be received in the Collin County Purchasing Department no later than close of business on the third working day after the bid opening. **Late receipt of original Bid Bond shall be cause for rejection of bid.** Please initial.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
*(Required: Maximum 4000 characters allowed)*

**1  
9** **Construction Acknowledgement**

Bidder, declares that the only person or parties interested in this bid are those principals named herein, that his/her bid is made without collusion with any other person, firm or corporation, that he/she has carefully examined the Contract Documents including the Advertisement for Bids, Instruction to Bidders, Construction Agreement, Specifications and the Drawings, therein referred to and has carefully examined the locations, conditions and classes of materials for the proposed work, and agrees that he/she will provide all the necessary labor, machinery, tools, equipment, apparatus and other items incidental to construction and will do all the work and furnish all the materials called for in the Contract Documents in the manner prescribed therein. Bidder hereby declares that he/she has visited the site of the Work and has carefully examined the Contract Documents pertaining to the Work covered by the above Bid, and he/she further agrees to commence work within ten (10) consecutive calendar days after date of written Notice to Proceed and to substantially complete the work on which he/she has bid within the number of days specified subject to such extensions of time allowed by Specifications. Bidder certifies that the bid prices contained in this bid have been carefully checked and are submitted as correct and final. The prices have been shown in words and figures for each item listed in this bid and it is understood that in the event of a discrepancy, the words shall govern. Please initial.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
*(Required: Maximum 1000 characters allowed)*

**2  
0** **Addendum No. 1 Acknowledgement**

Please initial to verify your receipt of the addendum.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
*(Required: Maximum 1000 characters allowed)*

**2  
1** **Addendum No. 2 Acknowledgement**

Please initial to verify your receipt of the addendum.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
*(Required: Maximum 1000 characters allowed)*

**Bid Lines**

**1** **Package Header**

Base Bid Grand Total

Quantity:   1   UOM:   lump sum   Total: \$

Item Notes: Total Material Cost (Line 1.1) and Total Labor Cost (Line 1.2) must add up to the Base Bid Grand Total

Supplier Notes: \_\_\_\_\_  
\_\_\_\_\_

- No bid
- Alternate specification  
*(Attach separate sheet)*
- Additional notes  
*(Attach separate sheet)*

## Package Items

### 1.1 Total Materials Cost Incorporated in Project

(Response required)

Quantity:   1   UOM:   lump sum   Price: \$  Total: \$

Supplier Notes: \_\_\_\_\_  
\_\_\_\_\_

- No bid
- Additional notes  
(Attach separate sheet)

### 1.2 Total Labor Cost Incorporated in Project

(Response required)

Quantity:   1   UOM:   lump sum   Price: \$  Total: \$

Supplier Notes: \_\_\_\_\_  
\_\_\_\_\_

- No bid
- Additional notes  
(Attach separate sheet)

### 2 Alternate # 1 – Female Housing Shell-out Space: State the cost to construct in its entirety and as shown on the construction documents, the shell-out space for future female housing area on the main level, southwest corner of the Phase 1 Addition.

(Response required)

Quantity:   1   UOM:   lump sum   Price: \$  Total: \$

Item Notes: Refer to Section 01 03 00-Alternates.  
Alternate bid amount shall not include the base bid amount.

Supplier Notes: \_\_\_\_\_  
\_\_\_\_\_

- No bid
- Alternate specification  
(Attach separate sheet)
- Additional notes  
(Attach separate sheet)

### 3 Alternate # 2 – Fence and Gate at the East Side: State the cost to construct in its entirety an extended security fence enclosure along the south side of the property connecting to the existing Sheriff's Office, access gates, camera/ intercom pedestals and all associated conduit and wiring. Proposed alternate includes 11 spaces of parking on the south of the building. Refer to the architectural, civil, electrical and security electronics site plans and details.

(Response required)

Quantity:   1   UOM:   lump sum   Price: \$  Total: \$

Item Notes: Refer to Section 01 03 00-Alternates.  
Alternate bid amount shall not include the base bid amount.

Supplier Notes: \_\_\_\_\_  
\_\_\_\_\_

- No bid
- Alternate specification  
(Attach separate sheet)
- Additional notes  
(Attach separate sheet)

**4** Alternate # 3 – Generator: State the cost, in its entirety to modify the size of the generator from 900KW to 1250 KW; including related modifications to panelboards, wire size, and transfer switch.

*(Response required)*

Quantity:   1   UOM:   lump sum   Price: \$  Total: \$

Item Notes: Refer to Section 01 03 00-Alternates.  
Alternate bid amount shall not include the base bid amount.

Supplier Notes: \_\_\_\_\_  
\_\_\_\_\_

- No bid
- Alternate specification  
*(Attach separate sheet)*
- Additional notes  
*(Attach separate sheet)*

**5** Alternate # 4 – Showers: State the cost, in its entirety to modify the epoxy floor showers and epoxy drying areas to field applied epoxy terrazzo shower base in shower and drying area.

*(Response required)*

Quantity:   1   UOM:   lump sum   Price: \$  Total: \$

Item Notes: Refer to Section 01 03 00-Alternates.  
Alternate bid amount shall not include the base bid amount.

Supplier Notes: \_\_\_\_\_  
\_\_\_\_\_

- No bid
- Alternate specification  
*(Attach separate sheet)*
- Additional notes  
*(Attach separate sheet)*

**6** Alternate # 5 – Violent Cells: State the cost in its entirety to modify cell 1119 in Booking and cell 1327 in Transfer from holding cells to padded (violent) cells as detailed. Refer to Section 11 79 05, Cell Padding.

*(Response required)*

Quantity:   1   UOM:   lump sum   Price: \$  Total: \$

Item Notes: Refer to Section 01 03 00-Alternates.  
Alternate bid amount shall not include the base bid amount.

Supplier Notes: \_\_\_\_\_  
\_\_\_\_\_

- No bid
- Alternate specification  
*(Attach separate sheet)*
- Additional notes  
*(Attach separate sheet)*

**7** Unit Prices

*(Line excluded from response total)*

Item Notes: Refer to Section 01 22 00 Addendum 1 - Unit Prices

Supplier Notes: \_\_\_\_\_  
\_\_\_\_\_

- Additional notes  
*(Attach separate sheet)*

**Item Attributes**

**1. State Unit Price for Type P1 Piers (Add-Each Foot)**

\$

*(Required: Numbers only)*

**2. State Unit Price for Type P1 Piers (Reduced-Each Foot)**

\$

*(Required: Numbers only)*

**3. State Unit Price for Type P2 Piers (Add-Each Foot)**

\$

*(Required: Numbers only)*

**4. State Unit Price for Type P2 Piers (Reduced-Each Foot)**

\$

*(Required: Numbers only)*

**5. State Unit Price for Type P4 Piers (Add-Each Foot)**

\$

*(Required: Numbers only)*

**6. State Unit Price for Type P4 Piers (Reduced-Each Foot)**

\$

*(Required: Numbers only)*

**7. State Unit Price for Casing, for Each Foot Not Utilized (Reduced-Each Foot)**

\$

*(Required: Numbers only)*



**Supplier Information**

Company Name: \_\_\_\_\_

Contact Name: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Phone: \_\_\_\_\_

Fax: \_\_\_\_\_

Email: \_\_\_\_\_

**Supplier Notes**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

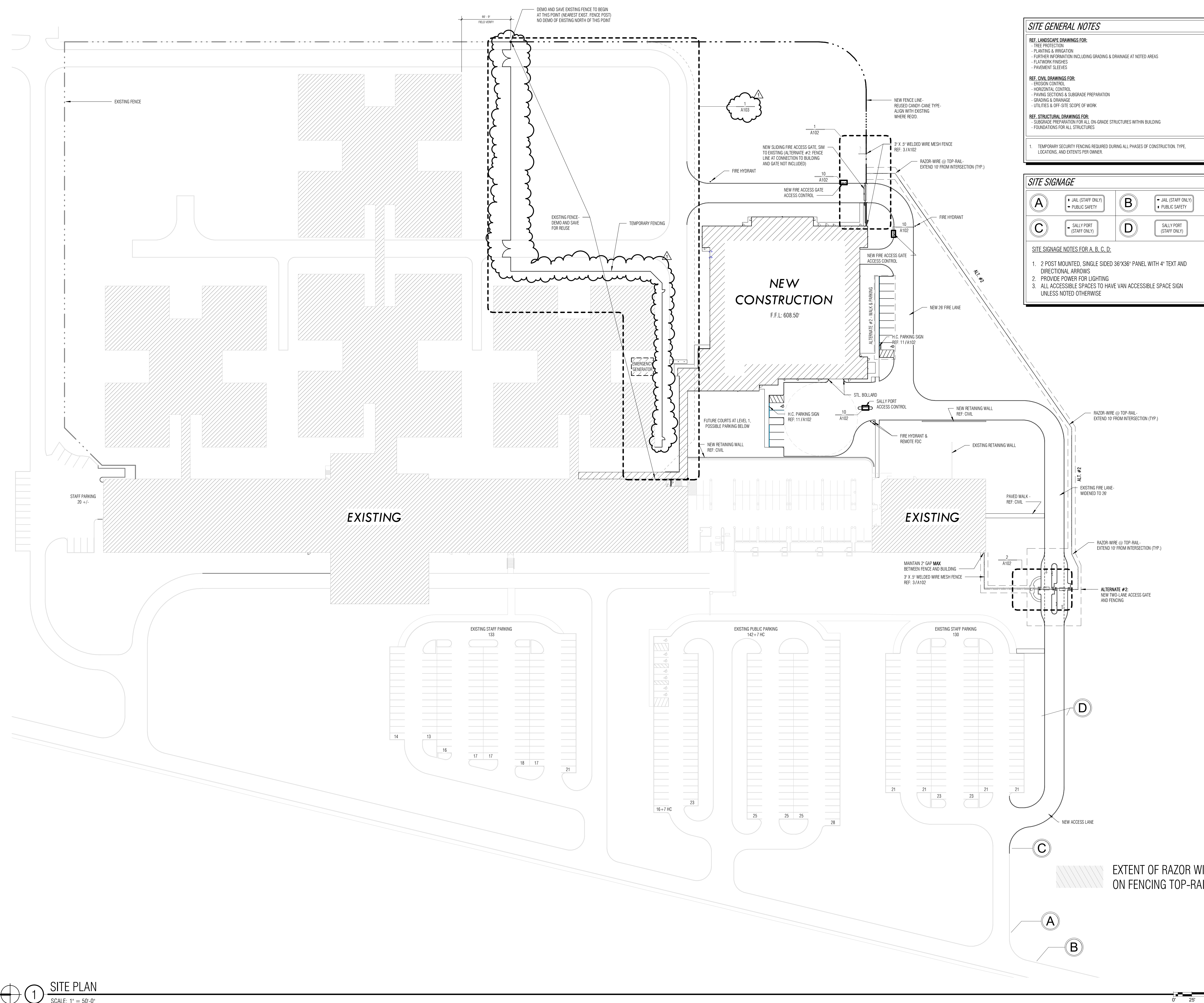
\_\_\_\_\_

\_\_\_\_\_

The undersigned hereby certifies the foregoing bid submitted by the company listed below hereinafter called "bidder" is the duly authorized agent of said company and the person signing said bid has been duly authorized to execute same. Bidder affirms that they are duly authorized to execute this contract; this company; corporation, firm, partnership or individual has not prepared this bid in collusion with any other bidder or other person or persons engaged in the same line of business; and that the contents of this bid as to prices, terms and conditions of said bid have not been communicated by the undersigned nor by any employee or agent to any other person engaged in this type of business prior to the official opening of this bid.

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

\_\_\_\_\_  
*Signature*



**SITE GENERAL NOTES**

REF. LANDSCAPE DRAWINGS FOR:  
 - PLANTING & IRRIGATION  
 - FURTHER INFORMATION INCLUDING GRADING & DRAINAGE AT NOTED AREAS  
 - FLATWORK FINISHES  
 - PAVEMENT SLEEVES

REF. CIVIL DRAWINGS FOR:  
 - EROSION CONTROL  
 - HORIZONTAL CONTROL  
 - PAVING SECTIONS & SUBGRADE PREPARATION  
 - GRADING & DRAINAGE  
 - UTILITIES & OFF-SITE SCOPE OF WORK

REF. STRUCTURAL DRAWINGS FOR:  
 - SUBGRADE PREPARATION FOR ALL ON-GRADE STRUCTURES WITHIN BUILDING  
 - FOUNDATIONS FOR ALL STRUCTURES

1. TEMPORARY SECURITY FENCING REQUIRED DURING ALL PHASES OF CONSTRUCTION. TYPE, LOCATIONS, AND EXTENTS PER OWNER.

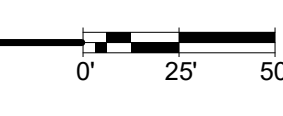
**SITE SIGNAGE**

<b>A</b>	JAIL (STAFF ONLY) PUBLIC SAFETY	<b>B</b>	JAIL (STAFF ONLY) PUBLIC SAFETY
<b>C</b>	SALLY PORT (STAFF ONLY)	<b>D</b>	SALLY PORT (STAFF ONLY)

**SITE SIGNAGE NOTES FOR A, B, C, D:**

- 2 POST MOUNTED, SINGLE SIDED 36"x36" PANEL WITH 4" TEXT AND DIRECTIONAL ARROWS
- PROVIDE POWER FOR LIGHTING
- ALL ACCESSIBLE SPACES TO HAVE VAN ACCESSIBLE SPACE SIGN UNLESS NOTED OTHERWISE

**1** SITE PLAN  
 SCALE: 1" = 50'-0"  
 NORTH

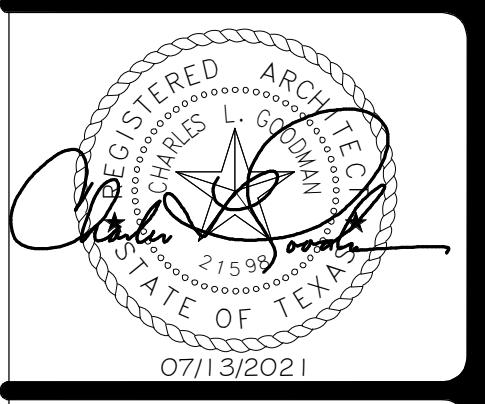


# COLLIN COUNTY ADF - PHASE 1 ADDITION

4300 COMMUNITY AVE, MCKINNEY, TX 75071

**HISTORY**

#	DATE	DESCRIPTION
1	08/06/2021	ADDENDUM #1



SITE PLAN

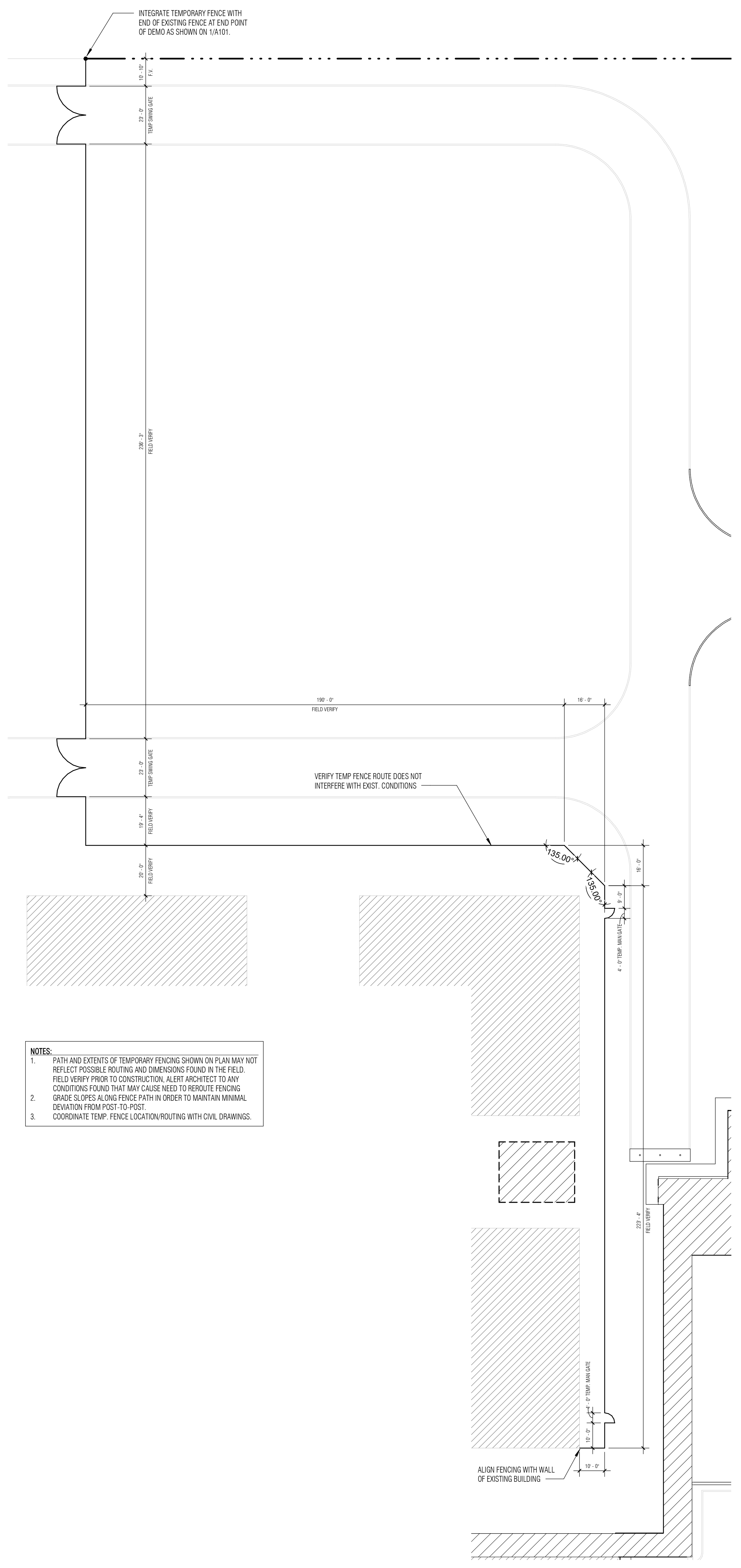
21913  
 07/13/2021

A101

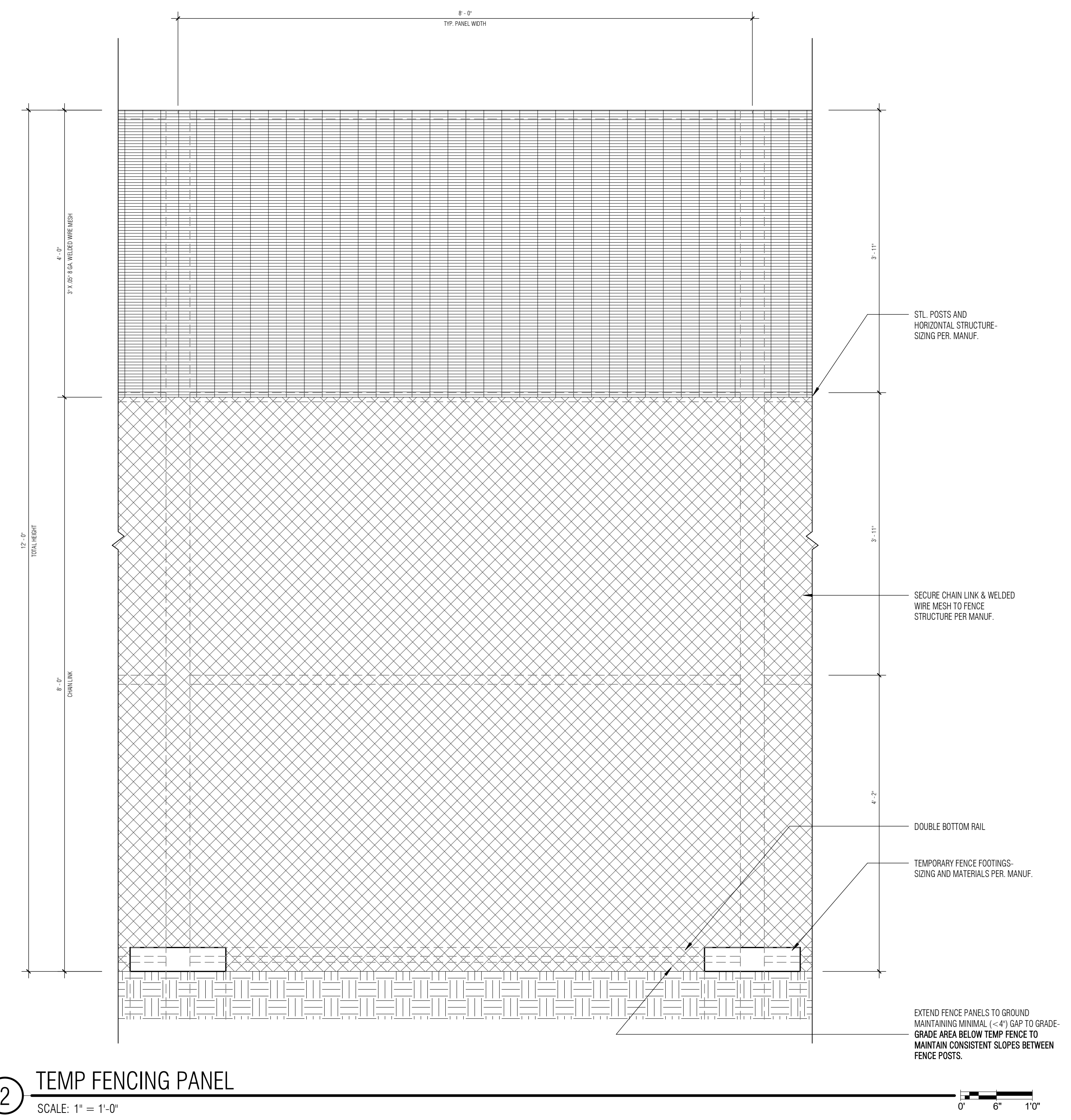
BRINKLEY SARGENT WIGINTON ARCHITECTS

FOR BID

D:\Work\Loop\CCCA\_ARCH\_CENTRAL\_V02\_CD\_BD\_07132021.dwg 8/17/2021 3:19:40 PM



1 SITE PLAN - TEMPORARY FENCING  
SCALE: 1 : 300



# COLLIN COUNTY ADF - PHASE 1 ADDITION

4300 COMMUNITY AVE, MCKINNEY, TX 75071

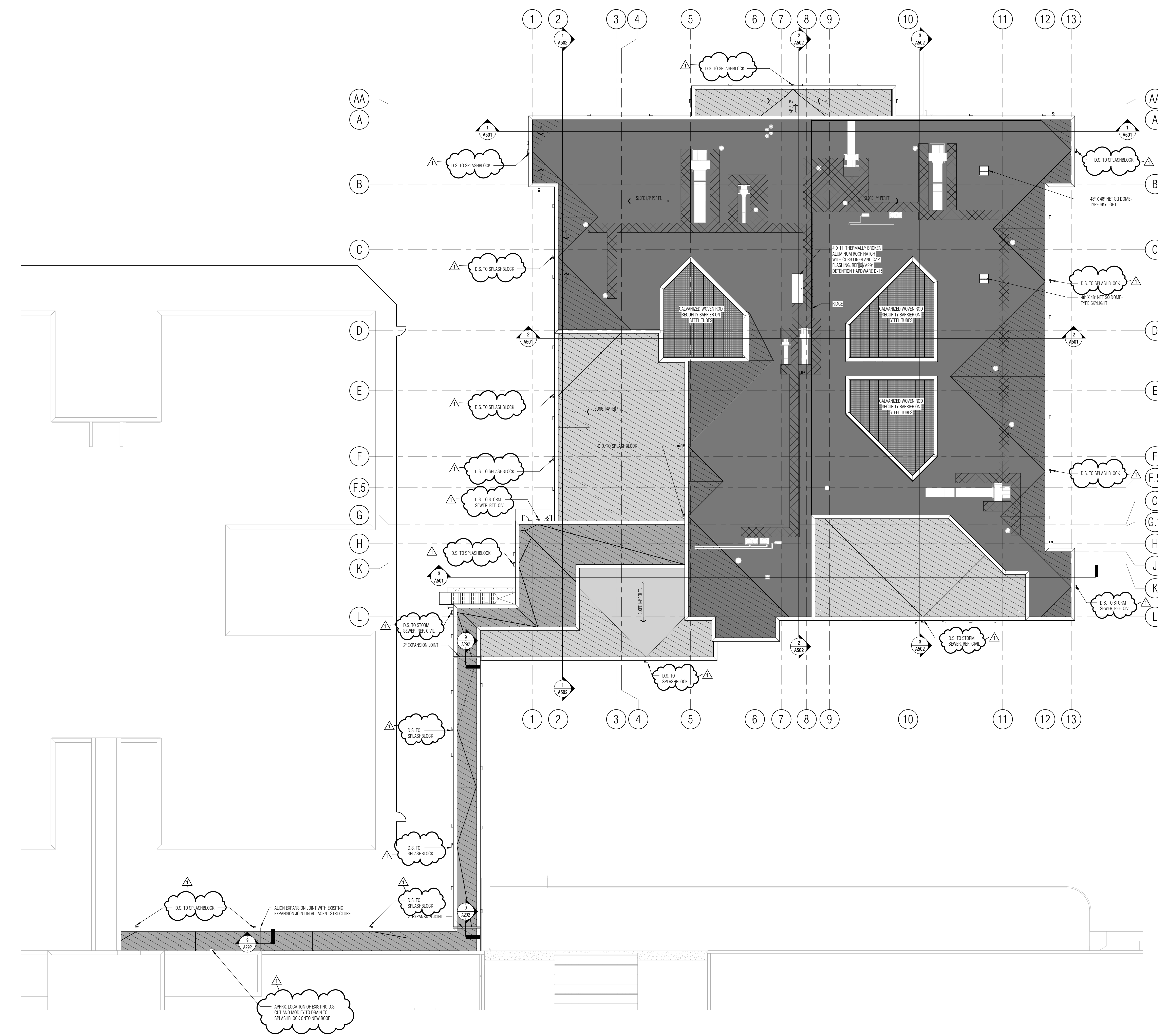
Architect: Brinkley Sargent Wiginton Architects (972) 960-9970  
 Civil: Pacheco Koch (214) 451-2765  
 Structural: JQ Engineering (214) 752-9098  
 MEP / IT: MD Engineering (469) 467-0200  
 Security: Latatech (972) 633-8650

HISTORY		
#	DATE	DESCRIPTION
1	08/06/2021	ADDENDUM #1



TEMPORARY SITE FENCING

21913 08/02/21 A103



**ROOF LEGEND**

- ROOF SLOPE
- CRICKET
- TPD ROOF WALK PATHWAY
- MECHANICAL EXHAUST, REF. MECH
- MECHANICAL EXHAUST, REF. MECH
- MECHANICAL CONDENSING UNIT, REF. MECH
- MECHANICAL CONDENSING UNIT, REF. MECH

**LEGEND**

- HIGH ROOF
- MIDDLE ROOF
- LOWER ROOF
- ROOFING MATERIAL: TPO

**SHEET NOTES**

- CRICKETS TO SLOPE TWO TIMES OR GREATER THAN ROOF, U.N.O.
- PROVIDE CRICKETS FOR ALL ROOF TOP EQUIPMENT AND OTHER ITEMS REQUIRING CRICKETS.
- REF. A201 / A202 FOR TYPICAL ROOF DETAILS.
- PROVIDE FALL ARREST SYSTEM CONNECTOR DEVICES FOR ROOF SERVICE AREAS WITHIN 10'-0" OF ROOF EDGE. COMPLY WITH 2018 IRC 1015.6 AND 1015.7, AND ANS/ASSE 2 359.1. REFER TO DETAIL 11/A202

# COLLIN COUNTY ADF - PHASE 1 ADDITION

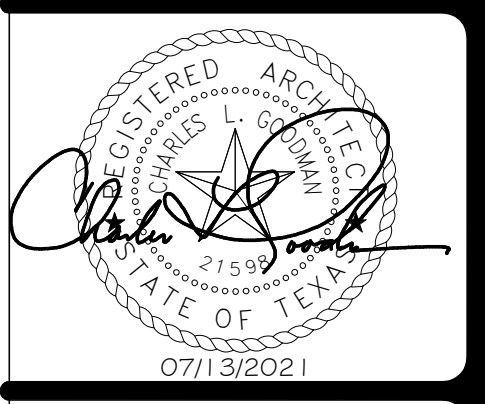
4300 COMMUNITY AVE, MCKINNEY, TX 75071

Architect: Brinkley Sargent Wiginton Architects (972) 960-9970  
 Civil: Pacheco Koch (214) 451-2765  
 Structural: JQ Engineering (214) 752-9098  
 MEP / IT: MD Engineering (469) 467-0200  
 Security: Latitech (972) 633-8650

**BRINKLEY SARGENT WIGINTON ARCHITECTS**

**HISTORY**

#	DATE	DESCRIPTION
1	08/06/2021	ADDENDUM #1

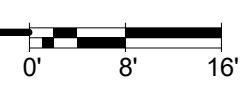


ROOF PLAN

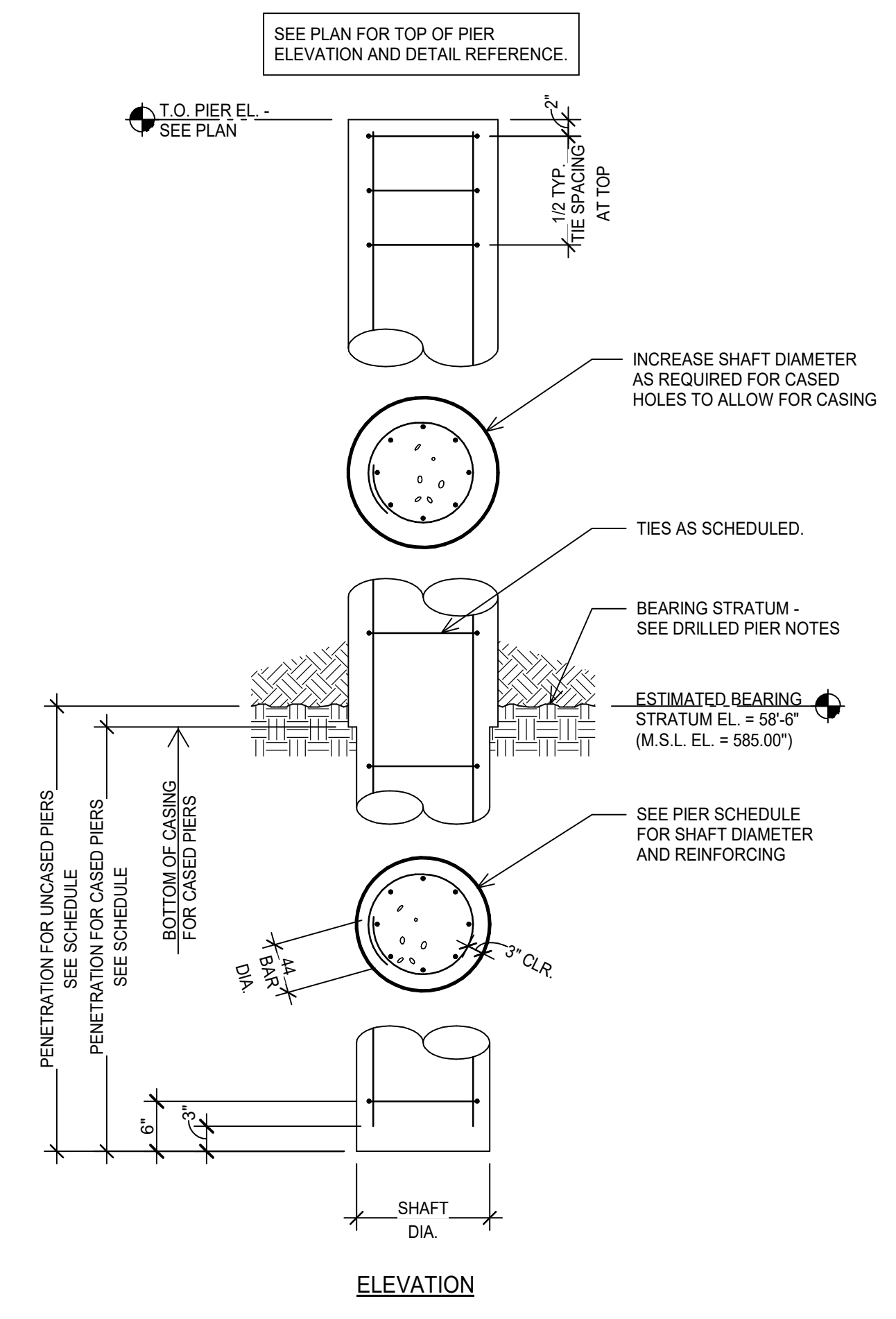
21913  
07/13/2021 A290

**FOR BID**

**1 ROOF PLAN**  
SCALE: 1/16" = 1'-0"

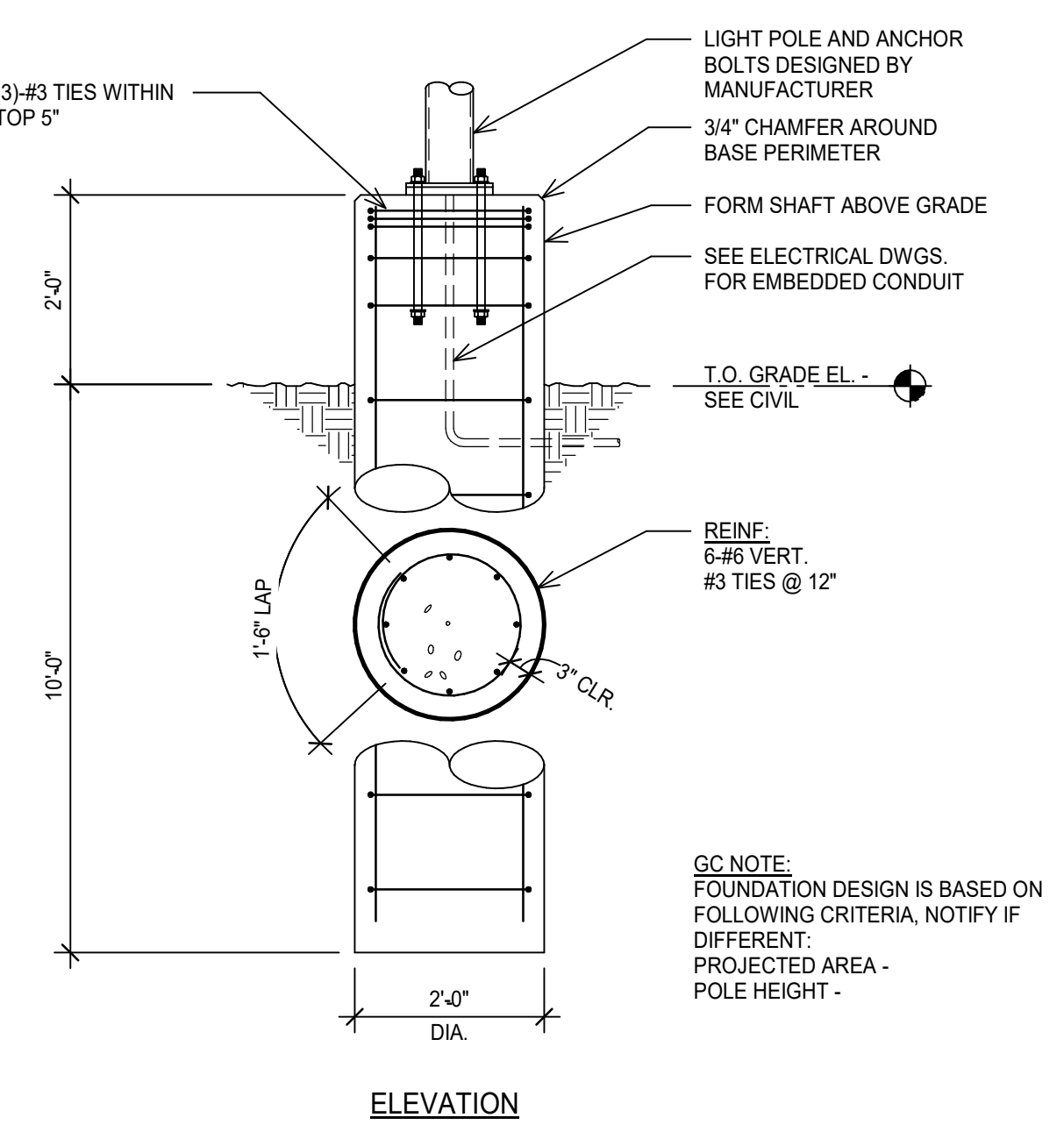


D:\Work\Collin\Collin\_ADF\_Phase1\_CENTRAL\_V02\_CD\_BD\_100118\FR-1.rvt 8/12/2021 10:20:44 AM



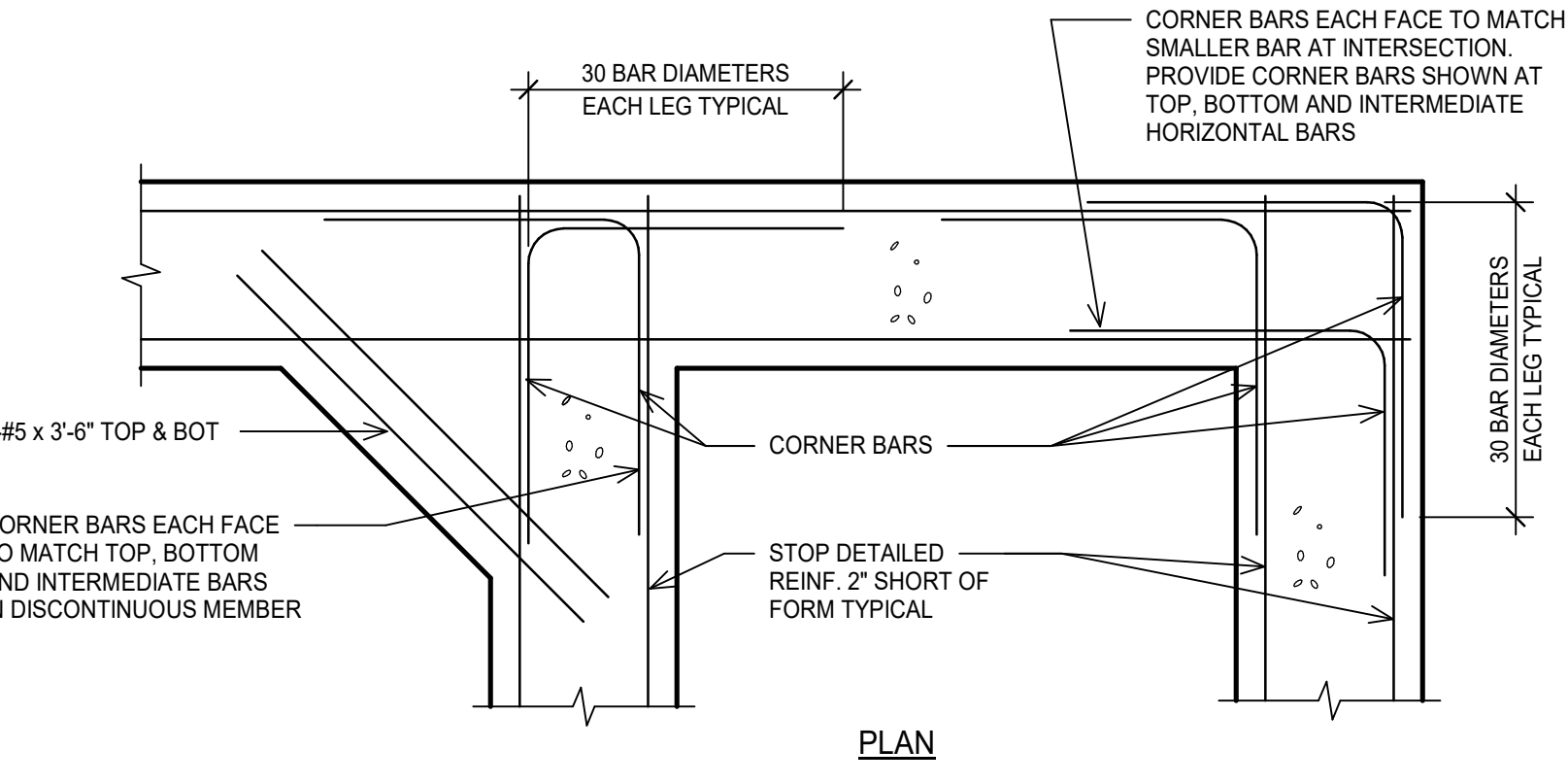
MARK	SHAFT DIAMETER	VERTICAL BARS	TIES	PENET.	CAPACITY
P1	1'-6"	8-#6	#3 @ 12" O.C.	6'-0"	255 KIPS
P2	2'-0"	8-#7	#3 @ 12" O.C.	8'-0"	450 KIPS
P3	2'-0"	8-#7	#3 @ 12" O.C.	10'-0"	550 KIPS
P4	2'-6"	8-#8	#3 @ 12" O.C.	10'-0"	705 KIPS
P5	2'-6"	8-#8	#3 @ 12" O.C.	14'-0"	955 KIPS
P6	3'-0"	8-#9	#3 @ 12" O.C.	14'-0"	1165 KIPS

1 TYPICAL CASED DRILLED PIER DETAIL  
NO SCALE



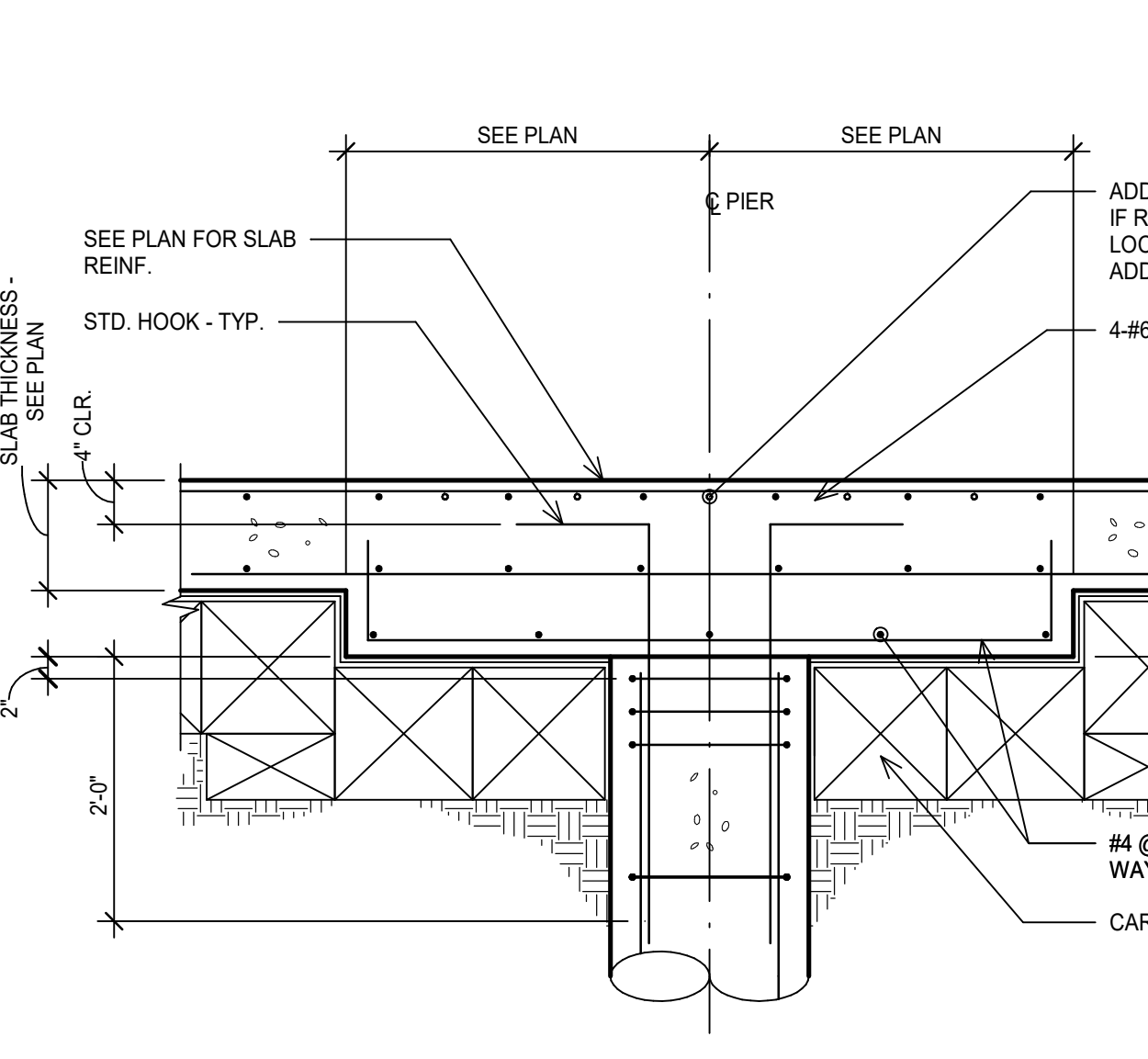
8 TYPICAL LIGHTPOLE FOUNDATION DETAIL  
NO SCALE

- NOTES:
- MATCH SIZE, LOCATION AND NUMBER OF HORIZONTAL BEAM AND WALL BARS, EXCEPT THAT WHERE THERE ARE MORE THAN 2 TOP OR BOTTOM BARS, ONLY THE INSIDE AND OUTSIDE BARS MUST BE MATCHED.
  - WHERE 90 DEGREE HOOKS ARE PROVIDED FOR TOP BARS CORNER BARS MAY BE OMITTED AT TOP. WHERE 90 DEGREE HOOKS ARE PROVIDED FOR BOTTOM BARS, CORNER BARS MAY BE OMITTED AT BOTTOM.

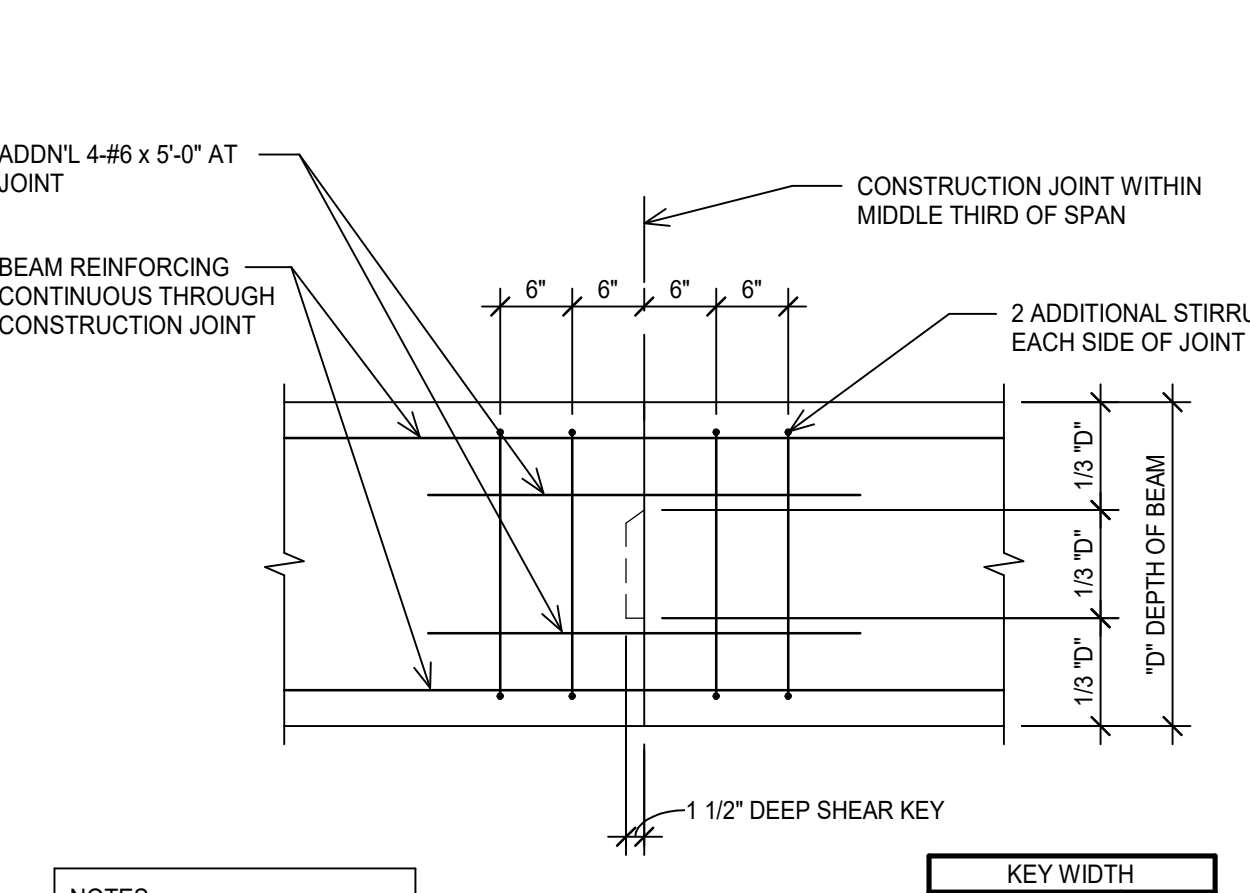


12 TYPICAL CORNER BARS AT WALL OR GRADE BEAM INTERSECTION DETAIL  
NO SCALE

2 TYPICAL GRADE BEAM OR WALL TOP OF PIER DETAIL  
NO SCALE

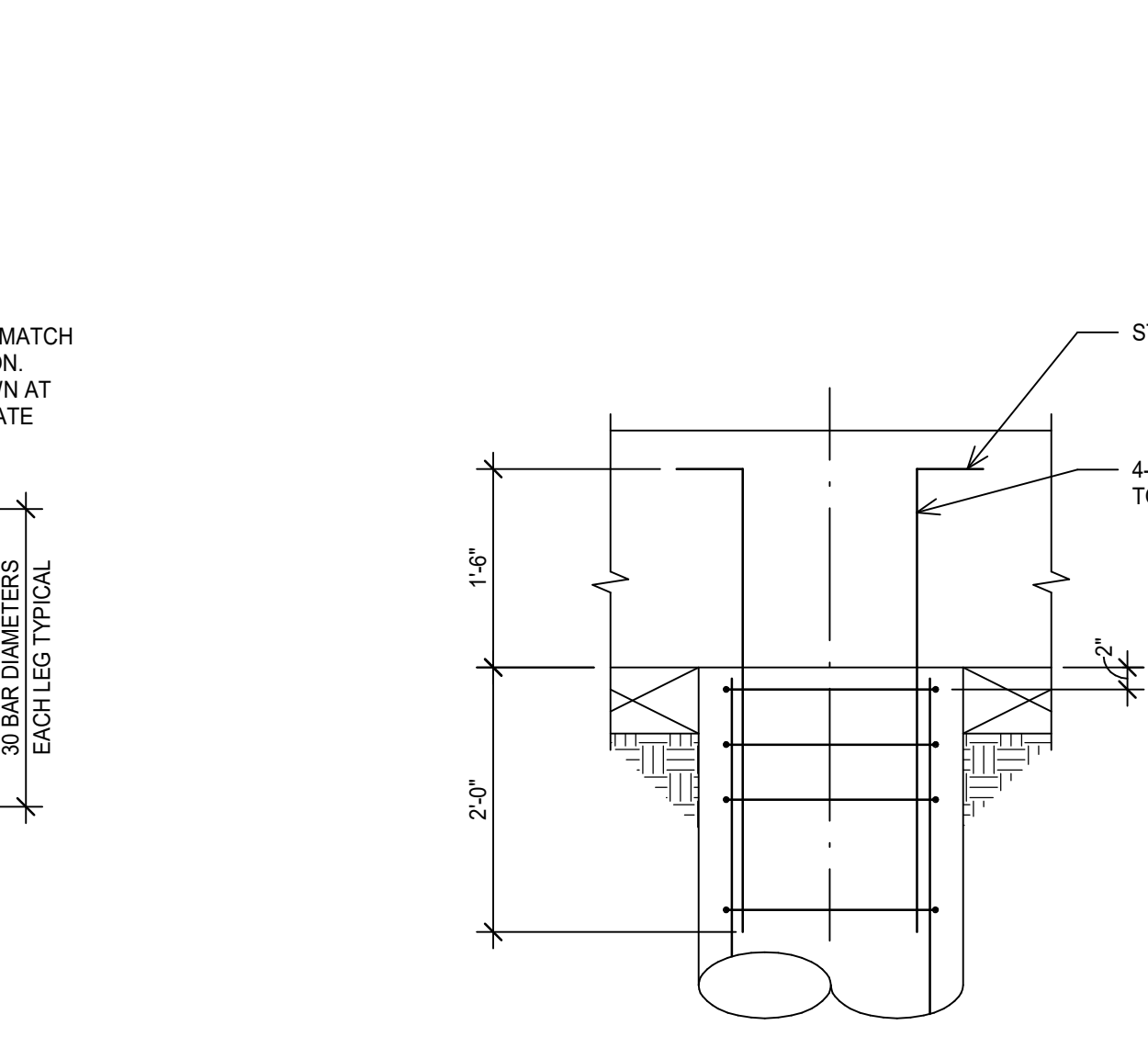


5 TYPICAL TOP OF PIER DETAIL  
NO SCALE

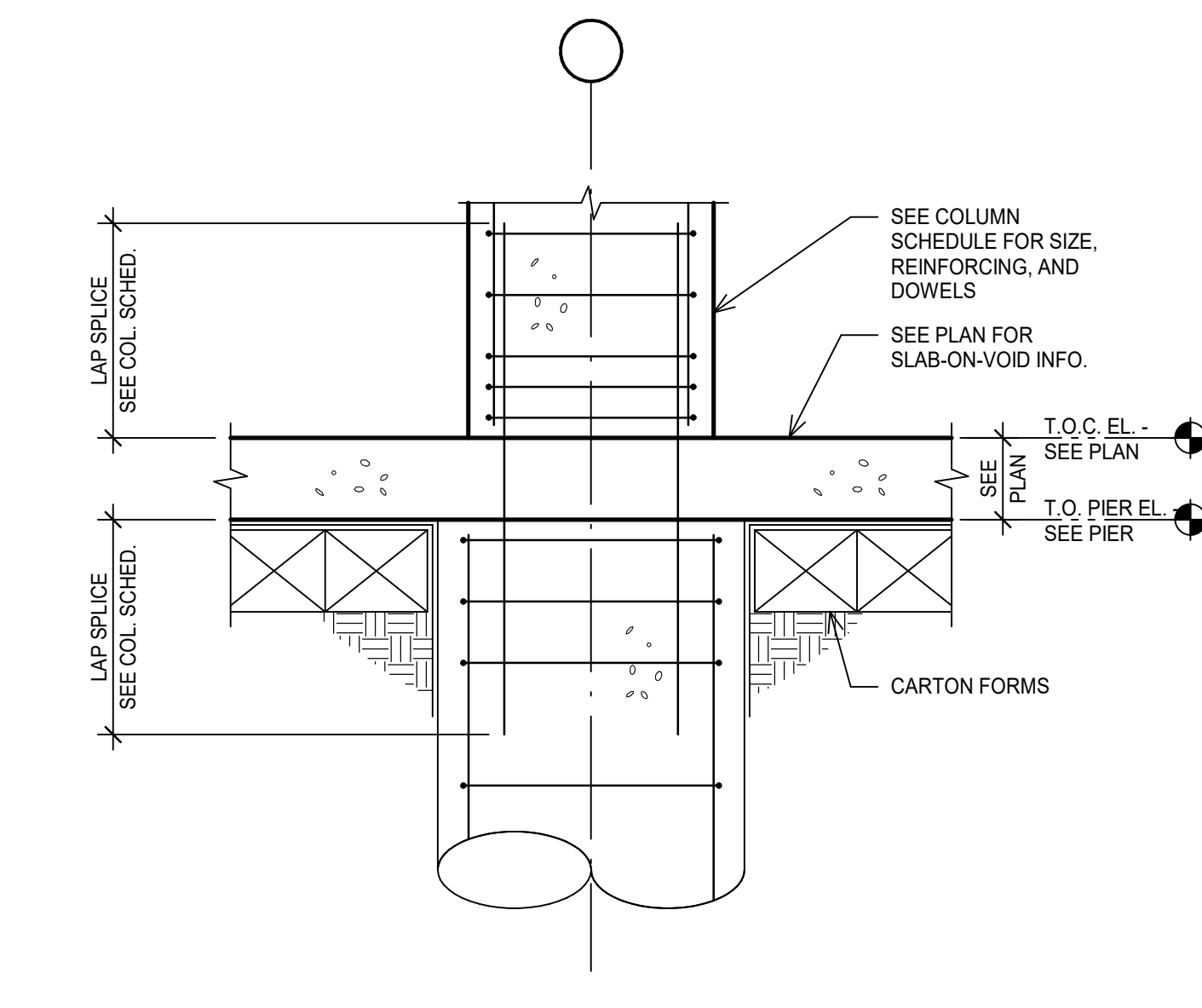


GRADEBEAM WIDTH "W"	W
< 12"	3 1/2"
12" TO 16"	5 1/2"
16" TO 20"	7 1/4"
20" TO 24"	9 1/4"
24" TO 30"	11 1/4"

9 TYPICAL CONCRETE BEAM CONSTRUCTION JOINT DETAIL  
NO SCALE

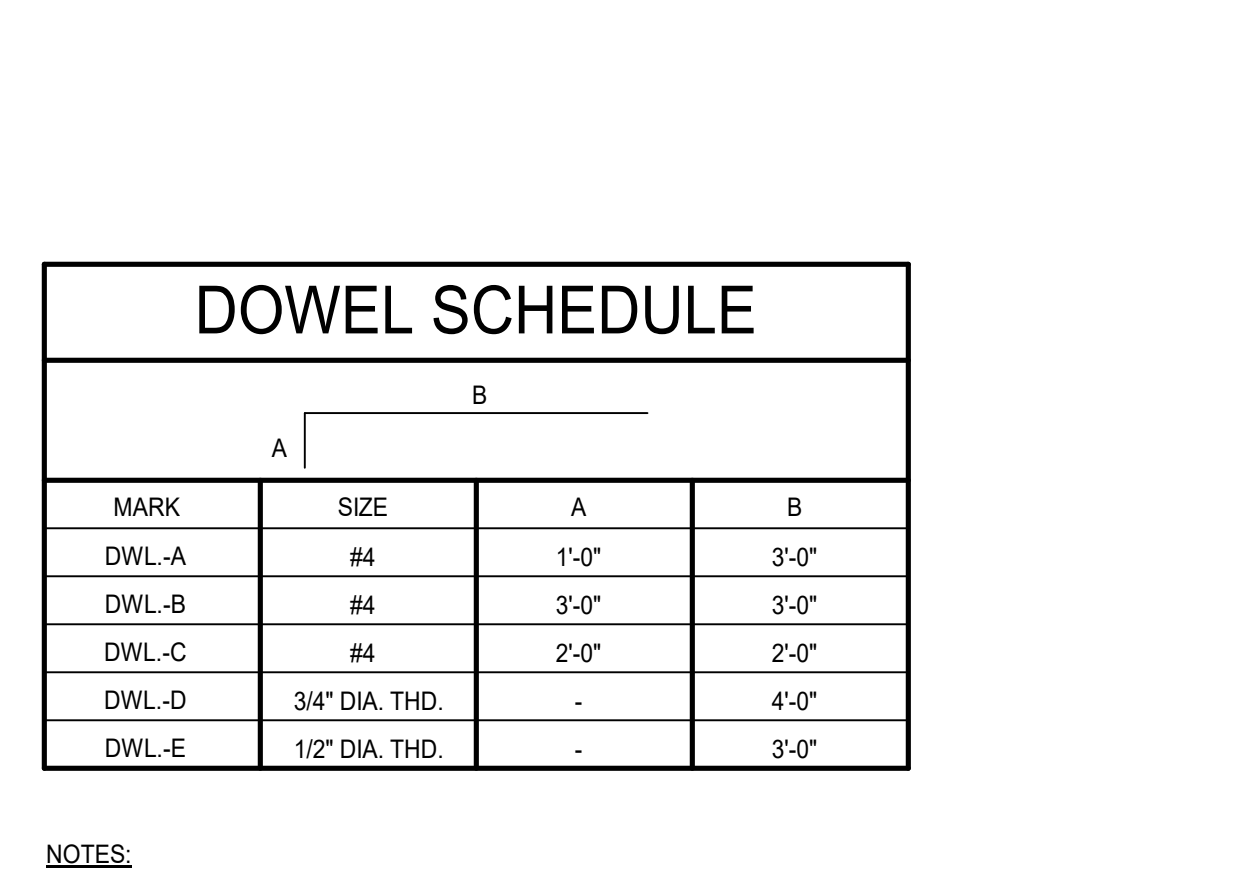


13 TYPICAL GRADE BEAM TOP OF PIER DETAIL  
SCALE: 3/4" = 1'-0"



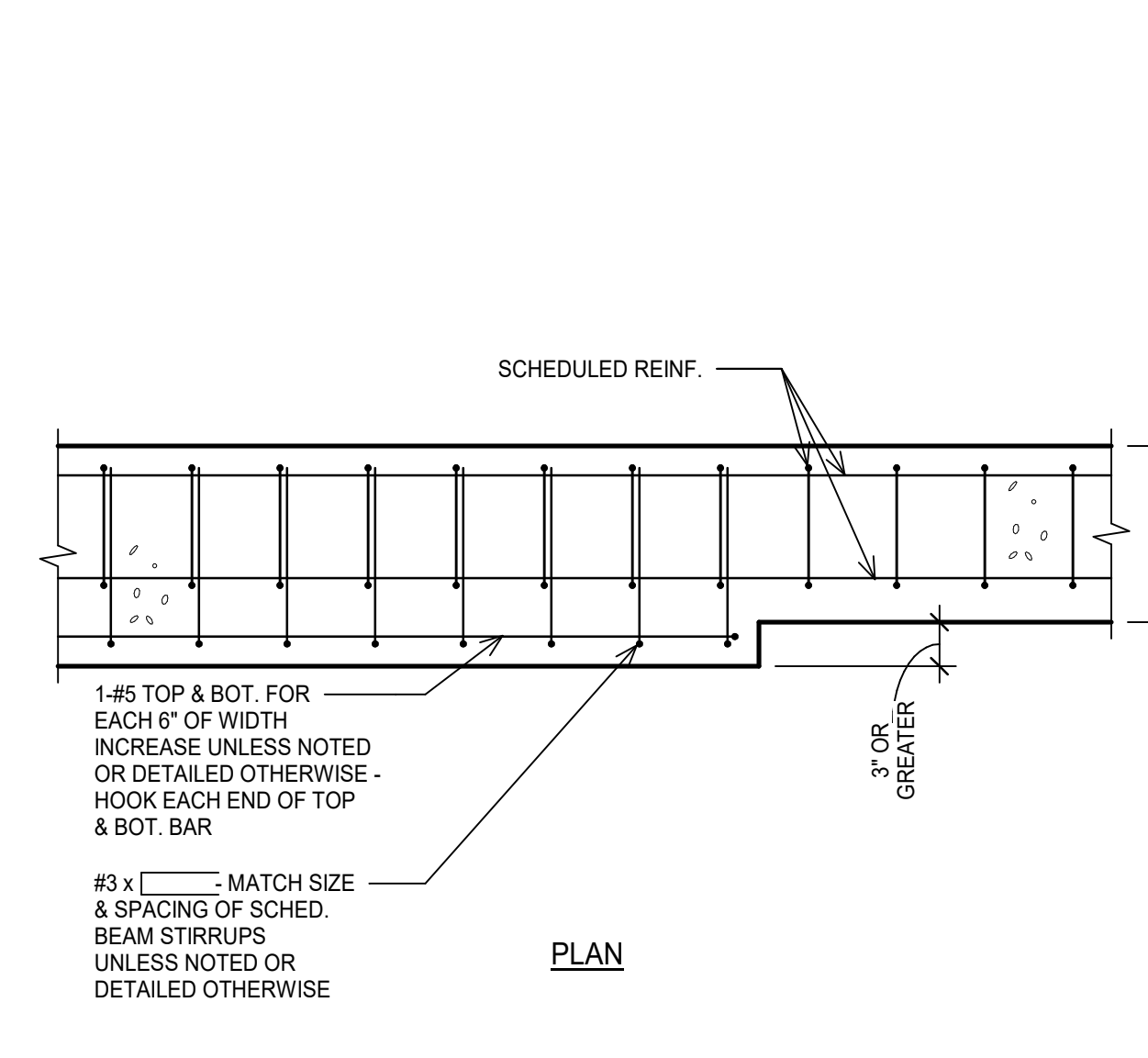
3 TYPICAL CONCRETE COLUMN ABOVE PIER DETAIL  
NO SCALE

6 TYPICAL TOP OF PIER DETAIL  
NO SCALE



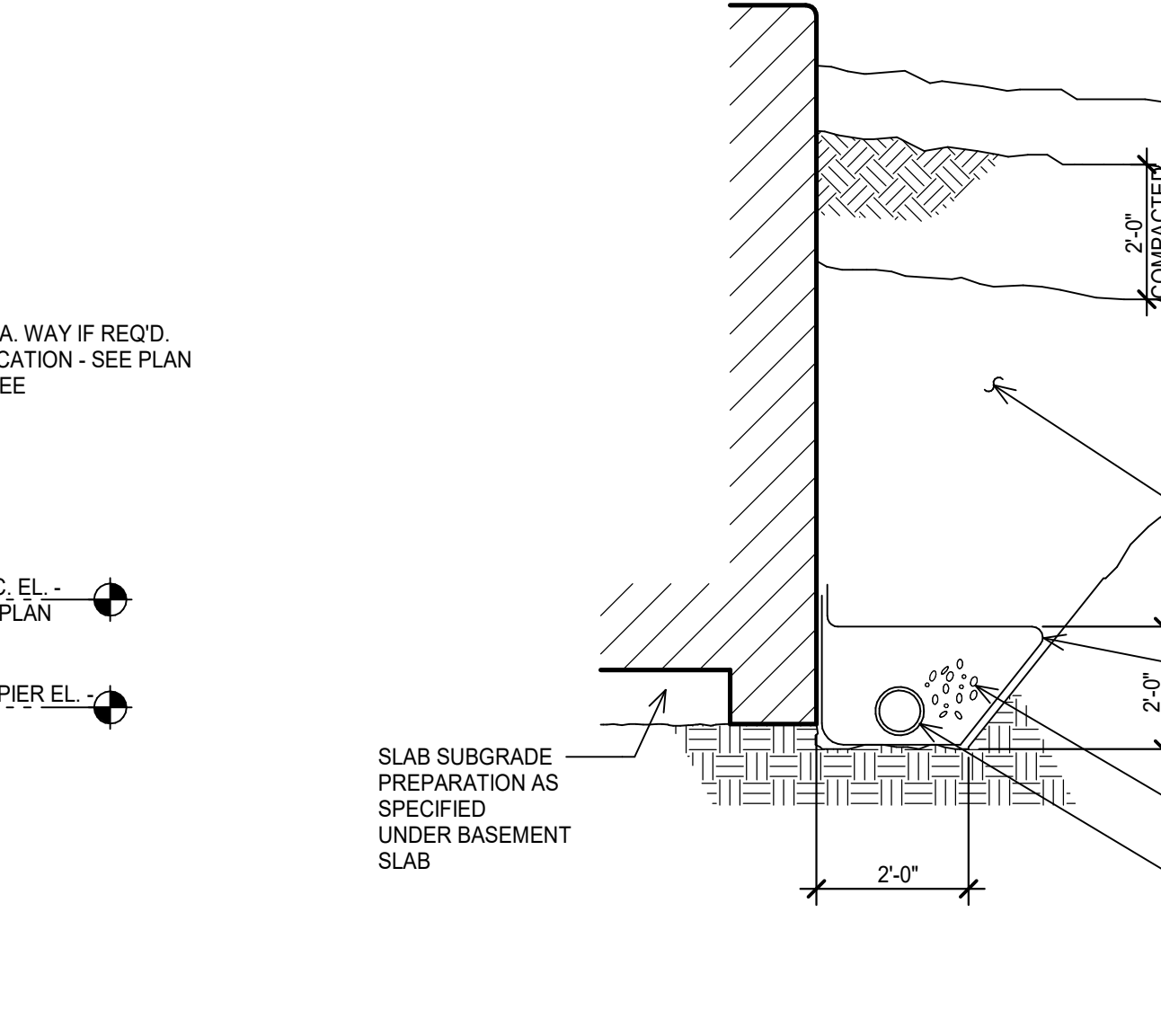
MARK	SIZE	A	B
DWL-A	#4	1'-0"	3'-0"
DWL-B	#4	3'-0"	3'-0"
DWL-C	#4	2'-0"	2'-0"
DWL-D	3/4" DIA. THD.	-	4'-0"
DWL-E	1/2" DIA. THD.	-	3'-0"

10 DOWL SCHEDULE  
NO SCALE

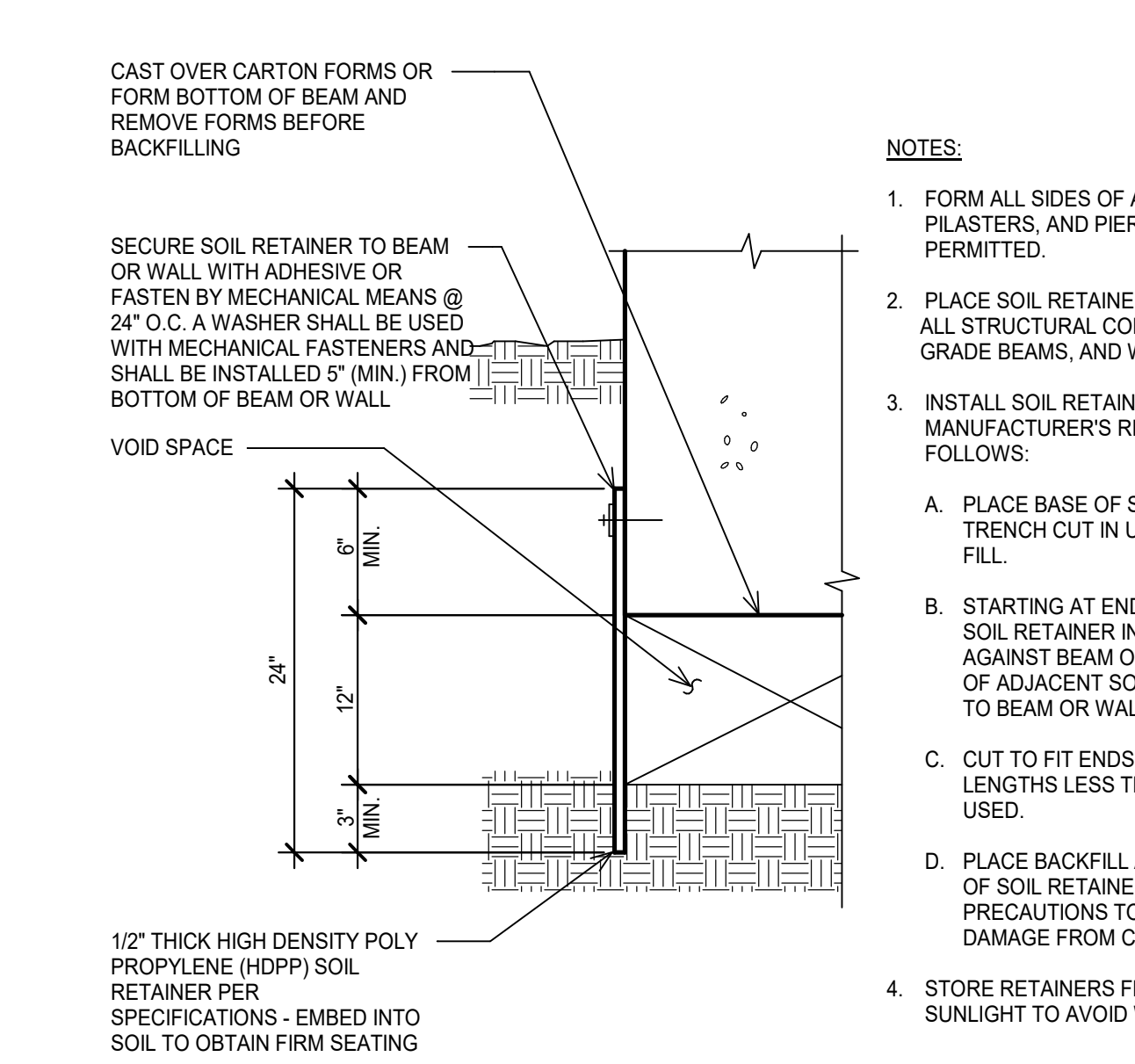


14 TYPICAL BEAM WITH VARYING WIDTH REINFORCING DETAIL  
NO SCALE

4 TYPICAL CONCRETE COLUMN ABOVE PIER DETAIL  
NO SCALE



7 TYPICAL BACKFILL DETAIL  
NO SCALE



11 TYPICAL HDPP SOIL RETAINER DETAIL  
NO SCALE



14 TYPICAL BEAM WITH VARYING WIDTH REINFORCING DETAIL  
NO SCALE

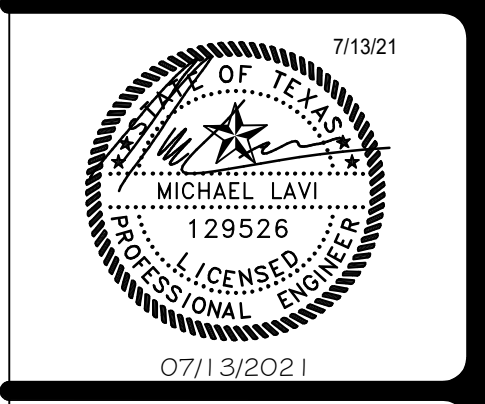
# COLLIN COUNTY ADF - PHASE 1 ADDITION

4300 COMMUNITY AVE, MCKINNEY, TX 75071

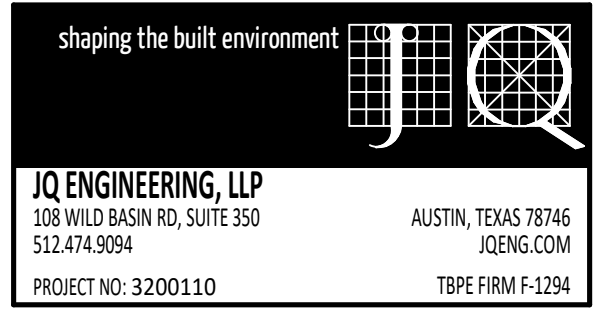
Architect: Brinkley Sargent Wiginton Architects (972) 960-9970  
 Civil: Pacheco Koch (214) 451-2765  
 Structural: JQ Engineering (214) 752-9098  
 MEP / IT: MD Engineering (469) 467-0200  
 Security: Latitech (972) 633-8650

BRINKLEY SARGENT WIGINTON ARCHITECTS

History	
#	Description

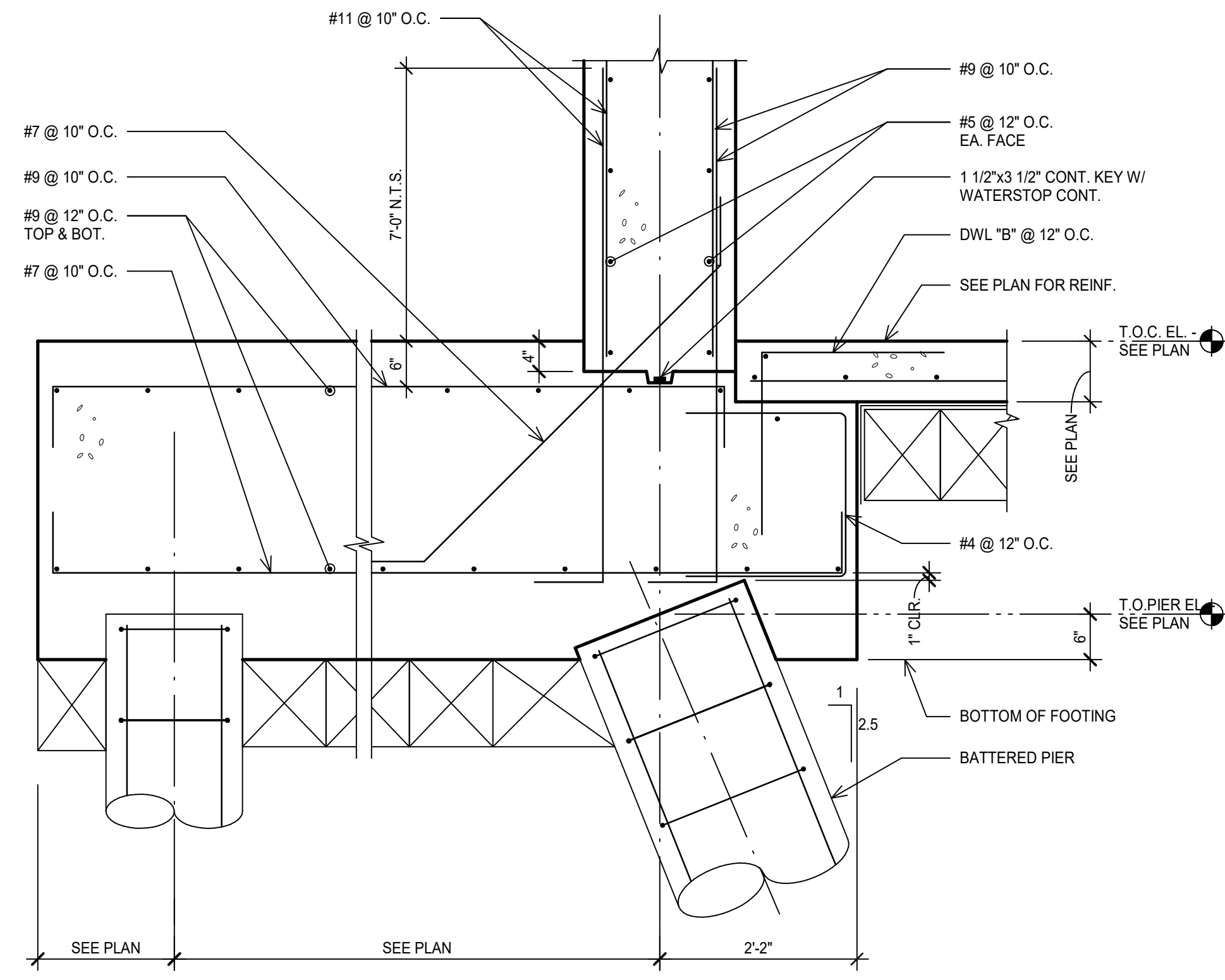


TYPICAL CONCRETE DETAILS

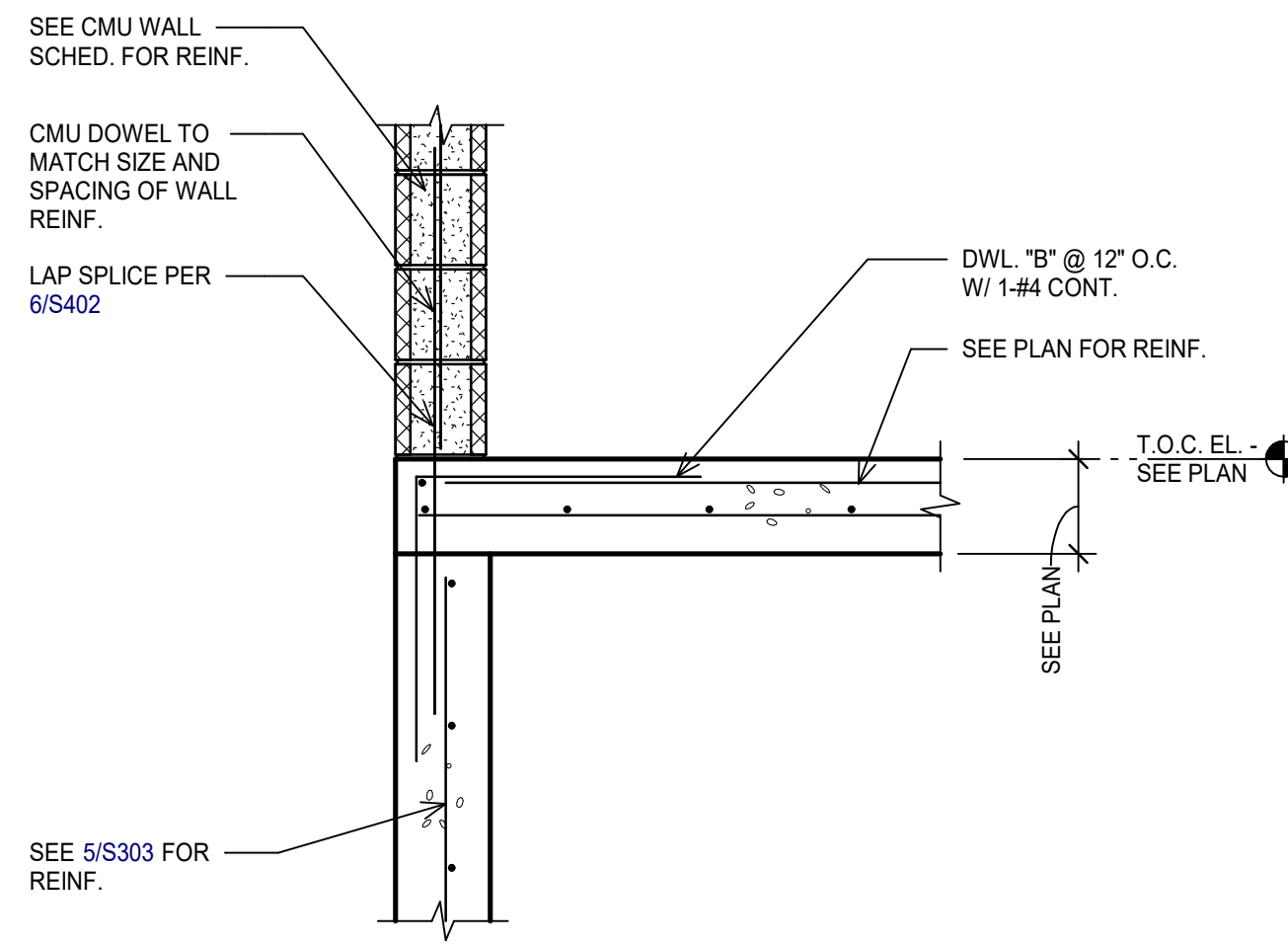


21913  
07/13/2021 S301

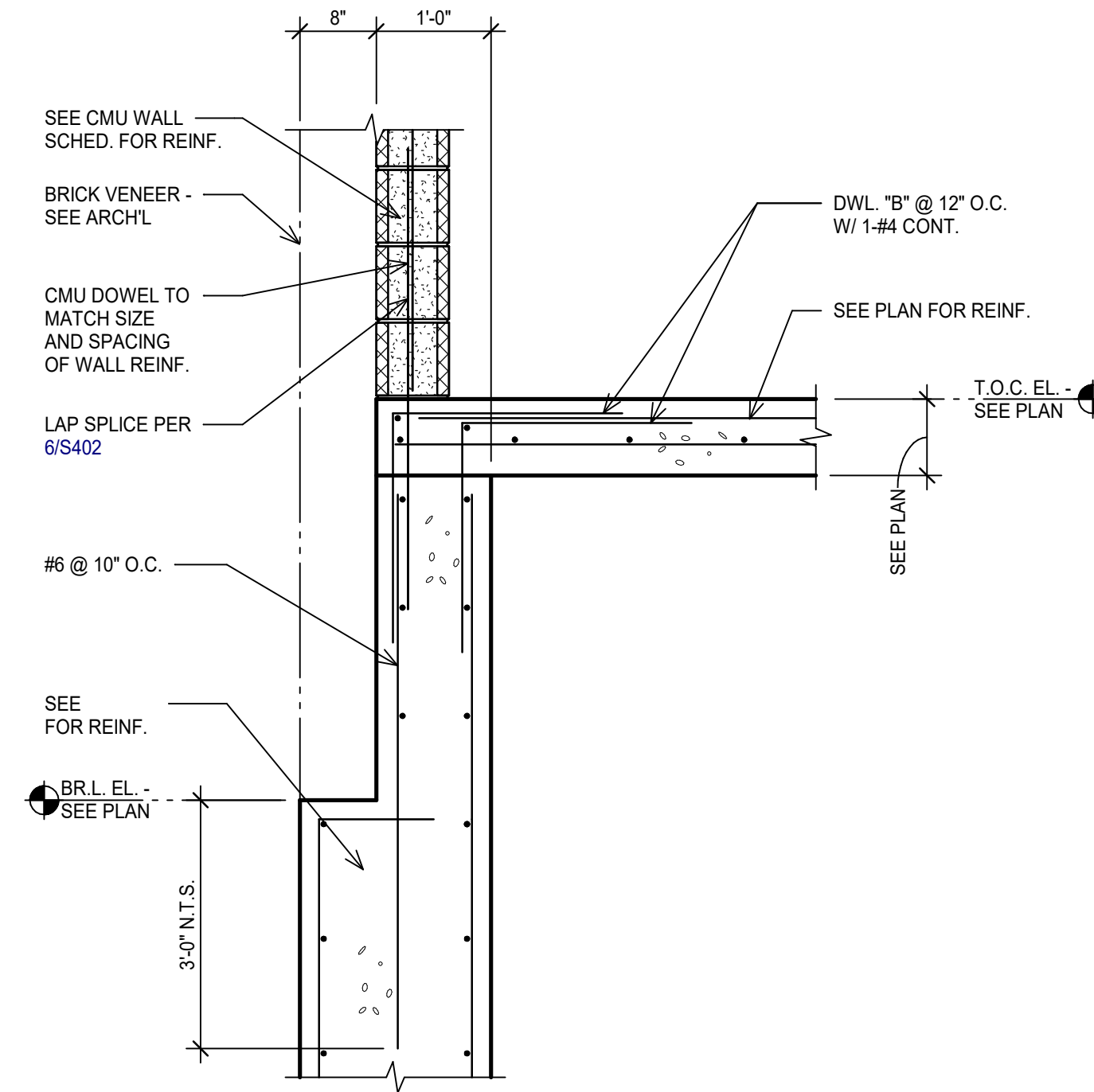
BID SET



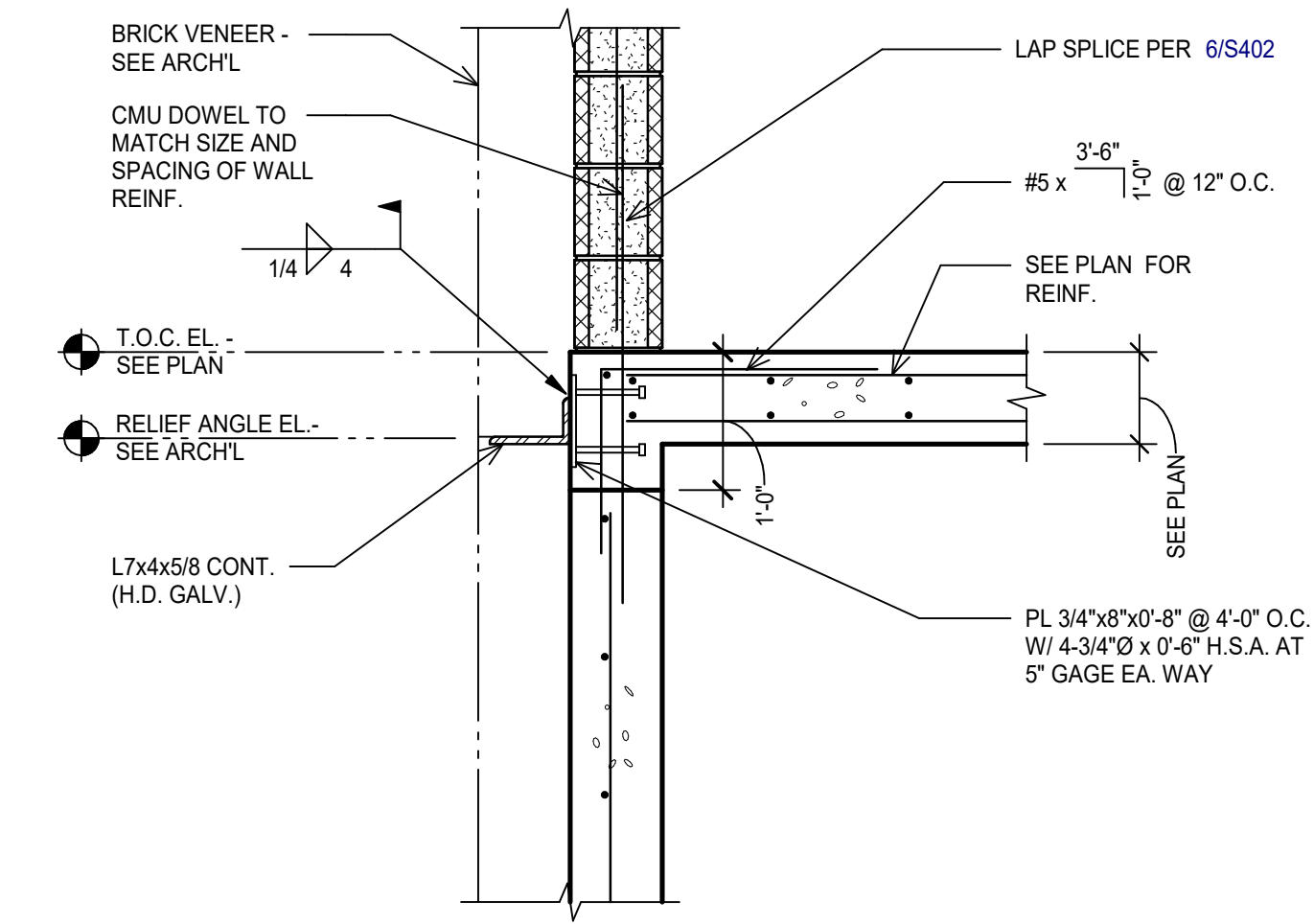
1 SECTION  
SCALE: 3/4" = 1'-0"



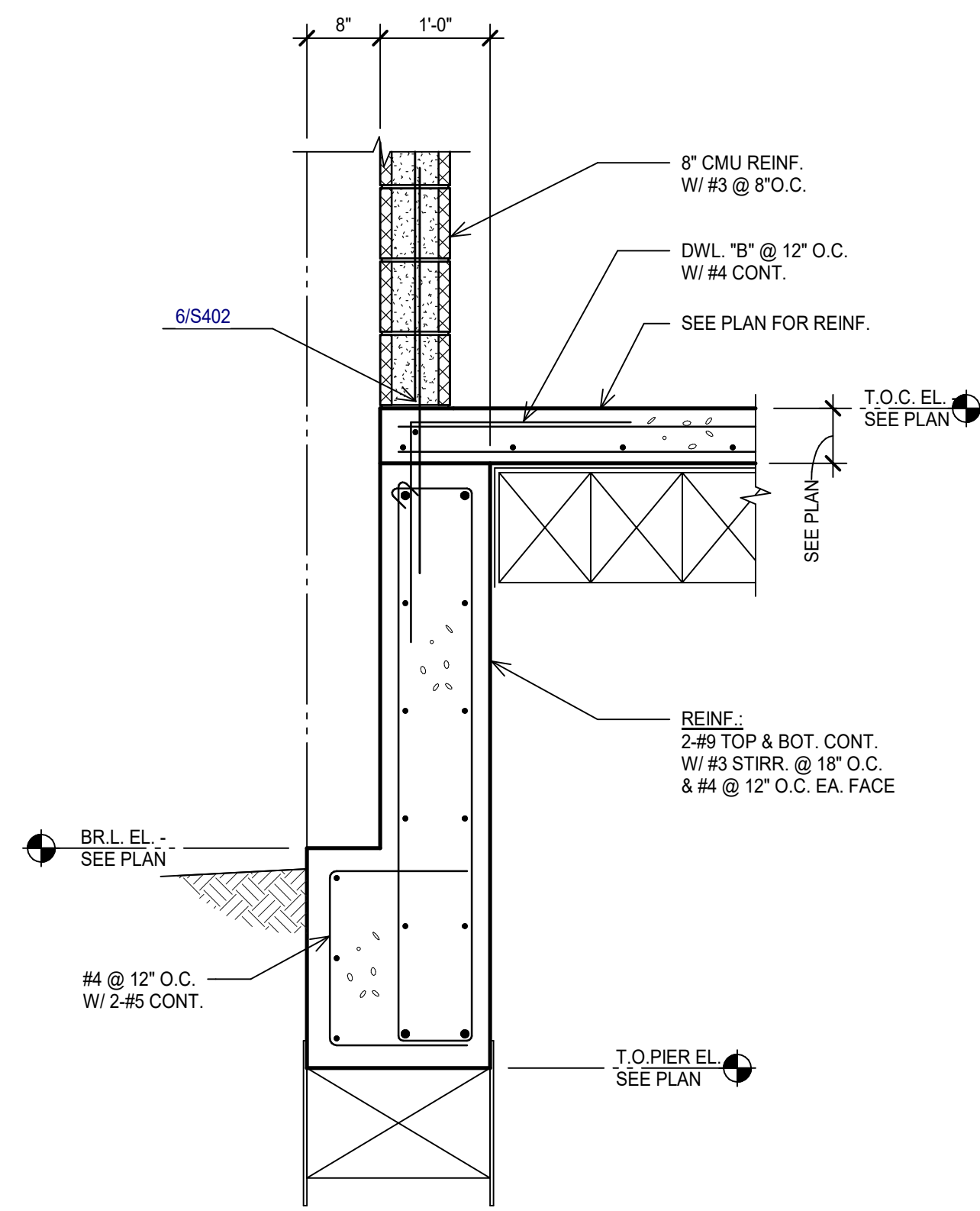
2 SECTION  
SCALE: 3/4" = 1'-0"



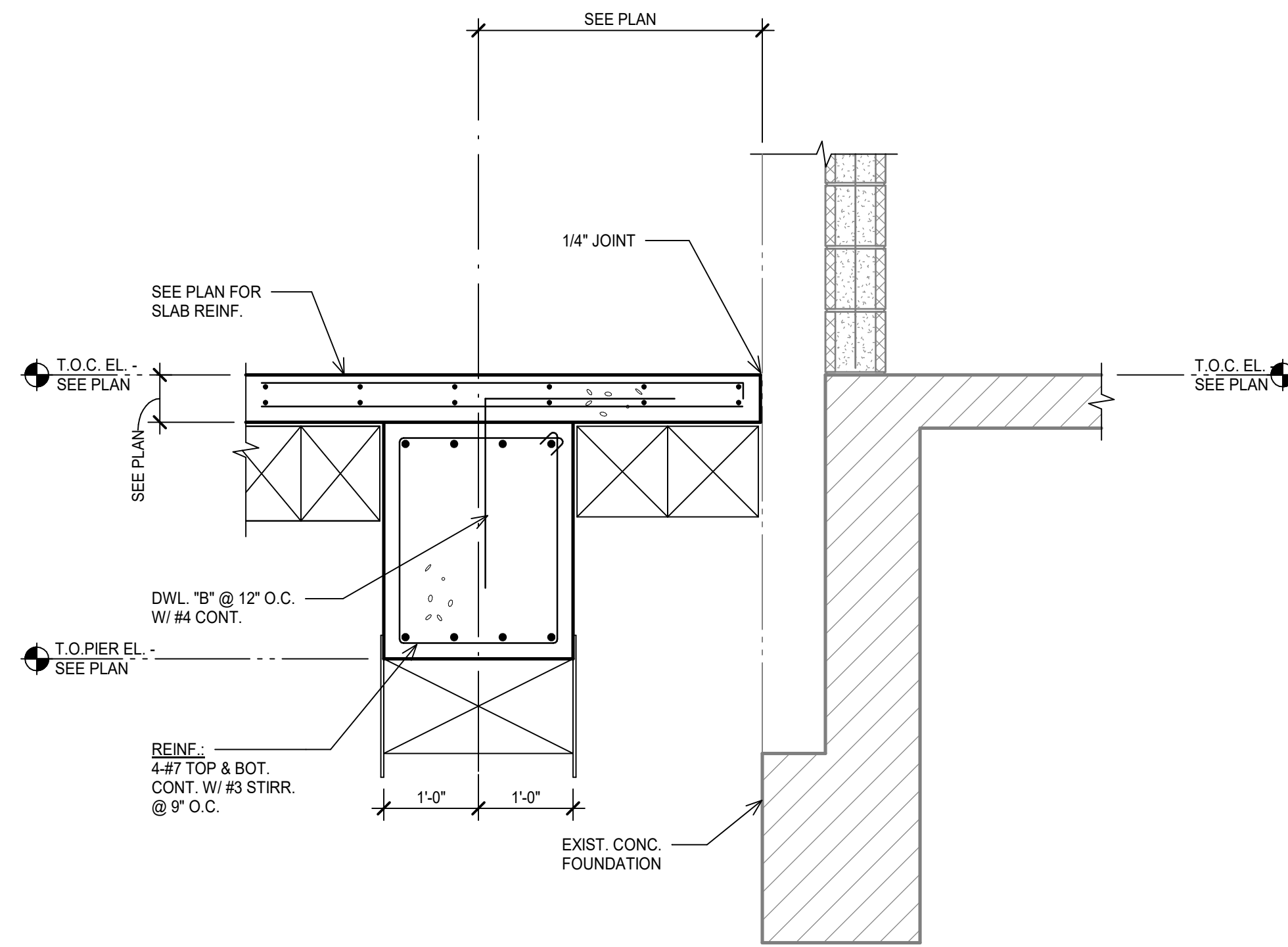
3 SECTION  
SCALE: 3/4" = 1'-0"



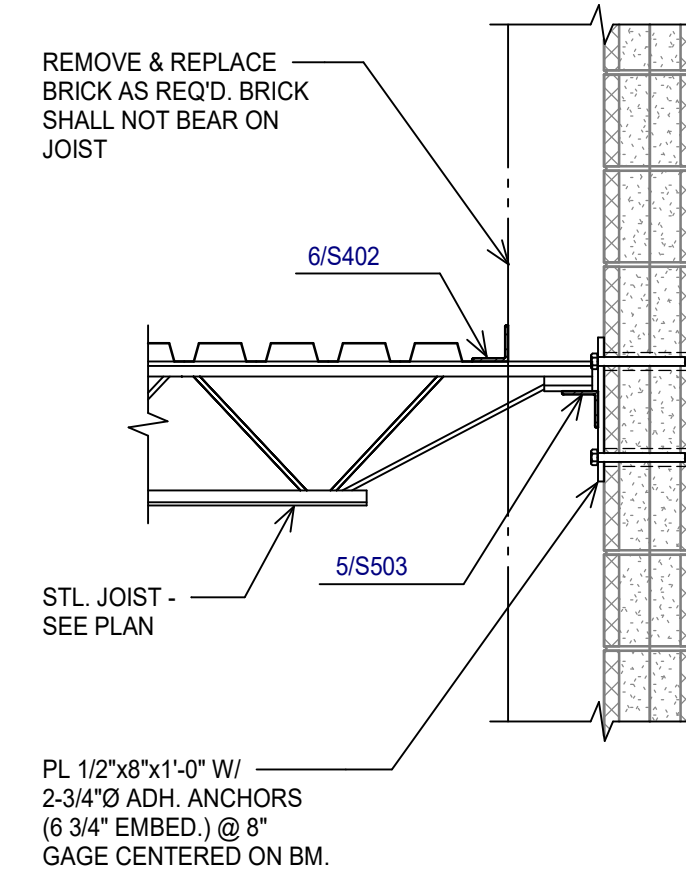
4 SECTION  
SCALE: 3/4" = 1'-0"



5 SECTION  
SCALE: 3/4" = 1'-0"



6 SECTION  
SCALE: 3/4" = 1'-0"



7 SECTION  
SCALE: 3/4" = 1'-0"

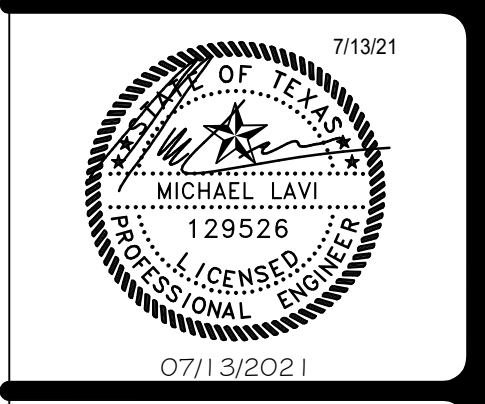
# COLLIN COUNTY ADF - PHASE 1 ADDITION

4300 COMMUNITY AVE, MCKINNEY, TX 75071

Architect: Brinkley Sargent Wiginton Architects (972) 960-9970  
 Civil: Pacheco Koch (214) 451-2765  
 Structural: JQ Engineering (214) 752-9098  
 MEP / IT: MD Engineering (469) 467-0200  
 Security: Latitech (972) 633-8650

BRINKLEY SARGENT WIGINTON ARCHITECTS

History		
#	Date	Description



CONCRETE  
DETAILS

shaping the built environment

JQ ENGINEERING, LLP  
 608 WILD BAYN RD, SUITE 350  
 512-474-9084  
 PROJECT NO: 3200110

AUSTIN, TEXAS 78746  
 JQENG.COM  
 TYPE FIRM F-1294

21913  
 07/13/2021  
**S306**

BID SET