

ADDENDUM NUMBER: TWO

PROJECT: New Facility For
North Granville County Senior Center

PROJECT NO: 22042

DATE: March 13, 2024

OWNER: Granville County
PO Box 877
Oxford, NC 27565

ARCHITECT: Oakley Collier Architects, P.A.
109 Candlewood Road
Rocky Mount, North Carolina 27804
(252) 937-2500

PREVIOUSLY ISSUED: Addendum #1

TO ALL CONTRACTORS:

This Addendum is hereby made a part of the Contract Documents to the same extent as if originally included therein. This Addendum must be acknowledged on the Form of Proposal and shall be placed with the Contract Documents.

Drawings dated February 12th, 2024 and Project Manual dated February, 2024 for this project are hereby modified, corrected, or supplemented as follows:

Substitution Requests

Subject to requirements of plans and specifications, the following manufacturers are approved to bid:

| Section | Section Title | Manufacturer / Product |
|----------------|------------------------------|---|
| 04 22 00.13 | Concrete Unit Veneer Masonry | Arriscraft / Arriscraft Building Stone |
| 10 21 13.13 | Metal Toilet Compartments | Scranton Products / Scranton Hiny Hiders Solid Plastic |

General

Item 1 Clarification

Pre-Bid Attendance

The Pre-Bid meeting is not mandatory for this project.

Item 2 Addition

Kitchen Equipment

All Kitchen equipment shall be contractor supplied, contractor installed in addition to what is in the plans and specifications. The following are the model numbers for the basis of design models, which can be substituted with the owner's approval. All finishes shall be stainless steel. All models shall be verified with the owner prior to purchasing.

Steam Table with Casters - Avantco STE-3M Three Pan Open Well Mobile Electric Steam Table with Undershef. Item #177STE3M.

Oven / Range – GE 30" Free-Standing Electric Convection Range with Air. Item # JB735.

Range Hood – 30" Designer Wall Mount Hood w/ Dimmable LED Lighting. Item # UVW8301SLSS.

Refrigerator – GE Profile Series ENERGY STAR 27.7 Cu. Ft. Fingerprint Resistant French-Door Refrigerator. Item# PFE.

Ice Maker – Scotsman Nugget Ice Maker with Bin. Item # UN324A-1.

Specifications

Item 1 Revision

Form of Single Prime General Contractor Proposal

In lieu of the existing Form of Single Prime Contractor Proposal in the specifications, the attached Form of Single Prime Contractor Proposal shall be used for bidding, which is included in its entirety.

Item 2 Remove

Section 01 21 00.1.04.H Allowance – Generator Feeder

Remove section 01 21 00.1.04.H Unit Price No. 7 Allowance – Generator Feeder in its entirety.

Item 3 Revision

Section 01 21 00.1.04 Allowance – Architect's Contingency

In lieu of "Allowance No. 1," Architect's Contingency shall be "Allowance No. 7..."

Allowance No. 7 - Architect's Contingency

In lieu of \$100,000 for Architect's contingency, there shall be a \$50,000 Architect's contingency.

Item 4 Remove

Section 03 49 00 Glass-Fiber Reinforced Concrete

Remove section 03 49 00 Glass-Fiber Reinforced Concrete in its entirety.

Item 5 Remove

Section 07 72 00 Roof Accessories

Remove section 07 72 00 Roof Accessories in its entirety.

- Item 6 Remove** **Section 08 88 50 Security Glazing**
Remove section 08 88 50 Security Glazing in its entirety.
- Item 7 Remove** **Section 32 31 13 Chain Link Fence**
Remove section 32 31 13 Chain Link Fence in its entirety.
- Item 8 Remove** **Section 32 84 00 Planting Irrigation**
Remove section 32 84 00 Planting Irrigation in its entirety.
- Item 9 Addition** **Section 06 17 53 Shop-Fabricated Wood Trusses**
Add section 06 17 53 Shop Fabricated Wood Trusses in its entirety (attached).
- Item 10 Addition** **Supplementary General Conditions**
Article 8.2.3 shall be "365 days" in lieu of "30 days".
- Item 11 Addition** **Section 01 21 00.1.04.H Allowance – Grinder Pump**
Add Section 01 21 00.1.04.H "'Allowance – Grinder Pump'
1. 'Include in the base bid amount an allowance of \$13,000 for a grinder pump, model to meet the specifications on sheet CE-02. Model to be determined.'"
- Item 12 Revision** **Section 08 43 13.2.01.A.2.a – Aluminum-Framed Storefronts Manufacturers – Product – Exterior Storefront**
In lieu of "Trifab VG 601T, Basis of Design or approved substitution," the typical exterior storefront shall be "Kawneer 451T, Basis of Design or approved substitution."

Drawings

- Item 1 Addition** **Sheet G1.1 – Life Safety**
There shall be seven (7) semi-recessed fire extinguishers with fire extinguisher cabinets, one (1) Type K Fire Extinguisher, and six (6) Type ABC Fire Extinguishers that comply with product requirements of NFPA 10 and applicable building codes. Extinguishers are to be field located. Basis of Design for the cabinet is Larsen's Manufacturing Company "Architectural Series" model AL2409-R4 Semi-Recessed full panel door with clear acrylic glazing, 3 ½" rolled edge trim, vertical die cut red lettering and white baked enamel interior box, or approved substitution.
- Item 2 Addition** **Sheet A1.7 – Finish Plan**
There shall be tile base to match floor tile at all locations with a tile floor.
- Item 3 Clarification** **Sheet CE-01 – Demolition Plan**
Any existing septic tanks noted in the plan shall be removed.
- Item 4 Clarification** **Sheet CE-02 – Site and Utility Plan**
Handicap Sign - There shall be four (4) posts and eight (8) Handicap Signs for handicapped accessible parking.

- Item 5 Clarification** **2" Water Line** – The existing 2" water line on site is a polyethylene pipe.
- Item 6 Addition** **Sheet CE-02 – Site and Utility Plan**
There shall be 2" conduit with pull-boxes at each end under the parking lot from each internal island to the outside edge of landscaping along Oxford St., and also under the entrance drive. These shall be used in the case of future irrigation.
- Item 7 Revision** **Sheet CE-02 – Site and Utility Plan**
Sewer Notes – The S.T.E.P. tank shall be installed by the "contractor" in lieu of the "property owner."
- Item 8 Clarification** **Sheet CE-02 – Site and Utility Plan**
The walking trail shall be 4' wide and comprised of a compacted 3" top course of crushed granite aggregate over a 4" base course of compacted #57 permeable aggregate over geo fabric on the bottom and sides.
- Item 9 Remove** **Sheet CE-03 – Drainage and Grading Plan**
The stair symbol adjacent to trash enclosure shall be removed in its entirety.
- Item 10 Remove** **Sheet D-06 – Site Details**
Vehicular gate detail shall be removed in its entirety.
- Item 11 Revision** **Sheet A1.3 – Attic Plan**
Attic Plan – ¾" plywood walk/platform shall continue to north side of attic as shown on S1.2.
Attic Guardrail Detail - In lieu of Attic Rail system shown on detail 2/A1.3, contractor to provide 2x4 wood framed guardrail to be used at top and intermediate rail heights around full mechanical platform. Contractor to utilize truss framing and supplementary vertical supports as needed.
- Item 12 Revision** **Sheet A1.1 – First Floor Plan**
All walls labeled 13 shall be considered wall type 6. All walls labeled 12 shall be considered wall type 7. All unlabeled walls shall be considered wall type 6, except for the plan north wall of Stor 105A, the plan east wall of Kitchen 103 and the plan west wall of Jan 104, which are wall type 5.
- Item 13 Clarification** **Sheet A1.7 – Finish Plan**
Countertop shown at the end of Hall 111 shall be a 2'-0" Solid Surface countertop supported by Medium Brackets as detailed in Bulletin Drawing attached to this addendum. Coordinated precise extents of countertop with copy machine in field.
- Item 14 Revision** **Sheet A6.1 – Door & Window Schedule**
Legend – W# – In lieu of "Exterior hollow metal window assembly..." W# shall be "Exterior storefront assembly..."
Door Schedule – Door Number 102B – Shall be Elevation D5, with Frame F1 and a Painted Frame finish.
-

Door Elevation – Note: Door Elevation D7 shall be coordinated with egress hardware prior to submittal to ensure proper installation. Contractor shall provide a center door rail as needed for egress hardware.

- Item 15 Clarification** **Sheet A7.1 – Casework & Interior Elevations**
Casework Notes & Legends – Please omit types W2, W3, and T3 in their entirety.
- Item 16 Revision** **Sheet A1.9 – Enlarged Plans**
Interior Elevations 4/A1.9, 5/A1.9, 6/A1.9 and 7/A1.9 - All WT-1 currently shown at 4'-0" above finished floor shall be 6'-0" above finished floor in lieu of 4'-0" above finished floor.
Toilet Accessories Schedule – Mirrors shall be tagged "M" in lieu of "T3." Mirror model no. shall be "0620-6036" in lieu of "20650."
- Item 17 Addition** **Sheet A1.9 – Enlarged Plans**
Interior Elevations 3/A1.9 – A mirror shall be added to Mens 107 equivalent to the mirror placed in Womens 106.
Enlarged Plan 1/A1.9 – Contractor shall provide all grab bars as shown in HC Accessories Legend for each toilet.
Enlarged Plan 1/A1.9 - Contractor shall provide all accessories shown in Toilet Accessories Schedule, in the amount that correlates to the number of toilets or lavatories as required. The contractor shall also provide hooks at each toilet partition.
- Item 18 Addition** **Sheet E1.1 – Power Plan**
Additional power is needed for force main pump at sewer. Please see letter attached to this addendum by Electrical Engineer, Atlantec Engineers, regarding specifications of additional electrical requirements.
- Item 19 Clarification** **Sheet CE-02 – Site and Utility Plan**
Sidewalk to include wire mesh reinforcement as shown on details of sheet D-05.
- Item 20 Revision** **Sheet L1.1 – Landscaping Plan**
1/L1.1 – Note: In lieu of "Alternate Trail for Generator Alternate" note shall read "Trail to be Included in Base Bid," see CE-02.
Existing Trees to remain: In lieu of keeping existing trees as shown on Landscaping Plan, refer to sheet CE-01 note: "Contractor shall include the removal of all vegetation and landscaping within the work area in bid price." This statement refers to the north edge of the parcel line down to and including the "Clear & Grub" area of the plan. However, trees numbered 39, 41, 42, 43 and 44 as numbered on the Civil drawings shall be preserved.
- Item 21 Revision** **Sheet G0.2 – Building Code Summary**
Life Safety System Requirements – Fire Alarm: In lieu of "Yes" checkbox marked, "No" checkbox shall be marked.

Item 22 Clarification Sheet A5.1 – Details

All referenced “J-Trim” shall be aluminum J-Trim coordinated for the width of the siding.

End of Addendum

Attached:

Form of Proposal (4 Pages)

Bulletin Drawings 1, 2 & 3 (3 Pages)

Sewer Pump Electrical Requirements (1 Page)

Specification Section 03 17 53 – Shop-Fabricated Wood Trusses (7 Pages)

FORM OF SINGLE PRIME GENERAL CONTRACTOR PROPOSAL

North Granville County Senior Center
Granville County
Architect's Project # 22042

Bidder: _____
Date: _____

The undersigned, as Bidder, hereby declares that the only person or persons interested in the Proposal as principal of principals is or are named herein and that no other person than herein mentioned has any interest in this Proposal or in the contract to be entered into; that this proposal is made without connection with any other person, company or parties making a bid or proposal; and that it is in all respects fair and in good faith without collusion or fraud. The Bidder further declares that he has examined the site of the Work and the Contract Documents relative thereto and has read all special provisions furnished prior to the opening of bids; that he has satisfied himself relative to the work to be performed.

The bidder proposes and agrees if this Proposal is accepted to contract with Granville County in the form of contract specified, to furnish all necessary materials, equipment, machinery, tools, apparatus, means of transportation, and labor necessary to complete the construction of the Granville County Senior Center, in full accordance with the plans, specifications, and contract documents, to the full and entire satisfaction of Granville County with a definite understanding that no money will be allowed for extra work except as set forth in the General Conditions and Contract Documents for the sum of:

SINGLE PRIME CONTRACT:

BASE BID

_____ Dollars(\$)

| Subcontractors: | License No. | Dollars(\$) |
|------------------------|--------------------|--------------------|
|------------------------|--------------------|--------------------|

Site: _____

Plumbing: _____

Mechanical: _____

Electrical: _____

The Bidder further proposes and agrees hereby to commence work under this contract on a date to be specified in a written order of the Architect and shall fully complete all work within **365** consecutive calendar days from date of commencement established in a Notice to Proceed.

BIDDER further agrees to pay as liquidated damages, the sum of \$500 for each consecutive calendar day thereafter as provided in Section 15 of the General Conditions.

ALTERNATES

Should any of the alternates as described in the contract documents be accepted, the amount written below shall be the amount to be "added to" or "deducted from" the base bid. (Strike out "Add" or "Deduct" as appropriate.)

GENERAL CONTRACT:

Alternate No. G-1: Outdoor Deck Canopy

(Add)(Deduct) _____ Dollars (\$) _____

Alternate No. G-2: Kitchen 103 Floor Finish

(Add)(Deduct) _____ Dollars (\$) _____

Alternate No. G-3: Generator and Automatic Transfer Switch

(Add)(Deduct) _____ Dollars (\$) _____

Alternate No. G-4: Composite Decking

(Add)(Deduct) _____ Dollars (\$) _____

UNIT PRICES:

Unit prices quoted and accepted shall apply throughout the life of the contract, except as otherwise specifically noted. Unit prices shall be applied, as appropriate, to compute the total value of changes in the base bid quantity of the work in all accordance with the contract documents.

GENERAL CONTRACT:

Unit Price No. 1: Rock Excavation per 1 cu yd Unit Price (\$) _____

Cost for additional 500 cu yds included in Base Bid Price (\$) _____

Unit Price No. 2: Undercut/Fill in Trench Excavations per 1 cu yd Unit Price (\$) _____

Cost for additional 100 cu yds included in Base Bid Price (\$) _____

Unit Price No. 3: Undercut/Fill in Open Excavations per 1 cu yd Unit Price (\$) _____

Cost for additional 2,500 cu yds included in Base Bid Price (\$) _____

Unit Price No. 4: Data Outlet and Conduit per 1 Occurrence Unit Price (\$) _____

Cost for additional 12 occurrences Price (\$)_____

Unit Price No. 5: Duplex Receptacle and Circuit: per 1 Occurrence Unit Price (\$)_____

Cost for additional 12 occurrences Price (\$)_____

Unit Price No. 6: Transformer Feeder per 1 Linear Foot Unit Price (\$)_____

Cost for additional 200 linear feet included in Base Bid Price (\$)_____

The undersigned further agrees that in the case of failure on his part to execute the said contract and the bond within ten (10) consecutive calendar days after written notice being given on the award contract, the check, cash or bid bond accompanying this bid shall be paid into the funds of the Owner's account set aside for the project, as liquidated damages for such failure; otherwise the check, cash or bid bond accompanying this proposal shall be returned to the undersigned.

Attach certified check, cash or bid bond to this proposal.

Respectfully submitted this _____ day of _____ 20_____.

Name of firm or corporation making bid

WITNESS: By:_____

_____ Title:_____

Proprietorship or Partnership (Owner, Partner, Pres., V. Pres.)

Address:_____

License No:_____

Federal ID No:_____

(Corporate Seal)

ATTEST:

By: _____

Title: _____

(Corp. Sec. or Asst. Sec. Only)

Addenda received and used in computing bid:

Addendum No. 1 _____ Addendum No. 3 _____

Addendum No. 2 _____ Addendum No. 4 _____

For All Official Notices:

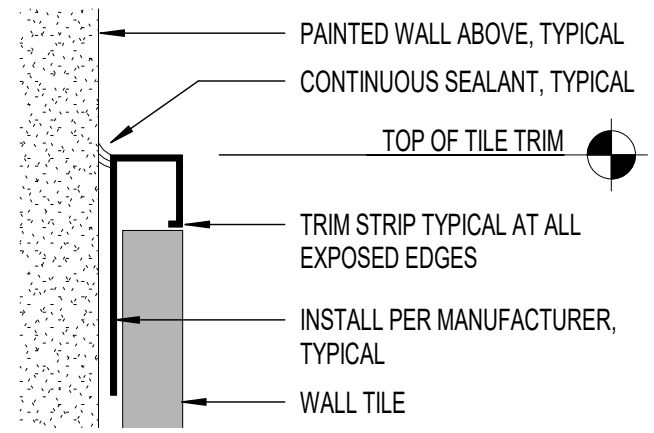
Name and Title

Name of Firm/Corporation

Street Address, City, State and Zip

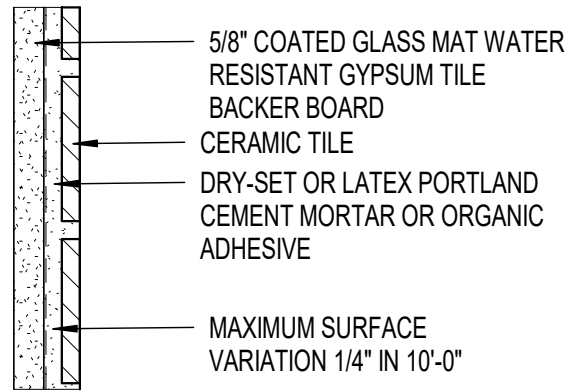
Telephone and Fax Numbers

TYP. INT. DETAILS

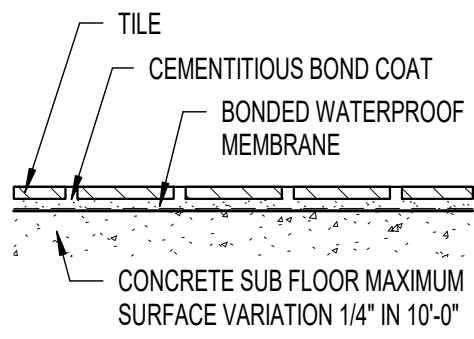


NOTE:
TYPICAL TILE EXPOSED EDGE AT ALL GANG TOILET LOCATIONS.

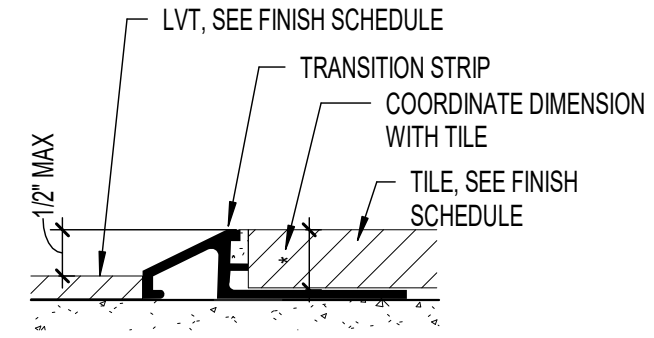
6
BD1
12" = 1'-0"



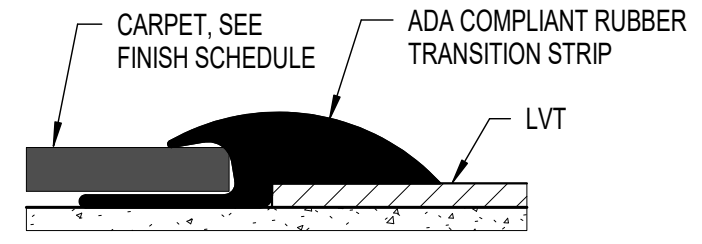
5
BD1
3" = 1'-0"



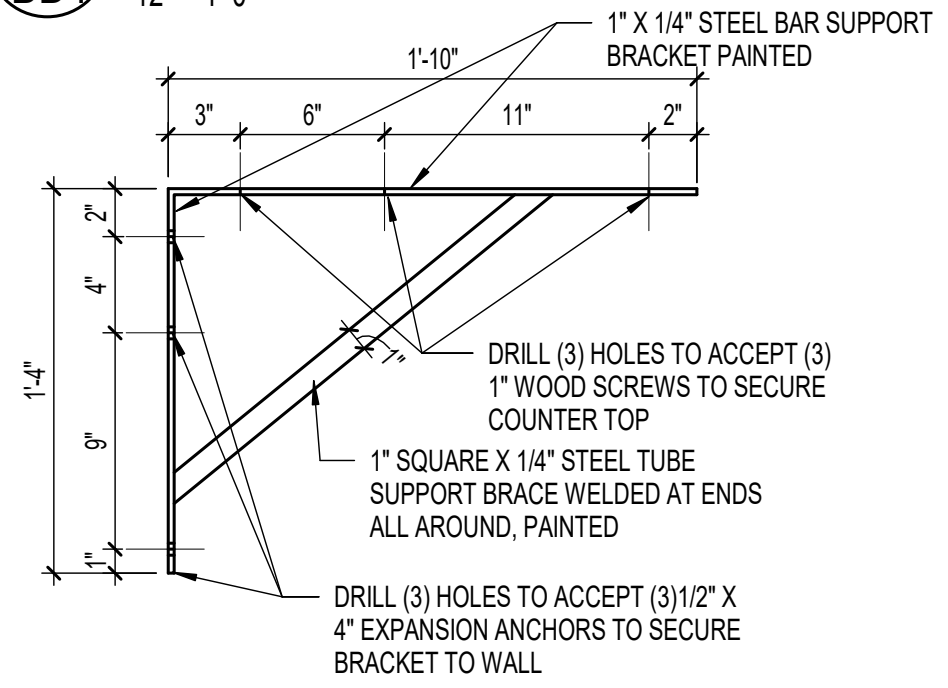
4
BD1
3" = 1'-0"



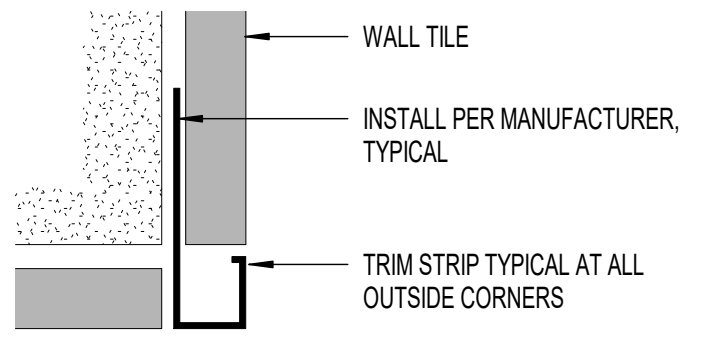
3
BD1
12" = 1'-0"



2
BD1
12" = 1'-0"

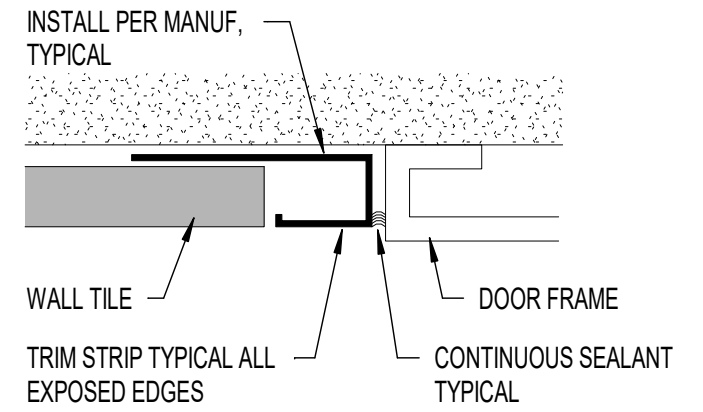


1
BD1
1 1/2" = 1'-0"



NOTE:
TYPICAL TILE OUTSIDE CORNER AT ALL GANG TOILET LOCATIONS.

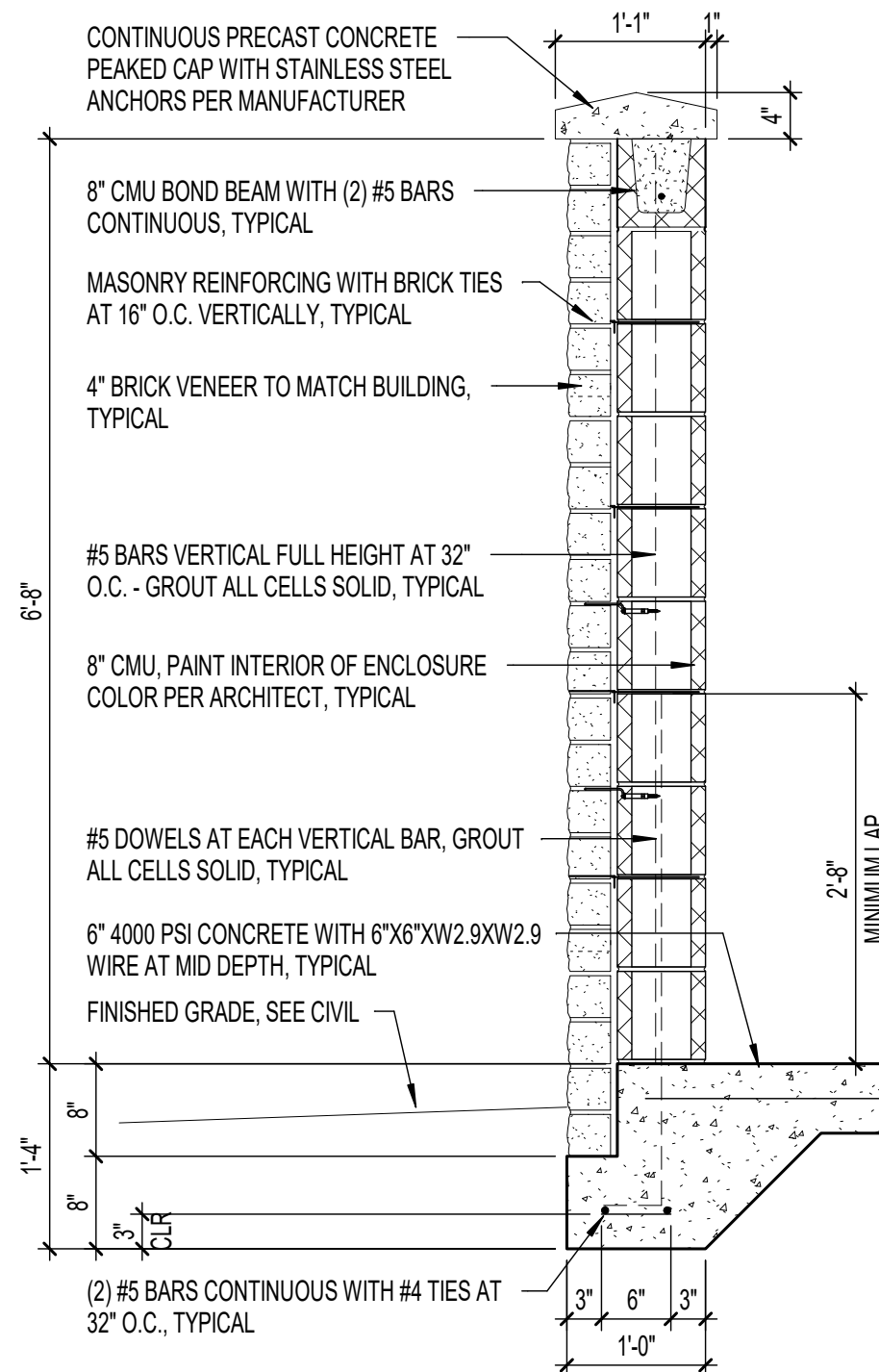
8
BD1
12" = 1'-0"



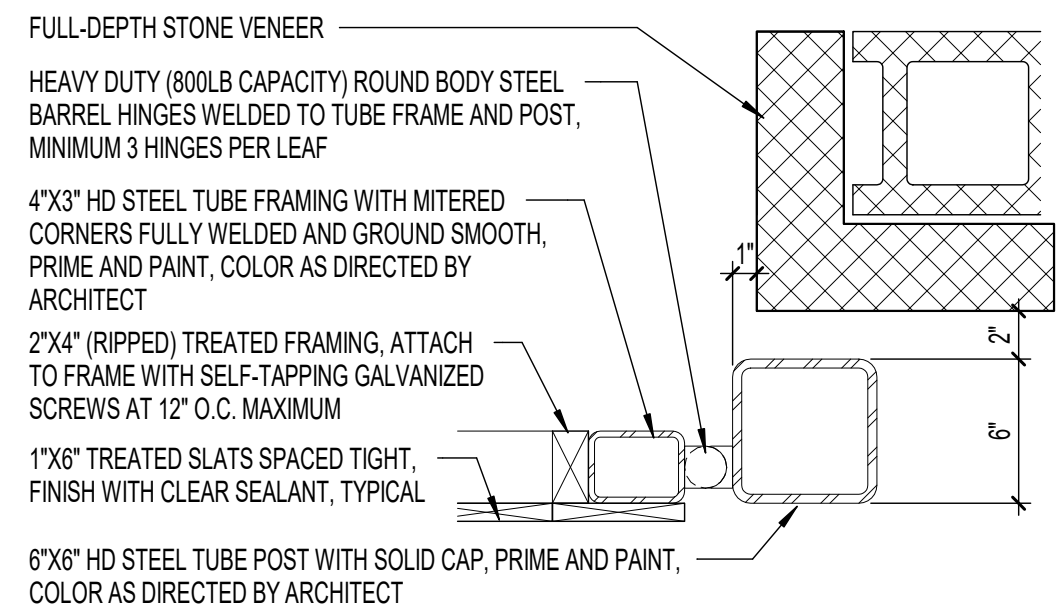
NOTE:
TYPICAL TILE EDGE JOINT ABUTTING DOOR FRAMES AT ALL GANG TOILET LOCATIONS.

7
BD1
12" = 1'-0"

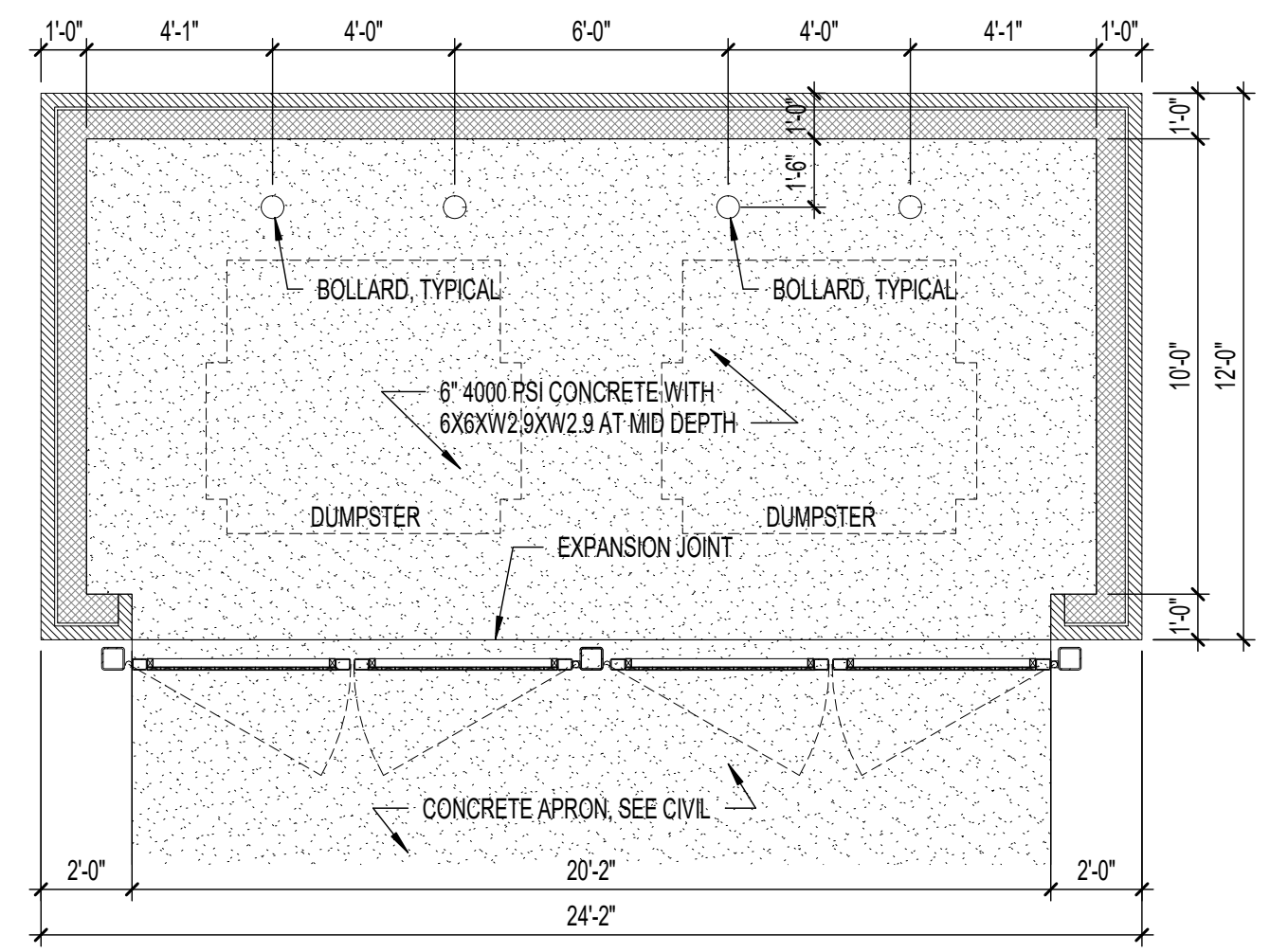
| | |
|---------------------------------|----------------------|
| Date 3/13/24 | Project No. 22042 |
| Drawn By TW | Sheet No. BD1 |
| Checked By DG | |
| Sheet Title BULLETIN DRAWING | |



2 DUMPSTER SCREEN SECTION
 3/4" = 1'-0"



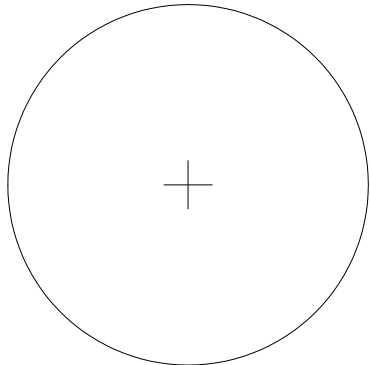
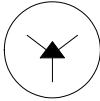
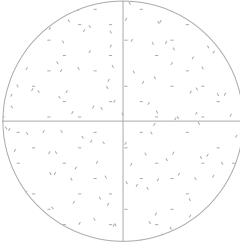


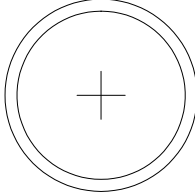






3 DUMPSTER - GATE POST
 BD2 1 1/2" = 1'-0"



1 DUMPSTER ENCLOSURE
 1/4" = 1'-0"

| | |
|------------------|-------------|
| Date | Project No. |
| 3/13/24 | 22042 |
| Drawn By | Sheet No. |
| TW | BD2 |
| Checked By | |
| DG | |
| Sheet Title | |
| BULLETIN DRAWING | |

LEGEND

| SYMBOL | SIZE | NAME | SYMBOL | SIZE | NAME |
|---|-----------------------------|-------------------------|---|---------------|-----------------------------|
|  | 2.5" CAL. MIN & 12' MIN HT. | PIN OAK |  | 5 GAL. MIN. | MOUNTAIN AZALEA |
|  | - | EXISTING TREE TO REMAIN |  | 5 GAL. MIN. | SNOWHILL HYDRANGEA |
| | | |  | 5 GAL. MIN. | LITTLE QUICK FIRE HYDRANGEA |
|  | 2" CAL. MIN. | REDBUD |  | 5 GAL. MIN. | INKBERRY HOLLY |
| | | |  | 3 GAL. MIN. | SHRUBBY ST. JOHN'S WORT |
| | | |  | 2 GAL. MIN. | CORAL BELLS - HEUCHERA |
| | | |  | 3 GAL. MIN. | SPREADING PLUM YEW |
| | | |  | 1 GAL. MIN. | MUHLY GRASS |
| | | |  | STARTER PLUGS | NATIVE PERENNIAL MIX |

| | |
|------------------------------------|-----------------------------|
| Date 3/13/24 | Project No. 22042 |
| Drawn By TW | Sheet No. BD3 |
| Checked By DG | |
| Sheet Title BULLETIN DRAWING | |

March 7, 2024

Mr. Tim Williams
Oakley Collier Architects
205 W Martin Street
Raleigh, NC 27601
(919) 985-7700 x204 (office)
(732) 275-7928 (mobile)

Ref: North Granville County Senior Center
Atlantec Job No. 23169
Additional electrical requirements for sewer pump


Tim,

The following electrical requirements are required for the project in addition to the electrical plan issued on 2/2/2024:

1. Provide 30A/2P breaker in panel B.
2. Provide 2-#10, 1-#10G in $\frac{3}{4}$ "C from breaker per item #1 to sewer pump location. See site plan for sewer pump location.
3. Terminate wires per item #2 with 30A, 240VAC, 2P, NEMA 3R fusible disconnect at sewer pump.
4. Provide final connection to sewer pump controller. Sewer pump controller furnished by site contractor and installed by E.C.
5. Provide sewer pump electrical installation per manufacturer and civil engineer instructions.
6. Mount disconnect and sewer pump control to galvanized steel structure per civil engineer instruction.

If you need further information, please contact me.

Regards,



Sujin Pramojaney, P.E.
Atlantec Engineers, P.A.

SECTION 061753 - SHOP-FABRICATED WOOD TRUSSES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section Includes:

1. Wood roof trusses.
2. Wood floor trusses.
3. Wood girder trusses.

B. Related Requirements:

1. Section 313116 "Termite Control" for site application of borate treatment to wood trusses.

1.3 ALLOWANCES

- A. Provide wood truss bracing under the Metal-Plate-Connected Truss Bracing Allowance as specified in Section 012100 "Allowances."

1.4 DEFINITIONS

- A. Metal-Plate-Connected Wood Trusses: Planar structural units consisting of metal-plate-connected members fabricated from dimension lumber and cut and assembled before delivery to Project site.

1.5 ACTION SUBMITTALS

- A. Product Data: For metal-plate connectors, metal truss accessories, and fasteners.

B. Sustainable Design Submittals:

1. Environmental Product Declaration: For each product.
2. Health Product Declaration: For each product.
3. Sourcing of Raw Materials: Corporate sustainability report for each manufacturer.
4. Chain-of-Custody Certificates: For certified wood products. Include statement of costs.
5. Chain-of-Custody Qualification Data: For manufacturer and vendor.

- C. Shop Drawings: Show fabrication and installation details for trusses.

1. Show location, pitch, span, camber, configuration, and spacing for each type of truss required.
 2. Indicate sizes, stress grades, and species of lumber.
 3. Indicate locations, sizes, and materials for permanent bracing required to prevent buckling of individual truss members due to design loads.
 4. Indicate type, size, material, finish, design values, orientation, and location of metal connector plates.
 5. Show splice details and bearing details.
- D. Delegated-Design Submittal: For metal-plate-connected wood trusses indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

1.6 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For metal connector-plate manufacturer.
- B. Material Certificates: For dimension lumber specified to comply with minimum specific gravity. Indicate species and grade selected for each use and specific gravity.
- C. Product Certificates: For metal-plate-connected wood trusses, signed by officer of truss-fabricating firm.
- D. Evaluation Reports: For the following, from ICC-ES:
1. Metal-plate connectors.
 2. Metal truss accessories.

1.7 QUALITY ASSURANCE

- A. Metal Connector-Plate Manufacturer Qualifications: A manufacturer that is a member of TPI and that complies with quality-control procedures in TPI 1 for manufacture of connector plates.
1. Manufacturer's responsibilities include providing professional engineering services needed to assume engineering responsibility.
 2. Engineering Responsibility: Preparation of Shop Drawings and comprehensive engineering analysis by a qualified professional engineer.
- B. Fabricator Qualifications: Shop that participates in a recognized quality-assurance program, complies with quality-control procedures in TPI 1, and involves third-party inspection by an independent testing and inspecting agency acceptable to Architect and authorities having jurisdiction and is certified for chain of custody by an FSC-accredited certification body.
- C. Manufacturer Qualifications: A qualified manufacturer that is certified for chain of custody by an FSC-accredited certification body.
- D. Vendor Qualifications: A vendor that is certified for chain of custody by an FSC-accredited certification body.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Handle and store trusses to comply with recommendations in SBCA BCSI, "Building Component Safety Information: Guide to Good Practice for Handling, Installing, Restraining, & Bracing Metal Plate Connected Wood Trusses."
 - 1. Store trusses flat, off of ground, and adequately supported to prevent lateral bending.
 - 2. Protect trusses from weather by covering with waterproof sheeting, securely anchored.
 - 3. Provide for air circulation around stacks and under coverings.
- B. Inspect trusses showing discoloration, corrosion, or other evidence of deterioration. Discard and replace trusses that are damaged or defective.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Delegated Design: Engage a qualified professional engineer, as defined in Section 014000 "Quality Requirements," to design metal-plate-connected wood trusses.
- B. Structural Performance: Metal-plate-connected wood trusses shall be capable of withstanding design loads within limits and under conditions indicated. Comply with requirements in TPI 1 unless more stringent requirements are specified below.
 - 1. Design Loads: As indicated.
 - 2. Maximum Deflection under Design Loads:
 - a. Roof Trusses: Vertical deflection of 1/360 of span due to roof live, snow, or wind loads; 1/240 of span due to total combined loading.
 - b. Scissor Trusses: Horizontal deflection of 1/2".
 - c. Floor Trusses: Vertical deflection of 1/360 of span due to floor live loads; 1/240 of span due to total combined loading.
- C. Comply with applicable requirements and recommendations of TPI 1, TPI DSB, and SBCA BCSI.
- D. Wood Structural Design Standard: Comply with applicable requirements in AF&PA's "National Design Specifications for Wood Construction" and its "Supplement."
- E. Regional Materials: Wood products shall be manufactured within 100 miles of Project site from materials that have been extracted, harvested, or recovered, as well as manufactured, within 100 miles of Project site.
- F. Certified Wood: Wood products shall be certified as "FSC Pure" or "FSC Mixed Credit" according to FSC STD-01-001 and FSC STD-40-004.

2.2 DIMENSION LUMBER

- A. Lumber: DOC PS 20 and applicable rules of any rules-writing agency certified by the American Lumber Standard Committee (ALSC) Board of Review. Provide lumber graded by an agency certified by the ALSC Board of Review to inspect and grade lumber under the rules indicated.
 - 1. Factory mark each piece of lumber with grade stamp of grading agency.
 - 2. Provide dressed lumber, S4S.
 - 3. Provide dry lumber with 19 percent maximum moisture content at time of dressing.
- B. Minimum Chord Size for Roof Trusses: 2 by 6 inches nominal for both top and bottom chords.
- C. Minimum Specific Gravity for Top Chords: 0.50.
- D. Permanent Bracing: Provide wood bracing that complies with requirements for miscellaneous lumber in Section 061000 "Rough Carpentry."

2.3 METAL CONNECTOR PLATES

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Alpine Engineered Products, Inc.; a division of ITW Building Components Group, Inc.
 - 2. Cherokee Metal Products, Inc.; Masengill Machinery Company.
 - 3. Eagle Metal Products.
 - 4. MiTek Industries, Inc.
 - 5. Robbins Engineering, Inc.
 - 6. Truswal Systems Corporation.
- B. Fabricate connector plates to comply with TPI 1.
- C. Hot-Dip Galvanized-Steel Sheet: ASTM A653/A653M; Structural Steel (SS), high-strength low-alloy steel Type A (HSLAS Type A), or high-strength low-alloy steel Type B (HSLAS Type B); G60 coating designation; and not less than 0.036 inch thick.
 - 1. Use for interior locations unless otherwise indicated.
- D. Stainless Steel Sheet: ASTM A240/A240M or ASTM A666, Type 304, and not less than 0.035 inch thick.
 - 1. Use for exterior locations and where indicated.

2.4 FASTENERS

- A. Provide fasteners of size and type indicated that comply with requirements specified in this article for material and manufacture.
 - 1. Provide fasteners for use with metal framing anchors that comply with written recommendations of metal framing manufacturer.

- B. Nails, Brads, and Staples: ASTM F1667.

2.5 METAL FRAMING ANCHORS AND ACCESSORIES

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Cleveland Steel Specialty Co.
 - 2. Phoenix Metal Products, Inc.
 - 3. Simpson Strong-Tie Co., Inc.
 - 4. USP Structural Connectors.
- B. Allowable design loads, as published by manufacturer, shall comply with or exceed those of products of manufacturers listed. Manufacturer's published values shall be determined from empirical data or by rational engineering analysis and demonstrated by comprehensive testing performed by a qualified independent testing agency. Framing anchors shall be punched for fasteners adequate to withstand same loads as framing anchors.
- C. Galvanized-Steel Sheet: Hot-dip, zinc-coated steel sheet complying with ASTM A653/A653M, G60 coating designation.
 - 1. Use for interior locations unless otherwise indicated.
- D. Stainless Steel Sheet: ASTM A240/A240M or ASTM A666, Type 304.
 - 1. Use for exterior locations and where indicated.
- E. Truss Tie-Downs: Bent strap tie for fastening roof trusses to wall studs below, 1-1/2 inches wide by 0.050 inch thick. Tie fastens to one side of truss, top plates, and side of stud below.
- F. Roof Truss Clips: Angle clips for bracing bottom chord of roof trusses at non-load-bearing walls, 1-1/4 inches wide by 0.050 inch thick. Clip is fastened to truss through slotted holes to allow for truss deflection.
- G. Floor Truss Hangers: U-shaped hangers, full depth of floor truss, with 1-3/4-inch- long seat; formed from metal strap 0.062 inch thick with tabs bent to extend over and be fastened to supporting member.
- H. Roof Truss Bracing/Spacers: U-shaped channels, 1-1/2 inches wide by 1 inch deep by 0.040 inch thick, made to fit between two adjacent trusses and accurately space them apart, and with tabs having metal teeth for fastening to trusses.
- I. Drag Strut Connectors: Angle clip with one leg extended for fastening to the side of girder truss.
 - 1. Angle clip is 3 by 3 by 0.179 by 8 inches with extended leg 8 inches long. Connector has galvanized finish.

2.6 MISCELLANEOUS MATERIALS

- A. Galvanizing Repair Paint: SSPC-Paint 20, with dry film containing a minimum of 92 percent zinc dust by weight.

2.7 FABRICATION

- A. Cut truss members to accurate lengths, angles, and sizes to produce close-fitting joints.
- B. Fabricate metal connector plates to sizes, configurations, thicknesses, and anchorage details required to withstand design loads for types of joint designs indicated.
- C. Assemble truss members in design configuration indicated; use jigs or other means to ensure uniformity and accuracy of assembly, with joints closely fitted to comply with tolerances in TPI 1. Position members to produce design camber indicated.
 - 1. Fabricate wood trusses within manufacturing tolerances in TPI 1.
- D. Connect truss members by metal connector plates located and securely embedded simultaneously in both sides of wood members by air or hydraulic press.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install wood trusses only after supporting construction is in place and is braced and secured.
- B. If trusses are delivered to Project site in more than one piece, assemble trusses before installing.
- C. Hoist trusses in place by lifting equipment suited to sizes and types of trusses required, exercising care not to damage truss members or joints by out-of-plane bending or other causes.
- D. Install and brace trusses according to TPI recommendations and as indicated.
- E. Install trusses plumb, square, and true to line and securely fasten to supporting construction.
- F. Space trusses as indicated; adjust and align trusses in location before permanently fastening.
- G. Anchor trusses securely at bearing points; use metal truss tie-downs or floor truss hangers as applicable. Install fasteners through each fastener hole in metal framing anchors according to manufacturer's fastening schedules and written instructions.
- H. Securely connect each truss ply required for forming built-up girder trusses.
 - 1. Anchor trusses to girder trusses as indicated.
- I. Install and fasten permanent bracing during truss erection and before construction loads are applied. Anchor ends of permanent bracing where terminating at walls or beams.

1. Install bracing to comply with Section 061000 "Rough Carpentry."
 2. Install and fasten strongback bracing vertically against vertical web of parallel-chord floor trusses at centers indicated.
- J. Install wood trusses within installation tolerances in TPI 1.
- K. Do not alter trusses in field. Do not cut, drill, notch, or remove truss members.
- L. Replace wood trusses that are damaged or do not comply with requirements.
1. Damaged trusses may be repaired according to truss repair details signed and sealed by the qualified professional engineer responsible for truss design, when approved by Engineer of Record.

3.2 REPAIRS AND PROTECTION

- A. Protect wood trusses from weather. If, despite protection, wood trusses become wet, apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA-registered label.
- B. Repair damaged galvanized coatings on exposed surfaces according to ASTM A780/A780M and manufacturer's written instructions.

END OF SECTION 061753