

**Rockford School District #205
GUILFORD STORAGE POLE BARN
AT GUILFORD HIGH SCHOOL**

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SECTION 00730
SUPPLEMENTARY CONDITIONS

DOCUMENT 00730 – SUPPLEMENTARY CONDITIONS

1.01 CHANGE ORDER MARK-UPS:

Add the following to provisions regarding Change Order mark ups in Conditions of the Contract:

- A. The combined overhead and profit included in the total cost to the Owner for a change in the Work shall be based on the following schedule:
 - 1. For the Contractor, for Work performed by the Contractor's own forces, twelve percent of the cost.
 - 2. For the Contractor, for Work performed by the Contractor's Subcontractors, five percent of the amount due the Subcontractors.
 - 3. For each Subcontractor involved, for Work performed by that Subcontractor's own forces, five percent of the cost.
 - 4. For each Subcontractor involved, for Work performed by the Subcontractor's Subcontractors, five percent of the amount due the Sub-subcontractor.
 - 5. In order to facilitate checking of quotations for extras or credits, all proposals, except those so minor that their propriety can be seen by inspection, shall be accompanied by a complete itemization of costs including labor, materials and Subcontracts. Labor and materials shall be itemized in the manner prescribed above. Where major cost items are Subcontracts, they shall be itemized also.

1.02 REQUIRED

- A. Despite anything to the contrary in the bid documents, bidders are required to submit an AIA Document A305-1986 Contractor's Qualification Statement with their bid.

END OF SECTION

SECTION 01010
SUMMARY OF WORK

PART 1 - GENERAL

1.01 SUMMARY

A. Project identification: Guilford Storage Pole Barn

Location: Guilford High School
5620 Spring Creek Road
Rockford, IL

B. Project summary: Provide concrete work, Pole Barn Superstructure, Exterior Metal Siding, Doors, and Metal Roofing for a 60'x30' cold storage building.

C. Particular project requirements:

1. Existing site conditions and restrictions:
 - a. Confine parking and loading areas to areas on site as directed by the Owner's Representative and building principal.
 - b. Provide fences, barricades, guard lights, etc. as required to protect persons and property from injury in conjunction with this contract work
 - c. Building access shall only be as required to perform construction duties.
 - d. Access shall be limited.
 - e. Remove rubbish and debris daily. Remove excess materials and equipment from site upon completion of use.
 - f. At NO TIME, shall contractor allow any persons or equipment to be on the track or field!
2. Requirements for sequencing or scheduling:
 - a. Hours of access shall be as allowed by SD 205. Typically 6am to 5pm
 - b. The Contractor and all Subcontractors shall notify the Owner's Representative prior to beginning work each day.
3. Protect existing work:
 - a. Protect existing building and surfaces to remain. Protect existing trees, shrubs, lawns, etc.
 - b. Repair damage to this contract work at no cost to Owner.
 - c. Water damage to building, including the interior, caused by Contractor's failure to properly protect the work, shall be the responsibility of the Contractor to correct.
4. Guarantee: Contractor is to guarantee all work for a minimum of three years after final acceptance.
5. Provide all items, articles, materials, operations, or methods listed, mentioned, or scheduled on the drawings and/or herein, including all equipment, and incidentals necessary and required pertaining to the work of this contract.

D. Permits and Fees: All permits and fees shall be secured and paid for by the owner.

E. Codes: Comply with applicable codes and regulations of authorities having jurisdiction. Submit copies of inspection reports, notices and similar communications to Owner.

F. Dimensions: Verify dimensions indicated on drawings with field dimensions before fabrication or ordering of materials. Do not scale drawings.

G. Existing Conditions: Notify Owner of existing conditions differing from those indicated on the drawings. Do not remove or alter structural components without prior written approval.

H. Coordination:

SECTION 01010
SUMMARY OF WORK

1. Coordinate the work of all trades.
2. Verify location of utilities and existing conditions.

I. Installation Requirements, General:

1. Inspect substrates and report unsatisfactory conditions in writing.
2. Do not proceed until unsatisfactory conditions have been corrected.
3. Take field measurements prior to fabrication where practical. Form to required shapes and sizes with true edges, lines and angles. Provide inserts and templates as needed for work of other trades.
4. Install materials in exact accordance with manufacturer's instructions and approved submittals.
5. Install materials in proper relation with adjacent construction and with proper appearance.
6. Restore units damaged during installation. Replace units which cannot be restored at no additional expense to the Owner.
7. Refer to additional installation requirements and tolerances specified under individual specification sections.

J. Definitions:

1. Provide: Furnish and install, complete with all necessary accessories, ready for intended use. Pay for all related costs.
2. Approved: Acceptance of item submitted for approval. Not a limitation or release for compliance with the Contract Documents or regulatory requirements. Refer to limitations of 'Approved' in General and Supplementary Conditions.
3. Match Existing: Match existing as acceptable to the Owner.

K. Intent: Drawings and specifications are intended to provide the basis for proper completion of the work suitable for the intended use of the Owner. Anything not expressly set forth but which is reasonable implied or necessary for proper performance of the project shall be included.

L. Writing style: Specifications are written in the imperative mode. Except where specifically intended otherwise, the subject of all imperative statements is the Contractor. For example, 'Provide tile' means 'Contractor shall provide tile.'

PART 2 - PRODUCTS - Not Applicable To This Section

PART 3 - EXECUTION - Not Applicable To This Section

END OF SECTION

SECTION 01045
CUTTING AND PATCHING

PART 1 - GENERAL

1.01 SUMMARY

- A. Provide cutting and patching work to properly complete the work of the project, complying with requirements for:
 - 1. Structural work.
 - 2. Electrical systems.
 - 3. Visual requirements, including detailing and tolerances.
 - 4. Operational and safety limitations.
 - 5. Fire resistance ratings.
 - 6. Inspection, preparation, and performance.
 - 7. Cleaning.
- B. Do not cut and patch in a manner that would result in a failure of the work to perform as intended, decreased energy performance, increased maintenance, decreased operational life, or decreased safety.

PART 2 - PRODUCTS

2.02 MATERIALS

- A. Match existing materials for cutting and patching work with new materials conforming to project requirements.

PART 3 - EXECUTION

3.02 INSTALLATION

- A. Inspect conditions prior to work to identify scope and type of work required. Protect adjacent work. Notify Owner of work requiring interruption to building services or Owner's operations.
- B. Perform work with workmen skilled in the trades involved. Prepare sample area of each type of work for approval.
- C. Cutting: Use cutting tools, not chopping tools. Make neat holes. Minimize damage to adjacent work. Check for concealed utilities and structure before cutting.
- D. Patching: Make patches, seams, and joints durable and inconspicuous. Comply with tolerances for new work.
- E. Clean work area and areas affected by cutting and patching operations.

END OF SECTION

SECTION 01100
PROJECT PROCEDURES

PART 1 - GENERAL

1.01 SUMMARY

- A. Provide coordination of work.
 - 1. Supervisory personnel.
 - 2. Preconstruction conference.
 - 3. Other meetings as requested by the Owner and/or Architect.
- B. Submit reports as requested by the Owner and/or Architect.
- C. Prepare schedules:
 - 1. Submit progress schedule, bar-chart type, updated weekly.
 - 2. Prepare submittal schedule; coordinate with progress schedule.
 - 3. Submit schedule of values.
- D. Perform surveys:
 - 1. Laying out the work and verifying locations during construction.
- E. Submit and post a list of emergency telephone numbers and address for individuals to be contacted in case of emergency.
- F. Submit payment request procedures.
- G. Perform quality control during installation.
- H. Clean and protect the work.

PART 2 - PRODUCTS - Not Applicable To This Section

PART 3 - EXECUTION - Not Applicable To This Section

END OF SECTION

Timeline and Process for 1st Payment Applications

Contractor

Submit Pencil Draft are emailed within 24 Business Days before a Scheduled Board Meeting.

Must Include the Following Documents:

AIA G702 Payment Application

AIA G703 (Schedule of Value Summary) - a listing all the contractor's labor, material, and overhead; sub contractors and what is owed. All columns and totals must balance.

Partial Waiver of Lien (Contractor's Affidavit) - Listing contractors labor and overhead; sub-contractors and suppliers listed on G703.

Certified Payroll for labor - For days requesting payment for any labor done.

Architect/Engineer & Project Manager

AE to Review and add comments for corrections and return back to **Contractor** after discussing all issues with Project Manager

Contractor

Will make any corrections as instructed and return within 20 Business Days before a Scheduled Board Meeting to the **Architect/Engineer**:

2-sets of Originals AIA Documents Signed and Notarized

2-sets Partial Waiver of Lien / Contractor's Affidavit, Signed & Notarized

1-set of Certified Payroll, Signed & Notarized

Copies will not not be accepted

Architect/Engineer

The **AE** is to sign all approved documents and deliver to the **Project Manager** within 16 Business Days before the next Scheduled Board Meeting

Project Manager

Is to verify all information is received from **AE is complete.**

Pay Request Packet must consist of the following:

AIA Documents G702 & G703 , Signed and Notarized.

Partial Waiver of Lien / Contractor's

Affidavit, for current payment requested.

Signed and notarized.

Copies will not not be accepted

Project Manager needs to have pay request packet turned into Operations Manager within 13 Business Days before Scheduled Board Meeting

Operations Manager

Will obtain Final Approval/Signature for payment and submit to **Accounts Payable Department** 10 Business Days before Scheduled Board Meeting

Accounts Payable Department

Board Meeting

Checks are mailed or pickup the Wednesday after a board meeting

Timeline and Process for Payment Applications

Contractor

Submit Pencil Draft are emailed within 24 Business Days before a Scheduled Board Meeting.

Must Include the Following Documents:

AIA G702 Payment Application

AIA G703 (Schedule of Value Summary) - a listing of all the contractor's labor, material, and overhead; sub-contractors and what is owed. All columns and totals must balance.

Partial Waiver of Lien (Contractor's Affidavit) - Listing contractors labor and overhead; sub-contractors and suppliers listed on G703.

Individual Waiver of Lien(s) - Report from each sub-contractor and supplier (draft copy)

Certified Payroll for labor - For days requesting payment for any labor done.

Change Orders cannot be listed, unless revised purchase order is issued by RPS Purchasing Department

Architect/Engineer & Project Manager

AE to Review and add comments for corrections and return back to **Contractor** after discussing all issues with Project Manager

Contractor

Will make any corrections as instructed and return within 20 Business Days before a Scheduled Board Meeting back to the **Architect/Engineer**:

2-sets of Originals AIA Documents Signed and Notarized
2-sets Partial Waiver of Lien / Contractor's Affidavit Signed & Notarized
2-sets of Lien Waivers (Partial and/or Final) Signed & Notarized
1-set of Certified Payroll, Signed & Notarized

Copies will not not be accepted

Note: Final pay request will not be accepted unless all change orders are processed, close out documents are received, and must include all final waivers from sub-contractors and suppliers. If final waivers have already been submitted, please include copy of those waivers.

Architect/Engineer

The **AE** is to sign all approved documents and deliver to the **Project Manager** within 16 Business Days before the next Scheduled Board Meeting

Project Manager

Is to verify all information is received from AE is complete.

Pay Request Packet must consist of the following:

AIA Documents G702 & G703, Signed and Notarized.

Partial Waiver of Lien / Contractor's Affidavit, for current payment requested. Signed and notarized

Waiver of Lien(s) - form each sub-contractor and supplier paid on pervious pay request.

Signed and notarized.

Copies will not not be accepted

Project Manager needs to have pay request packet turned into Operations Manager within 13 Business Days before Scheduled Board Meeting

Operations Manager

Will obtain Final Approval/Signature for payment and submit to **Accounts Payable Department** 10 Business Days before Scheduled Board Meeting

Accounts Payable Department

Board Meeting

Checks are mailed or pickup the Wednesday after a board meeting

WAIVER OF LIEN TO DATE

RECEIVED

STATE OF ILLINOIS

COUNTY OF LAKE

} SS

Gty # _____
Escrow # _____

TO WHOM IT MAY CONCERN:

WHEREAS the undersigned has been employed by _____
to furnish _____
for the premises know as _____
of which _____ is the owner.

The undersigned for and in consideration of \$ _____ Dollars, and other good and valuable considerations, the receipt whereof is hereby acknowledged, do(es) hereby waive and release any and all lien or claim of, or right to, lien, under the statutes of the State of Illinois, relating to mechanics' liens with respect to and on said above - described premises, and the improvements thereon, and on the material, fixtures, apparatus or machinery furnished, and on the moneys, funds or other considerations due or to become due from the owner, on account of all labor, services, material, fixtures, apparatus or machinery, furnished to this date by the undersigned for the above-described premises, INCLUDING EXTRAS.*

Date _____ Company Name _____
Address _____

SIGNATURE AND TITLE

*EXTRAS INCLUDE BUT ARE NOT LIMITED TO CHANGE ORDERS, BOTH ORAL AND WRITTEN, TO THE CONTRACT

CONTRACTOR'S AFFIDAVIT

STATE OF ILLINOIS

COUNTY OF LAKE

} SS

TO WHOM IT MAY CONCERN:

THE UNDERSIGNED, (NAME) _____ BEING DULY SWORN, DEPOSES
AND SAYS THAT HE OR SHE IS (POSITION) _____ OF
(COMPANY NAME) _____ WHO IS THE CONTRACTOR
FURNISHING _____ WORK ON THE BUILDING
LOCATED AT _____
OWNED BY _____

That the total amount of the contract including extras* is \$ _____ on which he or she has received payment of \$ _____ prior to this payment. That all waivers are true, correct and genuine and delivered unconditionally and that there is no claim either legal or equitable to defeat the validity of said waivers. That the following are the names and addresses of all parties who have furnished material or labor, or both, for said work and all parties having contracts or sub contracts for specific portions of said work or for material entering into the construction thereof and the amount due or to become due to each, and that the items mentioned include all labor and material required to complete said work according to plans and specifications:

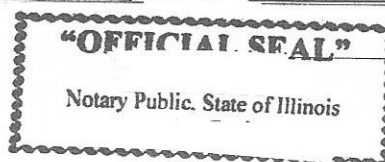
NAMES AND ADDRESSES	WHAT FOR	CONTRACT PRICE INCLUDING EXTRAS	AMOUNT PAID	THIS PAYMENT	BALANCE DUE
All material out of stock					
Labor					
Each Sub					
Each Supplier					
TOTAL LABOR AND MATERIAL INCLUDING EXTRAS* TO COMPLETE.					

That there are no other contracts for said work outstanding, and that there is nothing due or to become due to any person for material, labor or other work of any kind done or to be done upon or in connection with said work other than above stated.

DATE _____ SIGNATURE _____

SUBSCRIBED AND SWORN TO BEFORE ME THIS _____ DAY OF _____

* EXTRAS INCLUDE BUT ARE NOT LIMITED TO CHANGE ORDERS, BOTH ORAL AND WRITTEN, TO THE CONTRACT.



NOTARY PUBLIC



S STATE OF ILLINOIS

FINAL WAIVER OF LIEN

Gty #

COUNTY OF Winnebago

Escrow #

TO WHOM IT MAY CONCERN:

WHEREAS the undersigned has been employed by Sjostrom & Sons
to furnish glass and glazing
for the premises known as Kennedy Middle School Pool Renovations
of which Rockford School District #205 is the owner.

THE undersigned, for and in consideration of **

(\$¹ **) Dollars, and other good and valuable considerations, the receipt whereof is hereby acknowledged, do(es)
hereby waive and release any and all lien or claim of, or right to, lien, under the statutes of the State of Illinois, relating to mechanics'
liens, with respect to and on said above-described premises, and the improvements thereon, and on the material, fixtures, apparatus or
machinery furnished, and on the moneys, funds or other considerations due or to become due from the owner, on account of all labor,
services, material, fixtures, apparatus or machinery, heretofore furnished, or which may be furnished at any time hereafter, by the
undersigned for the above-described premises, INCLUDING EXTRAS.*

DATE 09/02/2016 COMPANY NAME

ADDRESS

SIGNATURE AND TITLE

*EXTRAS INCLUDE BUT ARE NOT LIMITED TO CHANGE ORDERS, BOTH ORAL AND WRITTEN, TO THE CONTRACT

CONTRACTOR'S AFFIDAVIT

STATE OF ILLINOIS

COUNTY OF Winnebago

TO WHOM IT MAY CONCERN:

THE UNDERSIGNED, (NAME)

DEPOSES

AND SAYS THAT HE OR SHE IS (POSITION)

OF

(COMPANY NAME)

WHO IS THE

CONTRACTOR FURNISHING

WORK ON THE BUILDING

LOCATED AT:

OWNED BY

That the total amount of the contract including extras* is \$**

** on which he or she has received payment of

\$** * prior to this payment. That all waivers are true, correct and genuine and delivered unconditionally and that
there is no claim either legal or equitable to defeat the validity of said waivers. That the following are the names and addresses of all
parties who have furnished material or labor, or both, for said work and all parties having contracts or sub contracts for specific
portions of said work or for material entering into the construction thereof and the amount due or to become due to each, and that the
items mentioned include all labor and material required to complete said work according to plans and specifications:

NAMES AND ADDRESSES	WHAT FOR	CONTRACT PRICE INCLDG EXTRAS*	AMOUNT PAID	THIS PAYMENT	BALANCE DUE
All material out of stock					
Labor					
Each Sub					
Each Supplier					
TOTAL LABOR AND MATERIAL INCLUDING EXTRAS* TO COMPLETE.					

That there are no other contracts for said work outstanding, and that there is nothing due or to become due to any person for material,
labor or other work of any kind done or to be done upon or in connection with said work other than above stated.

DATE

SIGNATURE:

SUBSCRIBED AND SWORN TO BEFORE ME THIS DAY OF

*EXTRAS INCLUDE BUT ARE NOT LIMITED TO CHANGE
ORDERS, BOTH ORAL AND WRITTEN, TO THE CONTRACT.

NOTARY PUBLIC

SECTION 01300

SUBMITTALS

PART 1 - GENERAL

1.01 SUMMARY

- A. Provide types of submittals listed in individual sections and number of copies required.
 - 1. Shop drawings, reviewed and annotated. 2.
 - 2. Product data.
 - 3. Samples - 3, plus extra samples as required to indicate range of color, finish, and texture to be expected. ONLY physical samples will be accepted. NO electronic submission.
 - 4. Inspection and test reports.
 - 5. Warranties - Three (3) hard-copies, signed and sealed as appropriate. NO electronic submission.
 - 6. Closeout submittals.
- B. Comply with project format for submittals.
 - 1. Provide two (3) copies of all written material, one (1) copy to be returned.
or
 - 2. Provide editable pdf. Copy will be returned via email.
- C. Provide required resubmittals if original submittals are not approved. Provide distribution of approved copies including modifications after submittals have been approved.
- D. Samples and shop drawings shall be prepared specifically for this project. Shop drawings shall include dimensions and details, including adjacent construction and related work. As indicated, provide shop drawings signed and sealed by a Licensed Illinois Structural Engineer. Note special coordination required. Note any deviations from requirements of the Contract Documents.
- E. Provide warranties as specified; warranties shall not limit length of time for remedy of damages Owner may have by legal statute. Warranties shall be signed by contractor, supplier or installer responsible for performance of warranty.

PART 2 - PRODUCTS - Not Applicable To This Section

PART 3 - EXECUTION - Not Applicable To This Section

END OF SECTION

SECTION 01500
TEMPORARY FACILITIES

PART 1 - GENERAL

1.01 SUMMARY

- A. Provide temporary services and utilities, including utility costs:
 - 1. Water: Temporary water service required for the work will be available from the Owner's existing system as directed by the Owner. Owner will pay cost of water used.
 - 2. Lighting and power: The contractor shall provide all temporary electricity as required for the work by extending proper feeders, switches, etc. from the Owner's existing system. Owner to extend power source to within twenty feet of the work area. Current available at no cost to Contractor. Do not connect any equipment requiring more than 110 volts to Owner's system.
 - 3. Telephone: Shall be furnished by the Contractor.
 - 4. Toilet facilities: Contractor is NOT allowed use of RPS205 toilets. Contractor must provide.
 - 5. Materials storage: Exterior storage to be limited to areas on the site as directed by the Owner's Representative. Interior material storage is not available.
- B. Provide construction and personnel support facilities:
 - 1. None. Field office, if desired by the contractor, shall be at contractor's sole expense.
 - 2. Provide waste-collection containers in sizes adequate to handle waste from construction operations. Collect waste daily and, when containers are full, legally dispose of waste off-site.
 - 3. Install project identification and other signs in locations approved by Owner to inform the public and persons seeking entrance to Project.
- C. Provide security and protection requirements:
 - 1. Fire extinguishers.
 - 2. Site enclosure, fences, barricades, warning signs, lights, etc. as required to protect persons and property from injury in conjunction with this contract work.
 - 3. Environmental protection.

PART 2 - PRODUCTS - Not Applicable To This Section

PART 3 - EXECUTION - Not Applicable To This Section

END OF SECTION

SECTION 01600
PRODUCTS AND SUBSTITUTIONS

PART 1 - GENERAL

1.01 SUMMARY

- A. Provide products from one manufacturer for each type or kind as applicable. Provide secondary materials as recommended by manufacturers of primary materials.
- B. Provide products selected or approved equal. Products submitted for substitution shall be submitted with acceptable documentation, and include costs of substitution including related work.
- C. Request for substitution must be in writing. Conditions for substitution include:
 - 1. An 'or equal' phrase in the specifications. All or equal substitutions to be as approved by owner.
 - 2. Specified material cannot be coordinated with other work.
 - 3. Specified material is not acceptable to authorities having jurisdiction.
 - 4. Substantial advantage is offered to the Owner in terms of cost, time, or other valuable consideration.
- D. Substitutions shall be submitted prior to award of contract, unless otherwise acceptable. Approval of shop drawings, product data, or samples is not a substitution approval unless clearly presented as a substitution at the time of submittal.

PART 2 - PRODUCTS - Not Applicable To This Section

PART 3 - EXECUTION - Not Applicable To This Section

END OF SECTION

SECTION 01700
CONTRACT CLOSEOUT

PART 1 - GENERAL

1.01 SUMMARY

- A. The following are prerequisites to substantial completion. Provide the following:
1. Punch list.
 2. Supporting documentation.
 3. Warranties.
 4. Certifications.
- B. Provide the following prerequisites to final acceptance:
1. Final payment request with supporting affidavits.
 2. Completed punch list.
- C. Provide a marked-up set of drawings including changes which occurred during construction.
- D. Provide the following closeout procedures:
1. Electronic Closeout Documentation.
 2. Training and turnover to Owner's personnel.
 3. Final cleaning and touch-up.
 4. Removal of temporary facilities, fences, barricades, etc.
 5. Excess construction materials and construction equipment.
- E. Electronic Closeout Documentation:
1. Provide a complete project closeout documentation package in electronic format. This package shall include:
 - a. Project Record Documents.
 - b. Approved Submittals.
 - c. Operation and Maintenance Manuals.
 - d. Warranties.
 - e. Owner training materials/DVD's.
 - f. Project Contact Directory.
 2. The Electronic Closeout Documentation shall be prepared by Digital Revolution, Inc./BHFX LLC; Contact TJ Hurckes at 847-899-3414 or tj.hurckes@bhfx.net.
 3. In order to facilitate the Electronic Closeout Documentation process, comply with the following procedures:
 - a. Contact Digital Revolution, Inc. after award of the contract to schedule a pre-closeout meeting. Review the following:
 1. Format of documents: PDF electronic format for all documents.
 2. Folder structure for storage and transfer of files.
 3. Schedule for collection and turn-over of closeout documentation.
 4. Record Document format procedures: Provide clean and accurate paper copies of the marked-up Record Documents (Drawings and Specifications) for scanning.
 5. Provide contact information for the individual responsible for the collection and transfer of the electronic closeout documentation package contents.

PART 2 - PRODUCTS - Not Applicable To This Section

PART 3 - EXECUTION - Not Applicable To This Section

END OF SECTION

SECTION 02050

DEMOLITION

PART 1 - GENERAL

1.01 SUMMARY

A. Building and Site Demolition:

1. Demolition of site improvements including paving and fencing.
2. Protection of site work and adjacent structures.
3. Disconnection, capping, and removal of utilities.
4. Pollution control during building demolition, including noise control.
5. Removal and legal disposal of materials.

B. Selective Demolition:

1. Selective demolition of building components designated to be removed.
2. Protection of portions of structure adjacent to or affected by selective demolition.
3. Removal of abandoned utilities.
4. Notification to Owner of schedule of shut-off of utilities.

C. Asbestos and hazardous materials demolition or removal work is not part of this contract.

1.02 DEFINITIONS

- A. Remove and Salvage: Carefully detach from existing construction, in a manner to prevent damage, and deliver to Owner.
- B. Remove and Reinstall: Detach items from existing construction, prepare for reuse, and reinstall where indicated.
- C. Existing to Remain: Existing items of construction that are not to be permanently removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.
- D. Remove: Detach items from existing construction and legally dispose of them off-site unless indicated to be removed and salvaged or removed and reinstalled.

1.03 MATERIALS OWNERSHIP

- A. Unless otherwise indicated, demolition waste becomes property of Contractor.

1.04 SUBMITTALS

- A. Submit for approval selective demolition schedule, including schedule and methods for capping utilities to be abandoned and maintaining existing utility service.
- B. Proposed Protection Measures: Submit report, including drawings, that indicates the measures proposed for protecting individuals and property, for dust control, and for noise control. Indicate proposed locations and construction of barriers.
- C. Schedule of Selective Demolition Activities: Indicate the following:
 1. Detailed sequence of selective demolition and removal work, with starting and ending dates for each activity. Ensure Owner's on-site operations are uninterrupted.
 2. Interruption of utility services. Indicate how long utility services will be interrupted.
 3. Coordination for shutoff, capping, and continuation of utility services.
 4. Coordination of Owner's continuing occupancy of portions of existing building and of

Owner's partial occupancy of completed Work.

- D. Inventory: Submit a list of items to be removed and salvaged and deliver to Owner prior to start of demolition.
- E. Predemolition Photographs or Video: Submit before Work begins.
- F. Warranties: Documentation indicated that existing warranties are still in effect after completion of selective demolition.

1.05 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Use experienced workers.
- B. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- C. Standards: Comply with ANSI/ASSE A10.6 and NFPA 241.

1.06 PROJECT CONDITIONS

- A. Immediate areas of work will not be occupied during selective demolition. Adjacent areas may be occupied by the public, including children.
- B. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.
- C. Hazardous Materials:
 - 1. If suspected hazardous materials are encountered, do not disturb; immediately notify Architect and Owner. Hazardous materials will be removed by Owner under a separate contract.
- D. Storage or sale of removed items or materials on-site is not permitted.
- E. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.

1.07 WARRANTY

- A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during selective demolition, by methods and with materials so as not to void existing warranties. Notify warrantor before proceeding.
- B. Notify warrantor on completion of selective demolition, and obtain documentation verifying that existing system has been inspected and warranty remains in effect. Submit documentation at Project closeout.

PART 2 - PRODUCTS - Not Applicable To This Section

PART 3 - EXECUTION

3.02 EXAMINATION

- A. Verify that utilities have been disconnected and capped before starting selective demolition operations.

- B. Review record documents of existing construction provided by Owner. Owner does not guarantee that existing conditions are same as those indicated in record documents.
- C. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.
- D. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to Architect and Owner.
- E. Survey of Existing Conditions: Record existing conditions by use of preconstruction photographs.

3.03 PREPARATION

- A. Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
- B. Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
 - 1. Provide protection to ensure safe passage of people around selective demolition area and to and from occupied portions of building.
 - 2. Provide temporary weather protection, during interval between selective demolition of existing construction on exterior surfaces and new construction, to prevent water leakage and damage to structure and interior areas.
- C. Temporary Shoring: Provide and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished. Strengthen or add new supports when required during progress of selective demolition.

3.04 DEMOLITION

- A. Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
 - 1. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces. Temporarily cover openings to remain.
 - 2. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
 - 3. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain fire watch and portable fire-suppression devices during flame-cutting operations. Maintain adequate ventilation when using cutting torches.
 - 4. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.
 - 5. Remove structural framing members and lower to ground by method suitable to avoid free fall and to prevent ground impact or dust generation.
 - 6. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
- B. Except for items or materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, remove demolished materials from Project site.
 - 1. Dispose of demolished items and materials promptly. Do not allow demolished materials to accumulate on-site.
 - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces

- and areas.
- 3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.
- 4. Burning: Do not burn demolished materials.
- 5. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

C. Removed and Salvaged Items:

- 1. Clean salvaged items.
- 2. Pack or crate items after cleaning. Identify contents of containers.
- 3. Store items in a secure area until delivery to Owner.
- 4. Transport items to Owner's storage area designated by Owner.
- 5. Protect items from damage during transport and storage.

D. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition.

3.05 CLEANING

- A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

END OF SECTION

SECTION 02100
SITE PREPARATION

PART 1 - GENERAL

1.01 SUMMARY

- A. Protection of existing turf, and site improvements not scheduled for clearing which might be damaged by construction activities.
- B. Clearing of vegetation, and removal and disposal of debris, rubbish, and site improvements.
- C. Topsoil stripping.
- D. Temporary erosion control, siltation control, and dust control.
- E. Temporary protection of adjacent property, structures, and monuments.
- F. Watering of turf during construction activities.
- G. Removal and legal disposal of cleared materials.

1.02 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Use experienced workers.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Erosion control, siltation control, and dust control materials suitable for site conditions.

PART 3 - EXECUTION

3.02 CLEARING

- A. Prevent damage to existing improvements indicated to remain, including improvements on and off site. Protect existing vegetation indicated to remain.
- B. Water vegetation as required to maintain health.
- C. Repair or replace vegetation which has been damaged. Remove heavy growths of grass before stripping. Stockpile satisfactory topsoil containing no large stones, foreign matter and weeds on site for reuse.
- D. Completely remove all improvements and debris except for those indicated to remain. Remove below grade improvements at least 12" below finish grade and to the extent necessary so as not to interfere with new construction. Remove abandoned mechanical and electrical work as required.
- E. Prevent erosion and siltation of streets, catch basins and piping. Control windblown dust. Remove waste materials and unsuitable soil from site and dispose of in a legal manner.

END OF SECTION

SECTION 02200

EARTHWORK

PART 1 - GENERAL

1.01 SUMMARY

- A. Perform excavation, filling, compacting and grading operations as required for below-grade improvements and to achieve grades and elevations indicated.
- B. Provide subbase materials, drainage fill, and common fill materials for slabs, pavements, and improvements.
- C. Provide suitable fill from off-site if on-site quantities are insufficient or unacceptable, and legally dispose of excess fill off-site.

1.02 SUBMITTALS

- A. Submit for approval test reports, list of materials and gradations proposed for use.

1.03 QUALITY ASSURANCE

- A. Compaction:
 - 1. Under structures, building slabs, steps, pavements, and walkways, 95 percent maximum density, ASTM D 1557.
 - 2. Under lawns or unpaved areas, 90 percent maximum density, ASTM D 1557.
- B. Grading Tolerances Outside Building Lines:
 - 1. Lawns, unpaved areas, and walks, plus or minus 1 inch.
 - 2. Pavements, plus or minus 1/2 inch.
- C. Grading Tolerance for Fill Under Building Slabs: Plus or minus 1/2 inch measured with 10 foot straightedge.

PART 2 - PRODUCTS

2.02 MATERIALS

- A. Subbase material: Gravel or crushed stone graded for intended use as subbase for paving materials specified.
- B. Drainage fill: Washed gravel or crushed stone, 1/4" to 3/4" size; ASTM C 33, Size 67.
- C. Common fill: Mineral soil substantially free from organic and unsuitable materials, and free from rock or gravel larger than 2" in diameter; 80 percent passing No. 40 sieve and not more than 50 percent passing No. 200 sieve.
- D. Structural fill: Gravel or sandy gravel free of organic and unsuitable materials and within the following gradation limits: 4" sieve, 100 percent finer by weight; 1" sieve, 60 to 100 percent; No. 4 sieve, 25 to 85 percent; No. 20 sieve, 10 to 60 percent; No. 50 sieve, 4 to 35 percent; No. 200 sieve, 0 to 5 percent.

PART 3 - EXECUTION

3.02 INSTALLATION

- A. Excavation is unclassified and includes excavation to subgrade regardless of materials encountered. Repair excavations beyond elevations and dimensions indicated as follows:
 - 1. At structure: Concrete or compacted structural fill.
 - 2. Elsewhere: Backfill and compact as directed.
- B. Maintain stability of excavations; coordinate shoring and bracing as required by authorities having jurisdiction. Prevent surface and subsurface water from accumulating in excavations. Stockpile satisfactory materials for reuse, allow for proper drainage and do not stockpile materials within drip line of trees to remain.
- C. Compact materials at the optimum moisture content as determined by ASTM D 1557 by aeration or wetting to the following percentages of maximum dry density:
 - 1. Structure, Pavement, Walkways: Subgrade and each fill layer to 95% of maximum dry density to suitable depth.
 - 2. Unpaved Areas: Top 6" of subgrade and each fill layer to 90% maximum dry density.
- D. Place acceptable materials in layers not more than 8" loose depth for materials compacted by heavy equipment and not more than 4" loose depth for materials compacted by hand equipment to subgrades indicated as follows:
 - 1. Structural Fill: Use under foundations, slabs on grade in layers as indicated.
 - 2. Drainage Fill: Use under designated building slabs, at foundation drainage and elsewhere as indicated.
 - 3. Common Fill: Use under unpaved areas.
 - 4. Subbase Material: Use under pavement, walks, steps, piping and conduit.
- E. Grade to within 1/2" above or below required subgrade and within a tolerance of 1/2" in 10'.
- F. Protect newly graded areas from traffic and erosion. Recompact and regrade settled, disturbed and damaged areas as necessary to restore quality, appearance, and condition of work.
- G. Control erosion to prevent runoff into sewers or damage sloped or runoff areas..
- H. Control dust to prevent hazards to adjacent properties and vehicles. Immediately repair or remedy damage caused by dust, including air filters in equipment and vehicles. Clean soiled surfaces.
- I. Dispose of waste and unsuitable materials off-site in a legal manner.

END OF SECTION

SECTION 02511

HOT-MIXED ASPHALT PAVING

PART 1 - GENERAL

1.01 SUMMARY

- A. Provide hot-mixed asphalt paving over prepared subbase:
 - 1. Patching of existing

1.02 SUBMITTALS

- A. Submit for approval product data, test reports.

1.03 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.
- B. Construction Tolerances:
 - 1. Base Course Thickness: Within 1/2 inch.
 - 2. Surface Course Thickness: Within 1/4 inch.
 - 3. Base Course Surface Smoothness: Within 1/4 inch.
 - 4. Surface Course Surface Smoothness: Within 3/16 inch. No ponding acceptable.
 - 5. Crowned Surfaces: Within 1/4 inch from template.

PART 2 - PRODUCTS

2.02 MATERIALS

- A. Asphalt-Aggregate Mixture: Plant-mixed, hot-laid asphalt-aggregate mixture, ASTM D 3515, complying with local DOT and DPW regulations.
- B. Prime Coat: Cut-back asphalt, ASTM D 2027.
- C. Tack Coat: Emulsified asphalt, ASTM D 977.
- D. Herbicide Treatment: Commercial chemical for weed control registered by Environmental Protection Agency and acceptable to authorities having jurisdiction.

PART 3 - EXECUTION

3.02 INSTALLATION

- A. Asphalt/Aggregate Mixture: Comply with local DOT or DPW Standard Specifications for Highways and Bridges. Class as required by loading and use.
- B. Remove loose material from compacted subbase. Proof roll and check for areas requiring additional compaction. Report unsatisfactory conditions in writing. Beginning of work means acceptance of subbase.
- C. Apply prime coat to prepared subbase. Apply tack coat to previous laid work and adjacent in-place concrete surfaces.
- D. Place asphalt concrete at minimum temperature of 225 degrees F in strips not less than 10'

wide overlapping previous strips. Complete entire base course before beginning surface course.

- E. Construct curbs to dimensions indicated or if not indicated to standard shapes. Provide tack coat between curb and pavement.
- F. Begin rolling when pavement can withstand weight of roller. Roll while still hot to obtain maximum density and to eliminate roller marks.
- G. Test in-place asphalt work for thickness and smoothness. Remove and replace defective work and patch to eliminate evidence of patching

END OF SECTION

SECTION 02520

PORTLAND CEMENT CONCRETE PAVING

PART 1 - GENERAL

1.01 SUMMARY

- A. Provide cast-in-place concrete paving over prepared subbase:
 - 1. Aprons.

1.02 SUBMITTALS

- A. Submit for approval product data, mix design, mock-ups, test reports.

1.03 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.
- B. Construction Tolerance: 1/8" in 10' for grade and alignment of top of forms; 1/4" in 10' for vertical face on longitudinal axis.
- C. Testing: Independent testing laboratory.

PART 2 - PRODUCTS

2.02 MATERIALS

- A. Concrete: ASTM C 150, Type I, Portland cement; ASTM C 33, normal weight aggregates; potable water.
 - 1. Design Mix: ASTM C 94, 4000 psi, 28 day minimum compressive strength.
 - 2. Slump Limits: 8 inches minimum with superplasticizer, 3 inches otherwise.
 - 3. Air Content: 6 percent.
 - 4. Finish: Broom finish, perpendicular to direction of travel.
- B. Wire Mesh Reinforcement: Welded plain steel wire fabric, ASTM A 185.
- C. Reinforcing Steel: Deformed steel bars, ASTM A 615, Grade 60.
- D. Liquid-Membrane Forming and Sealing Curing Compound: ASTM C 309, Type I, Class A.
- E. Bonding Compound: Polyvinyl acetate or acrylic base.

PART 3 - EXECUTION

3.02 INSTALLATION

- A. Proof roll subbase and check for unstable areas. Report unsatisfactory conditions in writing. Beginning paving work means acceptance of subbase.
- B. Comply with concrete section for concrete mix, testing, placement, joints, tolerances, curing, repairs and protection.
- C. Dispose to over-mixed concrete off-site in a legal manner.
- D. Protect Concrete paving until weight of a person will not leave an impression. Remove and replace concrete paving which shows impressions or other defects. Skim coating defects is not acceptable.

END OF SECTION

SECTION 02900

LANDSCAPING

PART 1 - GENERAL

1.01 SUMMARY

- A. Provide landscape work:
 - 1. Finish grading, topsoil and soil amendments
 - 2. Lawns.
 - 3. Reconditioning existing lawns.

1.02 SUBMITTALS

- A. Submit for approval product data, mock-ups, test reports, warranty, maintenance data, 48-hour written notice prior to turnover to Owner for watering and maintenance.

1.03 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

1.04 WARRANTY

- A. Warrant trees and shrubs for a period of one year after date of Substantial Completion, against defects including death and unsatisfactory growth and except for defects resulting from neglect by Owner, abuse by others, or natural phenomena. Replace unsatisfactory plant material at end of warranty period at no additional expense to the Owner. One replacement is required.

PART 2 - PRODUCTS

2.02 MATERIALS

- A. Plant Materials:
- B. Lawns: Seed, new crop seed mixture.
 - 1. Tall fescue blend
 - 2. Fine fescue blend
- C. Topsoil: Fertile, friable topsoil from offsite.
- D. Soil Amendments:
 - 1. Commercial Fertilizer: Neutral character for plant materials and lawns.

PART 3 - EXECUTION

3.02 INSTALLATION

- A. Install materials in accordance with approved submittals. Install landscape work in proper relation with adjacent construction and with uniform appearance. Coordinate with work of other sections.
- B. Prepare topsoil by mixing fertilizer with loam. Apply fertilizer at a rate of 2 pounds of actual nitrogen per 1000 sq. ft. for plant beds and 2 pounds per inch of trunk for tree pits.

- C. Install soil mix to a depth of 18" in plant beds.
- D. Prepare existing turf for restoration by raking or otherwise exposing soil to receive new seed.
- E. For newly seeded lawns, apply seed at rate of 5 pounds per 1000 square feet. Immediately cover new seed with thinly raked soil.
- F. For existing turf restoration, apply seed at a minimum rate of 2-4 pounds per 1000 square feet.
- G. Provide maintenance and watering until turnover to Owner's for maintenance and watering. Replace damaged materials and dead or unhealthy plants prior to turnover to Owner.

END OF SECTION

SECTION 03300
CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.01 SUMMARY

- A. Provide cast-in-place concrete for general building construction, including, without limitation:
 - 1. Footings, foundations, slab on grade, and turned down slab.
 - 2. Slab on grade.
 - 3. Requirements (materials, mixes, finishes) apply to concrete work specified in other sections, such as sidewalk paving.

1.02 SUBMITTALS

- A. Submit for approval shop drawings, product data, mix design proposed for use, mock-ups, test reports.

1.03 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.
- B. Testing: Employ an independent testing agency acceptable to Owner to design concrete mixes and to perform material evaluation tests. Provide 7 and 28 day cylinder tests. Comply with ASTM C 143, C 173, C 31 and C 39.
- C. Standards:
 - 1. ACI 301, Specifications for structural Concrete for Buildings.
 - 2. ACI 318, Building Code Requirements for Reinforced Concrete, and CRSI Manual of Standard Practice.
- D. Testing: Independent testing laboratory.
- E. Floor Flatness and Levelness Tolerances:
 - 1. Subfloors Under Materials Such as Concrete Toppings, Ceramic Tile, and Sand Bed Terrazzo: ACI 302.1R and ASTM E 1155, floor flatness (Ff) of 15, floor levelness (Fl) of 13.
 - 2. Subfloors Under Materials Such As Vinyl Tile, Epoxy Toppings, Paint, and Carpet: ACI 302.1R and ASTM E 1155, floor flatness (Ff) of 20, floor levelness (Fl) of 17.

PART 2 - PRODUCTS

2.02 MATERIALS

- A. Concrete Design Mixes, ASTM C 94, 28 Day Compressive Strength:
 - 1. Foundations, Footings, slab on grade, and turned down slab edge 4000 psi] [
 - 2. Exterior Site Concrete and Pads Exposed to Weather: 4000 psi
- B. Formwork:
 - 1. Plywood or metal panel formwork sufficient for structural and visual requirements.
 - 2. Metal, plastic or paper tubes for cylindrical supports.
- C. Reinforcing Materials:
 - 1. Reinforcing Bars: ASTM A 615, Grade 60, deformed.
 - 2. Steel Wire Fabric: ASTM A 185, welded.

- D. Concrete Materials: ASTM C 150, Type I, Portland cement; potable water.
 - 1. Normal weight aggregates, ASTM C 33.
 - 2. Fiber Reinforcement: Polypropylene fibers for secondary reinforcement, ASTM C 1116, Type III.
- E. Concrete Admixtures: Containing less than 0.1 percent chloride ions.
 - 1. Air-Entraining Admixture: ASTM C 260, for exterior exposed concrete..
 - 2. High-Range Water-Reducing Admixture, Super Plasticizer: ASTM C 494, Type F or G for placement and workability.
- F. Auxiliary Materials:
 - 1. Vapor Retarder: ASTM E 154 polyethylene sheet, 8 mils.
 - 2. Evaporation Control Compound: Monomolecular film-forming compound.
- G. Concrete Finishes For Formed Surfaces:
 - 1. Surfaces Not Exposed To View: As-cast form finish.
 - 2. Surfaces Exposed To View: Smooth form finish.
- H. Concrete Finishes for Monolithic Slabs:
 - 1. Trowel finish for surfaces to be exposed to view or covered with resilient flooring, carpet, tile, or other thin finish system.
 - 2. Trowel and fine broom finish for surfaces to receive thin-set ceramic or quarry tile.
 - 3. Nonslip broom finish for exterior concrete slabs and aprons.
 - 4.

PART 3 - EXECUTION

3.02 INSTALLATION

- A. Comply with ASTM C 94. Do not change mix design without approval. Calcium chloride admixtures are not permitted.
- B. Chamfer exposed edges/corners to provide straight lines.
- C. Tolerance: Plus 1/8" in 10' for grade, alignment, and straightness.
- D. Construction Joints: Use keyways, continue reinforcement through joint.
- E. Isolation Joints: Provide between slabs and vertical elements such as columns and structural walls.
- F. Control Joints: Provide sawn or tooled joints or removeable insert strips; depth equal to 1/4 slab thickness. Spacing as required and approved.
- G. Cure and protect work. Report defective work in writing.

END OF SECTION

SECTION 07413

EXPOSED FASTENER METAL PANELS

PART 1 - GENERAL

1.01 SUMMARY

- A. Provide exposed fastener wall and roof panels:
 - 1. Field-assembled wall and roof panels with exposed fasteners, panel supports, and anchorage.

1.02 SUBMITTALS

- A. Submit for approval samples, product data, shop drawings.

1.03 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

1.04 WARRANTY

- A. Painted Finishes:
 - 1. Film Integrity: The paint film will not crack, check, or peel for a period of twenty-five (25) years
 - 2. Chalk and Fade: The paint film will not, for a period of thirty (30) years, fade or change in color in excess of 5 color difference units for vertical panel applications or 7 color difference units for non-vertical panel applications, measured in accordance with ASTM D2244 on the exposed painted surfaces which have been cleaned of external deposits and chalk and the corresponding values measured on the original (unexposed) painted surfaces.
- B. Galvanized Finishes:
 - 1. Finish will not rupture, fail structurally, or perforate for 20 years from date of installation.

PART 2 - PRODUCTS

2.02 MATERIALS

- A. Manufacturers: MBCI or OWNER approved equal.
 - 1. Wall Panels: MBCI WeatherSafe or owner approved equal.
 - 2. Light Transmitting Wall Panels: MBCI WeatherSafe or owner approved equal.
 - 3. Roof Panels: MBCI PBR or owner approved equal.
- B. Design wall panels in accordance with AISI North American Specification for the Design of Cold-Formed Steel Structural Members.
- C. Wall Panels:
 - 1. 36 inches wide with overlapping joints.
 - 2. Roll-form galvanized steel panels with 7/8-inch ribs at 12-inches on center.
 - 3. One piece from base to top of wall.
 - 4. Both Ends of Each Panel: Square cut and un-punched.
 - 5. Panel Material and Finish:
 - a. 26-gauge galvanized steel, ASTM A 653, G90.
 - b. Smooth finish. Full-strength, 70 percent "Kynar 500" fluoropolymer (PVDF) coating.
 - 1). Pre-treated substrate primed with 0.2 - 0.25 mil primer.
 - 2). Finish coating to be 0.7 - 0.8 mil thermoset coating consisting of polyester resin modified by silicone resin intermediate.
 - 3). Subject to ASTM D523, D3363, and D2794

6. Accessories
 - a. Fasteners:
 - 1). Base, Top, and Girt Connections: 1/4"rubber grommet, aluminum, pre-finished screws.
 - 2). Reinforcement Clip: Use in conjunction with self-drilling sheet metal screws at wall panel to structural connections.
 - b. Dense Rubber top and bottom Closure Strip
 - c. Gutters and trim
 - 1). Gutters and Downspouts
 - 2). Corner Trim
 - 3). Eave Trim
 - 4). Base Trim
 - 5). Jamb Trim / Door Post Trim
 - 6). Head Trim
 - 7). Door Header / Drip Cap
 - 8). J-Trim
 - 9). All other trims as required to cover all wood!
- D. Light Transmitting Wall Panels:
 1. 36" wide with overlapping joints.
 2. Profile formed to match metal wall panel profile.
 3. Field cut to length.
 4. 5 ounces per square foot.
 5. UV-resistant translucent panel, white, with haze value of not less than 90 percent when measured per ASTM D 1003.
- E. Roof Panels:
 1. 36" wide with overlapping joints.
 2. Roll-form galvanized steel panels with 1-1/4-inch ribs at 12-inches on center.
 3. One piece from eave to ridge.
 4. Both Ends of Each Panel: Square cut and un-punched.
 5. Panel Material and Finish:
 - a. 26-gauge
 - b. Smooth finish, "Galvalume" finish.
 6. Accessories
 - a. Fasteners:
 - 1). #14 Hex Head with 5/8"O.D. Washer - Pattern Per Panel Supplier for UL90.
 - 2). Ridge Cap / Ridge Flashing
 - 3). Gutters trim and other flashing to match wall panel.

PART 3 - EXECUTION

3.02 EXAMINATION

- A. Installer shall examine all structural steel before beginning installation to insure that all supporting members are straight, level, plumb and satisfactory for panel installation.
- B. Do not begin installation until unsatisfactory conditions are corrected.
- C. Start of installation shall signify structure and adjacent conditions as being proper and acceptable.

3.03 DELIVERY, STORAGE, AND HANDLING

- A. Protect products and panel system during shipping, handling, and storage to prevent staining, denting, deterioration of components or other damage.
- B. Deliver, unload, store, and erect insulated metal wall panels and accessory items without misshaping panels or exposing panels to surface damage from weather or construction operations.
- C. Store in accordance with Manufacturer's written instruction.

- D. Shield foam insulated metal wall panels from direct sunlight until installation.
- E. Store products off the ground, with panels sloped for drainage and covered to protect factory finishes from damage. Do not over-stack bundles.

3.04 INSTALLATION

- A. Installation of panels shall be made in accordance with manufacturer's recommended procedures, approved shop drawings, installation guide book and manufacturer's handbook of construction details.
- B. Flashing and trim shall be installed true and in proper alignment. Sealant shall be installed where indicated, without skips and voids, to insure weather tightness and integrity of the vapor barrier.

3.05 DAMAGED MATERIAL

- A. Replace damaged panels and other components of work that cannot be repaired by finish touch-up or similar minor repair.
- B. The panel installer shall inspect and approve each completed wall area and shall be responsible for protection of completed work from damage by other trades.
- C. The use of touch-up paint is not recommended for minor surface scratches. However, it is recommended to always use touch-up paint if the scratch goes to bare metal. When using touch-up paint, it should be limited to small areas. Touch-up paint will never match coil-coated finishes' longevity, color and gloss.

3.06 CLEANING

- A. Wipe finished surfaces clean of any filings caused by drilling or cutting to prevent rust staining.
- B. Protective film on trim should be removed before exposure to sunlight.

END OF SECTION

SECTION 07901
JOINT SEALANTS

PART 1 - GENERAL

1.01 SUMMARY

- A. Provide joint sealers at interior and exterior vertical and horizontal joints.

1.02 SUBMITTALS

- A. Submit for approval samples, product data and color samples

1.03 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.
- B. Field-Constructed Mock-Ups: Each joint type.
- C. Environmental Limitations: Do not proceed with installation of joint sealants when ambient and substrate temperature conditions are outside limits permitted by joint sealant manufacturer or are below 40 deg F.

PART 2 - PRODUCTS

2.02 MATERIALS

- A. Joint Sealants
 - 1. Compatibility: Provide joint sealants, joint fillers, and other related materials that are compatible with one another and with joint substrates under service and application conditions.
 - 2. Sealant for General Exterior Use Where Another Type Is Not Specified:
 - a. Single-component, neutral-curing silicone sealant, ASTM C 920, Type S; Grade NS; Class 25; Uses T, NT, M, G, A, and O.
- B. Joint Sealant Backing:
 - 1. General: Provide sealant backings of material and type that are nonstaining; are compatible with joint substrates, sealants, primers, and other joint fillers; and are approved for applications indicated by sealant manufacturer.
 - 2. Cylindrical Sealant Backings: ASTM C 1330, of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance.
 - 3. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer for preventing sealant from adhering to rigid, inflexible joint-filler materials or joint surfaces at back of joint.

PART 3 - EXECUTION

3.02 INSTALLATION

- A. Examine substrate; report unsatisfactory conditions in writing. Beginning work means acceptance of substrates.
- B. Comply with ASTM C 1193
- C. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction and with uniform appearance. Coordinate with work of other sections. Clean and prime joints, and install bond breakers, backer rods and sealant as recommended by manufacturers.
- D. Depth shall equal width up to 1/2" wide; depth shall equal 1/2 width for joints over 1/2" wide.
- E. Cure and protect sealants as directed by manufacturers. Replace or restore damaged sealants. Clean adjacent surfaces to remove spillage.

END OF SECTION

SECTION 08111
STEEL DOORS AND FRAMES

PART 1 - GENERAL

1.01 SUMMARY

- A. Provide steel doors and frames:
 - 1. Exterior steel doors and frames.

1.02 SUBMITTALS

- A. Submit for approval samples, shop drawings, product data.

1.03 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.
- B. Standards: ANSI/SDI-100, Recommended Specifications for Standard Steel Doors and Frames.
- C. Performance Standards:
 - 1. Thermal-Rated Assemblies at Exterior: ASTM C 236 or ASTM C 976.

PART 2 - PRODUCTS

2.02 MATERIALS

- A. Manufacturers: Ceco Door Products, Curries Co., Steelcraft or Owner Approved equal.
- B. Steel Doors:
 - 1. Door Type: Standard steel doors with hollow or composite construction.
 - 2. Exterior Doors: ANSI/SDI-100, Grade III, extra-heavy-duty, minimum 16 gage (.0598 inch) galvanized sheet steel, 1-3/4 inches thick..
 - 3. Finish: Factory primed and painted.
- C. Steel Frames:
 - 1. Exterior Frames: Welded type, 14 gage (.0625 inch) sheet steel, mitered corners.
 - 2. Finish: Factory primed and painted.

PART 3 - EXECUTION

3.02 INSTALLATION

- A. Fabricate work to be rigid, neat and free from seams, defects, dents, warp, buckle, and exposed fasteners. Install doors and frames in compliance with SDI-100, NFPA 80, and requirements of authorities having jurisdiction.
- B. Provide thermally improved doors with maximum U-value of 0.24 BTU/hr./sq.ft./degree F (ASTM C236) for all exterior doors and elsewhere as noted..
- C. Hardware: Prepare doors and frames to receive hardware on schedule. Provide for 3 silencers on door frame.
- D. Touch-up damaged coatings.

END OF SECTION

SECTION 08360
SECTIONAL OVERHEAD DOORS

PART 1 - GENERAL

1.01 SUMMARY

- A. Provide sectional overhead doors:
 - 1. Exterior units.

1.02 SUBMITTALS

- A. Submit for approval shop drawings, product data, colors.

1.03 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

PART 2 - PRODUCTS

2.02 MATERIALS

- A. Manufacturers: Atlas Roll-Lite Overhead Doors, Overhead Door Corp., Raynor Garage Door Co., or Owner approved equal.
- B. Sectional Overhead Doors:
 - 1. Frame and Panels: Aluminum frame and aluminum panels.
 - 2. Panel Profile: Flat.
 - 3. Track Type: Standard track.
 - 4. Operation: Manual.
 - 5. Steel Finish: Zinc-coated steel.
 - 6. Aluminum Finish: Polyester powder coating.
- C. Auxiliary Materials:
 - 1. Lifting handles and locking bars.

PART 3 - EXECUTION

3.02 INSTALLATION

- A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction and with uniform appearance. Coordinate with work of other sections.
- B. Install assemblies complete with all hardware, anchors, inserts, supports and accessories. Restore damaged finishes and test for proper operation. Clean and protect work from damage.

END OF SECTION

SECTION 08710
DOOR HARDWARE

PART 1 - GENERAL

1.01 SUMMARY

- A. Provide the following:
 - 1. Hardware for swinging doors.

1.02 SUBMITTALS

- A. Submit for approval samples, product data, finish samples, and hardware schedule proposed for use based on Owner's requirements.

1.03 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.
- B. Handicapped Accessibility: ANSI A117.1, AADAG, and local requirements.
- C. Materials and Application: ANSI A156 series standards.

PART 2 - PRODUCTS

2.02 MATERIALS

- A. Manufacturers: Sargent, Schlage, Yale or owner approved equal.
- B. Door Hardware:
 - 1. Quality Level: Heavy duty commercial type.
 - 2. Locksets and Latchsets: Mortise type.
 - 3. Lock Cylinders: Interchangeable type.
 - 4. Keying: Owner's requirements keying and key control system.
 - 5. Hinges and Butts: Geared continuous hinge..
 - 6. Hardware Finishes: Satin stainless finish on exposed surfaces.
- C. Auxiliary Materials:
 - 1. Door Trim Units: Kickplates, edge trim, and related trim.
 - 2. Stops and overhead door holders.
 - 3. Weatherstripping and thresholds.

PART 3 - EXECUTION

3.02 INSTALLATION

- A. Follow guidelines of DHI "Recommended Locations for Builder's Hardware and hardware manufacturers' instructions.
- B. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction and with uniform appearance. Coordinate with work of other sections.
- C. Adjust operation, clean and protect.

END OF SECTION

SECTION 13125

PRE-ENGINEERED POST FRAME STRUCTURE

PART 1 - GENERAL

1.01 SUMMARY

- A. Provide pre-engineered post frame structure and associated component parts.
 - 1. Structural framing.
 - a. Columns and Factory Engineered Columns
 - b. Factory Engineered Roof Trusses
 - c. Girts, Purlins, Ties, Bracing, Headers, and Misc. Framing Components
 - d. Closure Strips
 - e. Fasteners: Nails, Brads, Staples, Bolts, and metal connectors
 - 2. Related Materials (may be provided as a package with the Engineered Structural Frame, or separately as component parts.)
 - a. Metal Roofing Panels.
 - b. Metal Siding Panels.
 - c. Translucent Wall Panels.
 - d. Walk Doors, Overhead Service Doors, and Door Hardware.

1.02 SUBMITTALS

- A. Product Data: For each type of process and factory-engineered product. Indicate component materials, dimensions, profiles, and construction and installation details.
 - 1. Include information for specialty accessory products specified for this Project.
 - 2. Include data for wood-preservative treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Indicate type of preservative used and net amount of preservative retained.
 - a. For products receiving waterborne treatment, include statement that moisture content of treated materials was reduced to levels specified before shipment to truss fabricator.
- B. Shop Drawings: Include plans, elevations, and details in sufficient detail for evaluation by Architect and Owner.
 - 1. Include: Lumber sizes, stress grades, and species of lumber.
 - 2. Include anchorage system and layout.
 - 3. Indicate clear height under trusses.
 - 4. Indicate slope and spacing of trusses if different from drawings.
 - 5. Indicate plate types, thickness, gauge and sizes.
- C. Roof and Wall Panel Layout Drawings: Show layouts of metal panels including methods of support. Include details of edge conditions, joints, panel profiles, corners, anchorages, trim, flashings, closures, and special details. Indicate the following components:
 - 1. Roof mounted items.
 - 2. Wall mounted items.
- D. For all engineered components, submit Shop Drawings that have been engineered and certified by a professional engineer currently licensed in Illinois. Include seal and signature of professional engineer on Shop Drawings.
- E. Design Loads:
 - 1. Top Chord Live load
 - a. Ground snow load: 30psf
 - 2. Top Chord Dead Load

3. Bottom cord Collateral Load: 10psf
4. Column Loads
 - a. 90mph wind load, Exposure B
 - b. Roof Dead and Live Loads
5. Deflection limited to L/360
6. Seismic Loads
 - a. Risk Category II
 - b. Seismic Site Class D
 - c. Seismic Use Group 1
 - d. Seismic Acceleration 0.2 second Spectral and Seismic Acceleration of 1.0 second
7. Rainfall Intensity
 - a. All gutters and downspouts shall be designed for rainfall intensity based on a 5-year recurrence interval for a five-minute duration
8. Deflection limits per IBC Table 1604.3
9. Risk Category I
10. Truss engineering calculations for loading and stresses, bearing seal and signature of professional engineer shall include the following calculations:
 - a. Minimum design shall meet design standards of latest edition of International Building Code as amended by the City of Rockford IL.
 - b. Bending moments and axial forces for each member.
 - c. Basic plate design values.
 - d. Design analysis for each joint indicating that proper plates have been used.
 - e. Provide design calculations for exterior walls and lateral bracing walls. Design wind loads and lateral bracing loads are indicated.
 - f. Submit design calculations that have been engineered and certified by professional engineer currently licensed in Illinois.

1.03 QUALITY ASSURANCE

- A. Comply with governing codes and regulations.
- B. Manufacturer Qualifications: Manufacturer with minimum 5 years' documented experience that participates in recognized quality-assurance program that complies with quality control procedures and that involves third-party inspection by an independent testing and inspecting agency acceptable to Owner and authorities having jurisdiction .
 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 qualified professional engineer.
- C. Erector Qualifications: An erector with a minimum of 5 years' documented experience in erecting and installing work similar in material and design.
- D. Deliver, handle, and store materials in accordance with manufacturer's instructions.
 1. Handle and store trusses to comply with recommendations in TPI BCSI, "Building Component Safety Information: Guide to Good Practice for Handling, Installing, Restraining, & Bracing Metal Plate Connected Wood Trusses."
 - a. Store trusses flat, off of ground, and adequately supported to prevent lateral bending.
 - b. Protect trusses from weather by covering with waterproof sheeting, securely anchored.
 - c. Provide for air circulation around stacks and under coverings.
 - d. Store trusses to avoid contact with other materials that could create staining or discoloration.
 2. Inspect trusses upon deliver to Project site and notify manufacturer immediately if members have damage from handling or show discoloration, corrosion, or other evidence of deterioration. Discard and replace trusses that are damaged or defective.

- E. Structural Design: Certified by a registered engineer currently licensed in the State of Illinois

1.04 WARRANTY

- A. Special Warranty on Treated Material: Contractor agrees to repair, restore, or replace materials that fail within 50 years from date of Substantial Completion.
 - 1. Manufacturer shall repair treated structural members that fail because of insect damage or because of decay that occurs under normal conditions and proper use. If manufacturer is not able to repair structural members to satisfaction of Architect and Owner, manufacturer shall replace damaged members.
- B. Metal Panel Warranty
 - 1. See Section 07413 for Warranty on Metal Roof and Metal Wall Panels.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Subject to compliance with requirements, provide products from: Cleary Building Corp.; Sturdi-Built Buildings, LLC; Wick Buildings; Or Owner Approved Equal.

2.02 PERFORMANCE CRITERIA

- A. Design Requirements
 - 1. Design wood members per formulas published in National Design Specifications (NDS) for Wood Construction.
 - 2. Design light meta-toothed connector plates and joint design in compliance with Truss Plate Institute's (TPI) National Design Standard for Metal Plate Connected Wood Truss Construction.
 - 3. Include unbalanced roof loads required by ASCE-7, current edition.

2.03 WOOD-PRESERVATIVE-TREATED LUMBER

- A. Preservative Treatment by Pressure Process: AWPAC U1; Use Category UC3b for exterior construction not in contact with ground, and Use Category UC4a for items in contact with ground.
 - 1. Preservative Chemicals: Acceptable to authorities having jurisdiction and containing no arsenic or chromium. Do not use inorganic boron (SBX) for sill plates.
 - 2. For exposed items indicated to receive stained or natural finish, use chemical formulations that do not require incising, contain colorants, bleed through, or otherwise adversely affect finishes.
- B. Maximum moisture content of 19 percent or per appropriate grading rules. Do not use material that is warped or does not comply with requirements for untreated material.
- C. Mark lumber with treatment quality mark of inspection agency approved by ALSC Board of Review.
- D. Application: Treat items indicated on Drawings, and the following:
 - 1. Laminated columns.
 - 2. Solid columns.
 - 3. Baseboards.
 - 4. Hold down blocks.

2.04 MATERIALS - WOOD

- A. Laminated Columns: Factory-fabricated from minimum 3 ply 2 inch by 6 inch #1 or better southern yellow pine.
 - 1. Columns to 20 Feet Lengths: Full-length (unspliced) nail laminated plies. Provide middle ply with short truss support block.
 - 2. Preservative-Treatment: Treat portions of columns designed to be in contact with ground to net retention of 0.60 pounds per cubic foot of CCA per AWPA U1 requirements.
- B. Solid Columns:
 - 1. Solid Sawn, full length, 6x6 or larger #1 Critical Structural AC2®, or Equal, Green Pressure Treated Southern Yellow Pine Timber
 - 2. Preservative-Treatment: Treat portions of columns designed to be in contact with ground per NAHB Green Approved at 0.60 pounds per cubic foot of CCA.
 - 3. Kiln dried and heat treated prior to pressure treatment.
- C. Wood Trusses: Factory-fabricated of surfaced lumber.
 - 1. Lumber:
 - a. Top and Bottoms Chords: No. 1 or better Southern yellow pine or comparable Spruce-pine-fir.
 - b. Webs: No. 2 or better Southern yellow pine or SPF
 - 2. Metal Connector Plates: Fabricated from ASTM A653; Structural Steel (SS), high-strength low-alloy steel Type A (HSLAS Type A); G60 hot-dip galvanizing coating designation.
- D. Baseboards: 2 inch by 8 inch No. 2 or better Southern yellow pine.
 - 1. Preservative-Treatment: Treat baseboards for ground contact conditions per AWPA U1 requirements. Preservative shall penetrate 100 percent of sapwood.
- E. Wall Girts: 2 inch by 6 inch girts, No. 1 or better Southern yellow pine. Maximum spacing 60" on center.
- F. Purlins and Truss Ties: 2 inch by 4 inch laid on edge, MSR SPF 1650.
 - 1. Purlins may be installed over top chord of truss, flat, or in purling hangers. Where purlins and truss ties are set in hangers, provide 2 inch by 6 inch laid on edge, MSR SPF 1650 or No. 1 or better Southern yellow pine.
- G. Overhang Framing: Fabricated rafter frames.
 - 1. Provide factory beveled fascia boards, 2 inch by 6 inch Spruce-pine-fir, No. 2.
- H. Wind Bracing:
 - 1. 2 inch by 6 inch, No. 2 or better Spruce-pine-fir from end wall column to first truss back.
 - 2. 2 inch by 4 inch diagonal in roof-line bracing as required by design.
- I. Framing Around Openings: Provide 2 inch by 6 inch/2 inch by 4 inch No. 2 around door, window, and overhead sectional door openings.
- J. Headers: Provide built-up No. 1 or better Southern yellow pine headers as required to meet loading designs.
- K. Incidental Framing: No.2 or better 2 inch by 4 inch.

2.05 MATERIALS - FASTENERS

- A. General: Provide fasteners of size and type indicated that comply with requirements specified in this Article for material and manufacture.
- B. To greatest extent possible provide fasteners from manufacturer/supplier of item to be fastened, and as recommended by manufacturer/supplier for fastening condition.
 - 1. At trusses provide fasteners with hot-dip zinc coating complying with ASTM A153.

2. Exposed Fastener Heads: Match color of steel panel.
 3. Where steel panels or trim is attached to preservative-treated lumber, provide fasteners of unpainted Type 304 stainless steel.
- C. Nails, Brads, and Staples: ASTM F1667.
1. Framing Lumber: 10d, 16d and 60d ring shank nails.
 2. Machine Bolts: Minimum grade 1, A307.
 3. Metal Panels: Minimum 1-1/2 inch No. 10 screw fasteners, 1/4" hex head, with EPDM sealing washers bearing on weather side of metal panels.
 - a. Match color of metal panels.

2.06 MATERIALS - PRE-FINISHED SIDING MATERIALS

- A. Metal Siding Materials and accessories may be provided as part of complete Post Frame Building, or as individual elements.
1. IF provided as individual elements it is the contractor's responsibility for coordination of fit and finish among systems.
 2. IF provided as components of a post-frame "kit", the components must meet or exceed the applicable specifications for that component.
- B. Exposed Fastener Metal Panels - See Section 07413
1. Wall Panels
 2. Light Transmitting Wall Panels
 3. Roof Panels
 4. Gutters, Downspouts, and Trim

2.07 MATERIALS - RELATED MATERIALS - DOORS AND HARDWARE

- A. Doors and Hardware may be provided as part of complete Post Frame Building, or as individual elements.
1. IF provided as individual elements it is the contractor's responsibility for coordination of fit and finish among systems.
 2. IF provided as components of a post-frame "kit", the components must meet or exceed the applicable specifications for that component.
- B. Doors and Hardware - See Sections 08111, 08360, and 08710
1. Steel Doors and Frames - Section 08111
 2. Sectional Overhead Doors - Section 08360
 3. Door Hardware - Section 08710

2.08 FABRICATION

- A. Shop-fabricate wood trusses in TPI inspected plant.
- B. Cut truss members to accurate lengths, angles, and sizes to produce close fitting joints.
- C. Fabricate metal connector plates to sizes, configurations, thicknesses, and anchorage details required to withstand design loads for types of joint designs indicated.
- D. 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.
- E. 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

3.01 EXAMINATION

- A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction and with uniform appearance. Coordinate with work of other sections.
- B. Examine substrates, areas, and conditions, with erector present, for compliance with requirements for installation tolerances and other conditions affecting performance of work.
- C. Before erection proceeds, survey elevations, locations of concrete surfaces, and locations of anchor rods, bearing plates, and other embedments to receive structural framing, with erector present, for compliance with requirements and metal building system manufacturer's tolerances.
- D. Proceed with erection only after unsatisfactory conditions have been corrected.

3.02 PREPARATION

- A. Provide temporary shores, guys, braces, and other supports during erection to keep framing secure, plumb, and in alignment against temporary construction loads and loads equal in intensity to design loads. Remove temporary supports when permanent framing, connections, and bracing are in place unless indicated otherwise.

3.03 ERECTION OF FRAMING

- A. General: Do not use materials that are unsound, warped, improperly finished, or with defective surfaces, sizes, or patterns.
 - 1. Comply with frame manufacturer's approved Shop Drawings for details and building erection.
 - 2. Comply with NFBA document "Accepted Practices for Post-frame Construction Framing Tolerances."
- B. Columns:
 - 1. Auger hole to depth of diameter indicated on Drawings.
 - 2. Pour concrete footing in bottom of each hole (alternate for concrete encased column) per Drawings.
 - 3. Install hold down blocks/ties at bottom of each column.
 - 4. Accurately position column in hole.
 - 5. Backfill with dry compacted granular fill in 8 inch lifts (alternate for concrete encased column - no backfill)
- C. Baseboards: Install 1 run of 2 inch by 8 inch plank, at grade.
- D. Wall Girts: Install at centers indicated on Drawings.
 - 1. If required, install overhang framing at top of wall girts.
- E. Trusses:
 - 1. Set trusses in place in center of column using lifting methods as approved by manufacturer.
 - 2. When trusses are properly positioned, install 1/2 inch by 5-1/2 inch machine bolt and manufacturer recommended 20d ring shank nails or other fasteners to secure truss heel.
 - 3. Brace trusses per WTCA guidelines and BCSI Manual
- F. Purlins: Install purlins with fasteners and at spacings per approved Shop Drawings.
- G. Truss Ties: Install truss ties at locations recommended by structure manufacture and per approved Shop Drawings
 - 1. Run truss ties from end wall to end wall.

- H. Incidental Framing: Install 2 inch by 4 inch or 2 inch by 6 inch blocking as required per structure manufacturers recommendations.

3.04 METAL PANEL INSTALLATION - GENERAL

- A. Install all metal roof and metal wall panels per Section 07413
- B. Install metal panels per manufacturer's established construction procedures.
- C. Install metal panels and components plumb, square, straight, and true to lines, and to assure freedom from rattles.
- D. Take care when cutting prefinished materials to ensure cuttings do not remain on finished surface.
- E. Properly install fasteners taking care to not under- or overdrive.
- F. Roofing Panels: Install panels perpendicular to supports aligned straight with end fascias and fasten to purlins. Anchor with fasteners at spacings recommended by manufacturer and design loads.
- G. Wall Panels: Install metal panels perpendicular to wall girt and purlin supports, aligned level and plumb. Anchor with fasteners at spacings recommended by manufacturer and design loads.
- H. Trim Items: Install trim items at base, corners, top of steel siding, fascia, gables, and ridges using no less than 1 inch screw fasteners.
- I. Closure Strips: Provide closure strips at top and bottom of panels.

END OF SECTION