April 15, 2021

RE: Addendum #1

The following list represents the revisions to bid package:

1. **Replace-Specification section- 00 20 00 Instruction to Bidders**
   Added article 3, Qualifications to bidders

2. **Replace-Specification section- 00 41 00 Bid Proposal Form**
   Add Alternate #4

3. **Replace-Specification section- 01 23 00 Alternates**
   Add Alternate #4

4. **Replace-Specification section- 13 34 19 Metal Building System**
   Change warranty

5. **Revise- Sheet S001 Seismic loading criteria**

6. **Note- HVAC contractor to design exhaust as required for and S-1 repair garage with vehicles inside building. HVAC contractor to provide exhaust as required for wash bay**

7. **Per City of Evansville Inspector- sand interceptors are required at vehicle drains**

Nick Badura
Sketchworks Architecture, LLC
INSTRUCTIONS TO BIDDERS

Article 1 - Defined Terms
Article 2 - Copies of Bidding Documents
Article 3 - Qualifications of Bidders
Article 4 - Bid Submittal Documents
Article 5 - Existing Site Conditions
Article 6 - General Bidder Responsibilities and Representations
Article 7 - Pre-Bid Conference
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Article 9 - Bid Security
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Article 11 – “Or Equal” and Substitute Material and Equipment Items
Article 12 - Subcontractors, Suppliers, and Others
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Article 17 - Opening of Bids
Article 18 - Bids to Remain Subject to Acceptance
Article 19 - Basis of Bids, Comparison of Bids and Award of Contract
Article 20 - Contract Security and Insurance
Article 21 - Signing of Agreement
Article 22 - Sales and Use Taxes
Article 23 – Contractor’s Insurance Requirements

ARTICLE 1 - DEFINED TERMS

Terms used in these Instructions to Bidders will have the meanings indicated in the General Conditions and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below which are applicable to both the singular and plural thereof:

Bidder - Any individual or entity who submits a Bid directly to the Owner.

Issuing Office – (Architect) Sketchworks Architecture, LLC

Successful Bidder - The lowest responsible Bidder submitting a responsive Bid to whom the Owner makes an award.

ARTICLE 2 - COPIES OF BIDDING DOCUMENTS

Complete sets of the Bidding Documents including drawings and specifications may be obtained from the office of the Owner. Refer to the Advertisement for Bid for mailing address and fees required.

Complete sets of Bidding Documents must be used in preparing Bids; neither the Owner nor Architect assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.
The Owner and Architect is making copies of Bidding Documents available on the above terms do so only for the purpose of obtaining Bids for the Work and do not authorize or confer a license or grant for any other use.

ARTICLE 3 – QUALIFICATIONS OF BIDDERS

Bidder shall demonstrate experience in having been the primary contractor on at least three (3) similar projects within the past five (5) years. A similar project shall be defined as a pre-engineered metal building structure for similar (warehouse or maintenance) use type with a construction value of at least fifty-percent (50%) of this project.

Evidence of compliance with this requirement may be requested by the Owner, and shall be provided within three days of request.

ARTICLE 4 - BID SUBMITTAL DOCUMENTS

Documents to be submitted to the Owner by the Bid Deadline shall include the Bid Proposal, the addendum acknowledgement and signature pages; Affidavit of Organization and Authority; and a Bid Bond or Bid Security.

ARTICLE 5 - EXISTING SITE CONDITIONS

Contractor is responsible for visiting the site and area of Work prior to submitting a bid. Existing drawings or documentation of the existing facilities is very limited. Copies of any drawings will be made available to any Bidder on request. Those reports and drawings may not be part of the Contract Documents, but the “Technical Data” contained therein upon which Bidder is entitled to rely as provided in Article 5 of the General Conditions has thus been identified and established. Each Bidder is responsible for any interpretation or conclusion Bidder draws from any “Technical Data” or any other data, interpretations, opinions or information contained in such report or indicated in such drawings. The Article 5 of the General Conditions establishes responsibilities and procedures to be followed regarding reasonable interpretation of the information, and uncovering unidentified site conditions.

ARTICLE 6 - GENERAL BIDDER RESPONSIBILITIES AND REPRESENTATIONS

It is the responsibility of each Bidder before submitting a Bid to:

- Examine and carefully study the Bidding Documents, including the Plans and any Addenda and the other related data identified in the Bidding Documents;
- Visit the Site and become familiar with and satisfy Bidder as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work;
- Become familiar with all federal, state, and local laws and regulations that may affect cost, progress, or performance of the Work;
- Carefully study all reports as described above in the Existing Site Conditions section and identified in the Supplementary Conditions as containing reliable “technical data”;

Section 00 20 00 Instructions to Bidders
• Undertake additional testing or studies at the Bidder’s expense that the Bidder considers necessary to adequately prepare a Bid for the Work, and agree at the time of submitting a Bid that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of its Bid for performance of the Work at the price(s) bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents;

• Consider the information known to Bidder; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder;

• Become aware of the general nature of the work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents;

• Promptly provide Architect written notice of all conflicts, errors, ambiguities, or discrepancies that the Bidder discovers in the Bidding Documents and confirm that the written resolution thereof by Architect is acceptable to the Bidder; and

• Determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work.

The submission of a Bid will constitute an incontrovertible representation that the Bidder has complied with every requirement of this Instructions to Bidders including those listed above, that without exception the Bid is premised upon performing and furnishing the Work required by the Bidding Documents.

In addition, by submitting a Bid the Bidder agrees to the following:

• The Owner shall be the sole authority for determining conformance of substitute bid items with the Contract Documents.

• The Owner shall not be required to justify decisions made on substitute bid items.

• Substitutions or modifications for material, equipment, Manufacturers, Suppliers and Subcontractors will not be considered after receipt of Bids unless approved in writing by the Owner

ARTICLE 7- PRE-BID CONFERENCE

A pre-bid conference will be held at the designated date and time per the Advertisement to Bid, at the project site. Representatives of the Architect and the Owner will be present to discuss the project. Bidders are (encouraged) to attend and participate in the conference. Architect will transmit to all prospective Bidders of Record such addenda as it considers
necessary in response to questions arising at the conference. Oral statements may not be relied upon and will not be binding or legally effective.

ARTICLE 8 - INTERPRETATIONS AND ADDENDA

All questions about the meaning or intent of the Bidding Documents are to be submitted to Architect in writing. Interpretations or clarifications considered necessary by Architect in response to such questions will be issued by Addenda mailed, e-mailed, faxed or delivered to all parties recorded by Architect as having received the Bidding Documents. Questions received less than five working days prior to the date for opening of Bids may not be answered. Only questions answered by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

Addenda may be issued to clarify, correct, supplement or change the Bidding Documents as deemed advisable by Owner or Architect.

All Addenda so issued shall become part of the Contract Documents and Technical Specifications and must be acknowledged by the Bidder on the Bid Proposal Form. Failure of any bidder to receive any such addendum shall not relieve that bidder from any obligation under his bid as submitted. Failure to acknowledge addenda shall, at the Owner's discretion, be grounds for rejection of the bid.

ARTICLE 9 - BID SECURITY

Each Bid must be accompanied by Bid security made payable to the Owner in an amount of 5% of the Bidder's maximum Bid Price (determined by adding the base bid and any alternates and supplemental bid items), or in an amount otherwise required in the Advertisement for Bid, in the form of a certified check, bank money order or a Bid Bond on the form enclosed in the Bidding Documents or on a form issued by a surety meeting the requirements of paragraph 6.01 of the General Conditions. Bonds shall be executed by the Bidder and a surety corporation licensed to transact business in Wisconsin. Attorneys-in-fact who signs bid bonds must file with each bond a certified and current copy of their power of attorney.

The Bid security of the apparent Successful Bidder will be retained until such time that the Bidder has executed the Contract Documents, furnished the required contract security and met the other conditions of the Notice of Award, whereupon the Bid security will be returned. If the Successful Bidder fails to execute and deliver the Contract Documents and furnish the required contract security within 10 days after the Notice of Award, the Owner may consider Bidder to be in default, annul the Notice of Award and the Bid security of that Bidder will be forfeited. Such forfeiture shall be Owner's exclusive remedy if Bidder defaults.

The Bid security of other Bidders whom the Owner believes to have a reasonable chance of receiving the Contract Award may be retained by the Owner until the earlier of seven days after the Effective Date of the Agreement or one day after the end of the acceptance period established in Article 18 of this Instructions to Bidders, whereupon Bid security furnished by such Bidders will be returned.
Bid security of other Bidders whom Owner believes do not have a reasonable chance of receiving the award will be returned within seven days after the Owner makes such determination.

ARTICLE 10 - CONTRACT TIMES AND LIQUIDATED DAMAGES

The number of days within which, or the dates by which, the Work (or milestones, thereof) is to be (a) Substantially Completed and (b) also completed and ready for final payment are set forth in the Bid Proposal or Section 01 10 00-Summary of Work of the Specifications and will be included in the final Contract Agreement. In addition, the Bid Proposal and/or Division 1 sections establish the liquidated damage amounts that can be assessed against the Contractor for failure to comply with the Contract times.

ARTICLE 11 – “OR EQUAL” AND SUBSTITUTE MATERIAL AND EQUIPMENT ITEMS

The Contract, if awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents, Plans and Specifications. “Or-equal” or substitute materials and equipment as defined in the General Conditions, may be approved by the Architect, identified by Addendum and considered in the contract award. The materials and equipment described in the Bidding Documents establish a standard of required type, function, quality and life cycle cost to be met by any proposed substitute or “or-equal” item.

Requests for Architect’s clarification of materials and equipment the Architect considers “or-equal” must be received by the Architect at least 5 working days prior to the date for receipt of Bids.

Requests for “or equal” items not listed in the Bidding Documents, Plans or Specifications and requests for substitute items of material or equipment will be considered by Architect if a written request for approval has been submitted by a prospective Bidder (not an equipment or material supplier except in procurement bids) and has been received by Architect at least 15 days prior to the date for receipt of Bids. Each such request shall conform to the requirements of paragraphs 7.04 or 7.05 of the General Conditions, as applicable. The burden of proof of the merit of such proposed items is upon the Bidder. Architect’s decision of approval or disapproval of a proposed item will be final. If Architect approves any such a proposed “or equal” or substitute item, such approval will be set forth in an Addendum issued to all prospective Bidders. Bidders shall not rely upon approvals made in any other manner.

ARTICLE 12 - SUBCONTRACTORS, SUPPLIERS, AND OTHERS

Major Subcontractors and suppliers shall be listed on the appropriate Schedule of the Bid Proposal. If Subcontractors or Suppliers are not specifically listed on the Schedule, a complete listing of these must be submitted to the Owner from the Successful Bidder within five days after the Bid opening. Failure to do so may constitute grounds for rejection of the bid. When so requested by the Owner, a Bidder shall submit an experience statement with pertinent information regarding similar projects and other evidence of qualification for Subcontractors, Suppliers, individuals, or similar entities. Before the Notice of Award is given, if the Owner and Architect, after due investigation,
have reasonable objection to any proposed Subcontractor, Supplier, individual, or entity, the Owner may require the apparent successful Bidder to submit a substitute. In this case the Bidder’s Base Bid price will be increased (or decreased) by the difference in cost occasioned by such substitution, and Owner may consider such price adjustment in evaluating Bids and making the contract award.

If the apparent Successful Bidder declines to make any such substitution, the Owner may award the Contract to the next lowest Bidder that proposes to use acceptable Subcontractors, Suppliers, individuals, or entities. Declining to make requested substitutions will not constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor, Supplier, individual, or entity so listed and against which Owner or Architect makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner subject to revocation of such acceptance after the effective date of the Agreement as provided in paragraph 6.06 of the General Conditions.

The Contractor shall not be required to employ any Subcontractor, Supplier, individual, or entity against whom the Contractor has reasonable objection.

**ARTICLE 13 - PREPARATION OF BID**

The Bid Form is included with the Bidding Documents.

All blanks on the Bid Form shall be completed in ink and the Bid Form signed in ink. Erasures or alterations shall be initialed in ink by the person signing the Bid Form. A Bid price shall be indicated for each section, base bid item, alternate bid item or supplemental bid item for which a blank space has been provided. In the case of optional alternates the words “No Bid,” “No Change,” or “Not Applicable” may be entered as appropriate. Unless noted as “required” in the Bid Proposal form, all alternates shall be considered as optional.

A Bid by a corporation shall be executed in the corporate name by the president or a vice-president or other corporate officer accompanied by evidence of authority to sign. The corporate seal shall be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation shall be shown.

A Bid by a partnership shall be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The official address of the partnership shall be shown.

A Bid by a limited liability company shall be executed in the name of the firm by a member and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm shall be shown.

A Bid by an individual shall show the Bidder’s name and official address.

A Bid by a joint venture shall be executed by each joint venturer in the manner indicated on the Bid Form. The official address of the joint venture shall be shown.
All names shall be printed in ink below the signatures.

The Bid shall contain an acknowledgment of receipt of all Addenda, the numbers of which shall be filled in on the Bid Form.

Postal and e-mail addresses and telephone number for communications regarding the Bid shall be shown.

The Bid shall contain evidence of Bidder’s authority and qualification to do business in the state where the Project is located, or Bidder shall covenant in writing to obtain such authority and qualification prior to award of the Contract and attach such covenant to the Bid. Bidder’s state contractor license number, if any, shall also be shown on the Bid Form.
ARTICLE 14 - AFFIRMATIVE ACTION

Bidders shall agree not to discriminate against any employee or applicant for employment because of age, race, religion, color, handicap, sex, physical condition, and developmental disability as defined by Wisconsin State Statutes. This provision shall include but not be limited to the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rate of pay or other forms of compensation, and selection for training including apprenticeship. The Contractor further agrees to take affirmative action to ensure equal employment opportunities for persons with disabilities. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of the non-discrimination clause.

ARTICLE 15 - SUBMITTAL OF BID

Provide (1) one hard copy and (1) one electronic copy of the Bid.

A Bid shall be received no later than the date and time prescribed and at the place indicated in the Advertisement for Bids and shall be enclosed in an opaque sealed envelope or package plainly marked with the Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted), the name and address of Bidder, and shall be accompanied by the Bid security and other required documents. If a Bid is sent by mail or other delivery system, the sealed envelope containing the Bid shall be enclosed in a separate envelope plainly marked on the outside with the notation “BID ENCLOSED.” A mailed Bid shall be addressed to the OWNER at the address set forth on the first page of the Bid Proposal.

ARTICLE 16 - CORRECTIONS OF ERRORS IN BIDS

Section 66.0901 (5) of Wisconsin Statutes applies to modification, withdrawal and corrections of errors in bids, stating as follows:

“(5) CORRECTIONS OF ERRORS IN BIDS. If a person submits a bid or proposal for the performance of public work under any public contract to be let by a municipality and the bidder claims a mistake, omission or error has been made in preparing the bid, the bidder shall, before the bids are opened, make known the fact that an error, omission or mistake has been made. If the bidder makes this fact known, the bid shall be returned to the bidder unopened and the bidder may not bid upon the public contract unless it is readvertised and relet upon the readvertisement. If a bidder makes an error, omission or mistake and discovers it after the bids are opened, the bidder shall immediately and without delay give written notice and make known the fact of the mistake, omission or error which has been committed and submit to the municipality clear and satisfactory evidence of the mistake, omission or error and that it was not caused by any careless act or omission on the bidder’s part in the exercise of ordinary care in examining the plans or specifications and in conforming with the provisions of this section. If the discovery and notice of a mistake, omission or error causes a forfeiture, the bidder may not recover the moneys or certified check forfeited as liquidated damages
unless it is proven before a court of competent jurisdiction in an action brought for
the recovery of the amount forfeited, that in making the mistake, error or omission
the bidder was free from carelessness, negligence or inexcusable neglect.”

ARTICLE 17 - OPENING OF BIDS

Bids will be opened at the time and place indicated in the advertisement and, unless
obviously non-responsive, read aloud publicly. Unsigned bids, incomplete bids and bids not
accompanied by bid bonds may be considered unresponsive for purposes of reading the
bids aloud. In the case of unsigned bids, if a legally authorized representative of the Bidder
is present, the authorized representative will be allowed to sign the bid before it is read
aloud publicly. The Owner will then decide whether such a bid will be accepted. An
abstract of the amounts of the Bids, including alternates, if any, will be made available to
Bidders after the opening of Bids.

ARTICLE 18 - BIDS TO REMAIN SUBJECT TO ACCEPTANCE

All Bids will remain subject to acceptance for the period of time stated in the Advertisement
for Bid, in the Bid Form or as outlined above in the description of the Bid Security. The
Owner may in its sole discretion release any Bid and return the Bid security prior to the end
of this period. If no such period of time is stated in the Advertisement for Bids or in the Bid
Form, the bids will remain subject to acceptance for a period of ninety (90) calendar days
from the Bid Deadline.

ARTICLE 19 - BASIS OF BIDS, COMPARISON OF BIDS AND AWARD OF CONTRACT

Bidders shall submit a Bid on a lump sum basis for the Base Bid and include a separate
price for each supplemental bid item and for each required alternate described in the
Bidding Documents as provided in the Bid Form. In the evaluation of Bids to determine a
low bidder, the Base Bid plus alternates in any number and in any order or combination and
the total of the supplemental bid items may be selected for award unless otherwise
identified in the Bid Proposal form.

The Owner reserves the right to reject any or all Bids, including without limitation,
nonconforming, non-responsive, unbalanced, or conditional Bids. Bids may be rejected for
failure to comply with any requirements of this section, for alterations of the form, additions
to or qualifications on the form, erasures, use of lead pencil to fill out the form,
mathematical errors, failure to sign the form, failure to submit bid security, or irregularities
of any kind. The Owner further reserves the right to reject the Bid of any Bidder whom it
finds, after reasonable inquiry and evaluation, to be non-responsible. The Owner also
reserves the right to waive all informalities not involving price, time, or changes in the Work
and to negotiate contract terms with the Successful Bidder. The Owner also reserves the
right to waive any minor informality and to determine what constitutes a minor informality.

More than one Bid for the same Work from an individual or entity under the same or
different names will not be considered. Reasonable grounds for believing that any Bidder
has an interest in more than one Bid for the Work may be cause for disqualification of that
Bidder and the rejection of all Bids in which that Bidder has an interest.
In evaluating Bids, the Owner will consider whether or not the Bids comply with the prescribed requirements, as may be requested in the Bid Form or prior to the Notice of Award.

In evaluating Bidders, the Owner will consider the qualifications of Bidders and may consider the qualifications and experience of Subcontractors, Suppliers, and other individuals or entities proposed for those portions of the Work for which the identity of Subcontractors, Suppliers, and other individuals or entities must be submitted as provided in the Supplementary Conditions.

The Owner may conduct such investigations as deemed necessary to establish the responsibility, qualifications, and financial ability of Bidders, proposed Subcontractors, Suppliers, individuals, or entities to perform the Work in accordance with the Contract Documents.

If the Contract is to be awarded, Owner will award the Contract to the Bidder whose Bid is in the best interests of the Project.

ARTICLE 20 - CONTRACT SECURITY AND INSURANCE

Article 6 of the General Conditions, as may be modified by the Supplementary Conditions, sets forth The Owner’s requirements as to performance and payment Bonds and insurance. When the Successful Bidder delivers the executed Agreement to the Owner, it must be accompanied by the required contract security and Certificate of Insurance.

ARTICLE 21 - SIGNING AGREEMENT

When OWNER gives a Notice of Award to the Successful Bidder, it shall be accompanied by the required number of unsigned counterparts of the Agreement with the other Contract Documents that are identified in the Agreement as attached thereto. Within ten (10) days thereafter, the Successful Bidder shall sign and deliver the required number of counterparts of the Agreement and attached documents to the Owner. Within ten (10) days thereafter, the Owner shall deliver one fully signed counterpart to Successful Bidder with a complete set of the Drawings with appropriate identification, unless such complete set of drawings has already been delivered.

ARTICLE 22 - SALES AND USE TAXES

OWNER is exempt from Wisconsin State sales and use taxes on materials and equipment to be incorporated in the Work; said taxes shall not be included in the Bid.
ARTICLE 23 – CONTRACTOR’S INSURANCE REQUIREMENTS

The limits of liability for the insurance required by Paragraph 6.03 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by Laws and Regulations:

1. **Worker’s Compensation Insurance and related coverages.** Prime Contractors are required to provide Workmen’s Compensation Insurance for the duration of this project meeting statutory requirements. Prime Contractors shall require subcontractors to provide Workmen’s Compensation Insurance for all subcontractor employees working on this project, unless covered by Prime Contractor’s policy.
   - Employer’s Liability: $500,000
   - Projects in Wisconsin constructed by out-of-state contractors or subcontractors must be so endorsed on the policy and noted on the certificate.

2. **Contractor’s General Liability Insurance.** This policy shall be provided by and in the name of each Prime Contractor and shall include completed operations and product liability coverages, and independent Contractor’s Contingent coverage.
   - Minimum limits:
     - $1,000,000 Each Person
     - $1,000,000 Each Occurrence
     - $2,000,000 General Aggregate
   - Delete exclusions for X-C-U (Explosion, Collapse, and Underground) perils and any exclusion with respect to property under the care, custody and control of the Contractor.

3. **Automobile Liability Insurance.** This policy shall be provided by and in the name of each Prime Contractor. Coverage shall include all owned, non-owned, and hired vehicles. Prime Contractors shall require similar coverages by subcontractors.
   - Minimum Limits:
     - Bodily Injury: $1,000,000 Each Person
     - Property Damage: $1,000,000 Each Occurrence
     - Combined Single Limit: $1,000,000

4. **Umbrella Coverage.** This policy shall be provided by and in the name of each Prime Contractor. Coverage shall include all the categories above and shall be for the following minimum limits: $5,000,000, each occurrence and general aggregate.

5. **Contractor’s Pollution Liability:**
   - Each Occurrence: N/A
   - General Aggregate: N/A
   - Contractor is not required to provide Contractor’s Pollution Liability insurance under this Contract
6. Contractor’s Professional Liability:
   Each Claim  N/A
   Annual Aggregate  N/A

For purposes of these requirements additional insureds shall be:

the OWNER:  City of Evansville, Wisconsin
the ARCHITECT: Sketchworks Architecture, Middleton, WI
BID PROPOSAL FORM

PROJECT: 2021 MAINTENANCE BUILDING EXPANSION

OWNER: City of Evansville
31 S. Madison Street
Evansville, WI 53536

PRE-BID WALKTHROUGH: April 8, 2021 at 9:00 a.m., local time
BID DEADLINE: April 21, 2021 at 1:00 p.m., local time
PUBLIC BID OPENING

Part 1 – General

1.1 Bid Proposal Preparation

A. The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner on the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents. This shall include provision of a Performance Bond and a Payment Bond each in the amount of 100% of the Contract amount.

B. Reference the Instruction to Bidders before completing this Bid Proposal form. The Affidavit of Organization and Authority, Bid Bond, and the Disclosure of Ownership documents must be submitted along with this Bid Proposal form in order to comply with the bidding requirements.

C. All information requested must be provided within the following sections of this Bid Proposal:
   1. Part 2 – Base Bid Summary
   2. Part 3 – Acknowledgements and Representations
   3. Part 4 – Bid Signature Page

D. The Total Base Bid Price shall include all work required for construction of the project that may reasonably be inferred from the plan sheets and specifications as being required to produce the intended result whether or not specifically identified by any particular proposal schedule item.

1.2 Specified Manufacturers and Equipment

A. The contract documents are prepared using a basis of design of certain materials and equipment from specific manufacturers. The material and equipment may be identified by manufacturer’s name.

B. Naming the manufacturer is intended to establish a minimum standard of the type, function, and quality required and is intended to establish a common basis for all bids to ensure that the
Owner receives the full benefit of any savings in cost that may be associated with substitute material and equipment from an alternate manufacturer.

C. Bidders who believe other substitute material and equipment manufacturers or suppliers can meet or exceed the specified performance and technical requirements for any equipment item are encouraged to provide an optional alternate. It will be the sole responsibility of the Contractor to ensure that substitute equipment and/or Suppliers meet the design specifications.

1.3 Contract Award

A. The overall Bid Cost to be used to determine the apparent low Bidder shall be determined based on the accumulated total of the following:
   - Total Bid Cost
   - Any one item cost, multiple item cost, or all cost additions or deductions for Optional Alternates
   - Any one item cost or all cost additions or deductions for Alternates listed

B. The Owner reserves the right to use or eliminate any, or all of the Alternates or Optional Alternates provided, and any, or all of the Additive/Deductive bid items in determining the low bidder. In no event will the overall Bid Cost be adjusted if equipment proposed by the Contractor is rejected during submittal review or during equipment testing.

C. Award of the contract will be made on the basis of the evaluation of all Bid Proposal forms submitted. Award will be made to the Bidder with the lowest overall Bid Cost if the bid is determined to be comprehensive and the Bidder has been determined to be qualified.

D. Each Bidder’s base bid price will include the use of the Subcontractors listed in the Bid Proposal.

1.4 Disadvantaged Business Enterprises (MBE/WBE/SBRA)

A. Refer to Regulatory Requirements for the minority business enterprises (MBE), women-owned business enterprises (WBE) and small businesses in rural areas (SBRA) requirements for the project. Documentation of advertisement and solicitation must be submitted with the Bid Proposal. Remaining documentation shall be submitted within three (3) working days after the bids are received.

1.5 Project Time Schedule and Liquidated Damages

A. Bidder agrees that the Work will be substantially completed and ready for final payment in accordance with the General Conditions on or before the dates or within the number of calendar days set forth below and indicated in the Agreement. (also see ALTERNATE No. 3)

<table>
<thead>
<tr>
<th>Substantial Completion</th>
<th>December 31, 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final Completion</td>
<td>January 31, 2022</td>
</tr>
</tbody>
</table>

Section 01 23 00 Bid Proposal Form Page 12
B. Furthermore, the Bidder agrees that time is of the essence in performing this Contract and that the Owner will suffer financial loss if the Work (and each individual milestone) is not completed within the specified time frames given above. The Bidder acknowledges the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by the Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, the Bidder agrees that as liquidated damages to compensate the Owner for additional engineering, legal and administrative costs associated with delay (and not as a penalty or as compensation for other losses), the successful bidding Contractor shall pay Owner the following sums for each day that expires after the times specified for completion as set forth above which will be used in the contract documents:

$500 per calendar day for substantial completion
$500 per calendar day for final completion
Part 2 – Bid Summary

2.1 General Requirements

A. The Bidder shall specify a Base Bid Price for all work required per the Contract Documents. The Base Bid Price shall include furnishing and installing all materials, labor, equipment, and necessary work to complete the project as depicted on the drawings and in the specifications inclusive of all Base Bid equipment items that are listed in Schedule A and all other equipment and materials required by the Plan Sheets and Specifications.

B. Allowances, if any, shall be totaled and added to line B below.

C. Alternate Bid #1, per Specification section 01 23 00, shall be listed on line C below.

D. Alternate Bid #2, per Specification section 01 23 00, shall be listed on line D below.

E. Alternate Bid #3, per Specification section 01 23 00, shall be listed on line E below.

F. Alternate Bid #4, per Specification section 01 23 00, shall be listed on line F below.

2.2 Bid Summary

A. Base Bid Price (lump sum) $ __________________________

B. Allowance Items (if any) $ __________________________

C. Alternate #1, deduct pressure wash equipment $ __________________________

D. Alternate #2, deduct bridge crane $ __________________________

E. Alternate #3, schedule flexibility $ __________________________

F. Alternate #4, improved building warranty $ __________________________

Total Bid Cost $ __________________________
Part 3 – Acknowledgements and Representations

3.1 Acknowledgements

A. By signing this Bid Proposal the Bidder acknowledges that failure to bid all items will be grounds for rejection of the bid and that the Owner has the right to reject any and all bids, including bids which in the opinion of the Owner, are excessive or are not sufficient to properly carry out the work.

B. Furthermore the Bidder acknowledges the right of the Owner to reject the bid of bidders who have previously failed to properly perform or complete on time contracts of similar nature.

C. Bidder accepts all of the terms and conditions of the Advertisement to Bid and Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. The Bid will remain subject to acceptance for 90 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

3.2 Bidder Representations

A. In submitting this Bid, the Bidder represents as set forth in the Agreement that the acknowledgements and requirements described below have been agreed to.

B. The Bidder has examined and carefully studied the Bidding Documents, the other related data identified in the Bidding Documents, and has visited the Site and become familiar with and is satisfied as to the general, local and Site conditions that may affect cost, progress, and performance of the Work.

C. Bidder has examined the following Addenda, receipt of all of which is hereby acknowledged.

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D. Bidder is familiar with and is satisfied as to all federal, state and local Laws and regulations that may affect cost, progress and performance of the Work.

E. Bidder has carefully studied (1) reports of explorations and tests of subsurface conditions at or contiguous to the site and all drawings of physical conditions relating to existing surface or subsurface structures at the site (except underground facilities) that have been identified in the Supplementary Conditions as containing reliable “technical data”, and (2) reports and drawings of Hazardous Environmental Conditions, if any, at the site that have been identified in the Supplementary Conditions as containing reliable “technical data”.

F. Bidder has considered the information known to Bidder; information commonly known to
contractors doing business in the locality of the site; information and observations obtained from visits to the site; the Bidding Documents, and the site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences and procedures of construction to be employed by the Bidder, including applying the specific means, methods, techniques, sequences and procedures of construction expressly required by the Bidding Document; and (3) Bidder’s safety precautions and programs.

G. Bidder does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price(s) bid and within the times and in accordance with the other terms and conditions of the Bidding Documents.

H. Bidder is aware of the general nature of work to be performed by OWNER and others at the Site that relates to the Work as indicated in the Bidding Documents.

I. Bidder has correlated the information known to Bidder, information and observations obtained from visits to the Site, reports and drawings identified in the Bidding Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Bidding Documents.

J. Bidder has given Owner written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and the written resolution thereof by Owner is acceptable to Bidder.

K. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work for which this Bid is submitted.

L. Bidder further represents that this Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; Bidder has not solicited or induced any individual or entity to refrain from bidding; and Bidder has not engaged in corrupt, fraudulent, collusive or coercive practices in competing for the contract.
Part 4 – Bid Signature Page

The Bid Proposal and this Bid Signature Form is hereby submitted on and by:

___________________________________________
(Date)

___________________________________________
(Company Name)

___________________________________________
(Printed Name of Authorized Signatory)

___________________________________________
(Signature)

___________________________________________
(Title)

___________________________________________
(Witness or Notary Public Signature)

Contact Information:

___________________________________________
(Business Address)

___________________________________________
(Phone Number)  ___________________________

___________________________________________
(Fax Number)

Notes:
1. For partnerships, signature must be made by one of the general partners.
2. For joint venture projects, representative signature from each joint venture company must be provided. Attach appropriate signature pages as necessary.
3. The corporate or company seal shall be affixed over the signature for incorporated businesses.
PART 1 - GENERAL

1.1 SUMMARY
   A. Section includes administrative and procedural requirements for alternates.

1.2 DEFINITIONS
   A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the bidding requirements that may be added to or deducted from the base bid amount if the Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.

   1. Alternates described in this Section are part of the Work only if enumerated in the Agreement.
   2. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternates into the Work. No other adjustments are made to the Contract Sum.

1.3 PROCEDURES
   A. Coordination: Revise or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.

      1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.

   B. Execute accepted alternates under the same conditions as other work of the Contract.

   C. Schedule: A schedule of alternates is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.

PART 2 - PRODUCTS (Not Used)
PART 3 - EXECUTION

3.1 SCHEDULE OF ALTERNATES

A. Alternate No. 1: Deduct Pressure-Washer.
   1. Base Bid: Provide hot-water pressure wash equipment and installation as indicated on Drawings. Work to include all necessary plumbing and electrical service for fully operational wash system.
   2. Alternate: Deduct the hot-water pressure wash equipment from the scope of work to be purchased and installed by owner at a later date. Space shall remain prepared for future installation, including adequate plumbing and electrical to the location of primary equipment.

B. Alternate No. 2: Deduct Bridge Crane.
   1. Base Bid: Provide bridge crane, rails, power and installation as indicated on Drawings. Work to include all necessary structure and electrical service for fully operational crane system.
   2. Alternate: Deduct bridge crane equipment and structural steel rails from the scope of work to be purchased and installed by owner at a later date. Structure shall remain prepared for future installation, including adequate structural support of columns and foundations.

C. Alternate No. 3: Extend Project Schedule.
   1. Base Bid: Completion of project according to Schedule and Phased Construction described in Specification 01 10 00, “Project Summary”.
   2. Alternate: Allow project schedule flexibility to extend the date of Substantial Completion by up to six months.

D. Alternate No. 4: Improved Warranty to metal building components.
   1. Base Bid: Manufacturers standard warranties per specifications.
   2. Alternate: Improved warranties per specification.

END OF SECTION 01 23 00
PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Structural-steel framing.
   2. Metal roof panels.
   3. Metal wall panels.
   4. Metal soffit panels.
   5. Thermal insulation.
   6. Accessories.

1.2 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of metal building system component.

B. Shop Drawings: Indicate components by others. Include full building plan, elevations, sections, details and attachments to other work.

C. Samples: For units with factory-applied finishes.

D. Delegated-Design Submittal: For metal building systems.
   1. Include analysis data indicating compliance with performance requirements and design data signed and sealed by the qualified professional engineer responsible for their preparation.

1.4 INFORMATIONAL SUBMITTALS

A. Welding certificates.

B. Letter of Design Certification: Signed and sealed by a qualified professional engineer. Include the following:
   1. Name and location of Project.
   2. Order number.
   3. Name of manufacturer.
   4. Name of Contractor.
   5. Building dimensions including width, length, height, and roof slope.
6. Indicate compliance with AISC standards for hot-rolled steel and AISI standards for cold-rolled steel, including edition dates of each standard.
8. Design Loads: Include dead load, roof live load, collateral loads, roof snow load, deflection, wind loads/speeds and exposure, seismic design category or effective peak velocity-related acceleration/peak acceleration, and auxiliary loads (cranes).
9. Load Combinations: Indicate that loads were applied acting simultaneously with concentrated loads, according to governing building code.

C. Material test reports.

D. Source quality-control reports.

E. Field quality-control reports.

F. Sample warranties.

1.5 CLOSEOUT SUBMITTALS

A. Maintenance data.

1.6 QUALITY ASSURANCE

A. Manufacturer Qualifications: A qualified manufacturer.

1. Accreditation: Manufacturer's facility accredited according to the International Accreditation Service's AC472, "Accreditation Criteria for Inspection Programs for Manufacturers of Metal Building Systems."

2. Engineering Responsibility: Preparation of comprehensive engineering analysis and Shop Drawings by a professional engineer who is legally qualified to practice in jurisdiction where Project is located.

B. Erector Qualifications: An experienced erector who specializes in erecting and installing work similar in material, design, and extent to that indicated for this Project and who is acceptable to manufacturer.

C. Welding Qualifications: Qualify procedures and personnel according to the following:

1. AWS D1.1/D1.1M, "Structural Welding Code - Steel."
2. AWS D1.3, "Structural Welding Code - Sheet Steel."

1.7 WARRANTY

A. Special Warranty on Metal Panel Finishes: Manufacturer agrees to repair finish or replace metal panels that show evidence of deterioration of factory-applied finishes within specified warranty period.
B. Manufacturer shall warranty installed system for the periods described herein, starting from Date of Substantial Completion or ninety days from delivery, whichever comes first, against all the conditions indicated below. When notified in writing from Owner, manufacturer/installer shall, promptly and without inconvenience and cost to Owner, correct said deficiencies.

1. Materials and Workmanship Warranty:
   a. Warranty Period: Manufacturer’s Standard
      1) ALTERNATE BID: 5 years, premium.
   b. No Dollar Limit (NDL) Material and Workmanship Warranty:
   c. Warranty Period: Manufacturer’s Standard
      1) ALTERNATE BID: 5 years, premium.

2. Panel Rib Standard Weathertight Warranty:
   a. Warranty Period: Manufacturer’s Standard.
      1) ALTERNATE BID: 10 years.

3. No Dollar Limit (NDL) Weathertight Endorsement:
   a. Warranty Period: Manufacturer’s Standard.
      1) ALTERNATE BID: 10 years.

4. Structural NDL Endorsement:
   a. Warranty Period: Manufacturer’s Standard.
      1) ALTERNATE BID: 10 years.
   b. Finish Warranty:
   5. Finish coating shall not peel, blister, chip, crack or check in finish, and shall not chalk in excess of 8 numerical ratings when measured in accordance with ASTM D 4214.
   6. Finish coating shall not change color or fade in excess of 5 NBS units as determined by ASTM D 2244.
   a. Panel finish: 25 years.

7. Performance Warranty: Furnish written warranty, stating sheet metal roofing system and flashing (flashing under premium warranty only) under this Section will be maintained in watertight condition and defects resulting from the following items will be corrected without cost to Owner for a period of 10 or 20 years.
   8. Faulty workmanship.
   9. Defective materials including sealants and fasteners.
   10. Water infiltration.
PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Varco-Pruden Buildings; a division of BlueScope Buildings North America, Inc.

1. 3200 Players Club Circle, Memphis TN 38125; www.varcopruden.com

2.2 PERFORMANCE REQUIREMENTS

A. Delegated Design: Engage a qualified professional engineer, as defined in Section 01 40 00 "Quality Requirements," to design metal building system.

B. Structural Performance: Metal building systems shall withstand the effects of gravity loads and the following loads and stresses within limits and under conditions indicated according to procedures in MBMA's "Metal Building Systems Manual."

1. Design Loads: As indicated on Drawings
2. Deflection and Drift Limits: Design metal building system assemblies to withstand serviceability design loads without exceeding deflections and drift limits recommended in AISC Steel Design Guide No. 3 "Serviceability Design Considerations for Steel Buildings."

C. Seismic Performance: Metal building system shall withstand the effects of earthquake motions determined according to ASCE/SEI 7.

D. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes by preventing buckling, opening of joints, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Base calculations on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.

E. Fire-Resistance Ratings: Where assemblies are indicated to have a fire-resistance rating, provide metal panel assemblies identical to those of assemblies tested for fire resistance per ASTM E119 or ASTM E108 by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.


F. Structural Performance for Metal Roof and Wall Panels: Provide metal panel systems capable of withstanding the effects of the following loads, based on testing according to ASTM E1592:

1. Wind Loads: As indicated on Drawings.

G. Air Infiltration for Metal Roof Panels: Air leakage of not more than 0.06 cfm/sq. ft. when tested according to ASTM E1680 at the following test-pressure difference:

1. Test-Pressure Difference: 1.57 lbf/sq. ft.
H. Air Infiltration for Metal Wall Panels: Air leakage of not more than 0.06 cfm/sq. ft. when tested according to ASTM E283 at the following test-pressure difference:
   1. Test-Pressure Difference: 1.57 lbf/sq. ft.

I. Water Penetration for Metal Roof Panels: No water penetration when tested according to ASTM E1646 at the following test-pressure difference:

J. Water Penetration for Metal Wall Panels: No water penetration when tested according to ASTM E331 at the following test-pressure difference:
   1. Test-Pressure Difference: 2.86 lbf/sq. ft.

K. Wind-Uplift Resistance: Provide metal roof panel assemblies that comply with UL 580 for wind-uplift-resistance class indicated.
   1. Uplift Rating: UL 90.

L. Thermal Performance for Opaque Elements: Provide the following maximum U-factors and minimum R-values when tested according to ASTM C1363 or ASTM C518:
   1. Roof:
      a. U-Factor: .065
      b. R-Value: R-19
   2. Walls:
      a. U-Factor: .084
      b. R-Value: R-19.

2.3 STRUCTURAL-STEEL FRAMING

A. Structural Steel: Comply with AISC 360, "Specification for Structural Steel Buildings."

B. Bolted Connections: Comply with RCSC's "Specification for Structural Joints Using High-Strength Bolts."

C. Cold-Formed Steel: Comply with AISI's "North American Specification for the Design of Cold-Formed Steel Structural Members" for design requirements and allowable stresses.

D. Primary Framing: Manufacturer's standard primary-framing system, designed to withstand required loads and specified requirements. Primary framing includes transverse and lean-to frames; rafters and rake beams; sidewall, intermediate, end-wall, and corner columns; and wind bracing.
2. Frame Configuration: Single gable.

E. End-Wall Framing: Manufacturer's standard primary end-wall framing fabricated for field-bolted assembly to comply with the following:

F. Secondary Framing: Manufacturer's standard secondary framing, including purlins, girts, eave struts, flange bracing, base members, gable angles, clips, headers, jambs, and other miscellaneous structural members. Unless otherwise indicated, fabricate framing from either cold-formed, structural-steel sheet or roll-formed, metallic-coated steel sheet, prepainted with coil coating, to comply with the following:

G. Anchor Rods: Headed anchor rods as indicated in Anchor Rod Plan for attachment of metal building to foundation.

2.4 METAL ROOF PANELS

A. Exposed Fastener, Tapered-Rib, Metal Roof Panels: Formed with raised, trapezoidal major ribs and intermediate stiffening ribs symmetrically spaced between major ribs; designed to be installed by lapping side edges of adjacent panels and mechanically attaching panels to supports using exposed fasteners in side laps.

1. Material: Zinc-coated (galvanized) or aluminum-zinc alloy-coated steel sheet, 0.018-inch nominal uncoated steel thickness. Prepainted by the coil-coating process to comply with ASTM A755/A755M.
   b. Color: As selected by Architect from manufacturer's full range to match existing.

2. Major-Rib Spacing: 12 inches, match existing o.c.
4. Panel Height: 1-3/16 inches; match existing.

2.5 METAL WALL PANELS

A. Semi-Concealed-Fastener, Flush-Profile, Metal Wall Panels: Formed with vertical panel edges and a single wide recess, centered between panel edges; with flush joint between panels; with 1-inch-wide flange for attaching interior finish; designed to be installed by lapping and interconnecting side edges of adjacent panels and mechanically attaching through panel to supports using concealed fasteners.

1. Material: Zinc-coated (galvanized) or aluminum-zinc alloy-coated steel sheet, 0.024-inch nominal uncoated steel thickness. Prepainted by the coil-coating process to comply with ASTM A755/A755M.
   b. Color: As selected by Architect from manufacturer's full range to match existing.

2. Panel Coverage: 36 inches.

2.6 METAL SOFFIT PANELS

A. General: Provide factory-formed metal soffit panels designed to be installed by lapping and interconnecting side edges of adjacent panels and mechanically attaching through panel to supports using concealed fasteners[ and factory-applied sealant] in side laps. Include accessories required for weathertight installation.

B. Metal Soffit Panels: Match profile and material of metal roof panels.

1. Finish: Match finish and color of metal wall panels.

2.7 THERMAL INSULATION

A. Faced Metal Building Insulation: ASTM C991, Type II, glass-fiber-blanket insulation; 0.5-lb/cu. ft. density; 2-inch-wide, continuous, vapor-tight edge tabs; with a flame-spread index of 25 or less.

B. Unfaced Metal Building Insulation: ASTM C991, Type I, or NAIMA 202, glass-fiber-blanket insulation; 0.5-lb/cu. ft. density; 2-inch-wide, continuous, vapor-tight edge tabs; with a flame-spread index of 25 or less.

C. Retainer Strips: For securing insulation between supports, 0.025-inch nominal-thickness, formed, metallic-coated steel or PVC retainer clips colored to match insulation facing.

D. Vapor-Retarder Facing: ASTM C1136, with permeance not greater than 0.02 perm when tested according to ASTM E96/E96M, Desiccant Method.

2.8 ACCESSORIES

A. General: Provide accessories as standard with metal building system manufacturer and as specified. Fabricate and finish accessories at the factory to greatest extent possible, by manufacturer's standard procedures and processes. Comply with indicated profiles and with dimensional and structural requirements.

1. Form exposed sheet metal accessories that are without excessive oil-canning, buckling, and tool marks and that are true to line and levels indicated, with exposed edges folded back to form hems.

B. Roof Panel Accessories: Provide components required for a complete metal roof panel assembly including copings, fasciae, corner units, ridge closures, clips, sealants,
gaskets, fillers, closure strips, and similar items. Match material and finish of metal roof panels unless otherwise indicated.

C. Wall Panel Accessories: Provide components required for a complete metal wall panel assembly including copings, fasciae, Mullions, sills, corner units, clips, sealants, gaskets, fillers, closure strips, and similar items. Match material and finish of metal wall panels unless otherwise indicated.

D. Flashing and Trim: Zinc-coated (galvanized) or aluminum-zinc alloy-coated steel sheet, 0.018-inch nominal uncoated steel thickness, prepainted with coil coating; finished to match adjacent metal panels.

E. Gutters: Zinc-coated (galvanized) or aluminum-zinc alloy-coated steel sheet, 0.018-inch nominal uncoated steel thickness, prepainted with coil coating; finished to match roof fascia and rake trim. Match profile of gable trim, complete with end pieces, outlet tubes, and other special pieces as required. Fabricate in minimum 96-inch-long sections, sized according to SMACNA's "Architectural Sheet Metal Manual."

1. Gutter Supports: Fabricated from same material and finish as gutters.

F. Downspouts: Zinc-coated (galvanized) or aluminum-zinc alloy-coated steel sheet, 0.018-inch nominal uncoated steel thickness, prepainted with coil coating; finished to match metal wall panels. Fabricate in minimum 10-foot-long sections, complete with formed elbows and offsets.

1. Mounting Straps: Fabricated from same material and finish as gutters.

G. Pipe Flashing: Premolded, EPDM pipe collar with flexible aluminum ring bonded to base.

2.9 FABRICATION

A. General: Design components and field connections required for erection to permit easy assembly.

1. Mark each piece and part of the assembly to correspond with previously prepared erection drawings, diagrams, and instruction manuals.

2. Fabricate structural framing to produce clean, smooth cuts and bends. Punch holes of proper size, shape, and location. Members shall be free of cracks, tears, and ruptures.


C. Primary Framing: Shop fabricate framing components to indicated size and section, with baseplates, bearing plates, stiffeners, and other items required for erection welded into place. Cut, form, punch, drill, and weld framing for bolted field assembly.

D. Secondary Framing: Shop fabricate framing components to indicated size and section by roll forming or break forming, with baseplates, bearing plates, stiffeners, and other
plates required for erection welded into place. Cut, form, punch, drill, and weld secondary framing for bolted field connections to primary framing.

**E. Metal Panels:** Fabricate and finish metal panels at the factory to greatest extent possible, by manufacturer’s standard procedures and processes, as necessary to fulfill indicated performance requirements. Comply with indicated profiles and with dimensional and structural requirements.

1. Provide panel profile, including major ribs and intermediate stiffening ribs, if any, for full length of metal panel.

**PART 3 - EXECUTION**

**3.1 ERECTION OF STRUCTURAL FRAMING**

A. Erect metal building system according to manufacturer’s written instructions and drawings.

B. Do not field cut, drill, or alter structural members without written approval from metal building system manufacturer's professional engineer.

C. Set structural framing accurately in locations and to elevations indicated, according to AISC specifications referenced in this Section. Maintain structural stability of frame during erection.


   1. Set plates for structural members on wedges, shims, or setting nuts as required.
   2. Tighten anchor rods after supported members have been positioned and plumbed. Do not remove wedges or shims but, if protruding, cut off flush with edge of plate before packing with grout.
   3. Promptly pack grout solidly between bearing surfaces and plates so no voids remain. Neatly finish exposed surfaces; protect grout and allow to cure. Comply with manufacturer's written installation instructions for shrinkage-resistant grouts.

E. Align and adjust structural framing before permanently fastening. Before assembly, clean bearing surfaces and other surfaces that will be in permanent contact with framing. Perform necessary adjustments to compensate for discrepancies in elevations and alignment.

   1. Level and plumb individual members of structure.

F. Primary Framing and End Walls: Erect framing level, plumb, rigid, secure, and true to line. Level baseplates to a true even plane with full bearing to supporting structures, set with double-nutted anchor bolts. Use grout to obtain uniform bearing and to maintain a level base-line elevation. Moist-cure grout for not less than seven days after placement.
1. Make field connections using high-strength bolts installed according to RCSC's "Specification for Structural Joints Using High-Strength Bolts" for bolt type and joint type specified.
   a. Joint Type: Snug tightened or pretensioned as required by manufacturer.

G. Secondary Framing: Erect framing level, plumb, rigid, secure, and true to line. Field bolt secondary framing to clips attached to primary framing.

1. Provide rake or gable purlins with tight-fitting closure channels and fasciae.
2. Locate and space wall girts to suit openings such as doors and windows.
3. Provide supplemental framing at entire perimeter of openings, including doors, windows, ventilators, and other penetrations of roof and walls.

Retain "Steel Joists" Paragraph below if steel joist purlins are required; otherwise, delete.

H. Bracing: Install bracing in roof and sidewalls where indicated on erection drawings.

1. Tighten rod and cable bracing to avoid sag.
2. Locate interior end-bay bracing only where indicated.

I. Framing for Openings: Provide shapes of proper design and size to reinforce openings and to carry loads and vibrations imposed, including equipment furnished under mechanical and electrical work. Securely attach to structural framing.

J. Erection Tolerances: Maintain erection tolerances of structural framing within AISC 303.

3.2 METAL PANEL INSTALLATION, GENERAL

A. General: Anchor metal panels and other components of the Work securely in place, with provisions for thermal and structural movement.

1. Field cut metal panels as required for doors, windows, and other openings. Cut openings as small as possible, neatly to size required, and without damage to adjacent metal panel finishes.
   a. Field cutting of metal panels by torch is not permitted unless approved in writing by manufacturer.

2. Install metal panels perpendicular to structural supports unless otherwise indicated.
3. Flash and seal metal panels with weather closures at perimeter of openings and similar elements. Fasten with self-tapping screws.
4. Locate and space fastenings in uniform vertical and horizontal alignment.
5. Locate metal panel splices over structural supports with end laps in alignment.
6. Lap metal flashing over metal panels to allow moisture to run over and off the material.
B. Lap-Seam Metal Panels: Install screw fasteners using power tools with controlled torque adjusted to compress EPDM washers tightly without damage to washers, screw threads, or metal panels. Install screws in predrilled holes.

1. Arrange and nest side-lap joints so prevailing winds blow over, not into, lapped joints. Lap ribbed or fluted sheets one full rib corrugation. Apply metal panels and associated items for neat and weathertight enclosure. Avoid "panel creep" or application not true to line.

C. Metal Protection: Where dissimilar metals contact each other or corrosive substrates, protect against galvanic action by painting contact surfaces with corrosion-resistant coating, by applying rubberized-asphalt underlaymen to each contact surface, or by other permanent separation as recommended by metal roof panel manufacturer.

D. Joint Sealers: Install gaskets, joint fillers, and sealants where indicated and where required for weatherproof performance of metal panel assemblies. Provide types of gaskets, fillers, and sealants indicated; or, if not indicated, provide types recommended by metal panel manufacturer.

1. Seal metal panel end laps with double beads of tape or sealant the full width of panel. Seal side joints where recommended by metal panel manufacturer.
2. Prepare joints and apply sealants

3.3 METAL ROOF PANEL INSTALLATION

A. General: Provide metal roof panels of full length from eave to ridge unless otherwise indicated or restricted by shipping limitations.

1. Install ridge caps as metal roof panel work proceeds.
2. Flash and seal metal roof panels with weather closures at eaves and rakes. Fasten with self-tapping screws.

B. Lap-Seam Metal Roof Panels: Fasten metal roof panels to supports with exposed fasteners at each lapped joint, at location and spacing recommended by manufacturer.

1. Provide metal-backed sealing washers under heads of exposed fasteners bearing on weather side of metal roof panels.
2. Provide sealant tape at lapped joints of metal roof panels and between panels and protruding equipment, vents, and accessories.
3. Apply a continuous ribbon of sealant tape to weather-side surface of fastenings on end laps and on side laps of nesting-type metal panels, on side laps of ribbed or fluted metal panels, and elsewhere as needed to make metal panels weatherproof to driving rains.
4. At metal panel splices, nest panels with minimum 6-inch end lap, sealed with butyl-rubber sealant and fastened together by interlocking clamping plates.

C. Metal Fascia Panels: Align bottom of metal panels and fasten with blind rivets, bolts, or self-drilling or self-tapping screws. Flash and seal metal panels with weather closures where fasciae meet soffits, along lower panel edges, and at perimeter of all openings.
3.4 METAL WALL PANEL INSTALLATION

A. General: Install metal wall panels in orientation, sizes, and locations indicated on Drawings. Install panels perpendicular to girts, extending full height of building, unless otherwise indicated. Anchor metal wall panels and other components of the Work securely in place, with provisions for thermal and structural movement.

1. Unless otherwise indicated, begin metal panel installation at corners with center of rib lined up with line of framing.
2. Shim or otherwise plumb substrates receiving metal wall panels.
3. When two rows of metal panels are required, lap panels 4 inches minimum.
4. When building height requires two rows of metal panels at gable ends, align lap of gable panels over metal wall panels at eave height.
5. Rigidly fasten base end of metal wall panels and allow eave end free movement for thermal expansion and contraction. Predrill panels.
6. Flash and seal metal wall panels with weather closures at eaves and rakes, and at perimeter of all openings. Fasten with self-tapping screws.
8. Install flashing and trim as metal wall panel work proceeds.
9. Apply elastomeric sealant continuously between metal base channel (sill angle) and concrete, and elsewhere as indicated on Drawings; if not indicated, as necessary for waterproofing.
10. Align bottom of metal wall panels and fasten with blind rivets, bolts, or self-drilling or self-tapping screws.
11. Provide weatherproof escutcheons for pipe and conduit penetrating exterior walls.

B. Metal Wall Panels: Install metal wall panels on exterior side of girts. Attach metal wall panels to supports with fasteners as recommended by manufacturer.

3.5 METAL SOFFIT PANEL INSTALLATION

A. Provide metal soffit panels the full width of soffits. Install panels perpendicular to support framing.

B. Flash and seal metal soffit panels with weather closures where panels meet walls and at perimeter of all openings.

3.6 THERMAL INSULATION INSTALLATION

A. General: Install insulation concurrently with metal panel installation, in thickness indicated to cover entire surface, according to manufacturer's written instructions.

1. Set vapor-retarder-faced units with vapor retarder toward warm side of construction unless otherwise indicated. Do not obstruct ventilation spaces except for firestopping.
2. Tape joints and ruptures in vapor retarder, and seal each continuous area of insulation to the surrounding construction to ensure airtight installation.
3. Install blankets straight and true in one-piece lengths. Install vapor retarder over insulation, with both sets of facing tabs sealed, to provide a complete vapor retarder.

B. Blanket Roof Insulation: Comply with the following installation method:

1. Over-Purlin-with-Spacer-Block Installation: Extend insulation and vapor retarder over and perpendicular to top flange of secondary framing. Install layer of filler insulation over first layer to fill space formed by metal roof panel standoffs. Hold in place by panels fastened to standoffs.
   a. Thermal Spacer Blocks: Where metal roof panels attach directly to purlins, install thermal spacer blocks.

2. Retainer Strips: Install retainer strips at each longitudinal insulation joint, straight and taut, nesting with secondary framing to hold insulation in place.

C. Blanket Wall Insulation: Extend insulation and vapor retarder over and perpendicular to top flange of secondary framing. Hold in place by metal wall panels fastened to secondary framing.

1. Retainer Strips: Install retainer strips at each longitudinal insulation joint, straight and taut, nesting with secondary framing to hold insulation in place.

3.7 ACCESSORY INSTALLATION

A. General: Install accessories with positive anchorage to building and weathertight mounting, and provide for thermal expansion. Coordinate installation with flashings and other components.

1. Install components required for a complete metal roof panel assembly, including trim, copings, ridge closures, seam covers, flashings, sealants, gaskets, fillers, closure strips, and similar items.

2. Install components for a complete metal wall panel assembly, including trim, copings, corners, seam covers, flashings, sealants, gaskets, fillers, closure strips, and similar items.

3. Where dissimilar metals contact each other or corrosive substrates, protect against galvanic action by painting contact surfaces with corrosion-resistant coating, by applying rubberized-asphalt underlayment to each contact surface, or by other permanent separation as recommended by manufacturer.

B. Flashing and Trim: Comply with performance requirements, manufacturer's written installation instructions, and SMACNA's "Architectural Sheet Metal Manual." Provide concealed fasteners where possible, and set units true to line and level. Install work with laps, joints, and seams that will be permanently watertight and weather resistant.

1. Install exposed flashing and trim that is without excessive oil-canning, buckling, and tool marks and that is true to line and levels indicated, with exposed edges folded back to form hems. Install sheet metal flashing and trim to fit substrates and to result in waterproof and weather-resistant performance.
2. **Expansion Provisions:** Provide for thermal expansion of exposed flashing and trim. Space movement joints at a maximum of 10 feet with no joints allowed within 24 inches of corner or intersection. Where lapped or bayonet-type expansion provisions cannot be used or would not be sufficiently weather resistant and waterproof, form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with mastic sealant (concealed within joints).

C. **Gutters:** Join sections with riveted-and-soldered or lapped-and-sealed joints. Attach gutters to eave with gutter hangers spaced as required for gutter size, but not more than 36 inches o.c. using manufacturer's standard fasteners. Provide end closures and seal watertight with sealant. Provide for thermal expansion.

D. **Downspouts:** Join sections with 1-1/2-inch telescoping joints. Provide fasteners designed to hold downspouts securely 1 inch away from walls; locate fasteners at top and bottom and at approximately 60 inches o.c. in between.

   1. Tie downspouts to underground drainage system indicated.

E. **Pipe Flashing:** Form flashing around pipe penetration and metal roof panels. Fasten and seal to panel as recommended by manufacturer.

3.8 **FIELD QUALITY CONTROL**

A. Product will be considered defective if it does not pass tests and inspections.

B. Prepare test and inspection reports.

END OF SECTION 13 34 19
7. The contractor shall submit shop drawings.

5. The contractor is responsible for coordination of all building materials and components.

3. The structure is designed to function as a unit upon completion. The contractor is responsible for having an independent engineer design and furnish all temporary bracing and supporting equipment. The structural engineer seal on these drawings assumes no responsibility of furnishing and installing such materials.

13. Concrete shall be cured above 50°F (10°C) and in a moist condition for at least the first seven days after placement.

11. Concreting operations shall be carried on at such a rate that the concrete is at all times plastic and flowing.

4. All slabs on ground shall be a minimum 5-bag mix and shall utilize 1.5-inch top aggregate in an evenly compacted state.

25. Anchor bolt diameter and placement to be per the metal building supplier's drawings. Anchor rods shall be galvanized steel pipe. All other sleeves shall be 18-gauge sheet metal. Sleeves shall be on size large R.

5. Dimensions of existing construction or construction in progress shall be verified and reported promptly to the engineer and architect for clarification.

39. Pipe sleeves over 1 1/2" in diameter which pass through concrete walls or slabs shall be Schedule 40 pipe with a compressive strength 500 psi or more greater than the compressive strength of the supporting concrete wall or slab or section, as defined by its boundaries or predetermined joints. See concrete details for specific construction requirements.

28. Slab on ground to be constructed on a minimum of 6" of crushed stone or granular fill.

20. Steel angles shall be Class "B" tension, and lap splice values from Section 25.4.2.2 in ACI 318-14:

- #4: 42"
- #6: 41"
- #8: 37"
EXISTING BUILDING

NEW ADDITION

15
14
13
12
11
10

A
B
E
F
G

80'-0"
18'-0" 24'-0" 18'-0" 20'-0"
25'-0" 30'-0" 25'-0" 16'-0" 22'-2"

1'-10"
120'-0"

EXISTING

9

DO NOT MODIFY EXISTING BUILDING. ALL SHEETING, BRACING AND MEMBERS TO REMAIN.

FOR CONSTRUCTION
14. TOP OF BRICK LEDGE = SEE PLAN. VERIFY W/ ARCH PLANS PRIOR TO PLACING.

13. SEE DETAILS 13 & 14/S601 FOR PIPE PENETRATION REQUIREMENTS.

16. HAIRPINS ARE INTEGRAL TO BUILDING STABILITY. FUTURE SLAB REMOVAL OR
   SLAB CONTROL JOINT SHALL BE AS SHOWN ON PLAN OR SIMILAR. SLAB JOINT
   REQUIREMENTS AS PER MANUFACTURER'S RECOMMENDATIONS.

7. PROVIDE (2) #4 BARS AT ALL DEAD ENDS AND REENTRA NT CORNERS, TYP. SEE
   SHEET S601 DETAILS 2 & 3 FOR FOOTING AND WAL L CORNER REINFORCING
   REQUIREMENTS PRIOR TO POURING CONCRETE.

5. SEE SHEET S601 DETAILS 2 & 3 FOR FOOTING AND WALL CORNER REINFORCING
   REQUIREMENTS.

8. SLAB CONTROL JOINT SHALL BE AS SHOWN ON PLAN OR SIMILAR. SLAB JOINT
   REQUIREMENTS AS PER MANUFACTURER'S RECOMMENDATIONS.

4. CURING: ALL CONCRETE FLAT WORK SHALL BE COVERED IMMEDIATELY FOLLOWING
   PLACING. CURING SHEETS SHALL BE USED, AND ARE TO REMAIN IN PLACE,
   PATTERN, WITH MAXIMUM SPACING OF 12' - 0" FOR 4" THICK SLABS, 13' - 0" FOR

2. CONTROL JOINTS: ALL CONCRETE SLABS SHALL BE SAW CUT AS SOON AS THE
   CONCRETE IS HARDENED AND NEW SLABS SHALL BE SAW CUT EVERY 6'-0".

1. CENTER FOOTING UNDER COLUMN. WHEN THE FOOTING IS
   UNDER 4' X 4' - SEE DETAIL 4&5/S602 FOR TYPICAL PIER DETAILS.

- EXPANSION JOINT-SEE NOTES FOR
- FOOTING MARK
- ELEVATION FX
- TOP OF COLUMN FOOTING
- COLUMN FOOTING MARK
- ELEVATION FX
- TOP OF PIER ELEVATION
- COLUMN FOOTING MARK (SEE FOUNDATION SCHEDULE)
- CONCRETE PIER
- CONCRETE FOOTING

<table>
<thead>
<tr>
<th>TYP</th>
<th>FOOTING DIMENSION</th>
<th>FOOTING SHAPE</th>
<th>SHEET</th>
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<tr>
<td>F1.0</td>
<td>3'-0&quot; x 3'-0&quot; x 1'-0&quot;</td>
<td>3-#5 EA WAY</td>
<td>S602</td>
</tr>
<tr>
<td>F2.0</td>
<td>2'-0&quot; x 2'-0&quot; x 1'-0&quot;</td>
<td>3-#5 CONT</td>
<td>S602</td>
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<tr>
<td>F2.5</td>
<td>1'-8&quot; x 1'-8&quot; x 1'-0&quot;</td>
<td>3-#5 CONT</td>
<td>S602</td>
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<tr>
<td>F3.0</td>
<td>1'-8&quot; x 1'-8&quot; x 1'-0&quot;</td>
<td>3-#5 CONT</td>
<td>S602</td>
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<tr>
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<td>4'-0&quot; x 4'-0&quot; x 1'-0&quot;</td>
<td>4-#5 EA WAY</td>
<td>S602</td>
</tr>
<tr>
<td>W2.0</td>
<td>2'-0&quot; x 1'-0&quot;</td>
<td>3-#5 CONT</td>
<td>S602</td>
</tr>
<tr>
<td>W1.5</td>
<td>1'-6&quot; x 1'-0&quot;</td>
<td>2-#5 CONT</td>
<td>S602</td>
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<tr>
<td>P7.5</td>
<td>1'-8&quot; x 2'-0&quot;</td>
<td>6-#6 VERT W/ #3</td>
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<td>6-#6 VERT W/ #3</td>
<td>S602</td>
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<tr>
<td>P4.0</td>
<td>4'-0&quot; x 4'-0&quot;</td>
<td>10-#5 EA WAY</td>
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<tr>
<td>TIES @ 12&quot;OC C 12/S602</td>
<td></td>
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</table>
EXISTING BUILDING
EXISTING 6" CONCRETE SLAB ON GRADE

22'-2"
25'-0" 30'-0" 25'-0" 16'-0"

REMOVE EXISTING STOOP
18'-0" 24'-0" 18'-0" 20'-0" 80'-0"

EXISTING GIRTS & PANEL TO REMAIN
1'-10"

PORTAL FRAME
FIRE BARRIER

L1
BRACED BAY
WCJ
WCJ
W2

HOLD BACK WALL GIRTS AND EXTEND FIRE WALL TO FACE OF METAL WALL PANEL

PROVIDE FULL HEIGHT LINER PANEL ON EXTERIOR WALL OF WASH BAY, SEE ARCH.

PEMB SUPPLIER TO DESIGN THIS FRAME FOR MAXIMUM VERTICAL LIVE/SNOW LOAD DEFLECTION OF 3.5 INCHES.

W1
W1
WCJ
WCJ

3 - TON TOP RUNNING BRIDGE CRANE ALL RUNWAYS, COLUMN BRACKETS, TIE BACKS, BRACING AND STOPS BY PEMB SUPPLIER.
COORDINATE BRIDGE AND TROLLY WEIGHT W/ CRANE SUPPLIER.
COORDINATE TO OF RUNWAY W/ OWNER AND ARCHITECT.
EXISTING BUILDING

FIRE BARRIER

L1

3/4" FIRE TREATED PLYWOOD ON 0.626 GA FORM DECK. SCREW DECK TO JOISTS AT 12" OC, FIELD 6" OC AT PERIMETER.

STORAGE AREA ABOVE RESTROOM MAXIMUM 125 PSF LIVE LOAD.

ALL FRAMING SHALL BE MINIMUM SIZES AND GAGE SHOWN, NO SUBSTITUTIONS OR REDUCTIONS. ALL CONNECTIONS AND DETAILING SHALL BE BY SUPPLIERS ENGINEER.

362S137 - 33 STD @ 16" OC CENTER UNDER JOISTS. PROVIDE SHEETING AND CENTER RUN OF BRIDGING TYP EA WALL.

EXTEND CENTER WALL TO DECK BEARING.

600S162 - 54 (50 KSI) @ 1'-4" OC BK BK 600S162 - 54 (50 KSI) HEADER TYP 1'-4"
**ANCHOR BOLT DIMENSION CHART**

<table>
<thead>
<tr>
<th>Bolt Size</th>
<th>OD</th>
<th>Length</th>
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<tbody>
<tr>
<td>1/4&quot;</td>
<td>0.25&quot;</td>
<td>1&quot;</td>
</tr>
<tr>
<td>5/32&quot;</td>
<td>0.156&quot;</td>
<td>1&quot;</td>
</tr>
<tr>
<td>3/32&quot;</td>
<td>0.094&quot;</td>
<td>1&quot;</td>
</tr>
</tbody>
</table>

*NOTES:*
1. Bolt must be furnished in 100% cold work material.
2. Bolt must be furnished in a bright finish.
3. Bolt must be furnished with a thread sealant.

**WALL CORNER REINFORCING**

*SEE PLAN*

**ADDED REINFORCEMENT AT ROUND OPENINGS**

*SEE PLAN*

**ADDED REINFORCEMENT AT RECTANGULAR OPENINGS**

*SEE PLAN*

**FOOTING CORNER REINFORCING**

*SEE PLAN*

**SLAB REINF AT REENTRANT CORNERS W/O CONTROL JTS**

*SEE PLAN*

**SLAB JOINTS**

*SEE PLAN*

**WALL CONTROL JOINT**

*SEE PLAN*

**STOOP AT DOOR/WINDOW**

*SEE PLAN*

**HAIRPIN DETAIL**

*SEE NOTE 2*

**INTERIOR JOINT**

*SEE PLAN*

**PERIMETER JOINT**

*SEE PLAN*

**OH DOOR THRESHOLD**

**SLAB ISOLATION JOINT DETAILS**

**PIPE PENETRATION AT FDN WALL**

*SEE NOTE 1*

**PIPE PENETRATION AT WALL FTG**

*SEE NOTE 2*

**TRENCH DRAIN**

*SEE NOTE 3*

---

**SCALE:**

1/2" = 1'-0"
**PIER P3 DETAIL**

- **NEW SLAB TO EXISTING FDN WALL**
  - MIN EMBED = 6"
  - CONT THRU PIER
  - EPOXY GROUT

- **EPOXY INTO**
  - (6) #5 BARS

**PIER P5 DETAIL**

- **NEW SLAB TO EXISTING FDN WALL**
  - MIN EMBED = 6"
  - CONT THRU PIER
  - EPOXY GROUT

- **EPOXY INTO**
  - (6) #5 BARS

**PIER P6 DETAIL**

- **NEW SLAB TO EXISTING FDN WALL**
  - MIN EMBED = 6"
  - CONT THRU PIER
  - EPOXY GROUT

- **EPOXY INTO**
  - (6) #5 BARS

---

**PIER P2 DETAIL**

- **NEW SLAB TO EXISTING FDN WALL**
  - MIN EMBED = 6"
  - CONT THRU PIER
  - EPOXY GROUT

- **EPOXY INTO**
  - (6) #5 BARS

**PIER P4 DETAIL**

- **NEW SLAB TO EXISTING FDN WALL**
  - MIN EMBED = 6"
  - CONT THRU PIER
  - EPOXY GROUT

- **EPOXY INTO**
  - (6) #5 BARS

---

**PIER P1 DETAIL**

- **NEW SLAB TO EXISTING FDN WALL**
  - MIN EMBED = 6"
  - CONT THRU PIER
  - EPOXY GROUT

- **EPOXY INTO**
  - (6) #5 BARS

---

**PIER P3 DETAIL**

- **NEW SLAB TO EXISTING FDN WALL**
  - MIN EMBED = 6"
  - CONT THRU PIER
  - EPOXY GROUT

- **EPOXY INTO**
  - (6) #5 BARS

---

**PIER P5 DETAIL**

- **NEW SLAB TO EXISTING FDN WALL**
  - MIN EMBED = 6"
  - CONT THRU PIER
  - EPOXY GROUT

- **EPOXY INTO**
  - (6) #5 BARS

---

**PIER P6 DETAIL**

- **NEW SLAB TO EXISTING FDN WALL**
  - MIN EMBED = 6"
  - CONT THRU PIER
  - EPOXY GROUT

- **EPOXY INTO**
  - (6) #5 BARS
1. Read all masonry notes on Sheet S001
2. Linetails and bond beams are required above and/or below any openings exceeding 8" in either dimension. This includes, but is not limited to, mechanical, electrical, plumbing, door or window openings.
3. Provide bond beam at all joist bearing & top of parapet elevations & as noted in schedule.
4. Grout solid w/ (1)#5 under lintel bearing (UNO) and provide (1)#5 bars full height at each side of openings, doors, windows & duct openings less than 6'-0" wide, & (2)#5 bars full height at openings greater than 6'-0" or masonry pier per plan.
5. "SW" indicates shear wall locations. Provide full tension splice of MP to foundation at each end of wall segment.
6. TYPICAL CMU Lintel
7. Typical offset bond beam
8. CMU wall to foundation
9. Masonry control joints
10. Masonry wall schedule
11. Masonry corner reinforcing
12. Vertical reinforcement at top of wall
13. Typical CMU lintel
14. CMU control joint schedule (masonry lintel shown)
15. Detail at top of CMU fire barrier
16. Scale: 1" = 1'-0"
7'-10 1/2" MAX GROUT LIFT
3'-10 1/2" 4'-0" GREATER THAN 5'-0"

FOR GROUT POUR HEIGHTS
HOLE AT REINFORC (REQ'D INSPECTION AND CLEAN OUT
3"x3" MIN CUT MASONRY CMU WALL, SEE PLAN
REINF MASONRY PLAN & TABLE
REINF IN GROUTED CORE SEE PROJ & LAP
PROJECT & LAP
PROJECT & LAP
PROJECT & LAP

TOP FND WALL
TOP FIRST GROUT POUR
TOP SECOND GROUT POUR

1 1/2" #8 6'-2"
1 1/2" #7 5'-2"
#6 4'-4"
#5 2'-8"
#4 2'-2"
#3 1'-6"

TABLE A

SEE PLAN CONC SLAB ON GRADE, SHEET S0.1
SEE MASONRY NOTES ON WALL SHORING BY CONT.

OTHER PURLIN SPACE CMU WALL EVERY-
BOLT TO PURLIN
L6x4x5/16 EA SIDE OF 1/2" DIA A307 PEMB PURLIN
VARIES B.O. PURLIN
1 1/2" 150 LB/FT WALL
CMU PARTITION S701
(2) #5 BAR, SEE DETAIL SLOPED BOND BEAM W/
(ALT CONTINUOUS)
MAX 4'-0" GAP BTWN SIDE x1'-6" MIN.
6'-0" OC MAX BRACING ANGLE EA 1/2" DIA BOLT AS REQ'D (TYP)
PEMB PURLIN (TYP)
4"
P=150 PLF PEMB SUPPLIER AS PURLIN BLOCKING BY PEMB PURLIN (TYP)
WALL SEE SCHED CMU PARTITION
(2) #5 BAR BOND BEAM W/
6'-0" OC, BOLT TO PURLINS MC12x10.6 OR SIM AT
(2) 1/2" DIA BOLTS REQ'D (TYP)
PEMB PURLIN (TYP)
1 1/2" WALL SEE SCHED
(2) #5 BAR BOND BEAM W/
TO PURLINS W/ (2) 1/2" DIA L4x4x1/4 x1'-0" WALL SEE SCHED

MASONRY DETAILS
FOR CONSTRUCTION
S702