SECTION 00 9111

ADDENDUM NUMBER ONE

PARTICULARS

DATE: JULY 28, 2025

PROJECT: IOWA STATE FAIR – SWINE-CATTLE BARN UPDATES – PHASE 1

IOWA STATE FAIR CONTRACT NO. CSWB2301

K/O PROJECT NUMBER: 250401.00

OWNER: IOWA STATE FAIR BOARD OF DIRECTORS

ARCHITECT: KEFFER/OVERTON ARCHITECTS

TO: PROSPECTIVE BIDDERSBIDDING DOCUMENT HOLDERS OF RECORD:

THIS ADDENDUM FORMS A PART OF THE CONTRACT DOCUMENTS AND MODIFIES THE BIDDING DOCUMENTS FOR THE IOWA STATE FAIR – SWINE-CATTLE BARN UPDATES – PHASE 1, WITH AMENDMENTS AND ADDITIONS NOTED BELOW.

ACKNOWLEDGE RECEIPT OF THIS ADDENDUM IN THE SPACE PROVIDED IN THE BID FORM. FAILURE TO DO SO MAY DISQUALIFY THE BIDDER.

*** BIDS WILL BE RECEIVED AT THE OFFICE OF:

K/O ARCHITECTS

650 S. PRAIRIE VIEW DRIVE, SUITE 103

WEST DES MOINES, IOWA 50266

*** ON BEHALF OF THE OWNER, ON OR BEFORE,
2:00 P.M., LOCAL TIME, TUESDAY, AUGUST 5, 2025.

THIS ADDENDUM CONSISTS OF:

5 PAGES	ADDENDUM
3 PAGES	SECTION 00 0110 – TABLE OF CONTENTS
5 PAGES	SECTION 00 2113 – INSTRUCTIONS TO BIDDERS
2 PAGES	SECTION 00 4100 – BID FORM
3 PAGES	SECTION 01 1000 – SUMMARY
3 PAGES	SECTION 01 2000 – PRICE AND PAYMENT PROCEDURES
1 PAGE	SECTION 01 2100 - ALLOWANCES
17 PAGES	DRAWING SHEETS

CHANGES TO THE PROJECT MANUAL:

SECTION 00 0110 – TABLE OF CONTENTS

A. Replace Section with that included in this Addendum (added Section 01 2100).

SECTION 00 2113 – INSTRUCTIONS TO BIDDERS

A. Replace Section with that included in this Addendum (added reference to Related Section 01 2100).

SECTION 00 4100 – BID FORM

A. Replace Section with that included in this Addendum (corrected grammatical errors and added reference to Cash Allowances in Section 01 2100).

SECTION 01 1100 – SUMMARY

A. Replace Section with that included in this Addendum (further defined the Description of Work and Alterations Work).

SECTION 01 2000 – PRICE AND PAYMENT PROCEDURES

A. Replace Section with that included in this Addendum (added reference to Related Section 01 2100).

CHANGES TO THE DRAWINGS:

CIVIL DRAWINGS

A. SHEET C100-1 - SITE PLAN (EAST RESTROOM) SWINE BARN (Refer to revised sheet.)
   1. The paving in the north part of the site was identified as 8” PCC paving.

B. SHEET C101-1 - SITE PLAN ELECTRIC BUILDING CATTLE BARN (Refer to revised sheet.)
   1. A new 4” sanitary service and manhole were added, along with 142 LF of sewer televising and locating. This increased the amount of pavement removal and replacement. The contractor may also estimate the cost of completing new 8” PCC paving in lieu of the 3” Mill & Fill. This additional work will include pavement removal, core out, subgrade preparation, and paving with CD baskets and tie bars. This price is requested as part of the submittal package but will not be a determining factor in the award. The PVC storm roof drain line was also upsized from 8” to 10” PVC.

ARCHITECTURAL DRAWINGS

A. SHEET A001 – ROOM FINISH, DOOR & FRAME SCHEDULE, WALL TYPES AND DETAILS.
   1. Swine Barn Door & Frame Schedule – Phase 1. Door & Frame General Notes
      a. Add Note 11 as follows:
         “Door Hardware material will be by allowance. See Door Hardware Installation Schedule as shown on Attachment A-1 to Addendum #1.”

B. SHEET A102-1 – ENLARGED RESTROOM PLANS (Refer to revised sheet.)
   1. Detail 2. Phase 1 – Enlarged Demo Floor Plan. Replace this floor plan in its entirety as shown on Attachment A102-1.
   2. Detail 3. Modify extents of concrete floor slab between rooms as shown on Attachment A102-1.
   3. Detail 4. Add note pointing to column in Men’s Room 11 as shown on Attachment A102-1.

C. SHEET A104-1 – WALL SECTIONS (Refer to revised sheet.)
   1. North-South Building Section Detail 4. Modify wall section as shown on Attachment A104-1.

D. SHEET A105-1 – CATTLE BARN FLOOR PLANS, ELEVATIONS
   1. Cattle Barn Room Finish Schedule – Phase 1. Modify name of Room 102, to be “Elec.”, in lieu of “Elec. Stor.”

2. Detail 1 – Overall Floor Plan – Cattle Barn. Modify name of Room 102, to be “Elec.”, in lieu of “Elec. Stor.”
3. Detail 2 – Enlarged Floor Plan - Cattle Barn Elec. Building. Modify name of Room 102, to be “Elec.”, in lieu of “Elec. Stor.”

E. SHEET A106-1 – CATTLE BARN SECTIONS, DETAILS
1. Cattle Barn Door & Frame Schedule – Phase 1. Door & Frame General Notes
   a. Add Note 9 as follows:
   “Door Hardware material will be by allowance. See Door Hardware Installation Schedule as shown on Attachment A-1 to Addendum #1.”

F. SHEET A501-1 – DETAILS (Refer to revised sheet.)
1. Detail 6 – Overhead Door Head Detail. Modify detail as shown on Attachment A501-1.

G. ATTACHMENT A-1 – DOOR HARDWARE INSTALLATION SCHEDULE (Refer to attached sheet.)
1. Door hardware material will be by Allowance. Installation schedule provides guidance on type and style of door hardware to be installed. See Section 01 2100 – Allowances.

STRUCTURAL DRAWINGS

A. SHEET S101-1 – STRUCTURAL DETAILS (Refer to attached sheet.)
1. Delete this page in its entirety and replace with attached revised sheet. Items modified include, but not limited to:
   a. Clarifies plan 1/S101-1 with the limits and extents of the 8” wide concrete starter wall. Also provides clarification to the cross walls and footings.
   b. Added note to plan 1/S101-1 all rooms other than the Chase as follows: FLOOR SLAB TO BE 4” CONCRETE WITH 6X6 - W2.9XW2.9 WWF, ON 4” COMPACTED GRANULAR SUBBASE ON 15 MIL VAPOR BARRIER (TAPE JOINTS).
   c. Changed plan 2/S101-1. North and South edge of roof line actually closer to the building – see detail 8/S501-1.
   d. Corrected plan 2/S101-1. The number and locations of NOTE 1 may not match mechanical. See Mechanical sheet M102-1 for actual locations and provide NOTE 1 for each.
   e. Corrected plan 4/S101-1. Detail number changed to be “4” in in lieu of “12” on original bid set. The number and locations of NOTE 2 may not match mechanical. See Mechanical sheet M102-1 for actual locations and provide NOTE 2 for each.

B. SHEET S102-1 – STRUCTURAL PLANS
1. Change plan 2/S102-1. Delete extra line at middle of opening between rooms 102 and 103.

C. SHEET S501-1 – STRUCTURAL DETAILS
1. Change detail 13/S501-1. Change 3’-0” overhang at East to be 3’-0” to the inside face of the double facia boards. Match 11/S501-1. See architectural.
2. Change detail 13/S501-1. Change 2’-0” overhang at West to be 1’-8” to the inside face of the double facia boards. See architectural.
3. Add to section 15/S501-1. Add 4” compacted granular subbase under chase slab.

D. SHEET S502-1 – STRUCTURAL DETAILS (Refer to attached sheet.)
1. Revise Lintel 2 detail 2/S502-1 as shown on Attachment S502-1
2. Detail 4. Modify top of column at plate as shown on Attachment S502-1.

E. SHEET S503-1 – STRUCTURAL DETAILS
1. Revise detail 2 title to be “WALL SECTION” in lieu of “Detail 18”.

F. SHEET S504-1 – STRUCTURAL DETAILS (Refer to attached sheet.)
   1. Revise Lintel 2 detail 2/S504-1 as shown on Attachment S504-1.

PLUMBING DRAWINGS

A. SHEET P102-1 – PLUMBING UNDERFLOOR ENLARGED PLANS (Refer to revised sheet.)
   1. REVISE routing of sanitary lines and cold water line in Office / Women's Group A area.
   2. ADD portion of existing 6" cold water main as being replaced with new.
   3. ADD keyed note #15

B. SHEET P102-2 – PLUMBING ENLARGED PLANS (Refer to revised sheet.)
   1. REVISE plumbing pipe routing above floor in Office / Women's Group A area.
   2. REVISE plumbing pipe routing to lavatories in Restroom Group D area.
   3. ADD keyed notes #12, #13, & #14.
   4. REVISE location of exterior hose bibb HB-1 in Restroom Group D area.

MECHANICAL DRAWINGS

A. SHEET M102-1 – MECHANICAL ENLARGED PLANS (Refer to revised sheet.)
   1. DELETE EF-3.
   2. REVISE fan labels for fans EF-4 through EF-8 (See updated schedule on M500).
   3. REVISE location of EF-5.
   4. REVISE location of EF-6.
   5. REVISE location of AC-1.

B. SHEET M500 – MECHANICAL DETAILS & SCHEDULES (Refer to revised sheet.)
   1. DELETE fan EF-3.
   2. REVISE fan labels for EF-4 through EF-8 to now be labeled EF-3 through EF-7.P

HVAC PRODUCT APPROVALS

The following materials or equipment furnished by the manufacturer listed may be substituted as equivalent, provided that each item and piece of equipment conforms to the design, size, weight, quality and requirements of the specifications and drawings. The contractor will be responsible for any modifications to utility connections resulting from alternate equipment manufacturers being used.

Section	Item	Submitted Manufacturer
23 05 94	**Test & Balance**	**Flow-Tech Solutions**

ELECTRICAL DRAWINGS

A. SHEET E103 – ELECTRICAL CATTLE BARN UPDATES (Refer to revised sheet.)
   1. REVISE exterior receptacle locations.

B. SHEET EP101-1 ELECTRICAL ENLARGED POWER PLANS (Refer to revised sheet.)
   1. ADD electrical connection for overhead door in Storage 13
   2. ADD keynote #4
   3. REVISE electrical connection locations for EF-5, EF-6, AC-1
   4. ADD general notes
   5. REMOVE receptacle in Storage 02

C. SHEET E600 – ELECTRICAL SCHEDULES (Refer to revised sheet.)
   1. REVISE breaker #18 in L1 panelboard
   2. REVISE luminaire schedule

MISCELLANEOUS ELECTRICAL QUESTIONS:

QUESTION 1: The spec calls out the electrical panelboards should be NEMA 3R (26 2416-2) but the panel schedule states that it should be NEMA 1. Can you please specify which NEMA rating I should quote?
ANSWER: Please quote NEMA I rating.

QUESTION 2: The “General Electrical Schedule” on drawing E600 lists an SPD, however, the drawings and panel schedules do not list the SPD. Do you know which panel will be feeding the SPD and where it will be located?
ANSWER: No SPD required in these panelboards.

QUESTION 3: Panel LP1 is listed on the panel schedule (E600) however it is not shown on the single line. Is the LP1 provided by others?
ANSWER: LP1 shall be provided and installed as part of this project.

QUESTION 4: The drawing E600 shows (2) new 125A breakers for existing gear. Do you have the information on the existing panel that you could provide?
ANSWER: See labels as shown on Attachment E-1 of this Addendum.

END OF SECTION

SECTION 00 0110
TABLE OF CONTENTS

END OF SECTION

SECTION 00 2113
INSTRUCTIONS TO BIDDERS

SUMMARY

1.01 DOCUMENT INCLUDES

A. Invitation
   1. Bid Submission
   2. Intent
   3. Work Identified in Contract Documents
   4. Contract Time

B. Bid Documents and Contract Documents
   1. Definitions
   2. Contract Documents Identification
   3. Availability
   4. Examination
   5. Inquiries/Addenda
   6. Product/Assembly/System Substitutions

C. Site Assessment
   1. Site Examination

D. Qualifications
   1. Qualifications
   2. Subcontractors/Suppliers/Others

E. Bid Submission
   1. Submission Procedure
   2. Bid Ineligibility

F. Bid Enclosures/Requirements
   1. Security Deposit
   2. Performance Assurance
   3. Insurance
   4. Bid Form Requirements
   5. Fees for Changes in the Work
   6. Bid Form Signature
   7. Additional Bid Information

G. Offer Acceptance/Rejection
   1. Duration of Offer
   2. Acceptance of Offer

1.02 RELATED DOCUMENTS

A. Section 00 1113 - Advertisement for Bids.

B. Section 00 4100 - Bid Form.

C. Section 00 4336 - Proposed Subcontractors Form.

D. Section 00 4325 - Substitution Request Form - During Procurement

E. Section 00 4373 - Proposed Schedule of Values Form.

F. Section 00 4328 - Items Eligible For Tax Rebate Form.

G. Section 00 7300 - Supplementary Conditions.

H. Section 01 1000 - Summary.

I. Section 01 2100 - Allowances.

INVITATION

2.01 BID SUBMISSION

A. BIDS WILL BE RECEIVED AT THE OFFICE OF K/O ARCHITECTS, 650 S. PRAIRIE VIEW DRIVE, SUITE 103, WEST DES MOINES, IOWA 50266, ON OR BEFORE 2:00 P.M., LOCAL TIME, TUESDAY, AUGUST 5, 2025.

B. Offers submitted after the above time will be returned to the bidder unopened.

2.02 INTENT

A. The intent of this Bid request is to obtain an offer to perform work to complete project named ISF Swine-Cattle Barn Updates - Phase 1 for a Stipulated Sum contract, in accordance with Contract Documents.

2.03 WORK IDENTIFIED IN THE CONTRACT DOCUMENTS

A. Work of this proposed Contract comprises building construction, including general construction, structural, mechanical, and electrical Work.

2.04 CONTRACT TIME

A. Complete all work within this contract by the 15th day of June, 2026.

BID DOCUMENTS AND CONTRACT DOCUMENTS

3.01 DEFINITIONS

A. Bid Documents: Contract Documents supplemented with Invitation To Bid, Instructions to Bidders, Information Available to Bidders, Bid Form Supplements To Bid Forms and Appendices identified.

B. Bid Amount: Monetary sum identified by the Bidder in the Bid Form.

3.02 CONTRACT DOCUMENTS IDENTIFICATION

A. Contract Documents are identified with Owner's Project Number CSWB2301, as prepared by Architect, with Architect's Project Number 250401.00 and with contents as identified in the Project Manual.

3.03 AVAILABILITY

A. Bid documents may be obtained at Iowa Reprographics Inc., 3 College Ave., Des Moines, Iowa, Phone: 515-244-5705. A document deposit of $100.00 or current builder's association plan deposit card is required.

B. Deposit will be refunded if Bid Documents are returned complete, undamaged, unmarked and reusable, within 7 days of bid submission. Failure to comply will result in forfeiture of deposit.

C. Bid Documents are made available only for the purpose of obtaining offers for this project. Their use does not grant a license for other purposes.

D. Only bidders that receive Bid Documents from Iowa Reprographics will be considered Registered Plan Holders.

E. An electronic PDF copy of the Bid Documents is available from Iowa Reprographics for all Registered Plan Holders.

F. Scanned copies of Documents are not considered official Bid Documents. Scanned copies might be incomplete or inaccurate. If needed electronic PDF copies of Addenda will be issued to Registered Plan Holders only.

3.04 EXAMINATION

A. Bid Documents may be viewed at the office of Architect.

B. Bid Documents may be viewed at the office of Owner.

C. Upon receipt of Bid Documents verify that documents are complete. Notify Architect should the documents be incomplete.

D. Immediately notify Architect upon finding discrepancies or omissions in the Bid Documents.

3.05 INQUIRIES/ADDENDA

A. Addenda may be issued during the bidding period. All Addenda become part of Contract Documents. Include resultant costs in the Bid Amount.

B. Verbal answers are not binding on any party.

C. Clarifications requested by bidders must be in writing not less than 7 days before date set for receipt of bids. The reply will be in the form of an Addendum, a copy of which will be forwarded to Registered Plan Holders.

3.06 PRODUCT/ASSEMBLY/SYSTEM SUBSTITUTIONS

A. General Requirements for Substitution Requests:
   1. Project Manual establishes standards for products, assemblies, and systems.
   2. Submit requests only for elements for which substitution is specifically allowed in the Project Manual.
   3. Provide sufficient information to determine acceptability of proposed substitutions.
   4. Provide complete information on required revisions to other work to accommodate each proposed substitution.

B. Substitution Request Time Restrictions:
   1. Where the Bid Documents stipulate a particular product, substitutions will be considered up to 10 days before receipt of bids.

C. Substitution Request Form:
   1. Submit substitution requests by completing the form attached to this section. See this form for additional information and instructions. Use only this form; other forms of submission are unacceptable.
   2. Submit substitution requests by completing the form in Section 00 4325; see this section for additional information and instructions. Use only this form; other forms of submission are unacceptable.

D. Review and Acceptance of Request:
   1. Architect may approve the proposed substitution and will issue an Addendum to known bidders.
   2. For approved substitutions, include representation of changes in the bid, if any, required in the work and changes to Contract Time and Contract Sum to accommodate such substitutions. A later claim by the bidder for an addition to the Contract Time or Contract Sum because of changes in work necessitated by use of substitutions will not be considered.

SITE ASSESSMENT

4.01 SITE EXAMINATION

A. Examine the project site before submitting a bid.

QUALIFICATIONS

5.01 EVIDENCE OF QUALIFICATIONS

A. To demonstrate qualification for performing the Work of this Contract, bidders may be requested to submit written evidence of financial position, license to perform work in the State.

B. To demonstrate qualification for performing the Work of this Contract, bidders may be requested to submit AIA A305.

5.02 SUBCONTRACTORS/SUPPLIERS/OTHERS

A. Owner reserves the right to reject a proposed subcontractor for reasonable cause.

B. Refer to General Conditions.

BID SUBMISSION

6.01 SUBMISSION PROCEDURE

A. Bidders shall be solely responsible for the delivery of their bids in the manner and time prescribed.

B. Submit one copy of the executed offer on the Bid Forms provided, signed and sealed with the required security in a closed opaque envelope, clearly identified with bidder's name, project name and Owner's name on the outside.

C. Improperly completed information, irregularities in security deposit, may be cause not to open the Bid Form envelope and declare the bid invalid or informal.

6.02 BID INELIGIBILITY

A. Bids that are unsigned, improperly signed or sealed, conditional, illegible, obscure, contain arithmetical errors, erasures, alterations, or irregularities of any kind, may at the discretion of the Owner, be declared unacceptable.

B. Bid Forms, Appendices, and enclosures that are improperly prepared may, at the discretion of Owner, be declared unacceptable.

C. Failure to provide security deposit, bonding or insurance requirements may, at the discretion of Owner, be waived.

D. Bids are by invitation, only from selected bidders. Bids from Unregistered Plan Holders may be returned.

BID ENCLOSURES/REQUIREMENTS

7.01 SECURITY DEPOSIT

A. Bids shall be accompanied by a security deposit as follows:

1. Each proposal must be accompanied by a certified or cashier's check drawn on an Iowa bank or a bank chartered under the laws of the United States, or a certified share draft on a credit union in Iowa or chartered under the laws of the United States, in an amount equal to five percent (5%) of the Bid Price, made payable to the Owner, or on AIA A310 Bid Bond form or form approved by the Owner for a like amount, which shall be considered as liquidated damages and shall be forfeited to the Owner if said bid is accepted and the bidder fails to execute the contract and file the required Performance Bond and Labor and Material Payment Bond as required in the Contract Documents.

B. The security deposit will be returned after delivery to the Owner of the required Performance and Payment Bond(s) by the accepted bidder.

C. Include the cost of bid security in the Bid Amount.

D. After a bid has been accepted, all security deposit cashier's checks and/or share drafts will be returned, and all Bid Bond forms will be destroyed.

E. If no contract is awarded, all security deposit cashier's checks and/or share drafts will be returned, and all Bid Bond forms will be destroyed.

7.02 PERFORMANCE ASSURANCE

A. Accepted Bidder: Provide a Performance bond as described in 00 7300 - Supplementary Conditions.

7.03 INSURANCE

A. Provide an executed "Undertaking of Insurance" on the form provided stating their intention to provide insurance to the bidder in accordance with the insurance requirements of Contract Documents.

7.04 BID FORM REQUIREMENTS

A. Complete all requested information in the Bid Form and Appendices.

B. Taxes: Refer to Document 00 7300 - Supplementary Conditions for inclusion of taxes, procedures for tax rebate claims, and products that are tax exempt.

7.05 FEES FOR CHANGES IN THE WORK

A. Include in the Bid Form, the overhead and profit fees on own Work and Work by subcontractors, applicable for Changes in the Work, whether additions to or deductions from the Work on which the Bid Amount is based.

7.06 BID FORM SIGNATURE

A. The Bid Form shall be signed by the bidder, as follows:
   1. Sole Proprietorship: Signature of sole proprietor in the presence of a witness who will also sign. Insert the words "Sole Proprietor" under the signature. Affix seal.
   2. Partnership: Signature of all partners in the presence of a witness who will also sign. Insert the word "Partner" under each signature. Affix seal to each signature.
   3. Corporation: Signature of a duly authorized signing officer(s) in their normal signatures. Insert the officer's capacity in which the signing officer acts, under each signature. Affix the corporate seal. If the bid is signed by officials other than the president and secretary of the company, or the president/secretary/treasurer of the company, a copy of the by-law resolution of their board of directors authorizing them to do so, must also be submitted with the Bid Form in the bid envelope.
   4. Joint Venture: Each party of the joint venture shall execute the Bid Form under their respective seals in a manner appropriate to such party as described above, similar to the requirements of a Partnership.

7.07 ADDITIONAL BID INFORMATION

A. Submit the following Supplements 24 hours after bid submission:
   1. Document 00 4328 - Items Eligible For Tax Rebate Form.
   2. Document 00 4336-Proposed Subcontractors Form: Include the names of all Subcontractors and the portions of the Work they will perform.
   3. Document 00 4373-Proposed Schedule of Values Form identifies the Bid Amount segmented into portions as requested.

OFFER ACCEPTANCE/REJECTION

8.01 DURATION OF OFFER

A. Bids shall remain open to acceptance and shall be irrevocable for a period of sixty (60) days after the bid closing date.

8.02 ACCEPTANCE OF OFFER

A. Owner reserves the right to accept or reject any or all offers.

B. After acceptance by Owner, Architect on behalf of Owner, will issue to the successful bidder, a written Bid Acceptance.

END OF SECTION

SECTION 00 4100
BID FORM

THE PROJECT AND THE PARTIES

1.01 TO:

A. Owner:
Iowa State Fair Board of Directors
Iowa State Fairgrounds
East 30th and University Avenue
Des Moines, Iowa 50317

1.02 FOR:

A. Project: ISF Swine-Cattle Barn Updates - Phase 1

B. Owner Project Number: CSWB2301

C. Architect Project Number: 250401.00

1.03 DATE: _____ (BIDDER TO ENTER DATE)

1.04 SUBMITTED BY: (BIDDER TO ENTER NAME AND ADDRESS)

A. Bidder's Company Name _____

B. Address _____

C. City, State, Zip _____

D. Contact Person's Name _____

E. Contact Person's Phone _____

F. Contact Person's email _____

1.05 OFFER

A. Having examined the Place of The Work and all matters referred to in the Instructions to Bidders and the Bid Documents prepared by the Architect and Engineers for the above mentioned project, we, the undersigned, hereby offer to enter into a Contract to perform the Work for the Sum of:

B. _____ dollars

($_____), in lawful money of the United States of America.

C. We have included the required security Bid Bond as required by the Instruction to Bidders.

D. All applicable federal taxes are included and State of Iowa taxes are included in the Bid Sum.

E. All Cash Allowances described in Section 01 2100 - Allowances are included in the Bid Sum.

1.06 ACCEPTANCE

A. This offer shall be open to acceptance and is irrevocable for sixty days from the bid closing date.

B. If this bid is accepted by Owner within the time period stated above, we will:
1. Execute the Agreement within ten days of receipt of Notice of Award.
2. Furnish the required bonds within seven days of receipt of Notice of Award.
3. Commence work within ten days after written Notice to Proceed of this bid.

C. If this bid is accepted within the time stated, and we fail to commence the Work or we fail to provide the required Bond(s), the security deposit shall be forfeited as damages to Owner by reason of our failure, limited in amount to the lesser of the face value of the security deposit or the difference between this bid and the bid upon which a Contract is signed.

D. In the event our bid is not accepted within the time stated above, the required security deposit shall be returned to the undersigned, in accordance with the provisions of the Instructions to Bidders; unless a mutually satisfactory arrangement is made for its retention and validity for an extended period of time.

1.07 CONTRACT TIME

A. If this Bid is accepted, we will:

B. Complete the work according to the Construction Schedule outlined in Section 00 2113 - Instructions to Bidders.

1.08 CHANGES TO THE WORK

A. When Architect establishes that the method of valuation for Changes in the Work will be net cost plus a percentage fee in accordance with General Conditions, our percentage fee will be:
   1. _____ percent overhead and profit on the net cost of our own Work;
   2. _____ percent on the cost of work done by any Subcontractor.

B. On work deleted from the Contract, our credit to Owner shall be Architect-approved net cost plus _____ of the overhead and profit percentage noted above.

1.09 ADDENDA

A. The following Addenda have been received. The modifications to the Bid Documents noted below have been considered and all costs are included in the Bid Sum.
   1. Addendum # _____ Dated _____.
   2. Addendum # _____ Dated _____.

1.10 BID FORM SUPPLEMENTS

A. We agree to submit the following Supplements to Bid Forms within 24 hours after submission of this bid for additional bid information:
   1. Document 00 4328 - Items Eligible For Tax Rebate Form.
   2. Document 00 4336: Include the names of Subcontractors and the portions of the Work they will perform.
   3. Document 00 4373 - Proposed Schedule of Values Form identifies the Bid Price/Sum segmented into portions as requested.

1.11 BID FORM SIGNATURE(S)

A. The Corporate Seal of

B. _____

C. (Bidder - print the full name of your firm)

D. was hereunto affixed in the presence of:

E. _____

F. (Signature - Authorized signing officer, Title)

END OF SECTION

SECTION 01 1000
SUMMARY

PART 1 GENERAL

1.01 PROJECT

A. Project Name: ISF Swine-Cattle Barn Updates - Phase 1

B. Owner's Name: Iowa State Fair.

C. Architect's Name: K/O Archtiects.

D. The Project consists of Updates which includes repairs and new construction elements to the Swine and Cattle Barns at the Iowa State Fairgrounds.

1.02 CONTRACT DESCRIPTION

A. Contract Type: A single prime contract based on a Stipulated Price as described in Document 00 5200 - Agreement Form.

B. Complete work as indicated in Section 00 2113 - Instructions to Bidders.

1.03 DESCRIPTION OF WORK AND ALTERATIONS WORK

A. Scope of all new construction work is defined on the Drawings and as follows:
   1. Include New Masonry restroom structure east of Swine Barn.
   2. Include New Masonry electrical structure north of Cattle Barn.
   3. New Mechanical, Plumbing, Electrical, and Data in New Structures.
   4. Cast-in-Place Concrete and Concrete paving and slabs.
   5. Ground Faced Masonry.
   6. Structural Steel Framing.
   7. Steel Decking.
   8. Metal Fabrications.
   9. Rough Carpentry.
   10. Composite Trim and FRP.
   11. Insulation.
   12. TPO Roofing.
   13. Sheet Metal Flashing and Trim.
   14. Joint Sealants.
   15. Hollow Metal Doors and Frames.
   16. Hardware Coordination and Installation.
   17. Coiling Doors.
   18. Aluminum Framed Storefront Doors.
   19. Clad Wood Doors.
   20. Glazing.
   21. Gypsum Board Assemblies.
   22. Acoustical Ceilings.
   23. Painting.
   24. Earthwork and Sodding.

B. Scope of demolition and removal work is indicated on drawings and specified in Section 02 4100.

C. Scope of alterations work is indicated on drawings.

D. Masonry Restoration and Maintenance of Masonry as indicated in Existing Restrooms and Office of Cattle Barn.

E. Adapt existing strcutures and replace with new as indicated.

F. Plumbing: Replace existing system with new construction.

G. HVAC: Replace existing system with new construction.

H. Electrical Power and Lighting: Replace existing system with new construction.

1.04 WORK BY OWNER

A. Contractor shall be responsible for providing all blocking, accessories, fasteners, site prep, and field modifications required for all Owner supplied, and Owner supplied and installed items.
   1. Contractor shall coordinate with the Owner prior to the Owner's ordering of supplied items by providing field measurements, support locations, and review of Owner supplied shop drawings.

B. Owner will supply and install the following:
   1. Metal Grating assembly at room Chase 18 at the Swine Barn.
   2. Metal Fencing and Gates closing off south side of new building at the Cattle Barn.
   3. Solid Surface integral sinks, counters, and backsplashes.
   4. Solid Surface sills and aprons at new windows shown on drawings.
   5. Signage and Room Signage.

C. Owner will supply the following to the contractor for installation:
   1. Ground Faced Concrete Masonry Units.
   2. Toilet Partition assemblies.
   3. Restroom accessories:
      a. Grab Bars.
      b. Mirrors.
      c. Toilet Paper Dispensers.
      d. Baby Changing Stations.
      e. Soap Dispensers.
   4. Custodial accessories:
      a. Mop Holders.
      b. Hooks

D. The Owner will remove all signage and plaques prior to construction. Signage and plaques that remain on the wall shall be included in the demolition scope.

E. The Owner will salvage select plumbing fixtures prior to construction. All plumbing fixtures that remain will be the responsibility of the contractor to remove prior to the start of work.

1.05 OWNER OCCUPANCY

A. Owner intends to continue to occupy portions of the buildings under construction, adjacent buildings, and the grounds for various events during the entire construction period.

B. Owner intends to occupy the Project upon Substantial Completion.

C. Cooperate with Owner to minimize conflict and to facilitate Owner's operations.

D. Schedule the Work to accommodate Owner occupancy.

E. Schedule the Work to accommodate Owner occupancy of adjacent properties.

1.06 CONTRACTOR USE OF SITE AND PREMISES

A. Construction Operations: Limited to areas noted on Drawings.

B. Arrange use of site and premises to allow:
   1. Owner occupancy.
   2. Work by Others.
   3. Work by Owner.
   4. Use of nearby site and premises by the public.

C. Provide access to and from site as required by law and by Owner:
   1. Emergency Building Exits During Construction: Keep all exits required by code open during construction period; provide temporary exit signs if exit routes are temporarily altered.
   2. Do not obstruct roadways, sidewalks, or other public ways without permit.

D. Existing building spaces may not be used for storage.

E. Utility Outages and Shutdown:
   1. Limit disruption of utility services to hours the building is unoccupied.
   2. Do not disrupt or shut down life safety systems, including but not limited to fire sprinklers and fire alarm system, without 7 days notice to Owner and authorities having jurisdiction.
   3. Prevent accidental disruption of utility services to other facilities.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

SECTION 01 2000
PRICE AND PAYMENT PROCEDURES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Procedures for preparation and submittal of applications for progress payments.

1.02 RELATED REQUIREMENTS

A. Section 00 5000 - Contracting Forms and Supplements: Forms to be used.

B. Section 01 2100 - Allowances: Payment procedures relating to allowances.

1.03 SCHEDULE OF VALUES

A. Use Schedule of Values Form: AIA G703, edition stipulated in the Agreement.

B. Electronic media printout including equivalent information will be considered in lieu of standard form specified; submit draft to Architect for approval.

C. Forms filled out by hand will not be accepted.

D. Submit Schedule of Values in duplicate within 15 days after date of Owner-Contractor Agreement.

E. Format: Utilize the Table of Contents of this Project Manual. Identify each line item with number and title of the specification section. Identify site mobilization.

F. Revise schedule to list approved Change Orders, with each Application For Payment.

1.04 APPLICATIONS FOR PROGRESS PAYMENTS

A. Payment Period: Submit at intervals stipulated in the Agreement.

B. Use Form AIA G702 and Form AIA G703, edition stipulated in the Agreement.

C. Electronic media printout including equivalent information will be considered in lieu of standard form specified; submit sample to Architect for approval.

D. Forms filled out by hand will not be accepted.

E. For each item, provide a column for listing each of the following:
   1. Item Number.
   2. Description of work.
   3. Scheduled Values.
   4. Previous Applications.
   5. Work in Place and Stored Materials under this Application.
   6. Authorized Change Orders.
   7. Total Completed and Stored to Date of Application.
   8. Percentage of Completion.
   9. Balance to Finish.
   10. Retainage.

F. Execute certification by signature of authorized officer.

G. Use data from approved Schedule of Values. Provide dollar value in each column for each line item for portion of work performed and for stored products.

H. List each authorized Change Order as a separate line item, listing Change Order number and dollar amount as for an original item of work.

I. Submit one electronic copy of each Application for Payment.

J. Include the following with the application:
   1. Transmittal letter as specified for submittals in Section 01 3000.
   2. Current construction photographs specified in Section 01 3000.
   3. Partial release of liens from major subcontractors and vendors.

4. Project record documents as specified in Section 01 7800, for review by Owner which will be returned to the Contractor.
5. Affidavits attesting to off-site stored products.

K. When Architect requires substantiating information, submit data justifying dollar amounts in question. Provide one copy of data with cover letter for each copy of submittal. Show application number and date, and line item by number and description.

1.05 MODIFICATION PROCEDURES

A. For minor changes not involving an adjustment to the Contract Sum or Contract Time, Architect will issue instructions directly to Contractor.

B. For other required changes, Architect will issue a document signed by Owner instructing Contractor to proceed with the change, for subsequent inclusion in a Change Order.
1. The document will describe the required changes and will designate method of determining any change in Contract Sum or Contract Time.
2. Promptly execute the change.

C. For changes for which advance pricing is desired, Architect will issue a document that includes a detailed description of a proposed change with supplementary or revised drawings and specifications, a change in Contract Time for executing the change with a stipulation of any overtime work required and the period of time during which the requested price will be considered valid. Contractor shall prepare and submit a fixed price quotation within 10 days.

D. Contractor may propose a change by submitting a request for change to Architect, describing the proposed change and its full effect on the work, with a statement describing the reason for the change, and the effect on the Contract Sum and Contract Time with full documentation and a statement describing the effect on work by separate or other contractors. Document any requested substitutions in accordance with Section 01 6000.

E. Computation of Change in Contract Amount: As specified in the Agreement and Conditions of the Contract.
1. For change requested by Architect for work falling under a fixed price contract, the amount will be based on Contractor's price quotation.
2. For change requested by Contractor, the amount will be based on the Contractor's request for a Change Order as approved by Architect.
3. For pre-determined unit prices and quantities, the amount will be based on the fixed unit prices.
4. For change ordered by Architect without a quotation from Contractor, the amount will be determined by Architect based on the Contractor's substantiation of costs as specified for Time and Material work.

F. Substantiation of Costs: Provide full information required for evaluation.
1. On request, provide the following data:
   a. Quantities of products, labor, and equipment.
   b. Taxes, insurance, and bonds.
   c. Overhead and profit.
   d. Justification for any change in Contract Time.
   e. Credit for deletions from Contract, similarly documented.
2. Support each claim for additional costs with additional information:
   a. Origin and date of claim.
   b. Dates and times work was performed, and by whom.
   c. Time records and wage rates paid.
   d. Invoices and receipts for products, equipment, and subcontracts, similarly documented.
3. For Time and Material work, submit itemized account and supporting data after completion of change, within time limits indicated in the Conditions of the Contract.

G. Execution of Change Orders: Architect will issue Change Orders for signatures of parties as provided in the Conditions of the Contract.

H. After execution of Change Order, promptly revise Schedule of Values and Application for Payment forms to record each authorized Change Order as a separate line item and adjust the Contract Sum.

I. Promptly revise progress schedules to reflect any change in Contract Time, revise sub-schedules to adjust times for other items of work affected by the change, and resubmit.

J. Promptly enter changes in Project Record Documents.

1.06 APPLICATION FOR FINAL PAYMENT

A. Prepare Application for Final Payment as specified for progress payments, identifying total adjusted Contract Sum, previous payments, and sum remaining due.

B. Application for Final Payment will not be considered until the following have been accomplished:
   1. All closeout procedures specified in Section 01 7000.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

SECTION 01 2100
ALLOWANCES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Cash allowances.

1.02 RELATED REQUIREMENTS

A. Section 01 2000 - Price and Payment Procedures: Additional payment and modification procedures.

1.03 CASH ALLOWANCES

A. Costs Included in Cash Allowances: Cost of product to Contractor or subcontractor, less applicable trade discounts .

B. Costs Not Included in Cash Allowances: Product handling at the site, including unloading, uncrating, and storage; protection of products from elements and from damage; and labor for installation and finishing.

C. Architect Responsibilities:
   1. Consult with Contractor for consideration and selection of products, suppliers , and installers.
   2. Select products in consultation with Owner and transmit decision to Contractor.
   3. Prepare Change Order.

D. Contractor Responsibilities:
   1. Assist Architect in selection of products, suppliers , and installers.
   2. Obtain proposals from suppliers and offer recommendations.
   3. On notification of which products have been selected, execute purchase agreement with designated supplier .
   4. Arrange for and process shop drawings, product data, and samples. Arrange for delivery.
   5. Promptly inspect products upon delivery for completeness, damage, and defects. Submit claims for transportation damage.

E. Show Cash Allowance as a line item on the Pay Application.
   1. Differences in costs will be adjusted by Change Order.

1.04 ALLOWANCES SCHEDULE

A. Include the stipulated sum of $28,000.00 for the purchase and delivery of Door Hardware as defined in the Drawings, on the Door Hardware Installation Schedule. Contractor shall provide coordination, and installation of all hardware assemblies for all doors in base bid.

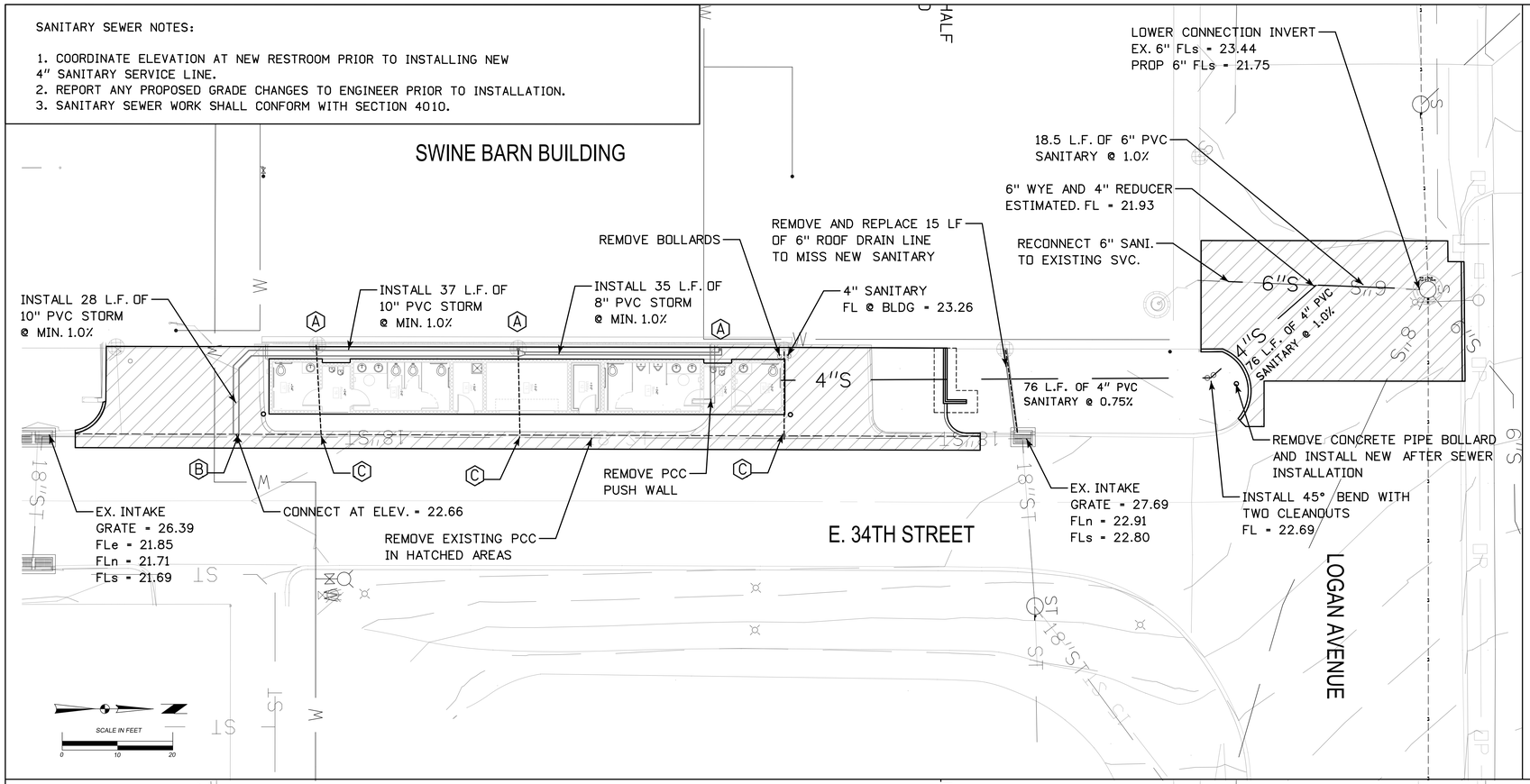
PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

SANITARY SEWER NOTES:

1. COORDINATE ELEVATION AT NEW RESTROOM PRIOR TO INSTALLING NEW 4" SANITARY SERVICE LINE.
2. REPORT ANY PROPOSED GRADE CHANGES TO ENGINEER PRIOR TO INSTALLATION.
3. SANITARY SEWER WORK SHALL CONFORM WITH SECTION 4010.



GENERAL CIVIL NOTES:

ALL CIVIL SITE WORK SHALL CONFIRM WITH THE 2025 EDITION OF THE STATEWIDE URBAN STANDARDS AND SPECIFICATIONS (SUDAS).

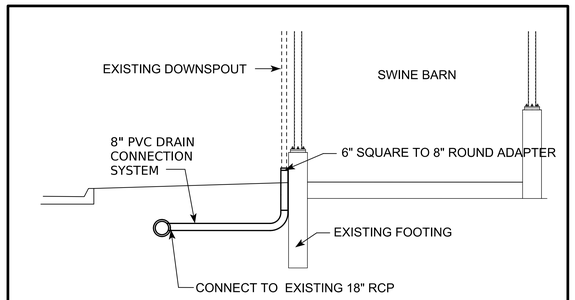
1. TOPSOIL AND GRADING & COMPACTION SHALL CONFORM WITH SECTION 2010.
2. TRENCHES AND TRENCH CONSTRUCTION SHALL CONFORM WITH SECTION 3010.
3. SANITARY SEWER WORK SHALL CONFORM WITH SECTION 4010.
4. STORM SEWER WORK SHALL CONFORM WITH SECTION 4020.
5. WATER MAIN WORK SHALL CONFORM WITH SECTION 5010
6. PCC PAVEMENT SHALL CONFORM WITH SECTION 7010.
7. PAVEMENT REMOVAL SHALL CONFORM WITH SECTION 7030.
8. SODDING SHALL CONFORM WITH SECTION 9020.

(A) INSTALL ROOF DRAIN CONNECTION

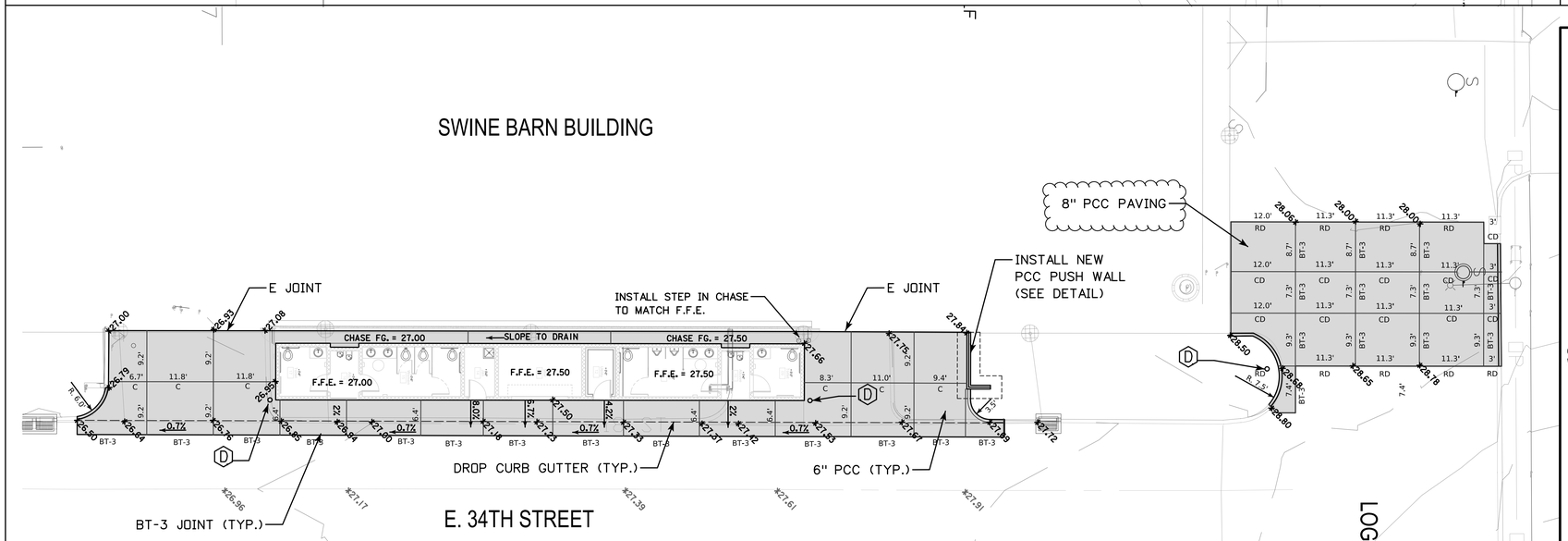
(B) CONNECT TO EXISTING STORM SEWER

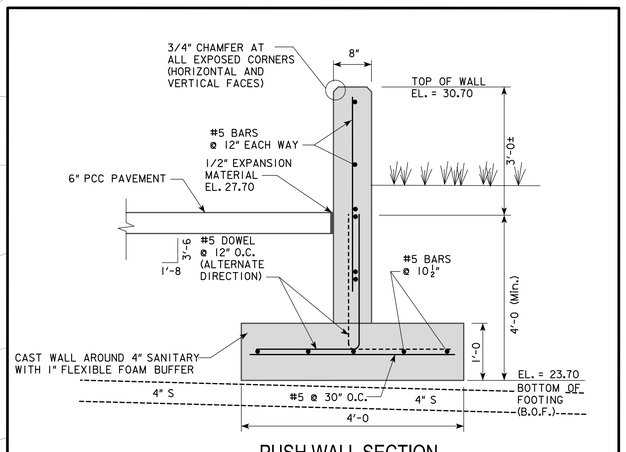
(C) PLUG OLD ROOF DRAIN CONNECTION AND REMOVE 16 L.F. OF OLD 6" PVC DRAIN LINE

(D) INSTALL 6" CONCRETE FILLED STEEL PIPE BOLLARD CENTERED 12 INCHES FROM THE BUILDING CORNER.

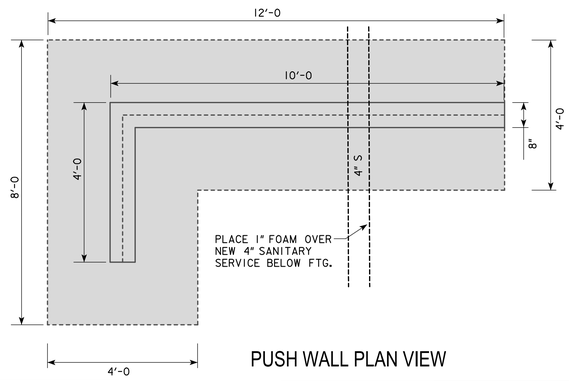


DRAIN CONNECTION DETAIL
(INSTALL AT EACH DOWNSPOUT)





PUSH WALL SECTION



PUSH WALL PLAN VIEW

PCC PAVEMENT NOTES:

1. PCC CURB SHALL BE STANDARD 6-INCH CURB AND SIDEWALK DROP CURB. SEE DETAIL ON C101-1.
2. PCC JOINTS SHALL MATCH EXISTING ROADWAY JOINTING.
3. CONNECTION TO EXISTING ROADWAY SHALL BE 8-INCHES THICK AND TAPER TO 6 INCHES AT THE BACK OF CURB.
4. 1/2" RIGID EXPANSION BOARD SHALL BE USED ALONG ALL BUILDINGS.

KIRKHAM MICHAEL

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Phone: (515) 393-4771

No.	Date	Description
1	7/25/25	ADDM. #1

ISF SWINE BARN UPDATES-PHASE 1

SWINE BARN (EAST RESTROOM) SITE PLAN

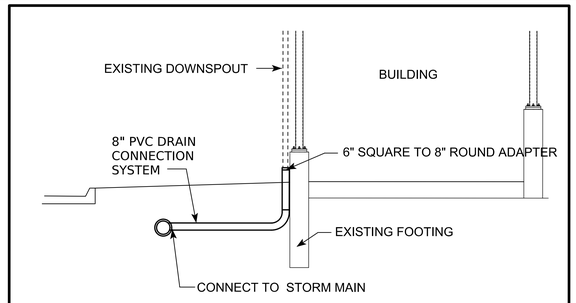
Project Number: 250401.00

Date: 07/14/2025

C100-1

SCALE:

REMOVAL & UTILITY NOTES:
1. CONTRACTOR SHALL STRIP TOPSOIL FROM THE PROJECT SITE AND HAUL TO THE CAMPGROUNDS FOR STORAGE. THE CONTRACTOR SHALL USE SALVAGED TOPSOIL TO BACKFILL NEW CURBLINE WHERE NECESSARY.
2. REMOVED PAVEMENTS MAY BE DISPOSED OF AT THE CAMPGROUNDS FILL SITE.
3. PROTECT ALL INTAKES FROM SEDIMENT WITH FILTER SOCK.
4. THE CONTRACTOR SHALL LOCATE THE 8" SANITARY AND VERIFY THE FLOWLINE PRIOR TO BUILDING AND REPORT THE FLOWLINE TO THE ENGINEER PRIOR TO INSTALLING ANY STORM OR SANITARY LINES.



Ⓔ DRAIN CONNECTION DETAIL
(INSTALL AT EACH DOWNSPOUT)

SCALE IN FEET
0 10 20

CATTLE LANE

LOCATE 8" SANITARY BY TELEVISING FROM 142 LF EAST TOWARDS THIS POINT

INSTALL SW-301
RIM = 29.20
FLw = APPROX 25.00
FLse = +0.1'

HMA MILL & OVERLAY (3")

OWNER TO RELOCATE OH POLE

77 LF OF 10" PVC STORM @ 2.9%

INSTALL ST-1
24" NYLOPLAST
RIM = 29.62
FLw = 26.17
FLs = 26.27

REMOVE EXISTING PAVEMENT AND CURB IN HATCHED AREAS

OWNER TO RELOCATE OH POLE

EX-2 EXISTING INTAKE
FLnw = 26.46 (6")
FLse = 26.90 (6")
FLw = 27.55 (6")

4" SANITARY SVC. REFER TO MEP

18 LF OF 10" PVC STORM @ 1.0%

OWNER TO RELOCATE ELECTRIC BOXES

EX-1 EXISTING MH
FLnw = 26.46 (6")
FLs = 23.93 (6")
FLw = 23.27 (12")
FLe = 23.92 (6")
REPLACE WITH 10"

45° BEND

92 LF OF 4" PVC SANI. @ 1.0% (MIN.) COORDINATE WITH BLDG EXIT ELEV.

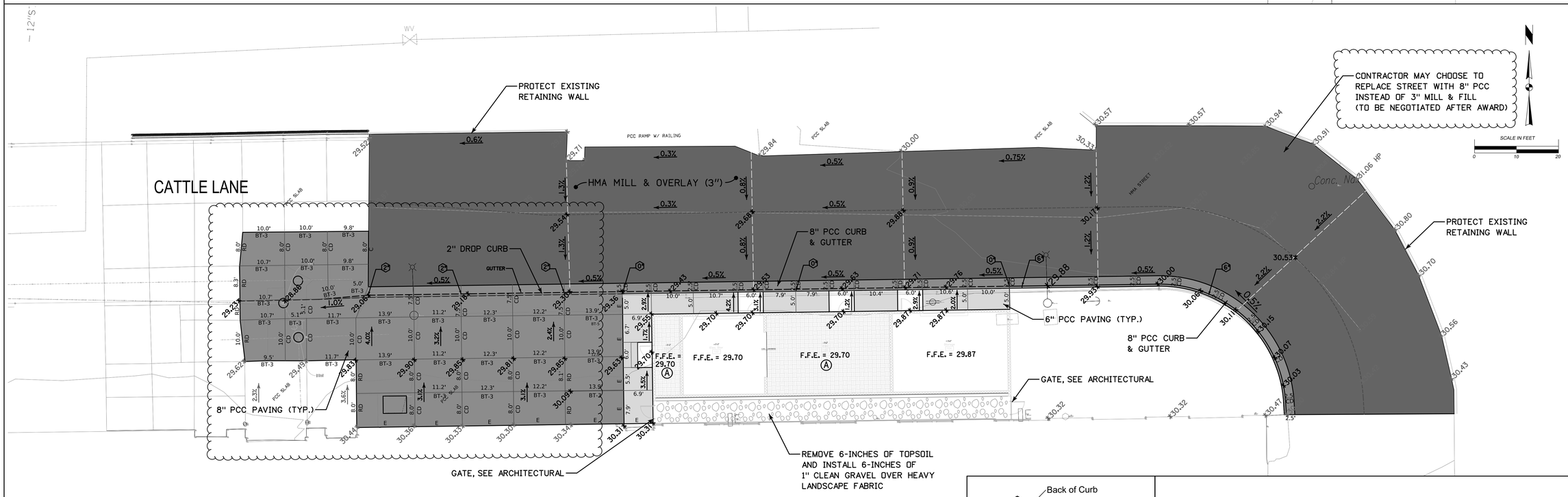
INSTALL ST-2
24" NYLOPLAST
RIM = 30.20
FLn = 26.45
FLe = 26.55

95 LF OF 10" PVC STORM @ 1.0%

ST-3
INSTALL 24" NYLOPLAST BASIN
RIM = 30.00
FLw = 27.50

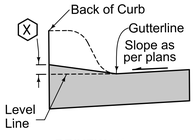
PIPE CROSSING POINT:
10" STORM FL =24.27
4" SANI. FL = 25.27

CATTLE BARN



CATTLE BARN

Ⓐ FUTURE F.F.E. SHOWN. LEAVE SPACE UNFINISHED AT GRAVEL LEVEL (-6")



DRIVEWAY DROP CURB

PAVING NOTES:
1. REFER TO SHEET C100-1 FOR SPECIFICATION REQUIREMENTS.
2. 6" OF SUBGRADE PREPARATION IS REQUIRED BELOW ALL NEW PAVEMENTS.
3. 3" HMA MILL & FILL SHALL BE INSTALLED TO PROMOTE DRAINAGE.
4. 3" HMA FILL SHALL BE STANDARD TRAFFIC MIX.
5. ALL CURB EAST OF BUILDING SHALL BE STANDARD 6" CURB.
6. ALL CURB IN FRONT OF THE BUILDING SHALL MATCH DETAIL ON THIS SHEET.
7. ALL ELEVATIONS SHOWN ARE FORM-GRADE. ADD 6-INCHES FOR TOP OF CURB.

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No.	Date	Description
1	7/25/25	ADDM. #1

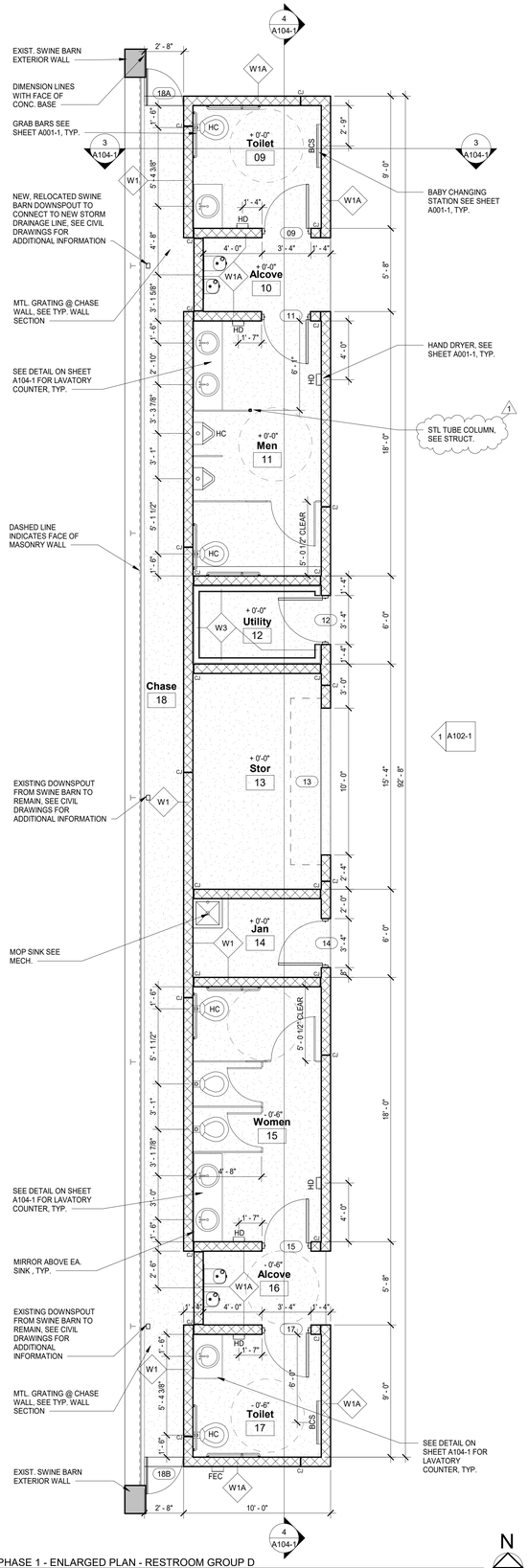
ISF CATTLE BARN UPDATES - PHASE 1

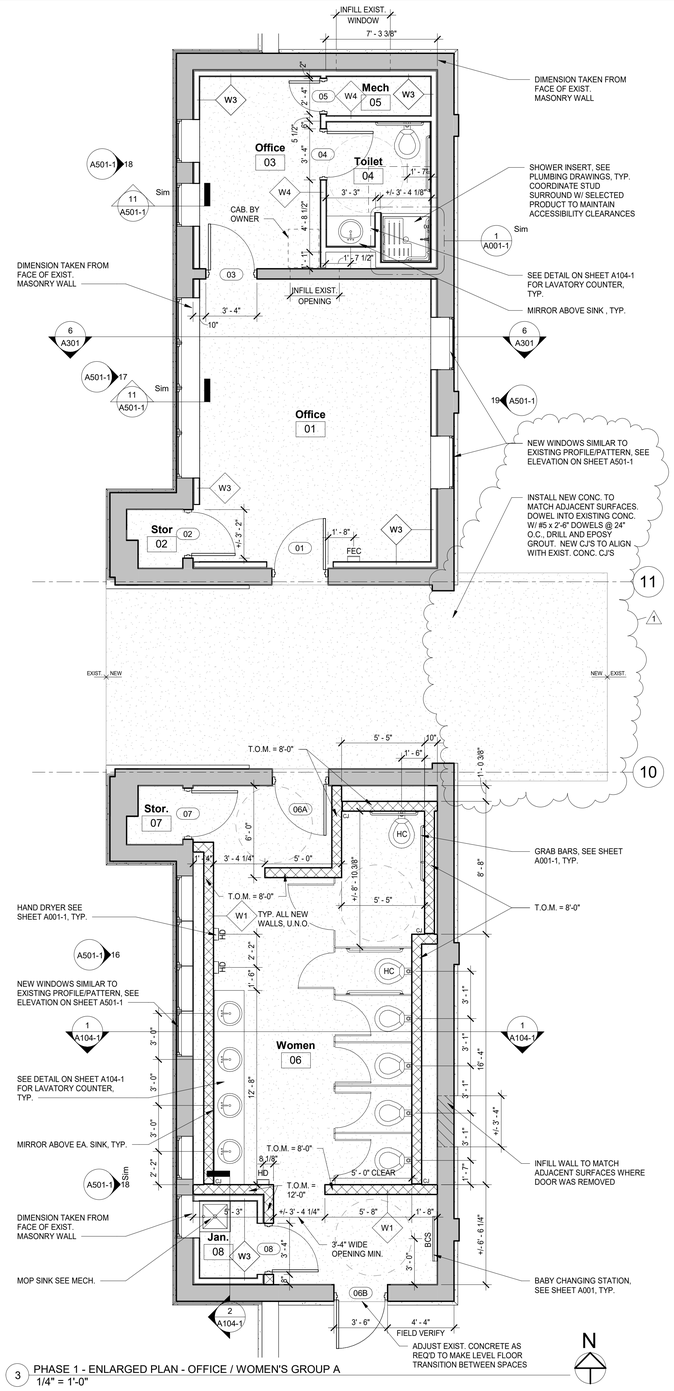
CATTLE BARN ELECTRIC BUILDING SITE PLAN

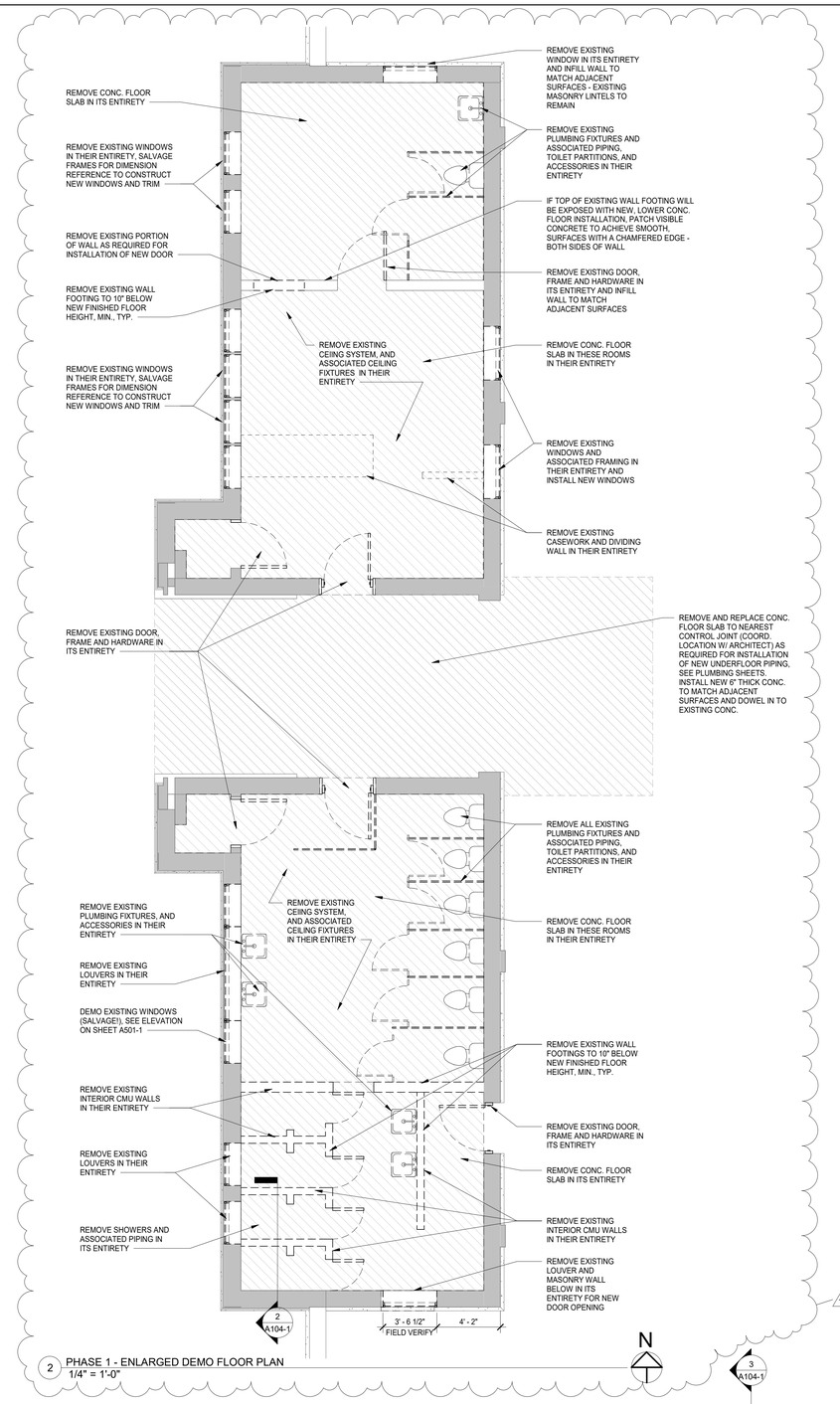
Project Number: 250401.00
Date: 07/14/2025

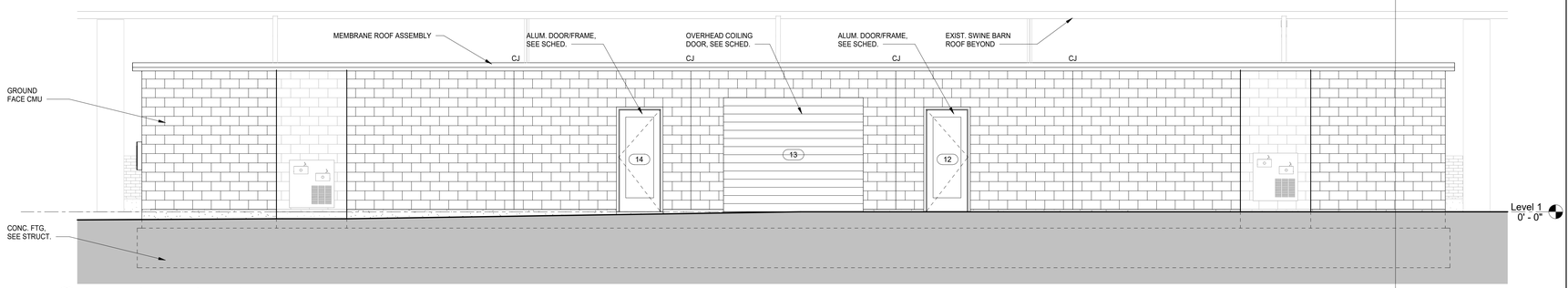
C101-1

SCALE:









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WEST DES MOINES, IOWA 50266
Phone: (515) 288-4821

No.	Date	Description
1	07/25/2025	ADDM #1

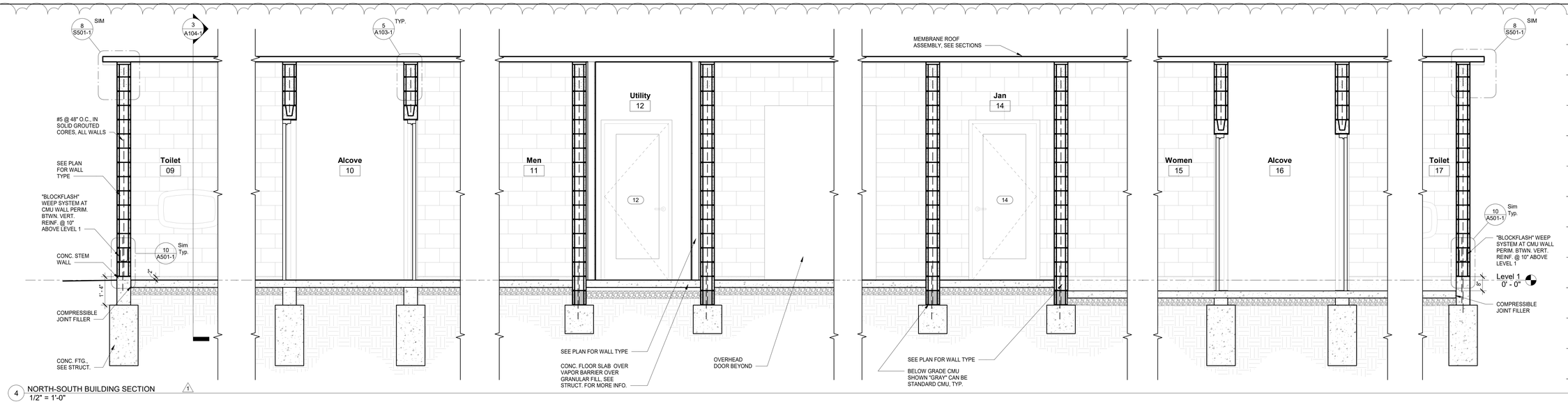
ISF SWINE BARN UPDATES - PHASE 1

ENLARGED RESTROOM PLANS

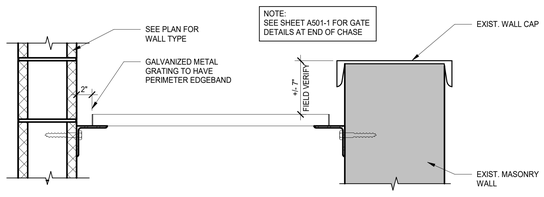
Project Number: 250401.00
Date: 07/14/2025

A102-1

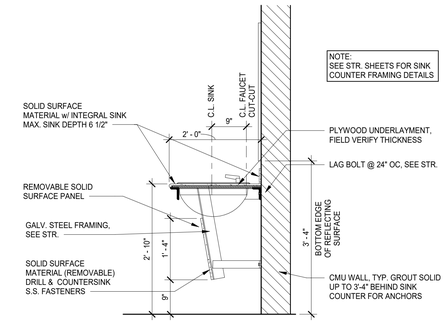
SCALE: 1/4" = 1'-0"



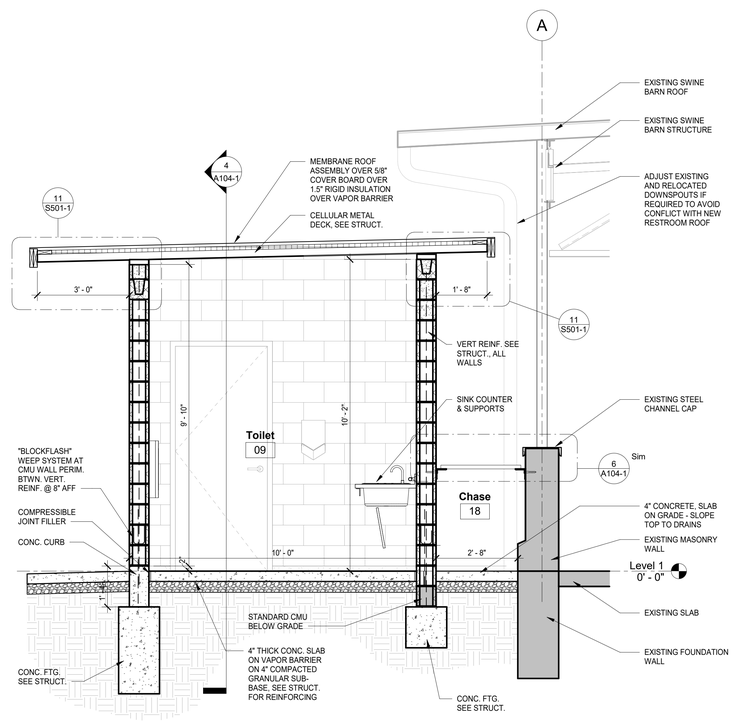
4 NORTH-SOUTH BUILDING SECTION
1/2" = 1'-0"



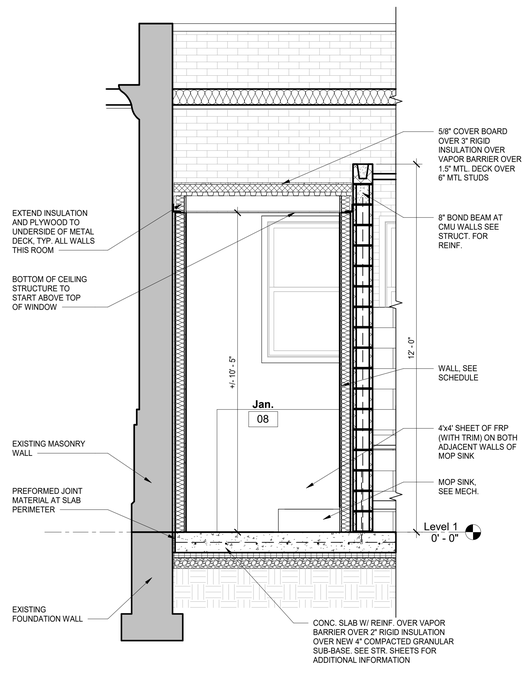
6 METAL GRATING ATTACHMENT DETAIL
1 1/2" = 1'-0"



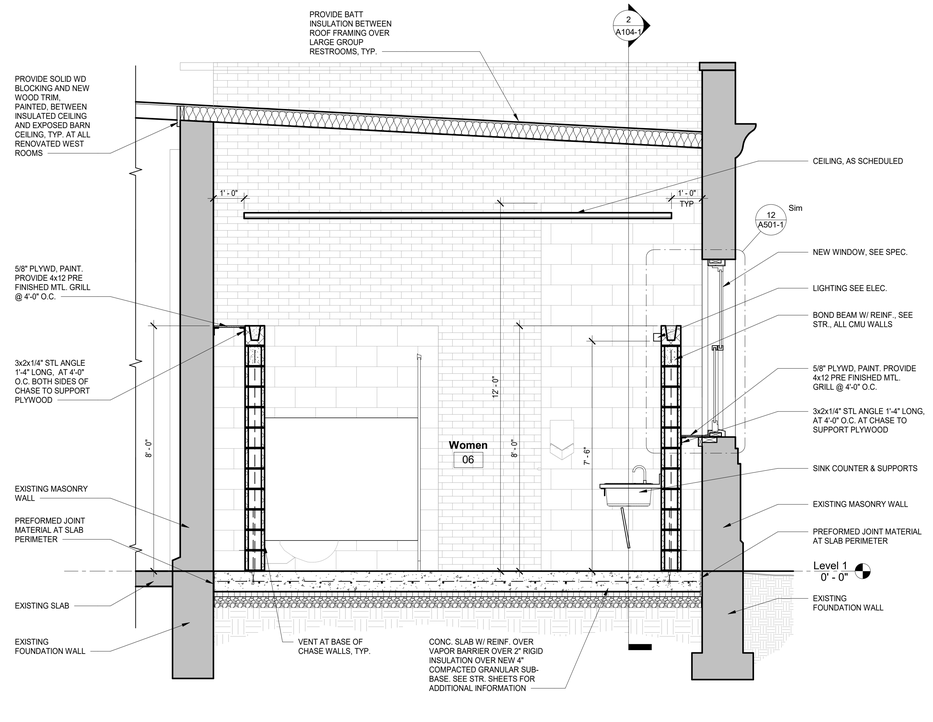
5 TYP. LAVATORY SECTION - PHASE 1
3/4" = 1'-0"



3 SECTION @ RESTROOM GROUP D
1/2" = 1'-0"



2 SECTION @ JAN.
1/2" = 1'-0"



1 SECTION @ GROUP A - WOMENS
1/2" = 1'-0"

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No.	Date	Description
1	07/25/2025	ADDM #1

ISF SWINE BARN UPDATES - PHASE 1

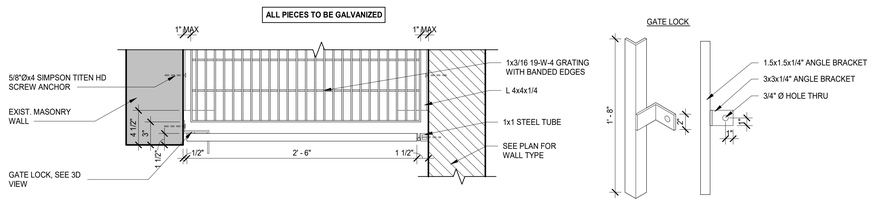
WALL SECTIONS

Project Number: 250401.00
Date: 07/14/2025

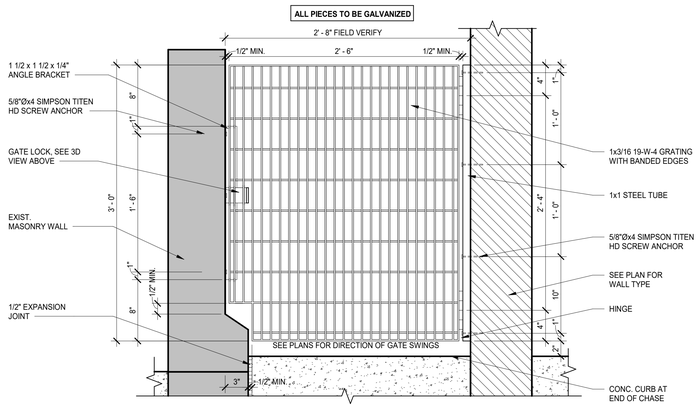
A104-1

SCALE: As indicated

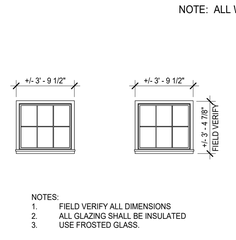
NOTE: ALL WINDOWS SHALL MATCH SIZE, PROFILE, AND TRIM TO MATCH ORIGINAL (DEMOLISHED) WINDOWS. VERIFY ALL EXISTING CONDITIONS PRIOR TO DEMO.



22 CHASE GATE DETAIL - PLAN VIEW
1 1/2" = 1'-0"

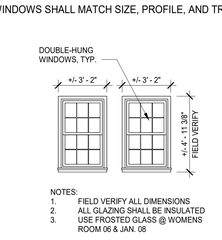


21 CHASE GATE DETAIL - ELEVATION
1 1/2" = 1'-0"



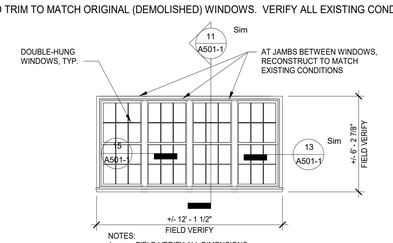
NOTES:
1. FIELD VERIFY ALL DIMENSIONS
2. ALL GLAZING SHALL BE INSULATED
3. USE FROSTED GLASS.

19 OFFICE EAST WINDOWS
1/4" = 1'-0"



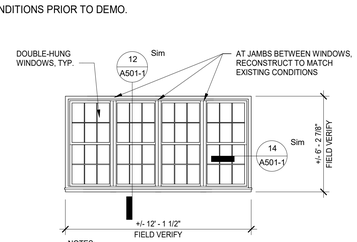
NOTES:
1. FIELD VERIFY ALL DIMENSIONS
2. ALL GLAZING SHALL BE INSULATED
3. USE FROSTED GLASS @ WOMENS ROOM 06 & JAN. 08

18 OFFICE & WOMENS WEST WINDOWS
1/4" = 1'-0"



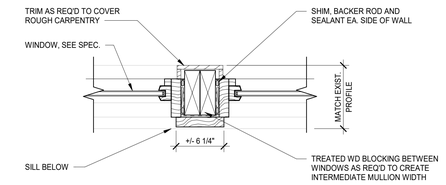
NOTES:
1. FIELD VERIFY ALL DIMENSIONS
2. ALL GLAZING SHALL BE INSULATED

17 OFFICE WEST GROUP WINDOWS
1/4" = 1'-0"

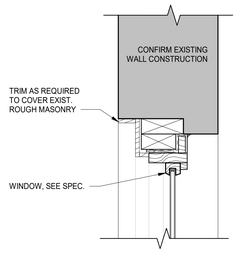


NOTES:
1. FIELD VERIFY ALL DIMENSIONS
2. ALL GLAZING SHALL BE INSULATED & FROSTED
3. USE FROSTED GLASS

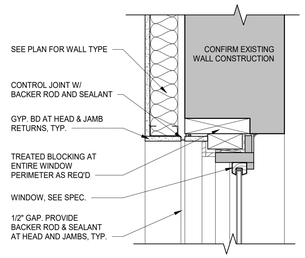
16 WOMENS WEST GROUP WINDOWS
1/4" = 1'-0"



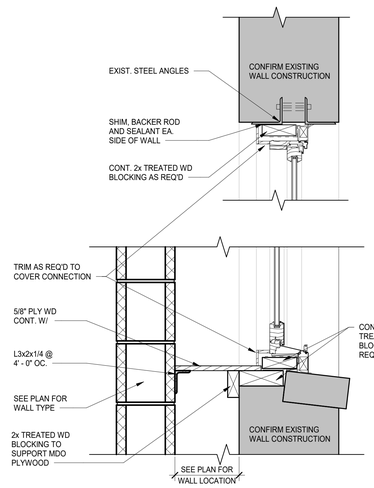
15 INTERMEDIATE MULLION @GROUP A WINDOWS - PLAN VIEW
1 1/2" = 1'-0"



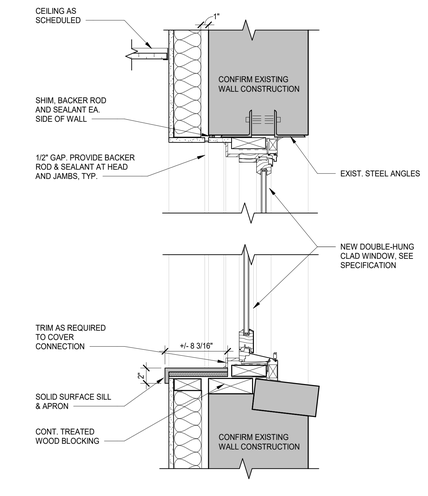
14 WINDOW JAMB @ GROUP A - WOMENS
1 1/2" = 1'-0"



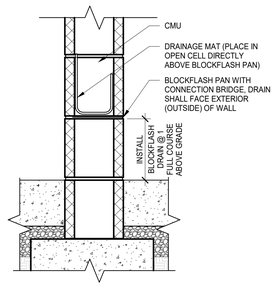
13 WINDOW JAMB @ GROUP A - OFFICE NEW
1 1/2" = 1'-0"



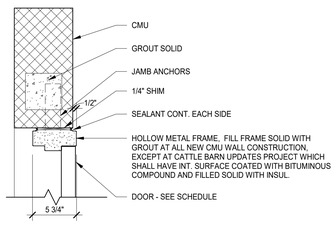
12 WINDOW SECTION @ GROUP A - WOMENS
1 1/2" = 1'-0"



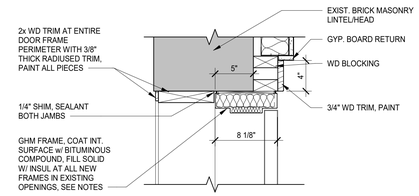
11 WINDOW SECTION @ GROUP A - OFFICE NEW
1 1/2" = 1'-0"



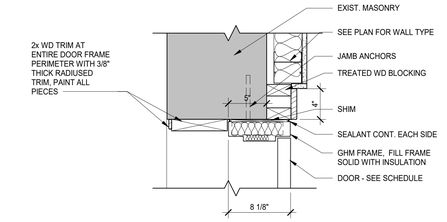
10 BLOCK FLASH EXAMPLE DETAIL
1 1/2" = 1'-0"



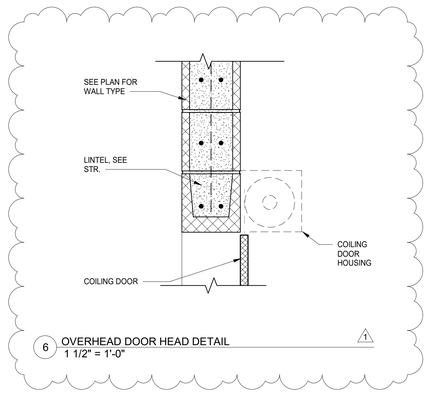
9 JAMB DETAIL - HM @ CMU - PHASE 1 (HEAD SIM)
1 1/2" = 1'-0"



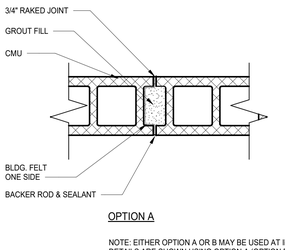
8 HEAD DETAIL @EXIST. + GYP. - HEAD - PHASE 1
1 1/2" = 1'-0"



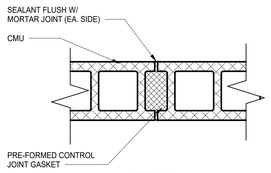
7 JAMB DETAIL @ EXIST. + GYP. - JAMB - PHASE 1
1 1/2" = 1'-0"



6 OVERHEAD DOOR HEAD DETAIL
1 1/2" = 1'-0"



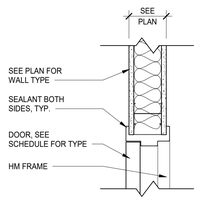
OPTION A



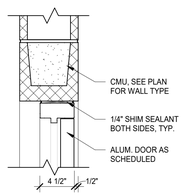
OPTION B

NOTE: EITHER OPTION A OR B MAY BE USED AT INT. CONTROL JOINTS. EXTERIOR CONTROL JOINT DETAILS ARE SHOWN USING OPTION A (OPTION B MAY BE SUBSTITUTED)

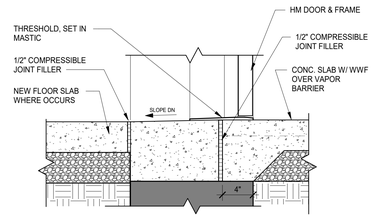
5 MASONRY CONTROL JOINT DETAIL, TYP. - PHASE 1
1 1/2" = 1'-0"



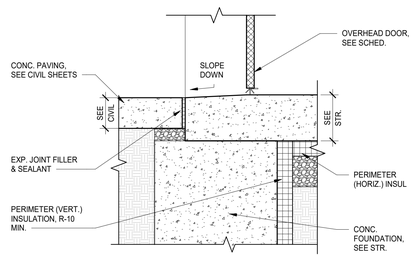
4 JAMB DETAIL - HM @ GYP. - PHASE 1 (HEAD SIM)
1 1/2" = 1'-0"



3 HEAD DETAIL - ALUM @CMU - PHASE 1 (JAMB SIM)
1 1/2" = 1'-0"



2 DOOR SILL DETAIL AT NEW TO EXIST. TRANSITION - PHASE 1
1 1/2" = 1'-0"



1 OVERHEAD DOOR SILL DETAIL
1 1/2" = 1'-0"

K/O ARCHITECTS
www.k-o.com
KEFFER/OVERTON ASSOCIATES INC.
650 SOUTH PRAIRIE VIEW DRIVE
STUDIO 103
WEST DES MOINES, IOWA 50266
Phone: (515) 288-4821

No.	Date	Description
1	07/25/2025	ADDM #1

ISF SWINE-CATTLE BARN UPDATES - PHASE 1

DETAILS

Project Number: 250401.00
Date: 07/14/2025

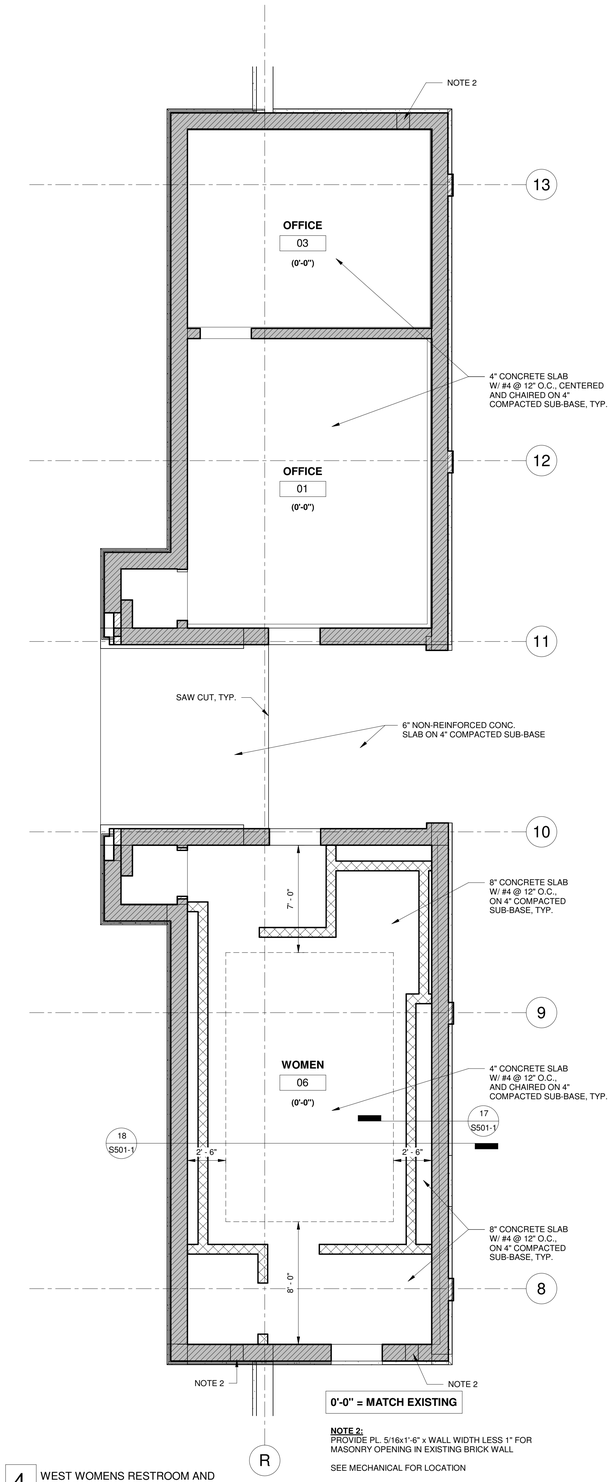
A501-1

SCALE: As indicated

DOOR HARDWARE INSTALLATION SCHEDULE

DOOR #	HINGES	CONT. HINGE	EXIT DEVICE	MORTISE LOCKSET	PUSH/PULL	DEADLOCK	OCC. INDICATOR	CLOSER	OH STOP	WALL STOP	GASKETING	KICK PLATE	DOOR SWEEP	THRESHOLD	RAIN DRIP
01	X			X				X	X		X	X	X	X	
02	X			X						X					
03	X			X						X					
04	X			X						X					
05	X			X						X		X			
06A	X				X	X		X		X	X	X	X	X	
06B	X				X	X		X	X		X	X	X	X	
07	X			X						X					
08	X			X								X			
09		X		X			X	X			X		X	X	
11		X			X	X		X			X		X	X	
12		X		X				X			X		X	X	
14		X		X				X			X		X	X	
15		X			X	X		X			X		X	X	
17		X		X			X	X			X		X	X	
101	X			X				X			X	X	X	X	X
102A	X		X	X				X			X	X	X	X	X
103	X		X	X				X			X	X	X	X	X
104A	X			X					X		X	X	X	X	X

NOTE: 0'-0" AT EAST RESTROOM IS NOT THE SAME AS 0'-0" AT WEST RESTROOM



0'-0" = MATCH EXISTING

NOTE 2:
PROVIDE PL. 5/16x1'-6" x WALL WIDTH LESS 1" FOR MASONRY OPENING IN EXISTING BRICK WALL

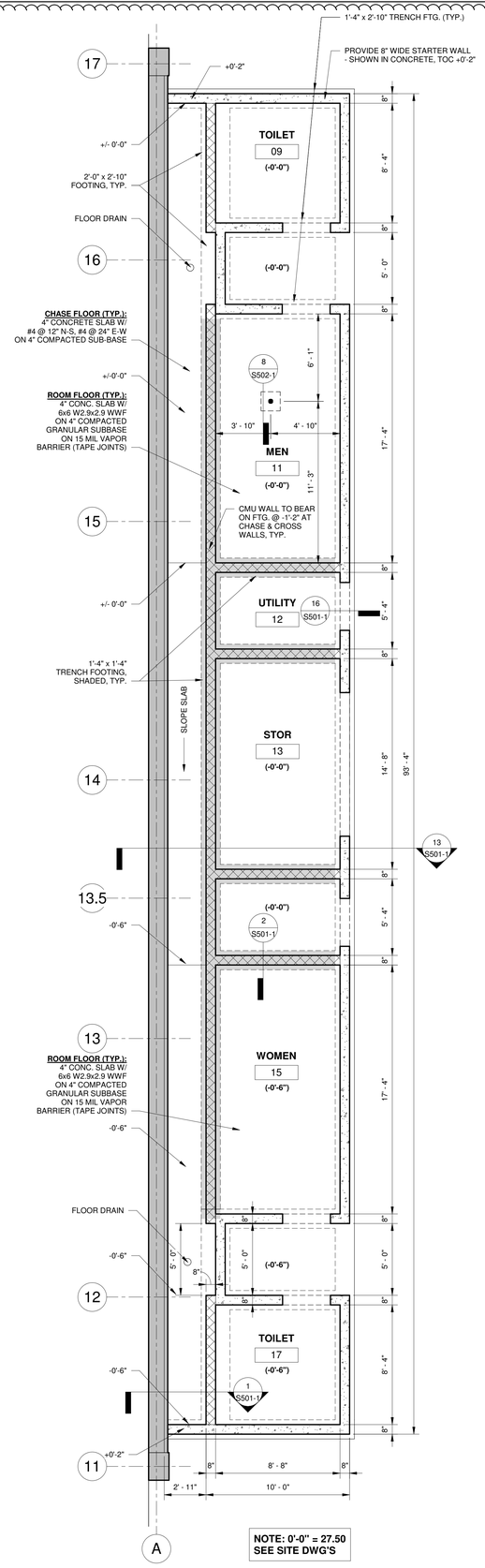
SEE MECHANICAL FOR LOCATION

N

4 WEST WOMENS RESTROOM AND OFFICE SLAB PLAN

1/4" = 1'-0"

REFERENCING DETAIL: 1 / S101



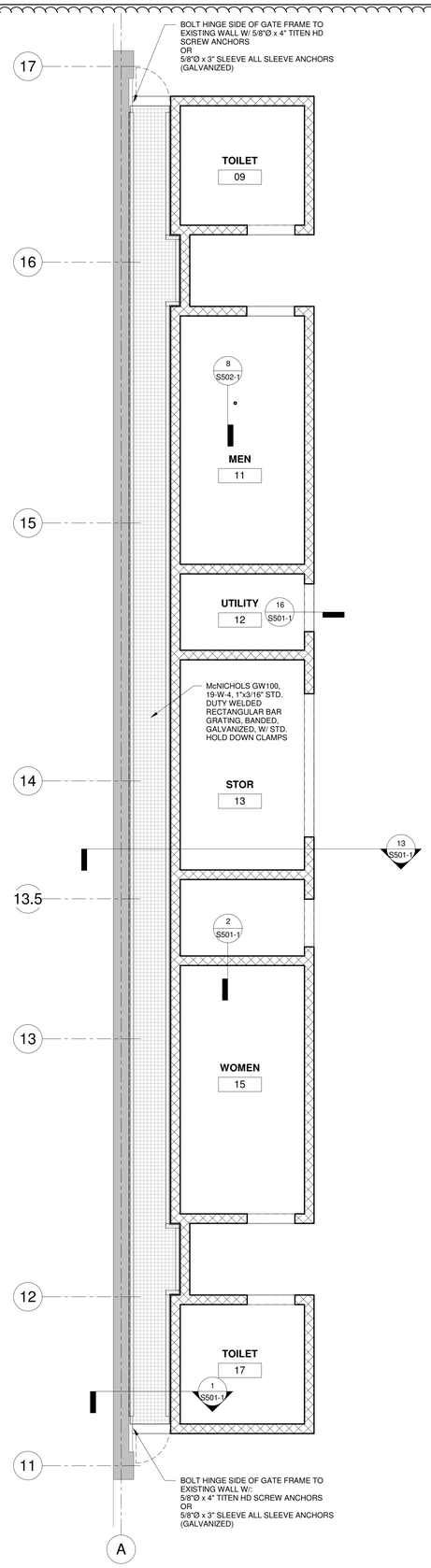
NOTE: 0'-0" = 27.50 SEE SITE DWG'S

N

1 ENLARGED EAST RESTROOM FTG. & FND PLAN

1/4" = 1'-0"

REFERENCING DETAIL: 1 / S101

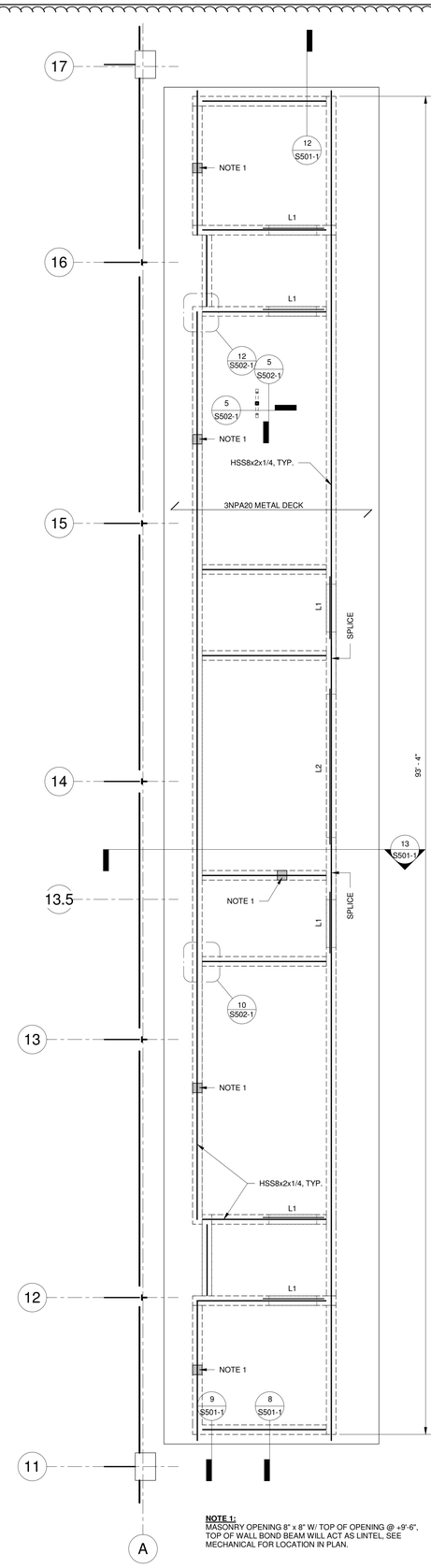


N

3 CHASE GRATING COVER PLAN

1/4" = 1'-0"

REFERENCING DETAIL: 5 / S105



NOTE 1:
MASONRY OPENING 8" x 8" W/ TOP OF OPENING @ +9'-6", TOP OF WALL BOND BEAM WILL ACT AS LINTEL, SEE MECHANICAL FOR LOCATION IN PLAN.

N

2 EAST RESTROOM ROOF FRAMING PLAN

1/4" = 1'-0"

REFERENCING DETAIL: 2 / S301

KORPELA ENGINEERING

WWW.KORPELAENGINEERING.COM

PROJECT CONTACTS:

ARCHITECTURAL
K/O ARCHITECTS
650 S. PRAIRIE VIEW DR. STUDIO 103
WEST DES MOINES, IOWA 50266
515-288-4821

CIVIL
KIRKHAM MICHAEL
11021 AURORA AVENUE
URBANDALE, IOWA 50322
515-270-0848

STRUCTURAL
KORPELA ENGINEERING
1239 73RD STREET, STUDIO C
WINDSOR HEIGHTS, IOWA 50322
515-271-0655
TIM@KORPELAENGINEERING.COM

MECHANICAL, FIRE PROTECTION, PLUMBING, AND ELECTRICAL
KED BLUESTONE
5518 NW 88TH ST
JOHNSTON, IOWA 50131
515-727-0700

No.	Date	Description
	071425	ISSUE
	072825	RE-ISSUE

ISF - SWINE BARN UPDATES - PHASE 1

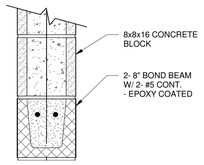
STRUCTURAL PLANS

Project Number: 250401.00
Date: 07/14/2025

S101-1

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

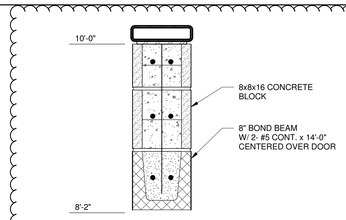
7/27/2025 5:51:32 PM



1 L1 LINTEL - HM. 1 & HM. 2

1 1/2" = 1'-0"

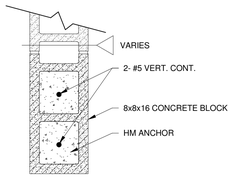
REFERENCING DETAIL: /



2 L2 LINTEL DETAIL

1 1/2" = 1'-0"

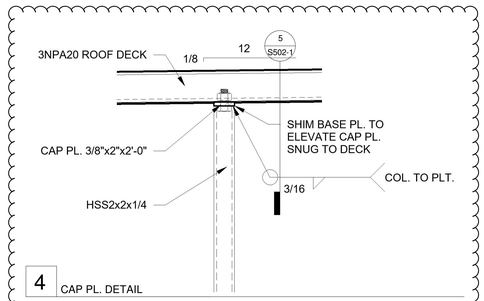
REFERENCING DETAIL: /



3 JAMB DETAIL - HM. 1 & HM. 2

1 1/2" = 1'-0"

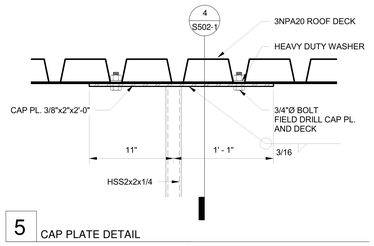
REFERENCING DETAIL: /



4 CAP PL. DETAIL

1 1/2" = 1'-0"

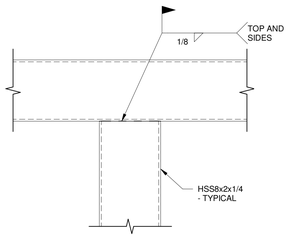
REFERENCING DETAIL: 5 / S502-1



5 CAP PLATE DETAIL

1 1/2" = 1'-0"

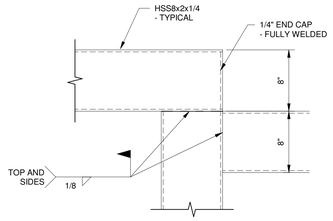
REFERENCING DETAIL: 2 / S101-1



10 TYP. TUBE PLT. CONNECTION

1 1/2" = 1'-0"

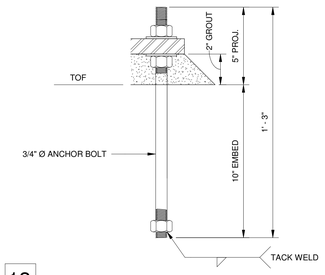
REFERENCING DETAIL: 2 / S101-1



12 TUBE PLT. CONNECTION

1 1/2" = 1'-0"

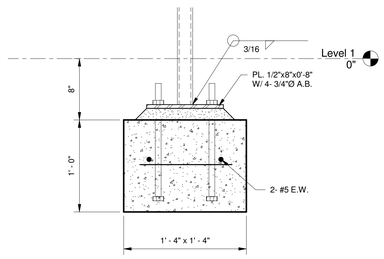
REFERENCING DETAIL: 2 / S101-1

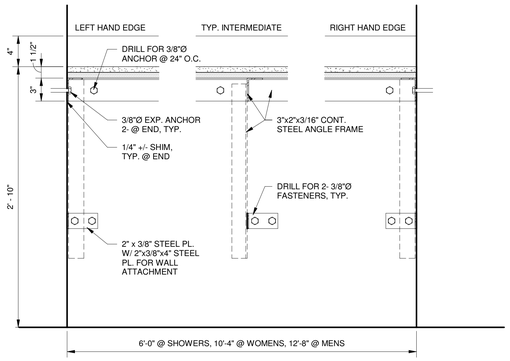


13 ANCHOR BOLT DETAIL

3" = 1'-0"

REFERENCING DETAIL: /

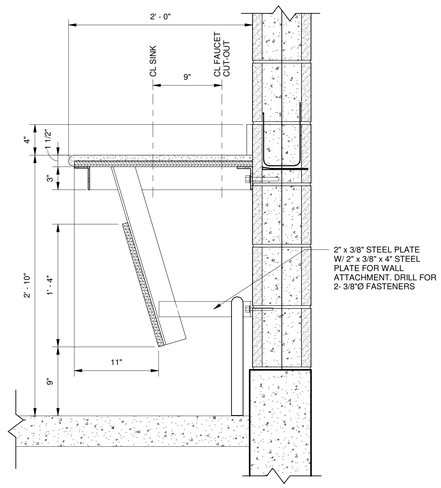




7 TYPICAL COUNTER TO WALL CONNECTION1

1 1/2" = 1'-0"

REFERENCING DETAIL: /



6 TYP. LAVATORY SECTION

1 1/2" = 1'-0"

REFERENCING DETAIL: /

8 COLUMN FOOTING DETAIL

1 1/2" = 1'-0"

REFERENCING DETAIL: 1 / S101-1

STRUCTURAL NOTES - FOR SWINE BARN AND CATTLE BARN UPDATES - PHASE 1

DIVISION 1 - GENERAL REQUIREMENTS

1000 - DESIGN AND BUILDING CODES:
1000-1. INTERNATIONAL BUILDING CODE 2018,
1000-2. AMERICAN CONCRETE INSTITUTE 318-LATEST EDITION
1000-3. AMERICAN INSTITUTE OF STEEL CONSTRUCTION FOURTEENTH EDITION 2011
1000-4. NATIONAL FOREST PRODUCTS ASSOCIATION NATIONAL DESIGN SPECIFICATION 2015

1001 - LATERAL LOADS:
1001-1. INTERNATIONAL BUILDING CODE 2018, CRITERIA :

1001-2. WIND:
§ BASIC WIND SPEED: 120 MPH
§ IOCCUPANCY CATAGORY III
§ SURFACE ROUGHNESS B, EXPOSURE B, URBAN
1001-3. SNOW:
§ GROUND SNOW = 30SPF
§ ROOF SNOW = 24PSF

1002 - LIVE LOADS:
1002-1. ROOF SNOW LOADS 24 PSF + drift
1002-2. WIND UPWARD AND DOWNWARD 20 PSF

1003 - NET ALLOWABLE SOIL BEARING PRESSURE: 1,500 PSF

NOTE: ALL BUILDING SLABS SHALL BE PLACED ON ACCEPTABLE NATURAL SOILS OR NEWLY PLACED STRUCTURAL FILL MATERIAL.

1003-1. WALL FOOTINGS 1500 PSF ASSUMED- ON NEWLY PLACED COMPACTED STRUCTURAL FILL
1003-3. SITE SOILS TO BE VERIFIED ON SITE BY AN APPROVED GEOTECHNICAL TESTING AGENCY PRIOR TO CONSTRUCTION. MITIGATE AND REPLACE UNACCEPTABLE SOILS AS DIRECTED IN THE GEOTECHNICAL TESTING AGENCY. PROVIDE FOR CONSTRUCTION DEWATERING AS REQUIRED.

1004 - CONCRETE COMPRESSIVE STRENGTHS - MINIMUM 28 DAY F'C
1004-1. TYPICAL-UNLESS NOTED OTHERWISE 4000 PSI
1004-2. FOOTINGS 4000 PSI
1004-3. FOUNDATION WALLS 4000 PSI
1004-4. SLABS ON GRADE 4000 PSI

1005 - REINFORCING STEEL
1005-1. DEFORMED BARS: ASTM A615, GR 60 (UNLESS OTHERWISE NOTED)
1005-2. WELDABLE REINFORCING: ASTM A706, GR 60
1005-3. PLAIN BARS: ASTM A82
1005-4. WELDED WIRE FABRIC: ASTM A185
1005-5. EPOXY COATING: ASTM A775

1008.1 - STRUCTURAL SAWN LUMBER:
1008.1-1. 2X JOISTS DFL NO 2, or SYP
1008.1-2. 2X4 THRU 2X6 STUDS DFL NO 2, or SYP

1008.2 - PLYWOOD:
1008.2-1. SEE DRAWINGS FOR THICKNESS AND IDENTIFICATION NUMBERS
1008.2-2. ROOF SHEATHING C-D INT-APA (PSI 74) WITH EXTERIOR GLUE
1008.2-3. INTERIOR LID SHEATHING C-D INT-APA (PSI 74) WITH EXTERIOR GLUE

1008 - SPECIAL INSPECTION REQUIREMENTS
THE FOLLOWING TYPES OF WORK REQUIRE SPECIAL INSPECTION BASED ON CHAPTER 17 OF THE 2018 INTERNATIONAL BUILDING CODE.
THE OWNER WILL EMPLOY SPECIAL INSPECTORS WHO SHALL PROVIDE SPECIAL INSPECTIONS DURING:
1008-1. STRUCTURAL CONCRETE COMPRESSIVE STRENGTH

1009 - GENERAL NOTES
1009-1. ESTABLISH AND VERIFY ALL OPENINGS AND INSERTS FOR MECHANICAL, ELECTRICAL, AND PLUMBING WITH APPROPRIATE TRADE CONTRACTORS. OPENING SIZES AND LOCATIONS SHOWN FOR DUCTS, PIPES, INSERTS, ETC., WHEN SHOWN ARE FOR GENERAL INFORMATION ONLY AND SHALL BE VERIFIED PRIOR TO FORMING.
1009-2. FIELD VERIFY ALL EXISTING DIMENSIONS, MEMBER SIZES, AND ELEVATIONS SHOWN ON THE DRAWINGS. ALL DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT.
1009-3. BEFORE SUBMITTING A PROPOSAL FOR THIS WORK, EACH BIDDER SHALL VISIT THE PREMISES AND ACQUAINT HIMSELF FULLY WITH THE EXISTING CONDITIONS, TEMPORARY CONSTRUCTION REQUIRED, QUANTITIES AND TYPES OF EQUIPMENT, ETC. THE BID SHALL INCLUDE ALL SUMS REQUIRED TO DO THE WORK WITHIN THE EXISTING CONDITIONS. DISRUPTION OF NORMAL ACTIVITIES IN THE WORK AREA MUST BE KEPT TO A MINIMUM.
1009-4. SHOP DRAWINGS PREPARED BY SUPPLIERS, SUBCONTRACTORS, ETC. SHALL BE REVIEWED AND COORDINATED PRIOR TO SUBMITTING TO THE ARCHITECT. EACH SHOP DRAWING SUBMITTED SHALL BE STAMPED, INITIALED, AND DATED AS BEING REVIEWED BY THE CONSTRUCTION MANAGER/GENERAL CONTRACTOR.
1009-5. SHOP DRAWINGS PREPARED BY THE SUBCONTRACTORS, SUPPLIERS, ETC. SHALL BE REVIEWED BY THE ARCHITECT FOR CONFORMANCE WITH DESIGN CONCEPT ONLY. REVIEW BY THE ARCHITECT SHALL NOT BEGIN WITHOUT THE PRIOR COORDINATION AND REVIEW BY THE CONSTRUCTION MANAGER/GENERAL CONTRACTOR. WORK SHALL NOT BEGIN WITHOUT THE REVIEW BY THE ARCHITECT.
1009-6. DETAILS AND NOTES ON THE STRUCTURAL DRAWINGS ARE INTENDED TO BE TYPICAL FOR SIMILAR SITUATIONS ELSEWHERE. VERIFY ALL DIMENSIONS WITH THE ARCHITECTURAL DRAWINGS.
1009-7. OPTIONS ARE FOR THE CONTRACTOR'S CONVENIENCE. HE SHALL BE RESPONSIBLE FOR ALL CHANGES NECESSARY IF HE CHOOSES AN OPTION AND SHALL COORDINATE ALL DETAILS. THE COST OF ADDITIONAL DESIGN WORK NECESSITATED BY SELECTION OF AN OPTION SHALL BE BORNE BY THE CONTRACTOR.

1009-1. THE COST OF ADDITIONAL DESIGN WORK DUE TO ERRORS OR OMISSIONS BY THE CONTRACTOR IN CONSTRUCTION SHALL BE BORNE BY THE CONTRACTOR.
1009-2. ANY ENGINEERING DESIGN PROVIDED BY OTHERS AND SUBMITTED FOR REVIEW OR RECORD SHALL BEAR THE STAMP AND SIGNATURE OF A PROFESSIONAL STRUCTURAL ENGINEER REGISTERED IN THE STATE OF IOWA.
1009-3. ALL ELEVATIONS GIVEN (UNLESS NOTED OTHERWISE) ARE TO TOP OF FOOTING, TOP OF FOUNDATION WALL, JOIST BEARING, TOP OF STEEL, TOP OF SLAB, ETC. WITH REFERENCE TO THE FINISHED FIRST FLOOR SLAB = (0'-0").

1010 - CONSTRUCTION PROCEDURES AND SAFETY REQUIREMENTS
1010-1. COMPLY WITH ALL APPLICABLE CITY, COUNTY, STATE, AND FEDERAL LAWS, INCLUDING THE OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA) AND REGULATIONS ADOPTED PURSUANT THERETO.
1010-2. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. UNLESS OTHERWISE INDICATED, THEY DO NOT INDICATE THE MEANS OR METHODS OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING ALL SEQUENCES OF CONSTRUCTION, AND BRACING OF ALL PORTIONS OF THE STRUCTURE (INCLUDING WALLS, BEAMS, EXCAVATIONS, ECT.) UNTIL THE STRUCTURE IS FINISHED AND COMPLETE.
1010-3. PROVIDE ALL MEASURES NECESSARY TO PROTECT THE WORKMEN AND OTHER PERSONS DURING CONSTRUCTION. PROVIDE ALL NECESSARY MEASURES TO AVOID EXCESSIVE STRESSES AND TO HOLD THE STRUCTURAL ELEMENTS IN PLACE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, SHORING FOR CONSTRUCTION EQUIPMENT, SHORING FOR EARTH BANKS, FORMS, SCAFFOLDING, PLANKING, SAFETY NETS, SUPPORT AND BRACING FOR CRANES AND HOISTS, GUYING, ETC.
1010-4. ENGAGE PROPERLY QUALIFIED PERSONS TO DETERMINE WHERE AND HOW TEMPORARY PRECAUTIONARY MEASURES SHALL BE USED. OBSERVATION VISITS TO THE SITE BY STRUCTURAL ENGINEER'S FIELD REPRESENTATIVES SHALL NOT INCLUDE THE ITEMS NOTED ABOVE.
1010-5. SUPERVISION AND DIRECTION OF THE WORK SO AS TO MAINTAIN SOLE RESPONSIBILITY FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. RETAIN THE SERVICES OF A PROFESSIONAL STRUCTURAL ENGINEER LICENSED IN THE STATE OF IOWA TO DESIGN AND SUPERVISE ANY SCAFFOLDING FOR WORKMEN, AND ALL SHORING OF FORMS AND ELEMENTS OF THE CONSTRUCTION.
1010-6. ANY ENGINEERING DESIGN PROVIDED BY OTHERS AND SUBMITTED FOR REVIEW AND/OR RECORD SHALL BEAR THE STAMP AND SIGNATURE OF A PROFESSIONAL STRUCTURAL ENGINEER REGISTERED IN THE STATE OF IOWA.

DIVISION 3 - CONCRETE

3300 - CONCRETE AND REINFORCING
3300-1. ALL CONCRETE WORK SHALL CONFORM TO THE LATEST EDITION OF THE AMERICAN CONCRETE INSTITUTE PUBLICATIONS: ACI 301, ACI 304, ACI 311, ACI 315, ACI 318, AND ACI 347 UNLESS OTHERWISE NOTED ON THE DRAWINGS.
3300-2. CONCRETE MATERIALS:
3300-2-A. ASTM C150 TYPE I PORTLAND CEMENT
3300-2-B. ASTM C33 NORMAL WEIGHT AGGREGATES
3300-2-C. ASTM C330 LIGHT WEIGHT AGGREGATES
3300-2-D. WATER POTABLE

3300-3. CHLORIDES CONTENT SHALL BE LIMITED BY ACI REQUIREMENTS FOR TYPE OF EXPOSURE.
3300-4. UNLESS OTHERWISE NOTED, PRINCIPAL REINFORCEMENT SHALL HAVE THE FOLLOWING PROTECTION:
3300-4-A.SURFACES CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH 3 INCHES
3300-4-B.FORMED SURFACES EXPOSED TO EARTH OR WATER 2 INCHES
3300-4-C.SLABS 1 INCH (TOP)
3/4 INCH (BOT.)
3300-4-D.BEAMS, COLUMNS 2 INCHES
3300-4-E.WALLS (INTERIOR SURFACES) 1 INCH
3300-4-F.TIES/STIRRUPS 1 ½ INCHES
3300-5. ALL SLABS-ON-GRADE, PADS, FILLS, AND TOPPINGS SHALL HAVE A MINIMUM OF 6 X 6 - W2.1 X W2.1 WWF, UNLESS NOTED OTHERWISE, CENTERED IN THE SLAB. LAP WWF MINIMUM 2 PANELS AT EDGES AND ENDS AND PROVIDE ADDITIONAL REINFORCING WHERE SHOWN ON THE DRAWINGS.
3300-4. ALL SLABS-ON-GRADE SHALL BE PLACED ON COMPACTED GRANULAR FILL. PITCH SLABS TO DRAINS AND PROVIDE DEPRESSIONS, WHERE SHOWN ON THE STRUCTURAL OR ARCHITECTURAL DRAWINGS, WITHOUT REDUCING THE THICKNESS OF SLAB INDICATED. FOR SLABS ON GRADE DEPRESSIONS GREATER THAN 1", SEE DETAILS FOR ADDITIONAL REINFORCING.
3300-5. PROVIDE SLAB-ON-GRADE CONSTRUCTION JOINTS AROUND EACH COLUMN AGAINST GRADE BEAMS, INTERIOR WALLS, AND BETWEEN COLUMNS OR WALLS TO FORM AREAS NOT TO EXCEED 15' IN LENGTH IN EACH DIRECTION. SEE TYPICAL DETAILS. SUBMIT DETAILED DRAWINGS SHOWING LOCATIONS OF ALL CONSTRUCTION JOINTS.
3300-6. PROVIDE VERTICAL CONSTRUCTION JOINTS IN EXPOSED CONCRETE WALLS AT A MAXIMUM UNIFORM SPACING NOT TO EXCEED 30'-0". COORDINATE JOINT LOCATIONS WITH ARCHITECTURAL DRAWINGS.
3300-7. PROVIDE ADEQUATE BOLSTERS, HI-CHAIRS, SUPPORT BARS, ETC., TO MAINTAIN SPECIFIED CLEARANCES FOR THE ENTIRE LENGTH OF ALL REINFORCING BARS. PROVIDE ACCESSORIES WHICH ARE PLASTIC TIPPED OR GALVANIZED WITH TURNED UP ENDS FOR REINFORCEMENT AT ALL FACES OF EXPOSED CONCRETE, INTERIOR OR EXTERIOR.
3300-8. UNLESS OTHERWISE NOTED, NO CONCRETE SHALL BE PLACED WITHOUT A MINIMUM REINFORCING OF 0.002 TIMES THE CONCRETE CROSS SECTIONAL AREA IN EACH DIRECTION.
3300-9. CONTINUOUS REINFORCING SHALL BE LAPPED AS FOLLOWS UNLESS OTHERWISE NOTED:

3300-9-A.	TOP BARS: AT MIDSPAN;	CLASS B PER CRSI
3300-9-B.	BOTTOM BARS: DIRECTLY OVER SUPPORT,	CLASS B PER CRSI
3300-9-C.	ALL LAPS SHOWN ON THE DRAWINGS AND NOT DIMENSIONED SHALL BE	CLASS B, AND 42 BAR DIAMETERS MINIMUM.
3300-9-D.	ADDITIONAL LAPS REQUIRED FOR CONSTRUCTION SHALL BE	CLASS B PER CRSI

3300-10.CROSS REFERENCE STRUCTURAL AND ARCHITECTURAL DRAWINGS FOR INSERTS, ANCHOR BOLTS, NOTCHES, LEDGES, LUGS, ETC. REQUIRED ON BEAMS. WIDTH AND DEPTH OF BEAMS GIVEN ARE OVERALL OUT-TO-OUT DIMENSIONS OF CONCRETE.
3300-11.ALL FIELD BENDING OF REINFORCING SHALL BE DONE COLD. HEATING OF BARS WILL NOT BE PERMITTED.
3300-12.NO ALUMINUM OF ANY TYPE SHALL BE ALLOWED IN THE CONCRETE WORK UNLESS COATED TO PREVENT ALUMINUM-CONCRETE REACTION.
3300-13.MAXIMUM O.D. OF EMBEDDED CONDUIT SHALL BE NO LARGER THAN 1/3 OF THE SLAB THICKNESS. NO CONDUIT SHALL BE PLACED ABOVE THE WELDED WIRE FABRIC IN SLABS_ ON-GRADE OR CONCRETE FILL PLACED ONTO COMPOSITE METAL DECK.
3300-14.CONCRETE WHICH WILL BE SUBJECTED TO REPEATED CYCLES OF FREEZE-THAW DURING THE LIFE OF THE STRUCTURE SHALL HAVE A WATER-CEMENT RATIO NOT EXCEEDING 6 GALLONS PER BAG AND SHALL CONTAIN ENTRAINED AIR. SEE ACI 301 FOR ADDITIONAL REQUIREMENTS.
3300-15.MECHANICALLY VIBRATE CONCRETE EXCEPT THAT SLABS-ON-GRADE NEED ONLY BE VIBRATED AROUND UNDER FLOOR DUCTS AND OTHER EMBEDDED ITEMS. VIBRATE TOPS OF COLUMNS AND DRILLED PIERS.
3300-16.DO NOT CAST UNEXPOSED WALLS OR GRADE BEAMS IN LENGTHS OVER 60'-0". WAIT 48 HOURS BETWEEN ADJACENT POURS.
3300-17.ALL CONSTRUCTION JOINTS BETWEEN ADJACENT CONCRETE POURS OR BETWEEN CONCRETE AND MASONRY SHALL BE KEYED. JOINTS MUST BE KEPT FREE OF DIRT, DEBRIS, FORM OILS, ETC. TO ASSURE PROPER BOND WITH ADJACENT POUR OR MASONRY CONSTRUCTION.
3300-18.DO NOT PLACE PIPES, DUCTS, REGLETS OR CHACES IN STRUCTURAL CONCRETE OR COMPOSITE FLOOR SYSTEMS WITHOUT APPROVAL OF THE STRUCTURAL ENGINEER THROUGH THE ARCHITECT.
3300-19.FLOOR TOLERANCES:
3300-19-A. SURFACE TOLERANCE: CLASS B. (SEE ACI 301)
3300-19-A. THICKNESS: PLUS 1", MINUS 1/2" SLAB ON GRADE
3300-19-B. PLUS 1", MINUS 1/4" STRUCTURAL AND COMPOSITE SLABS
3300-19-C. REPLACE ANY SLAB WITH A THICKNESS DEVIATION AS DIRECTED BY THE ARCHITECT.
3300-2 0.MAXIMUM FREE DROP OF ANY CONCRETE = 6'-0".
3300-21.ALL BAR DETAILING AND ACCESSORIES TO BE FURNISHED SHALL CONFORM TO TYPICAL DETAILS AND STANDARDS IN THE LATEST ACI STANDARD 315 DETAILING MANUAL, EXCEPT AS OTHERWISE SHOWN, NOTED, OR SPECIFIED.

DIVISION 4 - MASONRY

4340 - MASONRY
4340-1. HOLLOW CONCRETE BLOCK UNITS: GRADE S F'M= 2000 PSI.
4340-2. 2000 PSI FOR BLOCK AND 2500 PSI FOR BRICK, ESTABLISH F'M BY PRISM TESTS.
4340-3. LAY UNITS IN RUNNING BOND, UNO. CORNERS SHALL HAVE A STANDARD BOND BY OVERLAPPING UNITS.
4340-4. MORTAR TYPE S.
4340-5. GROUT: 2000 PSI MINIMUM 28 DAY COMPRESSIVE STRENGTH. USE GROUT AID II AS MANUFACTURED BY SIKA. MIX INTO THE GROUT AT THE JOB SITE AT THE RATE OF 6 POUNDS PER CUBIC YARD PER MANUFACTURER'S PRINTED INSTRUCTIONS; ROD GROUT IMMEDIATELY AFTER PLACING AND AGAIN ABOUT 5 MINUTES LATER.
4340-6. PROVIDE ALL REQUIRED TEMPORARY BRACING FOR MASONRY WALLS UNTIL STRUCTURE IS COMPLETE.

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No.	Date	Description
	071425	ISSUE
	072825	RE-ISSUE

ISF - SWINE BARN UPDATES - PHASE 1

STRUCTURAL DETAILS

Project Number: 250401.00
Date: 07/14/2025

S502-1

SCALE: As indicated

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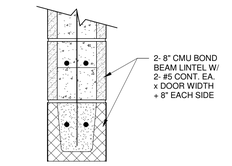

1 L1 LINTEL DETAIL

1 1/2" = 1'-0"

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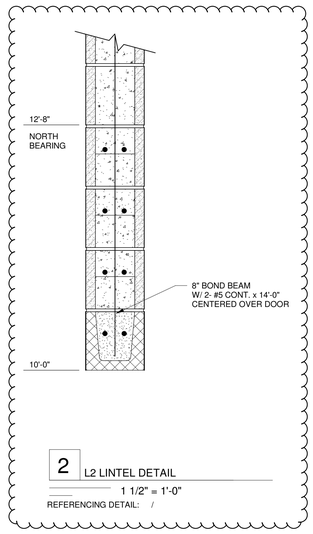

2 L2 LINTEL DETAIL

1 1/2" = 1'-0"

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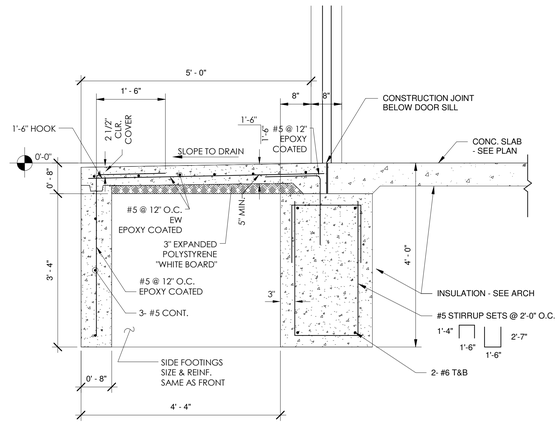
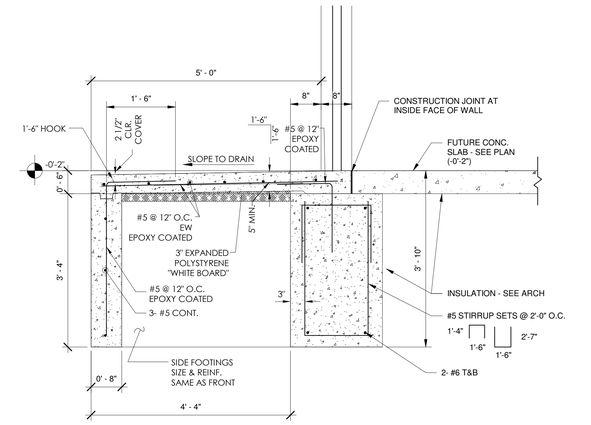


3 STOOP DETAIL W/ SLAB

STOOPS AT ROOMS: 102 (SLAB ELEV. @ -0'-2") & 104 (SLAB ELEV. @ 0'-0")

3/4" = 1'-0"

REFERENCING DETAIL: 2 / S102-1

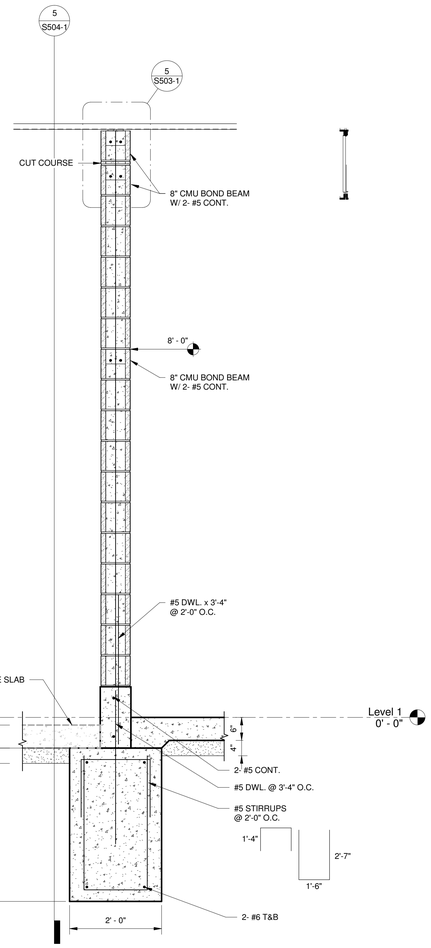


4 STOOP DETAIL W/ FUTURE SLAB

STOOPS AT ROOMS: 101 & 103 (SLAB ELEV. @ -0'-2")

3/4" = 1'-0"

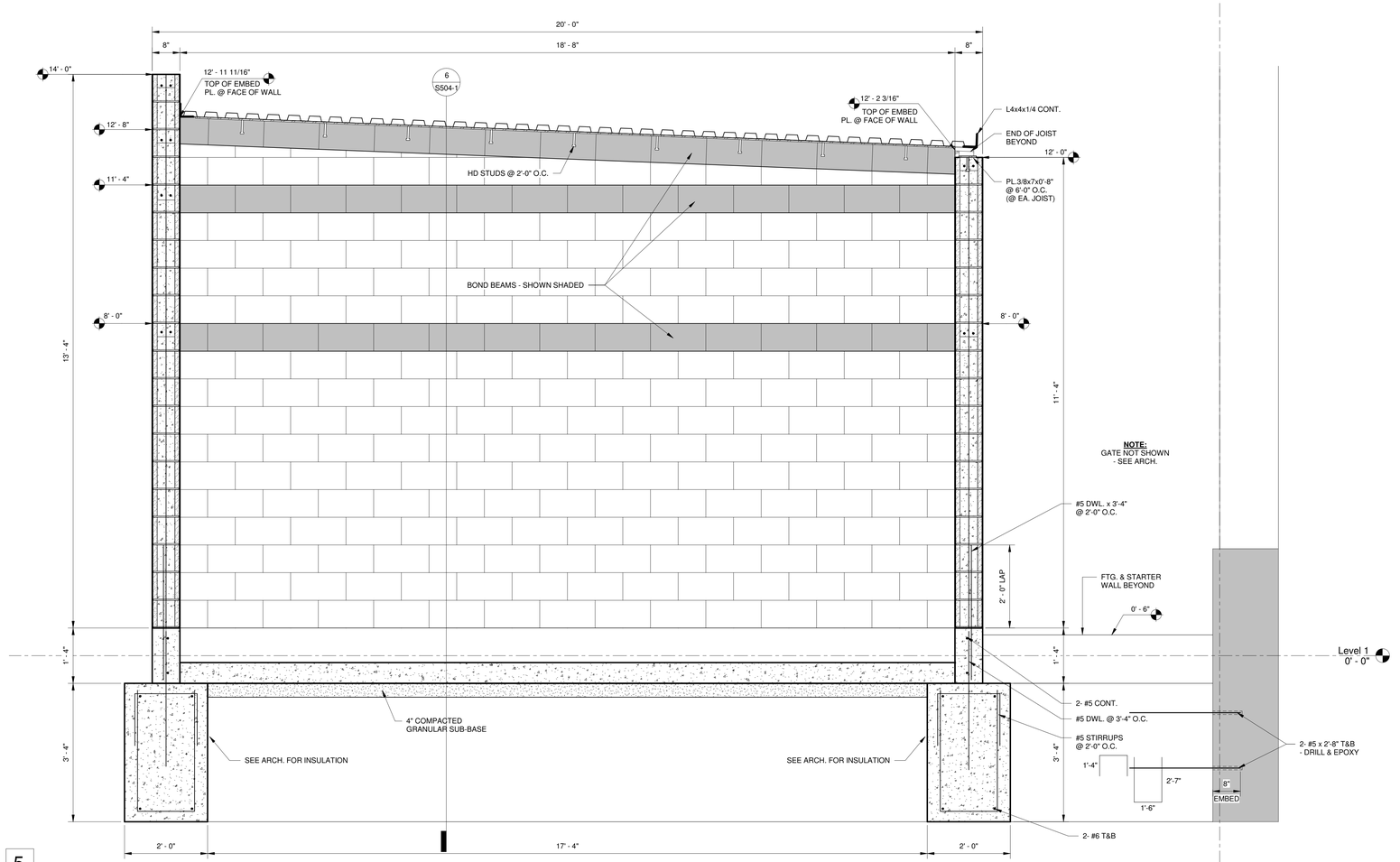
REFERENCING DETAIL: 2 / S102-1



6 INTERIOR WALL SECTION

3/4" = 1'-0"

REFERENCING DETAIL: 1 / S102-1



5 ELEC. BLDG. SECTION1

3/4" = 1'-0"

REFERENCING DETAIL: 1 / S102-1

11

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No.	Date	Description
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ISF CATTLE BARN UPDATES - PHASE 1

STRUCTURAL DETAILS

Project Number: 250401.00

Date: 07/14/2025

S504-1

SCALE: As indicated

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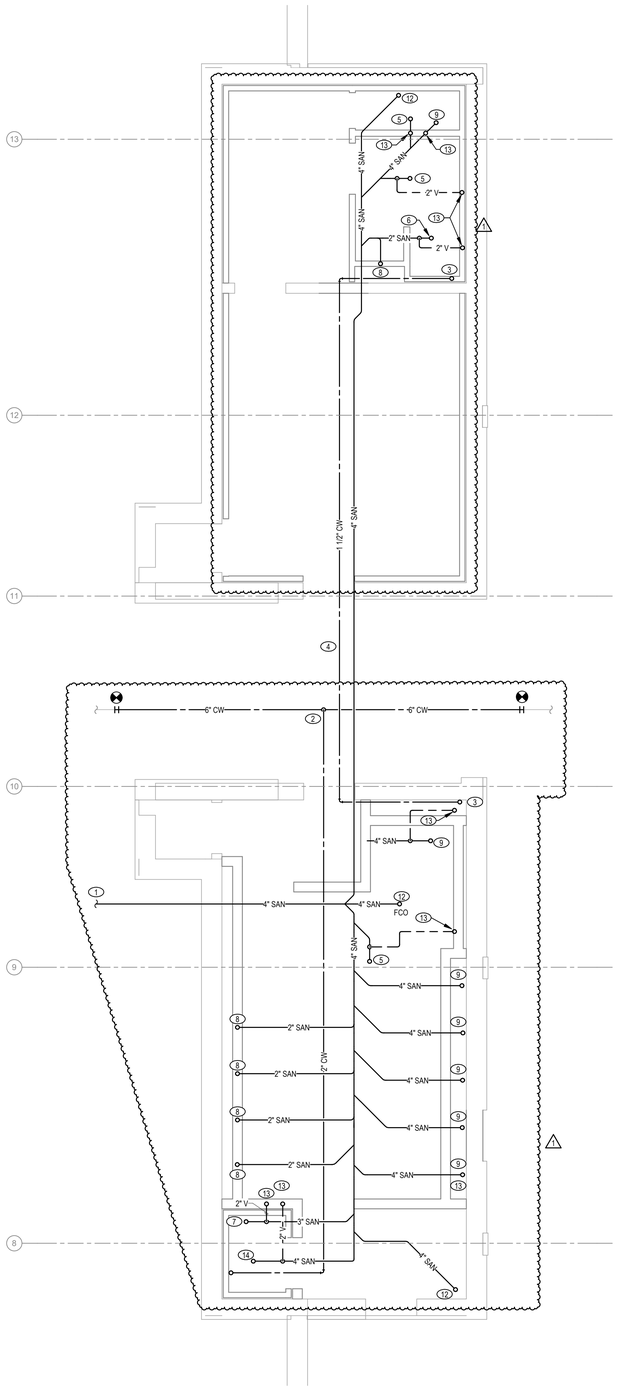
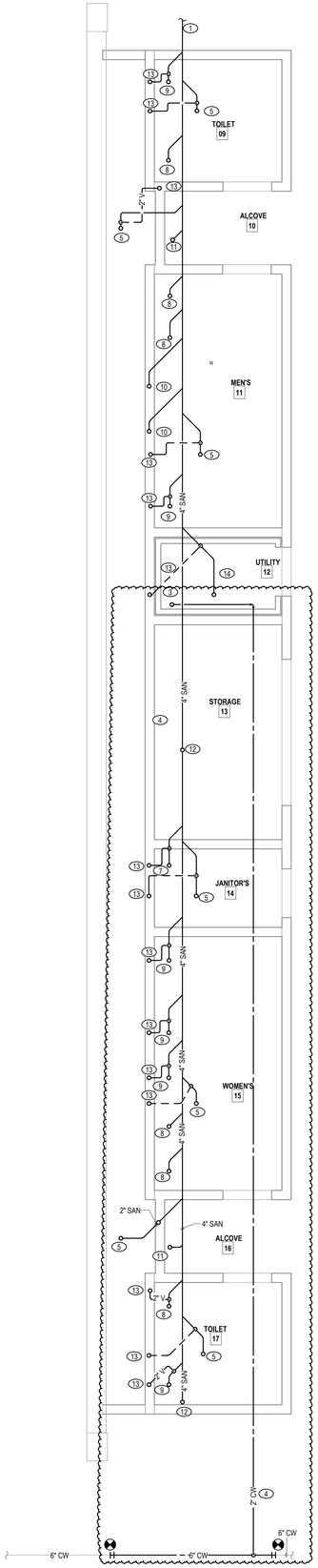


N

2 ENLARGED PLUMBING UNDERFLOOR PLAN - OFFICE/WOMENS GROUP A

1/4" = 1'-0"



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1 ENLARGED PLUMBING UNDERFLOOR PLAN - RESTROOM GROUP D

1/4" = 1'-0"

KEYED NOTES:

1. 4" SANITARY WASTE CONTINUES TO SITE. SEE CIVIL DRAWINGS FOR CONTINUATION FROM POINT PIPE LEAVES THE BUILDING.
2. 2" WATER SERVICE PIPING TIED INTO EXISTING 6" WATER MAIN.
3. 2" COLD WATER UP TO ABOVE GRADE. SEE P103-1 FOR CONTINUATION. COLD WATER SUPPLY PIPING SHALL BE DRAINED AND WINTERIZED DURING THE WINTER MONTHS.
4. 2" COLD WATER ROUTED BELOW GRADE. INSTALL UNDERGROUND PIPING IN A PIPING SLEEVE.
5. 3" SANITARY WASTE PIPING FROM FLOOR DRAIN ABOVE.
6. 2" SANITARY WASTE PIPING FROM SHOWER FLOOR DRAIN ABOVE.
7. 3" SANITARY WASTE PIPING FROM MOP BASIN SINK ABOVE.
8. 2" SANITARY WASTE PIPING FROM LAVATORY ABOVE.
9. 4" SANITARY WASTE PIPING FROM WATER CLOSET ABOVE.
10. 2" SANITARY WASTE PIPING FROM URINAL ABOVE.
11. 2" SANITARY WASTE PIPING FROM DRINKING FOUNTAIN ABOVE.
12. 4" SANITARY WASTE PIPING FROM FLOOR CLEANOUT ABOVE.
13. 2" VENT PIPING UP TO ABOVE FLOOR.
14. 4" SANITARY WASTE PIPING FROM FLOOR DRAIN ABOVE.
15. DEMO AND REPLACE THE PORTION OF EXISTING 6" COLD WATER MAIN THAT IS SHOWN AS NEW.

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No.	Date	Description
1	07.25.2025	ADDENDUM #1

ISF SWINE BARN UPDATES - PHASE 1

PLUMBING UNDERFLOOR ENLARGED PLANS

Project Number: 250401.00
Date: 07/14/2025

P102-1

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

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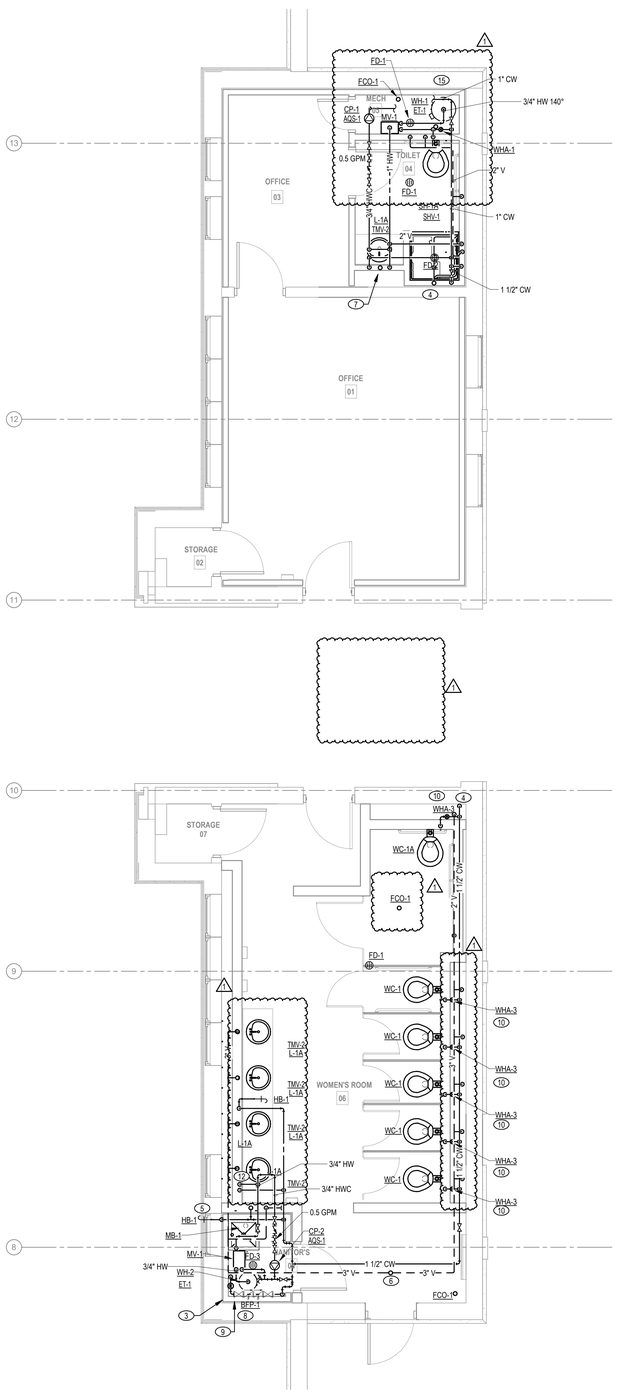
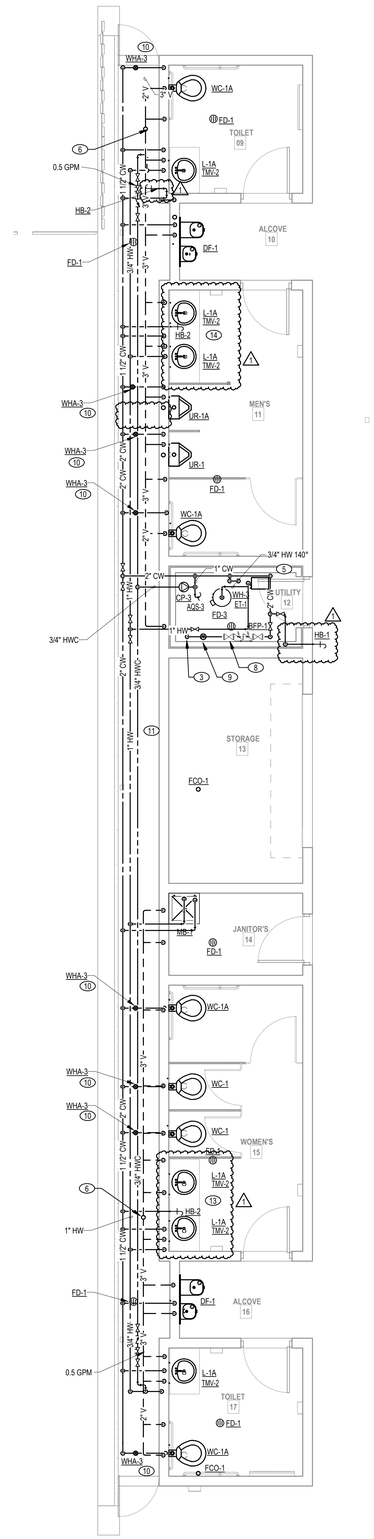


ENLARGED PLUMBING PLAN - OFFICE/WOMENS GROUP A

2 — 1/4" = 1'-0"



ENLARGED PLUMBING PLAN - RESTROOM GROUP D

1 — 1/4" = 1'-0"

KEYED NOTES:

1. DISCHARGE DRAIN AT 6 INCHES A.F.F..
2. TERMINATE DRAIN PIPE 12 INCHES A.F.F. TO DISCHARGE TO MB-1.
3. 2" COLD WATER DOWN TO BELOW GRADE. SEE P102-1 FOR CONTINUATION. COLD WATER SUPPLY PIPING SHALL BE DRAINED AND WINTERIZED DURING THE WINTER MONTHS.
4. 1-1/2" COLD WATER DOWN TO BELOW GRADE. SEE P102-1 FOR CONTINUATION. COLD WATER SUPPLY PIPING SHALL BE DRAINED AND WINTERIZED DURING THE WINTER MONTHS.
5. 3/4" COLD WATER SUPPLY PIPING DROP TO HOSE BIBB CONNECTION.
6. 3" VENT UP TO 4" VENT THROUGH ROOF.
7. 2" VENT UP TO 4" VENT THROUGH ROOF.
8. 2" WATER PIPING TO AND FROM BACKFLOW PREVENTER BFP-1. INDIRECTLY DRAIN BACKFLOW PREVENTER DISCHARGE TO FLOOR DRAIN.
9. WATER DEPARTMENT TO PROVIDE THE WATER METER AT COST OF THE OWNER. PLUMBING CONTRACTOR TO INSTALL WATER METER PER MANUFACTURER'S INSTRUCTIONS.
10. PROVIDE AND INSTALL 8" X 8" ACCESS PANEL FOR ACCESS TO WHA-3
11. CHASE IS EXPOSED. PIPING TO BE INSULATED FOR EXTERIOR INSTALLATION. ROUTE ALL PIPING IN CHASE WITHIN THE CHASE SPACE. CONFIRM CHASE HEIGHT WITH ARCHITECTURAL DRAWINGS.
12. ROUTE HOT WATER AND COLD WATER DOMESTIC PIPING TO ALL FOUR LAVS IN WOMEN'S 06. ROUTE ALL PIPING UNDERNEATH LAVS.
13. ROUTE HOT WATER AND COLD WATER DOMESTIC PIPING TO BOTH LAVS IN WOMEN'S 15. ROUTE ALL PIPING UNDERNEATH LAVS.
14. ROUTE HOT WATER AND COLD WATER DOMESTIC PIPING TO BOTH LAVS IN MEN'S 11. ROUTE ALL PIPING UNDERNEATH LAVS.
15. INSTALL WATER HEATER ON FLOOR MOUNTED PEDASTAL.

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No.	Date	Description
1	07.25.2025	ADDENDUM #1

ISF SWINE BARN UPDATES - PHASE 1

PLUMBING ENLARGED PLANS

Project Number: 250401.00
Date: 07/14/2025

P102-2

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

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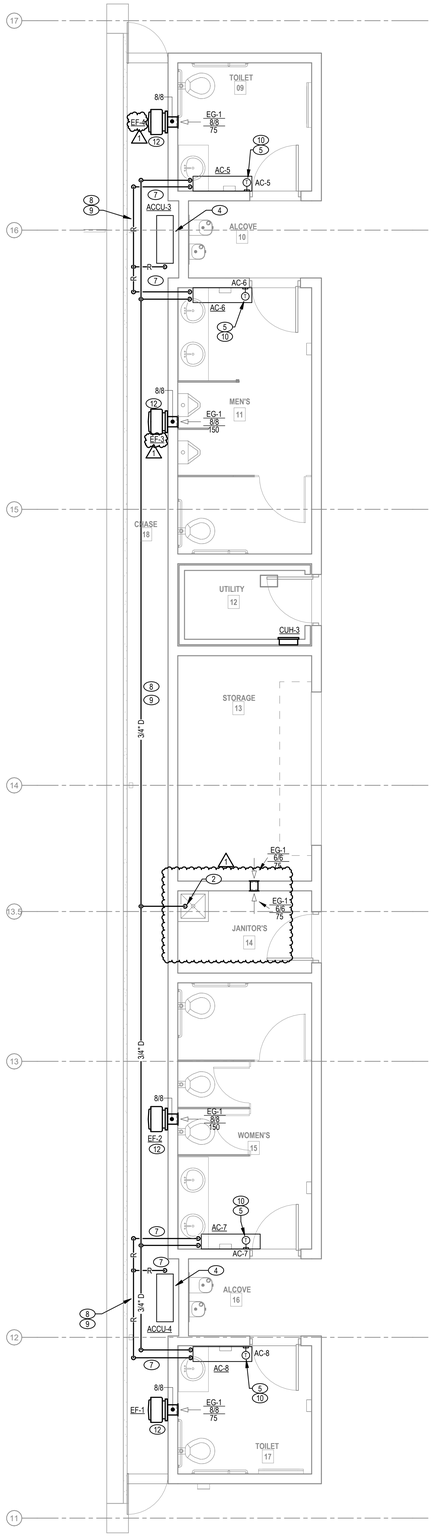
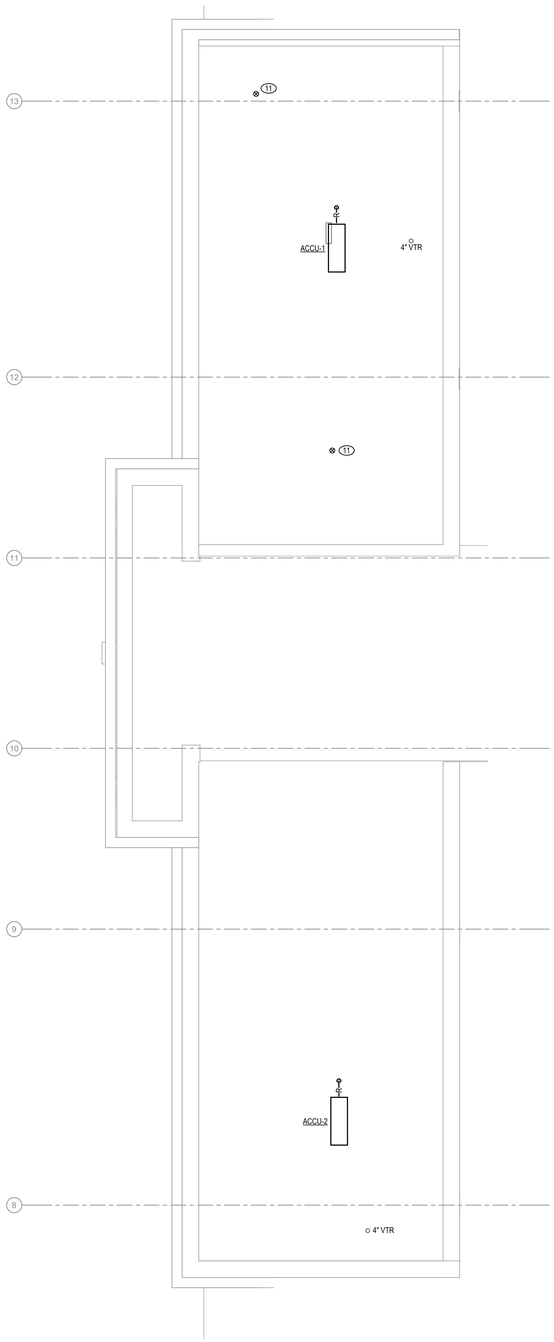


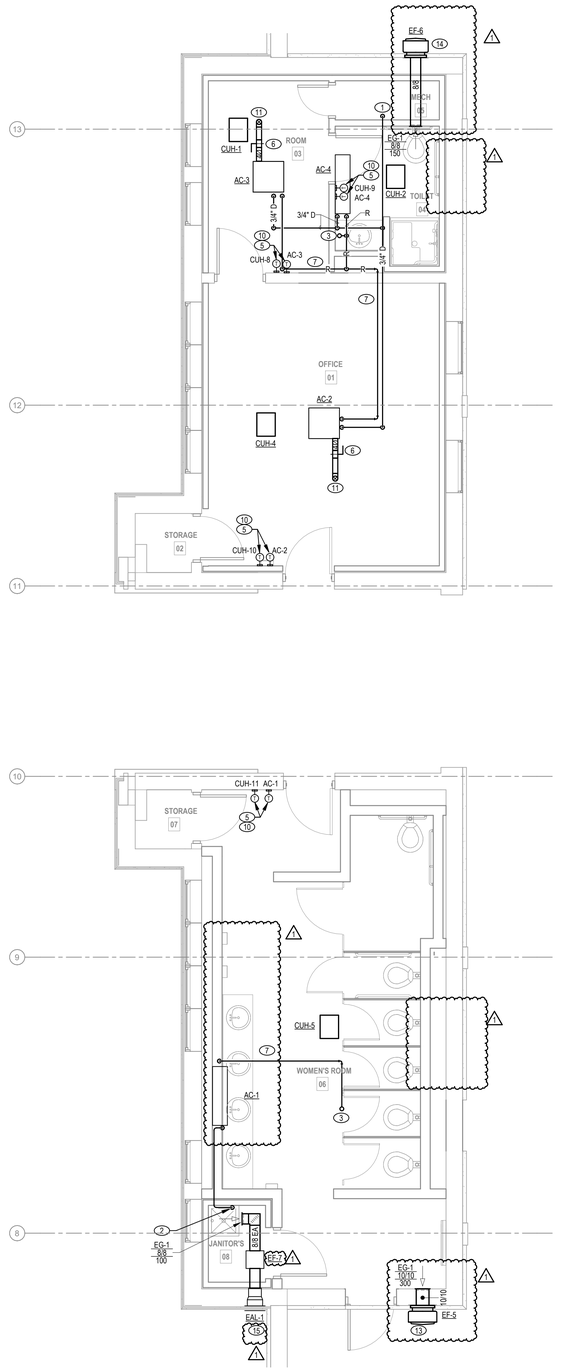
3 ENLARGED MECHANICAL PLAN - RESTROOM GROUP D

1/4" = 1'-0"



2 ENLARGED MECHANICAL PLAN - OFFICE/WOMENS GROUP A

1/4" = 1'-0"



1 ENLARGED MECHANICAL PLAN - OFFICE/WOMENS GROUP A

1/4" = 1'-0"

KEYED NOTES:

1. DISCHARGE DRAIN TO FLOOR DRAIN.
2. DISCHARGE DRAIN TO MOP BASIN. TERMINATE PIPE 6" ABOVE MOP BASIN.
3. REFRIGERANT PIPING UP TO OUTDOOR SPLIT SYSTEM CONDENSING UNIT ON ROOF.
4. UNIT TO BE SET ON WALL BRACKET. WALL BRACKET INSTALLED SO BOTTOM OF UNIT IS 24" A.F.F.
5. INSTALL THERMOSTATS ADJACENT TO LIGHT SWITCHES AND AT THE SAME HEIGHT.
6. ALL BALANCING DAMPERS TO BE LOCATED WITH ACCESSIBLE LOCATIONS. COORDINATE WITH ARCHITECTURAL DRAWINGS.
7. ROUTE ALL REFRIGERANT PIPING IN LINESET COVER EQUAL TO LINEHIDE.
8. CHASE IS EXPOSED. PIPING TO BE INSULATED FOR EXTERIOR INSULATION.
9. ROUTE ALL PIPING IN CHASE WITHIN THE CHASE SPACE. CONFIRM CHASE HEIGHT WITH ARCHITECTURAL DRAWINGS .
10. INSTALL THERMOSTATS IN LOCKABLE HEAVY DUTY ENCLOSURE.
11. OA DUCT UP THROUGH ROOF. TERMINATE DUCT WITH RAINCAP.
12. WALL PENETRATION FOR EXHAUST DUCT AND WALL MOUNTED FAN AT 104" FROM FLOOR TO BOTTOM OF GRILLE.
13. WALL PENETRATION FOR EXHAUST DUCT AND WALL MOUNTED FAN AT 144" FROM FLOOR TO BOTTOM OF GRILLE.
14. WALL PENETRATION FOR EXHAUST DUCT AND WALL MOUNTED FAN AT 98" FROM FLOOR TO BOTTOM OF GRILLE.
15. WALL PENETRATION FOR EXHAUST AIR LOUVER AT 116" FROM FLOOR TO BOTTOM OF LOUVER.

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No.	Date	Description
1	07.25.2025	ADDENDUM #1

ISF SWINE BARN UPDATES - PHASE 1

MECHANICAL ENLARGED PLANS

Project Number: 250401.00
Date: 07/14/2025

M102-1

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

7/25/2025 10:30:35 AM

DUCTWORK APPLICATION SCHEDULE

AIR HANDLING SYSTEM	EQUIPMENT SERVICE	AIRSTREAM	DUCTWORK LOCATION (ALL DUCT CONCEALED UNLESS NOTED OTHERWISE)	SYSTEM TYPE (CONSTANT VOLUME OR VAV OR BOTH)	ACTUAL PRESSURE RATING (IN W.C.) (NOTES 1 & 2)		DUCTWORK MATERIAL	SINGLE OR DOUBLE WALL	DUCT SHAPE
					SEAL CLASS	EF-1 - 8			ROUND / RECT / FLAT OVAL
GENERAL EXHAUST	EF-1 THRU EF-6 EF-8	EXHAUST AIR	INLET TO EXHAUST FAN	CONSTANT VOLUME	A	N / A	GALVANIZED SHEET METAL	SINGLE	RECT / ROUND / FLAT OVAL
MOISTURE LADEN EXHAUST	EF-7	EXHAUST AIR	INLET TO EXHAUST FAN	CONSTANT VOLUME	A	N / A	ALUMINUM	SINGLE	RECT / ROUND / FLAT OVAL
DUCTWORK ACCESSORIES	GENERAL	GENERAL	-	-	-	N / A	-	-	-

NOTES:
1. DUCT SEAL CLASS TO BE BASED ON PRESSURE CLASS AS NOTED BELOW:
   CLASS A: -10"W.C. THRU -4" W.C.
   CLASS B: -3" W.C.
   CLASS C: -2" W.C. THRU +2"W.C.
   CLASS B: +3" W.C.
   CLASS A: +4"W.C. THRU +10" W.C.
2. ACTUAL DUCT CONSTRUCTION SHALL EXCEED THE ACTUAL PRESSURE RATING LISTED AND FALL INTO ONE OF THE STANDARD DUCT PRESSURE CLASS RATINGS AS FOLLOWS:
   0.5", 1", 2", 3", 4", 6", 10" (POSITIVE OR NEGATIVE)

CABINET UNIT HEATER SCHEDULE - ELECTRIC

MARK	MANUFACTURER	MODEL	CONFIGURATION			ELECTRIC HEATING COIL		CONTROLS TYPE	CABINET DIMENSIONS			ELECTRICAL					NOTES
			CABINET	MOUNTING	DISCHARGE	NUMBER OF STAGES	KW		LENGTH (IN.)	WIDTH (IN.)	DEPTH (IN.)	VOLT	PH	FLA	DISCONNECT		
															BY	TYPE	
CUH-1	INDEECO	933	HORIZONTAL	RECESSED	BOTTOM	1	4.0	1	18.25	14.375	3.75	208	1	9.8	MFR	NON-FUSED	1
CUH-2	INDEECO	933	HORIZONTAL	RECESSED	BOTTOM	1	4.0	1	18.25	14.375	3.75	208	1	9.8	MFR	NON-FUSED	1
CUH-3	INDEECO	933	VERTICAL	RECESSED	BOTTOM	1	1.5	2	18.25	14.375	3.75	120	1	12.5	MFR	NON-FUSED	1
CUH-4	INDEECO	933	HORIZONTAL	RECESSED	BOTTOM	1	4.0	1	18.25	14.375	3.75	208	1	19.2	MFR	NON-FUSED	1
CUH-5	INDEECO	933	HORIZONTAL	RECESSED	BOTTOM	1	4.0	1	18.25	14.375	3.75	208	1	19.2	MFR	NON-FUSED	1

NOTES:
1. VERIFY FINAL COLOR SELECTION WITH ARCHITECT.

CONFIGURATION NOTES:
CABINET: HORIZONTAL OR VERTICAL
MOUNTING: CONCEALED / RECESSED / SEMI-RECESSED / SURFACE
DISCHARGE: BOTTOM / TOP / DUCTED

CONTROL TYPES:
1. WALL MOUNTED THERMOSTAT
2. UNIT MOUNTED THERMOSTAT

UNIT HEATER SCHEDULE - ELECTRIC

MARK	MANUFACTURER	MODEL	SERVICE	NOMINAL CFM	ELECTRIC COIL				ELECTRICAL							CONTROL TYPE
					EAT (°F)	LAT (°F)	TOTAL KW	NUMBER OF STAGES	FAN HP	VOLT	PH	MCA	MOCP	DISCONNECT		STARTER BY	
														BY	TYPE		
UH-1	TRANE	UHEC	SPRINK. 101	700	50	84	7.5	1	FHP	480	3	9.1	15	MFR.	NON-FUSED	N/A	1
UH-2	TRANE	UHEC	ELEC. STOR. 102	700	50	84	7.5	1	FHP	480	3	9.1	15	MFR.	NON-FUSED	N/A	1
UH-3	TRANE	UHEC	ELEC. 103	700	50	84	7.5	1	FHP	480	3	9.1	15	MFR.	NON-FUSED	N/A	1
UH-4	TRANE	UHEC	STORAGE 104	700	50	95	10.0	1	FHP	480	3	12.1	20	MFR.	NON-FUSED	N/A	1

CONTROL TYPES:
1. UNIT MOUNTED THERMOSTAT (EXTERNAL KNOB ADJUSTMENT. NO TOOLS REQUIRED)

PIPING APPLICATION SCHEDULE

SYSTEM (NOTE 1)	LOCATION	DESIGN WORKING PRESSURE (PSI)	MATERIAL	JOINTS	USAGE SIZE RANGE	INSULATION APPLICATION		NOTES
						THICKNESS (IN.)	TYPE (NOTES 2, 3)	
REFRIGERANT	GENERAL	500	ACR COPPER	FLARED END WITH SOLDER	LESS THAN 1-1/2"	1"	ELASTOMERIC FOAM	4
					1-1/2" & GREATER	1-1/2"		
HVAC EQUIPMENT DRAINS (GRAVITY & PUMPED CONDENSATE)	ABOVE GRADE (RETURN AIR PLENUM)	N/A	DWV COPPER	SOLDER	ALL	1"	FIBERGLASS	5

NOTES:
1. REFER TO EACH PIPING SPECIFICATION FOR SPECIFIC PIPING REQUIREMENTS.
2. SEE SPECIFICATION SECTION 230719 FOR COMPLETE INSULATION AND JACKETING REQUIREMENTS. ALL INSULATION SHALL BE PLENUM RATED MEETING ASTM E84 WHERE INSTALLED IN A RETURN AIR PLENUM.
3. INSTALL RIGID CALCIUM SILICATE INSERTS AT ALL PIPING HANGERS.
4. PAINT EXPOSED & EXTERIOR INSULATION WITH TWO COATS EXTERIOR GRADE LATEX.
5. INSULATION ONLY REQUIRED FOR COLD SERVICE PIPING. EQUIPMENT DRAIN PIPING LESS THAN 5' IN LENGTH NEED NOT BE INSULATED.

FAN SCHEDULE

MARK	MANUFACTURER	MODEL	SERVICE	TYPE	AIRFLOW (CFM)	S.P. (IN. W.C.)	MAX. FAN RPM	DRIVE	WHEEL DIA. (INCHES)	MAX. AMCA SONES	FAN CONSTRUCTION		ELECTRICAL (FAN)						DAMPER			CONTROL TYPE	NOTES
											HOUSING (STEEL OR ALUM)	WHEEL (STEEL OR ALUM)	BHP	MHP	VOLT	PH	DISCONNECT		STARTER BY	TYPE (MOTORIZED OR GRAVITY)	VOLT	PH	
																	BY	TYPE					
EF-1	GREENHECK	CUE-WALL	TOILET 17	WALL MOUNTED CENTRIFUGAL	75	0.2	1,300	DIRECT	8.125	2.5	ALUM	ALUM	0.01	FHP	120	1	MFR	NON-FUSED	MFR	MOTORIZED	120	1	1
EF-2	GREENHECK	CUE-WALL	WOMEN'S 15	WALL MOUNTED CENTRIFUGAL	150	0.2	1,300	DIRECT	8.125	2.5	ALUM	ALUM	0.01	FHP	120	1	MFR	NON-FUSED	MFR	MOTORIZED	120	1	1
EF-3	GREENHECK	CUE-WALL	MEN'S 11	WALL MOUNTED CENTRIFUGAL	150	0.2	1,300	DIRECT	8.125	2.5	ALUM	ALUM	0.01	FHP	120	1	MFR	NON-FUSED	MFR	MOTORIZED	120	1	1
EF-4	GREENHECK	CUE-WALL	TOILET 09	WALL MOUNTED CENTRIFUGAL	75	0.2	1,300	DIRECT	8.125	2.5	ALUM	ALUM	0.01	FHP	120	1	MFR	NON-FUSED	MFR	MOTORIZED	120	1	1
EF-5	GREENHECK	CUE-WALL	WOMEN'S 06	WALL MOUNTED CENTRIFUGAL	300	0.2	1,050	DIRECT	10.876	4.2	ALUM	ALUM	0.03	FHP	120	1	MFR	NON-FUSED	MFR	MOTORIZED	120	1	1
EF-6	GREENHECK	CUE-WALL	TOILET 04	WALL MOUNTED CENTRIFUGAL	150	0.2	1,300	DIRECT	8.125	2.5	ALUM	ALUM	0.01	FHP	120	1	MFR	NON-FUSED	MFR	MOTORIZED	120	1	1
EF-7	GREENHECK	CSP	JANITOR 08	INLINE	100	0.5	825	DIRECT	6.750	2.0	ALUM	ALUM	0.06	FHP	120	1	MFR	NON-FUSED	MFR	MOTORIZED	120	1	1

1. MOTORIZED BACKDRAFT DAMPER WIRED TO OPEN WHEN FAN OPERATES. FAN TO HAVE A SINGLE POINT POWER CONNECTION FOR FAN AND DAMPER FOR ON / OFF FANS.

TYPE 1. INTERLOCKED TO ROOM LIGHT SWITCH

SPLIT SYSTEM HEAT PUMP SCHEDULE - INDOOR & OUTDOOR UNITS

MARK	MANUFACTURER	MODEL	SERVICE	NOMINAL CAPACITY (TONS)	SEER	HEATING COP @ 47°F	INDOOR UNIT								DIMENSIONS (IN.)			ELECTRICAL (NOTE 1)						NOTES
							AIRFLOW (CFM)	REFRIGERANT	MAXIMUM LINESET LENGTH (FT.) (NOTE 2)	COOLING EAT		HEATING EAT		TOTAL COOLING MBH	TOTAL HEATING MBH	FILTERS	LENGTH	DEPTH	HEIGHT	VOLT	PH	MCA	MOCP	DISCONNECT		
										DB (°F)	WB (°F)	DB (°F)	WB (°F)											BY	TYPE	
AC-1	MITSUBISHI	MSZ SERIES	WOMEN'S 06	1.5	21.5	3.7	629	R-454B	100	80	67	70	60	18.0	21.6	1" WASHABLE	37	10	12	208	1	1	15	EC	NON-FUSED	1, 2, 3
AC-2	MITSUBISHI	MSZ SERIES	OFFICE 01	1.5	21.5	3.7	629	R-454B	100	80	67	70	60	18.0	21.6	1" WASHABLE	37	10	12	208	1	1	15	EC	NON-FUSED	1, 2, 3
AC-3	MITSUBISHI	MSZ SERIES	ROOM 03	0.75	28.4	4.4	381	R-454B	100	80	67	70	60	9.0	10.9	1" WASHABLE	32	10	12	208	1	1	15	EC	NON-FUSED	1, 2, 3
AC-4	MITSUBISHI	MSZ SERIES	TOILET 04	0.75	28.4	4.4	381	R-454B	100	80	67	70	60	9.0	10.9	1" WASHABLE	32	10	12	208	1	1	15	EC	NON-FUSED	1, 2, 3
AC-5	MITSUBISHI	MSZ SERIES	TOILET 09	0.75	28.4	4.4	381	R-454B	100	80	67	70	60	9.0	10.9	1" WASHABLE	32	10	12	208	1	1	15	EC	NON-FUSED	1, 2, 3
AC-6	MITSUBISHI	MSZ SERIES	MEN'S 11	0.75	28.4	4.4	381	R-454B	100	80	67	70	60	9.0	10.9	1" WASHABLE	32	10	12	208	1	1	15	EC	NON-FUSED	1, 2, 3
AC-7	MITSUBISHI	MSZ SERIES	WOMEN'S 15	0.75	28.4	4.4	381	R-454B	100	80	67	70	60	9.0	10.9	1" WASHABLE	32	10	12	208	1	1	15	EC	NON-FUSED	1, 2, 3
AC-8	MITSUBISHI	MSZ SERIES	TOILET 17	0.75	28.4	4.4	381	R-454B	100	80	67	70	60	9.0	10.9	1" WASHABLE	32	10	12	208	1	1	15	EC	NON-FUSED	1, 2, 3
ACCU-1	MITSUBISHI	MUZ SERIES	AC-1	1.5		N/A		R-454B	100			N/A		18.0	18.0	N/A	32"	14"	24"	208	1	17.9	25	EC	NON-FUSED	2
ACCU-2	MITSUBISHI	MUZ SERIES	AC-2, AC-3, & AC-4	3.0		N/A		R-454B	100			N/A		18.0	18.0	N/A	32"	14"	24"	208	1	17.9	25	EC	NON-FUSED	2
ACCU-3	MITSUBISHI	MUZ SERIES	AC-5 & AC-6	1.5		N/A		R-454B	100			N/A		18.0	18.0	N/A	32"	14"	24"	208	1	17.9	25	EC	NON-FUSED	2
ACCU-4	MITSUBISHI	MUZ SERIES	AC-7 & AC-8	1.5		N/A		R-454B	100			N/A		18.0	18.0	N/A	32"	14"	24"	208	1	17.9	25	EC	NON-FUSED	2

NOTES:
1. PROVIDE WITH WALL MOUNTED THERMOSTAT AND CONTROLS.
2. COORDINATE INDOOR AND OUTDOOR UNIT LOCATIONS WITH FINAL PIPING ROUTING. INSTALL PER MANFUACTURERS REQUIREMENTS.
3. PROVIDE WITH PLENUM RATED UNIT MOUNTED CONDENSATE PUMP EQUAL TO LITTLE GIANT.

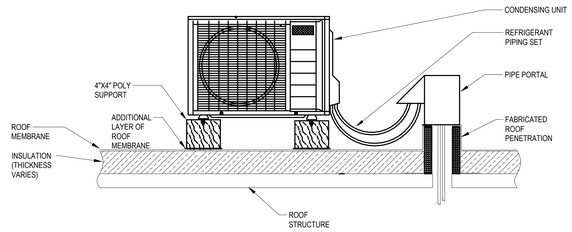
GRILLES, REGISTERS, & DIFFUSERS SCHEDULE

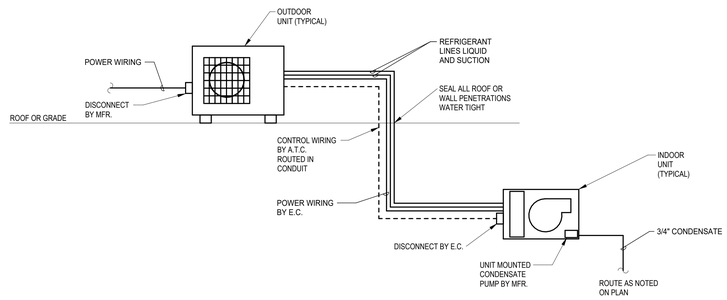
MARK	MANUFACTURER	MODEL	STYLE	BORDER	INLET SIZE (INCH) (NOTE 2)	FACE SIZE (INCH)	DAMPER NEEDED	MATERIAL	COLOR
EG-1	TITUS	350FL	35° DEFLECTION	SURFACE	SEE DWG.	INLET + 1 3/4"	YES	ALUMINUM	WHITE

LOUVER SCHEDULE

MARK	MANUFACTURER	MODEL	SERVICE	AIRFLOW (CFM)	SIZE (INCHES)			FREE AREA (FT*2)	FREE AREA VEL (FPM)	MAX. S.P. (IN. W.C.)	FINISH (NOTE 1)
					W	x	H				
EAL-1	GREENHECK	ELF	EF-8	100	12	x	12	0.34	294	0.1	BAKED ENAMEL

NOTES:
1. COLOR SELECTION BY ARCHITECT.





1 SPLIT SYSTEM
N.T.S.

GENERAL NOTES:

1. VERIFY REFRIGERANT PIPING LENGTH AND ELEVATION CHANGE. DO NOT EXCEED MANUFACTURER'S REQUIREMENTS.
2. MAINTAIN ALL REQUIRED SERVICE CLEARANCES TO MEET MANUFACTURER'S REQUIREMENTS.

K/O ARCHITECTS
www.k-o.com
KEFFER/OVERTON ASSOCIATES INC.
650 SOUTH PRAIRIE VIEW DRIVE
STUDIO 103
WEST DES MOINES, IOWA 50266
Phone: (515) 288-4821

No.	Date	Description
1.	07.25.2025	ADDENDUM #1

ISF SWINE BARN UPDATES - PHASE 1

MECHANICAL DETAILS & SCHEDULES

Project Number: 250401.00
Date: 07/14/2025

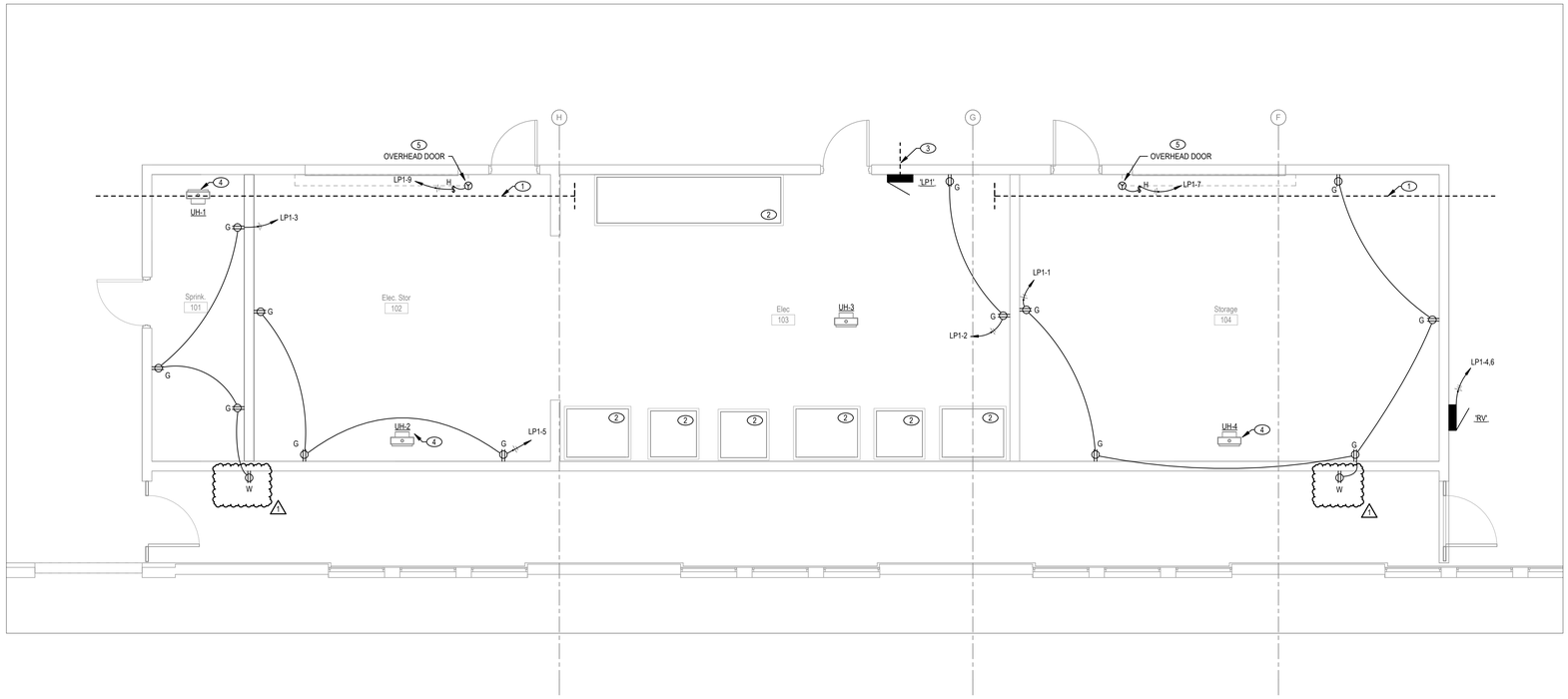
M500

SCALE: As indicated

7/25/2025 10:30:38 AM

KEYED NOTES:

1. BURY TWELVE (12) 4" CONDUITS EXTENDING 3' BEYOND EXTERIOR WALL FOR FUTURE SERVICE AND CAP THE ENDS.
2. PRELIMINARY LAYOUT FOR FUTURE ELECTRICAL EQUIPMENT.
3. PROVIDE 1" CONDUIT FOR GROUNDING SYSTEM.
4. ROUTE 1" CONDUIT FROM UNIT HEATER TO 'ELEC 103' FOR FUTURE CONNECTION.
5. PROVIDE CONDUIT FOR CONTROL BUTTONS AND SAFETY SENSORS.
6. LIGHT FIXTURE CONTROLLED BY EXTERIOR MOUNTED OCCUPANCY SENSOR.



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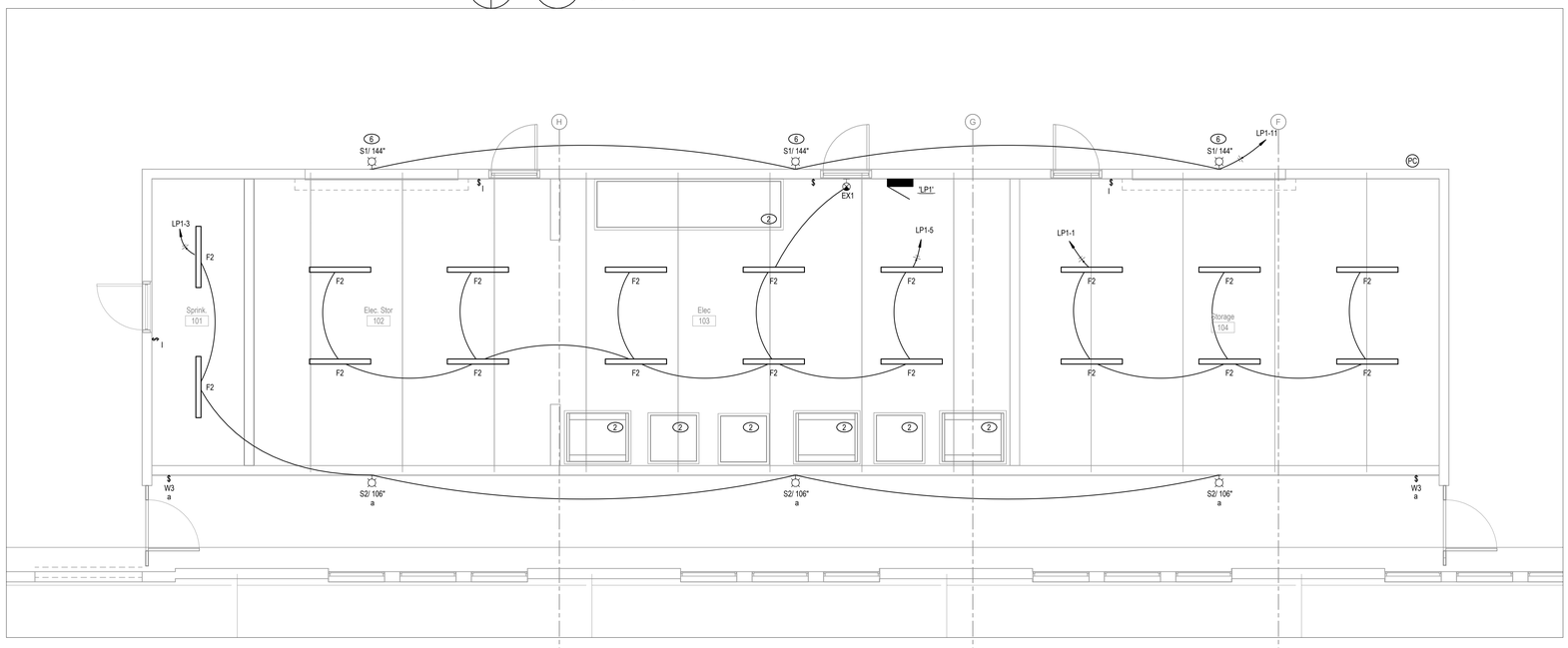
2 FIRST FLOOR-ELECTRICAL PLAN-CATTLE BARN

1/4" = 1'-0"



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1 FIRST FLOOR-LIGHTING & CONTROLS CEILING PLAN-CATTLE BARN

1/4" = 1'-0"

K/O ARCHITECTS

www.k-o.com

KEFFER/OVERTON ASSOCIATES INC.
650 SOUTH PRAIRIE VIEW DRIVE
STUDIO 103
WEST DES MOINES, IOWA 50266
Phone: (515) 288-4821

No.	Date	Description
1	07.25.2025	ADDENDUM #1

ISF SWINE BARN UPDATES - PHASE 1

ELECTRICAL CATTLE BARN UPDATES

Project Number:	250401.00
Date:	07/14/2025

E103

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

KED bluestone
5518 NW 88th Street
Johnston, IA 50131
515-727-0700
www.KEDbluestone.com

MINIMUM BRANCH CIRCUIT FEEDER SIZE (RHW, THHW, THW, THWN, XHHW, XHWN, USE, ZE) BASED ON NEC 2020 AT 75°C			
BREAKER SIZE	PHASE/NEUTRAL	GRD	CONDUIT
20A	#12	#12	3/4"
25A	#10	#10	3/4"
30A	#10	#10	3/4"
35A	#8	#10	1"
40A	#8	#10	1"
50A	#6	#10	1"
60A	#4	#10	1-1/4"
70A	#4	#8	1-1/4"
80A	#3	#8	1-1/2"
100A	#1	#8	2"

LUMINAIRE SCHEDULE

TYPE	DESCRIPTION	MANUFACTURER/MODEL	FINISHES	LIGHT SOURCE	MOUNTING	DELIVERED LUMENS	CRI	CCT	DIMMING	DISTRIBUTION	WATTS	VOLTAGE	EMERGENCY BACK-UP
EM1	INDOOR LED EMERGENCY LIGHTING UNIT, TWO ADJUSTABLE HEADS, SELF-TEST/SELF-DIAGNOSTICS, THERMOPLASTIC HOUSING	DUAL-LITE EV ISOLITE RL2LED	WHITE	LED	SURFACE	N/A	N/A	0 K	NA	NA	3 W	120 V	BATTERY
EX1	EXIT SIGN, SINGLE SIDED, THERMOPLASTIC HOUSING, SELF-TESTING/SELF-DIAGNOSTICS, UNIVERSAL MOUNTING	DUAL-LITE EVE ISOLITE RL	WHITE	LED	CEILING	N/A	N/A	0 K	NA	NA	5 W	120 V	BATTERY
F1	2'X2' RECESSED LED FLAT PANEL, BACK LIT	COLUMBIA CBT METALUX CGTS	WHITE	LED	RECESSED	4200	80	4000 K	0-10V	GENERAL	32 W	120 V	
F2	4' STRIP, ACRYLIC DROP LENS	COLUMBIA MPS4 LITHONIA CSS METALUX SLSTP	WHITE	LED	SURFACE	4800	80	4000 K	0-10V	GENERAL	38 W	120 V	
F2A	SAME AS F2, 2' LENGTH	COLUMBIA MPS2 LITHONIA CSS METALUX SLSTP	WHITE	LED	SURFACE	4800	80	4000 K	0-10V	GENERAL	38 W	120 V	
F3	30" LINEAR WALL MOUNTED THREE SIDED FIXTURE, SQUARE FIXTURE, CENTERED ON SINK, EXTRUDED ALUMINUM WITH DIE CAST END CAPS AND JOINERS, SATIN ACRYLIC LENS, MOUNT AT 90° AFF	AXIS LIGHTING AIR LED LUMENWERX QUAWW	WHITE	LED	WALL	500 PER FOOT	80	4000 K	0-10V	WIDE	15 W	120 V	
F3A	SAME AS F3, 200" LENGTH	AXIS LIGHTING AIR LED LUMENWERX QUAWW	WHITE	LED	WALL	500 PER FOOT	80	4000 K	0-10V	WIDE	100 W	120 V	
F3B	SAME AS F3, 12'-6" LENGTH	AXIS LIGHTING AIR LED LUMENWERX QUAWW	WHITE	LED	WALL	500 PER FOOT	80	4000 K	0-10V	WIDE	70 W	120 V	
F3C	84" LINEAR WALL MOUNTED THREE SIDED FIXTURE, SQUARE FIXTURE, CENTERED ON SINK, EXTRUDED ALUMINUM WITH DIE CAST END CAPS AND JOINERS, SATIN ACRYLIC LENS.	AXIS LIGHTING AIR LED LUMENWERX QUAWW	WHITE	LED	WALL	500 PER FOOT	80	4000 K	0-10V	WIDE	40 W	120 V	
F4	6" APERTURE SUSPENDED ARCHITECTURAL LINEAR, DIRECT LIGHTING DISTRUBUTION, FROSTED WHITE SNAP-IN FLUSH ACRYLIC LENS, LENGTH AND SHAPE PER PLANS	AXIS LIGHTING AIR LED LUMENWERX QUAWP	WHITE	LED	SUSPENDED	500 PER FOOT	80	4000 K	0-10V	WIDE	125 W	120 V	
F5	6" SURFACE MOUNTED LED DOWNLIGHT, WHITE, ALUMINUM HOUSING TRIM RING, CAPABLE OF MOUNTING IN A STANDARD 4" SQUARE JUNCTION BOX, WET LOCATION RATED	PRESCOLITE LBSD-RD HALO SMXBRL	WHITE	LED	CEILING	1000	80	4000 K	0-10V	WIDE	12 W	120 V	
S1	EXTERIOR RATED LED WALL MOUNTED LIGHT	LITHONIA OLWP ILP OWS HALO EWP	DARK BRONZE	LED	WALL	1600	80	4000 K	N/A	GENERAL	19 W	120 V	
S2	SAME AS F5, MOUNTED ON THE WALL	PRESCOLITE LBSD-RD HALO SMX6	WHITE	LED	WALL	1000	80	4000 K	N/A	WIDE	12 W	120 V	

PHOTOCELL SCHEDULE

SUBSCRIPT	DESCRIPTION	MODEL
PC	ANALOG EXTERIOR PHOTOCELL WITH ASSOCIATED LIGHTING CONTROL SYSTEM INTERFACE, SUN HOOD, WALL MOUNT	WATT STOPPER LMPO-200 W/ LMIO-301 ACUITY NLIGHT

CEILING MOUNTED OCCUPANCY SENSOR SCHEDULE

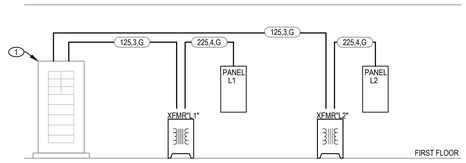
SUBSCRIPT	DESCRIPTION	MODEL
D1	OCCUPANCY SENSOR, DUAL TECHNOLOGY, LOW VOLTAGE, CEILING MOUNT, 360 DEGREE COVERAGE, UP TO 1000 SF COVERAGE	WATTSTOPPER DT-305 SENSOR SWITCH HUBBELL COOPER

SWITCH SUBSCRIPT SCHEDULE

SUBSCRIPT	DESCRIPTION	MODEL
	SINGLE POLE SWITCH, COMMERCIAL GRADE, 20 AMP	COOPER HUBBELL LEVITON PASS & SEYMOUR
3	SINGLE POLE THREE WAY SWITCH, COMMERCIAL GRADE, 20 AMP	COOPER HUBBELL LEVITON PASS & SEYMOUR
DL	DIMMER, LOW VOLTAGE 0-10 VOLT, COMMERCIAL GRADE, 20 AMP	WATTSTOPPER RH4FBL3PTC COOPER HUBBELL LEVITON PASS & SEYMOUR
DL3	DIMMER THREE WAY, 0-10 VOLT, COMMERCIAL GRADE, 20 AMP	LUTRON DIVA COOPER DEVINE
I	OCCUPANCY SENSOR WALL SWITCH, PASSIVE INFRARED, 180 DEGREE COVERAGE, 120/277V	WATTSTOPPER PW-100 SENSOR SWITCH WSD HUBBELL LHIRS1 COOPER
ID	OCCUPANCY SENSOR WALL SWITCH, DUAL TECHNOLOGY, 180 DEGREE COVERAGE, 120/277V	WATTSTOPPER DW-100 SENSOR SWITCH WSD-PDT HUBBELL LHMTS1 COOPER
W3	SINGLE POLE THREE WAY SWITCH, WEATHER PROOF COVER, COMMERCIAL GRADE, 20 AMP	COOPER HUBBELL LEVITON PASS & SEYMOUR

NEMA 5-20R RECEPTACLE SUBSCRIPT SCHEDULE

SUBSCRIPT	DESCRIPTION	MODEL
W	DUPLEX GROUND FAULT TAMPER RESISTANT RECEPTACLE, SPECIFICATION GRADE WITH DIE-CAST WEATHERPROOF COVER (WHILE IN USE), NEMA 5-20R	HUBBELL GFRS352ST/WP26E LEVITON PASS & SEYMOUR COOPER
NO SUBSCRIPT	DUPLEX RECEPTACLE, HEAVY DUTY SPECIFICATION GRADE, NEMA 5-20R	HUBBELL (2) HBL5362 LEVITON PASS & SEYMOUR COOPER
G	DUPLEX GROUND FAULT TAMPER RESISTANT RECEPTACLE, SPECIFICATION GRADE, NEMA 5-20R	HUBBELL GFRS352ST LEVITON PASS & SEYMOUR COOPER



PANEL FEEDER SCHEDULE - COPPER

CALL OUT	OCPD RATING	PARALLEL SETS	PHASE	NEUTRAL	GRD	CONDUIT
125,4,G	125	1	#1	#1	#6	1-1/2"
225,4,G	225	1	#4/0	#4/0	#4	2-1/2"

PANEL FEEDER SCHEDULE - ALUMINUM

CALL OUT	OCPD RATING	PARALLEL SETS	PHASE	NEUTRAL	GRD	CONDUIT
125,4,G	125	1	#2/0	#2/0	#4	2"
225,4,G	225	1	300KCM	300KCM	#2	3"

3 ELECTRICAL RISER DIAGRAM
N.T.S.

KEYNOTES:

1. PROVIDE TWO 3P 125A BREAKERS

GENERAL ELECTRICAL SCHEDULE

SYMBOL	DESCRIPTION	MANUFACTURER
	CONNECTION TO MECHANICAL EQUIPMENT	MOTOR/EQUIPMENT FURNISHED AND INSTALLED BY M.C.
PANEL 'L1', 'L2'	BRANCH CIRCUIT PANELBOARD, 208/120V, 3-PHASE, 4-WIRE, NEMA 1 HOUSING, REFER TO PANEL SCHEDULES FOR DETAILS	SQUARE D NQ SIEMENS CUTLER-HAMMER GENERAL ELECTRIC
T-L1, T-L2	DRY-TYPE TRANSFORMER, DOE 2016 COMPLIANT, 75 KVA, 480V PRIMARY, 208/120V SECONDARY, 6 TAPS (2+, 4-), ALUMINUM WINDINGS, 150 DEGREE C TEMP RISE, MOUNT ABOVE THE STRUCTURE BELOW THE ROOF	SQUARE D 7400 EE300T3H HAMMOND POWER SOLUTIONS GE SIEMENS CUTLER-HAMMER
SPD-X	SURGE PROTECTION DEVICE, EXTERNALLY MOUNTED, NON-MODULAR BRICK, 240/120V, 1-PHASE, 3-WIRE + GRD SERVICE, 160 KAIC SURGE CURRENT RATING PER PHASE, 200K SCCR, SUITABLE FOR SERVICE ENTRANCE DOWNSTREAM OF SERVICE DISCONNECT, UL 1449 TYPE 2, ANSI/IEEE C62.41 CATEGORY C	SQUARE D EBA SERIES SIEMENS CUTLER-HAMMER GENERAL ELECTRIC
DS-XXX A/B/C	DISCONNECT SWITCH, HEAVY DUTY, SIZE INDICATED ON PLANS (A/B/C) WHERE A = RATING IN AMPS, B = NUMBER OF POLES, C = NEMA RATING (E.G. 1 = NEMA 1), XXX = NAME OF LOAD SERVED	SQUARE D CLASS 3110 SIEMENS CUTLER-HAMMER GENERAL ELECTRIC
RV	RV POWER CONNECTION CABINET, WALL MOUNTED MOUNTED NEMA 3R ENCLOSURE, UNMETERED, 100A 120/240V RATED, 10000AIC, SINGLE PHASE. PROVIDE 50A, 30A, AND 20A BREAKERS TO CORRESPONDING 14-50R, TT30R, AND 5-20R GFI RECEPTACLES	MIDWEST U075GTL MILBANK U5000-XL-75

BRANCH PANELBOARD: L1

LOCATION:
MOUNTING: SURFACE
ENCLOSURE: NEMA 1
FED FROM:
VOLTAGE: 208/120 Wye
PHASE: 3
WIRE: 4
LUGS:
MAIN DEVICE: 225 MCB
BUS RATING: 225
NEUTRAL RATING: 100.00%
A.I.C. RATING: 10000

CKT #	CKT BKR A / P	NOTES	CIRCUIT DESCRIPTION	A		B		C		CIRCUIT DESCRIPTION	NOTES	CKT BKR P / A	CKT #
1	25 A	2	ACCU-3	1.9	0.7					RECEPTACLE		1 20 A	2
3						1.9	0.4			RECEPTACLE		1 20 A	4
5								1.9	1.5	LIGHTING		1 20 A	6
7	25 A	2	ACCU-4	1.9	0.5					CP-3		1 20 A	8
9	20 A	1	RECEPTACLE			0.4	1.4			HAND DRYER		1 20 A	10
11	20 A	1	CUH-3 UTILITY					1.5	1.4	HAND DRYER		1 20 A	12
13	20 A	1	RECEPTACLE	0.5	3					WH-3		2 40 A	14
15	20 A	1	HAND DRYER			1.4	3						16
17	20 A	1	RECEPTACLE					0.5	0.5	OVERHEAD DOOR		1 20 A	18
19	20 A	1	HAND DRYER	1.4	0					SPARE		1 20 A	20
21	20 A	1	HAND DRYER			1.4	0			SPARE		1 20 A	22
23	20 A	1	HAND DRYER					1.4	0	SPARE		1 20 A	24
25	20 A	1	SPARE	0	0					SPARE		1 20 A	26
27	20 A	1	SPARE			0	0			SPARE		1 20 A	28
29	20 A	1	SPARE					0	0	SPARE		1 20 A	30
31	20 A	1	SPARE	0	0					SPARE		1 20 A	32
33	20 A	1	SPARE			0	0			SPARE		1 20 A	34
35	20 A	1	SPARE					0	0	SPARE		1 20 A	36
37	20 A	1	SPARE	0	0					SPARE		1 20 A	38
39	20 A	1	SPARE			0	0			SPARE		1 20 A	40
41	20 A	1	SPARE					0	0	SPARE		1 20 A	42
43	20 A	1	SPARE	0	0					SPARE		1 20 A	44
45	20 A	1	SPARE			0	0			SPARE		1 20 A	46
47	20 A	1	SPARE					0	0	SPARE		1 20 A	48
49	20 A	1	SPARE	0	0					SPARE		1 20 A	50
51	20 A	1	SPARE			0	0			SPARE		1 20 A	52
53	20 A	1	SPARE					0	0	SPARE		1 20 A	54
55	20 A	1	SPARE	0	0					SPARE		1 20 A	56
57	20 A	1	SPARE			0	0			SPARE		1 20 A	58
59	20 A	1	SPARE					0	0	SPARE		1 20 A	60
			TOTAL CONNECTED KVA BY PHASE	10 kVA		9.8 kVA		8.7 kVA					
			TOTAL CONNECTED AMPS BY PHASE	84.3 A		83 A		72.7 A					

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	CALCULATED LOAD	PANELBOARD TOTALS	
HVAC	17340 VA	100.00%	17340 VA		
Lighting	331 VA	100.00%	331 VA	TOTAL CONNECTED KVA	28.5 kVA
Receptacle	2520 VA	100.00%	2520 VA	TOTAL CALCULATED KVA	28.5 kVA
Lighting - Interior	280 VA	125.00%	350 VA		
HEAT	8000 VA	100.00%	8000 VA	TOTAL CONNECTED AMPS	79 A
				TOTAL CALCULATED AMPS	79.2 A

NOTES:

BRANCH PANELBOARD: L2

LOCATION:
MOUNTING: SURFACE
ENCLOSURE: NEMA 1
FED FROM:
VOLTAGE: 208/120 Wye
PHASE: 3
WIRE: 4
LUGS:
MAIN DEVICE: 225 MCB
BUS RATING: 225
NEUTRAL RATING: 100.00%
A.I.C. RATING: 10000

CKT #	CKT BKR A / P	NOTES	CIRCUIT DESCRIPTION	A		B		C		CIRCUIT DESCRIPTION	NOTES	CKT BKR P / A	CKT #
1	20 A	1	RECEPTACLE	0.9	0.7					EF-1, CP-2		1 20 A	2
3	40 A	2	WH-2			3	1.9			ACCU-2		2 15 A	4
5								3	1.9				6
7	20 A	1	HAND DRYER	1.4	2					CUH-4		2 30 A	8
9	20 A	1	HAND DRYER			1.4	2						10
11	20 A	1	RECEPTACLE					1.1	1	CUH-1		2 20 A	12
13	20 A	1	RECEPTACLE	1.4	1								14
15	20 A	2	CUH-2			1	0.4			EF-3, CP-1		1 20 A	16
17								1	3	WH-1		2 40 A	18
19	15 A	2	ACCU-1	0.8	3								20
21						0.8	0.5			LIGHTING		1 20 A	22
23	20 A	1	LIGHTING					0.6	2	CUH-5 - RESTROOM		2 30 A	24
25	20 A	1	HAND DRYER	1.4	2								26
27	20 A	1	RECEPTACLE			1.4	0			SPARE		1 20 A	28
29	20 A	1	SPARE					0	0	SPARE		1 20 A	30
31	20 A	1	SPARE	0	0					SPARE		1 20 A	32
33	20 A	1	SPARE			0	0			SPARE		1 20 A	34
35	20 A	1	SPARE					0	0	SPARE		1 20 A	36
37	20 A	1	SPARE	0	0					SPARE		1 20 A	38
39	20 A	1	SPARE			0	0			SPARE		1 20 A	40
41	20 A	1	SPARE					0	0	SPARE		1 20 A	42
43	20 A	1	SPARE	0	0					SPARE		1 20 A	44
45	20 A	1	SPARE			0	0			SPARE		1 20 A	46
47	20 A	1	SPARE					0	0	SPARE		1 20 A	48
49	20 A	1	SPARE	0	0					SPARE		1 20 A	50
51	20 A	1	SPARE			0	0			SPARE		1 20 A	52
53	20 A	1	SPARE					0	0	SPARE		1 20 A	54
55	20 A	1	SPARE	0	0					SPARE		1 20 A	56
57	20 A	1	SPARE			0	0			SPARE		1 20 A	58
59	20 A	1	SPARE					0	0	SPARE		1 20 A	60
			TOTAL CONNECTED KVA BY PHASE	14.6 kVA		12.3 kVA		13.5 kVA					
			TOTAL CONNECTED AMPS BY PHASE	123.3 A		102.5 A		114.1 A					

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	CALCULATED LOAD	PANELBOARD TOTALS	
HVAC	26890 VA	100.00%	26890 VA		
Lighting	581 VA	100.00%	581 VA	TOTAL CONNECTED KVA	40.4 kVA
Receptacle	4860 VA	100.00%	4860 VA	TOTAL CALCULATED KVA	40.4 kVA
Lighting - Interior	85 VA	125.00%	106 VA		
Heating	8000 VA	100.00%	8000 VA	TOTAL CONNECTED AMPS	112.2 A
				TOTAL CALCULATED AMPS	112.2 A

NOTES:

BRANCH PANELBOARD: LP1

LOCATION: Elec 103
MOUNTING: SURFACE
ENCLOSURE: NEMA 1
FED FROM:
VOLTAGE: 208/120 Wye
PHASE: 3
WIRE: 4
LUGS:
MAIN DEVICE: 225 MCB
BUS RATING: 225
NEUTRAL RATING: 100.00%
A.I.C. RATING: 10000

CKT #	CKT BKR A / P	NOTES	CIRCUIT DESCRIPTION	KVA LOAD 'PHASE A'		KVA LOAD 'PHASE B'		KVA LOAD 'PHASE C'		CIRCUIT DESCRIPTION	NOTES	CKT BKR P / A	CKT #
1	20 A	1	RCPT, LIGHT STORAGE 104	1.3	0.4					RCPT ELEC 103		1 20 A	2
3	20 A	1	RCPT, LIGHT SPRINK 101			0.8	0			RV PEDESTAL		2 100 A	4
5	20 A	1	RCPT, LIGHT ELEC STOR 102					0.9	0				6
7	20 A	1	OVERHEAD DOOR	0.8	0					SPARE		1 20 A	8
9	20 A	1	OVERHEAD DOOR			0.8	0			SPARE		1 20 A	10
11	20 A	1	LIGHTING - EXTERIOR					0.1	0	SPARE		1 20 A	12
13	20 A	1	SPARE	0	0					SPARE		1 20 A	14
15	20 A	1	SPARE			0	0			SPARE		1 20 A	16
17	20 A	1	SPARE					0	0	SPARE		1 20 A	18
19	20 A	1	SPARE	0	0					SPARE		1 20 A	20
21	20 A	1	SPARE			0	0			SPARE		1 20 A	22
23	20 A	1	SPARE					0	0	SPARE		1 20 A	24
25	20 A	1	SPARE	0	0					SPARE		1 20 A	26
27	20 A	1	SPARE			0	0			SPARE		1 20 A	28
29	20 A	1	SPARE					0	0	SPARE		1 20 A	30
31	20 A	1	SPARE	0	0					SPARE		1 20 A	32
33	20 A	1	SPARE			0	0			SPARE		1 20 A	34
35	20 A	1	SPARE					0	0	SPARE		1 20 A	36
37	20 A	1	SPARE	0	0					SPARE		1 20 A	38
39	20 A	1	SPARE			0	0			SPARE		1 20 A	40
41	20 A	1	SPARE					0	0	SPARE		1 20 A	42
			TOTAL CONNECTED KVA BY PHASE	2.4 kVA		1.6 kVA		1 kVA					
			TOTAL CONNECTED AMPS BY PHASE	20.9 A		14 A		8.1 A					

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	CALCULATED LOAD	PANELBOARD TOTALS	
HVAC	1500 VA	100.00%	1500 VA		
Lighting	684 VA	100.00%	684 VA	TOTAL CONNECTED KVA	5 kVA
Receptacle	2700 VA	100.00%	2700 VA	TOTAL CALCULATED KVA	5 kVA
Lighting - Interior	93 VA	125.00%	116 VA		
				TOTAL CONNECTED AMPS	13.8 A
				TOTAL CALCULATED AMPS	13.9 A

NOTES:

K/O ARCHITECTS
www.k-o.com

KEFFER/OVERTON ASSOCIATES INC.
650 SOUTH PRAIRIE VIEW DRIVE
STUDIO 103
WEST DES MOINES, IOWA 50266
Phone: (515) 288-4821

No.	Date	Description
1	07.25.2025	ADDENDUM #1

ISF SWINE BARN UPDATES - PHASE 1

ELECTRICAL SCHEDULES

Project Number: 250401.00
Date: 07/14/2025

E600

SCALE: As indicated

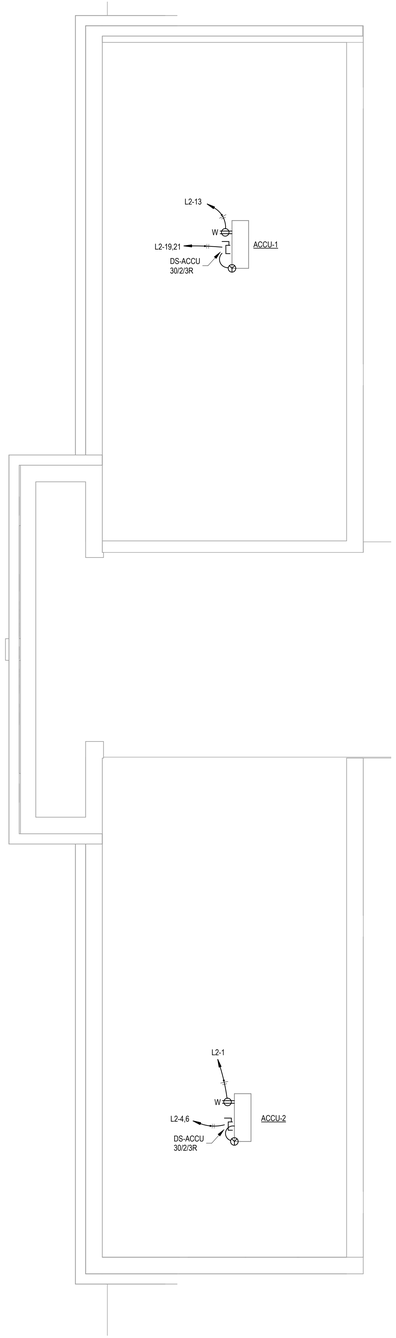
KED bluestone
5518 NW 86th Street
Johnston, IA 50131
515-727-0700
www.KEDbluestone.com

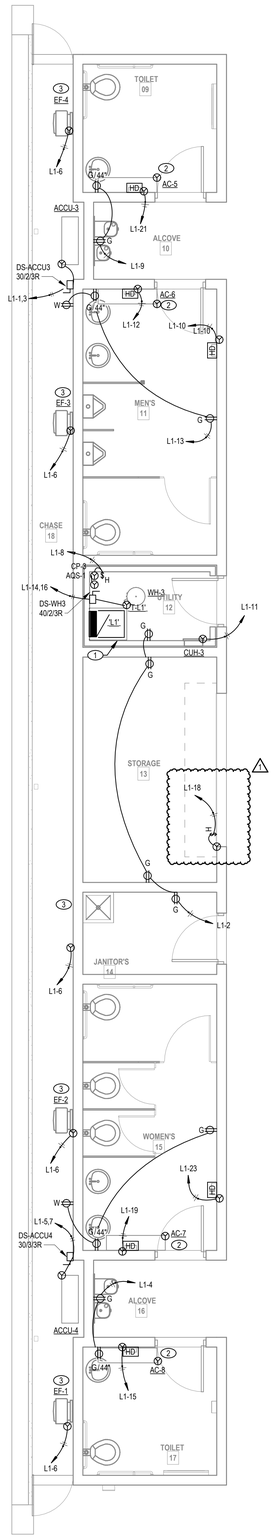
GENERAL NOTES:

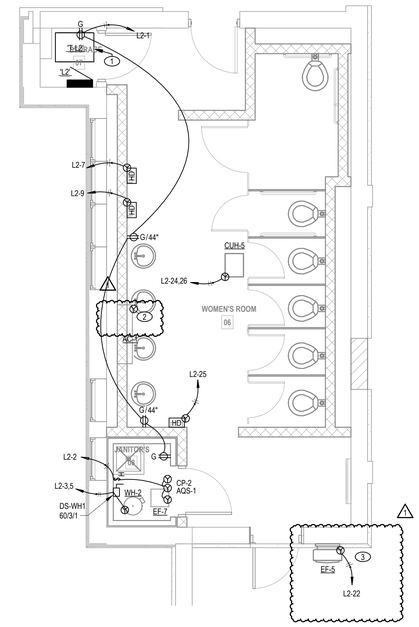
1. ELECTRICAL CONTRACTOR SHALL SUBMIT CONDUIT ROUTING PLAN TO OWNER/ENGINEER FOR APPROVAL.

KEYED NOTES:

1. MOUNT TRANSFORMER BELOW THE CEILING.
2. INDOOR UNIT TO BE POWERED FROM THE OUTDOOR UNIT. WIRING BY E.C.
3. EXHAUST FAN CONNECTED AND CONTROLLED ALONG WITH LIGHT FIXTURES WITHIN THE ROOM.
4. REINSTALL TECHNOLOGY EQUIPMENT. COORDINATE LOCATION AND DATA ROUGH-INS WITH OWNER







N

3 ENLARGED POWER PLAN - OFFICE/WOMENS GROUP A

1/4" = 1'-0"

N

1 ENLARGED POWER PLAN - RESTROOM GROUP D

1/4" = 1'-0"

N

2 ENLARGED POWER PLAN - OFFICE/WOMENS GROUP A

1/4" = 1'-0"

K/O ARCHITECTS

www.k-o.com

KEFFER/OVERTON ASSOCIATES INC.
650 SOUTH PRAIRIE VIEW DRIVE
STUDIO 103
WEST DES MOINES, IOWA 50266
Phone: (515) 288-4821

No.	Date	Description
1	07.25.2025	ADDENDUM #1

ISF SWINE BARN UPDATES - PHASE 1

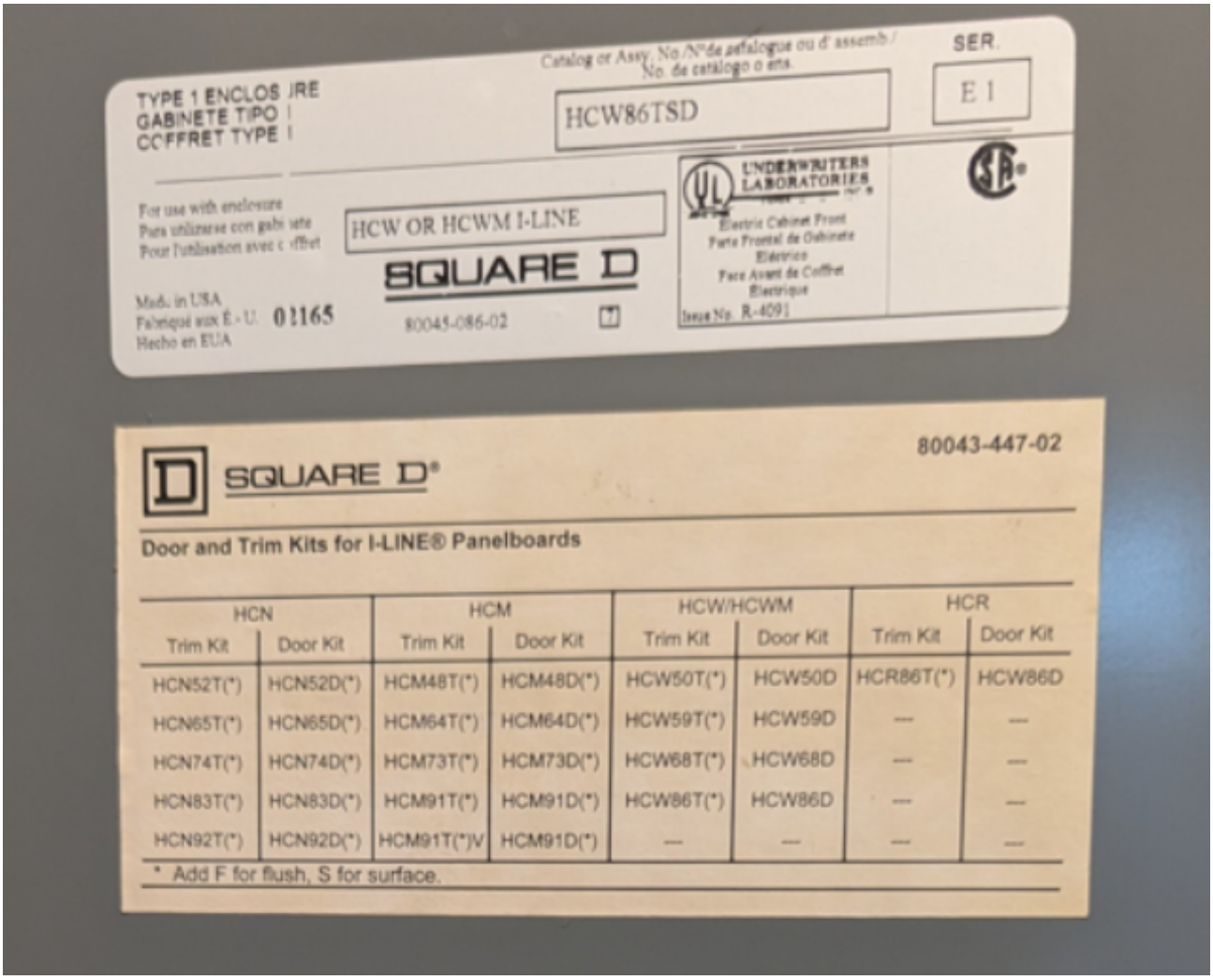
ELECTRICAL ENLARGED POWER PLANS

Project Number: 250401.00
Date: 07/14/2025

EP101-1

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

KED bluestone
5018 NW 86th Street
Johnston, IA 50131
515-727-0700
www.KEDbluestone.com



Attachment E-1
250401.00 - ISF
Swine-Cattle
Barn Updates - Phase 1
07/25/2025