CITY PLAN COMMISSION AGENDA

January 27, 2026 at 4:00 PM

City Hall, 3rd Floor - Council Chambers, 828 Center Avenue, Sheboygan, WI

Persons with disabilities who need accommodations to attend this meeting should contact the Department of City Development, (920) 459-3377. Persons other than commission, committee, and board members who wish to participate remotely shall provide notice to the City Development Department at 920-459-3377 at least 24 hours before the meeting so that the person may be provided a remote link for that purpose.

OPENING OF MEETING

1. Roll Call
2. Pledge of Allegiance
3. Identify Potential Conflict(s) of Interest

MINUTES

4. Approval of the Plan Commission minutes from January 13, 2026.

ITEMS FOR DISCUSSION AND POSSIBLE ACTION

5. Application for Special Use Permit by Vollrath Co., LLC to construct a 110,000 square-foot manufacturing addition located at 1236 N 18th Street.
6. Architectural Review of a new 110,000-square-foot manufacturing facility located at 1236 N 18th Street.

TENTATIVE DATE OF NEXT REGULAR MEETING

7. Next scheduled meeting: February 10, 2026 at 4:00 PM

ADJOURN

8. Motion to Adjourn

In compliance with Wisconsin's Open Meetings Law, this agenda was posted in the following locations more than 24 hours prior to the time of the meeting:

City Hall • Mead Public Library
Sheboygan County Administration Building • City's website

CITY OF SHEBOYGAN

CITY PLAN COMMISSION MINUTES

Tuesday, January 13, 2026

MEMBERS PRESENT: Mayor Ryan Sorenson, Braden Schmidt, Jerry Jones, Kevin Jump, Kimberly Meller, Joe Clarke and Alderperson Michael Close
STAFF/OFFICIALS PRESENT: Director of Planning and Development Taylor Zeinert, Planner Jeffrey Witte and Administrative Coordinator Linnae Wierus

OPENING OF MEETING

1. Roll Call

   Mayor Ryan Sorenson called the meeting to order.

2. Pledge of Allegiance

   The Pledge of Allegiance is recited.

3. Identify potential conflict of interest

   No conflict identified.

MINUTES

4. Approval of the Plan Commission minutes from December 23, 2025.

   MOTION TO APPROVE THE MINUTES OF THE PREVIOUS MEETING HELD ON DECEMBER 9, 2025.
   Motion made by Braden Schmidt, seconded by Jerry Jones
   Voting yea: Mayor Ryan Sorenson, Braden Schmidt, Jerry Jones, Kevin Jump, Kimberly Meller, Joe Clarke and Alderperson Michael Close

   Motion carried.

PUBLIC HEARINGS

5. Public hearing regarding application for Conditional Use Permit by Dollar Loan Center to install a window sign located at 2315 S Business Drive.

   No public comment.

   MOTION TO CLOSE THE PUBLIC HEARING.
   Motion made by Jerry Jones, seconded by Braden Schmidt
   Voting yea: Mayor Ryan Sorenson, Braden Schmidt, Jerry Jones, Kevin Jump, Kimberly Meller, Joe Clarke and Alderperson Michael Close

   Motion carried.

6. Public hearing regarding application for Conditional Use Permit with exceptions by Marshall Sign to install a new electronic message center reader board located at 814 Superior Avenue.

   No public comment.

MOTION TO CLOSE THE PUBLIC HEARING.
Motion made by Jerry Jones, seconded by Kimberly Meller
Voting yea: Mayor Ryan Sorenson, Braden Schmidt, Jerry Jones, Kevin Jump, Kimberly Meller, Joe Clarke and Alderperson Michael Close

Motion carried.

7. Public hearing regarding application for Conditional Use Permit with exceptions by St Clements Congregation to split parcel # 59281111390 to facilitate the sale of the northern 1- acre parcel to Sheboygan County.

No public comment.

MOTION TO CLOSE THE PUBLIC HEARING.
Motion made by Jerry Jones, seconded by Joe Clarke
Voting yea: Mayor Ryan Sorenson, Braden Schmidt, Jerry Jones, Kevin Jump, Kimberly Meller, Joe Clarke and Alderperson Michael Close

Motion carried.

ITEMS FOR DISCUSSION AND POSSIBLE ACTION

8. Architectural Review of exterior remodel of 1121 North 7th Street.

MOTION TO TABLE
Motion made by Joe Clarke, seconded by Jerry Jones
Voting yea: Mayor Ryan Sorenson, Braden Schmidt, Jerry Jones, Kevin Jump, Kimberly Meller, Joe Clarke and Alderperson Michael Close

Motion carried.

9. Application for Conditional Use Permit by Dollar Loan Center to install a window sign located at 2315 S Business Drive.

MOTION TO DENY.
Motion made by Joe Clarke, seconded by Kevin Jump
Voting yea: Mayor Ryan Sorenson, Braden Schmidt, Jerry Jones, Kevin Jump, Kimberly Meller, Joe Clarke and Alderperson Michael Close

Motion carried.

MOTION TO RESCIND PREVIOUS MOTION AND TO TABLE.
Motion made by Joe Clarke, seconded by Kevin Jump
Voting yea: Mayor Ryan Sorenson, Braden Schmidt, Jerry Jones, Kevin Jump, Kimberly Meller, Joe Clarke and Alderperson Michael Close

Motion carried.

10. Application for Conditional Use Permit with exceptions by Marshall Sign to install a new electronic message center reader board located at 814 Superior Avenue.

MOTION TO APPROVE WITH CONDITIONS.

Motion made by Joe Clarke, seconded by Jerry Jones
Voting yea: Mayor Ryan Sorenson, Braden Schmidt, Jerry Jones, Kevin Jump, Kimberly Meller, Joe Clarke and Alderperson Michael Close

1. Applicant shall obtain the necessary sign permits prior to installation.
2. All new lighting shall be installed per Section 105-932 of the City of Sheboygan Zoning Ordinance. There shall be no spillover light onto adjacent properties or the streets.
3. Applicant shall meet Sections 105-969(a) (1) and (3) of the City of Sheboygan Zoning Ordinance relating to signage and pedestrian/traffic safety and sign timing/cycles. No signs containing flashing, intermittent or moving sections or intermittent or flashing lights shall be permitted.
4. Sign messages and/or location shall not create any pedestrian/vehicular conflicts.
5. If there are any amendments to the approved sign or location, the applicant will be required to submit a new conditional use application reflecting those amendments.

Motion carried.

11. Application for Conditional Use with exceptions by St Clements Congregation to split Parcel # 59281111390 to facilitate the sale of the northern 1-acre parcel to Sheboygan County.

MOTION TO APPROVE WITH CONDITIONS.
Motion made by Jerry Jones, seconded by Braden Schmidt
Voting yea: Mayor Ryan Sorenson, Braden Schmidt, Jerry Jones, Kevin Jump, Kimberly Meller, Joe Clarke and Alderperson Michael Close

1. Prior to operation/occupancy, the applicant shall obtain all licenses, and occupancy permits as well as meet all required codes including but not limited to building, plumbing, electrical, HVAC, fire, health, food, alcohol, etc. An occupancy permit will be granted only at such time as the applicant has met all requirements.
2. If using dumpsters, dumpster(s) shall be screened/enclosed and constructed of like materials and colors of the facility.
3. Outdoor storage of materials, products or equipment shall be prohibited.
4. All new lighting shall be installed per Section 105-932 of the City of Sheboygan Zoning Ordinance. There shall be no spillover light onto adjacent properties or the streets.
5. Absolutely no portion of the new building and/or site improvements shall cross the property lines including but not limited to buildings, balconies, decks, foundations, walls, gutters, eaves, roof, parking, fencing/retaining walls, signs, landscaping, etc.
6. If there are to be any exterior renovations to the facility, the applicant will be required to obtain Architectural Review approval prior to receiving a building permit for such renovation. The colors and materials are to complement/match the existing building.
7. lf applicant leases space to additional tenants, the tenants shall obtain all necessary land use and building approvals/permits prior to occupancy (future uses and/or phases may require conditional use permits, building/mechanical permits, occupancy permits, etc.).
8. If there are any amendments to the approved use and/or site plan, the applicant will be required to submit a new site plan and/or conditional use application reflecting those amendments.

Motion carried.

TENTATIVE DATE OF NEXT REGULAR MEETING

12. January 27, 2026

ADJOURN

13. Motion to Adjourn

MOTION TO ADJOURN THE MEETING.
Motion made by Braden Schmidt, seconded by Kimberly Meller
Voting yea: Mayor Ryan Sorenson, Braden Schmidt, Jerry Jones, Kevin Jump, Kimberly Meller, Joe Clarke and Alderperson Michael Close

Motion carried.

Meeting adjourned at 4:13 pm.

CITY OF SHEBOYGAN

REQUEST FOR CITY PLAN COMMISSION CONSIDERATION

ITEM DESCRIPTION: Application for Special Use Permit by Vollrath Co., LLC to construct a 110,000 square-foot manufacturing addition located at 1236 N 18th Street.

REPORT PREPARED BY: Jeffrey Witte, Planner

REPORT DATE: January 19, 2026 **MEETING DATE:** January 27, 2026

APPLICANT PROPOSAL:

Vollrath Co., LLC to construct a 110,000 square-foot manufacturing addition located at 1236 N 18th Street. The applicant states the following:

- The project will include construction of a new 110,000-square-foot state-of-the-art manufacturing facility at the company's corporate campus at 1236 N. 18th Street and represents one of the largest capital investments in Vollrath's 150-year history.
- This being Phase I of a multi-year, phased development will streamline production flows, increase operational efficiency, and incorporate modern production technologies, positioning Vollrath for continued growth in the competitive foodservice equipment market. The new facility will deepen Vollrath's metal-forming expertise that has long been a hallmark of the company's Sheboygan operations.
- The existing building(s) that currently support Vollrath's Production-Manufacturing have been demolished.

STAFF ANALYSIS:

The use is permitted as special use under the Suburban Industrial (SI) zoning district as a manufacturing facility.

ACTION REQUESTED:

Staff recommends approval of the site plan subject to the following conditions:

1. Prior to building permit issuance, the applicant shall obtain all licenses/permits as well as meet all required codes including but not limited to building, plumbing, electrical, HVAC, fire, water, sewer, storm drainage, health, State of Wisconsin, etc. An occupancy permit shall be granted only at such time as the applicant has met all requirements.

2. If dumpsters are used, dumpster(s) shall be screened/enclosed and constructed of like materials and colors of the facility. Applicant will provide plans that show the location of any dumpsters and will provide plans that show how the dumpster is to be screened and enclosed (design, materials, colors, location, etc.).
3. Outdoor storage of materials or equipment shall be prohibited.
4. All lighting shall be installed per Section 105-932 of the City of Sheboygan Zoning Ordinance. There shall be no spillover light onto adjacent properties or the streets.
5. Applicant shall work with staff with regards to appropriate signage. Only at such time as the sign package has been reviewed and approved may the applicant obtain sign permits to install the proposed signage. If staff has any concerns with proposed signage design, the matter may be brought back to the Plan Commission for their consideration.
6. If there are to be any remodel/renovations to the exterior of the facility, the applicant will be required to obtain Architectural Review approval prior to receiving a building permit for such remodel/renovation.
7. If there are any amendments to the approved special use permit and/or site plan, the applicant will be required to submit a new application reflecting those amendments.

ATTACHMENTS:

Special Use Permit application and attachments

City of Sheboygan spirit on the lake	**CITY OF SHEBOYGAN** **SPECIAL USE AND SITE PLAN REVIEW APPLICATION**	**Fee:** $100 **Review Date:**

Read all instructions before completing. If additional space is needed, attach additional pages.

SECTION 1: Applicant/ Permittee Information

Name (Ind., Org. or Entity)	Authorized Representative	Title	
KURT DAVIS - ABACUS	KURT DAVIS	ARCHITECT	
Mailing Address	**City**	**State**	**ZIP Code**
1135A MICHIGAN AVE	SHEBOYGAN	WI	53081
Email Address		**Phone Number (incl. area code)**	
KDAVIS@ABACUSARCH.COM		920-452-4444	

SECTION 2: Landowner Information (complete these fields when project site owner is different than applicant)

Name (Ind., Org. or Entity)	Contact Person	Title	
VOLLRATH CO., LLC	GARY SAUER	FACILITIES DIR.	
Mailing Address	**City**	**State**	**ZIP Code**
1236 N 18th ST.	SHEBOYGAN	WI	53081
Email Address		**Phone Number (incl. area code)**	
GARY.SAUER@VOLLRATHCO.COM		1-920-459-5205	

SECTION 3: Architect Information

Name			
KURT DAVIS			
Mailing Address	**City**	**State**	**Zip**
1135A MICHIGAN AVE	SHEBOYGAN	WI	53081
Email Address		**Phone Number (incl. area code)**	
KDAVIS@ABACUSARCH.COM		920-452-4444	

SECTION 4: Contractor Information

Name			
QUASIUS CONSTRUCTION			
Mailing Address	**City**	**State**	**Zip**
1202A NORTH 8th ST.	SHEBOYGAN	WI	53081
Email Address		**Phone Number (incl. area code)**	
JLILYQUIST@QUASIUS.COM		920-457-5585	

SECTION 5: Certification and Permission

Certification: I hereby certify that I am the owner or authorized representative of the owner of the property which is the subject of this Site Plan Review Application. I certify that the information contained in this form and attachments are true and accurate. I certify that the project will be in compliance with all conditions. I understand that failure to comply with any or all of the provisions of the permit may result in permit revocation and a fine and/or forfeiture under the provisions of applicable laws.

Permission: I hereby give the City permission to enter and inspect the property at reasonable times, to evaluate this notice and application, and to determine compliance with any resulting permit coverage.

Name of Owner/Authorized Representative (please print)	Title	Phone Number
KURT DAVIS	ARCHITECT	920-452-4444
Signature of Applicant		**Date Signed**
		12-29-25

Complete application is to be filed with the Department of City Development, 828 Center Avenue, Suite 208. To be placed on the agenda of the City Plan Commission, application must be filed three weeks prior to date of meeting – check with City Development on application submittal deadline date. Applications will not be processed if all required attachments and filing fee of $100 (payable to the City of Sheboygan) are not submitted along with a complete and legible application. Application filing fee is non-refundable.

SECTION 6: Description of the Subject Site/Proposed Project		
Parcel No.		Zoning Classification
Name of Proposed/Existing Business:	VOLLRATH CO., LLC	
Address of Property Affected:	1236 N 8th ST, SHEBOYGAN, WI 53081	
New Building: ☐	Addition: ☑	Remodeling: ☐

SECTION 7: Brief Description of Type of Structure

SEE ATTACHED

SECTION 8: Description of EXISTING Operation or Use

SEE ATTACHED

SECTION 9: Description of the PROPOSED Operation or Use

SEE ATTACHED

SPECIAL USE AND SITE PLAN USE APPLICATION SUBMITTAL REQUIREMENTS

A. Name of project/development.

B. Summary of general operation and proposed use:

- Description of existing use
- Description of proposed use (indoor, outdoor, etc.), why was this site selected?
- All services, products, etc. to be provided
- Projected number of residents, employees, and/or daily customers
- Proposed number of dwelling units, floor area, landscape area, and parking area expressed in square feet and acreage to the nearest one-hundredth of an acre
- Description of proposed building and all new site improvements (square footage of new and existing structure(s), traffic, ingress/egress, parking, sidewalk, retaining walls, storm drainage, landscaping, lighting, dumpster enclosure, screening of mechanicals, etc.)
- A written description of the proposed general orientation, design, arrangement, texture, material and color of the building or structure and how it is compatible with the development and redevelopment in and around the area
- An explanation of any interior and/or exterior renovations
- Is access appropriate and is their sufficient customers/resident off-street parking?
- Proposed signage
- Project timeline and estimated value of project
- Compatibility of the proposed use and design with adjacent and other properties in the area.
- How will you insure that the business will not become a nuisance to adjacent properties (i.e. parking, noise, smells, hours of operations, etc.
- Other information that would be considered pertinent by the Plan Commission.

C. Submit TWO (2) copies of a property site plan drawing, which includes:

- A certified survey map showing existing property boundaries and improvements
- A map providing the following information:
  - The map and all its parts shall be clearly reproducible with a photocopier at a size of 11" X 17" and map scale not less than 1' = 600' with lot dimensions of the subject property provided and a graphic scale and north arrow
  - All lands for which the conditional use is proposed
  - All other lands within 100 feet of the boundaries of the subject property
  - The current zoning of the subject property and its environs (200 feet)
- A site plan (conforming to the requirements of Section 15.908(3) of the subject property as proposed for development):
  - Submit TWO (2) hardcopies of the site plan and ONE (1) 11" X 17" reduction of the site plan
  - Submit digital plans and drawings of the project by email, flash drive, etc.
  - Title block that provides all contact information for the petitioner and/or owner, if different
  - Full name and contact information of petitioner's engineers/surveyors/architects, or other design professionals used in the plan preparation
  - The date of the original plan and latest date of revision to the plan
  - A north arrow and graphic scale. Said scale is not to be smaller than one inch equals 100 feet
  - All property lines & existing/proposed right-of-way lines with bearings & dimensions clearly labeled

- Existing /proposed easement lines and dimensions with an explanation of ownership and purpose
- All required building setback lines
- Existing and proposed buildings, structures and paved areas, including building entrances, walks, drives, decks, patios, fences, utility poles, drainage facilities and walls
- Location and dimension of all curb cuts and throat widths of all access points onto public streets or alleys
- The location and dimension of all on-site parking including a summary of the number of parking stalls provided versus the requirements of the ordinance
- The location and dimension of all loading and service areas on subject property
- The location of all outdoor storage areas and the design of all screening devices
- Location of all outdoor storage and refuse disposal areas and the design and materials used for construction and operation
- The location, type, height, size and lighting of all signage
- Location, height, design, illumination power and orientation of all exterior lighting on the property including a photometrics plan
- Location of all exterior mechanical equipment and utilities and elevations of proposed screening devices where applicable (i.e. visible from a public street or residential use or district). Mechanical equipment includes, but is not limited to; HVAC equipment, electrical transformers and boxes, exhaust flues, plumbing vents, gas regulators, generator
- Location of all existing and proposed landscape areas, storm water areas, etc.

✓D. Building elevations and perspectives.

NOTE: A Traffic Impact Study (TIA) may be required with large development proposals.

NOTE

Initiation of Land Use or Development Activity
Absolutely no land use or development activity, including site clearing, grubbing, or grading shall occur on the subject property prior to the approval of the site plan by the City Plan Commission. Any such activity prior to such approval shall be a violation of law and shall be subject to all applicable enforcement mechanisms and penalties.

Modification of an Approved Site Plan
Any and all unauthorized variations between development and/or land use activity on the subject property and the approved site plan is a violation of law. An approved site plan may be revised so as to clearly and completely depict any and all proposed modifications to a previously approved site plan by the City Plan Commission. Prior to the initiation of said modifications, the City Plan Commission must approve the revised plan.

Office Use Only

ACTION BY CITY PLAN COMMISSION

DATE OF MEETING: _____

APPROVED: _____ CONDITIONALLY APPROVED: _____ DENIED: _____

CONDITIONS

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

SIGNATURE: _____ DATE: _____

Director or Representative
Department of City Development

NOTES

Permit may be revoked without notice if misrepresentation of any of the above information or attachments is found to exist.

Permit shall expire within six (6) months from date of approval unless substantial work has commenced.

Permit is null and void if issued in error. It is understood that any permit issued on this application will not grant any right or privilege to erect any structure or to use any permits for any purpose that is prohibited by the City Zoning Ordinance or any other state or local laws.

Changes in the plans or specifications submitted in the original application shall not be made without prior written approval of the City Plan Commission.

Check sidewalk grades from City Engineering Department with finished site grade.

APPLICATION SUBMITTAL

STEP 1: Initial Meeting with City Planning Office:

An initial meeting is to ensure that both the applicant and the city staff have a proper understanding of what is being requested and to explain the approvals necessary. An engineered drawing is not required for this meeting, but an accurate sketch and any applicable background information may be needed. Additional meetings can be arranged by calling the Department of City Development.

STEP 2: Official Submission:

A special use permit and site plan application may be filed at the City of Sheboygan Planning and Development office located on the 2nd floor of City Hall or may be submitted electronically via email: Steve.Sokolowski@SheboyganWI.gov

If submitting electronically, please verify application has been accepted and will be placed on the next Plan Commission agenda.

Payment of the application fee must be received prior to the application filing deadline. Payment may be submitted via postal delivery, in person, or by phone using credit card.

Mailing Address: Department of City Development
828 Center Ave. Suite 208
Sheboygan, WI 53081

NOTE: Applications will not be accepted until complete. A complete application includes all items in the respective checklists above. Applications must be complete before they are scheduled for a meeting before the Plan Commission.

PLAN COMMISSION MEETING

Meeting Date: The Plan Commission meets on the 2nd and 4th Tuesdays of the month at 4:00 p.m. in the Council Chambers of City Hall, 828 Center Ave. The project applicant or a representative must attend the Plan Commission meeting to present the request and answer questions regarding the proposal. Public comment will be invited at the Plan Commission meeting.

Project Review: The purpose of a special use permit and site plan is to assure compatibility between land uses. City staff analyzes a proposal and prepares a recommendation for the Plan Commission. The project analysis considers the location of the affected property, surrounding uses, and the operational details of a proposed use.

Plan Commission: The Plan Commission is charged with the authority to approve or deny a special use permit and site plan request. In the event an applicant wishes to contest the decision of the Plan Commission, the applicant may appeal the decision to the Sheboygan County Circuit Court.

Plan Commission meeting agendas and minutes may be viewed on the City's website: www.SheboyganWI.gov

FOR INFORMATION OR ASSISTANCE CONTACT THE ZONING MANAGER: (920) 459-3382

Kurt Davis

Vollrath Co., LLC Building 25 Addition

Description of Proposed Project

The project will include construction of a new 110,000-square-foot state-of-the-art manufacturing facility at the company's corporate campus at 1236 N. 18th Street and represents one of the largest capital investments in Vollrath's 150-year history.

This being Phase I of a multi-year, phased development will streamline production flows, increase operational efficiency, and incorporate modern production technologies, positioning Vollrath for continued growth in the competitive foodservice equipment market. The new facility will deepen Vollrath's metal-forming expertise that has long been a hallmark of the company's Sheboygan operations.

Description of Existing Design and Materials

The existing building(s) that currently support Vollrath's Production- Manufacturing have been demolished.

Description of the Proposed Exterior Design and Materials

Attached to this application are renderings of the new Addition. The Addition will primarily be constructed using Architectural Precast Wall Panels and Aluminum Windows and Doors. A portion of the West Wall will be constructed using IMP (Insulated Metal Panels). The reason for this is so that a Future Addition can be added to the West of the Building 25 Addition with relative ease.

Kurt Davis

From: Kurt Davis
Sent: Monday, December 29, 2025 6:53 AM
To: Kurt Davis
Subject: Vollrath City of Sheboygan Brief

Vollrath Co., LLC Building 25 Addition

Description of Proposed Project

The project will include construction of a new 110,000-square-foot state-of-the-art manufacturing facility at the company's corporate campus at 1236 N. 18th Street and represents one of the largest capital investments in Vollrath's 150-year history.

This being Phase I of a multi-year, phased development will streamline production flows, increase operational efficiency, and incorporate modern production technologies, positioning Vollrath for continued growth in the competitive foodservice equipment market. The new facility will deepen Vollrath's metal-forming expertise that has long been a hallmark of the company's Sheboygan operations.

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Attached to this application are renderings of the new Addition. The Addition will primarily be constructed using Architectural Precast Wall Panels and Aluminum Windows and Doors. A portion of the West Wall will be constructed using IMP (Insulated Metal Panels). The reason for this is so that a Future Addition can be added to the West of the Building 25 Addition with relative ease.

This Construction Type will replace the early 1900's Building Style that is prevalent on the Vollrath Campus. The new Construction type will be more Energy Efficient, help with operational efficiency, and brings the Architectural Design Style of Vollrath Co. LLC into the Modern Era.

APRIL 7th, 2025

VOLLRATH COMPANY LLC

1236 NORTH 18th STREET , SHEBOYGAN WI 53081

A0.1 DRONE SURVEY IMAGE

PROJ. NO. 2024-093

N

SCALE: "1=200'

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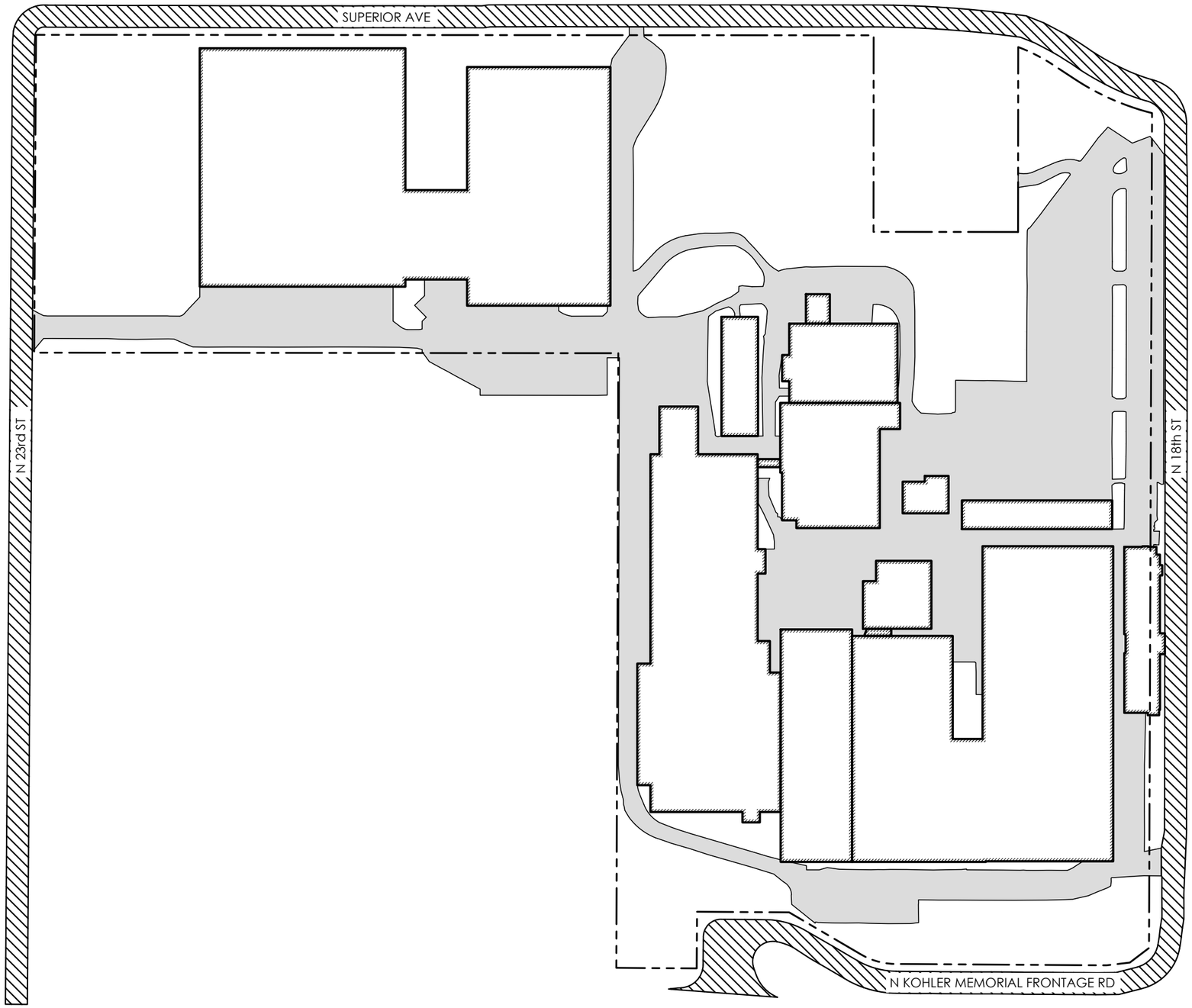
04/09/25
P:\2025-CONTRACTS\2025-009.1 Vollrath Breezeway, Pole Building, Sub Station, Bldg 8, Building 19 Toilet Remodel\Phase - 2\ Construction Documents\S.3 Site \2025-9.1 - Existing Complete.dwg



APRIL 7th, 2025

VOLLRATH COMPANY LLC

1236 NORTH 18th STREET , SHEBOYGAN WI 53081

A1 PHASE 1 - EXISTING

PROJ. NO. 2024-093

N

SCALE: "1=200'

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04/09/25

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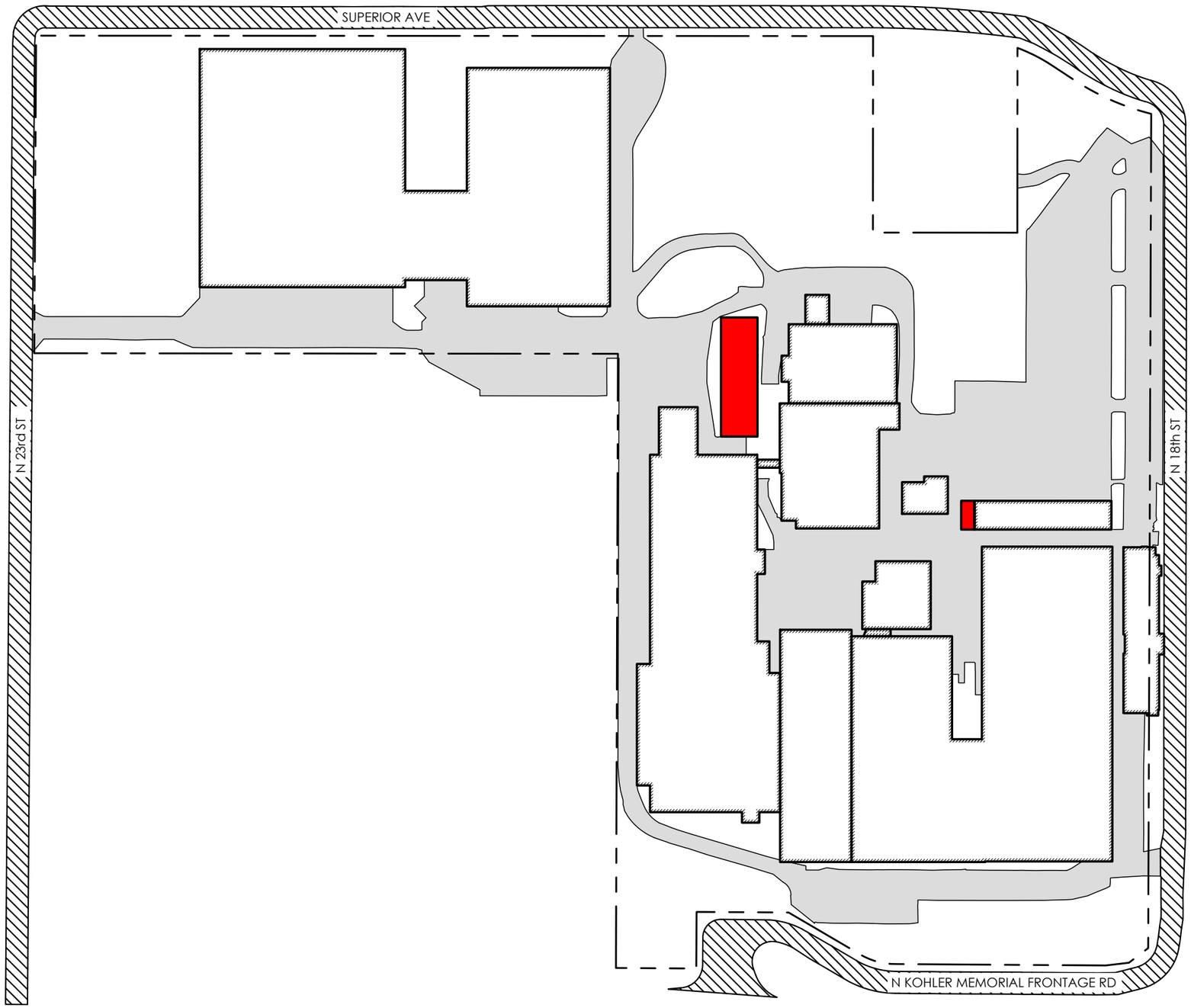

APRIL 7th, 2025

VOLLRATH COMPANY LLC

1236 NORTH 18th STREET , SHEBOYGAN WI 53081

A2 PHASE 2 - DEMOLITION

PROJ. NO. 2024-093

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SCALE: "1=200'

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04/09/25

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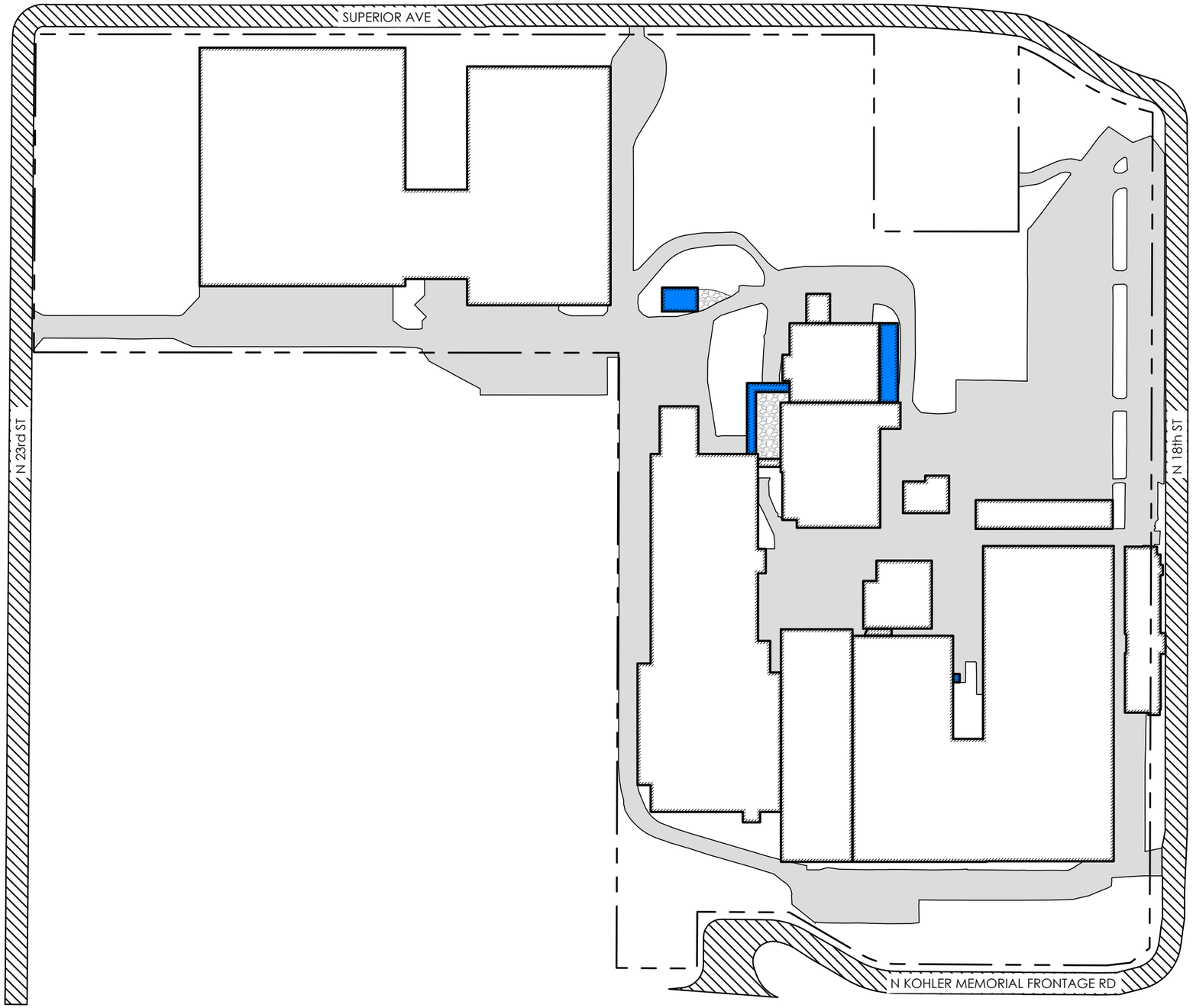

APRIL 7th, 2025

VOLLRATH COMPANY LLC

1236 NORTH 18th STREET , SHEBOYGAN WI 53081

A3 PHASE 3 - NEW CONSTRUCTION

PROJ. NO. 2024-093

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SCALE: "1=200'

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04/09/25

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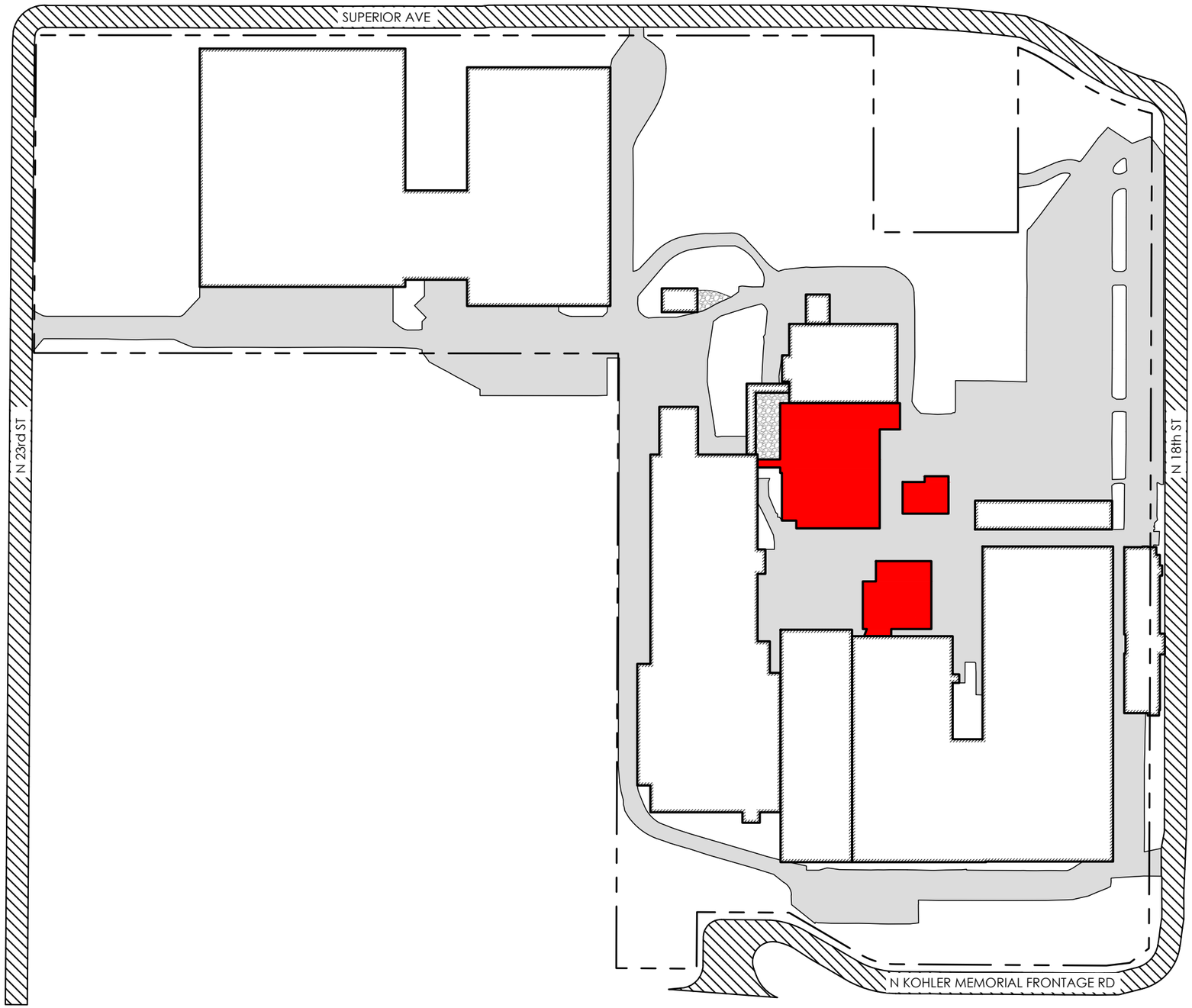

APRIL 7th, 2025

VOLLRATH COMPANY LLC

1236 NORTH 18th STREET , SHEBOYGAN WI 53081

A4 PHASE 4 - DEMOLITION

PROJ. NO. 2024-093

N

SCALE: "1=200'

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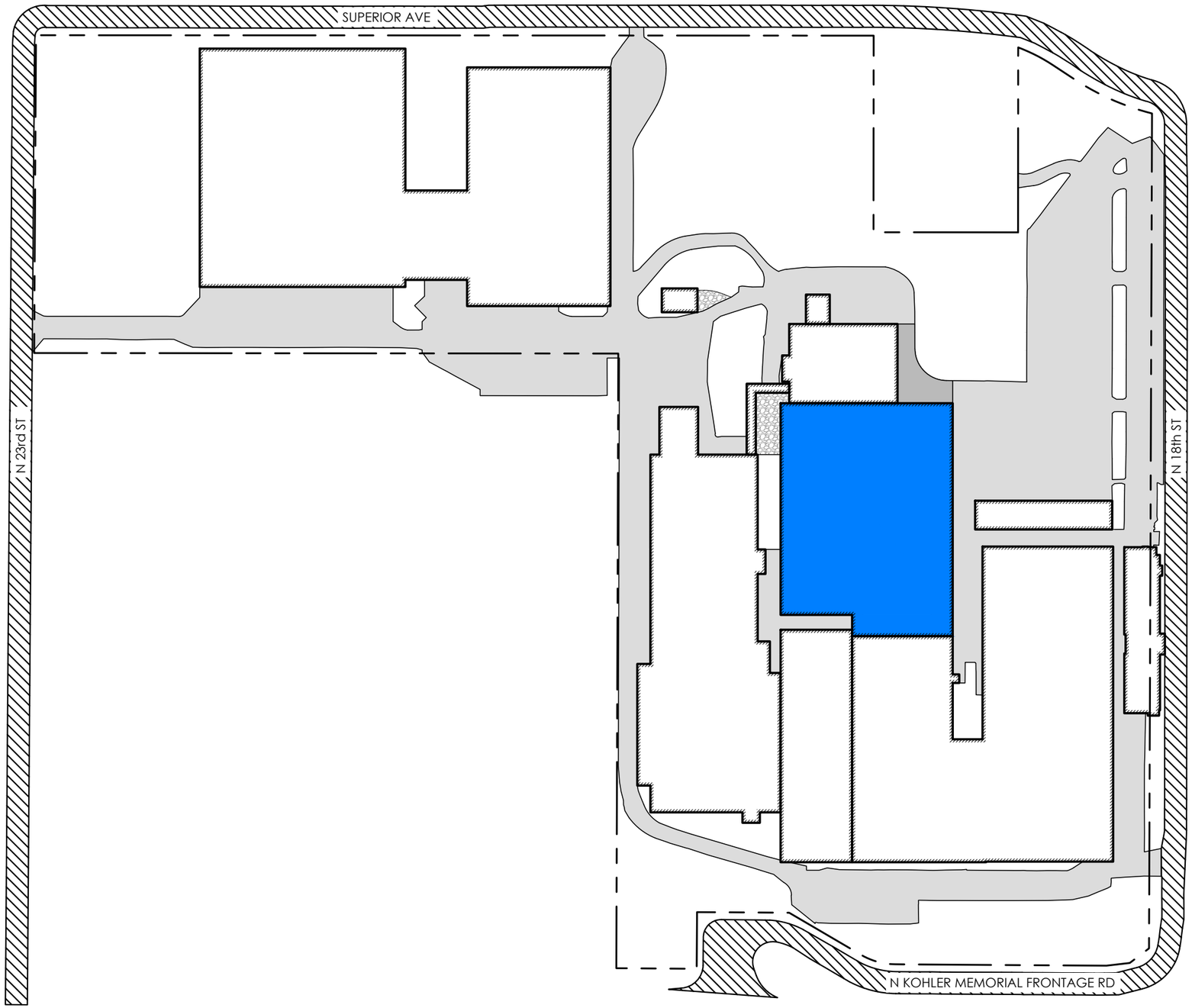

APRIL 7th, 2025

VOLLRATH COMPANY LLC

1236 NORTH 18th STREET , SHEBOYGAN WI 53081

A5 PHASE 5 - NEW CONSTRUCTION

PROJ. NO. 2024-093

N

SCALE: "1=200'

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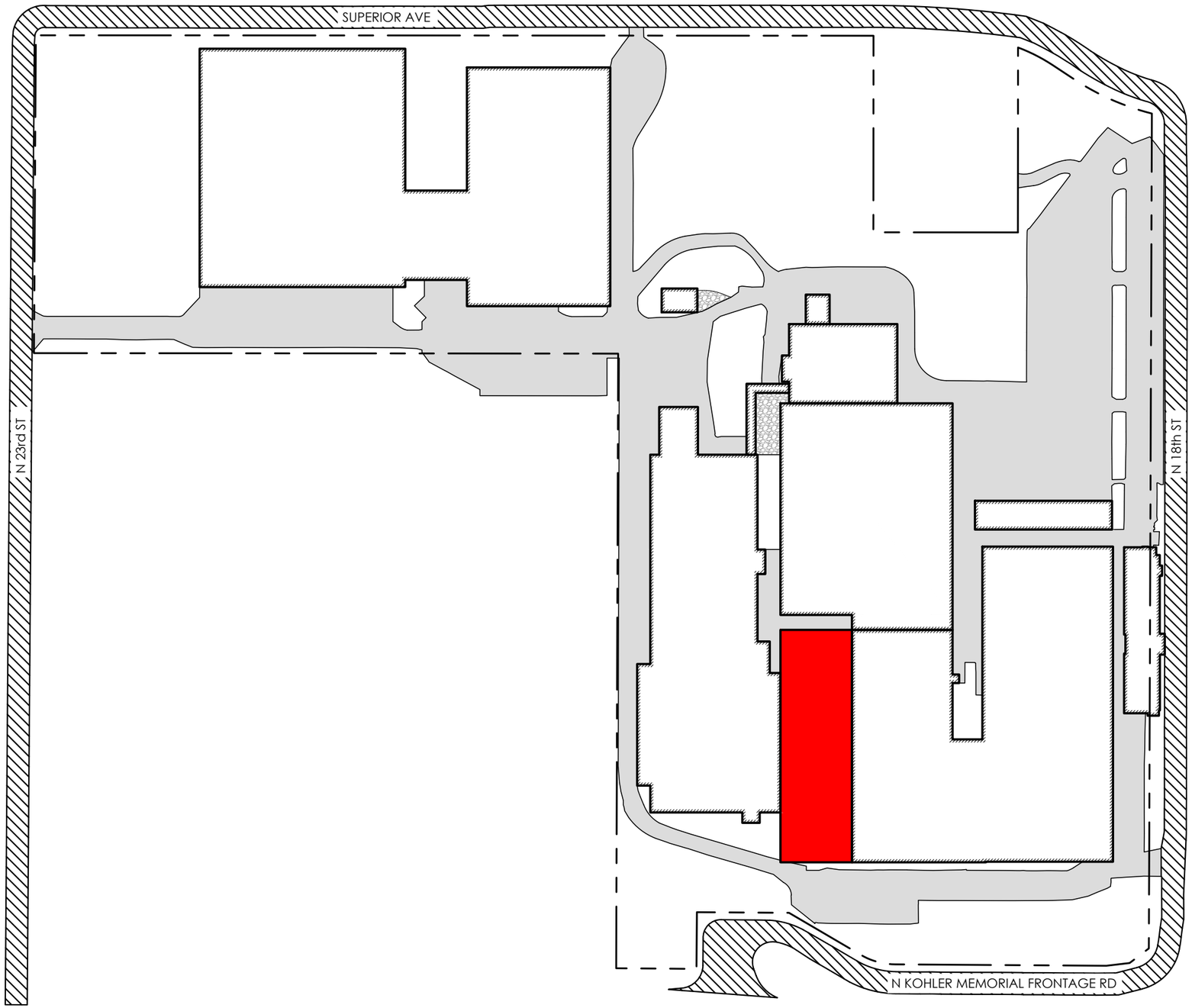

APRIL 7th, 2025

VOLLRATH COMPANY LLC

1236 NORTH 18th STREET , SHEBOYGAN WI 53081

A6 PHASE 6 - DEMOLITION

PROJ. NO. 2024-093

N

SCALE: "1=200'

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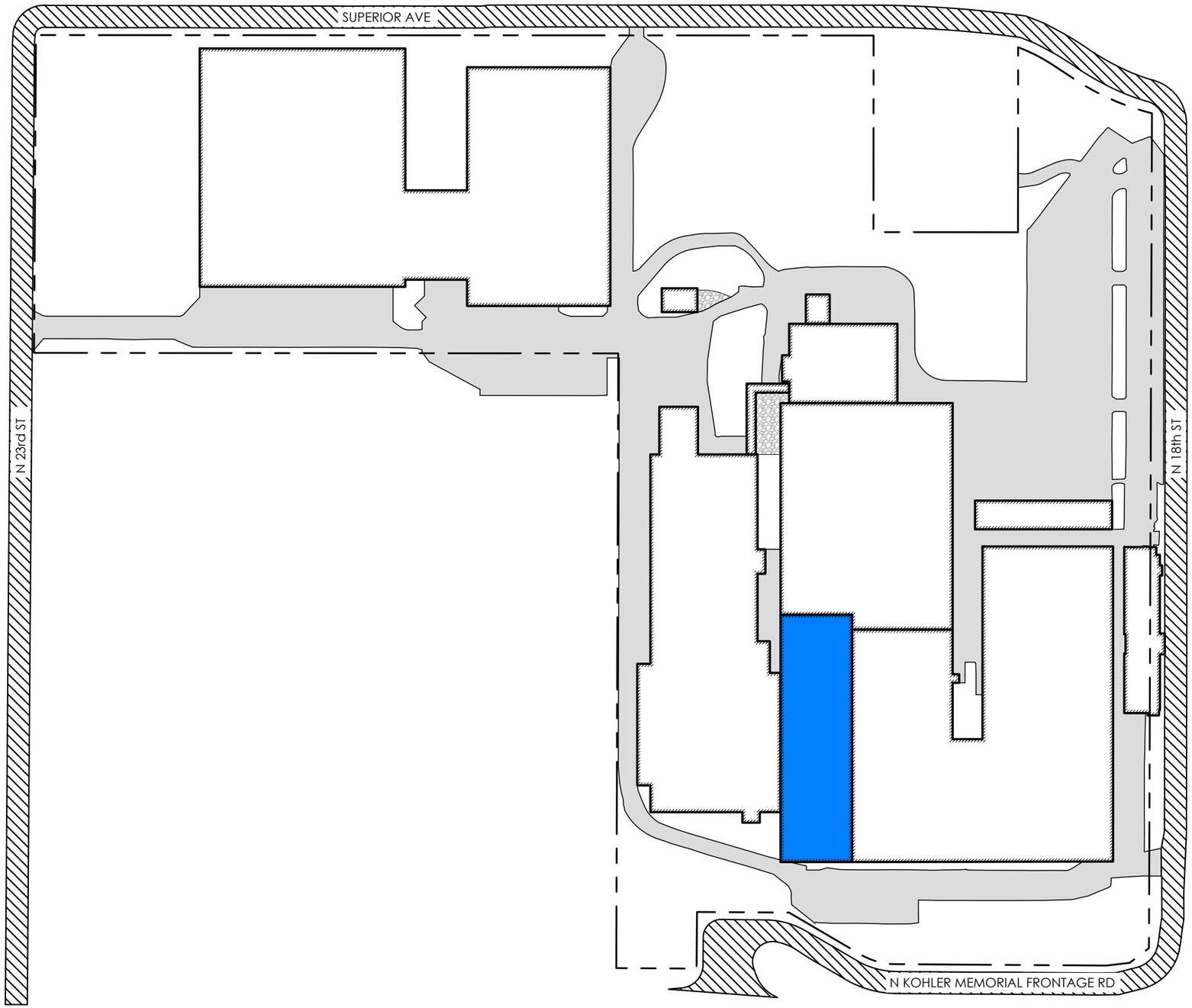

APRIL 7th, 2025

VOLLRATH COMPANY LLC

1236 NORTH 18th STREET , SHEBOYGAN WI 53081

A7 PHASE 7 - NEW CONSTRUCTION

PROJ. NO. 2024-093

N

SCALE: "1=200'

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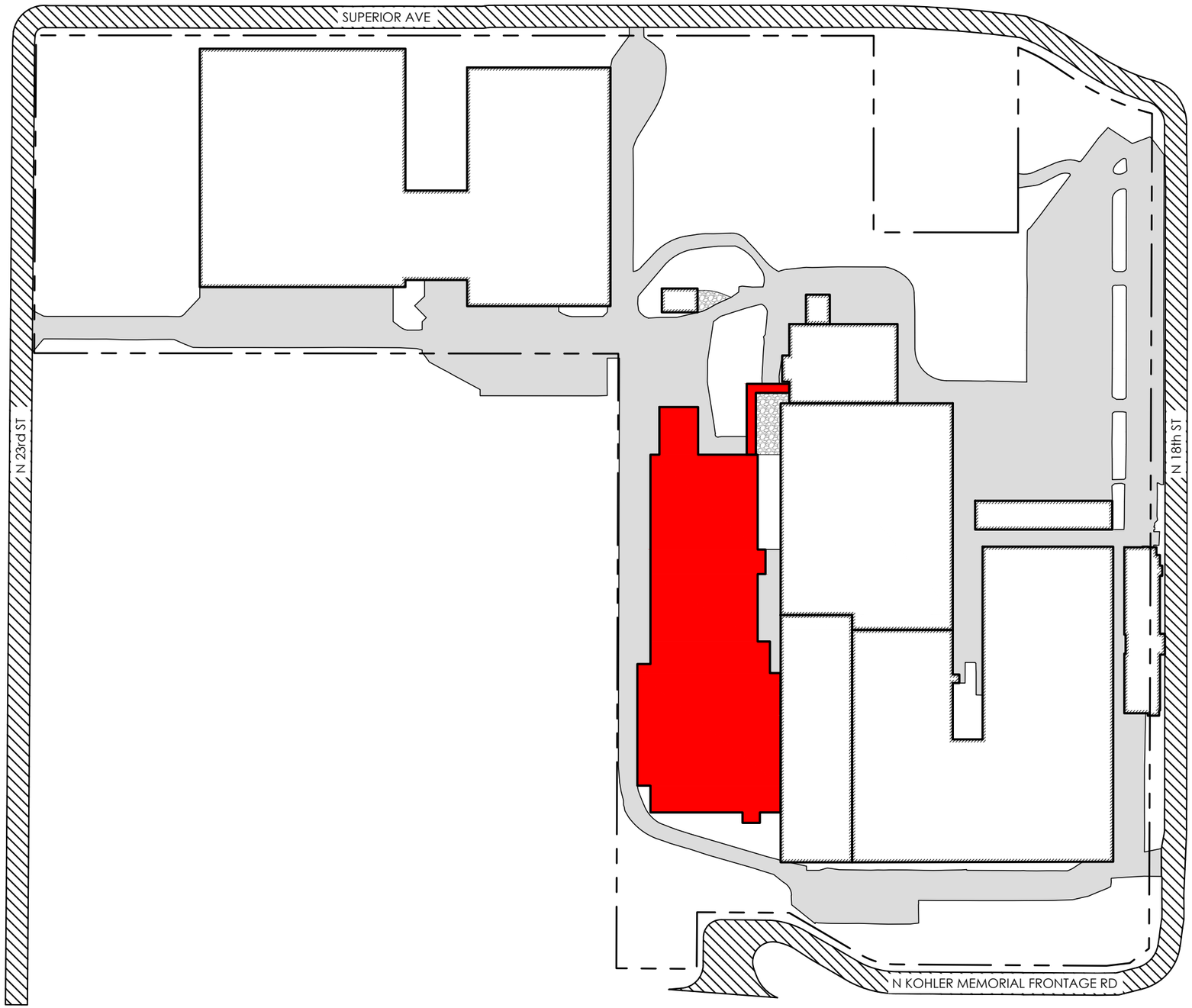

APRIL 7th, 2025

VOLLRATH COMPANY LLC

1236 NORTH 18th STREET , SHEBOYGAN WI 53081

A8 PHASE 8 - DEMOLITION

PROJ. NO. 2024-093

N

SCALE: "1=200'

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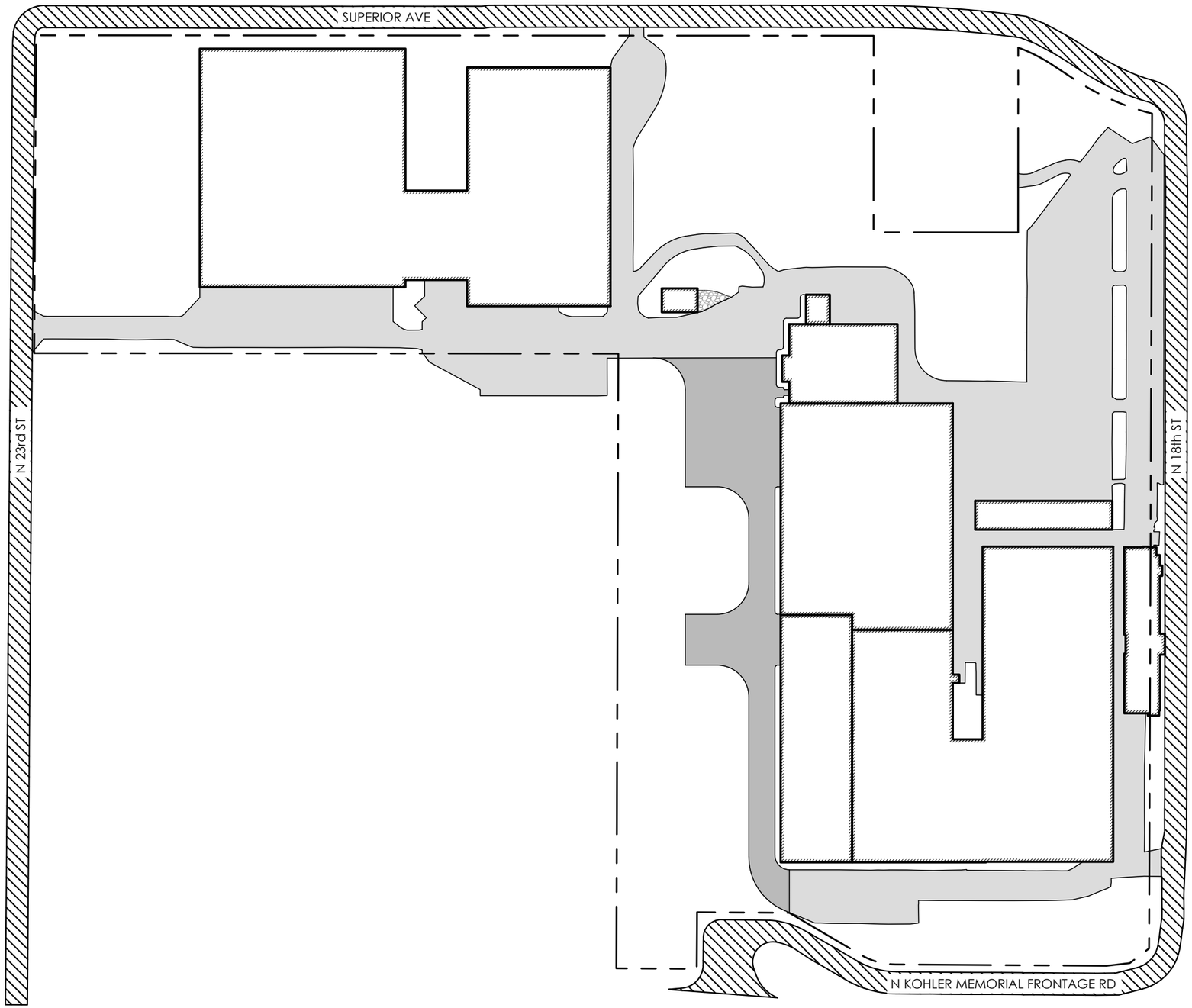

APRIL 7th, 2025

VOLLRATH COMPANY LLC

1236 NORTH 18th STREET , SHEBOYGAN WI 53081

A9 PHASE 9 - FINISHED

PROJ. NO. 2024-093

N

SCALE: "1=200'

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SITE PROPERTIES:

TAX ID: 59281214074
ZONING: SI - SUBURBAN INDUSTRIAL DISTRICT

EXISTING SITE:

TOTAL PROPERTY AREA = 1,937,549 SQ.FT. = 44.48 ACRES
ROOFS = 739,953 SQ.FT. = 16.99 ACRES
PAVEMENT = 559,721 SQ.FT. = 12.85 ACRES
IMPERVIOUS SURFACE = 67.1%
FACADE LENGTH = 10,603 FT

PROPOSED FINAL SITE (PHASE 9):

TOTAL PROPERTY AREA = 1,937549 SQ.FT. = 44.48 ACRES
ROOFS = 696,654 SQ.FT. = 16.00 ACRES
PAVEMENT = 487,954 SQ.FT. = 11.20 ACRES
IMPERVIOUS SURFACE = 61.2%
FACADE LENGTH = 8,107 FT

APRIL 7th, 2025

VOLLRATH COMPANY LLC

1236 NORTH 18th STREET , SHEBOYGAN WI 53081
A10 SITE PROPERTIES
PROJ. NO. 2024-093

N

SCALE: "1=200'

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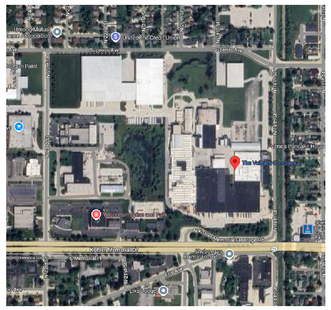
BUILDING 25 - ADDITION

VOLLRATH COMPANY LLC

1236 NORTH 18th STREET, SHEBOYGAN WI 53081

12-17-25



SITE LOCATION

PROJECT INFORMATION

APPLICABLE BUILDING CODES

2025 WISCONSIN ADMINISTRATIVE CODE (W.C.B.C.), SPS 361-366
2021 INTERNATIONAL BUILDING CODE (IBC)
2021 INTERNATIONAL EXISTING BUILDING CODE (IEBC)
2021 INTERNATIONAL ENERGY CONSERVATION CODE (IECC)
2017 ICC / ANSI A117.1 ACCESSIBLE AND USABLE BUILDING FACILITIES

BUILDING AREA

EXISTING BUILDING AREA:
FIRST FLOOR AREA - 390,412 S.F.
MEZZANINE AREA - 1,610 S.F.

BUILDING ADDITION AREA:
FIRST FLOOR AREA - 108,430 S.F.
MEZZANINE AREA - 300 S.F.

CONSTRUCTION CLASSIFICATION

TYPE IIB CONSTRUCTION (W.C.B.C. SECTION 602.2)

OCCUPANCY CLASSIFICATION

NON-SEPARATED OCCUPANCIES (W.C.B.C. SECTION 508.3)

USE GROUPS PRESENT IN THE BUILDING INCLUDE:

BUSINESS GROUP "B" (W.C.B.C. SECTION 304.1)

PRIMARY - FACTORY INDUSTRIAL GROUP "F-2" LOW HAZARD (W.C.B.C. SECTION 306.3)

STORAGE GROUP (S-2) LOW HAZARD (SECTION 311.3)

FIRE PROTECTION

BUILDING IS FULLY PROTECTED WITH AN AUTOMATIC SPRINKLER SYSTEM PER NFPA 13.

ALLOWABLE HEIGHT AND AREA

BUILDING QUALIFIES FOR UNLIMITED AREA PER (W.C.B.C SECTION 507.4)

MEANS OF EGRESS AND EXIT DISTANCE

EXIT ACCESS TRAVEL DISTANCE - WITH AUTOMATIC SPRINKLER SYSTEM (W.C.B.C. TABLE 1017.2) = 400 FT.

EXTERIOR WALL OPENINGS

BUILDING PERMITTED TO HAVE UNLIMITED UNPROTECTED OPENINGS (W.C.B.C. TABLE 705.8)

DETERMINATION OF NO. OF STORIES ABOVE GRADE

BUILDING IS 1 STORY ABOVE GRADE WITHOUT BASEMENT (W.C.B.C. TABLE 504.4)

PROJECT NOTES

EXTENT OF WORK

THE INTENT OF THE CONTRACT DOCUMENTS IS TO INCLUDE ALL ITEMS NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK BY THE CONTRACTOR. PERFORMANCE BY THE CONTRACTOR SHALL BE REQUIRED TO THE EXTENT CONSISTENT WITH THE CONTRACT DOCUMENTS AND REASONABLY INFERABLE FROM THEM AS BEING NECESSARY TO PRODUCE THE INTENDED RESULTS.

SITE VISIT

THE CONTRACTOR SHALL VISIT THE SITE, BECOME FAMILIAR WITH LOCAL CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED AND CORRELATE PERSONAL OBSERVATIONS WITH REQUIREMENTS OF THE CONTRACT DOCUMENTS.

NOTICE TO BIDDERS

BIDDERS SHALL REVIEW ALL DRAWINGS AND ALL SPECIFICATION SECTIONS TO DETERMINE THE IMPACT OF OTHER SECTIONS OF WORK ON THEIR OWN WORK.

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ARCHITECTURAL

ABACUS ARCHITECTS, INC.
1135A MICHIGAN AVENUE
SHEBOYGAN, WISCONSIN 53081
P: 920-452-4444

A 101	TITLE SHEET
A 102	WALL TYPES, ABBREVIATIONS, AND SYMBOLS
A 200	EXISTING CONDITIONS
A 201	DEMOLITION PLAN
A 202	SITE PLAN
A 203	GRADING PLAN
A 204	OVERALL UTILITY PLAN
A 205	OVERALL STORM SEWER PLAN
A 206	OVERALL SANITARY PLAN
A 207	EROSION CONTROL PLAN
A 208	CIVIL DETAILS
A 301	LIFE SAFETY PLAN
A 302	LIFE SAFETY PLAN - ENLARGED
A 303	DEMOLITION PLANS
A 304	FIRST FLOOR PLAN
A 305	CLERESTORY PLAN
A 306	ENLARGED FLOOR PLANS
A 401	SCHEDULES, DOOR & FRAME TYPES, DETAILS
A 402	DOOR DETAILS
A 403	WINDOW TYPES & DETAILS
A 501	EXTERIOR ELEVATIONS
A 601	BUILDING SECTIONS
A 602	WALL SECTIONS
A 603	WALL SECTIONS
A 604	WALL SECTIONS
A 605	WALL SECTIONS
A 606	WALL SECTIONS
A 607	STAIR SECTIONS
A 701	ROOF PLAN
A 702	ROOF DETAILS
A 703	ROOF DETAILS
A 801	INTERIOR ELEVATIONS

STRUCTURAL

AMBROSE ENGINEERING
W66 N215 COMMERCIAL COURT
CEDARBURG, WI 53012
PHONE: 262-377-7602

S 001	GENERAL NOTES AND ABBREVIATIONS
S 002	PROJECT SCHEDULES AND NOTES
S 101	FOUNDATION PLAN
S 102	ROOF FRAMING PLAN
S 103	ENLARGED PLANS
S 104	ROOF LOADING PLANS
S 301	FRAMING ELEVATIONS AND DETAILS
S 501	SECTIONS AND DETAILS
S 502	SECTIONS AND DETAILS
S 503	SECTIONS AND DETAILS
S 504	SECTIONS AND DETAILS
S 505	SECTIONS AND DETAILS
S 506	SECTIONS AND DETAILS
S 507	SECTIONS AND DETAILS
S 508	SECTIONS AND DETAILS
S 509	SECTIONS AND DETAILS

PLUMBING

ENGENUITY
16305 SWINGLEY RIDGE ROAD; SUITE 100
CHESTERFIELD, MO 63017
PHONE: 314-819-9189

P 000	PLUMBING SYMBOLS AND ABBREVIATIONS
P 200.1	PARTIAL UNDERGROUND PLAN - BUILDING 18
P 200.2	PARTIAL UNDERGROUND PLAN - BUILDING 25
P 201.1	PARTIAL FLOOR PLAN - BUILDING 18
P 201.2	PARTIAL FLOOR PLAN - BUILDING 25
P 202.2	PARTIAL ROOF PLAN - BUILDING 25
P 600	PLUMBING DETAILS

H.V.A.C.

ENGENUITY
16305 SWINGLEY RIDGE ROAD; SUITE 100
CHESTERFIELD, MO 63017
PHONE: 314-819-9189

M 000	MECHANICAL SYMBOLS AND ABBREVIATIONS
M 201.1	PARTIAL FLOOR PLAN - BUILDING 18
M 201.2	PARTIAL FLOOR PLAN - BUILDING 25
M 202.1	ROOF PLAN - BUILDING 18
M 202.2	ROOF PLAN - BUILDING 25
M 300	BUILDING 18 SUBSTATION
M 500	MECHANICAL SCHEDULES

FIRE PROTECTION

ENGENUITY
16305 SWINGLEY RIDGE ROAD; SUITE 100
CHESTERFIELD, MO 63017
PHONE: 314-819-9189

FP 000	FIRE PROTECTION SYMBOLS AND ABBREVIATIONS
FP 201.1	OVERALL FLOOR PLAN - BUILDING 18
FP 201.2	OVERALL FLOOR PLAN - BUILDING 25

ABACUS ARCHITECTS

REVISIONS:

NOTICE TO BIDDERS
BIDDERS SHALL REVIEW ALL DRAWINGS AND SPECIFICATION SECTIONS TO DETERMINE THE IMPACT OF OTHER SECTIONS OF WORK ON THEIR OWN WORK.

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DATE ISSUED: DECEMBER 17th, 2025
BUILDING 25 - ADDITION
VOLLRATH COMPANY LLC
1236 NORTH 18th STREET, SHEBOYGAN WI 53081
1135A MICHIGAN AVE. SHEBOYGAN, WI 53081 | (920) 452-4444 | 313 N. PLANKINTON AVE SUITE 208. MILWAUKEE, WI 53203
PERMIT SET

DRAWN BY: AJK
CHECKED BY: KED

TITLE SHEET

A
101

PROJ. NO. 2024-093

ABBREVIATIONS

A.B.	ANCHOR BOLT	CORR	CORRIDOR, CORRUGATED	FAB	FABRICATED	LL	LIVE LOAD	R.C.	ROOF CONDUCTOR	THK	THICK
A.D.A.	AMERICAN WITH DISABILITIES ACT	CPT	CARPET	FDN	FOUNDATION	LAM	LAMINATE(D)	R.D.	ROOF DRAIN	TOT	TOTAL
A.F.F.	ABOVE FINISHED FLOOR	D	DEPTH	FIN	FINISH	LAV	LAVATORY	R.H.	RIGHT HAND	TV	TELEVISION
A/C	AIR CONDITIONING	D.F.	DRINKING FOUNTAIN	FL	FLOOR	LB	POUND	R.O.	ROUGH OPENING	TYP	TYPICAL
ACOUS	ACOUSTIC(AL)	D.L.	DEAD LOAD	FT	FOOT, FEET	LOUV	LOUVER	REF	REFERENCE	UNFIN	UNFINISHED
ADD	ADDITION	DBL	DOUBLE	FTG	FOOTING	M.B.	MARKER BOARD	REG	REGISTER	UNO	UNLESS NOTED OTHERWISE
ADJ	ADJUSTABLE	DEG	DEGREE	FURN	FURNACE, FURNITURE	M.O.	MASONRY OPENING	REINF	REINFORC(ING,MENT)	UTIL	UTILITIES
ALT	ALTERNATE	DEPT	DEPARTMENT	FURR	FURRING	MACH	MACHINE	REQ'D	REQUIRED	V	VINYL
ALUM	ALUMINUM	DET	DETAIL	G	GAS	MAINT	MAINTENANCE	RESIL	RESILIENT	V.B.	VINYL BASE
APPROX	APPROXIMATE	DIA	DIAMETER	G.B.	GRAB BAR	MATL	MATERIAL	REV	REVISION	V.C.T.	VINYL COMPOSITION TILE
ARCH	ARCHITECT(URAL)	DIAG	DIAGONAL	G.C.	GENERAL CONTRACTOR	MAX	MAXIMUM	RM	ROOM		
ATTEN	ATTENUATION	DIM	DIMENSION	G.M.	GAS METER	MECH	MECHANICAL	S.C.	SOLID CORE	VENT	VENTILATION
AUTO	AUTOMATED	DISP	DISPENSER	GA	GAUGE	MEMB	MEMBRANE	S.S.	STAINLESS STEEL	VERT	VERTICAL
B.L.	BORROWED LITE	DIV	DIVISION	GALV	GALVANIZED	MEZZ	MEZZANINE	SAN	SANITARY SEWER	VEST	VESTIBULE
B.M.	BENCH MARK	DN	DOWN	GYP. BD.	GYPSUM BOARD	MFR	MANUFACTURER	SECT	SECTION	VOL	VOLUME
B.O.	BOTTOM OF	DR	DOOR	H. HGT	HEIGHT	MH	MANHOLE	SECUR	SECURITY	W	WIDTH, WATER
B.T.U.	BRITISH THERMAL UNIT	DS	DOWNSPOUT	H.B.	HOSE BIBB	MIN	MINIMUM	SERV	SERVICE	W.C.	WATER CLOSET, WATER COOLER
BD	BOARD	DW	DRYWALL	H.M.	HOLLOW METAL	MISC	MISCELLANEOUS	SHT	SHEET		
BLDG	BUILDING	E.I.F.S.	EXTERIOR INSULATION FINISH SYSTEM	H.V.A.C.	HEATING, VENTILATION AND AIR CONDITIONING	MTL	METAL	SIM	SIMILAR	W.C.O.	WALL CLEAN OUT
BLK(G)	BLOCK(ING)	E.J.	EXPANSION JOINT			MULL	MULLION	SPEC(S)	SPECIFICATION(S)	W.H.	WATER HEATER
BOT	BOTTOM	E.W.	EACH WAY	H.W.	HOT WATER	N	NORTH	SPKLR	SPRINKLER	W/	WITH
BRG	BEARING	E.W.C.	ELECTRIC WATER COOLER	HC	HANDICAPPED	N.I.C.	NOT IN CONTRACT	SQ	SQUARE	W/O	WITH OUT
C.B.	CATCH BASIN, CHALK BOARD	EA	EACH	HD	HEAD	N.T.S.	NOT TO SCALE	ST. STORE	STORAGE	WD	WOOD
C.F.	CUBIC FEET	EL. ELEV	ELEVATION, ELEVATOR	HDR	HEADER	NO	NUMBER	STD	STANDARD	WT	WEIGHT
C.G.	CORNER GUARD	ELEC	ELECTRIC	HDWR	HARDWARE	NOM	NOMINAL	STL	STEEL	WWM	WELDED WIRE MESH
C.J.	CONTROL JOINT	EMER	EMERGENCY	HORIZ	HORIZONTAL	O.C., O/C	ON CENTER	STRM	STORM SEWER	YD	YARD
C.L.	CENTER LINE	ENCL	ENCLOSED	HR	HOUR	O.D.	OUTSIDE DIAMETER	STRUCT	STRUCTURAL		
C.M.P.	CORRUGATED METAL PIPE	ENG	ENGINEER	HTR	HEATER	OH	OVERHEAD	SUSP	SUSPENDED		
C.O.	CLEAN OUT	EQ	EQUAL	I.D.	INSIDE DIAMETER	P.LAM.	PLASTIC LAMINATE	T	TREAD		
C.W.	COLD WATER	EQUIP	EQUIPMENT	INSUL	INSULATION	PL	PLATE	T&B	TOP AND BOTTOM		
CAB	CABINET	EXCAV	EXCAVATE	INT	INTERIOR	PLAS	PLASTIC	T&G	TONGUE AND GROOVE		
CLG	CEILING	EXIST, (EX)	EXISTING	INV	INVERT	PLBG	PLUMBING	T.B.	TACK BOARD		
CLR	CLEAR	EXP	EXPOSED	J.B.	JOIST BEARING	PLYWD	PLYWOOD	T.O.	TOP OF		
CMU	CONCRETE MASONRY UNIT	EXT	EXTERIOR	JAN	JANITOR	PR	PAIR	T.O.B.	TOP OF BEAM		
COL	COLUMN	F.A.C.E.	FAMILY AND CONSUMER EDUCATION	JST	JOIST	PREFAB	PREFABRICATED	T.O.F.	TOP OF FOOTING		
COMP	COMPOSITION, COMPACT	F.C.O.	FLOOR CLEAN OUT	JT	JOINT	PSF	POUNDS PER SQUARE FOOT	T.O.M.	TOP OF MASONRY		
CONC	CONCRETE	F.D.	FLOOR DRAIN	K.O.	KNOCK OUT	PSI	POUNDS PER SQUARE INCH	T.O.P.	TOP OF PIER		
CONT	CONTINUOUS	F.E.	FIRE EXTINGUISHER	KIP	ONE THOUSAND POUNDS	PT, P.T.	POINT, PORCELAIN TILE, PAINT, PRESSURE TREATED	T.O.S.	TOP OF STEEL		
		F.F.	FINISHED FLOOR	KIT	KITCHEN			T.S.	TUBE STEEL		
				L	LENGTH	Q.T.	QUARRY TILE	T.W.	TACK WALL		
				L.H.	LEFT HAND	R	RADIUS, RISER	TEL	TELEPHONE		
								TEMP	TEMPERED		
								TERR	TERRAZZO		

MATERIALS AND SYMBOLS

- ROUGH LUMBER
- FINISH LUMBER
- STRUCTURAL STEEL
- BRICK
- CONCRETE MASONRY UNIT
- POURED-IN-PLACE CONCRETE
- METAL / WOOD STUD WALL
- GLAZING
- SPRAYED FOAM INSULATION
- BATT INSULATION
- RIGID INSULATION
- PLYWOOD / PARTICLE BOARD
- SAND / MORTAR / GYPSUM BOARD
- COMPACTED DRAINAGE FILL
- COMPACTED STRUCTURAL FILL
- TOPSOIL
- NON-STRUCTURAL FILL
- EXISTING CONSTRUCTION / MATERIAL
- CENTER LINE, ℄
- PROPERTY LINE
- NEW CONTOURS
- EXISTING CONTOURS

ELEVATION NAME
ELEV. XXX'-XX"
ELEVATION MARKER

XX / XXX
XXX
ELEVATION REFERENCE

XX / XXX
XXX
BUILDING SECTION REFERENCE

XXX
XX / XXX
WALL SECTION REFERENCE

XX / XXX
XXX
PLAN / DETAIL REFERENCE

CEILING TYPE
'X'-XX" A.F.F.
CEILING TAG

XXX
DOOR TAG

X
WALL TYPE TAG

X
WINDOW TAG

X
PLAN NOTE TAG

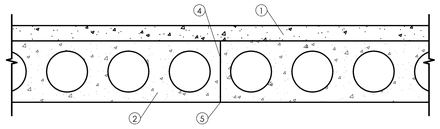
1
DEMOLITION NOTE TAG

X
COLUMN GRID

REVISION TAG

VIEW NAME
SCALE: X/X" = X'-XX"
XX / XXX
VIEW / DETAIL IDENTIFICATION

UL DESIGN NO. J901



1. CONCRETE TOPPING —3000 PSI COMPRESSIVE STRENGTH, 150 ± 3 PCF UNIT WEIGHT

RATING HOUR	TOPPING THICKNESS IN.
1	0
1-1/2	0
2	1
3	2

2. PRECAST CONCRETE UNITS — CARBONATE-AGGREGATE, CROSS-SECTION SIMILAR TO TEH ABOVE ILLUSTRATION. SEE PRECAST CONCRETE UNITS CATEGORY FOR NAMES OF MANUFACTURERS.

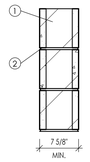
3. MIN. BEARING — 1-1/2" MIN.

4. GROUT — SAND CEMENT GROUT, 3500 PSI. GROUT STOP USED TO KEEP GROUT FROM BOTTOM 3-3/8" OF JOINT. WELD TIE PLATES INSTEAD OF OR IN CONJUNCTION WITH GROUT.

5. CLEARANCE — BETWEEN SLABS AT BOTTOM FULL LENGTH OF JOINT, 1/16" MIN., 1/4" MAX.

UL DESIGN NO. U906

BEARING WALL RATING - 2HR
NON BEARING WALL RATING - 2HR



1. CONCRETE BLOCKS* — VARIOUS DESIGNS. CLASSIFICATION D-2 (2HR).
SEE CONCRETE BLOCKS CATEGORY FOR LIST OF ELIGIBLE MANUFACTURERS.

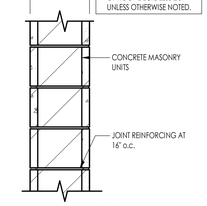
2. MORTAR — BLOCKS LAID IN A FULL BED OF MORTAR, NOM. 3/8 IN. THICK, OF NOT LESS THAN 2-1/4 AND NOT MORE THAN 3-1/2 PARTS OF CLEAN SHARP SAND TO 1 PART PORTLAND CEMENT (PROPORTIONED BY VOLUME) AND NOT MORE THAN 50 PERCENT HYDRATED LIME (BY CEMENT VOLUME). VERTICAL JOINTS STAGGERED.

SEE UL LISTING FOR LIST OF ACCEPTABLE MANUFACTURERS.

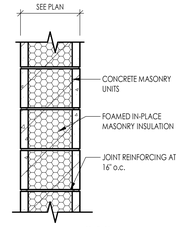
*BEARING THE UL CLASSIFICATION MARK

NOTE:
- 2 HOUR RATED FIRE BARRIER. UL #906

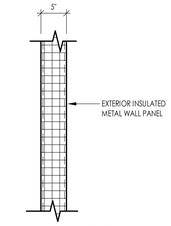
NOTE:
- AT NON-BEARING WALLS EXTEND CMU TO UNDERSIDE OF ROOF DECK, LESS 2", UNLESS OTHERWISE NOTED.



WALL TYPE "D"

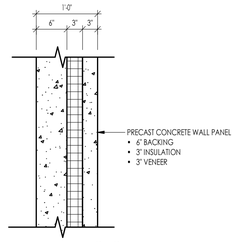


WALL TYPE "C"
(R-12.5)



WALL TYPE "B"
(R-40)

NOTE:
- SEE EXTERIOR ELEVATIONS FOR HORIZONTAL REVEAL LOCATIONS



WALL TYPE "A"
(R-15)

WALL TYPES

SCALE: 1" = 1'-0"

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DATE ISSUED: DECEMBER 17th, 2025

BUILDING 25 - ADDITION

VOLLRATH COMPANY LLC

1236 NORTH 18th STREET, SHEBOYGAN WI 53081

1135A MICHIGAN AVE., SHEBOYGAN, WI 53081 | (920) 452-4444 | 313 N. PLANKINTON AVE SUITE 208, MILWAUKEE, WI 53203

PERMIT SET

DRAWN BY: AJK

CHECKED BY: KED

WALL TYPES, ABBREVIATIONS, AND SYMBOLS

A
102

PROJ. NO. 2024-093

N. 18TH STREET
EDGE OF WATER AS OF 3-13-2025
GRAVEL
CONCRETE
BLACKTOP
BOLLARD
STORM SEWER CB MH RIM = 652.49 INV. 18" W = 648.67 INV. 15" S = 648.66
STORM SEWER CB MH RIM = 652.51 INV. 8" SE = 649.33
STORM SEWER CB MH RIM = 651.90 INV. 30" W = 647.87 INV. 15" N = 648.25 INV. 18" E = 648.00
STORM SEWER CB MH RIM = 653.07 INV. 8" NW = 648.28 INV. 24" E = 648.86 INV. 24" W = 648.78
STORM SEWER CB MH RIM = 655.62 INV. 24" W = 650.12
STORM SEWER MH RIM = 658.64 INV. 4" SW = 656.64 INV. 4" E = 654.51 INV. 8" SE = 654.37
STORM SEWER CB MH RIM = 657.47 INV. 12" W = 655.33
STORM SEWER CB MH RIM = 658.62 INV. 12" N = 655.21 INV. 12" S = 655.20
STORM SEWER CB MH RIM = 658.89 INV. 15" N = 653.34 INV. 18" S = 653.41
SANITARY SEWER MH RIM = 664.55 INV. 15" W = 651.66 INV. 12" SE = 651.53
SANITARY SEWER MH RIM = 661.39 INV. 12" NW = 651.28 INV. 12" E = 651.21 INV. 12" S = 649.98
STORM SEWER CB MH RIM = 652.49 (TARPED & FILLED W/ LEAVES)
STORM SEWER CB MH RIM = 660.34 INV. 24" N = 652.58 INV. 24" S = 652.59 INV. 18" W = 652.74
STORM SEWER CB MH RIM = 660.74 INV. 18" E = 653.90 INV. 18" S = 654.24
STORM SEWER CB MH RIM = 660.79 INV. 18" N = 654.40 INV. 4" E = 655.52 INV. 18" S = 654.47
SANITARY SEWER MH RIM = 661.93 INV. 4" N = 655.73 INV. 6" S = 655.41 INV. 6" E = 656.63
STORM SEWER CB MH RIM = 661.42 INV. 6" W = 658.52
COMBINATION SEWER CB MH RIM = 662.03 INV. 12" N = 653.33 INV. 18" SE = 652.78
ELECTRIC BOX SWITCH
STORM SEWER CB MH RIM = 660.96 INV. 18" N = 655.51 INV. 6" E = 655.84 INV. 12" S = 656.06
COMBINATION SEWER CB MH RIM = 661.16 INV. 10" N = 654.03 INV. 12" S = 653.89
STORM SEWER CB MH RIM = 660.72 INV. 12" N = 657.77 INV. 8" S = 658.54
STORM SEWER MH RIM = 662.68 INV. 18" E = 657.23
STORM SEWER MH RIM = 661.99 INV. 18" N = 656.54
STORM SEWER CB MH RIM = 660.23 INV. 8" NW = 659.43
SANITARY SEWER MH RIM = 660.47 INV. 15" N = 653.47 INV. 12" S = 653.42 INV. 10" W = 653.57
STORM SEWER CB MH RIM = 660.60 INV. 15" N = 656.35 INV. 18" S = 656.45 INV. 10" S = 656.80
STORM SEWER CB MH RIM = 660.55 INV. 15" NE = 656.90 INV. 15" SE = 654.45
STORM SEWER CB MH RIM = 660.92 INV. 15" S = 656.82
STORM SEWER MH RIM = 660.14 INV. 15" NE = 657.37
STORM SEWER CB MH RIM = 660.47 INV. 18" NW = 654.27 INV. 18" SE = 654.31
STORM SEWER CB MH RIM = 660.56 INV. 6" E = 659.06 INV. 4" W = 656.86 INV. 6" SW = 656.56
STORM SEWER CB MH RIM = 660.88 INV. 1" SW = 656.48 INV. 18" N = 655.35
STORM SEWER CB MH RIM = 660.81 INV. 6" W = 659.27 INV. 2" NW = 658.41 INV. 8" SW = 655.21 INV. 4" W = 653.52 INV. 6" W = 653.46 INV. 8" SW = 653.41
STORM SEWER CB MH RIM = 659.94 INV. 18" S = 654.77 INV. 18" NW = 654.66
STORM SEWER CB MH RIM = 658.90 INV. 10" S = 653.18 INV. 10" N = 653.05
STORM SEWER MANHOLE RIM = 658.92 INV. 4" S = 653.06 INV. 6" N = 653.02
STORM SEWER CB MH RIM = 660.60 INV. 1" SW = 656.48 INV. 18" N = 655.35
STORM SEWER CB MH RIM = 660.60 INV. 15" S = 655.21
STORM SEWER CB MH RIM = 660.18 INV. 6" E = 654.40 INV. 6" NE = 652.61 INV. 8" S = 652.55 INV. 8" N 652.52
STORM SEWER CB MH RIM = 659.88 INV. 4" S = 657.29 INV. 6" S = 657.29 INV. 18" S = 655.47
SANITARY SEWER MH RIM = 660.29 INV. 6" W = 656.29 INV. 6" E = 656.24
COMBINATION SEWER CB MH RIM = 660.70 INV. 2" E = 659.40 INV. 4" NE = 657.80 INV. 6" NE = 657.75 INV. 8" N = 650.60 INV. 8" S = 650.51
STORM SEWER MANHOLE RIM = 657.67 INV. 10" S = 653.24
STORM SEWER MANHOLE RIM = 659.06 INV. 10" N = 652.80 INV. 10" S = 652.81
STORM SEWER CB MH RIM = 658.94 INV. 10" S = 652.57 INV. 10" N = 652.50 INV. 12" E = 652.29
STORM SEWER CB MH RIM = 660.43 INV. 8" S = 653.52 INV. 8" N = 653.01 INV. 12" W = 652.09 INV. 12" E = 651.23
STORM SEWER CB MH RIM = 657.04 INV. 10" N = 651.90 INV. 10" S = 651.61 INV. 12" E = 651.13 INV. 12" W = 651.09
STORM SEWER CB RIM = 655.50 INV. 12" W = 650.13 INV. 18" E = 650.04
STORM SEWER CB MH RIM = 656.80 INV. 8" S = 652.74 INV. 8" N = 652.70
STORM SEWER MH RIM = 658.06 INV. 6" E = 656.58 INV. 8" S = 655.19
STORM SEWER MH RIM = 657.89 INV. 10" S = 654.20 INV. 10" N = 654.16
STORM SEWER CB MH RIM = 656.77 INV. 6" W = 653.57 INV. 15" N = 652.17 INV. 15" S = 652.12
GARDEN BOX (TYP.)
STEEL HATCH
FUEL TANK
ELECTRICAL BOX ON CONCRETE PAD
CORE HOLE IN BLACKTOP
ELECTRIC PLUG IN
RAIL ROAD
TRANSFORMER
GAS METER
GENERATOR
FLAG POLE
UTILITY CAP
STEEL PLATE
SAW CUT IN CONCRETE
589°57'24"E 250.00'
0.75" REBAR
FINISH FLOOR EL=656.89
FINISH FLOOR EL=656.88
FINISH FLOOR EL=656.91
LOADING DOOK EL=656.96
LOADING DOOK EL=656.94
LOADING DOOK EL=656.92
LOADING DOOK EL=656.94
FINISH FLOOR EL=662.76
FINISH FLOOR EL=662.75
FINISH FLOOR EL=662.74
FINISH FLOOR EL=662.72
FINISH FLOOR EL=662.68
FINISH FLOOR EL=658.25
FINISH FLOOR EL=662.74
FINISH FLOOR EL=662.98
FINISH FLOOR EL=662.59
FINISH FLOOR EL=662.62
FINISH FLOOR EL=662.82
FINISH FLOOR EL=662.78
FINISH FLOOR EL=662.87
FINISH FLOOR EL=661.83
FINISH FLOOR EL=661.59
FINISH FLOOR EL=662.52
FINISH FLOOR EL=662.64
FINISH FLOOR EL=661.75
FINISH FLOOR EL=662.66
FINISH FLOOR EL=662.54
FINISH FLOOR EL=662.48
FINISH FLOOR EL=662.45
FINISH FLOOR EL=661.48
FINISH FLOOR EL=661.43
FINISH FLOOR EL=661.58
FINISH FLOOR EL=661.54
FINISH FLOOR EL=661.50
FINISH FLOOR EL=661.39
FINISH FLOOR EL=661.14
FINISH FLOOR EL=661.57
FINISH FLOOR EL=659.65
FINISH FLOOR EL=661.46
FINISH FLOOR EL=661.41
FINISH FLOOR EL=659.96
FINISH FLOOR EL=656.40
FINISH FLOOR EL=656.28
FINISH FLOOR EL=661.48
FINISH FLOOR EL=655.85
FINISH FLOOR EL=661.54

DEMOLITION LEGEND

- APPROXIMATE LOCATION OF TREES TO BE REMOVED. TREE REMOVAL TO BE PERFORMED BY THE OWNER PRIOR TO CONSTRUCTION
- HATCH TYPE INDICATES PAVEMENT TO BE REMOVED AND DISPOSED OF OFFSITE
- HATCH TYPE INDICATES UTILITIES TO BE REMOVED AND DISPOSED OF OFFSITE
- HATCH TYPE INDICATES BUILDING TO BE REMOVED AND DISPOSED OF OFFSITE
- LINE TYPE INDICATES FULL-DEPTH SAWCUT TO BE PERFORMED

NOTE: ELECTRICAL AND GAS UTILITY REMOVALS AND RELOCATIONS TO BE COORDINATED BY CONTRACTOR WITH THE APPROPRIATE SUBCONTRACTORS AND PUBLIC AUTHORITIES.

REMOVAL AND REROUTING OF DOMESTIC WATERMAIN TO BE COORDINATED ON-SITE.

FULL DEPTH SAWCUT

REMOVE EXISTING STORM SEWER PIPE

REMOVE EXISTING STORM SEWER AND SANITARY PIPE WITHIN HATCH LIMITS. ALL OTHER UTILITY REMOVALS TO BE COORDINATED BY CONTRACTOR.

EXISTING BUILDING DEMO

EXISTING 10" CENTRAL SANITARY TO BE REROUTED FOR INTERIOR PLUMBING. SEE MECHANICAL PLANS

EXISTING BUILDING DEMO

PREVIOUS FENCE, NOW REMOVED. SEE SITE PLAN FOR CURRENT FENCE LOCATION.

NEW TURNSTILE AND EXISTING CONCRETE PAD TO REMAIN.

SAWCUT AND REMOVE PAVEMENT FOR WATERMAIN CONNECTION, SEE SHEET 204

FULL DEPTH SAWCUT

BUILDING 8 DEMO (PREVIOUSLY COMPLETED)

FULL DEPTH SAWCUT

REMOVE EXISTING STORM SEWER AND SANITARY PIPE WITHIN HATCH LIMITS. ALL OTHER UTILITY REMOVALS TO BE COORDINATED BY CONTRACTOR.

EXISTING BUILDING DEMO

EXISTING 8" SANITARY PIPE TO REMAIN

FULL DEPTH SAWCUT

FULL DEPTH SAWCUT

DEMOLITION PLAN

SCALE: 1"=40'

N

ABACUS ARCHITECTS

REVISIONS:

△	DATE	ISSUE

NOTICE TO BIDDERS
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DATE ISSUED: DECEMBER 17th, 2025

BUILDING 25 - NEW CONSTRUCTION

VOLLRATH COMPANY LLC

1236 NORTH 18th STREET, SHEBOYGAN, WI 53081

1135A MICHIGAN AVE, SHEBOYGAN, WI 53081 | (920) 452-4444 | 640 N VEL R. PHILLIPS AVE, SUITE 210, MILWAUKEE, WI 53203

PERMIT SET

DRAWN BY: MBS

CHECKED BY: JRV

DEMOLITION PLAN

A 201

PROJ. NO. 2024-93

December 17, 2025

P:\2024-CONTRACTS\2024-93 Vollrath Company\Phase - 2\Construction Documents\S.3 Site\2024-93 - Base.dwg

POLE BUILDING
(PREVIOUS PHASE)

HEAVY DUTY ASPHALT
45,815 SQ.FT.

CONNECT PROPOSED
CONCRETE TO EXISTING STOOP

6" TOPSOIL FOR
LANDSCAPING AREAS

LOCKER ROOM REMODEL
(PREVIOUS PHASE)

BREEZEWAY
(PREVIOUS PHASE)

CONCRETE SIDEWALK 3,038 SQ.FT.
PLACE HEAVY DUTY CONCRETE
FOR PORTION PASSING THRU
ASPHALT DRIVE, SEE DETAIL.

CONNECT PROPOSED
CONCRETE TO EXISTING
CONCRETE PAD FOR TURNSTILE.

HEAVY DUTY CONCRETE PAD
490 SQ.FT.

MATCH ASPHALT AT
EXISTING FENCE LINE

5' WIDE STRIPED PEDESTRIAN
WALKING PATH

NEW WEST WALL
OF BUILDING 8
(PREVIOUS PHASE)

OUTFALL RIP RAP, SEE DETAIL

PROPOSED BUILDING 25
111,030 SQ.FT.

GRAVEL OVER REMOVED
PAVEMENT AREA, TYP.
12,675 SQ.FT.

HEAVY DUTY CONCRETE
PAD W/ WEST RAMP
430 SQ.FT.

MECHANICAL DEVICE PADS
TO REMAIN UNDISTURBED

SUBSTATION
(PREVIOUS PHASE)

SITE LEGEND

- EXTENTS OF BUILDING REMODEL. REFER TO ARCHITECTURAL DRAWINGS.
- PROPOSED HEAVY DUTY PAVEMENT HATCH. SEE DETAIL.
- PROPOSED CONCRETE HATCH. SEE DETAIL.
- PROPOSED PEA GRAVEL HATCH, TYP.
- PROPOSED LANDSCAPING/GREENSPACE HATCH.

SITE PLAN
SCALE: 1"=30'

N

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BUILDING 25 - NEW CONSTRUCTION

VOLLRATH COMPANY LLC

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1135A MICHIGAN AVE. SHEBOYGAN, WI 53081 | (920) 452-4444 | 646 N VEL R. PHILLIPS AVE. SUITE 210 MILWAUKEE, WI 53203

PERMIT SET

DRAWN BY: MBS
CHECKED BY: JRV

SITE PLAN

A
202

PROJ. NO. 2024-93

December 17, 2025

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GRADING LEGEND

595	PROPOSED CONTOUR
595	EXISTING CONTOUR
595.00	PROPOSED SPOT ELEVATION
595.00±	MATCH EXISTING ELEVATION
TC 595.00 BC 595.50	PROPOSED TOP OF CURB ELEVATION PROPOSED BOTTOM OF CURB ELEVATION

GRASS SWALE C/L

GRASS SWALE C/L

MATCH ASPHALT ELEVATION AT EXISTING FENCE LINE

DEPRESSION IN ASPHALT DRIVE

DEPRESSION LOCAL HIGH POINT

DEPRESSION LOCAL HIGH POINT

GRAVEL SWALE LOCAL HIGH POINT

GRAVEL SWALE C/L

GRAVEL SWALE LOCAL HIGH POINT

GRAVEL SWALE LOCAL HIGH POINT

GRAVEL SWALE C/L

PROPOSED BUILDING 25
FFE = 661.50
YG = 661.16
NORTH FFE = 662.67
FFE TRANSITION AT
NORTHERN RAMPS, SEE
ARCH PLANS

GRADING PLAN

SCALE: 1"=30'

N

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REVISIONS:

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BUILDING 25 - NEW CONSTRUCTION

VOLLRATH COMPANY LLC

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1135A MICHIGAN AVE. SHEBOYGAN, WI 53081 | (920) 452-4444 | 640 N VEL R. PHILLIPS AVE. SUITE 210 MILWAUKEE, WI 53203

PERMIT SET

DRAWN BY: MBS

CHECKED BY: JRV

GRADING PLAN

A
203

PROJ. NO. 2024-93

December 17, 2025
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STM FI-2
72"Ø Concrete Structure
RIM 658.26
36" W IE 652.57
30" SE IE 652.57
24" N IE 652.57
SEE DETAIL

REMOVE EXISTING STORM SEWER PIPE UP TO PROPERTY LINE, THEN MUD OPENING

CONTRACTOR TO MUD NORTHERN PIPE INLET AND ABANDON SUBSEQUENT 24" NORTH PIPE IN PLACE AT PROPERTY LINE

REVERSE FLOW OF EXISTING STORM SEWER PIPE. CONTRACTOR TO RE-USE EXISTING 24" STORM SEWER PIPE IF IN GOOD CONDITION. CONTRACTOR MAY ADJUST SLOPE OF REVERSED PIPE ACCORDING TO ELEVATION DISCOVERY. CONTRACTOR TO ALERT ENGINEER IF ACHIEVABLE SLOPE IS LESS THAN 1.0%.

REPLACE EXISTING STORM SEWER INLET. EXISTING 18" SOUTH PIPE TO CONNECT TO NEW STRUCTURE

213' OF 36" HDPE @ -1.19%

STM FI-1
72"Ø Concrete Structure
RIM 660.88
36" SW IE 650.03
18" S IE ±654.24
36" E IE 650.03
SEE DETAIL

REMOVE EXISTING STORM SEWER CATCH BASIN MANHOLE

REMOVE EXISTING STORM PIPES, SEE DEMO PLAN

268' OF 30" HDPE @ 0.71%

218' OF 36" HDPE @ -0.50%

REPLACE EXISTING SANITARY MANHOLE. EXISTING 4" NORTH AND 6" EAST SANITARY PIPES TO BE CONNECTED TO NEW STRUCTURE

SAN MH-1
48"Ø Concrete Structure
RIM 661.86
10" S IE 654.83
4" N IE ±655.73
6" E IE ±656.63
SEE DETAIL

CONNECT 6" PVC DRAIN LATERAL TO MAINLINE
30" INV. = ±653.88

79 LF OF 6" PVC PIPE @ 6.53%

6" YARD DRAIN
RIM = 660.54
6" INV. = 659.04

APPROXIMATE LOCATION OF ELECTRICAL CONDUIT TO BE INSTALLED IN THIS PHASE.

WATERMAIN CONNECTION TO MECHANICAL ROOM TO BE COORDINATED BY CONTRACTOR
10" INV. = ±653.00
CONTRACTOR TO MAINTAIN 18" OF MINIMUM VERTICAL SEPARATION OVER/UNDER PIPE CROSSINGS

CONNECT TO EXISTING 12" WATERMAIN WITH 12"X10" TAP-IN SLEEVE TEE
INV = ±647.25
CONTRACTOR TO VERIFY ELEVATION AND LOCATION PRIOR TO CONNECTION

STM MH-1
84"Ø Concrete Structure
RIM 659.54
36" SW IE 648.94
36" NE IE 648.94
24" SE IE 648.94
SEE DETAIL

32' OF 6" SCH 40 SAN LATERAL @1.21%
8" MAIN IE = 654.60

6" IE AT FOUNDATION = 654.99

45° BEND
10" INV. = 652.19

GRADE BREAK
10" INV. = 650.16

13' OF 10" C900 PIPE @ -2.95%

14' OF 10" C900 PIPE @ -3.00%

196' OF 10" C900 PIPE @ 1.03%

186' OF 10" C900 PIPE @ 1.56%

194' OF 36" HDPE @ -1.00%

188' OF 24" HDPE @ -1.19%

REMOVE EXISTING SANITARY COMBINATION SEWER STRUCTURE. CONTRACTOR TO VERIFY CONNECTION TO SANITARY MAIN PRIOR TO REMOVAL.

STM FI-3
72"Ø Concrete Structure
RIM 660.84
30" NW IE 654.47
30" SE IE 654.47
SEE DETAIL

45° BEND
10" IE = 652.59

52 LF OF 6" SCH 40 PVC @1.75% W/ 45° BEND

16' OF 30" HDPE @ -0.60%

50' OF 30" HDPE @ -0.50%

10" VALVE INSTALLED WITH TAP-IN SLEEVE TEE ASSEMBLY

SAN MH-5
48"Ø Concrete Structure
RIM 660.86
8" S IE 654.09
6" NW IE 654.09
SEE DETAIL

STM FI-5
60"Ø Concrete Structure
RIM 660.02
30" N IE 654.81
30" S IE 654.81
12" W IE 655.50
SEE DETAIL

STM FI-11
60"Ø Concrete Structure
RIM 660.67
24" NW IE 651.18
24" S IE 651.18
SEE DETAIL

REMOVE EXISTING SANITARY MAIN AND REPLACE WITH NEW SANITARY MAIN AS SHOWN. CONTRACTOR TO MAINTAIN AND CONNECT EXISTING LATERALS TO THE NEW MAIN.

100' OF 8" SDR-35 @ -0.40%

SAN MH-4
48"Ø Concrete Structure
RIM 660.70
8" S IE 653.69
8" W IE 653.69
8" N IE 653.69
SEE DETAIL

29' OF 12" SCH 40 PVC @ -1.71%

STM FES-1
FLARED END SECTION
36" NE IE 647.00
SEE DETAIL

OUTFALL RIP RAP, SEE DETAIL

98' OF 24" HDPE @ 1.00%

353' OF 10" SCH 40 PVC @ -0.40%

EXISTING 10" CENTRAL SANITARY TO BE REROUTED FOR INTERIOR PLUMBING. SEE MECHANICAL PLANS

22' OF 8" SCH 40 PVC @ -6.02%

105' OF 30" HDPE @ -0.30%

111' OF 8" SDR-35 @ -0.40%

REMOVE EXISTING STORM MAINLINE, SEE DEMO PLAN

32' OF 12" SCH 40 PVC @ -2.77%

REMOVE EXISTING STORM SEWER CATCH BASIN MANHOLES AND ASSOCIATED STORM MAIN PIPES.
ALL EXISTING STORM SEWER LATERALS TO THE WEST TO BE MAINTAINED AND INSTALLED INTO NEW STORM LINE

STM FI-12
48"Ø Concrete Structure
RIM 659.91
24" S IE 652.16
10" SW IE ±656.80
24" N IE 652.16
SEE DETAIL

PROPOSED 6" DOMESTIC WATER CONNECTION. CONTRACTOR TO COORDINATE REROUTE OF EXISTING DOMESTIC WATERMAIN TO THIS LOCATION.

STM FI-6
60"Ø Concrete Structure
RIM 661.07
30" N IE 655.12
24" S IE 655.12
12" W IE 655.12
SEE DETAIL

SAN MH-3
48"Ø Concrete Structure
RIM 661.02
8" N IE 653.25
8" S IE ±653.25
SEE DETAIL

56' OF 24" HDPE PIPE @ -0.47%

REMOVE EXISTING SANITARY COMBINATION SEWER STRUCTURE. CONTRACTOR TO VERIFY CONNECTION TO SANITARY MAIN PRIOR TO REMOVAL.

148' OF 24" HDPE @ 3.07%

SAN MH-2
48"Ø Concrete Structure
RIM 660.93
10" N IE 653.42
10" NW IE ±653.57
10" S IE ±653.42
SEE DETAIL

STM FI-7
60"Ø Concrete Structure
RIM 660.88
24" N IE 655.38
24" S IE 655.38
SEE DETAIL

39' OF 24" HDPE PIPE @ -0.44%

STM FI-8
48"Ø Concrete Structure
RIM 660.49
24" N IE 655.55
24" S IE 655.55
SEE DETAIL

WATER VALVE LID STUCK

STM FI-13
48"Ø Concrete Structure
RIM 660.55
24" S IE 656.71
24" N IE 656.71
SEE DETAIL

REPLACE EXISTING SAN MH
NEW STRUCTURE TO BE CONNECTED TO EXISTING SANITARY MAIN
10" INV. = ±653.42
EXISTING NW LATERAL TO BE CONNECTED TO NEW STRUCTURE

APPROXIMATE LOCATION OF NEW ELECTRIC CONDUIT

66' OF 24" HDPE @ -0.44%

52' OF 24" HDPE @ 0.50%

STM FI-14
60"Ø Concrete Structure
RIM 660.32
24" N IE 656.97
18" E IE 656.97
8" SE IE 657.32
SEE DETAIL

126' OF 18" HDPE @ -0.50%

STM FI-15
48"Ø Concrete Structure
RIM 660.60
18" W IE 657.60
15" SE IE 657.60
SEE DETAIL

STM FI-9
48"Ø Concrete Structure
RIM 659.83
24" N IE 655.84
18" S IE 655.84
12" W IE 655.84
SEE DETAIL

8" GAS CONNECTION TO BE COORDINATED BY CONTRACTOR

HALF OF EXISTING DOWNSPOUTS ON WEST WALL OF BUILDING 1 ARE ROUTED INTO THE EXISTING SANITARY SEWER. CONTRACTOR TO REROUTE THESE EXISTING DOWNSPOUTS INTO STORM MAIN EITHER BY COLLECTOR PVC PIPE AS SHOWN OR INDIVIDUAL LATERALS FOR EACH DOWNSPOUT THAT WYE INTO THE STORM MAIN.

32' OF 12" SCH 40 PVC @ -0.50%

133' OF 18" HDPE @ -1.34%

PROXIMITY OF STM STRUCTURE AND PIPE TO FOUNDATION REQUIRES COORDINATION OF THESE ITEMS.

15" STORM LATERAL FOR EXISTING DOWNSPOUT CONNECTION. TO BE COORDINATED BY CONTRACTOR WITH PLUMBING SUBCONTRACTOR.

8" STORM LATERAL FOR EXISTING DOWNSPOUT CONNECTION. TO BE COORDINATED BY CONTRACTOR WITH PLUMBING SUBCONTRACTOR

STM FI-10
48"Ø Concrete Structure
RIM 660.62
18" N IE 657.62
SEE DETAIL

FUTURE TELEVISING INVESTIGATION TO DETERMINE DIAMETER AND QUALITY OF EXISTING SANITARY SEWER MAY AFFECT THE REHABILITATION OF THIS SYSTEM.

NOTE: ALL FOUND SEWER LATERALS TO BE EXPLORED TO VERIFY THAT THEY SERVE SANITARY OR STORM SEWER PURPOSES. IF FOUND LATERAL IS CONFIRMED TO BE SANITARY, THEN CONNECT TO PROPOSED SANITARY MAIN. IF FOUND LATERAL IS CONFIRMED TO BE STORM SEWER, CONNECT TO PROPOSED STORM SEWER.

ALL NEW SANITARY AND STORM SEWER LATERALS TO BE SCH 40 PVC PIPE.

EXISTING SANITARY AND STORM SEWER LATERAL LOCATIONS SHOWN ARE BASED ON TELEVISING SURVEY INVESTIGATION. LOCATIONS AND ELEVATIONS FOR THESE LATERALS SHOULD NOT BE CONSIDERED DEFINITIVE. VARIATION IN LOCATION AND ELEVATION OF THESE ELEMENTS ARE ANTICIPATED.

CONTRACTOR TO ENSURE PIPE CROSSING SEPARATION MEETS WISCONSIN STATE CODE NR. 811.74.

OVERALL UTILITY PLAN

SCALE: 1"=30'

N

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BUILDING 25 - NEW CONSTRUCTION

VOLLRATH COMPANY LLC

1236 NORTH 18th STREET, SHEBOYGAN, WI 53081

1135A MICHIGAN AVE, SHEBOYGAN, WI 53081 | (920) 452-4444 | 640 N VEL R. PHILLIPS AVE, SUITE 210, MILWAUKEE, WI 53203

PERMIT SET

DRAWN BY: MBS

CHECKED BY: JRV

OVERALL UTILITY PLAN

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204

PROJ. NO. 2024-93

December 17, 2025

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STM FI-2
72"Ø Concrete Structure
RIM 658.26
36" W IE 652.57
30" SE IE 652.57
24" N IE 652.57
SEE DETAIL

REMOVE EXISTING STORM SEWER PIPE UP TO PROPERTY LINE, THEN MUD OPENING

CONTRACTOR TO MUD NORTHERN PIPE INLET AND ABANDON SUBSEQUENT 24" NORTH PIPE IN PLACE AT PROPERTY LINE

REVERSE FLOW OF EXISTING STORM SEWER PIPE. CONTRACTOR TO RE-USE EXISTING 24" STORM SEWER PIPE IF IN GOOD CONDITION. CONTRACTOR MAY ADJUST SLOPE OF REVERSED PIPE ACCORDING TO ELEVATION DISCOVERY. CONTRACTOR TO ALERT ENGINEER IF ACHIEVABLE SLOPE IS LESS THAN 1.0%.

REPLACE EXISTING STORM SEWER INLET. EXISTING 18" SOUTH PIPE TO CONNECT TO NEW STRUCTURE

213' OF 36" HDPE @ -1.19%

STM FI-1
72"Ø Concrete Structure
RIM ±660.88
36" SW IE ±650.03
18" S IE ±654.24
36" E IE ±650.03
SEE DETAIL

REMOVE EXISTING STORM SEWER CATCH BASIN MANHOLE

268' OF 30" HDPE @ 0.71%

218' OF 36" HDPE @ -0.50%

CONNECT 6" PVC DRAIN LATERAL TO MAINLINE
30" INV. = ±653.88

79 LF OF 6" PVC PIPE @ 6.53%

6" YARD DRAIN
RIM = 660.54
6" INV. = 659.04

STM MH-1
84"Ø Concrete Structure
RIM 659.54
36" SW IE 648.94
36" NE IE 648.94
24" SE IE 648.94
SEE DETAIL

194' OF 36" HDPE @ -1.00%

188' OF 24" HDPE @ -1.19%

STM FI-3
72"Ø Concrete Structure
RIM 660.84
30" NW IE 654.47
30" SE IE 654.47
SEE DETAIL

16' OF 30" HDPE @ -0.60%

50' OF 30" HDPE @ -0.50%

STM FI-11
60"Ø Concrete Structure
RIM 660.67
24" NW IE 651.18
24" S IE 651.18
SEE DETAIL

STM FI-5
60"Ø Concrete Structure
RIM 660.02
30" N IE 654.81
30" S IE 654.81
12" W IE 655.50
SEE DETAIL

29' OF 12" SCH 40 PVC @ -1.71%

STM FES-1
FLARED END SECTION
36" NE IE 647.00
SEE DETAIL

OUTFALL RIP RAP, SEE DETAIL

EXISTING LATERAL TO BE CONNECTED TO NEW MAIN, TYP.
SIZE UNKNOWN
ELEVATION UNKNOWN
24" MAIN IE = 651.47

98' OF 24" HDPE @ 1.00%

105' OF 30" HDPE @ -0.30%

EXISTING LATERAL TO BE CONNECTED TO NEW MAIN, TYP.
SIZE UNKNOWN
ELEVATION UNKNOWN
24" MAIN IE = 652.05

REMOVE EXISTING STORM SEWER CATCH BASIN MANHOLES AND ASSOCIATED STORM MAIN PIPES.
ALL EXISTING STORM SEWER LATERALS TO THE WEST TO BE MAINTAINED AND INSTALLED INTO NEW STORM LINE

STM FI-12
48"Ø Concrete Structure
RIM 659.91
24" S IE 652.16
10" SW IE 8656.80
24" N IE 652.16
SEE DETAIL

32' OF 12" SCH 40 PVC @ -2.77%

STM FI-6
60"Ø Concrete Structure
RIM 661.07
30" N IE 655.12
24" S IE 655.12
12" W IE 655.12
SEE DETAIL

56' OF 24" HDPE PIPE @ -0.47%

148' OF 24" HDPE @ 3.07%

EXISTING LATERAL TO BE CONNECTED TO NEW MAIN, TYP.
SIZE UNKNOWN
ELEVATION UNKNOWN
24" MAIN IE = 655.49

STM FI-7
60"Ø Concrete Structure
RIM 660.88
24" N IE 655.38
24" S IE 655.38
SEE DETAIL

39' OF 24" HDPE PIPE @ -0.44%

CONTRACTOR TO CONNECT TWO 6" SCH 40 PVC DRAIN PIPES TO STM FI-8 & FI-9, THEN MOVE NORTHWEST & SOUTHWEST TO PICKUP EXISTING DOWNSPOUT DRAINS FOR BUILDING 1. CONTRACTOR TO MAINTAIN MINIMUM SLOPE OF 1.0% FOR 6" PVC DRAINS, BUT MAY SELECT ELEVATION OF INVERT IN STM FI-6 BASED ON BEST DRAINAGE PATTERN FROM EXISTING DOWNSPOUTS. INVERT MUST BE 2.5' OR MORE BELOW RIM ELEVATION.

STM FI-8
48"Ø Concrete Structure
RIM 660.49
24" N IE 655.55
24" S IE 655.55
SEE DETAIL

WATER VALVE LID STUCK

STM FI-13
48"Ø Concrete Structure
RIM 660.55
24" S IE 656.71
24" N IE 656.71
SEE DETAIL

66' OF 24" HDPE @ -0.44%

52' OF 24" HDPE @ 0.50%

STM FI-14
60"Ø Concrete Structure
RIM 660.32
24" N IE 656.97
18" E IE 656.97
8" SE IE 657.32
SEE DETAIL

126' OF 18" HDPE @ -0.50%

STM FI-15
48"Ø Concrete Structure
RIM 660.60
18" W IE 657.60
15" SE IE 657.60
SEE DETAIL

STM FI-9
48"Ø Concrete Structure
RIM 659.83
24" N IE 655.84
18" S IE 655.84
12" W IE 655.84
SEE DETAIL

HALF OF EXISTING DOWNSPOUTS ON WEST WALL OF BUILDING 1 ARE ROUTED INTO THE EXISTING SANITARY SEWER. CONTRACTOR TO REROUTE THESE EXISTING DOWNSPOUTS INTO STORM MAIN EITHER BY COLLECTOR PVC PIPE AS SHOWN OR INDIVIDUAL LATERALS FOR EACH DOWNSPOUT THAT WYE INTO THE STORM MAIN.

32' OF 12" SCH 40 PVC @ -0.50%

133' OF 18" HDPE @ -1.34%

PROXIMITY OF STM STRUCTURE AND PIPE TO FOUNDATION REQUIRES COORDINATION OF THESE ITEMS.

15" STORM LATERAL FOR EXISTING DOWNSPOUT CONNECTION. TO BE COORDINATED BY CONTRACTOR WITH PLUMBING SUBCONTRACTOR.

8" STORM LATERAL FOR EXISTING DOWNSPOUT CONNECTION. TO BE COORDINATED BY CONTRACTOR WITH PLUMBING SUBCONTRACTOR

CONTRACTOR TO CONNECT 6" SCH 40 PVC DRAIN PIPES TO STM MAIN, THEN MOVE NORTHWEST & SOUTHWEST TO PICKUP EXISTING DOWNSPOUT DRAINS FOR BUILDING 1.
18" MAIN IE = 657.17

STM FI-10
48"Ø Concrete Structure
RIM 660.62
18" N IE 657.62
SEE DETAIL

FUTURE TELEVISING INVESTIGATION TO DETERMINE DIAMETER AND QUALITY OF EXISTING SANITARY SEWER MAY AFFECT THE REHABILITATION OF THIS SYSTEM.

EXISTING STRUCTURE IN THIS LOCATION IS A COMBINATION SANITARY-STORM SEWER. THIS STRUCTURE IS TO BE REMOVED AND ALL ACTIVE STORM LATERALS CONNECTED TO IT ARE TO BE CONNECTED TO THE NEW STORM MAIN.

NOTE: ALL FOUND SEWER LATERALS TO BE EXPLORED TO VERIFY THAT THEY SERVE SANITARY OR STORM SEWER PURPOSES. IF FOUND LATERAL IS CONFIRMED TO BE SANITARY, THEN CONNECT TO PROPOSED SANITARY MAIN. IF FOUND LATERAL IS CONFIRMED TO BE STORM SEWER, CONNECT TO PROPOSED STORM SEWER.

ALL NEW SANITARY AND STORM SEWER LATERALS TO BE SCH 40 PVC PIPE.

SANITARY AND STORM SEWER LATERAL LOCATIONS SHOWN ARE BASED ON TELEVISING SURVEY INVESTIGATION.

CONTRACTOR TO ENSURE PIPE CROSSING SEPARATION MEETS WISCONSIN STATE CODE NR. 811.74.

OVERALL STORM SEWER PLAN

SCALE: 1"=30'

N

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DRAWN BY: MBS

CHECKED BY: JRV

OVERALL STORM SEWER PLAN

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205

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REPLACE EXISTING SANITARY MANHOLE.
EXISTING 4" NORTH AND 6" EAST SANITARY
PIPES TO BE CONNECTED TO NEW STRUCTURE

SAN MH-1
48"Ø Concrete Structure
RIM 661.86
10" S IE 654.83
4" N IE ±655.73
6" E IE ±656.63
SEE DETAIL

32' OF 6" SCH 40 SAN LATERAL @1.21%
8" MAIN IE = 654.60

6" IE AT FOUNDATION = 654.99

REMOVE EXISTING SANITARY
COMBINATION SEWER STRUCTURE.
CONTRACTOR TO VERIFY
CONNECTION TO SANITARY MAIN
PRIOR TO REMOVAL.

REMOVE EXISTING SANITARY MAIN
AND REPLACE WITH NEW SANITARY
MAIN AS SHOWN. CONTRACTOR TO
MAINTAIN AND CONNECT EXISTING
LATERALS TO THE NEW MAIN.

353' OF 10" SCH 40 PVC @ -0.40%

EXISTING 10" CENTRAL SANITARY TO BE
REROUTED FOR INTERIOR PLUMBING. SEE
MECHANICAL PLANS

REMOVE EXISTING SANITARY
COMBINATION SEWER STRUCTURE.
CONTRACTOR TO VERIFY
CONNECTION TO SANITARY MAIN
PRIOR TO REMOVAL.

SAN MH-2
48"Ø Concrete Structure
RIM 660.93
10" N IE 653.42
10" NW IE ±653.57
10" S IE ±653.42
SEE DETAIL

REPLACE EXISTING SAN MH
NEW STRUCTURE TO BE CONNECTED
TO EXISTING SANITARY MAIN
10" INV. = ±653.42
EXISTING NW LATERAL TO BE
CONNECTED TO NEW STRUCTURE

FUTURE TELEVISING INVESTIGATION TO DETERMINE
DIAMETER AND QUALITY OF EXISTING SANITARY SEWER
MAY AFFECT THE REHABILITATION OF THIS SYSTEM.

52 LF OF 6" SCH 40 PVC
@1.75% W/ 45° BEND

SAN MH-5
48"Ø Concrete Structure
RIM 660.86
8" S IE 654.09
6" NW IE 654.09
SEE DETAIL

100' OF 8" SDR-35 @ -0.40%

SAN MH-4
48"Ø Concrete Structure
RIM 660.70
8" S IE 653.69
8" W IE 653.69
8" N IE 653.69
SEE DETAIL

22' OF 8" SCH 40 PVC @ -6.02%

111' OF 8" SDR-35 @ -0.40%

SAN MH-3
48"Ø Concrete Structure
RIM 661.02
8" N IE 653.25
8" S IE ±653.25
SEE DETAIL

REPLACE EXISTING SANITARY SEWER
MANHOLE. REMOVE EXISTING NW SAN PIPE.
8" IE = ±653.25
CONTRACTOR TO VERIFY ELEVATION AND
LOCATION PRIOR TO CONNECTION.

EXISTING STRUCTURE IN THIS LOCATION IS A
COMBINATION SANITARY-STORM SEWER. THIS
STRUCTURE CASTING IS TO BE CHANGED TO A
SOLID LID NEENAH R-1661 RIM.

WATER VALVE
LID STUCK

NOTE: ALL FOUND SEWER LATERALS TO BE EXPLORED TO VERIFY THAT THEY SERVE SANITARY OR STORM SEWER PURPOSES. IF FOUND LATERAL IS CONFIRMED TO BE SANITARY, THEN CONNECT TO PROPOSED SANITARY MAIN. IF FOUND LATERAL IS CONFIRMED TO BE STORM SEWER, CONNECT TO PROPOSED STORM SEWER.

ALL NEW SANITARY AND STORM SEWER LATERALS TO BE SCH 40 PVC PIPE.

SANITARY AND STORM SEWER LATERAL LOCATIONS SHOWN ARE BASED ON TELEVISING SURVEY INVESTIGATION.

CONTRACTOR TO ENSURE PIPE CROSSING SEPARATION MEETS WISCONSIN STATE CODE NR. 811.74.

OVERALL SANITARY PLAN

SCALE: 1"=30'

N

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DRAWN BY: MBS

CHECKED BY: JRV

OVERALL SANITARY PLAN

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206

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December 17, 2025

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EROSION CONTROL LEGEND

- EXTENTS OF EROSION MAT AS SPECIFIED. INSTALL ON DISTURBED AREAS WITH SLOPE GREATER THAN 4H:1V. SEE DETAIL
- PROPOSED SILT FENCING TO BE PLACED AROUND THE PERIMETER OF THE PROPOSED GRADING LIMITS. SEE DETAIL
- INLET PROTECTION TO BE INSTALLED IN EXISTING STORM SEWER INLETS PRIOR TO ANY CONSTRUCTION ACTIVITIES BEING PERFORMED. SEE DETAIL
- INLET PROTECTION TO BE INSTALLED AFTER INSTALLATION OF PROPOSED STORM SEWER INLETS. SEE DETAIL
- SILT SOCK DITCH CHECK

SILT FENCE, SEE DETAIL

SILT SOCK DITCH CHECK

SILT SOCK DITCH CHECK

SILT FENCE, SEE DETAIL

SILT FENCE, SEE DETAIL

SILT FENCE, SEE DETAIL

PROPOSED BUILDING 25
FFE = 661.50
YG = 661.16
NORTH FFE = 662.67
FFE TRANSITION AT
NORTHERN RAMPS, SEE
ARCH PLANS

661.11

660.89±

660.98±

661.00

662.00

660.00

658.00

659.00

657.00

656.00

655.00

654.00

653.00

650.00

645.00

EROSION CONTROL PLAN

SCALE: 1"=30'

N

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EROSION CONTROL PLAN

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207

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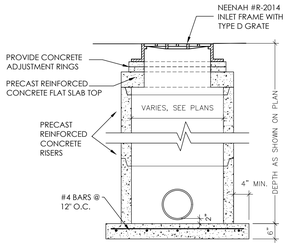
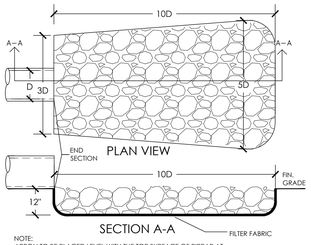


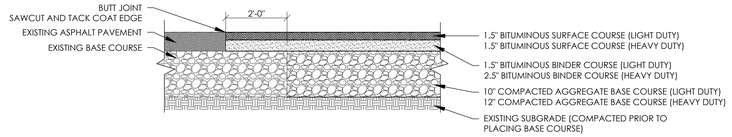
PRECAST REINFORCED
CONCRETE ACCEPTABLE

STORM INLET SECTION

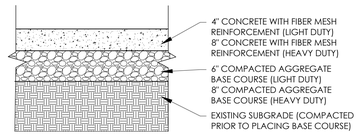


NOTE:
APRON TO BE PLACED LEVEL WITH THE TOP SURFACE OF RIPRAP AT SAME LEVEL AS SURROUNDING LAND SURFACE NO OVERFALL SHOULD EXIST.

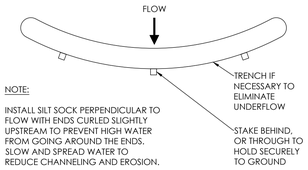
STORM SEWER OUTFALL



ASPHALT PAVEMENT CROSS SECTION



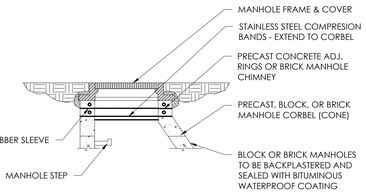
CONCRETE PAVEMENT CROSS SECTION

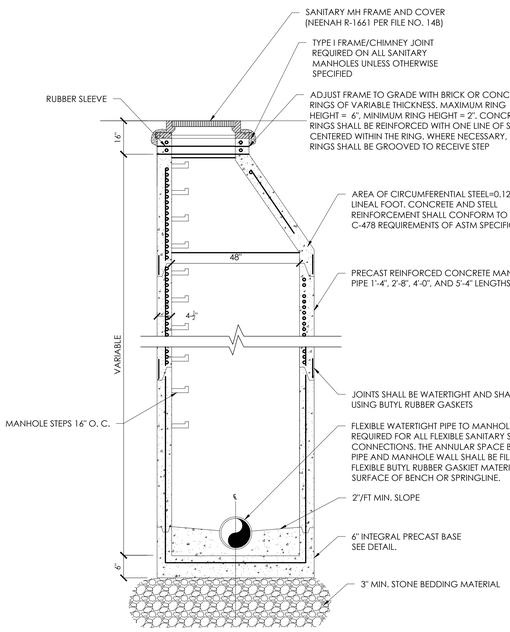


NOTE:

INSTALL SILT SOCK PERPENDICULAR TO FLOW WITH ENDS CURLED SLIGHTLY UPSTREAM TO PREVENT HIGH WATER FROM GOING AROUND THE ENDS. SLOW AND SPREAD WATER TO REDUCE CHANNELING AND EROSION.

SILT SOCK DITCH CHECK





SANITARY MANHOLE NOTES:

1. 4" MIN. BEDDING MATERIAL REQUIRED UNDER INTEGRAL PRECAST MANHOLE AROUND THE OUTSIDE OF THE STRUCTURE.
2. SEE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN. FILE NO. 12 FOR PRECAST MANHOLE AND FILE NO. 13 FOR MANHOLE INVERTS, INCLUDING INVERTS OF LATERAL SEWERS THAT CONNECT DIRECTLY TO MANHOLES.

SANITARY MANHOLE DETAIL

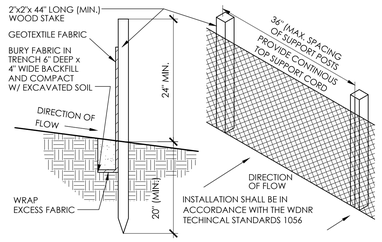
NOTES:

1. INTERNAL CHIMNEY SEALS SHALL BE FLEXIBLE RUBBER SLEEVE, EXTENSIONS AND WEDGE STRIPS SHALL BE EXTRUDED OR MOLDED FROM HIGH GRADE RUBBER COMPOUND CONFORMING TO APPLICABLE REQUIREMENTS OF ASTM C923, WITH A MINIMUM 1500 PSI TENSILE STRENGTH, MAXIMUM 18 PERCENT COMPRESSIONS SET AND DUROMETER HARDNESS OF 48 + 5. SLEEVE SHALL BE EITHER DOUBLE OR TRIPLE PLEATED, WITH A MINIMUM UNEXPANDED VERTICAL HEIGHT OF 8 INCHES AND 10 INCHES, RESPECTIVELY AND A THICKNESS OF 3/16 INCHES. TOP AND BOTTOM SECTION OF SLEEVE SHALL CONTAIN AN INTEGRALLY FORMED EXPANSION BAND RECESS AND MULTIPLE SEALING FINS. TOP SECTION OF EXTENSION SHALLNHAVE A MINIMUM THICKNESS OF 3/32 INCHES AND SHALL BE SHAPED TO FIT INTO BOTTOM BAND RECESS OF SLEEVE UNDER BOTTOM CHIMNEY SEAL BAND AND REMAINDER OF EXTENSION SHALL HAVE A THICKNESS OF 3/16 INCHES. BOTTOM SECTION OF EXTENSION SHALL CONTAIN AN INTEGRALLY FORMED EXPANSION B AND RECESS AND MULTIPLE SEALING FINS MATCHING THAT OF RUBBER SLEEVE. ANY SPLICE USED TO FABRICATE SLEEVE AND EXTENSION SHALL BE HOT VULCANIZED AND HAVE STRENGTH SUCH THAT SLEEVE SHALL WITHSTAND 180 DEGREE BENO WITH NO VISIBLE SEPARATION. CONTINUOUS WEDGE STRIP USED TO ADAPT RUBBER SLEEVE TO SLOPING SURFACES SHALL HAVE SLOPE DIFFERENTIAL NEEDED TO PROVIDE VERTICAL BAND RECESS SURFACE. BE SHAPED TO FIT INTO BAND RECESS AND HAVE AN INTEGRAL BAND RESTRAINT. LENGTH OF WEDGE STRIP SHALL BE SUCH THAT, WHEN ITS ENDS ARE BUTTED TOGETHER, IT WILL COVER ENTIRE INSIDE CIRCUMFERENCE OF THAT BAND RECESS NEEDING SLOPE ADJUSTMENT.
2. EXPANSION BANDS USED TO COMPRESS SLEEVE AGAINST MANHOLE SHALL BE INTEGRALLY FORMED FROM 16 GAGE TYPE 304 STAINLESS STEEL CONFORMING TO ASTM A2 40 , WI TH NO WELDED ATTACHMENTS AND SHALL HAVE A MINIMUM WIDTH OF 1-3 / 4 INCHES. BANDS SHALL HAVE A MINIMUM ADJUSTMENT RANGE OF 2 DIAMETER INCHES AND MECHANISM USED TO EXPAND BAND SHALL HAVE CAPACITY TO DEVELOP PRESSURES NECESSARY TO MAKE A WATERTIGHT SEAL. BAND SHALL BE PERMANENTLY HELD IN THIS EXPANDED POSITION WITH A POSITIVE LOCKING MECHANISM. ANY STUDS AND NUTS USED FOR THIS MECHANISM SHALL BE TYPE 304 STAINLESS STEEL CONFORMING TO ASTM F5 93 AND F5 9 4. SEALS SHALL BE SIMILAR AND EQUAL TO THOSE MANUFACTURED BY CRETEX SPECIALTY PRODUCTS , WAUKESHA, WISCONSIN.
3. CONTRACTOR SHALL MEASURE MANHOLE TO DETERMINE INFORMATION NECESSARY TO ORDER PROPER SIZE SLEEVE AND EXTENSIONS. ALL SEALING SURFACES SHALL BE REASONABLY SMOOTH, CLEAN AND FREE OF ANY FORM OFFSETS OR EXCESSIVE HONEYCOMB. TOP INTERNAL PORTION OF CONE SECTION SHALL HAVE A MINIMUM 3 INCH HIGH VERTICAL SURFACE.

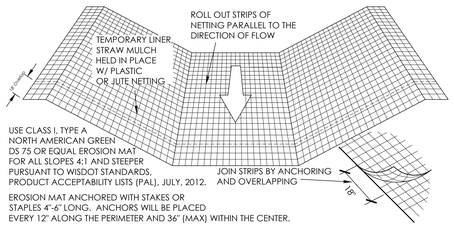
INSTALLATION:

1. INSTALL RUBBER SLEEVE WITH PRINTING AT TOP AND TOP EDGE LINED UP WITH ALIGNMENT MARKS.
2. WIPE OFF OUTSIDE OF STAINLESS STEEL AND APPLY MODERATE COATING OF BAND LUBRICANT TO SLOT AREA AND A LIGHT TO MODERATE COATING TO REMAINDER OF BANDS OUTSIDE SURFACE.
3. INSTALL BAND IN APPROPRIATE BAND RECESS WITH SLOTTED END AGAINST RUBBER SURFACE. POSITION EXPANSION TOOL AND EXPAND BAND UNTIL LOCKING TABS POP IN TO TIGHTEST SLOTS POSSIBLE, LOOSEN TOOL SLOWLY UNTIL TABS ARE FULLY ENGAGED IN SLOTS, THEN CONTINUE TO LOOSEN AND REMOVE TOOL. WHEN INSTALLING LARGE DIAMETER BAND, USE AUXILIARY TOOL SLOTS TO START EXPANSION PROCESS, MOVE ONE TOOL LEG TO PRIMARY TOOL SLOT IF NECESSARY TO COMPLETE EXPANSION.
4. LUBRICATE SECOND BAND AND INSTALL IN OTHER BAND RECESS, ATTACH TOOL AND EXPAND AS BEFORE, KEEPING BANDS PARALLEL. BANDS CAN BE PUT CLOSER TOGETHER IF ONLY LIMITED HEIGHT IS AVAILABLE OR IF EXCESSIVE SLEEVE EXPANSION IS DESIRED.

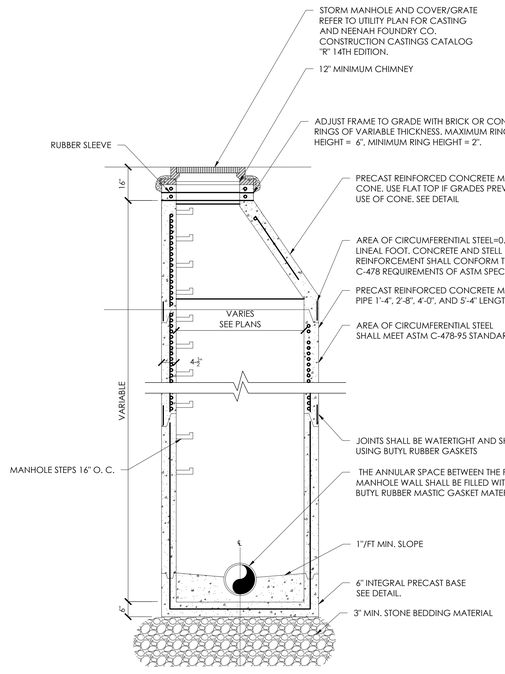
INTERNAL RUBBER SLEEVE FRAME/CHIMNEY SEAL



SILT FENCE SECTION & DETAIL



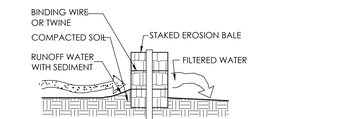
EROSION MATTING DETAIL
(FOR SIDE SLOPES ONLY - NOT FOR CHANNELIZED FLOW)



STORM MANHOLE NOTES:

1. PRECAST ADJUSTING RINGS TO BE REINFORCED WITH ONE HOOP OF STEEL CENTERED WITH THE RING. WHERE NECESSARY, RINGS SHALL BE BE GROOVED TO RECEIVE STEP.
2. CONCRETE AND STEEL REINFORCEMENT SHALL CONFORM TO DESIGNATION C-478 REQUIREMENTS OF ASTM SPECIFICATIONS.
3. 3" MIN. BEDDING MATERIAL REQUIRED UNDER MANHOLE BASE AND AND BACKFILLED STRUCTURE WITH GRANULAR BACKFILL MATERIAL.
4. SEE STANDARD SPECIFICATIONS, FILE NO. 12 FOR PRECAST MANHOLE AND FILE NO. 13 FOR MANHOLE INVERTS, INCLUDING INVERTS OF LATERAL SEWERS THAT CONNECT DIRECTLY TO MANHOLES.

STORM MANHOLE DETAIL

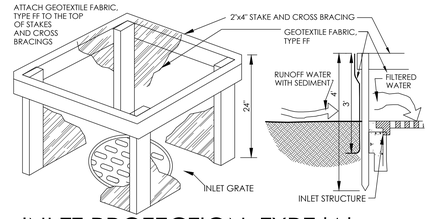


GENERAL NOTES:
EROSION CONTROL AND ALL SITE WORK TO BE PREFORMED UNDER "BEST MANAGEMENT PRACTICES" IN THE WISCONSIN CONSTRUCTION SITE BEST MANAGEMENT PRACTICE HANDBOOK

SEDIMENT CONTROL BARRIER SECTION

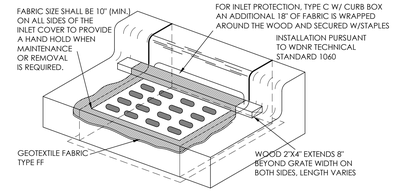
FABRIC SHALL BE REPLACED AT THE ENGINEERS DISCRETION.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET, ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.



INLET PROTECTION, TYPE 'A'

INSTALLATION PURSUANT TO WDNR TECHNICAL STANDARD 1060

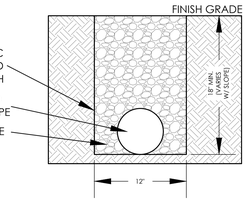


INLET PROTECTION, TYPE 'C'

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE 'C' INLET PROTECTION TO BE IMPLEMENTED UPON CONSTRUCTION OF CURB AND GUTTER. PRIOR TO CURB AND GUTTER CONSTRUCTION, TYPE 'A' INLET PROTECTION SHALL BE PROVIDED.



NOTES:
1. INSTALL TRENCH DRAIN AT A MINIMUM 1% SLOPE.
2. MAINTAIN CLEARSTONE AT FINISH GRADE FOR ENTIRE LENGTH OF DRAIN EXCEPTING PORTION OF DRAIN UNDERNEATH ROADWAY

6" PERFORATED DRAIN TRENCH DETAIL

CIVIL DETAILS

N

ABACUS ARCHITECTS

REVISIONS:

△	DATE	ISSUE

NOTICE TO BIDDERS
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DATE ISSUED: DECEMBER 17th, 2025

BUILDING 25 - NEW CONSTRUCTION

VOLLRATH COMPANY LLC

1236 NORTH 18th STREET, SHEBOYGAN, WI 53081

1135A MICHIGAN AVE. SHEBOYGAN, WI 53081 | (920) 452-4444 | 640 N VEL R. PHILLIPS AVE. SUITE 210 MILWAUKEE, WI 53203

PERMIT SET

DRAWN BY: MBS

CHECKED BY: JRV

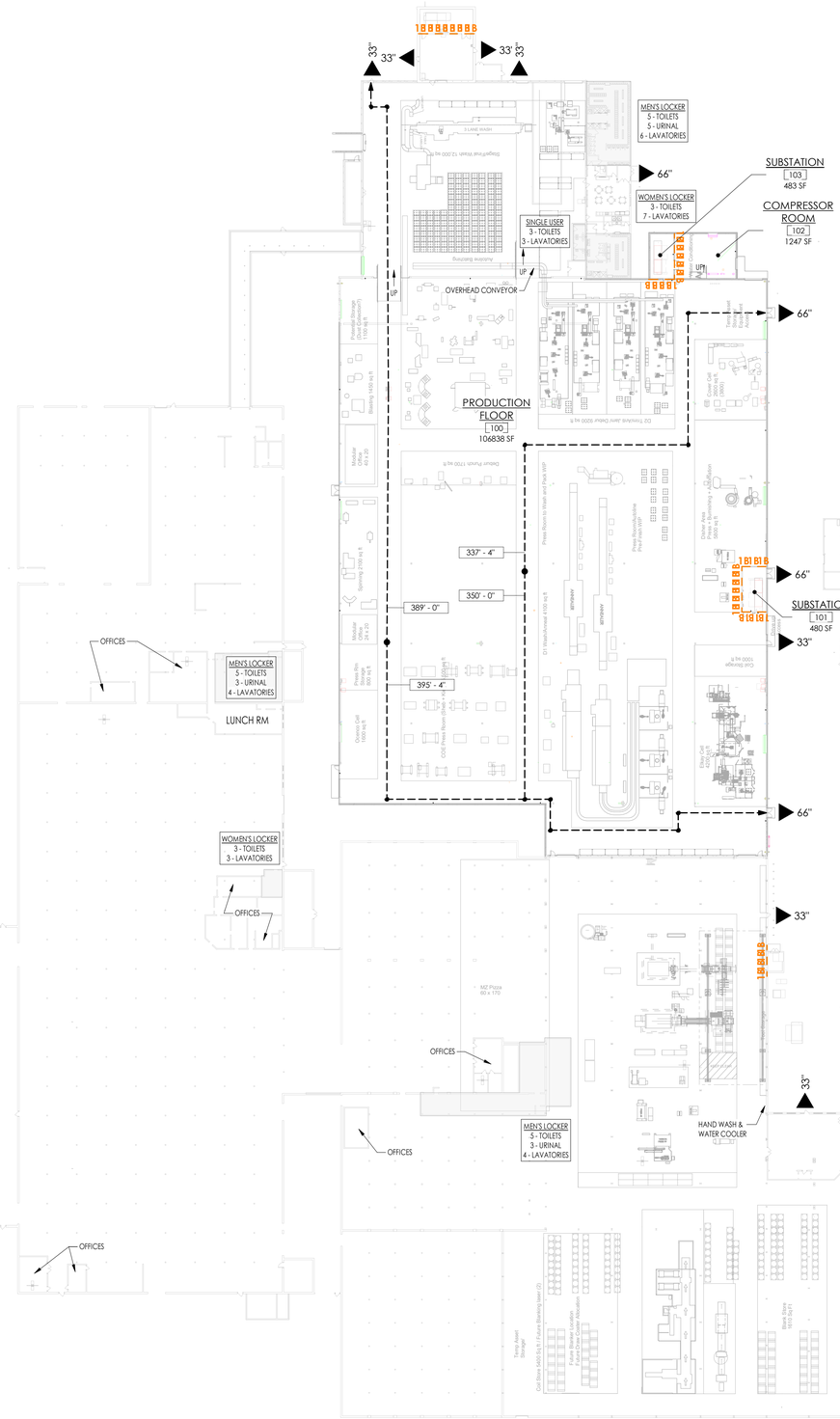
CIVIL DETAILS

A
208

PROJ. NO. 2024-93

December 17, 2025

P:\2024-CONTRACTS\2024-93 Vollrath Company\Phase - 2\Construction Documents\S3.3 Site\2024-93 - Base.dwg



LIFE SAFETY PLAN LEGEND

100' - 0" — PATH OF TRAVEL / DISTANCE

33" — EXIT AND AVAILABLE EXIT INCHES

FEC-X & FE — FIRE EXTINGUISHER
- FE: WALL MOUNTED W/ BRACKET
- FEC-1: FULLY RECESSED CABINET
- FEC-2: SEMI-RECESSED CABINET
- FEC-3: SURFACE MOUNTED CABINET

EXIT LIGHT

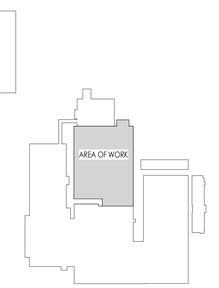
FIRE AND SMOKE PROTECTION FEATURES

1B — PROTECTION TYPE / HOURLY RATING (SEE PLAN)

1, 2, 3, OR 4 HOUR FIRE BARRIER
- REQUIRED AT WALLS INDICATED ON PLAN
- EXTEND TO UNDERSIDE OF FLOOR OR ROOF SHEATHING, OR SLAB OR DECK ABOVE
- FIRE BARRIERS SHALL BE CONTINUOUS THROUGH CONCEALED SPACES

LIFE SAFETY PLAN NOTES

- EQUIPMENT SHOWN IS FOR REFERENCE ONLY. NOT PART OF THIS BUILDING PHASE. FINAL LAYOUT TO BE DETERMINED BY OWN IN NEXT PHASE.



KEY PLAN — N W E S

SANITARY FIXTURES W/ADDITION

HIGHEST PLANNED TEAM MEMBER COUNT (1st SHIFT) IN TOTAL PRODUCTION FACILITY AT ANY ONE TIME IS 166 TEAM MEMBERS. SEE LETTER ON FILE WITH SUBMISSION FROM THE VOLLRATH COMPANY, LLC.

HIGHEST PLANNED OCCUPANCY = 166

166 FACTORY OCCUPANTS FOR SANITARY FIXTURE CALCULATIONS

83 FEMALES
- 83/100 (FACTORY OCCUPANCY) = 0.83 WATER CLOSETS
- 83/100 (FACTORY OCCUPANCY) = 0.83 LAVATORIES

83 MALES
- 83/100 (FACTORY OCCUPANCY) = 0.83 WATER CLOSETS
- 83/100 (FACTORY OCCUPANCY) = 0.83 LAVATORIES

TOTALS:

0.83 (1) WATER CLOSETS/GENDER
0.83 (1) LAVATORIES/GENDER

EXISTING FIXTURES PROVIDED:

FEMALES = 6 WATER CLOSETS
10 LAVATORIES

MALES = 18 WATER CLOSETS
13 URINALS
17 LAVATORIES

SINGLE USER = 3 WATER CLOSETS
3 LAVATORIES

FIRST FLOOR LIFE SAFETY PLAN
SCALE: 1" = 40'-0"

N W E S

ABACUS ARCHITECTS

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VOLLRATH COMPANY LLC
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1135A MICHIGAN AVE. SHEBOYGAN, WI 53081 | (920) 452-4444 | 313 N. PLANKINTON AVE SUITE 208. MILWAUKEE, WI 53203

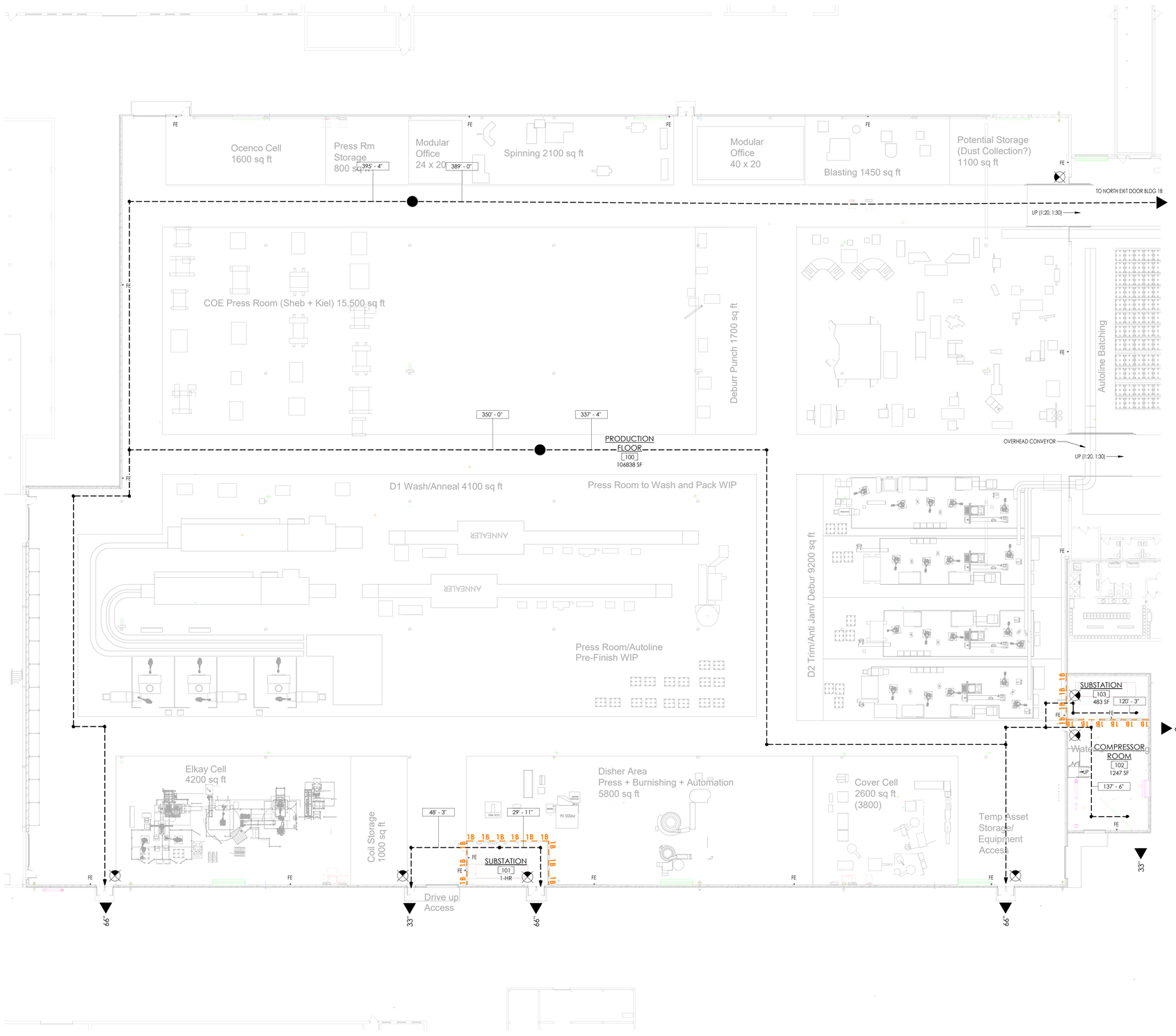
PERMIT SET

DRAWN BY: AJK
CHECKED BY: KED

LIFE SAFETY PLAN

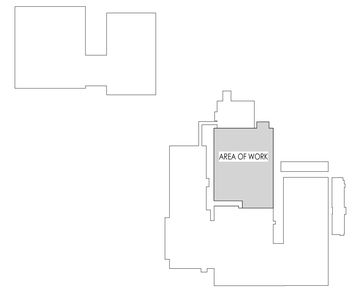
A
301

PROJ. NO. 2024-093



FIRST FLOOR LIFE SAFETY PLAN - ENLARGED

SCALE: 1/16" = 1'-0"



KEY PLAN

LIFE SAFETY PLAN LEGEND

- 100' - 0" — PATH OF TRAVEL / DISTANCE
- 33" — EXIT AND AVAILABLE EXIT INCHES
- FEC-X & FE — FIRE EXTINGUISHER
  - FE: WALL MOUNTED W/ BRACKET
  - FEC-1: FULLY RECESSED CABINET
  - FEC-2: SEMI-RECESSED CABINET
  - FEC-3: SURFACE MOUNTED CABINET
- EXIT LIGHT

FIRE AND SMOKE PROTECTION FEATURES

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LIFE SAFETY PLAN NOTES

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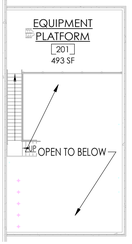

EQUIPMENT PLATFORM LIFE SAFETY PLAN

SCALE: 1/16" = 1'-0"

ABACUS ARCHITECTS

REVISIONS:

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BUILDING 25 - ADDITION

VOLLRATH COMPANY LLC

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DRAWN BY: AJK

CHECKED BY: KED

LIFE SAFETY PLAN - ENLARGED

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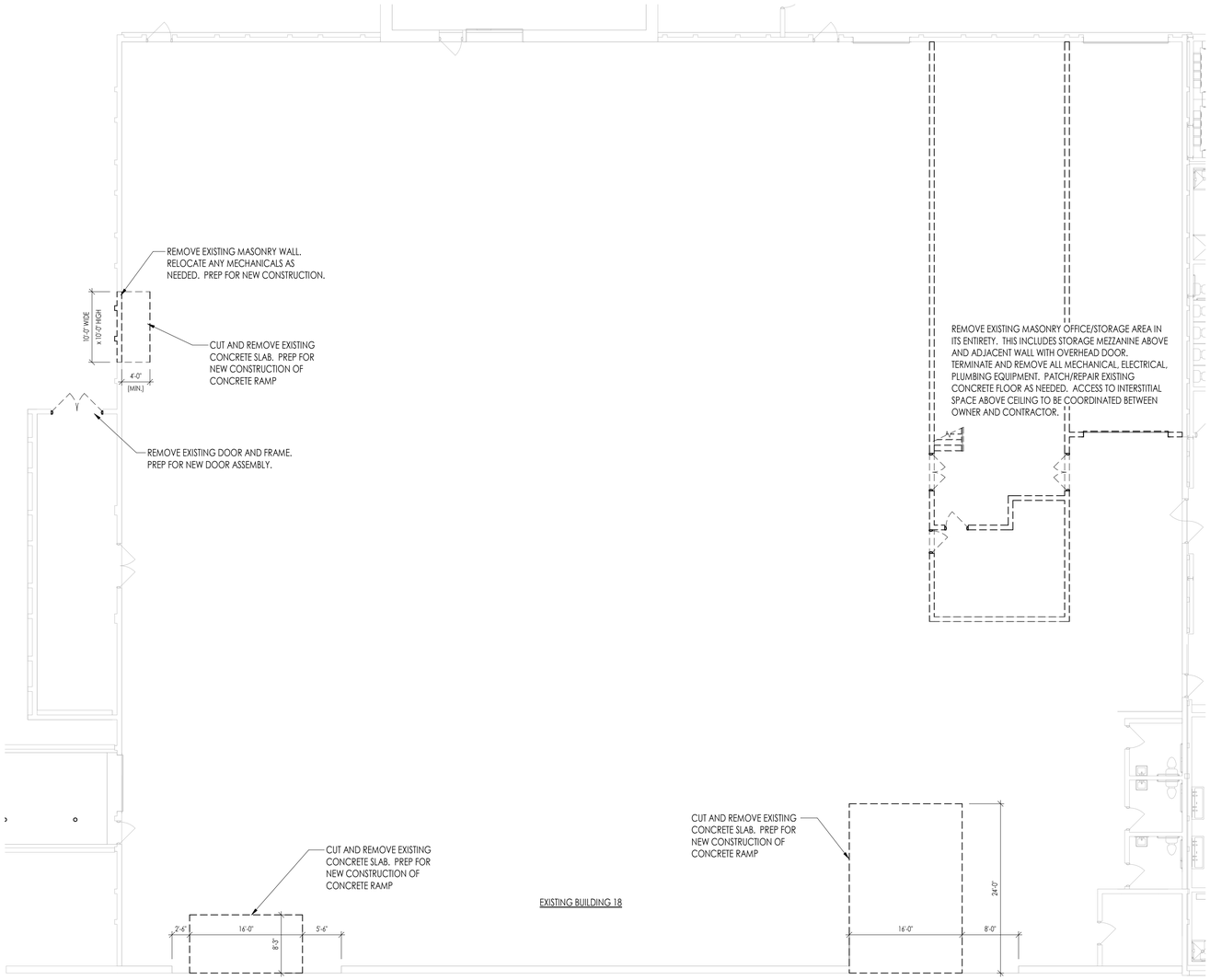
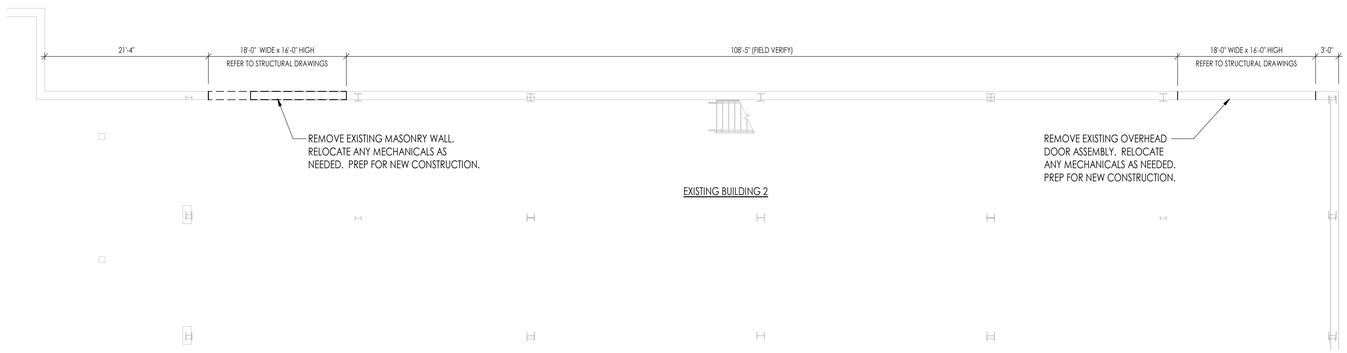
302

PROJ. NO. 2024-093



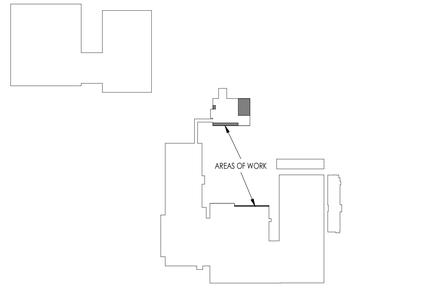
BUILDING 18 - PARTIAL FIRST FLOOR DEMOLITION PLAN

SCALE: 1/8" = 1'-0"



BUILDING 2 - PARTIAL FIRST FLOOR DEMOLITION PLAN

SCALE: 1/8" = 1'-0"



KEY PLAN

N W E S

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PERMIT SET

DRAWN BY: AJK

CHECKED BY: KED

DEMOLITION PLANS

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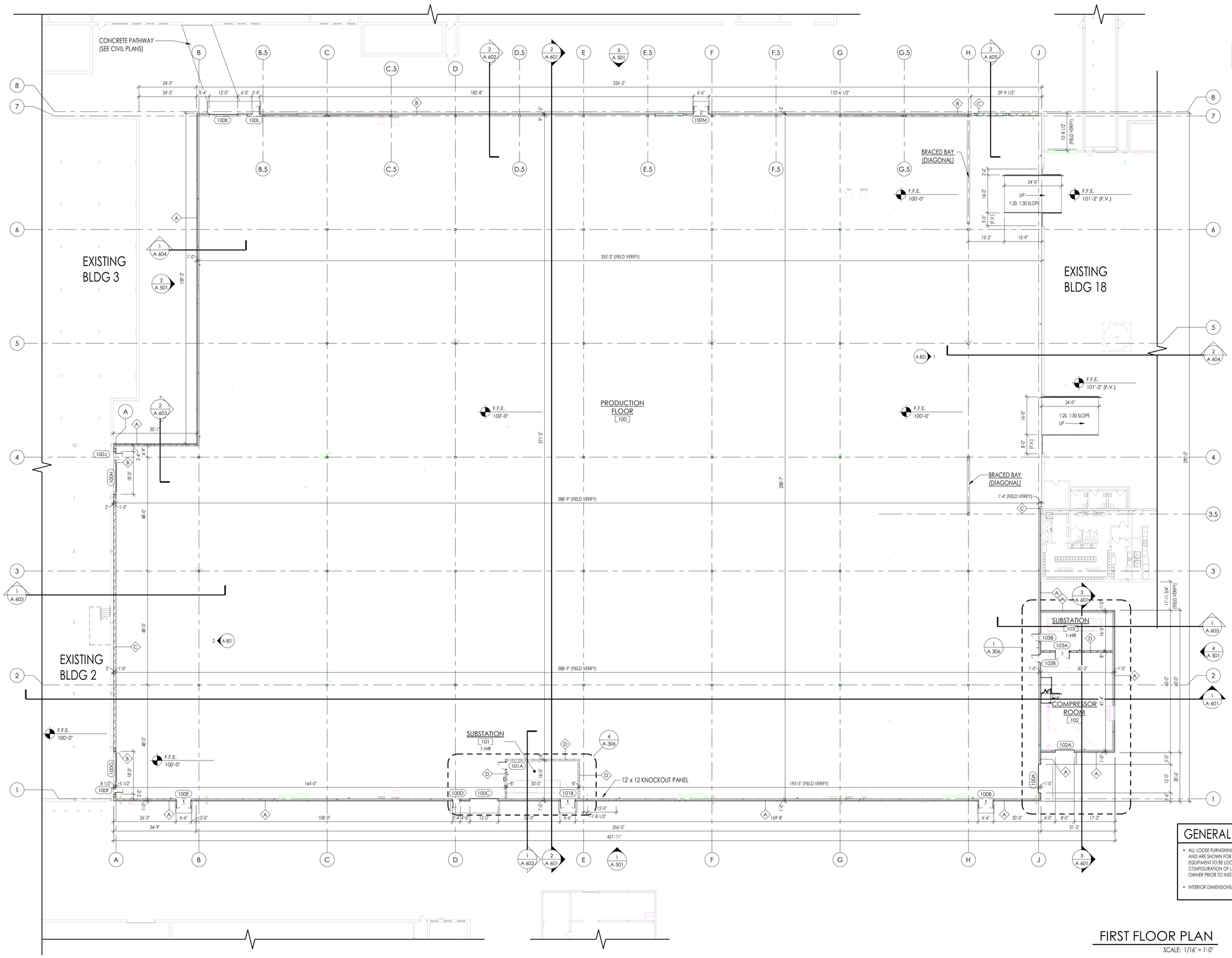
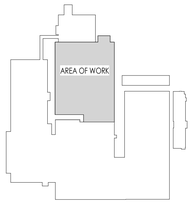
303

PROJ. NO. 2024-093





KEY PLAN

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GENERAL PLAN NOTES

- ALL LOOSE FURNISHINGS SHOWN ON PLANS ARE NOT IN CONTRACT AND ARE SHOWN FOR REFERENCE PURPOSES ONLY. ANY DEVICES OR EQUIPMENT TO BE LOCATED BASED UPON LOCATION OR CONFIGURATION OF LOOSE FURNISHINGS SHALL BE VERIFIED WITH THE OWNER PRIOR TO INSTALLATION.
- INTERIOR DIMENSIONS TAKEN FROM FACE OF STUD TO FACE OF STUD.

FIRST FLOOR PLAN
SCALE: 1/16" = 1'-0"

W
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ABACUS
ARCHITECTS

REVISIONS:

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FIRST FLOOR PLAN

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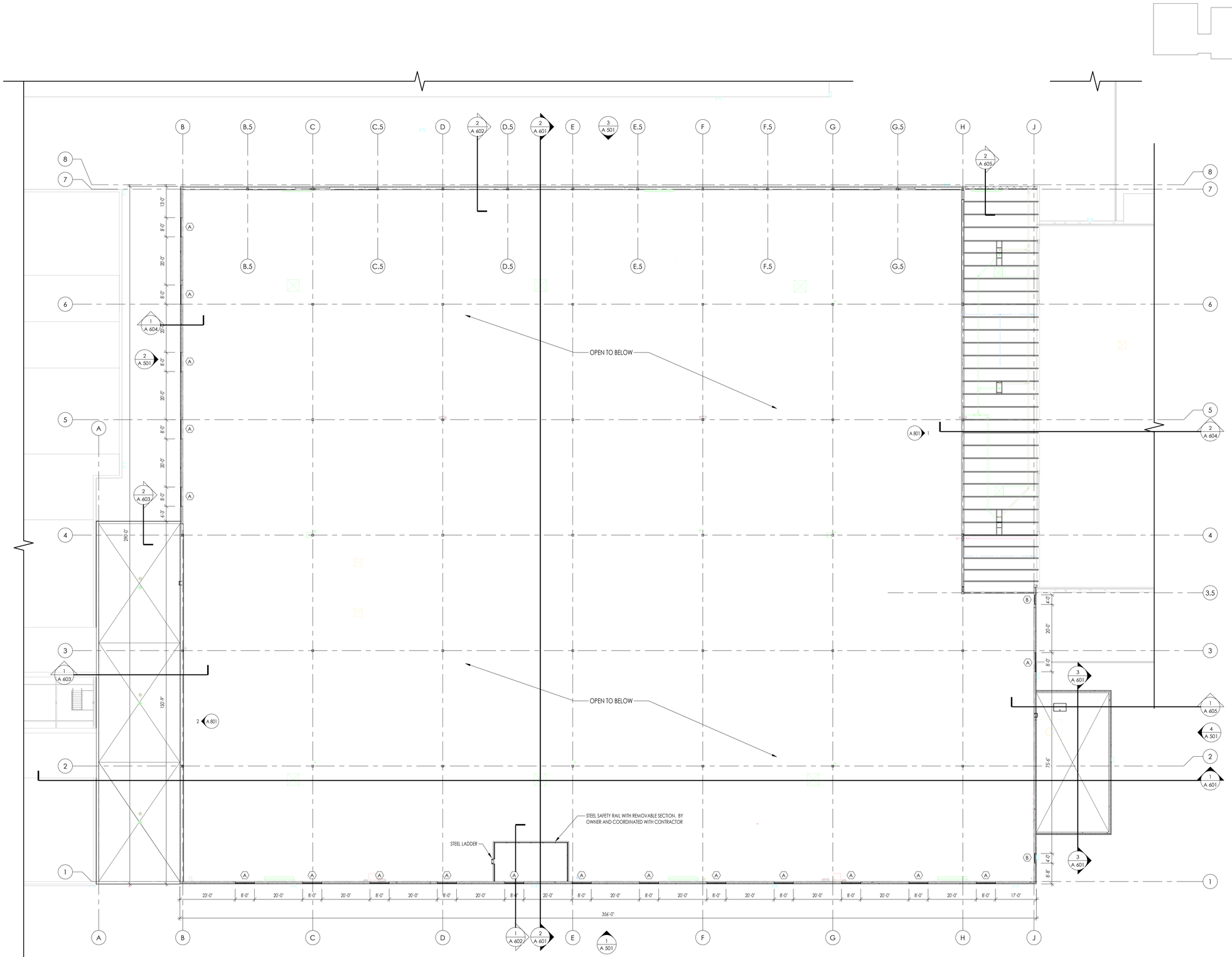
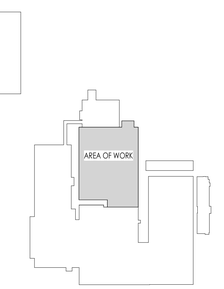
304

PROJ. NO. 2024-093





KEY PLAN

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CLERESTORY PLAN NOTES

- THIS PLAN MUST BE COORDINATED WITH PRECAST PANEL MANUFACTURER'S PLANS AND IS SUBJECT TO CHANGE.
- WINDOW SIZE AND LOCATION BASED ON 14'-0 PRECAST WALL PANELS PLACED EVERY OTHER PANEL.
- SEE EXTERIOR ELEVATIONS FOR ADDITIONAL INFORMATION.

CLERESTORY PLAN
SCALE: 1/16" = 1'-0"

W
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CLERESTORY PLAN

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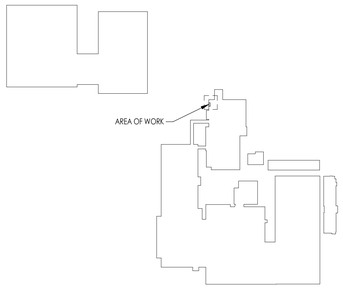
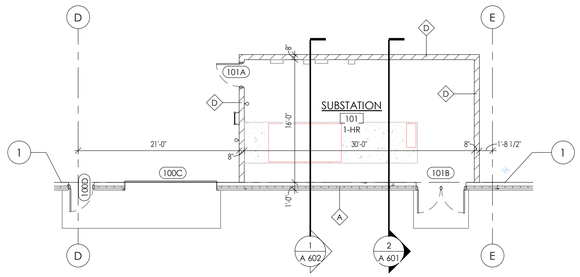
305

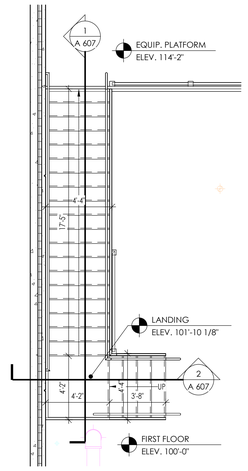
PROJ. NO. 2024-093



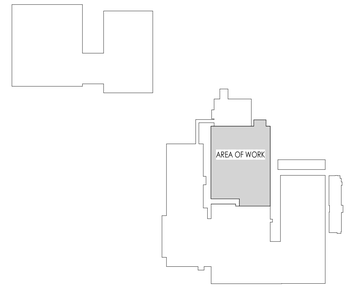
KEY PLAN



#101 SUBSTATION - FLOOR PLAN
SCALE: 1/8" = 1'-0"
4 A 306



COMPRESSOR ROOM STAIR PLAN
SCALE: 1/4" = 1'-0"
3 A 306



KEY PLAN

GENERAL PLAN NOTES

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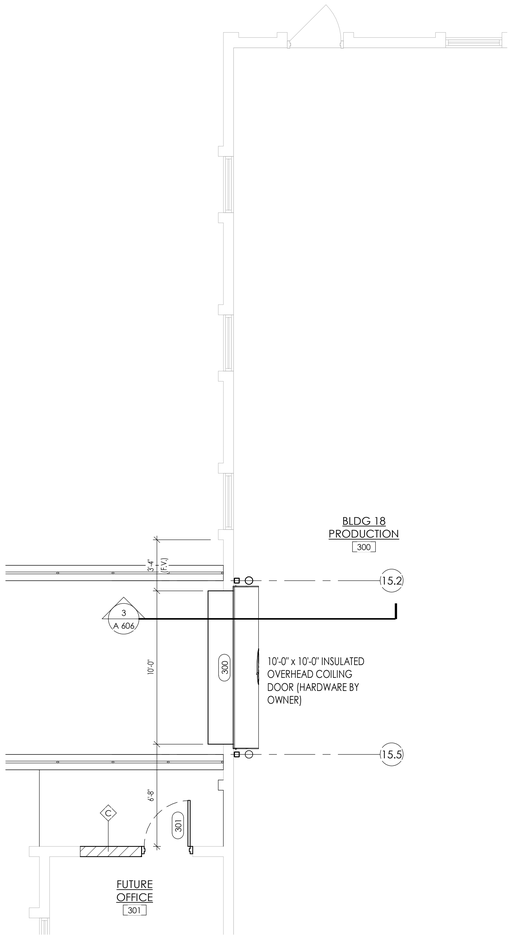
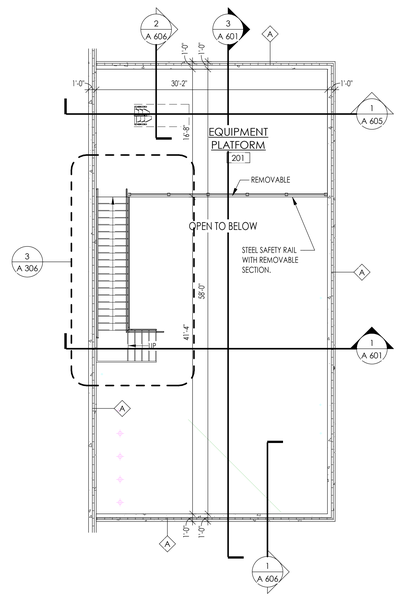
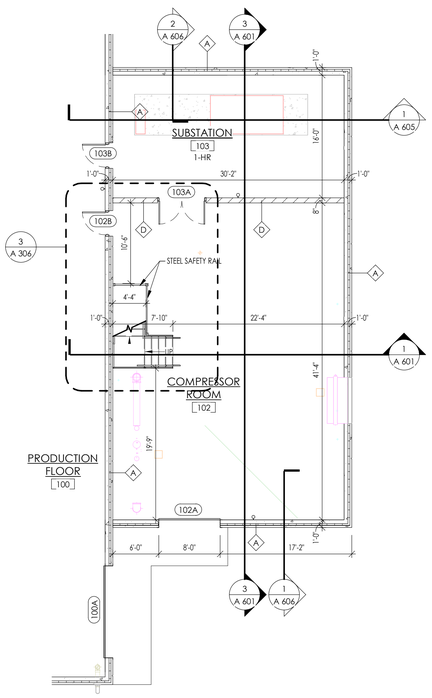
- INTERIOR DIMENSIONS TAKEN FROM FACE OF STUD TO FACE OF STUD.



BLDG #18 WEST WALL DOCK PLAN
SCALE: 1/4" = 1'-0"
5 A 306



ENLARGED EQUIPMENT PLATFORM PLAN
- MECHANICAL MEZZANINE
SCALE: 1/8" = 1'-0"
2 A 306



ENLARGED FLOOR PLAN
- SUBSTATION & COMP. ROOM
SCALE: 1/8" = 1'-0"
1 A 306

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PERMIT SET

DRAWN BY: AJK
CHECKED BY: KED

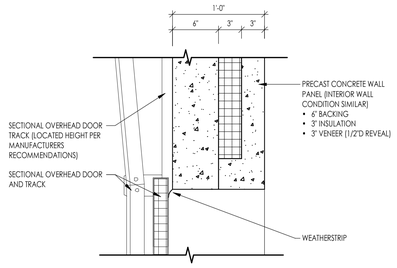
ENLARGED FLOOR PLANS

A
306

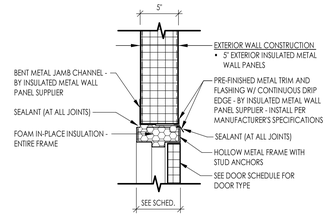
PROJ. NO. 2024-093

BLDG 25 - DOOR SCHEDULE

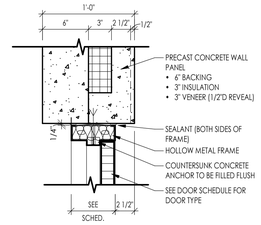
	DOOR					FRAME						
DOOR NO.	DOOR SIZE	ELEV.	MAT'L	GLASS TYPE	HARDWARE SET NO.	ELEV.	MAT'L	FRAME DEPTH	JAMB DETAIL	HEAD DETAIL	FIRE RATING	REMARKS
100A	12'-0" x 12'-0"	D-3	ALUM	-	BY OWNER	-	-		12/A401	13/A401	-	
100B	6'-0" x 7'-0"	D-2	HM	1	BY OWNER	F-3	HM	5 3/4"	6/A401	7/A401	-	
100C	12'-0" x 12'-0"	D-3	ALUM	-	BY OWNER	-	-		12/A401	13/A401	-	
100D	3'-0" x 7'-0"	D-2	HM	1	BY OWNER	F-1	HM	5 3/4"	6/A401	7/A401	-	
100E	6'-0" x 7'-0"	D-2	HM	1	BY OWNER	F-3	HM	5 3/4"	6/A401	7/A401	-	
100F	3'-0" x 7'-0"	D-2	HM	3	BY OWNER	F-1	HM	5 3/4"	6/A402	7/A402	-	
100G	12'-0" x 12'-0"	D-4	VINYL	-	BY OWNER	-	-		4/A402	5/A402	-	
100H	12'-0" x 12'-0"	D-4	VINYL	-	BY OWNER	-	-		4/A402	5/A402	-	
100J	3'-0" x 7'-0"	D-2	HM	3	BY OWNER	F-1	HM	5 3/4"	6/A402	7/A402	-	
100K	12'-0" x 12'-0"	D-3	ALUM	-	BY OWNER	-	-		2/A402	3/A402	-	
100L	3'-0" x 7'-0"	D-2	HM	1	BY OWNER	F-1	HM	5 3/4"	9/A401	10/A401	-	
100M	6'-0" x 7'-0"	D-2	HM	1	BY OWNER	F-3	HM	5 3/4"	9/A401	10/A401	-	
101A	3'-0" x 7'-0"	D-1	HM	-	BY OWNER	F-2	HM	5 3/4"	1/A401	2/A401	45 MIN	
101B	6'-0" x 7'-0"	D-1	HM	-	BY OWNER	F-3	HM	5 3/4"	6/A401	7/A401	-	
102A	8'-0" x 12'-0"	D-3	ALUM	-	BY OWNER	-	-		12/A401	13/A401	-	
102B	3'-0" x 7'-0"	D-1	HM	-	BY OWNER	F-1	HM	5 3/4"	3/A401	4/A401	45 MIN	
103A	(2) 6'-0" x 7'-0"	D-1	HM	-	BY OWNER	F-2	HM	5 3/4"	1/A401	2/A401	45 MIN	
103B	3'-0" x 7'-0"	D-1	HM	-	BY OWNER	F-1	HM	5 3/4"	3/A401	4/A401	45 MIN	
300	10'-0" x 10'-0"	D-5	ALUM	-	BY OWNER	-	-		8/A402	9/A402	-	
301	3'-0" x 7'-0"	D-2	HM	1	BY OWNER	F-1	HM	5 3/4"	1/A401	2/A401	-	



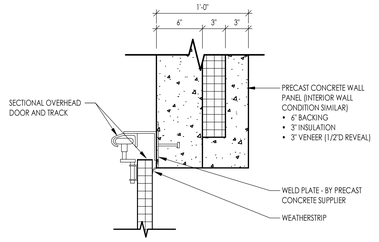
HEAD DETAIL 13 / A 401
SCALE: 1 1/2" = 1'-0"



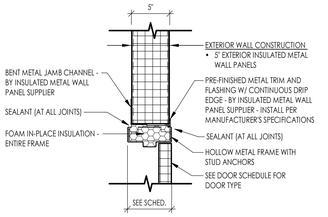
HEAD DETAIL 10 / A 401
SCALE: 1 1/2" = 1'-0"



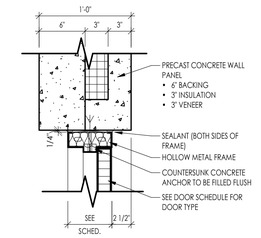
HEAD DETAIL 7 / A 401
SCALE: 1 1/2" = 1'-0"



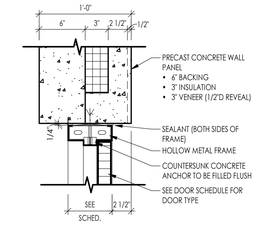
JAMB DETAIL 12 / A 401
SCALE: 1 1/2" = 1'-0"



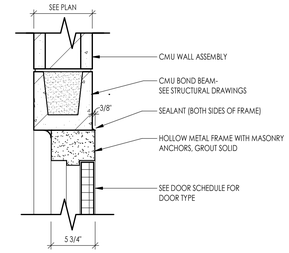
JAMB DETAIL 9 / A 401
SCALE: 1 1/2" = 1'-0"



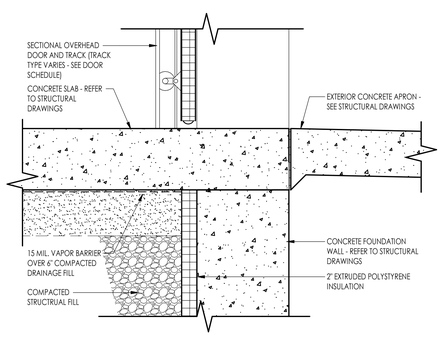
JAMB DETAIL 6 / A 401
SCALE: 1 1/2" = 1'-0"



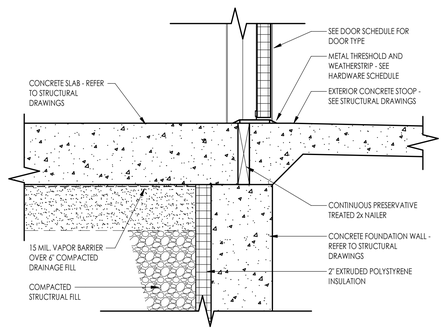
HEAD DETAIL 4 / A 401
SCALE: 1 1/2" = 1'-0"



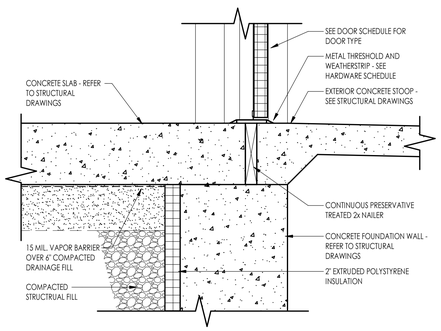
HEAD DETAIL 2 / A 401
SCALE: 1 1/2" = 1'-0"



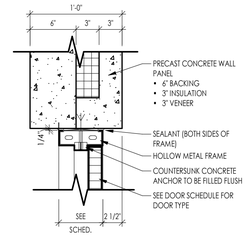
SILL DETAIL 11 / A 401
SCALE: 1 1/2" = 1'-0"



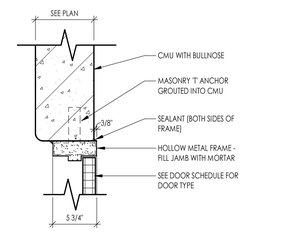
SILL DETAIL 8 / A 401
SCALE: 1 1/2" = 1'-0"



SILL DETAIL 5 / A 401
SCALE: 1 1/2" = 1'-0"



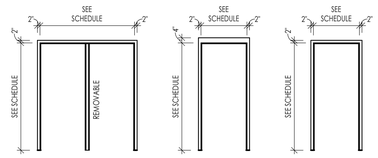
JAMB DETAIL 3 / A 401
SCALE: 1 1/2" = 1'-0"



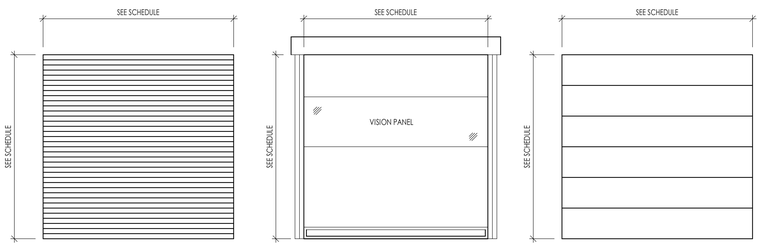
JAMB DETAIL 1 / A 401
SCALE: 1 1/2" = 1'-0"

GLASS TYPES

1	1" TEMPERED INSULATED LOW-E GLASS
2	1" INSULATED LOW-E GLASS
3	1/4" TEMPERED GLASS
4	1/4" FLOAT GLASS
5	FIRE RATED SAFETY GLASS
6	1" INSULATED LOW-E GLASS - 50% TINT



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



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

ABACUS ARCHITECTS

REVISIONS:

NOTICE TO BIDDERS
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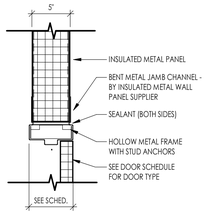
DATE ISSUED: DECEMBER 17th, 2025
BUILDING 25 - ADDITION
VOLLRATH COMPANY LLC
1236 NORTH 18th STREET, SHEBOYGAN WI 53081
1135A MICHIGAN AVE. SHEBOYGAN, WI 53081 | (920) 452-4444 | 313 N. PLANKINTON AVE SUITE 208. MILWAUKEE, WI 53203
PERMIT SET

DRAWN BY: AJK
CHECKED BY: KED

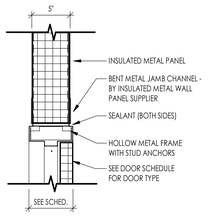
SCHEDULES, DOOR & FRAME TYPES, DETAILS

A
401

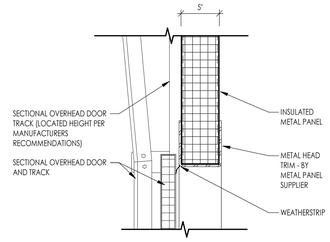
PROJ. NO. 2024-093



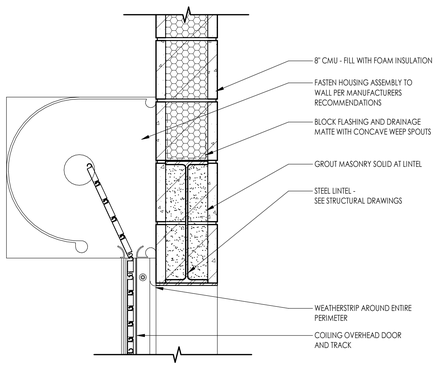
HEAD DETAIL 7 / A 402
SCALE: 1 1/2" = 1'-0"



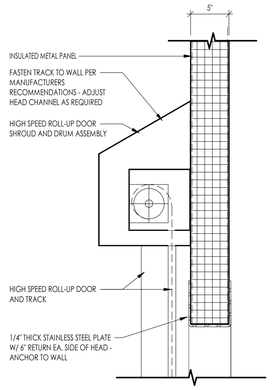
JAMB DETAIL 6 / A 402
SCALE: 1 1/2" = 1'-0"



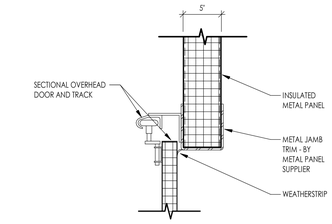
HEAD DETAIL 3 / A 402
SCALE: 1 1/2" = 1'-0"



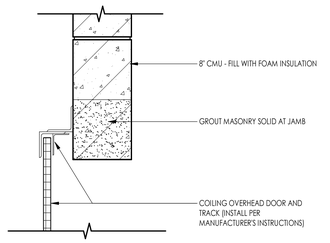
HEAD DETAIL 9 / A 402
SCALE: 1 1/2" = 1'-0"



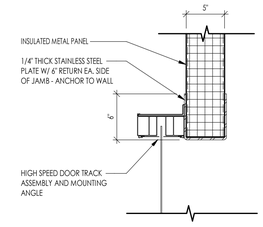
HEAD DETAIL 5 / A 402
SCALE: 1 1/2" = 1'-0"



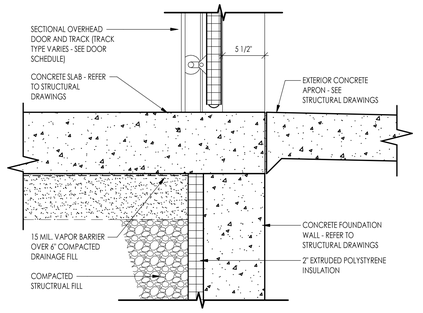
JAMB DETAIL 2 / A 402
SCALE: 1 1/2" = 1'-0"



JAMB DETAIL 8 / A 402
SCALE: 1 1/2" = 1'-0"



JAMB DETAIL 4 / A 402
SCALE: 1 1/2" = 1'-0"



SILL DETAIL 1 / A 402
SCALE: 1 1/2" = 1'-0"

ABACUS ARCHITECTS

REVISIONS:

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VOLLRATH COMPANY LLC

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1135A MICHIGAN AVE, SHEBOYGAN, WI 53081 | (920) 452-4444 | 313 N. PLANKINTON AVE SUITE 208, MILWAUKEE, WI 53203

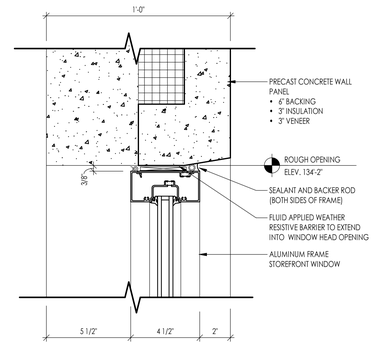
PERMIT SET

DRAWN BY: AJK
CHECKED BY: KED

DOOR DETAILS

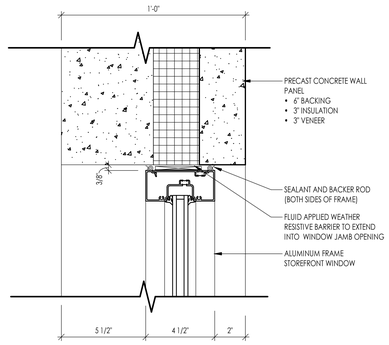
A
402

PROJ. NO. 2024-093



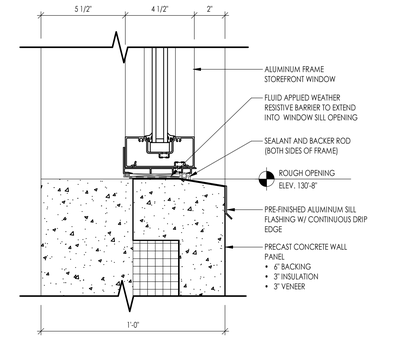
HEAD DETAIL 3 / A 403

SCALE: 3" = 1'-0"



JAMB DETAIL 2 / A 403

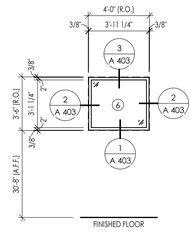
SCALE: 3" = 1'-0"



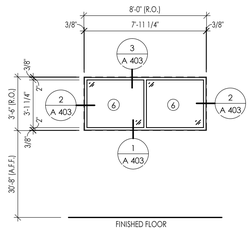
SILL DETAIL 1 / A 403

SCALE: 3" = 1'-0"

GLASS TYPES	
1	1" TEMPERED INSULATED LOW-E GLASS
2	1" INSULATED LOW-E GLASS
3	1/4" TEMPERED GLASS
4	1/4" FLOAT GLASS
5	FIRE RATED SAFETY GLASS
6	1" INSULATED LOW-E GLASS - 50% TINT



TYPE "B"



TYPE "A"

WINDOW TYPES

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

ABACUS ARCHITECTS

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1135A MICHIGAN AVE. SHEBOYGAN, WI 53081 (920) 452-4444 | 313 N. PLANKINTON AVE SUITE 208. MILWAUKEE, WI 53203

PERMIT SET

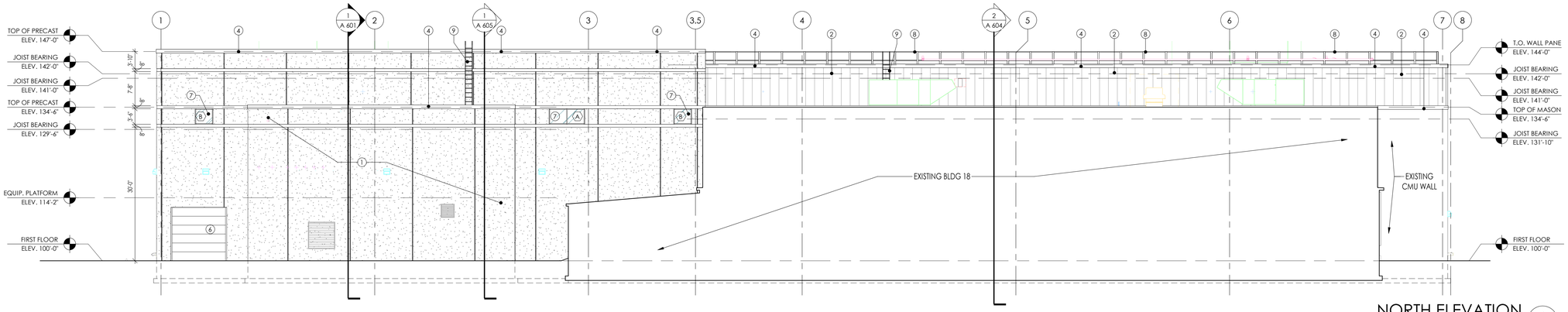
DRAWN BY: AJK

CHECKED BY: KED

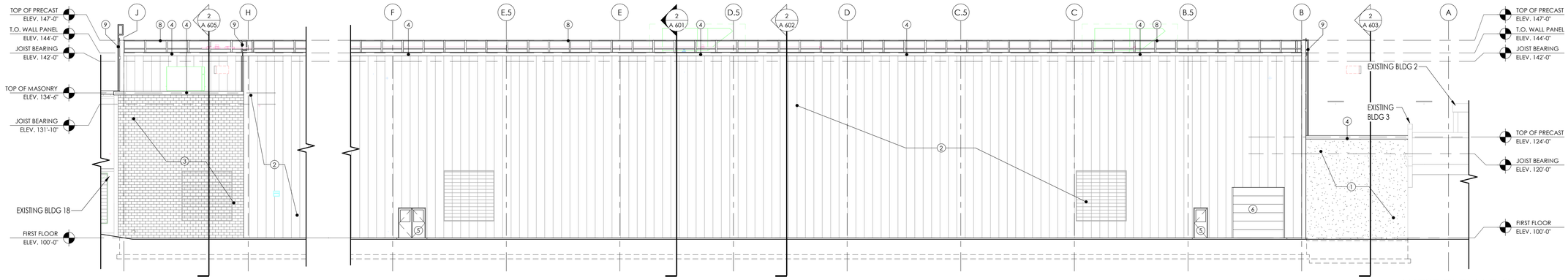
WINDOW TYPES & DETAILS

A
403

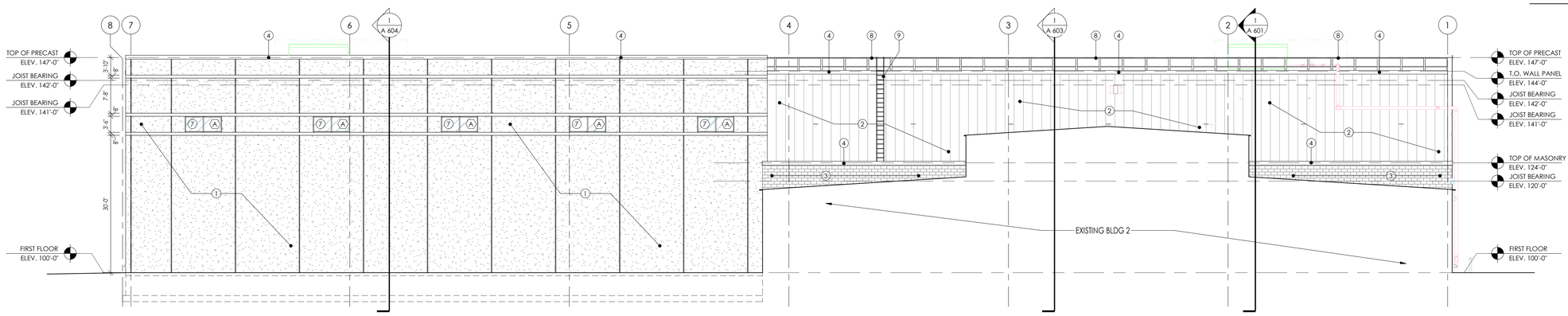
PROJ. NO. 2024-093



NORTH ELEVATION
SCALE: 3/32" = 1'-0" (4 / A 501)

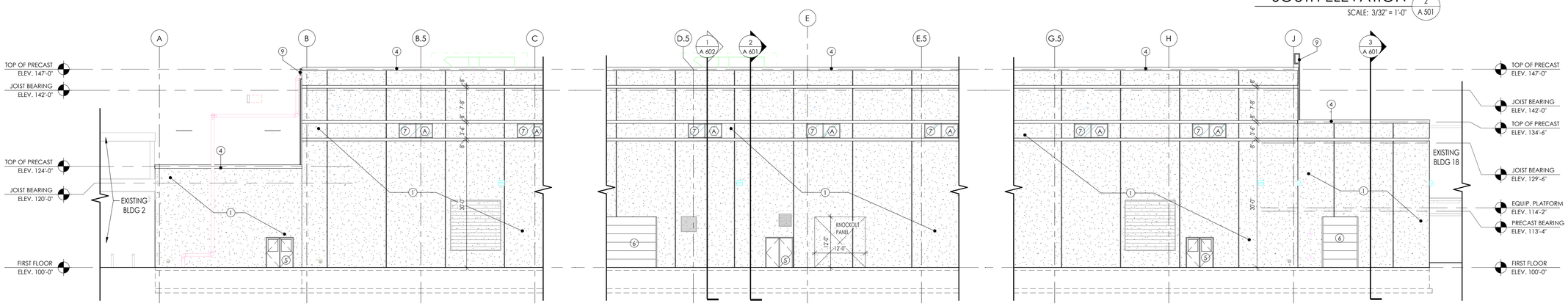


WEST ELEVATION
SCALE: 3/32" = 1'-0" (3 / A 501)



SOUTH ELEVATION
SCALE: 3/32" = 1'-0" (2 / A 501)

ELEV. KEYNOTES	
NO.	DESCRIPTION
1	INSULATED PRECAST WALL PANELS - COLOR TBD
2	INSULATED METAL WALL PANELS - COLOR TBD
3	INSULATED CMU WALL
4	PRE-FINISHED METAL FASCIA - BLACK
5	HOLLOW METAL DOOR AND FRAME - BLACK
6	OVERHEAD METAL DOOR - BLACK
7	ALUMINUM STOREFRONT WINDOW FRAME AND GLAZING - BLACK
8	NON-PENETRATING PRE-FINISHED METAL SAFETY RAIL - 3'-6"H MIN.
9	PRE-FINISHED METAL ROOF LADDER



EAST ELEVATION
SCALE: 3/32" = 1'-0" (1 / A 501)

ABACUS ARCHITECTS

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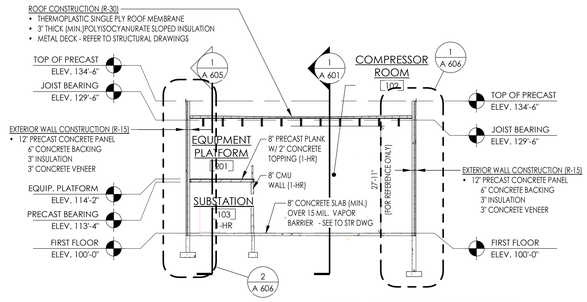
PERMIT SET

DRAWN BY: AJK
CHECKED BY: KED

EXTERIOR ELEVATIONS

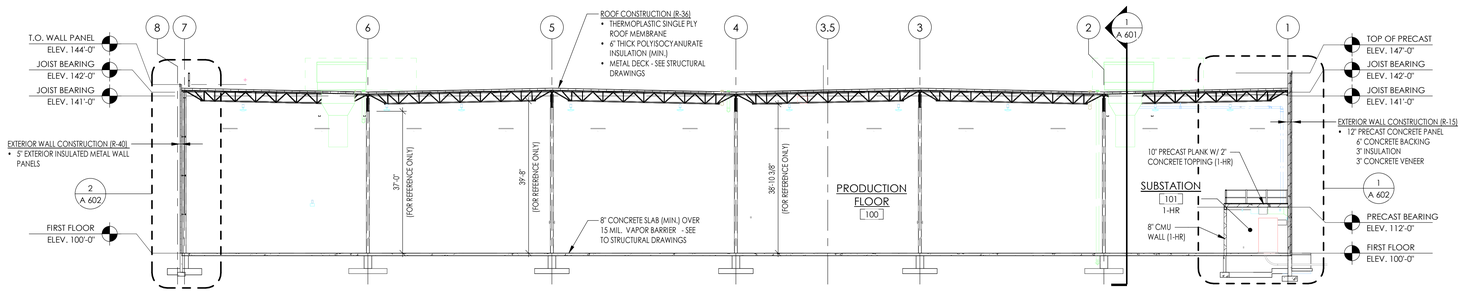
A
501

PROJ. NO. 2024-093



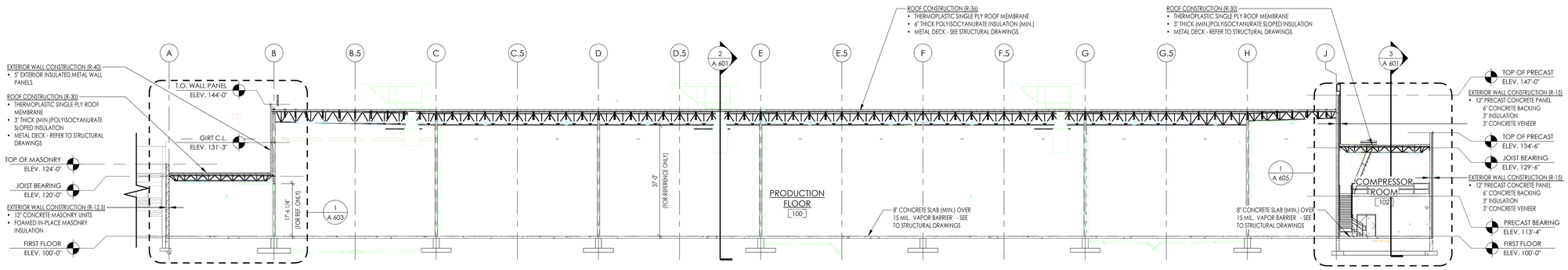
BUILDING SECTION

SCALE: 1/16" = 1'-0" — 3 A 601



BUILDING SECTION

SCALE: 1/16" = 1'-0" — 2 A 601



PARTIAL BUILDING SECTION

SCALE: 1/16" = 1'-0" — 1 A 601

ABACUS ARCHITECTS

REVISIONS:

NOTICE TO BIDDERS
BIDDERS SHALL REVIEW ALL DRAWINGS AND SPECIFICATION SECTIONS TO DETERMINE THE IMPACT OF OTHER SECTIONS OF WORK ON THEIR OWN WORK

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DATE ISSUED: DECEMBER 17th, 2025

BUILDING 25 - ADDITION

VOLLRATH COMPANY LLC

1236 NORTH 18th STREET, SHEBOYGAN WI 53081

1135A MICHIGAN AVE. SHEBOYGAN, WI 53081 | (920) 452-4444 | 313 N. PLANKINTON AVE SUITE 208. MILWAUKEE, WI 53203

PERMIT SET

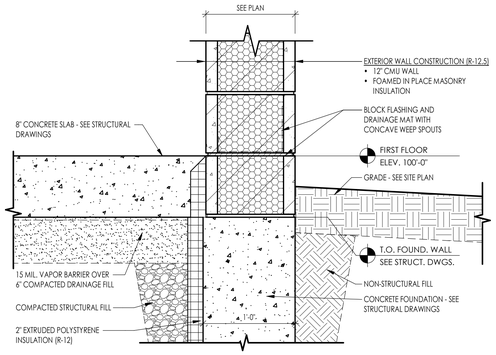
DRAWN BY: AJK

CHECKED BY: KED

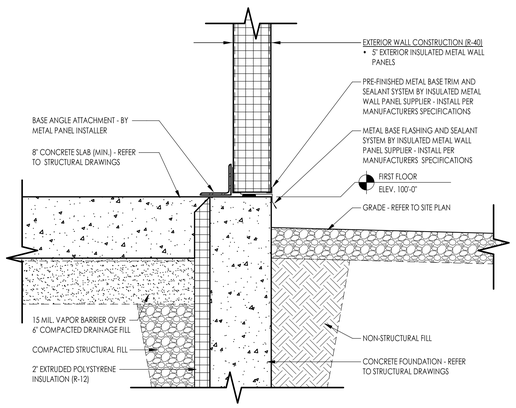
BUILDING SECTIONS

A 601

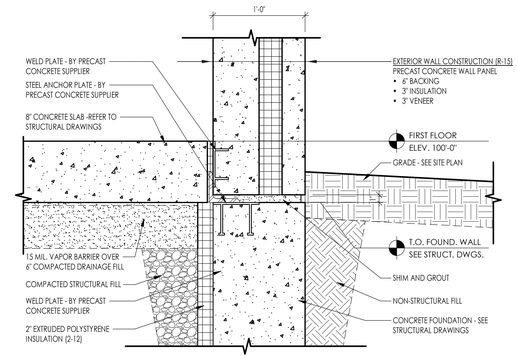
PROJ. NO. 2024-093



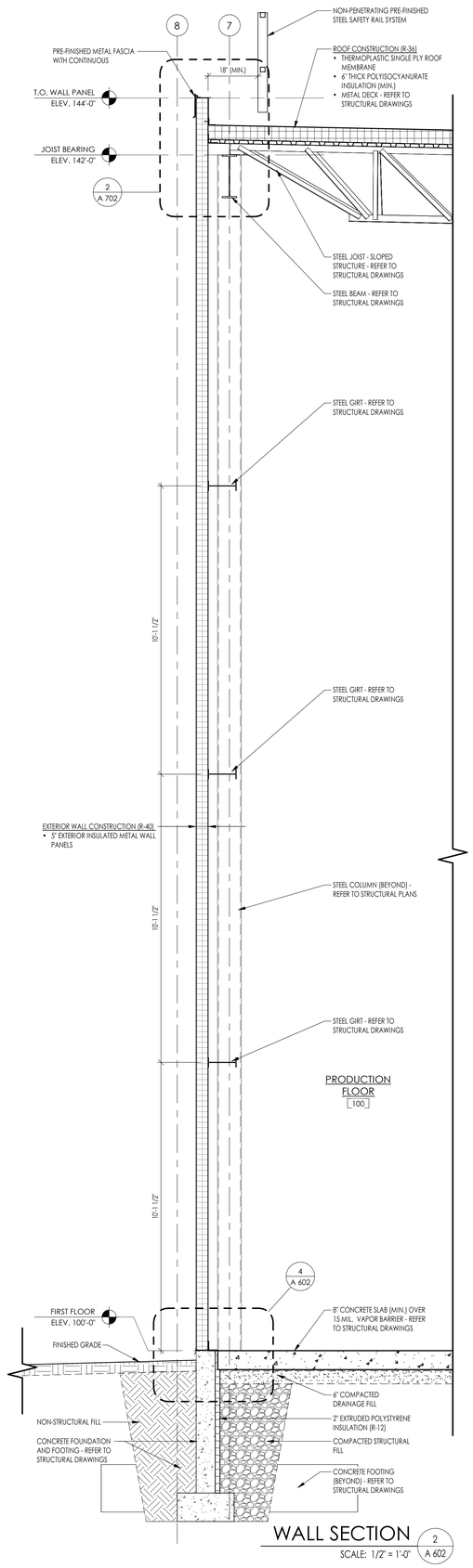
BASE DETAIL 5 / A 602
SCALE: 1 1/2" = 1'-0"



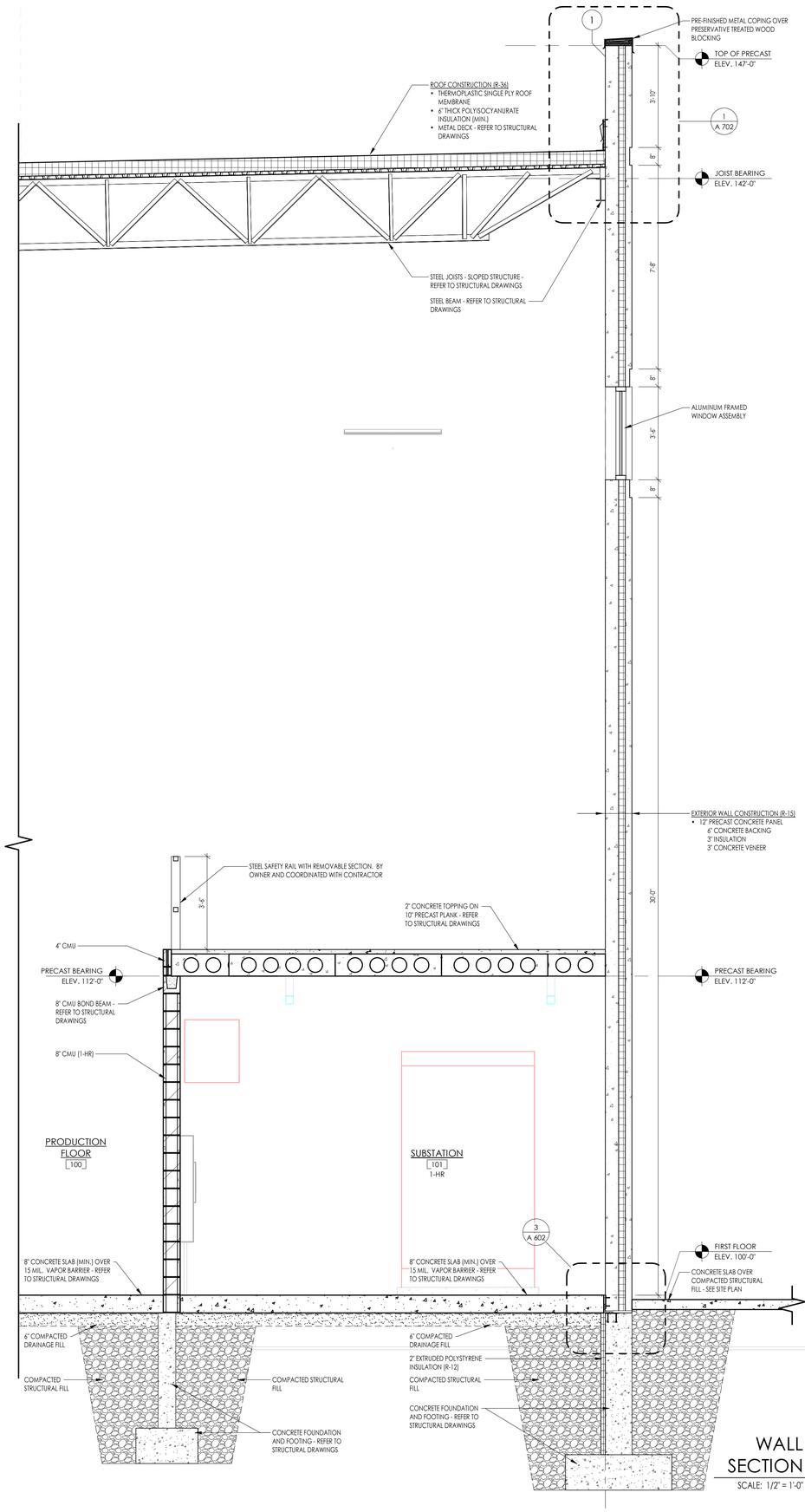
BASE DETAIL 4 / A 602
SCALE: 1 1/2" = 1'-0"



BASE DETAIL 3 / A 602
SCALE: 1 1/2" = 1'-0"



WALL SECTION 2 / A 602
SCALE: 1/2" = 1'-0"



WALL SECTION 1 / A 602
SCALE: 1/2" = 1'-0"

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BUILDING 25 - ADDITION

VOLLRATH COMPANY LLC

1236 NORTH 18th STREET, SHEBOYGAN WI 53081

1135A MICHIGAN AVE. SHEBOYGAN, WI 53081 | (920) 452-4444 | 3151 N. PLANKINTON AVE SUITE 208. MILWAUKEE, WI 53203

PERMIT SET

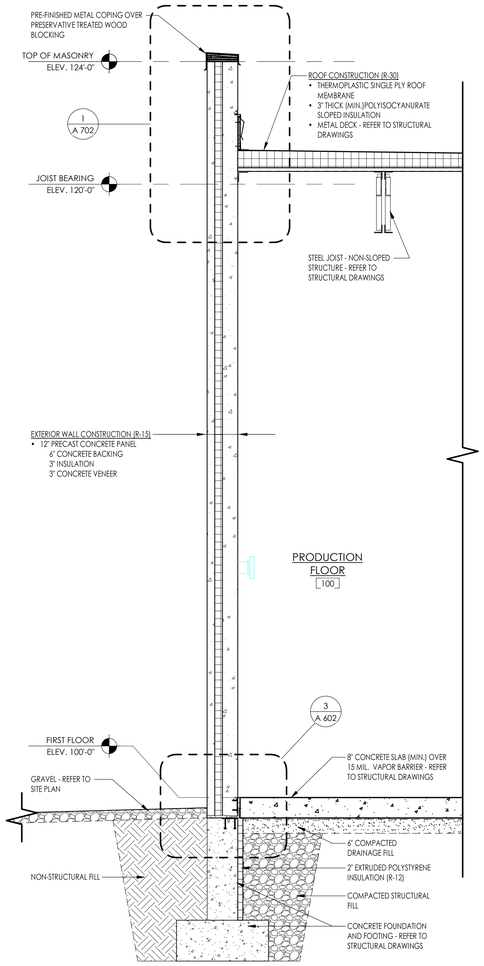
DRAWN BY: AJK

CHECKED BY: KED

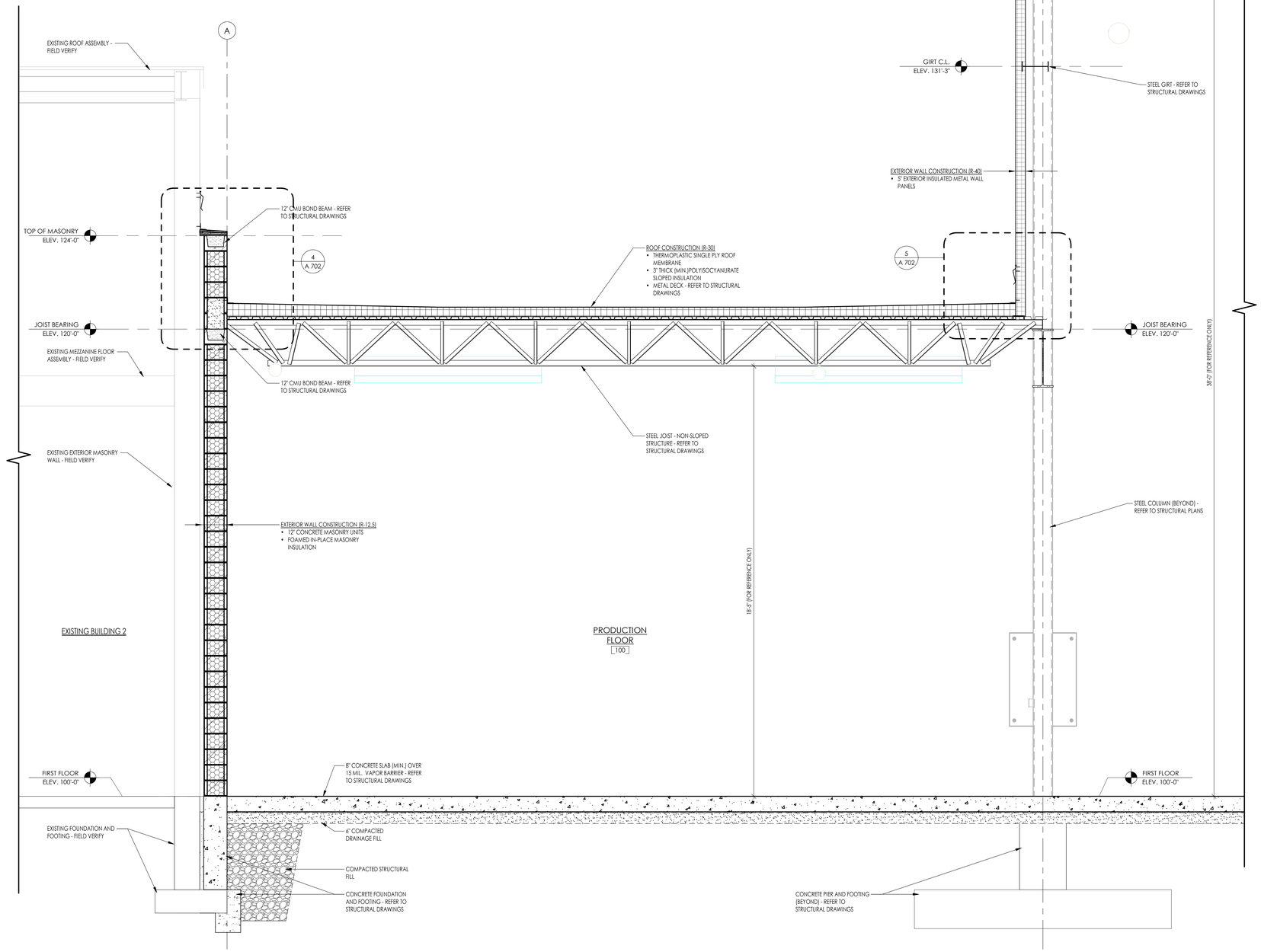
WALL SECTIONS

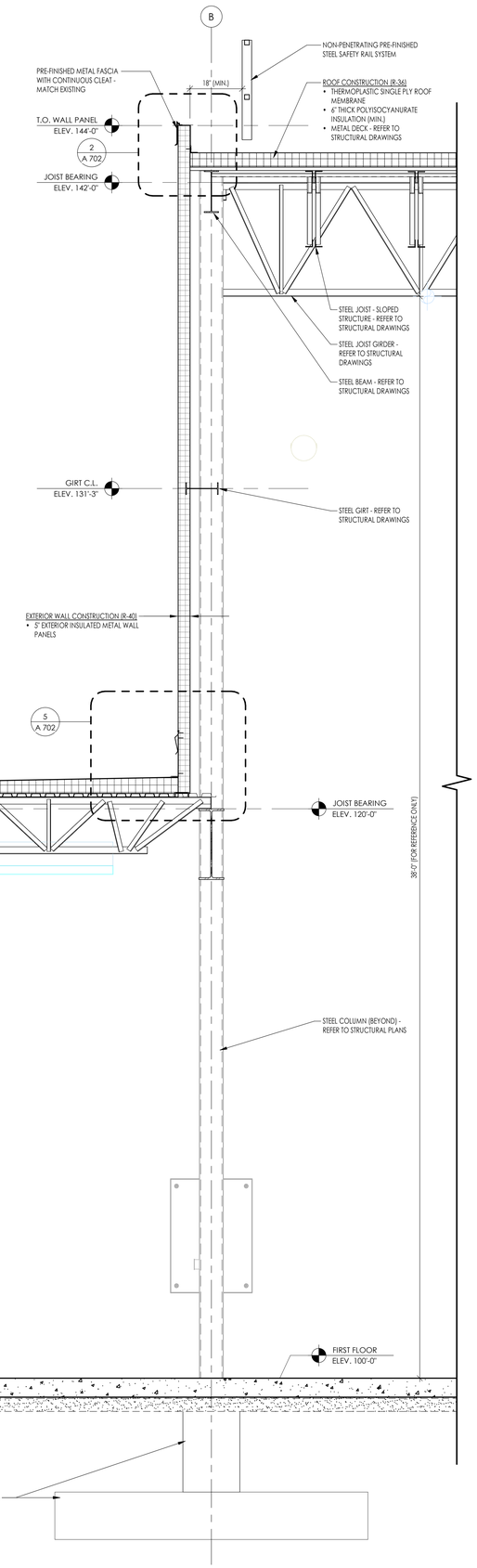
A
602

PROJ. NO. 2024-093



WALL SECTION 2 / A 603
SCALE: 1/2" = 1'-0"





WALL SECTION 1 / A 603
SCALE: 1/2" = 1'-0"

ABACUS ARCHITECTS

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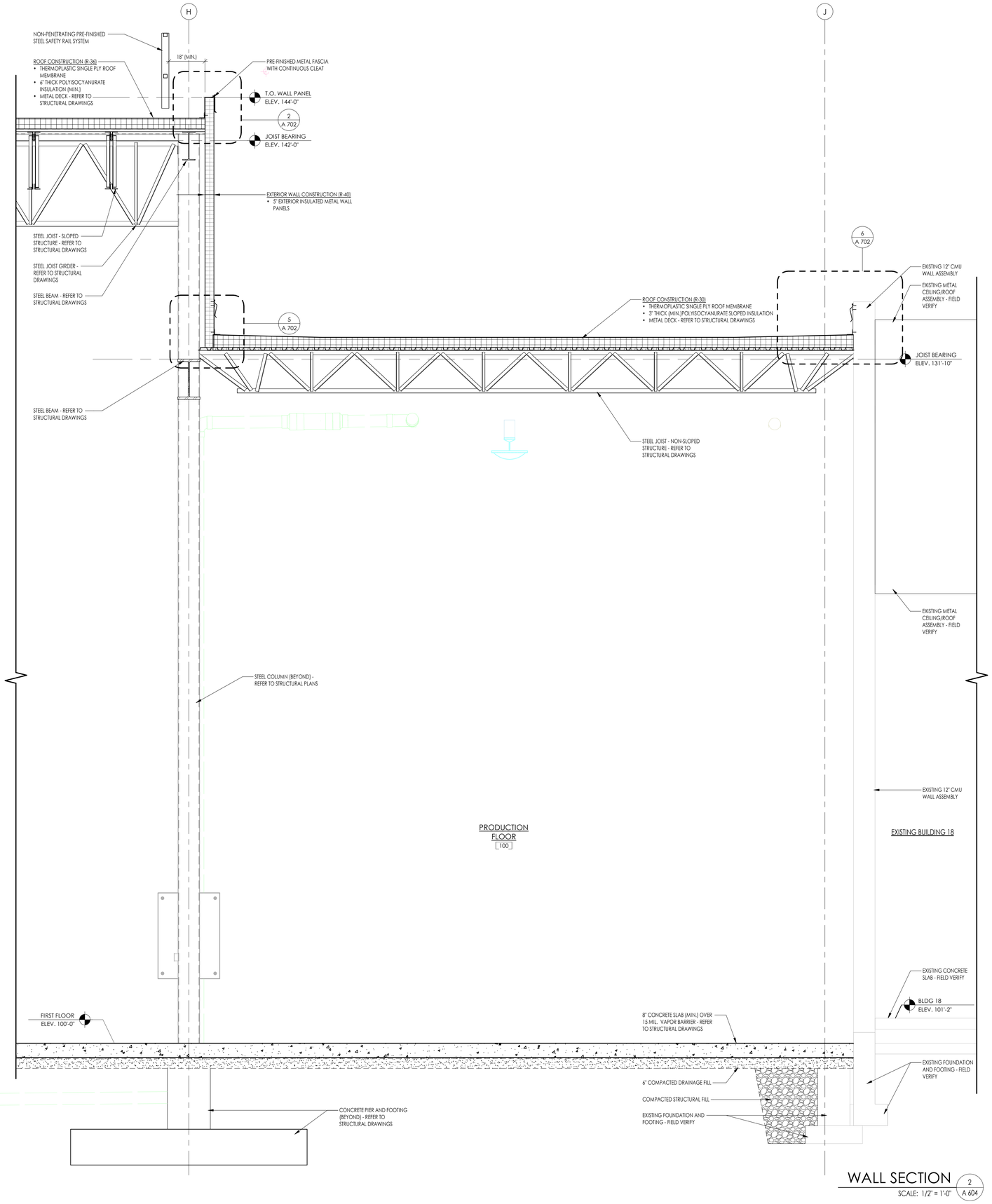
VOLLRATH COMPANY LLC
1236 NORTH 18th STREET, SHEBOYGAN WI 53081
1135A MICHIGAN AVE. SHEBOYGAN, WI 53081 | (920) 452-4444 | 313 N. PLANKINTON AVE SUITE 208. MILWAUKEE, WI 53203
PERMIT SET

DRAWN BY: AJK
CHECKED BY: KED

WALL SECTIONS

A
603

PROJ. NO. 2024-093



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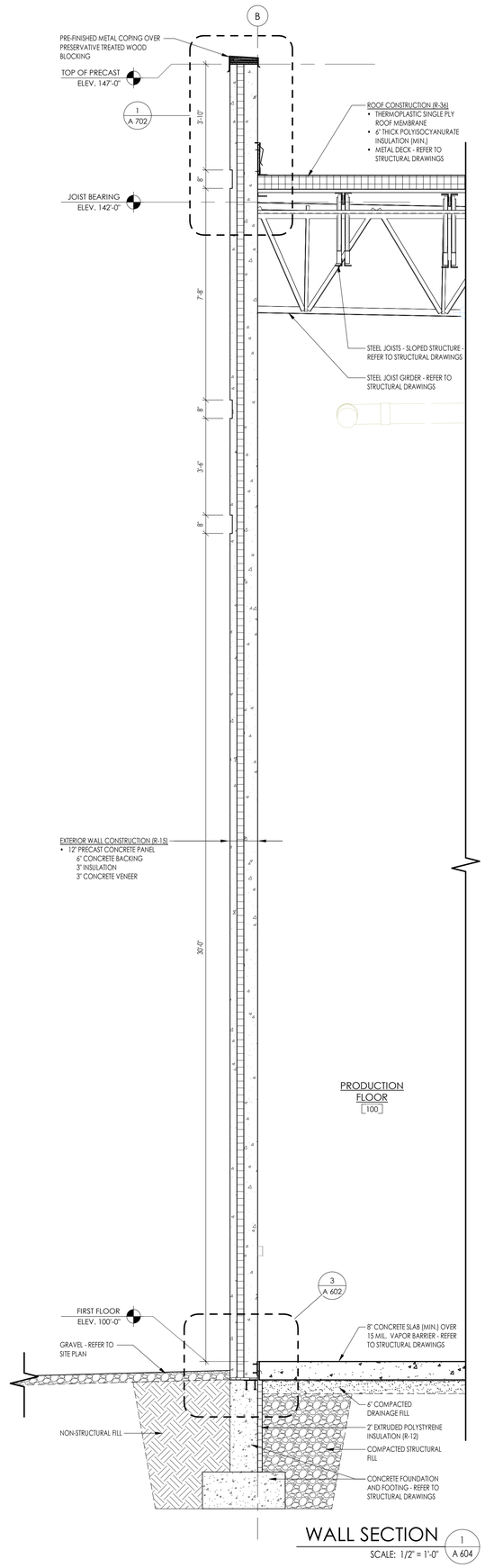

WALL SECTION 1 / A 604
SCALE: 1/2" = 1'-0"

ABACUS ARCHITECTS

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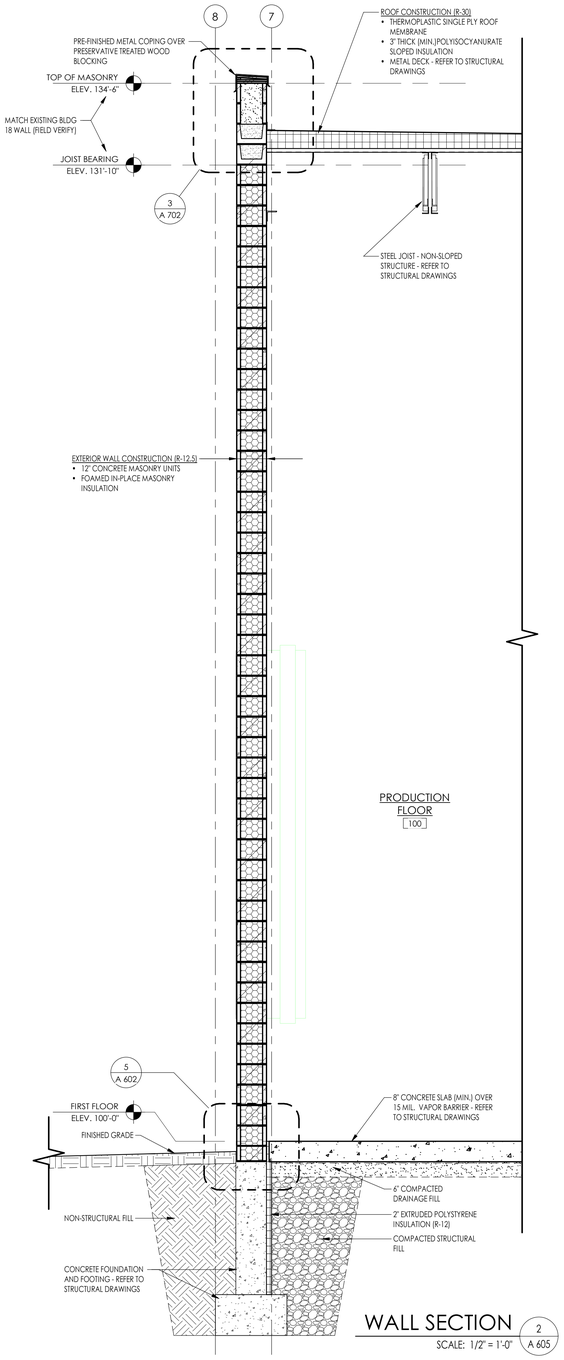
PERMIT SET

DRAWN BY: AJK
CHECKED BY: KED

WALL SECTIONS

A
604

PROJ. NO. 2024-093



WALL SECTION 2 A 605
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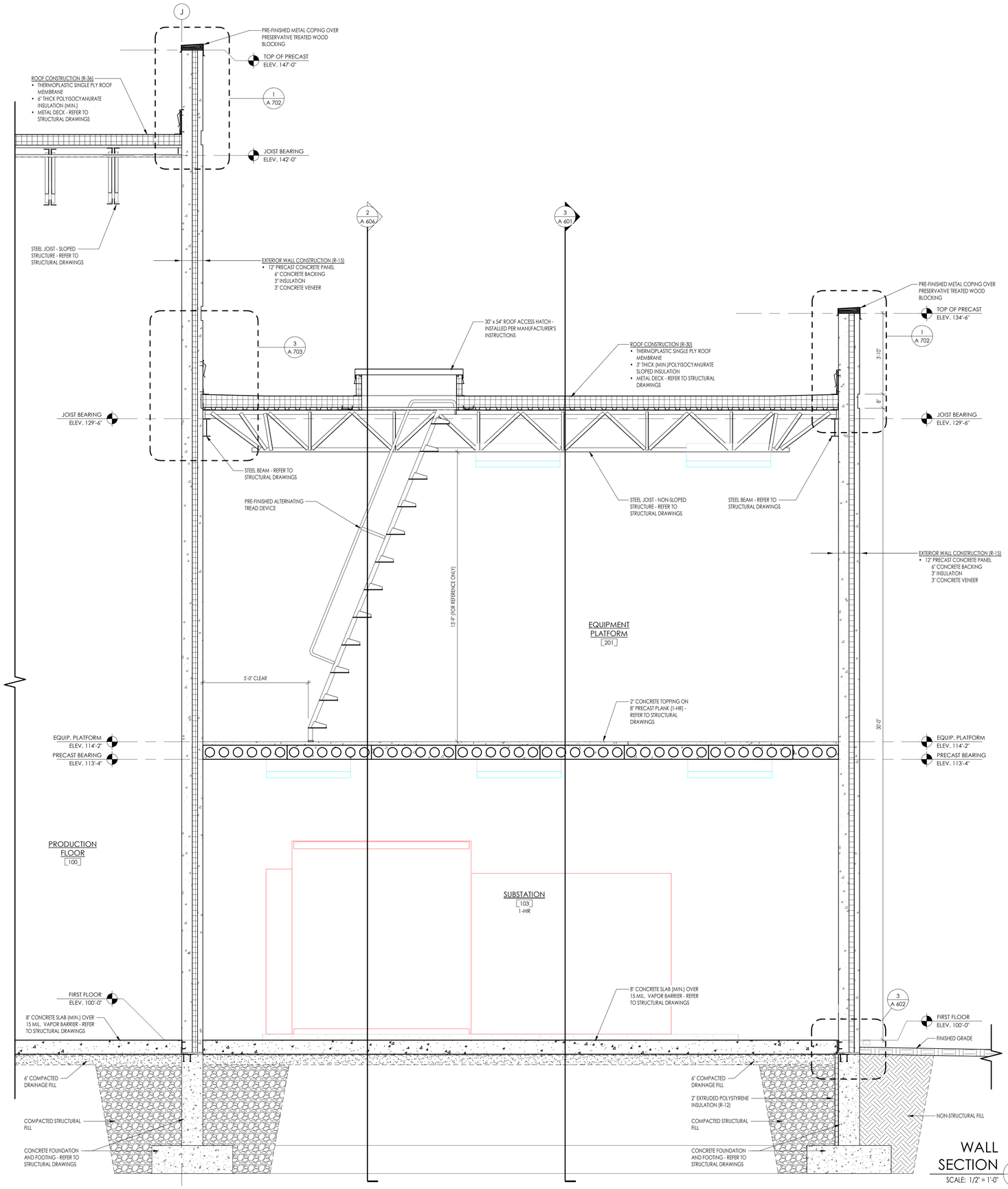

WALL SECTION 1 A 605
SCALE: 1/2" = 1'-0"

ABACUS ARCHITECTS

REVISIONS:

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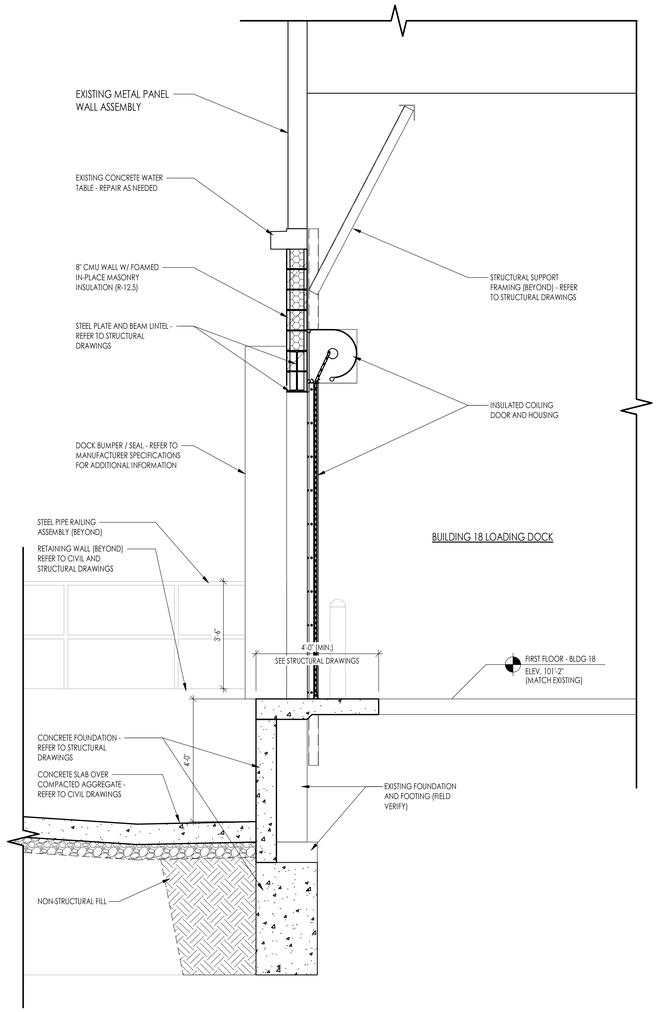
PERMIT SET

DRAWN BY: AJK
CHECKED BY: KED

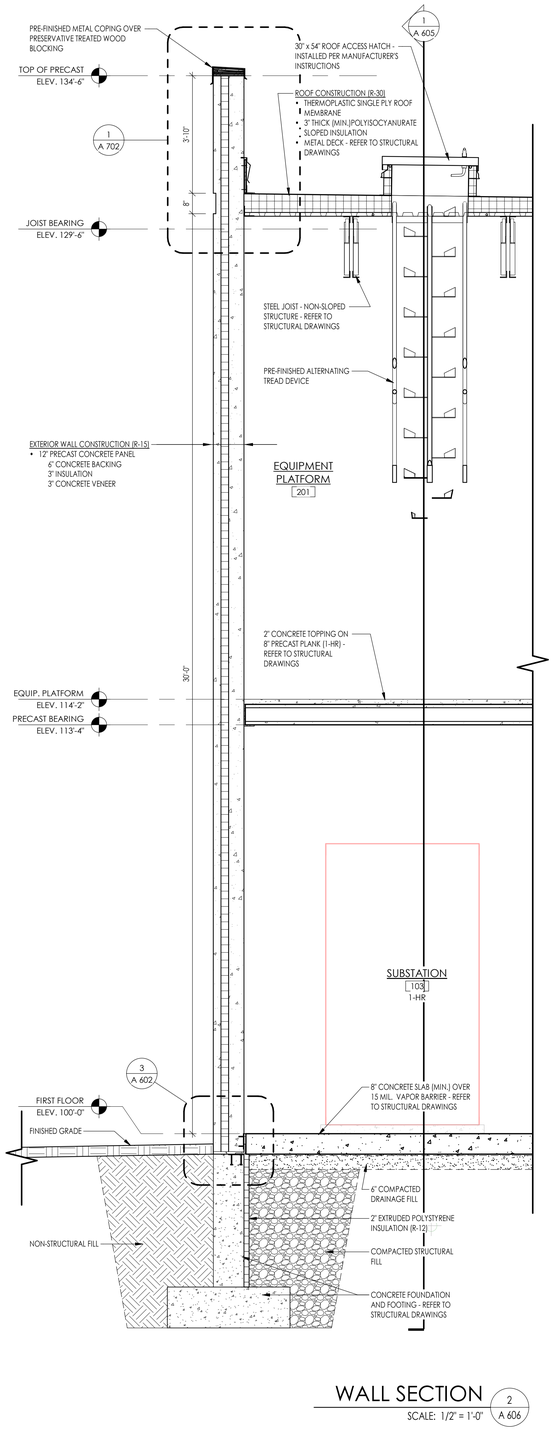
WALL SECTIONS

A
605

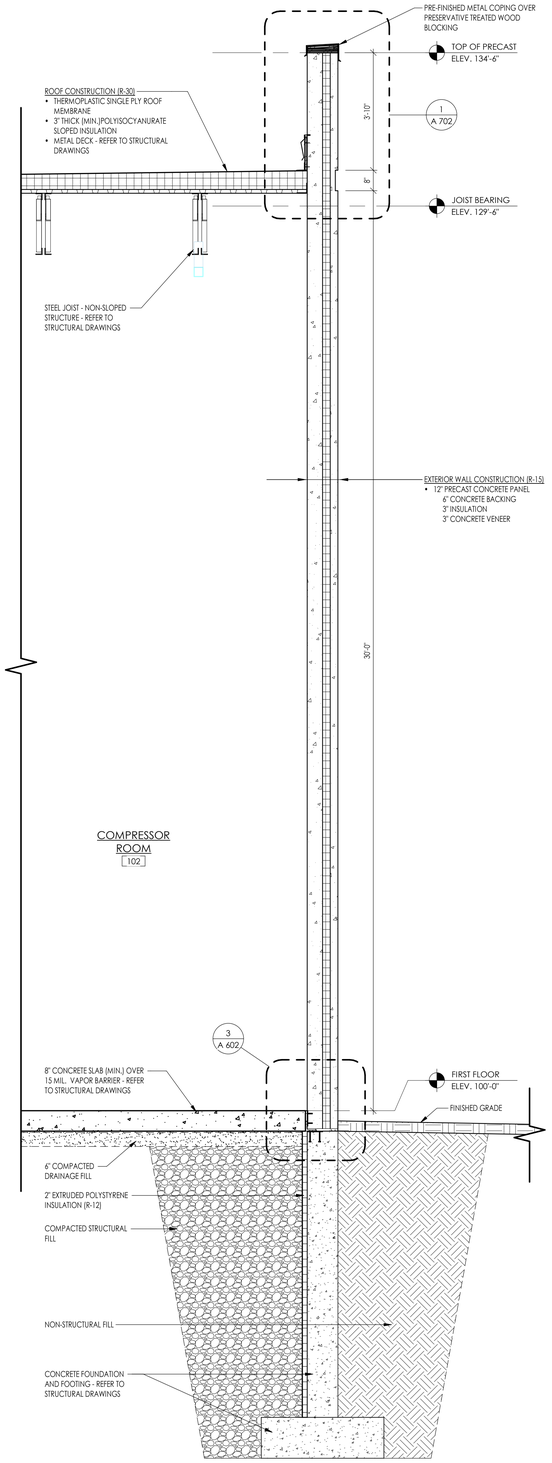
PROJ. NO. 2024-093



WALL SECTION 3 / A 606
SCALE: 1/2" = 1'-0"



WALL SECTION 2 / A 606
SCALE: 1/2" = 1'-0"



WALL SECTION 1 / A 606
SCALE: 1/2" = 1'-0"

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PERMIT SET

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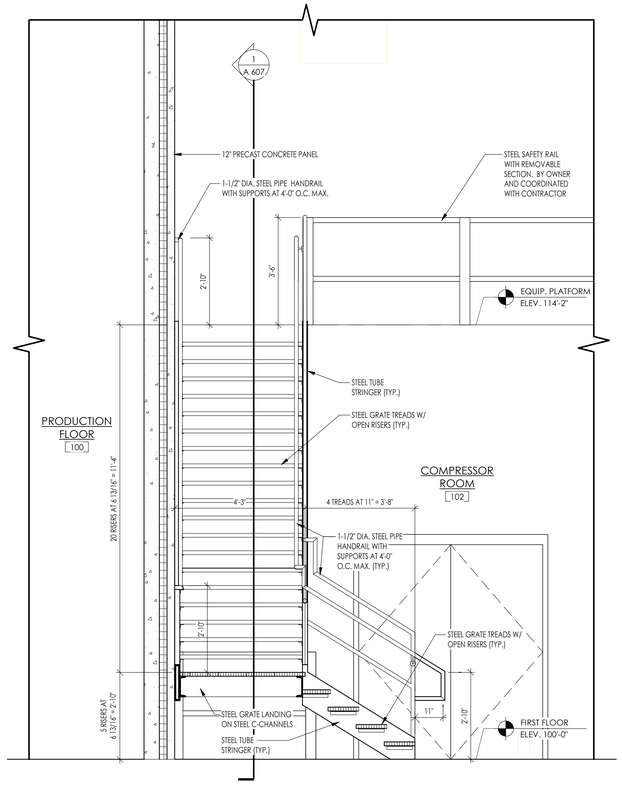
CHECKED BY: KED

WALL SECTIONS

A
606

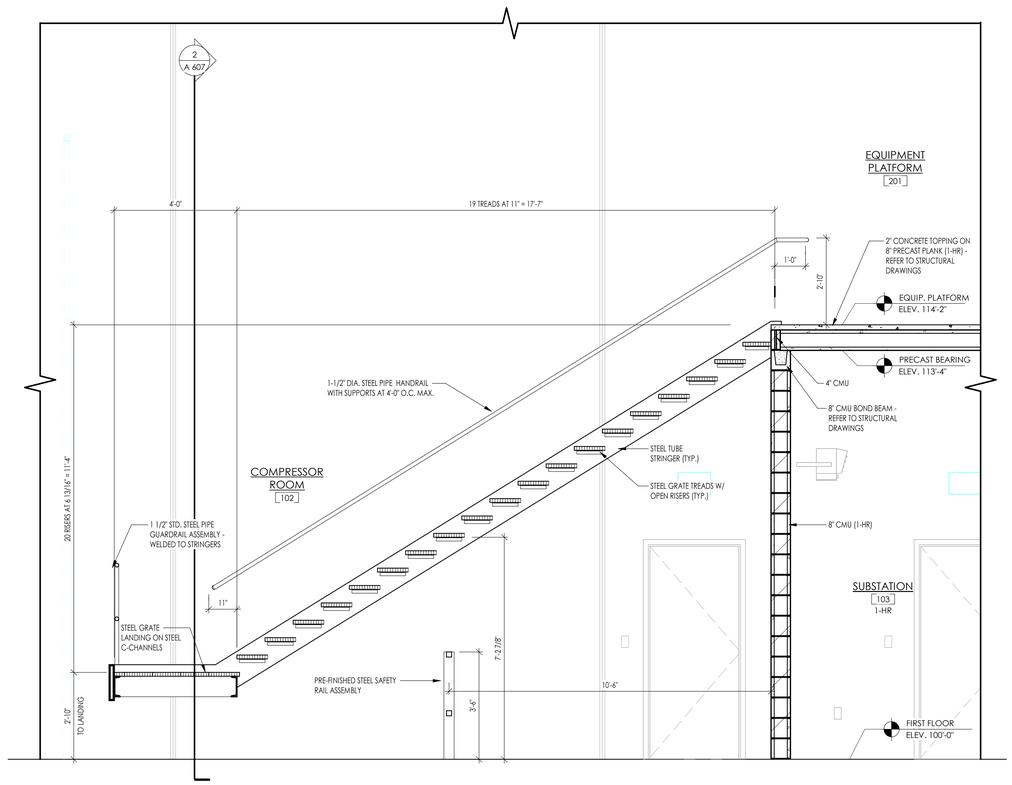
PROJ. NO. 2024-093



COMP ROOM STAIR SECTION WEST

SCALE: 1/2" = 1'-0"

2 / A 607



COMP ROOM STAIR SECTION SOUTH

SCALE: 1/2" = 1'-0"

1 / A 607

ABACUS ARCHITECTS

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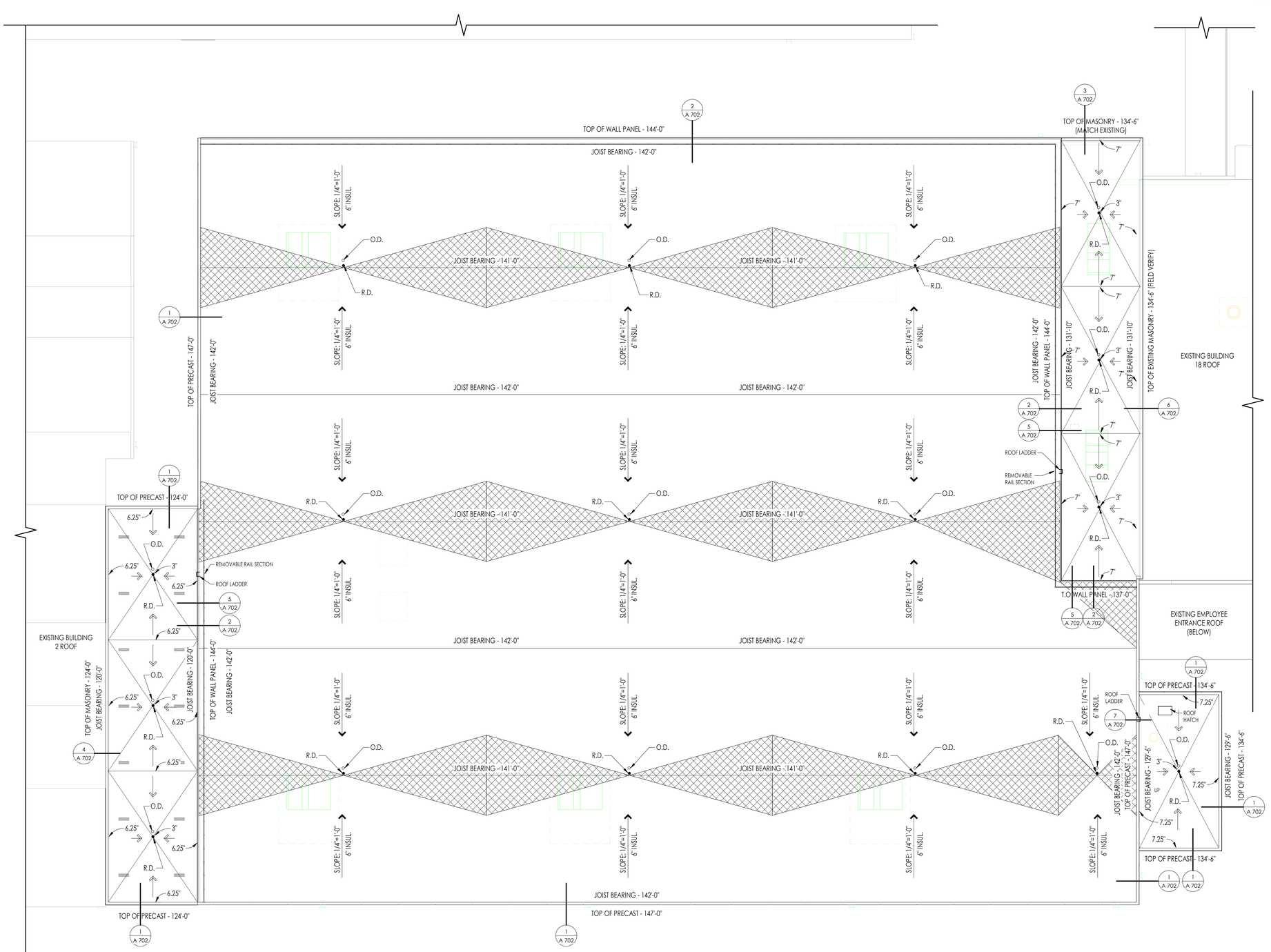
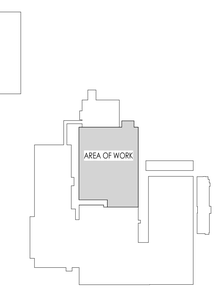
STAIR SECTIONS

A
607

PROJ. NO. 2024-093





KEY PLAN

N
W E
S

ROOF SYMBOLS

- SLOPED STRUCTURE ROOF DRAINAGE
  6" ISO INSULATION OVER
  1 1/2" METAL DECK OVER
  SLOPED STRUCTURE
- TAPERED INSULATION ROOF DRAINAGE
  TAPERED EPS INSULATION OVER
  3" (MIN.) ISO INSULATION OVER
  METAL DECK OVER
  FLAT STRUCTURE
- TAPERED INSULATION SADDLE / EDGE STRIP
- ABRASIVE MEMBRANE WALKING PATH OVER ROOFING MEMBRANE
  - 2'-0" WIDE FOR WALKWAYS
  - 4'-0" WIDE AT ROOF TOP UNITS FOR ADDITIONAL WORK SPACE
- ROOF DRAIN (R.D.)
- OVERFLOW DOOR DRAIN (O.D.)

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

W
S N
E

ABACUS ARCHITECTS

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PERMIT SET

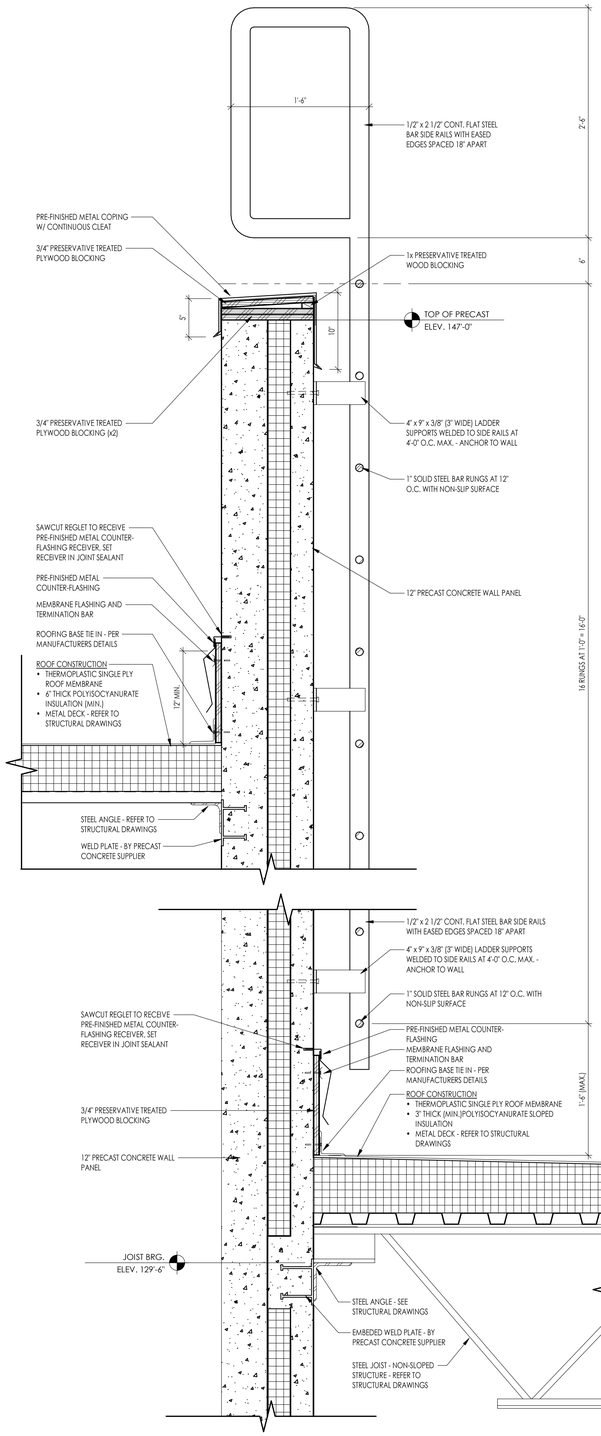
DRAWN BY: AJK

CHECKED BY: KED

ROOF PLAN

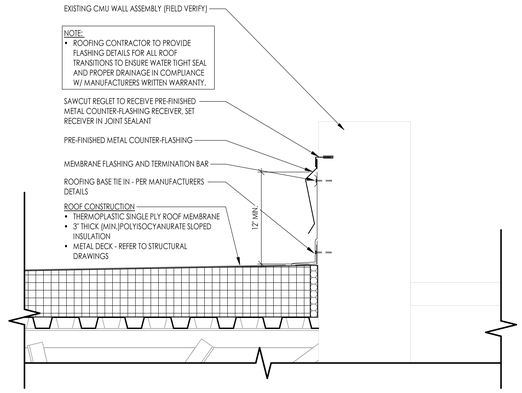
A
701

PROJ. NO. 2024-093



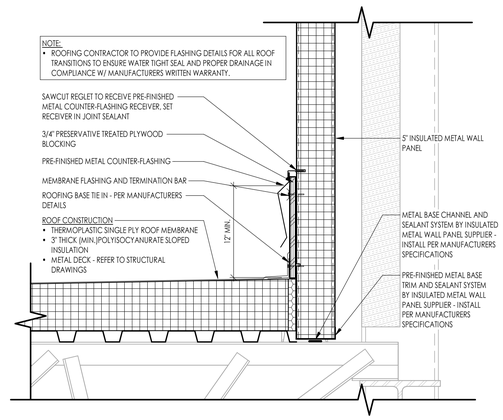
ROOF LADDER & FLASHING DETAIL

SCALE: 1 1/2" = 1'-0" (7 / A 702)



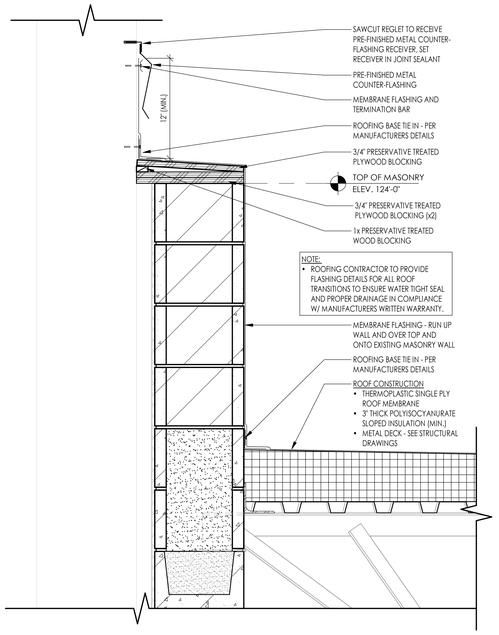
ROOF FLASHING DETAIL

SCALE: 1 1/2" = 1'-0" (6 / A 702)



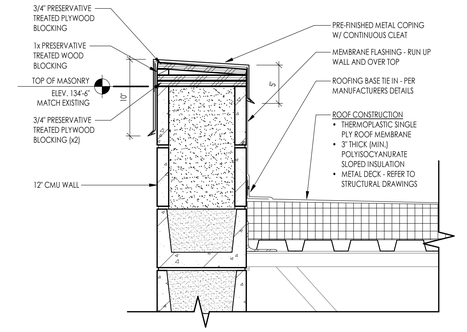
ROOF FLASHING DETAIL

SCALE: 1 1/2" = 1'-0" (5 / A 702)



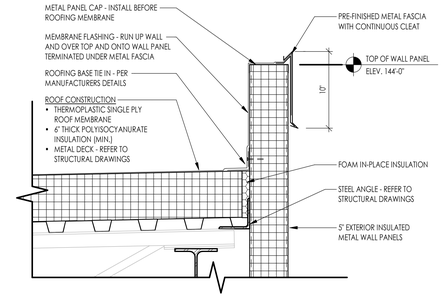
ROOF FLASHING DETAIL

SCALE: 1 1/2" = 1'-0" (4 / A 702)



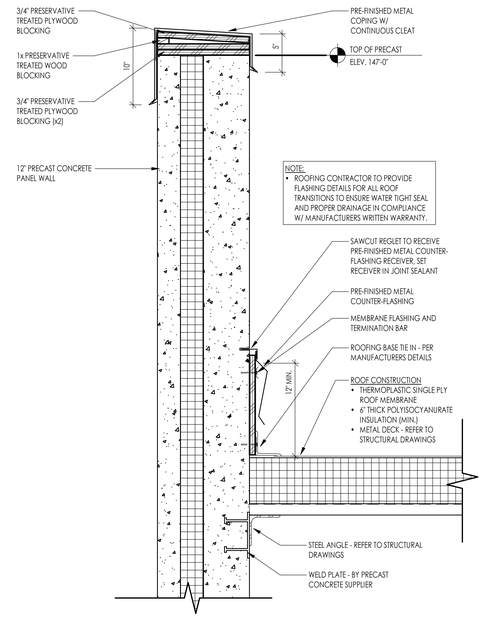
ROOF EDGE DETAIL

SCALE: 1 1/2" = 1'-0" (3 / A 702)



ROOF EDGE DETAIL

SCALE: 1 1/2" = 1'-0" (2 / A 702)



ROOF EDGE DETAIL

SCALE: 1 1/2" = 1'-0" (1 / A 702)

ABACUS ARCHITECTS

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PERMIT SET

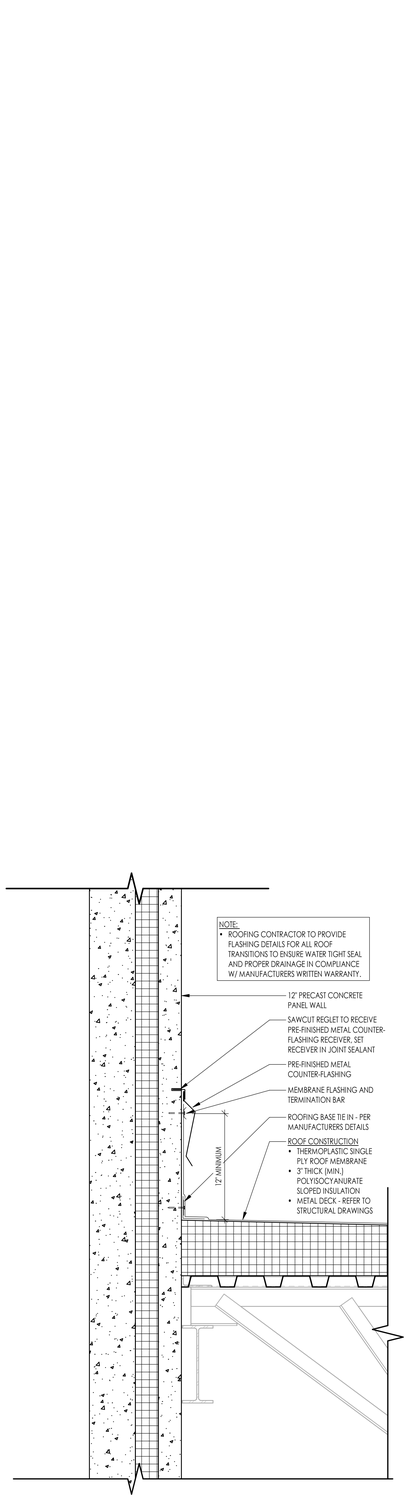
DRAWN BY: AJK

CHECKED BY: KED

ROOF DETAILS

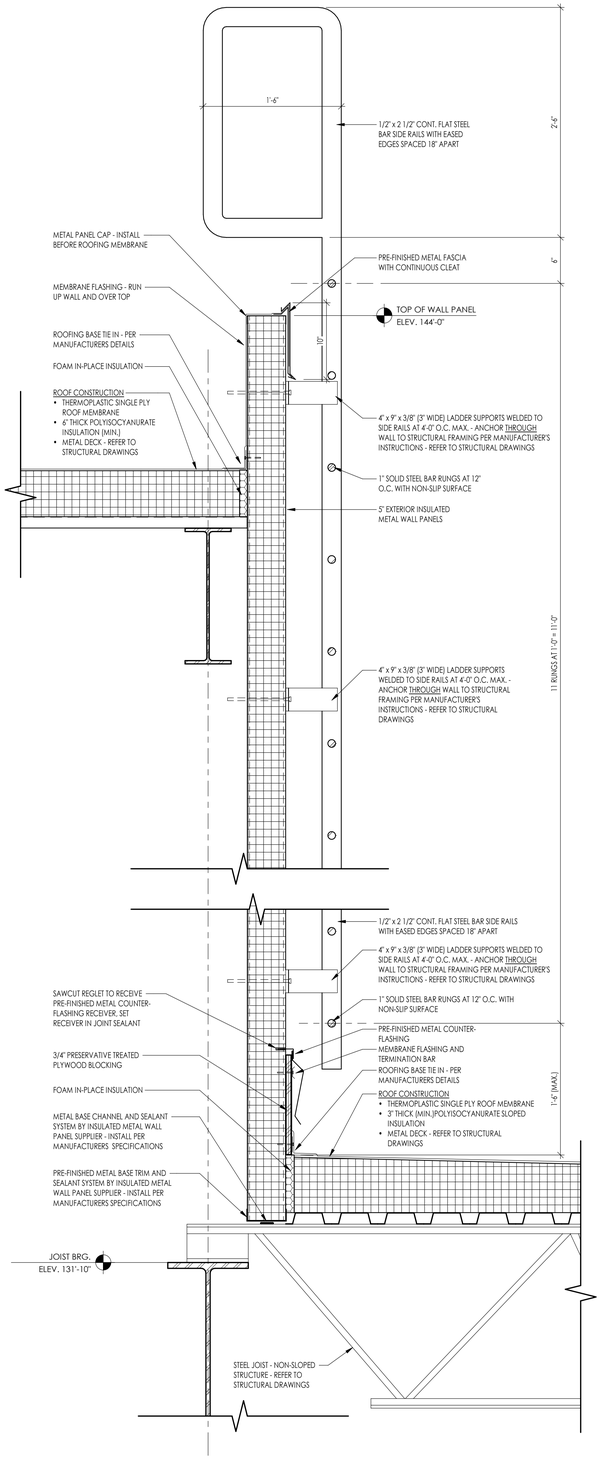
A 702

PROJ. NO. 2024-093



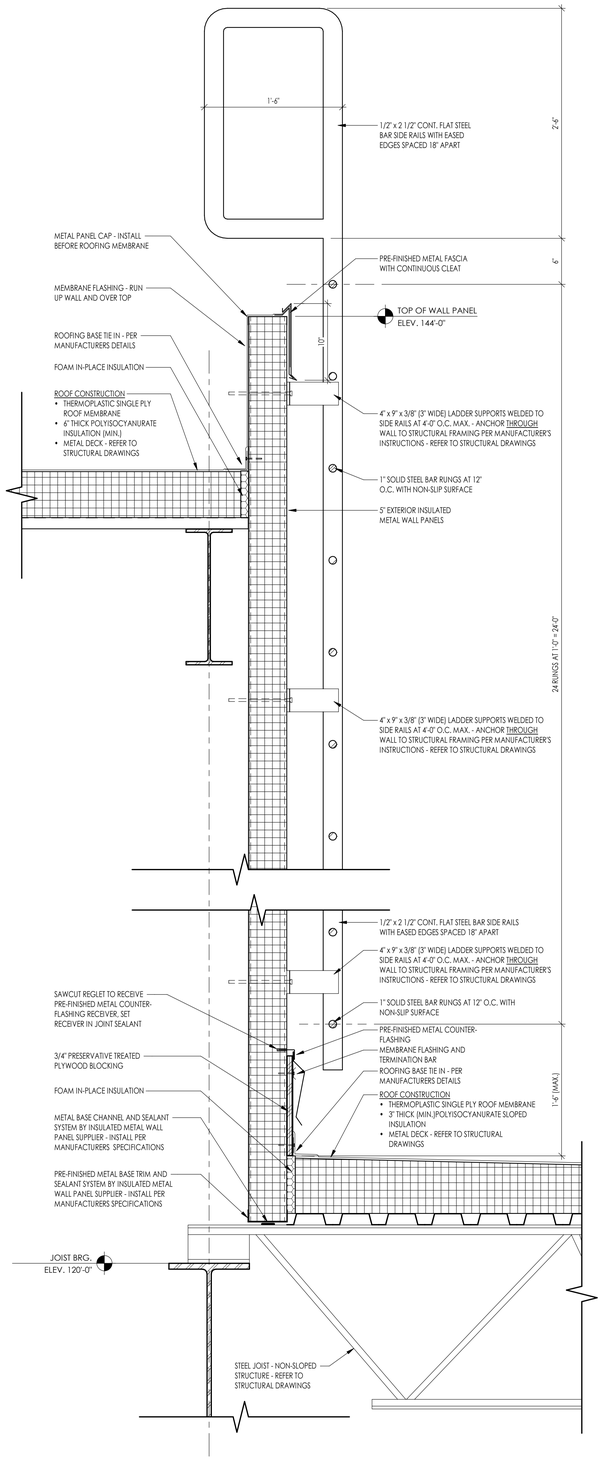
ROOF FLASHING DETAIL 3 / A 703

SCALE: 1 1/2" = 1'-0"



ROOF LADDER & FLASHING DETAIL 2 / A 703

SCALE: 1 1/2" = 1'-0"



ROOF LADDER & FLASHING DETAIL 1 / A 703

SCALE: 1 1/2" = 1'-0"

ABACUS ARCHITECTS

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1135A MICHIGAN AVE. SHEBOYGAN, WI 53081 | (920) 452-4444 | 313 N. PLANKINTON AVE SUITE 208. MILWAUKEE, WI 53203

PERMIT SET

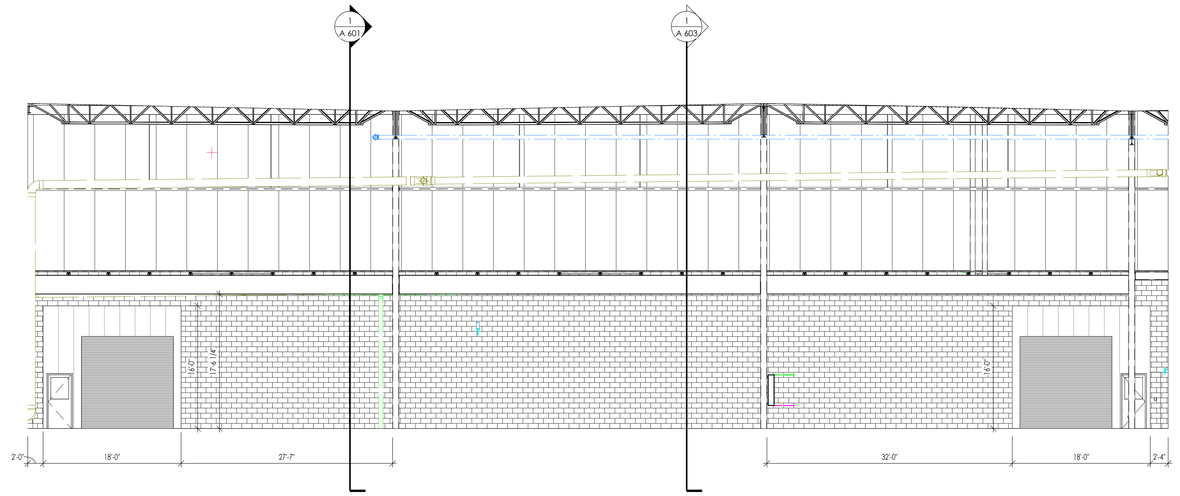
DRAWN BY: AJK

CHECKED BY: KED

ROOF DETAILS

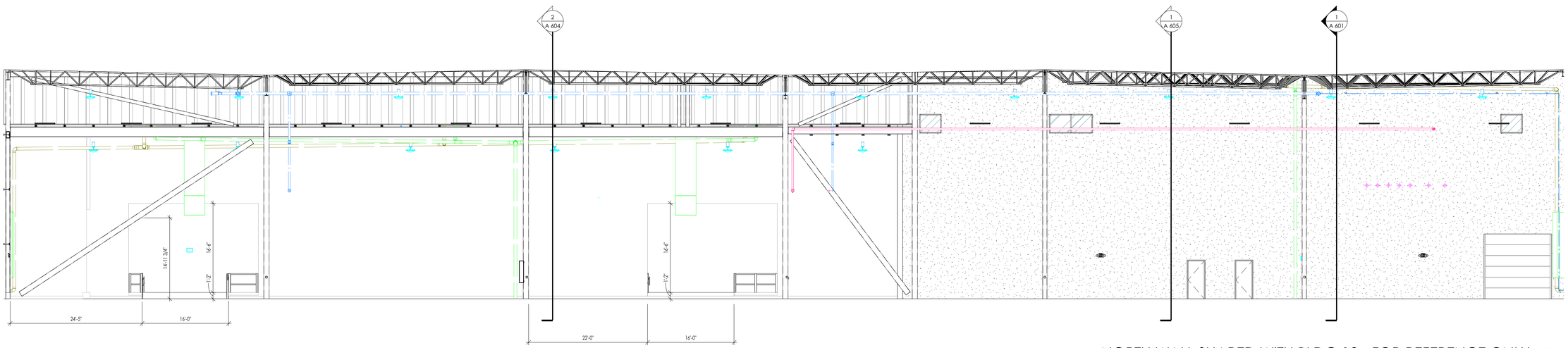
A
703

PROJ. NO. 2024-093



SOUTH WALL SHARED WITH BLDG 2 - FOR REFERENCE ONLY

SCALE: 1/8" = 1'-0" (2 / A 801)



NORTH WALL SHARED WITH BLDG 18 - FOR REFERENCE ONLY

SCALE: 1/8" = 1'-0" (1 / A 801)

ABACUS ARCHITECTS

REVISIONS:

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1135A MICHIGAN AVE. SHEBOYGAN, WI 53081 (920) 452-4444 | 313 N. PLANKINTON AVE SUITE 208. MILWAUKEE, WI 53203

PERMIT SET

DRAWN BY: AJK

CHECKED BY: KED

INTERIOR ELEVATIONS

A
801

PROJ. NO. 2024-093

GENERAL NOTES

1.1 GENERAL:

1.1.1 SCOPE: THE FOLLOWING GENERAL AND SPECIFIC NOTES SHALL APPLY EQUALLY TO ALL CONTRACTORS AND SUPPLIERS ENGAGED IN EXECUTION OF THE WORK SHOWN ON THE CONTRACT DOCUMENTS. THESE NOTES SUPPLEMENT AND ARE MADE A PART OF THE PLANS AND SPECIFICATIONS.

1.1.2 REFERENCES: ALL CONSTRUCTION SHALL BE EXECUTED IN CONFORMANCE WITH THE FOLLOWING:
- PLANS AND SPECIFICATIONS
- GOVERNING LOCAL AND MUNICIPAL CODES
- WISCONSIN COMMERCIAL BUILDING CODE
- 2021 INTERNATIONAL BUILDING CODE (IBC)
- ASCE 7-16
- ASTM INTERNATIONAL (ASTM)
- OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)

CONCRETE CONSTRUCTION:
- AMERICAN CONCRETE INSTITUTE (ACI)
- CONCRETE REINFORCING STEEL INSTITUTE (CRSI)
- PRECAST/PRESTRESSED CONCRETE INSTITUTE (PCI)
MASONRY CONSTRUCTION:
- AMERICAN CONCRETE INSTITUTE (ACI)
- THE MASONRY SOCIETY (TMS)
- STRUCTURAL ENGINEERING INSTITUTE (SEI)
STRUCTURAL AND MISCELLANEOUS STEEL:
- AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)
STEEL JOIST, STEEL DECK, AND ACCESSORIES:
- STEEL JOIST INSTITUTE (SJI)
- STEEL DECK INSTITUTE (SDI)
COLD-FORMED STEEL FRAMING & TRUSSES:
- AMERICAN IRON AND STEEL INSTITUTE (AISI)
- COLD-FORMED STEEL ENGINEERS INSTITUTE (CFSEI)

CONTRACTOR SHALL ENSURE FAMILIARITY WITH THE ABOVE ITEMS. INSPECTIONS AND OBSERVATIONS WILL BE IN CONFORMANCE WITH THE ABOVE.

1.1.3 DESIGN DATA

RISK CATEGORY	II

ROOF DEAD LOAD (D):	
STEEL ROOF	25 PSF

ROOF LIVE LOAD (L_r):	
ORDINARY FLAT, PITCHED, OR CURVED ROOF	20 PSF

FLOOR LIVE LOAD (L):	
MECHANICAL MEZZANINE	250 PSF
STORAGE:	
LIGHT (SUBSTATION CEILING)	125 PSF

SNOW LOADS (S):	
GROUND SNOW LOAD, P_g	35 PSF
EXPOSURE FACTOR, C_e	1.0
THERMAL FACTOR, C_t	1.0
IMPORTANCE FACTOR, I_s	1.0
FLAT ROOF SNOW LOAD, P_f	24.5 PSF
ROOF SLOPE FACTOR, C_s	1.0
DESIGN ROOF SNOW LOAD, P_s	24.5 PSF + DRIFT

WIND LOAD (RISK CATEGORY II) ASCE 7-16 MWFRS DIRECTIONAL PROCEDURE, PART 1, ALL H1):	
BASIC WIND SPEED, V_{ult}	106 MPH
EXPOSURE CATEGORY	C
ENCLOSURE CLASSIFICATION	ENCLOSED
INTERNAL PRESSURE COEFFICIENT, $G_{\mu i}$	+/- 0.18

COMPONENTS AND CLADDING DESIGN PRESSURES: (ASCE 7-16 CHAPTER 30)

COMPONENTS AND CLADDING ROOF PRESSURES			
ROOF ZONE	EFFECTIVE WIND AREAS (ULTIMATE LOADS)		
	10 SF	50 SF	100 SF
NEG. ZONE 1 (FIELD)	-46.6 PSF	-39.5 PSF	-36.4 PSF
NEG. ZONE 2 (PERIMETER)	-69.4 PSF	-52.3 PSF	-48.4 PSF
NEG. ZONE 3 (CORNER)	-81.6 PSF	-52.3 PSF	-48.4 PSF
POS. ZONE 1	16.0 PSF	16.0 PSF	16.0 PSF
POS. ZONE 2 & 3	26.8 PSF	24.0 PSF	22.8 PSF
OVERHANG ZONE 1 & 2	-42.2 PSF	-40.4 PSF	-39.7 PSF
OVERHANG ZONE 3	-47.1 PSF	-44.8 PSF	-39.3 PSF

COMPONENTS AND CLADDING PARAPET PRESSURES			
PARAPET ZONE	EFFECTIVE WIND AREAS (ULTIMATE LOADS)		
	10 SF	100 SF	500 SF
CASE A - INTERIOR ZONE	81.6 PSF	69.4 PSF	51.8 PSF
CASE A - CORNER ZONE	81.6 PSF	69.4 PSF	51.8 PSF
CASE B - INTERIOR ZONE	-48.2 PSF	-42.6 PSF	-34.4 PSF
CASE B - CORNER ZONE	-48.2 PSF	-42.6 PSF	-34.4 PSF

COMPONENTS AND CLADDING WALL PRESSURES			
WALL ZONE	EFFECTIVE WIND AREAS (ULTIMATE LOADS)		
	10 SF	100 SF	500 SF
NEG. ZONE 4 (INT ZONE)	-29.0 PSF	-25.1 PSF	-22.3 PSF
NEG. ZONE 5 (CORNER ZONE)	-35.7 PSF	-27.8 PSF	-22.3 PSF
POS. ZONE 4 & 5	26.8 PSF	22.8 PSF	20.1 PSF

NOTES:
- REFER TO ASCE 7-16, FOR ZONE DIAGRAMS.
- PLUS AND MINUS SIGNS INDICATE PRESSURES ACTING TOWARD OR AWAY FROM BUILDING SURFACES RESPECTIVELY.
- PRESSURES MAY BE INTERPOLATED BETWEEN THE EFFECTIVE WIND AREAS.
- SEE DRAWINGS FOR NET UPLIFT ON JOISTS AND JOIST GIRDERS.

SEISMIC (E):	
IMPORTANCE FACTOR, I_e	1.00
0.2_s MAPPED SPECTRAL RESPONSE ACCELERATION, S_s	6.00 %g
1.0_s MAPPED SPECTRAL RESPONSE ACCELERATION, S_1	4.10 %g
SITE CLASS	D
0.2_s SPECTRAL RESPONSE COEFFICIENT, S_{DS}	0.066
1.0_s SPECTRAL RESPONSE COEFFICIENT, S_{D1}	0.056
SEISMIC DESIGN CATEGORY	A

STRUCTURAL SYSTEM	BEARING WALL SYSTEM
SEISMIC RESISTING SYSTEM	ORDINARY PRECAST SHEAR WALLS
RESPONSE MODIFICATION COEFFICIENT, R	3.0
SYSTEM OVERSTRENGTH FACTOR, OMEGA	2.0
DEFLECTION AMPLIFICATION FACTOR, C_d	3.0
SEISMIC RESPONSE COEFFICIENT, C_s	0.010
ANALYSIS PROCEDURE	INDEX FORCE ANALYSIS

1.1.4 DESIGN CRITERIA:

SOIL BEARING CAPACITY . . . . . 2500 PSF (REPORT)

GEOTECHNICAL REPORT:
REFER TO GEOTECHNICAL ENGINEERING EXPLORATION AND ANALYSIS, PREPARED BY PROFESSIONAL SERVICES INDUSTRIES, INC., REPORT # 00942589, DATED APRIL 22, 2025.

CONCRETE (NORMAL WEIGHT):	
FOOTINGS AND SUB SLABS	f'_c = 3000 PSI
CAST-IN-PLACE WALLS AND PIERS	f'_c = 5000 PSI
INTERIOR SLABS-ON-GRADE	f'_c = 4000 PSI
EXTERIOR REINFORCED SLABS	f'_c = 5000 PSI
STAIR PANS	f'_c = 4000 PSI
TOPPING SLABS	f'_c = 4000 PSI
PRECAST PLANK AND WALL PANELS	f'_c = 5000 PSI (MINIMUM)

MASONRY:	
CONCRETE MASONRY	
COMPRESSIVE STRENGTH OF MASONRY (UNIT STRENGTH METHOD)	f'_m = 2000 PSI
- LOAD BEARING CONCRETE UNIT, ASTM C90	
- MORTAR, ASTM 270 TYPE M, S, OR N	
CLAY MASONRY	
COMPRESSIVE STRENGTH OF MASONRY (UNIT STRENGTH METHOD)	f'_m = 1500 PSI
- FACE BRICK, ASTM C216 GRADE SW TYPE FBS	

GROUT:	
MASONRY CORE FILL, ASTM C476	f'_c = 2000 PSI
UNDER BASE PLATES, ASTM C1107 GRADE A, B, OR C	f'_c = 7000 PSI

REINFORCING STEEL:	
#3 BARS & LARGER, ASTM A615 GRADE 60	F_y = 60000 PSI
#3 BARS & LARGER WELDABLE, ASTM A706 GRADE 60	F_y = 60000 PSI
WELDED WIRE REINFORCING, ASTM A1064	F_y = 65000 PSI
MASONRY JOINT REINFORCING, ASTM A951	F_y = 80000 PSI

STRUCTURAL STEEL:	
ANGLE SHAPES & PLATES, ASTM A36	F_y = 36000 PSI
WIDE FLANGE SHAPES, ASTM A992	F_y = 50000 PSI
HSS TUBE SHAPES, ASTM A500 GRADE B	F_y = 46000 PSI
HSS ROUND SHAPE, ASTM A500 GRADE B	F_y = 42000 PSI
CHANNEL SHAPES, ASTM A36	F_y = 36000 PSI
W, S AND HP SHAPES, ASTM A572 GRADE 50	F_y = 50000 PSI

STEEL DECKING:	
16-22GA ROOF DECK	F_y = 50000 PSI

COLD FORMED STEEL:	
16 GA AND THICKER MATERIAL, ASTM A1003, SS GRADE 50	F_y = 50000 PSI
18 GA AND THINNER MATERIAL, ASTM A1003, SS GRADE 33	F_y = 33000 PSI

FASTENERS:	
WELDS	E70XX ELECTRODES
>=5/8" HIGH-STRENGTH BOLTS, ASTM A325-N	
<=1/2" DIA NON-HIGH STRENGTH BOLTS, ASTM A307	
3/4" ANCHOR BOLTS, ASTM F1554 GRADE 36	F_y = 36000 PSI
1" ANCHOR BOLTS, ASTM F1554 GRADE 55	F_y = 55000 PSI
THREADED ROD, ASTM A307	F_y = 36000 PSI
NUTS AT STRUCTURAL BOLTS, ASTM A563 GRADE C	
WASHERS AT STRUCTURAL BOLTS, ASTM F436 TYPE 1	
WASHERS AT ANCHOR BOLTS, A36	F_y = 36000 PSI
HEADED SHEAR CONNECTOR STUDS, ASTM A108	
EXPANSION ANCHORS (CARBON STEEL)	KWIK-BOLT I BY HILTI, INC.
EXPANSION ANCHORS (GALVANIZED, STAINLESS STEEL)	KWIK-BOLT 3 BY HILTI, INC.
CONCRETE EPOXY ANCHORS	HIT-HY 200 V3 BY HILTI, INC.
MASONRY EPOXY ANCHORS	HIT-HY 270 BY HILTI, INC.
SCREW ANCHORS (3/16"-1/4")	KWIK-CON II BY HILTI, INC.
SCREW ANCHORS (3/8"-3/4")	KH-EZ BY HILTI, INC.
POWER ACTUATED FASTENERS	X-U OR DS BY HILTI, INC.
STEEL DECKING FASTENERS	X-HSN24 BY HILTI, INC.
SELF-DRILLING SCREWS	TEKS BY ITW BUILDEX

DEFLECTION LIMITS:			
MEMBERS	LIVE	WIND OR SNOW	DEAD + LIVE OR SNOW
ROOF MEMBERS			
SUPPORTING GYPSUM BOARD CEILINGS	L/360	L/360	L/240
SUPPORTING FLEXIBLE CEILINGS	L/360	L/360	L/240
NOT SUPPORTING CEILINGS	L/240	L/240	L/180
SUPPORTING RIGID MATERIAL (BRICK, MASONRY, ETC.)	L/600	L/600	L/600
FLOOR MEMBERS	L/360	L/360	L/240
LINTELS/HEADERS/ BEAM MEMBERS			
SUPPORTING FLEXIBLE MATERIALS	L/360	L/360	L/240
SUPPORTING RIGID MATERIAL (BRICK, MASONRY, ETC.)	L/600	L/600	L/600
SUPPORTING CURTAIN WALLS	L/175 OR 3/4" MAX	L/175	1/8" MAX (CURTAIN WALL WEIGHT)
EXTERIOR MEMBERS			
SUPPORTING FLEXIBLE MATERIALS	NA	L/360	NA
SUPPORTING RIGID MATERIAL (BRICK, MASONRY, ETC.)	NA	L/600	NA
SUPPORTING METAL WALL PANEL	NA	L/120	NA
CURTAIN WALL SPANS 13'-6" OR LESS	NA	L/175	NA
CURTAIN WALL SPANS GREATER THAN 13'-6"	NA	L/240 + 1/4"	
SUPPORTING STOREFRONT	NA	L/240 1/2" MAX	NA

1.1.5 EXECUTION: CONTRACTOR TO CROSS CHECK DIMENSIONS, ELEVATIONS, SECTIONS, AND DETAILS BETWEEN ARCHITECTURAL, MECHANICAL, AND STRUCTURAL PLANS. AMBROSE ENGINEERING IS TO BE NOTIFIED OF ANY VARIANCE THAT WILL AFFECT THE STRUCTURAL FRAMING BEFORE CONTRACTOR BEGINS WORK. ALL EQUIPMENT SUPPORTS AND OPENINGS TO BE CROSS CHECKED WITH MANUFACTURER'S DRAWINGS. CONTRACTORS SHALL VERIFY ALL PROFILES, HEIGHTS, AND DIMENSIONS AT PROJECT SITE PRIOR TO FABRICATION. NOTIFY OF ANY MATERIAL AND INFORM THE ENGINEER OF RECORD OF ANY DISCREPANCIES OR FRAMING INTERFERENCES.

1.1.6 PROJECT CONDITIONS: ALL EXISTING BUILDING DIMENSIONS AND CONDITIONS MUST BE FIELD VERIFIED PRIOR TO FABRICATION. AMBROSE ENGINEERING SHALL NOT BE RESPONSIBLE FOR ANY EXISTING INFORMATION SUPPLIED BY THE OWNER/ARCHITECT NOR BE LIABLE FOR THOSE EXISTING CONDITIONS THAT VARY FROM THE PREVIOUSLY GIVEN INFORMATION. ARCHITECT/ENGINEER APPROVAL OF SHOP DRAWINGS DOES NOT RELIEVE CONTRACTOR OF THIS RESPONSIBILITY.

1.1.7 SHOP DRAWINGS/SUBMITTALS: SHALL BE SUBMITTED BY THE GENERAL CONTRACTOR TO THE ARCHITECT/ENGINEER FOR APPROVAL BEFORE FABRICATION MAY PROCEED.
SHOP DRAWINGS/SUBMITTALS SHALL BE PROVIDED FOR THE FOLLOWING COMPONENTS:
CONCRETE DESIGN MIXES, REINFORCING STEEL, STRUCTURAL STEEL, PRECAST CONCRETE HALL PANELS, STRUCTURAL PRECAST CONCRETE, STEEL JOISTS AND GIRDERS, STEEL DECKING, METAL FABRICATIONS AND COLD FORMED STEEL FRAMING.
SEE SPECIFIC MATERIALS SECTIONS FOR ADDITIONAL INFORMATION.

NOTES:
- GENERAL CONTRACTOR SHALL REVIEW AND STAMP SHOP DRAWINGS BEFORE SUBMITTING TO ARCHITECT/ENGINEER. TRANSFERENCE OF ELECTRONIC FILES BY THE GENERAL CONTRACTOR TO REVIEWERS SHALL INDICATE REVIEW OF AND ACCEPTANCE OF SHOP DRAWINGS AS DELIVERED, REGARDLESS OF APPLICATION OF REVIEW STAMP OR NOT.
- PROVIDE ELECTRONIC SHOP DRAWINGS IN PDF FORMAT FOR REVIEW.
- ALL SHOP DRAWINGS SHALL CONTAIN THE ISSUE DATE INDICATED ON THE CONSTRUCTION DRAWINGS, AND CONTAIN ANY AND ALL REVISION DATES.
- COPIES OF THE STRUCTURAL DRAWINGS SUBMITTED AS SHOP DRAWINGS WILL BE REJECTED.
- ANY DEVIATIONS FROM THE CONTRACT DOCUMENTS SHALL BE NOTED (CLOUD, NOTE, ETC.) ON THE SHOP DRAWINGS SUBMITTED FOR APPROVAL.
- ANY CHANGES ON RESUBMITTED SHOP DRAWINGS SHALL BE CLOUDED.
- ALL SHOP DRAWINGS SHALL BE RETURNED WITHIN FIVE (5) WORKING DAYS FROM THE DAY THE SHOP DRAWINGS HAVE BEEN RECEIVED BY THE ARCHITECT/ENGINEER. LATE SHOP DRAWING SUBMISSIONS MAY BE REVIEWED.
- AMBROSE ENGINEERING WILL NOT BE RESPONSIBLE FOR DELAYS CAUSED BY THE REJECTION OF INADEQUATE OR INCOMPLETE SHOP DRAWINGS.

1.1.8 DEFERRED COMPONENT SUBMITTALS: SHALL BE SUBMITTED BY THE GENERAL CONTRACTOR TO THE ARCHITECT/ENGINEER PRIOR TO CONSTRUCTION. DEFERRED SUBMITTALS SHALL BE PROVIDED FOR THE FOLLOWING COMPONENTS: PRECAST CONCRETE PLANK, PRECAST CONCRETE HALL PANELS, STEEL CONNECTIONS, STAIRS, LADDERS, HANDRAILS, GUARDRAILS, STEEL JOISTS AND GIRDERS, AND COLD-FORMED STEEL.

NOTES:
- GENERAL CONTRACTOR SHALL REVIEW AND STAMP SHOP DRAWINGS BEFORE SUBMITTING TO ARCHITECT/ENGINEER. TRANSFERENCE OF ELECTRONIC FILES BY THE GENERAL CONTRACTOR TO REVIEWERS SHALL INDICATE REVIEW OF AND ACCEPTANCE OF SHOP DRAWINGS AS DELIVERED, REGARDLESS OF APPLICATION OF REVIEW STAMP OR NOT.
- PROVIDE ELECTRONIC SHOP DRAWINGS IN PDF FORMAT FOR REVIEW.
- ALL COMPONENT SUBMITTALS SHALL BEAR AN ORIGINAL SEAL AND SIGNATURE OF THE COMPONENT DESIGNER.
- ALL SUBMITTED COPIES MUST BE THE FINAL 'FIELD USE' SETS WHICH INCLUDE ALL CORRECTIONS MADE DUE TO SHOP DRAWING REVIEW COMMENTS.

1.1.9 SPECIAL INSPECTIONS: AN INSPECTION & TESTING COMPANY SHALL BE RETAINED IN ACCORDANCE WITH THE IBC FOR THE FOLLOWING:

- SOILS AND EARTHWORK SUPPORTING FOUNDATIONS AND SLABS.
- CONCRETE TEST CYLINDERS AND STRENGTH TESTING.
- CONCRETE REINFORCING.
- STRUCTURAL STEEL WELDED AND BOLTED CONNECTIONS.
- METAL DECK FASTENING.
- POST INSTALLED EXPANSION AND EPOXY ANCHORS.

1.1.10 FIELD MODIFICATIONS: MODIFICATIONS OF STRUCTURAL MEMBERS DUE TO MISLOCATION, MISFIT, MECHANICAL INTERFERENCE, OR ANY OTHER CONSTRUCTION ISSUE SHALL NOT BE MADE WITHOUT THE PRIOR APPROVAL OF ENGINEER. NO OPENING SHALL BE PLACED IN ANY STRUCTURAL MEMBER UNLESS SHOWN ON THE CONTRACT STRUCTURAL DRAWINGS OR APPROVED BY SHOP DRAWINGS.

1.1.11 PERMANENT EQUIPMENT: SHALL BE LOCATED ONLY ON THE STRUCTURAL MEMBERS INTENDED TO SUPPORT THIS EQUIPMENT AS SHOWN ON THE CONTRACT DRAWINGS OR THE APPROVED SHOP DRAWINGS. IF STRUCTURAL SUPPORT IS NOT CLEAR, OR A QUESTION ARISES, CONTACT STRUCTURAL ENGINEER OF RECORD PRIOR TO EQUIPMENT INSTALLATION.

2.1 EARTHWORK:

2.1.1 THE CONTRACTOR SHALL READ THE GEOTECHNICAL REPORT AND BE THOROUGHLY FAMILIAR WITH THE SITE AND THE SUBGRADE INFORMATION GIVEN THEREIN. ALL SUBGRADE PREPARATIONS, FILL, FILL PLACEMENT, AND FOUNDATION CONSTRUCTION SHALL BE PERFORMED IN STRICT COMPLIANCE WITH THE STRUCTURAL DOCUMENTS AND THE GEOTECHNICAL REPORT AND SHALL BE OBSERVED, TESTED, AND APPROVED BY THE PROJECT'S GEOTECHNICAL ENGINEER OF RECORD PRIOR TO PROCEEDING WITH FOUNDATION CONSTRUCTION.

2.1.2 EXCAVATIONS: ALL UNSUITABLE EXISTING FILL AND TOPSOIL SHALL BE EXCAVATED BELOW FOOTING BEARING AND REPLACED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT RECOMMENDATIONS. IF EXCAVATIONS SHOULD INDICATE A SAFE SOIL BEARING CAPACITY LESS THAN THE DESIGN CRITERIA SOIL BEARING CAPACITY LISTED, THE ENGINEER OF RECORD SHALL BE NOTIFIED IMMEDIATELY AND THE FOUNDATION REVISED TO MEET THIS CONDITION.

2.1.3 SITE PREPARATION: ALL UNSUITABLE EXISTING FILL AND TOPSOIL SHALL BE EXCAVATED WITHIN THE BUILDING FOOTPRINT AND REPLACED TO FINISHED PAD ELEVATION IN ACCORDANCE WITH THE GEOTECHNICAL REPORT RECOMMENDATIONS. PROVIDE COMPACTED AGGREGATE SUBBASE AND VAPOR RETARDER ABOVE PAD AND BELOW SLAB PER SPECIFICATIONS AND GEOTECHNICAL REPORT RECOMMENDATIONS.

2.1.4 BACKFILLING: BACKFILL EACH SIDE OF FOUNDATION WALLS IN EQUAL LIFTS. WHERE FINAL GRADES CREATE AN UNBALANCED CONDITION, BACKFILL AS FOLLOWS: AT FOUNDATIONS WALLS STRUCTURALLY CONNECTED TO SLABS (SUCH AS DOCK WALLS), BRACE TOP OF WALL UNTIL SLAB IS IN PLACE AND CURED 7 DAYS MINIMUM. AT BASEMENT WALLS, DO NOT BACKFILL UNTIL FIRST FLOOR CONSTRUCTION IS COMPLETE OR TOP OF WALLS ARE BRACED. WHERE WALLS ARE NOT STRUCTURALLY CONNECTED AT THE TOP (SUCH AS RETAINING WALLS), BRACING IS NOT REQUIRED.

2.1.5 THE CONSTRUCTION DRAWINGS AND THE PROJECT SPECIFICATIONS SHALL BE SUBMITTED BY THE CONTRACTOR FOR REVIEW AND COMMENT BY THE GEOTECHNICAL ENGINEER PRIOR TO CONSTRUCTION TO ENSURE CONFORMANCE BETWEEN THE FOUNDATION DESIGN AND THE INTERPRETATION OF THE GEOTECHNICAL RECOMMENDATIONS.

2.1.6 IN THE ABSENCE OF THE GEOTECHNICAL REPORT, A GEOTECHNICAL ENGINEER SHALL BE RETAINED FOR SERVICES DURING EXCAVATION TO ASSURE SUITABLE BEARING CONDITIONS MEETING BEARING CRITERIA LISTED IN THES NOTES IS MET.

3.1 CONCRETE:

3.1.1 REFERENCES: CONCRETE CONSTRUCTION SHALL COMPLY WITH THE FOLLOWING STANDARDS AND AS MODIFIED HEREIN:

ACI 117	"SPECIFICATIONS FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS"
ACI 301	"SPECIFICATIONS FOR STRUCTURAL CONCRETE"
ACI SP-66	"ACI DETAILING MANUAL"
ACI 318	"BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE"
ACI 347	"GUIDE TO FORMWORK FOR CONCRETE"
ACI 360	"GUIDE TO DESIGN OF SLABS-ON-GROUND"
CRSI	"MANUAL OF STANDARD PRACTICE"
PCI	"PLACING & FINISHING"

3.1.2 MATERIALS: PROPORTION CONCRETE MATERIALS TO ATTAIN 28 DAY CONCRETE MIX DESIGN STRENGTHS INDICATED IN THE DESIGN CRITERIA. SEE SPECIFICATIONS FOR ADDITIONAL MATERIAL REQUIREMENTS.

3.1.3 SHOP DRAWINGS/SUBMITTALS: SUBMIT CONCRETE MIX DESIGNS, COMPRESSIVE STRENGTH TEST HISTORY, FIBER ANALYSIS, ASH, AGGREGATE TEST REPORTS, ADMIXTURES, FIBER REINFORCING, REBAR PLACEMENT AND FABRICATION PLANS, LAP LENGTHS, REBAR BENDING DIAGRAMS, AND ALL DETAILS AS INDICATED TO COMPLETE INSTALLATION.

3.1.4 ACCESSORIES: ALL CONCRETE ACCESSORIES SUCH AS CHAIRS, TIES, ETC., THAT COME IN CONTACT WITH FORMWORK OR EXPOSED CONCRETE SHALL BE GALVANIZED OR PLASTIC COATED. CONCRETE BLOCK OR CLAY MASONRY SHALL NOT BE USED AS CHAIRS FOR SUPPORT OF SLAB-ON-GRADE REINFORCING.

3.1.5 AIR ENTRAINMENT: ALL CONCRETE EXPOSED TO WEATHER SHALL BE AIR ENTRAINED 6% +/- 1-1/2%

3.1.6 WELDED WIRE REINFORCING: PROVIDE WELDED WIRE REINFORCING IN ACCORDANCE WITH THE DESIGN CRITERIA. WELDED WIRE REINFORCING SHALL BE FLAT SHEETS ONLY, LAPPED 6" MINIMUM AND POSITIONED AT MID-HEIGHT OF THE SLAB THICKNESS, UNLESS NOTED OTHERWISE.

3.1.7 SYNTHETIC FIBER REINFORCING: PROVIDE SYNTHETIC FIBER REINFORCING IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AT THE DOSAGE RATE INDICATED ON THE PLANS.

3.1.8 BAR REINFORCING: PROVIDE BAR REINFORCING IN ACCORDANCE WITH THE DESIGN CRITERIA. WHEN BAR REINFORCING IS CALLED FOR IN A CERTAIN PORTION OF THE BUILDING, IT SHALL BE DUPLICATED IN SIMILAR PORTIONS OF THE BUILDING, UNLESS NOTED OTHERWISE.

3.1.9 WINMUM COVER: INSTALL BAR REINFORCING WITH THE FOLLOWING WINIMUM COVER UNLESS A GREATER COVER IS REQUIRED DUE TO FIRE PROTECTION:

POSITION	DISTANCE
CONCRETE CAST AGAINST AND PERMANENTLY IN CONTACT WITH EARTH	3"
CONCRETE EXPOSED TO EARTH AND WEATHER	
#5 BAR AND SMALLER	1 1/2"
#6 BAR AND LARGER	2"
CONCRETE NOT EXPOSED TO EARTH AND WEATHER OR IN CONTACT WITH GROUND:	
SLABS, WALLS, AND JOISTS	
#11 BAR AND SMALLER	3/4"
BEAMS AND COLUMNS	
#11 BAR AND SMALLER	1 1/2"

3.1.10 DEVELOPMENT: THE MINIMUM DEVELOPMENT LENGTH OF NON-CONTINUOUS BAR REINFORCING SHALL BE DETERMINED PER CURRENT ACI 318 EQUATIONS WITH CORRESPONDING VARIABLES APPLICABLE TO THE PROJECT CONDITIONS. TERMINATE BARS WITH A STANDARD HOOK IN ACCORDANCE WITH ACI 318 FOR BARS TERMINATING AT FREE ENDS.

3.1.11 MINIMUM LAP SPLICE LENGTH OF CONTINUOUS BAR REINFORCING SHALL BE DETERMINED BY CURRENT ACI-318 EQUATIONS WITH CORRESPONDING VARIABLES APPLICABLE TO THE PROJECT CONDITIONS. ON GROUPS OF PARALLEL BARS, LAP BARS SHALL BE STAGGERED. MECHANICAL COUPLERS MAY BE USED WITH APPROVAL. PRODUCT DATA, INCLUDING CURRENT ICC REPORT FOR MECHANICAL COUPLERS, SHALL BE SUBMITTED FOR APPROVAL BY THE STRUCTURAL ENGINEER OF RECORD PRIOR TO USE. COUPLERS MUST BE CAPABLE OF DEVELOPING 125% OF THE YIELD STRENGTH OF THE SPLICED BARS.

3.1.12 HOT WEATHER CONCRETING: FOLLOW ACI 305 'GUIDE TO HOT WEATHER CONCRETING' WHEN MAXIMUM DAILY TEMPERATURE EXCEEDS 85°F, OR RAPID DRYING CONDITIONS EXIST; EVAPORATION RATE GREATER THAN 0.2 PSF, EQUAL TO 0.1 PSF IN WINDY AREAS.

3.1.13 COLD WEATHER CONCRETING: FOLLOW ACI 306 'GUIDE TO COLD WEATHER CONCRETING' WHEN FREEZING CONDITIONS ON MEAN DAILY TEMPERATURE FALLS BELOW 40°F.

3.1.14 SLABS-ON-GRADE: MAY BE POURED AS A CONTINUOUS SCREEDED POUR WITH SAW CUT CONTROL JOINTS IN BOTH DIRECTIONS OR SAW CUTS TO BE MADE WITHIN 12 HOURS OF POURING. CONTRACTOR TO FURTHER APART THAN DETAILED ON THESE DRAWINGS. COORDINATE JOINT LAYOUT AND CONDITIONS WITH ARCHITECTURAL PRIOR TO SLAB POURS.

3.1.15 WALLS: MAXIMUM POUR LIFT HEIGHT 100 FT BETWEEN FORMED CONSTRUCTION JOINTS. FOR WALLS EXPOSED TO VIEW, PROVIDE INTERMEDIATE CONSTRUCTION JOINTS NO GREATER THAN 30 FT ON CENTER. JOINTS SHOULD ALIGN WITH BUILDING CONTROL JOINTS WHEN PRESENT AND TYPE AND INSTALLATION OF CONSTRUCTION JOINTS SHOWN ON THE DRAWINGS.

3.1.16 OPENINGS: CONTRACTOR TO PROVIDE AND COORDINATE WITH ALL OTHER TRADES FOR SIZE AND LOCATIONS OF ANY AND ALL OPENINGS, SLEEVES, ETC. OCCURRING IN WALLS, FOOTINGS, AND FLOORS. SLEEVE LAYOUTS SHALL BE SUBMITTED FOR APPROVAL PRIOR TO CONSTRUCTION.

3.1.17 BOND BREAKER: PROVIDE BOND BREAKER MATERIAL WHERE SLABS ABUT WALLS, COLUMNS, AND OTHER VERTICAL SURFACES.

3.1.18 PROVIDE DIAGONAL REINFORCING BARS AT REENTRANT CORNERS IN ALL SLABS-ON-GRADE AND ELEVATED SLABS, AT CORNER OF OPENINGS IN WALLS AND SLABS, AND AT COLUMNS PENETRATING SLABS PER DETAILS IN THIS DRAWING SET.

3.2 PRECAST CONCRETE PLANK:

3.2.1 REFERENCES: PRECAST CONCRETE PLANK CONSTRUCTION SHALL COMPLY WITH THE FOLLOWING STANDARDS AND AS MODIFIED HEREIN:

ACI 318	"BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE"
PCI MNL-116	"MANUAL OF QUALITY CONTROL OF PLANTS AND PRODUCTION OF STRUCTURAL PRECAST CONCRETE PRODUCTS"
PCI MNL-120	"PCI DESIGN HANDBOOK - PRECAST AND PRESTRESSED CONCRETE"
PCI MNL-123	"DESIGN AND TYPICAL DETAILS OF CONNECTIONS FOR PRECAST AND PRESTRESSED CONCRETE"
PCI MNL-124	"DESIGN FOR FIRE RESISTANCE OF PRECAST PRESTRESSED CONCRETE"
PCI MNL-126	"PCI MANUAL FOR THE DESIGN OF HOLLOW CORE SLABS".

3.2.2 PRODUCTS: FURNISH PLANK OF THICKNESS INDICATED ON DRAWINGS, COMPLETE WITH HEADERS, WELDING INSERTS, BEARING PADS, DOWEL CONNECTIONS, AND OTHER ACCESSORIES NECESSARY FOR COMPLETE INSTALLATION.

3.2.3 SHOP DRAWINGS/SUBMITTALS: SUBMIT DESIGN LOADS, ALLOWABLE SUPERIMPOSED LOADS, DESIGN DEFLECTION, DESIGN CAMBER, PLANK LAYOUT, UNIT IDENTIFICATION MARKS, UNIT SERIES MARKS, CONNECTION DETAILS, BEARING REQUIREMENTS, DIMENSIONS, OPENINGS, SIZE AND LOCATION OF HEADERS, AND OTHER DETAILS AS REQUIRED TO COMPLETE INSTALLATION.

3.2.4 PROJECT CONDITIONS: CONTRACTOR SHALL FIELD MEASURE AS-BUILT CONSTRUCTION AND CONFIRM ALL DIMENSIONS PRIOR TO FABRICATION OF MATERIAL. ARCHITECT/ENGINEER APPROVAL OF SHOP DRAWINGS DOES NOT RELIEVE CONTRACTOR OF THIS RESPONSIBILITY.

3.2.5 INSTALLATION: CONTRACTOR TO PROVIDE TEMPORARY SHORING AND BRACING OF ALL PLANK AND STEEL SUPPORT FRAMING UNTIL ALL PERMANENT CONNECTIONS ARE COMPLETED.

3.2.6 TENSION TIES: TENSION TIES SHALL BE PROVIDED PER ACI 318 IN THE TRANSVERSE, LONGITUDINAL, AND VERTICAL DIRECTIONS AND AROUND THE PERIMETER OF THE STRUCTURE TO EFFECTIVELY TIE ELEMENTS TOGETHER.

3.2.7 TOLERANCES: ANY PLANK SUPPLIED WITH A CAMBER DEVIATION GREATER OR LESS THAN 1/4 INCH BEYOND DESIGN CAMBER SHALL BE REJECTED.

3.2.8 PLANK SUPPORTS: PLANK SHALL HAVE MINIMUM BEARING OF 2-1/2" ON STEEL AND 4" ON CONCRETE OR MASONRY.

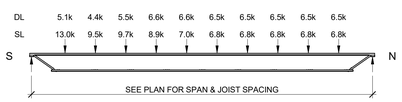
3.2.9 TOPPING SLABS ARE INTENDED TO BE NON-STRUCTURAL TOPPING SLABS UNLESS NOTED OTHERWISE ON THIS DRAWING SET. ELEMENTS OF THE PRECAST PLANK DESIGNER TO UTILIZE A STRUCTURAL TOPPING SLAB MAY ONLY BE DONE WITH APPROVAL OF THE STRUCTURAL ENGINEER OF RECORD.

3.3 PRECAST CONCRETE PANELS:

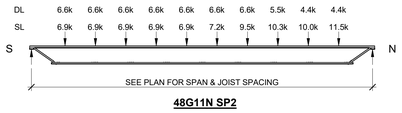
3.3.1 REFERENCES: PRECAST CONCRETE PANEL CONSTRUCTION SHALL COMPLY WITH THE FOLLOWING STANDARDS AND AS MODIFIED HEREIN:

ACI 318	"BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE"

SPECIAL JOIST GIRDER LOADING DIAGRAMS



48G11N SP1



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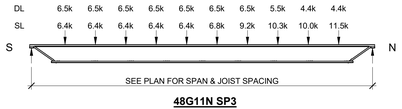

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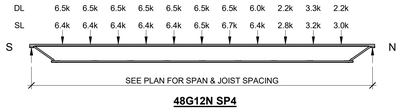

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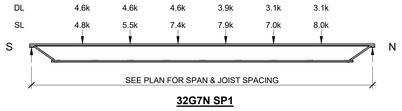
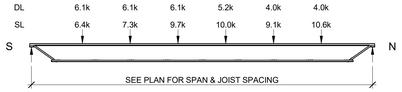


32G7N SP1



32G7N SP2

MASONRY LINTEL SCHEDULE

MARK	TYPE	SIZE	REINF	TIES
ML-01	D	8"x16"	(2) #5 BOT	#3 @ 8" OC
ML-02	D	8"x24"	(2) #5 TOP & BOT	#3 @ 8" OC

- SEE SHEET S 505 FOR TYP LINTEL SECTIONS AND DETAILS

STEEL LINTEL SCHEDULE

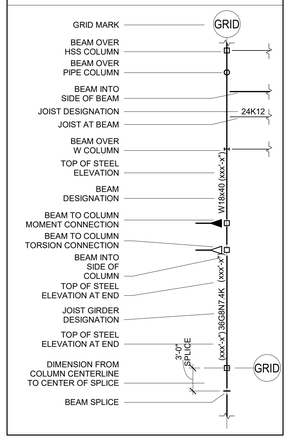
MARK	TYPE	SIZE	PLATE	GUSSETS
L-01	A	W16x40	PL1/4x12 (FV)	----------
L-02	A	W24x62	PL1/4x11	----------
L-03	--	W16x31	VARIES	1/4" @ EX PIERS
L-04	A	W8x10	PL1/4x11	----------
L-05	A	W16x26	PL1/4x11	----------

- SEE SHEET S 505 FOR TYP LINTEL SECTIONS AND DETAILS

ROOF FRAMING NOTES

1. SEE SHEET S 104 & DETAIL 9/S 507 FOR ADDITIONAL DECK AND FASTENING INFORMATION.
2. DECK LAYOUT MUST BE 3-SPAN MINIMUM.
3. (xxx'-x") INDICATES TOP OF STEEL ELEVATIONS.
4. JB xxx'-x" INDICATES JOIST BEARING ELEVATIONS.
5. [x"] INDICATES JOIST SEAT HEIGHT.
6. SEE S 104 FOR DRIFT SNOW LOADING.
7. JOISTS AS DESIGNATED HAVE BEEN DESIGNED FOR THE LOADS INDICATED IN GENERAL NOTE 1.1.3, ADDITIONAL LOADS SHOWN ON FRAMING PLANS, AND DRIFTING SNOW LOADS SHOWN ON S 104. WIND LOADS ARE UNFACTORED ULTIMATE LOADS (1.0W) PER IBC 2021.
8. PROVIDE BRIDGING, INCLUDING UPLIFT BRIDGING, PER SJI AND OSHA REQUIREMENTS AT ALL JOISTS.
9. PROVIDE DIAGONAL BRIDGING AT FIRST OR SECOND JOIST SPACE EA END.
10. PROVIDE PL1/4x5x0'-7" w/ (2) 3/8"x4" ANCH AT EACH K-SERIES JOIST END BEARING ON BOND BEAM.
11. PROVIDE PL1/4x6x0'-9" w/ (2) 3/8"x4" ANCH AT EACH LH- OR DLH-SERIES JOIST END BEARING ON BOND BEAM.
12. PROVIDE PL1/4x7x0'-9" w/ (2) 3/8"x4" ANCH AT K- OR LH-SERIES JOIST ENDS DOUBLE BEARING ON BOND BEAM.
13. ROOF OPENINGS - VERIFY ALL SIZES AND LOCATIONS WITH MECHANICAL DRAWINGS.
14. PROVIDE L3x3x1/4 FRAME AT ALL SUMP PANS AND ROOF OPENINGS BETWEEN JOISTS SPACED LESS THAN OR EQUAL TO 5'-6" OC. SEE DETAIL 1/S 507
15. PROVIDE L4x4x1/4 FRAME AT ALL ROOF OPENINGS BETWEEN JOISTS SPACED GREATER THAN 5'-6" OC. SEE DETAIL 1/S 507
16. SEE DETAIL 1/S 507 , 3/S 507 AND 4/S 507 FOR MECHANICAL EQUIPMENT FRAMING.
17. SEE DETAIL 2/S 507 FOR REINFORCING OF JOISTS AT CONCENTRATED LOADS
18. ALL ANGLES INDICATED ON PLAN AS CONTINUOUS (CONT) SHALL BE SPLICED PER DETAIL 5/S 507
19. SEE DETAIL 6/S 507 FOR TYPICAL JOIST SEAT ATTACHMENT.
20. SEE DETAIL 5/S 506 FOR ERECTION TOLERANCE OF STEEL.
21. SEE SHEET S 506 FOR TYPICAL STEEL CONNECTIONS.
22. V## - INDICATES SERVICE LEVEL (ASD) SHEAR FORCE IN KIPS FOR CONNECTION DESIGN.
23. P## - INDICATES FACTORED (ULTIMATE) AXIAL FORCE IN KIPS (TENSION OR COMPRESSION, UNO).
24. M## - INDICATES SERVICE LEVEL (ASD) MOMENT IN KIP-FT (POSITIVE OR NEGATIVE) FOR CONNECTION DESIGN.
25. SEE FRAMING ELEVATIONS FOR GIRT AND VERTICAL BRACING SIZES.
26. A## - INDICATES FACTORED (ULTIMATE) AXIAL FORCE IN KIPS (TENSION OR COMPRESSION). AXIAL FORCE TO RUN THROUGH TOP CHORD ONLY, UNLESS NOTED OTHERWISE ON PLANS/DETAILS.
27. #.#K(T) - INDICATES SERVICE LEVEL (ASD) POINT LOAD ADDED TO JOISTS AND JOIST GIRDERS WHERE SHOWN.
28. ± #.#K(W) OR ±### PLF(W) - INDICATES FACTORED WIND (0.6WL) POINT LOAD OR UNIFORM LOAD ADDED TO JOISTS AND JOIST GIRDERS

STRUCTURAL FRAMING SYMBOL LEGEND



PC PLANK FRAMING NOTES

1. FINISHED FLOOR - EL VARIES (SEE PLANS)
   PLANK BEARING - EL VARIES (SEE PLANS)
2. ALL TOPPING SLABS ARE STRUCTURAL BONDED TOPPING SLABS w/ MACRO FIBER REINF @ 3#/CU YD. (unless noted otherwise)
3. [xxx] INDICATES #/FT SUPERIMPOSED LINE LOAD IN ADDITION TO UNIFORM LOAD SHOWN ON PLAN.
4. ALL TOPPING SLABS SHALL ATTAIN 75% OF DESIGN STRENGTH PRIOR TO INSTALLING LINE LOADS.
5. (xxx'-x") INDICATES TOP OF STEEL ELEVATIONS

MASONRY WALL REINFORCING SCHEDULE

MARK	VERTICAL REINFORCING	COMMENTS
MR-1	#7 @ 32" OC	----------
MR-2	#6 @ 32" OC	----------
MR-3	#5 @ 48" OC	----------

- VERTICAL REINFORCING INTENDED TO RUN FULL HEIGHT OF WALL UNLESS DETAILED OTHERWISE
- PROVIDE DOWELS INTO CONCRETE/FOUNDATION WALLS SAME SIZE AND SPACING AS SCHEDULE.
- PROVIDE REINFORCING AS SCHEDULED UNLESS NOTED OTHERWISE ON PLANS OR SECTIONS
- WALL REINFORCING SHOWN AT BASE OF WALL/FOUNDATION PLAN
- ALL MASONRY TO BE LAID IN RUNNING BOND PATTERN (UNLESS NOTED OTHERWISE)

COLUMN SCHEDULE

MARK	SIZE	BASE PLATE	ANCHOR BOLTS
C-01	HSS10x10x3/8	PL3/4x11x1'-4"	(4) 3/4"
C-02	HSS10x10x1/2	PL1x16x1'-4"	(4) 3/4"
C-03	HSS10x10x5/8	PL1x16x1'-4"	(4) 3/4"
C-04	HSS10x10x3/8	PL1x16x1'-6"	(6) 1"
C-05	HSS12x12x3/8	PL1x18x1'-6"	(4) 1"
C-06	HSS4x4x1/4	PL3/4x10x0'-10"	(4) 5/8" CONC SCREW ANCH

- PROVIDE 1/4" SETTING PLATE SAME SIZE AS BASE PLATE.
- FOR ANCHOR BOLT EMBEDMENT AND PLATE WASHER REQUIREMENTS SEE DETAIL 1/S 502
- ALL 3/4" DIAMETER ANCHOR BOLTS TO BE F1554 GRADE 36 (Fy = 36,000 PSI)
- ALL 1" DIAMETER ANCHOR BOLTS TO BE F1154 GRADE 55 (Fy = 55,000 PSI)

MASONRY PIER SCHEDULE

MARK	SIZE	VERT REINF	TIES
MP-01	12"x16"	(4) #7	#3 @ 8" OC

- PROVIDE DOWELS INTO FOUNDATION WALL OR FOOTING SAME SIZE AND QUANTITY AS PIER VERTICALS.

CONCRETE PIER SCHEDULE

MARK	SIZE	VERT REINF	TIES
CP-01	24"x24"	(8) #6	#3 @ 12" OC
CP-02	24"x24"	(8) #8	#3 @ 12" OC
CP-03	30"x30"	(8) #8	#3 @ 12" OC
CP-04	30"x30"	(8) #8	#3 @ 12" OC
CP-06	30"x30"	(8) #8	#3 @ 12" OC

- PROVIDE DOWELS INTO FOOTING SAME SIZE AND QUANTITY AS PIER VERTICALS.

FOOTING SCHEDULE

MARK	SIZE	REINFORCING EACH WAY
F-01	9'-0"x9'-0"x16"	(9) #6
F-02	11'-0"x11'-0"x20"	(12) #6
F-03	10'-0"x10'-0"x16"	(10) #6
F-04	11'-0"x11'-0"x20"	(12) #6 T & B
F-05	14'-0"x14'-0"x20"	(12) #7 T & B
F-06	9'-0"x9'-0"x20"	(11) #7 T & B

- SOIL CAPACITY = 2500 PSF (REPORT).

WALL FOOTING SCHEDULE

MARK	SIZE	LONGITUDINAL REINFORCING	TRANSVERSE REINFORCING	COMMENTS
WF-01	1'-4"x8"	-----	-----	STOOP, TYP
WF-02	4'-0"x16"	(4) #5	#6 @ 12" OC	-----
WF-03	2'-4"x16"	-----	-----	-----
WF-04	3'-0"x16"	(3) #5	#6 @ 12" OC	-----

- SOIL CAPACITY = 2500 PSF (REPORT).

ELEVATION FRAMING NOTES

1. SEE PLANS FOR ELEVATION ORIENTATION.
2. SEE SHEET S 301 FOR GIRT CONNECTION DETAILS.
3. SEE DETAIL 6/S 301 FOR TYPICAL SAG ROD CONNECTION.
4. SEE ARCH FOR OPENING SIZES AND LOCATIONS.
5. PROVIDE 3/4" DRAIN HOLE AT MIDSPAN OF EXPOSED GIRTS.
6. $P_{##}$ - INDICATES SERVICE LEVEL (ASD) AXIAL FORCE IN KIPS (TENSION OR COMPRESSION, UNO)

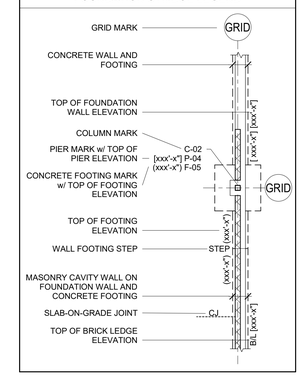
CONCRETE FOUNDATION NOTES

1. TOP OF FOOTINGS
   INTERIOR - EL 96'-0"
   (unless noted otherwise)
   EXTERIOR - EL 95'-0" (MATCH EXIST, FV)
   (unless noted otherwise)
2. (xxx'-x") INDICATES TOP OF FOOTING ELEVATIONS.
3. [xxx'-x"] INDICATES TOP OF FOUNDATION WALL/PIER ELEVATIONS.
   TOW - EL 99'-4"
   (unless noted otherwise)
   TOP - EL 99'-4"
   (unless noted otherwise)
4. PROVIDE (2) #4 TOP BARS IN INTERIOR WALL FOOTINGS AT ALL OPENINGS 6'-0" OR GREATER.
5. CONCRETE FOUNDATION WALL REINFORCING
   (2) #5 CONT TOP AND BOTTOM
   (unless noted otherwise)
6. SEE ARCH PLANS FOR LOCATION OF NON-BEARING WALLS.
7. COORDINATE ALL FLOOR DRAINS AND PITCHED SLABS WITH ARCHITECTURAL AND PLUMBING DRAWINGS.
8. SEE DETAIL 1/S 501 AND 2/S 501 FOR TYPICAL CONCRETE FOUNDATION WALL DETAILS.
9. SEE DETAIL 5/S 501 FOR TYPICAL FOUNDATION STEPS. COORDINATE ALL STEPS IN FOOTINGS WITH PIPE PENTRATIONS THROUGH FOUNDATIONS.
10. SEE DETAIL 3/S 501 AND 4/S 501 FOR TYPICAL PIPE PENETRATIONS THROUGH FOUNDATIONS.

SLAB ON GRADE NOTES

1. FINISHED FLOOR - EL 100'-0"
   (unless noted otherwise)
   FIN FLR IS FOR REFERENCE ONLY - SEE CIVIL DWGS FOR DATUM INFORMATION
2. SEE ARCHITECTURAL DRAWINGS FOR UNDER SLAB INSULATION REQUIREMENTS
3. SEE DETAILS 1/S 504 2/S 504 3/S 504 AND 4/S 504 FOR SLAB JOINT DETAILS.
4. SEE DETAIL 5/S 504 FOR SUPPLEMENTAL SLAB REINFORCING
5. STOOP SLABS
   5" SLAB w/ #3 @ 12" OC EACH WAY
6. FLOOR FLATNESS/LEVELNESS TO BE: F_F = 40, F_L = 30
7. PROVIDE ARMOR JOINTS (AJ) WHERE CONSTRUCTION OR EXPANSION JOISTS CROSS FORKLIFT TRAFFIC AREAS, DOOR OPENINGS WITH FORKLIFT TRAFFIC, AND ANY ADDITIONAL LOCATIONS SHOWN ON PLAN. CONCRETE FLOOR CONTRACTOR TO FURNISH POUR SEQUENCE AND SLAB JOINT LAYOUT FOR APPROVAL MINIMUM 14 DAYS PRIOR TO PRE-POUR MEETING. LAYOUT SHOULD TAKE INTO CONSIDERATION AISLES, RACKING POSTS, EMBEDDED ITEMS AND PLUMBING.

FOUNDATION SYMBOL LEGEND



EXISTING CONDITIONS NOTE

1. ALL EXISTING CONDITIONS TO BE FIELD MEASURED AND FIELD VERIFIED PRIOR TO FABRICATION OR CONSTRUCTION. IN CASE OF DISCREPANCY BETWEEN PLANS & FIELD CONDITIONS NOTIFY ARCHITECT. DO NOT PROCEED UNTIL THE CONDITIONS ARE RESOLVED.
2. SEE ARCHITECTURAL DRAWINGS FOR DEMOLITION INFORMATION NOT SHOWN ON THIS DRAWING.
3. SEE ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS NOT SHOWN ON THIS DRAWING.
4. CONTRACTORS ARE RESPONSIBLE FOR CORRECT AND COMPLETE USE OF INFORMATION PROVIDED IN CONSTRUCTION DOCUMENTS. IN CASE OF MISSING INFORMATION OR DISCREPANCY NOTIFY ARCHITECT OR ENGINEER. DO NOT PROCEED UNTIL THE CONDITIONS ARE RESOLVED.

AMBROSE ENGINEERING
PHONE: 262-377-7602
AE PROJECT# 025-054

ABACUS ARCHITECTS

REVISIONS:

NOTICE TO BIDDERS
BIDDERS SHALL REVIEW ALL DRAWINGS AND SPECIFICATION SECTIONS TO DETERMINE THE IMPACT OF OTHER SECTIONS OF WORK ON THEIR OWN WORK
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DATE ISSUED: DECEMBER 17th, 2025

BUILDING 25 - NEW CONSTRUCTION

VOLLRATH COMPANY LLC

1236 NORTH 18th STREET, SHEBOYGAN WI 53081

1135A MICHIGAN AVE. SHEBOYGAN, WI 53081 | (920) 452-4444 | 313 N. PLANKINTON AVE SUITE 208. MILWAUKEE, WI 53203

PERMIT SET

DRAWN BY: AMG

CHECKED BY: NEC

PROJECT SCHEDULES AND NOTES

S

002

PROJ. NO. 2024-093

12/17/2025 11:58:01 AM

AMBROSE ENGINEERING
PHONE: 262-377-7602
AE PROJECT# 025-054

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CHECKED BY: NEC

FOUNDATION PLAN

S
101

PROJ. NO. 2024-093

NORTH

FOUNDATION PLAN
SCALE: 1/16" = 1'-0"

12/17/2025 11:58:03 AM

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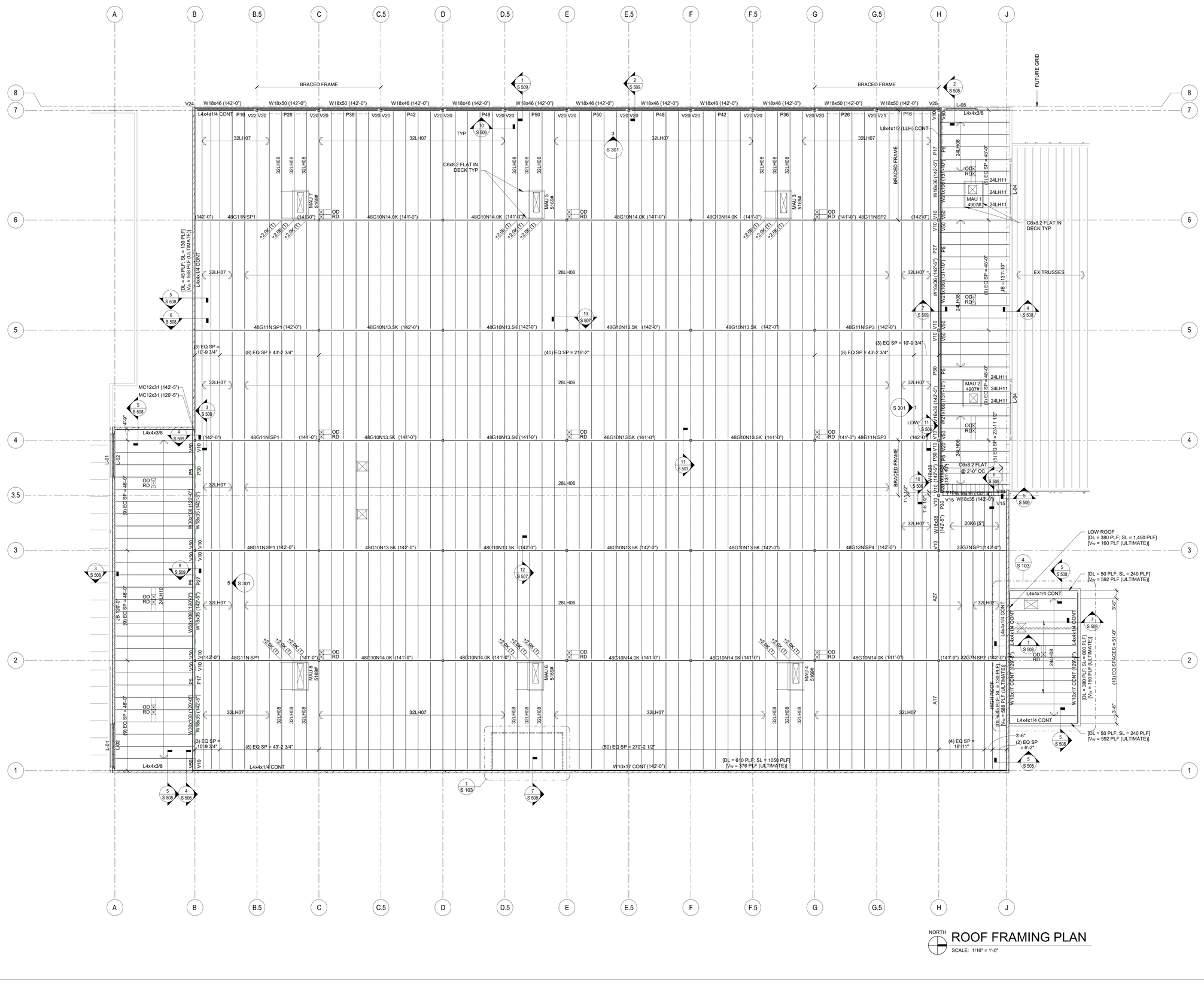
PERMIT SET



NORTH

ROOF FRAMING PLAN

SCALE: 1/16" = 1'-0"

DRAWN BY: KDC

CHECKED BY: NEC

ROOF FRAMING PLAN

S
102

PROJ. NO. 2024-093

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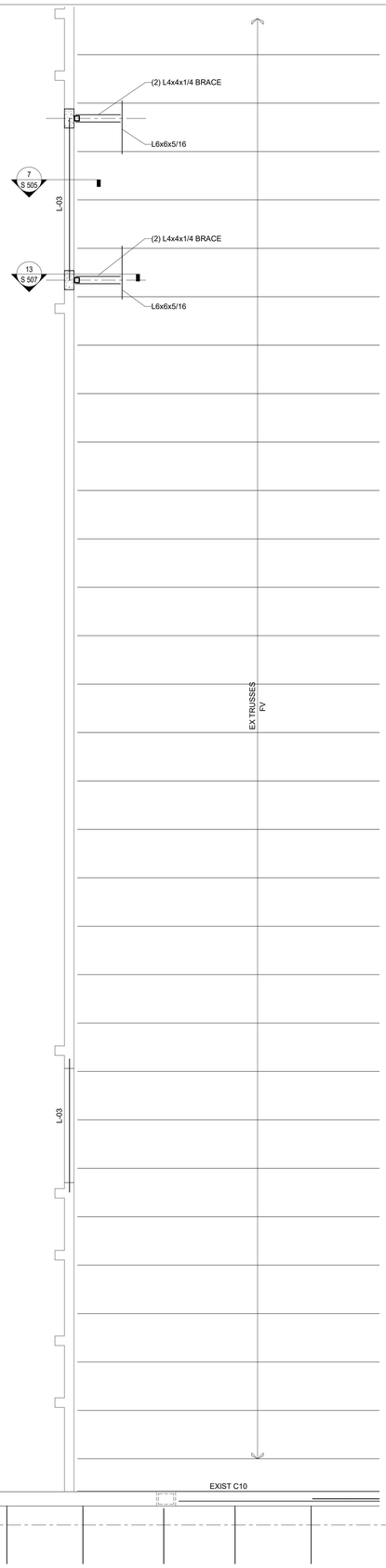
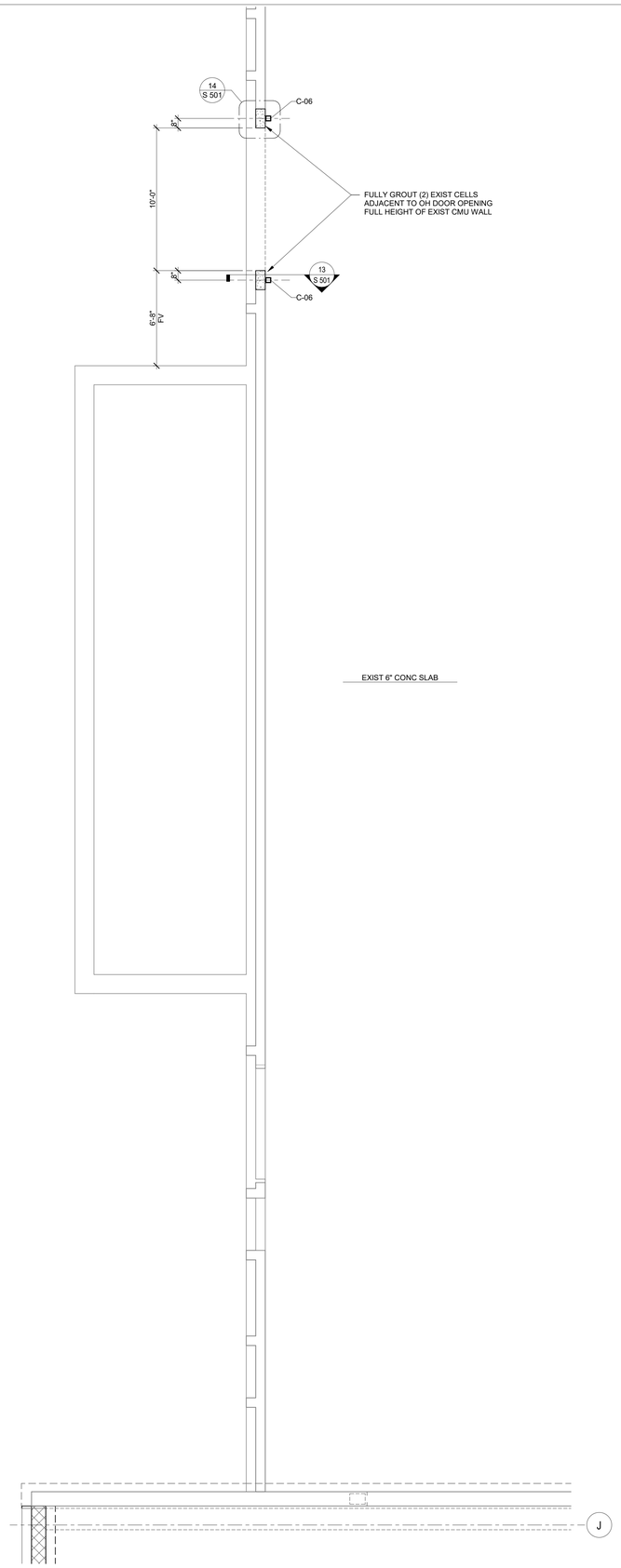


NORTH 3 S 103 EXIST BLDG 18 - PARTIAL ROOF PLAN
SCALE: 1/4" = 1'-0"



NORTH 2 S 103 EXIST BLDG 18 - PARTIAL FOUNDATION PLAN
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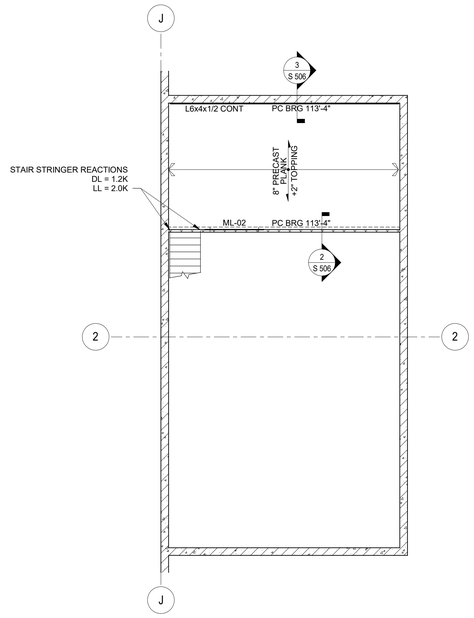
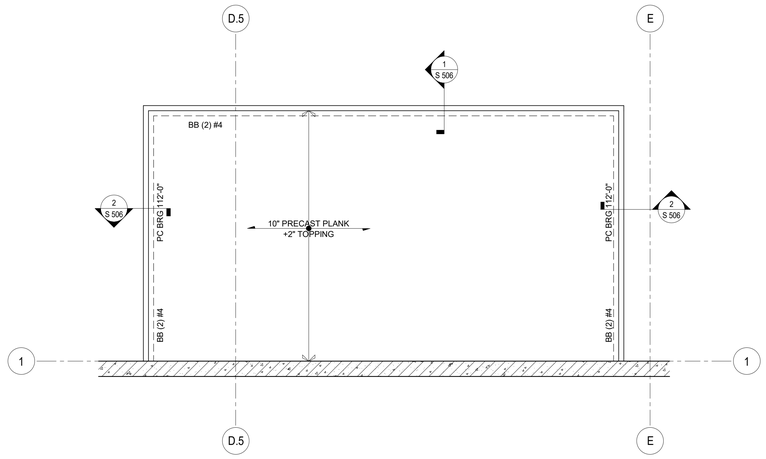


NORTH 4 S 103 MEZZANINE FRAMING PLAN
SCALE: 1/8" = 1'-0"



NORTH 1 S 103 ENLARGED SUBSTATION CEILING FRAMING PLAN
SCALE: 1/4" = 1'-0"

AMBROSE ENGINEERING
PHONE: 262-377-7602
AE PROJECT# 025-054

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PERMIT SET

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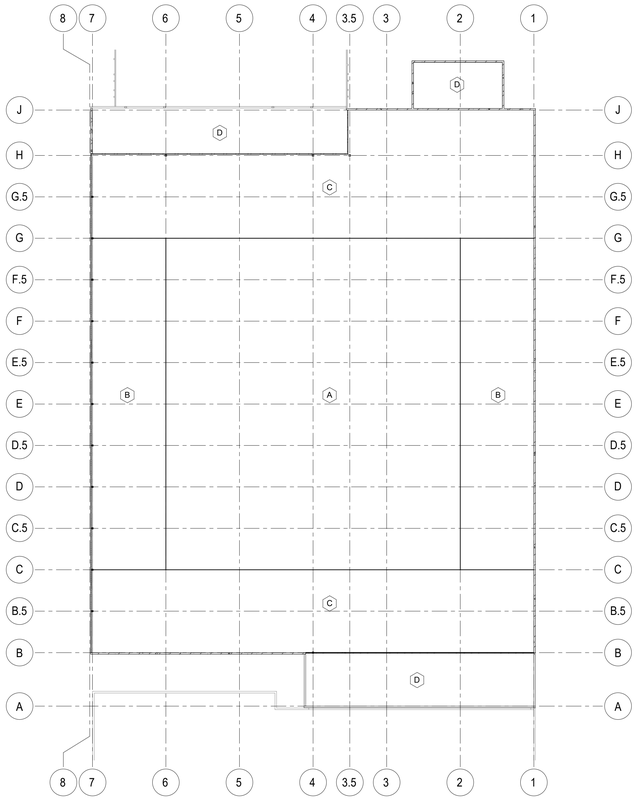
ENLARGED PLANS

S
103

PROJ. NO. 2024-093

12/17/2025 11:58:05 AM



NORTH

ROOF DECK FASTENING PLAN

SCALE: 1" = 40'-0"

DECK FASTENING SCHEDULE

MARK	DECK SIZE	FASTENER PATTERN	SIDE LAP CONNECTIONS BTWN SUPPORTS	PARALLEL PERIMETER SUPPORT SPACING
A	1 1/2" - 22 GA TYPE B	36 / 4	#10 SDS @ 24" OC	1 @ 12" OC
B	1 1/2" - 22 GA TYPE B	36 / 5	#10 SDS @ 30" OC	1 @ 12" OC
C	1 1/2" - 22 GA TYPE B	36 / 9	#10 SDS @ 24" OC	1 @ 12" OC
D	1 1/2" - 18 GA TYPE B	36 / 4	#10 SDS @ 36" OC	1 @ 12" OC

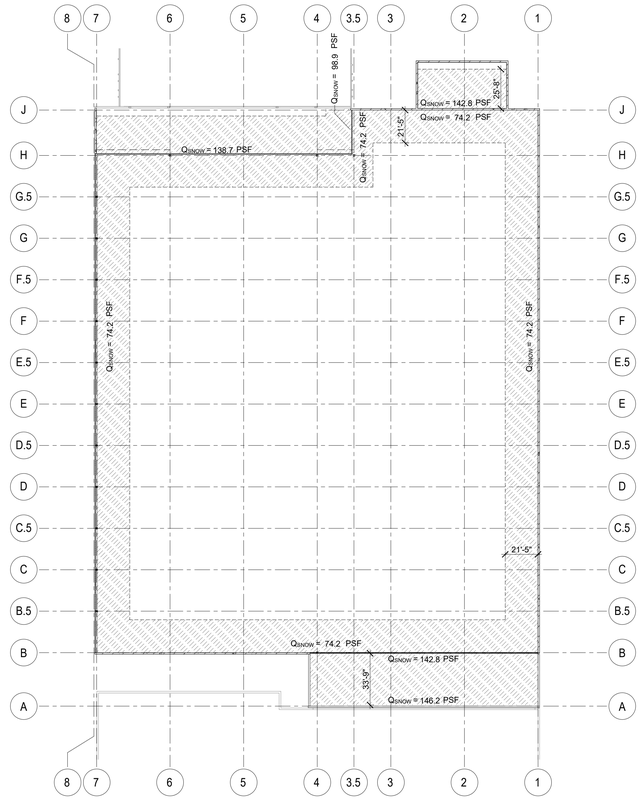
NOTES:

1. WHEN NUMBER OF SIDELAPS ARE INDICATED SPACE EQUALLY IN DECK SPAN. WHEN SIDELAP SPACING IS INDICATED FIRST AND LAST SIDELAP CONNECTION WITHIN EACH SPAN TO BE NO MORE THAN ONE-HALF THE SPECIFIED SPACING.
2. SIDELAP CONNECTION TYPES:
   #10 SDS = #10 HWH SELF DRILLING SCREW
   SLC = HILTI S-SLC 01 M HWH SIDELAP CONNECTOR
3. ALTERNATE DECK TYPES AND FASTENING MAY BE SUBMITTED FOR APPROVAL. TYPE B DECK BY VULCRAFT, INC. IS SHOWN

ROOF DECK FASTENING NOTES:

1. MECHANICALLY FASTEN DECK TO SUPPORTS WITH FASTENERS INDICATED BELOW. WELDING WILL NOT BE ALLOWED.
   - JOISTS AND BEAMS: 3/16" <= t <= 3/8" USE HILTI X-HSN24
   - JOISTS: 1/8" <= t <= 3/16" USE HILTI X-HSN24
   - BEAMS & HEAVY JOISTS: t >= 1/4" USE HILTI X-ENP-19

   t = THICKNESS OF BASE MATERIAL
2. MINIMUM 1/8" MATERIAL THICKNESS REQUIRED AT JOIST TOP CHORDS.



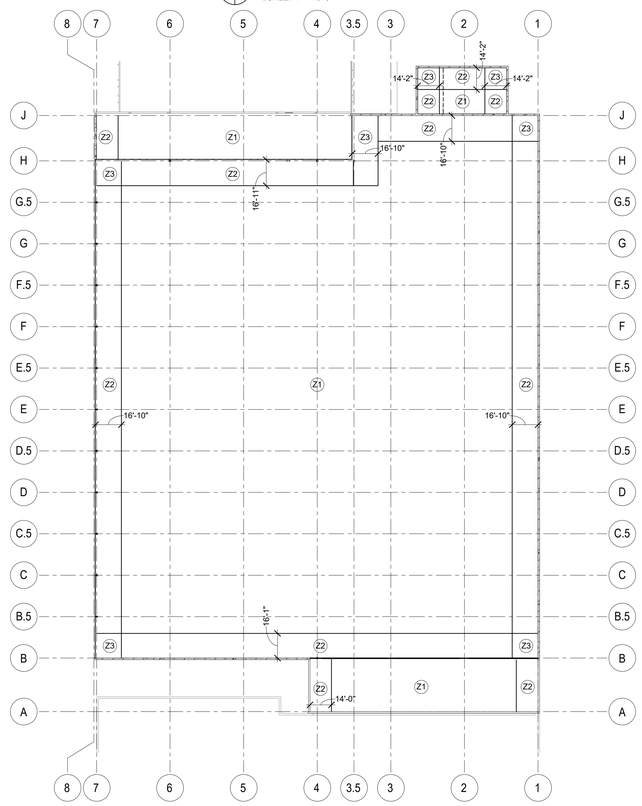
NORTH

SNOW DRIFT PLAN

SCALE: 1" = 40'-0"

SNOW LOADING NOTES

1. Q_{SNOW} = XXX PSF INDICATES THE MAXIMUM SNOW LOAD AT THE AREA SHOWN
2. INDICATES AREA OF POTENTIAL DRIFTING SNOW



NORTH

ROOF UPLIFT PLAN

SCALE: 1" = 40'-0"

ROOF UPLIFT NOTES

1. JOIST SUPPLIER TO DESIGN JOISTS AND JOIST GIRDERS FOR A NET UPLIFT OF:

ZONE	PRESSURE
ZONE 1 (FIELD)	-26.0 PSF
ZONE 2 (PERIMETER)	-26.0 PSF
ZONE 3 (CORNERS)	-18.5 PSF

2. SEE UPLIFT PLAN FOR EDGE STRIP DISTANCE "a".
3. PRESSURES INDICATED ARE ALLOWABLE LOADS (0.6W) PER IBC 2021.

AMBROSE ENGINEERING
PHONE: 262-377-7602
AE PROJECT# 025-054

ABACUS ARCHITECTS

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DATE ISSUED: DECEMBER 17th, 2025

BUILDING 25 - NEW CONSTRUCTION

VOLLRATH COMPANY LLC

1236 NORTH 18th STREET, SHEBOYGAN WI 53081

1135A MICHIGAN AVE, SHEBOYGAN, WI 53081 | (920) 452-4444 | 313 N. PLANKINTON AVE SUITE 208, MILWAUKEE, WI 53203

PERMIT SET

DRAWN BY: KDC

CHECKED BY: NEC

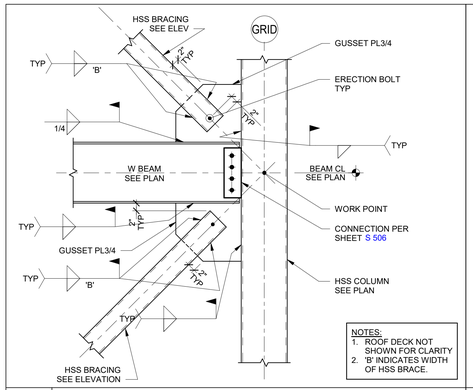
ROOF LOADING PLANS

S
104

PROJ. NO. 2024-093

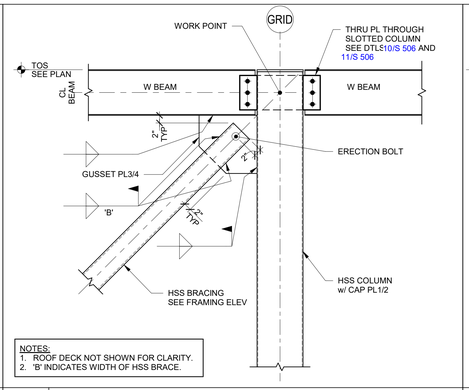
12/17/2025 11:58:06 AM

AMBROSE ENGINEERING
PHONE: 262-377-7602
AE PROJECT# 025-054



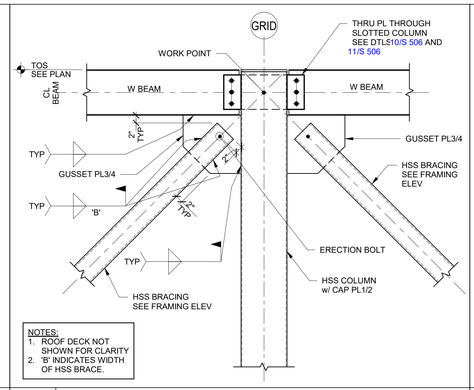
NOTES:
1. ROOF DECK NOT SHOWN FOR CLARITY
2. 'B' INDICATES WIDTH OF HSS BRACE.

11 HSS BRACING CONNECTION DETAIL
S 301 | SCALE: 3/4" = 1'-0"



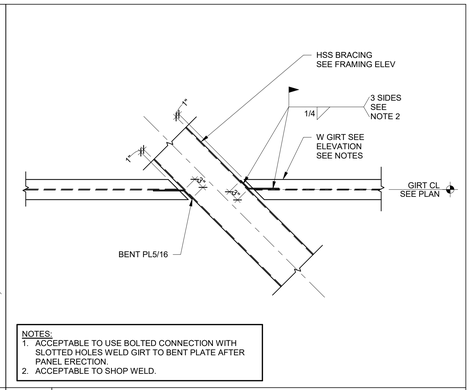
NOTES:
1. ROOF DECK NOT SHOWN FOR CLARITY.
2. 'B' INDICATES WIDTH OF HSS BRACE.

10 HSS BRACING CONNECTION DETAIL
S 301 | SCALE: 3/4" = 1'-0"



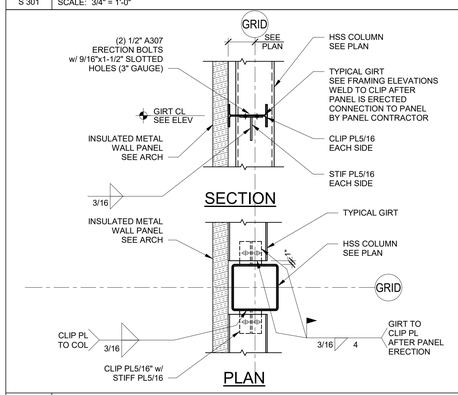
NOTES:
1. ROOF DECK NOT SHOWN FOR CLARITY
2. 'B' INDICATES WIDTH OF HSS BRACE.

9 HSS BRACING CONNECTION DETAIL
S 301 | SCALE: 3/4" = 1'-0"

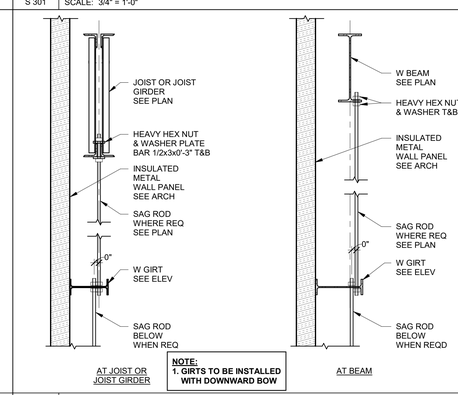


NOTES:
1. ACCEPTABLE TO USE BOLTED CONNECTION WITH SLOTTED HOLES WELD GIRT TO BENT PLATE AFTER PANEL ERECTION.
2. ACCEPTABLE TO SHOP WELD.

8 TYP GIRT CONNECTION AT HSS BRACE DETAIL
S 301 | SCALE: 3/4" = 1'-0"



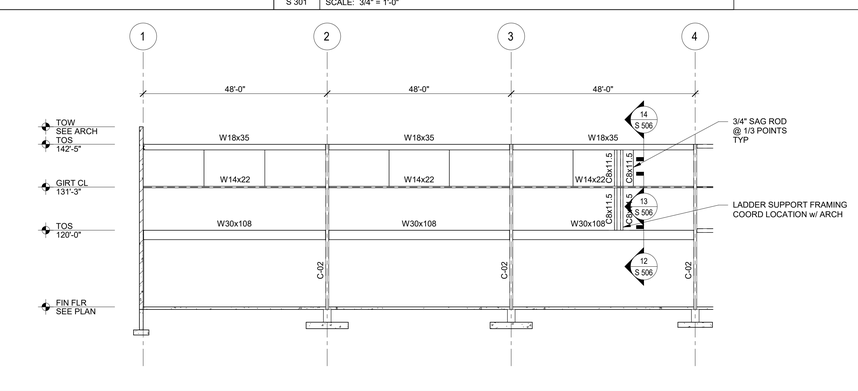
7 TYP W GIRT TO HSS COL CONNECTION DETAIL
S 301 | SCALE: 3/4" = 1'-0"



NOTE:
1. GIRTS TO BE INSTALLED WITH DOWNWARD BOW

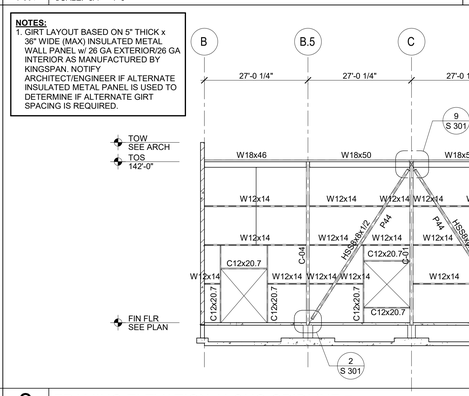
6 TYP SAG ROD DETAIL
S 301 | SCALE: 3/4" = 1'-0"

NOTES:
1. GIRT LAYOUT BASED ON 5" THICK x 36" WIDE (MAX) INSULATED METAL WALL PANEL w/ 26 GA EXTERIOR/26 GA INTERIOR AS MANUFACTURED BY KINGSPAN. NOTIFY ARCHITECT/ENGINEER IF ALTERNATE INSULATED METAL PANEL IS USED TO DETERMINE IF ALTERNATE GIRT SPACING IS REQUIRED.



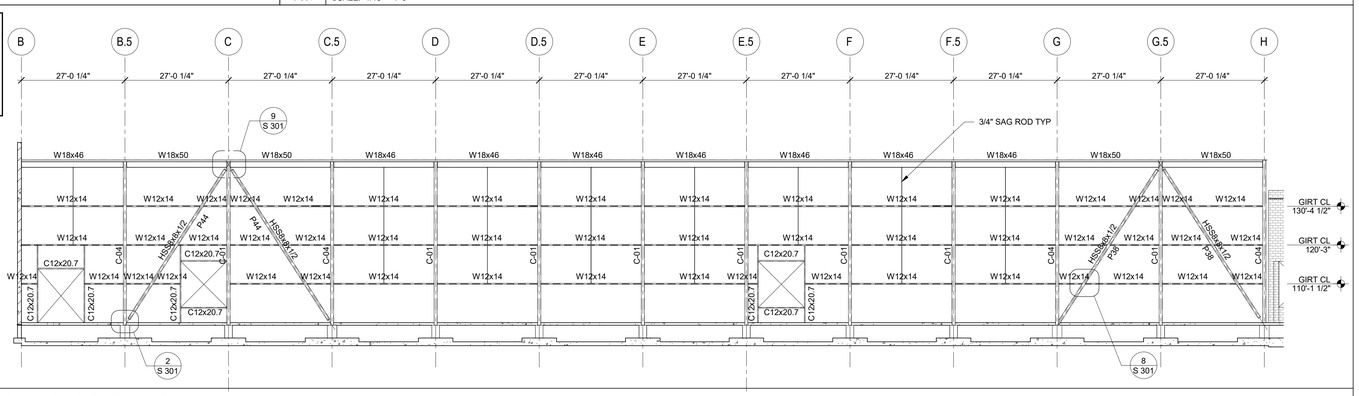
5 FRAMING ELEVATION ALONG GRIDLINE B
S 301 | SCALE: 1/16" = 1'-0"

NOTES:
1. GIRT LAYOUT BASED ON 5" THICK x 36" WIDE (MAX) INSULATED METAL WALL PANEL w/ 26 GA EXTERIOR/26 GA INTERIOR AS MANUFACTURED BY KINGSPAN. NOTIFY ARCHITECT/ENGINEER IF ALTERNATE INSULATED METAL PANEL IS USED TO DETERMINE IF ALTERNATE GIRT SPACING IS REQUIRED.



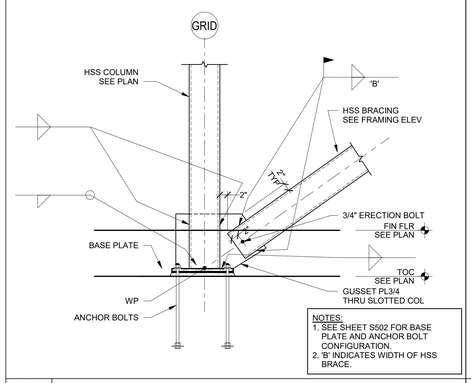
NOTES:
1. SEE SHEET S502 FOR BASE PLATE AND ANCHOR BOLT CONFIGURATION.
2. 'B' INDICATES WIDTH OF HSS BRACE.

4 HSS BRACING CONNECTION DETAIL
S 301 | SCALE: 3/4" = 1'-0"



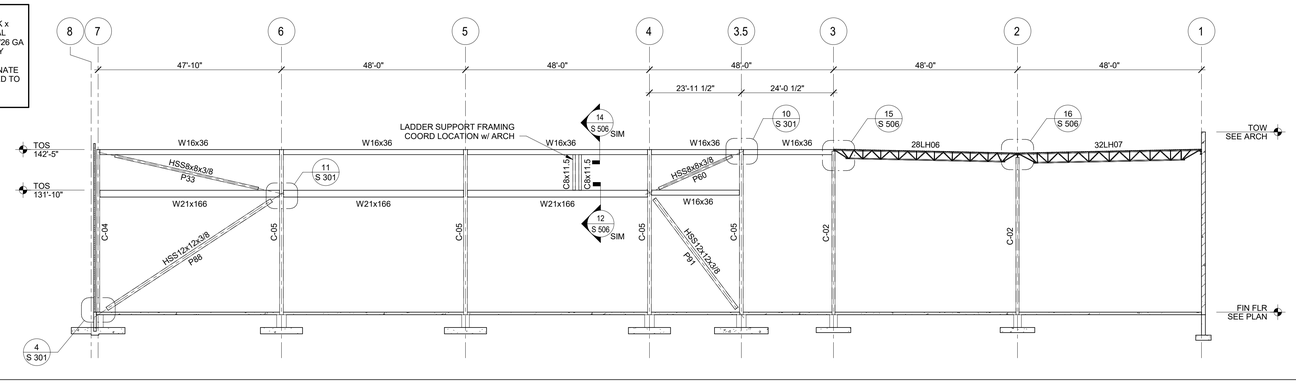
3 FRAMING ELEVATION ALONG GRIDLINE 7
S 301 | SCALE: 1/16" = 1'-0"

NOTES:
1. GIRT LAYOUT BASED ON 5" THICK x 36" WIDE (MAX) INSULATED METAL WALL PANEL w/ 26 GA EXTERIOR/26 GA INTERIOR AS MANUFACTURED BY KINGSPAN. NOTIFY ARCHITECT/ENGINEER IF ALTERNATE INSULATED METAL PANEL IS USED TO DETERMINE IF ALTERNATE GIRT SPACING IS REQUIRED.



NOTES:
1. SEE SHEET S502 FOR BASE PLATE AND ANCHOR BOLT CONFIGURATION.
2. 'B' INDICATES WIDTH OF HSS BRACE.

2 HSS BRACING CONNECTION DETAIL
S 301 | SCALE: 3/4" = 1'-0"



1 FRAMING ELEVATION ALONG GRIDLINE H
S 301 | SCALE: 1/16" = 1'-0"

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PERMIT SET

DRAWN BY: KDC

CHECKED BY: NEC

FRAMING ELEVATIONS AND DETAILS

S
301

PROJ. NO. 2024-093

12/17/2025 11:58:09 AM

AMBROSE ENGINEERING
PHONE: 262-377-7602
AE PROJECT# 025-054

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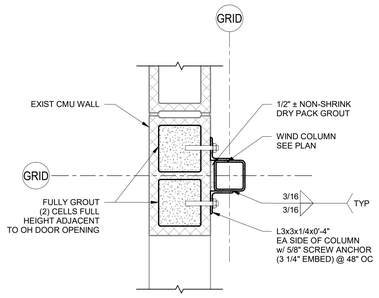
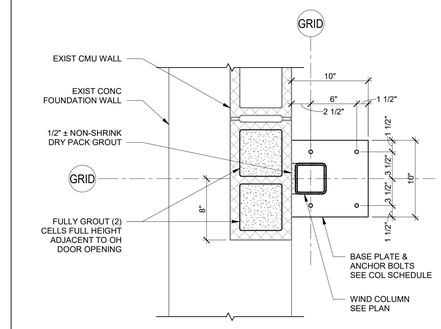


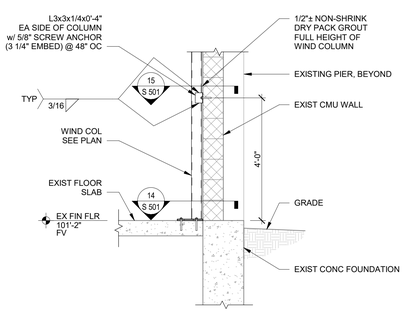
15 WIND COLUMN CONNECTION DETAILS

S 501 SCALE: 1 1/2" = 1'-0"



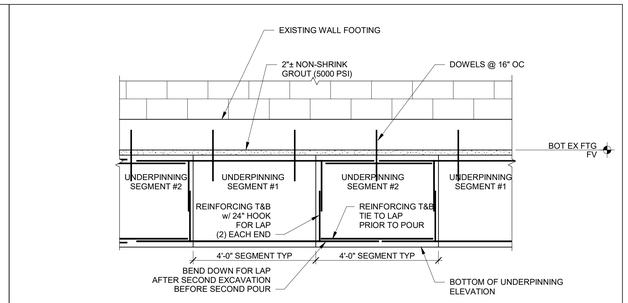
14 WIND COLUMN BASE PLATE

S 501 SCALE: 1 1/2" = 1'-0"



13 WIND COLUMN SECTION @ FOUNDATION

S 501 SCALE: 1/2" = 1'-0"

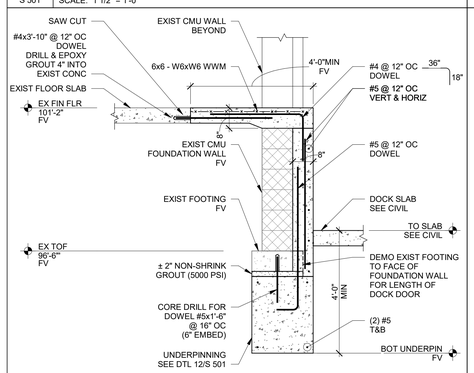


SUGGESTED CONSTRUCTION SEQUENCE:

1. EXCAVATING SEGMENT #1
2. PLACE BARS w/ HOOK BEYOND FIRST POUR
3. POUR CONCRETE FOR SEGMENT #1 ALLOW CONCRETE TO CURE A MINIMUM OF 24 HOURS
4. PACK NON-SHRINK GROUT AT SEGMENT #1 AND ALLOW TO CURE
5. EXCAVATING SEGMENT #2
6. TIE BARS, POUR CONCRETE AND ALLOW TO CURE A MINIMUM OF 24 HOURS
7. PACK NON-SHRINK GROUT AT SEGMENT #2 AND ALLOW TO CURE

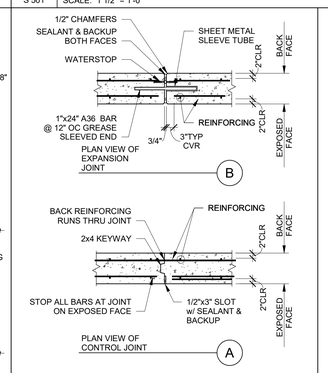
12 MASONRY FOUNDATION WALL UNDERPINNING ELEVATION

S 501 SCALE: 1/2" = 1'-0"



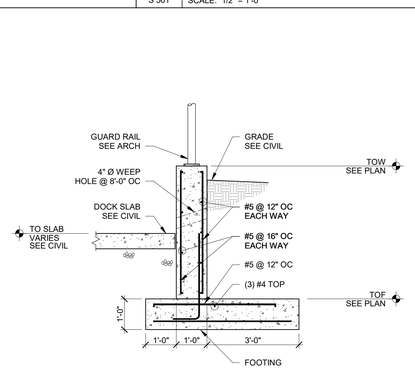
11 LOADING DOCK FOUNDATION SECTION

S 501 SCALE: 1/2" = 1'-0"



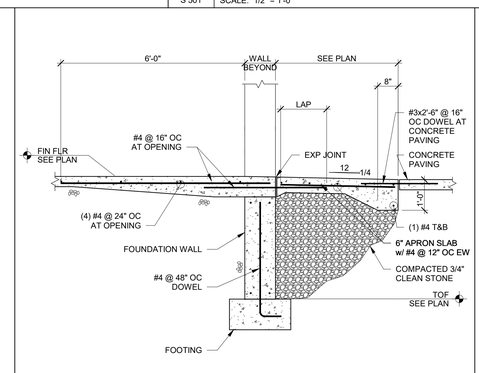
10 CONC RETAINING WALL JOINTS

S 501 SCALE: 1/2" = 1'-0"



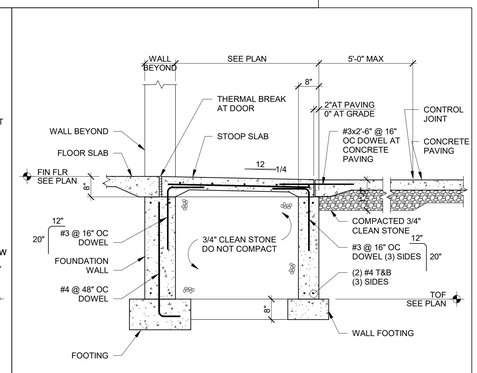
9 LOADING DOCK RETAINING WALL

S 501 SCALE: 1/2" = 1'-0"



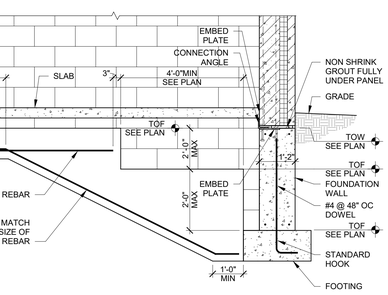
8 TYPICAL APRON SLAB AT OVERHEAD DOOR

S 501 SCALE: 1/2" = 1'-0"



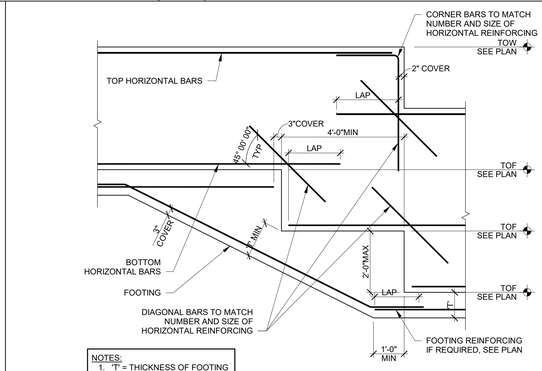
7 TYPICAL STOOP SLAB AT DOOR

S 501 SCALE: 1/2" = 1'-0"



6 INTERIOR MASONRY WALL FOOTING STEP

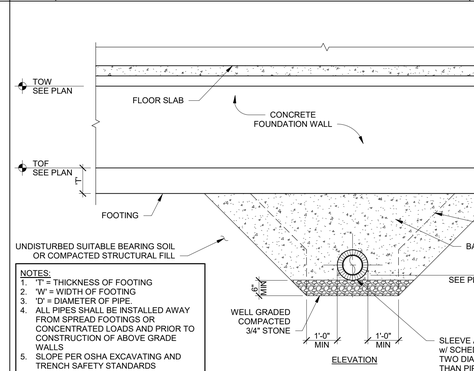
S 501 SCALE: 1/2" = 1'-0"



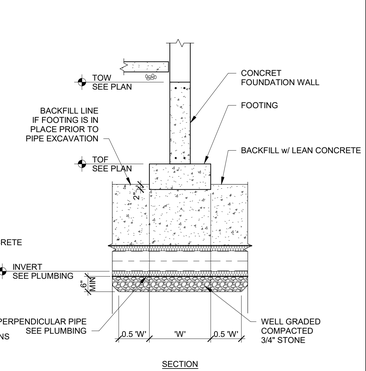
NOTES:
1. "T" = THICKNESS OF FOOTING

5 TYPICAL CONCRETE WALL AND FOOTING STEP

S 501 SCALE: 1/2" = 1'-0"

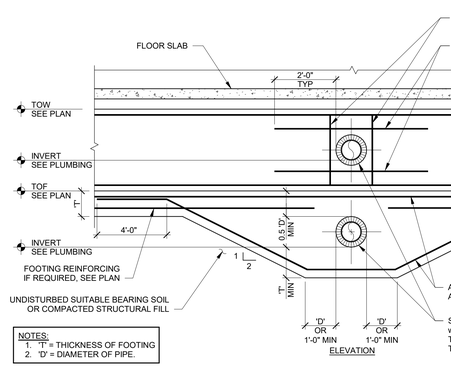


NOTES:
1. "T" = THICKNESS OF FOOTING
2. "W" = WIDTH OF FOOTING
3. "D" = DIAMETER OF PIPE.
4. ALL PIPES SHALL BE INSTALLED AWAY FROM SPREAD FOOTINGS OR CONCENTRATED LOADS AND PRIOR TO CONSTRUCTION OF ABOVE GRADE WALLS
5. SLOPE PER OSHA EXCAVATING AND TRENCH SAFETY STANDARDS

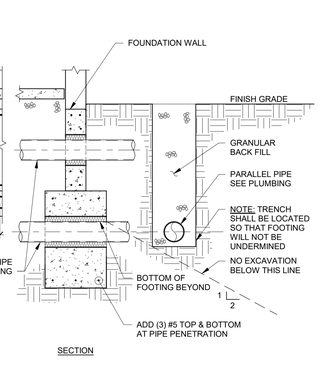


4 TYPICAL EXCAVATION BELOW FOOTING

S 501 SCALE: 1/2" = 1'-0"

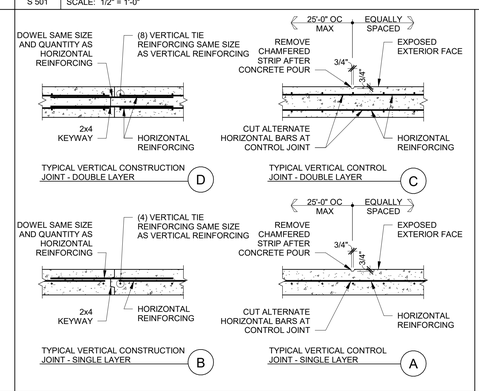


NOTES:
1. "T" = THICKNESS OF FOOTING
2. "D" = DIAMETER OF PIPE.



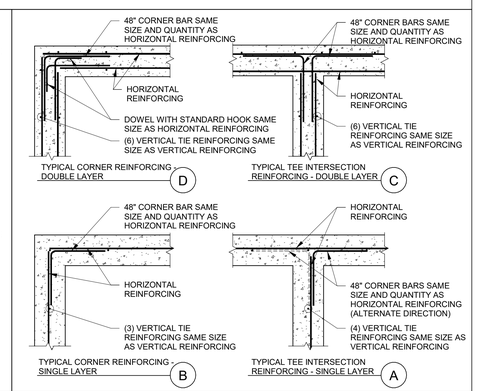
3 TYPICAL PENETRATION THROUGH CONCRETE WALL AND FOOTING

S 501 SCALE: 1/2" = 1'-0"



2 TYPICAL CONCRETE WALL JOINTS

S 501 SCALE: NOT TO SCALE



1 TYPICAL CONCRETE FOUNDATION WALL REINFORCING

S 501 SCALE: NOT TO SCALE

DATE ISSUED: DECEMBER 17th, 2025

BUILDING 25 - NEW CONSTRUCTION

VOLLRATH COMPANY LLC

1236 NORTH 18th STREET, SHEBOYGAN WI 53081

1135A MICHIGAN AVE. SHEBOYGAN, WI 53081 | (920) 452-4444 | 313 N. PLANKINTON AVE SUITE 208. MILWAUKEE, WI 53203

PERMIT SET

DRAWN BY: AMG

CHECKED BY: NEC

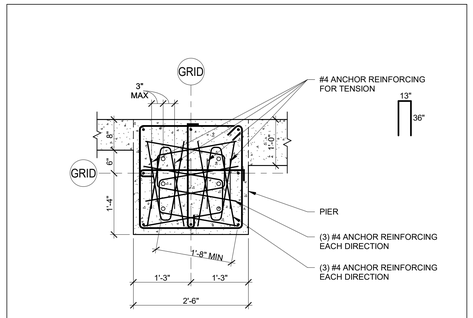
SECTIONS AND DETAILS

S
501

PROJ. NO. 2024-093

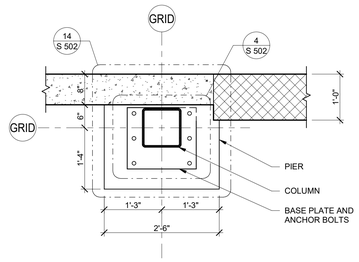
12/17/2025 11:58:09 AM

AMBROSE ENGINEERING
PHONE: 262-377-7602
AE PROJECT# 025-054



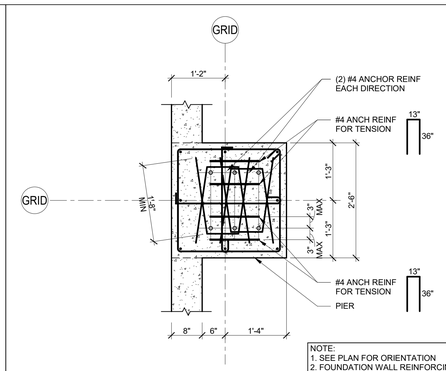
NOTE:
1. SEE PLAN FOR ORIENTATION
2. FOUNDATION WALL REINFORCING NOT SHOWN FOR CLARITY

14 PIER DETAIL
S 502 SCALE: 3/4" = 1'-0"



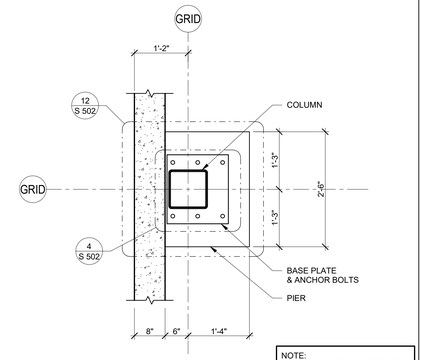
NOTE:
1. SEE PLAN FOR ORIENTATION

13 PIER DETAIL
S 502 SCALE: 3/4" = 1'-0"



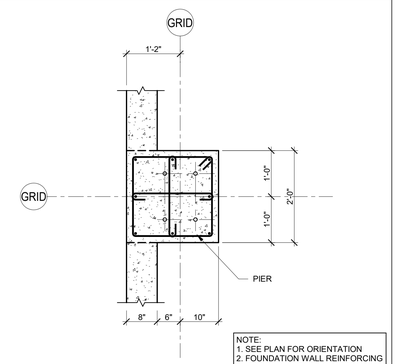
NOTE:
1. SEE PLAN FOR ORIENTATION
2. FOUNDATION WALL REINFORCING NOT SHOWN FOR CLARITY

12 PIER DETAIL
S 502 SCALE: 3/4" = 1'-0"



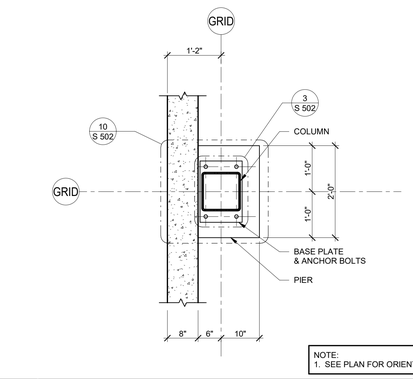
NOTE:
1. SEE PLAN FOR ORIENTATION

11 PIER DETAIL
S 502 SCALE: 3/4" = 1'-0"



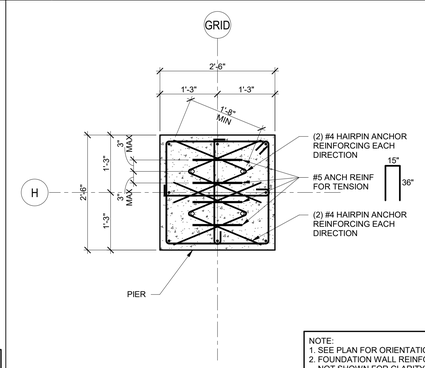
NOTE:
1. SEE PLAN FOR ORIENTATION
2. FOUNDATION WALL REINFORCING NOT SHOWN FOR CLARITY

10 PIER DETAIL
S 502 SCALE: 3/4" = 1'-0"



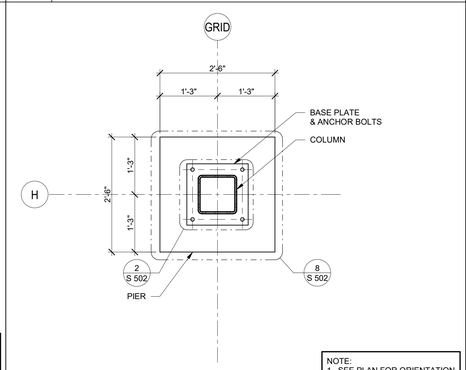
NOTE:
1. SEE PLAN FOR ORIENTATION

9 PIER DETAIL
S 502 SCALE: 3/4" = 1'-0"



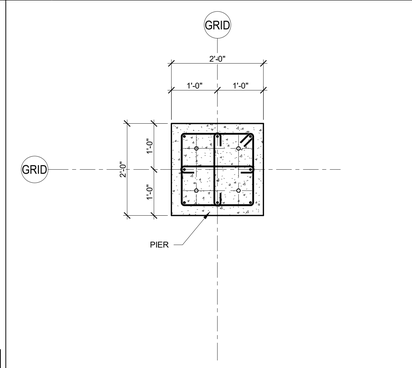
NOTE:
1. SEE PLAN FOR ORIENTATION
2. FOUNDATION WALL REINFORCING NOT SHOWN FOR CLARITY

8 PIER DETAIL
S 502 SCALE: 3/4" = 1'-0"

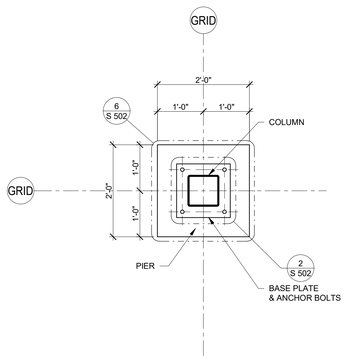


NOTE:
1. SEE PLAN FOR ORIENTATION

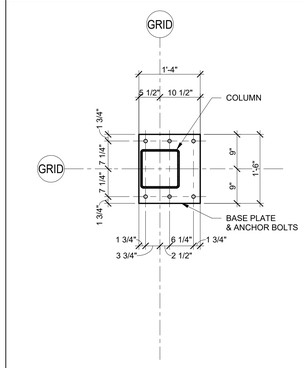
7 PIER DETAIL
S 502 SCALE: 3/4" = 1'-0"



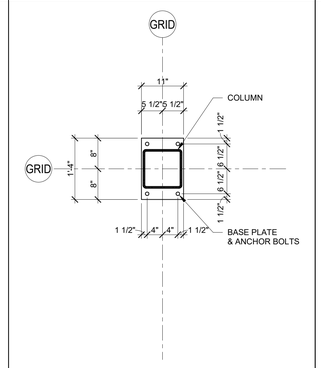
6 PIER DETAIL
S 502 SCALE: 3/4" = 1'-0"



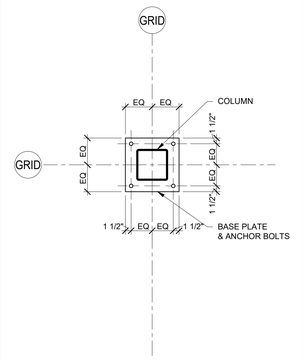
5 PIER DETAIL
S 502 SCALE: 3/4" = 1'-0"



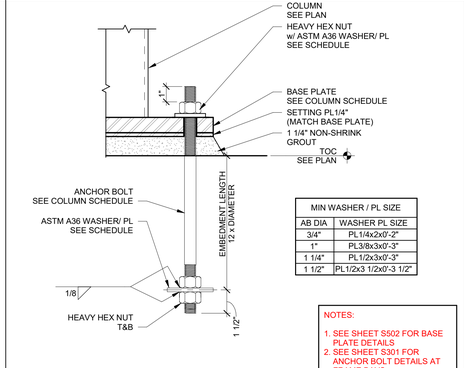
4 BASE PLATE DETAIL
S 502 SCALE: 3/4" = 1'-0"



3 BASE PLATE DETAIL
S 502 SCALE: 3/4" = 1'-0"



2 BASE PLATE DETAIL
S 502 SCALE: 3/4" = 1'-0"



MIN WASHER / PL SIZE	
AB DIA	WASHER PL SIZE
3/4"	PL1/4x2x0'-2"
1"	PL3/8x3x0'-3"
1 1/4"	PL1/2x3x0'-3"
1 1/2"	PL1/2x3 1/2x0'-3 1/2"

NOTES:
1. SEE SHEET S502 FOR BASE PLATE DETAILS
2. SEE SHEET S301 FOR ANCHOR BOLT DETAILS AT FRAME BAYS

1 TYP ANCHOR BOLT DETAIL
S 502 SCALE: 3" = 1'-0"

ABACUS ARCHITECTS

REVISIONS:

NOTICE TO BIDDERS
BIDDERS SHALL REVIEW ALL DRAWINGS AND SPECIFICATION SECTIONS TO DETERMINE THE IMPACT OF OTHER SECTIONS OF WORK ON THEIR OWN WORK
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DATE ISSUED: DECEMBER 17th, 2025

BUILDING 25 - NEW CONSTRUCTION

VOLLRATH COMPANY LLC

1236 NORTH 18th STREET, SHEBOYGAN WI 53081

1135A MICHIGAN AVE, SHEBOYGAN, WI 53081 | (920) 452-4444 | 313 N. PLANKINTON AVE SUITE 208, MILWAUKEE, WI 53203

PERMIT SET

DRAWN BY: KDC

CHECKED BY: NEC

SECTIONS AND DETAILS

S
502

PROJ. NO. 2024-093

12/17/2025 11:58:10 AM

AMBROSE ENGINEERING
PHONE: 262-377-7602
AE PROJECT# 025-054

ABACUS ARCHITECTS

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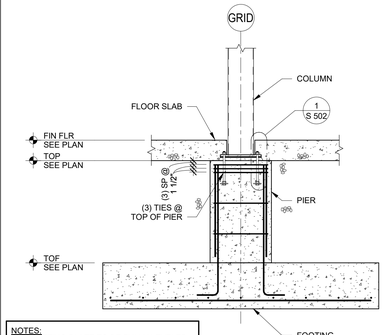
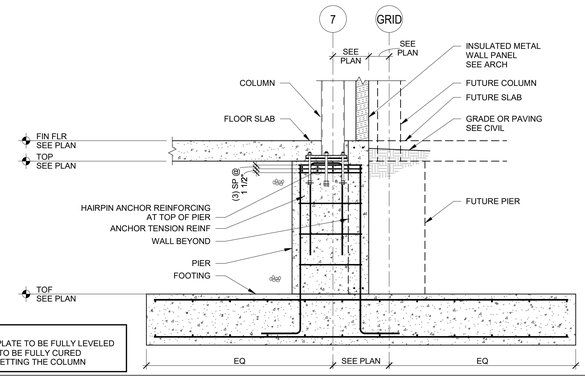


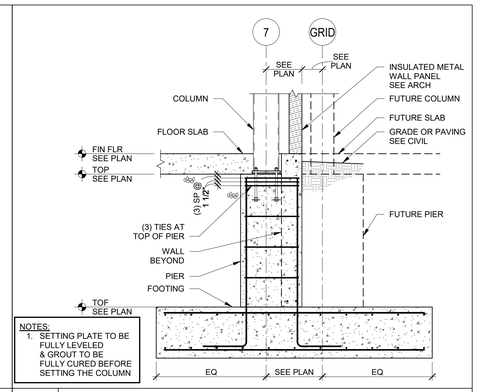
NOTES:
1. SETTING PLATE TO BE FULLY LEVELED & GROUT TO BE FULLY CURED BEFORE SETTING THE COLUMN

11 INT COLUMN/PIER/FOOTING
S 503 SCALE: 1/2" = 1'-0"



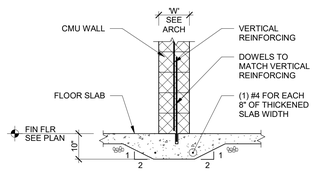
NOTES:
1. SETTING PLATE TO BE FULLY LEVELED & GROUT TO BE FULLY CURED BEFORE SETTING THE COLUMN

10 COLUMN/PIER/FOOTING AT GRID 7
S 503 SCALE: 1/2" = 1'-0"



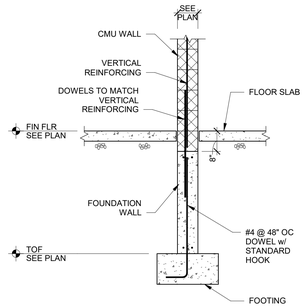
NOTES:
1. SETTING PLATE TO BE FULLY LEVELED & GROUT TO BE FULLY CURED BEFORE SETTING THE COLUMN

9 COLUMN/PIER/FOOTING AT GRID 7
S 503 SCALE: 1/2" = 1'-0"

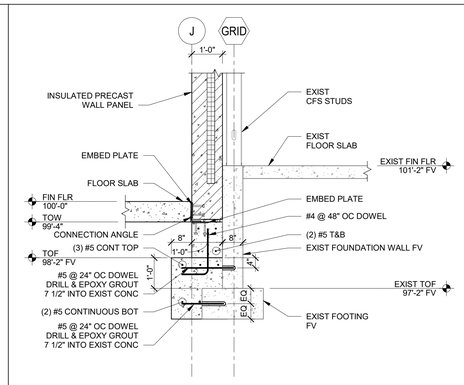


NOTES:
1. SEE PLAN FOR LOCATIONS

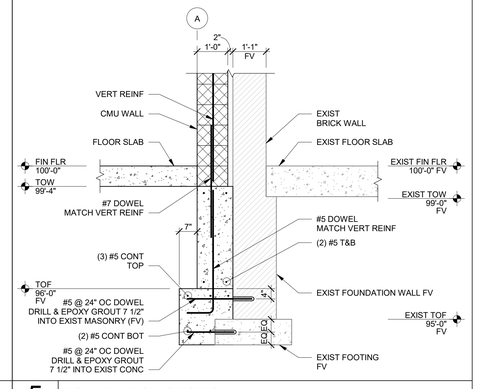
8 TYP INTERIOR NON-STRUCT CMU WALL SUPPORT
S 503 SCALE: 1/2" = 1'-0"



7 TYP INT MASONRY BEARING WALL
S 503 SCALE: 1/2" = 1'-0"



6 FOUNDATION SECTION
S 503 SCALE: 1/2" = 1'-0"



5 FOUNDATION SECTION
S 503 SCALE: 1/2" = 1'-0"

4 EXTERIOR WALL SECTION
S 503 SCALE: 1/2" = 1'-0"

3 FOUNDATION SECTION
S 503 SCALE: 1/2" = 1'-0"

2 FOUNDATION SECTION
S 503 SCALE: 1/2" = 1'-0"

1 EXTERIOR PRECAST WALL PANEL
S 503 SCALE: 1/2" = 1'-0"

DATE ISSUED: DECEMBER 17th, 2025
BUILDING 25 - NEW CONSTRUCTION
VOLLRATH COMPANY LLC
1236 NORTH 18th STREET, SHEBOYGAN WI 53081
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PERMIT SET

DRAWN BY: KDC
CHECKED BY: NEC

SECTIONS AND DETAILS

S
503

PROJ. NO. 2024-093

12/17/2025 11:58:12 AM

AMBROSE ENGINEERING
PHONE: 262-377-7602
AE PROJECT# 025-054

ABACUS ARCHITECTS

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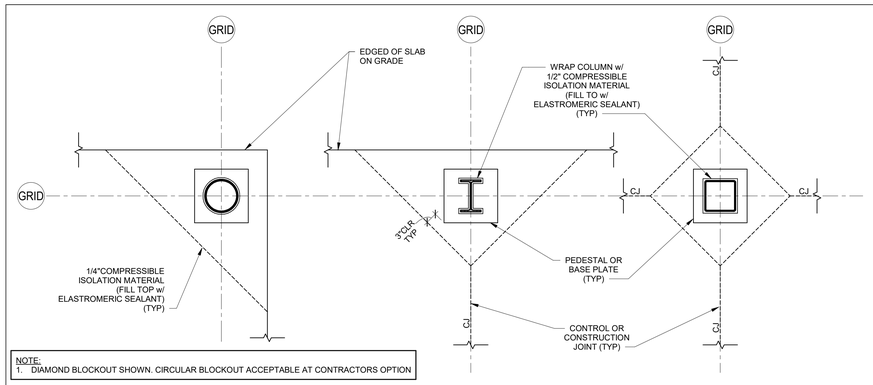
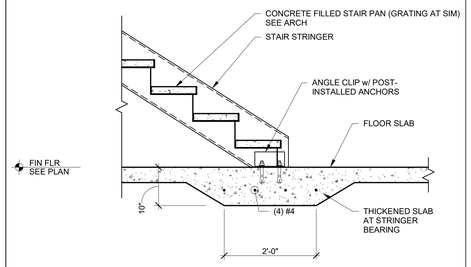


NOTE:
1. DIAMOND BLOCKOUT SHOWN. CIRCULAR BLOCKOUT ACCEPTABLE AT CONTRACTORS OPTION

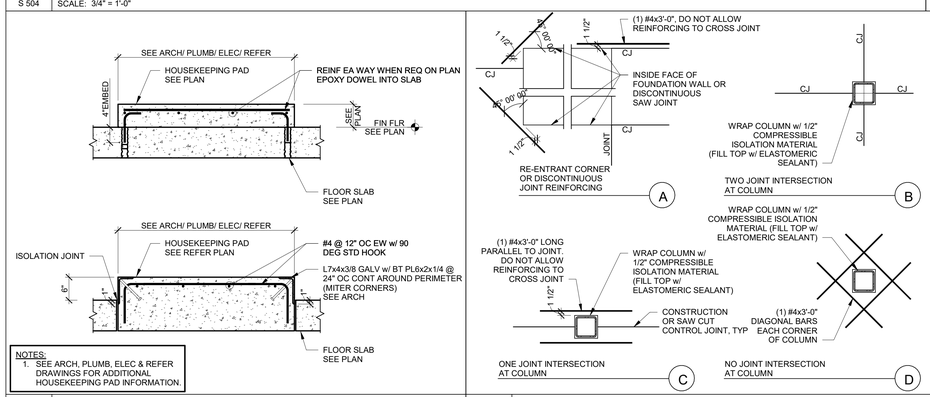
8 TYPICAL COLUMN BLOCK-OUT DETAIL

S 504 SCALE: 3/4" = 1'-0"



7 TYP THICKENED SLAB AT INT STAIR

S 504 SCALE: 3/4" = 1'-0"



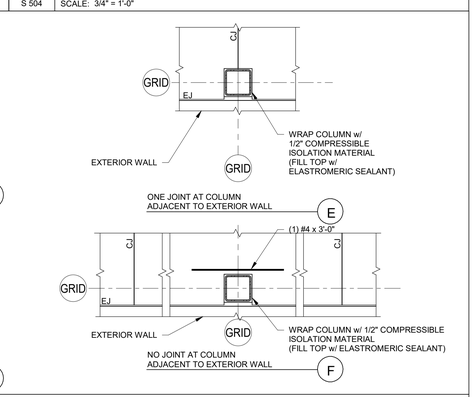
NOTES:
1. SEE ARCH, PLUMB, ELEC & REFER DRAWINGS FOR ADDITIONAL HOUSEKEEPING PAD INFORMATION.

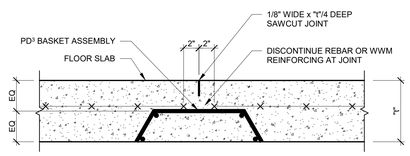
6 HOUSEKEEPING PAD DETAIL

S 504 SCALE: 3/4" = 1'-0"

5 TYP SLAB-ON-GRADE REINFORCING DETAILS

S 504 SCALE: NOT TO SCALE

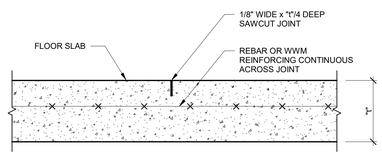




NOTES:
1. PD³ BASKET ASSEMBLY BY PNA CONSTRUCTION TECHNOLOGIES, INC

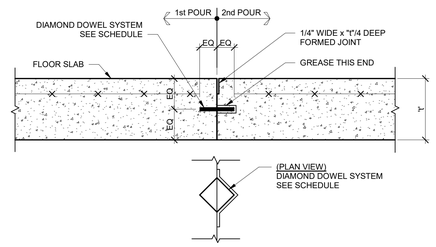
4 TYP SLAB-ON-GRADE CONTROL JOINT (CJ-3)

S 504 SCALE: 1 1/2" = 1'-0"



3 TYP SLAB-ON-GRADE CONTROL JOINT (CJ-2)

S 504 SCALE: 1 1/2" = 1'-0"

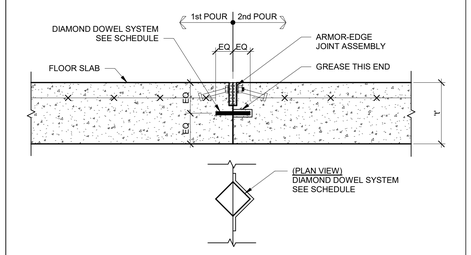


SLAB THICKNESS	PNA DIAMOND DOWEL	
	DOWEL SIZE	SPACING
5" - 6"	PL1/4x4 1/2x4 1/2 DIAMOND DOWEL	18" OC
7" - 8"	PL3/8x4 1/2x4 1/2 DIAMOND DOWEL	18" OC
9" - 10"	PL3/4x4 1/2x4 1/2 DIAMOND DOWEL	20" OC

NOTES:
1. DIAMOND DOWEL SYSTEM BY PNA CONSTRUCTION TECHNOLOGIES, INC

2 TYP CONSTRUCTION JOINT (CJ-1)

S 504 SCALE: 1 1/2" = 1'-0"



SLAB THICKNESS	PNA DIAMOND DOWEL	
	DOWEL SIZE	SPACING
4" - 6"	PL1/4x4 1/2x4 1/2 DIAMOND DOWEL	18" OC
7" - 8"	PL3/8x4 1/2x4 1/2 DIAMOND DOWEL	18" OC
9" - 10"	PL3/4x4 1/2x4 1/2 DIAMOND DOWEL	20" OC

NOTES:
1. DIAMOND DOWEL SYSTEM AND ARMOR-EDGE SYSTEM BY PNA CONSTRUCTION TECHNOLOGIES, INC

1 TYP ARMORED CONSTRUCTION JOINT (AJ-1)

S 504 SCALE: 1 1/2" = 1'-0"

DATE ISSUED: DECEMBER 17th, 2025

BUILDING 25 - NEW CONSTRUCTION

VOLLRATH COMPANY LLC

1236 NORTH 18th STREET, SHEBOYGAN WI 53081

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PERMIT SET

DRAWN BY: AMG

CHECKED BY: NEC

SECTIONS AND DETAILS

S
504

PROJ. NO. 2024-093

12/17/2025 11:58:13 AM

AMBROSE ENGINEERING
PHONE: 262-377-7602
AE PROJECT# 025-054

ABACUS ARCHITECTS

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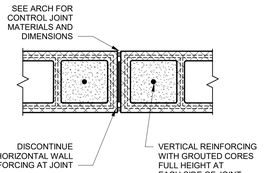


14 INT MASONRY CONTROL JOINT

S 505 | SCALE: 1 1/2" = 1'-0"

CMU JAMB SCHEDULE		
MAX OPNG WIDTH	INTERIOR JAMB WIDTH	EXTERIOR JAMB WIDTH
3'-4"	8"	8"
6'-0"	16"	16"
10'-0"	16"	24"
12'-8"	16"	24"
16'-0"	16"	32"

NOTES:
1. SEE MASONRY LAP SPLICE SCHEDULE FOR MINIMUM REQUIRED SPLICE LENGTHS.
2. JAMB REINFORCEMENT IS REQUIRED FOR OPENINGS GREATER THAN 16" IN WIDTH. REINFORCE EACH CEL WITHIN THE JAMB WITH CONTINOUS VERTICAL BARS. BAR SIZE AND QUANITY PER CELL TO MATCH VERTICAL BAR CONFIGURATION SPECIFIED IN THE REMAINDER OF THE WALL SECTION, UNLESS NOTED OTHERWISE.
3. EXTEND VERTICAL REINFORCMENT TO TOP OF WALL FOR OPENINGS IN AN EXTERIOR WALL. EXTEND VERTICAL REINFORCEMENT TO TOP OF WALL OR A MINIMUM OF A LAP SPLICE LENGTH PER SCHEDULE PAST FLOOR LEVEL ABOVE FOR OPENING IN AN INTERIOR WALL.
4. MISCELLANEOUS MEP OPENINGS 16" WIDE OR SMALLER DO NOT REQUIRE JAMB REINFORCEMENT.

13 MASONRY JAMB SCHEDULE

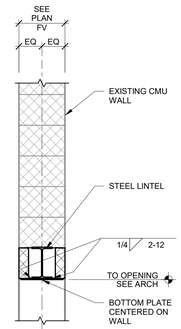
S 505 | SCALE: 12" = 1'-0"

MASONRY LAP SPLICE SCHEDULE - GRADE 60				
f'm	1900 - 2000 PSI		2500 PSI	
BAR SIZE	HORIZ OR EDGE VERT	CENTER VERT	HORIZ OR EDGE VERT	CENTER VERT
#4	24"	16"	20"	14"
#5	36"	24"	32"	22"
#6	54"	45"	54"	40"
#7	64"	62"	64"	54"
#8	72"	72"	72"	72"

NOTES:
1. SPLICE LENGTHS GIVEN ARE FOR GRADE 60 REINFORCING BARS
2. USE LONGEST LENGTH WHEN SPLICING BARS OF DIFFERENT SIZE.
3. INCREASE SPLICE LENGTH OF EPOXY-COATED REINFORCING 50% OVER TABLE VALUES, UP TO A MAX OF 96 BAR DIAMETERS
4. FOR DEFININITION OF HORIZ, EDGE VERT, AND CENTER VERT BARS. SEE DETAIL

12 MASONRY LAP SPLICE SCHEDULE

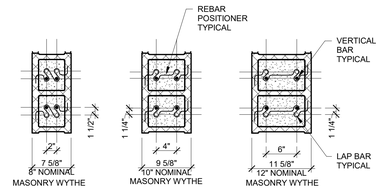
S 505 | SCALE: 12" = 1'-0"



TYPE A

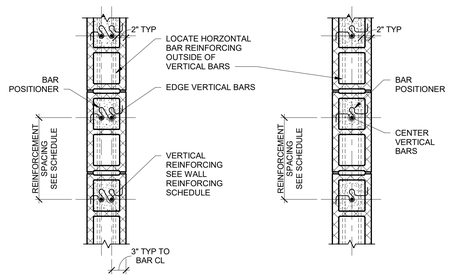
11 LINTEL SECTION

S 505 | SCALE: 3/4" = 1'-0"



10 PIER PLAN AT LINTEL

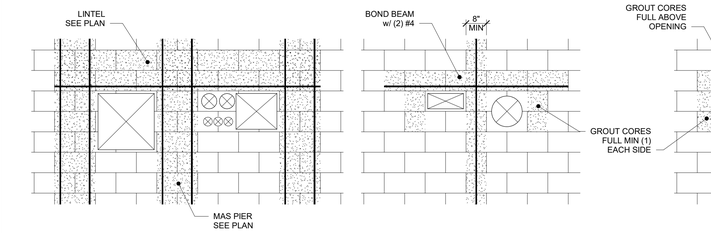
S 505 | SCALE: 1" = 1'-0"



NOTES:
1. LOCATE VERTICAL OR HORZINTAL REINFORCEMENT AT LEAST 1/2" FROM CMU SHELL TO ALLOW FOR PROPER GROUT CONSOLIDATION

9 MASONRY WALL REINFORCING DETAIL

S 505 | SCALE: 1" = 1'-0"



OPENING ≥ 16"
THIS INCLUDES ALL GROUPED PENETRATIONS THAT DO NOT MEET THE SIZE AND SPACING REQUIREMENTS LISTED TO THE RIGHT. MASONRY LINTEL SHOWN, STEEL LINTEL MAY BE REQUIRED

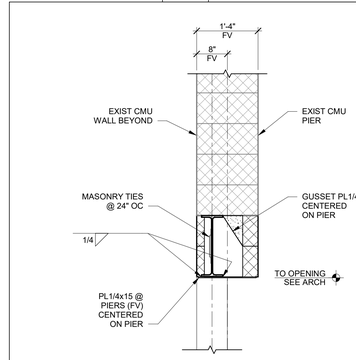
8" ≤ OPENING < 16"
LINTEL REINFORCEMENT TO RUN 16" PAST OPENING, EACH END

4" ≤ OPENING < 8"
DO NOT CORE THROUGH REINFORCED CELLS

OPENING < 4"
DO NOT CORE THROUGH JOINTS, WEBS OR REINFORCED CELLS

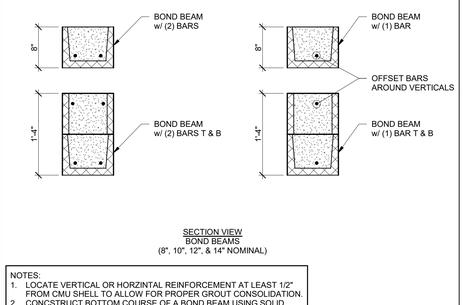
8 OPENINGS IN MASONRY WALLS

S 505 | SCALE: 1/2" = 1'-0"



7 LINTEL DETAIL @ EXIST CMU PIER

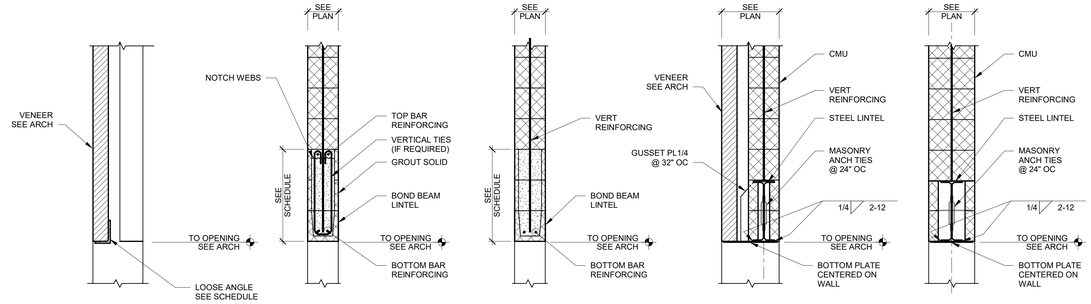
S 505 | SCALE: 3/4" = 1'-0"



NOTES:
1. LOCATE VERTICAL OR HORZINTAL REINFORCEMENT AT LEAST 1/2" FROM CMU SHELL TO ALLOW FOR PROPER GROUT CONSOLIDATION.
2. CONCSTRUCT BOTTOM COURSE OF A BOND BEAM USING SOLID BOTTOM, THROUGH-STYLE MASONRY UNITS, UNO

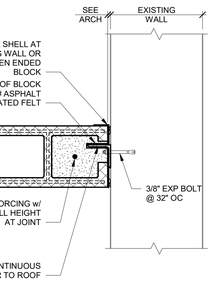
6 BOND BEAM DETAIL

S 505 | SCALE: 1" = 1'-0"



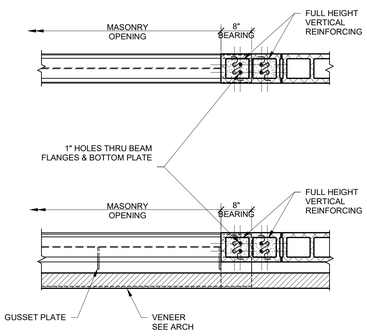
5 TYPICAL LINTEL TYPES

S 505 | SCALE: 3/4" = 1'-0"



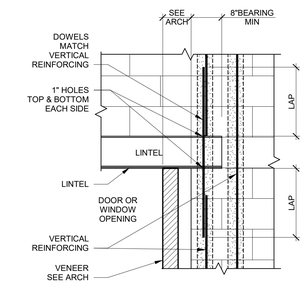
4 MAS CONTROL JOINT AT EXIST

S 505 | SCALE: 1 1/2" = 1'-0"



3 LINTEL AT FULL HEIGHT PIER - PLAN

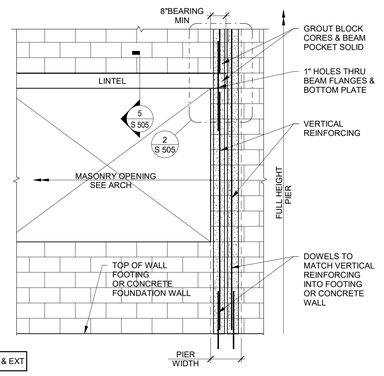
S 505 | SCALE: 3/4" = 1'-0"



NOTES:
1. WHERE BEAMS FRAME INTO STEEL COLUMNS FACED BY MASONRY, CAULK BETWEEN VENEER AND BEAM AS SHOWN. BACKPATCH SOLID AT BEAM POCKET.

2 TYP LINTEL BRG AT FULL HT PIER

S 505 | SCALE: 3/4" = 1'-0"



OPENINGS 6'-0" WIDE & LARGER, INT & EXT

1 FULL HEIGHT PIER REINFORCING AT LINTEL

S 505 | SCALE: 3/8" = 1'-0"

DATE ISSUED: DECEMBER 17th, 2025

BUILDING 25 - NEW CONSTRUCTION

VOLLRATH COMPANY LLC

1236 NORTH 18th STREET, SHEBOYGAN WI 53081

1135A MICHIGAN AVE, SHEBOYGAN, WI 53081 | (920) 452-4444 | 313 N. PLANKINTON AVE SUITE 208, MILWAUKEE, WI 53203

PERMIT SET

DRAWN BY: KDC

CHECKED BY: NEC

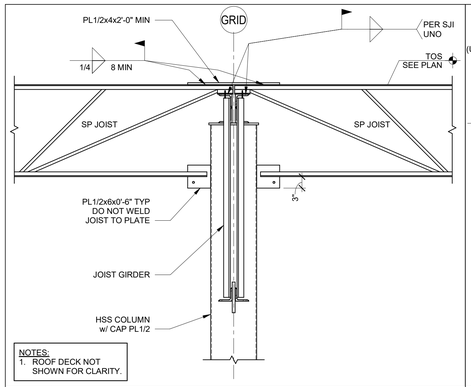
SECTIONS AND DETAILS

S 505

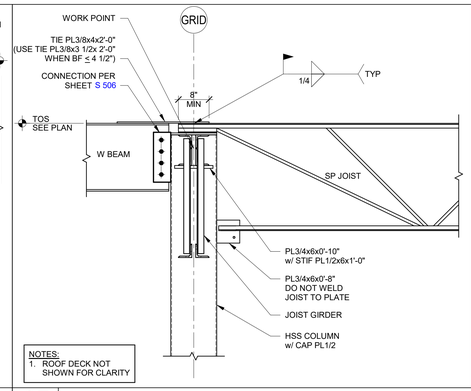
PROJ. NO. 2024-093

12/17/2025 11:58:15 AM

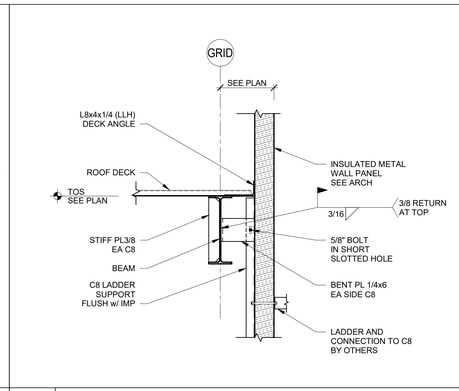
AMBROSE ENGINEERING
PHONE: 262-377-7602
AE PROJECT# 025-054



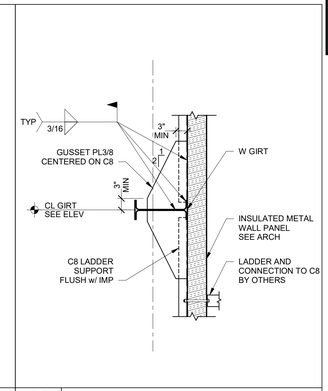
16 SP JOIST BEARING TIE CONNECTION
S 506 SCALE: 3/4" = 1'-0"



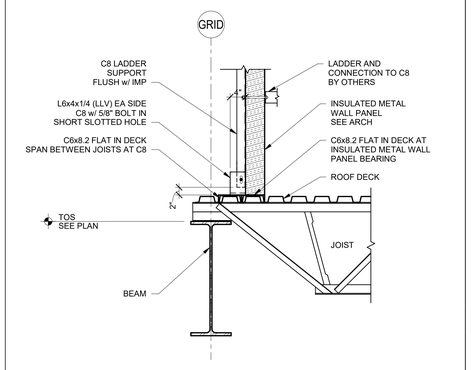
15 JOIST AND BEAM TIE CONNECTION
S 506 SCALE: 3/4" = 1'-0"



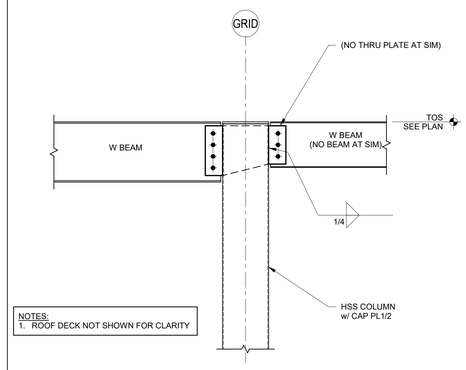
14 LADDER SUPPORT CONNECTION
S 506 SCALE: 3/4" = 1'-0"



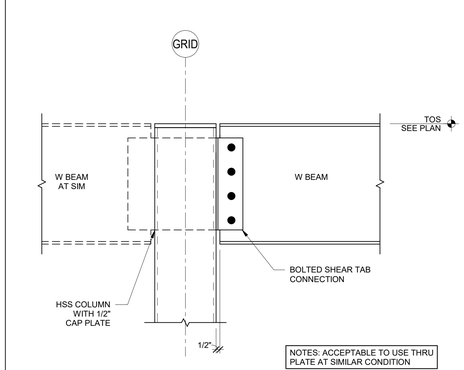
13 LADDER SUPPORT CONNECTION
S 506 SCALE: 3/4" = 1'-0"



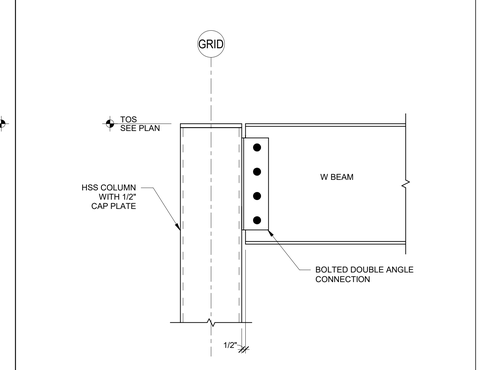
12 LADDER SUPPORT CONNECTION
S 506 SCALE: 3/4" = 1'-0"



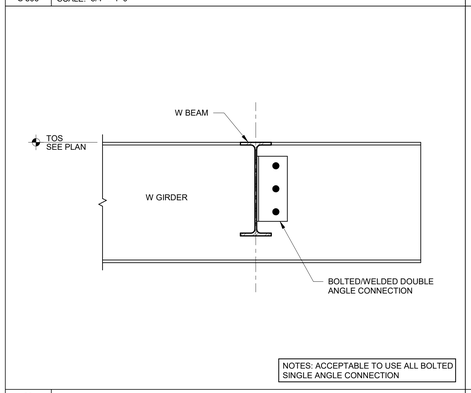
11 PERIMETER BEAM CONNECTION DETAIL
S 506 SCALE: 3/4" = 1'-0"



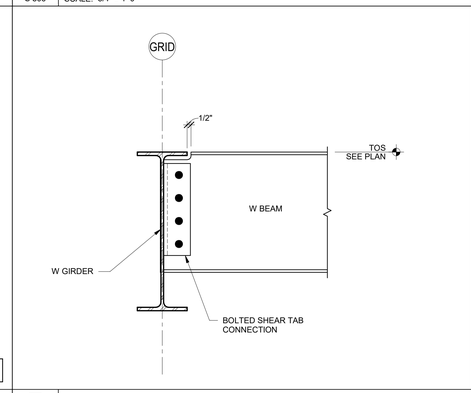
10 TYP BEAM TO COLUMN SHEAR TAB
S 506 SCALE: 1 1/2" = 1'-0"



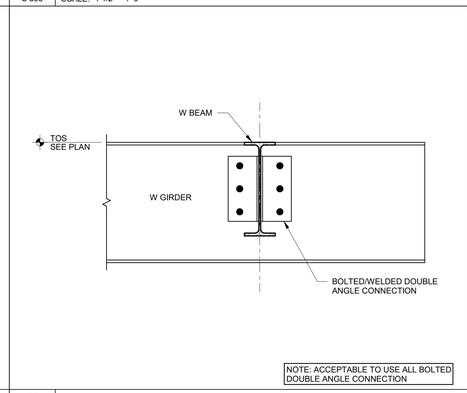
9 TYP BEAM TO COLUMN DOUBLE ANGLE
S 506 SCALE: 1 1/2" = 1'-0"



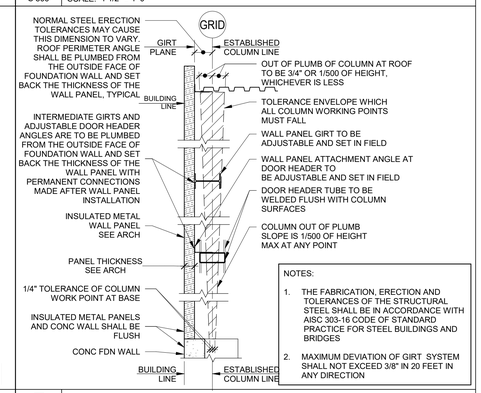
8 TYP BEAM TO BEAM SINGLE ANGLE
S 506 SCALE: 1 1/2" = 1'-0"



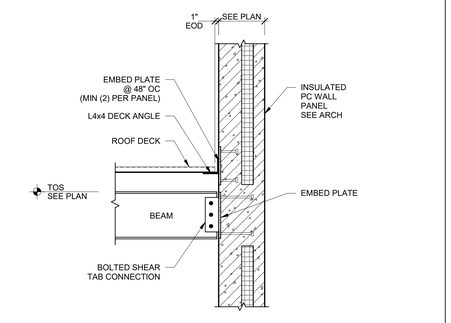
7 TYP BEAM TO BEAM SHEAR TAB
S 506 SCALE: 1 1/2" = 1'-0"



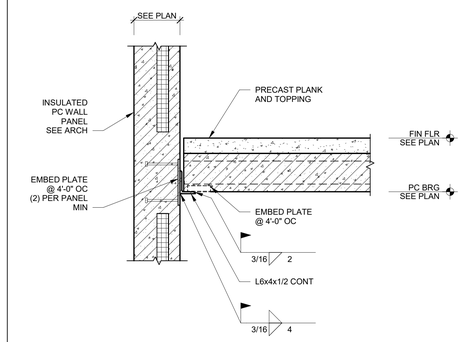
6 TYP BEAM TO BEAM DOUBLE ANGLE
S 506 SCALE: 1 1/2" = 1'-0"



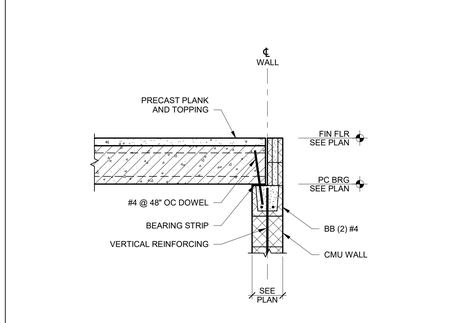
5 TYP ERECTION TOLERANCE DETAIL
S 506 SCALE: 1/2" = 1'-0"



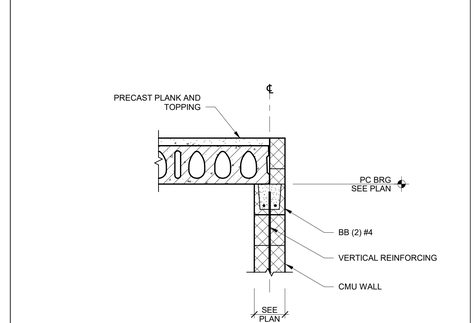
4 WALL SECTION
S 506 SCALE: 3/4" = 1'-0"



3 FLOOR SECTION
S 506 SCALE: 3/4" = 1'-0"



2 PRECAST FLOOR SECTION
S 506 SCALE: 3/4" = 1'-0"



1 PRECAST FLOOR SECTION
S 506 SCALE: 3/4" = 1'-0"

ABACUS ARCHITECTS

REVISIONS:

NOTICE TO BIDDERS
BIDDERS SHALL REVIEW ALL DRAWINGS AND SPECIFICATION SECTIONS TO DETERMINE THE IMPACT OF OTHER SECTIONS OF WORK ON THEIR OWN WORK
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PERMIT SET

DRAWN BY: AMG
CHECKED BY: NEC

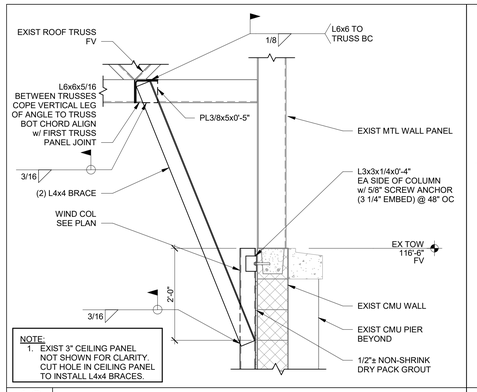
SECTIONS AND DETAILS

S
506

PROJ. NO. 2024-093

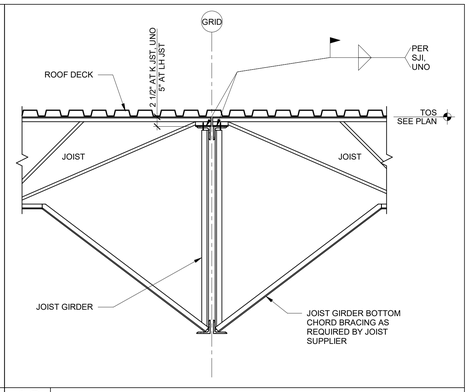
12/17/2025 11:58:16 AM

AMBROSE ENGINEERING
PHONE: 262-377-7602
AE PROJECT# 025-054



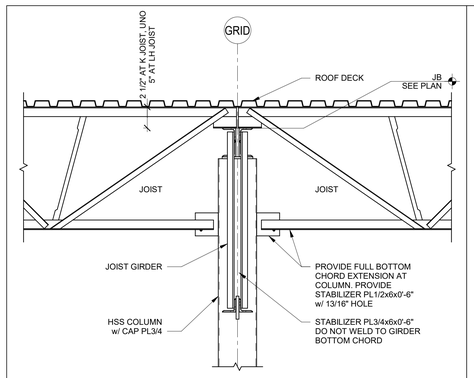
13 WIND COLUMN SECTION @ ROOF

S 507 SCALE: 3/4" = 1'-0"



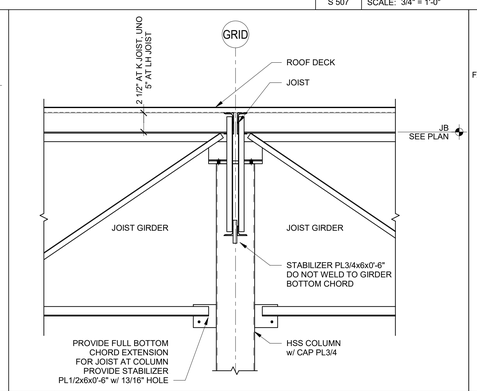
12 TYP JOIST BEARING AT JOIST GIRDER SECTION

S 507 SCALE: 3/4" = 1'-0"



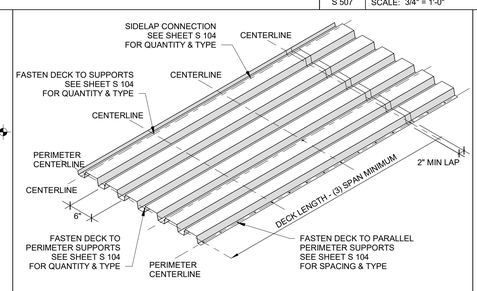
11 GIRDER AND JOISTS AT COLUMN

S 507 SCALE: 3/4" = 1'-0"



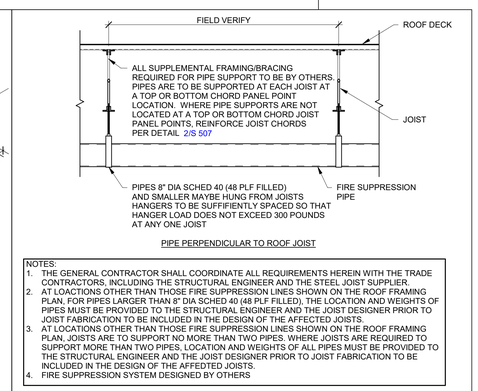
10 GIRDERS AND JOIST AT COLUMN

S 507 SCALE: 3/4" = 1'-0"



9 TYPE 'B' OR 'BA' DECK FASTENER PATTERN

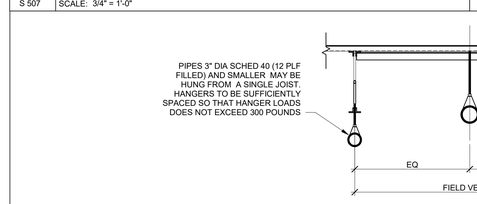
S 507 SCALE: 1/2" = 1'-0"



NOTES:
1. THE GENERAL CONTRACTOR SHALL COORDINATE ALL REQUIREMENTS HEREIN WITH THE TRADE CONTRACTORS, INCLUDING THE STRUCTURAL ENGINEER AND THE STEEL JOIST SUPPLIER.
2. AT LOACTIONS OTHER THAN THOSE FIRE SUPPRESSION LINES SHOWN ON THE ROOF FRAMING PLAN, FOR PIPES LARGER THAN 8" DIA SCHED 40 (48 PLF FILLED), THE LOCATION AND WEIGHTS OF PIPES MUST BE PROVIDED TO THE STRUCTURAL ENGINEER AND THE JOIST DESIGNER PRIOR TO JOIST FABRICATION TO BE INCLUDED IN THE DESIGN OF THE AFFECTED JOISTS.
3. AT LOCATIONS OTHER THAN THOSE FIRE SUPPRESSION LINES SHOWN ON THE ROOF FRAMING PLAN, JOISTS ARE TO SUPPORT NO MORE THAN TWO PIPES. WHERE JOISTS ARE REQUIRED TO SUPPORT MORE THAN TWO PIPES, LOCATION AND WEIGHTS OF ALL PIPES MUST BE PROVIDED TO THE STRUCTURAL ENGINEER AND THE JOIST DESIGNER PRIOR TO JOIST FABRICATION TO BE INCLUDED IN THE DESIGN OF THE AFFEDTED JOISTS.
4. FIRE SUPPRESSION SYSTEM DESIGNED BY OTHERS

8 FIRE SUPPRESSION PIPE SUPPORT DETAIL

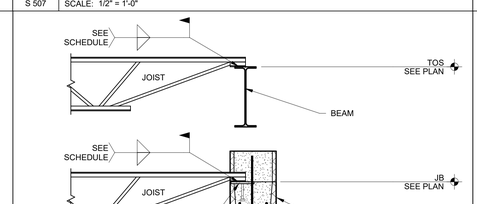
S 507 SCALE: 3/4" = 1'-0"



NOTES:
1. THE GENERAL CONTRACTOR SHALL COORDINATE ALL REQUIREMENTS HEREIN WITH THE TRADE CONTRACTORS, INCLUDING THE STRUCTURAL ENGINEER AND THE STEEL JOIST SUPPLIER.
2. AT LOACTIONS OTHER THAN THOSE FIRE SUPPRESSION LINES SHOWN ON THE ROOF FRAMING PLAN, FOR PIPES LARGER THAN 5" DIA SCHED 40 (24 PLF FILLED), THE LOCATION AND WEIGHTS OF PIPES MUST BE PROVIDED TO THE STRUCTURAL ENGINEER AND THE JOIST DESIGNER PRIOR TO JOIST FABRICATION TO BE INCLUDED IN THE DESIGN OF THE AFFECTED JOISTS.
3. AT LOCATIONS OTHER THAN THOSE FIRE SUPPRESSION LINES SHOWN ON THE ROOF FRAMING PLAN, JOISTS ARE TO SUPPORT NO MORE THAN ONE PIPE. WHERE JOISTS ARE REQUIRED TO SUPPORT MORE THAN ONE PIPES, LOCATION AND WEIGHTS OF ALL PIPES MUST BE PROVIDED TO THE STRUCTURAL ENGINEER AND THE JOIST DESIGNER PRIOR TO JOIST FABRICATION TO BE INCLUDED IN THE DESIGN OF THE AFFEDTED JOISTS.
4. FIRE SUPPRESSION SYSTEM DESIGNED BY OTHERS

7 FIRE SUPPRESSION PIPE SUPPORT DETAIL

S 507 SCALE: 3/4" = 1'-0"



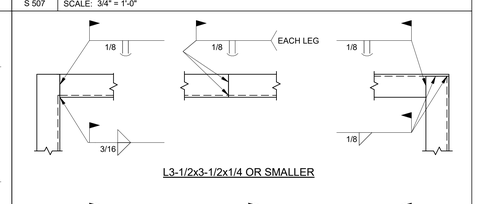
BEARING SEAT ATTACHMENT SCHEDULE

JOIST SECTION NUMBER*	MINIMUM FILLET WELD
K1-12	(2) 1/8" x 2 1/2"
LH02-06	(2) 3/16" x 2 1/2"
LH07-17, DLH10-17, JOIST GIRDER	(2) 1/4" x 2 1/2"
DLH18-25, JOIST GIRDER > 50 PLF SELF WEIGHT	(2) 1/4" x 4"

NOTE:
1. * LAST DIGIT(S) OF JOIST DESIGNATION

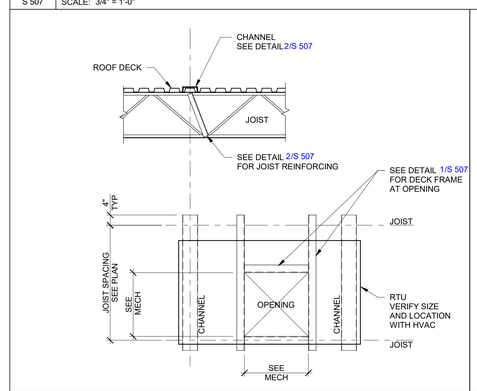
6 BEARING SEAT ATTACHMENT SCHEDULE

S 507 SCALE: 3/4" = 1'-0"



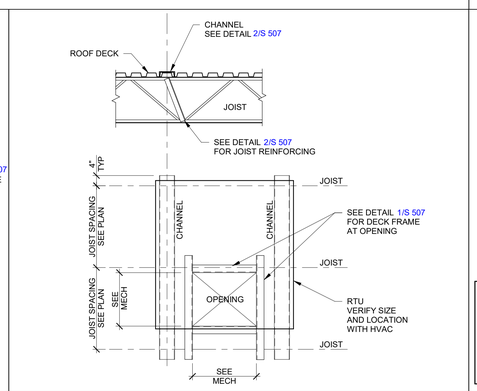
5 EDGE ANGLE SPLICE DETAIL

S 507 SCALE: 1 1/2" = 1'-0"



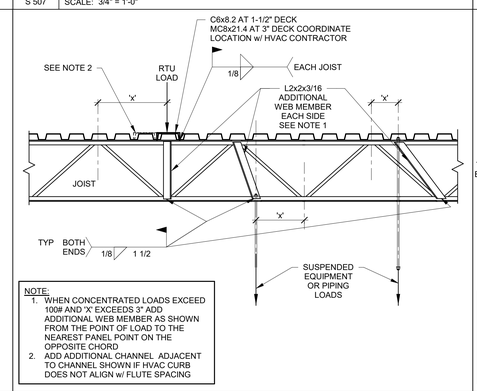
4 TYP RTU SUPPORT DETAIL

S 507 SCALE: 1/2" = 1'-0"



3 TYP RTU SUPPORT DETAIL

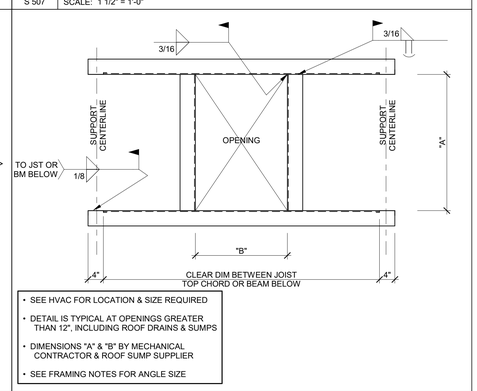
S 507 SCALE: 1/2" = 1'-0"



NOTE:
1. WHEN CONCENTRATED LOADS EXCEED 100# AND 'X' EXCEEDS 3" ADD ADDITIONAL WEB MEMBER AS SHOWN FROM THE POINT OF LOAD TO THE NEAREST PANEL POINT ON THE OPPOSITE CHORD
2. ADD ADDITIONAL CHANNEL ADJACENT TO CHANNEL SHOWN IF HVAC CURB DOES NOT ALIGN w/ FLUTE SPACING

2 JOIST REINFORCING AT ADDED LOADS

S 507 SCALE: 3/4" = 1'-0"



- SEE HVAC FOR LOCATION & SIZE REQUIRED
- DETAIL IS TYPICAL AT OPENINGS GREATER THAN 12", INCLUDING ROOF DRAINS & SUMPS
- DIMENSIONS "A" & "B" BY MECHANICAL CONTRACTOR & ROOF SUMP SUPPLIER
- SEE FRAMING NOTES FOR ANGLE SIZE

1 FRAME AT ROOF OPENING

S 507 SCALE: 3/4" = 1'-0"

ABACUS ARCHITECTS

REVISIONS:

NOTICE TO BIDDERS
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DATE ISSUED: DECEMBER 17th, 2025

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VOLLRATH COMPANY LLC

1236 NORTH 18th STREET, SHEBOYGAN WI 53081

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PERMIT SET

DRAWN BY: AMG

CHECKED BY: NEC

SECTIONS AND DETAILS

S 507

PROJ. NO. 2024-093

12/17/2025 11:58:19 AM

AMBROSE ENGINEERING
PHONE: 262-377-7602
AE PROJECT# 025-054

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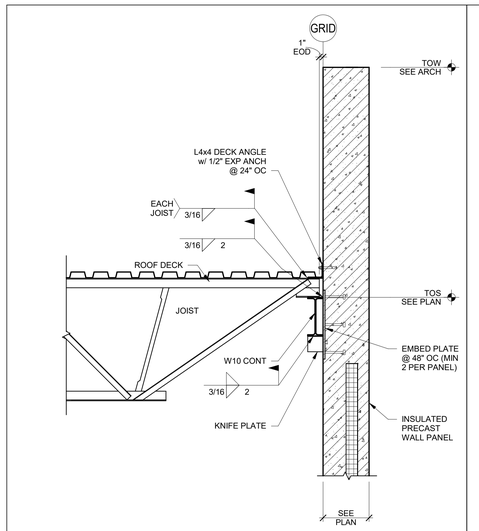
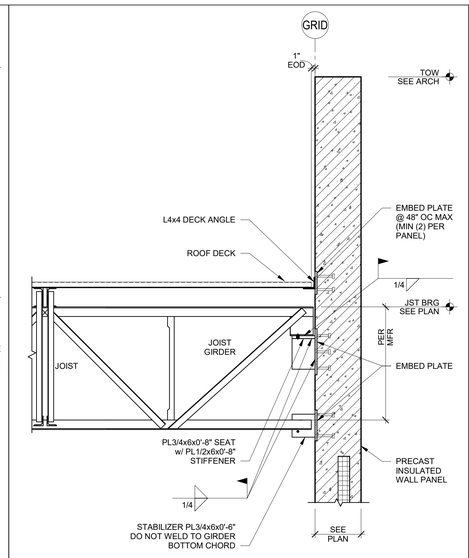
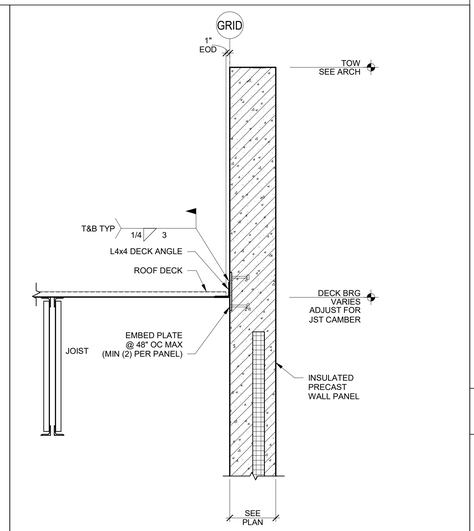


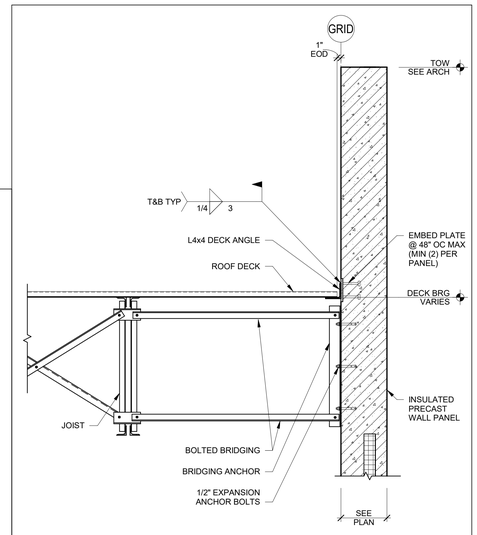
7 ROOF SECTION
S 508 SCALE: 3/4" = 1'-0"



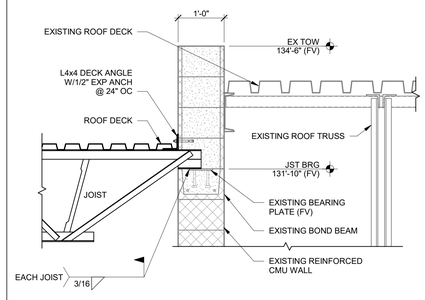
6 ROOF SECTION
S 508 SCALE: 3/4" = 1'-0"



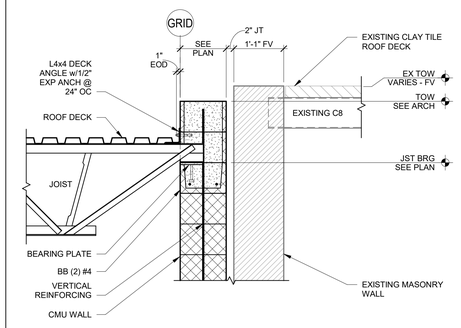
5 ROOF SECTION
S 508 SCALE: 3/4" = 1'-0"



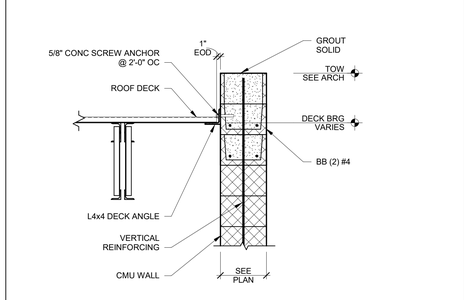
8 ROOF SECTION
S 508 SCALE: 3/4" = 1'-0"



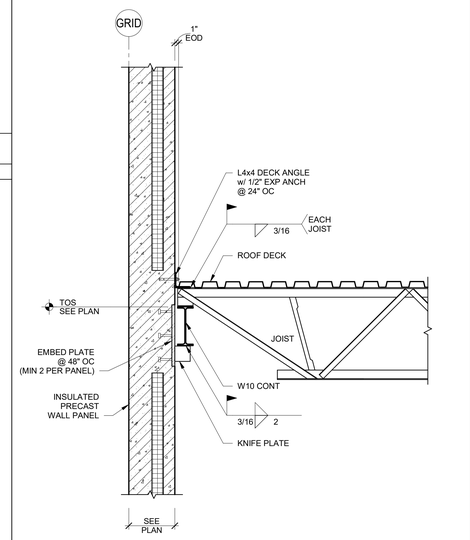
4 ROOF SECTION
S 508 SCALE: 3/4" = 1'-0"



3 ROOF SECTION
S 508 SCALE: 3/4" = 1'-0"



2 JOIST PARALLEL TO EXT CMU WALL
S 508 SCALE: 3/4" = 1'-0"



1 LOW ROOF SECTION
S 508 SCALE: 3/4" = 1'-0"

DATE ISSUED: DECEMBER 17th, 2025

BUILDING 25 - NEW CONSTRUCTION

VOLLRATH COMPANY LLC

1236 NORTH 18th STREET, SHEBOYGAN WI 53081

1135A MICHIGAN AVE. SHEBOYGAN, WI 53081 | (920) 452-4444 | 313 N. PLANKINTON AVE SUITE 208. MILWAUKEE, WI 53203

PERMIT SET

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CHECKED BY: NEC

SECTIONS AND DETAILS

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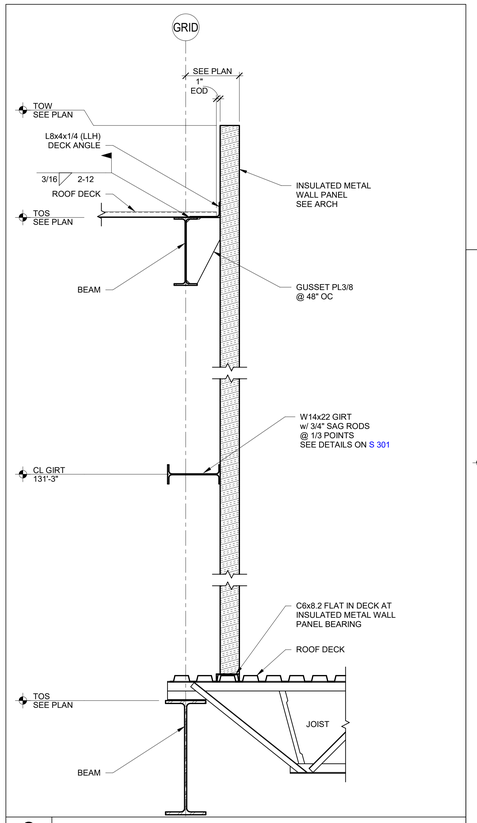
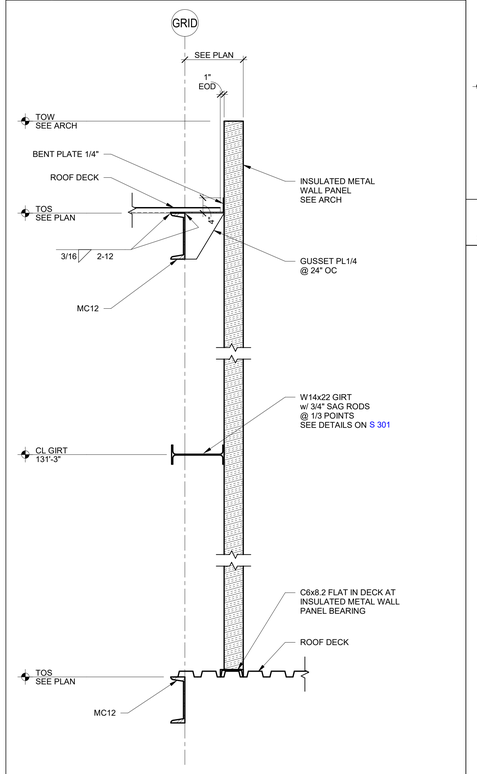
PROJ. NO. 2024-093

12/17/2025 11:58:20 AM

AMBROSE ENGINEERING
PHONE: 262-377-7602
AE PROJECT# 025-054



8 ROOF SECTION
S 509 SCALE: 3/4" = 1'-0"



4 ROOF SECTION
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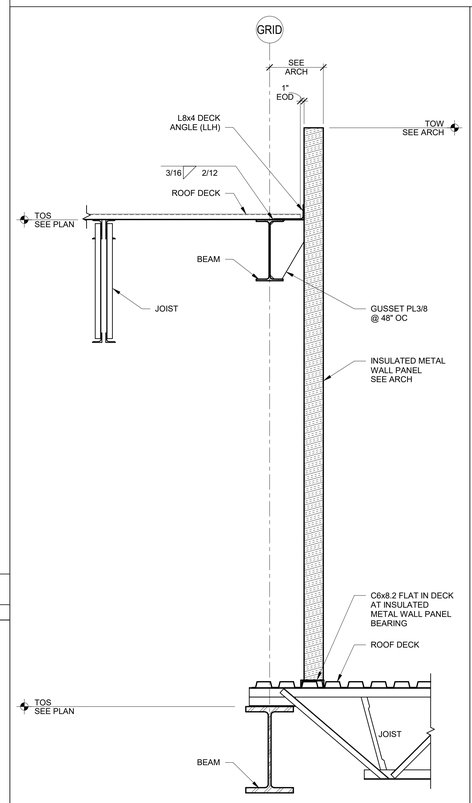
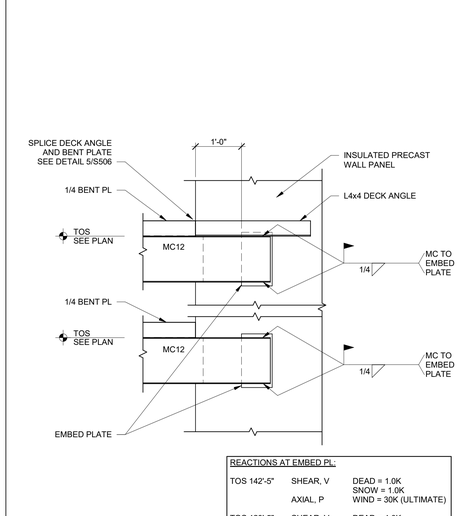


7 ROOF SECTION
S 509 SCALE: 3/4" = 1'-0"

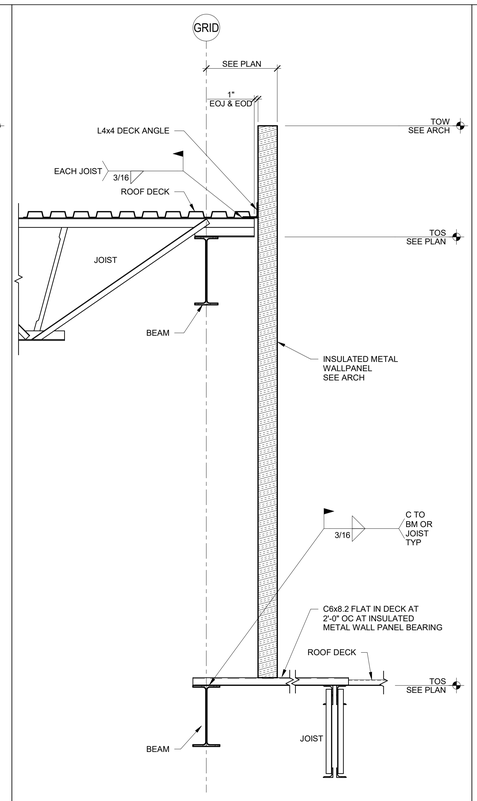


REACTIONS AT EMBED PL:

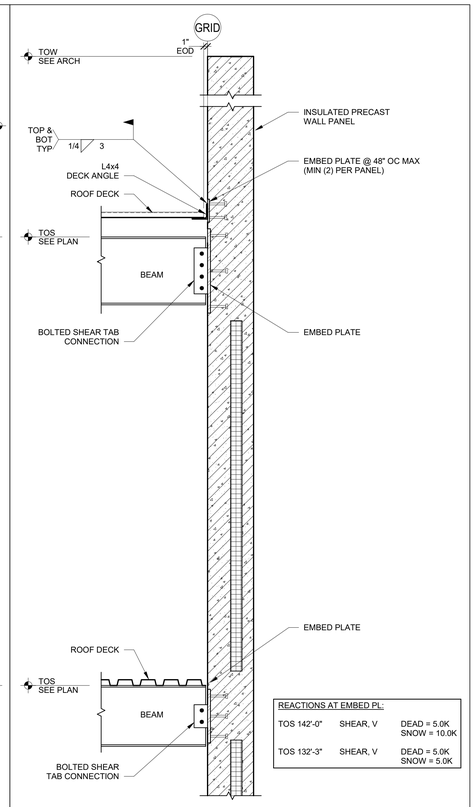
TOS 142'-5"	SHEAR, V	DEAD = 1.0K SNOW = 1.0K
	AXIAL, P	WIND = 30K (ULTIMATE)
TOS 120'-5"	SHEAR, V	DEAD = 1.0K SNOW = 1.0K
	AXIAL, P	WIND = 5.0K (ULTIMATE)

NOTE: ROOF DECK NOT SHOWN FOR CLARITY

3 MC BEAM TO PRECAST CONNECTION DETAIL
S 509 SCALE: 3/4" = 1'-0"



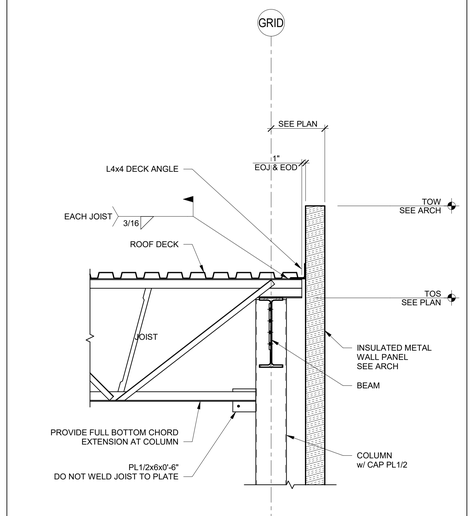
6 ROOF SECTION
S 509 SCALE: 3/4" = 1'-0"



REACTIONS AT EMBED PL:

TOS 142'-0"	SHEAR, V	DEAD = 5.0K SNOW = 10.0K
TOS 132'-3"	SHEAR, V	DEAD = 5.0K SNOW = 5.0K

5 ROOF SECTION
S 509 SCALE: 3/4" = 1'-0"



2 ROOF SECTION
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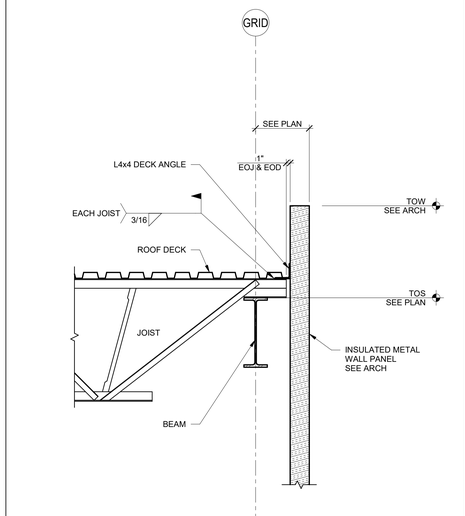

1 ROOF SECTION
S 509 SCALE: 3/4" = 1'-0"

ABACUS ARCHITECTS

REVISIONS:

NOTICE TO BIDDERS
BIDDERS SHALL REVIEW ALL DRAWINGS AND SPECIFICATION SECTIONS TO DETERMINE THE IMPACT OF OTHER SECTIONS OF WORK ON THEIR OWN WORK
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DATE ISSUED: DECEMBER 17th, 2025

BUILDING 25 - NEW CONSTRUCTION

VOLLRATH COMPANY LLC

1236 NORTH 18th STREET, SHEBOYGAN WI 53081

1135A MICHIGAN AVE. SHEBOYGAN, WI 53081 | (920) 452-4444 | 3151 N. PLANKINTON AVE SUITE 208. MILWAUKEE, WI 53203

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SECTIONS AND DETAILS

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PLUMBING SPECIFICATIONS

PART 1 - GENERAL

SCOPE OF WORK
APPLICABLE REQUIREMENTS OF BIDDING INSTRUCTIONS AND INFORMATION AND OTHER PROVISIONS OF THE GENERAL CONTRACT WORK SPECIFICATIONS SHALL APPLY TO THIS DIVISION OF THE WORK.

GENERALLY, WORK SHALL CONSIST OF NEW CONSTRUCTION. PLUMBING CONTRACTOR SHALL MAKE A DETAILED SITE INSPECTION TO ACQUAINT THEMSELF WITH PRESENT CONDITIONS, INCLUDING THE STRUCTURE AND ANY OBSTACLES WHICH MAY BE ENCOUNTERED IN THE EXECUTION OF THE WORK.

IT IS THE SPECIFIC INTENT OF THESE SPECIFICATIONS TO INCLUDE ALL PLUMBING WORK ITEMS OF ANY NATURE WHICH ARE NECESSARY AND ARE REQUIRED TO MAKE THE SYSTEMS OPERATE IN A SATISFACTORY AND COMPLETE CONDITION. THE PLUMBING CONTRACTOR, THEREFORE, MUST REVIEW THESE SPECIFICATIONS AND FAMILIARIZE THEMSELF FULLY AS TO CONDITIONS SURROUNDING OR EFFECTING THIS WORK.

THE WORK TO BE DONE IN ACCORDANCE WITH THESE SPECIFICATIONS SHALL BE DONE TO COMPLY WITH THE WISCONSIN PLUMBING CODE AS WELL AS ALL APPLICABLE LOCALLY-ENFORCED CODES, ORDINANCES, AMENDMENTS, STATE LAWS AND FEDERAL LAWS.

PROVIDE ALL PLUMBING PIPING, INSULATION, SUPPORTS, FIXTURES, EQUIPMENT, SPECIALTIES, AND ACCESSORIES FOR THE FACILITY AS DEFINED IN THE DOCUMENTS.

GUARANTEE
PLUMBING CONTRACTOR SHALL GUARANTEE EACH UNIT AND ALL ACCESSORIES FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE AGAINST FAULT MATERIALS AND WORKMANSHIP AND FOR CONFORMING TO SPECIFICATIONS.

IF ANY UNIT DOES NOT OPERATE SATISFACTORILY, OR IF ANY PARTS SHOULD SHOW UNDUE WEAR DURING THE ONE YEAR PERIOD, THE PLUMBING CONTRACTOR WILL BE NOTIFIED AND WILL BE REQUIRED TO REMEDY THE DEFECTS PROMPTLY AND MAKE THE UNIT OPERATE IN A MANNER SATISFACTORY TO THE ARCHITECT/ENGINEER. DEFECTIVE PARTS WILL BE RETURNED TO THE CONTRACTOR ONLY AT HIS OWN REQUEST AND EXPENSE.

PERMITS, FEES AND CERTIFICATES
PLUMBING CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS AND LICENSES REQUIRED BY CITY ORDINANCES AND AFTER COMPLETION OF THE WORK SHALL FURNISH TO THE OWNER A CERTIFICATE OF FINAL INSPECTION AND APPROVAL. ALL FEES IN CONNECTION WITH INSPECTIONS, PERMITS, LICENSES AND APPROVAL SHALL BE PAID BY THE PLUMBING CONTRACTOR.

SHOP DRAWINGS
SHOP DRAWINGS SHALL BE SUBMITTED ELECTRONICALLY AS PDF FILES. SHOP DRAWINGS SHALL INCLUDE TRANSMITTAL PAGE(S) INDICATING THE NAME OF THE PROJECT, AND THE NAME, ADDRESS, AND PHONE NUMBER OF THE GENERAL AND PLUMBING CONTRACTOR. PLUMBING CONTRACTOR AND PLUMBING CONTRACTOR SHALL REVIEW SHOP DRAWING SUBMITTALS FOR COMPLIANCE, CONTENT AND COMPLETENESS AND PROVIDE A STAMP WITH THE DATE OF REVIEW AND SIGNATURE OF THE REVIEWER. TRANSMITTAL PAGE SHALL HAVE INDEX WITH SPECIFICATION SECTION AND DESCRIPTION OF SUBMITTED ITEMS. NO EXCEPTIONS WILL BE TAKEN. EQUIPMENT SHALL NOT BE ORDERED UNTIL ENGINEER OF RECORD HAS PROCESSED APPLICABLE SHOP DRAWINGS. A PERIOD OF TEN BUSINESS DAYS WILL BE ALLOWED FOR SUBMITTAL PROCESSING BY THE ENGINEER. PLUMBING SUBMITTALS REQUIRED SHALL MINIMALLY INCLUDE THE FOLLOWING:

1. ALL NEW SCHEDULED EQUIPMENT WITH ACCESSORIES.
2. PIPE (ALL SYSTEMS)
3. PIPE INSULATION
4. VALVES & PIPE SPECIALTIES
5. PLUMBING FIXTURES

COORDINATION
PLUMBING CONTRACTOR SHALL PROVIDE FIELD COORDINATION WITH OTHER TRADES; SYSTEMS ARE SHOWN AS DIAGRAMMATIC AND GIVE THE GENERAL ARRANGEMENT AND LOCATIONS ONLY. PLUMBING CONTRACTOR SHALL COMPLETELY REVIEW THE ENTIRE SET OF CONSTRUCTION DRAWINGS FOR DETAILS OF CONSTRUCTION PRIOR TO STARTING WORK. ROUGH-IN OF PLUMBING FIXTURES, EQUIPMENT, AND PIPE SHALL BE BASED ON THIS REVIEW. EXACT LOCATIONS AND FINAL LAYOUT SHALL BE DETERMINED IN THE FIELD. PROVIDE ALL NECESSARY EQUIPMENT, FITTINGS, HANGERS, SUPPORTS, OFFSETS AND ACCESS PANELS REQUIRED FOR A COMPLETE INSTALLATION IN ALL RESPECTS. THE PLUMBING CONTRACTOR'S MEANS AND METHODS OF INSTALLATION SHALL PROVIDE FOR OPERATING EFFICIENCY, NEATNESS OF APPEARANCE, EASE OF MAINTENANCE, AND CODE COMPLIANCE. THE PLUMBING CONTRACTOR SHALL PREPARE DIMENSIONED FIELD ERECTION DRAWINGS FOR USE BY THE INSTALLERS TO ENSURE PROPER INSTALLATION, CLEARANCES, AND COORDINATION WITH STRUCTURAL MEMBERS, ARCHITECTURAL WORK, AND ALL OTHER ITEMS BEING INSTALLED BY OTHER TRADE CONTRACTORS. THE PLUMBING CONTRACTOR SHALL TAKE THEIR OWN MEASUREMENTS AT THE SITE AND BUILDING, AND BE RESPONSIBLE FOR THE CORRECT LAYOUT, INTERPRETATION, AND USE OF ALL SIZES AND DIMENSIONS. THE CONTRACTOR SHALL KEEP "AS-BUILT" INFORMATION DURING CONSTRUCTION AND FURNISH TO THE OWNER OR TENANT A RECORD SET OF LEGIBLE BLACK LINE PRINTS AND AN ELECTRONIC COPY OF THESE DOCUMENTS AT PROJECT COMPLETION.

REVIEW ARCHITECTURAL DRAWINGS FOR ALL FIRE RATINGS AND FIRE RATED ASSEMBLIES PRIOR TO BIDDING THE PROJECT. PROVIDE FIRE STOP AT EACH RATED WALL, FLOOR, AND CEILING-ROOF ASSEMBLY PENETRATION. FIRE STOP SYSTEMS SHALL BE MANUFACTURED BY "3M". PROVIDE IN STRICT COMPLIANCE WITH THE MANUFACTURER'S APPLICATION DETAILS AND INSTRUCTIONS. PROVIDE TAGGED CERTIFICATIONS AT EACH PENETRATION. PROVIDE SHOP DRAWINGS FOR REVIEW WITH THE U.L. LISTING AND TEST CRITERIA. PROVIDE FIRE STOPPING WHERE REQUIRED BY THE AHJ. EQUAL SYSTEMS AS MANUFACTURED BY "SPEC SEAL" OR "HILTI" WILL BE ACCEPTABLE.

PART 2 – PRODUCTS

22 0516 EXPANSION FITTINGS AND LOOPS FOR PLUMBING PIPING
A. PRODUCTS SHALL BE SUITABLE FOR PIPING SERVICE FLUIDS, MATERIALS, WORKING PRESSURES AND TEMPERATURES.
B. RUBBER UNION CONNECTOR EXPANSION JOINT – TWIN REINFORCED RUBBER SPHERE.
C. FLEXIBLE HOSE PACKLESS EXPANSION JOINT – MANUFACTURED ASSEMBLY WITH INLET AND OUTLET ELBOW FITTINGS AND TWO FLEXIBLE METAL-HOSE LEGS JOINED BY LONG RADIUS, 180 DEGREE RETURN BEND.
D. EXPANSION JOINTS FOR COPPER TUBING – COPPER ALLOW FITTINGS WITH THREADED END CONNECTIONS.
E. EXPANSION JOINTS FOR STEEL PIPING (NPS 2 AND SMALLER) – CARBON-STEEL FITTINGS WITH THREADED END CONNECTIONS.
F. EXPANSION JOINTS FOR STEEL PIPING (NPS 2.5 TO NPS 6) – CARBON-STEEL FITTINGS WITH FLANGED END CONNECTIONS.
G. EXPANSION JOINTS FOR STEEL PIPING (NPS 8 TO NPS 12) – CARBON-STEEL FITTINGS WITH FLANGED END CONNECTIONS.
H. EXPANSION JOINTS FOR STEEL PIPING (NPS 14 AND LARGER) – CARBON-STEEL FITTINGS WITH FLANGED END CONNECTIONS.
I. GROOVED JOINT EXPANSION JOINTS - GALVANIZED ASTM A 53/A 53M, SCHEDULE 40, TYPE E OR S, STEEL PIPE WITH GROOVED ENDS. FLEXIBLE TYPE COUPLINGS FOR STEEL DIMENSION.

22 0517 SLEEVES AND SLEEVE SEALS FOR PLUMBING PIPING
A. CAST IRON PIPE SLEEVES: CAST OR FABRICATED OF CAST OR DUCTILE IRON AND EQUIVALENT TO DUCTILE-IRON PRESSURE PIPE WITH PLAIN ENDS AND INTEGRAL WATERSTOP COLLAR.
B. STEEL PIPE SLEEVES: ASTM A 53/A 53M, TYPE E, GRADE B, SCH 40 WITH PLAIN ENDS AND INTEGRAL WELDED WATERSTOP COLLAR.
C. PVC PIPE SLEEVES: ASTM D 1785, SCH 40.

22 0518 ESCUTCHEONS FOR PLUMBING PIPING
A. ONE PIECE, STEEL TYPE WITH POLISHED CHROME PLATED FINISH.
B. INSTALL WITH INSIDE DIAMETER TO CLOSELY FIT AROUND PIPE, TUBE AND INSULATION OF UNINSULATED PIPING AND WITH OUTSIDE DIAMETER THAT COMPLETELY COVERS OPENING.

22 0523 BALL VALVES FOR PLUMBING PIPING
A. OBTAIN EACH TYPE OF VALVE FROM SINGLE SOURCE MANUFACTURER.
B. ASME COMPLIANCE:
   a. ASME B1.20.1 FOR THREADS FOR THREADED END VALVES.
   b. ASME B16.1 FOR FLANGES ON IRON VALVES.
   c. ASME B16.5 FOR FLANGES ON STEEL VALVES.
   d. ASME B16.18 FOR SOLDER-JOINT CONNECTIONS.
   e. ASME B31.9 FOR BUILDING SERVICES PIPING VALVES.
C. VALVE PRESSURE-TEMPERATURE RANGES SHALL BE NOT LESS THAN INDICATED AND AS REQUIRE FOR SYSTEM PRESSURES AND TEMPERATURES.
D. VALVE SIZES SHALL BE SAME AS UPSTREAM PIPING UNLESS OTHERWISE INDICATED.

22 0529 HANGERS
A. INSTALL HANGERS TO PROVIDE MINIMUM 1/2" SPACE BETWEEN FINISHED COVERING AND ADJACENT WORK. USE HANGERS WITHIN 1-1/2" MINIMUM VERTICAL ADJUSTMENT. SUPPORT HORIZONTAL CAST IRON PIPE ADJACENT TO EACH HUB, WITH 5' MAX SPACING BETWEEN HANGERS. SUPPORT VERTICALLY AT EACH FLOOR.
B. WHERE MULTIPLE PIPES ARE INSTALLED AT SAME ELEVATION PROVIDE MULTIPLE OR TRAPEZE HANGERS.
C. PVC PIPING SHALL BE SUPPORTED EVER 4'-0" AND EACH STORY NOT TO EXCEED 10'-0"
D. COPPER ½"-1-1/4" SHALL BE SUPPORTED EVERY 6'-0" AND VERTICALLY NOT TO EXCEED 10'-0". COPPER 1-1/2" AND LARGER SHALL BE SUPPORTED EVERY 10'-0" AND VERTICALLY NOT TO EXCEED 10'-0"

22 0719 PLUMBING PIPING INSULATION
A. INSULATE COLD, HOT AND HOT WATER RETURN PIPING AS SCHEDULED ON DRAWINGS.
B. INSULATE PER INTERNATIONAL ENERGY CONSERVATION CODE TABLE C403.2.10

22 1116 DOMESTIC WATER PIPING
A. WATER PIPING SHALL BE AS SCHEDULED ON DRAWINGS.
B. SHUT OFF VALVES SHALL BE BRONZE BODY NIBCO C-580 BALL VALVES RATED FOR 125LB WORKING PRESSURE OR INDUSTRY STANDARD EQUAL
C. TEST WATER PIPING PER AHJ REQUIREMENTS OR AT MINIMUM 125LBS FOR AT LEAST 24 HOURS WITH NO LEAKS BEFORE COVERING.
D. PROVIDE WATER-HAMMER ARRESTORS ON THE COLD AND HOT WATER SUPPLY FOR EACH PLUMBING FIXTURE. EQUAL TO SIOUX CHIEF HYDRA-RESTER SIZED AND INSTALLED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.

22 1316 SANITARY WASTE AND VENT PIPING
A. PIPING AS SCHEDULED ON DRAWINGS.
B. STANDARD WEIGHT CAST IRON SOIL PIPE MANUFACTURED PER CISPI STANDARDS AND BEARING THIS LABEL. PROVIDE STANDARD NO-HUB FITTINGS FOR ALL CAST IRON DWV PIPING SYSTEMS.
C. SCH 40 PVC IS ACCEPTABLE WHERE ALLOWED BY AHJ.
D. PVC PIPE AND DWV FITTINGS SHALL BE SOLVENT WELDED PER MANUFACTURER'S RECOMMENDATIONS.
E. PROVIDE CLEAN OUTS PER PLUMBING CODE.
F. PROVIDE CLEAN OUT TEE AND CHROME ACCESS COVER IN BASE OF EACH SANITARY STACK.
G. INSTALL PIPING TO PERMIT VALVE SERVICING.
H. INSTALL PIPING FREE OF SAGS AND BENDS.
I. TEST ALL DWV PIPING PER REQUIREMENTS OF THE AHJ OR AS A MINIMUM TO 10 FEET HEAD OF WATER FOR AT LEAST TWO HOURS WITH NO LEAKS BEFORE COVERING.
J. NO PVC PIPING IS ALLOWED IN RETURN AIR PLENUMS.
K. SUPPORT HORIZONTAL PIPING WITHIN 12" OF EACH FITTING, VALVE OR COUPLING.
L. INSTALL VERTICAL SUPPORTS EVERY 15 FEET FOR STEEL PIPING. SUPPORT EVERY 4 FEET FOR PVC PIPING.
M. BACKFILL INSIDE BUILDINGS SHALL BE CLEAN 3/4" GRANULAR LIMESTONE.
N. CLEAN INTERIOR OF PIPING, REMOVE DIRT AND DEBRIS. PROTECT INSTALLED PIPING FOR REMAINDER OF CONSTRUCTION TO AVOID CLOGGING.
O. TEST PIPING ACCORDING TO PROCEDURES OF AUTHORITIES HAVING JURISDICTION. TEST FOR LEAKS AND DEFECTS IN NEW PIPING AND PARTS OF EXISTING PIPING THAT HAVE BEEN ALTERED.

22 1319 SANITARY DRAINS
A. FLOOR DRAINS SHALL BE DURA-COATED CAST IRON BODY WITH BOTTOM OUTLET, COMBINATION INVERTIBLE MEMBRANE CLAMP AND ADJUSTABLE COLLAR AND NICKEL BRONZE STRAINER WITH FLASHING CLAMP DEVICE AND LOCATED IN PUBLIC RESTROOMS AND JANITOR CLOSETS. MECHANICAL ROOM FLOOR DRAINS SHALL BE DURA-COATED CAST IRON BODY WITH BOTTOM OUTLET, SEEPAGE PAN AND COMBINATION MEMBRANE FLUSHING CLAMP AND FRAME FOR ANTI-TILT HEAVY DUTY SLOTTED GRATE WITH SUSPENDED SEDIMENT BUCKET.
B. GENERAL DRAINS SHALL BE CAST IRON FLOOR DRAIN WITH FLANGE, INTEGRAL CLAMPING COLLAR AND ADJUSTABLE ROUND NICKEL BRASS STANDARD STRAINER, INSIDE CAULK OUTLET. STRAINER SIZE TO BE 5" FOR 2" OUTLET, 6" FOR 3" AND 4" OUTLETS. INSTALL IN FINISHED ROOM AREAS. PROVIDE A DEEP SEAL P-TRAP UNDER EACH DRAIN. PROVIDE TRAP PRIMER AND ACCESS PANEL FOR EACH DRAIN OR TRAP SEAL WHERE APPROVED BY AHJ.

22 1413 FACILITY STORM DRAINAGE PIPING
A. INSULATE ROOF DRAIN LEADER AND HORIZONTAL RUNS OF STORM DRAIN PIPING PER THE INSULATION SCHEDULE ON THE DRAWINGS.
B. TEST ALL STORM DRAIN PIPING PER REQUIREMENTS OF THE AHJ OR AS A MINIMUM TO 10 FEET HEAD OF WATER FOR AT LEAST TWO HOURS WITH NO LEAKS BEFORE COVERING.
C. INSTALL CLEANOUTS AT GRADE AND EXTEND TO WHERE BUILDING STORM DRAINS CONNECT TO BUILDING STORM SEWERS IN STORM DRAINAGE GRAVITY-FLOW PIPING.
D. SUPPORT HORIZONTAL PIPING WITHIN 12" OF EACH FITTING, VALVE OR COUPLING.
E. INSTALL VERTICAL SUPPORTS EVERY 15 FEET FOR STEEL PIPING. SUPPORT EVERY 4 FEET FOR PVC PIPING.
F. OVERFLOW DRAIN SHALL BE MINIMUM 18" ABOVE FINISHED GRADE.
G. CLEAN INTERIOR OF PIPING, REMOVE DIRT AND DEBRIS. PROTECT INSTALLED PIPING FOR REMAINDER OF CONSTRUCTION TO AVOID CLOGGING.
H. TEST PIPING ACCORDING TO PROCEDURES OF AUTHORITIES HAVING JURISDICTION. TEST FOR LEAKS AND DEFECTS IN NEW PIPING AND PARTS OF EXISTING PIPING THAT HAVE BEEN ALTERED.

22 3000 PLUMBING EQUIPMENT
A. ALL CONNECTIONS TO EQUIPMENT SHALL BE MADE USING UNIONS OF FLANGES AND ISOLATION BALL VALVES. PIPE TEMPERATURE AND PRESSURE RELIEF VALVES TO FLOOR DRAIN LOCATION.
B. SET ALL EQUIPMENT ON CONCRETE HOUSEKEEPING PADS UNLESS OTHERWISE NOTED. ADJUST AND LEVEL EQUIPMENT.
C. EQUIPMENT SHALL BE SELECTED BASED ON EQUIPMENT SCHEDULE ON DRAWINGS. PROVIDE ALL NECESSARY ACCESSORIES, PIPING AND CONNECTIONS FOR EQUIPMENT TO OPERATE PER MANUFACTURER.

22 4200 PLUMBING FIXTURES
A. PLUMBING FIXTURES SHALL BE PROVIDED AS SCHEDULED ON THE DRAWINGS.
B. PROVIDE ALL NECESSARY ACCESSORIES, SUPPORTS, P-TRAPS, SERVICE STOPS ETC.

PART 3 – EXECUTION

A. UPON SUBSTANTIAL COMPLETION OF THE PROJECT AND PRIOR TO PLUMBING CONTRACTOR'S REQUEST FOR FINAL INSPECTION, THE CONTRACTOR SHALL FURNISH TO THE GENERAL CONTRACTOR FOR REVIEW, ONE (1) SET OF OPERATION AND MAINTENANCE MANUALS ON ONE (1) THUMB DRIVE MEMORY USB STICKS. O&M MANUALS SHALL MINIMALLY INCLUDE THE FOLLOWING:
   a. STARTUP AND SHUTDOWN PROCEDURES FOR EACH MAJOR PIECE OF EQUIPMENT.
   b. OPERATING INSTRUCTIONS OUTLINING THE SAFE AND EFFICIENT OPERATION OF EACH MAJOR PIECE OF EQUIPMENT.
   c. EQUIPMENT LIST OF EACH MAJOR PIECE OF EQUIPMENT INCLUDING THE MAKE, MODEL, SERIAL NUMBER (IF APPLICABLE), VOLTAGE, PHASE, # WIRES, AMPACITY AND ALL OTHER INDUSTRY STANDARD NAMEPLATE DATA.
   d. SERVICE INSTRUCTIONS OUTLINING THE RECOMMENDED SPARE PARTS, ALONG WITH THE CONTACT INFORMATION FOR THE LOCAL SUPPLIER AND/OR FACTORY REPRESENTATIVE(S), AND THE RECOMMENDED FREQUENCY OF SERVICE OF EACH MAJOR PIECE OF EQUIPMENT.
   e. COPIES OF REVIEWED/APPROVED SHOP DRAWINGS/SUBMITTALS.
   f. AS-BUILT/RECORD DRAWINGS AND DOCUMENTATION.
   g. GUARANTEES/WARRANTIES.
   h. INSPECTION CARDS AND APPROVALS.
   i. NAME OF OWNER, ARCHITECT, ENGINEER OF RECORD, CONTRACTOR AND ALL SUB-CONTRACTORS.

PLUMBING GENERAL NOTES

SCOPE OF WORK
1. APPLICABLE REQUIREMENTS OF BIDDING INSTRUCTION, INFORMATION AND OTHER PROVISIONS OF THE GENERAL CONTRACT WORK SPECIFICATION SHALL APPLY TO THIS DIVISION OF WORK.
2. GENERALLY WORK SHALL CONSIST OF NEW CONSTRUCTION. PLUMBING CONTRACTOR SHALL MAKE A DETAILED SITE INSPECTION TO ACQUAINT THEMSELVES WITH CURRENT CONDITIONS, INCLUDING THE STRUCTURE AND ANY OBSTACLES WHICH MAY BE ENCOUNTERED IN THE EXECUTION OF THE WORK.
3. WORK SHALL BE COMPLETED IN ACCORDANCE WITH WISCONSIN PLUMBING CODE AS WELL AS ALL APPLICABLE LOCALLY-ENFORCED CODES, ORDINANCES, AMENDMENTS, STATE AND FEDERAL LAWS.
4. FURNISH ALL LABOR, MATERIAL, HARDWARE AND EQUIPMENT REQUIRED TO COMPLETE THE INSTALLATION OF THE SYSTEMS AS DESCRIBED OR SHOWN, INCLUDING ALL ACCESSORIES, FITTINGS AND APPURTENANCES REQUIRED TO MAKE THE SYSTEM COMPLETE.
5. PLUMBING CONTRACTOR SHALL DISCONNECT AND REMOVE EXISTING EQUIPMENT, FIXTURES AND PIPING RELATED TO DEMOLITION. THIS INCLUDES, BUT NOT LIMITED TO REMOVAL, MODIFICATION AND REINSTALLATION OF ALL PLUMBING EQUIPMENT, FIXTURES AND PIPING TO FULL WORKING ORDER AT PROJECT COMPLETION.

GUARANTEE
1. PLUMBING CONTRACTOR SHALL GUARANTEE EACH UNIT AND ALL ACCESSORIES FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE, AGAINST FAULTY MATERIALS AND WORKMANSHIP.
2. PLUMBING CONTRACTOR SHALL REPAIR OR REPLACE COMPONENTS, EQUIPMENT OR PIPING WHERE WORKMANSHIP FAILS DURING ONE YEAR FROM DATE OF FINAL ACCEPTANCE.

PERMITS FEES AND CERTIFICATES
1. PLUMBING CONTRACTOR SHALL OBTAIN AND PAY ALL PERMITS AND LICENSES REQUIRED BY CITY ORDINANCES AND AFTER COMPLETION OF WORK SHALL FURNISH TO THE OWNER A CERTIFICATE OF FINAL INSPECTION AND APPROVAL. ALL FEES IN CONNECTION WITH INSPECTIONS, PERMITS, LICENSES AND APPROVAL SHALL BE PAID BY PLUMBING CONTRACTOR.

COORDINATION
1. THESE DRAWINGS ARE DIAGRAMMATIC IN NATURE AND MAY NOT SHOW EXACT ROUTING OR ALL REQUIRED OFFSETS, ACCESSORIES, OR APPURTENANCES. CONTRACTOR SHALL PROVIDE AS REQUIRED TO INSTALL A COMPLETE AND COORDINATED JOB, INCLUDING ANY ADDITIONAL ITEMS REQUIRED TO MEET ACTUAL FIELD CONDITIONS AND ACTUAL EQUIPMENT SELECTED.
2. THE SYMBOLS AND ABBREVIATIONS ON THIS SHEET, IS A GENERAL LIST AND ALL MAY NOT BE APPLICABLE TO THIS PROJECT.
3. COORDINATE SCHEDULE FOR HOOK-UPS TO EXISTING SYSTEMS AND EQUIPMENT REMOVAL OR RELOCATIONS WITH THE OWNER. PERFORM WORK AT TIMES TO ENSURE PERIODS OF SHUTDOWNS ARE ACCEPTABLE TO OWNER.

PLUMBING VALVE MATRIX
(NOT ALL SYSTEMS MAY BE REQUIRED ON THIS PROJECT)

TYPE OF MATERIAL	SHUTOFF 2" AND SMALLER	SHUTOFF 4" AND LARGER	MAINTAIN DIRECTION OF FLOW 2" AND SMALLER	MAINTAIN DIRECTION OF FLOW 2-1/2" AND LARGER	BALANCING VALVE
BRONZE BALL VALVE ASTM B584 with STAINLESS STEEL BALL AND STEM	●				
DUCTILE IRON BUTTERFLY VALVE ASTM A536 with STAINLESS STEEL STEM AND HARDWARE		●			
BRONZE SWING CHECK VALVE ASTM B62 with BRONZE OR BRONZE ALLOY HARDWARE			●		
CAST-IRON SWING CHECK VALVE ASTM A126 CLASS B				●	
LEAD FREE DZR BRASS BALL TYPE CALIBRATED BALANCING VALVE with TWO READOUT PORTS AND MEMORY-SETTING INDICATOR					●

PLUMBING MATERIALS MATRIX
(NOT ALL SYSTEMS MAY BE REQUIRED ON THIS PROJECT)

TYPE OF MATERIAL	BURIED SANITARY & VENT	ABOVE GRADE SANITARY & VENT	SANITARY, VENT & STORM IN ENVIRONMENTAL AIR PLENUMS	DOMESTIC WATER IN BUILDING	DOMESTIC WATER 2" OR LESS	DOMESTIC WATER GREATER THAN 2"	DOMESTIC WATER GREATER 150 psi
SCHEDULE 40 SOLID WALL PVC with SOLVENT CEMENTED DRAINAGE PATTERN FITTINGS ASTM D-2665	●	●					
STANDARD WEIGHT NO-HUB CAST IRON ASTM A888 with HEAVY DUTY TYPE 304 STAINLESS STEEL COUPLINGS			●				
COPPER PIPE - SOFT DRAWN TYPE "K" ASTM B88				●			
COPPER PIPE - HARD DRAWN TYPE "L" ASTM B88 with WROUGHT ASTM B16.22 EPDM-RUBBER O-RING SEAL PRESSURE JOINT					●	●	
COPPER PIPE - HARD DRAWN TYPE "L" ASTM B88 with WROUGHT ASTM B16.22 SOLDERED JOINT					●	●	●

PLUMBING INSULATION SCHEDULE
(NOT ALL SYSTEMS MAY BE REQUIRED ON THIS PROJECT)

TYPE OF MATERIAL	DOMESTIC COLD WATER PIPING 1-1/2" & SMALLER	DOMESTIC COLD WATER PIPING 2" & LARGER	DOMESTIC HW & HWR PIPING 1-1/2" & SMALLER	DOMESTIC HW & HWR PIPING 2" & LARGER	DOMESTIC HW & HWR PIPING BURIED	HORIZONTAL STORM DRAIN PIPING	ROOF DRAIN BODY AND VERTICAL PIPING FROM DRAIN BODY TO HORIZONTAL	PIPING IN UNHEATED BUILDING AREAS
1/2" THICK ELASTOMERIC CLOSED CELL INSULATION - ASTM E-84	●				●			
1" THICK ELASTOMERIC CLOSED CELL INSULATION - ASTM E-84		●						
1" FIBERGLASS WITH ALL-SERVICE JACKET w/ PRE-FORMED FITTING COVERS		●	●			●		
1-1/2" FIBERGLASS WITH ALL-SERVICE JACKET w/ PRE-FORMED FITTING COVERS				●				
1" FIBERGLASS WITH ALL-SERVICE JACKET							●	
1-1/2" FIBERGLASS WITH ALL-SERVICE JACKET, PRE-FORMED FITTING COVERS (PIPE ELECTRICALLY TRACED PRIOR TO INSULATING)								●

DRAIN SCHEDULE

ABBREV.	DESCRIPTION	MANUFACTURER	MODEL	SHAPE	STRAINER SIZE	MATERIAL	REMARKS
FD-1	FLOOR DRAIN	ZURN	Z-508	ROUND	9"	CAST IRON	MECHANICAL ROOM
FS-1	FLOOR SINK	ZURN	Z-1900-2	ROUND	9"	CAST IRON	MECHANICAL ROOM
RD-1	ROOF DRAIN - PRIMARY	ZURN	Z-100F	ROUND	15"	CAST IRON	PRIMARY
RD-2	ROOF DRAIN - OVERFLOW	ZURN	Z-100F-W2	ROUND	15"	CAST IRON	OVERFLOW
OFDS-1	OVERFLOW DOWNSPOUT	ZURN	Z199-SS	ROUND	15"	CAST IRON	OVERFLOW

BACKFLOW PREVENTER SCHEDULE

ABBREV.	DESCRIPTION	MANUFACTURER	MODEL NO.	LOCATION	SERVING	SIZE	TYPE	REMARKS
BFP-1	BACKFLOW PREVENTER	DERINGER	30G	MECHANICAL ROOM	FIRE	10"	DOUBLE CHECK VALVE	--

PLUMBING FIXTURE SCHEDULE

ABBREV.	DESCRIPTION	FIXTURE		CONNECTION				COMMENTS
		MANUFACTURER	MODEL	WASTE	VENT	CW	HW	
RH-1	ROOF HYDRANT	WOODFORD	SRH-MS	--	--	3/4"	--	--
WH-1	WALL HYDRANT	JAY R SMITH	5515	--	--	3/4"	--	--

PLUMBING SYSTEMS

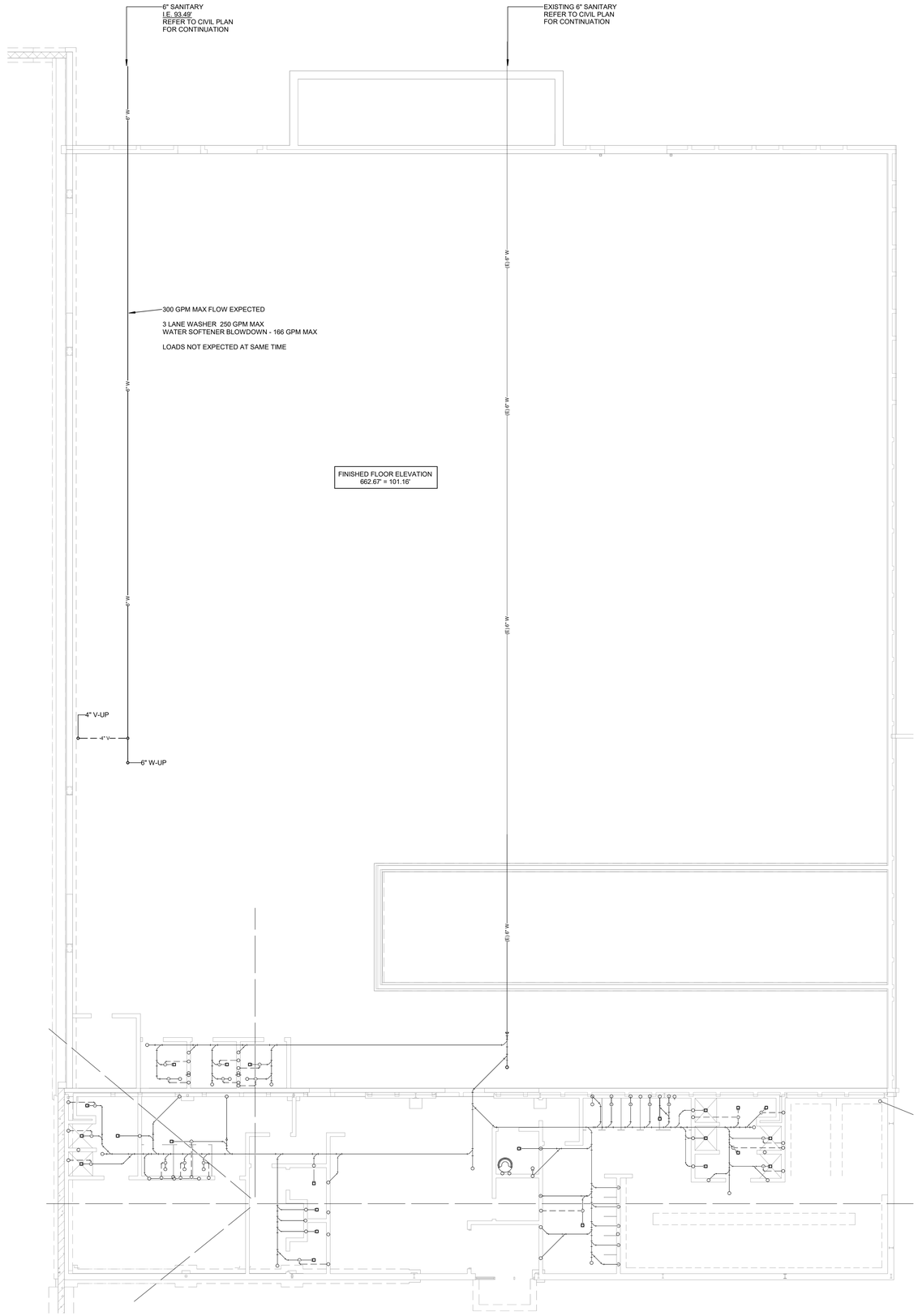
(CW)	COLD WATER PIPING
(HW)	HOT WATER PIPING
(HWR)	HOT WATER RETURN PIPING
(140 F)	HOT WATER 140°F PIPING
(140 F HWR)	HOT WATER 140°F RETURN PIPING
(W)	WASTE
(RN)	RADON MITIGAION SYSTEM
(IW)	INDIRECT WASTE
(V)	VENT
(ST)	STORM
(OFD)	OVERFLOW DRAIN
(GW)	GREASE WASTE
(DT)	DRAIN TILE
(PD)	PUMP DISCHARGE
(G)	GAS
	PIPE TO BE DEMOLISHED
	EXISTING PIPING

PLUMBING SYMBOLS

	PIPE GUIDE
	DIRECTION OF FLOW
	PIPE ANCHOR
	UNION
	BALL VALVE
	ANGLE VALVE
OS&Y	OS&Y VALVE
	CHECK VALVE (SHOWN W/FLOW)
	BALANCING VALVE
	CAPPED PIPING
	GAS COCK
	CONTROL VALVE
S	SOLENOID VALVE
	GAS PRESSURE REGULATOR (GPR)
	PRESSURE REDUCING VALVE (PRV)
	SAFETY/RELIEF VALVE
	PRESSURE-TEMPERATURE RELIEF VALVE (PRV)
	SLEEVE
HB	HOSE BIB (HB)
WH	NON-FREEZE WALL HYDRANT (WH)
	ROOF DRAIN (RD)
	FLOOR DRAIN (FD)
	TRENCH DRAIN (TD)
CO	CLEANOUT (CO)
FCO	FLOOR CLEANOUT (FCO)
GCO	GROUND CLEANOUT (GCO)
	P-TRAP
WCO	WALL CLEANOUT (WCO)
	STRAINER
	THERMOMETER (SPECIFY TYPE) (TH)
	PRESSURE GAUGE WITH GAUGE COCK (PG)
A	AQUASTAT
"A"	WATER HAMMER ARRESTER (LETTER DESIGNATES SIZE)
	BACKFLOW PREVENTER (BFP)
	BOTTOM DROP
	ELBOW DOWN
	ELBOW UP
	POINT OF CONNECTION (NEW TO EXISTING)
WR 1	RISER INDICATOR / DETAIL INDICATOR TOP INDICATES TYPE OF RISER BOTTOM INDICATES RISER NUMBER
#	KEYED NOTE TAG
XXX	NEW EQUIPMENT TAG
(E)XXX	EXISTING EQUIPMENT TAG EXISTING
	AREA MATCHLINE

PLUMBING ABBREVIATIONS

ABV	ABOVE
AC	AIR COMPRESSOR
AP	ACCESS PANEL
AFF	ABOVE FINISHED FLOOR
AHJ	AUTHORITY HAVING JURISDICTION
AV	ACID VENT
AVTR	ACID VENT THRU ROOF
AW	ACID WASTE
BFP	BACKFLOW PREVENTER
BLDG	BUILDING
BT	BATH TUB
BV	BALL VALVE
CA	COMPRESSED AIR
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
CO	CLEANOUT
CO2	CARBON DIOXIDE
CP	CIRCULATOR PUMP
CV	CHECK VALVE
CW	COLD WATER
DCV	DOUBLE CHECK VALVE
DDCV	DOUBLE DETECTOR CHECK VALVE
DIA	DIAMETER
DIM	DIMENSION
DN	DOWN
DS	DOWNSPOUT OR RAIN LEADER DESIGNATION
DT	DRAIN TILE
DW	DISHWASHER
EA	EACH
EEW	EMERGENCY EYE WASH
ES	EMERGENCY SHOWER
ESEW	COMBINATION EMERGENCY SHOWER/EYEWASH STATION
EQUIP	EQUIPMENT
ET	EXPANSION TANK
ESP	ELEVATOR SUMP PUMP
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EX	EXISTING
(E)	EXISTING
F	FAHRENHEIT
FCO	FLOOR CLEANOUT
FD1,2,3...	FLOOR DRAIN
FS	FLOOR SINK
FT	FOOT/FEET
G	NATURAL GAS
GAL	GALLON
GCO	GROUND CLEANOUT
GD	GARAGE DRAIN
GI	GREASE INTERCEPTOR
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GW	GARAGE WASTE
HB	HOSE BIBB
HD	HEAD
HP	HORSEPOWER OR HIGH POINT
HR	HOUR
HVAC	HEATING-VENTILATION-AIR CONDITIONING
HW	HOT WATER
HWR	HOT WATER RETURN
IMB	ICE MACHINE BOX
INSUL	INSULATION
IN	INCHES
I.E.	INVERT ELEVATION
IW	INDIRECT WASTE
KEC	KITCHEN EQUIPMENT CONTRACTOR
KW	KITCHEN WASTE
L	LAVATORY
LT	LAUNDRY TUB
MS	MOP SINK
NA	NOT APPLICABLE
N.C.	NORMALLY CLOSED
NIC	NOT IN CON



N UNDERGROUND PLAN - BUILDING 18 - PLUMBING
SCALE: 1/8" = 1'-0"

WISCONSIN
MARCUS A. ECKSTEIN
E-49038
ST. PETERS
MO
PROFESSIONAL ENGINEER
12/17/25

ENGENUITY
BUILDING VALUE BY DESIGN
17057 N. OUTER FORTY ROAD
SUITE 147
CHESTERFIELD, MO 63005
P: (314) 8194189
www.theengenuity.com

REVISIONS:

NOTICE TO BIDDERS
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1236 NORTH 18th STREET, SHEBOYGAN, WI 53081
1135A MICHIGAN AVE, SHEBOYGAN, WI 53081 | (920) 452-4444 | 313 N. PLANKINTON AVE SUITE 208, MILWAUKEE, WI 53203

PERMIT SET

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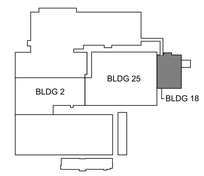
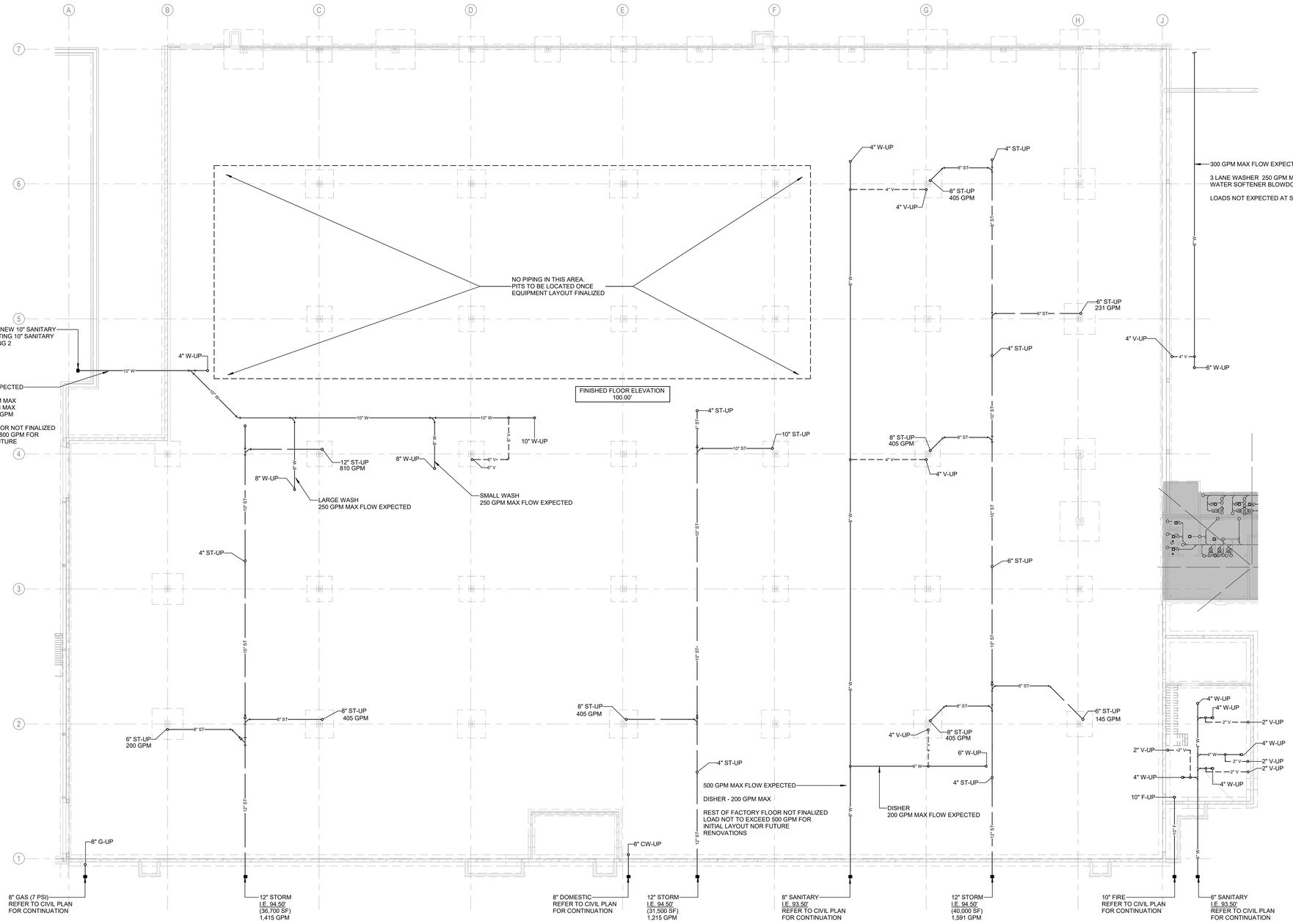
UNDERGROUND PLAN - BUILDING 18

P
200.1

PROJ. NO. 2024-093



N KEY PLAN
NO SCALE



N 1 P 200.2

UNDERGROUND PLAN - BUILDING 25 - PLUMBING

SCALE: 1/16" = 1'-0"

WISCONSIN PROFESSIONAL ENGINEER
MARCUS A. ECKSTEIN
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ST. PETERS
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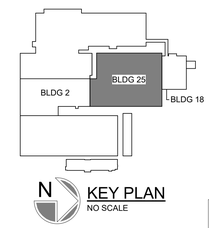

N KEY PLAN
NO SCALE

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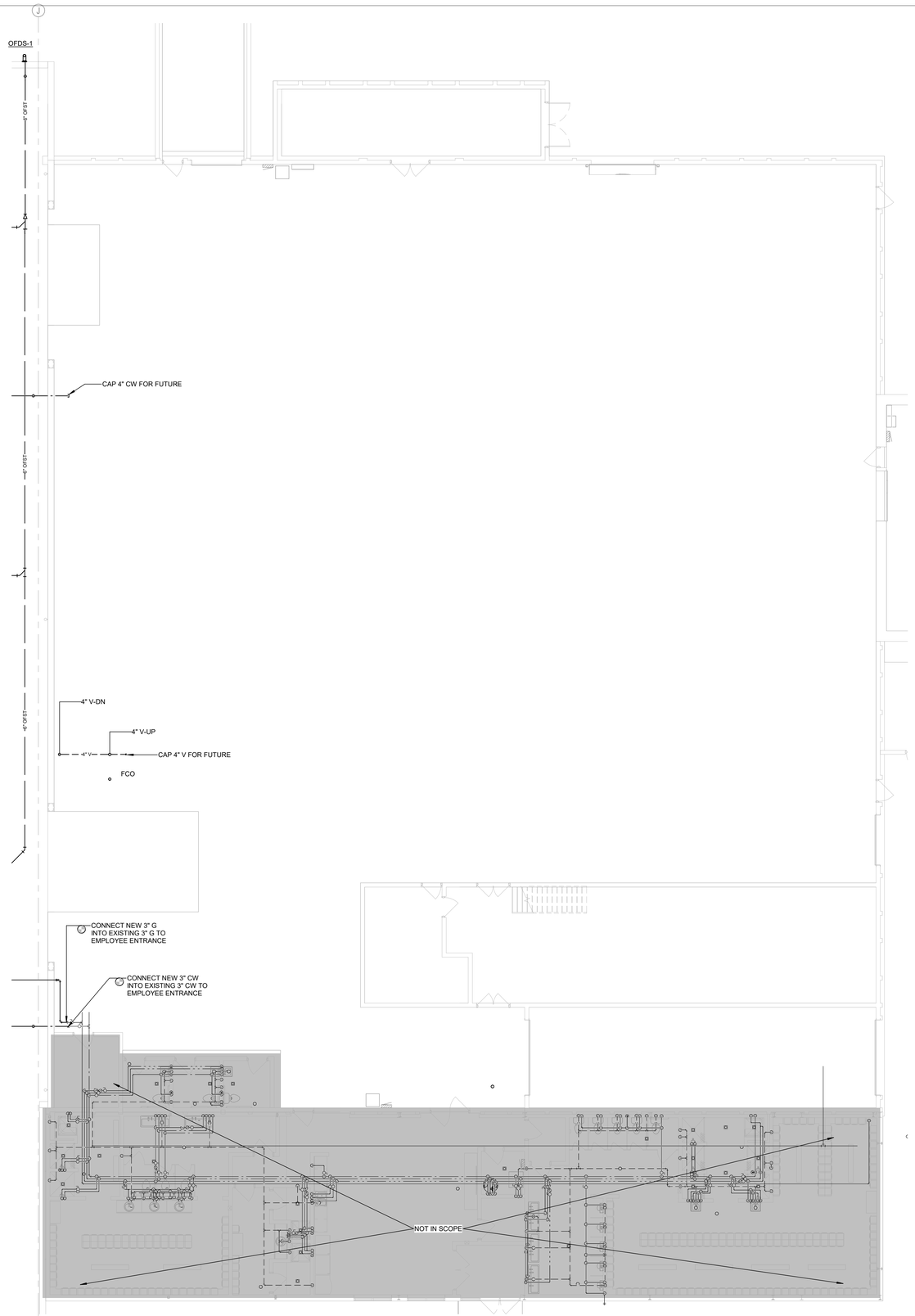
UNDERGROUND PLAN - BUILDING 25

P
200.2

PROJ. NO. 2024-093



N FLOOR PLAN - BUILDING 18 - PLUMBING
SCALE: 1/8" = 1'-0"

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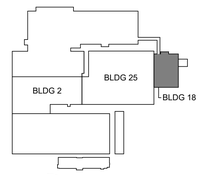

N KEY PLAN
NO SCALE

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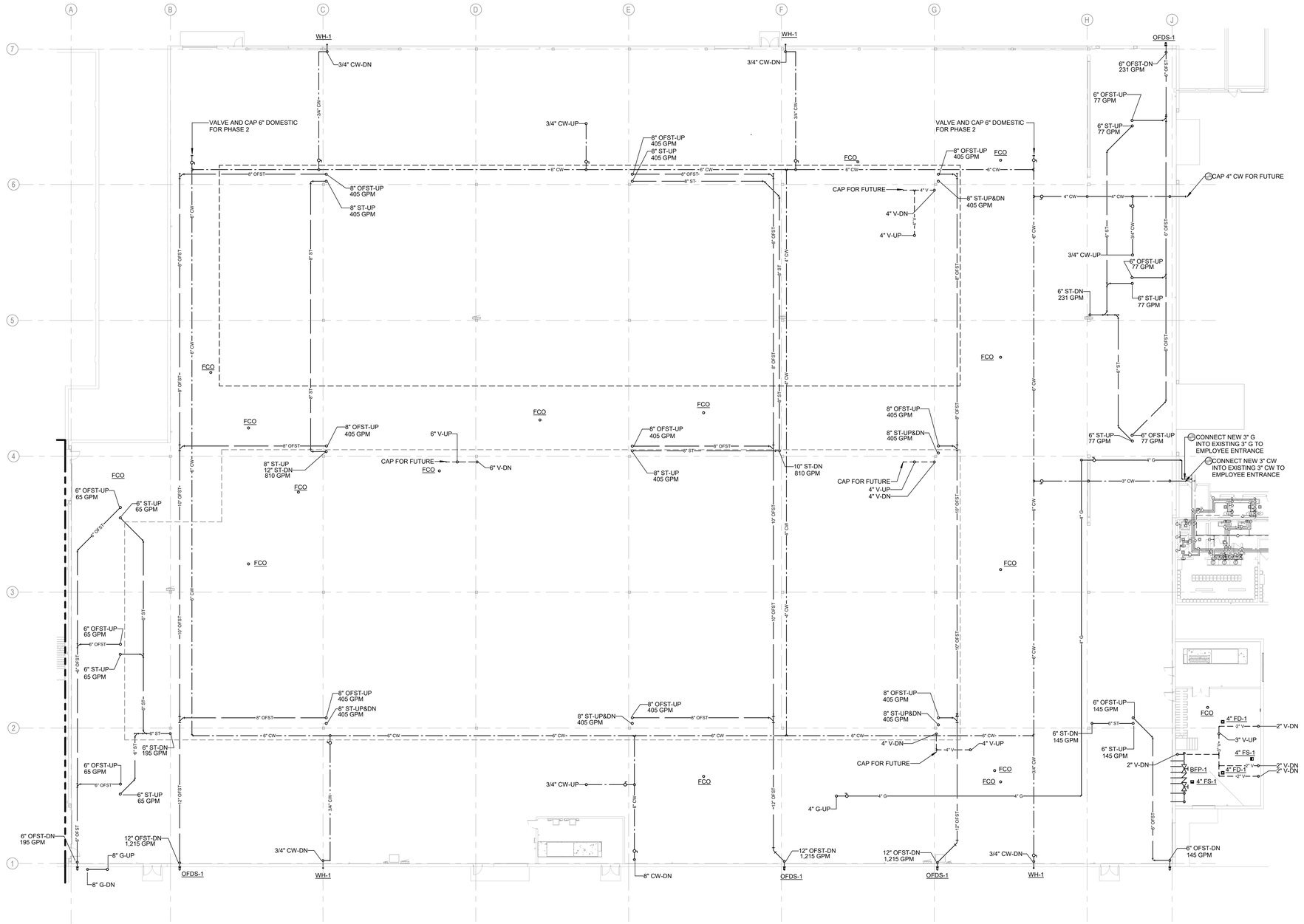
FLOOR PLAN - BUILDING 18

P
201.1

PROJ. NO. 2024-093

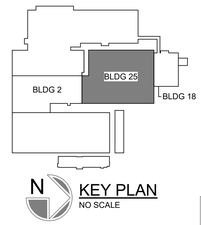


N

1 / P 201.2

FLOOR PLAN - BUILDING 25 - PLUMBING

SCALE: 1/16" = 1'-0"



N KEY PLAN
NO SCALE

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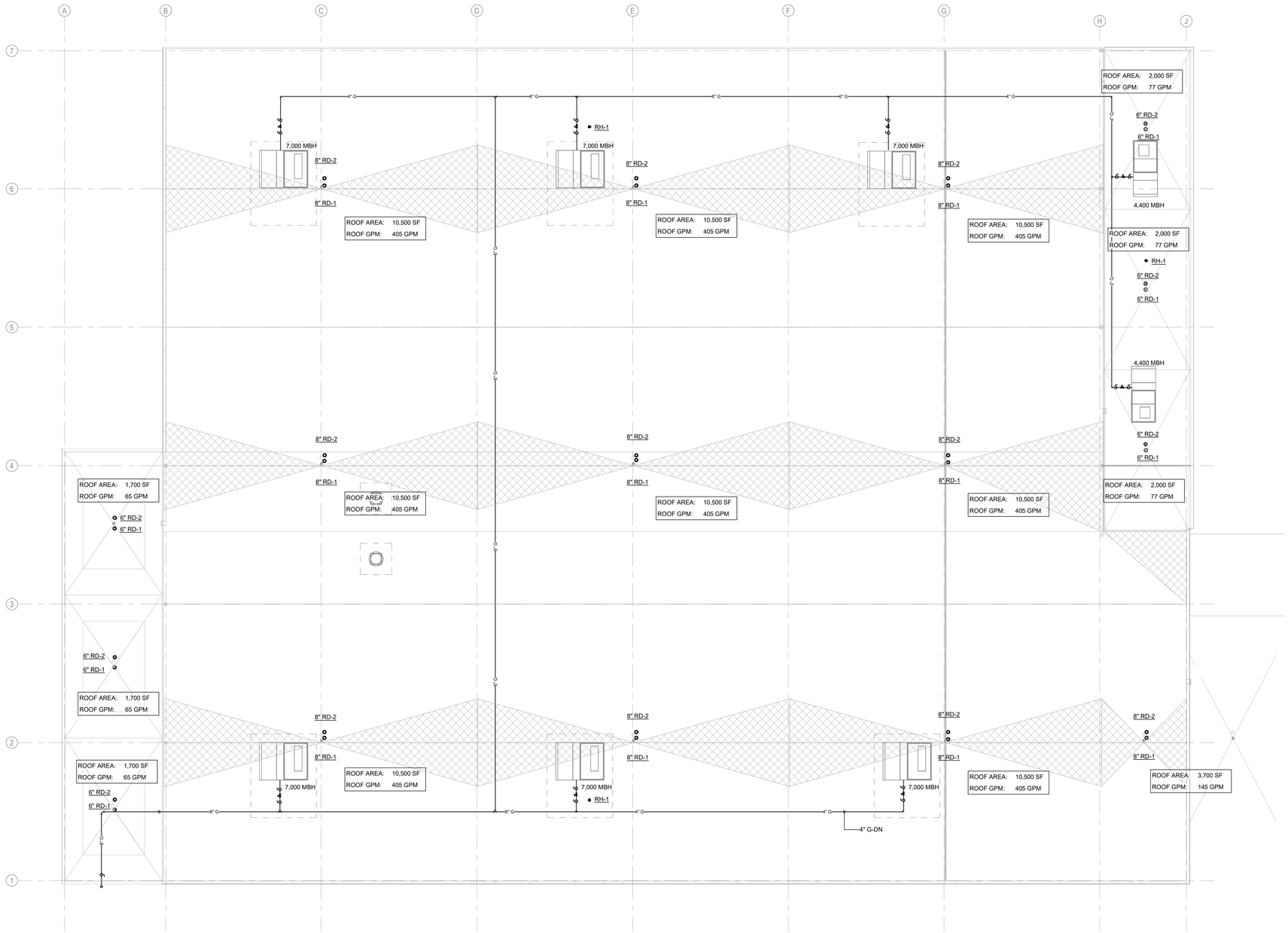
FLOOR PLAN - BUILDING 25

P
201.2

PROJ. NO. 2024-093



N 1 P 202.2 **ROOF PLAN - BLDG 25 - PLUMBING**
SCALE: 1/16" = 1'-0"

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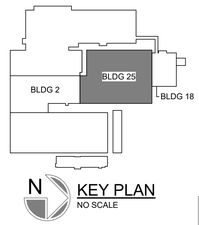

N KEY PLAN
NO SCALE

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ROOF PLAN - BUILDING 25

P
202.2

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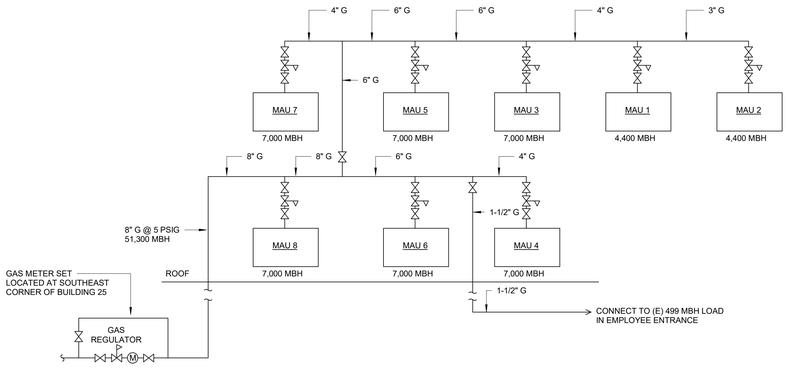
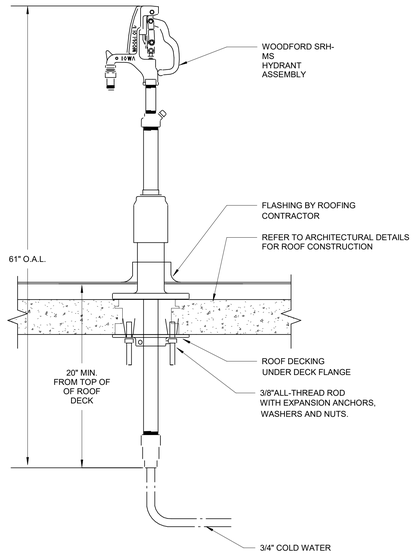
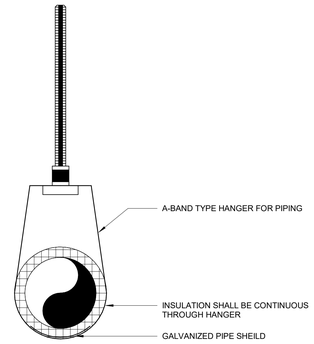


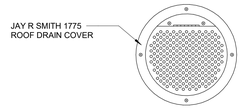
8 P 600B GAS SCHEMATIC
NO SCALE



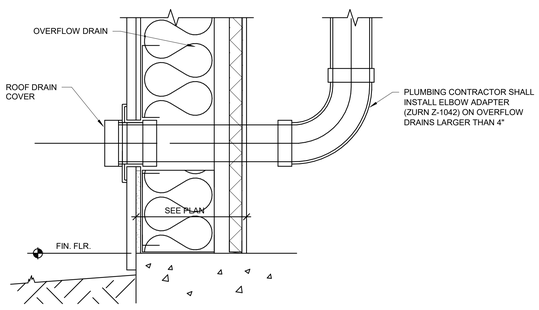
7 P 600B ROOF HYDRANT DETAIL
NO SCALE



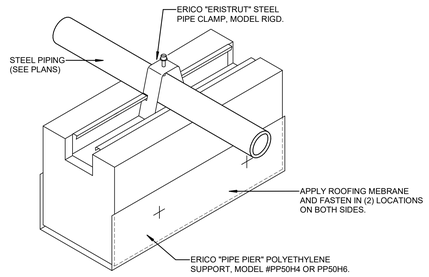
SINGLE PIPE



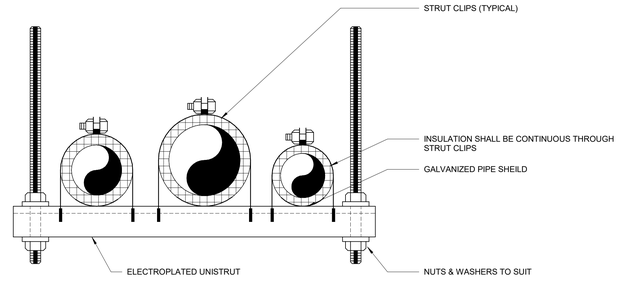
FRONT VIEW



5 P 600B OVERFLOW DRAIN NOZZLE DETAIL
NO SCALE



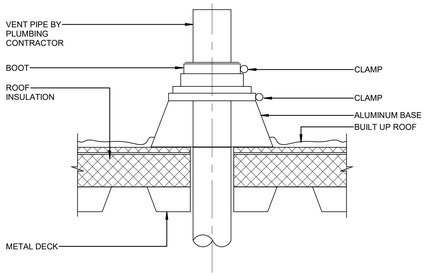
4 P 600B GAS PIPING SUPPORT DETAIL
NO SCALE



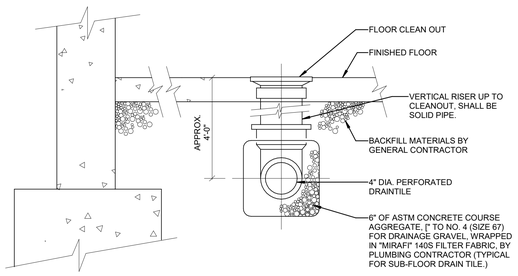
MULTIPLE PIPES

NOTES:
1. SIZE STRUT, ROD AND CLAMPS TO ADEQUATELY SUPPORT LOAD
2. CONNECT TO BEAM, SUPPORT OR BRACING AS REQUIRED IN FIELD

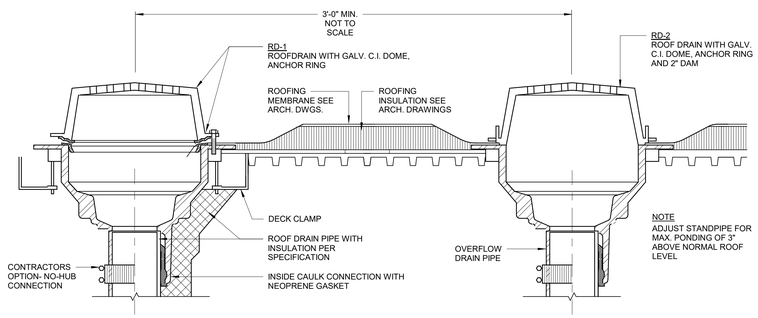
6 P 600B PIPE HANGER DETAIL
NO SCALE



3 P 600B VENT THRU ROOF
NO SCALE



2 P 600B SUB-FLOOR DRAINAGE AND CLEANOUT
NO SCALE



1 P 600B ROOF DRAIN DETAIL
NO SCALE

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PLUMBING DETAILS

P
600B

PROJ. NO. 2024-093

MECHANICAL SPECIFICATIONS

SECTION 230000 – MECHANICAL

PART 1 - GENERAL

SCOPE OF WORK
APPLICABLE REQUIREMENTS OF BIDDING INSTRUCTIONS AND INFORMATION AND OTHER PROVISIONS OF THE GENERAL CONTRACT WORK SPECIFICATIONS SHALL APPLY TO THIS DIVISION OF THE WORK.

GENERALLY, WORK SHALL CONSIST OF NEW CONSTRUCTION. MECHANICAL CONTRACTOR SHALL MAKE A DETAILED SITE INSPECTION TO ACQUAINT THEMSELF WITH PRESENT CONDITIONS, INCLUDING THE STRUCTURE AND ANY OBSTACLES WHICH MAY BE ENCOUNTERED IN THE EXECUTION OF THE WORK.

IT IS THE SPECIFIC INTENT OF THESE SPECIFICATIONS TO INCLUDE ALL MECHANICAL WORK ITEMS OF ANY NATURE WHICH ARE NECESSARY AND ARE REQUIRED TO MAKE THE SYSTEMS OPERATE IN A SATISFACTORY AND COMPLETE CONDITION. THE MECHANICAL CONTRACTOR, THEREFORE, MUST REVIEW THESE SPECIFICATIONS AND FAMILIARIZE THEMSELF FULLY AS TO CONDITIONS SURROUNDING OR EFFECTING THIS WORK.

THE WORK TO BE DONE IN ACCORDANCE WITH THESE SPECIFICATIONS SHALL BE DONE TO COMPLY WITH THE INTERNATIONAL MECHANICAL CODE (IMC) AS WELL AS ALL APPLICABLE LOCALLY-ENFORCED CODES, ORDINANCES, AMENDMENTS, STATE LAWS AND FEDERAL LAWS.

FURNISH ALL LABOR, MATERIALS, HARDWARE AND EQUIPMENT REQUIRED TO COMPLETE THE INSTALLATION OF THE SYSTEMS AS DESCRIBED OR SHOWN INCLUDING ALL ACCESSORIES, FITTINGS, AUXILIARIES AND COMPONENTS REQUIRED FOR PROPER PERFORMANCE OF THE SYSTEM.

THE MECHANICAL CONTRACTOR SHALL DISCONNECT AND REMOVE EXISTING EQUIPMENT, DUCTS, AIR DEVICES, PIPING, AND RELATED ITEMS OCCURRING IN DEMOLISHED WALLS, FLOORS, ATTICS, CEILING CAVITIES AND THE ROOF. REFER TO THE ARCHITECTURAL DRAWINGS FOR THE GENERAL SCOPE OF DEMOLITION, MECHANICAL COMPONENTS INCLUDING MOTORS, TEMPERATURE CONTROL DEVICES, GRILLES, DIFFUSERS, AIR TERMINALS, HANGERS, MOUNTING HARDWARE, ETC. MUST BE REMOVED FROM THE PREMISES, TO BE LEGALLY DISPOSED OF BY THE MECHANICAL CONTRACTOR. ALL LOOSE ENDS OF SYSTEMS WHERE SUCH ABANDONMENT HAS TERMINATED SHALL BE TRIMMED CLEAR AND APPROPRIATELY CAPPED OR SEALED IN A SAFE AND SECURE MANNER BEHIND NEW FINISHES. MAINTAIN SYSTEM CONTINUITY TO ADJOINING AREAS AS NEEDED, THIS INCLUDES BUT IS NOT LIMITED TO REMOVAL, MODIFICATION, AND REINSTALLATION OF EQUIPMENT AS NEEDED TO SUSTAIN THE EXISTING WORKING CONDITION OF ALL MECHANICAL EQUIPMENT AND TO RETURN THESE AREAS TO FULL WORKING ORDER AT PROJECT COMPLETION.

GUARANTEE
MECHANICAL CONTRACTOR SHALL GUARANTEE EACH UNIT AND ALL ACCESSORIES FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE AGAINST FAULT MATERIALS AND WORKMANSHIP AND FOR CONFORMING TO SPECIFICATIONS.

IF ANY UNIT DOES NOT OPERATE SATISFACTORILY, OR IF ANY PARTS SHOULD SHOW UNDUE WEAR DURING THE ONE YEAR PERIOD, THE MECHANICAL CONTRACTOR WILL BE NOTIFIED AND WILL BE REQUIRED TO REMEDY THE DEFECTS PROMPTLY AND MAKE THE UNIT OPERATE IN A MANNER SATISFACTORY TO THE ARCHITECT/ENGINEER. DEFECTIVE PARTS WILL BE RETURNED TO THE CONTRACTOR ONLY AT HIS OWN REQUEST AND EXPENSE.

PERMITS, FEES AND CERTIFICATES
MECHANICAL CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS AND LICENSES REQUIRED BY CITY ORDINANCES AND AFTER COMPLETION OF THE WORK SHALL FURNISH TO THE OWNER A CERTIFICATE OF FINAL INSPECTION AND APPROVAL. ALL FEES IN CONNECTION WITH INSPECTIONS, PERMITS, LICENSES AND APPROVAL SHALL BE PAID BY THE MECHANICAL CONTRACTOR.

SHOP DRAWINGS
SHOP DRAWINGS SHALL BE SUBMITTED ELECTRONICALLY AS PDF FILES. SHOP DRAWINGS SHALL INCLUDE TRANSMITTAL PAGE(S) INDICATING THE NAME OF THE PROJECT, AND THE NAME, ADDRESS, AND PHONE NUMBER OF THE GENERAL AND MECHANICAL CONTRACTORS. GENERAL CONTRACTOR AND MECHANICAL CONTRACTOR SHALL REVIEW SHOP DRAWING SUBMITTALS FOR COMPLIANCE, CONTENT AND COMPLETENESS AND PROVIDE A STAMP WITH THE DATE OF REVIEW AND SIGNATURE OF THE REVIEWER. TRANSMITTAL PAGE SHALL HAVE INDEX WITH SPECIFICATION SECTION AND DESCRIPTION OF SUBMITTED ITEMS. NO EXCEPTIONS WILL BE TAKEN. EQUIPMENT SHALL NOT BE ORDERED UNTIL ENGINEER OF RECORD HAS PROCESSED APPLICABLE SHOP DRAWINGS. A PERIOD OF TEN BUSINESS DAYS WILL BE ALLOWED FOR SUBMITTAL PROCESSING BY THE ENGINEER. MECHANICAL SUBMITTALS REQUIRED SHALL MINIMALLY INCLUDE THE FOLLOWING:

1. ALL NEW SCHEDULED EQUIPMENT WITH ACCESSORIES.
2. DUCTWORK INSULATION
3. SHEET METAL MATERIALS
4. AIR DEVICES

COORDINATION
MECHANICAL CONTRACTOR SHALL PROVIDE FIELD COORDINATION WITH OTHER TRADES; SYSTEMS ARE SHOWN AS DIAGRAMMATIC AND GIVE THE GENERAL ARRANGEMENT AND LOCATIONS ONLY. MECHANICAL CONTRACTOR SHALL COMPLETELY REVIEW THE ENTIRE SET OF CONSTRUCTION DRAWINGS FOR DETAILS OF CONSTRUCTION PRIOR TO STARTING WORK. ROUGH-IN OF MECHANICAL EQUIPMENT SHALL BE BASED ON THIS REVIEW. EXACT LOCATIONS AND FINAL LAYOUT SHALL BE DETERMINED IN THE FIELD. PROVIDE ALL NECESSARY EQUIPMENT, FITTINGS, HANGERS, SUPPORTS, OFFSETS AND ACCESS PANELS REQUIRED FOR A COMPLETE INSTALLATION IN ALL RESPECTS. THE MECHANICAL CONTRACTOR'S MEANS AND METHODS OF INSTALLATION SHALL PROVIDE FOR OPERATING EFFICIENCY, NEATNESS OF APPEARANCE, EASE OF MAINTENANCE, AND CODE COMPLIANCE. THE MECHANICAL CONTRACTOR SHALL PREPARE DIMENSIONED FIELD ERECTION DRAWINGS FOR USE BY THE INSTALLERS TO ENSURE PROPER INSTALLATION, CLEARANCES, AND COORDINATION WITH STRUCTURAL MEMBERS, ARCHITECTURAL WORK, AND ALL OTHER ITEMS BEING INSTALLED BY OTHER TRADE CONTRACTORS. THE MECHANICAL CONTRACTOR SHALL TAKE THEIR OWN MEASUREMENTS AT THE SITE AND BUILDING, AND BE RESPONSIBLE FOR THE CORRECT LAYOUT, INTERPRETATION, AND USE OF ALL SIZES AND DIMENSIONS. THE CONTRACTOR SHALL KEEP "AS-BUILT" INFORMATION DURING CONSTRUCTION AND FURNISH TO THE OWNER OR TENANT A RECORD SET OF LEGIBLE BLACK LINE PRINTS AND AN ELECTRONIC COPY OF THESE DOCUMENTS AT PROJECT COMPLETION.

MECHANICAL CONTRACTOR SHALL COORDINATE WITH COMMISSIONING AGENT TO PROVIDE PLANNING, REPORTING, AND MANPOWER FOR CONSTRUCTION CHECKLISTS, PRE-FUNCTIONAL CHECKLISTS, FUNCTIONAL PERFORMANCE TESTING, SEASONAL TESTING, ISSUES LOGS, OPERATIONS AND MAINTENANCE DOCUMENTATION, AND USER TRAINING. REVIEW OPR AND COMMISSIONING PLAN FOR MORE INFORMATION.

REVIEW ARCHITECTURAL DRAWINGS FOR ALL FIRE RATINGS AND FIRE RATED ASSEMBLIES PRIOR TO BIDDING THE PROJECT. PROVIDE FIRE STOP AT EACH RATED WALL, FLOOR, AND CEILING-ROOF ASSEMBLY PENETRATION. FIRE STOP SYSTEMS SHALL BE MANUFACTURED BY "3M". PROVIDE IN STRICT COMPLIANCE WITH THE MANUFACTURER'S APPLICATION DETAILS AND INSTRUCTIONS. PROVIDE TAGGED CERTIFICATIONS AT EACH PENETRATION. PROVIDE SHOP DRAWINGS FOR REVIEW WITH THE U.L. LISTING AND TEST CRITERIA. PROVIDE FIRE STOPPING WHERE REQUIRED BY THE AHJ. EQUAL SYSTEMS AS MANUFACTURED BY "SPEC SEAL" OR "HILTI" WILL BE ACCEPTABLE.

PART 2 – PRODUCTS

08 9116 LOUVERS
A. PROVIDE LOUVERS FOR MECHANICAL EQUIPMENT AS SCHEDULED.

23 0529 HANGERS AND SUPPORTS FOR HVAC PIPING AND EQUIPMENT
A. CARBON-STEEL PIPE HANGERS AND SUPPORTS: MSS SP-58, TYPES 1 THROUGH 58, FACTORY-FABRICATED COMPONENTS. GALVANIZED METALLIC COATINGS: PREGALVANIZED OR HOT DIPPED. NONMETALLIC COATINGS: PLASTIC COATING, JACKET, OR LINER.
B. TRAPEZE PIPE HANGERS: MSS SP-69, TYPE 59, SHOP- OR FIELD-FABRICATED PIPE-SUPPORT ASSEMBLY MADE FROM STRUCTURAL CARBON-STEEL SHAPES WITH MSS SP-58 CARBON-STEEL HANGER RODS, NUTS, SADDLES, AND U-BOLTS.

230553 IDENTIFICATION FOR HVAC PIPING AND EQUIPMENT
A. EQUIPMENT LABEL
   a. CONTENT: INCLUDE EQUIPMENT'S DRAWING DESIGNATION OR UNIQUE EQUIPMENT NUMBER, DRAWING NUMBERS WHERE EQUIPMENT IS INDICATED (PLANS, DETAILS, AND SCHEDULES), AND THE SPECIFICATION SECTION NUMBER AND TITLE WHERE EQUIPMENT IS SPECIFIED.
   b. INSTALL OR PERMANENTLY FASTEN LABELS ON EACH MAJOR ITEM OF MECHANICAL EQUIPMENT.
   c. LOCATE EQUIPMENT LABELS WHERE ACCESSIBLE AND VISIBLE.
B. PIPE LABEL
   a. GENERAL REQUIREMENTS FOR MANUFACTURED PIPE LABELS: PREPRINTED, COLOR-CODED, WITH LETTERING INDICATING SERVICE, AND SHOWING FLOW DIRECTION ACCORDING TO ASME A13.1.
C. DUCT LABEL
   a. CONTENTS: INCLUDE IDENTIFICATION OF DUCT SERVICE USING SAME DESIGNATIONS OR ABBREVIATIONS AS USED ON DRAWINGS; ALSO INCLUDE DUCT SIZE AND AN ARROW INDICATING FLOW DIRECTION.
   b. LOCATE LABELS NEAR POINTS WHERE DUCTS ENTER INTO AND EXIT FROM CONCEALED SPACES AND AT MAXIMUM INTERVALS OF 50 FEET IN EACH SPACE WHERE DUCTS ARE EXPOSED OR CONCEALED BY REMOVABLE CEILING SYSTEM.

230713 DUCT INSULATION
A. PROVIDE MAKE UP AIR DUCTWORK WITH 2" FIBERGLASS DUCT LINER WITH REINFORCED COATING SYSTEM (R-8). JOHNS MANVILLE LINACOUSTIC OR APPROVED EQUAL.

23 3113 METAL DUCTS
A. SINGLE-WALL RECTANGULAR DUCTS AND FITTINGS:
   a. COMPLY WITH SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE" BASED ON INDICATED STATIC-PRESSURE CLASS UNLESS OTHERWISE INDICATED.
   b. TRANSVERSE JOINTS: SELECT JOINT TYPES AND FABRICATE ACCORDING TO SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE," FIGURE 2-1, "RECTANGULAR DUCT/TRANSVERSE JOINTS," FOR STATIC-PRESSURE CLASS, APPLICABLE SEALING REQUIREMENTS, MATERIALS INVOLVED, DUCT-SUPPORT INTERVALS, AND OTHER PROVISIONS IN SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE."
   c. LONGITUDINAL SEAMS: SELECT SEAM TYPES AND FABRICATE ACCORDING TO SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE," FIGURE 2-2, "RECTANGULAR DUCT/LONGITUDINAL SEAMS," FOR STATIC-PRESSURE CLASS, APPLICABLE SEALING REQUIREMENTS, MATERIALS INVOLVED, DUCT-SUPPORT INTERVALS, AND OTHER PROVISIONS IN SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE."
   d. ELBOWS, TRANSITIONS, OFFSETS, BRANCH CONNECTIONS, AND OTHER DUCT CONSTRUCTION: SELECT TYPES AND FABRICATE ACCORDING TO SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE," CHAPTER 4, "FITTINGS AND OTHER CONSTRUCTION," FOR STATIC-PRESSURE CLASS, APPLICABLE SEALING REQUIREMENTS, MATERIALS INVOLVED, DUCT-SUPPORT INTERVALS, AND OTHER PROVISIONS IN SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE."
B. SINGLE-WALL ROUND DUCTS AND FITTINGS
   a. GENERAL FABRICATION REQUIREMENTS: COMPLY WITH SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE," CHAPTER 3, "ROUND, OVAL, AND FLEXIBLE DUCT," BASED ON INDICATED STATIC-PRESSURE CLASS UNLESS OTHERWISE INDICATED.
   b. TRANSVERSE JOINTS: SELECT JOINT TYPES AND FABRICATE ACCORDING TO SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE," FIGURE 3-1, "ROUND DUCT TRANSVERSE JOINTS," FOR STATIC-PRESSURE CLASS, APPLICABLE SEALING REQUIREMENTS, MATERIALS INVOLVED, DUCT-SUPPORT INTERVALS, AND OTHER PROVISIONS IN SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE."
   c. LONGITUDINAL SEAMS: SELECT SEAM TYPES AND FABRICATE ACCORDING TO SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE," FIGURE 3-2, "ROUND DUCT LONGITUDINAL SEAMS," FOR STATIC-PRESSURE CLASS, APPLICABLE SEALING REQUIREMENTS, MATERIALS INVOLVED, DUCT-SUPPORT INTERVALS, AND OTHER PROVISIONS IN SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE."
   d. TEES AND LATERALS: SELECT TYPES AND FABRICATE ACCORDING TO SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE," FIGURE 3-5, "90 DEGREE TEES AND LATERALS," AND FIGURE 3-6, "CONICAL TEES," FOR STATIC-PRESSURE CLASS, APPLICABLE SEALING REQUIREMENTS, MATERIALS INVOLVED, DUCT-SUPPORT INTERVALS, AND OTHER PROVISIONS IN SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE."
C. DUCT SEALING: SEAL DUCTS AT A MINIMUM TO THE FOLLOWING SEAL CLASSES IN ACCORDANCE WITH SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE".
   a. COMPLY WITH SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE."
   b. OUTDOOR, SUPPLY-AIR DUCTS: SEAL CLASS A.
   c. CONDITIONED SPACE, SUPPLY-AIR DUCTS IN PRESSURE CLASSES 2-INCH WG (500 PA) AND LOWER: SEAL CLASS C.
   d. CONDITIONED SPACE, SUPPLY-AIR DUCTS IN PRESSURE CLASSES HIGHER THAN 2-INCH WG (500 PA): SEAL CLASS B.
   e. CONDITIONED SPACE, EXHAUST DUCTS: SEAL CLASS B.
   f. CONDITIONED SPACE, RETURN-AIR DUCTS: SEAL CLASS C.

23 3300 AIR DUCT ACCESSORIES
A. ASSEMBLY DESCRIPTION
   a. COMPLY WITH SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS – METAL AND FLEXIBLE" FOR ACCEPTABLE MATERIALS, MATERIAL THICKNESSES, AND DUCT CONSTRUCTION METHODS UNLESS OTHERWISE INDICATED. SHEET METAL MATERIALS SHALL BE FREE OF PITTING, SEAM MARKS, ROLLER MARKS, STAINS, DISCOLORATION, AND OTHER IMPERFECTIONS.
B. DAMPERS
   a. MAXIMUM AIR VELOCITY: 2000 FPM
   b. MAXIMUM SYSTEM PRESSURE: 2-INCH WG.

23 3400 HVAC FANS
A. PROVIDE EXHAUST FANS AS SCHEDULED.

23 3713 AIR DEVICES
A. PROVIDE AIR DEVICES AS SCHEDULED.

23 7423 MAKE UP AIR UNITS
A. PROVIDE MAKE UP AIR UNITS AS SCHEDULED.

23 8239 UNIT HEATERS
A. PROVIDE UNIT HEATERS AS SCHEDULED.

PART 3 – EXECUTION

A. UPON SUBSTANTIAL COMPLETION OF THE PROJECT AND PRIOR TO MECHANICAL CONTRACTOR'S REQUEST FOR FINAL INSPECTION, THE CONTRACTOR SHALL FURNISH TO THE GENERAL CONTRACTOR FOR REVIEW, ONE (1) SET OF OPERATION AND MAINTENANCE MANUALS ON ONE (1) THUMB DRIVE MEMORY USB STICKS. O&M MANUALS SHALL MINIMALLY INCLUDE THE FOLLOWING:

   a. STARTUP AND SHUTDOWN PROCEDURES FOR EACH MAJOR PIECE OF EQUIPMENT.
   b. OPERATING INSTRUCTIONS OUTLINING THE SAFE AND EFFICIENT OPERATION OF EACH MAJOR PIECE OF EQUIPMENT.
   c. EQUIPMENT LIST OF EACH MAJOR PIECE OF EQUIPMENT INCLUDING THE MAKE, MODEL, SERIAL NUMBER (IF APPLICABLE), VOLTAGE, PHASE, # WIRES, AMPACITY AND ALL OTHER INDUSTRY STANDARD NAMEPLATE DATA.
   d. SERVICE INSTRUCTIONS OUTLINING THE RECOMMENDED SPARE PARTS, ALONG WITH THE CONTACT INFORMATION FOR THE LOCAL SUPPLIER AND/OR FACTORY REPRESENTATIVE(S), AND THE RECOMMENDED FREQUENCY OF SERVICE OF EACH MAJOR PIECE OF EQUIPMENT.
   e. COPIES OF REVIEWED/APPROVED SHOP DRAWINGS/SUBMITTALS.
   f. AS-BUILT/RECORD DRAWINGS AND DOCUMENTATION.
   g. GUARANTEES/WARRANTIES.
   h. INSPECTION CARDS AND APPROVALS.
   i. NAME OF OWNER, ARCHITECT, ENGINEER OF RECORD, CONTRACTOR AND ALL SUB-CONTRACTORS.

MECHANICAL ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR	HRCU	HEAT RECOVERY CONDENSING UNIT
AHJ	AUTHORITY HAVING JURISDICTION	HWCP	HOT WATER CIRC. PUMP
AHU	AIR HANDLING UNIT	HX	HEAT EXCHANGER
AIP	ABANDON IN PLACE	IOM	INSTALLATION & OPERATION MANUAL
AL	ALUMINUM	ID	INSIDE DIAMETER
ALT	ALTERNATE	IR	INFRA-RED TUBE HEATER (GAS)
AP	ACCESS PANEL	IV	INTAKE VENTILATOR
AS	AIR SEPARATOR	KEF	KITCHEN EXHAUST FAN
ATC	AUTOMATIC TEMPERATURE CONTROL VALVE	LLSV	LIQUID LINE SOLENOID VALVE
ATR	ALL THREAD ROD	LV	LOUVER
ATU	AIR TERMINAL UNIT	LPG	LIQUEFIED PETROLEUM GAS (PROPANE)
AV	MANUAL AIR VENT	MAX	MAXIMUM
BB	BASEBOARD HEATER	MC	MECHANICAL WORK CONTRACTOR
BDD	BACK DRAFT DAMPER	MCA	MINIMUM CIRCUIT AMPERES
BMS	BUILDING MANAGEMENT SYSTEM	MD	MANUAL DAMPER
BOD	BOTTOM OF DUCT	MIN	MINIMUM
BOE	BOTTOM OF EQUIPMENT	MOCP	MAXIMUM OVER CURRENT PROTECTION
BOP	BOTTOM OF PIPE	MTD	MOUNTED
BS	BRANCH SELECTOR - DAIKIN	MUA	MAKE-UP AIR
CH	CHILLER	MUW	MAKE UP WATER
CLG	CEILING	NC	NORMALLY CLOSED
CO	CARBON MONOXIDE	NIC	NOT IN CONTRACT
CO2	CARBON DIOXIDE	NO	NORMALLY OPEN
CR	CONDENSER WATER RETURN	OA	OUTDOOR AIR
CRAC	COMPUTER ROOM AIR CONDITIONER	OD	OUTSIDE DIAMETER
CRCU	COMPUTER ROOM CONDENSING UNIT	OX	OXYGEN
CS	CONDENSER WATER SUPPLY	PC	PLUMBING WORK CONTRACTOR
CSST	CORRUGATED STAINLESS STEEL TUBING	PCF	POUNDS/CUBIC FOOT
CT	COOLING TOWER	PSG	PUMP SUCTION GUIDE
CU	CONDENSING UNIT	PT	PRESSURE TREATED
CUH	CABINET UNIT HEATER	PVC	POLYVINYL CHLORIDE
DDC	DIRECT DIGITAL CONTROL	RA	RETURN AIR
DISC	DISCONNECT	RAH	RELIEF AIR HOOD
DLSS	DUCTLESS SPLIT SYSTEM	RF	RETURN FAN
DN	DOWN	RG	RETURN GRILLE
DPS	DIFFERENTIAL PRESSURE SWITCH	RL	EXISTING DEVICE RELOCATED
(E)	EXISTING	RTD	RESISTANCE TEMPERATURE DETECTOR
EA	EXHAUST AIR	RTU	ROOF TOP UNIT
EBB	ELECTRIC BASE BOARD	RV	RELIEF VENTILATOR
EC	ELECTRICAL WORK CONTRACTOR	SA	SUPPLY AIR
EF	EXHAUST FAN	SF	SUPPLY FAN
EG	EXHAUST GRILLE	SG	SUPPLY GRILLE
EMS	ENERGY MANAGEMENT SYSTEM	SMS	SHEET METAL SCREW
EQPT	EQUIPMENT	SS	STAINLESS STEEL
ERV	ENERGY RECOVERY VENTILATOR	TA	TRANSFER AIR
ET	EXPANSION TANK	TEMP	TEMPORARY
EUH	ELECTRIC UNIT HEATER	TOD	TOP OF DUCT
EWC	ELECTRIC WATER COOLER	TOP	TOP OF PIPE
EWH	ELECTRIC WATER HEATER	TXV	THERMAL EXPANSION VALVE
EXH	EXHAUST	TYP	TYPICAL
FC	FLEX CONNECTION	UH	UNIT HEATER
FCU	FAN COIL UNIT	UON	UNLESS OTHERWISE NOTED
FD	FIRE DAMPER	UNV	UNIVERSAL
FPC	FIRE PROTECTION CONTRACTOR	UTR	UP THROUGH ROOF
FRT	FIRE-RETARDANT-TREATED	VAV	VARIABLE AIR VOLUME
FSD	FIRE/SMOKE DAMPER	VFD	VARIABLE FREQUENCY DRIVE
FSEC	FOOD SERVICE EQPT. CONTRACTOR	VRF	VARIABLE REFRIGERANT FLOW
FTU	FAN TERMINAL UNIT	VRV	VARIABLE REFRIGERANT VOLUME
FV	FIELD VERIFY	VSD	VARIABLE SPEED DRIVE
GC	GENERAL WORK CONTRACTOR	W/	WITH
GF	GAS FURNACE	WP	WEATHERPROOF
GWH	GAS WATER HEATER	WSHP	WATER SOURCE HEAT PUMP
HP	HEAT PUMP or HORSEPOWER	XFMR	TRANSFORMER

MECHANICAL SYMBOLS

DUCT AND DAMPERS

- SUPPLY AIR DUCT UP
- SUPPLY AIR DUCT DOWN
- RETURN AIR DUCT UP
- RETURN AIR DUCT DOWN
- EXHAUST AIR DUCT UP
- EXHAUST AIR DUCT DOWN
- CHANGE IN DUCT SIZE
- TURNING VANES
- FLEXIBLE DUCT CONNECTION
- HORIZONTAL LIFE SAFETY DAMPER
- VERTICAL LIFE SAFETY DAMPER
- MOTORIZED AUTOMATIC DAMPER (MAD)
- MD MANUAL DAMPER
- EXISTING DUCT TO REMAIN
- EXISTING TO BE DEMOLISHED
- DUCT INSULATION TAG
- A PIPE/DUCT IN ATTIC
- B PIPE/DUCT BELOW FLOOR OR GRADE
- C PIPE/DUCT ABOVE CEILING
- D EXPOSED DUCT, W/ MILL PHOSPHATIZED FINISH
- R PIPE/DUCT ON ROOF

SYMBOLS AND TAGS

- CO_2 CARBON DIOXIDE DETECTOR
- CO CARBON MONOXIDE DETECTOR
- H HUMIDISTAT
- M MANOMETER
- PS PRESSURE SWITCH
- P RETURN AIR SMOKE DETECTOR
- E REF REFRIGERANT (Rxxx) DETECTOR
- REFRIGERANT LEAK HORN-STROBE
- T THERMOSTAT (48" AFF UON)
- N NEW CONNECTION TO EXISTING (VERIFY SIZE AND LOCATION IN FIELD)
- # KEYED NOTE SYMBOL
- REVISION SYMBOL
- XX EQUIPMENT CALLOUT
- GRILLE/DIFFUSER CALLOUT (XX DIFFUSER TYPE MARK, XX AIR FLOW (CFM), XX DIFFUSER NECK SIZE AND BRANCH DUCT UNO)
- XX LIFE SAFETY DAMPER CALLOUT

MECHANICAL PIPING

- A COMPRESSED AIR LINE
- CD CONDENSATE DRAIN
- CD CONDENSATE DRAIN BELOW FLOOR OR GRADE
- CR CONDENSER WATER RETURN
- CS CONDENSER WATER SUPPLY
- CHR CHILLED & HOT WATER RETURN
- CHS CHILLED & HOT WATER SUPPLY
- CWR CHILLED WATER RETURN
- CWS CHILLED WATER SUPPLY
- D DRAIN LINE
- G GAS LINE
- HG HOT GAS LINE
- HPWR HEAT PUMP WATER RETURN
- HPWS HEAT PUMP WATER SUPPLY
- HPC HIGH PRESSURE CONDENSATE
- HWR HOT WATER RETURN
- HPS HIGH PRESSURE STEAM
- HWS HOT WATER SUPPLY
- LPC LOW PRESSURE CONDENSATE
- LPG LIQUEFIED PETROLEUM GAS (PROPANE)
- LPS LOW PRESSURE STEAM
- MPC MEDIUM PRESSURE CONDENSATE
- MPS MEDIUM PRESSURE STEAM
- MUW MAKE-UP WATER
- RL REFRIGERANT LIQUID LINE
- RN RADON MITIGATION SYSTEM
- RS REFRIGERANT SUCTION LINE
- TYPE EXISTING PIPE TO BE REMOVED
- TYPE EXISTING PIPE TO BE REMOVED
- TYPE (E) EXISTING PIPING

PIPING SYMBOLS

- AUTOMATIC AIR VENT (AAV)
- AUTOMATIC FLOW CONTROL VALVE
- AUTOMATIC TEMPERATURE CONTROL VALVE (3-WAY)
- AUTOMATIC TEMPERATURE CONTROL VALVE (2-WAY)
- PRESSURE RELIEF VALVE
- BALL VALVE (BV)
- CHECK VALVE (CV)
- CIRCUIT SETTER (CS)
- COMPRESSED AIR QUICK-CONNECT
- CONCENTRIC PIPE REDUCER
- ECCENTRIC PIPE REDUCER
- EMERGENCY GAS SHUT-OFF VALVE
- FLEXIBLE PIPE CONNECTION
- GAS SHUT-OFF VALVE (SOV)
- GATE VALVE (GT. V.)
- GEAR OPERATED BUTTERFLY VALVE
- GLOBE VALVE (GL. V.)
- HOSE END VALVE
- MANUAL AIR VENT (MAV)
- PETE'S PLUG (TEMPERATURE & PRESSURE PORT)
- PLUG VALVE
- PRESSURE GAUGE
- PRESSURE REDUCING VALVE (PRV)
- STRAINER (STR)
- STRAINER WITH BLOWDOWN
- THERMOMETER
- TRIPLE DUTY VALVE (TDV)
- VALVE IN RISER
- WATER METER

WISCONSIN PROFESSIONAL ENGINEER
MARCUS A. EDSTEIN
E-49038
ST. PETERS
MO
12/17/25

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REVISIONS:

NOTICE TO BIDDERS
BIDDERS SHALL REVIEW ALL DRAWINGS AND SPECIFICATION SECTIONS TO DETERMINE THE IMPACT OF OTHER SECTIONS OF WORK ON THEIR OWN WORK.

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DATE ISSUED: DECEMBER 17TH, 2025
FACILITY EXPANSION FOR
VOLLRATH COMPANY LLC
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1135A MICHIGAN AVE., SHEBOYGAN, WI 53081 | (920) 452-4444 | 313 N. PLANKINTON AVE SUITE 208, MILWAUKEE, WI 53203
PERMIT SET

DRAWN BY: ENGENUITY, llc
CHECKED BY: MAE

MECHANICAL SYMBOLS AND ABBREVIATIONS

M
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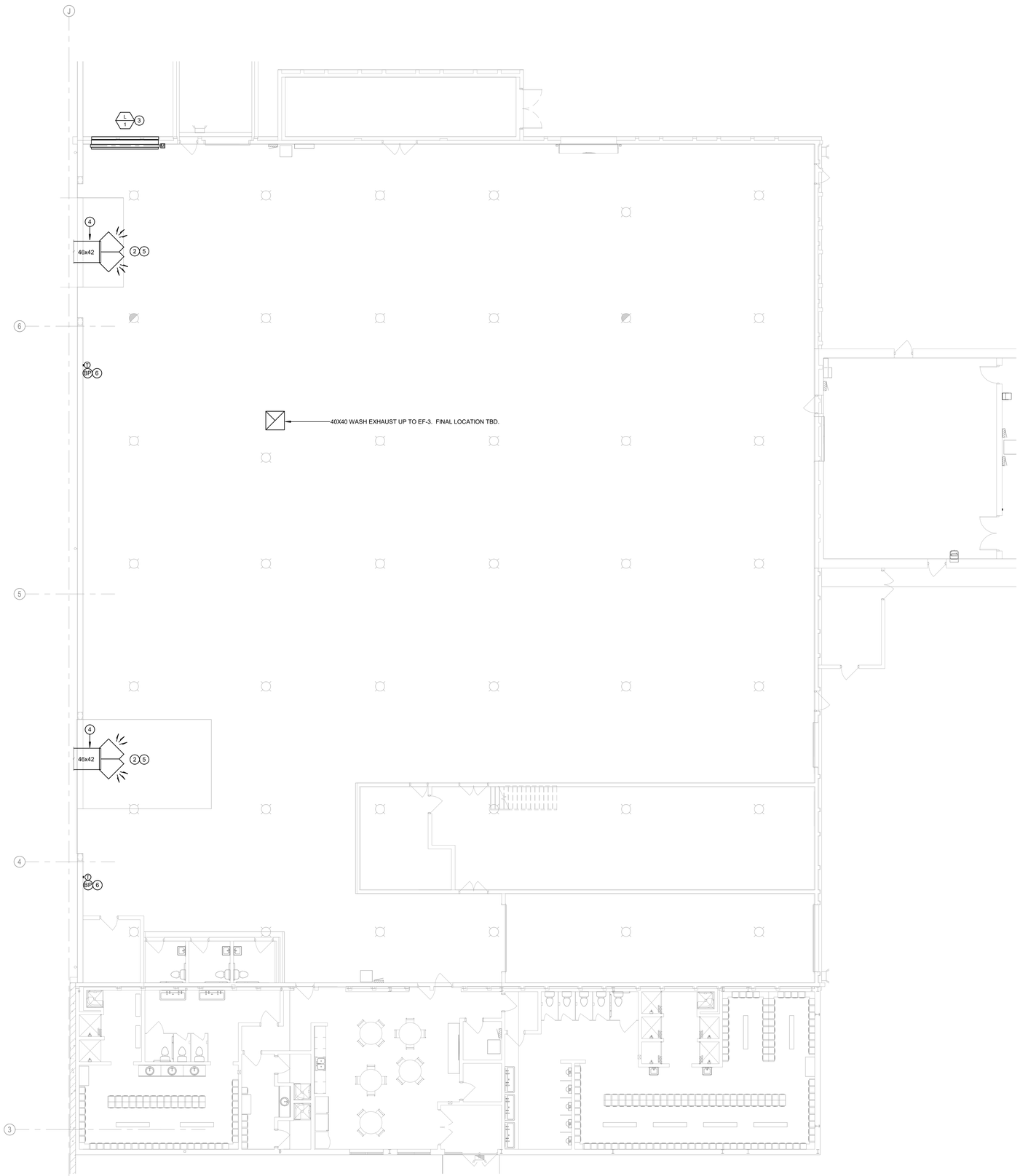
PROJ. NO. 25-0011



N 1 M 201.1 PARTIAL FLOOR PLAN - BUILDING 18 - MECHANICAL
SCALE: 1/8" = 1'-0"

KEYED NOTES

1. TERMINATE DUCT DROP WITH FACTORY PROVIDED 4-WAY DIFFUSER. PROVIDE TRANSITION BETWEEN DUCTWORK AND DIFFUSER AS REQUIRED.
2. TERMINATE DUCT WITH FACTORY PROVIDED 2-WAY DIFFUSER. PROVIDE TRANSITION BETWEEN DUCTWORK AND DIFFUSER AS REQUIRED.
3. PROVIDE LOUVER WITH MOTORIZED DAMPER. BUILDING CONTROLS SHALL MODULATE LOVER POSITION TO MAINTAIN BUILDING PRESSURE.
4. MOUNT BOTTOM OF DUCT APPROXIMATELY 15'-6" AFF.
5. MAU PROVIDED WITH 0-10VDC EXTERNAL SIGNAL SUPPLY FAN CONTROL AND DISCHARGE AIR TEMPERATURE CONTROL. CONTRACTOR SHALL PROVIDE CONTROLLER AND SPACE PRESSURE SENSORS TO MODULATE SUPPLY FAN SPEED TO MAINTAIN SPACE PRESSURE AND MODULATE GAS BURNER TO MAINTAIN SPACE TEMPERATURE.
6. AMOUNT AND LOCATION OF BUILDING PRESSURE SENSORS TO BE COORDINATED WITH CONTROLS CONTRACTOR.
7. MOUNT ELECTRIC UNIT HEATER ON WALL WITH FACTORY PROVIDED HANGING BRACKET.
8. ACTIVATE EXHAUST FAN UPON A CALL FOR COOLING FROM WALL MOUNTED THERMOSTAT.
9. PROVIDE LOUVER WITH INTEGRAL CONTROL DAMPER. DAMPER SHALL BE INTERLOCKED WITH EXHAUST FAN AND OPEN UPON ACTIVATION.

ENGENUITY
BUILDING VALUE BY DESIGN
17057 N. OUTER FORTY ROAD
SUITE 147
CHESTERFIELD, MO 63005
P: (314) 8199189
www.theENGENUITY.com

REVISIONS:

NOTICE TO BIDDERS
BIDDERS SHALL REVIEW ALL DRAWINGS AND SPECIFICATION SECTIONS TO DETERMINE THE IMPACT OF OTHER SECTIONS OF WORK ON THEIR OWN WORK

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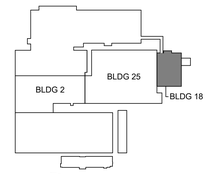
WISCONSIN
MARCUS A. EDSTEIN
E-49038
ST. PETERS
MO
PROFESSIONAL ENGINEER
12/17/25



N KEY PLAN
NO SCALE

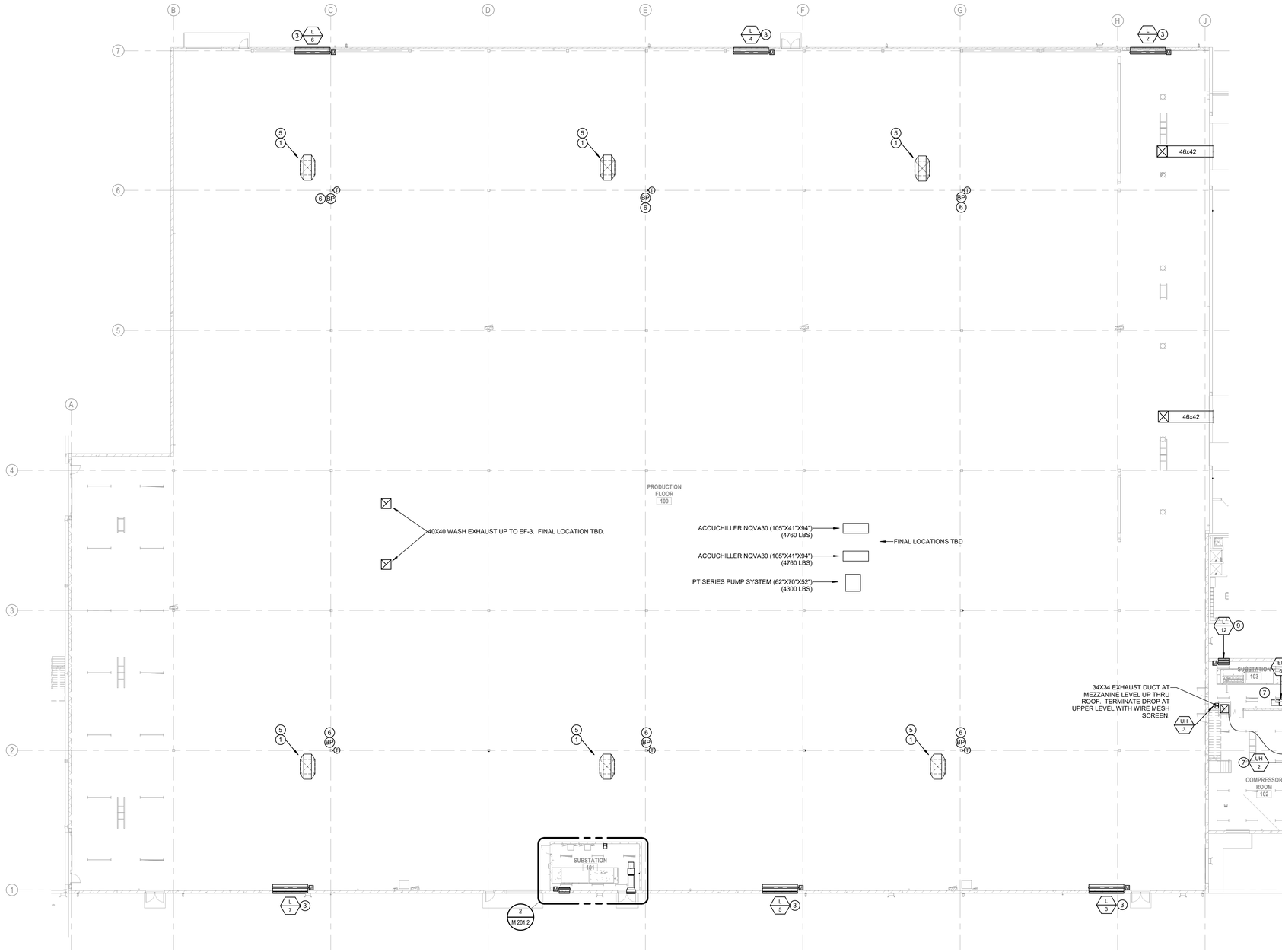
DATE ISSUED: DECEMBER 17TH, 2025
FACILITY EXPANSION FOR
VOLLRATH COMPANY LLC
1236 NORTH 18th STREET, SHEBOYGAN WI 53081
1135A MICHIGAN AVE. SHEBOYGAN, WI 53081 | (920) 452-4444 | 3151 N. PLANKINTON AVE SUITE 208. MILWAUKEE, WI 53203
PERMIT SET

DRAWN BY: ENGENUITY, llc
CHECKED BY: MAE

PARTIAL FLOOR PLAN - BUILDING 18

M
201.1

PROJ. NO. 25-0011

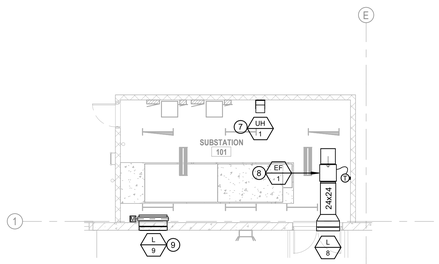


KEYED NOTES

1. TERMINATE DUCT DROP WITH FACTORY PROVIDED 4-WAY DIFFUSER. PROVIDE TRANSITION BETWEEN DUCTWORK AND DIFFUSER AS REQUIRED.
2. TERMINATE DUCT WITH FACTORY PROVIDED 2-WAY DIFFUSER. PROVIDE TRANSITION BETWEEN DUCTWORK AND DIFFUSER AS REQUIRED.
3. PROVIDE LOUVER WITH MOTORIZED DAMPER. BUILDING CONTROLS SHALL MODULATE LOVER POSITION TO MAINTAIN BUILDING PRESSURE.
4. MOUNT BOTTOM OF DUCT APPROXIMATELY 15'-6" AFF.
5. MAU PROVIDED WITH 0-10VDC EXTERNAL SIGNAL SUPPLY FAN CONTROL AND DISCHARGE AIR TEMPERATURE CONTROL. CONTRACTOR SHALL PROVIDE CONTROLLER AND SPACE PRESSURE SENSORS TO MODULATE SUPPLY FAN SPEED TO MAINTAIN SPACE PRESSURE AND MODULATE GAS BURNER TO MAINTAIN SPACE TEMPERATURE.
6. AMOUNT AND LOCATION OF BUILDING PRESSURE SENSORS TO BE COORDINATED WITH CONTROLS CONTRACTOR.
7. MOUNT ELECTRIC UNIT HEATER ON WALL WITH FACTORY PROVIDED HANGING BRACKET.
8. ACTIVATE EXHAUST FAN UPON A CALL FOR COOLING FROM WALL MOUNTED THERMOSTAT.
9. PROVIDE LOUVER WITH INTEGRAL CONTROL DAMPER. DAMPER SHALL BE INTERLOCKED WITH EXHAUST FAN AND OPEN UPON ACTIVATION.

N 1 M 201.2 PARTIAL FLOOR PLAN - BUILDING 25 - MECHANICAL

SCALE: 1/16" = 1'-0"



2 M 201.2 SUBSTATION 101

SCALE: 1/8" = 1'-0"

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DATE ISSUED: DECEMBER 17TH, 2025

FACILITY EXPANSION FOR

VOLLRATH COMPANY LLC

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1135A MICHIGAN AVE. SHEBOYGAN, WI 53081 | (920) 452-4444 | 313 N. PLANKINTON AVE SUITE 208. MILWAUKEE, WI 53203

PERMIT SET

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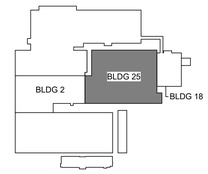
MARCUS A. ECKSTEIN
E-49038
ST. PETERS
MO
PROFESSIONAL ENGINEER

12/17/25



N KEY PLAN
NO SCALE

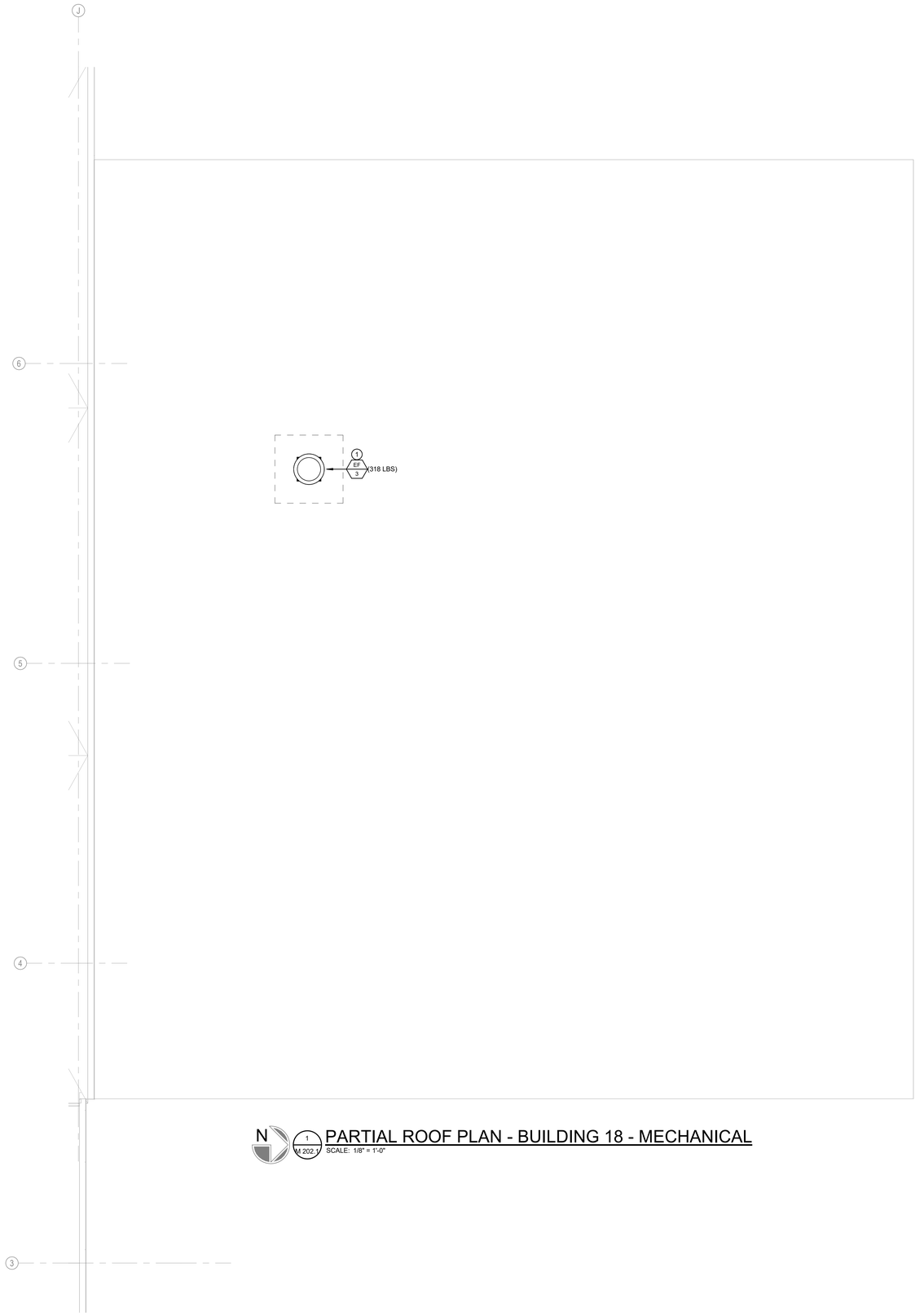
DRAWN BY: ENGENUITY, llc

CHECKED BY: MAE

PARTIAL FLOOR PLAN - BUILDING 25

M
201.2

PROJ. NO. 25-0011



KEYED NOTES

1. WASH EXHAUST FAN LOCATION IS APPROXIMATE AND SHALL BE COORDINATED WITH FINAL PLANT LAYOUT.
2. CHILLER HEAT REJECTION LOCATION IS APPROXIMATE AND SHALL BE COORDINATED WITH FINAL PLANT LAYOUT.

N

1 / M 202.1

PARTIAL ROOF PLAN - BUILDING 18 - MECHANICAL

SCALE: 1/8" = 1'-0"

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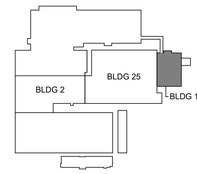
12/17/25



N

KEY PLAN
NO SCALE

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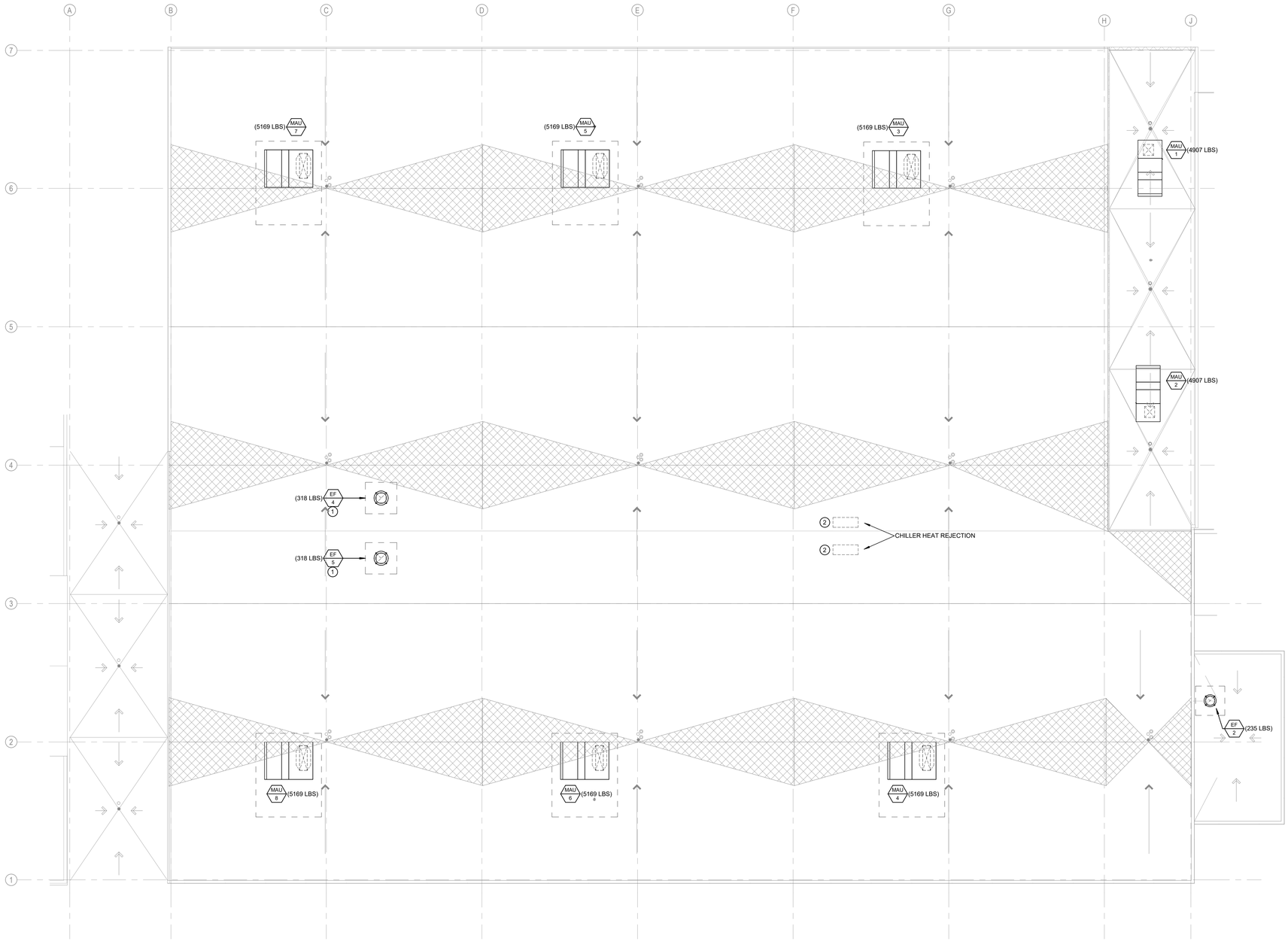
ROOF PLAN - BUILDING 18

M
202.1

PROJ. NO. 25-0011



KEYED NOTES

1. WASH EXHAUST FAN LOCATION IS APPROXIMATE AND SHALL BE COORDINATED WITH FINAL PLANT LAYOUT.
2. CHILLER HEAT REJECTION LOCATION IS APPROXIMATE AND SHALL BE COORDINATED WITH FINAL PLANT LAYOUT.

N 1 M 202.2 PARTIAL ROOF PLAN - BUILDING 25 - MECHANICAL
SCALE: 1/16" = 1'-0"

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WISCONSIN PROFESSIONAL ENGINEER
MARCUS A. ECKSTEIN
E-49038
ST. PETERS
MO
12/17/25

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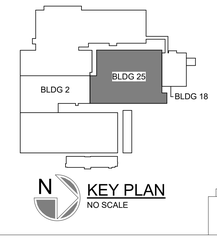
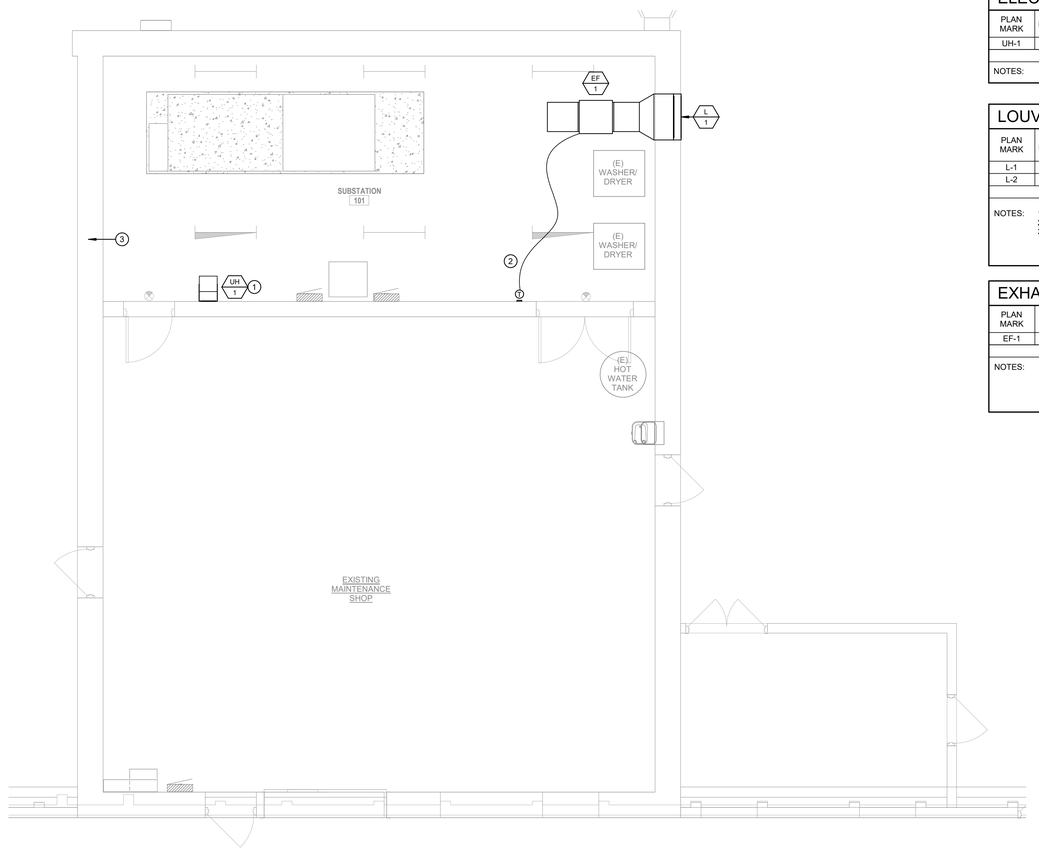
ROOF PLAN - BUILDING 25

M
202.2

PROJ. NO. 25-0011



N KEY PLAN
NO SCALE



1 / M 300 PARTIAL FLOOR PLAN - BUILDING 18 SUBSTATION - MECHANICAL
SCALE: 1/4" = 1'-0"

KEYED NOTES

1. MOUNT ELECTRIC UNIT HEATER ON WALL WITH FACTORY PROVIDED HANGING BRACKET.
2. ACTIVATE EXHAUST FAN UPON A CALL FOR COOLING FROM WALL MOUNTED THERMOSTAT.
3. PROVIDE LOUVER WITH INTEGRAL CONTROL DAMPER. DAMPER SHALL BE INTERLOCKED WITH EXHAUST FAN AND OPEN UPON ACTIVATION.

SCHEDULES AND NOMENCLATURE APPLICABLE TO BUILDING 18 SUBSTATION SCOPE OF WORK

ELECTRIC HEATING EQUIPMENT SCHEDULE - BUILDING 18 SUBSTATION

PLAN MARK	MANUFACTURER	MODEL NUMBER	KW	CFM	VOLT / PH	AMPS	WEIGHT (LBS)	NOTES
UH-1	BERKO	HUH548SA	5	270	480/3	6.0	31	1

NOTES: 1. FURNISH UNIT WITH WALL MOUNTING BRACKET, INTEGRAL THERMOSTAT, AND DISCONNECT SWITCH.

LOUVER SCHEDULE - BUILDING 18 SUBSTATION

PLAN MARK	MANUFACTURER	MODEL NUMBER	NOMINAL SIZE	FREE AREA (SQ.FT.)	FACE VELOCITY (FPM)	PRESSURE DROP (IN W.C)	FINISH	NOTES
L-1	GREENHECK	ESD-435	36X36	4.7	860	0.1	MILL	1
L-2	GREENHECK	ECD-401	44X44	6.2	1018	0.09	MILL	1,2,3

NOTES:
1. PROVIDE WITH ALUMINUM BIRDSCREEN AND MOUNTING FLANGE. VERIFY FINISH AND COLOR WITH ARCHITECT.
2. PROVIDE CONTROL DAMPER WITH MOTORIZED ACTUATOR. COORDINATE ACTUATOR VOLTAGE WITH E.C.
3. INTERLOCK EXHAUST FAN OPERATION WITH LOUVER OPENING.

EXHAUST FAN SCHEDULE - BUILDING 18 SUBSTATION

PLAN MARK	MANUFACTURER	MODEL NUMBER	CFM	E.S.P. (IN. WC)	HP (WATT)	RPM	DRIVE	SONES	VOLT / PH	MCA	MOCP	WEIGHT	NOTES
EF-1	GREENHECK	SQ-160-VG	4000	0.5	2	1563	DIRECT	--	208/1	15.6	25	157	1

NOTES: 1. FURNISH FAN WITH FACTORY MOUNTED DISCONNECT, MOTOR MOUNTED FAN SPEED CONTROLLER, BACKDRAFT DAMPER, ISOLATOR KIT, AND BIRDSCREEN. FAN SPEED CONTROLLER FURNISHED BY M.C., INSTALLED BY E.C. COORDINATE PRIOR TO CONSTRUCTION.

N SUBSTATION KEY PLAN
NO SCALE

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BUILDING VALUE BY DESIGN
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12/17/25

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BUILDING 18
SUBSTATION

M
300

PROJ. NO. 25-0011

SCHEDULES AND NOMENCLATURE APPLICABLE TO FACTORY SCOPE OF WORK

EXHAUST FAN SCHEDULE

PLAN MARK	MANUFACTURER	MODEL NUMBER	CFM	E.S.P. (IN. WC)	HP (WATT)	RPM	DRIVE	SONES	VOLT / PH	MCA	MOCP	WEIGHT	NOTES
EF-1	GREENHECK	SQ-160-VG	4000	0.5	2	1563	DIRECT	--	208/1	15.6	25	157	1
EF-2	GREENHECK	GB-300	12000	0.65	5	840	BELT	--	460/3	9.5	15	235	2
EF-3	GREENHECK	GB-360	15000	0.65	5	644	BELT	--	460/3	9.5	15	318	2
EF-4	GREENHECK	GB-360	15000	0.65	5	644	BELT	--	460/3	9.5	15	318	2
EF-5	GREENHECK	GB-360	15000	0.65	5	644	BELT	--	460/3	9.5	15	318	2
EF-6	GREENHECK	SQ-160-VG	4000	0.5	2	1563	DIRECT	--	208/1	15.6	25	157	1

NOTES:
1. FURNISH FAN WITH FACTORY MOUNTED DISCONNECT, MOTOR MOUNTED FAN SPEED CONTROLLER, BACKDRAFT DAMPER, ISOLATOR KIT, AND BIRDSCREEN. FAN SPEED CONTROLLER FURNISHED BY M.C., INSTALLED BY E.C. COORDINATE PRIOR TO CONSTRUCTION.
2. FURNISH FAN WITH FACTORY MOUNTED DISCONNECT,BACKDRAFT DAMPER, 18" ROOF CURB, AND BIRDSCREEN.

ELECTRIC HEATING EQUIPMENT SCHEDULE

PLAN MARK	MANUFACTURER	MODEL NUMBER	KW	CFM	VOLT / PH	AMPS	WEIGHT (LBS)	NOTES
UH-1	BERKO	HUH548SA	5	270	480/3	6.0	31	1
UH-2	BERKO	HUH1048M	10	500	480/3	12.8	72	1
UH-3	BERKO	HUH548SA	5	270	480/3	6.0	31	1

NOTES: 1. FURNISH UNIT WITH WALL MOUNTING BRACKET, INTEGRAL THERMOSTAT, AND DISCONNECT SWITCH.

LOUVER SCHEDULE

PLAN MARK	MANUFACTURER	MODEL NUMBER	NOMINAL SIZE	FREE AREA (SQ.FT.)	FACE VELOCITY (FPM)	PRESSURE DROP (IN W.C)	FINISH	NOTES
L-1	GREENHECK	EACA-601	144"X144"	75.1	971	0.09	MILL	1,2,3
L-2	GREENHECK	EACA-601	144"X144"	75.1	777	0.06	MILL	1,2,3
L-3	GREENHECK	EACA-601	144"X144"	75.1	777	0.06	MILL	1,2,3
L-4	GREENHECK	EACA-601	144"X144"	75.1	777	0.06	MILL	1,2,3
L-5	GREENHECK	EACA-601	144"X144"	75.1	777	0.06	MILL	1,2,3
L-6	GREENHECK	EACA-601	144"X144"	75.1	777	0.06	MILL	1,2,3
L-7	GREENHECK	EACA-601	144"X144"	75.1	777	0.06	MILL	1,2,3
L-8	GREENHECK	ESD-635	36"X36"	4.7	860	0.1	MILL	1
L-9	GREENHECK	ECD-601	44"X44"	6.2	1018	0.09	MILL	1,2,4
L-10	GREENHECK	ECD-601	72"X72"	18.0	666	0.06	MILL	1,2,4
L-11	GREENHECK	ESD-635	36"X36"	4.7	860	0.1	MILL	1
L-12	GREENHECK	ECD-601	44"X44"	6.2	1018	0.09	MILL	1,2,4

NOTES:
1. PROVIDE WITH ALUMINUM BIRDSCREEN AND MOUNTING FLANGE. VERIFY FINISH AND COLOR WITH ARCHITECT.
2. PROVIDE CONTROL DAMPER WITH MOTORIZED ACTUATOR, COORDINATE ACTUATOR VOLTAGE WITH E.C.
3. CONTROL DAMPER TO BE MONITORED AND CONTROLLED BY BAS FOR BUILDING PRESSURE CONTROL.
4. INTERLOCK EXHAUST FAN OPERATION WITH LOUVER OPENING.

GAS MAKE-UP AIR UNIT SCHEDULE

PLAN MARK	MANUFACTURER	MODEL NUMBER	INPUT (MBH)	OUTPUT (MBH)	CFM	EXTERNAL STATIC PRESS. (IN. WC)	TEMP. RISE (°F)	HP	RPM	DRIVE	VOLT / PH	MCA	MOCP	WEIGHT (LBS)	NOTES
MAU-1	GREENHECK	DGX-133-H42	4400	4048	36,650	0.5	102	40	1725	BELT	460/3	65.9	110	4907#	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,21,22
MAU-2	GREENHECK	DGX-133-H42	4400	4048	36,650	0.5	102	40	1725	BELT	460/3	65.9	110	4907#	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,21,22
MAU-3	GREENHECK	TSU-230-H50	7000	6440	58335	0.5	102	50	1725	BELT	460/3	82.1	125	5169#	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20,21,22
MAU-4	GREENHECK	TSU-230-H50	7000	6440	58335	0.5	102	50	1725	BELT	460/3	82.1	125	5169#	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20,21,22
MAU-5	GREENHECK	TSU-230-H50	7000	6440	58335	0.5	102	50	1725	BELT	460/3	82.1	125	5169#	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20,21,22
MAU-6	GREENHECK	TSU-230-H50	7000	6440	58335	0.5	102	50	1725	BELT	460/3	82.1	125	5169#	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20,21,22
MAU-7	GREENHECK	TSU-230-H50	7000	6440	58335	0.5	102	50	1725	BELT	460/3	82.1	125	5169#	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20,21,22
MAU-8	GREENHECK	TSU-230-H50	7000	6440	58335	0.5	102	50	1725	BELT	460/3	82.1	125	5169#	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20,21,22

NOTES:
1. DOUBLE WALL W/ 1" INSULATION
2. NEOPRENE FAN ISOLATION
3. DISCHARGE AIR CONTROL
4. FACTORY VFD
5. SUPPLY FAN 0-10VDC EXTERNAL SIGNAL
6. HEATING INLET AIR SENSOR
7. DIRTY FILTER SWITCH
8. BACNET MSTP
9. INLET DAMPER END SWITCH
10. FREEZE PROTECTION - SA LOW LIMIT
11. WEATHERHOOD WITH BIRDSCREEN
12. SUPPLY AIR FILTERS - 2" ALUMINIUM
13. OUTDOOR AIR INLET DAMPER - LOW LEAKAGE
14. 24" ROOF CURB
15. MOTOR SHAFT GROUNDING
16. FLAME SENSING ROD
17. HIGH/LOW GAS PRESSURE SWITCH
18. VISUAL INDICATION VALVES
19. FACTORY 2-WAY DIFFUSER
20. FACTORY 4-WAY DIFFUSER
21. NEMA 3R DISCONNECT - LOCKABLE
22. ELECTRICAL SERVICE OUTLET

RECTANGULAR DUCT HANGER SCHEDULE

PAIR SPACING:	10 FT.		8 FT.		5 FT.		4 FT.	
DUCT PERIMETER, MAXIMUM HALF	STRAP	WIRE/ ROD	STRAP	WIRE/ ROD	STRAP	WIRE/ ROD	STRAP	WIRE/ ROD
P/2 = 30"	IN. x GA		IN. x GA		IN. x GA		IN. x GA	
	1 x 22	10 GA (.135")	1 x 22	10 GA (.135")	1 x 22	12 GA (.106")	1 x 22	12 GA (.106")
P/2 = 72"	1 x 18	3/8"	1 x 20	1/4"	1 x 22	1/4"	1 x 22	1/4"
P/2 = 96"	1 x 16	3/8"	1 x 18	3/8"	1 x 20	3/8"	1 x 22	1/4"
P/2 = 120"	1.5 x 16	1/2"	1 x 16	3/8"	1 x 18	3/8"	1 x 20	1/4"
P/2 = 168"	1.5 x 16	1/2"	1.5 x 16	1/2"	1 x 16	3/8"	1 x 18	3/8"
P/2 = 192"	NONE	1/2"	1.5 x 16	1/2"	1 x 16	3/8"	1 x 16	3/8"
P/2 = 193"+	SPECIAL ANALYSIS REQUIRED							

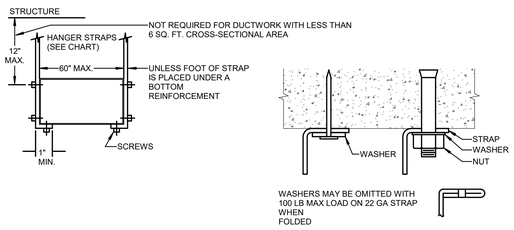
SINGLE HANGER MAXIMUM ALLOWABLE LOAD

STRAP	WEIGHT	WIRE/ ROD	WEIGHT
IN. x GA	LBS.	ø(IN.)	LBS.
1 x 22	260	0.106	80
1 x 20	320	0.135	120
1 x 18	420	0.162	160
1 x 16	700	1/4	270
1.5 x 16	1100	3/8	680
		1/2	1250
		5/8	2000
		3/4	3000

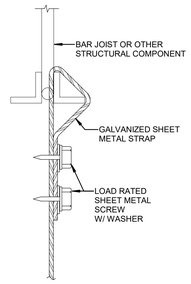
LAP JOINED STRAPS, MINIMUM FASTENERS (PLACE FASTENERS IN SERIES, NOT SIDE BY SIDE):

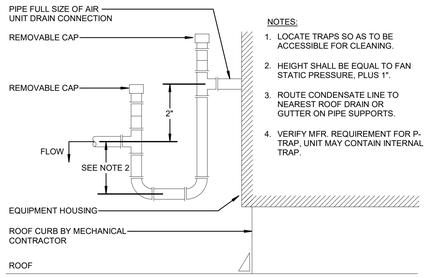
STRAP IN.xGA.	FASTENERS QTY - SIZE
1x18, 20, 22	(2) - #10 SMS or (1) - 1/4"ø BOLT
1x16	(2) - 1/4"ø BOLT
1.5x16	(2) - 3/8"ø

NOTE: TABLE ALLOWS FOR DUCT WEIGHT, 1 LB./SQ. FT. INSULATION WEIGHT, AND NORMAL REINFORCEMENT AND TRAPEZE WEIGHT.



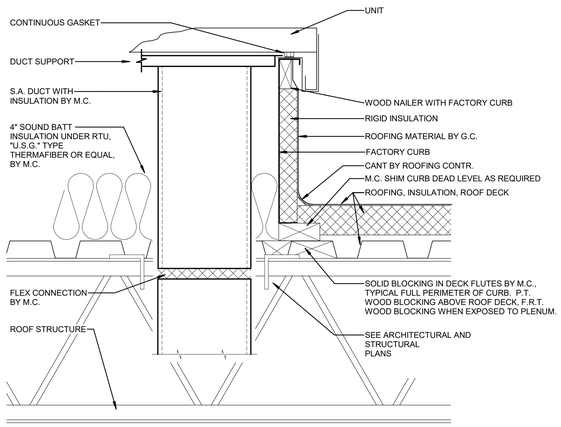
1 M 500 DUCT HANGER DETAILS
NO SCALE





2 M 500 RTU CONDENSATE DRAIN TRAP
NO SCALE

4 M 500 ROOF EXHAUST FAN DETAIL
NO SCALE



3 M 500 ROOF CURB DETAIL
NO SCALE

WISCONSIN PROFESSIONAL ENGINEER
MARCUS A ECKSTEIN
E-49038
ST. PETERS MO
12/17/25

ENGENUITY
BUILDING VALUE BY DESIGN
17057 N. OUTER FORTY ROAD
SUITE 147
CHESTERFIELD, MO 63005
P: (314) 8199189
www.theENGENUITY.com

REVISIONS:

NOTICE TO BIDDERS
BIDDERS SHALL REVIEW ALL DRAWINGS AND SPECIFICATION SECTIONS TO DETERMINE THE IMPACT OF OTHER SECTIONS OF WORK ON THEIR OWN WORK.

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DATE ISSUED: DECEMBER 17TH, 2025
FACILITY EXPANSION FOR
VOLLRATH COMPANY LLC
1236 NORTH 18th STREET, SHEBOYGAN WI 53081
1135A MICHIGAN AVE. SHEBOYGAN, WI 53081 | (920) 452-4444 | 313 N. PLANKINTON AVE SUITE 208. MILWAUKEE, WI 53203
PERMIT SET

DRAWN BY: ENGENUITY, llc
CHECKED BY: MAE

MECHANICAL SCHEDULES

M
500

PROJ. NO. 25-0011

VOLLRATH

FACILITY EXPANSION - BUILDING 25
1236 N 18TH STREET
SHEBOYGAN, WI 53081

SHEET INDEX - BUILDING 25					
SHEET NUMBER	SHEET NAME	REVISION DATE	REVISION NUMBER	REVISION DESCRIPTION	REVISION RESPONSIBILITY
BLDG25-EA001	TITLE SHEET - SHEET INDEX	12/17/2025	B	ISSUED FOR PERMIT	TJH
BLDG25-EA002	SYMBOLS LEGEND	12/17/2025	B	ISSUED FOR PERMIT	TJH
BLDG25-EB101	BUILDING 25 - MEANS AND METHODS	12/17/2025	B	ISSUED FOR PERMIT	TJH
BLDG25-EC101	BUILDING 25 - SITE POWER PLAN	12/17/2025	B	ISSUED FOR PERMIT	TJH
BLDG25-EC102	BUILDING 25 - SITE LIGHTING PLAN	12/17/2025	B	ISSUED FOR PERMIT	TJH
BLDG25-EE001	ELECTRICAL ONE-LINE DIAGRAM	12/17/2025	B	ISSUED FOR PERMIT	TJH
BLDG25-EE002	ELECTRICAL ONE-LINE DIAGRAM	12/17/2025	B	ISSUED FOR PERMIT	TJH
BLDG25-EE106	ELECTRICAL ONE-LINE DIAGRAM	12/17/2025	B	ISSUED FOR PERMIT	TJH
BLDG25-EE1001	ELECTRICAL ONE-LINE DIAGRAM	12/17/2025	B	ISSUED FOR PERMIT	TJH
BLDG25-EE1101	ELECTRICAL ONE-LINE DIAGRAM	12/17/2025	B	ISSUED FOR PERMIT	TJH
BLDG25-EF101	ELECTRICAL PANEL SCHEDULES	12/17/2025	B	ISSUED FOR PERMIT	TJH
BLDG25-EF102	ELECTRICAL PANEL SCHEDULES	12/17/2025	B	ISSUED FOR PERMIT	TJH
BLDG25-EF103	ELECTRICAL PANEL SCHEDULES	12/17/2025	B	ISSUED FOR PERMIT	TJH
BLDG25-EG101	BUILDING 25 - GROUNDING PLAN	12/17/2025	B	ISSUED FOR PERMIT	TJH
BLDG25-EG701	GROUNDING DETAILS	12/17/2025	B	ISSUED FOR PERMIT	TJH
BLDG25-EL101	BUILDING 25 OVERALL - LIGHTING PLAN	12/17/2025	B	ISSUED FOR PERMIT	TJH
BLDG25-EL101.1	BUILDING 25 NORTHWEST - LIGHTING PLAN	12/17/2025	B	ISSUED FOR PERMIT	TJH
BLDG25-EL101.2	BUILDING 25 NORTHEAST - LIGHTING PLAN	12/17/2025	B	ISSUED FOR PERMIT	TJH
BLDG25-EL101.3	BUILDING 25 SOUTHWEST - LIGHTING PLAN	12/17/2025	B	ISSUED FOR PERMIT	TJH
BLDG25-EL101.4	BUILDING 25 SOUTHEAST - LIGHTING PLAN	12/17/2025	B	ISSUED FOR PERMIT	TJH
BLDG25-EL301	BUILDING 25 SUBSTATION 101 ROOM - LIGHTING PLAN	12/17/2025	B	ISSUED FOR PERMIT	TJH
BLDG25-EL302	BUILDING 25 SUBSTATION 103 ROOM - LIGHTING PLAN	12/17/2025	B	ISSUED FOR PERMIT	TJH
BLDG25-EL303	BUILDING 25 COMPRESSOR 102 ROOM - LIGHTING PLAN	12/17/2025	B	ISSUED FOR PERMIT	TJH
BLDG25-EL701	LIGHTING DETAILS	12/17/2025	B	ISSUED FOR PERMIT	TJH
BLDG25-EL801	LIGHTING FIXTURE AND CONTROLS SCHEDULE	12/17/2025	B	ISSUED FOR PERMIT	TJH
BLDG25-EM101	BUILDING 25 - EMERGENCY LIGHTING PHOTOMETRICS	12/17/2025	B	ISSUED FOR PERMIT	TJH
BLDG25-EM301	BUILDING 25 SUBSTATION 101 ROOM - EMERGENCY LIGHTING PHOTOMETRICS	12/17/2025	B	ISSUED FOR PERMIT	TJH
BLDG25-EM302	BUILDING 25 SUBSTATION 103 ROOM - EMERGENCY LIGHTING PHOTOMETRICS	12/17/2025	B	ISSUED FOR PERMIT	TJH
BLDG25-EM303	BUILDING 25 COMPRESSOR 102 ROOM - EMERGENCY LIGHTING PHOTOMETRICS	12/17/2025	B	ISSUED FOR PERMIT	TJH
BLDG25-EP101	BUILDING 25 OVERALL - POWER PLAN	12/17/2025	B	ISSUED FOR PERMIT	TJH
BLDG25-EP101.1	BUILDING 25 NORTHWEST - POWER PLAN	12/17/2025	B	ISSUED FOR PERMIT	TJH
BLDG25-EP101.2	BUILDING 25 NORTHEAST - POWER PLAN	12/17/2025	B	ISSUED FOR PERMIT	TJH
BLDG25-EP101.3	BUILDING 25 SOUTHWEST - POWER PLAN	12/17/2025	B	ISSUED FOR PERMIT	TJH
BLDG25-EP101.4	BUILDING 25 SOUTHEAST - POWER PLAN	12/17/2025	B	ISSUED FOR PERMIT	TJH
BLDG25-EP102	BUILDING 25 ROOF - POWER PLAN	12/17/2025	B	ISSUED FOR PERMIT	TJH
BLDG25-EP301	BUILDING 25 SUBSTATION 101 ROOM - POWER PLAN	12/17/2025	B	ISSUED FOR PERMIT	TJH
BLDG25-EP302	BUILDING 25 COMPRESSOR 102 AND SUBSTATION 103 ROOM - POWER PLAN	12/17/2025	B	ISSUED FOR PERMIT	TJH
BLDG25-EP303	BUILDING 25 MEZZANINE 201 - POWER PLAN	12/17/2025	B	ISSUED FOR PERMIT	TJH

FAITH TECHNOLOGIES INCORPORATED

VOLLRATH
FACILITY EXPANSION - BUILDING 25
1236 N 18TH STREET
SHEBOYGAN, WI 53081
TITLE SHEET - SHEET INDEX

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DATE	NO.	REVISIONS:	RESP:
11/10/2025	A	ISSUED FOR CLIENT REVIEW	TJH
12/17/2025	B	ISSUED FOR PERMIT	TJH

PRELIMINARY
NOT FOR CONSTRUCTION

PROJECT NUMBER
2502928

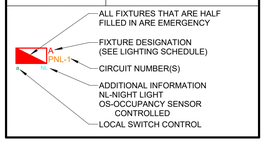
DRAWN BY: T. HERMES
DESIGNED BY: T. HERMES
APPROVED BY: T. HERMES
DATE: 07/09/2025
SCALE: NONE

SHEET
BLDG25-EA001

PLOTTED ON: 12/17/2025 11:36:08 AM ARCH E1 (30"X42")

LIGHTING SYMBOLS

	1'X4' FIXTURE
	1'X8' FIXTURE
	2'X2' FIXTURE
	2'X4' FIXTURE
	2'X4' HIGH BAY FIXTURE
	CEILING FAN
	CEILING MOUNTED
	CHANDELIER
	DOCK SWING ARM
	EMERGENCY, 2 HEAD WITH BATTERY PACK
	EMERGENCY, BATTERY PACK FOR REMOTE HEADS
	EMERGENCY, REMOTE LIGHT
	EXIT, SHADED AREA INDICATES SIDE WITH EXIT TEXT, ARROW INDICATED DIRECTION OF EXIT PATH
	HANGING BOWL
	HIGH BAY
	RECESSED CAN
	RECESSED CAN DIRECTIONAL
	STRIP
	TRACK
	TRACK HEAD
	UNDERCABINET
	WALL MOUNT
	WALL MOUNT, LINEAR
	WALL MOUNT SWING ARM
	WALL PACK
	WALL SCONCE

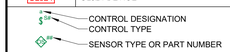


SITE LIGHTING SYMBOLS

	GROUND FLOOD LIGHT
	GROUND SPOT/POLE LIGHT
	BOLLARD
	POLE LIGHT, SINGLE
	POLE LIGHT, DOUBLE
	POLE LIGHT, TRIPLE
	POLE LIGHT, QUAD

LIGHTING CONTROLS SYMBOLS

$	SWITCH
$LM	LIGHTING CONTROL
	OCCUPANCY SENSOR
LC	LIGHTING CONTACTOR
PC	PHOTO CELL
TC	LIGHTING TIME CLOCK
LVC	LOW VOLTAGE CONTROL/OVERRIDE
LCP	LIGHTING CONTROL PANEL
	POWER PACK
DL	DAYLIGHT SENSOR
UL924	UL924 DEVICE

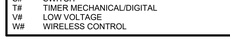


LIGHTING CONTROLS DEVICE DESIGNATIONS:

3	THREE WAY
4	FOUR WAY
DPT	DIGITAL PROGRAMMABLE TIMER
FS	FAN SPEED CONTROL
OS	OCCUPANCY SENSOR
OSD	OCCUPANCY SENSOR DUAL TECHNOLOGY
PIR	OCCUPANCY SENSOR PASSIVE INFRARED
US	OCCUPANCY SENSOR ULTRASONIC
PL	PILOT LIGHT
B#	SWITCH BANK
C#	MULTIPLE CONTROLS IN SINGLE GANG BOX
D#	DIMMER
L#	LIGHTING CONTROL STATION
M#	MOTOR/FAN SPEED CONTROL
O#	OCCUPANCY SENSOR
S#	SWITCH
T#	TIMER MECHANICAL/DIGITAL
V#	LOW VOLTAGE
W#	WIRELESS CONTROL

POWER SYMBOLS

	RECEPTACLE, SINGLE
	RECEPTACLE, DUPLEX
	RECEPTACLE, DUPLEX, ABOVE COUNTER
	RECEPTACLE, DUPLEX, FLOOR
	RECEPTACLE, DUPLEX, SWITCHED
	RECEPTACLE, DOUBLE DUPLEX
	RECEPTACLE, DOUBLE DUPLEX, FLOOR
	RECEPTACLE, DUPLEX, EMERGENCY
	RECEPTACLE, DOUBLE DUPLEX, EMERGENCY
	RECEPTACLE, DUPLEX, HOSPITAL GRADE
	RECEPTACLE, DOUBLE DUPLEX, HOSPITAL GRADE
	RECEPTACLE, DUPLEX, HOSPITAL GRADE, EMERGENCY
	RECEPTACLE, DOUBLE DUPLEX, HOSPITAL GRADE, EMERGENCY
	EQUIPMENT CONNECTION
	SPECIAL RECEPTACLE
PP	POWER POLE
FF	FURNITURE FEED
	NON-FUSED DISCONNECT
	FUSED DISCONNECT
	STARTER
	STARTER WITH DISCONNECT
	ENCLOSED CIRCUIT BREAKER
	MANUAL MOTOR STARTER
	J-BOX
	MOTOR
	SINGLE PUSH BUTTON
	TRIPLE PUSH BUTTON
	BELL
	BUZZER
DB	DISTRIBUTION BOX
	EXHAUST FAN/LIGHT COMBO
	EXHAUST FAN
T	THERMOSTAT
	TRANSFORMER
	UTILITY METER W/SERVICE WEATHER-HEAD
	PANEL

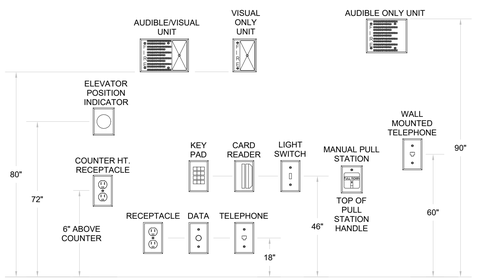


POWER DEVICE DESIGNATIONS:

C	CEILING
CD	CORD DROP
CR	CHILD RESISTANT COVER PLATE
D	DEDICATED CIRCUIT
FF	FURNITURE FEED
GFI	GROUND FAULT INTERRUPTER
IG	ISOLATED GROUND
PP	POWER POLE
REC	RECEPTACLE
TR	TAMPER RESISTANT
USB	USB PORT
WP	WEATHER PROOF
WR	WEATHER RESISTANT

GROUNDING SYMBOLS

	BUILDING GROUND CONNECTION
	EARTH GROUND
	GROUND BAR
	GROUND CABLE CADWELD/EQUIPMENT
	GROUND ROD
	GROUND ROD/TEST
	GROUND TAIL UP FOR GEAR CONNECTION
	LIGHTNING PROTECTION SYSTEM
	COPPER CABLE BELOW FINISHED GRADE
	COPPER CABLE ABOVE FINISHED GRADE
	EXISTING COPPER CABLE



NOTES:

A. VERIFY EXACT MOUNTING HEIGHTS WITH PROJECT REQUIREMENTS. DEVICES MAY OR MAY NOT APPLY TO THIS PROJECT. REFER TO PLANS.
B. ALL NEW DEVICES SHALL BE INSTALLED ACCORDING TO THE MOUNTING HEIGHTS INDICATED U.N.O.

TELECOMMUNICATION SYMBOLS

	DATA JACK
	DATA FLOOR JACK
	DATA/VOICE FLOOR JACK
	DATA/VOICE JACK
	DATA/VOICE JACK, ABOVE COUNTER
	VOICE JACK
W	WALL PHONE
AP	WIRELESS ACCESS POINT
C	DATA CEILING JACK
C	DATA/VOICE CEILING JACK
DP	DATA POLE
	COILED IN CEILING
	DATA RACK
	WALL CLOCK
	SPEAKER
	HORN SPEAKER
VC	VOLUME CONTROL
INTER	INTERCOM CONTROL PANEL
	TELEVISION
	AUDIO/VIDEO
HH	HAND HOLE

TELECOMMUNICATIONS DEVICE DESIGNATIONS:

C	CEILING MOUNTED
ER	EQUIPMENT ROOM
EX	EXISTING
IDF	INTERMEDIATE DISTRIBUTION FRAME
MDF	MAIN DISTRIBUTION FRAME
TGP	TELECOMMUNICATIONS GROUNDING BUSBAR
TMGB	TELECOMMUNICATIONS MAIN GROUNDING BUSBAR
TR	TELECOMMUNICATIONS ROOM
WP	WATER PROOF

SECURITY SYMBOLS

ACP	ACCESS CONTROL PANEL
DEP	DOOR ENTRY PANEL
IDP	INTRUSION DETECTION PANEL
	ACCESS CONTROL PUSH BUTTON
	AUTOMATIC DOOR OPERATOR
BEAM	BEAM DETECTOR
BR	BIOMETRIC READER
CR	CARD READER
CRM	CARD READER MULLION MOUNTED
CHXT	DELAYED EGRESS CRASH BAR
DC	DOOR CONTACT
DR	DURESS RECEIVER
DT	DURESS TRANSPONDER
ELR	ELECTRIC LATCH RETRACTION
EL	ELECTRIC LOCKSET
ES	ELECTRIC STRIKE
ET	ELECTRIC TRIM
	EMERGENCY EXIT BUTTON
GB	GLASS BREAK DETECTOR
IDS	INTERCOM DOOR STATION
IMS	INTERCOM MASTER STATION
KP	KEYPAD
KB	KEYBOX
LA	LOCAL ALARM
LBM	LATCH BOLT MONITOR
ML	MAGNETIC LOCK
MD	MOTION DETECTOR
NVR	NETWORK VIDEO RECORDER
OHDC	OVERHEAD DOOR CONTACT
	PANIC BUTTON
PTH	POWER TRANSFER HINGE
REX	REQUEST TO EXIT
RF	RF READER
SPS	SECURITY POWER SUPPLY
TSB	TOUCH SENSOR BAR
MON	VIDEO MONITOR
WGS	WANDER GUARD SENSOR
WGK	WANDER GUARD KEYPAD
	CAMERA 360°
	CAMERA, WALL MOUNTED
	CAMERA, CEILING MOUNTED

FIRE ALARM SYMBOLS

FAAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
NAC	NOTIFICATION APPLIANCE CIRCUIT PANEL
AMP	FIRE ALARM AMP
S	STROBE
HS	HORN / STROBE
H	HORN
HWP	HORN WATER PROOF
	SPEAKER / STROBE
	SPEAKER
P	PULL STATION
M	MONITOR MODULE
RM	RELAY MODULE
TS	TAMPER SWITCH
FS	FLOW SWITCH
LS	LOW PRESSURE SWITCH
LF	SMOKE DETECTOR
	SMOKE DETECTOR, WALL MOUNTED
LF 120V	SMOKE DETECTOR, LV
LF 120V	SMOKE DETECTOR, LV, SOUNDER BASE
LF 120V	SMOKE DETECTOR, LV, SOUNDER BASE, STROBE
FBEAM	BEAM DETECTOR
H	HEAT DETECTOR
DH	DOOR HOLDER
B	BELL
RT	REMOTE TEST STATION
BS	BYPASS SWITCH
SLD	PREACTION SOLENOID CONTROL MODULE
R	CONTROL RELAY - SMOKE DAMPER
FF	FIREFIGHTER PHONE JACK
FF	FIREFIGHTER HANDSET

FIRE ALARM DEVICE DESIGNATIONS:

FACP	FIRE ALARM CONTROL PANEL
SMCP	SMOKE CONTROL PANEL
GAP	GENERATOR ANNUNCIATOR PANEL
ECP	ELEVATOR CONTROL PANEL
EX	EXISTING
C	CEILING MOUNTED
D	DUCT
H	THERMO
LF	LOW FREQUENCY
LV	LOW VOLTAGE (240V AND DOWN)
WP	WATER PROOF

GENERAL ABBREVIATIONS

AC	ABOVE COUNTER	LCNT	LIGHTING CONTACTOR
ADO	AUTOMATIC DOOR OPENER	LCP	LIGHTING CONTROL PANEL
AFCI	ARC FAULT CIRCUIT INTERRUPTER	LF	LOW FREQUENCY
AFF	ABOVE FINISHED FLOOR		
AFG	ABOVE FINISHED GRADE	LTG	LIGHTING
AHJ	AUTHORITY HAVING JURISDICTION		
AHU	AIR HANDLING UNIT	LPNL	LOW VOLTAGE PANEL
ATS	AUTOMATIC TRANSFER SWITCH	LTPU	LONG TIME PICK UP
AWG	AMERICAN WIRE GAGE	LTS	LIGHTS
BC	BARE COPPER	LTD	LONG TIME DELAY
BD	BUS DUCT	MAU	MAKE-UP AIR UNIT
BDHV	BUS DUCT HIGH VOLTAGE	MB	MAIN BREAKER
BDLV	BUS DUCT LOW VOLTAGE	MCB	MAIN CIRCUIT BREAKER
BDSC	BREAKER DISCONNECT	MCC	MOTOR CONTROL CENTER
BOH	BACK OF HOUSE	MDP	MAIN DISTRIBUTION PANEL
C	CONDUIT, CEILING, OR CABINET	MET, M	METER
CAP	CAPACITOR BANK	MW	MICROWAVE
CB	CIRCUIT BREAKER	ML	MAIN LUG
CKT	CIRCUIT	MLO	MAIN LUG ONLY
CCTV	CLOSED CIRCUIT TV	MTD	MOUNTED
CLG	CEILING	MTR	MOTOR
CNT	CONTACTOR	N	NORTH
COND	CONDUIT	NIC	NOT IN CONTRACT
CP	CONTROL PANEL	NFSS	NON-FUSED SAFETY SWITCH
DB	DIRECT BURIAL OR DRAWOUT BREAKER	OHD	OVERHEAD DOOR
DRY	DRYER	OL	OVERLOAD
DSC	DISCONNECT	P	POLE
DV	DRIVE	PB	PULL BOX OR PUSH BUTTON
DW	DISHWASHER	PH	PHASE
E	EAST	PLBG	PLUMBING
EC	EMPTY CONDUIT OR ELECTRICAL CONTRACTOR	PNL	ELECTRICAL PANEL OR PANEL BOARD
		POD	POWER OPERATED DAMPER
EDH	ELECTRIC DUCT HEATER	PR	PRINTER
EF	EXHAUST FAN	PWR	POWER
EG	EQUIPMENT GROUND	R	RECESSED
ELEC	ELECTRIC	REC	RECEPTACLE
EM	EMERGENCY	RG	RANGE
ETR	EXISTING TO RELOCATE	RH	RANGE HOOD
EVC, VC	ELECTRIC VEHICLE CHARGER	RK	RACK
EWC	ELECTRIC WATER COOLER	RLY	RELAY
EX	EXISTING (TO REMAIN)	RTU	ROOF TOP UNIT
FA	FIRE ALARM	RUD	ROLL-UP DOOR
FAAP	FIRE ALARM ANNUNCIATOR PANEL	S	SOUTH
FB	FUSE BLOCK	SS	SAFETY SWITCH
FBO	FURNISHED BY OTHERS	STA	STATION
FCU	FAN COIL UNIT	STD	SHORT TIME DELAY
FDSC	FUSED DISCONNECT	STPU	SHORT TIME PICK UP
FIXT	FIXTURE	STR	STARTER
FL	FLUORESCENT	SWBD	SWITCH BOARD
FZ	FREEZER	SWGR	SWITCH GEAR
FSS	FUSED SAFETY SWITCH	TBD	TO BE DETERMINED
FTU	FAN TERMINAL UNIT	TEL	TELEPHONE
FU	FUSE	THS	TOP HALF SWITCH
G,GND	GROUND	TV	TELEVISION
GC	GENERAL CONTRACTOR	TYP	TYPICAL
GEN	GENERATOR	U	UPPER
GFD	GROUND FAULT DELAY	UH	UNIT HEATER
GFI	GROUND FAULT INTERRUPTER	UNO	UNLESS NOTED OTHERWISE
GFPU	GROUND FAULT PICK UP	UPS	UNINTERRUPTIBLE POWER SUPPLY
HD	HAND DRYER	URF	UNDER COUNTER REFRIGERATOR
HGT, HT	MOUNTING HEIGHT	UT	UTILITY
HP	HORSE POWER	V	VOLTAGE
HPNL	HIGH VOLTAGE PANEL	W	WEST OR WATTS
		WSH	WASHING MACHINE
HV	HIGH VOLTAGE	WG	WIRE GUARD
HVAC	HEATING AND VENTILATION	WR	WEATHER RESISTANT
INCAND	INCANDESCENT	WT	WATER TIGHT
INST	INSTANTANEOUS	WW	WIREWAY
JB	JUNCTION BOX	XFMR	TRANSFORMER
L	LOWER		

FAITH TECHNOLOGIES INCORPORATED

VOLLRATH
FACILITY EXPANSION - BUILDING 25
1236 N 18TH STREET
SHEBOYGAN, WI 53081
SYMBOLS LEGEND

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RESP.	
TJH	
TJH	

NO.	REVISIONS	DATE
	ISSUED FOR CLIENT REVIEW	11/10/2025
	ISSUED FOR PERMIT	12/17/2025

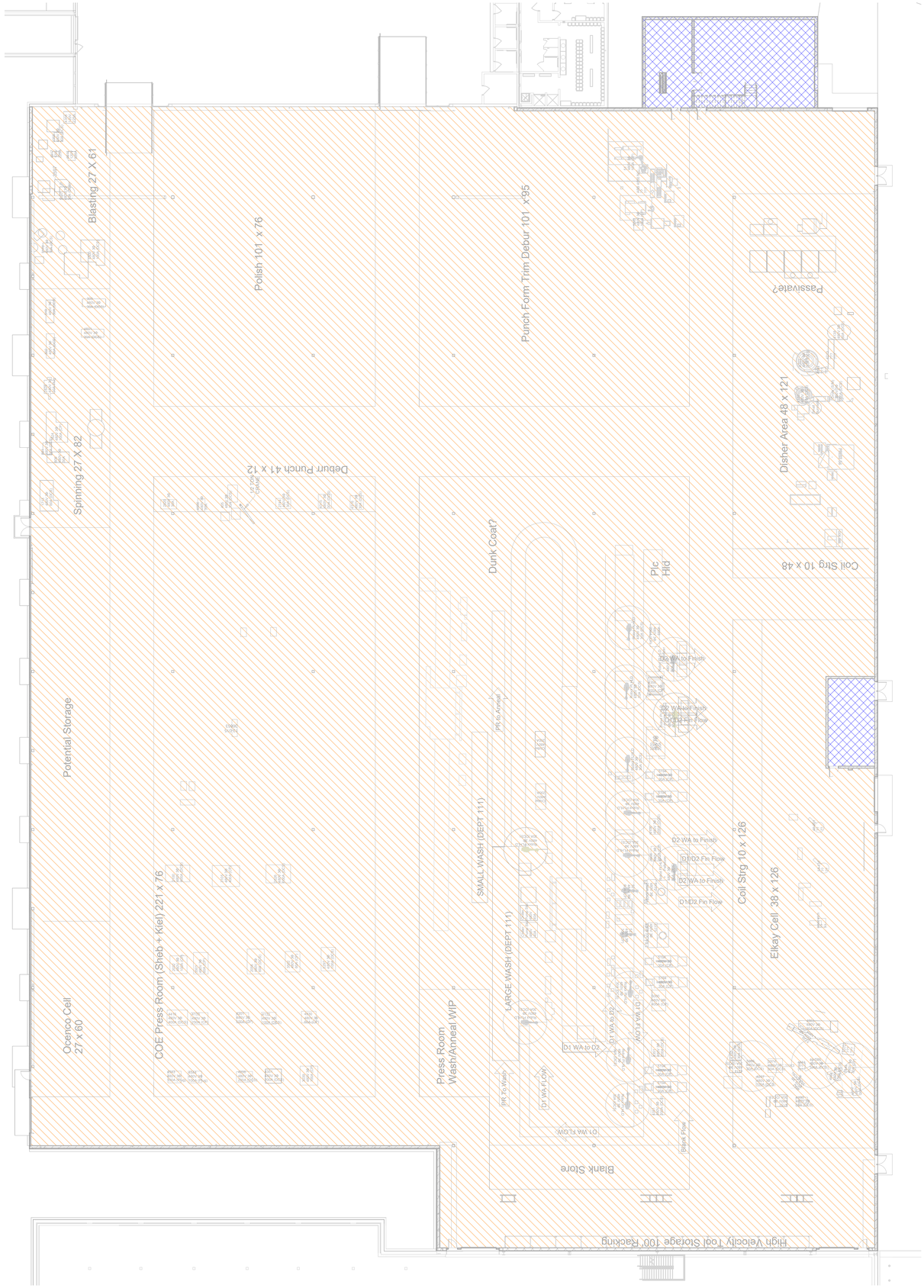
PRELIMINARY
NOT FOR CONSTRUCTION

PROJECT NUMBER
2502928

DRAWN BY: T. HERMES
DESIGNED BY: T. HERMES
APPROVED BY: T. HERMES
DATE: 07/09/2025
SCALE: NONE

SHEET
BLDG25-EA002

PLOTTED ON: 12/17/2025 11:36:09 AM
ARCH E1 (30"X42")



1 BUILDING 25 - MEANS AND METHODS

Scale: 1/16" = 1'-0"

GENERAL NOTES:

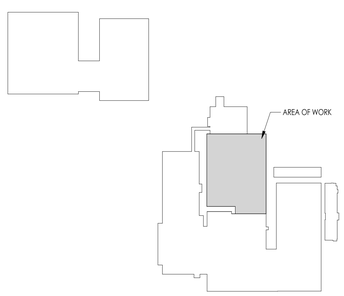
A. BUILDING 25 IS INTENDED FOR CONTINUOUS OPERATION, 3 SHIFTS, 7 DAYS PER WEEK.

B. FEEDER CIRCUITS WITH A DEMAND OF 100A AND GREATER SHALL BE ALUMINUM CONDUCTORS. FEEDER CIRCUITS WITH A DEMAND OF LESS THAN 100A SHALL BE COPPER CONDUCTORS. ALL BRANCH CIRCUITS SHALL BE COPPER CONDUCTORS.

LEGEND

ELECTRICAL/MECHANICAL ROOMS
- NEMA 1 ENCLOSURE RATING, IP54
- GALVANIZED EMT CONDUIT
- GALVANIZED STEEL HARDWARE
- GALVANIZED STEEL THREADED ROD

MANUFACTURING SPACE
- NEMA 1 ENCLOSURE RATING, IP54
- RIGID METAL CONDUIT 10'-0" AND BELOW
- GALVANIZED EMT CONDUIT ABOVE 10'-0"
- GALVANIZED STEEL HARDWARE
- GALVANIZED STEEL THREADED ROD



FAITH TECHNOLOGIES INCORPORATED

VOLLRATH
FACILITY EXPANSION - BUILDING 25
1236 N 18TH STREET
SHEBOYGAN, WI 53081
BUILDING 25 - MEANS AND METHODS

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NO:	DATE	REVISIONS:	RESP:
	11/10/2025	ISSUED FOR CLIENT REVIEW	TJH
	12/17/2025	ISSUED FOR PERMIT	TJH

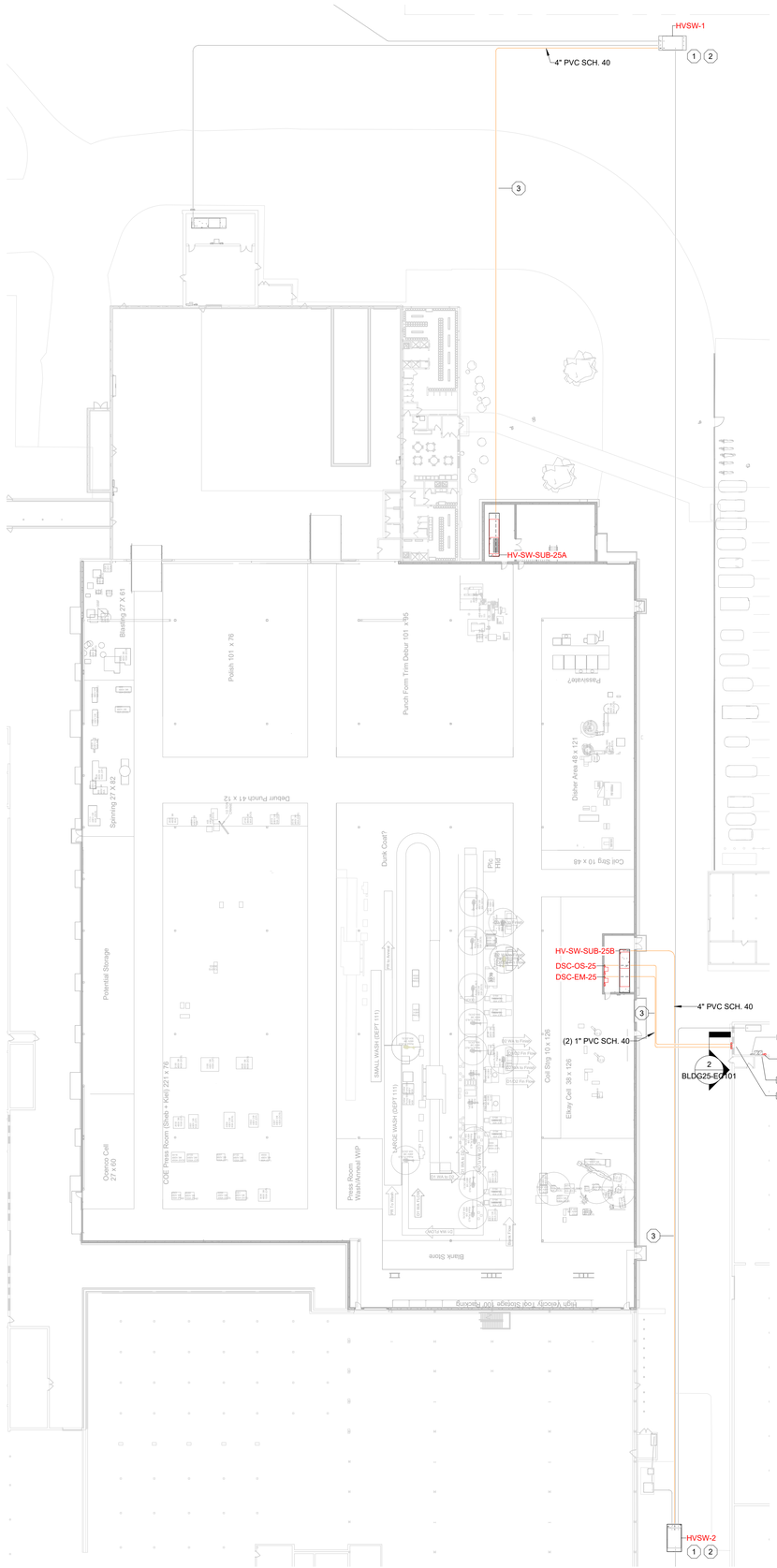
PRELIMINARY
NOT FOR CONSTRUCTION

PROJECT NUMBER
2502928

DRAWN BY:	T. HERMES
DESIGNED BY:	T. HERMES
APPROVED BY:	T. HERMES
DATE:	07/09/2025
SCALE:	As indicated

SHEET
BLDG25-EB101

PLOTTED ON: 12/17/2025 11:36:15 AM ARCH E1 (30"X42")



1 BUILDING 25 - SITE POWER PLAN

Scale: 1" = 30'-0"

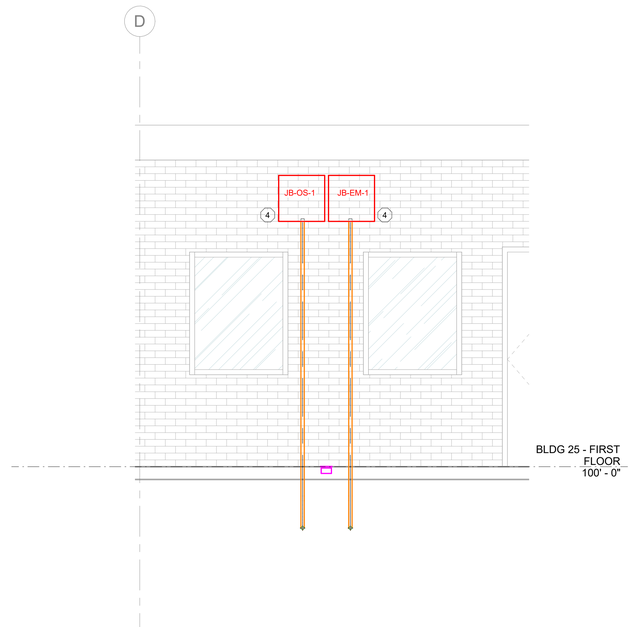
GENERAL NOTES:

A. PROVIDE PVC-40 CONDUIT FOR UNDERGROUND INSTALLATIONS, WITH RIGID METAL CONDUIT 90° BENDS FOR CONDUIT SIZES 3" AND LARGER.

B. OUTDOOR UNDERGROUND CONDUIT SHALL MEET MINIMUM COVER REQUIREMENTS PER NEC 300.5 AND 300.50.

PLAN NOTES: (#)

1. CORE INTO SIDE OF FIBER REINFORCED CONCRETE VAULT, PULL CONDUCTORS THROUGH VAULT AND UP INTO MEDIUM VOLTAGE SWITCHGEAR.
2. BOND MEDIUM VOLTAGE TAPE SHIELD TO GROUND PAD IN HVSW-1 AND HVSW-2, DO NOT BOND MEDIUM VOLTAGE TAPE SHIELD AT SUBSTATION 25A AND SUBSTATION 25B TERMINATION.
3. UNDERGROUND CONDUIT IS SHOWN DIAGRAMMATICALLY, COORDINATE UNDERGROUND CONDUIT WITH OTHER TRADES.
4. JUNCTION BOX TO BE NEMA 3R, INCLUDE BOLTED ACCESS PANEL, AND BE OF MINIMUM SIZE: 18" x 18" x 8" (H x W x D).
5. ELECTRICAL CONTRACTOR TO ROUTE CONDUIT INSIDE OF SUBSTATION 1A ROOM BETWEEN JUNCTION BOX AND RESPECTIVE PANELBOARD (PP-EM-1 AND PP-OS-1).
6. PROVIDE AND INSTALL NEW 480V, 250A, 3Ø, 3W I-LINE PANELBOARD WITH 45" OF BREAKER MOUNTING SPACE, TYPE HCJ. REINSTALL EXISTING BREAKERS INTO NEW PANELBOARD.



2 BUILDING 1 - CONDUIT DETAIL

Scale: 1/2" = 1'-0"

FAITH TECHNOLOGIES INCORPORATED

VOLLRATH
FACILITY EXPANSION - BUILDING 25
1236 N 18TH STREET
SHEBOYGAN, WI 53081
BUILDING 25 - SITE POWER PLAN

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RESP: TJH TJH

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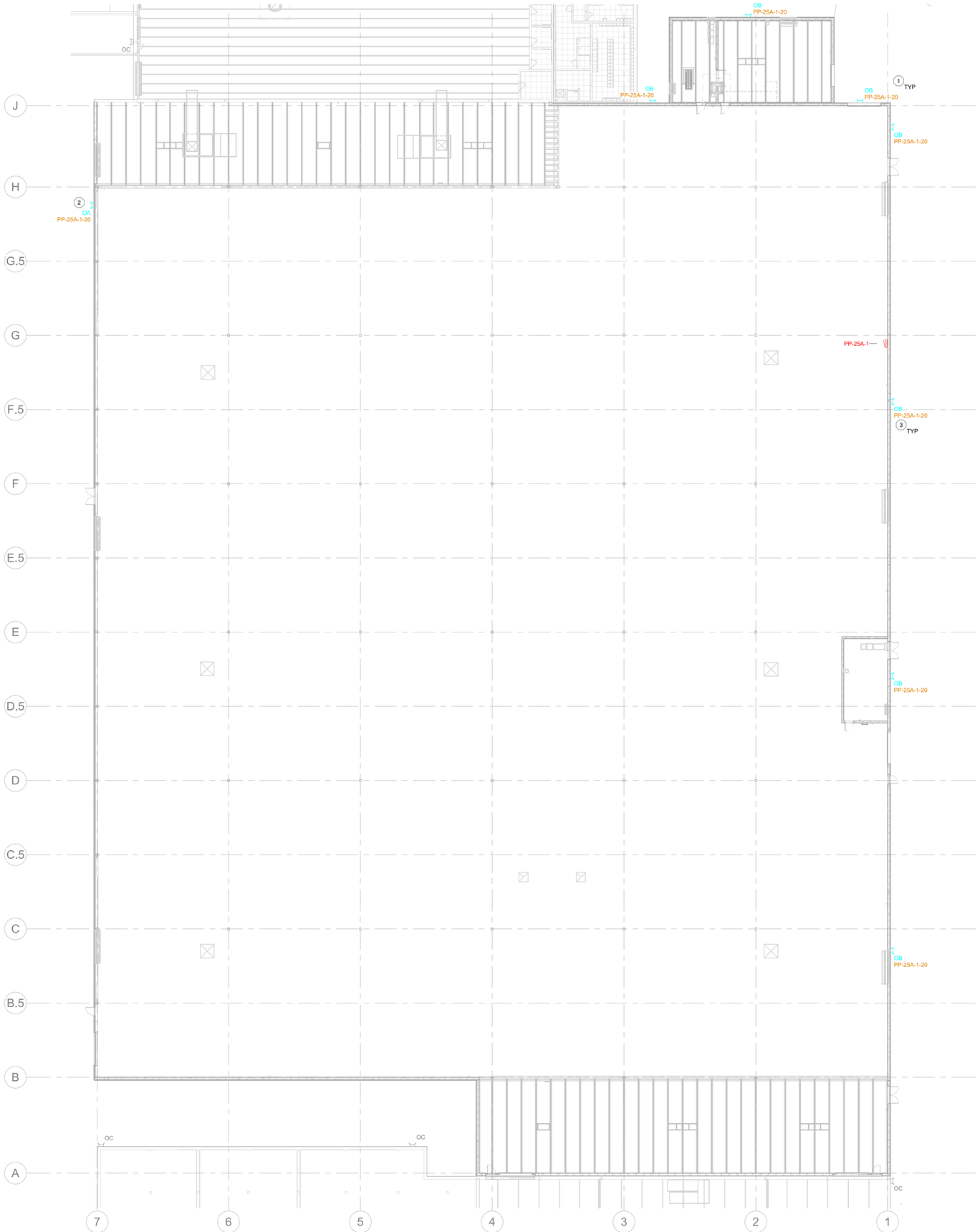
PROJECT NUMBER
2502928

DRAWN BY:	T. HERMES
DESIGNED BY:	T. HERMES
APPROVED BY:	T. HERMES
DATE:	07/09/2025
SCALE:	As indicated

SHEET
BLDG25-EC101

PLOTTED ON: 12/17/2025 11:36:21 AM
ARCH E1 (30"X42")



1 BUILDING 25 - SITE LIGHTING PLAN

Scale: 1/16" = 1'-0"

GENERAL NOTES:

A. PROVIDE PVC-40 CONDUIT FOR UNDERGROUND INSTALLATIONS, WITH RIGID METAL CONDUIT 90° BENDS FOR CONDUIT SIZES 3" AND LARGER.

B. OUTDOOR UNDERGROUND CONDUIT SHALL MEET MINIMUM COVER REQUIREMENTS PER NEC 300.5 AND 300.50.

PLAN NOTES: (#)

1. EXTERIOR LIGHT FIXTURE SHALL BE TIED INTO EXISTING TIME CLOCK. PROVIDE CONTROL WIRING AS NECESSARY FOR IMPLEMENTATION OF WIRING NEW FIXTURES INTO EXISTING TIME CLOCK.
2. TYPE OA FIXTURE TO BE MOUNTED AT 10'-6" AFF, SECURED TO EXTERIOR WALL.
3. TYPE OB FIXTURE TO BE MOUNTED AT 20'-0" AFF, SECURED TO EXTERIOR WALL.

KEY PLAN

SCALE: 1/16" = 1'-0"

FAITH TECHNOLOGIES INCORPORATED

VOLLRATH
FACILITY EXPANSION - BUILDING 25
1236 N 18TH STREET
SHEBOYGAN, WI 53081
BUILDING 25 - SITE LIGHTING PLAN

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PRELIMINARY
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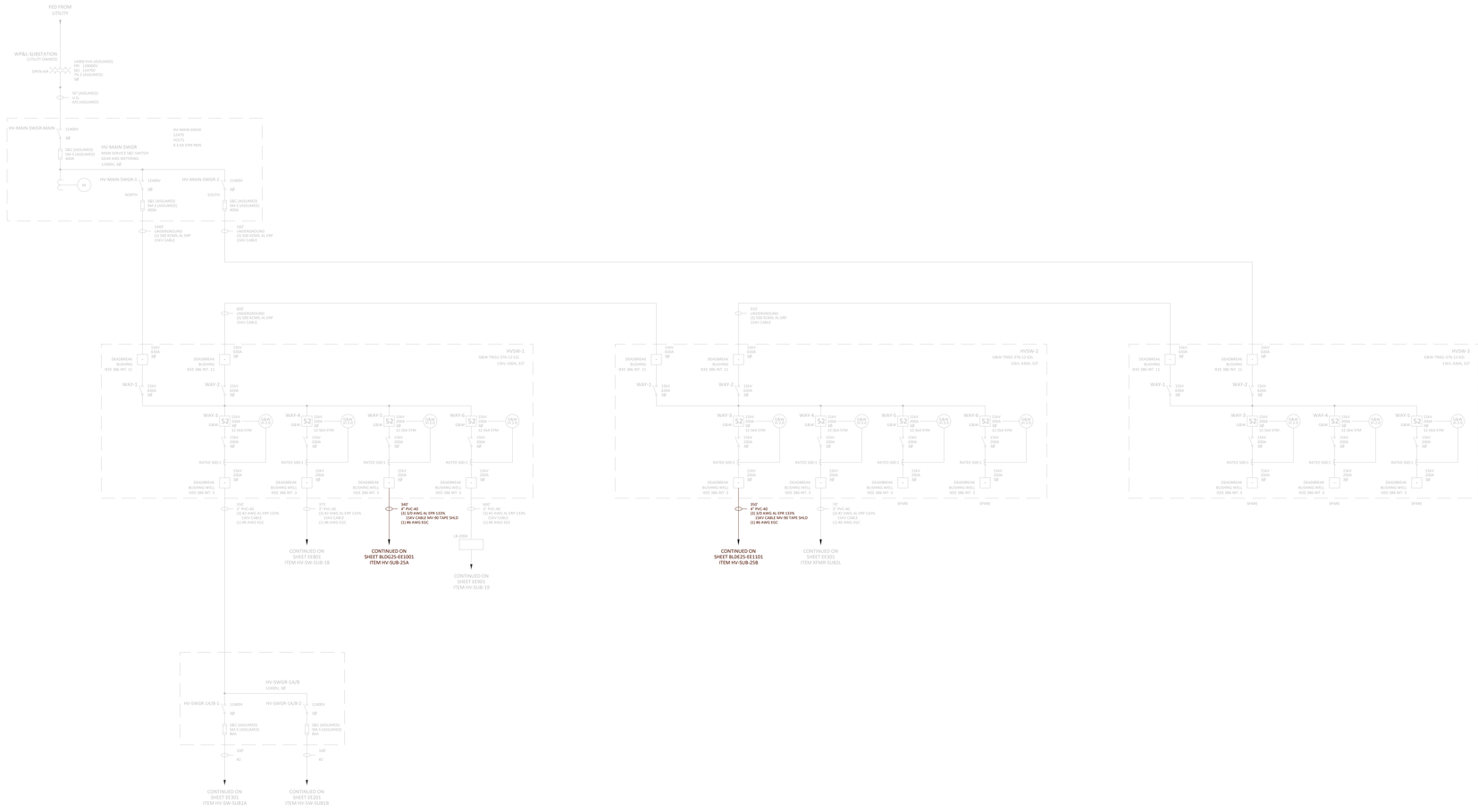
PROJECT NUMBER
2502928

DRAWN BY:	T. HERMES
DESIGNED BY:	T. HERMES
APPROVED BY:	T. HERMES
DATE:	07/09/2025
SCALE:	1/16" = 1'-0"

SHEET
BLDG25-EC102

PLOTTED ON: 12/17/2025 11:36:22 AM ARCHFULL (SPOKAP)



GENERAL NOTES:

A. EQUIPMENT SHOWN IN GRAY IS OUT OF SCOPE OF THIS PROJECT.

B. UNLESS OTHERWISE NOTED, CONDUCTOR SIZES ARE BASED ON COPPER CONDUCTORS.

C. ALL DISTANCES ARE APPROXIMATE, ELECTRICAL CONTRACTOR TO PROVIDE INSTALLED DISTANCE FOR RECORD DRAWINGS.

PLAN NOTES: (#)

1. PROVIDE AND INSTALL LOAD BREAK MEDIUM VOLTAGE TERMINATION ELBOW AND LOAD BREAK INSERT FOR IEEE 386 INTERFACE 3 BUSHING WELL ON HVSW-1 WAY 5.

2. PROVIDE AND INSTALL LOAD BREAK MEDIUM VOLTAGE TERMINATION ELBOW AND LOAD BREAK INSERT FOR IEEE 386 INTERFACE 3 BUSHING WELL ON HVSW-2 WAY 3.

HAZARD CATEGORY REFERENCE CHART

BASED ON NFPA-70E, 2021 EDITION

HAZARD/RISK CATEGORY	TYPICAL PROTECTIVE CLOTHING, AND PERSONAL PROTECTIVE EQUIPMENT (PPE)	REQUIRED MINIMUM ARC RATING OF PPE J/CM²	CAL/CM²
0*	UNTREATED COTTON LONG SLEEVE SHIRT, PANTS, SAFETY GLASSES, HEARING PROTECTION	N/A	0 - 1.20
1	AR SHIRT, AR PANTS, HARD HAT, 4 CAL/CM² FACE SHIELD, SAFETY GLASSES, HEARING PROTECTION	16.74	1.21 - 4.00
2	AR SHIRT, AR PANTS, HARD HAT, BALACLAVA/HOOD, 8 CAL/CM² FACE SHIELD, SAFETY GLASSES, HEARING PROTECTION	33.47	4.01 - 8.00
3	AR SHIRT & PANTS + AR COVERALL, SWITCHING HOOD, SAFETY GLASSES, HEARING PROTECTION	104.6	8.01 - 25.00
4	AR SHIRT & PANTS + AR COVERALL, DOUBLE LAYER SWITCHING COAT AND HOOD, SAFETY GLASSES, HEARING PROTECTION	167.36	25.01 - 40.00
	DANGEROUS - NO AR CLASS FOUND	> 167.36	> 40

Note: (*) While the 2021 NFPA 70E Edition no longer recognizes Category 0 as an "arc flash" hazard, the need for proper Personal Protective Equipment (PPE) remains unchanged.

COLOR CODES:
4200 & ABOVE VOLTAGE RANGE
4160 VOLTS
650 - 4100 VOLTAGE RANGE
277/480/600 VOLTS
240 & BELOW VOLTAGE RANGE
DC VOLTS
ARC FLASH
EXISTING

REV. CLOUDS:
MITIGATION CLOUD
VERIFICATION CLOUD
REVISION CLOUD

FAITH TECHNOLOGIES INCORPORATED

VOLLRATH
FACILITY EXPANSION - BUILDING 25
1236 N 18TH STREET
SHEBOYGAN, WI 53081
ELECTRICAL ONE-LINE DIAGRAM

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PRELIMINARY NOT FOR CONSTRUCTION

PROJECT NUMBER
2502928

DRAWN BY:	T. HERMES
DESIGNED BY:	T. HERMES
APPROVED BY:	T. HERMES
DATE:	07/09/2025
SCALE:	NONE

SHEET
BLDG25-EE001

PLOTTED ON: 12/17/2025 11:30:23 AM ARCH E1 (30"X42")

HVSW-1 WAY-4 RELAY SETTINGS (SUBSTATION 18)	
INRUSH TIME DELAY	3.25
INRUSH TRIP MULTIPLIER	x5
PHASE TIME DELAY (ALL PHASES)	0.1
MINIMUM TRIP	43/100
INSTANTANEOUS TRIP MULTIPLIER	x5
GROUND FAULT % OF PHASE TRIP AMPS	30%

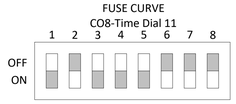
FUSE CURVE
CO8-TIME DIAL 11

HVSW-1 WAY-3 RELAY SETTINGS (SUBSTATION 1A/1B)	
INRUSH TIME DELAY	3.25
INRUSH TRIP MULTIPLIER	x5
PHASE TIME DELAY (ALL PHASES)	0.2
MINIMUM TRIP	43/100
INSTANTANEOUS TRIP MULTIPLIER	x15
GROUND FAULT % OF PHASE TRIP AMPS	30%

FUSE CURVE
CO8-Time Dial 11

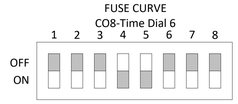
HVSW-1 WAY-6 RELAY SETTINGS (SUBSTATION 19)	
INRUSH TIME DELAY	3.25
INRUSH TRIP MULTIPLIER	x5
PHASE TIME DELAY (ALL PHASES)	0.1
MINIMUM TRIP	43/100
INSTANTANEOUS TRIP MULTIPLIER	x5
GROUND FAULT % OF PHASE TRIP AMPS	30%

FUSE CURVE
CO8-Time Dial 11



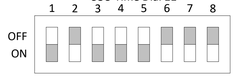
HVSW-2 WAY-4 RELAY SETTINGS (SUBSTATION 2L)	
INRUSH TIME DELAY	3.25
INRUSH TRIP MULTIPLIER	x5
PHASE TIME DELAY (ALL PHASES)	0.1
MINIMUM TRIP	43/100
INSTANTANEOUS TRIP MULTIPLIER	x5
GROUND FAULT % OF PHASE TRIP AMPS	30%

FUSE CURVE
CO8-Time Dial 6



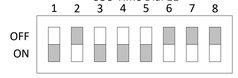
HVSW-1 WAY-5 RELAY SETTINGS (SUBSTATION 25A)	
INRUSH TIME DELAY	3.25
INRUSH TRIP MULTIPLIER	x5
PHASE TIME DELAY (ALL PHASES)	0.1
MINIMUM TRIP	80/175
INSTANTANEOUS TRIP MULTIPLIER	x15
GROUND FAULT % OF PHASE TRIP AMPS	30%

FUSE CURVE
CO8-Time Dial 11



HVSW-2 WAY-3 RELAY SETTINGS (SUBSTATION 25B)	
INRUSH TIME DELAY	3.25
INRUSH TRIP MULTIPLIER	x5
PHASE TIME DELAY (ALL PHASES)	0.1
MINIMUM TRIP	80/175
INSTANTANEOUS TRIP MULTIPLIER	x15
GROUND FAULT % OF PHASE TRIP AMPS	30%

FUSE CURVE
CO8-Time Dial 11



GENERAL NOTES:

A. EQUIPMENT SHOWN IN GRAY IS OUT OF SCOPE OF THIS PROJECT.

B. UNLESS OTHERWISE NOTED, CONDUCTOR SIZES ARE BASED ON COPPER CONDUCTORS.

C. ALL DISTANCES ARE APPROXIMATE, ELECTRICAL CONTRACTOR TO PROVIDE INSTALLED DISTANCE FOR RECORD DRAWINGS.

FAITH TECHNOLOGIES INCORPORATED

VOLLRATH
FACILITY EXPANSION - BUILDING 25
1236 N 18TH STREET
SHEBOYGAN, WI 53081
ELECTRICAL ONE-LINE DIAGRAM

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1	ISSUED FOR CLIENT REVIEW	11/10/2025
2	ISSUED FOR PERMIT	12/17/2025

PRELIMINARY
NOT FOR CONSTRUCTION

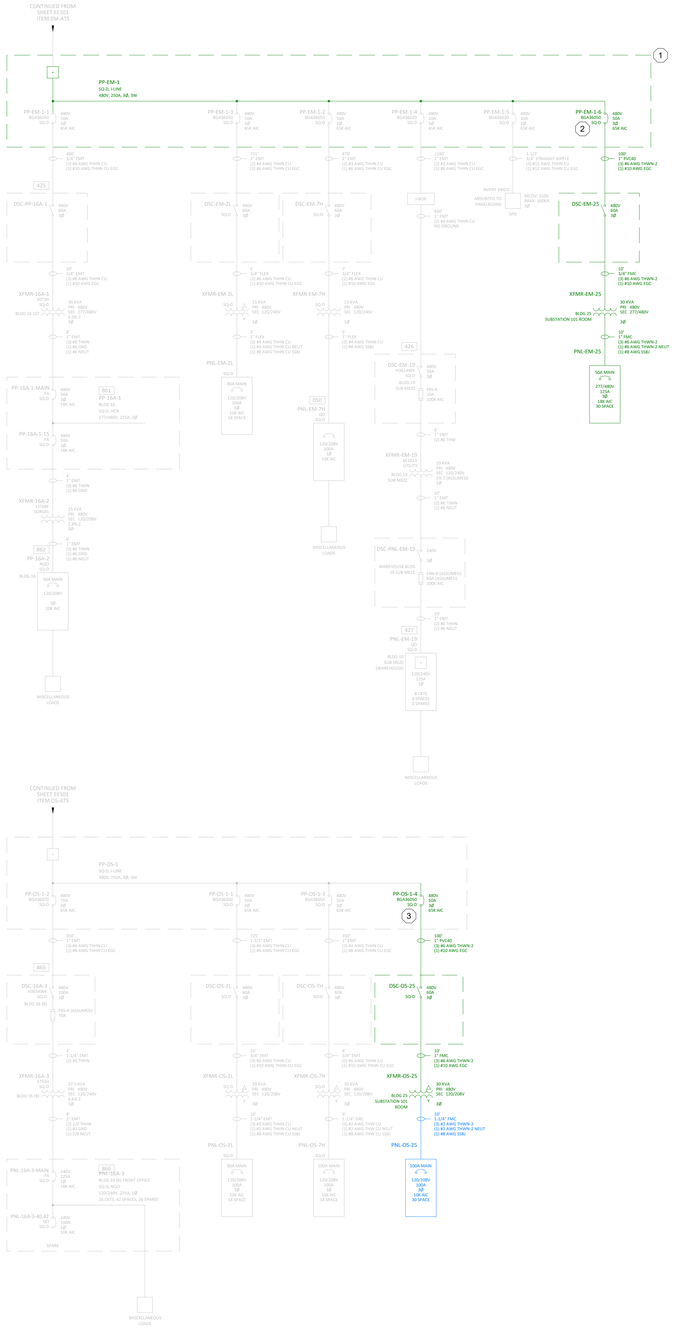
RESP:
TJH
TJH

PROJECT NUMBER
2502928

DRAWN BY: T. HERMES
DESIGNED BY: T. HERMES
APPROVED BY: T. HERMES
DATE: 07/09/2025
SCALE: NONE

SHEET
BLDG25-EE002

PLOTTED ON: 12/17/2025 11:36:24 AM
ARCH E1 (30"X42")



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C. ALL DISTANCES ARE APPROXIMATE, ELECTRICAL CONTRACTOR TO PROVIDE INSTALLED DISTANCE FOR RECORD DRAWINGS.

PLAN NOTES: (#)

1. PROVIDE AND INSTALL NEW 480V, 250A, 3Ø, 3W I-LINE PANELBOARD WITH 45" OF BREAKER MOUNTING SPACE, TYPE HCJ. REINSTALL EXISTING BREAKERS INTO NEW PANELBOARD.

2. PROVIDE AND INSTALL NEW 480V, 50A, 3Ø BREAKER, ENSURE BREAKER IS SELECTIVITY COORDINATED.

3. PROVIDE AND INSTALL NEW 480V, 50A, 3Ø BREAKER.

COLOR CODES:
4200 & ABOVE VOLTAGE RANGE
4160 VOLTS
650 - 4100 VOLTAGE RANGE
277/480/3Ø0 VOLTS
240 & BELOW VOLTAGE RANGE
DC VOLTS
ARC FLASH
EXISTING

REV. CLOUDS:
MITIGATION CLOUD
VERIFICATION CLOUD
REVISION CLOUD

FAITH TECHNOLOGIES INCORPORATED

VOLLRATH
FACILITY EXPANSION - BUILDING 25
1236 N 18TH STREET
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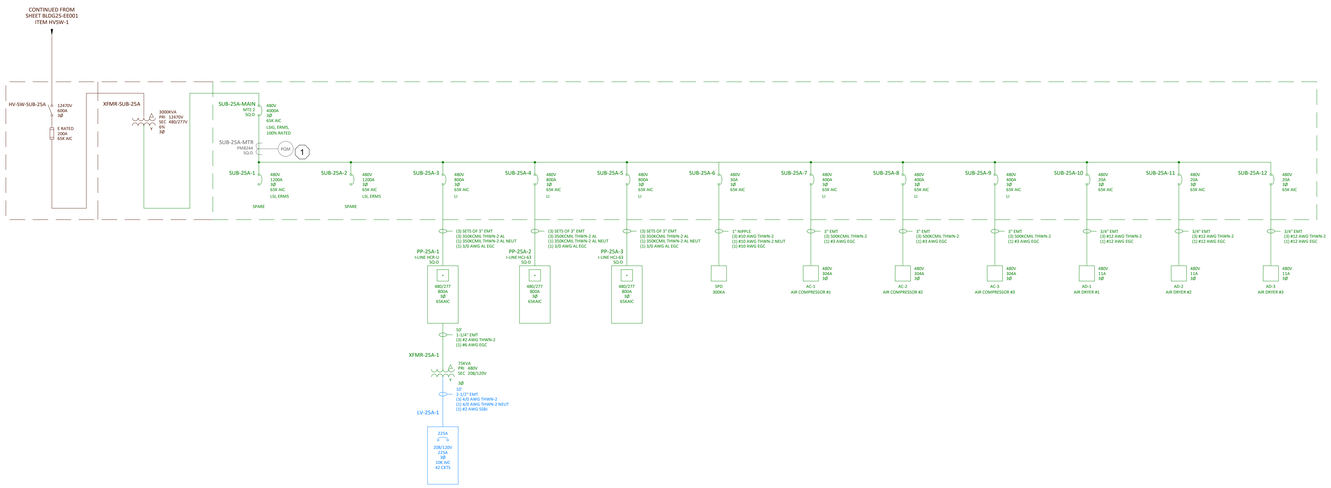
PROJECT NUMBER
2502928

DRAWN BY:	T. HERMES
DESIGNED BY:	T. HERMES
APPROVED BY:	T. HERMES
DATE:	10/10/2025
SCALE:	NONE

SHEET
BLDG25-EE106

PLOTTED ON: 12/17/2025 11:36:28 AM
ARCH E1 (30"X42")



GENERAL NOTES:

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C. ALL DISTANCES ARE APPROXIMATE, ELECTRICAL CONTRACTOR TO PROVIDE INSTALLED DISTANCE FOR RECORD DRAWINGS.

PLAN NOTES: (#)

1. PROVIDE AND INSTALL CAT-6 CABLE FOR POWER QUALITY METER, RUN TO LOCAL IDF CABINET.

COLOR CODES:
4200 & ABOVE VOLTAGE RANGE
4160 VOLTS
650 - 4100 VOLTAGE RANGE
277/480/690 VOLTS
240 & BELOW VOLTAGE RANGE
DC VOLTS
ARC FLASH
EXISTING

REV. CLOUDS:
MITIGATION CLOUD
VERIFICATION CLOUD
REVISION CLOUD

FAITH TECHNOLOGIES INCORPORATED

VOLLRATH
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1236 N 18TH STREET
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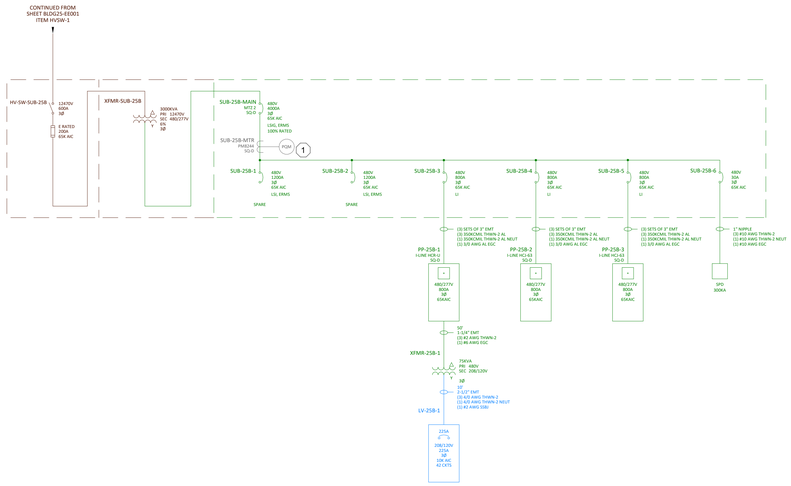
2502928

DRAWN BY: T. HERMES
DESIGNED BY: T. HERMES
APPROVED BY: T. HERMES
DATE: 07/09/2025
SCALE: NONE

SHEET
BLDG25-EE1001

PLOTTED ON: 12/17/2025 11:36:28 AM ARCH E1 (30"X42")



GENERAL NOTES:

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PLAN NOTES: (#)

1. PROVIDE AND INSTALL CAT-6 CABLE FOR POWER QUALITY METER, RUN TO LOCAL IDF CABINET.

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277/480/690 VOLTS
240 & BELOW VOLTAGE RANGE
DC VOLTS
ARC FLASH
EXISTING

REV. CLOUDS:
MITIGATION CLOUD
VERIFICATION CLOUD
REVISION CLOUD

FAITH TECHNOLOGIES INCORPORATED

VOLLRATH
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DESIGNED BY:	T. HERMES
APPROVED BY:	T. HERMES
DATE:	07/09/2025
SCALE:	NONE

SHEET
BLDG25-EE1101

PLOTTED ON: 12/17/2025 11:36:29 AM
ARCH E1 (30"X42")

Branch Panel: PP-EM-1

Location:
Supply From: EM-ATS
Mounting: WALL
Enclosure: NEMA 1

Volts: 480/277 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 65 kAIC
Mains Type: MLO
Bus Rating: 250 A

Notes:

CKT	Circuit Description	Type	Trip	Poles	A		B		C		Poles	Trip	Type	Circuit Description	CKT
1					1164 VA	610 VA									2
3	DSC-PP-16A-1 - BUILDING 16 EM LIGHTING	--	50 A	3			886 VA	610 VA			3	50 A	--	DSC-EM-7H - SUBSTATION 7H EM LIGHTING	4
5									1080 VA	0 VA					6
7					775 VA	900 VA									8
9	DSC-EM-2L - SUBSTATION 2L EM LIGHTING	--	50 A	3			775 VA	900 VA			3	20 A	--	DSC-EM-19 - BUILDING 19 EM LIGHTING	10
11									0 VA	0 VA					12
13					0 VA	3661 VA									14
15	SPD	--	30 A	3			0 VA	0 VA			3	50 A		DSC-EM-25	16
17									0 VA	0 VA					18
19					--	--									20
21	SPACE	--	--	3			--	--			3	--	--	SPACE	22
23									--	--					24
25					--	--									26
27	SPACE	--	--	3			--	--			3	--	--	SPACE	28
29									--	--					30
				Total Load:	7.02 kVA		3.17 kVA		1.08 kVA						
				Total Amps:	27 A		13 A		4 A						

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
LIGHTING	3661 VA	125.00%	4576 VA		
Spare	7700 VA	100.00%	7700 VA	**Total Conn. Load:**	11.24 kVA
				Total Est. Demand:	12.13 kVA
				Total Conn.:	14 A
				Total Est. Demand:	15 A

Notes:

Branch Panel: PP-OS-1

Location:
Supply From: OS-ATS
Mounting: WALL
Enclosure: NEMA 1

Volts: 480/277 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 65 kAIC
Mains Type: MLO
Bus Rating: 250 A

Notes:

CKT	Circuit Description	Type	Trip	Poles	A		B		C		Poles	Trip	Type	Circuit Description	CKT
1					0 VA	0 VA									2
3	DSC-16A-3	--	70 A	3			0 VA	0 VA			3	50 A	--	DSC-OS-2L	4
5									0 VA	0 VA					6
7					0 VA	0 VA									8
9	DSC-OS-7H	--	50 A	3			0 VA	0 VA			3	50 A		DSC-OS-25	10
11									0 VA	0 VA					12
13					--	--									14
15	SPACE	--	--	3			--	--			3	--	--	SPACE	16
17									--	--					18
				Total Load:	0.00 kVA		0.00 kVA		0.00 kVA						
				Total Amps:	0 A		0 A		0 A						

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
				Total Conn. Load:	0.00 kVA
				Total Est. Demand:	0.00 kVA
				Total Conn.:	0 A
				Total Est. Demand:	0 A

Notes:

Branch Panel: PNL-EM-25

Location:
Supply From: XFMR-EM-25
Mounting: WALL
Enclosure: NEMA 1

Volts: 480/277 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 18 kAIC
Mains Type: MCB
Bus Rating: 125 A
MCB Rating: 50 A

Notes:

CKT	Circuit Description	Type	Trip	Poles	A		B		C		Poles	Trip	Type	Circuit Description	CKT
1	LIGHTING		20 A	1	1933 VA	1728 VA					1	20 A		LIGHTING	2
3	SPARE	--	20 A	1			0 VA	0 VA			1	20 A	--	SPARE	4
5	SPARE	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	6
7	SPARE	--	20 A	1	0 VA	0 VA					1	20 A	--	SPARE	8
9	SPARE	--	20 A	1			0 VA	0 VA			1	20 A	--	SPARE	10
11	SPARE	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	12
13	SPARE	--	20 A	1	0 VA	0 VA					1	20 A	--	SPARE	14
15	SPARE	--	20 A	1			0 VA	0 VA			1	20 A	--	SPARE	16
17	SPARE	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	18
19	SPARE	--	20 A	1	0 VA	0 VA					1	20 A	--	SPARE	20
21	SPARE	--	20 A	1			0 VA	0 VA			1	20 A	--	SPARE	22
23	SPARE	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	24
25	SPARE	--	20 A	1	0 VA	0 VA					1	20 A	--	SPARE	26
27	SPARE	--	20 A	1			0 VA	0 VA			1	20 A	--	SPARE	28
29	SPARE	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	30
				Total Load:	3.66 kVA		0.00 kVA		0.00 kVA						
				Total Amps:	13 A		0 A		0 A						

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
LIGHTING	3661 VA	125.00%	4576 VA		
				Total Conn. Load:	3.66 kVA
				Total Est. Demand:	4.58 kVA
				Total Conn.:	4 A
				Total Est. Demand:	6 A

Notes:

Branch Panel: PNL-OS-25

Location:
Supply From: XFMR-OS-25
Mounting: WALL
Enclosure: NEMA 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10 kAIC
Mains Type: MCB
Bus Rating: 125 A
MCB Rating: 100 A

Notes:

CKT	Circuit Description	Type	Trip	Poles	A		B		C		Poles	Trip	Type	Circuit Description	CKT
1	SPARE	--	20 A	1	0 VA	0 VA					1	20 A	--	SPARE	2
3	SPARE	--	20 A	1			0 VA	0 VA			1	20 A	--	SPARE	4
5	SPARE	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	6
7	SPARE	--	20 A	1	0 VA	0 VA					1	20 A	--	SPARE	8
9	SPARE	--	20 A	1			0 VA	0 VA			1	20 A	--	SPARE	10
11	SPARE	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	12
13	SPARE	--	20 A	1	0 VA	0 VA					1	20 A	--	SPARE	14
15	SPARE	--	20 A	1			0 VA	0 VA			1	20 A	--	SPARE	16
17	SPARE	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	18
19	SPARE	--	20 A	1	0 VA	0 VA					1	20 A	--	SPARE	20
21	SPARE	--	20 A	1			0 VA	0 VA			1	20 A	--	SPARE	22
23	SPARE	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	24
25	SPARE	--	20 A	1	0 VA	0 VA					1	20 A	--	SPARE	26
27	SPARE	--	20 A	1			0 VA	0 VA			1	20 A	--	SPARE	28
29	SPARE	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	30
				Total Load:	0.00 kVA		0.00 kVA		0.00 kVA						
				Total Amps:	0 A		0 A		0 A						

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
				Total Conn. Load:	0.00 kVA
				Total Est. Demand:	0.00 kVA
				Total Conn.:	0 A
				Total Est. Demand:	0 A

Notes:

FAITH TECHNOLOGIES INCORPORATED

VOLLRATH
FACILITY EXPANSION - BUILDING 25
1236 N 18TH STREET
SHEBOYGAN, WI 53081
ELECTRICAL PANEL SCHEDULES

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NO.	DATE	REVISIONS:
1	11/10/2025	ISSUED FOR CLIENT REVIEW
2	12/17/2025	ISSUED FOR PERMIT

PRELIMINARY
NOT FOR CONSTRUCTION

RESP:
TJH
TJH

PROJECT NUMBER
2502928

DRAWN BY: T. HERMES
DESIGNED BY: T. HERMES
APPROVED BY: T. HERMES
DATE: 07/09/2025
SCALE: NONE

SHEET
BLDG25-EF101

PLOTTED ON: 12/17/2025 11:36:29 AM
ARCH E1 (30"X42")

Branch Panel: PP-25A-1

Location: PRODUCTION FLOOR 100
Supply From: SUB-25A
Mounting: WALL
Enclosure: NEMA 1

Volts: 480/277 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 65K AIC
Mains Type: MLO
Bus Rating: 800 A

Notes:

CKT	Circuit Description	Type	Trip	Poles	A		B		C		Poles	Trip	Type	Circuit Description	CKT
1					3172 VA	2808 VA					1	20 A		MANUFACTURING FLOOR LIGHTS - ROW 1	2
3	XFMR-25A-1		125 A	3			2992 VA	3510 VA			1	20 A		MANUFACTURING FLOOR LIGHTS - ROW 2	4
5									1260 VA	3159 VA	1	20 A		MANUFACTURING FLOOR LIGHTS - ROW 3	6
7					22752...	3510 VA					1	20 A		MANUFACTURING FLOOR LIGHTS - ROW 4	8
9	MAU-4		125 A	3			22752...	2808 VA			1	20 A		MANUFACTURING FLOOR LIGHTS - ROW 5	10
11									22752...	3510 VA	1	20 A		MANUFACTURING FLOOR LIGHTS - ROW 6	12
13					2106 VA	3159 VA					1	20 A		MANUFACTURING FLOOR LIGHTS - ROW 7	14
15	EF-2		20 A	3			2106 VA	259 VA			1	20 A		SUBSTATION 103 ROOM LIGHTS	16
17									2106 VA	1045 VA	1	20 A		COMPRESSOR 102 ROOM LIGHTS	18
19					11085...	988 VA					1	20 A		EXTERIOR BUILDING 25 LIGHTS	20
21	WO-2		60 A	3			11085...	11085...							22
23									11085...	11085...	3	60 A		WO-3	24
25					1667 VA	11085...									26
27	UH-3		20 A	3			1667 VA	3547 VA							28
29									1667 VA	3547 VA	3	20 A		UH-2	30
31						3547 VA									32
33															34
35															36
37															38
39															40
41															42
43															44
45															46
47															48
49															50
51															52
53															54
55															56
57															58
59															60
61															62
63															64
65															66
			Total Load:		65.47 kVA		61.52 kVA		60.88 kVA						
			Total Amps:		237 A		222 A		220 A						

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
LIGHTING	24709 VA	125.00%	30886 VA		
Other	0 VA	0.00%	0 VA	Total Conn. Load:	187.86 kVA
RECEPTACLE	4320 VA	100.00%	4320 VA	Total Est. Demand:	210.44 kVA
CONTINUOUS	66510 VA	125.00%	83138 VA	Total Conn.:	226 A
HVAC	93320 VA	100.00%	93320 VA	Total Est. Demand:	253 A

Notes:

Branch Panel: PP-25A-2

Location: PRODUCTION FLOOR 100
Supply From: SUB-25A
Mounting: WALL
Enclosure: NEMA 1

Volts: 480/277 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 65K AIC
Mains Type: MLO
Bus Rating: 800 A

Notes:

CKT	Circuit Description	Type	Trip	Poles	A		B		C		Poles	Trip	Type	Circuit Description	CKT
1					11085...										2
3	WO-1		60 A	3			11085...								4
5									11085...						6
7															8
9															10
11															12
13															14
15															16
17															18
19															20
21															22
23															24
25															26
27															28
29															30
31															32
33															34
35															36
37															38
39															40
41															42
43															44
45															46
47															48
49															50
51															52
53															54
55															56
57															58
59															60
61															62
63															64
65															66
			Total Load:		11.09 kVA		11.09 kVA		11.09 kVA						
			Total Amps:		40 A		40 A		40 A						

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
CONTINUOUS	33255 VA	125.00%	41569 VA		
				Total Conn. Load:	33.26 kVA
				Total Est. Demand:	41.57 kVA
				Total Conn.:	40 A
				Total Est. Demand:	50 A

Notes:

Branch Panel: PP-25A-3

Location: PRODUCTION FLOOR 100
Supply From: SUB-25A
Mounting: WALL
Enclosure: NEMA 1

Volts: 480/277 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 65K AIC
Mains Type: MLO
Bus Rating: 800 A

Notes:

CKT	Circuit Description	Type	Trip	Poles	A		B		C		Poles	Trip	Type	Circuit Description	CKT
1					22752...										2
3	MAU-3		125 A	3			22752...								4
5									22752...						6
7															8
9															10
11															12
13															14
15															16
17															18
19															20
21															22
23															24
25															26
27															28
29															30
31															32
33															34
35															36
37															38
39															40
41															42
43															44
45															46
47															48
49															50
51															52
53															54
55															56
57															58
59															60
61															62
63															64
65															66
			Total Load:		22.75 kVA		22.75 kVA		22.75 kVA						
			Total Amps:		82 A		82 A		82 A						

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	68256 VA	100.00%	68256 VA		
				Total Conn. Load:	68.26 kVA
				Total Est. Demand:	68.26 kVA
				Total Conn.:	82 A
				Total Est. Demand:	82 A

Notes:

Branch Panel: LV-25A-1

Location:
Supply From: XFMR-25A-1
Mounting: WALL
Enclosure: NEMA 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10K AIC
Mains Type: MCB
Bus Rating: 225 A
MCB Rating: 225 A

Notes:

CKT	Circuit Description	Type	Trip	Poles	A		B		C		Poles	Trip	Type	Circuit Description	CKT
1	RECEPTACLE		20 A	1	900 VA	900 VA					1	20 A		RECEPTACLE	2
3	RECEPTACLE		20 A	1			900 VA	720 VA			1	20 A		RECEPTACLE	4
5	RECEPTACLE		20 A	1					900 VA	360 VA	1	20 A		L-2, L-3, L-4, L-5 LOUVER ACTUATOR POWER	6
7						1372 VA					2	20 A		EF-6	8
9	HVAC		20 A	1			0 VA	1372 VA							10
11															12
13															14
15															16
17															18
19															20
21															22
23															24
25															26
27															28
29															30
31															32
33															34
35															36
37															38
39															40
41															42
			Total Load:		3.17 kVA		2.99 kVA		1.26 kVA						
			Total Amps:		29 A		27 A		11 A						

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
RECEPTACLE	4320 VA	100.00%	4320 VA		
HVAC	3104 VA	100.00%	3104 VA	Total Conn. Load:	7.42 kVA
				Total Est. Demand:	7.42 kVA
				Total Conn.:	21 A
				Total Est. Demand:	21 A

Notes:

FAITH TECHNOLOGIES INCORPORATED

VOLLRATH
FACILITY EXPANSION - BUILDING 25
1236 N 18TH STREET
SHEBOYGAN, WI 53081
ELECTRICAL PANEL SCHEDULES

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NO.	REVISIONS:	DATE
1	ISSUED FOR CLIENT REVIEW	11/10/2025
2	ISSUED FOR PERMIT	12/17/2025

RESP: TJH TJH

PRELIMINARY NOT FOR CONSTRUCTION

PROJECT NUMBER
2502928

DRAWN BY: T. HERMES
DESIGNED BY: T. HERMES
APPROVED BY: T. HERMES
DATE: 07/09/2025
SCALE: NONE

SHEET
BLDG25-EF102

PLOTTED ON: 12/17/2025 11:36:30 AM
ARCH E1 (30"X42")

Branch Panel: PP-25B-1

Location: PRODUCTION FLOOR 100
Supply From: SUB-25B
Mounting: WALL
Enclosure: NEMA 1

Volts: 480/277 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 65K AIC
Mains Type: MLO
Bus Rating: 800 A

Notes:

CKT	Circuit Description	Type	Trip	Poles	A		B		C		Poles	Trip	Type	Circuit Description	CKT
1					3892 VA	3510 VA					1	20 A		MANUFACTURING FLOOR LIGHTS - ROW 8	2
3	XFMR-25B-1		125 A	3			1800 VA	2808 VA			1	20 A		MANUFACTURING FLOOR LIGHTS - ROW 9	4
5									1552 VA	3510 VA	1	20 A		MANUFACTURING FLOOR LIGHTS - ROW 10	6
7					1667 VA	3159 VA					1	20 A		MANUFACTURING FLOOR LIGHTS - ROW 11	8
9	UH-1		20 A	3			1667 VA	3510 VA			1	20 A		MANUFACTURING FLOOR LIGHTS - ROW 12	10
11									1667 VA	3159 VA	1	20 A		MANUFACTURING FLOOR LIGHTS - ROW 13	12
13					22752...	1727 VA					1	20 A		MANUFACTURING FLOOR LIGHTS - ROW 14	14
15	MAU-6		125 A	3			22752...	207 VA			1	20 A		SUBSTATION 101 ROOM LIGHTS	16
17									22752...	11085...					18
19					22752...	11085...					3	60 A		WO-6	20
21	MAU-8		125 A	3			22752...	11085...							22
23									22752...						24
25															26
27															28
29															30
31															32
33															34
35															36
37															38
39															40
41															42
43															44
45															46
47															48
49															50
51															52
53															54
55															56
57															58
59															60
61															62
63															64
65															66
			Total Load:		70.17 kVA		66.29 kVA		66.18 kVA						
			Total Amps:		253 A		239 A		239 A						

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
LIGHTING	21590 VA	125.00%	26988 VA		
Other	0 VA	0.00%	0 VA	**Total Conn. Load:**	202.63 kVA
RECEPTACLE	4320 VA	100.00%	4320 VA	**Total Est. Demand:**	216.13 kVA
CONTINUOUS	33255 VA	125.00%	41569 VA	**Total Conn.:**	244 A
HVAC	144437 VA	100.00%	144437 VA	**Total Est. Demand:**	260 A

Notes:

Branch Panel: PP-25B-2

Location: PRODUCTION FLOOR 100
Supply From: SUB-25B
Mounting: WALL
Enclosure: NEMA 1

Volts: 480/277 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 65K AIC
Mains Type: MLO
Bus Rating: 800 A

Notes:

CKT	Circuit Description	Type	Trip	Poles	A		B		C		Poles	Trip	Type	Circuit Description	CKT
1					22752...	22752...									2
3	MAU-5		125 A	3			22752...	22752...			3	125 A		MAU-7	4
5									22752...	22752...					6
7					11085...										8
9	WO-4		60 A	3			11085...								10
11									11085...						12
13															14
15															16
17															18
19															20
21															22
23															24
25															26
27															28
29															30
31															32
33															34
35															36
37															38
39															40
41															42
43															44
45															46
47															48
49															50
51															52
53															54
55															56
57															58
59															60
61															62
63															64
65															66
			Total Load:		56.59 kVA		56.59 kVA		56.59 kVA						
			Total Amps:		204 A		204 A		204 A						

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
CONTINUOUS	33255 VA	125.00%	41569 VA		
HVAC	136512 VA	100.00%	136512 VA	**Total Conn. Load:**	169.77 kVA
				Total Est. Demand:	178.08 kVA
				Total Conn.:	204 A
				Total Est. Demand:	214 A

Notes:

Branch Panel: PP-25B-3

Location: PRODUCTION FLOOR 100
Supply From: SUB-25B
Mounting: WALL
Enclosure: NEMA 1

Volts: 480/277 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 65K AIC
Mains Type: MLO
Bus Rating: 800 A

Notes:

CKT	Circuit Description	Type	Trip	Poles	A		B		C		Poles	Trip	Type	Circuit Description	CKT
1					2106 VA	2106 VA									2
3	EF-5		15 A	3			2106 VA	2106 VA			3	15 A		EF-4	4
5									2106 VA	2106 VA					6
7					11085...										8
9	WO-5		60 A	3			11085...								10
11									11085...						12
13															14
15															16
17															18
19															20
21															22
23															24
25															26
27															28
29															30
31															32
33															34
35															36
37															38
39															40
41															42
43															44
45															46
47															48
49															50
51															52
53															54
55															56
57															58
59															60
61															62
63															64
65															66
			Total Load:		15.30 kVA		15.30 kVA		15.30 kVA						
			Total Amps:		55 A		55 A		55 A						

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
CONTINUOUS	33255 VA	125.00%	41569 VA		
HVAC	12636 VA	100.00%	12636 VA	**Total Conn. Load:**	45.89 kVA
				Total Est. Demand:	54.20 kVA
				Total Conn.:	55 A
				Total Est. Demand:	65 A

Notes:

Branch Panel: LV-25B-1

Location:
Supply From: XFMR-25B-1
Mounting: WALL
Enclosure: NEMA 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10K AIC
Mains Type: MCB
Bus Rating: 225 A
MCB Rating: 225 A

Notes:

CKT	Circuit Description	Type	Trip	Poles	A		B		C		Poles	Trip	Type	Circuit Description	CKT
1	RECEPTACLE		20 A	1	900 VA	900 VA					1	20 A		RECEPTACLE	2
3	RECEPTACLE		20 A	1			900 VA	900 VA			1	20 A		RECEPTACLE	4
5	L-6, L-7 LOUVER ACTUATOR POWER		20 A	1					180 VA	1372 VA	2	25 A		EF-1	6
7	L-9		20 A	1	720 VA	1372 VA									8
9															10
11	L-9 CONTROL POWER		20 A	1					0 VA						12
13															14
15															16
17															18
19															20
21															22
23															24
25															26
27															28
29															30
31															32
33															34
35															36
37															38
39															40
41															42
			Total Load:		3.89 kVA		1.80 kVA		1.55 kVA						
			Total Amps:		33 A		15 A		13 A						

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
RECEPTACLE	4320 VA	100.00%	4320 VA		
HVAC	2924 VA	100.00%	2924 VA	**Total Conn. Load:**	7.24 kVA
				Total Est. Demand:	7.24 kVA
				Total Conn.:	20 A
				Total Est. Demand:	20 A

Notes:

PLOTTED ON: 12/17/2025 11:36:52 AM
ARCH E1 (30"X42")

FAITH TECHNOLOGIES INCORPORATED

VOLLRATH
FACILITY EXPANSION - BUILDING 25
1236 N 18TH STREET
SHEBOYGAN, WI 53081
ELECTRICAL PANEL SCHEDULES

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NO.	REVISIONS:	DATE
1	ISSUED FOR CLIENT REVIEW	11/10/2025
2	ISSUED FOR PERMIT	12/17/2025

PRELIMINARY
NOT FOR CONSTRUCTION

RESP:
TJH
T.J.H.

PROJECT NUMBER
2502928

DRAWN BY: T. HERMES
DESIGNED BY: T. HERMES
APPROVED BY: T. HERMES
DATE: 07/09/2025
SCALE: NONE

SHEET
BLDG25-EF103

1 BUILDING 25 - GROUNDING PLAN

Scale: 1/16" = 1'-0"

GENERAL NOTES:

A. ALL GROUNDING SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITION AND REVISIONS OF THE NATIONAL ELECTRICAL CODE AND THE REGULATIONS OF THE STATE, MUNICIPAL AND LOCAL CODES. ALL GROUNDING MATERIALS SHALL BE UL LISTED.

B. ALL GROUNDING MATERIALS - GROUNDING CABLE, GROUNDING RODS, CONNECTIONS, ETC. TO BE PROVIDED BY ELECTRICAL CONTRACTOR. REFER TO DETAILS ON SHEET EG701 FOR DETAILS ON CONNECTION TYPES.

C. ALL GROUNDING CABLE TO BE 4/0 AWG-19 STRAND SOFT DRAWN BARE COPPER CABLE UNLESS NOTED OTHERWISE.

D. GROUNDING RODS TO BE 5/8" DIA. (MIN) X 10'-0" LONG COPPER RODS.

E. ALL CONNECTIONS IN THE GROUNDING ELECTRODE SYSTEM SHALL BE THOSE OF A TYPE APPROVED BY NEC SECTION 250. IN GENERAL, THESE CONNECTIONS SHALL BE BY EXOTHERMIC WELDING OR LISTED MECHANICAL CONNECTORS.

F. ENTIRE GROUNDING ELECTRODE SYSTEM INCLUDING ALL MATERIALS, SHALL BE BURIED MIN. 2'-6" BELOW FINISHED GRADE PER NEC 250.53, AND 3'-0" MINIMUM DISTANCE FROM BUILDING FOOTINGS AND FOUNDATIONS UNLESS NOTED OTHERWISE.

G. CABLE ROUTING IS SHOWN FOR CLARITY ONLY. ACTUAL ROUTING SHALL BE DETERMINED BY CONTRACTOR IN FIELD.

H. ALL GROUNDING CONDUIT SLEEVES TO BE PVC CONDUIT UNLESS NOTED OTHERWISE.

I. IF GROUND RODS ARE UNABLE TO BE DRIVEN STRAIGHT INTO THE GROUND, NEC ARTICLE 250.53(G) PERMITS GROUND RODS TO BE DRIVEN IN AT AN ANGLE UP TO 45 DEGREES FROM VERTICAL. IF ROCK BOTTOM IS STILL ENCOUNTERED AT 45 DEGREES, THE ROD SHALL BE BURIED HORIZONTALLY IN A TRENCH NOT LESS THAN 2'-6" DEEP.

PLAN NOTES: (#)

1. TIE GROUNDING ELECTRODE CONDUCTOR TO BUILDING STEEL. FIELD DETERMINE MOST EFFECTIVE AREA OR LOCATION IN WHICH TO CONNECT. REFER TO DETAIL 5 ON SHEET EG701.
2. BOND GROUNDING ELECTRODE CONDUCTOR TO GROUND ROD WITH 4/0 AWG MIN COPPER BONDING. REFER TO DETAIL 2 ON SHEET EG701.
3. BOND GROUNDING ELECTRODE CONDUCTOR PIGTAIL TO THE TRANSFORMER GROUND PAD PER THE EQUIPMENT MANUFACTURER'S INSTALLATION SPECIFICATIONS. REFER TO DETAIL 3 ON SHEET EG701.
4. ATTACH GROUNDING ELECTRODE TO REINFORCING STEEL (REBAR) INSTALLED WITHIN THE CONCRETE FLOOR SLAB PER DETAIL 1 ON SHEET EG701. (DUE TO THE UNCERTAIN DETAILS OF THE CONCRETE SLAB DESIGN, THE CONCRETE-ENCASED REBAR WILL NOT BE ASSUMED TO STAND ON IT'S OWN AS A RELIABLE AND PROPERLY DESIGNED CONCRETE-ENCASED ELECTRODE SYSTEM.).
5. BOND GROUNDING ELECTRODE CONDUCTOR PIGTAIL TO GROUND BAR ON ELECTRICAL ROOM WALL. REFER TO DETAIL 4 ON SHEET EG701. FOR GROUND BAR INSTALLATION.
6. BOND GROUNDING ELECTRODE CONDUCTOR TO METAL UNDERGROUND WATER MAIN. FIELD TO DETERMINE MOST EFFECTIVE AREA OR LOCATION IN WHICH TO CONNECT.
7. BOND FIRE SPRINKLER RISER TO GROUND RING. FIELD TO DETERMINE MOST EFFECTIVE AREA OR LOCATION IN WHICH TO CONNECT. POINT OF ATTACHMENT OF THE BONDING JUMPER IS REQUIRED TO BE ACCESSIBLE.
8. BOND NATURAL GAS MAIN TO GROUND RING. FIELD TO DETERMINE MOST EFFECTIVE AREA OR LOCATION IN WHICH TO CONNECT. POINT OF ATTACHMENT OF THE BONDING JUMPER IS REQUIRED TO BE ACCESSIBLE.
9. BUILDING 18 STEEL ROOF HAS EXISTING TAIL OUTSIDE THE BUILDING, BOND TO BUILDING 25 GROUND RING.
10. BOND GROUNDING ELECTRODE CONDUCTOR PIGTAIL TO THE EQUIPMENT GROUND PAD PER THE EQUIPMENT MANUFACTURER'S INSTALLATION SPECIFICATIONS.

KEY PLAN

SCALE: 1/16" = 1'-0"

FAITH TECHNOLOGIES INCORPORATED

VOLLRATH
FACILITY EXPANSION - BUILDING 25
1236 N 18TH STREET
SHEBOYGAN, WI 53081
BUILDING 25 - GROUNDING PLAN

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RESP.
TJH
TJH

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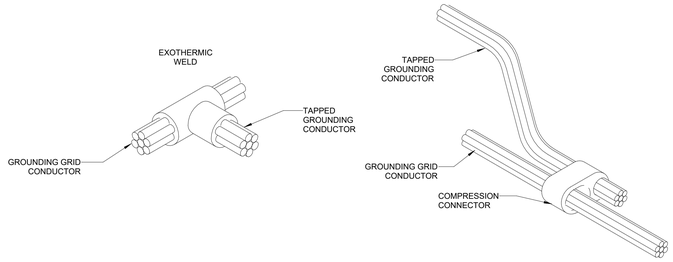
PRELIMINARY
NOT FOR CONSTRUCTION

PROJECT NUMBER
2502928

DRAWN BY:	T. HERMES
DESIGNED BY:	T. HERMES
APPROVED BY:	T. HERMES
DATE:	09/16/2025
SCALE:	1/16" = 1'-0"

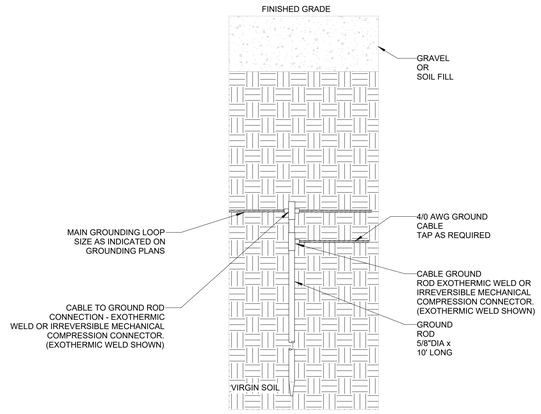
SHEET
BLDG25-EG101

PLOTTED ON: 12/17/2025 11:36:39 AM ARCH E1 (30"X42")



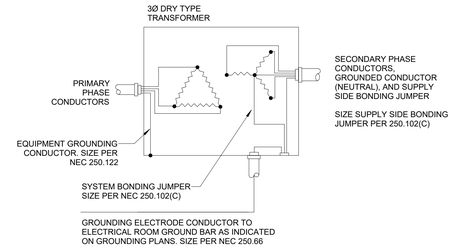
1 GROUNDING CABLE TAP CONNECTION

Scale: No Scale



2 GROUNDING GROUND ROD INSTALLATION

Scale: No Scale

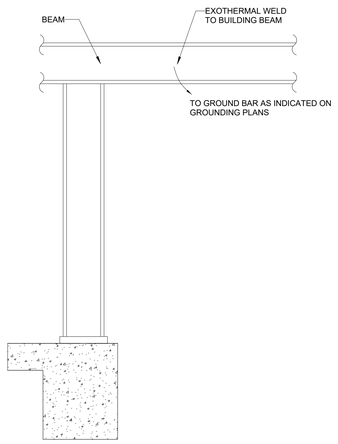


3 GROUNDING DRY TRANSFORMER

Scale: No Scale

4 GROUNDING TYPICAL WALL MOUNTED BUS BAR

Scale: No Scale



5 GROUNDING TO BUILDING STEEL

Scale: No Scale

FAITH TECHNOLOGIES INCORPORATED

VOLLRATH
FACILITY EXPANSION - BUILDING 25
1236 N 18TH STREET
SHEBOYGAN, WI 53081
GROUNDING DETAILS

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NO.	DATE	REVISIONS	RESP.
	10/10/2025	ISSUED FOR CLIENT REVIEW	TJH
	12/17/2025	ISSUED FOR PERMIT	TJH

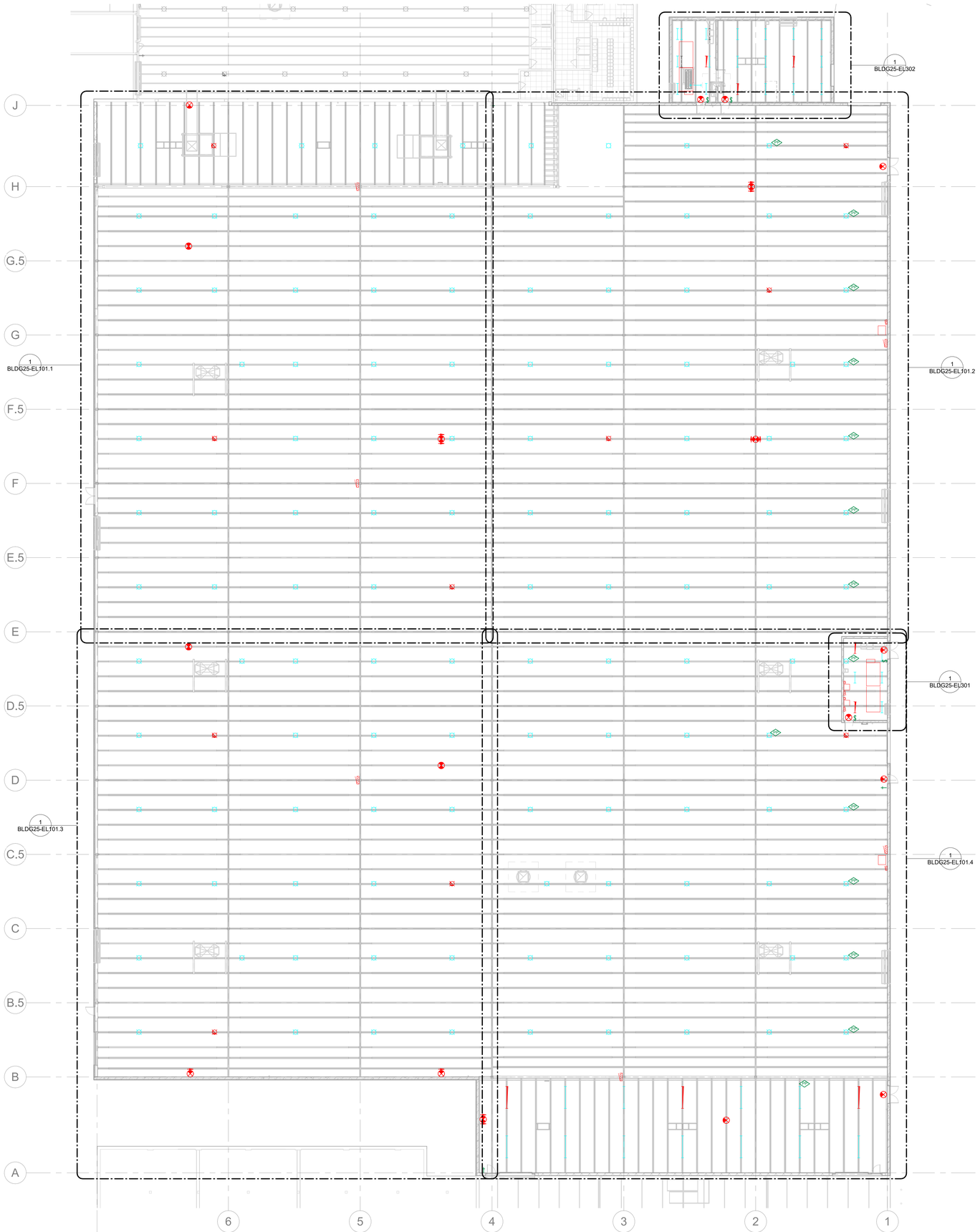
PRELIMINARY
NOT FOR CONSTRUCTION

PROJECT NUMBER
2502928

DRAWN BY:	T. HERMES
DESIGNED BY:	T. HERMES
APPROVED BY:	T. HERMES
DATE:	09/16/2025
SCALE:	NONE

SHEET
BLDG25-EG701

PLOTTED ON: 12/17/2025 11:36:49 AM ARCH E1 (30"X42")



GENERAL NOTES:

A. ALL FIXTURES TO BE SUPPLIED WITH 6'-0" CORD AND TWISTLOCK PLUG. EC TO PROVIDE (1) TWISTLOCK RECEPTACLE PER FIXTURE.

B. EXIT SIGNS SHALL BE HARDWIRED, FOLLOW MEANS AND METHODS FOR EACH LOCATION.

1 BUILDING 25 OVERALL - LIGHTING PLAN
Scale: 1/16" = 1'-0"

KEY PLAN

0' 8' 16' 32'
SCALE: 1/16" = 1'-0"

FAITH TECHNOLOGIES INCORPORATED

VOLLRATH
FACILITY EXPANSION - BUILDING 25
1236 N 18TH STREET
SHEBOYGAN, WI 53081
BUILDING 25 OVERALL - LIGHTING PLAN

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DRAWN BY:	T. HERMES
DESIGNED BY:	T. HERMES
APPROVED BY:	T. HERMES
DATE:	07/09/2025
SCALE:	1/16" = 1'-0"

SHEET
BLDG25-EL101

PLOTTED ON: 12/17/2025 11:39:42 AM
ARCHITECTURAL

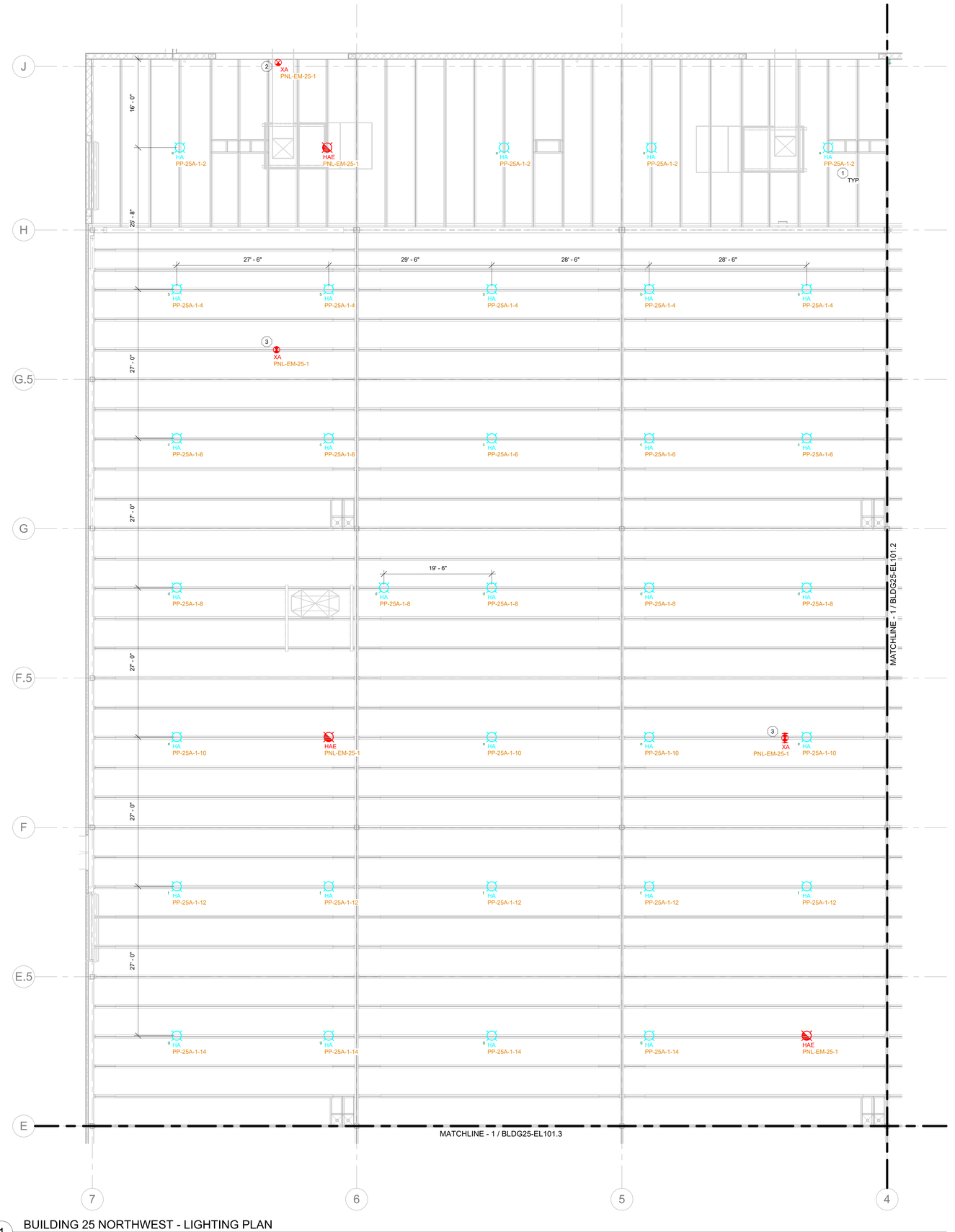
GENERAL NOTES:

A. ALL FIXTURES TO BE SUPPLIED WITH 6'-0" CORD AND TWISTLOCK PLUG. EC TO PROVIDE (1) TWISTLOCK RECEPTACLE PER FIXTURE.

B. EXIT SIGNS SHALL BE HARDWIRED, FOLLOW MEANS AND METHODS FOR EACH LOCATION.

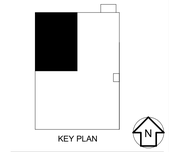
PLAN NOTES: (#)

1. TYPE HA AND HAE FIXTURES TO BE MOUNTED AT 38'-0" AFF, SECURED TO ROOF TRUSS WITH AIRCRAFT CABLE.
2. TYPE XA FIXTURE TO BE MOUNTED AT 12'-0" AFF, SECURED TO WALL.
3. TYPE XA FIXTURE BOTTOM SHALL BE MOUNTED NO HIGHER THAN 13'-0" AFF, PENDENT MOUNTED FROM ROOF TRUSSES. REFER TO DETAIL 2 ON SHEET EL701.



1 BUILDING 25 NORTHWEST - LIGHTING PLAN

Scale: 1/8" = 1'-0"



FAITH TECHNOLOGIES INCORPORATED

VOLLRATH
FACILITY EXPANSION - BUILDING 25
1236 N 18TH STREET
SHEBOYGAN, WI 53081
BUILDING 25 NORTHWEST - LIGHTING PLAN

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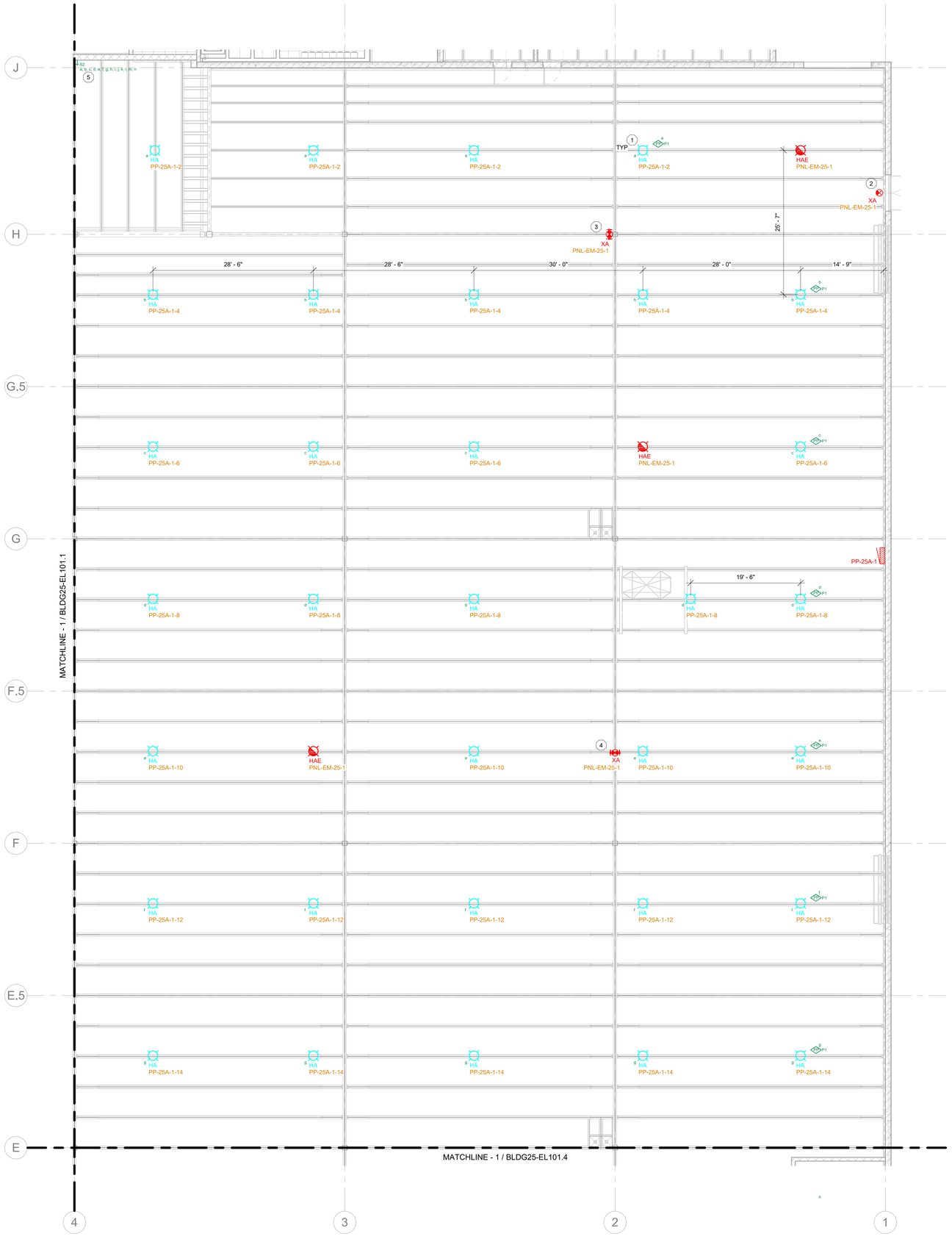
DATE:	07/09/2025
SCALE:	1/8" = 1'-0"

SHEET
BLDG25-EL101.1

PLOTTED ON: 12/17/2025 1:38:43 AM ARCH E (36"X24")



1 BUILDING 25 NORTHEAST - LIGHTING PLAN

Scale: 1/8" = 1'-0"

GENERAL NOTES:

A. ALL FIXTURES TO BE SUPPLIED WITH 6'-0" CORD AND TWISTLOCK PLUG. EC TO PROVIDE (1) TWISTLOCK RECEPTACLE PER FIXTURE.

B. EXIT SIGNS SHALL BE HARDWIRED, FOLLOW MEANS AND METHODS FOR EACH LOCATION.

PLAN NOTES: (#)

1. TYPE HA AND HAE FIXTURES TO BE MOUNTED AT 38'-0" AFF, SECURED TO ROOF TRUSS WITH AIRCRAFT CABLE.
2. TYPE XA FIXTURE TO BE MOUNTED AT 9'-0" AFF, SECURED TO WALL.
3. TYPE XA FIXTURE BOTTOM SHALL BE MOUNTED NO HIGHER THAN 9'-0" AFF, SIDE MOUNTED AND SECURED TO COLUMN.
4. TYPE XA FIXTURE BOTTOM SHALL BE MOUNTED NO HIGHER THAN 13'-0" AFF, PENDENT MOUNTED FROM ROOF TRUSSES. REFER TO DETAIL 2 ON SHEET EL701.
5. LIGHTING CONTROLS FOR THE PRODUCTION AREA SHALL BE WIRED TO TURN OFF NON-EMERGENCY LUMINARIES FOR THE ENTIRE AREA.

KEY PLAN

SCALE: 1/8" = 1'-0"

FAITH TECHNOLOGIES INCORPORATED

VOLLRATH
FACILITY EXPANSION - BUILDING 25
1236 N 18TH STREET
SHEBOYGAN, WI 53081
BUILDING 25 NORTHEAST- LIGHTING PLAN

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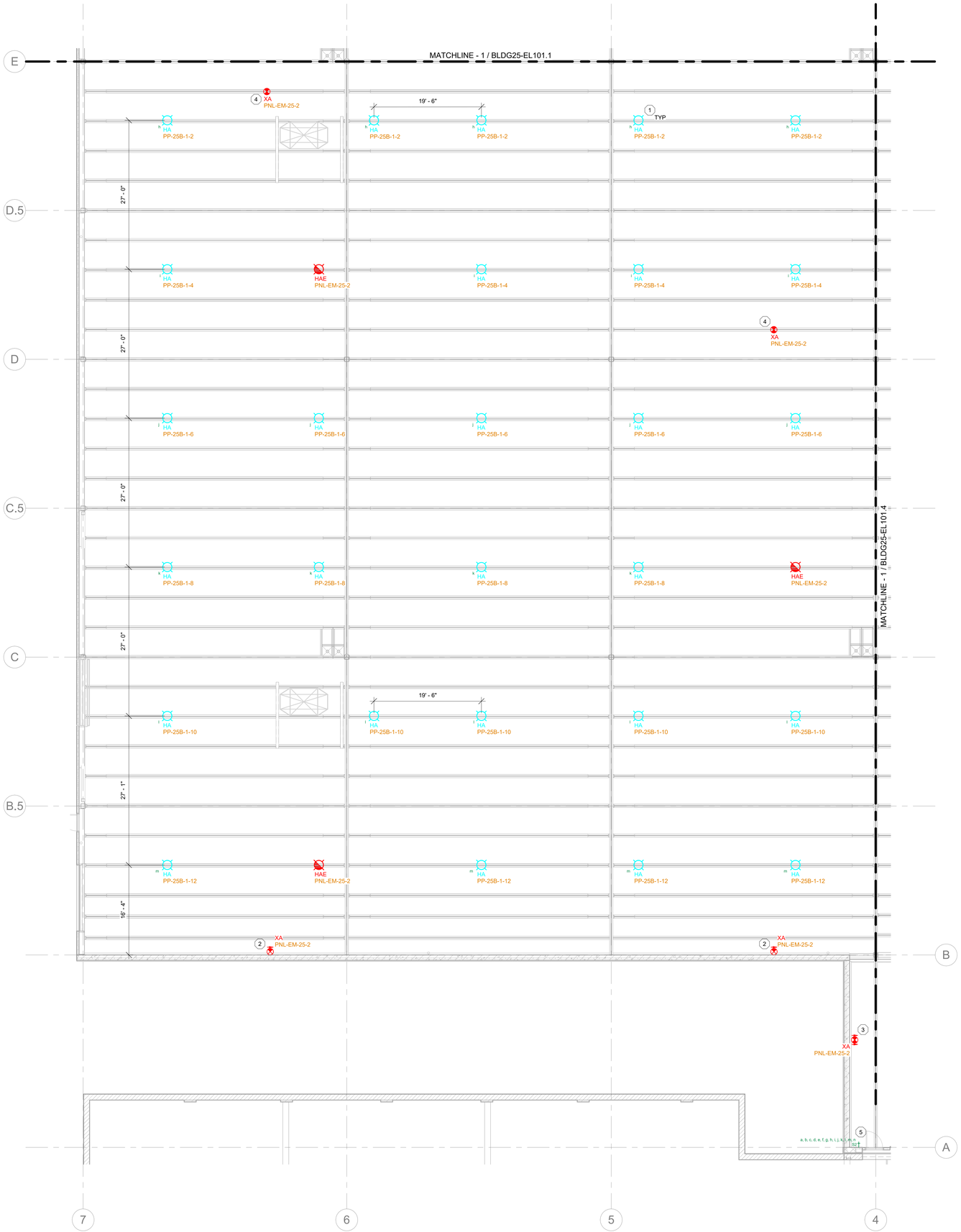
DATE:	07/09/2025
SCALE:	1/8" = 1'-0"

SHEET
BLDG25-EL101.2

PLOTTED ON: 12/17/2025 11:39:44 AM ARCH E1 (30"X42")



1 BUILDING 25 SOUTHWEST - LIGHTING PLAN

Scale: 1/8" = 1'-0"

GENERAL NOTES:

A. ALL FIXTURES TO BE SUPPLIED WITH 6'-0" CORD AND TWISTLOCK PLUG. EC TO PROVIDE (1) TWISTLOCK RECEPTACLE PER FIXTURE.

B. EXIT SIGNS SHALL BE HARDWIRED, FOLLOW MEANS AND METHODS FOR EACH LOCATION.

PLAN NOTES: (#)

1. TYPE HA AND HAE FIXTURES TO BE MOUNTED AT 38'-0" AFF, SECURED TO ROOF TRUSS WITH AIRCRAFT CABLE.
2. TYPE XA FIXTURE TO BE MOUNTED AT 9'-0" AFF, SECURED TO WALL.
3. TYPE XA FIXTURE BOTTOM SHALL BE MOUNTED NO HIGHER THAN 9'-0" AFF, SIDE MOUNTED AND SECURED TO WALL.
4. TYPE XA FIXTURE BOTTOM SHALL BE MOUNTED NO HIGHER THAN 13'-0" AFF, PENDENT MOUNTED FROM ROOF TRUSSES. REFER TO DETAIL 2 ON SHEET EL701.
5. LIGHTING CONTROLS FOR THE PRODUCTION AREA SHALL BE WIRED TO TURN OFF NON-EMERGENCY LUMINARIES FOR THE ENTIRE AREA.

KEY PLAN

SCALE: 1/8" = 1'-0"

FAITH TECHNOLOGIES INCORPORATED

VOLLRATH
FACILITY EXPANSION - BUILDING 25
1236 N 18TH STREET
SHEBOYGAN, WI 53081
BUILDING 25 SOUTHWEST - LIGHTING PLAN

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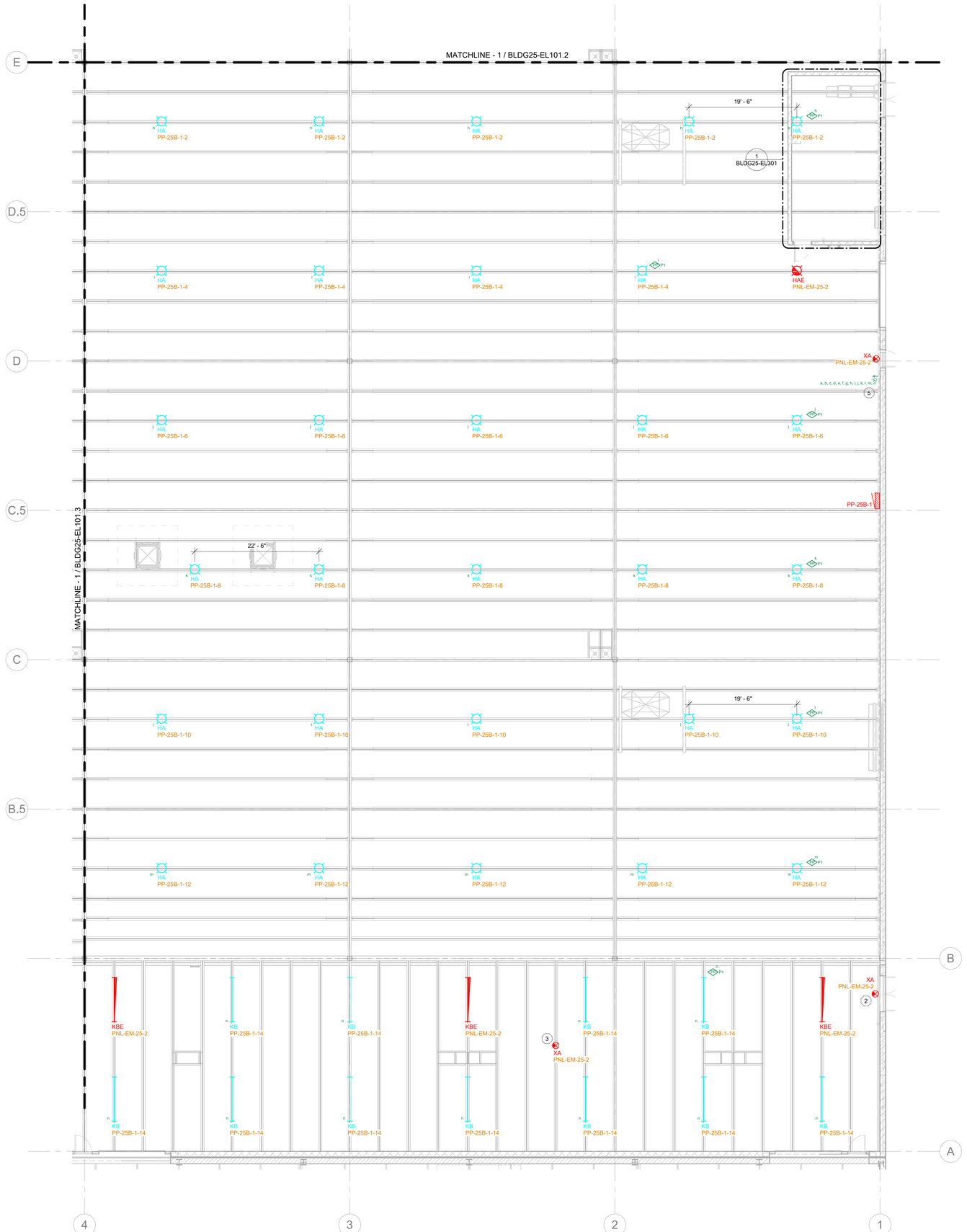
APPROVED BY:	T. HERMES
DATE:	07/09/2025
SCALE:	1/8" = 1'-0"

SHEET
BLDG25-EL101.3

PLOTTED ON: 12/17/2025 11:38:48 AM ARCH E1 (30"X42")



1 BUILDING 25 SOUTHEAST - LIGHTING PLAN

Scale: 1/8" = 1'-0"

GENERAL NOTES:

A. ALL FIXTURES TO BE SUPPLIED WITH 6'-0" CORD AND TWISTLOCK PLUG. EC TO PROVIDE (1) TWISTLOCK RECEPTACLE PER FIXTURE.

B. EXIT SIGNS SHALL BE HARDWIRED, FOLLOW MEANS AND METHODS FOR EACH LOCATION.

PLAN NOTES: (#)

1. TYPE HA AND HAE FIXTURES TO BE MOUNTED AT 38'-0" AFF, SECURED TO ROOF TRUSS WITH AIRCRAFT CABLE.
2. TYPE KB AND KBE FIXTURES TO BE MOUNTED AT 17'-8" AFF, SECURED TO STRUCTURAL STEEL MEMBERS WITH AIRCRAFT CABLE.
3. TYPE XA FIXTURE TO BE MOUNTED AT 9'-0" AFF, SECURED TO WALL.
4. TYPE XA FIXTURE BOTTOM SHALL BE MOUNTED NO HIGHER THAN 13'-0" AFF, PENDENT MOUNTED FROM ROOF TRUSSES. REFER TO DETAIL 2 ON SHEET EL701.
5. LIGHTING CONTROLS FOR THE PRODUCTION AREA SHALL BE WIRED TO TURN OFF NON-EMERGENCY LUMINARIES FOR THE ENTIRE AREA.

KEY PLAN

SCALE: 1/8" = 1'-0"

FAITH TECHNOLOGIES INCORPORATED

VOLLRATH
FACILITY EXPANSION - BUILDING 25
1236 N 18TH STREET
SHEBOYGAN, WI 53081
BUILDING 25 SOUTHEAST - LIGHTING PLAN

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DESIGNED BY: T. HERMES
APPROVED BY: T. HERMES
DATE: 07/09/2025
SCALE: 1/8" = 1'-0"

SHEET
BLDG25-EL101.4

PLOTTED ON: 12/17/2025 11:38:47 AM
ARCH E1 (30"X42")

GENERAL NOTES:

A. ALL FIXTURES TO BE SUPPLIED WITH 6'-0" CORD AND TWISTLOCK PLUG. EC TO PROVIDE (1) TWISTLOCK RECEPTACLE PER FIXTURE.

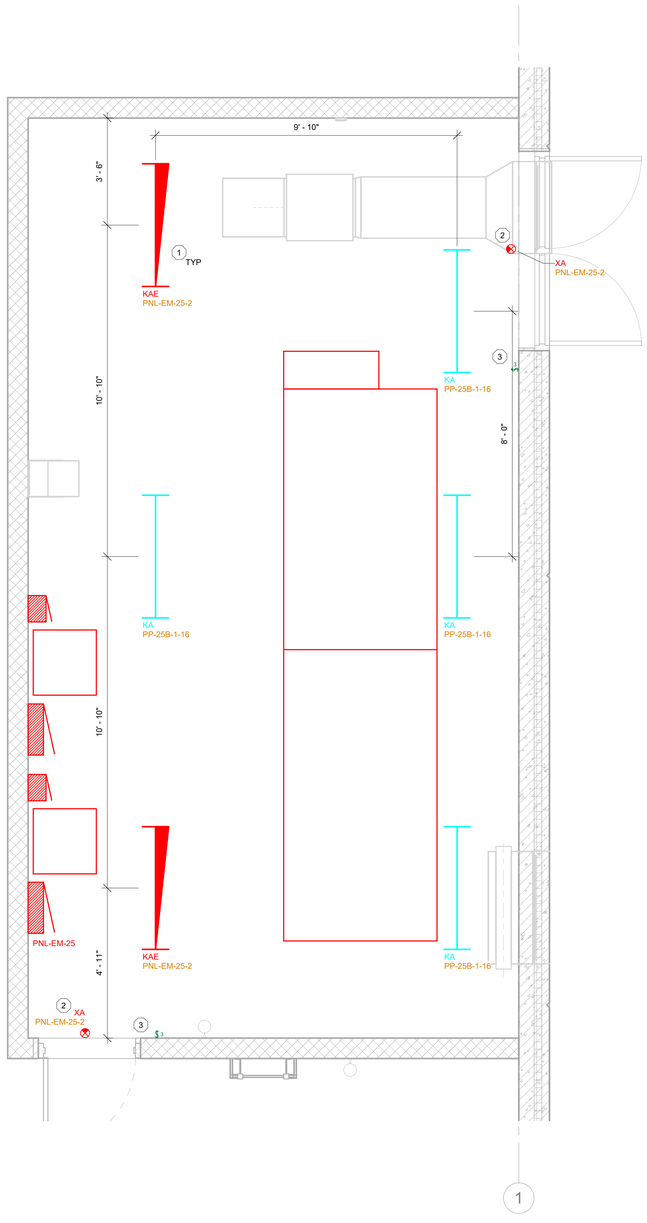
B. EXIT SIGNS SHALL BE HARDWIRED, FOLLOW MEANS AND METHODS FOR EACH LOCATION.

PLAN NOTES: (#)

1. TYPE KA AND KAE FIXTURES TO BE MOUNTED AT 15'-0" AFF, LIGHT FIXTURE BRACKET TO BE SECURED TO CEILING.

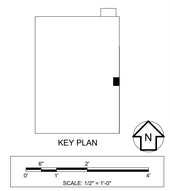
2. TYPE XA FIXTURE TO BE MOUNTED AT 9'-0" AFF, SECURED TO WALL.

3. LIGHTING CONTROLS FOR THE ELECTRICAL ROOM SHALL BE WIRED SUCH THAT EITHER SWITCH CAN TURN OFF NON-EMERGENCY LUMINARIES FOR THE ROOM.



1 BUILDING 25 SUBSTATION 101 ROOM - LIGHTING PLAN

Scale: 1/2" = 1'-0"



FAITH TECHNOLOGIES INCORPORATED

VOLLRATH
FACILITY EXPANSION - BUILDING 25
1236 N 18TH STREET
SHEBOYGAN, WI 53081
BUILDING 25 SUBSTATION 101 ROOM - LIGHTING PLAN

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T.J.H

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DESIGNED BY:	T. HERMES
APPROVED BY:	T. HERMES
DATE:	07/09/2025
SCALE:	1/2" = 1'-0"

SHEET
BLDG25-EL301

PLOTTED ON: 12/17/2025 11:36:48 AM
ARCH E1 (30"X42")

GENERAL NOTES:

A. ALL FIXTURES TO BE SUPPLIED WITH 6'-0" CORD AND TWISTLOCK PLUG. EC TO PROVIDE (1) TWISTLOCK RECEPTACLE PER FIXTURE.

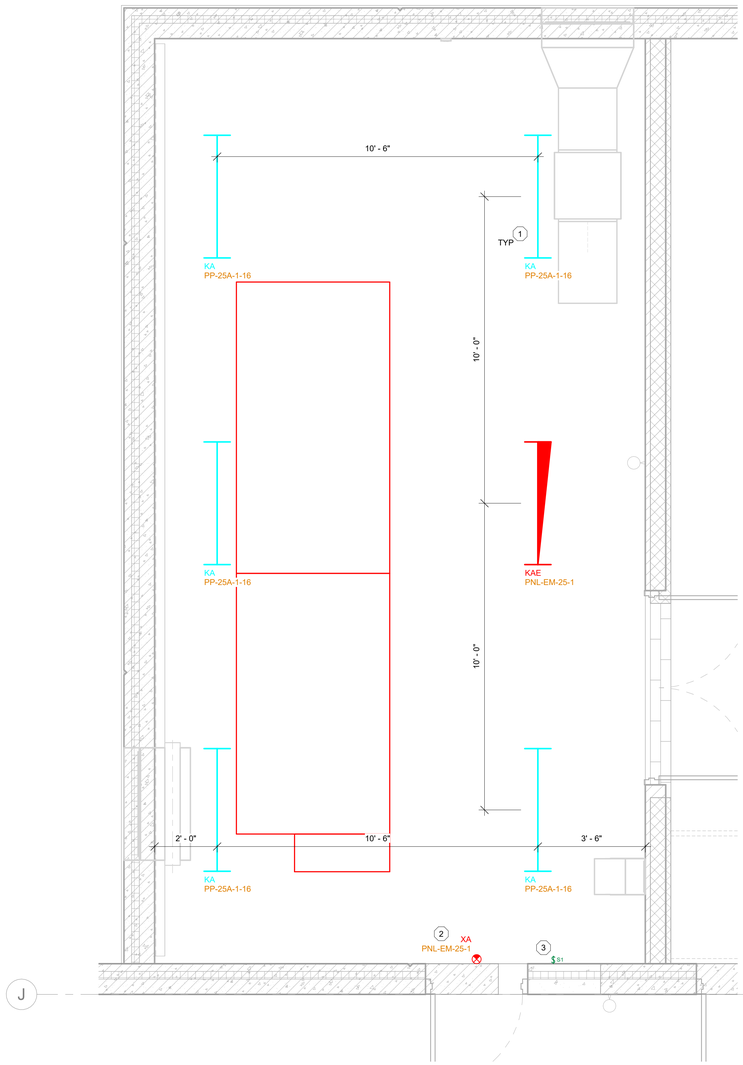
B. EXIT SIGNS SHALL BE HARDWIRED, FOLLOW MEANS AND METHODS FOR EACH LOCATION.

PLAN NOTES: (#)

1. TYPE KA AND KAE FIXTURES TO BE MOUNTED AT 15'-0" AFF, LIGHT FIXTURE BRACKET TO BE SECURED TO CEILING.

2. TYPE XA FIXTURE TO BE MOUNTED AT 9'-0" AFF, SECURED TO WALL.

3. LIGHTING CONTROL FOR THE ELECTRICAL ROOM SHALL BE WIRED TO TURN OFF NON-EMERGENCY LUMINARIES FOR THE ROOM.



1 BUILDING 25 SUBSTATION 103 ROOM - LIGHTING PLAN

Scale: 1/2" = 1'-0"

FAITH TECHNOLOGIES INCORPORATED

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FACILITY EXPANSION - BUILDING 25
1236 N 18TH STREET
SHEBOYGAN, WI 53081
BUILDING 25 SUBSTATION 103 ROOM - LIGHTING PLAN

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NO:	DATE:	REVISIONS:
	11/10/25	ISSUED FOR CLIENT REVIEW
	12/17/2025	ISSUED FOR PERMIT

RESP: TJH TJH

PRELIMINARY
NOT FOR CONSTRUCTION

PROJECT NUMBER
2502928

DRAWN BY:	T. HERMES
DESIGNED BY:	T. HERMES
APPROVED BY:	T. HERMES
DATE:	07/09/2025
SCALE:	1/2" = 1'-0"

KEY PLAN

SCALE: 1/2" = 1'-0"

SHEET
BLDG25-EL302

PLOTTED ON: 12/17/2025 11:38:48 AM
ARCH E1 (30"X42")

GENERAL NOTES:

A. ALL FIXTURES TO BE SUPPLIED WITH 6'-0" CORD AND TWISTLOCK PLUG. EC TO PROVIDE (1) TWISTLOCK RECEPTACLE PER FIXTURE.

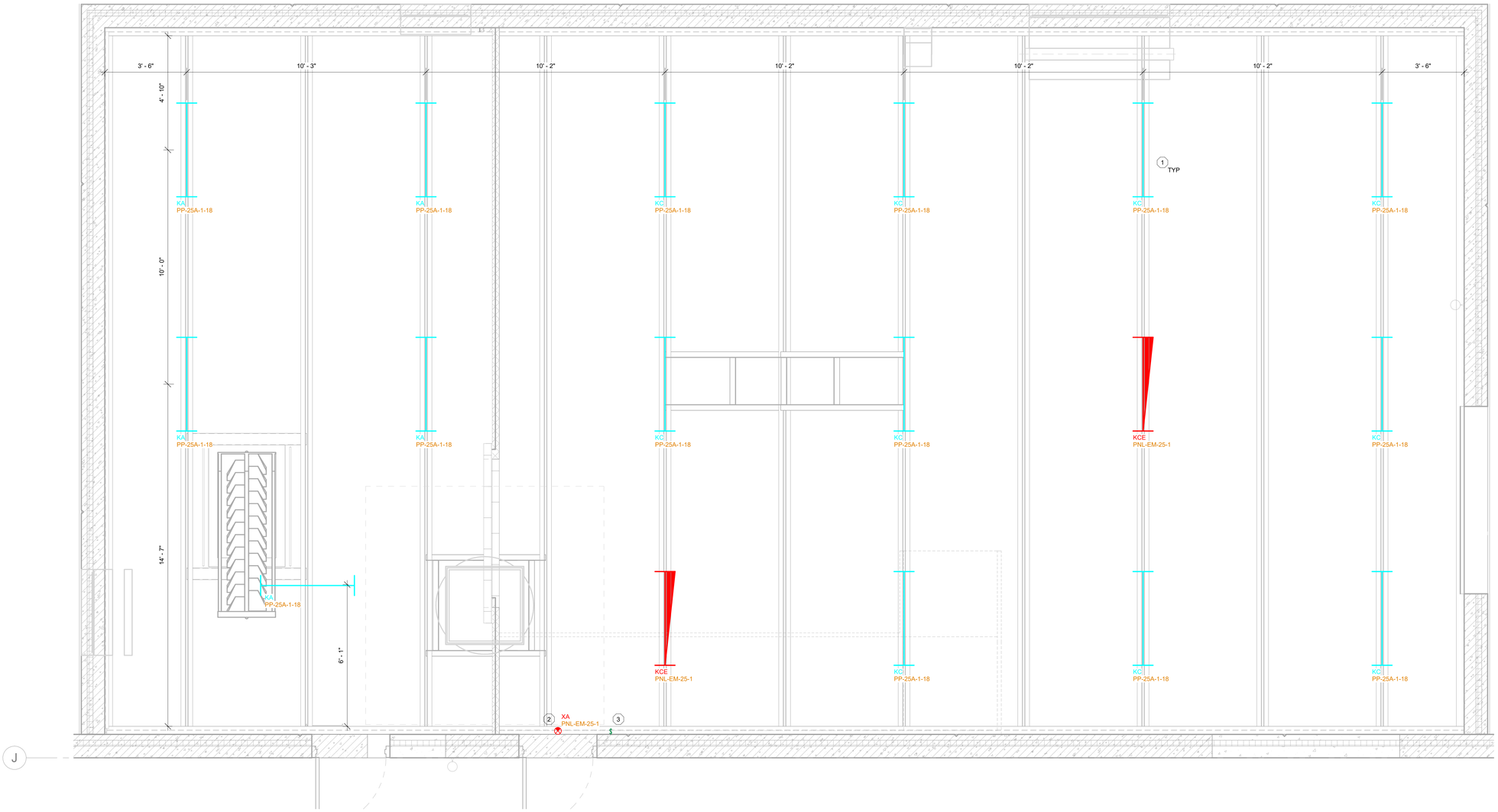
B. EXIT SIGNS SHALL BE HARDWIRED, FOLLOW MEANS AND METHODS FOR EACH LOCATION.

PLAN NOTES: (#)

1. TYPE KA, KAE, KC, AND KCE FIXTURES TO BE MOUNTED AT 27'-0" ABOVE LEVEL 1 ELEVATION. LIGHT FIXTURE BRACKET TO BE SECURED TO ROOF TRUSS.

2. TYPE XA FIXTURE TO BE MOUNTED AT 9'-0" AFF, SECURED TO WALL.

3. LIGHTING CONTROLS FOR COMPRESSOR 102 ROOM SHALL BE WIRED TO TURN OFF LUMINARIES FOR THE ENTIRE AREA.



1 BUILDING 25 COMPRESSOR 102 ROOM - LIGHTING PLAN

Scale: 1/2" = 1'-0"

KEY PLAN

SCALE: 1/2" = 1'-0"

FAITH TECHNOLOGIES INCORPORATED

VOLLRATH
FACILITY EXPANSION - BUILDING 25
1236 N 18TH STREET
SHEBOYGAN, WI 53081

BUILDING 25 COMPRESSOR 102 ROOM - LIGHTING PLAN

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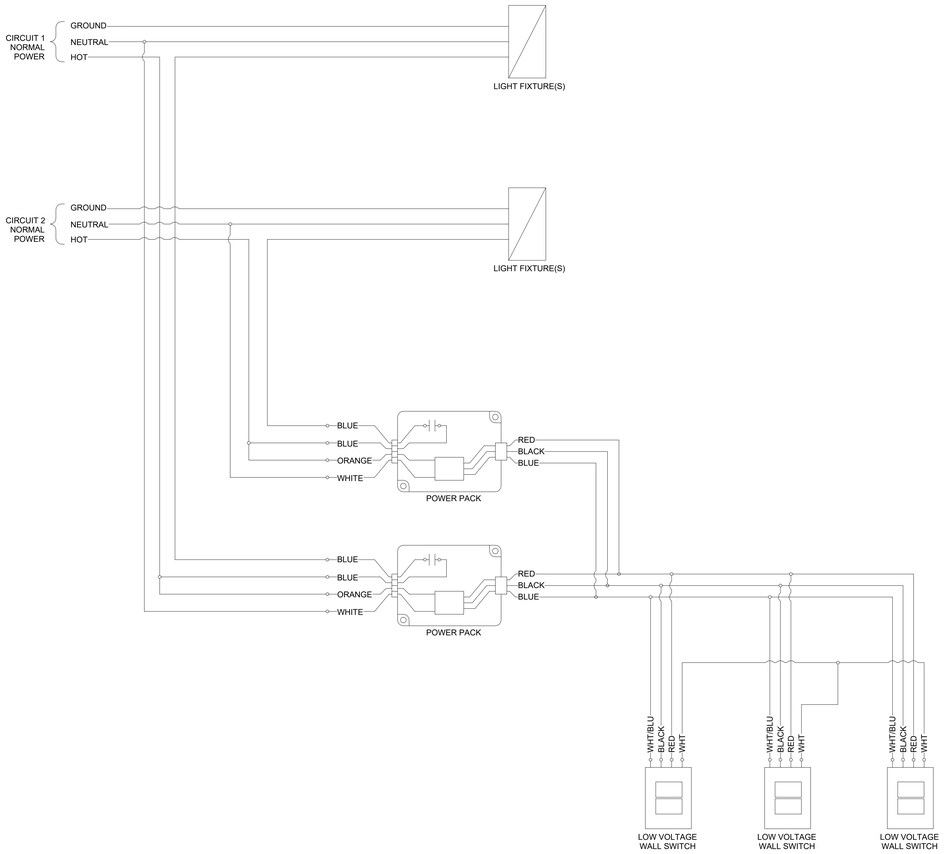
APPROVED BY:	T. HERMES
DATE:	07/09/2025
SCALE:	1/2" = 1'-0"

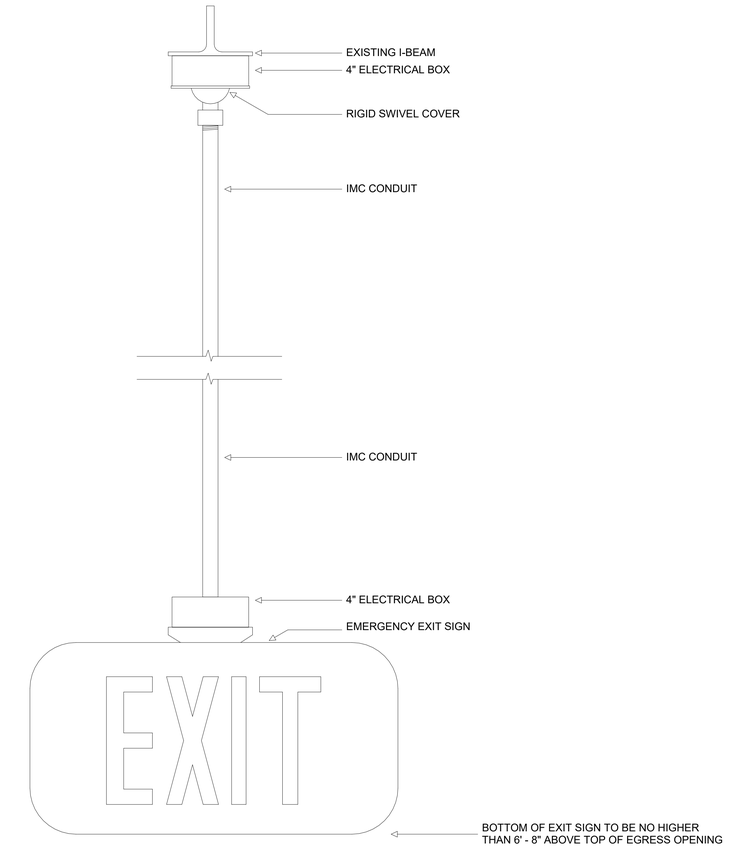
SHEET
BLDG25-EL303

PLOTTED ON: 12/17/2025 11:36:49 AM ARCH E1 (30"X42")



1 TYPICAL LIGHTING CONTROL SENSORS

Scale: No Scale



2 EMERGENCY EXIT SIGN MOUNTING

Scale: No Scale

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VOLLRATH
FACILITY EXPANSION - BUILDING 25
1236 N 18TH STREET
SHEBOYGAN, WI 53081
LIGHTING DETAILS

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PRELIMINARY
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PROJECT NUMBER
2502928

DRAWN BY: T. HERMES
DESIGNED BY: T. HERMES
APPROVED BY: T. HERMES
DATE: 10/10/2025
SCALE: NONE

SHEET
BLDG25-EL701

PLOTTED ON: 12/17/2025 11:36:50 AM
ARCH E1 (30"X42")

LIGHTING FIXTURE SCHEDULE

QTY	TYPE	DESCRIPTION	MANUFACTURER	CATALOG NUMBER	LAMP TYPE	LAMP COLOR	VOLTAGE	WATTAGE	NOTES
120	HA	REBL ROUND HIGH BAY	LITHONIA	REBL AL028 WD UVOLT SWW9 80CRI DWH CPTLW	LED	4000 K	277 V	257 W	MOUNTING OPTIONS: 3/4" HOOK, CORD: 6' 15AMP TWIST LOCK PLUG
10	HAE	REBL ROUND HIGH BAY, EMERGENCY	LITHONIA	REBL AL028 WD UVOLT SWW9 80CRI DWH CPTLW	LED	4000 K	277 V	257 W	MOUNTING OPTIONS: 3/4" HOOK, CORD: 6' 15AMP TWIST LOCK PLUG
14	KA	4' LED STRIP LIGHT, 7000 LUMENS	LITHONIA	CLX L48 7000LM SEF RDL MVOLT GZ10 40K 80CRI CS11W WH	LED	4000 K	277 V	46.6 W	MOUNTING OPTIONS: AIRCRAFT CABLE, CORD: 6' 15AMP TWIST LOCK PLUG
3	KAE	4' LED STRIP LIGHT, 7000 LUMENS, EMERGENCY	LITHONIA	CLX L48 7000LM SEF RDL MVOLT GZ10 40K 80CRI CS11W WH	LED	4000 K	277 V	46.6 W	MOUNTING OPTIONS: AIRCRAFT CABLE, CORD: 6' 15AMP TWIST LOCK PLUG
11	KB	8' LED STRIP LIGHT, 20000 LUMENS	LITHONIA	CLX L96 20000LM SEF RDL MVOLT GZ10 40K 80CRI CS11W WH	LED	4000 K	277 V	141.3 W	MOUNTING OPTIONS: AIRCRAFT CABLE, CORD: 6' 15AMP TWIST LOCK PLUG
3	KBE	8' LED STRIP LIGHT, 20000 LUMENS, EMERGENCY	LITHONIA	CLX L96 20000LM SEF RDL MVOLT GZ10 40K 80CRI CS11W WH	LED	4000 K	277 V	141.3 W	MOUNTING OPTIONS: AIRCRAFT CABLE, CORD: 6' 15AMP TWIST LOCK PLUG
10	KC	4' LED STRIP LIGHT, 10000 LUMENS	LITHONIA	CLX L48 10000LM SEF RDL MVOLT GZ10 40K 80CRI CS11W WH	LED	4000 K	277 V	70.7 W	MOUNTING OPTIONS: AIRCRAFT CABLE, CORD: 6' 15AMP TWIST LOCK PLUG
2	KCE	4' LED STRIP LIGHT, 10000 LUMENS, EMERGENCY	LITHONIA	CLX L48 10000LM SEF RDL MVOLT GZ10 40K 80CRI CS11W WH	LED	4000 K	277 V	70.7 W	MOUNTING OPTIONS: AIRCRAFT CABLE, CORD: 6' 15AMP TWIST LOCK PLUG
1	OA	EXTERIOR WALL PACK - ABOVE DOOR	LITHONIA	WDGE2 LED P3 50K 80CRI T3M MVOLT SRM DBLXD	LED	5000 K	277 V	32.0 W	
7	OB	EXTERIOR WALL PACK	LITHONIA	WDGE4 LED P3 50K 80CRI R3 MVOLT SRM DBLXD	LED	5000 K	277 V	123.0 W	
18	XA	EMERGENCY EXIT SIGN	LITHONIA	LQM S W RG MVOLT	LED		277 V	3.0 W	

LIGHTING CONTROLS SCHEDULE

COUNT	TYPE	DESCRIPTION	MANUFACTURER	MODEL	NOTES
2	3	3-WAY SWITCH	LEVITON	A1223-2	OR EQUIVALENT
14	P1	POWER PACK 120/277VAC	SENSOR SWITCH	PP20	OR EQUIVALENT
2	S1	SINGLE POLE SWITCH	LEVITON	A1221-2	OR EQUIVALENT
3	S2	LOW VOLTAGE SWITCH ON/OFF	SENSOR SWITCH	SPODM	OR EQUIVALENT

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VOLLRATH
FACILITY EXPANSION - BUILDING 25
1236 N 18TH STREET
SHEBOYGAN, WI 53081
LIGHTING FIXTURE AND CONTROLS SCHEDULE

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12/17/2025	2	ISSUED FOR PERMIT	TJH

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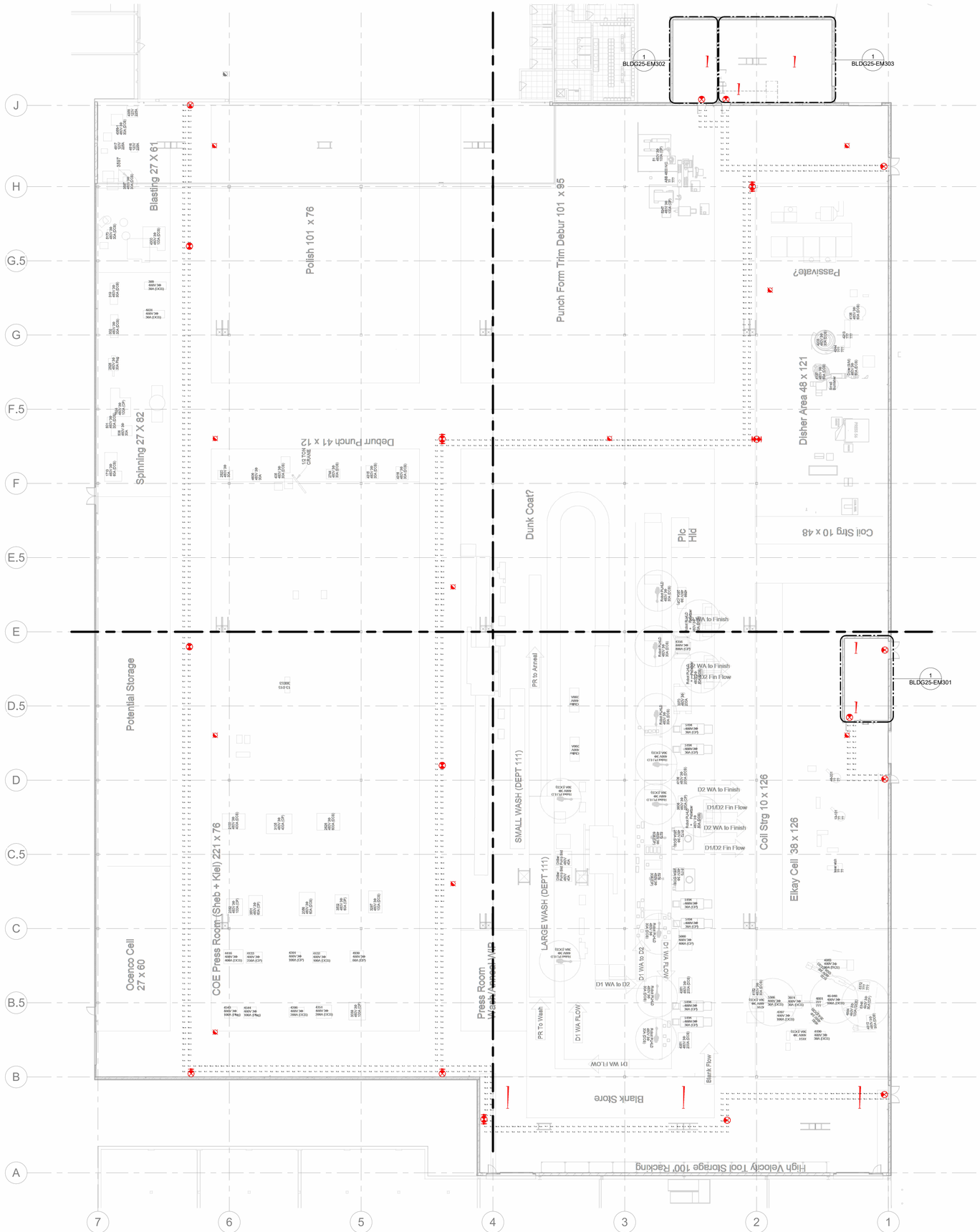
PROJECT NUMBER
2502928

DRAWN BY: T. HERMES
DESIGNED BY: T. HERMES
APPROVED BY: T. HERMES
DATE: 07/09/2025
SCALE: NONE

SHEET
BLDG25-EL801

PLOTTED ON: 12/17/2025 11:36:59 AM ARCH E1 (30"X42")



1 BUILDING 25 - EMERGENCY LIGHTING PHOTOMETRICS
Scale: 1/16" = 1'-0"

GENERAL NOTES:

A. EMERGENCY PHOTOMETRICS WERE CALCULATED USING EGRESS PATHWAYS FROM THE ELECTRICAL ROOM, AS IDENTIFIED BY THE LIFE SAFETY PLAN PROVIDED BY ABACUS ARCHITECTS.

EMERGENCY PHOTOMETRICS

LABEL	AVERAGE (FC)	MAXIMUM (FC)	MINIMUM (FC)	MAXIMUM/MINIMUM RATIO
BUILDING 25 EGRESS PATH	6.58	19.2	1.4	13.71
BUILDING 25 SUB. 101 EGRESS PATH	10.1	11.8	7.6	1.55

KEY PLAN

SCALE: 1/16" = 1'-0"

FAITH TECHNOLOGIES INCORPORATED

VOLLRATH
FACILITY EXPANSION - BUILDING 25
1236 N 18TH STREET
SHEBOYGAN, WI 53081

BUILDING 25 - EMERGENCY LIGHTING PHOTOMETRICS

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RESP.	
TJH	
TJH	

PROJECT NUMBER
2502928

DRAWN BY:	T. HERMES
DESIGNED BY:	T. HERMES
APPROVED BY:	T. HERMES
DATE:	10/10/2025
SCALE:	1/16" = 1'-0"

SHEET
BLDG25-EM101

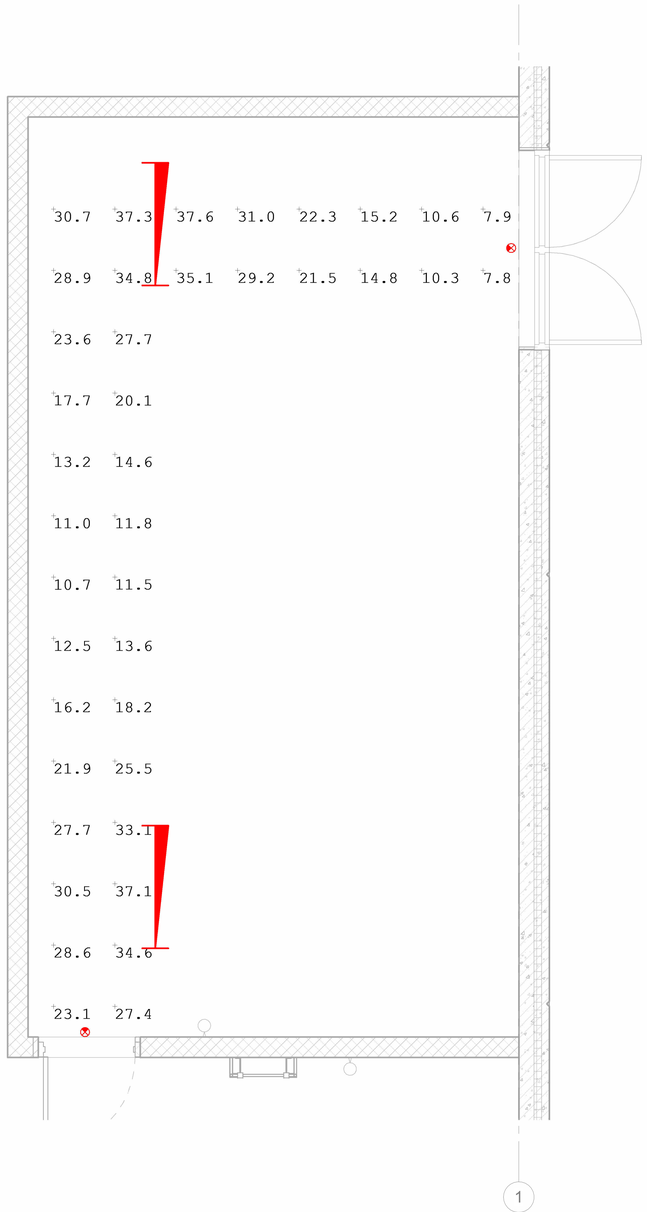
PLOTTED ON: 12/17/2025 11:38:04 AM
ARCH E1 (30"X42")

GENERAL NOTES:

A. EMERGENCY PHOTOMETRICS WERE CALCULATED USING EGRESS PATHWAYS FROM THE ELECTRICAL ROOM, AS IDENTIFIED BY THE LIFE SAFETY PLAN PROVIDED BY ABACUS ARCHITECTS.

EMERGENCY PHOTOMETRICS

LABEL	AVERAGE (FC)	MAXIMUM (FC)	MINIMUM (FC)	MAXIMUM/MINIMUM RATIO
BUILDING 25 SUB. 101 EGRESS PATH	22.17	37.6	7.8	4.82



1 BUILDING 25 SUBSTATION 101 ROOM - EMERGENCY LIGHTING PHOTOMETRICS
Scale: 1/2" = 1'-0"

FAITH TECHNOLOGIES INCORPORATED

VOLLRATH
FACILITY EXPANSION - BUILDING 25
1236 N 18TH STREET
SHEBOYGAN, WI 53081
BUILDING 25 SUBSTATION 101 ROOM - EMERGENCY LIGHTING PHOTOMETRICS

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RESP: TJH TJH

PROJECT NUMBER
2502928

DRAWN BY: T. HERMES
DESIGNED BY: T. HERMES
APPROVED BY: T. HERMES
DATE: 07/09/2025
SCALE: 1/2" = 1'-0"

KEY PLAN

SCALE: 1/2" = 1'-0"

SHEET
BLDG25-EM301

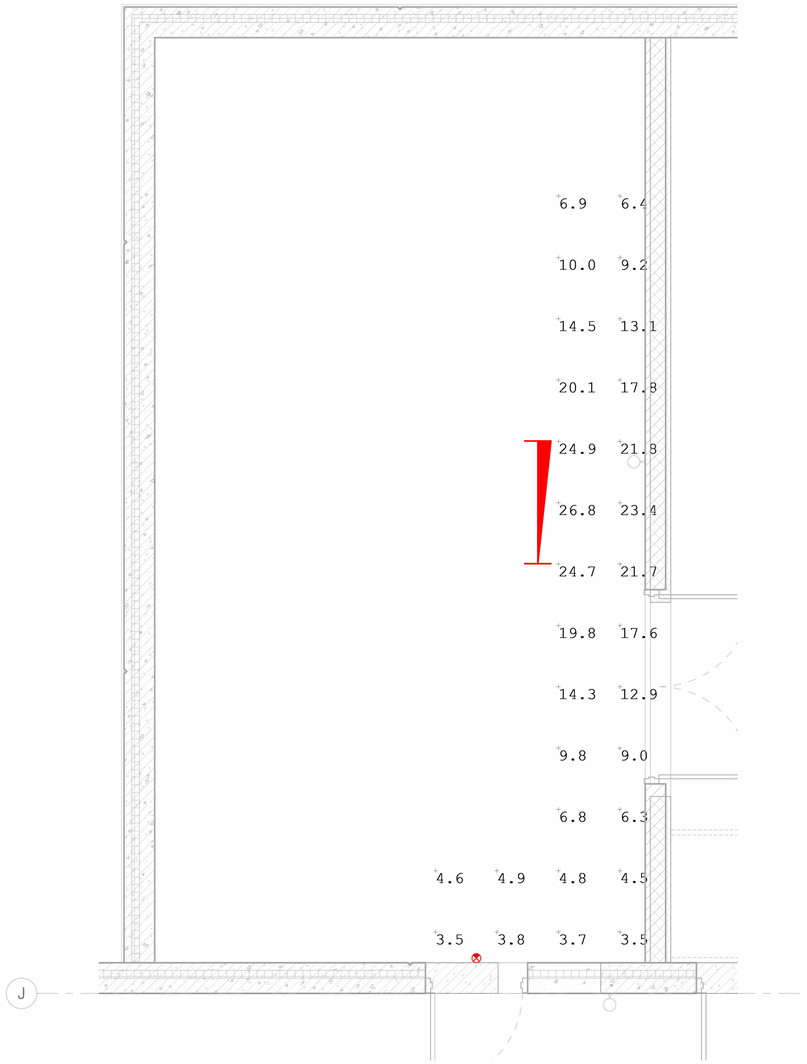
PLOTTED ON: 12/17/2025 11:38:18 AM
ARCH E1 (30"X42")

GENERAL NOTES:

A. EMERGENCY PHOTOMETRICS WERE CALCULATED USING EGRESS PATHWAYS FROM THE ELECTRICAL ROOM, AS IDENTIFIED BY THE LIFE SAFETY PLAN PROVIDED BY ABACUS ARCHITECTS.

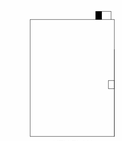
EMERGENCY PHOTOMETRICS

LABEL	AVERAGE (FC)	MAXIMUM (FC)	MINIMUM (FC)	MAXIMUM/MINIMUM RATIO
BUILDING 25 SUB. 103 EGRESS PATH	12.37	26.8	3.5	7.66



1 BUILDING 25 SUBSTATION 103 ROOM - EMERGENCY LIGHTING PHOTOMETRICS

Scale: 1/2" = 1'-0"



KEY PLAN

0" 1" 2" 4"

SCALE: 1/2" = 1'-0"

FAITH TECHNOLOGIES INCORPORATED

VOLLRATH

FACILITY EXPANSION - BUILDING 25

1236 N 18TH STREET
SHEBOYGAN, WI 53081

BUILDING 25 SUBSTATION 103 ROOM - EMERGENCY LIGHTING PHOTOMETRICS

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SCALE: 1/2" = 1'-0"

SHEET
BLDG25-EM302

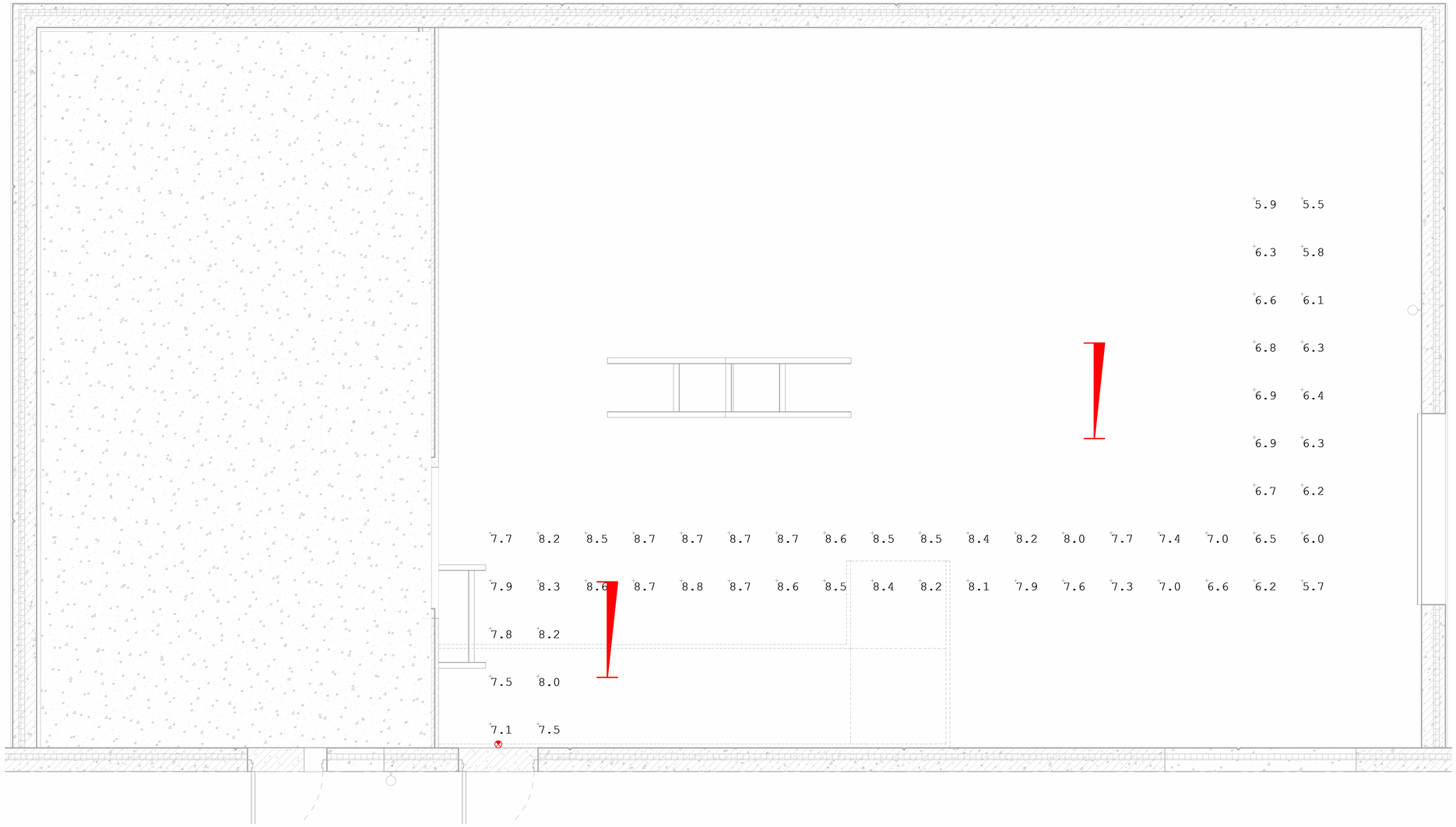
PLOTTED ON: 12/17/2025 11:38:25 AM
ARCH E1 (30"X42")

GENERAL NOTES:

A. EMERGENCY PHOTOMETRICS WERE CALCULATED USING EGRESS PATHWAYS FROM THE ELECTRICAL ROOM, AS IDENTIFIED BY THE LIFE SAFETY PLAN PROVIDED BY ABACUS ARCHITECTS.

EMERGENCY PHOTOMETRICS

LABEL	AVERAGE (FC)	MAXIMUM (FC)	MINIMUM (FC)	MAXIMUM/MINIMUM RATIO
BUILDING 25 COMPRESSOR 102 EGRESS PATH	7.48	8.8	5.5	1.6



1 BUILDING 25 COMPRESSOR 102 ROOM - EMERGENCY LIGHTING PHOTOMETRICS

Scale: 1/2" = 1'-0"

KEY PLAN

SCALE: 1/2" = 1'-0"

FAITH TECHNOLOGIES INCORPORATED

VOLLRATH
FACILITY EXPANSION - BUILDING 25
1236 N 18TH STREET
SHEBOYGAN, WI 53081
BUILDING 25 COMPRESSOR 102 ROOM - EMERGENCY LIGHTING PHOTOMETRICS

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RESP:
T.GH
T.LH
T.JH

PROJECT NUMBER
2502928

DRAWN BY: T. HERMES
DESIGNED BY: T. HERMES
APPROVED BY: T. HERMES
DATE: 07/09/2025
SCALE: 1/2" = 1'-0"

SHEET
BLDG25-EM303

PLOTTED ON: 12/17/2025 11:08:33 AM
ARCH E1 (30"X42")

GENERAL NOTES:

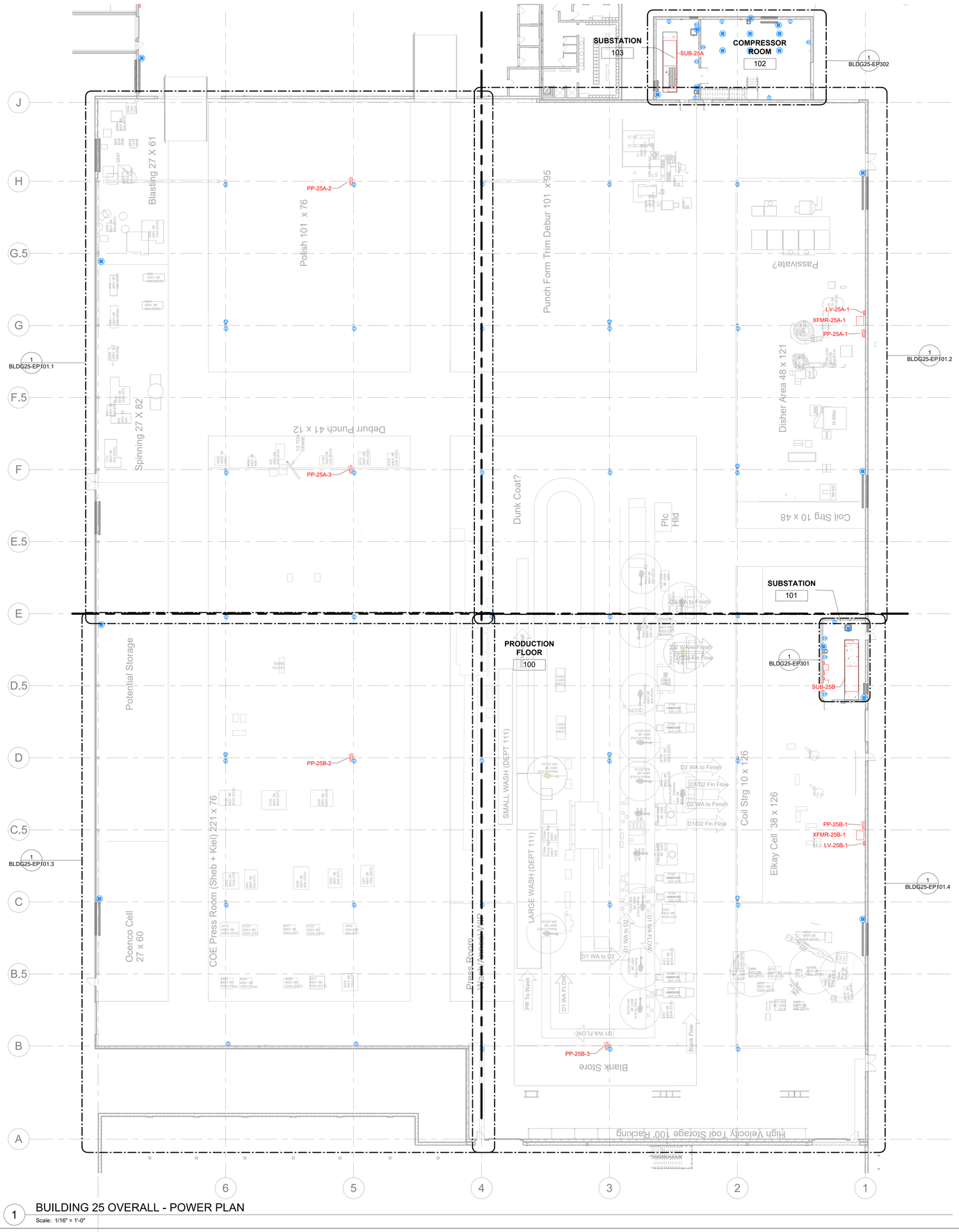
A. ALL INDOOR ELECTRICAL EQUIPMENT SHALL HAVE NEMA 1 ENCLOSURE RATING, ALL OUTDOOR ELECTRICAL EQUIPMENT SHALL HAVE NEMA 3R ENCLOSURE RATING.

B. COLUMN MOUNTED RECEPTACLES SHALL BE MOUNTED AT 48" AFF.

C. WELDING RECEPTACLES SHALL HAVE INTEGRAL NON-FUSED 60A DISCONNECT WITH MELTRIC 3Ø, 4W, RECEPTACLE.

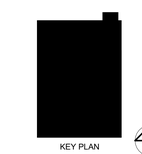
D. UNLESS OTHERWISE NOTED, CONTROL OF ALL HVAC EQUIPMENT BY OTHERS, ELECTRICAL CONTRACTOR TO PROVIDE LINE POWER ONLY.

E. PROCESS EQUIPMENT IS SHOWN AS PRELIMINARY AND SUBJECT TO CHANGE. PHASE 2 OF THE PROJECT SHALL INCORPORATE POWER FEEDS TO PROCESS EQUIPMENT..



1 BUILDING 25 OVERALL - POWER PLAN

Scale: 1/16" = 1'-0"



KEY PLAN

SCALE: 1/16" = 1'-0"

FAITH TECHNOLOGIES INCORPORATED

VOLLRATH
FACILITY EXPANSION - BUILDING 25
1236 N 18TH STREET
SHEBOYGAN, WI 53081
BUILDING 25 OVERALL - POWER PLAN

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SHEET
BLDG25-EP101

PLOTTED ON: 12/17/2025 11:36:55 AM
ARCHITECTURAL

GENERAL NOTES:

A. ALL INDOOR ELECTRICAL EQUIPMENT SHALL HAVE NEMA 1 ENCLOSURE RATING, ALL OUTDOOR ELECTRICAL EQUIPMENT SHALL HAVE NEMA 3R ENCLOSURE RATING.

B. COLUMN MOUNTED RECEPTACLES SHALL BE MOUNTED AT 48" AFF.

C. WELDING RECEPTACLES SHALL HAVE INTEGRAL NON-FUSED 60A DISCONNECT WITH MELTRIC 3Ø, 4W, RECEPTACLE.

D. UNLESS OTHERWISE NOTED, CONTROL OF ALL HVAC EQUIPMENT BY OTHERS, ELECTRICAL CONTRACTOR TO PROVIDE LINE POWER ONLY.

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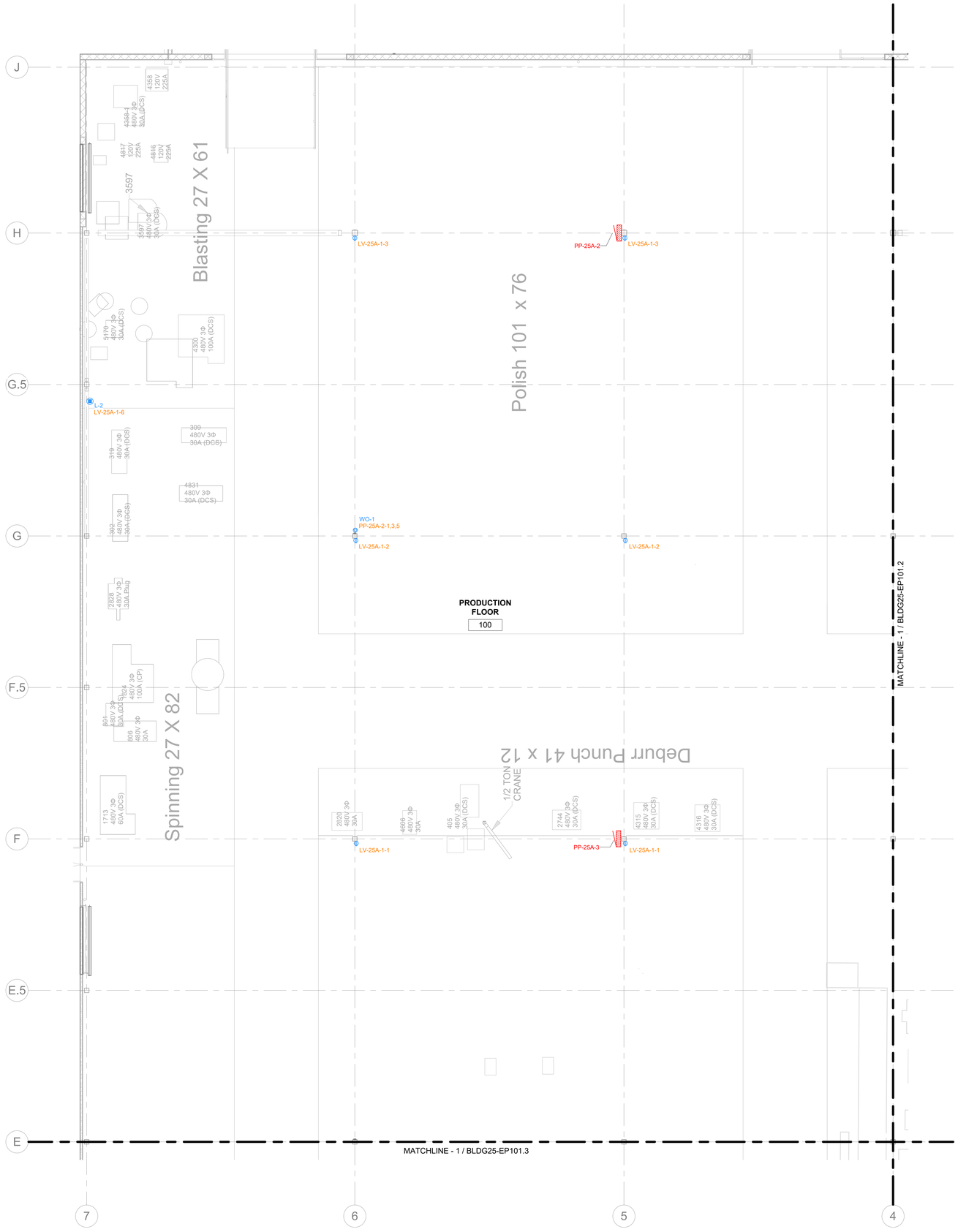

1 BUILDING 25 NORTHWEST - POWER PLAN
Scale: 1/8" = 1'-0"

KEY PLAN

SCALE: 1/8" = 1'-0"

FAITH TECHNOLOGIES INCORPORATED

VOLLRATH
FACILITY EXPANSION - BUILDING 25
1236 N 18TH STREET
SHEBOYGAN, WI 53081
BUILDING 25 NORTHWEST - POWER PLAN

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SCALE:	1/8" = 1'-0"

SHEET
BLDG25-EP101.1

PLOTTED ON: 12/17/2025 11:36:57 AM
ARCH E1 (30"X42")

GENERAL NOTES:

A. ALL INDOOR ELECTRICAL EQUIPMENT SHALL HAVE NEMA 1 ENCLOSURE RATING, ALL OUTDOOR ELECTRICAL EQUIPMENT SHALL HAVE NEMA 3R ENCLOSURE RATING.

B. COLUMN MOUNTED RECEPTACLES SHALL BE MOUNTED AT 48" AFF.

C. WELDING RECEPTACLES SHALL HAVE INTEGRAL NON-FUSED 60A DISCONNECT WITH MELTRIC 3Ø, 4W, RECEPTACLE.

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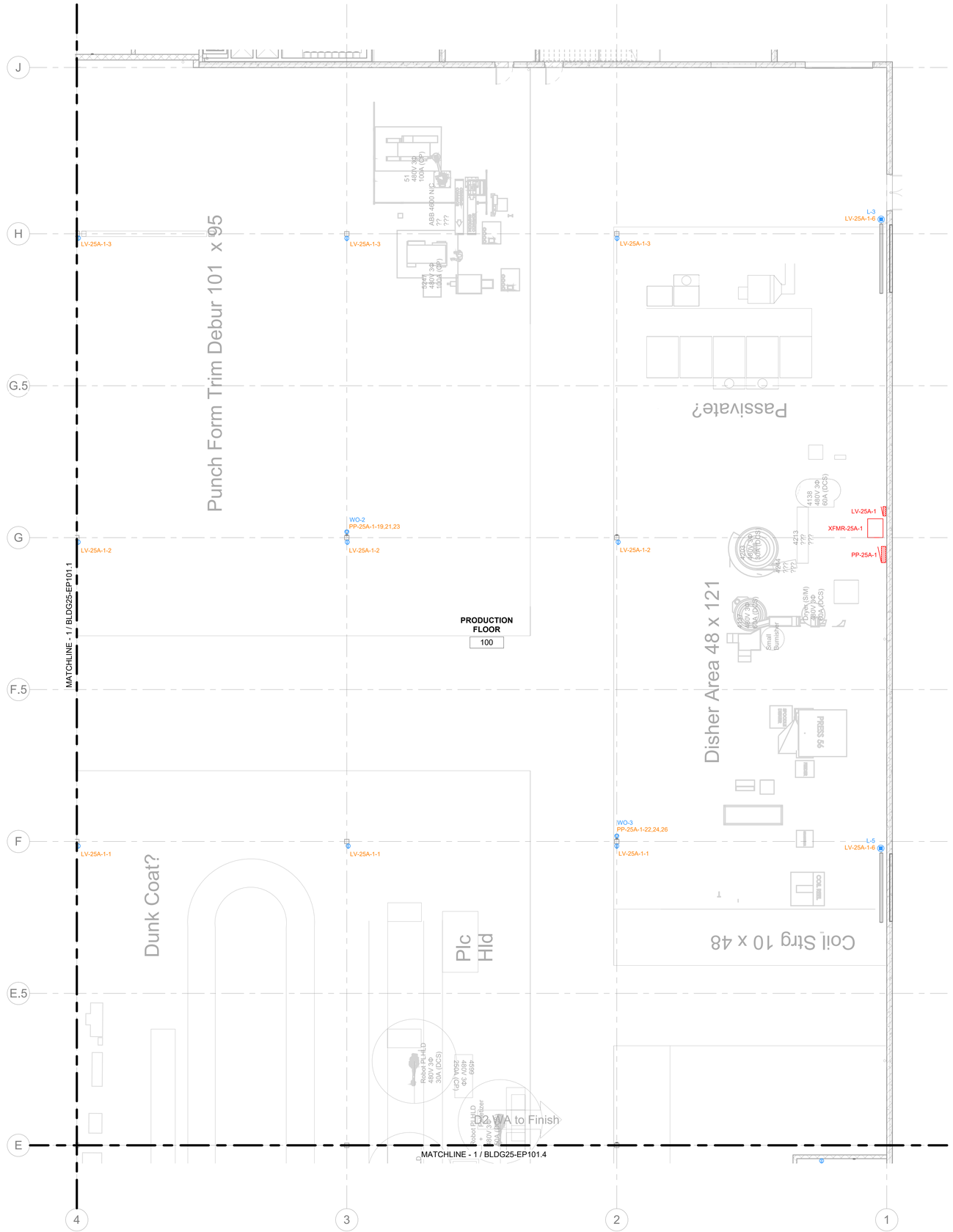

1 BUILDING 25 NORTHEAST - POWER PLAN
Scale: 1/8" = 1'-0"

KEY PLAN

SCALE: 1/8" = 1'-0"

FAITH TECHNOLOGIES INCORPORATED

VOLLRATH
FACILITY EXPANSION - BUILDING 25
1236 N 18TH STREET
SHEBOYGAN, WI 53081
BUILDING 25 NORTHEAST - POWER PLAN

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DATE:	NO:	REVISIONS:
11/10/2025	1	ISSUED FOR CLIENT REVIEW
12/1/2025	2	ISSUED FOR PERMIT

PRELIMINARY
NOT FOR CONSTRUCTION

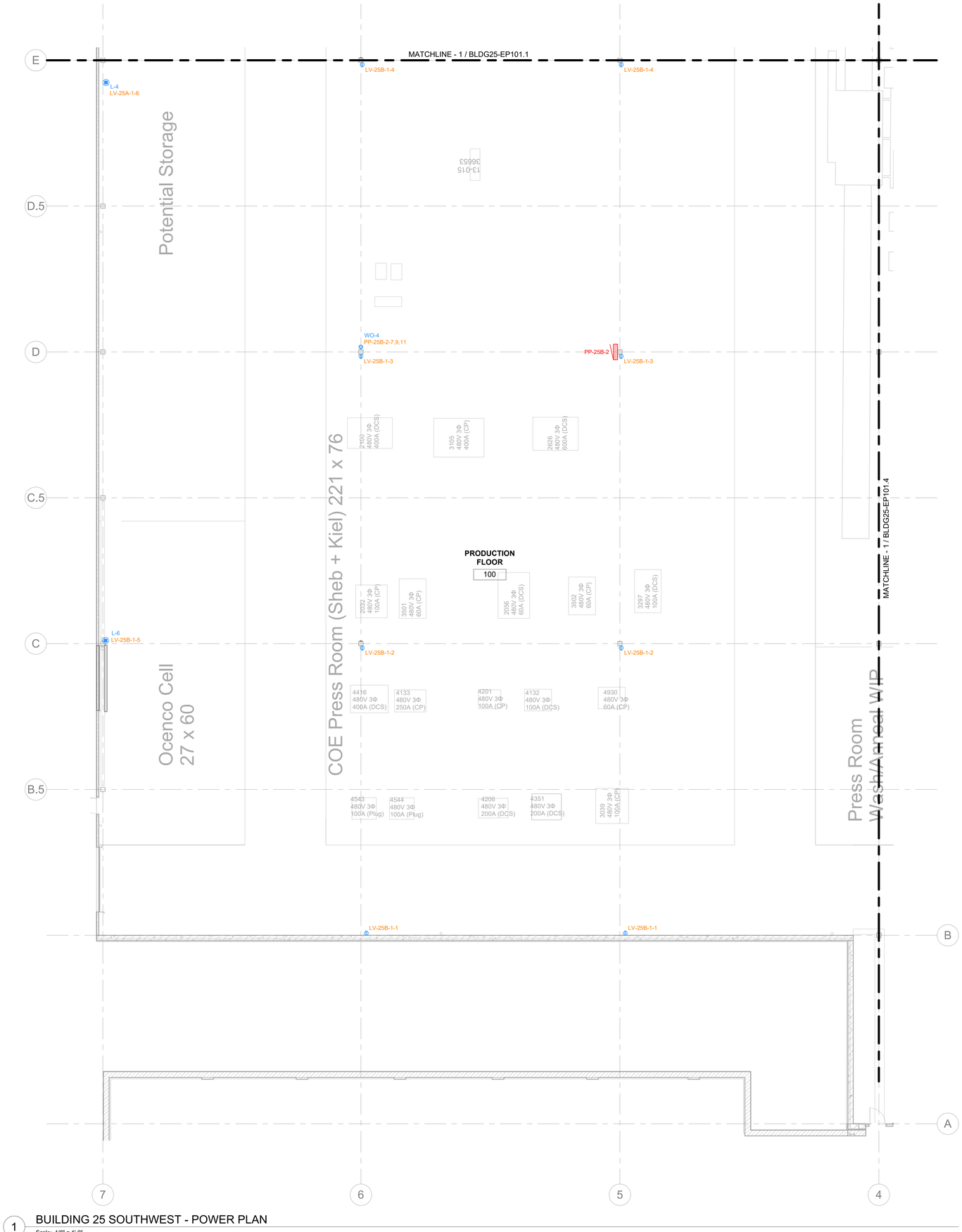
RESP:
TJH
TJH

PROJECT NUMBER
2502928

DRAWN BY: T. HERMES
DESIGNED BY: T. HERMES
APPROVED BY: T. HERMES
DATE: 07/09/2025
SCALE: 1/8" = 1'-0"

SHEET
BLDG25-EP101.2

PLOTTED ON: 12/17/2025 11:36:59 AM
ARCH E1 (30"X42")



1 BUILDING 25 SOUTHWEST - POWER PLAN

Scale: 1/8" = 1'-0"

GENERAL NOTES:

A. ALL INDOOR ELECTRICAL EQUIPMENT SHALL HAVE NEMA 1 ENCLOSURE RATING, ALL OUTDOOR ELECTRICAL EQUIPMENT SHALL HAVE NEMA 3R ENCLOSURE RATING.

B. COLUMN MOUNTED RECEPTACLES SHALL BE MOUNTED AT 48" AFF.

C. WELDING RECEPTACLES SHALL HAVE INTEGRAL NON-FUSED 60A DISCONNECT WITH MELTRIC 3Ø, 4W, RECEPTACLE.

D. UNLESS OTHERWISE NOTED, CONTROL OF ALL HVAC EQUIPMENT BY OTHERS, ELECTRICAL CONTRACTOR TO PROVIDE LINE POWER ONLY.

E. PROCESS EQUIPMENT IS SHOWN AS PRELIMINARY AND SUBJECT TO CHANGE. PHASE 2 OF THE PROJECT SHALL INCORPORATE POWER FEEDS TO PROCESS EQUIPMENT.

FAITH TECHNOLOGIES INCORPORATED

VOLLRATH
FACILITY EXPANSION - BUILDING 25
1236 N 18TH STREET
SHEBOYGAN, WI 53081
BUILDING 25 SOUTHWEST - POWER PLAN

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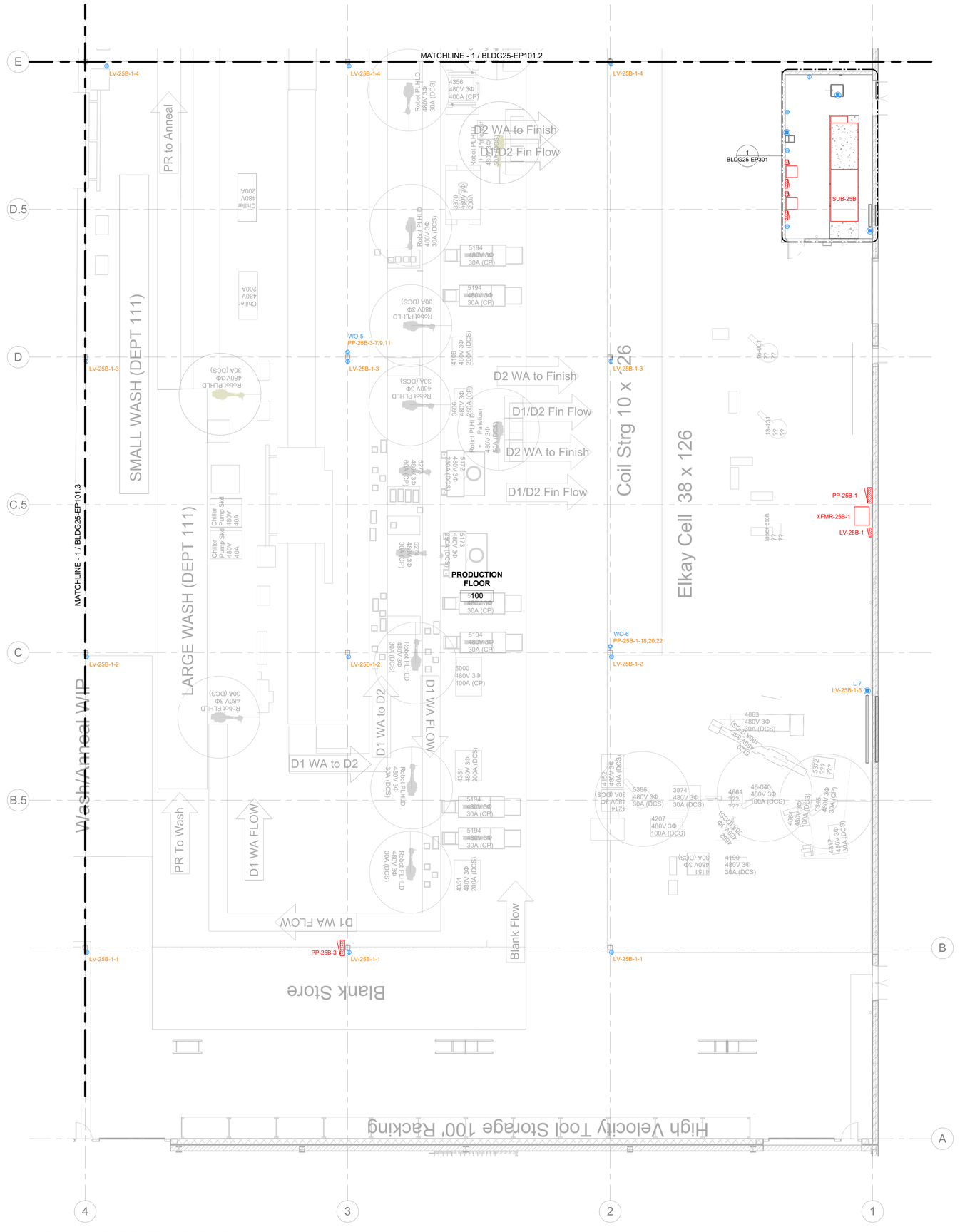
SHEET
BLDG25-EP101.3

KEY PLAN

0' 4' 8' 16'
SCALE: 1/8" = 1'-0"

PLOTTED ON: 12/17/2025 11:37:00 AM
ARCH E1 (30"X42")



1 BUILDING 25 SOUTHEAST - POWER PLAN

Scale: 1/8" = 1'-0"

GENERAL NOTES:

A. ALL INDOOR ELECTRICAL EQUIPMENT SHALL HAVE NEMA 1 ENCLOSURE RATING, ALL OUTDOOR ELECTRICAL EQUIPMENT SHALL HAVE NEMA 3R ENCLOSURE RATING.

B. COLUMN MOUNTED RECEPTACLES SHALL BE MOUNTED AT 48" AFF.

C. WELDING RECEPTACLES SHALL HAVE INTEGRAL NON-FUSED 60A DISCONNECT WITH MELTRIC 3Ø, 4W, RECEPTACLE.

D. UNLESS OTHERWISE NOTED, CONTROL OF ALL HVAC EQUIPMENT BY OTHERS, ELECTRICAL CONTRACTOR TO PROVIDE LINE POWER ONLY.

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FAITH TECHNOLOGIES INCORPORATED

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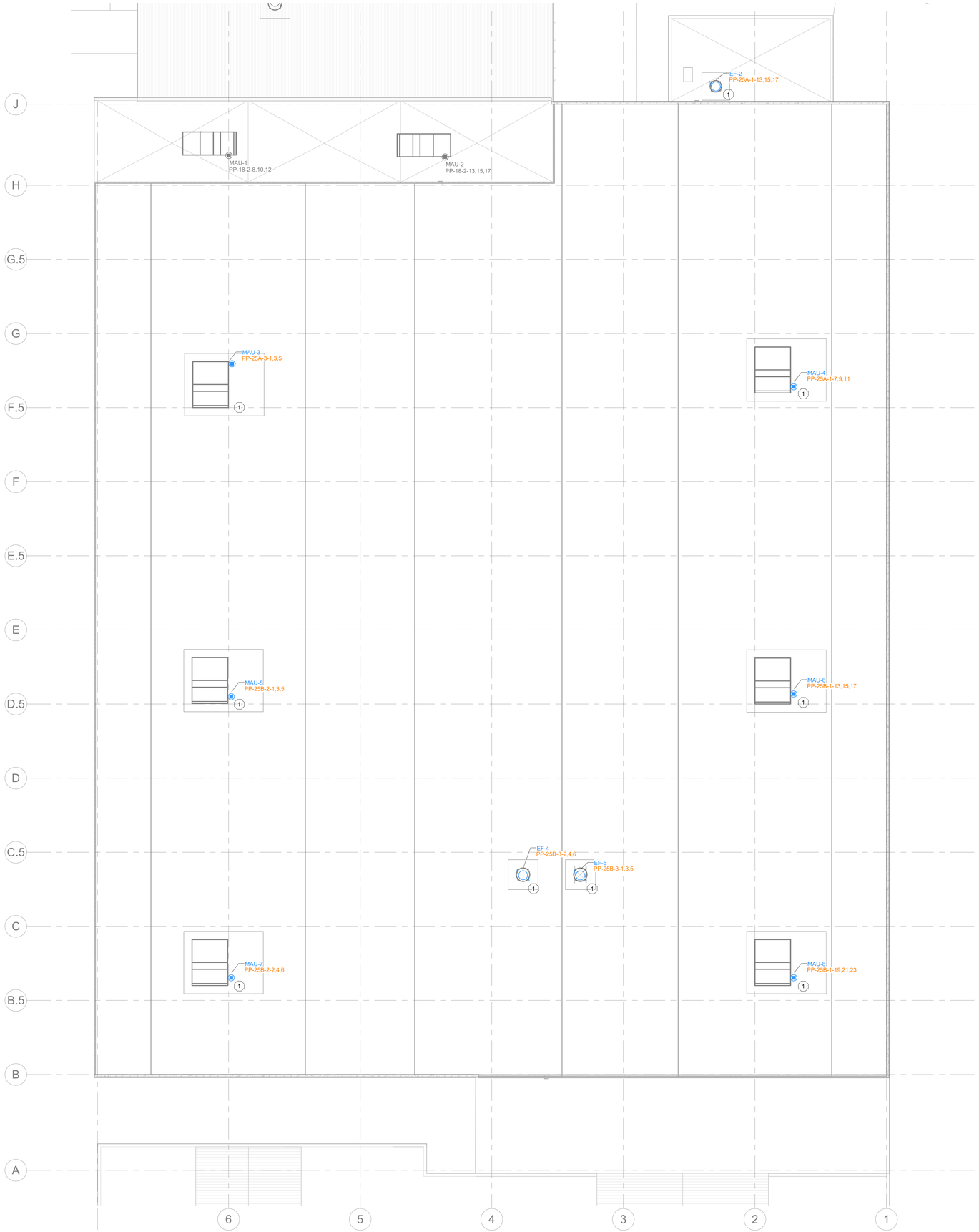
KEY PLAN

SCALE: 1/8" = 1'-0"

SHEET
BLDG25-EP101.4

PLOTTED ON: 12/17/2025 11:37:55 AM ARCH E1.3(PX24Z)



1 BUILDING 25 ROOF - POWER PLAN

Scale: 1/16" = 1'-0"

GENERAL NOTES:

A. ALL INDOOR ELECTRICAL EQUIPMENT SHALL HAVE NEMA 1 ENCLOSURE RATING, ALL OUTDOOR ELECTRICAL EQUIPMENT SHALL HAVE NEMA 3R ENCLOSURE RATING.

B. COLUMN MOUNTED RECEPTACLES SHALL BE MOUNTED AT 48" AFF.

C. WELDING RECEPTACLES SHALL HAVE INTEGRAL NON-FUSED 60A DISCONNECT WITH MELTRIC 3Ø, 4W, RECEPTACLE.

D. UNLESS OTHERWISE NOTED, CONTROL OF ALL HVAC EQUIPMENT BY OTHERS, ELECTRICAL CONTRACTOR TO PROVIDE LINE POWER ONLY.

E. PROCESS EQUIPMENT IS SHOWN AS PRELIMINARY AND SUBJECT TO CHANGE. PHASE 2 OF THE PROJECT SHALL INCORPORATE POWER FEEDS TO PROCESS EQUIPMENT.

PLAN NOTES: (#)

1. HVAC UNITS PROVIDED WITH INTEGRAL DISCONNECTS.

FAITH TECHNOLOGIES INCORPORATED

VOLLRATH
FACILITY EXPANSION - BUILDING 25
1236 N 18TH STREET
SHEBOYGAN, WI 53081
BUILDING 25 ROOF - POWER PLAN

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DRAWN BY:	T. HERMES
DESIGNED BY:	T. HERMES
APPROVED BY:	T. HERMES
DATE:	07/15/2025
SCALE:	1/16" = 1'-0"

KEY PLAN

SCALE: 1/16" = 1'-0"

SHEET
BLDG25-EP102

PLOTTED ON: 12/17/2025 11:37:06 AM
ARCH E1 (30"X42")

GENERAL NOTES:

A. ALL INDOOR ELECTRICAL EQUIPMENT SHALL HAVE NEMA 1 ENCLOSURE RATING, ALL OUTDOOR ELECTRICAL EQUIPMENT SHALL HAVE NEMA 3R ENCLOSURE RATING.

B. COLUMN MOUNTED RECEPTACLES SHALL BE MOUNTED AT 48" AFF.

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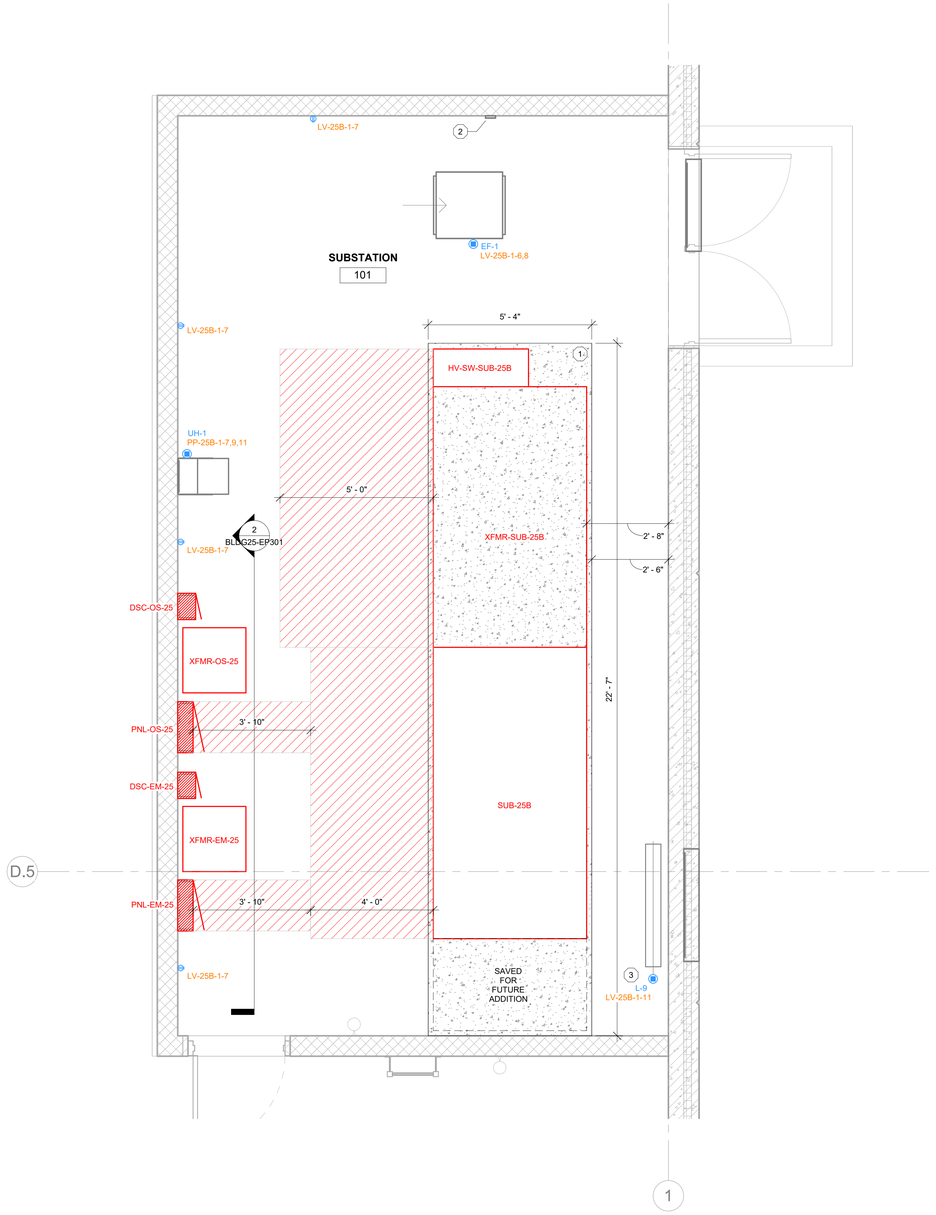
E. PROCESS EQUIPMENT IS SHOWN AS PRELIMINARY AND SUBJECT TO CHANGE. PHASE 2 OF THE PROJECT SHALL INCORPORATE POWER FEEDS TO PROCESS EQUIPMENT.

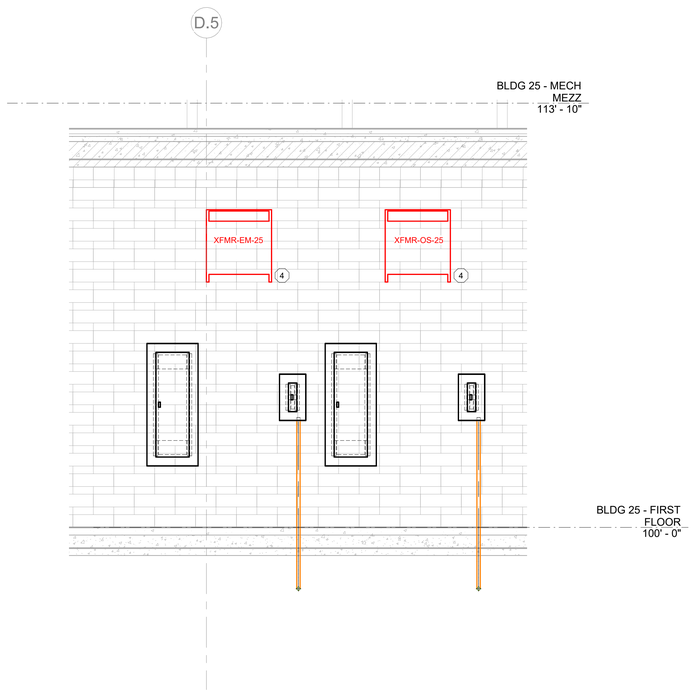
PLAN NOTES: (#)

1. PROVIDE 3-1/2" HOUSEKEEPING PAD FOR ANY FLOOR MOUNTED ELECTRICAL EQUIPMENT.
2. PROVIDE AND INSTALL THERMOSTAT WIRING BETWEEN EXHAUST FAN (EF-1) AND WALL MOUNTED THERMOSTAT. THERMOSTAT PROVIDED BY OTHERS, ELECTRICAL CONTRACTOR TO INSTALL.
3. PROVIDE CONTROL WIRING BETWEEN EXHAUST FAN (EF-1) AND POWER ACTUATED LOUVER (L-9). POWER ACTUATED LOUVER TO BE INSTALL BY MECHANICAL CONTRACTOR AND WIRED BY ELECTRICAL CONTRACTOR.
4. PROVIDE AND INSTALL WALL MOUNT BRACKETS FOR LOW VOLTAGE DRY TYPE TRANSFORMER.



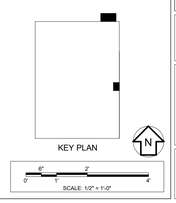
1 BUILDING 25 SUBSTATION 101 ROOM - POWER PLAN

Scale: 1/2" = 1'-0"



2 BUILDING 25 SUBSTATION 101 ROOM - SECTION VIEW

Scale: 1/2" = 1'-0"



FAITH TECHNOLOGIES INCORPORATED

VOLLRATH
FACILITY EXPANSION - BUILDING 25
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SHEBOYGAN, WI 53081

BUILDING 25 SUBSTATION 101 ROOM - POWER PLAN

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SHEET
BLDG25-EP301

PLOTTED ON: 12/17/2025 11:37:08 AM ARCH E1 (30"X42")

GENERAL NOTES:

A. ALL INDOOR ELECTRICAL EQUIPMENT SHALL HAVE NEMA 1 ENCLOSURE RATING, ALL OUTDOOR ELECTRICAL EQUIPMENT SHALL HAVE NEMA 3R ENCLOSURE RATING.

B. COLUMN MOUNTED RECEPTACLES SHALL BE MOUNTED AT 48" AFF.

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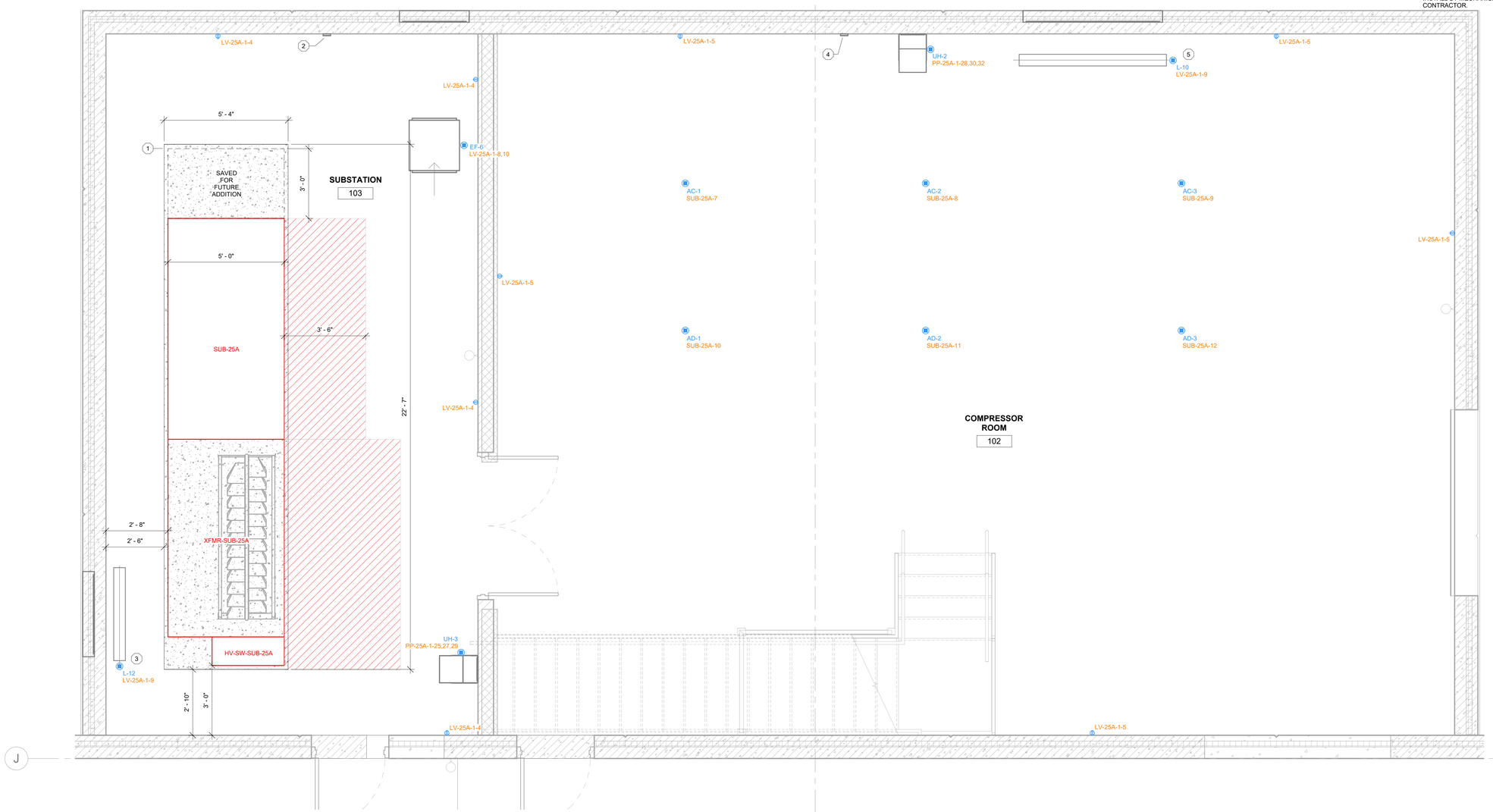
E. PROCESS EQUIPMENT IS SHOWN AS PRELIMINARY AND SUBJECT TO CHANGE. PHASE 2 OF THE PROJECT SHALL INCORPORATE POWER FEEDS TO PROCESS EQUIPMENT.

PLAN NOTES: (#)

1. PROVIDE 3-1/2" HOUSEKEEPING PAD FOR ANY FLOOR MOUNTED ELECTRICAL EQUIPMENT.
2. PROVIDE AND INSTALL THERMOSTAT WIRING BETWEEN EXHAUST FAN (EF-7) AND WALL MOUNTED THERMOSTAT. THERMOSTAT PROVIDED BY OTHERS, ELECTRICAL CONTRACTOR TO INSTALL.
3. PROVIDE AND INSTALL CONTROL WIRING BETWEEN EXHAUST FAN (EF-7) AND POWER ACTUATED LOUVER (L-12). POWER ACTUATED LOUVER TO BE INSTALL BY MECHANICAL CONTRACTOR AND WIRED BY ELECTRICAL CONTRACTOR.
4. PROVIDE AND INSTALL THERMOSTAT WIRING BETWEEN EXHAUST FAN (EF-2) AND WALL MOUNTED THERMOSTAT. THERMOSTAT PROVIDED BY OTHERS, ELECTRICAL CONTRACTOR TO INSTALL.
5. PROVIDE AND INSTALL CONTROL WIRING BETWEEN EXHAUST FAN (EF-2) AND POWER ACTUATED LOUVER (L-10). POWER ACTUATED LOUVER TO BE INSTALL BY MECHANICAL CONTRACTOR AND WIRED BY ELECTRICAL CONTRACTOR.



1 BUILDING 25 COMPRESSOR 102 AND SUBSTATION 103 ROOM - POWER PLAN

Scale: 1/2" = 1'-0"

KEY PLAN

SCALE: 1/2" = 1'-0"

FAITH TECHNOLOGIES INCORPORATED

VOLLRATH
FACILITY EXPANSION - BUILDING 25
1236 N 18TH STREET
SHEBOYGAN, WI 53081

BUILDING 25 COMPRESSOR 102 AND SUBSTATION 103 ROOM - POWER PLAN

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SHEET
BLDG25-EP302

PLOTTED ON: 12/17/2025 11:37:13 AM ARCH E1 (30"X42")

GENERAL NOTES:

A. ALL INDOOR ELECTRICAL EQUIPMENT SHALL HAVE NEMA 1 ENCLOSURE RATING, ALL OUTDOOR ELECTRICAL EQUIPMENT SHALL HAVE NEMA 3R ENCLOSURE RATING.

B. COLUMN MOUNTED RECEPTACLES SHALL BE MOUNTED AT 48" AFF.

C. WELDING RECEPTACLES SHALL HAVE INTEGRAL NON-FUSED 60A DISCONNECT WITH MELTRIC 3Ø, 4W, RECEPTACLE.

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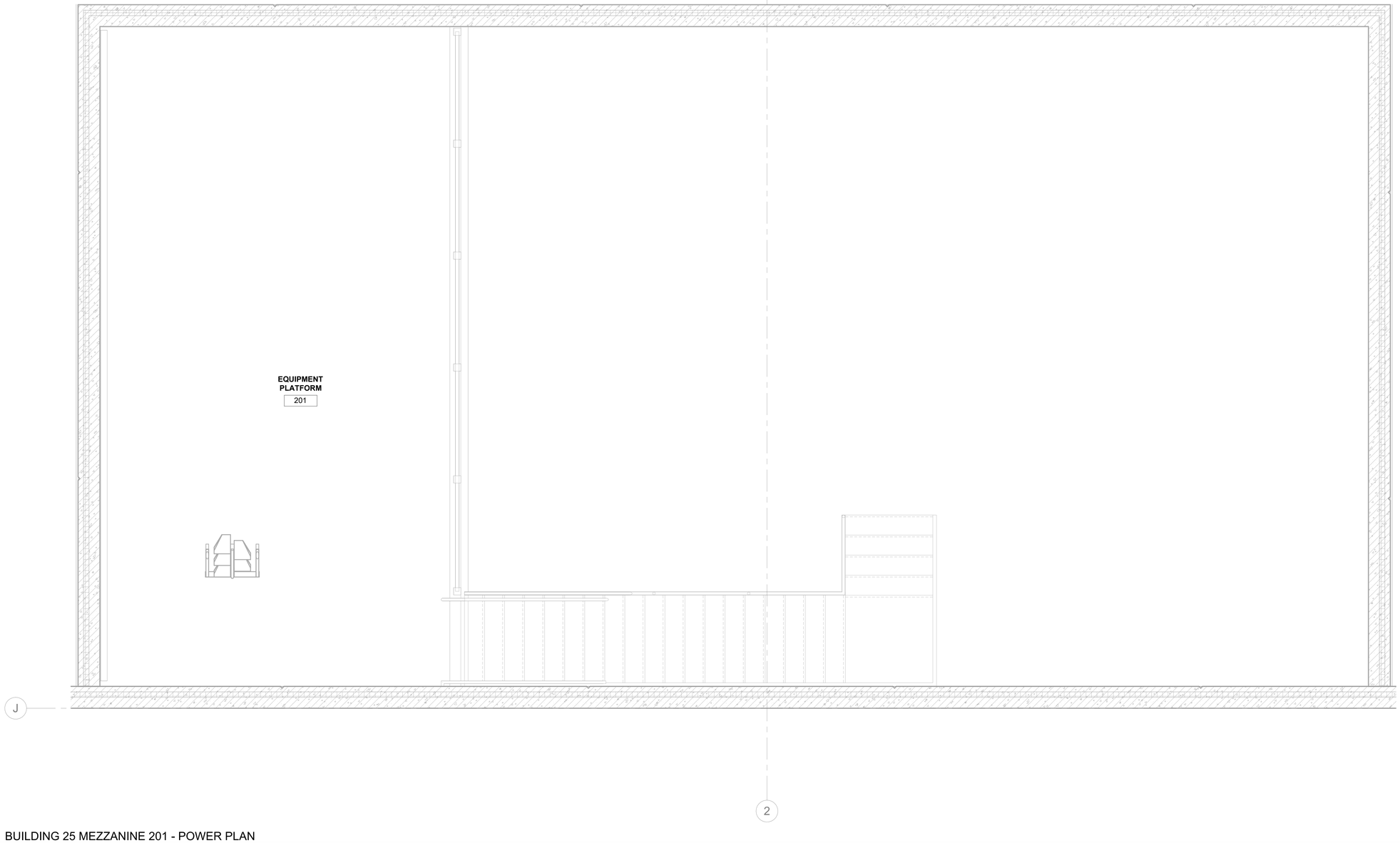
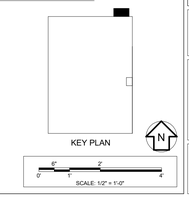
E. PROCESS EQUIPMENT IS SHOWN AS PRELIMINARY AND SUBJECT TO CHANGE, PHASE 2 OF THE PROJECT SHALL INCORPORATE POWER FEEDS TO PROCESS EQUIPMENT.



1 BUILDING 25 MEZZANINE 201 - POWER PLAN

Scale: 1/2" = 1'-0"



PLOTTED ON: 12/17/2025 11:37:10 AM ARCH E1 (30"X42")

FAITH TECHNOLOGIES INCORPORATED

VOLLRATH
FACILITY EXPANSION - BUILDING 25
1236 N 18TH STREET
SHEBOYGAN, WI 53081
BUILDING 25 MEZZANINE 201 - POWER PLAN

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SHEET
BLDG25-EP303

FIRE PROTECTION SPECIFICATIONS

PART 1 - GENERAL

SCOPE OF WORK
APPLICABLE REQUIREMENTS OF BIDDING INSTRUCTIONS AND INFORMATION AND OTHER PROVISIONS OF THE GENERAL CONTRACT WORK SPECIFICATIONS SHALL APPLY TO THIS DIVISION OF THE WORK.

SYSTEM DESCRIPTION
WET-PIPE SPRINKLER SYSTEM: AUTOMATIC SPRINKLERS ARE ATTACHED TO PIPING CONTAINING WATER AND CONNECTED TO WATER SUPPLY. WATER DISCHARGES IMMEDIATELY FROM SPRINKLERS WHEN SPRINKLER FUSIBLE LINK MELTS OR FRANGIBLE DEVICE DESTROYS.

PERFORMANCE REQUIREMENTS
STANDARD PIPING SYSTEM COMPONENT WORKING PRESSURE: LISTED FOR AT LEAST 175 PSIG

FIRE-SUPPRESSION SPRINKLER DESIGN SHALL BE APPROVED BY AUTHORITIES HAVING JURISDICTION AND THE OWNER'S INSURANCE UNDERWRITER.

MARGIN OF SAFETY FOR AVAILABLE WATER FLOW AND PRESSURE: 10 PSI MINIMUM, INCLUDING LOSSES THROUGH WATER-SERVICE PIPING, VALVES AND BACKFLOW PREVENTERS.

VELOCITY NOT TO EXCEED 20 FEET PER SECOND (FPS)

FOR DRY PIPE SYSTEMS INCLUDE AN ADDITIONAL 30% OF FLOOR AREA.

REFER TO DRAWINGS FOR SPRINKLER AREA OCCUPANCY HAZARD CLASSIFICATIONS.

MINIMUM DENSITY FOR AUTOMATIC-SPRINKLER PIPING DESIGN:
LIGHT-HAZARD OCCUPANCY: 0.10 GPM OVER 1,500 SF AREA
ORDINARY-HAZARD GROUP 1 OCCUPANCY: 0.15 GPM OVER 1,500 SF AREA
ORDINARY-HAZARD GROUP 2 OCCUPANCY: 0.20 GPM OVER 1,500 SF AREA

MAXIMUM PROTECTION AREA PER SPRINKLER SHALL BE PER UL LISTING AND SPRINKLER RATING.

TOTAL COMBINED HOSE-STREAM DEMAND REQUIREMENT: ACCORDING TO NFPA 13, UNLESS OTHERWISE INDICATED:
LIGHT-HAZARD OCCUPANCIES: 100 GPM FOR 30 MINUTES
ORDINARY-HAZARD OCCUPANCIES: 250 GPM FOR 60 TO 90 MINUTES
EXTRA-HAZARD OCCUPANCIES: 500 GPM FOR 90 TO 120 MINUTES

SPRINKLER SYSTEMS ARE TO BE ZONED BY FLOOR: SPRINKLER ZONES SHALL BE PROVIDED WITH A FLOOR CONTROL VALVE, FLOW SWITCH AND TAMPER SWITCH. ADDITIONAL ZONING SHALL BE PROVIDED AS SHOWN ON THE PLANS.
1. THE SPRINKLERERS. PIPING ARRANGEMENTS SHALL BE COMPLETE WITH CONTROL VALVES, FLOW SWITCHES, TAMPER SWITCHES, CHECK VALVES, AND INSPECTORS TEST ASSEMBLIES COMPLETE WITH DRAINS AS REQUIRED BY NFPA 13.
2. INSPECTORS TEST VALVE ASSEMBLIES SHALL BE PROVIDED AT THE REMOTE END OF EACH ZONE. TEST ASSEMBLIES SHALL BE PROVIDED WITH SITE GLASSES AND HARD PIPED EXPRESS DRAINS TO HUB DRAINS. HUB DRAIN LOCATIONS SHALL BE COORDINATED WITH THE PLUMBING CONTRACTOR.

ELECTRIC ROOMS/CLOSETS, ELEVATOR MACHINE ROOMS, TELEPHONE ROOMS, AND IT CLOSETS SHALL BE SPRINKLERED IN ACCORDANCE WITH NFPA 13.

DELEGATED DESIGN SERVICES
APPROVED SPRINKLER PIPING DRAWINGS: WORKING PLANS, PREPARED ACCORDING TO NFPA 13, THAT HAVE BEEN APPROVED BY AUTHORITIES HAVING JURISDICTION AND OWNER'S INSURANCE UNDERWRITER, INCLUDING HYDRAULIC CALCULATIONS.
1. THE WORKING PLANS AND HYDRAULIC CALCULATIONS SHALL BE PREPARED BY NICET CERTIFIED LEVEL III OR IV AUTOMATIC SPRINKLER ENGINEERING TECHNICIAN, STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE APPLICABLE STATE.
2. THE WORKING PLANS AND HYDRAULIC CALCULATIONS SHALL BE SUBMITTED TO THE OWNER'S REPRESENTATIVE.

IT IS THE SPECIFIC INTENT OF THESE SPECIFICATIONS TO INCLUDE ALL FIRE PROTECTION WORK ITEMS OF ANY NATURE WHICH ARE NECESSARY AND ARE REQUIRED TO MAKE THE SYSTEMS OPERATE IN A SATISFACTORY AND COMPLETE CONDITION. THE FIRE PROTECTION CONTRACTOR, THEREFORE, MUST REVIEW THESE SPECIFICATIONS AND FAMILIARIZE THEMSELF FULLY AS TO CONDITIONS SURROUNDING OR EFFECTING THIS WORK.

THE WORK TO BE DONE IN ACCORDANCE WITH THESE SPECIFICATIONS SHALL BE DONE TO COMPLY WITH THE NFPA 13, 2015 INTERNATIONAL FIRE CODE (IFC) AS WELL AS ALL APPLICABLE LOCALLY-ENFORCED CODES, ORDINANCES, AMENDMENTS, STATE LAWS AND FEDERAL LAWS.

THE FIRE PROTECTION CONTRACTOR SHALL DISCONNECT AND REMOVE EXISTING SPRINKLERS, PIPING, EQUIPMENT, RELATED ITEMS OCCURRING IN DEMOLISHED WALLS, FLOORS, ATTICS, CEILING CAVITIES AND THE ROOF. REFER TO THE ARCHITECTURAL DRAWINGS FOR THE GENERAL SCOPE OF DEMOLITION. FIRE PROTECTION SPRINKLERS AND RELATED ITEMS NOT TO BE RETAINED BY THE OWNER OR TENANT MUST BE REMOVED FROM THE PREMISES, TO BE LEGALLY DISPOSED OF BY THE FIRE PROTECTION CONTRACTOR. REMOVED MATERIAL SHALL BE SENT FOR RECYCLING IN LIEU OF LAND FILL WHEN POSSIBLE. ALL LOOSE ENDS OF SYSTEMS WHERE SUCH ABANDONMENT HAS TERMINATED SHALL BE TRIMMED CLEAR AND APPROPRIATELY CAPPED OR SEALED IN A SAFE AND SECURE MANNER BEHIND NEW FINISHES. MAINTAIN FIRE PROTECTION SYSTEM CONTINUITY TO ADJOINING AREAS AS REQUIRED.

GUARANTEE
FIRE PROTECTION CONTRACTOR SHALL GUARANTEE EACH UNIT AND ALL ACCESSORIES FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE AGAINST FAULT MATERIALS AND WORKMANSHIP AND FOR CONFORMING TO SPECIFICATIONS.

IF ANY UNIT DOES NOT OPERATE SATISFACTORILY, OR IF ANY PARTS SHOULD SHOW UNDUE WEAR DURING THE ONE YEAR PERIOD, THE FIRE PROTECTION CONTRACTOR WILL BE NOTIFIED AND WILL BE REQUIRED TO REMEDY THE DEFECTS PROMPTLY AND MAKE THE UNIT OPERATE IN A MANNER SATISFACTORY TO THE ARCHITECT/ENGINEER. DEFECTIVE PARTS WILL BE RETURNED TO THE CONTRACTOR ONLY AT HIS OWN REQUEST AND EXPENSE.

PERMITS, FEES AND CERTIFICATES
FIRE PROTECTION CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS AND LICENSES REQUIRED BY CITY ORDINANCES AND AFTER COMPLETION OF THE WORK SHALL FURNISH TO THE OWNER A CERTIFICATE OF FINAL INSPECTION AND APPROVAL. ALL FEES IN CONNECTION WITH INSPECTIONS, PERMITS, LICENSES AND APPROVAL SHALL BE PAID BY THE FIRE PROTECTION CONTRACTOR.

SHOP DRAWINGS
SHOP DRAWINGS SHALL BE SUBMITTED ELECTRONICALLY AS PDF FILES. SHOP DRAWINGS SHALL INCLUDE TRANSMITTAL PAGE(S) INDICATING THE NAME OF THE PROJECT, AND THE NAME, ADDRESS, AND PHONE NUMBER OF THE GENERAL AND FIRE PROTECTION CONTRACTORS. GENERAL CONTRACTOR AND FIRE PROTECTION CONTRACTOR SHALL REVIEW SHOP DRAWING SUBMITTALS FOR COMPLIANCE, CONTENT AND COMPLETENESS AND PROVIDE A STAMP WITH THE DATE OF REVIEW AND SIGNATURE OF THE REVIEWER. TRANSMITTAL PAGE SHALL HAVE INDEX WITH SPECIFICATION SECTION AND DESCRIPTION OF SUBMITTED ITEMS. NO EXCEPTIONS WILL BE TAKEN. EQUIPMENT SHALL NOT BE ORDERED UNTIL ENGINEER OF RECORD HAS PROCESSED APPLICABLE SHOP DRAWINGS. A PERIOD OF TEN BUSINESS DAYS WILL BE ALLOWED FOR SUBMITTAL PROCESSING BY THE ENGINEER. FIRE PROTECTION SUBMITTALS REQUIRED SHALL MINIMALLY INCLUDE THE FOLLOWING:

1. PIPING MATERIAL, INCLUDING DIELECTRIC FITTINGS, FLEXIBLE CONNECTIONS AND SPRINKLER SPECIALTY FITTINGS.
2. PIPE HANGERS AND SUPPORTS, INCLUDING SEISMIC RESTRAINTS.
3. VALVES, INCLUDING LISTED FIRE-PROTECTION VALVES, UNLISTED GENERAL-DUTY VALVES, AND SPECIALTY VALVES AND TRIM.
4. SPRINKLERS, ESCUTCHEONS, AND GUARDS. INCLUDE SPRINKLER FLOW CHARACTERISTICS, MOUNTING, FINISH, AND OTHER PERTINENT DATA.
5. HOSE CONNECTIONS, INCLUDING SIZE, TYPE, AND FINISH
6. FIRE DEPARTMENT CONNECTIONS, INCLUDING TYPE; NUMBER, SIZE AND ARRANGEMENT OF INLETS; CAPS AND CHAINS; SIZE AND DIRECTION OF OUTLET; ESCUTCHEON AND MARKING; AND FINISH.
7. ALARM DEVICES, INCLUDING ELECTRICAL DATA

COORDINATION
FIRE PROTECTION CONTRACTOR SHALL PROVIDE FIELD COORDINATION WITH OTHER TRADES; SYSTEMS ARE SHOWN AS DIAGRAMMATIC AND GIVE THE GENERAL ARRANGEMENT AND LOCATIONS ONLY. FIRE PROTECTION CONTRACTOR SHALL COMPLETELY REVIEW THE ENTIRE SET OF CONSTRUCTION DRAWINGS FOR DETAILS OF CONSTRUCTION PRIOR TO STARTING WORK. ROUGH-IN OF FIRE PROTECTION FIXTURES, EQUIPMENT, AND PIPE SHALL BE BASED ON THIS REVIEW. EXACT LOCATIONS AND FINAL LAYOUT SHALL BE DETERMINED IN THE FIELD. PROVIDE ALL NECESSARY EQUIPMENT, FITTINGS, HANGERS, SUPPORTS, OFFSETS AND ACCESS PANELS REQUIRED FOR A COMPLETE INSTALLATION IN ALL RESPECTS. THE FIRE PROTECTION CONTRACTOR'S MEANS AND METHODS OF INSTALLATION SHALL PROVIDE FOR OPERATING EFFICIENCY, NEATNESS OF APPEARANCE, EASE OF MAINTENANCE, AND CODE COMPLIANCE. THE FIRE PROTECTION CONTRACTOR SHALL PREPARE DIMENSIONED FIELD ERECTION DRAWINGS FOR USE BY THE INSTALLERS TO ENSURE PROPER INSTALLATION, CLEARANCES, AND COORDINATION WITH STRUCTURAL MEMBERS, ARCHITECTURAL WORK, AND ALL OTHER ITEMS BEING INSTALLED BY OTHER TRADE CONTRACTORS. THE FIRE PROTECTION CONTRACTOR SHALL TAKE THEIR OWN MEASUREMENTS AT THE SITE AND BUILDING, AND BE RESPONSIBLE FOR THE CORRECT LAYOUT, INTERPRETATION, AND USE OF ALL SIZES AND DIMENSIONS. THE CONTRACTOR SHALL KEEP "AS-BUILT" INFORMATION DURING CONSTRUCTION AND FURNISH TO THE OWNER OR TENANT A RECORD SET OF LEGIBLE BLACK LINE PRINTS AND AN ELECTRONIC COPY OF THESE DOCUMENTS AT PROJECT COMPLETION.

REVIEW ARCHITECTURAL DRAWINGS FOR ALL FIRE RATINGS AND FIRE RATED ASSEMBLIES PRIOR TO BIDDING THE PROJECT. PROVIDE FIRE STOP AT EACH RATED WALL, FLOOR, AND CEILING-ROOF ASSEMBLY PENETRATION. FIRE STOP SYSTEMS SHALL BE MANUFACTURED BY "3M". PROVIDE IN STRICT COMPLIANCE WITH THE MANUFACTURER'S APPLICATION DETAILS AND INSTRUCTIONS. PROVIDE TAGGED CERTIFICATIONS AT EACH PENETRATION. PROVIDE SHOP DRAWINGS FOR REVIEW WITH THE U.L. LISTING AND TEST CRITERIA. PROVIDE FIRE STOPPING WHERE REQUIRED BY THE AHJ. EQUAL SYSTEMS AS MANUFACTURED BY "SPEC SEAL" OR "HILTI" WILL BE ACCEPTABLE.

PART 2 – PRODUCTS

21 1000 WATER-BASED FIRE-SUPPRESSION SYSTEMS PIPING
A. THREADED END, STANDARD WEIGHT, SCHEDULE 40 STEEL PIPE: ASTM A 53/A, ASTM A 135, OR ASTM A 795, HOT-DIP GALVANIZED WHERE INDICATED AND WITH FACTORY OR FIELD FORMED THREADED ENDS
B. PLAIN-END, STANDARD WEIGHT, SCHEDULE 40 STEEL PIPE: ASTM A 53/A 53 M, ASTM A 135, OR ASTM A 795 HOT-DIP GALVANIZED-STEEL PIPE WHERE INDICATED.
C. GROOVED-END, STANDARD WEIGHT, SCHEDULE 40 STEEL PIPE: ASTM A 53/A 53M, ASTM A 135, OR ASTM A 795, HOT-DIP GALVANIZED WHERE INDICATED AND WITH FACTORY OR FIELD-FORMED, SQUARE-CUT-OR ROLL-GROOVED ENDS.
D. PLAIN-END, SCHEDULE 10 STEEL PIPE: ASTM A 135 OR ASTM A 795, SCHEDULE 10 IN NPS 5 AND SMALLER; AND NFPA 13 SPECIFIED WALL THICKNESS IN NPS 6 TO NPS 10
E. GROOVED END, SCHEDULE 10 STEEL PIPE; ASTM A 135 OR ASTM A 795, SCHEDULE 10 IN NPS 5 AND SMALLER; NFPA 13 SPECIFIED WALL THICKNESS IN NPS 6 TO NPS 10 WITH FACTORY ROLL-GROOVED ENDS.

DIELECTRIC FITTINGS
A. DIELECTRIC UNIONS: FACTORY FABRICATED, DESIGNED 250 PSIG MINIMUM WORKING PRESSURE 180 DEG F. INCLUDE INSULATING MATERIAL THAT ISOLATES DISSIMILAR MATERIALS AND END WITH INSIDE THREADS ACCORDING TO ASME B1.20.1
B. DIELECTRIC FLANGES: FACTORY-FABRICATED COMPANION-FLANGE ASSEMBLY, 175 PSIG MINIMUM WORKING PRESSURE.

FLEXIBLE CONNECTORS
A. FLEXIBLE CONNECTORS SHALL HAVE MATERIALS SUITABLE FOR SYSTEM FLUID. INCLUDE 175 PSIG MINIMUM WORKING PRESSURE ENDS.
B. STAINLESS STEEL HOSE/STEEL PIPE, FLEXIBLE CONNECTORS: CORRUGATED, STAINLESS STEEL, INNER TUBING COVERED WITH STAINLESS STEEL WIRE BRAID, INCLUDE STAINLESS STEEL NIPPLES OR FLANGES, WELDED TO HOSE.

SPRINKLER SPECIALTY FITTINGS
A. SPRINKLER FITTINGS SHALL BE UL LISTED WITH 175 PSIG MINIMUM WORKING PRESSURE, MADE OF MATERIALS COMPATIBLE WITH SPRINKLER PIPING DRAIN AND ALARM TEST FITTINGS: CAST IRON BODY WITH THREADED OR GROOVED INLET AND OUTLET, TEST VALVE AND ORIFICE SIGHT GLASS.
B. SPRINKLER BRANCH LINE TEST FITTINGS: BRASS BODY AND THREADED INLET, CAPPED DRAIN OUTLET AND THREADED OUTLET
C. SPRINKLER INSPECTOR TEST FITTING: CAST OR BRONZE HOUSING WITH GROOVED INLET AND DRAIN OUTLET AND SIGHT GLASS
D. DROP-NIPPLE FITTINGS UL1474 ADJUSTABLE WITH THREADED INLET AND OUTLET AND SEALS.

FIRE PROTECTION VALVES
A. VALVES SHALL BE UL LISTED WITH 175 PSIG MINIMUM PRESSURE RATING
B. GATE VALVES UL 262, CAST IRON BODY, BRONZE MOUNTED WITH SOLID DISC NON RISING STEM, OPERATING NUT AND FLANGED ENDS
C. INDICATOR POSTS UL 789, HORIZONTAL-WALL TYPE, CAST IRON BODY, WITH HAND-WHEEL, EXTENSION ROD, LOCKING DEVICE, AND CAST-IRON BARREL
D. BALL VALVES UL 1091, EXCEPT WITH BALL INSTEAD OF DISC. 1-1/2" AND SMALLER BRONZE BODY WITH THREADS OR GROOVED ENDS. 2" AND LARGER BRONZE BODY WITH THREADED ENDS OR GROOVED ENDS.
E. BUTTERFLY VALVES UL 1091. 2" AND SMALLER VALVES BRONZE BODY WITH THREADED ENDS. 2-1/2" AND LARGER VALVES BRONZE; CAST-IRON BODY, WAFER TYPE OR WITH FLANGED OR GROOVED ENDS.
F. CHECK VALVES 2" AND LARGER UL 312, SWING TYPE, CAST IRON BODY WITH FLANGED OR GROOVED ENDS.
G. GATE VALVES UL 262 O2&Y TYPE, 2" AND SMALLER BRONZE BODY WITH THREADED ENDS. 2-1/2" AND LARGER CAST IRON BODY WITH FLANGED ENDS.
H. INDICATING VALVES UL 1091 WITH INTEGRAL INDICATING DEVICE AND ENDS MATCHING CONNECTING PIPING. INDICATOR ELECTRICAL 115V AC, PREWIRED, SINGLE CIRCUIT, SUPERVISORY SWITCH. 2" BUTTERFLY VALVE WITH THREADED ENDS, 2-1/2" AND LARGER BUTTERFLY VALVE WITH CAST IRON BODY, WAFER TYPE WITH FLANGED OR GROOVED ENDS.

SPECIALTY VALVES
A. SPRINKLER SYSTEM CONTROL VALVES UL LISTED CAST IRON BODY WITH FLANGED OR GROOVED ENDS AND 175 PSIG MINIMUM PRESSURE RATING.
B. AUTOMATIC DRAIN VALVES UL 1726, 3/4" BALL CHECK DEVICE WITH THREADED ENDS.

SPRINKLERS
A. SPRINKLERS SHALL BE UL LISTED, 175 PSIG MINIMUM WORKING PRESSURE RATING. SPRINKLERS SHALL BE GLASS BULB TYPE. BODY SHALL BE DIE CAST BRASS WITH HEX SHAPED WRENCH BOSS CAST INTO THE BODY TO FACILITATE INSTALLATION AND REDUCE THE RISK OF DAMAGE DURING INSTALLATION
B. REFER TO DRAWINGS FOR SPRINKLER HEAD TYPE FOR ROOM OR AREA.
C. ACCEPTED MANUFACTURERS
   a. RELIABLE AUTOMATIC SPRINKLERS
   b. TYCO FIRE & BUILDING PRODUCTS
   c. VIKING CORP.

HOSE VALVE CONNECTIONS
A. BRASS OR BRONZE UL 668, 300 PSIG MINIMUM PRESSURE RATING, HOSE VALVE FOR CONNECTING FIRE HOSE. INCLUDE ANGLE OR GATE PATTERN DESIGN; FEMALE NPS INLET AND MALE HOSE OUTLET; LUGGED CAP, GASKET AND CHAIN. HOSE THREADS TO MEET NFPA AND MATCH LOCAL FIRE DEPARTMENT THREADS.

FIRE DEPARTMENT CONNECTIONS
A. WALL TYPE – FIRE DEPARTMENT CONNECTION UL 405, 175 PSIG MINIMUM WORKING PRESSURE RATING; CORROSION RESISTANT METAL BODY WITH BRASS INLETS, BRASS WALL ESCUTCHEON PLATE, BRASS LUGGED CAPS WITH GASKETS AND BRASS CHAIN. INCLUDE INLETS WITH THREADS ACCORDING TO NFPA AND MATCHING LOCAL FIRE DEPARTMENT SIZE AND THREADS. ESCUTCHEON PLATE WITH MARKING SIMILAR TO "AUTO SPRINKLER & STANDPIPE"
B. EXPOSED, FREE STANDING TYPE – FIRE DEPARTMENT CONNECTION UL 405, 175 PSIG MINIMUM PRESSURE RATING; CORROSION RESISTANT METAL BODY, BRASS INLETS WITH THREADS ACCORDING TO NFPA AND MATCHING LOCAL FIRE DEPARTMENT SIZE AND THREADS. INCLUDE BRASS LUGGED CAPS, GASKETS AND BRASS CHAINS, 18" HIGH BRASS SLEEVE. BRASS ESCUTCHEON PLATE WITH MARKING SIMILAR "AUTO SPRINKLER & STANDPIPE"

ALARM DEVICES
A. ALARM DEVICES SHALL MATCH PIPING AND EQUIPMENT CONNECTIONS
B. WATER FLOW INDICATOR UL 346, ELECTRICAL SUPERVISION, PADDLE OPERATED TYPE, WATER FLOW DETECTOR WITH 250 PSIG PRESSURE RATING AND DESIGNED FOR HORIZONTAL OR VERTICAL INSTALLATION. INCLUDE TWO SINGLE POLE, DOUBLE THROW CIRCUIT SWITCHES FOR ISOLATED ALARM AND AUXILIARY CONTACTS; COMPLETE WITH FACTORY SET, FIELD ADJUSTABLE RETARD ELEMENT TO PREVENT FALSE SIGNALS AND TAMPERPROOF COVER.
C. PRESSURE SWITCH UL 753, ELECTRICAL-SUPERVISION TYPE, WATER FLOW SWITCH WITH RETARD FEATURE. INCLUDE SINGLE-POLE, DOUBLE-THROW, NORMALLY CLOSED CONTACTS AND DESIGN THAT OPERATES ON RISING PRESSURE AND SIGNALS WATER FLOW.
D. VALVE SUPERVISORY SWITCH UL 753 ELECTRICAL, SINGLE-POLE, DOUBLE THROW SWITCH WITH NORMALLY CLOSED CONTACTS. INCLUDE DESIGN THAT SIGNALS CONTROLLED VALVE IS IN OTHER THAN FULLY OPEN POSITION.
E. INDICATOR POST SUPERVISORY SWITCH UL 753, ELECTRICAL SINGLE-POLE, DOUBLE-THROW SWITCH WITH NORMALLY CLOSED CONTACTS. INCLUDE DESIGN THAT SIGNALS INDICATOR POST VALVE IS IN OTHER THAN FULLY OPEN POSITION.
F. PRESSURE GAGES UL 393, 3-1/2" – 4-1/2" DIAMETER, DIAL PRESSURE GAGE WITH RANGE 0 TO 250 PSIG MINIMUM. WATER SYSTEM PIPING INCLUDE CAPTION "WATER" OR "AIR/WATER" ON DIAL FACE.

PART 3 – EXECUTION

A. UPON SUBSTANTIAL COMPLETION OF THE PROJECT AND PRIOR TO FIRE PROTECTION CONTRACTOR'S REQUEST FOR FINAL INSPECTION, THE CONTRACTOR SHALL FURNISH TO THE GENERAL CONTRACTOR FOR REVIEW, ONE (1) SET OF OPERATION AND MAINTENANCE MANUALS ON ONE (1) THUMB DRIVE MEMORY USB STICKS. O&M MANUALS SHALL MINIMALLY INCLUDE THE FOLLOWING:
   a. STARTUP AND SHUTDOWN PROCEDURES FOR EACH MAJOR PIECE OF EQUIPMENT.
   b. OPERATING INSTRUCTIONS OUTLINING THE SAFE AND EFFICIENT OPERATION OF EACH MAJOR PIECE OF EQUIPMENT.
   c. EQUIPMENT LIST OF EACH MAJOR PIECE OF EQUIPMENT INCLUDING THE MAKE, MODEL, SERIAL NUMBER (IF APPLICABLE), VOLTAGE, PHASE, # WIRES, AMPACITY AND ALL OTHER INDUSTRY STANDARD NAMEPLATE DATA.
   d. SERVICE INSTRUCTIONS OUTLINING THE RECOMMENDED SPARE PARTS, ALONG WITH THE CONTACT INFORMATION FOR THE LOCAL SUPPLIER AND/OR FACTORY REPRESENTATIVE(S), AND THE RECOMMENDED FREQUENCY OF SERVICE OF EACH MAJOR PIECE OF EQUIPMENT.
   e. COPIES OF REVIEWED/APPROVED SHOP DRAWINGS/SUBMITTALS.
   f. AS-BUILT/RECORD DRAWINGS AND DOCUMENTATION.
   g. GUARANTEES/WARRANTIES.
   h. INSPECTION CARDS AND APPROVALS.
   i. NAME OF OWNER, ARCHITECT, ENGINEER OF RECORD, CONTRACTOR AND ALL SUB-CONTRACTORS.

DESIGN CRITERIA

1. ALL SPRINKLER SYSTEMS SHALL BE EQUIPPED WITH A BACKFLOW PREVENTION DEVICE OF THE TYPE REQUIRED BY LOCAL FIRE CODE AND IN ACCORDANCE WITH NFPA 13. AT A MINIMUM A DOUBLE CHECK VALVE IS REQUIRED. SUCH DEVICE SHALL BE ELECTRONICALLY SUPERVISED BY THE FIRE ALARM PANEL.
2. FIRE DEPARTMENT CONNECTION(S) SHALL BE ACCESSIBLY LOCATED AND VISIBLE FROM FROM STREET AND WITHIN 100'-0" OF A FIRE HYDRANT.
3. A POST INDICATOR VALVE IS REQUIRED ON FIRE PROTECTION PIPING MAIN ROUTE TO BUILDING.
4. ALL PIPING, FITTINGS AND JOINTS IN SPRINKLER SYSTEM SHALL CONFORM TO NFPA 13 & NFPA 14.
5. SPRINKLER HEADS SHALL BE PLACED A MINIMUM OF 1'-0" FROM SUPPLY DIFFUSERS.
6. SPRINKLER HEADS SHALL BE PLACED A MINIMUM 0F 0'-6" FROM FIRE WALLS.
7. SPRINKLER SYSTEM SHALL BE DESIGNED IN ACCORDANCE WITH LOCAL BUILDING CODE, NFPA 13. NEW SPRINKLER PIPING SHALL BE HYDRAULICALLY SIZED TO MEET THE FOLLOWING CRITERIA:
   A. CONTRACTOR SHALL VISIT SITE AND REVIEW THE EXISTING SYSTEM TO VERIFY WHICH PARTS CAN REMAIN. NEW HEADS SHALL BE PROVIDED FOR ALL EXISTING TO REMAIN AREAS.
   B. LIGHT HAZARD OCCUPANCY DENSITY 0.10 GPM/SF OVER MOST HYDRAULICALLY REMOTE 1,500 SF. MAX COVERAGE PER HEAD 225 SF.
   C. ORDINARY HAZARD GROUP 1 DENSITY 0.15 GPM/SF OVER MOST HYDRAULICALLY REMOTE 1,500 SF. MAXIMUM COVERAGE PER HEAD 120 SF.
   D. ORDINARY HAZARD GROUP 2 DENSITY 0.23 GPM/SF OVER MOST HYDRAULICALLY REMOTE AREA IN THE FACTORY AREAS.
   E. CLOSELY SPACED SPRINKLER HEADS LOCATED 6'-0" ON CENTER SHALL DISCHARGE MINIMUM 3 GPM PER LINEAR FOOT OF PROTECTION LINE. NUMBER OF CLOSELY SPACED SPRINKLERS INCLUDED IN HYDRAULIC CALCULATIONS SHALL BE IN ACCORDANCE WITH NFPA 13.
   F. DISCHARGE FROM EACH SPRINKLER HEAD SHALL NOT BE LESS THAN REQUIRED FOR AREA COVERED BY THIS HEAD. AREA COVERAGE PER HEAD SHALL BE DETERMINED IN ACCORDANCE WITH NFPA 13.
   G. MINIMUM PRESSURE AT SPRINKLER HEAD TO BE 7 PSI.
   H. HYDRAULIC CALCULATIONS SHALL BE BROUGHT BACK TO CONNECTION AT WATER SUPPLY.
   I. CONTRACTOR SHALL ORDER HYDRANT FLOW TEST AND BASE HYDRAULIC CALCULATIONS ON THE RESULTS OF TEST. HYDRAULIC CALCULATIONS SHALL INDICATED MINIMUM 10 PSI PRESSURE SAFETY MARGIN.
      a. HYDRANTS TESTED SHALL BE LOCATED AS CLOSE AS POSSIBLE TO POINT OF FIRE SERVICE CONNECTION TO CITY MAIN.
      b. TEST DATA SHALL INDICATE STATIC PRESSURE, RESIDUAL PRESSURE AT TEST FLOW AND GRADE ELEVATION AT HYDRANT.

FIRE PROTECTION GENERAL NOTES

1. THESE DRAWINGS ARE FOR DELEGATED DESIGN EFFORT. THE INFORMATION SHALL BE UTILIZED BY FIRE PROTECTION CONTRACTOR TO UNDERSTAND BASIS OF WORK TO BE COMPLETED AND ASSIST IN PROVIDING A BID. HOWEVER A FULL FIRE PROTECTION DESIGN PER APPLICABLE CODES, HYDRAULICALLY CALCULATED WILL BE REQUIRED AND SUBMITTED FOR REVIEW PRIOR TO STARTING WORK.
2. FIRE PROTECTION CONTRACTOR SHALL COORDINATE LOCATION OF ALL SPRINKLER HEADS AND PIPING WITH STRUCTURAL ELEMENTS, MECHANICAL,PLUMBING, ELECTRICAL EQUIPMENT AND CEILING CONFIGURATION INDICATED ON DRAWINGS. WHERE NECESSARY SPRINKLER CONTRACTOR SHALL PROVIDE ADDITIONAL SPRINKLERS TO ASSURE REQUIRED DISCHARGE PATTERNS AROUND OBSTRUCTIONS AND DIFFERENT CEILING ELEVATIONS TO YIELD A PROPER DENSITY (gpm / sq. ft.) FOR THE DESIGNED HAZARD.
3. ALL PIPING, FITTINGS AND JOINTS IN SPRINKLER AND STANDPIPE SYSTEMS SHALL CONFORM TO NFPA 13 & 14.
4. ALL VALVES WILL BE READILY ACCESSIBLE FROM A SAFE HEIGHT ON A SIX FOOT LADDER AND TO BE CLEAR OF ALL OBSTRUCTIONS AND THEIR OPERATION SHALL NOT BE ENCUMBERED BY ANY DEVICE OR EQUIPMENT.
5. INSTALL ALL OVERHEAD HANGERS AND SUPPORTS PRIOR TO SPRAY FIREPROOFING OR DRYWALL CEILING.
6. DO NOT SUPPORT SPRINKLER PIPING FROM METAL DECK.
7. SPRINKLER PIPING IS TO BE BRACED AND RESTRAINED (BRANCH LINES) IN ACCORDANCE WITH NFPA 13 FOR SEISMIC REQUIREMENTS.
8. EXTENDED COVERAGE SPRINKLERS WILL BE ACCEPTABLE.
9. SPRINKLER SYSTEM SHALL BE ZONED AS SHOWN ON DRAWINGS.
10. PIPING ABOVE ALL ELECTRICAL, TEL/DATA/ OR ROOMS HOUSING EQUIPMENT SENSITIVE TO WATER SHALL BE LIMITED TO PIPING FOR SPRINKLER HEADS ONLY. NO MAINS OR BRANCHES SHALL BE ROUTED WITHIN THESE ROOMS.

FIRE PROTECTION SYSTEMS

—F—	FIRE PROTECTION PIPING
—(E) F—	EXISTING FIRE PROTECTION PIPING
- - - - - - - -	DEMO FIRE PROTECTION PIPING
▬ ▬ ▬ ▬	FIRE DESIGNATION OUTLINE

FIRE PROTECTION SYMBOLS

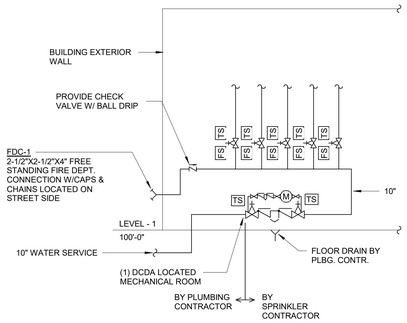
	DIRECTION OF FLOW
	PIPE ANCHOR
	UNION
	VALVE
OS&Y	OS&Y VALVE
	CHECK VALVE (SHOWN W/FLOW)
PIV	POST INDICATOR VALVE
DPV	DRY PIPE VALVE
CV	CONTROL VALVE
S	SOLENOID VALVE
	BACKFLOW PREVENTER (BFP)
FDC	FIRE DEPARTMENT CONNECTION
FDC	FREE-STANDING FIRE DEPARTMENT CONNECTION
FS	FLOW SWITCH
PS	PRESSURE SWITCH
	POINT OF CONNECTION (NEW TO EXISTING)
FR 1	RISER INDICATOR / DETAIL INDICATOR TOP INDICATES TYPE OF RISER BOTTOM INDICATES RISER NUMBER
LT ◉	HAZARD CLASSIFICATION / SPRINKLER HEAD TYPE

FIRE PROTECTION ABBREVIATIONS

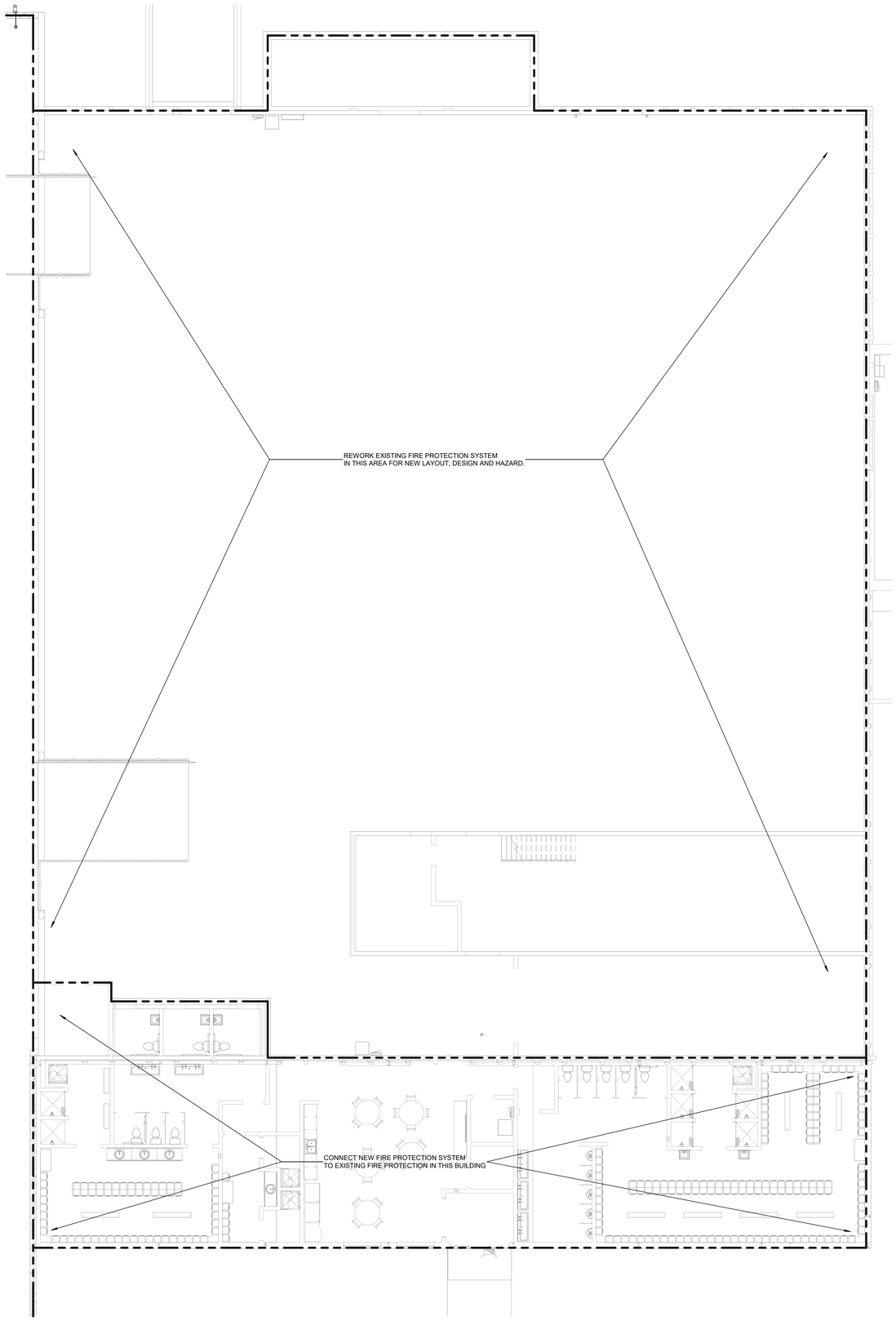
AC	AIR COMPRESSOR
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHJ	AUTHORITY HAVING JURISDICTION
AP	ACCESS PANEL
ARCH	ARCHITECTURE
ASSY	ASSEMBLY
ATM	ARMOSPHERE
AUTO	AUTOMATIC
AUX	AUXILLARY
CA	COMPRESSED AIR OR CLEAN AGENT
CAP	CAPACITY
CLG	CEILING
COL	COLUMN
CSP	COMBINED STANDPIPE/SPRINKLER SYSTEM
CV	CHECK VALVE
DCV	DOUBLE CHECK VALVE
DDCV	DOUBLE DETECTOR CHECK VALVE
DIA	DIAMETER
DIM	DIMENSION
DN	DOWN
DPV	DRY PIPE VALVE
EA	EACH
ELEV.	ELEVATION
ELEC	ELECTRICAL
EQUIP	EQUIPMENT
EX	EXISTING
(E)	EXISTING
F	FARENHEIT
FA	FIRE ALARM
FBO	FURNISHED BY OTHERS
FDC	FIRE DEPARTMENT CONNECTION
FP	FIRE PROTECTION
FS	FLOW SWITCH
FT	FEET
GPM	GALLONS PER MINUTE
N.C.	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO.	NUMBER
N.O.	NORMALLY OPEN
NS	NOT SPRINKLERED
NTS	NOT TO SCALE
OS&Y	OUTSIDE SCREW AND YOKE
P	PUMP
PG	PRESSURE GAUGE
PIV	POST INDICATOR VALVE
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH GAUGE
SP	STANDPIPE
SPKR	SPRINKLER
TB	THRUST BLOCK
TEMP	TEMPERATURE
TH	THERMOMETER
TS	TAMPER SWITCH
TYP	TYPICAL

WISCONSIN — MARCUS A. COKSTEIN — E-49038 — ST. PETERS MO — PROFESSIONAL ENGINEER

12/17/25



1 "FP 0005" — FIRE PROTECTION RISER DIAGRA



N

FLOOR PLAN - BUILDING 25 - FIRE PROTECTION

SCALE: 1/8" = 1'-0"

WISCONSIN PROFESSIONAL ENGINEER
MARCUS A. ECKSTEIN
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ST. PETERS
MO

12/17/25

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P: (314) 819-9189
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REVISIONS:

NOTICE TO BIDDERS
BIDDERS SHALL REVIEW ALL DRAWINGS AND SPECIFICATION SECTIONS TO DETERMINE THE IMPACT OF OTHER SECTIONS OF WORK ON THEIR OWN WORK

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DATE ISSUED: DECEMBER 17TH, 2025

FACILITY EXPANSION FOR

VOLLRATH COMPANY LLC

1236 NORTH 18th STREET, SHEBOYGAN WI 53081

1135A MICHIGAN AVE. SHEBOYGAN, WI 53081 | (920) 452-4444 | 313 N. PLANKINTON AVE SUITE 208. MILWAUKEE, WI 53203

PERMIT SET

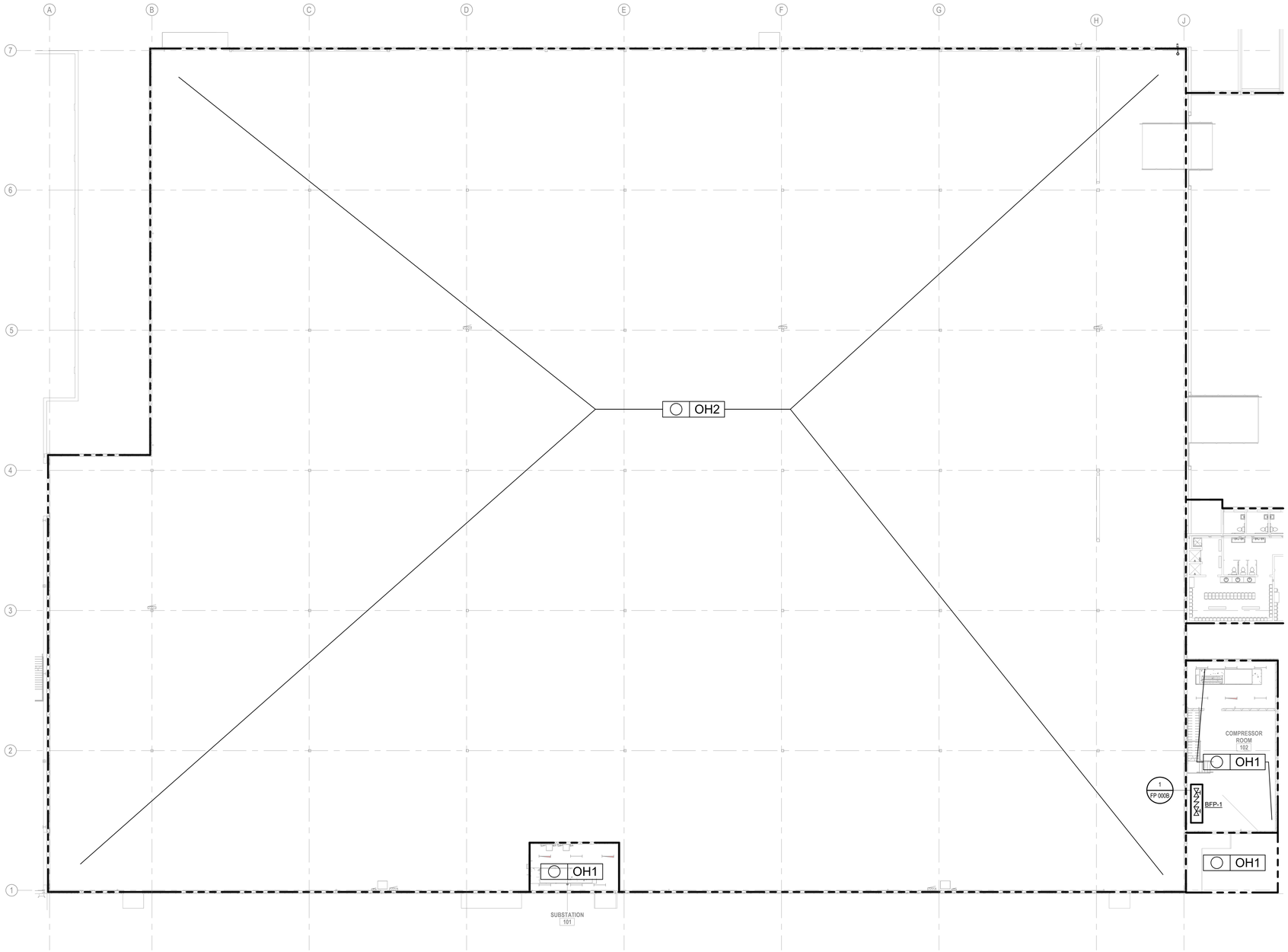
DRAWN BY: ENGENUITY, llc

CHECKED BY: MAE

OVERALL FLOOR PLAN BUILDING 18

FP 201.1

PROJ. NO. 2024-093



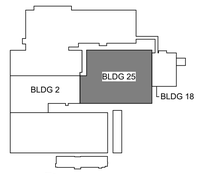
1 FP 201.2 FLOOR PLAN - BUILDING 25 - FIRE PROTECTION
SCALE: 1/16" = 1'-0"

DESIGN HAZARDS

DESIGNATION	SYSTEM TYPE	HAZARD COMMODITY	MINIMUM DENSITY	REMOTE AREA	HOSE ALLOWANCE
OH1	WET	ORDINARY HAZARD GROUP 1	0.15 GPM/SF	1,500 SF	250 GPM
OH2	WET	ORDINARY HAZARD GROUP 2	0.23 GPM/SF	--	250 GPM

SPRINKLERS

SYMBOL	SPRINKLER HEAD TYPE	TEMPERATURE CLASSIFICATION	FINISH TYPE	ESCUTCHEON/COVER COLOR
○	UPRIGHT	ORDINARY	BRASS	BRASS
▷D	DRY SIDEWALL	ORDINARY	CHROME	CHROME



KEY PLAN
NO SCALE

WISCONSIN PROFESSIONAL ENGINEER
MARCUS A. ECKSTEIN
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12/17/25

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PERMIT SET

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OVERALL FLOOR PLAN - BUILDING 25

FP
201.2

PROJ. NO. 2024-093

SUPERIOR AVENUE

NORTH 23RD STREET

N01°05'55"E 649.60'

S89°58'15"E 1448.81'

N89°56'56"W 1010.41'

MATCH LINE SEE PAGE 2

SEE PAGE 2

STORM SEWER CATCH BASIN
TOP = 656.68
INV. 8" NW = 653.83

STORM SEWER CATCH BASIN MANHOLE
TOP = 655.80
INV. 15" S = 649.79
INV. 18" E = 649.77
INV. 24" W = 649.64

STORM SEWER CATCH BASIN MANHOLE
TOP = 654.66
INV. 15" N = 651.19

STORM SEWER CATCH BASIN
TOP = 658.25
INV. 10" W = 654.86

SANITARY SEWER MANHOLE
TOP = 659.78
INV. 8" S = 649.03
INV. 8" N = 649.02

STORM SEWER CATCH BASIN MANHOLE
TOP = 652.27
INV. 15" S = 649.24

STORM SEWER CATCH BASIN
TOP = 659.92
INV. 10" W = 656.18

STORM SEWER CATCH BASIN MANHOLE
TOP = 660.92
INV. 48" E = 643.54
INV. 48" N = 644.54

STORM SEWER CATCH BASIN
TOP = 652.92
INV. 12" N = 647.59
INV. 15" E = 647.71
INV. 15" S = 647.12

STORM SEWER CATCH BASIN MANHOLE
TOP = 659.02
INV. 15" N = 643.06
INV. 48" W = 642.69
INV. 48" E = 642.68

STORM SEWER CATCH BASIN
TOP = 650.34
INV. 15" E = 646.92

STORM SEWER CATCH BASIN MANHOLE
TOP = 653.09
INV. 12" S = 649.31
INV. 12" N = 649.30
INV. 12" E = 649.21

STORM SEWER CATCH BASIN MANHOLE
TOP = 652.29
COULD NOT ACCESS
(CLOGGED WITH LEAVES)

STORM SEWER CATCH BASIN MANHOLE
TOP = 654.36
INV. 8" S = 651.34

STORM SEWER CATCH BASIN MANHOLE
TOP = 656.12
INV. 8" W = 651.37
INV. 8" S = 650.33
INV. 8" N = 649.91

STORM SEWER CATCH BASIN MANHOLE
TOP = 655.13
INV. 8" N = 650.67
INV. 8" S = 650.67
INV. 8" E = 650.55

STORM SEWER CATCH BASIN MANHOLE
TOP = 654.83
INV. 8" S = 651.23

STORM SEWER CATCH BASIN MANHOLE
TOP = 652.91
INV. 15" S = 649.10
INV. 18" E = 649.08

STORM SEWER CATCH BASIN MANHOLE
TOP = 652.49
INV. 18" W = 648.67
INV. 15" S = 648.66

STORM SEWER CATCH BASIN MANHOLE
TOP = 652.37
INV. 12" N = 649.02
INV. 12" E = 648.99
INV. 15" SE = 648.99

STORM SEWER CATCH BASIN MANHOLE
TOP = 652.32
INV. 12" E = 649.06
INV. 12" W = 648.91
INV. 15" SW = 648.78

STORM SEWER CATCH BASIN MANHOLE
TOP = 652.00
INV. 15" N = 649.56

STORM SEWER CATCH BASIN MANHOLE
TOP = 652.53
INV. 8" SE = 649.33

STORM SEWER CATCH BASIN MANHOLE
TOP = 651.90
INV. 30" W = 647.87
INV. 15" N = 648.25
INV. 18" E = 648.00

STORM SEWER CATCH BASIN MANHOLE
TOP = 653.63
INV. 15" NW = 644.16
INV. 48" W = 641.58
INV. 48" E = 641.53

INV. 72" CULVERT
EL=640.77

EDGE OF WATER AS OF 3-13-2025

TELECOM BOX

ELECTRICAL BOX

POSSIBLE BURIED VALVE

FIRE HYDRANT

WATER VALVE

BOLLARD

FINISH FLOOR ELEV=656.89

FINISH FLOOR ELEV=656.80

FINISH FLOOR ELEV=656.80

FINISH FLOOR ELEV=656.80

FINISH FLOOR ELEV=656.84

LOADING DOCK EL=656.95

LOADING DOCK EL=656.91

LOADING DOCK EL=656.96

LOADING DOCK EL=656.94

FINISH FLOOR EL=656.89

FINISH FLOOR EL=656.89

FINISH FLOOR EL=650.89

FINISH FLOOR EL=644.74

347.07'

344.37'

330.83'

150.5'

249.5'

264.97'

GRAVEL

SPEARS

BUILDING

CONCRETE

ASPHALT

LEGEND

- O = Iron Stake Found
- = Power Pole
- = Light Pole
- = Guy Wire
- = Sign
- = Water Valve
- = Hydrant
- = Fire Department Hookup
- = Manhole
- = Catch Basin
- = Catch Basin Manhole
- = Deciduous Tree
- = Coniferous Tree
- = Electric Overhead Line
- = Electric Line
- = Sanitary Sewer Line
- = Storm Sewer Line
- = Water Line
- = Telecom Line
- = Gas Line
- = Fence
- = Guard Rail
- = Top of Curb Elevation
- = Gutter Elevation

Scale: 1" = 30'

NOTES:
1. UTILITY STRUCTURES VISIBLE ON THE GROUND SURFACE HAVE BEEN SHOWN PER ACTUAL MEASUREMENTS. UNDERGROUND UTILITY LINES HAVE BEEN SHOWN PER AVAILABLE RECORDS AND MARKINGS BY DIGGERS HOTLINE AND SHOULD NOT BE INTERPRETED AS THE EXACT LOCATION NOR THE ONLY UTILITIES IN THIS AREA.
2. PARCEL MAY BE SUBJECT TO EASEMENTS AND RIGHTS NOT SHOWN THAT A COMPLETE TITLE SEARCH MAY DISCLOSE.
3. COORDINATES ARE BASED ON SHEBOYGAN COUNTY COORDINATE SYSTEM.
4. ELEVATIONS ARE NAVD88(GEOID12B).

TOPOGRAPHIC SURVEY

FOR: ABACUS ARCHITECTS
1135A MICHIGAN AVENUE
SHEBOYGAN, WI 53081

PART OF THE NW 1/4, SECTION 22, T15N, R23E,
CITY OF SHEBOYGAN, SHEBOYGAN COUNTY, WISCONSIN

Revisions:	
ADDITIONAL TOPO	03-24-2025
ADDITIONAL TOPO AND UTILITIES	04-15-2025

100 South 10th Street
Oostburg, WI 53070
920-547-0599

CEDAR CREEK SURVEYING, LLC
ENGINEERS • SURVEYORS • DRAFTERS
www.cedarcreeksurveying.com

FILE No.: 20250115 DATE: 3/24/2025 PAGE: 1 OF 3

MATCH PAGE 2

NORTH 18TH STREET

NORTH KMD FRONTAGE ROAD

NORTH 19TH STREET

LEGEND

- O = Iron Stake Found
- = Power Pole
- = Light Pole
- = Guy Wire
- = Sign
- = Water Valve
- = Fire Department Hookup
- = Manhole
- = Catch Basin
- = Catch Basin Manhole
- = Deciduous Tree
- = Coniferous Tree
- = Electric Overhead Line
- = Electric Line
- = Sanitary Sewer Line
- = Storm Sewer Line
- = Water Line
- = Telecom Line
- = Gas Line
- = Fence
- = Guard Rail
- = Top of Curb Elevation
- = Gutter Elevation

Scale: 1" = 30'

TOPOGRAPHIC SURVEY

FOR: ABACUS ARCHITECTS
1135A MICHIGAN AVENUE
SHEBOYGAN, WI 53081

PART OF THE NW 1/4, SECTION 22, T15N, R23E,
CITY OF SHEBOYGAN, SHEBOYGAN COUNTY, WISCONSIN

Revisions:	
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FILE No.: 20250115 DATE: 3/24/2025 PAGE: 3 OF 3

Curve Table					
Curve #	Delta	Arc	Radius	Bearing	Distance
C3	29°43'00"	51.72'	119.00'	N74°34'29"W	51.00'

TOPOGRAPHIC SURVEY

FOR: ABACUS ARCHITECTS
1135A MICHIGAN AVENUE
SHEBOYGAN, WI 53081

PART OF THE NW 1/4, SECTION 22, T15N, R23E,
CITY OF SHEBOYGAN, SHEBOYGAN COUNTY, WISCONSIN

Revisions:	
ADDITIONAL TOPO	03-24-2025
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FILE No.: 20250115 DATE: 3/24/2025 PAGE: 2 OF 3

LEGEND

- = Iron Stake Found
- = Power Pole
- = Light Pole
- = Guy Wire
- = Sign
- = Water Valve
- = Hydrant
- = Fire Department Hookup
- = Manhole
- = Catch Basin
- = Catch Basin Manhole
- = Deciduous Tree
- = Coniferous Tree
- = Electric Overhead Line
- = Electric Line
- = Sanitary Sewer Line
- = Storm Sewer Line
- = Water Line
- = Telecom Line
- = Gas Line
- = Fence
- = Guard Rail
- = Top of Curb Elevation
- = Gutter Elevation

N

0 15 30
Scale: 1" = 30'

Curve Table					
Curve #	Delta	Arc	Radius	Bearing	Distance
C1	12°45'54"	67.44'	302.31'	S63°39'30"E	67.30'
C2	19°16'27"	147.00'	437.14'	S66°15'18"E	146.36'

SUPERIOR AVENUE

NORTH 18TH STREET

S89°58'15"E 1448.81'

S0°02'36"W 340.00'

N0°02'36"E 319.86'

S89°57'24"E 250.00'

S89°37'06"E 44.66'

S0°12'26"W 1444.87'

MATCH LINE SEE PAGE 1

MATCH LINE SEE PAGE 3

STORM SEWER CATCH BASIN
TOP = 652.59
COULD NOT ACCESS
(CLOGGED WITH LEAVES)

STORM SEWER CATCH BASIN MANHOLE
TOP = 653.18
INV. 8" SE = 650.77
INV. 12" N = 650.78

STORM SEWER CATCH BASIN
TOP = 655.53
INV. 12" N = 651.73

STORM SEWER CATCH BASIN MANHOLE
TOP = 652.61
INV. 8" NW = 651.17

STORM SEWER CATCH BASIN
TOP = 656.78
INV. 12" NE = 653.68

STORM SEWER CATCH BASIN MANHOLE
TOP = 657.67
INV. 10" S = 653.24

STORM SEWER CATCH BASIN MANHOLE
TOP = 659.82
(TARPED AND FILLED WITH LEAVES)

STORM SEWER CATCH BASIN MANHOLE
TOP = 660.34
INV. 24" N = 652.58
INV. 24" S = 652.58
INV. 18" W = 652.74

STORM SEWER CATCH BASIN MANHOLE
TOP = 660.74
INV. 18" SE = 653.90
INV. 12" W = 654.24

STORM SEWER CATCH BASIN MANHOLE
TOP = 659.06
INV. 10" N = 652.80
INV. 10" S = 652.81

STORM SEWER CATCH BASIN MANHOLE
TOP = 660.81
INV. 10" S = 652.57
INV. 10" N = 652.50
INV. 12" E = 652.29

STORM SEWER CATCH BASIN MANHOLE
TOP = 660.43
INV. 8" S = 653.52
INV. 12" W = 652.09
INV. 12" E = 651.23

STORM SEWER CATCH BASIN MANHOLE
TOP = 657.04
INV. 10" N = 651.90
INV. 10" S = 651.61
INV. 12" E = 651.13
INV. 12" W = 651.09

STORM SEWER CATCH BASIN
TOP = 655.50
INV. 12" W = 650.13
INV. 18" E = 650.04

STORM SEWER CATCH BASIN MANHOLE
TOP = 652.51
INV. 8" SE = 649.33

STORM SEWER CATCH BASIN MANHOLE
TOP = 653.07
INV. 8" NW = 648.28
INV. 24" E = 648.86
INV. 24" W = 648.78

STORM SEWER CATCH BASIN MANHOLE
TOP = 655.62
INV. 18"-20" W = 650.12

STORM SEWER CATCH BASIN MANHOLE
TOP = 660.78
INV. 18" N = 654.40
INV. 4" E = 655.52
INV. 18" S = 654.47

SANITARY SEWER MANHOLE
TOP = 661.93
INV. 4" N = 655.73
INV. 6" S = 655.41
INV. 6" E = 656.63

STORM SEWER CATCH BASIN MANHOLE
TOP = 661.42
INV. 6" W = 658.52

WATER VALVE
TOP = 661.96
TOP OF NUT = 655.96

EXCAVATOR
BURY BOLT ON
HYDRANT
EL. = 653.61

STORM SEWER CATCH BASIN MANHOLE
TOP = 662.03
INV. 15" N = 653.33
INV. 18" SE = 652.78

ELECTRIC BOX SWITCH

STORM SEWER CATCH BASIN MANHOLE
TOP = 660.96
INV. 18" N = 655.51
INV. 6" E = 655.84
INV. 15" S = 656.06

STORM SEWER CATCH
BASIN MANHOLE
TOP = 657.89
INV. 12" S = 653.98

STORM SEWER MANHOLE
TOP = 658.64
INV. 4" SW = 656.64
INV. 6" E = 654.51
INV. 8" SE = 654.37

STORM SEWER CATCH BASIN MANHOLE
TOP = 660.60
INV. 15" N = 656.35
INV. 18" S = 656.45
INV. 10" S = 656.80

STORM SEWER CATCH BASIN MANHOLE
TOP = 661.16
INV. 10"? N = 654.03
INV. 12"? S = 653.89
(FILLED WITH GRAVEL)

STORM SEWER CATCH BASIN MANHOLE
TOP = 660.72
INV. 12" N = 657.77
INV. 8" S = 658.54

STORM SEWER MANHOLE
TOP = 662.68
INV. 18" E = 657.23

STORM SEWER MANHOLE
TOP = 661.89
INV. 18" E = 656.54

STORM SEWER CATCH BASIN MANHOLE
TOP = 660.47
INV. 18" NW = 654.27
INV. 18" SE = 654.31

STORM SEWER CATCH BASIN MANHOLE
TOP = 659.94
INV. 18" S = 654.77
INV. 18" NW = 654.66

STORM SEWER MANHOLE
TOP = 658.90
INV. 10" S = 653.18
INV. 10" N = 653.05

STORM SEWER CATCH BASIN MANHOLE
TOP = 656.80
INV. 8" S = 652.74
INV. 8" N = 652.70

STORM SEWER CATCH BASIN MANHOLE
TOP = 660.56
INV. 6" E = 659.06
INV. 4" W = 656.86
INV. 6" SW = 656.56

STORM SEWER CATCH BASIN MANHOLE
TOP = 660.81
INV. 6" W = 659.27
INV. 2" NW = 658.41
INV. 8" SW = 655.21
INV. 4" W = 653.52
INV. 6" W = 653.40
INV. 8" SW = 653.41

STORM SEWER CATCH BASIN MANHOLE
TOP = 660.88
INV. 1" SW = 656.48
INV. 18" N = 655.35

STORM SEWER CATCH
BASIN MANHOLE
TOP = 656.02
INV. 6" S = 653.06
INV. 6" N = 653.02

BENCHMARK
SW BURY BOLT ON
HYDRANT
= 658.73

ELECTRIC METER

GAS METER

ELECTRIC PLUG IN

ELECTRIC BOX ON CONCRETE PAD

FUEL VAULT

GARDEN BOX (TYP.)

BOLLARD (TYP.)

CONDUIT IN GROUND

OLD GAS (TYP.)
OVERHEAD PIPE

BENCHMARK
NORTH BURY BOLT
ON HYDRANT
= 658.49

CORE HOLE
ELEVATION

6" PIPE IN TO BUILDING

ELECTRICAL
BOX ON
CONCRETE
PAD

FINISH FLOOR ELEVATIONS

FINISH FLOOR EL=656.04
FINISH FLOOR EL=656.92
FINISH FLOOR EL=656.94
FINISH FLOOR EL=656.96
FINISH FLOOR EL=656.98
FINISH FLOOR EL=656.99
FINISH FLOOR EL=657.00
FINISH FLOOR EL=657.01
FINISH FLOOR EL=657.02
FINISH FLOOR EL=657.03
FINISH FLOOR EL=657.04
FINISH FLOOR EL=657.05
FINISH FLOOR EL=657.06
FINISH FLOOR EL=657.07
FINISH FLOOR EL=657.08
FINISH FLOOR EL=657.09
FINISH FLOOR EL=657.10
FINISH FLOOR

APRIL 7th, 2025

VOLLRATH COMPANY LLC

1236 NORTH 18th STREET , SHEBOYGAN WI 53081

A0.1 DRONE SURVEY IMAGE

PROJ. NO. 2024-093

N

SCALE: "1=200'

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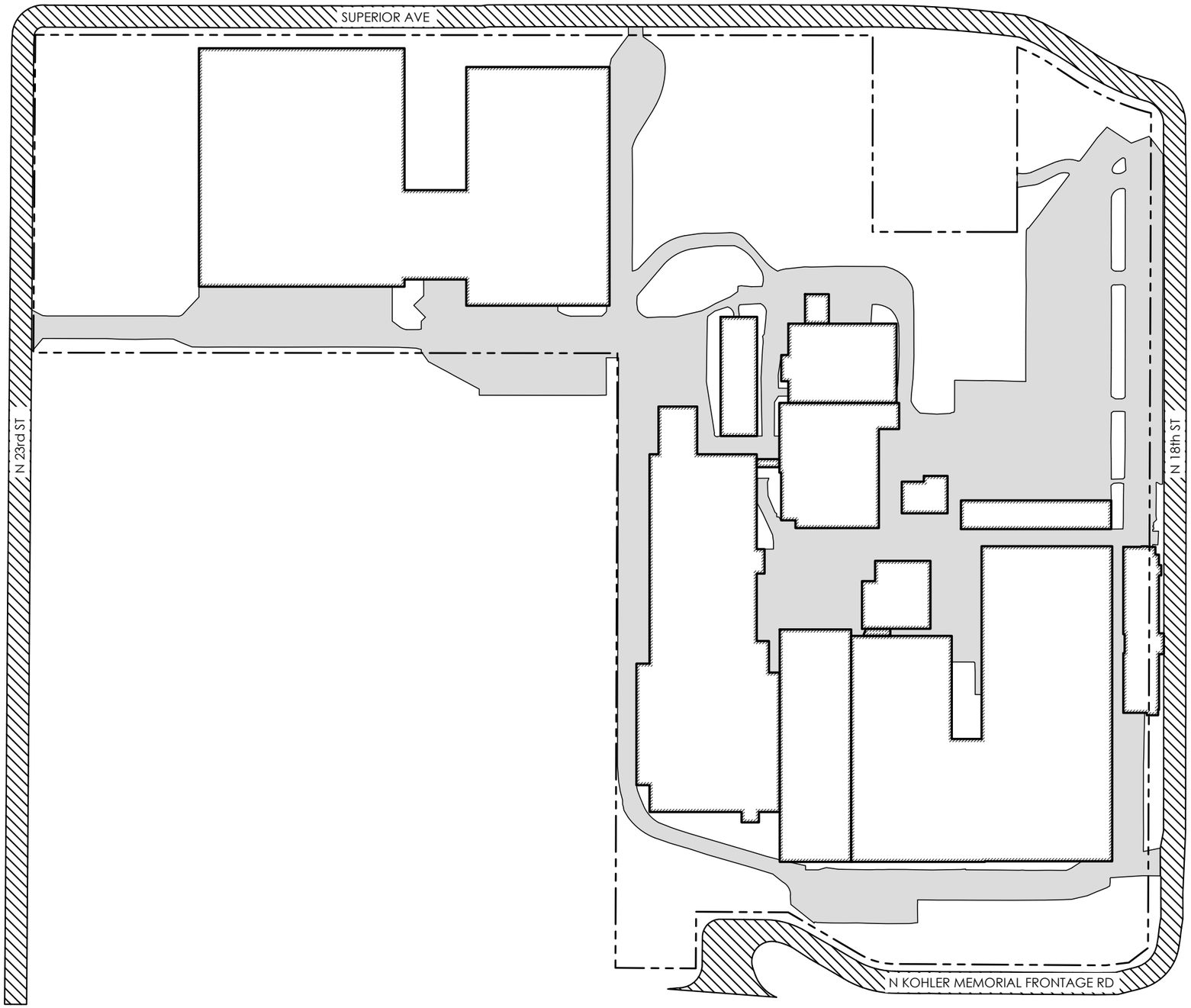
04/09/25
P:\2025-CONTRACTS\2025-009.1 Vollrath Breezeway, Pole Building, Sub Station, Bldg 8, Building 19 Toilet Remodel\Phase - 2\ Construction Documents\S.3 Site\2025-9.1 - Existing Complete.dwg



APRIL 7th, 2025

VOLLRATH COMPANY LLC

1236 NORTH 18th STREET , SHEBOYGAN WI 53081

A1 PHASE 1 - EXISTING

PROJ. NO. 2024-093

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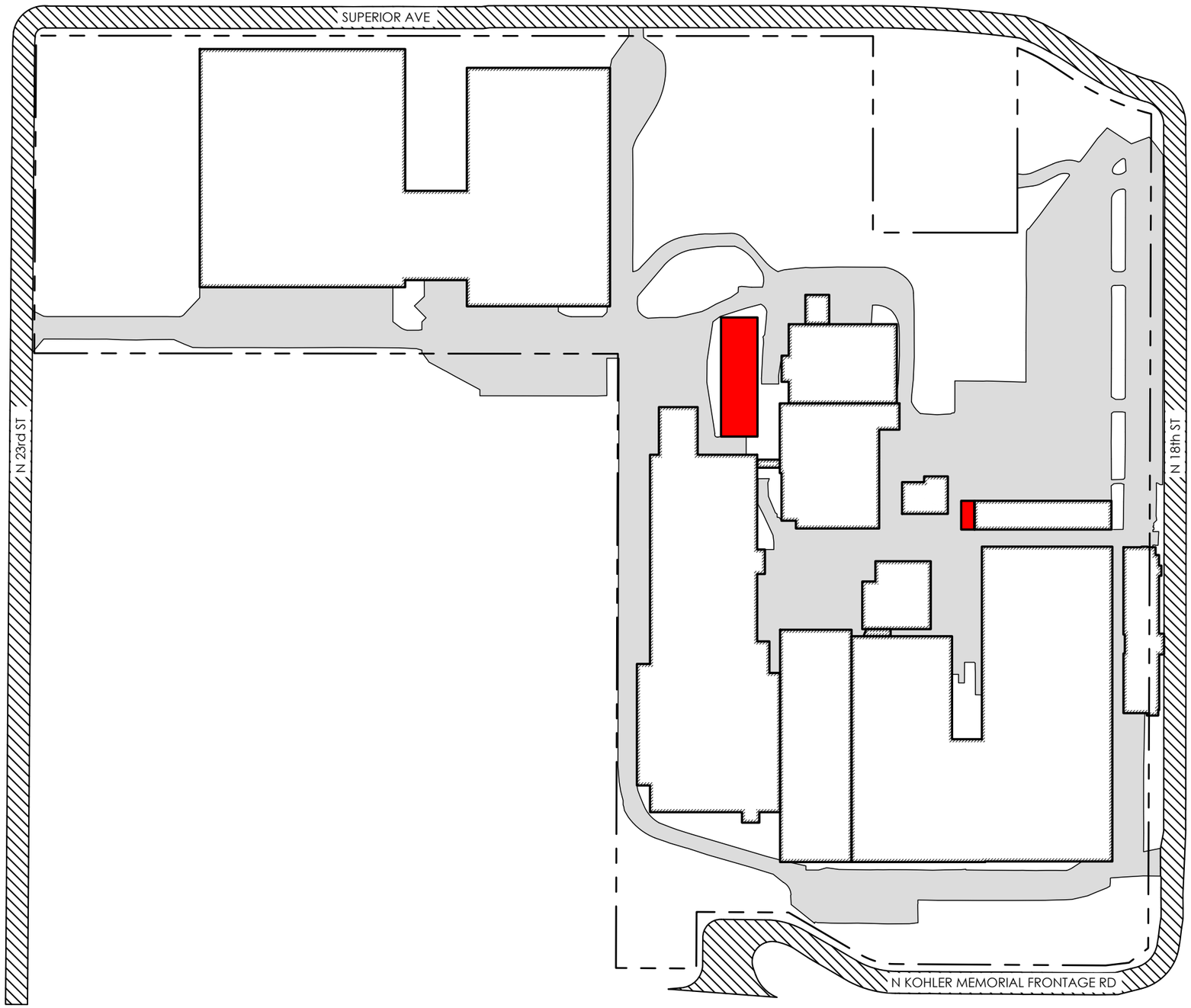

APRIL 7th, 2025

VOLLRATH COMPANY LLC

1236 NORTH 18th STREET , SHEBOYGAN WI 53081

A2 PHASE 2 - DEMOLITION

PROJ. NO. 2024-093

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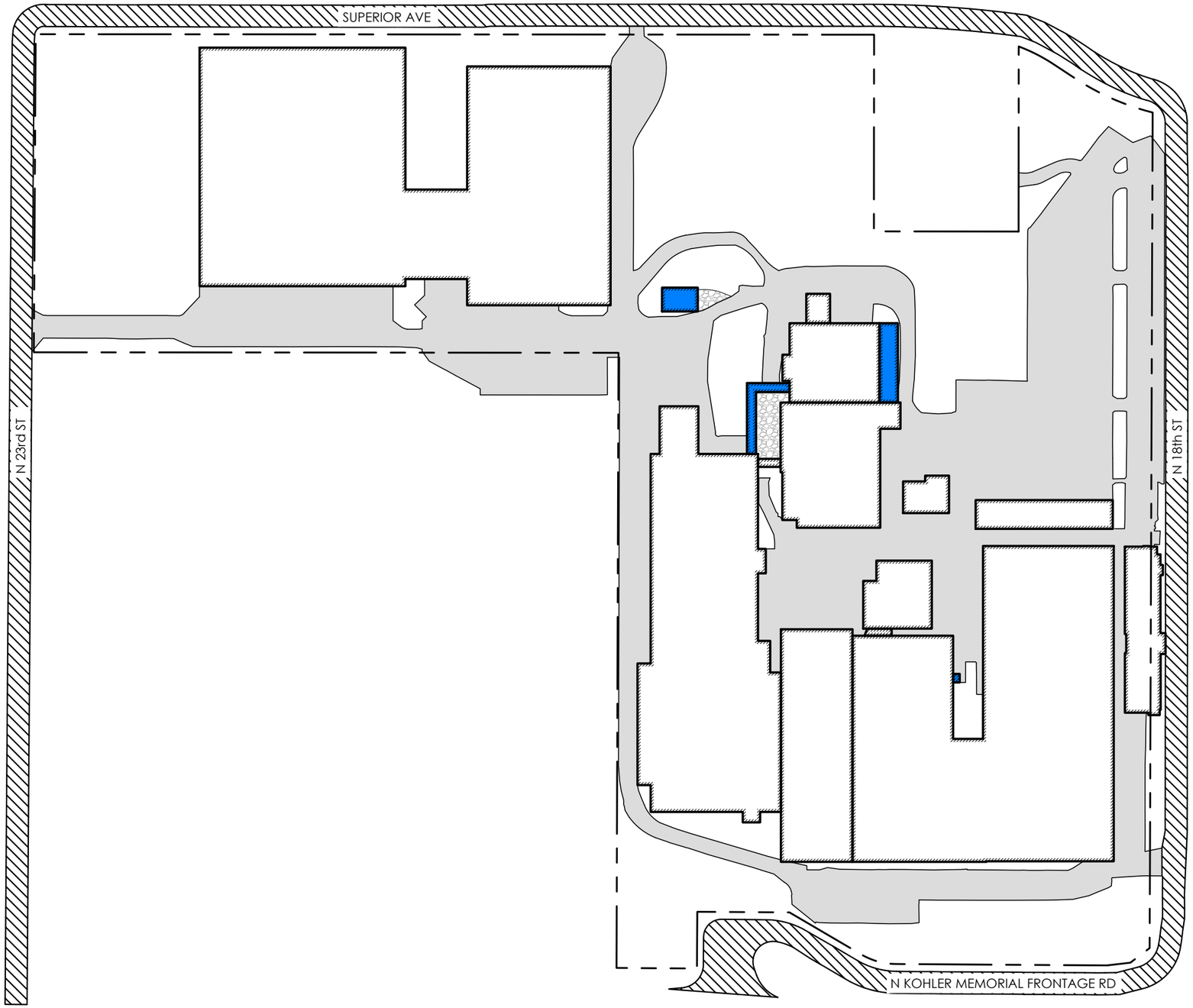

APRIL 7th, 2025

VOLLRATH COMPANY LLC

1236 NORTH 18th STREET , SHEBOYGAN WI 53081

A3 PHASE 3 - NEW CONSTRUCTION

PROJ. NO. 2024-093

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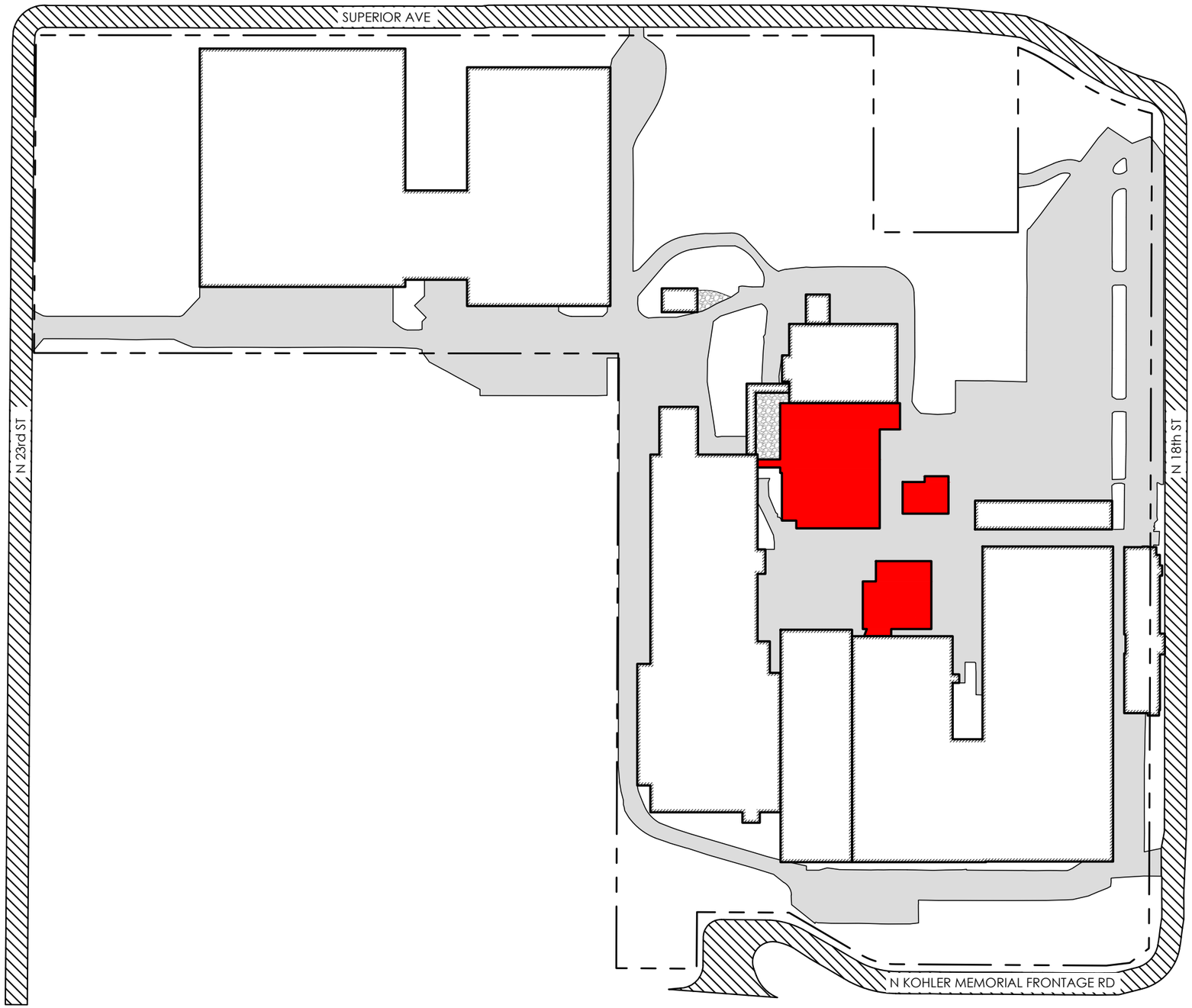

APRIL 7th, 2025

VOLLRATH COMPANY LLC

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A4 PHASE 4 - DEMOLITION

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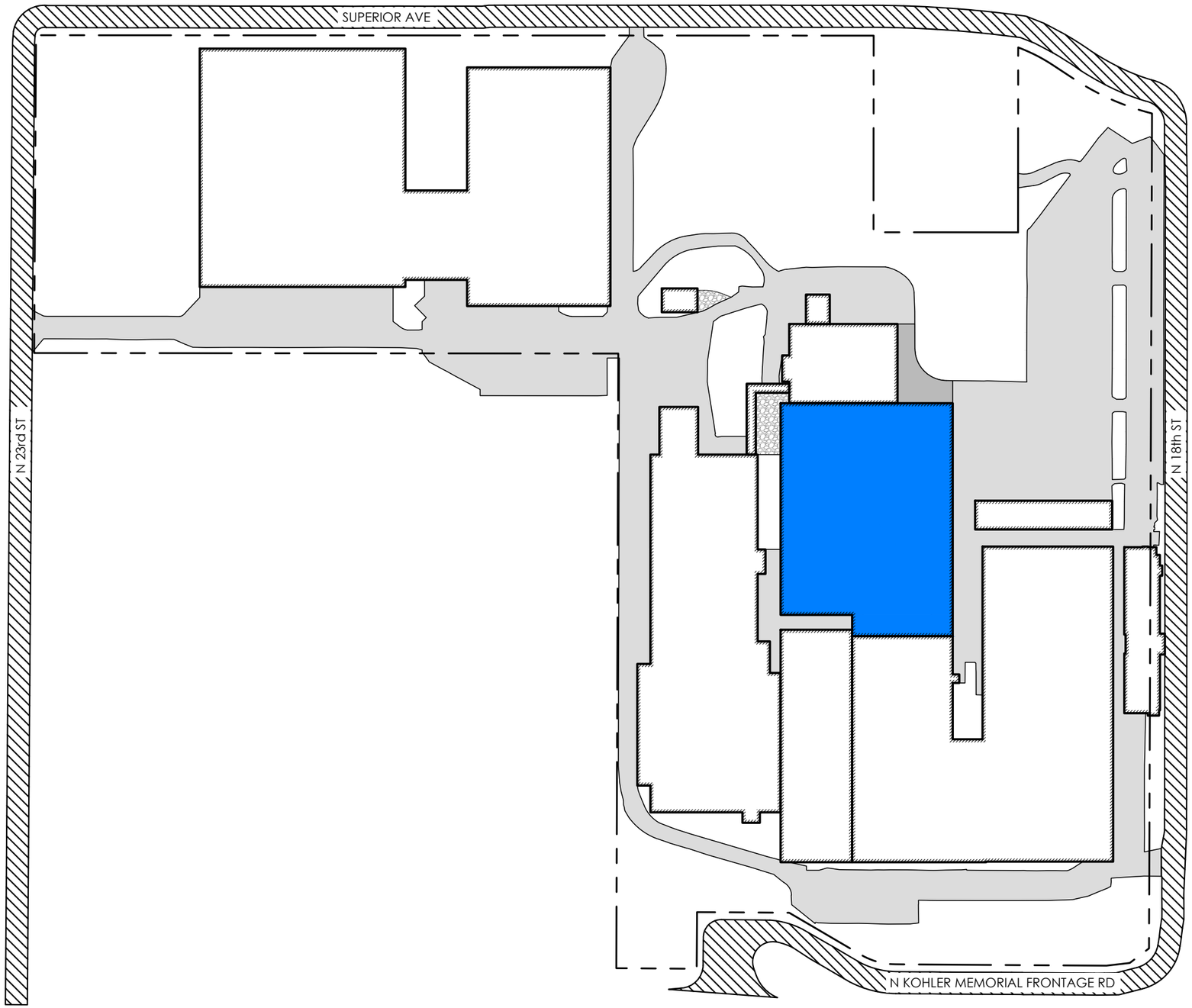

APRIL 7th, 2025

VOLLRATH COMPANY LLC

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A5 PHASE 5 - NEW CONSTRUCTION

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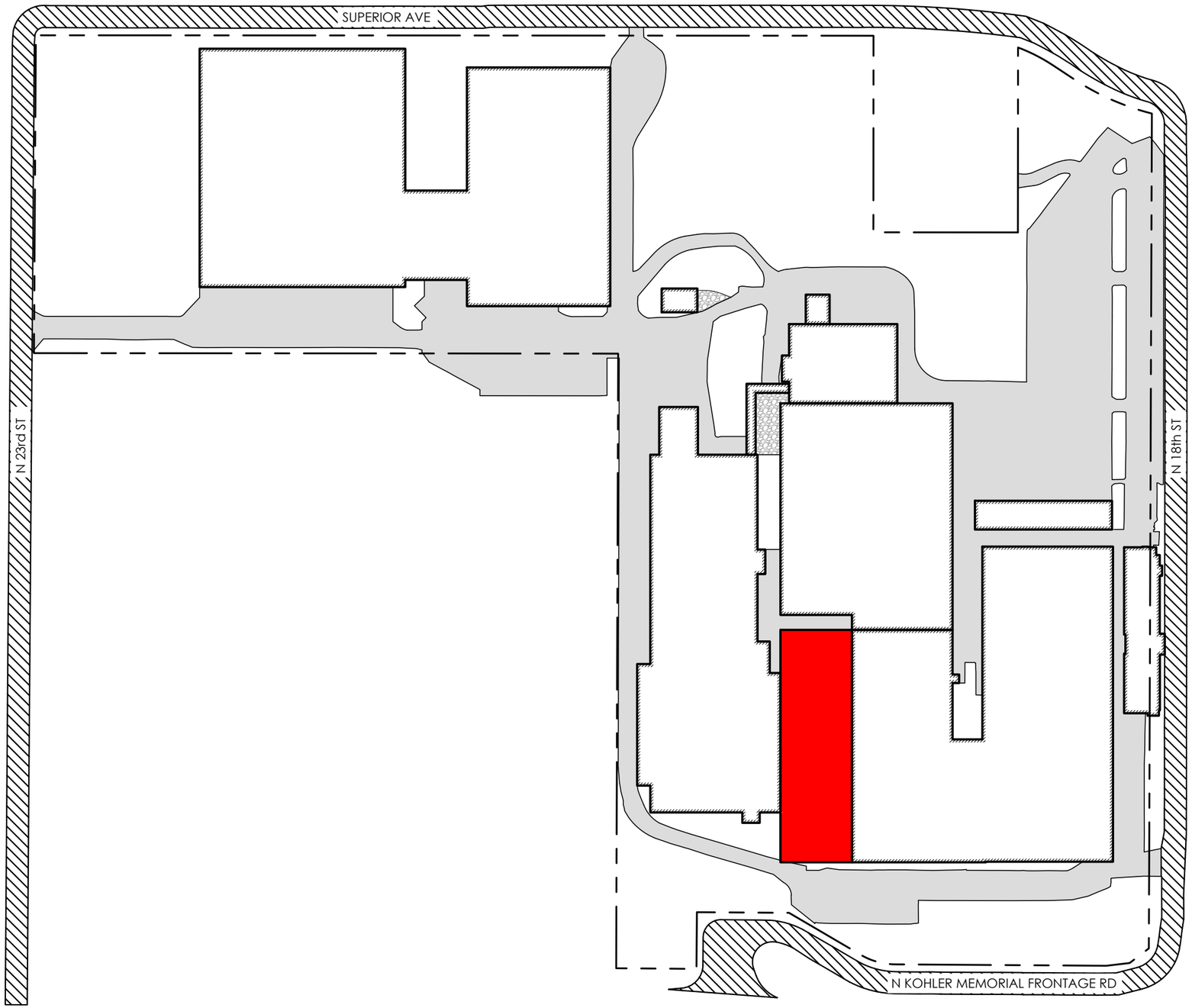

APRIL 7th, 2025

VOLLRATH COMPANY LLC

1236 NORTH 18th STREET , SHEBOYGAN WI 53081

A6 PHASE 6 - DEMOLITION

PROJ. NO. 2024-093

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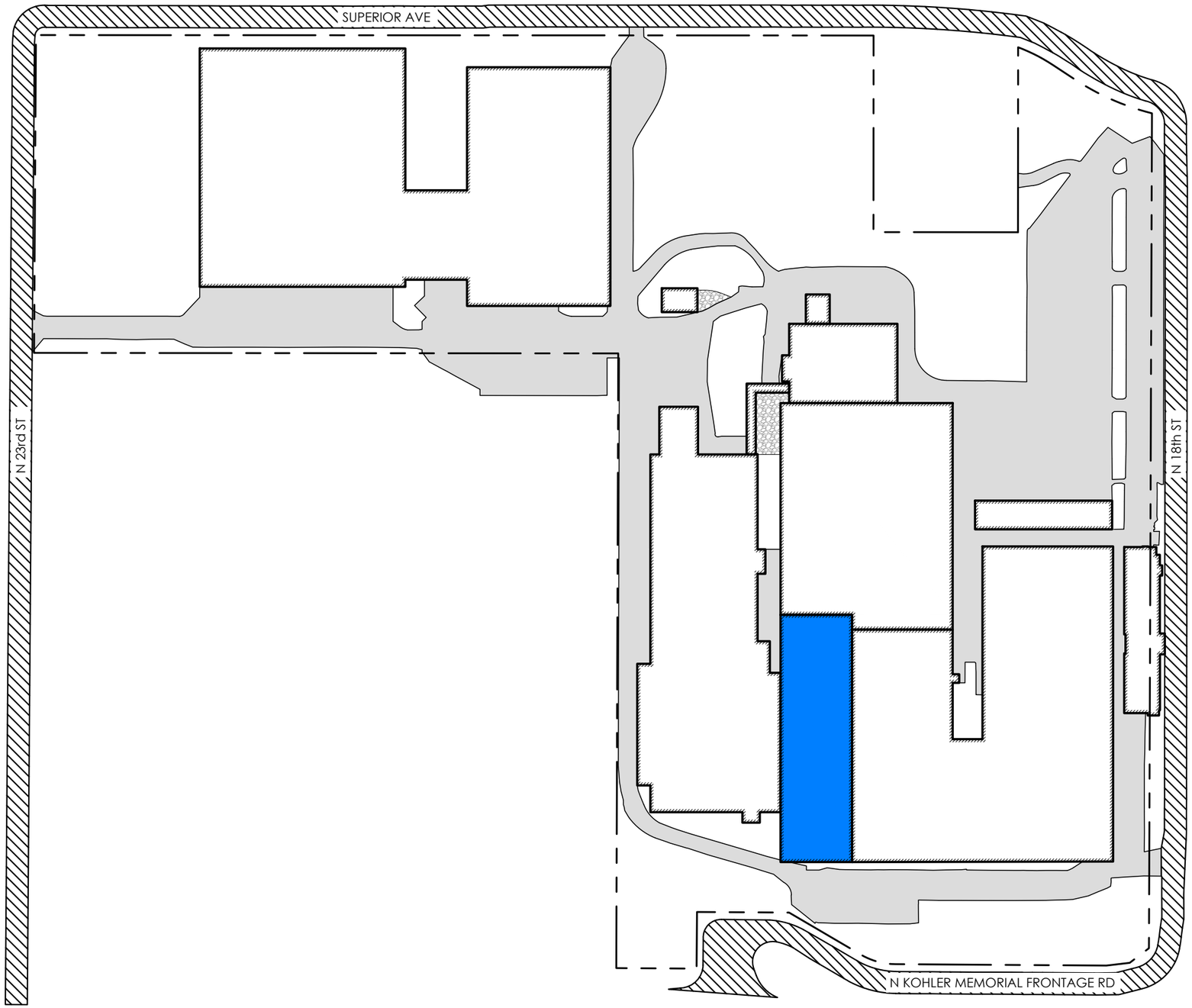

APRIL 7th, 2025

VOLLRATH COMPANY LLC

1236 NORTH 18th STREET , SHEBOYGAN WI 53081

A7 PHASE 7 - NEW CONSTRUCTION

PROJ. NO. 2024-093

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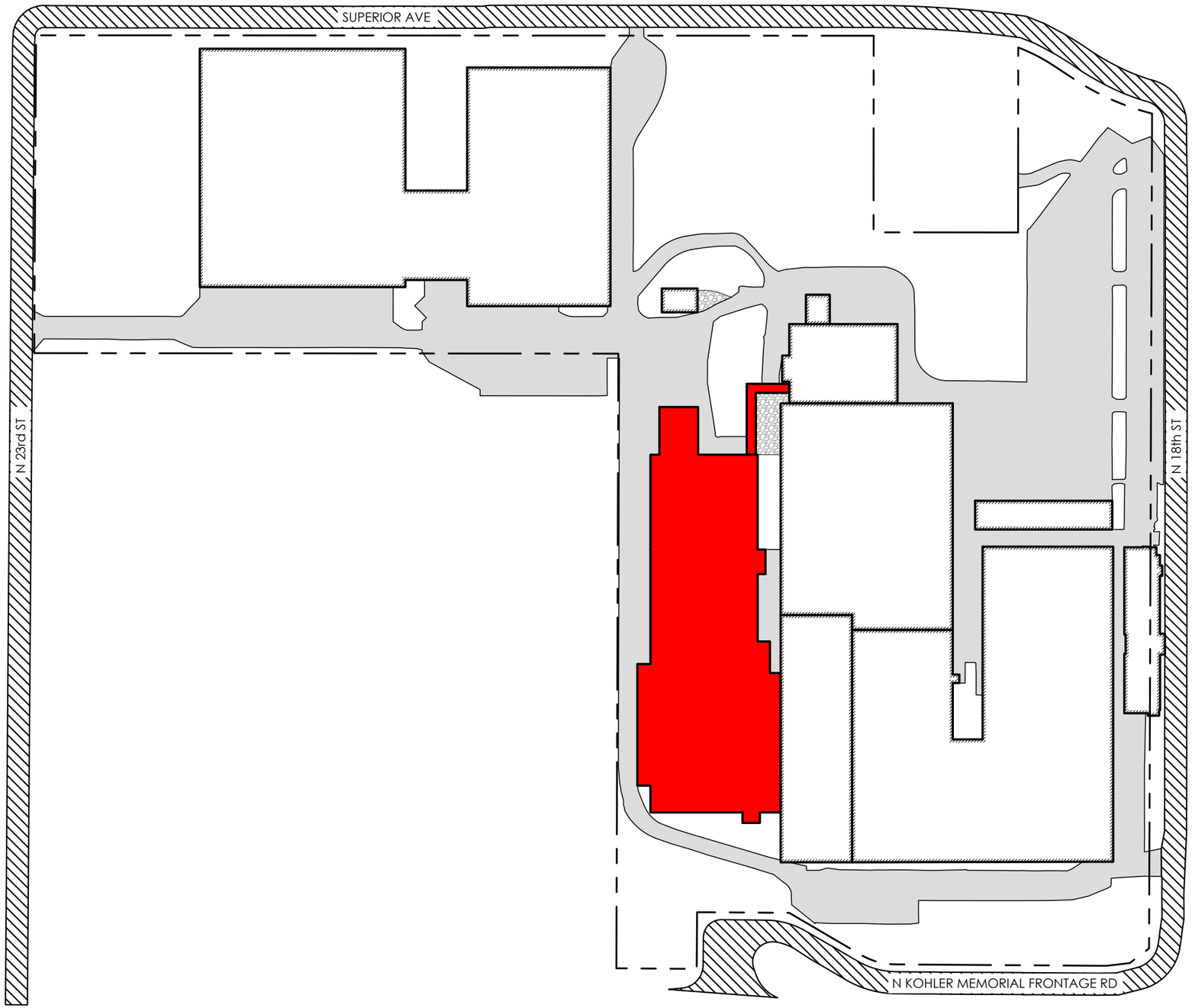

APRIL 7th, 2025

VOLLRATH COMPANY LLC

1236 NORTH 18th STREET , SHEBOYGAN WI 53081

A8 PHASE 8 - DEMOLITION

PROJ. NO. 2024-093

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SCALE: "1=200'

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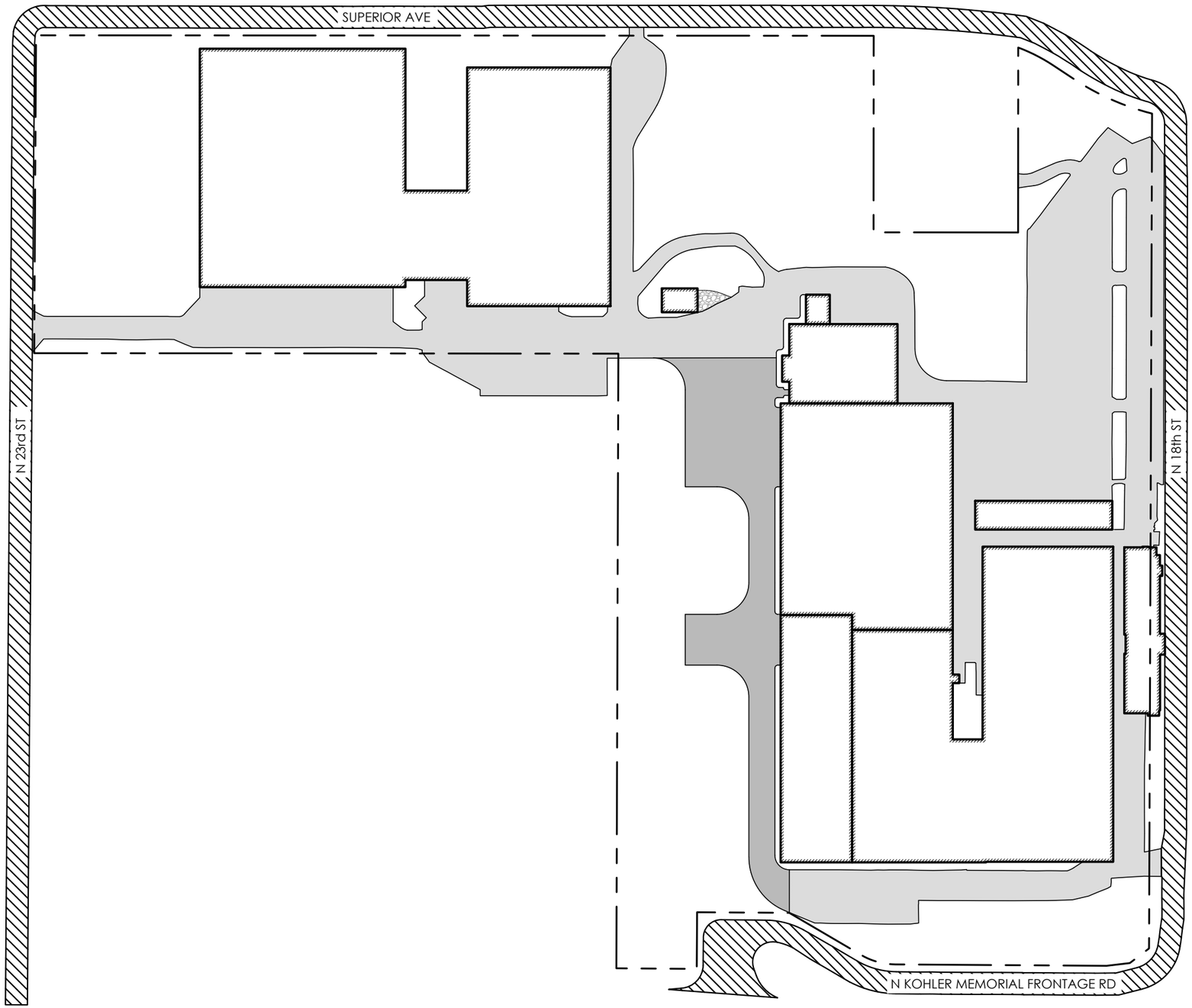

APRIL 7th, 2025

VOLLRATH COMPANY LLC

1236 NORTH 18th STREET , SHEBOYGAN WI 53081

A9 PHASE 9 - FINISHED

PROJ. NO. 2024-093

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SITE PROPERTIES:

TAX ID: 59281214074
ZONING: SI - SUBURBAN INDUSTRIAL DISTRICT

EXISTING SITE:

TOTAL PROPERTY AREA = 1,937,549 SQ.FT. = 44.48 ACRES
ROOFS = 739,953 SQ.FT. = 16.99 ACRES
PAVEMENT = 559,721 SQ.FT. = 12.85 ACRES
IMPERVIOUS SURFACE = 67.1%
FACADE LENGTH = 10,603 FT

PROPOSED FINAL SITE (PHASE 9):

TOTAL PROPERTY AREA = 1,937549 SQ.FT. = 44.48 ACRES
ROOFS = 696,654 SQ.FT. = 16.00 ACRES
PAVEMENT = 487,954 SQ.FT. = 11.20 ACRES
IMPERVIOUS SURFACE = 61.2%
FACADE LENGTH = 8,107 FT

APRIL 7th, 2025

VOLLRATH COMPANY LLC

1236 NORTH 18th STREET , SHEBOYGAN WI 53081
A10 SITE PROPERTIES
PROJ. NO. 2024-093

N

SCALE: "1=200'

ABACUS ARCHITECTS

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CITY OF SHEBOYGAN

REQUEST FOR ARCHITECTURAL REVIEW BOARD CONSIDERATION

ITEM DESCRIPTION: Architectural Review of a new 110,000-square-foot manufacturing facility located at 1236 N 18th Street.

REPORT PREPARED BY: Jeffrey Witte, Planner

REPORT DATE: January 20, 2026 **MEETING DATE:** January 27, 2026

FISCAL SUMMARY:

Budget Line Item:	N/A
Budget Summary:	N/A
Budgeted Expenditure:	N/A
Budgeted Revenue:	N/A

STATUTORY REFERENCE:

Wisconsin Statutes:	N/A
Municipal Code:	N/A

BACKGROUND / ANALYSIS:

Vollrath Co., LLC to construct a 110,000 square-foot manufacturing addition located at 1236 N 18th Street. The applicant states the following:

- The Addition will primarily be constructed using Architectural Precast Wall Panels and Aluminum Windows and Doors. A portion of the West Wall will be constructed using IMP (Insulated Metal Panels). The reason for this is so that a future addition can be added to the West of the Building 25 Addition with relative ease.

- The existing building(s) that currently support Vollrath's Production- Manufacturing have been demolished.

STAFF COMMENTS:

No Comments

ACTION REQUESTED:

Motion to approve with possible amendments as determined by the Board.

ATTACHMENTS:

Architectural Review Application and required attachments.

City of Sheboygan spirit on the lake	**CITY OF SHEBOYGAN** **ARCHITECTURAL REVIEW APPLICATION**	**Fee:** _____ **Review Date:** _____

Read all instructions before completing. If additional space is needed, attach additional pages.

SECTION 1: Applicant/ Permittee Information

Name (Ind., Org. or Entity)	Authorized Representative	Title	
KURT DAVIS - ABACUS	KURT DAVIS	ARCHITECT	
Mailing Address	**City**	**State**	**ZIP Code**
1135A MICHIGAN AVE	SHEBOYGAN	WI	53081
Email Address		**Phone Number (incl. area code)**	
KDAVIS@ABACUSARCH.COM		920-452-4444	

SECTION 2: Landowner Information (Complete These Fields When Project Site Owner is Different than Applicant)

Name (Ind., Org. or Entity)	Contact Person	Title	
VOLLRATH CO., LLC	GARY SAUER	FACILITIES DIR.	
Mailing Address	**City**	**State**	**ZIP Code**
1236 N^th 18^th ST.	SHEBOYGAN	WI	53081
Email Address		**Phone Number (incl. area code)**	
GARY.SAUER@VOLLRATH CO.COM		1-920-459-5205	

SECTION 3: Architect Information

Name			
KURT DAVIS			
Mailing Address	**City**	**State**	**Zip**
1135A MICHIGAN AVE.	SHEBOYGAN	WI	53081
Email Address		**Phone Number (incl. area code)**	
KDAVIS@ABACUSARCH.COM		920-452-4444	

SECTION 4: Contractor Information

Name			
QUASIUS CONSTRUCTION			
Mailing Address	**City**	**State**	**Zip**
1202A NORTH 8th ST.	SHEBOYGAN	WI	53081
Email Address		**Phone Number (incl. area code)**	
JLILYQUIST@QUASIUS.COM		920-457-5585	

SECTION 5: Certification and Permission

Certification: I hereby certify that I am the owner or authorized representative of the owner of the property which is the subject of this Architectural Review Application. I certify that the information contained in this form and attachments are true and accurate. I certify that the project will be in compliance with all conditions. I understand that failure to comply with any or all of the provisions of the permit may result in permit revocation and a fine and/or forfeiture under the provisions of applicable laws.

Permission: I hereby give the City permission to enter and inspect the property at reasonable times, to evaluate this notice and application, and to determine compliance with any resulting permit coverage.

Name of Owner/Authorized Representative (please print)	Title	Phone Number
KURT DAVIS	ARCHITECT	920-452-4444
Signature of Applicant		**Date Signed**
		12-29-25

Complete application is to be filed with the Department of City Development, 828 Center Avenue, Suite 208. To be placed on the agenda of the Architectural Review Board, application must be filed three weeks prior to date of meeting – check with City Development on application submittal deadline date. Applications will not be processed if all required attachments and filing fee of $100 (payable to the City of Sheboygan) are not submitted along with a complete and legible application. Application filing fee is non-refundable.

SECTION 6: Description of the Subject Site/Proposed Project		
Project Address/Description: 1236 Nth 18th ST.		Parcel No. 59281214074
Name of Proposed/Existing Business:	VOLLRATH CO., LLC	
Address of Property Affected:	1236 Nth 18th ST. SHEBOYGAN, WI 53081	
Zoning Classification:	SUBURBAN - INDUSTRIAL	
New Building: ☐	Addition: ☒	Remodeling: ☐

SECTION 7: Description of Proposed Project

SEE ATTACHED

SECTION 8: Description of EXISTING Exterior Design and Materials

SEE ATTACHED

SECTION 9: Description of the PROPOSED Exterior Design and Materials

SEE ATTACHED

APPLICATION SUBMITTAL REQUIREMENTS

A. Three 11x17 scale color drawing of all exterior elevations showing the design and appearance of the proposed building or structure.

B. Three 11 X 17 colored renderings of the proposed building elevations and material samples.

C. Submit digital plans and drawings of the project by email, flash drive, etc.

D. A scale drawing of the site plan showing the relationship of the building to the site and adjacent properties.

E. A written description of the proposed general design, arrangement, texture, material and color of the building or structure. Describe the relationship of such factors to similar features of buildings located within the same block or located along the frontage or any block across the street from the proposed building or structure for which architectural approval is sought.

OFFICE USE ONLY

ACTION BY ARCHITECTURAL REVIEW BOARD

DATE OF MEETING: _____

APPROVED: _____ CONDITIONALLY APPROVED: _____

DENIED: _____

CONDITIONS

_____

_____

_____

_____

_____

_____

_____

SIGNATURE: _____ DATE: _____

Chairperson, Architectural Review Board OR
Manager of Planning & Zoning

Kurt Davis

Vollrath Co., LLC Building 25 Addition

Description of Proposed Project

The project will include construction of a new 110,000-square-foot state-of-the-art manufacturing facility at the company's corporate campus at 1236 N. 18th Street and represents one of the largest capital investments in Vollrath's 150-year history.

This being Phase I of a multi-year, phased development will streamline production flows, increase operational efficiency, and incorporate modern production technologies, positioning Vollrath for continued growth in the competitive foodservice equipment market. The new facility will deepen Vollrath's metal-forming expertise that has long been a hallmark of the company's Sheboygan operations.

Description of Existing Design and Materials

The existing building(s) that currently support Vollrath's Production- Manufacturing have been demolished.

Description of the Proposed Exterior Design and Materials

Attached to this application are renderings of the new Addition. The Addition will primarily be constructed using Architectural Precast Wall Panels and Aluminum Windows and Doors. A portion of the West Wall will be constructed using IMP (Insulated Metal Panels). The reason for this is so that a Future Addition can be added to the West of the Building 25 Addition with relative ease.

This Construction Type will replace the early 1900's Building Style that is prevalent on the Vollrath Campus. The new Construction type will be more Energy Efficient, help with operational efficiency, and brings the Architectural Design Style of Vollrath Co. LLC into the Modern Era.

Kurt Davis

From: Kurt Davis
Sent: Monday, December 29, 2025 6:53 AM
To: Kurt Davis
Subject: Vollrath City of Sheboygan Brief

Vollrath Co., LLC Building 25 Addition

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