



CITY OF BANGOR

**Request for Qualifications (RFQ)
Cold Storage Facility Community Connector
Construction Manager At Risk
Proposal No. P26-31**

**73 Harlow Street
Bangor, ME 04401**

Issue Date: 02/13/2026

1. Introduction

The City of Bangor Community Connector is soliciting proposals from qualified, responsive, and responsible firms to serve as Construction Manager at Risk (CMAR) and provide preconstruction and construction management services for the Community Connector Cold Storage Facility project, located at 511 Maine Avenue. The 35,880 square foot light-steel framed one story building was originally constructed as part of the Army Air Corps pre-1968, with potential redevelopment in the 70's when the City took ownership. The 35,880 square foot building has served in various capacities for the City. Currently, it serves as the bus storage facility for the City of Bangor Community Connector, office space for the Sewer Department's Collections Maintenance Group, as well as storage space and a vehicle wash. Based on the historical use of the project, the Occupancy per UBC does not need to change.

This project involves maintaining a portion of the existing building as the City's Sewer Department while renovating the remaining 24,000 square feet cold storage facility for the Community Connector. The bulk of the project includes the addition of a new Community Connector Training Facility for workforce development, services for the Community Connector and an electrification system for future Battery Electric Buses (BEBs), all of which will need to be coordinated with any required renovation work. A city-wide carwash will occupy a portion of the existing structure. The accommodations are assumed to include some structural modifications, other system upgrades, and work to renovate the interior and exterior of the building. Rehabilitation of some masonry is required. Roofing will also be necessary.

The City has contracted with Artifex to prepare Schematic design drawings for the facility and Dubois and King Engineering has been subcontracted to assess the needs for mechanical and electrical modifications and upgrades. The selected Construction Manager will be responsible for coordinating with City departments and the design team to ensure efficient, compliant, and safe project delivery. This includes site safety and logistics, coordination of demolition and hazardous materials handling, and oversight of federal and state permitting processes such as NEPA, MDEP, and SLODA reviews. The Construction Manager will participate in preconstruction services to help define systems and provide construction cost estimates. Schedule review, cost and document management, progress reporting, risk management, change processing, quality auditing, and claims support will be the responsibility of the Construction Manager. Construction is anticipated to begin in early Summer 2026, and to be completed as soon thereafter as feasible, completion targeted for Fall 2027.



CITY OF BANGOR

This project is federally funded by the Federal Transit Administration (FTA)(80% project cost), Maine Department of Transportation (10% project cost), and the City of Bangor (local share of 10% project cost). As such, the selected Construction Manager must be prepared to comply with all applicable federal regulations, including procurement procedures, labor standards, environmental review, and documentation requirements.

The project will be administered jointly by the City of Bangor's Engineering Department and The Community Connector. The selected Construction Manager will also be required to meet all City insurance and bonding requirements, as detailed in later sections of this RFQ.

2. General Information

General Information is available at the bottom of the City's website at the following web address: www.bangormaine.gov/proposals. By submitting a response to this solicitation, the Proposer accepts the responsibility for downloading, reading, and bidding by the terms and conditions set forth in the City's "General Information for Vendors."

In your proposal, please specify whether you currently have, or are in the process of developing, a domestic violence policy. If you do not have such a policy, let us know if you would like to receive a copy of the City of Bangor's policy as a reference.

3. Submission

For consideration, submissions are due no later than **2 P.M. on March 11, 2026** and can be completed by the following methods:

NOTE: It is mandatory that the pricing proposal and Bid Form shall be provided in a separately sealed envelope clearly marked. Electronic submissions will not be accepted. All envelope submissions must be clearly marked "Proposal No. P26-31: Cold Storage Facility Community Connector."

- A. Hand Delivery** to 73 Harlow Street, Bangor, ME (drop off at Customer Service window); or
- B. US Post Office** addressed to 73 Harlow Street, Purchasing Department, Bangor, ME 04401 (proposal must be received by the deadline); or
- C. All Other Delivery Services** to 73 Harlow Street, Purchasing Department, Bangor, ME 04401 (proposal must be received by the deadlines).

Proposals will be publicly opened at **2 P.M. on March 11, 2026** in the Paul Bunyan Room, 73 Harlow Street, Bangor, Maine in the order in which they were received. A tabulation of all received proposals will be posted on the City's website by 4:30 P.M. the following day. Visit www.bangormaine.gov/bids for results.

4. Questions & Pre-bid

All questions must be directed in writing to bids@bangormaine.gov no later than **February 25, 2026**. City of Bangor reserves the right to answer or not answer any question received. Late requests for clarification will not be accepted.



CITY OF BANGOR

The City will provide a response by **February 27, 2026**. This response will be in the form of an addendum, accessible on the City's website. Notifications will be sent via Notify Me when new addenda are released. To receive these updates, the City strongly encourages all potential bidders to sign up for notifications via Notify Me at www.bangormaine.gov/alerts.

A non-mandatory pre-bid meeting will be held at the site, located at 511 Maine Avenue, Bangor, ME on **February 20, 2026 at 10 AM** to review the project with potential Proposers.

5. Late Proposals

It is the responsibility of the Proposer(s) to see that their proposals have sufficient time to be received by the Purchasing Department before the submittal deadline. Any proposal, portion of a proposal, or requested proposal revision received at the City Purchasing Department after the time and date specified, will not be accepted and returned to the Proposer unopened.

6. Withdrawal of Proposals

No Proposer may withdraw their proposal for a period of ninety (90) days from the date of opening. All proposals shall be subject to acceptance by the City during this period.

To withdraw a proposal prior to the opening, the Proposer shall request the withdrawal in writing. All costs associated with the withdrawal (i.e. mailing fees) will be borne by the Proposer.

7. Rejection

The City reserves the right to reject any proposals, waive any informalities or defects in proposals, or accept a higher cost proposal if it is deemed to be in the best interest of the City. The City also reserves the right to request clarification, of any details, from the successful Proposer.

8. Bid Protest Procedures

Any actual or prospective proposer who is aggrieved in connection with this solicitation or the award of a contract may file a protest. Protests must be submitted in writing to the City of Bangor Purchasing Department no later than five (5) calendar days after the basis of protest is known or should have been known.

Protests must include the name and address of the protester, the solicitation number, a detailed statement of the legal and factual grounds of the protest, and any supporting documentation.

The City will review the protest and issue a written determination.

Under FTA regulations, protests will be reviewed by FTA only when there is an alleged violation of federal law or regulations, or failure by the City to follow its protest procedures.



9. Information for Proposers

- D. Contract Term: The initial contract term shall be for a period of eighteen (18) months, commencing upon approval of the contract documentation.
- E. Type & Payment Method: The contract type utilized for this project shall be a cost-plus fixed fee and the method of payment shall be hourly invoiced on a monthly basis.
- F. Tax Exclusion: All Federal and State taxes must be excluded from the proposal price. Upon request, a tax exemption certificate for the City of Bangor shall be furnished to the successful Proposer.
- G. Required Insurance: Proposers are required to maintain the following insurance policies throughout the life of the project and name the City of Bangor as an additional insured where applicable and may be required to provide proof:
- | | |
|--|---|
| 1. Worker's Compensation Insurance | Statutory |
| 2. Employer's Liability Insurance | \$500,000 each accident
\$500,000 disease – policy unit
\$500,000 disease – each employee |
| 3. Comprehensive Automobile Liability | \$1,000,000 combined, single limit per accident |
| 4. Commercial & General Liability | \$1,000,000 combined single limit
\$2,000,000 aggregate |
| 5. Professional Liability (Errors & Omissions) | \$1,000,000 combined single limit
\$2,000,000 aggregate |
- H. Confidentiality: The information contained in proposals submitted for the City of Bangor's consideration will be held in confidence until all reviews are concluded and the award notification has been made. At that time, the full content of the proposals becomes public record and is therefore available for public inspection upon request.

10. Submission Requirements

Proposer must comply with all requirements in order to be considered responsive. In addition to the proposal itself, Proposers must comply with and include the following forms, if applicable:

- I. Geographic Preference: Preference will be given to Proposer's with a primary business location within the New England region. The selected firm must demonstrate the ability to provide full-time construction management staff for the project duration.
- J. Pricing Submission: Separate submission of pricing proposal, as outlined in Section III-Submission. See attached form Bid Form, **Appendix B.1**.
- K. FTA funded Procurement Signature Page: A signed copy of the attached signature page,



CITY OF BANGOR

Appendix B.2, must be included with the proposal acknowledging all information contained in your submission is true.

- L. Potential Work Conflicts: Proposal must provide information about other work for which the Proposer is under contract in the study area, to ensure it does not conflict with the work proposed in this RFQ.
- M. Bid Bond: Contractor shall furnish a bid bond, **Appendix B.3**, in an amount at least equal to the Contract Price.
- N. Performance and Payment Bond: Contractor shall furnish a performance bond and a payment bond, each in an amount at least equal to the Contract Price, as security for the faithful performance and payment of all of the Contractor's obligations under the Contract. Contractor shall obtain the required bonds from the surety companies that are duly licensed or authorized in the jurisdiction in which the Project is located in issue bonds in the required amounts.
- O. Acknowledgement of Federal Requirements: The Proposer shall acknowledge that, if selected, they will comply with all applicable federal regulations, including procurement procedures, labor standards, environmental review, and documentation requirements.
- P. Acknowledgement of Addenda: The Proposer shall include reference to all amendments in their response to this RFQ by submitting the attached form, **Appendix B.4**.
- Q. Lobbying Certification Form: In order to be eligible, Proposers are required to submit verification of their compliance with this requirement by submitting the attached form, **Appendix B.5**.
- R. Governmentwide Debarment and Suspension Form: In order to be eligible, Proposers are required to verify that the entity (including principals and affiliates) with which they propose to contract or subcontract, is not excluded or disqualified. A signed copy of the attached form, **Appendix B.6**, is required to be considered response.
- S. Disadvantaged Business Enterprise (DBE) Form: If the Proposer has been certified as a DBE by United States Department of Transportation (USDOT) and/or Proposer intends to use a DBE as a subcontractor participating on the project, include form, **Appendix B.7**, in proposal. If not certified, include first page indicating Proposer is not certified as a DBE.
- T. Buy America Certification Form: The Proposer shall include form, **Appendix B.8**, demonstrating that the proposer's procurement is compliant with the Federal Transit Administration (FTA) Buy America Requirements (49 Code of Federal Regulations (CFR) Part 661, Including section 661.5(d)), ensuring domestic materials and manufacturing is prioritized in this project.

11. Proposal Rating and Selection Process

As noted in Section 1 – Introduction, this is a Request for Qualifications (RFQ) for Construction



CITY OF BANGOR

Management services. Proposals will be evaluated based on both qualifications and the proposed approach to cost, schedule, and execution, using the rating system outlined in this RFQ. The City will review all proposals and select the firm that offers the best overall value. Contract negotiations will then begin to finalize terms, including alignment on budget, scope, and schedule expectations for the Community Connector Cold Storage Facility project.

Responsive proposals will be reviewed and rated based on the following criteria:

- A. Organization and Format (5 points):
Proposals should be clearly organized, follow the order of requirements in this RFQ, include all requested elements, and contain a table of contents for easy reference.
- B. Contact Information (5 points):
Include the proposer's full business name, primary point of contact, mailing address, phone number, and email address.
- C. Proposer's Qualifications (25 points):
Identify the key staff who will be assigned to the project, including the Construction Manager, project superintendent, and any relevant support personnel. Provide resumes detailing their education, professional experience, and roles on similar projects.
- D. Relevant Experience and Project Understanding (15 points):
Describe the firm's experience delivering similar construction projects, particularly those involving demolition, new construction, and prefabricated buildings. Experience with transportation facilities or electric vehicle storage facilities is especially valuable and should be highlighted. Include at least three (3) comparable projects completed in the last five (5) years, with client references (name, title, organization, phone number, and email), brief project descriptions, timelines, and outcomes.
- E. Approach to Execution (15 points):
Describe your firm's overall approach to managing construction of this project, including demolition sequencing, site logistics, and permitting coordination with agencies such as NEPA, SLODA, and MDEP. Explain how your team will maintain quality assurance while keeping the project on schedule and within budget. Proposals should outline the specific tools, strategies, and internal processes used to monitor costs, ensure timeline control, and support successful project delivery. Emphasis should be placed on proactive coordination with the City of Bangor and transparent communication throughout construction.
- F. Methods for Controlling Costs, Ensuring Quality, and Assuring Constructability (10 points):
Provide an overview of how your firm monitors and controls client costs throughout the project, including real-time budget tracking, cost forecasting, and change order oversight. Describe how quality control is managed across all phases of construction and how your team ensures that the design plans are constructible and aligned with the project's goals and budget. Include any value engineering strategies, cost-saving measures, or internal review processes that demonstrate a commitment to fiscal responsibility and construction integrity.
- G. Schedule, Workload Management, and Communication (10 points):
Outline your firm's methods for schedule control, including project sequencing, coordination



CITY OF BANGOR

with subcontractors, and handling of competing internal workload demands. Explain how your firm anticipates and addresses delays, keeps work on track, and adjusts timelines when needed. Detail how your team will coordinate with the City of Bangor, including proposed methods for communication, progress updates, and issue resolution. Proposals should clearly show a communication strategy that supports collaborative decision-making and ensures accountability for time and cost performance.

H. Familiarity with Federally Funded Projects (10 points):

Demonstrate understanding of FTA or similar federal funding compliance requirements, including labor standards, documentation, and procurement protocols.

I. Proposer's References (5 points): Provide at least three (3) work references including points of contact (person's name, company name, address, and telephone number), and a brief description of the projects with dates. If contacted, all references must verify that a high level of satisfaction was provided. The City of Bangor will determine which, if any, references are contacted. The results of any reference checks will be provided to the scoring committee and used when scoring the technical proposal.

12. Proposal Pricing

Prices shall be outlined for all required items and must be provided separately (see Section III-Submission) and listed in the attached Bid Form. Supplemental information is encouraged. Each proposal will be evaluated for all criteria and then costs shall be evaluated independently. **NO MENTION OF PRICE SHALL BE INCLUDED IN OTHER SECTIONS OF THE PROPOSAL OR THE PROPOSAL SHALL BE REJECTED.**

Price Proposal and Elements of Supporting Data Consists of the following:

- A. Pre-Construction Services: Services include but are not limited to - estimating, procurement, scheduling, construction staging, mobilization planning, early coordination with trade partners, and preparation for construction.
- B. Construction Management Fee: Guaranteed Maximum Price (GMP) A percentage of construction-based fee that includes but is not limited to, construction of the project, managing the construction schedule, ongoing budgeting and value engineering, coordinating with subcontractors, managing resources, and safety assurance.
- C. General Conditions Fee: Using a project schedule of 18 months, identify the General Conditions Fee for all costs not included in Proposal Pricing sections A, B, and D.
- D. Direct Expenses: Include a breakdown of direct expenses, including mileage, lodging, photocopying costs, etc. anticipated for this project. Direct expenses shall be reimbursed at cost, and travel expenses shall be reimbursed in accordance with the current per diem/mileage rates located at <http://www.maine.gov/osc/travel/addtltravelinfo.shtml> & <http://www.gsa.gov/portal/category/21287>

13. Project Information



CITY OF BANGOR

The City of Bangor has received federal funding from the U.S. Department of Transportation Federal Transit Administration (FTA) to support the renovation of the existing Bangor Community Connector Cold Storage Facility, located at 511 Maine Avenue. The project is intended to support the expanding city owned bus system for future route and fleet expansion. The project is intended to update the existing Community Connector headquarters to prepare for predicted fleet and route expansion, aimed at strengthening the local economy by providing citizens and travelers with accessible and affordable public transit.

The existing facility is currently occupied by both the Community Connector and the City's Sewer Departments Collections Maintenance Group. The building was originally constructed as an Army Air Corps in the 1970s. The scope of work involves maintaining a portion of the existing building as the City's Sewer Department while renovating the remaining 26,000 square feet for the Community Connector.

The planned facility will include a new Community Connector Training Facility, offices and services for the Community Connector and an electrification system for future battery electric buses (BEBs). Structural modifications as well as other system upgrades and work to the interior and exterior of the building will be required. The rehabilitation of some masonry as well as new roofing will be executed as part of the project.

This project represents a critical investment in the City's run bus system serving the greater Bangor region. It is envisioned as a welcoming space for Community Connector bus drivers and staff with modern amenities, accessible facilities, and utilities designed to meet current and future Community Connector staff needs. The site will be designed with sustainability, safety, and efficiency in mind, including ADA compliance and potential future energy-efficient enhancements.

As a federally funded project, all construction and design activities must meet applicable environmental and permitting requirements, including NEPA, SLODA, and MDEP coordination. In addition, compliance with Davis-Bacon wage requirements, FTA procurement standards, and FTA grant conditions will be required throughout project execution.

14. Scope of Services

All construction services associated with this project must be implemented in accordance with the requirements of federal funders (Federal Transit Administration (FTA)), state funders (Maine Department of Transportation), and local funders. All construction, workmanship, and materials must comply with applicable federal regulations, including Buy America Compliance. Construction materials must be U.S.-made unless a waiver is obtained by FTA. Davis-Bacon prevailing wage requirements, FTA grant requirements and all environmental standards under NEPA.

The selected Construction Manager will be responsible for overseeing the implementation of the Community Connector Cold Storage Facility project at 511 Maine Avenue in Bangor, Maine. The project involves the rehab of an existing 35,880 square-foot structure as well as the construction of an 6,700 square-foot building intended to house a new training facility for Community Connector work



CITY OF BANGOR

force development. A city-wide carwash will occupy a portion of the existing structure. The accommodations are assumed to include some structural modifications, other system upgrades, and work to renovate the interior and exterior of the building. Rehabilitation of some masonry is required. Roofing will also be necessary. The scope of services includes, but is not limited to, the following:

A. Design Phase/Pre-Construction Services:

The Construction Manager will participate in preconstruction design meetings to help define required system installation/upgrades and review construction cost. The Construction Manager's responsibilities will also include estimating, procurement, scheduling, construction staging, mobilization planning, early coordination with trade partners, and preparation for construction.

B. Site Preparation & Demolition:

The Construction Manager will coordinate and oversee the rehab of the existing 35,880-square-foot building at 511 Maine Avenue. This includes managing all permitting associated with demolition, utility disconnection, hazardous materials mitigation (if applicable), and site readiness for renovation and new construction. The Construction Manager will be responsible for ensuring that any and all demolition activities are completed in accordance with local, state, and federal regulations, including NEPA and Davis-Bacon compliance, and for coordinating any required environmental or historical reviews

C. Construction Management of New Facility:

The selected firm will manage and oversee the construction of the approximately 35,880 square-foot prefabricated metal building, including foundation, utilities, structure assembly, interior build-out, grading, and site work. Ensure all work strictly follows the design specifications and drawings provided by Artifex AE and complies with applicable codes and standards

D. Project Controls and Schedule Management:

The Construction Manager will maintain and monitor a detailed project schedule, identifying key milestones and potential risks. This includes managing subcontractor performance, coordinating deliveries, and providing regular updates to City staff. The Construction Manager will be expected to ensure the project remains on schedule and to propose corrective actions if delays or cost overruns are anticipated

E. Fiscal Oversight and Compliance:

The Construction Manager will be responsible for tracking all project costs, managing change orders, ensuring adherence to the established project budget, and preparing documentation required for reimbursement through FTA grants. The firm must be fully versed in federal procurement standards, labor compliance, and reporting procedures, and ensure the City remains in good standing with its grant requirements

F. Quality Assurance and Regulatory Compliance:



CITY OF BANGOR

The Construction Manager will enforce quality standards throughout construction, ensuring that all workmanship and materials meet federal and local code requirements. This includes compliance with FTA, Davis-Bacon wage requirements, ADA accessibility standards, and energy efficiency goals. Regular inspections and documentation must be maintained and provided to the City

G. Stakeholder Communication and Reporting:

The Construction Manager will serve as the primary liaison between the construction team and the City of Bangor. This includes leading progress meetings, maintaining clear documentation, providing status updates, coordinating with engineering and architectural consultants, and assisting with preparation of materials for funder and Council updates.

H. Grant and Federal Documentation Support:

The firm will assist City staff in meeting documentation requirements associated with FTA funding. This includes certified payroll tracking, labor interviews, construction logs, photo documentation, and compliance narratives as required by grant administrators.

15. Federal Clauses

Relevant federal clauses can be found in **Appendix C** of this Request of Proposals. To view the City of Bangor Community Connector DBE policy, visit [\(Disadvantaged Business Enterprise \(DBE\) Program | Bangor, ME\)](#)



CITY OF BANGOR

APPENDIX B.1

Community Connector Cold Storage
Facility Construction Manager
Proposal No. P26-31

Bid Deadline:
2:00 PM
March 11, 2026

Bid Form

Note: This form must be completed and returned separately within the pricing proposal, as required in the RFQ. Failure to comply may result in disqualification.

Business Name:	
Contact Name/Title:	
Address:	
City, State, Zip:	
Telephone Number:	
Fax Number:	
Email Address:	

Item	Description	Total Per Item
1	Pre-Construction Services	\$
2	Construction Manager Fee	%
3	General Conditions Fee	\$
		\$
Total Bid Amount:	\$	

Bangor Community Connector Cold Storage Facility



CITY OF BANGOR



CITY OF BANGOR

Appendix B.2

FTA Funded Procurements Proposal Signature Sheet

In compliance with this RFQ and to all the conditions imposed herein, the undersigned offers and, in accordance with the attached signed proposal, or as mutually agreed upon by subsequent negotiation. This completed Proposal Signature form must be submitted with the Proposer's written proposal and will become part of any agreement that may be awarded. **If the Proposal Signature Form is not signed by an authorized representative or submitted with the proposal is considered non- responsive.**

My signature also certifies that by submitting a proposal in response to the Request for Proposal, the offeror represents that in the preparation and submission of this proposal, said offeror did not, either directly or indirectly, enter into any combination or arrangement with any person, firm or corporation or enter into any agreement, participate in any collusion, otherwise take any action in the restraint of free, competitive bidding in violation of the Sherman Anti-Trust Act (15 U.S.C. Section 1).

Name of Firm: _____

Address: _____

City: _____ State: _____ Zip: _____

Contact Person: _____

Telephone Number: _____

Email Address: _____

Type of Organization:

☐ Individual ☐ Partnership ☐ Small Business ☐ Corporation ☐ Non-Profit
☐ Joint Venture

Attach copies of all such licenses, permits, or certificates issued to the business entity. Business is licensed, (unless exempt by applicable law) permitted or certified to do business in the State of **Maine**

☐ Yes ☐ No License # _____

Federal I.D. #: _____



CITY OF BANGOR

Appendix B.3

Bid Bond

Any singular reference to Bidder, Surety, Owner or other party shall be considered plural where applicable.

BIDDER (*Name and Address*):

SURETY (*Name and Address of Principal Place of Business*):

OWNER (*Name and Address*):

The City of Bangor

73 Harlow Street

Bangor, ME 04401

BID

Bid Due Date:

Description (*Project Name and Include Location*):

Cold Storage Facility Community Connector

BOND

Bond Number:

Date (*Not earlier than Bid due date*):

Penal sum _____
(Words)

\$ _____
(Figures)

Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative.



CITY OF BANGOR

BIDDER

SURETY

Bidder's Name and Corporate Seal

(Seal)

Surety's Name and Corporate Seal

(Seal)

By: _____
Signature

By: _____
Signature (Attach Power of Attorney)

Print Name

Print Name

Title

Title

Attest: _____
Signature

Attest: _____
Signature

Title

Title

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Bidder's and Surety's liability. Recovery of such penal sum under the terms of this Bond shall be Owner's sole and exclusive remedy upon default of Bidder.
2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.
3. This obligation shall be null and void if:
 - 3.1 Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or
 - 3.2 All Bids are rejected by Owner, or



CITY OF BANGOR

- 3.3 Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).
4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.
5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from Bid due date without Surety's written consent.
6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety and in no case later than one year after Bid due date.
7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.
8. Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.
9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.
10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.
11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.



CITY OF BANGOR

Appendix B.4

ADDENDA ACKNOWLEDGMENT

Proposer: _____

Project Title: _____

Project ID: _____

Addendum No. _____, Date ____/____/____

Addendum No. _____, Date ____/____/____

Addendum No. _____, Date ____/____/____

Addendum No. _____, Date ____/____/____

Addendum No. _____, Date ____/____/____

Failure to acknowledge may cause the bid to be considered not responsive.,
I acknowledge receipt of all above listed addendums.

Print Name _____

Signature _____

Title _____

Date ____/____/____



CITY OF BANGOR

Appendix B.5

Community Connector Cold Storage Facility **CERTIFICATION AND RESTRICTIONS ON LOBBYING**

I, _____ hereby certify
(Name and title of official)

On behalf of _____ that:
(Name of Bidder/Company Name)

- No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, and officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.
- If any funds other than federal appropriated funds have been paid or will be paid to any person influencing or attempting to influence an officer or employee of any agency, a Member of Congress, and officer or employee of Congress, or an employee of a Member of Congress in connection with the federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form – LLL, “Disclosure Form to Report Lobbying,” in accordance with its instructions.
- The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. § 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Name of Bidder/Company Name: _____

Type or print name: _____

Signature of authorized representative: _____ Date ____/____/____



Appendix B.6

GOVERNMENTWIDE DEBARMENT AND SUSPENSION CERTIFICATION

Recipients, contractors, and subcontractors that enter into covered transactions are required to verify that the entity (as well as its principals and affiliates) with which they propose to contract or subcontract is not excluded or disqualified.

Instructions for Certification: Signing below indicates the prospective lower tier participant is providing the signed certification.

- (1) It will comply and facilitate compliance with U.S. DOT regulations, “Nonprocurement Suspension and Debarment,” 2 CFR part 1200, which adopts and supplements the U.S. Office of Management and Budget (U.S. OMB) “Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement),” 2 CFR part 180,
- (2) To the best of its knowledge and belief, that its Principals and Subrecipients at the first tier:
 - a. Are eligible to participate in covered transactions of any Federal department or agency and are not presently:
 1. Debarred,
 2. Suspended,
 3. Proposed for debarment,
 4. Declared ineligible,
 5. Voluntarily excluded, or
 6. Disqualified
 - b. Its management has not within a three-year period preceding its latest application or proposal been convicted of or had a civil judgment rendered against any of them for:
 1. Commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction, or contract under a public transaction,
 2. Violation of any Federal or State antitrust statute, or,
 3. Commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making any false statement, or receiving stolen property,
 - c. It is not presently indicted for, or otherwise criminally or civilly charged by a governmental entity (Federal, State, or local) with commission of any of the offenses listed in the preceding subsection 2.b of this Certification,



CITY OF BANGOR

- d. It has not had one or more public transactions (Federal, State, or local) terminated for cause or default within a three-year period preceding this Certification,
 - e. If, at a later time, it receives any information that contradicts the statements of subsections 2.a – 2.d above, it will promptly provide that information to FTA,
 - f. It will treat each lower tier contract or lower tier subcontract under its Project as a covered lower tier contract for purposes of 2 CFR part 1200 and 2 CFR part 180 if it:
 - 1. Equals or exceeds \$25,000,
 - 2. Is for audit services, or,
 - 3. Requires the consent of a Federal official, and
 - g. It will require that each covered lower tier contractor and subcontractor:
 - 1. Comply and facilitate compliance with the Federal requirements of 2 CFR parts 180 and 1200, and
 - 2. Assure that each lower tier participant in its Project is not presently declared by any Federal department or agency to be:
 - a. Debarred from participation in its federally funded Project,
 - b. Suspended from participation in its federally funded Project,
 - c. Proposed for debarment from participation in its federally funded Project,
 - d. Declared ineligible to participate in its federally funded Project,
 - e. Voluntarily excluded from participation in its federally funded Project, or
 - f. Disqualified from participation in its federally funded Project, and;
- (3) It will provide a written explanation as indicated on a page attached in FTA's TrAMS platform or the Signature Page if it or any of its principals, including any of its first tier Subrecipients or its Third-party Participants at a lower tier, is unable to certify compliance with the preceding statements in this Certification Group.

Certification

Contractor: _____

Signature of Authorized Official: _____ Date ____/____/____

Name and Title of Contractor's Authorized Official: _____



CITY OF BANGOR

Appendix B.7

Required Form (1)

DBE Information

All Proposers must submit this form to be considered responsive.

Business Name: _____

Address: _____

Contact Name: _____

Phone & Email: _____

Type of work: _____

Has your company or organization, as the Proposer, been certified as a Disadvantaged Business Enterprise (DBE) by USDOT?

YES___NO ___

IF YOU ARE A CERTIFIED DBE, LIST NUMBER OF YEARS IN BUSINESS: _____

IF YOU ARE A CERTIFIED DBE, ENTER GROSS RECEIPTS: \$ _____



CITY OF BANGOR

Form 2
Letter of Intent - DBE

This form is only required if Proposer plans to use a certified DBE as part of your proposal. This form must be submitted for each DBE subcontractor.

Name of Proposer's firm: _____

Address: _____

City: _____ State: _____ Zip: _____

Name of DBE firm: _____

Race and gender of DBE firm: _____

DBE's Address: _____

City: _____ State: _____ Zip: _____

Telephone: _____

Description of work to be performed by DBE firm, including when it is to be performed:

_____	_____
_____	_____
_____	_____
_____	_____

The Proposer is committed to utilizing the above-named DBE firm for the work described above. The price to be paid for this work is \$ _____.

Affirmation

The above-named DBE firm affirms that it will perform the portion of the contract for the price as stated above, and that there has been no change in its DBE status since the date of its last DBE certification.

Name: _____ Signature: _____

Title: _____ Date: _____

If the Proposer does not receive award of the prime contract, any and all representations in this Letter of Intent and Affirmation shall be null and void.



CITY OF BANGOR

Appendix B.8

BUY AMERICA CERTIFICATION STEEL OR MANUFACTURED PRODUCTS

If steel, iron, or manufactured products (as defined in 49 CFR 661.3 and 661.5) are being procured, the appropriate certificate as set forth below shall be completed and submitted by each bidder or offeror in accordance with the requirement contained in 49 CFR 661.13(b).

Certificate of Compliance with Buy America Requirements

The bidder or offeror hereby certifies that it will comply with the requirements of 49 U.S.C. 5323(j)(1), and the applicable regulations in 49 CFR part 661.

Company _____

Name _____ Title _____

Signature _____ Date _____

Certificate of Noncompliance with Buy America Steel or Manufactured Products Requirements

The bidder or offeror hereby certifies that it cannot comply with the requirements of 49 U.S.C. 5323(j), but it may qualify for an exception to the requirement pursuant to 49 U.S.C. 5323(j)(2), as amended, and the applicable regulations in 49 C.F.R. 661.7.

Company _____

Name _____ Title _____

Signature _____ Date _____



CITY OF BANGOR

**Request for Qualifications (RFQ)
Community Connector Cold Storage
Facility
Proposal No. P26-31**

**Purchasing Department
73 Harlow Street
Bangor, ME 04401
207-992-4282**

Issue Date: February 11th

APPENDIX C

Federal Clauses Index

ACCESS TO RECORDS AND REPORTS 1

AMERICANS WITH DISABILITIES ACT (ADA) 1

BUY AMERICA REQUIREMENTS.....1

BOND REQUIREMENTS.....2

CARGO PREFERENCE REQUIREMENTS 4

CHANGES TO FEDERAL REQUIREMENTS 4

CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT 4

CIVIL RIGHTS LAWS AND REGULATIONS 5

CONTRACT WORK HOURS AND SAFETY STANDARDS ACT.....7

DAVIS BACON ACT AND COPELAND ANTI-KICKBACK ACT.....8

DISADVANTAGED BUSINESS ENTERPRISE (DBE) 8

DOMESTIC PREFERENCES FOR PROCUREMENTS 9

DEBARMENT AND SUSPENSION.....9

ENERGY CONSERVATION.....10

FLY AMERICA 10

INCORPORATION OF FEDERAL TRANSIT ADMINISTRATION (FTA) TERMS.....11

NO GOVERNMENT OBLIGATION TO THIRD PARTIES.....11

NOTICE TO FTA AND U.S. DOT INSPECTOR GENERAL OF INFORMATION RELATED TO FRAUD,
WASTE, ABUSE, OR OTHER LEGAL MATTERS 11

PROGRAM FRAUD AND FALSE OR FRAUDULENT STATEMENTS AND RELATED ACTS 12

PROHIBITION ON CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR
EQUIPMENT.....12

PROMPT PAYMENT 13

RESTRICTIONS ON LOBBYING.....14



CITY OF BANGOR

SAFE OPERATION OF MOTOR VEHICLES	16
SEISMIC SAFETY	16
SIMPLIFIED ACQUISITION THRESHOLD	16
SOLID WASTES (RECOVERED MATERIALS)	17
SPECIAL NOTIFICATION REQUIREMENTS FOR STATES	17
TERMINATION	17
VETERANS HIRING PREFERENCE	20
VIOLATION AND BREACH OF CONTRACT	20
CONFORMANCE WITH ITS NATIONAL ARCHITECTURE	21
FEDERAL TAX LIABILITY AND RECENT FELONY CONVICTIONS	21
SEVERABILITY.....	22
TRAFFICKING IN PERSONS.....	22



ACCESS TO RECORDS AND REPORTS

1. Record Retention. The Contractor will retain, and will require its subcontractors of all tiers to retain, complete and readily accessible records related in whole or in part to the contract, including, but not limited to, data, documents, reports, statistics, leases, subcontracts, arrangements, other third party Contracts of any type, and supporting materials related to those records.
2. Retention Period. The Contractor agrees to comply with the record retention requirements in accordance with 2 C.F.R. § 200.334. The Contractor shall maintain all books, records, accounts and reports required under this Contract for a period of at not less than three (3) years after the date of termination or expiration of this Contract, except in the event of litigation or settlement of claims arising from the performance of this Contract, in which case records shall be maintained until the disposition of all such litigation, appeals, claims or exceptions related thereto.
3. Access to Records. The Contractor agrees to provide sufficient access to FTA and its contractors to inspect and audit records and information, including such records and information the contractor or its subcontractors may regard as confidential or proprietary, related to performance of this contract in accordance with 2 CFR § 200.337.
4. Access to the Sites of Performance. The Contractor agrees to permit FTA and its contractors access to the sites of performance under this contract in accordance with 2 CFR § 200.337.

AMERICANS WITH DISABILITIES ACT (ADA)

The contractor agrees to comply with all applicable requirements of section 504 of the Rehabilitation Act of 1973, as amended, 29 U.S.C. § 794, which prohibits discrimination on the basis of handicaps, with the Americans with Disabilities Act of 1990 (ADA), as amended, 42 U.S.C. §§ 12101 et seq., which requires that accessible facilities and services be made available to persons with disabilities, including any subsequent amendments to that Act, and with the Architectural Barriers act of 1968, as amended, 42 U.S.C. §§ 4151 et seq., which requires that buildings and public accommodations be accessible to persons with disabilities, including any subsequent amendments to that Act. In addition, the contractor agrees to comply with any and all applicable requirements issued by the FTA, DOT, DOJ, U.S. GSA, U.S. EEOC, U.S. FCC, any subsequent amendments thereto and any other nondiscrimination statute(s) that may apply to the Project.

BUY AMERICA REQUIREMENTS

The contractor agrees to comply with 49 U.S.C. 5323(j) and 49 C.F.R. part 661 and 2 CFR § 200.322 Domestic preferences for procurements, which provide that Federal funds may not be obligated unless all steel, iron, and manufactured products used in FTA funded projects are produced in the United States, unless a waiver has been granted by FTA or the product is subject to a general waiver. General waivers are listed in 49 C.F.R. § 661.7.

Build America, Buy America Act. Construction materials used in the Project are subject to the domestic preference requirement of the Build America, Buy America Act, Pub. L. 117-58, div. G, tit. IX, §§ 70911 – 70927 (2021), as implemented by the U.S. Office of Management and Budget's "Buy America Preferences for Infrastructure Projects," 2 CFR Part 184. The Recipient acknowledges that this



CITY OF BANGOR

agreement is neither a waiver of § 70914(a) nor a finding under § 70914(b). In accordance with 2 CFR § 184.2(a), the Recipient shall apply the standards of 49 CFR Part 661 to iron, steel, and manufactured products.

Separate requirements for rolling stock are set out at 49 U.S.C. 5323(j)(2)(C), 49 U.S.C. § 5323(u) and 49 C.F.R. § 661.11. Domestic preferences for procurements

The bidder or offeror must submit to the Agency the appropriate Buy America certification. Bids or offers that are not accompanied by a completed Buy America certification will be rejected as nonresponsive. For more information please see the FTA's Buy America webpage at: <https://www.transit.dot.gov/buyamerica>

BOND REQUIREMENTS

The Federal agency or pass-through entity may accept the recipient's or subrecipient's bonding policy and requirements for construction or facility improvement contracts or subcontracts exceeding the simplified acquisition threshold. Before doing so, the agency or pass-through entity must determine that the Federal interest is adequately protected. If such a determination has not been made, the minimum requirements must be as follows:

A bid guarantee from each bidder equivalent to five percent of the bid price. The bid guarantee must consist of a firm commitment such as a bid bond, certified check, or other negotiable instrument accompanying a bid as assurance that the bidder will, upon acceptance of the bid, execute any required contractual documents within the specified timeframe.

A performance bond on the contractor's part for 100 percent of the contract price. A performance bond is a bond executed in connection with a contract to secure the fulfillment of all the contractor's requirements under a contract.

A payment bond on the contractor's part for 100 percent of the contract price. A payment bond is a bond executed in connection with a contract to assure payment as required by the law of all persons supplying labor and material in the execution of the work provided for under a contract.

It is also understood and agreed that if the bidder should withdraw any part or all of their bid within [90] days after the bid opening without the written consent of the Agency, or refuse or be unable to enter into this Contract as provided above, or refuse or be unable to furnish adequate and acceptable Performance and Payment Bonds, or refuse or be unable to furnish adequate and acceptable insurance, as provided above, it shall forfeit its bid guaranty to the extent Agency's damages occasioned by such withdrawal, or refusal, or inability to enter into a Contract, or provide adequate security thereof.

It is further understood and agreed that to the extent the defaulting bidder's bid guaranty shall prove inadequate to fully recompense Agency for the damages occasioned by default, then the bidder agrees to indemnify Agency and pay over to Agency the difference between the bid guarantee and Agency's total damages so as to make Agency whole.

The bidder understands that any material alteration of any of the above or any of the material contained herein, other than that requested will render the bid unresponsive.



CITY OF BANGOR

Performance Guarantee. A Performance Guarantee in the amount of 100% of the Contract value is required by the Agency to ensure faithful performance of the Contract. Either a Performance Bond or an Irrevocable Stand-By Letter of Credit shall be provided by the Contractor and shall remain in full force for the term of the Contract. The successful Bidder shall certify that it will provide the requisite Performance Guarantee to the Agency within ten (10) business days from Contract execution. The Agency requires all Performance Bonds to be provided by a fully qualified surety company acceptable to the Agency and listed as a company currently authorized under 31 C.F.R. part 22 as possessing a Certificate of Authority as described hereunder. Agency may require additional performance bond protection when the contract price is increased. The increase in protection shall generally equal 100 percent of the increase in contract price. The Agency may secure additional protection by directing the Contractor to increase the amount of the existing bond or to obtain an additional bond.

If the Bidder chooses to provide a Letter of Credit as its Performance Guarantee, the Bidder shall furnish with its bid, certification that an Irrevocable Stand-By Letter of Credit will be furnished should the Bidder become the successful Contractor. The Bidder shall also provide a statement from the banking institution certifying that an Irrevocable Stand-By Letter of Credit for the action will be provided if the Contract is awarded to the Bidder. The Irrevocable Stand-By Letter of Credit will only be accepted by the Agency if:

A bank in good standing issues it. The Agency will not accept a Letter of Credit from an entity other than a bank.

It is in writing and signed by the issuing bank.

It conspicuously states that it is an irrevocable, non-transferable, "standby" Letter of Credit.

The Agency is identified as the Beneficiary.

It is in an amount equal to 100% of the Contract value. This amount must be in U.S. dollars.

The effective date of the Letter of Credit is the same as the effective date of the Contract

The expiration date of the Letter of Credit coincides with the term of the contract.

It indicates that it is being issued in order to support the obligation of the Contractor to perform under the Contract. It must specifically reference the Contract between the Agency and the Contractor the work stipulated herein.

The issuing bank's obligation to pay will arise upon the presentation of the original Letter of Credit and a certificate and draft to the issuing bank's representative at a location and time to be determined by the parties. This documentation will indicate that the Contractor is in default under the Contract.

Payment Bonds. A Labor and Materials Payment Bond equal to the full value of the contract must be furnished by the contractor to Agency as security for payment by the Contractor and subcontractors for labor, materials, and rental of equipment. The bond may be issued by a fully qualified surety company acceptable to (Agency) and listed as a company currently authorized under 31 C.F.R. part 223 as possessing a Certificate of Authority as described thereunder.



CARGO PREFERENCE REQUIREMENTS

The contractor agrees:

- A. to use privately owned United States-Flag commercial vessels to ship at least 50 percent of any equipment, materials or commodities procured, contracted for or otherwise obtained with funds granted, guaranteed, loaned, or advanced by the U.S. Government under this agreement, and which may be transported by ocean vessel, shall be transported on privately owned United States-flag commercial vessels, if available. 46 U.S.C. § 55305, and U.S. Maritime Administration regulations, "Cargo Preference – U.S.-Flag Vessels," 46 CFR Part 381.
- B. to furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in 46 CFR § 381.7(a)(1) shall be furnished to both the recipient (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590; and
- C. to include these requirements in all subcontracts issued pursuant to this contract when the subcontract may involve the transport of equipment, material, or commodities by ocean vessel.

CHANGES TO FEDERAL REQUIREMENTS

Federal requirements that apply to the Recipient or the Award, the accompanying Underlying Agreement, and any Amendments thereto may change due to changes in federal law, regulation, other requirements, or guidance, or changes in the Recipient's Underlying Agreement including any information incorporated by reference and made part of that Underlying Agreement; and

Applicable changes to those federal requirements will apply to each Third Party Agreement and parties thereto at any tier.

CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

The Contractor agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Clean Air Act (42 U.S.C. § 7401-7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. § 1251-1387). Violations must be reported to FTA and the Regional Office of the Environmental Protection Agency. The following applies for contracts of amounts in excess of \$150,000:

Clean Air Act

- A. The contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq.
- B. The contractor agrees to report each violation to the Agency and understands and agrees that the



CITY OF BANGOR

Agency will, in turn, report each violation as required to assure notification to the Agency, Federal Emergency Management Agency, and the appropriate Environmental Protection Agency Regional Office.

- C. The contractor agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by FTA.

Federal Water Pollution Control Act

- A. The contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq.
- B. The contractor agrees to report each violation to the Agency and understands and agrees that the Agency will, in turn, report each violation as required to assure notification to the Agency, Federal Emergency Management Agency, and the appropriate Environmental Protection Agency Regional Office.
- C. The contractor agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by FTA.”

CIVIL RIGHTS LAWS AND REGULATIONS

The following Federal Civil Rights laws and regulations apply to all contracts.

The Contractor and any subcontractor agree to comply with all the requirements prohibiting discrimination on the basis of race, color, or national origin of the Title VI of the Civil Rights Act of 1964, as amended 52 U.S.C 2000d, and U.S. DOT regulation “Nondiscrimination in Federally Assisted Programs of the Department of Transportation – Effectuation of the Title VI of the Civil rights Act, “49 C.F. R. Part 21 and any implementing requirement FTA may issue.

1. Federal Equal Employment Opportunity (EEO) Requirements. These include, but are not limited to:

- A. Nondiscrimination in Federal Public Transportation Programs. 49 U.S.C. § 5332, covering projects, programs, and activities financed under 49 U.S.C. Chapter 53, prohibits discrimination on the basis of race, color, religion, national origin, sex (including sexual orientation), disability, or age, and prohibits discrimination in employment or business opportunity.
- B. Prohibition against Employment Discrimination. Title VII of the Civil Rights Act of 1964, as amended, 42 U.S.C. § 2000e, Title VI of the Civil Rights Act of 1964,” 49 CFR Part 21, and 49 U.S.C. § 5332, prohibits discrimination in employment on the basis of race, color, religion, sex, or national origin.

2. Nondiscrimination on the Basis of Sex. Title IX of the Education Amendments of 1972, as amended, 20 U.S.C. § 1681 et seq. and implementing Federal regulations, “Nondiscrimination on the Basis of Sex in Education Programs or Activities Receiving Federal Financial Assistance,” 49 C.F.R. part 25 prohibit discrimination on the basis of sex.

3. Nondiscrimination on the Basis of Age. The “Age Discrimination Act of 1975,” as amended, 42 U.S.C. § 6101 et seq., and Department of Health and Human Services implementing regulations,



CITY OF BANGOR

“Nondiscrimination on the Basis of Age in Programs or Activities Receiving Federal Financial Assistance,” 45 C.F.R. part 90, prohibit discrimination by participants in federally assisted programs against individuals on the basis of age. The Age Discrimination in Employment Act (ADEA), 29 U.S.C. § 621 et seq., and Equal Employment Opportunity Commission (EEOC) implementing regulations, “Age Discrimination in Employment Act,” 29 C.F.R. part 1625, also prohibit employment discrimination against individuals age 40 and over on the basis of age.

4. Federal Protections for Individuals with Disabilities. The Americans with Disabilities Act of 1990, as amended (ADA), 42 U.S.C. § 12101 et seq., prohibits discrimination against qualified individuals with disabilities in programs, activities, and services, and imposes specific requirements on public and private entities. Third party contractors must comply with their responsibilities under Titles I, II, III, IV, and V of the ADA in employment, public services, public accommodations, telecommunications, and other provisions, many of which are subject to regulations issued by other Federal agencies.

Civil Rights and Equal Opportunity

The Agency is an Equal Opportunity Employer. As such, the Agency agrees to comply with all applicable Federal civil rights laws and implementing regulations. Apart from inconsistent requirements imposed by Federal laws or regulations, the Agency agrees to comply with the requirements of 49 U.S.C.

§ 5323(h) (3) by not using any Federal assistance awarded by FTA to support procurements using exclusionary or discriminatory specifications. Under this Contract, the Contractor shall at all times comply with the following requirements and shall include these requirements in each subcontract entered into as part thereof.

1. Nondiscrimination. In accordance with Federal transit law at 49 U.S.C. § 5332, the Contractor agrees that it will not discriminate against any employee or applicant for employment because of race, color, religion, national origin, sex, disability, or age. In addition, the Contractor agrees to comply with applicable Federal implementing regulations and other implementing requirements FTA may issue.

2. Equal Employment Opportunity. In accordance with Title VII of the Civil Rights Act, as amended, 42 U.S.C. § 2000e et seq., Title I of the Americans with Disabilities Act of 1990, as amended, 42 U.S.C. §§ 12101, et seq.; and Federal transit laws at 49 U.S.C. § 5332, the Contractor agrees to comply with all applicable equal employment opportunity requirements, without regard to their race, color, religion, national origin, or sex (including sexual orientation). In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.

3. Age. In accordance with the Age Discrimination in Employment Act, 29 U.S.C. §§ 621-634, U.S. Equal Employment Opportunity Commission (U.S. EEOC) regulations, “Age Discrimination in Employment Act,” 29 C.F.R. part 1625, the Age Discrimination Act of 1975, as amended, 42 U.S.C. § 6101 et seq., U.S. Health and Human Services regulations, “Nondiscrimination on the Basis of Age in Programs or Activities Receiving Federal Financial Assistance,” 45 C.F.R. part 90, and Federal transit law at 49 U.S.C. § 5332, the Contractor agrees to refrain from discrimination against present and prospective employees for reason of age. In addition, the Contractor agrees to comply with any Implementing requirements FTA may issue.



CITY OF BANGOR

4. Disabilities. In accordance with section 504 of the Rehabilitation Act of 1973, as amended, 29 U.S.C. § 794, the Americans with Disabilities Act of 1990, as amended, 42 U.S.C. § 12101 et seq., the Architectural Barriers Act of 1968, as amended, 42 U.S.C. § 4151 et seq., and Federal transit law at 49 U.S.C. § 5332, the Contractor agrees that it will not discriminate against individuals on the basis of disability. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.

5. Federal Law and Public Policy Requirements. The Contractor shall ensure that Federal funding is expended in full accordance with the U.S. Constitution, Federal Law, and statutory and public policy requirements: including, but not limited to, those protecting free speech, religious liberty, public welfare, the environment, and prohibiting discrimination.

CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

- a. Applicability: This requirement applies to all FTA grant and cooperative agreement programs.
- b. Where applicable (see 40 U.S.C. § 3701), all contracts awarded by the non-Federal entity in excess of \$100,000 that involve the employment of mechanics or laborers must include a provision for compliance with 40 U.S.C. §§ 3702 and 3704, as supplemented by Department of Labor regulations at 29 C.F.R. Part 5. See 2 C.F.R. Part 200, Appendix II.
- c. Under 40 U.S.C. § 3702, each contractor must be required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours in the work week.
- d. The requirements of 40 U.S.C. § 3704 are applicable to construction work and provide that no laborer or mechanic must be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.
- e. The regulation at 29 C.F.R. § 5.5(b) provides the required contract clause concerning compliance with the Contract Work Hours and Safety Standards Act:

Compliance with the Contract Work Hours and Safety Standards Act.

(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1) of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such



CITY OF BANGOR

District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1) of this section.

(3) Withholding for unpaid wages and liquidated damages. The agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2) of this section.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1) through (4) of this section."

DAVIS BACON ACT AND COPELAND ANTI-KICKBACK ACT

For all prime construction, alteration or repair contracts in excess of \$2,000 awarded by FTA, the Contractor shall comply with the Davis-Bacon Act and the Copeland "Anti-Kickback" Act. Under 49 U.S.C. § 5333(a), prevailing wage protections apply to laborers and mechanics employed on FTA assisted construction, alteration, or repair projects. The Contractor will comply with the Davis-Bacon Act, 40 U.S.C. §§ 3141-3144, and 3146-3148 as supplemented by DOL regulations at 29 C.F.R. part 5, "Labor Standards Provisions Applicable to Contracts Governing Federally Financed and Assisted Construction." In accordance with the statute, the Contractor shall pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor. In addition, the Contractor agrees to pay wages not less than once a week. The Contractor shall also comply with the Copeland "Anti-Kickback" Act (40 U.S.C. § 3145), as supplemented by DOL regulations at 29 C.F.R. part 3, "Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in part by Loans or Grants from the United States." The Contractor is prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled.

DISADVANTAGED BUSINESS ENTERPRISE (DBE)

It is the policy of the Agency and the United States Department of Transportation ("DOT") that Disadvantaged Business Enterprises ("DBE's"), as defined herein and in the Federal regulations published at 49 C.F.R. part 26, shall have an equal opportunity to participate in DOT-assisted contracts.

The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 C.F.R.



CITY OF BANGOR

part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the Agency deems appropriate, which may include, but is not limited to:

- (1) Withholding monthly progress payments;
- (2) Assessing sanctions;
- (3) Liquidated damages; and/or
- (4) Disqualifying the contractor from future bidding as non-responsible. 49 C.F.R. § 26.13(b).

Prime contractors are required to pay subcontractors for satisfactory performance of their contracts no later than 30 days from receipt of each payment the Agency makes to the prime contractor. 49 C.F.R. § 26.29(a).

Finally, for contracts with defined DBE contract goals, the contractor shall utilize the specific DBEs listed unless the contractor obtains the Agency's written consent; and that, unless the Agency's consent is provided, the contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the listed DBE. 49 C.F.R. § 26.53(f) (1).

DOMESTIC PREFERENCES FOR PROCUREMENTS

a. The recipient or subrecipient should, to the greatest extent practicable and consistent with law, provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products). The requirements of this section must be included in all subawards, contracts, and purchase orders under Federal awards.

b. For purposes of this section:

- (1) "Produced in the United States" means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.
- (2) "Manufactured products" means items and construction materials composed in whole or in part of non-ferrous metals such as aluminum; plastics and polymer-based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.

c. Federal agencies providing Federal financial assistance for infrastructure projects must implement the Buy America preferences set forth in 2 CFR 184.

DEBARMENT AND SUSPENSION

Debarment and Suspension (Executive Orders 12549 and 12689). A covered transaction (see 2 C.F.R. §§ 180.220 and 1200.220) must not be entered into with any party listed on the governmentwide exclusions in the System for Award Management (SAM), in accordance with the OMB guidelines at 2 C.F.R. 180 that



CITY OF BANGOR

implement Executive Orders 12549 (31 U.S.C. § 6101 note, 51 Fed. Reg. 6370,) and 12689 (31 U.S.C. § 6101 note, 54 Fed. Reg. 34131), “Debarment and Suspension.” SAM Exclusions contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549. The Recipient agrees to include, and require each Third Party Participant to include, a similar provision in each lower tier covered transaction, ensuring that each lower tier Third Party Participant:

- (1) Complies with federal debarment and suspension requirements; and
- (2) Reviews the SAM at <https://www.sam.gov>, if necessary to comply with U.S. DOT regulations, 2 CFR Part 1200.

ENERGY CONSERVATION

The contractor agrees to comply with mandatory standards and policies relating to energy efficiency, which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (42 U.S.C. § 6201).

FLY AMERICA

a) Definitions. As used in this clause—

- 1) “International air transportation” means transportation by air between a place in the United States and a place outside the United States or between two places both of which are outside the United States. 2) “United States” means the 50 States, the District of Columbia, and outlying areas. 3) “U.S.-flag air carrier” means an air carrier holding a certificate under 49 U.S.C. Chapter 411.

b) When Federal funds are used to fund travel, Section 5 of the International Air Transportation Fair Competitive Practices Act of 1974 (49 U.S.C. 40118) (Fly America Act) requires contractors, Agencies, and others use U.S.-flag air carriers for U.S. Government-financed international air transportation of personnel (and their personal effects) or property, to the extent that service by those carriers is available. It requires the Comptroller General of the United States, in the absence of satisfactory proof of the necessity for foreign-flag air transportation, to disallow expenditures from funds, appropriated or otherwise established for the account of the United States, for international air transportation secured aboard a foreign-flag air carrier if a U.S.-flag air carrier is available to provide such services.

c) If available, the Contractor, in performing work under this contract, shall use U.S.-flag carriers for international air transportation of personnel (and their personal effects) or property.

d) In the event that the Contractor selects a carrier other than a U.S.-flag air carrier for international air transportation, the Contractor shall include a statement on vouchers involving such transportation essentially as follows:

Statement of Unavailability of U.S.-Flag Air Carriers

International air transportation of persons (and their personal effects) or property by U.S.-flag air carrier was not available or it was necessary to use foreign- flag air carrier service for the following reasons. See FAR § 47.403. [State reasons]:



CITY OF BANGOR

e) Contractor shall include the substance of this clause, including this paragraph (e), in each subcontract or purchase under this contract that may involve international air transportation.

INCORPORATION OF FEDERAL TRANSIT ADMINISTRATION (FTA) TERMS

The provisions within include, in part, certain Standard Terms and Conditions required under the Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (2 CFR § 200), whether or not expressly set forth in the preceding contract provisions. All contractual provisions required by DOT, detailed in 2 CFR § 200 or as amended by 2 CFR § 1201, or the most recent version of FTA Circular 4220.1 are hereby incorporated by reference. Anything to the contrary herein notwithstanding, all mandated terms shall be deemed to control in the event of a conflict with other provisions contained in this Contract. The Contractor shall not perform any act, fail to perform any act, or refuse to comply with any request which would cause a violation of the FTA terms and conditions.

NO GOVERNMENT OBLIGATION TO THIRD PARTIES

The Recipient and Contractor acknowledge and agree that, notwithstanding any concurrence by the Federal Government in or approval of the solicitation or award of the underlying Contract, absent the express written consent by the Federal Government, the Federal Government is not a party to this Contract and shall not be subject to any obligations or liabilities to the Recipient, Contractor or any other party (whether or not a party to that contract) pertaining to any matter resulting from the underlying Contract. The Contractor agrees to include the above clause in each subcontract financed in whole or in part with Federal assistance provided by the FTA. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.

NOTICE TO FTA AND U.S. DOT INSPECTOR GENERAL OF INFORMATION RELATED TO FRAUD, WASTE, ABUSE, OR OTHER LEGAL MATTERS

If a current or prospective legal matter that may affect the Federal Government emerges, the Recipient must promptly notify the FTA Chief Counsel and FTA Regional Counsel for the Region in which the Recipient is located. The Recipient must include a similar notification requirement in its Third Party Agreements and must require each Third Party Participant to include an equivalent provision in its subagreements at every tier, for any agreement that is a “covered transaction” according to 2 C.F.R. §§ 180.220 and 1200.220.

- (1) The types of legal matters that require notification include, but are not limited to, a major dispute, breach, default, litigation, or naming the Federal Government as a party to litigation or a legal disagreement in any forum for any reason.
- (2) Matters that may affect the Federal Government include, but are not limited to, the Federal Government’s interests in the Award, the accompanying Underlying Agreement, and any Amendments thereto, or the Federal Government’s administration or enforcement of federal laws, regulations, and requirements.



CITY OF BANGOR

(3) The Recipient must promptly notify the U.S. DOT Inspector General in addition to the FTA Chief Counsel or Regional Counsel for the Region in which the Recipient is located, if the Recipient has knowledge of potential fraud, waste, or abuse occurring on a Project receiving assistance from FTA. The notification provision applies if a person has or may have submitted a false claim under the False Claims Act, 31 U.S.C. § 3729 et seq., or has or may have committed a criminal or civil violation of law pertaining to such matters as fraud, conflict of interest, bribery, gratuity, or similar misconduct. This responsibility occurs whether the Project is subject to this Agreement or another agreement between the Recipient and FTA, or an agreement involving a principal, officer, employee, agent, or Third Party Participant of the Recipient. It also applies to subcontractors at any tier. Knowledge, as used in this paragraph, includes, but is not limited to, knowledge of a criminal or civil investigation by a Federal, state, or local law enforcement or other investigative agency, a criminal indictment or civil complaint, or probable cause that could support a criminal indictment, or any other credible information in the possession of the Recipient.

PROGRAM FRAUD AND FALSE OR FRAUDULENT STATEMENTS AND RELATED ACTS

The Contractor acknowledges that the provisions of the Program Fraud Civil Remedies Act of 1986, as amended, 31 U.S.C. § 3801 et seq. and U.S. DOT regulations, "Program Fraud Civil Remedies," 49 C.F.R. part 31, apply to its actions pertaining to this Project. Upon execution of the underlying contract, the Contractor certifies or affirms the truthfulness and accuracy of any statement it has made, it makes, it may make, or causes to be made, pertaining to the underlying contract or the FTA assisted project for which this contract work is being performed. In addition to other penalties that may be applicable, the Contractor further acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification, the Federal Government reserves the right to impose the penalties of the Program Fraud Civil Remedies Act of 1986 on the Contractor to the extent the Federal Government deems appropriate.

The Contractor also acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification to the Federal Government under a contract connected with a project that is financed in whole or in part with Federal assistance originally awarded by FTA under the authority of 49 U.S.C. chapter 53, the Government reserves the right to impose the penalties of 18 U.S.C. § 1001 and 49 U.S.C. § 5323(l) on the Contractor, to the extent the Federal Government deems appropriate.

The Contractor agrees to include the above two clauses in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clauses shall not be modified, except to identify the subcontractor who will be subject to the provisions.

PROHIBITION ON CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT

a) Recipients and subrecipients are prohibited from obligating or expending loan or grant funds to:

- 1) Procure or obtain covered telecommunications equipment or services;
- 2) Extend or renew a contract to procure or obtain covered telecommunications equipment or services;



CITY OF BANGOR

or

3) Enter into a contract (or extend or renew a contract) to procure or obtain covered telecommunications equipment or services.

(b) As described in section 889 of Public Law 115-232, “covered telecommunications equipment or services” means any of the following:

(1) Telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities);

(2) For the purpose of public safety, security of government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities);

(3) Telecommunications or video surveillance services provided by such entities or using such equipment;

(4) Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country;

(c) For the purposes of this section, “covered telecommunications equipment or services” also include systems that use covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system.

(d) In implementing the prohibition under section 889 of Public Law 115-232, heads of executive agencies administering loan, grant, or subsidy programs must prioritize available funding and technical support to assist affected businesses, institutions and organizations as is reasonably necessary for those affected entities to transition from covered telecommunications equipment or services, to procure replacement equipment or services, and to ensure that communications service to users and customers is sustained.

(e) When the recipient or subrecipient accepts a loan or grant, it is certifying that it will comply with the prohibition on covered telecommunications equipment and services in this section. The recipient or subrecipient is not required to certify that funds will not be expended on covered telecommunications equipment or services beyond the certification provided upon accepting the loan or grant and those provided upon submitting payment requests and financial reports.

(f) For additional information, see section 889 of Public Law 115-232 and 200.471.

PROMPT PAYMENT

The contractor is required to pay its subcontractors performing work related to this contract for satisfactory performance of that work no later than 30 days after the contractor’s receipt of payment for that work. In addition, the contractor is required to return any retainage payments to those subcontractors within 30 days



CITY OF BANGOR

after the subcontractor's work related to this contract is satisfactorily completed.

The contractor must promptly notify the Agency, whenever a DBE subcontractor performing work related to this contract is terminated or fails to complete its work and must make good faith efforts to engage another DBE subcontractor to perform at least the same amount of work. The contractor may not terminate any DBE subcontractor and perform that work through its own forces or those of an affiliate without prior written consent of the Agency.

RESTRICTIONS ON LOBBYING

Conditions on use of funds.

- (a) No appropriated funds may be expended by the recipient of a Federal contract, grant, loan, or cooperative agreement to pay any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any of the following covered Federal actions: the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (b) Each person who requests or receives from an agency a Federal contract, grant, loan, or cooperative agreement shall file with that agency a certification, that the person has not made, and will not make, any payment prohibited by paragraph (a) of this section.
- (c) Each person who requests or receives from an agency a Federal contract, grant, loan, or a cooperative agreement shall file with that agency a disclosure form if such person has made or has agreed to make any payment using nonappropriated funds (to include profits from any covered Federal action), which would be prohibited under paragraph (a) of this section if paid for with appropriated funds.
- (d) Each person who requests or receives from an agency a commitment providing for the United States to insure or guarantee a loan shall file with that agency a statement, whether that person has made or has agreed to make any payment to influence or attempt to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with that loan insurance or guarantee.
- (e) Each person who requests or receives from an agency a commitment providing for the United States to insure or guarantee a loan shall file with that agency a disclosure form if that person has made or has agreed to make any payment to influence or attempt to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with that loan insurance or guarantee.

Certification and disclosure.

- (a) Each person shall file a certification, and a disclosure form, if required, with each submission that initiates agency consideration of such person for:



CITY OF BANGOR

- (1) Award of a Federal contract, grant, or cooperative agreement exceeding \$100,000; or
 - (2) An award of a Federal loan or a commitment providing for the United States to insure or guarantee a loan exceeding \$150,000.
- (b) Each person shall file a certification, and a disclosure form, if required, upon receipt by such person of:
- (1) A Federal contract, grant, or cooperative agreement exceeding \$100,000; or
 - (2) A Federal loan or a commitment providing for the United States to insure or guarantee a loan exceeding \$150,000,

Unless such person previously filed a certification, and a disclosure form, if required, under paragraph (a) of this section.

- (c) Each person shall file a disclosure form at the end of each calendar quarter in which there occurs any event that requires disclosure or that materially affects the accuracy of the information contained in any disclosure form previously filed by such person under paragraphs (a) or (b) of this section. An event that materially affects the accuracy of the information reported includes:
- (1) A cumulative increase of \$25,000 or more in the amount paid or expected to be paid for influencing or attempting to influence a covered Federal action; or
 - (2) A change in the person(s) or individual(s) influencing or attempting to influence a covered Federal action; or,
 - (3) A change in the officer(s), employee(s), or Member(s) contacted to influence or attempt to influence a covered Federal action.
- (d) Any person who requests or receives from a person referred to in paragraphs (a) or (b) of this section:
- (1) A subcontract exceeding \$100,000 at any tier under a Federal contract;
 - (2) A subgrant, contract, or subcontract exceeding \$100,000 at any tier under a Federal grant;
 - (3) A contract or subcontract exceeding \$100,000 at any tier under a Federal loan exceeding \$150,000; or,
 - (4) A contract or subcontract exceeding \$100,000 at any tier under a Federal cooperative agreement,

Shall file a certification, and a disclosure form, if required, to the next tier above.

- (e) All disclosure forms, but not certifications, shall be forwarded from tier to tier until received by the person referred to in paragraphs (a) or (b) of this section. That person shall forward all disclosure forms to the agency.
- (f) Any certification or disclosure form filed under paragraph (e) of this section shall be treated as a material representation of fact upon which all receiving tiers shall rely. All liability arising from an erroneous representation shall be borne solely by the tier filing that representation and shall not be shared by any



CITY OF BANGOR

tier to which the erroneous representation is forwarded. Submitting an erroneous certification or disclosure constitutes a failure to file the required certification or disclosure, respectively. If a person fails to file a required certification or disclosure, the United States may pursue all available remedies, including those authorized by section 1352, title 31, U.S. Code.

- (g) For awards and commitments in process prior to December 23, 1989, but not made before that date, certifications shall be required at award or commitment, covering activities occurring between December 23, 1989, and the date of award or commitment. However, for awards and commitments in process prior to the December 23, 1989 effective date of these provisions, but not made before December 23, 1989, disclosure forms shall not be required at time of award or commitment but shall be filed within 30 days.
- (h) No reporting is required for an activity paid for with appropriated funds if that activity is allowable under either subpart B or C.

SAFE OPERATION OF MOTOR VEHICLES

Seat Belt Use

The Contractor is encouraged to adopt and promote on-the-job seat belt use policies and programs for its employees and other personnel that operate company owned vehicles, company rented vehicles, or personally operated vehicles. The terms “company-owned” and “company-leased” refer to vehicles owned or leased either by the Contractor or Agency.

Distracted Driving

The Contractor agrees to adopt and enforce workplace safety policies to decrease crashes caused by distracted drivers, including policies to ban text messaging while using an electronic device supplied by an employer, and driving a vehicle the driver owns or rents, a vehicle Contractor owns, leases, or rents, or a privately-owned vehicle when on official business in connection with the work performed under this Contract.

SEISMIC SAFETY

The contractor agrees that any new building or addition to an existing building will be designed and constructed in accordance with the standards for Seismic Safety required in Department of Transportation (DOT) Seismic Safety Regulations 49 C.F.R. part 41 and will certify to compliance to the extent required by the regulation. The contractor also agrees to ensure that all work performed under this contract, including work performed by a subcontractor, is in compliance with the standards required by the Seismic Safety regulations and the certification of compliance issued on the project.

SIMPLIFIED ACQUISITION THRESHOLD

Contracts for more than the simplified acquisition threshold, which is the inflation adjusted amount determined by the Civilian Agency Acquisition Council and the Defense Acquisition Regulations Council (Councils) as authorized by 41 U.S.C. § 1908, or otherwise set by law, must address administrative, contractual, or legal remedies in instances where contractors violate or breach contract terms, and provide for such sanctions and penalties as appropriate. (Note that the simplified acquisition threshold determines the procurement procedures that must be employed pursuant to 2 C.F.R. §§ 200.317–200.327. The simplified acquisition threshold does not exempt a procurement from other eligibility or processes requirements that may apply. For example, Buy America’s eligibility and process requirements apply to any



CITY OF BANGOR

procurement in excess of \$150,000. 49 U.S.C. § 5323(j)(13).

SOLID WASTES (RECOVERED MATERIALS)

- (a) A Recipient or subrecipient that is a State agency or agency of a political subdivision of a State and its contractors must comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976 as amended, 42 U.S.C. 6962. The requirements of Section 6002 include procuring only items designated in the guidelines of the Environmental Protection Agency (EPA) at 40 CFR Part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the item exceeds \$10,000 or the value of the quantity acquired during the preceding fiscal year exceeded \$10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.
- (b) The recipient or subrecipient should, to the greatest extent practicable and consistent with law, purchase, acquire, or use products and services that can be reused, refurbished, or recycled; contain recycled content, are biobased, or are energy and water efficient; and are sustainable. This may include purchasing compostable items and other products and services that reduce the use of single-use plastic products. See Executive Order 14057, section 101, Policy.

SPECIAL NOTIFICATION REQUIREMENTS FOR STATES

Applies to States –

- (a) To the extent required under federal law, the State, as the Recipient, agrees to provide the following information about federal assistance awarded for its State Program, Project, or related activities:
 - (1) The Identification of FTA as the federal agency providing the federal assistance for a State Program or Project;
 - (2) The Catalog of Federal Domestic Assistance Number of the program from which the federal assistance for a State Program or Project is authorized; and
 - (3) The amount of federal assistance FTA has provided for a State Program or Project.
- (b) Documents - The State agrees to provide the information required under this provision in the following documents:
 - (1) applications for federal assistance,
 - (2) requests for proposals or solicitations,
 - (3) forms,
 - (4) notifications,
 - (5) press releases,
 - (6) other publications.

TERMINATION

Termination for Convenience (General Provision)

The Agency may terminate this contract, in whole or in part, at any time by written notice to the Contractor when it is in the Agency's best interest. The Contractor shall be paid its costs, including



CITY OF BANGOR

contract close-out costs, and profit on work performed up to the time of termination. The Contractor shall promptly submit its termination claim to Agency to be paid the Contractor. If the Contractor has any property in its possession belonging to Agency, the Contractor will account for the same, and dispose of it in the manner Agency directs.

Termination for Default [Breach or Cause] (General Provision)

If the Contractor does not deliver supplies in accordance with the contract delivery schedule, or if the contract is for services, the Contractor fails to perform in the manner called for in the contract, or if the Contractor fails to comply with any other provisions of the contract, the Agency may terminate this contract for default. Termination shall be effected by serving a Notice of Termination on the Contractor setting forth the manner in which the Contractor is in default. The Contractor will be paid only the contract price for supplies delivered and accepted, or services performed in accordance with the manner of performance set forth in the contract. If it is later determined by the Agency that the Contractor had an excusable reason for not performing, such as a strike, fire, or flood, events which are not the fault of or are beyond the control of the Contractor, the Agency, after setting up a new delivery of performance schedule, may allow the Contractor to continue work, or treat the termination as a Termination for Convenience.

Opportunity to Cure (General Provision)

The Agency, in its sole discretion may, in the case of a termination for breach or default, allow the Contractor [an appropriately short period of time] in which to cure the defect. In such case, the Notice of Termination will state the time period in which cure is permitted and other appropriate conditions

If Contractor fails to remedy to Agency's satisfaction the breach or default of any of the terms, covenants, or conditions of this Contract within [10 days] after receipt by Contractor of written notice from Agency setting forth the nature of said breach or default, Agency shall have the right to terminate the contract without any further obligation to Contractor. Any such termination for default shall not in any way operate to preclude Agency from also pursuing all available remedies against Contractor and its sureties for said breach or default.

Waiver of Remedies for any Breach

In the event that Agency elects to waive its remedies for any breach by Contractor of any covenant, term or condition of this contract, such waiver by Agency shall not limit Agency's remedies for any succeeding breach of that or of any other covenant, term, or condition of this contract.

Termination for Convenience (Professional or Transit Service Contracts)

The Agency, by written notice, may terminate this contract, in whole or in part, when it is in the Agency's interest. If this contract is terminated, the Agency shall be liable only for payment under the payment provisions of this contract for services rendered before the effective date of termination.

Termination for Default (Supplies and Service)

If the Contractor fails to deliver supplies or to perform the services within the time specified in this contract or any extension, or if the Contractor fails to comply with any other provisions of this contract, the Agency may terminate this contract for default. The Agency shall terminate by delivering to the Contractor a Notice of Termination specifying the nature of the default. The Contractor will only be paid the contract price for supplies delivered and accepted, or services performed in accordance with the manner or performance set forth in this contract. If, after termination for failure to fulfill contract obligations, it is determined that the Contractor was not in default, the rights and obligations of the parties shall be the same as if the termination had been issued for the convenience of the Agency.



CITY OF BANGOR

Termination for Default (Transportation Services)

If the Contractor fails to pick up the commodities or to perform the services, including delivery services, within the time specified in this contract or any extension, or if the Contractor fails to comply with any other provisions of this contract, the Agency may terminate this contract for default. The Agency shall terminate by delivering to the Contractor a Notice of Termination specifying the nature of default. The Contractor will only be paid the contract price for services performed in accordance with the manner of performance set forth in this contract.

If this contract is terminated while the Contractor has possession of Agency goods, the Contractor shall, upon direction of the Agency, protect and preserve the goods until surrendered to the Agency or its agent. The Contractor and Agency shall agree on payment for the preservation and protection of goods. Failure to agree on an amount will be resolved under the Dispute clause.

If, after termination for failure to fulfill contract obligations, it is determined that the Contractor was not in default, the rights and obligations of the parties shall be the same as if the termination had been issued for the convenience of the Agency.

Termination for Default (Construction)

If the Contractor refuses or fails to prosecute the work or any separable part, with the diligence that will ensure its completion within the time specified in this contract or any extension or fails to complete the work within this time, or if the Contractor fails to comply with any other provision of this contract, Agency may terminate this contract for default. The Agency shall terminate by delivering to the Contractor a Notice of Termination specifying the nature of the default. In this event, the Agency may take over the work and complete it by contract or otherwise, and may take possession of and use any materials, appliances, and plant on the work site necessary for completing the work. The Contractor and its sureties shall be liable for any damage to the Agency resulting from the Contractor's refusal or failure to complete the work within specified time, whether or not the Contractor's right to proceed with the work is terminated. This liability includes any increased costs incurred by the Agency in completing the work.

The Contractor's right to proceed shall not be terminated nor shall the Contractor be charged with damages under this clause if: 1. The delay in completing the work arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor. Examples of such causes include: acts of God, acts of Agency, acts of another contractor in the performance of a contract with Agency, epidemics, quarantine restrictions, strikes, freight embargoes; and 2. The Contractor, within [10] days from the beginning of any delay, notifies Agency in writing of the causes of delay. If, in the judgment of Agency, the delay is excusable, the time for completing the work shall be extended. The judgment of Agency shall be final and conclusive for the parties, but subject to appeal under the Disputes clause(s) of this contract. 3. If, after termination of the Contractor's right to proceed, it is determined that the Contractor was not in default, or that the delay was excusable, the rights and obligations of the parties will be the same as if the termination had been issued for the convenience of Agency.

Termination for Convenience or Default (Architect and Engineering)

The Agency may terminate this contract in whole or in part, for the Agency's convenience or because of the failure of the Contractor to fulfill the contract obligations. The Agency shall terminate by delivering to the Contractor a Notice of Termination specifying the nature, extent, and effective date of the termination. Upon receipt of the notice, the Contractor shall (1) immediately discontinue all services affected (unless the notice directs otherwise), and (2) deliver to the Agency's Contracting Officer all data, drawings, specifications, reports, estimates, summaries, and other information and materials accumulated in performing this contract, whether completed or in process. Agency has a royalty-free, nonexclusive, and



CITY OF BANGOR

irrevocable license to reproduce, publish or otherwise use, all such data, drawings, specifications, reports, estimates, summaries, and other information and materials.

If the termination is for the convenience of the Agency, the Agency's Contracting Officer shall make an equitable adjustment in the contract price but shall allow no anticipated profit on unperformed services.

If the termination is for failure of the Contractor to fulfill the contract obligations, the Agency may complete the work by contract or otherwise and the Contractor shall be liable for any additional cost incurred by the Agency.

If, after termination for failure to fulfill contract obligations, it is determined that the Contractor was not in default, the rights and obligations of the parties shall be the same as if the termination had been issued for the convenience of Agency

Termination for Convenience or Default (Cost-Type Contracts)

The Agency may terminate this contract, or any portion of it, by serving a Notice of Termination on the Contractor. The notice shall state whether the termination is for convenience of Agency or for the default of the Contractor. If the termination is for default, the notice shall state the manner in which the Contractor has failed to perform the requirements of the contract. The Contractor shall account for any property in its possession paid for from funds received from the Agency, or property supplied to the Contractor by the Agency. If the termination is for default, the Agency may fix the fee, if the contract provides for a fee, to be paid the Contractor in proportion to the value, if any, of work performed up to the time of termination. The Contractor shall promptly submit its termination claim to the Agency and the parties shall negotiate the termination settlement to be paid the Contractor.

If the termination is for the convenience of Agency, the Contractor shall be paid its contract close-out costs, and a fee, if the contract provided for payment of a fee, in proportion to the work performed up to the time of termination.

If, after serving a Notice of Termination for Default, the Agency determines that the Contractor has an excusable reason for not performing, the Agency, after setting up a new work schedule, may allow the Contractor to continue work, or treat the termination as a Termination for Convenience.

VETERANS HIRING PREFERENCE

Veterans Employment - Construction contracts of Federal financial assistance shall ensure that contractors working on a capital project funded using such assistance give a hiring preference, to the extent practicable, to veterans (as defined in section 2108 of title 5) who have the requisite skills and abilities to perform the construction work required under the contract. This subsection shall not be understood, construed or enforced in any manner that would require an employer to give a preference to any veteran over any equally qualified applicant who is a member of any racial or ethnic minority, female, an individual with a disability, or a former employee.

VIOLATION AND BREACH OF CONTRACT

Disputes:

Disputes arising in the performance of this Contract that are not resolved by agreement of the parties shall be decided in writing by the authorized representative of the agency. This decision shall be final



CITY OF BANGOR

and conclusive unless within [10] days from the date of receipt of its copy, the Contractor mails or otherwise furnishes a written appeal to the agencies authorized representative. In connection with any such appeal, the Contractor shall be afforded an opportunity to be heard and to offer evidence in support of its position. The decision of the agencies authorized representative shall be binding upon the Contractor and the Contractor shall abide by the decision.

Performance during Dispute:

Unless otherwise directed by the agencies authorized representative, contractor shall continue performance under this contract while matters in dispute are being resolved.

Claims for Damages:

Should either party to the contract suffer injury or damage to person or property because of any act or omission of the party or of any of his employees, agents or others for whose acts he is legally liable, a claim for damages therefore shall be made in writing to such other party within a reasonable time after the first observance of such injury or damage.

Remedies:

Unless this contract provides otherwise, all claims, counterclaims, disputes and other matters in question between the agencies authorized representative and contractor arising out of or relating to this agreement or its breach will be decided by arbitration if the parties mutually agree, or in a court of competent jurisdiction within the State in which the Agency is located.

Rights and Remedies:

Duties and obligations imposed by the contract documents and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law. No action or failure to act by the Agency or contractor shall constitute a waiver of any right or duty afforded any of them under the contract, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

CONFORMANCE WITH ITS NATIONAL ARCHITECTURE

Intelligent Transportation Systems (ITS) projects shall conform to the National ITS Architecture and standards pursuant to 23 CFR § 940. Conformance with the National ITS Architecture is interpreted to mean the use of the National ITS Architecture to develop a regional ITS architecture in support of integration and the subsequent adherence of all ITS projects to that regional ITS architecture. Development of the regional ITS architecture should be consistent with the transportation planning process for Statewide and Metropolitan Transportation Planning (49 CFR Part 613 and 621).

FEDERAL TAX LIABILITY AND RECENT FELONY CONVICTIONS

(1) The contractor certifies that it:

(a) Does not have any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability; and

(b) Was not convicted of the felony criminal violation under any Federal law within the preceding 24



CITY OF BANGOR
months.

If the contractor cannot so certify, the Recipient will refer the matter to FTA and not enter into any Third Party Agreement with the Third Party Participant without FTA's written approval.

(2) Flow-Down. The Recipient agrees to require the contractor to flow this requirement down to participants at all lower tiers, without regard to the value of any subagreement.

SEVERABILITY

The Contractor agrees that if any provision of this agreement or any amendment thereto is determined to be invalid, then the remaining provisions thereof that conform to federal laws, regulations, requirements, and guidance will continue in effect.

TRAFFICKING IN PERSONS

The contractor agrees that it and its employees that participate in the Recipient's Award, may not:

- (a) Engage in severe forms of trafficking in persons during the period of time that the Recipient's Award is in effect;
- (b) Procure a commercial sex act during the period of time that the Recipient's Award is in effect; or
- (c) Use forced labor in the performance of the Recipient's Award or subagreements thereunder.



CITY OF BANGOR

Appendix D

Conceptual Drawings

SCHEMATIC SET 2/11/26

NOT FOR CONSTRUCTION



Exterior Render

City of Bangor
Bus Barn Renovation
Project No. 2024122 August 20th, 2025



ARTIFEX
architects & engineers

PHONE: 207-974-3028
www.artifexae.com

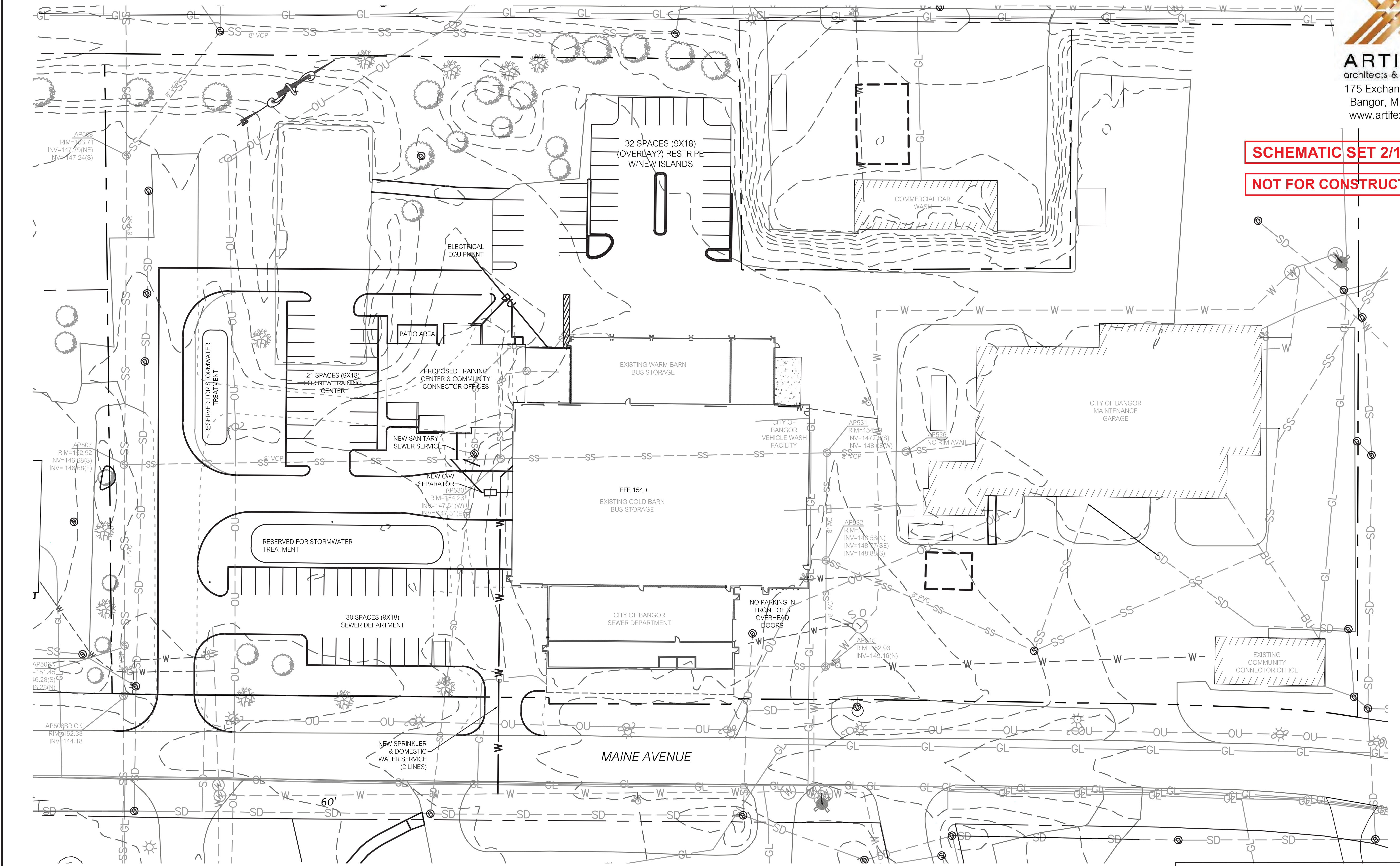
175 Exchange St.
Bangor, ME 04401



ARTIFEX
architects & engineers
175 Exchange Street
Bangor, ME 04401
www.artifexae.com

SCHEMATIC SET 2/11/26

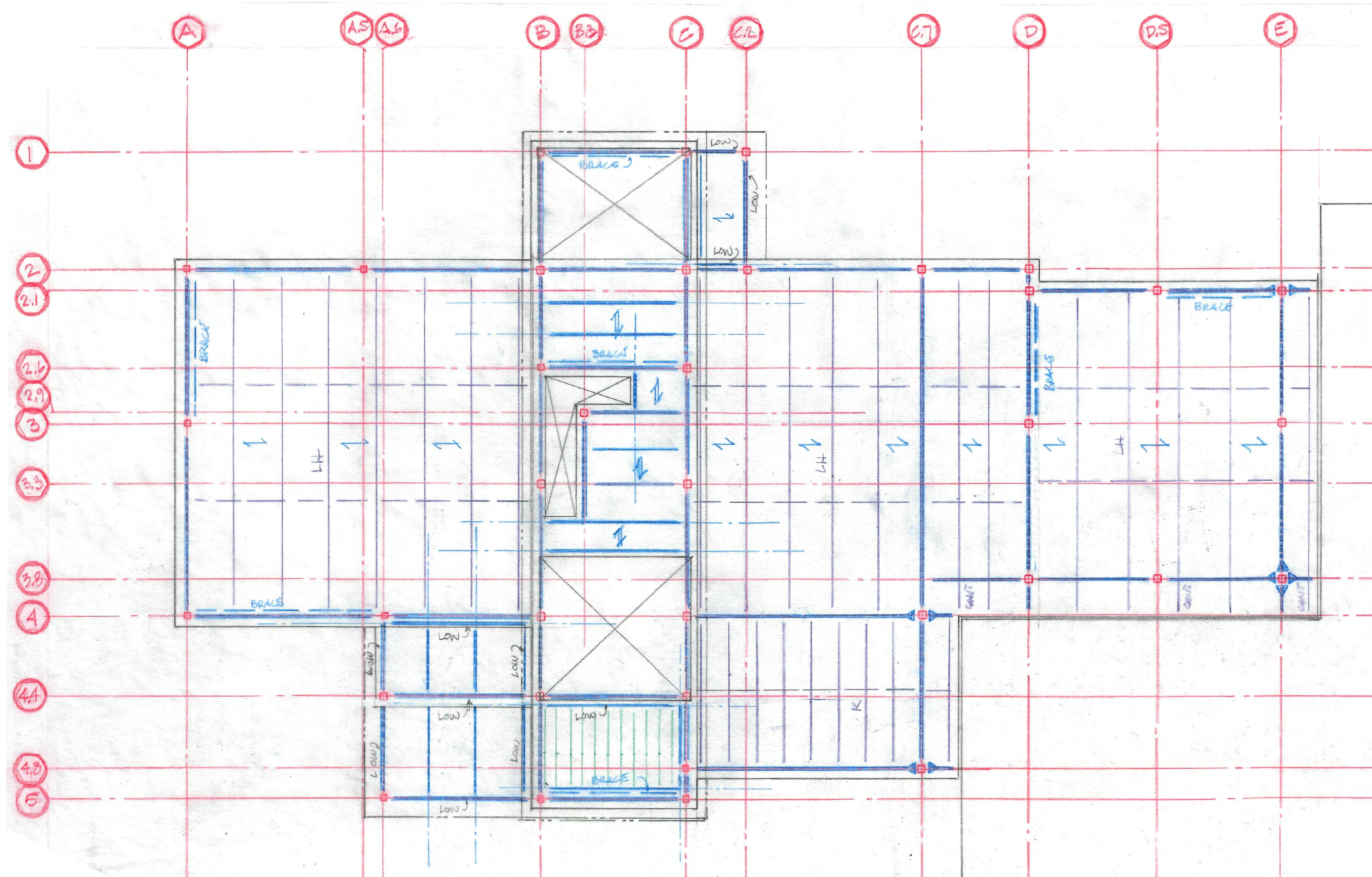
NOT FOR CONSTRUCTION



GRAPHIC SCALE



CITY OF BANGOR, COMMUNITY CONNECTOR
BUS BARN RENOVATION & TRAINING CENTER ADDITION
12/17/25 Preliminary Site Plan



TRAINING CENTER
1/4" = 1'-0"

1
S400

5' 0' 10' 20'



STRUCTURAL FRAMING PLAN

PROJ. NUMBER: 2024122
REV. DATE
DRAWN BY: AOS
DESCRIPTION

CITY OF BANGOR
BUS BARN RENOVATION
511 MAINE AVENUE, BANGOR, ME

DATE:
OCT, 15 2025

S400



175 Exchange Street
Bangor, Maine 04401
Phone: 207-974-3028
www.artifexae.com

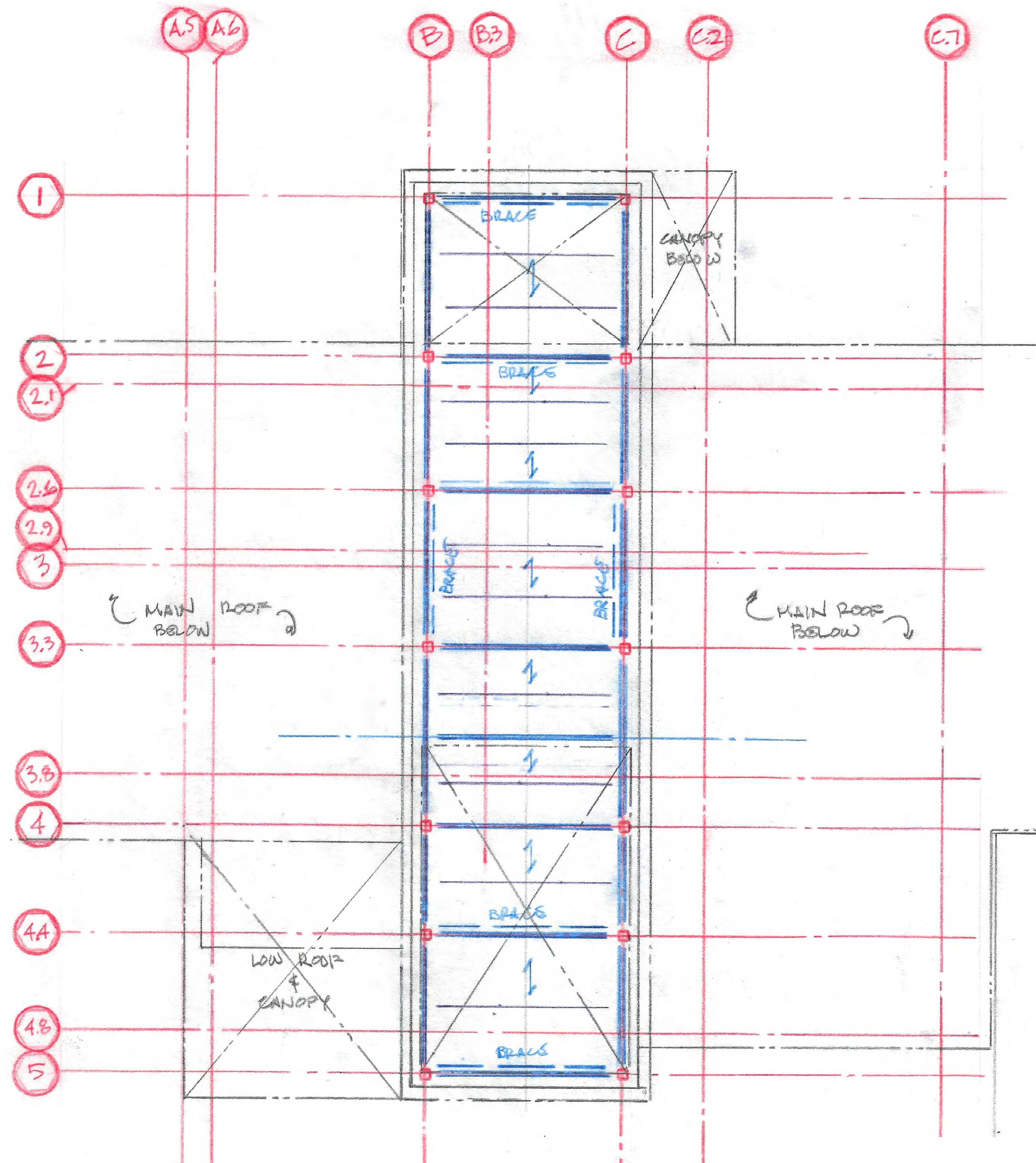
STRUCTURAL FRAMING PLAN

PROJ. NUMBER: 2024122
DRAWN BY: AOS
REV. DATE DESCRIPTION

CITY OF BANGOR
BUS BARN RENOVATION
511 MAINE AVENUE, BANGOR, ME

DATE:
OCT, 15 2025

S401



TRAINING CENTER HIGH ROOF
1/4" = 1'-0"

1
S401





ARTIFEX
architects & engineers

175 Exchange Street
Bangor, Maine 04401
Phone: 207-974-3028
www.artifexae.com

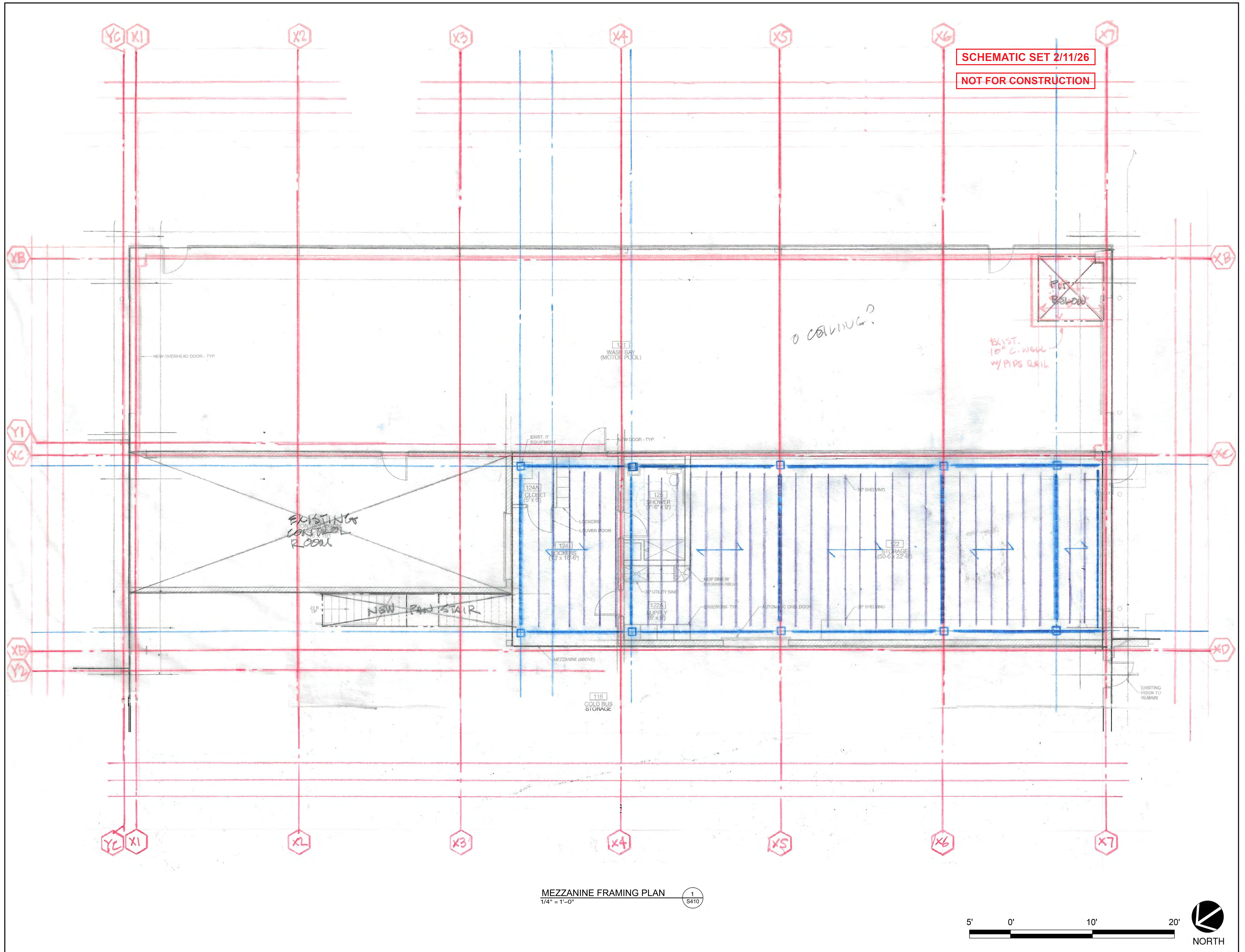
STRUCTURAL FRAMING PLAN

PROJ. NUMBER: 2024122
REV. DATE
DRAWN BY: AGS
DESCRIPTION

CITY OF BANGOR
BUS BARN RENOVATION
511 MAINE AVENUE, BANGOR, ME

DATE:
OCT, 15 2025

S410

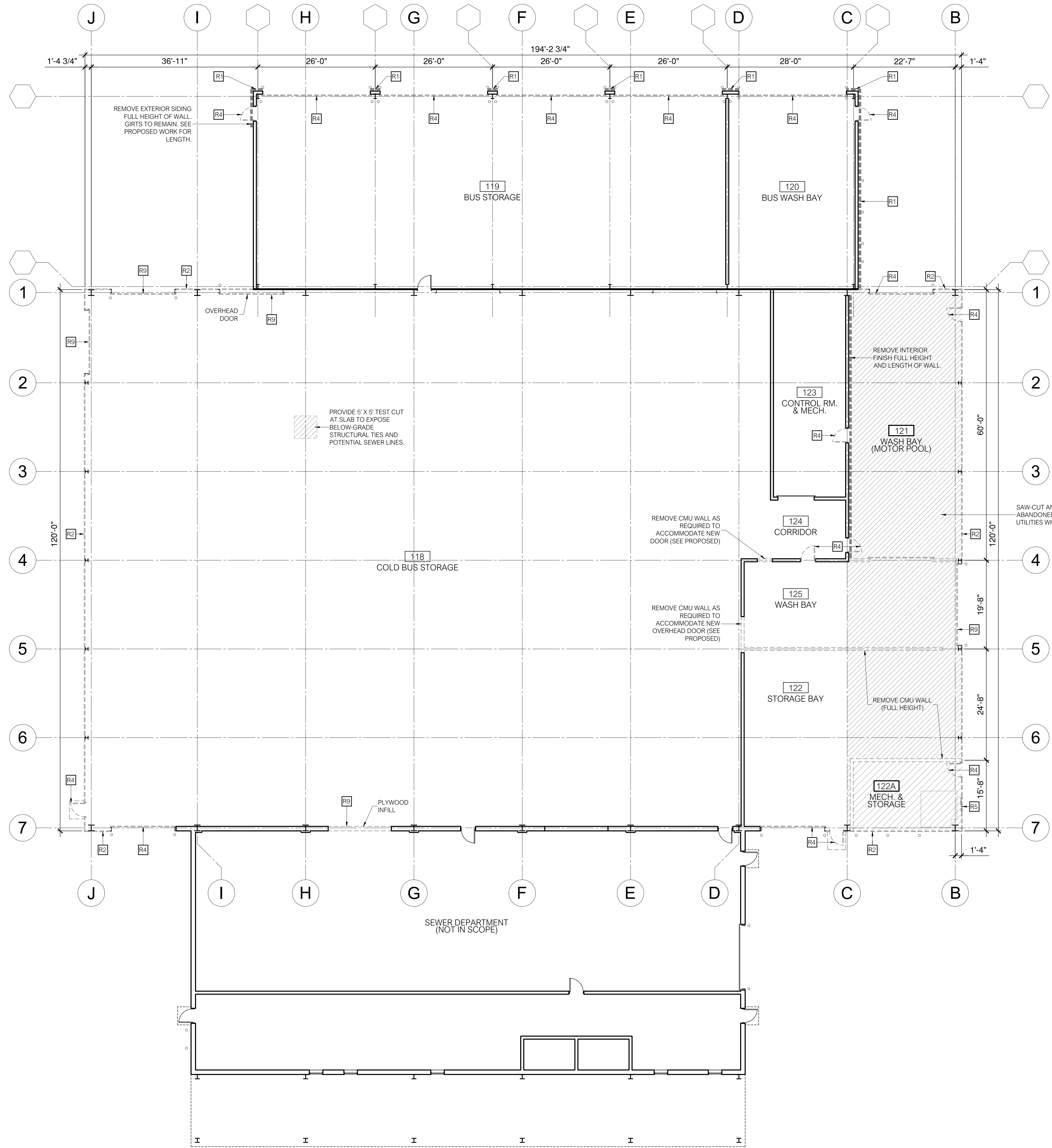


MEZZANINE FRAMING PLAN
1/4" = 1'-0"

1
S410

5' 0' 10' 20'





- REMOVAL SCHEDULE
- R1

REMOVE EXISTING SIDING FULL HEIGHT AND LENGTH OF WALL. GIRTS TO REMAIN.
- R2

REMOVE EXISTING SIDING AND STEEL GIRTS FULL HEIGHT AND LENGTH OF WALL.
- R3

REMOVE DOOR FOR REPLACEMENT
- R4

REMOVE WINDOW
- R5

REMOVE & DISPOSE
- LEGEND
- EXISTING
- REMOVALS
- REMOVAL OF FLOOR / CEILING ASSEMBLY

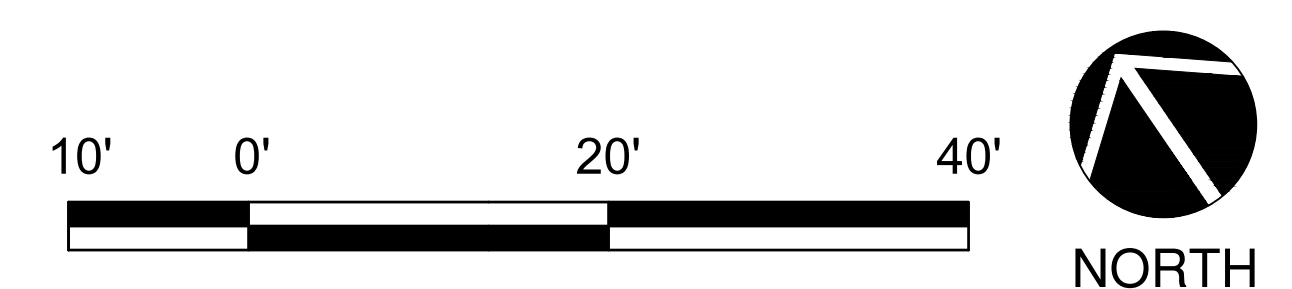
SCHEMATIC SET 2/11/26

NOT FOR CONSTRUCTION

EXISTING FLOOR PLAN

3/32" = 1'-0"

1
EA100



ARTIFEX

architects & engineers

175 Exchange Street
Bangor, Maine 04401
Phone: 207-974-3028
www.artifexae.com

REMOVALS FLOOR PLAN

PROJ. NUMBER: 2024122

DRAWN BY: AGS

REV. DATE

DESCRIPTION

CITY OF BANGOR

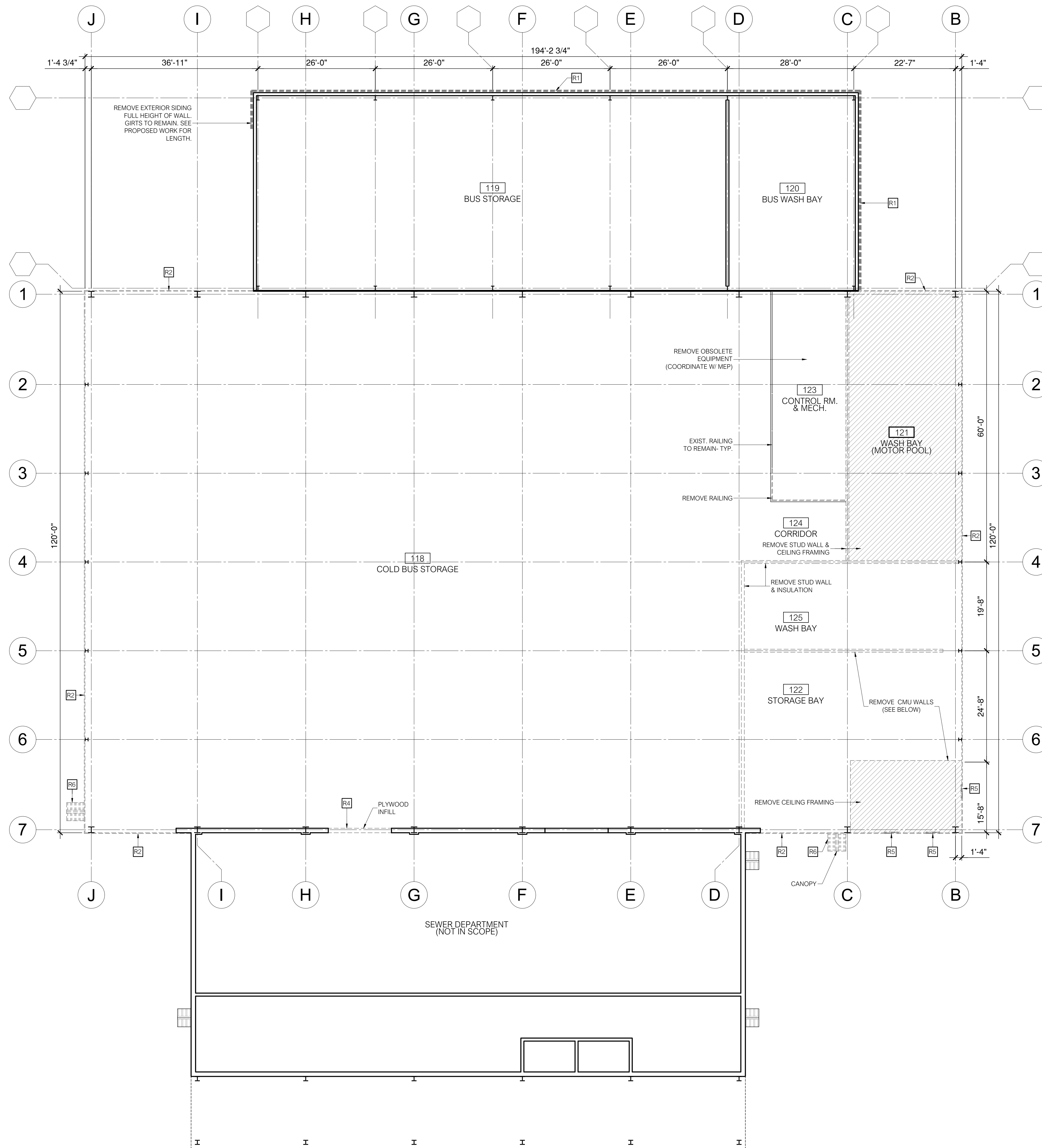
BUS BARN RENOVATION

511 MAINE AVENUE, BANGOR, ME

DATE:

OCT, 15 2025

EA100



REMOVAL SCHEDULE

R1

REMOVE EXISTING SIDING FULL HEIGHT AND LENGTH OF WALL. GIRTS TO REMAIN.

R2

REMOVE EXISTING SIDING AND STEEL GIRTS FULL HEIGHT AND LENGTH OF WALL.

R3

REMOVE DOOR FOR REPLACEMENT

R4

REMOVE WINDOW

R5

REMOVE CANOPY

LEGEND

EXISTING

REMOVALS

REMOVAL OF FLOOR / CEILING ASSEMBLY

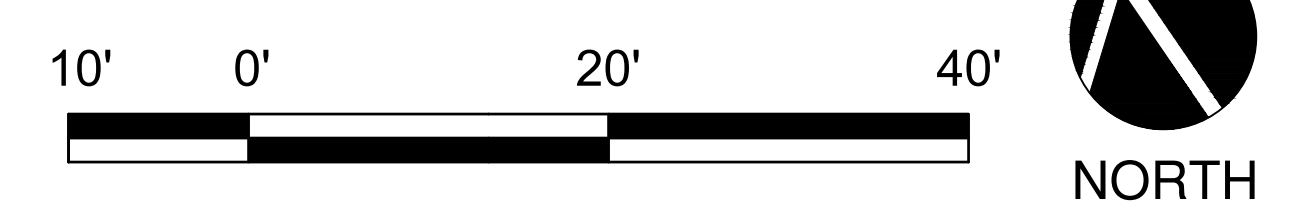
SCHEMATIC SET 2/11/26

NOT FOR CONSTRUCTION

EXISTING MEZZANINE PLAN

3/32" = 1'-0"

1 EA101



ARTIFEX

architects & engineers

175 Exchange Street
Bangor, Maine 04401
Phone: 207-974-3028
www.artifexae.com

REMOVALS MEZZANINE PLAN

PROJ. NUMBER: 2024122

DRAWN BY: AOS

REV.

DATE

DESCRIPTION

CITY OF BANGOR

BUS BARN RENOVATION

511 MAINE AVENUE, BANGOR, ME

DATE:

OCT, 15 2025

EA101

GENERAL NOTES

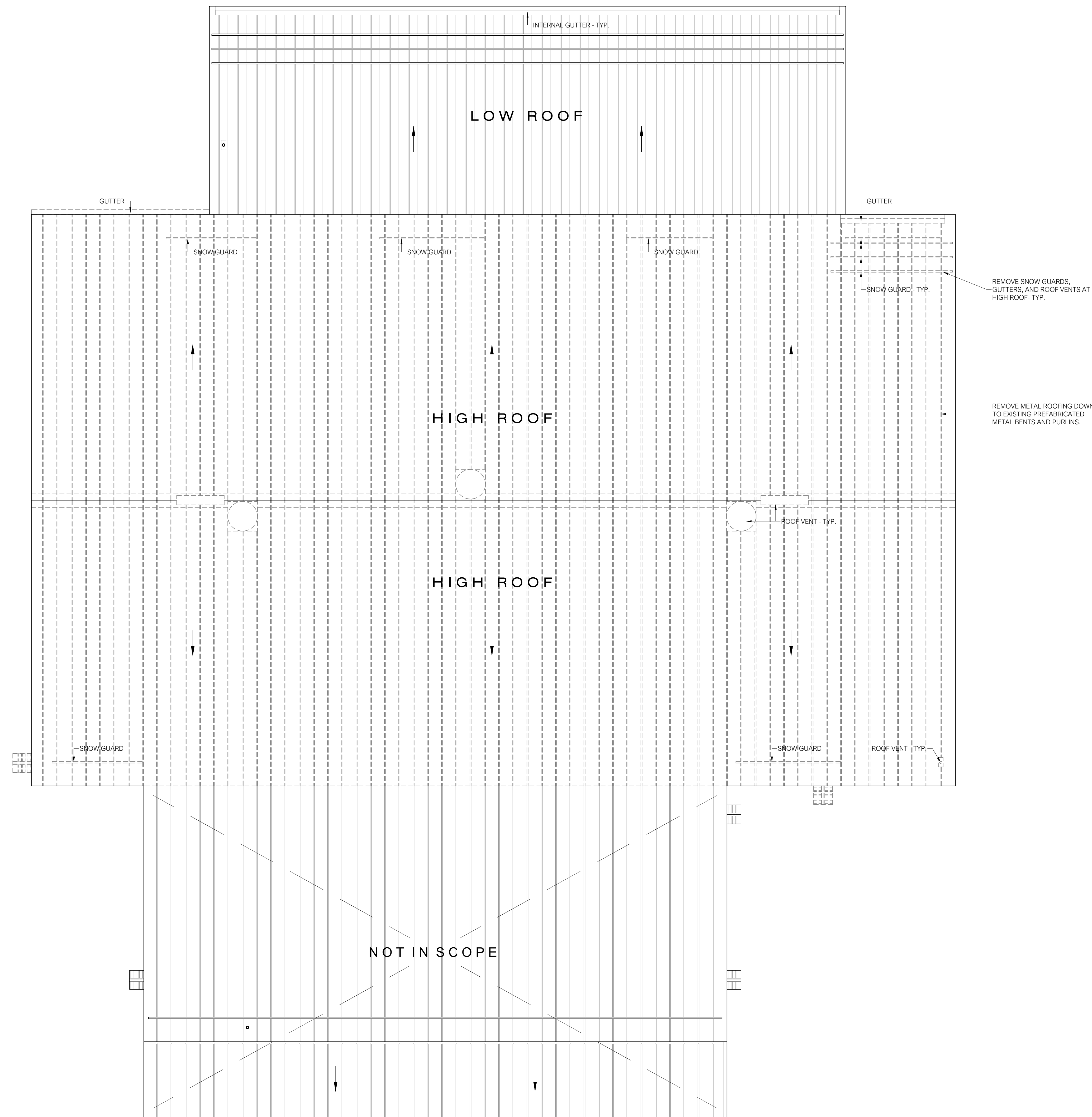
- 1) NO REMOVALS AT LOW ROOF. EXISTING TO REMAIN, UNLESS OTHERWISE NOTED.
- 2) REMOVE ALL ROOFING ACCESSORIES, INCLUDING FASCIA TRIM AND RIDGE CAPS, AT LOCATIONS WHERE METAL ROOFING IS INDICATED TO BE REMOVED.

LEGEND

- EXISTING
- REMOVALS

SCHEMATIC SET 2/11/26

NOT FOR CONSTRUCTION



EXISTING ROOF
3/32" = 1'-0"

1
EA102

10' 0' 20' 40'



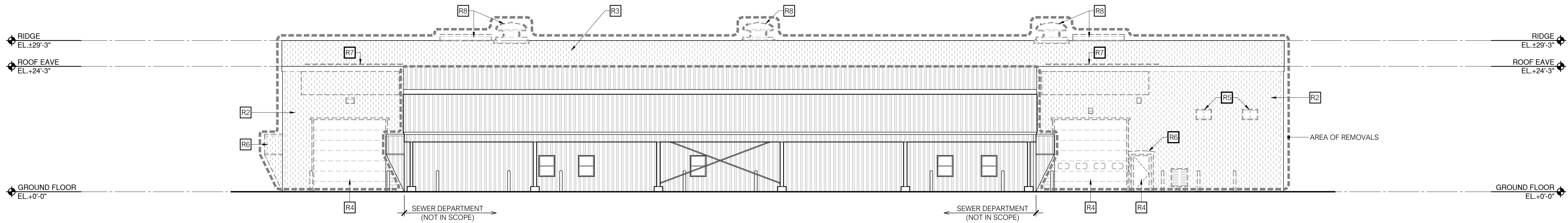
REMOVALS ROOF PLAN

PROJ. NUMBER: 2024122	DRAWN BY: AOS
REV.	DATE

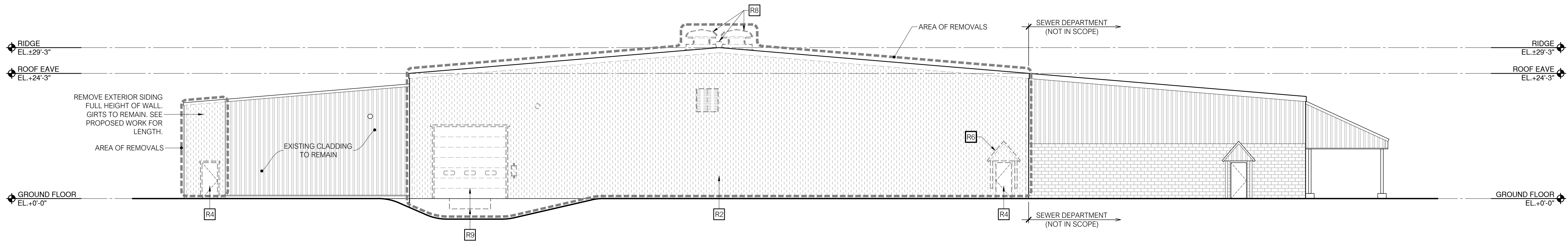
CITY OF BANGOR
BUS BARN RENOVATION
511 MAINE AVENUE, BANGOR, ME

DATE:
OCT, 15 2025

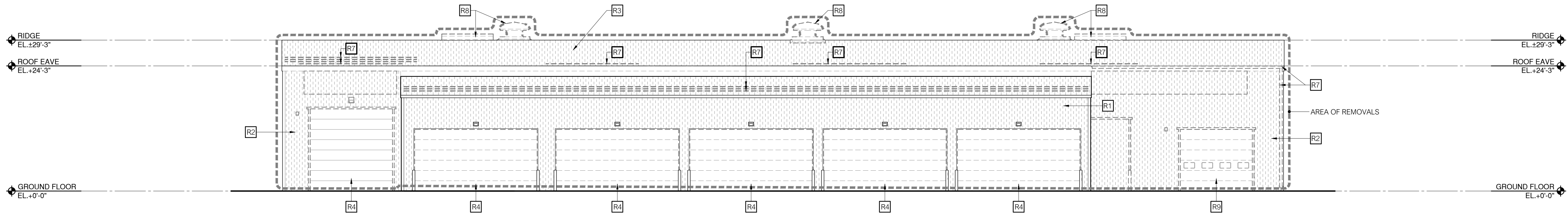
EA102



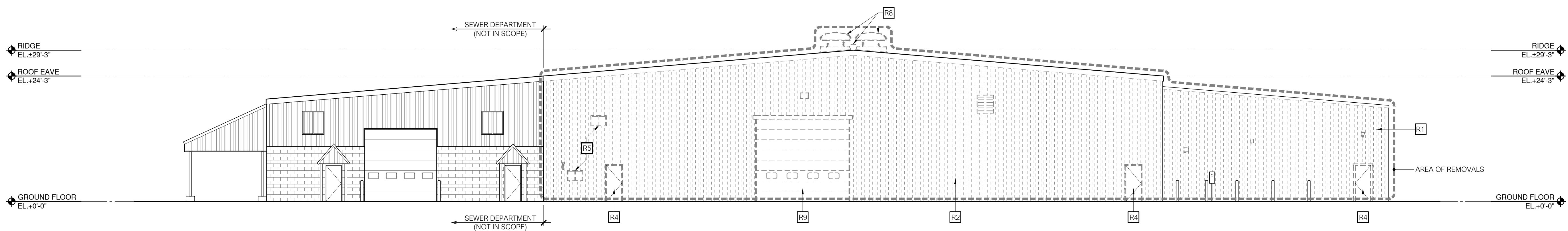
SOUTH ELEVATION
3/32" = 1'-0" 1 EA200



WEST ELEVATION
3/32" = 1'-0" 1 EA200



NORTH ELEVATION
3/32" = 1'-0" 1 EA200



EAST ELEVATION
3/32" = 1'-0" 1 EA200

GENERAL NOTES

- SCOPE OF WORK OUTSIDE THE AREA OF REMOVALS IS EXISTING TO REMAIN, UNLESS OTHERWISE NOTED.
- COORDINATE THE REMOVAL OF EXTERIOR LIGHTING, SECURITY ELEMENTS, MECHANICAL VENTS, AND UTILITY ENTRANCES WITH MEP.
- REMOVE BUILDING SIGNAGE MADE REDUNDANT BY OTHER REMOVALS.

REMOVAL SCHEDULE

- R1 - REMOVE EXISTING SIDING FULL HEIGHT AND LENGTH OF WALL, GIRTS TO REMAIN.
- R2 - REMOVE EXISTING SIDING AND STEEL GIRTS FULL HEIGHT AND LENGTH OF WALL.
- R3 - REMOVE METAL ROOFING DOWN TO EXISTING PREFAB METAL BENTS AND PURLINS
- R4 - REMOVE DOOR FOR REPLACEMENT
- R5 - REMOVE WINDOW
- R6 - REMOVE CANOPY
- R7 - REMOVE SNOWGUARDS, GUTTERS, AND DOWNSPOUTS
- R8 - REMOVE ROOF VENT
- R9 - REMOVE & DISPOSE

LEGEND

- EXISTING
- REMOVALS

SCHEMATIC SET 2/11/26

NOT FOR CONSTRUCTION



175 Exchange Street
Bangor, Maine 04401
Phone: 207-974-3028
www.artifexae.com

EXTERIOR ELEVATION REMOVALS

PROJ. NUMBER: 2024122		DRAWN BY: AOG
REV.	DATE	DESCRIPTION

CITY OF BANGOR
BUS BARN RENOVATION
511 MAINE AVENUE, BANGOR, ME

DATE:
OCT, 15 2025

EA200



ARTIFEX
architects & engineers

175 Exchange Street
Bangor, Maine 04401
Phone: 207-974-3028
www.artifexae.com

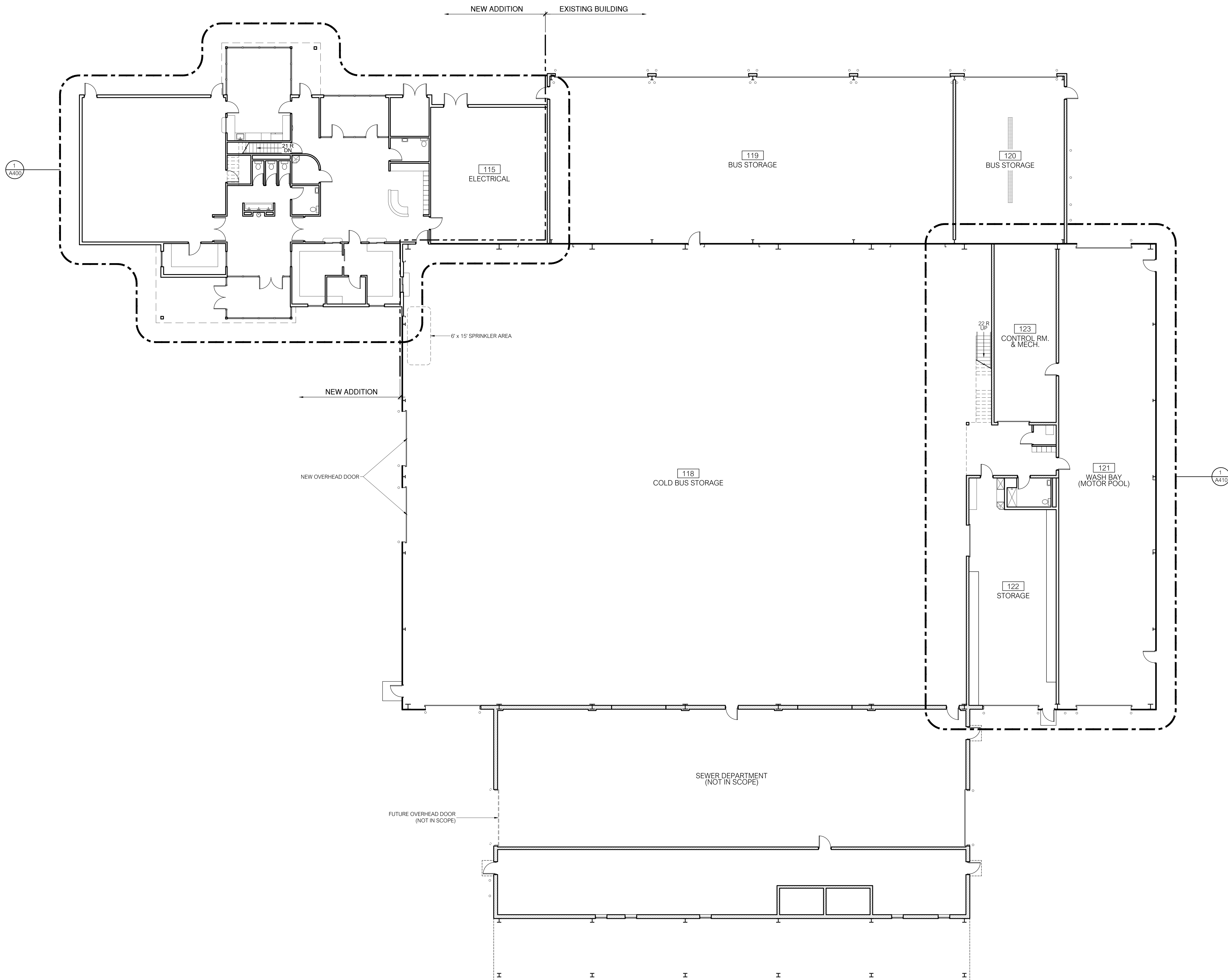
PROPOSED FLOOR PLAN

PROJ. NUMBER: 2024122	DRAWN BY: AOS
REV.	DATE
	DESCRIPTION

CITY OF BANGOR
BUS BARN RENOVATION
511 MAINE AVENUE, BANGOR, ME

DATE:
OCT, 15 2025

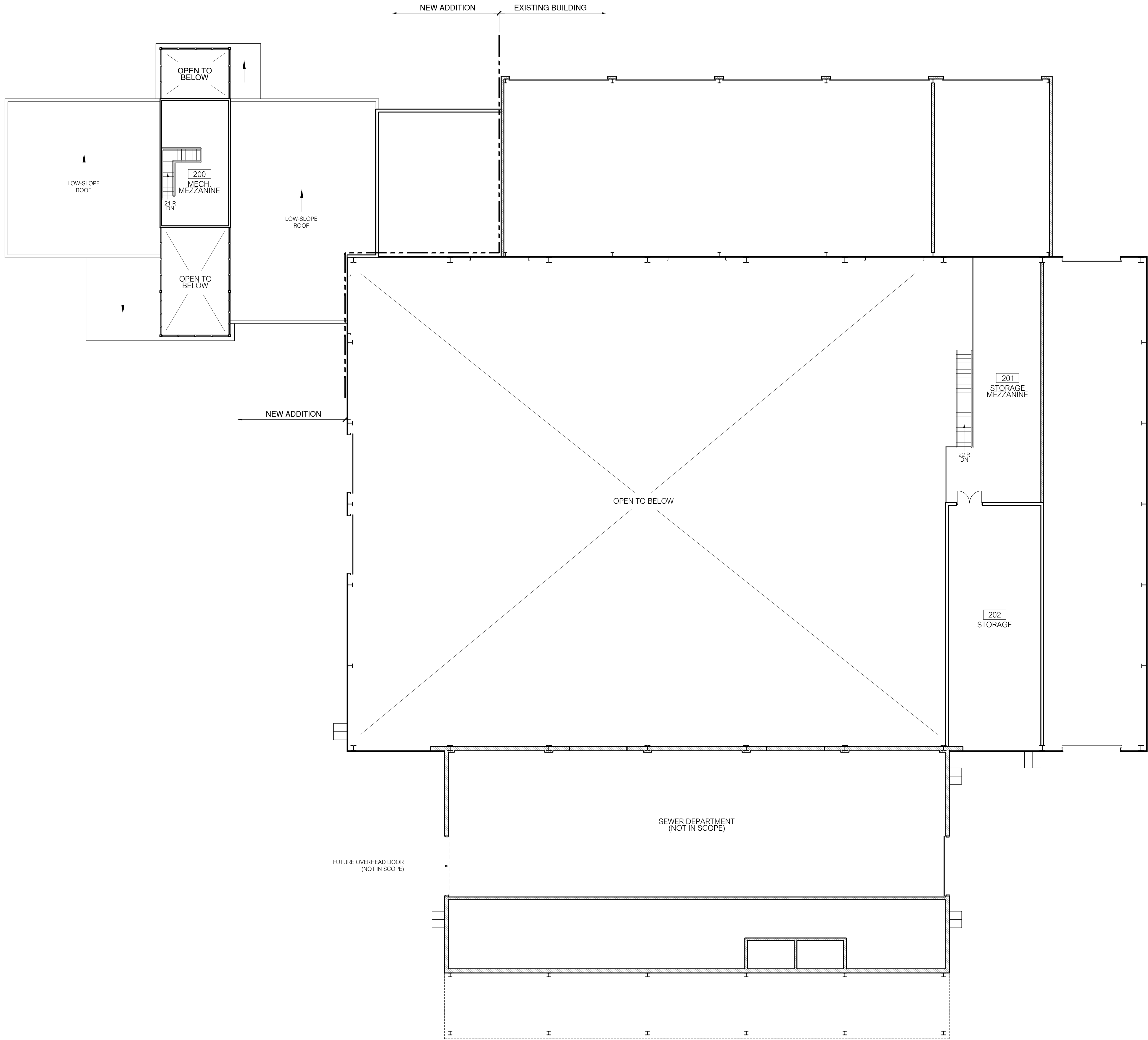
A100



GROUND FLOOR PLAN
3/32" = 1'-0"

1
A100





SCHEMATIC SET 2/11/26

NOT FOR CONSTRUCTION



ARTIFEX
architects & engineers

175 Exchange Street
Bangor, Maine 04401
Phone: 207-974-3028
www.artifexae.com

PROPOSED MEZZANINE PLAN

PROJ. NUMBER: 2024122	DRAWN BY: AOS
REV.	DATE

CITY OF BANGOR
BUS BARN RENOVATION
511 MAINE AVENUE, BANGOR, ME

DATE:
OCT, 15 2025

A101

MEZZANINE FLOOR PLAN
3/32" = 1'-0"

1
A101

10' 0' 20' 40'



NORTH



SCHEMATIC SET 2/11/26

NOT FOR CONSTRUCTION



175 Exchange Street
Bangor, Maine 04401
Phone: 207-974-3028
www.artifexae.com

PROPOSED ROOF PLAN

PROJ. NUMBER: 2024122	DRAWN BY: AOS
REV.	DATE
	DESCRIPTION

CITY OF BANGOR
BUS BARN RENOVATION
511 MAINE AVENUE, BANGOR, ME

DATE:
OCT, 15 2025

A102

ROOF PLAN
3/32" = 1'-0"

1
A102



ARTIFEX
architects & engineers

175 Exchange Street
Bangor, Maine 04401
Phone: 207-974-3028
www.artifexae.com

PROPOSED EXTERIOR ELEVATION

PROJ. NUMBER: 2024122	DRAWN BY: AOS
REV.	DATE
	DESCRIPTION

CITY OF BANGOR
BUS BARN RENOVATION
511 MAINE AVENUE, BANGOR, ME

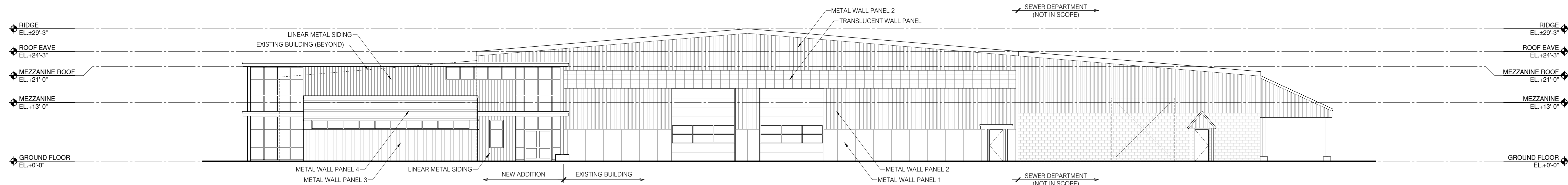
DATE:
OCT, 15 2025

A200



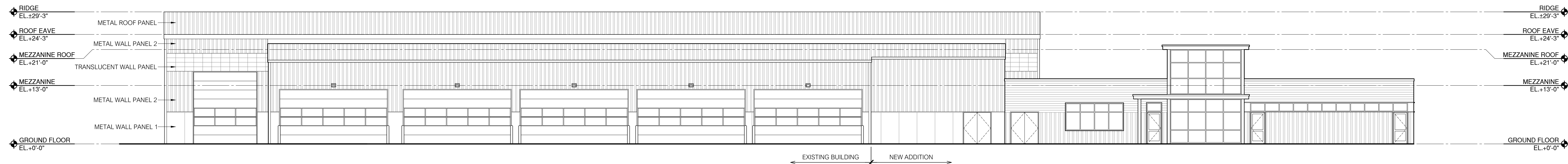
SOUTH ELEVATION
3/32" = 1'-0"

1
A200



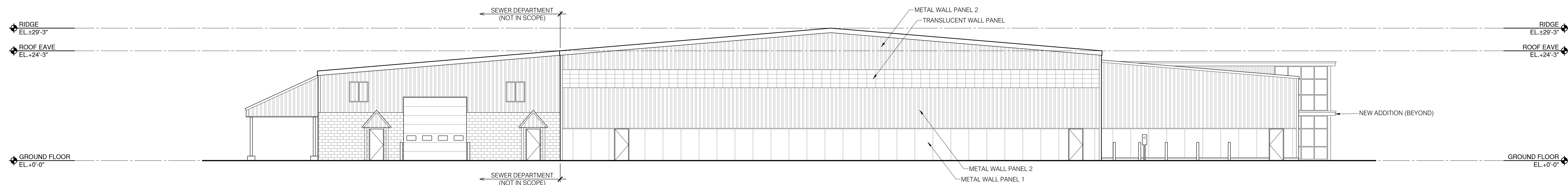
WEST ELEVATION
3/32" = 1'-0"

1
A200



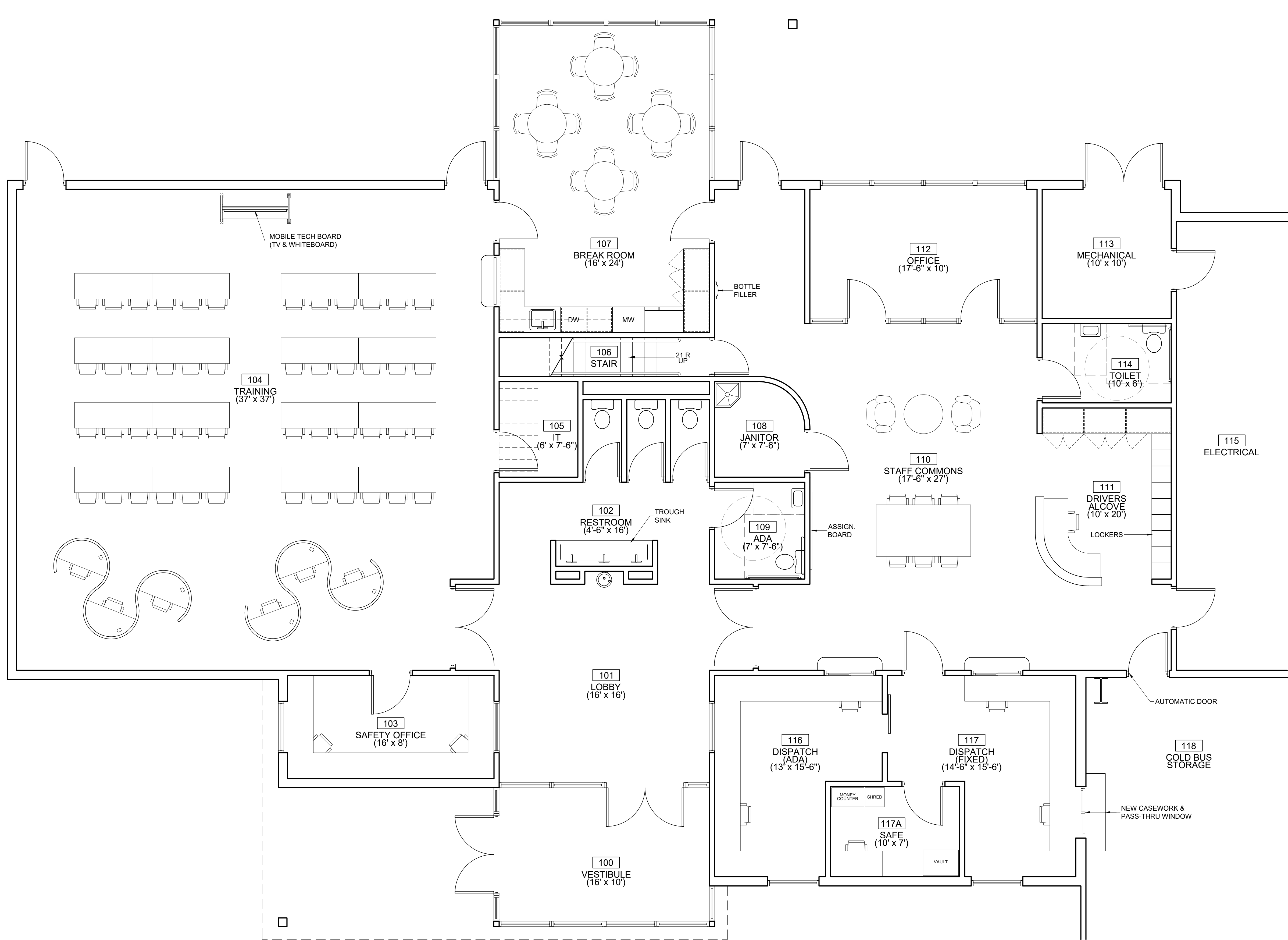
NORTH ELEVATION
3/32" = 1'-0"

1
A200



EAST ELEVATION
3/32" = 1'-0"

1
A200



TRAINING CENTER
1/4" = 1'-0"

1
A400

5' 0' 10' 20'



PROPOSED FLOOR PLAN

PROJ. NUMBER: 2024122	DRAWN BY: AOS
REV.	DATE
	DESCRIPTION

CITY OF BANGOR
BUS BARN RENOVATION
511 MAINE AVENUE, BANGOR, ME

DATE:
OCT, 15 2025

A400



ARTIFEX
architects & engineers

175 Exchange Street
Bangor, Maine 04401
Phone: 207-974-3028
www.artifexae.com

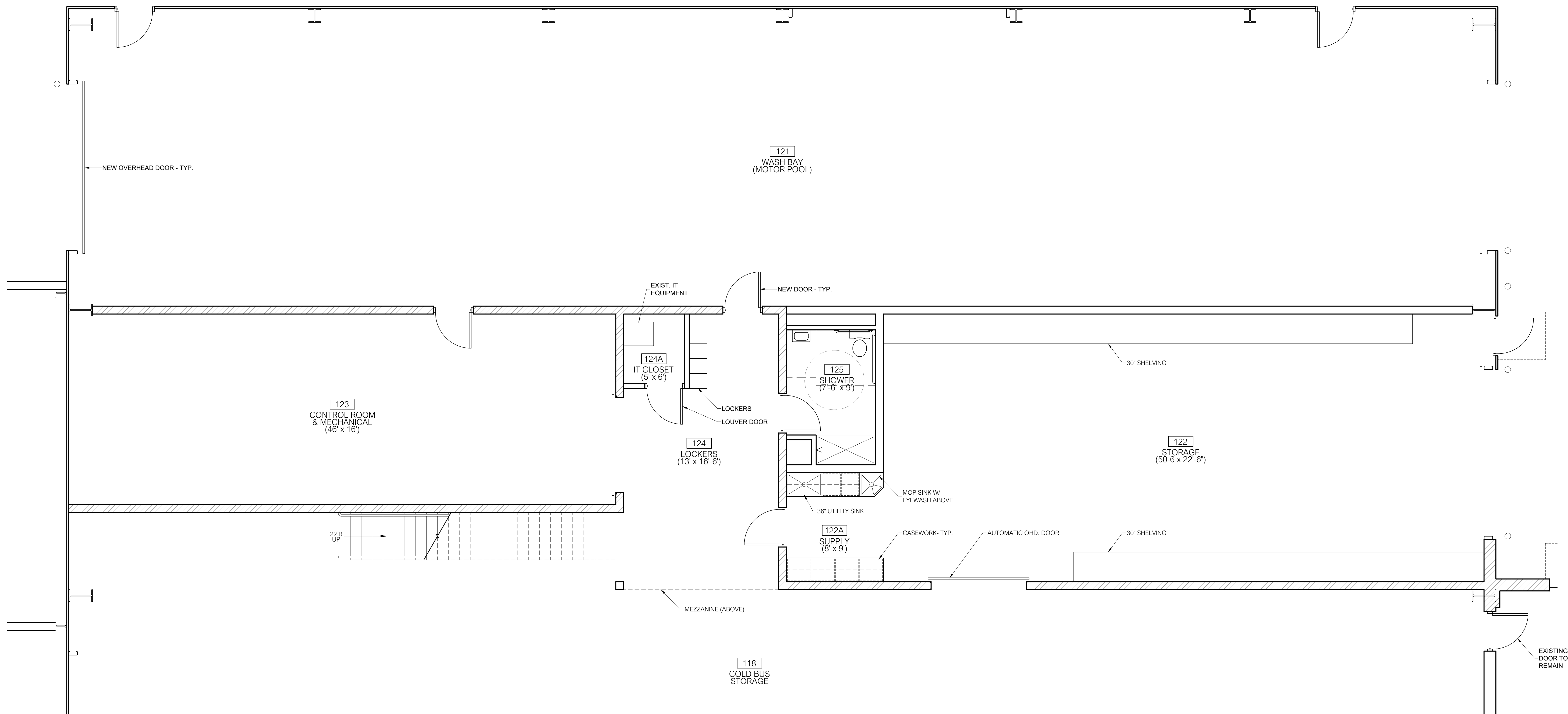
PROPOSED FLOOR PLAN

PROJ. NUMBER: 2024122	DRAWN BY: AJS
REV.	DATE
	DESCRIPTION

CITY OF BANGOR
BUS BARN RENOVATION
511 MAINE AVENUE, BANGOR, ME

DATE:
OCT, 15 2025

A410



CLEANERS & CAR WASH
1/4" = 1'-0"

1
A410

5' 0' 10' 20'





ARTIFEX
architects & engineers

175 Exchange Street
Bangor, Maine 04401
Phone:
207-974-3028
www.artifexae.com

PROGRESS
SET 01.23.2026



Building Services Division
Bedford, NH
MEP/FP Engineers
603-444-6579
Project # 530530

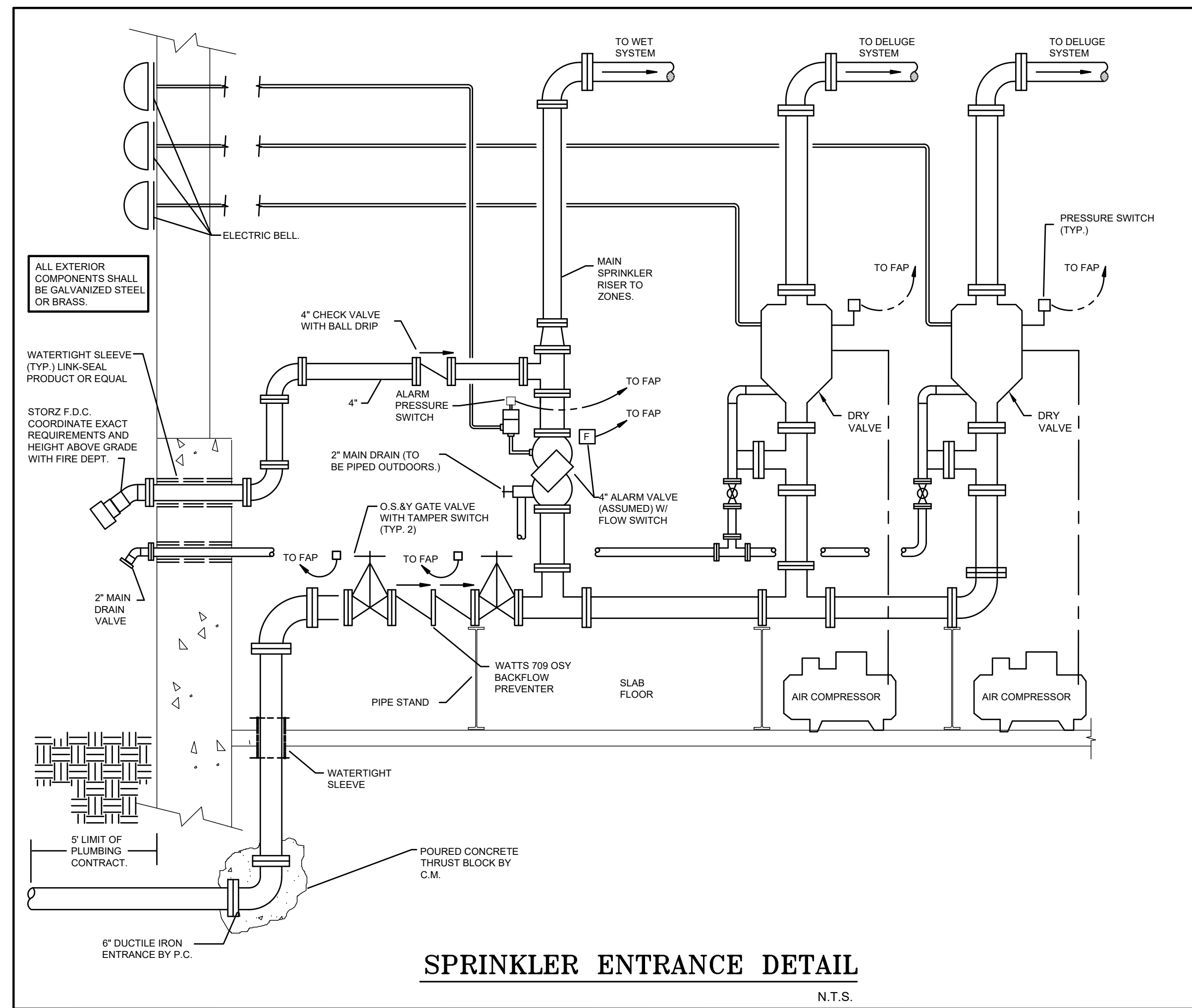
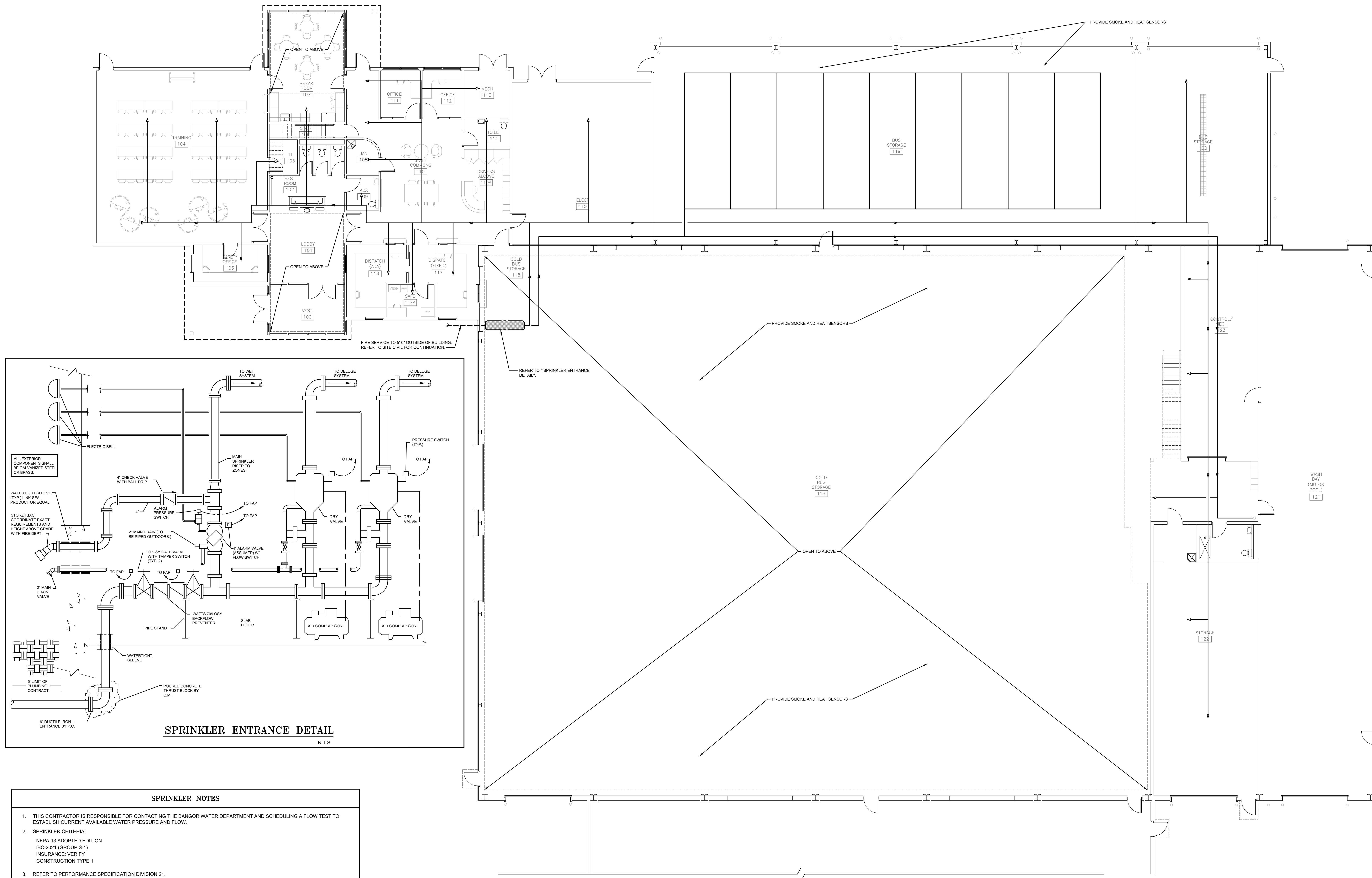
FIRST FLOOR PLAN - FIRE PROTECTION

PROJ. NUMBER: 2024122
REV. DATE
DRAWN BY: DESCRIPTION

CITY OF BANGOR
BUS BARN RENOVATION
511 MAINE AVENUE, BANGOR, ME

DATE:
01-23-2026

FP1.1



SPRINKLER NOTES

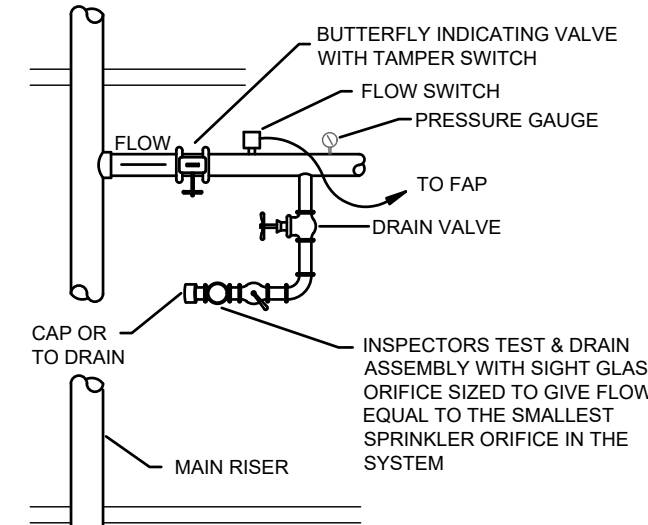
1. THIS CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE BANGOR WATER DEPARTMENT AND SCHEDULING A FLOW TEST TO ESTABLISH CURRENT AVAILABLE WATER PRESSURE AND FLOW.
2. SPRINKLER CRITERIA:
NFPA-13 ADOPTED EDITION
IBC-2021 (GROUP S-1)
INSURANCE: VERIFY
CONSTRUCTION TYPE 1
3. REFER TO PERFORMANCE SPECIFICATION DIVISION 21.
4. ALL SPRINKLER PIPE SIZING SHALL BE THE RESPONSIBILITY OF THE SPRINKLER CONTRACTOR AND SHALL BE DONE BY HYDRAULIC CALCULATIONS METHOD.
5. SPRINKLER ZONES: (INDICATION THRU THE FAS REQUIRED)
ZONE 1 (WET): OFFICES
ZONE 2 (DELUGE): 101 BUS STORAGE
ZONE 3 (DELUGE): 100 COLD BUS STORAGE
6. NOTE: TAMPER SWITCHES ON SHUTOFF VALVES SHALL REPORT "TROUBLE" SIGNAL PER ZONE. FLOW SWITCHES SHALL REPORT "ZONE FLOW" SIGNAL PER ZONE. LOW PRESSURE SWITCHES SHALL SIGNAL "ALARM."
7. INSPECTION/TEST DRAIN ASSEMBLIES SHALL BE PIPED TO GRADE. ALL PIPING SPECIALTIES EXTERIOR OF BUILDING SHALL BE GALVANIZED STEEL.
8. ALL PIPE PENETRATIONS THRU FIRE RATED, SMOKE RATED WALLS AND ALL FLOOR/CEILING ASSEMBLIES SHALL BE SEALED BY SPRINKLER CONTRACTOR AS REQUIRED TO MEET RATING.
9. DO NOT ORDER SPRINKLER HEADS UNTIL APPROVAL IS RECEIVED FROM ARCHITECT FOR ALL AREAS AND APPLICATIONS.
10. REFER TO ARCHITECTURAL PLANS, DETAILS AND SPECIFICATIONS FOR FURTHER BUILDING DEFINITION. COORDINATE HEAD LOCATIONS, PIPING, ETC., WITH OTHER FIXTURES, EQUIPMENT, DUCTWORK, PIPING, ETC.

SCHEMATIC SET 2/11/26

NOT FOR CONSTRUCTION

LEGEND

AFF ABOVE FINISH FLOOR
AHJ AUTHORITY HAVING JURISDICTION
BFP BACKFLOW PREVENTER
C.M. CONSTRUCTION MANAGER
FAP FIRE ALARM PANEL
FAS FIRE ALARM SYSTEM
FDC FIRE DEPARTMENT CONNECTION
NLFD WHITE RIVER JUNCTION FIRE DEPARTMENT
N.T.S. NOT TO SCALE
TYP. TYPICAL
DIRECTION OF FLOW
TAMPER SWITCH
FLOW SWITCH
PIPE RISE
PIPE DROP
SPRINKLER PIPING ROUTE (SCHEMATIC - INTENDED ONLY TO INDICATE LIMITS OF COVERAGE AND PROPOSED WET SYSTEM ZONING. ALL PIPE ROUTES SHALL BE DETERMINED BY THE SPRINKLER CONTRACTOR.)

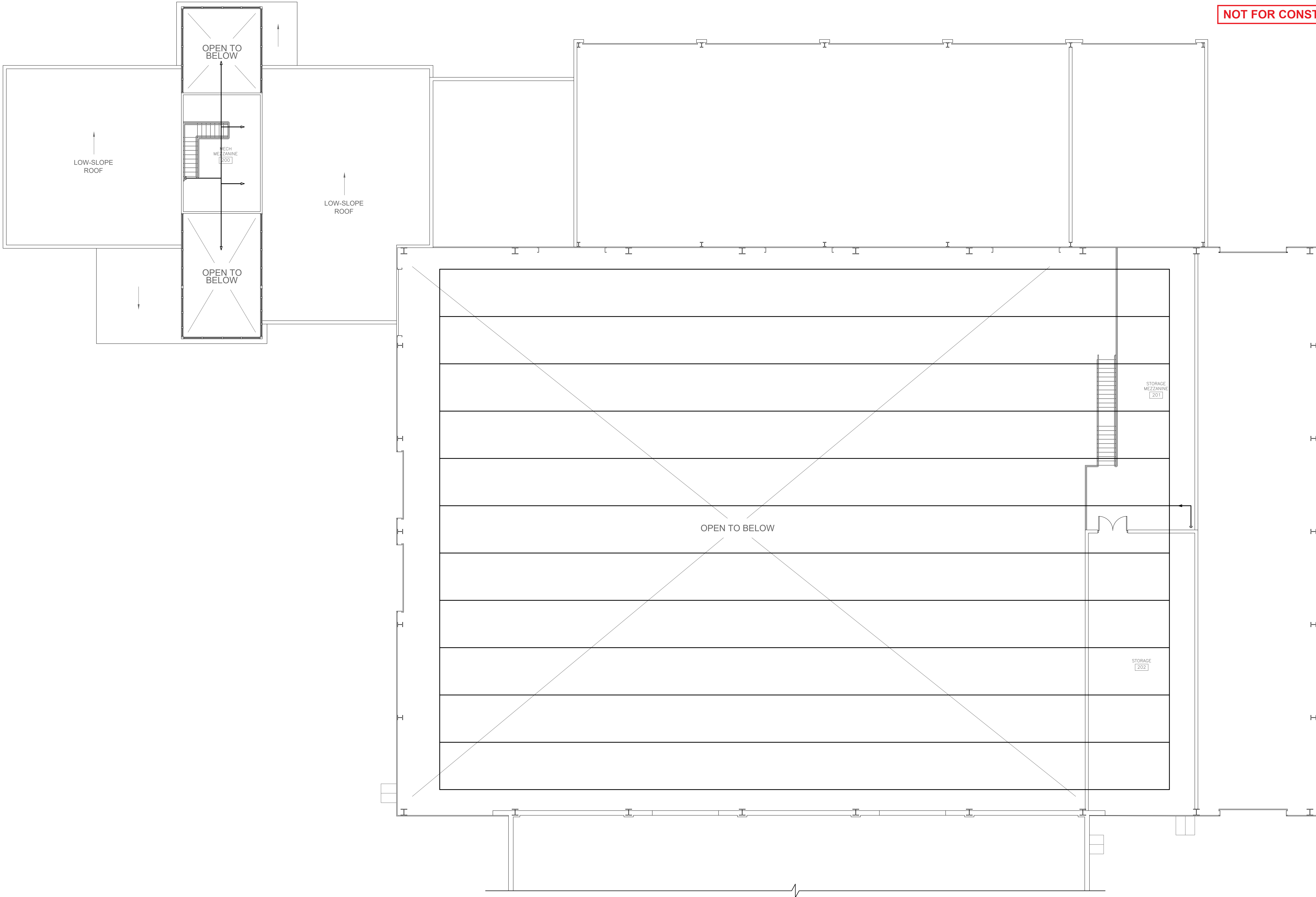


ZONE CONTROL DETAIL
N.T.S.

MEZZANINE PLAN - FIRE PROTECTION			
PROJ. NUMBER: 2024122	DRAWN BY:		
REV.	DATE	DESCRIPTION	

SCHEMATIC SET 2/11/26

NOT FOR CONSTRUCTION





175 Exchange Street
Bangor, Maine 04401
Phone:
207-974-3028
www.artifexae.com

PROGRESS
SET 01.23.2026



Building Services Division
Bedford, NH
MEP/FP Engineers
603.444.6579
Project # 530530

MECHANICAL LEGEND

PROJ. NUMBER:	DRAWN BY:	DESCRIPTION
2024722		
REV.	DATE	

CITY OF BANGOR
BUS BARN RENOVATION
511 MAINE AVENUE, BANGOR, ME

DATE:
01-23-2026

M0.1

MECHANICAL LEGENDS & ABBREVIATIONS

NOTE: NOT ALL SYMBOLS/ABBREVIATIONS SHOWN IN THE LEGEND ARE USED IN THIS DRAWING SET. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY CONTENT SHOWN ON DRAWINGS.

DUCTWORK	PIPING SYSTEMS	CONTROLS & BALANCING	ABBREVIATIONS
RECTANGULAR DUCT, FIRST NUMBER IS DIMENSION IN VIEW OF DRAWING	PUMPED CONDENSATE	CONTROLS WIRING	DIAMETER
ROUND RIGID DUCT	CONDENSATE DRAIN	WALL MOUNTED THERMOSTAT, SUBSCRIPTS: HEATING & COOLING, ARROW POINTS TO DEVICE CONTROLLED	ALL AROUND
SUPPLY/OUTSIDE AIR DUCT ELBOW UP/DOWN	REFRIGERATED LIQUID	UNIT MOUNTED THERMOSTAT	AUTOMATIC BALANCE VALVE
RETURN DUCT ELBOW UP/DOWN	REFRIGERANT SUCTION	THERMOSTAT, LINE VOLUME	MOTORIZED VALVE
EXHAUST DUCT ELBOW UP/DOWN	HEATING HOT WATER RETURN	FAN SPEED CONTROL	ACCESS DOOR
RECTANGULAR DUCT 90° MITERED ELBOW WITH TURNING VANES	HEATING HOT WATER SUPPLY	HUMIDISTAT	ABOVE FINISH FLOOR
TYPICAL LONG RADIUS ELBOW, RECTANGULAR/ROUND DUCT	MAKE-UP WATER	AUTOMATIC TEMPERATURE CONTROL	ANALOG OUTPUT
TYPICAL BRANCH DUCT 45° TAKE-OFF W/ VOLUME DAMPER	PIPE FITTINGS	BUILDING AUTOMATION SYSTEM	AIR PRESSURE DROP
DUCT RISE	UNION	BOILER FEEDWATER	ARCHITECT(URAL)
DUCT SET DOWN	STRAINER	BOTTOM OF DUCTWORK (ELEVATION)	AUTOMATIC TEMPERATURE CONTROL
FLEXIBLE DUCT	FLOW DIRECTION	BRITISH THERMAL UNITS PER HOUR	AVERAGE WATER TEMPERATURE
FIRE DAMPER	PIPE TURNED UP	BRAKE HORSEPOWER	BUILDING AUTOMATION SYSTEM
SMOKE DAMPER	PIPE TURNED DOWN	BOTTOM OF DUCTWORK (ELEVATION)	BOILER FEEDWATER
FIRE & SMOKE DAMPER	TEE BOTTOM TAKE-OFF	BOTTOM OF DUCTWORK (ELEVATION)	BRAKE HORSEPOWER
DUCT SMOKE DAMPER	TEE TOP TAKE-OFF	BOTTOM OF DUCTWORK (ELEVATION)	BOTTOM OF DUCTWORK (ELEVATION)
DUCT SOUND ATTENUATION LINING	CONCENTRIC REDUCER	BOTTOM OF DUCTWORK (ELEVATION)	BOTTOM OF DUCTWORK (ELEVATION)
BACKDRAFT DAMPER	ECCENTRIC REDUCER	BOTTOM OF DUCTWORK (ELEVATION)	BOTTOM OF DUCTWORK (ELEVATION)
BAROMETRIC RELIEF DAMPER	THERMOMETER	BOTTOM OF DUCTWORK (ELEVATION)	BOTTOM OF DUCTWORK (ELEVATION)
FLEXIBLE DUCT CONNECTOR	AUTOMATIC AIR VENT	BOTTOM OF DUCTWORK (ELEVATION)	BOTTOM OF DUCTWORK (ELEVATION)
EQUIPMENT FLEX CONNECTOR	CIRCULATOR PUMP	BOTTOM OF DUCTWORK (ELEVATION)	BOTTOM OF DUCTWORK (ELEVATION)
ELEVATION OF TOP OF DUCT (TOD) AFF	FLOAT & THERMOSTATIC TRAP	BOTTOM OF DUCTWORK (ELEVATION)	BOTTOM OF DUCTWORK (ELEVATION)
ELEVATION OF BOTTOM OF DUCT (BOD) AFF TRANSFER GRILLE	PIPE CAPPED	BOTTOM OF DUCTWORK (ELEVATION)	BOTTOM OF DUCTWORK (ELEVATION)
DIRECTION OF SUPPLY AIR FLOW	PIPE ANCHOR	BOTTOM OF DUCTWORK (ELEVATION)	BOTTOM OF DUCTWORK (ELEVATION)
DIRECTION OF RETURN OR EXHAUST AIR FLOW	PIPE VALVES	BOTTOM OF DUCTWORK (ELEVATION)	BOTTOM OF DUCTWORK (ELEVATION)
SUPPLY FAN ROOF MOUNTED	GATE VALVE	BOTTOM OF DUCTWORK (ELEVATION)	BOTTOM OF DUCTWORK (ELEVATION)
EXHAUST FAN ROOF MOUNTED	GLOBE VALVE	BOTTOM OF DUCTWORK (ELEVATION)	BOTTOM OF DUCTWORK (ELEVATION)
SMOKE DETECTOR	CHECK VALVE	BOTTOM OF DUCTWORK (ELEVATION)	BOTTOM OF DUCTWORK (ELEVATION)
FAN (SCHEMATIC)	BACKFLOW PREVENTER	BOTTOM OF DUCTWORK (ELEVATION)	BOTTOM OF DUCTWORK (ELEVATION)
SUPPLY AIR DIFFUSER, REGISTER, OR GRILLE	RPZ ASSY	BOTTOM OF DUCTWORK (ELEVATION)	BOTTOM OF DUCTWORK (ELEVATION)
RETURN AIR REGISTER OR GRILLE	BALL VALVE	BOTTOM OF DUCTWORK (ELEVATION)	BOTTOM OF DUCTWORK (ELEVATION)
EXHAUST AIR REGISTER OR GRILLE	SAFETY RELIEF VALVE	BOTTOM OF DUCTWORK (ELEVATION)	BOTTOM OF DUCTWORK (ELEVATION)
	BUTTERFLY VALVE	BOTTOM OF DUCTWORK (ELEVATION)	BOTTOM OF DUCTWORK (ELEVATION)
	TRIPLE DUTY VALVE	BOTTOM OF DUCTWORK (ELEVATION)	BOTTOM OF DUCTWORK (ELEVATION)
	TWO-WAY MOTORIZED VALVE	BOTTOM OF DUCTWORK (ELEVATION)	BOTTOM OF DUCTWORK (ELEVATION)
	THREE-WAY MOTORIZED VALVE	BOTTOM OF DUCTWORK (ELEVATION)	BOTTOM OF DUCTWORK (ELEVATION)
	PRESSURE REGULATING VALVE	BOTTOM OF DUCTWORK (ELEVATION)	BOTTOM OF DUCTWORK (ELEVATION)
	GAS COCK	BOTTOM OF DUCTWORK (ELEVATION)	BOTTOM OF DUCTWORK (ELEVATION)
	PRESSURE GAUGE WITH VALVE	BOTTOM OF DUCTWORK (ELEVATION)	BOTTOM OF DUCTWORK (ELEVATION)
		DRAWING NOTATIONS	
		PHASE OR ROUND DIAMETER	
		DEMO LINE	
		EXISTING LINE	
		REVISION CLOUD WITH REVISION NUMBER	
		POINT OF CONNECTION	
		POINT OF DISCONNECT	
		MOTORIZED EQUIPMENT ABBREVIATION	
		MOTORIZED EQUIPMENT NUMBER	
		NON-MOTORIZED EQUIPMENT ABBREVIATION	
		NON-MOTORIZED EQUIPMENT NUMBER	
		DETAIL NUMBER	
		DRAWING NUMBER	
		SECTION LETTER	
		SHEET NUMBER WHERE SECTION VIEW IS SHOWN	
		RADIATION TAG	
		LENGTH OF RADIATION ELEMENT	
		REGISTER, GRILLE & DIFFUSER TAG	
		CFM	

MECHANICAL GENERAL NOTES

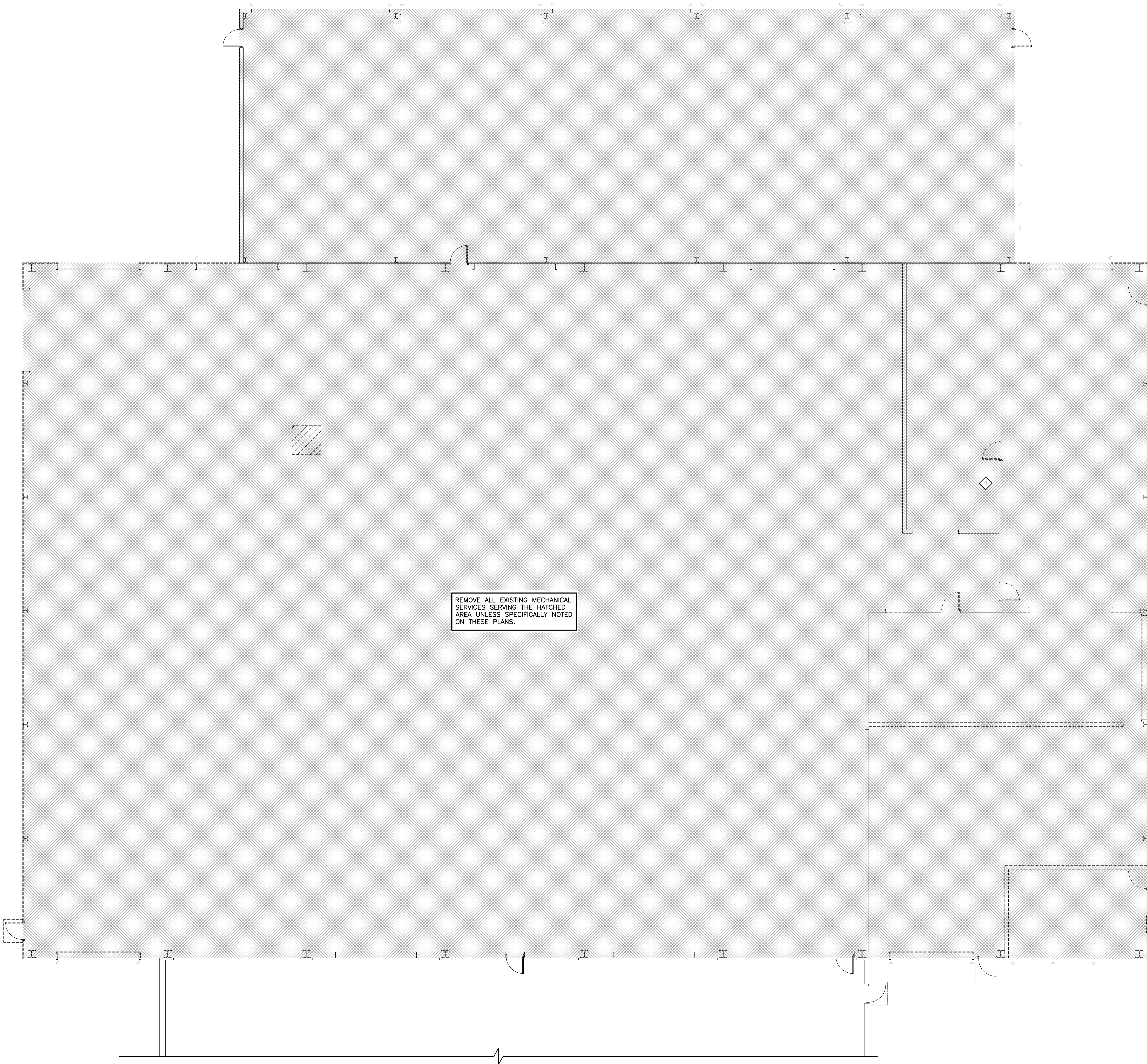
- A. GENERAL**
- DO NOT SCALE DRAWINGS. CONTRACTOR SHALL VERIFY ALL DIMENSIONS & CONDITIONS IN THE FIELD AND SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY & ALL DISCREPANCIES.
 - IT IS NOT INTENDED THAT THE DRAWINGS SHOW EVERY PIPE, FITTING OR MINOR DETAIL. SYSTEM & COMPONENTS SHALL BE INSTALLED ACCORDING TO THE INTENT AND MEANING OF CONTRACT DOCUMENTS AND IN ACCORDANCE WITH GOOD PRACTICE.
 - CONTRACTOR IS RESPONSIBLE TO PROVIDE COMPLETE AND OPERATIONAL SYSTEMS WITH FACILITIES AND SERVICES TO MEET REQUIREMENTS INDICATED AND IN ACCORDANCE WITH APPLICABLE CODES AND ORDINANCES.
 - EQUIPMENT AND COMPONENTS HAVING EQUAL PERFORMANCE CHARACTERISTICS BY OTHER MANUFACTURERS MAY BE CONSIDERED, PROVIDED DEVIATIONS IN DIMENSIONS, OPERATION AND OTHER CHARACTERISTICS DO NOT CHANGE DESIGN CONCEPT OR INTENDED PERFORMANCE AS JUDGED BY THE ENGINEER. BURDEN OF PROOF OF EQUALITY OF PRODUCTS IS ON THE CONTRACTOR.
 - CONTRACTOR IS RESPONSIBLE FOR THE SAFEKEEPING OF HIS OWN PROPERTY ON THE JOB SITE. OWNER ASSUMES NO RESPONSIBILITY FOR THE PROTECTION OF PROPERTIES AGAINST FIRE, THEFT AND ENVIRONMENTAL CONDITIONS.
 - CONTRACTOR IS RESPONSIBLE TO PROPERLY PROTECT OWNER'S PROPERTY AND EQUIPMENT FROM INJURY, AND DAMAGE TO SAME SHALL BE REPLACED BY CONTRACTOR.
 - CONTRACTOR IS TO CLEAN JOB SITE DAILY AND REMOVE FROM THE PREMISES ANY DIRT AND DEBRIS CAUSED BY THE PERFORMANCE OF THE WORK INCLUDED IN THIS CONTRACT.
 - ALL WORK TO BE PERFORMED IN A CLEAN AND WORKMANLIKE MANNER, CARE SHALL BE EXERCISED TO MINIMIZE ANY INCONVENIENCE OR DISTURBANCE TO OTHER AREAS OF THE BUILDING WHICH ARE TO REMAIN IN OPERATION.
 - ISOLATE CONSTRUCTION AREAS BY MEANS OF TEMPORARY PARTITIONS AND/OR TARPS TO KEEP DUST AND DIRT WITHIN WORK AREA.
 - CONTRACTOR IS RESPONSIBLE TO PROPERLY SECURE AREAS OF CONSTRUCTION AT THE END OF EACH WORKING DAY.
 - ALL OPENINGS TO BE CLOSED WITH TAMPER-PROOF SCREWS. NO TOOLS SHALL BE LEFT UNATTENDED AT ANY TIME.
 - ALL ROUGH OPENINGS THRU EXTERIOR WALLS SHALL BE SEALED/CAULKED WATERTIGHT WITH ELASTOMERIC SEALANT.
 - FIRE AND MOISTURE SEAL ALL DUCT AND PIPE PENETRATIONS THRU GENERAL CONSTRUCTION IN ACCORDANCE WITH DIVISION 7.
 - MOUNTING HEIGHTS FOR THERMOSTATS, EQUIPMENT ON/OFF SWITCHES, ETC., LOCATED IN HANDICAP ACCESSIBLE SPACES SHALL BE 48" TO TOP OF CONTROL, UNLESS NOTED OTHERWISE BY ARCHITECT. REFER TO ARCHITECTURAL ELEVATIONS FOR FURTHER DETAILS.
 - ALL WORK IN INTERIOR FINISHED SPACES EXCEPT WHERE INDICATED IS TO BE CONCEALED ABOVE CEILING. PROVIDE ALL NECESSARY CUTTING, PATCHING, REPAINTING AND/OR REPLACEMENT OF FINISHES AS REQUIRED. PERFORM PROPER COORDINATION WITH AFFECTED TRADES.
- B. QUALITY OF WORK**
- IT IS THE INTENT OF THE DRAWINGS AND SPECIFICATIONS TO OBTAIN A COMPLETE AND SATISFACTORY INSTALLATION. AN ATTEMPT HAS BEEN MADE TO SEPARATE AND DEFINE THE WORK OF THE CONTRACTOR. DRAWINGS ARE DIAGRAMMATIC, BUT MUST BE FOLLOWED AS CLOSELY AS ACTUAL CONSTRUCTION OF THE FACILITY AND WORK OF OTHER TRADES WILL PERMIT. THE DRAWINGS UTILIZE SYMBOLS AND SCHEMATIC DIAGRAMS TO INDICATE VARIOUS ITEMS OF WORK. THEREFORE, NO INTERPRETATION WILL BE MADE FROM THE LIMITATION OF SYMBOLS AND DIAGRAMS THAT ANY ELEMENTS NECESSARY FOR THE COMPLETE INSTALLATION ARE EXCLUDED. THE ENGINEER IS TO BE NOTIFIED OF ANY DISCREPANCIES, OMISSIONS, CONFLICTS, OR INTERFERENCE WHICH OCCUR BETWEEN VARIOUS DRAWINGS AND SPECIFICATIONS. IF SUCH NOTIFICATION IS NOT RECEIVED, THE INSTALLING CONTRACTOR(S) IS TO BE RESPONSIBLE FOR THEIR INTERPRETATIONS.
 - "PROVIDE" MEANS "FURNISH AND INSTALL" AND MUST INCLUDE ALL EQUIPMENT (THAT INCLUDE THE ACCESSORIES, SUPPORTS, FITTINGS AND OTHER INCIDENTAL MATERIAL NEEDED FOR THE EQUIPMENT), DEVICES, HARDWARE, MOUNTS, LABOR, RIGGING, SUBCONTRACTS, ETC., THAT RESULT IN A COMPLETE AND FUNCTIONAL PROJECT INDICATED ON THE DRAWINGS, AS SPECIFIED AND AS REQUIRED BY CODE. MINOR ITEMS TO FINISH THE WORK SUCH AS PATCHING, BLOCKING, TRIM, TOUCH-UP PAINT, ETC., SHALL BE PROVIDED WHETHER OR NOT INDICATED IN THE CONTRACT DOCUMENTS.
 - LOCATE ALL TEMPERATURE, PRESSURE, AND FLOW MEASURING DEVICES IN ACCESSIBLE LOCATIONS IN STRAIGHT SECTIONS OF PIPE OR DUCT AS RECOMMENDED BY THE MANUFACTURER. NOTIFY ENGINEER FOR FIELD REVIEW IF CONSTRUCTION WILL NOT ALLOW.
 - WHERE TWO OR MORE ITEMS OF THE SAME TYPE OF EQUIPMENT ARE REQUIRED, THE PRODUCT OF ONE MANUFACTURER IS TO BE USED.
 - ALL WORKMANSHIP, MATERIALS, AND EQUIPMENT IS TO BE GUARANTEED FOR A PERIOD OF ONE YEAR AFTER ACCEPTANCE BY THE OWNER.
 - PROVIDE IDENTIFICATION LABELS FOR NEW EQUIPMENT. AFFIX PERMANENT IDENTIFYING TAGS OR LABELS TO FANS, TERMINAL UNITS, AIR HANDLERS ETC. IDENTIFY SYSTEM ON PIPING AND DUCTWORK MAINS AND INDICATE DIRECTION OF FLOW ON PIPING. INDICATE THE CONTROLLED EQUIPMENT ON WALL MOUNTED CONTROLS.
- C. CODES/PERMITS**
- WORK IS TO BE PERFORMED IN STRICT ACCORDANCE WITH STATE RECOGNIZED BUILDING CODES, NFPA, ASHRAE, UNDERWRITERS LABORATORIES AND ALL MUNICIPAL, STATE AND OTHER AUTHORITIES, PUBLIC AND PRIVATE, HAVING JURISDICTION. REPORT ALL DISCREPANCIES WITH SUCH REGULATIONS TO ENGINEER AND DO NOT PROCEED WITH ANY WORK UNTIL WRITTEN AUTHORIZATION IS RECEIVED FROM THE ENGINEER.
 - ALL NECESSARY FEES, PERMITS, AND APPROVALS AS REQUIRED BY THE WORK OF THESE DRAWINGS AND SPECIFICATIONS IS TO BE OBTAINED AND PAID FOR BY THIS CONTRACTOR.
 - NOTHING CONTAINED IN THE SPECIFICATIONS OR INDICATED ON THESE DRAWINGS IS TO BE CONSTRUED TO CONFLICT WITH APPLICABLE PORTIONS OF ANY LAWS, ORDINANCES, REGULATIONS, OR CODES.
- D. COORDINATION OF WORK**
- COORDINATE CONSTRUCTION OF ALL MECHANICAL WORK WITH ARCHITECTURAL, STRUCTURAL, CIVIL, PLUMBING, AND ELECTRICAL WORK - NEW OR EXISTING.
 - CONTRACTOR IS RESPONSIBLE TO PRODUCE FOR REVIEW AND APPROVAL COORDINATION DRAWINGS OF ALL TRADES BEFORE COMMENCEMENT OF INSTALLATION. ANY INSTALLATION WORK COMPLETED BEFORE REVIEW AND APPROVAL OF COORDINATION DRAWINGS IS AT CONTRACTORS OWN RISK AND CHANGE ORDERS SHALL NOT BE ENTERAINED FOR ANY REQUIRED REWORK.
 - WHEN MECHANICAL WORK (HVAC, PLUMBING, FIRE PROTECTION, ETC.) IS SUBCONTRACTED, IT IS TO BE THE MECHANICAL CONTRACTOR'S RESPONSIBILITY TO COORDINATE SUBCONTRACTORS AND THE ASSOCIATED CONTRACTS. WHEN DISCREPANCIES TO WHICH CONTRACTOR PROVIDES A PARTICULAR ITEM OF THE MECHANICAL CONTRACT OR WHICH CONTRACTOR PROVIDES FINAL CONNECTIONS FOR A PARTICULAR ITEM OF THE MECHANICAL CONTRACT, IT MUST BE BROUGHT TO THE ATTENTION OF THE MECHANICAL CONTRACTOR, WHOSE DECISION IS FINAL.
 - THE LOCATIONS OF ALL ITEMS SHOWN ON THE DRAWINGS OR CALLED FOR IN THE SPECIFICATIONS ARE APPROXIMATE AND NOT DEFINITELY FIXED BY DIMENSIONS. THE EXACT LOCATIONS NECESSARY TO SECURE THE BEST CONDITIONS AND RESULTS MUST BE DETERMINED BY THE PROJECT SITE CONDITIONS. CASES WHERE THERE ARE MAJOR CONFLICTS THE CONTRACTOR MUST NOTIFY THE ENGINEER FOR FIELD REVIEW. DO NOT SCALE THE DRAWINGS.
 - PROVIDE LOCATIONS OF REQUIRED ACCESS PANELS FOR INSTALLATION IN WALLS AND CEILINGS TO SERVICE VALVES, DAMPERS, AND OTHER CONCEALED MECHANICAL EQUIPMENT. GENERAL CONTRACTOR IS TO FURNISH & INSTALL ACCESS PANELS. COORDINATE ACCESS DOOR LOCATIONS WITH ARCHITECT AND INTERIOR DESIGNER.
 - COORDINATE LOCATIONS AND SIZES OF ALL FLOOR, WALL, AND ROOF OPENINGS WITH ALL OTHER TRADES INVOLVED. ALL OPENINGS IN FIRE WALLS, FLOORS AND RATED PARTITIONS FOR PIPING, CONDUIT, ETC., ARE TO BE FIRE STOPPED WITH A UL APPROVED SYSTEM.
- E. PIPING**
- SEE PIPING PLAN SHEETS FOR PIPING GENERAL NOTES.
- F. DUCTWORK**
- SEE DUCTWORK PLANS SHEETS FOR DUCTWORK GENERAL NOTES.
- G. WARRANTY**
- GUARANTEE ALL WORK PERFORMED AND MATERIALS AND EQUIPMENT INSTALLED TO THE FULL EXTENT REQUIRED BY THE DRAWINGS AND SPECIFICATIONS TO BE FREE FROM INHERENT DEFECTS OF MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE.
 - REPLACE ANY MATERIAL AND EQUIPMENT PRIOR TO THE FINAL ACCEPTANCE WHICH IS CORRODED OR OTHERWISE DAMAGED THROUGH THE MECHANICAL CONTRACTOR'S FAILURE TO PROPERLY OPERATE AND MAINTAIN THE INSTALLATION DURING OPERATION OR RETESTING.
 - KEEP THE WORK IN REPAIR AND REPLACE ANY DEFECTIVE MATERIALS, EQUIPMENT, OR WORKMANSHIP UPON NOTICE FROM THE ENGINEER OR OWNER'S REPRESENTATIVE FOR A PERIOD OF ONE YEAR FROM DATE OF ACCEPTANCE.
- H. INSURANCE**
- THE CONTRACTOR MUST, DURING THE LIFE OF THE CONTRACT, MAINTAIN IN FORCE, SUCH INSURANCE AS IS REQUIRED OF THE PRIME CONTRACTOR IN THE GENERAL CONDITIONS OF THE CONTRACT; AND IS TO FURNISH THE PRIME CONTRACTOR AND THE OWNER WITH CERTIFICATION OF SUCH INSURANCE BEFORE BEGINNING WORK ON THIS SECTION OF CONTRACT.
- I. DOCUMENTATION**
- PROVIDE AN ENTIRE SET OF PROJECT CLOSE-OUT DOCUMENTS TO OWNER PER CONTRACT DOCUMENTS. PACKAGE MUST CONTAIN ENTIRE O&M MANUALS WITH PROJECT SUBMITTALS AND SUBMITTAL COMMENTS, TAB REPORTS, TEST REPORTS, AND RECORD DRAWINGS, PLUS ADMINISTRATIVE DOCUMENTS.

MECHANICAL DEMOLITION PLAN			
PROJ. NUMBER: 2024122	DRAWN BY:		
REV.	DATE	DESCRIPTION	

CITY OF BANGOR BUS BARN RENOVATION 511 MAINE AVENUE, BANGOR, ME	
DATE:	01-23-2026

SCHEMATIC SET 2/11/26

NOT FOR CONSTRUCTION

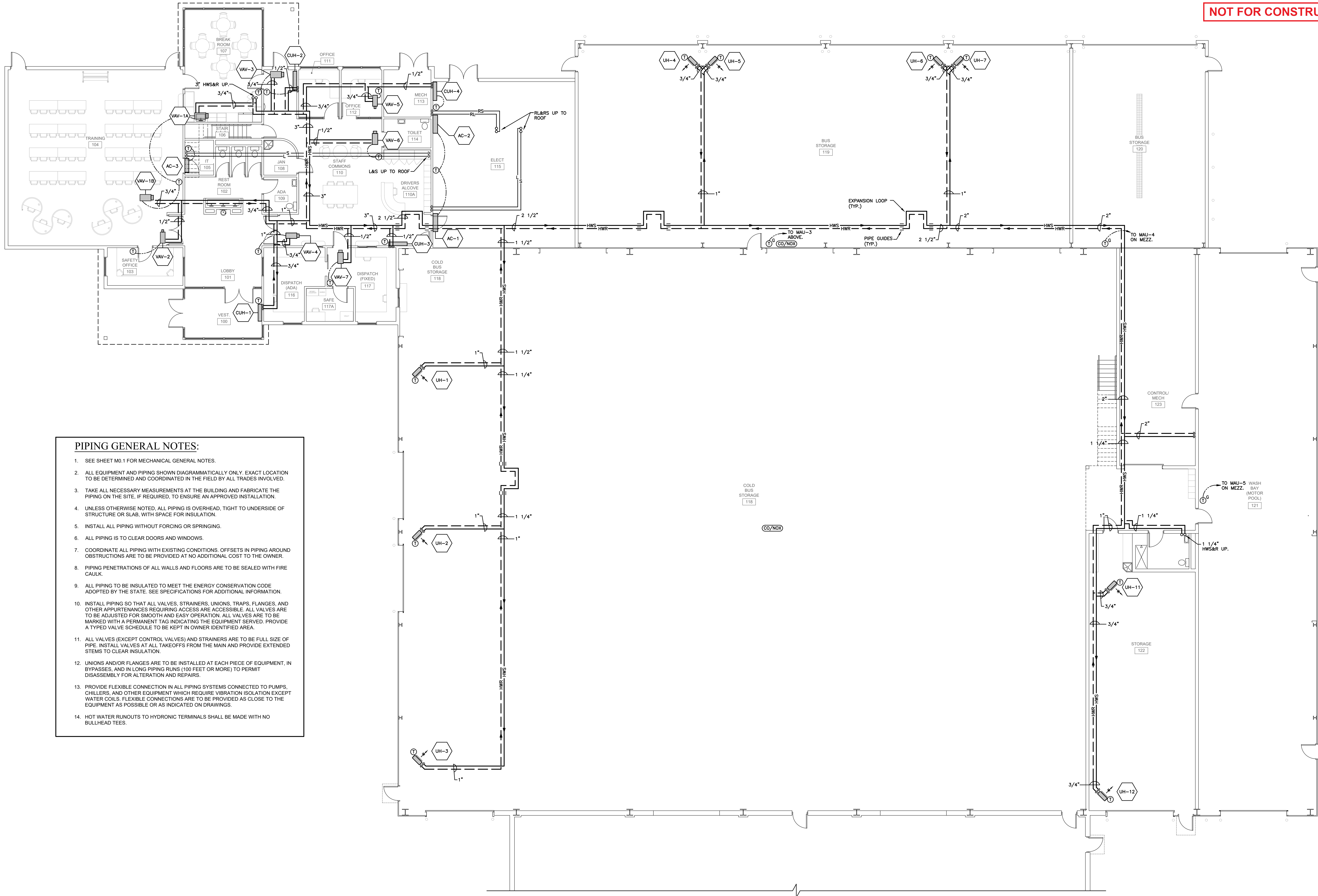


DEMOLISHED EQUIPMENT NOTE

THE OWNER SHALL HAVE FIRST REFUSAL OF ALL EXISTING EQUIPMENT REMOVED FROM THIS PROJECT. REVIEW WITH THE OWNER PRIOR TO REMOVING ANY EQUIPMENT FROM THE SITE.

MECHANICAL DEMOLITION KEYNOTES '◇'

1. REMOVE EXISTING BOILER COMPLETE INCLUDING ALL SPECIALTIES, WIRING, AND CONTROLS. EXISTING IN-FLOOR HEATING SYSTEM TO REMAIN. CAP PIPING TO IN-FLOOR HEATING SYSTEM AND PREPARE FOR CONNECTION TO NEW HEATING HOT WATER SYSTEM.



PIPING GENERAL NOTES:

1. SEE SHEET M0.1 FOR MECHANICAL GENERAL NOTES.
2. ALL EQUIPMENT AND PIPING SHOWN DIAGRAMMATICALLY ONLY. EXACT LOCATION TO BE DETERMINED AND COORDINATED IN THE FIELD BY ALL TRADES INVOLVED.
3. TAKE ALL NECESSARY MEASUREMENTS AT THE BUILDING AND FABRICATE THE PIPING ON THE SITE, IF REQUIRED, TO ENSURE AN APPROVED INSTALLATION.
4. UNLESS OTHERWISE NOTED, ALL PIPING IS OVERHEAD, TIGHT TO UNDERSIDE OF STRUCTURE OR SLAB, WITH SPACE FOR INSULATION.
5. INSTALL ALL PIPING WITHOUT FORCING OR SPRINGING.
6. ALL PIPING IS TO CLEAR DOORS AND WINDOWS.
7. COORDINATE ALL PIPING WITH EXISTING CONDITIONS. OFFSETS IN PIPING AROUND OBSTRUCTIONS ARE TO BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
8. PIPING PENETRATIONS OF ALL WALLS AND FLOORS ARE TO BE SEALED WITH FIRE CAULK.
9. ALL PIPING TO BE INSULATED TO MEET THE ENERGY CONSERVATION CODE ADOPTED BY THE STATE. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
10. INSTALL PIPING SO THAT ALL VALVES, STRAINERS, UNIONS, TRAPS, FLANGES, AND OTHER APPURTENANCES REQUIRING ACCESS ARE ACCESSIBLE. ALL VALVES ARE TO BE ADJUSTED FOR SMOOTH AND EASY OPERATION. ALL VALVES ARE TO BE MARKED WITH A PERMANENT TAG INDICATING THE EQUIPMENT SERVED. PROVIDE A TYPED VALVE SCHEDULE TO BE KEPT IN OWNER IDENTIFIED AREA.
11. ALL VALVES (EXCEPT CONTROL VALVES) AND STRAINERS ARE TO BE FULL SIZE OF PIPE. INSTALL VALVES AT ALL TAKEOFFS FROM THE MAIN AND PROVIDE EXTENDED STEMS TO CLEAR INSULATION.
12. UNIONS AND/OR FLANGES ARE TO BE INSTALLED AT EACH PIECE OF EQUIPMENT, IN BYPASSES, AND IN LONG PIPING RUNS (100 FEET OR MORE) TO PERMIT DISASSEMBLY FOR ALTERATION AND REPAIRS.
13. PROVIDE FLEXIBLE CONNECTION IN ALL PIPING SYSTEMS CONNECTED TO PUMPS, CHILLERS, AND OTHER EQUIPMENT WHICH REQUIRE VIBRATION ISOLATION EXCEPT WATER COILS. FLEXIBLE CONNECTIONS ARE TO BE PROVIDED AS CLOSE TO THE EQUIPMENT AS POSSIBLE OR AS INDICATED ON DRAWINGS.
14. HOT WATER RUNOUTS TO HYDRONIC TERMINALS SHALL BE MADE WITH NO BULLHEAD TEES.



ARTIFEX
architects & engineers

175 Exchange Street
Bangor, Maine 04401
Phone:
207-974-3028
www.artifexae.com

PROGRESS
SET 01.23.2026



Building Services Division
Bedford, NH
MEP/FP Engineers
603.444.6579
Project # 530530

GROUND FLOOR PLAN - PIPING

PROJ. NUMBER: 2024122		DRAWN BY:
REV.	DATE	DESCRIPTION

CITY OF BANGOR
BUS BARN RENOVATION
511 MAINE AVENUE, BANGOR, ME

DATE:
01-23-2026

M1.1

SCHEMATIC SET 2/11/26

NOT FOR CONSTRUCTION



175 Exchange Street
Bangor, Maine 04401
Phone:
207-974-3028
www.artifexae.com

PROGRESS
SET 01.23.2026



Building Services Division
Bedford, NH
MEP/FP Engineers
603.444.6579
Project # 530530

MEZZANINE PLAN - PIPING

DRAWN BY:

PROJ. NUMBER: 2024122

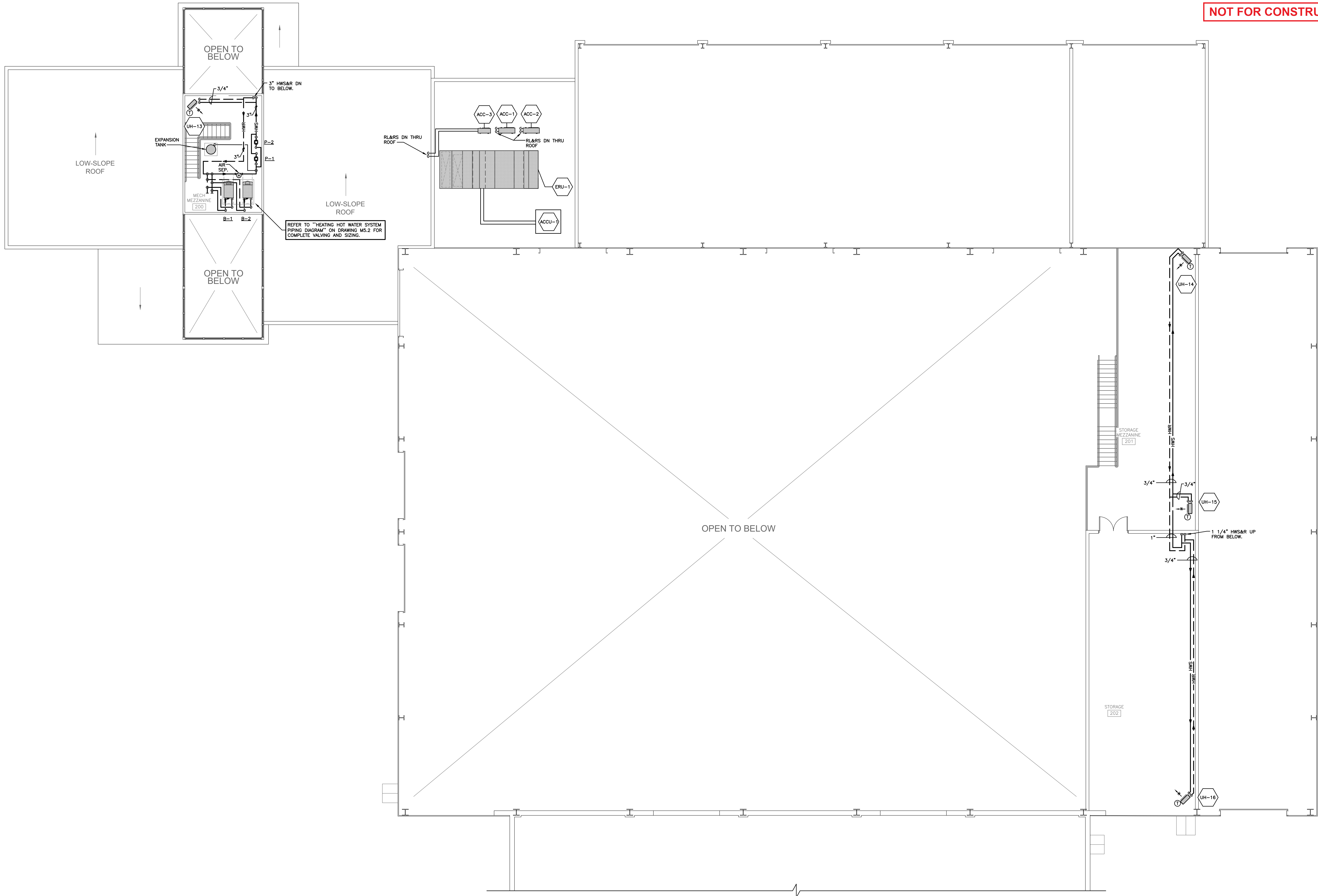
DESCRIPTION

REV. DATE

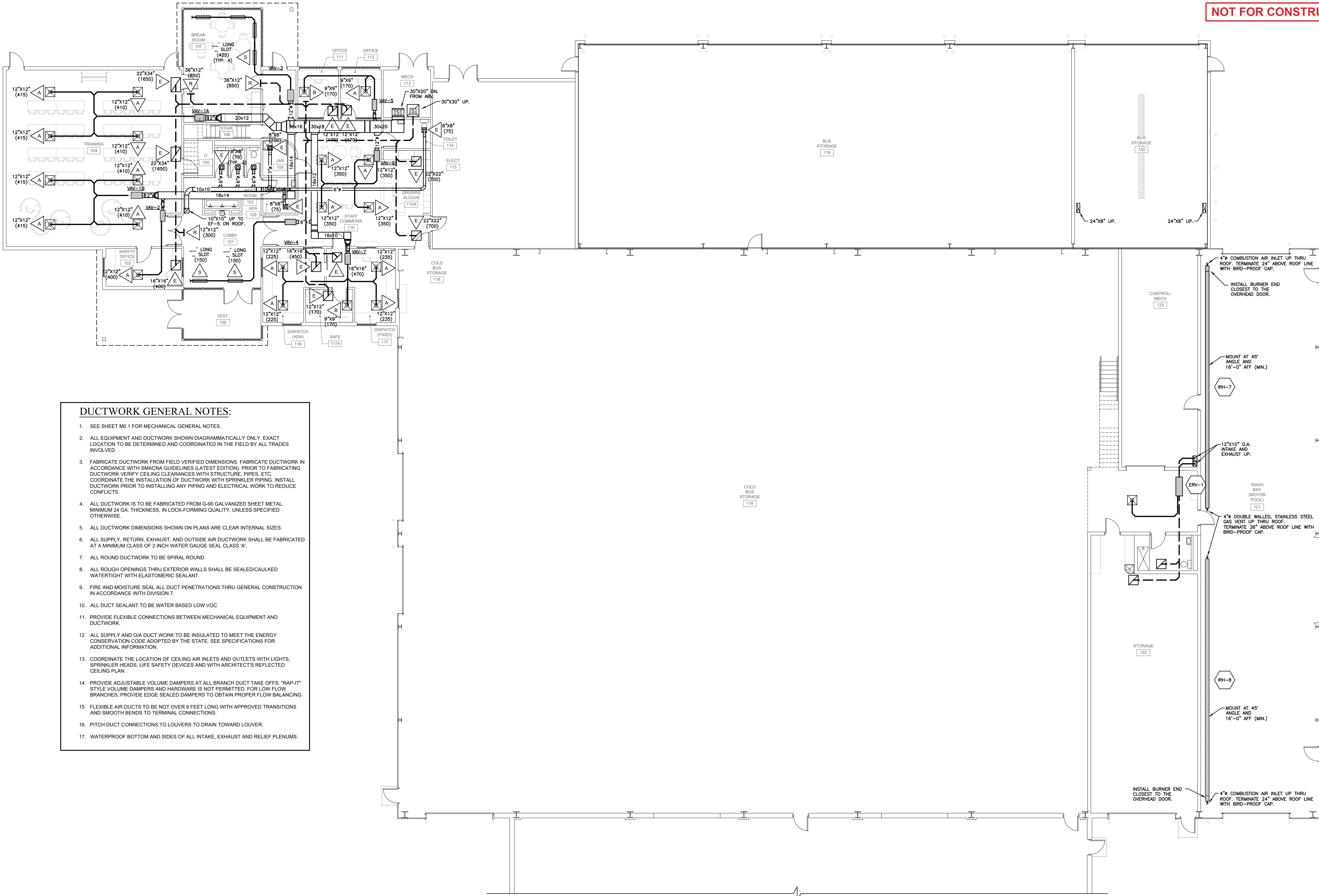
CITY OF BANGOR
BUS BARN RENOVATION
511 MAINE AVENUE, BANGOR, ME

DATE:
01-23-2026

M1.2



Date: 01/20/2026--10:23, Dwg: 530529 M1.3.dwg, Tab: M1.3, User: Ehoffman



DUCTWORK GENERAL NOTES:

- SEE SHEET M0.1 FOR MECHANICAL GENERAL NOTES.
- ALL EQUIPMENT AND DUCTWORK SHOWN DIAGRAMMATICALLY ONLY. EXACT LOCATION TO BE DETERMINED AND COORDINATED IN THE FIELD BY ALL TRADES INVOLVED.
- FABRICATE DUCTWORK FROM FIELD VERIFIED DIMENSIONS. FABRICATE DUCTWORK IN ACCORDANCE WITH SMACNA GUIDELINES (LATEST EDITION). PRIOR TO FABRICATING DUCTWORK VERIFY CEILING CLEARANCES WITH STRUCTURE, PIPES, ETC. COORDINATE THE INSTALLATION OF DUCTWORK WITH SPRINKLER PIPING. INSTALL DUCTWORK PRIOR TO INSTALLING ANY PIPING AND ELECTRICAL WORK TO REDUCE CONFLICTS.
- ALL DUCTWORK IS TO BE FABRICATED FROM G-90 GALVANIZED SHEET METAL, MINIMUM 24 GA. THICKNESS, IN LOCK-FORMING QUALITY, UNLESS SPECIFIED OTHERWISE.
- ALL DUCTWORK DIMENSIONS SHOWN ON PLANS ARE CLEAR INTERNAL SIZES.
- ALL SUPPLY, RETURN, EXHAUST, AND OUTSIDE AIR DUCTWORK SHALL BE FABRICATED AT A MINIMUM CLASS OF 2 INCH WATER GAUGE SEAL CLASS 'A'.
- ALL ROUND DUCTWORK TO BE SPIRAL ROUND.
- ALL ROUGH OPENINGS THRU EXTERIOR WALLS SHALL BE SEALED/CAULKED WATERTIGHT WITH ELASTOMERIC SEALANT.
- FIRE AND MOISTURE SEAL ALL DUCT PENETRATIONS THRU GENERAL CONSTRUCTION IN ACCORDANCE WITH DIVISION 7.
- ALL DUCT SEALANT TO BE WATER BASED LOW VOC.
- PROVIDE FLEXIBLE CONNECTIONS BETWEEN MECHANICAL EQUIPMENT AND DUCTWORK.
- ALL SUPPLY AND O/A DUCT WORK TO BE INSULATED TO MEET THE ENERGY CONSERVATION CODE ADOPTED BY THE STATE. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- COORDINATE THE LOCATION OF CEILING AIR INLETS AND OUTLETS WITH LIGHTS, SPRINKLER HEADS, LIFE SAFETY DEVICES AND WITH ARCHITECT'S REFLECTED CEILING PLAN.
- PROVIDE ADJUSTABLE VOLUME DAMPERS AT ALL BRANCH DUCT TAKE OFF'S. "RAP-IT" STYLE VOLUME DAMPERS AND HARDWARE IS NOT PERMITTED. FOR LOW FLOW BRANCHES, PROVIDE EDGE SEALED DAMPERS TO OBTAIN PROPER FLOW BALANCING.
- FLEXIBLE AIR DUCTS TO BE NOT OVER 6 FEET LONG WITH APPROVED TRANSITIONS AND SMOOTH BENDS TO TERMINAL CONNECTIONS.
- PITCH DUCT CONNECTIONS TO LOUVERS TO DRAIN TOWARD LOUVER.
- WATERPROOF BOTTOM AND SIDES OF ALL INTAKE, EXHAUST AND RELIEF PLENUMS.

SCHEMATIC SET 2/11/26

NOT FOR CONSTRUCTION



ARTIFEX
architects & engineers

175 Exchange Street
Bangor, Maine 04401
Phone:
207-974-3028
www.artifexae.com

PROGRESS
SET 01.23.2026



Building Services Division
Bedford, NH
MEP/FP Engineers
603.444.6579
Project # 530530

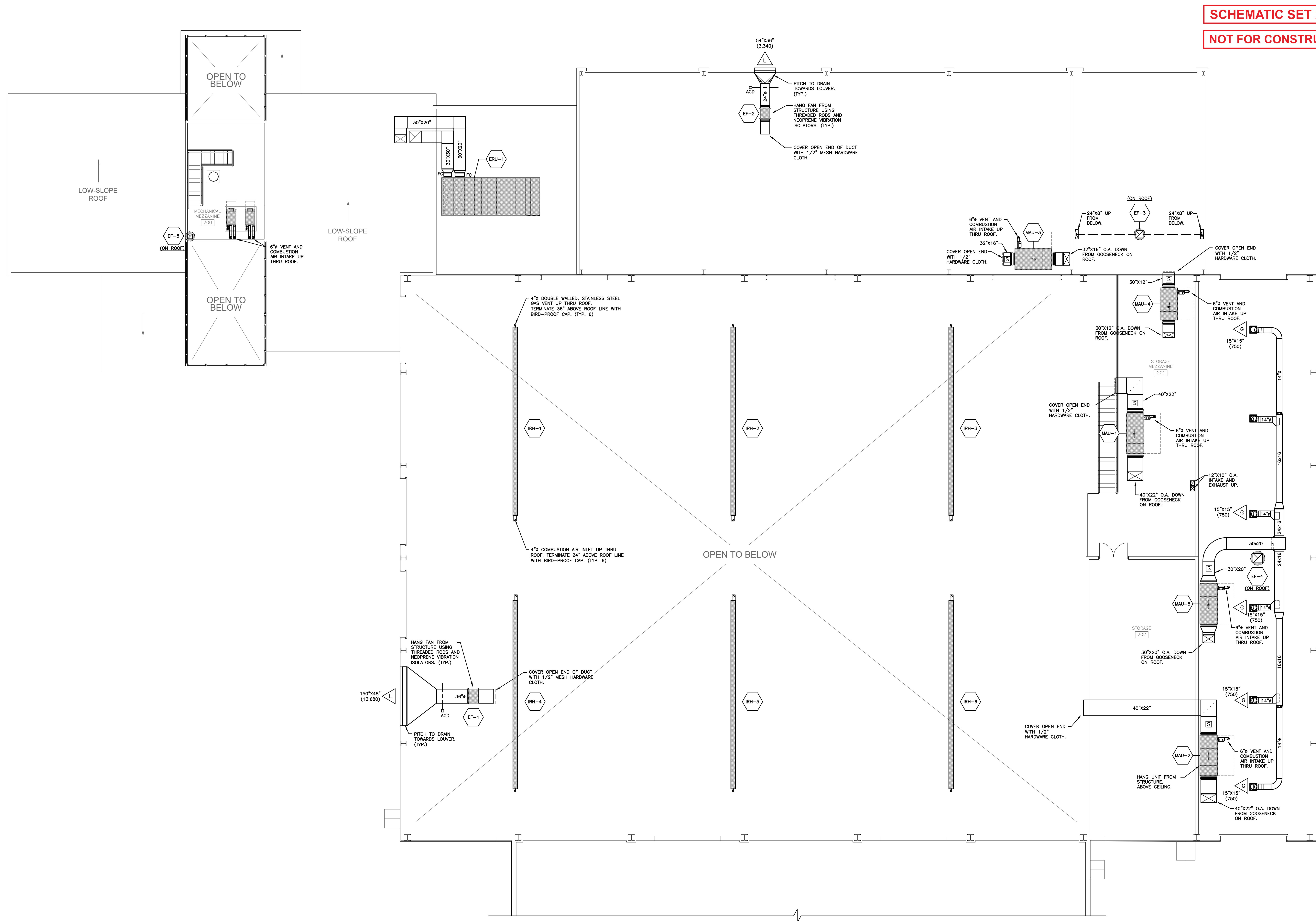
GROUND FLOOR PLAN - DUCTWORK

PROJ. NUMBER: 2024122
REV. DATE DESCRIPTION
DRAWN BY:

CITY OF BANGOR
BUS BARN RENOVATION
511 MAINE AVENUE, BANGOR, ME

DATE:
01-23-2026

M1.3





175 Exchange Street
Bangor, Maine 04401
Phone:
207-974-3028
www.artifexae.com

PROGRESS
SET 01.23.2026

**DuBois
& King**
INC.

Building Services Division
Bedford, NH
ME/FP Engineers
603.444.6579
Project # 530530

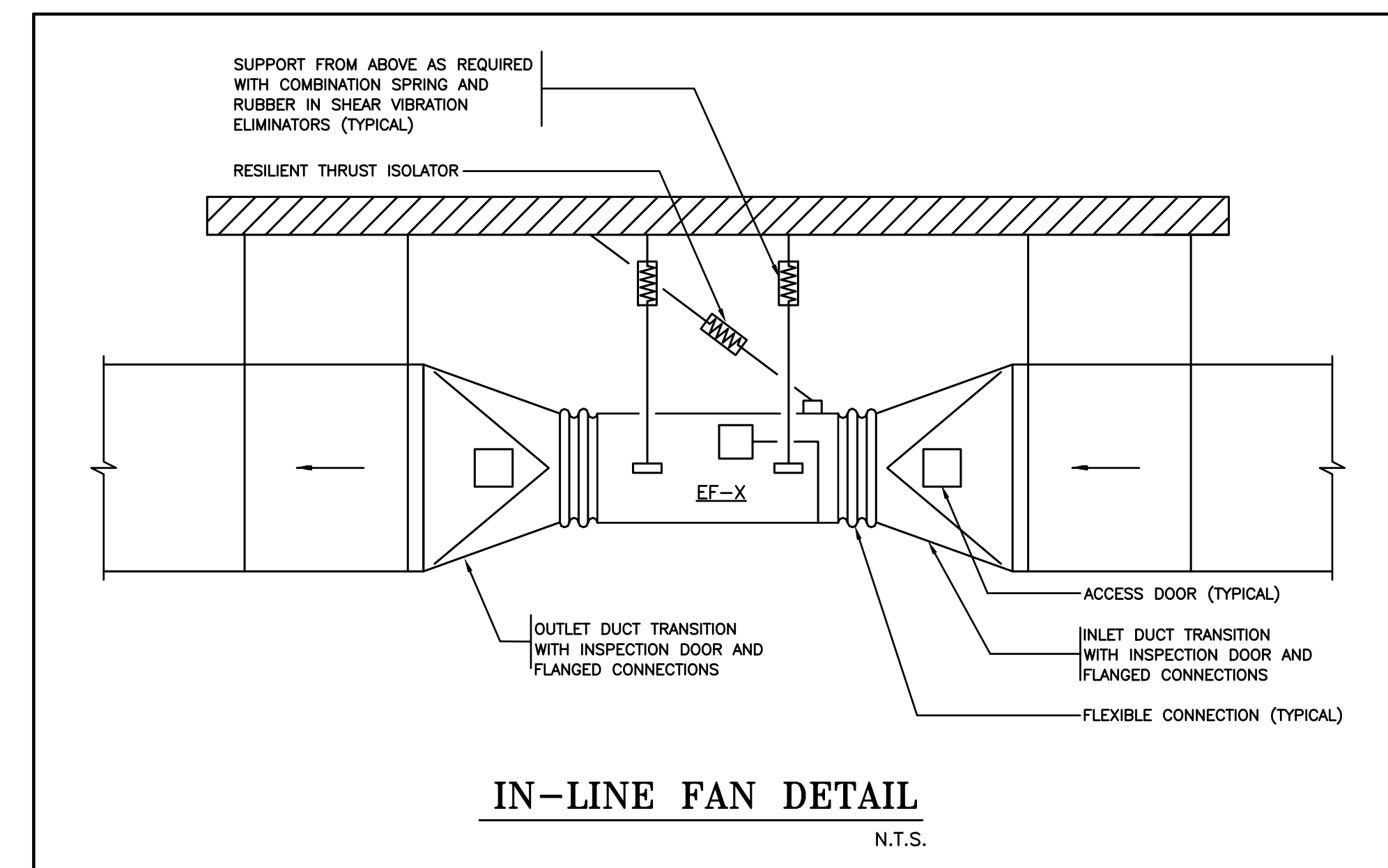
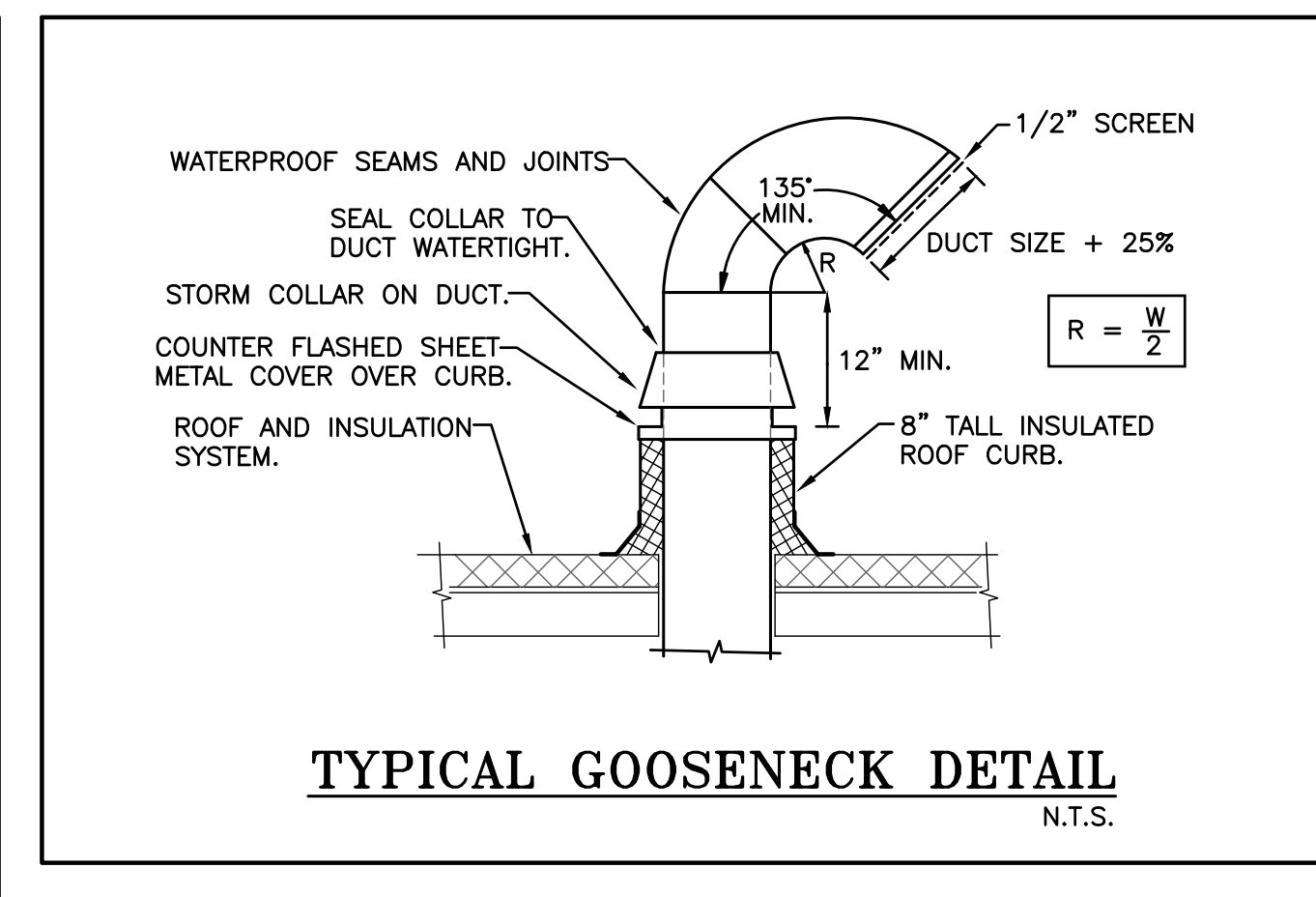
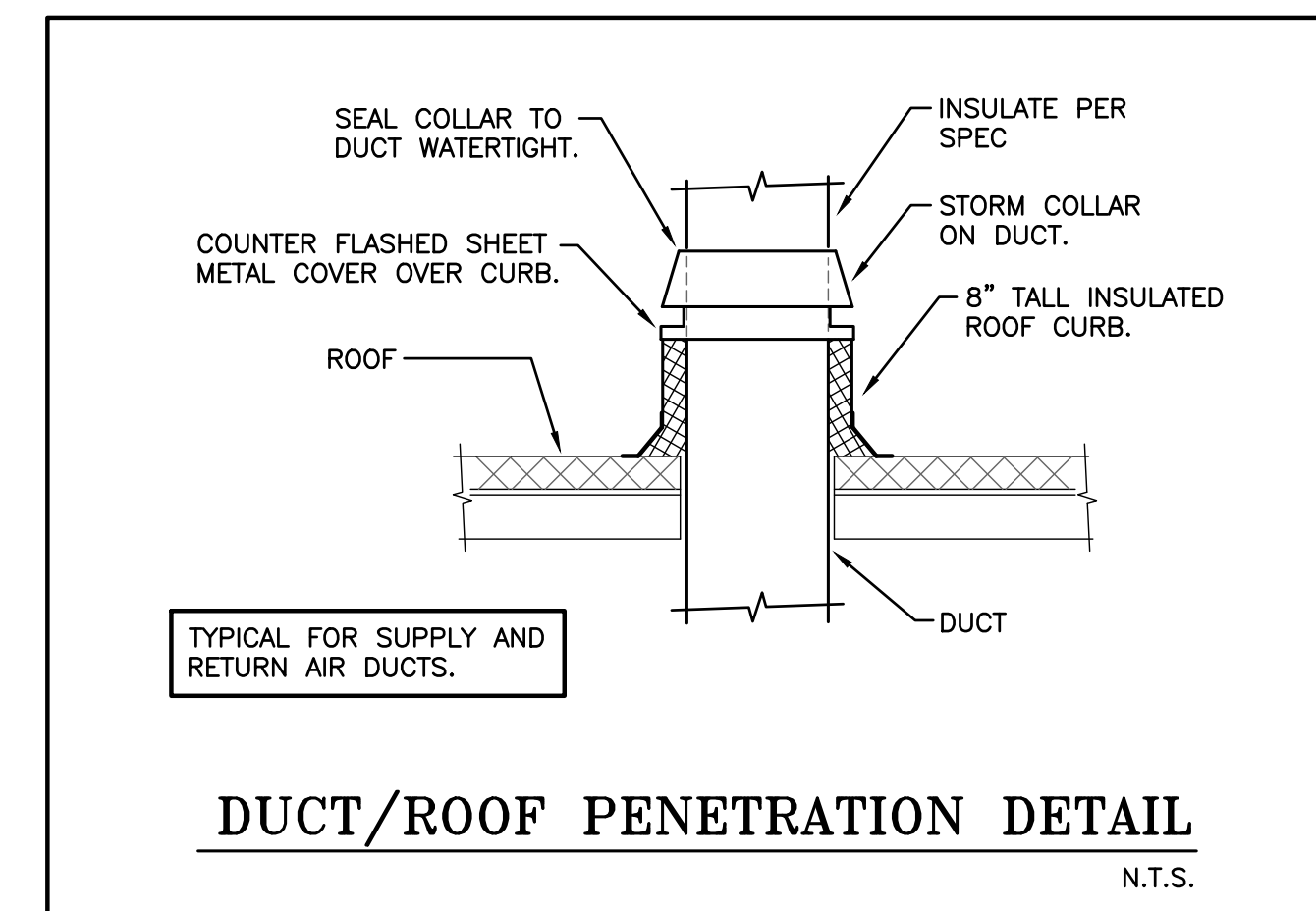
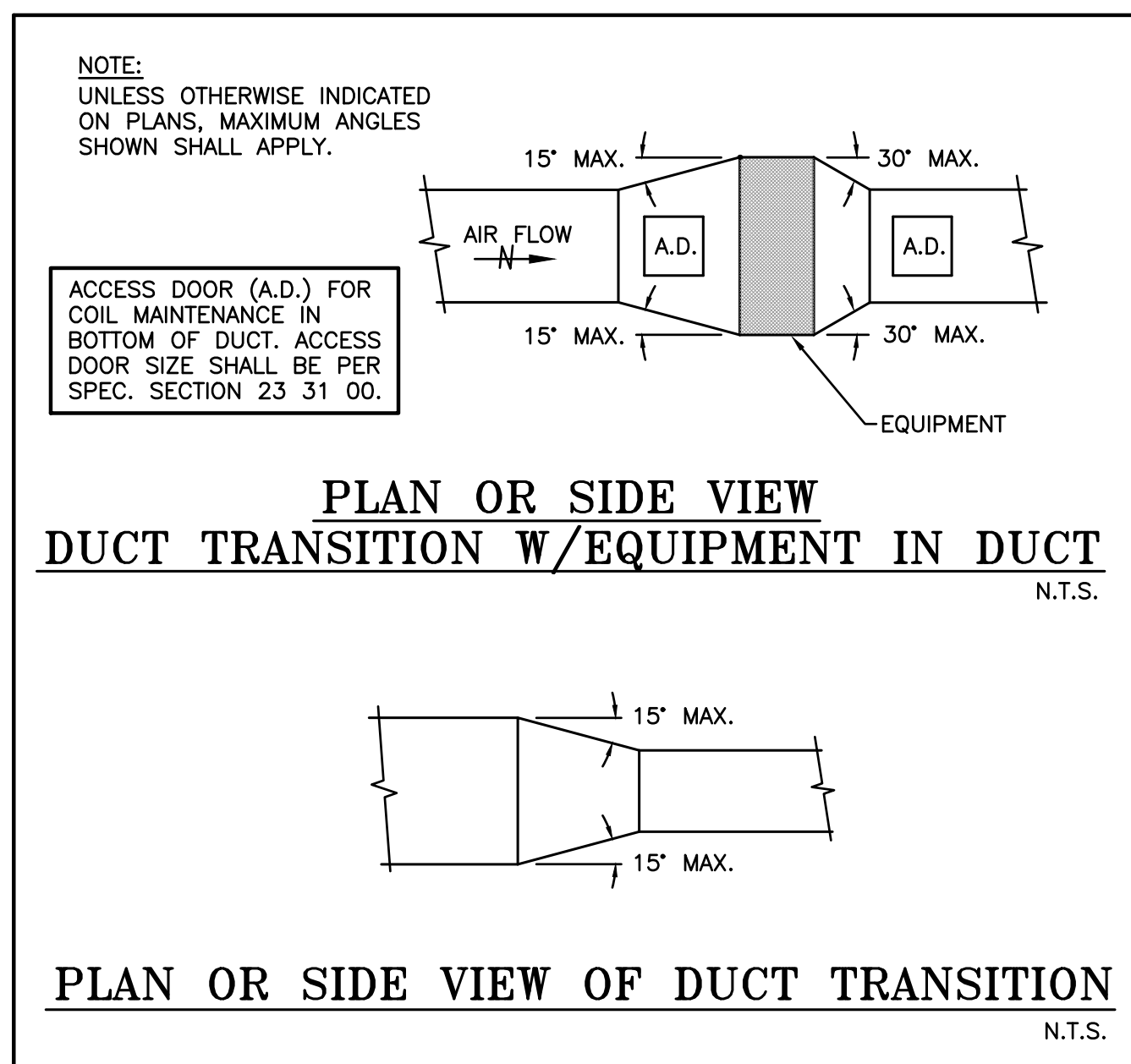
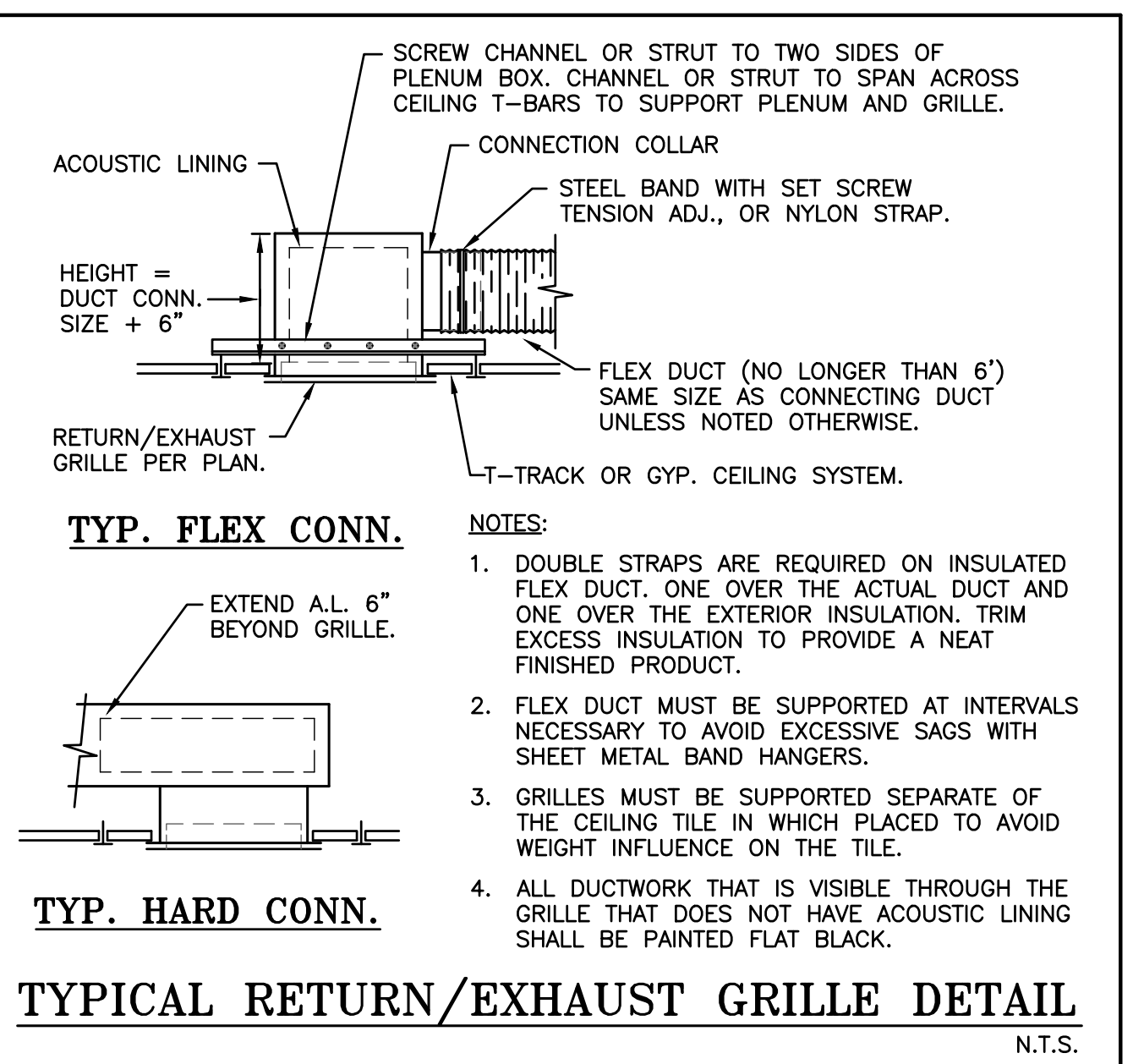
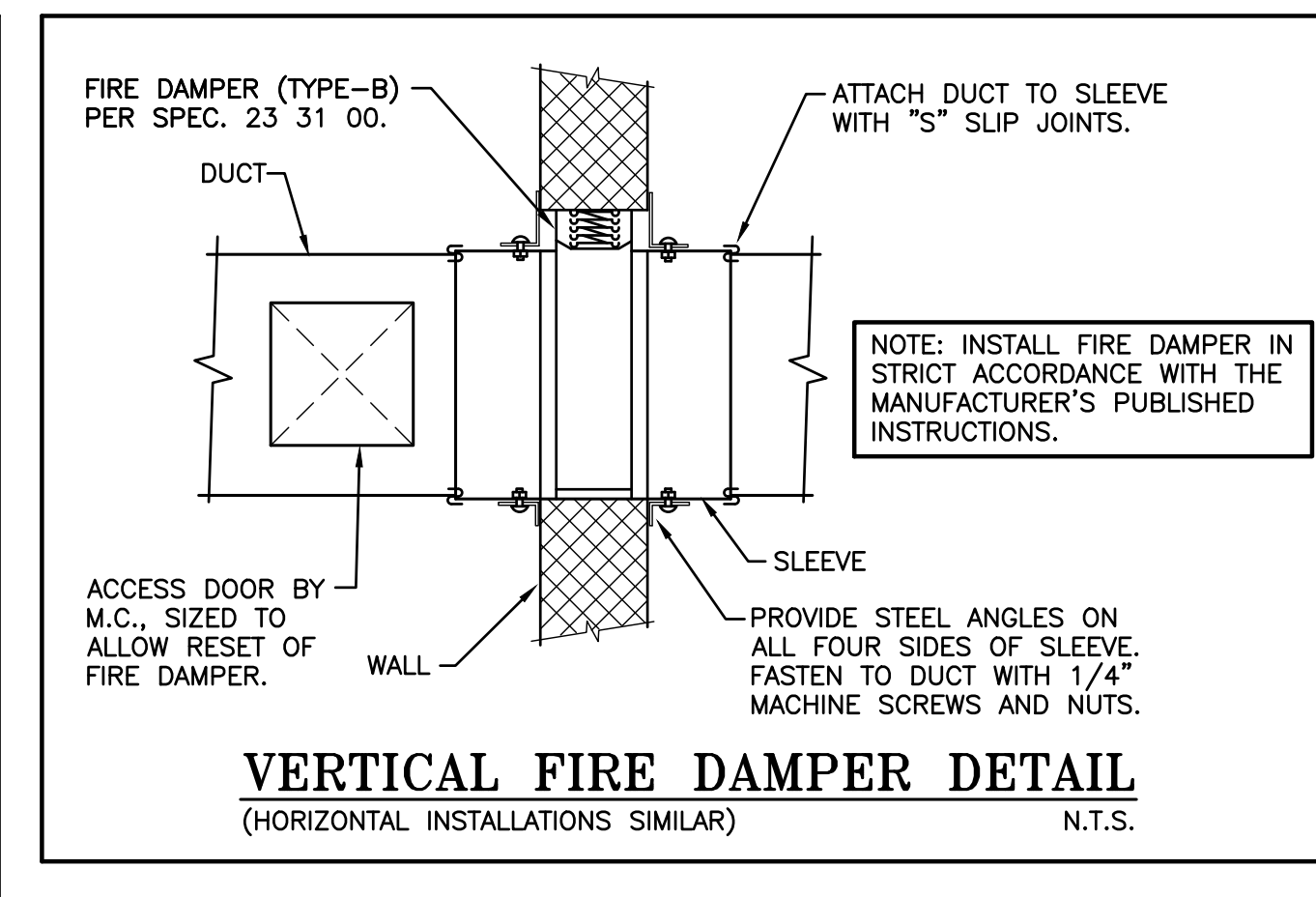
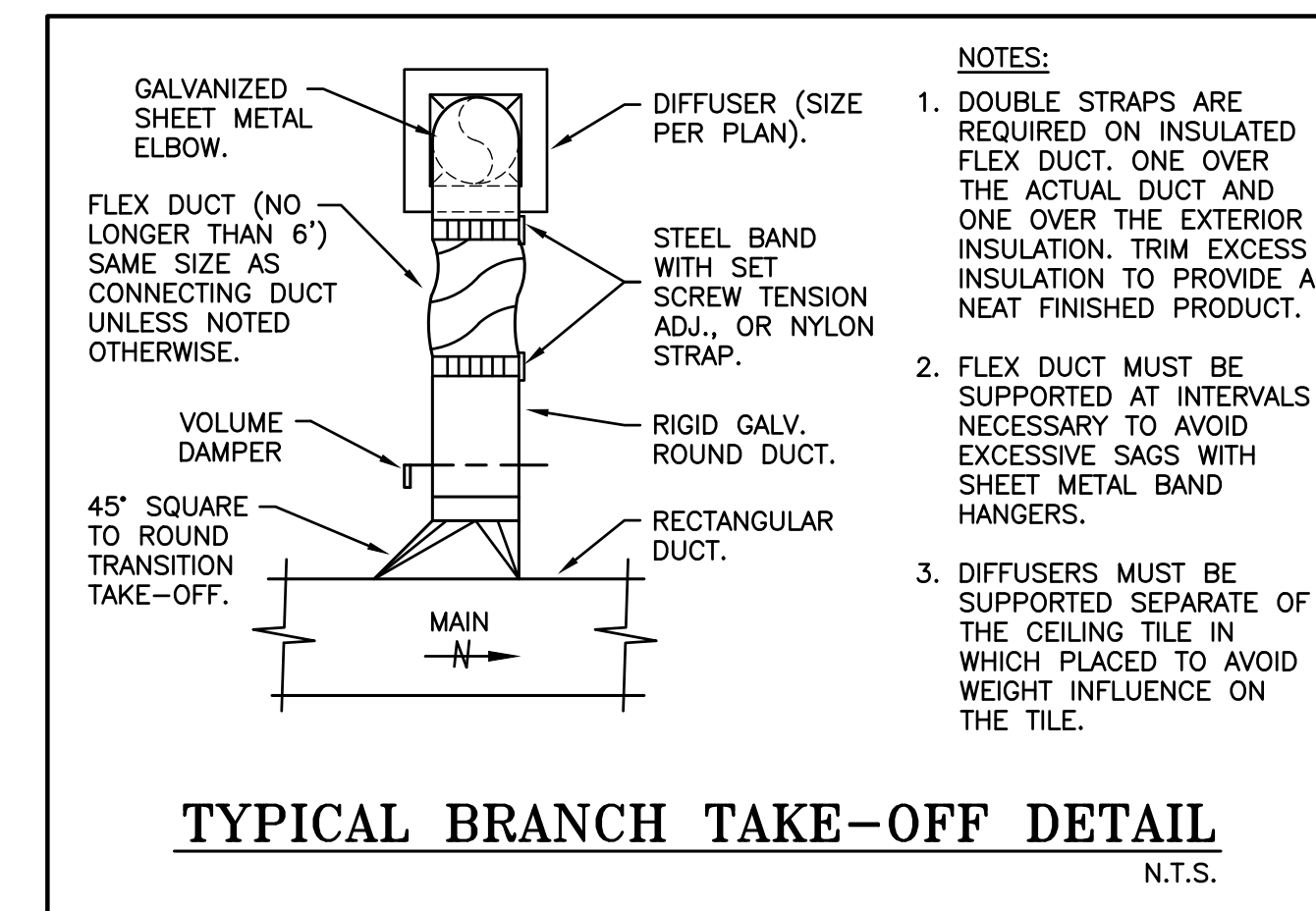
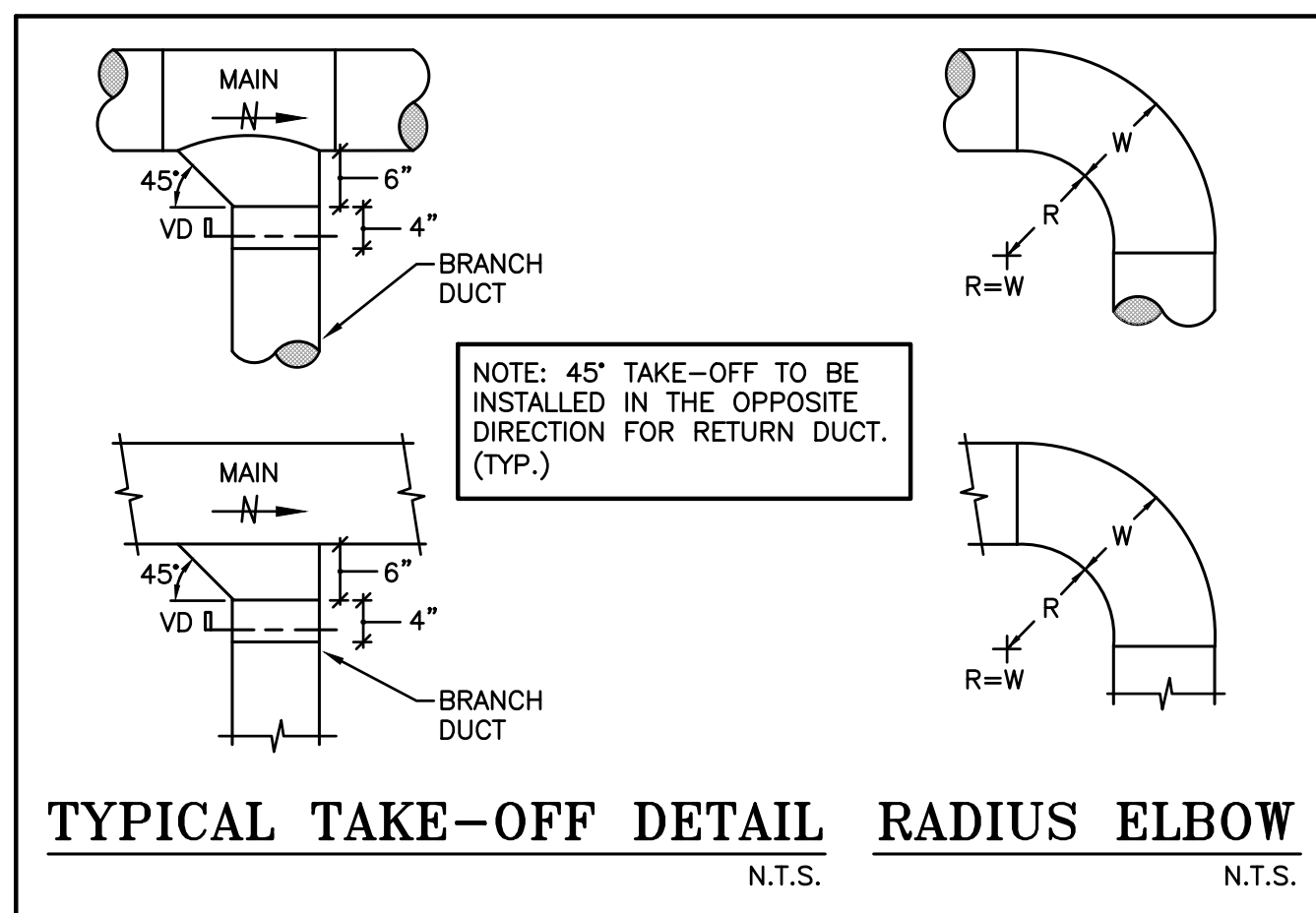
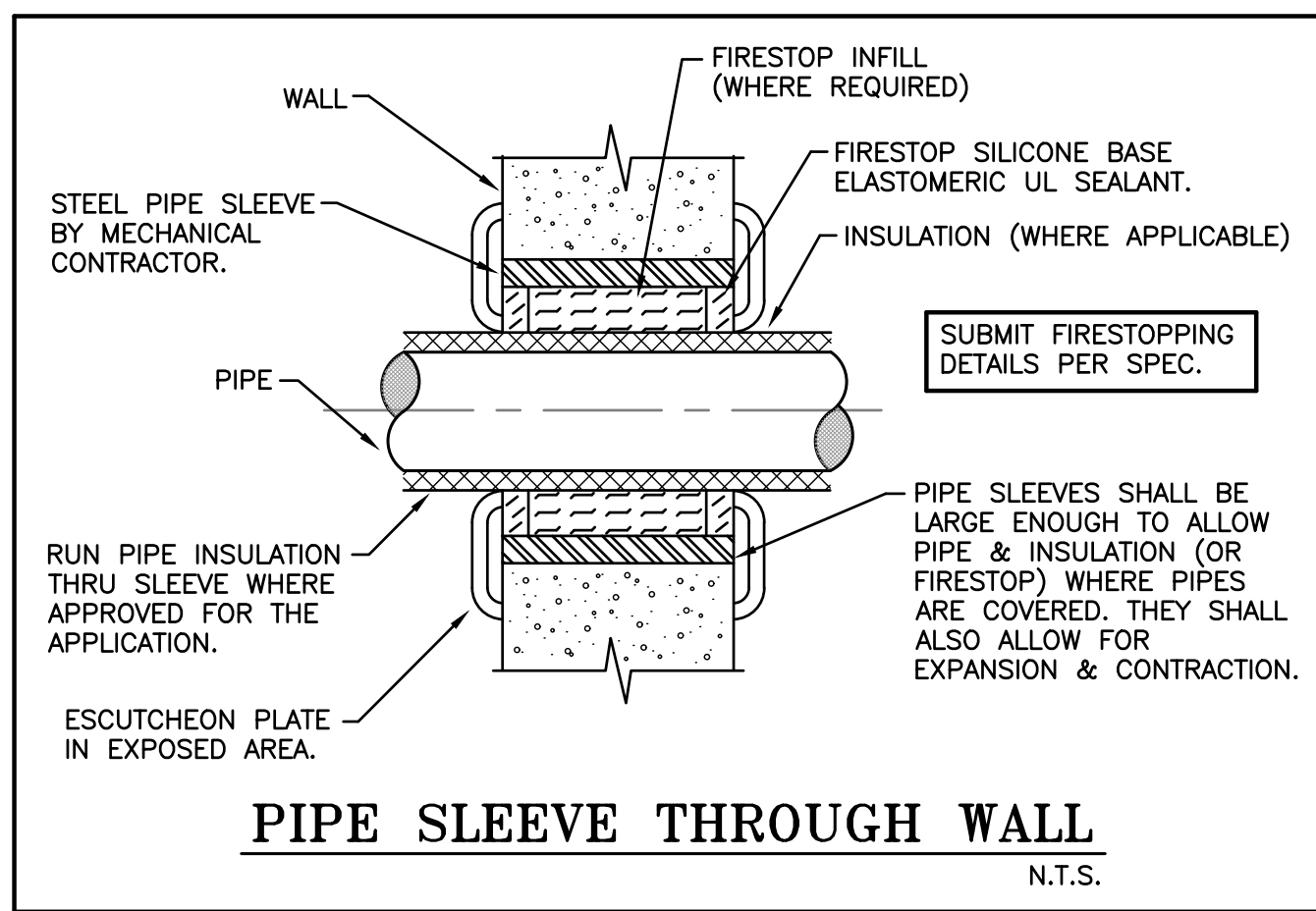
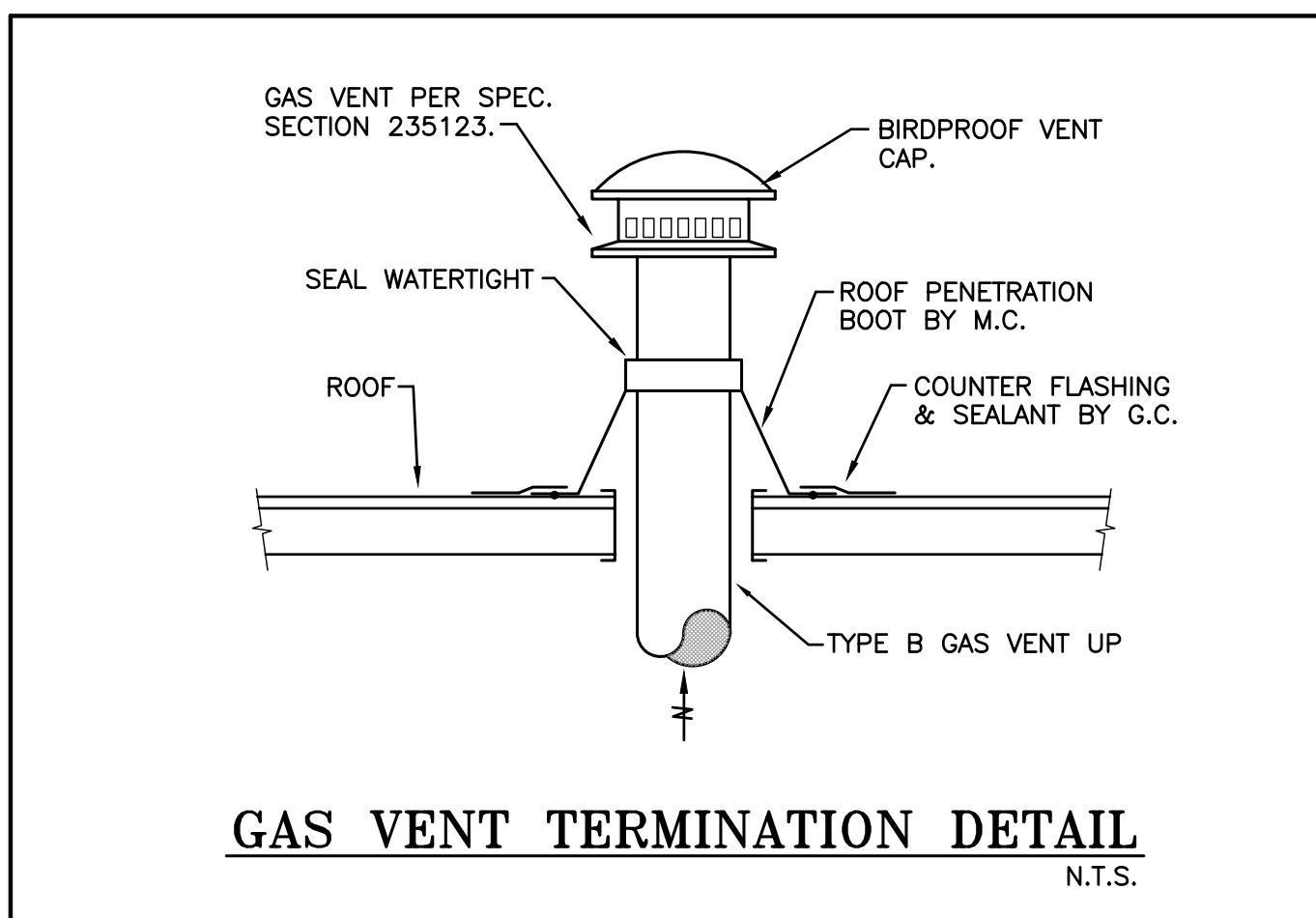
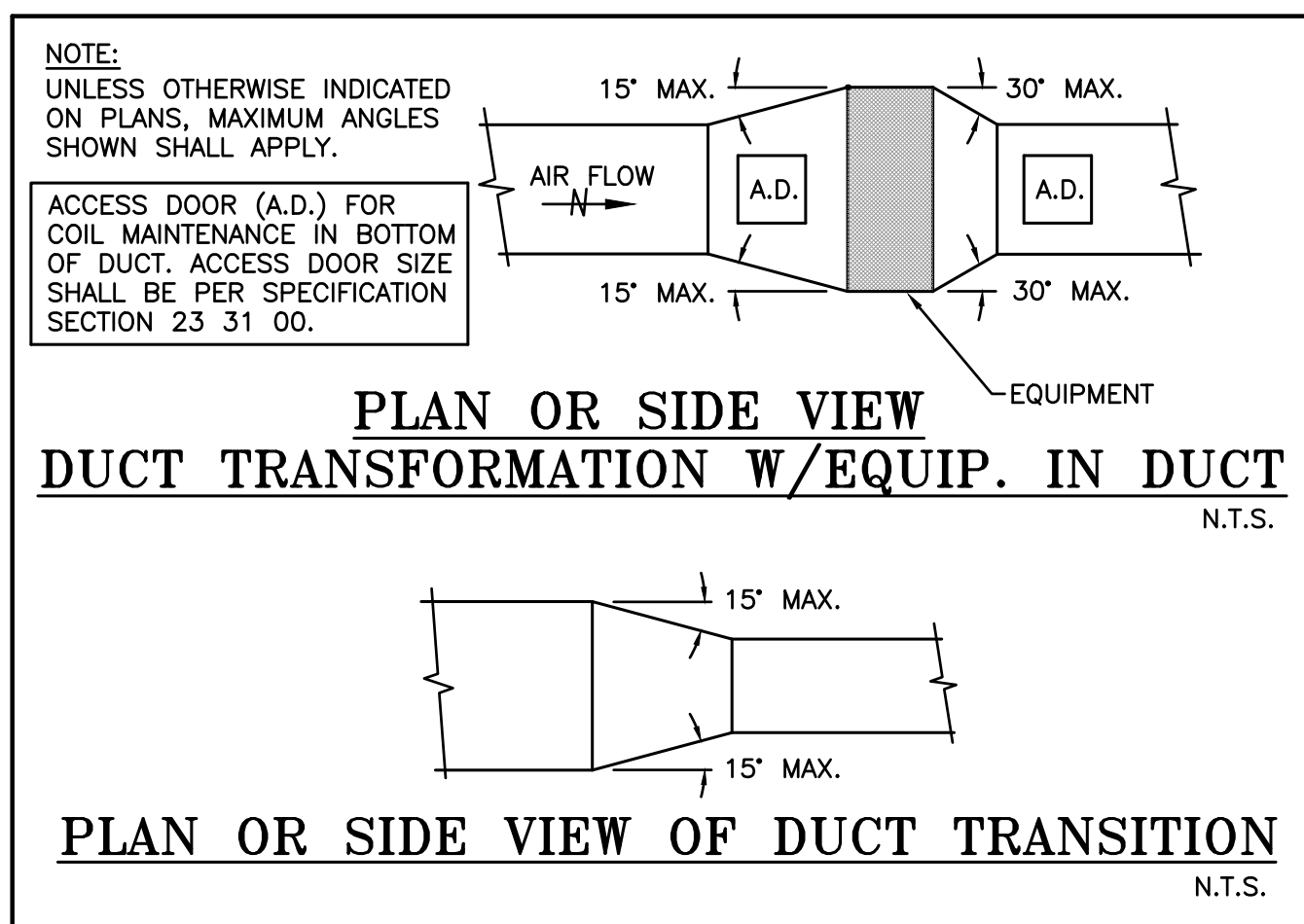
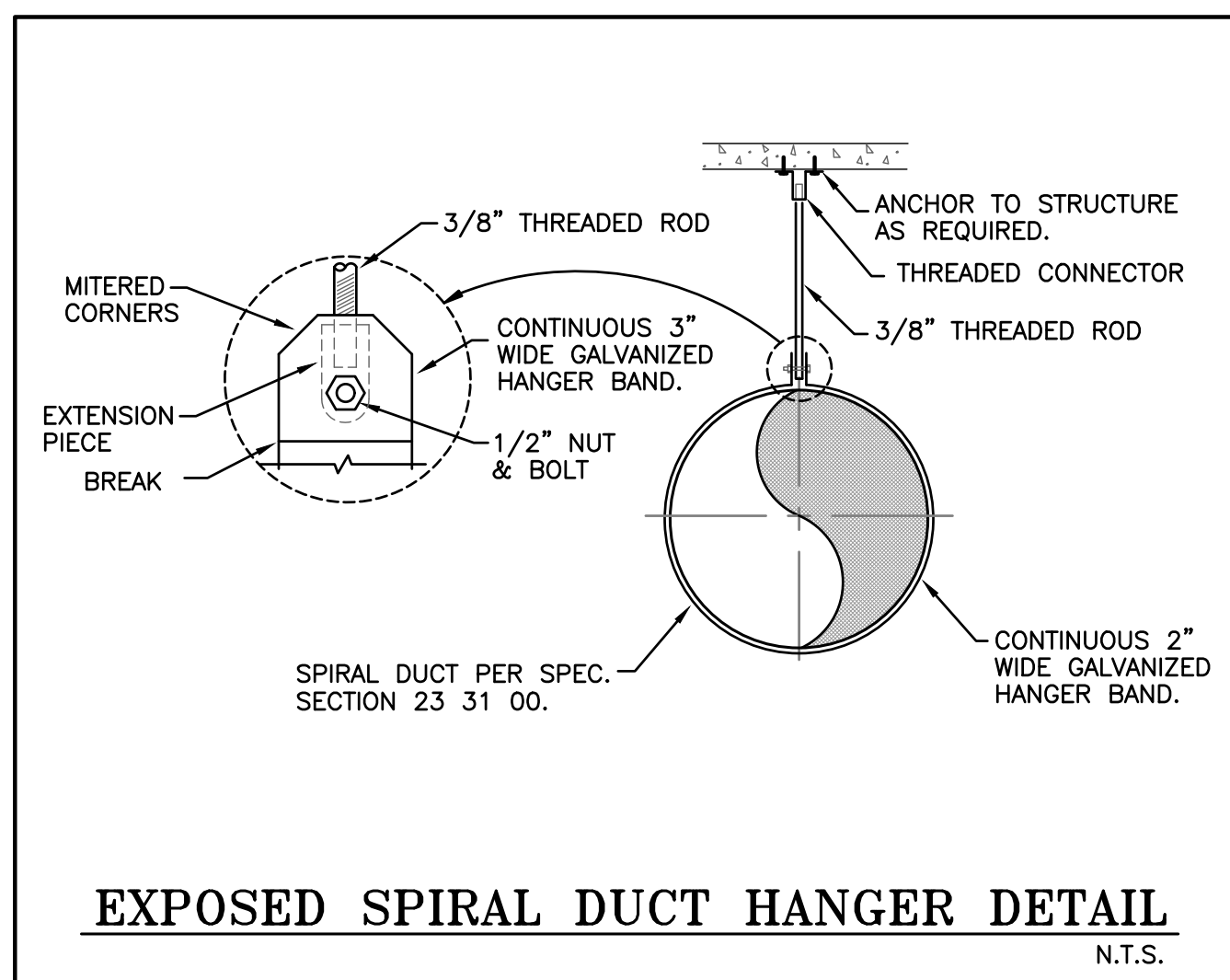
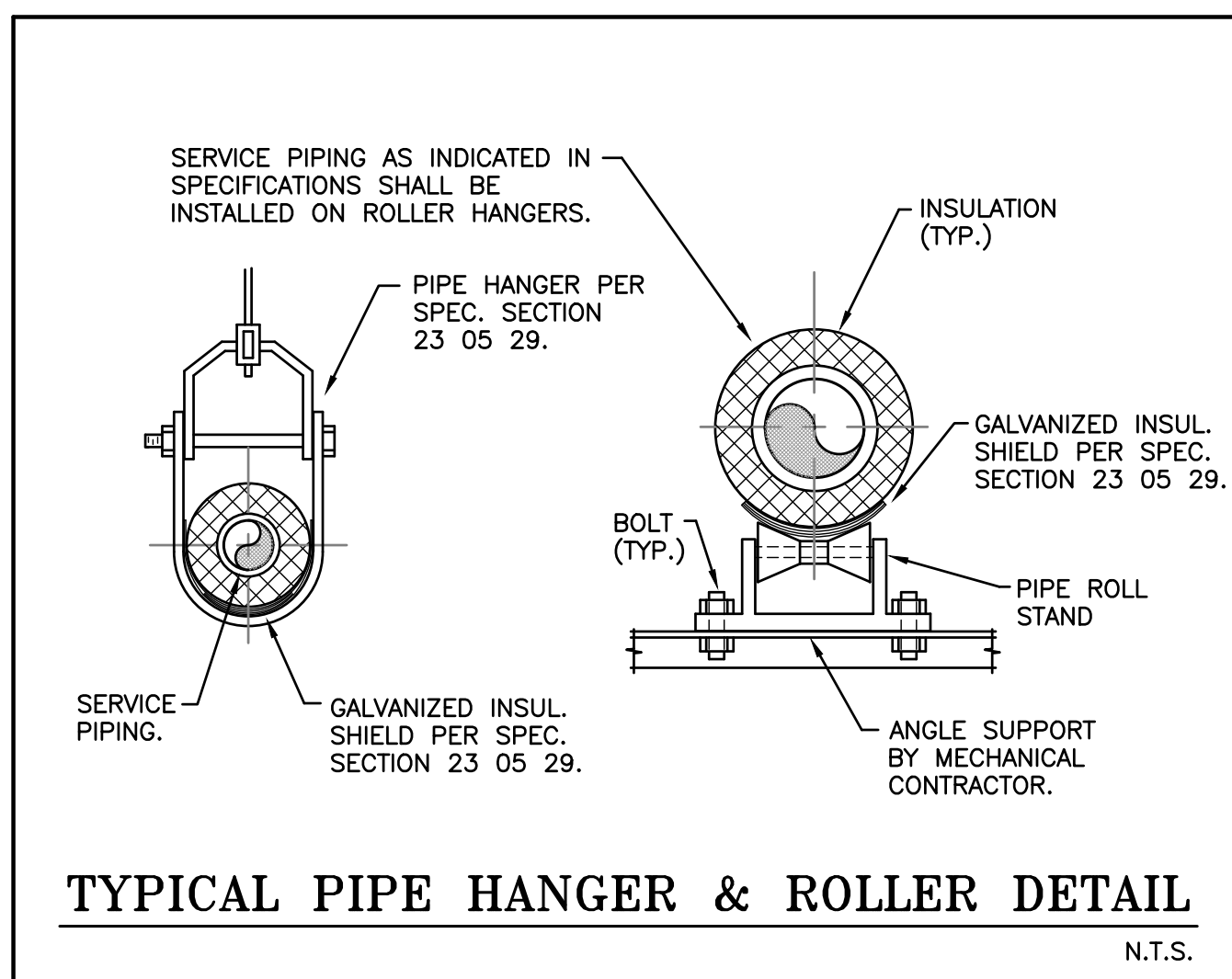
MECHANICAL DETAILS

PROJ. NUMBER:	2024122
REV.	DATE

CITY OF BANGOR
BUS BARN RENOVATION
511 MAINE AVENUE, BANGOR, ME

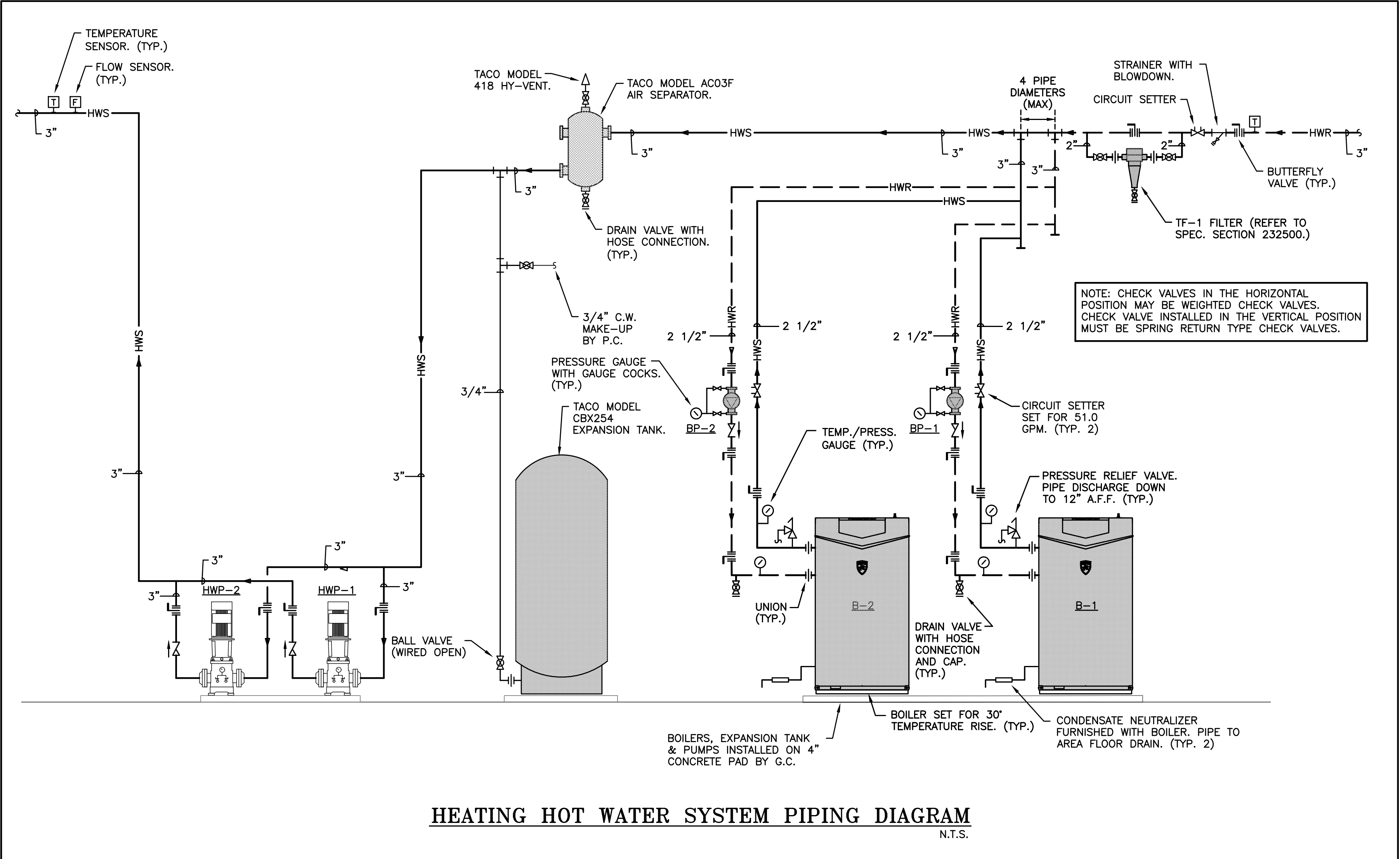
DATE:
01-23-2026

M5.1



SCHEMATIC SET 2/11/26

NOT FOR CONSTRUCTION



175 Exchange Street
Bangor, Maine 04401
Phone:
207-974-3028
www.artifexae.com

PROGRESS
SET 01.23.2026



Building Services Division
Bedford, NH
MEP/FP Engineers
603-444-6570
Project # 530530

MECHANICAL DETAILS

PROJ. NUMBER: 2024122	DRAWN BY:
REV.	DATE

CITY OF BANGOR
BUS BARN RENOVATION
511 MAINE AVENUE, BANGOR, ME

DATE:
01-23-2026

M5.2

ENERGY RECOVERY UNIT SCHEDULE																																
NO.	MAKE & MODEL	ELECTRICAL					SUPPLY FAN					EXHAUST FAN					ENERGY RECOVERY WHEEL								DX COOLING COIL				UNIT WEIGHT	REMARKS		
		VOLTS	PH	HZ	MCA	MFS	CFM	HP	TYPE	ESP	TSP	RPM	CFM	HP	TYPE	ESP	TSP	RPM	SUMMER (DB/WB) TEMPS.				WINTER (DB/WB) TEMPS.				DB/WB				TOTAL CAPACITY	SENSIBLE CAPACITY
																			OSA	RA	SA	EA	OSA	RA	SA	EA	EAT	LAT				
ERU-1	YORK XTI-51x96	460	3	60	--	--	10,000	15.0	PLENUM	1.5	4.40	2,019	10,000	10.0	PLENUM	1.5	3.02	2,062	87.5/71.0	75/63.0	77.5/65.2	84.8/69.7	-20/-21	70/52	44.0/35.6	-7.2/-7.7	75.6/63.6	54.0/52.8	317	239	10,617	①
① FURNISH UNIT WITH DOUBLE WALL INSULATED CONSTRUCTION, 6" BASE RAIL, VERTICAL RETURN AND SUPPLY AIR CONNECTIONS, GASKETED ULTRA-LOW LEAKAGE OA & EA DAMPERS, DX COOLING COIL, STAINLESS STEEL DRAIN PAN, FAN SECTIONS WITH INTERNAL SPRING ISOLATION & VFD COMPATIBLE PREMIUM EFFICIENCY MOTORS, MERV 8 & MERV 13 FILTERS (2 SETS), FACTORY DDC CONTROL PACKAGE WITH BACNET CARD, REFRIGERANT LEAK DETECTION, SINGLE POINT POWER CONNECTION AND UNIT MOUNTED COMBINATION VFD FOR BOTH FANS. THE ELECTRICAL CONTRACTOR SHALL PROVIDE A PROPERLY SIZED DISCONNECT FOR SINGLE POINT POWER CONNECTION.																																

AIR COOLED CONDENSING UNIT SCHEDULE													
OUTDOOR UNIT	INDOOR UNIT	MAKE & MODEL	REFRIGERANT	COOLING BTUH	TONS	ELECTRICAL							REMARKS
						VOLTS	PH	HZ	MCA	MOCPP	SEER	EER	
ACCU-1	ERU-1	JCI KC300C00A4JAE1	454B	316,200	25	460	3	60	50.1	60	--	--	①
① REFRIGERANT PIPE SIZES SHALL BE PROVIDED BY THE EQUIPMENT MANUFACTURER. FURNISH WITH BACNET CARD. FURNISH ALL EQUIPMENT REQUIRED FOR PROPER INSTALLATION. INSTALL PER MANUFACTURER'S PUBLISHED INSTRUCTIONS. ELECTRICAL CONTRACTOR TO FURNISH, INSTALL AND WIRE A WEATHERPROOF DISCONNECT.													

AIR CONDITIONING UNIT SCHEDULE											
INDOOR UNIT	OUTDOOR UNIT	AREA SERVED	MAKE & MODEL	COOLING BTUH	TONS	CFM	FAN SPEED	ELECTRICAL			REMARKS
								VOLTS	PH	HZ	
AC-1	ACC-1	ELECTRICAL	MITSUBISHI PKA-A36KAB	36,000	3.0	920	MED/ HIGH	POWERED BY ACC-1			① ②
AC-2	ACC-2	ELECTRICAL	MITSUBISHI PKA-A36KAB	36,000	3.0	920	MED/ HIGH	POWERED BY ACC-2			① ②
AC-3	ACC-3	IT	MITSUBISHI PKA-A18LA1	18,000	1.5	450	MED/ HIGH	POWERED BY ACC-3			① ②
①	REFRIGERANT PIPE SIZES SHALL BE PROVIDED BY THE EQUIPMENT MANUFACTURER. PROVIDE INDOOR UNITS WITH CONDENSATE PUMP KIT WITH BUILT-IN OVERFLOW PROTECTION, HIGH EFFICIENCY FILTER AND WALL MOUNTED THERMOSTAT WHERE INDICATED ON DRAWINGS. FURNISH ALL EQUIPMENT REQUIRED FOR PROPER INSTALLATION AND INSTALL PER MANUFACTURER'S PUBLISHED INSTRUCTIONS.										
②	THE ELECTRICAL CONTRACTOR SHALL FURNISH, INSTALL AND WIRE A UNIT SERVICE SWITCH.										

AIR COOLED CONDENSING UNIT SCHEDULE												
OUTDOOR UNIT	INDOOR UNIT	MAKE & MODEL	COOLING BTUH	TONS	ELECTRICAL							REMARKS
					VOLTS	PH	HZ	MCA	MOCP	SEER	EER	
ACC-1	AC-1	mitsubishi PUY-A36NKA7	36,000	3.0	208	1	60	25.0	31.0	19.4	10.8	①
ACC-2	AC-2	mitsubishi PUY-A36NKA7	36,000	3.0	208	1	60	25.0	31.0	19.4	10.8	①
ACC-3	AC-3	mitsubishi PUY-A18NKA7	18,000	1.5	208	1	60	11.0	28.0	20.2	10.7	①
① REFRIGERANT PIPE SIZES SHALL BE PROVIDED BY THE EQUIPMENT MANUFACTURER. PROVIDE 18" HIGH STAND BY QUICK-SLING OR APPROVED EQUAL AND WIND BAFFLES. FURNISH ALL EQUIPMENT REQUIRED FOR PROPER INSTALLATION. INSTALL PER MANUFACTURER'S PUBLISHED INSTRUCTIONS. ELECTRICAL CONTRACTOR TO FURNISH, INSTALL AND WIRE A WEATHERPROOF DISCONNECT.												

PUMP SCHEDULE											
NO.	AREA SERVED	MAKE & MODEL	GPM	FT. HEAD	HP	EFF.	ELECTRICAL			MOTOR STARTER	REMARKS
							VOLTS	PH	HZ		
HWP-1	HEATING HOT WATER SYSTEM	GRUNDFOS CRE-DP 15-1	70.0	50'	2.0	63.59%	240	1	60	VFD/ DISCONNECT	①
HWP-1	HEATING HOT WATER SYSTEM	GRUNDFOS CRE-DP 15-1	70.0	50'	2.0	63.59%	240	1	60	VFD/ DISCONNECT	①
BP-1	BOILER 1	GRUNDFOS TPE3 40-120 1X200-240V	51.0	10'	1.0	58.08%	240	1	60	VFD/ DISCONNECT	①
BP-2	BOILER 2	GRUNDFOS TPE3 40-120 1X200-240V	51.0	10'	1.0	58.08%	240	1	60	VFD/ DISCONNECT	①
① PROVIDE PUMP WITH INTEGRAL SPEED CONTROL AND VFD. E.G. TO PROVIDE AND INSTALL SEPARATE SERVICE SWITCH DISCONNECT. PUMP SHALL BE SET UP FOR LOCAL CONTROL VIA INTEGRAL DELTA-P PROPORTIONAL CONTROL.											

SMOKE DETECTOR SCHEDULE									
THE FOLLOWING UNITS SHALL HAVE SMOKE DETECTORS FOR AUTO SHUT DOWN:									
ERU-1, MAU-1, MAU-2, MAU-3 & MAU-5									
SMOKE DETECTORS SHALL BE FURNISHED AND WIRED BY THE ELECTRICAL CONTRACTOR. SMOKE DETECTORS SHALL BE INSTALLED WHERE SHOWN IN THE SUPPLY AND RETURN DUCTWORK OF ERU-1 AND IN THE SUPPLY DUCTWORK OF MAU-1, 2, 3 & 5. BY THE MECHANICAL CONTRACTOR. LOW VOLTAGE WIRING BETWEEN SUPPLY AND EXHAUST FAN STARTERS AND SMOKE DETECTORS BY ATC CONTRACTOR. NOTE: BOTH SUPPLY AND EXHAUST FANS IN ERU-1 SHALL BE DEENERGIZED UPON SENSING OF SMOKE IN EITHER AIRSTREAM.									
PLAN SYMBOL = [S]									

MANUAL CIRCUIT SETTER SCHEDULE	
GPM	CIRCUIT SETTER SIZE
UP TO 3.8	1/2"
3.8 TO 5.5	3/4"
5.5 TO 9.5	1"
9.5 TO 14.0	1 1/4"
14.0 TO 20.0	1 1/2"
20.0 TO 33.0	2"
33.0 TO 100.0	2 1/2"
100.0 TO 117.0	3"
NOTE: BASED ON MACON BALANCING GLOBE STYLE MODEL STV/L OR STVA. TO RETAIN FULL CALIBRATED ACCURACY, A LENGTH OF UNRESTRICTED PIPE EQUIVALENT TO 3 PIPE DIAMETERS UPSTREAM AND DOWNSTREAM SHOULD BE MAINTAINED IMMEDIATELY ADJACENT TO CIRCUIT SETTER BALANCE VALVES. CIRCUIT SETTERS TO BE SIZED PER SCHEDULE EXCEPT WHERE SIZED ON PLANS.	

EXHAUST FAN SCHEDULE												
NO.	AREA SERVED	MAKE & MODEL	CFM	SP	HP	ELECTRICAL DATA			FAN RPM	MOTOR STARTER	SONES	REMARKS
						VOLTS	PH	HZ				
EF-1	COLD BUS STORAGE	GREENHECK MODEL AX-80-190-0628	13,680	0.5"	5	460	3	60	1,170	COMBINATION VFD/DISCONNECT	25	②
EF-2	BUS STORAGE	GREENHECK MODEL AX-47-160-0624	3,340	0.5"	1	460	3	60	1,770	COMBINATION VFD/DISCONNECT	15.2	②
EF-3	BUS WASH BAY	GREENHECK MODEL G-140-VG	1,850	0.75"	1	460	3	60	1,347	EC	11.7	①
EF-4	MOTOR POOL WASH BAY	GREENHECK MODEL G-200-VG	4,500	0.75"	2	460	3	60	1,030	EC	15.8	①
EF-5	OFFICE RESTROOMS	GREENHECK MODEL G-100-VG	475	0.75"	1/4	115	1	60	1385	EC	6.0	①
EF-6												
① FURNISH WITH 18" HIGH PREFAB INSULATED ROOF CURB, ALUMINUM BIRDSCREEN, VARI-GREEN MOTOR WITH UNIT MOUNTED POTENTIOMETER (FOR BALANCING) INTEGRAL OVERLOAD PROTECTION, BACNET INTERFACE, UNIT MOUNTED NEMA 3R DISCONNECT AND MOTOR OPERATED DAMPER WITH REQUIRED MOTOR PACK. (MOTOR OPERATED DAMPER TO OPEN WHEN FAN STARTS, CLOSE WHEN FAN STOPS. FURNISHED AND INSTALLED BY THE MECHANICAL CONTRACTOR, WIRED BY THE ELECTRICAL CONTRACTOR).												
② FURNISH WITH INTEGRAL OVERLOAD PROTECTION, INSULATED HOUSING, BACNET INTERFACE, UNIT MOUNTED WATERPROOF NEMA-3R DISCONNECT SWITCH, HANGING RODS AND NEOPRENE TYPE VIBRATION ISOLATORS. M.C. TO PROVIDE MOTOR RATED VFD. E.C. TO MOUNT ON WALL AND WIRE.												

LOUVER SCHEDULE			
SYMBOL	MANUFACTURER	TYPE & MODEL	REMARKS (SIZE AND CFM AS SHOWN ON PLANS)
△	GREENHECK	EXTERIOR LOUVER ESD-603	ALUMINUM CONSTRUCTION, BAKED ENAMEL FINISH, DRAINABLE HEAD, BIRDSCREEN, NO FLANGE

GRILLE & DIFFUSER SCHEDULE			
SYMBOL	MANUFACTURER	TYPE & MODEL	REMARKS (SIZE AND CFM AS SHOWN ON PLANS)
△	METALAIRE	SUPPLY DIFFUSER SERIES 5500-6-S4 24"x24" PANEL	ALUMINUM CONSTRUCTION, WHITE FINISH
△	METALAIRE	SUPPLY DIFFUSER SERIES 5500-6-S3 24"x24" PANEL	ALUMINUM CONSTRUCTION, WHITE FINISH
△	METALAIRE	RETURN/EXHAUST GRILLE (LAY-IN) MODEL CC15-6	ALUMINUM CONSTRUCTION, WHITE FINISH
△	METALAIRE	RETURN/EXHAUST GRILLE (SURFACE MOUNT) MODEL CC15-1	ALUMINUM CONSTRUCTION, WHITE FINISH
△	METALAIRE	SUPPLY DIFFUSER (SURFACE MOUNT) SERIES 5000-1-S4	ALUMINUM CONSTRUCTION, WHITE FINISH
△	METALAIRE	RETURN/EXHAUST GRILLE (SURFACE MOUNT) MODEL RH	ALUMINUM CONSTRUCTION, WHITE FINISH
△	METALAIRE	SUPPLY SLOT DIFFUSER SERIES 6075 _____	ALUMINUM CONSTRUCTION, WHITE FINISH SEE PLANS FOR LENGTH AND NO. OF SLOTS.

BOILER SCHEDULE													
NO.	AREA SERVED	MAKE & MODEL	FUEL	MBH INPUT	MBH OUTPUT	AIR SIZE	VENT SIZE	FLUID TYPE	ELECTRICAL			UNIT WEIGHT	REMARKS
									VOLTS	PH	HZ		
B-1	HEATING HOT WATER SYSTEM	LOCHINVAR KNIGHT XL MODEL KBX0800N	NG	800	776	4"	6"	WATER	120	1	60	484	①
B-2	HEATING HOT WATER SYSTEM	LOCHINVAR KNIGHT XL MODEL KBX0800N	NG	800	776	4"	6"	WATER	120	1	60	484	①
① FURNISH WITH ASME STAINLESS STEEL HEAT EXCHANGER, MODULATING BURNER WITH 10:1 TURNDOWN RATIO, INTEGRATED VARIABLE SPEED BOILER PUMP, BOILER MOUNTED DIGITAL DISPLAY, U.L. 353 COMPLIANT LOW WATER CUT-OFF INTERFACE WITH MANUAL RESET, CONDENSATE NEUTRALIZER KIT, FLOW SWITCH KIT, AUTOMATION GATEWAY CAPABLE OF MONITORING AND CONTROL USING BACNET IP PROTOCOL. FURNISH BOILER COMPLETE INCLUDING ALL REQUIRED EQUIPMENT FOR PROPER INSTALLATION. INSTALL PER MANUFACTURER'S PUBLISHED INSTRUCTIONS.													

VARIABLE AIR VOLUME UNIT SCHEDULE															
NO.	AREA SERVED	MAKE & MODEL	INLET	MAX CFM	MIN CFM	HEATING CFM	REHEAT COIL								REMARKS
							EAT	LAT	EWT	LWT	MBH	GPM	P.D.		
VAV-1A	TRAINING	PRICE SDV	12"	1,650	495	825	55.0	95.0	160	125	35.8	2.1	1.4	①	
VAV-1B	TRAINING	PRICE SDV	12"	1,650	495	825	55.0	95.0	160	125	35.8	2.1	1.4	①	
VAV-2	SAFETY	PRICE SDV	6"	430	130	215	55.0	95.0	160	118	9.4	0.5	0.3	①	
VAV-3	BREAK ROOM	PRICE SDV	12"	1,900	570	950	55.0	95.0	160	117	41.3	2.0	0.6	①	
VAV-4	LOBBY	PRICE SDV	9"	1,230	370	615	55.0	95.0	160	126	26.7	1.6	0.7	①	
VAV-5	OFFICES	PRICE SDV	5"	340	105	170	55.0	95.0	160	151	7.5	1.7	1.6	①	
VAV-6	DRIVER COMMON	PRICE SDV	9"	1,100	330	550	55.0	95.0	160	114	21.0	1.0	0.3	①	
VAV-7	DISPATCH	PRICE SDV	9"	1,100	330	550	55.0	95.0	160	114	21.0	1.0	0.3	①	
① FURNISH WITH WITH DOUBLE WALL INSULATED CONSTRUCTION, 3'-0" LONG FACTORY PROVIDED SOUND ATTENUATOR, 2 ROW HOT WATER COIL, 9"x9" BOTTOM ACCESS DOOR AND CONTROLS ENCLOSURE. THE CONTROLS CONTRACTOR SHALL FURNISH, INSTALL AND WIRE CONTROLLER IN THE FIELD. UNITS ARE SELECTED FOR RADIATED AND DISCHARGE NC LEVELS <35 AND WPD <6".															

ELECTRICAL ABBREVIATIONS	
ABBREVIATION	DESCRIPTION
XX"	MOUNTED XX" AFF
AFF OR A.F.F.	ABOVE FINISHED FLOOR HEIGHT NOTED
AIC	AMPERES INTERRUPTING CAPACITY SYMMETRICAL
ARCH.	ARCHITECTURAL
ATS	AUTOMATIC TRANSFER SWITCH
C/B	CIRCUIT BREAKER
CLG.	CEILING
COAX	COAXIAL CABLE
COMP	COMPOSITE VIDEO CABLE
EC OR E.C.	ELECTRICAL CONTRACTOR
ELEC.	ELECTRIC, ELECTRICAL
EMERG.	EMERGENCY
ERR	EXISTING TO REMAIN RELOCATED
ETR	EXISTING TO REMAIN
EWC	ELECTRIC WATER COOLER
EXH.	EXHAUST
FBO OR F.B.O.	FURNISHED BY OTHERS
F&BO OR F.&B.O.	FURNISHED AND INSTALLED BY OTHERS
GF, GF OR GFCI	GROUND FAULT INTERRUPTER
GND.	GROUND
HDMI	HIGH DEFINITION MULTIMEDIA INTERFACE
HP	HORSEPOWER
HV	HIGH VOLTAGE
ID NO.	IDENTIFICATION NUMBER
IG	ISOLATED GROUND
KW	KILOWATTS
KVA	KILOVOLTS AMPERES
MCC	MOTOR CONTROLLER CENTER
NEC	NATIONAL ELECTRICAL CODE
NF	NOT FUSED
N.I.C.	NOT IN CONTRACT
N.T.S.	NOT TO SCALE
PH	PHASE
P.F.	POWER FACTOR
ST OR S.T.	SHUNT TRIP
SWGR.	SWITCHGEAR
SV	S-VIDEO (SEPARATE VIDEO) CABLE
TEL.	TELEPHONE
TP	TAMPER PROOF
UG OR U.G.	UNDERGROUND
U.N.O.	UNLESS OTHERWISE NOTED
USB	UNIVERSAL SERIAL BUS
V	VOLTS
VA	VOLT AMPERES
VGA	VIDEO GRAPHIC ARRAY
WP	WEATHERPROOF
VFD	VARIABLE FREQUENCY DRIVE

FIRE ALARM SYMBOLS			
SYMBOL	DESCRIPTION	MOUNTING	HEIGHT
	MANUAL PULL STATION	WALL	48" A.F.F.
	VISUAL FLASHING LIGHT UNIT (ADA)	WALL	80" A.F.F.
	AUDIO/VISUAL DEVICE COMBINATION UNIT (ADA)	WALL	80" A.F.F.
	BELL UNIT	WALL	80" A.F.F.
	BELL AND FLASHING LIGHT COMBINATION UNIT	WALL	80" A.F.F.
	MAGNETIC DOOR HOLD OPEN DEVICE	WALL/ CEILING	
	HEAT DETECTOR (E INDICATES STAND ALONE)	CEILING	
	SMOKE DETECTOR (E INDICATES STAND ALONE)	CEILING	
	SMOKE DETECTOR FOR DUCTWORK (E INDICATES STAND ALONE)	IN DUCT	
	FIRE ALARM INTERFACE SYSTEM	CEILING	
	FIRE ALARM ANNUNCIATOR PANEL (REMOTE)	WALL	
	FIRE ALARM CONTROL PANEL (RECESSED)	WALL	
	AUXILIARY POWER SUPPLY	WALL	
	SPRINKLER FLOW SWITCH		
	SPRINKLER TAMPER SWITCH		
	SPRINKLER PRESSURE SWITCH		
	FIREFIGHTERS' PHONE JACK	WALL	54" A.F.F.
	FIREFIGHTERS' TELEPHONE	WALL	54" A.F.F.
	FIRE ALARM SPEAKER	CEILING	
	REMOTE INDICATOR	CEILING	
	FIRE EXTINGUISHER CABINET		

SINGLE LINE DIAGRAM SYMBOLS			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	FEEDER OR BRANCH CIRCUIT SCHEDULE TAG, REF: SCHEDULE.		CIRCUIT BREAKER
	GROUNDING CONNECTION		CIRCUIT VOLTAGE SWITCH
	LIGHTNING ARRESTOR		HIGH VOLTAGE SWITCH
	FUSE 1 INDICATES FUSE SIZE		CUTOFF SWITCH
	NON-FUSED DISCONNECT SWITCH 1 INDICATES SWITCH SIZE		LOW VOLTAGE DRAW OUT CIRCUIT BREAKER
	FUSED DISCONNECT SWITCH 1 INDICATES SWITCH SIZE 2 INDICATES FUSE SIZE		HIGH VOLTAGE DRAW OUT CIRCUIT BREAKER
	MAGNETIC STARTER 1 INDICATES STARTER SIZE		DRAW OUT CIRCUIT BREAKER WITH FUSE
	COMBINATION STARTER 1 INDICATES STARTER SIZE		LIGHTING/ POWER PANELBOARD
	TRANSFORMER		ELECTRIC HEATER (KVA RATING & PHASES AS INDICATED)
	JUNCTION BOX		EMERGENCY GENERATOR
	VARIABLE FREQUENCY DRIVE		
	ELECTRIC MOTOR		
	ELECTRIC MOTOR WITH MANUAL STARTER		
	ELECTRIC METER		
	LOW VOLTAGE AUTOMATIC TRANSFER SWITCH 800A INDICATES AMPERE RATING 4P INDICATES NO. OF POLES.		
	ISOLATION BYPASS AUTOMATIC TRANSFER SWITCH 800A INDICATES AMPERE RATING 4P INDICATES NO. OF POLES.		
	CURRENT TRANSFORMER		
	ENCLOSED CIRCUIT BREAKER		

NOTE: ALL CIRCUIT BREAKERS SHALL BE 100% RATED EXCEPT FOR LIGHTING AND APPLIANCE PANEL BOARDS.

LIGHTING SYMBOLS		
SYMBOL	DESCRIPTION	MOUNTING
	CEILING MOUNTED LIGHT FIXTURE	CEILING
	WALL-MOUNTED LIGHT FIXTURE	WALL
	1'x4' SURFACE MOUNT LIGHT FIXTURE	
	2'x4' LIGHT FIXTURE	CEILING
	2'x2' LIGHT FIXTURE	CEILING
	WALL-MOUNTED LIGHT FIXTURE	WALL
	STRIP LIGHT FIXTURE	CEILING/ PENDANT
	UNDERCOUNTER LIGHT FIXTURE (SIZE VARIES). SERVE FROM THE NEAREST (120V) CONVENIENCE RECEPTACLE CIRCUIT IN THE AREA.	SURFACE
	EMERGENCY EGRESS LIGHT FIXTURE	WALL
	CEILING MOUNTED EXIT LIGHT	CEILING
	WALL MOUNTED EXIT LIGHT	WALL
	TRACK LIGHTING FIXTURE WITH FIXTURE QUANTITY, TYPE, AND LENGTH AS INDICATED ON PLANS	CEILING
	SINGLE UNIT POLE LIGHT (SITE PLAN)	POLE
	PHOTOCELL	VARIES
	LIGHTING RELAY (POWER PACK, ROOM CONTROLLER)	
	EMERGENCY POWER CONTROLLER	

COMMUNICATION AND SECURITY SYMBOLS			
SYMBOL	DESCRIPTION	MOUNTING	HEIGHT
	TELEPHONE/DATA OUTLET WITH TELECOM WIRING FROM OUTLET BOX TO DATA/TELECOM ROOM. (*1V1D* INDICATES 1 VOICE, 1 DATA JACKS. COAX INDICATES CABLE/SATELLITE TV CONNECTION.)		WALL
	TELEPHONE AND/OR DATA OUTLET; ROUTE 3/4" CONDUIT FROM OUTLET BOX TO ACCESSIBLE CEILING SPACE	WALL	48" A.F.F.
	PUSH BUTTON	WALL	
	CCTV CAMERA (SEE ARCHITECTURAL DOCUMENTS FOR MOUNTING HEIGHT)	CEILING/ WALL	
	CCTV MONITOR	DESK	
	VOLUME CONTROL	WALL	48"
	MICROPHONE JACK	CEILING/ WALL	18" A.F.F.
	INTERCOM STATION	WALL	*
	INTERCOM MASTER STATION	WALL	*
	CARD READER	WALL	48"
	GLASS BREAK DETECTOR	CEILING	
	ELECTRIC STRIKE	WALL	
	DOOR CONTACT	WALL	
	MAGNETIC LOCK	WALL	
	MOTION DETECTOR	WALL	
	ELECTRIC LATCH	WALL	
	PUSH BUTTON	WALL	
	DURESS BUTTON	WALL	
	DOOR RELEASE	WALL	
	REQUEST-TO-EXIT	WALL	
	CLOCK	WALL	
	WIRELESS ACCESS POINT	WALL	
	KEY PAD	WALL	
	DOOR BELL	WALL	48"
	SPEAKER	WALL	48"
	SPEAKER (INTEGRAL VOLUME CONTROL)	CEILING	
	SPEAKER-HORN STYLE	VARIES	

* PROVIDE 3/4" CONDUIT WITH PULL STRING TO ACCESSIBLE CEILING SPACE.

POWER AND CIRCUITRY SYMBOLS			
SYMBOL	DESCRIPTION	MOUNTING	HEIGHT
	20A, 125V, 2 POLE, 3 WIRE GROUNDING SINGLE RECEPTACLE, NEMA 5-20R	WALL	18" A.F.F.
	20A, 125V, 2 POLE, 3 WIRE GROUNDING DUPLEX RECEPTACLE, NEMA 5-20R	WALL	18" A.F.F.
	20A, 125V, 2 POLE, 3 WIRE GROUNDING DUPLEX RECEPTACLE, NEMA 5-20R, 1A INDICATES HORIZONTALLY MOUNTED 8" ABOVE COUNTER, VERTICALLY MOUNTED IN BATHROOMS.	WALL	8" ABOVE COUNTER
	QUADRAPLEX RECEPTACLE 20A, 125V, 3 WIRE GROUNDING TYPE, NEMA 5-20R	WALL	18" A.F.F.
	ELECTRIC WATER COOLER OUTLET, GFCI, COORDINATE OUTLET LOCATION WITH WATER COOLER CUT SHEET.	WALL	
	SPECIAL POWER OUTLET (NEMA CONFIGURATION AS NOTED ON DOCUMENTS)	WALL	18" A.F.F.
	CLOCK OUTLET AND CONDUIT FOR CONTROL CABLING	WALL	12" BELOW CEILING 8'-0" AFF. TO CL.
	PLUGMOLD/SURFACE RACEWAY	WALL	
	WALL-MOUNTED JUNCTION BOX	WALL	48" A.F.F.
	JUNCTION BOX		
	SINGLE POLE SWITCH	WALL	48" A.F.F.
	DOUBLE POLE SWITCH	WALL	48" A.F.F.
	THREE WAY SWITCH	WALL	48" A.F.F.
	FOUR WAY SWITCH	WALL	48" A.F.F.
	SWITCH WITH PILOT LIGHT	WALL	48" A.F.F.
	KEY OPERATED SWITCH	WALL	48" A.F.F.
	LIGHTING LOW VOLTAGE SWITCH (Rxx INDICATES CONTROL RELAY)	WALL	48" A.F.F.
	OCCUPANCY SENSOR	WALL	48" A.F.F.
	OCCUPANCY SENSOR	CEILING	
	DIMMER SWITCH	WALL	48" A.F.F.
	SWITCHES IN GANG "abc" DENOTES (3) SWITCHES IN GANG AND LIGHT FIXTURES CONTROLLER	WALL	
	SINGLE POLE SWITCH (LOWER CASE LETTER INDICATES OUTLET OR FIXTURE CONTROLLED BY SWITCH)	WALL	48" A.F.F.
	MOTOR RATED SWITCH	WALL	48" A.F.F.
	TIMER SWITCH	VARIES	48" A.F.F.
	SINGLE POLE AUTOMATIC DOOR OPERATING SWITCH (PUSH PLATE)	WALL	
	KEYPAD	WALL	48" A.F.F.
	GENERATOR ALARM PANEL	WALL	48" A.F.F.
	ELAPSED TIMER	WALL	
	NON-FUSED DISCONNECT SWITCH (SIZED TO MATCH OVER CURRENT PROTECTION DEVICE)	VARIES	
	FUSED DISCONNECT SWITCH, SUBSCRIPT INDICATES AMPS/FUSE SIZE	VARIES	
	MOTOR STARTER WITH DISCONNECT SWITCH, SUBSCRIPT INDICATES AMPS/FUSE SIZE/STARTER SIZE	VARIES	
	MOTOR STARTER, SUBSCRIPT INDICATES STARTER SIZE	VARIES	
	MOTOR, SUBSCRIPT INDICATES HORSEPOWER		
	CONTROL PANEL FURNISHED BY OTHERS		
	NEW LIGHTING/POWER PANELBOARD (277/480V)	VARIES	
	NEW LIGHTING/POWER PANELBOARD (120/208V)	VARIES	
	EXISTING LIGHTING/POWER PANELBOARD (120/208V)		
	DISTRIBUTION PANEL	VARIES	
	DRY TYPE TRANSFORMER	VARIES	
	AUTOMATIC TRANSFER SWITCH	VARIES	
	TELE-POWER POLE	VARIES	
	FURNITURE FEED	WALL	
	FLOOR BOX	FLOOR	
	EQUIPMENT CONNECTION		
	AUTOMATIC DOOR OPERATOR	WALL	

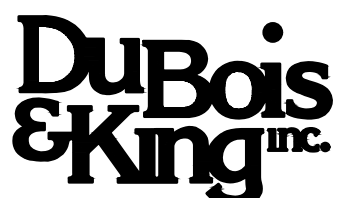
ELECTRICAL SYMBOL NOTES	
1.	ALL SYMBOLS ARE NOT NECESSARILY USED.
2.	ALL MOUNTING HEIGHTS SHOWN IN SYMBOL LEGEND SHALL BE AS PER ADA REQUIREMENTS UNLESS OTHERWISE NOTED ON THE DRAWINGS.
3.	REFERENCE ARCHITECTURAL DOCUMENTS FOR DIMENSIONED LOCATION AND MOUNTING HEIGHT OF LIGHT FIXTURES AND MISCELLANEOUS ELECTRICAL DEVICES.

GENERAL ELECTRICAL NOTES	
1.	DO NOT SCALE THESE DRAWINGS. SEE ARCHITECTURAL DOCUMENTS FOR EXACT LOCATIONS AND MOUNTINGS FOR FIXTURES, DEVICES, ETC., EXCEPT AS SPECIFICALLY NOTED.
2.	REFER TO DIVISION 22 & 23 FOR ADDITIONAL HVAC /PLUMBING EQUIPMENT AND REQUIREMENTS.
3.	REFER TO DIVISION 15 FOR ADDITIONAL HVAC/PLUMBING EQUIPMENT AND REQUIREMENTS.
4.	PROVIDE BRANCH CIRCUITING AND FINAL CONNECTION FOR ALL FIXTURES, OUTLETS AND EQUIPMENT.
5.	INSTALLATION SHALL COMPLY WITH 2014 EDITION OF NEC, INCLUDING LOCAL AMMENDMENTS.
6.	LOW VOLTAGE SIGNAL AND COMMUNICATION SYSTEMS CABLING WILL BE RUN IN RACEWAYS EXCEPT WHERE CONCEALED ABOVE AN ACCESSIBLE CEILING SPACE.
7.	MINIMUM CIRCUIT SIZE IS 1P-20A, 2 #12, 1 #12 GND. MINIMUM CONDUIT SIZE IS 3/4" UNLESS OTHERWISE NOTED.
8.	PROVIDE SEPARATE GREEN GROUND WIRE (SIZE PER NEC) FOR ALL CIRCUITS INCLUDING LIGHTING.
9.	HOMERUN CONDUITS SHALL CONTAIN SIX (6) UNGROUNDED PHASE CONDUCTORS MAXIMUM. VOLTAGE DROP AS PER N.E.C.
10.	PROVIDE SEPARATE NEUTRAL (EACH PHASE A NEUTRAL) FOR DIMMED LIGHTING CIRCUITS AND FOR ISOLATED GROUND RECEPTACLES CIRCUITS.
11.	WHERE INDIVIDUAL BRANCH CIRCUITS AS SHOWN ON PLANS ARE COMBINED AS MULTI-WIRE BRANCH CIRCUITS, THE MULTIWIRE BRANCH CIRCUITS SHALL BE INSTALLED ACCORDING TO REQUIREMENTS OF NEC 2014 ARTICLE 210.4(B).
12.	RECEPTACLES WITHIN 6'-0" OF SINKS SHALL BE G.F.C.I. TYPE.
13.	PROVIDE ROUGH-IN, FINAL CONNECTION, BRANCH CIRCUITS, PANELBOARDS, ETC. FOR ALL DEVICES AND EQUIPMENT SHOWN ON THESE DOCUMENTS. THIS INCLUDES, BUT IS NOT LIMITED TO FIRE ALARM, SECURITY, MECHANICAL CONTROLS AND ACCESSORIES.
14.	CONTRACTOR SHALL VERIFY ROUGH-IN REQUIREMENTS FOR ALL EQUIPMENT (MECHANICAL, OWNER PROVIDED, OTHER VENDOR PROVIDED, ETC.) PRIOR TO BEGINNING ROUGH-IN. ANY DISCREPANCIES WITH THESE PLANS SHALL BE BROUGHT TO THE ARCHITECT/ENGINEER'S ATTENTION IMMEDIATELY.
15.	THE MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS INCLUDED IN THIS SET WERE ORIGINALLY PREPARED TO THE SCALE SHOWN ON THE TITLE BLOCK OF EACH SPECIFIC DRAWING. HOWEVER, BECAUSE OF THE INACCURACIES INHERENT TO THE ELECTRONIC PLOTTING AND/OR REPROGRAPHIC PROCESSES USED TO OBTAIN FINAL PRINTS, SPECIFIC DIMENSIONS SHOULD NOT BE OBTAINED BY SCALING OF THESE DRAWINGS. REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR ACTUAL DIMENSIONS.
16.	ANY PENETRATIONS THROUGH PANS, WEBBS, OR OTHER STRUCTURAL COMPONENTS SHALL NOT BE MADE WITHOUT PRIOR APPROVAL OF THE STRUCTURAL ENGINEER.
17.	BACK TO BACK OUTLETS: NO BACK TO BACK OUTLETS INSTALLATION WILL BE PERMITTED. OUTLETS TO BE OFFSET 12", SOUND BARRIER TO BE PROVIDED.
18.	IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY AND PROVIDE AS REQUIRED FOR ALL THE FIRE DAMPERS AND MOTORIZED DAMPERS, AS SHOWN ON THE DOCUMENTS UNDER DIVISION 23 AND 26.
19.	PROVIDE H.O.A. FOR ALL STARTERS UNDER DIVISION 26.
20.	IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY AND PROVIDE AS REQUIRED FOR ALL THE FIRE DAMPERS AND MOTORIZED DAMPERS, AS SHOWN ON THE DOCUMENTS UNDER DIVISION 15 AND 16.
21.	PROVIDE H.O.A. FOR ALL STARTERS UNDER DIVISION 16.
22.	IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE FOR THE MAGNETIC HOLD DOOR OPENER, ELECTRONIC LOCK AND THE AUTOMATIC DOOR OPENER AS SHOWN ON OR SPECIFIED UNDER THE ARCHITECTURAL SECTIONS AS FOLLOWS: A) POWER AS REQUIRED; COORDINATE WITH SUPPLIER. B) FIRE ALARM INTERFACE INCLUDING WIRING AND FINAL CONNECTIONS FOR AN OPERATIONAL COMPLETE SYSTEM AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION.



175 Exchange Street
Bangor, Maine 04401
Phone:
207-974-3028
www.artifexae.com

PROGRESS
SET 01.23.2026



Building Services Division
Bedford, NH
ME/FP Engineers
603-444-6579
Project # 530530

ELECTRICAL LEGENDS AND ABBREVIATIONS

PROJ. NUMBER: 2024722

DRAWN BY:

DESCRIPTION

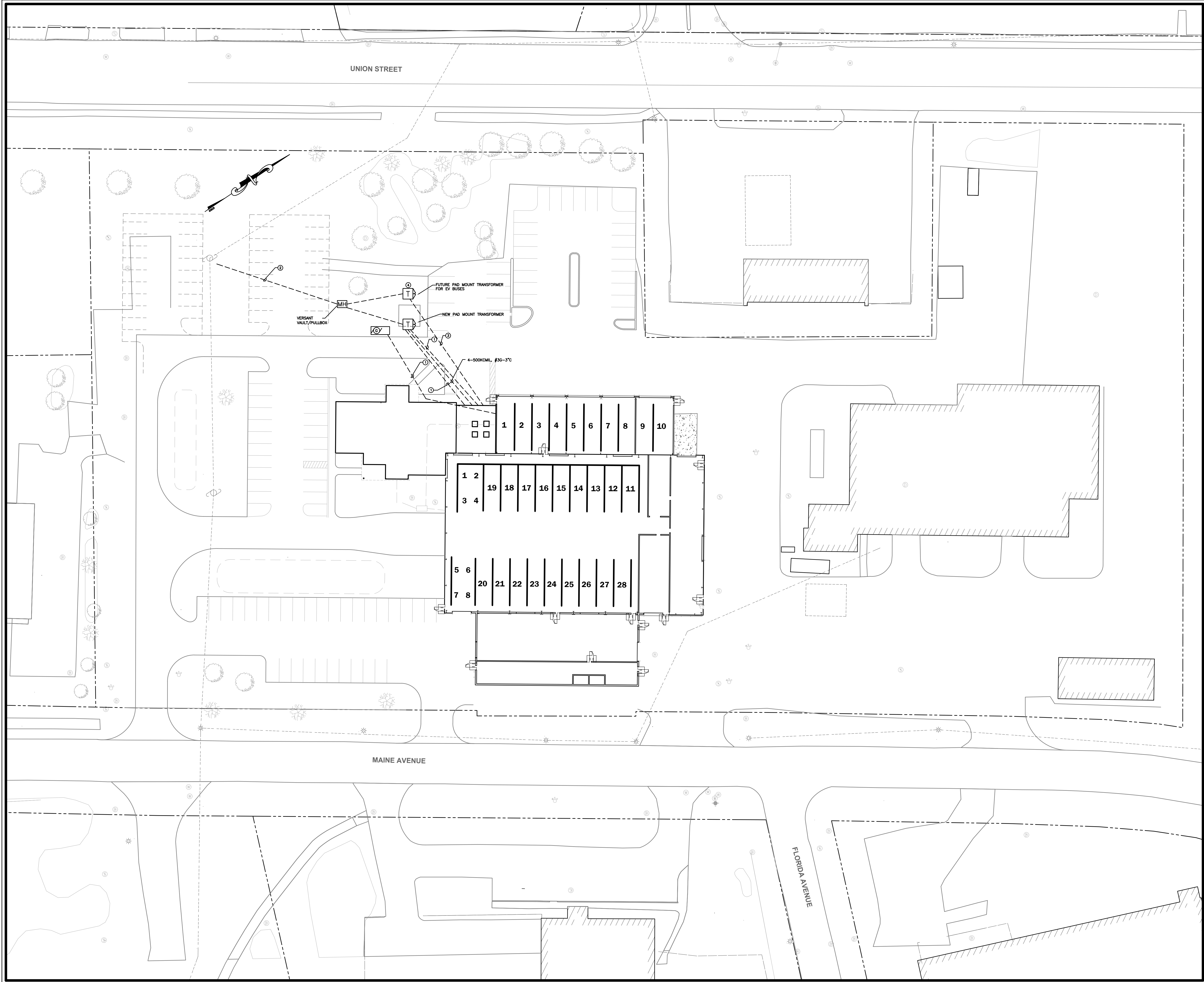
REV.

DATE

CITY OF BANGOR
BUS BARN RENOVATION
511 MAINE AVENUE, BANGOR, ME

DATE:
01-23-2026

E0.1



ELECTRICAL SITE PLAN
SCALE: 1" = 30'
HORIZONTAL SCALE IN FEET

SCHEMATIC SET 2/11/26
NOT FOR CONSTRUCTION

- ⊗ ELECTRICAL KEYED NOTES:
- 1. 2 SETS OF [4-350KCMIL-4°C] (1)4°C SPARE W/ PULL WIRE.
 - 2. (2) 4°C PROVIDE PULL STRING FOR PRIMARY.
 - 3. PROVIDE 6-4°C W/ PULL STRING, STUB AND CAP FOR FUTURE BUS EV LOW VOLTAGE SWITCHBOARD 'EV-MSB'
 - 4. PROVIDE AS PART OF ADD ALTERNATE

175 Exchange Street
Bangor, Maine 04401
Phone:
207-974-3028
www.artifexae.com

PROGRESS
SET 01.23.2026

DuBois & King INC.
Building Services Division
Bedford, NH
ME/FP Engineers
603-444-6579
Project # 530530

FIRST FLOOR PLAN - LIGHTING	
PROJ. NUMBER: 2024122	DRAWN BY:
REV.	DATE
	DESCRIPTION

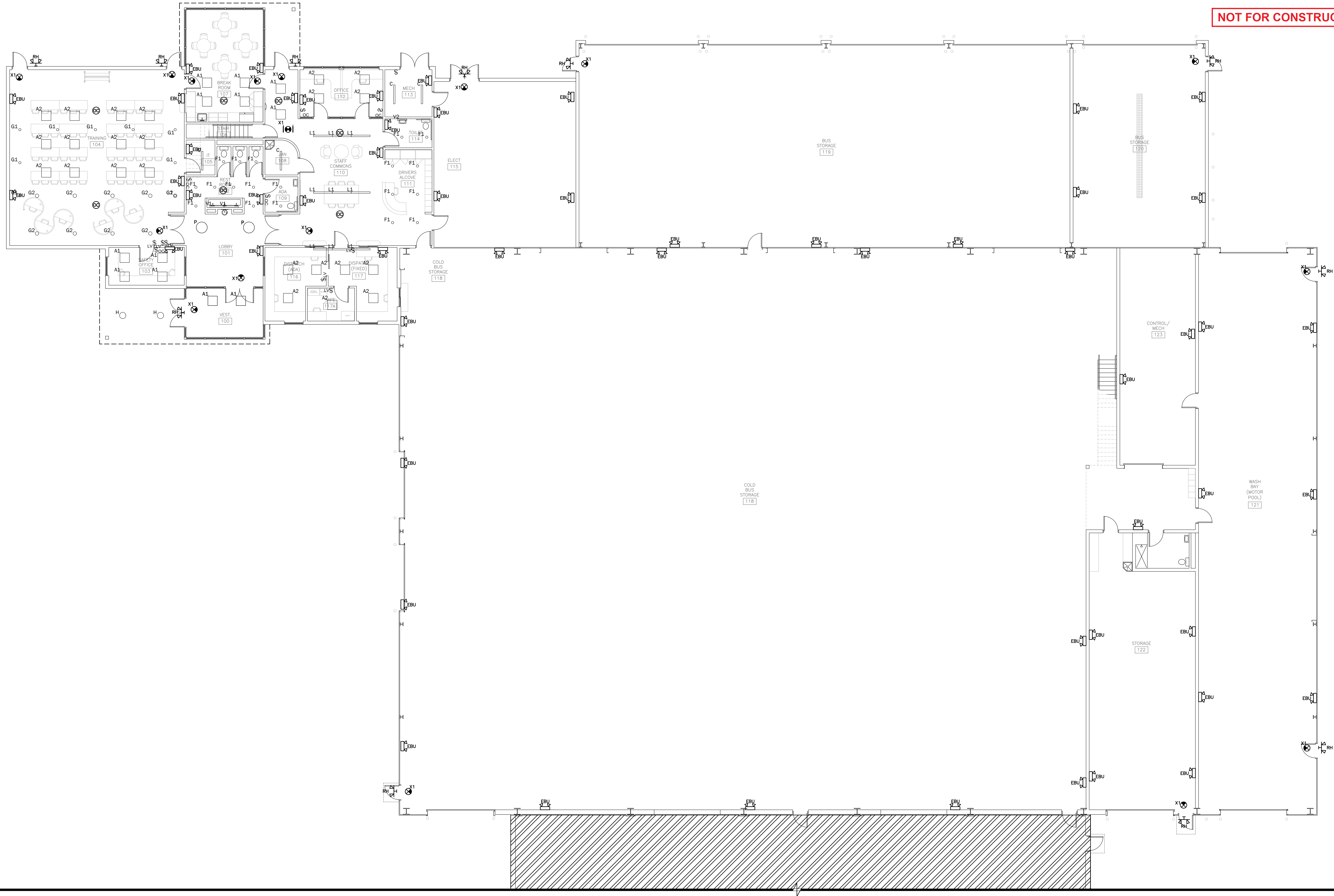
CITY OF BANGOR
BUS BARN RENOVATION
511 MAINE AVENUE, BANGOR, ME

DATE:
01-23-2026

ES1.1

SCHEMATIC SET 2/11/26

NOT FOR CONSTRUCTION

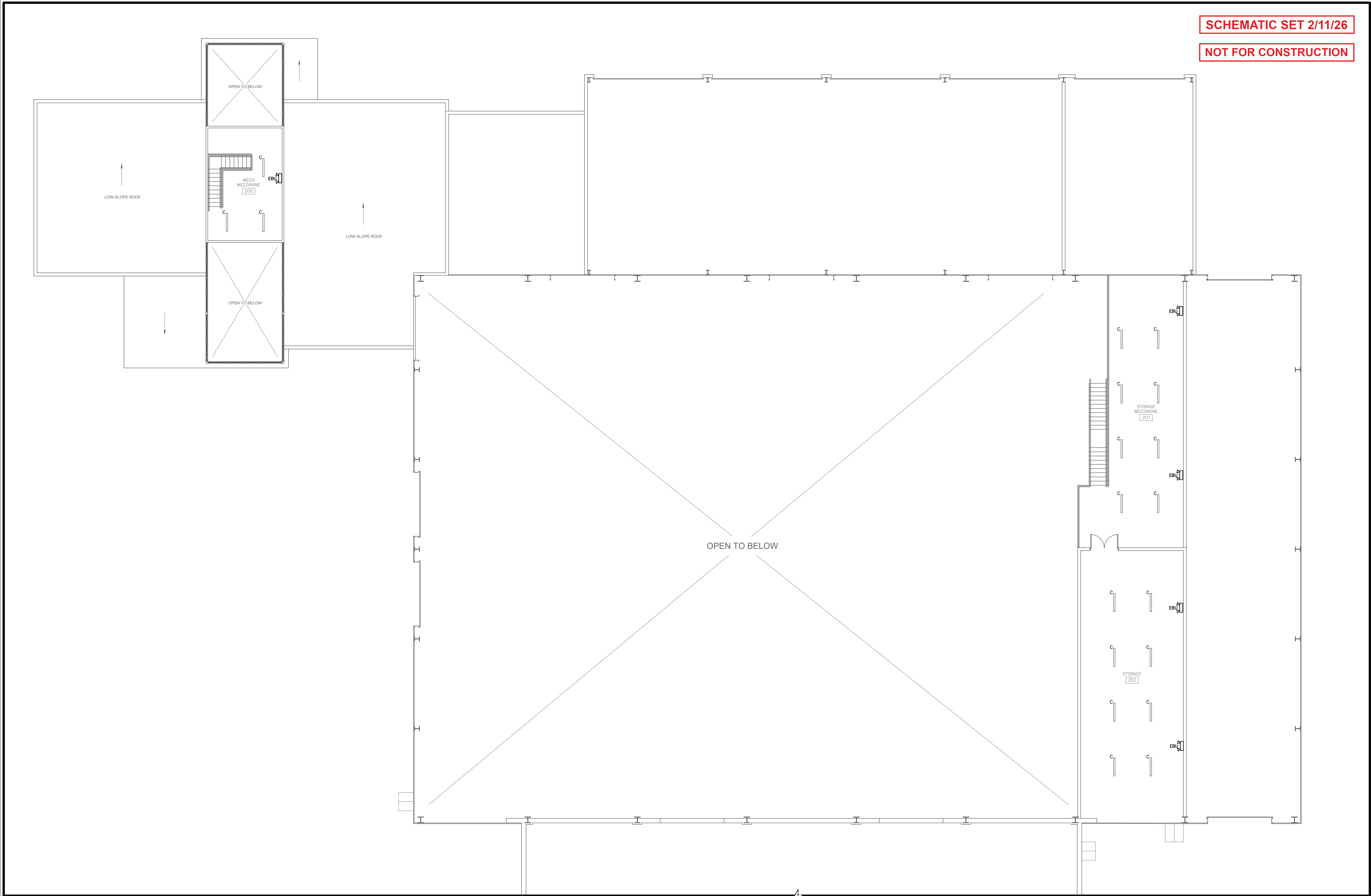


FIRST FLOOR PLAN - LIGHTING
SCALE: 1/8" = 1'-0"



MEZZANINE PLAN - LIGHTING			
PROJ. NUMBER: 2024122	DRAWN BY:		
	DESCRIPTION		
REV.	DATE		

CITY OF BANGOR BUS BARN RENOVATION 511 MAINE AVENUE, BANGOR, ME	DATE:	
	01-23-2026	



MEZZANINE PLAN - LIGHTING
SCALE: 1/8" = 1'-0"
HORIZONTAL SCALE IN FEET



ARTIFEX
architects & engineers

175 Exchange Street
Bangor, Maine 04401
Phone:
207-974-3028
www.artifexae.com

PROGRESS
SET 01.23.2026



Building Services Division
Bedford, NH
MEP/FP Engineers
603-444-6579
Project # 530530

FIRST FLOOR PLAN - POWER

PROJ. NUMBER:	2024122	DRAWN BY:	
REV.	DATE	DESCRIPTION	

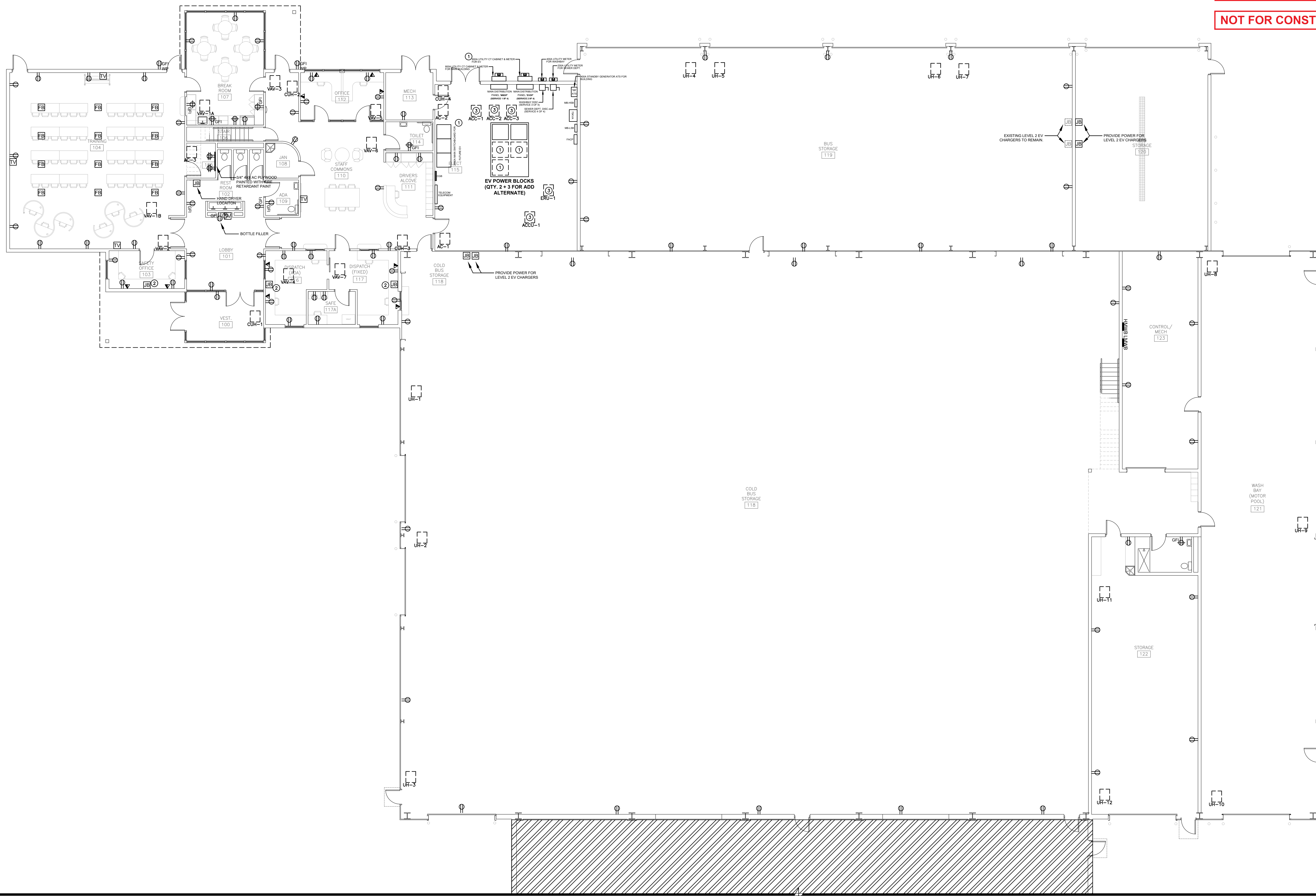
CITY OF BANGOR
BUS BARN RENOVATION
511 MAINE AVENUE, BANGOR, ME

DATE:
01-23-2026

E1.3

SCHEMATIC SET 2/11/26

NOT FOR CONSTRUCTION

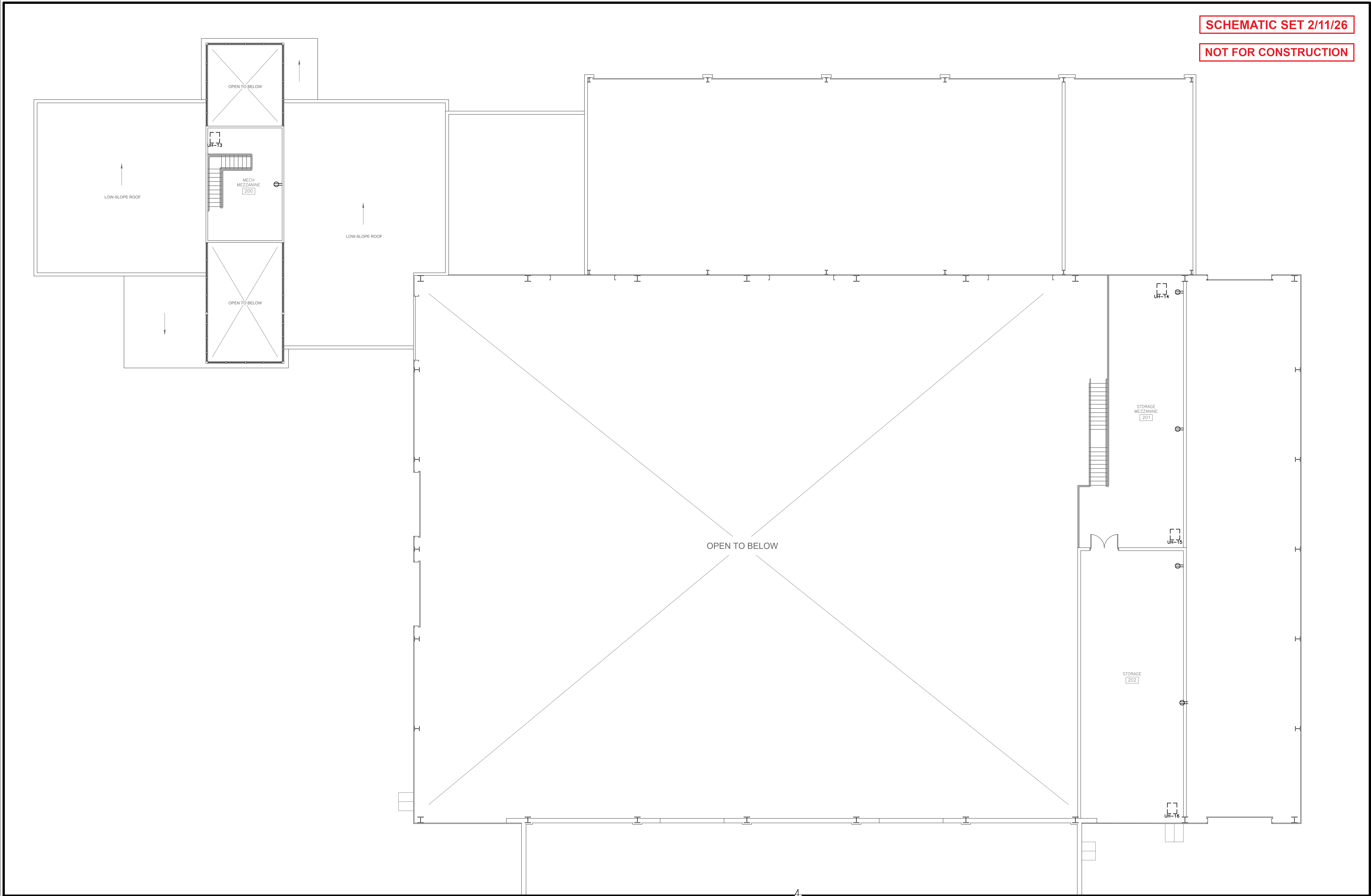


FIRST FLOOR PLAN - POWER
SCALE: 1/8" = 1'-0"



MEZZANINE PLAN - POWER			
PROJ. NUMBER: 2024122	DRAWN BY:		
	DESCRIPTION		
REV.	DATE		

CITY OF BANGOR BUS BARN RENOVATION 511 MAINE AVENUE, BANGOR, ME	DATE:
	01-23-2026



MEZZANINE PLAN - POWER
SCALE: 1/8" = 1'-0"
HORIZONTAL SCALE IN FEET
8 4 0 8 16 24 32



ARTIFEX
architects & engineers

175 Exchange Street
Bangor, Maine 04401
Phone:
207-974-3028
www.artifexae.com

PROGRESS
SET 01.23.2026



Building Services Division
Bedford, NH
MEP/FP Engineers
603.444.6579
Project # 530530

FIRST FLOOR PLAN - SYSTEMS

PROJ. NUMBER: 2024122	DRAWN BY:
REV.	DATE
	DESCRIPTION

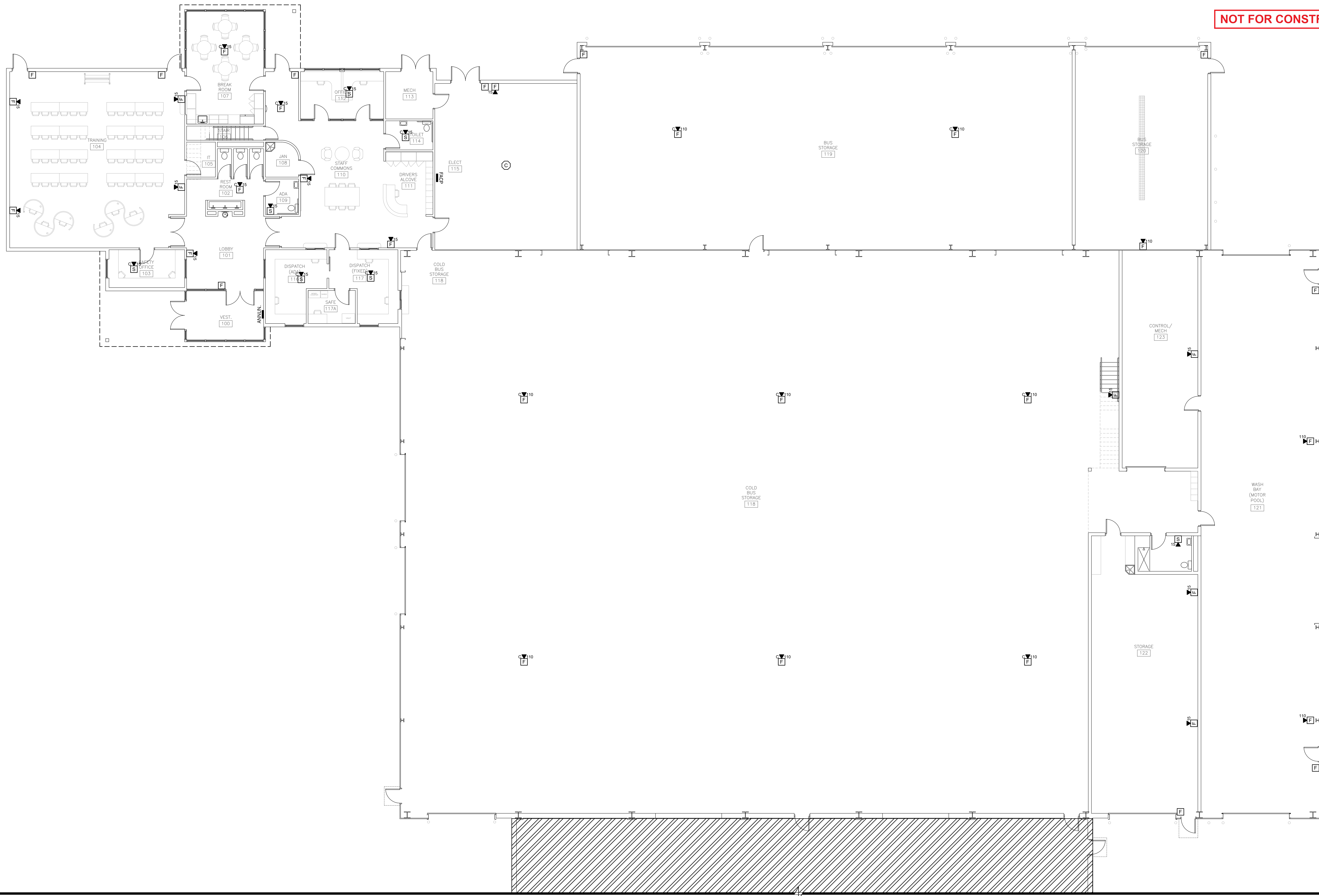
CITY OF BANGOR
BUS BARN RENOVATION
511 MAINE AVENUE, BANGOR, ME

DATE:
01-23-2026

E1.5

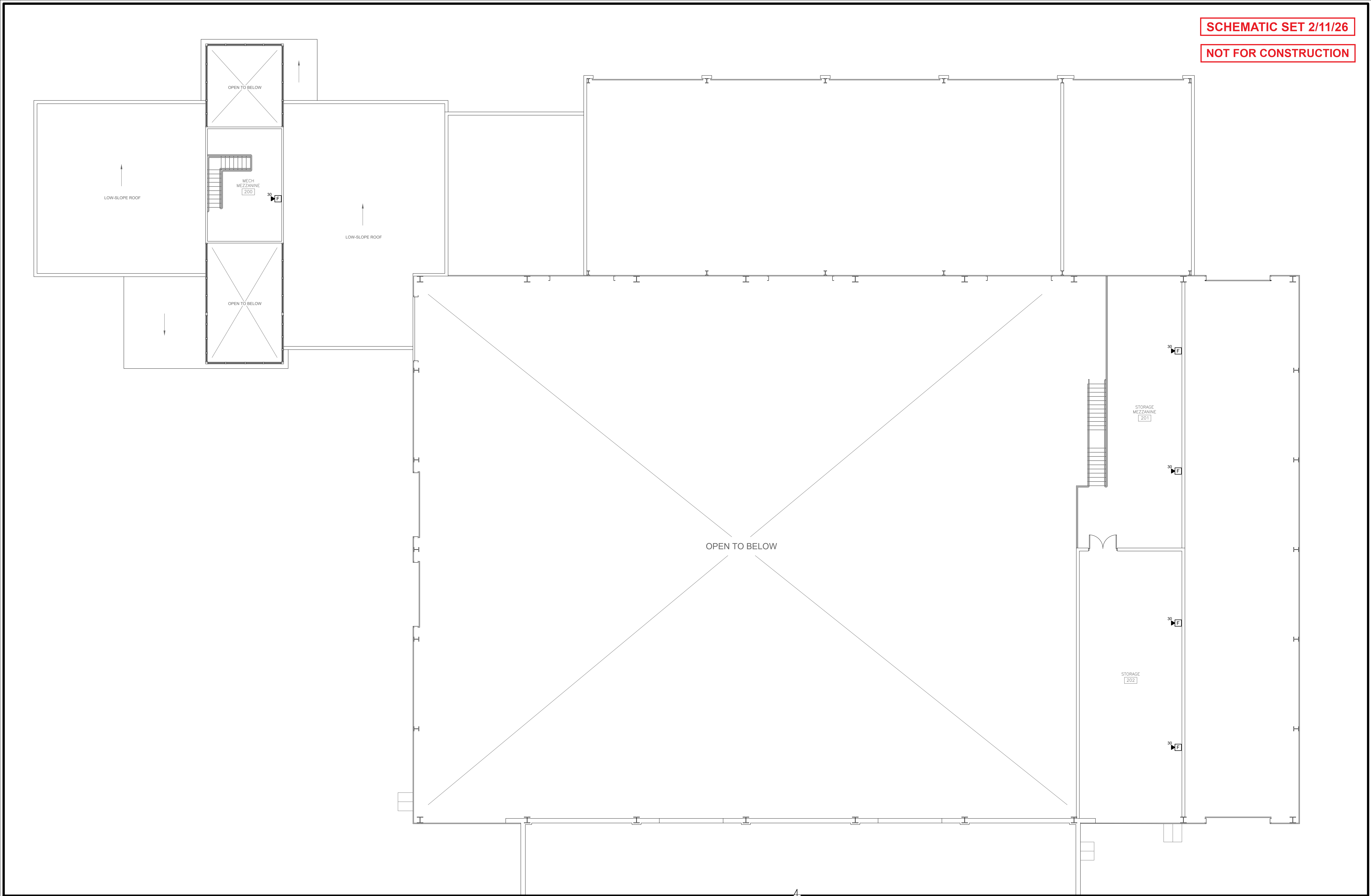
SCHEMATIC SET 2/11/26

NOT FOR CONSTRUCTION



FIRST FLOOR PLAN - SYSTEMS
SCALE: 1/8" = 1'-0"





SCHEMATIC SET 2/11/26

NOT FOR CONSTRUCTION



175 Exchange Street
Bangor, Maine 04401
Phone:
207-974-3028
www.artifexae.com

PROGRESS
SET 01.23.2026



Building Services Division
Bedford, NH
ME/PP Engineers
603.444.6579
Project # 530530

MEZZANINE PLAN - SYSTEMS

PROJ. NUMBER: 2024122	DRAWN BY:	
REV.	DATE	DESCRIPTION

CITY OF BANGOR
BUS BARN RENOVATION
511 MAINE AVENUE, BANGOR, ME

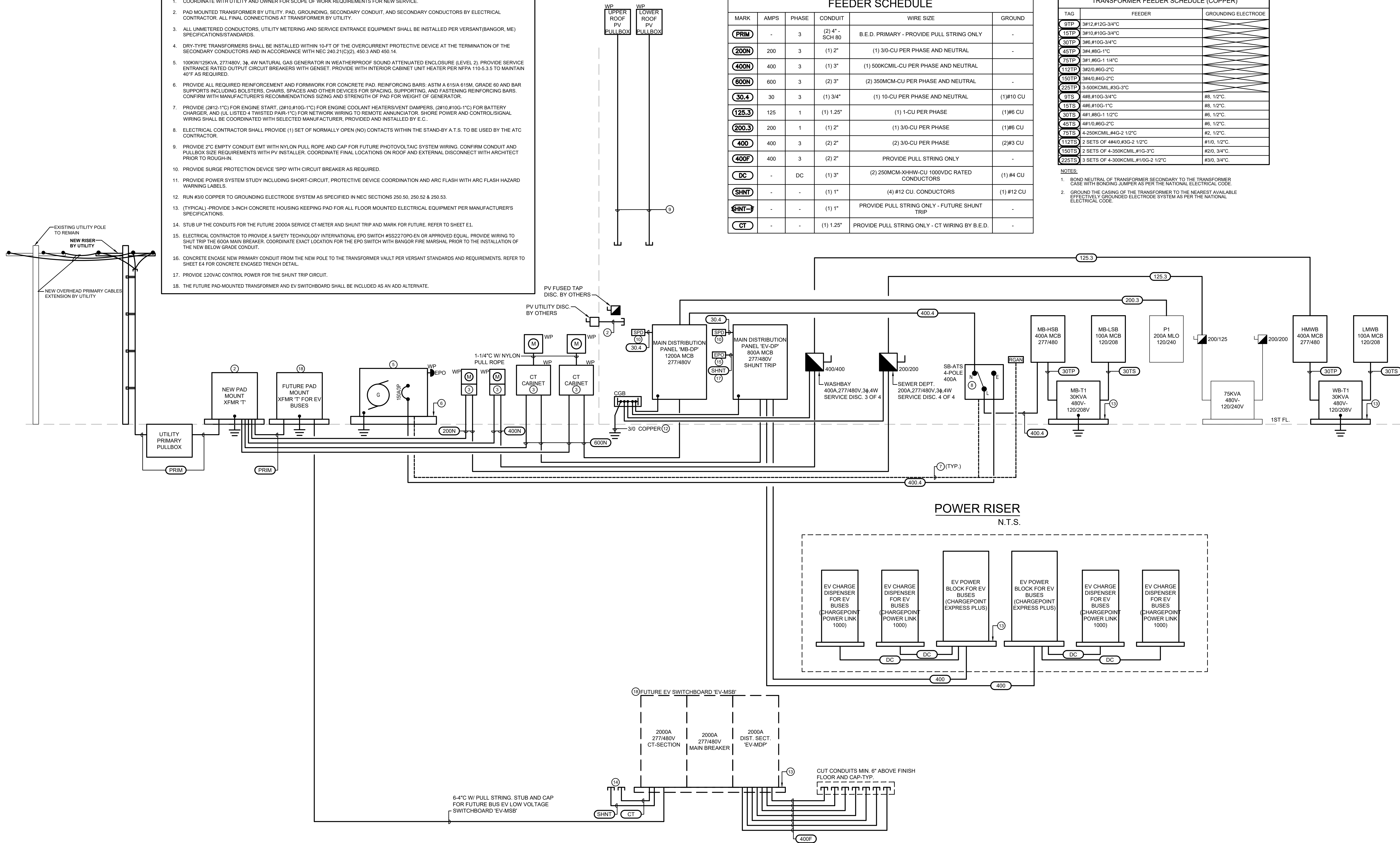
DATE:
01-23-2026

E1.6

MEZZANINE PLAN - SYSTEMS
SCALE: 1/8" = 1'-0"



- ELECTRIC RISER KEYNOTES 'O'**
- COORDINATE WITH UTILITY AND OWNER FOR SCOPE OF WORK REQUIREMENTS FOR NEW SERVICE.
 - PAD MOUNTED TRANSFORMER BY UTILITY. PAD, GROUNDING, SECONDARY CONDUIT, AND SECONDARY CONDUCTORS BY ELECTRICAL CONTRACTOR. ALL FINAL CONNECTIONS AT TRANSFORMER BY UTILITY.
 - ALL UNMETERED CONDUCTORS, UTILITY METERING AND SERVICE ENTRANCE EQUIPMENT SHALL BE INSTALLED PER VERSANT(BANGOR, ME) SPECIFICATIONS/STANDARDS.
 - DRY-TYPE TRANSFORMERS SHALL BE INSTALLED WITHIN 10-FT OF THE OVERCURRENT PROTECTIVE DEVICE AT THE TERMINATION OF THE SECONDARY CONDUCTORS AND IN ACCORDANCE WITH NEC 240.21(C)(2), 450.3 AND 450.14.
 - 100KW/125KVA, 277/480V, 3ø, 4W NATURAL GAS GENERATOR IN WEATHERPROOF SOUND ATTENUATED ENCLOSURE (LEVEL 2). PROVIDE SERVICE ENTRANCE RATED OUTPUT CIRCUIT BREAKERS WITH GENSET. PROVIDE WITH INTERIOR CABINET UNIT HEATER PER NFPA 110-5.3.3 TO MAINTAIN 40°F AS REQUIRED.
 - PROVIDE ALL REQUIRED REINFORCEMENT AND FORMWORK FOR CONCRETE PAD. REINFORCING BARS: ASTM A 615/A 615M, GRADE 60 AND BAR SUPPORTS INCLUDING BOLSTERS, CHAIRS, SPACES AND OTHER DEVICES FOR SPACING, SUPPORTING, AND FASTENING REINFORCING BARS. CONFIRM WITH MANUFACTURER'S RECOMMENDATIONS SIZING AND STRENGTH OF PAD FOR WEIGHT OF GENERATOR.
 - PROVIDE (2#12-1" C) FOR ENGINE START, (2#10-#10G-1" C) FOR ENGINE COOLANT HEATERS/VENT DAMPERS, (2#10-#10G-1" C) FOR BATTERY CHARGER, AND (UL LISTED 4 TWISTED PAIR-1" C) FOR NETWORK WIRING TO REMOTE ANNUNCIATOR. SHORE POWER AND CONTROL/SIGNAL WIRING SHALL BE COORDINATED WITH SELECTED MANUFACTURER, PROVIDED AND INSTALLED BY E.C..
 - ELECTRICAL CONTRACTOR SHALL PROVIDE (1) SET OF NORMALLY OPEN (NO) CONTACTS WITHIN THE STAND-BY A.T.S. TO BE USED BY THE ATC CONTRACTOR.
 - PROVIDE 2" C EMPTY CONDUIT EMT WITH NYLON PULL ROPE AND CAP FOR FUTURE PHOTOVOLTAIC SYSTEM WIRING. CONFIRM CONDUIT AND PULLBOX SIZE REQUIREMENTS WITH PV INSTALLER. COORDINATE FINAL LOCATIONS ON ROOF AND EXTERNAL DISCONNECT WITH ARCHITECT PRIOR TO ROUGH-IN.
 - PROVIDE SURGE PROTECTION DEVICE 'SPD' WITH CIRCUIT BREAKER AS REQUIRED.
 - PROVIDE POWER SYSTEM STUDY INCLUDING SHORT-CIRCUIT, PROTECTIVE DEVICE COORDINATION AND ARC FLASH WITH ARC FLASH HAZARD WARNING LABELS.
 - RUN #30 COPPER TO GROUNDING ELECTRODE SYSTEM AS SPECIFIED IN NEC SECTIONS 250.50, 250.52 & 250.53.
 - (TYPICAL). PROVIDE 3-INCH CONCRETE HOUSING KEEPING PAD FOR ALL FLOOR MOUNTED ELECTRICAL EQUIPMENT PER MANUFACTURER'S SPECIFICATIONS.
 - STUB UP THE CONDUITS FOR THE FUTURE 2000A SERVICE CT-METER AND SHUNT TRIP AND MARK FOR FUTURE. REFER TO SHEET EL.
 - ELECTRICAL CONTRACTOR TO PROVIDE A SAFETY TECHNOLOGY INTERNATIONAL EPO SWITCH #52270PO EN OR APPROVED EQUAL. PROVIDE WIRING TO SHUNT TRIP THE 600A MAIN BREAKER. COORDINATE EXACT LOCATION FOR THE EPO SWITCH WITH BANGOR FIRE MARSHAL PRIOR TO THE INSTALLATION OF THE NEW BELOW GRADE CONDUIT.
 - CONCRETE ENCASE NEW PRIMARY CONDUIT FROM THE NEW POLE TO THE TRANSFORMER VAULT PER VERSANT STANDARDS AND REQUIREMENTS. REFER TO SHEET E4 FOR CONCRETE ENCASED TRENCH DETAIL.
 - PROVIDE 120VAC CONTROL POWER FOR THE SHUNT TRIP CIRCUIT.
 - THE FUTURE PAD-MOUNTED TRANSFORMER AND EV SWITCHBOARD SHALL BE INCLUDED AS AN ADD ALTERNATE.
 - THE FUTURE PAD-MOUNTED TRANSFORMER AND EV SWITCHBOARD SHALL BE INCLUDED AS AN ADD ALTERNATE.



SCHEMATIC SET 2/11/26

NOT FOR CONSTRUCTION

MECHANICAL & PLUMBING EQUIPMENT ELECTRICAL CONNECTION SCHEDULE												
EQUIPMENT TAG	HP	AMPS (NCA)	VOLT	PHASE	DEVICE	PANEL CIRCUIT No.	CIRCUIT BREAKER				BRANCH CIRCUIT	REMARKS
							AMP	POLE	GF	ST		
BRU-1	-	38.50	480	3	PROVIDE DISCONNECT		45	3			3#2, 1#10, 3#4C	
ACCU 1		50.10	480	3	PROVIDE DISCONNECT		60	3			3 #2, 1 #10, 3#4C	
AC-1	-	1.00	208	1	PROVIDE DISCONNECT	FED FROM ACC-1					2 #12, 1 #12, 3#4C	POWERED BY ACC-1
AC-2	-	1.00	208	1	PROVIDE DISCONNECT	FED FROM ACC-2					2 #12, 1 #12, 3#4C	POWERED BY ACC-2
AC-3	-	1.00	208	1	PROVIDE DISCONNECT	FED FROM ACC-3					2 #12, 1 #12, 3#4C	POWERED BY ACC-3
ACC-1	-	25.00	208	1	PROVIDE WP DISCONNECT		30	2			2 #10, 1 #10, 3#4C	
ACC 2		25.00	208	1	PROVIDE WP DISCONNECT		30	2			2 #10, 1 #10, 3#4C	
ACC-3	-	11.00	208	1	PROVIDE WP DISCONNECT		20	2			2 #12, 1 #12, 3#4C	
HMR-1	2.00	-	208	1	PROVIDE DISCONNECT		20	2			2 #12, 1 #12, 3#4C	
HMR-2	2.00	-	208	1	PROVIDE DISCONNECT		20	2			2 #12, 1 #12, 3#4C	
BP-1	1.00	-	208	1	PROVIDE DISCONNECT		15	2			2 #12, 1 #12, 3#4C	
BP-2	1.00	-	208	1	PROVIDE DISCONNECT		15	2			2 #12, 1 #12, 3#4C	
FF-1	5.00	-	480	3	PROVIDE DISCONNECT		15	3			3 #12, 1 #12, 3#4C	
BF-2	1.00	-	480	3	PROVIDE DISCONNECT		15	3			3 #12, 1 #12, 3#4C	
BF-3	1.00	-	480	3	PROVIDE DISCONNECT		15	3			3 #12, 1 #12, 3#4C	
CF-4	2.00	-	480	3	PROVIDE DISCONNECT		15	3			3 #12, 1 #12, 3#4C	
FF-5	0.95	-	120	1	PROVIDE DISCONNECT		15	2			2 #12, 1 #12, 3#4C	
B-1		-	120	1	PROVIDE DISCONNECT							
B-2		-	120	1	PROVIDE DISCONNECT							
UH-1	0.33	-	120	1	PROVIDE DISCONNECT		15	1			2 #12, 1 #12, 3#4C	
UH-2	0.33	-	120	1	PROVIDE DISCONNECT		15	1			2 #12, 1 #12, 3#4C	
UH-3	0.33	-	120	1	PROVIDE DISCONNECT		15	1			2 #12, 1 #12, 3#4C	
UH-4	0.05	-	120	1	PROVIDE DISCONNECT		15	1			2 #12, 1 #12, 3#4C	
UH-5	0.05	-	120	1	PROVIDE DISCONNECT		15	1			2 #12, 1 #12, 3#4C	
UH-6	0.05	-	120	1	PROVIDE DISCONNECT		15	1			2 #12, 1 #12, 3#4C	
UH-7	0.05	-	120	1	PROVIDE DISCONNECT		15	1			2 #12, 1 #12, 3#4C	
UH-8	0.05	-	120	1	PROVIDE DISCONNECT		15	1			2 #12, 1 #12, 3#4C	
UH-9	0.05	-	120	1	PROVIDE DISCONNECT		15	1			2 #12, 1 #12, 3#4C	
UH-10	0.05	-	120	1	PROVIDE DISCONNECT		15	1			2 #12, 1 #12, 3#4C	
UH-11	0.05	-	120	1	PROVIDE DISCONNECT		15	1			2 #12, 1 #12, 3#4C	
UH-12	0.05	-	120	1	PROVIDE DISCONNECT		15	1			2 #12, 1 #12, 3#4C	
UH-13		0.21	120	1	PROVIDE DISCONNECT		15	1			2 #12, 1 #12, 3#4C	
UH-14	0.05	-	120	1	PROVIDE DISCONNECT		15	1			2 #12, 1 #12, 3#4C	
UH-15	0.05	-	120	1	PROVIDE DISCONNECT		15	1			2 #12, 1 #12, 3#4C	
UH-16	0.05	-	120	1	PROVIDE DISCONNECT		15	1			2 #12, 1 #12, 3#4C	
IRH-1	-	1.80	120	1	PROVIDE DISCONNECT		15	1			2 #12, 1 #12, 3#4C	
IRH-2	-	1.80	120	1	PROVIDE DISCONNECT		15	1			2 #12, 1 #12, 3#4C	
IRH-3	-	1.80	120	1	PROVIDE DISCONNECT		15	1			2 #12, 1 #12, 3#4C	
IRH-4	-	1.80	120	1	PROVIDE DISCONNECT		15	1			2 #12, 1 #12, 3#4C	
IRH-5		1.80	120	1	PROVIDE DISCONNECT		15	1			2 #12, 1 #12, 3#4C	
IRH-6	-	1.80	120	1	PROVIDE DISCONNECT		15	1			2 #12, 1 #12, 3#4C	
IRH-7	-	1.80	120	1	PROVIDE DISCONNECT		15	1			2 #12, 1 #12, 3#4C	
IRH-8	-	1.80	120	1	PROVIDE DISCONNECT		15	1			2 #12, 1 #12, 3#4C	
MAU-1	5.00	-	480	3	PROVIDE DISCONNECT		20	3			3 #12, 1 #12, 3#4C	
MAU-2	5.00	-	480	3	PROVIDE DISCONNECT		20	3			3 #12, 1 #12, 3#4C	
MAU-3	1.50	-	480	3	PROVIDE DISCONNECT		20	3			3 #12, 1 #12, 3#4C	
MAU-4	0.75	-	480	3	PROVIDE DISCONNECT		20	3			3 #12, 1 #12, 3#4C	
MAU-5	1.50	-	480	3	PROVIDE DISCONNECT		20	3			3 #12, 1 #12, 3#4C	
CRV-1	0.50	-	208	1	PROVIDE DISCONNECT		20	2			2 #12, 1 #12, 3#4C	



175 Exchange Street
Bangor, Maine 04401
Phone:
207-974-3028
www.artifexae.com

PROGRESS
SET 01.23.2026



Building Services Division
Bedford, NH
ME/PEP Engineers
603-444-5579
Project # 530530

ELECTRICAL SCHEDULES

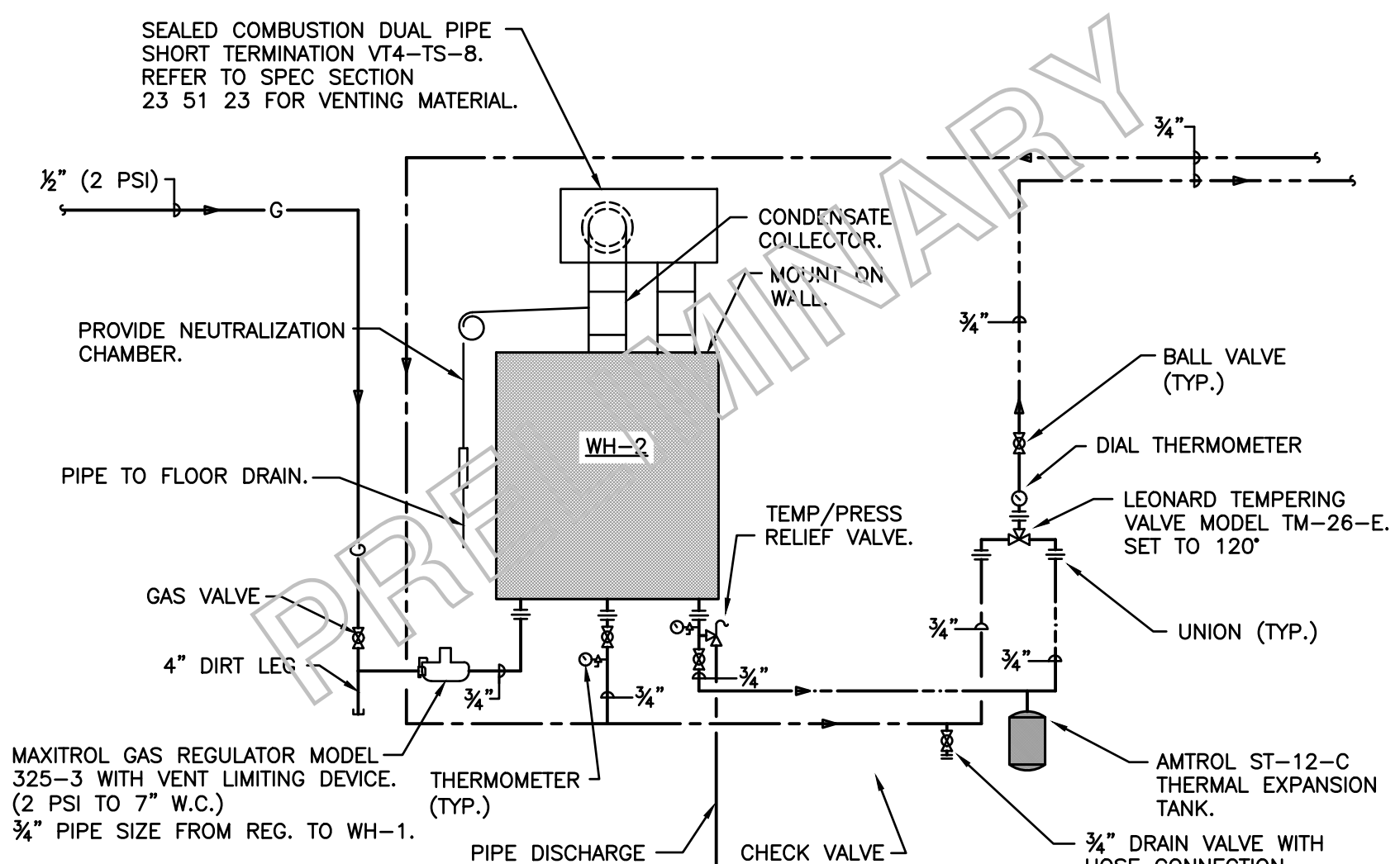
PROJ. NUMBER: 2024122	DRAWN BY:
REV.	DESCRIPTION
DATE	

CITY OF BANGOR
BUS BARN RENOVATION
511 MAINE AVENUE, BANGOR, ME

DATE:
01-23-2026

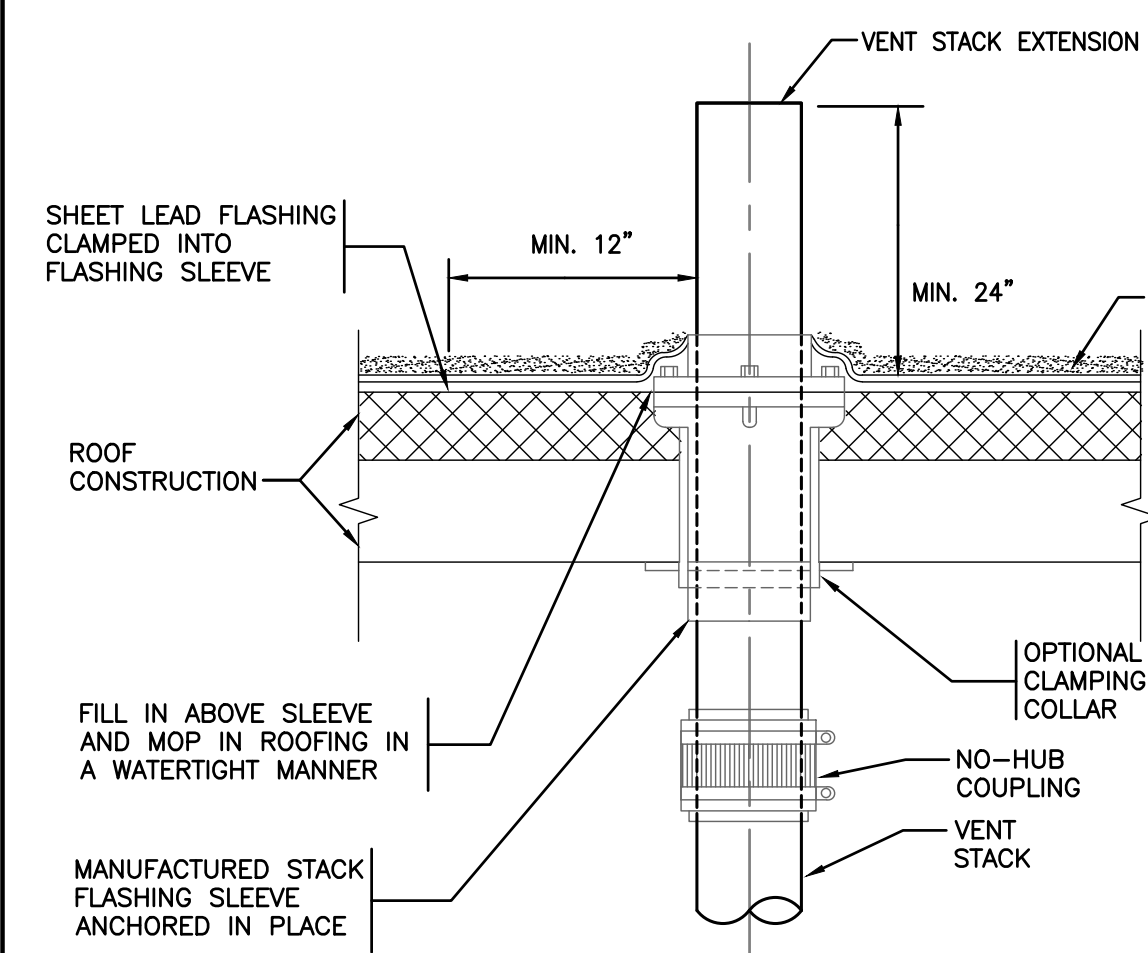
E6.1

NORITZ NAT. GAS FIRED DOMESTIC WATER HEATER MODEL NCC199DV, 4.6 GPM AT 80°F RISE, MAX. TEMP. SETTING 125°F, 199,900 MAX. BTUH INPUT, 120V-1PH-60CY, FURNISH WITH VENTING KIT THROUGH WALL, INCLUDING ALL REQUIRED ACCESSORIES FOR CODE-COMPLIANT INSTALLATION, INCLUDING CONDENSATE COLLECTOR, P.C. TO INSTALL COMPLETE VENTING KIT PER MANUFACTURER'S RECOMMENDATIONS.



TANKLESS WATER HEATER PIPING DETAIL

N.T.S.



VENT THRU ROOF DETAIL

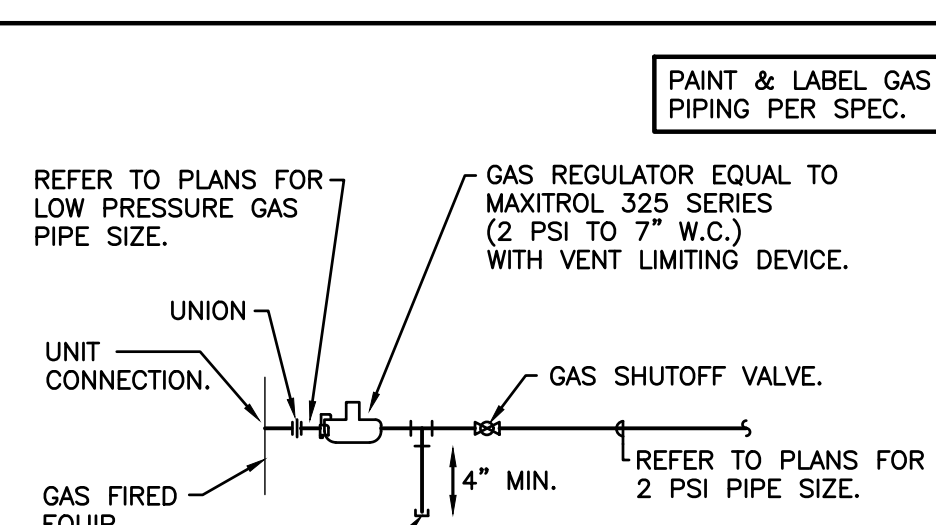
N.T.S.

PLUMBING GENERAL NOTES

1. MOUNTING HEIGHTS, LOCATION AND CLEARANCES FOR PLUMBING FIXTURES, FAUCETS, SHOWER CONTROL VALVES, HOSES, HAND SPRAYS, ETC., LOCATED IN HANDICAP ACCESSIBLE SPACES SHALL COMPLY WITH CURRENT STATE AND FEDERAL "HANDICAP COMPLIANCE" LEGISLATION (ADA).
2. ALL EQUIPMENT AND PIPING SHOWN DIAGMATICALLY ONLY. EXACT LOCATION TO BE DETERMINED AND COORDINATED IN THE FIELD BY ALL TRADES INVOLVED.
3. ALL ROUGH OPENINGS THRU EXTERIOR WALLS SHALL BE SEALED/CAULKED WATER-TIGHT WITH ELASTOMERIC SEALANT PER SECTION 07 84 00.
4. SEAL ALL PIPE PENETRATIONS THRU PARTITIONS, WALLS AND FLOORS PER SPEC. SECTION 07 84 00. SEAL ALL PENETRATIONS THROUGH SMOKE PARTITIONS WITH SEALANT PRODUCTS PER SECTION 07 84 00.
5. PROVIDE ACCESS DOORS WHERE REQUIRED TO ACCESS VALVES, EQUIPMENT, AND OTHER PLUMBING SPECIALTIES WHERE CONCEALED ABOVE GWB CEILINGS OR IN WALLS.

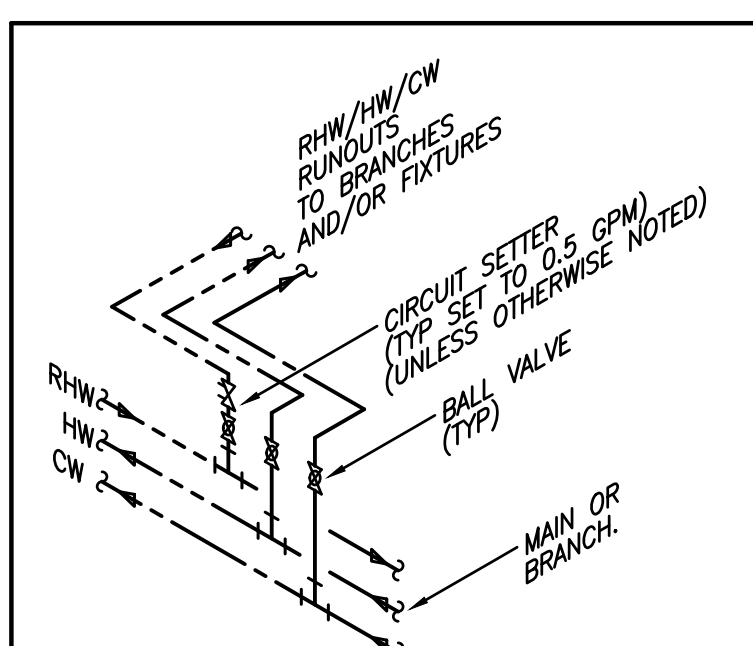
PLUMBING LEGEND

A.F.F.	ABOVE FINISH FLOOR
C.M.	CONSTRUCTION MANAGER
E.C.	ELECTRICAL CONTRACTOR
ECO	END CLEAN OUT
FCO	FLOOR CLEAN OUT
FD	FLOOR DRAIN
H.B.	HOSE BIBB
L.W.	INDIRECT WASTE
N.T.S.	NOT TO SCALE
P.C.	PLUMBING CONTRACTOR
P-#	PLUMBING FIXTURE DESIGNATION
RD	ROOF DRAIN
RHW	DOMESTIC HOT WATER RECIRC.
Y	VENT THROUGH ROOF
WCO	WALL CLEAN OUT
TRAP PLAN VIEW	
---	SANITARY WASTE BELOW GRADE - NEW
---	SANITARY WASTE BELOW GRADE - EXIST.
---	SANITARY WASTE ABOVE GRADE - NEW
---	SANITARY WASTE ABOVE GRADE - EXIST.
---	SANITARY VENT - NEW
---	SANITARY VENT - EXIST.
---	DOMESTIC COLD WATER - NEW
---	DOMESTIC COLD WATER - EXIST.
---	DOMESTIC HOT WATER 140 DEG. - NEW
---	DOMESTIC TEMPERED HOT WATER - NEW
---	DOMESTIC TEMPERED HOT WATER - EXIST.
---	HOT WATER RECIRCULATING - NEW
---	HOT WATER RECIRCULATING - EXIST.
---	GAS PIPING - EXIST.
---	STORM DRAIN BELOW GRADE - NEW
---	STORM DRAIN BELOW GRADE - EXIST.
---	STORM DRAIN ABOVE GRADE - NEW
---	STORM DRAIN ABOVE GRADE - EXIST.
---	EMERGENCY STORM DRAIN - NEW
---	EMERGENCY STORM DRAIN - EXIST.
---	CONDENSATE DRAIN - NEW
---	CONDENSATE DRAIN - EXIST.
---	PRESSURE REDUCING VALVE
---	BACK FLOW PREVENTER
---	UNION
---	HOT WATER RECIRCULATING PUMP
---	DIRECTION OF FLOW
---	GAS VALVE
---	BALL VALVE
---	CHECK VALVE
---	Mechanical Gas Shutoff Valve
---	PIPE DROP
---	PIPE RISE
---	SHOCK ABSORBER (WADE MODEL NO.)



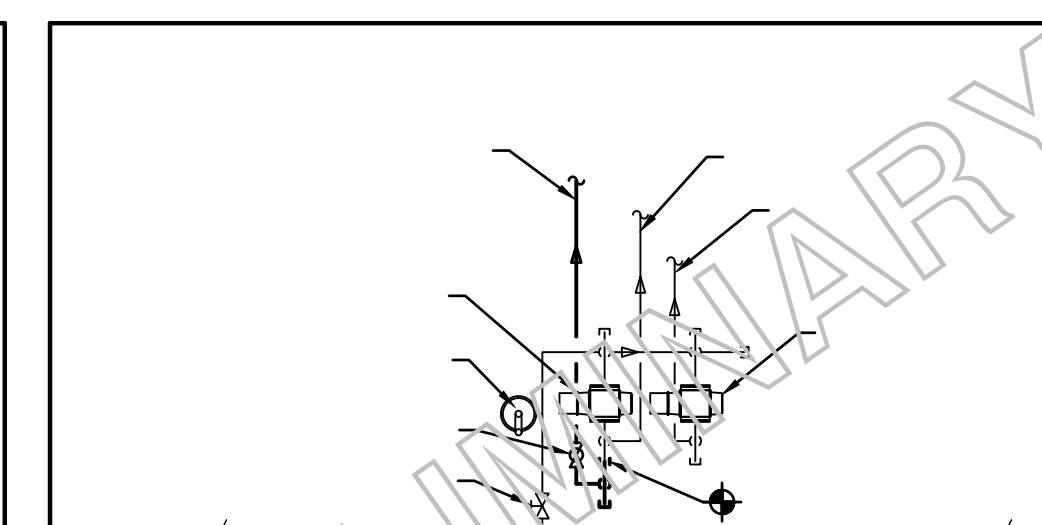
EQUIP. GAS PIPING DETAIL

N.T.S.



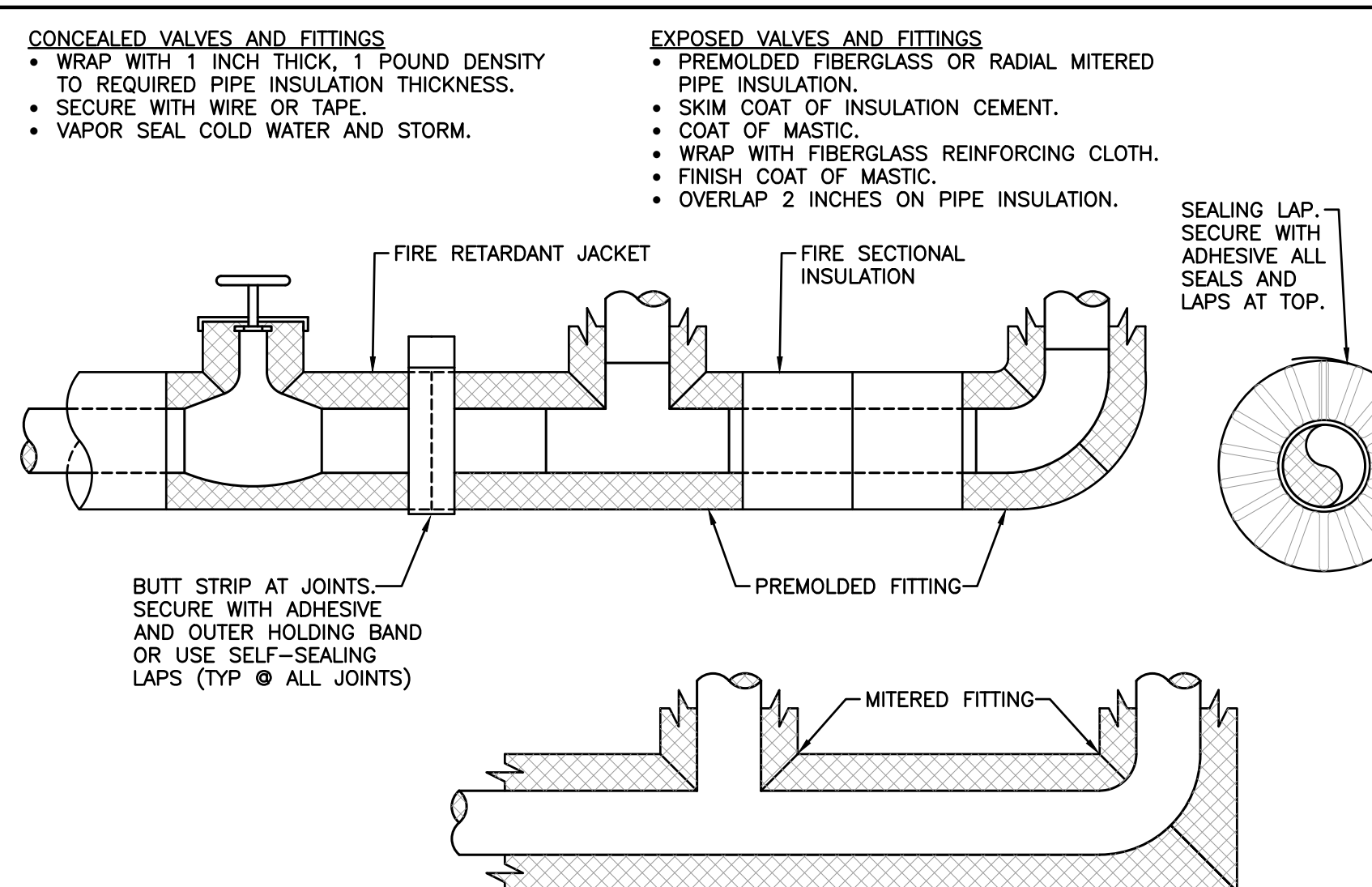
TYPICAL PIPING TAKE-OFF DETAIL

N.T.S.



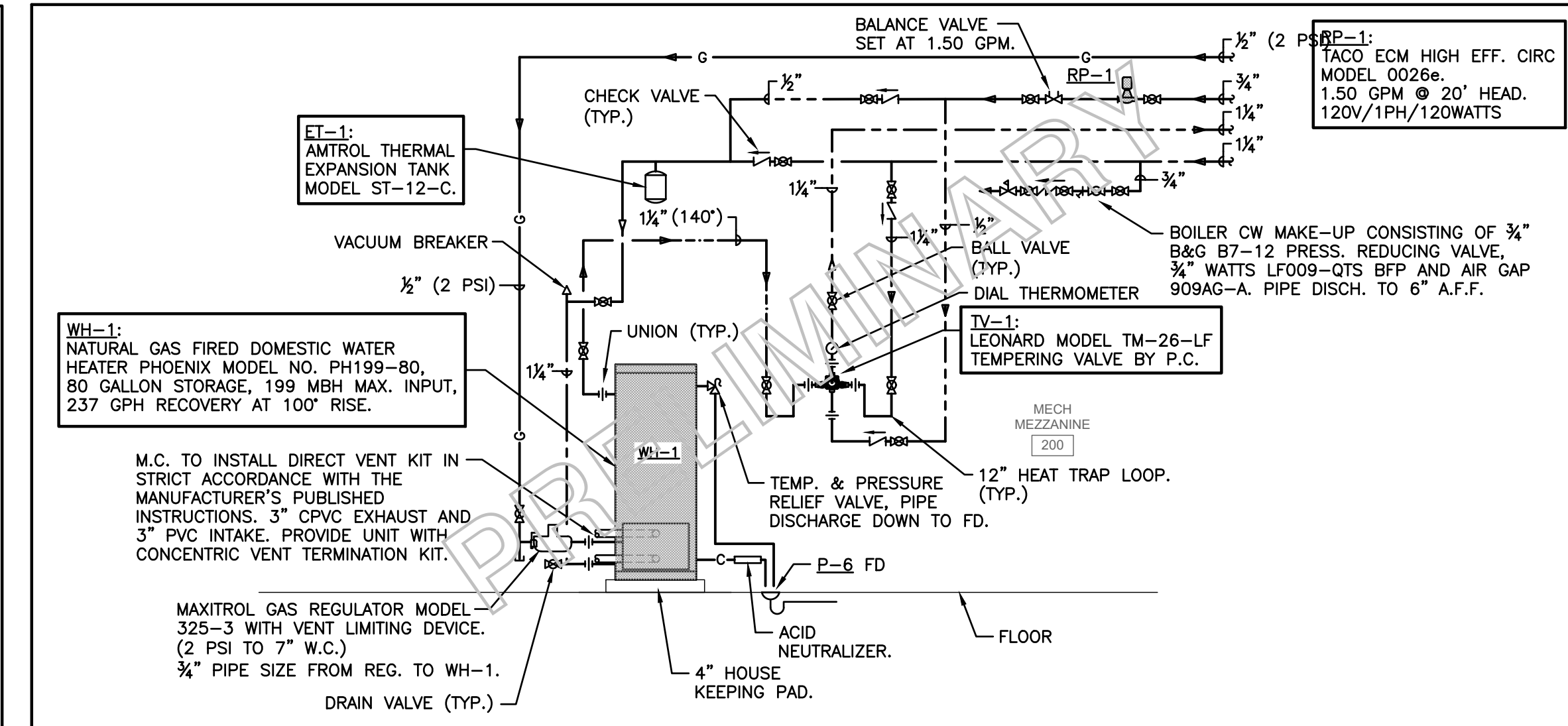
NAT. GAS SERVICE DETAIL

N.T.S.



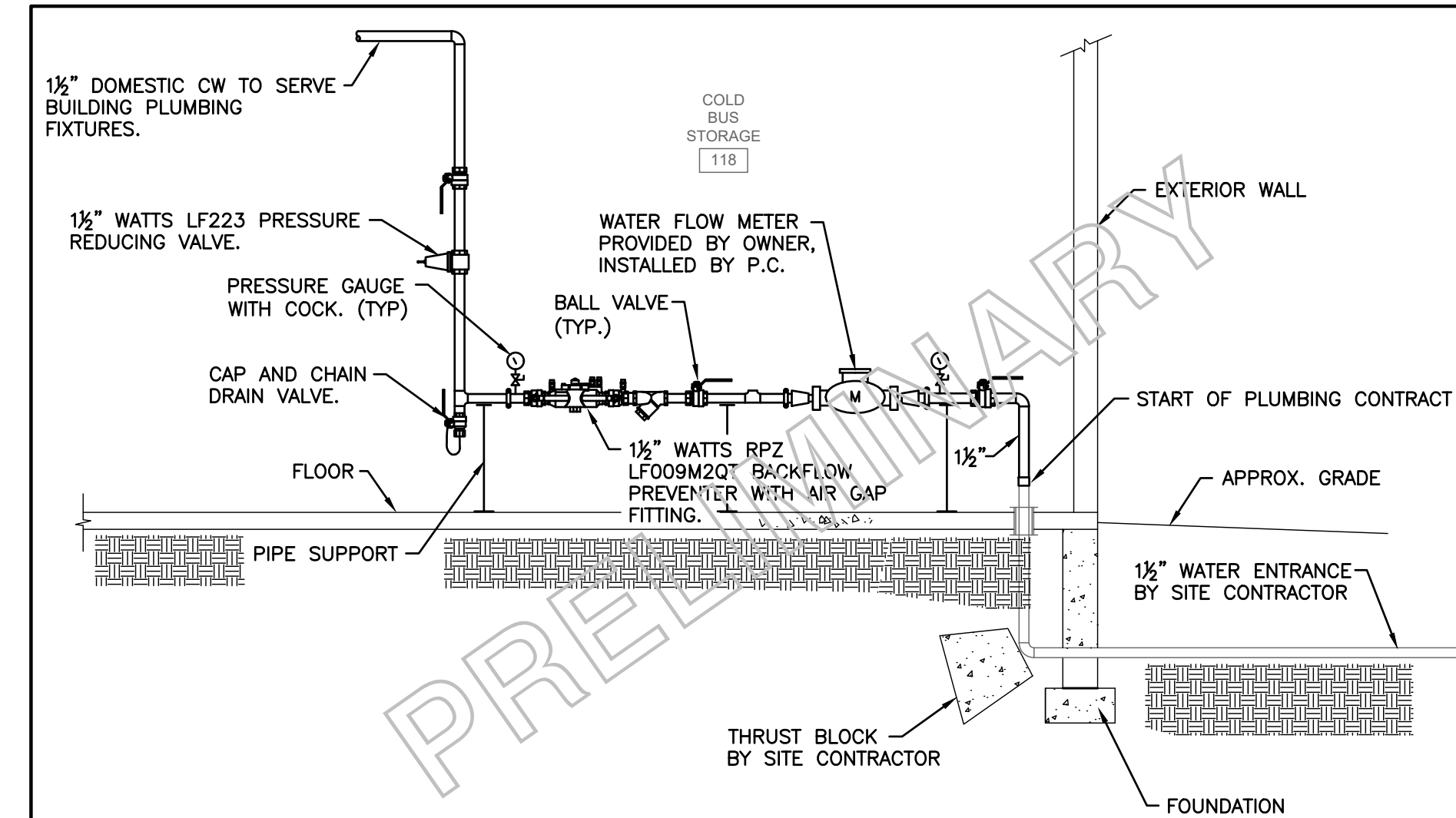
INSULATION OF PIPING, VALVES, AND FITTINGS DETAIL

N.T.S.



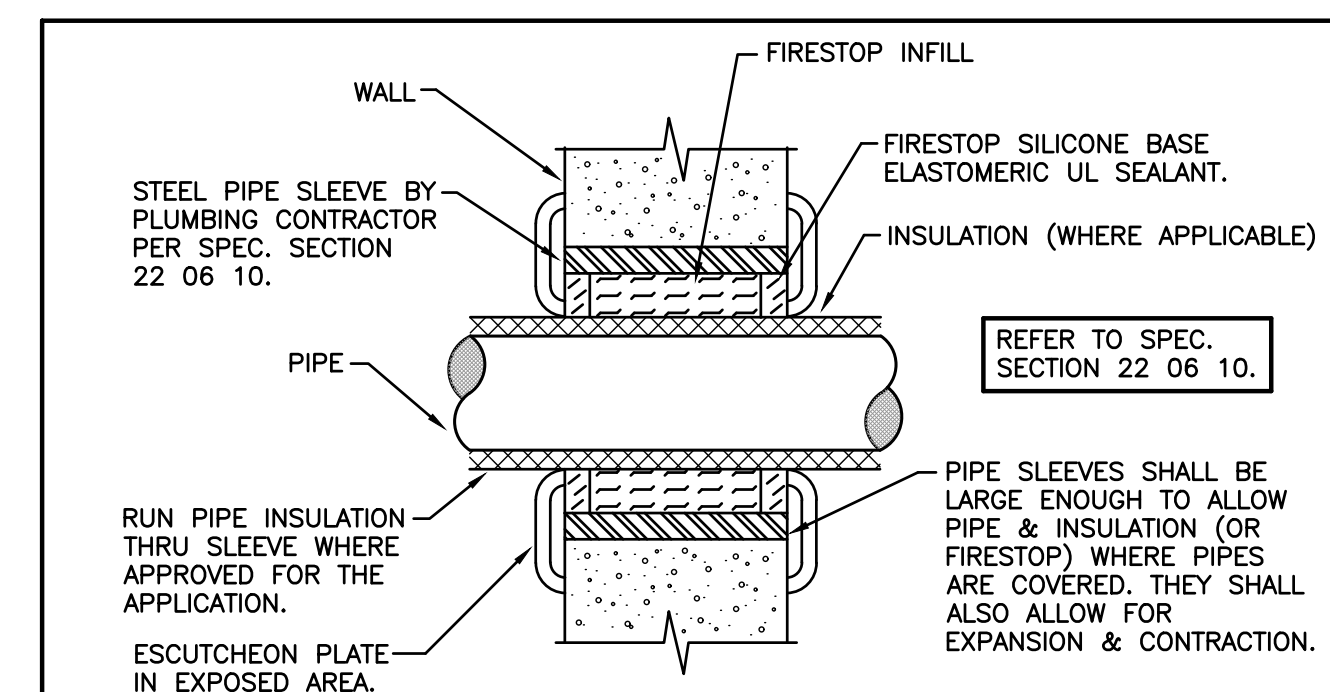
WATER HEATER PIPING DIAGRAM

N.T.S.



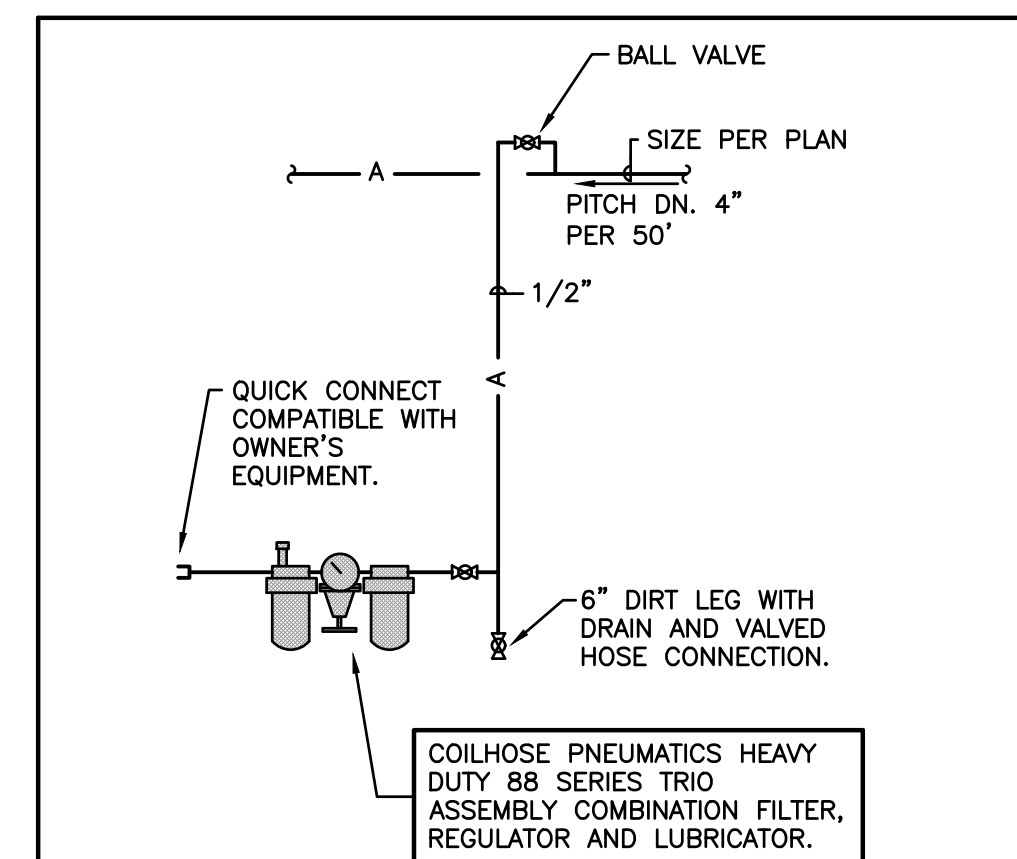
WATER ENTRANCE PIPING DETAIL

N.T.S.



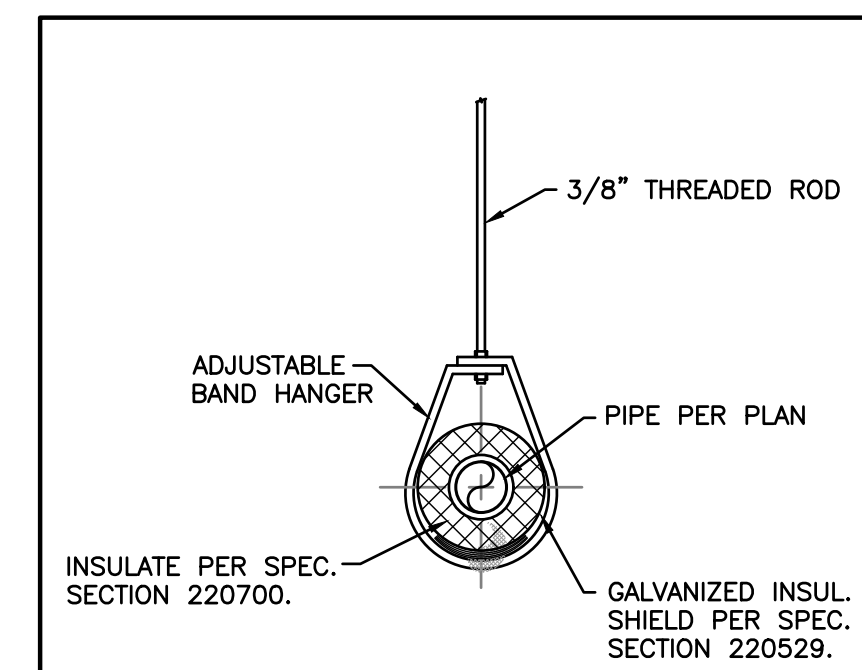
PIPE SLEEVE THROUGH WALL

N.T.S.



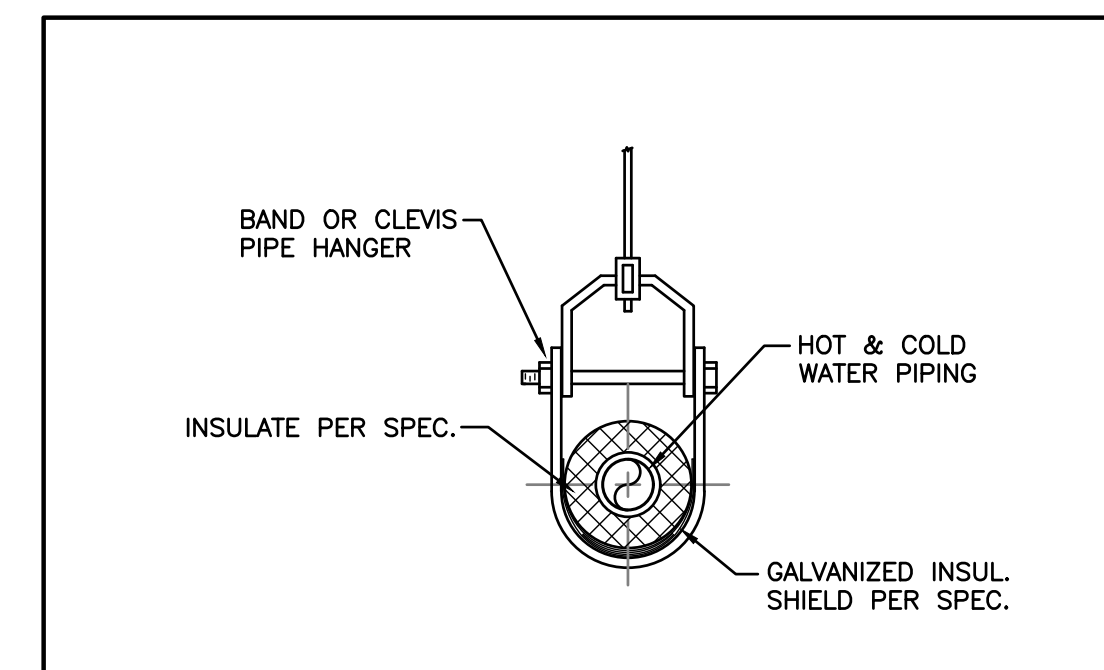
COMPRESSED AIR DROP DETAIL

N.T.S.



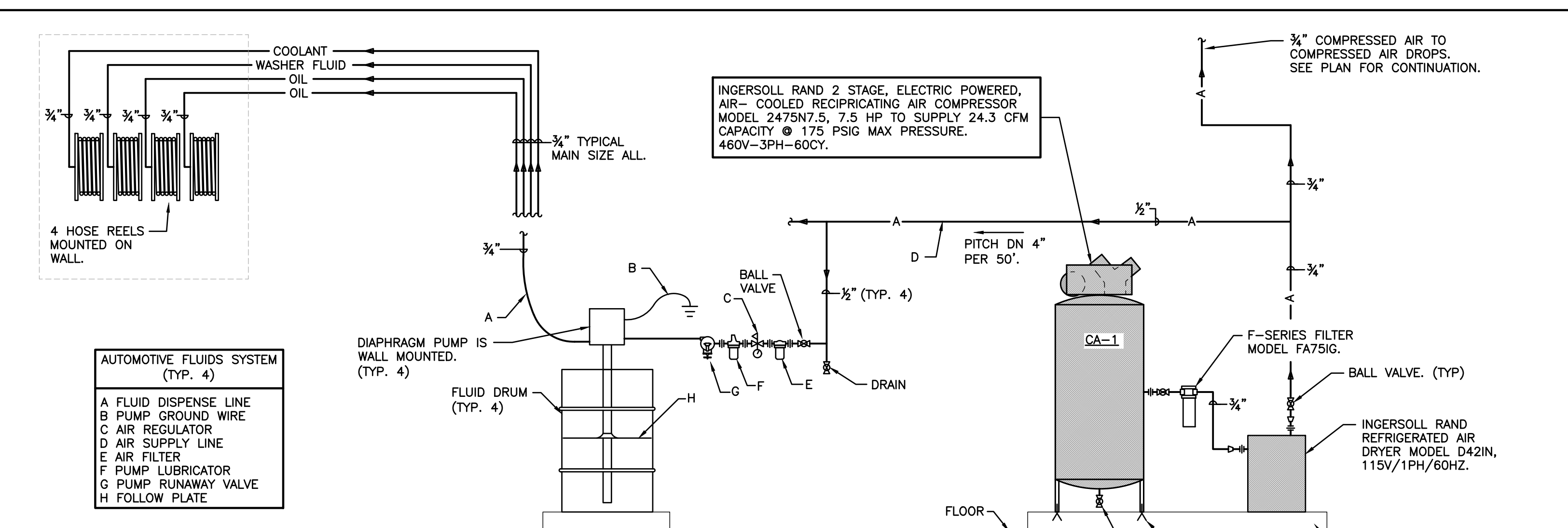
TYPICAL BAND PIPE HANGER

N.T.S.



TYPICAL PIPE HANGER

N.T.S.



COMPRESSED AIR & AUTOMOTIVE FLUIDS SYSTEM PIPING DETAIL

N.T.S.

SCHEMATIC SET 2/11/26

NOT FOR CONSTRUCTION



175 Exchange Street
Bangor, Maine 04401
Phone:
207-974-3028
www.artifexae.com

PROGRESS
SET 01.23.2026



Building Services Division
Bedford, NH
MEP/FP Engineers
603.444.6579
Project # 530530

U/G FLOOR PLAN - PLUMBING

PROJ. NUMBER: 2024122	DRAWN BY:
REV.	DATE
	DESCRIPTION

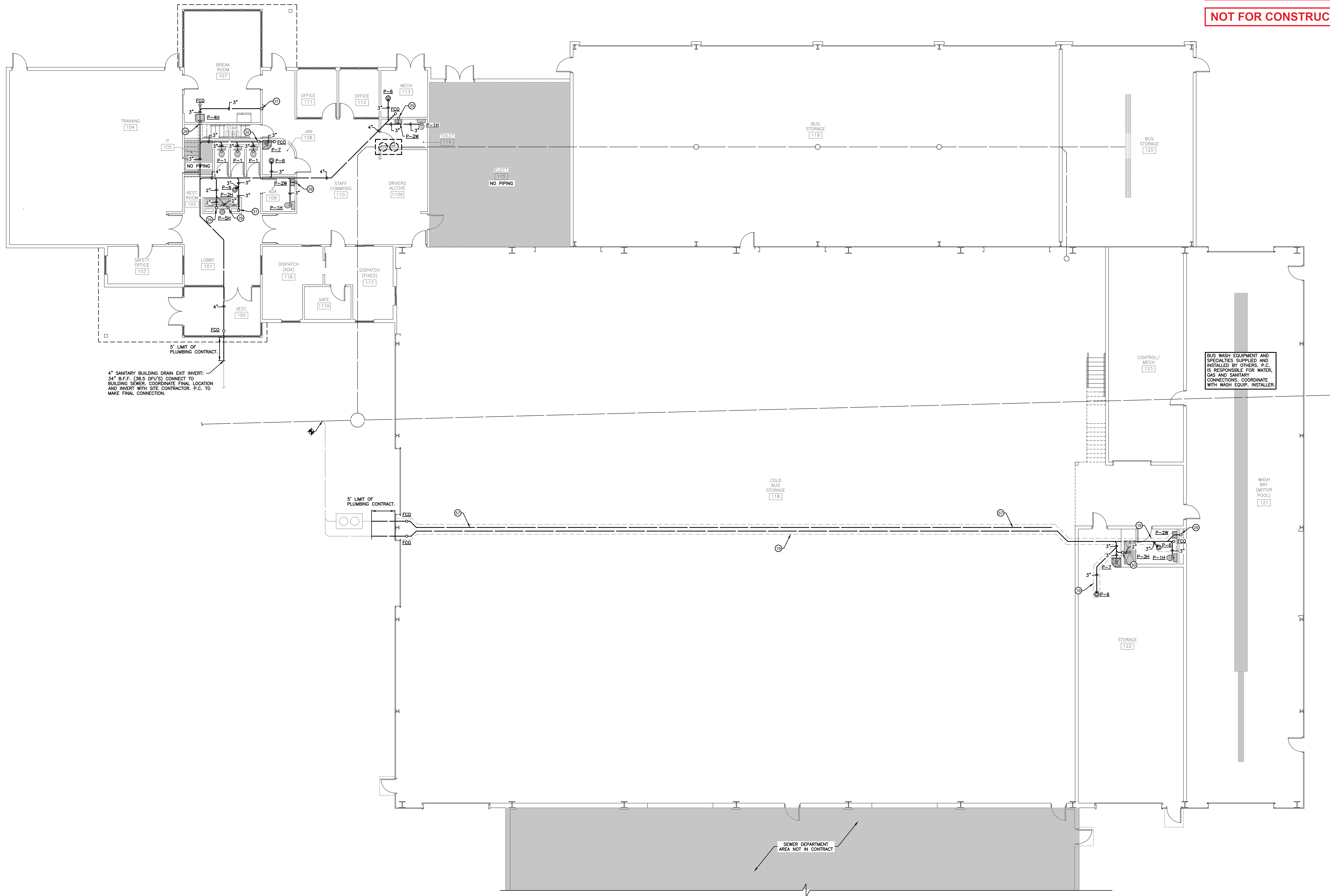
CITY OF BANGOR
BUS BARN RENOVATION
511 MAINE AVENUE, BANGOR, ME

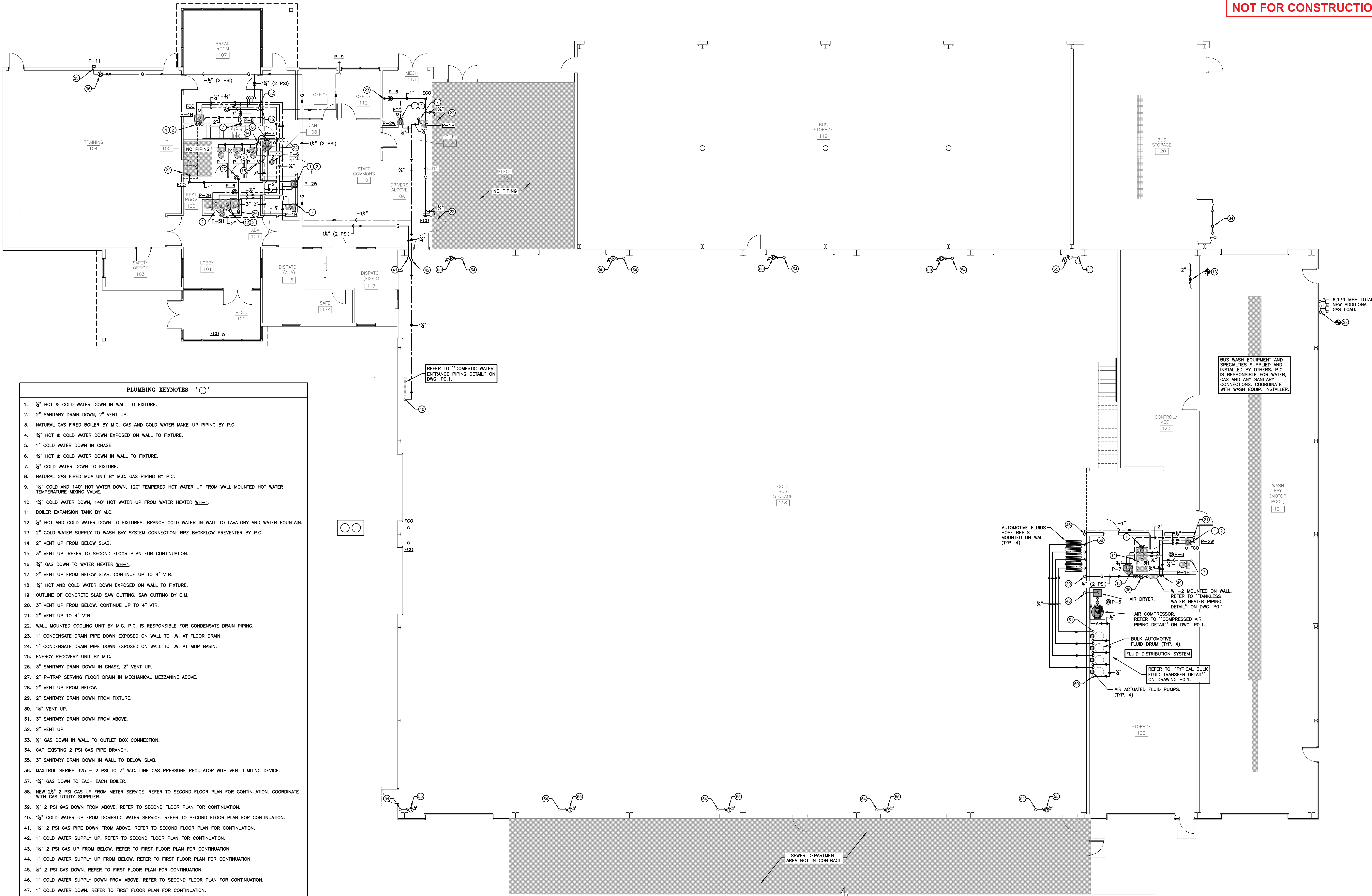
DATE:
01-23-2026

P1.0

SCHEMATIC SET 2/11/26

NOT FOR CONSTRUCTION

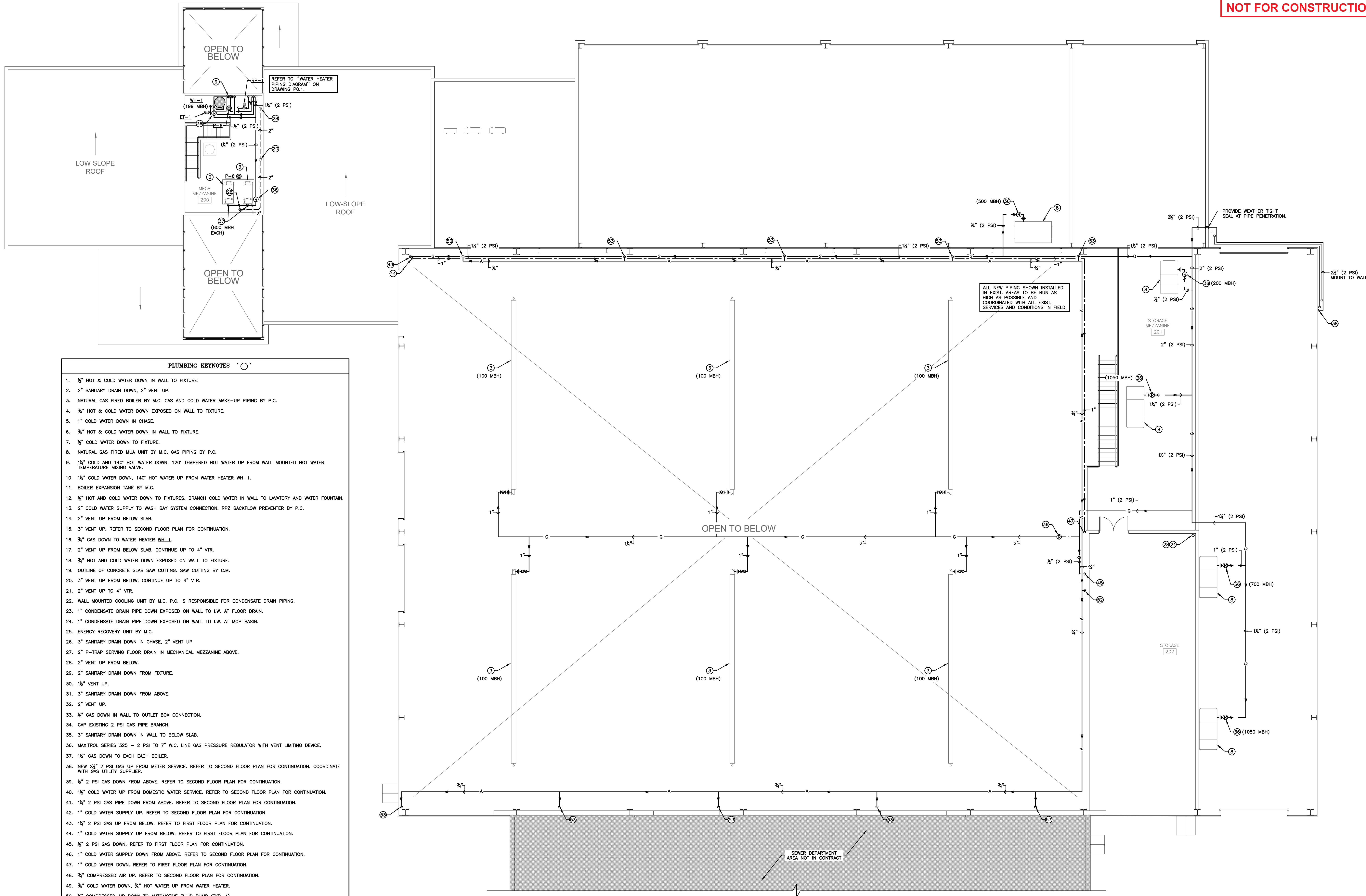




PLUMBING KEYNOTES 'O'

1. 1/2" HOT & COLD WATER DOWN IN WALL TO FIXTURE.
2. 2" SANITARY DRAIN DOWN, 2" VENT UP.
3. NATURAL GAS FIRED BOILER BY M.C. GAS AND COLD WATER MAKE-UP PIPING BY P.C.
4. 3/4" HOT & COLD WATER DOWN EXPOSED ON WALL TO FIXTURE.
5. 1" COLD WATER DOWN IN CHASE.
6. 3/4" HOT & COLD WATER DOWN IN WALL TO FIXTURE.
7. 1/2" COLD WATER DOWN TO FIXTURE.
8. NATURAL GAS FIRED MUA UNIT BY M.C. GAS PIPING BY P.C.
9. 1 1/2" COLD AND 1 1/2" HOT WATER DOWN, 120° TEMPERED HOT WATER UP FROM WALL MOUNTED HOT WATER TEMPERATURE MIXING VALVE.
10. 1 1/2" COLD WATER DOWN, 1 1/2" HOT WATER UP FROM WATER HEATER WH-1.
11. BOILER EXPANSION TANK BY M.C.
12. 1/2" HOT AND COLD WATER DOWN TO FIXTURES. BRANCH COLD WATER IN WALL TO LAVATORY AND WATER FOUNTAIN.
13. 2" COLD WATER SUPPLY TO WASH BAY SYSTEM CONNECTION. RPZ BACKFLOW PREVENTER BY P.C.
14. 2" VENT UP FROM BELOW SLAB.
15. 3" VENT UP. REFER TO SECOND FLOOR PLAN FOR CONTINUATION.
16. 3/4" GAS DOWN TO WATER HEATER WH-1.
17. 2" VENT UP FROM BELOW SLAB. CONTINUE UP TO 4" VTR.
18. 3/4" HOT AND COLD WATER DOWN EXPOSED ON WALL TO FIXTURE.
19. OUTLINE OF CONCRETE SLAB SAW CUTTING. SAW CUTTING BY C.M.
20. 3" VENT UP FROM BELOW. CONTINUE UP TO 4" VTR.
21. 2" VENT UP TO 4" VTR.
22. WALL MOUNTED COOLING UNIT BY M.C. P.C. IS RESPONSIBLE FOR CONDENSATE DRAIN PIPING.
23. 1" CONDENSATE DRAIN PIPE DOWN EXPOSED ON WALL TO I.W. AT FLOOR DRAIN.
24. 1" CONDENSATE DRAIN PIPE DOWN EXPOSED ON WALL TO I.W. AT MOP BASIN.
25. ENERGY RECOVERY UNIT BY M.C.
26. 3" SANITARY DRAIN DOWN IN CHASE, 2" VENT UP.
27. 2" P-TRAP SERVING FLOOR DRAIN IN MECHANICAL MEZZANINE ABOVE.
28. 2" VENT UP FROM BELOW.
29. 2" SANITARY DRAIN DOWN FROM FIXTURE.
30. 1 1/2" VENT UP.
31. 3" SANITARY DRAIN DOWN FROM ABOVE.
32. 2" VENT UP.
33. 1/2" GAS DOWN IN WALL TO OUTLET BOX CONNECTION.
34. CAP EXISTING 2 PSI GAS PIPE BRANCH.
35. 3" SANITARY DRAIN DOWN IN WALL TO BELOW SLAB.
36. MAXITROL SERIES 325 - 2 PSI TO 7" W.C. LINE GAS PRESSURE REGULATOR WITH VENT LIMITING DEVICE.
37. 1 1/2" GAS DOWN TO EACH EACH BOILER.
38. NEW 2 1/2" 2 PSI GAS UP FROM METER SERVICE. REFER TO SECOND FLOOR PLAN FOR CONTINUATION. COORDINATE WITH GAS UTILITY SUPPLIER.
39. 1/2" 2 PSI GAS DOWN FROM ABOVE. REFER TO SECOND FLOOR PLAN FOR CONTINUATION.
40. 1 1/2" COLD WATER UP FROM DOMESTIC WATER SERVICE. REFER TO SECOND FLOOR PLAN FOR CONTINUATION.
41. 1 1/2" 2 PSI GAS PIPE DOWN FROM ABOVE. REFER TO SECOND FLOOR PLAN FOR CONTINUATION.
42. 1" COLD WATER SUPPLY UP. REFER TO SECOND FLOOR PLAN FOR CONTINUATION.
43. 1 1/2" 2 PSI GAS UP FROM BELOW. REFER TO FIRST FLOOR PLAN FOR CONTINUATION.
44. 1" COLD WATER SUPPLY UP FROM BELOW. REFER TO FIRST FLOOR PLAN FOR CONTINUATION.
45. 1/2" 2 PSI GAS DOWN. REFER TO FIRST FLOOR PLAN FOR CONTINUATION.
46. 1" COLD WATER SUPPLY DOWN FROM ABOVE. REFER TO SECOND FLOOR PLAN FOR CONTINUATION.
47. 1" COLD WATER DOWN. REFER TO FIRST FLOOR PLAN FOR CONTINUATION.
48. 3/4" COMPRESSED AIR UP. REFER TO SECOND FLOOR PLAN FOR CONTINUATION.
49. 3/4" COLD WATER DOWN, 3/4" HOT WATER UP FROM WATER HEATER.
50. 1/2" COMPRESSED AIR DOWN TO AUTOMOTIVE FLUID PUMP (TYP. 4).
51. 3/4" AUTOMOTIVE FLUIDS SUPPLY UP FROM FLUID PUMPS EXPOSED ON WALL (TYP. 4).
52. 3/4" COMPRESSED AIR UP FROM BELOW.
53. 1" COMPRESSED AIR DROP DOWN EXPOSED ON WALL AND MOUNT TO STRUCTURE. REFER TO "COMPRESSED AIR DROP DETAIL" ON DRAWING P0.1.
54. 1/2" COMPRESSED AIR DOWN FROM ABOVE. REFER TO "COMPRESSED AIR DROP DETAIL" ON DRAWING P0.1.
55. PNEUMATIC COMBINATION ASSEMBLY. REFER TO "COMPRESSED AIR DROP DETAIL" ON DRAWING P0.1.
56. 3/4" AUTOMOTIVE FLUIDS SUPPLY PIPES DOWN TO HOSE REELS (TYP. 4).
57. NEW BUS STORAGE OIL/WATER MAIN DRAIN TO BE INSTALLED IN SAME TRENCH AS SANITARY DRAIN. NUMBER AND LOCATION OF NEW AREA DRAINS TO BE DETERMINED.

Date: 01/20/2026-10:37, Dwg: 530520 P1.2.dwg, Tab: P1.2, User: Elhoffman



- PLUMBING KEYNOTES** 'O'
1. 1/2" HOT & COLD WATER DOWN IN WALL TO FIXTURE.
 2. 2" SANITARY DRAIN DOWN, 2" VENT UP.
 3. NATURAL GAS FIRED BOILER BY M.C. GAS AND COLD WATER MAKE-UP PIPING BY P.C.
 4. 3/4" HOT & COLD WATER DOWN EXPOSED ON WALL TO FIXTURE.
 5. 1" COLD WATER DOWN IN CHASE.
 6. 3/4" HOT & COLD WATER DOWN IN WALL TO FIXTURE.
 7. 1/2" COLD WATER DOWN TO FIXTURE.
 8. NATURAL GAS FIRED MUA UNIT BY M.C. GAS PIPING BY P.C.
 9. 1 1/2" COLD AND 140° HOT WATER DOWN, 120° TEMPERED HOT WATER UP FROM WALL MOUNTED HOT WATER TEMPERATURE MIXING VALVE.
 10. 1 1/2" COLD WATER DOWN, 140° HOT WATER UP FROM WATER HEATER WH-1.
 11. BOILER EXPANSION TANK BY M.C.
 12. 1/2" HOT AND COLD WATER DOWN TO FIXTURES. BRANCH COLD WATER IN WALL TO LAVATORY AND WATER FOUNTAIN.
 13. 2" COLD WATER SUPPLY TO WASH BAY SYSTEM CONNECTION. RP2 BACKFLOW PREVENTER BY P.C.
 14. 2" VENT UP FROM BELOW SLAB.
 15. 3" VENT UP. REFER TO SECOND FLOOR PLAN FOR CONTINUATION.
 16. 3/4" GAS DOWN TO WATER HEATER WH-1.
 17. 2" VENT UP FROM BELOW SLAB. CONTINUE UP TO 4" VTR.
 18. 3/4" HOT AND COLD WATER DOWN EXPOSED ON WALL TO FIXTURE.
 19. OUTLINE OF CONCRETE SLAB SAW CUTTING. SAW CUTTING BY C.M.
 20. 3" VENT UP FROM BELOW. CONTINUE UP TO 4" VTR.
 21. 2" VENT UP TO 4" VTR.
 22. WALL MOUNTED COOLING UNIT BY M.C. P.C. IS RESPONSIBLE FOR CONDENSATE DRAIN PIPING.
 23. 1" CONDENSATE DRAIN PIPE DOWN EXPOSED ON WALL TO I.W. AT FLOOR DRAIN.
 24. 1" CONDENSATE DRAIN PIPE DOWN EXPOSED ON WALL TO I.W. AT MOP BASIN.
 25. ENERGY RECOVERY UNIT BY M.C.
 26. 3" SANITARY DRAIN DOWN IN CHASE, 2" VENT UP.
 27. 2" P-TRAP SERVING FLOOR DRAIN IN MECHANICAL MEZZANINE ABOVE.
 28. 2" VENT UP FROM BELOW.
 29. 2" SANITARY DRAIN DOWN FROM FIXTURE.
 30. 1 1/2" VENT UP.
 31. 3" SANITARY DRAIN DOWN FROM ABOVE.
 32. 2" VENT UP.
 33. 1/2" GAS DOWN IN WALL TO OUTLET BOX CONNECTION.
 34. CAP EXISTING 2 PSI GAS PIPE BRANCH.
 35. 3" SANITARY DRAIN DOWN IN WALL TO BELOW SLAB.
 36. MAXITROL SERIES 325 - 2 PSI TO 7" W.C. LINE GAS PRESSURE REGULATOR WITH VENT LIMITING DEVICE.
 37. 1 1/2" GAS DOWN TO EACH EACH BOILER.
 38. NEW 2 1/2" 2 PSI GAS UP FROM METER SERVICE. REFER TO SECOND FLOOR PLAN FOR CONTINUATION. COORDINATE WITH GAS UTILITY SUPPLIER.
 39. 1/2" 2 PSI GAS DOWN FROM ABOVE. REFER TO SECOND FLOOR PLAN FOR CONTINUATION.
 40. 1 1/2" COLD WATER UP FROM DOMESTIC WATER SERVICE. REFER TO SECOND FLOOR PLAN FOR CONTINUATION.
 41. 1 1/2" 2 PSI GAS PIPE DOWN FROM ABOVE. REFER TO SECOND FLOOR PLAN FOR CONTINUATION.
 42. 1" COLD WATER SUPPLY UP. REFER TO SECOND FLOOR PLAN FOR CONTINUATION.
 43. 1 1/2" 2 PSI GAS UP FROM BELOW. REFER TO FIRST FLOOR PLAN FOR CONTINUATION.
 44. 1" COLD WATER SUPPLY UP FROM BELOW. REFER TO FIRST FLOOR PLAN FOR CONTINUATION.
 45. 1/2" 2 PSI GAS DOWN. REFER TO FIRST FLOOR PLAN FOR CONTINUATION.
 46. 1" COLD WATER SUPPLY DOWN FROM ABOVE. REFER TO SECOND FLOOR PLAN FOR CONTINUATION.
 47. 1" COLD WATER DOWN. REFER TO FIRST FLOOR PLAN FOR CONTINUATION.
 48. 3/4" COMPRESSED AIR UP. REFER TO SECOND FLOOR PLAN FOR CONTINUATION.
 49. 3/4" COLD WATER DOWN, 3/4" HOT WATER UP FROM WATER HEATER.
 50. 1/2" COMPRESSED AIR DOWN TO AUTOMOTIVE FLUID PUMP (TYP. 4).
 51. 3/4" AUTOMOTIVE FLUIDS SUPPLY UP FROM FLUID PUMPS EXPOSED ON WALL (TYP. 4).
 52. 3/4" COMPRESSED AIR UP FROM BELOW.
 53. 1/2" COMPRESSED AIR DROP DOWN EXPOSED ON WALL AND MOUNT TO STRUCTURE. REFER TO "COMPRESSED AIR DROP DETAIL" ON DRAWING P0.1.
 54. 1/2" COMPRESSED AIR DOWN FROM ABOVE. REFER TO "COMPRESSED AIR DROP DETAIL" ON DRAWING P0.1.
 55. PNEUMATIC COMBINATION ASSEMBLY. REFER TO "COMPRESSED AIR DROP DETAIL" ON DRAWING P0.1.
 56. 3/4" AUTOMOTIVE FLUIDS SUPPLY PIPES DOWN TO HOSE REELS (TYP. 4).
 57. NEW BUS STORAGE OIL/WATER MAIN DRAIN TO BE INSTALLED IN SAME TRENCH AS SANITARY DRAIN. NUMBER AND LOCATION OF NEW AREA DRAINS TO BE DETERMINED.

SCHEMATIC SET 2/11/26

NOT FOR CONSTRUCTION

PROJ. NUMBER: 2024122		DRAWN BY:
REV.	DATE	DESCRIPTION