



CITY OF GRAPEVINE, TEXAS



**RFP 267-2024
REQUEST FOR PROPOSAL
CONSTRUCTION MANAGER AT RISK
WATER TREATMENT PLANT AND
WASTEWATER TREATMENT PLANT
ADMINISTRATION FACILITY IMPROVEMENTS**

RFP RESPONSE DUE DATE AND TIME: APRIL 3, 2024 PRIOR TO 2:00 PM

Responses received later than the date and time above will not be considered for award.

BIDDERS NOTE

Carefully read all instructions, requirements, and specifications. Fill out all required forms completely. Submit an **ORIGINAL (1)** and **SEVEN (7)** copies of your response. Clearly mark the original document as the original. Please return the responses in a **SEALED** package. The package must note the RFQ Number and Name and the date and time of the scheduled opening. Your firms' name and return address must also be noted on the package.

DELIVER YOUR SEALED RESPONSE TO:

Bryan Beck, P.E. Director of Public Works
City of Grapevine, Texas

Physical Address:

Grapevine City Hall
200 South Main Street
Grapevine, Texas 76051

Mailing Address:

Grapevine City Hall
P.O. Box 95104
Grapevine, Texas 76099

All responses are required to have an original signature signed by an authorized agent of your company as shown on the certification page of this document.

SCOPE AND INTENT OF REQUEST FOR PROPOSALS (RFP)

The City of Grapevine is seeking a qualified Construction Management at Risk Firm. The firm must demonstrate that they have the resources, experience and qualifications necessary to provide services in connection with Construction Manager at Risk Services for the Water Treatment Plant (WTP) Administration Facility Improvements construction project located at 2600 Fairway Dr. Grapevine, TX 76051 and the Wastewater Treatment Plant (WWTP) Administration Facility Improvements construction project located at 602 Shady Brook Dr. Grapevine TX, 76051. Responses are solicited for this service in accordance with the terms, conditions, and instructions set forth in the RFP guidelines and in accordance with the provisions of the current Texas Local Government Code Title 10, Subtitle F, Chapter 2269.

PRE-RFP CONFERENCE AND SITE VISIT

A meeting and site visit will be held in association with this RFP. Attendance at the meeting and site visit is recommended. The site visit will be held immediately following the meeting.

The meeting date is March 13, 2024, at 1:30 p.m. at the following location:

City of Grapevine
Water Treatment Plant
2600 Fairway Dr.
Grapevine, TX 76051

The WWTP site visit will follow at the following location:

City of Grapevine
Wastewater Treatment Plant
602 Shady Brook Dr.
Grapevine TX, 76051

QUESTION DEADLINE INFORMATION

All questions regarding the terms, conditions or specifications of this RFP must be submitted by email to Cristin Turner with the City of Grapevine: cturner@grapevinetexas.gov by 3:00 p.m. on March 20, 2024. Responses to the questions will be issued via addendum no later than 5:00 p.m., March 27, 2024.

I. PURPOSE OF RFP

The City of Grapevine (“City”) invites the submittal of responses to this “Request for Proposals” (RFP) from firms who can adequately demonstrate they have the resources, experience, and qualifications necessary to provide “Construction Management At Risk” (CMAR) services for the Water Treatment Plant (WTP) and Wastewater Treatment Plant (WWTP) building projects while maintaining the operations of the facilities.

II. PROJECT DESCRIPTION AND LOCATION

The City of Grapevine must have the WTP and WWTP remain operational during the construction process. The CMAR is responsible for creating and enacting Maintenance of Plant Operations (MOPO) plans for the project construction at both WTP and WWTP.

Water Treatment Administration Building

The Water Treatment Administration Building improvements will include a 7,100 SF, 3-level addition to the existing filter building. The roof structure will consist of a metal deck and steel roof joists. While the floor framing will be made up of steel beam framing with a composite deck. The walls will be Concrete Masonry Unit (CMU) with a brick veneer. The foundation design will be based on the geotechnical report but is assumed to be a mat foundation with concrete walls for the basement walls.

Water Treatment Maintenance Building

The Maintenance building will be a new 4,300 SF CMU with brick veneer structure with a flat roof framing made up of a metal deck and steel roof joists. The foundation will be designed based on the recommendations in the geotechnical report but is currently assumed to be a slab on ground foundation.

The WTP site has approximately 21,700 SF of paving work. Existing underground utilities and overhead electrical to be relocated.

Wastewater Treatment Administration Building

The existing 1,900 SF Administration/Operations building will be demolished. The new 11,080 SF Wastewater Treatment Building is assumed to be a split-level building that is made up of CMU walls with a brick veneer and a flat roof. It is assumed that the flat roof will be made up of a metal deck and steel roof joists. Building design will include the design of concrete or CMU walls for retaining the soil at the split-level foundation.

The WWTP site has approximately 21,000 SF of paving work. Existing underground utilities and overhead electrical to be relocated.

Refer to Appendix A for more project information.

The architect for this project is **Freese & Nichols, Inc.**

III. PROCEDURE – ONE STEP PROCESS

The City of Grapevine requires proposers to include a completed AIA A305 Contractor’s Qualification Statement, Proposed Contract - AIA form A133 Standard Form of Agreement between the Owner and the Construction Manager as Constructor and AIA form A201 General Conditions, in addition to other submittal requirements as described in section XII.

A CMAR Selection Committee will review the submittals and will select the highest rated proposer. Respondents not selected for further consideration will be notified at the first opportunity. Selected candidate(s) will be notified of interview time.

III. TENTATIVE SCHEDULE OF IMPORTANT DATES

The tentative schedule for this Request for Proposal is as follows:

Release RFP	February 21, 2024
Pre-RFP Conference and Site Visit	March 13, 2024, at 1:30 p.m.
Deadline for Questions	March 20, 2024, Prior 3:00 p.m.
RFP Due Date	April 3, 2024, Prior to 2:00 p.m.
Review, Interviews, and Selection	April 4, 2024 – May 1, 2024
Selection of CMAR	May 15, 2024
Council Approval	May 21, 2024

IV. SELECTION PROCESS – ONE STEP PROCESS

City of Grapevine intends to initially award the Preconstruction Services contract to the highest rated proposer that provides the best value to the City based on the selection criteria established herein, that best demonstrates commitment, experience, available resources and innovative methods to address the unique construction requirements as well as the cost and schedule objectives established by City of Grapevine as follows:

- (a) At each step, the City of Grapevine shall receive, publicly open, and read aloud the names of the proposers and fees and prices. Not later than the 45th day after the date of opening the proposals, the City of Grapevine shall evaluate and rank each proposal submitted in relation to the criteria set forth in this request for proposals.
- (b) The City of Grapevine shall select the proposal that offers the best value for the City of Grapevine based on the published selection criteria and on its ranking evaluation. The City of Grapevine shall first attempt to negotiate a contract with the selected offeror. If the City of Grapevine is unable to negotiate a satisfactory contract with the selected offeror, the City of Grapevine shall, formally and in writing, end negotiations with that offeror and proceed to negotiate with the next offeror in the order of the selection ranking until a contract is reached or negotiations with all ranked offerors end.
- (c) A CMAR shall publicly advertise, as prescribed for the City of Grapevine under Section 271.025 and Section 2269.255 of the Local Government Code and receive bids or proposals from trade contractors or subcontractors for the performance of all major elements of the work other than the minor work that may be included in the general conditions. A CMAR may seek to perform portions of the work itself if the CMAR submits its bid or proposal for those portions of the work in the same manner as all other trade contractors or subcontractors and if the City of Grapevine determines that the CMAR's bid or proposal provides the best value for the City of Grapevine.
- (d) The CMAR and the City of Grapevine or its representative shall review all trade contractor or subcontractor bids or proposals in a manner that does not disclose the contents of the bid or proposal during the selection process to a person not employed by the CMAR, engineer, architect, or City of Grapevine. All bids or proposals shall be made public after the award of the contract or

not later than the seventh day after the date of final selection of bids or proposals, whichever is later unless otherwise provided in the Public Information Act.

- (e) If the CMAR reviews, evaluates, and recommends to the City of Grapevine a bid or proposal from a trade contractor or subcontractor but the City of Grapevine requires another bid or proposal to be accepted, the City of Grapevine shall compensate the CMAR by a change in price, time, or guaranteed maximum cost for any additional cost and risk that the CMAR may incur because of the City of Grapevine 's requirement that another bid or proposal be accepted.
- (f) If a selected trade contractor or subcontractor defaults in the performance of its work or fails to execute a subcontract after being selected in accordance with this section, the CMAR may, without advertising, fulfill the contract requirements itself or select a replacement trade contractor or subcontractor to fulfill the contract requirements.
- (g) If a fixed contract amount or guaranteed maximum price has not been determined at the time the contract is awarded, the penal sums of the performance and payment bonds delivered to the City of Grapevine must each be in an amount equal to the project budget, as specified in the request for proposals. The construction manager shall deliver the bonds not later than the 10th day after the date the CMAR executes the contract unless the CMAR furnishes a bid bond or other financial security acceptable to the City of Grapevine to ensure that the CMAR will furnish the required performance and payment bonds when a guaranteed maximum price is established.

At each stage of the process, the City will consider factor weighting of each firm's qualifications. These considerations will include but are not limited to the below and will be evaluated per the Grading Matrix provided in this RFP:

- 01 The experience and capabilities of the firm(s) involved. This will focus on projects of similar scope with specific emphasis on experience with the construction and remodel of administrative and maintenance facilities and with the relocation of significant utility systems while maintaining current operations.
- 02 The experience and capabilities of key personnel on the project team with relation to projects of similar scope and the willingness to commit those designated key personnel to this project.
- 03 The experience of firm's key personnel working together in similar contexts.
- 04 The ability of the firm's construction management team to interact and work with the City's project team members already in place.
- 05 How well the approach or plan of the construction management project team appears to integrate with the City's specific needs.
- 06 Financial stability and general reliability of the firm or any proposed team.
- 07 Historic projects of similar sized scope and references.

V. SCOPE OF SERVICES

A. Pre-construction Services:

The selected firm will assist City of Grapevine team by providing pre-construction services, including but not limited to the following and will be evaluated per the Grading Matrix provided in this RFP:

- 01 Schedule of all project construction related activities.
- 02 Make recommendations to the Owner, regarding division of work in order to facilitate competitive bidding and awarding of subcontracts.
- 03 Prepare pre-qualification criteria for material suppliers and Contractors and develop Vendors' and Contractors' interest in the project.
- 04 Conduct pre-bid conferences with Contractors.
- 05 Review competitive sealed bids from the various Contractors and make recommendations to the City.
- 06 Obtain approvals at permitting from all applicable public agencies and approval authorities.
- 07 Reviewing design documents as they are produced and make recommendations to the City.

B. Construction Services:

The selected firm will provide construction manager at risk services during the construction phase, including but not limited to the following and will be evaluated per the Grading Matrix provided in this RFP:

- 01 Prepare, execute, and manage contracts with the Contractors/Sub-Contractors.
- 02 Coordinate and direct the work of the Sub-Contractors.
- 03 Conduct a general pre-construction and in-depth pre-construction meeting with all major Sub-Contractors prior to the start of their work activities.
- 04 Provide temporary job site facilities and services.
- 05 Provide site security and control site access.
- 06 Track construction costs and maintain detailed construction cost records.
- 07 Review and process shop drawings and other submittals.
- 08 Establish, monitor, and update a construction scheduling system.

- 09 Maintain and provide as-built information to Architect/Engineer for preparation of record drawings.
- 10 Review requests for changes, challenge the cost of the Contractors as necessary, and make recommendations to the City and Architect/Engineer.
- 11 Review and process all pay request applications by the Sub-Contractors.
- 12 Develop and monitor a comprehensive safety program for the Project.
- 13 Conduct and document progress and coordination meetings with on-site trade foremen or superintendents.
- 14 Conduct and document meetings with the City's representative and Architect/Engineer to review construction progress, scheduling, conflict resolution, etc.
- 15 Supervise, direct and manage the complete construction of the Project.
- 16 Obtain governing authorities required permits and approvals.
- 17 Establish and maintain Quality Control and Quality Assurance standards.
- 18 Negotiate project agreement, which will mitigate disputes, work stoppages, or jurisdictional disputes.
- 19 Provide record keeping and ensure proper reporting required by the City.

VI. OBJECTIVES

- A. The intent of this solicitation is to obtain the professional services of a firm with demonstrated relevant experience with CMAR projects. The objectives of the project may include, yet may not necessarily be limited to, providing management direction over the construction of the listed project so that the resulting facilities will be:
 1. Constructed in such a way that the City of Grapevine will have a high value, well-constructed facility of quality materials and workmanship;
 2. Constructed in such a manner that it can and will be completed within the established budget;
 3. Constructed in such a way that it can and will be completed in accordance with the approved schedule;
 4. Constructed in such a way that it will be highly functional, responding to all of the services outlined in the established criteria.

5. Constructed in such a way that plants will remain operational during the entire duration of the project.

VII. PROJECT DURATION

The project is estimated to be substantially completed 19 months after the notice to proceed for construction is issued.

VIII. EVALUATION CRITERIA

The criteria used to evaluate the RFP responses will include, but not be limited to, the following (items listed below are not listed in order of importance):

<u>5 Points</u>	Financial Capability Demonstrated financial capacity to complete the project.
<u>20 Points</u>	Qualifications of Firm Qualifications of firm, specifically as they relate to similar projects.
<u>20 Points</u>	Available Resources to Complete Project Demonstrate the analytical, design tools, resources or methodologies commonly used by your firm that may be applicable to the project categories. How does this project fit into the firm's current and future workload that could effect this projects schedule?
<u>20 Points</u>	Firm's Team Experience on Similar Projects Related project experience of the firm and the individuals who would be assigned to this project.
<u>5 Points</u>	Professional References The past performance and reputation of the firm.
<u>20 Points</u>	Cost Control Demonstrated ability for developing accurate cost estimates consistent with completed projects.
<u>20 Points</u>	Method of Approach Approach to working on an active site that must remain in operation throughout the project with appropriate phasing. Approach to Schedule and Safety.
<u>25 Points</u>	Proposed Cost and Fees Provide the Pre-Construction Fee, Construction Phase Fee, General Conditions, and Bonds and Insurance in the provided forms.

Interview

The selected candidate(s) based on the grading matrix will be required to participate in an interview with the City's evaluation team to validate the rankings.

IX. ADDITIONAL INSTRUCTIONS, NOTIFICATIONS, AND INFORMATION

Additional Conditions – Additions and deletions to the Owner and Construction Manager at Risk Agreement and General Conditions shall include, but not be limited to, the following:

1. **Liquidated Damages**
Should the Contractor, including the Construction Manager at Risk if selected as the Contractor, fail to reach Substantial Completion of the Project by the date of Substantial Completion (as established in Amendment No.1, AIA Document A133 and defined in the Contract Documents) plus any additional time allowed by the City, the Contractor shall pay, or there shall be deducted from any amounts due and owing to the Contractor, liquidated damages for each day that any work shall remain uncompleted after the date for Substantial Completion. The liquidated damages sum shall be \$1,750 per day.

X. CONTENT OF SUBMITTAL

Each response shall be submitted as outlined in this section. Please include an outside cover and/or first page, containing the name of the Project: 267-2024 Water Treatment Plant and Wastewater Treatment Plant Administration Facility Improvements. A table of contents should be next, followed by tabbed dividers separating each of the following 8 sections:

- **Divider #1: Letters**

The first page following the divider shall be a letter transmitting the response to the City and stating that the proposal set forth in it remains effective for a period of 90 calendar days. At least one copy of the transmittal letter shall contain the original signature of a partner, principal, or officer of the Respondent.

- **Divider #2: Firm Information**

- a. Completed AIA A305

- **Divider #3: General Company History/Qualifications**

- a. A brief history of the Firm and the services routinely provided in-house on CMAR construction projects.
- b. An organization chart that explains team member responsibilities.
- c. The resumes of all persons to be assigned to the project with their prospective roles identified.

- **Divider #4: Financial and Legal Status:**

- a. Describe the general financial capability of the Respondent and attach a current financial statement and balance sheet.
- b. List any actions taken by any regulatory agency against or involving the firm or its agents or employees with respect to any work performed.
- c. List all litigation against or involving the firm or its agents or employees with respect to any work performed.
- d. All insurance coverage that the firm has which would be applicable to the work.

- e. Jurisdictions in which your organization's partnership or trade name is filed.
- f. Jurisdictions and trade categories in which your organization is legally qualified to do business.
(Please indicate registration or license numbers)

- **Divider #5: Experience and References**

- a. Discussion of Firm's experience in working with Government Agencies, specific experience in the CMAR capacity, and Treatment Plant experience.
- b. Experience on projects on active sites that must remain operational.
- c. List of all Comparable Civic Projects, whether ongoing or completed, including references. Please begin with at least three local CMAR projects in Texas including the office that is handling or will handle the project listed. For each, please provide,
 - i. Project name and location
 - ii. Capacity of Firm on project
 - iii. Year completed
 - iv. Short description of project
 - v. Names, addresses, and phone numbers of owner and contact person tasked with daily responsibilities of project
 - vi. Names, addresses and telephone numbers of architect and engineer
 - vii. **Design and construction cost and whether or not it was within the project budget**
 - viii. Construction time and whether or not it was completed on time
- d. List of all projects currently under contract

- **Divider #6: Management and Organizational Approach** —on ten pages or less, please describe your management and organization approach to this project. The following should be addressed within this description:

- a. Please describe your firm's understanding of the project(s).
- b. Describe how the firm will organize to perform the services.
- c. Provide procedures and methodology for assisting in the development of project scheduling and in quality and cost estimating/control, and constructability reviews.
- d. Describe the firm's approach to working with and communicating with the City and Design Team during the construction stage of the project.
- e. Describe the firm's approach for working with the City during the procurement of the project to assure the opportunity of local labor and vendors.
- f. Describe the firm's approach to code analysis and jurisdictional approvals.
- g. Based on the limited amount of project information, indicate your firm's concept of a reasonable construction schedule.
- h. Describe the firm's approach to safety
- i. Proposed methods of keeping the plants operational during construction.

- **Divider #7: Proposed Contract - AIA form A133** form of agreement between the Owner and the CMAR.

- a. The City reserves the right to make changes and deletions to the AIA form for the Agreement.

- **Divider #8: Construction Manager at Risk General Conditions – AIA form A201 General Conditions.**

- a. The City reserves the right to make changes and deletions to the AIA form for the General Conditions.
- **Divider #10: Pricing Proposal**
 - a. Use the forms on the next pages to submit your Pre-construction fee, Construction Management Fee, General Conditions, and Insurance and Bonds

Refer to attachments:

Appendix A – “Design Narrative and Drawings”

Appendix B – “AIA® Document A133® – 2019”

Appendix C – “AIA® Document A201® – 2017”

PROPOSAL FORM A – FEE PROPOSAL FOR CONSTRUCTION MANAGEMENT AT RISK (ONE STEP PROCESS)

Project:

Submitted by:

Date:

Phone No.: (____)

Having examined The Proposal prepared by: _____

Dated _____ the following is a breakdown of all proposed fees.

In submitting this proposal, the undersigned agrees to the following:

- a. Hold proposal open for acceptance 90 days.
- b. Accept right of Owner to reject any or all proposals, to waive formalities and to accept proposal, which Owner considers most advantageous.
- c. By signing, the undersigned affirms that, to the best of his knowledge, this Proposal has been arrived at independently and is submitted without collusion with anyone to obtain information or gain any favoritism that would in any way limit competition or give an unfair advantage over respondents in the award of this proposal.

A. FEE PROPOSAL

1. PRECONSTRUCTION FEE

For all preconstruction services outlined, the lump sum amount of:

Dollars _____ (\$).

2. CM FEE

For Overhead and Profit, list your proposed fee as a percentage of the cost of the Work.

_____ %

3. GENERAL CONDITIONS (next page)

List of General Conditions

Weekly rates are to be based on actual labor cost and are to be fully burdened as complete rates that will be charged to the project, without additional multipliers, factors, or supplemental costs

	Weekly Rate	x	% Each week on Project	x	# of Weeks	=	Total Cost
Onsite Field Office Staff							
Example	\$ 150.00	x	50%	x	26	=	\$ 1,950.00
Project Manager		x		x		=	
Superintendent		x		x		=	
Assistant Superintendent		x		x		=	
Others		x		x		=	
Others		x		x		=	
Others		x		x		=	
Others		x		x		=	

Total Onsite Field Office Staff Cost

		=	
1	Field Project Office	=\$	
2	Office Furniture	=\$	
3	Office Supplies	=\$	
4	Postage/Overnight/Courier Services	=\$	
5	Copy Machine and Paper	=\$	
6	Office Equipment	=\$	
7	Telephone and Fax Services	=\$	
8	All Risk Builder's Insurance (Construction Fee will not be added to this)	=\$	
9	General Commercial Liability Insurance (Construction Fee will not be added to this)	=\$	
10	All other Insurances in Addition to CGL Required (Construction Fee will not be added to this)	=\$	
11	Contractor's Bond (Construction Fee will not be added to this)	=\$	
12	Building Permit Fee (Construction Fee will not be added to this)	=\$	
13	Independent Testing and Inspection	=\$	
14	Construction Clean-up Including Dumpsters and Hauling	=\$	
15	Site Toilets	=\$	
16	Ice, Water, and Cups	=\$	
17	Other (List Separately)		

Total General Conditions Including Onsite Field Office Staff

=

APPENDIX A DESIGN NARRATIVE AND DRAWINGS

CITY OF GRAPEVINE

**WATER TREATMENT PLANT AND WASTEWATER
TREATMENT PLANT ADMINISTRATION FACILITY
IMPROVEMENTS**

FEBRUARY 20, 2024

FREESE AND NICHOLS, INC.
801 Cherry St, Suite 2800
Fort Worth, Texas 76102
817-735-7300

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1.00 INTRODUCTION

This CMAR RFP Narrative describes the design approach for the building expansions and new buildings at the Grapevine water treatment plant and wastewater treatment plant. The project consists of an addition to an existing water treatment building, a new wastewater treatment building, and a new maintenance shop at the water treatment plant.

1.01 DESIGN CODES AND GUIDELINES

All proposed improvements shall be designed in accordance with the following codes:

- A. International Building Code
- B. 2021 International Mechanical Code
- C. 2021 International Plumbing Code
- D. 2015 International Fire Code
- E. 2021 International Fuel Gas Code
- F. 2015 International Energy Conservation Code
- G. 2020 National Electrical Code

2.00 STRUCTURAL

2.01 DESCRIPTIVE SPECIFICATIONS

A. Concrete

Normal-weight Portland cement concrete with 3" to 7" slump, depending on the application.
Minimum 28-day compressive strength:

Drilled Piers	4,000 psi
Footings	3,000 psi
Grade Beams, Pilasters, and Pier Caps	4,500 psi
Walls	4,000 psi
Below Grade Walls	4,500 psi
Slab-on-Grade	4,000 psi
Slab-on-Void	4,000 psi
Elevated Slabs	4,000 psi
Concrete Beams and Joists	4,000 psi
Concrete Columns	5,000 psi

B. Reinforcing Steel

Deformed Bars (typical)	ASTM A615, Grade 60
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C. Structural Steel

Wide-Flange Shapes	ASTM A992
Steel Angles, Channels, Plates	ASTM A36
Steel Tubes (HSS)	ASTM A500, GR C (50 ksi)
Steel Pipe	ASTM A53, GR B or A500, GR C
Field Bolted Connections	ASTM A325 Bolts

Anchor Rods	ASTM F1554, GR 36
Welding	70 ksi Filler Metal per AWS D1.1
D. Composite Steel Deck	
2" or 3" deep, 20 GA, 12" rib pattern; ASTM A653, G60 Galv. Finish.	
E. Steel Roof Deck	
1 1/2", 20 GA, Type B (wide rib) roof deck; ASTM A653, G60 Galv. Finish.	
F. Concrete Masonry Units (CMU)	
Masonry Wall Compressive Strength (f'm)	2000 psi
Mortar	ASTM C270, Type S
Masonry Unit	ASTM C90, 2000 psi net area compressive strength
Grout	ASTM C476, f'm 2000 psi min.

2.02 DESIGN ANALYSIS

A. Dead Loads

Design dead loads for the structural frame will include self-weight of the structural elements and the following superimposed dead loads:

Ceiling and Mechanical at Roof	15 psf
Roofing and Rigid Insulation	15 psf
Ceiling and Mechanical at Floors	10 psf

B. Live Loads

Based on the anticipated functions to be contained in the building, the following superimposed live loads will be utilized in the design of the structural frame:

Public areas, corridors, lobbies	100 psf
Offices	50 psf
Partitions at areas with less than 80 psf live load	15 psf
Stairs	100 psf
Balconies	1.5 x adjacent live load or 100 psf
Mechanical rooms	150 psf
Parking	40 psf
Storage (minimum)	125 psf
Kitchens	150 psf
Manufacturing (light)	125 psf
Manufacturing (heavy)	250 psf
Restrooms	60 psf
Roof (unreducible)	20 psf

C. Wind Loads

Wind Loads will be determined per ASCE 7 using the following anticipated parameters:

Typical Building

Wind Speed (3-sec gust)	115 MPH
Exposure Category	"C"

Enclosed Structure

D. Seismic Loads

Seismic loads will be determined per ASCE 7-16 using the following anticipated parameters:

Site Class	C
Seismic Design Category	A
Seismic Importance Factor	1.25
Response Modification Factor	3

E. Snow Loads

Snow loads will be determined per ASCE 7 using the following anticipated parameters:

Ground snow load, P_g	5 psf
Snow exposure factor, C_e	1.0
Importance factor, I_s	1.0
Thermal factor, C_t	1.0
Flat roof snow load, P_f	5 psf

F. Ice Loads

Ice loads will be determined per ASCE 7 using the following anticipated parameters:

Ice thickness	$\frac{3}{4}$ "
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2.03 BUILDING SUPERSTRUCTURE

The superstructure of the building must be adequate to resist the applied design loading, satisfy the performance criteria for such items as deflection and vibration control, and accommodate the architectural design. For this building, the following structural systems are recommended:

A. Below Grade Structure

It is anticipated that the below-grade structure will consist of a 10" structural slab over carton void forms with 8 psf of reinforcing. The void depth is estimated to be between 16" to 24". The slab will be placed over a 15 mil, Class A vapor retarder. Perimeter grade beams are anticipated to be 24" wide x 30" deep with 30 plf of reinforcing. Grade beams will be isolated from the subgrade with 16" to 24" deep carton void forms, and soil retainers on each side to prevent soil from entering the void space. Below grade walls are anticipated to be 14" thick with 8 psf of reinforcing. The ground floor slab above below-grade structure is anticipated to consist of an 8" structural slab with 8 psf reinforcing.

B. Ground Level Structure

It is anticipated that the ground floor will consist of an 8" structural slab over carton void forms with 8 psf of reinforcing. The void depth is estimated to be between 16" to 24". The slab will be placed over a 15 mil, Class A vapor retarder. Perimeter grade beams are anticipated to be 24" wide x 30" deep with 30 plf of reinforcing. Grade beams will be isolated from the subgrade with 16" to 24" deep carton void forms, and soil retainers on each side to prevent soil from entering the void space.

C. Typical Upper-Level Structure

Upper-level floors are anticipated to consist of a 3" normal-weight concrete slab over a 2" or 3" composite metal deck, supported by wide-flange beams at 8' to 10' on-center. Beam depths will range from 12" to 18" depending on the span. Girder depths will range from 18" to 30". The projected material requirements for structural members (beams, girders, and columns) is 10 pounds of steel per square foot of gross floor area. Material for secondary members (edge angles, bent plates, opening framing, brick lintels, vertical bracing, equipment supports, etc.) is in addition to the above material requirements.

D. Typical Roof Structure

It is anticipated that the roof framing will consist of a 1.5" deep x 20 gage galvanized metal roof deck, open-web steel joists, and steel girders. Wide-flange, tube steel, and pipe columns will be used to support the superstructure.

2.04 FOUNDATION

The foundation for the building will be designed in accordance with the final Geotechnical Engineering Report prepared specifically for this site. Based upon our previous experience in this area, it is anticipated that the foundation system will consist of drilled, straight shaft bearing at a depth of approximately 60 feet below grade in unweathered limestone or shale. Typical piers will be approximately 24 inches in diameter, reinforced with 6 - #9 vertical bars and #3 ties at 10" on-center, with 15 feet of penetration into the bearing strata. Temporary steel casing for pier installation is anticipated.

2.05 LATERAL STABILITY

The lateral stability of the building will be provided by rigid steel frames and steel bracing that will be located so as to have minimal impact on the architectural configuration of the building.

At the below-grade portion of the structures, the lateral stability of the building will be provided by concrete masonry and/or cast-in-place concrete shear walls.

2.06 VERTICAL CIRCULATION

The elevator shaft and stair enclosures will consist of partially grouted reinforced concrete masonry walls in order to achieve the necessary fire rating. The walls are anticipated to be comprised of 12 inches nominal normal weight concrete masonry units with #5 vertical reinforcing bars spaced 24" on center in vertically grouted cells. The elevator pit is anticipated to be 4 to 5 feet in depth with 12" thick cast-in-place concrete walls with 4-psf of reinforcing. The pit will bear on structural grade beams and piers as described in the foundation section above. Stairs are anticipated to be performance-specified steel framed construction with concrete-filled metal pans.

3.00 FIRE PROTECTION

3.01 MAIN SERVICE AND SYSTEM DESCRIPTION

A complete fire protection sprinkler system shall be provided for the buildings. A registered Fire Protection Engineer subcontractor is to complete fire protection design documents. A 4" main fire riser with a 6" underground service is anticipated for the Water Treatment Plant. A 4" main fire riser with a 6" underground service is anticipated for the Wastewater Treatment Plant. A 3" main fire riser

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with a 4" underground service is anticipated for the Maintenance Building. The systems shall be a full coverage, wet type, fire sprinkler protection system with fast reaction sprinkler heads in accordance with the latest requirements of NFPA 13. The new incoming fire protection water service shall be located in the mechanical room. A double check valve assembly shall be installed prior to connection to the automatic sprinkler suppression system to prevent potential contamination of the public water supply. The fire protection system shall be zoned into distinct and separate systems to match the physical and functional divisions within the building. Although a flow test has not been conducted a fire pump is not anticipated to be required.

3.02 MATERIALS

Except as otherwise noted on the drawings, automatic sprinklers shall be of the following types and finishes:

- A. Concealed heads with white covers in all areas with drywall ceilings.
- B. Concealed heads with white covers in all areas with acoustical tile ceilings.
- C. Bronze, upright pendant sprinklers in mechanical and equipment rooms.
- D. Chrome sidewall sprinklers in drywall bulkheads.

Piping shall be grooved-end ductile iron pipe; grooved end, ductile-iron pipe appurtenances; and grooved joints. Grooved pipe shall meet AWWA C151 with cut, rounded-grooved ends. Grooved end appurtenances: fittings shall meet ASTM A47/A47M, malleable-iron castings or ASTM A536, ductile-iron castings with dimensions matching pipe.

3.03 FIRE DEPARTMENT CONNECTIONS

The fire service shall be equipped with a wet alarm valve. The alarm valve shall be controlled by its own respective control valve and connect to the fire department Siamese connection.

4.00 PLUMBING

Piping material shall be rigid, hard drawn, Type K copper.

4.01 DOMESTIC WATER

A. Domestic Cold Water

A new incoming water service shall enter the mechanical room at each building. Based on preliminary calculations, a 2- inch incoming water line is anticipated for the Water Treatment Building, a 2-1/2-inch incoming water line is anticipated for the Wastewater Treatment Building, and a 1-1/4-inch incoming water line is anticipated for the Maintenance Building. The city water service will support building potable water needs, as well as site irrigation. A Reduced Principal Zone (RPZ) Backflow preventer will be provided at the main building entrance at each plant. The main service meter shall be buried in a vault on the site, to be located by the civil engineer. Refer to the landscape section for details on the irrigation system design requirements.

The domestic water distribution system shall be designed to provide sufficient pressure to operate plumbing fixtures and equipment during peak demand.

The supply capacity for the cold and hot water piping shall be determined based on fixture counts, and by using recognized engineering standards. The system shall be designed to limit the occurrence of Legionella bacteria and opportunistic waterborne pathogens.

Each water service main and branch to a group of fixtures shall have shutoff valves to isolate each group from the rest of the system. Stop valves shall be provided for each fixture. Vacuum breakers and backflow prevention devices shall be provided to protect against cross-connection. Dielectric unions shall be installed between the connections of pipe of dissimilar metals.

Water softener will be provided for the Wastewater Treatment Plant Lab. The size and level of water quality to be determined. The water softener will supply hot and cold water needs for the Lab.

Distilled water system shall be provided for the Water Treatment Plant and Wastewater Treatment Plant. The system shall have a 50-gallon storage capacity.

Water filters will be provided for the break room sinks and ice machines in both the Wastewater Treatment Plant and Water Treatment Plant buildings. The water filters will be cartridge type point of use type filtration systems.

Water hammer arrestors shall be installed in accessible locations on the cold water and hot water piping where flush valves and any other quick closing valves are used. Water hammer arrestor sizing shall be sized and installed per the Plumbing and Drainage Institute (Standard PDI-WH 201) requirements.

Hose bibs shall be provided within the mechanical room and adjacent to all mechanical equipment. Wall hydrants shall be installed on the building exterior at maximum 75-foot centers.

B. Domestic Hot Water

140° F domestic hot water will be generated by a new high efficiency storage type electric water heater and routed to thermostatic mixing valves located at each fixture served where it will be mixed and distributed at 105° F or 120° F depending on the fixture served. The 140°F domestic hot water will be distributed to the faucets and fixtures through a network of piping mains and branches and will have a recirculation pump designed to deliver domestic hot water to the fixture within the time limits dictated by the latest energy code.

1. Piping Material

All domestic water piping (cold water and hot water) within the building shall be Type K copper with soft solder joints materials with an open return plenum shall be plenum rated with flame spread/smoke developed ratings shall be equal to or less than 25/50 respectively.

4.02 FIXTURES

Lavatories, urinals, and water closets shall be vitreous China with chrome-plated brass fixtures and trim. Fixtures shall be selected and installed to meet the latest requirements of the Americans with Disabilities Act.

The sink in the lab shall be a wide sink with 10 gooseneck faucets.

4.03 SANITARY WASTE AND VENT

A sanitary waste and vent system shall be provided for all plumbing fixtures and other devices that produce sanitary waste. Plumbing fixtures shall be drained by gravity through conventional waste and vent stacks to a point 5'-0" from the building for the Civil Engineer to pick up and extend to the City Main. All fixtures will have traps and shall be vented through the roof. Vent terminals shall be located away from air intakes, exhausts, doors, operable windows, and parapet walls at distances required by the plumbing code.

Based on preliminary calculations, (1) one 6-inch outgoing sanitary waste line is anticipated for the Water Treatment Plant, (1) one 6-inch outgoing sanitary waste line is anticipated for the Wastewater Treatment plant, and (1) one 4-inch outgoing sanitary waste line is anticipated for the Maintenance Building. The exact location of the sanitary connection to the city sewer system shall be coordinated with the civil engineer. Preliminary invert of sanitary piping is -5'0" below finished floor with a minimum buried depth of 24-inch. Cleanouts shall be installed at 75-foot intervals.

Elevator pits shall be provided with a sump pump with an oil minder alarm system. The sump pump will discharge to an indirect waste receptor located in a nearby Janitors closet then drain to storm or sanitary as required by the local Authority Having Jurisdiction.

A. Piping Material

Sanitary waste and vent piping shall be scheduled 40 solid core PVC DWV under slab and transition to no-hub cast iron 12" A.F.F. Materials within an open return plenum shall be plenum rated with flame spread/smoke developed ratings shall be equal to or less than 25/50 respectively.

4.04 STORM DRAINAGE

The building roof drainage shall be comprised of roof scuppers and downspouts. The downspouts will terminate to a splashblock and sheet drain across the site away from the building as graded by the Civil Engineer.

4.05 COMPRESSED AIR

Compressed air piping system shall be provided for the Maintenance Shop and Wastewater treatment Plant. The Air compressors will be sized based on total volume of CFM required for tools/equipment used. The compressors are anticipated to be off the shelf type compressors with a maximum 50-gallon receiver tank. The compressed air drops shall have pit cocks for draining piping condensation as needed.

A. Piping Material

Compressed air piping material shall be schedule 40 steel pipe or Type 'L' copper.

4.06 NATURAL GAS

Where natural gas service is available a natural gas system will be provided to support HVAC heating loads. Where service pressure of 5psi is available the gas system will be sized based on 5psi with regulators being set at each piece of equipment.

A. Piping Material

Natural gas piping shall be Schedule 40 Type E or S grade B black steel piping. Piping 2-inch in size or smaller shall have threaded fittings, piping 2-1/2-inch and larger shall be welded.

5.00 HEATING, VENTILATION, AND AIR-CONDITIONING

5.01 ASHRAE DESIGN CRITERIA

A. Outdoor Design Conditions

❖ Winter	23.4°F D.B.
❖ Summer	101.4°F D.B. / 74.2°F W.B.
❖ Dehumidification	83.8°F D.B. / 77.6 °F W.B.
❖ Elevation	630 ft

B. Indoor Design Conditions

SPACE	SUMMER		WINTER	
	TEMP (°F)	RH (%)	TEMP (°F)	RH (%)
OFFICE	75	50	69	N/A
LOBBY/RECEPTION	75	50	69	N/A
MECHANICAL/ELECTRICAL ROOMS	80	60	50	N/A
IT ROOMS	75	60	50	N/A
CONFERENCE/BREAK ROOMS	75	50	69	N/A
LABORATORY ROOMS	70	45	70	N/A
LOCKER ROOMS	75	50	69	N/A
CONTROL ROOMS	75	50	69	N/A

Table 1: Indoor Design Conditions

5.02 HEATING AND COOLING LOADS

The occupancy heat rejection shall be based on the 2013 ASHRAE Handbook of Fundamentals, Chapter 18, Table 1, as well as the expected occupant density as established by analyzing the building floor plans.

The lighting heat loads shall be as determined by analyzing the lighting layout and performing lighting load calculations based on actual light fixture calculations. The equipment heat loads shall be determined by analyzing the architectural equipment layout and making determinations based on accepted practice.

The building heat loss calculations will include an infiltration load based on a criterion of 0.3 air changes per hour. Performance criteria for building envelope construction materials shall be based on the Architectural documents. Building load calculations shall be completed utilizing TRANE Trace version 700 or Carrier Hourly Analysis Program (HAP).

5.03 HVAC SYSTEMS BY BUILDING

The proposed HVAC system types will be as follows:

A. Water Treatment Plant Administration Building

1. Laboratory: Single-zone VAV packaged DX roof mounted dedicated outdoor air unit with energy recovery.
2. Filter Control Room: Single-zone VAV packaged DX rooftop unit.
3. Control Room: Single-zone VAV packaged DX rooftop unit.
4. Restroom/Locker/Shower: Single-zone VAV packaged rooftop dedicated outdoor air unit with energy recovery.
5. Office/Administration Areas: Single-zone VAV packaged DX roof top unit.
6. Basement: Mechanical ventilation with heating provided by unit heaters.
7. Electrical and IT Rooms: Dedicated DX split system (heat pump). Wall mounted indoor unit.

Anticipated system sizes for this building are as follows:

- a. RTU-1 (Filter Control): 7 Tons
- b. RTU-2 (First Floor Administration): 5 Tons
- c. RTU-3 (Second Floor Offices): 5 Tons
- d. RTU-4 (Control Room): 5 Ton
- e. DOAS-1 (Laboratory):
 - 1) Outside Air Airflow: 900 CFM
 - 2) Return Air Airflow: 900 CFM
 - 3) Exhaust Air Airflow: 1000 CFM
 - 4) Outside Entering Air Temp: 83.8°F D.B. / 77.6 °F W.B.
 - 5) Supply Air Temperature: 53°F D.B. / 52.8 °F W.B.
 - 6) Space Temperature: 70°F D.B. / 58.4 °F W.B.
- f. DOAS-2 (Restroom/Locker/Shower):
 - 1) Supply Air Airflow: 1300 CFM
 - 2) Outside Air Airflow: 600 CFM
 - 3) Return Air Airflow: 1300 CFM
 - 4) Exhaust Air Airflow: 600 CFM
 - 5) Outside Entering Air Temp: 83.8°F D.B. / 77.6 °F W.B.
 - 6) Supply Air Temperature: 53°F D.B. / 52.8 °F W.B.
 - 7) Space Temperature: 75°F D.B. / 62.5°F W.B.
- g. Split System HP-1 (Electrical/Mechanical Room): 1.5 Ton
- h. Split System HP-2 (SCADA Room): 1.5 Ton

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- i. Exhaust Fan, EF-1 (Basement Extension): 5000 CFM, ESP: 0.5 in.w.g.
- j. Exhaust Fan, EF-2 (Pipe Gallery): 5000 CFM, ESP: 0.5 in.w.g.
- k. Unit Heaters: (5) 5kW.

B. Wastewater Treatment Plant

- 1. Enclosed Vehicle Storage: Mechanical Ventilation, High Volume-Low Speed Fans (HVLS), and Radiant Heaters
- 2. Maintenance Shop: Mechanical ventilation, High Volume-Low Speed Fans (HVLS), and Radiant heaters.
- 3. Restroom/Shower/Locker: Single-zone VAV packaged DX rooftop dedicated outdoor air unit with energy recovery.
- 4. Laboratory: Single-zone VAV packaged DX rooftop dedicated outdoor air unit.
- 5. Control Room: Single-zone VAV packaged DX rooftop.
- 6. Conference Room: Dedicated DX split system (heat pump). Horizontal ducted indoor unit.
- 7. Electrical and IT Rooms: Dedicated DX split system (heat pump). Wall mounted indoor unit.
- 8. Office/Administration Areas: Single-zone VAV packaged DX roof top units.

Anticipated system sizes for this building are as follows:

- a. RTU-1 (Northwest Offices): 3 Tons
- b. RTU-2 (East Offices): 4.5 Tons
- c. RTU-3 (South Offices): 3.5 Tons
- d. RTU-4 (Control Room): 3 Tons
- e. DOAS-1 (Restroom/Locker/Shower):
 - 1) Supply Air Airflow: 2200 CFM
 - 2) Outside Air Airflow: 800 CFM
 - 3) Return Air Airflow: 1400 CFM
 - 4) Exhaust Air Airflow: 800 CFM
 - 5) Outside Entering Air Temp: 83.8°F D.B. / 77.6 °F W.B.
 - 6) Supply Air Temperature: 53°F D.B. / 52.8 °F W.B.
 - 7) Space Temperature: 75°F D.B. / 62.5°F W.B.
- f. DOAS-2 (Laboratory):
 - 1) Supply Air Airflow: 3000 CFM
 - 2) Outside Air Airflow: 3000 CFM
 - 3) Return Air Airflow: 0 CFM
 - 4) Outside Entering Air Temp: 83.8°F D.B. / 77.6 °F W.B.
 - 5) Supply Air Temperature: 53°F D.B. / 52.8 °F W.B.

6) Space Temperature: 75°F D.B. / 62.5°F W.B.

- g. Acid Exhaust Fan, EF-1 (Laboratory): 1000 CFM, ESP: 1.0 in.w.g.
- h. Vent Hood Exhaust Fan, EF-2, EF-3 (Laboratory): 1000 CFM, ESP: 1.0 in.w.g.
- i. General Exhaust Fan, EF-4 (Laboratory): 3000 CFM, ESP: 0.7 in.w.g.
- j. HP-1 (Conference Room): 1.5 Ton
- k. HP-2 (IT Room): 2 Ton
- l. HP-3 (Electrical Room): 1.5 Ton

C. Maintenance Shop/Offices and Storage

- 1. Maintenance Shop: Mechanical ventilation, High Volume-Low Speed Fans (HVLS), and Radiant Heaters.
- 2. Maintenance Staff Offices: DX split system (heat pump). Horizontal ducted indoor unit.
- 3. Equipment Storage: Mechanical ventilation, High Volume-Low Speed Fans (HVLS), and Radiant heaters.

Anticipated system tonnages for this building are as follows:

- a. HP-1 (Maintenance Offices): 1.5 Tons
- b. Exhaust Fan, EF-1 Maintenance Shop: 2300 cfm, ESP: 0.5 in.w.g.
- c. Exhaust Fan, EF-2 Equipment Storage: 1100 cfm, ESP: 0.5 in.w.g.

An independent TAB firm, employed by the Contractor, shall perform Testing, Adjusting and Balancing (TAB) of all HVAC systems. The TAB firm shall be certified by NEBB, AABC, or both. Full compliance with NEBB or AABC Standards shall be required.

5.04 HVAC SYSTEMS

A. Rooftop Air Conditioning

The rooftop unit shall be high efficiency with ECM or VFD motors. The rooftop unit shall have prefilter MERV 8 and final filter MERV 13 filters, stainless steel condensate drain pan, dry bulb, low leakage economizer with barometric relief, SCR electric heating coil, BACnet interface, hail guards, unit mounted disconnect, powered convenience outlet, supply and return air smoke detectors, and corrosion resistant coating on condenser coils. Roof curbs shall be factory provided and field insulated.

Acceptable Manufacturers: Trane, AAON, Carrier, Daikin, Lennox

B. Dedicated Outside Air Units (DOAS)

The dedicated outside air units shall be double wall construction with variable speed compressors and VFD fans. The DOAS unit shall have prefilter MERV 8 and final filter MERV 13 filters, stainless steel condensate drain pan, dry bulb, low leakage economizer with barometric relief, SCR electric heating coil, modulating hot gas reheat, BACnet interface, hail guards, unit mounted disconnect, powered convenience outlet, supply air smoke detectors, and corrosion resistant coating on all HVAC coils.

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Rotary heat exchanger shall be provided for all units serving restrooms. Roof curbs shall be factory provided and field insulated.

Acceptable Manufacturers: Trane, AAON, Carrier, Daikin

C. Split System Air Conditioner

The split system shall be heat pump with inverter scroll compressors. variable speed outdoor fan, three speed direct drive fan for indoor unit, a corrosion resistant coating on condenser coils and factory installed condensate pump.

Acceptable Manufacturers: Mitsubishi/Trane, Daikin, LG

D. Exhaust Fans

Roof mounted centrifugal down blast exhaust fans with ECM motors with potentiometer, insulated roof curb, motorized damper, disconnect switch, bird screen will be specified for general exhaust of relatively clean exhaust air.

For fume exhaust and acid exhaust, provide roof mounted, centrifugal upblast fans. Fans shall be UL/cUL 705 supplement SC listed for exhausting corrosive exhausts. The fans shall be provided with insulated roof curb with discharge stack, spark resistant construction, motor cover, corrosion resistant coatings, bird screen, and disconnect switch.

Acceptable Manufacturers: Greenheck, Twin Fans, Loren Cook.

E. Radiant Heaters

Infrared, low intensity heaters.

Acceptable Manufacturers: Reverberay, Dayton, Sterling.

F. High Volume-Low Speed Fans

Aluminum airfoils with winglets, safety restraints. Permanent magnet motor and variable speed operation. Industrial-grade motor with double-lip sealed gearbox, and touchscreen controls.

Acceptable Manufacturers: Big Ass Fans, Macro Air, Greenheck.

5.05 VENTILATION & OCCUPANCY DESIGN CRITERIA

Ventilation rates will meet International Mechanical Code 2021.

SPACE	PEOPLE OUTDOOR AIR RATE	AREA OUTDOOR AIR RATE
	CFM/PERSON	CFM/FT ²
OFFICE	5	0.06
CONFERENCE	5	0.06
LABORATORY	10	0.18
BREAKROOM	5	0.12

Table 2: Minimum Ventilation Rates in Breathing Zone

Air shall not be returned from restrooms where the unit serves other areas in the building. The minimum exhaust from restrooms shall be 50 cfm per toilet and urinal, and 20 cfm per shower head.

Locker rooms shall be exhausted at 0.25 cfm/sf at minimum. Laboratories shall be exhausted at 1 cfm/sf at minimum. Janitor Rooms shall be exhausted at 1 cfm/sf at minimum.

Outside and exhaust air louvers will be provided with backdraft dampers and insect screen.

5.06 DUCTWORK AND PIPING

A. Ductwork

Supply, return, outdoor air and exhaust ductwork systems shall be sized to minimize static loss and shall be constructed of galvanized sheet metal to withstand the available static from the corresponding fan.

The total static loss shall be calculated with the results of the calculation available for review. Fume and acid exhaust ducts shall be constructed with stainless steel ducts.

Air Conditioning supply ductwork shall be minimum 24-gauge galvanized sheet metal construction, constructed and installed to a SMACNA 1" w.g. rating. Duct systems above ceilings will be designed with runouts of externally insulated round rigid metal duct and diffusers connected using flexible metal duct. The lengths of duct runs shall be limited to 4'-0". Fabricate and support ductwork in accordance with SMACNA duct construction standards. Flexible duct (flex duct), if used, shall be plenum rated, Flexmaster TL-M "or approved equal," constructed of round, flexible expanded aluminum, insulated with fiberglass blanket, and protected with a reinforced metalized outer jacket. Maximum thermal conductance of the insulation shall be 0.23. The flexible aluminum duct shall be secured and sealed to the adjoining sheet metal duct using sheet metal screws and duct sealant. All materials shall be installed as recommended by the manufacturer. Ductwork in exposed areas will be internally insulated.

All ductwork and materials with an open return plenum shall be plenum rated with flame spread/smoke developed ratings shall be equal to or less than 25/50 respectively.

B. Air Devices

All diffusers, registers, and grilles shall be all aluminum construction with a baked coating to match the surrounding construction, or as approved by Architect. All air devices shall be commercial quality, NOT residential. All supply and exhaust ducts to each air device shall be provided with manual volume damper. All volume dampers shall consist of raised-regulator type, insulated under the regulator.

C. HVAC Piping

All refrigerant piping shall be sized and installed as recommended by the manufacturer of the equipment and shall be brazed while piping is purged with an inert gas. All hangers for piping shall be installed on the exterior of the insulation. Use of pre-molded fitting insulation and loose fill are not acceptable. Use high density polyethylene HPDE jacket or high-density polyurethane polymer jacket on pre-insulated piping.

D. Condensate

New condensate piping from the fan coil units shall be designed to maintain a minimum slope of 1/8" per foot. Piping shall be terminated over the nearest hub drain and sized per 2021 International Mechanical Code.

EQUIPMENT CAPACITY	MINIMUM PIPE DIAMETER (INCH)
UP TO 20 TONS OF REFRIGERATION	3/4
OVER 20 TO 40 TONS OF REFRIGERATION	1

Table 3: Per 2021 IMC Table 307.2.2

1. Piping Material

Condensate piping shall be rigid, hard drawn, Type K copper insulated with ½" Armaflex closed cell insulation, including the trap and vent.

E. Insulation

All insulation shall be applied by mechanics skilled in the installation of insulation and regularly engaged in such occupation. All adhesives, mastics, sealers, etc., utilized in the fabrication of these systems shall meet NFPA and UL requirements for fire resistant ratings (maximum of 25 flame spread, 10 fuel contribution, and 50 smoke developed ratings, when tested to NFPA 255 standards), shall carry a UL label on each container and/or package, and shall be approved by the insulation manufacturer for guaranteed performances when incorporated into their insulation system. Certificates to this effect shall be submitted along with the Company's submittal prior to installation. All surfaces to be insulated shall be clean and dry before applying insulation. All supply, return, and outside air ducts shall be externally insulated with Owens-Corning, Knauf, Johns Manville, or approved equal, minimum 1.0 pcf (pounds per cubic foot), 1-1/2" thick all service blanket type, commercial grade, flexible glass fiber insulation with Kraft vapor barrier facing. Installed R value of insulation shall be 6 (minimum). Internally insulated ductwork shall not be acceptable.

Indoor refrigerant piping shall be insulated with 1.5" closed cell Armaflex insulation and outdoor refrigerant piping shall be insulated with 2" closed cell Armaflex insulation with aluminum jacket.

5.07 CONTROLS

The HVAC equipment controls shall be provided by the system manufacturer. Controllers shall tie into a new Schnieder BMS system, and new BMS shall be able to communicate with master city control system.

6.00 ELECTRICAL

6.01 SITE SERVICES

A. Power

Anticipates power systems per building:

1. Water Treatment Plant Administration Building

At the time of construction, this facility will have two exterior pad mounted utility transformers rated at 750kVA. Each transformer will be connected to a separate 1600-amp, 3P automatic transfer switch (ATS). Each ATS feeds separate switchboards identified as – Switchboard 1 and Switchboard 2 located in the filter building. Switchboard 1 is rated 3000-amp, 480Y/277, 3Ø-4W and Switchboard 2 is rated 1600- amp, 480Y/277, 3Ø-4W. A 1250kW, 480V stand-by generator is

tied to the emergency side of each ATS. It is anticipated that this generator will have capacity for the scope of this project.

A new 400-amp distribution panel at 480Y/277V, 3Ø-4W shall be installed to serve the new building. An external surge protective device will be installed adjacent to the main service panel. A 75 kVA transformer and 225-amp, 208Y/120V, 3Ø-4W, 2-section panelboard shall be installed in the electrical room. It is anticipated that there will be space on the existing switchboards to accommodate this electrical connection.

2. Wastewater Treatment Plant Administration Building

This facility will require a new 400-amp electrical service. A 400-amp distribution panel at 480Y/277V, 3Ø-4W shall be installed to serve the new building. An external surge protective device will be installed adjacent to the main service panel. A 75 kVA transformer and 225-amp, 208Y/120V, 3Ø-4W, 2-section panelboard shall be installed in the electrical room.

Currently there is no existing generator at this site. Two options will be considered. Option 1 - adding a 250kW generator with 600-amp, 3P ATS to cover the entire building. Option 2 – add a 400A manual transfer switch with cam lock connections. As the design progresses, these preliminary sizes can be adjusted to meet client requirements.

3. Maintenance Building

Power site services for this building match the Water Treatment Plant Administration Building. A new 200-amp distribution panel at 480Y/277V, 3Ø-4W shall be installed to serve the new building. An external surge protective device will be installed adjacent to the main service panel. A 45 kVA transformer and 125-amp, 208Y/120V, 3Ø-4W, 2-section panelboard shall be installed in the electrical room. It is anticipated that there will be space on the existing switchboards to accommodate this electrical connection.

Conduit and circuits shall be provided for any general power, HVAC, lighting, plumbing fixtures, security, and signs (as applicable). Minimum underground conduit size shall be 1" schedule 40 PVC. Any exterior conduit installed on the building exterior, wet locations, crawl spaces, and on the roof shall be rigid galvanized steel.

B. Exterior Lighting

LED pole lighting shall be added as required to light parking lot(s) and walking spaces. Lights shall be controlled to turn on by photo sensors and turned off by time clock. Separate zones will be provided for exterior decorative façade and signage lighting as required. Security lighting mounted on the building or canopies shall be integrated into the appearance of the building construction. Lighting levels throughout the parking are to average 2 foot-candles with a minimum level of 0.5 foot-candles at the edge of the lot(s).

6.02 BUILDING

A. Building Distribution

Power shall be distributed from each main distribution panelboard (480Y/277V service) to branch panelboards, via transformers, and large equipment (HVAC, compressors, vehicle lifts, lab equipment, etc).

Branch panelboards shall be 208Y/120V served from 480:208Y/120V dry type transformers. All branch panelboards shall be surface mounted. Panels will not reside in public spaces such as corridors, lobbies, etc.

All power cables shall be provided with complete color-coded jacketing (purple/brown/yellow for 480/277V, black/red/blue for 208/120V.) Neutral shall be gray with corresponding phase strip color for 480/277V system, white with corresponding phase strip color for 208/120 system.

Locations of Data/Com outlets shall be provided with a 4 square junction box in the wall at the same height above the finished floor as the nearest adjacent power receptacle. A ¾" conduit with a pull string shall be provided from the junction box to 6" above an accessible ceiling. All Data/Com wiring, devices, etc. shall be under a separate contract.

Security system design and installation shall be by others. Power for security systems shall be provided by the electrical contractor and shall be as follows:

1. Security Access System shall consist of rough-in junction boxes for card readers and keypads at each exterior door and conduits with pull strings to spaces concealed by lay-in ceilings. Provide 120-volt power to each door controlled by the security system.
2. Provide junction box and conduit with pull string to accessible ceiling space for any wall mounted or exterior mounted security cameras.

Provide a Master Label lightning protection system consisting of roof mounted air terminals interconnected with tinned copper conductors and exothermically bonded to all roof drains and roof mounted equipment. Utilize structural columns as down conductors. Columns shall be exothermically bonded to the perimeter counterpoise conductors and connections made to each column and to the perimeter grounding rods. Ensure that steel in the bottom of the perimeter grade beams are tie wrapped together and tie wrapped to column anchoring steel to form an electrically continuous ground ring.

The Electrical system shall be commissioned in accordance with the provisions of the 2015 International Energy Conservation Code.

B. Building Branch Circuits

The branch circuit conduit and wiring shall be type Electrical Metallic Tubing EMT conduit, with compression fittings and type THHN/THWN wiring. Set screw type connectors are not allowed. Metal clad (MC) Cable may be used in 6' maximum lengths. Conduit routing is considered an integral part of the architectural design and shall be run parallel and/or perpendicular to building. An individual neutral conductor shall be provided for each single-phase circuit. A separate insulated green grounding conductor shall be provided in all raceways.

Wire conductors shall be copper. Conductors #10 AWG and smaller shall be solid. Conductors size #8 AWG and larger shall be stranded.

C. Emergency Power & Lighting System

Emergency lighting shall be located per NFPA, including exterior emergency lighting at egress doors. In addition to the code required emergency lighting, additional emergency lights shall be provided in restrooms and interior spaces that require lighting in the event of an emergency. Emergency power to egress lighting shall be provided via emergency battery backup fixtures.

D. Interior Lighting

1. Fixtures and Lighting Levels

Interior lighting shall be LED type fixtures as described by the architect and as described in other sections of the Schematic Design Documents. All lighting installations, including lighting control, shall comply with the recommended Illuminating Engineering Society Guidelines and the 2015 International Energy Conservation Code. The lighting fixture layout shall be designed to ensure even coverage distribution to minimize low lighting levels in all areas. Responsibility for fixture selection will be coordinated between DFWCGI and the Architect.

LED lighting shall be standard throughout the building with color temperature of 4000K and color rendering equal to or greater than 80.

Typical lighting levels throughout the building shall be as follows:

Area	Foot-Candle level
Corridor	20
Lobby	50
Mechanical/Electrical Rooms	35
Restrooms	25
Storage	20
Office	30
Laboratory	100

2. Lighting Controls

Lobby and Corridors shall be controlled via centralized control system with scheduling and occupancy sensor input functions to reduce luminaire output to not more than 70% of full power with an immediate step to full on. Sensors will control lighting zones for afterhours activity. Additionally, daylight-responsive controls shall be provided where required per IECC 2015.

Restrooms rooms shall be controlled with ceiling mounted occupancy sensors with local override.

Utility spaces shall be controlled by local time-switch controls in lieu of occupancy sensors, which may endanger occupant safety.

Receptacle automatic control shall be provided per 2015 IECC requirements.

Control for all other miscellaneous spaces shall be determined per 2015 IECC requirements. All exit signs shall be provided with 90 minutes of integral battery backup.

E. Fire Alarm

A network based, addressable multiplexed microprocessor-controlled Fire Alarm/Life Safety system with distributed network nodes shall be supplied. System shall comply with requirements of NFPA 72 for Protected Premises Signaling Systems and include a fire alarm system control panel, remote annunciators, audio/visual devices, area smoke detectors, manual pull stations, door holds at smoke barrier walls, and applicable duct smoke detectors. System wiring shall be installed in color coded raceways. Final design shall be provided by a State licensed Fire Alarm contractor.

F. Life Safety System

Life safety systems shall be provided per code requirements, including but not limited to wiring for monitoring of sprinkler system flow and valve tamper switches, complete fire alarm system (including manual pull stations), smoke and heat detectors, ADA strobes, etc.

7.00 INFORMATION TECHNOLOGY (IT)

7.01 IT GENERAL DESCRIPTION

A. The general scope of work for City of Grapevine WTP & WWTP includes the following:

1. Buildings in Project:
 - a. Water Treatment Plant Administration Building to include:
 - 1) Basement Extension
 - 2) Locker Areas
 - 3) Staff Offices and Conference Room
 - 4) Control Room
 - 5) Laboratory
 - b. Water Treatment Plant Maintenance Building to include:
 - 1) Maintenance Shop
 - 2) Equipment Storage
 - 3) Staff Offices
 - c. Wastewater Treatment Plant Administration Building to Include:
 - 1) Staff Offices and Conference room
 - 2) Control Room
 - 3) Laboratory
 - 4) Maintenance Shop
 - 5) Enclosed & Covered Vehicle Storage Areas
2. OSP infrastructure and service entrance to each building
3. Telecommunications Infrastructure
4. IT Systems
5. AV Systems
6. Security Systems
7. SCADA System:
 - a. Complete Separate Network
 - b. Connection to each building
 - c. Homerun SCADA to PLC Panels except in Control Rooms
 - d. Different Colored Jacks from IT network

- B. A new telecommunications infrastructure system shall be provided to support data and voice connectivity over a multi-media cabling plant including fiber optics and twisted pair copper. New OSP fiber ring shall be provided in lieu of existing OSP which shall be removed. Fiber to utilize existing vault.
- C. Design will be based upon Owner requirements, site surveys, best practices, as well as industry codes and standards. Design intent is to accommodate network and bandwidth requirements for the users and owner with an ability to adapt and scale to changes in usage throughout the life of the campus.
- D. Deliverables to include:
 - 1. Schematic Design Narrative
 - 2. Design Development narrative, conceptual drawings, and CSI format specifications
 - 3. Construction documents including detailed designs coordinated with A/E design team, and CSI format specifications
 - 4. Assistance to Owner / Architect with bid evaluations and recommendations
 - 5. Contract Administration including periodic site observation visits with supporting job field reports, submittal review/comment, RFI review/comment.
 - 6. Record documents based upon Contractor provided as-builts. Record documents to include drawings and specifications delivered in both native and PDF format.

7.02 SERVICE ENTRANCE

- A. Telecommunications Network Provider shall provide dedicated telecom utility service to campus or property line location as agreed upon by owner and service provider. Communications Service Provider shall provide all necessary infrastructure for telecom utility service as required by all buildings in Phase 1.
- B. Telecommunications service entrances to each building will consist of dedicated communications manholes with a minimum of (3) 4-inch underground conduits routed to each building telecom demarcation point.
 - 1. Conduit 1 – City of Grapevine WAN fiber optic cabling
 - 2. Conduit 2 – Local Telecommunications Provider
 - 3. Conduit 3 – Space/Future
- C. Temporary service to be provided for site operations during construction.

7.03 GROUNDING AND BONDING SYSTEM

- A. Refer to electrical design considerations below.

7.04 TELECOMMUNICATIONS INFRASTRUCTURE

- A. Telecommunications infrastructure is comprised of structured cabling, telecommunications rooms, pathways, connecting hardware, and the telecommunications grounding and bonding system. Audio Visual, Building Automation System (BAS), and Security system also utilize the building's Local Area Network (LAN) for connectivity to interior and exterior of building.
 - 1. Backbone cabling will distribute network from demarcation point to each telecom room. Structured cabling to use physical hierarchical star cable topology. Backbone riser cabling schematics will include routing, pair/strand counts to each respective telecom room.

2. Horizontal UTP cable distribution to provide medium density work-area outlets to support voice/data connectivity from telecom room residing on same floor. Total cable distance shall not exceed 295'. Network connectivity to support IP solutions for Electronic Surveillance and Audio Visual systems.
3. Infrastructure design to support wireless access connectivity throughout all building areas and certain campus areas. Wireless overlay for the building interior, shall include approximately (1) access point for every 2000 SQ FT or (1) access point for every 20-25 occupants of a space. Owner's network services group to provide wireless overlay calculation for inclusion in future deliverable packages.
4. Telecom Rooms (TR's) design, layout, and connectivity including detailed plan views, rack elevations, and wall sections. Design includes architectural, electrical, and HVAC requirements for Communications Systems.
5. Telecom raceway to include backbone, horizontal, conduit, cable tray, and any other means of cable distribution from telecom rooms to location requiring network connectivity.
 - a. In buildings with multiple stories, a minimum of (5) 4" conduits or sleeves required for backbone cabling vertical distribution within telecom shaft.
 - b. Horizontal conduit to be continuous through any inaccessible areas and areas with potential for electromagnetic interference. Minimum conduit size of 1-1/4" to device locations.
 - c. Cable tray to be wire basket type and sized for 25% future additional cabling.

7.05 TELECOMMUNICATIONS ROOMS

- A. Each building requires dedicated telecommunications rooms. Buildings with multiple stories must locate telecom rooms stacked vertically. All telecommunications rooms shall be located to maintain industry standard 295' maximum cable runs to every corner of the building. For design purposes, horizontal cable runs shall not exceed 200 feet to account of vertical routing and service loops. Telecom rooms will also serve the purpose of housing other low voltage systems including security and AV.
- B. Anticipated telecommunications room quantities and locations are provided below for the campus. These quantities are based upon centralized telecom rooms within the building floorplate, if rooms are out of distance for any portion of the building, additional rooms will be required.
 1. Water Treatment Plant Administration Building – (1) MDF/EF in new expansion area, (1) IDF wall-mounted cabinet, existing telecom space to be decommissioned.
 2. Water Treatment Plant Maintenance Building – (1) MDF/EF wall-mounted cabinet
 3. Wastewater Treatment Plant Administration Building – (1) MDF/EF/IDF on level 2
- C. MDF-Specific Design Considerations:
 1. Main Distribution Frames (MDF) will be the location of network service demarcation and customer point of interface. MDF to include perimeter backboard, physical space for racks, BEP, 2-post telecom racks, patch panels, termination blocks, grounding and bonding, ladder rack, power as coordinated with electrical consultant (UPS, circuits, lighting), HVAC as coordinated with mechanical consultant, and fire protection/hour rating as coordinated with fire protection consultant.

2. Dimensions
 - a. Floor is less than 8000 sq ft – 10' x 12'
 - b. Floor exceeds 8000 sq ft – 10' x 14'
- D. IDF-Specific Design Considerations:
 1. Independent distribution frames (IDF) or telecom rooms (TR) are used as a backbone and horizontal cable distribution hub. IDF to include backboard, physical space for racks, 2-post telecom racks, patch panels, termination blocks, grounding and bonding, ladder rack, power as coordinated with electrical consultant (UPS, circuits, lighting), HVAC as coordinated with mechanical consultant, and fire protection/hour rating as coordinated with fire protection consultant.
 2. Buildings with IDFs on multiple floors shall stack telecom rooms vertically with a minimum of two walls stacked directly over one another (3 walls preferred).
 3. Dimensions
 - a. Floor is less than 8000 sq ft – 10' x 10'
 - b. Floor exceeds 8000 sq ft – 10' x 12'
- E. Design Considerations for all telecom rooms:
 1. Telecom rooms shall be located to maintain industry standard of maximum of 295' cable runs.
 2. All room doors should swing outward from the room to maximize the usable space in the room, be a minimum of 36"W X 80"H, and be lockable (card reader access). Size of equipment to be housed in the rooms is the determining factor and to be determined during the design phases.
 3. Rooms must provide space for minimum (3) free standing (19" X 7') 2-post telecom racks to house rack-mounted equipment. Rooms must provide wall space for wall hardware (IT, Security, AV, etc.).
 4. Patch panels shall be provided as required with horizontal cable manager above and below each patch panel.

7.06 IT SYSTEMS

- A. Telecom rooms shall be located to maintain industry standard of maximum of 295' cable runs.
- B. All room doors should swing outward from the room to maximize the usable space in the room, be a minimum of 36"W X 80"H, and be lockable (card reader access). Size of equipment to be housed in the rooms is the determining factor and to be determined during the design phases.
- C. Rooms must provide space for minimum (3) free standing (19" X 7') 2-post telecom racks to house rack-mounted equipment. Rooms must provide wall space for wall hardware (IT, Security, AV, etc.).
- D. Patch panels shall be provided as required with horizontal cable manager above and below each patch panel.

7.07 A/E & MEP CONSTRUCTION STANDARDS RELATING TO COMMUNICATIONS FACILITIES

- A. General Architectural Design Considerations:

1. Communications room walls shall extend from floor slab to ceiling deck with no drop ceilings and so as to provide an adequate physical barrier/separation from adjacent spaces.
 2. Exterior walls are provided with adequate insulation and moisture barriers.
 3. Perimeter walls of communications rooms shall be covered with $\frac{3}{4}$ in. X 4 ft. X 8 ft. AC grade fire retardant plywood backboard from 8 in. AFF (smooth side to interior of room). Plywood to be capable of supporting mounted hardware and equipment and shall be affixed to all the studs in the walls with screws that penetrate the studs a minimum of 1 in. Screws shall be spaced no greater than 1 ft. apart in each stud with screws one inch from the top and bottom of plywood. Plywood shall be painted with two coats of white fire retardant paint, leaving fire rating stamp of plywood visible.
 4. All Telecommunication room doors shall be 36 in. wide and 80 in. high with a minimum access security of a lockable-keyed entrance door. Door shall swing out of the room, not open into another room, and be equipped with automatic closer and self-latching locks.
 5. Room dimensions allow adequate circulation space around rack rows with a minimum of 36" between rows.
 6. Locate communications rooms where total electrical cable length, as measured by a Time Domain Reflectometer (TDR) or a cable tester, does not exceed 295 ft. Note: The net effect of this requirement is that rooms should be placed no further than approximately 200 ft. from the farthest information outlet as measured on plans following the most likely routing of corridor cable trays and other cable supports such as J-hook runs.
 7. Provide and install all fire stops for floor penetrations.
 8. All telecommunications spaces shall have a 2-hour fire rating.
 9. New communication rooms shall be equipped with fire detection and fire-extinguishers. Detection devices should be interlocked with the base building fire alarm system. A minimum of one (1) smoke detector shall be installed in each communications room.
 10. All horizontal chase openings shall be properly finished with stud-framed openings through walls. Opening sizes shall be coordinated with Communication's Designer for fire stopping and sizing details.
- B. GENERAL MECHANICAL (HVAC) DESIGN CONSIDERATIONS:
1. It is recommended that communication rooms have independent cooling systems capable of 24/7 availability. Units should be 100% sensible only cooling units that shall not require condensate removal or drains.
 2. Maintain communication rooms at an average of 68-75 degrees F with a relative humidity of between 35% to 55%; 24 hour X 365 days.
 3. It is recommended that communication rooms HVAC equipment be equipped with a temperature sensor that begins a soft shut-down sequence when temperatures inside the communication room exceed 85 F or manufacturer's maximum recommended operating temperature.
 4. Install sensors in the communications rooms with the ability to signal for cooling, independent of requirements of other spaces.
 5. Piping containing water/fluids/venting shall not pass through any communications room or be allowed in the walls of any communications room.

6. HVAC ducting shall not be placed in or run through any communications room except as required to service those rooms.
 7. If sprinkler heads are provided, install wire cages to prevent accidental operation. For wet pipe systems, do not place sprinkler heads over equipment or cabling. In the event of a leak this will protect the equipment and cabling.
 8. Any telecommunications room with "wet" fire suppression shall have the water piping placed over aisles and not directly over equipment. If sprinklers are used, recommend dry pipe systems.
 9. Communication rooms served by building HVAC should be provided with a separate zone sensor with programming to call for over-ride cooling after building occupied hours.
 10. Communication rooms should be remotely monitored for fire, smoke, and intrusion. The room should also be monitored for high/low temperature (+85 degrees F / -55 degrees F).
- C. GENERAL ELECTRICAL DESIGN CONSIDERATIONS:
1. A single manufacturer's product is recommended for each type of installation. Mixing of different manufacturer products for one item is not acceptable.
 2. No electrical feeders/branch circuits shall be placed in or run through any communications room except as required to service those rooms.
 3. All wall-mounted junction boxes (back box) installed for telecommunications data and voice-wiring terminations shall be minimum of (4 11/16 in) X (4 11/16 in) X (2 1/2 in). These boxes shall be separate from any electrical junction boxes and be exclusively for data and voice communications. Note: For dense work area outlet infrastructure and/or mixed media (fiber, coaxial) it is recommended to provide (2) 1 1/4" conduits to each box. Specialized types of users may even require a 5" square box with two 1 1/4" conduits to each box. These larger boxes are necessary to ensure appropriate bend radii of the various media within the boxes, and to provide enough room for connectors as well as slack loops for the cabling.
 4. All ceiling mounted junction boxes (back boxes) installed for telecommunications data and voice wiring terminations shall be minimum of (4 11/16 in) X (4 11/16 in) X (2 1/2 in), with single gang mud rings. These boxes shall be separate from any electrical junction boxes and be exclusively for data and voice communications.
 5. Provide minimum 1 1/4" EMT conduit with pull string from each single gang wall or ceiling mounted box to above ceiling with plastic bushing. Set-screw type conduit is not acceptable.
 6. Conduits to each communication wall/ceiling/floor box shall be quantity of one (1) 1 1/4" in. diameter, unless otherwise specified on drawings.
 7. In the event gypsum or other "hard" ceilings are installed, conduits shall be continuous from wall-mounted box to the major cabling raceway (e.g. corridor cable tray/accessible ceiling).
 8. In the event conduit is brought to the cable tray, the conduit shall be bonded to the cable tray in an approved manner (bonding strap, grounding bushing, etc.)
 9. All 'open' cable raceways (e.g. corridor cable tray, J-hooks, etc.) shall be permanently accessible.
 10. Conduit shall be completed with connectors and bushings at both ends.
 11. Conduits to boxes in floor slabs shall be two (2) 1 1/4in. diameter for telecom wiring in addition to power and AV requirements.

12. Bend radius shall be a minimum of six (6) times the diameter of the conduit less than 2 in., and a minimum of ten (10) times the diameter for 2 in. or greater.
13. Between any two pull points there shall be no conduit installed with greater than the equivalent of 180 degrees of bends. The distance between any two pull-points shall not exceed 100 ft. (30m), install pull boxes where necessary to achieve this requirement. Conduits feed straight through all pull boxes. Do not use pull boxes for 90-degree change of direction in conduit runs. The length of a pull box is to be a minimum of 12 times the diameter of the largest conduit.
14. All conduits for low voltage shall be marked at their terminus with a tag that states: "Communications conduit" with the room name and number of conduit destination. The exception is for conduits that are stubbed up above accessible ceilings for wall boxes where no tag is necessary.
15. Division 26 shall coordinate with communications cabling installer on proposed routing of conduit to ensure that no route causes cable lengths to exceed maximum cable distances.
16. For buildings with multiple stories, a TBB (telecom bonding backbone) shall be installed from the PBB (Primary Bonding Busbar) to the SBB (Secondary Bonding Busbar) on the uppermost floor. SBBs located on intermediate floors shall be bonded to this conductor in an approved manner, (e.g. exothermic weld). Refer to T series drawings for specifics. Size this conductor one AWG smaller than main bonding conductor.
17. Telecommunications bonding conductor (TBC) shall be run from the PBB to the building's main grounding system point of origin (located in the electrical service entrance of the building) and bond the systems. We recommend two-hole compression connectors for bonding the TBC and that the TBC be a minimum #3/0 AWG wire. For very short runs, #2/0 may be considered. The minimum size shall be the same size as the TBB. All bonding conductors shall be bonded to busbars in an approved manner. Exothermic welds or two-hole compression connectors are recommended. Final design to be made by electrical engineer of record.
18. The TBC shall be installed with no kinks, cuts, or abraded insulation, and in as straight a line from point of origin at grounding system to the PBB as is practical. Any bends in the conductor shall be smooth long radius bends.
19. PBB and SBB must be pre-drilled copper busbar with holes for use with standard sized lugs. PBB shall be a minimum of 4 in. wide, ¼ in. thick, and 10 in. in length. SBB shall be a minimum of 2 in. wide, ¼ in. thick, and 10 in. in length. PBB and SBB must be listed by a nationally recognized testing laboratory (NRTL). Busbars shall be affixed to the backboard with insulating brackets that stand it off the backboard at least 3 in. If multiple bars are used in one room, they shall be bonded together so as to form a continuously bonded system. Refer to drawings for specific location. The SBB shall be electrically connected to the PBB with a bonding conductor. If any part of TBC passes through a metallic sleeve or raceway, that raceway shall be bonded to the building's grounding electrode system at both ends.
20. Surface mounted electrical panels supplying power to communication rooms shall be used for communications equipment exclusively. The dedicated panel board should be a minimum of 12-poles, 120/208 Volt, and be equipped with 20A circuit breakers.
21. No mechanical or general electrical loads shall be supplied from the communications panels.
22. Install no electrical panels in the communications rooms that are intended for loads other than telecommunications equipment.

23. Install dedicated receptacle circuits in the communication rooms for standing racks/cabinets and equipment mounted on walls. Specific locations identified on communication drawings to serve each rack and equipment located on the walls.
24. Install/Provide above-ceiling cable tray/runway in buildings as indicated on communications drawings. Above ceiling cable tray/runway shall include manufacturer components for 45 and 90-degree turns, intersections, support hardware, grounding, etc. Contractor shall be responsible for providing a complete cable tray/runway system.
25. All cable tray/runway must be prefabricated structure consisting of two side rails connected by individual transverse members. Wire mesh type tray (i.e. Snake Tray/Versa Tray) and Mono-Systems (i.e. fish bone style systems) must have owner approval prior to substituting for cable tray described above. The tray shall be a minimum of 4 in. deep.
26. Install cable tray/runways on the opposite side of main corridors from electrical and plumbing installations. Coordinate layout with electrical, HVAC, and plumbing contractors to insure adequate space for cable tray/runway and cabling installation.
27. Cable tray/runway must meet the following clearances:
28. A minimum of 12 in. of clear vertical space is to be maintained above suspended ceiling tiles and T-bars
29. A minimum of 3 in. of clear vertical space is to be maintained above conduits and exposed cabling
30. A minimum of 12 in. of clear vertical space is to be maintained above cable trays/runway
31. When minimum separation between parallel installations installed below the cable tray/runway and cable tray/runway cannot be met, solid bottom cable tray is to be installed.
32. When 3" vertical separation between cable tray and perpendicular installations cannot be met, solid bottom cable tray is to be installed.
33. When cable tray/runway must be placed over electrical devices such as small motors, fluorescent fixtures, or fixtures with ballast and cannot meet the required 1 ft clearance, solid bottom cable tray is to be installed.
34. Where cable tray/runway must cross perpendicularly to other trade installations, tray shall pass below those installations by a minimum of 1 ft. and above by 3 in.
35. The inside of the cable tray/runway shall be free of any sharp edges or obstructions that can damage the cables.
36. All sections of cable tray/runway on all floors are to be bonded to one another and to the building's grounding electrode system busbar in the telecommunication rooms using a minimum number 4 AWG Insulated copper wire.
37. In communications rooms, EZ-Path shall be installed in the wall to pass data and voice cabling from the corridor cable tray/runway into the communications room with proper fire rating.
38. Coordinate size of EZ-Path device with the cable tray/runway installer so that there is no vertical transition from the cable tray/runway to the penetration. Install cable tray/runway in accessible ceiling space.
39. Provide uniform illumination of at least 50 ft. candles; 3 ft. AFF for communications rooms. Light fixtures shall be on emergency power and mounted parallel to rack rows at a minimum of 8'-6" AFF.

40. Light fixtures in communications rooms are to be positioned for maximum lighting. Do not install over cable tray/ ladder rack, cabinets, and 19 in. standing racks.
41. Do not combine other systems' cabling in voice/data raceway. The exception to this requirement is cable tray that has a grounded metal divider to separate other system's cabling.
42. The following minimum separation requirements shall be met for voice/data cabling in the building and communication rooms:
43. Transformers: Minimum 6 ft. separation;
44. Electric Motors: Minimum 4 ft. separation
45. Air Conditioning Units: Minimum 4 ft. separation
46. Large Fax Machines: Minimum 6 ft. separation for cabling not dedicated to that machine
47. Copiers: Minimum 6 ft. separation for cabling not dedicated to that machine
48. Electrical Panel boards: Minimum of 3 ft. separation in front of panel boards
49. Fluorescent fixtures/ballast type fixtures (non incandescent fixtures): Minimum 1 ft. separation.
50. Electrical Feeders and Branch Circuits in parallel with telecommunications pathway must maintain a minimum 18 in. separation. The exception is power and telecommunications wall outlets. The separation can be reduced to 6 in. when both systems are routed in parallel in a wall with the power in a grounded raceway and the telecommunications in a conduit from the outlet to stub above ceiling.
51. Auxiliary Systems Cabling (example: A/V, paging, access control, fire alarm, etc) must maintain a minimum 1 ft. separation.
52. Pathways should cross perpendicular to electrical feeders and branch circuits with a minimum of 3 in. separation.
53. Electrical power cables (not in grounded conduit) and communications cables (not in grounded conduit) routed in parallel to have minimum separation of 2 ft.
54. Transformers over 30 KVA should not be located near communication equipment.

7.08 ABBREVIATIONS

ACEG: Alternating current equipment ground

BC: Bonding conductor

BCT: Bonding conductor for Telecommunications. Also called TBC (Telecommunications Main Bonding Conductor)

EF: Entrance facility

ER: Equipment room

GE: Grounding equalizer. Previously called TBBIBC (Telecommunications Bonding Backbone Interconnecting Bonding Conductor)

IDF: Intermediate Distribution Frame. Also called IC (Intermediate Closet) or a TR (Telecom Room)

MDF: Main Distribution Frame. Also called a MC (Main Cross-Connect), BD (Building distributor), and in one building on a campus, the BD is also the distributor for the campus, or CD (Campus Distributor)

2/20/2024

50 μ (OM3/4): 50 micron center core multi mode optical fiber with 125 μ total diameter (with cladding) that is rated for 10/40/100 Gigabit transmission rate.

Star Topology: Physical architecture or topology of cabling such that all cabling for a floor is routed back to an MDF or IDF. In electrical terms, this is a parallel connection, rather than a series connection.

TBB: Telecommunications bonding backbone

SBB: Telecommunications Secondary bus bar

PBB: Telecommunications Primary bus bar

TR: Telecommunications room – Floor serving room or a room serving a tenant in a multi tenant building. Also called FD (Floor Distributor) and HC (Horizontal Cross-Connect).

7.09 CODES (MOST RECENT EDITION OF THE FOLLOWING OR EDITION AS SPECIFIED BY OWNER):

- A. International Building Code (IBC), 2000 Edition
- B. NFPA, including 101, Life Safety Code, 2000 Edition
- C. National Electrical Code (NEC/NFPA 70,), 2008 Edition
- D. National Electrical Safety Code (NES IEEE C2-1997)
- E. IEEE Std. 1100-1999 Recommended Practice for Powering and Grounding Sensitive Electronic Equipment.
- F. Uniform Fire Code
- G. Local Codes, amendments, and ordinances.
- H. Americans with Disabilities Act Guidelines

7.10 STANDARDS (MOST RECENT EDITION OF THE FOLLOWING):

- A. ANSI/TIA/EIA-568-C: Commercial Building Telecommunications Cabling Standard, Part 1: General Requirements.
- B. ANSI/TIA/EIA-568-C Commercial Building Telecommunications Cabling Standard, Part 2: Balanced Twisted-Pair Cabling Components.
- C. ANSI/TIA/EIA-568- C.3- Part 3: Optical Fiber Cabling Components Standard.
- D. ANSI/TIA/EIA-455-A-: Standard Test Procedures for Fiber Optic Cables.
- E. ANSI/CEA S83-596-Fiber Optic Premises Distribution Cable.
- F. ANSI/TIA/EIA-526-7-: Optical Power Loss Measurements Of Installed Single Mode Fiber Cable Plant-OFSTP-7.
- G. ANSI/TIA/EIA-526-14-A-: Optical Power Loss Measurements Of Installed Multi Mode Fiber Cable Plant-OFSTP-14A.
- H. ANSI/TIA/EIA-569-A-: Commercial Building Standards for Telecommunications Pathways and Spaces.
- I. ANSI/TIA/EIA-606-: The Administration Standard for the Telecommunications infrastructure of Commercial Building.
- J. TIA/EIA 758-April: Customer-Outside Plant Telecommunications Cabling Standard.
- K. ATSM Standards

L. Texas Accessibility Standards (TAS)

7.11 INFORMATION TECHNOLOGY CONCLUSION:

In order to prepare for the Construction Document phase of the project, Freese and Nichols requests your input on our initial design approach. We will also need to coordinate closely with the Owner/Owner's departmental representatives and other members of the A/E team to ensure a complete and complementary design. The next steps in our process are as follows:

- A. Need to refine and finalize locations for telecommunications infrastructure and systems.
- B. Meet with the owner group to receive additional information and discuss presented options.
- C. Receive plans, elevations, and room layouts when available.
- D. Coordinate with MEP on all drawings for system connectivity and proper functionality.

8.00 SECURITY

8.01 GENERAL DISCRIPTION

- A. The project will have electronic security systems including, but not limited to, access control and intrusion detection, duress call, and surveillance. The goal of this document will be to list the major functional areas within the facility and to provide a description of the systems.
- B. The contents of this document are critical to the security of the project and are considered confidential. This information shall not be disclosed to anyone other than authorized personnel.
- C. Provide complete turnkey electronic security systems and sub-systems including:
 - 1. Electronic Access Control: This system replaces the typical mechanical key controlled door lock with a door locking system that uses an access card as the access credential. The system includes an electric door-locking mechanisms, card reader located adjacent the door, door status sensors for intrusion monitoring and a request to exit device. Typical system configuration is card or schedule controlled entry with free exiting.
 - 2. Video Surveillance: This system provides electronic surveillance using high-resolution, Internet Protocol (IP) cameras; monitoring security sensitive areas for alarm assessment, and forensic investigations.
 - 3. Lockdown Control: On command, this system will lock all exterior doors during an emergency.

8.02 FACILITY AREAS AND REQUIREMENTS

- A. The project will have various functional areas requiring electronic security systems:
- B. Parking Lot - Vehicle entry/exit surveillance
- C. Building Entrances - Surveillance/Intrusion Monitoring
- D. Building Exits - Intrusion Monitoring
- E. Main Entry Lobby - Access Control/Surveillance/Lockdown Control
- F. Roof – Building Perimeter Surveillance
- G. Support Areas Containing:
 - 1. Maintenance Shop/Enclosed Vehicle Shop – Surveillance/ Access Control
 - 2. Telecommunications Rooms – Access Control

3. Administrative Areas containing:
 - a. Office Suite Entries – Access Control/Surveillance
4. Specialty/Procedure Areas Containing:
 - a. Laboratory – Access Control/Surveillance
 - b. Control Rooms – Access Control/Surveillance

8.03 SCOPE OF WORK

- A. The project includes design and coordination for the following electronic security infrastructure:
 1. Horizontal Distribution System
 2. Spaces and Pathways
 3. Device wiring requirements for security
 4. Security Racks, Patch Panels and Termination Blocks
 5. Architectural, Electrical, and HVAC requirements for security systems
 6. Mechanical Locking Systems

8.04 SECURITY REQUIREMENTS

- A. The electronic security design is based on the unique program requirements for each space in the facility.
- B. The design scheme for the electronic security infrastructure is based on the following general requirements:
 1. Federal, State, and Local codes, regulations and ordinances
 2. NFPA 101: Life Safety Code
 3. NFPA 730: Guide for Premises Security
 4. NFPA 731: Standard for the Installation of Electronic Premises Security
 5. Underwriters Laboratory and American National Standards Institute (UL/ANSI) Applicable Standards
 6. Telecommunications Industry Association (TIA) Applicable Standards
 7. BICSI Electronic Safety and Security Design Reference Manual (ESSDRM)
 8. Client standards for Security SystemsThe design will also include design and/or coordination of the following:
- C. Security Connectivity
 1. The security horizontal cabling will be terminated in wall mounted data gathering panels on each floor in designated, conditioned, secure rooms.
 2. The security cabling system standard shall be a minimum of four (4) conductors to each device and a minimum of eight (8) conductors to card readers.
 3. All security device wiring shall be home run from the head end panels (point of termination) to the security device location (point of origin).
 4. Network surveillance video shall be run from the cameras (point of origin) to the head end equipment on a cabling distance basis. Connectivity shall be on UTP Category 6 cable.

8.05 DESIGN ASSUMPTIONS

- A. Surveillance cameras will be located to provide situational awareness throughout the facility for forensic review and alarm assessment.
- B. The Internet Protocol (IP) cameras will provide:
 - 1. Surveillance cameras will be located to provide situational awareness throughout the facility for forensic review and alarm assessment.
 - 2. The Internet Protocol (IP) cameras will provide:
- C. Video images will be stored for forensic review.
 - 1. Cameras will record on detection of motion or detection of an alarm in the area
 - 2. Video images will be available for 30 days based on reasonable estimates of activity in the facility
- D. The Access Control and Video Surveillance systems will be compatible with and connected to the existing systems.
- E. Building infrastructure will be designed with pathways and spaces that shall support state-of-the-art security applications.
- F. Security cabling terminations shall be in wall mounted panels or rack mounted equipment.
- G. Grounding and bonding will be to a single reference point.

8.06 SECURITY CONCLUSION

- A. To prepare for the Design Development phase of the project, Freese and Nichols requests review and input on our Schematic Design document. Freese and Nichols will coordinate with the Owner and other design team members to ensure a complete and complementary design. The next steps in our process are as follows:
 - 1. Refine access control, alarm, and surveillance device locations.
 - 2. Refine security monitoring console locations, control and monitoring equipment requirements.
 - 3. Attend meeting with Owner's Police Department, Security and Information Technology personnel to confirm technical and operational requirements and Owner preferences.
 - 4. Review Architectural drawings.
 - 5. Coordinate with telecommunications, M/P/E and electric door hardware consultants as required to support electronic security system infrastructure.

9.00 UTILITIES RELOCATION

The expansion of administration building at both facilities will require relocation of plant utilities. Some of the major utilities around the project area are identified in exhibit A (WWTP) & B (WTP), but additional utilities possibly needing relocation may also be present. Some of these utilities are critical to plant operations and CMAR will need to maintain the plant operations during relocation of these utilities. Major utility relocation will include but not limited to:

9.01 WASTEWATER TREATMENT PLANT

- A. 24" D.I primary effluent line

2/20/2024

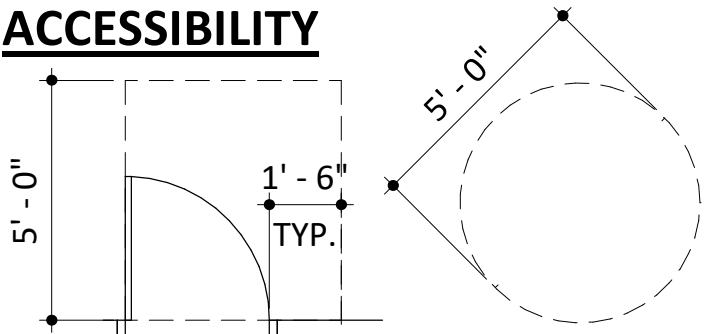
- B. 6" D.I waste activated sludge (WAS) line
- C. 2" H.D.P.E gas line
- D. 6" D.I potable waterline
- E. Power poles and overhead electrical lines. CMAR is required to coordinate the relocation with the power company, including easement coordination as necessary.
- F. Underground electrical ductbanks and manholes

9.02 WATER TREATMENT PLANT

- A. 4" D.I Sludge line
- B. 12" C.I Raw water line
- C. Underground electrical ductbanks and manholes
- D. Relocation of power poles and overhead electrical lines as necessary. CMAR is required to coordinate the relocation with the power company, including easement coordination as necessary.

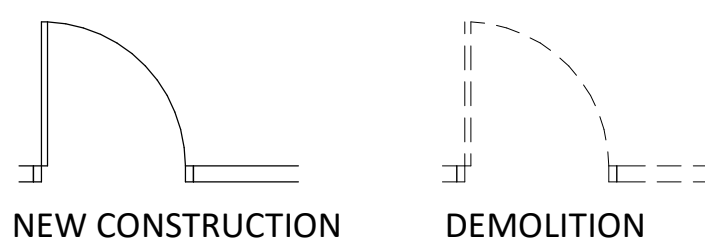
PLAN GRAPHICS

ACCESSIBILITY



DASHED LINES INDICATE CLEAR SPACE REQUIREMENTS TO SATISFY TAS. NOT ALL CLEARANCE REQUIREMENTS ARE SHOWN ON PLANS.

LINEWORK



REFERENCE

DETAIL NUMBER
SHEET ON WHICH
DETAIL IS DRAWN

1
A-401

DETAIL NUMBER
SHEET ON WHICH
DETAIL IS REFERENCED
SHEET ON WHICH
DETAIL IS DRAWN

*DOUBLE DASH INDICATES SAME SHEET

SYMBOLS

ACCESSORY KEY ABC

DOOR DESIGNATION 127

ELEVATION REFERENCE (A-401) 1

FIRE EXTINGUISHER

FIRE EXTINGUISHER
CABINET

MILLWORK KEY 1
(REFER TO A4.XX SHEETS)

NORTH ARROW 

NOTE BY SYMBOL 

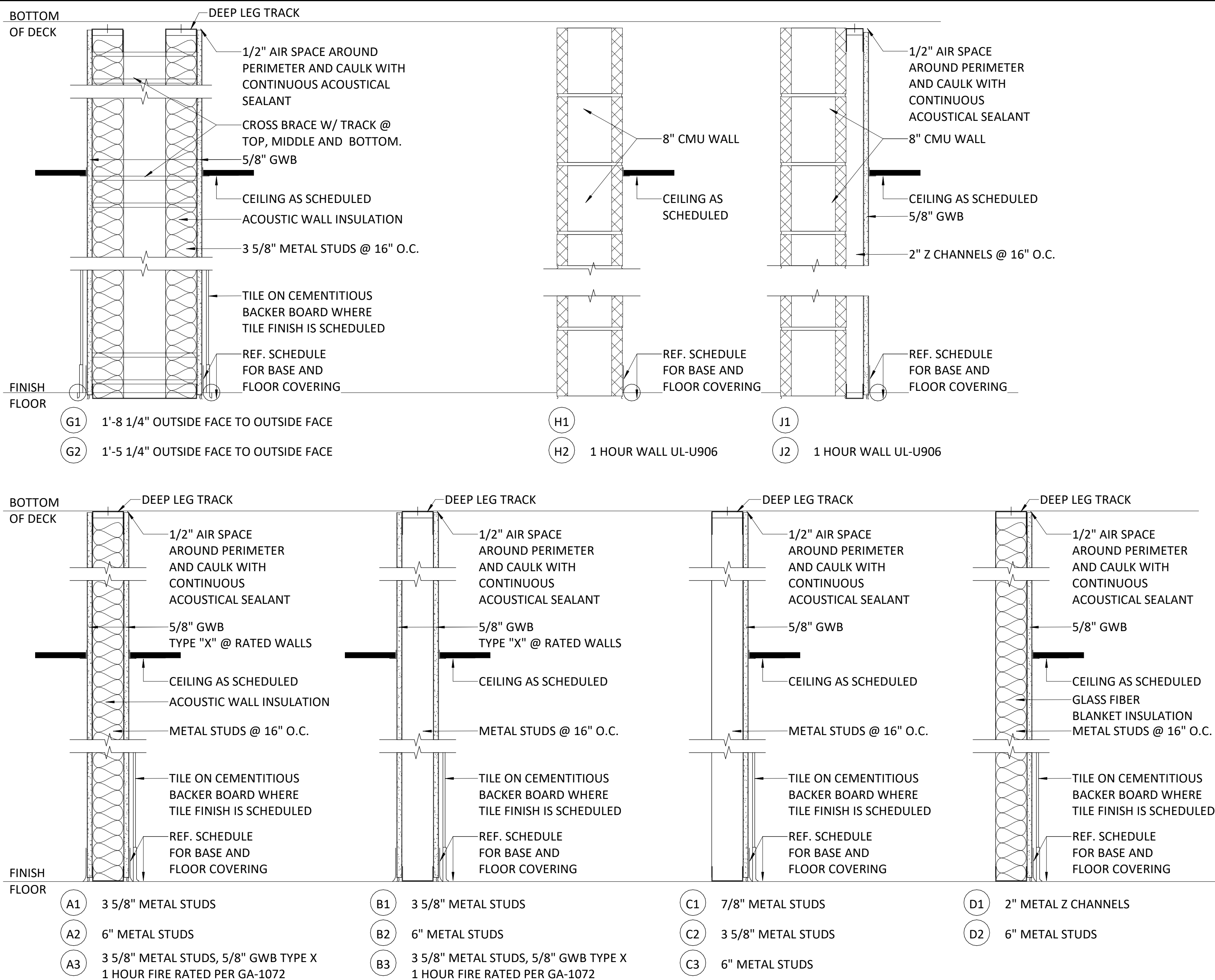
PARTITION TYPE MARK (A1)

REVISION NUMBER 1

SIGNAGE	101A
	52

WINDOW TYPE MARK

PARTITION TYPES



GENERAL NOTES

A. GENERAL NOTES

1. THE CONTRACTOR SHALL PROVIDE COMPLETE PROJECT SYSTEMS AND COMPONENTS AND COMPLY WITH ALL REQUIREMENTS INDICATED ON THE PROJECT DOCUMENTS.
2. WORK WITHIN THE AREA BOUNDARIES INDICATED IN THE PROJECT DOCUMENTS AND COMPLY WITH ALL APPLICABLE BUILDING CODE, REGULATION AND ORDINANCE REQUIREMENTS. OCCUPANTS ADJACENT TO THE PROJECT AREA BOUNDARIES SHALL CONTINUE UNINTERRUPTED OCCUPANCY DURING CONSTRUCTION OF THE PROJECT.
3. VERIFY FIELD CONDITIONS AND COORDINATION WITH THE PROJECT DOCUMENTS PRIOR TO PROCEEDING WITH THE WORK.
4. COORDINATE THE WORK WITH ALL REQUIREMENTS INDICATED IN THE PROJECT DOCUMENTS.
5. PERFORM THE WORK AT THE PROJECT SITE DURING NORMAL BUSINESS HOURS, UNLESS OTHERWISE NOTED.
6. COORDINATE THE WORK WITH EQUIPMENT, FURNISHINGS, AND SYSTEMS PROVIDED BY THE OWNER.
7. THE CONTRACTOR SHALL PROVIDE COMPLETE PROJECT SYSTEMS AND COMPONENTS AND COMPLY WITH ALL REQUIREMENTS INDICATED ON THE PROJECT DOCUMENTS.

B. DEFINITIONS:

1. "TYPICAL" OR "TYP." INDICATES IDENTICAL COMPLETE SYSTEM SHALL BE PROVIDED FOR EACH OCCURRENCE OF THE CONDITION NOTED.
2. "SIMILAR" OR "SIM." INDICATES COMPONENTS SHALL BE PROVIDED COMPARABLE TO THE CHARACTERISTICS FOR THE CONDITION NOTED.
3. "AS REQUIRED" INDICATES COMPONENTS REQUIRED TO COMPLETE THE NOTED SYSTEM AS INDICATED IN THE PROJECT DOCUMENTS SHALL BE PROVIDED.
4. "ALIGN" INDICATES ACCURATELY PROVIDE FINISH FACES OF MATERIALS IN STRAIGHT, TRUE AND PLUMB RELATION TO ADJACENT MATERIALS.

C. DIMENSIONS

1. DIMENSIONS ARE INDICATED TO THE CENTERLINE OF THE STRUCTURAL GRID, FACE OF CONCRETE WALL, NOMINAL FACE OF CMU WALL, FINISH FACE OF PARTITION TYPE AS SCHEDULED, UNLESS OTHERWISE NOTED.
2. ALIGNMENT OF PARTITIONS AND FINISHES AS SCHEDULED SHALL BE STRAIGHT, TRUE AND PLUMB. THE PRIORITY FOR THE PROJECT DIMENSIONS SHALL BE IN THE FOLLOWING ORDER:
 - A. MIN. DIMENSIONS FOR THE ACCESSIBILITY CLEARANCE AND BUILDING CODE REQUIREMENTS.
 - B. LARGE SCALE DETAILS
 - C. SMALL SCALE DETAILS
 - D. ENLARGED VIEWS
 - E. FLOOR PLANS AND ELEVATIONS
3. FLOOR ELEVATIONS ARE INDICATED TO THE FACE OF THE STRUCTURAL SLAB, UNLESS OTHERWISE NOTED.
4. VERTICAL DIMENSIONS ARE INDICATED FROM THE FLOOR ELEVATION TO FACE OF FINISHED MATERIAL AT THE DIMENSION POINT, UNLESS NOTED ABOVE FINISH FLOOR - "AFF".
5. CEILING HEIGHTS ARE INDICATED FROM THE FLOOR ELEVATION TO THE FACE OF SUSPENDED CEILING SYSTEM OR FACE OF FINISH MATERIAL AS SCHEDULED.
6. DIMENSIONS SHOWN ON THE DRAWINGS SHALL INDICATE THE REQUIRED SIZE, CLEARANCE AND DIMENSIONAL RELATIONSHIP BETWEEN PROJECT SYSTEMS AND COMPONENTS. DIMENSIONS SHALL NOT BE DETERMINED BY SCALING THE DRAWINGS.

D. DOOR & FIXTURES

1. ALL FIXTURE HEIGHTS AND MOUNTING DIMENSIONS SHALL COMPLY WITH REQUIREMENTS OF TAS (ADA). CONTRACTOR MUST VERIFY EACH SUCH DIMENSION.
2. ALL DOOR DIMENSIONS ARE CLEAR, FROM EDGE OF DOOR STOP TO EDGE OF DOOR IN 90° OPEN POSITION.
3. ANGLE STOPS, RISERS, TAIL PIECES & P-TRAPS NOT OTHERWISE ENCLOSED BY CABINETS OR OTHER ENCLOSURES SHALL HAVE ADA PROTECTIVE COVERS.
4. TOILET PARTITION DOORS AT HANDICAPPED STALL MUST HAVE A MINIMUM CLEARANCE OF 32".

SCHEDULE OF TYPICAL ARCHITECTURAL ABBREVIATION.

(NOT ALL ABBREVIATIONS MAY BE USED)

A		E		M		S	
ACoust	ACOUSTICAL	EA	EACH	MAINT	MAINTENANCE	SIM	SIMILAR
ADA	AMERICAN DISABILITIES ACT	EJ.	EXPANSION JOINT	MAX	MAXIMUM	SPEC	SPECIFICATIONS
ACT	ACOUSTICAL CEILING TILE	EL	ELEVATION	MECH	MECHANICAL	SS	STAINLESS STEEL
ADJ	ADJACENT OR ADJUSTABLE	ELEC	ELECTRIC(AL)	MFR	MANUFACTURER	SSM	SOLID SURFACE MATERIAL
AFF	ABOVE FINISH FLOOR	ELEV	ELEVATOR/ELEVATION	MH	MANHOLE	STD	STANDARD
ALUM	ALUMINUM	EMERG	EMERGENCY	MIN	MINIMUM	STL	STEEL
ALT	ALTERNATE	EQ	EQUAL	MO	MASONRY OPENING	STOR	STORAGE
APPROX	APPROXIMATELY	EQUIP	EQUIPMENT	MTL	METAL	STRUCT	STRUCTURAL
ARCH	ARCHITECT(URAL)	EWc	ELECTRIC WATER COOLER	NO		SYM	SYMMETRICAL
B		EXIST	EXISTING	N		T	
BLDG	BUILDING	EXT	EXTERIOR	NUMBER		TAS	TEXAS ACCESSIBILITY
BLKG	BLOCKING	F		NIC	NOT IN CONTRACT		STANDARDS
BIT	BITUMEN	FDC	FIRE DEPT. CONNECTION	NTS	NOT TO SCALE	TEMP	TEMPERATURE
BLK	BLOCK	FD	FLOOR DRAIN	O		TLT	TOILET
BTWN	BETWEEN	FF	FINISH FLOOR	OC	ON CENTER	TS	TUBE STEEL
C		FL/FLR	FLOOR	OD	OUTSIDE DIAMETER	T-STAT	THERMOSTAT
CG	CORNER GUARD	FT	FEET OR FOOT	OFD	OVERFLOW DRAIN	TYP	TYPICAL
CIP	CAST-IN PLACE	G		OPNG	OPENING	U	
CJ	CONTROL JOINT	GALV	GALVANIZED	OPP	OPPOSITE	UL	UNDERWRITERS
CL	CENTERLINE	GWb	GYPsUM WALLBOARD	OSB	ORIENTED STRAND BOARD		LABORATORIES INC.
CLG	CEILING	GYP	GYPsUM	P		UNO	UNLESS NOTED OTHERWISE
CLR	CLEAR	H		PART	PARTITION	V	
CMU	CONCRETE MASONRY UNIT	HB	HOSE BIBB	PLAM	PLASTIC LAMINATE	VCT	VINYL COMPOSITION TILE
CO	CLEANOUT	HDWR	HARDWARE	PR	PAIR	VERT	VERTICAL
COL	COLUMN	HM	HOLLOW METAL	PSI	POUNDS PER SQUARE INCH	W	
COMP	COMPOSITION	HORIZ	HORIZONTAL	PVC	POLYVINYL CHLORIDE	W/	WITH
CONC	CONCRETE	HR	HOUR	PVMT	PAVEMENT	WC	WATER CLOSET
CONST	CONSTRUCTION	HVAC	HEATING/VENTILATION/	R		WD	WOOD
CONT	CONTINUOUS		AIR CONDITIONING	RD	ROOF DRAIN	WDW	WINDOW
CTR	CENTER	I		RE	REFER TO	W/O	WITHOUT
D		IN	INCH	REF	REFERENCE		
DBL	DOUBLE	INSUL	INSULATION	REINF	REINFORCING (REINFORCED)		
DIA	DIAMETER	INT	INTERIOR	REQ'D	REQUIRED		
DIAG	DIAGONAL	J		RM	ROOM		
DN	DOWN	JAN	JANITOR	RO	ROUGH OPENING		
DR	DOOR	L					
DS	DOWNSPOUT	LAM	LAMINATE	S			
DWG	DRAWING	LAV	LAVATORY	SCHED	SCHEDULE, SCHEDULED		
DTL	DETAIL	LBS.	POUNDS	SECT	SECTION		
		LTG	LIGHTING	SF	SQUARE FEET		
				SHT	SHEET		

10% SUBMITTAL

Freese and Nichols, Inc.

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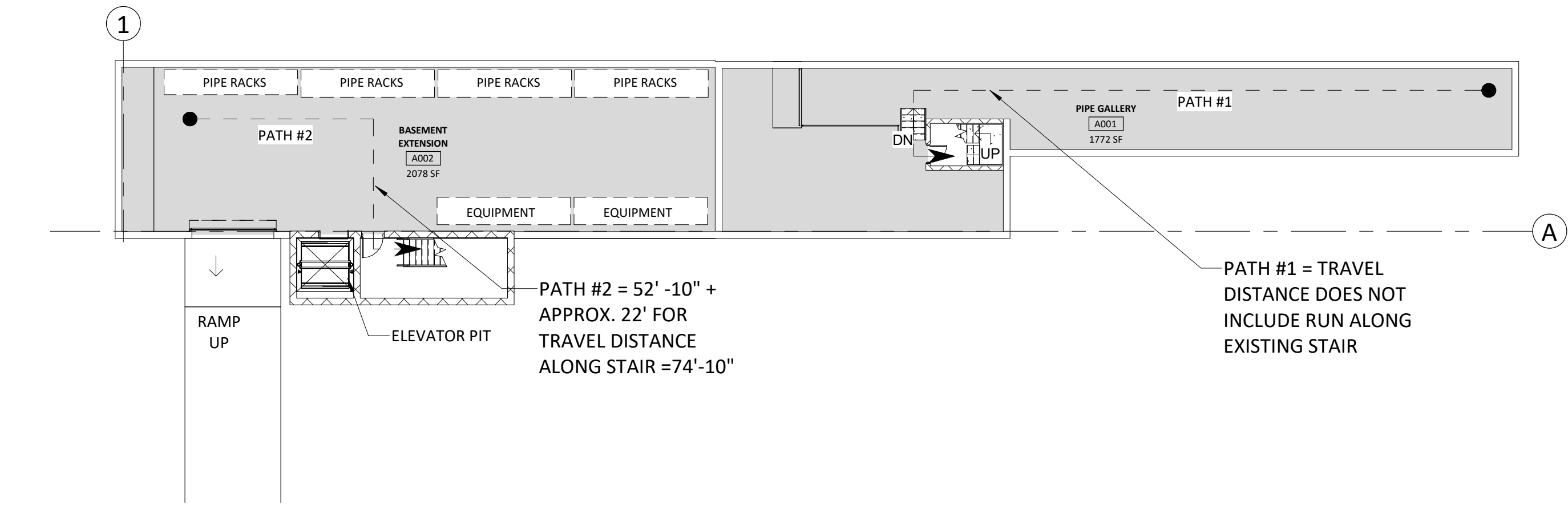
2770 Merit Drive Suite 9000
Dallas, TX 75251
Phone - (214) 217-2200
Web - www.freese.com

CITY OF GRAPEVINE GRAPEVINE ADMINISTRATION FACILITIES IMPROVEMENTS

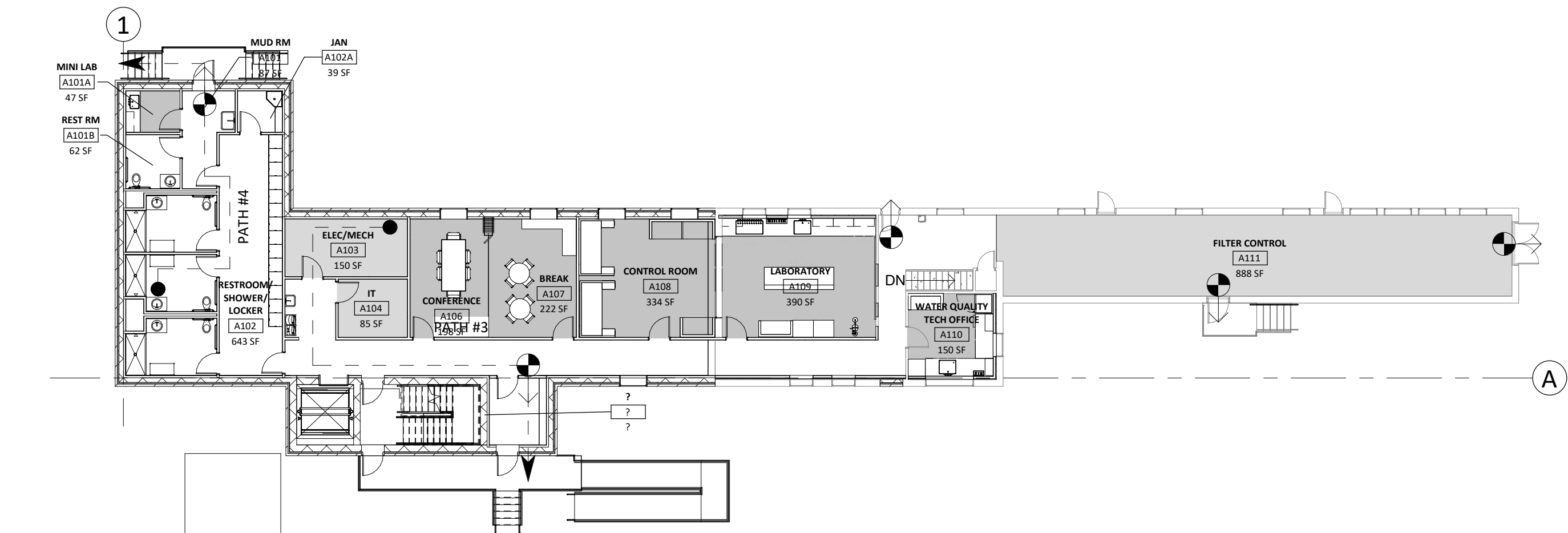
GENERAL ARCHITECTURE

GENERAL NOTES & SYMBOLS

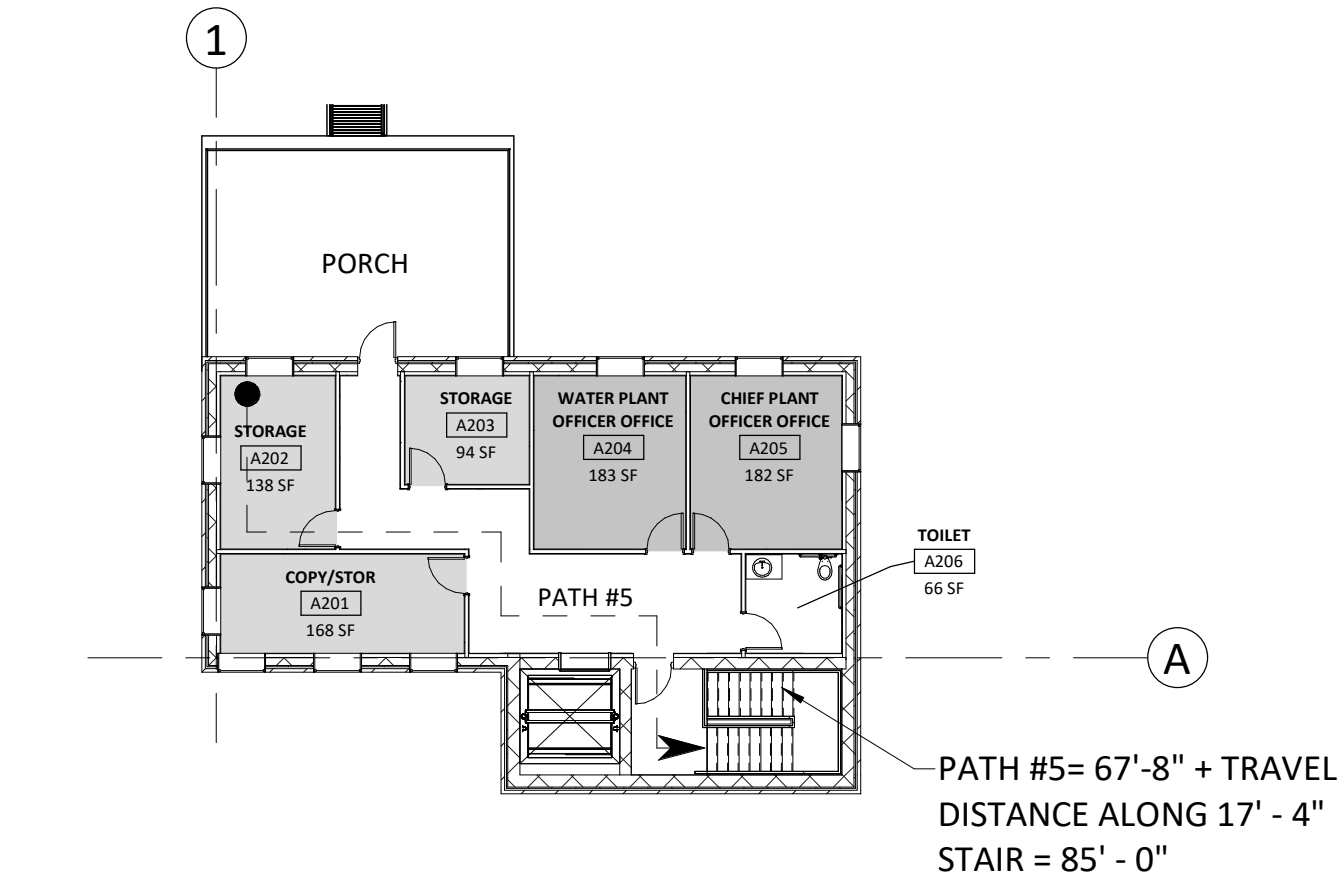
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			DATE		01/20/2024							
			DESIGNED		CNF							
			DRAWN		KEM							
			REVISED									



1 BASEMENT FLOOR LIFE SAFETY PLAN
1/16" = 1'-0"



2 FIRST FLOOR LIFE SAFETY PLAN
1/16" = 1'-0"



3 SECOND FLOOR PLAN LIFE SAFETY PLAN
1/16" = 1'-0"

Room Occupancy Class

B
S-1

TRAVEL DISTANCES

Travel Path	Travel Distance
PATH #1	99' - 8"
PATH #2	52' - 10"
PATH #3	78' - 7"
PATH #4	59' - 9"
PATH #5	67' - 8"

- ONE HOUR RATING
TWO HOUR RATING
FIRE EXTINGUISHER & BRACKET
FIRE EXTINGUISHER CABINET
EGRESS PATHWAY

BUILDING OCCUPANCY BREAKDOWN

ASSEMBLY/CLASSROOMS*	A-3	XX,XXX SF
BUSINESS	B	XX,XXX SF
STORAGE/MECH/IT/ELEC	S-1	XX,XXX SF
EXERCISE/GYM	B	XX,XXX SF
LOCKER	B	XX,XXX SF
KITCHEN	B	XX,XXX SF

CODE REVIEW - IBC - 2021

PROJECT: GRAPEVINE ADMINISTRATIVE FACILITIES IMPROVEMENTS - WATER TREATMENT PLANT
LOCATION: GRAPEVINE, TX
CODES: 2021 INTERNATIONAL BUILDING CODE AS AMENDED
2021 INTERNATIONAL FIRE CODE AS AMENDED
2021 INTERNATIONAL PLUMBING CODE AS AMENDED
2021 INTERNATIONAL MECHANICAL CODE AS AMENDED
2021 INTERNATIONAL ENERGY CODE AS AMENDED
2020 NATIONAL ELECTRICAL CODE AS AMENDED

PRIMARY OCCUPANCY: B AND S-1, NON-SEPARATED MIXED USE (TABLE 508.4)

AUTOMATIC FIRE SUPPRESSION: YES, SEE CODE AMMENDMENT SEC. 903.2.1.6

BUILDING SIZE:
BASEMENT FLOOR 4,741 SF
1ST FLOOR 5,338 SF
2ND FLOOR 1,749 SF
TOTAL 11,828 SF

TYPE OF CONSTRUCTION: II-B

BUILDING AREA 52,500 SF (TABLE 506.2)
AND HEIGHT LIMITATIONS: 4 STORIES

FIRE RESISTIVE REQUIREMENTS (HR) (TABLE 601)
STRUCTURAL FRAME = 0
BEARING WALL - INT/EXT = 0
NON BEARING WALLS AND PARTITIONS - EXTERIOR
< 5' = 0
≥ 5' < 10' = 0
≥ 10' < 30' = 0
> 30' = 0
NONBEARING WALLS AND PARITITIONS - INTERIOR = 0
FLOOR CONSTRUCTION = 0
ROOF CONSTRUCTION = 0
CORRIDOR RATING = 0 (TABLE 1020.2)

EGRESS (TABLE 1016.1)
SF/ OCC. BASEMENT LEVEL 1 LEVEL 2
BUSINESS 1,669 SF / 100 GROSS 0 14 4
STORAGE 5,376 SF / 300 GROSS 13 4 2
7,045 SF
BASEMENT = 13 OCCUPANTS
FIRST FLOOR = 18 OCCUPANTS
SECOND FLOOR = 6 OCCUPANTS
37 OCCUPANTS TOTAL

MINIMUM CORRIDOR WIDTH = 36" TYPICAL (SEC 1020.3)

NUMBER OF EXITS REQUIRED = 2 (TABLE 1006.3.3)

EXIT ACCESS TRAVEL DISTANCE = 250' (TABLE 1017.2)

MAXIMUM LENGTH OF DEAD END CORRIDORS = 50' (SEC 1020.5)

WALL - TO - DECK RATING LEGEND

1 HOUR RATED WALL

DOOR AND EGRESS KEY

- 1 (2) 3'-0" DOORS = 64" CLEAR
2 3'-0" DOORS = 32" CLEAR

0 8' 16' 32'
1/16"=1'-0"

10% SUBMITTAL

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Texas Registered Engineering Firm F-2144

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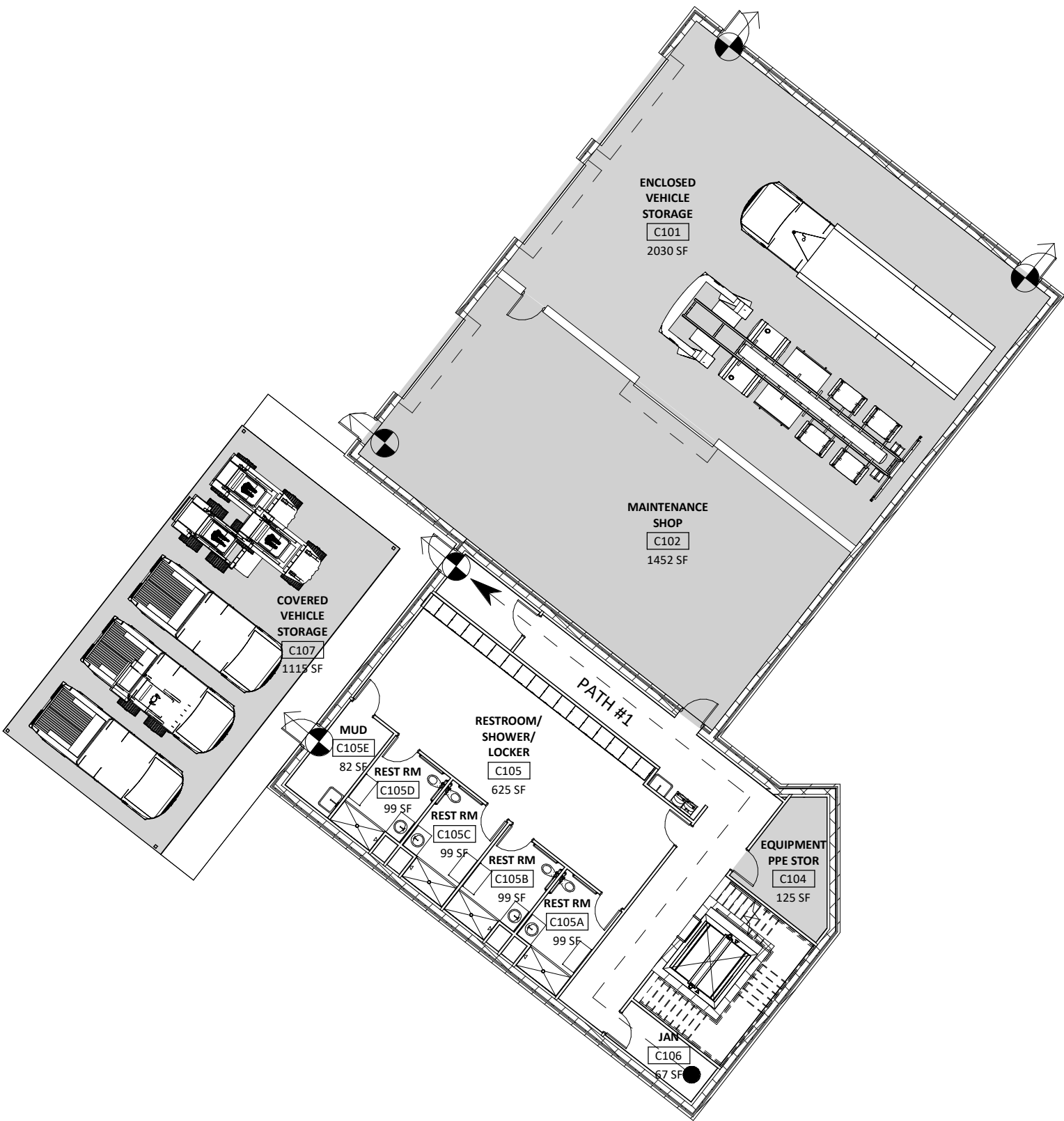
FREESE
& NICHOLS
12770 Merit Drive Suite 900
Dallas, TX 75251
Phone - (214) 217-2200
Web - www.freese.com

CITY OF GRAPEVINE
GRAPEVINE ADMINISTRATIVE FACILITIES
IMPROVEMENTS

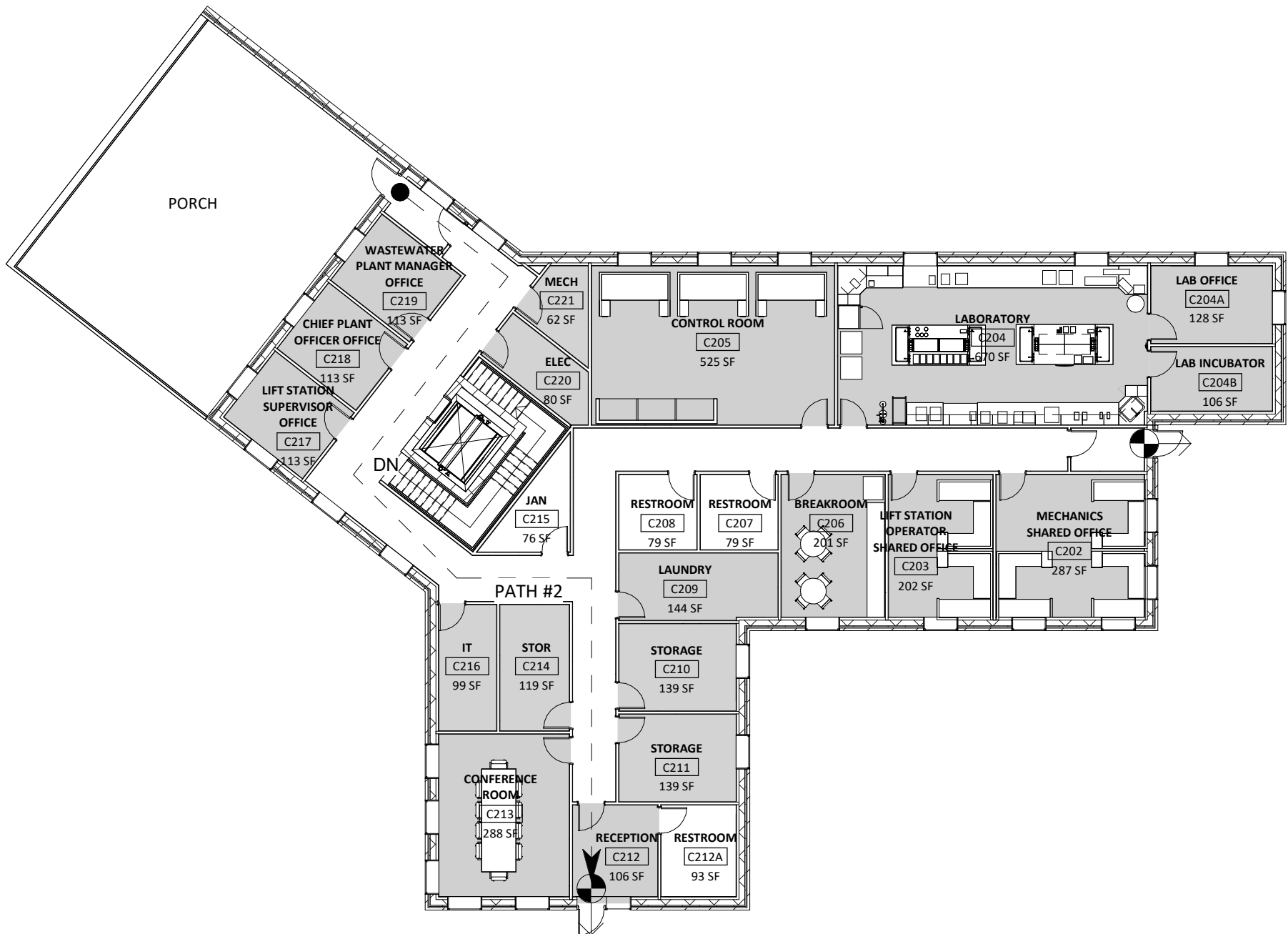
ARCHITECTURE
GENERAL

LIFE SAFETY & CODE REVIEW

F&N JOB NO.	GPV23966	DATE	01/2024	DESIGNED	CNF	DRAWN	KEW	REVIEWED	TJR	FILE NAME	AR-GPV23966-ABL-R23-RVT
NO.	0	ISSUE	Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.	VERIFY SCALE	1	BY	DATE	FILE NAME	AR-GPV23966-ABL-R23-RVT		
SHEET	G003	SEQ.									



1 LIFE SAFETY PLAN - FIRST FLOOR
AC201 1/16" = 1'-0"



2 LIFE SAFETY PLAN - SECOND FLOOR
AC201 1/16" = 1'-0"

Room Occupancy Class

- B
- S-1

- ONE HOUR RATING
- TWO HOUR RATING
- FE FIRE EXTINGUISHER & BRACKET
- FEC FIRE EXTINGUISHER CABINET
- EGRESS PATHWAY

TRAVEL DISTANCES	
Travel Path	Travel Distance
PATH #1	87' - 0"
PATH #2	113' - 7"

CODE REVIEW - IBC - 2006

PROJECT: GRAPEVINE ADMINISTRATIVE FACILITIES IMPROVEMENTS - WATER TREATMENT PLANT

LOCATION: GRAPEVINE, TX

CODES: 2021 INTERNATIONAL BUILDING CODE AS AMENDED
2021 INTERNATIONAL FIRE CODE AS AMENDED
2021 INTERNATIONAL PLUMBING CODE AS AMENDED
2021 INTERNATIONAL MECHANICAL CODE AS AMENDED
2021 INTERNATIONAL ENERGY CODE AS AMENDED
2020 NATIONAL ELECTRICAL CODE AS AMENDED

PRIMARY OCCUPANCY: B AND S-1, NON-SEPARATED MIXED USE (TABLE 508.4)

AUTOMATIC FIRE SUPPRESSION: YES, SEE CODE AMMENDMENT SEC. 903.2.1.6

BUILDING SIZE:

1ST FLOOR	7,365 SF
2ND FLOOR	6,037 SF
TOTAL	13,402 SF

TYPE OF CONSTRUCTION: II-B

BUILDING AREA AND HEIGHT LIMITATIONS: 52,500 SF (TABLE 506.2)
4 STORIES

FIRE RESISTIVE REQUIREMENTS (HR) (TABLE 601)

STRUCTURAL FRAME	= 0
BEARING WALL - INT/EXT	= 0
NON BEARING WALLS AND PARTITIONS - EXTERIOR	
< 5'	= 0
≥ 5' < 10'	= 0
≥ 10' < 30'	= 0
> 30'	= 0
NONBEARING WALLS AND PARTITIONS - INTERIOR	= 0
FLOOR CONSTRUCTION	= 0
ROOF CONSTRUCTION	= 0
CORRIDOR RATING	= 0 (TABLE 1020.2)

EGRESS (TABLE 1016.1)

	SF/	OCC.	LEVEL 1	LEVEL 2
BUSINESS	4,450 SF /	100 GROSS	14	30
STORAGE	3,909 SF /	300 GROSS	11	3
	8,359 SF			
FIRST FLOOR	= 25 OCCUPANTS			
SECOND FLOOR	= 33 OCCUPANTS			
	58 OCCUPANTS TOTAL			

MINIMUM CORRIDOR WIDTH = 44" TYPICAL (SEC 1020.3)

NUMBER OF EXITS REQUIRED = 2 (TABLE 1006.3.3)

EXIT ACCESS TRAVEL DISTANCE = 250' (TABLE 1017.2)

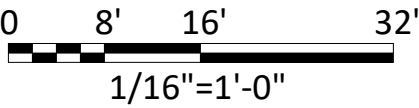
MAXIMUM LENGTH OF DEAD END CORRIDORS = 50' (SEC 1020.5)

WALL - TO - DECK RATING LEGEND

1 HOUR RATED WALL

DOOR AND EGRESS KEY

- 1 (2) 3'-0" DOORS = 64" CLEAR
- 2 3'-0" DOORS = 32" CLEAR



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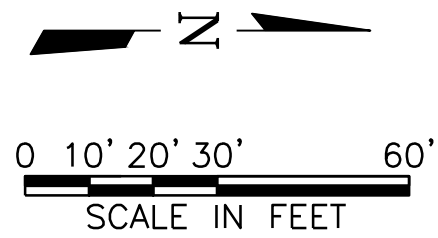
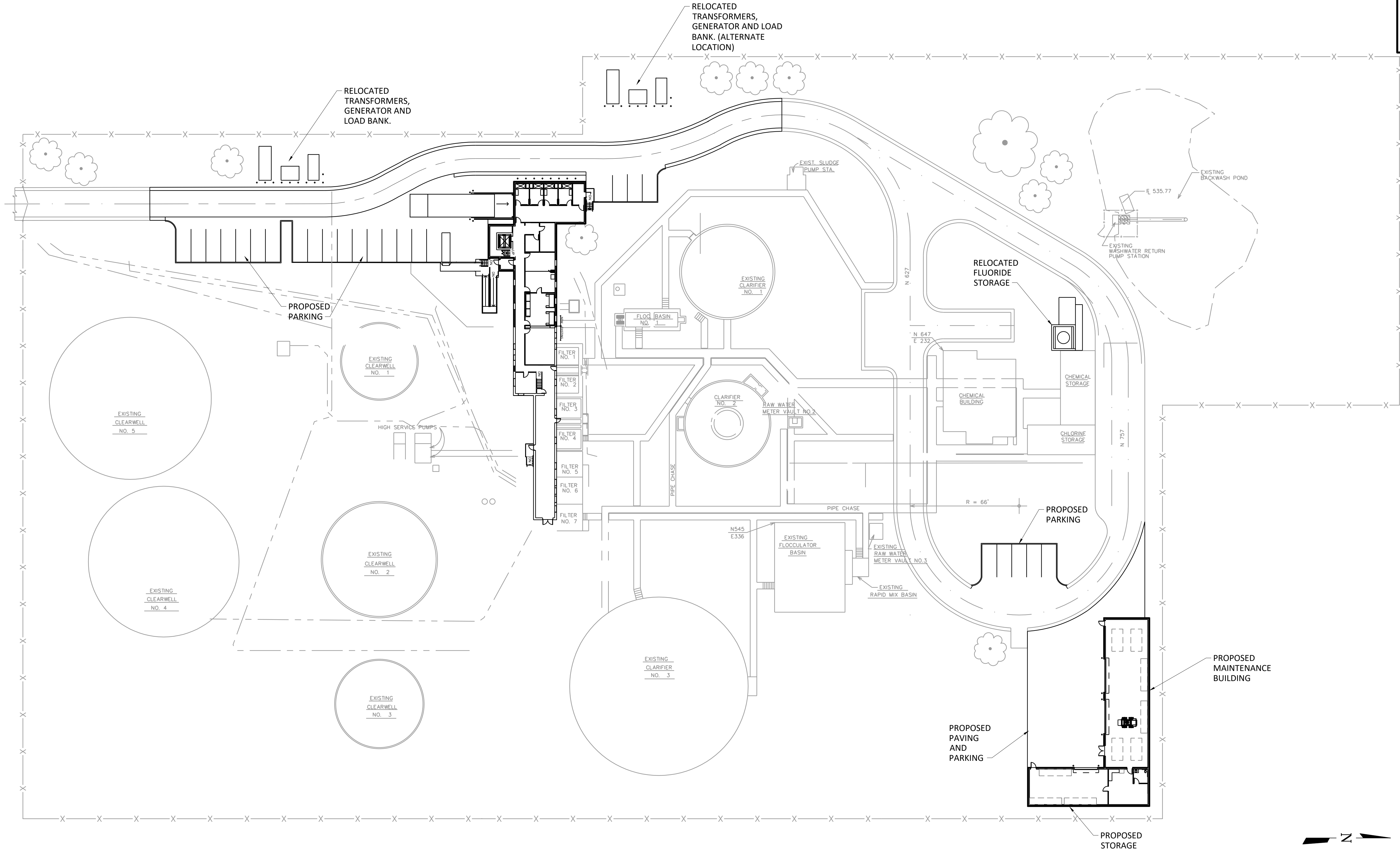
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12770 Merit Drive Suite 900
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CITY OF GRAPEVINE
GRAPEVINE ADMINISTRATION FACILITIES
IMPROVEMENTS
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GENERAL
LIFE SAFETY & CODE REVIEW

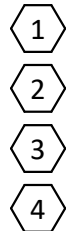
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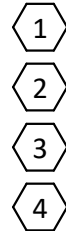


CONCEPTUAL

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CITY OF GRAPEVINE, TEXAS WATER TREATMENT PLANT & WASTEWATER TREATMENT PLANT SPACE UTILIZATION STUDY GENERAL WATER TREATMENT PLANT SITE PLAN	
NO. 1	ISSUE
BY	DATE
DESIGNED	DATE
DRAWN	DATE
REVIEWED	DATE
CHECKED	DATE
FILE NAME	FILE NAME
VERIFY SCALE	Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
1	0 10' 20' 30' 60'
SHEET	EXHIBIT 2
SEQ.	-



AA301



AA201

1. ALL DIMENSIONS ARE GIVEN TO:
 - A. FACE OF CONCRETE OR MASONRY.
 - B. CENTER LINE OF COLUMNS WHERE INDICATED.
 - C. FACE OF FINISH.
 - D. FACE OF PLASTER OR STUCCO.
 - E. CONCRETE FLOOR LINE.
2. REFER TO FLOOR PLANS FOR PARTITIONS THAT DO NOT EXTEND TO DECK.
3. REFER TO LIFE SAFETY PLAN FOR LOCATION OF FIRE EXTINGUISHER CABINETS (FEC).
4. ALL DRYWALL PARTITIONS THAT DO NOT EXTEND TO DECK SHALL BE BRACED TO STRUCTURE AT 4'-0" O.C., ALTERNATING SIDES OF PARTITION, USING SAME FRAMING AS PARTITION.

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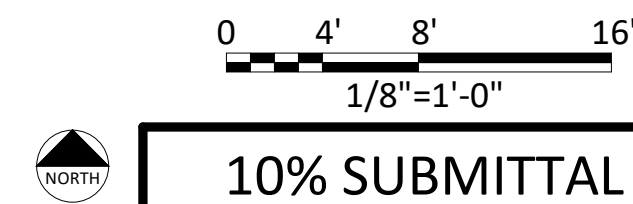
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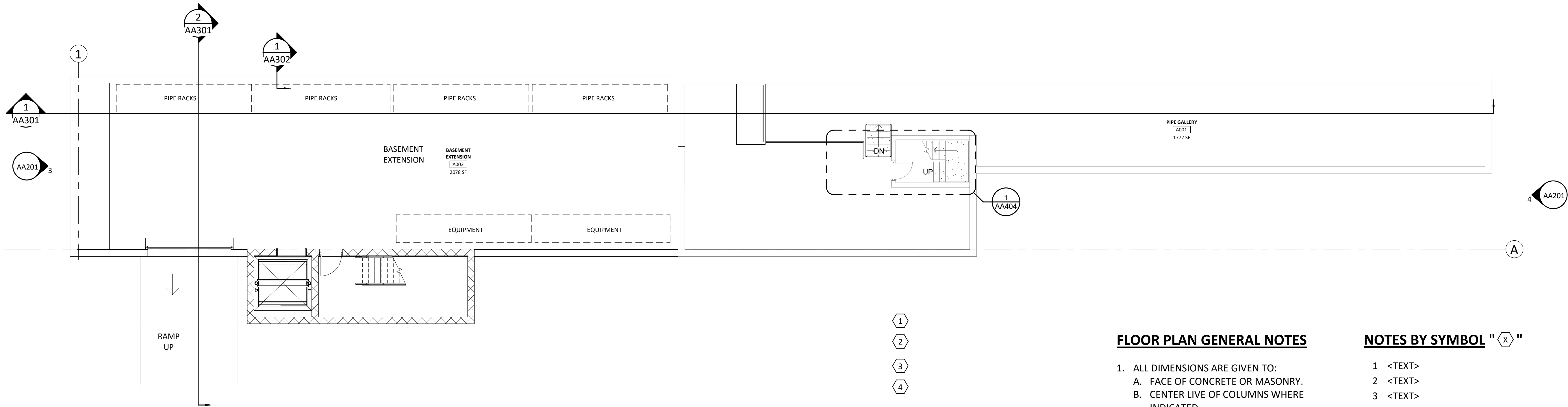
GRAPEVINE ADMINISTRATION FACILITIES CITY OF GRAPEVINE IMPROVEMENTS

WTP ADMINISTRATION BUILDING
DEMOLITION PLANS

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	4																																																																																																																																																																																																																																																																																																																												

SHEET
AA101
SEQ.





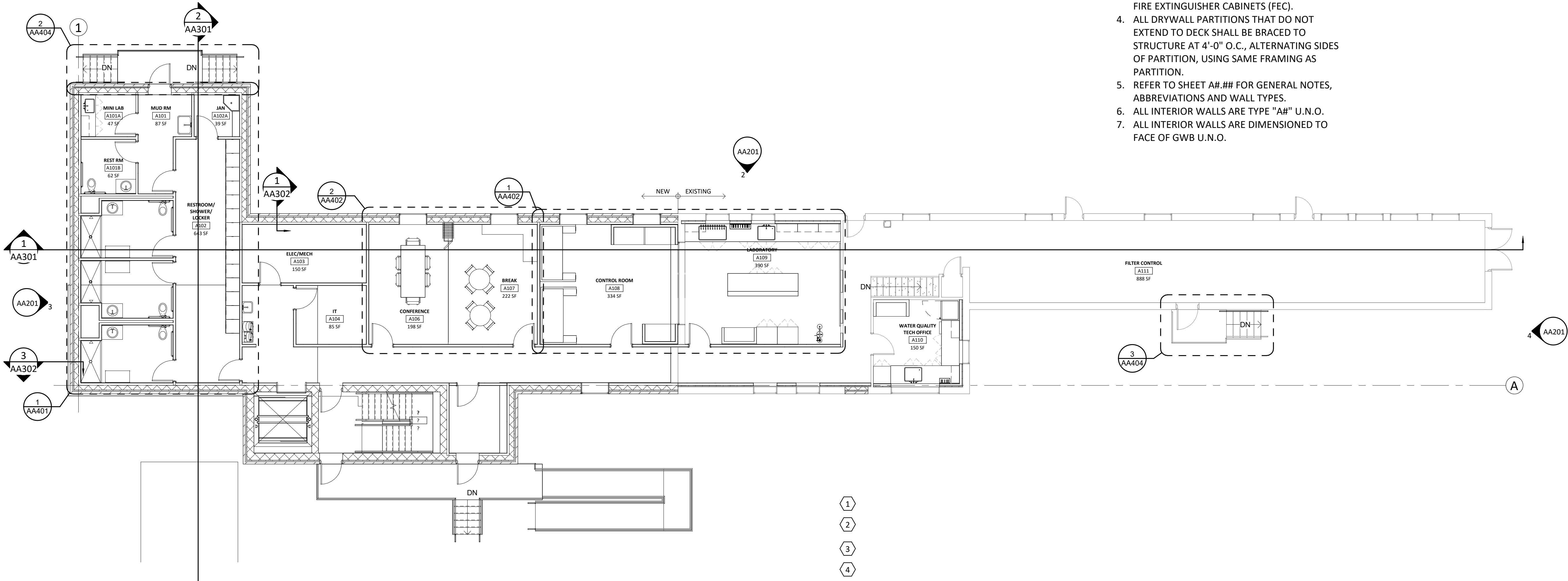
1 BASEMENT FLOOR PLAN
1/8" = 1'-0"

FLOOR PLAN GENERAL NOTES

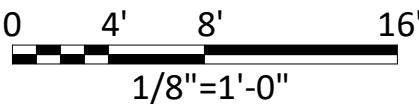
- ALL DIMENSIONS ARE GIVEN TO:
 - FACE OF CONCRETE OR MASONRY.
 - CENTER LIVE OF COLUMNS WHERE INDICATED.
 - FACE OF FINISH.
 - FACE OF PLASTER OR STUCCO.
 - CONCRETE FLOOR LINE.
- REFER TO FLOOR PLANS FOR PARTITIONS THAT DO NOT EXTEND TO DECK.
- REFER TO LIFE SAFETY PLAN FOR LOCATION OF FIRE EXTINGUISHER CABINETS (FEC).
- ALL DRYWALL PARTITIONS THAT DO NOT EXTEND TO DECK SHALL BE BRACED TO STRUCTURE AT 4'-0" O.C., ALTERNATING SIDES OF PARTITION, USING SAME FRAMING AS PARTITION.
- REFER TO SHEET A#.# FOR GENERAL NOTES, ABBREVIATIONS AND WALL TYPES.
- ALL INTERIOR WALLS ARE TYPE "A#" U.N.O.
- ALL INTERIOR WALLS ARE DIMENSIONED TO FACE OF GWB U.N.O.

NOTES BY SYMBOL "X"

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2 FIRST FLOOR PLAN
1/8" = 1'-0"



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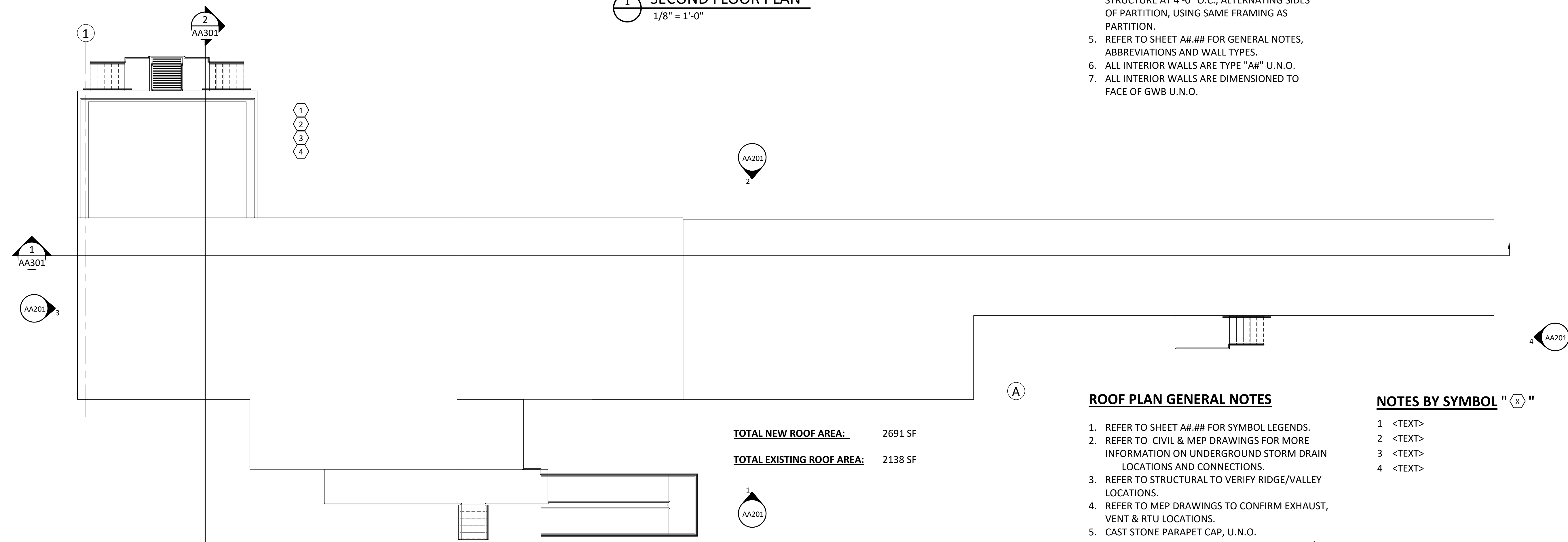
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Web - www.freese.com

CITY OF GRAPEVINE
**GRAPEVINE ADMINISTRATION FACILITIES
IMPROVEMENTS**
ARCHITECTURE
**WTP ADMINISTRATION BUILDING
BASEMENT & FIRST FLOOR PLAN**

F&N JOB NO.		GPV23966		DATE		DESIGNED	CNF	DRAWN	REM	REVISED	TJR	FILE NAME
				01/2024								AR-GPV23966-AB1-R23-RVT
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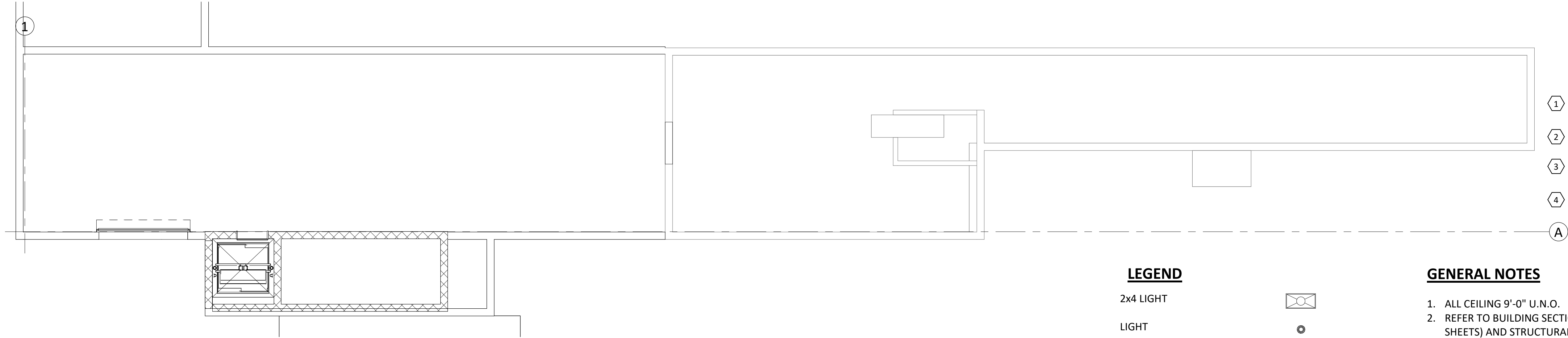
2 ROOF PLAN
AA201 1/8" = 1'-0"

TOTAL EXISTING ROOF AREA: 2138 SF

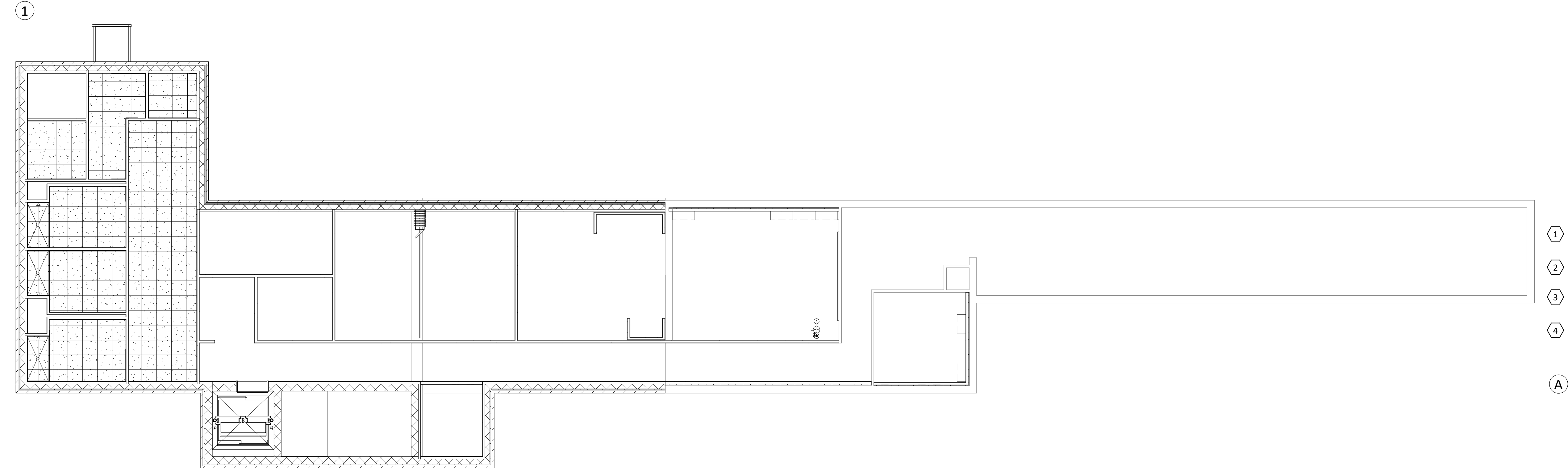
1. REFER TO SHEET A#.#.# FOR SYMBOL LEGENDS.
2. REFER TO CIVIL & MEP DRAWINGS FOR MORE INFORMATION ON UNDERGROUND STORM DRAIN LOCATIONS AND CONNECTIONS.
3. REFER TO STRUCTURAL TO VERIFY RIDGE/VALLEY LOCATIONS.
4. REFER TO MEP DRAWINGS TO CONFIRM EXHAUST, VENT & RTU LOCATIONS.
5. CAST STONE PARAPET CAP, U.N.O.
6. CRICKET AT ALL ROOF TOP EQUIPMENT AS REQ'D.

- 1 <TEXT>
- 2 <TEXT>
- 3 <TEXT>
- 4 <TEXT>

10% SUBMITTAL



1 BASEMENT REFLECTED CEILING PLAN
1/8" = 1'-0"



2 FIRST FLOOR REFLECTED CEILING PLAN
1/8" = 1'-0"

LEGEND

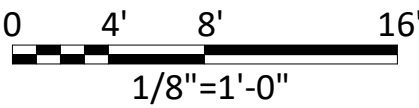
2x4 LIGHT	
LIGHT	
RECESSED CAN LIGHT	
STRIP LIGHT	
SUPPLY AIR DIFFUSER	
RETURN AIR GRILLE	
NEW 2X2 FRP	
EXPOSED STRUCTURE - PAINT	

GENERAL NOTES

- ALL CEILING 9'-0" U.N.O.
- REFER TO BUILDING SECTIONS (A#.# SHEETS) AND STRUCTURAL FRAMING PLANS (S2 SHEETS) FOR EXPOSED STRUCTURE AND DECK HEIGHTS ABOVE FINISH FLOOR (NO CEILINGS).
- NOT ALL LIGHTING FIXTURES AND DEVICES ARE SHOWN ON THIS PLAN. REFER TO LIGHTING AND MECHANICAL SHEETS.
- ALL CEILINGS ACT-1 U.N.O.
- REFER TO ELECTRICAL, AUDIOVISUAL, TELECOM AND SECURITY SHEETS FOR MORE INFORMATION.
- REFER TO A#.# & A#.# FOR CEILING DETAILS.

NOTES BY SYMBOL "X"

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Texas Registered Engineering Firm F-2144

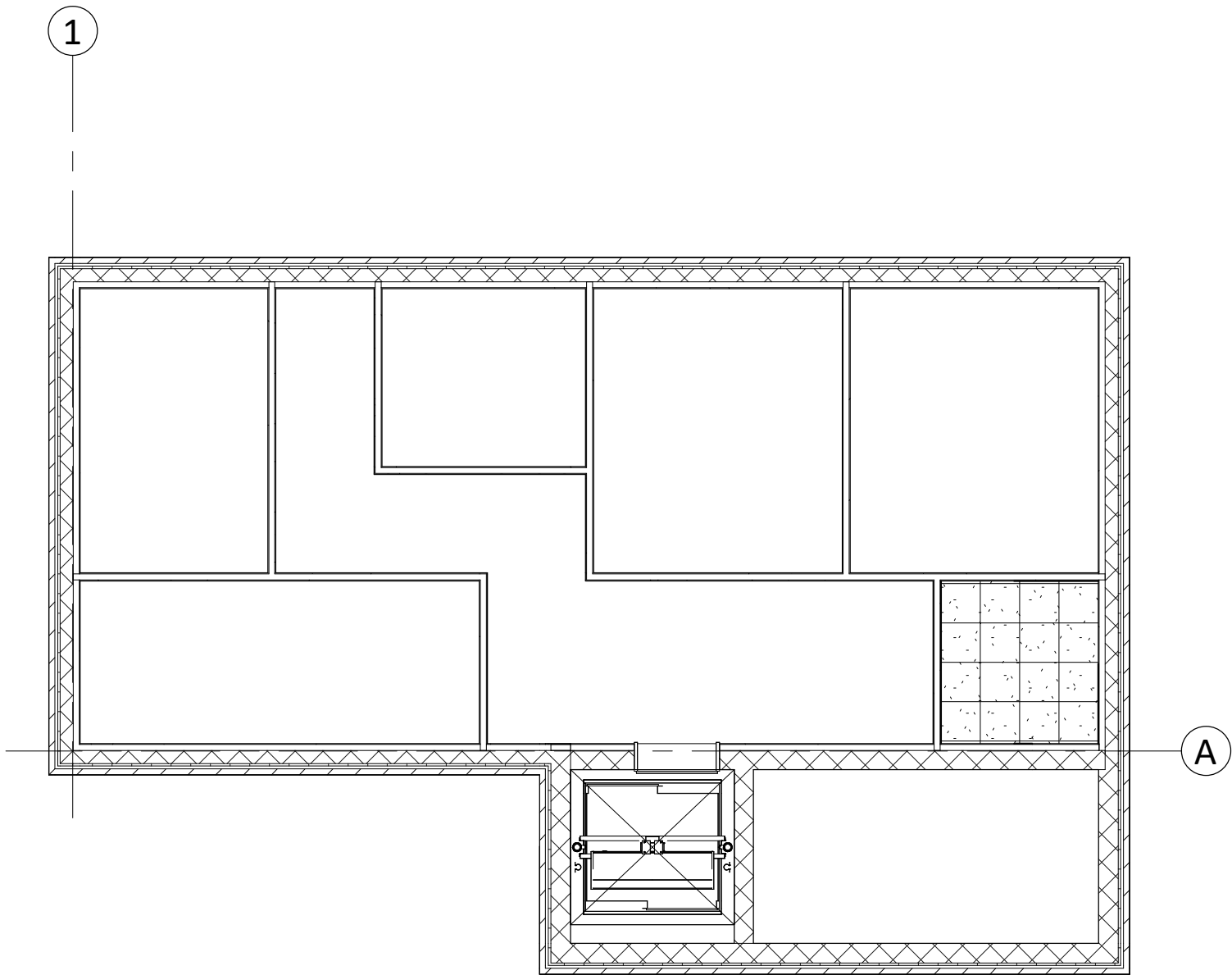
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CITY OF GRAPEVINE
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ARCHITECTURE
**WTP ADMINISTRATION BUILDING
BASEMENT & FIRST FLOOR RCP**

F&N JOB NO. GPV23966		DATE 01/2024	DESIGNED CNF	DRAWN KEW	REVIEWED KEW	FILE NAME AR-GPV23966-ABL-R23-RVT
SHEET		BY	DATE	ISSUE	NO.	VERIFY SCALE
AA104				Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.	1	
SEQ.						



1 SECOND FLOOR REFLECTED CEILING PLAN
AA201 1/8" = 1'-0"

CEILING FINISH SCHEDULE			
FINISH	NAME	LEVEL	AREA
FRP CEILING			
FRP CEILING	JAN	FIRST FLOOR PLAN	39 SF
FRP CEILING	MUD RM	FIRST FLOOR PLAN	87 SF
FRP CEILING	REST RM	FIRST FLOOR PLAN	62 SF
FRP CEILING	RESTROOM/ SHOWER/ LOCKER	FIRST FLOOR PLAN	643 SF
FRP CEILING	TOILET	SECOND FLOOR PLAN	66 SF
FRP CEILING			897 SF
OPEN TO STRUCTURE ABOVE			
OPEN TO STRUCTURE ABOVE	BASEMENT EXTENSION	BASEMENT FLOOR PLAN	2078 SF
OPEN TO STRUCTURE ABOVE	PIPE GALLERY	BASEMENT FLOOR PLAN	1772 SF
OPEN TO STRUCTURE ABOVE	BREAK	FIRST FLOOR PLAN	222 SF
OPEN TO STRUCTURE ABOVE	CONFERENCE	FIRST FLOOR PLAN	198 SF
OPEN TO STRUCTURE ABOVE	CONTROL ROOM	FIRST FLOOR PLAN	334 SF
OPEN TO STRUCTURE ABOVE	COORIDOR	FIRST FLOOR PLAN	742 SF
OPEN TO STRUCTURE ABOVE	ELEC/MECH	FIRST FLOOR PLAN	150 SF
OPEN TO STRUCTURE ABOVE	FILTER CONTROL	FIRST FLOOR PLAN	888 SF
OPEN TO STRUCTURE ABOVE	IT	FIRST FLOOR PLAN	85 SF
OPEN TO STRUCTURE ABOVE	LABORATORY	FIRST FLOOR PLAN	390 SF
OPEN TO STRUCTURE ABOVE	MINI LAB	FIRST FLOOR PLAN	47 SF
OPEN TO STRUCTURE ABOVE	VESTIBULE	FIRST FLOOR PLAN	81 SF
OPEN TO STRUCTURE ABOVE	WATER QUALITY TECH OFFICE	FIRST FLOOR PLAN	150 SF
OPEN TO STRUCTURE ABOVE	CHIEF PLANT OFFICER OFFICE	SECOND FLOOR PLAN	182 SF
OPEN TO STRUCTURE ABOVE	COPY/STOR	SECOND FLOOR PLAN	168 SF
OPEN TO STRUCTURE ABOVE	CORRIDOR	SECOND FLOOR PLAN	316 SF
OPEN TO STRUCTURE ABOVE	STORAGE	SECOND FLOOR PLAN	138 SF
OPEN TO STRUCTURE ABOVE	STORAGE	SECOND FLOOR PLAN	94 SF
OPEN TO STRUCTURE ABOVE	WATER PLANT OFFICER OFFICE	SECOND FLOOR PLAN	183 SF
OPEN TO STRUCTURE ABOVE			8218 SF

LEGEND

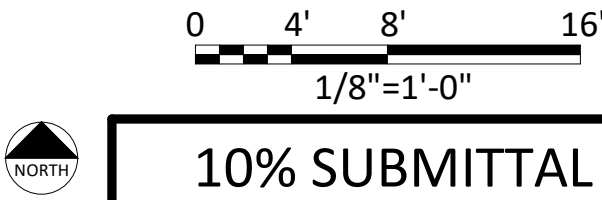
2x4 LIGHT	
LIGHT	
RECESSED CAN LIGHT	
STRIP LIGHT	
SUPPLY AIR DIFFUSER	
RETURN AIR GRILLE	
NEW 2X2 FRP	
EXPOSED STRUCTURE - PAINT	

GENERAL NOTES

- ALL CEILING 9'-0" U.N.O.
- REFER TO BUILDING SECTIONS (A#.# SHEETS) AND STRUCTURAL FRAMING PLANS (S2 SHEETS) FOR EXPOSED STRUCTURE AND DECK HEIGHTS ABOVE FINISH FLOOR (NO CEILINGS).
- NOT ALL LIGHTING FIXTURES AND DEVICES ARE SHOWN ON THIS PLAN. REFER TO LIGHTING AND MECHANICAL SHEETS.
- ALL CEILINGS ACT-1 U.N.O.
- REFER TO ELECTRICAL, AUDIOVISUAL, TELECOM AND SECURITY SHEETS FOR MORE INFORMATION.
- REFER TO A#.# & A#.# FOR CEILING DETAILS.

NOTES BY SYMBOL "X"

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-
-



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CITY OF GRAPEVINE

GRAPEVINE ADMINISTRATION FACILITIES IMPROVEMENTS

ARCHITECTURE

WTP ADMINISTRATION BUILDING SECOND FLOOR RCP

F&N JOB NO. GPV23966

DATE 01/2024

DESIGNED CNF

DRAWN KEW

REVISED

CHECKED TJR

NO.

ISSUE

Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.

1

FILE NAME

AR-GPV23966-ABL-R23-RVT

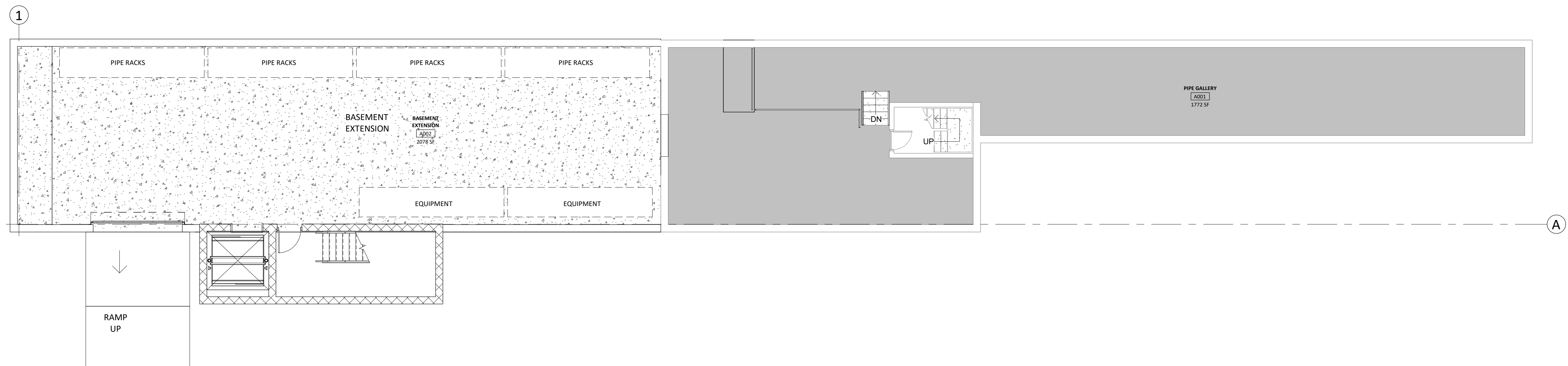
SHEET

AA105

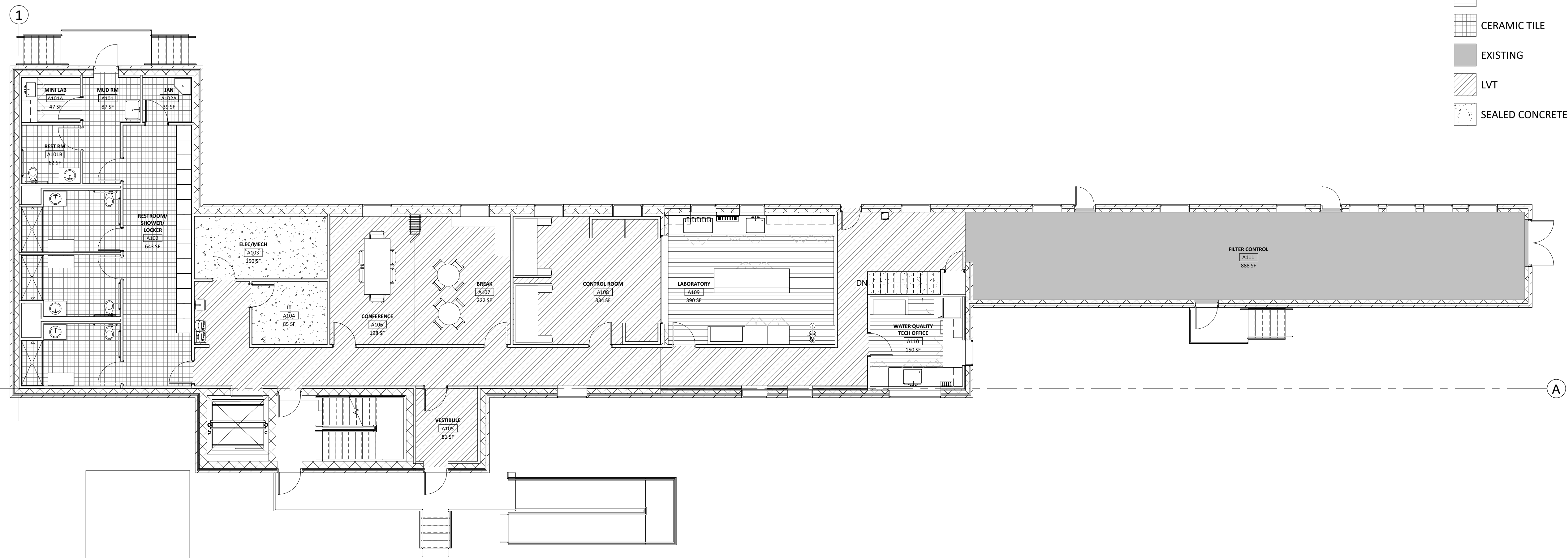
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Plot Date: 2/20/2024 8:59:46 AM



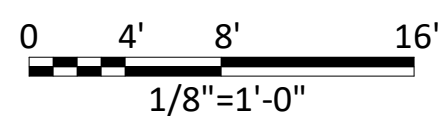
1 BASEMENT FINISH PLAN
AA404 1/8" = 1'-0"



2 FIRST FLOOR FINISH PLAN
AA201 1/8" = 1'-0"

FINISH LEGEND

-  **ATHLETIC FLOORING**
 **CERAMIC TILE**
 **EXISTING**
 **LVT**
 **SEALED CONCRETE**



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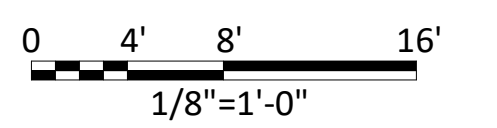
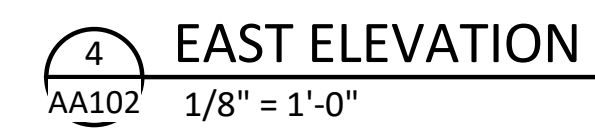
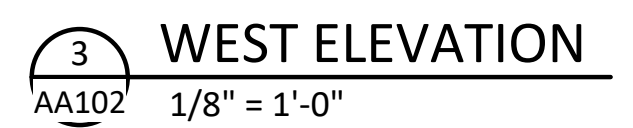
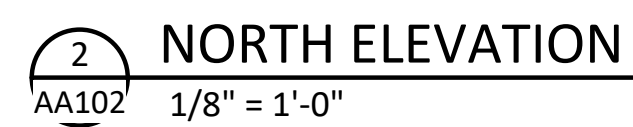
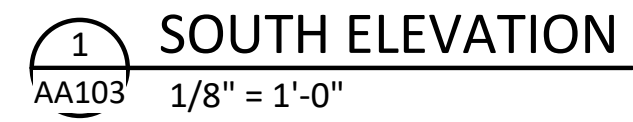
CITY OF GRAPEVINE
GRAPEVINE ADMINISTRATION FACILITIES
IMPROVEMENTS

WTP ADMINISTRATION BUILDING
ARCHITECTURE
FINISH PLAN - BASEMENT & FIRST FLOOR

F&N JOB NO.		GPV23966	
DATE	01/2024	DESIGNED	Designer
DRAWN		DRAWN	
NO.	ISSUE	BY	DATE
Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.			
VERIFY SCALE 0  1		REVISU Approver CHECKED Checker	
FILE NAME		AR-GPV23966-AB1-R23-RVT	

1. REFER TO WALL SECTIONS FOR
ADDITIONAL WALL FINISH LOCATIONS.
2. REFER TO SHEET A#.# for ENLARGED
ELEVATIONS.
3. REFER TO SHEET A#.# for EXTERIOR
FINISH SCHEDULE.

- 1 <TEXT>
- 2 <TEXT>
- 3 <TEXT>
- 4 <TEXT>



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CITY OF GRAPEVINE

**GRAPEVINE ADMINISTRATION FACILITIES
IMPROVEMENTS**

ARCHITECTURE

**WTP ADMINISTRATION BUILDING
EXTERIOR ELEVATIONS**

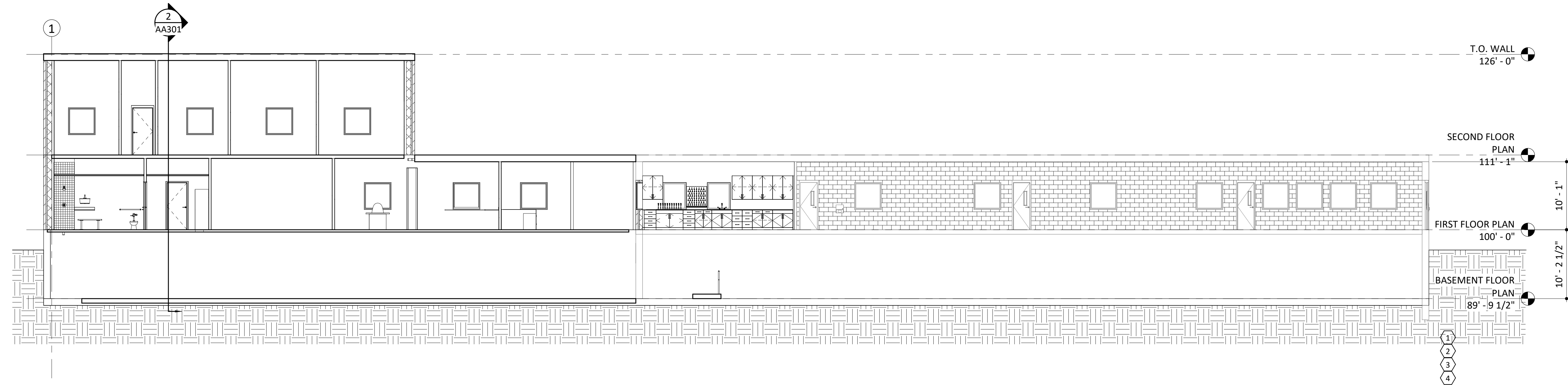
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DATE	01/2024	DESIGNED	Designer
DRAWN			
NO.	ISSUE	BY	DATE
VERIFY SCALE  1 Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.			
REVISD Approver		CHECKED Checker	
AR-GPV23966-AB1-R23-RVT			

GENERAL NOTES

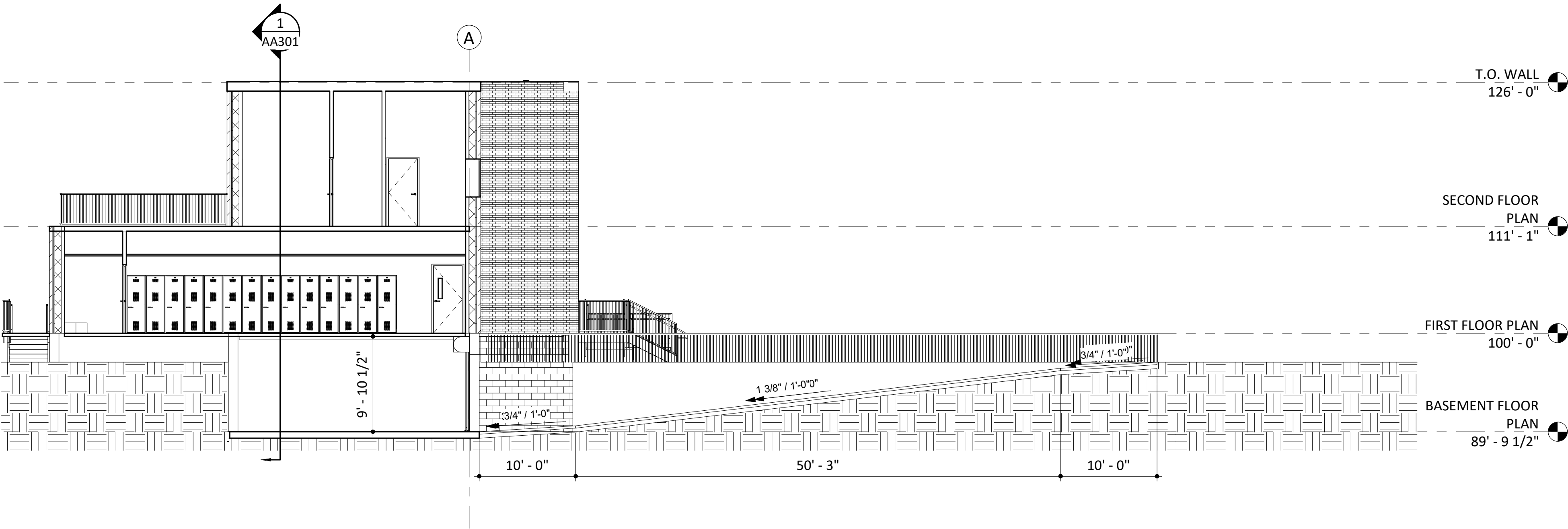
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2. REFER TO SHEET A#.# FOR ENLARGED ELEVATIONS.
3. REFER TO SHEET A#.# FOR EXTERIOR FINISH SCHEDULE.

NOTES BY SYMBOL "X"

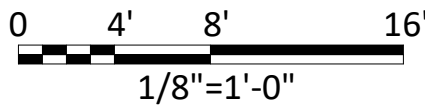
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SECTION LOOKING NORTH
1/8" = 1'-0"



SECTION LOOKING EAST
1/8" = 1'-0"



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Texas Registered Engineering Firm F-2144

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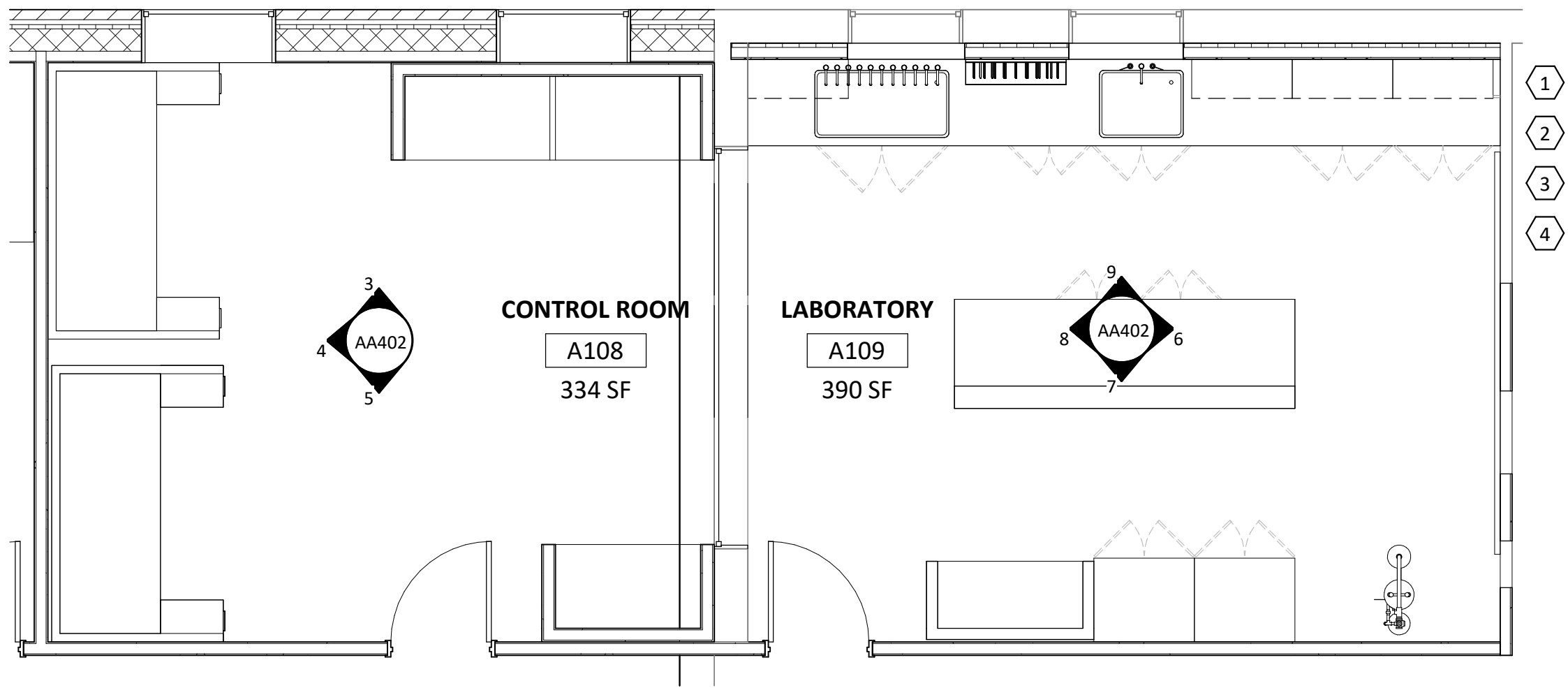
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CITY OF GRAPEVINE
**GRAPEVINE ADMINISTRATION FACILITIES
IMPROVEMENTS**

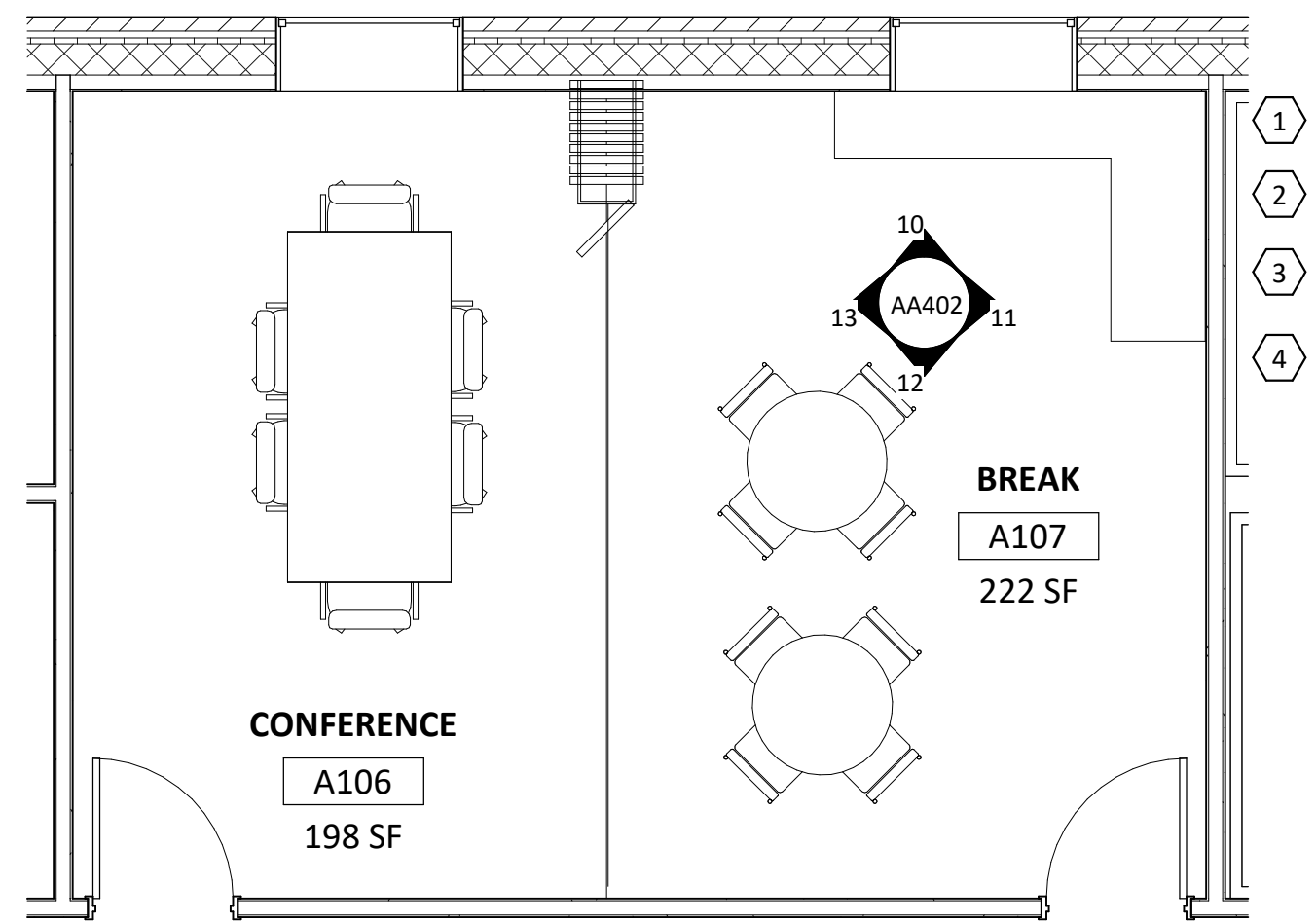
ARCHITECTURE
**WTP ADMINISTRATION BUILDING
BUILDING SECTIONS**

F&N JOB NO. GPV23966		DATE 01/2024		DESIGNED BY Designer		APPROVED BY Approver		CHECKED BY Checker	
				DRAWN		REVISED		FILE NAME	
				BY		DATE		AR-GPV23966-ABL-R23-RVT	
				ISSUE		Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.			
				VERIFY SCALE		1			

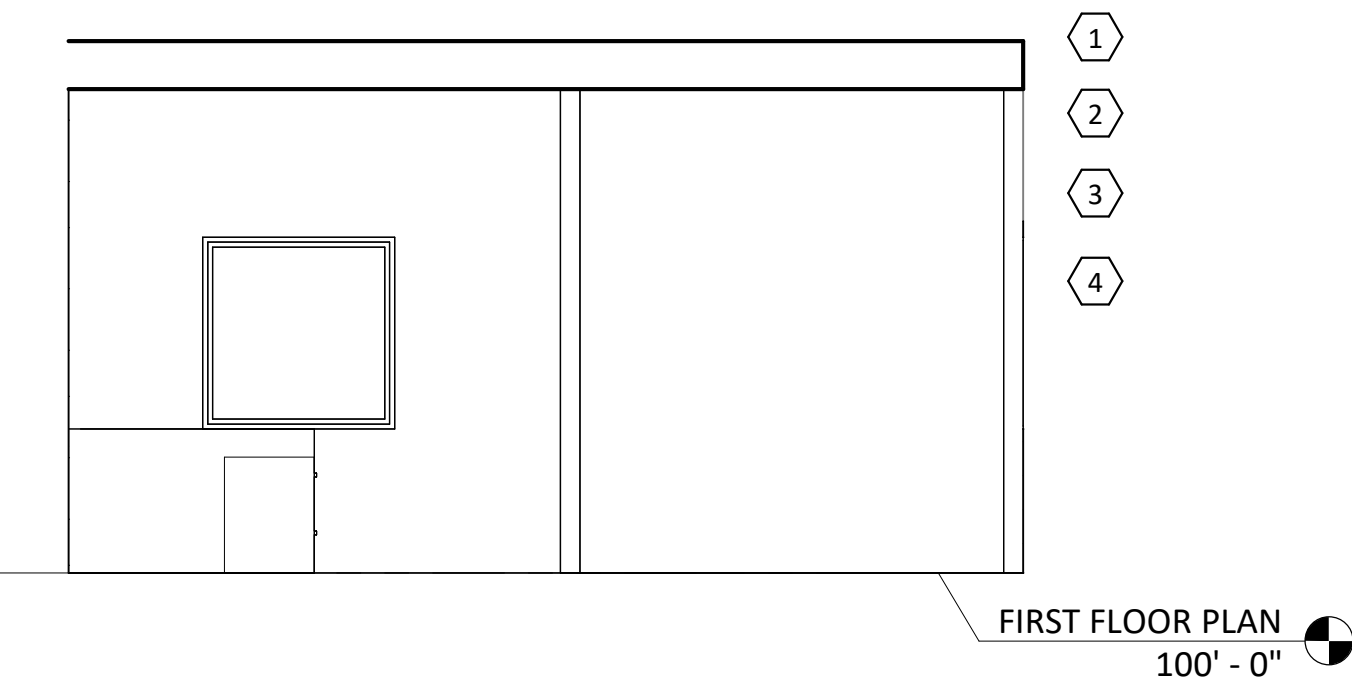
SHEET
AA301
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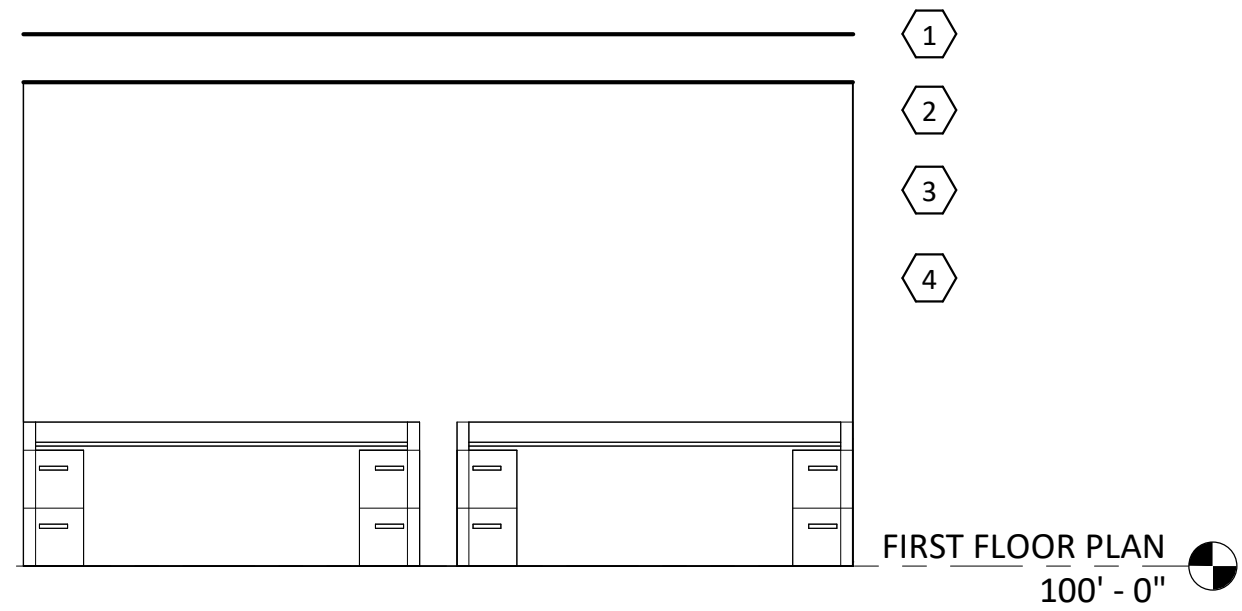
1 CONTROL RM & LABORATORY ENLARGED PLAN
AA102 1/4" = 1'-0"



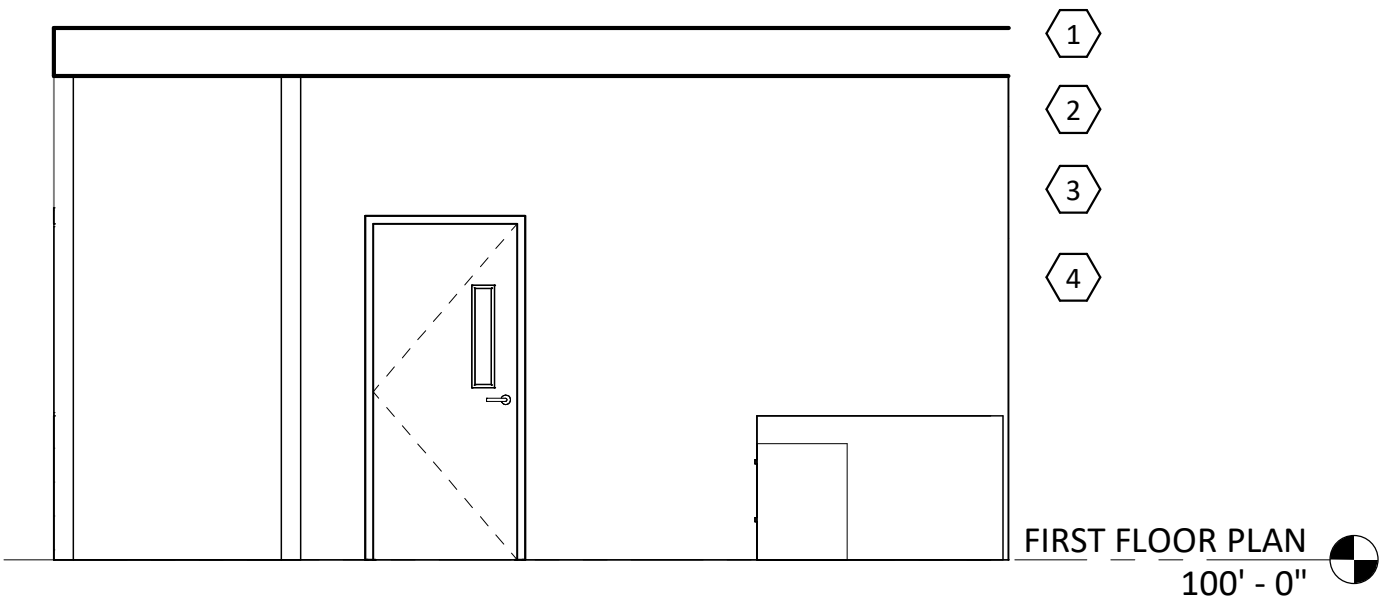
2 BREAK & CONFERENCE RM ENLARGED PLAN
AA102 1/4" = 1'-0"



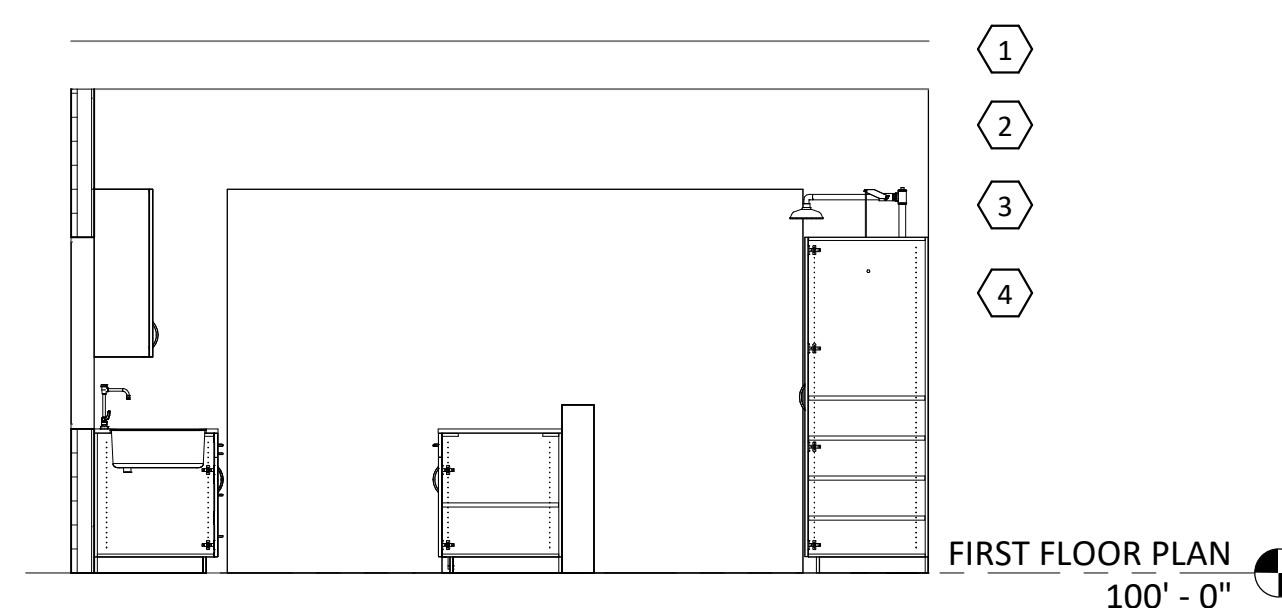
3 CONTROL RM NORTH ELEVATION
A-41X 1/4" = 1'-0"



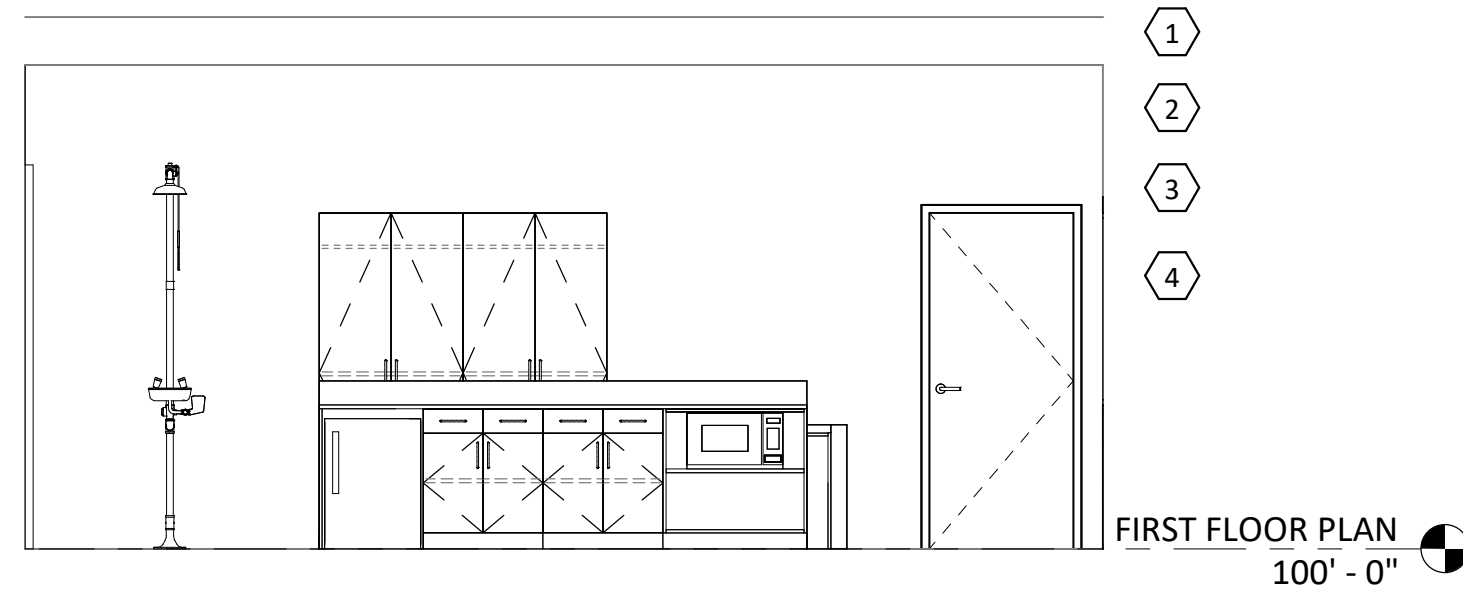
4 CONTROL RM WEST ELEVATION
AA402 1/4" = 1'-0"



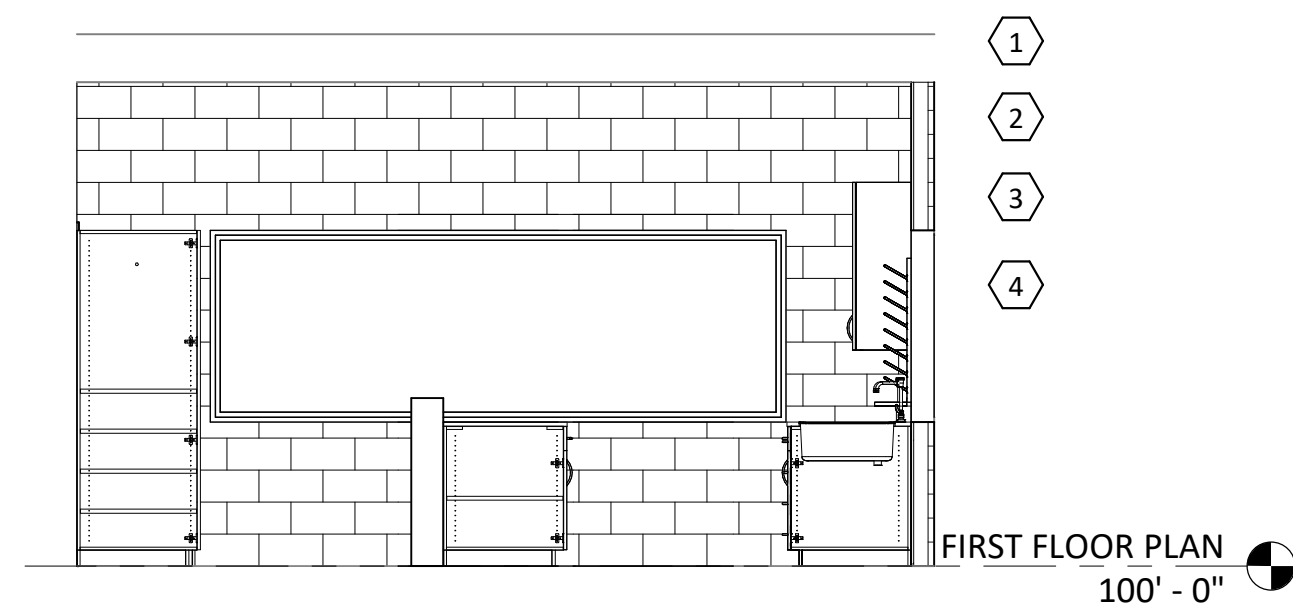
5 CONTROL RM SOUTH ELEVATION
A-41X 1/4" = 1'-0"



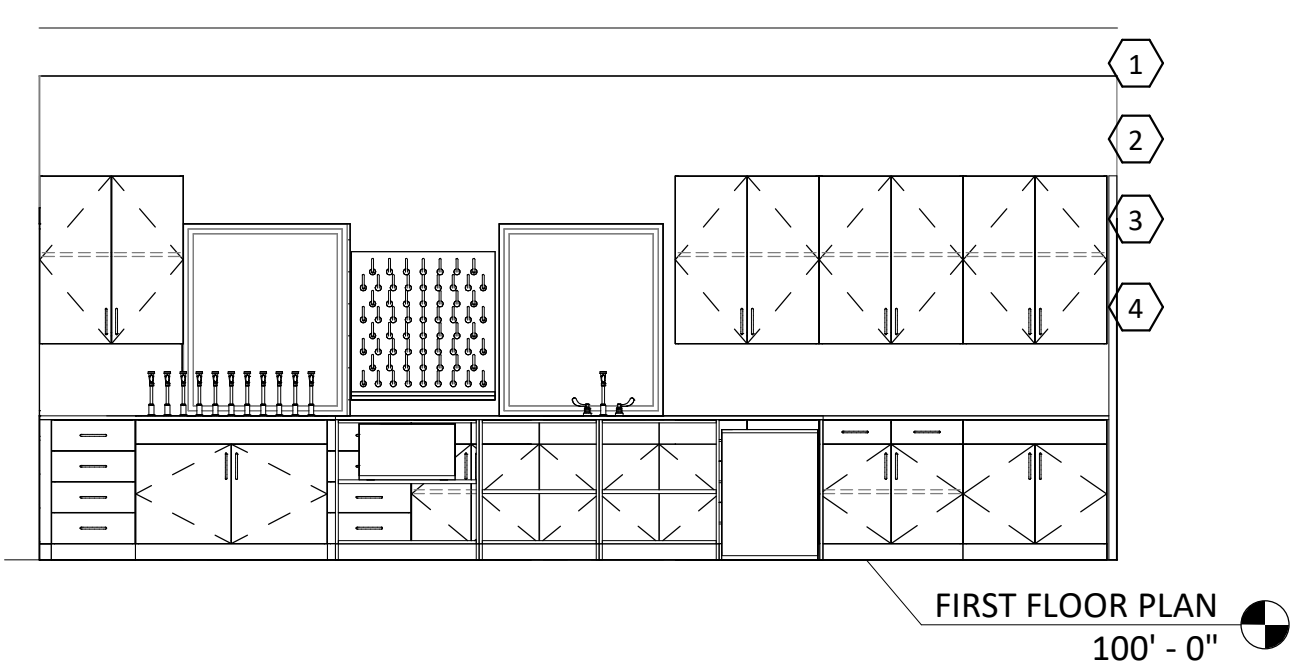
6 LABORATORY EAST ELEVATION
AA402 1/4" = 1'-0"



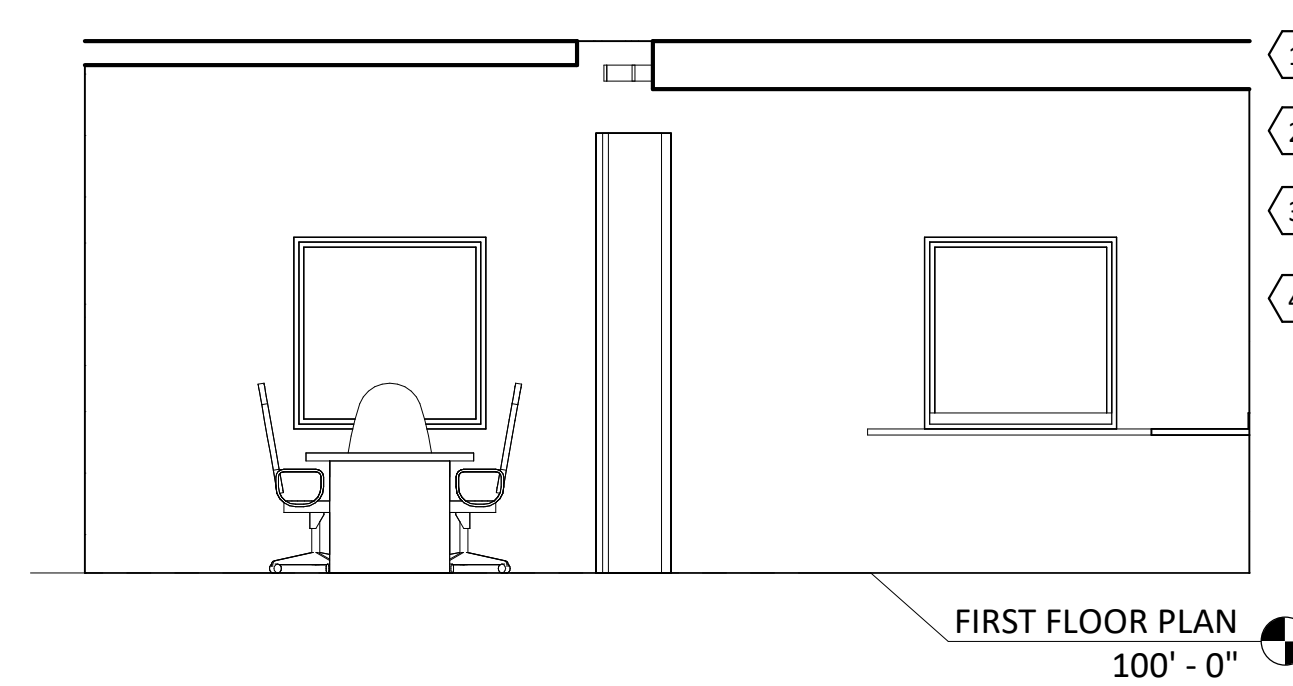
7 LABORATORY SOUTH ELEVATION
AA402 1/4" = 1'-0"



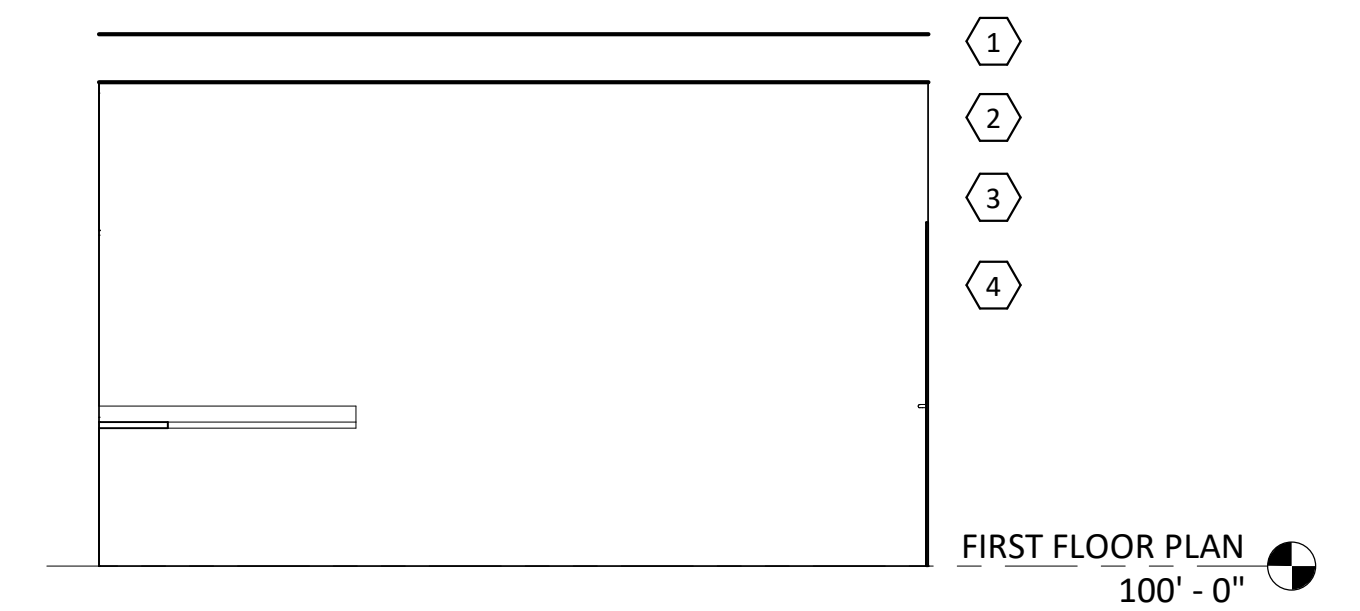
8 LABORATORY WEST ELEVATION
AA402 1/4" = 1'-0"



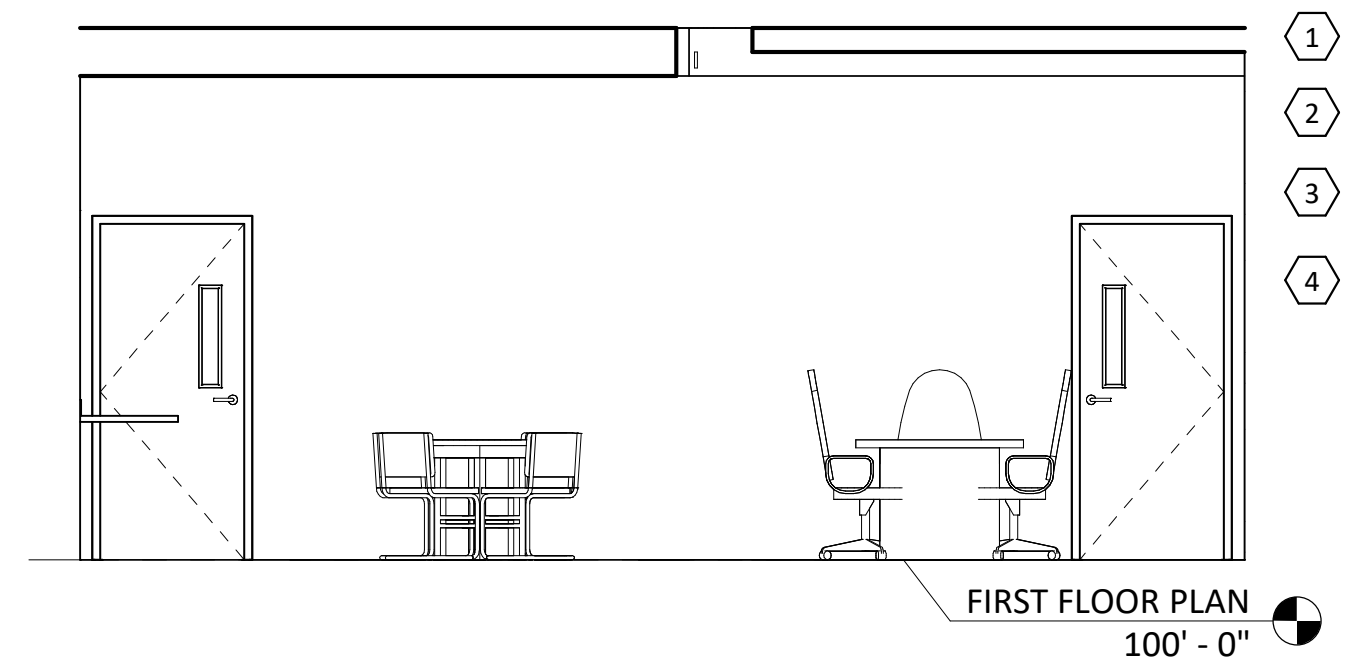
9 LABORATORY NORTH ELEVATION
AA402 1/4" = 1'-0"



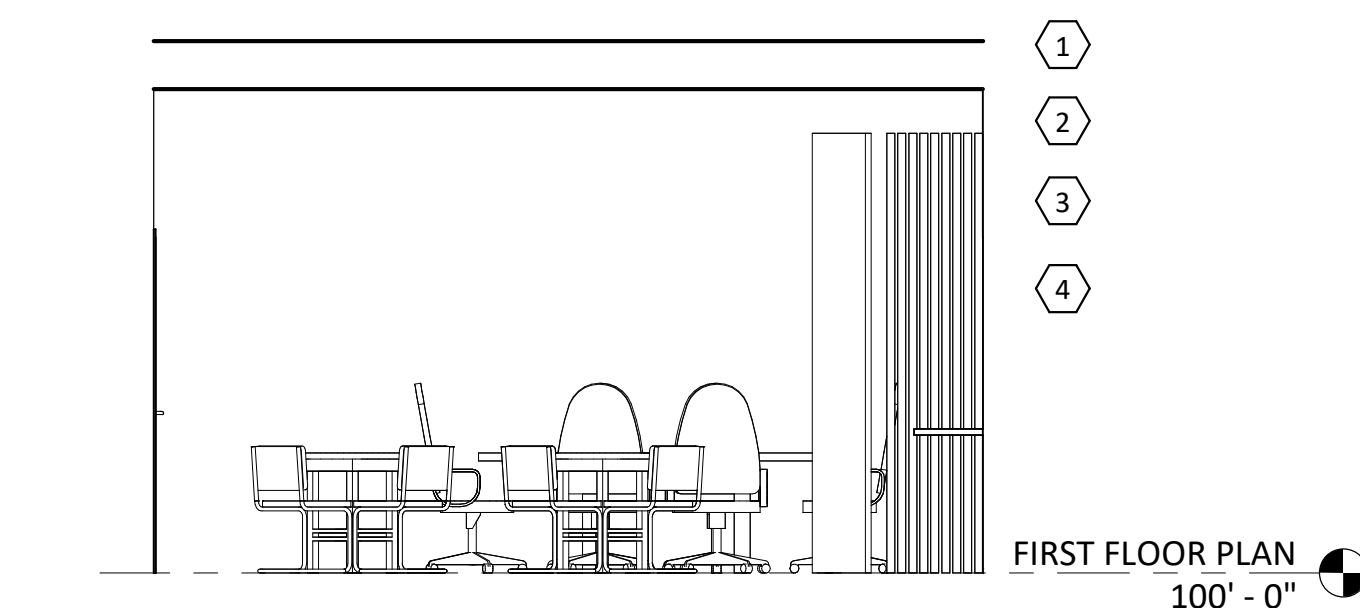
10 CONFERENCE/BREAK RM NORTH ELEVATION
AA402 1/4" = 1'-0"



11 CONFERENCE/BREAK RM EAST ELEVATION
AA402 1/4" = 1'-0"



12 CONFERENCE/BREAK RM SOUTH ELEVATION
AA402 1/4" = 1'-0"



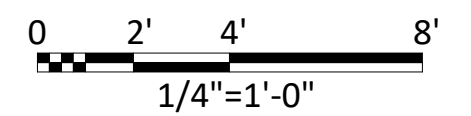
13 CONFERENCE/BREAK RM WEST ELEVATION
AA402 1/4" = 1'-0"

GENERAL NOTES

1. REFER TO SHEET A#.# for FIXTURE ACCESSORIES AND ACCESSIBILITY SCHEDULES.
2. REFER TO A#.# for FINISHES.
3. ALL FIXTURES DIMENSIONED TO FINISH FACE OF WALL (TILE). ALL WALLS DIMENSIONED TO FACE OF GWB.

NOTES BY SYMBOL "X"

- 1
- 2
- 3
- 4



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Texas Registered Engineering Firm F-2144

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Dallas, TX 75251
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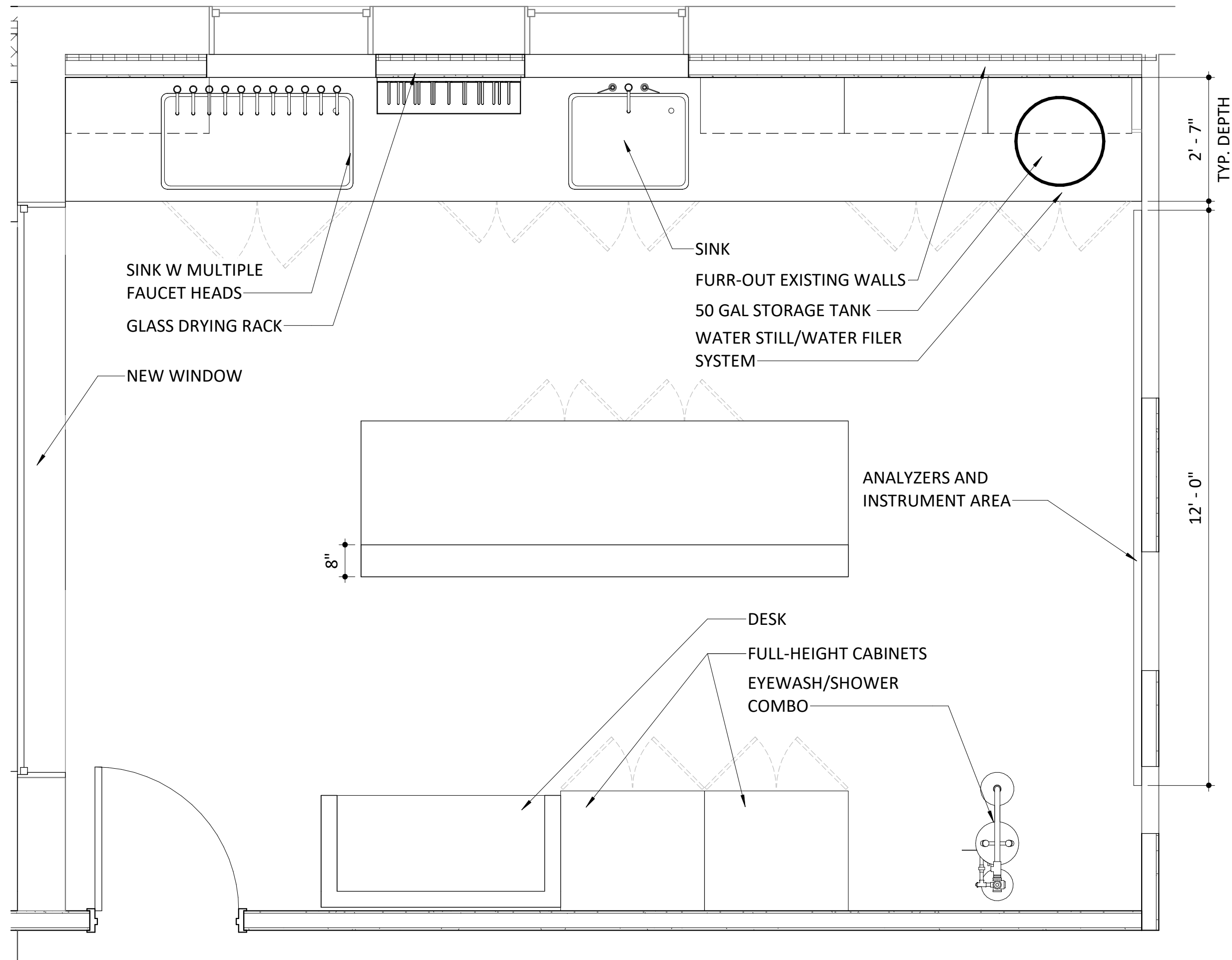
CITY OF GRAPEVINE
**GRAPEVINE ADMINISTRATION FACILITIES
IMPROVEMENTS**
ARCHITECTURE
**WTP ADMINISTRATION BUILDING
ENLARGED PLANS II**

F&N JOB NO.		GPV23966		DESIGNED		APPROVED		CHECKED		FILE NAME	
DATE		01/2024		Designer		Approver		Checker		AR-GPV23966-ABL-R23-RVT	
DRAWN											
BY											
DATE											
ISSUE											
NO.											
VERIFY SCALE											
Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.											
1											
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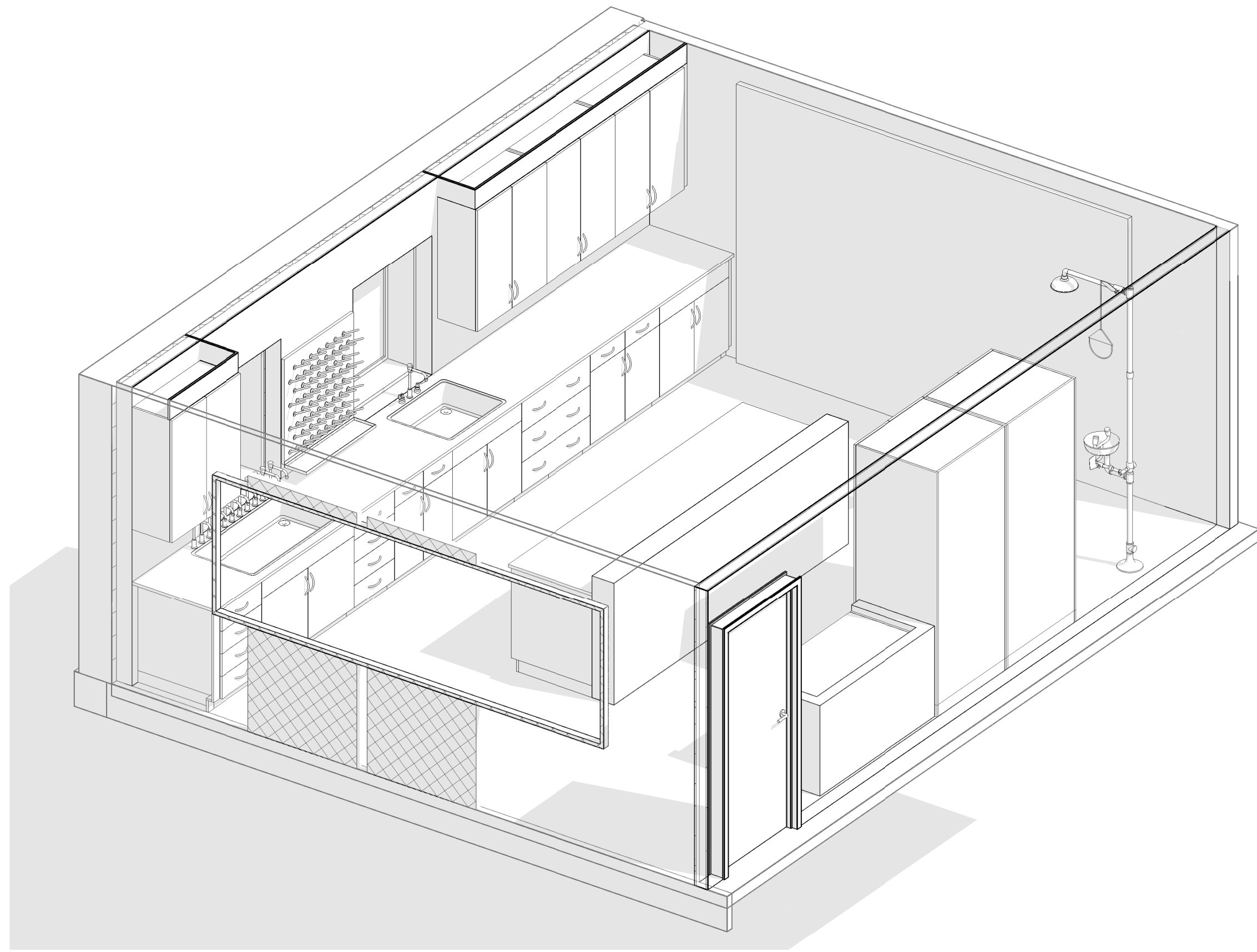
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AA402

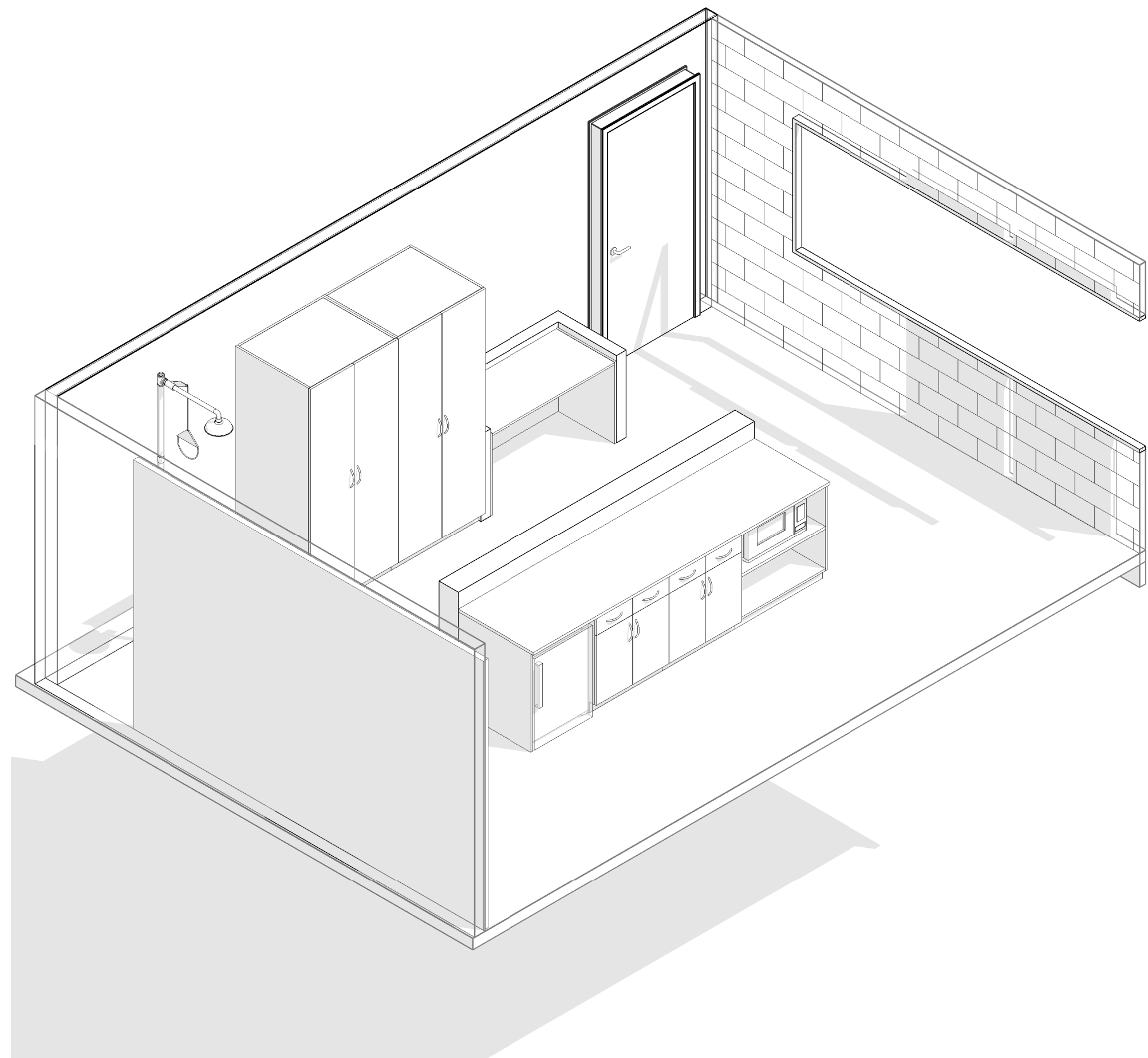
SEQ.



1 ENLARGED LAB FLOOR PLAN
1/2" = 1'-0"



2 LAB ISOMETRIC - 1



3 LAB ISOMETRIC - 2

0 1' 2' 4'
1/2"=1'-0"

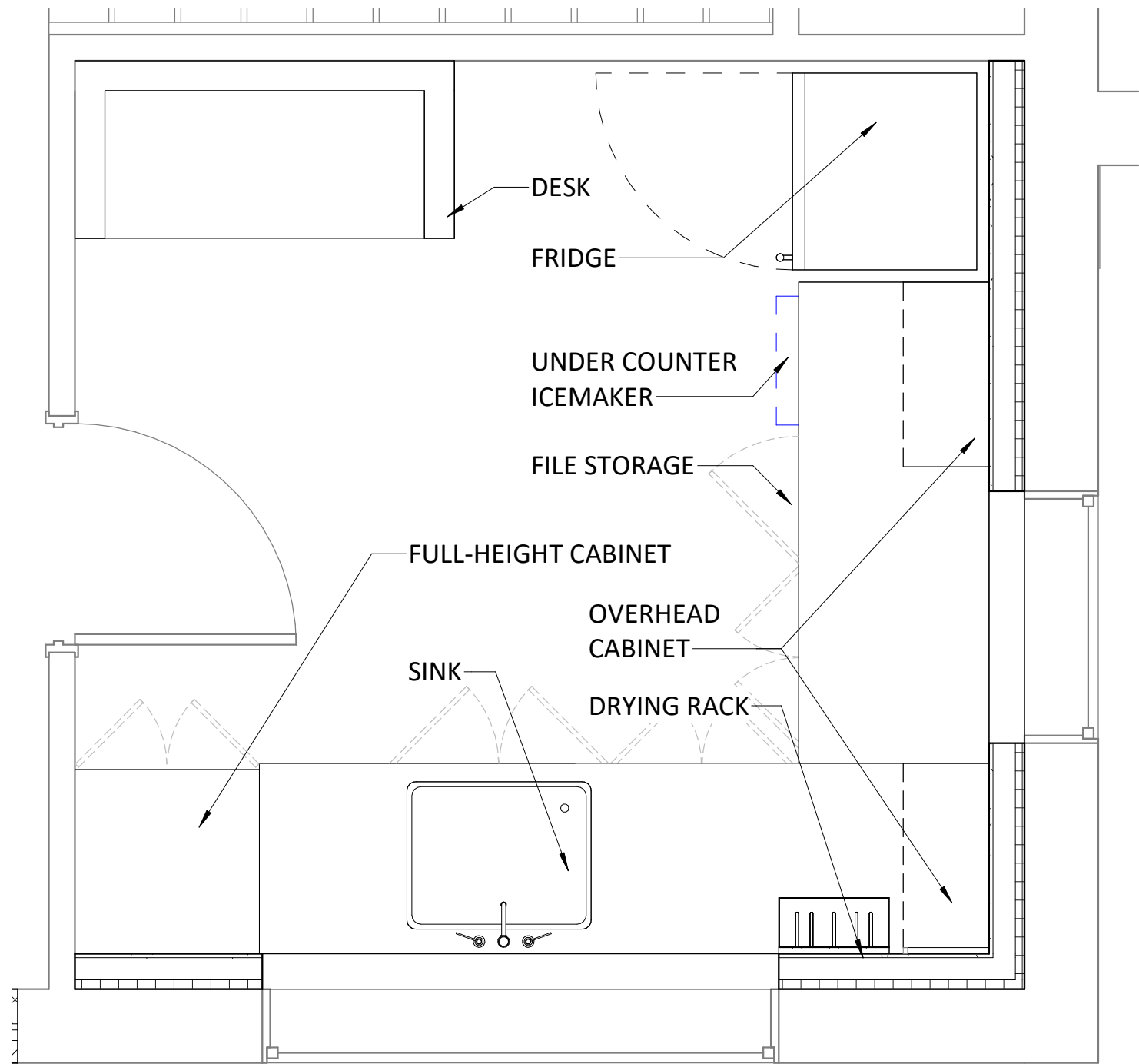
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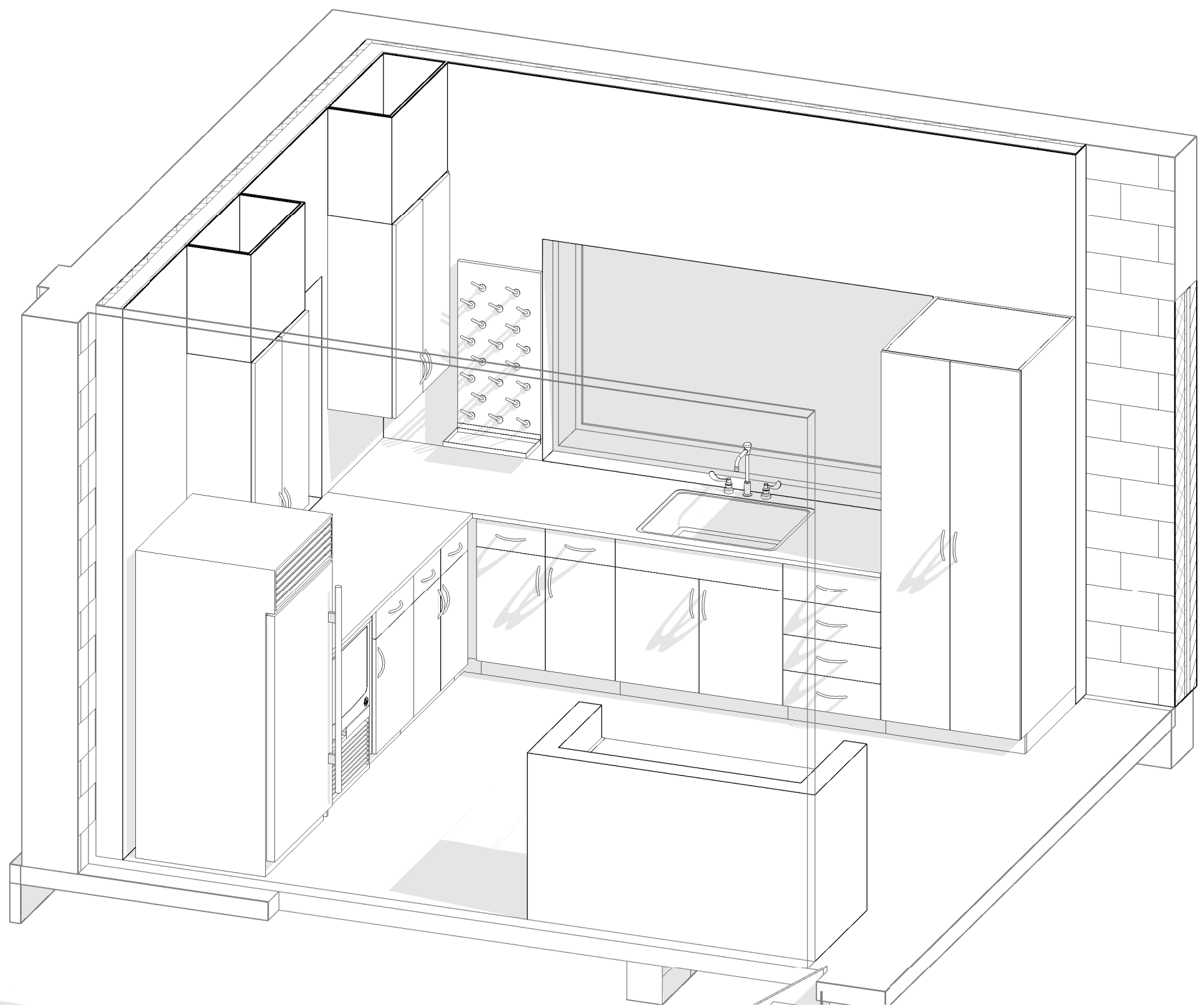
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CITY OF GRAPEVINE
**GRAPEVINE ADMINISTRATION FACILITIES
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ARCHITECTURE
**WTP ADMINISTRATION BUILDING
ENLARGED LAB PLAN**

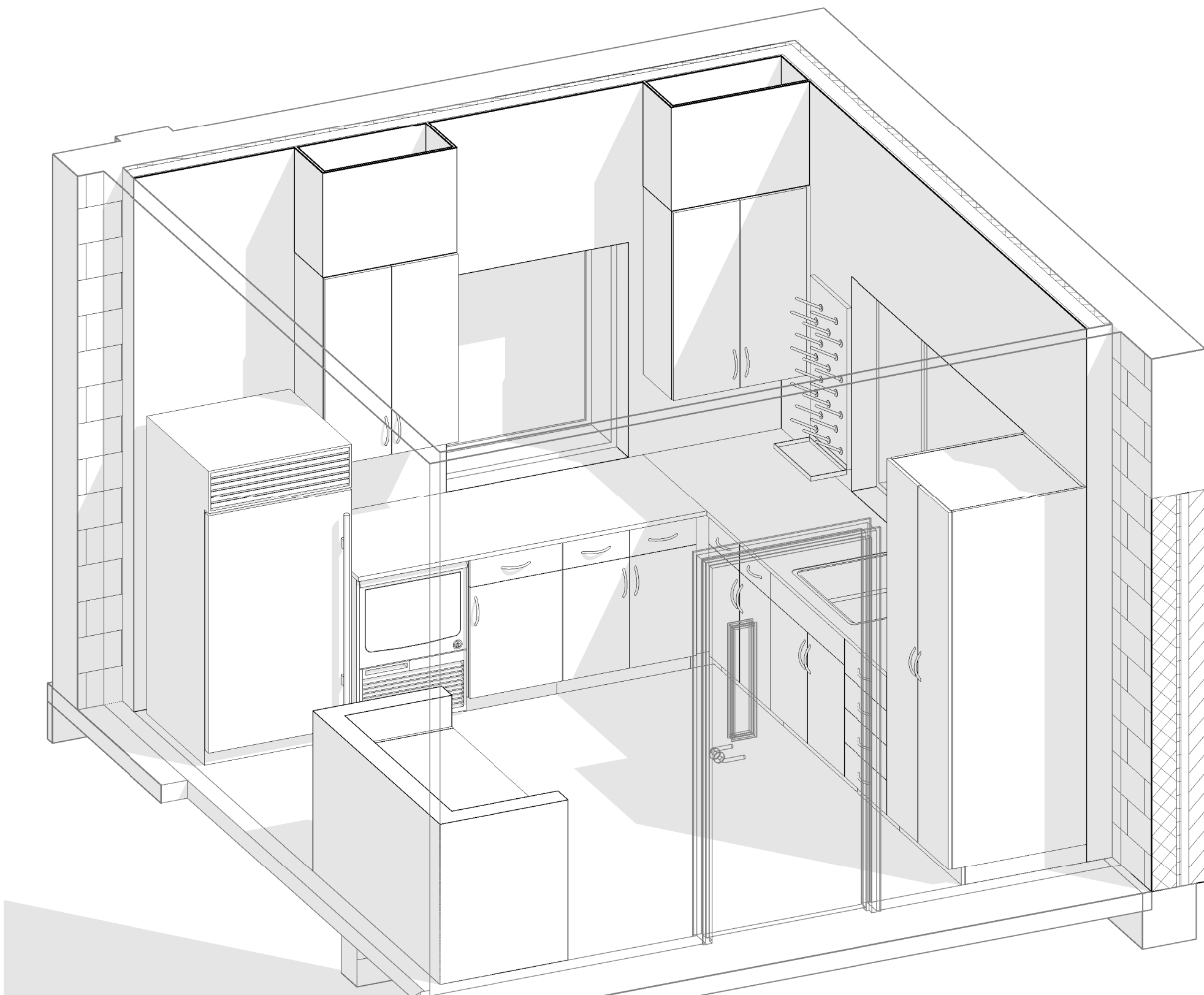
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DATE		01/2024	
DESIGNED		Designer	
DRAWN		DRAWN	
REVISED		Approver	
CHECKED		Checker	
BY		DATE	
FILE NAME		AR-GPV23966-ABL-R23-RVT	
NO.		ISSUE	
0		Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.	
VERIFY SCALE		1	
SHEET		A-41X	
SEQ.			



1 ENLARGED LAB TECH OFFICE
1/2" = 1'-0"



2 OFFICE ISOMETRIC - 1



3 OFFICE ISOMETRIC - 2

0 1' 2' 4'
1/2"=1'-0"

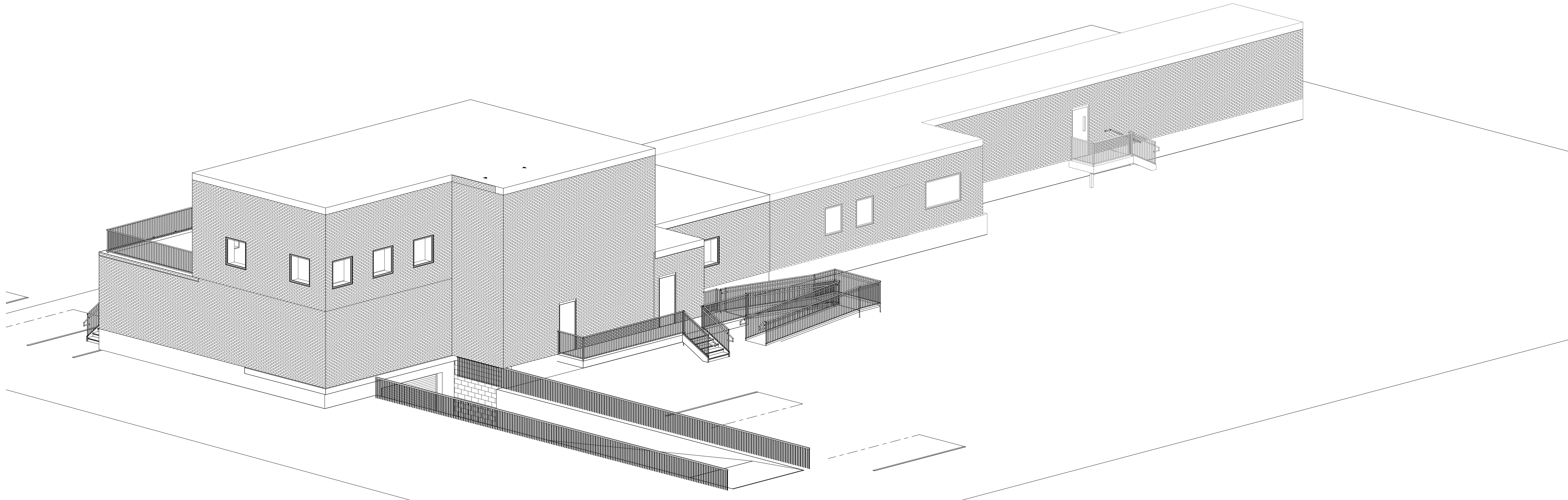
30% SUBMITTAL

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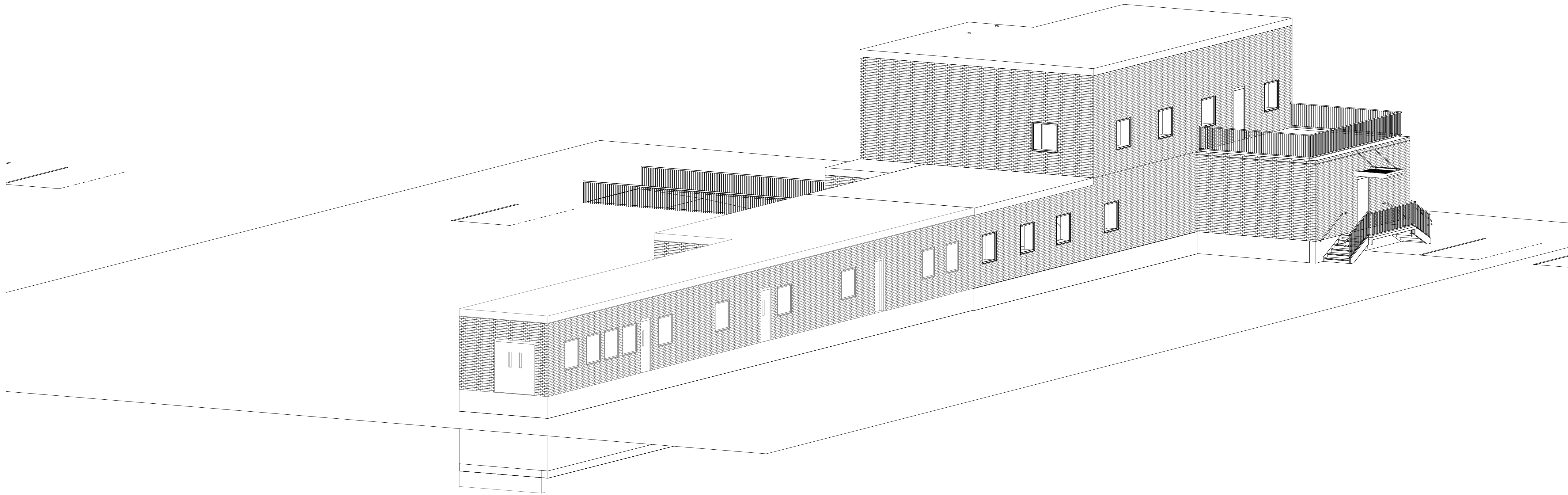
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CITY OF GRAPEVINE
**GRAPEVINE ADMINISTRATION FACILITIES
IMPROVEMENTS**
ARCHITECTURE
**WTP ADMINISTRATION BUILDING
ENLARGED LAB TECH OFFICE**

F&N JOB NO. GPV23966		DATE 01/2024		DESIGNED Designer		REVISION Approver		CHECKED Checker	
				DRAWN		BY		DATE	
								FILE NAME	
								AR-GPV23966-ABL-R23-RVT	

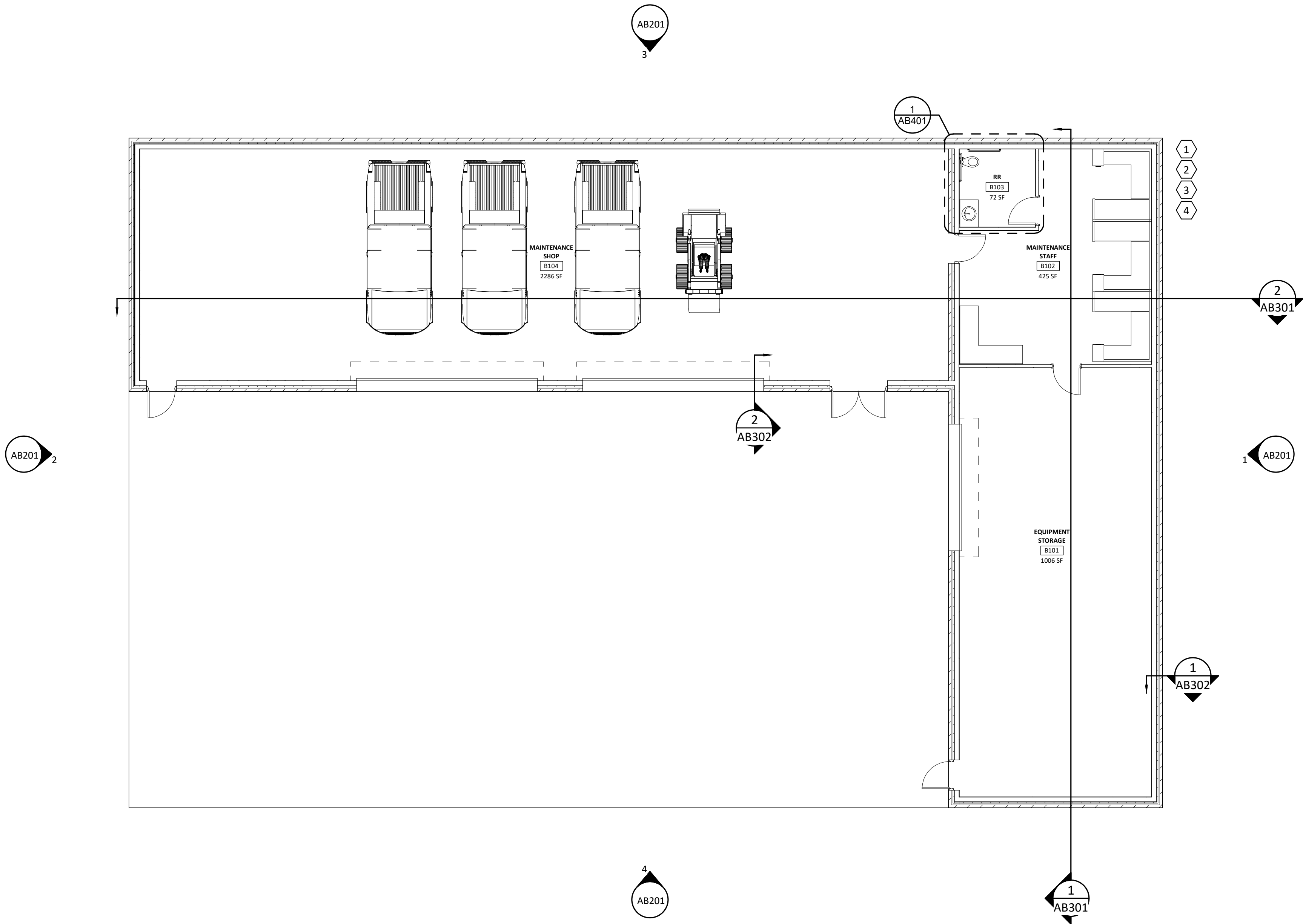


1 PERSPECTIVE VIEW 1



2 PERSPECTIVE VIEW 2

F&N JOB NO.		GPV23966		DATE		01/2024		DESIGNED		Designer		DRAWN		REVISED		Approver		CHECKED		Checker	



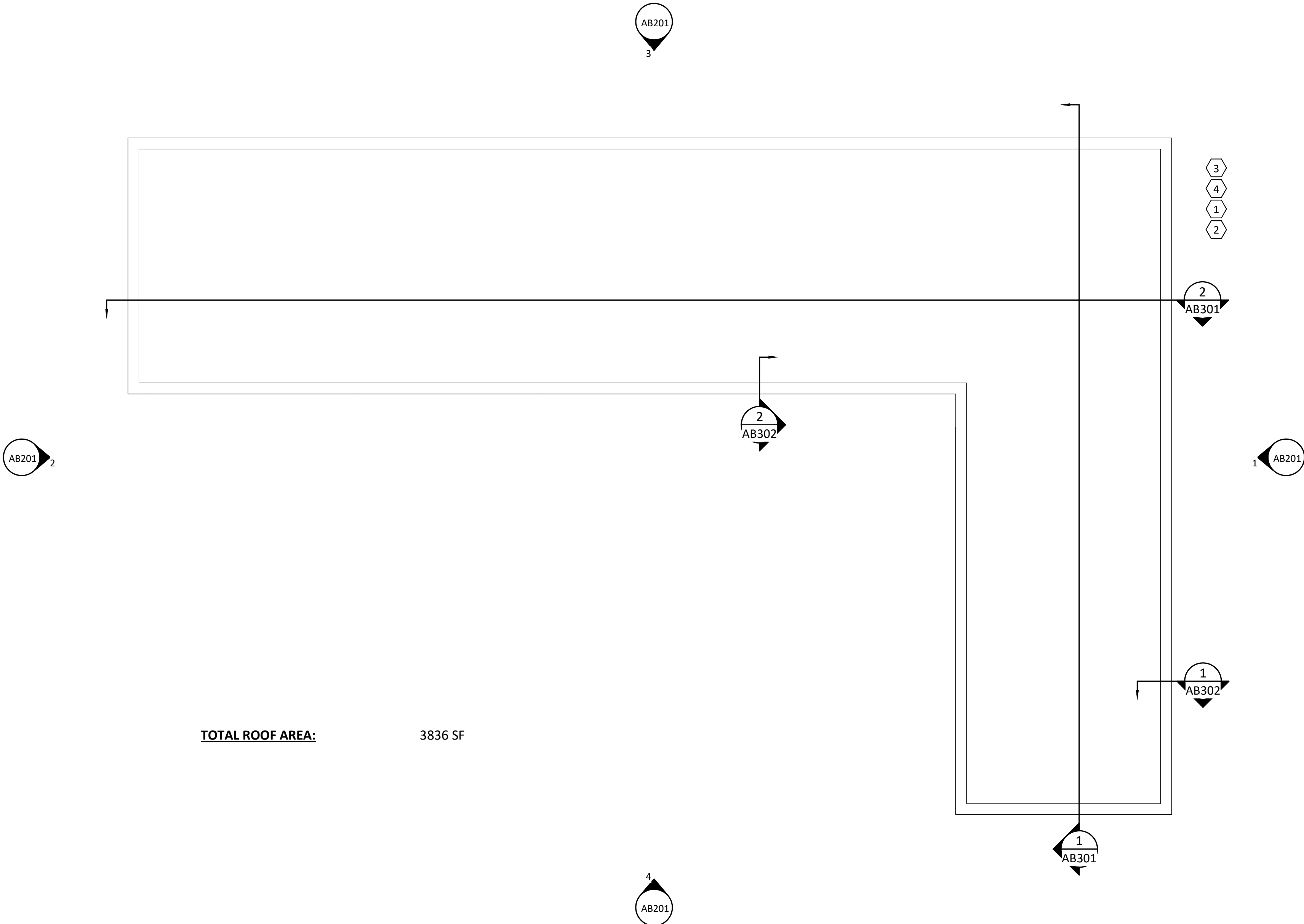
1 FLOOR PLAN
1/8" = 1'-0"

GENERAL NOTES

- ALL DIMENSIONS ARE GIVEN TO:
 - FACE OF CONCRETE OR MASONRY.
 - CENTER LIVE OF COLUMNS WHERE INDICATED.
 - FACE OF FINISH.
 - FACE OF PLASTER OR STUCCO.
 - CONCRETE FLOOR LINE.
- REFER TO FLOOR PLANS FOR PARTITIONS THAT DO NOT EXTEND TO DECK.
- REFER TO LIFE SAFETY PLAN FOR LOCATION OF FIRE EXTINGUISHER CABINETS (FEC).
- ALL DRYWALL PARTITIONS THAT DO NOT EXTEND TO DECK SHALL BE BRACED TO STRUCTURE AT 4'-0" O.C., ALTERNATING SIDES OF PARTITION, USING SAME FRAMING AS PARTITION.
- REFER TO SHEET A#.# FOR GENERAL NOTES, ABBREVIATIONS AND WALL TYPES.
- ALL INTERIOR WALLS ARE TYPE "A#" U.N.O.
- ALL INTERIOR WALLS ARE DIMENSIONED TO FACE OF GWB U.N.O.
- REFER TO FOOD SERVICE SHEETS FOR KITCHEN DETAILS AND MILLWORK.

NOTES BY SYMBOL "X"

- <TEXT>
- <TEXT>
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- <TEXT>



TOTAL ROOF AREA: 3836 SF

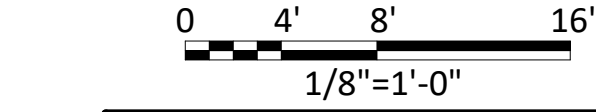
1 ROOF PLAN
AB201 1/8" = 1'-0"

GENERAL NOTES

1. REFER TO SHEET A#.### FOR SYMBOL LEGENDS.
2. REFER TO CIVIL & MEP DRAWINGS FOR MORE INFORMATION ON UNDERGROUND STORM DRAIN LOCATIONS AND CONNECTIONS.
3. REFER TO STRUCTURAL TO VERIFY RIDGE/VALLEY LOCATIONS.
4. REFER TO MEP DRAWINGS TO CONFIRM EXHAUST, VENT & RTU LOCATIONS.
5. CAST STONE PARAPET CAP, U.N.O.
6. CRICKET AT ALL ROOF TOP EQUIPMENT AS REQ'D.

NOTES BY SYMBOL "X"

- 1 <TEXT>
- 2 <TEXT>
- 3 <TEXT>
- 4 <TEXT>



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GRAPEVINE ADMINISTRATION FACILITIES IMPROVEMENTS

ARCHITECTURE

WTP MAINTENANCE BUILDING ROOF PLAN

F&N JOB NO.	GPV23966
DATE	01/2024
DESIGNED	CNF
DRAWN	KEW
REVIEWED	-
CHECKED	TJR
FILE NAME	AR-GPV23966-MNB-R23.RVT

NO.

ISSUE

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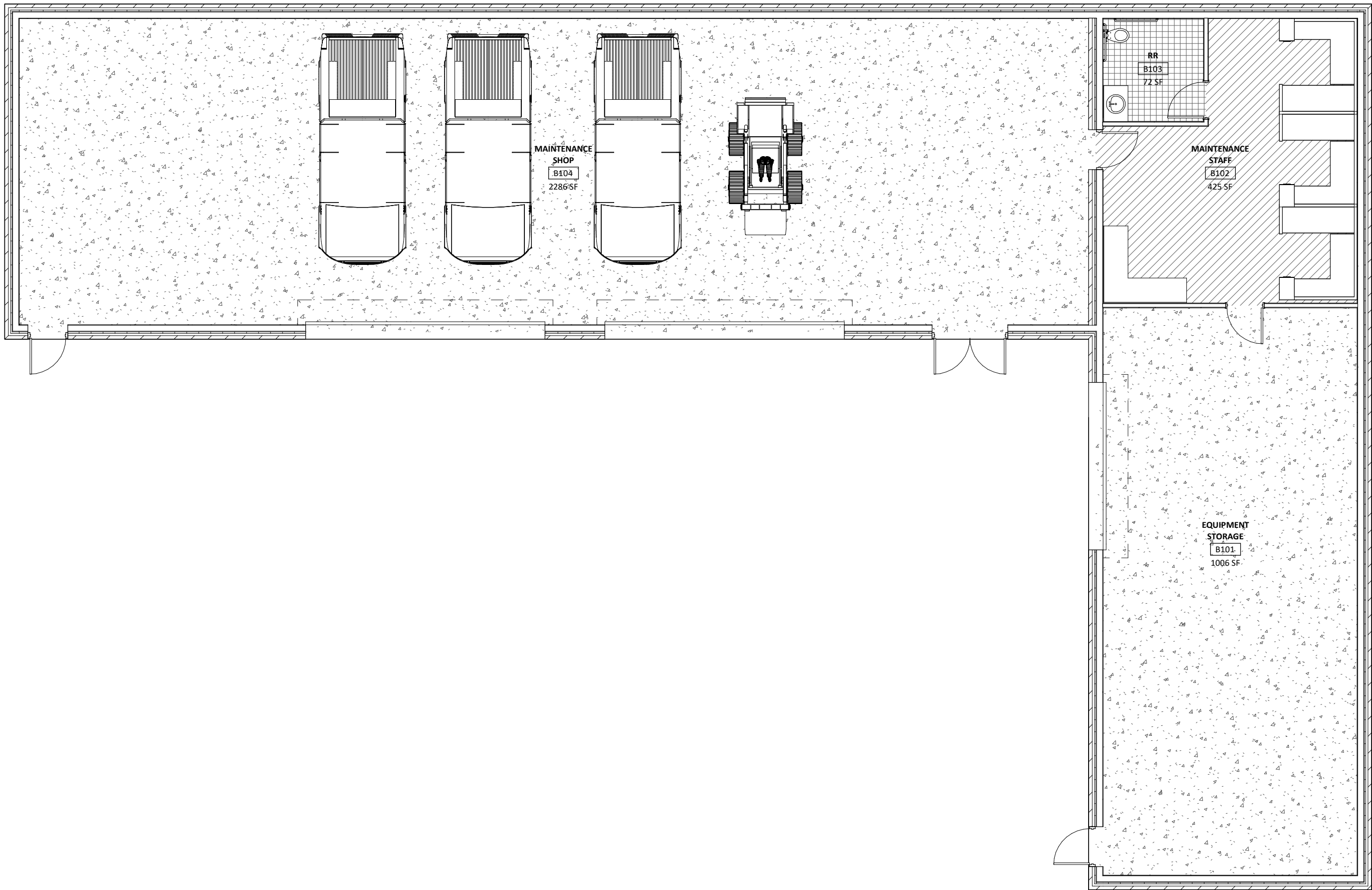
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SHEET

AB103

SEQ.

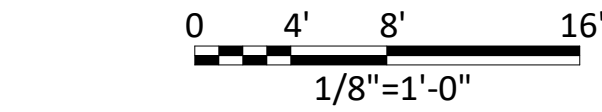
FLOOR FINISH SCHEDULE		
FINISH	NAME	AREA
CERAMIC TILE		
CERAMIC TILE	RR	72 SF
CERAMIC TILE		72 SF
LVT		
LVT	MAINTENANCE STAFF	425 SF
LVT		425 SF
SEALED CONCRETE		
SEALED CONCRETE	EQUIPMENT STORAGE	1006 SF
SEALED CONCRETE	MAINTENANCE SHOP	2286 SF
SEALED CONCRETE		3292 SF



1 FINISH PLAN
1/8" = 1'-0"

FLOOR FINISH LEGEND

- CERAMIC TILE
- LVT
- SEALED CONCRETE



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CITY OF GRAPEVINE
GRAPEVINE ADMINISTRATION FACILITIES
IMPROVEMENTS

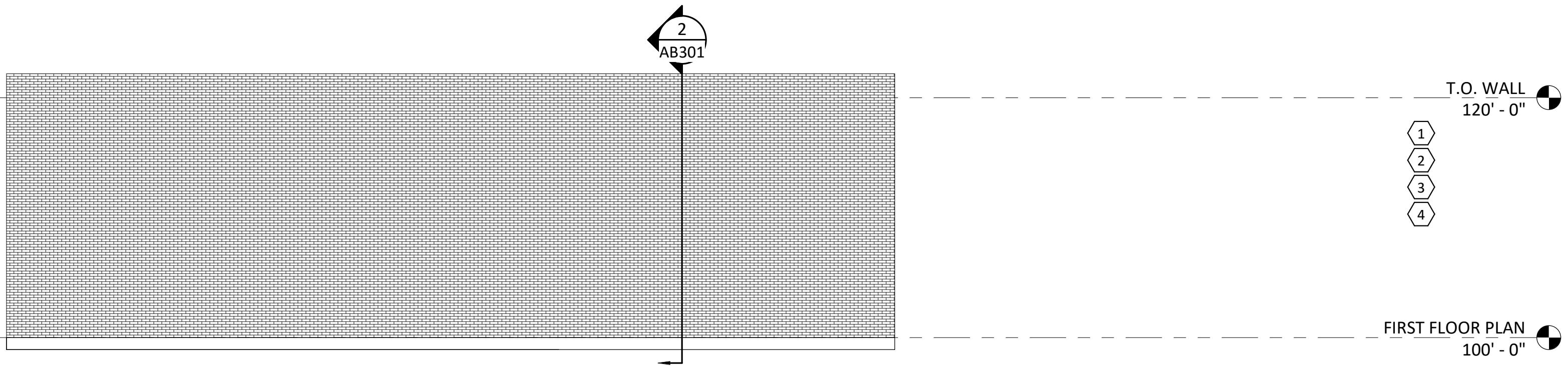
ARCHITECTURE
WTP MAINTENANCE BUILDING
FINISH PLAN - LEVEL 1

F&N JOB NO. GPV23966		DATE 01/2024	DESIGNED Designer	DRAWN	REVISED Approver	CHECKED Checker	FILE NAME AR-GPV23966-MNB-R23.RVT
NO.	ISSUE	DATE	BY	DATE	FILE NAME	1	Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
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SEQ.							

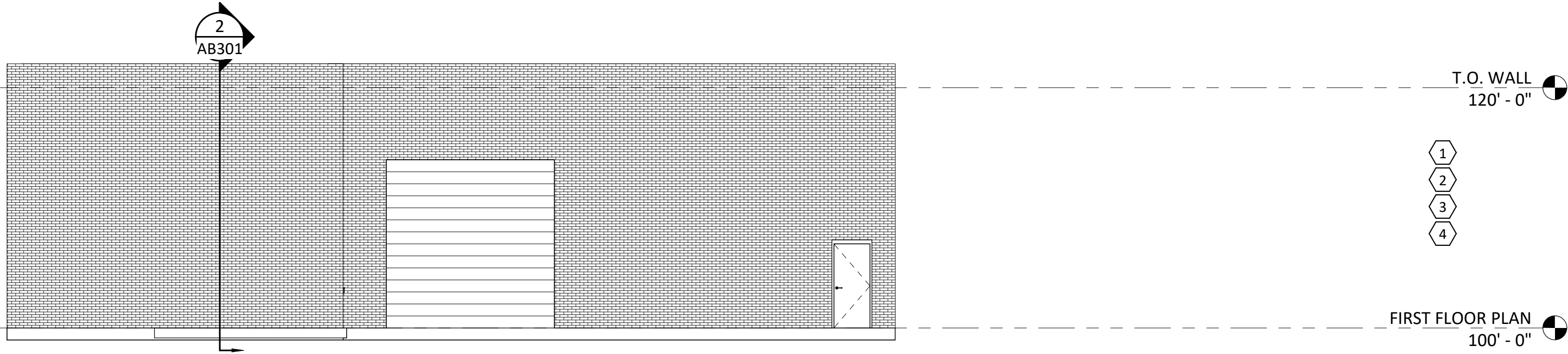
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Web - www.freese.com

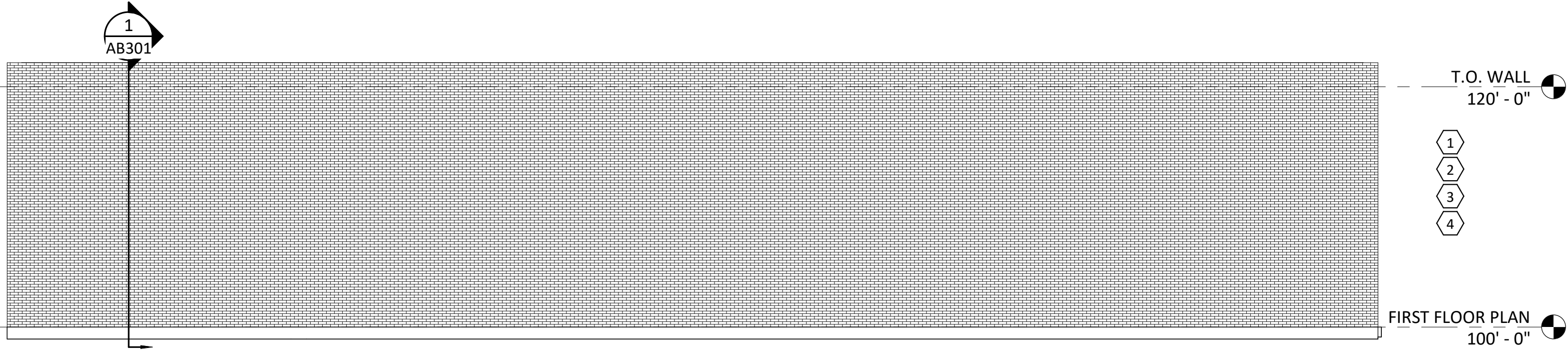
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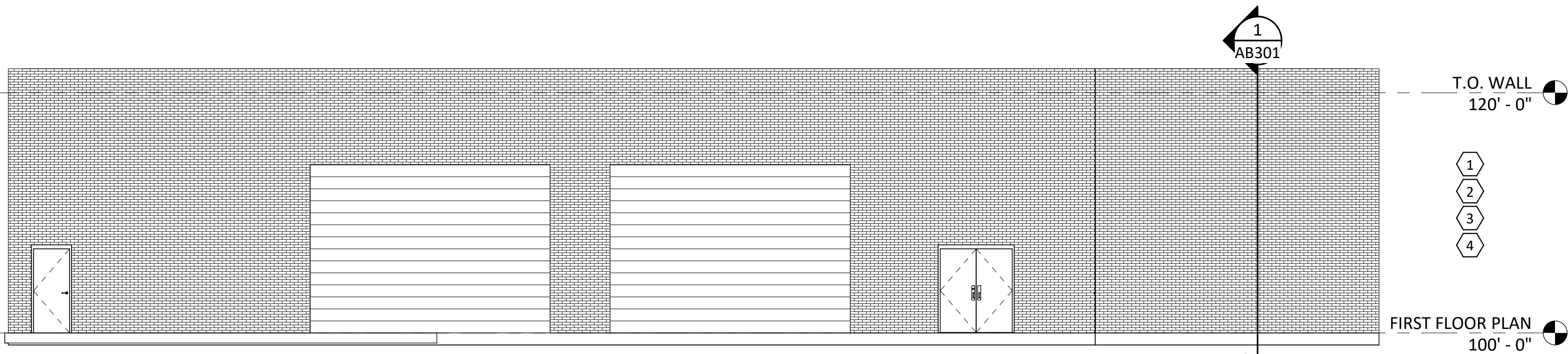
1
AB101 EAST ELEVATION
1/8" = 1'-0"



2
AB101 WEST ELEVATION
1/8" = 1'-0"



3
AB101 NORTH ELEVATION
1/8" = 1'-0"



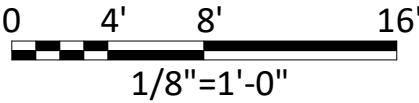
4
AB101 SOUTH ELEVATION
1/8" = 1'-0"

GENERAL NOTES

- REFER TO WALL SECTIONS FOR ADDITIONAL WALL FINISH LOCATIONS.
- REFER TO SHEET A#.# for ENLARGED ELEVATIONS.
- REFER TO SHEET A#.# for EXTERIOR FINISH SCHEDULE.

NOTES BY SYMBOL "X"

- <TEXT>
- <TEXT>
- <TEXT>
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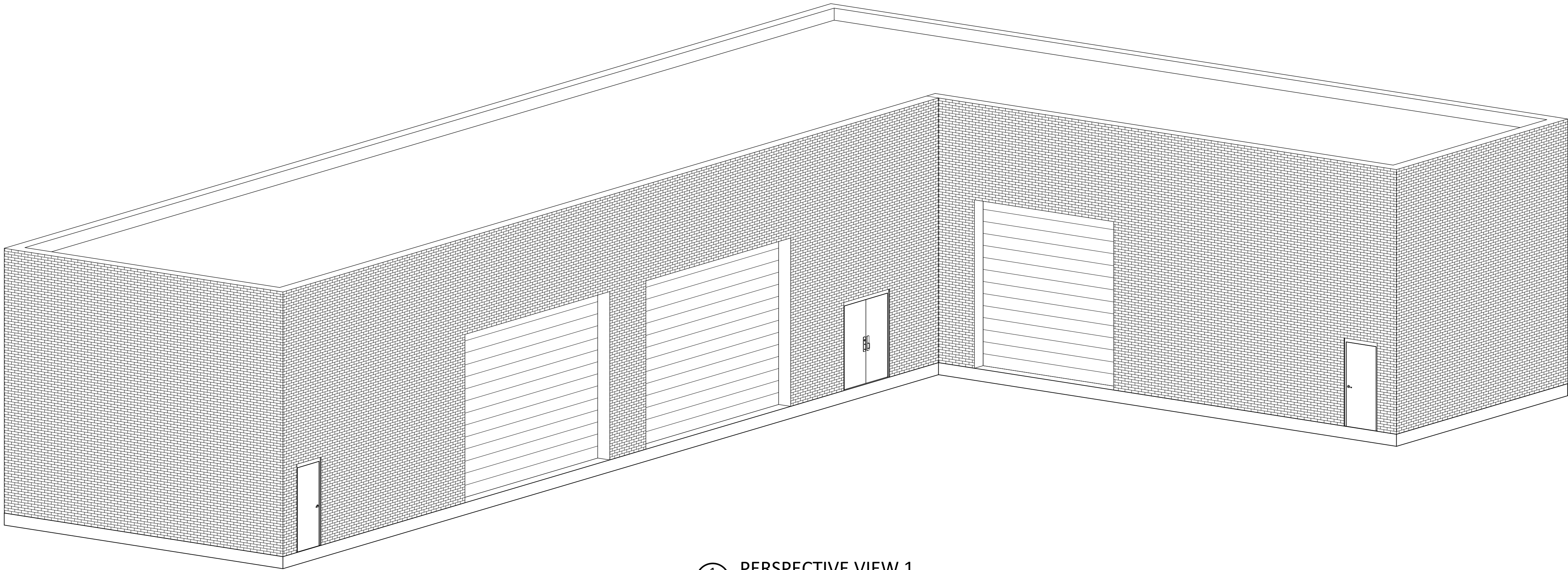
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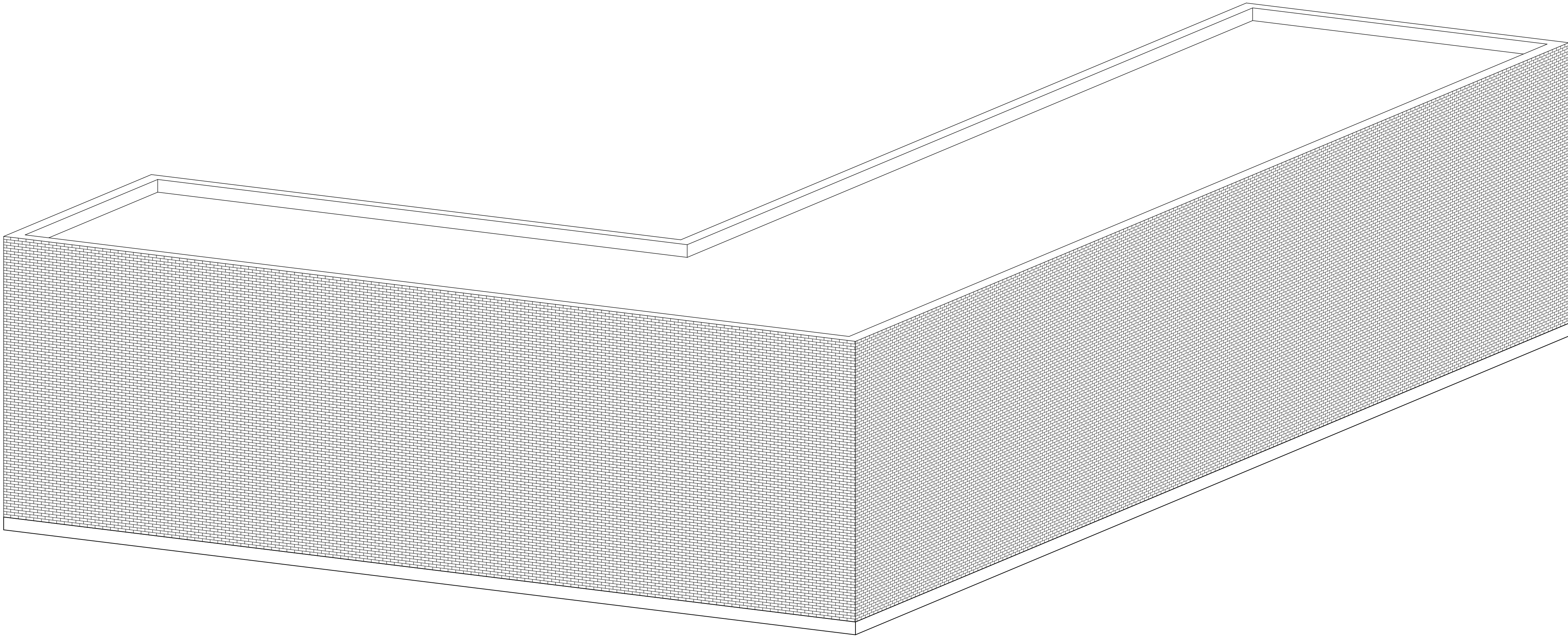
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IMPROVEMENTS**

ARCHITECTURE
**WTP MAINTENANCE BUILDING
EXTERIOR ELEVATIONS**

F&N JOB NO.		GPV23966		DATE		DESIGNED		CNF		DRAWN		REVISED		CHECKED		FILE NAME	
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1 PERSPECTIVE VIEW 1



2 PERSPECTIVE VIEW 2

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IMPROVEMENTS**

ARCHITECTURE
**WTP MAINTENANCE BUILDING
3D REPRESENTATIONS**

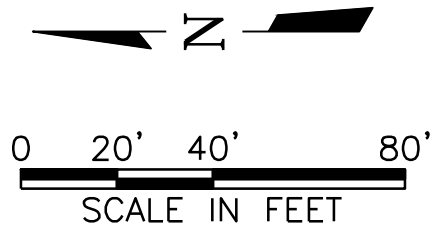
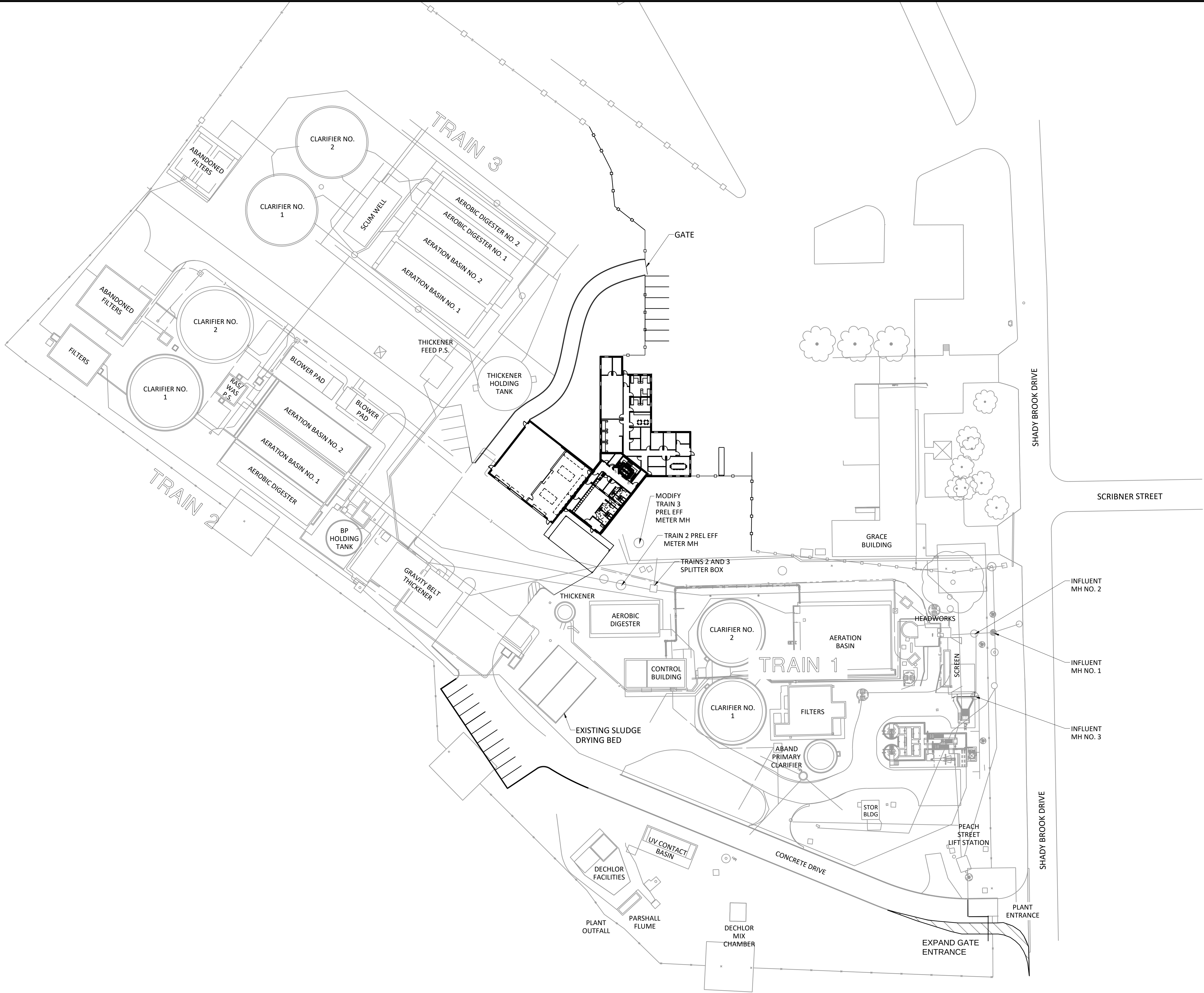
F&N JOB NO.		GPV23966	
DATE	01/2024	DESIGNED	CNF
DRAWN		KEW	
REVISION		CHECKED	TJR
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NO.	0	ISSUE	Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
VERIFY SCALE	1		

SHEET
AB901
SEQ.

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Last Saved: 3/27/2023 9:39 AM. Saved By: tmg

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CONCEPTUAL

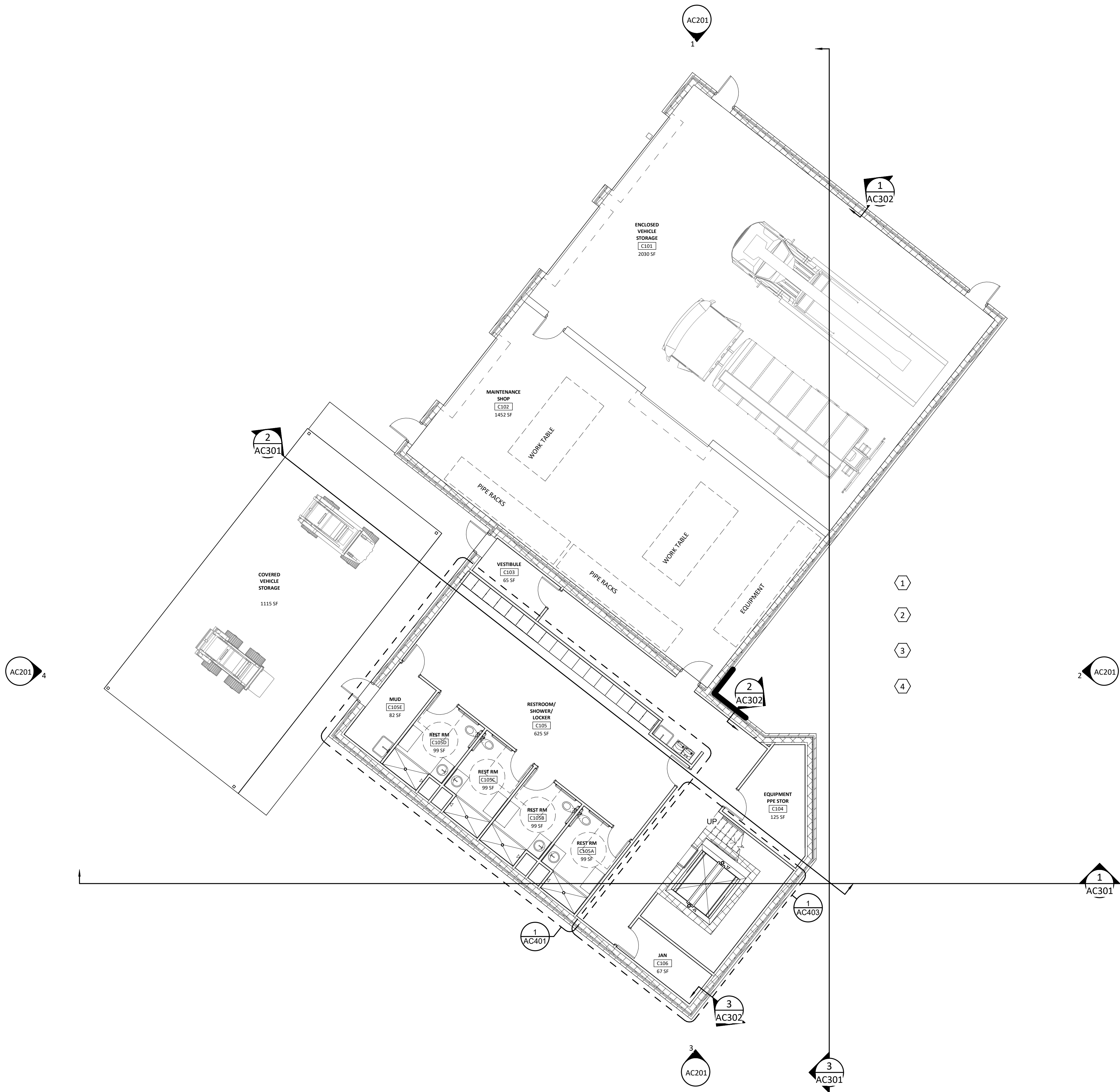
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CITY OF GRAPEVINE, TEXAS
WATER TREATMENT PLANT & WASTEWATER
TREATMENT PLANT SPACE UTILIZATION STUDY
GENERAL
WASTEWATER TREATMENT PLANT
SITE PLAN

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Fort Worth, Texas 76102
Phone - (817) 735-7300
Web - www.freeze.com



1 FIRST FLOOR PLAN
1/8" = 1'-0"

GENERAL NOTES

- ALL DIMENSIONS ARE GIVEN TO:
A. FACE OF CONCRETE OR MASONRY.
B. CENTER LIVE OF COLUMNS WHERE INDICATED.
C. FACE OF FINISH.
D. FACE OF PLASTER OR STUCCO.
E. CONCRETE FLOOR LINE.
- REFER TO FLOOR PLANS FOR PARTITIONS THAT DO NOT EXTEND TO DECK.
- REFER TO LIFE SAFETY PLAN FOR LOCATION OF FIRE EXTINGUISHER CABINETS (FEC).
- ALL DRYWALL PARTITIONS THAT DO NOT EXTEND TO DECK SHALL BE BRACED TO STRUCTURE AT 4'-0" O.C., ALTERNATING SIDES OF PARTITION, USING SAME FRAMING AS PARTITION.
- REFER TO SHEET A#.# FOR GENERAL NOTES, ABBREVIATIONS AND WALL TYPES.
- ALL INTERIOR WALLS ARE TYPE "A#" U.N.O.
- ALL INTERIOR WALLS ARE DIMENSIONED TO FACE OF GWB U.N.O.
- REFER TO FOOD SERVICE SHEETS FOR KITCHEN DETAILS AND MILLWORK.

NOTES BY SYMBOL "X"

- <TEXT>
- <TEXT>
- <TEXT>
- <TEXT>

0 4' 8' 16'
1/8"=1'-0"



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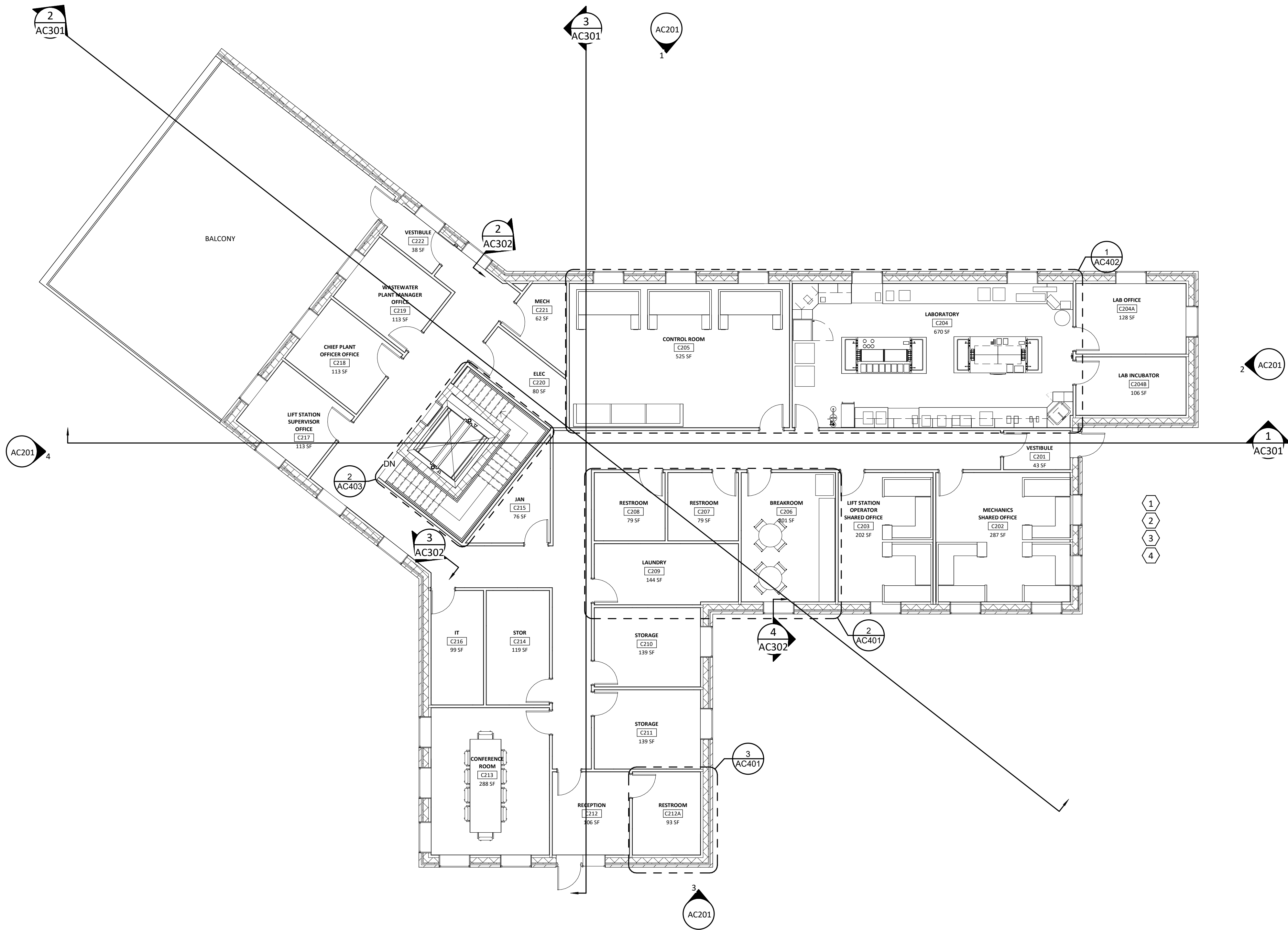
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IMPROVEMENTS**
ARCHITECTURE
**WWTP ADMINISTRATION BUILDING
FIRST FLOOR PLAN**

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				01/2024		CNF		KEW										AR-GPV23966-AB2-R23-RVT	



1
AC201

SECOND FLOOR PLAN

1/8" = 1'-0"

GENERAL NOTES

- ALL DIMENSIONS ARE GIVEN TO:
 - FACE OF CONCRETE OR MASONRY.
 - CENTER LIVE OF COLUMNS WHERE INDICATED.
 - FACE OF FINISH.
 - FACE OF PLASTER OR STUCCO.
 - CONCRETE FLOOR LINE.
- REFER TO FLOOR PLANS FOR PARTITIONS THAT DO NOT EXTEND TO DECK.
- REFER TO LIFE SAFETY PLAN FOR LOCATION OF FIRE EXTINGUISHER CABINETS (FEC).
- ALL DRYWALL PARTITIONS THAT DO NOT EXTEND TO DECK SHALL BE BRACED TO STRUCTURE AT 4'-0" O.C., ALTERNATING SIDES OF PARTITION, USING SAME FRAMING AS PARTITION.
- REFER TO SHEET A#.# for GENERAL NOTES, ABBREVIATIONS AND WALL TYPES.
- ALL INTERIOR WALLS ARE TYPE "A#" U.N.O.
- ALL INTERIOR WALLS ARE DIMENSIONED TO FACE OF GWB U.N.O.
- REFER TO FOOD SERVICE SHEETS FOR KITCHEN DETAILS AND MILLWORK.

NOTES BY SYMBOL "X"

- <TEXT>
- <TEXT>
- <TEXT>
- <TEXT>

0 4' 8' 16'
1/8"=1'-0"



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ARCHITECTURE
**WWTP ADMINISTRATION BUILDING
SECOND FLOOR PLAN**

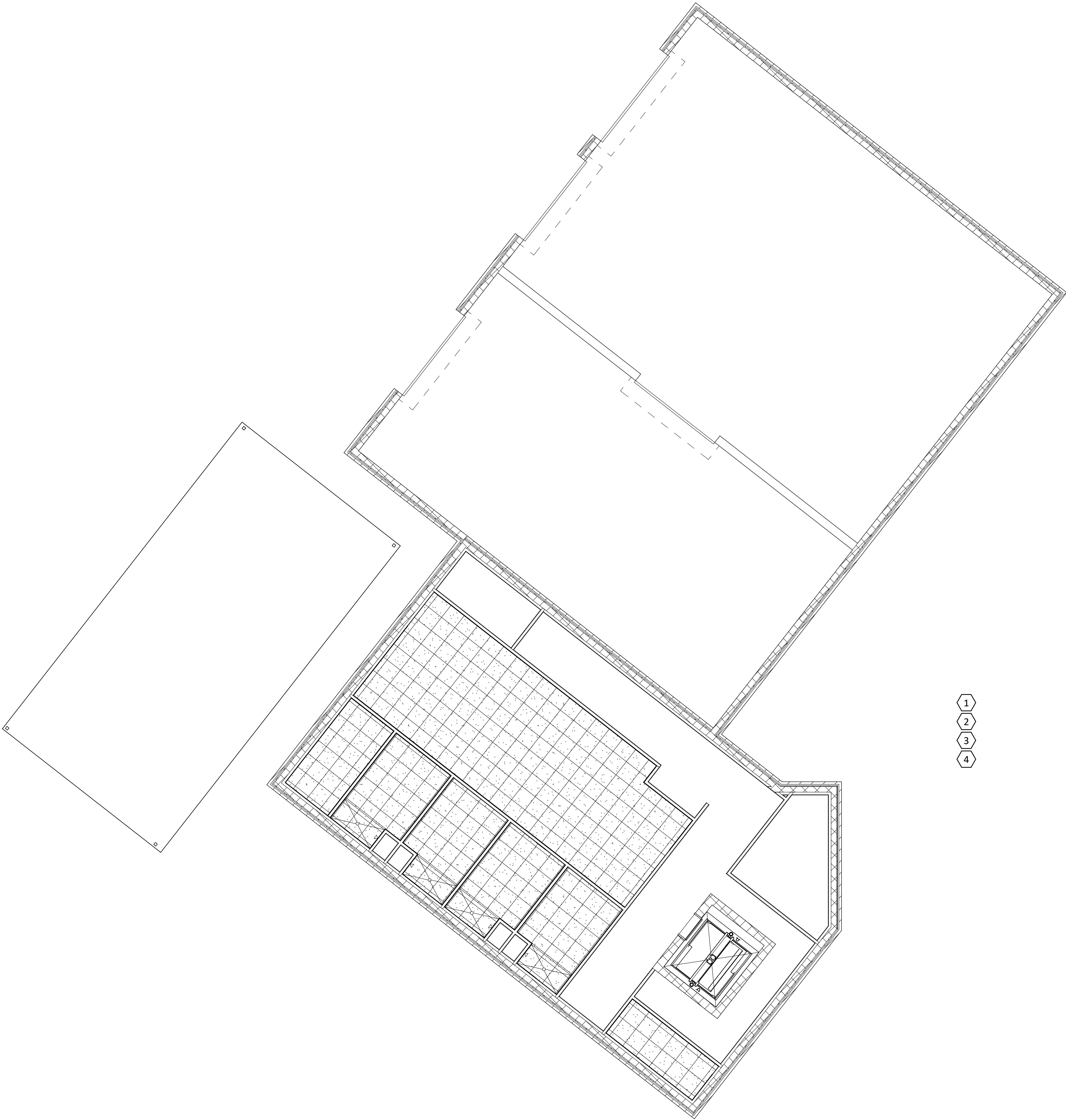
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										NO.		ISSUE	
										BY		DATE	
										VERIFY SCALE		Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.	
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CEILING FINISH SCHEDULE			
FINISH	NAME	LEVEL	AREA

FRP TILE			
FRP TILE	JAN	FIRST FLOOR PLAN	67 SF
FRP TILE	MUD	FIRST FLOOR PLAN	82 SF
FRP TILE	REST RM	FIRST FLOOR PLAN	397 SF
FRP TILE	RESTROOM/ SHOWER/ LOCKER	FIRST FLOOR PLAN	625 SF
FRP TILE	JAN	SECOND FLOOR PLAN	76 SF
FRP TILE	LAUNDRY	SECOND FLOOR PLAN	144 SF
FRP TILE	RESTROOM	SECOND FLOOR PLAN	252 SF

FRP TILE			1642 SF
OPEN TO STRUCTURE ABOVE			
OPEN TO STRUCTURE ABOVE	CORRIDOR	FIRST FLOOR PLAN	423 SF
OPEN TO STRUCTURE ABOVE	ENCLOSED VEHICLE STORAGE	FIRST FLOOR PLAN	2030 SF
OPEN TO STRUCTURE ABOVE	EQUIPMENT PPE STOR	FIRST FLOOR PLAN	125 SF
OPEN TO STRUCTURE ABOVE	MAINTENANCE SHOP	FIRST FLOOR PLAN	1452 SF
OPEN TO STRUCTURE ABOVE	VESTIBULE	FIRST FLOOR PLAN	65 SF
OPEN TO STRUCTURE ABOVE	BREAKROOM	SECOND FLOOR PLAN	201 SF
OPEN TO STRUCTURE ABOVE	CHIEF PLANT OFFICER OFFICE	SECOND FLOOR PLAN	113 SF
OPEN TO STRUCTURE ABOVE	CONFERENCE ROOM	SECOND FLOOR PLAN	288 SF
OPEN TO STRUCTURE ABOVE	CONTROL ROOM	SECOND FLOOR PLAN	525 SF
OPEN TO STRUCTURE ABOVE	CORRIDOR	SECOND FLOOR PLAN	879 SF
OPEN TO STRUCTURE ABOVE	ELEC	SECOND FLOOR PLAN	80 SF
OPEN TO STRUCTURE ABOVE	IT	SECOND FLOOR PLAN	99 SF
OPEN TO STRUCTURE ABOVE	LAB INCUBATOR	SECOND FLOOR PLAN	106 SF
OPEN TO STRUCTURE ABOVE	LAB OFFICE	SECOND FLOOR PLAN	128 SF
OPEN TO STRUCTURE ABOVE	LABORATORY	SECOND FLOOR PLAN	670 SF
OPEN TO STRUCTURE ABOVE	LIFT STATION OPERATOR SHARED OFFICE	SECOND FLOOR PLAN	202 SF
OPEN TO STRUCTURE ABOVE	LIFT STATION SUPERVISOR OFFICE	SECOND FLOOR PLAN	113 SF
OPEN TO STRUCTURE ABOVE	MECH	SECOND FLOOR PLAN	62 SF
OPEN TO STRUCTURE ABOVE	MECHANICS SHARED OFFICE	SECOND FLOOR PLAN	287 SF
OPEN TO STRUCTURE ABOVE	RECEPTION	SECOND FLOOR PLAN	106 SF
OPEN TO STRUCTURE ABOVE	STOR	SECOND FLOOR PLAN	119 SF
OPEN TO STRUCTURE ABOVE	STORAGE	SECOND FLOOR PLAN	278 SF
OPEN TO STRUCTURE ABOVE	VESTIBULE	SECOND FLOOR PLAN	81 SF
OPEN TO STRUCTURE ABOVE	WASTEWATER PLANT MANAGER OFFICE	SECOND FLOOR PLAN	113 SF

OPEN TO STRUCTURE ABOVE			8547 SF
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1 AC201 FIRST FLOOR REFLECTED CEILING PLAN
1/8" = 1'-0"

GENERAL NOTES

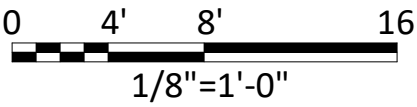
- ALL CEILING 9'-0" U.N.O.
- REFER TO BUILDING SECTIONS (A#.## SHEETS) AND STRUCTURAL FRAMING PLANS (S2 SHEETS) FOR EXPOSED STRUCTURE AND DECK HEIGHTS ABOVE FINISH FLOOR (NO CEILINGS).
- NOT ALL LIGHTING FIXTURES AND DEVICES ARE SHOWN ON THIS PLAN. REFER TO LIGHTING AND MECHANICAL SHEETS.
- ALL CEILINGS ACT-1 U.N.O.
- REFER TO ELECTRICAL, AUDIOVISUAL, TELECOM AND SECURITY SHEETS FOR MORE INFORMATION.
- REFER TO A#.## & A#.## FOR CEILING DETAILS.

NOTES BY SYMBOL "X"

- <TEXT>
- <TEXT>
- <TEXT>
- <TEXT>

LEGEND

2x4 LIGHT	
LIGHT	
RECESSED CAN LIGHT	
STRIP LIGHT	
SUPPLY AIR DIFFUSER	
RETURN AIR GRILLE	
NEW 2X2 FRP	
EXPOSED STRUCTURE - PAINT	



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ARCHITECTURE
**WWTP ADMINISTRATION BUILDING
REFLECTED CEILING PLAN - FIRST FLOOR**

F&N JOB NO. GPV23966		DATE 01/2024	DESIGNED CNF	DRAWN KEW	REVIEWED KEW	CHECKED TJR	FILE NAME AR-GPV23966-AB2-R23-RVT
NO.	ISSUE	BY	DATE	DATE	DATE	DATE	FILE NAME
0	Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.						

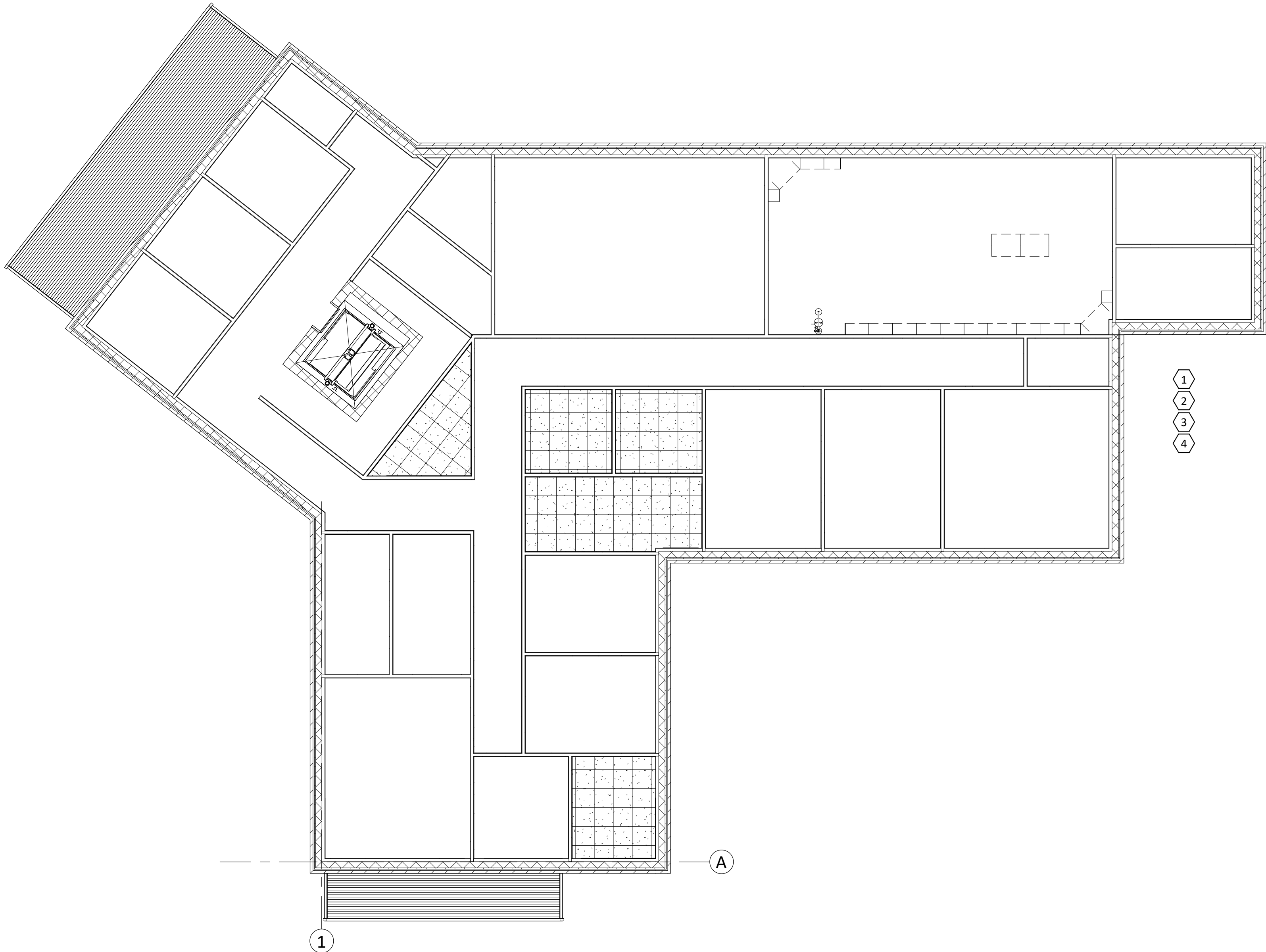
SHEET AC103

SEQ.

10% SUBMITTAL

CEILING FINISH SCHEDULE			
FINISH	NAME	LEVEL	AREA

FRP TILE			
FRP TILE	JAN	FIRST FLOOR PLAN	67 SF
FRP TILE	MUD	FIRST FLOOR PLAN	82 SF
FRP TILE	REST RM	FIRST FLOOR PLAN	397 SF
FRP TILE	RESTROOM/ SHOWER/ LOCKER	FIRST FLOOR PLAN	625 SF
FRP TILE	JAN	SECOND FLOOR PLAN	76 SF
FRP TILE	LAUNDRY	SECOND FLOOR PLAN	144 SF
FRP TILE	RESTROOM	SECOND FLOOR PLAN	252 SF
FRP TILE			1642 SF
OPEN TO STRUCTURE ABOVE			
OPEN TO STRUCTURE ABOVE	CORRIDOR	FIRST FLOOR PLAN	423 SF
OPEN TO STRUCTURE ABOVE	ENCLOSED VEHICLE STORAGE	FIRST FLOOR PLAN	2030 SF
OPEN TO STRUCTURE ABOVE	EQUIPMENT PPE STOR	FIRST FLOOR PLAN	125 SF
OPEN TO STRUCTURE ABOVE	MAINTENANCE SHOP	FIRST FLOOR PLAN	1452 SF
OPEN TO STRUCTURE ABOVE	VESTIBULE	FIRST FLOOR PLAN	65 SF
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OPEN TO STRUCTURE ABOVE	ELEC	SECOND FLOOR PLAN	80 SF
OPEN TO STRUCTURE ABOVE	IT	SECOND FLOOR PLAN	99 SF
OPEN TO STRUCTURE ABOVE	LAB INCUBATOR	SECOND FLOOR PLAN	106 SF
OPEN TO STRUCTURE ABOVE	LAB OFFICE	SECOND FLOOR PLAN	128 SF
OPEN TO STRUCTURE ABOVE	LABORATORY	SECOND FLOOR PLAN	670 SF
OPEN TO STRUCTURE ABOVE	LIFT STATION OPERATOR SHARED OFFICE	SECOND FLOOR PLAN	202 SF
OPEN TO STRUCTURE ABOVE	LIFT STATION SUPERVISOR OFFICE	SECOND FLOOR PLAN	113 SF
OPEN TO STRUCTURE ABOVE	MECH	SECOND FLOOR PLAN	62 SF
OPEN TO STRUCTURE ABOVE	MECHANICS SHARED OFFICE	SECOND FLOOR PLAN	287 SF
OPEN TO STRUCTURE ABOVE	RECEPTION	SECOND FLOOR PLAN	106 SF
OPEN TO STRUCTURE ABOVE	STOR	SECOND FLOOR PLAN	119 SF
OPEN TO STRUCTURE ABOVE	STORAGE	SECOND FLOOR PLAN	278 SF
OPEN TO STRUCTURE ABOVE	VESTIBULE	SECOND FLOOR PLAN	81 SF
OPEN TO STRUCTURE ABOVE	WASTEWATER PLANT MANAGER OFFICE	SECOND FLOOR PLAN	113 SF
OPEN TO STRUCTURE ABOVE			8547 SF



1 SECOND FLOOR REFLECTED CEILING PLAN
AC201 1/8" = 1'-0"

GENERAL NOTES

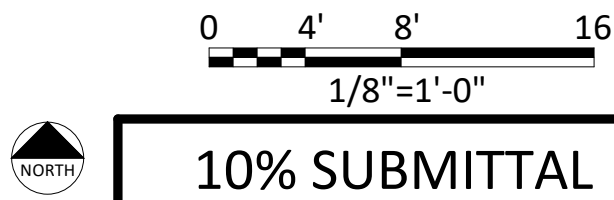
- ALL CEILING 9'-0" U.N.O.
- REFER TO BUILDING SECTIONS (A#.## SHEETS) AND STRUCTURAL FRAMING PLANS (S2 SHEETS) FOR EXPOSED STRUCTURE AND DECK HEIGHTS ABOVE FINISH FLOOR (NO CEILINGS).
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- ALL CEILINGS ACT-1 U.N.O.
- REFER TO ELECTRICAL, AUDIOVISUAL, TELECOM AND SECURITY SHEETS FOR MORE INFORMATION.
- REFER TO A#.## & A#.## FOR CEILING DETAILS.

NOTES BY SYMBOL "X"

- <TEXT>
- <TEXT>
- <TEXT>
- <TEXT>

LEGEND

2x4 LIGHT	
LIGHT	
RECESSED CAN LIGHT	
STRIP LIGHT	
SUPPLY AIR DIFFUSER	
RETURN AIR GRILLE	
NEW 2X2 FRP	
EXPOSED STRUCTURE - PAINT	



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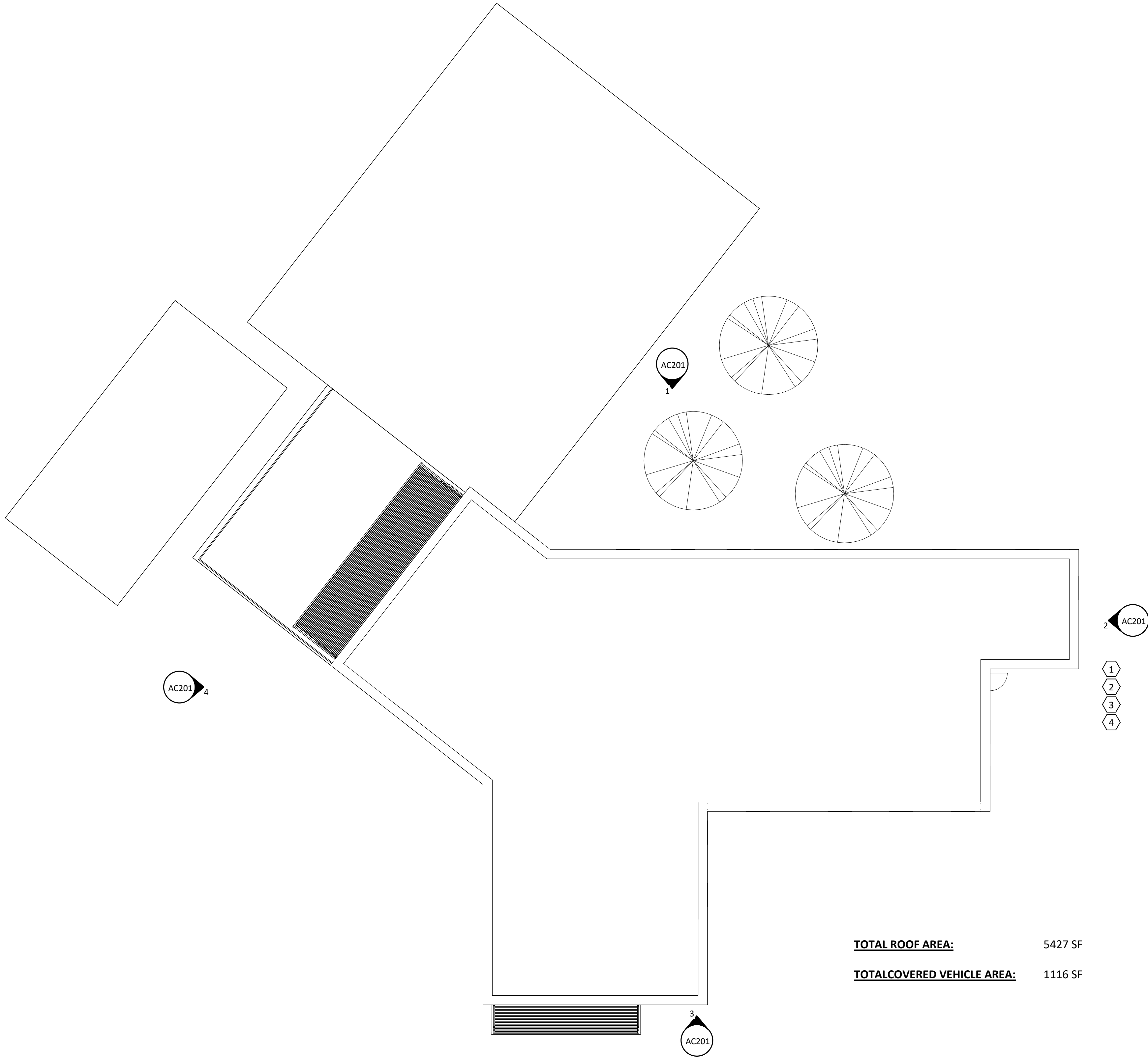
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IMPROVEMENTS**

ARCHITECTURE
**WWTP ADMINISTRATION BUILDING
REFLECTED CEILING PLAN - SECOND FLOOR**

F&N JOB NO. GPV23966		DATE 01/7/2024	DESIGNED CNF	DRAWN KEW	REVIEWED TJR	FILE NAME AR-GPV23966-AB2-R23-RVT
NO.	ISSUE	DATE	BY	DATE	FILE NAME	
0	Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.					
1						

SHEET
AC104
SEQ.



1 ROOF PLAN
AC201 3/32" = 1'-0"

TOTAL ROOF AREA: 5427 SF
TOTAL COVERED VEHICLE AREA: 1116 SF

GENERAL NOTES

1. REFER TO SHEET A#-## FOR SYMBOL LEGENDS.
2. REFER TO CIVIL & MEP DRAWINGS FOR MORE INFORMATION ON UNDERGROUND STORM DRAIN LOCATIONS AND CONNECTIONS.
3. REFER TO STRUCTURAL TO VERIFY RIDGE/VALLEY LOCATIONS.
4. REFER TO MEP DRAWINGS TO CONFIRM EXHAUST, VENT & RTU LOCATIONS.
5. CAST STONE PARAPET CAP, U.N.O.
6. CRICKET AT ALL ROOF TOP EQUIPMENT AS REQ'D.

NOTES BY SYMBOL "X"

- 1
- 2
- 3
- 4

0 4' 8' 16'
1/8"=1'-0"

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ARCHITECTURE
WWTP ADMINISTRATION BUILDING
ROOF PLAN

F&N JOB NO.	GPV23966	DATE	01/2024	DESIGNED	CNF	DRAWN	KEW	REVIEWED	TJR	FILE NAME	AR-GPV23966-AB2-R23-RVT
NO.	0	VERIFY SCALE	1	ISSUE	Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.	BY	DATE	CHECKED	FILE NAME	AR-GPV23966-AB2-R23-RVT	

SHEET

AC105

SEQ.

FLOOR FINISH SCHEDULE			
FINISH	NAME	LEVEL	AREA

ATHLETIC FLOORING

ATHLETIC FLOORING	LABORATORY	SECOND FLOOR PLAN	670 SF
ATHLETIC FLOORING			670 SF

CERAMIC TILE

CERAMIC TILE	JAN	FIRST FLOOR PLAN	67 SF
CERAMIC TILE	MUD	FIRST FLOOR PLAN	82 SF
CERAMIC TILE	REST RM	FIRST FLOOR PLAN	99 SF
CERAMIC TILE	REST RM	FIRST FLOOR PLAN	99 SF
CERAMIC TILE	REST RM	FIRST FLOOR PLAN	99 SF
CERAMIC TILE	REST RM	FIRST FLOOR PLAN	99 SF
CERAMIC TILE	RESTROOM/ SHOWER/ LOCKER	FIRST FLOOR PLAN	625 SF
CERAMIC TILE	JAN	SECOND FLOOR PLAN	76 SF
CERAMIC TILE	LAUNDRY	SECOND FLOOR PLAN	144 SF
CERAMIC TILE	RESTROOM	SECOND FLOOR PLAN	93 SF
CERAMIC TILE	RESTROOM	SECOND FLOOR PLAN	79 SF
CERAMIC TILE	RESTROOM	SECOND FLOOR PLAN	79 SF

CERAMIC TILE

1642 SF

LVT

LVT	CORRIDOR	FIRST FLOOR PLAN	423 SF
LVT	VESTIBULE	FIRST FLOOR PLAN	65 SF
LVT	BREAKROOM	SECOND FLOOR PLAN	201 SF
LVT	CHIEF PLANT OFFICER OFFICE	SECOND FLOOR PLAN	113 SF
LVT	CONFERENCE ROOM	SECOND FLOOR PLAN	288 SF
LVT	CONTROL ROOM	SECOND FLOOR PLAN	525 SF
LVT	CORRIDOR	SECOND FLOOR PLAN	879 SF
LVT	LAB OFFICE	SECOND FLOOR PLAN	128 SF
LVT	LIFT STATION OPERATOR SHARED OFFICE	SECOND FLOOR PLAN	202 SF
LVT	LIFT STATION SUPERVISOR OFFICE	SECOND FLOOR PLAN	113 SF
LVT	MECHANICS SHARED OFFICE	SECOND FLOOR PLAN	287 SF
LVT	RECEPTION	SECOND FLOOR PLAN	106 SF
LVT	STOR	SECOND FLOOR PLAN	119 SF
LVT	STORAGE	SECOND FLOOR PLAN	139 SF
LVT	STORAGE	SECOND FLOOR PLAN	139 SF
LVT	VESTIBULE	SECOND FLOOR PLAN	38 SF
LVT	VESTIBULE	SECOND FLOOR PLAN	43 SF
LVT	WASTEWATER PLANT MANAGER OFFICE	SECOND FLOOR PLAN	113 SF

LVT

3922 SF

SEALED CONCRETE

SEALED CONCRETE	ENCLOSED VEHICLE STORAGE	FIRST FLOOR PLAN	2030 SF
SEALED CONCRETE	EQUIPMENT PPE STOR	FIRST FLOOR PLAN	125 SF
SEALED CONCRETE	MAINTENANCE SHOP	FIRST FLOOR PLAN	1452 SF
SEALED CONCRETE	ELEC	SECOND FLOOR PLAN	80 SF
SEALED CONCRETE	IT	SECOND FLOOR PLAN	99 SF
SEALED CONCRETE	LAB INCUBATOR	SECOND FLOOR PLAN	106 SF
SEALED CONCRETE	MECH	SECOND FLOOR PLAN	62 SF

SEALED CONCRETE

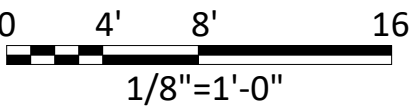
3955 SF



1 SECOND FLOOR FINISH PLAN
AC402 1/8" = 1'-0"

FLOOR FINISH LEGEND

- ATHLETIC FLOORING
- CERAMIC TILE
- LVT
- SEALED CONCRETE



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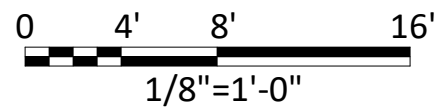
ARCHITECTURE
**WWTP ADMINISTRATION BUILDING
FINISH PLAN - SECOND FLOOR**

F&N JOB NO.		GPV23966
DATE	01/7/2024	DESIGNED BY Designer
DRAWN		
REVISION		APPROVED BY Approver
CHECKED		CHECKED BY Checker
FILE NAME	AR-GPV23966-AB2-R23-RVT	
NO.	ISSUE	Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0	VERIFY SCALE	1

SHEET

AC107

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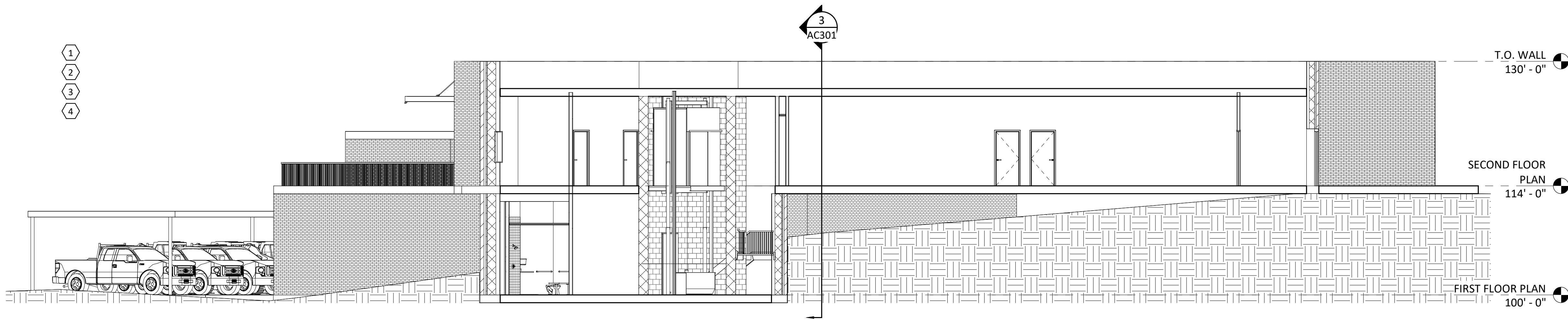
GRAPEVINE ADMINISTRATION FACILITIES IMPROVEMENTS

WWTP ADMINISTRATION BUILDING ARCHITECTURE EXTERIOR ELEVATIONS

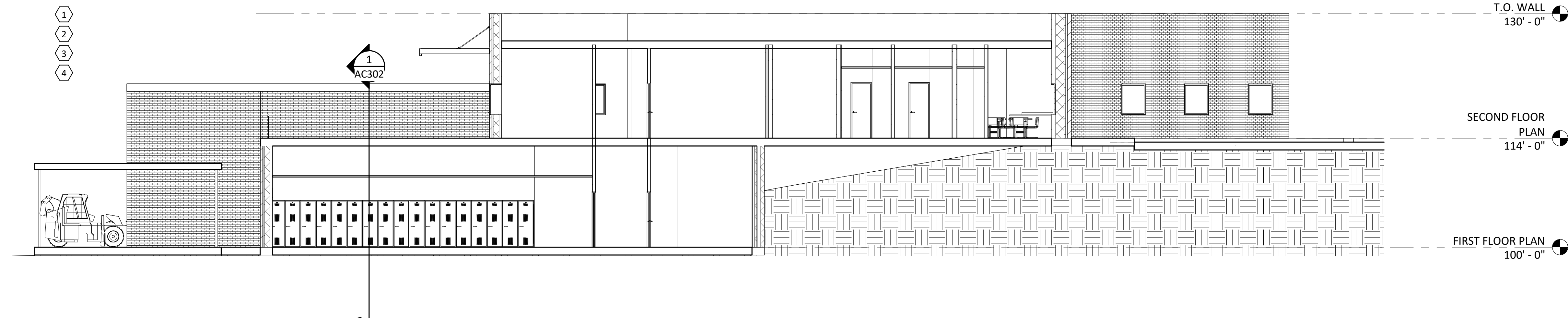
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SHEET	AC201
SEQ.	

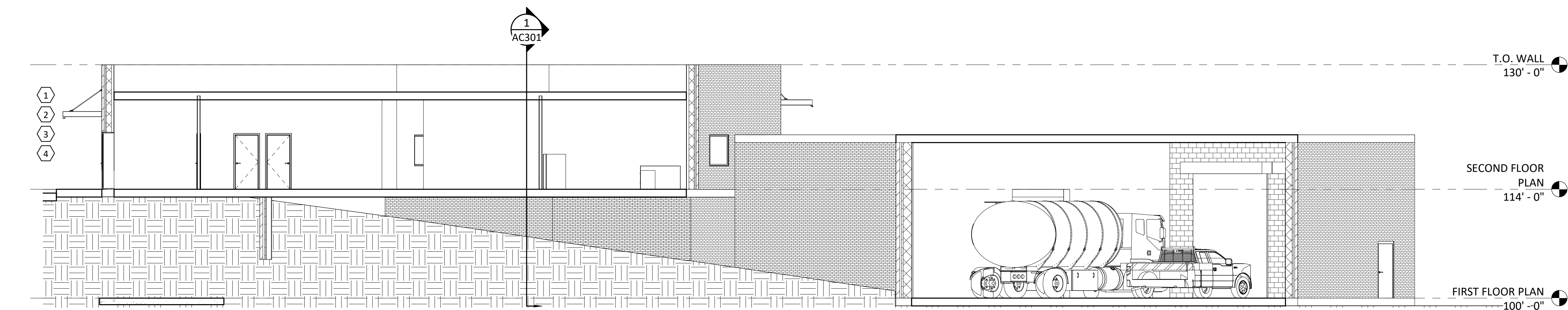
Plot Date: 2/20/2024 9:07:00 AM



1 SECTION LOOKING NORTH
AC101 1/8" = 1'-0"



2 SECTION LOOKING NORTHEAST
AC101 1/8" = 1'-0"



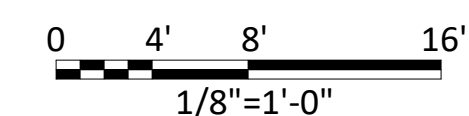
3 SECTION LOOKING WEST
AC101 1/8" = 1'-0"

GENERAL NOTES

- REFER TO WALL SECTIONS FOR ADDITIONAL WALL FINISH LOCATIONS.
- REFER TO SHEET A#.# FOR ENLARGED ELEVATIONS.
- REFER TO SHEET A#.# FOR EXTERIOR FINISH SCHEDULE.

NOTES BY SYMBOL "X"

- <TEXT>
- <TEXT>
- <TEXT>
- <TEXT>



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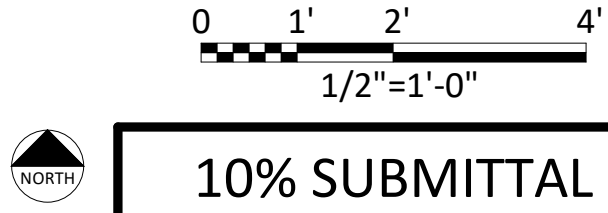
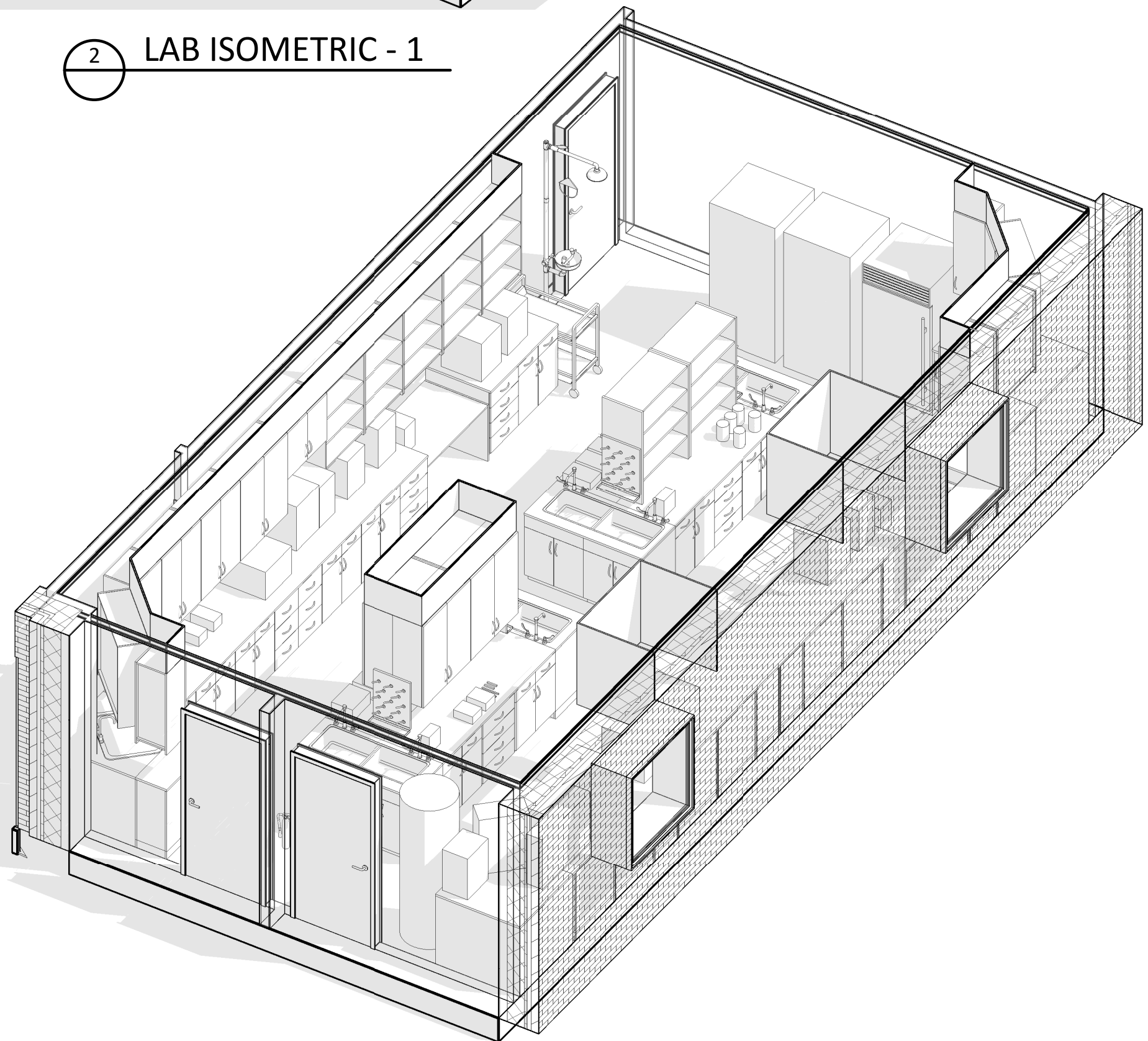
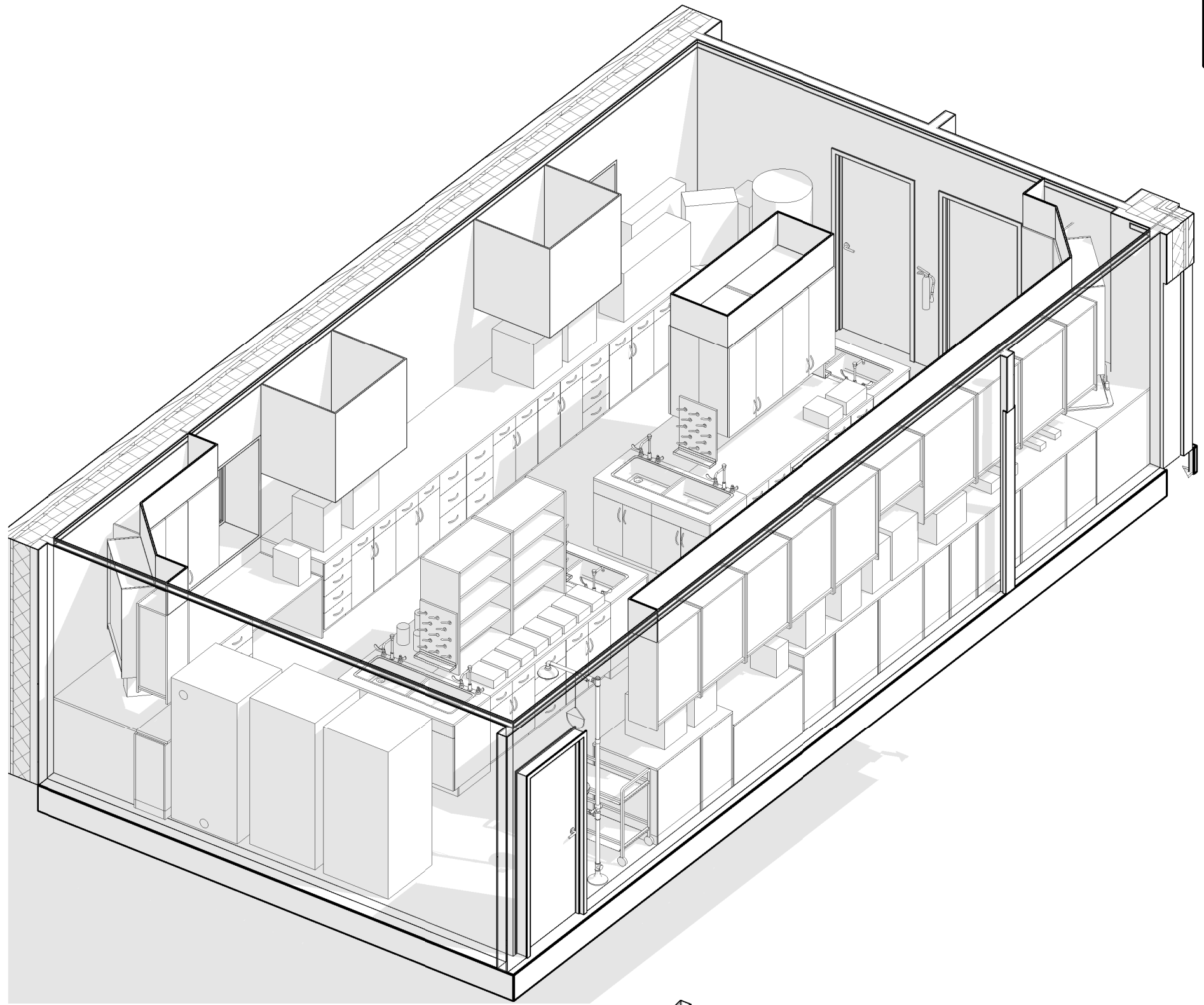
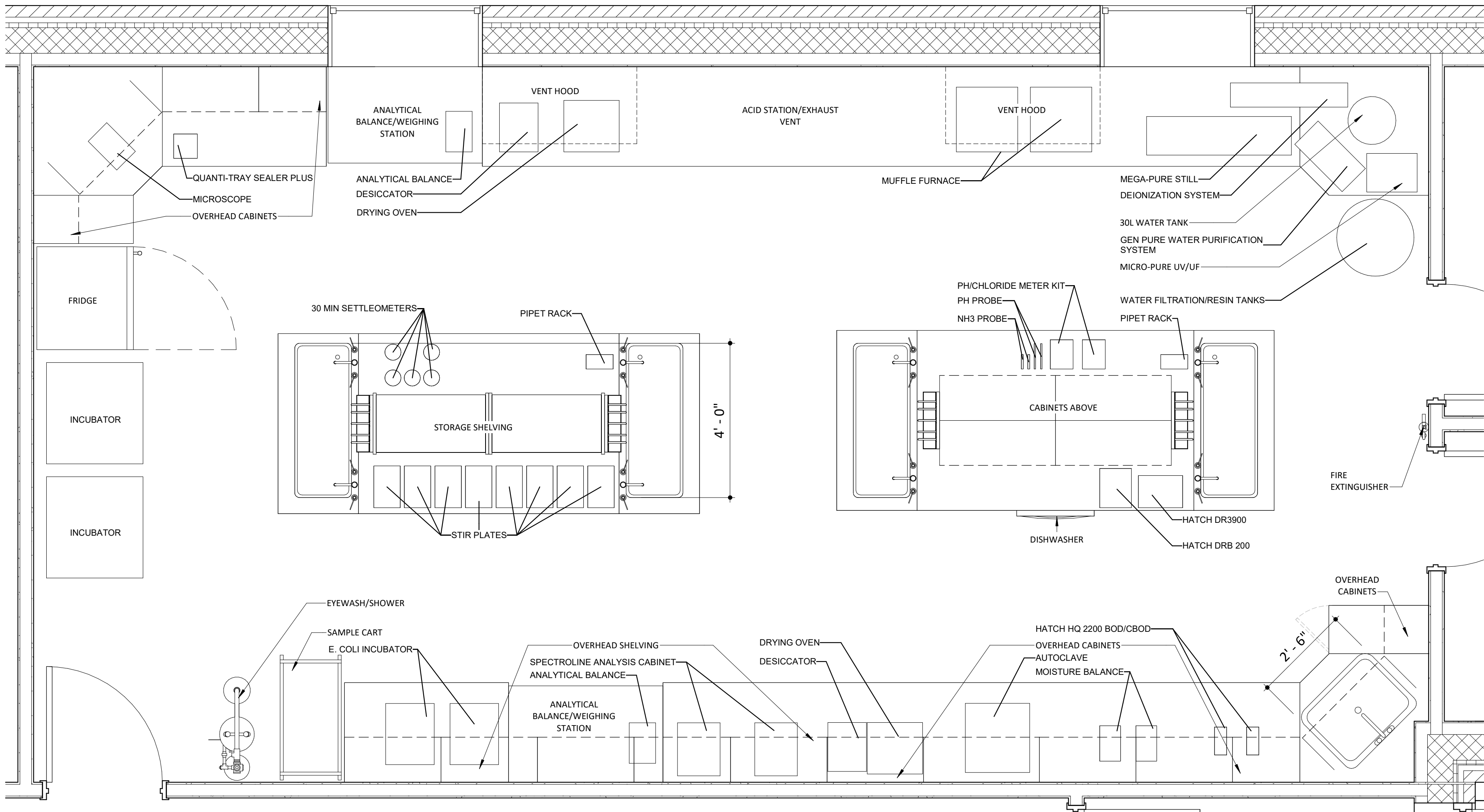
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ARCHITECTURE
**WWTP ADMINISTRATION BUILDING
BUILDING SECTIONS**

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Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

NOT FOR CONSTRUCTION

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF: CHELSEA NICOLE THORN, TEXAS NO 28241, ON DATE: 01/20/24. IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

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AND
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CITY OF GRAPEVINE
GRAPEVINE ADMINISTRATION FACILITIES
IMPROVEMENTS

ARCHITECTURE
WWTP ADMINISTRATION BUILDING
ENLARGED LAB PLAN

F&N JOB NO.	GPV23966	DATE	01/24	DESIGNED	CNF	DRAWN	KEW	REVIEWED	TJR
NO.	0	BY	DATE	FILE NAME	AR-GPV23966-AB2-R23-RVT				
VERIFY SCALE	1	Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.							

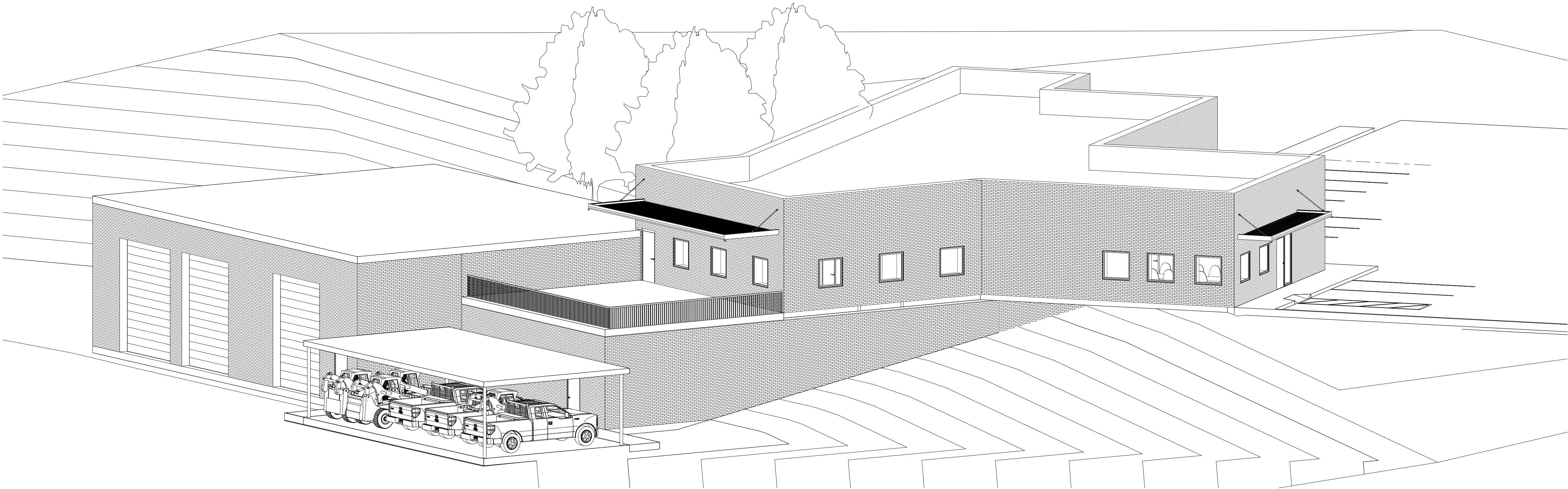
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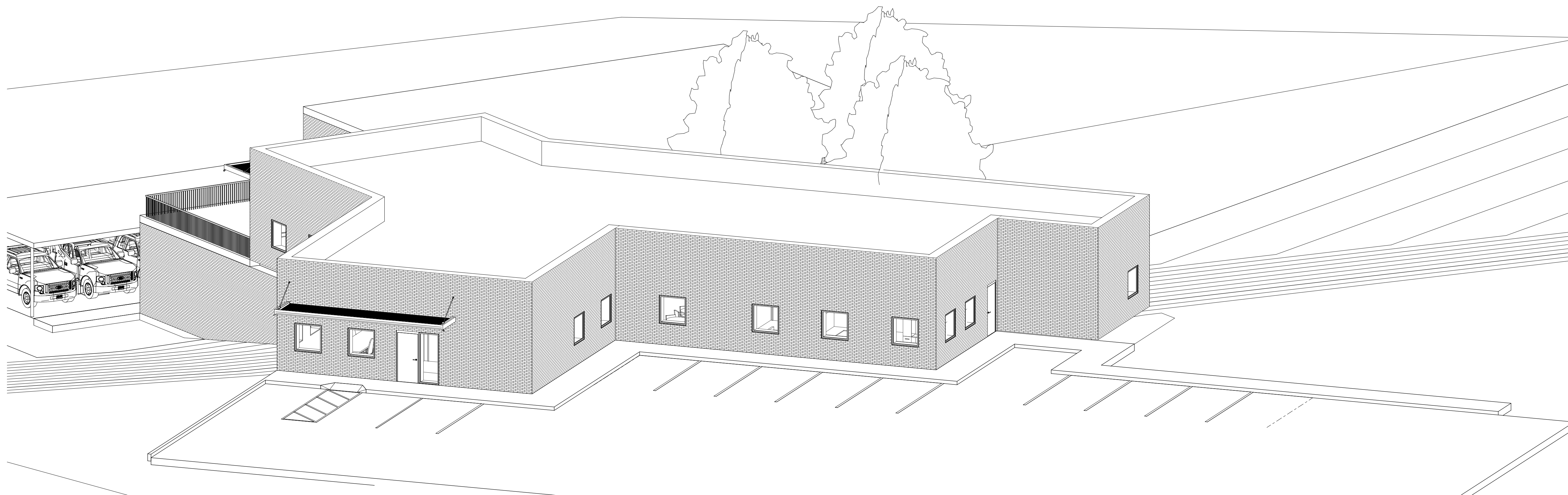
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1 PERSPECTIVE VIEW 1



2 PERSPECTIVE VIEW 2

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

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CITY OF GRAPEVINE
**GRAPEVINE ADMINISTRATION FACILITIES
IMPROVEMENTS**

ARCHITECTURE
**WWTP ADMINISTRATION BUILDING
3D REPRESENTATIONS**

F&N JOB NO.		GPV23966	
DATE	01/7/2024	DESIGNED	CNF
DRAWN	KEW	REVIEWED	KEW
BY	DATE	CHECKED	TJR
FILE NAME	AR-GPV23966-AB2-R23-RVT		
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APPENDIX B
AIA® DOCUMENT A133® – 2019

DRAFT AIA® Document A133® – 2019

Standard Form of Agreement Between Owner and Construction Manager as Constructor where the basis of payment is the Cost of the Work Plus a Fee with a Guaranteed Maximum Price

AGREEMENT made as of the « » day of « » in the year « »
(In words, indicate day, month, and year.)

BETWEEN the Owner:
(Name, legal status, address, and other information)

« »
« »
« »
« »

and the Construction Manager:
(Name, legal status, address, and other information)

« »
« »
« »
« »

for the following Project:
(Name, location, and detailed description)

« »
« »
« »

The Architect:
(Name, legal status, address, and other information)

« »
« »
« »
« »

The Owner and Construction Manager agree as follows.

ADDITIONS AND DELETIONS:

The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

AIA Document A201™-2017, General Conditions of the Contract for Construction, is adopted in this document by reference. Do not use with other general conditions unless this document is modified.

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TABLE OF ARTICLES

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2	GENERAL PROVISIONS
3	CONSTRUCTION MANAGER'S RESPONSIBILITIES
4	OWNER'S RESPONSIBILITIES
5	COMPENSATION AND PAYMENTS FOR PRECONSTRUCTION PHASE SERVICES
6	COMPENSATION FOR CONSTRUCTION PHASE SERVICES
7	COST OF THE WORK FOR CONSTRUCTION PHASE
8	DISCOUNTS, REBATES, AND REFUNDS
9	SUBCONTRACTS AND OTHER AGREEMENTS
10	ACCOUNTING RECORDS
11	PAYMENTS FOR CONSTRUCTION PHASE SERVICES
12	DISPUTE RESOLUTION
13	TERMINATION OR SUSPENSION
14	MISCELLANEOUS PROVISIONS
15	SCOPE OF THE AGREEMENT

EXHIBIT A GUARANTEED MAXIMUM PRICE AMENDMENT

EXHIBIT B INSURANCE AND BONDS

ARTICLE 1 INITIAL INFORMATION

§ 1.1 This Agreement is based on the Initial Information set forth in this Section 1.1.

(For each item in this section, insert the information or a statement such as "not applicable" or "unknown at time of execution.")

§ 1.1.1 The Owner's program for the Project, as described in Section 4.1.1:

(Insert the Owner's program, identify documentation that establishes the Owner's program, or state the manner in which the program will be developed.)

« »

§ 1.1.2 The Project's physical characteristics:

(Identify or describe pertinent information about the Project's physical characteristics, such as size; location; dimensions; geotechnical reports; site boundaries; topographic surveys; traffic and utility studies; availability of public and private utilities and services; legal description of the site, etc.)

« »

§ 1.1.3 The Owner's budget for the Guaranteed Maximum Price, as defined in Article 6:

(Provide total and, if known, a line item breakdown.)

« »

§ 1.1.4 The Owner's anticipated design and construction milestone dates:

- .1 Design phase milestone dates, if any:

« »

- .2 Construction commencement date:

« »

- .3 Substantial Completion date or dates:

« »

- .4 Other milestone dates:

« »

§ 1.1.5 The Owner's requirements for accelerated or fast-track scheduling, or phased construction, are set forth below:
(Identify any requirements for fast-track scheduling or phased construction.)

« »

§ 1.1.6 The Owner's anticipated Sustainable Objective for the Project:
(Identify and describe the Owner's Sustainable Objective for the Project, if any.)

« »

§ 1.1.6.1 If the Owner identifies a Sustainable Objective, the Owner and Construction Manager shall complete and incorporate AIA Document E234™–2019, Sustainable Projects Exhibit, Construction Manager as Constructor Edition, into this Agreement to define the terms, conditions and services related to the Owner's Sustainable Objective. If E234–2019 is incorporated into this agreement, the Owner and Construction Manager shall incorporate the completed E234–2019 into the agreements with the consultants and contractors performing services or Work in any way associated with the Sustainable Objective.

§ 1.1.7 Other Project information:
(Identify special characteristics or needs of the Project not provided elsewhere.)

« »

§ 1.1.8 The Owner identifies the following representative in accordance with Section 4.2:
(List name, address, and other contact information.)

« »

« »

« »

« »

« »

« »

§ 1.1.9 The persons or entities, in addition to the Owner's representative, who are required to review the Construction Manager's submittals to the Owner are as follows:
(List name, address and other contact information.)

« »

§ 1.1.10 The Owner shall retain the following consultants and contractors:
(List name, legal status, address, and other contact information.)

.1 Geotechnical Engineer:

<< >><< >>
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<< >>

.2 Civil Engineer:

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.3 Other, if any:

(List any other consultants retained by the Owner, such as a Project or Program Manager.)

<< >>

§ 1.1.11 The Architect's representative:

(List name, address, and other contact information.)

<< >>
<< >>
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§ 1.1.12 The Construction Manager identifies the following representative in accordance with Article 3:

(List name, address, and other contact information.)

<< >>
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<< >>

§ 1.1.13 The Owner's requirements for the Construction Manager's staffing plan for Preconstruction Services, as required under Section 3.1.9:

(List any Owner-specific requirements to be included in the staffing plan.)

<< >>

§ 1.1.14 The Owner's requirements for subcontractor procurement for the performance of the Work:

(List any Owner-specific requirements for subcontractor procurement.)

<< >>

§ 1.1.15 Other Initial Information on which this Agreement is based:

<< >>

§ 1.2 The Owner and Construction Manager may rely on the Initial Information. Both parties, however, recognize that such information may materially change and, in that event, the Owner and the Construction Manager shall appropriately adjust the Project schedule, the Construction Manager's services, and the Construction Manager's compensation. The Owner shall adjust the Owner's budget for the Guaranteed Maximum Price and the Owner's anticipated design and construction milestones, as necessary, to accommodate material changes in the Initial Information.

§ 1.3 Neither the Owner's nor the Construction Manager's representative shall be changed without ten days' prior notice to the other party.

ARTICLE 2 GENERAL PROVISIONS

§ 2.1 The Contract Documents

The Contract Documents consist of this Agreement, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, Addenda issued prior to execution of this Agreement, other documents listed in this Agreement, and Modifications issued after execution of this Agreement, all of which form the Contract and are as fully a part of the Contract as if attached to this Agreement or repeated herein. Upon the Owner's acceptance of the Construction Manager's Guaranteed Maximum Price proposal, the Contract Documents will also include the documents described in Section 3.2.3 and identified in the Guaranteed Maximum Price Amendment and revisions prepared by the Architect and furnished by the Owner as described in Section 3.2.8. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations or agreements, either written or oral. If anything in the other Contract Documents, other than a Modification, is inconsistent with this Agreement, this Agreement shall govern. An enumeration of the Contract Documents, other than a Modification, appears in Article 15.

§ 2.2 Relationship of the Parties

§ 2.2.1 The Construction Manager accepts the relationship of trust and confidence established by this Agreement and covenants with the Owner to cooperate with the Architect and exercise the Construction Manager's skill and judgment in furthering the interests of the Owner to furnish efficient construction administration, management services, and supervision; to furnish at all times an adequate supply of workers and materials; and to perform the Work in an expeditious, **safe, professional**, and economical manner consistent with the Owner's interests. **THE PARTIES HERETO AGREE AND ACKNOWLEDGE THAT CONSTRUCTION MANAGER'S RELATIONSHIP TO OWNER IS THAT OF AN INDEPENDENT CONTRACTOR FOR ALL PURPOSES—therefore, nothing in the Contract Documents is intended to, or should be construed to, create a partnership, agency, joint venture, or employment relationship between the Construction Manager and Owner.**

§ 2.2.2 The Owner agrees to furnish or approve, in a timely manner, information required by the Construction Manager and to make payments to the Construction Manager in accordance with the requirements of the Contract Documents.

§ 2.3 General Conditions

§ 2.3.1 For the Preconstruction Phase, AIA Document A201™–2017, General Conditions of the Contract for Construction, shall apply as follows: Section 1.5, Ownership and Use of Documents; Section 1.7, Digital Data Use and Transmission; Section 1.8, Building Information Model Use and Reliance; Section 2.2.4, Confidential Information; Section 3.12.10, Professional Services; Section 10.3, Hazardous Materials; Section 13.1, Governing Law. The term "Contractor" as used in A201–2017 shall mean the Construction Manager.

§ 2.3.2 For the Construction Phase, the general conditions of the contract shall be as set forth in A201–2017, which document is incorporated herein by reference. The term "Contractor" as used in A201–2017 shall mean the Construction Manager.

ARTICLE 3 CONSTRUCTION MANAGER'S RESPONSIBILITIES

The Construction Manager's Preconstruction Phase responsibilities are set forth in Sections 3.1 and 3.2, and in the applicable provisions of A201-2017 referenced in Section 2.3.1. The Construction Manager's Construction Phase responsibilities are set forth in Section 3.3. The Owner and Construction Manager may agree, in consultation with the Architect, for the Construction Phase to commence prior to completion of the Preconstruction Phase, in which case, both phases will proceed concurrently. The Construction Manager shall identify a representative authorized to act on behalf of the Construction Manager with respect to the Project.

§ 3.1 Preconstruction Phase

§ 3.1.1 Extent of Responsibility

The Construction Manager shall exercise reasonable care in performing its Preconstruction Services. The Owner and Architect shall be entitled to rely on, and shall not be responsible for, the accuracy, completeness, and timeliness of services and information furnished by the Construction Manager. The Construction Manager, however, does not warrant or guarantee estimates and schedules except as may be included as part of the Guaranteed Maximum Price. The Construction Manager is not required to ascertain that the Drawings and Specifications are in accordance with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, but the Construction Manager shall promptly report to the Architect and Owner any nonconformity discovered by or made known to the Construction Manager as a request for information in such form as the Architect may require.

§ 3.1.2 The Construction Manager shall provide a preliminary evaluation of the Owner's program, schedule and construction budget requirements, each in terms of the other.

§ 3.1.3 Consultation

§ 3.1.3.1 The Construction Manager shall schedule and conduct meetings with the Architect and Owner to discuss such matters as procedures, progress, coordination, and scheduling of the Work.

§ 3.1.3.2 The Construction Manager shall advise the Owner and Architect on proposed site use and improvements, selection of materials, building systems, and equipment. The Construction Manager shall also provide recommendations to the Owner and Architect, consistent with the Project requirements, on constructability; availability of materials and labor; time requirements for procurement, installation and construction; prefabrication; and factors related to construction cost including, but not limited to, costs of alternative designs or materials, preliminary budgets, life-cycle data, and possible cost reductions. The Construction Manager shall consult with the Architect regarding professional services to be provided by the Construction Manager during the Construction Phase.

§ 3.1.3.3 The Construction Manager shall assist the Owner and Architect in establishing building information modeling and digital data protocols for the Project, using AIA Document E203™-2013, Building Information Modeling and Digital Data Exhibit, to establish the protocols for the development, use, transmission, and exchange of digital data.

§ 3.1.4 Project Schedule

When Project requirements in Section 4.1.1 have been sufficiently identified, the Construction Manager shall prepare and periodically update a Project schedule for the Architect's review and the Owner's acceptance. The Construction Manager shall obtain the Architect's approval for the portion of the Project schedule relating to the performance of the Architect's services. The Project schedule shall coordinate and integrate the Construction Manager's services, the Architect's services, other Owner consultants' services, and the Owner's responsibilities; and identify items that affect the Project's timely completion. The updated Project schedule shall include the following: submission of the Guaranteed Maximum Price proposal; components of the Work; times of commencement and completion required of each Subcontractor; ordering and delivery of products, including those that must be ordered in advance of construction; and the occupancy requirements of the Owner.

§ 3.1.5 Phased Construction

The Construction Manager, in consultation with the Architect, shall provide recommendations with regard to accelerated or fast-track scheduling, procurement, and sequencing for phased construction. The Construction Manager shall take into consideration cost reductions, cost information, constructability, provisions for temporary facilities, and procurement and construction scheduling issues.

§ 3.1.6 Cost Estimates

§ 3.1.6.1 Based on the preliminary design and other design criteria prepared by the Architect, the Construction Manager shall prepare, for the Architect's review and the Owner's approval, preliminary estimates of the Cost of the Work or the cost of program requirements using area, volume, or similar conceptual estimating techniques. If the Architect or Construction Manager suggests alternative materials and systems, the Construction Manager shall provide cost evaluations of those alternative materials and systems.

§ 3.1.6.2 As the Architect progresses with the preparation of the Schematic Design, Design Development and Construction Documents, the Construction Manager shall prepare and update, at appropriate intervals agreed to by the Owner, Construction Manager and Architect, an estimate of the Cost of the Work with increasing detail and refinement. The Construction Manager shall include in the estimate those costs to allow for the further development of the design,

price escalation, and market conditions, until such time as the Owner and Construction Manager agree on a Guaranteed Maximum Price for the Work. The estimate shall be provided for the Architect's review and the Owner's approval. The Construction Manager shall inform the Owner and Architect in the event that the estimate of the Cost of the Work exceeds the latest approved Project budget, and make recommendations for corrective action.

§ 3.1.6.3 If the Architect is providing cost estimating services as a Supplemental Service, and a discrepancy exists between the Construction Manager's cost estimates and the Architect's cost estimates, the Construction Manager and the Architect shall work together to reconcile the cost estimates.

§ 3.1.7 As the Architect progresses with the preparation of the Schematic Design, Design Development and Construction Documents, the Construction Manager shall consult with the Owner and Architect and make recommendations regarding constructability and schedules, for the Architect's review and the Owner's approval.

§ 3.1.8 The Construction Manager shall provide recommendations and information to the Owner and Architect regarding equipment, materials, services, and temporary Project facilities.

§ 3.1.9 The Construction Manager shall provide a staffing plan for Preconstruction Phase services for the Owner's review and approval.

§ 3.1.10 If the Owner identified a Sustainable Objective in Article 1, the Construction Manager shall fulfill its Preconstruction Phase responsibilities as required in AIA Document E234™-2019, Sustainable Projects Exhibit, Construction Manager as Constructor Edition, attached to this Agreement.

§ 3.1.11 Subcontractors and Suppliers

§ 3.1.11.1 If the Owner has provided requirements for subcontractor procurement in section 1.1.14, the Construction Manager shall provide a subcontracting plan, addressing the Owner's requirements, for the Owner's review and approval.

§ 3.1.11.2 The Construction Manager shall develop bidders' interest in the Project.

§ 3.1.11.3 The processes described in Article 9 shall apply if bid packages will be issued during the Preconstruction Phase.

§ 3.1.12 Procurement

The Construction Manager shall prepare, for the Architect's review and the Owner's acceptance, a procurement schedule for items that must be ordered in advance of construction. The Construction Manager shall expedite and coordinate the ordering and delivery of materials that must be ordered in advance of construction. If the Owner agrees to procure any items prior to the establishment of the Guaranteed Maximum Price, the Owner shall procure the items on terms and conditions acceptable to the Construction Manager. Upon the establishment of the Guaranteed Maximum Price, the Owner shall assign all contracts for these items to the Construction Manager and the Construction Manager shall thereafter accept responsibility for them.

§ 3.1.13 Compliance with Laws

The Construction Manager shall **strictly** comply with **any and all** applicable laws, statutes, ordinances, codes, **standards, policies**, rules and regulations, and lawful orders of public authorities applicable to its performance under this Contract, and with equal employment opportunity programs, and other programs as may be required by governmental and quasi-governmental authorities.

§ 3.1.14 Other Preconstruction Services

Insert a description of any other Preconstruction Phase services to be provided by the Construction Manager, or reference an exhibit attached to this document

(Describe any other Preconstruction Phase services, such as providing cash flow projections, development of a project information management system, early selection or procurement of subcontractors, etc.)

<< >>

§ 3.2 Guaranteed Maximum Price Proposal

§ 3.2.1 At a time to be mutually agreed upon by the Owner and the Construction Manager, the Construction Manager shall prepare a Guaranteed Maximum Price proposal for the Owner's and Architect's review, and the Owner's acceptance. The Guaranteed Maximum Price in the proposal shall be the sum of the Construction Manager's estimate of the Cost of the Work, the Construction Manager's contingency described in Section 3.2.4, and the Construction Manager's Fee described in Section 6.1.2.

§ 3.2.2 To the extent that the Contract Documents are anticipated to require further development, the Guaranteed Maximum Price includes the costs attributable to such further development consistent with the Contract Documents and reasonably inferable therefrom. Such further development does not include changes in scope, systems, kinds and quality of materials, finishes, or equipment, all of which, if required, shall be incorporated by Change Order.

§ 3.2.3 The Construction Manager shall include with the Guaranteed Maximum Price proposal a written statement of its basis, which shall include the following:

- .1 A list of the Drawings and Specifications, including all Addenda thereto, and the Conditions of the Contract;
- .2 A list of the clarifications and assumptions made by the Construction Manager in the preparation of the Guaranteed Maximum Price proposal, including assumptions under Section 3.2.2;
- .3 A statement of the proposed Guaranteed Maximum Price, including a statement of the estimated Cost of the Work organized by trade categories or systems, including allowances; the Construction Manager's contingency set forth in Section 3.2.4; and the Construction Manager's Fee;
- .4 The anticipated date of Substantial Completion upon which the proposed Guaranteed Maximum Price is based; and
- .5 A date by which the Owner must accept the Guaranteed Maximum Price.

§ 3.2.4 In preparing the Construction Manager's Guaranteed Maximum Price proposal, the Construction Manager shall include a contingency for the Construction Manager's exclusive use to cover those costs that are included in the Guaranteed Maximum Price but not otherwise allocated to another line item or included in a Change Order.

§ 3.2.5 The Construction Manager shall meet with the Owner and Architect to review the Guaranteed Maximum Price proposal. In the event that the Owner or Architect discover any inconsistencies or inaccuracies in the information presented, they shall promptly notify the Construction Manager, who shall make appropriate adjustments to the Guaranteed Maximum Price proposal, its basis, or both.

§ 3.2.6 If the Owner notifies the Construction Manager that the Owner has accepted the Guaranteed Maximum Price proposal in writing before the date specified in the Guaranteed Maximum Price proposal, the Guaranteed Maximum Price proposal shall be deemed effective without further acceptance from the Construction Manager. Following acceptance of a Guaranteed Maximum Price, the Owner and Construction Manager shall execute the Guaranteed Maximum Price Amendment amending this Agreement, a copy of which the Owner shall provide to the Architect. The Guaranteed Maximum Price Amendment shall set forth the agreed upon Guaranteed Maximum Price with the information and assumptions upon which it is based.

§ 3.2.7 The Construction Manager shall not incur any cost to be reimbursed as part of the Cost of the Work prior to the execution of the Guaranteed Maximum Price Amendment, unless the Owner provides prior written authorization for such costs.

§ 3.2.8 The Owner shall authorize preparation of revisions to the Contract Documents that incorporate the agreed-upon assumptions and clarifications contained in the Guaranteed Maximum Price Amendment. The Owner shall promptly furnish such revised Contract Documents to the Construction Manager. The Construction Manager shall notify the Owner and Architect of any inconsistencies between the agreed-upon assumptions and clarifications contained in the Guaranteed Maximum Price Amendment and the revised Contract Documents.

§ 3.2.9 The Construction Manager shall include in the Guaranteed Maximum Price all sales, consumer, use and similar taxes for the Work provided by the Construction Manager that are legally enacted, whether or not yet effective, at the time the Guaranteed Maximum Price Amendment is executed.

§ 3.3 Construction Phase

§ 3.3.1 General

§ 3.3.1.1 For purposes of Section 8.1.2 of A201–2017, the date of commencement of the Work shall mean the date of commencement of the Construction Phase.

§ 3.3.1.2 The Construction Phase shall commence upon the Owner's execution of the Guaranteed Maximum Price Amendment or, prior to acceptance of the Guaranteed Maximum Price proposal, by written agreement of the parties. The written agreement shall set forth a description of the Work to be performed by the Construction Manager, and any insurance and bond requirements for Work performed prior to execution of the Guaranteed Maximum Price Amendment.

§ 3.3.2 Administration

§ 3.3.2.1 The Construction Manager shall schedule and conduct meetings to discuss such matters as procedures, progress, coordination, scheduling, and status of the Work, **including, without limitation, such meetings as deemed necessary and appropriate by the Owner, in the Owners' sole discretion.** The Construction Manager shall prepare and promptly distribute minutes of the meetings to the Owner and Architect.

§ 3.3.2.2 Upon the execution of the Guaranteed Maximum Price Amendment, the Construction Manager shall prepare and submit to the Owner and Architect a construction schedule for the Work and a submittal schedule in accordance with Section 3.10 of A201–2017.

§ 3.3.2.3 Monthly Report

The Construction Manager shall record the progress of the Project. On a monthly basis, or otherwise as agreed to by the Owner, the Construction Manager shall submit written progress reports to the Owner and Architect, showing percentages of completion and other information required by the Owner.

§ 3.3.2.4 Daily Logs

The Construction Manager shall keep, and make available to the Owner and Architect, a daily log containing a record for each day of weather, portions of the Work in progress, number of workers on site, identification of equipment on site, problems that might affect progress of the work, accidents, injuries, and other information required by the Owner, **as deemed necessary and appropriate in the Owner's sole discretion.**

§ 3.3.2.5 Cost Control

The Construction Manager shall develop a system of cost control for the Work, including regular monitoring of actual costs for activities in progress and estimates for uncompleted tasks and proposed changes. The Construction Manager shall identify variances between actual and estimated costs and report the variances to the Owner and Architect, and shall provide this information in its monthly reports to the Owner and Architect, in accordance with Section 3.3.2.3 above.

ARTICLE 4 OWNER'S RESPONSIBILITIES

§ 4.1 Information and Services Required of the Owner

§ 4.1.1 The Owner shall provide information with reasonable promptness, regarding requirements for and limitations on the Project, including a written program which shall set forth the Owner's objectives, constraints, and criteria, including schedule, space requirements and relationships, flexibility and expandability, special equipment, systems, sustainability and site requirements.

§ 4.1.2 Prior to the execution of the Guaranteed Maximum Price Amendment, the Construction Manager may request in writing that the Owner provide reasonable evidence that the Owner has made financial arrangements to fulfill the Owner's obligations under the Contract. After execution of the Guaranteed Maximum Price Amendment, the Construction Manager may request such information as set forth in A201-2017 Section 2.2.

§ 4.1.3 The Owner shall establish and periodically update the Owner's budget for the Project, including (1) the budget for the Cost of the Work as defined in Article 7, (2) the Owner's other costs, and (3) reasonable contingencies related to all of these costs. If the Owner significantly increases or decreases the Owner's budget for the Cost of the Work, the Owner shall notify the Construction Manager and Architect. The Owner and the Architect, in consultation with the Construction Manager, shall thereafter agree to a corresponding change in the Project's scope and quality.

§ 4.1.4 Structural and Environmental Tests, Surveys and Reports. During the Preconstruction Phase, the Owner shall furnish the following information or services with reasonable promptness. The Owner **may** also furnish any other information or services under the Owner's control and relevant to the Construction Manager's performance of the Work with reasonable promptness after receiving the Construction Manager's written request for such information or services. The Construction Manager shall be entitled to rely on the accuracy of information and services furnished by the Owner but shall exercise proper precautions relating to the safe performance of the Work.

§ 4.1.4.1 The Owner shall furnish tests, inspections, and reports, required by law and as otherwise agreed to by the parties, such as structural, mechanical, and chemical tests, tests for air and water pollution, and tests for hazardous materials.

§ 4.1.4.2 The Owner shall furnish surveys describing physical characteristics, legal limitations and utility locations for the site of the Project, and a written legal description of the site. The surveys and legal information shall include, as applicable, grades and lines of streets, alleys, pavements and adjoining property and structures; designated wetlands; adjacent drainage; rights-of-way, restrictions, easements, encroachments, zoning, deed restrictions, boundaries and contours of the site; locations, dimensions and other necessary data with respect to existing buildings, other improvements and trees; and information concerning available utility services and lines, both public and private, above and below grade, including inverts and depths. All the information on the survey shall be referenced to a Project benchmark.

§ 4.1.4.3 The Owner, when such services are requested, shall furnish services of geotechnical engineers, which may include test borings, test pits, determinations of soil bearing values, percolation tests, evaluations of hazardous materials, seismic evaluation, ground corrosion tests and resistivity tests, including necessary operations for anticipating subsoil conditions, with written reports and appropriate recommendations.

§ 4.1.5 During the Construction Phase, the Owner shall furnish information or services required of the Owner by the Contract Documents with reasonable promptness. The Owner shall also furnish any other information or services under the Owner's control and relevant to the Construction Manager's performance of the Work with reasonable promptness after receiving the Construction Manager's written request for such information or services.

§ 4.1.6 If the Owner identified a Sustainable Objective in Article 1, the Owner shall fulfill its responsibilities as required in AIA Document E234™–2019, Sustainable Projects Exhibit, Construction Manager as Constructor Edition, attached to this Agreement.

§ 4.2 Owner's Designated Representative

The Owner shall identify a representative authorized to act on behalf of the Owner with respect to the Project. The Owner's representative shall render decisions promptly and furnish information expeditiously, so as to avoid unreasonable delay in the services or Work of the Construction Manager. Except as otherwise provided in Section 4.2.1 of A201–2017, the Architect does not have such authority. The term "Owner" means the Owner or the Owner's authorized representative.

§ 4.2.1 Legal Requirements. The Owner shall furnish all legal, insurance and accounting services, including auditing services, that may be reasonably necessary at any time for the Project to meet the Owner's needs and interests.

§ 4.3 Architect

The Owner shall retain an Architect to provide services, duties and responsibilities as described in AIA Document B133™–2019, Standard Form of Agreement Between Owner and Architect, Construction Manager as Constructor Edition, including any additional services requested by the Construction Manager that are necessary for the Preconstruction and Construction Phase services under this Agreement. The Owner shall provide the Construction Manager with a copy of the scope of services in the executed agreement between the Owner and the Architect, and any further modifications to the Architect's scope of services in the agreement.

ARTICLE 5 COMPENSATION AND PAYMENTS FOR PRECONSTRUCTION PHASE SERVICES

§ 5.1 Compensation

§ 5.1.1 For the Construction Manager's Preconstruction Phase services described in Sections 3.1 and 3.2, the Owner shall compensate the Construction Manager as follows:

(Insert amount of, or basis for, compensation and include a list of reimbursable cost items, as applicable.)

« »

§ 5.1.2 The hourly billing rates for Preconstruction Phase services of the Construction Manager and the Construction Manager's Consultants and Subcontractors, if any, are set forth below.
(If applicable, attach an exhibit of hourly billing rates or insert them below.)

« »

Individual or Position

Rate

§ 5.1.2.1 Hourly billing rates for Preconstruction Phase services include all costs to be paid or incurred by the Construction Manager, as required by law or collective bargaining agreements, for taxes, insurance, contributions, assessments and benefits and, for personnel not covered by collective bargaining agreements, customary benefits such as sick leave, medical and health benefits, holidays, vacations and pensions, and shall remain unchanged unless the parties execute a Modification.

§ 5.1.3 If the Preconstruction Phase services covered by this Agreement have not been completed within « » (« ») months of the date of this Agreement, through no fault of the Construction Manager, the Construction Manager's compensation for Preconstruction Phase services shall be equitably adjusted.

§ 5.2 Payments

§ 5.2.1 Unless otherwise agreed, payments for services shall be made monthly in proportion to services **actually and properly** performed.

§ 5.2.2 Payments are due and payable upon presentation of the Construction Manager's invoice. Amounts unpaid « » (« ») days after the invoice date shall bear interest at the rate entered below, or in the absence thereof at the legal rate prevailing from time to time at the principal place of business of the Construction Manager.
(Insert rate of monthly or annual interest agreed upon.)

« » % « »

ARTICLE 6 COMPENSATION FOR CONSTRUCTION PHASE SERVICES

§ 6.1 Contract Sum

§ 6.1.1 The Owner shall pay the Construction Manager the Contract Sum in current funds for the Construction Manager's performance of the Contract after execution of the Guaranteed Maximum Price Amendment. The Contract Sum is the Cost of the Work as defined in Article 7 plus the Construction Manager's Fee.

§ 6.1.2 The Construction Manager's Fee:

(State a lump sum, percentage of Cost of the Work or other provision for determining the Construction Manager's Fee.)

« »

§ 6.1.3 The method of adjustment of the Construction Manager's Fee for changes in the Work:

« »

§ 6.1.4 Limitations, if any, on a Subcontractor's overhead and profit for increases in the cost of its portion of the Work:

« »

§ 6.1.5 Rental rates for Construction Manager-owned equipment shall not exceed « » percent (« » %) of the standard rental rate paid at the place of the Project.

§ 6.1.6 Liquidated damages, if any:

(Insert terms and conditions for liquidated damages, if any.)

« »

§ 6.1.7 Other:

(Insert provisions for bonus, cost savings or other incentives, if any, that might result in a change to the Contract Sum.)

« »

§ 6.2 Guaranteed Maximum Price

The Construction Manager guarantees that the Contract Sum shall not exceed the Guaranteed Maximum Price set forth in the Guaranteed Maximum Price Amendment, subject to additions and deductions by Change Order as provided in the Contract Documents. Costs which would cause the Guaranteed Maximum Price to be exceeded shall be paid by the Construction Manager without reimbursement by the Owner.

§ 6.3 Changes in the Work

§ 6.3.1 The Owner may, without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions or other revisions. The Owner shall issue such changes in writing. The Construction Manager may be entitled to an equitable adjustment in the Contract Time as a result of changes in the Work.

§ 6.3.1.1 The Architect may order minor changes in the Work as provided in Article 7 of AIA Document A201–2017, General Conditions of the Contract for Construction.

§ 6.3.2 Adjustments to the Guaranteed Maximum Price on account of changes in the Work subsequent to the execution of the Guaranteed Maximum Price Amendment may be determined by any of the methods listed in Article 7 of AIA Document A201–2017, General Conditions of the Contract for Construction.

§ 6.3.3 Adjustments to subcontracts awarded on the basis of a stipulated sum shall be determined in accordance with Article 7 of A201–2017, as they refer to “cost” and “fee,” and not by Articles 6 and 7 of this Agreement. Adjustments to subcontracts awarded with the Owner’s prior written consent on the basis of cost plus a fee shall be calculated in accordance with the terms of those subcontracts.

§ 6.3.4 In calculating adjustments to the Guaranteed Maximum Price, the terms “cost” and “costs” as used in Article 7 of AIA Document A201–2017 shall mean the Cost of the Work as defined in Article 7 of this Agreement and the term “fee” shall mean the Construction Manager’s Fee as defined in Section 6.1.2 of this Agreement.

§ 6.3.5 If no specific provision is made in Section 6.1.3 for adjustment of the Construction Manager’s Fee in the case of changes in the Work, or if the extent of such changes is such, in the aggregate, that application of the adjustment provisions of Section 6.1.3 will cause substantial inequity to the Owner or Construction Manager, the Construction Manager’s Fee shall be equitably adjusted on the same basis that was used to establish the Fee for the original Work, and the Guaranteed Maximum Price shall be adjusted accordingly.

ARTICLE 7 COST OF THE WORK FOR CONSTRUCTION PHASE

§ 7.1 Costs to Be Reimbursed

§ 7.1.1 The term Cost of the Work shall mean costs necessarily incurred by the Construction Manager in the proper performance of the Work. The Cost of the Work shall include only the items set forth in Sections 7.1 through 7.7.

§ 7.1.2 Where, pursuant to the Contract Documents, any cost is subject to the Owner’s prior approval, the Construction Manager shall obtain such approval in writing prior to incurring the cost.

§ 7.1.3 Costs shall be at rates not higher than the standard rates paid at the place of the Project, ~~except with prior approval of the Owner.~~

§ 7.2 Labor Costs

§ 7.2.1 Wages or salaries of construction workers directly employed by the Construction Manager to perform the construction of the Work at the site or, with the Owner’s prior approval, at off-site workshops.

§ 7.2.2 Wages or salaries of the Construction Manager’s supervisory and administrative personnel when stationed at the site and performing Work, with the Owner’s prior approval.

§ 7.2.2.1 Wages or salaries of the Construction Manager's supervisory and administrative personnel when performing Work and stationed at a location other than the site, but only for that portion of time required for the Work, and limited to the personnel and activities listed below:

(Identify the personnel, type of activity and, if applicable, any agreed upon percentage of time to be devoted to the Work.)

« »

§ 7.2.3 Wages and salaries of the Construction Manager's supervisory or administrative personnel engaged at factories, workshops or while traveling, in expediting the production or transportation of materials or equipment required for the Work, but only for that portion of their time required for the Work.

§ 7.2.4 Costs paid or incurred by the Construction Manager, as required by law or collective bargaining agreements, for taxes, insurance, contributions, assessments and benefits and, for personnel not covered by collective bargaining agreements, customary benefits such as sick leave, medical and health benefits, holidays, vacations and pensions, provided such costs are based on wages and salaries included in the Cost of the Work under Sections 7.2.1 through 7.2.3.

§ 7.2.5 If agreed rates for labor costs, in lieu of actual costs, are provided in this Agreement, the rates shall remain unchanged throughout the duration of this Agreement, unless the parties execute a Modification.

§ 7.3 Subcontract Costs

Payments made by the Construction Manager to Subcontractors in accordance with the requirements of the subcontracts and this Agreement.

§ 7.4 Costs of Materials and Equipment Incorporated in the Completed Construction

§ 7.4.1 Costs, including transportation and storage at the site, of materials and equipment incorporated, or to be incorporated, in the completed construction.

§ 7.4.2 Costs of materials described in the preceding Section 7.4.1 in excess of those actually installed to allow for reasonable waste and spoilage. Unused excess materials, if any, shall become the Owner's property at the completion of the Work or, at the Owner's option, shall be sold by the Construction Manager. Any amounts realized from such sales shall be credited to the Owner as a deduction from the Cost of the Work.

§ 7.5 Costs of Other Materials and Equipment, Temporary Facilities and Related Items

§ 7.5.1 Costs of transportation, storage, installation, dismantling, maintenance, and removal of materials, supplies, temporary facilities, machinery, equipment and hand tools not customarily owned by construction workers that are provided by the Construction Manager at the site and fully consumed in the performance of the Work. Costs of materials, supplies, temporary facilities, machinery, equipment, and tools, that are not fully consumed, shall be based on the cost or value of the item at the time it is first used on the Project site less the value of the item when it is no longer used at the Project site. Costs for items not fully consumed by the Construction Manager shall mean fair market value.

§ 7.5.2 Rental charges for temporary facilities, machinery, equipment, and hand tools not customarily owned by construction workers that are provided by the Construction Manager at the site, and the costs of transportation, installation, dismantling, minor repairs, and removal of such temporary facilities, machinery, equipment, and hand tools. Rates and quantities of equipment owned by the Construction Manager, or a related party as defined in Section 7.8, shall be subject to the Owner's prior approval. The total rental cost of any such equipment may not exceed the purchase price of any comparable item.

§ 7.5.3 Costs of removal of debris from the site of the Work and its proper and legal disposal.

§ 7.5.4 Costs of the Construction Manager's site office, including general office equipment and supplies.

§ 7.5.5 Costs of materials and equipment suitably stored off the site at a mutually acceptable location, subject to the Owner's prior **written** approval.

§ 7.6 Miscellaneous Costs

§ 7.6.1 Premiums for that portion of insurance and bonds required by the Contract Documents that can be directly attributed to this Contract.

§ 7.6.1.1 Costs for self-insurance, for either full or partial amounts of the coverages required by the Contract Documents, with the Owner's prior **written** approval.

§ 7.6.1.2 Costs for insurance through a captive insurer owned or controlled by the Construction Manager, with the Owner's prior **written** approval.

§ 7.6.2 Sales, use, or similar taxes, imposed by a governmental authority, that are related to the Work and for which the Construction Manager is liable.

§ 7.6.3 Fees and assessments for the building permit, and for other permits, licenses, and inspections, for which the Construction Manager is required by the Contract Documents to pay.

§ 7.6.4 Fees of laboratories for tests required by the Contract Documents; except those related to defective or nonconforming Work for which reimbursement is excluded under Article 13 of AIA Document A201–2017 or by other provisions of the Contract Documents, and which do not fall within the scope of Section 7.7.3.

§ 7.6.5 Royalties and license fees paid for the use of a particular design, process, or product, required by the Contract Documents.

§ 7.6.5.1 The cost of defending suits or claims for infringement of patent rights arising from requirements of the Contract Documents, payments made in accordance with legal judgments against the Construction Manager resulting from such suits or claims, and payments of settlements made with the Owner's consent, unless the Construction Manager had reason to believe that the required design, process, or product was an infringement of a copyright or a patent, and the Construction Manager failed to promptly furnish such information to the Architect as required by Article 3 of AIA Document A201–2017. The costs of legal defenses, judgments, and settlements shall not be included in the Cost of the Work used to calculate the Construction Manager's Fee or subject to the Guaranteed Maximum Price.

§ 7.6.6 Costs for communications services, electronic equipment, and software, directly related to the Work and located at the site, with the Owner's prior **written** approval.

§ 7.6.7 Costs of document reproductions and delivery charges.

§ 7.6.8 Deposits lost for causes other than the Construction Manager's negligence or failure to fulfill a specific responsibility in the Contract Documents.

§ 7.6.9 Legal, mediation and arbitration costs, including attorneys' fees, other than those arising from disputes between the Owner and Construction Manager, reasonably incurred by the Construction Manager after the execution of this Agreement in the performance of the Work and with the Owner's prior **written** approval, which shall not be unreasonably withheld.

§ 7.6.10 Expenses incurred in accordance with the Construction Manager's standard written personnel policy for relocation and temporary living allowances of the Construction Manager's personnel required for the Work, with the Owner's prior **written** approval.

§ 7.6.11 That portion of the reasonable expenses of the Construction Manager's supervisory or administrative personnel incurred while traveling in discharge of duties connected with the Work.

§ 7.7 Other Costs and Emergencies

§ 7.7.1 Other costs incurred in the performance of the Work, with the Owner's prior **written** approval.

§ 7.7.2 Costs incurred in taking action to prevent threatened damage, injury, or loss, in case of an emergency affecting the safety of persons and property, as provided in Article 10 of AIA Document A201–2017.

§ 7.7.3 Costs of repairing or correcting damaged or nonconforming Work executed by the Construction Manager, Subcontractors, or suppliers, provided that such damaged or nonconforming Work was not caused by the negligence of,

or failure to fulfill a specific responsibility by, the Construction Manager, and only to the extent that the cost of repair or correction is not recovered by the Construction Manager from insurance, sureties, Subcontractors, suppliers, or others.

§ 7.7.4 The costs described in Sections 7.1 through 7.7 shall be included in the Cost of the Work, notwithstanding any provision of AIA Document A201–2017 or other Conditions of the Contract which may require the Construction Manager to pay such costs, unless such costs are excluded by the provisions of Section 7.9.

§ 7.8 Related Party Transactions

§ 7.8.1 For purposes of this Section 7.8, the term “related party” shall mean (1) a parent, subsidiary, affiliate, or other entity having common ownership of, or sharing common management with, the Construction Manager; (2) any entity in which any stockholder in, or management employee of, the Construction Manager holds an equity interest in excess of ten percent in the aggregate; (3) any entity which has the right to control the business or affairs of the Construction Manager; or (4) any person, or any member of the immediate family of any person, who has the right to control the business or affairs of the Construction Manager.

§ 7.8.2 If any of the costs to be reimbursed arise from a transaction between the Construction Manager and a related party, the Construction Manager shall notify the Owner of the specific nature of the contemplated transaction, including the identity of the related party and the anticipated cost to be incurred, before any such transaction is consummated or cost incurred. If the Owner, after such notification, authorizes the proposed transaction in writing, then the cost incurred shall be included as a cost to be reimbursed, and the Construction Manager shall procure the Work, equipment, goods, or service, from the related party, as a Subcontractor, according to the terms of Article 9. If the Owner fails to authorize the transaction in writing, the Construction Manager shall procure the Work, equipment, goods, or service from some person or entity other than a related party according to the terms of Article 9.

§ 7.9 Costs Not To Be Reimbursed

§ 7.9.1 The Cost of the Work shall not include the items listed below:

- .1 Salaries and other compensation of the Construction Manager’s personnel stationed at the Construction Manager’s principal office or offices other than the site office, except as specifically provided in Section 7.2, or as may be provided in Article 14;
- .2 Bonuses, profit sharing, incentive compensation, and any other discretionary payments, paid to anyone hired by the Construction Manager or paid to any Subcontractor or vendor, unless the Owner has provided prior written approval;
- .3 Expenses of the Construction Manager’s principal office and offices other than the site office;
- .4 Overhead and general expenses, except as may be expressly included in Sections 7.1 to 7.7;
- .5 The Construction Manager’s capital expenses, including interest on the Construction Manager’s capital employed for the Work;
- .6 Except as provided in Section 7.7.3 of this Agreement, costs due to the negligence of, or failure to fulfill a specific responsibility of the Contract by, the Construction Manager, Subcontractors, and suppliers, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable;
- .7 Any cost not specifically and expressly described in Sections 7.1 to 7.7;
- .8 Costs, other than costs included in Change Orders approved by the Owner, that would cause the Guaranteed Maximum Price to be exceeded; and
- .9 Costs for services incurred during the Preconstruction Phase.

ARTICLE 8 DISCOUNTS, REBATES, AND REFUNDS

§ 8.1 Cash discounts obtained on payments made by the Construction Manager shall accrue to the Owner if (1) before making the payment, the Construction Manager included the amount to be paid, less such discount, in an Application for Payment and received payment from the Owner, or (2) the Owner has deposited funds with the Construction Manager with which to make payments; otherwise, cash discounts shall accrue to the Construction Manager. Trade discounts, rebates, refunds, and amounts received from sales of surplus materials and equipment shall accrue to the Owner, and the Construction Manager shall make provisions so that they can be obtained.

§ 8.2 Amounts that accrue to the Owner in accordance with the provisions of Section 8.1 shall be credited to the Owner as a deduction from the Cost of the Work.

ARTICLE 9 SUBCONTRACTS AND OTHER AGREEMENTS

§ 9.1 Those portions of the Work that the Construction Manager does not customarily perform with the Construction Manager’s own personnel shall be performed under subcontracts or other appropriate agreements with the Construction

Manager. The Owner may designate specific persons from whom, or entities from which, the Construction Manager shall obtain bids. The Construction Manager shall obtain bids from Subcontractors, and from suppliers of materials or equipment fabricated especially for the Work, who are qualified to perform that portion of the Work in accordance with the requirements of the Contract Documents. The Construction Manager shall deliver such bids to the Architect and Owner with an indication as to which bids the Construction Manager intends to accept. The Owner then has the right to review the Construction Manager's list of proposed subcontractors and suppliers in consultation with the Architect and, object to any subcontractor or supplier **in the Owner's sole and absolute discretion and for whatever reason**. Any advice of the Architect, or approval or objection by the Owner, shall not relieve the Construction Manager of its responsibility to perform the Work in accordance with the Contract Documents. The Construction Manager shall not be required to contract with anyone to whom the Construction Manager has reasonable objection.

§ 9.2 Subcontracts or other agreements shall conform to the applicable payment provisions of this Agreement, and shall not be awarded on the basis of cost plus a fee without the Owner's prior written approval. If a subcontract is awarded on the basis of cost plus a fee, the Construction Manager shall provide in the subcontract for the Owner to receive the same audit rights with regard to the Subcontractor as the Owner receives with regard to the Construction Manager in Article 10.

ARTICLE 10 ACCOUNTING RECORDS

The Construction Manager shall keep full and detailed records and accounts related to the Cost of the Work, and exercise such controls, as may be necessary for proper financial management under this Contract and to substantiate all costs incurred. The accounting and control systems shall be satisfactory to the Owner. The Owner and the Owner's auditors shall, during regular business hours and upon reasonable notice, be afforded access to, and shall be permitted to audit and copy, the Construction Manager's records and accounts, including complete documentation supporting accounting entries, books, job cost reports, correspondence, instructions, drawings, receipts, subcontracts, Subcontractor's proposals, Subcontractor's invoices, purchase orders, vouchers, memoranda, and other data relating to this Contract. The Construction Manager shall preserve these records for a period of three years after final payment, or for such longer period as may be required by law.

ARTICLE 11 PAYMENTS FOR CONSTRUCTION PHASE SERVICES

§ 11.1 Progress Payments

§ 11.1.1 Based upon Applications for Payment submitted to the Architect by the Construction Manager, and Certificates for Payment issued by the Architect, the Owner shall make progress payments on account of the Contract Sum, to the Construction Manager, as provided below and elsewhere in the Contract Documents.

§ 11.1.2 The period covered by each Application for Payment shall be one calendar month ending on the last day of the month, or as follows:

« »

§ 11.1.3 Provided that an Application for Payment is received by the Architect not later than the « » day of a month, the Owner shall make payment of the amount certified to the Construction Manager not later than the « » day of the « » month. If an Application for Payment is received by the Architect after the application date fixed above, payment of the amount certified shall be made by the Owner not later than « » (« ») days after the Architect receives the Application for Payment.

(Federal, state or local laws may require payment within a certain period of time.)

§ 11.1.4 With each Application for Payment, the Construction Manager shall submit payrolls, petty cash accounts, receipted invoices or invoices with check vouchers attached, and any other evidence required by the Owner or Architect to demonstrate that payments already made by the Construction Manager on account of the Cost of the Work equal or exceed progress payments already received by the Construction Manager, plus payrolls for the period covered by the present Application for Payment, less that portion of the progress payments attributable to the Construction Manager's Fee.

§ 11.1.5 Each Application for Payment shall be based on the most recent schedule of values submitted by the Construction Manager in accordance with the Contract Documents. The schedule of values shall allocate the entire Guaranteed Maximum Price among: (1) the various portions of the Work; (2) any contingency for costs that are included in the Guaranteed Maximum Price but not otherwise allocated to another line item or included in a Change Order; and (3) the Construction Manager's Fee.

§ 11.1.5.1 The schedule of values shall be prepared in such form and supported by such data to substantiate its accuracy as the Architect may require. The schedule of values shall be used as a basis for reviewing the Construction Manager's Applications for Payment.

§ 11.1.5.2 The allocation of the Guaranteed Maximum Price under this Section 11.1.5 shall not constitute a separate guaranteed maximum price for the Cost of the Work of each individual line item in the schedule of values.

§ 11.1.5.3 When the Construction Manager allocates costs from a contingency to another line item in the schedule of values, the Construction Manager shall submit supporting documentation to the Architect.

§ 11.1.6 Applications for Payment shall show the percentage of completion of each portion of the Work as of the end of the period covered by the Application for Payment. The percentage of completion shall be the lesser of (1) the percentage of that portion of the Work which has actually been completed, or (2) the percentage obtained by dividing (a) the expense that has actually been incurred by the Construction Manager on account of that portion of the Work and for which the Construction Manager has made payment or intends to make payment prior to the next Application for Payment, by (b) the share of the Guaranteed Maximum Price allocated to that portion of the Work in the schedule of values.

§ 11.1.7 In accordance with AIA Document A201–2017 and subject to other provisions of the Contract Documents, the amount of each progress payment shall be computed as follows:

§ 11.1.7.1 The amount of each progress payment shall first include:

- .1 That portion of the Guaranteed Maximum Price properly allocable to completed Work as determined by multiplying the percentage of completion of each portion of the Work by the share of the Guaranteed Maximum Price allocated to that portion of the Work in the most recent schedule of values;
- .2 That portion of the Guaranteed Maximum Price properly allocable to materials and equipment delivered and suitably stored at the site for subsequent incorporation in the completed construction or, if approved in writing in advance by the Owner, suitably stored off the site at a location agreed upon in writing;
- .3 That portion of Construction Change Directives that the Architect determines, in the Architect's professional judgment, to be reasonably justified; and
- .4 The Construction Manager's Fee, computed upon the Cost of the Work described in the preceding Sections 11.1.7.1.1 and 11.1.7.1.2 at the rate stated in Section 6.1.2 or, if the Construction Manager's Fee is stated as a fixed sum in that Section, an amount that bears the same ratio to that fixed-sum fee as the Cost of the Work included in Sections 11.1.7.1.1 and 11.1.7.1.2 bears to a reasonable estimate of the probable Cost of the Work upon its completion.

§ 11.1.7.2 The amount of each progress payment shall then be reduced by:

- .1 The aggregate of any amounts previously paid by the Owner;
- .2 The amount, if any, for Work that remains uncorrected and for which the Architect has previously withheld a Certificate for Payment as provided in Article 9 of AIA Document A201–2017;
- .3 Any amount for which the Construction Manager does not intend to pay a Subcontractor or material supplier, unless the Work has been performed by others the Construction Manager intends to pay;
- .4 For Work performed or defects discovered since the last payment application, any amount for which the Architect may withhold payment, or nullify a Certificate of Payment in whole or in part, as provided in Article 9 of AIA Document A201–2017;
- .5 The shortfall, if any, indicated by the Construction Manager in the documentation required by Section 11.1.4 to substantiate prior Applications for Payment, or resulting from errors subsequently discovered by the Owner's auditors in such documentation; and
- .6 Retainage withheld pursuant to Section 11.1.8.

§ 11.1.8 Retainage

§ 11.1.8.1 For each progress payment made prior to Substantial Completion of the Work, the Owner may withhold the following amount, as retainage, from the payment otherwise due:

(Insert a percentage or amount to be withheld as retainage from each Application for Payment. The amount of retainage may be limited by governing law.)

« »

§ 11.1.8.1.1 The following items are not subject to retainage:
(Insert any items not subject to the withholding of retainage, such as general conditions, insurance, etc.)

« »

§ 11.1.8.2 Reduction or limitation of retainage, if any, shall be as follows:
(If the retainage established in Section 11.1.8.1 is to be modified prior to Substantial Completion of the entire Work, insert provisions for such modification.)

« »

§ 11.1.8.3 Except as set forth in this Section 11.1.8.3, upon Substantial Completion of the Work, the Construction Manager may submit an Application for Payment that includes the retainage withheld from prior Applications for Payment pursuant to this Section 11.1.8. The Application for Payment submitted at Substantial Completion shall not include retainage as follows:
(Insert any other conditions for release of retainage, such as upon completion of the Owner's audit and reconciliation, upon Substantial Completion.)

« »

§ 11.1.9 If final completion of the Work is materially delayed through no fault of the Construction Manager, the Owner shall pay the Construction Manager any additional amounts in accordance with Article 9 of AIA Document A201–2017.

§ 11.1.10 Except with the Owner's prior written approval, the Construction Manager shall not make advance payments to suppliers for materials or equipment which have not been delivered and suitably stored at the site.

§ 11.1.11 The Owner and the Construction Manager shall agree upon a mutually acceptable procedure for review and approval of payments to Subcontractors, and the percentage of retainage held on Subcontracts, and the Construction Manager shall execute subcontracts in accordance with those agreements.

§ 11.1.12 In taking action on the Construction Manager's Applications for Payment the Architect shall be entitled to rely on the accuracy and completeness of the information furnished by the Construction Manager, and such action shall not be deemed to be a representation that (1) the Architect has made a detailed examination, audit, or arithmetic verification, of the documentation submitted in accordance with Section 11.1.4 or other supporting data; (2) that the Architect has made exhaustive or continuous on-site inspections; or (3) that the Architect has made examinations to ascertain how or for what purposes the Construction Manager has used amounts previously paid on account of the Contract. Such examinations, audits, and verifications, if required by the Owner, will be performed by the Owner's auditors acting in the sole interest of the Owner.

§ 11.2 Final Payment

§ 11.2.1 Final payment, constituting the entire unpaid balance of the Contract Sum, shall be made by the Owner to the Construction Manager when

- .1 the Construction Manager has fully performed the Contract, except for the Construction Manager's responsibility to correct Work as provided in Article 12 of AIA Document A201–2017, and to satisfy other requirements, if any, which extend beyond final payment;
- .2 the Construction Manager has submitted a final accounting for the Cost of the Work and a final Application for Payment; and
- .3 a final Certificate for Payment has been issued by the Architect in accordance with Section 11.2.2.2.

§ 11.2.2 Within 30 days of the Owner's receipt of the Construction Manager's final accounting for the Cost of the Work, the Owner shall conduct an audit of the Cost of the Work or notify the Architect that it will not conduct an audit.

§ 11.2.2.1 If the Owner conducts an audit of the Cost of the Work, the Owner shall, within 10 days after completion of the audit, submit a written report based upon the auditors' findings to the Architect.

§ 11.2.2.2 Within seven days after receipt of the written report described in Section 11.2.2.1, or receipt of notice that the Owner will not conduct an audit, and provided that the other conditions of Section 11.2.1 have been met, the Architect will either issue to the Owner a final Certificate for Payment with a copy to the Construction Manager, or notify the

Construction Manager and Owner in writing of the Architect's reasons for withholding a certificate as provided in Article 9 of AIA Document A201–2017. The time periods stated in this Section 11.2.2 supersede those stated in Article 9 of AIA Document A201–2017. The Architect is not responsible for verifying the accuracy of the Construction Manager's final accounting.

§ 11.2.2.3 If the Owner's auditors' report concludes that the Cost of the Work, as substantiated by the Construction Manager's final accounting, is less than claimed by the Construction Manager, the Construction Manager shall be entitled to request mediation of the disputed amount without seeking an initial decision pursuant to Article 15 of AIA Document A201–2017. A request for mediation shall be made by the Construction Manager within 30 days after the Construction Manager's receipt of a copy of the Architect's final Certificate for Payment. **Construction Manager agrees, understands, and acknowledges that Construction Managers'** failure to request mediation within this 30-day period shall result in the substantiated amount reported by the Owner's auditors becoming binding on the Construction Manager. Pending a final resolution of the disputed amount, the Owner shall pay the Construction Manager the amount certified in the Architect's final Certificate for Payment.

§ 11.2.3 The Owner's final payment to the Construction Manager shall be made no later than 30 days after the issuance of the Architect's final Certificate for Payment, or as follows:

« »

§ 11.2.4 If, subsequent to final payment, and at the Owner's request, the Construction Manager incurs costs, described in Sections 7.1 through 7.7, and not excluded by Section 7.9, to correct defective or nonconforming Work, the Owner shall reimburse the Construction Manager for such costs, and the Construction Manager's Fee applicable thereto, on the same basis as if such costs had been incurred prior to final payment, but not in excess of the Guaranteed Maximum Price. If adjustments to the Contract Sum are provided for in Section 6.1.7, the amount of those adjustments shall be recalculated, taking into account any reimbursements made pursuant to this Section 11.2.4 in determining the net amount to be paid by the Owner to the Construction Manager.

§ 11.3 Interest

Payments due and unpaid under the Contract shall bear interest from the date payment is due at the rate stated below, or in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located.

(Insert rate of interest agreed upon, if any.)

« » % « »

ARTICLE 12 DISPUTE RESOLUTION

§ 12.1 Initial Decision Maker

§ 12.1.1 Any Claim between the Owner and Construction Manager shall be resolved in accordance with the provisions set forth in this Article 12 and Article 15 of A201–2017. However, for Claims arising from or relating to the Construction Manager's Preconstruction Phase services, no decision by the Initial Decision Maker shall be required as a condition precedent to mediation or binding dispute resolution, and Section 12.1.2 of this Agreement shall not apply.

§ 12.1.2 The Architect will serve as the Initial Decision Maker pursuant to Article 15 of AIA Document A201–2017 for Claims arising from or relating to the Construction Manager's Construction Phase services, unless the parties **mutually agree to** appoint below another individual, not a party to the Agreement, to serve as the Initial Decision Maker.

(If the parties mutually agree, insert the name, address and other contact information of the Initial Decision Maker, if other than the Architect.)

« »

« »

« »

« »

§ 12.2 Binding Dispute Resolution

For any Claim subject to, but not resolved by mediation pursuant to Article 15 of AIA Document A201–2017, the method of binding dispute resolution shall be as follows:

(Check the appropriate box.)

[« »] Litigation in a court of competent jurisdiction

[« »] Other: *(Specify)*

« »

If the Owner and Construction Manager do not select a method of binding dispute resolution, or do not subsequently agree in writing to a binding dispute resolution method other than litigation, Claims will be resolved by litigation in a court of competent jurisdiction.

ARTICLE 13 TERMINATION OR SUSPENSION

§ 13.1 Termination Prior to Execution of the Guaranteed Maximum Price Amendment

§ 13.1.1 If the Owner and the Construction Manager do not reach an agreement on the Guaranteed Maximum Price, the Owner may terminate this Agreement upon not less than seven days' written notice to the Construction Manager, and the Construction Manager may terminate this Agreement, upon not less than seven days' written notice to the Owner.

§ 13.1.2 In the event of termination of this Agreement pursuant to Section 13.1.1, the Construction Manager shall be compensated for Preconstruction Phase services and Work performed prior to receipt of a notice of termination, in accordance with the terms of this Agreement. In no event shall the Construction Manager's compensation under this Section exceed the compensation set forth in Section 5.1.

§ 13.1.3 Prior to the execution of the Guaranteed Maximum Price Amendment, the Owner may terminate this Agreement upon not less than seven days' written notice to the Construction Manager for the Owner's convenience and without cause, and the Construction Manager may terminate this Agreement, upon not less than seven days' written notice to the Owner, for the reasons set forth in Article 14 of A201–2017.

§ 13.1.4 In the event of termination of this Agreement pursuant to Section 13.1.3, the Construction Manager shall be equitably compensated for Preconstruction Phase services and Work performed prior to receipt of a notice of termination. In no event shall the Construction Manager's compensation under this Section exceed the compensation set forth in Section 5.1.

§ 13.1.5 If the Owner terminates the Contract pursuant to Section 13.1.3 after the commencement of the Construction Phase but prior to the execution of the Guaranteed Maximum Price Amendment, the Owner shall pay to the Construction Manager an amount calculated as follows, which amount shall be in addition to any compensation paid to the Construction Manager under Section 13.1.4:

- .1 Take the Cost of the Work incurred by the Construction Manager to the date of termination;
- .2 Add the Construction Manager's Fee computed upon the Cost of the Work to the date of termination at the rate stated in Section 6.1 or, if the Construction Manager's Fee is stated as a fixed sum in that Section, an amount that bears the same ratio to that fixed-sum Fee as the Cost of the Work at the time of termination bears to a reasonable estimate of the probable Cost of the Work upon its completion; and
- .3 Subtract the aggregate of previous payments made by the Owner for Construction Phase services.

§ 13.1.6 The Owner shall also pay the Construction Manager fair compensation, either by purchase or rental at the election of the Owner, for any equipment owned by the Construction Manager that the Owner elects to retain and that is not otherwise included in the Cost of the Work under Section 13.1.5.1. To the extent that the Owner elects to take legal assignment of subcontracts and purchase orders (including rental agreements), the Construction Manager shall, as a condition of receiving the payments referred to in this Article 13, execute and deliver all such papers and take all such steps, including the legal assignment of such subcontracts and other contractual rights of the Construction Manager, as the Owner may require for the purpose of fully vesting in the Owner the rights and benefits of the Construction Manager under such subcontracts or purchase orders. All Subcontracts, purchase orders and rental agreements entered into by the Construction Manager will contain provisions allowing for assignment to the Owner as described above.

§ 13.1.6.1 If the Owner accepts assignment of subcontracts, purchase orders or rental agreements as described above, the Owner will reimburse or indemnify the Construction Manager for all costs arising under the subcontract, purchase order or rental agreement, if those costs would have been reimbursable as Cost of the Work if the contract had not been terminated. If the Owner chooses not to accept assignment of any subcontract, purchase order or rental agreement that would have constituted a Cost of the Work had this agreement not been terminated, the Construction Manager will

terminate the subcontract, purchase order or rental agreement and the Owner will pay the Construction Manager the costs necessarily incurred by the Construction Manager because of such termination.

§ 13.2 Termination or Suspension Following Execution of the Guaranteed Maximum Price Amendment

§ 13.2.1 Termination

The Contract may be terminated by the Owner or the Construction Manager as provided in Article 14 of AIA Document A201–2017.

§ 13.2.2 Termination by the Owner for Cause

§ 13.2.2.1 If the Owner terminates the Contract for cause as provided in Article 14 of AIA Document A201–2017, the amount, if any, to be paid to the Construction Manager under Article 14 of AIA Document A201–2017 shall not cause the Guaranteed Maximum Price to be exceeded, nor shall it exceed an amount calculated as follows:

- .1 Take the Cost of the Work incurred by the Construction Manager to the date of termination;
- .2 Add the Construction Manager's Fee, computed upon the Cost of the Work to the date of termination at the rate stated in Section 6.1 or, if the Construction Manager's Fee is stated as a fixed sum in that Section, an amount that bears the same ratio to that fixed-sum Fee as the Cost of the Work at the time of termination bears to a reasonable estimate of the probable Cost of the Work upon its completion;
- .3 Subtract the aggregate of previous payments made by the Owner; and
- .4 Subtract the costs and damages incurred, or to be incurred, by the Owner under Article 14 of AIA Document A201–2017.

§ 13.2.2.2 The Owner shall also pay the Construction Manager fair compensation, either by purchase or rental at the election of the Owner, for any equipment owned by the Construction Manager that the Owner elects to retain and that is not otherwise included in the Cost of the Work under Section 13.2.2.1.1. To the extent that the Owner elects to take legal assignment of subcontracts and purchase orders (including rental agreements), the Construction Manager shall, as a condition of receiving the payments referred to in this Article 13, execute and deliver all such papers and take all such steps, including the legal assignment of such subcontracts and other contractual rights of the Construction Manager, as the Owner may require for the purpose of fully vesting in the Owner the rights and benefits of the Construction Manager under such subcontracts or purchase orders.

§ 13.2.3 Termination by the Owner for Convenience

If the Owner terminates the Contract for convenience in accordance with Article 14 of AIA Document A201–2017, then the Owner shall pay the Construction Manager a termination fee as follows:

(Insert the amount of or method for determining the fee, if any, payable to the Construction Manager following a termination for the Owner's convenience.)

« »

§ 13.3 Suspension

The Work may be suspended by the Owner as provided in Article 14 of AIA Document A201–2017; in such case, the Guaranteed Maximum Price and Contract Time shall be increased as provided in Article 14 of AIA Document A201–2017, except that the term “profit” shall be understood to mean the Construction Manager's Fee as described in Sections 6.1 and 6.3.5 of this Agreement.

ARTICLE 14 MISCELLANEOUS PROVISIONS

§ 14.1 Terms in this Agreement shall have the same meaning as those in A201–2017. Where reference is made in this Agreement to a provision of AIA Document A201–2017 or another Contract Document, the reference refers to that provision as amended or supplemented by other provisions of the Contract Documents.

§ 14.2 Successors and Assigns

§ 14.2.1 The Owner and Construction Manager, respectively, bind themselves, their partners, successors, assigns and legal representatives to covenants, agreements, and obligations contained in the Contract Documents. Except as provided in Section 14.2.2 of this Agreement, and in Section 13.2.2 of A201–2017, neither party to the Contract shall assign the Contract as a whole without written consent of the other. If either party attempts to make an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations under the Contract.

§ 14.2.2 The Owner may, without consent of the Construction Manager, assign the Contract to a lender providing construction financing for the Project, if the lender assumes the Owner's rights and obligations under the Contract Documents. The Construction Manager shall execute all consents reasonably required to facilitate the assignment.

§ 14.3 Insurance and Bonds

§ 14.3.1 Preconstruction Phase

The Construction Manager shall maintain the following insurance for the duration of the Preconstruction Services performed under this Agreement. If any of the requirements set forth below exceed the types and limits the Construction Manager normally maintains, the Owner shall reimburse the Construction Manager for any additional cost.

§ 14.3.1.1 Commercial General Liability with policy limits of not less than « » (\$ « ») for each occurrence and « » (\$ « ») in the aggregate for bodily injury and property damage.

§ 14.3.1.2 Automobile Liability covering vehicles owned, and non-owned vehicles used, by the Construction Manager with policy limits of not less than « » (\$ « ») per accident for bodily injury, death of any person, and property damage arising out of the ownership, maintenance and use of those motor vehicles, along with any other statutorily required automobile coverage.

§ 14.3.1.3 The Construction Manager may achieve the required limits and coverage for Commercial General Liability and Automobile Liability through a combination of primary and excess or umbrella liability insurance, provided that such primary and excess or umbrella liability insurance policies result in the same or greater coverage as the coverages required under Sections 14.3.1.1 and 14.3.1.2, and in no event shall any excess or umbrella liability insurance provide narrower coverage than the primary policy. The excess policy shall not require the exhaustion of the underlying limits only through the actual payment by the underlying insurers.

§ 14.3.1.4 Workers' Compensation at statutory limits and Employers Liability with policy limits not less than « » (\$ « ») each accident, « » (\$ « ») each employee, and « » (\$ « ») policy limit.

§ 14.3.1.5 Professional Liability covering negligent acts, errors and omissions in the performance of professional services, with policy limits of not less than « » (\$ « ») per claim and « » (\$ « ») in the aggregate.

§ 14.3.1.6 Other Insurance

(List below any other insurance coverage to be provided by the Construction Manager and any applicable limits.)

Coverage	Limits
----------	--------

§ 14.3.1.7 **Additional Insured Obligations.** To the fullest extent permitted by law, the Construction Manager shall cause the primary and excess or umbrella policies for Commercial General Liability and Automobile Liability to include the Owner as an additional insured for claims caused in whole or in part by the Construction Manager's negligent acts or omissions. The additional insured coverage shall be primary and non-contributory to any of the Owner's insurance policies and shall apply to both ongoing and completed operations.

§ 14.3.1.8 The Construction Manager shall provide certificates of insurance to the Owner that evidence compliance with the requirements in this Section 14.3.1.

§ 14.3.2 Construction Phase

After execution of the Guaranteed Maximum Price Amendment, the Owner and the Construction Manager shall purchase and maintain insurance as set forth in AIA Document A133™-2019, Standard Form of Agreement Between Owner and Construction Manager as Constructor where the basis of payment is the Cost of the Work Plus a Fee with a Guaranteed Maximum Price, Exhibit B, Insurance and Bonds, and elsewhere in the Contract Documents.

§ 14.3.2.1 The Construction Manager shall provide bonds as set forth in AIA Document A133™-2019 Exhibit B, and elsewhere in the Contract Documents.

§ 14.4 Notice in electronic format, pursuant to Article 1 of AIA Document A201-2017, may be given in accordance with AIA Document E203™-2013, Building Information Modeling and Digital Data Exhibit, if completed, or as otherwise set forth below:

(If other than in accordance with AIA Document E203–2013, insert requirements for delivering notice in electronic format such as name, title, and email address of the recipient and whether and how the system will be required to generate a read receipt for the transmission.)

« »

§ 14.5 Other provisions:

« »

ARTICLE 15 SCOPE OF THE AGREEMENT

§ 15.1 This Agreement represents the entire and integrated agreement between the Owner and the Construction Manager and supersedes all prior negotiations, representations or agreements, either written or oral. This Agreement may be amended only by written instrument signed by both Owner and Construction Manager.

§ 15.2 The following documents comprise the Agreement:

- .1 AIA Document A133™–2019, Standard Form of Agreement Between Owner and Construction Manager as Constructor where the basis of payment is the Cost of the Work Plus a Fee with a Guaranteed Maximum Price
- .2 AIA Document A133™–2019, Exhibit A, Guaranteed Maximum Price Amendment, if executed
- .3 AIA Document A133™–2019, Exhibit B, Insurance and Bonds
- .4 AIA Document A201™–2017, General Conditions of the Contract for Construction
- .5 AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, dated as indicated below:
(Insert the date of the E203-2013 incorporated into this Agreement.)

« »

- .6 Other Exhibits:
(Check all boxes that apply.)

[« »] AIA Document E234™–2019, Sustainable Projects Exhibit, Construction Manager as Constructor Edition, dated as indicated below:
(Insert the date of the E234-2019 incorporated into this Agreement.)

« »

[« »] Supplementary and other Conditions of the Contract:

Document	Title	Date	Pages
----------	-------	------	-------

- .7 Other documents, if any, listed below:
(List here any additional documents that are intended to form part of the Contract Documents. AIA Document A201–2017 provides that the advertisement or invitation to bid, Instructions to Bidders, sample forms, the Construction Manager's bid or proposal, portions of Addenda relating to bidding or proposal requirements, and other information furnished by the Owner in anticipation of receiving bids or proposals, are not part of the Contract Documents unless enumerated in this Agreement. Any such documents should be listed here only if intended to be part of the Contract Documents.)

« »

This Agreement is entered into as of the day and year first written above.

OWNER *(Signature)*

« »« »

(Printed name and title)

CONSTRUCTION MANAGER *(Signature)*

« »« »

(Printed name and title)



APPENDIX C
AIA® DOCUMENT A201® - 2017

DRAFT AIA® Document A201® – 2017

General Conditions of the Contract for Construction

for the following PROJECT:

(Name and location or address)

<< >>
<< >>

THE OWNER:

(Name, legal status and address)

<< >>< >>
<< >>

THE ARCHITECT:

(Name, legal status and address)

<< >>< >>
<< >>

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ADDITIONS AND DELETIONS:

The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

For guidance in modifying this document to include supplementary conditions, see AIA Document A503™, Guide for Supplementary Conditions.

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ARTICLE 1 GENERAL PROVISIONS

§ 1.1 Basic Definitions

§ 1.1.1 The Contract Documents

The Contract Documents are enumerated in the Agreement between the Owner and Contractor (hereinafter the Agreement) and consist of the Agreement, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, Addenda issued prior to execution of the Contract, other documents listed in the Agreement, and Modifications issued after execution of the Contract. A Modification is (1) a written amendment to the Contract signed by both parties, (2) a Change Order, (3) a Construction Change Directive, or (4) a written order for a minor change in the Work issued by the Architect. Unless specifically enumerated in the Agreement, the Contract Documents do not include the advertisement or invitation to bid, Instructions to Bidders, sample forms, other information furnished by the Owner in anticipation of receiving bids or proposals, the Contractor's bid or proposal, or portions of Addenda relating to bidding or proposal requirements.

§ 1.1.2 The Contract

The Contract Documents form the Contract for Construction. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations, or agreements, either written or oral. The Contract may be amended or modified only by a Modification. The Contract Documents shall not be construed to create a contractual relationship of any kind (1) between the Contractor and the Architect or the Architect's consultants, (2) between the Owner and a Subcontractor or a Sub-subcontractor, (3) between the Owner and the Architect or the Architect's consultants, or (4) between any persons or entities other than the Owner and the Contractor. The Architect shall, however, be entitled to performance and enforcement of obligations under the Contract intended to facilitate performance of the Architect's duties.

§ 1.1.3 The Work

The term "Work" means the construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment, and services provided or to be provided by the Contractor to fulfill the Contractor's obligations. The Work may constitute the whole or a part of the Project.

§ 1.1.4 The Project

The Project is the total construction of which the Work performed under the Contract Documents may be the whole or a part and which may include construction by the Owner and by Separate Contractors.

§ 1.1.5 The Drawings

The Drawings are the graphic and pictorial portions of the Contract Documents showing the design, location and dimensions of the Work, generally including plans, elevations, sections, details, schedules, and diagrams.

§ 1.1.6 The Specifications

The Specifications are that portion of the Contract Documents consisting of the written requirements for materials, equipment, systems, standards and workmanship for the Work, and performance of related services.

§ 1.1.7 Instruments of Service

Instruments of Service are representations, in any medium of expression now known or later developed, of the tangible and intangible creative work performed by the Architect and the Architect's consultants under their respective professional services agreements. Instruments of Service may include, without limitation, studies, surveys, models, sketches, drawings, specifications, and other similar materials.

§ 1.1.8 Initial Decision Maker

The Initial Decision Maker is the person identified in the Agreement to render initial decisions on Claims in accordance with Section 15.2. The Initial Decision Maker shall not show partiality to the Owner or Contractor and shall not be liable for results of interpretations or decisions rendered in good faith.

§ 1.2 Correlation and Intent of the Contract Documents

§ 1.2.1 The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all; performance by the Contractor shall be required only to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the indicated results.

§ 1.2.1.1 The invalidity of any provision of the Contract Documents shall not invalidate the Contract or its remaining provisions. If it is determined that any provision of the Contract Documents violates any law, or is otherwise invalid or unenforceable, then that provision shall be revised to the extent necessary to make that provision legal and enforceable. In such case the Contract Documents shall be construed, to the fullest extent permitted by law, to give effect to the parties' intentions and purposes in executing the Contract.

§ 1.2.2 Organization of the Specifications into divisions, sections and articles, and arrangement of Drawings shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade.

§ 1.2.3 Unless otherwise stated in the Contract Documents, words that have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings.

§ 1.3 Capitalization

Terms capitalized in these General Conditions include those that are (1) specifically defined, (2) the titles of numbered articles, or (3) the titles of other documents published by the American Institute of Architects.

§ 1.4 Interpretation

In the interest of brevity the Contract Documents frequently omit modifying words such as "all" and "any" and articles such as "the" and "an," but the fact that a modifier or an article is absent from one statement and appears in another is not intended to affect the interpretation of either statement.

§ 1.5 Ownership and Use of Drawings, Specifications, and Other Instruments of Service

§ 1.5.1 The Architect and the Architect's consultants shall be deemed the authors and owners of their respective Instruments of Service, including the Drawings and Specifications, and retain all common law, statutory, and other reserved rights in their Instruments of Service, including copyrights. The Contractor, Subcontractors, Sub-subcontractors, and suppliers shall not own or claim a copyright in the Instruments of Service. Submittal or distribution to meet official regulatory requirements or for other purposes in connection with the Project is not to be construed as publication in derogation of the Architect's or Architect's consultants' reserved rights.

§ 1.5.2 The Contractor, Subcontractors, Sub-subcontractors, and suppliers are authorized to use and reproduce the Instruments of Service provided to them, subject to any protocols established pursuant to Sections 1.7 and 1.8, solely and exclusively for execution of the Work. All copies made under this authorization shall bear the copyright notice, if any, shown on the Instruments of Service. The Contractor, Subcontractors, Sub-subcontractors, and suppliers may not use the Instruments of Service on other projects or for additions to the Project outside the scope of the Work without the specific written consent of the Owner, Architect, and the Architect's consultants.

§ 1.6 Notice

§ 1.6.1 Except as otherwise provided in Section 1.6.2, where the Contract Documents require one party to notify or give notice to the other party, such notice shall be provided in writing to the designated representative of the party to whom the notice is addressed and shall be deemed to have been duly served if delivered in person, by mail, by courier, or by electronic transmission if a method for electronic transmission is set forth in the Agreement.

§ 1.6.2 Notice of Claims as provided in Section 15.1.3 shall be provided in writing and shall be deemed to have been duly served only if delivered to the designated representative of the party to whom the notice is addressed by certified or registered mail, or by courier providing proof of delivery.

§ 1.7 Digital Data Use and Transmission

The parties shall agree upon protocols governing the transmission and use of Instruments of Service or any other information or documentation in digital form. The parties will use AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, to establish the protocols for the development, use, transmission, and exchange of digital data.

§ 1.8 Building Information Models Use and Reliance

Any use of, or reliance on, all or a portion of a building information model without agreement to protocols governing the use of, and reliance on, the information contained in the model and without having those protocols set forth in AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, and the requisite AIA Document G202™–2013, Project Building Information Modeling Protocol Form, shall be at the using or

relying party's sole risk and without liability to the other party and its contractors or consultants, the authors of, or contributors to, the building information model, and each of their agents and employees.

ARTICLE 2 OWNER

§ 2.1 General

§ 2.1.1 The Owner is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Owner shall designate in writing a representative who shall have express authority to bind the Owner with respect to all matters requiring the Owner's approval or authorization. Except as otherwise provided in Section 4.2.1, the Architect does not have such authority. The term "Owner" means the Owner or the Owner's authorized representative.

§ 2.1.2 The Owner shall furnish to the Contractor, within fifteen days after receipt of a written request, information necessary and relevant for the Contractor to evaluate, give notice of, or enforce mechanic's lien rights. Such information shall include a correct statement of the record legal title to the property on which the Project is located, usually referred to as the site, and the Owner's interest therein.

§ 2.2 Evidence of the Owner's Financial Arrangements

§ 2.2.1 Prior to commencement of the Work and upon written request by the Contractor, the Owner shall furnish to the Contractor reasonable evidence that the Owner has made financial arrangements to fulfill the Owner's obligations under the Contract. The Contractor shall have no obligation to commence the Work until the Owner provides such evidence. If commencement of the Work is delayed under this Section 2.2.1, the Contract Time shall be extended appropriately.

§ 2.2.2 Following commencement of the Work and upon written request by the Contractor, the Owner shall furnish to the Contractor reasonable evidence that the Owner has made financial arrangements to fulfill the Owner's obligations under the Contract only if (1) the Owner fails to make payments to the Contractor as the Contract Documents require; (2) the Contractor identifies in writing a reasonable concern regarding the Owner's ability to make payment when due; or (3) a change in the Work materially changes the Contract Sum. If the Owner fails to provide such evidence, as required, within fourteen days of the Contractor's request, the Contractor may immediately stop the Work and, in that event, shall notify the Owner that the Work has stopped. However, if the request is made because a change in the Work materially changes the Contract Sum under (3) above, the Contractor may immediately stop only that portion of the Work affected by the change until reasonable evidence is provided. If the Work is stopped under this Section 2.2.2, the Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable costs of shutdown, delay and start-up, plus interest as provided in the Contract Documents.

§ 2.2.3 After the Owner furnishes evidence of financial arrangements under this Section 2.2, the Owner shall not materially vary such financial arrangements without prior notice to the Contractor.

§ 2.2.4 Where the Owner has designated information furnished under this Section 2.2 as "confidential," the Contractor shall keep the information confidential and shall not disclose it to any other person. However, the Contractor may disclose "confidential" information, after seven (7) days' notice to the Owner, where disclosure is required by law, including a subpoena or other form of compulsory legal process issued by a court or governmental entity, or by court or arbitrator(s) order. The Contractor may also disclose "confidential" information to its employees, consultants, sureties, Subcontractors and their employees, Sub-subcontractors, and others who need to know the content of such information solely and exclusively for the Project and who agree to maintain the confidentiality of such information.

§ 2.3 Information and Services Required of the Owner

§ 2.3.1 Except for permits and fees that are the responsibility of the Contractor under the Contract Documents, including those required under Section 3.7.1, the Owner shall secure and pay for necessary approvals, easements, assessments and charges required for construction, use or occupancy of permanent structures or for permanent changes in existing facilities.

§ 2.3.2 The Owner shall retain an architect lawfully licensed to practice architecture, or an entity lawfully practicing architecture, in the jurisdiction where the Project is located. That person or entity is identified as the Architect in the Agreement and is referred to throughout the Contract Documents as if singular in number.

§ 2.3.3 If the employment of the Architect terminates, the Owner shall employ a successor to whom the Contractor has no reasonable objection and whose status under the Contract Documents shall be that of the Architect.

§ 2.3.4 The Owner shall furnish surveys describing physical characteristics, legal limitations and utility locations for the site of the Project, and a legal description of the site. The Contractor shall be entitled to rely on the accuracy of information furnished by the Owner but shall exercise proper precautions relating to the safe performance of the Work.

§ 2.3.5 The Owner shall furnish information or services required of the Owner by the Contract Documents with reasonable promptness. The Owner shall also furnish any other information or services under the Owner's control and relevant to the Contractor's performance of the Work with reasonable promptness after receiving the Contractor's written request for such information or services.

§ 2.3.6 Unless otherwise provided in the Contract Documents, the Owner shall furnish to the Contractor one copy of the Contract Documents for purposes of making reproductions pursuant to Section 1.5.2.

§ 2.4 Owner's Right to Stop the Work

If the Contractor fails to correct Work that is not in accordance with the requirements of the Contract Documents as required by Section 12.2 or repeatedly fails to carry out Work in accordance with the Contract Documents, the Owner may issue a written order to the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, the right of the Owner to stop the Work shall not give rise to a duty on the part of the Owner to exercise this right for the benefit of the Contractor or any other person or entity, except to the extent required by Section 6.1.3.

§ 2.5 Owner's Right to Carry Out the Work

If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a ten-day period after receipt of notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner may, without prejudice to other remedies the Owner may have, correct such default or neglect. Such action by the Owner and amounts charged to the Contractor are both subject to prior approval of the Architect and the Architect may, pursuant to Section 9.5.1, withhold or nullify a Certificate for Payment in whole or in part, to the extent reasonably necessary to reimburse the Owner for the reasonable cost of correcting such deficiencies, including Owner's expenses and compensation for the Architect's additional services made necessary by such default, neglect, or failure. If current and future payments are not sufficient to cover such amounts, the Contractor shall pay the difference to the Owner. If the Contractor disagrees with the actions of the Owner or the Architect, or the amounts claimed as costs to the Owner, the Contractor may file a Claim pursuant to Article 15.

ARTICLE 3 CONTRACTOR

§ 3.1 General

§ 3.1.1 The Contractor is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Contractor shall be lawfully licensed, if required in the jurisdiction where the Project is located. The Contractor shall designate in writing a representative who shall have express authority to bind the Contractor with respect to all matters under this Contract. The term "Contractor" means the Contractor or the Contractor's authorized representative.

§ 3.1.2 The Contractor shall perform the Work in accordance with the Contract Documents.

§ 3.1.3 The Contractor shall not be relieved of its obligations to perform the Work in accordance with the Contract Documents either by activities or duties of the Architect in the Architect's administration of the Contract, or by tests, inspections or approvals required or performed by persons or entities other than the Contractor.

§ 3.2 Review of Contract Documents and Field Conditions by Contractor

§ 3.2.1 Execution of the Contract by the Contractor is a representation that the Contractor has visited the site, become generally familiar with local conditions under which the Work is to be performed, and correlated personal observations with requirements of the Contract Documents.

§ 3.2.2 Because the Contract Documents are complementary, the Contractor shall, before starting each portion of the Work, carefully study and compare the various Contract Documents relative to that portion of the Work, as well as

the information furnished by the Owner pursuant to Section 2.3.4, shall take field measurements of any existing conditions related to that portion of the Work, and shall observe any conditions at the site affecting it. These obligations are for the purpose of facilitating coordination and construction by the Contractor and are not for the purpose of discovering errors, omissions, or inconsistencies in the Contract Documents; however, the Contractor shall promptly report to the Architect any errors, inconsistencies or omissions discovered by or made known to the Contractor as a request for information in such form as the Architect may require. It is recognized that the Contractor's review is made in the Contractor's capacity as a contractor and not as a licensed design professional, unless otherwise specifically provided in the Contract Documents.

§ 3.2.3 The Contractor is not required to ascertain that the Contract Documents are in accordance with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, but the Contractor shall promptly report to the Architect any nonconformity discovered by or made known to the Contractor as a request for information in such form as the Architect may require.

§ 3.2.4 If the Contractor believes that additional cost or time is involved because of clarifications or instructions the Architect issues in response to the Contractor's notices or requests for information pursuant to Sections 3.2.2 or 3.2.3, the Contractor shall submit Claims as provided in Article 15. If the Contractor fails to perform the obligations of Sections 3.2.2 or 3.2.3, the Contractor shall pay such costs and damages to the Owner, subject to Section 15.1.7, as would have been avoided if the Contractor had performed such obligations. If the Contractor performs those obligations, the Contractor shall not be liable to the Owner or Architect for damages resulting from errors, inconsistencies or omissions in the Contract Documents, for differences between field measurements or conditions and the Contract Documents, or for nonconformities of the Contract Documents to applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities.

§ 3.3 Supervision and Construction Procedures

§ 3.3.1 The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for, and have **exclusive** control over, construction means, methods, techniques, sequences, and procedures, and for coordinating all portions of the Work under the Contract **and ensuring that all work is performed and completed in a good, safe, and workmanlike manner and in strict accordance with the Contract Documents**. If the Contract Documents give specific instructions concerning construction means, methods, techniques, sequences, or procedures, the Contractor shall evaluate the jobsite safety thereof and shall be solely responsible for the jobsite safety of such means, methods, techniques, sequences, or procedures. If the Contractor determines that such means, methods, techniques, sequences or procedures may not be safe, the Contractor shall give timely notice to the Owner and Architect, and shall propose alternative means, methods, techniques, sequences, or procedures. The Architect shall evaluate the proposed alternative solely for conformance with the design intent for the completed construction. Unless the Architect objects to the Contractor's proposed alternative, the Contractor shall perform the Work using its alternative means, methods, techniques, sequences, or procedures.

§ 3.3.2 The Contractor shall be responsible to the Owner for acts and omissions of the Contractor's employees, Subcontractors and their agents and employees, and other persons or entities performing portions of the Work for, or on behalf of, the Contractor or any of its Subcontractors.

§ 3.3.3 The Contractor shall be responsible for inspection of portions of Work already performed to determine that such portions are in proper condition to receive subsequent Work.

§ 3.4 Labor and Materials

§ 3.4.1 Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.

§ 3.4.2 Except in the case of minor changes in the Work approved by the Architect in accordance with Section 3.12.8 or ordered by the Architect in accordance with Section 7.4, the Contractor may make substitutions only with the consent of the Owner, after evaluation by the Architect and in accordance with a Change Order or Construction Change Directive.

§ 3.4.3 The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Work. The Contractor shall not permit employment of unfit persons or persons not properly skilled in tasks assigned to them.

§ 3.5 Warranty

§ 3.5.1 The Contractor warrants to the Owner and Architect that materials and equipment furnished under the Contract will be of good quality and new unless the Contract Documents require or permit otherwise. The Contractor further warrants that the Work will conform to the requirements of the Contract Documents and will be free from defects, except for those inherent in the quality of the Work the Contract Documents require or permit. Work, materials, or equipment not conforming to these requirements may be considered defective. The Contractor's warranty excludes remedy for damage or defect caused by abuse, alterations to the Work not executed by the Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear and normal usage. If required by the Architect, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

§ 3.5.2 All material, equipment, or other special warranties required by the Contract Documents shall be issued in the name of the Owner, or shall be transferable to the Owner, and shall commence in accordance with Section 9.8.4.

§ 3.6 Taxes

The Contractor shall pay sales, consumer, use and similar taxes for the Work provided by the Contractor that are legally enacted when bids are received or negotiations concluded, whether or not yet effective or merely scheduled to go into effect.

§ 3.7 Permits, Fees, Notices and Compliance with Laws

§ 3.7.1 Unless otherwise provided in the Contract Documents, the Contractor shall secure and pay for the building permit as well as for other permits, fees, licenses, and inspections by government agencies necessary for proper execution and completion of the Work that are customarily secured after execution of the Contract and legally required at the time bids are received or negotiations concluded.

§ 3.7.2 The Contractor shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities applicable to performance of the Work.

§ 3.7.3 If the Contractor performs Work knowing it to be contrary to applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, the Contractor shall assume appropriate responsibility for such Work and shall bear the costs attributable to correction.

§ 3.7.4 Concealed or Unknown Conditions

If the Contractor encounters conditions at the site that are (1) subsurface or otherwise concealed physical conditions that differ materially from those indicated in the Contract Documents or (2) unknown physical conditions of an unusual nature that differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, the Contractor shall promptly provide notice to the Owner and the Architect before conditions are disturbed and in no event later than 14 days after first observance of the conditions. The Architect will promptly investigate such conditions and, if the Architect determines that they differ materially and cause an increase or decrease in the Contractor's cost of, or time required for, performance of any part of the Work, will recommend that an equitable adjustment be made in the Contract Sum or Contract Time, or both. If the Architect determines that the conditions at the site are not materially different from those indicated in the Contract Documents and that no change in the terms of the Contract is justified, the Architect shall promptly notify the Owner and Contractor, stating the reasons. If either party disputes the Architect's determination or recommendation, that party may submit a Claim as provided in Article 15.

§ 3.7.5 If, in the course of the Work, the Contractor encounters human remains or recognizes the existence of burial markers, archaeological sites or wetlands not indicated in the Contract Documents, the Contractor shall immediately suspend any operations that would affect them and shall notify the Owner and Architect. Upon receipt of such notice, the Owner shall promptly take any action necessary to obtain governmental authorization required to resume the operations. The Contractor shall continue to suspend such operations until otherwise instructed by the Owner but shall continue with all other operations that do not affect those remains or features. Requests for adjustments in the Contract Sum and Contract Time arising from the existence of such remains or features may be made as provided in Article 15.

§ 3.8 Allowances

§ 3.8.1 The Contractor shall include in the Contract Sum all allowances stated in the Contract Documents. Items covered by allowances shall be supplied for such amounts and by such persons or entities as the Owner may direct, but the Contractor shall not be required to employ persons or entities to whom the Contractor has reasonable objection.

§ 3.8.2 Unless otherwise provided in the Contract Documents,

- .1 allowances shall cover the cost to the Contractor of materials and equipment delivered at the site and all required taxes, less applicable trade discounts;
- .2 Contractor's costs for unloading and handling at the site, labor, installation costs, overhead, profit, and other expenses contemplated for stated allowance amounts shall be included in the Contract Sum but not in the allowances; and
- .3 whenever costs are more than or less than allowances, the Contract Sum shall be adjusted accordingly by Change Order. The amount of the Change Order shall reflect (1) the difference between actual costs and the allowances under Section 3.8.2.1 and (2) changes in Contractor's costs under Section 3.8.2.2.

§ 3.8.3 Materials and equipment under an allowance shall be selected by the Owner with reasonable promptness.

§ 3.9 Superintendent

§ 3.9.1 The Contractor shall employ a competent superintendent and necessary assistants who shall be in attendance at the Project site during performance of the Work. The superintendent shall represent the Contractor, and communications given to the superintendent shall be as binding as if given to the Contractor.

§ 3.9.2 The Contractor, as soon as practicable after award of the Contract, shall notify the Owner and Architect, in writing, of the name and qualifications of a proposed superintendent. Within 14 days of receipt of the information, the Architect may notify the Contractor, stating whether the Owner or the Architect (1) has reasonable objection to the proposed superintendent or (2) requires additional time for review. Failure of the Architect to provide notice within the 14-day period shall constitute notice of no reasonable objection.

§ 3.9.3 The Contractor shall not employ a proposed superintendent to whom the Owner or Architect has made reasonable and timely objection. The Contractor shall not change the superintendent without the Owner's prior written consent, which shall not unreasonably be withheld or delayed.

§ 3.10 Contractor's Construction and Submittal Schedules

§ 3.10.1 The Contractor, promptly after being awarded the Contract, shall submit for the Owner's and Architect's information a Contractor's construction schedule for the Work. The schedule shall contain detail appropriate for the Project, including (1) the date of commencement of the Work, interim schedule milestone dates, and the date of Substantial Completion; (2) an apportionment of the Work by construction activity; and (3) the time required for completion of each portion of the Work. The schedule shall provide for the orderly progression of the Work to completion and shall not exceed time limits current under the Contract Documents. The schedule shall be revised at appropriate intervals as required by the conditions of the Work and Project.

§ 3.10.2 The Contractor, promptly after being awarded the Contract and thereafter as necessary to maintain a current submittal schedule, shall submit a submittal schedule for the Architect's approval. The Architect's approval shall not be unreasonably delayed or withheld. The submittal schedule shall (1) be coordinated with the Contractor's construction schedule, and (2) allow the Architect reasonable time to review submittals. If the Contractor fails to submit a submittal schedule, or fails to provide submittals in accordance with the approved submittal schedule, the Contractor shall not be entitled to any increase in Contract Sum or extension of Contract Time based on the time required for review of submittals.

§ 3.10.3 The Contractor shall perform the Work in general accordance with the most recent schedules submitted to the Owner and Architect.

§ 3.11 Documents and Samples at the Site

The Contractor shall make available, at the Project site, the Contract Documents, including Change Orders, Construction Change Directives, and other Modifications, in good order and marked currently to indicate field

changes and selections made during construction, and the approved Shop Drawings, Product Data, Samples, and similar required submittals. These shall be in electronic form or paper copy, available to the Architect and Owner, and delivered to the Architect for submittal to the Owner upon completion of the Work as a record of the Work as constructed.

§ 3.12 Shop Drawings, Product Data and Samples

§ 3.12.1 Shop Drawings are drawings, diagrams, schedules, and other data specially prepared for the Work by the Contractor or a Subcontractor, Sub-subcontractor, manufacturer, supplier, or distributor to illustrate some portion of the Work.

§ 3.12.2 Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by the Contractor to illustrate materials or equipment for some portion of the Work.

§ 3.12.3 Samples are physical examples that illustrate materials, equipment, or workmanship, and establish standards by which the Work will be judged.

§ 3.12.4 Shop Drawings, Product Data, Samples, and similar submittals are not Contract Documents. Their purpose is to demonstrate how the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents for those portions of the Work for which the Contract Documents require submittals. Review by the Architect is subject to the limitations of Section 4.2.7. Informational submittals upon which the Architect is not expected to take responsive action may be so identified in the Contract Documents. Submittals that are not required by the Contract Documents may be returned by the Architect without action.

§ 3.12.5 The Contractor shall review for compliance with the Contract Documents, approve, and submit to the Architect, Shop Drawings, Product Data, Samples, and similar submittals required by the Contract Documents, in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of the Owner or of Separate Contractors.

§ 3.12.6 By submitting Shop Drawings, Product Data, Samples, and similar submittals, the Contractor represents to the Owner and Architect that the Contractor has (1) reviewed and approved them, (2) determined and verified materials, field measurements and field construction criteria related thereto, or will do so, and (3) checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents.

§ 3.12.7 The Contractor shall perform no portion of the Work for which the Contract Documents require submittal and review of Shop Drawings, Product Data, Samples, or similar submittals, until the respective submittal has been approved by the Architect.

§ 3.12.8 The Work shall be in accordance with approved submittals except that the Contractor shall not be relieved of responsibility for deviations from the requirements of the Contract Documents by the Architect's approval of Shop Drawings, Product Data, Samples, or similar submittals, unless the Contractor has specifically notified the Architect of such deviation at the time of submittal and (1) the Architect has given written approval to the specific deviation as a minor change in the Work, or (2) a Change Order or Construction Change Directive has been issued authorizing the deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples, or similar submittals, by the Architect's approval thereof.

§ 3.12.9 The Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data, Samples, or similar submittals, to revisions other than those requested by the Architect on previous submittals. In the absence of such notice, the Architect's approval of a resubmission shall not apply to such revisions.

§ 3.12.10 The Contractor shall not be required to provide professional services that constitute the practice of architecture or engineering unless such services are specifically required by the Contract Documents for a portion of the Work or unless the Contractor needs to provide such services in order to carry out the Contractor's responsibilities for construction means, methods, techniques, sequences, and procedures. The Contractor shall not be required to provide professional services in violation of applicable law.

§ 3.12.10.1 If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of the Contractor by the Contract Documents, the Owner and the Architect will specify all performance and design criteria that such services must satisfy. The Contractor shall be entitled to rely upon the adequacy and accuracy of the performance and design criteria provided in the Contract Documents. The Contractor shall cause such services or certifications to be provided by an appropriately licensed design professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings, and other submittals prepared by such professional. Shop Drawings, and other submittals related to the Work, designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to the Architect. The Owner and the Architect shall be entitled to rely upon the adequacy and accuracy of the services, certifications, and approvals performed or provided by such design professionals, provided the Owner and Architect have specified to the Contractor the performance and design criteria that such services must satisfy. Pursuant to this Section 3.12.10, the Architect will review and approve or take other appropriate action on submittals only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents.

§ 3.12.10.2 If the Contract Documents require the Contractor's design professional to certify that the Work has been performed in accordance with the design criteria, the Contractor shall furnish such certifications to the Architect at the time and in the form specified by the Architect.

§ 3.13 Use of Site

The Contractor shall confine operations at the site to areas permitted by applicable laws, statutes, ordinances, codes, rules and regulations, lawful orders of public authorities, and the Contract Documents and shall not unreasonably encumber the site with materials or equipment.

§ 3.14 Cutting and Patching

§ 3.14.1 The Contractor shall be responsible for cutting, fitting, or patching required to complete the Work or to make its parts fit together properly. All areas requiring cutting, fitting, or patching shall be restored to the condition existing prior to the cutting, fitting, or patching, unless otherwise required by the Contract Documents.

§ 3.14.2 The Contractor shall not damage or endanger a portion of the Work or fully or partially completed construction of the Owner or Separate Contractors by cutting, patching, or otherwise altering such construction, or by excavation. The Contractor shall not cut or otherwise alter construction by the Owner or a Separate Contractor except with written consent of the Owner and of the Separate Contractor. Consent shall not be unreasonably withheld. The Contractor shall not unreasonably withhold, from the Owner or a Separate Contractor, its consent to cutting or otherwise altering the Work.

§ 3.15 Cleaning Up

§ 3.15.1 The Contractor shall, **at all times**, keep the premises and surrounding area free from accumulation of waste materials and rubbish caused by operations under the Contract. At completion of the Work, the Contractor shall remove waste materials, rubbish, the Contractor's tools, construction equipment, machinery, and surplus materials from and about the Project.

§ 3.15.2 If the Contractor fails to clean up as provided in the Contract Documents, the Owner may do so and the Owner shall be entitled to **full reimbursement from the Contractor for any and all costs associated with cleaning up the premises and surrounding area**.

§ 3.16 Access to Work

The Contractor shall, **at all times**, provide the Owner and Architect with access to the Work in preparation and progress wherever located.

§ 3.17 Royalties, Patents and Copyrights

The Contractor shall pay all royalties and license fees. The Contractor shall defend suits or claims for infringement of copyrights and patent rights and shall hold the Owner and Architect harmless from loss on account thereof, but shall not be responsible for defense or loss when a particular design, process, or product of a particular manufacturer or manufacturers is required by the Contract Documents, or where the copyright violations are contained in Drawings, Specifications, or other documents prepared by the Owner or Architect. However, if an infringement of a copyright or patent is discovered by, or made known to, the Contractor, the Contractor shall be responsible for the loss unless the information is promptly furnished to the Architect.

§ 3.18 Indemnification

§ 3.18.1 TO THE FULLEST EXTENT PERMITTED BY LAW, THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE OWNER, ARCHITECT, ARCHITECT'S CONSULTANTS, AND AGENTS AND EMPLOYEES OF ANY OF THEM FROM AND AGAINST **ANY AND ALL CLAIMS, DAMAGES, LOSSES, AND EXPENSES, INCLUDING BUT NOT LIMITED TO ATTORNEYS' FEES, ARISING OUT OF OR RESULTING FROM PERFORMANCE OF THE WORK, PROVIDED THAT SUCH CLAIM, DAMAGE, LOSS, OR EXPENSE IS ATTRIBUTABLE TO BODILY INJURY, SICKNESS, DISEASE OR DEATH, OR TO INJURY TO OR DESTRUCTION OF TANGIBLE PROPERTY (OTHER THAN THE WORK ITSELF), BUT ONLY TO THE EXTENT CAUSED BY THE **INTENTIONAL, GROSSLY NEGLIGENT, OR** NEGLIGENT ACTS OR OMISSIONS OF THE CONTRACTOR, A SUBCONTRACTOR, ANYONE DIRECTLY OR INDIRECTLY EMPLOYED BY THEM, OR ANYONE FOR WHOSE ACTS THEY MAY BE LIABLE, REGARDLESS OF WHETHER OR NOT SUCH CLAIM, DAMAGE, LOSS, OR EXPENSE IS CAUSED IN PART BY A PARTY INDEMNIFIED HEREUNDER. SUCH OBLIGATION SHALL NOT BE CONSTRUED TO NEGATE, ABRIDGE, OR REDUCE OTHER RIGHTS OR OBLIGATIONS OF INDEMNITY THAT WOULD OTHERWISE EXIST AS TO A PARTY OR PERSON DESCRIBED IN THIS SECTION 3.18.**

§ 3.18.2 In claims against any person or entity indemnified under this Section 3.18 by an employee of the Contractor, a Subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, the indemnification obligation under Section 3.18.1 shall not be limited by a limitation on amount or type of damages, compensation, or benefits payable by or for the Contractor or a Subcontractor under workers' compensation acts, disability benefit acts, or other employee benefit acts.

ARTICLE 4 ARCHITECT

§ 4.1 General

§ 4.1.1 The Architect is the person or entity retained by the Owner pursuant to Section 2.3.2 and identified as such in the Agreement.

§ 4.1.2 Duties, responsibilities, and limitations of authority of the Architect as set forth in the Contract Documents shall not be restricted, modified, or extended without **prior** written consent of the Owner, Contractor, and Architect. Consent shall not be unreasonably withheld.

§ 4.2 Administration of the Contract

§ 4.2.1 The Architect will provide administration of the Contract as described in the Contract Documents and will be an Owner's representative during construction until the date the Architect issues the final Certificate for Payment. The Architect will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents.

§ 4.2.2 The Architect will visit the site at intervals appropriate to the stage of construction, or as otherwise agreed with the Owner, to become generally familiar with the progress and quality of the portion of the Work completed, and to determine in general if the Work observed is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents. However, the Architect will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. The Architect will not have control over, charge of, or responsibility for the construction means, methods, techniques, sequences or procedures, or for the safety precautions and programs in connection with the Work, since these are solely the Contractor's rights and responsibilities under the Contract Documents.

§ 4.2.3 On the basis of the site visits, the Architect will keep the Owner reasonably informed about the progress and quality of the portion of the Work completed, and promptly report to the Owner (1) known deviations from the Contract Documents, (2) known deviations from the most recent construction schedule submitted by the Contractor, and (3) defects and deficiencies observed in the Work. The Architect will not be responsible for the Contractor's failure to perform the Work in accordance with the requirements of the Contract Documents. The Architect will not have control over or charge of, and will not be responsible for acts or omissions of, the Contractor, Subcontractors, or their agents or employees, or any other persons or entities performing portions of the Work.

§ 4.2.4 Communications

The Owner and Contractor shall include the Architect in all communications that relate to or affect the Architect's services or professional responsibilities. The Owner shall promptly notify the Architect of the substance of any direct communications between the Owner and the Contractor otherwise relating to the Project. Communications by and with the Architect's consultants shall be through the Architect. Communications by and with Subcontractors and suppliers shall be through the Contractor. Communications by and with Separate Contractors shall be through the Owner. The Contract Documents may specify other communication protocols.

§ 4.2.5 Based on the Architect's evaluations of the Contractor's Applications for Payment, the Architect will review and certify the amounts due the Contractor and will issue Certificates for Payment in such amounts.

§ 4.2.6 The Architect has authority to reject Work that does not conform to the Contract Documents. Whenever the Architect considers it necessary or advisable, the Architect will have authority to require inspection or testing of the Work in accordance with Sections 13.4.2 and 13.4.3, whether or not the Work is fabricated, installed or completed. However, neither this authority of the Architect nor a decision made in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the Architect to the Contractor, Subcontractors, suppliers, their agents or employees, or other persons or entities performing portions of the Work.

§ 4.2.7 The Architect will review and approve, or take other appropriate action upon, the Contractor's submittals such as Shop Drawings, Product Data, and Samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Architect's action will be taken in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, with reasonable promptness while allowing sufficient time in the Architect's professional judgment to permit adequate review. Review of such submittals is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of the Contractor as required by the Contract Documents. The Architect's review of the Contractor's submittals shall not relieve the Contractor of the obligations under Sections 3.3, 3.5, and 3.12. The Architect's review shall not constitute approval of safety precautions or of any construction means, methods, techniques, sequences, or procedures. The Architect's approval of a specific item shall not indicate approval of an assembly of which the item is a component.

§ 4.2.8 The Architect will prepare Change Orders and Construction Change Directives, and may order minor changes in the Work as provided in Section 7.4. The Architect will investigate and make determinations and recommendations regarding concealed and unknown conditions as provided in Section 3.7.4.

§ 4.2.9 The Architect will conduct inspections to determine the date or dates of Substantial Completion and the date of final completion; issue Certificates of Substantial Completion pursuant to Section 9.8; receive and forward to the Owner, for the Owner's review and records, written warranties and related documents required by the Contract and assembled by the Contractor pursuant to Section 9.10; and issue a final Certificate for Payment pursuant to Section 9.10.

§ 4.2.10 If the Owner and Architect agree, the Architect will provide one or more Project representatives to assist in carrying out the Architect's responsibilities at the site. The Owner shall notify the Contractor of any change in the duties, responsibilities and limitations of authority of the Project representatives.

§ 4.2.11 The Architect will interpret and decide matters concerning performance under, and requirements of, the Contract Documents on written request of either the Owner or Contractor. The Architect's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness.

§ 4.2.12 Interpretations and decisions of the Architect will be consistent with the intent of, and reasonably inferable from, the Contract Documents and will be in writing or in the form of drawings. When making such interpretations and decisions, the Architect will endeavor to secure faithful performance by both Owner and Contractor, will not show partiality to either, and will not be liable for results of interpretations or decisions rendered in good faith.

§ 4.2.13 The Architect's decisions on matters relating to aesthetic effect will be final if consistent with the intent expressed in the Contract Documents.

§ 4.2.14 The Architect will review and respond to requests for information about the Contract Documents. The Architect's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness. If appropriate, the Architect will prepare and issue supplemental Drawings and Specifications in response to the requests for information.

ARTICLE 5 SUBCONTRACTORS

§ 5.1 Definitions

§ 5.1.1 A Subcontractor is a person or entity who has a direct contract with the Contractor to perform a portion of the Work at the site, **subject to and consistent with the terms and requirements of the Contract**. The term "Subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Subcontractor or an authorized representative of the Subcontractor. The term "Subcontractor" does not include a Separate Contractor or the subcontractors of a Separate Contractor.

§ 5.1.2 A Sub-subcontractor is a person or entity who has a direct or indirect contract with a Subcontractor to perform a portion of the Work at the site, **subject to and consistent with the terms and requirements of the Contract**. The term "Sub-subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Sub-subcontractor or an authorized representative of the Sub-subcontractor.

§ 5.2 Award of Subcontracts and Other Contracts for Portions of the Work

§ 5.2.1 Unless otherwise stated in the Contract Documents, the Contractor, as soon as practicable after award of the Contract, shall notify the Owner and Architect of the persons or entities proposed for each principal portion of the Work, including those who are to furnish materials or equipment fabricated to a special design. Within 14 days of receipt of the information, the Architect may notify the Contractor whether the Owner or the Architect (1) has reasonable objection to any such proposed person or entity or (2) requires additional time for review. Failure of the Architect to provide notice within the 14-day period shall constitute notice of no reasonable objection.

§ 5.2.2 The Contractor shall not contract with a proposed person or entity to whom the Owner or Architect has made reasonable and timely objection. The Contractor shall not be required to contract with anyone to whom the Contractor has made reasonable objection.

§ 5.2.3 If the Owner or Architect has reasonable objection to a person or entity proposed by the Contractor, the Contractor shall propose another to whom the Owner or Architect has no reasonable objection. If the proposed but rejected Subcontractor was reasonably capable of performing the Work, the Contract Sum and Contract Time shall be increased or decreased by the difference, if any, occasioned by such change, and an appropriate Change Order shall be issued before commencement of the substitute Subcontractor's Work. However, no increase in the Contract Sum or Contract Time shall be allowed for such change unless the Contractor has acted promptly and responsively in submitting names as required.

§ 5.2.4 The Contractor shall not substitute a Subcontractor, person, or entity for one previously selected if the Owner or Architect makes reasonable objection to such substitution.

§ 5.3 Subcontractual Relations

By appropriate written agreement, the Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities, including the responsibility for safety of the Subcontractor's Work that the Contractor, by these Contract Documents, assumes toward the Owner and Architect. Each subcontract agreement shall preserve and protect the rights of the Owner and Architect under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights, and shall allow to the Subcontractor, unless specifically provided otherwise in the subcontract agreement, the benefit of all rights, remedies, and redress against the Contractor that the Contractor, by the Contract Documents, has against the Owner. Where appropriate, the Contractor shall require each Subcontractor to enter into similar agreements with Sub-subcontractors. The Contractor shall make available to each proposed Subcontractor, prior to the execution of the subcontract agreement, copies of the Contract Documents to which the Subcontractor will be bound, and, upon written request of the Subcontractor, identify to the Subcontractor terms and conditions of the proposed subcontract agreement that may be at variance with the Contract Documents. Subcontractors will similarly make copies of applicable portions of such documents available to their respective proposed Sub-subcontractors.

§ 5.4 Contingent Assignment of Subcontracts

§ 5.4.1 Each subcontract agreement for a portion of the Work is assigned by the Contractor to the Owner, provided that

- .1 assignment is effective only after termination of the Contract by the Owner for cause pursuant to Section 14.2 and only for those subcontract agreements that the Owner accepts by notifying the Subcontractor and Contractor; and
- .2 assignment is subject to the prior rights of the surety, if any, obligated under bond relating to the Contract.

When the Owner accepts the assignment of a subcontract agreement, the Owner assumes the Contractor's rights and obligations under the subcontract.

§ 5.4.2 Upon such assignment, if the Work has been suspended for more than 30 days, the Subcontractor's compensation shall be equitably adjusted for increases in cost resulting from the suspension.

§ 5.4.3 Upon assignment to the Owner under this Section 5.4, the Owner may further assign the subcontract to a successor contractor or other entity. If the Owner assigns the subcontract to a successor contractor or other entity, the Owner shall nevertheless remain legally responsible for all of the successor contractor's obligations under the subcontract.

ARTICLE 6 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

§ 6.1 Owner's Right to Perform Construction and to Award Separate Contracts

§ 6.1.1 The term "Separate Contractor(s)" shall mean other contractors retained by the Owner under separate agreements. The Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces, and with Separate Contractors retained under Conditions of the Contract substantially similar to those of this Contract, including those provisions of the Conditions of the Contract related to insurance and waiver of subrogation.

§ 6.1.2 When separate contracts are awarded for different portions of the Project or other construction or operations on the site, the term "Contractor" in the Contract Documents in each case shall mean the Contractor who executes each separate Owner-Contractor Agreement.

§ 6.1.3 The Owner shall provide for coordination of the activities of the Owner's own forces and of each Separate Contractor with the Work of the Contractor, who shall cooperate with them. The Contractor shall participate with any Separate Contractors and the Owner in reviewing their construction schedules. The Contractor shall make any revisions to its construction schedule deemed necessary after a joint review and mutual agreement. The construction schedules shall then constitute the schedules to be used by the Contractor, Separate Contractors, and the Owner until subsequently revised.

§ 6.1.4 Unless otherwise provided in the Contract Documents, when the Owner performs construction or operations related to the Project with the Owner's own forces or with Separate Contractors, the Owner or its Separate Contractors shall have the same obligations and rights that the Contractor has under the Conditions of the Contract, including, without excluding others, those stated in Article 3, this Article 6, and Articles 10, 11, and 12.

§ 6.2 Mutual Responsibility

§ 6.2.1 The Contractor shall afford the Owner and Separate Contractors reasonable opportunity for introduction and storage of their materials and equipment and performance of their activities, and shall connect and coordinate the Contractor's construction and operations with theirs as required by the Contract Documents.

§ 6.2.2 If part of the Contractor's Work depends for proper execution or results upon construction or operations by the Owner or a Separate Contractor, the Contractor shall, prior to proceeding with that portion of the Work, promptly notify the Architect of apparent discrepancies or defects in the construction or operations by the Owner or Separate Contractor that would render it unsuitable for proper execution and results of the Contractor's Work. Failure of the Contractor to notify the Architect of apparent discrepancies or defects prior to proceeding with the Work shall constitute an acknowledgment that the Owner's or Separate Contractor's completed or partially completed construction is fit and proper to receive the Contractor's Work. The Contractor shall not be responsible for discrepancies or defects in the construction or operations by the Owner or Separate Contractor that are not apparent.

§ 6.2.3 The Contractor shall reimburse the Owner for costs the Owner incurs that are payable to a Separate Contractor because of the Contractor's delays, improperly timed activities or defective construction. The Owner shall be responsible to the Contractor for costs the Contractor incurs because of a Separate Contractor's delays, improperly timed activities, damage to the Work or defective construction.

§ 6.2.4 The Contractor shall promptly remedy damage that the Contractor wrongfully causes to completed or partially completed construction or to property of the Owner or Separate Contractor as provided in Section 10.2.5.

§ 6.2.5 The Owner and each Separate Contractor shall have the same responsibilities for cutting and patching as are described for the Contractor in Section 3.14.

§ 6.3 Owner's Right to Clean Up

If a dispute arises among the Contractor, Separate Contractors, and the Owner as to the responsibility under their respective contracts for maintaining the premises and surrounding area free from waste materials and rubbish, the Owner may clean up and the Architect will allocate the cost among those responsible.

ARTICLE 7 CHANGES IN THE WORK

§ 7.1 General

§ 7.1.1 Changes in the Work may be accomplished after execution of the Contract, and without invalidating the Contract, by Change Order, Construction Change Directive or order for a minor change in the Work, subject to the limitations stated in this Article 7 and elsewhere in the Contract Documents.

§ 7.1.2 A Change Order shall be based upon agreement among the Owner, Contractor, and Architect. A Construction Change Directive requires agreement by the Owner and Architect and may or may not be agreed to by the Contractor. An order for a minor change in the Work may be issued by the Architect alone.

§ 7.1.3 Changes in the Work shall be performed under applicable provisions of the Contract Documents. The Contractor shall proceed promptly with changes in the Work, unless otherwise provided in the Change Order, Construction Change Directive, or order for a minor change in the Work.

§ 7.2 Change Orders

§ 7.2.1 A Change Order is a written instrument prepared by the Architect and signed by the Owner, Contractor, and Architect stating their agreement upon all of the following:

- .1 The change in the Work;
- .2 The amount of the adjustment, if any, in the Contract Sum; and
- .3 The extent of the adjustment, if any, in the Contract Time.

§ 7.3 Construction Change Directives

§ 7.3.1 A Construction Change Directive is a written order prepared by the Architect and signed by the Owner and Architect, directing a change in the Work prior to agreement on adjustment, if any, in the Contract Sum or Contract Time, or both. The Owner may by Construction Change Directive, without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions, or other revisions, the Contract Sum and Contract Time being adjusted accordingly.

§ 7.3.2 A Construction Change Directive shall be used in the absence of total agreement on the terms of a Change Order.

§ 7.3.3 If the Construction Change Directive provides for an adjustment to the Contract Sum, the adjustment shall be based on one of the following methods:

- .1 Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;
- .2 Unit prices stated in the Contract Documents or subsequently agreed upon;
- .3 Cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee; or
- .4 As provided in Section 7.3.4.

§ 7.3.4 If the Contractor does not respond promptly or disagrees with the method for adjustment in the Contract Sum, the Architect shall determine the adjustment on the basis of reasonable expenditures and savings of those performing the Work attributable to the change, including, in case of an increase in the Contract Sum, an amount for overhead and profit as set forth in the Agreement, or if no such amount is set forth in the Agreement, a reasonable amount. In such case, and also under Section 7.3.3.3, the Contractor shall keep and present, in such form as the Architect may prescribe, an itemized accounting together with appropriate supporting data. Unless otherwise provided in the Contract Documents, costs for the purposes of this Section 7.3.4 shall be limited to the following:

- .1 Costs of labor, including applicable payroll taxes, fringe benefits required by agreement or custom, workers' compensation insurance, and other employee costs approved by the Architect;
- .2 Costs of materials, supplies, and equipment, including cost of transportation, whether incorporated or consumed;
- .3 Rental costs of machinery and equipment, exclusive of hand tools, whether rented from the Contractor or others;
- .4 Costs of premiums for all bonds and insurance, permit fees, and sales, use, or similar taxes, directly related to the change; and
- .5 Costs of supervision and field office personnel directly attributable to the change.

§ 7.3.5 If the Contractor disagrees with the adjustment in the Contract Time, the Contractor may make a Claim in accordance with applicable provisions of Article 15.

§ 7.3.6 Upon receipt of a Construction Change Directive, the Contractor shall promptly proceed with the change in the Work involved and advise the Architect of the Contractor's agreement or disagreement with the method, if any, provided in the Construction Change Directive for determining the proposed adjustment in the Contract Sum or Contract Time.

§ 7.3.7 A Construction Change Directive signed by the Contractor indicates the Contractor's agreement therewith, including adjustment in Contract Sum and Contract Time or the method for determining them. Such agreement shall be effective immediately and shall be recorded as a Change Order.

§ 7.3.8 The amount of credit to be allowed by the Contractor to the Owner for a deletion or change that results in a net decrease in the Contract Sum shall be actual net cost as confirmed by the Architect. When both additions and credits covering related Work or substitutions are involved in a change, the allowance for overhead and profit shall be figured on the basis of net increase, if any, with respect to that change.

§ 7.3.9 Pending final determination of the total cost of a Construction Change Directive to the Owner, the Contractor may request payment for Work completed under the Construction Change Directive in Applications for Payment. The Architect will make an interim determination for purposes of monthly certification for payment for those costs and certify for payment the amount that the Architect determines, in the Architect's professional judgment, to be reasonably justified. The Architect's interim determination of cost shall adjust the Contract Sum on the same basis as a Change Order, subject to the right of either party to disagree and assert a Claim in accordance with Article 15.

§ 7.3.10 When the Owner and Contractor agree with a determination made by the Architect concerning the adjustments in the Contract Sum and Contract Time, or otherwise reach agreement upon the adjustments, such agreement shall be effective immediately and the Architect will prepare a Change Order. Change Orders may be issued for all or any part of a Construction Change Directive.

§ 7.4 Minor Changes in the Work

The Architect may order minor changes in the Work that are consistent with the intent of the Contract Documents and do not involve an adjustment in the Contract Sum or an extension of the Contract Time. The Architect's order for minor changes shall be in writing. If the Contractor believes that the proposed minor change in the Work will affect the Contract Sum or Contract Time, the Contractor shall notify the Architect and shall not proceed to implement the change in the Work. If the Contractor performs the Work set forth in the Architect's order for a minor change without prior notice to the Architect that such change will affect the Contract Sum or Contract Time, the Contractor waives any adjustment to the Contract Sum or extension of the Contract Time.

ARTICLE 8 TIME

§ 8.1 Definitions

§ 8.1.1 Unless otherwise provided, Contract Time is the period of time, including authorized adjustments, allotted in the Contract Documents for Substantial Completion of the Work.

§ 8.1.2 The date of commencement of the Work is the date established in the Agreement.

§ 8.1.3 The date of Substantial Completion is the date certified by the Architect in accordance with Section 9.8.

§ 8.1.4 The term “day” as used in the Contract Documents shall mean calendar day unless otherwise specifically defined.

§ 8.2 Progress and Completion

§ 8.2.1 Time limits stated in the Contract Documents are of the essence of the Contract. By executing the Agreement, the Contractor **agrees, acknowledges, and** confirms that the Contract Time is a reasonable period for performing the Work **in accordance with the terms and requirements of the Contract Documents.**

§ 8.2.2 The Contractor shall not knowingly, except by agreement or instruction of the Owner in writing, commence the Work prior to the effective date of insurance required to be furnished by the Contractor and Owner.

§ 8.2.3 The Contractor shall proceed expeditiously with adequate forces and shall achieve Substantial Completion within the Contract Time.

§ 8.3 Delays and Extensions of Time

§ 8.3.1 If the Contractor is delayed at any time in the commencement or progress of the Work by (1) an act or neglect of the Owner or Architect, of an employee of either, or of a Separate Contractor; (2) by changes ordered in the Work; (3) by labor disputes, fire, unusual delay in deliveries, unavoidable casualties, adverse weather conditions documented in accordance with Section 15.1.6.2, or other causes beyond the Contractor’s control; (4) by delay authorized by the Owner pending mediation and binding dispute resolution; or (5) by other causes that the Contractor asserts, and the Architect determines, justify delay, then the Contract Time shall be extended for such reasonable time as the Architect may determine, **provided Contractor notifies the Owner and Architect in writing within three (3) calendar days of the occurrence of the event and/or occurrence causing said delay.**

§ 8.3.2 Claims relating to time shall be made in accordance with applicable provisions of Article 15.

§ 8.3.3 This Section 8.3 does not preclude recovery of damages for delay by either party under other provisions of the Contract Documents.

ARTICLE 9 PAYMENTS AND COMPLETION

§ 9.1 Contract Sum

§ 9.1.1 The Contract Sum is stated in the Agreement and, including authorized adjustments, is the total amount payable by the Owner to the Contractor for performance of the Work under the Contract Documents.

§ 9.1.2 If unit prices are stated in the Contract Documents or subsequently agreed upon, and if quantities originally contemplated are materially changed so that application of such unit prices to the actual quantities causes substantial inequity to the Owner or Contractor, the applicable unit prices shall be equitably adjusted.

§ 9.2 Schedule of Values

Where the Contract is based on a stipulated sum or Guaranteed Maximum Price, the Contractor shall submit a schedule of values to the Architect before the first Application for Payment, allocating the entire Contract Sum to the various portions of the Work. The schedule of values shall be prepared in the form, and supported by the data to substantiate its accuracy, required by the Architect. This schedule, unless objected to by the Architect, shall be used as a basis for reviewing the Contractor’s Applications for Payment. Any changes to the schedule of values shall be submitted to the Architect and supported by such data to substantiate its accuracy as the Architect may require, and unless objected to by the Architect, shall be used as a basis for reviewing the Contractor’s subsequent Applications for Payment.

§ 9.3 Applications for Payment

§ 9.3.1 At least ten days before the date established for each progress payment, the Contractor shall submit to the Architect an itemized Application for Payment prepared in accordance with the schedule of values, if required under Section 9.2, for completed portions of the Work. The application shall be notarized, if required, and supported by all data substantiating the Contractor's right to payment that the Owner or Architect require, such as copies of requisitions, and releases and waivers of liens from Subcontractors and suppliers, and shall reflect retainage if provided for in the Contract Documents.

§ 9.3.1.1 As provided in Section 7.3.9, such applications may include requests for payment on account of changes in the Work that have been properly authorized by Construction Change Directives, or by interim determinations of the Architect, but not yet included in Change Orders.

§ 9.3.1.2 Applications for Payment shall not include requests for payment for portions of the Work for which the Contractor does not intend to pay a Subcontractor or supplier, unless such Work has been performed by others whom the Contractor intends to pay.

§ 9.3.2 Unless otherwise provided in the Contract Documents, payments shall be made on account of materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work. If approved in advance by the Owner, payment may similarly be made for materials and equipment suitably stored off the site at a location agreed upon in writing. Payment for materials and equipment stored on or off the site shall be conditioned upon compliance by the Contractor with procedures satisfactory to the Owner to establish the Owner's title to such materials and equipment or otherwise protect the Owner's interest, and shall include the costs of applicable insurance, storage, and transportation to the site, for such materials and equipment stored off the site.

§ 9.3.3 The Contractor warrants that title to all Work covered by an Application for Payment will pass to the Owner no later than the time of payment. The Contractor further warrants that upon submittal of an Application for Payment all Work for which Certificates for Payment have been previously issued and payments received from the Owner shall, to the best of the Contractor's knowledge, information, and belief, be free and clear of liens, claims, security interests, or encumbrances, in favor of the Contractor, Subcontractors, suppliers, or other persons or entities that provided labor, materials, and equipment relating to the Work.

§ 9.4 Certificates for Payment

§ 9.4.1 The Architect will, within seven days after receipt of the Contractor's Application for Payment, either (1) issue to the Owner a Certificate for Payment in the full amount of the Application for Payment, with a copy to the Contractor; or (2) issue to the Owner a Certificate for Payment for such amount as the Architect determines is properly due, and notify the Contractor and Owner of the Architect's reasons for withholding certification in part as provided in Section 9.5.1; or (3) withhold certification of the entire Application for Payment, and notify the Contractor and Owner of the Architect's reason for withholding certification in whole as provided in Section 9.5.1.

§ 9.4.2 The issuance of a Certificate for Payment will constitute a representation by the Architect to the Owner, based on the Architect's evaluation of the Work and the data in the Application for Payment, that, to the best of the Architect's knowledge, information, and belief, the Work has progressed to the point indicated, the quality of the Work is in accordance with the Contract Documents, and that the Contractor is entitled to payment in the amount certified. The foregoing representations are subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to results of subsequent tests and inspections, to correction of minor deviations from the Contract Documents prior to completion, and to specific qualifications expressed by the Architect. However, the issuance of a Certificate for Payment will not be a representation that the Architect has (1) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work; (2) reviewed construction means, methods, techniques, sequences, or procedures; (3) reviewed copies of requisitions received from Subcontractors and suppliers and other data requested by the Owner to substantiate the Contractor's right to payment; or (4) made examination to ascertain how or for what purpose the Contractor has used money previously paid on account of the Contract Sum.

§ 9.5 Decisions to Withhold Certification

§ 9.5.1 The Architect may withhold a Certificate for Payment in whole or in part, to the extent reasonably necessary to protect the Owner, if in the Architect's opinion the representations to the Owner required by Section 9.4.2 cannot be made. If the Architect is unable to certify payment in the amount of the Application, the Architect will notify the Contractor and Owner as provided in Section 9.4.1. If the Contractor and Architect cannot agree on a revised

amount, the Architect will promptly issue a Certificate for Payment for the amount for which the Architect is able to make such representations to the Owner. The Architect may also withhold a Certificate for Payment or, because of subsequently discovered evidence, may nullify the whole or a part of a Certificate for Payment previously issued, to such extent as may be necessary in the Architect's opinion to protect the Owner from loss for which the Contractor is responsible, including loss resulting from acts and omissions described in Section 3.3.2, because of

- .1 defective Work not remedied;
- .2 third party claims filed or reasonable evidence indicating probable filing of such claims, unless security acceptable to the Owner is provided by the Contractor;
- .3 failure of the Contractor to make payments properly to Subcontractors or suppliers for labor, materials or equipment;
- .4 reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;
- .5 damage to the Owner or a Separate Contractor;
- .6 reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay; or
- .7 repeated failure to carry out the Work in accordance with the Contract Documents.

§ 9.5.2 When either party disputes the Architect's decision regarding a Certificate for Payment under Section 9.5.1, in whole or in part, that party may submit a Claim in accordance with Article 15.

§ 9.5.3 When the reasons for withholding certification are removed, certification will be made for amounts previously withheld.

§ 9.5.4 If the Architect withholds certification for payment under Section 9.5.1.3, the Owner may, at its sole option, issue joint checks to the Contractor and to any Subcontractor or supplier to whom the Contractor failed to make payment for Work properly performed or material or equipment suitably delivered. If the Owner makes payments by joint check, the Owner shall notify the Architect and the Contractor shall reflect such payment on its next Application for Payment.

§ 9.6 Progress Payments

§ 9.6.1 After the Architect has issued a Certificate for Payment, the Owner shall make payment in the manner and within the time provided in the Contract Documents, and shall so notify the Architect.

§ 9.6.2 The Contractor shall pay each Subcontractor, no later than seven days after receipt of payment from the Owner, the amount to which the Subcontractor is entitled, reflecting percentages actually retained from payments to the Contractor on account of the Subcontractor's portion of the Work. The Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to Sub-subcontractors in a similar manner.

§ 9.6.3 The Architect will, on request, furnish to a Subcontractor, if practicable, information regarding percentages of completion or amounts applied for by the Contractor and action taken thereon by the Architect and Owner on account of portions of the Work done by such Subcontractor.

§ 9.6.4 The Owner has the right to request written evidence from the Contractor that the Contractor has properly paid Subcontractors and suppliers amounts paid by the Owner to the Contractor for subcontracted Work. If the Contractor fails to furnish such evidence within seven days, the Owner shall have the right to contact Subcontractors and suppliers to ascertain whether they have been properly paid. Neither the Owner nor Architect shall have an obligation to pay, or to see to the payment of money to, a Subcontractor or supplier, except as may otherwise be required by law.

§ 9.6.5 The Contractor's payments to suppliers shall be treated in a manner similar to that provided in Sections 9.6.2, 9.6.3 and 9.6.4.

§ 9.6.6 A Certificate for Payment, a progress payment, or partial or entire use or occupancy of the Project by the Owner shall not constitute acceptance of Work not in accordance with the Contract Documents.

§ 9.6.7 Unless the Contractor provides the Owner with a payment bond in the full penal sum of the Contract Sum, payments received by the Contractor for Work properly performed by Subcontractors or provided by suppliers shall

be held by the Contractor for those Subcontractors or suppliers who performed Work or furnished materials, or both, under contract with the Contractor for which payment was made by the Owner. Nothing contained herein shall require money to be placed in a separate account and not commingled with money of the Contractor, create any fiduciary liability or tort liability on the part of the Contractor for breach of trust, or entitle any person or entity to an award of punitive damages against the Contractor for breach of the requirements of this provision.

§ 9.6.8 Provided the Owner has fulfilled its payment obligations under the Contract Documents, the Contractor shall defend and indemnify the Owner from all loss, liability, damage or expense, including reasonable attorney's fees and litigation expenses, arising out of any lien claim or other claim for payment by any Subcontractor or supplier of any tier. Upon receipt of notice of a lien claim or other claim for payment, the Owner shall notify the Contractor. If approved by the applicable court, when required, the Contractor may substitute a surety bond for the property against which the lien or other claim for payment has been asserted.

§ 9.7 Failure of Payment

If the Architect does not issue a Certificate for Payment, through no fault of the Contractor, within seven days after receipt of the Contractor's Application for Payment, or if the Owner does not pay the Contractor within seven days after the date established in the Contract Documents, the amount certified by the Architect or awarded by binding dispute resolution, then the Contractor may, upon seven additional days' notice to the Owner and Architect, stop the Work until payment of the amount owing has been received. The Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable costs of shutdown, delay and start-up, plus interest as provided for in the Contract Documents.

§ 9.8 Substantial Completion

§ 9.8.1 Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use.

§ 9.8.2 When the Contractor considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Contractor shall prepare and submit to the Architect a comprehensive list of items to be completed or corrected prior to final payment. Failure to include an item on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

§ 9.8.3 Upon receipt of the Contractor's list, the Architect will make an inspection to determine whether the Work or designated portion thereof is substantially complete. If the Architect's inspection discloses any item, whether or not included on the Contractor's list, which is not sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work or designated portion thereof for its intended use, the Contractor shall, before issuance of the Certificate of Substantial Completion, complete or correct such item upon notification by the Architect. In such case, the Contractor shall then submit a request for another inspection by the Architect to determine Substantial Completion.

§ 9.8.4 When the Work or designated portion thereof is substantially complete, the Architect will prepare a Certificate of Substantial Completion that shall establish the date of Substantial Completion; establish responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance; and fix the time within which the Contractor shall finish all items on the list accompanying the Certificate. Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion.

§ 9.8.5 The Certificate of Substantial Completion shall be submitted to the Owner and Contractor for their written acceptance of responsibilities assigned to them in the Certificate. Upon such acceptance, and consent of surety if any, the Owner shall make payment of retainage applying to the Work or designated portion thereof. Such payment shall be adjusted for Work that is incomplete or not in accordance with the requirements of the Contract Documents.

§ 9.9 Partial Occupancy or Use

§ 9.9.1 The Owner may occupy or use any completed or partially completed portion of the Work at any stage when such portion is designated by separate agreement with the Contractor, provided such occupancy or use is consented to by the insurer and authorized by public authorities having jurisdiction over the Project. Such partial occupancy or use may commence whether or not the portion is substantially complete, provided the Owner and Contractor have accepted in writing the responsibilities assigned to each of them for payments, retainage, if any, security,

maintenance, heat, utilities, damage to the Work and insurance, and have agreed in writing concerning the period for correction of the Work and commencement of warranties required by the Contract Documents. When the Contractor considers a portion substantially complete, the Contractor shall prepare and submit a list to the Architect as provided under Section 9.8.2. Consent of the Contractor to partial occupancy or use shall not be unreasonably withheld. The stage of the progress of the Work shall be determined by written agreement between the Owner and Contractor or, if no agreement is reached, by decision of the Architect.

§ 9.9.2 Immediately prior to such partial occupancy or use, the Owner, Contractor, and Architect shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work.

§ 9.9.3 Unless otherwise agreed upon, partial occupancy or use of a portion or portions of the Work shall not constitute acceptance of Work not complying with the requirements of the Contract Documents.

§ 9.10 Final Completion and Final Payment

§ 9.10.1 Upon receipt of the Contractor's notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Architect will promptly make such inspection. When the Architect finds the Work acceptable under the Contract Documents and the Contract fully performed, the Architect will promptly issue a final Certificate for Payment stating that to the best of the Architect's knowledge, information and belief, and on the basis of the Architect's on-site visits and inspections, the Work has been completed in accordance with the Contract Documents and that the entire balance found to be due the Contractor and noted in the final Certificate is due and payable. The Architect's final Certificate for Payment will constitute a further representation that conditions listed in Section 9.10.2 as precedent to the Contractor's being entitled to final payment have been fulfilled.

§ 9.10.2 Neither final payment nor any remaining retained percentage shall become due until the Contractor submits to the Architect (1) an affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or the Owner's property might be responsible or encumbered (less amounts withheld by Owner) have been paid or otherwise satisfied, (2) a certificate evidencing that insurance required by the Contract Documents to remain in force after final payment is currently in effect, (3) a written statement that the Contractor knows of no reason that the insurance will not be renewable to cover the period required by the Contract Documents, (4) consent of surety, if any, to final payment, (5) documentation of any special warranties, such as manufacturers' warranties or specific Subcontractor warranties, and (6) if required by the Owner, other data establishing payment or satisfaction of obligations, such as receipts and releases and waivers of liens, claims, security interests, or encumbrances arising out of the Contract, to the extent and in such form as may be designated by the Owner. If a Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against such lien, claim, security interest, or encumbrance. If a lien, claim, security interest, or encumbrance remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging the lien, claim, security interest, or encumbrance, including all costs and reasonable attorneys' fees.

§ 9.10.3 If, after Substantial Completion of the Work, final completion thereof is materially delayed through no fault of the Contractor or by issuance of Change Orders affecting final completion, and the Architect so confirms, the Owner shall, upon application by the Contractor and certification by the Architect, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed, corrected, and accepted. If the remaining balance for Work not fully completed or corrected is less than retainage stipulated in the Contract Documents, and if bonds have been furnished, the written consent of the surety to payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by the Contractor to the Architect prior to certification of such payment. Such payment shall be made under terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

§ 9.10.4 The making of final payment shall constitute a waiver of Claims by the Owner except those arising from

- .1 liens, Claims, security interests, or encumbrances arising out of the Contract and unsettled;
- .2 failure of the Work to comply with the requirements of the Contract Documents;
- .3 terms of special warranties required by the Contract Documents; or
- .4 audits performed by the Owner, if permitted by the Contract Documents, after final payment.

§ 9.10.5 Acceptance of final payment by the Contractor, a Subcontractor, or a supplier, shall constitute a waiver of claims by that payee except those previously made in writing and identified by that payee as unsettled at the time of final Application for Payment.

ARTICLE 10 PROTECTION OF PERSONS AND PROPERTY

§ 10.1 Safety Precautions and Programs

The Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the performance of the Contract.

§ 10.2 Safety of Persons and Property

§ 10.2.1 The Contractor shall take **any and all** reasonable precautions for safety of, and shall provide **any and all** reasonable protection to prevent damage, injury, or loss to

- .1 employees on the Work and other persons who may be affected thereby;
- .2 the Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody, or control of the Contractor, a Subcontractor, or a Sub-subcontractor; and
- .3 other property at the site or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction.

§ 10.2.2 The Contractor shall comply with, and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities, bearing on safety of persons or property or their protection from damage, injury, or loss.

§ 10.2.3 The Contractor shall implement, erect, and maintain, as required by existing conditions and performance of the Contract, reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards; promulgating safety regulations; and notifying the owners and users of adjacent sites and utilities of the safeguards.

§ 10.2.4 When use or storage of explosives or other hazardous materials or equipment, or unusual methods are necessary for execution of the Work, the Contractor shall exercise utmost care and carry on such activities under supervision of properly qualified personnel.

§ 10.2.5 The Contractor shall promptly remedy damage and loss (other than damage or loss insured under property insurance required by the Contract Documents) to property referred to in Sections 10.2.1.2 and 10.2.1.3 caused in whole or in part by the Contractor, a Subcontractor, a Sub-subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable and for which the Contractor is responsible under Sections 10.2.1.2 and 10.2.1.3. The Contractor may make a Claim for the cost to remedy the damage or loss to the extent such damage or loss is attributable to acts or omissions of the Owner or Architect or anyone directly or indirectly employed by either of them, or by anyone for whose acts either of them may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to the Contractor's obligations under Section 3.18.

§ 10.2.6 The Contractor shall designate **in writing to the Owner and Architect** a responsible member of the Contractor's organization at the site whose duty shall be the prevention of accidents. This person shall be the Contractor's superintendent unless otherwise designated by the Contractor in writing to the Owner and Architect.

§ 10.2.7 The Contractor shall not permit any part of the construction or site to be loaded so as to cause damage or create an unsafe condition.

§ 10.2.8 Injury or Damage to Person or Property

If either party suffers injury or damage to person or property because of an act or omission of the other party, or of others for whose acts such party is legally responsible, notice of the injury or damage, whether or not insured, shall be given to the other party within a reasonable time not exceeding 21 days after discovery. The notice shall provide sufficient detail to enable the other party to investigate the matter.

§ 10.3 Hazardous Materials and Substances

§ 10.3.1 The Contractor is responsible for compliance with any requirements included in the Contract Documents regarding hazardous materials or substances. If the Contractor encounters a hazardous material or substance not

addressed in the Contract Documents and if reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a material or substance, including but not limited to asbestos or polychlorinated biphenyl (PCB), encountered on the site by the Contractor, the Contractor shall, upon recognizing the condition, immediately stop Work in the affected area and notify the Owner and Architect of the condition.

§ 10.3.2 Upon receipt of the Contractor's notice, the Owner shall obtain the services of a licensed laboratory to verify the presence or absence of the material or substance reported by the Contractor and, in the event such material or substance is found to be present, to cause it to be rendered harmless. Unless otherwise required by the Contract Documents, the Owner shall furnish in writing to the Contractor and Architect the names and qualifications of persons or entities who are to perform tests verifying the presence or absence of the material or substance or who are to perform the task of removal or safe containment of the material or substance. The Contractor and the Architect will promptly reply to the Owner in writing stating whether or not either has reasonable objection to the persons or entities proposed by the Owner. If either the Contractor or Architect has an objection to a person or entity proposed by the Owner, the Owner shall propose another to whom the Contractor and the Architect have no reasonable objection. When the material or substance has been rendered harmless, Work in the affected area shall resume upon written agreement of the Owner and Contractor. By Change Order, the Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable additional costs of shutdown, delay, and start-up.

§ 10.3.3 To the fullest extent permitted by law, the Owner shall indemnify and hold harmless the Contractor, Subcontractors, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work in the affected area if in fact the material or substance presents the risk of bodily injury or death as described in Section 10.3.1 and has not been rendered harmless, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), except to the extent that such damage, loss, or expense is due to the fault or negligence of the party seeking indemnity.

§ 10.3.4 The Owner shall not be responsible under this Section 10.3 for hazardous materials or substances the Contractor brings to the site unless such materials or substances are required by the Contract Documents. The Owner shall be responsible for hazardous materials or substances required by the Contract Documents, except to the extent of the Contractor's fault or negligence in the use and handling of such materials or substances.

§ 10.3.5 The Contractor shall reimburse the Owner for the cost and expense the Owner incurs (1) for remediation of hazardous materials or substances the Contractor brings to the site and negligently handles, or (2) where the Contractor fails to perform its obligations under Section 10.3.1, except to the extent that the cost and expense are due to the Owner's fault or negligence.

§ 10.3.6 If, without negligence on the part of the Contractor, the Contractor is held liable by a government agency for the cost of remediation of a hazardous material or substance solely by reason of performing Work as required by the Contract Documents, the Owner shall reimburse the Contractor for all cost and expense thereby incurred.

§ 10.4 Emergencies

In an emergency affecting safety of persons or property, the Contractor shall act, at the Contractor's discretion, to prevent threatened damage, injury, or loss. Additional compensation or extension of time claimed by the Contractor on account of an emergency shall be determined as provided in Article 15 and Article 7.

ARTICLE 11 INSURANCE AND BONDS

§ 11.1 Contractor's Insurance and Bonds

§ 11.1.1 The Contractor shall purchase and maintain insurance of the types and limits of liability, containing the endorsements, and subject to the terms and conditions, as described in the Agreement or elsewhere in the Contract Documents. The Contractor shall purchase and maintain the required insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located. The Owner, Architect, and Architect's consultants shall be named as additional insureds under the Contractor's commercial general liability policy or as otherwise described in the Contract Documents.

§ 11.1.2 The Contractor shall provide surety bonds of the types, for such penal sums, and subject to such terms and conditions as required by the Contract Documents. The Contractor shall purchase and maintain the required bonds

from a company or companies lawfully authorized to issue surety bonds in the jurisdiction where the Project is located.

§ 11.1.3 Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Contract, the Contractor shall promptly furnish a copy of the bonds or shall authorize a copy to be furnished.

§ 11.1.4 Notice of Cancellation or Expiration of Contractor's Required Insurance. Within three (3) business days of the date the Contractor becomes aware of an impending or actual cancellation or expiration of any insurance required by the Contract Documents, the Contractor shall provide notice to the Owner of such impending or actual cancellation or expiration. Upon receipt of notice from the Contractor, the Owner shall, unless the lapse in coverage arises from an act or omission of the Owner, have the right to stop the Work until the lapse in coverage has been cured by the procurement of replacement coverage by the Contractor. The furnishing of notice by the Contractor shall not relieve the Contractor of any contractual obligation to provide any required coverage.

§ 11.2 Owner's Insurance

§ 11.2.1 The Owner shall purchase and maintain insurance of the types and limits of liability, containing the endorsements, and subject to the terms and conditions, as described in the Agreement or elsewhere in the Contract Documents. The Owner shall purchase and maintain the required insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located.

§ 11.2.2 Failure to Purchase Required Property Insurance. If the Owner fails to purchase and maintain the required property insurance, with all of the coverages and in the amounts described in the Agreement or elsewhere in the Contract Documents, the Owner shall inform the Contractor in writing prior to commencement of the Work. Upon receipt of notice from the Owner, the Contractor may delay commencement of the Work and may obtain insurance that will protect the interests of the Contractor, Subcontractors, and Sub-Subcontractors in the Work. When the failure to provide coverage has been cured or resolved, the Contract Sum and Contract Time shall be equitably adjusted. In the event the Owner fails to procure coverage, the Owner waives all rights against the Contractor, Subcontractors, and Sub-subcontractors to the extent the loss to the Owner would have been covered by the insurance to have been procured by the Owner. The cost of the insurance shall be charged to the Owner by a Change Order. If the Owner does not provide written notice, and the Contractor is damaged by the failure or neglect of the Owner to purchase or maintain the required insurance, the Owner shall reimburse the Contractor for all reasonable costs and damages attributable thereto.

§ 11.2.3 Notice of Cancellation or Expiration of Owner's Required Property Insurance. Within three (3) business days of the date the Owner becomes aware of an impending or actual cancellation or expiration of any property insurance required by the Contract Documents, the Owner shall provide notice to the Contractor of such impending or actual cancellation or expiration. Unless the lapse in coverage arises from an act or omission of the Contractor: (1) the Contractor, upon receipt of notice from the Owner, shall have the right to stop the Work until the lapse in coverage has been cured by the procurement of replacement coverage by either the Owner or the Contractor; (2) the Contract Time and Contract Sum shall be equitably adjusted; and (3) the Owner waives all rights against the Contractor, Subcontractors, and Sub-subcontractors to the extent any loss to the Owner would have been covered by the insurance had it not expired or been cancelled. If the Contractor purchases replacement coverage, the cost of the insurance shall be charged to the Owner by an appropriate Change Order. The furnishing of notice by the Owner shall not relieve the Owner of any contractual obligation to provide required insurance.

§ 11.3 Waivers of Subrogation

§ 11.3.1 The Owner and Contractor waive all rights against (1) each other and any of their subcontractors, sub-subcontractors, agents, and employees, each of the other; (2) the Architect and Architect's consultants; and (3) Separate Contractors, if any, and any of their subcontractors, sub-subcontractors, agents, and employees, for damages caused by fire, or other causes of loss, to the extent those losses are covered by property insurance required by the Agreement or other property insurance applicable to the Project, except such rights as they have to proceeds of such insurance. The Owner or Contractor, as appropriate, shall require similar written waivers in favor of the individuals and entities identified above from the Architect, Architect's consultants, Separate Contractors, subcontractors, and sub-subcontractors. The policies of insurance purchased and maintained by each person or entity agreeing to waive claims pursuant to this section 11.3.1 shall not prohibit this waiver of subrogation. This waiver of subrogation shall be effective as to a person or entity (1) even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, (2) even though that person or entity did not pay the insurance

premium directly or indirectly, or (3) whether or not the person or entity had an insurable interest in the damaged property.

§ 11.3.2 If during the Project construction period the Owner insures properties, real or personal or both, at or adjacent to the site by property insurance under policies separate from those insuring the Project, or if after final payment property insurance is to be provided on the completed Project through a policy or policies other than those insuring the Project during the construction period, to the extent permissible by such policies, the Owner waives all rights in accordance with the terms of Section 11.3.1 for damages caused by fire or other causes of loss covered by this separate property insurance.

§ 11.4 Loss of Use, Business Interruption, and Delay in Completion Insurance

The Owner, at the Owner's option, may purchase and maintain insurance that will protect the Owner against loss of use of the Owner's property, or the inability to conduct normal operations, due to fire or other causes of loss. The Owner waives all rights of action against the Contractor and Architect for loss of use of the Owner's property, due to fire or other hazards however caused.

§ 11.5 Adjustment and Settlement of Insured Loss

§ 11.5.1 A loss insured under the property insurance required by the Agreement shall be adjusted by the Owner as fiduciary and made payable to the Owner as fiduciary for the insureds, as their interests may appear, subject to requirements of any applicable mortgagee clause and of Section 11.5.2. The Owner shall pay the Architect and Contractor their just shares of insurance proceeds received by the Owner, and by appropriate agreements the Architect and Contractor shall make payments to their consultants and Subcontractors in similar manner.

§ 11.5.2 Prior to settlement of an insured loss, the Owner shall notify the Contractor of the terms of the proposed settlement as well as the proposed allocation of the insurance proceeds. The Contractor shall have 14 days from receipt of notice to object to the proposed settlement or allocation of the proceeds. If the Contractor does not object, the Owner shall settle the loss and the Contractor shall be bound by the settlement and allocation. Upon receipt, the Owner shall deposit the insurance proceeds in a separate account and make the appropriate distributions. Thereafter, if no other agreement is made or the Owner does not terminate the Contract for convenience, the Owner and Contractor shall execute a Change Order for reconstruction of the damaged or destroyed Work in the amount allocated for that purpose. If the Contractor timely objects to either the terms of the proposed settlement or the allocation of the proceeds, the Owner may proceed to settle the insured loss, and any dispute between the Owner and Contractor arising out of the settlement or allocation of the proceeds shall be resolved pursuant to Article 15. Pending resolution of any dispute, the Owner may issue a Construction Change Directive for the reconstruction of the damaged or destroyed Work.

ARTICLE 12 UNCOVERING AND CORRECTION OF WORK

§ 12.1 Uncovering of Work

§ 12.1.1 If a portion of the Work is covered contrary to the Architect's request or to requirements specifically expressed in the Contract Documents, it must, if requested in writing by the Architect, be uncovered for the Architect's examination and be replaced at the Contractor's expense without change in the Contract Time.

§ 12.1.2 If a portion of the Work has been covered that the Architect has not specifically requested to examine prior to its being covered, the Architect may request to see such Work and it shall be uncovered by the Contractor. If such Work is in accordance with the Contract Documents, the Contractor shall be entitled to an equitable adjustment to the Contract Sum and Contract Time as may be appropriate. If such Work is not in accordance with the Contract Documents, the costs of uncovering the Work, and the cost of correction, shall be at the Contractor's expense.

§ 12.2 Correction of Work

§ 12.2.1 Before Substantial Completion

The Contractor shall promptly correct Work rejected by the Architect or failing to conform to the requirements of the Contract Documents, discovered before Substantial Completion and whether or not fabricated, installed or completed. Costs of correcting such rejected Work, including additional testing and inspections, the cost of uncovering and replacement, and compensation for the Architect's services and expenses made necessary thereby, shall be at the Contractor's expense.

§ 12.2.2 After Substantial Completion

§ 12.2.2.1 In addition to the Contractor's obligations under Section 3.5, if, within one year after the date of Substantial Completion of the Work or designated portion thereof or after the date for commencement of warranties established under Section 9.9.1, or by terms of any applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of notice from the Owner to do so, unless the Owner has previously given the Contractor a written acceptance of such condition. The Owner shall give such notice promptly after discovery of the condition. During the one-year period for correction of Work, if the Owner fails to notify the Contractor and give the Contractor an opportunity to make the correction, the Owner waives the rights to require correction by the Contractor and to make a claim for breach of warranty. If the Contractor fails to correct nonconforming Work within a reasonable time during that period after receipt of notice from the Owner or Architect, the Owner may correct it in accordance with Section 2.5.

§ 12.2.2.2 The one-year period for correction of Work shall be extended with respect to portions of Work first performed after Substantial Completion by the period of time between Substantial Completion and the actual completion of that portion of the Work.

§ 12.2.2.3 The one-year period for correction of Work shall not be extended by corrective Work performed by the Contractor pursuant to this Section 12.2.

§ 12.2.3 The Contractor shall remove from the site portions of the Work that are not in accordance with the requirements of the Contract Documents and are neither corrected by the Contractor nor accepted by the Owner.

§ 12.2.4 The Contractor shall bear the cost of correcting destroyed or damaged construction of the Owner or Separate Contractors, whether completed or partially completed, caused by the Contractor's correction or removal of Work that is not in accordance with the requirements of the Contract Documents.

§ 12.2.5 Nothing contained in this Section 12.2 shall be construed to establish a period of limitation with respect to other obligations the Contractor has under the Contract Documents. Establishment of the one-year period for correction of Work as described in Section 12.2.2 relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to the Contractor's obligations other than specifically to correct the Work.

§ 12.3 Acceptance of Nonconforming Work

If the Owner prefers to accept Work that is not in accordance with the requirements of the Contract Documents, the Owner may do so instead of requiring its removal and correction, in which case the Contract Sum will be reduced as appropriate and equitable. Such adjustment shall be effected whether or not final payment has been made.

ARTICLE 13 MISCELLANEOUS PROVISIONS

§ 13.1 Governing Law

The Contract shall be governed by the law of the place where the Project is located, excluding that jurisdiction's choice of law rules. If the parties have selected arbitration as the method of binding dispute resolution, the Federal Arbitration Act shall govern Section 15.4.

§ 13.2 Successors and Assigns

§ 13.2.1 The Owner and Contractor respectively bind themselves, their partners, successors, assigns, and legal representatives to covenants, agreements, and obligations contained in the Contract Documents. Except as provided in Section 13.2.2, neither party to the Contract shall assign the Contract as a whole without written consent of the other. If either party attempts to make an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations under the Contract.

§ 13.2.2 The Owner may, without consent of the Contractor, assign the Contract to a lender providing construction financing for the Project, if the lender assumes the Owner's rights and obligations under the Contract Documents. The Contractor shall execute all consents reasonably required to facilitate the assignment.

§ 13.3 Rights and Remedies

§ 13.3.1 Duties and obligations imposed by the Contract Documents and rights and remedies available thereunder shall be in addition to and not a limitation of duties, obligations, rights, and remedies otherwise imposed or available by law.

§ 13.3.2 No action or failure to act by the Owner, Architect, or Contractor shall constitute a waiver of a right or duty afforded them under the Contract, nor shall such action or failure to act constitute approval of or acquiescence in a breach thereunder, except as may be specifically agreed upon in writing.

§ 13.4 Tests and Inspections

§ 13.4.1 Tests, inspections, and approvals of portions of the Work shall be made as required by the Contract Documents and by applicable laws, statutes, ordinances, codes, rules, and regulations or lawful orders of public authorities. Unless otherwise provided, the Contractor shall make arrangements for such tests, inspections, and approvals with an independent testing laboratory or entity acceptable to the Owner, or with the appropriate public authority, and shall bear all related costs of tests, inspections, and approvals. The Contractor shall give the Architect timely notice of when and where tests and inspections are to be made so that the Architect may be present for such procedures. The Owner shall bear costs of tests, inspections, or approvals that do not become requirements until after bids are received or negotiations concluded. The Owner shall directly arrange and pay for tests, inspections, or approvals where building codes or applicable laws or regulations so require.

§ 13.4.2 If the Architect, Owner, or public authorities having jurisdiction determine that portions of the Work require additional testing, inspection, or approval not included under Section 13.4.1, the Architect will, upon written authorization from the Owner, instruct the Contractor to make arrangements for such additional testing, inspection, or approval, by an entity acceptable to the Owner, and the Contractor shall give timely notice to the Architect of when and where tests and inspections are to be made so that the Architect may be present for such procedures. Such costs, except as provided in Section 13.4.3, shall be at the Owner's expense.

§ 13.4.3 If procedures for testing, inspection, or approval under Sections 13.4.1 and 13.4.2 reveal failure of the portions of the Work to comply with requirements established by the Contract Documents, all costs made necessary by such failure, including those of repeated procedures and compensation for the Architect's services and expenses, shall be at the Contractor's expense.

§ 13.4.4 Required certificates of testing, inspection, or approval shall, unless otherwise required by the Contract Documents, be secured by the Contractor and promptly delivered to the Architect.

§ 13.4.5 If the Architect is to observe tests, inspections, or approvals required by the Contract Documents, the Architect will do so promptly and, where practicable, at the normal place of testing.

§ 13.4.6 Tests or inspections conducted pursuant to the Contract Documents shall be made promptly to avoid unreasonable delay in the Work.

§ 13.5 Interest

Payments due and unpaid under the Contract Documents shall bear interest from the date payment is due at the rate the parties agree upon in writing or, in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located.

ARTICLE 14 TERMINATION OR SUSPENSION OF THE CONTRACT

§ 14.1 Termination by the Contractor

§ 14.1.1 The Contractor may terminate the Contract if the Work is stopped for a period of 30 consecutive days through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, their agents or employees, or any other persons or entities performing portions of the Work, for any of the following reasons:

- .1 Issuance of an order of a court or other public authority having jurisdiction that requires all Work to be stopped;
- .2 An act of government, such as a declaration of national emergency, that requires all Work to be stopped;
- .3 Because the Architect has not issued a Certificate for Payment and has not notified the Contractor of the reason for withholding certification as provided in Section 9.4.1, or because the Owner has not made payment on a Certificate for Payment within the time stated in the Contract Documents; or

.4 The Owner has failed to furnish to the Contractor reasonable evidence as required by Section 2.2.

§ 14.1.2 The Contractor may terminate the Contract if, through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, their agents or employees, or any other persons or entities performing portions of the Work, repeated suspensions, delays, or interruptions of the entire Work by the Owner as described in Section 14.3, constitute in the aggregate more than 100 percent of the total number of days scheduled for completion, or 120 days in any 365-day period, whichever is less.

§ 14.1.3 If one of the reasons described in Section 14.1.1 or 14.1.2 exists, the Contractor may, upon seven days' notice to the Owner and Architect, terminate the Contract and recover from the Owner payment for Work executed, as well as reasonable overhead and profit on Work not executed, and costs incurred by reason of such termination.

§ 14.1.4 If the Work is stopped for a period of 60 consecutive days through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, or their agents or employees or any other persons or entities performing portions of the Work because the Owner has repeatedly failed to fulfill the Owner's obligations under the Contract Documents with respect to matters important to the progress of the Work, the Contractor may, upon seven additional days' notice to the Owner and the Architect, terminate the Contract and recover from the Owner as provided in Section 14.1.3.

§ 14.2 Termination by the Owner for Cause

§ 14.2.1 The Owner may terminate the Contract if the Contractor

- .1** repeatedly refuses or fails to supply enough properly skilled workers or proper materials;
- .2** fails to make payment to Subcontractors or suppliers in accordance with the respective agreements between the Contractor and the Subcontractors or suppliers;
- .3** repeatedly disregards applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of a public authority; or
- .4** otherwise is guilty of substantial breach of a provision of the Contract Documents.

§ 14.2.2 When any of the reasons described in Section 14.2.1 exist, and upon certification by the Architect that sufficient cause exists to justify such action, the Owner may, without prejudice to any other rights or remedies of the Owner and after giving the Contractor and the Contractor's surety, if any, seven days' notice, terminate employment of the Contractor and may, subject to any prior rights of the surety:

- .1** Exclude the Contractor from the site and take possession of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor;
- .2** Accept assignment of subcontracts pursuant to Section 5.4; and
- .3** Finish the Work by whatever reasonable method the Owner may deem expedient. Upon written request of the Contractor, the Owner shall furnish to the Contractor a detailed accounting of the costs incurred by the Owner in finishing the Work.

§ 14.2.3 When the Owner terminates the Contract for one of the reasons stated in Section 14.2.1, the Contractor shall not be entitled to receive further payment until the Work is finished.

§ 14.2.4 If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, including compensation for the Architect's services and expenses made necessary thereby, and other damages incurred by the Owner and not expressly waived, such excess shall be paid to the Contractor. If such costs and damages exceed the unpaid balance, the Contractor shall pay the difference to the Owner. The amount to be paid to the Contractor or Owner, as the case may be, shall be certified by the Initial Decision Maker, upon application, and this obligation for payment shall survive termination of the Contract.

§ 14.3 Suspension by the Owner for Convenience

§ 14.3.1 The Owner may, without cause, order the Contractor in writing to suspend, delay or interrupt the Work, in whole or in part for such period of time as the Owner may determine.

§ 14.3.2 The Contract Sum and Contract Time shall be adjusted for increases in the cost and time caused by suspension, delay, or interruption under Section 14.3.1. Adjustment of the Contract Sum shall include profit. No adjustment shall be made to the extent

- .1** that performance is, was, or would have been, so suspended, delayed, or interrupted, by another cause for which the Contractor is responsible; or

- .2 that an equitable adjustment is made or denied under another provision of the Contract.

§ 14.4 Termination by the Owner for Convenience

§ 14.4.1 The Owner may, at any time, terminate the Contract for the Owner's convenience and without cause.

§ 14.4.2 Upon receipt of notice from the Owner of such termination for the Owner's convenience, the Contractor shall

- .1 cease operations as directed by the Owner in the notice;
- .2 take actions necessary, or that the Owner may direct, for the protection and preservation of the Work; and
- .3 except for Work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders.

§ 14.4.3 In case of such termination for the Owner's convenience, the Owner shall pay the Contractor for Work properly executed; costs incurred by reason of the termination, including costs attributable to termination of Subcontracts; and the termination fee, if any, set forth in the Agreement.

ARTICLE 15 CLAIMS AND DISPUTES

§ 15.1 Claims

§ 15.1.1 Definition

A Claim is a demand or assertion by one of the parties seeking, as a matter of right, payment of money, a change in the Contract Time, or other relief with respect to the terms of the Contract. The term "Claim" also includes other disputes and matters in question between the Owner and Contractor arising out of or relating to the Contract. The responsibility to substantiate Claims shall rest with the party making the Claim. This Section 15.1.1 does not require the Owner to file a Claim in order to impose liquidated damages in accordance with the Contract Documents.

§ 15.1.2 Time Limits on Claims

The Owner and Contractor shall commence all Claims and causes of action against the other and arising out of or related to the Contract, whether in contract, tort, breach of warranty or otherwise, in accordance with the requirements of the binding dispute resolution method selected in the Agreement and within the period specified by applicable law, but in any case not more than 10 years after the date of Substantial Completion of the Work. The Owner and Contractor waive all Claims and causes of action not commenced in accordance with this Section 15.1.2.

§ 15.1.3 Notice of Claims

§ 15.1.3.1 Claims by either the Owner or Contractor, where the condition giving rise to the Claim is first discovered prior to expiration of the period for correction of the Work set forth in Section 12.2.2, shall be initiated by notice to the other party and to the Initial Decision Maker with a copy sent to the Architect, if the Architect is not serving as the Initial Decision Maker. Claims by either party under this Section 15.1.3.1 shall be initiated within 21 days after occurrence of the event giving rise to such Claim or within 21 days after the claimant first recognizes the condition giving rise to the Claim, whichever is later.

§ 15.1.3.2 Claims by either the Owner or Contractor, where the condition giving rise to the Claim is first discovered after expiration of the period for correction of the Work set forth in Section 12.2.2, shall be initiated by notice to the other party. In such event, no decision by the Initial Decision Maker is required.

§ 15.1.4 Continuing Contract Performance

§ 15.1.4.1 Pending final resolution of a Claim, except as otherwise agreed in writing or as provided in Section 9.7 and Article 14, the Contractor shall proceed diligently with performance of the Contract and the Owner shall continue to make payments in accordance with the Contract Documents.

§ 15.1.4.2 The Contract Sum and Contract Time shall be adjusted in accordance with the Initial Decision Maker's decision, subject to the right of either party to proceed in accordance with this Article 15. The Architect will issue Certificates for Payment in accordance with the decision of the Initial Decision Maker.

§ 15.1.5 Claims for Additional Cost

If the Contractor wishes to make a Claim for an increase in the Contract Sum, notice as provided in Section 15.1.3 shall be given before proceeding to execute the portion of the Work that is the subject of the Claim. Prior notice is not required for Claims relating to an emergency endangering life or property arising under Section 10.4.

§ 15.1.6 Claims for Additional Time

§ 15.1.6.1 If the Contractor wishes to make a Claim for an increase in the Contract Time, notice as provided in Section 15.1.3 shall be given. The Contractor's Claim shall include an estimate of cost and of probable effect of delay on progress of the Work. In the case of a continuing delay, only one Claim is necessary.

§ 15.1.6.2 If adverse weather conditions are the basis for a Claim for additional time, such Claim shall be documented by data substantiating that weather conditions were abnormal for the period of time, could not have been reasonably anticipated, and had an adverse effect on the scheduled construction.

§ 15.1.7 Waiver of Claims for Consequential Damages

The Contractor and Owner waive Claims against each other for consequential damages arising out of or relating to this Contract. This mutual waiver includes

- .1 damages incurred by the Owner for rental expenses, for losses of use, income, profit, financing, business and reputation, and for loss of management or employee productivity or of the services of such persons; and
- .2 damages incurred by the Contractor for principal office expenses including the compensation of personnel stationed there, for losses of financing, business and reputation, and for loss of profit, except anticipated profit arising directly from the Work.

This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination in accordance with Article 14. Nothing contained in this Section 15.1.7 shall be deemed to preclude assessment of liquidated damages, when applicable, in accordance with the requirements of the Contract Documents.

§ 15.2 Initial Decision

§ 15.2.1 Claims, excluding those where the condition giving rise to the Claim is first discovered after expiration of the period for correction of the Work set forth in Section 12.2.2 or arising under Sections 10.3, 10.4, and 11.5, shall be referred to the Initial Decision Maker for initial decision. The Architect will serve as the Initial Decision Maker, unless otherwise indicated in the Agreement. Except for those Claims excluded by this Section 15.2.1, an initial decision shall be required as a condition precedent to mediation of any Claim. If an initial decision has not been rendered within 30 days after the Claim has been referred to the Initial Decision Maker, the party asserting the Claim may demand mediation and binding dispute resolution without a decision having been rendered. Unless the Initial Decision Maker and all affected parties agree, the Initial Decision Maker will not decide disputes between the Contractor and persons or entities other than the Owner.

§ 15.2.2 The Initial Decision Maker will review Claims and within ten days of the receipt of a Claim take one or more of the following actions: (1) request additional supporting data from the claimant or a response with supporting data from the other party, (2) reject the Claim in whole or in part, (3) approve the Claim, (4) suggest a compromise, or (5) advise the parties that the Initial Decision Maker is unable to resolve the Claim if the Initial Decision Maker lacks sufficient information to evaluate the merits of the Claim or if the Initial Decision Maker concludes that, in the Initial Decision Maker's sole discretion, it would be inappropriate for the Initial Decision Maker to resolve the Claim.

§ 15.2.3 In evaluating Claims, the Initial Decision Maker may, but shall not be obligated to, consult with or seek information from either party or from persons with special knowledge or expertise who may assist the Initial Decision Maker in rendering a decision. The Initial Decision Maker may request the Owner to authorize retention of such persons at the Owner's expense.

§ 15.2.4 If the Initial Decision Maker requests a party to provide a response to a Claim or to furnish additional supporting data, such party shall respond, within ten days after receipt of the request, and shall either (1) provide a response on the requested supporting data, (2) advise the Initial Decision Maker when the response or supporting data will be furnished, or (3) advise the Initial Decision Maker that no supporting data will be furnished. Upon receipt of the response or supporting data, if any, the Initial Decision Maker will either reject or approve the Claim in whole or in part.

§ 15.2.5 The Initial Decision Maker will render an initial decision approving or rejecting the Claim, or indicating that the Initial Decision Maker is unable to resolve the Claim. This initial decision shall (1) be in writing; (2) state the reasons therefor; and (3) notify the parties and the Architect, if the Architect is not serving as the Initial Decision Maker, of any change in the Contract Sum or Contract Time or both. The initial decision shall be final and binding on the parties but subject to mediation and, if the parties fail to resolve their dispute through mediation, to binding dispute resolution.

§ 15.2.6 Either party may file for mediation of an initial decision at any time, subject to the terms of Section 15.2.6.1.

§ 15.2.6.1 Either party may, within 30 days from the date of receipt of an initial decision, demand in writing that the other party file for mediation. If such a demand is made and the party receiving the demand fails to file for mediation within 30 days after receipt thereof, then both parties waive their rights to mediate or pursue binding dispute resolution proceedings with respect to the initial decision.

§ 15.2.7 In the event of a Claim against the Contractor, the Owner may, but is not obligated to, notify the surety, if any, of the nature and amount of the Claim. If the Claim relates to a possibility of a Contractor's default, the Owner may, but is not obligated to, notify the surety and request the surety's assistance in resolving the controversy.

§ 15.2.8 If a Claim relates to or is the subject of a mechanic's lien, the party asserting such Claim may proceed in accordance with applicable law to comply with the lien notice or filing deadlines.

§ 15.3 Mediation

§ 15.3.1 Claims, disputes, or other matters in controversy arising out of or related to the Contract, except those waived as provided for in Sections 9.10.4, 9.10.5, and 15.1.7, shall be subject to mediation as a condition precedent to binding dispute resolution.

§ 15.3.2 The parties shall endeavor to resolve their Claims by mediation which shall be administered by a mutually agreeable mediator. A request for mediation shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the mediation. The request may be made concurrently with the filing of binding dispute resolution proceedings but, in such event, mediation shall proceed in advance of binding dispute resolution proceedings, which shall be stayed pending mediation for a period of 60 days from the date of filing, unless stayed for a longer period by agreement of the parties or court order. If an arbitration is stayed pursuant to this Section 15.3.2, the parties may nonetheless proceed to the selection of the arbitrator(s) and agree upon a schedule for later proceedings.

§ 15.3.3 Either party may, within 30 days from the date that mediation has been concluded without resolution of the dispute or 60 days after mediation has been demanded without resolution of the dispute, demand in writing that the other party file for binding dispute resolution. If such a demand is made and the party receiving the demand fails to file for binding dispute resolution within 60 days after receipt thereof, then both parties waive their rights to binding dispute resolution proceedings with respect to the initial decision.

§ 15.3.4 The parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in the place where the Project is located, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

§ 15.4 Arbitration

§ 15.4.1 If the parties have selected arbitration as the method for binding dispute resolution in the Agreement, any Claim subject to, but not resolved by, mediation shall be subject to arbitration which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Arbitration Rules in effect on the date of the Agreement. The Arbitration shall be conducted in the place where the Project is located, unless another location is mutually agreed upon. A demand for arbitration shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the arbitration. The party filing a notice of demand for arbitration must assert in the demand all Claims then known to that party on which arbitration is permitted to be demanded.

§ 15.4.1.1 A demand for arbitration shall be made no earlier than concurrently with the filing of a request for mediation, but in no event shall it be made after the date when the institution of legal or equitable proceedings based on the Claim would be barred by the applicable statute of limitations. For statute of limitations purposes, receipt of a written demand for arbitration by the person or entity administering the arbitration shall constitute the institution of legal or equitable proceedings based on the Claim.

§ 15.4.2 The award rendered by the arbitrator or arbitrators shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof.

§ 15.4.3 The foregoing agreement to arbitrate and other agreements to arbitrate with an additional person or entity duly consented to by parties to the Agreement, shall be specifically enforceable under applicable law in any court having jurisdiction thereof.

§ 15.4.4 Consolidation or Joinder

§ 15.4.4.1 Subject to the rules of the American Arbitration Association or other applicable arbitration rules, either party may consolidate an arbitration conducted under this Agreement with any other arbitration to which it is a party provided that (1) the arbitration agreement governing the other arbitration permits consolidation, (2) the arbitrations to be consolidated substantially involve common questions of law or fact, and (3) the arbitrations employ materially similar procedural rules and methods for selecting arbitrator(s).

§ 15.4.4.2 Subject to the rules of the American Arbitration Association or other applicable arbitration rules, either party may include by joinder persons or entities substantially involved in a common question of law or fact whose presence is required if complete relief is to be accorded in arbitration, provided that the party sought to be joined consents in writing to such joinder. Consent to arbitration involving an additional person or entity shall not constitute consent to arbitration of any claim, dispute or other matter in question not described in the written consent.

§ 15.4.4.3 The Owner and Contractor grant to any person or entity made a party to an arbitration conducted under this Section 15.4, whether by joinder or consolidation, the same rights of joinder and consolidation as those of the Owner and Contractor under this Agreement.