

GAMEDAY MEN'S HEALTH CLINIC
190 CREEKSIDE CROSSING
NEW BRAUNFELS, TEXAS 78130



DRAWING COORDINATION
Architectural, Landscape, Civil, Structural, Mechanical and Electrical drawings are interrelated. General Contractor and all Sub Contractors shall review and coordinate the entire set of drawings and specifications

Table with 1 column and 1 row.

GAMEDAY
190 Creekside Crossing,
New Braunfels, 78130 Texas

Table with 3 columns: DATE, DESCRIPTION, BY.

SCALE
NTS

PROJECT NO.
04-26-26

SHEET NO.
COVER SHEET
C0.01

CODE ANALYSIS

Description Gameday Mens Health Clinic Client
Gameday
Tenant area 2440 Sq Ft
Address 190 Creekside Crossing, Suite 1206
New Braunfel TX 78130

2021 International Building Code
2021 International Fire Code
2021 International Energy Conservation Code
2020 National Electrical Code
2021 International Plumbing Code
2021 International Mechanical Code

2021 IBC Section 1102.1 buildings and facilities shall be designed and constructed to be accessible in accordance with this code and ICC A117.1-2017 CoNB Chapter 14 Local Amendments.

CONSTRUCTION TYPE - IIB FULLY SPRINKLERED

OCCUPANCY GROUP - B Occupancy Load - 34 (Table 1004.5)

VERTICAL & HORIZONTAL SEPERATION 508.4 - SPRINKLER SYSTEM
NFPA 13 - REQUIRES MIN 1 HR
WALL & FLOOR - REF. A1.00
Vertical compliance UL Design No. D925 - Ex. concrete = 2 hr
Horizontal compliance-UL Design No. U419 (Non-Load-Bearing Wall Assembly) = 1HR - REF DTL XX/A1.00

RESTROOM DESIGN

NUMBER OF PEOPLE = 34(17 male & 17 female)
CODE - Business Occupancies (Group B): Spaces with a total occupant load of 25 or fewer allows for 1 multi-use rest room Required - 2 provided.

PARKING

SHARED USE OF EXISTING PARKING PER LEASE AGREEMENT
Standard Medical/Professional Office Ratio (1 space per 250 sq. ft. GFA): 2514/250 =10 spaces

DESIGN TEAM

Architect
Legg Architecture, LLC
26116 High Timber Pass
San Antonio 78260
Tel: 210-416 4935

MEP

Maloney Associates
CONSULTING ENGINEERS, INC
1228 TRAILWOOD DRIVE
HURST TEXAS 76053
(817) 268-0383 VOICE & FAX
(817) 832-8907 CELL

STRUCTURAL ENGINEER

Integrity Engineering Solutions, LLC
5608 Malvey Ave, Suite 303
Fort Worth, TX 76107
817-886-3085

Notes

"If construction has not commenced within one-year of City approval for construction inspection, that approval is no longer valid."

DRAWING INDEX

ARCHITECTURAL

C0.01-COVER SHEET
A0.00-SITE PLAN
A1.00-LIFE SAFETY PLAN & WALL TYPES
A1.01-FLOOR PLAN
A2.00-REFLECTED CEILING PLAN
A3.00-ROOF PLAN
A4.00-EXTERIOR ELEVATIONS & BUILDING SECTION
A5.00-INTERIOR ELEV;RR DTLs;MILLWORK;SCHEDULES
A6.00-SPECIFICATIONS
A7.00-SPECIFICATIONS
A8.00-SPECIFICATIONS

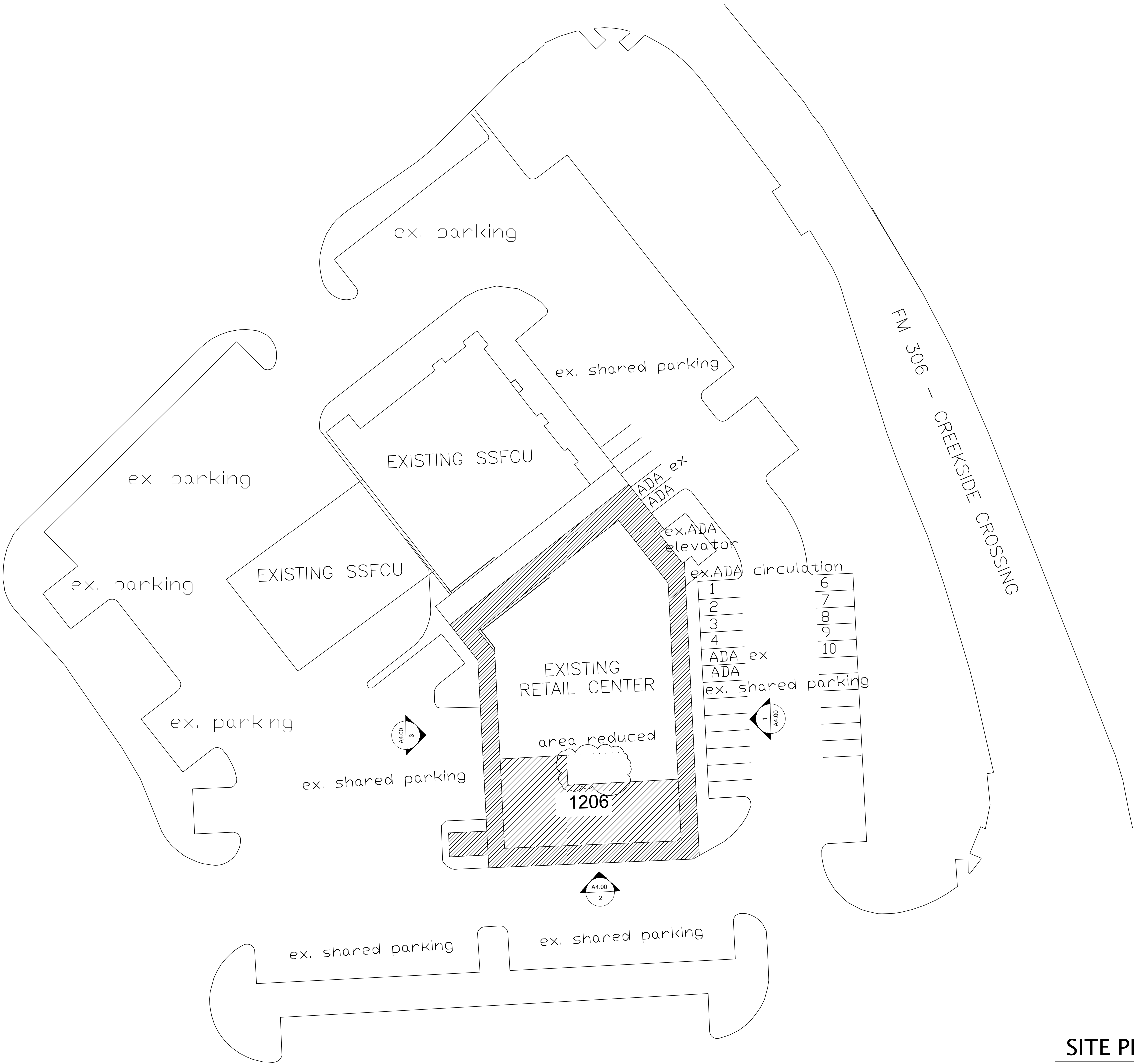
MEP

M0.00 Mechanical Notes & Details
M0.01 Mechanical Schedules
M1.00 Mechanical Plan
E0.00 Electrical Riser & Schedules
E1.00 Electrical Plan
E1.01 Lighting Plan
P0.00 Plumbing Notes & Details
P1.00 Plumbing Waste Plan
P1.00 Plumbing Supply Plan
P2.00 Plumbing Risers

STRUCTURAL

S0.02 Partial Framing Plan
S0.02 RTU FramingDetails
S0.04 General Structural Notes



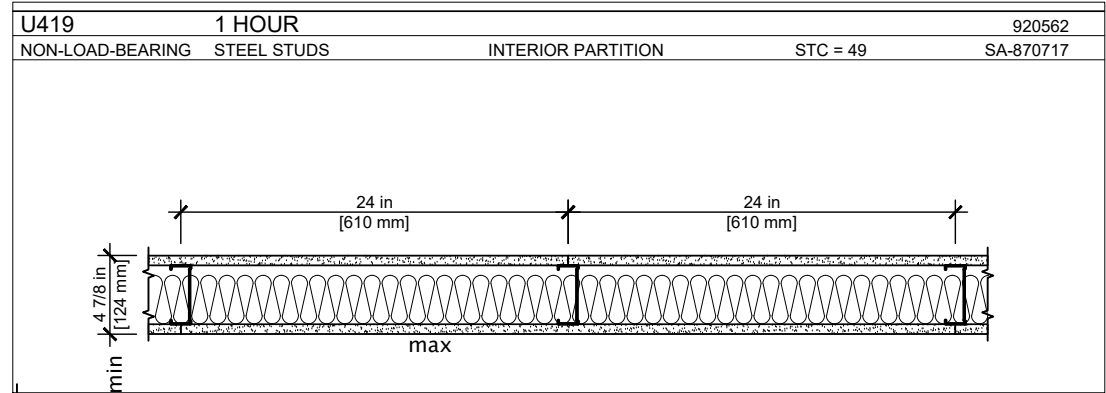
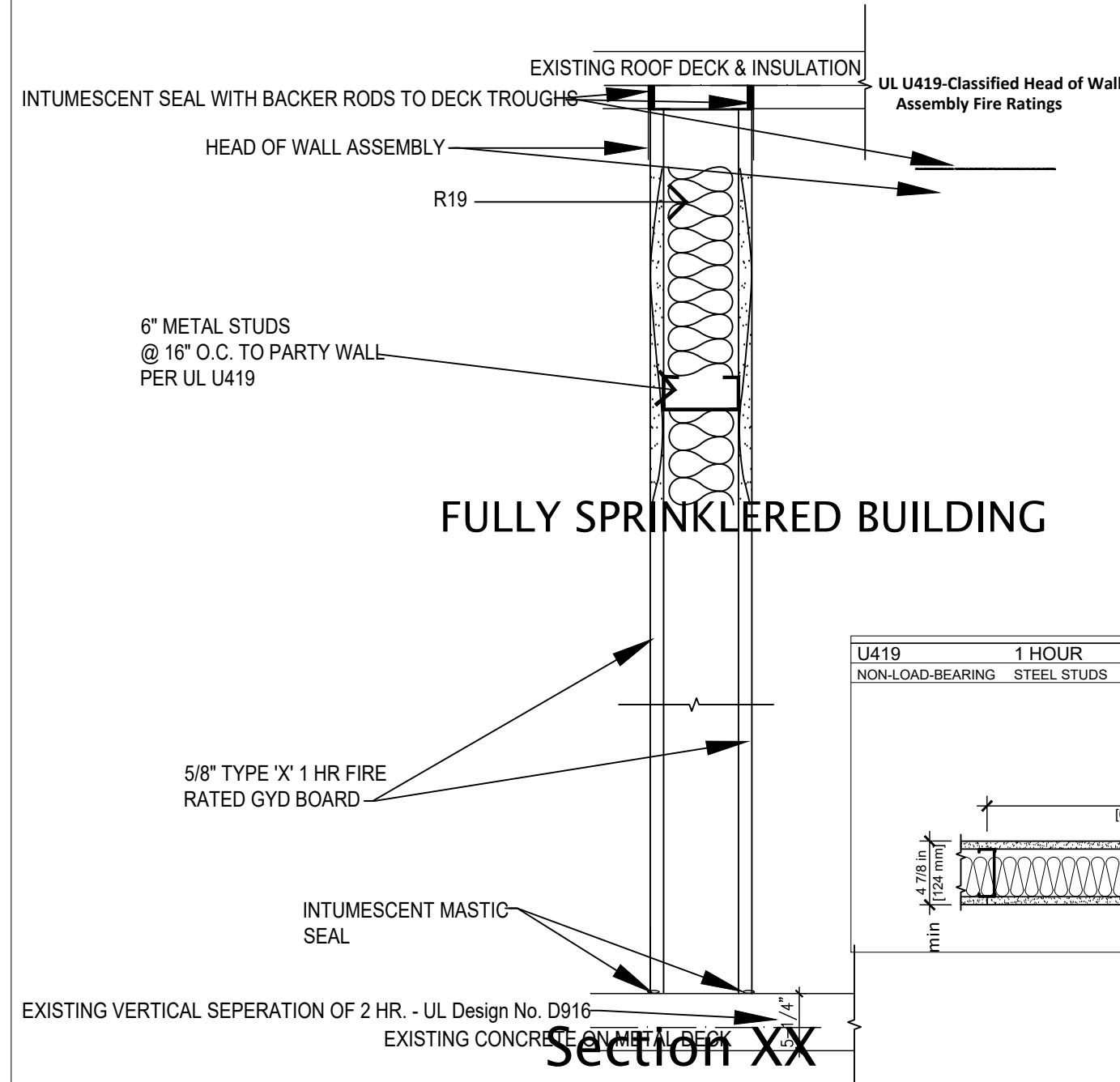
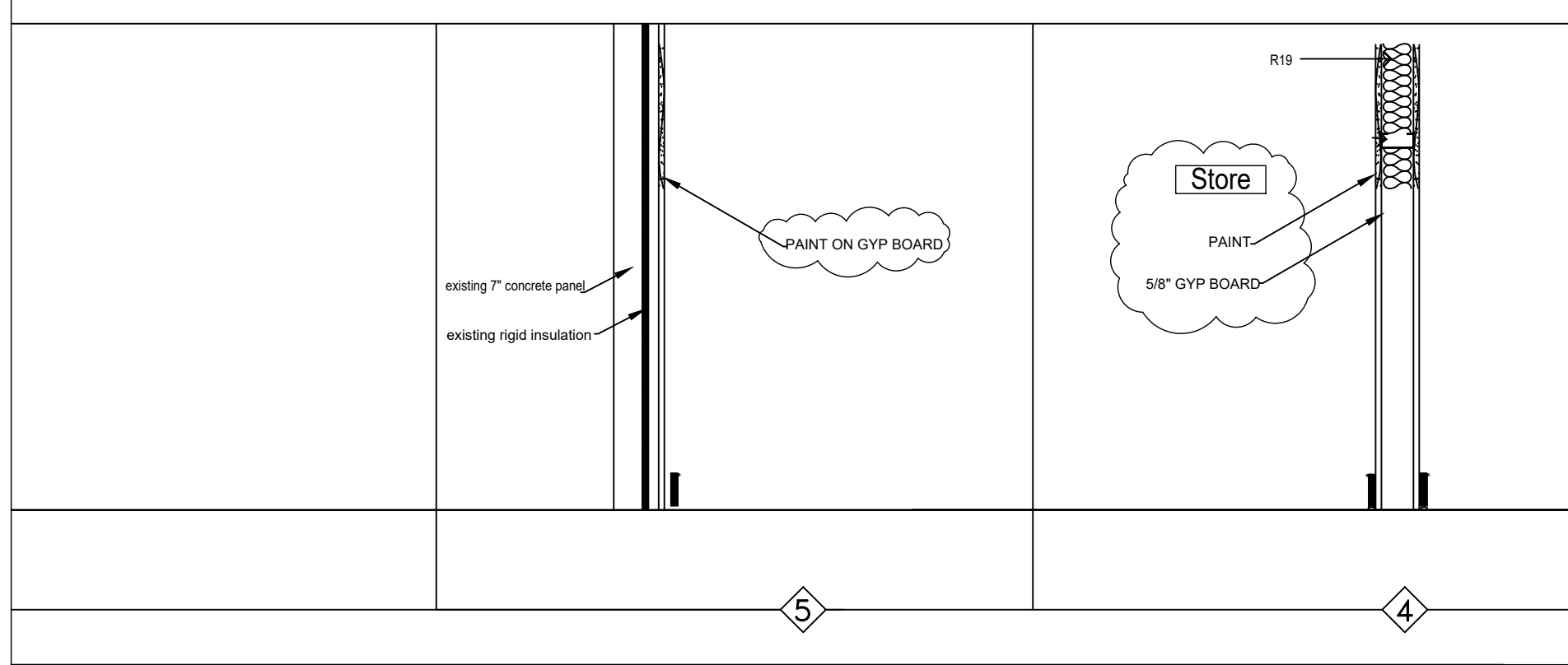
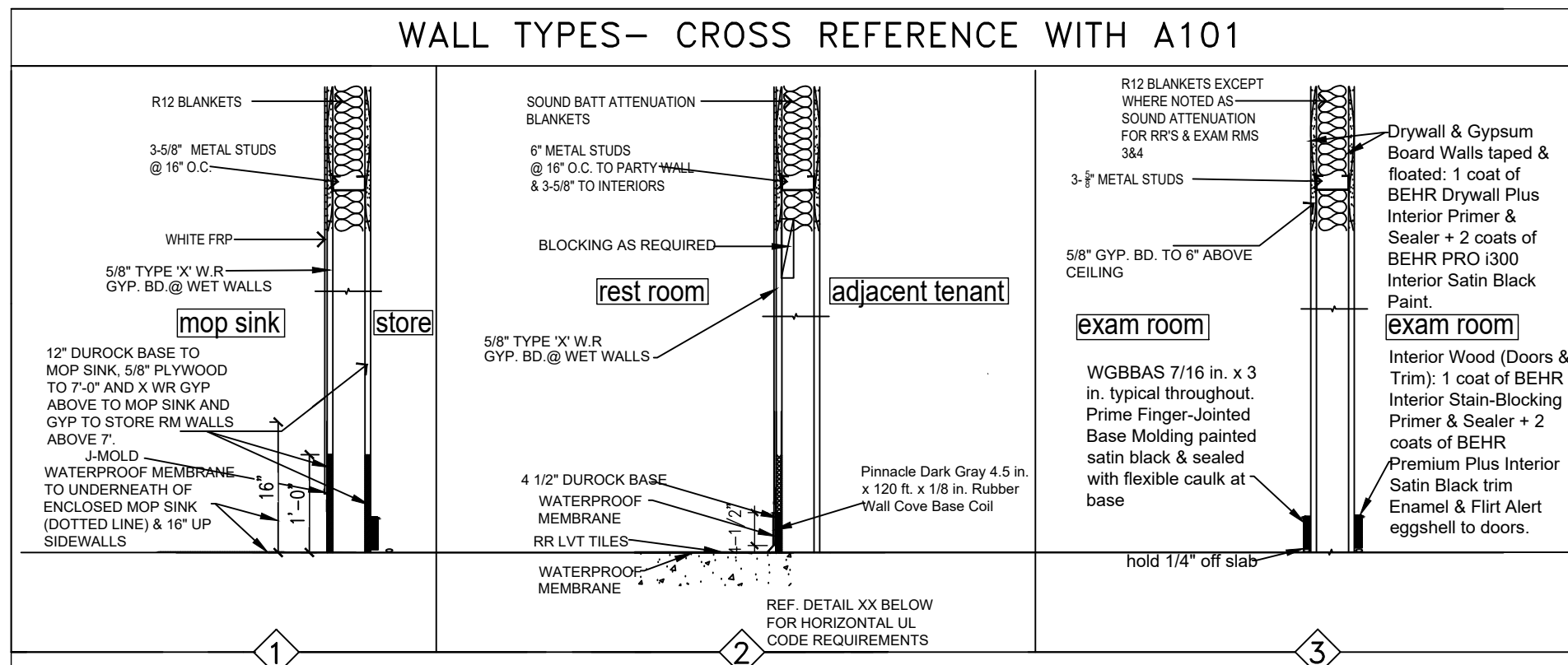
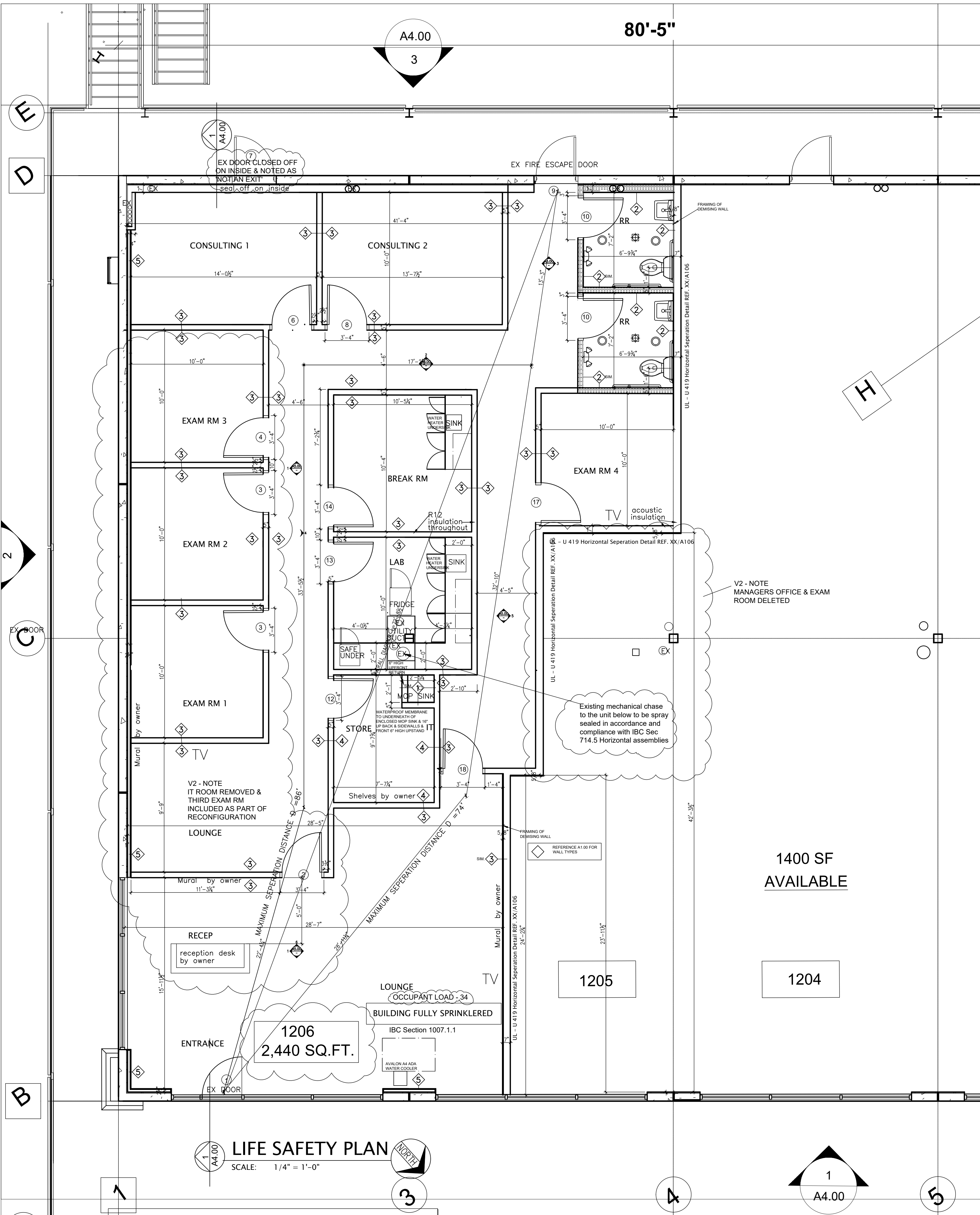


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SCALE NTS
PROJECT NO. 04-26-26
SHEET NO. SITE PLAN A0.00



UL - U 419 Horizontal Separation Detail = 1 hr
(Vertical compliance UL Design No. D925 - Ex. concrete = 2 hr)



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DATE	BY	DESCRIPTION
06.11.26		Demising wall to deck. All other walls to min 9' above ceiling. R 12/13 to all walls except demising walls. Sound attenuation & 2' turning wall. Ceiling insulation throughout except over reception lounge.

SCALE
1/4" = 1'-0"

PROJECT NO.
04-26-26

LIFE SAFETY PLAN &
WALL TYPES

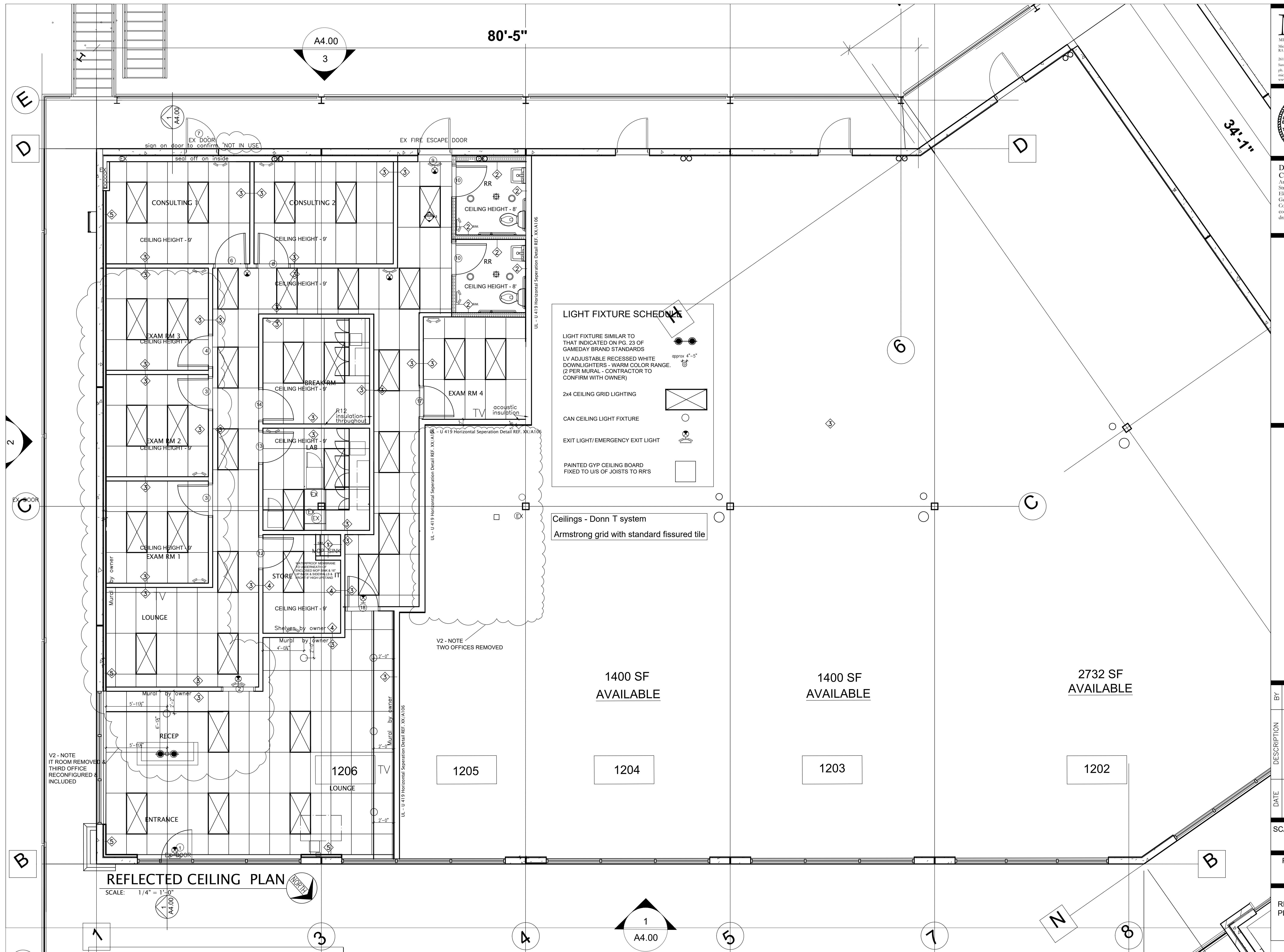
A1.00

SHEET NO.
FLOOR PLAN
A1.01

1/4" = 1'-0"

PROJECT NO.	04-26-26
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SHEET NO.
REFLECTED CEILING
PLAN
A2.00





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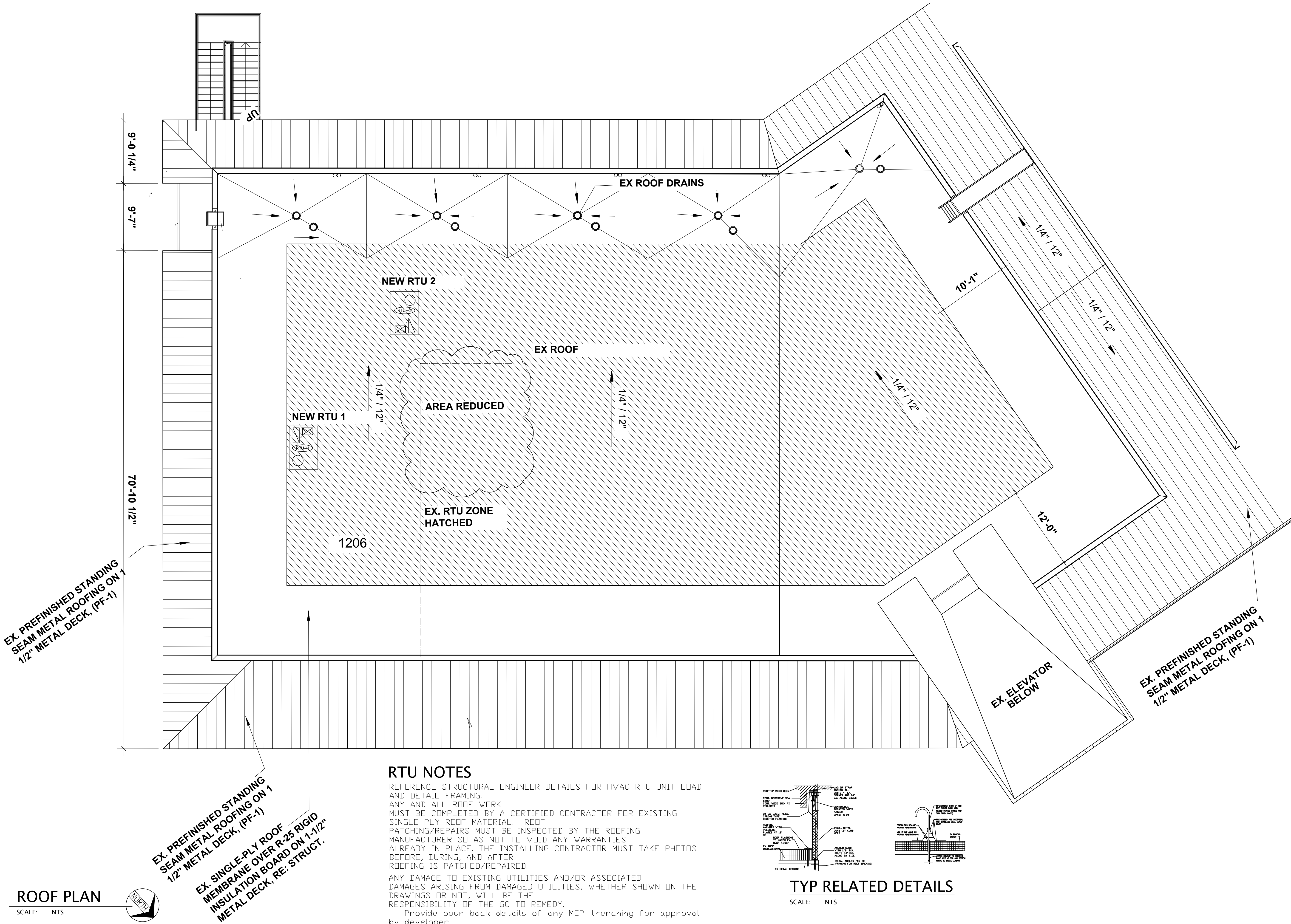
DATE	DESCRIPTION	BY

SCALE
NTS

PROJECT NO.
04-26-26

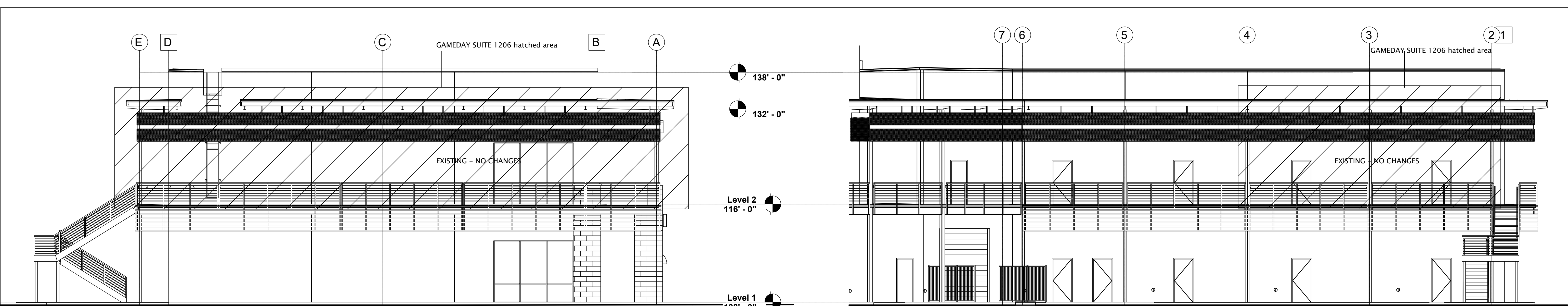
SHEET NO.
ROOF PLAN

A3.00



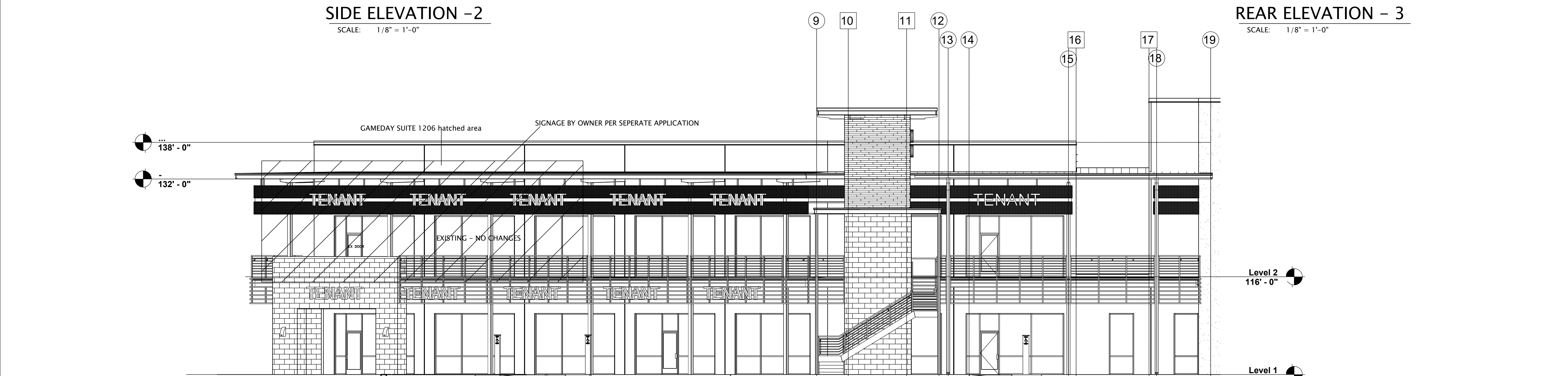
ROOF PLAN
SCALE: NTS



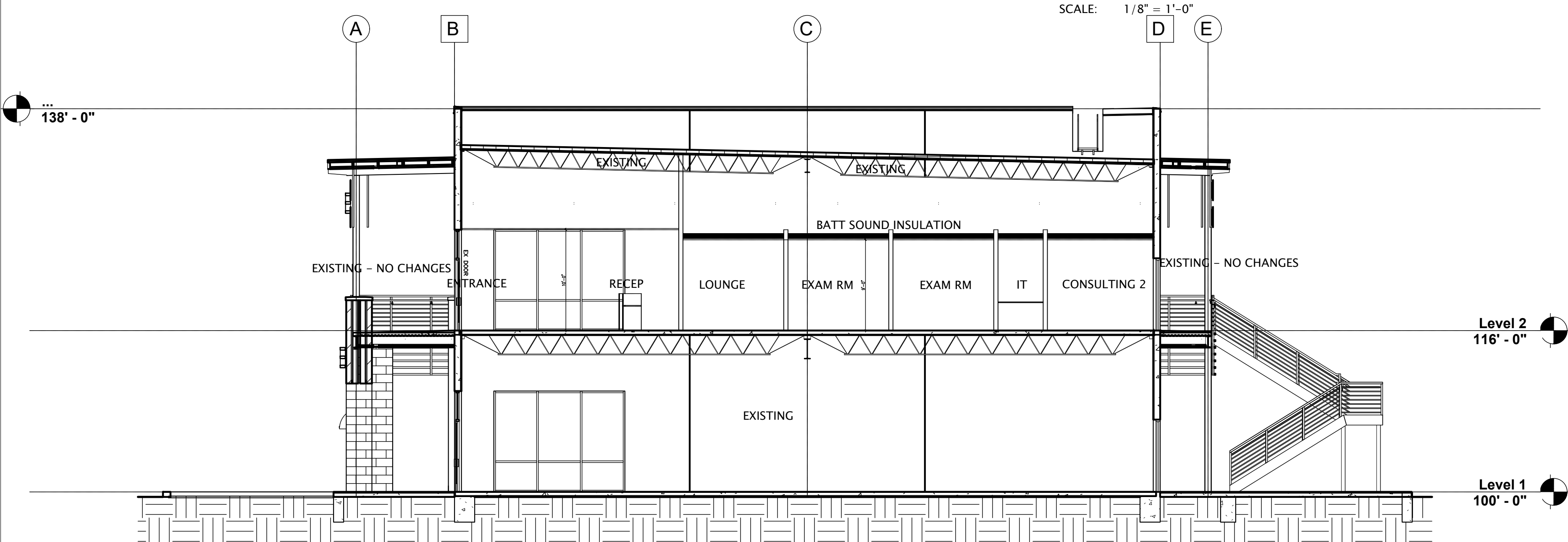


SIDE ELEVATION - 2
SCALE: 1/8" = 1'-0"

REAR ELEVATION - 3
SCALE: 1/8" = 1'-0"



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



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



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MASTER SPECIFICATIONS

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The liability insurance purchased and maintained by Contractor in the minimum amounts as follows:

(a) Workman's Compensation

(i) Workers' or workman's compensation – maximum permitted by statute,

(j) – Employer's Liability – \$1 million.

(b) Comprehensive General Liability

Bodily injury and property damage having a combined single limit of \$2 Million and including the following coverages:

(i) Comprehensive Form

(ii) Premises – Operations

(iii) Explosion and Collapse Hazard

(iv) Underground Hazard

(v) Products – Completed Operations. Hazard (which must be maintained for 2 years commencing with issuances of the final Certificate of Payment)

(vi) Broad Form Contractual Insurance

(vii) Broad Form Property Damage (extended to apply to completed operations)

(viii) Independent Contractors

(ix) Personal Injury (with employees and contractual exclusions deleted)

(c) Automobile Liability (Comprehensive Form) insuring contractor for operations of all owned, hired, and non-owned vehicle limit of \$2 Million.

(d) Umbrella Excess Liability: \$3 Million per occurrence / aggregate.

The Contractor shall furnish Builders Risk Insurance, including the perils of fire, extended coverage, vandalism, and malicious mischief in an amount of not less than 100% of the insurable value of all the work, and the coverage written on Builders Risk Coverage Form CP0020, Including Causes of Loss Basic Form CP1010 or Causes of Loss – Broad Form CP1020 or Causes of Loss – Special Form CP1030 or an acceptable Inland Marine "All Risk" installation floater form, with a company authorized to do business in the state in which the project is located.

12.2.2.1(a) If during the Contractors one (1) year warranty after completion the Owner requests that tests be performed to determine if corrections in the Work need to be made, the expense of such tests shall be borne by (a) the Owner, if the results of the tests indicate that no corrections are necessary, or (b) the Contractor, if the results of the test indicate that corrections are necessary.

1. Article 13, paragraph 13.6.1:

13.6.1 Interest rate shall be at prevailing market rate

DIVISION 1 - GENERAL REQUIREMENTS

SECTION 01100 - SUMMARY OF WORK

3. WORK RESPONSIBILITY

A. Not In Contract (NIC): Items shown or noted 'NIC' on the drawings and/or in the specifications shall be furnished and installed by Owner under separate contract, except as described hereinafter. The Contractor shall receive, unload as required, store, coordinate and accommodate the Owner's contractors during the Work and be responsible to the extent of carrying necessary insurance to cover items in case of theft, fire, loss, malicious damage and other miscellaneous damage. Contractor shall provide all conduits, boxes, chases, etc. as indicated on the drawings for a complete installation. Included, but not inclusive, in this category are:

a. Security video System: Contractor shall supply electrical service and wire chases with pull strings per plans and coordinate installation with Owner's agent. Contractor to provide adequate wood backing to install all necessary equipment.

b. Furnishings and decor shown on architectural drawings. Note: All millwork items shown on architectural drawings shall be the responsibility of the Contractor. Contractor shall submit shop drawings of same for owner approval.

k. Workmanship:

1) Graining: Where two metal surfaces are butt welded, grain shall run in the same direction.

2) Cove all intersections of vertical and horizontal sheet metal on a 5/8" radius unless otherwise indicated.

l. Fastening:

1) Provide nuts, bolts, and screws of American Standard unified screw thread design in stainless steel, only when sanitary fastenings are impossible. In all instances, use counter-sunk, flat, or oval head fasteners. round head fasteners are not acceptable.

2) Wherever bolt threads are exposed, or may come in contact with a wiping cloth, use stainless steel acorn nuts.

m. Welding: All welding shall be per AWS standards by electric arc method with rod of same composition as parts welded. make welds complete, strong, and ductile with rubble ground off and joints finished smooth, polished, and re-grained. Welds shall not be visible on continuous appearance. All welding shall be of a non-toxic nature when used on surfaces exposed to unpackaged food.

n. Grinding, Polishing, and Finishing: Any material sunken or depressed by welding operation shall be hammered and peened flush with adjacent surfaces and, if necessary, ground again to eliminate low spots. Surfaces showing evidence of warpage and/or burn discoloration will not be accepted. In all cases, textures from rough grinding shall be removed by successive finer polishing operations until the grain of the entire surface is homogeneous.

o. Equipment Adjustment: Contractor shall operate all food service equipment, test for leaks, proper connections, inadequate or faulty performance, calibrate and correct and adjust for proper operation. All thermostatically controlled equipment and equipment with automatic features shall be operated for a sufficient length of time to prove controls are functioning as intended. all food service plans, shop drawings, and equipment brochures are to remain at the store and be handed over to the Owner for future reference.

p. Testing: Contractor shall test all water and gas piping built within the Food service equipment for leaks using approved testing procedures.

q. Completion:

1) Contractor shall remove all protective coverings, tags, labels, and tape from equipment.

2) Contractor shall thoroughly clean and polish Owner furnished items.

3) Contractor shall place protective coverings on all equipment after cleaning until final acceptance of building then shall remove protective coverings.

5. MISCELLANEOUS PROVISIONS

6. NOTE: LANDLORD CONSTRUCTION COMPLIANCE RULES TO BE COMPLIED WITH.

A. Accessibility Compliance:

1. Full compliance with Uniform Federal Accessibility Standards (UFAS), and Americans with Disabilities Act (ADA), prohibiting discrimination on basis of disability by public accommodations, is required for Work of this Project.

2. This Project has been designed to and requires full compliance with ADA regulations, whether or not specific references or notes to regulations are made on Drawings or in Specifications.

6. PROJECT GENERAL NOTES

A. Unless noted otherwise, all work in these drawings and specifications shall be performed by the Contractor.

B. The Contractor shall field verify all conditions and dimensions prior to any work and shall be responsible for all work and materials including those furnished by subcontractors. Contractor shall accept premises as found, Owner assumes no responsibility for the condition of the existing site or existing structures at the time of bidding or thereafter.

C. The Contractor is responsible for correcting any errors after the start of construction which has not been brought to the attention of the architect. The means of correcting any error shall first be approved by the Architect and Owner.

D. Dimensions take precedence over drawings. DO NOT SCALE DRAWINGS TO DETERMINE ANY LOCATIONS. The architect shall be notified if any discrepancy occurs prior to continuing with work.

E. All plan dimensions are from face of stud or face of masonry unless noted otherwise.

F. The Contractor shall report to the Owner and Architect any errors, inconsistencies, or omissions discovered.

G. All construction shall comply with the applicable building codes and local restrictions. The Contractor must comply with the Contractor registration requirements of all governing authorities.

H. The general building permits shall be paid for by the Owner. All other permits shall be secured and paid for by the subcontractor directly responsible. All required city, county, and/or state licenses shall be acquired and paid for by the individual subcontractor.

I. It shall be the responsibility of the Contractor to locate all existing utilities whether shown herein or not and to protect them from damage. The Contractor shall bear all expense of repair or replacement of utilities or other property damaged by operations in conjunction with the prosecution of the work.

J. The Contractor shall be responsible for and shall replace or remedy any faulty, improper, or inferior materials or workmanship which shall appear within one year or as otherwise specified for a specific component after the completion and acceptance of the wok under this contract.

K. The Contractor is to provide blocking as required for mounting of booth tables, wall mounted shelves, cabinets, HC grab bars and partition braces, in addition to other requirements specified herein.

7. CONTRACTOR USE OF SITE AND PREMISES

A. Provide access to and from site as required by law and by Owner:

1. Emergency Building Exits During Construction: Keep all exits required by code open during construction period; provide temporary exit signs if exit routes are temporarily altered.

2. Do not obstruct roadways, sidewalks, or other public ways without permit.

B. Utility Outages and Shutdowns:

1. Prevent accidental disruption of utility services to other

SECTION 01100 - WORK COVERED BY CONTRACT DOCUMENTS

1. INTENT OF DRAWINGS AND SPECIFICATIONS

A. The Contractor shall complete all Work as provided for in Contract Documents including Drawings and Specifications. Anything mentioned in the Specifications and not shown on the Drawings or shown on the Drawings and not mentioned in the Project Manual, shall be furnished and installed as if shown and mentioned in both. The Contractor shall furnish all materials or labor required to complete Work shown on the Drawings and called out in the specifications, to include labor and material requirements reasonably inferable therefrom as being necessary to complete the work, whether each and every single item necessary to completion is specified or detailed or not.

2. CONTRACTOR RESPONSIBILITY FOR WORK REQUIRED

A. The organization of the Specifications into Divisions, Sections and Paragraphs and the arrangement of the Drawings are not intended to control the Contractor in dividing the Work among Subcontractors or to establish the limits and extent of work to be performed by a particular trade. The Contractor alone is responsible for the completion of the entire work as drawn and specified, complete in place and in functional or operating conditions. The division of the specifications into sections and paragraphs is for convenience only and not for the purpose of limiting or restricting the performance of any portion of the Work to any particular trade.

DIVISION 1 - GENERAL REQUIREMENTS (CONTINUED)

SECTION 01300 - ADMINISTRATIVE REQUIREMENTS

5. CONSTRUCTION PROGRESS SCHEDULE

A. Within 10 days after joint review, submit complete schedule.

B. Submit updated schedule with each Application For Payment.

6. PROGRESS PHOTOGRAPHS

A. Submit each photographic application for payment, taken not more than 3 days prior to submission of application for payment.

B. Provide weekly photographs of site and construction throughout progress of Work, to Architect

7. SUBMITTALS FOR OWNER REVIEW

9. SUBMITTALS FOR PROJECT CLOSEOUT

A. When the following are specified in individual sections, submit them at project closeout:

1. Project record documents.

2. Operation and maintenance data.

3. Warranties.

4. Bonds.

5. Other types as indicated.

SECTION 01500 - TEMPORARY FACILITIES AND CONTROLS

1. TEMPORARY UTILITIES

A. Provide and pay for all electrical power, lighting, water, heating and cooling, and ventilation required for construction purposes.

2. TEMPORARY SANITARY FACILITIES

A. Provide and maintain required facilities and enclosures. Provide at time of project mobilization. Maintain daily in clean and sanitary condition.

4. SUBSTITUTION PROCEDURES

A. Instructions to Bidders specify time restrictions for submitting requests for substitutions during the bidding period. Comply with requirements specified in this section.

B. Substitutions may be considered when a product becomes unavailable through no fault of the Contractor.

C. Document each request with complete data substantiating compliance of proposed substitution with Contract Documents.

D. A request for substitution constitutes a representation that the submitter:

1. Has investigated proposed product and determined that it meets or exceeds the quality level of the specified product.

2. Will provide the same warranty for the substitution as for the specified product.

3. Will coordinate installation and make changes to other Work which may be required for the Work to be complete with no additional cost to Owner.

4. Waives claims for additional costs or time extension which may subsequently become apparent.

E. Substitutions will not be considered when they are indicated or implied on shop drawing or product data submittals, without separate written request, and when acceptance will require revision to the Contract Documents.

7. STORAGE AND PROTECTION

A. Designate receiving/storage areas for incoming products so that they are delivered according to installation schedule and placed convenient to work area in order to minimize waste due to excessive materials handling and misapplication.

B. Store and protect products in accordance with manufacturers' instructions with labels intact and legible.

C. Store sensitive products in weather tight, climate controlled, enclosures in an environment favorable to product.

D. For exterior storage of fabricated products, place on sloped supports above ground.

E. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.

F. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

SECTION 01400 - QUALITY REQUIREMENTS

1. REFERENCES AND STANDARD:For products and workmanship specified by reference to a document or documents not included in the Project Manual, also referred to as reference standards, comply with requirements of the current standard, except when more rigid requirements are specified or are required by applicable codes.

A. Should specified reference standards conflict with Contract Documents, request clarification from Owner's Project Coordinator before proceeding.

2. TESTING AND INSPECTION AGENCIES

A. General Contractor shall employ services of an, Owner-approved, independent testing agency to perform specified testing. Employment of agency in no way relieves Contractor of obligation to perform Work in accordance with requirements of Contract Documents.

4. CONTROL OF INSTALLATION

A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.

B. Comply with manufacturers' instructions, including each step in sequence.

C. Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.

D. Verify that field measurements are as indicated on shop drawings or as instructed by the manufacturer.

5. TOLERANCES

A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.

B. Comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with Contract Documents, request clarification from Owner's Project Coordinator before proceeding.

6. TESTING AND INSPECTION

A. Testing Agency Duties:

1. Provide qualified personnel at site. Cooperate with Owner's Project Coordinator and Contractor in performance of services.

2. Perform specified sampling and testing of products in accordance with specified standards.

3. Ascertain compliance of materials and mixes with requirements of Contract Documents.

4. Promptly notify Owner's Project Coordinator and Contractor of observed irregularities or non-conformance of Work or products.

5. Perform additional tests and inspections required by Owner's Project Coordinator.

6. Submit reports of all tests/inspections specified.

B. Limits on Testing/Inspection Agency Authority:

1. Agency may not release, revoke, alter, or enlarge on requirements of Contract Documents.

2. Agency may not approve or accept any portion of the Work, may not assume any duties of Contractor and has no authority to stop the Work.

C. Contractor Responsibilities:

1. Deliver to agency at designated location, adequate samples of materials proposed to be used which require testing, along with proposed mix designs.

2. Cooperate with laboratory personnel, and provide access to the Work and to manufacturers' facilities.

3. Provide incidental labor and facilities:

a. To obtain and handle samples at the site or at source of Products to be tested/inspected.

b. To facilitate tests/inspections.

c. To provide storage and curing of test samples.

4. Notify Owner's Project Coordinator and laboratory 24 hours prior to expected time for operations requiring testing/inspection services.

5. Employ services of an independent qualified testing laboratory and pay for additional samples, tests, and inspections required by Contractor beyond specified requirements.

D. Re-testing required because of non-conformance to specified requirements shall be performed by the same agency on instructions by Owner's Project Coordinator.

7. DEFECT ASSESSMENT

A. Replace Work or portions of the Work not conforming to specified requirements.

B. If, in the opinion of Owner's Project Coordinator, it is not practical to remove and replace the Work, Owner's Project Coordinator will direct an appropriate remedy or adjust payment.

1. EXAMINATION

A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent work. Start of work means acceptance of existing conditions.

B. Verify that existing substrate is capable of structural support or attachment of new work being applied or attached.

C. Verify that utility services are available, of the correct characteristics, and in the correct locations.

D. Prior to Cutting: Examine existing conditions prior to commencing work, including elements subject to damage or movement during cutting and patching. After uncovering existing work, assess conditions affecting performance of work. Beginning of cutting or patching means acceptance of existing conditions.

2. PREPARATION

A. Clean substrate surfaces prior to applying next material or substance.

B. Seal cracks or openings of substrate prior to applying next material or substance.

C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying any new material or substance in contact or bond.

3. LAYING OUT THE WORK

A. Verify locations of survey control points prior to starting work. Protect survey control points prior to starting site work; preserve permanent reference points during construction.

B. Promptly report to Owner the loss or destruction of any reference point or relocation required because of changes in grades or other reasons.

C. Establish elevations, lines and levels. Locate and lay out by instrumentation and similar appropriate means:

1. Site improvements including pavements; stakes for grading, fill and topsoil placement; utility locations, slopes, and invert elevations.

2. Grid or axis for structures.

3. Building foundation, column locations, ground floor elevations, and plumbing.

D. Maintain a complete and accurate log of control and survey work as it progresses.

4. CUTTING AND PATCHING

A. Execute cutting and patching including excavation and fill to complete the work, to uncover work in order to install improperly sequenced work, to remove and replace defective or non-conforming work, to remove samples of installed work for testing when requested, to provide openings in the work for penetration of mechanical and electrical work, to execute patching to complement adjacent work, and to fit products together to integrate with other work.

B. Execute work by methods to avoid damage to other work, and which will provide appropriate surfaces to receive patching and finishing.

C. Employ skilled and experienced installer to perform cutting for weather exposed and moisture resistant elements, and sight exposed surfaces.

D. Cut rigid materials using masonry saw or core drill. Pneumatic tools not allowed without prior approval.

E. Restore work with new products in accordance with requirements of Contract Documents.

F. Fit work air tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.

G. At penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with fire rated material to full thickness of the penetrated element.

H. Refinish surfaces to match adjacent finish. For continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.

BY					
DESCRIPTION					
DATE					

SCALE

NTS

PROJECT NO.

04-26-26

SHEET NO.

Specifications

A6.00

DIVISION 1 - GENERAL REQUIREMENTS (CONTINUED)			
SECTION 01700 - EXECUTION REQUIREMENTS			
5. PROGRESS CLEANING		5. OPERATION AND MAINTENANCE DATA FOR EQUIPMENT AND SYSTEMS	8. FINISHES
A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.		A. For Each Item of Equipment and Each System:	A. Steel trowel finish shall be applied to all floor slabs in the building, unless otherwise noted.
B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.		1. Description of unit or system, and component parts.	
C. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.		2. Identify function, normal operating characteristics, and limiting conditions.	B. Light broom finish perpendicular to traffic shall be applied to all exterior walkways. A 3/4" transverse contraction joint shall be formed with a tool designed for that purpose at equal intervals not exceeding the width of the walkway. All edges adjoining the final ground line shall be rounded with a 1/4" edger. Expansion joints shall not exceed 20'.
D. Collect and remove waste materials, debris, and trash/rubbish from site weekly and dispose off-site; do not burn or bury.		3. Complete nomenclature and model number of replaceable parts.	C. Concrete Sealer:
6. PROTECTION OF INSTALLED WORK		B. Panelboard Circuit Directories: Provide electrical service characteristics, controls, and communications; typed.	1. Concrete Clear Sealer:
A. Protect installed work from damage by construction operations.		C. Operating Procedures: Include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shut-down, and emergency instructions. Include summer, winter, and any special operating instructions.	a. Concrete to be sealed must have aged a minimum of 28 days prior to sealer installation.
B. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.		D. Maintenance Requirements: Include routine procedures and guide for preventative maintenance and troubleshooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.	b. Immediately prior to applying concrete sealer, the concrete must be thoroughly cleaned. The surface should be swept then scrubbed using rotary floor machine. The surface must be rinsed after cleaning until the rinse water is completely clean. After drying, it should be inspected closely, and additional or spot cleaning should be performed if necessary.
C. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.		E. Include manufacturer's printed operation and maintenance instructions.	c. Surfaces must be properly prepared as prescribed in manufacturer's instructions. Surrounding areas and adjacent surfaces must be masked or protected from overspray, spills, tracking, and equipment contact. The work area should be roped off and closed to traffic.
7. SYSTEMS STARTUP		F. Include sequence of operation by controls manufacturer.	d. Immediately prior to use, the liquid material must be thoroughly power mixed as described in manufacturer's instructions. Application must be made full strength (un-thinned) at the coverage rate recommended and with equipment recommended by manufacturer's instructions.
A. Coordinate schedule for start-up of various equipment and systems.		G. Provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.	e. Sealer must be applied thinly and uniformly. A wet edge should be maintained and overlap controlled. Material should not be over-applied or allowed to puddle or collect in joint indentations.
B. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, and for conditions which may cause damage.		H. Provide framed information as follows. All information shall be framed in black metal frames.	f. Sealer must be allowed to dry completely, normally a minimum of 12 to 48 hours, before it is subjected to temperatures below 42 degrees Fahrenheit or to water from any source.
C. Verify tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.		1. Subcontractor list and service company contact information (to be located in office)	D. Variation in concrete slabs shall not exceed 1/8" in ten feet from true grade.
D. Verify that wiring and support components for equipment are complete and tested.		2. All warranty information (located in office)	E. All exposed concrete, except walkways and floor slabs, shall have a rubbed finish, satisfactory to the Owner's Project Coordinator. "White Washing" by use of separately mixed grout will not be permitted.
E. Execute start-up under supervision of applicable Contractor personnel and manufacturer's representative in accordance with manufacturers' instructions.		3. Legend and locations of labels on valves and knobs in mechanical room (located in mechanical room)	9. SHOP DRAWINGS
F. Submit a written report that equipment or system has been properly installed and is functioning correctly.		4. Map of zones for irrigation system located with irrigation controls.	A. The Contractor shall prepare and submit for review shop drawings according to the requirements of the General Conditions.
9. FINAL CLEANING		6. OPERATION AND MAINTENANCE MANUALS	10. REINFORCEMENT
A. Use cleaning materials that are non-hazardous.		A. Prepare instructions and data by personnel experienced in maintenance and operation of described products in the form of an instructional manual.	A. Reinforcement shall be accurately placed and securely supported on metal or plastic chairs.
B. Clean interior and exterior glass, surfaces exposed to view; remove temporary labels, stencils, and tape; clean, polish, transparent and glossy surfaces, vacuum carpeted and soft surfaces.		B. Binders: Commercial quality, 8-1/2 x 11 inch three D side ring binders with durable plastic covers; 2 inch maximum ring size. When multiple binders are used, correlate data into related consistent groupings.	
C. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned.		C. Covers: Identify each binder with typed or printed title OPERATION AND MAINTENANCE INSTRUCTIONS; identify title of Project; identify subject matter of contents.	
D. Clean filters of operating equipment.		D. Provide tabbed dividers for each separate product and system, with typed description of product and major component parts of equipment.	
E. Clean debris from roofs, gutters, downspouts, and drainage systems.		E. Arrange content by systems under section numbers and sequence of Table of Contents of this Project Manual.	
F. Clean site; sweep paved areas, rake clean landscaped surfaces.		F. Contents: Prepare Table of Contents for each volume, with each product or system description identified with tabbed dividers, in three parts as follows:	
G. Remove waste, surplus materials, trash/rubbish, and construction facilities from the site; dispose of in legal manner; do not burn or bury.		1. Part 1: Directory, listing names, addresses, and telephone numbers of Architect/Engineer, Contractor, Subcontractors, and major equipment suppliers.	
SECTION 01780 - CLOSEOUT SUBMITTALS		2. Part 2: Operation and maintenance instructions, arranged by system and subdivided by specification section. For each category, identify names, addresses, and telephone numbers of Subcontractors and suppliers. Identify the following:	
1. SUBMITTALS		3. Part 3: Project documents and certificates, including the following:	
A. Project Record Documents: Submit documents to Owner with claim for final Application for Payment.		a. Shop drawings and product data.	
B. Operation and Maintenance Data:		b. Certificates.	
1. Submit two copies of preliminary draft or proposed formats and outlines of contents before start of Work. Owner will review draft and return one copy with comments.			
2. For equipment, or component parts of equipment put into service during construction and operated by Owner, submit completed documents within ten days after acceptance.			
3. Submit two sets of revised final documents in final form within 10 days after final inspection.			
C. Warranties and Bonds:			
1. For equipment or component parts of equipment put into service during construction with Owner's permission, submit documents within ten days after acceptance.			
2. Make other submittals within ten days after Date of Substantial Completion, prior to final Application for Payment.			
3. For items of Work for which acceptance is delayed beyond Date of Substantial Completion, submit within ten days after acceptance, listing the date of acceptance as the beginning of the warranty period.			
2. PROJECT RECORD DOCUMENTS			
A. Maintain on site one set of the following record documents; record actual revisions to the Work:			
1. Drawings.			
2. Specifications.			
3. Addenda.			
4. Change Orders and other modifications to the Contract.			
5. Reviewed shop drawings, product data, and samples.			
6. Manufacturer's instruction for assembly, installation, and adjusting.			
B. Ensure entries are complete and accurate, enabling future reference by Owner.			
C. Store record documents separate from documents used for construction.			
D. Record information concurrent with construction progress.			
E. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:			
1. Manufacturer's name and product model and number.			
2. Product substitutions or alternates utilized.			
3. Changes made by Addenda and modifications.			
F. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction including:			
1. Measured depths of foundations in relation to finish first floor datum.			
2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.			
3. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.			
4. Field changes of dimension and detail.			
5. Details not on original Contract drawings.			
SECTION 01700 - EXECUTION REQUIREMENTS			
5. PROGRESS CLEANING			
A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.			
B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.			
C. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.			
D. Collect and remove waste materials, debris, and trash/rubbish from site weekly and dispose off-site; do not burn or bury.			
6. PROTECTION OF INSTALLED WORK			
A. Protect installed work from damage by construction operations.			
B. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.			
C. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.			
7. SYSTEMS STARTUP			
A. Coordinate schedule for start-up of various equipment and systems.			
B. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, and for conditions which may cause damage.			
C. Verify tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.			
D. Verify that wiring and support components for equipment are complete and tested.			
E. Execute start-up under supervision of applicable Contractor personnel and manufacturer's representative in accordance with manufacturers' instructions.			
F. Submit a written report that equipment or system has been properly installed and is functioning correctly.			
9. FINAL CLEANING			
A. Use cleaning materials that are non-hazardous.			
B. Clean interior and exterior glass, surfaces exposed to view; remove temporary labels, stencils, and tape; clean, polish, transparent and glossy surfaces, vacuum carpeted and soft surfaces.			
C. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned.			
D. Clean filters of operating equipment.			
E. Clean debris from roofs, gutters, downspouts, and drainage systems.			
F. Clean site; sweep paved areas, rake clean landscaped surfaces.			
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DIVISION 9 - FINISHES					
SECTION 09260 - GYPSUM BOARD ASSEMBLIES					
1. SECTION INCLUDES					
A.Metal stud wall framing.					
B.Fire rated walls.					
C.Acoustic insulation.					
D.Tile / Base backer board.					
E.Cementitious backer unit a hood wall.					
F.Gypsum wallboard.					
G.Joint treatment and accessories.					
2. REFERENCES					
A.ANSI A108.11 – American National Standard for Interior Installation of Cementitious Backer Units; 1999 (R2005).					
B.ANSI A118.9 – American National Standard Specifications for Test Methods and Specifications for Cementitious Backer Units; 1999 (R2005).					
C.ASTM C 475/C 475M – Standard Specification for Joint Compound and Joint Tape For Finishing Gypsum Board; 2002.					
D.ASTM C 645 – Standard Specification for Nonstructural Steel Framing Members; 2004a.					
E.ASTM C 754 – Standard Specification for Installation of Steel Framing Members to Receive Screw-Attached Gypsum Panel Products; 2004.					
F.ASTM C 840 – Standard Specification for Application and Finishing of Gypsum Board; 2005.					
G.ASTM C 1002 – Standard Specification For Steel Self-Piercing Tapping Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs; 2004.					
H.ASTM C 1047 – Standard Specification for Accessories for Gypsum Wallboard and Gypsum Veneer Base; 2005.					
I.ASTM C 1396/C 1396M – Standard Specification for Gypsum Board; 2004.					
J.ASTM E 72 – Standard Test Methods of Conducting Strength Tests of Panels for Building Construction; 2005.					
3. METAL FRAMING MATERIALS					
A.Non-Loadbearing Framing System Components: ASTM C 645; galvanized sheet steel, of size and properties necessary to comply with ASTM C 754 for the spacing indicated, with maximum deflection of wall framing of L/240 at 5 psf.					
1.Exception: The minimum metal thickness and section properties requirements of ASTM C 645 are waived provided steel of 40 ksi minimum yield strength is used, the metal is continuously dimpled, the effective thickness is at least twice the base metal thickness, and maximum stud heights are determined by testing in accordance with ASTM E 72 using assemblies specified by ASTM C 754.					
2.Studs: "C" shaped with flat or formed webs with knurled faces.					
3.Runners: U shaped, sized to match studs.					
4.Ceiling Channels: C shaped.					
B.Furring Channels: USG furring channels, 7/8" deep, roll formed, hat shaped sections of galvanized steel.					
C.Ceiling Hangers: Type and size as specified in ASTM C 754 for spacing required.					
D.Partition Head to Structure Connections: Provide track fastened to structure with legs of sufficient length to accommodate deflection, for friction fit of studs cut short and fastened as indicated on drawings.					
4. GYPSUM BOARD MATERIALS					
A.Manufacturers:					
1.BPB America Inc: www.bpb-na.com.					
2.G-P Gypsum Corporation: www.gp.com/gypsum.					
3.National Gypsum Company: www.nationalgypsum.com.					
4.USG: www.usg.com.					
B.Gypsum Wallboard: ASTM C 1396/C 1396M. Sizes to minimize joints in place; ends square cut.					
1.Regular Type:					
a.Application: Use for vertical surfaces, unless otherwise indicated.					
b.Edges: Tapered.					
2.Fire Resistant Type: Complying with Type X requirements; UL or WH rated.					
a.At Assemblies Indicated with Fire-Rating: Use type required by indicated tested assembly; if no tested assembly is indicated, use Type X.					
b.Thickness: 5/8 inch.					
c.Edges: Tapered.					
3.Ceiling Board: Special sag-resistant type.					
a.Application: Ceilings, unless otherwise indicated.					
b.Thickness: 1/2 inch.					
c.Edges: Tapered.					
C.Water-Resistant Gypsum Backing Board: ASTM C 1396/C 1396M; ends square cut.					
1.Application: Vertical surfaces behind thinset tile and pre-finished fiberglass panels in wet areas.					
2.Core Type: Regular and Type X, as indicated.					
3.Thickness: 5/8 inch.					
4.Edges: Tapered.					
5. TILE / BASE BACKER BOARD					
A.Tile backer board panels: 5/8" thick, non-structural, fiberglass-faced, silicone treated moisture barrier, mold resistant gypsum core panel, "DensShield" tile backer board.					
B.Joint Reinforcement: 2-inch-wide, coated fiberglass mesh tape.					
C.Fasteners: Screws, 1-1/4-inch corrosion, resistant; type specified by panel manufacturer for system used.					
6. CEMENTITIOUS BACKER BOARD AT HOOD WALLS					
A.Cementitious Backer Board: ANSI A118.9, aggregated portland cement panels with glass fiber mesh embedded in front and back surfaces, 5/8 inch thick.					
7. ACCESSORIES					
A.Acoustic Insulation: ASTM C 665; preformed glass fiber, friction fit type, unfaced.					
B.Finishing Accessories: ASTM C 1047, galvanized steel, unless otherwise indicated.					
1.Types: As detailed or required for finished appearance.					
C.Joint Materials: ASTM C 475 and as recommended by gypsum board manufacturer for project conditions.					
1.Tape: 2-inch wide, coated glass fiber tape for joints and corners, except as otherwise indicated.					
2.Tape: 2-inch wide, creased paper tape for joints and corners, except as otherwise indicated.					
3.Ready-mixed vinyl-based joint compound.					
D.Screws: ASTM C 1002; self-piercing tapping type.					
8. EXAMINATION					
A.Verify that project conditions are appropriate for work of this section to commence.					
9. FRAMING INSTALLATION					
A.Metal Framing: Comply with ASTM C 754 and manufacturer's instructions.					
B.Studs: Space studs as indicated.					
1.Extend partition framing as indicated.					
2.Partitions Terminating at Ceiling: Attach ceiling runner securely to ceiling track in accordance with manufacturer's instructions.					
3.Partitions Terminating at Structure: Attach extended leg top runner to structure, maintain clearance between top of studs and structure, and brace both flanges of studs with continuous bridging.					
C.Wall Furring, Direct Attachment: Install asphalt felt protection strip between each furring channel and wall. Attach 7/8" hat channel horizontally to wall at 18"/24" o.c. with concrete stud nails spaced 18"/24" o.c. staggered on alternate wing flanges.					
D.Openings: Reinforce openings as required for weight of doors or operable panels, using not less than double studs at jams.					
10. ACOUSTIC ACCESSORIES INSTALLATION					
A.Acoustic Insulation: Place tightly within spaces, around cut openings, behind and around electrical and mechanical items within partitions, and tight to items passing through partitions.					
B.Acoustic Sealant: Install in accordance with manufacturer's instructions.					
11. GYPSUM BOARD INSTALLATION					
A.Comply with ASTM C 840 and manufacturer's instructions. Install to minimize butt end joints, especially in highly visible locations.					
B.Single-Layer Non-Rated: Install gypsum board in most economical direction, with ends and edges occurring over firm bearing.					
C.Fire-Rated Construction: Install gypsum board in strict compliance with requirements of listing authority.					
D.Cementitious Backing Board: Install over steel framing members at exhaust hood walls as indicated, in accordance with ANSI A108.11 and manufacturer's instructions.					
E.Installation on Metal Framing: Use screws for attachment of all gypsum board.					
F.Installation on Wood Framing: For rated assemblies, comply with requirements of listing authority. For non-rated assemblies, install as follows:					
1.Single-Layer Applications: Screw attachment.					
G.Moisture Protection: Treat cut edges and holes in moisture resistant gypsum board with sealant.					
12. INSTALLATION OF TRIM AND ACCESSORIES					
A.Control Joints: Place control joints consistent with lines of building spaces and as follows:					
1.Not more than 30 feet apart on walls and ceilings over 50 feet long.					
B.Corner Beads: Install at external corners, using longest practical lengths.					
13. JOINT TREATMENT					
A.Finish all gypsum board in accordance with ASTM C 840 "Level 4" finish.					
B.Tape, fill, and sand exposed joints, edges, and corners to produce smooth surface ready to receive finishes.					
1.Feather coats of joint compound so that camber is maximum 1/32 inch.					
2.Taping, filling, and sanding is not required at surfaces behind adhesive applied ceramic tile and fixed cabinetry.					
14. TOLERANCES					
A.Maximum Variation of Finished Gypsum Board Surface from True Flatness: 1/8 inch in 10 feet in any direction.					
14. INSTALLATION - GENERAL					
A.Install waterproofing membrane at all wet areas in accordance with manufacturer's instructions and TCA Handbook recommendations.					
B.Install tile and grout in accordance with applicable requirements of ANSI A108.1 through A108.13, manufacturer's instructions, and TCA Handbook recommendations.					
C.Lay tile to pattern indicated. Do not interrupt tile pattern through openings.					
D.Cut and fit tile to penetrations through tile, leaving sealant joint space. Form corners and bases neatly. Align floor joints.					
E.Place tile joints uniform in width, subject to variance in tolerance allowed in tile size. Make joints watertight, without voids, cracks, excess mortar, or excess grout.					
F.Form internal angles square and external angles bullnosed.					
G.Sound tile after setting. Replace hollow sounding units.					
H.Keep expansion joints free of adhesive or grout. Apply sealant to joints.					
I.Allow tile to set for a minimum of 48 hours prior to grouting.					
J.Grout tile joints. Use standard grout unless otherwise indicated.					
K.Apply sealant to junction of tile and dissimilar materials and junction of dissimilar planes.					
15. INSTALLATION - FLOORS - THIN-SET METHODS					
A.Diver Interior concrete substrates, install in accordance with TCA Handbook Method F113, dry-set or latex-portland cement bond coat, with standard grout, unless otherwise indicated.					
1. Where epoxy bond coat and grout are indicated, install in accordance with TCA Handbook Method F131.					
16. INSTALLATION - FLOORS - MORTAR BED METHODS					
A.Diver Interior concrete substrates, install in accordance with TCA Handbook Method F111, with cleavage membrane, unless otherwise indicated.					
B.Cleavage Membrane: Lap edges and ends.					
C.Mortar Bed Thickness: 1-1/4 inch.					
17. INSTALLATION - WALL TILE					
A.Diver tile backer board units install in accordance with TCA Handbook Method W223, organic adhesive.					
18. CLEANING					
A.Clean tile and grout surfaces.					
SECTION 09511 - SUSPENDED ACOUSTICAL CEILINGS					
1. SECTION INCLUDES					
A.Suspended metal grid ceiling system.					
B.Acoustical units.					
2. REFERENCES					
A.ASTM C 635 – Standard Specification for the Manufacture, Performance, and Testing of Metal Suspension Systems for Acoustical Tile and Lay-in Panel Ceilings; 2004.					
B.ASTM C 636 – Standard Practice for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-in Panels; 2004.					
C.ASTM E 580 – Standard Practice for Application of Ceiling Suspension Systems for Acoustical Tile and Lay-in Panels in Areas Requiring Seismic Restraint; 2002.					
D.ASTM E 1264 – Standard Classification for Acoustical Ceiling Products; 1998 (Reapproved 2005).					
3. EXTRA MATERIALS					
A.See Section 01600 – Product Requirements, for additional provisions.					
B.Provide five percent of total acoustical unit area of each type of acoustical unit for Owner's use in maintenance of project.					
4. ACOUSTICAL UNITS					
A.Manufacturers:					
1. Refer to Finish Schedule on drawings for various product manufacturers.					
B.Acoustical Units – General: ASTM E 1264, Class A.					
1. Models as scheduled on the construction documents.					
5. SUSPENSION SYSTEM(S)					
A.Manufacturers:					
1. USG; Product Donn DX: www.usg.com.					
B.Suspension Systems – General: ASTM C 635; die cut and interlocking components, with stabilizer bars, clips, splices, perimeter moldings, and hold down clips as required.					
6. ACCESSORIES					
A.Support Channels and Hangers: Galvanized steel; size and type to suit application, seismic requirements, and ceiling system flatness requirement specified.					
B.Perimeter Moldings: Same material and finish as grid.					
1. At Exposed Grid: Provide L-shaped molding for mounting at same elevation as face of grid.					
7. INSTALLATION - SUSPENSION SYSTEM					
A.Install suspension system in accordance with ASTM C 636, ASTM E 580, and manufacturer's instructions and as supplemented in this section.					
B.Rightly secure system, including integral mechanical and electrical components, for maximum deflection of 1/360.					
C.Install after major above-ceiling work is complete. Coordinate the location of hangers with other work.					
D.Hang suspension system independent of walls, columns, ducts, pipes and conduit. Where carrying members are spliced, avoid visible displacement of face plane of adjacent members.					
E.Where ducts or other equipment prevent the regular spacing of hangers, reinforce the nearest affected hangers and related carrying channels to span the extra distance.					
F.Do not support components on main runners or cross runners if weight causes total dead load to exceed deflection capability.					
G.Support fixture loads using supplementary hangers located within 6 inches of each corner, or support components independently.					
H.Do not eccentrically load system or induce rotation of runners.					
I. Perimeter Molding: Install at intersection of ceiling and vertical surfaces and at junctions with other interruptions.					
1. Use longest practical lengths.					
2. Overlap and rivet corners.					
8. INSTALLATION - ACOUSTICAL UNITS					
A.Install acoustical units in accordance with manufacturer's instructions.					
B.Fit acoustical units in place, free from damaged edges or other defects detrimental to appearance and function.					
C.Fit border trim neatly against abutting surfaces.					
D.Install units after above-ceiling work is complete.					
E.Install acoustical units level, in uniform plane, and free from twist, warp, and dents.					
F.Cutting Acoustical Units:					
1. Make field cut edges of same profile as factory edges.					
SECTION 09900 - PAINTS AND COATINGS					
1. SECTION INCLUDES					
A.Surface preparation.					
B.Field application of paints, stains, varnishes, and other coatings.					
2. DELIVERY, STORAGE, AND HANDLING					
A.Deliver products to site in sealed and labeled containers; inspect to verify acceptability.					
B.Container Label: Include manufacturer's name, type of paint, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.					
C.Paint Materials: Store at minimum ambient temperature of 45 degrees F and a maximum of 90 degrees F, in ventilated area, and as required by manufacturer's instructions.					
3. ENVIRONMENTAL REQUIREMENTS					
A.Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the paint product manufacturer.					
B.Provide lighting level of 80 ft candles measured mid-height at substrate surface.					
4. SUBMITTALS					
A.Prepare two (2) color/texture samples for each color for each type of substrate to be painted or stained per SUBMITTALS.					
B.Make samples not less than twelve inches (12") square.					
C.Submit manufacturer's printed literature on each coating system to be used.					
5. EXTRA MATERIALS					
A.Supply 1 gallon of each color; store where directed.					
B.Label each container with color in addition to the manufacturer's label.					
3 rd Coat: Marine Varnish, Satin Finish					
Glidden Professional:					
1 st Coat: Glidden Professional 2710 WOODPRIDE Exterior					
Dil./AlkydSemi-Transparent Deck & Siding Stain					
2 nd Coat: Same as 1 st Coat					
3 rd Coat: Glidden Professional 1907 WOODPRIDE Spar Urethane					
15.Ferrous Metals and Exposed Gas Lines					
Sherwin Williams:					
1 st Coat: S-W) 0 VOC Acrylic Satin, B66-660 Series					
2 nd Coat: Same as 1 st Coat					
Glidden Professional:					
1 st Coat: Devoe Coatings 4212 DEVFLEX HP Eggshell					
2 nd Coat: Same as 1 st Coat					
16.Unit Masonry					
Sherwin Williams:					
1 st Coat: S-W Loxon Concrete & Masonry Interior/Exterior					

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DIVISION 16 - ELECTRICAL SYSTEMS (CONTINUED)

SECTION 16445 - PANELBOARDS, DISTRIBUTION AND BRANCH CIRCUIT PART 1 GENERAL

- 1.01 WORK INCLUDED
- A. Furnish and install distribution and branch circuit panel-boards.
- B. Related Work and Specifications: Section 16500 Electrical General Provisions.
- 1.02 QUALITY ASSURANCE
- A. Referenced Standards:
- 1. UL 50 - Cabinets and Boxes.
 - 2. UL 67 - Electric Panelboards.
 - 3. NEMA AB 1 - Molded Case Circuit Breakers.
 - 4. NEMA AB 2 - Procedures for Verifying the Performance of Molded Case Circuit Breakers.
 - 5. NEMA FU 1 - Low Voltage Cartridge Fuses.
 - 6. NEMA KS 1 - Molded Switches.
 - 7. NEMA PB 1 - Panelboards.
- 1.03 SUBMITTALS

A. The following information shall be submitted to the Engineer:

1. Breaker layout drawing with dimensions indicated and nameplate designation
2. Component list
3. Conduit entry/exit locations
4. Assembly ratings including:
- a. Short-circuit rating
 - b. Voltage
 - c. Continuous current
 - 5. Cable terminal sizes

PART 2 PRODUCTS

2.01 ENCLOSURE

- A. Cabinet:
- 1. Construct cabinets in accordance with UL 50. Use painted galvanized sheet steel 16-gauge or more.
 - 2. Provide a minimum 4-inch gutter wiring space on each side.
 - 3. Reinforce cabinets and securely support bus bars and over-current devices to prevent vibration and breakage in handling.
 - 4. Provide standard conduit knockouts in cabinet ends.
 - 5. Finish cabinets of surface-mounted panelboards to match doors and trim as specified below.
 - 6. Panelboards mounted outdoors shall be weatherproof, and shall have a door behind door type construction.
 - 7. Panelboards mounted in wet or corrosive areas shall have NEMA 4X stainless steel enclosures.
 - 8. Panelboards mounted shall be NEMA 12 enclosures for areas classified as NEMA 12.

- B. Doors and Trim:
- 1. Fabricate doors and trim from cold-rolled steel sheet.
 - 2. Equip doors with flush-type combination catch and key lock.
 - 3. Key all locks for use with the panelboards to cabinets by an approved means which permits both horizontal and vertical adjustment.
 - 4. Trim for surface-mounted panelboards must fit the cabinet with no overhang.
 - 5. Apply a finish to trim and doors consisting of two coats of enamel over a rust-inhibiting prime coat.

2.02 BUS

- A. Material:
- 1. Provide tin plated, copper bus bars, 98 percent IACS conductivity, full-sized throughout their length.
 - 2. Use buses with silver-plated contact surfaces.
 - 3. Include a tin plated copper bus bar ground bus in panelboard rated not less than 25 percent of the main bus capacity.
 - 4. Full size (100% rated) insulated neutral bus shall be included in the panel board, shown with neutral. 200% rated neutral bus shall be supplied for panels designated on the drawings.
 - 5. The ground and neutral bus shall be at least one terminal screw for each circuit.
 - 6. Provide through feed or sub feed lugs where indicated.
 - 7. Provide lugs and connection points on phase, neutral and ground bus suitable for copper conductors.
 - 8. Spaces for future circuit breakers shall be busied for the maximum devices that can be fitted.
 - 9. Size bars as indicated and brace them to withstand the available symmetrical short circuit current.

- C. Installation:
- 1. Install buses in allotted spaces so that devices can be added without additional machining, drilling or tapping.
 - 2. Mount neutral bars, as required, on the opposite end of the main lugs.

1.03 PROTECTIVE DEVICES

- A. Circuit Breakers Provide circuit breakers for the specified service with the number of poles and ampere ratings indicated.
- 1. Provide breakers which are quick-make and quick-break on both manual and automatic operation.
 - 2. Use a trip-free trip indicating breaker.
 - 3. Incorporate inverse time characteristic by bi-metallic overload elements and instantaneous characteristic by magnetic trip. Where indicated, provide ground fault circuit breakers (GFCB).

4. For 2-pole and 3-pole breakers, use the common-trip type so that an overload or fault on one pole will trip all poles simultaneously. Handle ties are not acceptable.
5. Unless otherwise indicated, provide circuit breakers with the following interrupting ratings:
- a. Each circuit breaker used in 120/240 Volt panelboards shall have an interrupting capacity of not less than 10,000 Amps, RMS symmetrical.
 - b. Each circuit breaker used in 120/240 Volt panelboards shall have an interrupting capacity of not less than 10,000 Amps, RMS symmetrical.
 - c. Each circuit breaker used in 277/ 480 Volt and 480 Volt panelboards shall have an interrupting capacity of not less than 22,000 Amps, RMS symmetrical.
 - d. GFCI (ground fault circuit interrupter) shall be provided for circuits where shown on the drawings. GFCI units shall be 1 Pole, 120 Volt, molded case, bolt-on breakers, incorporating a solid state ground fault interrupter circuit insulated from the mounting surface.
 - e. The unit shall be UL listed Class A Group I device (5 millamp sensitivity, 25 millisecond trip time) and an interrupting capacity of 10,000 Amps, RMS.

6. Circuit breakers shall be as manufactured by the panelboard manufacturer.
7. Connect breakers to the main bus by means of a solidly bolted connection.
8. Use breakers which are interchangeable, capable of being operated in any position within the panel.
9. Independently mount breakers so that a single unit can be removed from the front of the panel without disturbing or removing main bus, or other branch circuit connections.
10. Provide individual breaker handle lock for all circuits that supply exit signs, emergency lights, and fire alarm panels.

11. Provide GFI circuit breakers for heat trace circuit. The rating shall be as per NEC.

8. Surge Suppressor

1. The panelboard shall be provided with externally mounted, transient voltage surge suppression.

2. The nameplate shall have a connection for housing and grounding neutral conductor.

- 2.06 LISTING

- A. UL 67 - Electric Panelboards

- 2.05 ACCEPTABLE MANUFACTURERS

- A. Acceptable manufacturers are Culler Hammer, Square-D, General Electric, Siemens.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Install panelboards in the locations as shown and as recommended in NEMA PB11.
- B. In wet and corrosive areas, including outdoor locations, install panelboard enclosures on masonry support to provide clearance behind the mounting surface.
- C. In wet and corrosive areas, including outdoor locations, connect conduits to the bottom of the enclosure and to the lower 30 percent of the sides.
- D. All conduit connections shall be by use of Myers hub.

3.02 MOUNTING HEIGHT

- A. Install the panelboards such that the center of the switch or circuit breaker in the highest position will not be more than 6'-1 1/2' Feet above the floor or working platform.

3.03 SPECV. REQUIREMENTS

- A. All copper items, including wiring, terminal blocks, lugs, connectors, bus, etc., shall be tin plated copper.

- B. All steel shall be primed and painted as specified. Galvanized items shall also be painted.

- C. All hardware, including nuts, bolts, washers, screws, anchor bolts, door hinges, etc., shall be made of 316 stainless steel.

- D. The minimum requirements of painting procedure shall be followed:

1. Surface preparation per SSPC-SP6.

2. Primer: Tnemec 66, Epoxaline - one coat 4 dry mils

3. Finish Coat: Tnemec Series 72, Edura Shield - one coat 1.5 dry mils (ANSI 61 light gray).

4. Undercoat Finish: Tnemec Tor 46-413-2 coats 40 dry mils total.

SECTION 16450 - GROUNDING

1. RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.
- B. Division-16 Basic Electrical Materials and Methods section apply to work of this section.

2. DESCRIPTION OF WORK

- A. Extent of grounding work is indicated by drawings and schedules.
- B. Types of grounding specified in this section include the following:
- 1. Solid grounding
 - 2. Applications of grounding work in this section including the following:
 - a. Underground metal water piping
 - b. Metal building frames
 - c. Grounding electrodes
 - d. Grounding rods
 - e. Service equipment
 - 6. Enclosures
 - 7. Equipment

3. QUALITY ASSURANCE

- A. Manufacturers: Firms regularly engaged in manufacture of electrical connectors, terminals and fittings of types and ratings required, and ancillary materials including cable, copper braid and bus, ground rods and plate electrodes, whose products have been in satisfactory use in similar service for not less than 3 years.
- B. Installer: Qualified with at least 3 years of successful installation experience on projects with electrical grounding work similar to that required for project.
- C. NEC Compliance: Comply with NEC requirements as applicable to materials and installation of electrical grounding systems, associated equipment and wiring. Provide grounding products which are UL-listed and labeled.

- D. UL Compliance: Comply with applicable requirements of UL Standards Nos. 467 and 869 pertaining to electrical grounding and bonding.

- E. IEEE Compliance: Comply with applicable requirements of IEEE Standard 142 and 241 pertaining to electrical grounding.

4. SUBMITTALS

- A. Product Data: Submit manufacturer's data on grounding systems and and accessories.

- B. Shop Drawings: Submit layout drawings of grounding systems and accessories including, but not limited to, ground wiring, copper braid and bus, ground rods, and plate electrodes.

5. ACCEPTABLE MANUFACTURERS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering grounding products which may be incorporated in the work include, but not limited to, the following: DECA
- 1. Bunnedy Corp.
 - 2. Crouse-Hinds Co.
 - 3. Electrical Components Div./ Gould Inc.
 - 4. Thomas and Betts Corp.

6. GROUNDING SYSTEMS

- A. General Except as otherwise indicated, provide electrical grounding systems indicated with assembly of materials, including, but not limited to, cables/wires, connectors, terminals (solderless lugs), grounding rods/electrodes, bonding jumper braid, surge arresters, and additional accessories needed for complete installation. Where more than one type unit meets indicated requirements, selection is installer's option. Where material or components are not indicated, provide products complying with NEC, UL, IEEE, and established industry standards for applications indicated.

- B. Conductors: Unless otherwise indicated, provide electrical grounding conductors for grounding connections matching power supply wiring materials and sized according to NEC.

- C. Ground Rods: Solid copper or copper clad steel, minimum 3/4-in. dia. x 10'. Provide longer rods if necessary for required resistivity.

- D. Electrical Grounding Connection Accessories: Provide electrical insulating tape, heat-shrinkable insulating tubing, welding materials, bonding straps, as recommended by accessories manufacturers for type services indicated.

7. INSPECTION

- A. Installer must examine areas and conditions under which electrical grounding connections are to be made and notify Contractor in writing of conditions detrimental to proper completion of work. Do not proceed with work until unsatisfactory conditions have been corrected in a manner acceptable to Inspector.

8. INSTALLATION OF ELECTRICAL GROUNDING

- A. General: Install electrical grounding systems where shown, in accordance with applicable portions of NEC, with NEC's nStandard of Installation, and in accordance with recognized industry practices, to ensure that products comply with requirements and serve intended functions.

- B. Coordinate with other electrical work as necessary to interface installation of electrical grounding system work with other work.

- C. Install clamp-on connectors only on thoroughly cleaned metal contact surfaces, to ensure electrical conductivity and circuit integrity.

- D. All ground connections to water service entrance shall be installed to be exposed and visible for inspection at all times. Insulation shall not be installed over ground connections.

- E. A water pipe, by itself, is not an adequate grounding electrode and must be supplemented by dual grounding electrodes, a minimum of 8 feet apart, and effectively bonded together. The supplemental ground shall be per Code with the footing type electrode taking precedence when possible.

- F. All ground connections shall be made on surfaces which have been cleaned of all paint, dirt, oil, etc., so that connections are bare metal to bare metal contact. All ground connections shall be tight and shall be made with UL listed grounding devices, fittings, bushings, etc.

- G. Duplex receptacles of any ampere type and shall have a separate grounding contact. A separate jumper shall be installed between the grounding terminal on the device and the metallic box. The Contractor may provide UL listed self-grounding receptacles in lieu of providing the separate jumper.

- H. Single and duplex receptacles shall have all grounded metal mechanically bonded together. Pressure bonding only is not acceptable.

- I. Single and duplex receptacles will be installed with the grounding contacts down.

- J. Hospital grade or high abuse type which will be installed with the ground contacts up.

- K. Shop equipment receptacles shall be installed with the ground contacts up.

- L. In all cases where flexible metallic conduit, nonmetallic rigid conduit or liquid tight flexible conduit is used, a green wire ground conductor shall be used to provide ground continuity between the equipment of device and the conduit.

- M. Provide a separate green wire ground conductor for each branch circuit originating from each panelboard. This ground shall be used for the device or load connected to the panelboard from its components of the rackway system, such as junction boxes, starter or disconnect switch enclosures, equipment cases, etc. The green wire ground conductor shall terminate in the panelboard at the green wire ground bus. Ground conductors for branch circuits shall be of size indicated in NEC, except minimum size ground conductor shall be No. 12 AWG.

- N. Each branch feeder originating at the switchboard(s) shall have a green wire ground conductor originating at the ground bus in the switchboard and terminating at the green wire ground bus in the panelboard. This green wire ground conductor shall be of size indicated in NEC except in no instance smaller than No. 8 AWG.

- O. The green wire ground conductor is in addition to the neutral conductor and in no case shall the neutral conductor serve as the grounding means.

- P. Multiple conductors in a single lug not permitted. Each grounding conductor shall terminate in its own terminal lug.

SECTION 16510 - INTERIOR BUILDING LIGHTING

1. RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.
- B. Division-16 Basic Electrical Materials and Methods section apply to work specified in this section.

2. DESCRIPTION OF WORK

- A. Extent of interior lighting fixture work is indicated by drawings and schedules.

- B. Types of interior lighting fixtures in this section include the following:
- 1. Fluorescent
 - 2. Incandescent
 - 3. High Intensity Discharge
 - 4. LED

- C. Applications of interior lighting fixtures required for project including the following:
- 1. General lighting
 - 2. Supplementary lighting
 - 3. Task lighting
 - 4. Emergency lighting

3. QUALITY ASSURANCE

- A. Manufacturers: Firms regularly engaged in manufacture of interior lighting fixtures of types and ratings required, whose products have been in similar service for not less than 5 years.
- B. Installer: Qualified with at least 3 years of successful installation experience on projects with interior lighting fixture work required for project.
- C. NEC Compliance: Comply with NEC as applicable to installation and construction of interior building lighting fixtures.

- D. NEMA Compliance: Comply with applicable requirements of NEMA Std Pub. No. LE 1 and LE 2 pertaining to lighting equipment.

- E. ANSI/IES Compliance: Comply with ANSI 1321 pertaining to interior lighting fixtures.

- F. ANSI/UL Compliance: Comply with ANSI/UL standards pertaining to interior lighting fixtures for hazardous locations.

- G. UL Compliance: Provide interior lighting fixtures which have been UL-listed and labeled.

- H. CBM Labels: Provide fluorescent-lamp ballasts which comply with Certified Ballast Manufacturers Association standards and carry the CBM label.

4. SUBMITTALS

- A. Product Data: Submit manufacturer's data on interior building lighting fixtures, lamps and ballasts. Lighting fixtures shall be in strict accordance with the fixture schedule. Substitutions shall be accepted without formal written prior approval. Requests for review of substitutions shall be submitted a minimum of 10 days prior to start. Any other requests will be rejected.
- B. Shop Drawings: Submit fixture shop drawings in booklet form with separate sheet for each fixture, assembled in luminaires 'type' alphabetical order, with proposed fixture and accessories clearly indicated on each sheet.

5. ACCEPTABLE MANUFACTURERS

- A. Manufacturers/Catalog Numbers: Subject to compliance with requirements, provide fixtures manufactured by manufacturers as indicated on the fixture schedule. Catalog numbers given on the fixture schedule are intended to provide the general description of the required fixture and its quality. Additional accessories, mounting hardware, and options, etc., not specifically described by the catalog number but required for a properly operating and installed fixture or as described by additional notation on the drawings or in the specifications, shall be provided.

6. INTERIOR LIGHTING FIXTURES

- A. General: Provide lighting fixtures, of sizes, types, and ratings indicated; complete with, but not necessarily limited to, housings, lamps, lamp holders, reflectors, ballasts, starters and wiring.

- B. Fluorescent-Lamp Ballasts: Provide energy saving high frequency electronic fluorescent-lamp ballasts, capable of operating 32 watt, optc, T-8 lamp types; and with power factor, rapid-start, and low-noise features; Type 1J, Class P1 sound-rated A, and with internal thermal protection. All fluorescent fixture ballasts shall be of the same manufacturer and type. Ballasts shall also meet the following requirements:

- C. Operate lamp at 20 KHz or higher with no detectable flicker.

- D. Ballast manufacturer shall have been producing electronic ballasts in the U.S. for more than five years with a low failure rate.

- E. Ballasts shall be approved and listed by UL.

- F. Ballasts shall comply with all applicable state and federal efficiency standards.

- G. Ballasts shall comply with FCC and NEMA limits governing electromagnetic and radio frequency interference and shall not interfere with operation of other normal electrical equipment.

- H. Ballasts shall meet all applicable ANSI and IEEE standards regarding harmonic distortion and surge protection, but in no case shall harmonic distortion exceed 20%.

- I. Ballasts shall not be affected by lamp failure and shall yield normal published expected lamp life.

- J. Lamp current crest factor shall not exceed 1.7.

- K. Ballasts shall operate at on input frequency of 60 HZ and an input voltage of that indicated on the drawings for the fixture voltage.

- L. Ballasts shall have a power factor above 0.95.

- M. Ballasts shall operate as a parallel circuit allowing remaining lamps to maintain full output if companion lamps fail.

- N. Ballasts shall carry a minimum three year warranty, including labor allowance.

- O. Ballasts shall be manufactured by Magnetek, Motorola or approved equal.

- P. Fusing all fluorescent ballasts shall be fused. Fuses may be deleted if the ballast is supplied with automatically resetting thermal overloads internal to the ballast.

- Q. H.I.D. Lamp Ballasts: Provide energy saving ballasts, capable of operating lamp types indicated, with high power factor, rapid-start, and low-noise features; Type 1J, Class P1 sound-rated A, and with internal thermal protection. All fluorescent fixture ballasts shall be of the same manufacturer and type. Ballasts shall also meet the following requirements:

- R. Operate lamp at 20 KHz or higher with no detectable flicker.

- S. Ballast manufacturer shall have been producing electronic ballasts in the U.S. for more than five years with a low failure rate.

- T. Ballasts shall be approved and listed by UL.

- U. Ballasts shall comply with all applicable state and federal efficiency standards.

- V. Ballasts shall comply with FCC and NEMA limits governing electromagnetic and radio frequency interference and shall not interfere with operation of other normal electrical equipment.

- W. Ballasts shall meet all applicable ANSI and IEEE standards regarding harmonic distortion and surge protection, but in no case shall harmonic distortion exceed 20%.

- X. Ballasts shall not be affected by lamp failure and shall yield normal published expected lamp life.

- Y. Lamp current crest factor shall not exceed 1.7.

- Z. Ballasts shall operate at on input frequency of 60 HZ and an input voltage of that indicated on the drawings for the fixture voltage.

- AA. Ballasts shall have a power factor above 0.95.

- AB. Ballasts shall operate as a parallel circuit allowing remaining lamps to maintain full output if companion lamps fail.

- AC. Ballasts shall carry a minimum three year warranty, including labor allowance.

- AD. Ballasts shall be manufactured by Magnetek, Motorola or approved equal.

- AE. Fusing all fluorescent ballasts shall be fused. Fuses may be deleted if the ballast is supplied with automatically resetting thermal overloads internal to the ballast.

- AF. H.I.D. Lamp Ballasts: Provide energy saving ballasts, capable of operating lamp types indicated, with high power factor, rapid-start, and low-noise features; Type 1J, Class P1 sound-rated A, and with internal thermal protection. All fluorescent fixture ballasts shall be of the same manufacturer and type. Ballasts shall also meet the following requirements:

- AG. Operate lamp at 20 KHz or higher with no detectable flicker.

- AH. Ballast manufacturer shall have been producing electronic ballasts in the U.S. for more than five years with a low failure rate.

- AI. Ballasts shall be approved and listed by UL.

- AJ. Ballasts shall comply with all applicable state and federal efficiency standards.

- AK. Ballasts shall comply with FCC and NEMA limits governing electromagnetic and radio frequency interference and shall not interfere with operation of other normal electrical equipment.

- AL. Ballasts shall meet all applicable ANSI and IEEE standards regarding harmonic distortion and surge protection, but in no case shall harmonic distortion exceed 20%.

- AM. Ballasts shall not be affected by lamp failure and shall yield normal published expected lamp life.

- AN. Lamp current crest factor shall not exceed 1.7.

- AO. Ballasts shall operate at on input frequency of 60 HZ and an input voltage of that indicated on the drawings for the fixture voltage.

- AP. Ballasts shall have a power factor above 0.95.

- AQ. Ballasts shall operate as a parallel circuit allowing remaining lamps to maintain full output if companion lamps fail.

- AR. Ballasts shall carry a minimum three year warranty, including labor allowance.

- AS. Ballasts shall be manufactured by Magnetek, Motorola or approved equal.

- AT. Fusing all fluorescent ballasts shall be fused. Fuses may be deleted if the ballast is supplied with automatically resetting thermal overloads internal to the ballast.

- AU. H.I.D. Lamp Ballasts: Provide energy saving ballasts, capable of operating lamp types indicated, with high power factor, rapid-start, and low-noise features; Type 1J, Class P1 sound-rated A, and with internal thermal protection. All fluorescent fixture ballasts shall be of the same manufacturer and type. Ballasts shall also meet the following requirements:

- AV. Operate lamp at 20 KHz or higher with no detectable flicker.

- AW. Ballast manufacturer shall have been producing electronic ballasts in the U.S. for more than five years with a low failure rate.

- AX. Ballasts shall be approved and listed by UL.

- AY. Ballasts shall comply with all applicable state and federal efficiency standards.

- AZ. Ballasts shall comply with FCC and NEMA limits governing electromagnetic and radio frequency interference and shall not interfere with operation of other normal electrical equipment.

- BA. Ballasts shall meet all applicable ANSI and IEEE standards regarding harmonic distortion and surge protection, but in no case shall harmonic distortion exceed 20%.

- BB. Ballasts shall not be affected by lamp failure and shall yield normal published expected lamp life.

- BC. Lamp current crest factor shall not exceed 1.7.

- BD. Ballasts shall operate at on input frequency of 60 HZ and an input voltage of that indicated on the drawings for the fixture voltage.

- BE. Ballasts shall have a power factor above 0.95.

- BF. Ballasts shall operate as a parallel circuit allowing remaining lamps to maintain full output if companion lamps fail.

- BG. Ballasts shall carry a minimum three year warranty, including labor allowance.

- BH. Ballasts shall be manufactured by Magnetek, Motorola or approved equal.

- BI. Fusing all fluorescent ballasts shall be fused. Fuses may be deleted if the ballast is supplied with automatically resetting thermal overloads internal to the ballast.

- BJ. H.I.D. Lamp Ballasts: Provide energy saving ballasts, capable of operating lamp types indicated, with high power factor, rapid-start, and low-noise features; Type 1J, Class P1 sound-rated A, and with internal thermal protection. All fluorescent fixture ballasts shall be of the same manufacturer and type. Ballasts shall also meet the following requirements:

- BJ. Operate lamp at 20 KHz or higher with no detectable flicker.

- BL. Ballast manufacturer shall have been producing electronic ballasts in the U.S. for more than five years with a low failure rate.

- BM. Ballasts shall be approved and listed by UL.

- BN. Ballasts shall comply with all applicable state and federal efficiency standards.

- BO. Ballasts shall comply with FCC and NEMA limits governing electromagnetic and radio frequency interference and shall not interfere with operation of other normal electrical equipment.

- BP. Ballasts shall meet all applicable ANSI and IEEE standards regarding harmonic distortion and surge protection, but in no case shall harmonic distortion exceed 20%.

- BQ. Ballasts shall not be affected by lamp failure and shall yield normal published expected lamp life.

- BR. Lamp current crest factor shall not exceed 1.7.

- BS. Ballasts shall operate at on input frequency of 60 HZ and an input voltage of that indicated on the drawings for the fixture voltage.

- BT. Ballasts shall have a power factor above 0.95.

- BU. Ballasts shall operate as a parallel circuit allowing remaining lamps to maintain full output if companion lamps fail.

- BV. Ballasts shall carry a minimum three year warranty, including labor allowance.

- BW. Ballasts shall be manufactured by Magnetek, Motorola or approved equal.

- BX. Fusing all fluorescent ballasts shall be fused. Fuses may be deleted if the ballast is supplied with automatically resetting thermal overloads internal to the ballast.

- BY. H.I.D. Lamp Ballasts: Provide energy saving ballasts, capable of operating lamp types indicated, with high power factor, rapid-start, and low-noise features; Type 1J, Class P1 sound-rated A, and with internal thermal protection. All fluorescent fixture ballasts shall be of the same manufacturer and type. Ballasts shall also meet the following requirements:

- BY. Operate lamp at 20 KHz or higher with no detectable flicker.

- BL. Ballast manufacturer shall have been producing electronic ballasts in the U.S. for more than five years with a low failure rate.

- BM. Ballasts shall be approved and listed by UL.

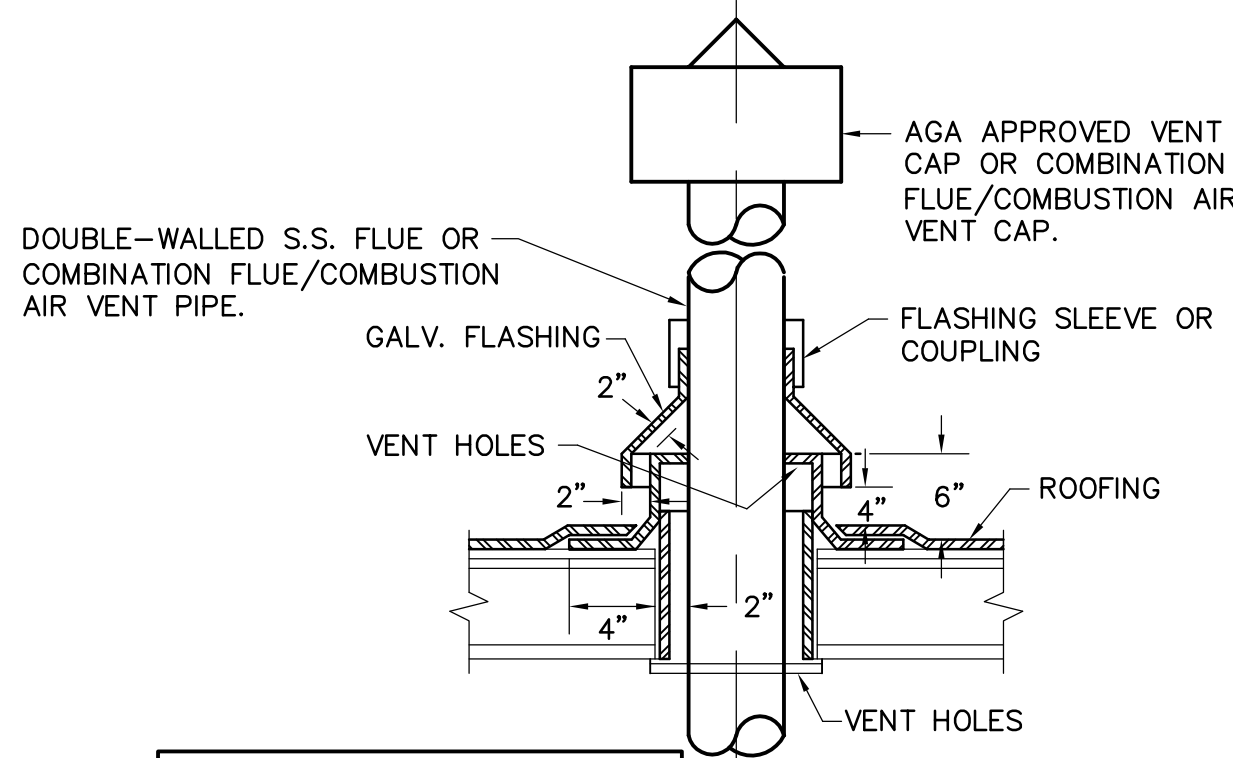
- BN. Ballasts shall comply with all applicable state and federal efficiency standards.

- BO. Ballasts shall comply with FCC and NEMA limits governing electromagnetic and radio frequency interference and shall not interfere with operation of other normal electrical equipment.

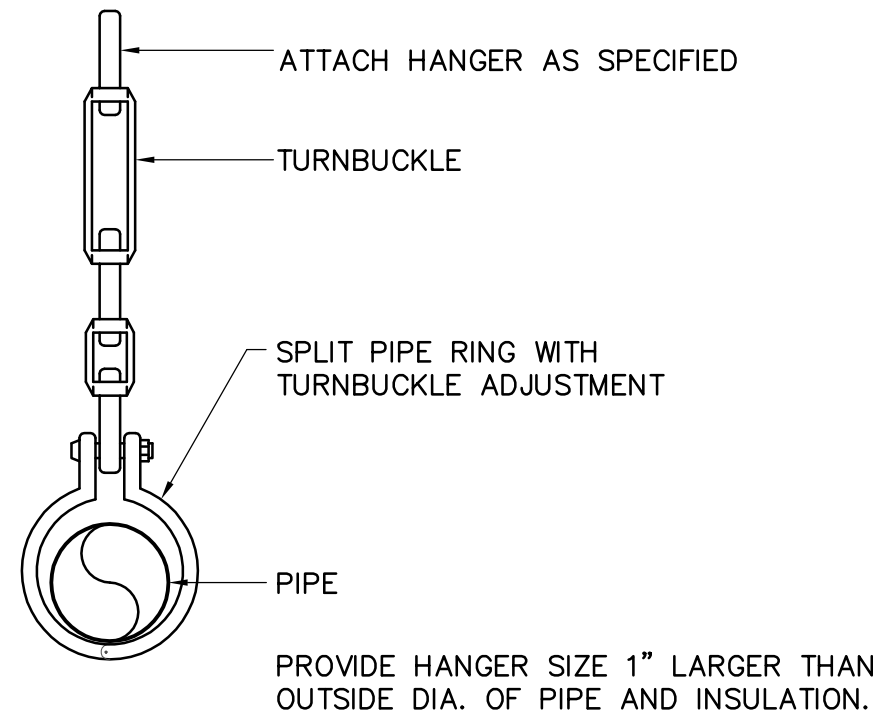
- BP. Ballasts shall meet all applicable ANSI and IEEE standards regarding harmonic distortion and surge protection, but in no case shall harmonic distortion exceed 20%.

- BQ. Ballasts shall not be affected by lamp failure and shall yield normal published expected lamp life.

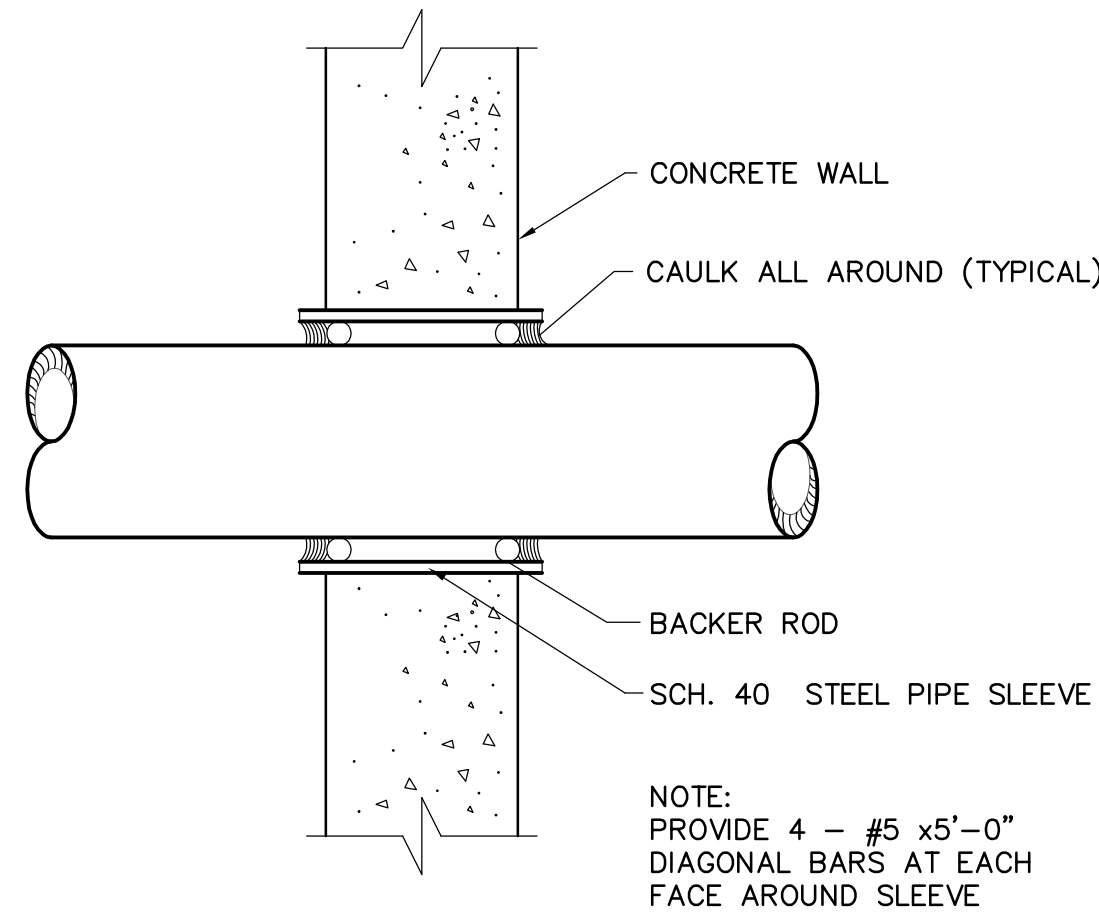
- BR. Lamp current crest factor shall not exceed 1.7.



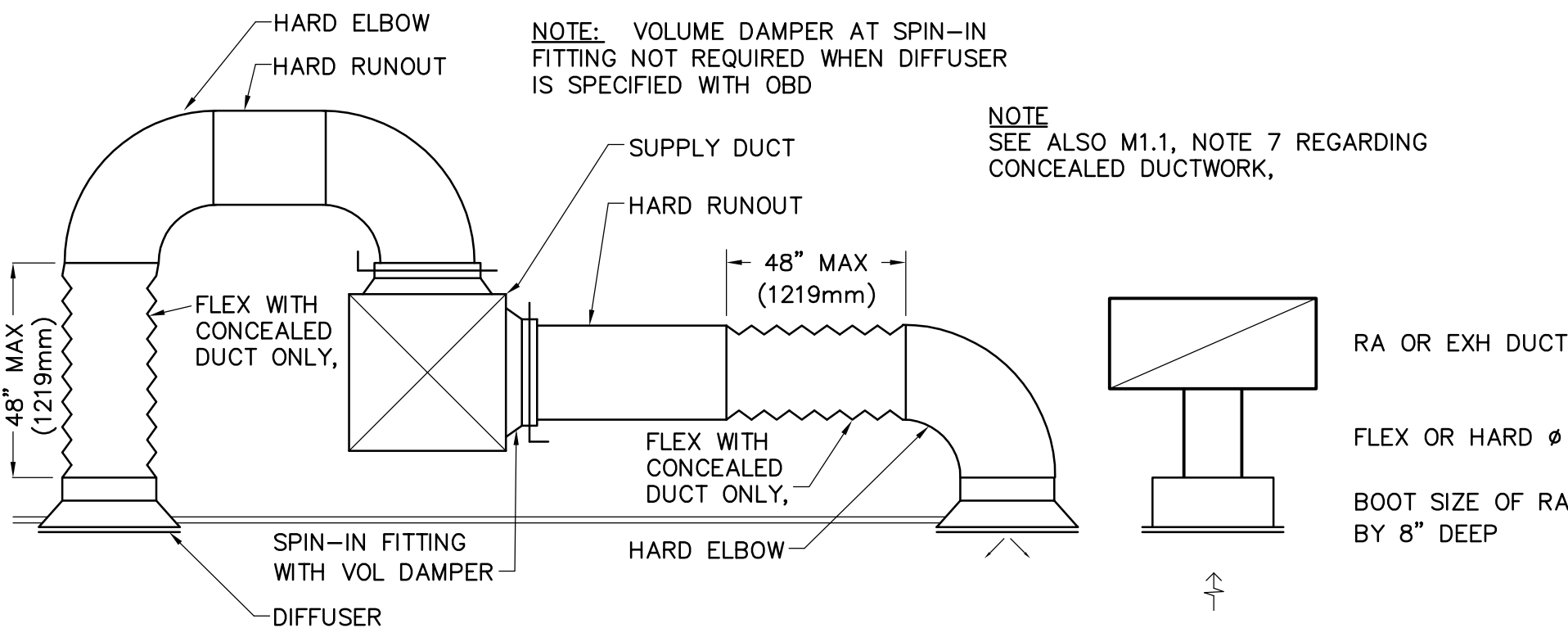
7 FLUE THRU ROOF
DETAIL
NO SCALE



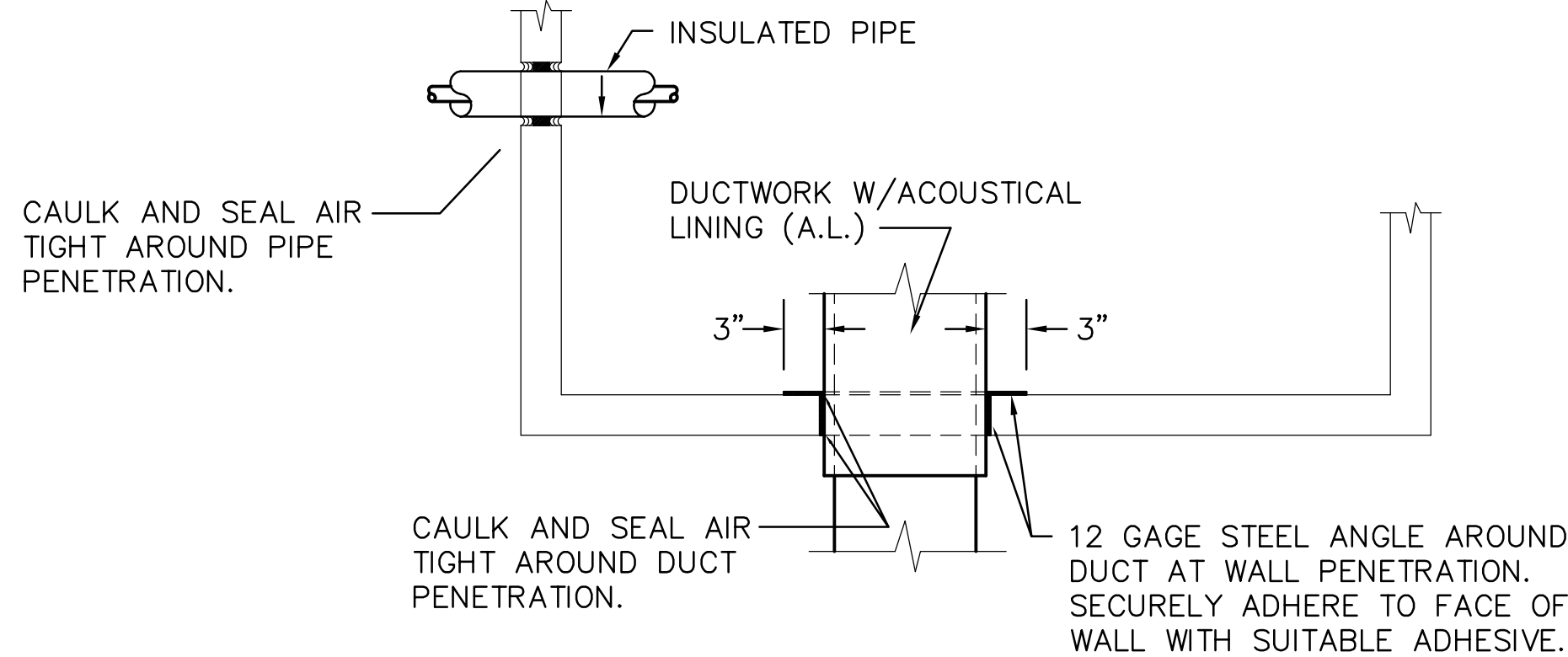
8 PIPE HANGER
DETAIL
NO SCALE



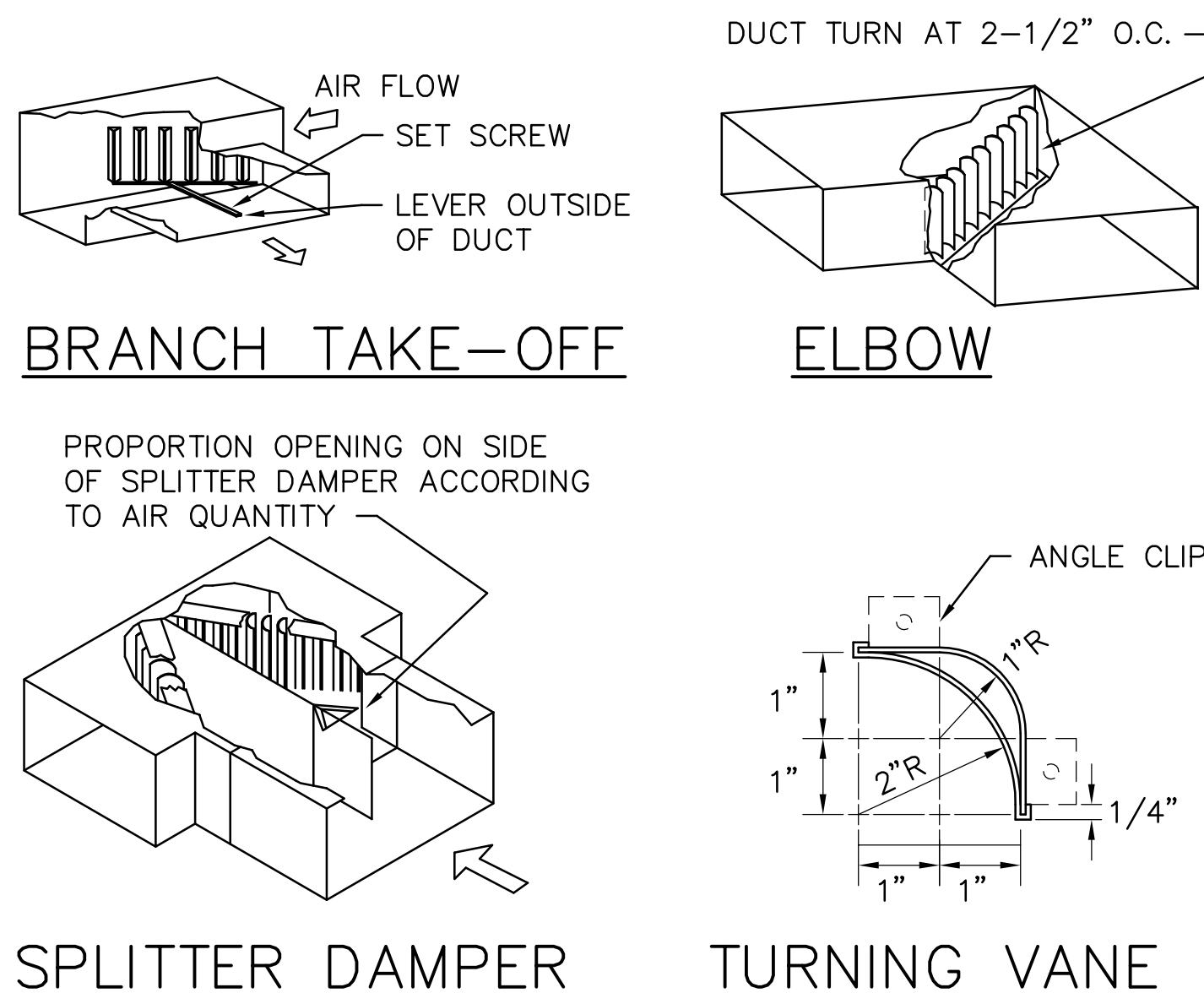
6 PIPE SLEEVE THRU WALL
DETAIL
NO SCALE



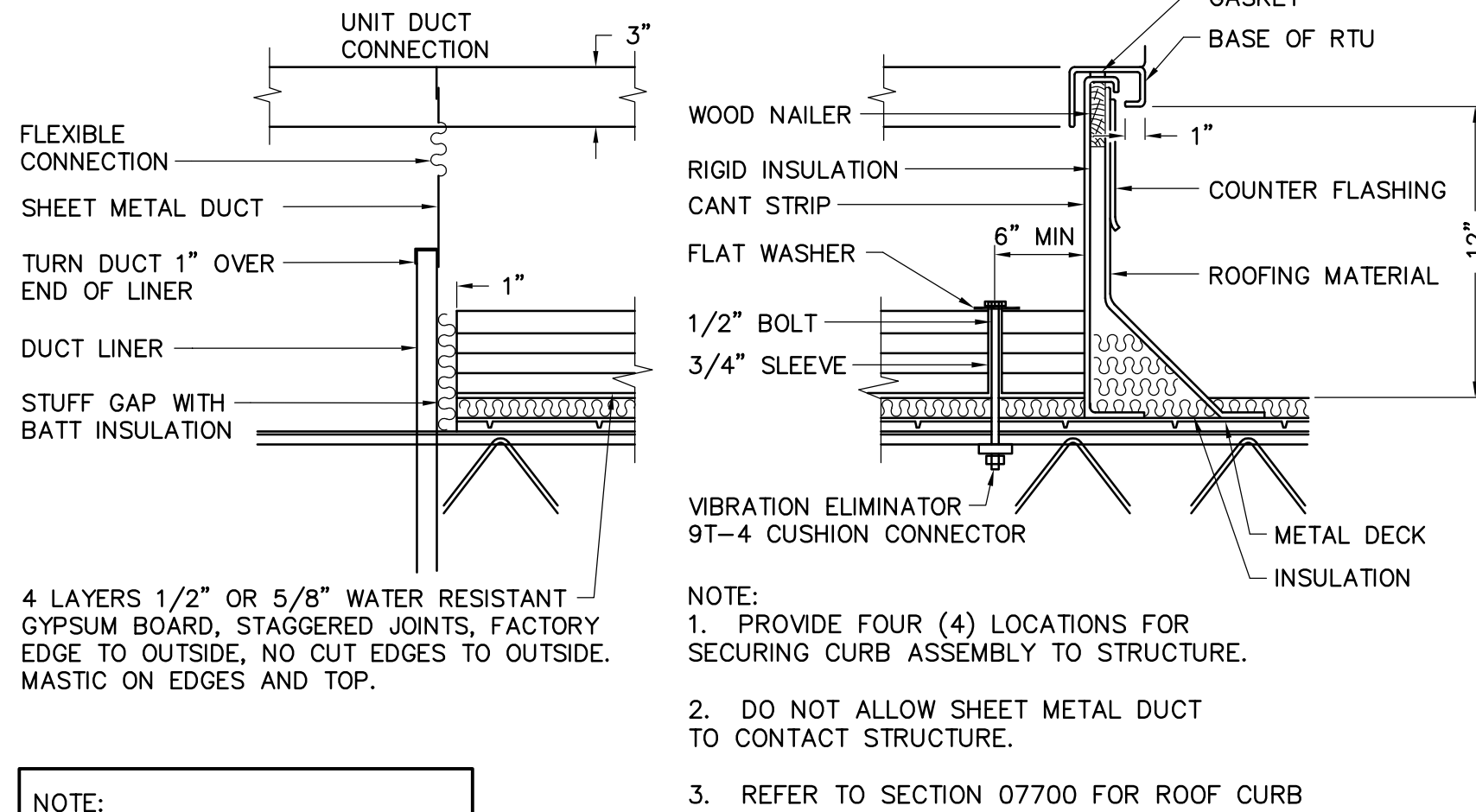
4 SUPPLY, RA, EXH DUCT TAPS
DETAIL
NO SCALE



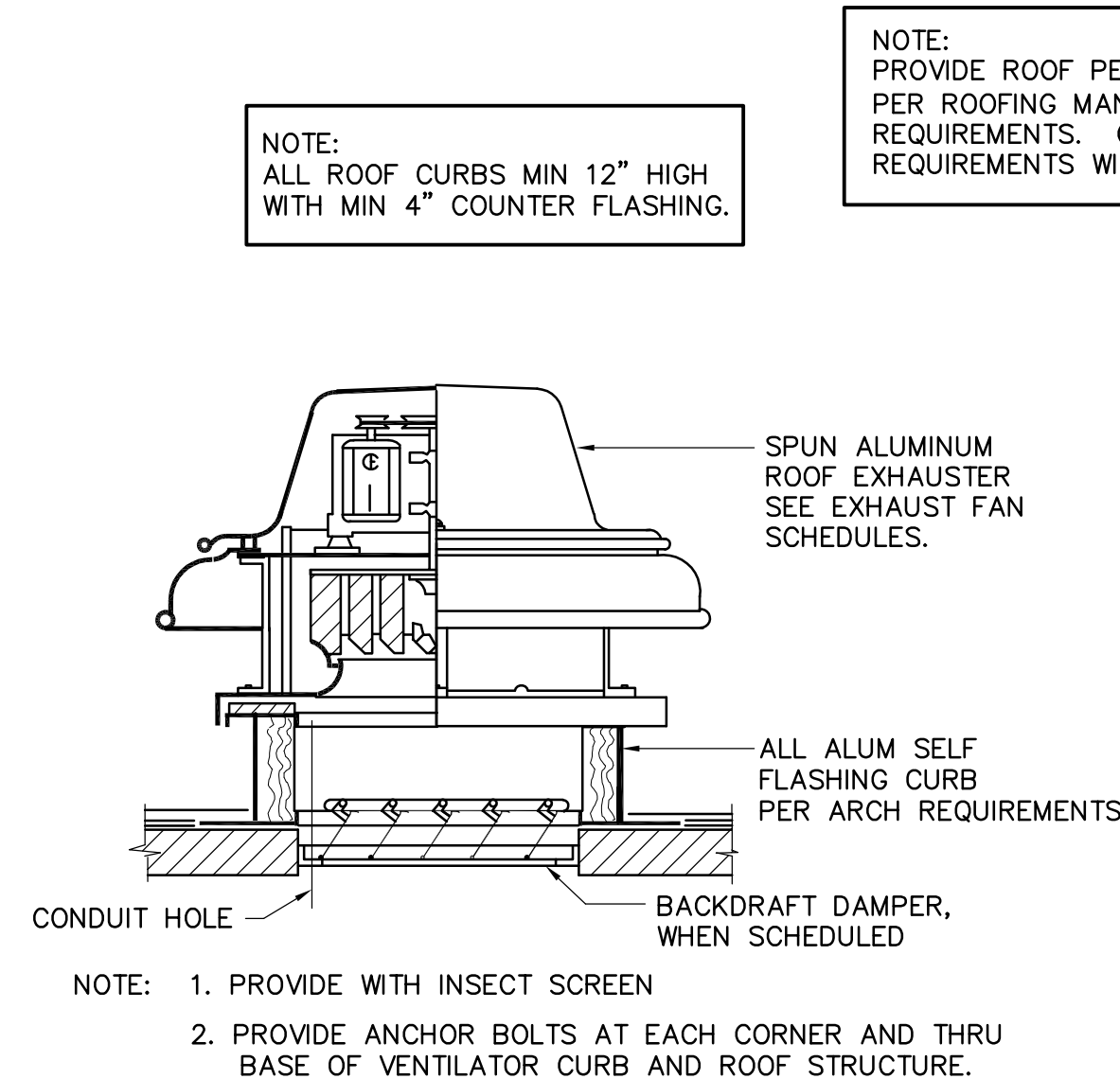
5 MECH. RM. WALL PENETRATION
DETAIL
NO SCALE



1 TYPICAL DUCT CONSTRUCTION
DETAIL
NO SCALE



2 ROOF TOP UNIT (RTU) SUPPORT
DETAIL
NO SCALE



3 EXHAUST FAN
DETAIL
NO SCALE

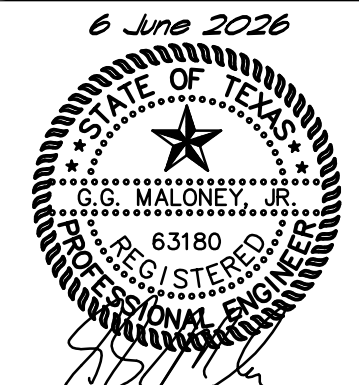
HVAC SYMBOL LEGEND

Ⓟ	THERMOSTAT
Ⓜ	HUMIDISTAT
20/10	20" WIDE X 10" DEEP, INSIDE CLEAR
FD	FIRE DAMPER IN DUCT WITH AD FOR ACCESS
[Symbol]	EXHAUST OR RETURN AIR SECTION
[Symbol]	SUPPLY AIR SECTION
[Symbol]	ELBOW TURNED UP
[Symbol]	ELBOW TURNED DOWN
[Symbol]	BALANCING DAMPER
[Symbol]	MOTORIZED DAMPER
D	CONDENSATE DRAIN
[Symbol]	DIRECTION OF FLOW
[Symbol]	CONNECT TO EXISTING
OD	OVERFLOW DRAIN
[Symbol]	THERMOMETER TEST OR CONTROL BULB WELL
[Symbol]	THERMOMETER
VD	MANUAL VOL DAMPER
AD	ACCESS DOOR
FD	FIRE DAMPER
OA	OUTSIDE AIR
RA	RETURN AIR
SA	SUPPLY AIR
CW	HOT GAS
RL	REFRIGERANT LIQUID
RS	REFRIGERANT SUCTION

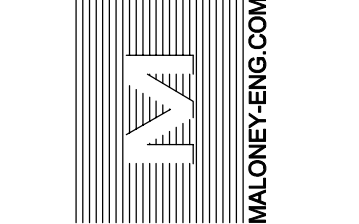
MLA
MICHAEL LEGG ARCHITECTURE
Michael Gregg Legg
RA RIBA
20116 High Timber Pass St
San Antonio, Texas 78260
ph. 210-416-4935
mlegg@mlaarchitect.com
www.michaelleggarchitecture.com

DRAWING COORDINATION
Architectural, Landscape, Civil, Structural, Mechanical and Electrical drawings are interrelated. General Contractor and all Sub Contractors shall review and coordinate the entire set of drawings and specifications.

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY G.G. MALONEY, JR., P.E. 63180 ON JUNE 6, 2026. ALTERATION OF SEALED DOCUMENTS WITHOUT PROPER NOTIFICATION OF THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.



MALONEY ASSOCIATES
CONSULTING ENGINEERS, INC.
F-1400
1208 TRAILWOOD DR
DALLAS, TEXAS 75243
(817) 288-0383



MECHANICAL DETAILS

GAMEDAY

190 Creekside Crossing,
New Braunfels, 78130 Texas

BY					
DESCRIPTION					
DATE					

SCALE:
AS NOTED

PROJECT NO.
04-26-26

SHEET NO.
M0.00

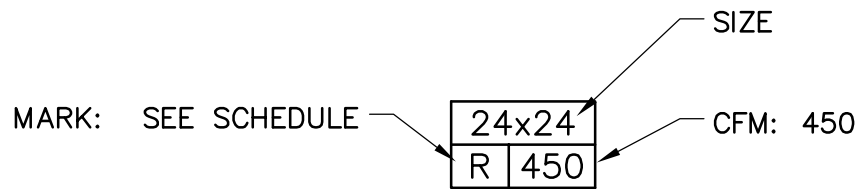
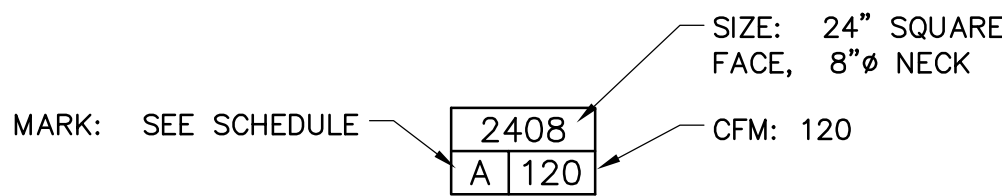
PACKAGED ROOF TOP UNIT SCHEDULE

MARK	RTU-1	RTU-2
SYSTEM TYPE	HEAT PUMP	HEAT PUMP
UNIT LOCATION	ROOF	ROOF
COOLING REQUIREMENT	5 TON	5 TON
EVAP CFM	2150	2000
EAT, DB/WB	76.1/82.6	76.9/63.0
GROSS SEN. MBH REQD	50.3	47.9
GROSS TOTAL MBH REQD	66.4	63.6
AMBIENT F	105	105
SEER/EER	14.3	14.3
HEATING (HP)		
CFM	2150	2000
EAT	65	65
TOTAL MBH REQD	47.7	40.9
ELECTRIC HEAT KW	12	12
HSPF2/COF	6.9/3.6	6.9/3.6
VENT REQUIREMENT		
OUTSIDE AIR CFM, MIN	100	100
MANUFACTURER	JOHNSON CONTROLS	JOHNSON CONTROLS
MODEL	WYE06A4B1AB5H116A1	WYE06A4B1AB5H116A1
EXTERNAL SP	0.60	0.60
FLA/MOCP	70.6/80	70.6/80
VOLTAGE/PHASE	208/3	208/3
AIR DISCHARGE	DOWNFLOW	DOWNFLOW
DIMENSIONS (LxWxH)	74X49X41	74X49X41
WEIGHT (LBS)	726	726

- NOTES:
- PROVIDE FILTERS.
 - PROVIDE ROOF CURBS.
 - PROVIDE WITH ECONOMIZER.
 - PROVIDE SINGLE POINT POWER CONNECTION. ROUTE ALL PLUMBING AND ELEC CONNECTIONS WITHIN CONFINES OF ROOF CURB.
 - PROVIDE LOW AMBIENT KIT.
 - PROVIDE AUTOMATIC CHANGEOVER, NIGHT SETBACK THERMOSTAT. PROVIDE LOCKING COVER IN PUBLIC AREAS.
 - UNIT WEIGHT EXCLUDES CURB WEIGHT.
 - PROVIDE 120V GFI RECEPTACLE WITH UNIT, WEATHER PROOF COVER, WIRED, READY FOR USE.
 - PROVIDE SMOKE DETECTION CONTROL SYSTEM PER CURRENT IMC SECTION 606.
 - PROVIDE MANUFACTURER'S STANDARD HAIL GUARDS FOR CONDENSER COILS.
 - PROVIDE WATER LEVEL MONITORING DEVICE (FLOAT SWITCH) IN DRAIN PAN TO SHUT DOWN UNIT TO PREVENT OVERFLOW.

GRILLE, REGISTER, DIFFUSER SCHEDULE

MARK	A	B	C	R	T
SERVICE TYPE	SUPPLY DIFFUSER	SUPPLY PERFORATED	TRANSFER DOOR	RETURN GRILLE	TRANSFER GRILLE
DEFLECTION	4-WAY	3-WAY	FIXED	GRID	GRID
PANEL SIZE	VARIES	VARIES	VARIES	VARIES	VARIES
MOUNT	LAYIN OR FLANGE	LAYIN OR FLANGE	LAYIN OR FLANGE	LAYIN OR FLANGE	LAYIN OR FLANGE
MANUFACTURER	TITUS	TITUS	TITUS	TITUS	TITUS
MODEL	TMS-AA	PCS-AA	CT-700	50F	50F
DAMPER	OPPOSED BLADE	OPPOSED BLADE	N/A	N/A	N/A
MATERIAL	ALUMINUM	ALUMINUM	ALUMINUM	ALUMINUM	ALUMINUM
REFERENCE NOTES	1,2,3	1,2,3	1	1,4	1,4
REFERENCE NOTES:	1. INSTALL APPROPRIATE MOUNT FOR INSTALLED SUBSTRATE. DO NOT SCREW THRU FACE OF DEVICE UNLESS SCREW HOLES ARE PROVIDED BY MANUFACTURER.				
	2. DAMPER IN SUPPLY DUCT.				
	3. RUNOUT SAME SIZE AS DIFFUSER NECK SIZE.				
	4. DAMPER BEHIND FACE OF REGISTER.				
	* OR AS NOTED.				



FAN SCHEDULE 15870

MARK	EF-1	EF-2
SYSTEM TYPE	EXHAUST	EXHAUST
UNIT LOCATION	CEILING	CEILING
CFM	75	75
TSP INCHES	.30	.30
MOTOR HP	80WATTS	80WATTS
VOLTAGE/PHASE	120/1	120/1
DRIVE	DIRECT	DIRECT
TYPE	CENTRIFUGAL	CENTRIFUGAL
MOUNTING	CEILING	CEILING
MANUFACTURER	GREENHECK	GREENHECK
MODEL	SP-B110	SP-B110
UNIT INTERLOCK	LIGHT SW	LIGHT SW
REFERENCE NOTE	1,4	1,4

- REFERENCE NOTES:
- INTEGRAL BACKDRAFT DAMPER
 - ALL ALUMINUM CONSTRUCTION.
 - INSTALL UNIT ON MANUFACTURERS COMBINATION EXH/MU ROOF CURB. CURBS FURNISHED BY KEC INSTALLED BY GC.
 - SWITCH EXHAUST FAN WITH RESPECTIVE ROOM LIGHT.
 - FURNISH BIRD SCREEN
 - FURNISH WITH VENTED CURB EXTENSION & GREASE TRAP
 - FURNISH WITH HINGING KIT
 - PROVIDE LOCAL SWITCH.
 - PROVIDE MINIMUM 10' INTAKE EXTENSION ON ROOF.
 - FAN FURNISHED BY KEC (KITCHEN EQUIPMENT CONTRACTOR) INSTALLED BY MECHANICAL CONTRACTOR.
 - PROVIDE INTERLOCK AND SINGLE POINT CONTROL LOCAL SWITCH FOR EF-1 & MU-1.
 - ALL DUCTWORK PROVIDED BY MECHANICAL CONTRACTOR EXCEPT FOR MU-1 INTAKE EXTENSION ON ROOF.
 - PROVIDE VARIABLE SPEED FOR ADJUSTABLE FAN THROW.
 - FURNISH WITH MANUFACTURER'S STANDARD CURB.

SUBMITTAL

SUBMIT 4 COPIES OF DATA FOR REVIEW AND COMMENT BY OWNER PRIOR TO ORDERING. INCLUDE MANUFACTURER'S STANDARD SUBMITTAL DATA WITH MANUFACTURER'S NAME AND MODEL NUMBERS AND ALL OPTIONS CLEARLY MARKED.

PROVIDE SUBMITTAL DATA FOR:

1. ROOF TOP UNITS, INCLUDE UNIT CAPACITY INFORMATION FOR CONDITIONS SCHEDULED, UNIT DIMENSIONS AND WEIGHT, UNIT CURB WITH DIMENSINS AND WEIGHT.

2. GRILLS REGISTERS AND DIFFUSERS

3. EXHAUST AND SUPPLY FANS (FURNISHED BY KITCHEN EQUIPMENT SUPPLIER) INCLUDE FAN CFM AT SCHEDULED CONDITIONS, ELECTRICAL DATA AND MOTOR SIZE.

Chvac - Full Commercial HVAC Loads Calculation Program		Elite Software Development, Inc.	
Maloney Associates		Gameday	
Hurst, TX 76053		Page 16	
Air Handler #1 - Zone - 1 Reception/SE Exposure - Total Load Summary			
Air Handler Description: Zone - 1 Reception/SE Exposure Constant Volume - Sum of Peaks			
Supply Air Fan: Draw-Thru with program estimated horsepower of 1.15 HP			
Fan Input: 65% motor and fan efficiency with 2.2 in. water across the fan			
Sensible Heat Ratio: 0.97		--- This system occurs 1 time(s) in the building. ---	
Air System Peak Time: 2pm in August			
Outdoor Conditions: Clg: 100° DB, 74° WB, 87.63 grains, Htg: 25° DB			
Indoor Conditions: Clg: 75° DB, 50% RH, Htg: 75° DB			
Summer: Ventilation controls outside air, --- Winter: Ventilation controls outside air.			
Room Space sensible loss:		23,813 Btuh	
Infiltration sensible loss:		1,662 Btuh	28 CFM
Outside Air sensible loss:		4,567 Btuh	88 CFM
Supply Duct sensible loss:		2,812 Btuh	
Return Duct sensible loss:		1,406 Btuh	
Return Plenum sensible loss:		0 Btuh	
Total System sensible loss:			34,120 Btuh
Heating Supply Air: 28,116 / (.972 X 1.08 X 20) =		1,339 CFM	
Winter Vent Outside Air (0.5% of supply) =		88 CFM	
Room space sensible gain:		37,148 Btuh	
Infiltration sensible gain:		797 Btuh	
Draw-thru fan sensible gain:		2,826 Btuh	
Supply duct sensible gain:		4,601 Btuh	
Reheat sensible gain:		0 Btuh	
Total sensible gain on supply side of coil:			45,372 Btuh
Cooling Supply Air: 45,372 / (.972 X 1.1 X 20) =		2,152 CFM	
Summer Vent Outside Air (4.1% of supply) =		88 CFM	
Return duct sensible gain:		2,207 Btuh	
Return plenum sensible gain:		0 Btuh	
Outside air sensible gain:		2,341 Btuh	88 CFM
Blow-thru fan sensible gain:		0 Btuh	
Total sensible gain on return side of coil:			4,548 Btuh
Total sensible gain on air handling system:			49,920 Btuh
Room space latent gain:		976 Btuh	
Infiltration latent gain:		410 Btuh	
Outside air latent gain:		1,253 Btuh	
Total latent gain on air handling system:			2,639 Btuh
Total system sensible and latent gain:			52,559 Btuh
Check Figures			
Total Air Handler Supply Air (based on a 20° TD):		2,152 CFM	
Total Air Handler Vent. Air (4.07% of Supply):		88 CFM	
Total Conditioned Air Space:		960 Sq.ft	
Supply Air Per Unit Area:		2.2415 CFM/Sq.ft	
Area Per Cooling Capacity:		219.2 Sq.ft/Ton	
Cooling Capacity Per Area:		0.0046 Tons/Sq.ft	
Heating Capacity Per Area:		35.54 Btuh/Sq.ft	
Total Heating Required With Outside Air:		34,120 Btuh	
Total Cooling Required With Outside Air:		4.38 Tons	

D:\Jerry Stuff\Gameday Load Calc REVISED 081126.CH8

Tuesday, August 11, 2006, 01:43 PM

D:\Jerry Stuff\Gameday Load Calc REVISED 081126.CH8

Tuesday, August 11, 2026, 01:43 PM

Chvac - Full Commercial HVAC Loads Calculation Program

Maloney Associates

Hurst, TX 76053

Elite Software Development, Inc.

Gameday

Hurst, TX 76053

Page 18

Air Handler #2 - Zone - 2 Interior Spaces/Corridor - Total Load Summary

Air Handler Description: Zone - 2 Interior Spaces/Corridor Constant Volume - Sum of Peaks

Supply Air Fan: Draw-Thru with program estimated horsepower of 1.08 HP

Fan Input: 65% motor and fan efficiency with 2.2 in. water across the fan

Sensible Heat Ratio: 0.96

This system occurs 1 time(s) in the building. ---

Air System Peak Time: 5pm in August

Outdoor Conditions: Clg: 99° DB, 74° WB, 90.12 grains, Htg: 25° DB

Indoor Conditions: Clg: 75° DB, 50% RH, Htg: 75° DB

Summer: Ventilation controls outside air, --- Winter: Ventilation controls outside air.

Room Space sensible loss: 13,667 Btuh

Infiltration sensible loss: 2,209 Btuh

Outside Air sensible loss: 5,485 Btuh

Supply Duct sensible loss: 1,764 Btuh

Return Duct sensible loss: 862 Btuh

Return Plenum sensible loss: 0 Btuh

Total System sensible loss:

24,007 Btuh

Heating Supply Air: 17,640 / (.972 X 1.08 X 20) = 840 CFM

Winter Vent Outside Air (12.4% of supply) = 105 CFM

Room space sensible gain: 24,840 Btuh

Infiltration sensible gain: 1,024 Btuh

Draw-thru fan sensible gain: 2,826 Btuh

Supply duct sensible gain: 4,275 Btuh

Reheat sensible gain: 9,489 Btuh

Total sensible gain on supply side of coil:

42,355 Btuh

Cooling Supply Air: 42,355 / (.972 X 1.1 X 20) = 2,000 CFM

Summer Vent Outside Air (5.2% of supply) = 105 CFM

Return duct sensible gain: 2,026 Btuh

Return plenum sensible gain: 0 Btuh

Outside air sensible gain: 2,682 Btuh

Blow-thru fan sensible gain: 0 Btuh

Total sensible gain on return side of coil:

4,708 Btuh

Total sensible gain on air handling system:

47,063 Btuh

Room space latent gain: 976 Btuh

Infiltration latent gain: 599 Btuh

Outside air latent gain: 1,806 Btuh

Total latent gain on air handling system:

3,181 Btuh

Total system sensible and latent gain:

50,244 Btuh

Check Figures

Total Air Handler Supply Air (based on a 20° TD): 2,000 CFM

Total Air Handler Vent. Air (5.23% of Supply): 105 CFM

Total Conditioned Air Space: 1,242 Sq.ft

Supply Air Per Unit Area: 1.6100 CFM/Sq.ft

Area Per Cooling Capacity: 298.6 Sq.ft/Ton

Cooling Capacity Per Area: 0.0034 Tons/Sq.ft

Heating Capacity Per Area: 19.33 Btuh/Sq.ft

Total Heating Required With Outside Air: 24,007 Btuh

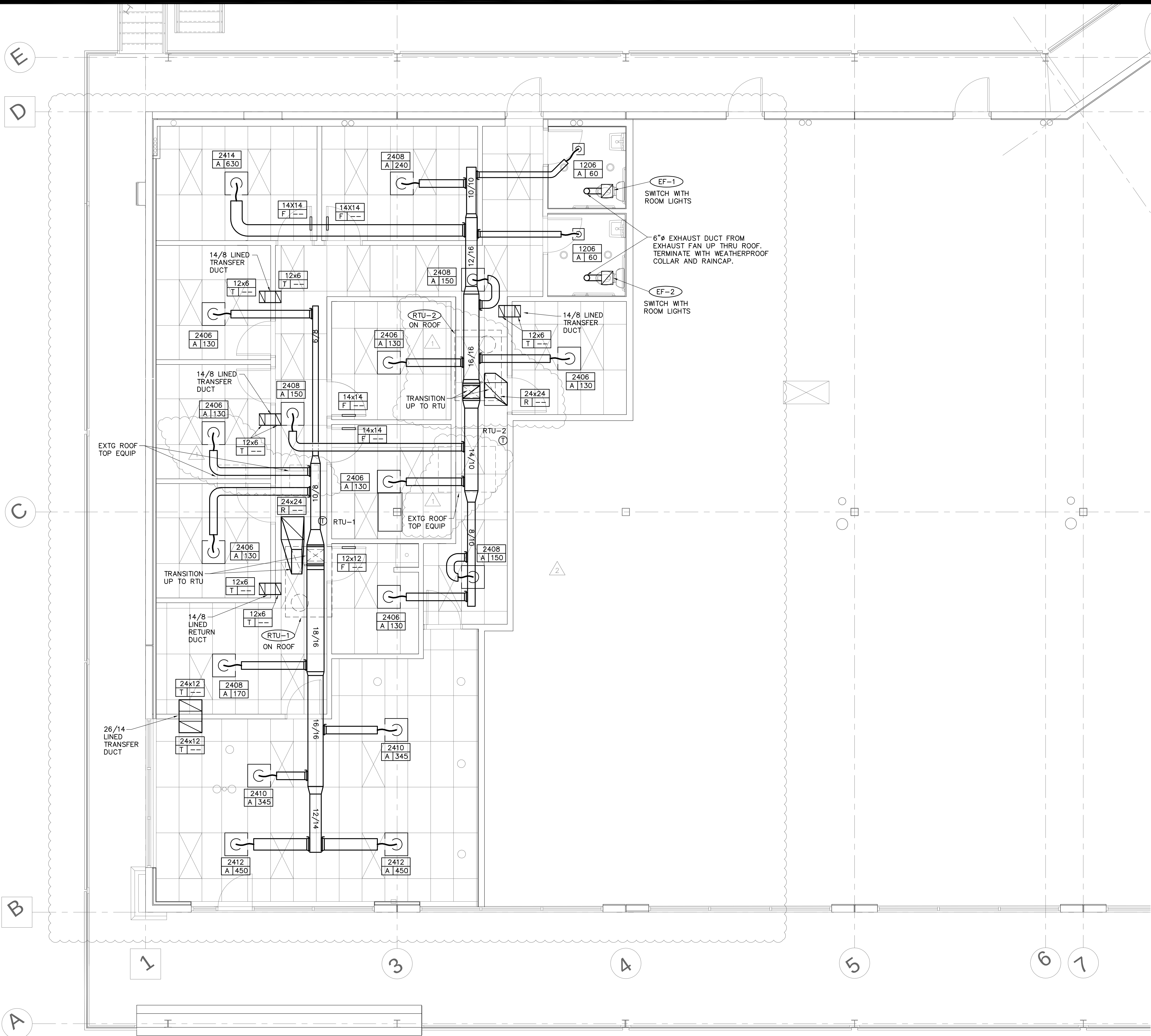
Total Cooling Required With Outside Air: 4.19 Tons

20 / 1000 / 1

D:\Jerry Stuff\Gameday Load Calc REVISED 081126.CH8

Tuesday, August 11, 2026, 01:43 PM

DATE	DESCRIPTION	BY	1	2
07/08/26	MOVE RTU-2 ADD CD			
08/13/26	FP CHANGE CITY CMTS			

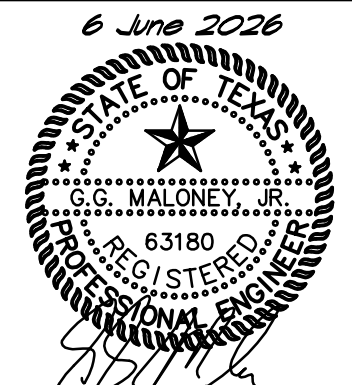


4' 0 4' 8'
GRAPHIC SCALE: 1/4"=1'-0"

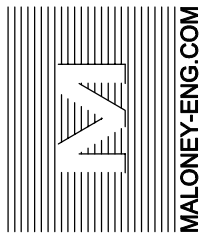
MLA
MICHAEL LEGG ARCHITECTURE
Michael Gregory Legg
RA RIBA
20116 High Timber Pass St
San Antonio, Texas 78260
ph. 210-416-4935
mlegg@mlaarchitecture.com
www.michaelleggarchitecture.com

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F-1400
1208 TRAILWOOD DR
HURST, TEXAS 76054
(817) 288-0383



MECHANICAL PLAN

GAMEDAY

**190 Creekside Crossing,
New Braunfels, 78130 Texas**

DATE	DESCRIPTION	BY
07/08/26	MOVE RTU-2 ADD CD	1
08/13/26	FP CHANGE CITY CMTS	2

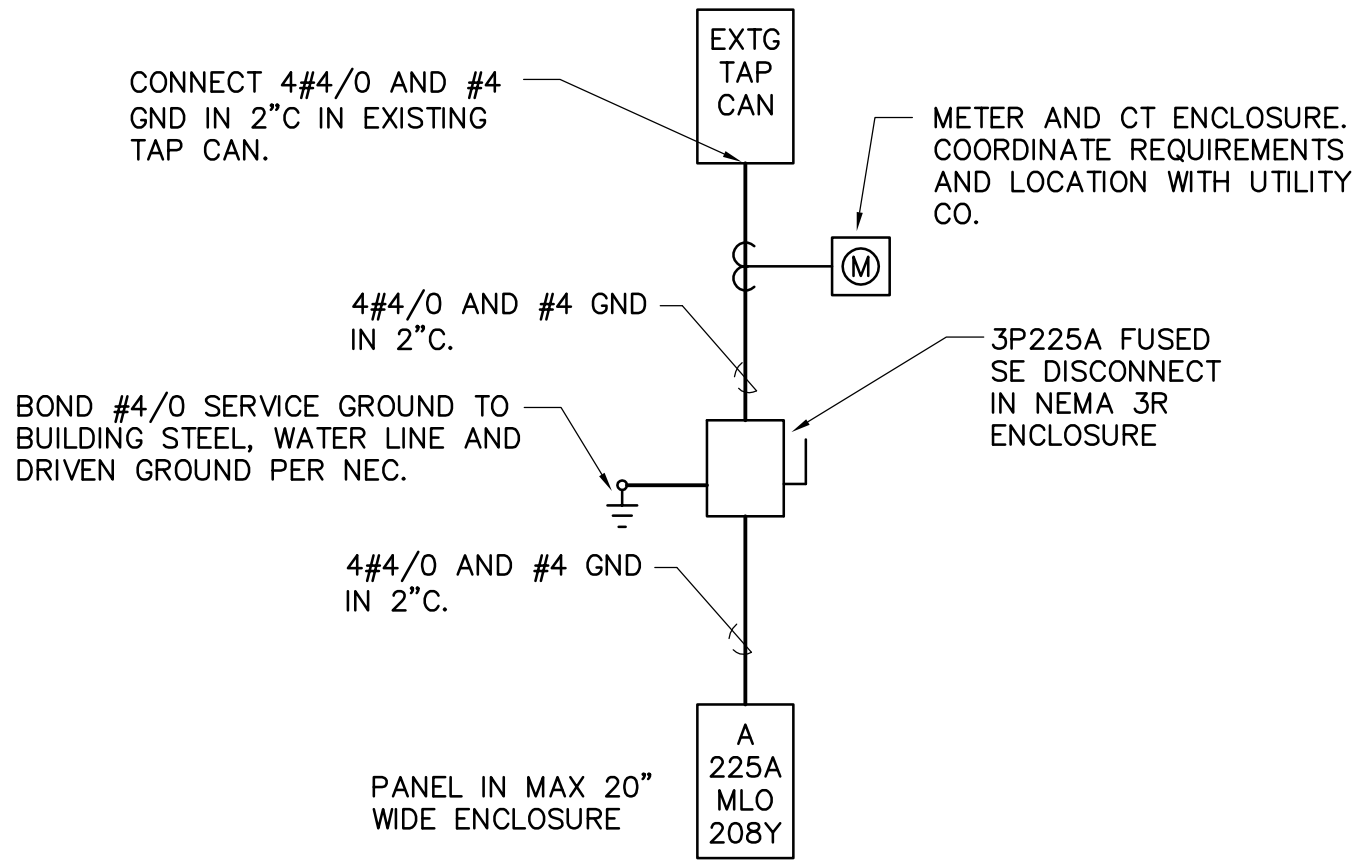
SCALE:
AS NOTED

PROJECT NO.
04-26-26

SHEET NO.
M1.00

LIGHTING FIXTURE SCHEDULE							
MARK	DESCRIPTION	LAMPS NO TYPE	MAX INPUT W	LENS	MOUNTING	MANUFACTURER	NOTES
A	2X4 TROFFER	1 6000 LUMEN LED	43	Micro-Prism	RECESSED	LITHONIA SPX 2X4 6000LM 80CRI 35K BFR MPL MIN10 MVOLT MW	DIMMING DRIVER, WHITE TRIM
B	DOWNLIGHT	1 2221 LUMEN 3000K LED	25	INTEGRAL	RECESSED	LITHONIA LDN6 AL02 SWW1 L06 WR TRW LSS MVOLT UG21	0-10V DIMMING DRIVER, UL WET LOCATION, SELECTABLE WATTAGE/COLOR TEMP
C	DOWNLIGHT	1 2221 LUMEN 3000K LED	25	INTEGRAL	RECESSED	LITHONIA LDN6 AL02 SWW1 L06 WR TRW LSS MVOLT UG21	0-10V DIMMING DRIVER, UL WET LOCATION, SELECTABLE WATTAGE/COLOR TEMP
D	PENDANT	2 1000 LUMEN LED 3000K	15		PENDANT	SELECTED BY OWNER	DIMMING DRIVER
X	EXIT/EGRESS	2 LED	4.3	RED	WALL OR CEILING	COMPASS LIGHTING CCR	WITH 90 MIN EMERGENCY BATTERY, 2 LAMP HEADS
Y	EGRESS	2 LED	4	REFRACTOR	WALL	COMPASS LIGHTING CU2	WITH 90 MIN EMERGENCY BATTERY, 2 LAMP HEADS
Z	EXTERIOR EGRESS	2 LED	1.4	REFRACTOR	WALL	SURE-LITES SELWT29BKSD	UL WET LOCATION, BATTERY RATED FOR -40degF TO 131degF, 90 MIN OPERATION SELF DIAGNOSTIC
NOTES:							
1. VERIFY TRIM MATCHES CEILING OR SURFACE TYPE FOR RECESSED FIXTURES.							
2. VERIFY FIXTURE VOLTAGE PRIOR TO ORDERING FIXTURES.							
3. PROVIDE 3500K COLOR TEMP LAMPS IN ALL AREAS.							

PANEL L										
RECESSED										
LOAD CONT	LOAD N - CONT	LOCATION	CKT DEVICE	CKT #	PH	CKT #	CKT DEVICE	LOCATION	LOAD N - CONT	LOAD CONT
1,040		LIGHTING	1 P 20	1	A	2	1 P 20	LIGHTING		940
	720	RECEPTACLES	1 P 20	3	B	4	1 P 20	RECEPTACLES	720	
	720	RECEPTACLES	1 P 20	5	C	6	1 P 20	RECEPTACLES	720	
	720	RECEPTACLES	1 P 20	7	A	8	1 P 20	MICROWAVE	1,000	
	540	RECEPTACLES	1 P 20	9	B	10	1 P 20	RECEPTACLES	720	
	720	RECEPTACLES	1 P 20	11	C	12	1 P 20	CENTRIFUGE	1,000	
	1,000	CENTRIFUGE	1 P 20	13	A	14	1 P 30	WATER HEATER	3,600	
	720	RECEPTACLES	1 P 20	15	B	16	1 P 20	RECEPTACLES	720	
	720	RECEPTACLES	1 P 20	17	C	18	1 P 20	RECEPTACLES	720	
	720	RECEPTACLES	1 P 20	19	A	20	1 P 20	RECEPTACLES	720	
	720	RECEPTACLES	1 P 20	21	B	22	1 P 20	RECEPTACLES	540	
	3,600	WATER HEATER	1 P 30	23	C	24	1 P 30	WATER HEATER	3,600	
	3,600	WATER HEATER	1 P 30	25	A	26	1 P 30	WATER HEATER	3,600	
	1,000	IT EQUIP	1 P 20	27	B	28	1 P 20	IT EQUIP	1,000	
		SPACE	1 P	29	C	30	1 P	SPACE		
		SPACE	1 P	31	A	32	1 P	SPACE		
		SPACE	1 P	33	B	34	1 P	SPACE		
		SPACE	1 P	35	C	36	1 P	SPACE		
	25,400	RTU - 1	3 P 80	37	A	38	3 P 80	RTU - 2	25,400	
		////	/ /	39	B	40	/ /	////		
		////	/ /	41	C	42	/ /	////		
	208 PANEL AMPERES									
208 PANEL MINIMUM BUS SIZE										
PANEL VOLTAGE 120 / 208, 3PH, 4W										
225A MLO										
10,000 AIC										
2 PANEL CONTINUOUS KVA										
85 PANEL NON - CONTINUOUS KVA										



1 ELECTRICAL RISER
SCALE: NO SCALE

NOTE:
ELECTRICAL PANEL CALCULATIONS
PER NEC ARTICLE 220.

SUBMITTAL

SUBMIT 4 COPIES OF DATA FOR REVIEW AND COMMENT BY OWNER PRIOR TO ORDERING. INCLUDE MANUFACTURER'S STANDARD SUBMITTAL DATA WITH MANUFACTURER'S NAME AND MODEL NUMBERS, COLOR, FINISH, SIZE AND ALL OPTIONS CLEARLY MARKED.

PROVIDE SUBMITTAL DATA FOR LIGHT FIXTURES, POLES, CEILING FANS AND ELECTRICAL PANELS AND GEAR.

SUBMIT PHOTOMETRIC CALCULATIONS AND REPORT FOR SITE LIGHTING. SHOW STATISTICS AND LIGHTING LEVELS ON 10' GRID, INCLUDE BUILDING MOUNTD LIGHTING FIXTURES.

ELECTRICAL INSTALLATION REQUIREMENTS:

1. SCOPE

1.1 PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED TO EXECUTE WORK.

1.2 THIS WORK INCLUDES, BUT IS NOT LIMITED TO: ELECTRICAL SERVICE AND DISTRIBUTION SYSTEMS, PANELBOARDS, DISCONNECT SWITCHES, LIGHTING FIXTURES, POWER AND CONTROL WIRING WITH FINAL CONNECTIONS TO ALL EQUIPMENT REQUIRED FOR A COMPLETE SYSTEM.

1.3 ELECTRICAL CONTRACTOR TO VERIFY TYPE OF POWER SERVICE AVAILABLE (UNDERGROUND OR OVERHEAD) UTILITY CABLE, CONDUIT AND TRANSFORMER PAD INSTALLATION REQUIREMENTS, COST FROM UTILITY TO PROVIDE SERVICE AND MAXIMUM SHORT CIRCUIT CURRENT PRIOR TO SUBMITTING A PROPOSAL. INCLUDE COST FOR UTILITY ROUGH-IN, CONDUIT, CABLE, XFMR PADS AND CONNECTIONS NOT PROVIDED BY THE UTILITY.

1.4 ELECTRICAL CONTRACTOR TO VERIFY TYPE OF TELEPHONE SERVICE AVAILABLE (UNDERGROUND OR OVERHEAD) PRIOR TO SUBMITTING A PROPOSAL.

1.5 ELECTRICAL CONTRACTOR VERIFY METERING, IN ACCORDANCE WITH LOCAL UTILITY COMPANY REQUIREMENTS.

1.6 ELECTRICAL CONTRACTOR SHALL PROVIDE LABELS 3/16 INCH HIGH, FOR DESCRIPTION OF MAIN SWITCHBOARD, PANEL BOARD AND ALL BRANCH CIRCUITS.

1.7 SUBMIT MANUFACTURER'S CATALOG SHEETS, BROCHURES, DIAGRAMS, SCHEDULES, PERFORMANCE CHARTS, ILLUSTRATIONS AND OTHER STANDARD DESCRIPTIVE DATA. CLEARLY MARK EACH COPY TO IDENTIFY PERTINENT MATERIALS, PRODUCTS OR MODELS. SHOW DIMENSIONS AND CLEARANCES REQUIRED. SHOW PERFORMANCE CHARACTERISTICS AND CAPACITIES. SHOW ELECTRICAL RATINGS, WIRING DIAGRAMS AND CONTROLS.

1.8 PROVIDE IVORY DEVICES WITH STAINLESS STEEL PLATES FOR OUTLETS LOCATED IN KITCHEN. PROVIDE BLACK DEVICES WITH BLACK COVERPLATES FOR OUTLETS LOCATED IN THE DINING AREA.

2. INSTALLATION

2.1 THE INSTALLATION SHALL COMPLY WITH CURRENT NEC.

2.2 THE CLEARANCE TO ALL ELECTRICAL EQUIPMENT SHALL COMPLY WITH CURRENT NEC.

2.2 CONTRACTOR SHALL FURNISH AND INSTALL ALL REQUIRED ELECTRICAL CONDUIT AND WIRING FOR ALL MOTORS, STARTERS AND ELECTRICAL CONTROLS. HE SHALL MAKE ALL LINE VOLTAGE ELECTRICAL CONNECTIONS AS REQUIRED FOR HVAC SYSTEMS.

2.3 ELECTRICAL CONTRACTOR SHALL COMPLETE THE CONNECTIONS TO ALL RECEPTACLES, EQUIPMENT AND FINAL CONNECTIONS TO ALL FIXTURES AFTER FIXTURES ARE IN PLACE.

2.4 WIRING

2.4.1 WIRE SIZES ARE TO COMPLY WITH CURRENT NEC.

2.4.2 ALL WORK SHALL BE COMPLETED IN A NEAT AND WORKMANLIKE MANNER.

2.4.3 ALL WIRING SHALL BE RUN IN APPROVED METALLIC RACEWAY OR CONDUIT AND SHALL BE UNIFORMLY COLOR CODED THROUGHOUT THE ENTIRE SYSTEM. SPLICES, TAPS, AND TERMINALS SHALL BE MAKE ONLY IN "J" BOXES , OUTLETS AND PANEL BOARDS.

2.4.4 ALL CONDUCTORS SHALL BE COPPER WITH A MINIMUM WIRE SIZE OF #12 AWG. THE CONTRACTOR SHALL ENSURE THE CONDUCTORS UTILIZED ARE IN KEEPING WITH GOOD PRACTICE FOR THE CIRCUIT/PROTECTIVE DEVICES EMPLOYED. THE NEUTRAL CONDUCTOR (WHERE USED) SHALL HAVE THE SAME AMPACITY AS THE ASSOCIATED PHASE CONDUCTORS (I.E. NEUTRAL REDUCTION SHALL NOT BE PERMITTED).

2.4.5 THE CONTRACTOR SHALL SIZE ALL CONDUCTOR AND CONDUIT IN ACCORDANCE WITH NEC AND ENSURE THAT CIRCUIT AMPACITY AND SHORT CIRCUIT/OVERLOAD PROTECTION IS APPROPRIATE FOR THE EQUIPMENT BEING INSTALLED. UL LISTING CONDITIONS SHALL BE OBSERVED.

2.4.6 WIRE SIZES LISTED ARE MINIMUM. CONDUCTORS SHALL BE SELECTED SUCH THAT THE MAXIMUM VOLTAGE DROP BETWEEN THE PANELBOARD AND LOAD (AT FULL LOAD AMPS) DOES NOT EXCEED 2% FOR MOTOR LOADS (AIR CONDITIONING, REFRIGERATION, ETC.) AND 5% FOR ALL OTHER LOADS

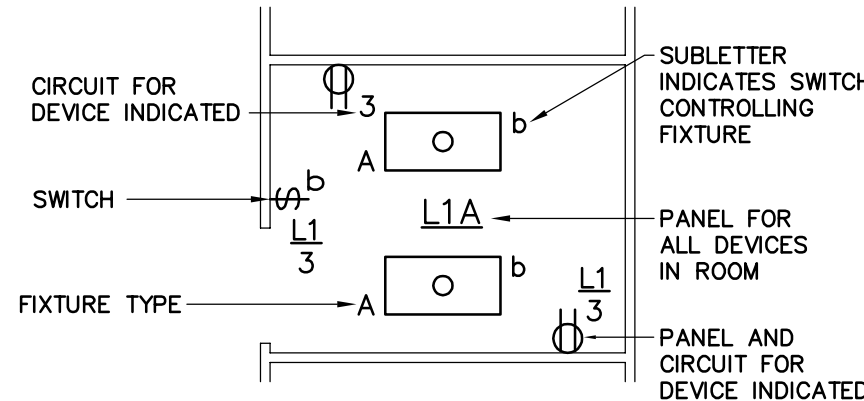
2.5 GROUNDING -- PROVIDE GROUNDING OF ELECTRICAL SERVICE ENTRANCE, PANELS, EQUIPMENT AND DEVICES IN ACCORDANCE WITH CURRENT NEC.

2.6 MAINTAIN SERVICE CLEARANCE TO ELECTRICAL PANELS AND EQUIPMENT IN ACCORDANCE WITH CURRENT NEC.

NOTE:
PROVIDE GFCI PROTECTED BREAKERS FOR
ALL SINGLE POLE CIRCUITS IN PANEL A

ELECTRICAL SYMBOL LEGEND

A	2X4 FLUORESCENT FIXTURE, LETTER INDICATES TYPE	M	MOTOR LOAD
E	1X4 FLUORESCENT FIXTURE, LETTER INDICATES TYPE	F	DISCONNECT SWITCH, F=FUSED OTHERWISE NON FUSED. DISCONNECT SIZED TO MATCH OR EXCEED CIRCUIT SIZE.
	SHADED FIXTURES WITH EMERGENCY BATTERY PACK	X	COMBINATION STARTER DISCONNECT COORDINATE SIZE WITH EQUIPMENT FURNISHED
B	RECESSED FIXTURE, LETTER INDICATES TYPE.		PANELBOARD, SURFACE MOUNTED IN MECH ROOMS AND OTHER UNFINISHED AREAS, SEE SCHEDULES.
E	WALL MOUNTED FIXTURE, LETTER INDICATES TYPE.		DATA OUTLET, DUAL RJ-45 OUTLET W/ COVERPLATE AND 1" C AND CAT-6 DATA CABLE IN GREEN JACKET TO TELEPHONE BOARD AT MANAGERS DESK.
P	CEILING MOUNTED OR PENDANT FIXTURE, LETTER INDICATES TYPE.		TELEPHONE/DATA OUTLET, DUAL RJ-45 OUTLET W/ COVERPLATE AND 1" C WITH CAT-6 DATA CABLE IN GREEN JACKET AND CAT-6 TELEPHONE CABLE IN GRAY JACKET TO TELEPHONE BOARD AT MANAGERS DESK.
	WALL MOUNTED EXIT SIGN, FIXTURE TYPE X.		CATV OUTLET, PROVIDE F--TYPE COAX CONNECTOR IN COMMON BOX WITH 120V OUTLET. PROVIDE DOUBLE GANG BOX WITH DIVIDER AND DUAL COVERPLATE. PROVIDE 1" C AND COAX CABLE TO TELEPHONE BOARD AT MANAGERS DESK.
	CEILING MOUNTED EXIT SIGN, FIXTURE TYPE X.		NOTES:
	EGRESS LIGHTING, FIXTURE TYPE Y		1. VERIFY ALL OUTLET LOCATION WITH MILLWORK DRAWINGS.
\$	SWITCH		2. IF NO SUBLETTER ON SWITCHES OR FIXTURES IS INDICATED, ALL FIXTURES IN ROOM ARE SWITCHED TOGETHER.
\$ A	SWITCH WITH AUTOMATIC OCCUPANCY SENSING (PIR TYPE)		3. MULTIPLE SWITCHING IS INDICATED BY 2 SUBLETTERS AT FIXTURES. OR BY SWITCH-LEG.
\$ 3	3-WAY SWITCH, 4 INDICATES 4-WAY SWITCH		4. CONCEAL CONDUITS IN ALL AREAS WITH FINISHED WALLS OR CEILINGS, EXCEPT FOR COOLERS, MECHANICAL, BOILER, TELEPHONE, AND ELECTRICAL ROOMS. CONCEAL CONDUITS IN THESE AREAS WHERE PRACTICAL.
#	VARIABLE SPEED FAN CONTROL SWITCH		5. MOUNT SWITCHES AND CONTROLS AT 48" AFF AND OUTLETS AT 18" AFF IN COMPLIANCE WITH TAS/ADA REQUIREMENTS UNLESS NOTED OTHERWISE.
	20A, 120V DUPLEX OUTLET, NEMA 5--20		6. PROVIDE VAPOR SEAL INSIDE AND OUT OF ALL CONDUIT PENETRATIONS THROUGH COOLER PANELS. USE PVC NIPPLE FOR THERMAL BREAK AT PENETRATION.
	20A, 120V 4PLEX OUTLET, (2) NEMA 5--20		
FV	GFI OUTLET BELOW SINK FOR AUTOMATIC FAUCET VALVE. POWER SUPPLY ELECTRIC WATER COOLER, SET HEIGHT BY COOLER TEMPLATE, CONCEAL OUTLET.		
WP	WEATHER PROOF		
GFI	GROUND FAULT INTERRUPTED OUTLET.		
C	ABOVE CEILING RECEPTACLE		
*	OUTLET OR DEVICE ABOVE COUNTER SPLASH OR AT 42". COORDINATE LOCATION WITH ARCH ELEVATIONS, EQUIPMENT REQUIREMENTS AND MILLWORK DETAILS.		
	120/208V 1ø OUTLET, PROVIDE SO CORD AND PLUG		
	SIMPLEX OUTLET		
J	J--BOX		
	CIRCUIT, HASH MARKS INDICATE # OF WIRES IF GREATER THAN 2. LONG MARKS ARE SWITCHED OR HOT, SHORT ARE NEUTRAL.		
	CIRCUIT HOMERUN		



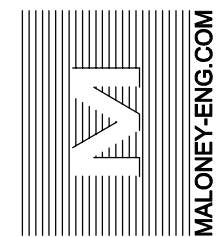
MLA
MICHAEL LEGG ARCHITECTURE
Michael Gregory Legg
RA RIBA
20116 High Timber Pass St
San Antonio, Texas 78260
ph. 210-416-4935
mlegg@mlaarchitecture.com
www.michaelleggarchitecture.com

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F-1400
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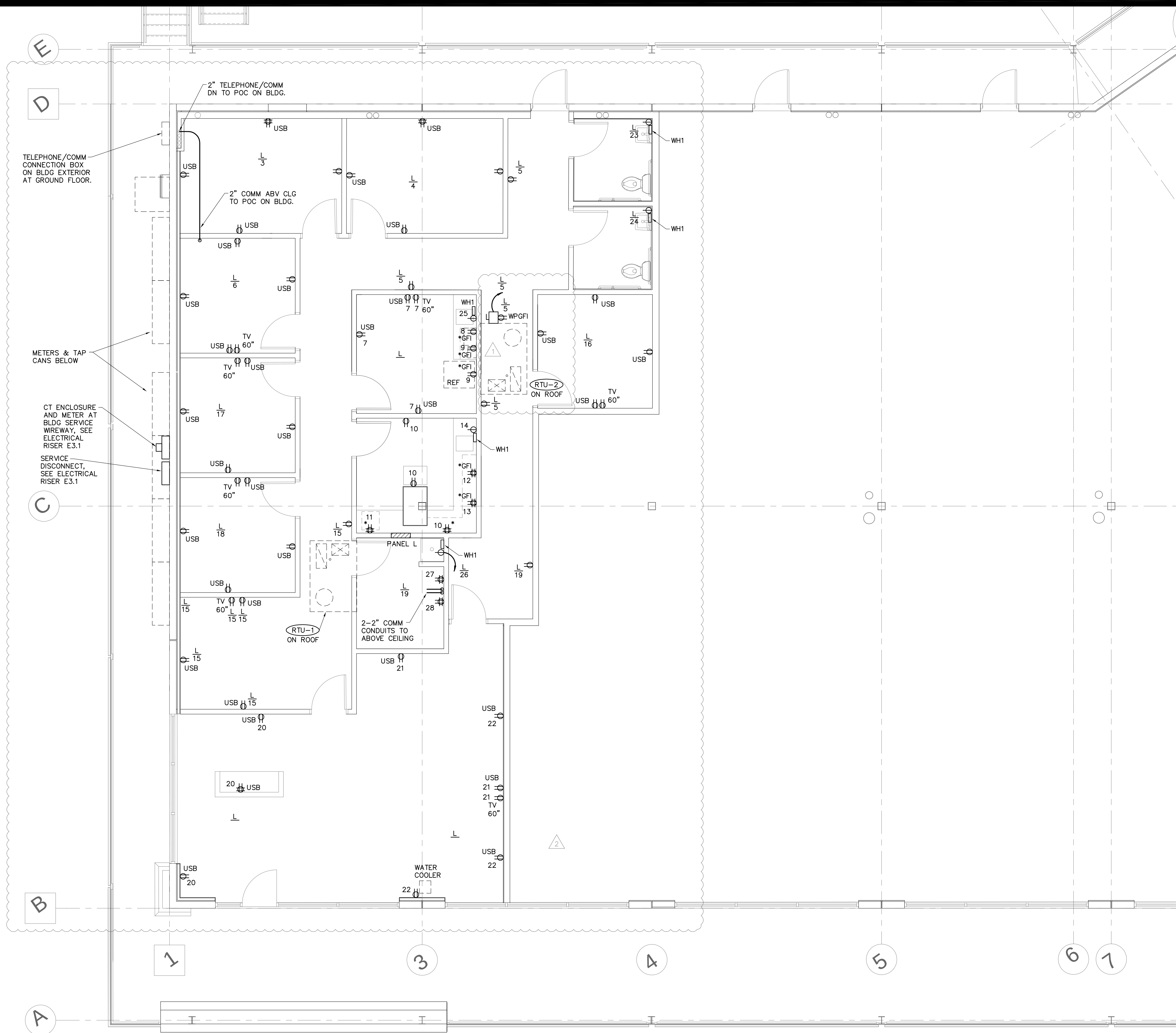
ELECTRICAL RISER AND SCHEDULES

DATE	DESCRIPTION	BY							

SCALE:
AS NOTED

PROJECT NO.
04-26-26

SHEET NO.
E0.00



**ELECTRICAL
PLAN**

SCALE: 1/4"=1'

4' 0 4'

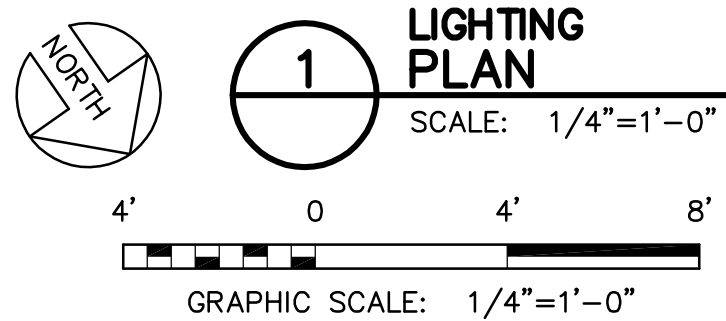
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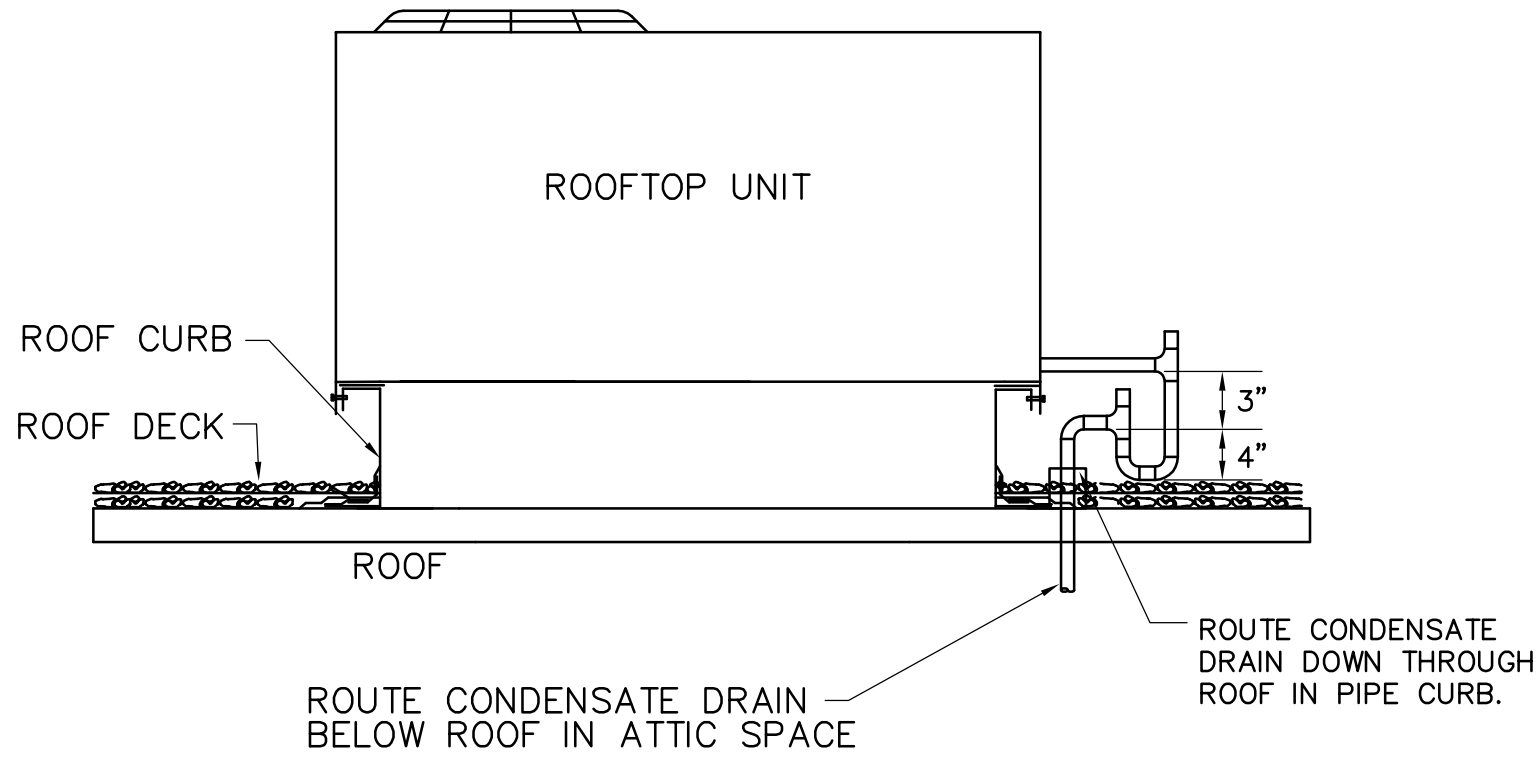
LIGHTING PLAN
GAMEDAY
190 Creekside Crossing,
New Braunfels, 78130 Texas

DATE	DESCRIPTION	BY
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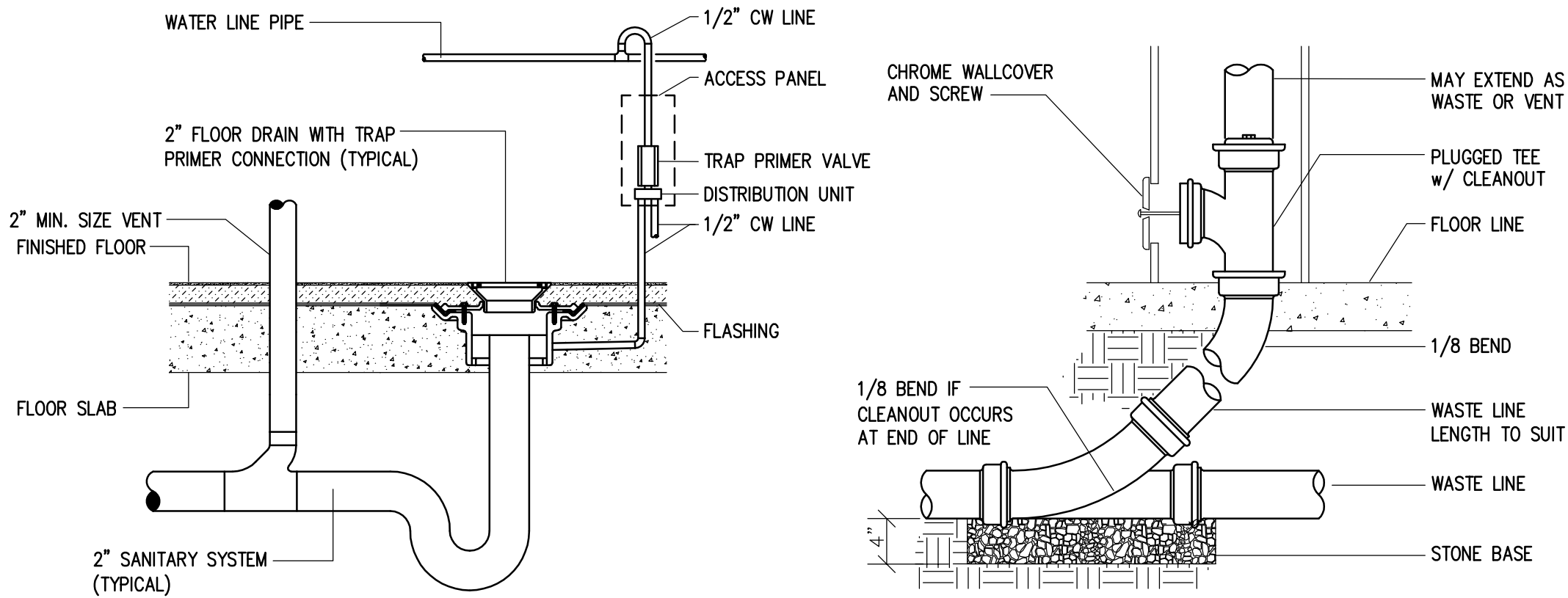
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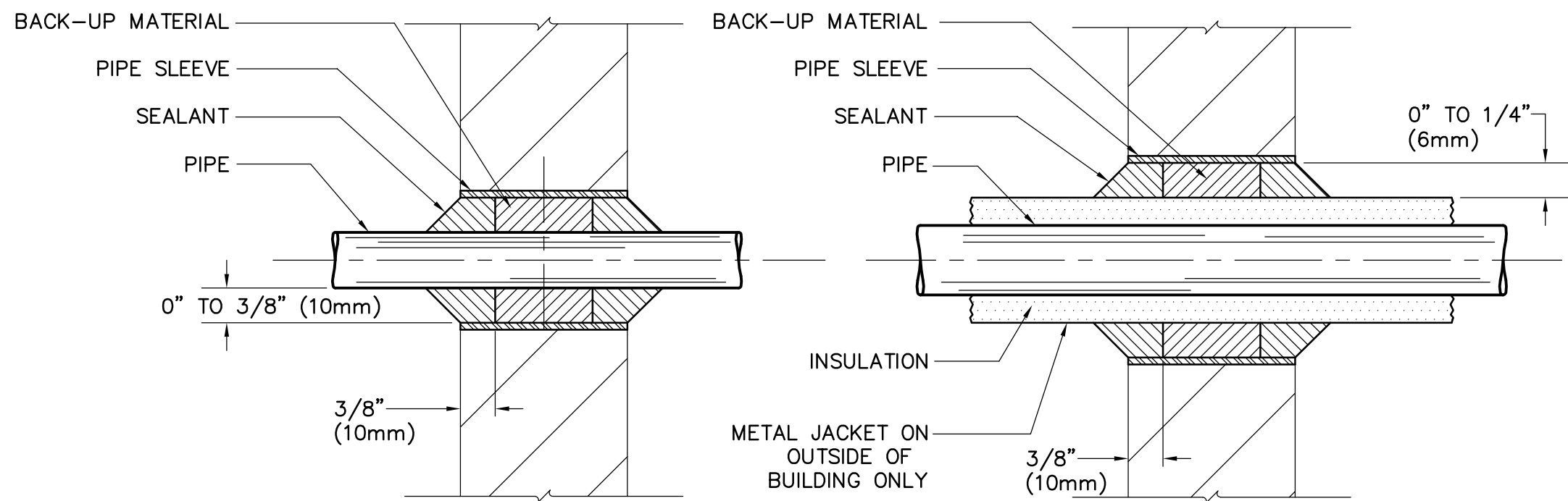


1 RTU CONDENSATE DRAIN
DETAIL
NO SCALE



2 RR FLOOR DRAIN
DETAIL
NO SCALE

3 WALL CLEANOUT
DETAIL
NO SCALE



4 THRU WALL PIPING (ABOVE GRADE)
DETAIL
NO SCALE

PLUMBING FIXTURE AND CONNECTION SCHEDULE							PROVIDE SUBMITTAL DATA FOR ALL ITEMS IN THIS SCHEDULE	
SYMBOL	DESCRIPTION	HOT WTR	COLD WTR	TRAP	WASTE	VENT	NOTES	MANUFACTURER & MODEL NO.
WC	WATER CLOSET, BARRIER FREE, LEFT HAND FLUSH	—	1/2	—	4	2	FLOOR MOUNTED, RIM AT 17" AFF	KOHLER K3505 PRESSURE ASSISTED FLUSH, OPEN FRONT SOLID PLASTIC SEAT, 1.6 GAL PER FLUSH, SLOAN FLUSHMATE
LAV	LAVATORY, BARRIER FREE	1/2	1/2	1-1/4	2	1-1/2	WALL HUNG WITH THERMOSTATIC MIXING VALVE SET AT 105°F.	KOHLER K-2867 WITH K-7404-5A FAUCET WITH ADA WRIST BLADES, GRID STRAINER AND #1160595 0.35 GPM MEDIUM SPRAY.
SK	BREAK ROOM SINK	1/2	1/2	1-1/2	2	1-1/2	COUNTER MOUNT	FURNISHED WITH KITCHEN EQUIPMENT, SEE ARCH
MS	MOP SINK	1/2	1/2	1-1/2	2	1-1/2	FLOOR MOUNTED	FIAT TSB-100 WITH 897 RCF FAUCET & 832AA HOSE BRACKET
FD1	TOILET ROOM FLOOR DRAIN	—	—	3	3	2	W/TRAP SEAL	WADE W-1100
TMV	THERMOSTATIC MIXING VALVE	3/8	3/8	—	—	—	SET FOR 105°F.	WATTS USG-B-SC-M1 ADJUSTABLE THERMOSTATIC MIXING VALVE
WH1	INSTANT WATER HEATER	1	1	—	—	—	SET FOR 105°F.	CHRONOMITE CMI-30L/120, 3.6KW, 120V, 49°F RISE AT 0.5 GPM
NOTES: 1. PROVIDE ADA/TAS COMPLIANT FIXTURES , FAUCETS AND ACCESSORIES FOR ALL FIXTURES MARKED AS "BARRIER FREE". 2. INSTALL "BARRIER FREE" FIXTURES AT ADA/TAS COMPLIANT HEIGHTS ABOVE FF. 3. VERIFY ADA/TAS FIXTURE REQUIREMENTS PRIOR TO ROUGH-IN.								

PLUMBING SYMBOL LEGEND (NOTE: NOT ALL SYMBOLS MAY BE USED)	
— SANITARY SEWER	↑ PRESS-TEMP INSERTION FITTING
— GW — GREASE TRAP WASTE	AV V AUTO VENT, MAN VENT
— — — COLD WATER	— GLOBE VALVE
— — — HOT WATER	— CHECK VALVE
— FW — FILTERED COLD WATER	— V PLUG VALVE
— 105' — 105° F HOT WTR	— PIPE ANCHOR
— 110' — 110° F HOT WTR	— BALL VALVE
— 115' — 115° F HOT WTR	— UNION
— 140' — 140° F HOT WTR	— FLANGED FITTING
— — — — — HOT WATER RETURN TEMP AS INDICATED	— INLINE PUMP, PLAN
— — — VENT	— INLINE PUMP, ELEV
— D — CONDENSATE DRAIN	— END CAP
— G — GAS LINE	— GATE VALVE
— F — FIRE SPRINKLER	— DIRECTION OF FLOW
— SD — STORM DRAIN	— DOUBLE CHECK(BFP)
— RD — ROOF DRAIN	— PRESS REGULATING VA
— OD — OVERFLOW DRAIN	ABV ABOVE
FD FLOOR DRAIN, FLOOR SINK	BLW BELOW
HD HUB DRAIN	VTR VENT THRU ROOF
DGCO DOUBLE GRADE CLEAN OUT	BFP BACK FLOW PREVENTER
FCO FLOOR CLEAN OUT	TMV THERMOSTATIC MIXING VALVE
WCO WALL CLEAN OUT	RPZ REDUCED PRESSURE ZONE
WH WALL HYDRANT	— WATER HAMMER ARRESTOR
HB HOSE BIB	V.B. VALVE BOX ACCESS DOOR
CWV COMBINATION WASTE VENT	P.C. POWER CONVERTER ACCESS DOOR

PLUMBING SPECIFICATIONS (SEE ALSO SHEET SP3.0 FOR ADDITIONAL REQUIREMENTS)

PART 1) — QUALITY CONTROL

a) Installer: Qualified with at least 5 years of successful installation experience on projects with Work similar to that required for this project.

b) NEC Compliance: Comply with the National Electric Code, NFPA 70, as applicable to wiring and other electrical construction of the unit.

c) UL Compliance: Provide components with UL listing and labeling when there is an applicable UL category.

d) Comply with the minimum standards prescribed in requirements and recommendations of the latest edition of the following codes and standards:

(1) Underwriter's Laboratories, Inc. Standards.

(2) International Plumbing Code current edition

(3) Other codes, ordinances, and laws applicable to the place of the Work.

e) SUBMITTAL

Submit 4 copies of data for review and comment by owner prior to ordering. Include manufacturer's standard submittal data with manufacturer's name and model numbers, color, finish, size and all options clearly marked.

PART 2) — PRODUCTS

a) DOMESTIC WATER SYSTEM

i) Lead-Free Products:

(1) Provide materials, products, and fabrications that comply with Environmental Protection Agency (EPA) requirements and recommendations regarding lead content and contribution of lead to potable water, that have no lead or lead alloys in contact with potable water, and that do not contribute to or cause lead in potable water.

(2) Solder: Lead free, ASTM B32 95-5 tin-antimony or Grade Sn96 tin-silver solder.

(3) Flux: Containing not more than 0.2 percent lead, meeting NSF 61.

ii) Piping, Interior to 5' Outside:

(1) Copper:

(a) Straight water tube, K or L, ASTM B88 or B543.

(b) Wrought copper and bronze solder-joint pressure fittings, ANSI B16.22.

(2) Where indicated on Drawings to be Below, In, or Through Slab-On-Grade:

(a) Copper, cold water tube, K or L, ASTM B88.

(b) Wrought copper and bronze solder-joint pressure fittings, ANSI B16.22.

(c) Pipe 1.5" or Smaller, in or Under Slabs-on-Fill: Continuous, without joints or fittings.

(d) Pipe 2" or Larger, in or Under Slabs-on-Fill: Brazed joints.

(3) PEX:

(a) Indicate on bid form alternate pricing for use of PEX piping and fittings.

(b) Use above grade where concealed in walls or above ceiling only.

(c) Provide manufacturers standard lead-free bronze fittings with disconnect feature.

iii) Lead-Free Ball Valves, Potable Water System.

(1) Ball Valves: Two-Piece Body, Full Port, Blowout-Proof Stem, PTFE Seats, Conforms to MSS SP-110, Silicon Performance Bronze Alloy, Size Range: 1/4" - 2", Pressure Rating: 600 PSI WCP. Sweat-to-crimp lead free adapters at valves. Comply with lead-free requirements of NSF-61-G for parts of valves and fittings coming in contact with potable water.

(2) Access door: Where valves are concealed above hard ceilings or in walls provide Thin-flanged, framed access door, minimum of 10 inches square or adequate to service the device, 16-18 stainless steel construction with No. 4 finish, Smith 4762.

(3) Identification: Where valves are concealed above ceilings or in walls, provide engraved laminated plastic plates with 1/2" high letters to indicate location of valve. Affix label to ceiling or wall where valves are concealed.

iii) Back Flow Preventer (BFP)

(1) BFP Back-Pressure Relief, High Hazard: Reduced pressure principle with double check valve assembly with intermediate relief valve for high hazard cross connections; ASSE No. 1013, AWWA C506, two isolating gate valves, built-in strainer, ball valve test cocks, suitable for horizontal or vertical installation as indicated on the Drawings; Watts No. 909 series, Contraco 40-200.

b) DRAINAGE PRODUCTS

i) Acceptable manufacturers: Jonespec, Josam, Smith, Wade, Watts, Zurn.

ii) Cleanouts: ANSI A112.36.2M.

(1) WCO (Wall cleanouts): Square, flush-with-wall frame, 2" larger than od of cleanout plug.

(a) Chromium plated bronze frame, stainless steel or chrome plated cover; Josam 58640, Smith 4735.

(b) Polished bronze frame and cover; Josam 58640-2, Smith 4735 PB.

(c) Nickel bronze frame, stainless steel or chrome plated cover; Josam 58640, Smith 4735 NB.

(2) FCO (Floor cleanouts): Square, flush-with-floor frame, special duty (warehouse and loading dock traffic), nickel-bronze scarified cover, 2" larger than od of cleanout plug set flush with finished floor or as otherwise indicated. Provide cover with recess to accommodate Terrazzo in-fill where there is Terrazzo flooring; Josam 57000-X-SD or 57000-Z-SD.

(3) YCO or GCO (Yard cleanouts or grade cleanouts): Cast iron clean-out, double flanged housing, scarified cast iron cover with lifting device, gasket sealed bronze plug, vandal proof screws, set in 18" square by 5-1/2" thick cast-in-place concrete block, set flush with finished grade; Josam 58680 access cover with Josam 58900 cleanout ferrule below.

(4) DGCO (Double grade cleanouts): Cast iron clean-out, double flanged housing, scarified cast iron cover with lifting device, gasket sealed bronze plug, vandal proof screws, set in 18" square by 5-1/2" thick cast-in-place concrete block, set flush with finished grade, see detail on drawings; two each Josam 58680 access cover with Josam 58900 cleanout ferrule below.

iii) Floor Drains: ANSI A112.21.1M.

(1) Provide with two-piece body, flashing collars with seepage openings, auxiliary inlet tap for trap primer when indicated, deep-seal P-trap; size and model as indicated on the Drawings.

FS Floor Sink: 11.5" square top, 8" deep body, flange with weep holes and clamp ring, acid-resisting porcelain enameled interior, non-till loose acid-resisting porcelain enameled half-open grate, stainless-steel mesh bucket strainer; size and model as indicated on the Drawings.

iv) Indirect Drain Fittings (Open sight):

(1) Provide with deep-seal P-trap; size indicated on the Drawings.

HD Hub and Trap: Cast iron, no-hub or spigot outlet; hub inlet sized the larger of the size indicated on the Drawings or two inches larger than the indirect drain indicated, deep-seal P-trap.

(2) Provide access door if not otherwise accessible.

c) DRAIN, WASTE, AND VENT (DWV, within building to 5 feet outside)

i) Below Grade or Below Slab on Carton Form: Use one of the following.

(1) Extra heavy hub and spigot, ASTM A74; rubber gaskets, ASTM C564.

(2) Service weight or extra heavy hub-and-spigot ASTM A74; rubber gaskets, ASTM C564.

(3) Copper Drainage Tube (DWV) pipe ASTM B306; fittings, cast bronze solder-joint, ANSI B16.23 or wrought copper & wrought copper alloy solder-joint, ANSI B16.29; solder, ASTM-70, 50A.

(4) Schedule 40 polyvinyl chloride (PVC) pipe and fittings, ASTM D2665; solvent cement ASTM D2564.

ii) Above Grade: Use one of the following.

(1) No hub, Cast Iron Soil Pipe Institute Standard 301, ANSI Group 022, for pipe, fittings, and gaskets.

(2) Extra heavy hub and spigot, ASTM A74; rubber gaskets, ASTM C564.

(3) Service weight or extra heavy hub-and-spigot ASTM A74; rubber gaskets, ASTM C564.

(4) Copper Drainage Tube (DWV) pipe ASTM B306; fittings, cast bronze solder-joint, ANSI B16.23 or wrought copper & wrought copper alloy solder-joint, ANSI B16.29; solder, ASTM-70, 50A.

(5) Schedule 40 polyvinyl chloride (PVC) pipe and fittings, ASTM D2665; solvent cement ASTM D2564.

iii) Vent (1-1/4 inches above ground):

(1) Any of the above.

(2) Steel, schedule 40 galvanized steel, ASTM A120; cast-iron threaded drainage fittings, ANSI B16.12.

iv) Drain (Indirect):

(1) Copper: Drainage tube (DWV) pipe ASTM B306; fittings, cast bronze solder-joint, ANSI B16.23 or wrought copper & wrought copper alloy solder-joint, ANSI B16.29; solder, ASTM-70, 50A.

(2) Steel: Galvanized, Schedule 40, ASTM A120; galvanized malleable iron screwed fittings, 150 lbs., ANSI B16.4.

d) FOUNDATIONS, HANGERS AND SUPPORTS

i) General Purpose: Manufacturers Standardization Society SP-69 or Federal Specification WW-1-174; types as recommended or required. Perforated or plain metal strap and wire are not acceptable.

ii) Hangers in Contact With Copper Pipe: Same as for general purpose, copper or copper plated with plastic coating.

e) INSULATION

i) Hot and Cold Pipe:

(1) Flexible Cellular Insulation (Foamed Plastic): Foamed plastic, flexible, K of 0.25 at 75°F, 220°F temperature limit, density of 5.8pcf, ASTM C534; R4.0.

(2) UL listed for flame spread 25, smoke developed 50, fuel contributed 50.

(3) Provide thicknesses and install as recommended by manufacturer.

(4) Butt insulation together and adhere in place with manufacturer's recommended contact cement. Where possible, slip tubing on without slitting. Where insulation terminates, neatly bevel and finish.

(5) Roof Drains and Interior Downspouts: Vertical piping, except between roof-deck drain and first elbow and within two feet of non-vertical piping, need not be insulated; insulate other RD and DS piping, and insulate the roof-deck drain (RD) sumps with sheet insulation. Horizontal piping within crawl-space need not be insulated.

(6) Hot and Cold Water, Hot Water Circulating: Provide thickness recommended by manufacturer. Maintain vapor barrier on cold water piping insulation.

(7) Where Exposed to View, Beneath the Building, or Exposed to Weather:

(a) Paint with insulation manufacturer's paint finish, tinted as selected by Architect-Engineer, specifically formulated if exposed outdoors.

(b) Provide 16 gage aluminum or stainless steel cover with matching aluminum or stainless steel bands spaced 16 inches over pipe and fittings where exposed to weather or exposed to occupants and within 84 inches of the floor.

(8) Product; Armstrong Armaflex with WB Armaflex Finish indoors, Armstrong Armaflex with SB Armaflex Finish outdoors.

MLA

MICHAEL LEGG ARCHITECTURE

Michael Gregg Legg

RA RIBA

20116 High Timber Post

Sun Avenue, Texas 76260

ph. 210-416-4935

mlegg@mlaarchitecture.com

www.michaelleggarchitecture.com

DRAWING

COORDINATION

Architectural, Landscape, Civil,

Structural, Mechanical and

Electrical drawings are interrelated.

General Contractor and all Sub

Contractors shall review and

coordinate the entire set of

drawings and specifications

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6 June 2026

OF

STATE OF TEXAS

63180

REGISTERED PROFESSIONAL ENGINEER

8/13/26

MALONEY ASSOCIATES

CONSULTING ENGINEERS, INC.

F-1400

1208 TRAILWOOD DR

HURST, TEXAS 76053

(817) 268-0383

MALONEY-ENG.COM

PLUMBING NOTES & DETAILS

GAMEDAY

190 Creekside Crossing,

New Braunfels, 78130 Texas

BY	1	2
DESCRIPTION	MOVE RTU-2 ADD CD	FP CHANGE CITY CMTS
DATE	07/08/26	08/13/26

SCALE:

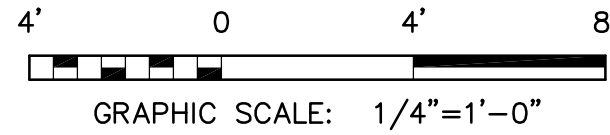
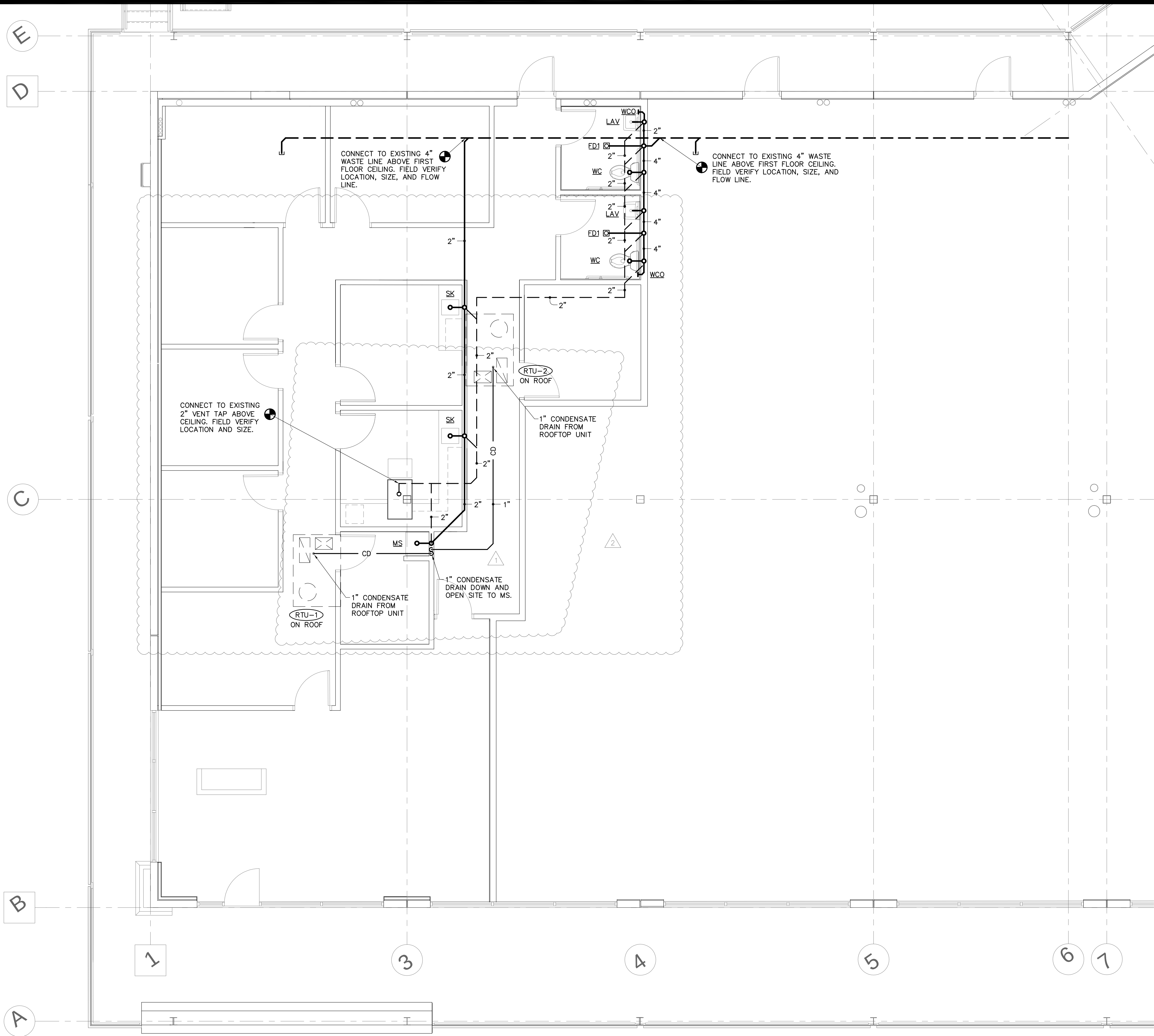
AS NOTED

PROJECT NO.

04-26-26

SHEET NO.

P0.00

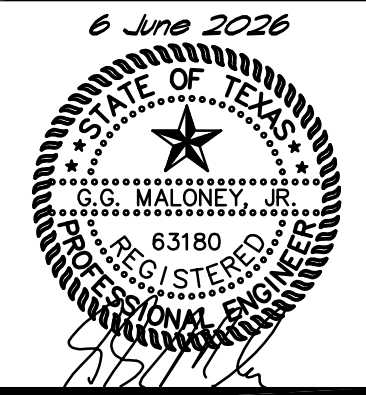


1
PLUMBING WASTE PLAN
SCALE: 1/4"=1'-0"

MLA
MICHAEL LEGG ARCHITECTURE
Michael Gregory Legg
RA RIBA
20116 High Timber Pass St
San Antonio, Texas 78260
ph. 210-416-4935
mlegg@mlaarchitecture.com
www.michaelleggarchitecture.com

DRAWING COORDINATION
Architectural, Landscape, Civil, Structural, Mechanical and Electrical drawings are interrelated. General Contractor and all Sub Contractors shall review and coordinate the entire set of drawings and specifications.

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CONSULTING ENGINEERS, INC.
F-1400
1208 TRAILWOOD DR
HURST, TEXAS 76054
(817) 288-0383
MALONEY-ENG.COM

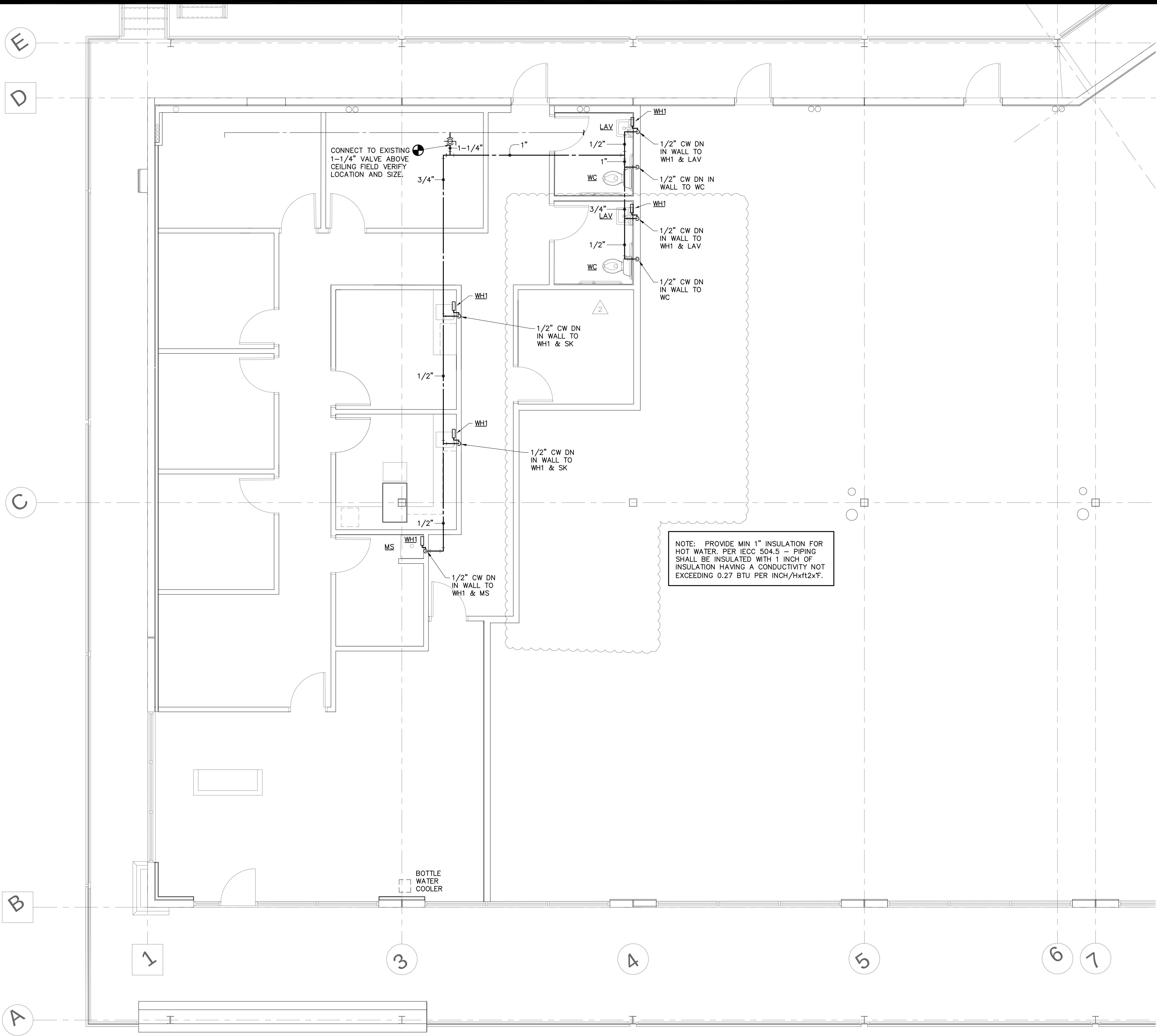
PLUMBING WASTE PLAN
GAMEDAY
190 Creekside Crossing,
New Braunfels, 78130 Texas

DATE	DESCRIPTION	BY
07/08/26	MOVE RTU-2 ADD CD	1
08/13/26	FP CHANGE CITY CMTS	2

SCALE:
AS NOTED

PROJECT NO.
04-26-26

SHEET NO.
P1.00



NOTE: PROVIDE MIN 1" INSULATION FOR HOT WATER. PER IECC 504.5 - PIPING SHALL BE INSULATED WITH 1 INCH OF INSULATION HAVING A CONDUCTIVITY NOT EXCEEDING 0.27 BTU PER INCH/Hxft2x°F.



1

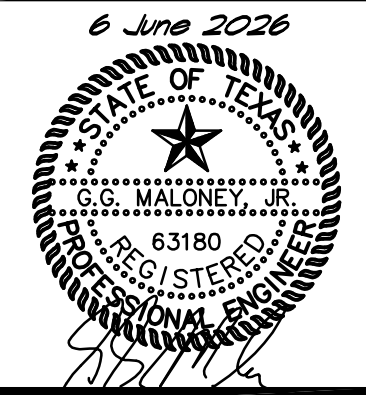
KITCHEN
PLUMBING WATER SUPPLY
PLAN
SCALE: 1/4"=1'-0"

4' 0 4' 8'
GRAPHIC SCALE: 1/4"=1'-0"

MLA
MICHAEL LEGG ARCHITECTURE
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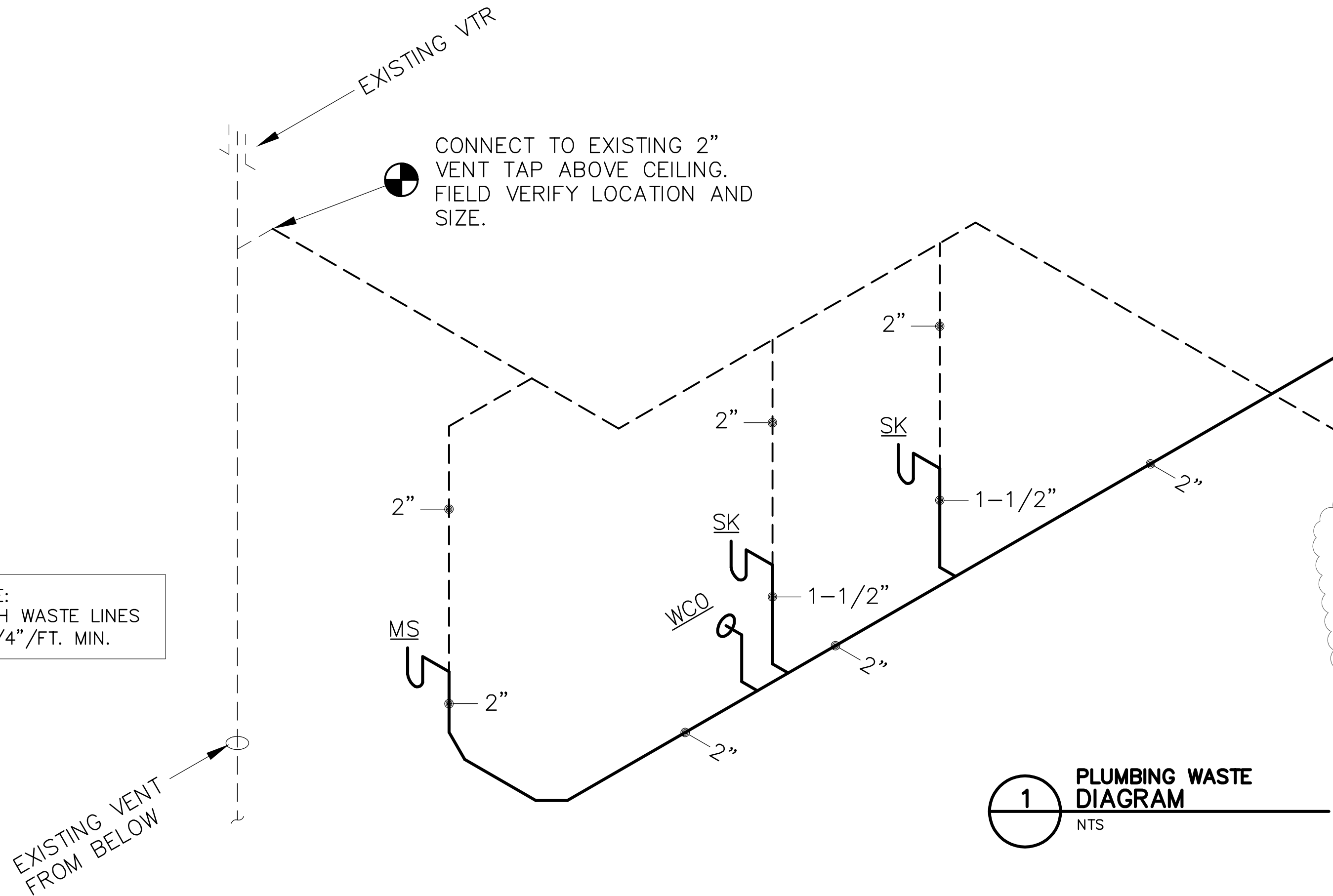
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HURST, TEXAS 76053
(817) 288-0383
ME
MALONEY-ENG.COM

PLUMBING WATER SUPPLY PLAN
GAMEDAY
190 Creekside Crossing,
New Braunfels, 78130 Texas

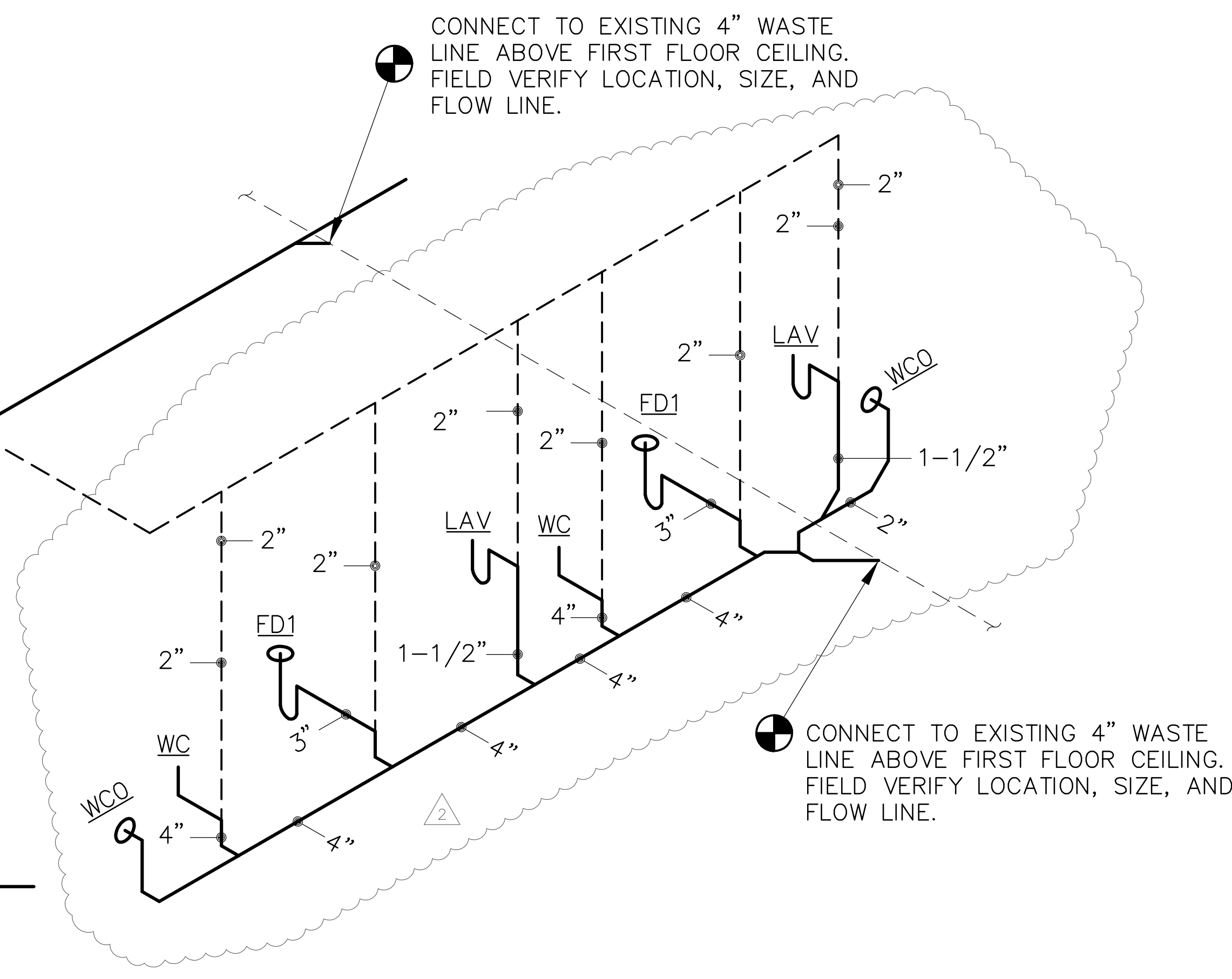
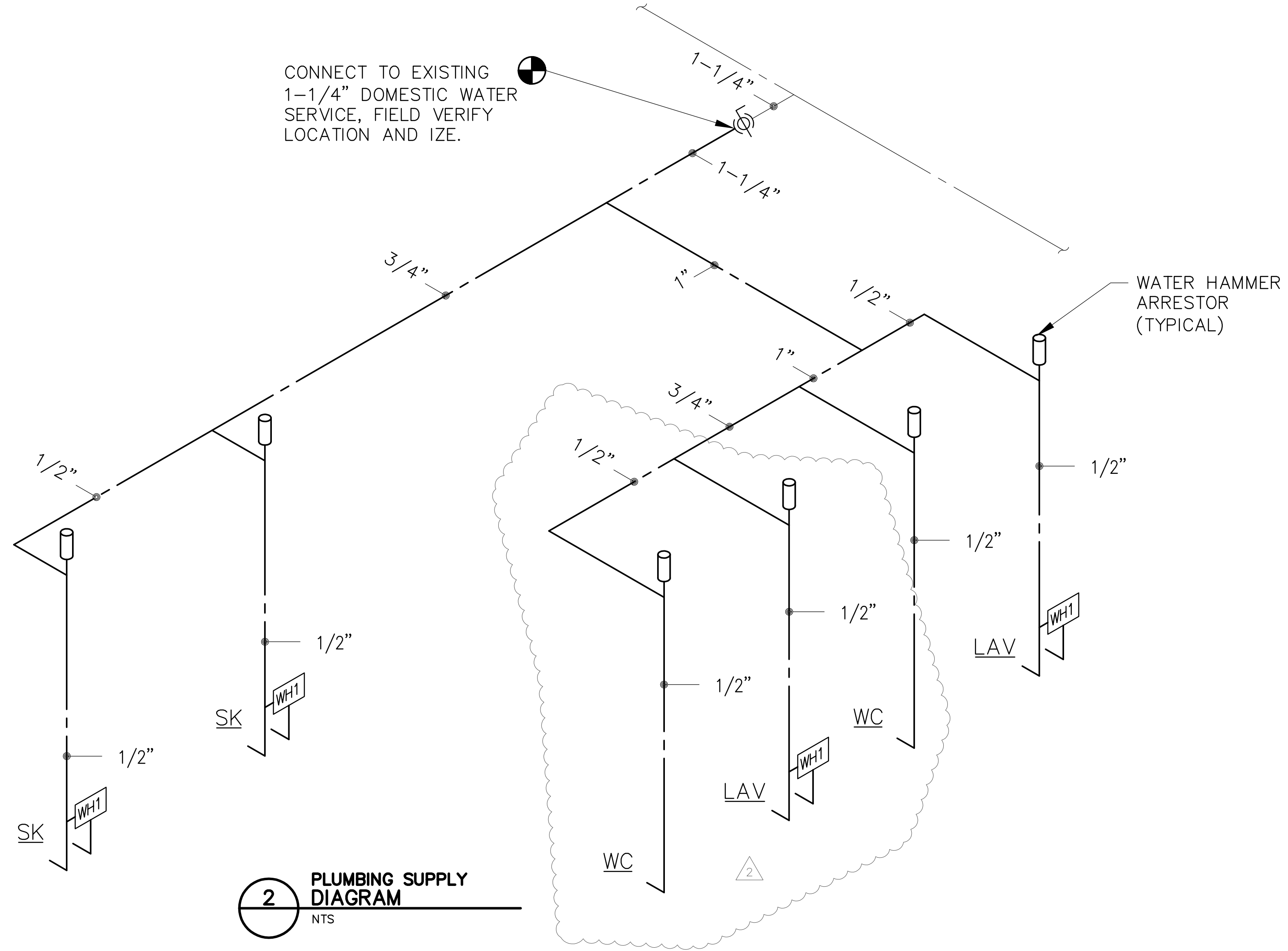
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07/08/26	MOVE RTU-2 ADD CD	1
08/13/26	FP CHANGE CITY CMTS	2

SCALE:
AS NOTED
PROJECT NO.
04-26-26
SHEET NO.
P1.01

NOTE:
PITCH WASTE LINES
@ 1/4"/FT. MIN.



NOTE:
PROVIDE MIN 1" INSULATION FOR HOT
WATER. PER IECC 504.5 - PIPING SHALL
BE INSULATED WITH 1 INCH OF
INSULATION HAVING A CONDUCTIVITY NOT
EXCEEDING 0.27 BTU PER INCH/Hxft2x°F.

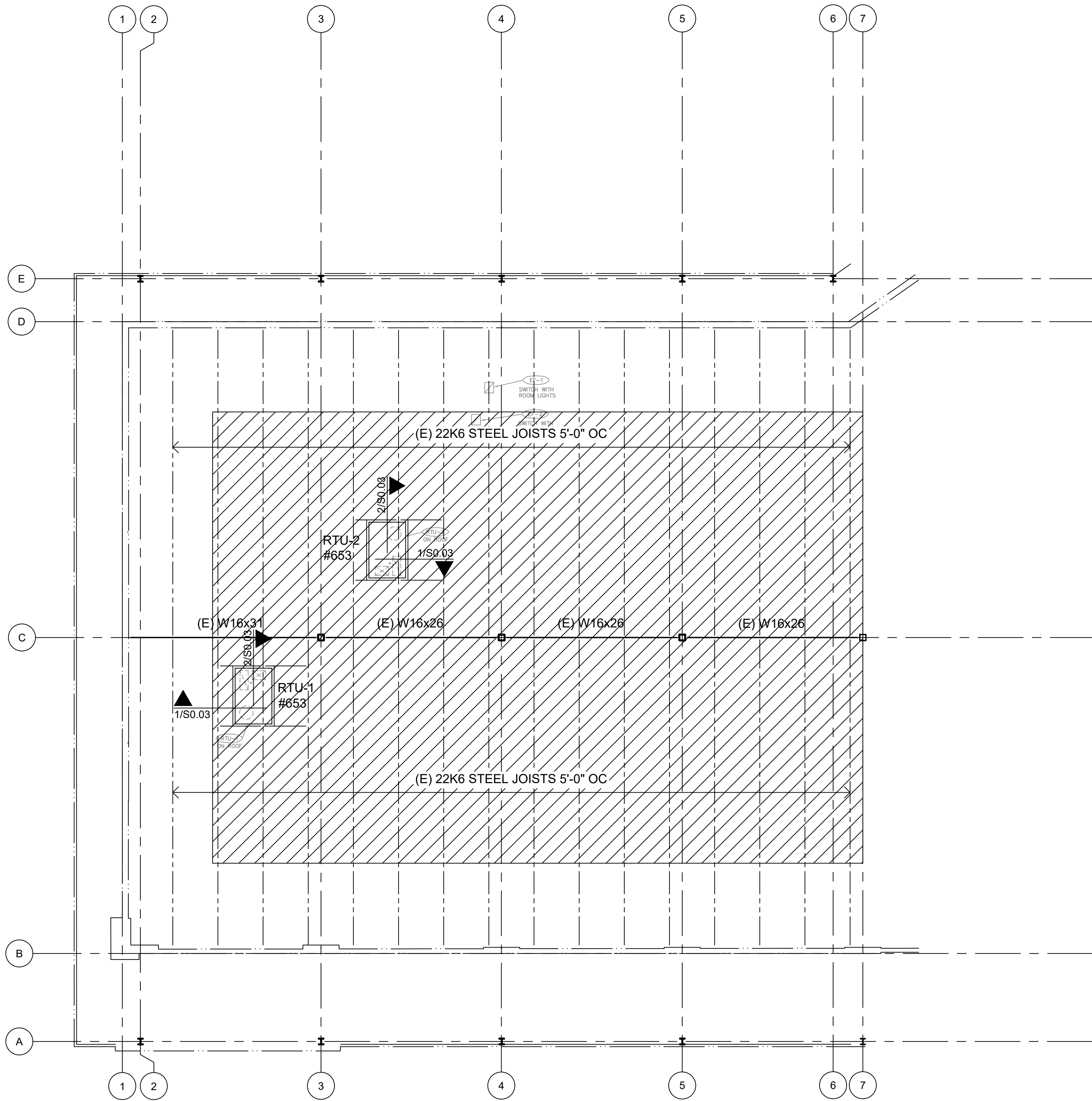


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08/13/26	FP CHANGE CITY CMTS	2

SCALE:
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04-26-26

SHEET NO.
P2.00



1 PARTIAL FRAMING PLAN

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

FRAMING NOTES:

- FIELD VERIFY ALL DIMENSIONS AND COORDINATE WITH ARCHITECTURAL DRAWINGS.
- 1.1. INTEGRITY ENGINEERING SOLUTIONS, LLC. HAS UTILIZED EXISTING DOCUMENTS AND PROVIDED SITE CONDITIONS TO ACCOUNT AND DETAIL FOR EXISTING CONDITIONS. HOWEVER, NOT ALL ITEMS CAN BE VERIFIED, SO NOTIFY EOR WHERE CONDITIONS ARE DIFFERENT FROM WHAT IS NOTED ON PLAN. INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE OWNER PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH ACTION SHALL REQUIRE ENGINEER'S APPROVAL.
- SUBMITTAL SHALL BE APPROVED BY EOR PRIOR TO INSTALLATION.
- ROOFTOP UNIT WEIGHTS INCREASED FOR CALCULATION ONLY BY 20% PER IBC1607.11.2.
- REFER TO 4/S0.03 FOR REQUIRED BRACING AT NEW CONCENTRATED RTU LOADS.

LEGEND	
(E) JOIST	EXIST STEEL JOIST
(E) WF BEAM	EXIST STEEL BEAM
	EXISTING MECHANICAL ZONE DESIGNED FOR 1500 LBS POINT LOAD AT ANY LOCATION ON JOIST



Principled + Reliable + Innovative + Motivated + Efficient
Consulting Structural Engineers
Texas Firm No. 26484
5608 Malvey Avenue, Suite 303
Fort Worth, Texas 76107
Phone: 817-886-3085
Email: plalonde@integrity-engineering-solutions.com
IES Project #26-MIS-010



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SSFCU 306 RETAIL
GAMEDAY MLA
190 CREEKSIDE CROSSING
NEW BRAUNFELS, TEXAS

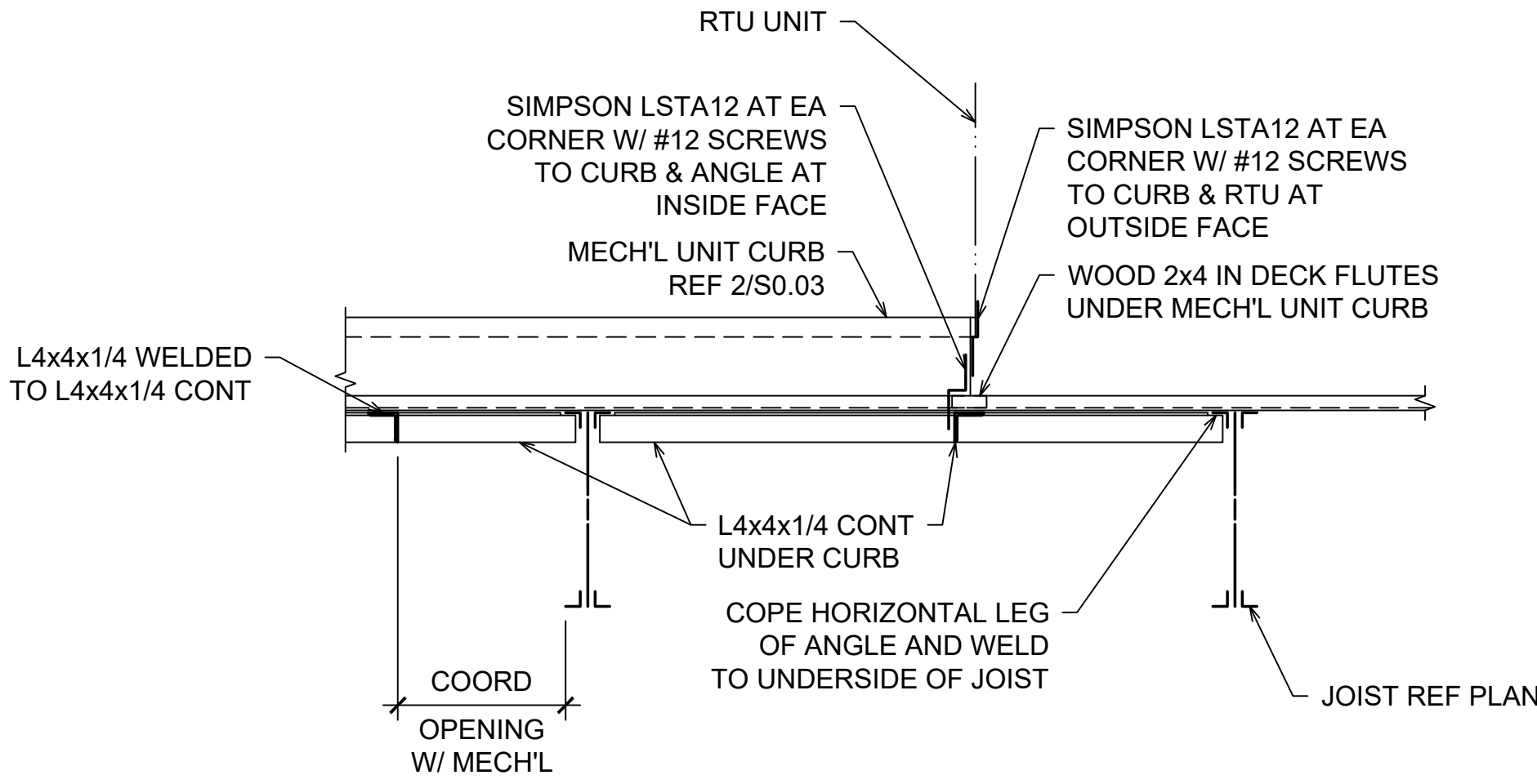
REVISIONS:

DRAWN: ZK	CHECKED: PL
JOB NUMBER: 26-MIS010	
JUNE 09, 2026	

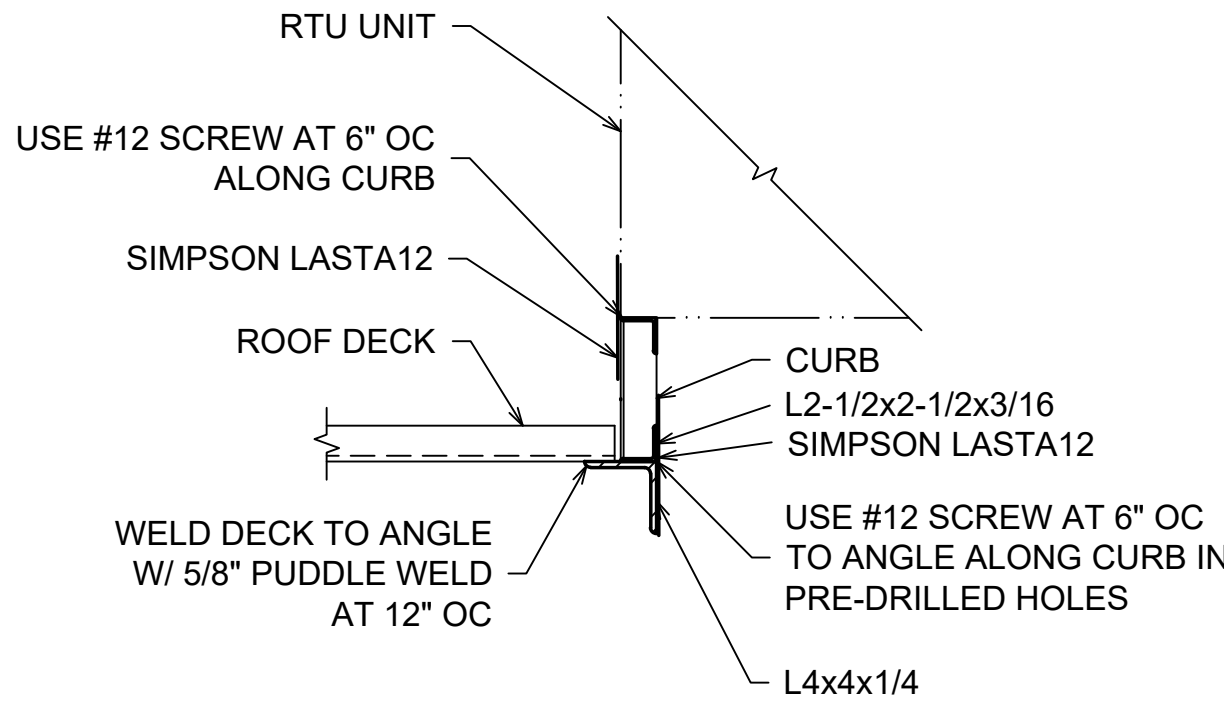
PARTIAL FRAMING PLAN

SHEET NUMBER

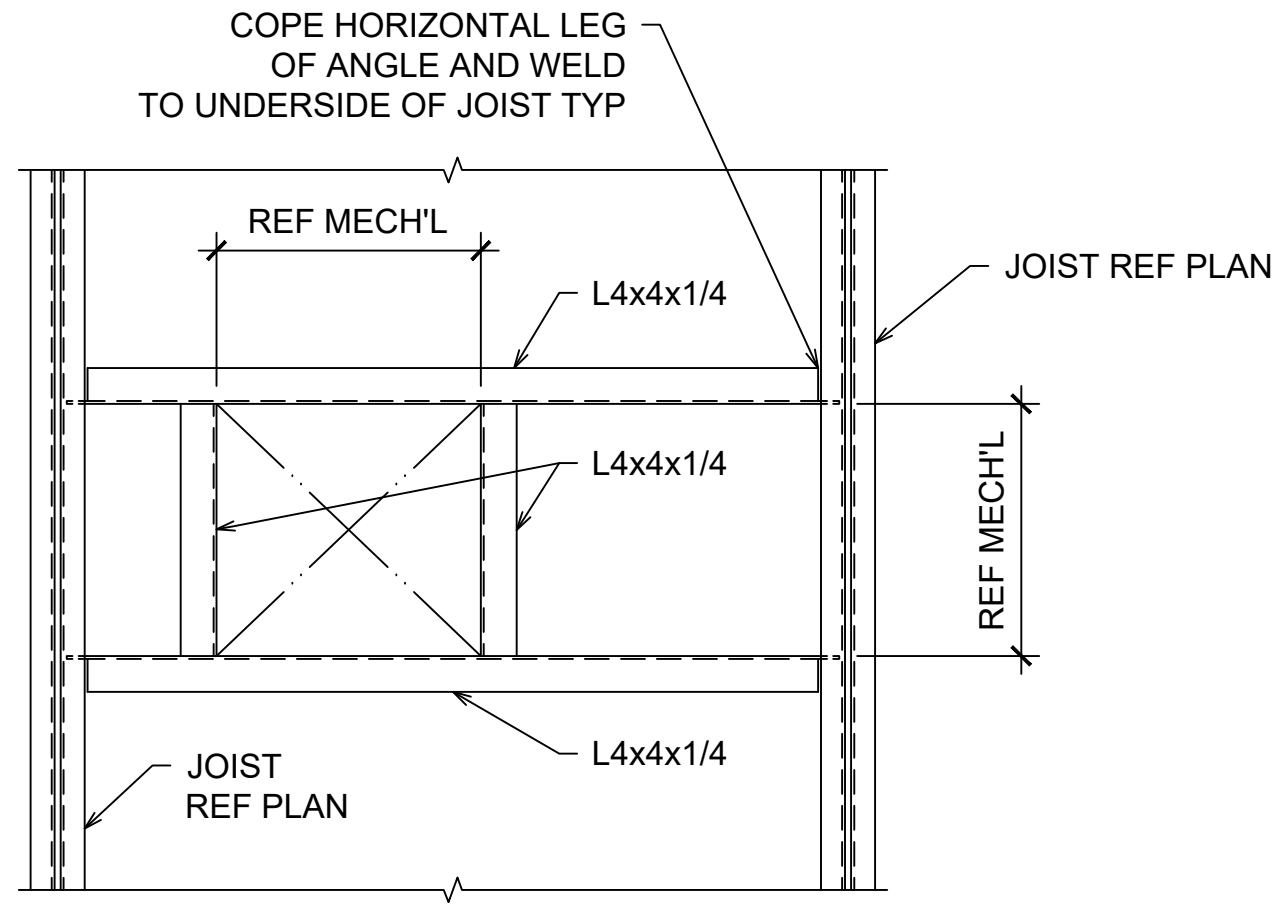
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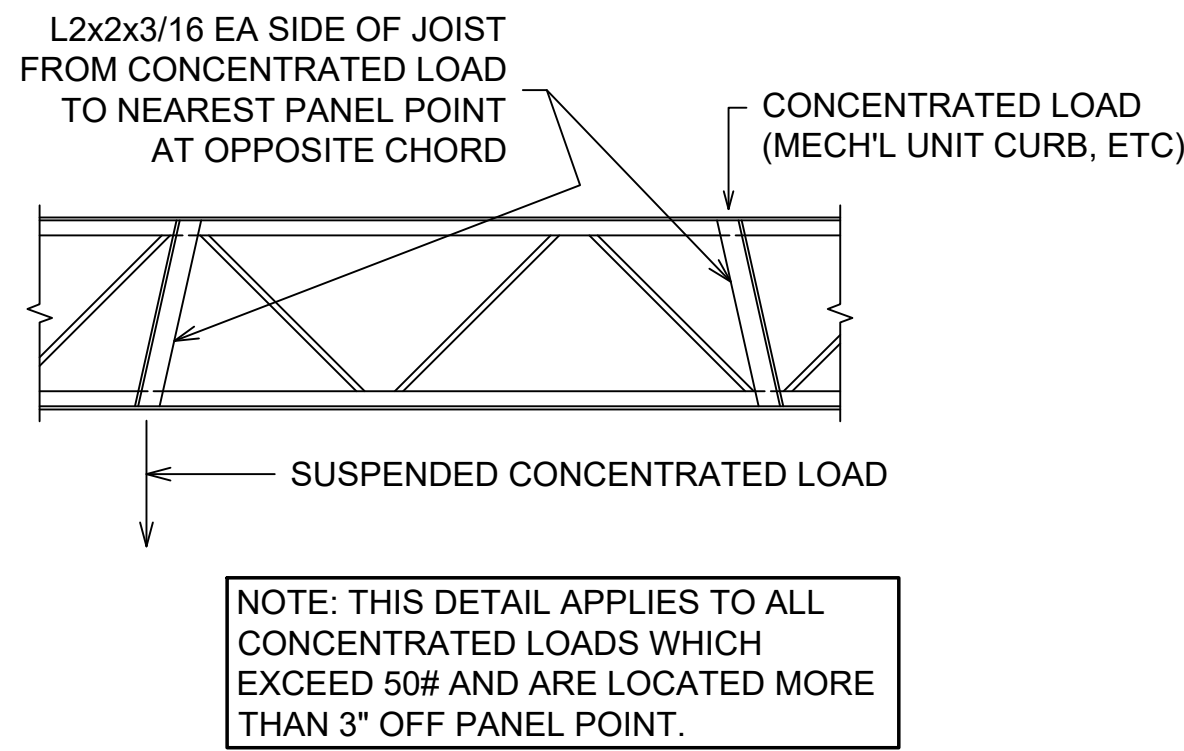
1
TYPICAL
MECH'L UNIT CURB SUPPORT
SCALE: 3/4" = 1'-0"



2
ROOF CURB DETAIL
SCALE: 3/8" = 1'-0"



3
TYPICAL
FRAME AT ROOF OPENING
SCALE: 3/4" = 1'-0"



4
TYPICAL
BRACING AT CONCENTRATED LOADS
SCALE: 3/4" = 1'-0"

REVISIONS:

DRAWN: ZK CHECKED: PL

JOB NUMBER: 26-MIS010

JUNE 09, 2026

RTU FRAMING DETAILS

SHEET NUMBER

S0.03

LIST OF ABBREVIATIONS	
A	
AB	ANCHOR BOLT
ACI	AMERICAN CONCRETE INSTITUTE
ADDNL	ADDITIONAL
AFF	ABOVE FINISH FLOOR
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
ARCHL	ARCHITECTURAL
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
B	
BLDG	BUILDING
BL	BRICK LEDGE
BM	BEAM
BO	BOTTOM OF
BOB	BOTTOM OF BEAM
BOD	BOTTOM OF DECK
BMD	BOTTOM OF METAL DECK
BP	BASE PLATE
BRG	BEARING
C	
C	CHANNEL SHAPE
C=	BEAM CAMBER
CFMF	COLD FORMED METAL FRAMING
CJ	CONSTRUCTION JOINT
CL	CENTERLINE
CLR	CLEAR, CLEARANCE
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONT	CONTINUOUS
CONX	CONNECTION
D	
D	DEPTH
DETL	DETAIL
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DL	DEAD LOAD
DWG	DRAWING(S)
E	
EA	EACH
EF	EACH FACE
EJ	EXPANSION JOINT
EL	ELEVATION
EN	EDGE NAILING
EOD	EDGE OF DECK
EQ	EQUAL
EQUIP	EQUIPMENT
EW	EACH WAY
EXIST	EXISTING
F	
FD	FLOOR DRAIN
FF	FINISH FLOOR
FIN	FINISH
FLR	FLOOR
FN	FIELD NAILING
FTG	FOOTING
FV	FIELD VERIFY
G	
GA	GAGE OR GAUGE
GALV	GALVANIZED
GB	GRADE BEAM
H	
HORIZ	HORIZONTAL
HS	HEADED STUD
HSS	HOLLOW STRUCTURAL SECTION
I	
IN	INCHES
J	
JC	JAMB COLUMN
K	
K	KIPS (1,000 LBS)
L	
L	ANGLE SHAPE
LB, #	(POUNDS)
LL	LIVE LOAD
LLR	ROOF LIVE LOAD
LSH	LONG SIDE
LSV	HORIZONTAL LONG SIDE VERTICAL
LWC	LIGHT WEIGHT CONCRETE
M	
MATL	MATERIAL
MAX	MAXIMUM
MC	MISCELLANEOUS CHANNEL SHAPE
MECHL	MECHANICAL
MEP	MECHANICAL ELECTRICAL PLUMBING
MEZZ	MEZZANINE
MANUF	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MTL	METAL
N	
N/A	NOT APPLICABLE
NO	NUMBER
NTS	NOT TO SCALE
O	
OC	ON CENTER
OPP	OPPOSITE
OH	OPPOSITE HAND
P	
PERP	PERPENDICULAR
PL	PLATE
PREFAB	PRE-FABRICATED
PRELIM	PRELIMINARY
P/T	POST-TENSIONED
R	
RD	ROOF DRAIN
REF	REFER TO
REINF	REINFORCING, REINFORCED, REINFORCEMENT
REQD	REQUIRED
REV	REVISION
S	
SCHED	SCHEDULE
SDI	STEEL DECK INSTITUTE
SIM	SIMILAR
SJ	SAWN JOINT
SJI	STEEL JOIST INSTITUTE
SP	SPACE(S); SPECIAL SPECIFICATION(S)
SPEC	SPECIFICATION(S)
SS	STAINLESS STEEL
STD	STANDARD
STL	STEEL
SW	SHEAR WALL
T	
TO	TOP OF
TOM	TOP OF MASONRY
TOS	TOP OF STEEL
TW	TILT WALL
TYP	TYPICAL
U	
UNO	UNLESS NOTED OTHERWISE
V	
VERT	VERTICAL
W	
W	WIDE FLANGE
W/	WITH
W/O	WITHOUT
WP	WORKPOINT
WT	WEIGHT
WWF	WELDED WIRE FABRIC

GENERAL CONDITIONS

1.

BUILDING AND DESIGN CODES:

A.

INTERNATIONAL BUILDING CODE (2021)

B.

AISC 360-16 SPECIFICATION FOR STEEL BUILDINGS

C.

SJI RECOMMENDED CODE OF STANDARD PRACTICE FOR STEEL JOISTS AND JOIST GIRDERS, SJI 100-20 AND SJI 200-15
2.

DESIGN LOADS:

A.

LIVE LOADS:

ROOF

UNIFORM

20

B.

DEAD LOADS:

ROOF DEAD LOAD

20

C.

WIND LOADS:

3 SECOND GUST WIND SPEED:

109 MPH

IN 3 SECOND GUSTS

EXPOSURE:

C

IMPORTANCE FACTOR:

1.0

INTERNAL PRESSURE COEFFICIENT:

Gcp=+/- 0.18

D.

SNOW LOADS:

Pg = 5 PSF

3. GENERAL REQUIREMENTS:

- A.

VERIFY EXISTING CONDITIONS AND DIMENSIONS PRIOR TO BEGINNING WORK OR FABRICATING MATERIALS. NOTIFY A/E OF DISCREPANCIES BEFORE PROCEEDING WITH ANY PHASE WORK.
- B.

DO NOT SCALE DRAWINGS FOR THE PURPOSE OF ESTABLISHING DIMENSIONS.
- C.

LOADINGS FOR MECHANICAL EQUIPMENT ARE BASED ON THE UNITS SHOWN ON THE MECHANICAL DRAWINGS. ANY CHANGES IN TYPE, SIZE, OR NUMBER OF PIECES OF EQUIPMENT SHALL BE REPORTED TO THE ARCHITECT FOR VERIFICATION OF THE ADEQUACY OF SUPPORTING MEMBERS PRIOR TO THE PLACEMENT OF SUCH EQUIPMENT.

STRUCTURAL STEEL

1.

PROVIDE STRUCTURAL STEEL OF THE FOLLOWING ASTM DESIGNATIONS UNLESS NOTED OTHERWISE:

A.

EDGE ANGLES, BENT PLATES, HANGERS AND BRACES: ASTM A 36
2.

WELD MINIMUM SIZE AND STRENGTH:

A.

PROVIDE MINIMUM SIZE OF FILLET WELDS AS SPECIFIED IN TABLE J2.4 OF THE AISC MANUAL.

B.

PROVIDE MINIMUM EFFECTIVE THROAT THICKNESS OF PARTIAL PENETRATION GROOVE WELDS AS SPECIFIED IN TABLE J2.3 OF THE AISC MANUAL.

C.

DEVELOP THE FULL TENSILE STRENGTH OF THE MEMBER ELEMENT JOINED, ON ALL SHOP AND FIELD WELDS, UNLESS NOTED OTHERWISE ON THE DRAWINGS.

D.

PROVIDE ELECTRODES FOR FIELD OR SHOP WELDING THAT CONFORM TO ASTM A 233 (CLASS 70).

3.

STEEL FABRICATION:

A.

FABRICATE AND ASSEMBLE STRUCTURAL MEMBERS/ASSEMBLIES IN SHOP TO GREATEST EXTENT POSSIBLE.

B.

SPLICING OF STRUCTURAL STEEL MEMBERS IS PROHIBITED WITHOUT PRIOR APPROVAL BY THE ENGINEER.

C.

FABRICATOR SHALL BE RESPONSIBLE FOR ALL ERRORS OF DETAILING ON THE SHOP DRAWINGS, ERRORS IN FABRICATION, AND THE CORRECT FITTING OF STRUCTURAL STEEL MEMBERS.

D.

CONFORM TO THE AISC CODE OF STANDARD PRACTICE, FOR ERECTION TOLERANCES. FIELD MODIFICATION TO STRUCTURAL STEEL IS PROHIBITED WITHOUT PRIOR APPROVAL BY THE ENGINEER.

E.

CLEAN STEEL OF RUST, LOOSE MILL SCALE AND OTHER FOREIGN MATERIALS WHERE REQUIRED FOR FABRICATION, FITTING UP, OR WELDING.

F.

DO NOT CUT STRUCTURAL STEEL MEMBERS FOR THE WORK OF OTHER TRADES WITHOUT PRIOR REVIEW AND APPROVAL OF THE ENGINEER.

4.

WELDS SHALL BE CONSIDERED TO BE CONTINUOUS UNLESS NOTED OTHERWISE.
- MECHANICAL ROOF TOP UNIT COORDINATION
1.

OWNER TO ENSURE THAT EACH RTU, ROOF OPENINGS, AND DUCT DROPS ARE INSTALLED PER MANUFACTURER'S INSTRUCTIONS. THE RTU SUPPLY AND RETURN OPENINGS NEED TO LINE UP WITH THE ROOF OPENINGS, AND EACH DUCT DROP MUST BE FULL SIZE OF EACH OPENING WITHOUT ANY OBSTRUCTIONS.
- 2021 IBC SCHEDULE OF STRUCTURAL SPECIAL INSPECTIONS
1.

SPECIAL INSPECTIONS / TESTING:

1.1.

"SPECIAL STRUCTURAL INSPECTION" SHALL NOT RELIEVE THE OWNER OR THEIR AGENT FROM REQUESTING THE JURISDICTION BUILDING DEPARTMENT INSPECTIONS REQUIRED BY SECTION 109 OF THE IBC. THE JURISDICTION INSPECTIONS DO NOT ELIMINATE THE REQUIREMENT OF THE NOTED SPECIAL STRUCTURAL INSPECTIONS.

1.2.

SPECIAL INSPECTION WORK AND THE FINAL LETTER OF COMPLIANCE HAVE NOT BEEN INCLUDED IN THE STRUCTURAL ENGINEER OF RECORD'S SCOPE OF SERVICES. THE OWNER IS RESPONSIBLE FOR OBTAINING THE SERVICES OF THE SPECIAL INSPECTOR AND THE TESTING LABORATORY. SPECIAL INSPECTIONS CAN BE PROVIDED BY AN INDEPENDENT SPECIAL INSPECTOR APPROVED BY THE BUILDING AUTHORITY OR BY THE ENGINEER OF RECORD. THE SPECIAL INSPECTION WORK DOES NOT INCLUDE THE TESTING LABORATORY SERVICES AS CALLED FOR ON THE DRAWINGS.

1.3.

ARRANGEMENTS FOR SPECIAL INSPECTIONS SHOULD BE MADE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE OWNER IF SPECIAL INSPECTIONS ARE REQUIRED ON THE APPROVED PERMIT DRAWINGS AND FOR NOTIFYING THE TESTING LABORATORY AND SPECIAL INSPECTOR IN A TIMELY MANNER PRIOR TO PROCEEDING WITH CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL NOT PROCEED WITH ANY WORK REQUIRING INSPECTIONS WITHOUT THE TESTING LABORATORY'S OR SPECIAL INSPECTOR'S PRESENCE. THE STRUCTURAL ENGINEER WILL NOT PROVIDE A FINAL LETTER OF COMPLIANCE AFTER THE WORK IS COMPLETE UNLESS HE HAS PERFORMED THE SPECIAL INSPECTIONS.

2.

REPORTING FOR SPECIAL INSPECTION:

2.1.

SPECIAL INSPECTION AND TESTING REPORTS SHALL BE COMPLETED AND DISTRIBUTED AT THE COMPLETION OF EACH TASK. PROVIDE COPIES OF REPORTS TO: CONTRACTOR, OWNER, ARCHITECT AND STRUCTURAL ENGINEER OF RECORD. SPECIAL INSPECTOR TO KEEP A NON-COMPLIANCE LIST DOCUMENTING ITEMS INSPECTED NOT MEETING APPROVED CONSTRUCTION DOCUMENTS AND WHEN / HOW RESOLVED.

3.

SEE ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING CONSTRUCTION DOCUMENTS FOR ADDITIONAL NON-STRUCTURAL SPECIAL INSPECTION ITEMS.

4.

IN ACCORDANCE WITH IBC CHAPTER 17, THE FOLLOWING TYPES OF WORK REQUIRE SPECIAL INSPECTIONS AND TESTING:
- | SPECIAL INSPECTION AND VERIFICATION OF STEEL CONSTRUCTION | | | | | |
|---|---|-------------------------------|---------------------------------|------------------------|--|
| SPECIAL INSPECTION REQUIRED Y/N | VERIFICATION AND INSPECTION | FREQUENCY OF INSPECTION | | REFERENCE FOR CRITERIA | |
| | | CONTINUOUS DURING TASK LISTED | PERIODICALLY DURING TASK LISTED | IBC SECTION | REFERENCED STANDARD |
| | 1. MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS AND WASHERS: | | | | |
| N | a. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS. | ----- | X | ----- | APPLICABLE ASTM MATERIAL SPECIFICATIONS; AISC 360 SECTION A3.3 |
| N | b. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED. | ----- | X | ----- | ----- |
| | 2. INSPECTION OF HIGH-STRENGTH BOLTING: | | | | |
| N | a. BEARING TYPE CONNECTIONS. | ----- | X | ----- | AISC 360, SECTION M2.5 |
| N | b. SLIP-CRITICAL CONNECTIONS. | X | ----- | ----- | |
| | 3. MATERIAL VERIFICATION OF STRUCTURAL STEEL: | | | | |
| N | a. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS. | ----- | ----- | ----- | ASTM A 6, OR ASTM A 568 |
| N | b. MANUFACTURER'S CERTIFIED MILL TEST REPORTS. | ----- | ----- | ----- | ASTM A 6, OR ASTM A 568 |
| | 4. MATERIAL VERIFICATION OF WELD FILLER MATERIALS: | | | | |
| N | a. IDENTIFICATION MARKINGS TO CONFORM TO AWS SPECIFICATION IN THE APPROVED CONSTRUCTION DOCUMENTS. | ----- | ----- | ----- | AISC 360, SECTION A3.5 |
| N | b. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED. | ----- | ----- | ----- | ----- |
| | 5. INSPECTION OF WELDING: | | | | |
| | a. STRUCTURAL STEEL: | | | | |
| N | 1) COMPLETE AND PARTIAL PENETRATION GROOVE WELDS. | ----- | ----- | ----- | AWS D1.1 |
| N | 2) MULTIPASS FILLET WELDS. | X | ----- | | |
| N | 3) SINGLE-PASS FILLET WELDS > 5/16" | ----- | ----- | | |
| Y | 4) SINGLE-PASS FILLET WELDS < 5/16" | - | ----- | | |
| N | 5) FLOOR AND ROOF DECK WELDS. | ----- | X | ----- | AWS D1.3 |
| N | b. REINFORCING STEEL: | ----- | ----- | ----- | AWS D1.4 ACI 318 3.5.2 |
| N | 1) VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A 706. | ----- | X | | |
| N | 2) REINFORCING STEEL-RESISTING FLEXURAL AND AXIAL FORCES IN INTERMEDIATE AND SPECIAL MOMENT FRAMES, AND BOUNDARY ELEMENTS OF SPECIAL REINFORCED CONCRETE SHEAR WALLS AND SHEAR REINFORCEMENT. | X | ----- | | |
| N | 3) SHEAR REINFORCEMENT. | X | ----- | | |
| N | 4) OTHER REINFORCING STEEL | ----- | X | ----- | ----- |
| | 6. INSPECTION OF STEEL FRAME JOINT DETAIL FOR COMPLIANCE WITH APPROVED CONSTRUCTION DOCUMENTS: | | | | |
| Y | a. DETAILS SUCH AS BRACING AND STIFFENING. | ----- | X | | |
| N | b. MEMBER LOCATIONS. | ----- | X | | |
| Y | c. APPLICATION OF JOINT DETAILS AT EACH CONNECTION. | ----- | X | | |
-
- Principled + Reliable + Innovative + Motivated + Efficient
Consulting Structural Engineers
Texas Firm No. 26484
5608 Malvey Avenue, Suite 303
Fort Worth, Texas 76107
Phone: 817-886-3085
Email: plalonde@integrity-engineering-solutions.com
IES Project #26-MIS-010
-
- THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY PHILIPPE J. LALONDE, P.E. 89364 (TX-FIRM #26484) ON 06-09-2026.
- SSFCU 306 RETAIL
GAMEDAY MLA
190 CREEKSIDE CROSSING
NEW BRAUNFELS, TEXAS
- REVISIONS:
- DRAWN: ZK CHECKED: PL
JOB NUMBER: 26-MIS010
JUNE 09, 2026
- GENERAL NOTES
- SHEET NUMBER
- S0.04

INTEGRITY ENGINEERING SOLUTIONS, LLC
5608 Malvey Avenue Suite 303
Fort Worth, TX 76107
817-886-3085

Date: August 14, 2026

Michael Legg RA RIBA
Legg Architecture, LLC
26116 High Timber Pass,
San Antonio, Texas 78260 USA
www.michaelleggarchitecture.com
210-416 4935

CP2026-503 Gameday Men's Healthcare Clinic : Commercial EPR Finish Out
SSFCU 306 Retail, Gameday MLA, 190 Creekside Crossing, New Braunfels, TX

Mr. Legg,

Please find attached the Special Inspection form for the City of New Braunfels, TX completed for this project. As engineer of record I have completed this form and it shall be used by the special inspector hired by the owner to complete necessary inspections. If you have any questions or comments concerning this project then please contact our office.

Sincerely

Digitally signed by Philippe
Lalonde
Contact Info: 817-307-8266
plalonde@lalonde-eng.com
Date: 2026.08.14
10:07:15-05'00'



Philippe Lalonde, P.E.
Principal



INTEGRITY ENGINEERING SOLUTIONS, LLC
Principled + Reliable + Innovative + Motivated + Efficient
5608 Malvey Avenue, Suite 303
817-886-3085
administrator@integrity-engineering-solutions.com

Determination of Required Special Inspection Form

Project name: Gameday MLA Project address: 190 Creekside Crossing
Date: 8/14/2026 Permit No. CP2026-503 Building Number (if applicable) 1206

Special inspections and tests as required by section 1705 of 2021 IBC.

2021 IBC code section	Special inspection	Applicable	Not applicable	Continuous special inspection	Periodic special inspection
1705.1.1	Special cases.				
1705.2	Steel construction.	X			X
1705.3	Concrete construction.				
1705.4	Masonry construction.				
1705.5	Wood construction.				
1705.6	Soils.				
1705.7	Driven deep foundations.				
1705.8	Cast-in-place deep foundations.				
1705.9	Helical pile foundations.				
1705.10	Structural integrity of deep foundation elements.				
1705.11	Fabricated items.				
1705.12	Special inspections for wind resistance.				
1705.13	Special inspections for seismic resistance.				
1705.14	Testing for seismic resistance.				
1705.15	Sprayed fire-resistant materials.				
1705.16	Mastic and intumescent fire-resistant coatings.				
1705.17	Exterior insulation and finish systems (EIFS).				
1705.18	Fire-resistant penetrations and joints.				
1705.19	Testing for smoke control.				
1705.20	Sealing of mass timber.				

Final special inspection report shall be provided to the City of New Braunfels building inspector before the final building inspection.

Registered Design Professional in Responsible Charge information:

Name: Philippe Lalonde, P.E.

Firm: Integrity Engineering Solutions

Date: 8/14/2026

Signature: _____

Digitally signed by Philippe Lalonde
Contact Info: 817-307-8266
plalonde@lalonde-eng.com
Date: 2026.08.14 10:07:38-05'00'



Stamp of the Registered Design Professional in Responsible Charge