HP PERMIT NUMBER: HP-0795-2026

PROPERTY ADDRESS: 824 North Cheyenne Avenue

DISTRICT: The Heights (Brady Heights)

APPLICANT: Lesli Dinsmore

OWNER: Cody and Lesli Dinsmore

A. CASE ITEMS FOR CONSIDERATION

1. Construction of residence

B. BACKGROUND

DATE OF CONSTRUCTION: N/A
ZONED HISTORIC PRESERVATION: 1999
NATIONAL REGISTER LISTING: Brady Heights Historic District, 1980
CONTRIBUTING STRUCTURE: N/A
STYLE/CONSTRUCTION: N/A
PREVIOUS ACTIONS:

COA – May 14,2020 – TPC Approval
Construction of a residence in accordance with the documentation submitted with the condition that the setback be thirty feet (30'-0")

COA – November 24, 2020 – TPC Approval
Substitution of masonry for stucco on the facades in accordance with documentation submitted

B. ISSUES AND CONSIDERATIONS

Proposed is the construction of a new residence on the currently vacant lot located at the southwest corner of Cheyenne Avenue and Jasper Street. The proposed residence is a two-story, Craftsman-style home with an attached, street-facing garage. The proposal also includes demolishing partial sections of the existing retaining wall in the street yard and regrading the lawn to meet the sidewalk edge.

1. Reference: Tulsa *Zoning Code*

SECTION 70.070-F Standards and Review Criteria
In its review of HP permit applications, the preservation commission must use the adopted design guidelines to evaluate the proposed work and must, to the greatest extent possible, strive to affect a fair balance between the purposes and intent of HP district regulations and the desires and need of the property owner. In addition, the preservation commission must consider the following specific factors:

1. The degree to which the proposed work is consistent with the applicable design guidelines;
2. The degree to which the proposed work would destroy or alter all or part of the historic resource;
3. The degree to which the proposed work would serve to isolate the historic resource from its surroundings, or introduce visual elements that are out of character with

the historic resource and its setting, or that would adversely affect the physical integrity of the resource;
4. The degree to which the proposed work is compatible with the significant characteristics of the historic resource; and
5. The purposes and intent of the HP district regulations and this zoning code.

2. Reference: *Unified Design Guidelines – Residential Structures*

SECTION C – GUIDELINES FOR NEW CONSTRUCTION

C.1 General Requirements

C.1.1 Designs for new construction shall not duplicate existing structures within the district. Ensure that each new structure is unique within the district.

C.1.2 When designing new structures, provide consistency and continuity by drawing upon common characteristics of historic structures in the district, placing particular emphasis on the historic structures on the same street. These include but are not limited to porches, entries, roof pitch and form, and window and door styles.

C.1.3 Avoid mixing incongruous architectural styles: for example, Prairie-style windows on a Colonial Revival-inspired house.

C.1.4 Respect the scale, proportions, historic patterns, and relationships of both principal and accessory structures along the same street and within the district.

C.1.5 Maintain the established height of those structures along the same side of the street.

C.1.6 Establish the height of the floor (finished floor elevation) between the minimum and maximum finished floor elevation of those structures along the same side of the street.

C.2 Building Site

C.2.1 Match the front setback of the historic buildings along the same side of the street. When the front setback pattern of the historic structures on the same side of the street varies, locate the new structure between the minimum and maximum of the prevailing front setbacks.

C.2.2 Maintain the pattern and rhythm of the side yard setbacks of the other historic structures on the same side of the street.

C.2.3 Maintain the same orientation to the street as established by the historic structures on the same street.

C.2.4 Limit paving within the street yard to primary driveways and sidewalks. Curb cuts and new driveways through the street yard are strongly discouraged for properties with alley access.

C.2.5 On interior lots, limit the surface area of driveways and sidewalks to no more than 50% of the street yard lot area.

C.2.6 On corner lots, limit the surface area of driveways and sidewalks to no more than 30% of the street yard lot area.

C.3 Building Materials

C.3.1 Maintain the visual characteristics, scale, proportions, directional orientation, and rhythms that are created by the materials on existing historic structures in the district, in order to maintain the overall appearance and character of the district. Deviation from the materials on existing historic structures in the district will be considered on a case-by-case basis. The use of unfinished or clear-finished metals will be considered on a case-by-case basis.

C.4 Garages

C.4.1 Locate garages within the rear yard and detached from the primary residential structure. Detached buildings or structures, such as garages and sheds, not

located in the street yard as defined in the Zoning Code are exempt from HP Permit review.

C.4.2 Adding a garage attached to the rear elevation of the primary residential structure will be considered on a case-by-case basis.

C.4.3 Permitted attached garages shall be located so that the front façade of the garage is not located forward of the rear wall of the primary structure.

C.4.4 Historically appropriate garage doors, such as carriage house doors, are encouraged.

C.5 Mechanical Systems, Etc.

C.5.1 Install engineering systems and their associated elements, such as, but not limited to, air conditioning and heating units, flues, conduits, cables, electrical equipment, ventilators, and louvers, on the side or rear façade of the structure.

C.5.2 Install utility meters on the side or rear façade of the house or underground in a subterranean vault. Above-ground installation of utility systems, such as pedestals and transformers, is prohibited in the street yard unless approved on a case-by-case basis.

C.5.3 Install systems requiring exterior components, such as solar panels or devices, where they will have minimal impact, preferably at the rear of your house or yard or on an outbuilding. Install exterior components on a historic building in a manner that does not damage the historic roofing material or negatively impact the building's historic character and is reversible. These considerations will be made on a case-by-case basis.

C.5.4 Installation of radio or television antennas, including satellite dishes and similar devices, not visible from abutting streets, as determined by staff, is exempt from HP Permit review.

SECTION G – GUIDELINES FOR LANDSCAPE FEATURES, PAVING, AND SIGNAGE

G.1 Landscape Features

G.1.1 Retain and preserve original historic walls, fencing, lighting, planters, and other landscape features through repair.

G.1.2 Removal of historic landscape features will be considered on a case-by-case basis. Removal of non-historic landscape features can be staff-approved.

G.1.3 Ensure that new landscape features are appropriate to the style of your home and consistent with the historic elements found along the same street and within the district.

G.1.4 Use fencing materials that are consistent with the historic fencing found along the same street and within the district. Chain-link fencing, wire fencing (12 gauge or less), vinyl fencing, or any fencing that blocks the view of structures is not allowed.

G.1.5 Use wall materials that are consistent with the historic walls found along the same street and within the district. Cinder block, segmental retaining wall systems, corrugated metal, and railroad ties are not allowed. Historically styled cast concrete block will be considered on a case-by-case basis.

.1 Elmwood – dry-stack retaining walls are not allowed

G.2 Paving

G.2.1 Retain and preserve original historic paving, steps, and bulkheads through repair.

G.2.2 Ensure that the design of new paving is consistent with historic elements found along the same street and within the same neighborhood.

G.2.3 Use paving materials that are consistent with the historic paving found along the same street and within the same neighborhood. Asphalt and stained concrete are not allowed.

G.2.4 Surface parking lots do not support the historic character of the district. Construction of parking lots is strongly discouraged, but will be considered on a case-by-case basis provided that the following guidelines are met:

.1 Match the front setback pattern of the historic structures on the same side of the street. On corner lots, match the setback pattern of the historic structures on all adjoining streets. When the setback pattern of the historic structures on the same side of the street varies, locate the parking lot between the minimum and maximum of the prevailing setbacks.

.2 The screening that is required by the Zoning Code shall meet the conditions of G.1.4 and G.1.5. Ensure that screening is of sufficient height and density to obscure the view of the parking lot from the street and adjacent historic structures.

.3 When possible, provide vehicular access to the parking lot from an alley or arterial street to minimize the traffic impact on residential streets.

March 2025 (Google Street View)

Historic Preservation Permit

APPLICATION FORM

ATTACHMENT A: SUBMITTAL MATERIALS

PROJECT DESCRIPTION

Give a detailed description and justification for each repair, alteration, new construction, or demolition planned. Include description and condition of affected existing materials. Attach additional pages as needed.

New construction at the southwest corner of Cheyenne and Jasper in the Heights neighborhood.

The design of the residence will be reflective of the architectural traditions and character found within the Heights neighborhood and within other traditional neighborhoods in Tulsa built during a similar time period.

PROJECT CHECKLIST

X Digital color photographs of each elevation of the site, building(s), and project area(s) provided by email or memory device only. **No external storage account invitations.**

X Product brochures, color photographs, and/or material samples when new or replacement materials are proposed.

X Site plan, no larger than 11x17, to scale with dimensions and north arrow showing location of structures and project area or landscape features in respect to building line, property line, and adjacent structures on all sides.

X Elevation sketches or renderings to scale with dimensions showing location of work required for changes on exterior walls, additions, and new construction

_____ Window Survey Form for proposed window repair or replacement (see **Attachment B**)

FOR ADDITIONS AND NEW CONSTRUCTION, THE FOLLOWING ARE REQUIRED IN ADDITION TO THE ABOVE:

X Site Plan, Floor Plans, and Elevations should be at a scale of 1 inch = 20 feet, or greater

X Architectural rendering (optional)

X Legal description of the property as recorded on the deed

X Location of all existing and proposed structure(s), with front and side setback distances indicated

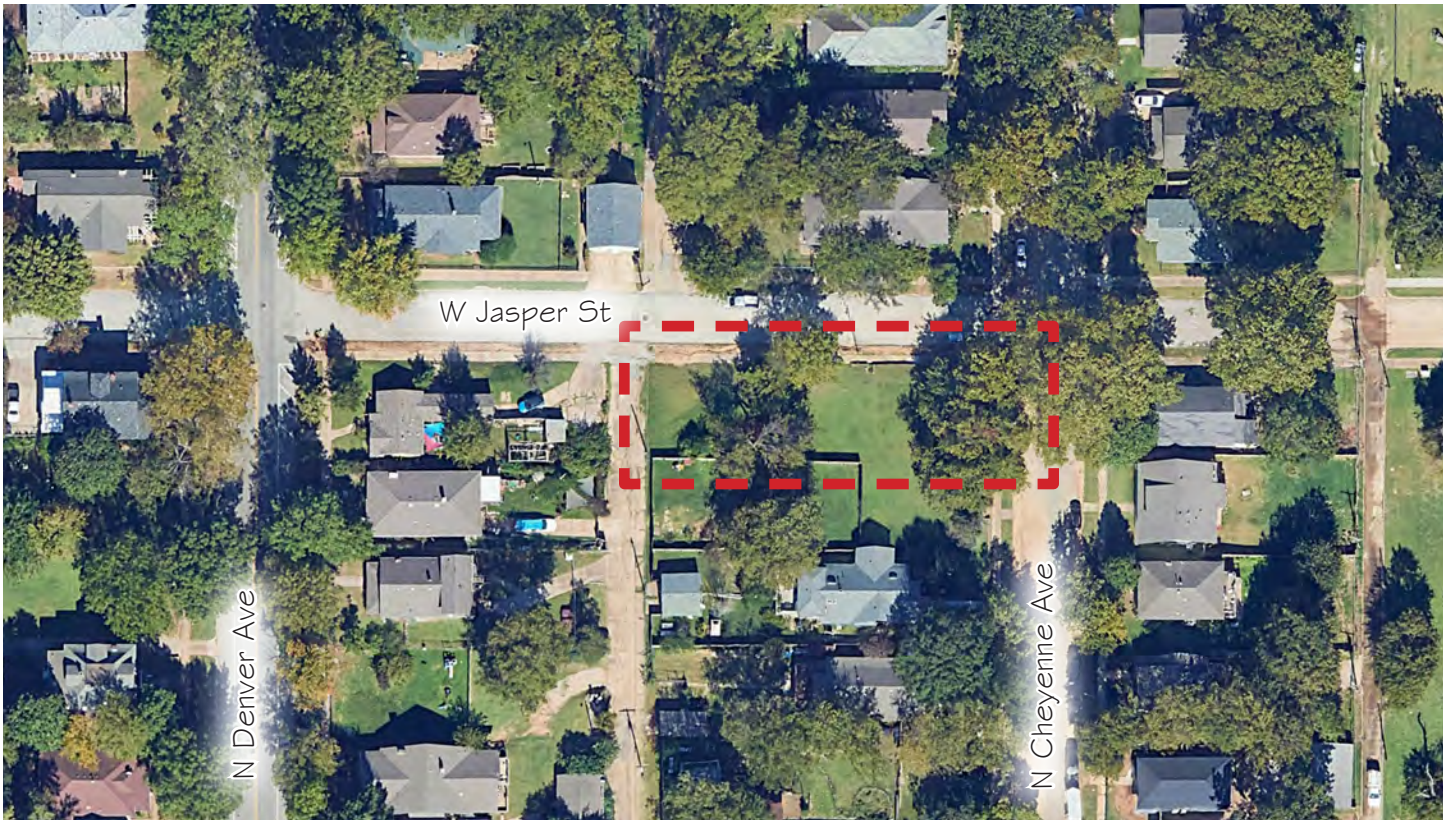
X Percentage of slope on lot

X Location of existing and proposed retaining walls, sidewalks, and driveways with front and side setbacks indicated

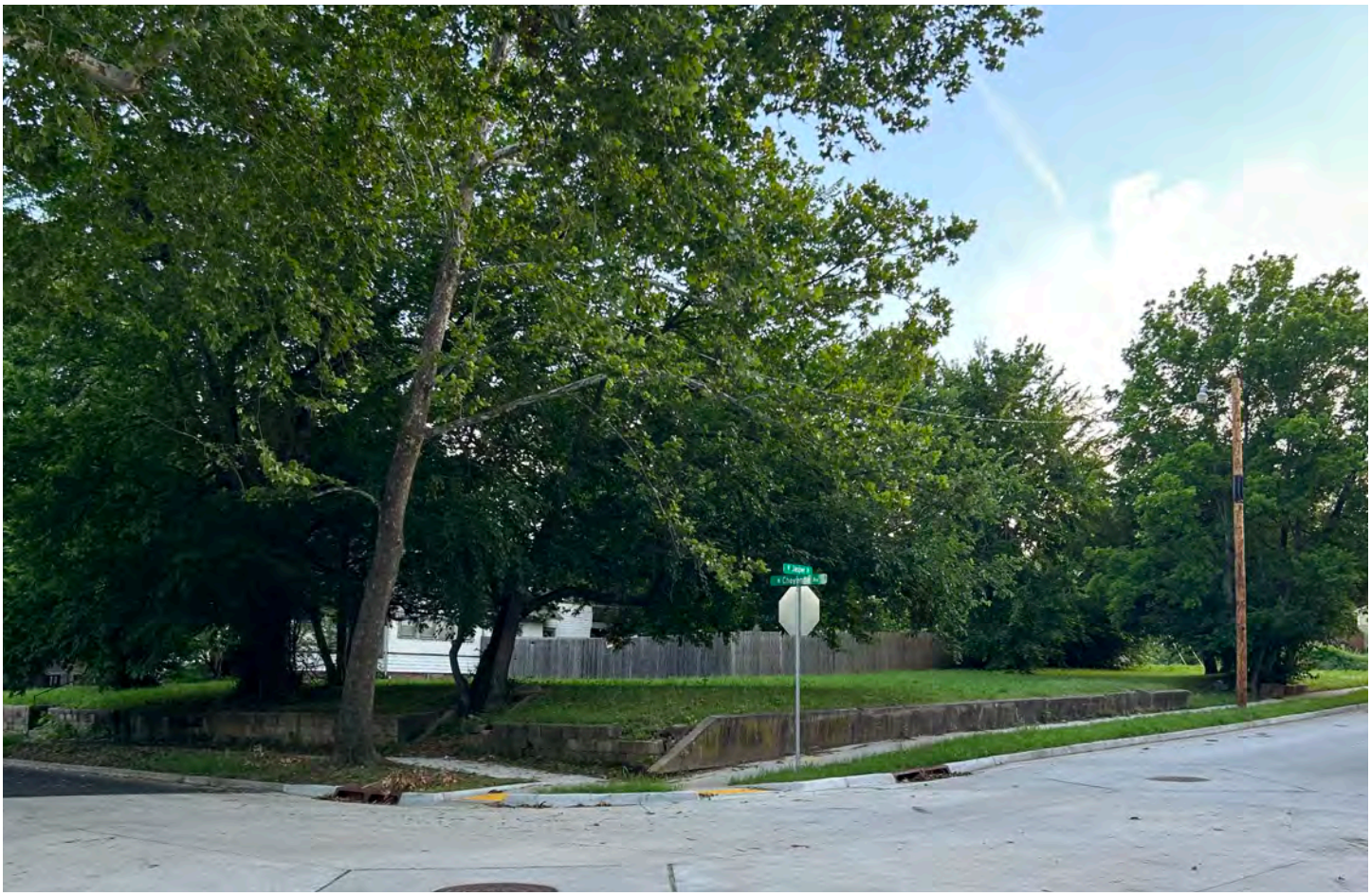
X An additional site plan showing approximate height, width and front setback of proposed project and all adjacent structures to show relationship to neighborhood

X Floor plan to scale with dimensions required for additions and new construction

ATTACHMENT B: WINDOW SURVEY FORM (if applicable-see Window Repair and Replacement Guide)

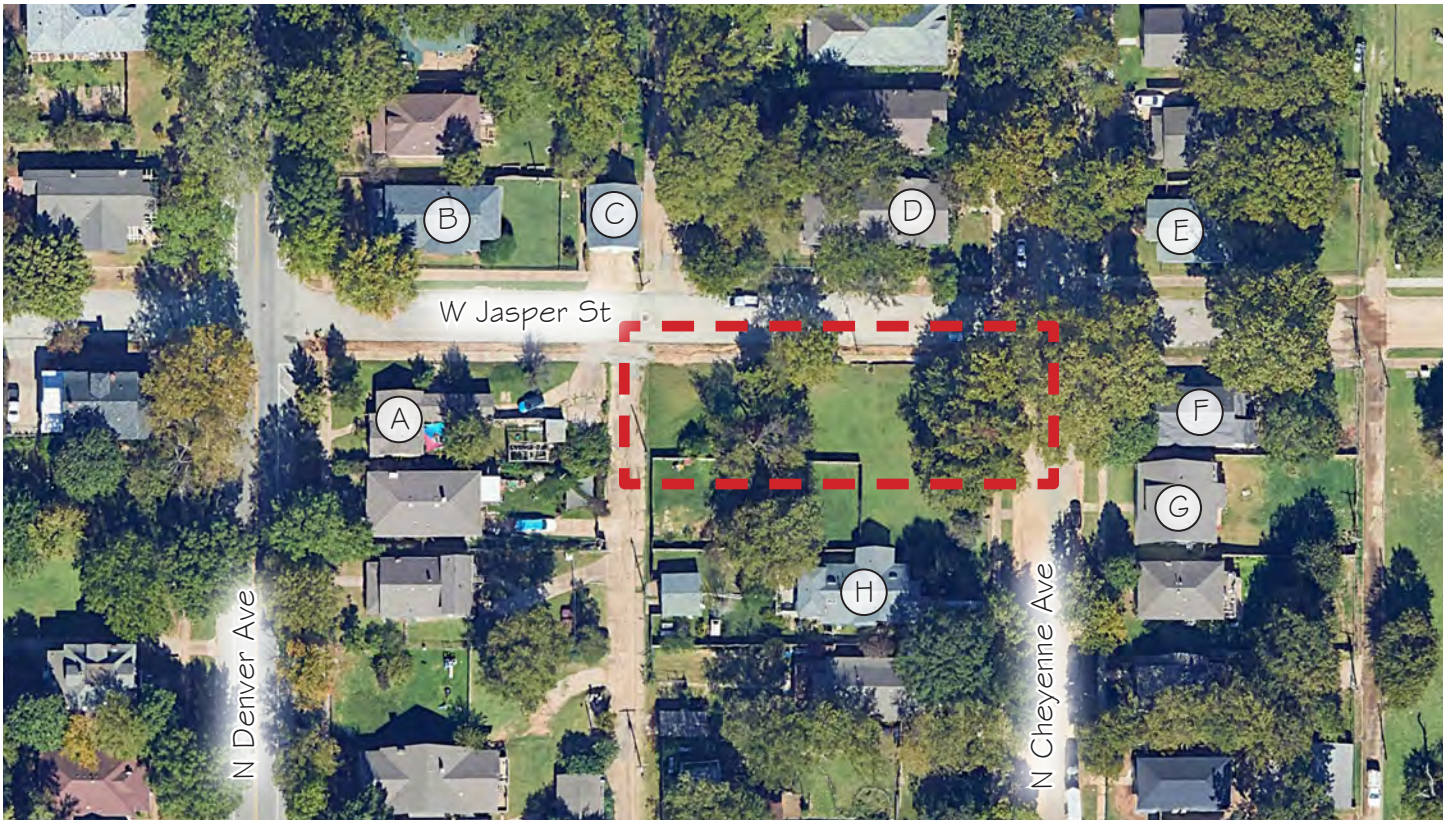


Site Address: 824 N Cheyenne Ave, Tulsa, OK 74106



View of Site from NE Corner

Existing Site Conditions



Site Address: 824 N Cheyenne Ave, Tulsa, OK 74106

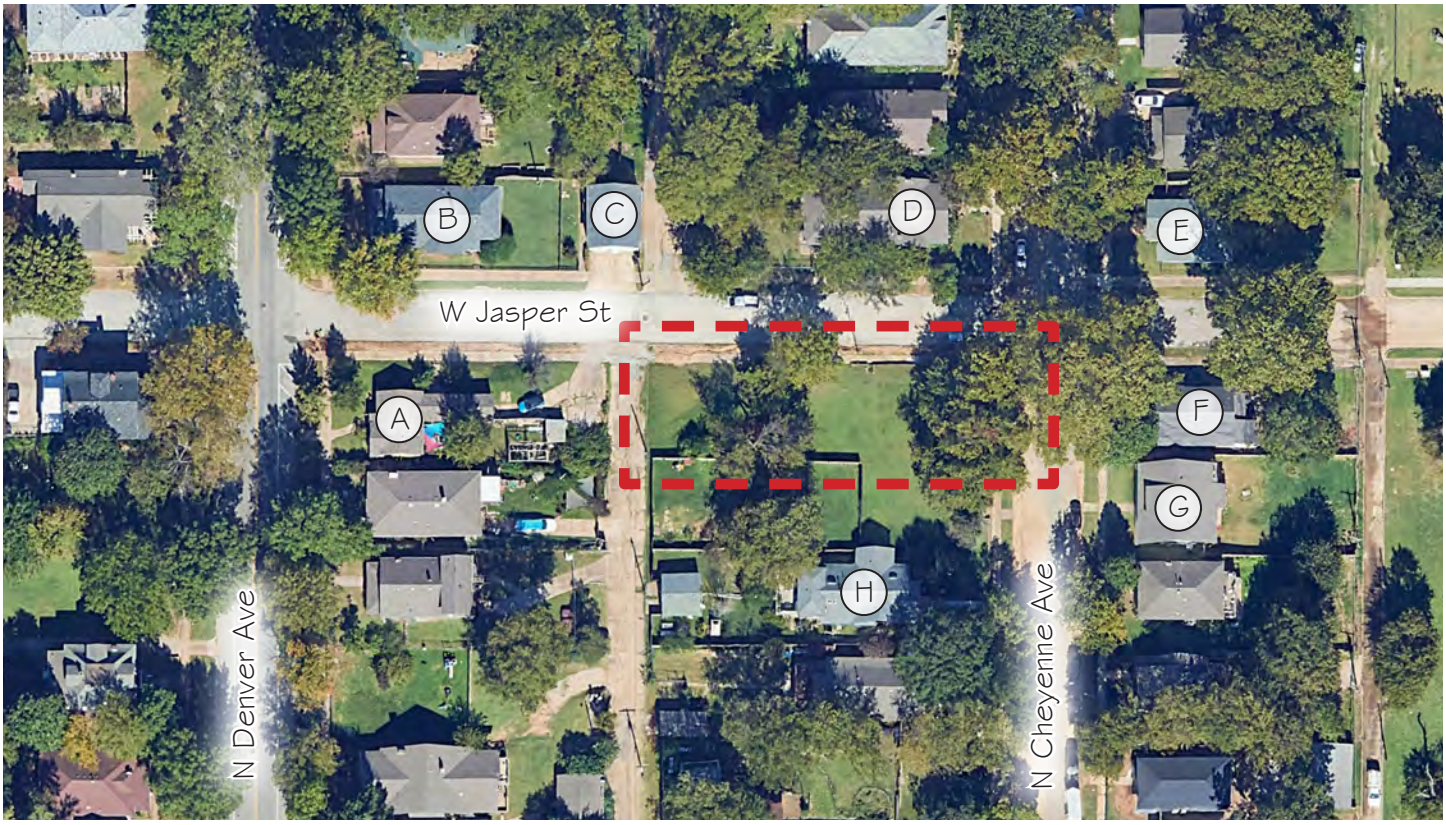
Building A

Building B

Building C

Building D

Existing Site Conditions



Site Address: 824 N Cheyenne Ave, Tulsa, OK 74106

Building E

Building F

Building G

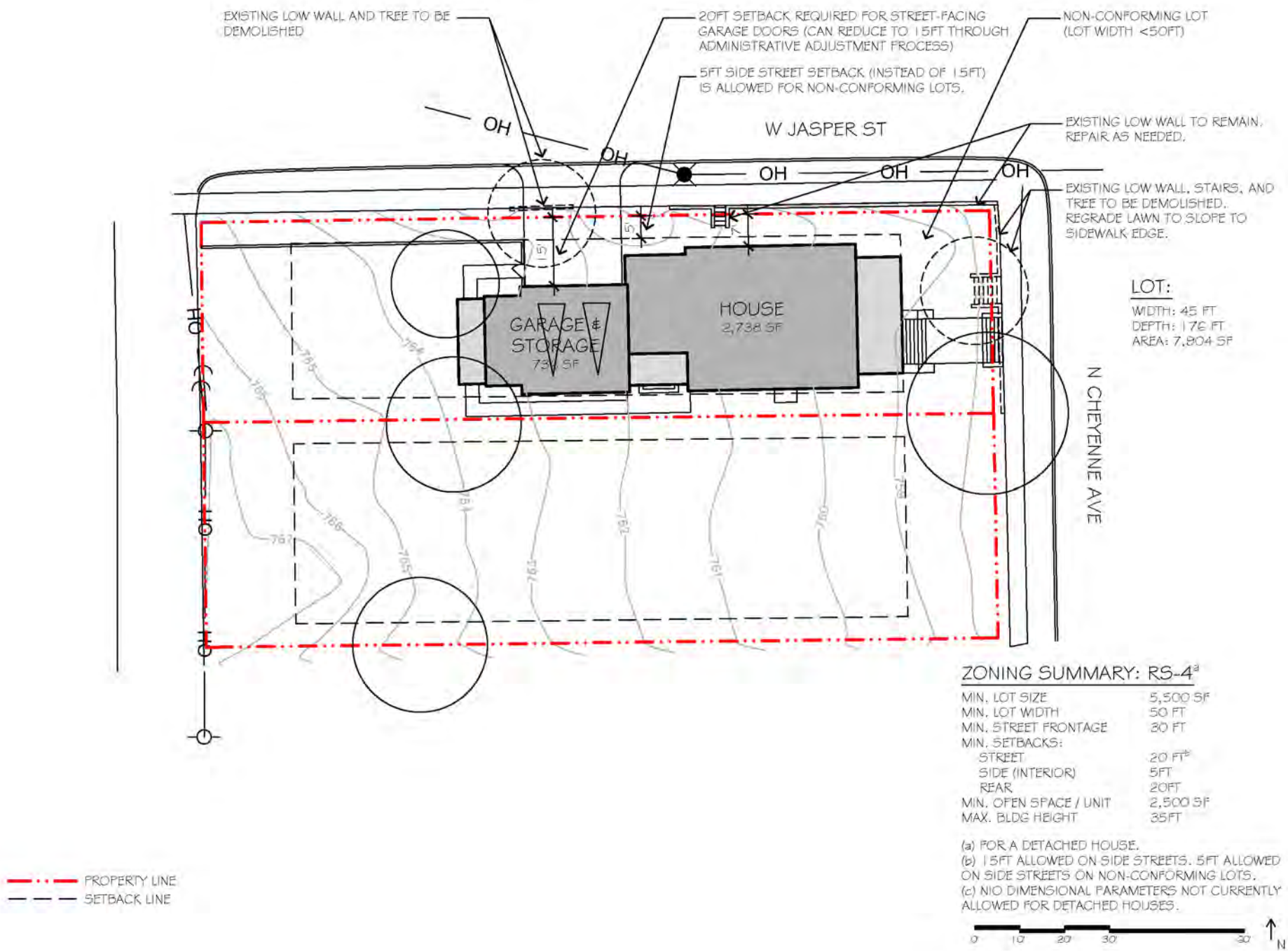
Building H

Precedent Imagery

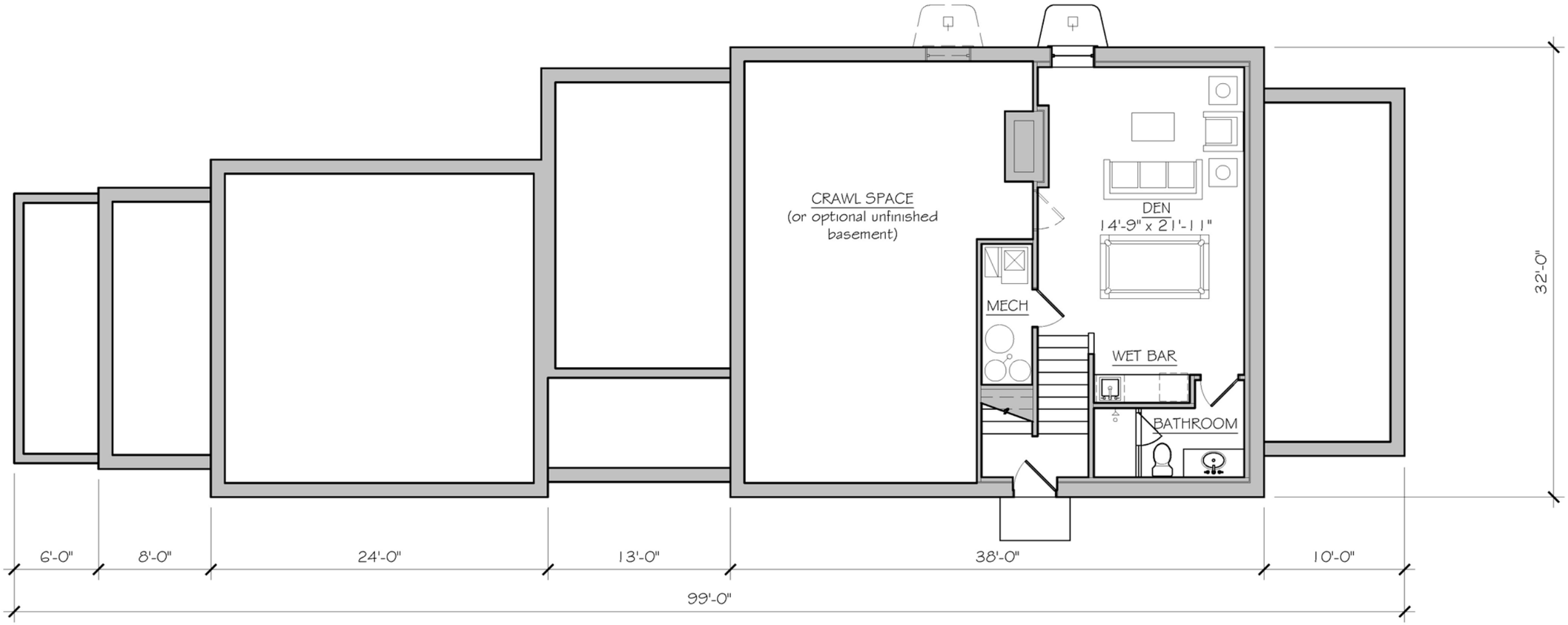
Precedent Imagery


W Jasper St
Prpd Bldg
N Denver Ave
N Cheyenne Ave
KEY
Setback Distances:
5-10ft
15ft
20ft
35ft
0'
25'
50'
100'
200'
N

Neighborhood Building Heights (in stories)



Concept Site Plan

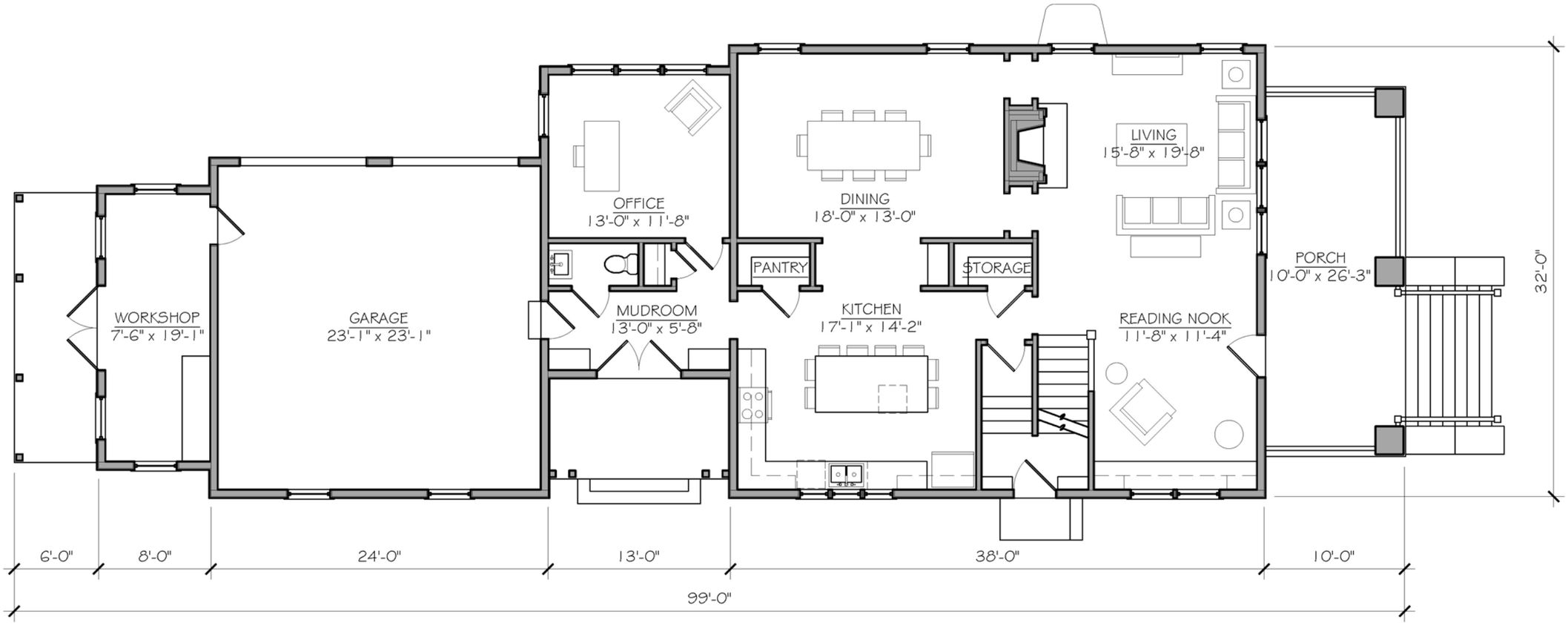


0' 2' 4' 8'

Basement Plan

J Griffin Design, LLC

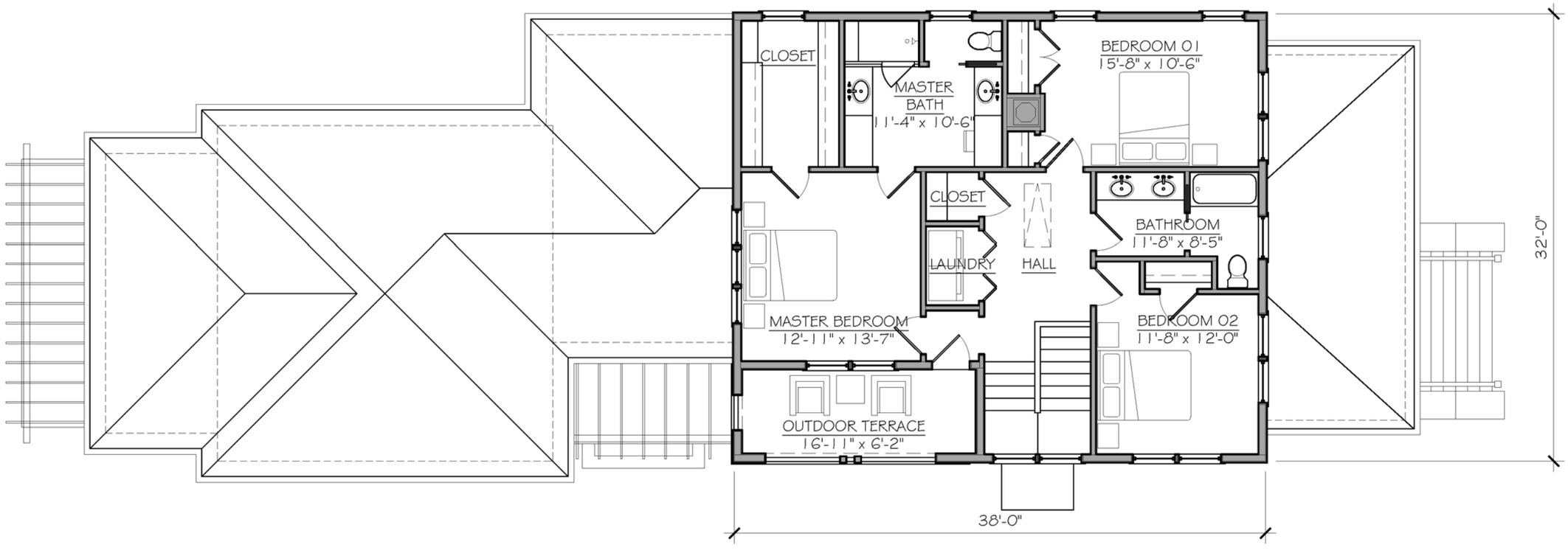
Dinsmore Residence



0' 2' 4' 8'

1st Floor Plan

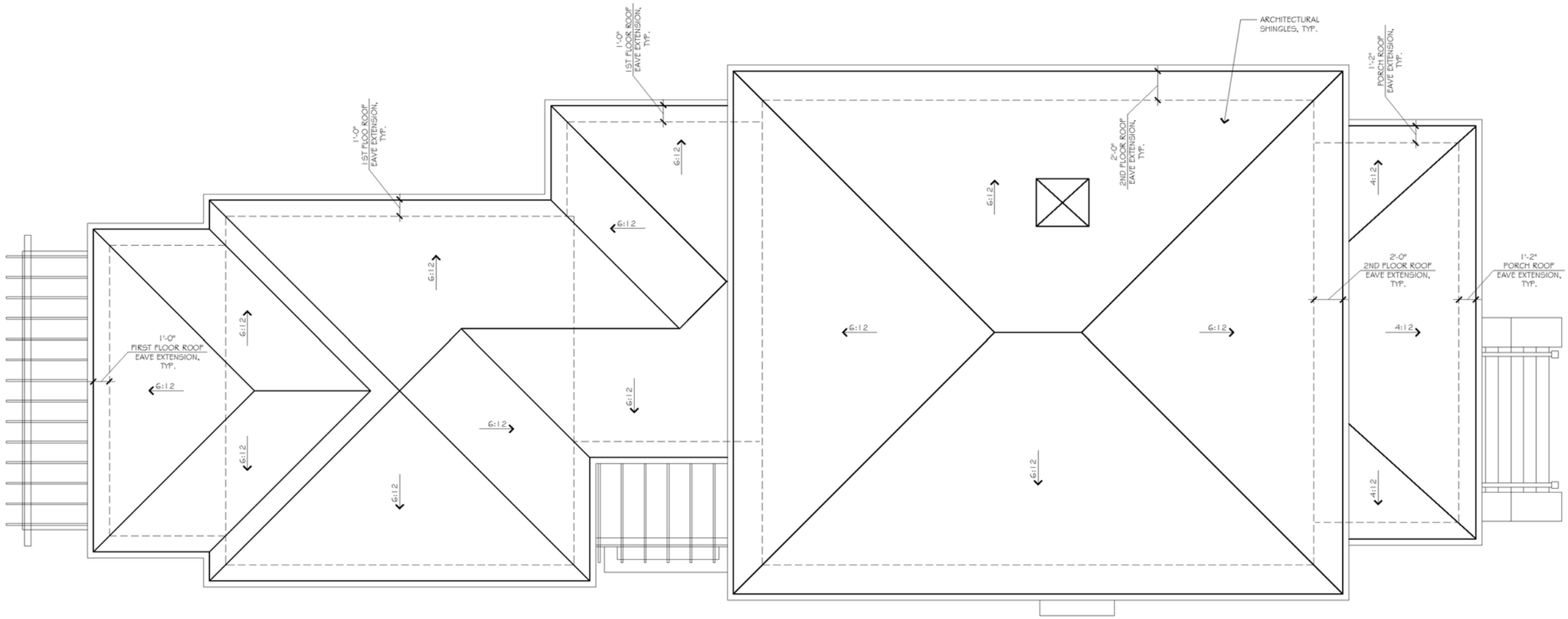
June 8, 2026
Page 10 of 18



0' 2' 4' 8'

2nd Floor Plan

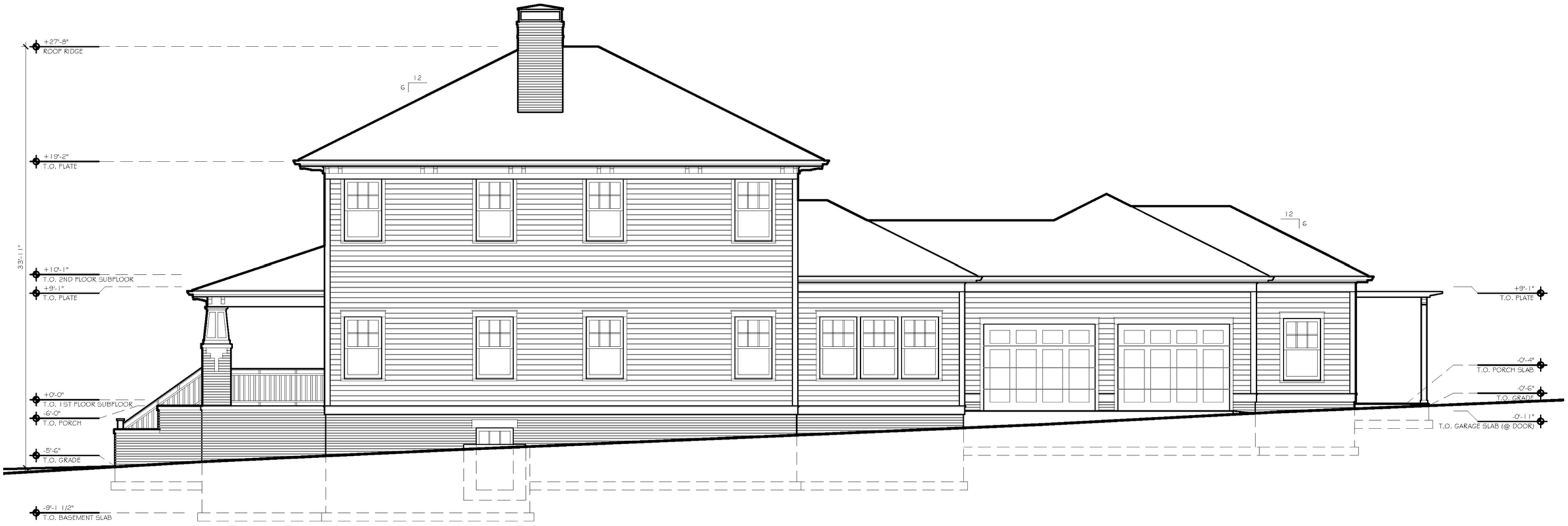
June 8, 2026
Page 11 of 18


1'-0" 1ST FLOOR ROOF EAVE EXTENSION, TYP.
1'-0" 1ST FLOOR ROOF EAVE EXTENSION, TYP.
ARCHITECTURAL SHINGLES, TYP.
2'-0" 2ND FLOOR ROOF EAVE EXTENSION, TYP.
1'-2" PORCH ROOF EAVE EXTENSION, TYP.
2'-0" 2ND FLOOR ROOF EAVE EXTENSION, TYP.
1'-2" PORCH ROOF EAVE EXTENSION, TYP.
1'-0" FIRST FLOOR ROOF EAVE EXTENSION, TYP.
6:12
4:12
0' 2' 4' 8'

East Elevation
(N Cheyenne Ave)

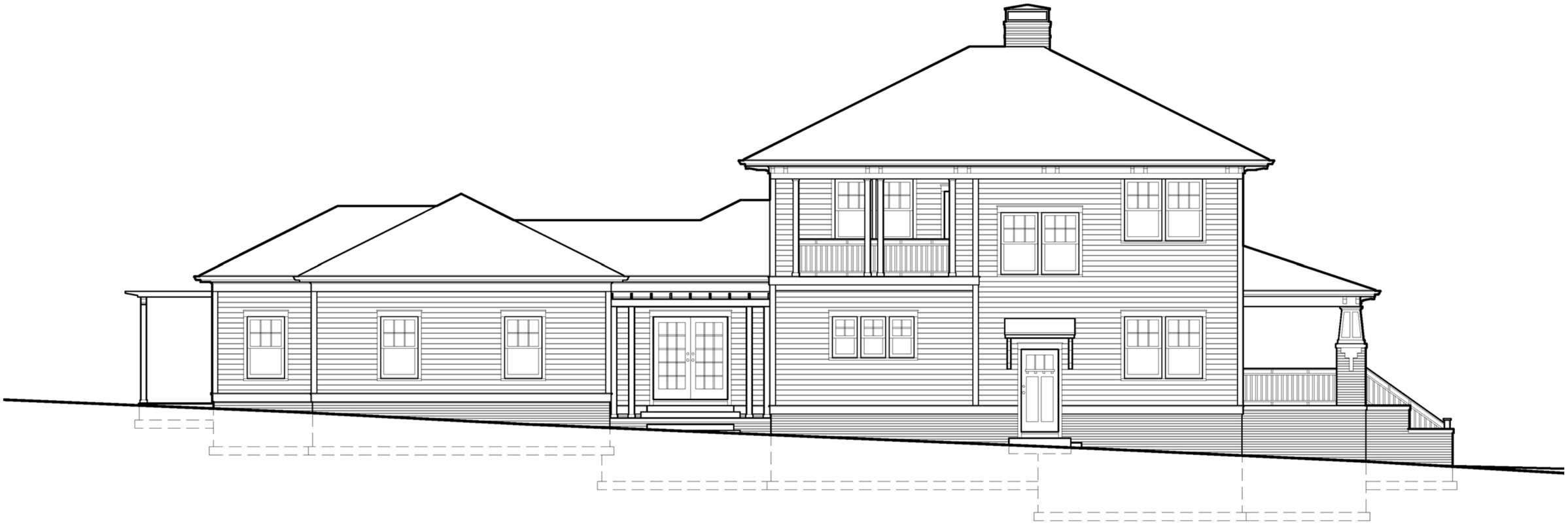
West Elevation

0' 2' 4' 8'



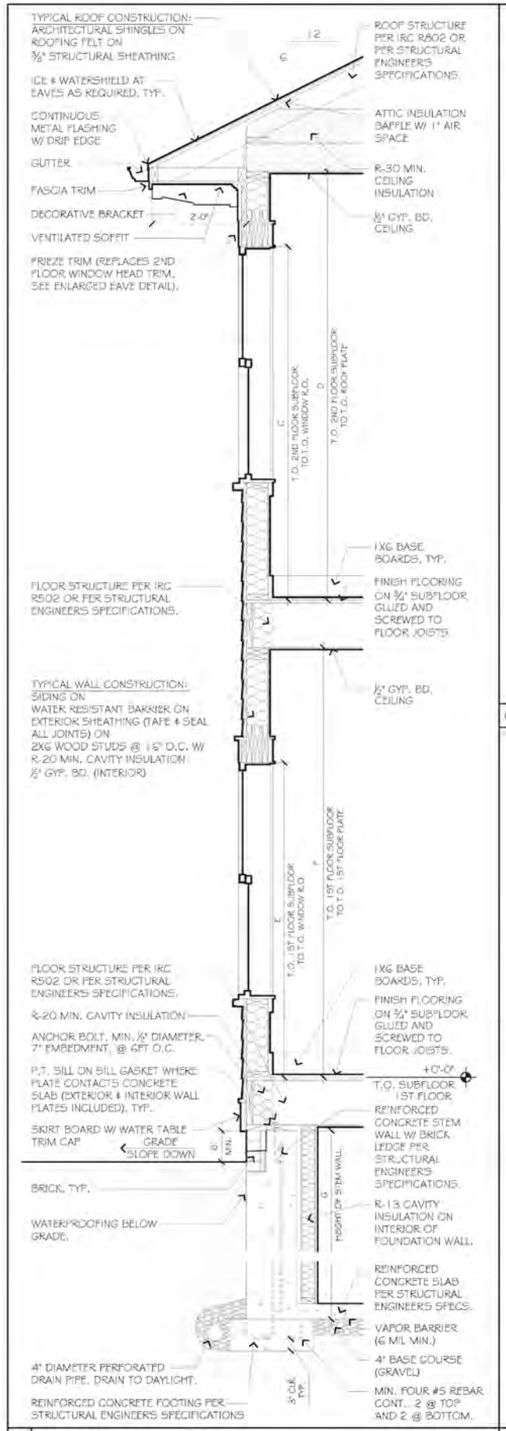
North Elevation
(W Jasper Street)

0' 2' 4' 8'

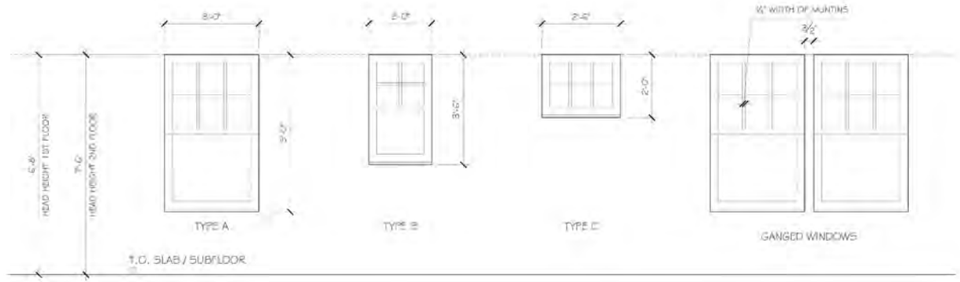


South Elevation

0' 2' 4' 8'



02 TYPICAL EXTERIOR WALL SECTION

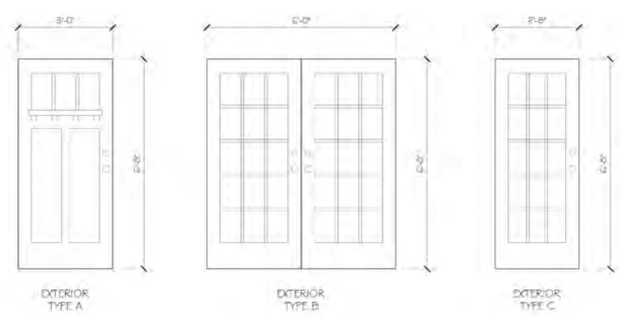


WINDOW SCHEDULE

FALL PROTECTION REQUIRED PER CODE FOR WINDOWS WITH SILL HEIGHT LESS THAN 24" ABOVE INTERIOR FINISH FLOOR LEVEL AND GREATER THAN 72" ABOVE EXTERIOR FINISHED GRADE / SURFACE.

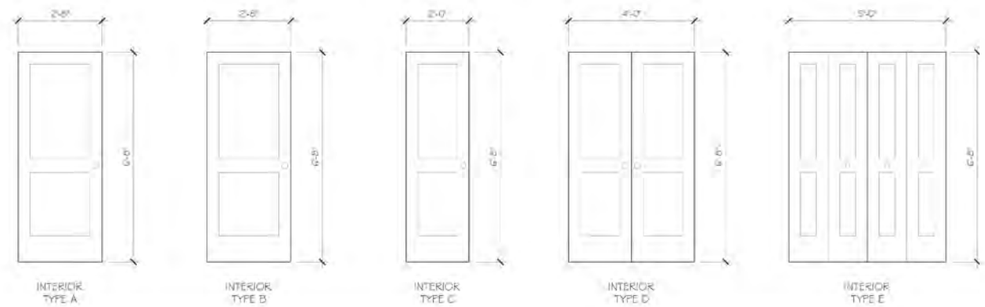
TYPE	FRAME SIZE		QUANTITY	MANUFACTURER	STYLE	NOTES
	WIDTH	HEIGHT				
A	3'-0"	5'-0"	36	ANDERSEN 100 SERIES	SINGLE HUNG, FULL DIVIDED LIGHT, COLONIAL GRILLES (TOP SASH ONLY)	TO MEET EGRESS CODE REQUIREMENTS, TEMPERED GLASS AS REQUIRED BY CODE.
B	2'-0"	3'-4"	3	ANDERSEN 100 SERIES	SINGLE HUNG, FULL DIVIDED LIGHT, COLONIAL GRILLES (TOP SASH ONLY)	TEMPERED GLASS AS REQUIRED BY CODE.
C	2'-0"	2'-0"	3	ANDERSEN 100 SERIES	FIXED, FULL DIVIDED LIGHT, COLONIAL GRILLES	TEMPERED GLASS AS REQUIRED BY CODE.

01 WINDOW SCHEDULE

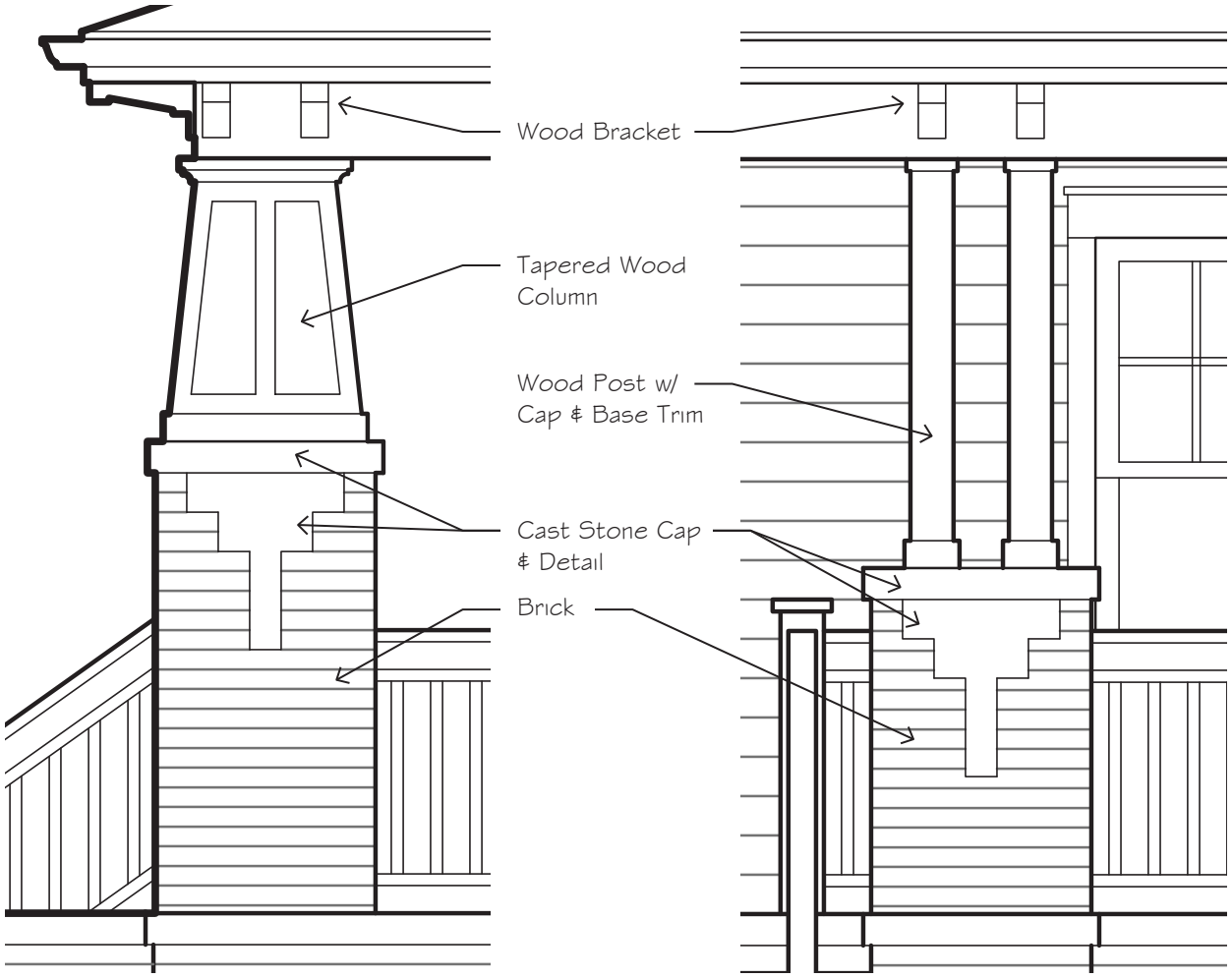


DOOR SCHEDULE

MARK	TYPE	SIZE		QUANTITY	NOTES
		WIDTH	HEIGHT		
EX-A	EXTERIOR A	3'-0"	6'-8"	2	-
EX-B	EXTERIOR B	6'-0"	6'-8"	2	PAIR
EX-C	EXTERIOR C	2'-8"	6'-8"	1	-
IN-A	INTERIOR A	2'-8"	6'-8"	17	-
IN-B	INTERIOR B	2'-8"	6'-8"	2	"POCKET"
IN-C	INTERIOR C	2'-0"	6'-8"	3	-
IN-D	INTERIOR D	4'-0"	6'-8"	1	PAIR
IN-E	INTERIOR E	5'-0"	6'-8"	1	BIFOLD, PAIR

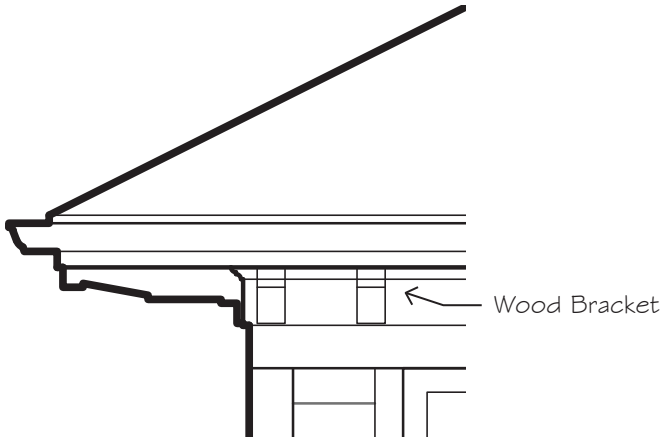


03 DOOR SCHEDULE

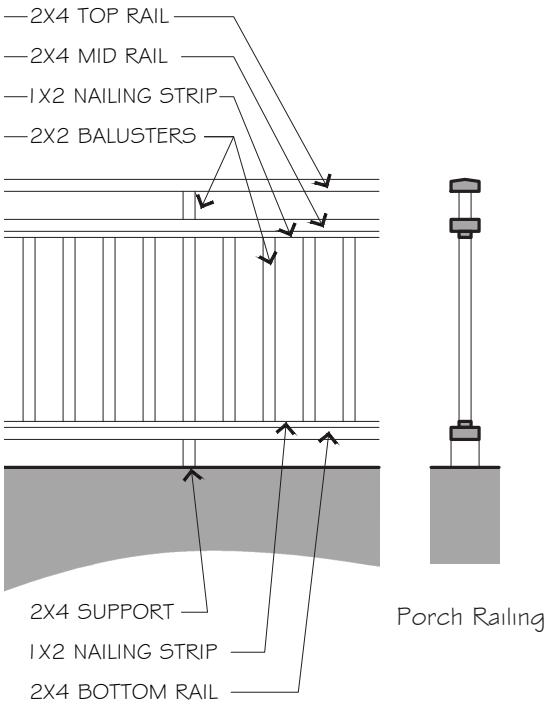


Porch Column 01

Porch Column 02



Main Roof Eaves



Porch Railing

SIDING
- LP Smartside Lap Siding, Brushed Smooth Finish, 6" boards w/ 5" exposure.

TRIM
- LP Smartside Trim (unless noted otherwise), Brushed Smooth Finish, Size depends on element.

WINDOW TRIM:
- LP Smartside Trim (unless noted otherwise), Brushed Smooth Finish, Sizes depends on element.

WINDOW SILL
- Azek Large Historic Sill.

BRICK
- Acme, Modular Brick, Texture and Color TBD.

ROOF
- Architectural Shingles, Product TBD.

WINDOWS
- Andersen 100 series, single hung windows.
- Grilles: 3/4" width, full divided light.
- Grille Pattern: Colonial (top sash only).

DOORS
- TBD.

DOOR HARDWARE
- TBD.

EXTERIOR LIGHTING
- TBD.

WALKWAYS / DRIVEWAYS
- Concrete.

HP PERMIT NUMBER: HP-0797-2026

PROPERTY ADDRESS: 1331 East 17th Street

DISTRICT: Swan Lake

APPLICANT: Katie Huisenga

OWNER: Cuddle Duck, LLC

A. CASE ITEMS FOR CONSIDERATION

1. Removal of staircase on north side of building
2. Construction of staircase and covered balconies on north side of building
3. Installation of roof-mounted and wall-mounted mechanical equipment

B. BACKGROUND

DATE OF CONSTRUCTION: ca. 1935
ZONED HISTORIC PRESERVATION: 1994
NATIONAL REGISTER LISTING: Swan Lake 1998; Additional Documentation 2009
CONTRIBUTING STRUCTURE: Yes
STYLE/CONSTRUCTION:

This large brick apartment house is Mission/Spanish Colonial Revival in style. Three stories with a basement, it has a flat asphalt roof with a pediment and stepped parapet as well as small tiled hipped roofs at the extreme left and right of the south elevation. Concrete copings, belt courses, false beam ends, sills, and inserts contrast with the brick. There are two glazed doors set beneath segmental arches and cornices. Above the entries are single 6/6 double hung windows on the landings. Otherwise, windows are paired or tripled. Most windows have awnings.

(National Register of Historic Places, Swan Lake Historic District, NRIS # 98000140)

PREVIOUS ACTIONS:

COA – October 11, 2001 – Staff Approval
Part I: Replacement of bathroom windows, under the condition that the applicant consider using the same materials on the bottom windows
Part II: Removal of metal window awnings

C. ISSUES AND CONSIDERATIONS

1. This application is part of a larger rehabilitation project for the apartment building, most of which will take place on the interior of the building. Also included in the scope is the replacement in-kind of six (6) glass block windows, which will be approved by staff.

   The first two proposals entail removing the existing dilapidated staircase on the north side of the building and replacing it with a new staircase and covered balconies. The project as proposed involves the construction of a new roof feature to cover the balconies and staircase.

   Also proposed is the installation of roof-mounted and wall-mounted condensers for the new HVAC system, which will replace the existing window units throughout the building. The roof-mounted condensers will be minimally visible from Quaker

Avenue, if at all. The wall-mounted condensers will be limited only to the north and west (non-street-facing) sides of the building.

2. Reference: *Tulsa Zoning Code*
   SECTION 70.070-F Standards and Review Criteria
   In its review of HP permit applications, the preservation commission must use the adopted design guidelines to evaluate the proposed work and must, to the greatest extent possible, strive to affect a fair balance between the purposes and intent of HP district regulations and the desires and need of the property owner. In addition, the preservation commission must consider the following specific factors:
   1. The degree to which the proposed work is consistent with the applicable design guidelines;
   2. The degree to which the proposed work would destroy or alter all or part of the historic resource;
   3. The degree to which the proposed work would serve to isolate the historic resource from its surroundings, or introduce visual elements that are out of character with the historic resource and its setting, or that would adversely affect the physical integrity of the resource;
   4. The degree to which the proposed work is compatible with the significant characteristics of the historic resource; and
   5. The purposes and intent of the HP district regulations and this zoning code.

3. Reference: *Unified Design Guidelines – Residential Structures*
   SECTION A – GUIDELINES FOR REHABILITATION OF EXISTING STRUCTURES
   A.1 General Requirements
   A.1.1 Retain and preserve the existing historic architectural elements of your home.
   A.1.2 If replacement of historic architectural elements is necessary, match the size, shape, pattern, texture, and directional orientation of the original historic elements.
   A.1.3 Ensure that work is consistent with the architectural style and period details of your home.
   A.1.4 Return the structure to its original historic appearance using physical or pictorial evidence, rather than conjectural designs.

   A.5 Roofs
   A.5.1 Retain and preserve the original historic roof form (hipped, gabled, etc.) and pitch.
   A.5.2 Do not remove character-defining architectural features of your roof, including, but not limited to, dormers, chimneys, cupolas, eaves, soffits, fascia boards, and decorative details, such as eave brackets, exposed rafter tails, or corbels.
   A.5.3 If replacement of deteriorated architectural roof features is necessary, use materials that maintain the character of the structure and the size, shape, pattern, texture, dimensions, and directional orientation of the original historic roof features.
   .1 Elmwood – Match the original historic roof material
   A.5.4 To return the home to its original historic appearance, use physical or pictorial evidence. If no evidence exists, select architectural roof features which are consistent with the architectural style of your home.
   A.5.5 Replacement of existing roof covering—wood shingles, asphalt shingles, clay tile, etc.—with the same material does not require HP Permit review (for example, replacing an asphalt-shingled roof with asphalt shingles). Architectural shingles are encouraged.
   A.5.6 When proposing to change the materials of your roof covering, replacement materials that maintain the character of the structure and the size, shape,

pattern, texture, and directional orientation of the original historic roof covering will be considered on a case-by-case basis.

.1 Yorktown – Metal roofing is not allowed.

A.5.7 When replacing your roof covering, replace an entire roof section if it is visible from the street.

A.6 Porches

A.6.1 Retain and preserve the original historic porch and its character-defining architectural features through repair.

A.6.2 Do not remove character-defining architectural features of your porch, including, but not limited to, ceiling, floor, piers, columns, railings, handrails, steps, bulkheads, skirt/stem wall, and decorative details, such as crown molding, trim, eave brackets, and exposed rafter tails.

A.6.3 If replacement of deteriorated porch elements is necessary, use materials that maintain the character of the structure and the size, shape, pattern, texture, dimensions, and directional orientation of the original historic features.

A.6.4 To return the home to its original historic appearance, use physical or pictorial evidence. If no evidence exists, select porch features which are consistent with the architectural style of your home. Return enclosed porches to original historic open design (which can be staff approved).

A.6.5 If adding a railing or other porch elements where none exists, select porch elements (columns, railing design, trim, etc.) which are consistent with the architectural style of your home.

A.7 Awnings, Shutters, Mailboxes, Mechanical Systems, Etc.

A.7.1 Select awnings that are consistent with the architectural style of your home.

A.7.2 Select window shutters that are consistent with the architectural style of your home. Plastic shutters and door shutters are not historically accurate and are not allowed.

A.7.3 Attach mailboxes to the front of the porch or house.

A.7.4 Install engineering systems and their associated elements such as, but not limited to, air conditioning and heating units, package units, flues, conduits, cables, electrical boxes, ventilators, and louvers, on the side or rear façade of the structure.

A.7.5 Install utility meters on the side or rear façade of the house, or underground in a subterranean vault.

A.7.6 Install systems requiring exterior components, such as solar panels or devices, where they will have minimal impact, preferably at the rear of your house or yard or on an outbuilding. Install exterior components on a historic building in a manner that does not damage the historic roofing material or negatively impact the building's historic character and is reversible. These considerations will be made on a case-by-case basis.

A.7.7 Installation of radio or television antennas, including satellite dishes and similar devices, not visible from abutting streets, as determined by staff, is exempt from HP Permit review.

SECTION B – GUIDELINES FOR ADDITIONS TO EXISTING STRUCTURES

B.1 General Requirements

B.1.1 Locate additions on the side or rear of your home where the character-defining elements and visual appearance of the front façade will not be obscured, damaged, or destroyed.

B.1.2 Ensure that additions do not detract from the historic appearance, character-defining elements, historic patterns, scale and proportions of the existing structure.

B.1.3 Provide consistency and continuity between the addition and the historic portions of your home by using similar materials, style, forms, massing and scale.
B.1.4 Do not exceed the established height of structures along the same street.

B.2 Building Site
B.2.1 Match the front setback of the historic buildings along the same side of the street. When the front setback pattern of the historic structures on the same side of the street varies, locate the addition between the minimum and maximum of the prevailing front setbacks.
B.2.2 Maintain the pattern and rhythm of the side yard setbacks of the other historic structures on the same side of the street.
B.2.3 Limit paving within the street yard to primary driveways and sidewalks. Curb cuts and new driveways through the street yard are strongly discouraged for properties with alley access.
B.2.4 On interior lots, limit the surface area of driveways and sidewalks to no more than 50% of the street yard lot area.
.1 Elmwood – no more than 25% of street yard lot area
B.2.5 On corner lots, limit the surface area of driveways and sidewalks to no more than 30% of the street yard lot area.

B.3 Building Materials and Elements
B.3.1 Use building materials that are consistent with the historic materials found on the existing structure.
B.3.2 The use of building materials different from historic materials will be considered on a case-by-case basis, if the proposed materials maintain the character of the structure and the historic size, shape, pattern, texture and directional orientation. Unfinished or clear-finished metals are not allowed.
B.3.3 Create a visual consistency and continuity with the building elements of the existing structure by replicating the height of windows and doors, window glazing patterns, roof forms, eave lines and overhangs, and special detailing present on the existing structure.

B.4 Roofs
B.4.1 New roof features, such as dormers or cupolas, may be added to the existing roof, if the proposed elements maintain the scale, proportions, rhythms, and architectural character of the structure.
B.4.2 On additions, use roof forms, slope, detailing, and roofing materials that are consistent with the historic portions of the existing structure. Installation of metal roofs will be considered on a case-by-case basis.
.1 Yorktown – Metal roofing is not allowed.

B.5 Porches
B.5.1 When adding a porch or expanding an existing porch, maintain the character, detailing, scale, rhythm, and proportions of the existing historic structure.
B.5.2 When enclosing porches with glass or screens, maintain the existing rhythms, scale, proportions, appearance, and character of the structure. Hard wall enclosure of porches is strongly discouraged but will be considered on a case-by-case basis.
B.5.3 Ramps may be installed when required to achieve access to the first-floor level. Construct the ramp so that, in the future, it can be removed without significantly altering the original historic structure. Designing ramps to access porches from the side, so the front elevation is not obscured, is encouraged.

B.7 Mechanical Systems, Etc.

B.7.1 Install engineering systems and their associated elements, such as, but not limited to, air conditioning and heating units, flues, conduits, cables, electrical boxes, ventilators, and louvers, on the side or rear façade of the structure.

B.7.2 Install utility meters on the side or rear façade of the house or underground in a subterranean vault.

B.7.3 Install systems requiring exterior components, such as solar panels or devices, where they will have minimal impact, preferably at the rear of your house or yard or on an outbuilding. Install exterior components on a historic building in a manner that does not damage the historic roofing material or negatively impact the building's historic character and is reversible. These considerations will be made on a case-by-case basis.

B.7.4 Installation of radio or television antennas, including satellite dishes and similar devices, not visible from abutting streets, as determined by staff, is exempt from HP Permit review

View north/northeast from 17th Street, 1995

View southeast from Quaker Avenue, 1995

Front (south) side of building, view northwest from 17th Street

East side of building, view north/northwest

Front (south) and west side of building, view northeast from 17th & Quaker intersection

West side of building, view east from Quaker Avenue

Rear (north) of building, view southeast from Quaker Avenue

Additional views of north side of building

Staircase on north side of building

Staircase on north side of building

Cortez Apartments Remodel Scope – 06.4.2026

The project consists of a general renovation and modernization of an existing three-story brick masonry apartment building containing nine above-grade apartment units and two below-grade basement units. The scope of work includes interior finish updates, kitchen millwork and appliance upgrades, bathroom fixture replacements, HVAC and lighting upgrades, installation of a fire suppression system, removal of unsafe egress components, and the addition and enhancement of balcony amenities.

Interior finish updates include new paint at interior walls, replacement of trim where necessary to match existing conditions, repairs to existing walls and ceilings as required, refinishing and resealing of existing wood flooring, and replacement of damaged tile where necessary. All finish updates are intended to be like-for-like in character and will not substantially alter the historic nature of the interior finishes.

Kitchen renovations include the removal and replacement of deteriorated appliances and millwork to improve functionality, ergonomics, and compatibility with contemporary appliance standards. Select units will include removal of one galley kitchen wall to improve spatial relationships and create a more open connection between kitchen and living areas.

Bathroom renovations include replacement of existing toilets and vanity sinks, which are currently mismatched and in disrepair, as well as removal of deteriorated bathtubs and installation of new shower assemblies. In the central apartment units, a small adjacent closet will be removed to expand the bathroom footprint and provide adequate contemporary clearances and improved vanity accommodations. The glass block windows in the above grade units will also be replaced with new glass blocks as necessary.

Egress improvements include removal of an existing exterior staircase located on the north-facing rear façade. The stair appears to have been added after the original construction of the building and is currently in a severely deteriorated and potentially unsafe condition. To accommodate the removal of this stair and maintain code-compliant life safety measures, a new fire suppression (sprinkler) system will be installed throughout the building.

Following removal of the exterior stair, the adjacent balconies will be expanded to provide additional resident amenity space and improve the overall aesthetic quality of the rear façade. In addition, a sunshade structure will be added above the upper-level balcony. The design of this element is intended to visually extend the existing roofline from the front façade to the rear façade, helping unify the architectural character of the building.

Cortez Apartments:
1331 E 17th St. Tulsa, OK 74120

This is a simplified list of updates or changes to the project:

- Interior wall paint
- Interior trim (replacement/matching where necessary)
- Existing walls and ceilings (repairs as required)
- Existing wood flooring (refinishing and resealing)
- Existing tile flooring/wall tile (replacement where necessary)
- Kitchen millwork/cabinetry
- Kitchen appliances
- Galley kitchen wall removal in select units
- Kitchen-to-living space layout/opening modifications
- Bathroom toilets
- Bathroom vanity sinks
- Existing bathtubs (removal)
- New shower installations
- Bathroom vanity upgrades
- Bathroom expansion in select units
- Adjacent bathroom closets (removal in select units)
- New HVAC systems
- Interior lighting systems updated and/or replaced
- Fire suppression/sprinkler system install
- Existing exterior egress staircase on north/rear façade (removal)

- Existing balconies (expansion/modification)
- Upgraded balcony amenity spaces
- New upper-level balcony sunshade/canopy structure

Job Name:	
Submitted By:	

Submittal Sheet For: WT018GLSI24HLG / YN018GLSI24RPG

Date _____

Ref. _____

Wall-Mounted Ductless 23SEER Inverter Heat Pump

System Full Set Model: **WYT018GLSI24RL**

AHRI Reference Number: **217048752**

Cooling Mode Performance

Rated Cooling	18,000 BTU/hr
Ambient Range	5~131°F
SEER2 Rating	23 BTU/W·h
EER2 Rating	12.5 BTU/W·h

* 100% Capacity @ Indoor DB 80°F / WB 67°F

Heating Mode Performance

Rated Heating	19,000 BTU/hr
Ambient Range	-13~86°F
HSPF2 IV (V)	10 (8.2) BTU/W·h
COP2 (47°F)	3.64 W/W

Low Heat (17°F) = 15,000 BTU / COP2 (5°F) = 1.8 W/W

Wall-Mounted Indoor Unit

Outdoor Condensing Unit

User-Selected Installation Kit

Handheld Remote Controller

Electrical Information

	Cooling	Heating
Rated Input (W)	1,390	1,360
Rated Current (A)	6.2	6.1
Breaker Needed	20A (Double-Pole)	
Power Supply	**208~230V, 1Ph, 60Hz**	

Piping and Refrigerant

Liquid Line (OD)	1/4 in
Suction Line (OD)	1/2 in
Refrigerant Precharge	R-454b(Supports 10-50ft.)
Max Length/Height Diff.	65 ft. / 50 ft.

This combination is Energy-Star certified.

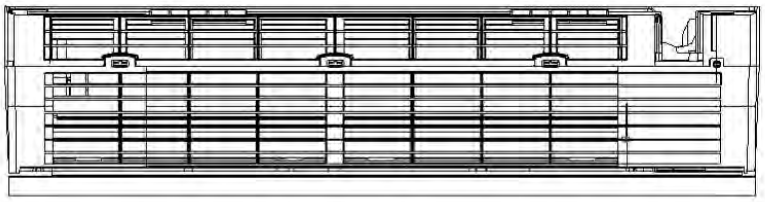
ENERGY STAR

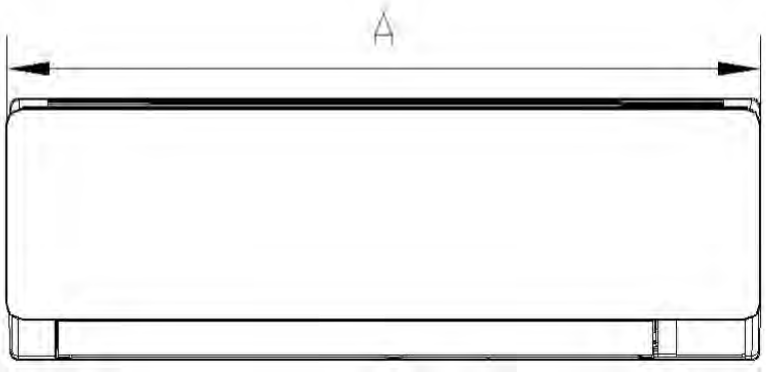
Interior Unit (Air Handler) Specifications

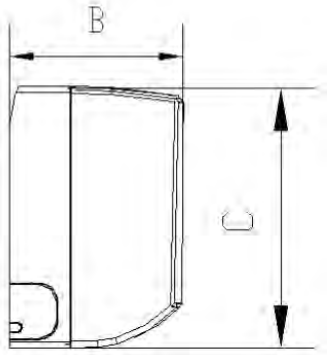
Type	Heat Pump
Sound Level (dBA)	50 (Turbo) / 47 (Hi) / 43 (Med) / 38 (Lo) / 34 (Mute)
Auto Air Circulation	2-Way Louver (Up-Down + Left-Right)
Dimensions (WDH)	43-1/8 in x 8-3/4 in x 13 in
Weight (lbs)	30.9

Exterior Unit (Condenser) Specifications

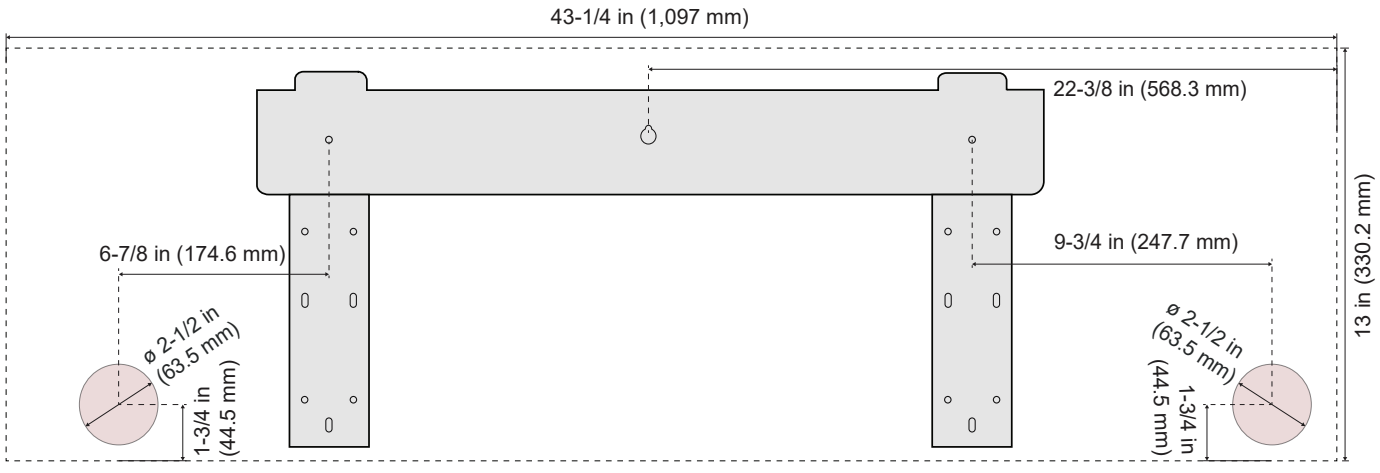
Sound Level (dBA)	53
Recommended Room Size	500~750 Sq. ft.
Minimum Room Size	51 Sq. ft.
Compressor	Inverter-Driven Rotary
Dimensions (WDH)	36-1/2 in x 15 in x 27-1/2 in
Weight (lbs)	90.4



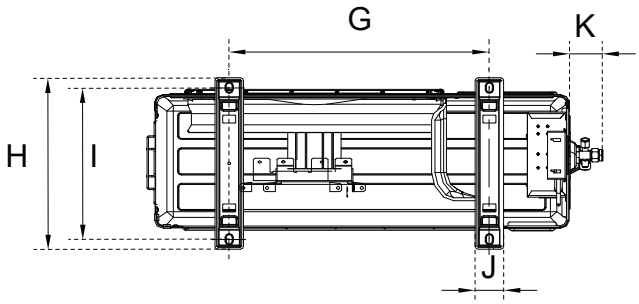




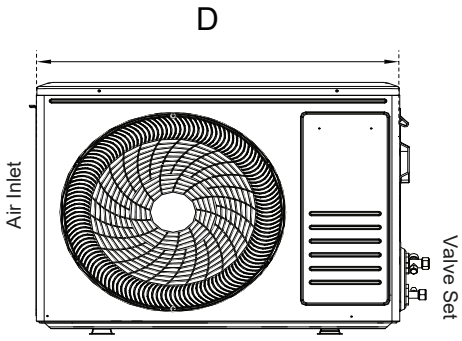
Model	A	B	C
WT018GLSI24HLG	43-1/4 in	8-3/4 in	13-1/8 in
	1,097 mm	222 mm	331.8 mm



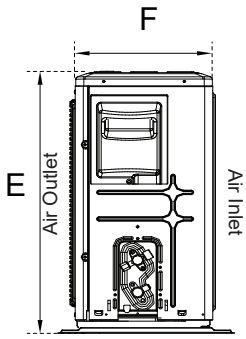
YN018GLSI24RPG Condenser Unit Dimensional Data



Underside View



Front View



Side View

Model	D	E	F	G	H	I	J	K
YN018GLSI24RPG	33-1/4 in	27-1/2 in	12-7/8 in	23-1/8 in	14-3/4 in	13-3/4 in	2-1/8 in	2-1/4 in
	845 mm	699 mm	326 mm	586 mm	375 mm	348 mm	55 mm	55.9 mm

Warranty Information and Length

Complete warranty details are available with the vendor or online at https://www.pdhvac.com/support/warranty/. This high quality system is eligible for up to 10 years limited warranty on the compressor, and 7 years on other internal parts. To qualify for this warranty, the system must be installed within 90 days by a registered technician. All other installations that are registered default to 5 years parts/ compressor. Products unregistered qualify for only 1 year parts/ compressor warranty.

Outstanding Features

- LED Display
- Energy Saving
- Ultra-Thin Design
- Dual Drain Options
- Customizable Timer
- Eco-Friendly Refrigerant
- Whisper-Quiet Operation
- Power Loss Memory Recovery

airlink

WiFi

Available Accessories

Part Number	Description
IKT-LCVR4P-KIT	*Decorative PVC Line Cover Kit*
IKT-LNBR-1/4-3/8	*BendAid Flexible Easy Bender Kit*
BRK-FRM-C-2P	*Folding Mounting Bracket w/ Leveler*
IKT-UVL32UL-AG	*UVC Bacterial Disinfection Kit*
IKT-SURPRK-DV2	*Ultimate Surge and Power Protection*

CORTEZ FLATS

1329 EAST 17TH STREET
100% CONSTRUCTION DOCUMENTS
05.20.2026

SHEET INDEX:

STUDIO 45 ARCHITECTS
1648 Southwest Blvd Tulsa, OK 74107
www.s45architects.com

CORTEZ FLATS
1329 EAST 17th STREET
TULSA, OKLAHOMA
100% CONSTRUCTION DOCUMENTS

MARK	DESCRIPTION	DATE

STATE OF OKLAHOMA
KATIE LOUISE VESELY HUISENGA
No. a6401
TULSA OKLA.
LICENSED ARCHITECT
05.20 2026

PROJECT NO: 100-253
ISSUE DATE: 05/20/2026

COVER SHEET

G-000

LIFE SAFETY LEGEND

1 / 340 / 5'-8" — PAIR DOORS; 1 / 160 / 2'-8" — SINGLE DOOR	ACTUAL OCCUPANTS EXITING; MAXIMUM OCCUPANTS; EGRESS WIDTH AT THIS EXIT
OFFICE	ROOM NAME
112	ROOM NUMBER
120 SF / 100	SQUARE FEET / OCCUPANCY PER OCCUPANT
2	TOTAL OCCUPANTS

TRAVEL DISTANCE LENGTH

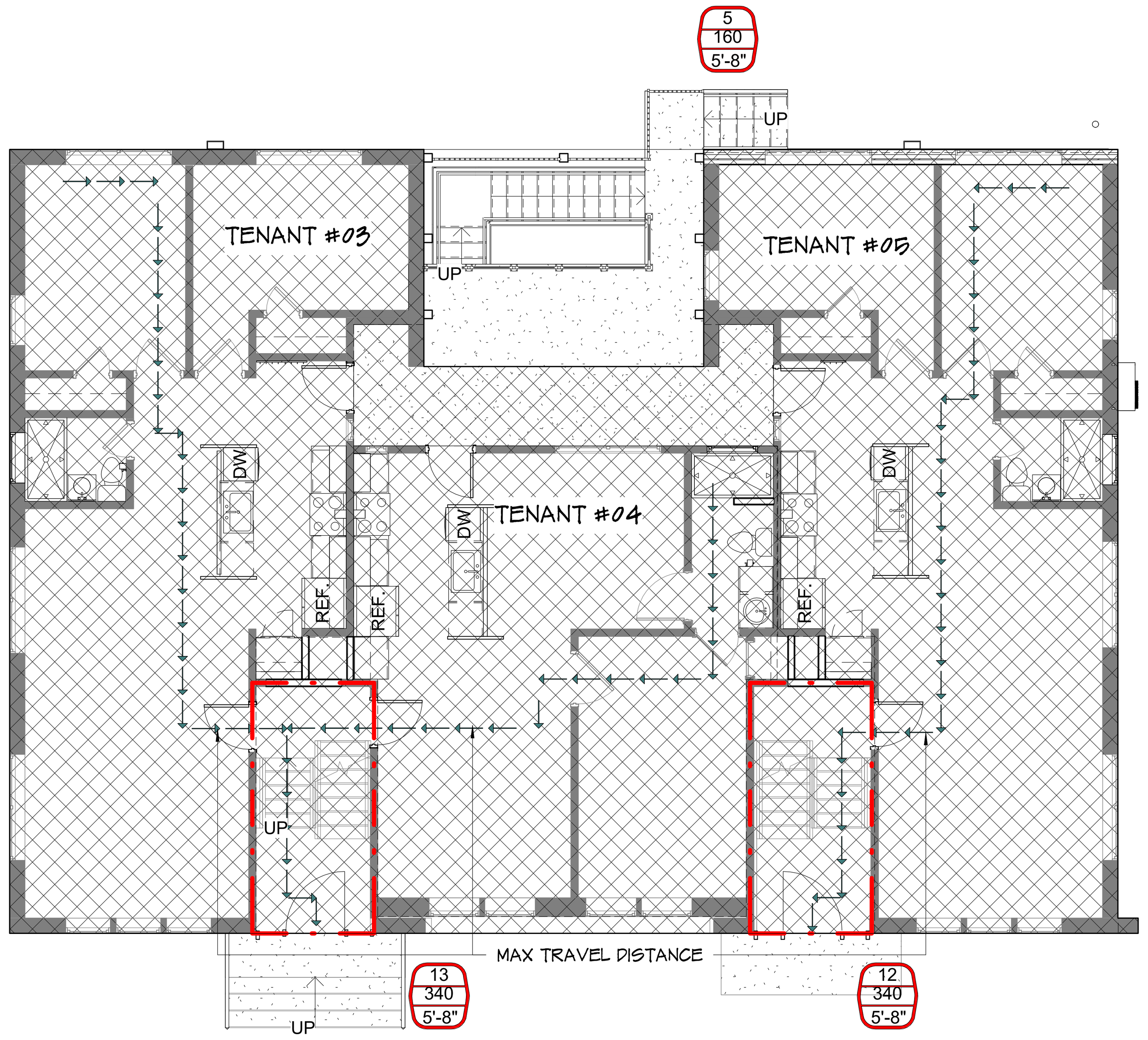
SMOKE BARRIER

30 MINUTE FIRE BARRIER

AREA TO BE SPRINKLED

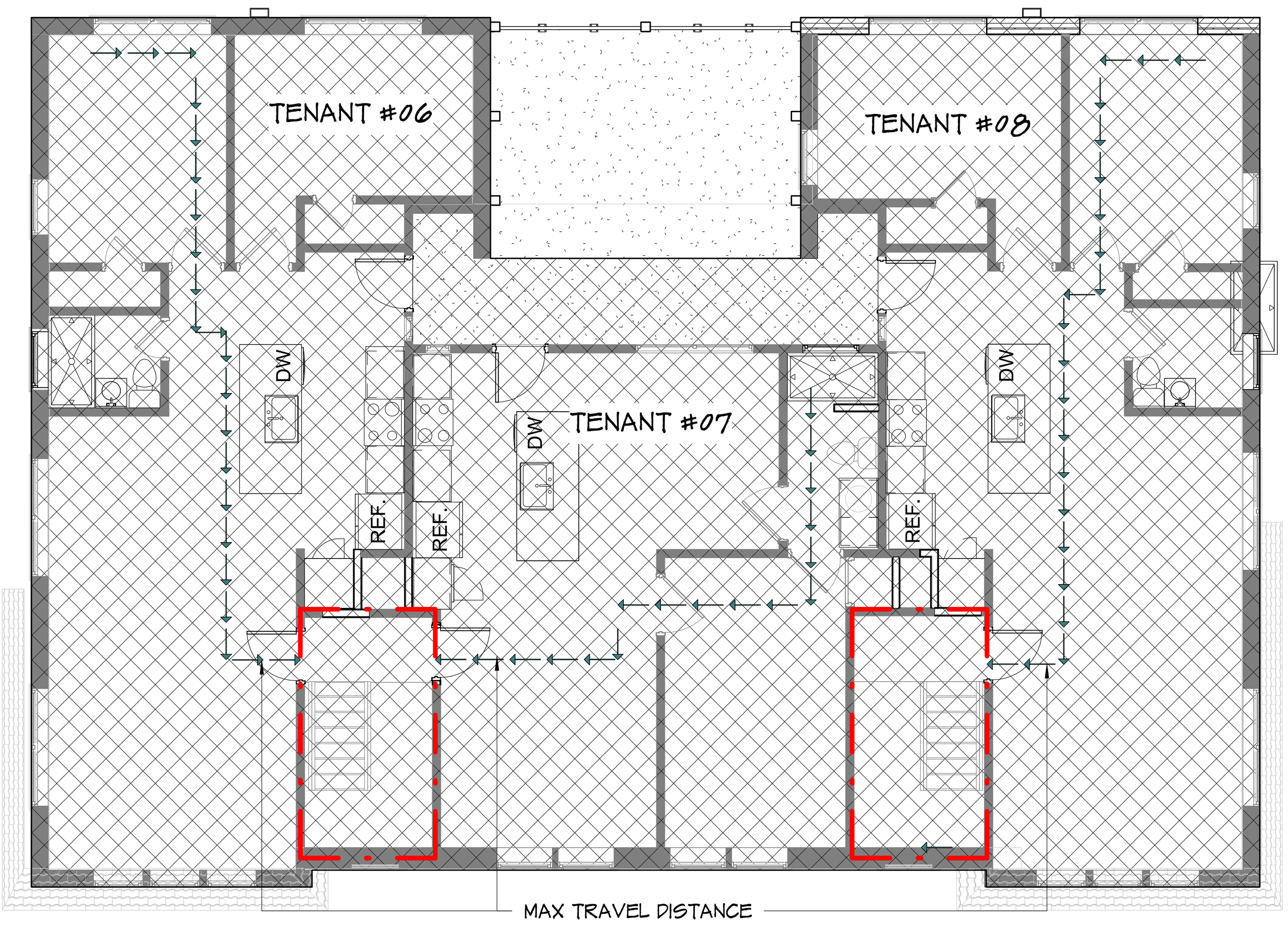
FIRE EXTINGUISHER LEGEND

FEC	SEMI RECESSED FIRE EXTINGUISHER CABINET & FIRE EXTINGUISHER. A, B FIRES ON BUSINESS OCCUPANCIES = 75 FT OF TRAVEL	FEX	BRACKET MOUNTED FIRE EXTINGUISHER A, B FIRES ON BUSINESS OCCUPANCIES = 75 FT OF TRAVEL A, B FIRES ON STORAGE OCCUPANCIES = 50 FT OF TRAVEL



5 FIRST FLOOR LIFE SAFETY PLAN

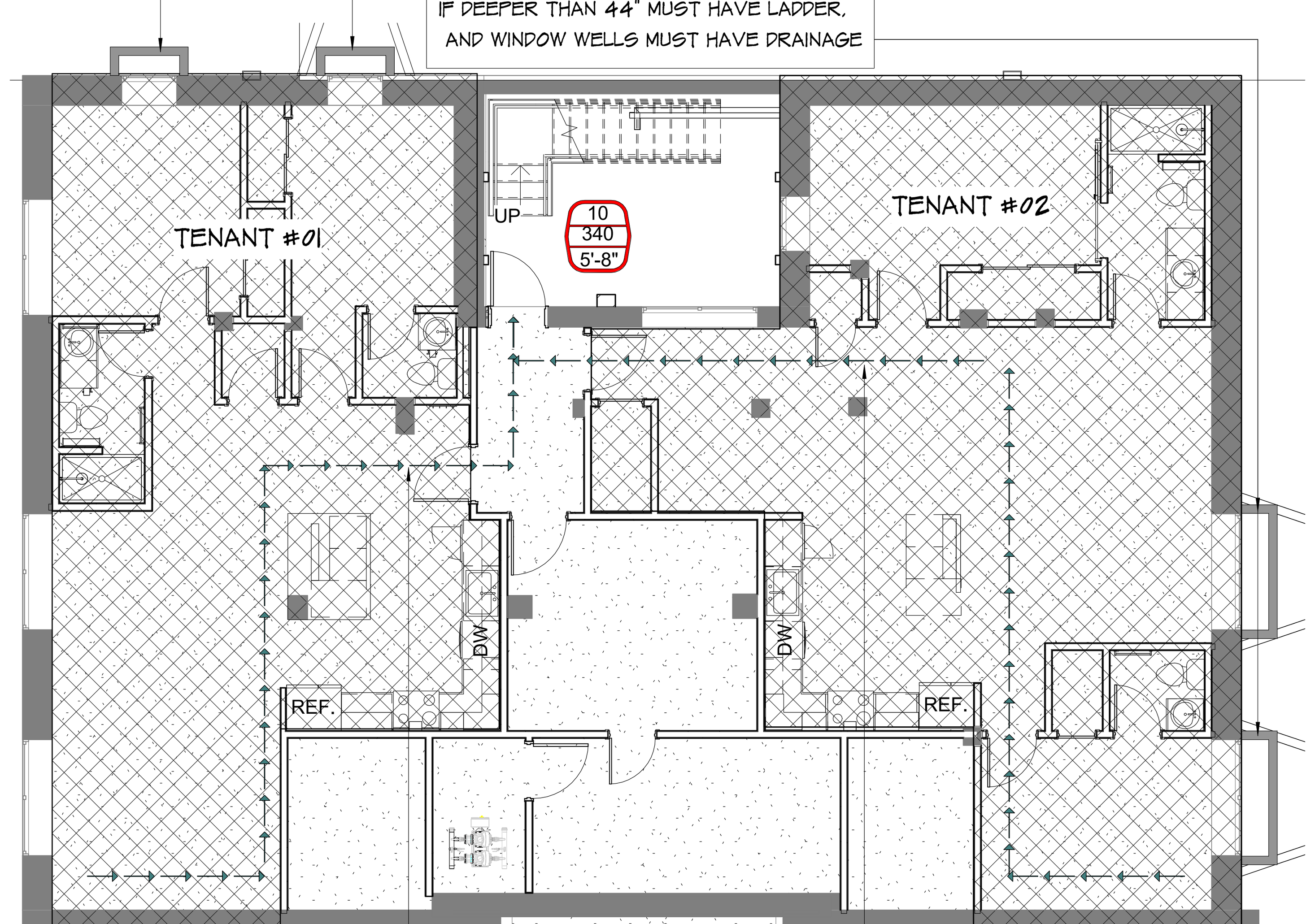
1/8" = 1'-0"



4 THIRD FLOOR LIFE SAFETY PLAN

1/8" = 1'-0"

IRC 2018 - R310.2.3
MIN. 5 SQ/FT & MIN. 36" WIDE.
IF DEEPER THAN 44" MUST HAVE LADDER,
AND WINDOW WELLS MUST HAVE DRAINAGE



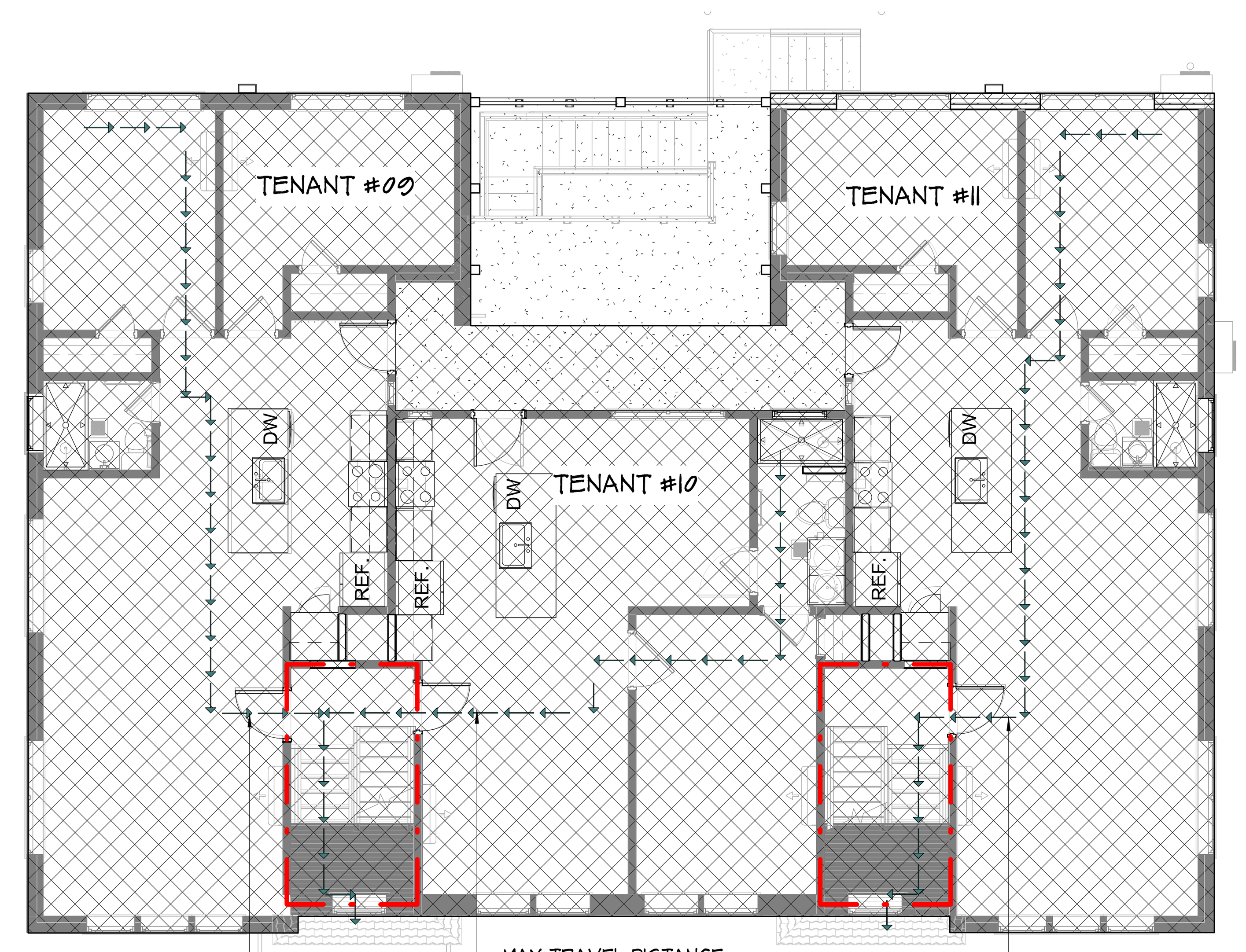
986 SF /200 = 5 OCCUPANTS
ONE EXIT REQUIRED

MAX TRAVEL DISTANCE

986 SF /200 = 5 OCCUPANTS
ONE EXIT REQUIRED

3 BASEMENT LIFE SAFETY PLAN

1/8" = 1'-0"



2 SECOND FLOOR LIFE SAFETY PLAN

1/8" = 1'-0"

BUILDING CODE INFORMATION IBC 2018

AUTHORITY HAVING JURISDICTION (AHJ): CITY OF TULSA

A. APPLICABLE BUILDING CODES:

BUILDING CODE	INTERNATIONAL BUILDING CODE	2018 EDITION
BUILDING CODE	INTERNATIONAL EXISTING BUILDING CODE	2018 EDITION
FIRE CODE	INTERNATIONAL FIRE CODE	2018 EDITION
MECHANICAL	INTERNATIONAL MECHANICAL CODE	2018 EDITION
ELECTRICAL	NATIONAL ELECTRICAL CODE	2018 EDITION
PLUMBING	INTERNATIONAL PLUMBING CODE	2018 EDITION

B. OCCUPANCY CLASSIFICATION: CHAPTER 3

USE GROUP R-2, RESIDENTIAL (SECTION 310.3)

C. HEIGHT AND AREA: CHAPTER 5 (ABOVE GRADE PLANE)

ALLOWABLE BUILDING HEIGHT (TABLE 504.3) - R2, SR13, V-B = **36'** (PASS)
ALLOWABLE NUMBER OF STORIES (TABLE 504.4) - R2, SR13, V-B = **3 STORIES** (PASS)
ALLOWABLE BUILDING AREA - (TABLE 506.2) - R2, SR13, V-B = 7,000 SF (PASS)
EXISTING BUILDING = 11,234 </= 16,000 SF AND EXISTING BUILDING HEIGHT = 41'-0".
(PASS)

D. TYPES OF CONSTRUCTION: CHAPTER 6 - TABLE 601

1. FIRE RESISTANCE RATINGS FOR BUILDING ELEMENTS - TABLE 601 TYPE II-B

STRUCTURAL FRAME:	0 HRS
EXTERIOR BEARING WALLS:	0 HRS
INTERIOR BEARING WALLS:	0 HRS
INTERIOR PARTITIONS	0 HRS
ROOF CONSTRUCTION:	0 HRS
FLOOR CONSTRUCTION:	0 HRS

2. TABLE 602 - RATED EXTERIOR WALLS BASED ON SEPARATION DISTANCE
   - $X < 5' = 1\text{-HR}$
   - $5' \leq X < 10' = 1\text{-HR}$
   - $10' \leq X < 30' = 1\text{-HR}$
   - $X \geq 30' = 0\text{-HR}$

NEAREST BUILDING AWAY 35'-0". NO RATED WALL SEPARATION REQUIRED

$If = [F/P - .25] W/30$
$If = [180/226 - .25] 30/30$
If = 54.6%

$Aa = [At + (NS \times If)] \times Sa$
$Aa = [7{,}000 + (7{,}000 \times 54.6\%)] \times 3$
$Aa = [7{,}000 + 3{,}822] \times 3$
Aa = **32,466** NO INDIVIDUAL STORY SHALL NOT EXCEED
THE ALLOWABLE AREA OF Sa = 1 = 10,822 SF. PASS

E. INTERIOR FINISHES: CHAPTER 8

1. TABLE 803.11 INTERIOR WALL AND CEILING FINISH REQUIREMENTS BY OCCUPANCY
   R-2, SPRINKLERED:
   INTERIOR EXIT STAIRS, RAMPS, EXIT PASSAGEWAYS = CLASS C FINISH (NOTE b)
   CORRIDORS AND EXIT ENCL. FOR EXIT ACCESS STAIRS AND RAMPS = CLASS C FINISH
   ROOMS AND ENCLOSED SPACES = CLASS C FINISH

F. FIRE PROTECTION SYSTEMS: CHAPTER 9

1. PORTABLE FIRE EXTINGUISHERS (906.1) SHALL BE PROVIDED IN OCCUPANCIES AND LOCATIONS AS REQUIRED BY THE INTERNATIONAL FIRE CODE COMPLYING WITH NFPA 10.
   MAXIMUM TRAVEL DISTANCE TO EXTINGUISHER = 75'
   MAXIMUM AREA PER EXTINGUISHER = 11,250 SF
2. AUTOMATIC FIRE ALARM SYSTEM (907.1)
   907.1.2 - BY SHOP DRAWING SUBMITTAL - REQUIRED
3. AUTOMATIC FIRE SPRINKLER SYSTEM (903) - NON-SPRINKLERED, NOT REQUIRED
   IEBC 2018 FIRE PROTECTION: ALTERATIONS SHALL BE DONE IN A MANNER THAT MAINTAINS THE LEVEL OF FIRE PROTECTION (LEVEL 1 AND LEVEL 2).
   WILL ADD SPRINKLER SYSTEM.
4. PROVIDE ONE CARBON MONOXIDE ALARM, AND ONE SMOKE ALARM PER SLEEPING AREA.

G. MEANS OF EGRESS: CHAPTER 10

1. MAXIMUM FLOOR AREA PER OCCUPANT (TABLE 1004.1.2)
   RESIDENTIAL: 200 SF / OCCUPANT
2. EGRESS WIDTH PER OCCUPANT (TABLE 1005.1)
   a. STAIRWAYS: 0.3 INCHES/OCCUPANT
   b. OTHER EGRESS COMPONENTS: 0.2 INCHES/OCCUPANT
      i. SINGLE DOOR CAPACITY 214 OCCUPANTS
      ii. DOUBLE DOOR CAPACITY 340 OCCUPANTS
   c. ENCLOSED STAIRWAYS (1007.3) - NOT APPLICABLE
3. TABLE 1017.2 EXIT ACCESS TRAVEL DISTANCE
   a. OCCUPANCY A, NONSPRINKLERED
   b. TRAVEL DISTANCE = 200 FEET MAX.
6. DEAD ENDS (1020.4)
   MAXIMUM LENGTH = 20 FEET, OR UNLIMITED WHERE LENGTH IS LESS THAN 2.5 X WIDTH
7. NUMBER OF EXITS (TABLE 1006.3.1)
   a. 1-500 OCCUPANTS 2 EXITS (PER STORY)
   OCCUPANT LOAD = 58 OCCUPANTS

I. ENERGY EFFICIENT (CHAPTER 13)

1. EXISTING TO REMAIN UNALTERED.

J. PLUMBING SYSTEMS (CHAPTER 29)

1 TOILET PER UNIT
1 LAVATORY PER UNIT
1 BATHTUB OR SHOWER PER UNIT
0 DRINKING FOUNTAINS
1 KITCHEN SINK PER UNIT,
1 AUTOMATIC CLOTHES WASHER CONNECTION
PER DWELLING UNIT (NOT REQUIRED)

BUILDING CODE INFORMATION IEBC 2018

LEVEL 1 ALTERATIONS: LEVEL 1 ALTERATIONS INCLUDE THE REMOVAL AND REPLACEMENT OR THE COVERING OF EXISTING MATERIALS, ELEMENTS, EQUIPMENT OR FIXTURES USING NEW MATERIALS, ELEMENTS, EQUIPMENT OR FIXTURES THAT SERVES THE SAME PURPOSE.

***LEVEL2 ALTERATIONS:** LEVEL 2 ALTERATIONS INCLUDE THE ADDITION OR ELIMINATION OF ANY DOOR OR WINDOW, THE RECONFIGURATION OR EXTENSION OF ANY SYSTEM, OR THE INSTALLATION OF ANY ADDITIONAL EQUIPMENT, AND SHALL APPLY WHERE THE WORK AREA IS EQUAL TO OR LESS THAN 50% OF THE BUILDING AREA.

LEVEL 3 ALTERATIONS: LEVEL 3 ALTERATIONS APPLY WHERE THE WORK AREA EXCEEDS 50% PERCENT OF THE BUILDING AREA.

*ALTERATION LEVEL 2:

A) **BUILDING ELEMENTS AND MATERIALS** - SHALL COMPLY WITH IBC REQUIREMENTS
B) **FIRE PROTECTION - 802.2.1** EXISTING STAIR ENCLOSURE MUST BE 30-MINUTE FIRE RATED
C) **FIRE PROTECTION 803.2.2 GROUP R-2** WORK AREA IS LESS THAN 50% OF THE FLOOR AREA.
D) **FIRE ALARM SECTION 803.4.1.6 GROUP R-2.** A FIRE ALARM SHALL BE INSTALLED IN WORK AREAS OF GROUP R-2 APARTMENT BUILDINGS REQUIRED BY THE INTERNATIONAL FIRE CODE FOR EXISTING GROUP R-2 OCCUPANCIES. - AUTOMATIC SPRINKLERED SYSTEM PROVIDED.
E) **CARBON MONOXIDE DETECTION - SECTION 804 - ONE PER UNIT.**
F) **SMOKE ALARMS - SECTION 803.4.3 - ONE PER SLEEPING UNIT.**
G) **MEANS OF EGRESS - SECTION 805.2 GENERAL EXCEPTION #2.** MEANS OF EGRESS COMPLYING WITH THE REQUIREMENTS OF THE BUILDING CODE UNDER WHICH THE BUILDING WAS CONSTRUCTED SHALL BE CONSIDERED TO BE COMPLIANT MEANS OF EGRESS IF, IN THE OPINION OF THE CODE OFFICIAL, THEY DO NOT CONSTITUTE A DISTINCT HAZARD TO LIFE.

H. **SECTION 805.3.1.1 SINGLE EXIT BUILDINGS. (BASEMENT)**
1) 2.1. THE OCCUPANT LOAD IS NOT GREATER THAN 10 OCCUPANTS AND THE EXIT ACCESS TRAVEL DISTANCE WITHIN THE UNIT DOES NOT EXCEED 75 FEET. BASEMENT USING ONE STAIR AND UNDER 10 OCCUPANTS. PASS
2) THE MINIMUM CEILING HEIGHT OF THE NEWLY CREATED HABITABLE AND OCCIPITAL SPACES AND CORRIDORS SHALL BE 7'-0" IN ACCORDANCE WITH **SECTION 801.3**
3) GUARDRAILS AND HANDRAIL SHALL BE UPGRADED TO MEET IBC 2018. 60 EXIT SIGN SHALL BE INSTALLED.

J. **ELECTRICAL** - IN GROUPS R-2 OCCUPANCIES AND BUILDING REGULATED BY THE INTERNATIONAL RESIDENTIAL CODE THROUGH 807.3.7 SHALL BE APPLICABLE ONLY TO WORK AREAS LOCATED WITHIN THE DWELLING UNIT.

K. **IEBC** - 305.6 ALTERATIONS: EXCEPTIONS. (ACCESSIBLY) **ACCESSIBLE UNIT NOT REQUIRED.**
1. THE ALTERED ELEMENT OR SPACE IS NOT REQUIRED TO BE ON AN ACCESSIBLE ROUTE, UNLESS REQUIRED BY SECTION 305.7. **ROUTE NOT REQUIRED.**
2. ACCESSIBLE MEANS OF EGRESS REQUIRED BY CHAPTER 10 OF THE INTERNATIONAL BUILDING CODE ARE NOT REQUIRED TO BE PROVIDED IN EXISTING FACILITIES. **NOT REQUIRED.**
3. EXCEPTION. DOES NOT APPLY.
4. TYPE B DWELLING OR SLEEPING UNITS REQUIRED BY SECTION 1107 OF THE INTERNATIONAL BUILDING CODE ARE NOT REQUIRED TO BE PROVIDED IN EXISTING BUILDINGS AND FACILITIES UNDERGOING ALTERATIONS WHERE THE WORK AREA IS 50 PERCENT OR LESS OF THE AGGREGATE AREA OF THE BUILDING. - **AREA OF WORK LESS THAN 50 PERCENT.**

PROPOSED PROJECT

1 SITE PLAN

1" = 40'-0"

STUDIO 45 ARCHITECTS
1648 Southwest Blvd Tulsa, OK 74107
www.s45architects.com

CORTEZ FLATS

1329 EAST 17th STREET
TULSA, OKLAHOMA

100% CONSTRUCTION DOCUMENTS

MARK	DESCRIPTION	DATE

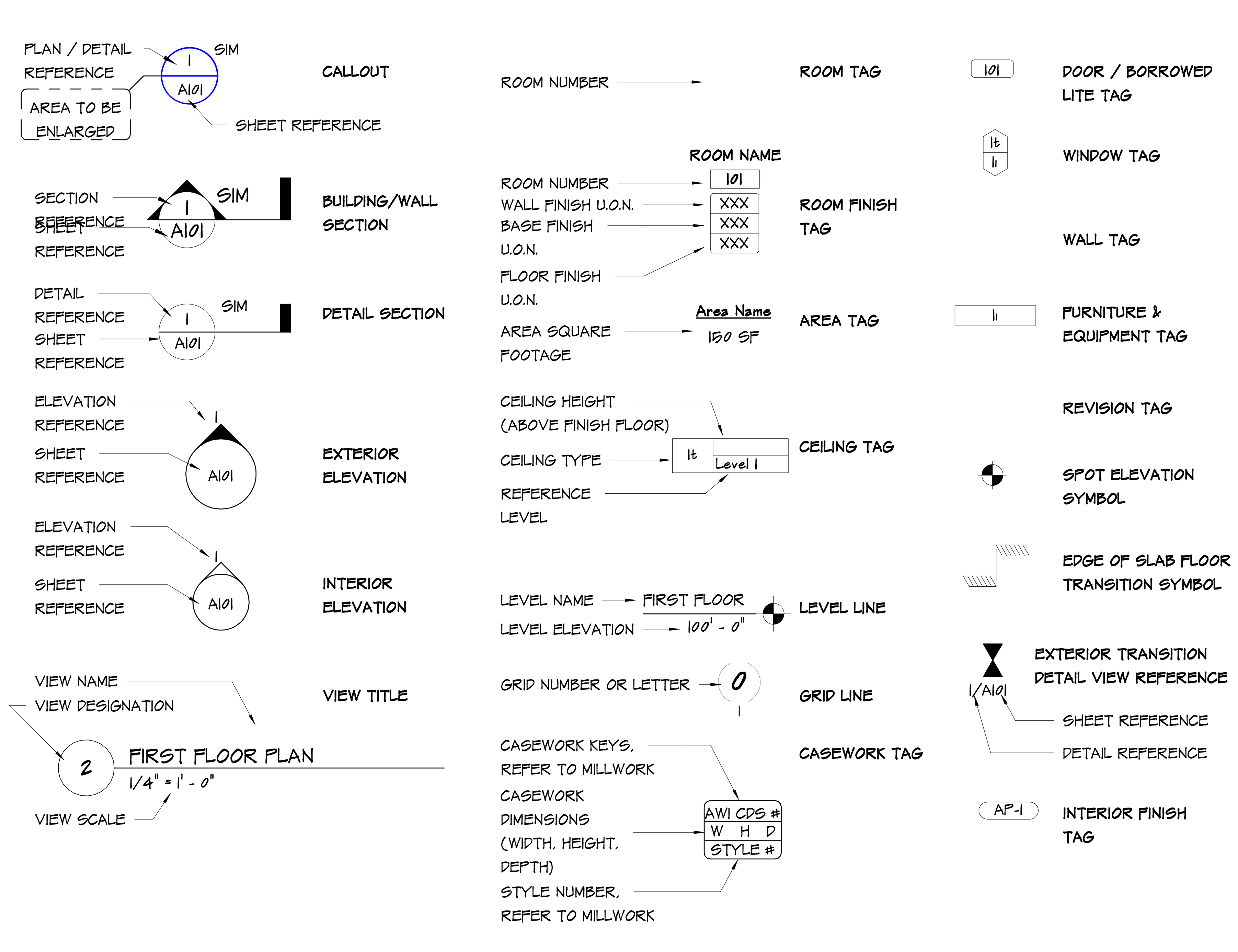
STATE OF OKLAHOMA — KATIE LOUISE VESELY HUSEMAN — No. 06401 — LICENSED ARCHITECT — 05.20.2026

PROJECT NO: 100-253
ISSUE DATE: 05/20/2026

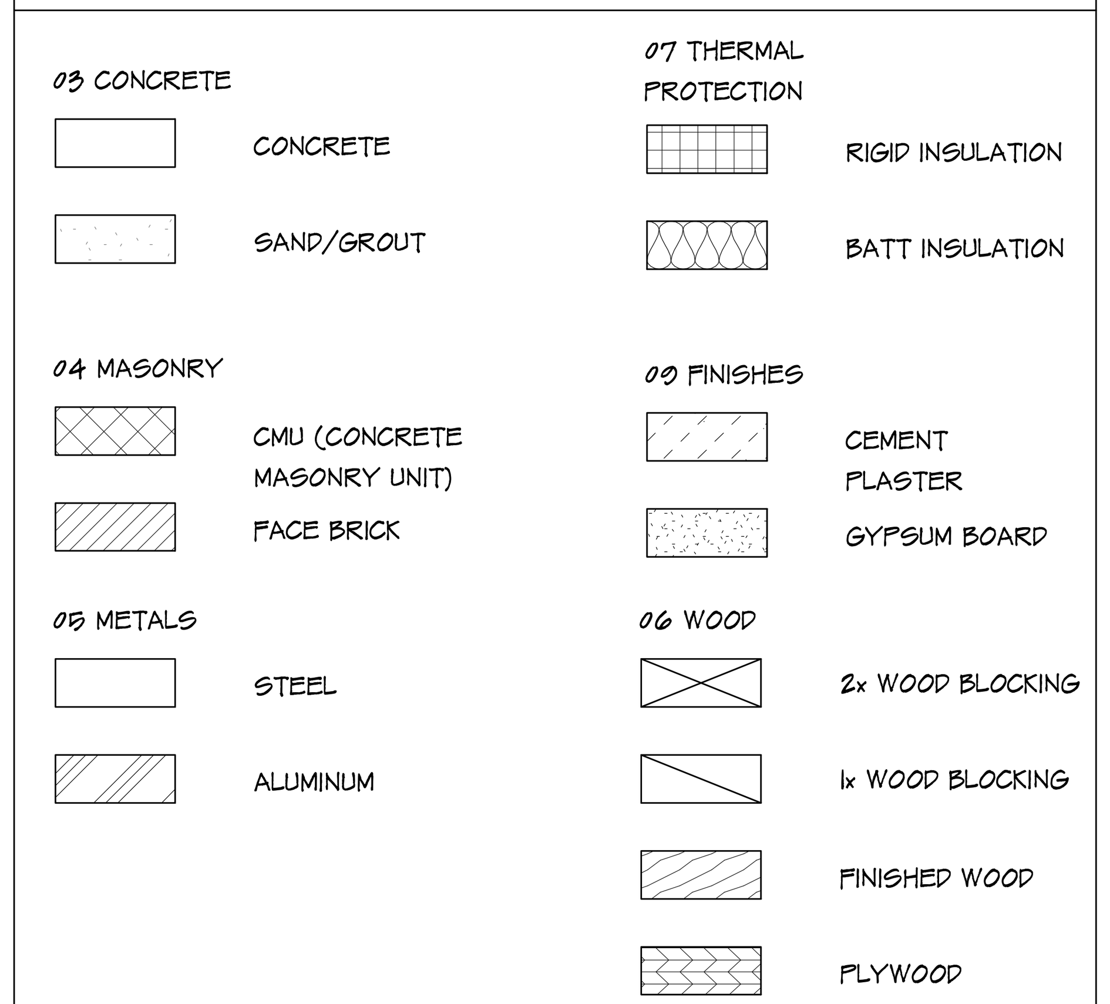
LIFE SAFETY PLANS

G-001

SYMBOLS LEGEND REFERENCE



MATERIALS LEGEND



SIGNAGE GENERAL NOTES

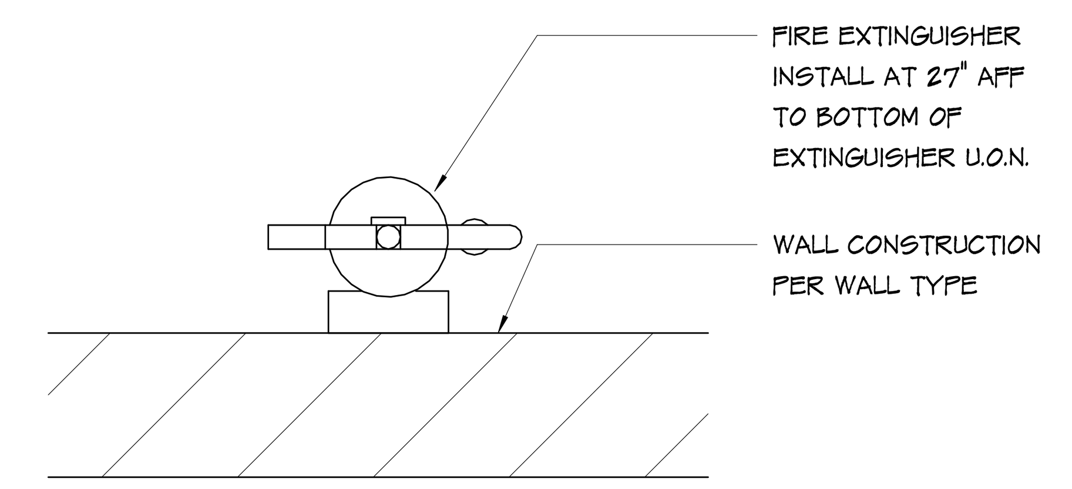
1. SIGNS SHALL BE ADA / ACCESSIBILITY COMPLIANT. REFERENCES: ICC A117.1, CHAPTER 7
2. LETTERS AND NUMERALS OF SIGNS SHALL BE FINISHED AS STATED IN THE FINISH NOTES (UNLESS NOTED OTHERWISE) & SHALL BE ENGRAVED.
3. LETTERS AND NUMERALS SHALL BE AT LEAST 5/8" IN HEIGHT BUT NO MORE THAN 2" IN HEIGHT.
4. PICTOGRAMS SHALL BE ACCOMPANIED BY THE EQUIVALENT VERBAL DESCRIPTION PLACED DIRECTLY BELOW THE PICTOGRAM. THE BORDER DIMENSION OF THE PICTOGRAM SHALL BE 6 IN. MIN. IN HEIGHT.
5. GRADE 2 LITERARY BRAILLE SHALL BE ACCOMPANIED BY LETTERING.
6. SIGNS SHALL BE INSTALLED ON THE WALL ADJACENT TO THE LATCH SIDE OF THE DOOR.
7. MOUNTING LOCATION SHALL BE SO THAT A PERSON MAY APPROACH WITH IN 3 IN. OF SIGNAGE WITHOUT ENCOUNTERING PROTRUSION OBJECTS OR STANDING WITHIN THE SWING OF A DOOR.
8. ROOM NAMES AND NUMBERS ARE FOR BIDDING PURPOSES ONLY, TO BE CONFIRMED BY OWNER.
9. PROVIDE SHOP DRAWINGS FOR APPROVAL INCLUDING SIGN TYPES, MOUNTING DETAILS, VERBIAGE, AND LOCATION.
10. SIGNS TO MATCH INNERFACE SIGN SYSTEM "CONVEX/PLUS LINE".
11. INTERIOR SIGNS ARE AFFIXED UTILIZING DOUBLE SIDED FOAM TAPE. SIGNS ON GLASS ARE TO HAVE A MATCHING BACK PLATE AND CONCEALED MOUNTING HARDWARE, UNLESS NOTED OTHERWISE.
12. EXTERIOR SIGNS TO BE MECHANICALLY AFFIXED WITH CONCEALED MOUNTING HARDWARE, RUST PROOF.
13. SCOPE OF WORK INCLUDES SIGNS THAT ARE PERMANENTLY ASSIGNED AND REQUIRED BY LOCAL CODE
14. FOR ROOMS WITH MORE THAN ONE ENTRANCE, PROVIDE ONE SIGN PER DOOR. GENERAL CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE QUANTITY OF SIGNS.

ACCESSIBILITY GENERAL NOTES

1. CONTRACTOR IS RESPONSIBLE FOR VERIFYING INSTALLATION IS IN COMPLIANCE WITH ACCESSIBILITY STANDARDS.
2. NOTIFY ARCHITECT IF CONFLICTS ARE DISCOVERED BETWEEN TYPICAL ACCESSIBILITY DETAILS AND DETAILS SHOWN ELSEWHERE.
3. DETAILS ON THIS SHEET ARE GUIDELINES AND MAY NOT NECESSARILY BE USED IN THIS PROJECT. REFER TO ARCHITECTURAL DRAWINGS FOR ACTUAL DESIGN CONFIGURATIONS.
4. A COPY OF ACCESSIBILITY STANDARDS IS AVAILABLE AT THE ARCHITECT'S OFFICE UPON REQUEST. CONTRACTOR SHALL KEEP A COPY ON SITE AT ALL TIMES AND REFERENCE IT FOR ALL ACCESSIBILITY ISSUES.
5. ACCESSIBLE ROUTE: OVERHANGING VERTICAL OBSTRUCTIONS LESS THAT 6'-8" ABOVE GRADE/FIN. FLOOR NOT ALLOWED AT ANY POINT ALONG ACCESSIBLE ROUTE. TRIM TREE BRANCHES OVERHANGING PATHS TO ACCOMMODATE THIS REQUIREMENT.

GENERAL NOTES

1. FURNISH ALL LABOR, MATERIALS, TOOLS, TRANSPORTATION, EQUIPMENT, SERVICES AND FACILITIES REQUIRED FOR THE COMPLETE INSTALLATION OF ALL WORK SHOWN IN THE CONTRACT DOCUMENTS. THE WORK SHALL ALSO INCLUDE ALL MATERIAL, EQUIPMENT AND APPARATUS NOT SHOWN BUT WHICH ARE NECESSARY TO MAKE A COMPLETE WORKING INSTALLATION OF SYSTEMS. THE DRAWINGS AND SPECIFICATIONS ARE NOT FABRICATION DRAWINGS OR STEP-BY-STEP INSTRUCTIONS. THEIR INTENT IS TO ESTABLISH THE MINIMUM STANDARD OF PERFORMANCE THAT IS ACCEPTABLE FOR THIS PROJECT. ALL WORK AND EVERY DEVICE IS NOT NECESSARILY DESCRIBED OR INDICATED. THE CONTRACTOR IS EXPECTED TO INCLUDE THESE ITEMS IN HIS BID BY HIS FORESIGHT FROM PREVIOUS EXPERIENCE.
2. CONTRACTORS SHALL FAMILIARIZE THEMSELVES WITH THE CONTRACT DOCUMENTS INCLUDED IN THE BID PACKAGE PRIOR TO SUBMITTING A BID. FIELD MEASURING AND COORDINATION OF ALL TRADES IS MANDATORY. NOTIFY THE ARCHITECT OF ANY DISCREPANCIES, OMISSIONS, OR BUILDING CONDITIONS THAT WOULD INTERFERE WITH THE SATISFACTORY COMPLETION OF THE WORK PRIOR TO BEGINNING WORK IN THE AREA OF THE DISCREPANCY.
3. IT IS THE RESPONSIBILITY OF THE CONTRACTORS TO WORK WITH THE CITY, STATE OR OTHER GOVERNING AGENCY AND TO SATISFY THEIR REQUIREMENTS. THE WORK AND MATERIALS THAT ARE PART OF THIS RESPONSIBILITY ARE TO BE INCLUDED IN THE BID. SUPPLY AND INSTALL THE WORK AND SYSTEMS INDICATED IN THE CONTRACT DOCUMENTS IN A COMPLETE WORKING ORDER, SATISFYING ALL APPLICABLE CODES AND ORDINANCES.
4. ALL WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG).
5. DO NOT SCALE DRAWINGS.
6. "TYP" SHALL MEAN "TYPICAL" AND THAT THE CONDITION IS REPRESENTATIVE FOR SIMILAR CONDITIONS THROUGHOUT. UNLESS NOTED OTHERWISE, DETAILS ARE USUALLY KEYED AND NOTED "TYP." ONLY ONCE.
7. "SIM" SHALL MEAN "SIMILAR" WITH COMPARABLE CHARACTERISTICS FOR THE CONDITION NOTED. VERIFY DIMENSIONS AND ORIENTATIONS ON PLANS AND ELEVATIONS.
8. FIELD VERIFY ALL DIMENSIONS. IF ANY DISCREPANCIES ARE FOUND BETWEEN WHAT IS SHOWN IN THE DOCUMENTS AND WHAT EXISTS IN THE FIELD, CONTACT THE ARCHITECT TO DETERMINE WHAT SHOULD BE DONE. BEGINNING OF FABRICATION MEANS ACCEPTANCE OF GENERAL CONDITIONS.

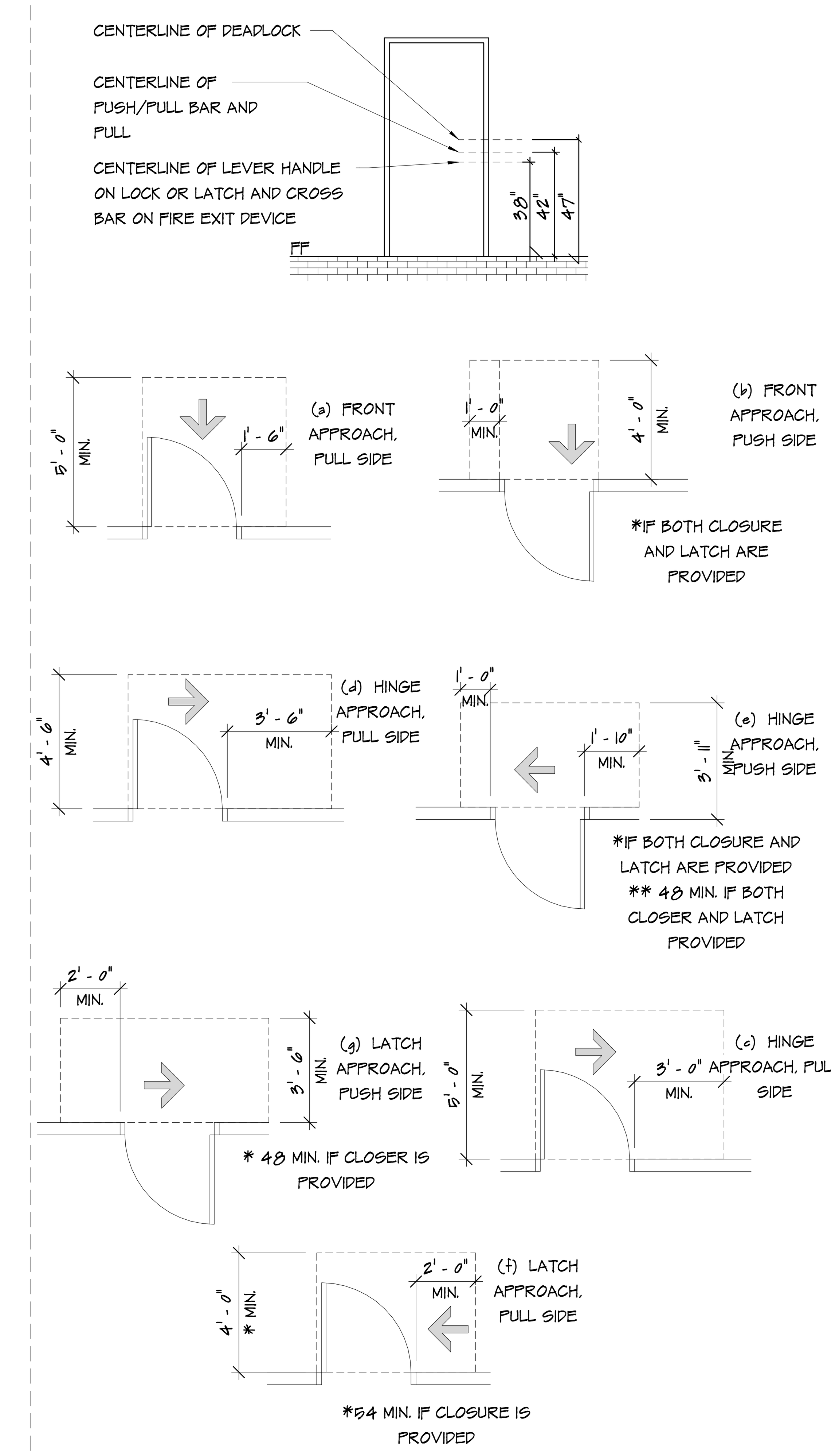


SP.FE.01
SURFACE MOUNTED WITH BRACKET

NOTE:

1. REFER TO FIXTURE MOUNTING HEIGHT LEGEND FOR FIRE EXTINGUISHER MOUNTING HEIGHTS

DOOR APPROACH - FRONT



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www.s45architects.com

CORTEZ FLATS
1329 EAST 17th STREET
TULSA, OKLAHOMA

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STATE OF OKLAHOMA
LICENSED ARCHITECT
No. 06401
05.20.2026

PROJECT NO: 100-253
ISSUE DATE: 05/20/2026

ARCHITECTURAL NOTES AND STANDARDS

G-002

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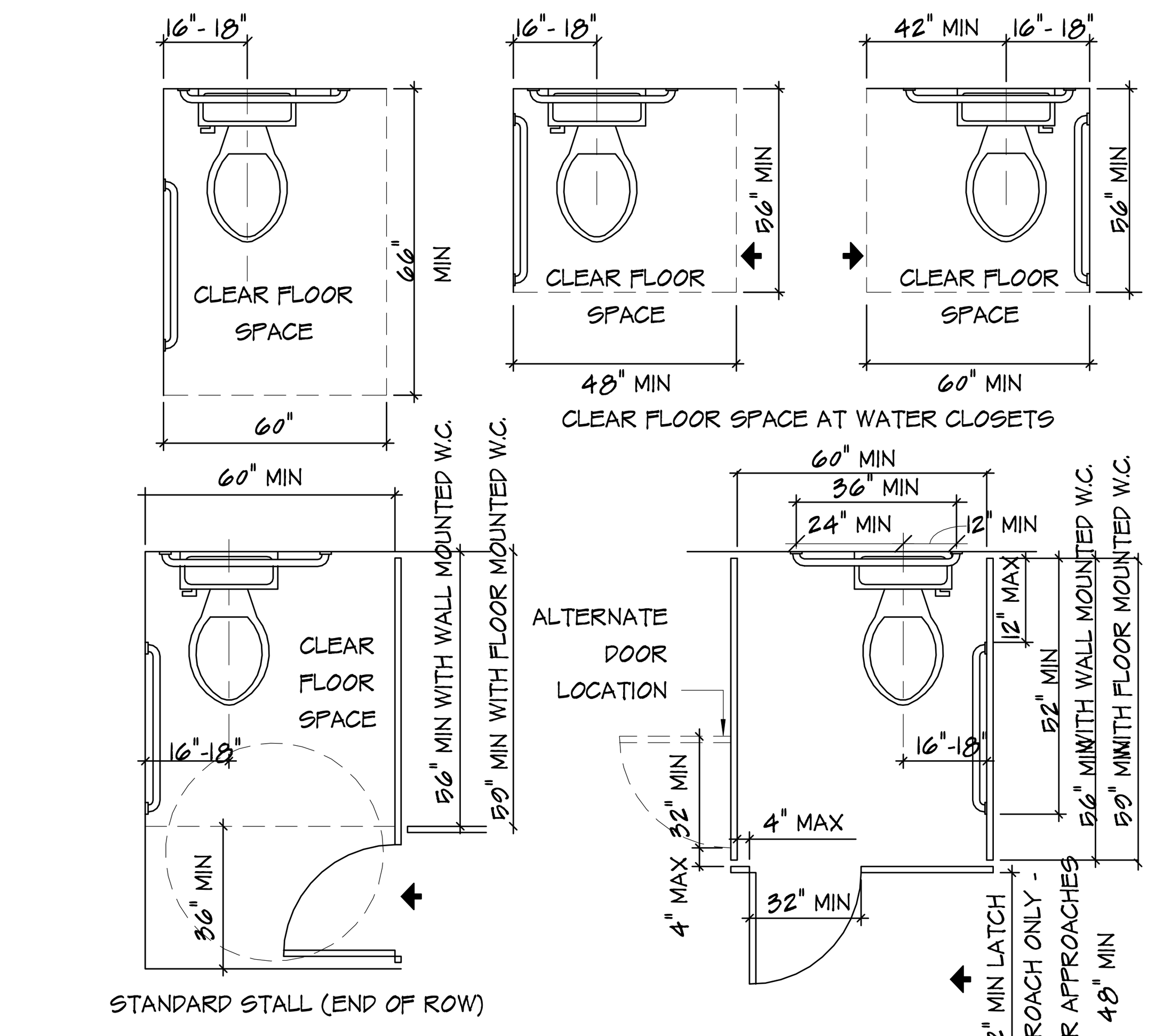
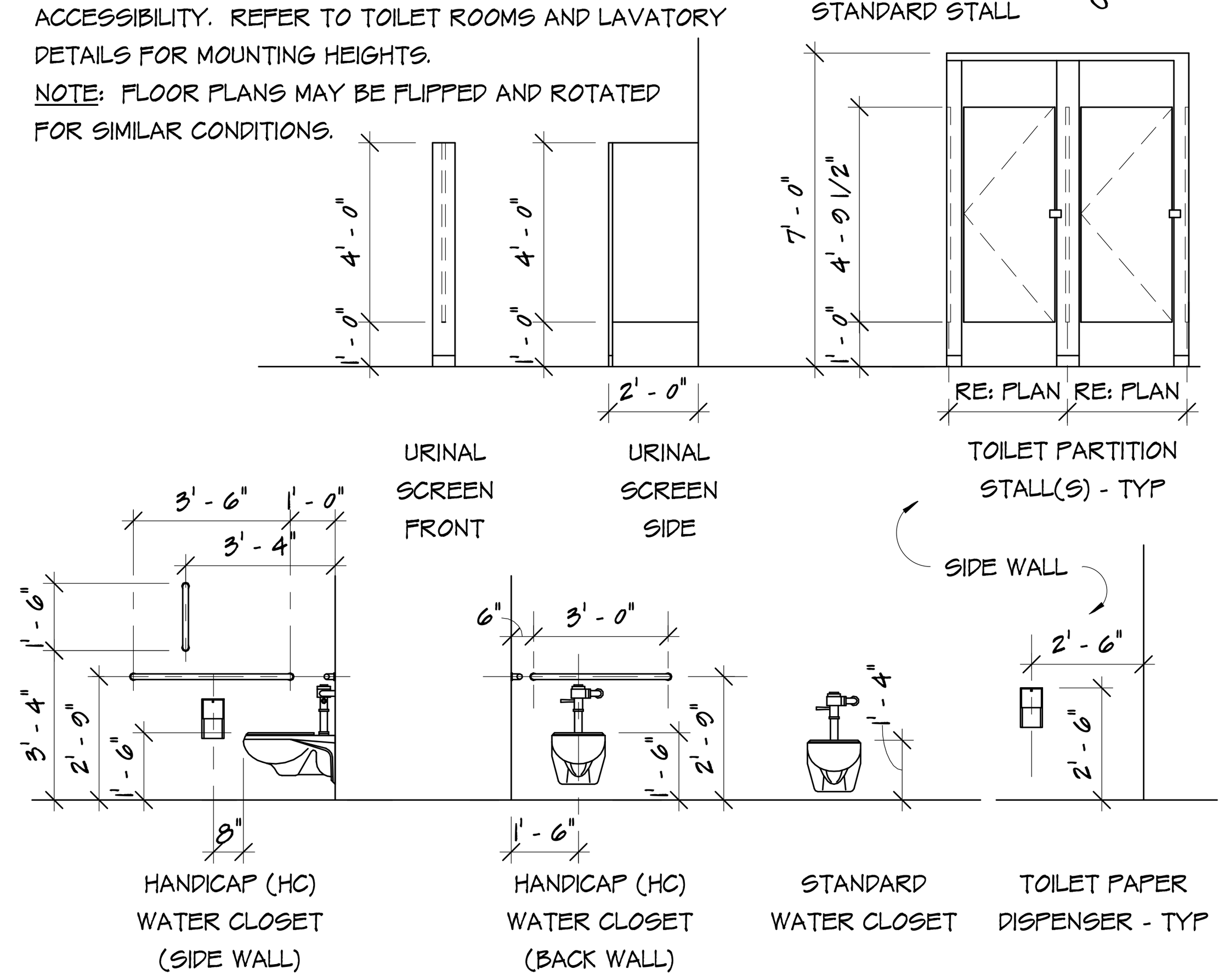
TOILET STALLS

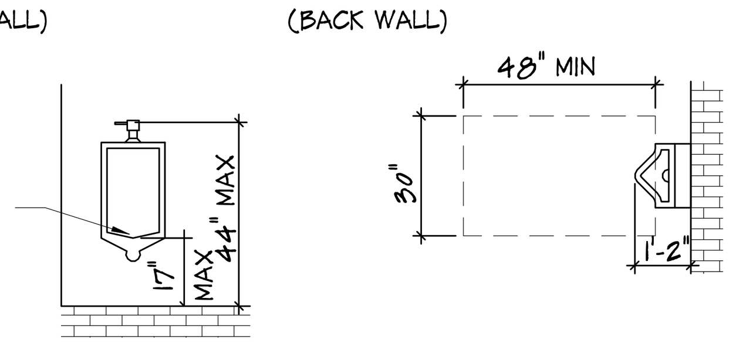


CLEARANCES INDICATED ARE MINIMUM REQUIREMENTS FOR ACCESSIBILITY. REFER TO TOILET ROOMS AND LAVATORY DETAILS FOR MOUNTING HEIGHTS.

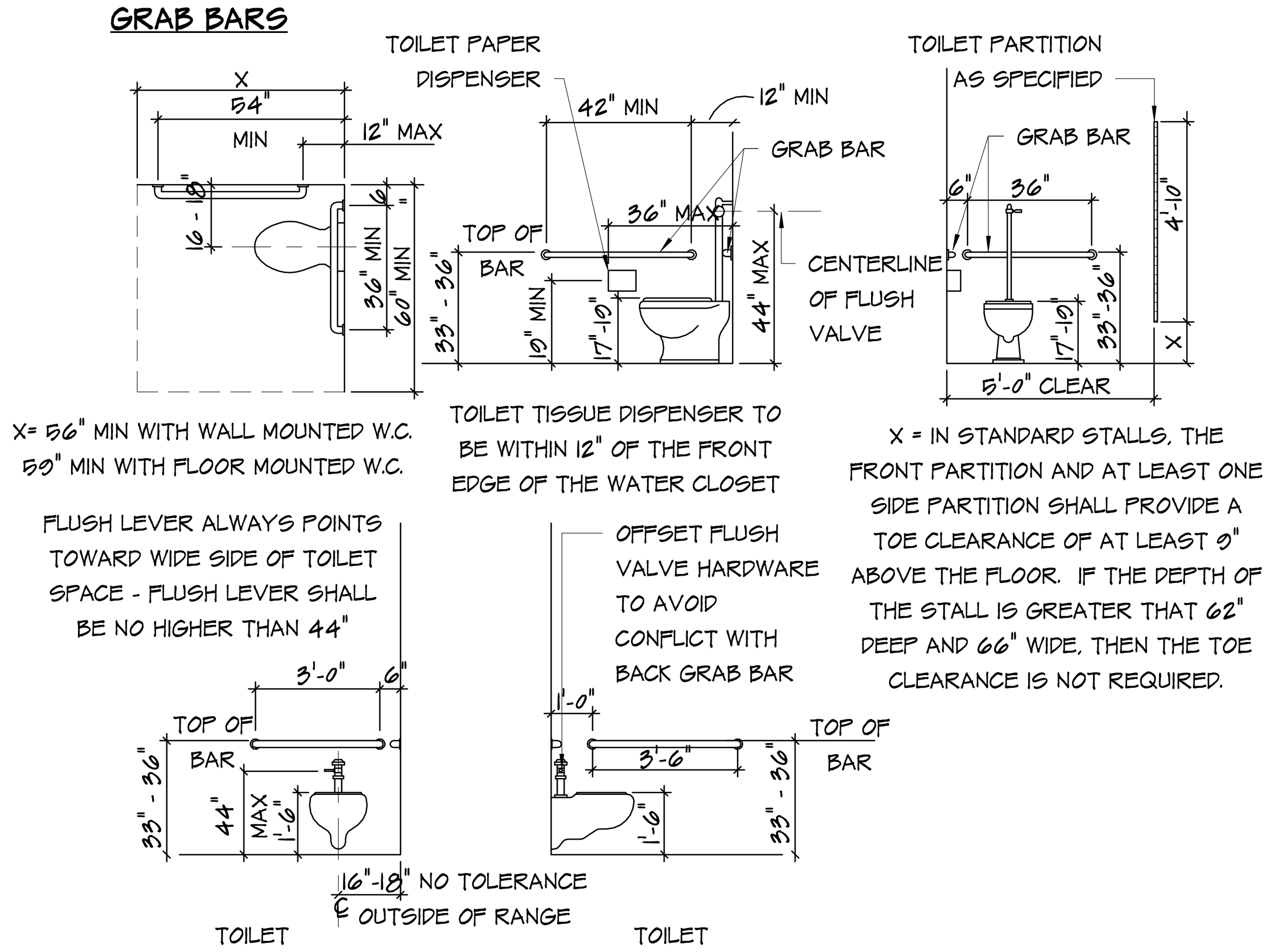
NOTE: FLOOR PLANS MAY BE FLIPPED AND ROTATED FOR SIMILAR CONDITIONS.



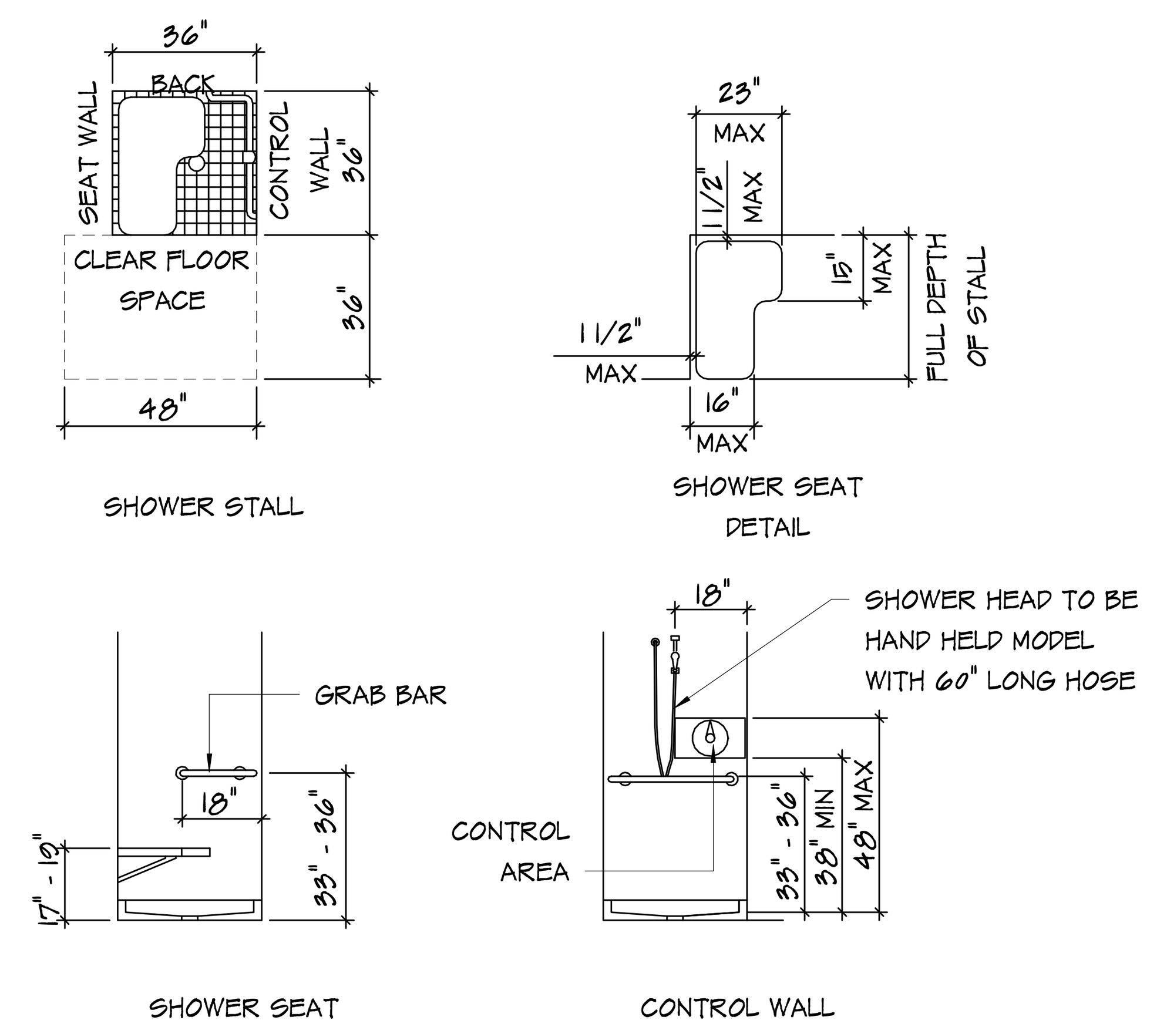
URINALS



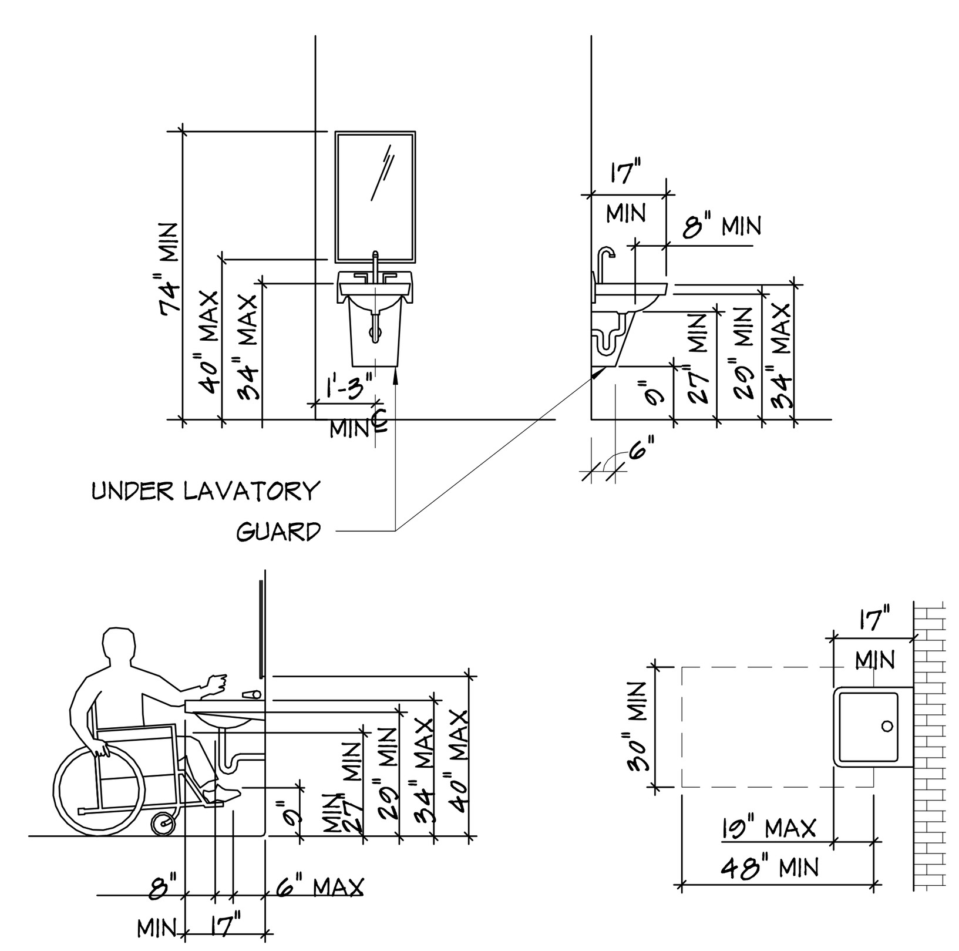
GRAB BARS



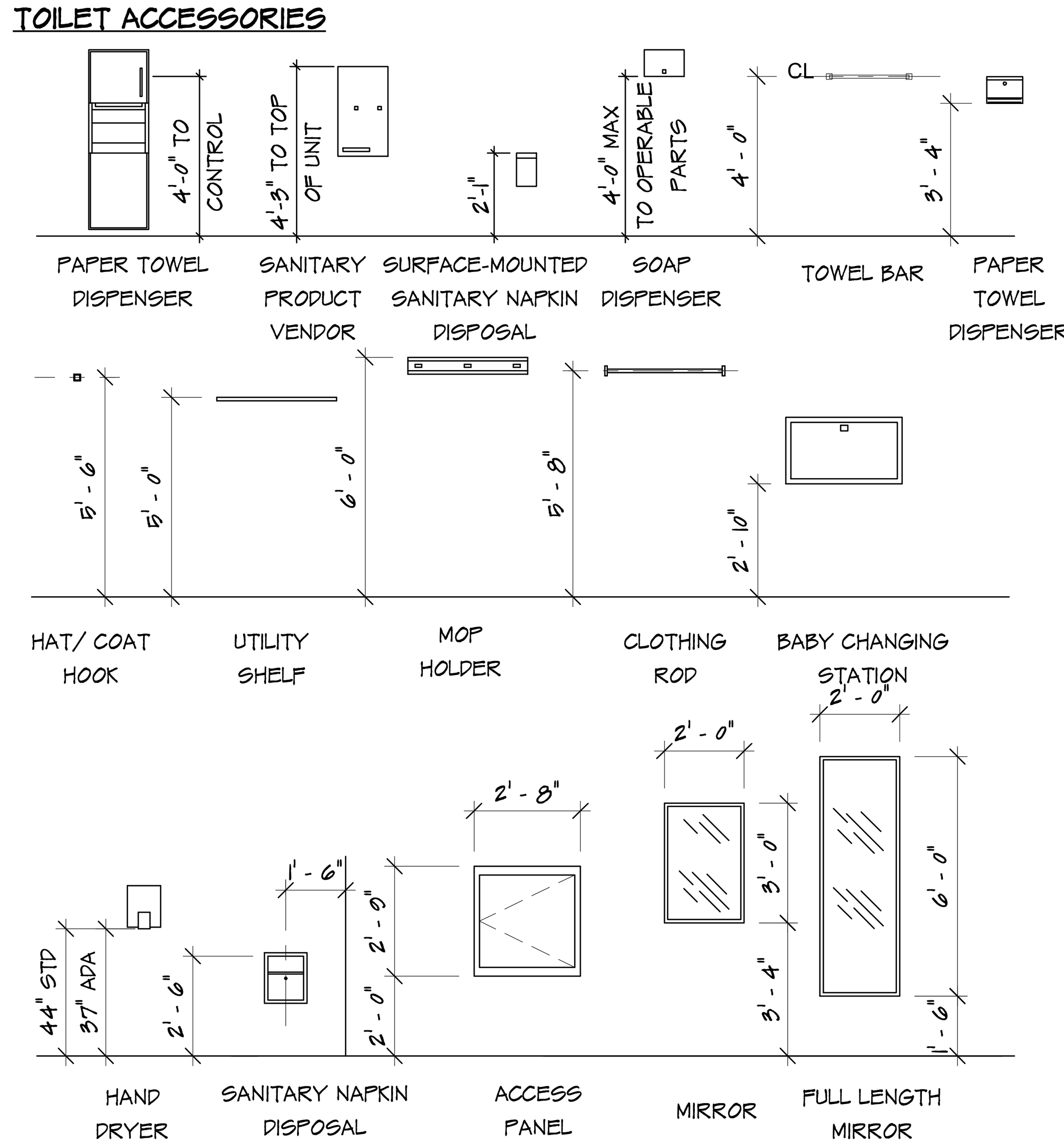
SHOWER STALLS



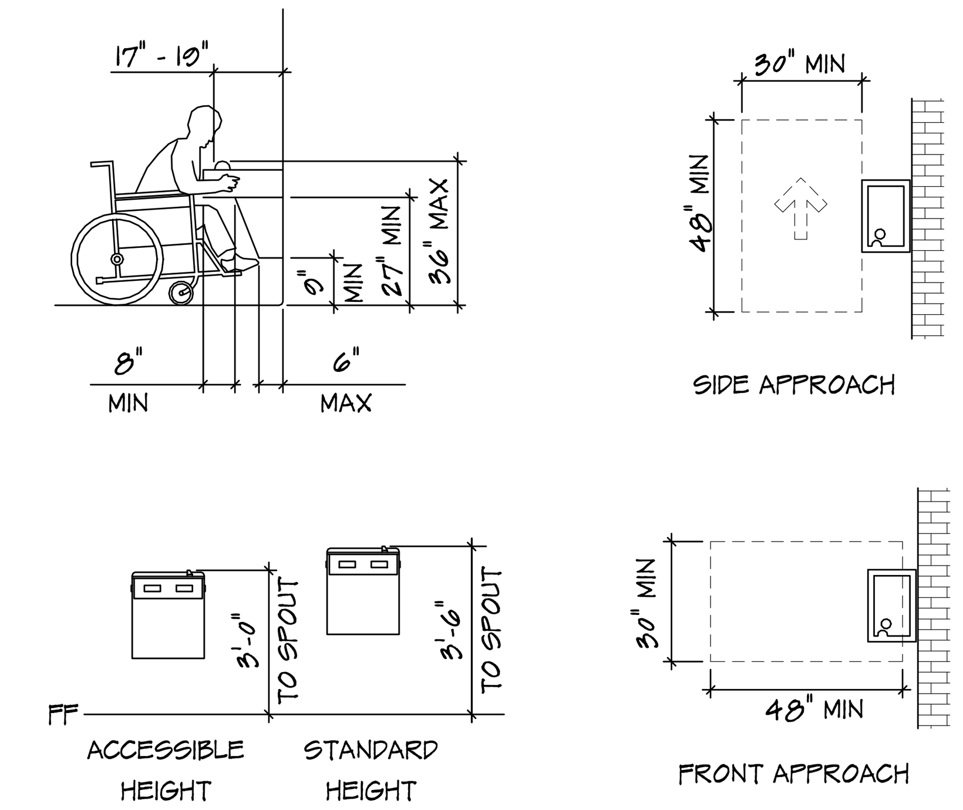
LAVATORIES & MIRRORS



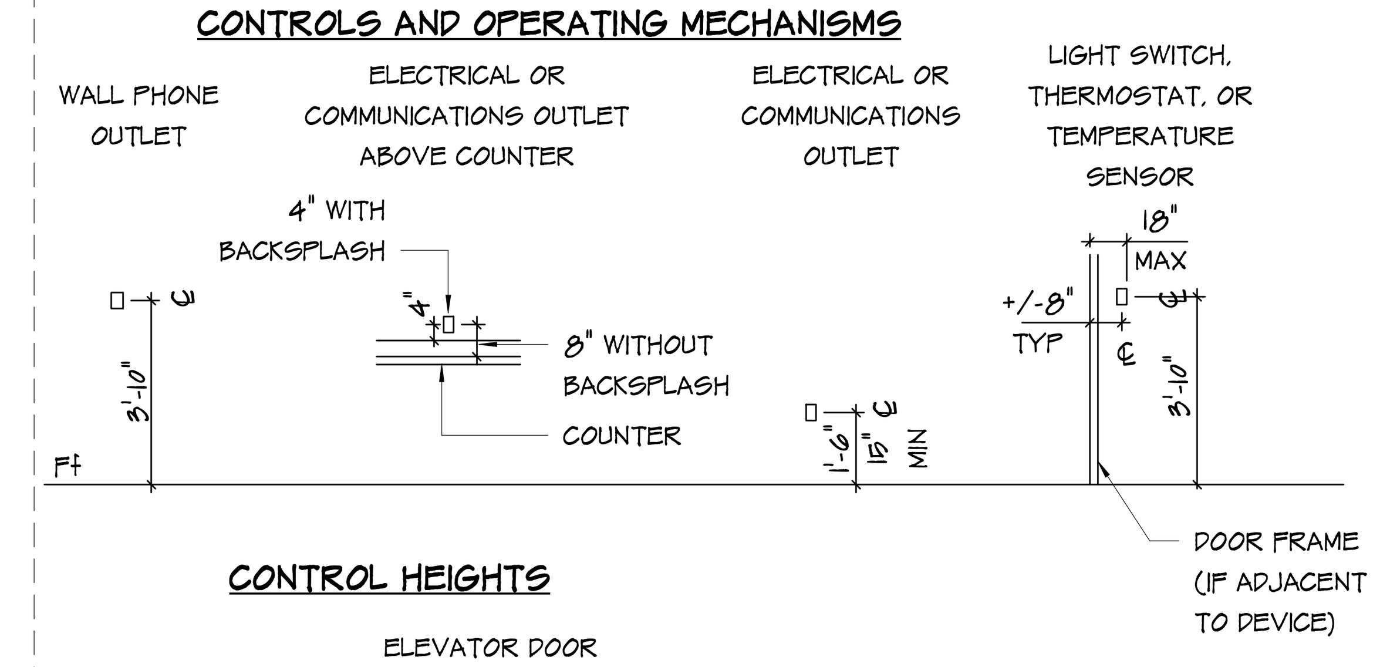
TOILET ACCESSORIES



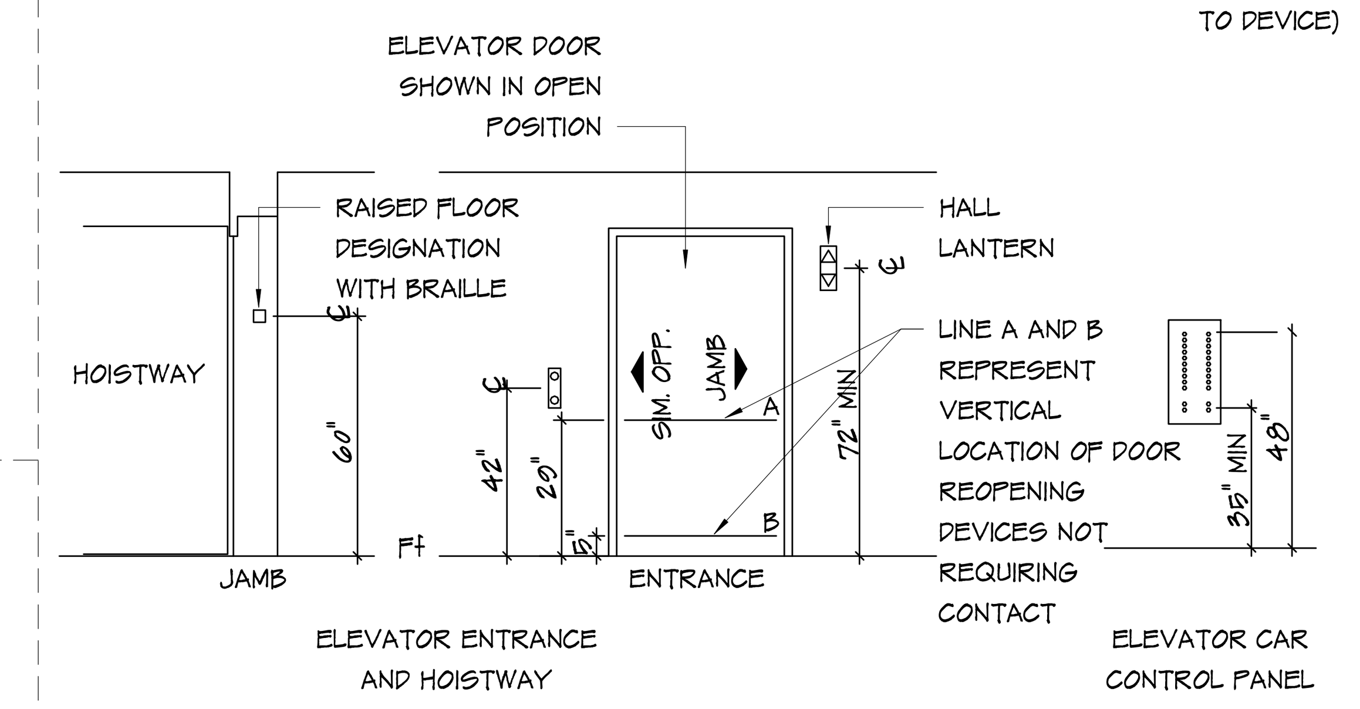
DRINKING FOUNTAINS



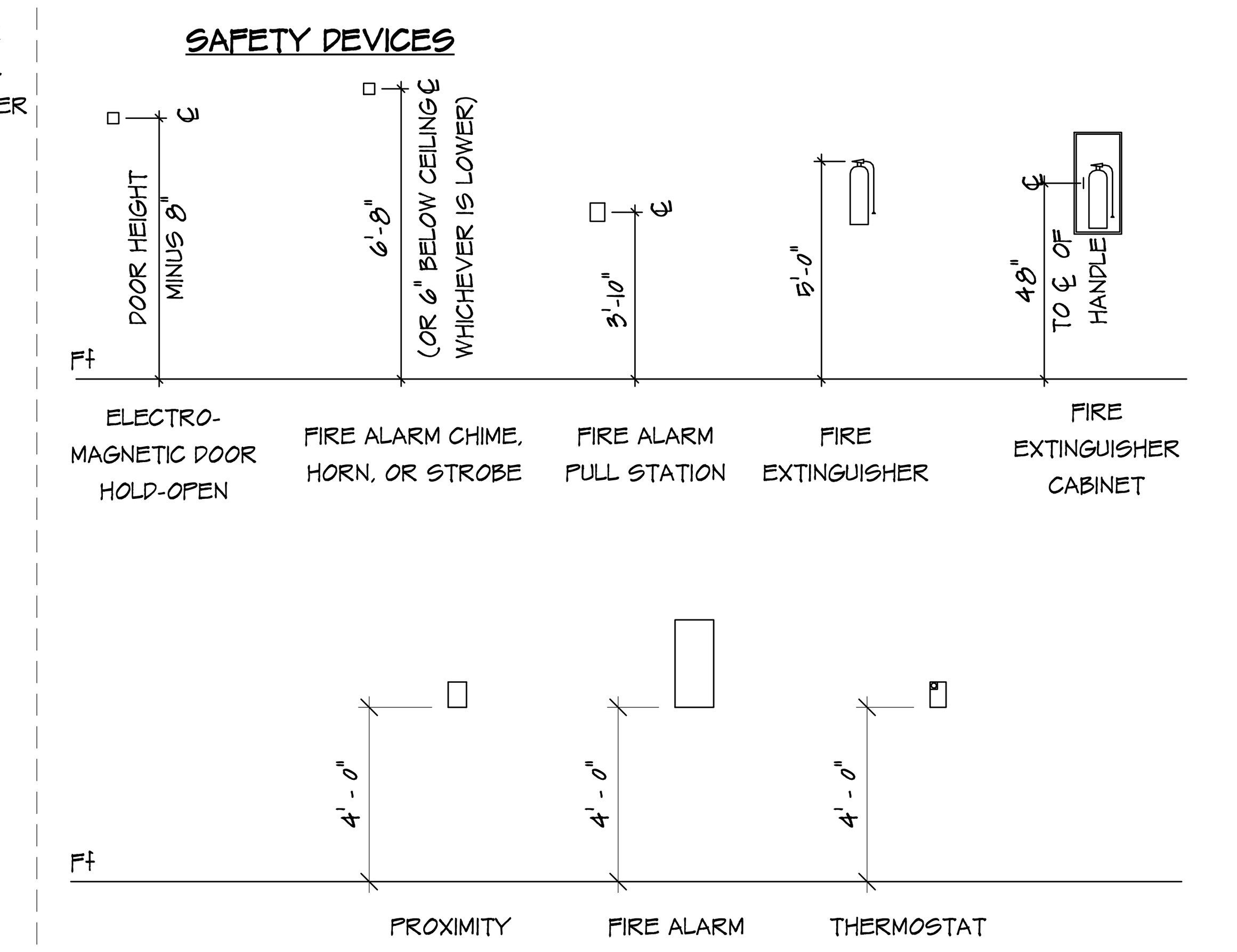
CONTROLS AND OPERATING MECHANISMS



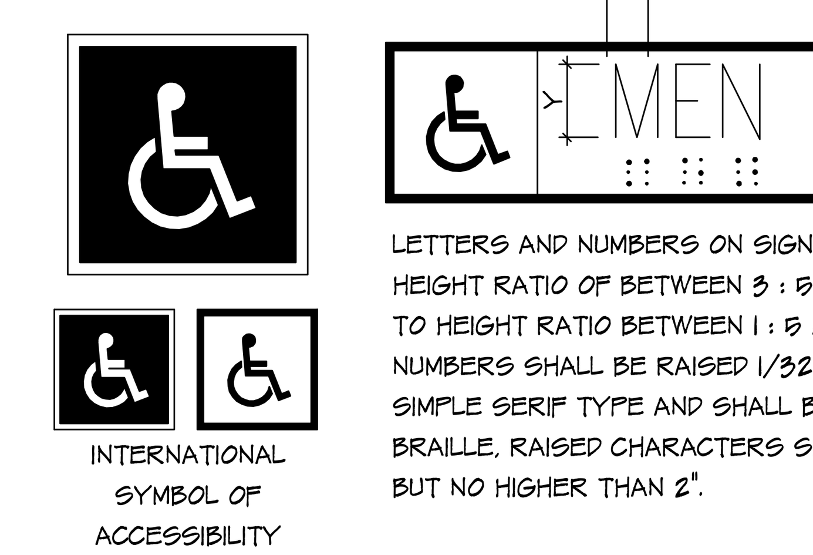
CONTROL HEIGHTS



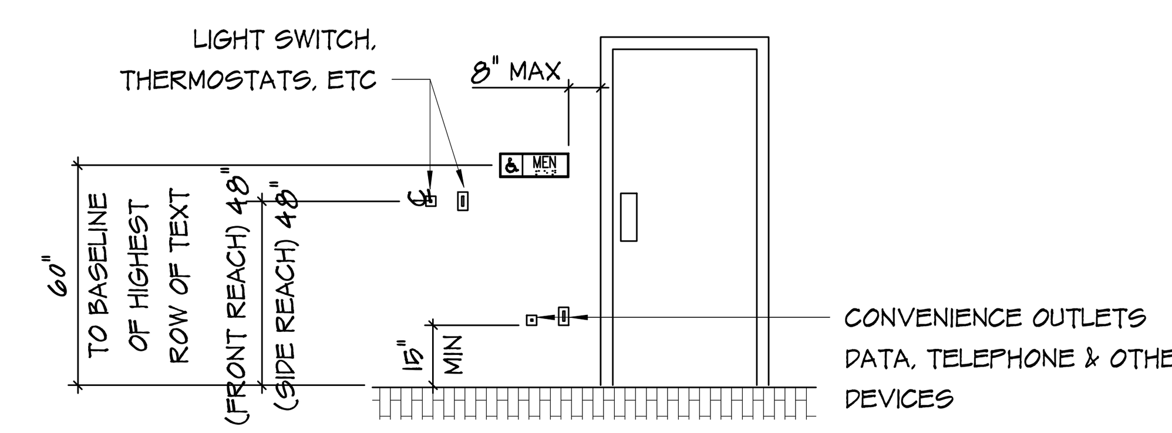
SAFETY DEVICES



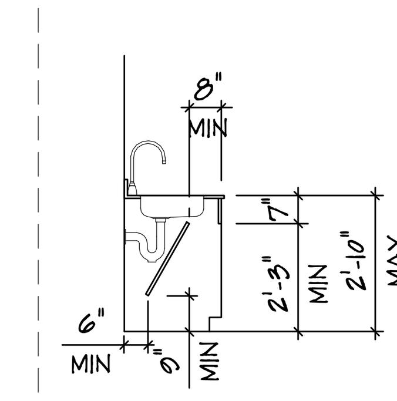
SIGNAGE



LETTERS AND NUMBERS ON SIGNS SHALL HAVE A WIDTH TO HEIGHT RATIO OF BETWEEN 3 : 5 AND 1 : 1 AND A STROKE - WIDTH TO HEIGHT RATIO BETWEEN 1 : 5 AND 1 : 10. LETTERS AND NUMBERS SHALL BE RAISED 1/32", UPPER CASE, SANS SERIF OR SIMPLE SERIF TYPE AND SHALL BE ACCOMPANIED WITH GRADE 2 BRAILLE. RAISED CHARACTERS SHALL BE AT LEAST 5/8" HIGH, BUT NO HIGHER THAN 2".

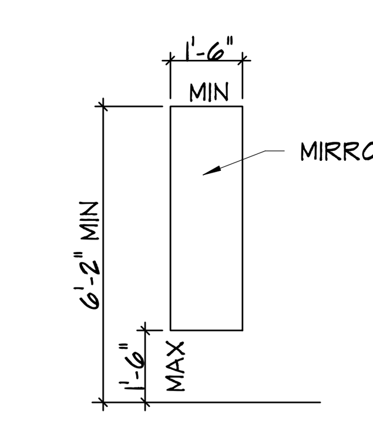


KITCHEN SINK



DRESSING AND FITTING ROOMS

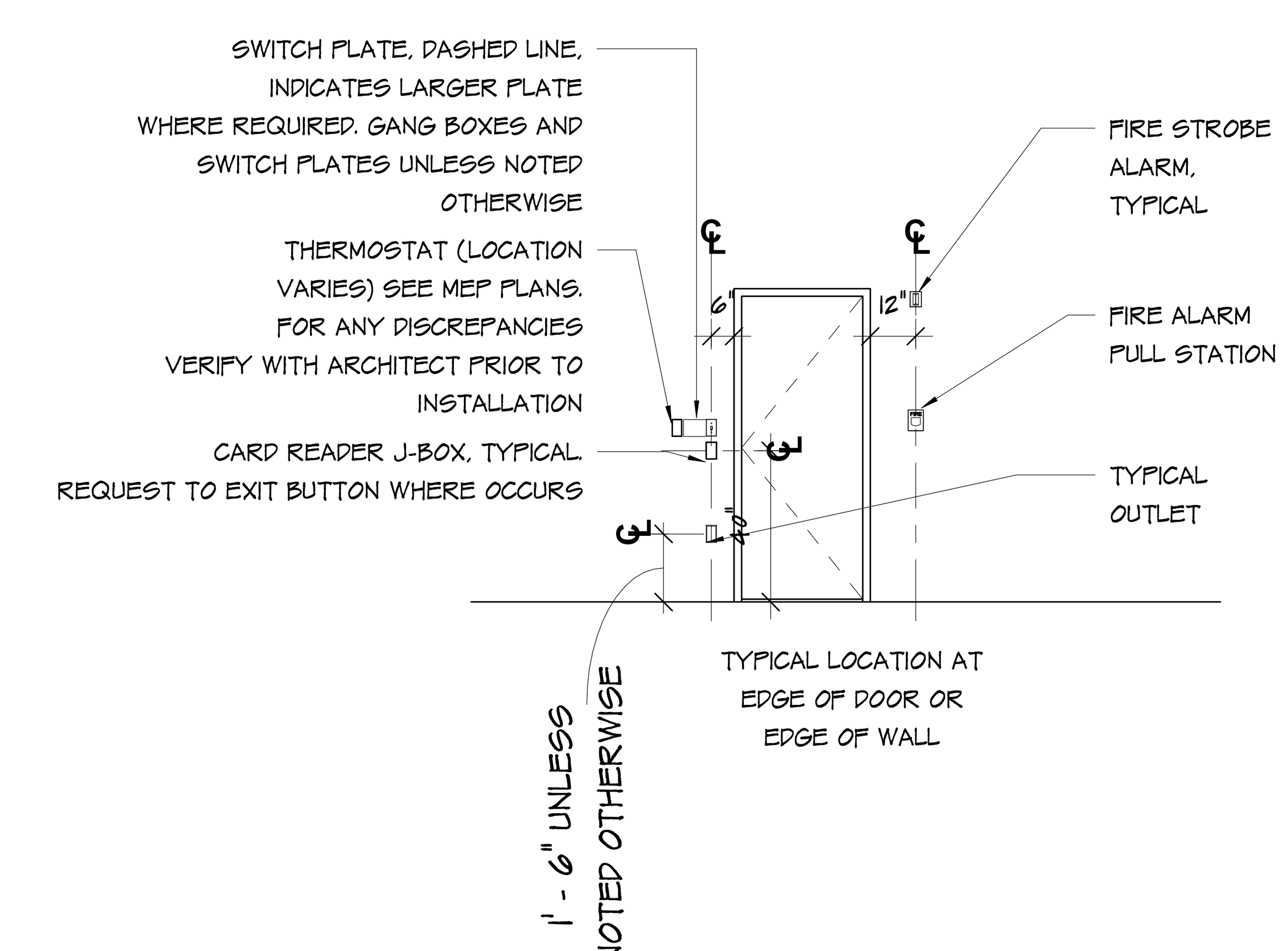
MIRROR:



BENCH:
EVERY ACCESSIBLE DRESSING ROOM SHALL HAVE A 24"x48" BENCH FIXED TO THE WALL ALONG THE LARGER DIMENSION. THE BENCH SHALL BE MOUNTED 17" TO 19" ABOVE THE FINISH FLOOR.

GENERAL NOTES:
DIMENSIONS SHOWN ON THIS SHEET ARE TYPICAL AND SHALL BE USED UNLESS SHOWN OTHERWISE IN THE CONTRACT DOCUMENTS. REQUEST CLARIFICATION FROM ARCHITECT PRIOR TO PROCEEDING FOR ANY DISCREPANCIES.

TYPICAL MOUNTING HEIGHTS AT DOORWAYS



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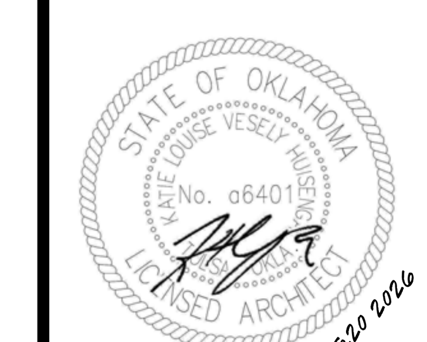

PROJECT NO. 100-253
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ARCHITECTURAL NOTES AND CLEARANCE

G-003

DESIGN PARAMETERS

1.	BUILDING CODE:		2018 INTERNATIONAL BUILDING CODE
2.	DEAD LOADS:		
	A.	ROOF	20 PSF
	B.	FLOOR	50 PSF
3.	LIVE LOADS:		
	A.	ROOF	20 PSF
	B.	FLOOR	60 PSF
4.	SNOW LOADS:		
	A.	GROUND SNOW LOAD, Pg	10 PSF
	B.	SNOW IMPORTANCE FACTOR, Is	1.0
	C.	FLAT ROOF SNOW LOAD, Pf	7.0 PSF
	D.	SNOW EXPOSURE FACTOR, Ce	1.0
	E.	THERMAL FACTOR, Ct	1.0
	F.	SLOPE FACTOR, Cs	1.0
5.	WIND LOADS:		
	A.	BASIC DESIGN WIND SPEED (3 SECOND GUST), V	108 MPH
	B.	ALLOWABLE STRESS DESIGN WIND SPEED, Vasd	83.66 MPH
	C.	RISK CATEGORY	II
	D.	EXPOSURE CLASSIFICATION	B
	E.	INTERNAL PRESSURE COEFFICIENT	0
7.	FOUNDATIONS:		
	ISOLATED AND CONTINUOUS FOUNDATIONS HAVE BEEN DESIGNED FOR AN ASSUMED ALLOWABLE NET BEARING PRESSURE OF 1500 PSF. THE OWNER AND/OR CONTRACTOR IS RESPONSIBLE FOR VERIFYING THESE ASSUMPTIONS WITH ACTUAL CONDITIONS PRIOR TO CONSTRUCTION OR BUILD AT THEIR OWN RISK. ACHIEVING AN ALLOWABLE BEARING PRESSURE DOES NOT PRECLUDE THE BUILDING FROM BEING SUBJECT TO DIFFERENTIAL MOVEMENT. SHOULD THE OWNER BE CONCERNED, THEY SHALL ENGAGE THE SERVICES OF A LICENSED GEOTECHNICAL ENGINEER TO INVESTIGATE AND PROVIDE RECOMMENDATIONS.		
8.	RAIN LOADS:		
	THE ROOF STRUCTURE HAS BEEN DESIGNED FOR THE RAIN LOADS IN ACCORDANCE WITH THE CITY OF TULSA ORDINANCE, PER SECTION 1611.1 AND IPC 1108.3, FOR A 100-YEAR DURATION RAINFALL RATE OF 10.2 INCHES PER HOUR, WITH BLOCKED PRIMARY DRAINAGE SYSTEM.		

GENERAL

1. STRUCTURAL DRAWINGS ARE NOT STAND-ALONE DOCUMENTS AND ARE INTENDED TO BE USED IN CONJUNCTION WITH CIVIL, ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND DRAWINGS FROM OTHER DISCIPLINES. THE CONTRACTOR SHALL COORDINATE ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS INTO THE SHOP DRAWINGS AND FIELD WORK.
2. WHERE CONFLICT EXISTS AMONG VARIOUS PARTS OF THE STRUCTURAL CONTRACT DOCUMENTS, STRUCTURAL DRAWINGS, GENERAL NOTES, AND SPECIFICATIONS, THE STRICTEST REQUIREMENTS, AS INDICATED BY THE ENGINEER, SHALL GOVERN.
3. WHERE MEMBER LOCATIONS ARE NOT SPECIFICALLY DIMENSIONED, THE FOLLOWING RULES SHALL APPLY:
   A. DO NOT SCALE DRAWINGS.
   B. COLUMNS ARE CENTERED ON GRID LINES.
   C. FOOTINGS ARE CENTERED BENEATH COLUMNS.
   D. CONTINUOUS FOOTINGS ARE CENTERED BENEATH WALLS.
   E. FRAMING MEMBERS ARE EITHER LOCATED ON GRID LINES OR ARE EQUALLY SPACED BETWEEN LOCATED MEMBERS.
4. ALL STRUCTURAL ELEMENTS OF THE PROJECT HAVE BEEN DESIGNED BY THE STRUCTURAL ENGINEER TO RESIST THE REQUIRED CODE VERTICAL AND LATERAL FORCES THAT COULD OCCUR IN THE FINAL COMPLETED STRUCTURE ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL REQUIRED BRACING DURING CONSTRUCTION TO MAINTAIN THE STABILITY AND SAFETY OF ALL STRUCTURAL ELEMENTS DURING THE CONSTRUCTION PROCESS UNTIL THE LATERAL LOAD RESISTING OR STABILITY-PROVIDING SYSTEM IS COMPLETELY INSTALLED AND THE STRUCTURE IS COMPLETELY TIED TOGETHER.
5. THE STRUCTURE HAS BEEN DESIGNED FOR THE LOADS IDENTIFIED WITHIN THESE STRUCTURAL DRAWINGS THAT ARE ANTICIPATED TO BE APPLIED TO THE FINAL STRUCTURE ONCE COMPLETED AND OCCUPIED. THE CONTRACTOR SHALL NOT OVERLOAD THE STRUCTURE DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING THE ADEQUACY OF THE STRUCTURE TO SUPPORT ANY APPLIED CONSTRUCTION LOADS, INCLUDING THOSE DUE TO CONSTRUCTION VEHICLES OR EQUIPMENT, MATERIAL HANDLING OR STORAGE, SHORING AND RESHORING, OR ANY OTHER PROPOSED CONSTRUCTION LOADS THAT ARE IN EXCESS OF THE STATED DESIGN LOADS. THE STRUCTURAL ENGINEER IS NOT RESPONSIBLE TO DESIGN OR CHECK THE STRUCTURE FOR LOADS APPLIED TO THE STRUCTURE FOR ANY CONSTRUCTION ACTIVITY.
6. WEIGHTS OF MECHANICAL EQUIPMENT SHOWN ON THE STRUCTURAL PLANS ARE FOR UNITS SPECIFIED BY THE MECHANICAL ENGINEER. CONTRACTOR SHALL VERIFY THE WEIGHTS. ANY SUBSTITUTIONS THAT RESULT IN INCREASED WEIGHT SHALL BE APPROVED BY THE STRUCTURAL ENGINEER OF RECORD.
7. THE SIZE AND LOCATION OF EQUIPMENT PADS AND PENETRATIONS THROUGH THE STRUCTURE FOR MECHANICAL, ELECTRICAL, AND PLUMBING WORK SHALL BE VERIFIED BY THE CONTRACTOR. OPENINGS AND PENETRATIONS NOT SPECIFICALLY SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE SUBJECT TO APPROVAL BY THE STRUCTURAL ENGINEER OF RECORD.
8. PRIOR TO FABRICATION AND/OR ERECTION OF ANY MATERIALS, THE CONTRACTOR SHALL FIELD VERIFY ALL PERTINENT EXISTING DIMENSIONS, ELEVATIONS, AND CONDITIONS AND SHALL REPORT ANY DISCREPANCIES TO THE STRUCTURAL ENGINEER OF RECORD OR THE ARCHITECT IMMEDIATELY UPON DISCOVERY.
9. BACKFILL BOTH SIDES OF ALL FOUNDATION AND RETAINING WALLS EQUALLY UNTIL LOW SIDE IS UP TO FINISH GRADE. DO NOT BACKFILL ANY WALLS UNTIL CONCRETE HAS REACHED ITS SPECIFIED 28-DAY COMPRESSIVE STRENGTH.
10. CONNECTIONS OF SYSTEMS DESIGNED BY THE CONTRACTOR'S ENGINEER SUCH AS, BUT NOT LIMITED TO, CLADDING, STAIRS, ELEVATORS AND MEP LOADS ARE ASSUMED TO IMPOSE VERTICAL AND/OR HORIZONTAL LOADS ON THE BASE BUILDING STRUCTURAL MEMBERS WITHOUT GENERATING TORSION IN THE SUPPORTING STRUCTURAL MEMBERS. CONTRACTOR IS RESPONSIBLE FOR FURNISHING AND INSTALLING ALL SUPPLEMENTARY BRACING MEMBERS AS REQUIRED TO PREVENT TORSION ON THE BASE BUILDING STRUCTURE.
11. ANY MATERIALS OR PRODUCTS SUBMITTED FOR APPROVAL THAT ARE DIFFERENT FROM THE MATERIAL OR PRODUCTS SPECIFIED IN THE STRUCTURAL CONTRACT DOCUMENTS WILL BE APPROVED ONLY IF THE FOLLOWING CRITERIA ARE SATISFIED:
   A. COST SAVINGS TO THE OWNER IS DOCUMENTED AND SUBMITTED WITH THE REQUEST.
   B. THE MATERIAL OR PRODUCT HAS BEEN APPROVED BY THE INTERNATIONAL CODE COUNCIL (ICC) AND THE ICC REPORT IS SUBMITTED WITH THE REQUEST.
12. THE ENGINEER SHALL NOT HAVE CONTROL NOR CHARGE OF, AND SHALL NOT BE RESPONSIBLE FOR, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES, FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, FOR THE ACTS OR OMISSION OF THE CONTRACTOR, SUBCONTRACTOR, OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK, OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
13. PERIODIC SITE OBSERVATION BY FIELD REPRESENTATIVES OF 360 ENGINEERING GROUP, PLLC. IS SOLELY FOR THE PURPOSE OF BECOMING GENERALLY FAMILIAR WITH THE PROGRESS AND QUALITY OF THE WORK COMPLETED AND DETERMINING, IN GENERAL, IF THE WORK OBSERVED IS BEING PERFORMED IN A MANNER INDICATING THAT THE WORK, WHEN FULLY COMPLETED, WILL BE IN ACCORDANCE WITH THE STRUCTURAL CONTRACT DOCUMENTS. THIS LIMITED SITE OBSERVATION SHOULD NOT BE CONSTRUED AS AN EXHAUSTIVE OR CONTINUOUS CHECK OF THE QUALITY OR QUANTITY OF THE WORK, BUT RATHER PERIODIC IN AN EFFORT TO GUARD THE OWNER AGAINST DEFECTS OR DEFICIENCIES IN THE WORK OF THE CONTRACTOR.

DIVISION 2 - FOUNDATIONS

1. FOOTINGS SHALL BEAR EITHER ON COMPETENT NATIVE SOIL OR COMPACTED STRUCTURAL FILL.
2. EXTERIOR AND EXTERIOR PERIMETER FOOTINGS SHALL BEAR NOT LESS THAN 24 INCHES BELOW FINISH GRADE UNLESS OTHERWISE SPECIFIED BY A GEOTECHNICAL ENGINEER AND/OR BUILDING OFFICIAL. IF THE SOIL AT THE BEARING ELEVATIONS SHOWN IS OF QUESTIONABLE BEARING VALUE, THE STRUCTURAL ENGINEER OF RECORD OR ARCHITECT SHALL BE NOTIFIED IMMEDIATELY.
3. PROVIDE A MINIMUM OF A 4-INCH CLEAN, FREE-DRAINING GRANULAR SUBBASE FILL BELOW ALL INTERIOR SLABS-ON-GRADE UNLESS NOTED OR DETAILED OTHERWISE. SUBBASE SHALL MEET GRADATION REQUIREMENTS OF ASTM C-33 SIZE NO. 67, UNLESS SPECIFICALLY NOTED OTHERWISE.
4. A 15-MIL MINIMUM POLYETHYLENE FILM VAPOR RETARDER, MEETING THE REQUIREMENTS IN THE SPECIFICATIONS, SHALL BE PLACED BELOW ALL INTERIOR SLABS-ON-GRADE.
5. THE CONTRACTOR IS CAUTIONED AGAINST LOADING SLAB-ON-GRADE WITH CONSTRUCTION EQUIPMENT. THE SLAB HAS NOT BEEN DESIGNED FOR CONSTRUCTION EQUIPMENT AND MAY REQUIRE AN INCREASE IN SLAB THICKNESS AND/OR REINFORCEMENT. IF THE CONSTRUCTION LOADING EXCEEDS THE DESIGN LOADS SHOWN IN THE DESIGN CRITERIA, THE CONTRACTOR IS REQUIRED TO SUBMIT CALCULATIONS SIGNED AND SEALED BY A REGISTERED STRUCTURAL, CIVIL, OR GEOTECHNICAL ENGINEER IN THE STATE WHERE THE PROJECT IS LOCATED VERIFYING THE ADEQUACY OF THE SLAB.
6. EXTERIOR FOOTINGS FOR STAIRS AND RAMPS SHALL BEAR AT OR BELOW MINIMUM BEARING DEPTH.
7. FOUNDATION WALLS SHALL HAVE ADEQUATE TEMPORARY BRACING INSTALLED BY THE CONTRACTOR BEFORE BACKFILL IS PLACED AGAINST THEM. TEMPORARY BRACING SHALL NOT BE REMOVED UNTIL WALL IS PERMANENTLY BRACED.

DIVISION 3 - CONCRETE

1. ALL CONCRETE SHALL CONFORM TO THE SPECIFICATIONS FOR STRUCTURAL CONCRETE, ACI 301.
2. CONTRACTOR SHALL FOLLOW ACI 306.1 FOR COLD WEATHER CONCRETE PLACEMENT AND CURING GUIDELINES.
3. ARRANGEMENTS AND DETAIL OF REINFORCING BENDS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF PUBLICATION SP-66, "ACI DETAILING MANUAL" AND ACI 318, "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE."
4. UNLESS NOTED OTHERWISE, BAR SPLICES SHALL BE CLASS B TENSION LAPS AND SHALL BE LAPPED WITH MINIMUM LENGTHS AS LISTED IN THE LAP LENGTH SCHEDULE, WHERE REQUIRED IN REINFORCING. SHORTER LAPS MAY BE ACCEPTABLE IF SPECIFIC LOCATIONS OF ALTERNATE LAPS ARE SHOWN ON THE REINFORCING PLACEMENT DRAWINGS AND CALCULATIONS ARE SUBMITTED BY A REGISTERED PROFESSIONAL ENGINEER, LICENSED TO PRACTICE IN THE STATE IN WHICH THE PROJECT IS LOCATED, JUSTIFYING THE ALTERNATE LAP LENGTHS.
5. PROVIDE SUITABLE WIRE SPACERS, CHAIRS, TIES, ETC. FOR SUPPORTING REINFORCING STEEL IN THE PROPER POSITION BEFORE PLACING CONCRETE. DO NOT "WET STICK" DOWELS.
6. ALL WELDED WIRE FABRIC SHALL BE LAPPED A MINIMUM OF 12" AT THE SIDES AND ENDS.
7. LOCATIONS AND SIZES OF OPENINGS, SLEEVES, ETC. REQUIRED FOR OTHER TRADES MUST BE VERIFIED BY THESE TRADES BEFORE PLACING CONCRETE.
8. ALL SLOTS, SLEEVES, TRENCHES AND OTHER EMBEDDED ITEMS SHALL BE SET AND SECURED AGAINST MOVEMENT BEFORE THE CONCRETE IS PLACED. SEE ARCHITECTURAL, ELECTRICAL, MECHANICAL, PLUMBING, AND VENDOR DRAWINGS FOR SIZES, AND LOCATIONS. COORDINATE LOCATIONS, SPACING, AND SIZES WITH THE STRUCTURAL ENGINEER OF RECORD PRIOR TO PLACING CONCRETE.
9. AS PART OF THE SUBMITTAL PROCESS, THE ELECTRICAL AND MECHANICAL CONTRACTOR(S) SHALL SUBMIT PROPOSED ROUTING PLAN FOR ALL PIPES, CONDUITS, OR OTHER DEVICES TO BE EMBEDDED IN THE CONCRETE. THE SUBMITTAL SHALL SHOW SPECIFIC SIZES AND LOCATIONS OF ALL PROPOSED EMBED ITEMS REFERENCING PROXIMITY TO BEAM, COLUMN, AND SLAB EDGES. NO ITEMS SHALL BE ALLOWED TO BE EMBEDDED IN THE CONCRETE WITHOUT PRIOR WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER OF RECORD.
10. CONDUITS AND PIPES EMBEDDED IN CONCRETE SLABS MAY BE NO LARGER THAN 1/3 OF THE SLAB THICKNESS (BASED ON THE MAXIMUM OUTSIDE DIAMETER) AND SHALL HAVE A CENTER-TO-CENTER SPACING NO LESS THAN THREE (3) CONDUIT DIAMETERS. REGARDLESS OF DIAMETER, THE MINIMUM CLEAR SPACING BETWEEN CONDUITS OR REINFORCING SHALL BE (1) INCH.
11. NO MORE THAN FOUR CONDUITS MAY BE PLACED ADJACENT TO EACH OTHER WITHOUT PRIOR APPROVAL IN WRITING FROM THE STRUCTURAL ENGINEER OF RECORD.
12. NO ALUMINUM CONDUITS, DEVICES, OR FIXTURES MAY BE EMBEDDED INTO THE CONCRETE SO THAT THE ALUMINUM IS IN DIRECT CONTACT WITH THE CONCRETE.
13. CORNER BARS SHALL BE PROVIDED FOR ALL HORIZONTAL REINFORCING BARS AT THE INTERSECTIONS AND CORNERS OF ALL STRIP FOOTINGS, BEAMS, AND WALLS UNLESS NOTED OTHERWISE. CORNER BARS SHALL BE OF THE SAME SIZE AND GRADE AS THE HORIZONTAL REINFORCING THEY CONNECT. MINIMUM LAP LENGTHS SHALL BE AS INDICATED ABOVE UNLESS NOTED OTHERWISE.
14. CONTINUE HORIZONTAL WALL BARS THROUGH PILASTERS, COLUMNS AND INTERSECTING WALLS. AT SLAB AND WALL OPENINGS PROVIDE A MINIMUM OF TWO #5 BARS OVER, UNDER AND AT THE SIDES OF THE OPENINGS. EXTEND THESE BARS LAP DISTANCE OR A MINIMUM OF 2'-0" PAST THE OPENING. PROVIDE ONE #5 FOR SINGLE-LAYER REINFORCING AND TWO #5 FOR DOUBLE-LAYER REINFORCING, 4'-0" LONG, DIAGONALLY AT EACH CORNER OF ALL OPENINGS. REFER TO TYPICAL DETAILS FOR DISPOSITION OF CORNER BARS AND BARS IN SMALL WALL SECTIONS. SLAB BARS SHALL BE HOOKED INTO WALLS, OR HOOKED DOWELS SHALL BE PROVIDED TO MATCH SLAB REINFORCING. PROVIDE TWO #4, 4'-0" LONG DIAGONALLY AT EACH RE-ENTRANT CORNER IN SLABS. PROVIDE HOOKED DOWELS FROM FOOTINGS TO MATCH VERTICAL WALL REINFORCING.
15. FOR EXTERIOR RETAINING WALLS AND BUILDING STEM WALLS EXPOSED TO VIEW ACROSS THE LENGTH OF WALL, PROVIDE FORMED "V" CONTROL JOINTS AT 15'-0" OC MAX, SEE CONTROL JOINT DETAIL.
16. HEADED SHEAR STUDS SHALL BE NELSON HEADED ANCHORS WITH FLUXED ENDS (ICC ESR-2856) OR APPROVED. DEFORMED BAR ANCHORS (D.B.A.) SHALL BE NELSON, TYPE D2L (ICC ESR-2907), OR APPROVED. STUDS AND D.B.A. SHALL BE AUTOMATICALLY END-WELDED WITH THE MANUFACTURER'S STANDARD EQUIPMENT IN ACCORDANCE WITH THEIR RECOMMENDATIONS. PERMANENTLY EXPOSED EMBEDDED PLATES AND ANGLES SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION, UNLESS OTHERWISE NOTED. NO LOADS OR WELDS SHALL BE PLACED ON EMBEDDED PLATES OR ANGLES FOR A MINIMUM OF 7 DAYS AFTER CASTING.
17. ANCHORS INSTALLED IN HARDENED CONCRETE SHALL BE USED WHERE SPECIFIED ON THE CONTRACT DRAWINGS. ALL ANCHORS SHALL BE INSTALLED IN STRICT CONFORMANCE WITH MANUFACTURER'S RECOMMENDATIONS. DO NOT CUT REINFORCING IN NEW OR EXISTING CONCRETE DURING INSTALLATION. ANCHORS EXPOSED TO EARTH OR WEATHER SHALL BE PROTECTED FROM CORROSION BY HOT-DIP GALVANIZING OR USE OF STAINLESS STEEL. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE ENGINEER-OF-RECORD PRIOR TO INSTALLING POST-INSTALLED ANCHORS IN PLACE OF MISSING OR MISPLACED CAST-IN-PLACE ANCHORS. SUBSTITUTION REQUESTS FOR PRODUCTS OTHER THAN THOSE SPECIFIED ON CONTRACT DRAWINGS SHALL BE SUBMITTED BY THE CONTRACTOR TO THE ENGINEER-OF-RECORD ALONG WITH CALCULATIONS THAT ARE SIGNED AND SEALED BY THE QUALIFIED PROFESSIONAL ENGINEER RESPONSIBLE FOR THEIR PREPARATION AND LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED.
18. CRACKING IS INHERENT TO THE MATERIAL PROPERTIES OF CONCRETE CONSTRUCTION WHILE EVERY EFFORT HAS BEEN MADE TO MINIMIZE THE EFFECTS OF UNSIGHTLY CRACKING, THE PRESENCE OF CRACKS ARE NORMAL AND UNAVOIDABLE. THE DESIGN OF THE CONCRETE STRUCTURAL ITEMS HAVE BEEN ANALYZED USING A "CRACKING SECTION." THE PRESENCE OF THE CRACKING SHOULD NOT BE CONSIDERED DETRIMENTAL TO THE STRUCTURE. CRACKS LARGER THAN 5 MILS SHALL BE FILLED AND SEALED WITH AN APPROVED CRACK FILLER TO PREVENT FUTURE DETERIORATION. AN ALLOWANCE SHALL BE MADE IN THE CONSTRUCTION BUDGET FOR SEALING OF SUCH CRACKS. IN SOME CASES, CRACKS DO NOT APPEAR UNTIL WELL AFTER CONSTRUCTION HAS BEEN COMPLETED. IT'S THE RESPONSIBILITY OF THE OWNER TO MAINTAIN THE STRUCTURE PROPERLY OVER THE LIFE OF THE STRUCTURE. CONCRETE CRACKS, SHOULD THEY OCCUR, SHALL BE FILLED AND SEALED TO PREVENT PREMATURE DETERIORATION OF THE STRUCTURE.

CONCRETE REINFORCING TENSION CONTACT SPLICE LENGTHS

				CONCRETE COMPRESSION STRENGTH (PSI) 3,000	4,000	5,000	6,000
CLASS A	CASE #1	BARS ≤ #6	TOP OTHER	57 DB 44 DB	49 DB 38 DB	44 DB 34 DB	41 DB 31 DB
		BARS ≥ #7	TOP OTHER	71 DB 55 DB	62 DB 47 DB	55 DB 42 DB	51 DB 39 DB
	CASE #2	BARS ≤ #6	TOP OTHER	85 DB 66 DB	74 DB 57 DB	66 DB 51 DB	62 DB 47 DB
		BARS ≥ #7	TOP OTHER	107 DB 82 DB	92 DB 71 DB	83 DB 64 DB	77 DB 59 DB
CLASS B	CASE #1	BARS ≤ #6	TOP OTHER	74 DB 57 DB	64 DB 49 DB	57 DB 44 DB	54 DB 41 DB
		BARS ≥ #7	TOP OTHER	93 DB 71 DB	80 DB 62 DB	72 DB 55 DB	67 DB 51 DB
	CASE #2	BARS ≤ #6	TOP OTHER	111 DB 85 DB	96 DB 74 DB	86 DB 66 DB	81 DB 61 DB
		BARS ≥ #7	TOP OTHER	139 DB 107 DB	102 DB 92 DB	108 DB 83 DB	100 DB 77 DB

WHERE:

DB:	DIAMETER OF REINFORCING BAR
CLASS A	CLASS A TENSION SPLICE
CLASS B	CLASS B TENSION SPLICE
CASE #1	CLEAR SPACING GREATER THAN OR EQUAL TO 2" db AND COVER GREATER THAN OR EQUAL TO db.
CASE #2	CLEAR SPACING LESS THAN 2"db OR COVER LESS THAN db.
TOP	WHERE HORIZONTAL REINFORCEMENT IS PLACED SUCH THAT MORE THAN 12 INCHES OF FRESH CONCRETE IS CAST BELOW THE DEVELOPMENT LENGTH OR SPLICE.
OTHER	OTHER CONDITION NOT SATISFYING TOP QUALIFICATION (BOTTOM HORIZONTAL REINFORCING)

GENERAL CONCRETE SPLICE NOTES:

1. ALL TENSION SPLICES SHALL BE CONTACT CLASS B SPLICES UNLESS NOTED OTHERWISE. SPLICE LENGTH SHALL NOT BE LESS THAN 12 INCHES.
2. SPLICE LENGTHS IN TABLE ARE FOR SINGLE BAR SPLICES WITH MAXIMUM YIELD STRENGTH OF 60 KSI NON-EPOXY REINFORCING BARS.
3. FOR REINFORCING WITH A SPECIFIED YIELD STRENGTH GREATER THAN 60 KSI MULTIPLY SPLICE LENGTH BY (SPECIFIED YIELD STRENGTH/ 60 KSI)
4. FOR INDIVIDUAL BARS WITHIN A BUNDLE LAP LENGTHS SHALL BE MULTIPLIED BY 1.33 FOR FOUR BAR BUNDLES AND 1.20 FOR THREE BAR BUNDLES. INDIVIDUAL SPLICES WITHIN A BUNDLE SHALL NOT OVERLAP. ENTIRE BUNDLE SHALL NOT BE LAP SPLICED.
5. BARS LARGER THAN #11 SHALL NOT BE LAP SPLICED. FOR BARS LARGER THAN #11, MECHANICAL SPLICE SHALL BE USED. MECHANICAL SPLICES SHALL HAVE STRENGTH GREATER THAN OR EQUAL TO 125% THE YIELD STRENGTH OF THE REINFORCING BAR. MECHANICAL SPLICES SHALL BE STAGGERED.
6. WHERE BARS OF DIFFERENT SIZES ARE LAP SPLICED IN TENSION THE MINIMUM SPLICE LENGTH SHALL BE THE LARGER OF THE LENGTH OF A CLASS B TENSION SPLICE OF THE SMALLER BAR, OR THE LENGTH OF A CLASS A TENSION LAP SPLICE OF THE LARGER BAR.
7. LAP SPLICES ARE NOT PERMITTED WHERE MINIMUM CLEARANCE BETWEEN REINFORCING CANNOT BE MAINTAINED.
8. LAP SPLICE LENGTH SHALL NOT BE LESS THAN THE LARGER OF 12 INCHES MULTIPLIED BY ALL APPLICABLE MULTIPLIERS OR THE TABLE LENGTH MULTIPLIED BY ALL APPLICABLE MULTIPLIERS.

CONCRETE MATERIALS DESIGNATION

MATERIAL	STANDARD
PORTLAND CEMENT	ASTM C150, TYPE I, TYPE II, OR 1L
FLY ASH	ASTM C618, CLASS C OR F
AGGREGATE	ASTM C33
WATER	POTABLE
WATER REDUCING ADMIXTURE	ASTM C494, TYPE A OR D
HIGH RANGE WATER REDUCING ADMIXTURE	ASTM C494, TYPE F OR G
ACCELERATOR ADMIXTURE	ASTM C494, TYPE C OR E
AIR ENTRAINING ADMIXTURE	ASTM C260
CURING COMPOUND	ASTM C309, TYPE I, CLASS A
REINFORCING BARS	ASTM A615 GRADE 60 (SPECIFIED YIELD STRENGTH = 60 KSI)
WELDED REINFORCING BARS	ASTM A706 GRADE 60 (SPECIFIED YIELD STRENGTH = 60 KSI)
EPOXY COATED STEEL REINFORCEMENT	ASTM A775
VAPOR RETARDER BELOW SLAB-ON-GRADE	ASTM E1745 CLASS A

NOTES:

1. TYPE III PORTLAND CEMENT MAY BE USED IF ACCEPTABLE TO THE ARCHITECT.

REQUIRED CONCRETE COVER FOR NON-FIRE-RATED ASSEMBLIES

ASSEMBLY		COVER (IN)
CONCRETE CAST AGAINST & PERMANENTLY EXPOSED TO EARTH	------	3
CONCRETE EXPOSED TO EARTH OR WEATHER	#6 AND GREATER #5 AND SMALLER	2 1 1/2
CONCRETE NOT EXPOSED TO EARTH OR WEATHER	WALLS, SLABS #14 AND GREATER WALL, SLABS #11 AND SMALLER COLUMNS, BEAMS, GIRDERS	1 1/2 3/4 1 1/2

NOTES:

1. PRIMARY REINFORCEMENT, TIES, STIRRUPS, AND SPIRALS

STUDIO 45 ARCHITECTS
16148 Southwest Blvd Tulsa, OK
www.3456Architects.com

360 engineering
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Certificate of Authorization:
OK #5996 | EXP 6.30.2026

CORTEZ FLATS APARTMENTS

1320 EAST 17th STREET
TULSA, OK 74120

PERMIT DOCUMENTS

PROFESSIONAL STRUCTURAL ENGINEER
AARON LANDRUM
25535
OKLAHOMA
05.20.2026

PROJECT NO: 26245
ISSUE DATE: 05/20/2026

GENERAL NOTES

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CONCRETE MIX DESIGN REQUIREMENTS							
ELEMENT	f'c (psi)	CEMENT TYPE	MAX W/C	MAX AGG	AIR CONTENT (NOTE 1)	SLUMP (NOTE 2)	OTHER (NOTE 3)
FOOTINGS AND GRADE BEAMS	3500, NW	I/II	0.55	1 1/2"	4.5%	4"	NOTE 4
FOUNDATION WALLS AND PILASTERS	4500, NW	I/II	0.45	1"	4.5%	3"	NOTE 4
INTERIOR SLAB ON GRADE	3500, NW	I/II	0.55	1"	1.5%	3"	NOTE 5,6,7
INTERIOR ELEVATED SLAB ON METAL DECK	3000, NW	I/II	0.50	1/2"	1.5%	3"	NOTE 5,6,7,8
EXTERIOR ELEVATED SLAB	5000, NW	I/II	0.40	1/2"	7.0%	3"	NOTE 9,10
EXTERIOR STRUCTURAL CONCRETE	4500, NW	I/II	0.45	1"	4.5%	3"	NOTE 4

FOOTNOTES:

1.	TOLERANCE ON AIR CONTENT AS DELIVERED SHALL BE AS FOLLOWS:
	FOR f'c LESS THAN OR EQUAL TO 5000PSI = +/- 1.5%
	FOR f'c GREATER THAN 5000PSI = +/- 1.0%
2.	SLUMP TOLERANCES AS FOLLOWS (ACI 117):
	SPECIFIED SLUMP LESS THAN OR EQUAL TO 4" = +/- 1"
	SPECIFIED SLUMP GREATER THAN 4"= +/- 1 1/2"
	SPECIFIED SLUMP OF CONCRETE IS BEFORE ADDITION OF PLASTICIZERS OR HIGH-RANGE WATER REDUCING ADMIXTURES.
3.	MAXIMUM WATER-SOLUBLE CHLORIDE ION (CL-) CONTENT IN CONCRETE BY % WEIGHT OF CEMENT IS 1.0 UNO.
4.	MAXIMUM WATER-SOLUBLE CHLORIDE ION (CL-) CONTENT IN CONCRETE BY % WEIGHT OF CEMENT IS 0.3.
5.	CONCRETE FOR SLABS SHALL HAVE MINIMUM CEMENTITIOUS MATERIALS CONTENT AS FOLLOWS:
	MAX AGGREGATE SIZE LESS THAN 1" = 610 LB/ CU YD
	MAX AGGREGATE SIZE GREATER THAN OR EQUAL TO 1" = 540 LB/ CU YD
6.	NW CONCRETE FOR SLABS TO RECEIVE A HARD-TROWELED FINISH SHALL NOT CONTAIN AIR-ENTRAINING ADMIXTURE OR HAVE A TOTAL AIR CONTENT GREATER THAN 3%.
7.	WHEN FLY ASH IS USED IN SLABS, IT SHOULD BE 25% MAX BY WEIGHT OF TOTAL CEMENTITIOUS MATERIALS.
8.	ADMIXTURES CONTAINING CHLORIDE SALTS SHALL NOT BE USED ON METAL DECKS.
9.	MAXIMUM WATER-SOLUBLE CHLORIDE ION (CL-) CONTENT IN CONCRETE BY % WEIGHT OF CEMENT IS 0.15.
10.	LIMITS ON SUPPLEMENTARY CEMENTITIOUS MATERIALS TO CONFORM TO ACI TABLE 26.4.2.2(b).
11.	USE AGGREGATE SIZE FOR CONCRETE CORE THICKNESS AS FOLLOWS:
	FOR CORE THICKNESS LESS THAN OR EQUAL TO 4" = 3/8" MAX
	FOR CORE THICKNESS LESS THAN OR EQUAL TO 6" = 1/2" MAX
	FOR CORE THICKNESS LESS THAN OR EQUAL TO 8" = 1" MAX

GENERAL CONCRETE MIX NOTES:

1.	MIX DESIGNS SHALL BE IN ACCORDANCE WITH ACI 301.
2.	STRENGTH (f'c) IS THE 28 DAY COMPRESSIVE STRENGTH UNO OR COMPRESSIVE STRENGTH AT THE SPECIFIED AGE.
3.	CONCRETE IS NORMAL WEIGHT (NW) CONCRETE UNO. NORMAL WEIGHT CONCRETE (NW) SHALL HAVE A DRY DENSITY OF 150 PCF MAX UNO.
4.	LIGHT WEIGHT CONCRETE (LW) SHALL HAVE A DRY DENSITY OF 110 PCF MAX.
5.	MIX DESIGNS NOT FURNISHED, SUCH AS THOSE REQUIRING SULFATE RESISTANCE OR EXPOSED TO DE-ICING CHEMICALS, SHALL BE FOUND IN THE SPECIFICATIONS.

DIVISION 4 - MASONRY

1. CONCRETE MASONRY UNITS SHALL MEET ASTM SPECIFICATION C90, GRADE N TYPE 1 BLOCK WITH A MINIMUM UNIT COMPRESSIVE STRENGTH OF 1900 PSI. THE SPECIFIED DESIGN COMPRESSIVE STRENGTH OF THE CONCRETE MASONRY ASSEMBLY SHALL BE 1,900 PSI.
2. MORTAR SHALL MEET ASTM SPECIFICATION C270 FOR TYPE "S" MORTAR.
3. GROUT SHALL MEET ASTM SPECIFICATION C476 AND HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 2,000 PSI.
4. GROUT PLACED BY THE LOW LIFT GROUTING METHOD SHALL BE MECHANICALLY CONSOLIDATED USING A VIBRATOR WITH A MAXIMUM 3/4 INCH DIAMETER HEAD.
5. HORIZONTAL JOINT REINFORCEMENT SHALL BE LADDER TYPE (REFERENCE SPECIFICATION). JOINT REINFORCEMENT SHALL BE SPACED AT 8 INCHES ON CENTER BELOW FINISHED FLOOR AND IN PARAPETS, AND 16 INCHES ON CENTER ABOVE FINISHED FLOOR.
6. CONCRETE MASONRY SHALL BE LAID IN RUNNING BOND.
7. CONCRETE MASONRY BELOW FINISHED FLOOR SHALL BE NORMAL WEIGHT UNITS AND SHALL HAVE ALL THE CELLS FULLY GROUTED. CONCRETE MASONRY ABOVE FINISHED FLOOR SHALL BE MEDIUM WEIGHT OR LIGHT WEIGHT AND IS TO BE GROUTED AT REINFORCED CELLS AND BOND BEAMS. ALL CELLS WITH REINFORCING SHALL BE GROUTED SOLID.
8. SEE WALL SECTIONS AND DETAILS FOR MISCELLANEOUS BOND BEAM LOCATIONS AND EMBEDDED ITEMS. USE OPEN KNOCK OUT BOND BEAM BLOCK. DO NOT USE THROUGH TYPE BLOCKS FOR BOND BEAMS. DO NOT CONTINUE BOND BEAM REINFORCING THROUGH CONTROL JOINTS.
9. REINFORCING STEEL SHALL MEET ASTM SPECIFICATION A615, GRADE 60.
10. ANCHORS INSTALLED IN GROUT FILLED CONCRETE MASONRY UNITS SHALL BE USED WHERE SPECIFIED ON THE DRAWINGS. ANCHORS MUST BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS. USE HILTI HY-270 ADHESIVE ANCHORING SYSTEM OR HILTI KWIK BOLT3 EXPANSION ANCHOR, REFERENCE DETAILS FOR ANCHOR SIZE AND EMBEDMENT. SUBSTITUTIONS TO THE SPECIFIED ANCHORS MUST BE APPROVED BY THE ENGINEER OF RECORD.
11. CONSTRUCTION BRACING FOR MASONRY WALLS SHALL BE DESIGNED AND DETAILED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED.

DIVISION 5 - STEEL DECK

1. DECK DESIGN IS IN ACCORDANCE WITH STEEL DECK INSTITUTE (SDI) PUBLICATION NO. 31 AND DIAPHRAGM DESIGN MANUAL, LATEST EDITIONS. THE CONTRACTOR SHALL FOLLOW ALL RECOMMENDED PRACTICES IN THE SDI MANUAL.
2. WHERE DECK RIBS ARE CUT AT PENETRATIONS, PROVIDE DECK SUPPORT ANGLES OR DECK STIFFENERS AS REQUIRED. REINFORCE OPENINGS IN METAL DECK AND FLOOR DECK IN ACCORDANCE WITH TYPICAL DECK OPENING DETAILS.
3. THE DECKING SPECIFIED ON THIS PROJECT ASSUMES A 3-SPAN CONDITION, UNO. THE CONTRACTOR SHALL PROVIDE HEAVIER GAUGE DECK, AS REQUIRED, FOR ONE OR TWO SPAN CONDITIONS TO MEET EQUIVALENT LOAD CAPACITY OF THE SPECIFIED DECK, UNDER A 3-SPAN CONDITION.
4. PROVIDE A 2" MINIMUM BEARING AND A 4" LAP AT THE SPLICE POINT OF ALL PIECES OF DECK.
5. PROVIDE DECK ATTACHMENTS AS NOTED ON DRAWINGS. ALTERNATE FASTENING OPTIONS USING MECHANICAL FASTENERS, POWDER-ACTUATED OR SCREWS, MAY BE CONSIDERED IF SUBMITTED BY THE CONTRACTOR. ALTERNATE SYSTEMS MUST BE SUBMITTED TO THE STRUCTURAL ENGINEER OF RECORD PRIOR TO USE, AND DOCUMENTATION CERTIFYING THAT THE PROPOSED SYSTEM PROVIDES AT LEAST THE SAME UPLIFT AND DIAPHRAGM SHEAR RESISTANCE AS THE SYSTEM AND PATTERN SPECIFIED.
6. FOR COMPOSITE DECK, SHEAR STUDS, WELDED THROUGH THE DECK, MAY BE COUNTED AS PART OF THE REQUIRED DECK ATTACHMENT PATTERN.
7. HANGING ANY LOADS DIRECTLY FROM STEEL ROOF DECK SHALL BE AVOIDED WHENEVER POSSIBLE. NEVERTHELESS, NORMAL SUSPENDED ACOUSTICAL CEILINGS WITH A TOTAL WEIGHT PER WIRE NOT EXCEEDING 50 POUNDS MAY BE HUNG FROM THE STEEL ROOF DECK IN CASES WHERE HANGING LOADS FROM THE DECK CANNOT BE AVOIDED. THE ATTACHMENT SHOULD BE STAGGERED, IF POSSIBLE, TO FURTHER DISTRIBUTE THE LOAD. DECK SHOULD BE PROVIDED WITH TABS OR OTHER BUILT-IN DEVICES FOR HANGING REFERENCED LOADS IF LOADS ARE DIRECTLY SUPPORTED BY THE DECK.
8. WHERE METAL DECK IS PART OF A RATED ASSEMBLY, SUPPLY ALL DECK AND COMPONENTS WHICH COMPLY WITH REQUIREMENTS OF UNDERWRITER'S LABORATORY FOR EACH TYPE OF ASSEMBLY SPECIFIED, RE: PLANS AND SPECIFICATIONS. WHERE DECK IS TO RECEIVE SPRAY FIREPROOFING, FINISHES SHALL BE COMPATIBLE WITH FIREPROOFING MATERIAL AND COMPLY WITH U.L. ASSEMBLY REQUIREMENTS. BEFORE THE FIREPROOFING MATERIAL IS APPLIED, THE DECK SURFACE TO BE TREATED SHALL BE FREE OF RUST, SCALE, OIL OR OTHER CONTAMINANTS AND ELEMENTS WHICH WILL IMPAIR BOND.
9. SUPPLY 8" WIDE, MINIMUM, PLATES MATCHING DECK GAUGE OR HEAVIER FOR ALL RIDGE, VALLEY, AND CHANGE IN DECK DIRECTION LOCATIONS WHICH DO NOT FALL OVER A SUPPORTING MEMBER AT LEAST 4" WIDE.
10. PLACING CONDUIT IN SLAB ON METAL DECK IS NOT PERMITTED.

DIVISION 5 - STEEL

1. STRUCTURAL STEEL SHALL MEET THE FOLLOWING MINIMUM YIELD STRENGTHS (Fy):

		YIELD	ASTM SPECIFICATION
A.	WIDE FLANGE SHAPES:	50 KSI	A992
B.	OTHER SHAPES, BARS, PLATES AND RODS	36 KSI	A36
C.	SQUARE AND RECTANGULAR HSS	46 KSI	A500, GRADE B
		50 KSI	A500, GRADE C
D.	ROUND HSS	42 KSI	A500, GRADE B
		46 KSI	A500, GRADE C
E.	STRUCTURAL STEEL PIPE	35 KSI	A53, TYPE E, GRADE B
F.	ANCHOR RODS	36 KSI	F1554
G.	ALL-THREAD RODS	36 KSI	A36
H.	HEADED STUD ANCHORS	65 KSI (TENSILE)	A108 (GRADE DESIGNATIONS 1010-1020 INCLUSIVE)

2. BOLTS FOR STEEL BEAM AND COLUMN CONNECTIONS SHALL BE 3/4" DIAMETER ASTM A325 HIGH-STRENGTH BOLTS INSTALLED SNUG TIGHT, UNO.
3. WHERE FIELD AND SHOP WELDS ARE INDICATED ON THE DRAWINGS, THEY SHALL BE THE SIZE AND TYPE NOTED. ALL WELDING OF STRUCTURAL STEEL SHALL BE DONE IN ACCORDANCE WITH LATEST EDITION OF AWS D1.1 CORRESPONDING TO THE AISC SPECIFICATION USED, AND ALL WELDS INCLUDING FIELD WELDS SHALL BE MADE BY CERTIFIED WELDERS USING E70XX ELECTRODES.
4. WHERE FIELD WELD SIZES ARE NOT INDICATED ON WELD SYMBOLS, FILLET SIZE SHALL BE 1/16TH INCH SMALLER THAN THICKNESS OF THINNER MATERIALS BEING JOINED.
5. COMPLETE PENETRATION WELDS ARE INDICATED BY NOTATION "CP" ON WELD SYMBOLS, PARTIAL PENETRATION BY "PP".
6. PROVIDE DOUBLE NUTS AND DOUBLE WASHERS FOR STEEL COLUMN ANCHOR BOLTS TO ALLOW FOR ADJUSTMENT IN BASE PLATE...
7. COMPOSITE CONSTRUCTION STEEL BEAMS AND GIRDERS DO NOT REQUIRE SHORING.
8. STUD CONNECTORS FOR COMPOSITE BEAMS AND GIRDERS SHALL BE WELDED THROUGH METAL DECK DIRECTLY TO THE STEEL MEMBER. SEE TYP SHEAR STUD LAYOUT DETAIL FOR STUD CONNECTOR SIZE AND ADDITIONAL INFORMATION.
9. STUD SPACING ON COMPOSITE BEAMS AND GIRDERS SHALL NOT BE LESS THAN 4 1/2" ALONG THE LENGTH OF ANY MEMBER AND SHALL NOT EXCEED 32". MINIMUM STUD SPACING ACROSS THE WIDTH OF ANY FLANGE SHALL NOT BE LESS THAN 3".
10. DO NOT PAINT SURFACES WHICH RECEIVE WELDED STUDS.
11. EXPOSED STEEL LABELED AS ARCHITECTURALLY EXPOSED STEEL REQUIRES HIGHER TOLERANCES FOR CONSTRUCTION. REFER TO SPECIFICATIONS SECTION 051200 FOR REQUIREMENTS. FLARE BEVEL WELDS FOR ARCHITECTURALLY EXPOSED TUBE SHAPED SECTIONS SHALL BE BEVELED 45 DEGREES, WELDED AND GRINDED SMOOTH.
12. ALL STEEL MEMBERS NOTED OR INDICATED ON PLANS, ELEVATIONS, SECTIONS OR DETAILS SHALL BE SHOP ROLLED BY THE STEEL FABRICATOR. SHOP DRAWINGS SHALL INDICATE CURVATURE DATA AND FULL PENETRATION SPLICE LOCATIONS.
13. SEE SPECIFICATIONS FOR MISC. STEEL REQUIREMENTS NOT SHOWN ON STRUCTURAL PLANS.
14. TOUCH UP ALL FIELD WELDS ON GALVANIZED SURFACES WITH GALVANIZING REPAIR PAINT.
15. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR INCLUDING THE COSTS FOR ALL MISCELLANEOUS STEEL IN THEIR BID, REGARDLESS OF WHETHER THOSE ITEMS ARE INDICATED ON THE STRUCTURAL DRAWINGS. THESE COSTS SHALL INCLUDE, BUT NOT LIMITED TO, MISCELLANEOUS STEEL ITEMS SHOWN ON ARCHITECTURAL, CIVIL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS.
16. UNLESS DETAILED OTHERWISE OR REACTIONS ARE INDICATED, BEAM CONNECTIONS SHALL BE SELECTED TO SUPPORT ONE-HALF THE TOTAL UNIFORM LOAD CAPACITY SHOWN IN THE "MAXIMUM TOTAL UNIFORM LOAD TABLES" IN PART 3 OF THE AISC STEEL CONSTRUCTION MANUAL, 15TH EDITION, FOR THE GIVEN BEAM SIZE, SPAN AND STEEL SPECIFICATION OR FOR THE BEAM REACTION SHOWN ON THE DRAWINGS, WHICHEVER IS GREATER. THE MINIMUM BEAM CONNECTION SHALL NOT BE SMALLER THAN THOSE LISTED IN TABLES 10-1 AND 10-2 OF THE AISC STEEL CONSTRUCTION MANUAL, 15TH EDITION, FOR THE GIVEN BEAM DEPTH, BOLT DIAMETER AND WELD SPECIFICATION.
17. THE FABRICATOR SHALL BE RESPONSIBLE FOR THE DESIGN AND ADEQUACY OF ALL CONNECTIONS THAT ARE NOT DESIGNED OR FULLY DETAILED ON THE CONTRACT DOCUMENTS. SHOP DRAWINGS, DEPICTING THE CONFIGURATIONS AND FABRICATION DETAILS, ALONG WITH CALCULATIONS, SEALED BY A REGISTERED PROFESSIONAL ENGINEER, LICENSED TO PRACTICE IN THE STATE IN WHICH THE PROJECT IS LOCATED; SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER OF RECORD FOR REVIEW.
18. UNLESS OTHERWISE INDICATED, BEAM REACTIONS SHOWN ON THE PLANS ARE DESIGN SERVICE LEVEL (ASD) GRAVITY (DEAD LOAD PLUS LIVE LOAD) SHEAR LOADS. ANY AXIAL OR OTHER LOADS REQUIRED MUST BE CONSIDERED IN ADDITION TO THE VERTICAL REACTIONS SHOWN.
19. THE MINIMUM DESIGN LOAD FOR ANY CONNECTION SHALL BE 6 KIPS (ASD) OR 10 KIPS (LRFD), REGARDLESS OF THE BEAM REACTION(S) SHOWN ON THE PLANS.
20. STEEL FRAMES ARE NON SELF-SUPPORTING AND COLUMN ANCHOR RODS ARE DESIGNED FOR A COMPLETED CONDITION ONLY. METAL ROOF DECK, BEAM-TO-COLUMN MOMENT CONNECTIONS, PORTAL FRAMES, AND DIAGONAL BRACES ARE REQUIRED TO PROVIDE LATERAL STABILITY FOR THE FRAME AND BUILDING. THIS INCLUDES RESISTANCE TO WIND AND SEISMIC FORCES DURING AND AFTER CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY BRACING REQUIRED TO MAINTAIN STABILITY UNTIL THE LATERAL FORCE RESISTING SYSTEM FOR THE BUILDING IS COMPLETE.
21. STAIR SUPPLIER TO PROVIDE POST/HANGER SUPPORTS AT INTERMEDIATE LANDINGS AS REQUIRED. POST/HANGERS SHALL LOAD BEAMS CONCENTRICALLY.
22. AT EACH SIDE OF THE ROOF ACCESS LADDERS, PROVIDE C6x8.2 VERTICAL INSIDE OF STUD WALL AT EXTERIOR WALLS AND PROVIDE DOUBLE 54-MIL STUDS AT INTERIOR WALLS. SEE ARCH FOR LOCATIONS.
23. FIELD CUTTING, DRILLING OR OTHER MODIFICATION OF STRUCTURAL STEEL COMPONENTS IS NOT PERMITTED WITHOUT WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER OF RECORD. WHERE BEAM PENETRATIONS CANNOT BE AVOIDED OR WHERE CUTTING IS REQUIRED, THE CONTRACTOR SHALL SUBMIT TO THE STRUCTURAL ENGINEER OF RECORD ALL PERTINENT INFORMATION INCLUDING PENETRATION SHAPE, SIZE, LOCATION AND METHOD OF CUTTING OPENINGS.
24. ALL STEEL MEMBERS EXPOSED TO WEATHER SHALL BE GALVANIZED OR PAINTED WITH TNEMEC EPOXY SYSTEM OR SIMILAR SYSTEM MEETING THE REQUIREMENT FOR PAINTING STRUCTURAL STEEL IN THE PROJECT SPECIFICATIONS. ALL OTHER STEEL MEMBERS SHALL BE FURNISHED WITH A SHOP COAT OF TNEMEC RED OR GRAY OXIDE PRIMER OR SIMILAR SYSTEM MEETING THE REQUIREMENT FOR PAINTING STRUCTURAL STEEL IN THE PROJECT SPECIFICATIONS. ALL PRIMERS SHALL BE COMPATIBLE WITH TOP COATINGS SPECIFIED.

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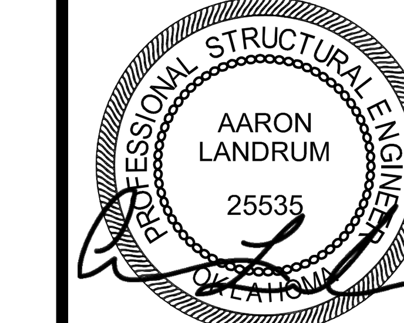

05.20.2026

PROJECT NO: 26245
ISSUE DATE: 05/20/2026

GENERAL NOTES

S002

SUBMITTALS

1. TRANSMIT SUBMITTALS SUFFICIENTLY IN ADVANCE OF RELATED CONSTRUCTION ACTIVITIES TO AVOID UNNECESSARY DELAY. THE STRUCTURAL ENGINEER OF RECORD MAY WITHHOLD ACTION ON A SUBMITTAL REQUIRING COORDINATION WITH OTHER SUBMITTALS UNTIL ALL RELATED SUBMITTALS ARE RECEIVED.

2. THE GENERAL CONTRACTOR SHALL SUBMIT ONE ELECTRONIC PORTABLE DOCUMENT FORMAT (PDF) COPY OF ALL REQUIRED SUBMITTALS THROUGH THE ARCHITECT FOR REVIEW. THE ELECTRONIC COPY WILL BE MARKED UP BY THE STRUCTURAL ENGINEER OF RECORD. ONE COPY WILL BE KEPT BY THE STRUCTURAL ENGINEER OF RECORD AND AN ADDITIONAL COPY WILL BE RETURNED TO THE ARCHITECT. THE ARCHITECT WILL KEEP ONE COPY AND RETURN A COPY TO THE CONTRACTOR. THE CONTRACTOR WILL MAKE ADDITIONAL COPIES AS REQUIRED.

3. THE GENERAL CONTRACTOR SHALL SUBMIT, FOR ENGINEER REVIEW, SHOP DRAWINGS FOR THE FOLLOWING ITEMS:
   A. CONCRETE MIX DESIGNS (3)
   B. MISCELLANEOUS STEEL
   C. REINFORCING STEEL
   D. STRUCTURAL STEEL: SHOP AND ERECTION DRAWINGS
   E. STRUCTURAL STEEL : CONNECTIONS OF FRAMING AND BRACING ELEMENTS

NOTES:

1. SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE WHERE THE PROJECT IS LOCATED PER THE PROJECT SPECIFICATIONS.
2. SHALL BE SUBMITTED TO THE ENGINEER FOR RECORD ONLY AND WILL NOT RECEIVE THE ENGINEER'S SHOP DRAWING STAMP.
3. SHALL BE SUBMITTED TO THE ENGINEER AND THE OWNER'S TESTING AGENCY FOR REVIEW.
4. ITEM IS A DEFERRED SUBMITTAL WHICH HAS NOT BEEN COMPLETED AND IS TO BE SUBMITTED TO THE BUILDING OFFICIAL AND APPROVED PRIOR TO INSTALLATION. THE MANUFACTURER, CONSULTANT, OR CONTRACTOR, AS APPROPRIATE SHALL PROVIDE SUBMITTALS TO THE ENGINEER OF RECORD FOR REVIEW.
5. ALL SHOP DRAWINGS MUST BE REVIEWED AND ELECTRONICALLY STAMPED BY THE GENERAL CONTRACTOR PRIOR TO SUBMITTAL.
6. CALCULATIONS ARE REQUIRED TO BE SIGNED AND SEALED AND CAN BE SUBMITTED AFTER JOIST ERECTION SUBMITTAL.

SPECIAL INSPECTION NOTES

1. SPECIAL INSPECTION SHALL BE PROVIDED BY THE OWNER ACCORDING TO SECTION 1705 OF IBC 2018. THE APPROVED SPECIAL INSPECTOR SHALL DEMONSTRATE COMPETENCE FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION. THE SPECIAL INSPECTOR SHALL SEND REPORTS TO THE OWNER, THE BUILDING OFFICIAL, THE ARCHITECT, THE STRUCTURAL ENGINEER OF RECORD, AND TO THE CONTRACTOR. THE SPECIAL INSPECTOR SHALL BRING NON-CONFORMING ITEMS TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR AND NOTE ALL SUCH ITEMS IN THE REPORTS. ANY UNRESOLVED ITEM ABOUT THE COVERED WORK SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S CONSTRUCTION MANAGER AS WELL AS THE ARCHITECT AND STRUCTURAL ENGINEER OF RECORD. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING WHETHER OR NOT THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE SPECIAL INSPECTION AGENCY REGARDING INDIVIDUAL INSPECTIONS FOR ITEMS LISTED ON THE SCHEDULE AND AS NOTED ON THE BUILDING DEPARTMENT APPROVED PLANS. ADEQUATE NOTICE AND ACCESS TO APPROVED PLANS SHALL BE PROVIDED SO THAT THE SPECIAL INSPECTOR HAS TIME TO BECOME FAMILIAR WITH THE PROJECT.
2. SEE ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING CONSTRUCTION DOCUMENTS FOR ADDITIONAL NON-STRUCTURAL SPECIAL INSPECTION ITEMS.
3. IN ACCORDANCE WITH IBC CHAPTER N, THE FOLLOWING TYPES OF WORK REQUIRE SPECIAL INSPECTIONS AND TESTING:

SPECIAL INSPECTION AND VERIFICATION OF STEEL CONSTRUCTION PRIOR TO WELDING

REFERENCE AISC 360-16, TABLE N5.4-1

OBSERVE (O): THE INSPECTOR SHALL OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS. PERFORM (P): THESE TASKS SHALL BE PERFORMED FOR EACH WELDED JOINT OR MEMBER.	QUALITY CONTROL	QUALITY ASSURANCE
VERIFICATION AND INSPECTION TASK	QC	QA
WELDING QUALIFICATION RECORDS AND CONTINUITY RECORDS	P	O
WPS AVAILABLE	P	P
MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE	P	P
MATERIAL IDENTIFICATION (TYPE/GRADE)	O	O
WELDER IDENTIFICATION SYSTEM [a]	O	O
FIT-UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY) • JOINT PREPARATION • DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) • CLEANLINESS (CONDITION OF STEEL SURFACES) • TACKING (TACK WELD QUALITY AND LOCATION) • BACKING TYPE AND FIT (IF APPLICABLE)	O	O
FIT-UP OF CJP GROOVE WELDS OF HSS T-, Y- AND K-JOINTS WITHOUT BACKING (INCLUDING JOINT GEOMETRY) • JOINT PREPARATION • DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) • CLEANLINESS (CONDITION OF STEEL SURFACES) • TACKING (TACK WELD QUALITY AND LOCATION)	P	O
CONFIGURATION AND FINISH OF ACCESS HOLES	O	O
FIT-UP OF FILLET WELDS • DIMENSIONS (ALIGNMENT, GAPS AT ROOT) • CLEANLINESS (CONDITION OF STEEL SURFACES) • TACKING (TACK WELD QUALITY AND LOCATION)	O	O
CHECK WELDING EQUIPMENT	O	--

[a] THE FABRICATOR OR ERECTOR, AS APPLICABLE, SHALL MAINTAIN A SYSTEM BY WHICH A WELDER WHO HAS WELDED A JOINT OR MEMBER CAN BE IDENTIFIED. STAMPS, IF USED SHALL BE THE LOW-STRESS TYPE.

SPECIAL INSPECTION AND VERIFICATION OF STEEL CONSTRUCTION DURING WELDING

REFERENCE AISC 360-16, TABLE N5.4-2

OBSERVE (O): THE INSPECTOR SHALL OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS. PERFORM (P): THESE TASKS SHALL BE PERFORMED FOR EACH WELDED JOINT OR MEMBER.	QUALITY CONTROL	QUALITY ASSURANCE
VERIFICATION AND INSPECTION TASK	QC	QA
CONTROL AND HANDLING OF WELDING CONSUMABLES • PACKAGING • EXPOSURE CONTROL	O	O
NO WELDING OVER CRACKED TACK WELDS	O	O
ENVIRONMENTAL CONDITIONS • WIND SPEED WITHIN LIMITS • PRECIPITATION AND TEMPERATURE	O	O
WPS FOLLOWED • SETTINGS ON WELDING EQUIPMENT • TRAVEL SPEED • SELECTED WELDING MATERIALS • SHIELDING GAS TYPE/FLOW RATE • PREHEAT APPLIED • INTERPASS TEMPERATURE MAINTAINED (MIN/MAX) • PROPER POSITION (F, V, H, OH)	O	O
WELDING TECHNIQUES • INTERPASS AND FINAL CLEANING • EACH PASS WITHIN PROFILE LIMITATIONS • EACH PASS MEETS QUALITY REQUIREMENTS	O	O
PLACEMENT AND INSTALLATION OF STEEL HEADED STUD ANCHORS	P	P

SPECIAL INSPECTION AND VERIFICATION OF STEEL CONSTRUCTION AFTER WELDING

REFERENCE AISC 360-16, TABLE N5.4-3

OBSERVE (O): THE INSPECTOR SHALL OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS. PERFORM (P): THESE TASKS SHALL BE PERFORMED FOR EACH WELDED JOINT OR MEMBER.	QUALITY CONTROL	QUALITY ASSURANCE
VERIFICATION AND INSPECTION TASK	QC	QA
WELDS CLEANED	O	O
SIZE, LENGTH AND LOCATION OF WELDS	P	P
WELDS MEET VISUAL ACCEPTANCE CRITERIA • CRACK PROHIBITION • WELD/BASE-METAL FUSION • CRATER CROSS SECTION • WELD PROFILES • WELD SIZE • UNDERCUT • POROSITY	P	P
ARC STRIKES	P	P
K-AREA [a]	P	P
WELD ACCESS HOLES IN ROLLED HEAVY SHAPES AND BUILT-UP HEAVY SHAPES [b]	P	P
BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED)	P	P
REPAIR ACTIVITIES	P	P
DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER	P	P
NO PROHIBITED WELDS HAVE BEEN ADDED WITHOUT THE APPROVAL OF THE EOR	O	O

[a] WHEN WELDING OF DOUBLER PLATES, CONTINUITY PLATES OR STIFFENERS HAS BEEN PERFORMED IN THE K-AREA, VISUALLY INSPECT THE WEB K-AREA FOR CRACKS WITHIN 3 IN (75 MM) OF THE WELD.

[b] AFTER ROLLED HEAVY SHAPES (SEE SECTION A3.1c) AND BUILT-UP HEAVY SHAPES (SEE SECTION A3.1d) ARE WELDED, VISUALLY INSPECT THE WELD ACCESS HOLE FOR CRACKS.

SPECIAL INSPECTION AND VERIFICATION OF STEEL CONSTRUCTION PRIOR TO BOLTING

REFERENCE AISC 360-16, TABLE N5.6-1

OBSERVE (O): THE INSPECTOR SHALL OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS. PERFORM (P): THESE TASKS SHALL BE PERFORMED FOR EACH WELDED JOINT OR MEMBER.	QUALITY CONTROL	QUALITY ASSURANCE
VERIFICATION AND INSPECTION TASK	QC	QA
MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER MATERIALS	O	P
FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS	O	O
CORRECT FASTENERS SELECTED FOR THE JOINT DETAIL (GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE)	O	O
CORRECT BOLTING PROCEDURE SELECTED FOR JOINT DETAIL	O	O
CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS	O	O
PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED	P	O
PROPER STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER FASTENER COMPONENTS	O	O

SPECIAL INSPECTION AND VERIFICATION OF STEEL CONSTRUCTION DURING BOLTING

REFERENCE AISC 360-16, TABLE N5.6-2

OBSERVE (O): THE INSPECTOR SHALL OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS. PERFORM (P): THESE TASKS SHALL BE PERFORMED FOR EACH WELDED JOINT OR MEMBER.	QUALITY CONTROL	QUALITY ASSURANCE
VERIFICATION AND INSPECTION TASK	QC	QA
FASTENER ASSEMBLIES, PLACED IN ALL HOLES AND WASHERS (IF REQUIRED) ARE POSITIONED AS REQUIRED	O	P
JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION	O	O
FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING	O	O
FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID TOWARD THE FREE EDGES	O	O

SPECIAL INSPECTION AND VERIFICATION OF STEEL CONSTRUCTION AFTER BOLTING

REFERENCE AISC 360-16, TABLE N5.6-3

OBSERVE (O): THE INSPECTOR SHALL OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS. PERFORM (P): THESE TASKS SHALL BE PERFORMED FOR EACH WELDED JOINT OR MEMBER.	QUALITY CONTROL	QUALITY ASSURANCE
VERIFICATION AND INSPECTION TASK	QC	QA
DOCUMENT ACCEPTANCE OR REJECTED OF BOLTED CONNECTIONS	P	P

SPECIAL INSPECTION AND VERIFICATION OF CONCRETE CONSTRUCTION

REFERENCE IBC 2018, TABLE 1705.3

VERIFICATION AND INSPECTION TASK	CONTINUOUS	PERIODIC
1. INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT	--	X
2. REINFORCING BAR WELDING:		
a. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706	--	X
b. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16"	--	X
c. INSPECT ALL OTHER WELDS	X	--
3. INSPECT ANCHORS CAST IN CONCRETE	--	X
4. INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS.		
a. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS	X	--
b. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4a	--	X
5. VERIFY USE OF REQUIRED DESIGN MIX	--	X
6. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE	X	--
7. INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	X	--
8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES	--	X
9. INSPECT PRESTRESSED CONCRETE FOR:		
a. APPLICATION OF PRESTRESSING FORCES	X	--
b. GROUTING OF BONDED PRESTRESSING TENDONS	X	--
10. INSPECT ERECTION OF PRECAST CONCRETE MEMBERS	--	X
11. VERIFY IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS	--	X
12. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED	--	X

SPECIAL INSPECTION AND VERIFICATION OF SOILS

REFERENCE IBC 2018, TABLE 1705.6

VERIFICATION AND INSPECTION TASK	CONTINUOUS	PERIODIC
VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY	--	X
VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	--	X
PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS	--	X
VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESS DURING PLACEMENT AND COMPACTION OF COMPACTED FILL	X	--
PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY	--	X

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PROFESSIONAL STRUCTURAL ENGINEER
AARON LANDRUM
25535
OKLAHOMA
05.20.2026

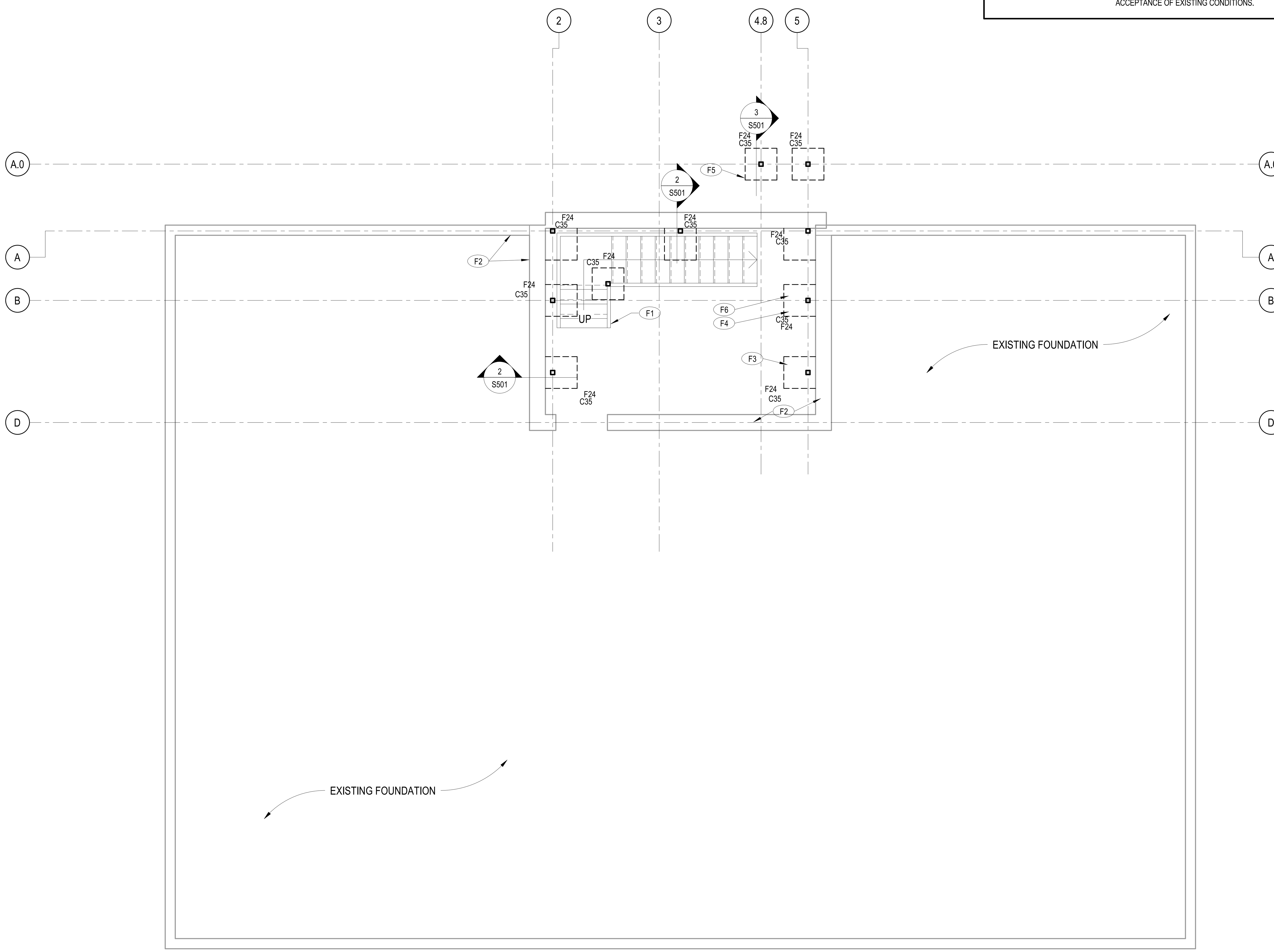
PROJECT NO: 26245
ISSUE DATE: 05/20/2026

SPECIAL INSPECTIONS

S003

FIELD VERIFICATION NOTE

VERIFY ALL DIMENSIONS AND EXISTING STRUCTURAL MEMBER SIZES IN THE FIELD PRIOR TO FABRICATION OF STRUCTURAL ITEMS. EXISTING PORTIONS OF THE PLANS ARE FROM A PRELIMINARY FIELD SURVEY, WHICH MAY OR MAY NOT REFLECT ACTUAL AS-BUILT CONDITIONS AND DIMENSIONS. IF ANY DISCREPANCIES ARE FOUND BETWEEN WHAT IS SHOWN ON THE DRAWINGS AND WHAT EXISTS IN THE FIELD, CONTACT THE ARCHITECT TO DETERMINE WHAT SHOULD BE DONE TO MATCH EXISTING CONDITIONS AS REQUIRED. BEGINNING OF FABRICATION MEANS ACCEPTANCE OF EXISTING CONDITIONS.



FOUNDATION PLAN

PLAN NORTH

1 FOUNDATION PLAN
1/4" = 1'-0"

GENERAL FOUNDATION NOTES (S)

SOME GENERAL SHEET NOTES MAY NOT APPLY TO THIS SHEET.

1. SEE SHEET S001 FOR GENERAL NOTES.
2. SEE ARCHITECTURAL PLANS FOR DIMENSIONS NOT SHOWN. COORDINATE SLAB ELEVATIONS AND SLOPES WITH ARCHITECTURAL PLANS.
3. SEE MECHANICAL AND ARCHITECTURAL DRAWINGS FOR SIZES AND LOCATION OF PENETRATIONS NOT INDICATED ON STRUCTURAL DRAWINGS.
4. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE DURING CONSTRUCTION FOR THE SLAB AREA. SLAB SUBGRADE SHALL NOT BE ALLOWED TO RETAIN WATER DURING CONSTRUCTION.

PLAN NOTES - FOUNDATION (F)

F1 STAIR STRINGERS; CONNECT EACH STRINGER TO A 12" DEEP x 2'-0" WIDE THICKENED SLAB-ON-GRADE WITH (2) #4 CONTINUOUS. USE L4x4x0'-9" AT EACH STRINGER WITH (2) 1/2" DIA HILTI HAS RODS EMBEDDED 4 1/2" WITH HILTI HIT-RE 500-SD EPOXY ADHESIVE.

F2 EXISTING BASEMENT WALLS. FIELD VERIFY DIMENSIONS AND ASSEMBLY, TYP.

F3 CUT OUT SLAB WHERE NECESSARY TO POUR NEW FOOTINGS. CONTACT EOR IF DEMO REVEALS EXISTING FOOTINGS IN CONFLICT WITH PROPOSED, TYP.

F4 FOOTINGS CAN BE POURED MONOLITHICALLY.

F5 EXTERIOR TOF TO BE MIN 8" BELOW EXISTING GRADE. CONTRACTOR TO COORDINATE FINAL TOP OF FOOTING ELEVATION WITH EXISTING CONDITIONS PRIOR TO STEEL FABRICATION.

F6 INTERIOR TOF TO MATCH EXISTING, TYP.

COLUMN SCHEDULE

MARK	SIZE	COMMENTS
C35	HSS3X3X5/16	SEE BASE PLATE SCHED - S501

ISOLATED FOOTING SCHEDULE

MARK	SIZE			REINFORCEMENT
	LENGTH	WIDTH	DEPTH	
F24	2' - 0"	2' - 0"	1' - 6"	(3) #5 BOT BARS, EW

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ISSUE DATE: 05/20/2026

FOUNDATION PLAN

S101

FIELD VERIFICATION NOTE

VERIFY ALL DIMENSIONS AND EXISTING STRUCTURAL MEMBER SIZES IN THE FIELD PRIOR TO FABRICATION OF STRUCTURAL ITEMS. EXISTING PORTIONS OF THE PLANS ARE FROM A PRELIMINARY FIELD SURVEY, WHICH MAY OR MAY NOT REFLECT ACTUAL AS-BUILT CONDITIONS AND DIMENSIONS. IF ANY DISCREPANCIES ARE FOUND BETWEEN WHAT IS SHOWN ON THE DRAWINGS AND WHAT EXISTS IN THE FIELD, CONTACT THE ARCHITECT TO DETERMINE WHAT SHOULD BE DONE TO MATCH EXISTING CONDITIONS AS REQUIRED. BEGINNING OF FABRICATION MEANS ACCEPTANCE OF EXISTING CONDITIONS.

COLUMN SCHEDULE

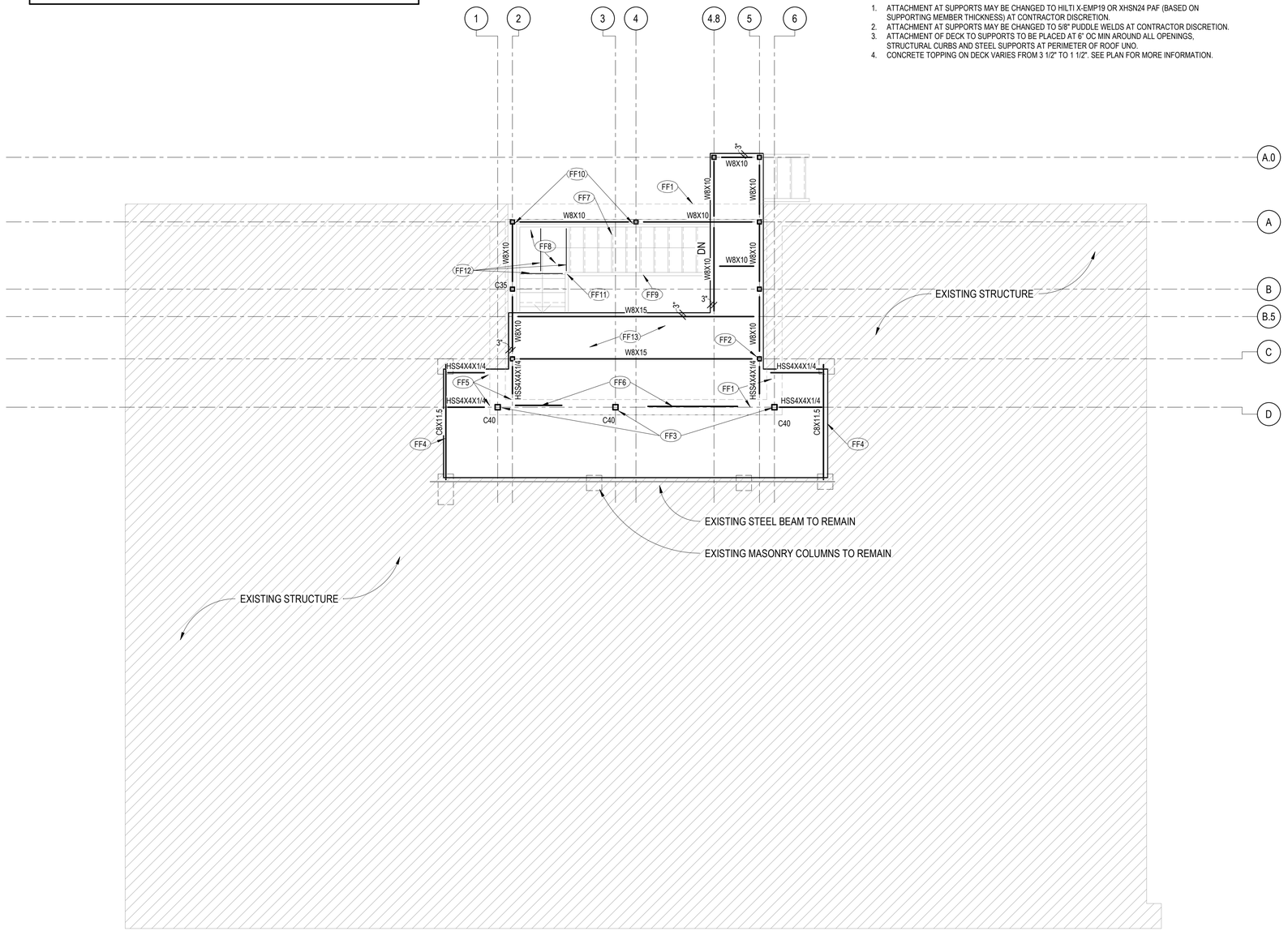
MARK	SIZE	COMMENTS
C35	HSS3X3X5/16	SEE BASE PLATE SCHED - S501
C40	HSS4X4X1/4	SEE BASE PLATE SCHED - S501

DECK SCHEDULE - FORM

MARK	SLAB/DECK THICK	SLAB			METAL DECK				DECK ATTACHMENT		NOTES
		THICK	MATERIAL	REINF	THICK	TYPE	GAGE	FINISH	ATTACHMENT TO SUPPORTS	ATTACH SIDELAPS	
FD3	<varies>	1 1/2"	NW CONC	6x6 W2.1xW2.1 WWF	1.5"	1.5C	20	GALV (G60)	#12 TEKS AT 12" OC (36/7) PATTERN	(3) #10 TEKS BETWEEN SUPPORTS, MIN	4

STEEL DECK NOTES:

1. ATTACHMENT AT SUPPORTS MAY BE CHANGED TO HILTI X-EMP19 OR XHSN24 PAF (BASED ON SUPPORTING MEMBER THICKNESS) AT CONTRACTOR DISCRETION.
2. ATTACHMENT AT SUPPORTS MAY BE CHANGED TO 5/8" PUDDLE WELDS AT CONTRACTOR DISCRETION.
3. ATTACHMENT OF DECK TO SUPPORTS TO BE PLACED AT 6" OC MIN AROUND ALL OPENINGS, STRUCTURAL CURBS AND STEEL SUPPORTS AT PERIMETER OF ROOF UNO.
4. CONCRETE TOPPING ON DECK VARIES FROM 3 1/2" TO 1 1/2". SEE PLAN FOR MORE INFORMATION.



GENERAL FLOOR FRAMING NOTES (S)

SOME GENERAL SHEET NOTES MAY NOT APPLY TO THIS SHEET.

1. SEE SHEET S001 FOR GENERAL NOTES.
2. SEE ARCHITECTURAL PLANS FOR DIMENSIONS NOT SHOWN.
3. SEE MECHANICAL AND ARCHITECTURAL DRAWINGS FOR SIZES AND LOCATION OF PENETRATIONS NOT INDICATED ON STRUCTURAL DRAWINGS.
4. AT ALL EDGES OF OPENINGS WHERE EDGE ANGLE IS NOT NOTED, SEE DETAILS ON S511.
5. STEEL FABRICATOR SHALL DESIGN BEAM CONNECTIONS TO COLUMNS OR TO BEAMS FOR THE TOTAL REACTIONS SHOWN ON THE PLANS. REACTIONS INDICATED ARE FACTORED FOR USE WITH ALLOWABLE STRESS DESIGN (ASD) METHOD. IF NO REACTION IS SHOWN ON THE PLANS, DESIGN FOR THE ASD FACTORED REACTION SHOWN IN THE STEEL BEAM MINIMUM CONNECTION SCHEDULE.
6. PLACING CONDUIT IN SLAB IS NOT PERMITTED.
7. ADDITIONAL PLATES, INCLUDED BUT NOT LIMITED TO DOUBLER PLATES AND STIFFENER PLATES, ARE THE RESPONSIBILITY OF THE CONNECTIONS ENGINEER.
8. STAIR FABRICATOR TO DESIGN THE STAIR ASSEMBLY, INCLUDING ALL COMPONENTS AND CONNECTIONS TO SUPPORTING MEMBERS, IN ACCORDANCE WITH THE SPECIFICATIONS. SEE: ARCH DRAWINGS FOR STAIR LAYOUT.

PLAN NOTES - FLOOR FRAMING (FF)

FF1 EXISTING BASEMENT WALL TO REMAIN. SELECTIVE DEMO FOR BEAM AS NECESSARY.

FF2 BRACE EACH COLUMN TO EXISTING WALL AT EACH FLOOR - SEE TYPICAL DETAIL.

FF3 STEEL COLUMNS TO BEAR ON TOP OF EXISTING BASEMENT WALL. CONTRACTOR TO REMOVE FINISHED AND EXPOSE INTERIOR, EXTERIOR AND TOP OF WALL FOR STRUCTURAL EOR TO ASSESS EXSITING CONDITIONS PRIOR TO STEEL FABRICATION AND ERECTION.

FF4 STEEL CHANNEL TO BE SISTERED ON TO EXISTING WOOD GIRDER FOR REINFORCEMENT. CHANNEL TO BEAR EACH END ON EXISTING MASONRY COLUMN.

FF5 STEEL TUBE TO BEAR ON EXISTING CONCRETE WALL

FF6 NEW HSS4X4X3/8 HEADER OVER TOP OF EXISTING OPENINGS. HEADER TO BEAR ON EXISTING CONCRETE EACH END. PROVIDE 1/4" CLOSURE PLATE AT BOTTOM OF HEADER TO MATCH THE EXISTING WALL WIDTH.

FF7 CONCRETE FILLED, STEEL PAN STAIR. STEEL PANS TO BE MINIMUM 12 GAGE THICKNESS WITH 2" CONCRETE FILL.

FF8 LANDING AT STAIRS SHALL BE 2 1/2" NORMAL WEIGHT CONCRETE ON 0.6C GALVANIZED, 22 GAGE DECK (TOTAL DEPTH = 3"). REINFORCE WITH 6X6XW2.1XW2.1 WWF PLACED 1" BELOW TOP OF SLAB. FASTEN STEEL DECK RIBS TO SPUPORTS WITH 5/8" PUDDLE WELD IN A 36/4 PATTERN. FASTEN DECK PANEL SIDELAPS WITH A MINIMUM OF #12 TEKS AT 12" OC.

FF9 C12X20.7 STRINGER, TYP.

FF10 STRINGER TO BE SUPPORTED BY STEEL COLUMN. INSTALL L3X3X3/8 ANGLE WELDED TO FACE OF COLUMN AND BOTTOM OF STRINGER WITH MIN 3" LONG, 3/16" FILLET WELD ON TWO SIDES.

FF11 COLUMN TO TERMINATE AT BOTTOM SIDE OF STRINGER. PROVIDE 3/8" COLUMN CAP PLATE.

FF12 C6X8.2 LANDING SUPPORT BEAMS, TYP

FF13 DECK BEARING ELEVATION TO BE 5" BELOW EXISTING BUILDING FFE. CONTRACTOR TO VERIFY FINAL DECK BEARING HEIGHT WITH EXISTING CONDITIONS PRIOR TO STEEL FABRICATION.

1 FIRST FLOOR FRAMING PLAN
1/4" = 1'-0"

PLAN NORTH

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OKLAHOMA
05.20.2026

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FIRST FLOOR FRAMING PLAN

S102

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FIELD VERIFICATION NOTE

VERIFY ALL DIMENSIONS AND EXISTING STRUCTURAL MEMBER SIZES IN THE FIELD PRIOR TO FABRICATION OF STRUCTURAL ITEMS. EXISTING PORTIONS OF THE PLANS ARE FROM A PRELIMINARY FIELD SURVEY, WHICH MAY OR MAY NOT REFLECT ACTUAL AS-BUILT CONDITIONS AND DIMENSIONS. IF ANY DISCREPANCIES ARE FOUND BETWEEN WHAT IS SHOWN ON THE DRAWINGS AND WHAT EXISTS IN THE FIELD, CONTACT THE ARCHITECT TO DETERMINE WHAT SHOULD BE DONE TO MATCH EXISTING CONDITIONS AS REQUIRED. BEGINNING OF FABRICATION MEANS ACCEPTANCE OF EXISTING CONDITIONS.

DECK SCHEDULE - FORM

MARK	SLAB/DECK THICK	SLAB			METAL DECK				DECK ATTACHMENT		NOTES
		THICK	MATERIAL	REINF	THICK	TYPE	GAGE	FINISH	ATTACHMENT TO SUPPORTS	ATTACH SIDELAPS	
FD3	<varies>	1 1/2"	NW CONC	6x6 W2.1xW2.1 WWF	1.5"	1.5C	20	GALV (G60)	#12 TEKS AT 12" OC (36/7) PATTERN	(3) #10 TEKS BETWEEN SUPPORTS, MIN	4

STEEL DECK NOTES:

1. ATTACHMENT AT SUPPORTS MAY BE CHANGED TO HILTI X-EMP19 OR XHSN24 PAF (BASED ON SUPPORTING MEMBER THICKNESS) AT CONTRACTOR DISCRETION.
2. ATTACHMENT AT SUPPORTS MAY BE CHANGED TO 5/8" PUDDLE WELDS AT CONTRACTOR DISCRETION.
3. ATTACHMENT OF DECK TO SUPPORTS TO BE PLACED AT 6" OC MIN AROUND ALL OPENINGS, STRUCTURAL CURBS AND STEEL SUPPORTS AT PERIMETER OF ROOF UNO.
4. CONCRETE TOPPING ON DECK VARIES FROM 3 1/2" TO 1 1/2". SEE PLAN FOR MORE INFORMATION.

GENERAL FLOOR FRAMING NOTES (S)

SOME GENERAL SHEET NOTES MAY NOT APPLY TO THIS SHEET.

1. SEE SHEET S001 FOR GENERAL NOTES.
2. SEE ARCHITECTURAL PLANS FOR DIMENSIONS NOT SHOWN.
3. SEE MECHANICAL AND ARCHITECTURAL DRAWINGS FOR SIZES AND LOCATION OF PENETRATIONS NOT INDICATED ON STRUCTURAL DRAWINGS.
4. AT ALL EDGES OF OPENINGS WHERE EDGE ANGLE IS NOT NOTED, SEE DETAILS ON S511.
5. STEEL FABRICATOR SHALL DESIGN BEAM CONNECTIONS TO COLUMNS OR TO BEAMS FOR THE TOTAL REACTIONS SHOWN ON THE PLANS. REACTIONS INDICATED ARE FACTORED FOR USE WITH ALLOWABLE STRESS DESIGN (ASD) METHOD. IF NO REACTION IS SHOWN ON THE PLANS, DESIGN FOR THE ASD FACTORED REACTION SHOWN IN THE STEEL BEAM MINIMUM CONNECTION SCHEDULE.
6. PLACING CONDUIT IN SLAB IS NOT PERMITTED.
7. ADDITIONAL PLATES, INCLUDED BUT NOT LIMITED TO DOUBLER PLATES AND STIFFENER PLATES, ARE THE RESPONSIBILITY OF THE CONNECTIONS ENGINEER.
8. STAIR FABRICATOR TO DESIGN THE STAIR ASSEMBLY, INCLUDING ALL COMPONENTS AND CONNECTIONS TO SUPPORTING MEMBERS, IN ACCORDANCE WITH THE SPECIFICATIONS. SEE: ARCH DRAWINGS FOR STAIR LAYOUT.

PLAN NOTES - FLOOR FRAMING (FF)

FF2 BRACE EACH COLUMN TO EXISTING WALL AT EACH FLOOR - SEE TYPICAL DETAIL.

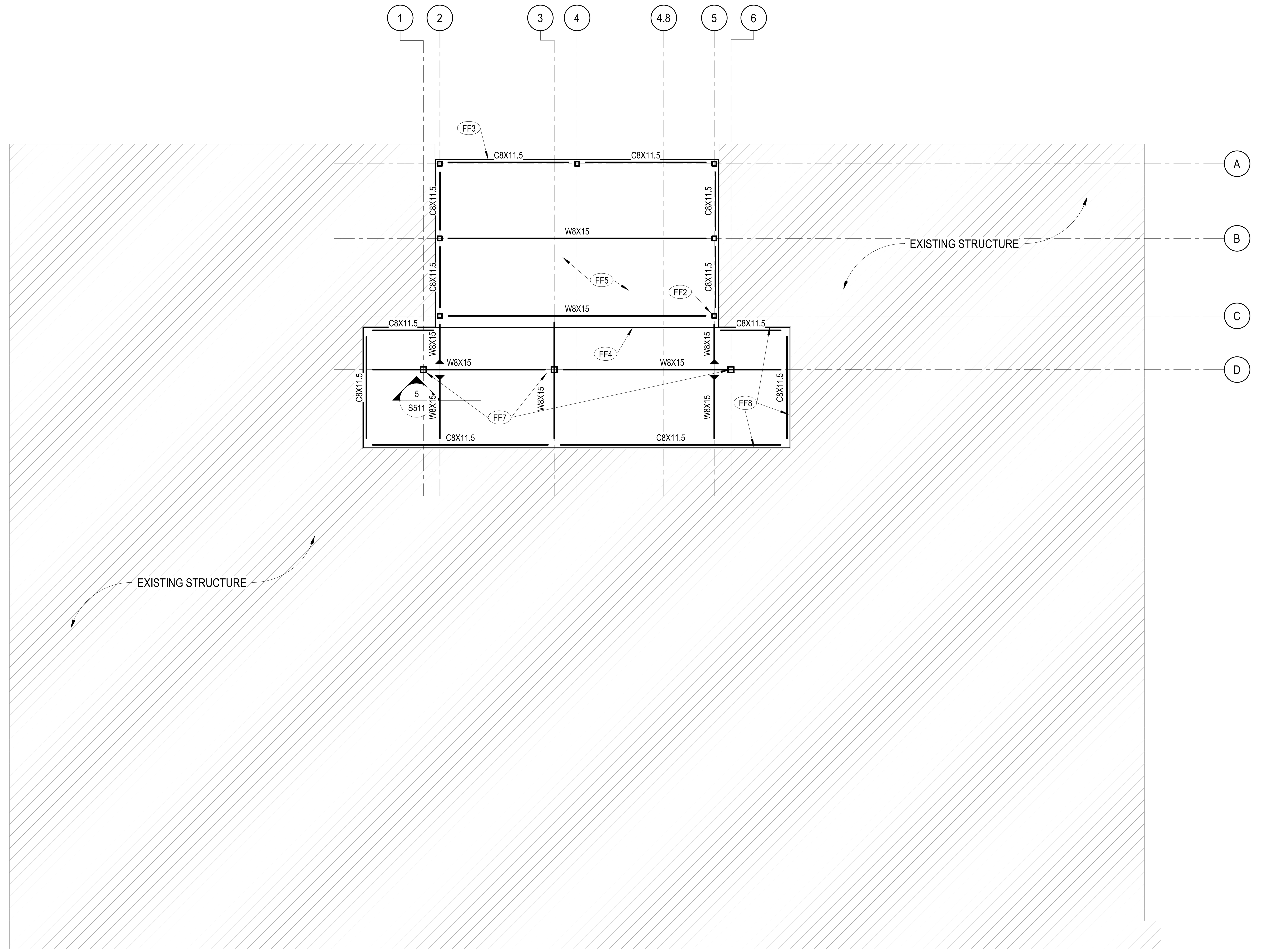
FF3 1 1/2" CONCRETE TOPPING THICKNESS ALONG THIS NORTH EDGE (3" TOTAL SLAB+DECK THICKNESS). PROVIDE L3X3X3/8 PERIMETER ANGLE ALONG THE NORTH EDGE. CONCRETE THICKNESS TO INCREASE GOING SOUTH TO A MAXIMUM TOPPING THICKNESS OF 3 1/2".

FF4 CONCRETE TOPPING THICKNESS SOUTH OF THIS LINE TO BE UNIFORM AT 3 1/2" (5" SLAB-ON-DECK THICKNESS). TOP OF CONCRETE TO BE AT OR SLIGHTLY BELOW BUILDING FFE.

FF5 DECK BEARING ELEVATION TO BE 5" BELOW EXISTING BULDING FFE. CONTRACTOR TO VERIFY FINAL DECK BEARING HEIGHT WITH EXISTING CONDITIONS PRIOR TO STEEL FABRICATION.

FF7 STEEL BEAMS TO RUN CONTINUOUS AT COLUMN LOCATIONS. STEEL COLUMNS FROM LEVEL BELOW SHOULD TERMINATE AT UNDERSIDE OF BEAM. COLUMNS TO LEVEL ABOVE TO BEAR ON TOP OF STEEL BEAM.

FF8 L5X3X3/8 PERIMETER ANGLE AT 5" TOTAL SLAB THICKNESS, TYP



PLAN NORTH

1 SECOND FLOOR FRAMING PLAN
1/4" = 1'-0"

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ISSUE DATE: 05/20/2026

SECOND FLOOR FRAMING PLAN

S103

FIELD VERIFICATION NOTE

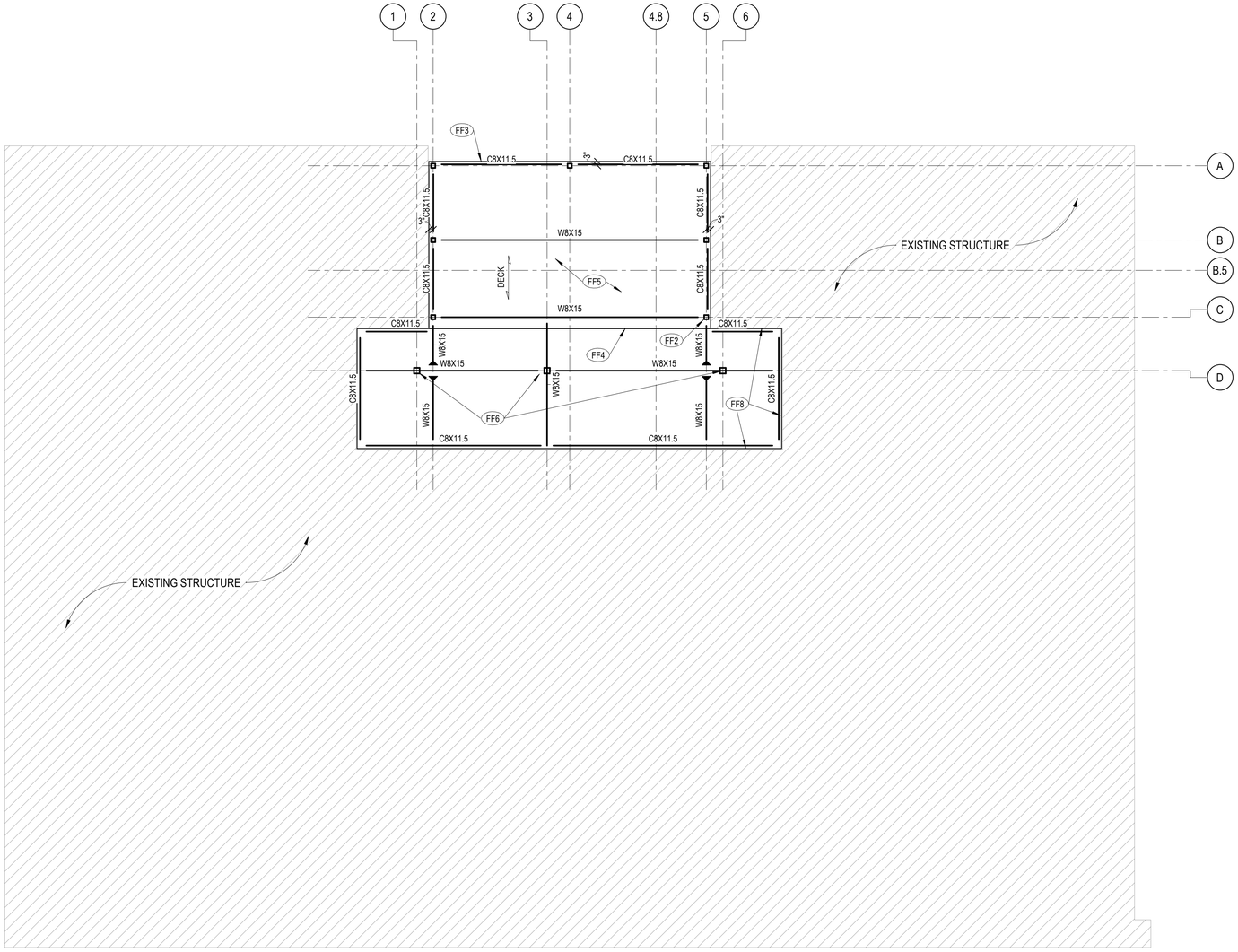
VERIFY ALL DIMENSIONS AND EXISTING STRUCTURAL MEMBER SIZES IN THE FIELD PRIOR TO FABRICATION OF STRUCTURAL ITEMS. EXISTING PORTIONS OF THE PLANS ARE FROM A PRELIMINARY FIELD SURVEY, WHICH MAY OR MAY NOT REFLECT ACTUAL AS-BUILT CONDITIONS AND DIMENSIONS. IF ANY DISCREPANCIES ARE FOUND BETWEEN WHAT IS SHOWN ON THE DRAWINGS AND WHAT EXISTS IN THE FIELD, CONTACT THE ARCHITECT TO DETERMINE WHAT SHOULD BE DONE TO MATCH EXISTING CONDITIONS AS REQUIRED. BEGINNING OF FABRICATION MEANS ACCEPTANCE OF EXISTING CONDITIONS.

DECK SCHEDULE - FORM

MARK	SLAB/DECK THICK	SLAB			METAL DECK				DECK ATTACHMENT		NOTES
		THICK	MATERIAL	REINF	THICK	TYPE	GAGE	FINISH	ATTACHMENT TO SUPPORTS	ATTACH SIDELAPS	
FD3	<varies>	1 1/2"	NW CONC	6x6 W2.1xW2.1 WWF	1.5"	1.5C	20	GALV (G60)	#12 TEKS AT 12" OC (36/7) PATTERN	(3) #10 TEKS BETWEEN SUPPORTS, MIN	4

STEEL DECK NOTES:

1. ATTACHMENT AT SUPPORTS MAY BE CHANGED TO HILTI X-EMP19 OR XHSN24 PAF (BASED ON SUPPORTING MEMBER THICKNESS) AT CONTRACTOR DISCRETION.
2. ATTACHMENT AT SUPPORTS MAY BE CHANGED TO 5/8" PUDDLE WELDS AT CONTRACTOR DISCRETION.
3. ATTACHMENT OF DECK TO SUPPORTS TO BE PLACED AT 6" OC MIN AROUND ALL OPENINGS, STRUCTURAL CURBS AND STEEL SUPPORTS AT PERIMETER OF ROOF UNO.
4. CONCRETE TOPPING ON DECK VARIES FROM 3 1/2" TO 1 1/2". SEE PLAN FOR MORE INFORMATION.



1 THIRD FLOOR FRAMING PLAN
1/4" = 1'-0"
PLAN NORTH

GENERAL FLOOR FRAMING NOTES (S)

SOME GENERAL SHEET NOTES MAY NOT APPLY TO THIS SHEET.

1. SEE SHEET S001 FOR GENERAL NOTES.
2. SEE ARCHITECTURAL PLANS FOR DIMENSIONS NOT SHOWN.
3. SEE MECHANICAL AND ARCHITECTURAL DRAWINGS FOR SIZES AND LOCATION OF PENETRATIONS NOT INDICATED ON STRUCTURAL DRAWINGS.
4. AT ALL EDGES OF OPENINGS WHERE EDGE ANGLE IS NOT NOTED, SEE DETAILS ON S511.
5. STEEL FABRICATOR SHALL DESIGN BEAM CONNECTIONS TO COLUMNS OR TO BEAMS FOR THE TOTAL REACTIONS SHOWN ON THE PLANS. REACTIONS INDICATED ARE FACTORED FOR USE WITH ALLOWABLE STRESS DESIGN (ASD) METHOD. IF NO REACTION IS SHOWN ON THE PLANS, DESIGN FOR THE ASD FACTORED REACTION SHOWN IN THE STEEL BEAM MINIMUM CONNECTION SCHEDULE.
6. PLACING CONDUIT IN SLAB IS NOT PERMITTED.
7. ADDITIONAL PLATES, INCLUDED BUT NOT LIMITED TO DOUBLER PLATES AND STIFFENER PLATES, ARE THE RESPONSIBILITY OF THE CONNECTIONS ENGINEER.
8. STAIR FABRICATOR TO DESIGN THE STAIR ASSEMBLY, INCLUDING ALL COMPONENTS AND CONNECTIONS TO SUPPORTING MEMBERS, IN ACCORDANCE WITH THE SPECIFICATIONS. SEE: ARCH DRAWINGS FOR STAIR LAYOUT.

PLAN NOTES - FLOOR FRAMING (FF)

FF2 BRACE EACH COLUMN TO EXISTING WALL AT EACH FLOOR - SEE TYPICAL DETAIL.
FF3 1 1/2" CONCRETE TOPPING THICKNESS ALONG THIS NORTH EDGE (3" TOTAL SLAB+DECK THICKNESS). PROVIDE L3X3X3/8 PERIMETER ANGLE ALONG THE NORTH EDGE. CONCRETE THICKNESS TO INCREASE GOING SOUTH TO A MAXIMUM TOPPING THICKNESS OF 3 1/2".
FF4 CONCRETE TOPPING THICKNESS SOUTH OF THIS LINE TO BE UNIFORM AT 3 1/2" (5" SLAB-ON-DECK THICKNESS). TOP OF CONCRETE TO BE AT OR SLIGHTLY BELOW BUILDING FFE.
FF5 DECK BEARING ELEVATION TO BE 5" BELOW EXISTING BULDING FFE. CONTRACTOR TO VERIFY FINAL DECK BEARING HEIGHT WITH EXISTING CONDITIONS PRIOR TO STEEL FABRICATION.
FF6 STEEL COLUMN TO TERMINATE AT UNDERSIDE OF STEEL BEAMS.
FF8 L5X3X3/8 PERIMETER ANGLE AT 5" TOTAL SLAB THICKNESS, TYP

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05.20.2026

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THIRD FLOOR FRAMING PLAN

S104

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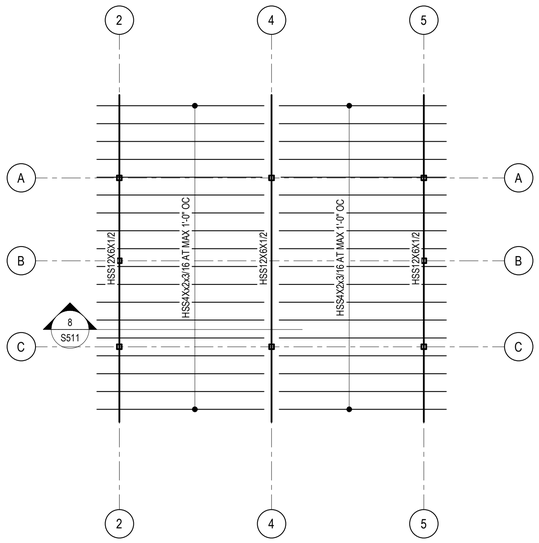
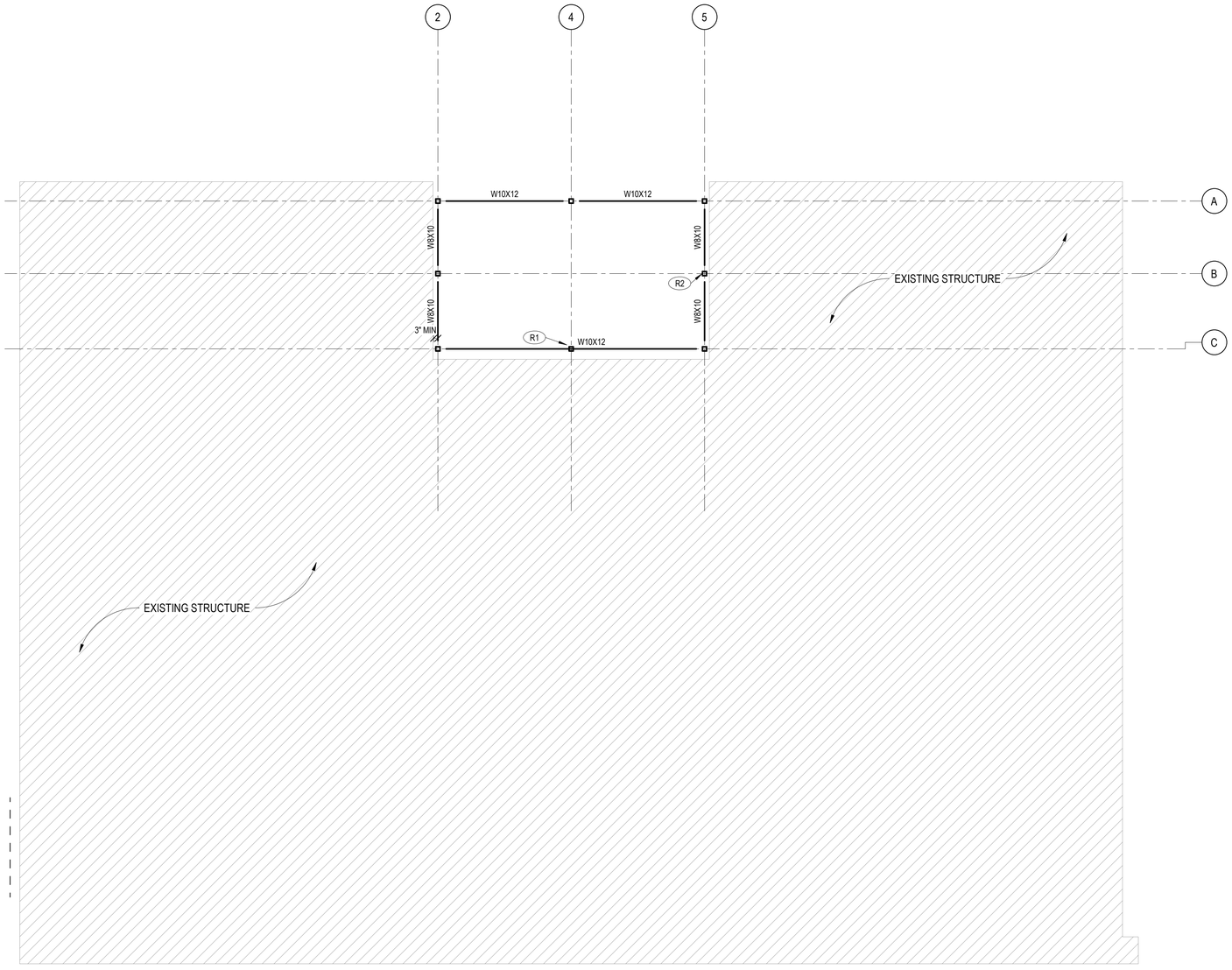


2 HIGH ROOF FRAMING PLAN
1/4" = 1'-0"



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

PLAN NORTH

GENERAL ROOF FRAMING NOTES (S)

SOME GENERAL SHEET NOTES MAY NOT APPLY TO THIS SHEET.

1. SEE SHEET S001 FOR GENERAL NOTES.
2. SEE ARCHITECTURAL PLANS FOR DIMENSIONS NOT SHOWN.
3. SEE MECHANICAL AND ARCHITECTURAL DRAWINGS FOR SIZES AND LOCATION OF PENETRATIONS NOT INDICATED ON STRUCTURAL DRAWINGS.
4. "DBE" INDICATES DECK BEARING ELEVATION.
9. STEEL FABRICATOR SHALL DESIGN BEAM CONNECTIONS TO COLUMNS OR TO BEAMS FOR THE TOTAL REACTIONS SHOWN ON THE PLANS. REACTIONS INDICATED ARE FACTORED FOR USE WITH ALLOWABLE STRESS DESIGN (ASD) METHOD. IF NO REACTION IS SHOWN ON THE PLANS, DESIGN FOR THE ASD FACTORED REACTION SHOWN IN THE STEEL BEAM MINIMUM CONNECTION SCHEDULE.
10. ADDITIONAL PLATES, INCLUDED BUT NOT LIMITED TO DOUBLER PLATES AND STIFFENER PLATES, ARE THE RESPONSIBILITY OF THE CONNECTIONS ENGINEER.

PLAN NOTES - ROOF FRAMING (R)

R1 HSS3X3X3/8 POST WELDED TO BEAM WITH 1/4" FILLET WELDS ALL AROUND TO RIDGE BEAM ABOVE.

R2 BRACE EACH COLUMN TO EXISTING WALL AT EACH FLOOR - SEE TYPICAL DETAIL.

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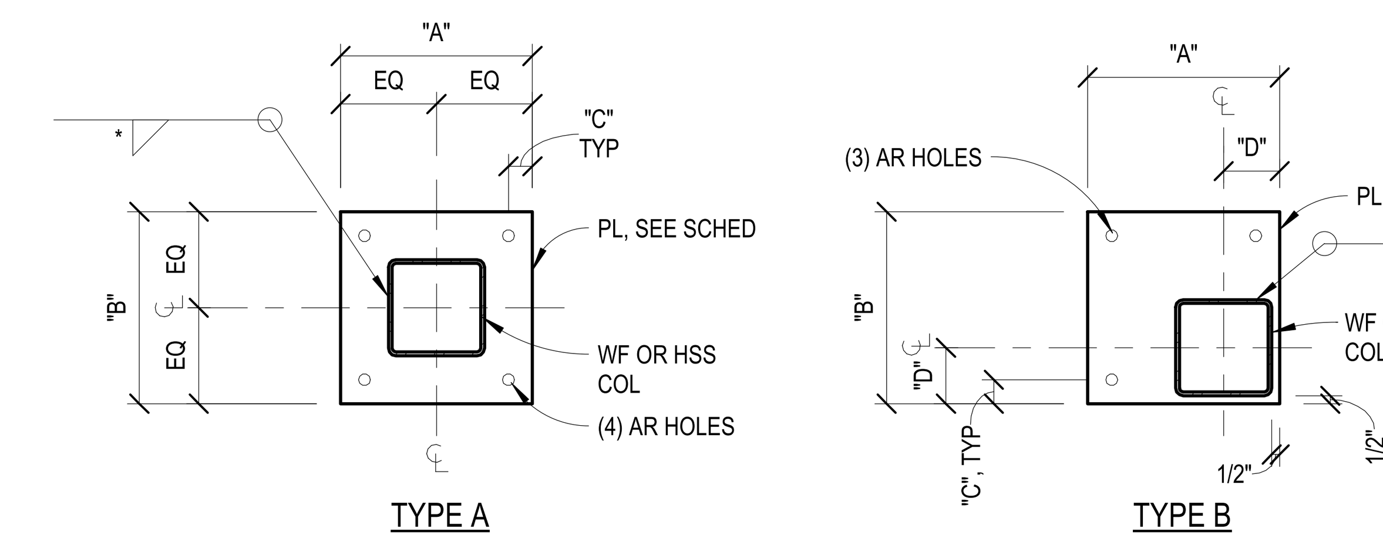
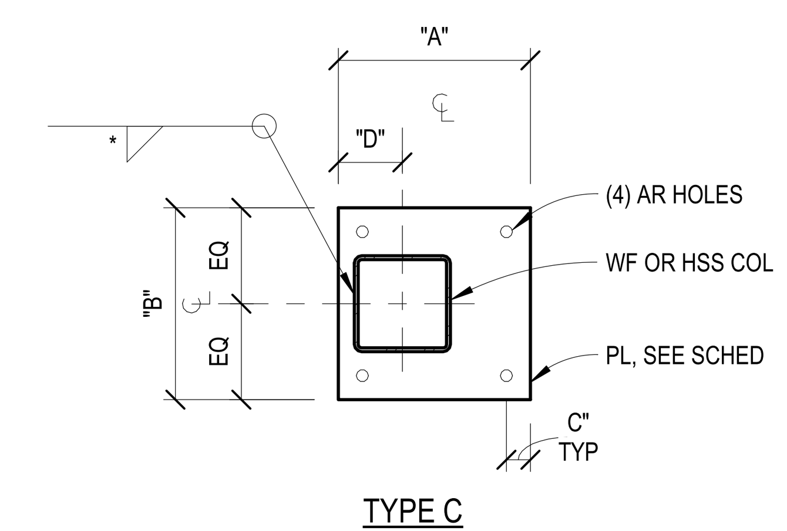
ROOF FRAMING PLAN

S105





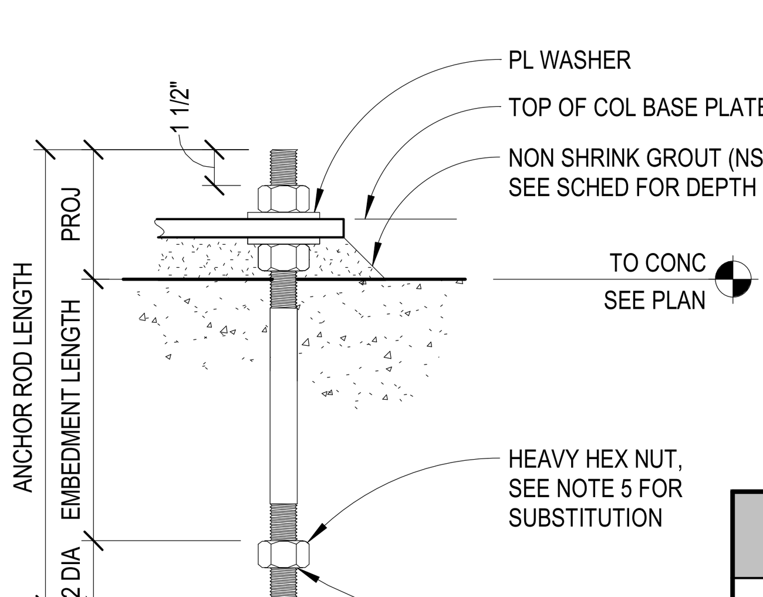
BASE PLATE SCHEDULE							
MARK	TYPE	THICKNESS	DIMENSIONS				ANCHOR RODS (DIAxEMB)
			"A"	"B"	"C"	"D"	
B1		3/4"	1'-0"	1'-0"	1 1/2"	--	3/4" x 1'-0"

NOTES:

1. USE OVERSIZED HOLES AND WASHERS FOR ANCHOR RODS ACCORDING TO AISC MANUAL (14 ED.) TABLE 14.2 UNO.
2. SEE THIS SHEET FOR ANCHOR ROD DETAIL AND GROUT INFORMATION.
3. * - INDICATES MINIMUM FILLET WELD PER AISC.
4. PLATE TYPE "B" SHALL HAVE VERTICAL PLATE ORIENTED TO ACCEPT DIAGONAL BRACE. SEE BRACED FRAME ELEVATION SHEET(S).
5. HSS6x6 AND SMALLER USE B1.

5 COLUMN BASE PLATE SCHEDULE

NO SCALE



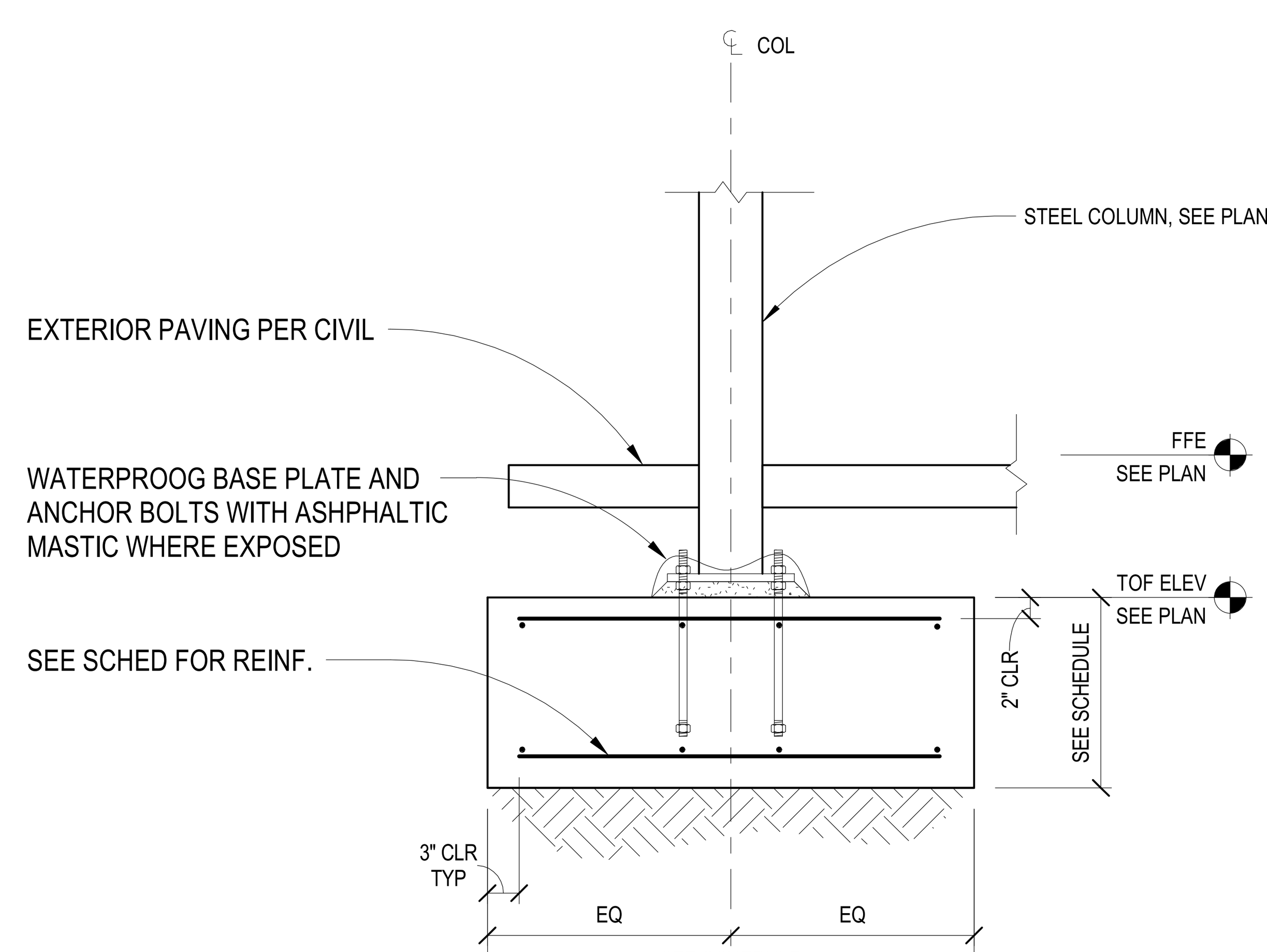
GROUT SCHEDULE	
DIA	NSG
≤ 3/4"	1 1/2"
≥ 1"	2"

NOTES:

1. SEE BASE PLATE SCHEDULE FOR ANCHOR ROD SIZE AND EMBEDMENT.
2. ANCHOR RODS SHALL MEET THE REQUIREMENTS OF ASTM F1554 UNLESS NOTED OTHERWISE.
3. ALL ANCHOR RODS SHALL BE FURNISHED WITH HEAVY HEX NUTS AND CUT WASHERS OF SPECIFICATIONS COMPATIBLE WITH THOSE OF THE THREADED SHANKS UNLESS NOTED OTHERWISE.
4. FOR CONVENTIONAL COLUMNS (WF AND HSS SHAPES) A NUT SHALL BE PLACED UNDER THE BASE PLATE AND USED FOR LEVELING.
5. STRAIGHT HEADED ANCHOR BOLTS MAY BE SUBSTITUTED FOR RODS AS SHOWN.
6. NON-SHRINK GROUT (NSG) SHALL BE NONMETALLIC WITH A MINIMUM COMPRESSIVE STRENGTH OF 6,000 PSI AT 28 DAYS.

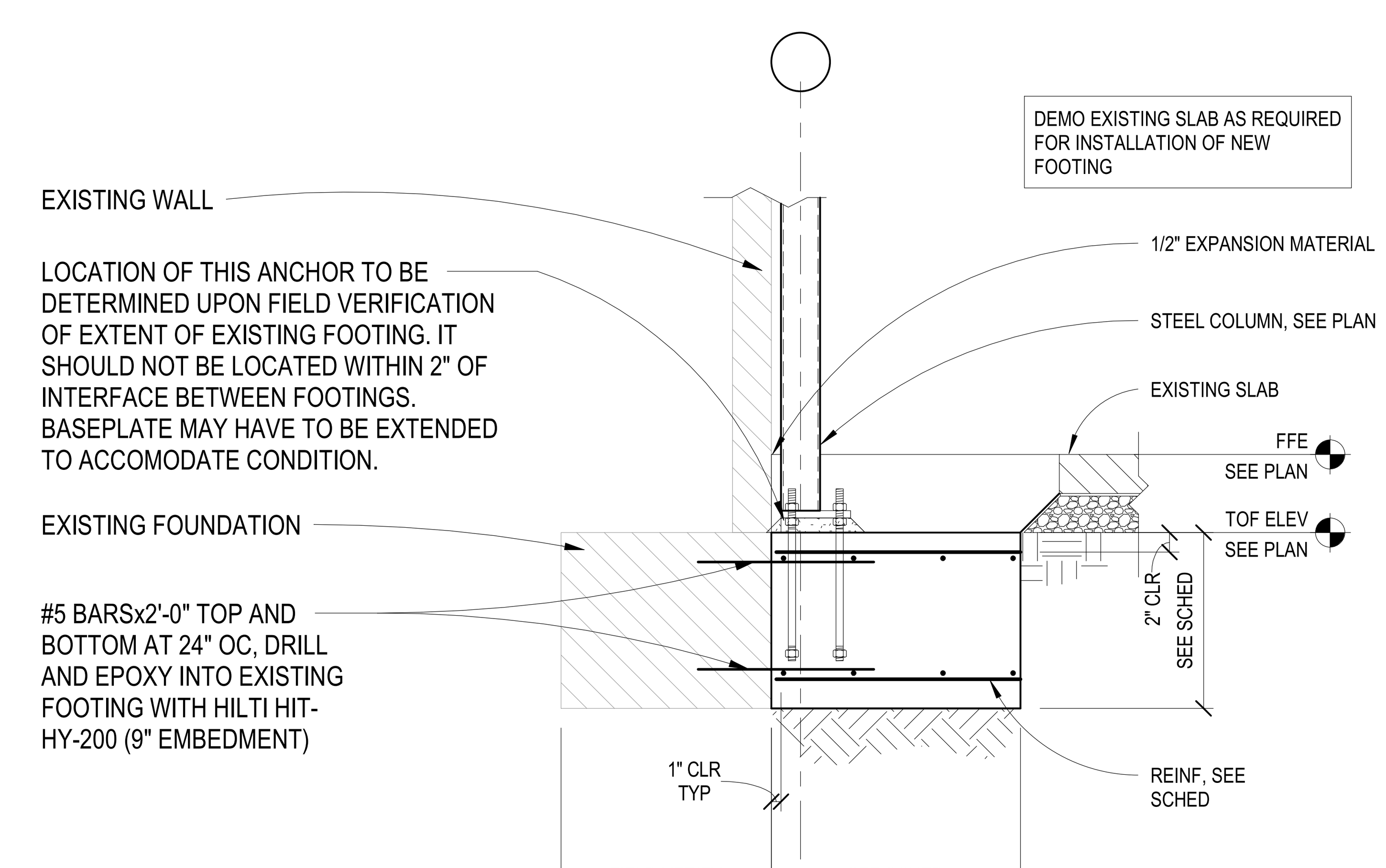
4 ANCHOR ROD

NO SCALE



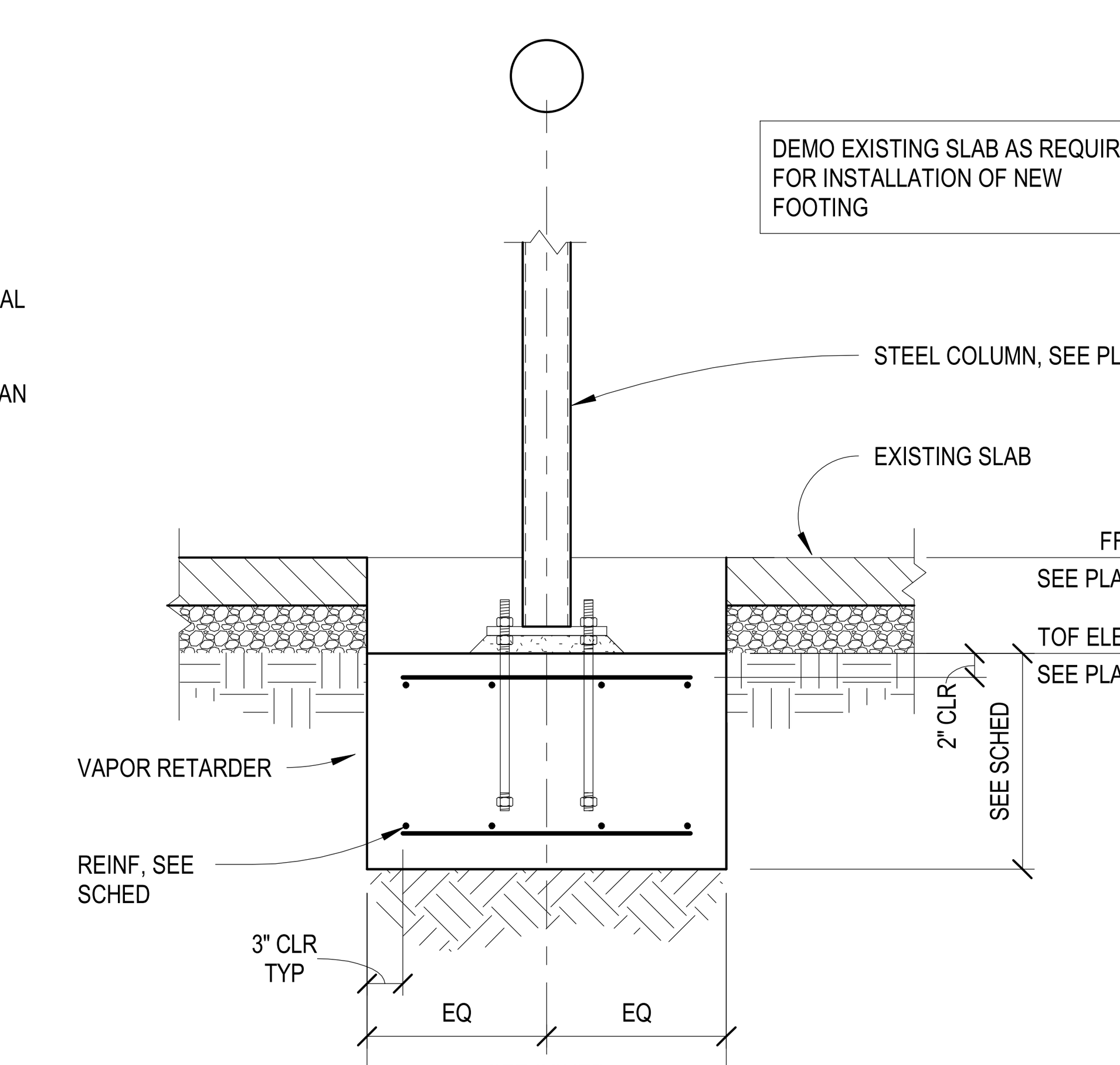
3 TYP EXTERIOR FOOTING

3/4" = 1'-0"



2 INTERIOR FOOTING AT EXISTING

3/4" = 1'-0"



1 INTERIOR FOOTING AT EXISTING SLAB

3/4" = 1'-0"

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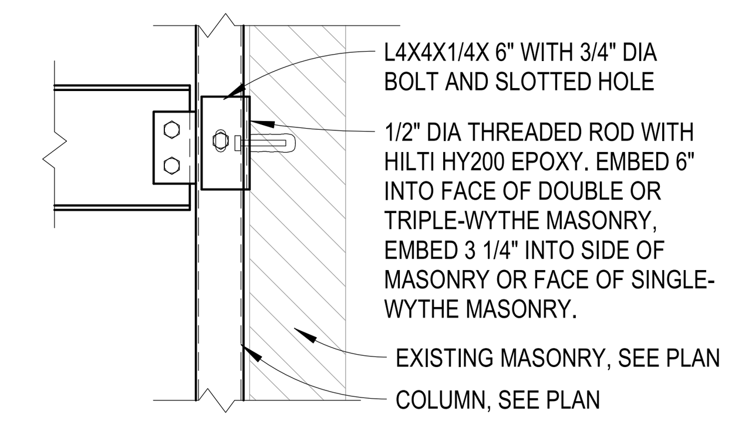
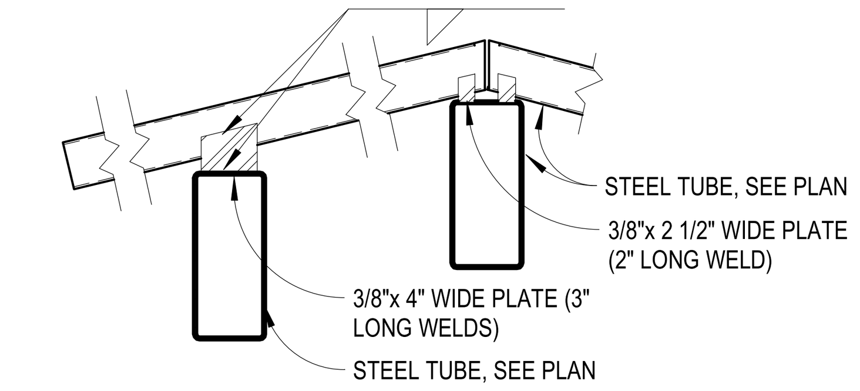
FOUNDATION DETAILS

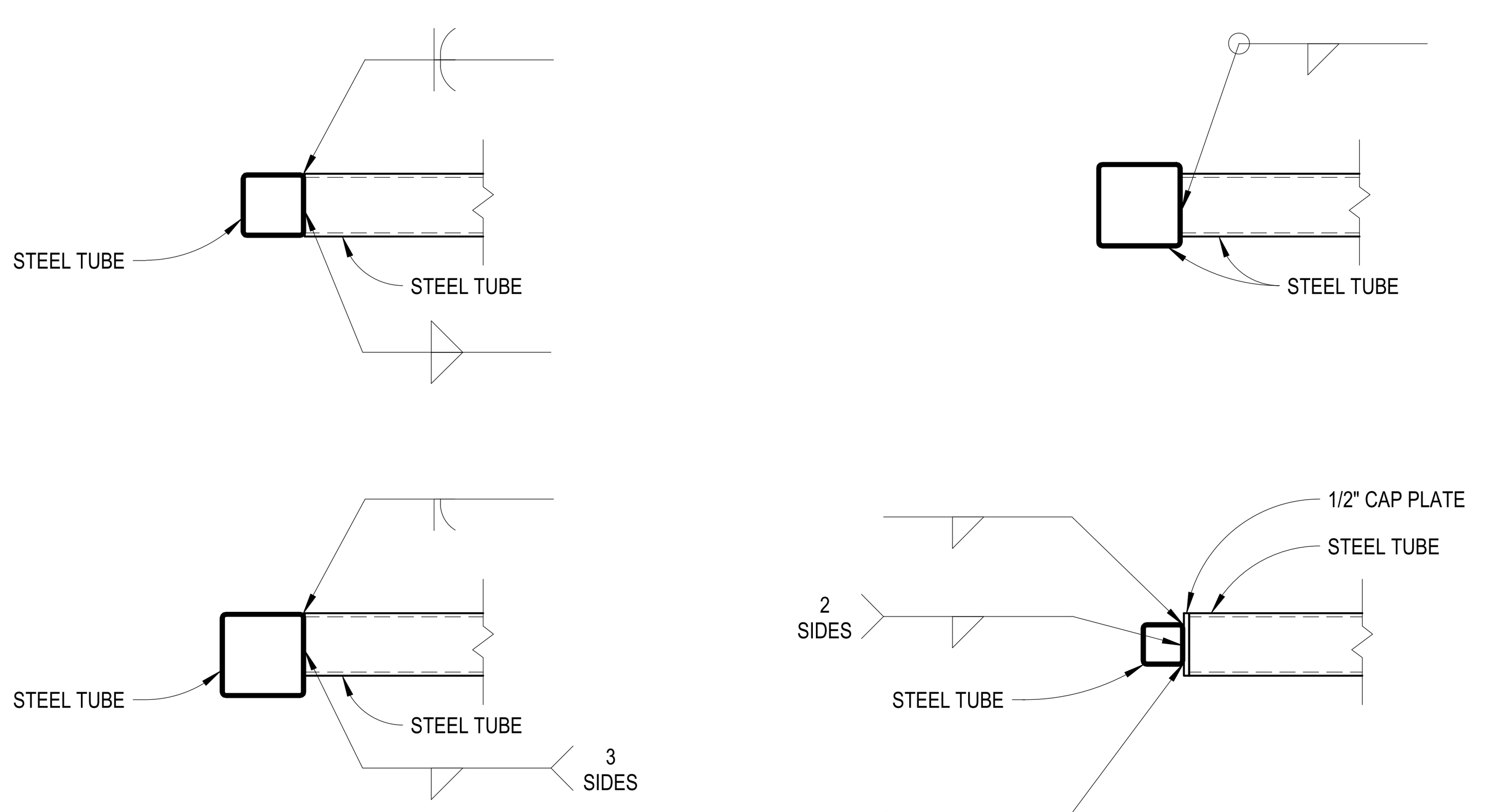
S501



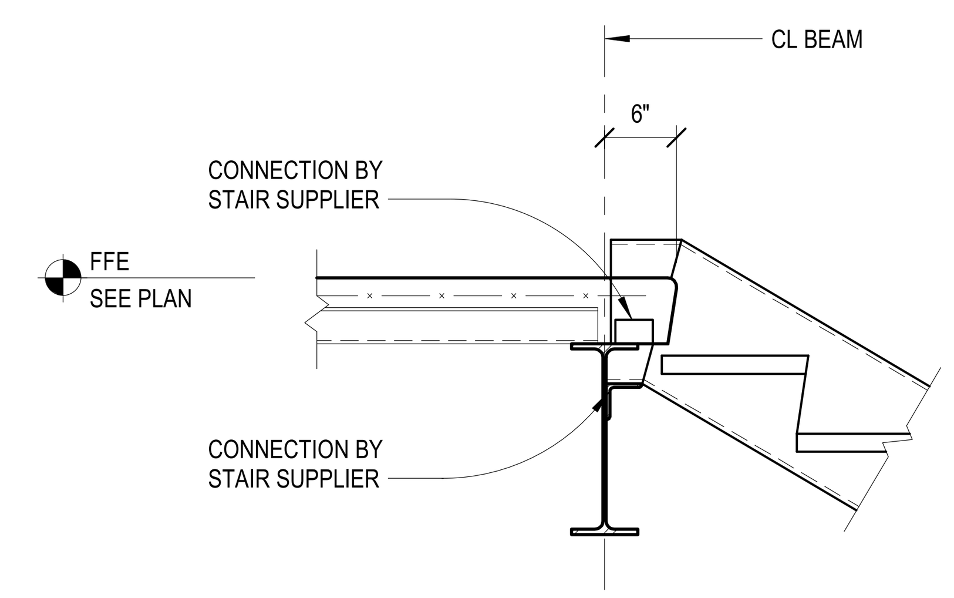
9 TYPICAL COLUMN BRACE TO EXISTING WALL
3/4" = 1'-0"



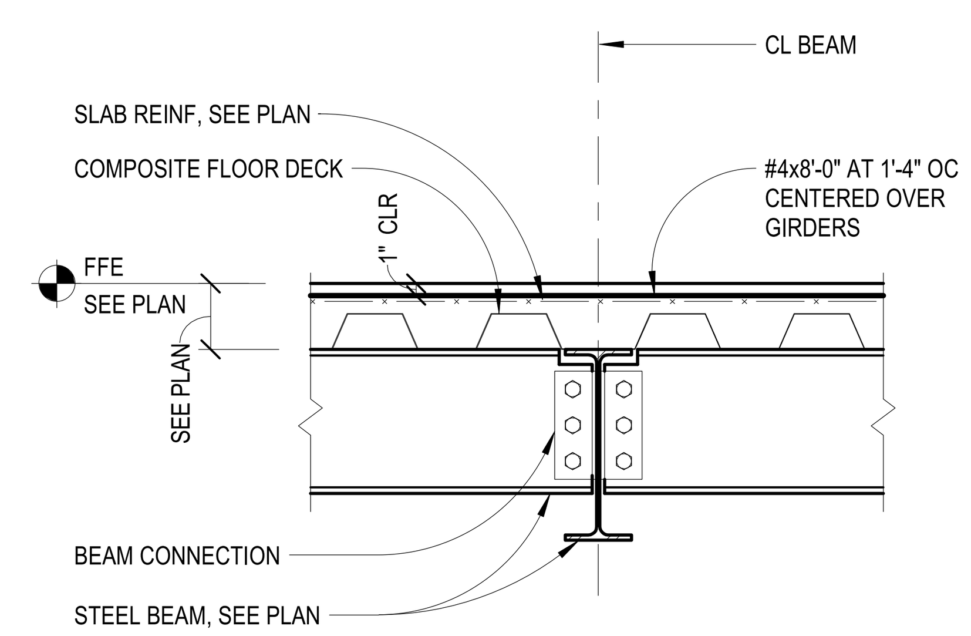
8 TYP HSS TO HSS CONNECTIONS
3/4" = 1'-0"



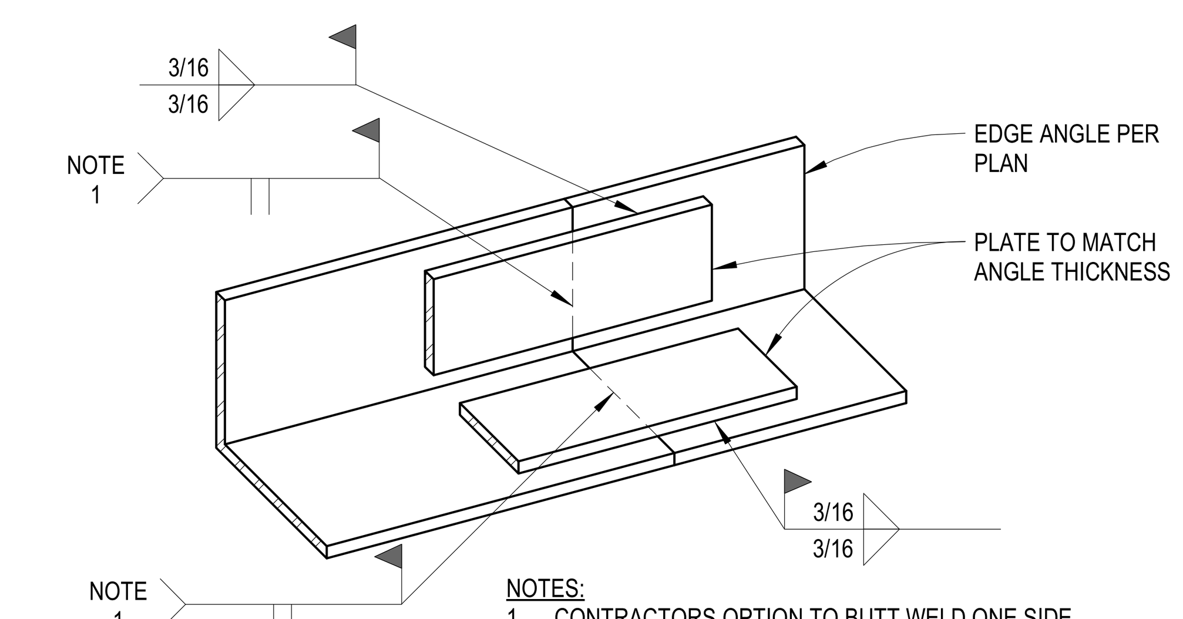
7 TYP HSS TO HSS CONNECTIONS
3/4" = 1'-0"



6 TYP STAIR CONN
3/4" = 1'-0"



5 TYP INTERIOR GIRDER
3/4" = 1'-0"

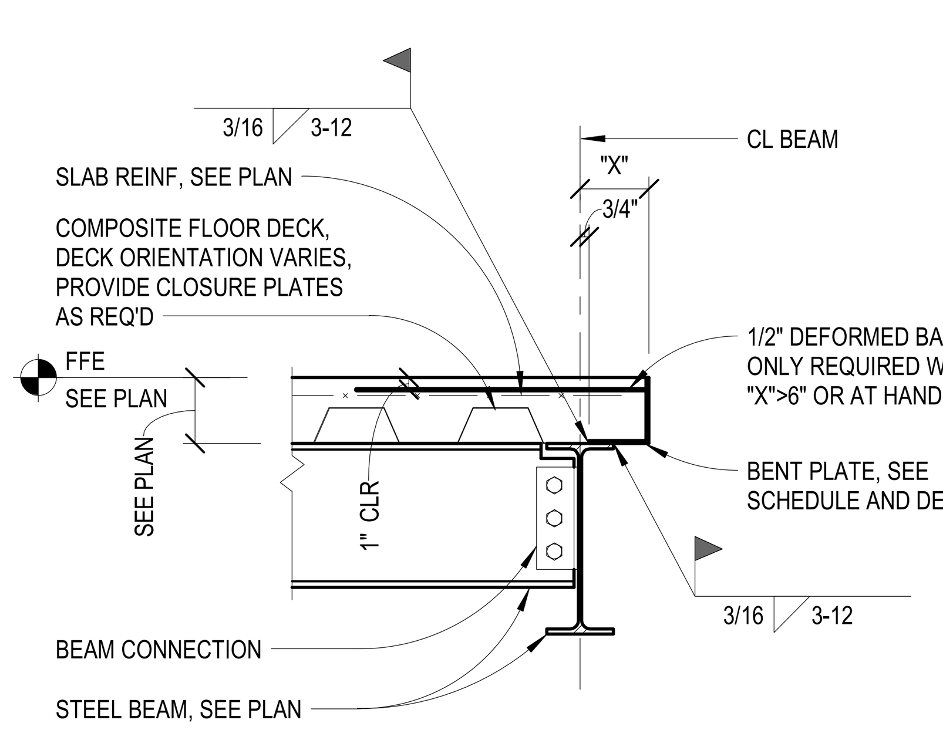


NOTES:
1. CONTRACTORS OPTION TO BUTT WELD ONE SIDE OR FILLET WELD PLATES TO CREATE ANGLE SPLICE
2. PLATE TO EXTEND 12" MIN PAST JOINT PER SIDE.
3. PLATE WIDTH TO BE 1" LESS THAN LEG LENGTH.
4. AT CORNERS, MITER EDGE ANGLES AND WELD USING A 3/16" BUTT WELD.

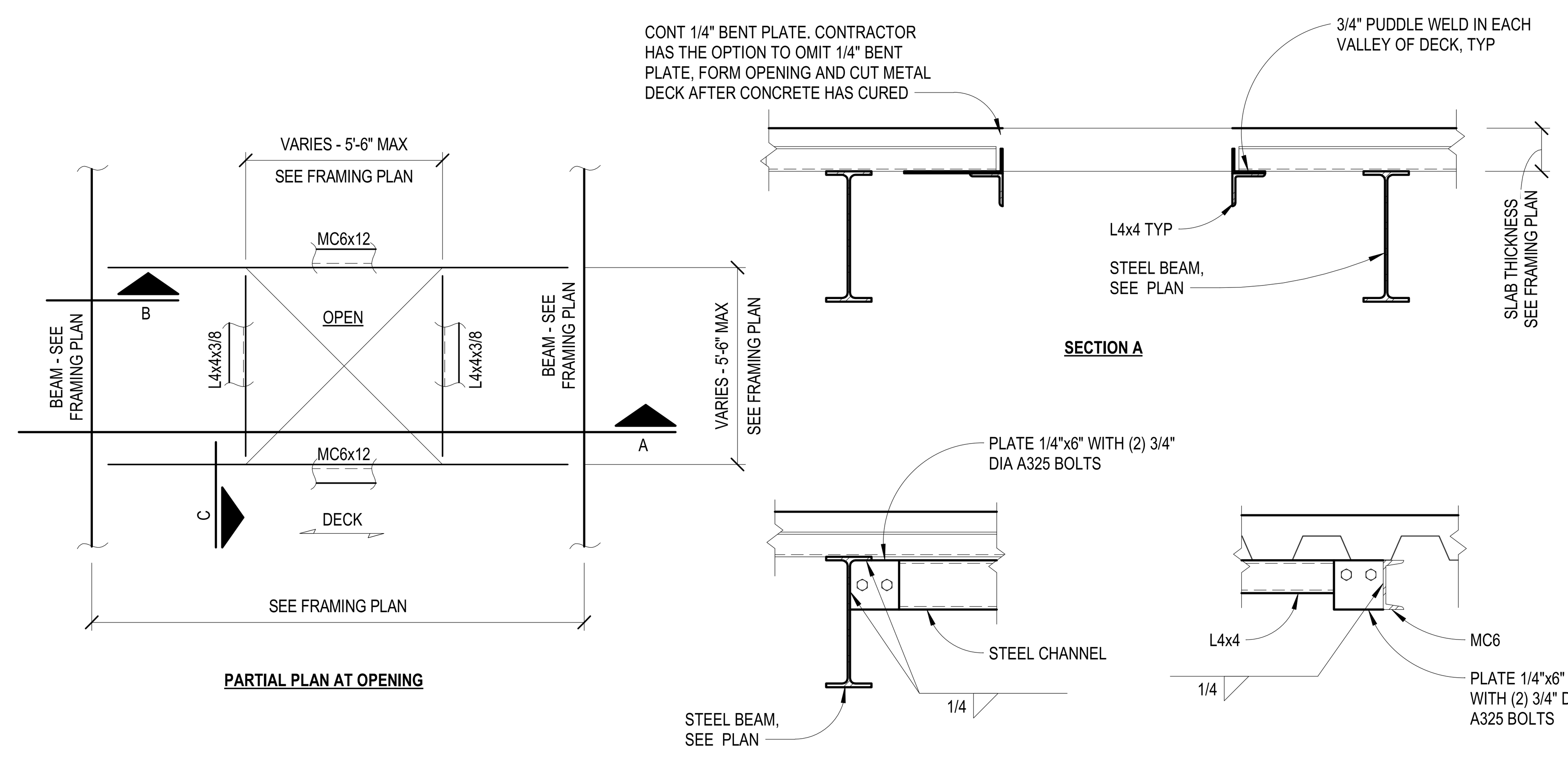
4 TYP EDGE ANGLE SPLICE
NO SCALE

BENT PLATE SCHEDULE				
MAX "X"	BENT PL THCK	DBA LENGTH	DBA SPACING	NOTES
0'-6"	10 GA	N/A	N/A	1,2
1'-0"	1/4"	2'-0"	2'-0"	1
1'-11"	3/8"	3'-0"	2'-0"	1

NOTES:
1. WHERE HANDRAILS, CFS WALL CLIP, OR PRECAST CONNECTION ARE MADE TO BENT PLATE, 1/4" MINIMUM THICKNESS SHALL BE MAINTAINED AND DBA'S PROVIDED.
2. STANDARD ANGLE SIZES MAY BE USED IN LIEU OF BENT PLATES WHEN GEOMETRY PERMITS.
3. WHERE CURVED BENT PLATE OCCURS, USE TWO FLAT PLATES WELDED AT JOINT WITH 3/16" FILLET WELD (3-12).

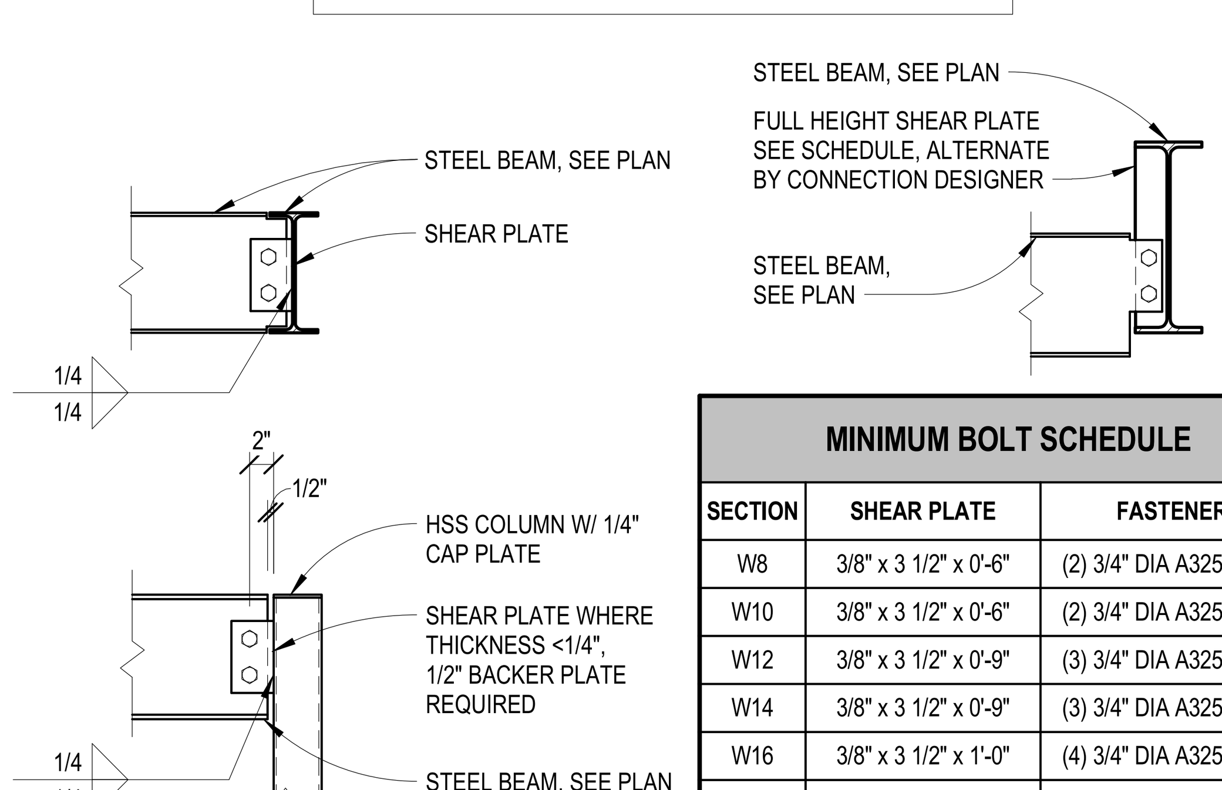


3 TYP EDGE OF SLAB
3/4" = 1'-0"



2 TYP FRAMED OPENING
3/4" = 1'-0"

FRAMING CONNECTION DETAILS SHOWN HERE ARE JUST TO SERVE AS GUIDELINES. IT IS THE RESPONSIBILITY OF THE CONNECTION DESIGNER TO ENSURE ADEQUATE CAPACITY IS ACHIEVED FOR EACH CONNECTION PER DESIGN DOCUMENTS



MINIMUM BOLT SCHEDULE		
SECTION	SHEAR PLATE	FASTENERS
W8	3/8" x 3 1/2" x 0'-6"	(2) 3/4" DIA A325 BOLTS
W10	3/8" x 3 1/2" x 0'-6"	(2) 3/4" DIA A325 BOLTS
W12	3/8" x 3 1/2" x 0'-9"	(3) 3/4" DIA A325 BOLTS
W14	3/8" x 3 1/2" x 0'-9"	(3) 3/4" DIA A325 BOLTS
W16	3/8" x 3 1/2" x 1'-0"	(4) 3/4" DIA A325 BOLTS
W18	3/8" x 3 1/2" x 1'-3"	(5) 3/4" DIA A325 BOLTS
W21	3/8" x 3 1/2" x 1'-6"	(6) 3/4" DIA A325 BOLTS
W24	3/8" x 3 1/2" x 1'-9"	(7) 3/4" DIA A325 BOLTS
W27	3/8" x 3 1/2" x 2'-0"	(8) 3/4" DIA A325 BOLTS

1 TYP BEAM CONNECTION
3/4" = 1'-0"

STUDIO 45 ARCHITECTS
1648 Southwest Blvd Tulsa, OK 74107
www.s45architects.com

360 Engineering Group, PLLC
www.360enggroup.com
1350 S Boulder Ave, Ste 1100
Tulsa, OK 74119
918.518.1124
Certificate of Authorization:
OK #5996 | EXP 6.30.2026

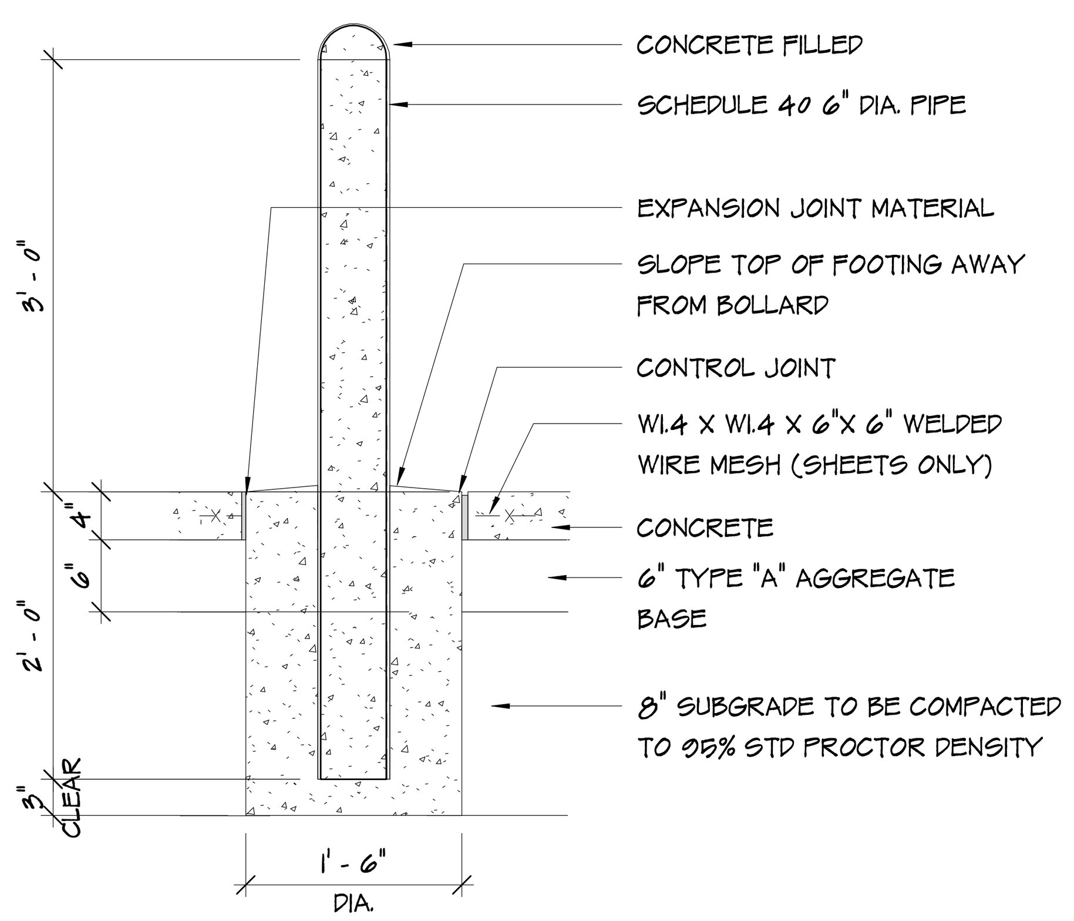
CORTEZ FLATS APARTMENTS
1320 EAST 17th STREET
TULSA, OK 74120
PERMIT DOCUMENTS

PROFESSIONAL STRUCTURAL ENGINEER
AARON LANDRUM
25535
OKLAHOMA
05.20.2026

PROJECT NO: 26245
ISSUE DATE: 05/20/2026

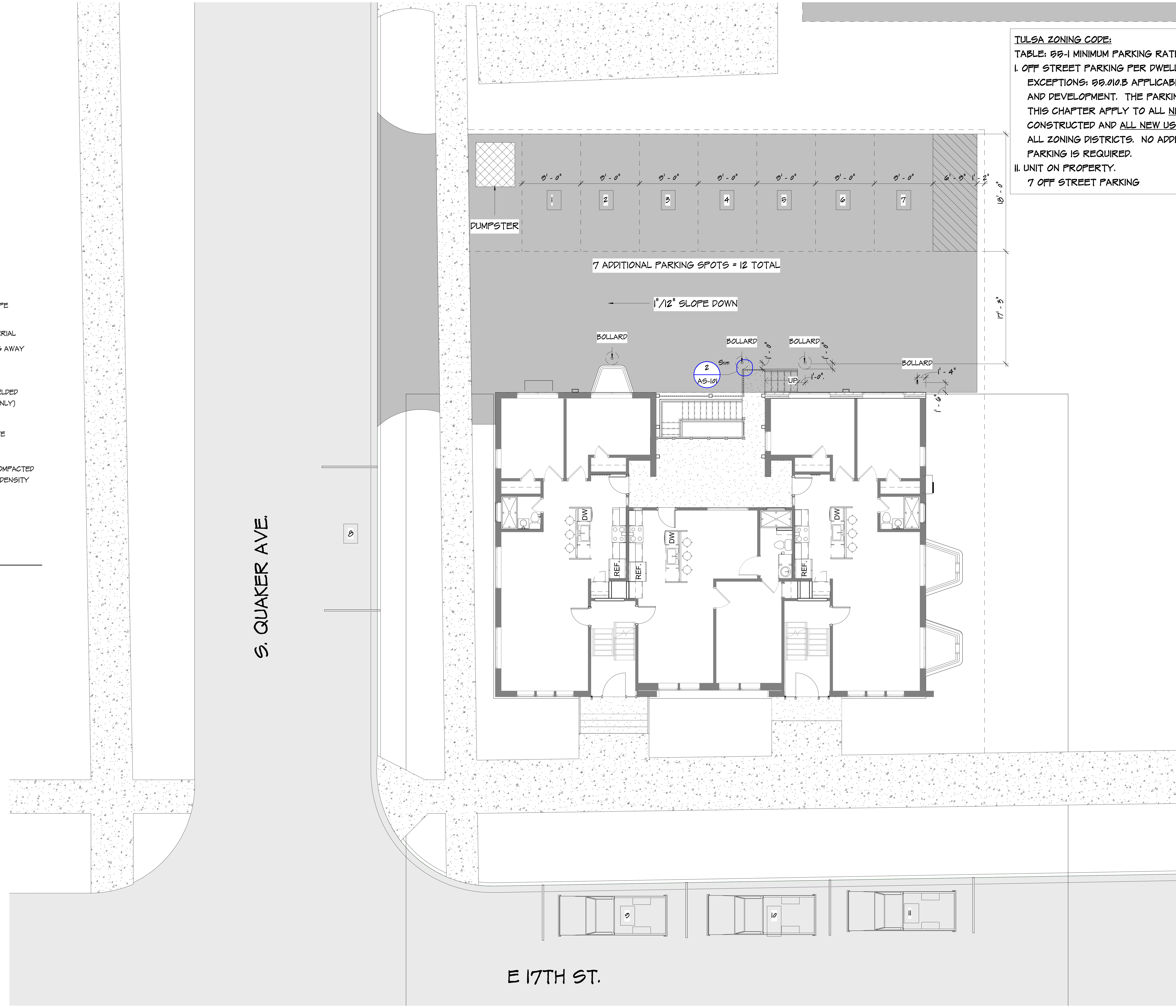
FRAMING DETAILS

S511



2 TYP. BOLLARD DETAIL

3/4" = 1'-0"



TULSA ZONING CODE:

TABLE: 55-1 MINIMUM PARKING RATIOS.

I. OFF STREET PARKING PER DWELLING UNIT. (PAGE 55-3).
EXCEPTIONS: 55.010.B APPLICABILITY #2. NEW USES AND DEVELOPMENT. THE PARKING REGULATION OF THIS CHAPTER APPLY TO ALL NEW BUILDINGS CONSTRUCTED AND ALL NEW USES ESTABLISHED IN ALL ZONING DISTRICTS. NO ADDITIONAL OFF-STREET PARKING IS REQUIRED.

II. UNIT ON PROPERTY.
7 OFF STREET PARKING

1 SITE PLAN

1/8" = 1'-0"

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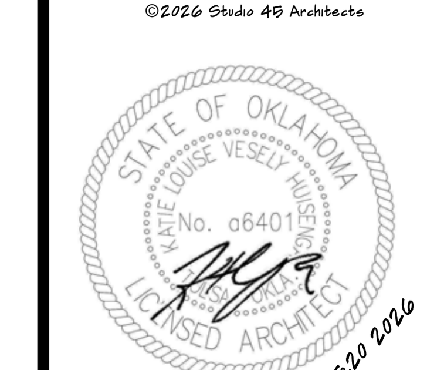
1648 Southwest Blvd Tulsa, OK 74107
www.s45architects.com

CORTEZ FLATS

1320 EAST 17th STREET
TULSA, OKLAHOMA

100% CONSTRUCTION DOCUMENTS

MARK	DESCRIPTION	DATE



PROJECT NO: 100-253
ISSUE DATE: 05/20/2026

SITE PLAN (FOR REFERENCE)

AS-101

DEMOLITION GENERAL NOTES:

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7. CLEAN SLAB AFTER REMOVING WALLS AND DOORS. PATCH WITH ARDEX CONCRETE DRESSING. PREPARE SLAB FOR NEW WALLS. PATCH WITH SIMILAR WOOD FLOOR AT AREA OF WALL REMOVAL

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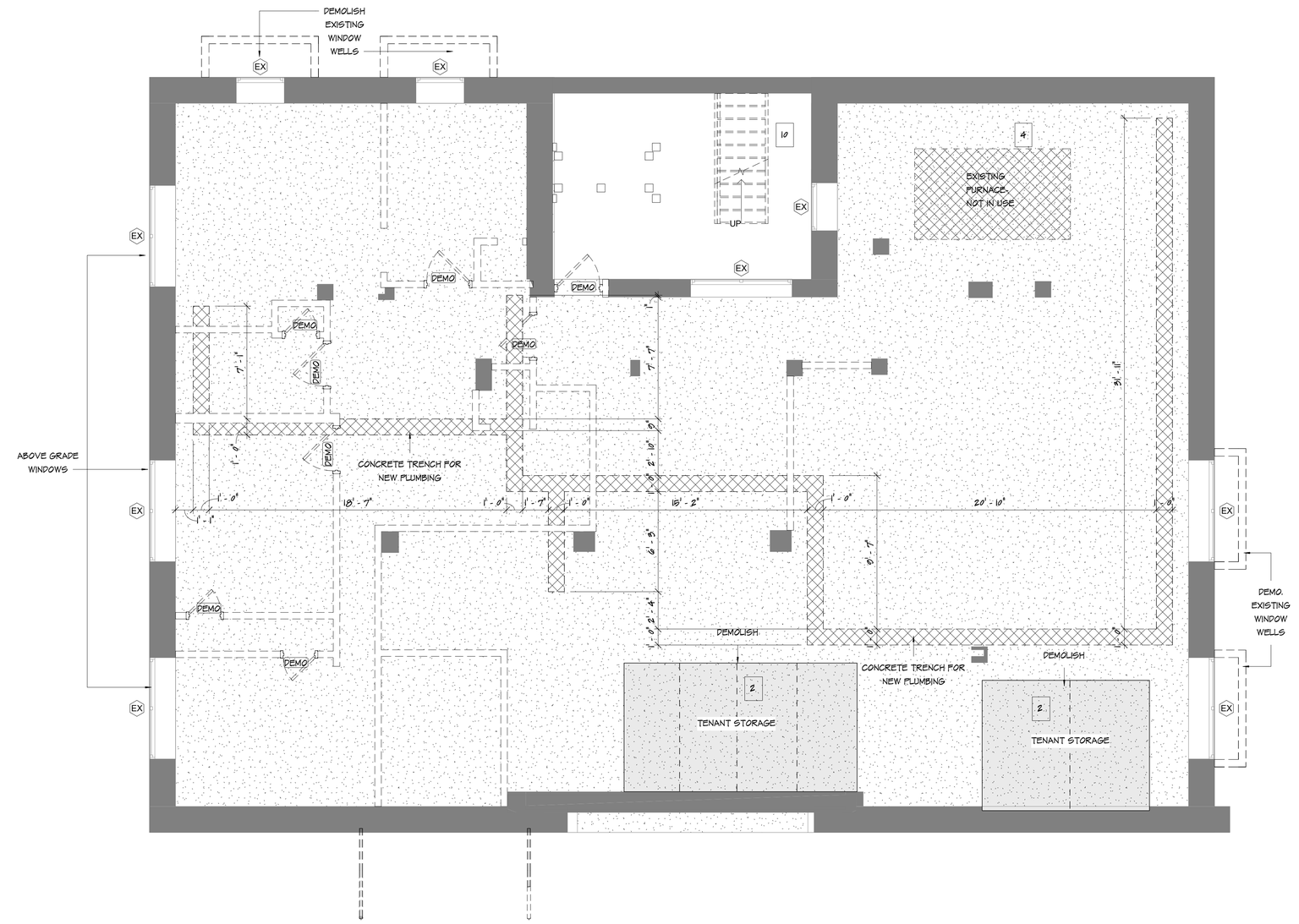
16. INSPECT PLUMBING AT ALL SINKS AND TOILETS, PIPES, AND ADD NEW SEALS. ADD NEW SHUT OFF VALVES.

CONCRETE SLAB REMOVAL NOTES:

GRP = GROUND PENETRATING RADAR

1. CONTRACTOR SHALL EMPLOY A GPR SCANNING COMPANY TO REVEALS THE LOCATION OF THE REBAR AND CABLE AND COLUMN FOUNDATIONS WITHIN OR ABOUT THE EXISTING CONCRETE SLAB.
2. GPR CONTRACTOR SHALL MARK REBAR AND CABLE LOCATIONS DURING THE GPR SCANNING PROCESS.
3. GPR CONTRACTOR SHALL CONFIRM AND PROVIDE RECOMMENDATION ON SLAB REMOVAL REINFORCEMENT TYPE. (POST TENSION SLAB ETC.).



DEMO LEGEND

- EXISTING TO BE DEMO
- EXISTING TO REMAIN

DIMENSION GENERAL NOTES

1. ALL INTERIOR DIMENSIONS ARE TO CENTERLINE, UNLESS NOTED OTHERWISE.
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N

1 BASEMENT FLOOR DEMO PLAN

1/4" = 1'-0"

STUDIO 45 ARCHITECTS
1648 Southwest Blvd Tulsa, Ok 74107
www.s45architects.com

CORTEZ FLATS

1320 EAST 17th STREET
TULSA, OKLAHOMA

100% CONSTRUCTION DOCUMENTS

MARK	DESCRIPTION	DATE

STATE OF OKLAHOMA
REGISTERED
No. 26401
LICENSED ARCHITECT
05.20.2026

PROJECT NO: 100-253
ISSUE DATE: 05/20/2026

BASEMENT FLOOR DEMO PLAN

AD-100

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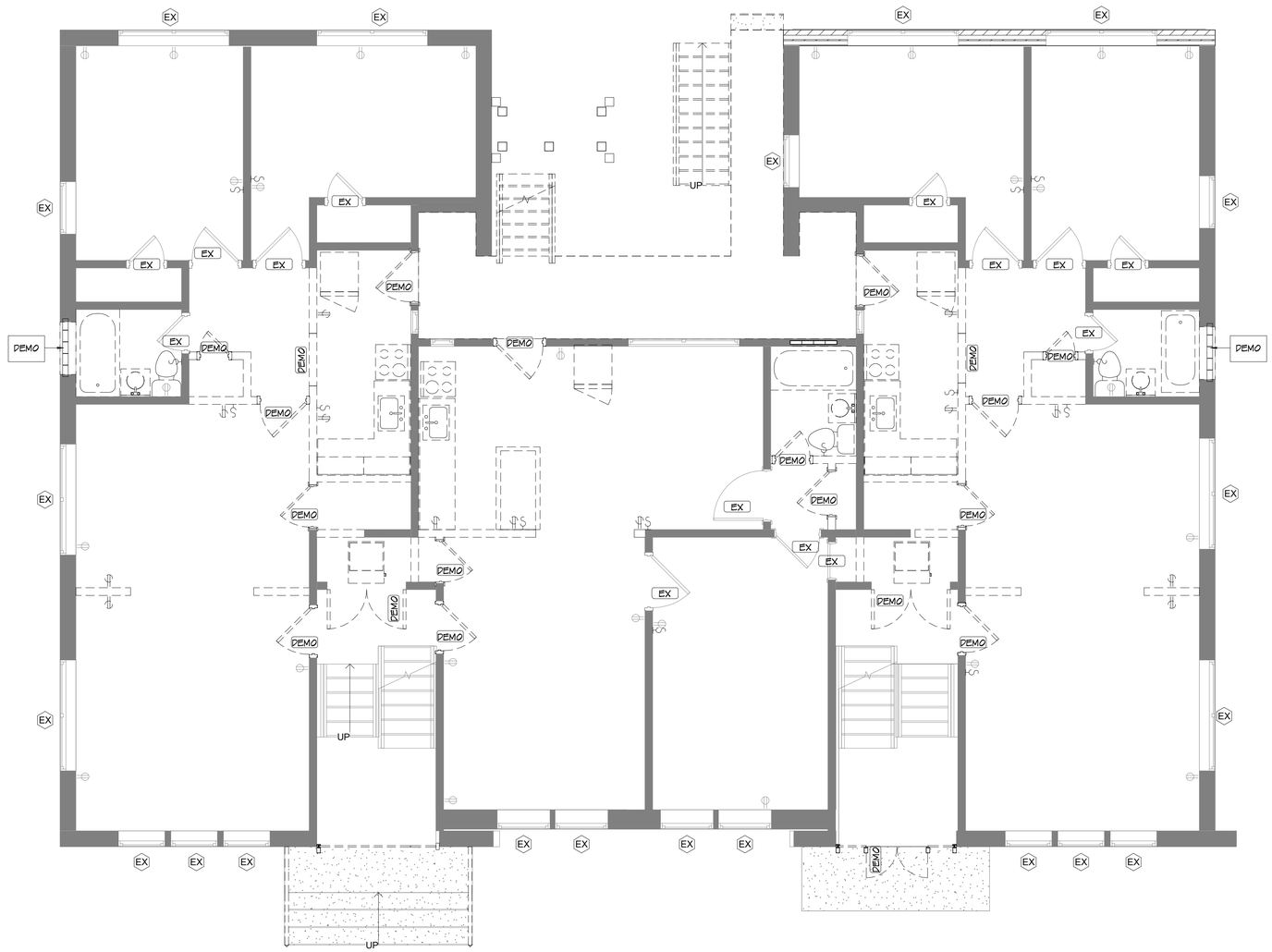

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EXISTING TO BE DEMO

EXISTING TO REMAIN

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N

1 FIRST FLOOR DEMO PLAN

1/4" = 1'-0"

STUDIO 45 ARCHITECTS
1648 Southwest Blvd Tulsa, OK 74107
www.s45architects.com

CORTEZ FLATS

1329 EAST 17th STREET
TULSA, OKLAHOMA

100% CONSTRUCTION DOCUMENTS

MARK	DESCRIPTION	DATE

STATE OF OKLAHOMA
CHRISTOPHER VESELY
No. 26401
LICENSED ARCHITECT
05.20.2026

PROJECT NO: 100-253
ISSUE DATE: 05/20/2026

FIRST FLOOR DEMO PLAN

AD-101

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EXISTING TO BE DEMO

EXISTING TO REMAIN

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N 1 SECOND FLOOR DEMO PLAN

1/4" = 1'-0"

STUDIO 45 ARCHITECTS
1648 Southwest Blvd Tulsa, OK 74107
www.s45architects.com

CORTEZ FLATS

1320 EAST 17th STREET
TULSA, OKLAHOMA

100% CONSTRUCTION DOCUMENTS

MARK	DESCRIPTION	DATE

STATE OF OKLAHOMA · KATE LOUISE VESELY HUSEN · No. a6401 · LICENSED ARCHITECT · 05.20.2026

PROJECT NO: 100-253
ISSUE DATE: 05/20/2026

SECOND FLOOR DEMO PLAN

AD-102

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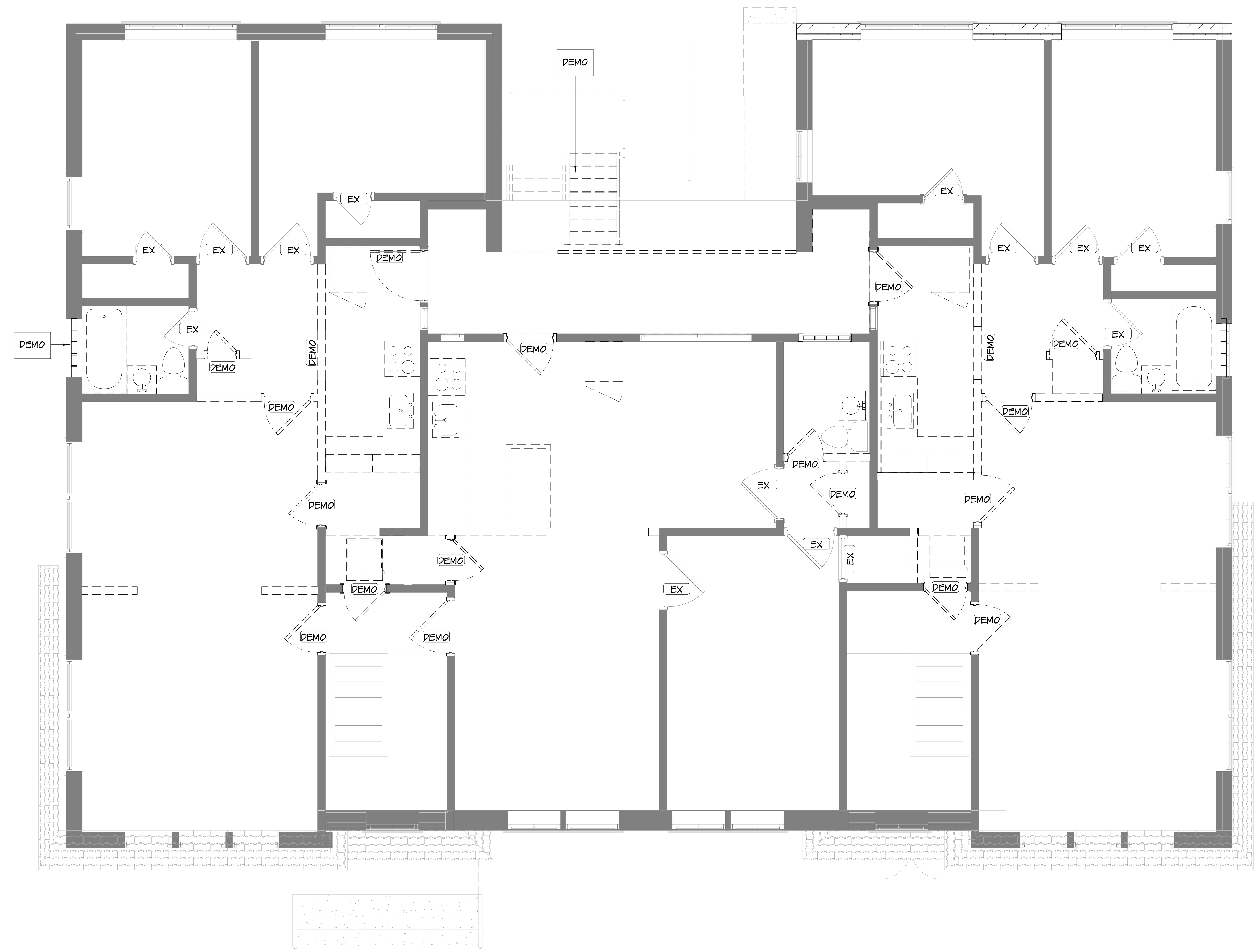

N 1 THIRD FLOOR DEMO PLAN

1/4" = 1'-0"

DEMO LEGEND

EXISTING TO BE DEMO

EXISTING TO REMAIN

DIMENSION GENERAL NOTES

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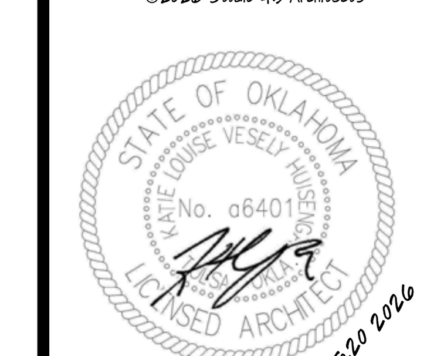
STUDIO 45 ARCHITECTS
1648 Southwest Blvd Tulsa, OK 74107
www.s45architects.com

CORTEZ FLATS
1320 EAST 17th STREET
TULSA, OKLAHOMA

100% CONSTRUCTION DOCUMENTS

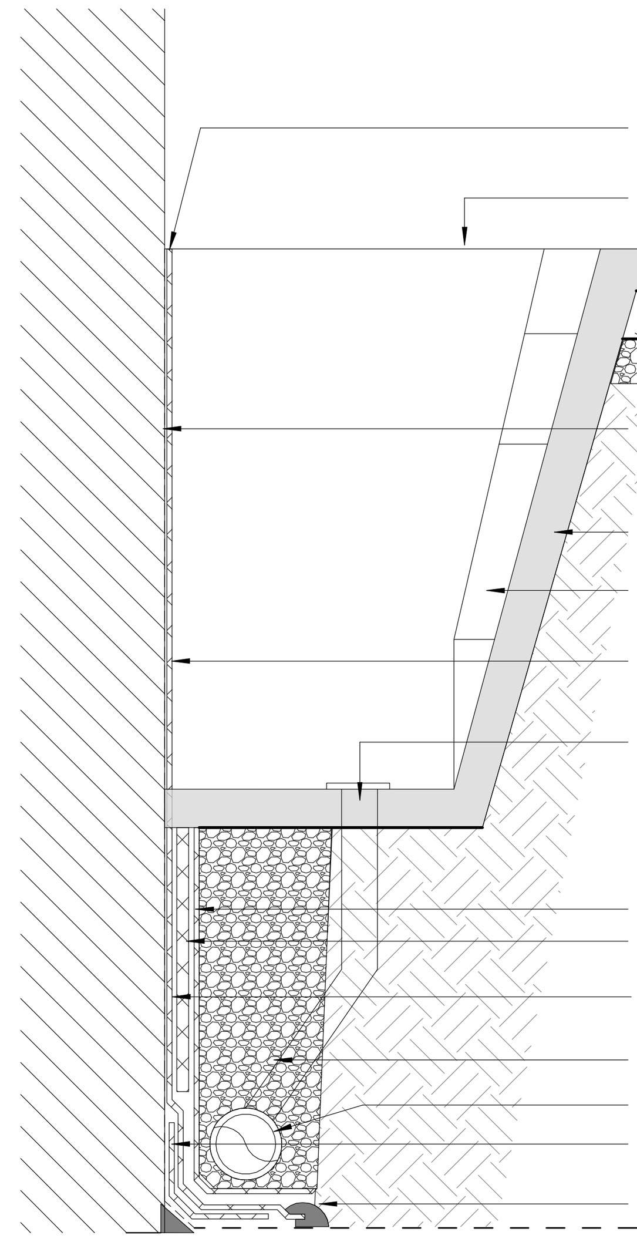
MARK	DESCRIPTION	DATE



PROJECT NO. 100-253
ISSUE DATE: 05/20/2026

THIRD FLOOR DEMO PLAN

AD-103

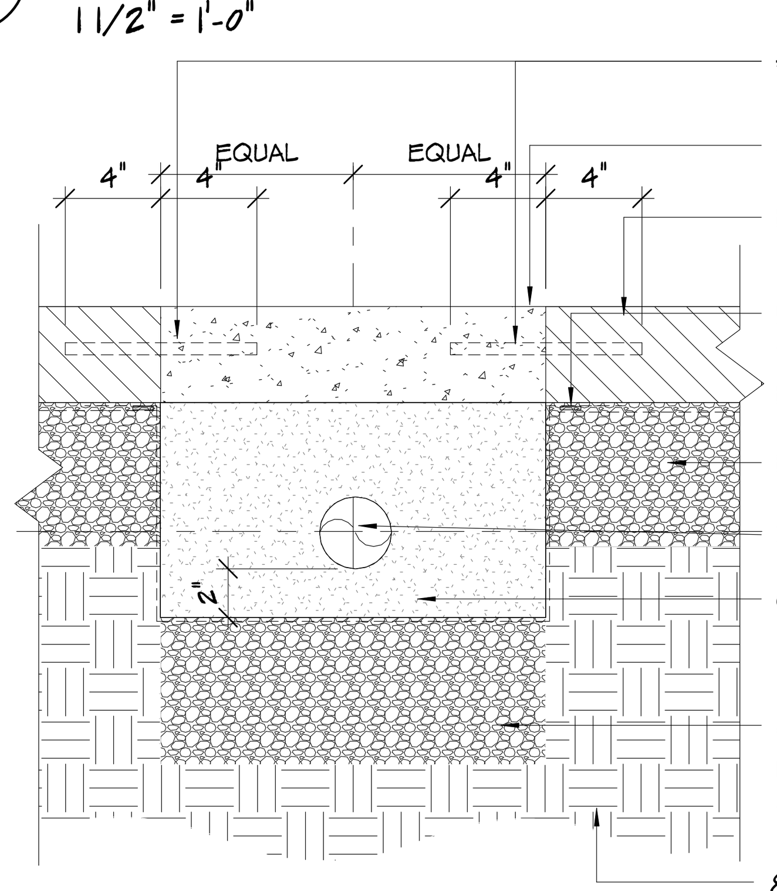


4 TYPICAL FRENCH DRAIN WINDOW WELL SECTION

3/4" = 1'-0"

3 WINDOW WELL

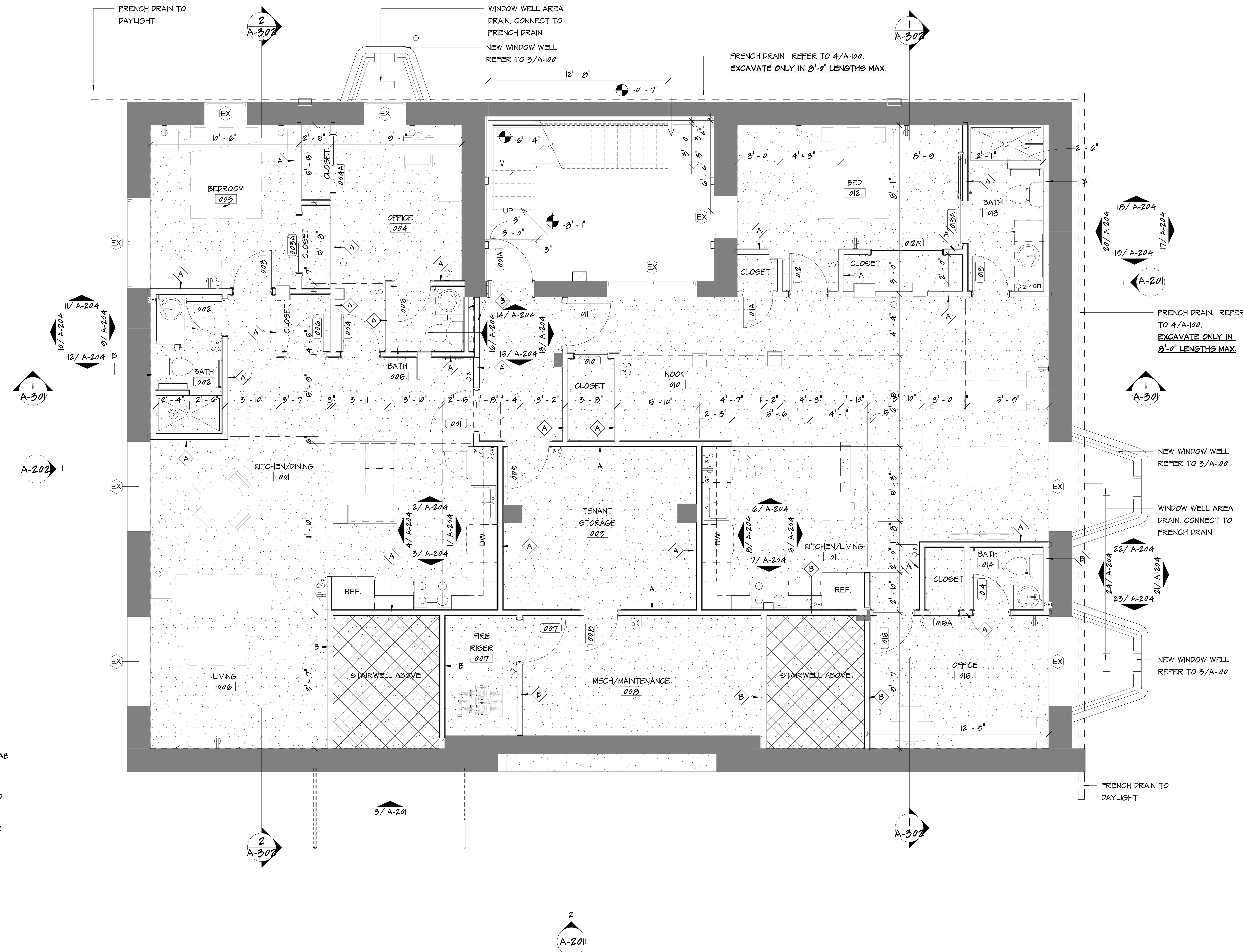
1 1/2" = 1'-0"



2 SLAB CUT DETAIL

1 1/2" = 1'-0"

EXCAVATE FRENCH DRAIN IN 8'-0" LENGTHS MAX.



1 BASEMENT FLOOR PLAN

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CORTEZ FLATS
1320 EAST 17th STREET
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MARK	DESCRIPTION	DATE

STATE OF OKLAHOMA LICENSED ARCHITECT No. 6401
05.20.2026

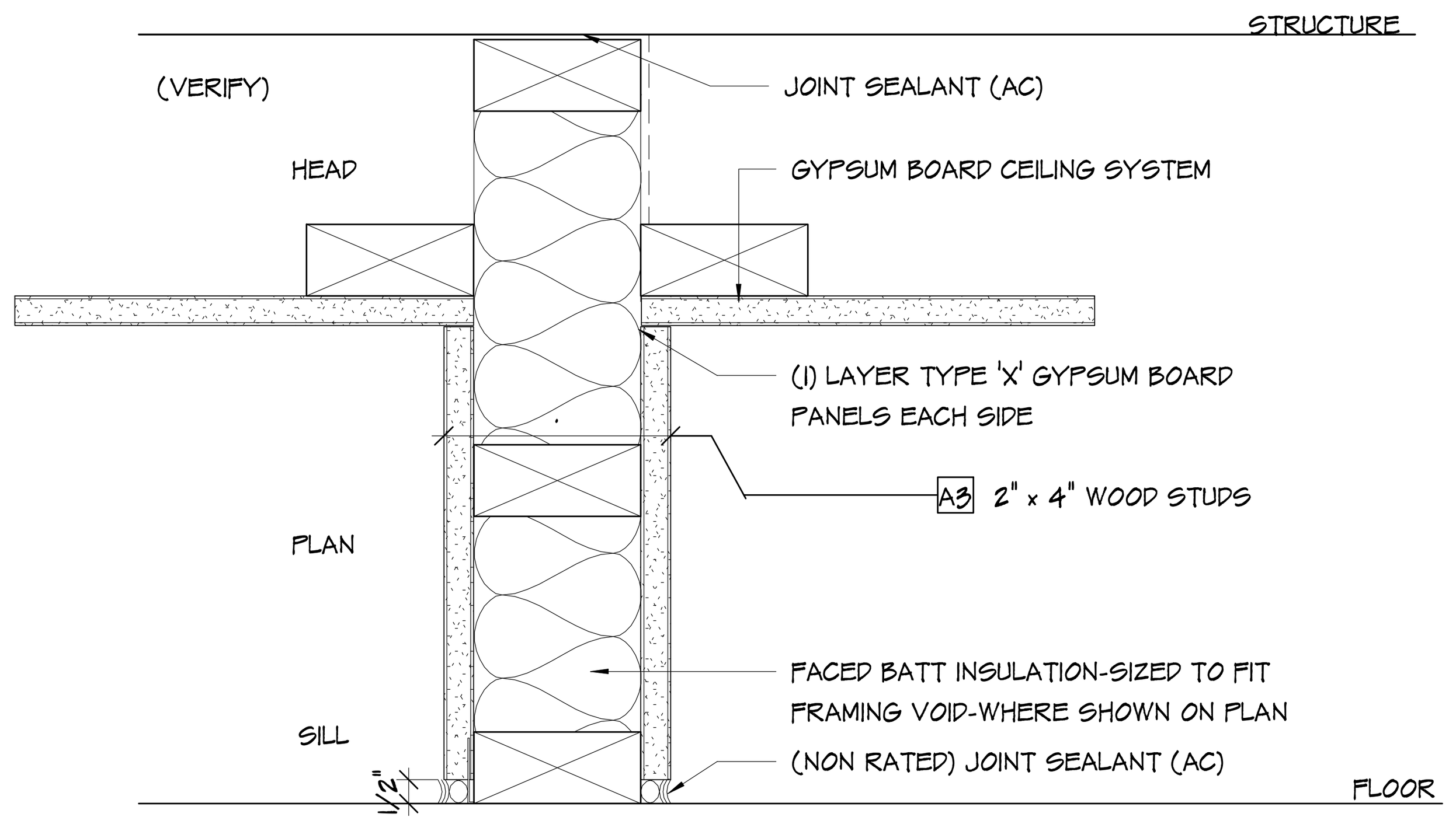
PROJECT NO. 100-253
ISSUE DATE: 05/20/2026

BASMENT FLOOR PLAN

A-100

PARTITION GENERAL NOTES

1. REFER TO PARTITION SCHEDULE FOR PROJECT SPECIFIC PARTITIONS. PARTITION DETAILS MAY OR MAY NOT BE REQUIRED.
2. PARTITION FIRE-RESISTANCE RATINGS ARE INDICATED IN PLAN BY GRAPHIC DESIGNATION.
3. PROVIDE UL LISTED ASSEMBLIES AT FIRE RATED PARTITIONS.
4. FIRE RATED PARTITIONS MUST TERMINATE UNDER HORIZONTAL FIRE RATED ASSEMBLY OR ROOF ASSEMBLY.
5. FIRE BARRIERS AND SHAFT WALLS AT STAIR WELL SHALL BE CONTINUOUS AND TERMINATE AT THE UNDERSIDE OF THE ROOF DECK.
6. PROVIDE BLOCKING FOR ALL WALL MOUNTED EQUIPMENT AND CASEWORK. REFER TO CODE SUMMARY FOR RATING REQUIREMENTS.
7. PROVIDE SLOTTED OR NESTED DEFLECTION TRACK AT TOP OF PARTITION WHERE STUDS ARE ATTACHED TO STRUCTURE ABOVE, TYPICAL.
8. BRACE PARTITIONS AT NO LESS THAN 15 FOOT INCREMENTS WHEN NOT EXTENDING TO DECK.
9. REFER TO FINISH SCHEDULE, FINISH PLAN, INTERIOR ELEVATIONS, AND RCP FOR FINISHES APPLIED TO PARTITION, FLOOR AND CEILING FINISHES ADJACENT TO PARTITION.
10. PROVIDE MOISTURE-AND-MOLD-RESISTANT GYPSUM BOARD AS THE OUTERMOST LAYER OF GYPSUM BOARD, WHERE SHOWN IN PARTITION SCHEDULE, AT DAMP LOCATIONS (EX: JANITOR CLOSET, LAVATORIES...), UNLESS NOTED OTHERWISE.
11. PROVIDE CEMENTITIOUS BACKER BOARD AS THE OUTERMOST LAYER OF GYPSUM BOARD, WHERE SHOWN IN PARTITION SCHEDULE, BEHIND TILE OR STONE PARTITIONS AT WET LOCATIONS (EX: SHOWER STALL / ROOMS...), UNLESS NOTED OTHERWISE.

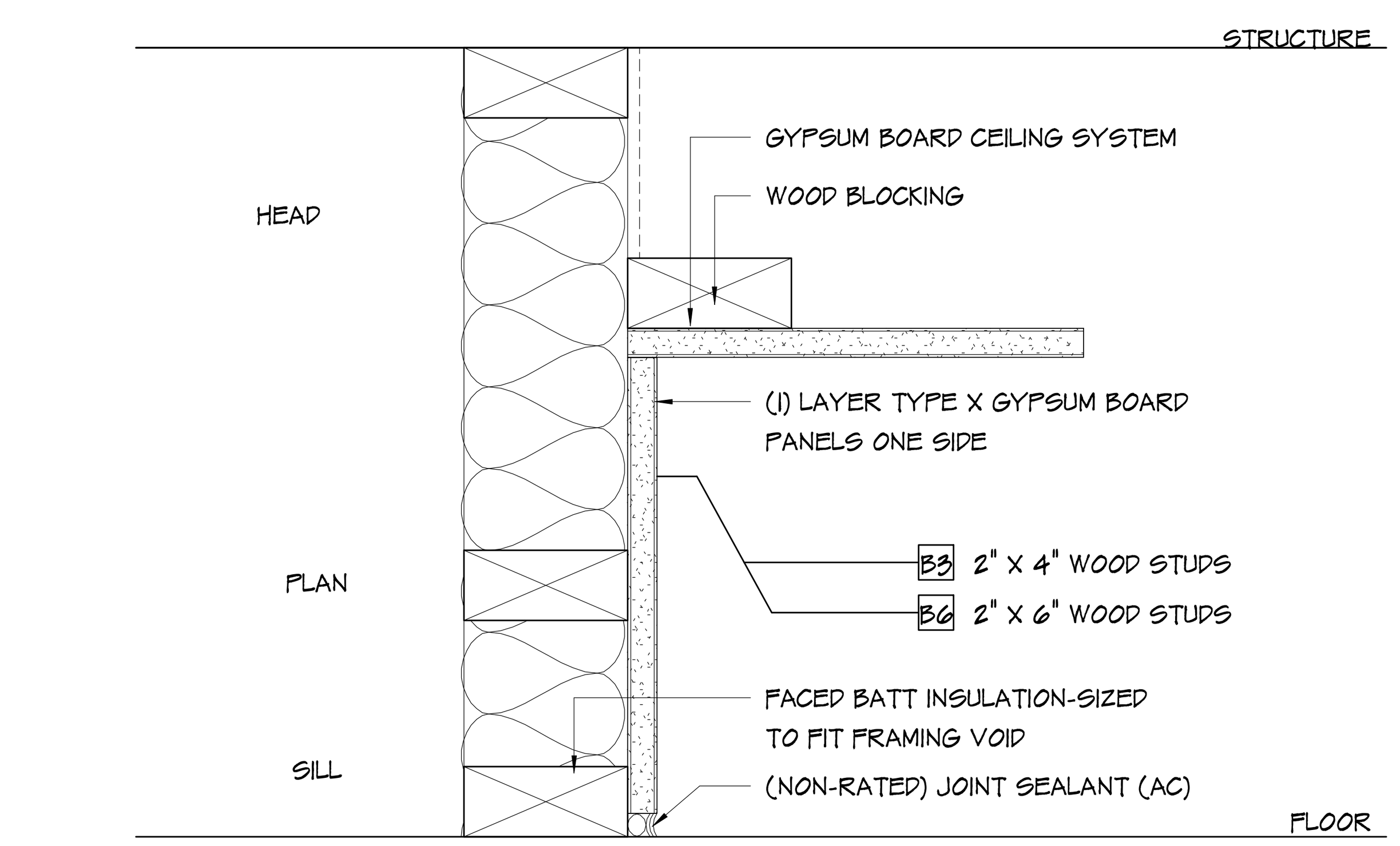


TYPE		STUD SPACING	LIMITING HEIGHT L/240	L/360	BATT INSULATION	STC	FIRE RATING	UL LISTING WALL	HEAD	BOTTOM
A3		1'-4" O.C.	---	---	3"	---	---	---	---	---

A SERIES

3 PARTITION TYPE

3" = 1'-0"



TYPE		STUD SPACING	LIMITING HEIGHT L/240	L/360	BATT INSULATION	STC	FIRE RATING	UL LISTING WALL	HEAD	BOTTOM
B3		1-4" O.C.	---	---	3"	---	---	---	---	---
B6		1-4" O.C.	---	---	6"	---	---	---	---	---

EXTEND GYPSUM BOARD TO UNDERSIDE OF DECK AT BOTH SIDES OF WALL ASSEMBLY AT PERIMETER WALLS OF ALL TOILETS, LOCKER ROOMS, SHOWER ROOMS, AND CONFERENCE ROOMS.

B SERIES

4 PARTITION TYPE

3" = 1'-0"

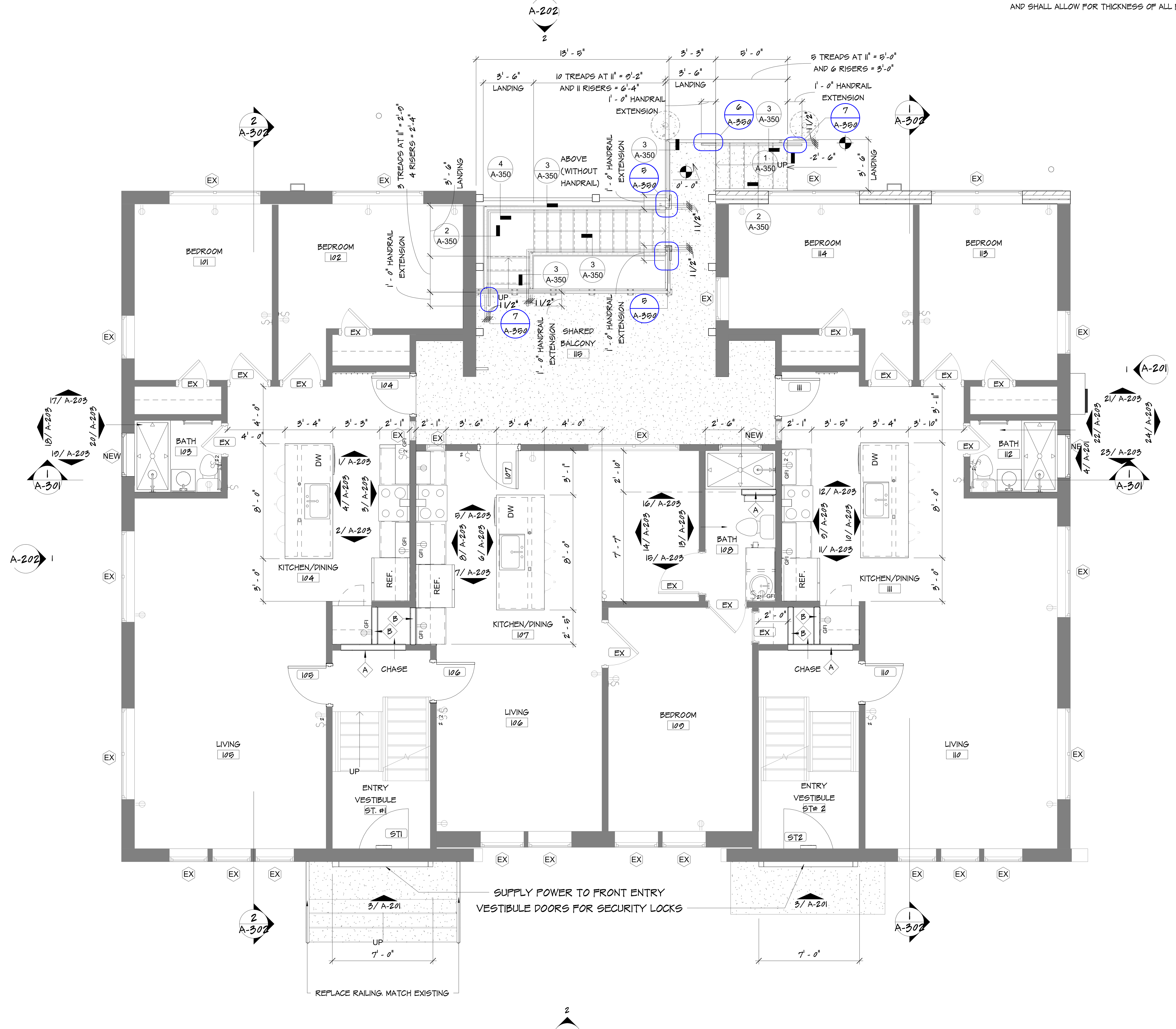
WALL TYPE LEGEND

EXISTING WALLS

NEW WALLS

DIMENSION GENERAL NOTES

1. ALL INTERIOR DIMENSIONS ARE TO CENTERLINE, UNLESS NOTED OTHERWISE.
2. DIMENSION MARKED "CLEAR" SHALL BE MAINTAINED AND SHALL ALLOW FOR THICKNESS OF ALL FINISHES.



1 NEW CONSTRUCTION FIRST FLOOR PLAN

1/4" = 1'-0"

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CORTEZ FLATS

1320 EAST 17th STREET
TULSA, OKLAHOMA

100% CONSTRUCTION DOCUMENTS

MARK	DESCRIPTION	DATE

STATE OF OKLAHOMA
KATIE LOUISE VESELY HUISENGA
No. a6401
TULSA, OKLA.
LICENSED ARCHITECT
05.20 2026

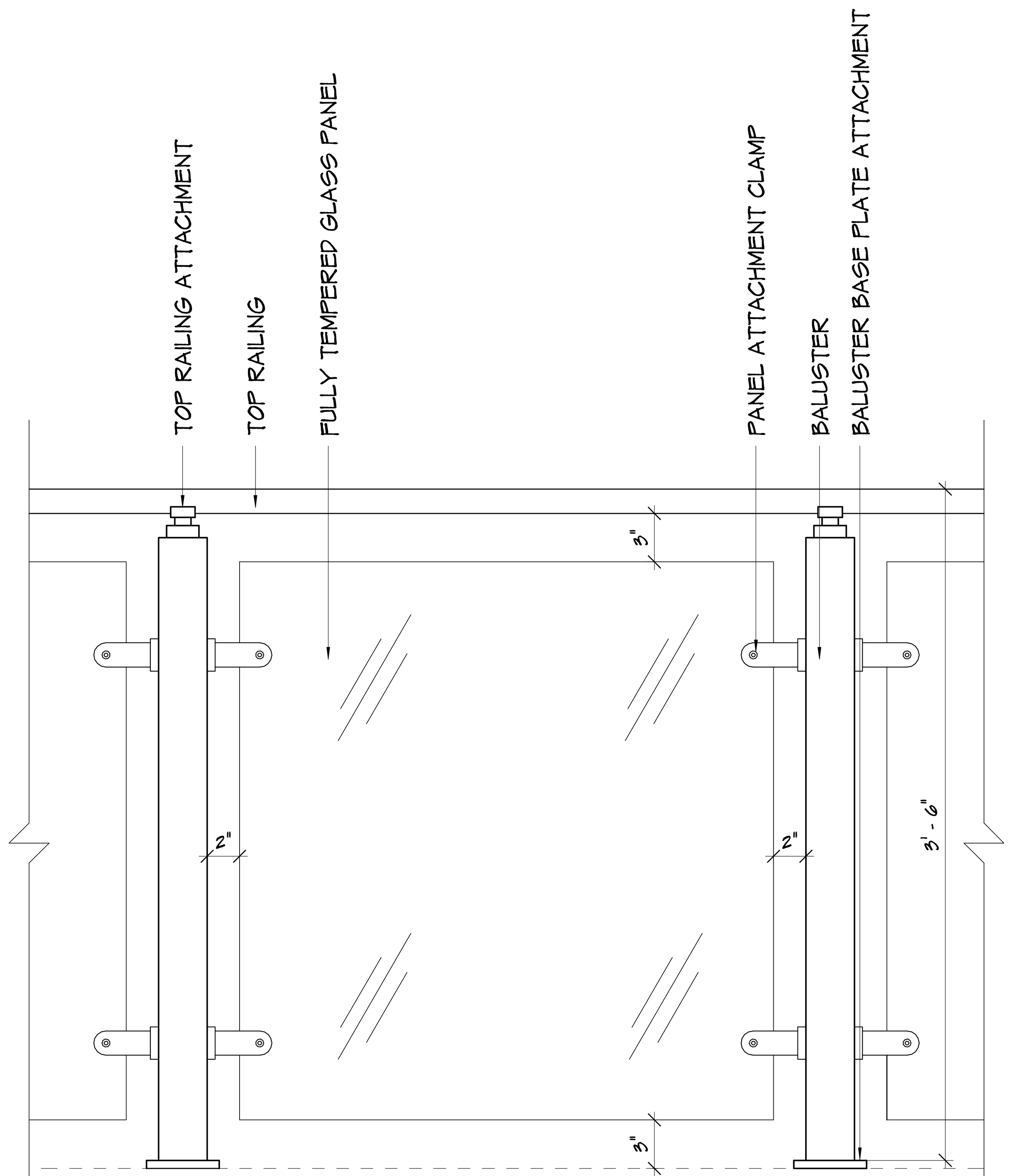
PROJECT NO: 100-253
ISSUE DATE: 05/20/2026

FIRST FLOOR PLAN

A-101

DIMENSION GENERAL NOTES

1. ALL INTERIOR DIMENSIONS ARE TO CENTERLINE, UNLESS NOTED OTHERWISE.
2. DIMENSION MARKED "CLEAR" SHALL BE MAINTAINED AND SHALL ALLOW FOR THICKNESS OF ALL FINISHES.



LOAD REQUIREMENTS: GUARDRAILS MUST BE DESIGNED TO WITHSTAND A MINIMUM LOAD OF 50 POUNDS PER LINEAR FOOT APPLIED IN ANY DIRECTION AT THE TOP RAIL, AS WELL AS A CONCENTRATED LOAD OF 200 POUNDS APPLIED AT ANY POINT ALONG THE TOP RAIL.

2 TYPICAL RAILING ELEVATION

1 1/2" = 1'-0"

1 NEW CONSTRUCTION SECOND FLOOR PLAN

1/4" = 1'-0"

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05.20.2026

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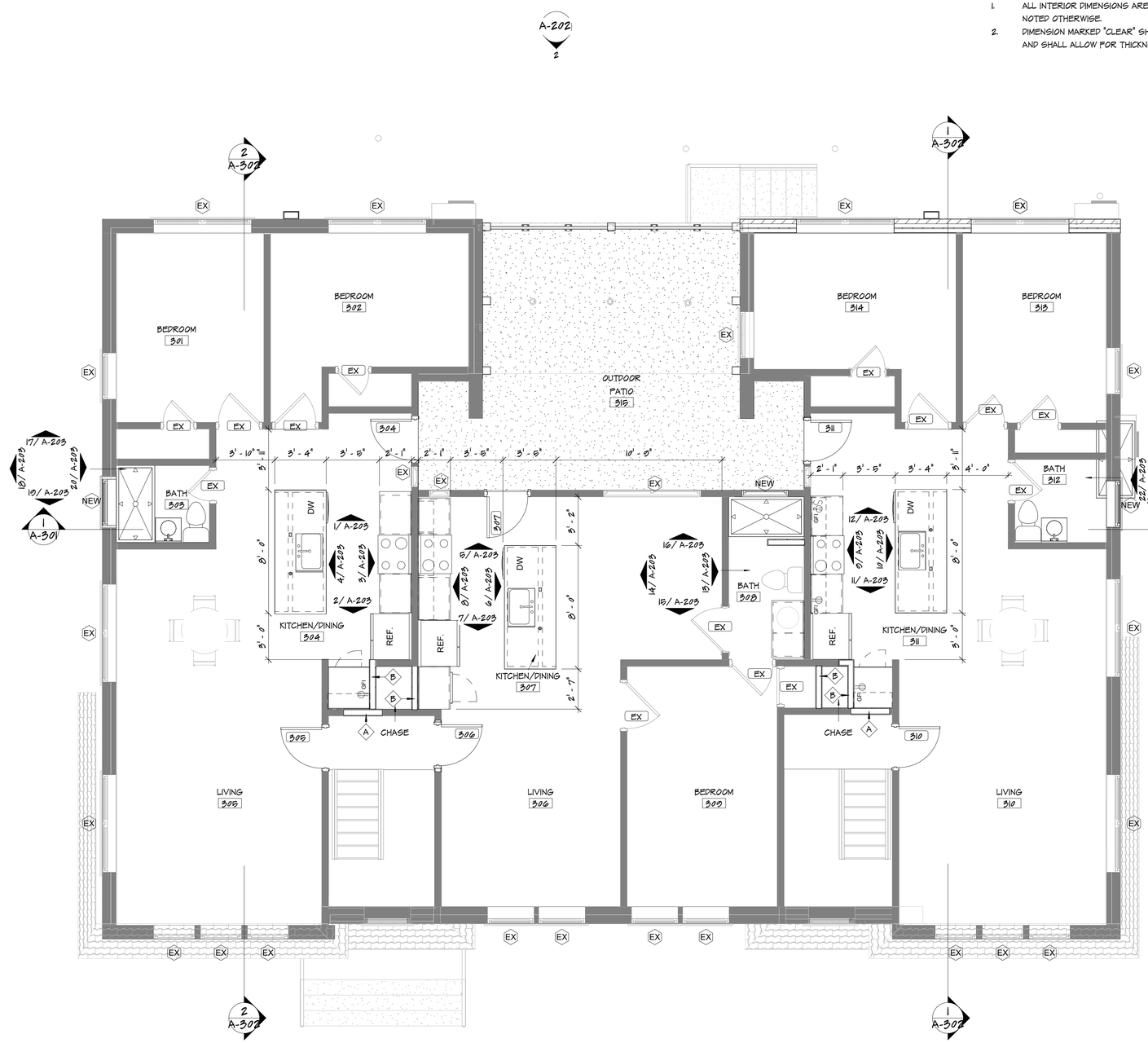
ISSUE DATE: 05/20/2026

SECOND FLOOR PLAN

A-102

DIMENSION GENERAL NOTES

1. ALL INTERIOR DIMENSIONS ARE TO CENTERLINE, UNLESS NOTED OTHERWISE.
2. DIMENSION MARKED "CLEAR" SHALL BE MAINTAINED AND SHALL ALLOW FOR THICKNESS OF ALL FINISHES.



2
A-201

N 1 NEW CONSTRUCTION THIRD FLOOR PLAN

1/4" = 1'-0"

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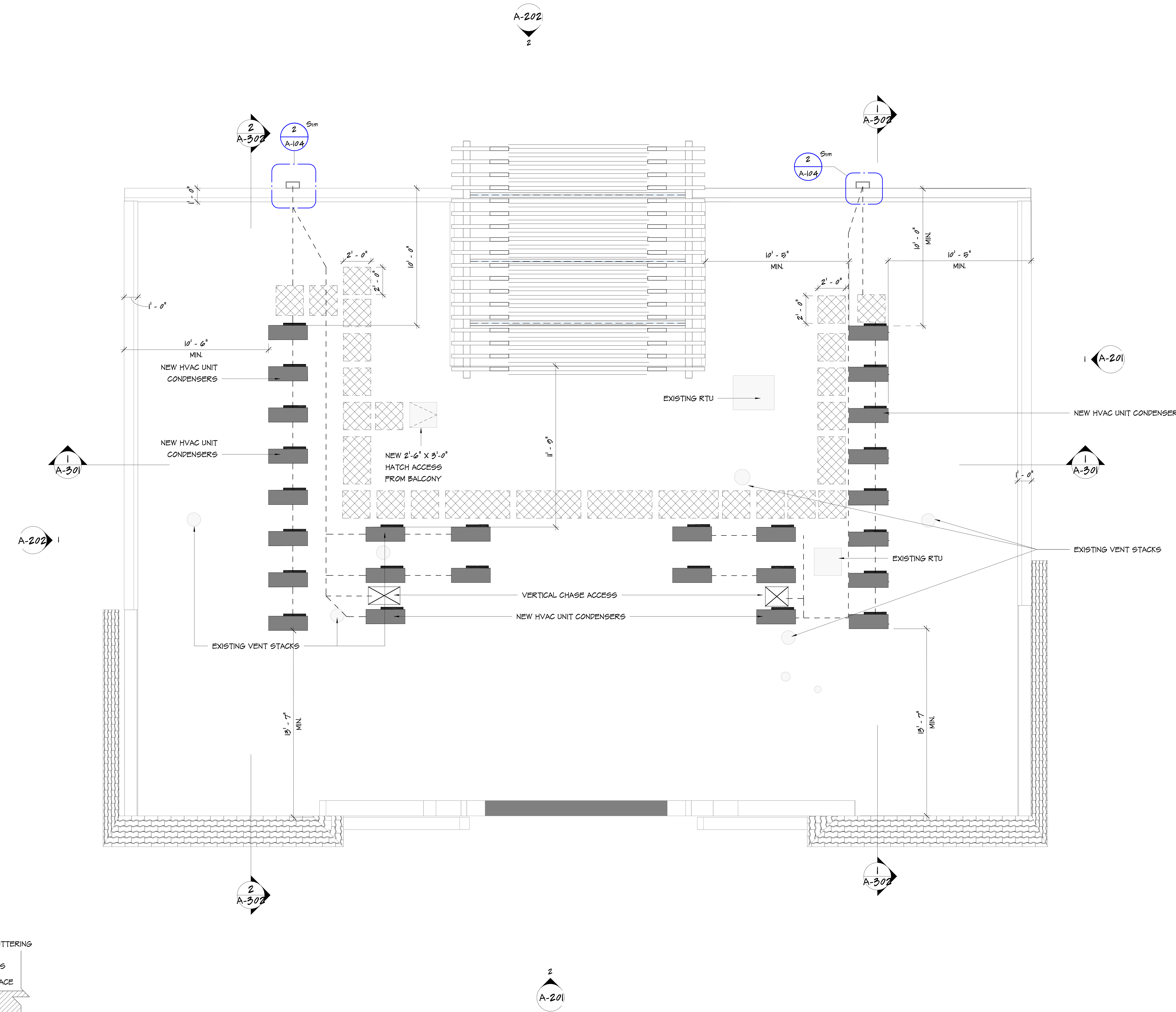
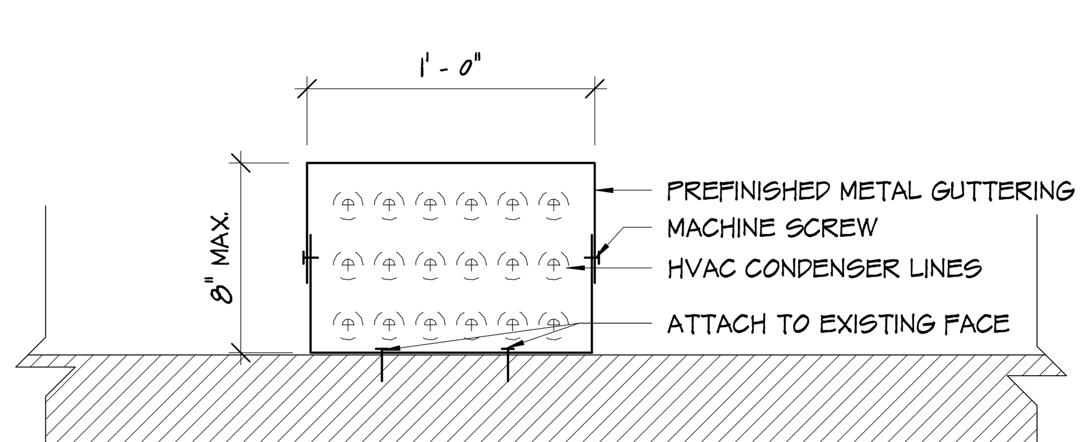
THIRD FLOOR PLAN

A-103





2 HVAC CONDENSER LINE CHASE
1 1/2" = 1'-0"

1 NEW CONSTRCUCTION ROOF PLAN
1/4" = 1'-0"

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ROOF PLAN

A-104

5/21/2026 4:11:23 PM

1 NEW CONSTRUCTION BASEMENT REFLECTED CEILING PLAN

1/4" = 1'-0"

REFLECTED CEILING PLAN LEGEND:

	GYP. BD. CEILING
	NON-RECESSED INTERIOR WAFER LIGHT
	EXTERIOR CAN LIGHTING
	EMERGENCY EXIT LIGHTING
	KITCHEN ISLAND FIXTURE
	SUPPLY AIR DIFFUSER
	EXHAUST FAN
OTS	OPEN TO STRUCTURE
SD	SMOKE DETECTOR
CMD	**CARBON MONOXIDE DETECTION**

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BASEMENT FLOOR
REFLECTED CEILING PLAN

A-111

5/21/2026 4:11:24 PM
Autodesk Docs://100-253 Cortez As - Builts/1331 E 17Th St.- Cortez As-Built 4.14.26.rvt

REFLECTED CEILING PLAN LEGEND:

	GYP. BD. CEILING
	NON-RECESSED INTERIOR WAFER LIGHT
	EXTERIOR CAN LIGHTING
	EMERGENCY EXIT LIGHTING
	KITCHEN ISLAND FIXTURE
	SUPPLY AIR DIFFUSER
	EXHAUST FAN
OTS	OPEN TO STRUCTURE
SD	SMOKE DETECTOR
CMD	**CARBON MONOXIDE DETECTION**

1 NEW FIRST FLOOR REFLECTED CEILING PLAN

1/4" = 1'-0"

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FIRST FLOOR REFLECTED CEILING PLAN

A-112

REFLECTED CEILING PLAN LEGEND:

- GYP. BD. CEILING
- NON-RECESSED INTERIOR WAFER LIGHT
- EXTERIOR CAN LIGHTING
- EMERGENCY EXIT LIGHTING
- KITCHEN ISLAND FIXTURE
- SUPPLY AIR DIFFUSER
- EXHAUST FAN
- OTS — OPEN TO STRUCTURE
- SD — SMOKE DETECTOR
- CMD — **CARBON MONOXIDE DETECTION**

1 NEW SECOND FLOOR REFLECTED CELING PLAN

1/4" = 1'-0"

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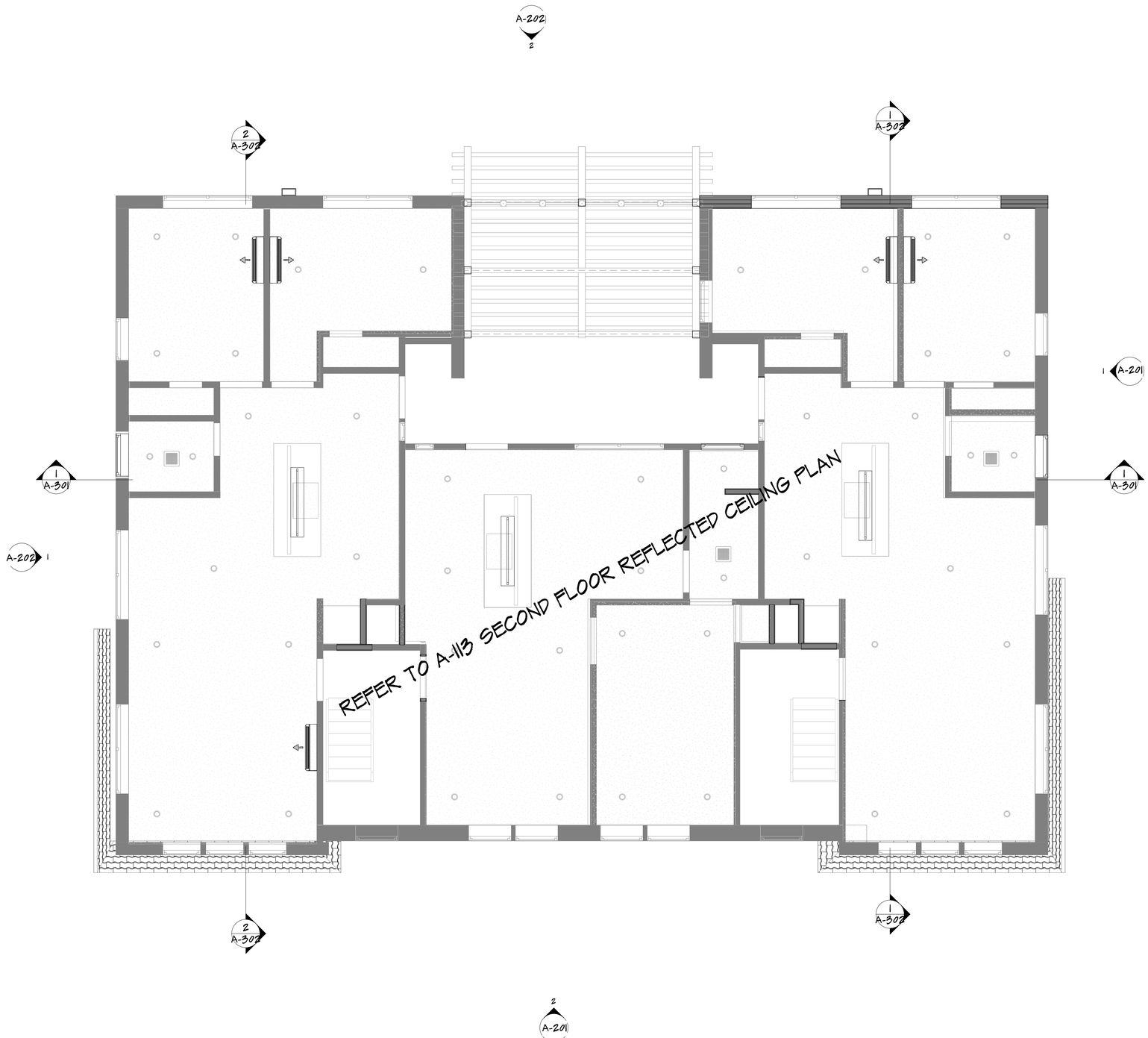
PROJECT NO: 100-253
ISSUE DATE: 05/20/2026

SECOND FLOOR REFLECTED CEILING PLAN

A-113

REFLECTED CEILING PLAN LEGEND:

- GYP. BD. CEILING
- NON-RECESSED INTERIOR WAFER LIGHT
- EXTERIOR CAN LIGHTING
- EMERGENCY EXIT LIGHTING
- KITCHEN ISLAND FIXTURE
- SUPPLY AIR DIFFUSER
- EXHAUST FAN
- OTS — OPEN TO STRUCTURE
- SD — SMOKE DETECTOR
- CMD — CARBON MONOXIDE DETECTION



THIRD FLOOR REFLECTED CEILING PLAN

1/4" = 1'-0"

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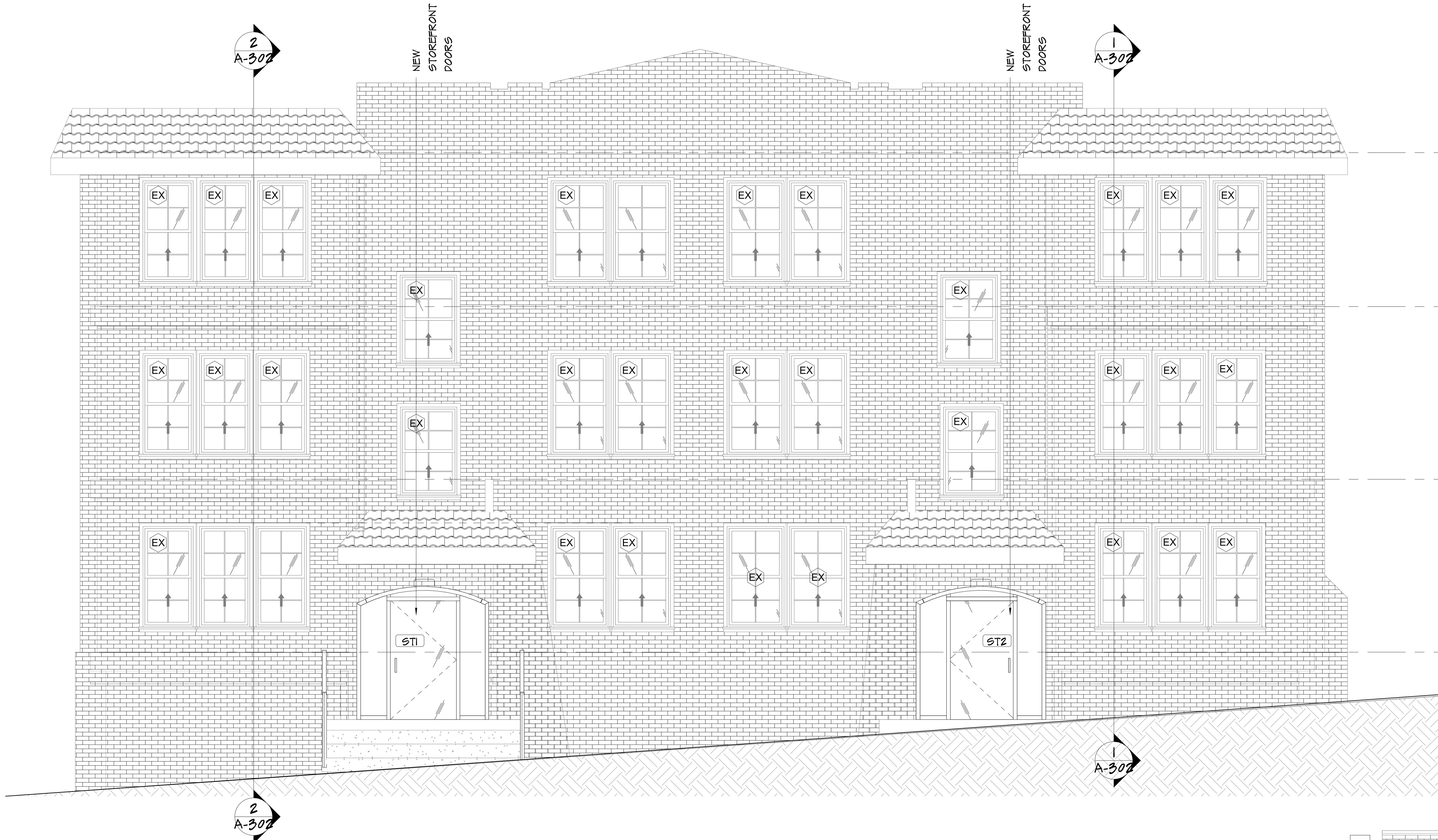
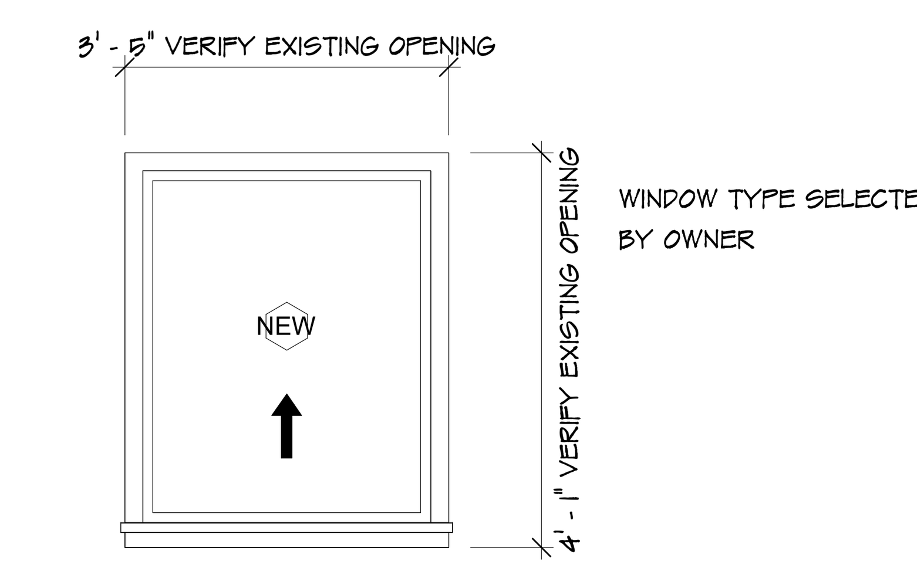
THIRD FLOOR REFLECTED CEILING PLAN

A-114



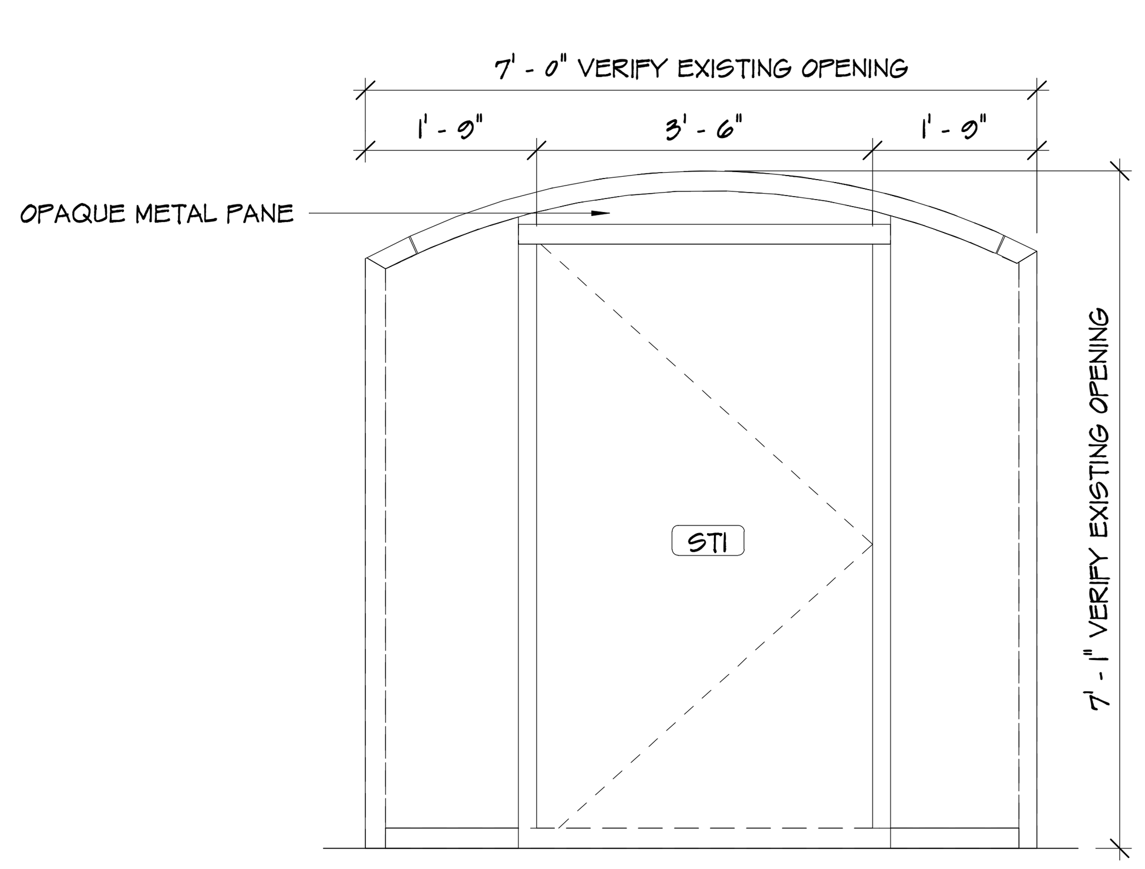
2 SOUTH ELEVATION

1/4" = 1'-0"



4 NEW WINDOW AT BATHROOMS

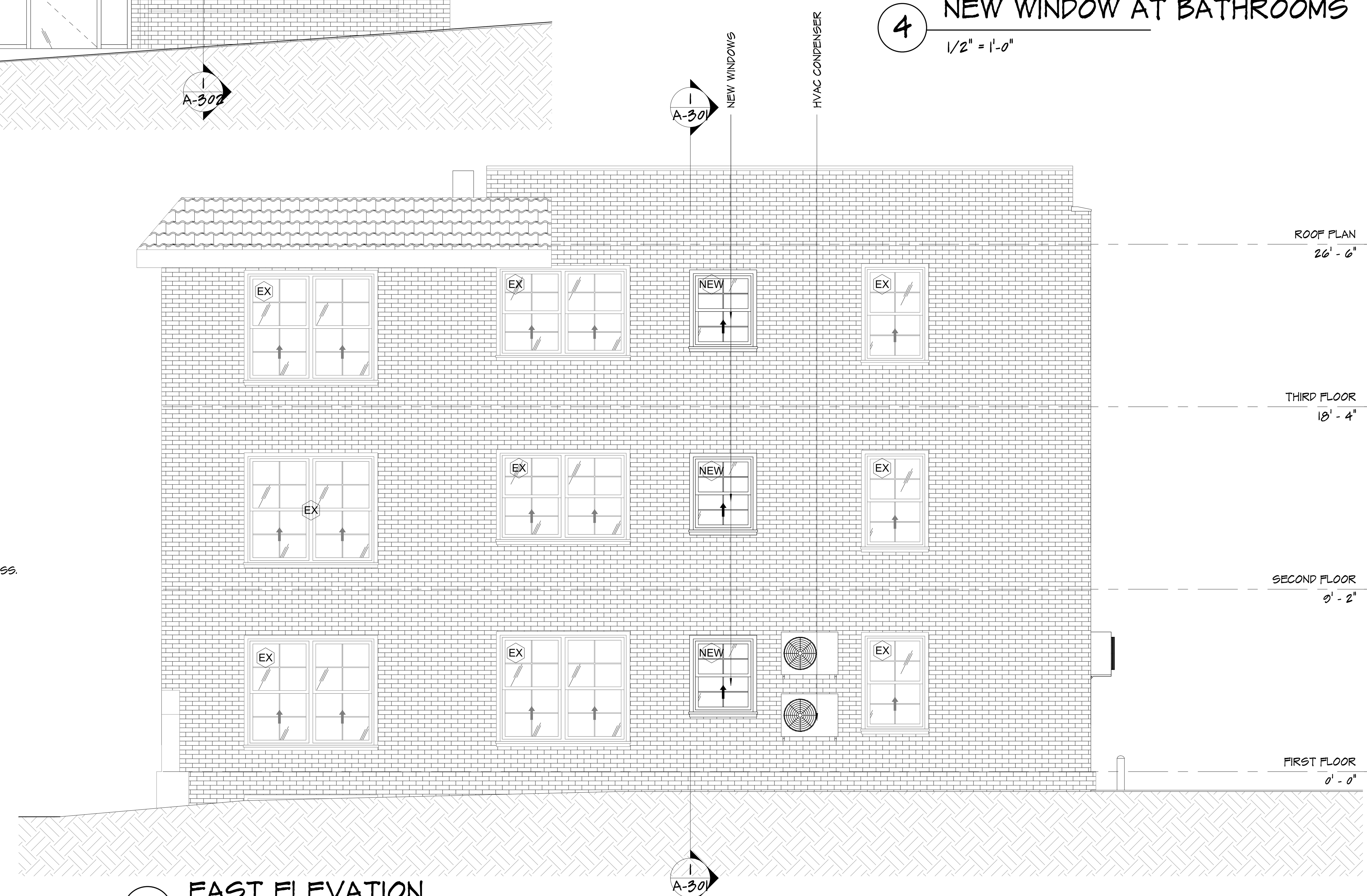
1/2" = 1'-0"



EXTERIOR ALUMINUM STOREFRONT WINDOWS: CLEAR LOW-E GLASS DUAL PANE, 1 INCH THICKNESS.
BASIS OF DESIGN:
1. GLASS 1: VITRO SOLARBAN 70 CLEAR ON VITRO CLEAR GLASS
EXTERIOR STORE FRONT FRAME COLOR: ANODIZED BLACK

3 SOUTH VESTIBULE STOREFRONT ENTRY

1/2" = 1'-0"



1 EAST ELEVATION

1/4" = 1'-0"

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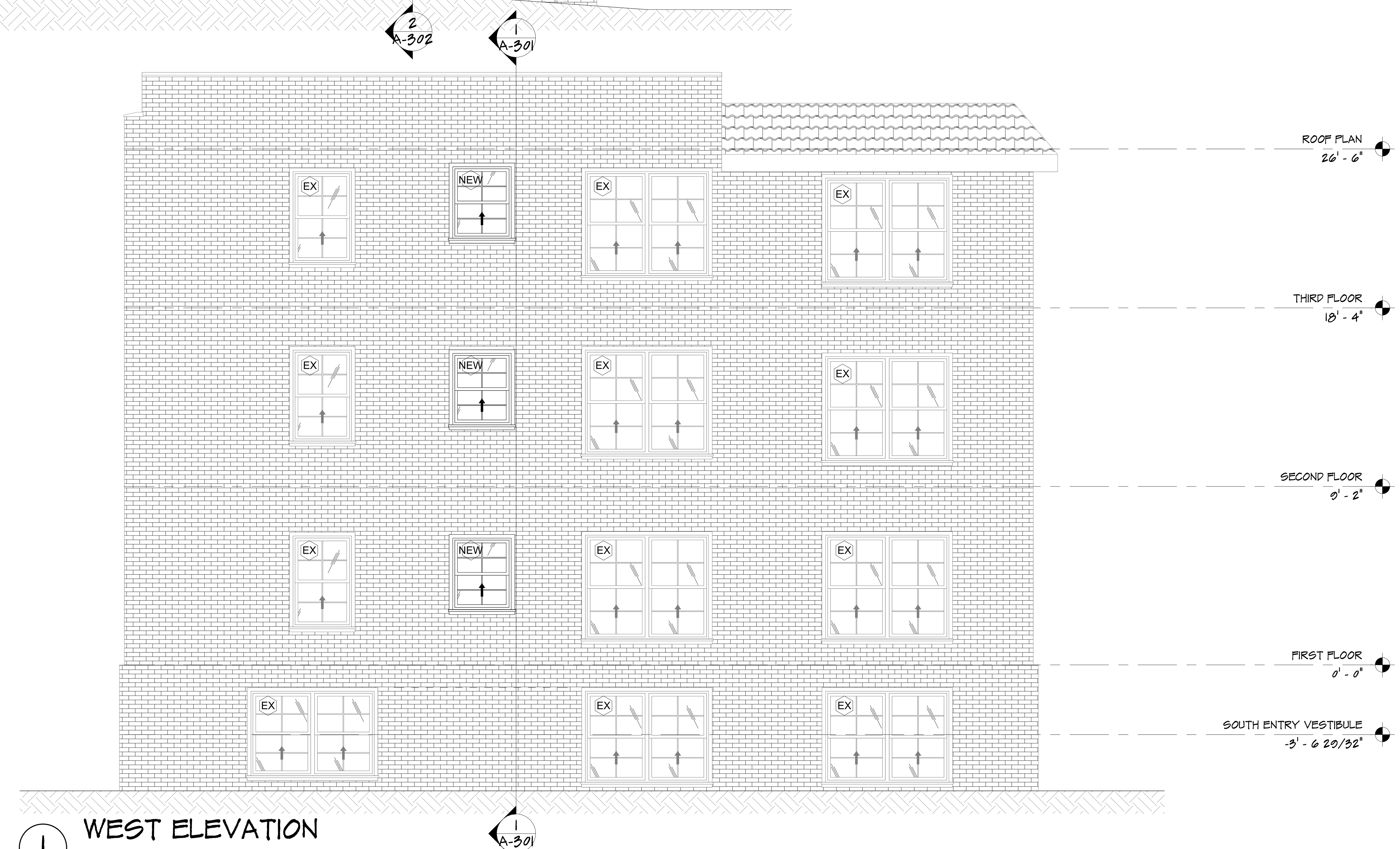
EXTERIOR ELEVATIONS

A-201

2 NORTH ELEVATION

1/4" = 1'-0"



1 WEST ELEVATION

1/4" = 1'-0"

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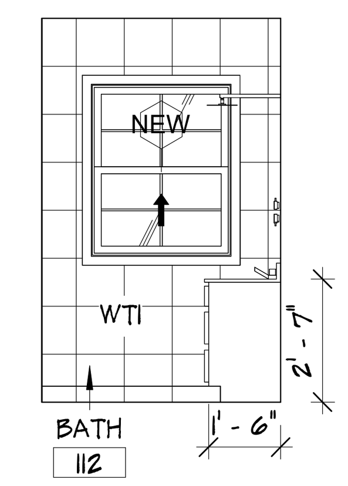
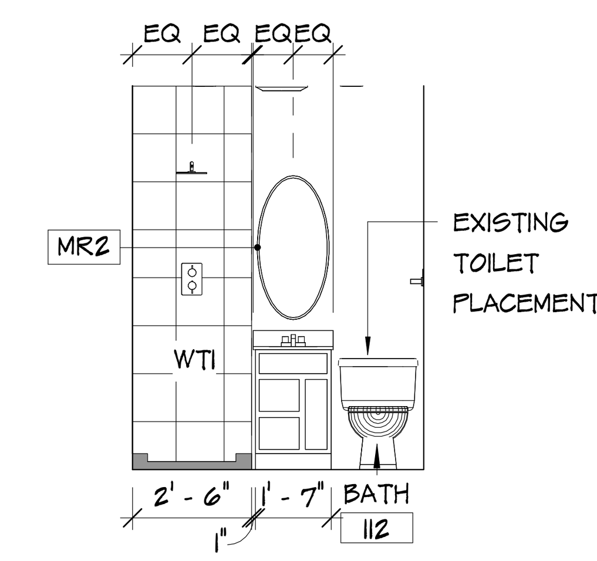
EXTERIOR ELEVATIONS

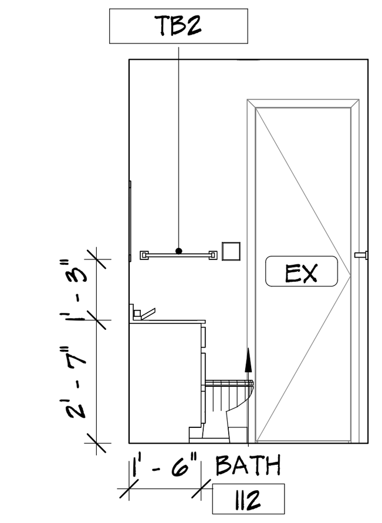
A-202



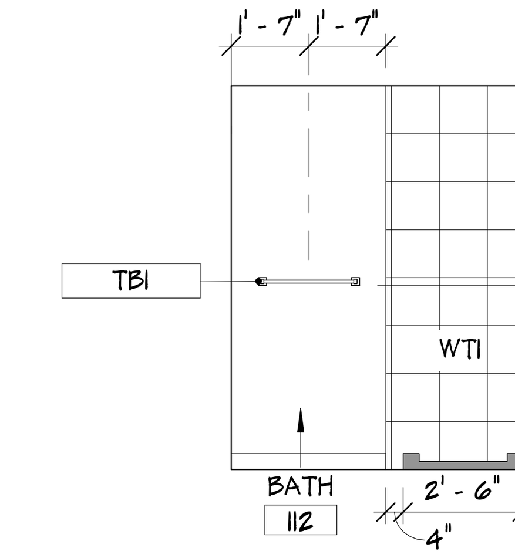
24 INTERIOR ELEVATION
1/4" = 1'-0"



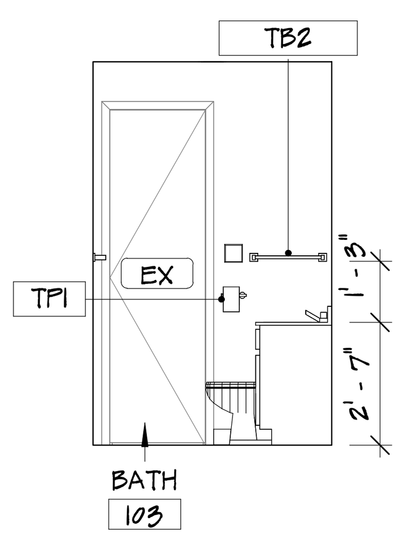
23 INTERIOR ELEVATION
1/4" = 1'-0"



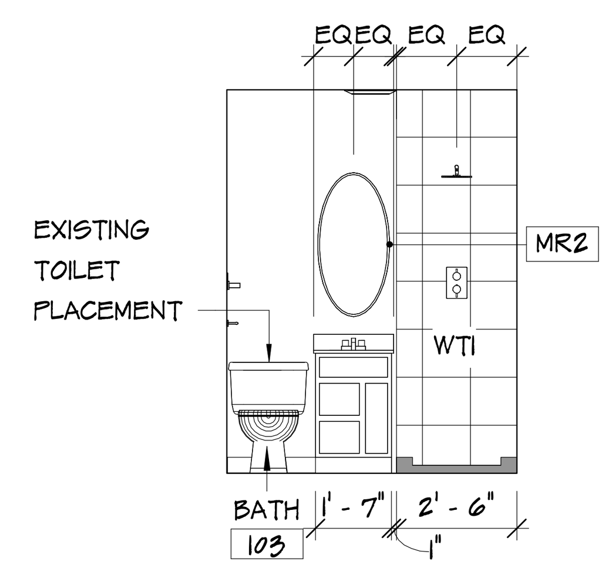
22 INTERIOR ELEVATION
1/4" = 1'-0"



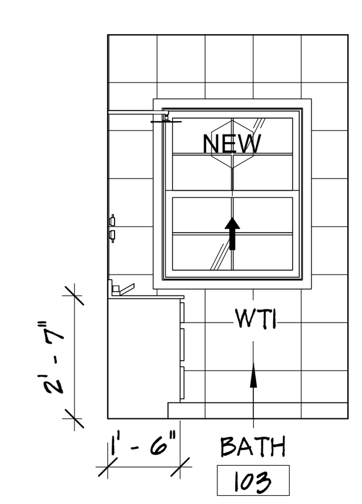
21 INTERIOR ELEVATION
1/4" = 1'-0"



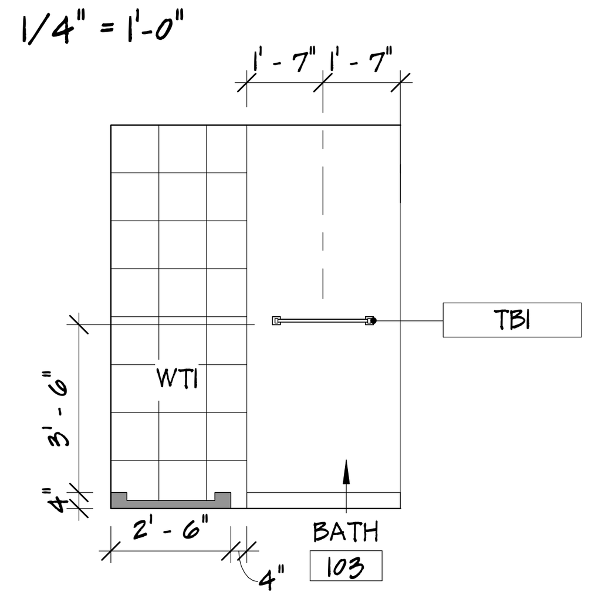
20 INTERIOR ELEVATION
1/4" = 1'-0"



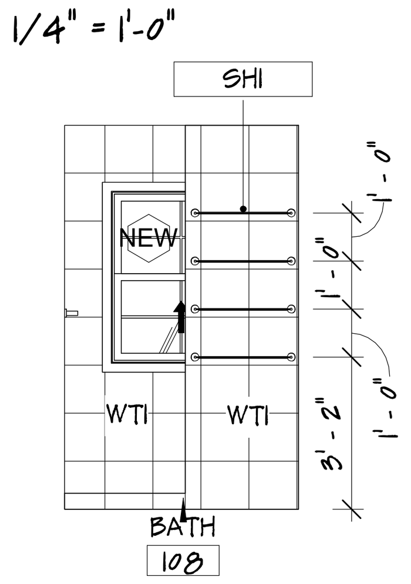
19 INTERIOR ELEVATION
1/4" = 1'-0"



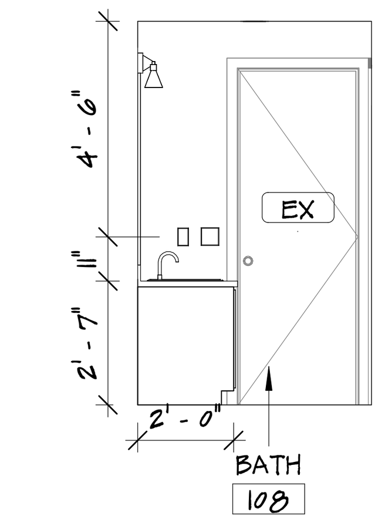
18 INTERIOR ELEVATION
1/4" = 1'-0"



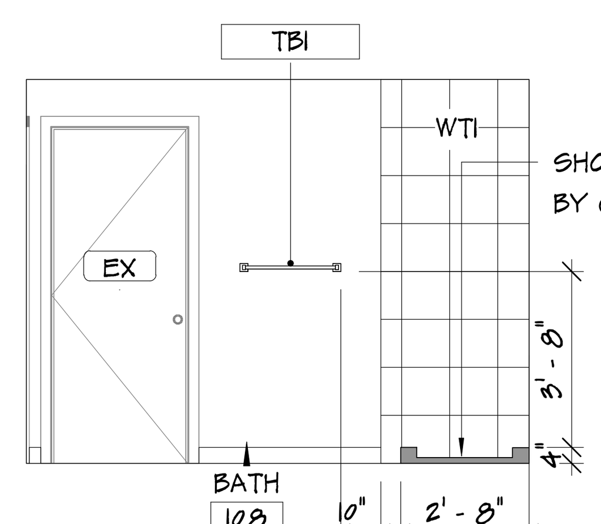
17 INTERIOR ELEVATION
1/4" = 1'-0"



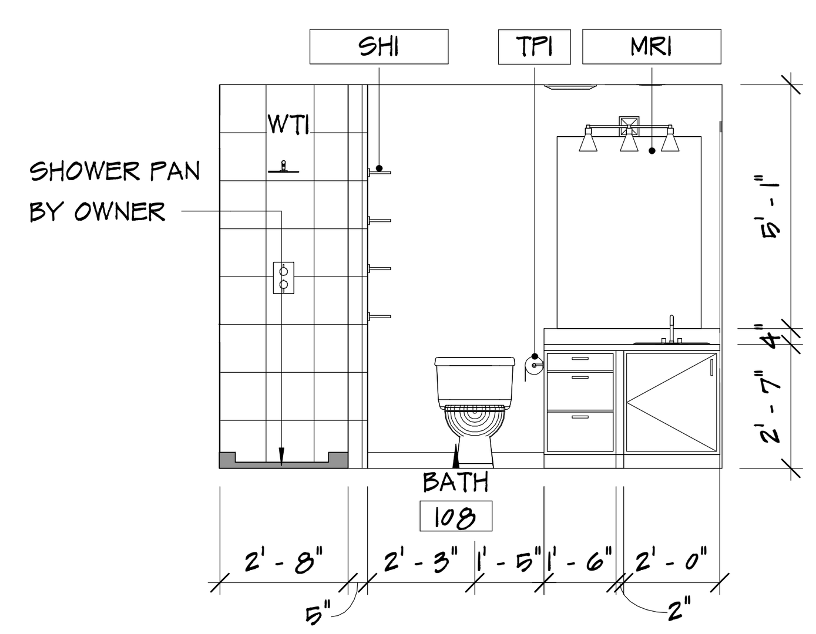
16 INTERIOR ELEVATION
1/4" = 1'-0"



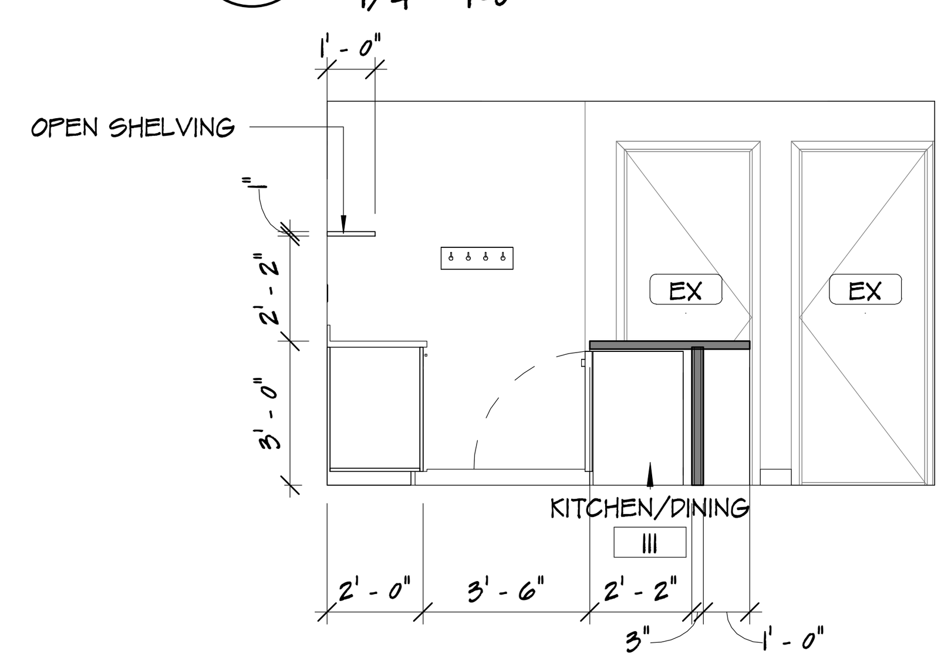
15 INTERIOR ELEVATION
1/4" = 1'-0"



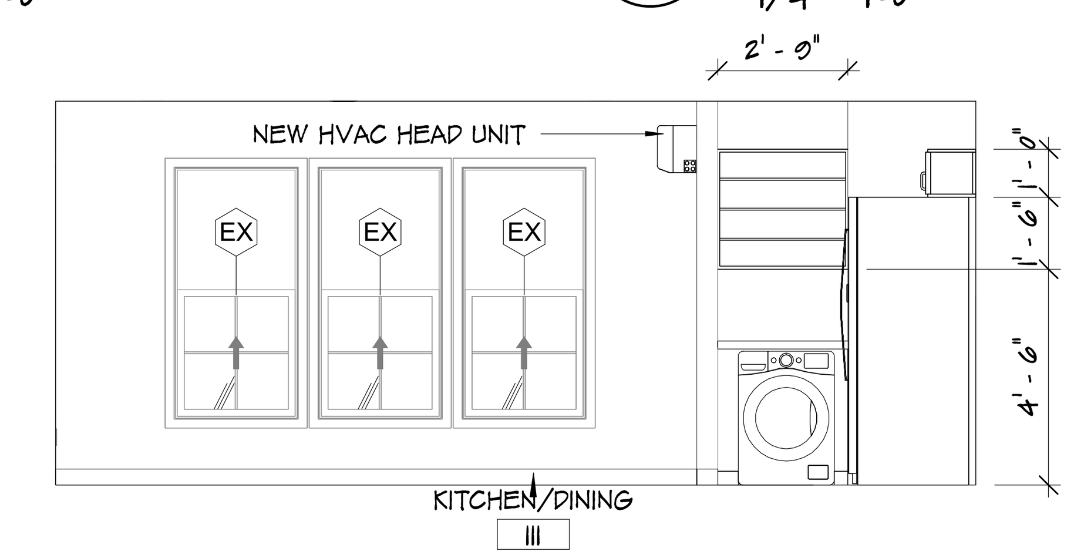
14 INTERIOR ELEVATION
1/4" = 1'-0"



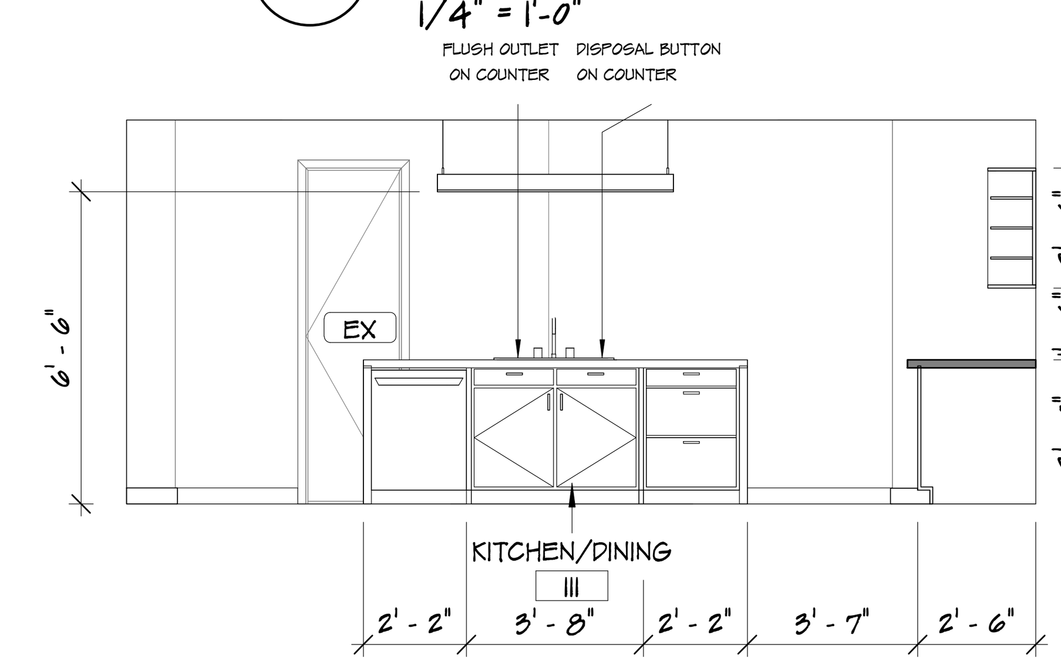
13 INTERIOR ELEVATION
1/4" = 1'-0"



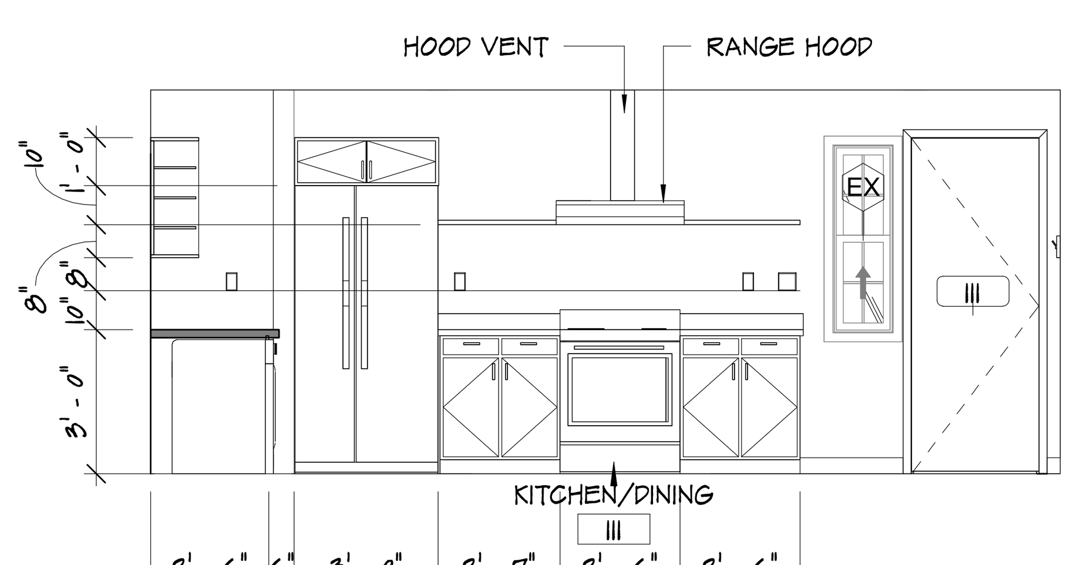
12 INTERIOR ELEVATION
1/4" = 1'-0"



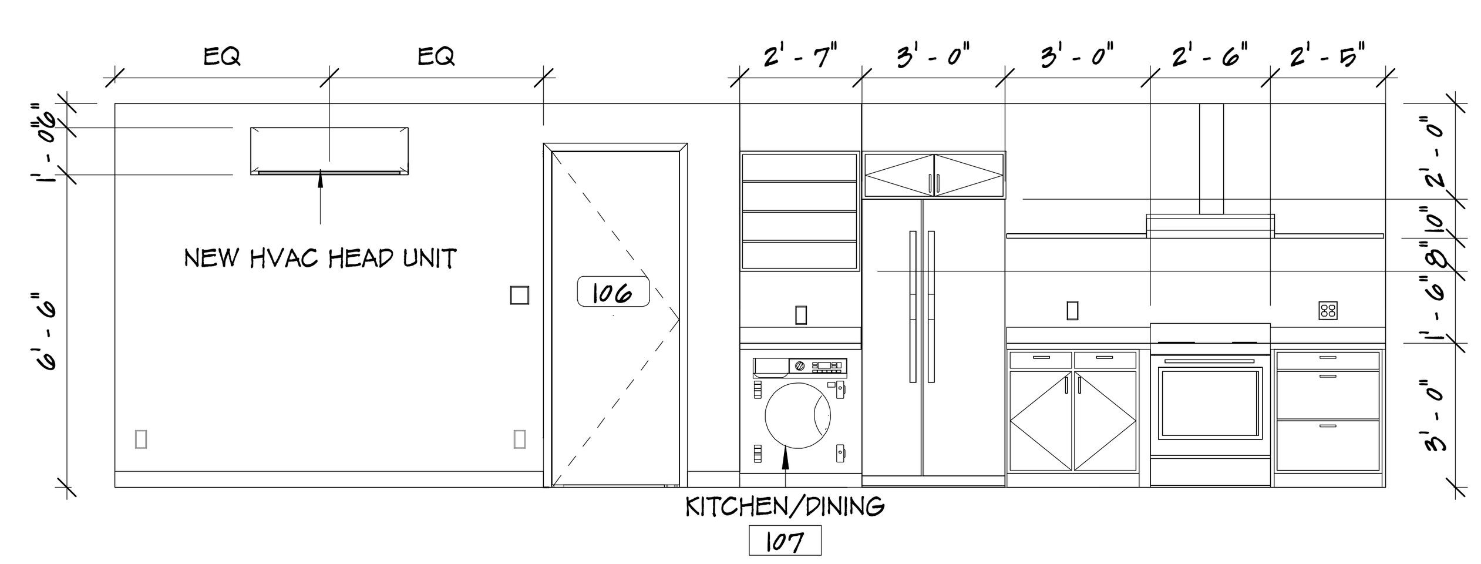
11 INTERIOR ELEVATION
1/4" = 1'-0"



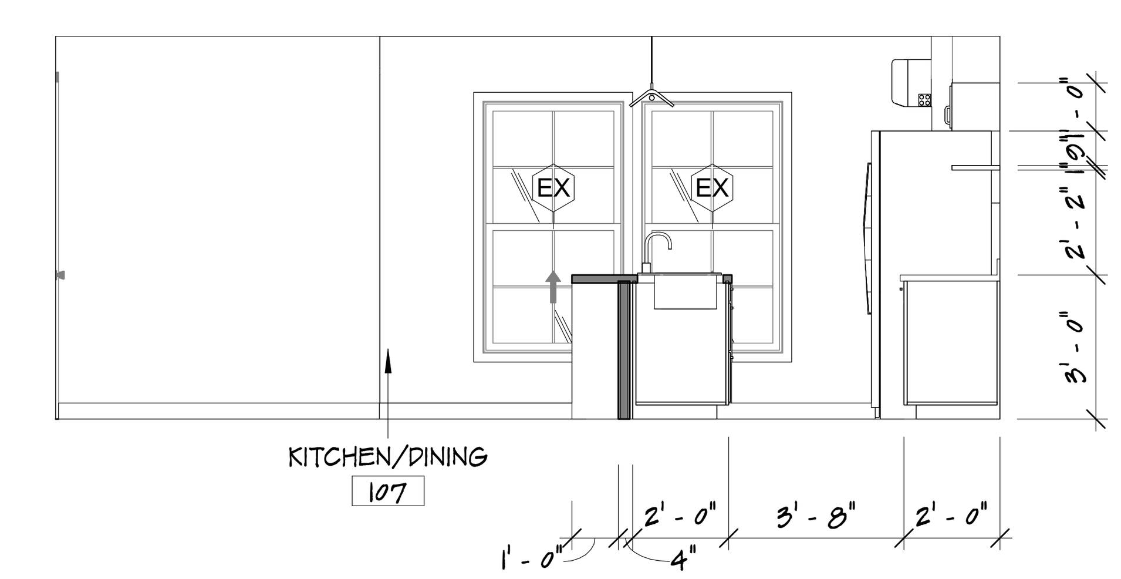
10 INTERIOR ELEVATION
1/4" = 1'-0"



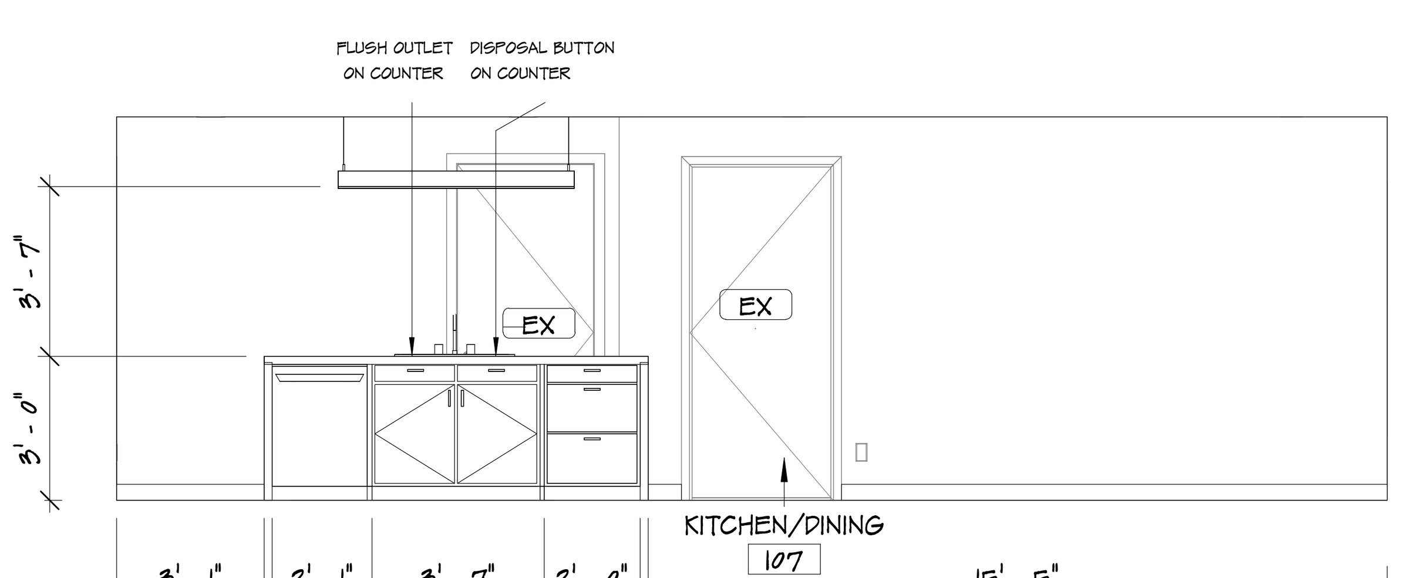
9 INTERIOR ELEVATION
1/4" = 1'-0"



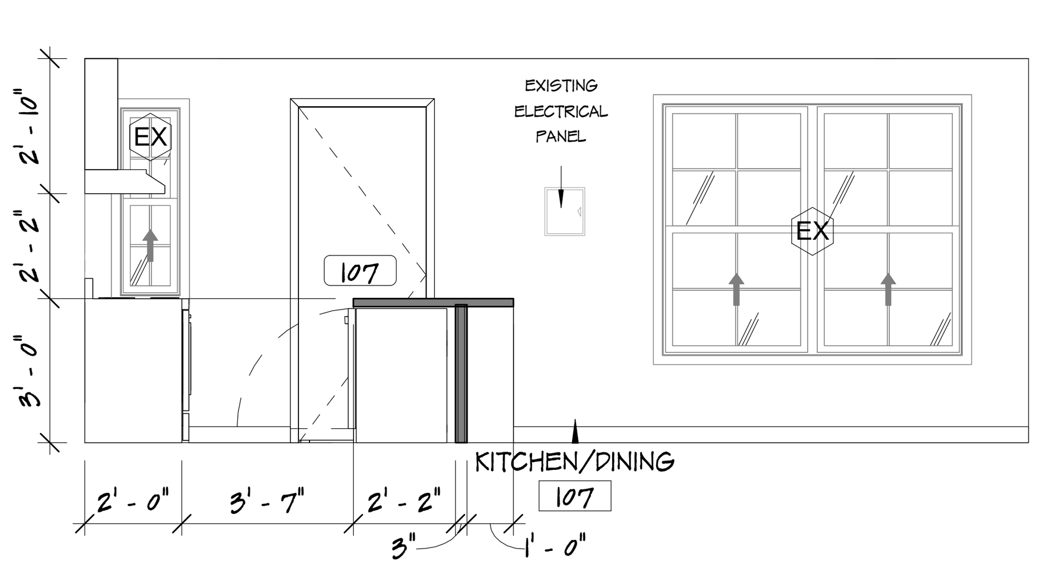
8 INTERIOR ELEVATION
1/4" = 1'-0"



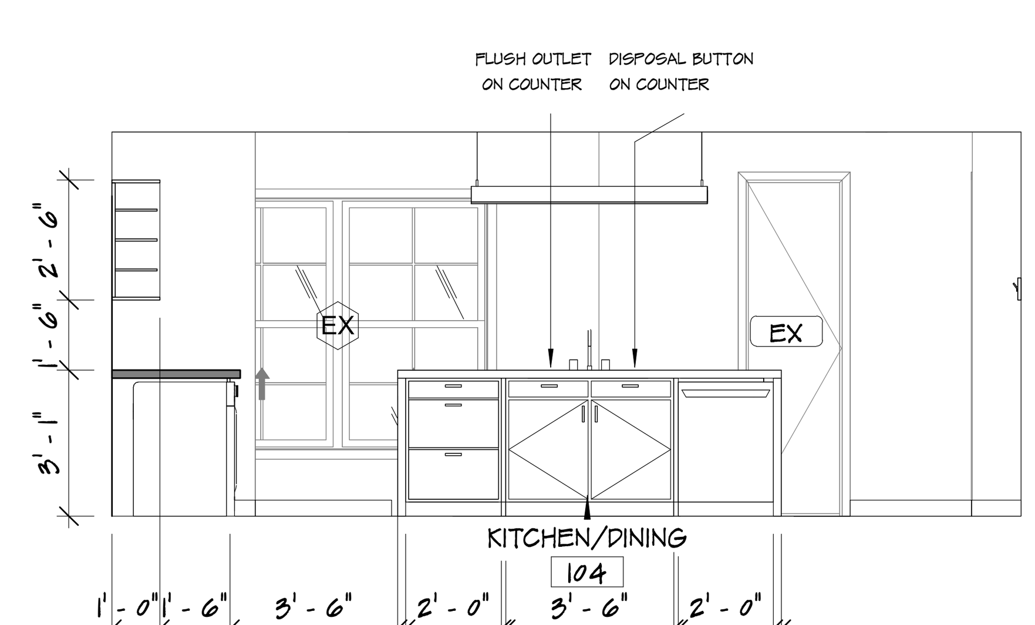
7 INTERIOR ELEVATION
1/4" = 1'-0"



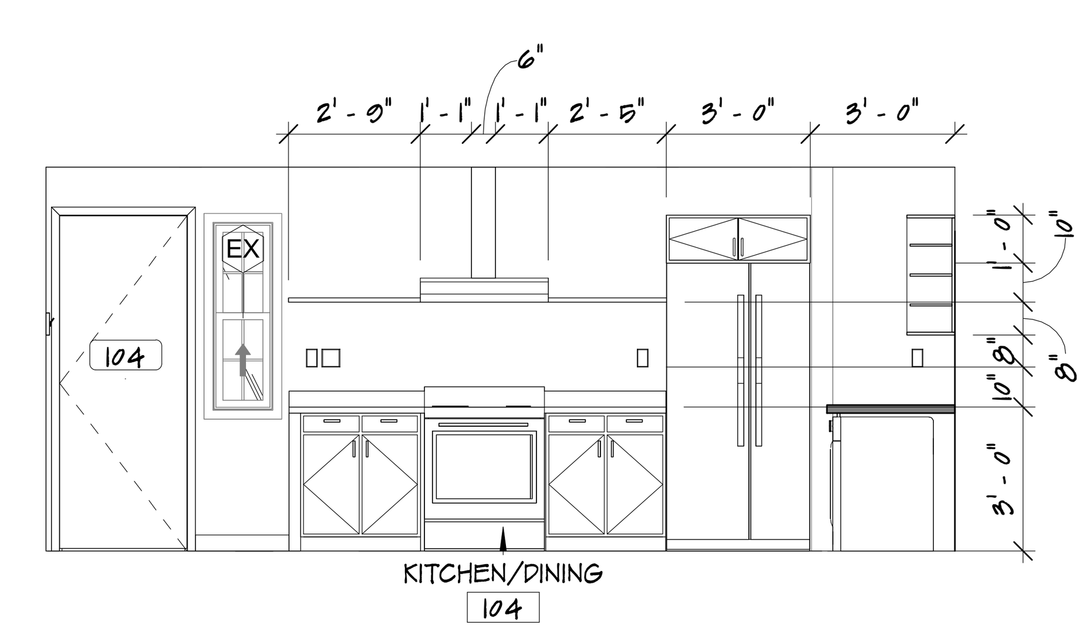
6 INTERIOR ELEVATION
1/4" = 1'-0"



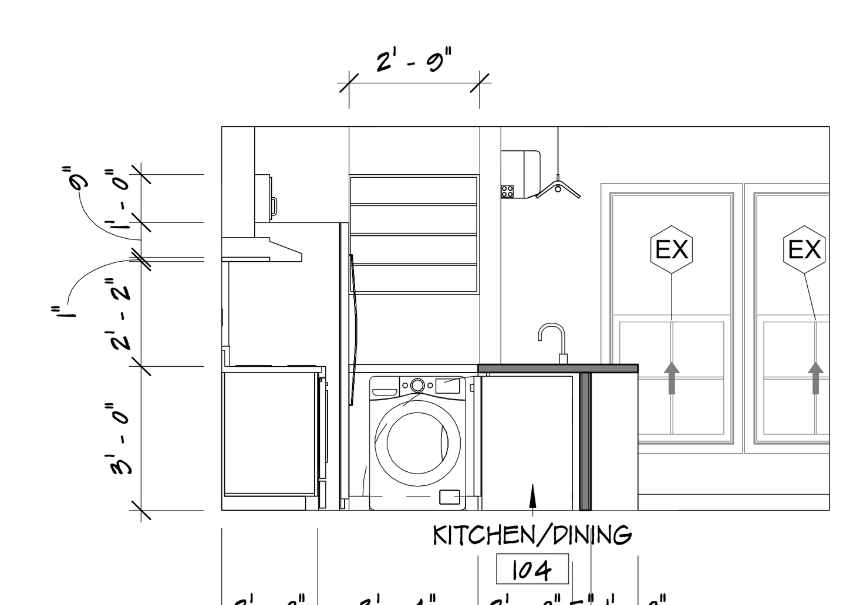
5 INTERIOR ELEVATION
1/4" = 1'-0"



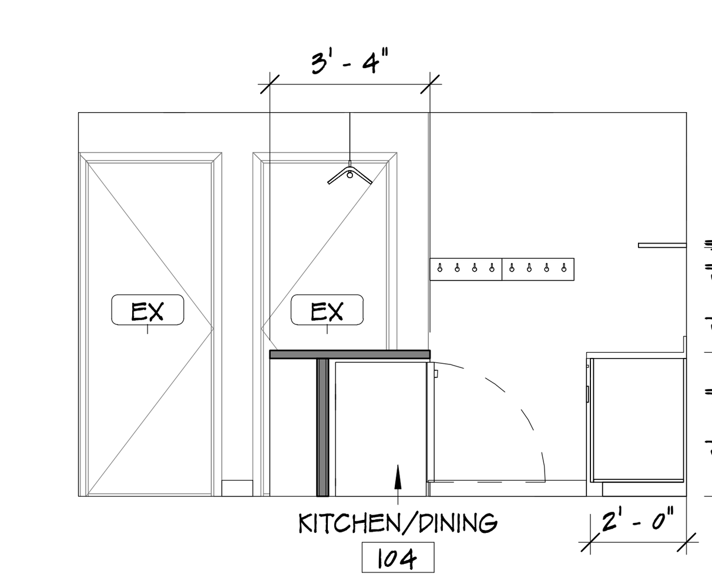
4 INTERIOR ELEVATION
1/4" = 1'-0"



3 INTERIOR ELEVATION
1/4" = 1'-0"



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



1 INTERIOR ELEVATION
1/4" = 1'-0"

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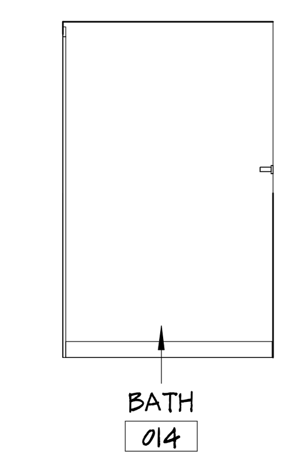
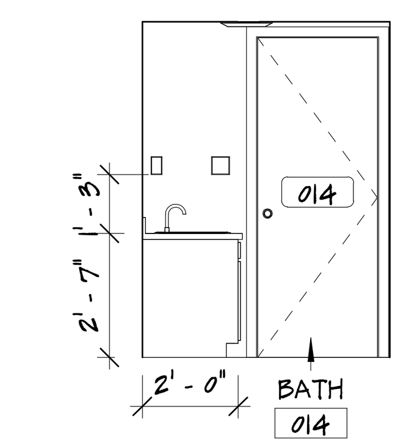
INTERIOR ELEVATIONS

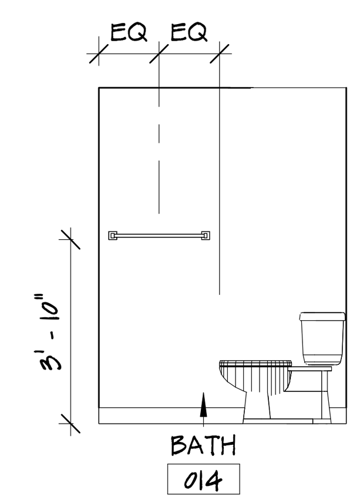
A-203



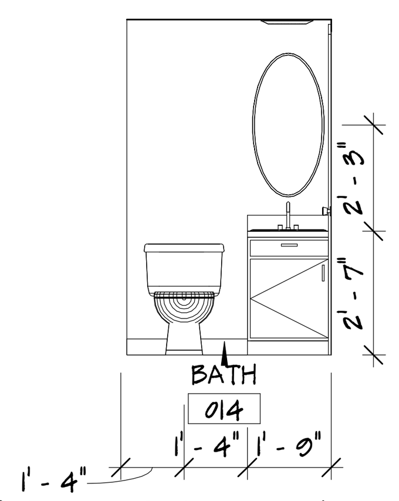
24 INTERIOR ELEVATION
1/4" = 1'-0"



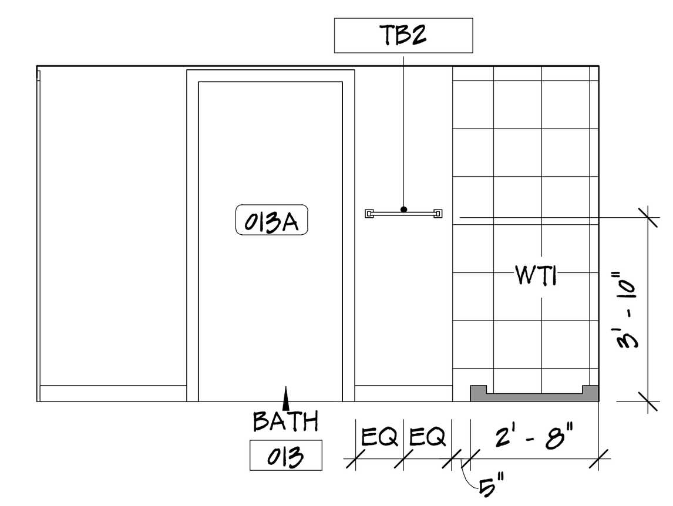
23 INTERIOR ELEVATION
1/4" = 1'-0"



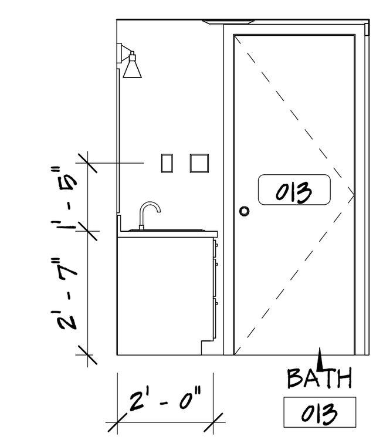
22 INTERIOR ELEVATION
1/4" = 1'-0"



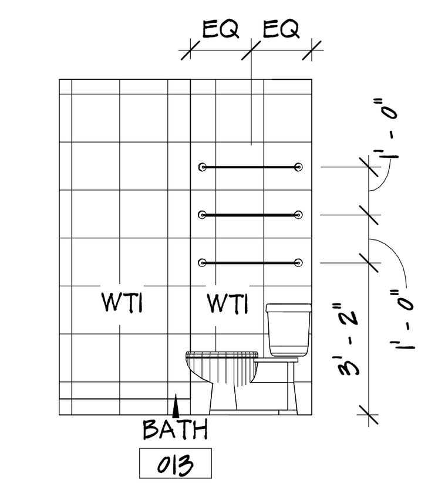
21 INTERIOR ELEVATION
1/4" = 1'-0"



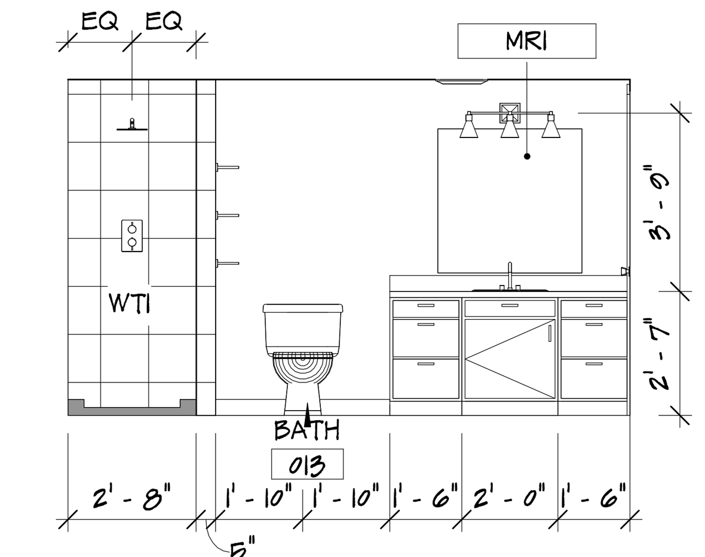
20 INTERIOR ELEVATION
1/4" = 1'-0"



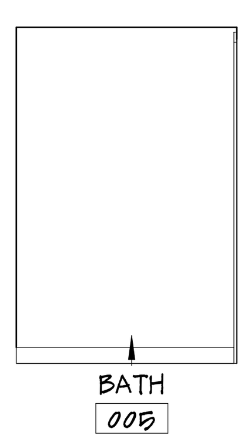
19 INTERIOR ELEVATION
1/4" = 1'-0"



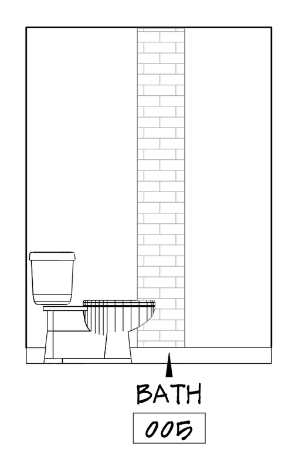
18 INTERIOR ELEVATION
1/4" = 1'-0"



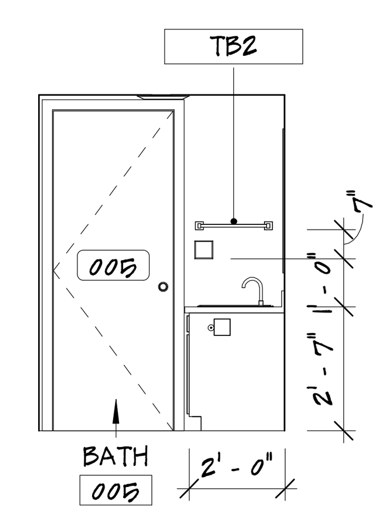
17 INTERIOR ELEVATION
1/4" = 1'-0"



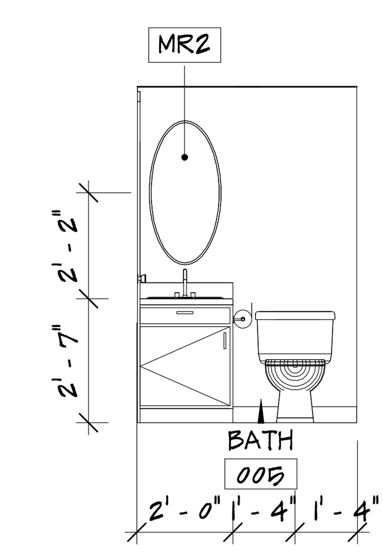
16 INTERIOR ELEVATION
1/4" = 1'-0"



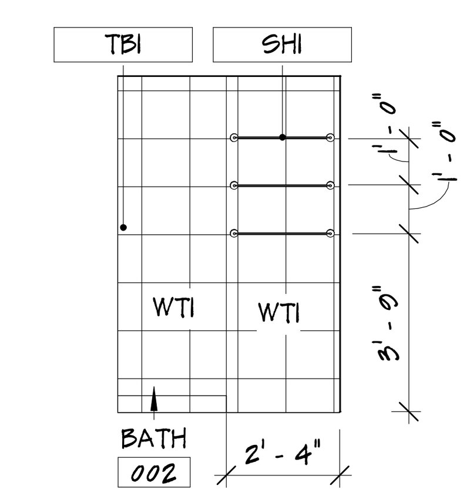
15 INTERIOR ELEVATION
1/4" = 1'-0"



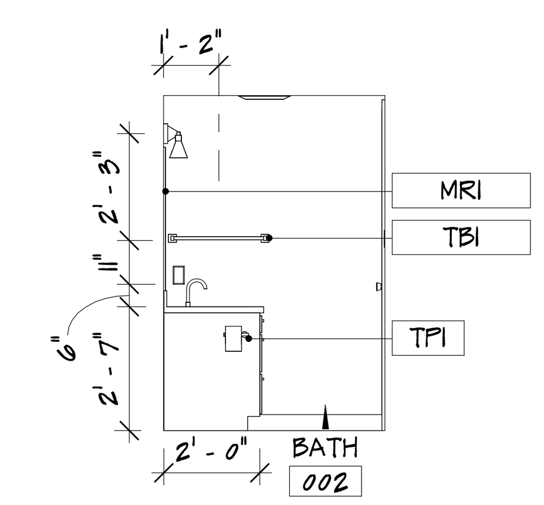
14 INTERIOR ELEVATION
1/4" = 1'-0"



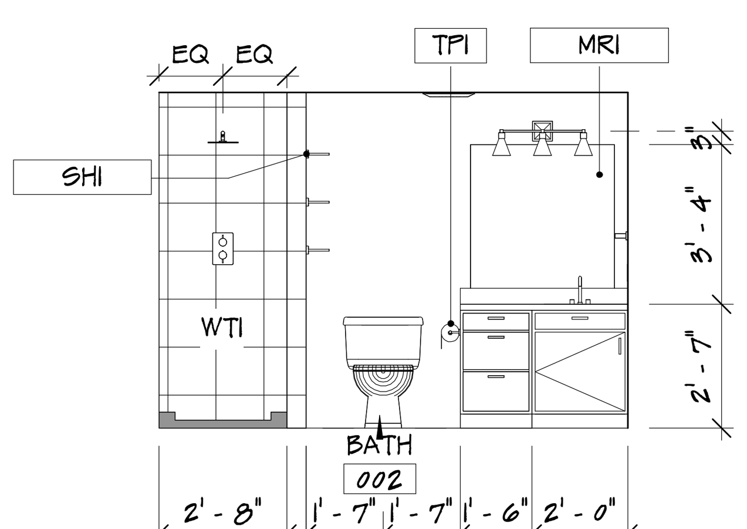
13 INTERIOR ELEVATION
1/4" = 1'-0"



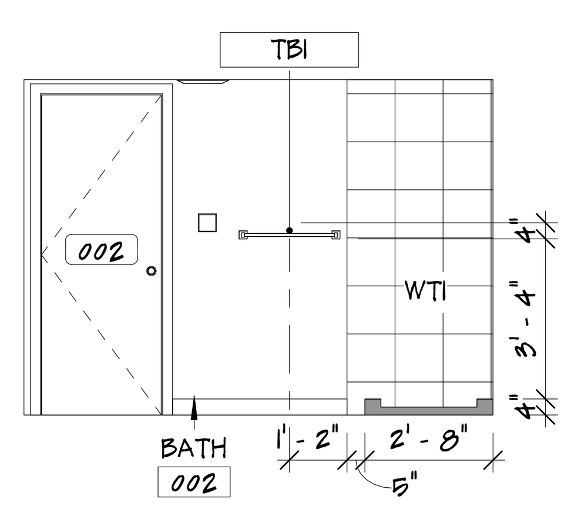
12 INTERIOR ELEVATION
1/4" = 1'-0"



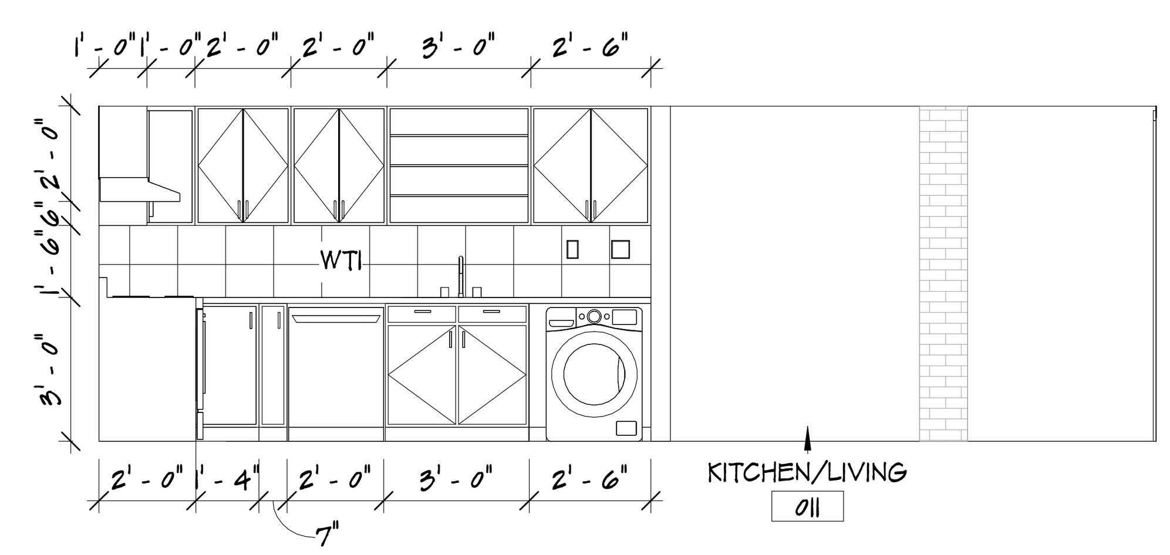
11 INTERIOR ELEVATION
1/4" = 1'-0"



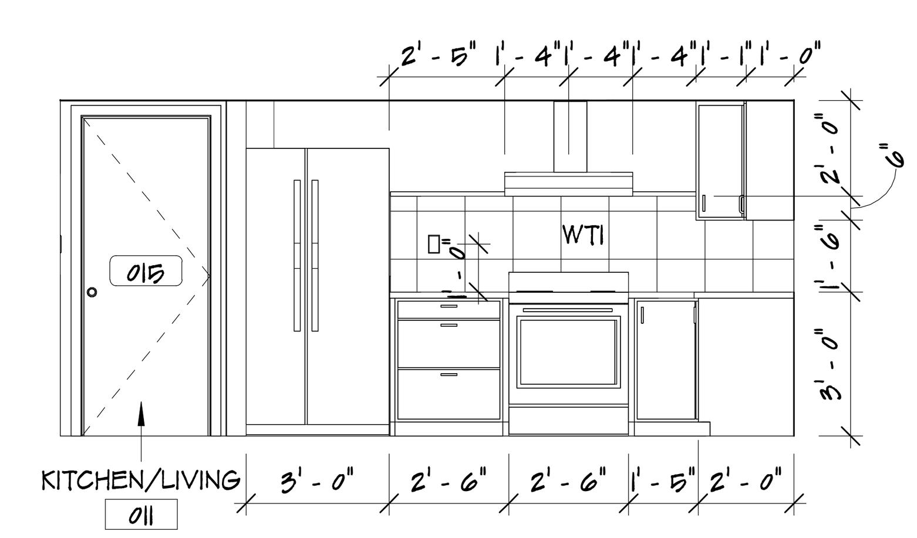
10 INTERIOR ELEVATION
1/4" = 1'-0"



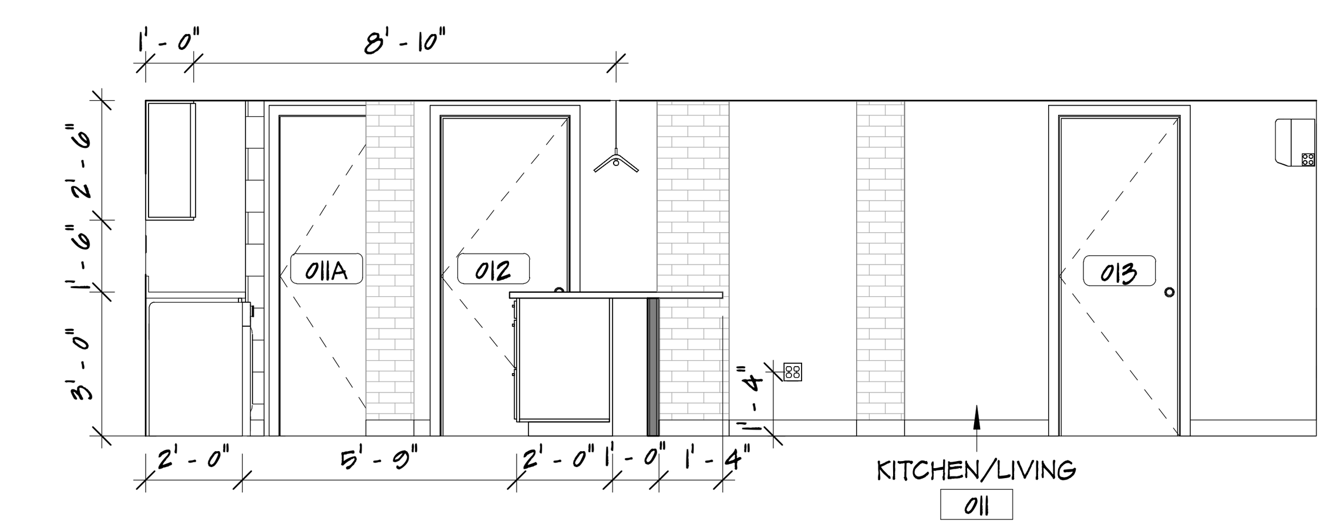
9 INTERIOR ELEVATION
1/4" = 1'-0"



8 INTERIOR ELEVATION
1/4" = 1'-0"

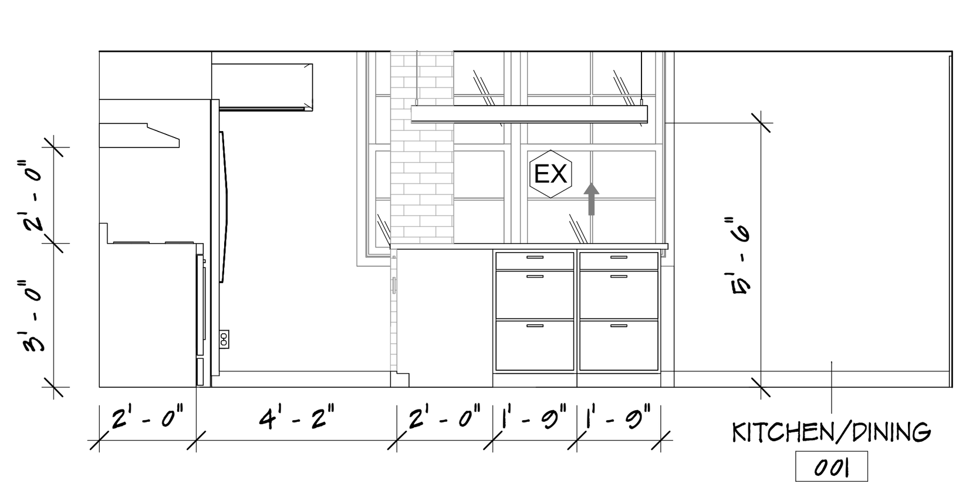


7 INTERIOR ELEVATION
1/4" = 1'-0"

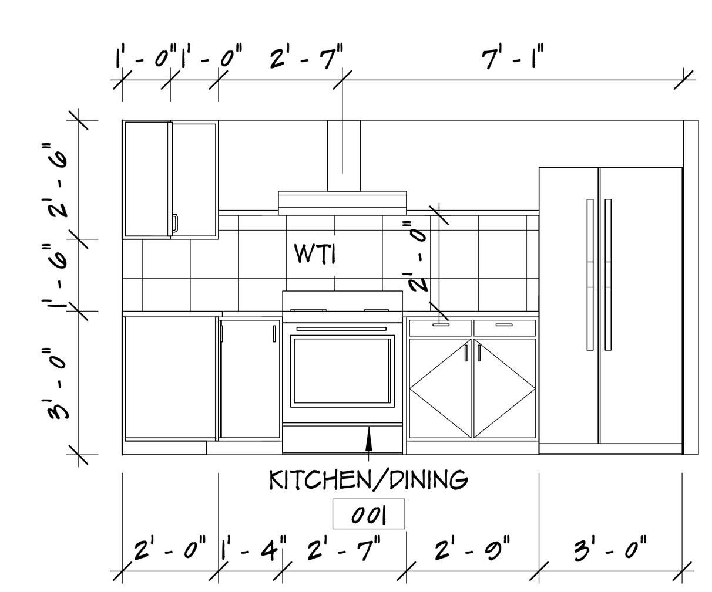


6 INTERIOR ELEVATION
1/4" = 1'-0"

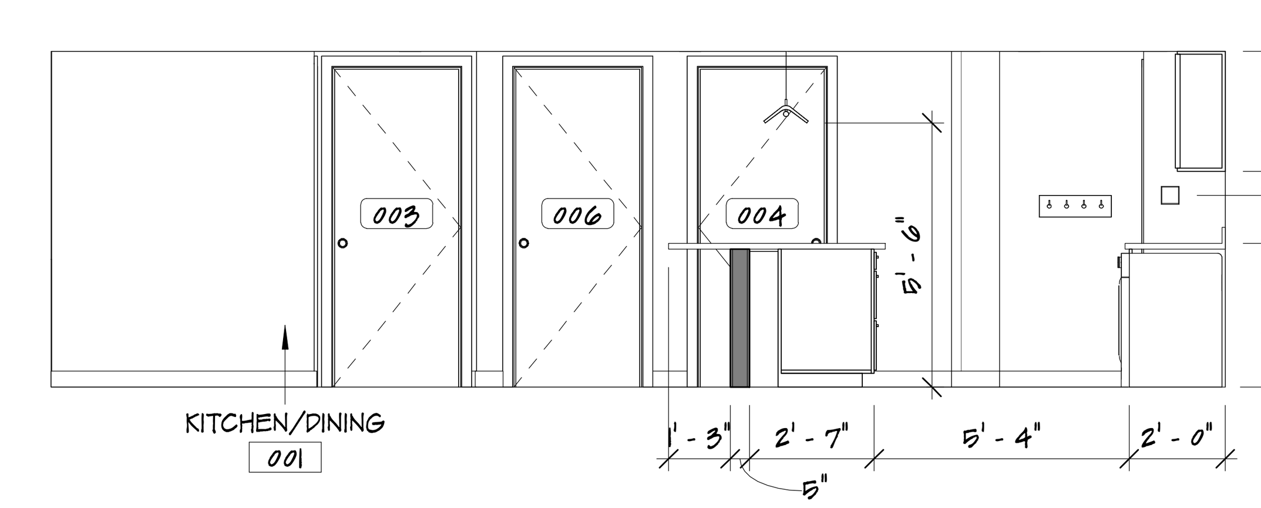
5 INTERIOR ELEVATION
1/4" = 1'-0"



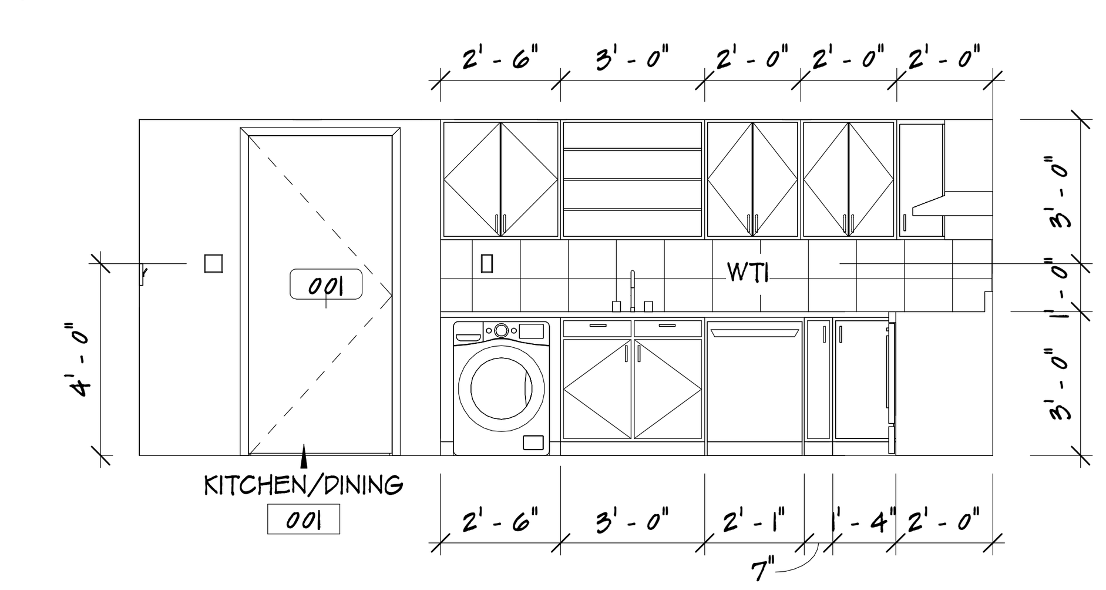
4 INTERIOR ELEVATION
1/4" = 1'-0"



3 INTERIOR ELEVATION
1/4" = 1'-0"



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



1 INTERIOR ELEVATION
1/4" = 1'-0"

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CORTEZ FLATS
1320 EAST 17th STREET
TULSA, OKLAHOMA

100% CONSTRUCTION DOCUMENTS

MARK	DESCRIPTION	DATE

PROJECT NO: 100-253
ISSUE DATE: 05/20/2026

INTERIOR ELEVATIONS

A-204

1 LONGITUDINAL SECTION

1/4" = 1'-0"

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CORTEZ FLATS

1320 EAST 17th STREET
TULSA, OKLAHOMA

100% CONSTRUCTION DOCUMENTS

MARK	DESCRIPTION	DATE

STATE OF OKLAHOMA
KATIE LOUISE VESELY HUISENGA
No. a6401
TULSA, OKLA.
LICENSED ARCHITECT
05.20 2026

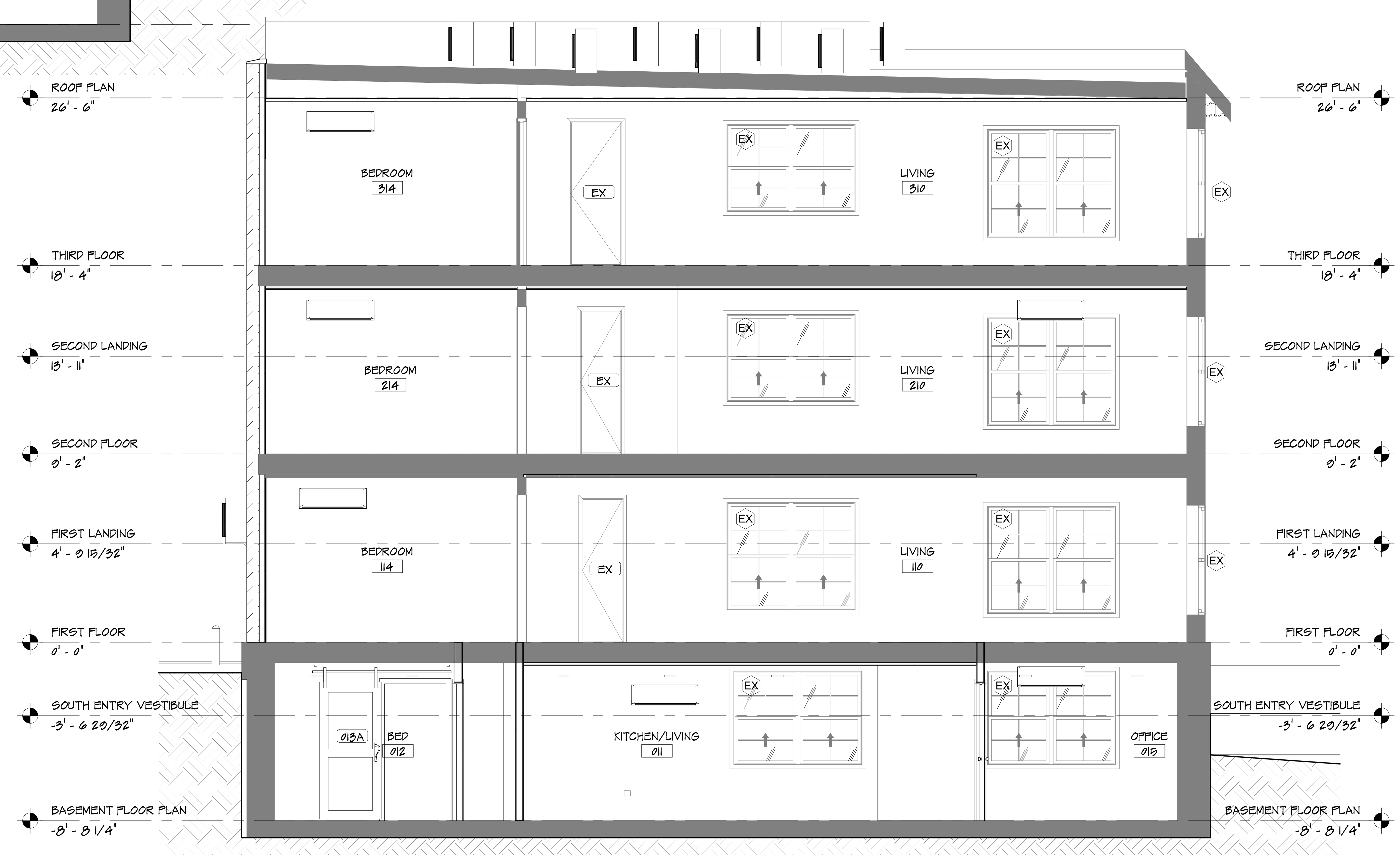
PROJECT NO: 100-253
ISSUE DATE: 05/20/2026

BUILDING SECTIONS

A-301

2 CROSS SECTION WEST

1/4" = 1'-0"



1 CROSS SECTION EAST

1/4" = 1'-0"

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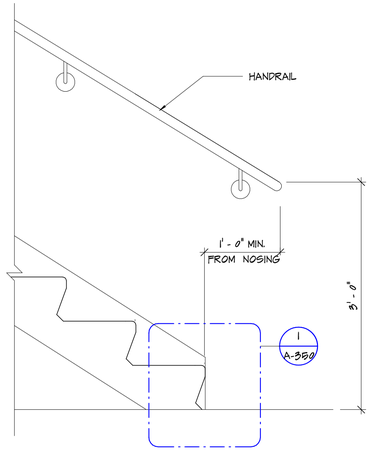
MARK	DESCRIPTION	DATE

STATE OF OKLAHOMA KATIE LOUISE VESELY HUSEMAN No. a6401 LICENSED ARCHITECT
05.20.2026

PROJECT NO: 100-253
ISSUE DATE: 05/20/2026

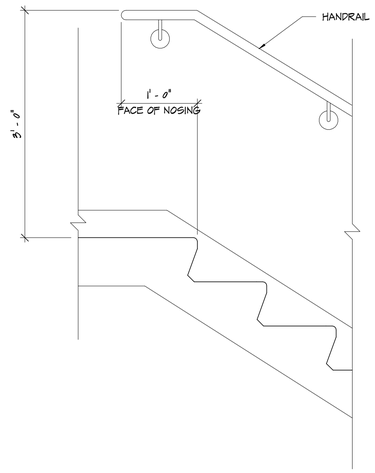
BUILDING SECTIONS

A-302



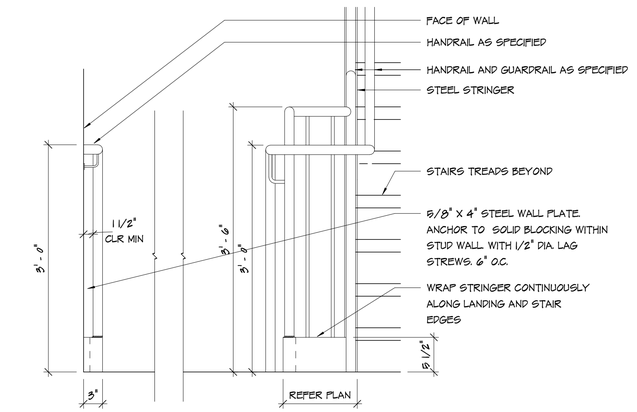
7 TYP. HANDRAIL @ WALL (BOTTOM)

1" = 1'-0"



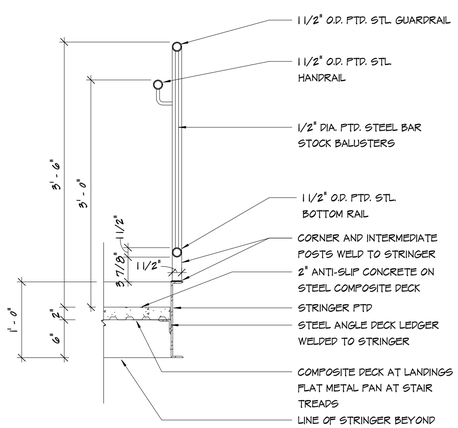
6 TYP. HANDRAIL @ WALL (TOP)

1" = 1'-0"



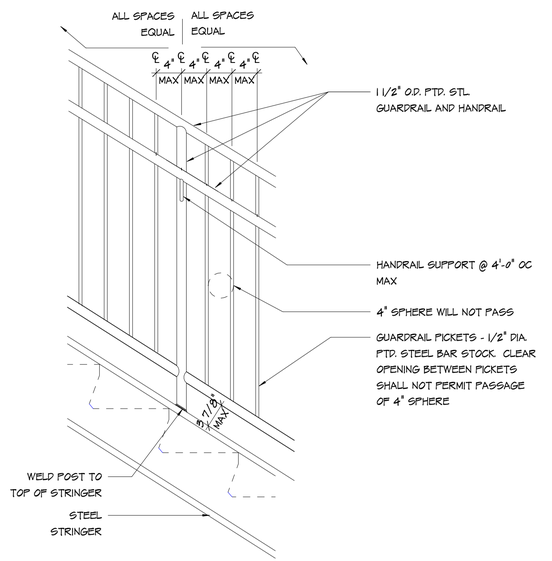
5 STAIR RAIL @ END ELEVATION

1" = 1'-0"



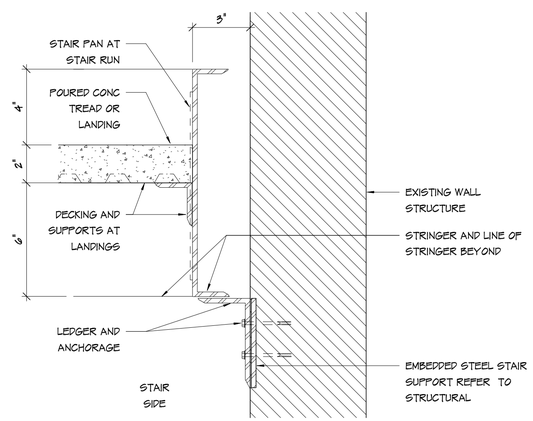
4 LANDING AND GUARDRAIL SECTION

1" = 1'-0"



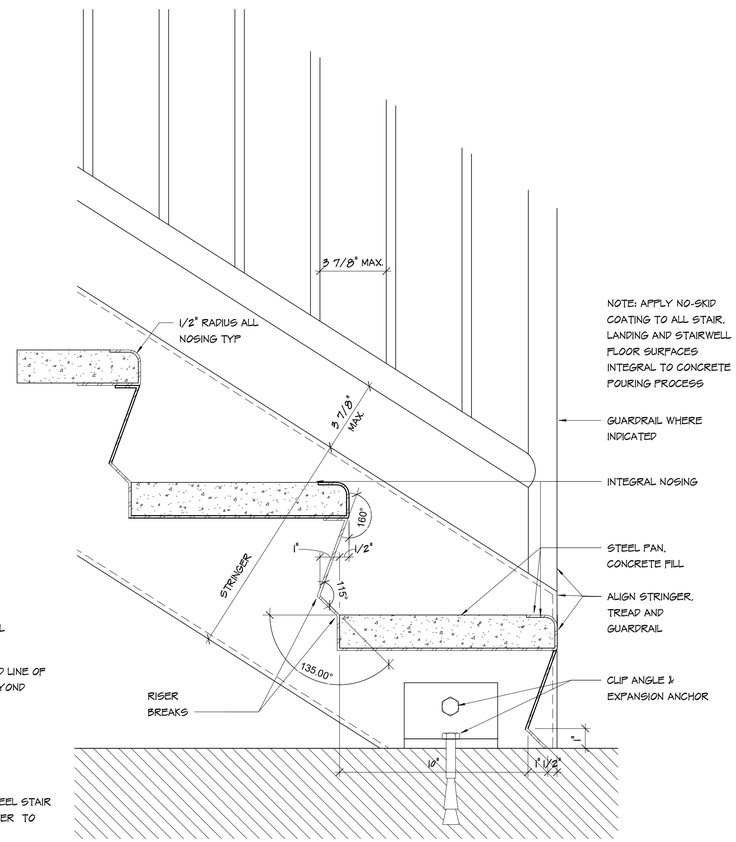
3 TYP. GUARD / HANDRAIL ASSEMBLY

1" = 1'-0"



2 LANDING AND STAIR @ WALL

3" = 1'-0"



1 TYP PAN STAIR SECTION @ BASE

3" = 1'-0"

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MARK	DESCRIPTION	DATE

STATE OF OKLAHOMA
CHARLES WESLEY [illegible]
No. 06401
LICENSED ARCHITECT
05/20/2026

PROJECT NO: 100-253
ISSUE DATE: 05/20/2026

STAIR DETAILS - METAL PAN

A-350

6 KITCHEN REMODEL WEST APT

1 CENTRAL APT KITCHEN REMODEL

2 BASEMENT APT 1 KITCHEN/LIVING

3 BASEMENT APT 2 KITCHEN/LIVING

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MARK	DESCRIPTION	DATE

STATE OF OKLAHOMA
KATIE LOUISE VESELY HUISENGA
No. a6401
TULSA, OKLA.
LICENSED ARCHITECT
05.20 2026

PROJECT NO: 100-253
ISSUE DATE: 05/20/2026

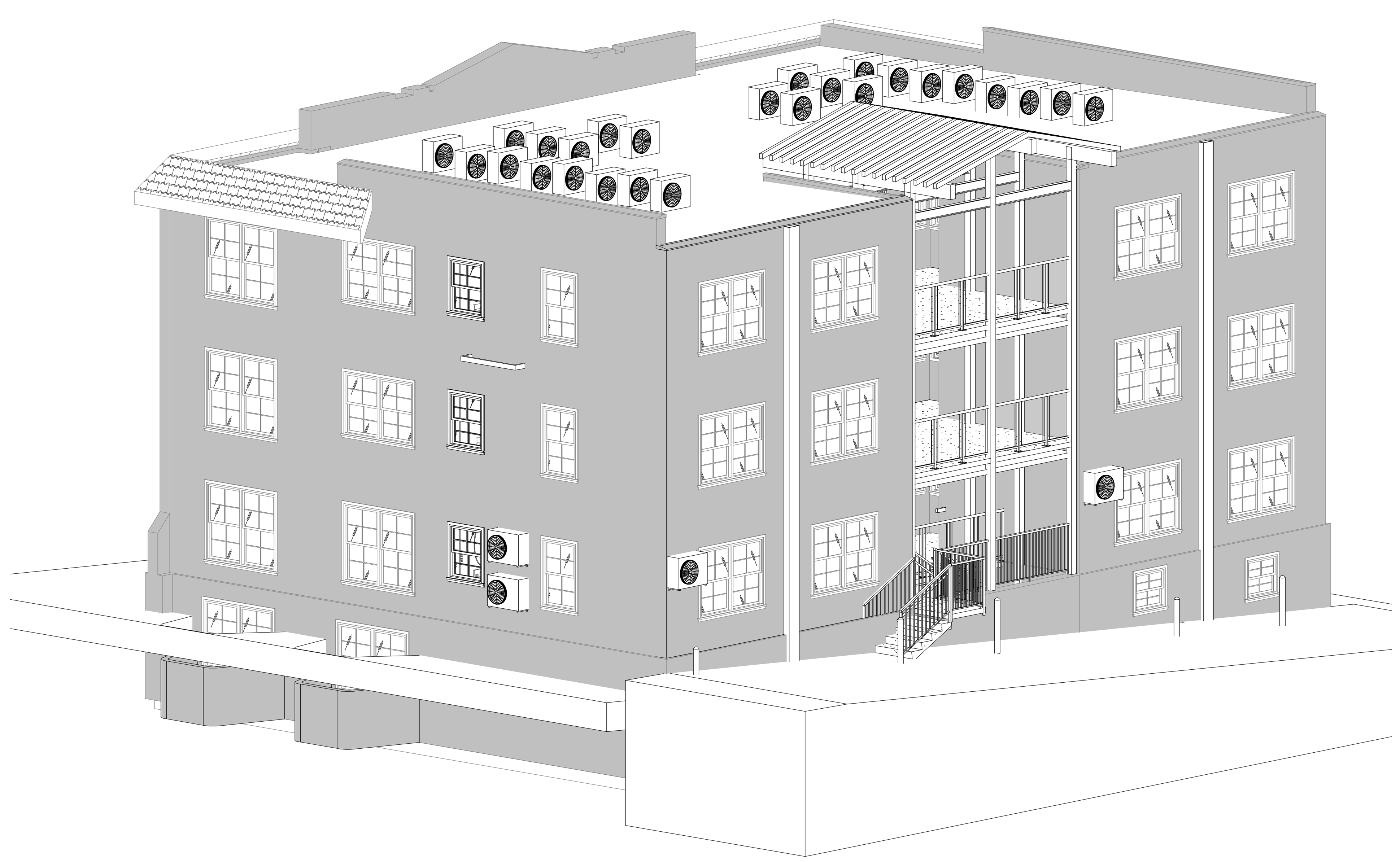
3D VIEWS

A-450

5/21/2026 4:11:46 PM
Autodesk Docs://100-253 Cortez As - Builts/1331 E 17Th St.- Cortez As-Built 4.14.26.rvt

4 3D AXONIMETRIC SOUTHWEST CORNER

3 3D AXONIMETRIC SOUTHEAST CORNER



2 3D AXONIMETRIC NORTHEAST CORNER

1 3D AXONIMETRIC NORTHWEST CORNER

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CORTEZ FLATS

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STATE OF OKLAHOMA
KATIE LOUISE VESELY HUISENGA
No. a6401
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05.20 2026

PROJECT NO: 100-253
ISSUE DATE: 05/20/2026

3D VIEWS

A-451

FINISH SCHEDULE - OLD

*MATERIAL CATEGORY (HIDE)	FINISH CODE	MATERIAL	DESCRIPTION	SIZE	COMMENTS / INSTALLATION NOTES	KEYED NOTES
CEILING MATERIAL						
CEILING MATERIAL	GYP BD	GYPSUM CEILING BOARD				
FLOOR BASE						
FLOOR BASE	WB1	WOOD BASE	WM 623 9/16" X 3 1/4" PINE, PRIMED, FINGER-JOINTED BASEBOARD MOLDING	9/16"X3 1/4"		
FLOORING						
FLOORING	EWF	EXISTING WOOD FLOORING	REPAIR AND REFINISH - STAIN TBD BY OWNER	NA	REFINISH WOOD FLOORING	
FLOORING	LVT	LUXURY VINYL TILE	HARPER'S PLACE - NOBEL RUSTIC - LVF FAMILY	8"X48"	RE: FLOOR PLANS	
FLOORING	PC1	POLISHED CONCRETE	"FAST STAIN" SC-36; COLOR: TBD BY OWNER		RE: FLOOR PLANS	
FLOORING	SC1	SEALED CONCRETE / MASONRY	BASIS OF DESIGN : "DIAMOND HARD" - COLOR : CLEAR			
MILLWORK MATERIAL						
MILLWORK MATERIAL	SS1	SOLID SURFACE	LIMESTONE PRIMA - MATTE FINISH - BEIGE/VEINING	SLAB		
MILLWORK MATERIAL	WDT1	WOOD TRIM	SPECIES: WESTERN RED CEDAR WOOD; STAIN TO MATCH PL1; PROTECTIVE COATING: ST1	RE: INT. ELEV.	RE: SPECS	
WALL FINISH - PAINT						
WALL FINISH - PAINT	PT1	PAINT	SW 7042 SHOJI WHITE		ALL SHERWIN WILLIAMS PAINT TO BE "PROPERTY SOLUTION INTERIOR PAINT" GRADE PAINT	
WALL FINISH - PAINT	PT2	PAINT	SW 7045 INTELLECTUAL GRAY		ALL SHERWIN WILLIAMS PAINT TO BE "PROPERTY SOLUTION INTERIOR PAINT" GRADE PAINT	
WALL FINISH - PAINT	PT3	PAINT	SW 7624 SLATE TILE		ALL SHERWIN WILLIAMS PAINT TO BE "PROPERTY SOLUTION INTERIOR PAINT" GRADE PAINT	
WALL FINISH - PAINT	SC1	SEALAED CONCRETE / MASONRY	BASIS OF DESIGN : "DIAMOND HARD" - COLOR : CLEAR			
WALL TILE						
WALL TILE	WT1	PORCELAIN WALL TILE	VITALITY WHITE - CORE FUNDAMENTALS - FLOOR/WALL TILE	12" X 24"; THICKNESS: 3/8"	SHOWER WALLS	
WALL TILE	WT2	PORCELAIN WALL TILE	RELICCA - UNBOUND OCTAGON/DOT 2 MIXED	MOSAIC	BATHROOM FLOOR AND WALL TILE	
WOOD STAIN						
WOOD STAIN	ST1	INTERIOR WOOD STAIN	HELSMAN SPAR URETHANE; TRANSPARENT			

DOOR SCHEDULE

WT	PANEL DIMENSIONS		PANEL		FRAME		HW SET	FIRE RATING	COMMENTS
	WIDTH	THICKNESS	TYPE	MATERIAL	TYPE	MATERIAL			
001	3' - 0"	1 3/4"		WOOD		WOOD			
001A	3' - 0"	1 3/4"		HOLLOW METAL		HOLLOW METAL			
002	2' - 6"	1 3/8"		WOOD		WOOD			
003	2' - 8"	1 3/8"		WOOD		WOOD			
003A	4' - 0"	1 3/8"				WOOD			
004	2' - 8"	1 3/8"		WOOD		WOOD			
004A	4' - 0"	1 3/8"				WOOD			
005	2' - 6"	1 3/8"		WOOD		WOOD			
006	2' - 8"	1 3/8"		WOOD		WOOD			
007	3' - 0"	1 3/4"		WOOD		HOLLOW METAL			
008	2' - 6"	1 3/8"		WOOD		WOOD			
009	3' - 0"	1 3/8"		WOOD		WOOD			
010	2' - 4"	1 3/8"		WOOD		WOOD			
011	3' - 0"	1 3/8"		WOOD		WOOD			
011A	2' - 2"	1 3/8"		WOOD		WOOD			
012	2' - 8"	1 3/8"		WOOD		WOOD			
012A	5' - 0"	1 3/8"		WOOD		WOOD			
013	2' - 6"	1 3/8"		WOOD		WOOD			
013A	3' - 0"			WOOD		WOOD			
014	2' - 6"	1 3/8"		WOOD		WOOD			
015	2' - 8"	1 3/8"		WOOD		WOOD			
015A	2' - 0"	1 3/8"		WOOD		WOOD			
104	2' - 8"	1 3/4"		WOOD		WOOD			
105	2' - 8"	1 3/4"		WOOD		WOOD		30 MIN.	
106	2' - 8"	1 3/4"		WOOD		WOOD		30 MIN.	
107	2' - 8"	1 3/4"		WOOD		WOOD			
110	2' - 8"	1 3/4"		WOOD		WOOD		30 MIN.	
111	2' - 8"	1 3/4"		WOOD		WOOD			
204	2' - 8"	1 3/4"		WOOD		WOOD			
205	2' - 8"	1 3/4"		WOOD		WOOD		30 MIN.	
206	2' - 8"	1 3/4"		WOOD		WOOD		30 MIN.	
207	2' - 8"	1 3/4"		WOOD		WOOD			
210	2' - 8"	1 3/4"		WOOD		WOOD		30 MIN.	
211	2' - 8"	1 3/4"		WOOD		WOOD			
304	2' - 8"	1 3/4"		WOOD		WOOD			
305	2' - 8"	1 3/4"		WOOD		WOOD		30 MIN.	
306	2' - 8"	1 3/4"		WOOD		WOOD		30 MIN.	
307	2' - 8"	1 3/4"		WOOD		WOOD			
310	2' - 8"	1 3/4"		WOOD		WOOD		30 MIN.	
311	2' - 8"	1 3/4"		WOOD		WOOD			
ST1	3' - 6"					ALUMINUM		30 MIN.	ELECTRONIC SECURITY LOCKS
ST2	3' - 6"					ALUMINUM		30 MIN.	ELECTRONIC SECURITY LOCKS

ROOM FINISH SCHEDULE

ROOM NUMBER	ROOM NAME	BASE	FLOOR	WALL				CEILING	COMMENTS
				NORTH	EAST	SOUTH	WEST		
BASEMENT FLOOR PLAN									
001	KITCHEN/DINING	WB1	LVT	PT1	PT1	PT1	PT1	GYP BD	EXISTING PERIMTER WALLS THAT ARE CONCRETE/MASONRY, LEAVE EXPOSED. SEAL CONCRETE/MASONRY FACE.
002	BATH	WB1	LVT	PT3	PT3	PT3	PT3	GYP BD	
003	BEDROOM	WB1	LVT	SC1	PT1	PT1	SC1	GYP BD	
004	OFFICE	WB1	LVT	SC1	SC1	PT1	PT2	GYP BD	
005	BATH	WB1	LVT	PT3	PT3	PT3	PT3	GYP BD	
006	LIVING	WB1	LVT	NA	PT2	SC1	SC1	GYP BD	
007	FIRE RISER	NA	SC1	NA	NA	NA	NA	NA	
008	MECH/MAINTENANCE	NA	SC1	NA	NA	NA	NA	NA	
009	TENANT STORAGE	NA	SC1	NA	NA	NA	NA	NA	
010	NOOK	WB1	LVT	SC1	NA	PT2	PT1	GYP BD	
011	KITCHEN/LIVING	WB1	LVT	PT1	SC1	PT1	PT1	GYP BD	
012	BED	WB1	LVT	SC1	PT2	PT1	SC1	GYP BD	
013	BATH	WB1	LVT	SC1	PT3	PT3	PT1	GYP BD	
014	BATH	WB1	LVT	PT3	PT3	PT3	PT3	GYP BD	
015	OFFICE	WB1	LVT	PT1	SC1	SC1	PT1	GYP BD	
FIRST FLOOR									
101	BEDROOM	WB1	EWF	PT1	PT2	PT1	PT1	GYP BD	
102	BEDROOM	WB1	EWF	PT1	PT1	PT1	PT2	GYP BD	
103	BATH	WB1	EWF	PT3	PT3	PT3	PT3	GYP BD	
104	KITCHEN/DINING	WB1	EWF	PT1	PT1	PT1	PT1	GYP BD	
105	LIVING	WB1	EWF	PT1	PT2	PT1	PT1	GYP BD	
106	LIVING	WB1	EWF	PT1	PT2	PT1	PT1	GYP BD	
107	KITCHEN/DINING	WB1	EWF	PT1	PT1	PT1	PT1	GYP BD	
108	BATH	WB1	EWF	PT3	PT3	PT3	PT3	GYP BD	
109	BEDROOM	WB1	EWF	PT1	PT1	PT1	PT1	GYP BD	
110	LIVING	WB1	EWF	PT1	PT1	PT1	PT2	GYP BD	
111	KITCHEN/DINING	WB1	EWF	PT1	PT1	PT1	PT1	GYP BD	
112	BATH	WB1	EWF	PT3	PT3	PT3	PT3	GYP BD	
113	BEDROOM	WB1	EWF	PT1	PT1	PT1	PT2	GYP BD	
114	BEDROOM	WB1	EWF	PT1	PT2	PT1	PT1	GYP BD	
115	SHARED BALCONY	NA	SC1	NA	SC1	SC1	SC1	NA	
SECOND FLOOR									
201	BEDROOM	WB1	EWF	PT1	PT2	PT1	PT1	GYP BD	
202	BEDROOM	WB1	EWF	PT1	PT1	PT1	PT2	GYP BD	
203	BATH	WB1	EWF	PT3	PT3	PT3	PT3	GYP BD	
204	KITCHEN/DINING	WB1	EWF	PT1	PT1	PT1	PT1	GYP BD	
205	LIVING	WB1	EWF	PT1	PT2	PT1	PT1	GYP BD	
206	LIVING	WB1	EWF	PT1	PT2	PT1	PT1	GYP BD	
207	KITCHEN/DINING	WB1	EWF	PT1	PT1	PT1	PT1	GYP BD	
208	BATH	WB1	EWF	PT3	PT3	PT3	PT3	GYP BD	
209	BEDROOM	WB1	EWF	PT1	PT2	PT1	PT1	GYP BD	
210	LIVING	WB1	EWF	PT1	PT1	PT1	PT2	GYP BD	
211	KITCHEN/DINING	WB1	EWF	PT1	PT1	PT1	PT1	GYP BD	
212	BATH	WB1	EWF	PT3	PT3	PT3	PT3	GYP BD	
213	BEDROOM	WB1	EWF	PT1	PT1	PT1	PT2	GYP BD	
214	BEDROOM	WB1	EWF	PT1	PT2	PT1	PT1	GYP BD	
215	OUTDOOR PATIO	NA	SC1	SC1	SC1	SC1	SC1	NA	
THIRD FLOOR									
301	BEDROOM	WB1	EWF	PT1	PT2	PT1	PT1	GYP BD	
302	BEDROOM	WB1	EWF	PT1	PT1	PT1	PT2	GYP BD	
303	BATH	WB1	EWF	PT3	PT3	PT3	PT3	GYP BD	
304	KITCHEN/DINING	WB1	EWF	PT1	PT1	PT1	PT1	GYP BD	
305	LIVING	WB1	EWF	PT1	PT2	PT1	PT1	GYP BD	
306	LIVING	WB1	EWF	PT1	PT2	PT1	PT1	GYP BD	
307	KITCHEN/DINING	WB1	EWF	PT1	PT1	PT1	PT1	GYP BD	
308	BATH	WB1	EWF	PT3	PT3	PT3	PT3	GYP BD	
309	BEDROOM	WB1	EWF	PT1	PT1	PT1	PT2	GYP BD	
310	LIVING	WB1	EWF	PT1	PT1	PT1	PT2	GYP BD	
311	KITCHEN/DINING	WB1	EWF	PT1	PT1	PT1	PT1	GYP BD	
312	BATH	WB1	EWF	PT3	PT3	PT3	PT3	GYP BD	
313	BEDROOM	WB1	EWF	PT1	PT1	PT1	PT2	GYP BD	
314	BEDROOM	WB1	EWF	PT1	PT2	PT1	PT1	GYP BD	
315	OUTDOOR PATIO	NA	SC1	SC1	SC1	SC1	SC1	NA	

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CORTEZ FLATS
1329 EAST 17th STREET
TULSA, OKLAHOMA

100% CONSTRUCTION DOCUMENTS

MARK	DESCRIPTION	DATE

PROJECT NO: 100-253
ISSUE DATE: 05/20/2026

DOOR AND FINISH SCHEDULES

A-601

SW 7045

Intellectual Gray

FULL DETAILS

LRV: 36

RGB: 168 / 160 / 147

Hex Value: #A8A093

Location Number: 245-C3

Available in: Interior/Exterior

Color Collections: Color ID (Naturalist), Top Exterior Colors

Color Family(s): Neutral

SW 7042

Shoji White

FULL DETAILS

LRV: 74

RGB: 230 / 223 / 211

Hex Value: #E6DFD3

Location Number: 254-C4

Available in: Interior/Exterior

Color Collections: Living Well (Inspire), Top 50 Colors, Colormix Forecast 2022 (Method), Finest Whites & Neutrals (Finest Whites), Gallery Series, Top Interior Colors, Top Exterior Colors

Color Family(s): White

SW 7624

Slate Tile

FULL DETAILS

LRV: 15

RGB: 96 / 110 / 116

Hex Value: #606E74

Location Number: 233-C6

Available in: Interior/Exterior

Color Family(s): Neutral

INTERIOR CONTROL JOINT LOCATIONS:

1. CONTROL JOINTS SHALL BE INSTALLED IN CEILINGS NOT TO EXCEED 50 LF. OR AREAS NOT TO EXCEED 2500 SF. LONG PARTITIONS RUNS CONTROL JOINT JOINTS SHALL BE INSTALLED NOT EXCEED 30'-0" LF.
2. CONTROLS JOINTS SHALL BE INSTALLED WHERE FRAMING CHANGES DIRECTIONS.
3. CONTROL JOINTS SHALL BE INSTALLED AT WEAK POINTS IN THE FRAMING WHERE ANY MOVEMENT MIGHT BE EXPECTED. FULL HEIGHT DOORS / WINDOWS FRAMES OR OTHER FULL HEIGHT BREAKS IN THE WALL SURFACE AT BOTH JAMBS.
4. CONTROL JOINTS SHALL NOT EXCEED 25'-0" SPACING. EQUAL SPACED IN WALL.

1.2 MISCELLANEOUS ACCESSORIES

1.3 FIRE EXTINGUISHERS

A. PORTABLE FIRE EXTINGUISHERS: NFPA 10, LISTED AND LABELED FOR THE TYPE, RATING, AND CLASSIFICATION OF EXTINGUISHER.
 1. AVAILABLE MANUFACTURERS:
  A. ANSUL INCORPORATED; TYCO INTERNATIONAL LTD.
  B. BADGER FIRE PROTECTION; A KIDDE COMPANY.
  C. BUCKEYE FIRE EQUIPMENT COMPANY.
  D. J. L. INDUSTRIES, INC.; A DIVISION OF ACTIVAR CONSTRUCTION PRODUCTS GROUP.
  E. KIDDE RESIDENTIAL AND COMMERCIAL DIVISION; SUBSIDIARY OF KIDDE PLC.
  F. LARSEN'S MANUFACTURING COMPANY.
  G. POTTER ROEMER LLC.
 2. MULTIPURPOSE DRY-CHEMICAL TYPE: UL-RATED 4-A:80-B:C, 10-LB NOMINAL CAPACITY, IN ENAMELED-STEEL CONTAINER.

GYPSUM BOARD:

A. GYPSUM BOARD: ASTM C 1396/C 1396M.
 1. THICKNESS: 5/8 INCH
 2. LONG EDGES: TAPERED.
 3. TYPE X OR FIRECODE

B. GYPSUM CEILING BOARD: ASTM C 1396/C 1396M.
 1. THICKNESS: 5/8 INCH.
 2. LONG EDGES: TAPERED.
 3. TYPE X OR FIRECODE

C. MOISTURE - AND MOLD-RESISTANT GYPSUM BOARD: ASTM C 1396/C 1396M. WITH MOISTURE - AND MOLD-RESISTANT CORE AND PAPER SURFACES.
 1. CORE: 5/8 INCH.
 2. LONG EDGES: TAPERED.
 3. MOLD RESISTANCE: ASTM D 3273, SCORE OF 10 AS RATED ACCORDING TO ASTM D 3274.
 4. RATED FOR WALL AND CEILING INSTALLATIONS.

D. GYPSUM BOARD FINISH LEVELS: FINISH PANELS TO LEVELS INDICATED BELOW AND ACCORDING TO ASTM C 840:
 1. LEVEL 1: CEILING PLENUM AREAS, CONCEALED AREAS, AND WHERE INDICATED.
 2. LEVEL 2: PANELS THAT ARE SUBSTRATE FOR TILE. AREAS BEHIND CABINETRY.
 3. LEVEL 4: AT PANEL SURFACES THAT WILL BE EXPOSED TO VIEW UNLESS OTHERWISE INDICATED.
  A. SPACES SCHEDULED TO RECEIVE EGGSHELL LATEX PAINT.

PAINT, GENERAL

A. METAL PRIMERS
 1. PRIMER, GALVANIZED, WATER BASED: MPI #134 METAL FABRICATIONS- GUARD AND HANDRAILS

B. PRIMERS/SEALERS
 1. PRIMER SEALER, LATEX, INTERIOR: MPI #149 X-GREEN GYPSUM BOARD

C. WATER-BASED PAINTS
 1. LATEX, INTERIOR, FLAT, (GLOSS LEVEL 1): MPI #53 X-GREEN GYPSUM BOARD CEILINGS GREEN LOW ODOR/VOC

D. LATEX, INTERIOR, EGGSHELL (GLOSS LEVEL 3): MPI #145 GYPSUM BOARD WALLS GREEN LOW ODOR/VOC

E. DRYFALL
 1. LATEX, INTERIOR, FLAT, (GLOSS LEVEL 1): MPI #133 EXPOSED STEEL CEILING STRUCTURE DUCTWORK, CONDUIT
 2. LATEX, INTERIOR DRY-FALL SYSTEM (FLAT): MPI #118. DRYWALL

F. SOLVENT-BASED PAINTS LOW VOC
 1. ALKYD, QUICK DRY, SEMI-GLOSS (GLOSS LEVEL 5): MPI #81

G. THINNER AND CLEANUP LOW VOC
 1. LOW-ODOR ALKYD PAINT THINNER AND CLEANUP:
 1. PITTSBURGH PAINTS: ODORLESS THINNER; 21-300 LINE

NFPA - 5000

CHAPTER 8 FIRE-RESISTIVE MATERIALS AND CONSTRUCTION

8.1 GENERAL

8.1.2.3 WALL MARKING AND IDENTIFICATION

A. WHERE THERE IS CONCEALED FLOOR, FLOOR/CEILING OR ATTIC SPACE, FIRE WALLS, FIRE BARRIERS, SMOKE BARRIERS, AND SMOKE PARTITIONS SHALL BE PERMANENTLY IDENTIFY WITH A SIGN OR STENCILING 3" IN HEIGHT AND 3/8" STROKE AND 15'-0" AWAY FROM THE ENDS OF THE WALL IDENTIFY THE WALL TYPE AND ITS FIRE RESISTANCE RATING AS APPLICABLE.

DO NOT INSTALL ELECTRICAL RECEPTACLES OR OTHER MEP ITEMS IN THE SAME WALL STUD CAVITY THAT ELECTRICAL RECEPTACLES SERVES TWO DIFFERENT ROOMS. TYPICAL AT ALL ROOMS.

N

1 BASEMENT FLOOR PLAN Copy 1

1/4" = 1'-0"

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CORTEZ FLATS

1329 EAST 17th STREET

TULSA, OKLAHOMA

100% CONSTRUCTION DOCUMENTS

MARK	DESCRIPTION	DATE

STATE OF OKLAHOMA
KATE LOUISE VESELY HUSEN
No. a6401
LICENSED ARCHITECT
05.20.2026

PROJECT NO: 100-253

ISSUE DATE: 05/20/2026

BASEMENT FINISH FLOOR PLAN

A-602

INTERIOR CONTROL JOINT LOCATIONS:

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      B. BADGER FIRE PROTECTION; A KIDDE COMPANY.
      C. BUCKEYE FIRE EQUIPMENT COMPANY.
      D. J. L. INDUSTRIES, INC.; A DIVISION OF ACTIVAR CONSTRUCTION PRODUCTS GROUP.
      E. KIDDE RESIDENTIAL AND COMMERCIAL DIVISION; SUBSIDIARY OF KIDDE PLC.
      F. LARSEN'S MANUFACTURING COMPANY.
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   3. TYPE X OR FIRECODE
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   2. LONG EDGES: TAPERED.
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   1. LATEX, INTERIOR, FLAT, (GLOSS LEVEL 1): MPI #53 X-GREEN GYPSUM BOARD CEILINGS
   GREEN LOW ODOR/VOC
D. LATEX, INTERIOR, EGGSHELL (GLOSS LEVEL 3): MPI #145 GYPSUM BOARD WALLS
   GREEN LOW ODOR/VOC
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   1. LATEX, INTERIOR, FLAT, (GLOSS LEVEL 1): MPI #133 EXPOSED STEEL CEILING STRUCTURE DUCTWORK, CONDUIT
   2. LATEX, INTERIOR DRY-FALL SYSTEM (FLAT): MPI #118. DRYWALL
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NFPA - 5000

CHAPTER 8 FIRE-RESISTIVE MATERIALS AND CONSTRUCTION

8.1 GENERAL

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5/21/2026 4:11:53 PM
Autodesk Docs://100-253 Cortez As - Builts/1331 E 17Th St.- Cortez As-Built 4.14.26.rvt

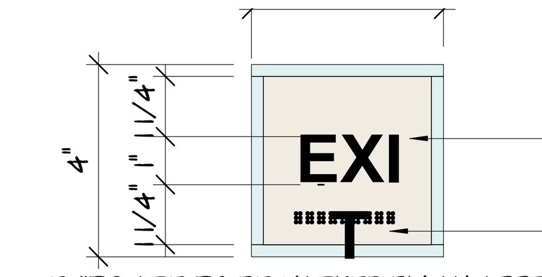
EXISTING WOOD FLOORING REFINISHING:

1. INSPECT AND PREPARE EXISTING WOOD FLOORING; SECURE LOOSE BOARDS AND SET FASTENERS.
2. SAND FLOORING REMOVE EXISTING FINISH AND SMOOTH SURFACE.
3. CLEAN AND REMOVE DUST BETWEEN SANDING AND FINISHING OPERATIONS.
4. APPLY WOOD FILLER AT MINOR GAPS AND IMPERFECTIONS AS REQUIRED.
5. APPLY STAIN, SEALER, AND FINISH COATS.
6. BUFF BETWEEN COATS AS REQUIRED AND ALLOW PROPER CURING TIME.

ROLLER SHADES (RSI):

BASIS-OF-DESIGN PRODUCT: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE MECHOSHADE SYSTEMS, INC.; "MECHO/5", MANUALLY OPERATED, OR A COMPARABLE PRODUCT.
CONTRACTOR TO VERIFY SIZE, COLOR, FABRIC TYPE AND ATTACHMENT METHODS ACCEPTABLE WITH OWNER.

FLOOR FINISH LEGEND



STANDARD "ARC" EXTRUSION BY INNERFACE

FIELD COLOR

EXITS ARE TO BE MARKED BY AN APPROVED EXIT SIGN VISIBLE FROM ANY DIRECTION OF EGRESS TRAVEL. INTERVENING MEANS OF EGRESS DOORS WITHIN EXITS SHALL BE MARKED BY EXIT SIGNS. EXIT SIGN PLACEMENT SHALL BE SUCH THAT NO POINT IN AN EXIT ACCESS CORRIDOR OR EXIT PASSAGEWAY IS MORE THAN 100 FEET FROM THE NEAREST VISIBLE EXIT SIGN

SIGN TYPE "A"

2 SIGNAGE

3" = 1'-0"

N

1 FINISH FLOOR PLAN TYP.

1/4" = 1'-0"

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TULSA, OKLAHOMA

100% CONSTRUCTION DOCUMENTS

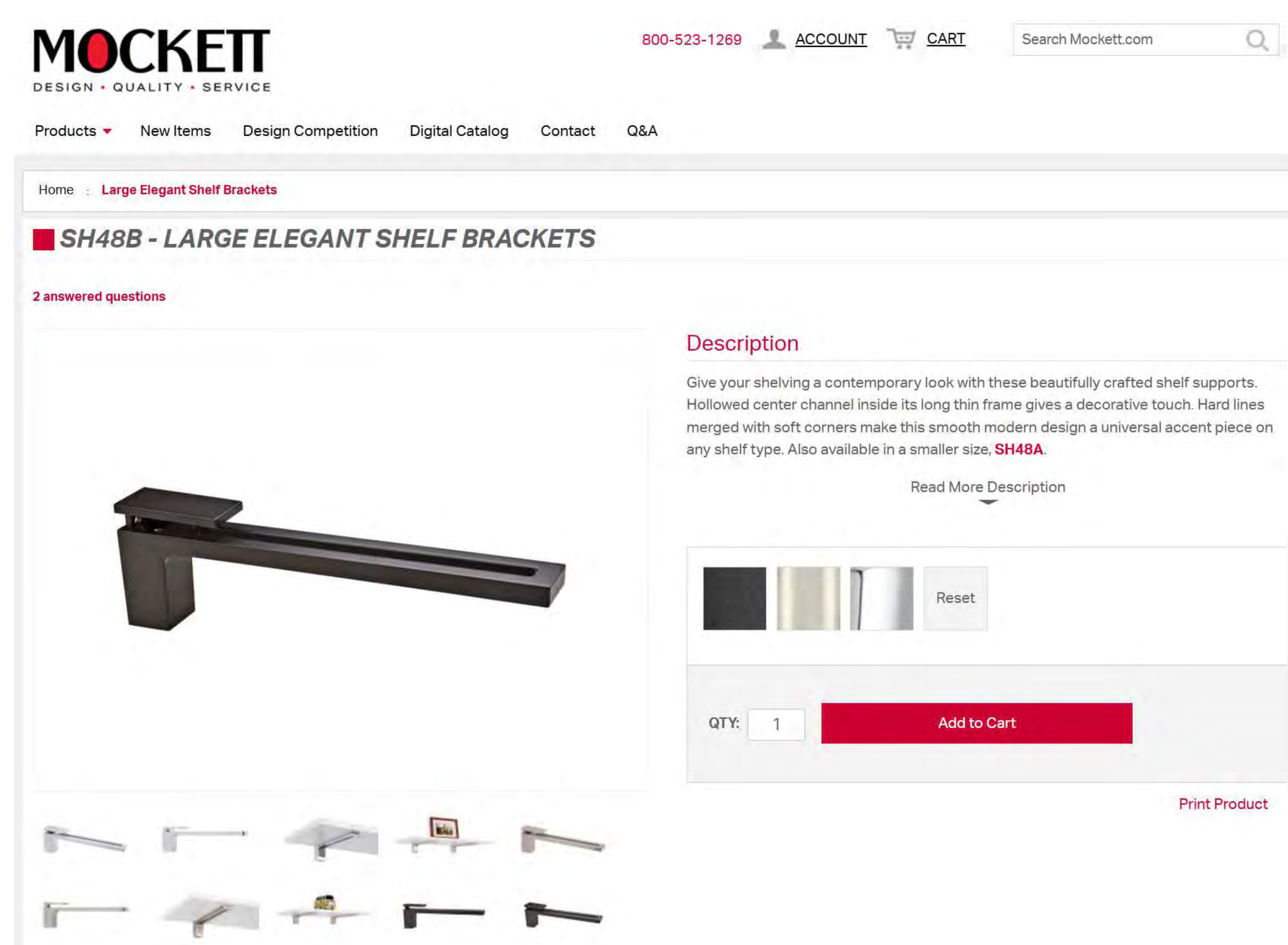
MARK	DESCRIPTION	DATE

STATE OF OKLAHOMA
KATIE LOUISE VESELY HUSENG
No. a6401
TULSA, OKLA.
LICENSED ARCHITECT
05.20 2026

PROJECT NO: 100-253
ISSUE DATE: 05/20/2026

1ST, 2ND, 3RD FINISH FLOOR PLAN

A-603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DESIGN • QUALITY • SERVICE
800-523-1269 ACCOUNT CART
Products New Items Design Competition Digital Catalog Contact Q&A
Home Large Elegant Shelf Brackets
SH48B - LARGE ELEGANT SHELF BRACKETS
2 answered questions
Description
Give your shelving a contemporary look with these beautifully crafted shelf supports. Hollowed center channel inside its long thin frame gives a decorative touch. Hard lines merged with soft corners make this smooth modern design a universal accent piece on any shelf type. Also available in a smaller size, SH48A.
Read More Description
Reset
QTY: 1
Add to Cart
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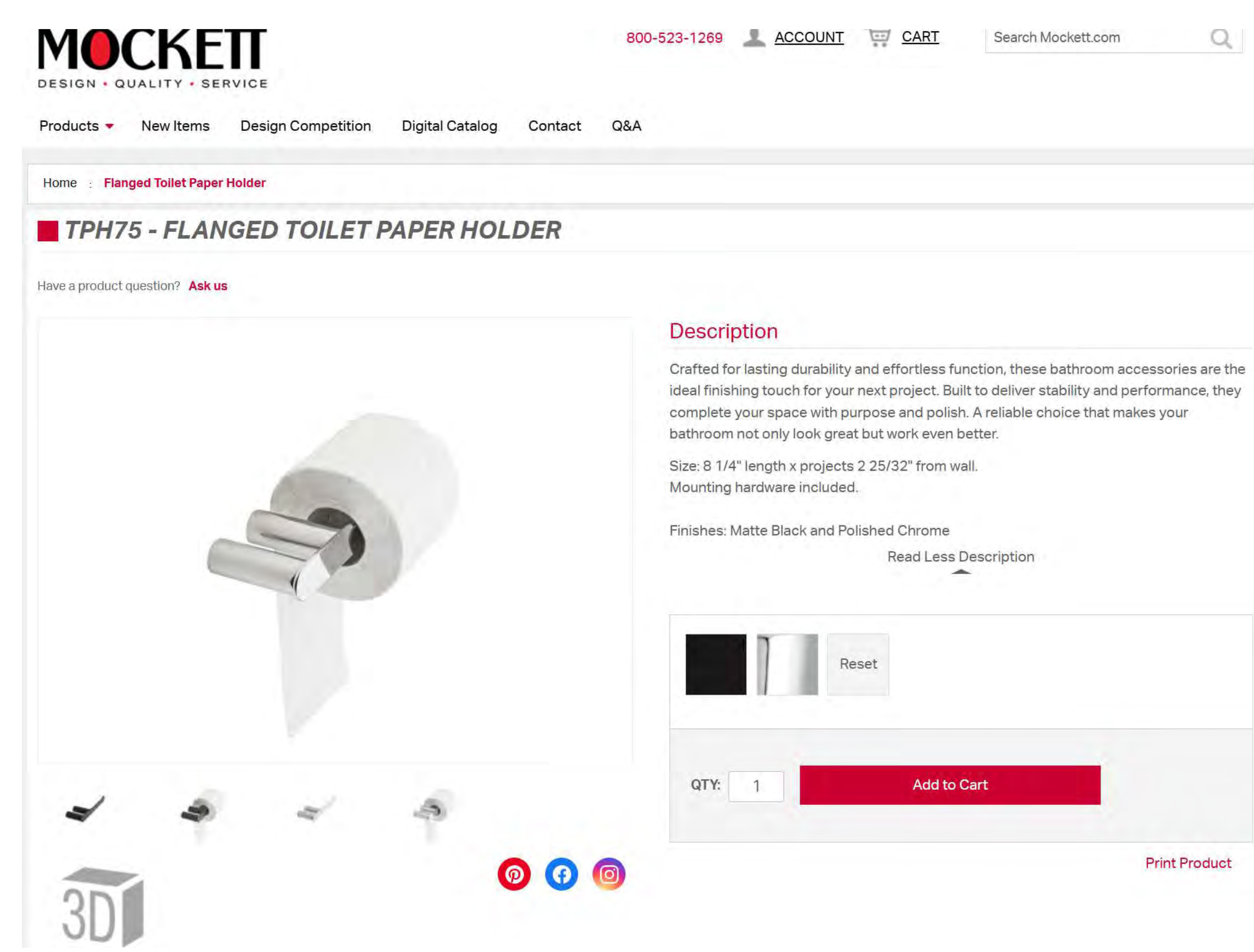
SH1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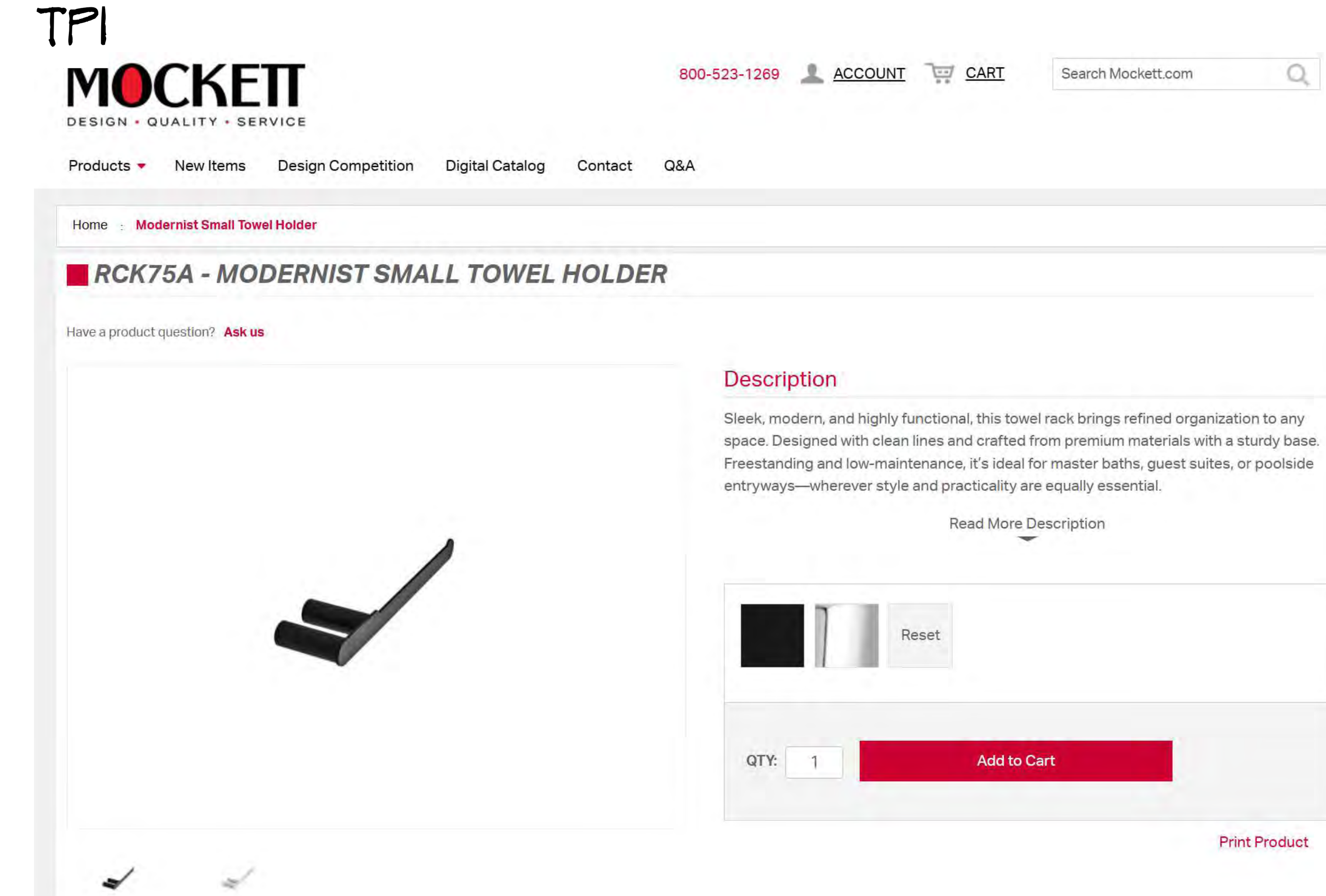
Products New Items Design Competition Digital Catalog Contact Q&A
Home Flanged Toilet Paper Holder
TPH75 - FLANGED TOILET PAPER HOLDER
Have a product question? Ask us
Description
Crafted for lasting durability and effortless function, these bathroom accessories are the ideal finishing touch for your next project. Built to deliver stability and performance, they complete your space with purpose and polish. A reliable choice that makes your bathroom not only look great but work even better.
Size: 8 1/4" length x projects 2 25/32" from wall.
Mounting hardware included.
Finishes: Matte Black and Polished Chrome
Read Less Description
Reset
QTY: 1
Add to Cart
Print Product

TP1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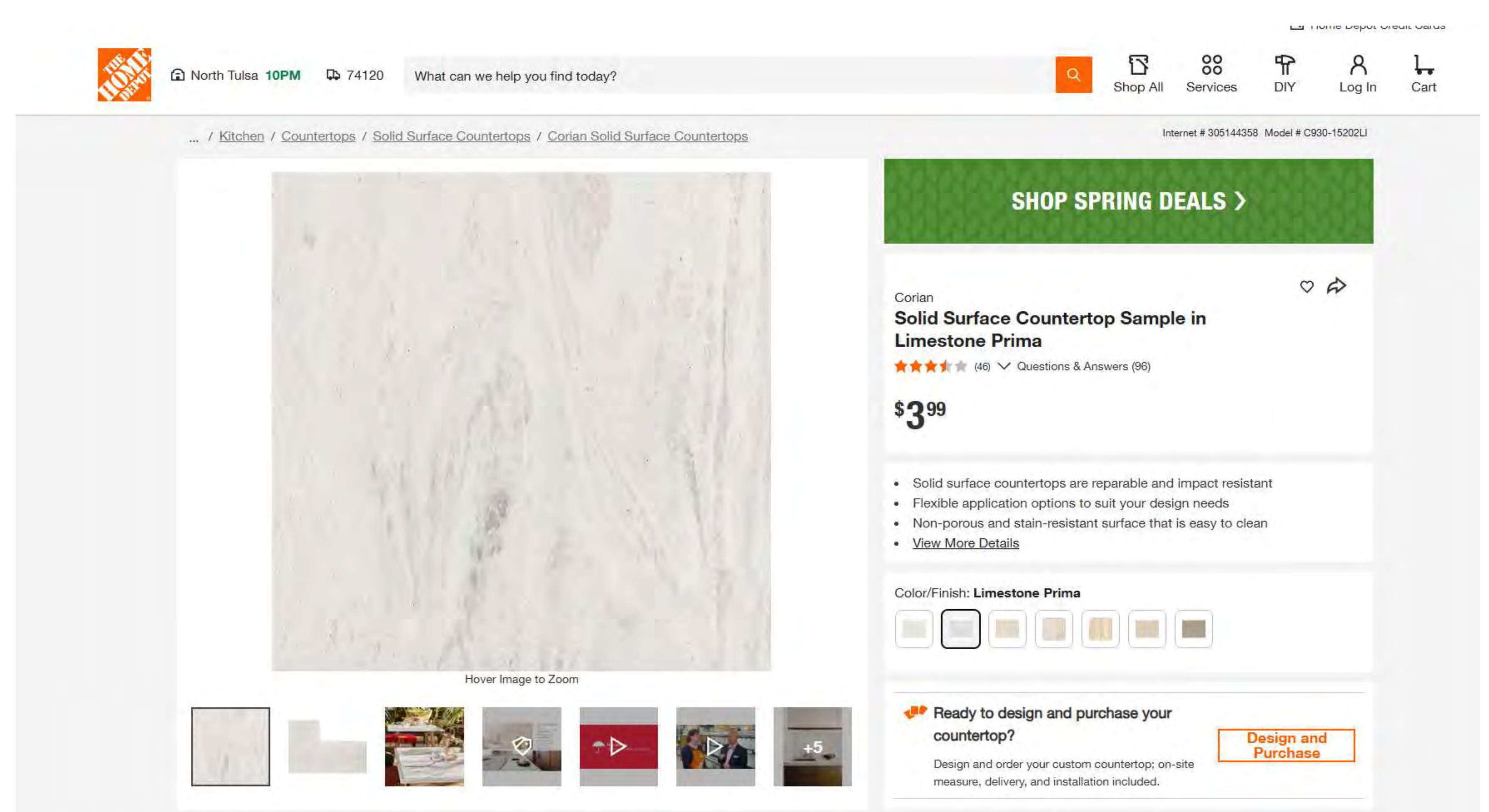
DESIGN • QUALITY • SERVICE
800-523-1269 ACCOUNT CART
Products New Items Design Competition Digital Catalog Contact Q&A
Home Modernist Small Towel Holder
RCK75A - MODERNIST SMALL TOWEL HOLDER
Have a product question? Ask us
Description
Sleek, modern, and highly functional, this towel rack brings refined organization to any space. Designed with clean lines and crafted from premium materials with a sturdy base. Freestanding and low-maintenance, it's ideal for master baths, guest suites, or poolside entryways—wherever style and practicality are equally essential.
Read More Description
Reset
QTY: 1
Add to Cart
Print Product

TB1


What can we help you find today?
Kitchen / Countertops / Solid Surface Countertops / Corian Solid Surface Countertops
SHOP SPRING DEALS
Corian
Solid Surface Countertop Sample in Limestone Prima
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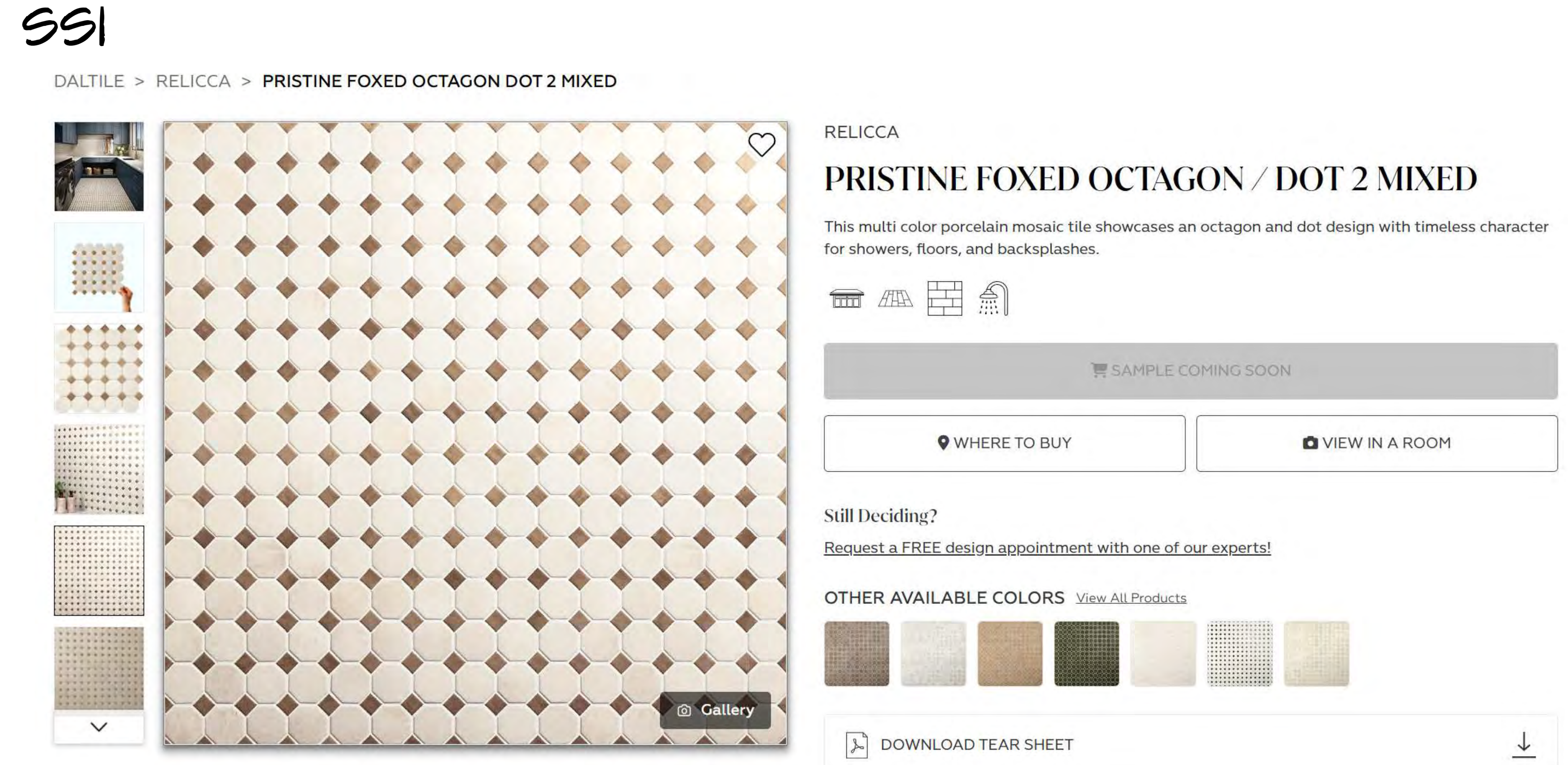
Solid surface countertops are reparable and impact resistant
Flexible application options to suit your design needs
Non-porous and stain-resistant surface that is easy to clean
View More Details
Color/Finish: Limestone Prima
Ready to design and purchase your countertop?
Design and Purchase
Hover Image to Zoom

SS1


DALTILE > RELICCA > PRISTINE FOXED OCTAGON DOT 2 MIXED
RELICCA
PRISTINE FOXED OCTAGON / DOT 2 MIXED
This multi color porcelain mosaic tile showcases an octagon and dot design with timeless character for showers, floors, and backsplashes.
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VIEW IN A ROOM
Still Deciding?
Request a FREE design appointment with one of our experts!
OTHER AVAILABLE COLORS View All Products
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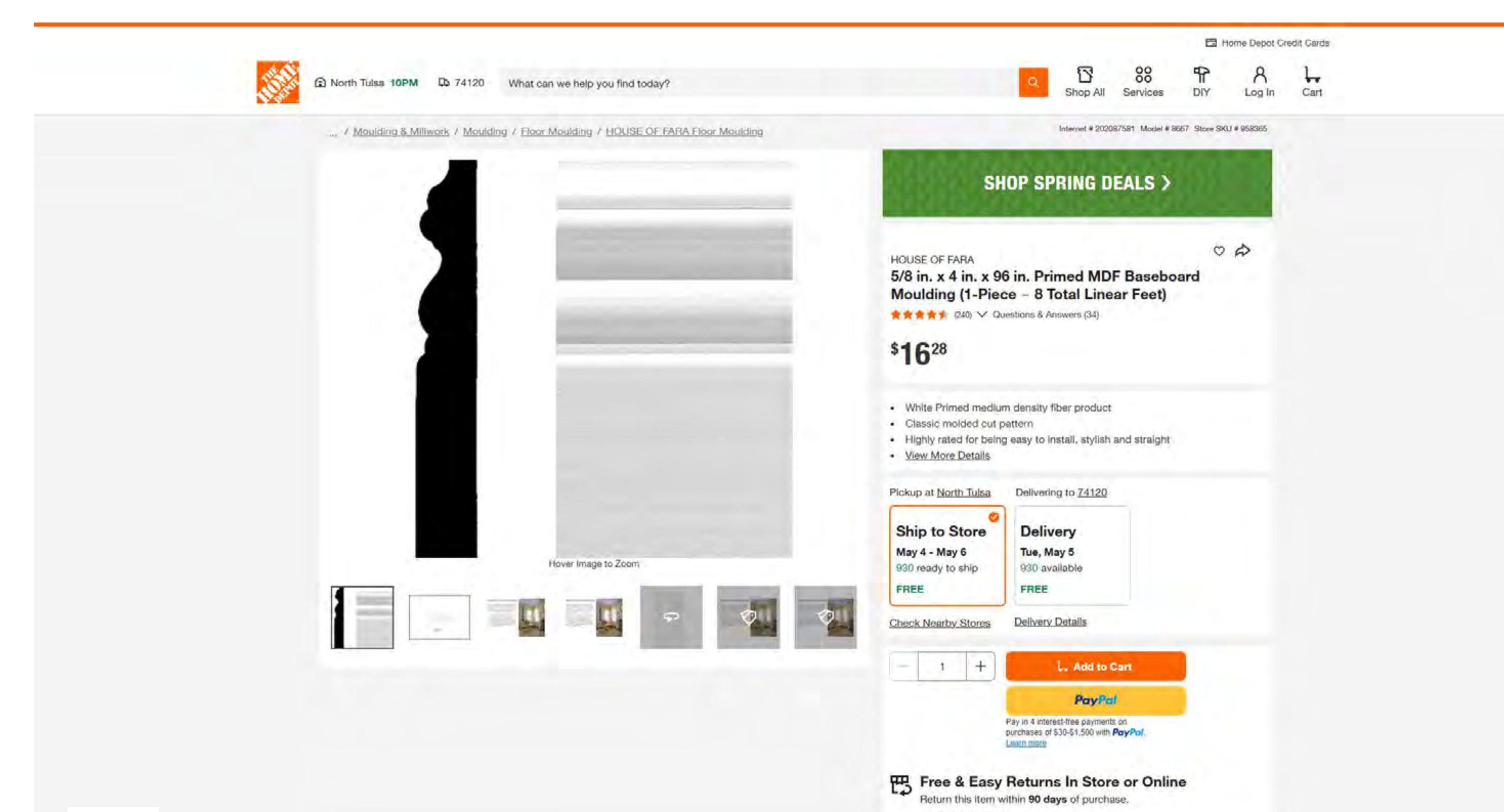
WT2



WB1

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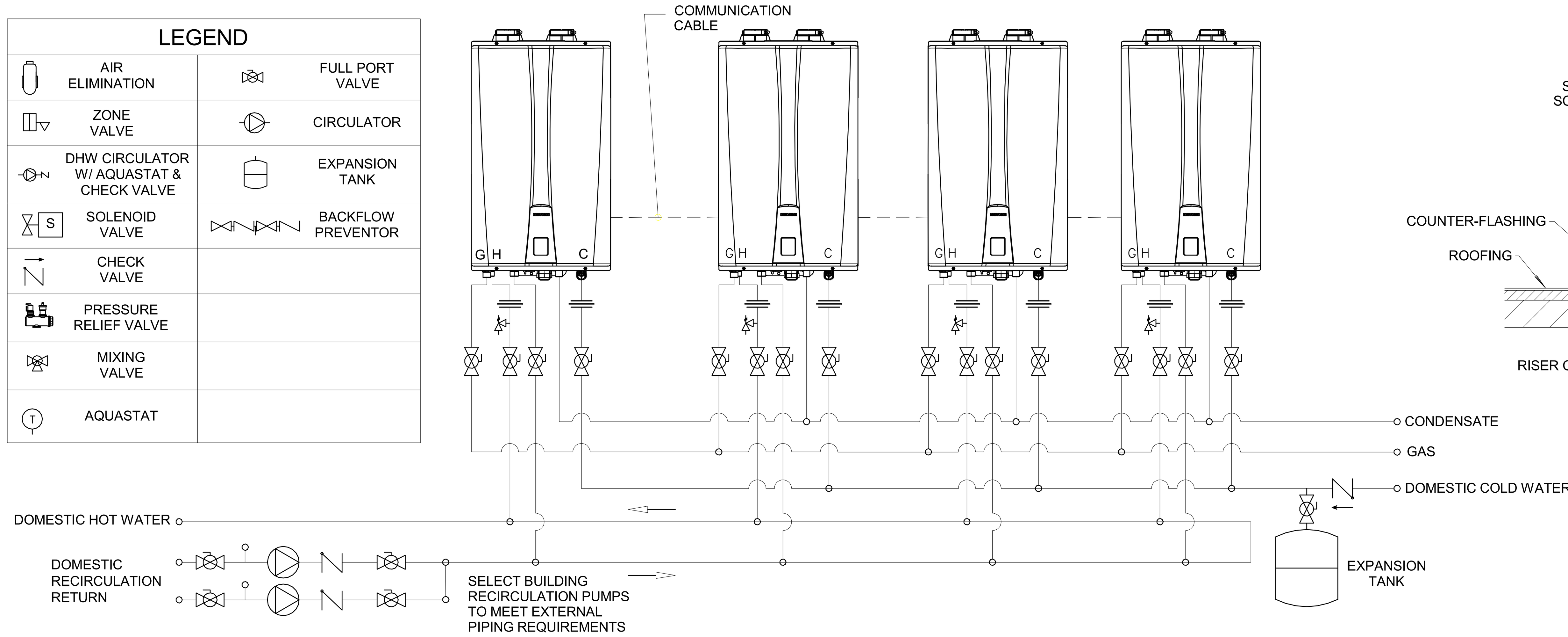
100% CONSTRUCTION DOCUMENTS

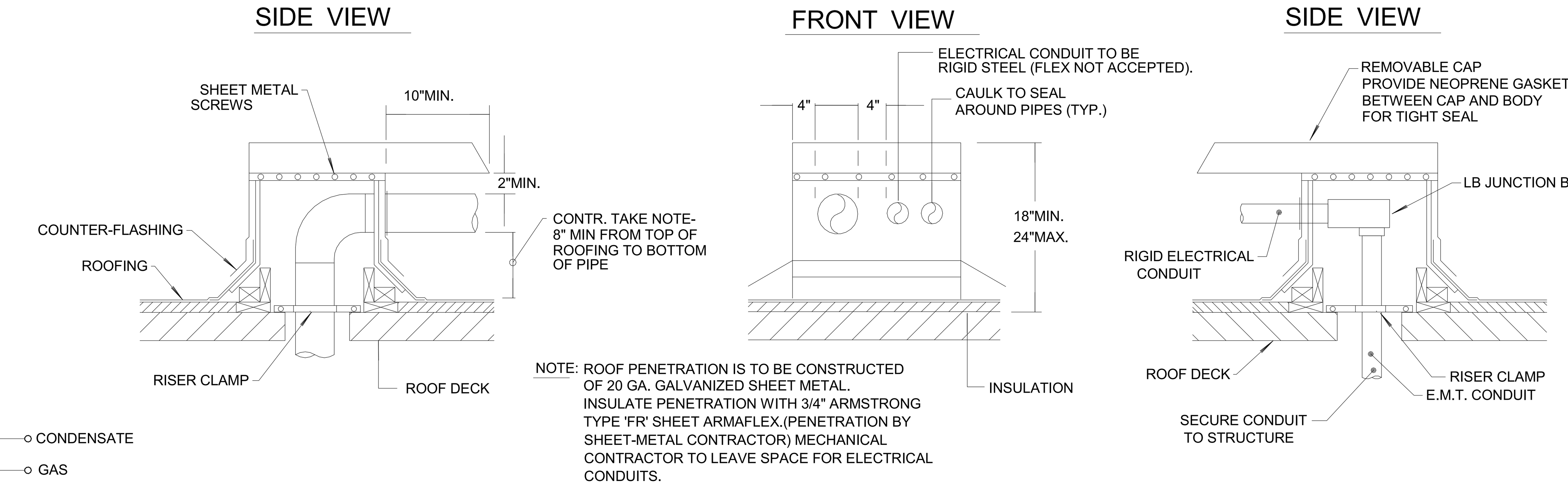
MARK	DESCRIPTION	DATE

PROJECT NO. 100-253
ISSUE DATE: 05/20/2026

PRODUCT CUT SHEET

A-604

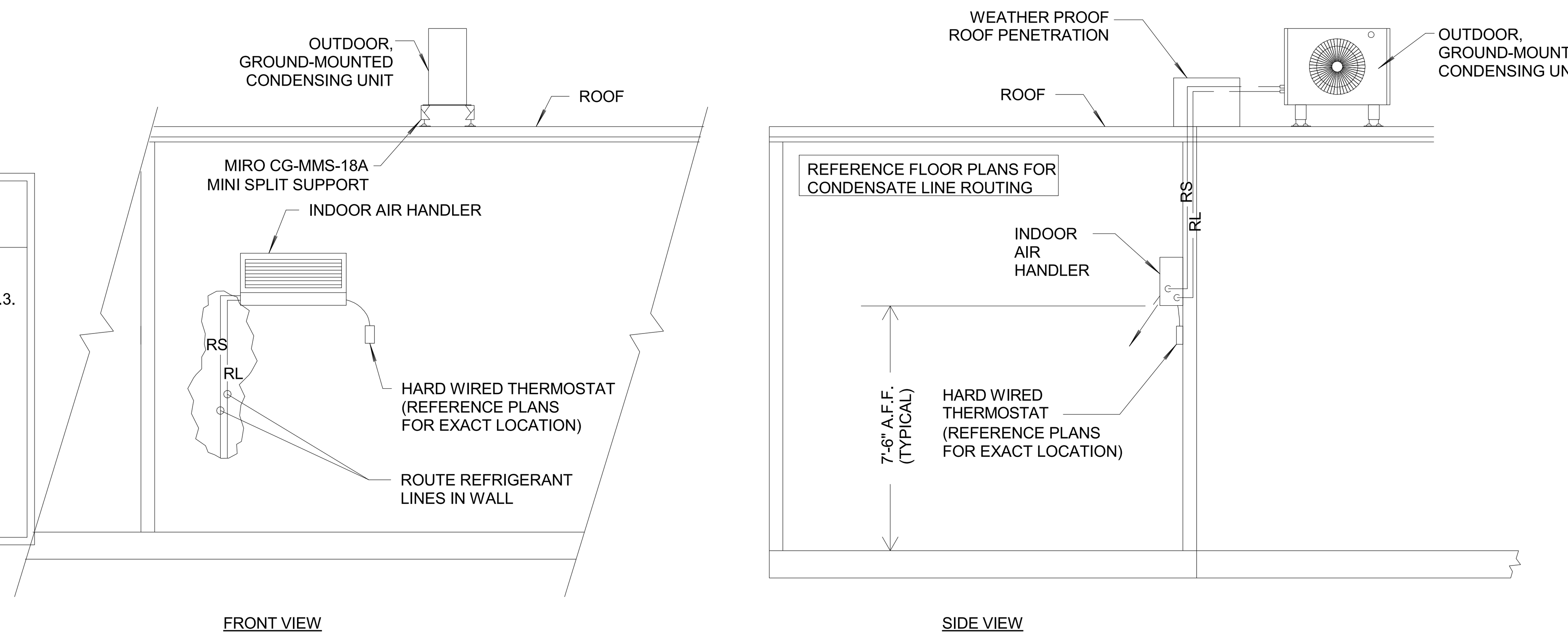




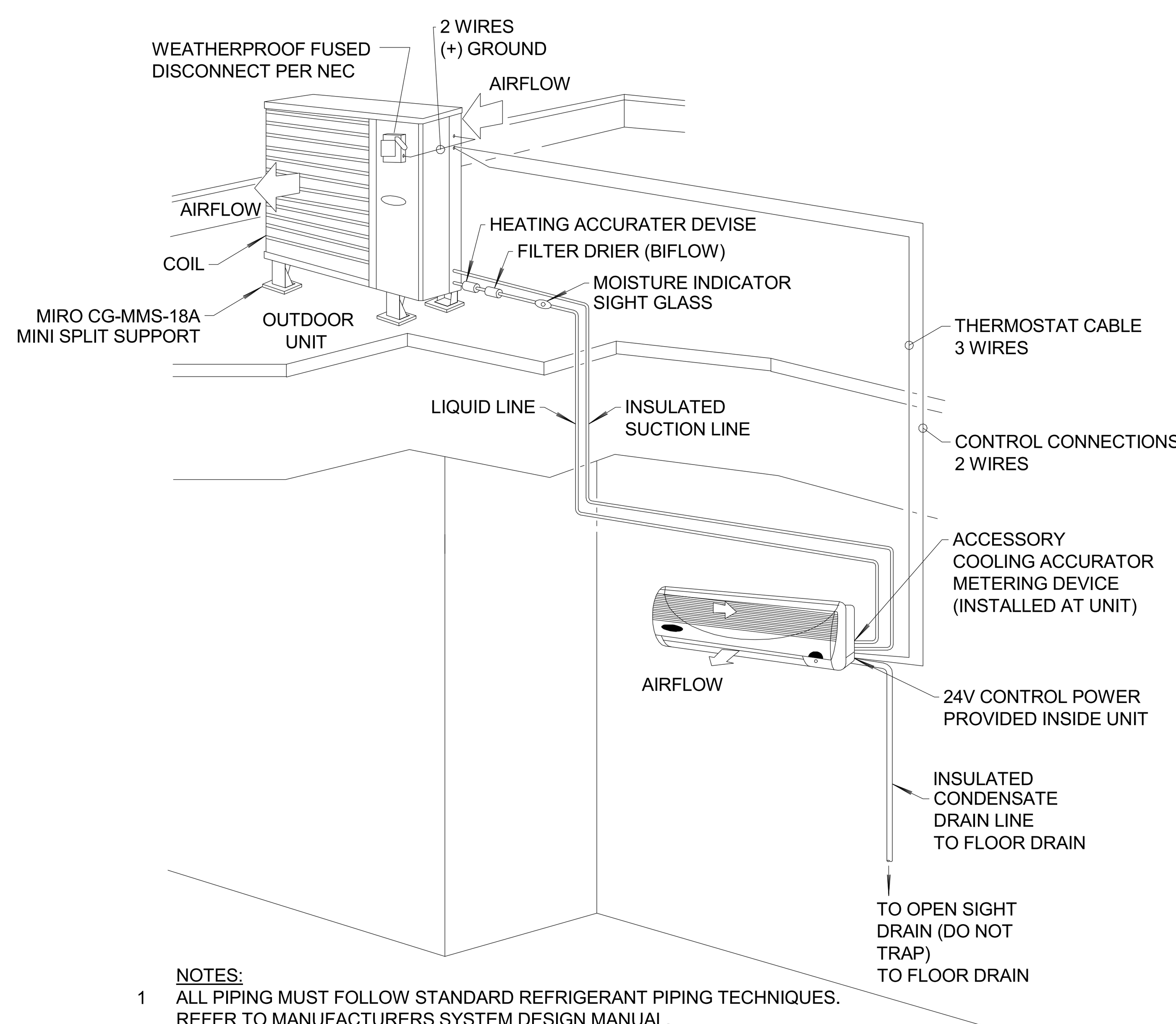
WATER HEATER FIXTURE SCHEDULE

GWH-1

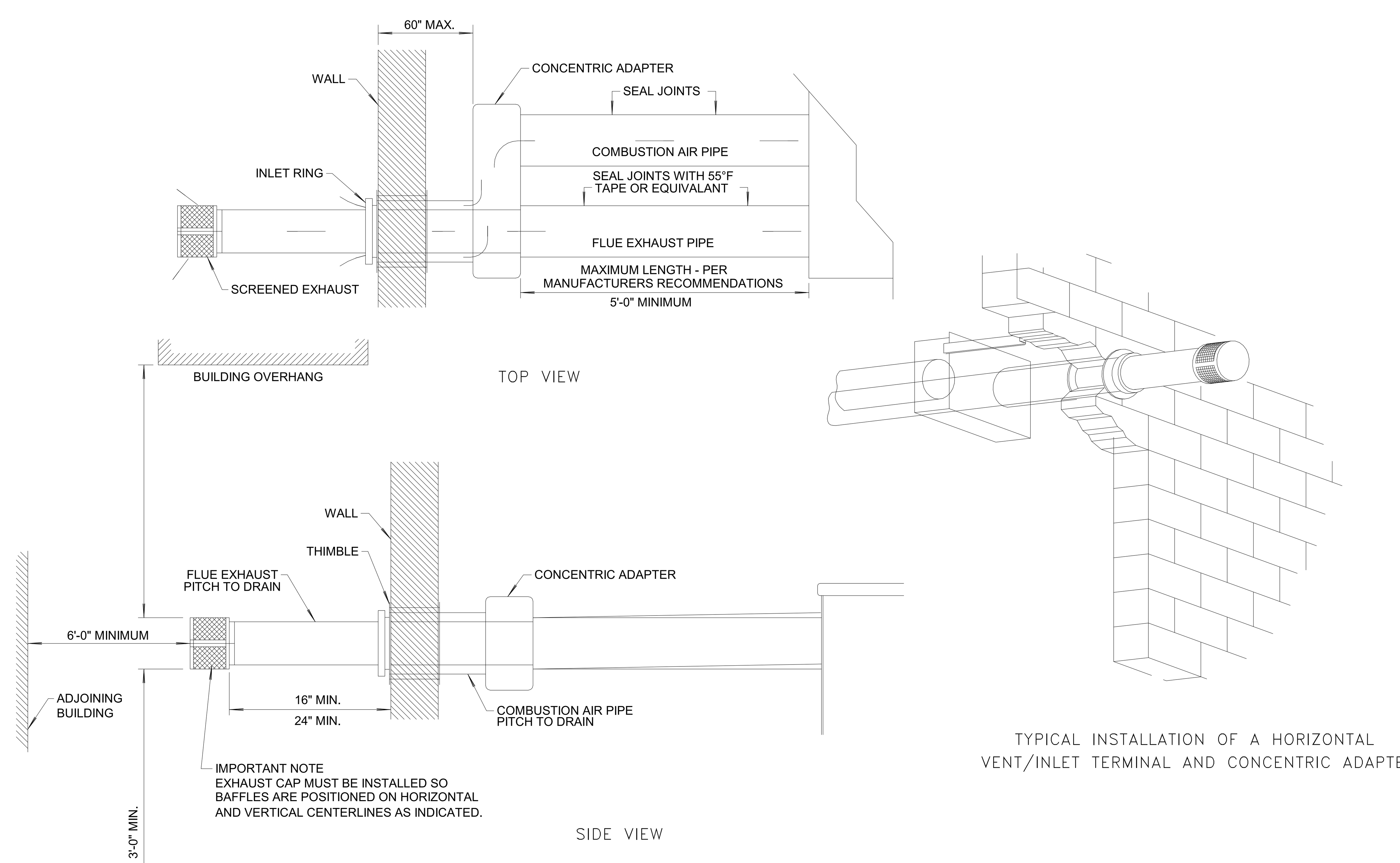
GAS-FIRED, TANKLESS, CONDENSING, WALL-MOUNTED WATER HEATER(S) SHALL BE DIRECT VENT NAVIEN NPE-240A2 SERIES MODEL AS MANUFACTURED BY NAVIEN, INC. AND ARE CERTIFIED BY CSA GROUP TO THE LATEST EDITION OF ANSI STANDARD Z21.10.3-CSA 4.3. WATER HEATER(S) SHALL HAVE A 5-YEAR LIMITED HEAT EXCHANGER WARRANTY AND 3-YEAR LIMITED PARTS WARRANTY 8-YEAR HEAT EXCHANGER AND 5-YEAR PARTS FOR COMMERCIAL USE PER NAVIEN LIMITED WARRANTY. UNIT(S) SHALL BE DESIGNED TO BURN NATURAL GAS. NPE WATER HEATER SHALL HAVE A NOMINAL FLOW RATE CAPACITY OF WITH RATED INPUT OF 199,900 BTU/HR. WATER HEATER(S) SHALL BE VENTED WITH 2 " SCHEDULE 40/80 PVC/CPVC, APPROVED POLYPROPYLENE AND STAINLESS STEEL VENT PIPE AT A DISTANCE NOT TO EXCEED 75 ' (OR EQUIVALENT) WITH EACH ELBOW EQUAL TO 8 ' OF PIPE LENGTH OR 3 " SCHEDULE 40/80 PVC/ CPVC, APPROVED POLYPROPYLENE AND STAINLESS STEEL VENT PIPE AT A DISTANCE OF 150 ' (OR EQUIVALENT) WITH EACH ELBOW EQUAL TO 5 ' OF PIPE LENGTH. WATER HEATER(S) IS RATED FOR 150 PSI WORKING WATER PRESSURE AND 300 PSI TEST PRESSURE. GAS SUPPLY PRESSURE SHALL BE 3.5" TO 10.5 " WC FOR NATURAL GAS. UNIT(S) SHALL HAVE A STEEL CASE, DUAL STAINLESS STEEL HEAT EXCHANGERS, ECO PREMIXED BURNER, NEGATIVE PRESSURE GAS VALVE, DUAL VENTURI, 3/4 " INLET GAS CONNECTION, 3/4 " BRASS INLET/OUTLET WATER CONNECTIONS, WATER HOLDING CAPACITY OF 0.6 GALLONS FOR THE 1.2 GALLONS FOR THE NPE-240A2 MODELS AND A CONDENSATE COLLECTOR NETURALIZER. THE NPE-240A2 MODEL WEIGHS 77 LBS. UNIT(S) SHALL INCLUDE FEATURES SUCH AS AN ADJUSTMENT FOR INSTALLATIONS AT HIGH ELEVATION, TEMPERATURE LOCKOUT, AND TEMPERATURE OPTIONS FROM 140°F IN 5°F INTERVALS. ALL NPE "A2" MODELS SHALL INCLUDE AN INTERNAL CIRCULATION PUMP AND 0.5-GALLON BUFFER TANK. THE WATER HEATER(S) SHALL BE CONTROLLED BY AN INTERNAL CIRCUIT BOARD THAT MONITORS THE INLET AND OUTLET TEMPERATURES WITH INSTALLED THERMISTORS, SENSING AND CONTROLLING FLOW RATE TO SET POINT TEMPERATURE WITH AIR-FUEL RATIO CONTROLS IN ORDER TO MAINTAIN THERMAL COMBUSTION EFFICIENCY. UNIT(S) SHALL INCLUDE SAFETY FEATURES SUCH AS FLAME SENSOR SYSTEM, HIGH LIMIT SENSORS, OVERHEAT PREVENTION DEVICE, FREEZE PROTECTION MODE, AND FAN MOTOR ROTATION DETECTOR. MULTI-SYSTEM (CASCADE) APPLICATIONS THAT REQUIRE 2 TO 32 UNITS SHALL BE INSTALLED BY CONNECTING THE UNITS USING CABLE ONLY CONNECTIONS (READY LINK). THE WATER HEATER(S) EXCEEDS THE ENERGY EFFICIENCY REQUIREMENTS OF ASHRAE 90.1-2010 AND IS LISTED BY SCAQMD RULE 1146.2 (TYPE 1) AS COMPLIANT WITH RULE 1146.2 (TYPE 1) FOR ULTRA LOW NOX REQUIREMENTS OF 14 NG/J OR 20 PPM @ 3% O2. HEATER IS TO HAVE FACTORY INSTALLED CIRCULATION PUMP AND STORAGE TANK. NOTE: UNIT IS TO BE FLUSH EVERY 6 MONTHS TO DESCALE THE HEAT EXCHANGER PER MANUFACTURERS RECOMMENDATIONS. UNIT IS TO BE INSTALLED WITH NAVIAN VALVE KITS FOR PROPER FLUSHING PROCEDURE.



1. INSTALL INDOOR UNIT ON WALL PER MANUFACTURERS RECOMMEND INSTALLATION INSTRUCTIONS. REFER TO MECHANICAL DETAILS FOR FURTHER INFORMATION.
2. ROUTE REFRIGERANT LINE SET WITH CONTROL WIRING FROM CORRESPONDING INDOOR UNIT TO OUTDOOR UNIT. ALL SUCTION LINES ARE TO BE HARD DRAWN COPPER WITH BRAZED FITTINGS AND LIQUID LINE TYPE L COPPER WITH FLARED ENDS AND LONG SWEEPS. SUPPORT PIPING PER MANUFACTURERS RECOMMENDATIONS AND SPECIFICATIONS. REFER TO MANUFACTURER FOR LINE SIZES BASED UPON DISTANCE AND FITTINGS. INSULATION ON PIPING IS TO BE CONTINUOUS ARMACELL ARMAFLEX AP/FS, SEAL PER MANUFACTURERS RECOMMENDATIONS.
3. INSTALL REFRIGERATION LINES AND CONTROL WIRING THRU WEATHER HOOD ROOF PENETRATION, REFER TO DETAIL.
4. COVER LINE SET AND CONTROL WIRING ON EXTERIOR OF BUILDING WITH MRCOOL LINEGUARD 4.5" SET COVER MLG450 SERIES. LENGTH OF GUARD IS TO BE FIELD VERIFIED. PRIME AND PAINT TO MATCH WALL COLOR.
5. MOUNT OUTDOOR UNIT ON MIRO-CG ROOF SUPPORT MODEL CG-MMS-18A FOR MINI SPLIT STANDS. LEG STANDS ARE TO BE ADJUSTED IN FIELD. BASE MATERIAL IS POLYCARBONATE WITH UV PROTECTION, 1/4" A366 STEEL HOT DIP GALVANIZED, ADJUSTIABLE FROM 10.5" TO 18" IN HEIGHT.
6. MOUNT CONDENSING UNITS ON A 4" THICK REINFORCED CONCRETE PAD WITH 3/8" RE-BAR ON 12" CENTERS BOTH WAYS. CONCRETE PAD IS TO EXTEND PAST UNIT 12" ON 3 SIDES AND CONTINUOUS ON 4TH SIDE TO BUILDING. CONCRETE IS TO HAVE 45° CHAMFERED EDGES.



NOTES:
1. ALL PIPING MUST FOLLOW STANDARD REFRIGERANT PIPING TECHNIQUES. REFER TO MANUFACTURERS SYSTEM DESIGN MANUAL.
2. ALL WIRING MUST COMPLY WITH THE APPLICABLE LOCAL AND NATIONAL CODES.
3. LIQUID LINE NEED NOT BE INSULATED
4. WIRING AND PIPING SHOWN ARE GENERAL POINTS-OF-CONNECTION GUIDES ONLY AND ARE NOT INTENDED FOR A SPECIFIC INSTALLATION.
5. INSULATE CONDENSATE DRAIN IF INSTALLED IN A CONDITIONED SPACE.



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CORTEZ FLATS
1320 EAST 17th STREET
TULSA, OKLAHOMA

100% CONSTRUCTION DOCUMENTS

MARK	DESCRIPTION	DATE

STATE OF OKLAHOMA
KATIE LOUISE VESELY HUISENGA
No. a6401
TULSA, OKLA.
LICENSED ARCHITECT
05.20 2026

PROJECT NO: 100-253
ISSUE DATE: 05/20/2026

HVAC NOTES AND DETAILS

A-605

FIRE SPRINKLER GENERAL NOTES

1. RUN ALL PIPING PARALLEL OR PERPENDICULAR TO STRUCTURE IN ALL AREAS. SPRINKLER CONTRACTOR SHALL COORDINATE LOCATION OF HORIZONTAL SPRINKLER PIPING WITH OTHER TRADES TO MISS ALL LIGHT FIXTURES, DUCTS, VAV BOXES, AIR DIFFUSERS AND ALL OTHER ITEMS WHERE CEILING CLEARANCES ARE CLOSE.
2. DESIGN, FABRICATE, INSTALL THE FIRE PROTECTION AUTOMATIC SPRINKLER SYSTEM IN AN ACCEPTABLE MANNER TO THE STATE HEALTH DEPARTMENT, LOCAL FIRE MARSHALL AND THE ARCHITECT/ENGINEER.
3. PAY ALL PERMITS, LICENSES, FEES, DEPOSITS AND CHARGES IN CONNECTION WITH THE WORK, EXCEPT AS NOTED HEREIN. SECURE ALL NECESSARY APPROVALS.
4. DESIGN AND INSTALL THE SYSTEM PER THE REQUIREMENTS OF NFPA-13. ALL DEFICIENCIES SHALL BE THE RESPONSIBILITY OF THE SPRINKLER CONTRACTOR AND ANY DEVIATIONS FROM THE REQUIREMENTS IN NFPA-13 AND/OR THE APPROVED PLANS SHALL REQUIRE SPECIAL PERMISSION FROM THE ARCHITECT.
5. COMPLY WITH ALL RULES, REGULATIONS, LAWS AND ORDINANCES OF THE STATE, LOCAL, CITY OR COUNTY AUTHORITIES AND UTILITY COMPANIES.
6. THE AUTOMATIC SPRINKLER SYSTEM SHALL BE DESIGNED, FABRICATED, INSTALLED AND TESTED BY AN EXPERIENCED CONTRACTOR APPROVED BY THE ARCHITECT AND LICENSED BY THE STATE TO PERFORM SUCH WORK.
7. SUBMIT SHOP DRAWINGS TO THE ARCHITECT AND THE OWNER'S INSURANCE COMPANY FOR APPROVAL. BEFORE BEING SENT TO THE ARCHITECT, ALL SHOP DRAWINGS MUST BEAR THE INSURANCE SERVICE OFFICES (ISO) STAMP OF ACCEPTANCE AND THE LOCAL AHJ STAMP OF APPROVAL.
8. SUBMIT COMPLETE LAYOUT DRAWING OF OVERHEAD SPRINKLER SYSTEM AND RELATED EQUIPMENT INDICATING RELATIONSHIP OF ALL THE OVERHEAD ITEMS INCLUDING CEILING AIR DIFFUSERS, LIGHTING FIXTURES, BEAMS AND ALL OTHER ITEMS. ALL SPRINKLER HEADS SHALL BE SPACED PER NFPA.
9. PROVIDE SPRINKLER HEAD(S) FOR EACH ROOM/SPACE FOR COMPLETE PROTECTION UNLESS NOTED OTHERWISE ON PLANS.
10. A CORROSIVE-RESISTANT PLACARD SHALL BE PLACED ON THE BASE OF THE RISER STATING THE DESIGN CRITERIA AND RESULTING DEMAND AT THE BASE OF THE RISER, INCLUDING HOSE STREAM ALLOWANCES. ALL PIPING, FITTINGS, HANGERS, VALVES, AND DEVICES ARE TO COMPLY WITH NFPA NO. 13.
11. PROVIDE FULLY RECESSED CONCEALED SPRINKLER HEADS IN ALL GYPSUM BOARD CEILINGS
12. FIRE PROTECTION WORK SHALL BE DESIGNED, INSTALLED, AND TESTED IN ACCORDANCE WITH NFPA 13 NFPA 14 LATEST EDITION OR AS ADOPTED BY THE AUTHORITY HAVING JURISDICTION.
13. INCLUDE ANY INCIDENTAL APPARATUS, APPLIANCES, MATERIAL LABOR AND SERVICES NECESSARY TO MAKE NEW WORK COMPLETE IN ALL RESPECTS AND FULLY READY FOR OPERATION.
14. MAKE SUCH OFFSETS AND DEVIATIONS FROM WORK SHOWN ON THE DRAWINGS, AS MAY BE NECESSARY TO FIT THE ACTUAL SPACE CONDITIONS.
15. INSTALLER SHALL COORDINATE AT SITE WITH ALL PLUMBING, HVAC, FIRE PROTECTION, AND ELECTRICAL WORK SO AS NOT TO CONFLICT IN LOCATION WITH OTHER WORK UNDER THIS CONTRACT. CONTRACTOR SHALL ADJUST PIPE ROUTING AS NECESSARY TO AVOID CONFLICTS WITH DUCTWORK, EQUIPMENT, LIGHTING, ETC.
16. INSTALLER SHALL NOT CUT ANY STRUCTURAL MEMBERS WITHOUT FIRST SECURING WRITTEN APPROVAL FROM THE ARCHITECT.
17. PROVIDE TAMPER SWITCHES ON ALL VALVES THAT CAN SHUT OFF FLOW IN MAINS OR BRANCHES. CHAINS AND LOCKS IN LIEU OF TAMPER SWITCHES MAY BE USED AT OUTDOOR BACKFLOW PREVENTERS ONLY IF APPROVED BY THE AUTHORITY HAVING JURISDICTION.
18. CONTRACTOR SHALL ARRANGE FOR, OBTAIN AND BEAR THE COST OF NECESSARY PERMITS, BONDS, AND FEES.
19. ALL MATERIALS SHALL BE U.L. LISTED AND BEAR THE U.L. LABEL.
20. CONDITIONS SHOWN AS EXISTING (LOCATIONS, MATERIALS, ELEVATIONS, SIZED, ETC.) ARE BASED ON AVAILABLE EXISTING DATA AND SHOULD BE INTERPRETED TO BE APPROXIMATE. CONTRACTOR SHALL VERIFY CONDITIONS IN THE FIELD. EXISTING CONDITIONS FOUND TO DEVIATE FROM THOSE SHOWN SHALL BE REPORTED TO THE ENGINEER.
21. PENETRATIONS THROUGH FIRE RATED ASSEMBLIES. PENETRATIONS FOR PIPES, CONDUITS, OR OTHER PURPOSES THROUGH ASSEMBLIES (FLOORS, ROOF, WALLS, PARTITIONS, ETC.) WITH A REQUIRED FIRE STOP MATERIAL FIRE STOP MATERIAL SHALL BE U.L. LISTED AND INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS TO MEET OR EXCEED THE FIRE RATING OF THE PENETRATED ASSEMBLY.
22. PROVIDE DEFLECTORS ON ELECTRICAL EQUIPMENT TO PREVENT WETTING PANELS. SPRINKLER PIPING SHALL NOT BE INSTALLED DIRECTLY ABOVE ELECTRIC PANELS.
23. PROVIDE FLUSHING CONNECTION AT END OF SPRINKLER SYSTEM WHERE LAY-IN CEILING OCCURS. ALL SPRINKLER PIPING THAT REQUIRES CHANGE IN ELEVATION DUE TO COORDINATION ROUTING OF PIPING SHALL HAVE FLUSH CONNECTION AT ALL LOWER ELEVATION. THE SPRINKLER SYSTEM SHALL BE INSTALLED WITH COMPLETE DRAINABLE SYSTEM.
24. WHEN CONFLICTS OCCUR IN SPECIFICATIONS OR IN THE DRAWINGS, OR BETWEEN EITHER, THE ITEMS OF GREATER QUANTITY OR HIGHER COST SHALL BE PROVIDED.
25. THE INSTALLER SHALL VISIT THE JOB SITE, INSPECT ALL EXISTING CONDITIONS AFFECTING THE WORK. SUBMISSION OF HIS PROPOSAL SHALL BE CONSTRUED AS INDICATING SUCH KNOWLEDGE. NO ADDITIONAL PAYMENT WILL BE MADE ON CLAIMS THAT ARISE FROM THE CONTRACTOR'S FAILURE TO COMPLY WITH THIS REQUIREMENT.
26. VERIFY THE EXACT LOCATION OF EXISTING WATER SOURCE PIPING, FROM THE ACTUAL JOB SITE. ALL NEW LINES ARE TO BE ROUTED TO AND/OR FROM VERIFIED LOCATIONS. TAPS, WHEN NOT PROVIDED BY PREVIOUS INSTALLER SHALL BE PROVIDED BY THIS INSTALLER.
27. THE CONTRACTOR IS RESPONSIBLE FOR CHECKING FIELD CONDITIONS PRIOR TO BIDDING AND REPORT ANY PROBLEMS/CONFLICTS TO THE ENGINEER WITHIN 2 DAYS OF DISCOVERY. ANY CHANGES RESULTING FROM CONDITIONS ARISING IN THE FIELD WHICH WERE NOT BROUGHT TO THE ENGINEER'S ATTENTION ARE TO BE MADE BY THIS CONTRACTOR WITH NO ADDITIONAL COST TO THE OWNER.
28. UPON COMPLETION OF THE WORK UNDER THIS CONTRACT, THE CONTRACTOR SHALL REMOVE ALL TOOLS, APPLIANCES, SURPLUS MATERIALS, AND SCRAP. ALL IDENTIFIED EXISTING EQUIPMENT TO BE REMOVED SHALL BE TURNED OVER TO THE OWNER.

CON'T

FDC NOTES

1. THE FIRE DEPARTMENT CONNECTION SHALL BE WALL MOUNTED IN AN ACCESSIBLE LOCATION AS INDICATED ON THE DRAWING.
2. THE FIRE DEPARTMENT CONNECTION SHALL BE INSTALLED AT A MIN OF 18" AND A MAX OF 42" ABOVE THE SURROUNDING GRADE.
3. THE FIRE DEPARTMENT CONNECTIONS SHALL COORDINATED WITH LOCAL FIRE DEPARTMENT ON TYPE (I.E. STORZ OR SIAMESE)
4. THE SUPPLY LINE FROM THE FIRE DEPARTMENT CONNECTION TO THE SPRINKLER SYSTEM SHALL BE A MIN OF 4" DIA PIPE.
5. PROVIDE A FIRE HYDRANT WITHIN 100'-0" OF THE FIRE DEPARTMENT CONNECTION.
6. PROVIDE AN WEATHER PROOF HORN STROBE ON EXTERIOR WALL ABOVE THE FIRE DEPARTMENT CONNECTION.
7. THE DEVICE SHALL ACTIVATE ON WATERFLOW ONLY.
8. PROVIDE SIGNAGE AT FIRE DEPARTMENT CONNECTION PER REQUIREMENT OF NFPA 13.

NOTE:
FIRE PROTECTION CONTRACTOR IS RESPONSIBLE FOR COORDINATING NEW SERVICE LINE WITH ALL NEW AND EXISTING UTILITIES (SANITARY, STORM, WATER, POWER, & GAS ETC.) BEFORE ORDERING, INSTALLING AND BIDDING PROJECT. INFORMATION SHOWN HERE MAY HAVE CHANGED SINCE BUILDING WAS FIRST DESIGNED. CONTRACTOR IS TO VERIFY ALL PRESSURES (RESIDUAL AND STATIC), AND DEPTHS OF WATER MAIN BEFORE BIDDING. IF THE WATER MAIN IS NOT WHERE SHOWN OR CAN NOT BE CONNECTED TO, CONTRACTOR ENGINEER & ARCHITECT IMMEDIATELY. REFER TO CIVIL PLANS AND SPECIFICATIONS FOR FURTHER INFORMATION. CONTRACTOR IS TO VISIT PROJECT SITE BEFORE BIDDING PROJECT. CONTRACTOR IS TO SUBMIT IN FIRE PROTECTION SUBMITTAL, A TO SCALE UTILITY PLAN OF THEIR PROPOSED LOCATIONS OF UTILITIES (AS MENTIONED ABOVE), WATER MAIN, ROUTING OF NEW SERVICE LINE, REMOTE FIRE DEPARTMENT CONNECTION, SIZES, PRESSURES (RESIDUAL AND STATIC), DOUBLE DETECTOR CHECK, AS WELL AS A COMPLETE 1/8" PLANS OF DESIGN BUILD DRAWINGS OF EACH FLOOR, SPRINKLER SYSTEM LOAD CALCULATIONS, AND FIRE PROTECTION MANUFACTURER'S SUBMITTAL SHEETS OF EQUIPMENT. REFER TO FIRE PROTECTION SPECIFICATIONS FOR FURTHER INFORMATION.

NOTE:
THIS IS A FIRE PROTECTION DESIGN BUILD PROJECT. THE ENTIRE BUILDING IS TO BE SPRINKLED IN ITS ENTIRETY, ALL ATTIC SPACES, BALCONY'S, CLOSETS, ATRIUMS, CANOPIES, LOBBIES, LIVING ROOMS, BED ROOMS, KITCHENS, MECHANICAL ROOMS, ETC. CONTRACTOR IS TO MEET ALL CURRENT FIRE PROTECTION CODES, NFPA, AND BUILDING CODES. DRAWINGS ARE TO BE SUBMIT TO ARCHITECT & ENGINEER FOR REVIEW AND STATE FIRE MARSHAL FOR STATE ACCEPTANCE. REFER TO SPECIFICATIONS FOR FURTHER INFORMATION. AMOUNT OF RISERS AS REQUIRED. COORDINATE FDC WITH LOCAL AHJ.

SECTION 210500
COMMON WORK RESULTS FOR FIRE SUPPRESSION

PART 1 GENERAL

1.01 SECTION INCLUDES
- A. Above ground piping.
- B. Buried piping.
- C. Escutcheons.
- D. Expansions - hose and braid.
- E. Fire rated enclosures.
- F. Mechanical couplings.
- G. Mechanical pressed fittings.
- H. Pipe hangers and supports.
- I. Pipe sleeves.
- J. Pipe sleeve-seal systems.
- K. Piping specialties.
- L. Pressure gauges.
- M. Pressure relief valves.
- N. Retrofit-sprinkler piping cover system.

1.02 RELATED REQUIREMENTS
- A. Section 078400 - Firestopping.
- B. Section 099113 - Exterior Painting: Preparation and painting of exterior fire protection piping systems.
- C. Section 099123 - Interior Painting: Preparation and painting of interior fire protection piping systems.
- D. Section 210523 - General-Duty Valves for Water-Based Fire-Suppression Piping.
- E. Section 210553 - Identification for Fire Suppression Piping and Equipment: Piping identification.
- F. Section 210716 - Fire Suppression Equipment Insulation: Insulation of fire suppression equipment piping, fittings, valves, mechanical couplings, connections, hangers, insulation inserts, shields, etc.
- G. Section 211200 - Fire-Suppression Standpipes: Standpipe design.
- H. Section 211300 - Fire-Suppression Sprinkler Systems: Sprinkler systems design.

1.03 REFERENCE STANDARDS
- A. ANSI Z21.22 - American National Standard for Relief Valves for Hot Water Supply Systems; 2015 (Reaffirmed 2020).
- B. ASME A112.18.1 - Plumbing Supply Fittings; 2024.
- C. ASME B40.100 - Pressure Gauges and Gauge Attachments; 2022.
- D. ASME BPVC-IX - Boiler and Pressure Vessel Code, Section IX - Qualification Standard for Welding, Brazing, and Fusing Procedures; Welders; Brazers; and Welding, Brazing, and Fusing Operators; 2023.
- E. ASME B16.1 - Gray Iron Pipe Flanges and Flanged Fittings: Classes 25, 125, and 250; 2020.
- F. ASME B16.4 - Gray Iron Threaded Fittings: Classes 125 and 250; 2021.
- G. ASME B16.5 - Pipe Flanges and Flanged Fittings: NPS 1/2 through NPS 24 Metric/Inch Standard; 2020.
- H. ASME B16.9 - Factory-Made Wrought Buttwelding Fittings; 2024.
- I. ASME B16.11 - Forged Fittings, Socket-Welding and Threaded; 2021.
- J. ASME B16.18 - Cast Copper Alloy Solder Joint Pressure Fittings; 2021.
- K. ASME B16.25 - Buttwelding Ends; 2022.
- L. ASME B36.10M - Welded and Seamless Wrought Steel Pipe; 2022.
- M. ASTM A53/A53M - Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless; 2022.
- N. ASTM A135/A135M - Standard Specification for Electric-Resistance-Welded Steel Pipe; 2021.
- O. ASTM A234/A234M - Standard Specification for Piping Fittings of Wrought Carbon Steel and Alloy Steel for Moderate and High Temperature Service; 2023a.
- P. ASTM A536 - Standard Specification for Ductile Iron Castings; 1984, with Editorial Revision (2019).
- Q. ASTM A795/A795M - Standard Specification for Black and Hot-Dipped Zinc-Coated (Galvanized) Welded and Seamless Steel Pipe for Fire Protection Use; 2021.
- R. ASTM B75/B75M - Standard Specification for Seamless Copper Tube; 2020.
- S. ASTM B88 - Standard Specification for Seamless Copper Water Tube; 2022.
- T. ASTM B88M - Standard Specification for Seamless Copper Water Tube (Metric); 2020.
- U. ASTM C592 - Standard Specification for Mineral Fiber Blanket Insulation and Blanket-Type Pipe Insulation (Metal-Mesh Covered) (Industrial Type); 2022a.
- V. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2023d.
- W. ASTM E814 - Standard Test Method for Fire Tests of Penetration Firestop Systems; 2023a.
- X. ASTM F438 - Standard Specification for Socket-Type Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 40; 2023.
- Y. ASTM F439 - Standard Specification for Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 80; 2019.
- Z. ASTM F442/F442M - Standard Specification for Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Pipe (SDR-PR); 2023.
- AA. ASTM F493 - Standard Specification for Solvent Cements for Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Pipe and Fittings; 2022.
- BB. AWS A5.8M/A5.8 - Specification for Filler Metals for Brazing and Braze Welding; 2019.
- CC. AWS D1.1/D1.1M - Structural Welding Code - Steel; 2020, with Errata (2023).
- DD. AWWA C105/A21.5 - Polyethylene Encasement for Ductile-Iron Pipe Systems; 2018.
- EE. AWWA C110/A21.10 - Ductile-Iron and Gray-Iron Fittings; 2021.
- FF. AWWA C111/A21.11 - Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings; 2023.
- GG. AWWA C151/A21.51 - Ductile-Iron Pipe, Centrifugally Cast; 2023.
- HH. AWWA C606 - Grooved and Shouldered Joints; 2022.
- II. FM (AG) - FM Approval Guide; Current Edition.
- JJ. ITS (DIR) - Directory of Listed Products; Current Edition.
- KK. NFPA 13 - Standard for the Installation of Sprinkler Systems; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- LL. NFPA 14 - Standard for the Installation of Standpipe and Hose Systems; 2024.

- MM. NFPA 1963 - Standard for Fire Hose Connections; 2019.
- NN. UL (DIR) - Online Certifications Directory; Current Edition.
- OO. UL 393 - Indicating Pressure Gauges for Fire-Protection Service; Current Edition, Including All Revisions.
- PP. UL 404 - Gauges, Indicating Pressure, for Compressed Gas Service; Current Edition, Including All Revisions.
- QQ. UL 405 - Standard for Safety Fire Department Connection Devices; Current Edition, Including All Revisions.
- RR. UL 723 - Standard for Test for Surface Burning Characteristics of Building Materials; Current Edition, Including All Revisions.

1.04 SUBMITTALS
- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide manufacturer's catalog information. Indicate valve data and ratings.
- C. Shop Drawings: Indicate pipe materials used, jointing methods, supports, and floor and wall penetration seals. Indicate installation, layout, weights, mounting and support details, and piping connections.
- D. Manufacturer's qualification statement.
- E. Installer's qualification statement.
- F. Project Record Documents: Record actual locations of components and tag numbering.
- G. Operation and Maintenance Data: Include installation instructions and spare parts lists.
- H. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
  1. See Section 016000 - Product Requirements, for additional provisions.

1.05 QUALITY ASSURANCE
- A. Manufacturer Qualifications: Company specializing in manufacturing the Products specified in this section with minimum three years documented experience.
- B. Installer Qualifications: Company specializing in performing work of the type specified in this section.
  1. Minimum three years experience.
  2. Approved by manufacturer.
- C. Comply with FM (AG), UL (DIR), and ITS (DIR) or Warnock Hersey requirements.
- D. Valves: Bear FM (AG), UL (DIR), and ITS (DIR) or Warnock Hersey product listing label or marking. Provide manufacturer's name and pressure rating marked on valve body.
- E. Products Requiring Electrical Connection: Listed and classified as suitable for the purpose specified and indicated.
- F. Clean equipment, pipes, valves, and fittings of grease, metal cuttings, and sludge that may have accumulated from the installation and testing of the system.

1.06 DELIVERY, STORAGE, AND HANDLING
- A. Deliver and store valves in shipping containers, with labeling in place.
- B. Provide temporary protective coating on cast iron and steel valves.
- C. Provide temporary end caps and closures on piping and fittings. Maintain in place until installation.

1.07 WARRANTY
- A. See Section 017800 - Closeout Submittals for additional warranty requirements.
- B. Correct defective Work within a five year period after Date of Substantial Completion.

PART 2 PRODUCTS

2.01 GENERAL REQUIREMENTS
- A. Sprinkler-based System:
  1. Comply with NFPA 13.
  2. See Section 211300.
- B. Standpipe and Hose System:
  1. Comply with NFPA 14.
  2. See Section 211200.
- C. Combined Sprinkler, Standpipe, and Hose System:
  1. Comply with NFPA 13 and NFPA 14.
  2. See Sections 211300 and 211200.
- D. Welding Materials and Procedures: Comply with ASME BPVC-IX.
- E. Provide system pipes, fittings, sleeves, escutcheons, seals, and other related accessories.

2.02 BURIED PIPING
- A. Steel Pipe: ASTM A53/A53M Schedule 40, ASTM A135/A135M Schedule 10, ASTM A795/A795M Standard Weight, or ASME B36.10M Schedule 40, black, with AWWA C105/A21.5 polyethylene jacket, or double layer, half-lapped polyethylene tape.
  1. Steel Fittings: ASME B16.9, wrought steel, buttwelded, ASME B16.25, buttweld ends, ASTM A234/A234M, wrought carbon steel or alloy steel, ASME B16.5, steel flanges and fittings, or ASME B16.11, forged steel socket welded and threaded; with double layer, half-lapped polyethylene tape.
  2. Cast Iron Fittings: ASME B16.1, flanges and flanged fittings.
  3. Joints: Welded in accordance with AWS D1.1/D1.1M.
  4. Casing: Closed glass cell insulation.
- B. Copper Tube: ASTM B75/B75M or ASTM B88 (ASTM B88M), O60 or O50 temper.
  1. Type: Type K (A).
  2. Fittings: ASME B16.18, cast copper alloy, solder joint, pressure type.
  3. Joints: AWS A5.8M/A5.8 Classification BCuP-3 or BCuP-4 copper/silver braze.
  4. Casing: Closed glass cell insulation.
- C. Ductile Iron Pipe: AWWA C151/A21.51.
  1. Fittings: AWWA C110/A21.10, standard thickness.
  2. Joints: AWWA C111/A21.11, styrene-butadiene rubber (SBR) or vulcanized SBR gasket.
  3. Mechanical Couplings: Shaped composition sealing gasket, steel bolts, nuts, and washers.

2.03 ABOVE GROUND PIPING
- A. Steel Pipe: ASTM A795 Schedule 40, black.
  1. Steel Fittings: ASME B16.5 steel flanges and fittings.
  2. Cast Iron Fittings: ASME B16.1, flanges and flanged fittings and ASME B16.4, threaded fittings.
  3. Mechanical Grooved Couplings: Malleable iron housing clamps to engage and lock, "C" shaped elastomeric sealing gasket, steel bolts, nuts, and washers; galvanized for galvanized pipe.
  4. Mechanical Formed Fittings: Carbon steel housing with integral pipe stop and O-ring pocked and O-ring, uniformly compressed into permanent mechanical engagement onto pipe.
- B. CPVC Pipe: ASTM F442/F442M, SDR 13.5.
  1. Fittings: ASTM F438 Schedule 40, or ASTM F439 Schedule 80, CPVC.
  2. Joints: Solvent welded, using ASTM F493 cement.
- C. Ductile Iron Pipe: AWWA C151/A21.51.

  1. Fittings: AWWA C110/A21.10, standard thickness.
  2. Joints: AWWA C111/A21.11, SBR or vulcanized styrene-butadiene rubber gasket.
  3. Mechanical Grooved Couplings: Malleable iron housing clamps to engage and lock, "C" shaped composition sealing gasket, steel bolts, nuts, and washers; galvanized for galvanized pipe.

2.04 PIPE SLEEVES
- A. Vertical Piping:
  1. Sleeve Length: 1 inch (25 mm) above finished floor.
  2. Provide sealant for watertight joint.
  3. Blocked Out Floor Openings: Provide 1-1/2 inch (40 mm) angle set in silicon adhesive around opening.
  4. Drilled Penetrations: Provide 1-1/2 inch (40 mm) angle ring or square set in silicone adhesive around penetration.
- B. Plastic, Sheet Metal, or Moisture-Resistant Fiber: Pipe passing through interior walls, partitions, and floors, unless steel or brass sleeves are specified below.
- C. Pipe Passing Through Below Grade Exterior Walls:
  1. Zinc-coated or cast-iron pipe.
  2. Provide watertight space with link rubber or modular seal between sleeve and pipe on both pipe ends.
- D. Pipe Passing Through Quarry Tile, Terrazzo, or Ceramic Tile Floors:
  1. Brass pipe.
  2. Connect sleeve with floor plate.
- E. Pipe Passing Through Mechanical, Laundry, and Animal Room Floors above Basement:
  1. Galvanized steel pipe or black iron pipe with asphalt coating.
  2. Connect sleeve with floor plate except in mechanical rooms.
- F. Clearances:
  1. Provide allowance for insulated piping.
  2. Wall, Floor, Floor, Partitions, and Beam Flanges: 1 inch (25 mm) greater than external; pipe diameter.
  3. Rated Openings: Caulked tight with firestopping material complying with ASTM E814 in accordance with Section 078400 to prevent the spread of fire, smoke, and gases.

2.05 PIPE SLEEVE-SEAL SYSTEMS
- A. Modular Mechanical Seals:
  1. Elastomer-based interlocking links to continuously fill annular space between pipe and wall-sleeve, wall or casing opening.
  2. Watertight seal between pipe and wall-sleeve, wall or casing opening.
  3. Size and select seal component materials in accordance with service requirements.
  4. Service Requirements:
     a. Corrosion resistant.
     b. Oil, fuel, gas, and solvent resistant.
     c. Underground, buried, and wet conditions.
  5. Glass-reinforced plastic pressure end plates.
- B. Wall Sleeve: PVC material with waterstop collar, and nailer end caps.
- C. Sleeve-Forming Disk: Nonconductive plastic-based material, 3 inch (76.2 mm) thick.
- D. Pipeline-Casing Seals:
  1. Coated-metallic boltless casing-spacer for 4 inch (100 mm) carrier pipe.
  2. End Seals: 1/8 inch (3.1 mm), pull-on type, rubber or synthetic rubber based.

2.06 FIRE-RATED ENCLOSURES
- A. Provide as required to preserve fire resistance rating of building elements.

2.07 ESCUTCHEONS
- A. Material:
  1. Metals and Finish: Comply with ASME A112.18.1.
- B. Construction:
  1. One-piece for mounting on chrome-plated tubing or pipe and one-piece or split-pattern type elsewhere.
  2. Internal spring tension devices or setscrews to maintain a fixed position against a surface.

2.08 PIPE HANGERS AND SUPPORTS
- A. Hangers for Pipe Sizes 1/2 to 1-1/2 inch (15 to 40 mm): Malleable iron, adjustable swivel, split ring.
- B. Hangers for Pipe Sizes 2 inches (50 mm) and Over: Carbon steel, adjustable, clevis.
- C. Nonmetallic Piping Hangers:
- D. Multiple or Trapeze Hangers: Steel channels with welded spacers and hanger rods.
- E. Wall Support for Pipe Sizes to 3 inches (80 mm): Cast iron hook.
- F. Wall Support for Pipe Sizes 4 inches (100 mm) and Over: Welded steel bracket and wrought steel clamp.
- G. Vertical Support: Steel riser clamp.
- H. Floor Support: Cast iron adjustable pipe saddle, lock nut, nipple, floor flange, and concrete pier or steel support.
- I. Copper Pipe Support: Carbon steel ring, adjustable, copper plated.

2.09 EXPANSION JOINTS AND LOOPS - HOSE AND BRAID
- A. Provide flexible loops with two flexible sections of hose and braid, two 90-degree elbows, and 180-degree return with support bracket and air release or drain plug.
- B. Provide flexible loops capable of movement in the x, y, and z planes. Flexible loops to impart no thrust loads to the building structure.
- C. Flexible Connectors: Flanged, braided type with wetted components of stainless steel, sized to match piping.
  1. Maximum Allowable Working Pressure: 150 psig (1030 kPa) at 120 degrees F (49 degrees C).
  2. Accommodate the Following:
     a. Axial Deflection in Compression and Expansion: _____ inch (_____ mm).
     b. Lateral Movement: _____ inch (_____ mm).
     c. Angular Rotation: 15 degrees.
     d. Force developed by 1.5 times specified maximum allowable operating pressure.
  3. End Connections: Same as specified for pipe jointing.
  4. Provide necessary accessories including, but not limited to, swivel joints.

2.10 MECHANICAL COUPLINGS
- A. Rigid Mechanical Couplings for Grooved Joints:
  1. Dimensions and Testing: Comply with AWWA C606.
  2. Minimum Working Pressure: 300 psig (2065 kPa).
  3. Housing Material: Fabricate of ductile iron complying with ASTM A536.
  4. Housing Coating: Factory applied orange enamel.
  5. Gasket Material: EPDM suitable for operating temperature range from minus 30 degrees F (minus 34 degrees C) to 230 degrees F (110 degrees C).
  6. Bolts and Nuts: Hot-dipped-galvanized or zinc-electroplated steel.

2.11 MECHANICAL PRESSED FITTINGS
- A. Provide double-pressed type, utilizing EPDM, nontoxic, synthetic rubber sealing elements for use with Schedule 40 carbon steel piping.

2.12 PIPING SPECIALTIES
- A. Wet Pipe Sprinkler Alarm Valve: Check type valve with divided seat ring, rubber-faced clapper to automatically actuate water motor alarm, pressure retard chamber and variable pressure trim with the following additional capabilities and features:
  1. Activate electric alarm.
  2. Test and drain valve.
  3. Replaceable internal components without removing valve from installed position.
- B. Auxiliary Drains: Condensate collection drain for each section of trapped pipe in preaction or dry fire protection system.
- C. Backflow Preventer: Reduced-pressure principle valve assembly backflow preventer with drain and OS & Y gate valve on each end.
- D. Commercial Riser Manifold: Preassembled and tested riser manifold in accordance with NFPA 13.
- E. Corrosion Monitors:
- F. Test Connections:
  1. Combination Inspector's Test Connection and Drain Valve:
     a. Provide test connections approximately 6 feet (2 m) above floor for each or portion of each sprinkler system equipped with an alarm device, located at most remote part of each system.
     b. Route combination test connection and drain valve to an open-site drain location, excluding janitor sinks, accepting full flow without negative consequences.
     c. Supply discharge orifice with same size as corresponding sprinkler orifice.
     d. Limit vertical height of exterior wall penetration to 2 feet (0.61 m) above finished grade.
  2. Backflow Preventer Test Connection:
     a. Provide downstream of the backflow prevention assembly, listed hose valves with 2.5-inch (65 mm) National Standard male hose threads with cap and chain.
     b. Provide one valve for each 250 gpm (16 L/sec) of system demand or fraction thereof.
     c. Provide permanent sign reading "Test Valve." See Section 210553.
- G. Electric Alarm: Electrically operated chrome-plated gong with pressure alarm switch.
- H. Water Flow Switch: Vane-type switch for mounting horizontally or vertically, with two contacts; rated 10 A at 125 VAC and 2.5 A at 24 VDC.
- I. Fire Department Connections:
  1. Type: Free standing made of corrosion-resistant metal complying with UL 405.
     a. Inlets: Two-way, 2-1/2 inch (65 DN) swivel fittings, internal threaded. Thread size and inlets according to NFPA 1963 or authority having jurisdiction. Brass caps with gaskets, chains, and lugs.
     b. Finish: Chrome.
     c. Sleeve: Brass, 18-inch (460 mm) height.
     d. Signage: Raised or engraved lettering 1 inch (25.4 mm), minimum, indicating system type.
- J. Supervisory Switches:
  1. Manufacturers:
     a. Potter Electric Signal Company, LLC; CoilKeeper Solenoid Supervisory Switch: www.pottersignal.com/#sle.
- K. Water Level Supervisory Switches:

  3. Use hangers with 1-1/2 inch (40 mm) minimum vertical adjustment. Design hangers for pipe movement without disengagement of supported pipe.
  4. Support vertical piping at every other floor. Support riser piping independently of connected horizontal piping.
  5. Where several pipes can be installed in parallel and at same elevation, provide multiple or trapeze hangers.
  6. Provide copper plated hangers and supports for copper piping.
  7. Prime coat exposed steel hangers and supports. Hangers and supports located in crawl spaces, pipe shafts, and suspended ceiling spaces are not considered exposed.
     a. Painting of interior fire suppression systems is specified in Section 099123.
     b. Painting of exterior fire suppression systems is specified in Section 099113.
- I. Slope piping and arrange systems to drain at low points. Use eccentric reducers to maintain top of pipe level.
- J. Prepare pipe, fittings, supports, and accessories for finish painting. Where pipe support members are welded to structural building framing, scrape, brush clean, and apply one coat of zinc-rich primer to welding.
  1. Painting of interior fire suppression systems is specified in Section 099123.
  2. Painting of exterior fire suppression systems is specified in Section 099113.
- K. Structural Considerations:
  1. Do not penetrate building structural members unless indicated.
  2. Locate flexible expansion loops at or near the building seismic joint.
- L. Provide sleeves when penetrating footings, floors, walls, and partitions. Seal pipe including sleeve penetrations to achieve fire resistance equivalent to fire separation required.
  1. Underground Piping: Caulk pipe sleeve watertight with lead and oakum or mechanically expandable chloroprene inserts with bitumen sealed metal components.
  2. Aboveground Piping:
     a. Pack solid using mineral fiber complying with ASTM C592.
     b. Fill space with an elastomer caulk to a depth of 0.50 inch (15 mm) where penetrations occur between conditioned and unconditioned spaces.
  3. All Rated Openings: Caulk tight with firestopping material complying with ASTM E814 in accordance with Section 078400 to prevent the spread of fire, smoke, and gases.
  4. Caulk exterior wall sleeves watertight with lead and oakum or mechanically expandable chloroprene inserts with mastic-sealed components.
- M. Manufactured Sleeve-Seal Systems:
  1. Install manufactured sleeve-seal systems in sleeves located in grade slabs and exterior concrete walls at piping entrances into building.
  2. Provide sealing elements of the size, quantity, and type required for the piping and sleeve inner diameter or penetration diameter.
  3. Locate piping in center of sleeve or penetration.
  4. Install field assembled sleeve-seal system components in annular space between sleeve and piping.
  5. Tighten bolting for a watertight seal.
  6. Install in accordance with manufacturer's recommendations.
- N. Escutcheons:
  1. Install and firmly attach escutcheons at piping penetrations into finished spaces.
  2. Provide escutcheons on both sides of partitions separating finished areas through which piping passes.
  3. Use chrome plated escutcheons in occupied spaces and to conceal openings in construction.
- O. When installing more than one piping system material, ensure system components are compatible and joined to ensure the integrity of the system. Provide necessary joining fittings. Ensure flanges, unions, and couplings for servicing are consistently provided.

3.03 CLEANING
- A. Upon completion of work, clean all parts of the installation.
- B. Clean equipment, pipes, valves, and fittings of grease, metal cuttings, and sludge that may have accumulated from the installation and testing of the system.

END OF SECTION

STUDIO 45 ARCHITECTS
1648 Southwest Blvd Tulsa, OK 74107
www.s45architects.com

CORTEZ FLATS
1329 EAST 17th STREET
TULSA, OKLAHOMA

100% CONSTRUCTION DOCUMENTS

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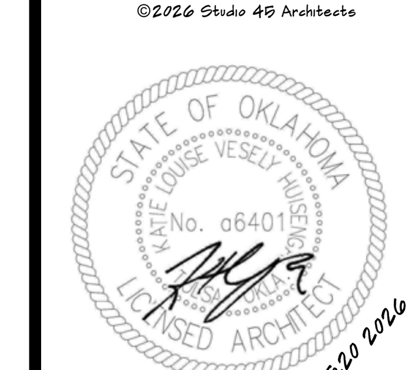

PROJECT NO: 100-253
ISSUE DATE: 05/20/2026

FIRE PROTECTION SPECIFICATIONS

FP-101

SECTION 210523
GENERAL-DUTY VALVES FOR WATER-BASED FIRE-SUPPRESSION PIPING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Two-piece ball valves with indicators.
B. Bronze butterfly valves with indicators.
C. Iron butterfly valves with indicators.
D. Check valves.
E. Bronze OS&Y gate valves.
F. Iron OS&Y gate valves.
G. NRS gate valves.
H. Indicator posts.
I. Trim and drain valves.

1.02 RELATED REQUIREMENTS

A. Section 078400 - Firestopping.
B. Section 210548 - Vibration and Seismic Controls for Fire Suppression Piping and Equipment.
C. Section 210553 - Identification for Fire Suppression Piping and Equipment.
D. Section 211100 - Facility Fire-Suppression Water-Service Piping.
E. Section 211200 - Fire-Suppression Standpipes.
F. Section 211300 - Fire-Suppression Sprinkler Systems.
G. Section 260583 - Wiring Connections: Electrical characteristics and wiring connections.
H. Section 284600 - Fire Detection and Alarm.

1.03 ABBREVIATIONS AND ACRONYMS

A. EPDM: Ethylene-propylene diene monomer.
B. NRS: Non-rising stem.
C. OS&Y: Outside screw and yoke.
D. PTFE: Polytetrafluoroethylene.

1.04 REFERENCE STANDARDS

A. ASME B1.20.1 - Pipe Threads, General Purpose, Inch; 2013 (Reaffirmed 2018).
B. ASME B16.1 - Gray Iron Pipe Flanges and Flanged Fittings: Classes 25, 125, and 250; 2020.
C. ASME B16.42 - Ductile Iron Pipe Flanges and Flanged Fittings: Classes 150 and 300; 2021.
D. ASME BPVC-IX - Boiler and Pressure Vessel Code, Section IX - Qualification Standard for Welding, Brazing, and Fusing Procedures; Welders; Brazers; and Welding, Brazing, and Fusing Operators; 2023.
E. AWWA C550 - Protective Interior Coatings for Valves and Hydrants; 2024.
F. AWWA C606 - Grooved and Shouldered Joints; 2022.
G. FM (AG) - FM Approval Guide; Current Edition.
H. FM 1110 - Approval Standard for Indicator Posts; 1990.
I. FM 1112 - Examination Standard for Indicating Valves (Butterfly or Ball Type); 2020.
J. FM 1120/1130 - Approval Standard for Fire Service Water Control Valves (OS&Y and NRS Gate Valves); 1997.
K. FM 1140 - Approval Standard for Quick Opening Valves 1/4 Inch through 2 Inch Nominal Size; 1998.
L. FM 1210 - Approval Standard for Swing Check Valves; 2004.
M. UL (DIR) - Online Certifications Directory; Current Edition.

N. UL 258 - Shutoff Valves for Trim and Drain Purposes for Fire Protection Service; Current Edition, Including All Revisions.
O. UL 262 - Gate Valves for Fire-Protection Service; Current Edition, Including All Revisions.
P. UL 312 - Check Valves for Fire-Protection Service; Current Edition, Including All Revisions.
Q. UL 789 - Indicator Posts for Fire-Protection Service; Current Edition, Including All Revisions.
R. UL 1091 - Standard for Butterfly Valves for Fire-Protection Service; Current Edition, Including All Revisions.

1.05 ADMINISTRATIVE REQUIREMENTS

A. Preinstallation Meeting: Conduct a preinstallation meeting one week prior to the start of the work of this section; require attendance by all affected installers.

1.06 SUBMITTALS

A. See Section 013000 - Administrative Requirements for submittal procedures.
B. Product Data: Provide data on valves including manufacturers catalog information. Submit performance ratings, rough-in details, weights, support requirements, and piping connections.
C. Warranty: Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.
D. Operation and Maintenance Data: Include manufacturer's descriptive literature, operating instructions, maintenance and repair data, and parts listings.

1.07 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with at least than ten years of documented experience.
B. Installer Qualifications: Company specializing in performing work of type specified and with at least five years of documented experience.
C. Where listed products are specified, provide products listed, certified, and labeled by FM (AG), UL (DIR), or testing firm acceptable to authorities having jurisdiction as suitable for purpose indicated.
D. Welding Materials and Procedures: Comply with ASME BPVC-IX.

1.08 DELIVERY, STORAGE, AND HANDLING

A. Prepare valves for shipping as follows:
   1. Protect internal parts against rust and corrosion.
   2. Protect valve ends and flange faces.
   3. Set valves open to minimize exposure of functional surfaces.
B. Use the following precautions during storage:
   1. Maintain valve end protection and protect flanges and specialties from dirt.
      a. Provide temporary inlet and outlet caps.
      b. Maintain caps in place until installation.
   2. Store valves in shipping containers and maintain in place until installation.
      a. Store valves indoors and maintain at higher than ambient dew point temperature.
      b. If outdoor storage is unavoidable, store valves off the ground in watertight enclosures.
C. Use the following precautions for handling:
   1. Use sling to handle large valves, rig to avoid damage to exposed parts.
   2. Do not use operating handles or stems as lifting or rigging points.

PART 2 PRODUCTS

2.01 GENERAL REQUIREMENTS

A. Source Limitations: Furnish valves of same kind by same manufacturer.
B. Valve-End Connections:
   1. Flanges on Iron Valves: ASME B16.1 or ASME B16.42.
   2. Threaded Ends: ASME B1.20.1.
   3. Grooved Ends: AWWA C606.
C. Valve Pressure Ratings: Not less than minimum pressure rating indicated or higher as required.

D. Valve Sizes: Same as upstream piping unless otherwise indicated.
E. Valve Actuator Types:
   1. Worm-gear actuator with handwheel for quarter-turn valves, except trim and drain valves.
   2. Handwheel: For other than quarter-turn trim and drain valves.
   3. Hand-lever: For quarter-turn trim and drain valves 2 NPS (50 DN) and smaller.

2.02 TWO PIECE BALL VALVES WITH INDICATORS

A. UL 1091 and FM 1112 listed.
B. Description:
   1. Minimum Pressure Rating: 175 psig (1200 kPa).
   2. Body Design: Two piece.
   3. Body Material: Forged brass or bronze.
   4. Port Size: Full or standard.
   5. Seat: PTFE.
   6. Stem: Bronze or stainless steel.
   7. Ball: Chrome-plated brass.
   8. Actuator: Worm gear or traveling nut.
   9. End Connections: Threaded or grooved.

2.03 BRONZE BUTTERFLY VALVES WITH INDICATORS

A. UL 1091 and FM 1112 listed.
B. Minimum Pressure Rating: 175 psig (1200 kPa).
C. Body Material: Bronze.
D. Seat: EPDM.
E. Stem: Bronze or stainless steel.
F. Disc: Bronze with EPDM coating or stainless steel.
G. Actuator: Worm gear or traveling nut.
H. Supervisory Switch: Internal or external.
I. End Connections: Threaded or grooved.

2.04 IRON BUTTERFLY VALVES WITH INDICATORS

A. UL 1091 and FM 1112 listed.
B. Minimum Pressure Rating: 175 psig (1200 kPa).
C. Body Material: Cast or ductile iron.
D. Seat: EPDM.
E. Stem: Stainless steel.
F. Disc: Ductile iron with EPDM coating.
G. Actuator: Worm gear or traveling nut.
H. Body Design: Grooved-end or wafer style.

2.05 SWING CHECK VALVES

A. UL 312 and FM 1210 listed.
B. Minimum Pressure Rating: 175 psig (1200 kPa).
C. Body Material: Cast or ductile iron.
D. Clapper: Bronze, EPDM-coated ductile iron, or stainless steel.
E. Seat: Bronze or EPDM-coated bronze.
F. End Connections: Flanged.

2.06 BRONZE OS&Y GATE VALVES

A. UL 262 and FM 1120/1130 listed.
B. Minimum Pressure Rating: 175 psig (1200 kPa).
C. Body and Bonnet Material: Bronze or brass.
D. Wedge: One-piece bronze or brass.

E. Wedge Seat: Bronze.
F. Stem: Bronze or brass.
G. Packing: Non-asbestos PTFE.
H. End Connections: Threaded.

2.07 IRON OS&Y GATE VALVES

A. UL 262 and FM 1120/1130 listed.
B. Minimum Pressure Rating: 175 psig (1200 kPa).
C. Body and Bonnet Material: Cast or ductile iron.
D. Wedge: Cast or ductile iron, or bronze with elastomeric coating.
E. Stem: Brass, bronze, or stainless steel.
F. Packing: Non-asbestos PTFE.
G. Supervisory Switch: External.

2.08 IRON NRS GATE VALVES

A. UL 262 and FM 1120/1130 listed.
B. Minimum Pressure Rating: 175 psig (1200 kPa).
C. Body and Bonnet Material: Cast or ductile iron.
D. Wedge: Cast or ductile iron with elastomeric coating.
E. Stem: Brass or bronze.
F. Packing: Non-asbestos PTFE.
G. Operation:
   1. Operating nut for post-indicating valves.
   2. Handwheel for non-post-indicating valves.
H. Post Plate: Provide for post-indicating valves.

2.09 INDICATOR POSTS

A. Underground Indicator Posts:
   1. UL 789 and FM 1110 listed, ground-mounted indicator post for operating buried sprinkler-system isolation valves, with fixed or telescoping barrel.
   2. Barrel Standpipe Material: Carbon steel or ductile iron.
   3. Telescoping Top Barrel for Adjustable Length Indicator Posts: Carbon steel, cast iron, or ductile iron.
   4. Post Head: Cast or ductile iron.
   5. Operation: Locking wrench.
   6. Finish: AWWA C550 epoxy coating.

2.10 TRIM AND DRAIN VALVES

A. Ball Valves:
   1. Description:
      a. UL 258 or FM 1140 listed.
      b. Pressure Rating: 175 psig (1200 kPa).
      c. Body Design: Two piece.
      d. Body Material: Forged brass or bronze.
      e. Port Size: Full or standard.
      f. Seat: PTFE.
      g. Stem: Bronze or stainless steel.
      h. Ball: Chrome-plated brass.
      i. Actuator: Hand-lever.
      j. End Connections: Threaded or grooved.
B. Angle Valves:
   1. Description:
      a. UL 258 or FM 1140 listed.
      b. Pressure Rating: 175 psig (1200 kPa).
      c. Body Material: Brass or bronze.

      d. Ends: Threaded.
      e. Stem: Bronze.
      f. Disc: Bronze.
      g. Packing: Asbestos free.
      h. Handwheel: Malleable iron, bronze, or aluminum.
C. Globe Valves:
   1. Description:
      a. UL 258 or FM 1140 listed.
      b. Pressure Rating: 175 psig (1200 kPa).
      c. Body Material: Bronze with integral seat and screw-in bonnet.
      d. Ends: Threaded.
      e. Stem: Bronze.
      f. Disc Holder and Nut: Bronze.
      g. Disc Seat: Nitrile.
      h. Packing: Asbestos free.
      i. Handwheel: Malleable iron, bronze, or aluminum.

PART 3 EXECUTION

3.01 EXAMINATION

A. Confirm valve interior to be free of foreign matter and corrosion.
B. Remove packing materials.
C. Examine guides and seats by operating valves from the fully open position to the fully closed position.
D. Examine valve threads and mating pipe for form and cleanliness.
E. Examine mating flange faces for conditions that might cause leakage.
   1. Check bolting for proper size, length, and material.
   2. Verify gasket for size, defects, damage, and suitable material composition for service.
F. Replace defective valves with new valves.

3.02 INSTALLATION

A. Install valves in accessible locations to allow for operation, inspections, tests, and maintenance.
B. Install listed valves in accordance with their listing.
C. Install valves in accordance with manufacturer's instructions.
D. Support valves independently of adjacent piping.
E. Install valves in horizontal piping with stem at or above pipe center.
F. Position valves to allow full actuator movement.
G. Install OS&Y valves with full clearance for rising stem. Install surrounding components so they do not interfere with nor are they impacted by full extension of rising stem.
H. Install supervised shutoff valves in supervised-open position.
I. Install permanent identification signs indicating portion of system controlled by each shutoff valve.
J. Install threaded-end valves with unions upstream and downstream.
K. Install valve tags. See Section 210553. Label valves in accordance with NFPA standard applying to the piping system in which valves are installed.

END OF SECTION

SECTION 210553
IDENTIFICATION FOR FIRE SUPPRESSION PIPING AND EQUIPMENT

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Nameplates.
B. Tags.
C. Stencils.
D. Pipe markers.
E. Ceiling tacks.

1.02 RELATED REQUIREMENTS

A. Section 099123 - Interior Painting: Stencil paint.

1.03 REFERENCE STANDARDS

A. ASME A13.1 - Scheme for the Identification of Piping Systems; 2023.
B. ASTM D709 - Standard Specification for Laminated Thermosetting Materials; 2017.

1.04 SUBMITTALS

A. See Section 013000 - Administrative Requirements, for submittal procedures.
B. List: Submit list of wording, symbols, letter size, and color coding for mechanical identification.
C. Chart and Schedule: Submit valve chart and schedule, including valve tag number, location, function, and valve manufacturer's name and model number.
D. Product Data: Provide manufacturers catalog literature for each product required.
E. Samples: Submit two labels ____ by ____ inch (____ by ____ mm) in size.
F. Manufacturer's Installation Instructions: Indicate special procedures, and installation instructions.
G. Project Record Documents: Record actual locations of tagged valves.

PART 2 PRODUCTS

2.01 IDENTIFICATION APPLICATIONS

A. Automatic Controls: Tags.
B. Control Panels: Nameplates.
C. Instrumentation: Tags.
D. Major Control Components: Nameplates.
E. Piping: Tags.
F. Pumps: Nameplates.
G. Relays: Tags.
H. Small-sized Equipment: Tags.
I. Thermostats: Nameplates.
J. Valves: Nameplates and ceiling tacks where above lay-in ceilings.

2.02 NAMEPLATES

A. Description: Laminated three-layer plastic with engraved letters.
   1. Letter Color: White.
   2. Letter Height: 1/4 inch (6 mm).
   3. Background Color: Black.
   4. Thickness: 1/8 inch (3 mm).

   5. Plastic: Comply with ASTM D709.

2.03 TAGS

A. Plastic Tags: Laminated three-layer plastic with engraved black letters on light contrasting background color. Tag size minimum 1-1/2 inch (40 mm) diameter.
B. Metal Tags: Brass with stamped letters; tag size minimum 1-1/2 inch (40 mm) diameter with smooth edges.
C. Valve Tag Chart: Typewritten letter size list in anodized aluminum frame.

2.04 STENCILS

A. Stencils: With clean cut symbols and letters of following size:
   1. 3/4 to 1-1/4 inch (20-30 mm) Outside Diameter of Insulation or Pipe: 8 inch (200 mm) long color field, 1/2 inch (15 mm) high letters.
   2. 1-1/2 to 2 inch (40-50 mm) Outside Diameter of Insulation or Pipe: 8 inch (200 mm) long color field, 3/4 inch (20 mm) high letters.
   3. 2-1/2 to 6 inch (65-150 mm) Outside Diameter of Insulation or Pipe: 12 inch (300 mm) long color field, 1-1/4 inch (30 mm) high letters.
   4. 8 to 10 inch (200-250 mm) Outside Diameter of Insulation or Pipe: 24 inch (600 mm) long color field, 2-1/2 inch (65 mm) high letters.
   5. Over 10 inch (250 mm) Outside Diameter of Insulation or Pipe: 32 inch (800 mm) long color field, 3-1/2 inch (90 mm) high letters.
   6. Equipment: 2-1/2 inch (65 mm) high letters.
B. Paint for Stencils: As specified in Section 099123, semi-gloss enamel, colors complying with ASME A13.1.

2.05 PIPE MARKERS

A. Color: Comply with ASME A13.1.
B. Plastic Pipe Markers: Factory fabricated, flexible, semi- rigid plastic, preformed to fit around pipe or pipe covering; minimum information indicating flow direction arrow and identification of fluid being conveyed.
C. Plastic Tape Pipe Markers: Flexible, vinyl film tape with pressure-sensitive adhesive backing and printed markings.
D. Underground Plastic Pipe Markers: Bright-colored continuously printed plastic ribbon tape, minimum 6 inches (150 mm) wide by 4 mil, 0.004 inch (0.10 mm) thick, manufactured for direct burial service.
E. Color code as follows:
   1. Fire Quenching Fluids: Red with white letters.

2.06 CEILING TACKS

A. Description: Steel with 3/4 inch (20 mm) diameter color coded head.
B. Color code as follows:

PART 3 EXECUTION

3.01 PREPARATION

A. Degrease and clean surfaces to receive adhesive for identification materials.
B. Prepare surfaces in accordance with Section 099123 for stencil painting.

3.02 INSTALLATION

A. Install nameplates with corrosive-resistant mechanical fasteners, or adhesive. Apply with sufficient adhesive to ensure permanent adhesion and seal with clear lacquer.
B. Install tags with corrosion resistant chain.
C. Apply stencil painting in accordance with Section 099123.

D. Install plastic pipe markers in accordance with manufacturer's instructions.
E. Install plastic tape pipe markers complete around pipe in accordance with manufacturer's instructions.
F. Install underground plastic pipe markers 6 to 8 inches (150 to 200 mm) below finished grade, directly above buried pipe.
G. Use tags on piping 3/4 inch (20 mm) diameter and smaller.
   1. Identify service, flow direction, and pressure.
   2. Install in clear view and align with axis of piping.
   3. Locate identification not to exceed 20 feet (6 m) on straight runs including risers and drops, adjacent to each valve and Tee, at each side of penetration of structure or enclosure, and at each obstruction.
H. Locate ceiling tacks to locate valves above T-bar type panel ceilings. Locate in corner of panel closest to equipment.

3.03 SCHEDULES

A. Equipment Type:
   1. Identification:
   2. Background:
      a. Size:
      b. Color:
   3. Lettering:
      a. Size:
      b. Color:

END OF SECTION

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TULSA, OKLAHOMA

100% CONSTRUCTION DOCUMENTS

MARK	DESCRIPTION	DATE

STATE OF OKLAHOMA LICENSED ARCHITECT No. 06401
05.20.2026

PROJECT NO. 100-253
ISSUE DATE: 05/20/2026

FIRE PROTECTION SPECIFICATIONS

FP-102

SECTION 210719
FIRE SUPPRESSION PIPING INSULATION

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Piping insulation.

1.02 RELATED REQUIREMENTS

A. Section 078400 - Firestopping.
B. Section 099113 - Exterior Painting: Painting insulation jacket.
C. Section 099123 - Interior Painting: Painting insulation jacket.
D. Section 210716 - Fire Suppression Equipment Insulation.

1.03 REFERENCE STANDARDS

A. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2023d.
B. UL 723 - Standard for Test for Surface Burning Characteristics of Building Materials; Current Edition, Including All Revisions.

1.04 SUBMITTALS

A. See Section 013000 - Administrative Requirements, for submittal procedures.
B. Manufacturer's Instructions: Indicate installation procedures that ensure acceptable workmanship and installation standards will be achieved.

1.05 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with not less than three years of documented experience.
B. Applicator Qualifications: Company specializing in performing the type of work specified in this section with minimum __________ years of experience.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Accept materials on site, labeled with manufacturer's identification, product density, and thickness.

1.07 FIELD CONDITIONS

A. Maintain ambient conditions required by manufacturers of each product.
B. Maintain temperature before, during, and after installation for minimum of 24 hours.

PART 2 PRODUCTS

2.01 REGULATORY REQUIREMENTS

A. Surface Burning Characteristics: Flame spread index/Smoke developed index of 25/50, maximum, when tested in accordance with ASTM E84 or UL 723.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that piping has been tested before applying insulation materials.
B. Verify that surfaces are clean and dry, with foreign material removed.

3.02 INSTALLATION

A. Install in accordance with manufacturer's instructions.
B. Install in accordance with NAIMA National Insulation Standards.
C. Exposed Piping: Locate insulation and cover seams in least visible locations.

3.03 SCHEDULE

A. Piping Exposed to Freezing with Heat Tracing:

END OF SECTION

SECTION 211200
FIRE-SUPPRESSION STANDPIPES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Valves.
B. Fire department connections.

1.02 RELATED REQUIREMENTS

A. Section 014100 - Regulatory Requirements.
B. Section 017800 - Closeout Submittals: Project record documents, operation and maintenance (O&M) data, warranties and bonds.
C. Section 210500 - Common Work Results for Fire Suppression: Fire protection piping.
D. Section 210523 - General-Duty Valves for Water-Based Fire-Suppression Piping.
E. Section 210553 - Identification for Fire Suppression Piping and Equipment.
F. Section 211300 - Fire-Suppression Sprinkler Systems.
G. Section 213000 - Fire Pumps.

1.03 REFERENCE STANDARDS

A. ASTM A536 - Standard Specification for Ductile Iron Castings; 1984, with Editorial Revision (2019).
B. ASTM B61 - Standard Specification for Steam or Valve Bronze Castings; 2015 (Reapproved 2021).
C. NFPA 10 - Standard for Portable Fire Extinguishers; 2022.
D. NFPA 14 - Standard for the Installation of Standpipe and Hose Systems; 2024.
E. NFPA 1963 - Standard for Fire Hose Connections; 2019.
F. UL 405 - Standard for Safety Fire Department Connection Devices; Current Edition, Including All Revisions.
G. UL (DIR) - Online Certifications Directory; Current Edition.

1.04 SUBMITTALS

A. Product Data: Provide manufacturer's catalog sheet for equipment indicating rough-in size, finish, and accessories.
B. Shop Drawings: Indicate supports, components, accessories, and sizes.
   1. Submit shop drawings and product data to Owner's insurance underwriter for approval.
   2. Submit proof of approval to Architect.
C. Project Record Documents: Record actual locations of components.
D. Operation Data: Include appropriate manufacturer's data.
E. Maintenance Data: Include servicing requirements and test schedule.
F. Certificates: Provide certificate of compliance from authority having jurisdiction indicating approval of field acceptance tests.

1.05 QUALITY ASSURANCE

A. Perform Work in accordance with NFPA 14. Maintain one copy on site.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Deliver and store products in shipping packaging until installation.

1.07 WARRANTY

A. See Section 017800 - Closeout Submittals for additional warranty requirements.
B. Correct defective Work within a five year period after Date of Substantial Completion.
C. Provide five year manufacturer warranty for ____________.

PART 2 PRODUCTS

2.01 VALVES

A. General Duty Valves: See Section 210523.
B. Specialty Valves:
   1. Hose Station Valve:
      a. Angle type, brass finish, 1-1/2 inch NPS (40 mm, DN) with automatic ball drip.
   2. Hose Connection Valve:
      a. Angle type; brass finish; 2-1/2 inch NPS (65 mm, DN), thread to match fire department hardware, 300 psi (2,070 kPa) working pressure, with threaded cap and chain of same material and finish.
   3. Function: Reduce high inlet pressure down to an adjustable preset output maintained independent of flow rate fluctuations.
   4. Pilot Operated Control Valves:
      a. Size: 1-1/2 to 8 inch, NPS (40 to 200 mm, DN), flanged or grooved end-connections.
      b. Type: Field adjustable in-line valve rated for 400 psi (2,760 kPa) inlet pressure with outlet discharge field-set to system pressure.
      c. Construction:
         1) Body: ASTM A536, ductile iron, grade 65-45-12.
         2) Internal Ferrous Materials: Coated with 4 mils, 0.004 inch (0.10 mm) of epoxy.
         3) External Surface Coating: 4 mils, 0.004 inch (0.10 mm) of epoxy and fire red enamel.
         4) Main Valve Seat Ring: ASTM B61, bronze.
         5) Stem: Stainless Steel.
         6) Elastomers for Diaphragms, Resilient seats, and O-rings: Buna-N.
         7) Pilot Control: ASTM B61, bronze with stainless steel trim and pressure gages.
   5. In-line or Angle Hose Valves:
      a. Cast bronze, 2-1/2 inch, NPS (65 mm, DN) handwheel operated globe valve with grooved or threaded end connections, rated for 400 psi (2,760 kPa) inlet pressure with outlet discharge field-set to hose inlet pressure.
   6. In-line or Angle Floor Control Valves:
      a. Cast bronze, 2-1/2 inch, NPS (65 mm, DN) handwheel operated globe valve with grooved or threaded end connections, rated for 400 psi (2,760 kPa) maximum inlet pressure with outlet discharge field-set to system inlet pressure. Provide integral normally-open supervisory switch, cap, and chain.

2.02 FIRE DEPARTMENT CONNECTIONS

A. Type: Free standing made of corrosion resistant metal complying with UL 405.
   1. Outlet: Bottom with pipe threads, 4 inch NPS (100 mm, DN).
   2. Finish: Chrome.
   3. Sleeve: Brass, 18 inches (460 mm) height.
   4. Signage: Raised or engraved lettering 1 inch (25.4 mm) minimum indicating system type.

PART 3 EXECUTION

3.01 INSTALLATION

A. Install in accordance with manufacturer's instructions.
B. Install in accordance with NFPA 14.
C. Locate hose station valve in cabinet at 60 inches (1500 mm) above finished floor.
D. Connect standpipe system to water source ahead of domestic water connection.
E. Flush entire system of foreign matter.

3.02 FIELD QUALITY CONTROL

A. Perform field inspection and testing (Field Acceptance Test) in accordance with Section 014000.
B. Test entire system in accordance with NFPA 14.
C. Test shall be witnessed by Fire Marshal.

END OF SECTION

SECTION 211300
FIRE-SUPPRESSION SPRINKLER SYSTEMS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Wet-pipe sprinkler system.
B. System design, installation, and certification.
C. Fire department connections.

1.02 RELATED REQUIREMENTS

A. Section 078400 - Firestopping.
B. Section 078700 - Smoke Containment Barriers: Smoke and fire curtains to be released by activation of sprinkler system.
C. Section 210500 - Common Work Results for Fire Suppression: Pipe and fittings.
D. Section 210523 - General-Duty Valves for Water-Based Fire-Suppression Piping.
E. Section 210553 - Identification for Fire Suppression Piping and Equipment.
F. Section 211200 - Fire-Suppression Standpipes.
G. Section 213000 - Fire Pumps.

1.03 REFERENCE STANDARDS

A. FM (AG) - FM Approval Guide; Current Edition.
B. ICC-ES AC01 - Acceptance Criteria for Expansion Anchors in Masonry Elements; 2018, with Editorial Revision (2020).
C. ICC-ES AC106 - Acceptance Criteria for Predrilled Fasteners (Screw Anchors) in Masonry; 2018, with Editorial Revision (2020).
D. ICC-ES AC193 - Acceptance Criteria for Mechanical Anchors in Concrete Elements; 2017, with Editorial Revision (2020).
E. ICC-ES AC308 - Acceptance Criteria for Post-Installed Adhesive Anchors in Concrete Elements; 2023.
F. NFPA 13 - Standard for the Installation of Sprinkler Systems; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
G. NFPA 1963 - Standard for Fire Hose Connections; 2019.
H. UL (DIR) - Online Certifications Directory; Current Edition.
I. UL 405 - Standard for Safety Fire Department Connection Devices; Current Edition, Including All Revisions.

1.04 SUBMITTALS

A. See Section 013000 - Administrative Requirements for submittal procedures.
B. Product Data: Provide data on sprinklers, valves, and specialties, including manufacturers catalog information. Submit performance ratings, rough-in details, weights, support requirements, and piping connections.
C. Shop Drawings:
   1. Submit preliminary layout of finished ceiling areas indicating only sprinkler locations coordinated with ceiling installation.
   2. Indicate hydraulic calculations, detailed pipe layout, hangers and supports, sprinklers, components, and accessories. Indicate system controls.
   3. Submit shop drawings to Authorities Having Jurisdiction for approval. Submit proof of approval to Architect.

D. Manufacturer's Certificate: Certify that system has been tested and meets or exceeds specified requirements and code requirements.
E. Designer's qualification statement.
F. Manufacturer's qualification statement.
G. Installer's qualification statement.
H. Operation and Maintenance Data: Include components of system, servicing requirements, record drawings, inspection data, replacement part numbers and availability, and location and numbers of service depot.
I. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
   1. See Section 016000 - Product Requirements for additional provisions.
   2. Extra Sprinklers: Type and size matching those installed in quantity required by referenced NFPA design and installation standard.
   3. Sprinkler Wrenches: For each sprinkler type.
J. Project Record Documents: Record actual locations of sprinklers and deviations of piping from drawings. Indicate drain and test locations.

1.05 QUALITY ASSURANCE

A. Comply with FM (AG) requirements.
B. Designer Qualifications: Design system under direct supervision of a Professional Engineer experienced in design of this type of work and licensed in the State in which the Project is located.
C. Manufacturer Qualifications: Company specializing in manufacturing the Products specified in this section with minimum three years documented experience.
D. Installer Qualifications: Company specializing in performing the work of this section with minimum _____ years experience and approved by manufacturer.
E. Equipment and Components: Provide products that bear FM (AG) label or marking.
F. Products Requiring Electrical Connection: Listed and classified by UL (DIR) as suitable for the purpose specified and indicated.

1.06 MOCK-UP

A. Provide components for installation in mock-up.

1.07 DELIVERY, STORAGE, AND HANDLING

A. Store products in shipping containers and maintain in place until installation. Provide temporary inlet and outlet caps. Maintain caps in place until installation.

PART 2 PRODUCTS

2.01 SPRINKLER SYSTEM

A. Sprinkler System: Provide coverage for entire building.
B. Occupancy: Light hazard; comply with NFPA 13.
C. Water Supply: Determine volume and pressure from water flow test data.
D. Storage Cabinet for Spare Sprinklers and Tools: Steel, located adjacent to alarm valve.
E. Pipe Hanger Fasteners: Attach hangers to structure using appropriate fasteners, as follows:
   1. Concrete Wedge Expansion Anchors: Complying with ICC-ES AC193.
   2. Masonry Wedge Expansion Anchors: Complying with ICC-ES AC01.
   3. Concrete Screw Type Anchors: Complying with ICC-ES AC193.
   4. Masonry Screw Type Anchors: Complying with ICC-ES AC106.
   5. Concrete Adhesive Type Anchors: Complying with ICC-ES AC308.

2.02 SPRINKLERS

A. Suspended Ceiling Type: Semi-recessed pendant type with matching push on escutcheon plate.
   1. Response Type: Quick.
   2. Coverage Type: Standard.
   3. Finish: Brass.
   4. Escutcheon Plate Finish: Chrome plated.
   5. Fusible Link: Fusible solder link type temperature rated for specific area hazard.
B. Exposed Area Type: Pendant type with guard.
   1. Response Type: Quick.
   2. Coverage Type: Standard.
   3. Finish: Brass.
   4. Fusible Link: Fusible solder link type temperature rated for specific area hazard.
C. Sidewall Type: Semi-recessed horizontal sidewall type with matching push on escutcheon plate.
   1. Response Type: Quick.
   2. Coverage Type: Standard.
   3. Fusible Link: Fusible solder link type temperature rated for specific area hazard.
D. Dry Sprinklers: Concealed pendant type with matching push on escutcheon plate.
   1. Response Type: Quick.
   2. Fusible Link: Fusible solder link type temperature rated for specific area hazard.
E. Storage Sprinklers: Pendant type with guard.
   1. Response Type: Standard.
   2. Coverage Type: Standard.
   3. Fusible Link: Fusible solder link type temperature rated for specific area hazard.
F. Flexible Drop System: Stainless steel, multiple use, open gate type.
   1. Application: Use to properly locate sprinkler heads.
   2. Include all supports and bracing.
   3. Provide braided type tube as required for the application.
   4. Manufacturers:
      a. FlexHead Industries, a brand of Anvil International; ______: www.anvilintl.com/#sle.
      b. Victaulic Company; Vic-Flex: www.victaulic.com/#sle.

2.03 PIPING SPECIALTIES

A. Wet Pipe Sprinkler Alarm Valve: Check type valve with divided seat ring, rubber-faced clapper to automatically actuate water motor alarm, pressure retard chamber and variable pressure trim with the following additional capabilities and features:
   1. Activate electric alarm.
   2. Test and drain valve.
B. Backflow Preventer: Reduced pressure principle valve assembly backflow preventer with drain and OS & Y gate valve on each end.
C. Test Connections:
   1. Inspector's Test Connection for Preaction Systems:
      a. Provide test connections approximately 6 ft (2 m) above floor for each or portion of each sprinkler system equipped with an alarm device, located at the most remote part of each system.
      b. Route test connection to an open-site drain location, excluding janitor sinks, accepting full flow without negative consequences.
      c. Supply discharge orifice with same size as corresponding sprinkler orifice.
      d. Limit vertical height of exterior wall penetration to 2 ft (0.61 m) above finished grade.
   2. Backflow Preventer Test Connection:

      a. Provide downstream of the backflow prevention assembly, listed hose valves with 2.5 inch (65 mm) National Standard male hose threads with cap and chain.
      b. Provide permanent sign reading "Test Valve" in accordance with Section 210553.
D. Electric Alarm: Electrically operated chrome plated gong with pressure alarm switch.
E. Supervisory Switches:

PART 3 EXECUTION

3.01 INSTALLATION

A. Install in accordance with referenced NFPA design and installation standard.
B. Install equipment in accordance with manufacturer's instructions.
C. Locate fire department connection with sufficient clearance from walls, obstructions, or adjacent siamese connectors to allow full swing of fire department wrench handle.
D. Locate outside alarm gong on building wall as indicated.
E. Place pipe runs to minimize obstruction to other work.
F. Place piping in concealed spaces above finished ceilings.
G. Center sprinklers in two directions in ceiling tile and provide piping offsets as required.
H. Apply masking tape or paper cover to ensure concealed sprinklers, cover plates, and sprinkler escutcheons do not receive field paint finish. Remove after painting. Replace painted sprinklers.
I. Flush entire piping system of foreign matter.
J. Hydrostatically test entire system.
K. Require test be witnessed by Fire Marshal.

3.02 INTERFACE WITH OTHER PRODUCTS

A. Ensure required devices are installed and connected as required to fire alarm system.

END OF SECTION

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MARK	DESCRIPTION	DATE

STATE OF OKLAHOMA · LICENSED ARCHITECT · No. 06401 · 05.20.2026

PROJECT NO. 100-253
ISSUE DATE: 05/20/2026

FIRE PROTECTION SPECIFICATIONS

FP-103