



SCHEMATIC DESIGN REVIEW

PROPOSED CANCER TREATMENT CENTER





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June 26, 2023



PROJECT NARRATIVE **SCHEMATIC DESIGN PHASE**



Cancer Treatment Center
3180 College Street
Beaumont, TX 77701

Design Team:

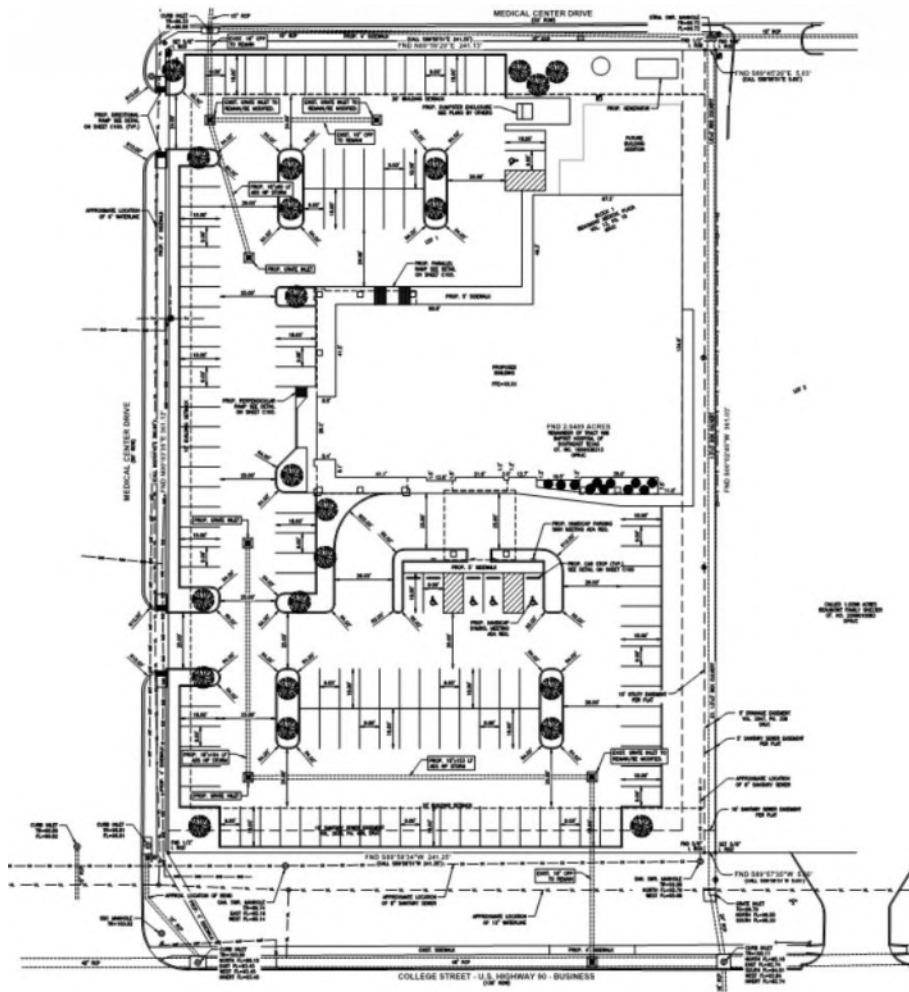
Architect – Architectural Alliance, Inc.
Civil Engineer – Leavins Engineering & Design, LLC
MEP Engineer – Smith Seckman Reid, Inc.
Structural Engineer – Smith Seckman Reid, Inc.
Envelope & Roof Consultant – Price Consulting, Inc.
Commissioning – Smith Seckman Reid, Inc.

Project Overview:

A 3-story wood framed brick veneer building and surrounding paving will be demolished and replaced with a new 3-story Cancer Treatment Center building and new parking lot.



Approximately 130 parking spaces, plus an ambulance drop-off zone will be provided, with 13 landscaped islands / peninsulas as required by the City of Beaumont's Landscaping Ordinance. Additional parking will be available at a location across Medical Center Drive that is co-owned by Baptist Hospital.



The Cancer Treatment Center will be an Off-Campus Provider-Based department of the Hospital as determined by CMS. Therefore, the facility will not be inspected by the Texas Department of Health and Human Services.

The facility will be financed by HUD under the Hospital Mortgage Insurance Program, Section 242 of the National Housing Act. Mary Gavin with Gavin & Levine will be the HUD liaison.

The facility will be constructed under a Construction Manager At Risk (CMaR) arrangement. The CMaR has not been selected at this time.

Owner Approved Space Programming

Floor 1 Space Program

Description	Size		Remarks
LinAc Vault	3690	sf	
LinAc Waiting	incl in above		
LinAcc Pt Restroom	incl in above		
LinAc Staff Restroom	incl in above		
Storage	incl in above		
Control	incl in above		
Pt Dressing Rm 1	incl in above		
Pt Dressing Rm 2	incl in above		
Mech Rm	100	sf	
Dosimetry	150	sf	added 3/8
CT Scan	600	sf	replaced Brachytherapy w/ CT 3/8
CT Control	75	sf	replaced Brachytherapy w/ CT 3/8. Decreased to 75 on 3/20
Mold Rm	60	sf	added 3/8
Chapel	0	sf	Removed 3/20
Regstn check in	175	sf	3 stations
Check out	150	sf	2 stations
Waiting Rm	540	sf	Seat 30 @ 18 sf per person. Determined number 3/8
Public Mens	240	sf	Decreased to 240 on 3/20
Public Womens	240	sf	Decreased to 240 on 3/20
Gift Shop	0	sf	Removed 3/20
Rao's Coffee Kiosk	0	sf	added 3/8. Removed 3/20
Resource Room 1	100	sf	added 3/8. Decrease 10 100sf 3/20
Resource Room 2	100	sf	added 3/8. Decrease 10 100sf 3/20
Game Room	0	sf	added 3/8 Removed 3/32
Janitor	100	sf	
Triage 1	60	sf	added 3/8. Increased to 60 sf 3/20
Triage 2	60	sf	added 3/8. Increased to 60 sf 3/20
Rad Exam 1	120	sf	
Rad Exam 2	120	sf	
Rad Exam 3	120	sf	
Rad Exam 4	120	sf	

Rad Exam 5	120	sf	
Rad Storage	100	sf	
Rad Nurse Stn	200	sf	3 to 4 nurses. Determined number 3/8
Med Room w/ Pyxis	80	sf	added 3/8
Clean Utility Room	120	sf	added 3/8
Soiled Utility Room	120	sf	added 3/8
Scope Cleaning Clean Side	75	sf	added 3/8
Scope Cleaning Dirty Side	75	sf	added 3/8
Phlebotomy Lab	250	sf	reduced 50 sf to allow for Quest Lab below 3/8
Quest Lab	100	sf	added 3/8. Increased to 100 sf 3/20
Social Worker & Triage Nurse	175	sf	changed 3/9
Genetics Navigator	100	sf	changed 3/9. Decreased to 100sf 3/20
Financial Couns	0	sf	Removed 3/20
Admin Office	100	sf	reduced size from 250 to 150 3/8. Reduced to 100sf 3/20
Admin Storage	100	sf	Reduced to 100sf 3/20
Phys Office 1	100	sf	reduced size from 200 to 150 3/8. Reduced to 100sf 3/20
Phys Office 2	100	sf	reduced size from 200 to 150 3/8 Reduced to 100sf 3/20
NP Office	100	sf	added 3/8 Reduced to 100sf 3/20
Rad Director Office	100	sf	added 3/8 Reduced to 100sf 3/20
Staff Lounge	400	sf	
Staff Restroom 1	75	sf	
Staff Restroom 2	75	sf	added 3/8
Elev 1	100	sf	
Elev 2	100	sf	
Stair 1	250	sf	
Stair 2	250	sf	
Elect Rm	200	sf	
Mech Rm	1000	sf	Reduced to 1000sf 3/32
Circulation Grossing Factor 37%	4249.45	sf	Adjusted 3/20

15734.5

Floor 2 Space Program

Description	Size		Remarks
Waiting Room	360	sf	20 chairs
Registration Check-in	225	sf	3 stations added 3/9
Check-Out	300	sf	4 station near each provider added 3/9
Triage 1	60	sf	added 3/8 Added 20sf 3/20

Triage 1	60	sf	added 3/8 Added 20sf 3/20
Chemo Exam 1	100	sf	reduced size from 150 sf to 120sf. 3/8. Reduce to 100sf 3/20
Chemo Exam 2	100	sf	reduced size from 150 sf to 120sf. 3/8. Reduce to 100sf 3/20
Chemo Exam 3	100	sf	reduced size from 150 sf to 120sf. 3/8. Reduce to 100sf 3/20
Chemo Exam 4	100	sf	reduced size from 150 sf to 120sf. 3/8. Reduce to 100sf 3/20
Chemo Exam 5	100	sf	reduced size from 150 sf to 120sf. 3/8. Reduce to 100sf 3/20
Chemo Exam 6	100	sf	reduced size from 150 sf to 120sf. 3/8. Reduce to 100sf 3/20
Chemo Exam 7	100	sf	reduced size from 150 sf to 120sf. 3/8. Reduce to 100sf 3/20
Chemo Exam 8	100	sf	reduced size from 150 sf to 120sf. 3/8. Reduce to 100sf 3/20
Chemo Exam 9	100	sf	reduced size from 150 sf to 120sf. 3/8. Reduce to 100sf 3/20
Chemo Exam 10	100	sf	reduced size from 150 sf to 120sf. 3/8. Reduce to 100sf 3/20
Chemo Exam 11	100	sf	reduced size from 150 sf to 120sf. 3/8. Reduce to 100sf 3/20
Chemo Exam 12	100	sf	reduced size from 150 sf to 120sf. 3/8. Reduce to 100sf 3/20
Chemo Exam 13	100	sf	reduced size from 150 sf to 120sf. 3/8. Reduce to 100sf 3/20
Chemo Exam 14	100	sf	reduced size from 150 sf to 120sf. 3/8. Reduce to 100sf 3/20
Chemo Exam 15	100	sf	reduced size from 150 sf to 120sf. 3/8. Reduce to 100sf 3/20
Chemo Exam 16	100	sf	reduced size from 150 sf to 120sf. 3/8. Reduce to 100sf 3/20
Chemo Exam 17	100	sf	reduced size from 150 sf to 120sf. 3/8. Reduce to 100sf 3/20
Chemo Exam 18	100	sf	reduced size from 150 sf to 120sf. 3/8. Reduce to 100sf 3/20
Chemo Procedure 1	100	sf	reduced size from 150 sf to 120sf. 3/8. Reduce to 100sf 3/20
Chemo Procedure 2	100	sf	reduced size from 150 sf to 120sf. 3/8. Reduce to 100sf 3/20
Phys Office 1	100	sf	reduced size from 150 sf to 120sf. 3/8. Reduce to 100sf 3/20

Phys Office 2	100	sf	reduced size from 150 sf to 120sf. 3/8. Reduce to 100sf 3/20
Phys Office 3	100	sf	reduced size from 150 sf to 120sf. 3/8. Reduce to 100sf 3/20
Phys Office 4	100	sf	reduced size from 150 sf to 120sf. 3/8. Reduce to 100sf 3/20
NP Office 1	100	sf	Reduce to 100sf 3/20
NP Office 2	100	sf	Reduce to 100sf 3/20
NP Office 3	100	sf	Reduce to 100sf 3/20
NP Office 4	100	sf	Reduce to 100sf 3/20
NP Office 5	100	sf	Reduce to 100sf 3/20
Onc Nurse Stn 1	300	sf	Dr Naqvi 5MA 4 RN added 3/9
Onc Nurse Stn 2	200	sf	4 staff added 3/9
Onc Nurse Stn 3	200	sf	4 staff added 3/9
Onc Nurse Stn 4	200	sf	4 staff added 3/9
Onc Pt Restroom 1	75	sf	
Onc Pt Restroom 2	75	sf	
Onc Pt Restroom 3	75	sf	
Onc Pt Restroom 4	75	sf	
Onc Storage	150	sf	
Staff Lounge	250	sf	
Staff Restroom 1	75	sf	
Staff Restroom 2	75	sf	
Staff Restroom 3	75	sf	
Pt Restroom 1	0	sf	Removed 3/20
Pt Restroom 2	0	sf	Removed 3/20
Pt Restroom 3	0	sf	Removed 3/20
Pt Restroom 4	0	sf	Removed 3/20
Triage Nurse 1 accommodate 3	150	sf	added 3/9. Reduce to 150sf 3/20
Triage Nurse 2 accommodate 3	150	sf	added 3/9. Reduce to 150sf 3/20
Admin Assistant	100	sf	added 3/9. Reduce to 150sf 3/20
Clinical Manager	150	sf	added 3/9
Information Nurse	100	sf	added 3/9 Reduce to 100sf 3/20
Navigator 7 cubicles	410	sf	added 3/9
Dietician accommodate 3	200	sf	added 3/9
Chaplan	0	sf	added 3/9. Removed 3/20
Cancer Registry accommodate 4	0	sf	added 3/9. Removed 3/20;work from home
Accreditation	100	sf	added 3/9. Reduced to 100sf 3/20
Gift of Life 1	-	-	To stay at JBR. Determined 3/8
Gift of Life 2	-	-	To stay at JBR. Determined 3/8
Gift of Life 3	-	-	To stay at JBR. Determined 3/8

Revenue Cycle Cubicles	-	-	To stay at JBR. Determined 3/8
Admin Conference Rm	500	sf	increased size from 300 sf to 500 sf 3/8
Admin Lounge	0	sf	Removed 3/20
Admin Restroom	75	sf	
Janitor	75	sf	
Storage	150	sf	
Clean Linen	80	sf	added 3/9
Soiled Utility	80	sf	added 3/9
Janitor	80	sf	
Elev 1	100	sf	
Elev 2	100	sf	
Stair 1	250	sf	
Stair 2	250	sf	
Elect Rm	200	sf	
Mech Rm	1000	sf	Reduced to 1000sf 3/32
Circulation Grossing Factor 37%	3339.25	sf	Adjusted 3/20

13369

Floor 3 Space Program

Description	Size		Remarks
Infusion Bay 1	65	sf	Reduced size from 100sf.
Infusion Bay 2	65	sf	" "
Infusion Bay 3	65	sf	" "
Infusion Bay 4	65	sf	" "
Infusion Bay 5	65	sf	" "
Infusion Bay 6	65	sf	" "
Infusion Bay 7	65	sf	" "
Infusion Bay 8	65	sf	" "
Infusion Bay 9	65	sf	" "
Infusion Bay 10	65	sf	" "
Infusion Bay 11	65	sf	" "
Infusion Bay 12	65	sf	" "
Infusion Bay 13	65	sf	" "
Infusion Bay 14	65	sf	" "
Infusion Bay 15	65	sf	" "
Infusion Bay 16	65	sf	" "
Infusion Bay 17	65	sf	" "
Infusion Bay 18	65	sf	" "
Infusion Bay 19	65	sf	" "
Infusion Bay 20	65	sf	" "
Infusion Bay 21	65	sf	" "
Infusion Bay 22	65	sf	" "

Infusion Bay 23	65	sf	" "
Infusion Bay 24	65	sf	" "
Infusion Bay 25	65	sf	" "
Infusion Bay 26	65	sf	" "
Infusion Bay 27	65	sf	" "
Infusion Bay 28	65	sf	" "
Infusion Bay 29	65	sf	" "
Infusion Bay 30	65	sf	" "
Infusion Bay 31	65	sf	" "
Infusion Bay 32	65	sf	" "
Infusion Bay 33	65	sf	" "
Infusion Bay 34	65	sf	" "
Infusion Bay 35	65	sf	" "
Infusion Bay 36	65	sf	" "
Private Infusion 1	100	sf	Added 3/8
Private Infusion 2	100	sf	Added 3/8
Private Infusion 3	100	sf	Added 3/8
Private Infusion 4	100	sf	Added 3/8
Chemo Nrs Stn 1	100	sf	Reduced to 100sf 3/20
Chemo Nrs Stn 2	100	sf	Reduced to 100sf 3/20
Chemo Nrs Stn 3	100	sf	Reduced to 100sf 3/20
Chemo Nrs Stn 4	100	sf	Reduced to 100sf 3/20
Chemo Nrs Stn 5	100	sf	Reduced to 100sf 3/20
Central Med Rm w/ Pyxix 1	50	sf	added 3/8
Central Med Rm w/ Pyxix 2	50	sf	added 3/8
Nourishment Station 1	50	sf	added 3/8
Nourishment Station 2	50	sf	added 3/8
Pharmacy	1500	sf	Gay Lynne to verify with Aly
Specialty Pharmacy	150	sf	Gay Lynne to verify with Aly. Added 3/8
Pt Waiting	500	sf	
Registration Check-in	150	sf	Added 3/8. Changed 3/9 to 2 stations
Check-Out	150	sf	2 stations Added 3/8
Pt Restroom 1	75	sf	
Pt Restroom 2	75	sf	
Pt Restroom 3	75	sf	
Pt Restroom 4	75	sf	
Chemo Nurse Educ Office	100	sf	added 3/8. Reduced to 100sf 3/20
Staff Lounge	200	sf	added 3/8. Reduced to 200sf 3/20
Staff Restroom 1	75	sf	added 3/8
Staff Restroom 2	75	sf	added 3/8
BioHaz Closet	75	sf	Gay Lynne to verify # red boxes to store
Game Room	100	sf	added 3/8.flr 1 to Flr 2. Reduced to 100sf 3/20

Activity Room-Pt Enrich Coord	200	sf	added 3/9 Reduced to 200sf 3/20
Parlevel for Oxygen	250	sf	added 3/9. Increased to 250sf 3/20
Clean Linen	0	sf	added 3/9 Removed 3/20
Soiled Utility	120	sf	added 3/9
Janitor	80	sf	
Elev 1	100	sf	
Elev 2	100	sf	
Stair 1	250	sf	
Stair 2	250	sf	
Elect Rm	200	sf	
Mech Rm	1000	sf	Reduced to 1000sf 3/32
Circulation Grossing Factor 30%	2809.5	sf	Adjusted 3/20
12175			

Space Program Summary

First Floor – 15,822 sf

- Radiation Therapy

 - Waiting Room

 - 5 Exam Rooms

 - CT Scan

 - LINAC (Single Vault with plans for 2nd Vault future addition)

 - Phlebotomy

 - Staff Offices

 - Support Areas

Second Floor – 13,766 sf

- Oncology Clinic (4 Physicians and 5 Nurse Practitioners)

 - Waiting Room

 - 18 Exam Rooms

 - 2 Procedure Rooms

 - 4 Nurse Stations

 - Staff Offices

Third Floor – 13,766 sf

- Infusion and Pharmacy

 - Waiting Room

 - 34 Infusion Bays

 - 4 Private Infusion Rooms

 - 3 Nurse Stations

 - Staff Offices

 - Pharmacy

 - Haz Drug Compounding with 2 dual hoods USP800

 - Non-Haz Drug Compounding with 1 dual hood USP 797

 - Specialty Pharmacy

Penthouse – To be Determined

- Boilers

- Air Handler

Total – 43,354 sf + Penthouse

Preliminary Timeline:

Schematic Design	5/16/2023 to 6/26/2023
Owner Review/Approval	6/26/2023 to 7/3/2023
Design Development	7/3/2023 to 9/11/2023
CMaR Selection	July/Aug 2023
Owner Review/Approval	9/11/2023 to 9/18/2023
Construction Documents	9/18/2023 to 3/22/2024
50% Review	12/4/2023
80% Review	1/22/2024
100% Review	3/22/2024
Establish GMP	1/22/2024 to 2/21/2024
HUD Commitment	2/21/2024 to 3/22/2024
Owner Final Review/Approval	3/25/2024 to 3/29/2024
Subcontractor Bidding	4/1/2024 to 5/2/2024
Contracts / Approvals	5/6/2024 to 5/31/2024
Construction (Estimate)	6/3/2024 to 10/6/2025
Commissioning	9/15/2025 to 10/27/2025
Owner Move-In	10/6/2025 to 12/5/2025

OUTLINE SPECIFICATION

Division 00 – Procurement and Contract Requirements

- Construction Manager at Risk delivery method. Part A contract for preliminary services. Once GMP is established, Part B will be executed.
- HUD will need GMP provided when documents are 80% complete.
- All subcontracts to be publicly noticed. May prequalify bidders.
- Geotechnical report to be provided.

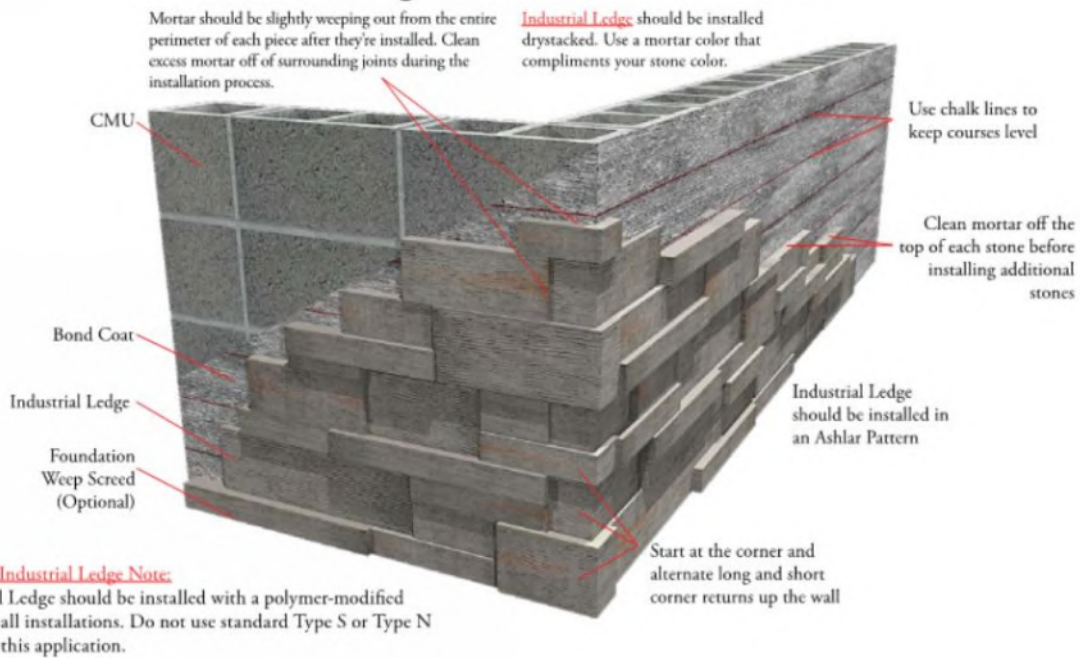
Division 01 – General Requirements

- Comply with HUD guidelines.
- Liquidated damages equal to .09 / \$1000 of GMP daily.
- Retainage 10% until project is 50% complete, then no retainage withheld.
- Davis-Bacon wages to be paid. CM to submit a letter with each pay application certifying the Davis Bacon wages have been paid to all workers.
- Release of Lien from CM and all subcontractors to be submitted with each pay application.
- No HUB participation required. EEOC compliance is required.
- Builder's Risk insurance by CMaR.
- CMaR to provide 100% P&P Bond.
- Owner's Contingency of 10% to be included in GMP
- CM Contingency not allowed. Include an "Unallocated Buy-Out" contingency in GMP

Division 04 – Masonry

- Normal weight Concrete Masonry Units with horizontal galvanized reinforcing at 16" centers (every other crs) and vertical reinforcing.
- Manufactured Stone Veneer – Coronado Stone Products, Industrial Ledge. Adhered to CMU with polymer-modified mortar, drystacked.

Industrial Ledge Over CMU Construction



Division 05 – Metals

- Class A structural steel with bar joists spanning between wide flange beams.
- Steel deck with reinforced concrete
- Steel pan stair with concrete filled treads.
- 1 ½" O.D. steel handrails and guardrails primed and painted.

Division 06 – Wood, Plastics and Composites

- Wood blocking
- Plastic laminate clad architectural cabinets with solid surface tops and splash.
170 degree European hinges and Blum Metabox drawers.

Division 07 – Thermal and Moisture Protection

- R-13 fiberglass batt insulation with R-5ci exterior walls
- 3 ½" sound batt insulation interior walls
- Weather barrier envelope exterior walls
- Zinc metal siding singles cladding, diamond shape, flat lock panels over weather barrier
- Aluminum Composite Metal Panels (ACM) over weather barrier
- Windstorm rated Modified Bitumen Roof system over R-25ci tapered insulation on light weight concrete deck.

Division 08 – Openings

- Raco style aluminum door and interior window frames
- Hollow metal exterior door frames with insulated hollow metal doors.
- Plastic laminate clad solid core wood doors
- Aluminum framed entrance and storefront

- Sliding automatic entrance doors
- Kawneer 1600 #1 Impact Rated curtain wall 2 ½" x 7 13/16" clear anodized aluminum framing with 1 5/16" insulated impact glass to comply with Energy Code. Spandrel glass at each floor and above ceiling lines. Design exterior cladding for -50 psf wind loads. Max. 32 sf per lite of glass.
- Kawneer Versoleil clear anodized aluminum sun shade outrigger system on west, south and east exterior exposures.
- Kawneer IR501T storefront punched openings with 1 5/16" impact glass. Frame size 2 ¾" x 5" anodized aluminum.
- Kalwall translucent roof panel Porte Cochere.
- Mortised door hardware, Grade 1. Von Duprin exit device. Norton ADA closer. Continuous Hinge and heavy-duty butt hinge. HES electric strike.
- Control Access system with proximity card reader.

Division 09 – Finishes

1. 5/8" Type "X" gypsum board on metal studs. 1-hr partitions around all chases (stairs, elevator shaft, mechanical chase, etc.)
2. 2x2 acoustical ceiling in 15/16" white grid
3. Sheet vinyl floor and flashed cove base in Pharmacy
4. Luxury Vinyl Tile
5. Level 4 finish walls. 1 coat primer, 2 coats eggshell paint.
6. Epoxy painted gypsum board ceilings in Pharmacy Haz and Non-Haz compounding Rooms.
7. Porcelain tile floors and walls in restrooms.
8. FRP smooth finish wall panels throughout Pharmacy.

Division 10 – Specialties

- Illuminated signage on front of building. Cast alum address sign, min 4" height.
- Room identification signage ADA.
- Wayfinding signage
- Floor mounted overhead braced Phenolic Toilet partitions and urinal screens.
- Stainless steel toilet accessories
- Baby changing station in each public restroom
- Semi-recessed fire extinguisher cabinets with 10lb multi-purpose extinguisher.
- Stainless steel work surfaces in Pharmacy

Division 14 – Conveying Equipment

- Three hospital elevators to be provided.
- 4000 lb 150 fpm Otis Elevator Gen3 machine roomless elevator or equal.

Division 31 - Earthwork

- Remove X ft of soil and replace with compacted select fill as per Geotechnical Recommendations.
- Drilled concrete piers and shafts

Division 32 – Exterior Improvements

- 3000 PSI concrete paving reinforced with #3 rebar for parking and sidewalks.
- 8" steel bollards filled with concrete and covered with plastic post covers.

Applicable Codes:

- 2021 International Building Code
- 2021 International Existing Building Code
- 2021 International Energy Conservation Code
- 2021 International Fuel Gas Code
- 2021 Uniform Plumbing Code
- 2021 International Mechanical Code
- 2021 International Fire Code
- 2020 National Electrical Code
- 2020 ICC 600 Standard for Residential Construction in High Wind Regions Code
- 2012 NFPA 101 Life Safety
- 2006 “The Guidelines for Design and Construction of Healthcare Facilities”
- Texas Accessibility Standards
- Americans with Disabilities Act (ADA)
- Section 504 of the Rehabilitation Act
- DOJ 2010 Standards for Accessible Design
- DOJ Title II & Title III of the ADA

2021 INTERNATIONAL BUILDING CODE REVIEW

BASIC BUILDING DESCRIPTION:

Type of Construction = IIIB

Building has an NFPA13 sprinkler system. (903.3.1.1)

Allowable area and height based on different uses not being separated by fire barriers. Most restrictive height and area used. (508.3.2)

ADDRESS IDENTIFICATION:

Buildings shall be provided with approved address identification. The address identification shall be legible and placed in a position that is visible from the street or road fronting the property. Characters shall be Arabic numbers or alphabetical letters. Numbers shall not be spelled out. Each character shall be not less than 4 inches high and not less than 0.5 inch wide. They shall be installed on a contrasting background. When required by the fire official, address numbers shall be provided in additional approved locations. When access is by a private road and the building address cannot be view from the public way, a monument, pole or other approved sign shall be used to identify the structure. (502.1)

SITE DESCRIPTION: (506.3.2 and 202 FIRE SEPARATION DISTANCE)

The north side has a lot line. Distance to lot line = 65.0

Length of perimeter facing lot line = 241.0 This side can be accessed from a street or approved fire lane.

The east side has a lot line. Distance to lot line = 15.0

Length of perimeter facing lot line = 361.0 This side is not accessible from a street or approved fire lane.

The south side has a lot line. Distance to lot line = 168.0

Length of perimeter facing lot line = 241.0 This side can be accessed from a street or approved fire lane.

The west side has a lot line. Distance to lot line = 67.0

Length of perimeter facing lot line = 361.0 This side can be accessed from a street or approved fire lane.

Perimeter of the entire building = 1,204.0 feet.

Perimeter which fronts a public way or accessible open space = 843.0 feet.

Frontage increase based the smallest open space that is 20 feet or greater 65.0 feet.

and percent of building perimeter having a minimum open space of 20 feet. 70% (506.3.2)

Allowable area increased 50.00% due to frontage. (506.3.3)

HEIGHT OF BUILDING:

Actual height of building = 57.00 ft Allowed building height = 75.00 ft The height is within the allowed height. (504.3 and Table 504.3)

BUILDING INTERIOR:

ALLOWABLE AREA AND HEIGHT:

FL	NAME	OCC	MAX FLR	AREA	ALLOWED	RATIO	STATUS
F3	Clinic-outpatient	B	4	13766	66500	0.21	OK
TOTAL FOR FLOOR				13766	66500	0.21	OK
F2	Clinic-outpatient	B	4	13766	66500	0.21	OK
TOTAL FOR FLOOR				13766	66500	0.21	OK
F1	Clinic-outpatient	B	4	15822	66500	0.24	OK
TOTAL FOR FLOOR				15822	66500	0.24	OK
BUILDING TOTAL				43354	266000	0.16	OK

Notes:

Allowable area is based on Table 506.2 and Section 506.

Allowable number of stories is based on Table 504.4 and Section 504

Allowed area increased 50% for frontage increase. (506.3)

EXIT REQUIREMENTS:

FL	NAME OF AREA	NUMB OF OCC	MIN EXIT	MIN EXIT WDTH	PANIC HDWR	DOOR SWNG	CORRIDOR FIRE RATING	MAX TRVL DIST	NOTES
F3	Clinic-outpatient	92	2	13.8	no	OUT	NONE	300	1
	TOTAL 3rd FLOOR	92	2	13.8	no	OUT	N/A	300	5
F2	Clinic-outpatient	92	2	13.8	no	OUT	NONE	300	1 2
	TOTAL 2nd FLOOR	92	2	13.8	no	OUT	N/A	300	5
F1	Clinic-outpatient	105	2	15.8	no	OUT	NONE	300	1
	TOTAL 1st FLOOR	105	2	15.8	no	OUT	NONE	300	5

FOOTNOTES:

1. Two exits are required from this area since the occupant load exceeds allowable in Table 1006.2.1
2. Two exits are required from this area since the common path of egress limits in Table 1006.2.1
5. Number of exits from this floor is based on Section 1006.3.3

NOTES FOR EXIT TABLE:

Door swing is based on Section 1010.1.2.1

Occupant load is based on Section 1004 and Table 1004.5

Exit width is in inches and based on Sections 1005.3.1 and 1005.3.2

For the minimum width of stairways, see Section 1011.2.

Exits shall be continuous from the point of entry into the exit to the exit discharge. (1003.6)

Corridors shall have a ceiling height of not less than 7 feet 6 inches. (Sec. 1003.2)

The minimum corridor width is 44 inches.

The minimum corridor width is 36 inches where the occupant capacity is less than 50. (Table 1020.3)

If 'CORRIDOR RATING' = N/A

There is no corridor in this area.

If 'CORRIDOR RATING' = None

Walls and ceilings of corridors are not required to be fire-resistive unless they are required to be fire-resistive based construction type. (Table 1020.2)

There is no restriction as to the amount and type of openings unless protection of openings is required by some other code provision.

If 'CORRIDOR RATING' = 1 hour or 1/2 hr

Walls shall be fire-resistive -- Table 1020.2 Walls shall extend to the underside of the floor/roof slab or deck or to the fire-resistance rated floor/ceiling or roof/ceiling assembly above. (708.4)

Exception 2: Where the room-side membrane is carried through to the underside of a fire resistance rated floor or roof, the ceiling of the corridor shall be permitted to be protected by the use of ceiling materials as required for a 1-hour rated system or the ceiling shall be constructed as required for the corridor walls.

Door openings are required to be protected with 20 minute (1/3 hour) fire assemblies. (716.2 & Table 716.1(2))

Doors shall be self-closing or automatic-closing. -- Sec. 716.2.6.1

Doors shall have an active latch bolt that will secure the door when closed. -- Sec. 716.2.6.2

Window openings are required to be protected with labeled 45 minute (3/4-fire-hour) fire-assemblies. (716.3.4 & Table 716.1(3))

Exception: Glazing in 0.5-hour walls is permitted to have an 0.33-hour rating.

The total area of windows shall not exceed 25 percent of the area of a common wall with any room. (716.3.2.1.2)

Corridors shall not serve as supply, return, exhaust, relief or ventilation air ducts or plenums. (1020.6, See Exceptions)

Fire resistant corridors shall not be interrupted by intervening rooms. (1020.7)

Exception 1: Foyers, lobbies or reception rooms constructed as required for corridors.

Exception 2: Enclosed elevator lobbies as permitted by Item 1 of Section 1016.2.

Section 1020.5, Exception 2: In Groups B, E, F, I1, M, R1, R2 or U with an automatic sprinkler system, the

dead end of a corridor shall not exceed 50 feet.

DOOR SWING EXCEPTIONS:

Exception 5: Revolving doors complying with Section 1010.3.1

Exception 6: Horizontal sliding doors complying with Section 1010.3.3

Exception 7: Power-operated doors complying with Section 1010.3.2

EXIT WIDTH NOTES:

Exit width is in inches and based on Section 1005.2

Width shown for all areas is based on other egress components. (1005.3.2)

Width shown for 1st floor is based on other egress components. (1005.3.2)

Width shown for other floors & basements is based on stairways. (1005.3.1)

For the minimum width of doors, see Section 1010.1.1.

EGRESS CONTINUITY:

The path of egress travel along a means of egress shall not be interrupted by any building element other than a means of egress component. (1003.6)

EXIT SEPARATION:

In areas where 2 exits are required, the minimum separation is 1/3 of the maximum diagonal of the area or floor measured in a straight line between exits or exit access doorways. (1007.1.1, Exception 2)

Multiple means of egress shall be sized such that the loss of any one means of egress shall not reduce the available capacity by more than 50 percent. (1005.5)

CORRIDOR REQUIREMENTS:

1. Corridors shall have a ceiling height of not less than 7 feet 6 inches. (1003.2)

2. The minimum corridor width is 44 inches. Where the occupant capacity is less than 50, the minimum corridor width is 36 inches. (Table 1020.3)

The minimum width is 72 inches in corridors and areas serving stretcher traffic.

3. If fire-resistive rating is 1 hour or 1/2 hr, walls shall comply with Section 708 for fire partitions. (1020.2)

Walls shall extend to the underside of the floor/roof slab or deck or to the fire-resistance rated floor/ceiling or roof/ceiling assembly above. (708.4)

See Exceptions in Section 708.4.

4. Door openings are required to be protected with 20 minute fire assemblies. (716.2.2.1 & Table 716.1(2))

5. Doors shall be self-closing or automatic-closing. (716.2.6.1)

6. Doors shall have an active latch bolt that will secure the door when closed. (716.2.6.2)

7. Window openings are required to be protected with labeled 20 minute fire-assemblies. (716.2.5.3)

8. The total area of windows shall not exceed 25 percent of the area of a common wall with any room. (716.3.2.1.2)

9. Corridors shall not serve as supply, return, exhaust, relief or ventilation air ducts or plenums. (1020.6), See Exceptions

10. Fire resistant corridors shall not be interrupted by intervening rooms. (1020.7)

Exception 1: Foyers, lobbies or reception rooms constructed as required for corridors.

Exception 2: Enclosed elevator lobbies as permitted by Item 1 of Section 1016.2.

11. When more than one exit is required, exit access shall be arranged such that there are no dead ends in corridors more than 50 feet. (1020.5, Exception 2)

MEANS OF EGRESS ILLUMINATION:

1. The means of egress serving a room or space shall be illuminated at all times that the space or room is occupied. (1008.2)

2. The means of egress illumination shall not be less than 1 foot-candle at the walking surface level. (1008.2.1)

3. Illumination shall be provided along the path of travel for the exit discharge for each exit to the public way. (1008.2.3)

See exceptions

See section 1008.3 for emergency power requirements.

EXIT SIGNS:

Signs shall be placed where the exit or the path of egress travel is not readily visible. No point in a corridor or passageway to be more than 100 feet from an exit sign. (1013.1)

Exception 2: Main exterior exit doors which obviously and clearly are identifiable as exits need not be signed when approved.

A sign stating EXIT in raised characters and Braille shall be provided adjacent to each exit door. (1013.4)

Exit signs shall be internally or externally illuminated. (1013.3)

Exit sign shall be illuminated at all times including during loss of primary power. (1013.5 & 1013.6.3)

ADDITIONAL DOORS:

Where additional doors are provided for egress purposes, they shall conform to the requirements in Section 1010. (1010.1)

LANDINGS AT DOORS:

1. There shall be a floor or landing on each side of a door. (1010.1.4)

2. Such floor or landing shall be at the same elevation on each side of the door. (1010.1.4)

3. The floor or landing shall not be more than 1/2 inch lower than the threshold. (1010.1.6)

4. Landings shall have a width not less than the width of the stairway or width of the doorway, whichever is the greater.

Where a landing serves an occupant load of 50 or more, doors in any position shall not reduce the landing dimension to less than one half of the required width. The minimum length in the direction of exit travel is 44 inches. (1010.1.5)

5. The space between two doors in series shall be 48 inches plus the width of door swinging into the space. (1010.1.7)

BOLT LOCKS:

Manually operated flush bolts and surface bolts are not permitted. (1010.2.5)

Exception 3: Where a pair of doors serves an occupant load of less than 50, manually operated edge- or surface-mounted bolts are permitted on the inactive leaf. The inactive leaf shall contain no doorknobs, panic bars or similar operating hardware.

Exception 4: Manually operated edge- or surface-mounted bolts are permitted on the inactive leaf provided such inactive leaf is not needed to meet egress width requirements. The inactive leaf shall contain no doorknobs, panic bars or similar operating hardware.

Exception 2: Where a pair of doors serves a storage or equipment room, manually operated edge- or surface-mounted bolts are permitted on the inactive leaf.

Doors from individual dwelling or sleeping units having and occupant load of 10 or less are permitted to have a night latch, deadbolt or security chain when openable from the inside without key or tool. (1010.2.4)

#5) Closet doors that latch in the closed position shall be openable from the inside of the closet.

(1010.2.6) The unlatching of any door or leaf shall not require more than one motion in a single linear or rotational direction to release all locking devices. (1010.2.1)

Exception 2: Where manually operated bolt locks are permitted.

Exception 3: Doors with automatic flush bolts as permitted.

LOCKS AND LATCHES:

Egress doors shall be readily openable from the egress side without the use of a key or any special knowledge or effort. (1010.2)

Locks and latches shall be permitted to prevent operation where any of the following exists: (1010.2.4)

3. The main door or doors in Group B, F, M and S areas are permitted to be equipped with key operating locking devices from the egress side provided:

3.1 The locking device is readily distinguishable as locked.

3.2 A readily visible durable sign is posted on the egress side stating: THIS DOOR TO REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED

4. Where egress doors are used in pairs, automatic flush bolts shall be permitted to be used, provided the door leaf having the automatic flush bolts has no doorknob or surface-mounted hardware.

6. Fire doors after the minimum elevated temperature has disabled the unlatching mechanism.

7. Doors serving roofs not intended to be occupied may be locked to prevent entry from the roof.

8. See code for courts that are not egress courts.
10. Balconies, decks or other exterior spaces of 250 sq.ft. or less serving a private office.

STAIRWAY REQUIREMENTS:

1. The minimum width of a stairway is 44 inches. (1011.2)
Exception 1 If the occupant load is less than 50, the minimum width is 36 inches.
Check floor exit requirements above to see if minimum width is greater than 44 inches.
2. The riser heights shall not be less than 4 inches or greater than 7 inches. The minimum tread depth is 11 inches. (1011.5.2) The maximum variation is 3/8 inch between the largest and the smallest in a stairway flight. (1011.5.4)
Risers shall be solid. (1011.5.5.3)
3. Provide a handrail on each side of stairways. (1011.11)
4. Handrail height, measured above stair tread nosing, shall be not less than 34 inches and not more than 38 inches. (1014.2)
Type I: Handrails with a circular cross section shall have an outside diameter of at least 1.25 inches and not greater than 2 inches or shall provide equivalent graspability. If the handrail is not circular, it shall have a perimeter dimension of at least 4 inches and not greater than 6.25 inches with a maximum cross-section dimension of 2.25 inches. (1014.3.1)
Type II: See Section 1014.3.2 for larger handrails. Handrail-gripping surfaces shall be continuous without interruption by newel post or other obstructions. (1014.4)
Handrails shall return to a wall, guard or the walking surface or shall be continuous to the handrail of an adjacent stair flight. (1014.6)
Where handrails are not continuous between flights, the handrails shall extend horizontally at least 12 inches beyond the top riser and continue to slope for the depth of one tread beyond the bottom riser. (1014.6)
5. The minimum headroom clearance is 80 inches (6 ft.- 8 inches.) measured vertically from a line connecting the edge of the nosing. Headroom shall be continuous to the point where the line intersects the landing below. The minimum clearance shall be maintained the full width of the stairway and landing. (1011.3)
6. Enclosed usable space under the stairs is required to be protected by 1-hour fire-resistive construction or the fire-resistance rating of the stairway enclosure, whichever is greater. Access to the enclosed space shall not be directly from within the stair enclosure. (1011.7.3)
7. There shall be a floor or landing at the top and bottom of each stairway. Every landing shall have a minimum dimension measured in the direction of travel equal to the width of the stairway. Such dimension need not exceed 48 inches where the stairway has a straight run. (1011.6)
Doors opening onto a landing shall not reduce the landing to less than 1/2 of the required width. When fully open, door shall not project more than 7 inches into required width. (1011.6)
When wheelchair spaces are required on the stairway landing, wheelchair space shall not be located in the required width of the landing.
8. A flight of stairs shall not have a vertical rise greater than 12 feet between floor levels or landings. (1011.8)

GUARDS:

1. Open sides of walking surfaces, including stairs, ramps and landings, which are located more than 30 inches above the floor or grade below are required to have a guard. (1015.2)
2. Guards shall be not less than 42 inches high measured vertically above walking surface, ramp and the line connecting the leading edges of the tread nosing. (1015.3)
3. Guards and handrails shall be adequate in strength and attachment to resist a load of 50 pounds per linear foot applied at the top and to transfer this load through the supports to the structure. (1015.2, 1607.9.1 and ASCE-7 4.5.1.1)
Handrails and guards shall be able to resist a single concentrated load of 200 pounds, applied in any direction at any point along the top, and transfer this load through the supports to the structure. (1015.2, 1607.9.1.1 and ASEC-7 4.5.1)
4. Intermediate rails, balusters and panel fillers shall be designed to withstand a horizontally applied normal load of 50 pounds on an area equal to 1 square foot, including openings and space between rails. Reactions due to this loading are not required to be superimposed with loads above. (1015.2, 1607.9.1.2)

and ASEC-7 4.5.1.2)

5. The minimum height is 42 inches above the adjacent walking surfaces, adjacent fixed seating or the line connecting the leading edges of the treads. (1015.3)

6. Guards shall not have openings which allow passage of a sphere 4 inches in diameter from the walking surface to the required guard height. (1015.4)

Exception 1: From the height of 36 inches to 42 inches, guards shall not have openings which allow passage of a sphere 4 3/8 inches in diameter.

Exception 2: The triangular opening formed at the riser, tread and guardrail may be 6 inches.

AREAS OF REFUGE:

Areas of refuge are not required when an automatic sprinkler system is provided. (1009.3.3, Exception 2)

STAIRWAY ENCLOSURES:

1. Stairways are required to be enclosed with 1 hour fire barriers. (1023.2)

Stairways serve or atmospherically communicate between only two stories are not required to be enclosed. (1019.3, Exception 1)

In buildings with only Group B or M occupancies, stairways are not required to be enclosed if:

1. The area of the floor openings between stories does not exceed twice the horizontal projected area of the stairway.

2. The opening is protected by a draft curtain and closely spaced sprinklers. (1019.3, Exception 4)

The openings into the exit enclosure are required to be 1 hour fire assemblies. (Table 716.1(2))

Openings into enclosure are limited to those necessary for exit access to the enclosure from normally occupied spaces and for egress from the enclosure. (1023.4) Doors shall be self-closing or automatic closing. (716.2.6.1)

3. Exit enclosure must discharge directly to the exterior of the building. (1023.3 & 1028.1)

Exception: An exit enclosure shall be permitted to terminate at an exit passageway that terminates at an exit discharge or public way. (1023.3 Exception)

The combined use of Exceptions 1 and 2 shall not exceed 50 percent of the number and capacity of the required exits. (1028.1)

Exception 1:

A maximum of 50 percent of the number and capacity may exit through areas on the level of discharge provided all of the following are met: (1028.1)

1.1 There is a free and unobstructed way to the exterior that is readily visible and identifiable from the exit enclosure.

1.4 Where a required interior exit stairway and an exit access stairway serve the same floor level and terminate at the same level of exit discharge, the termination of the exit access stairway and the exit discharge door shall be separated by a distance of not less than 30 feet or not less than 1/4 of the length of the maximum diagonal of the building, whichever is less.

Exception 2:

A maximum of 50 percent of the number and minimum width or required capacity may exit through a vestibule provided all of the following are met: (1028.1)

2.2 The depth from the exterior of the building is not greater than 10 feet and the length is not greater than 30 feet.

2.3 The vestibule is separated from the remainder of the level of exit discharge using a 1 hour fire partition constructed per Section 708.

2.4 The vestibule is used only for means of egress and exits directly to the outside.

4. An exit enclosure shall not be used for any purpose other than means of egress. (1023.1)

Note: Where interior exit enclosures are extended to the exterior of the building by an exit passage way, fire-resistance of the exit passage way shall be the same as the enclosure. (1023.3.1)

ELEVATOR REQUIREMENTS:

1. An approved pictorial sign of a standardized design shall be posted adjacent to each elevator call station on all floors instructing occupants to use the exit stairways and not to use the elevators in case of fire. (3002.3)

Signs shall read: IN CASE OF FIRE, ELEVATORS ARE OUT OF SERVICE. USE EXIT STAIRS

Exception 1: Sign not required for elevators that are part of an accessible means of egress complying

with Section 1009.4

Exception 2: Sign not required for elevators that are used for occupant self-evacuation in accordance with Section 3008.

Elevators shall have a fire resistance rating. (3002.1)

Elevator shaft shall have a fire-resistance rating of not less than 1 hours. (713.4)

Exception: Exterior walls shall comply with exterior wall requirements. (707.4)

Openings shall be self-closing or automatic closing by smoke detection. (708.6 and 716.2.6.1)

Fire door assemblies are required to have a fire-protection rating of 1 1/2 hour. (Table 716.1(2))

Penetrations other than those necessary for the purpose of the shaft shall not be permitted. (713.8.1)

Elevators shall be provided with Phase I emergency recall operation and Phase II emergency in-car operation in accordance with ASME A17.1/CSA B44 (3003.2)

Protection of elevator hoistway door openings:

Protection of elevator hoistway door opening is not required. (3006.2)

Rated corridors:

Where corridors are required to be fire-resistance rated, elevator hoistway openings shall be protected in accordance with Section 3006.3. (3006.2.1)

BUILDING ACCESSIBILITY:

Accessible entrances and accessibility within the building shall comply with Sections 1104 and 1105.

On floors where drinking fountains are provided, accessible drinking fountains shall be provided.

No fewer than 2 drinking fountains shall be provided. One shall comply with the requirements for people in a

wheelchair and one for standing persons. (1110.5.1)

MINIMUM NUMBER OF PLUMBING FIXTURES: (2902.1)

FL	NAME OF AREA	NUMBER OCC	WATER CLOSETS		LAVATORIES		DRINKING FOUNTAINS
			MALE	FEMALE	MALE	FEMALE	
F3	Clinic-outpatient	92	2	2	2	2	1
TOTAL for 3rd FLOOR		92	2	2	2	2	1
F2	Clinic-outpatient	92	2	2	2	2	1
TOTAL for 2nd FLOOR		92	2	2	2	2	1
F1	Clinic-outpatient	105	3	3	2	2	2
TOTAL for 1st FLOOR		105	3	3	2	2	2

NOTES ON THE TOTAL NUMBER OF PLUMBING FIXTURES:

The number of fixtures for a floor may not match total number of fixtures per area.

1. Fixtures for accessory areas are not included in the floor total.

2. The number of fixtures for each area are rounded up to the next whole number. Floor totals are not rounded up until the floor total is obtained.

If the fixtures only serve an area, use number shown for each area.

If the fixtures serve an entire floor, use number shown for totals.

FIRE-RESISTANCE REQUIREMENTS:

FIRE-RESISTANCE RATING FOR EXTERIOR WALLS:

North Side:

Group B - Bearing walls = 2-hr Nonbearing walls = 0-hr rating on the inside. (705.5, Tables 601 & 705.5)

Bearing wall requires parapet, if wall is nonbearing, parapet not required (705.11, Exception 1)

Fire protection is not required at the bottom flange of lintels, shelf angles and plates, spanning not more than 6 feet 4 inches if they are part of the structural frame and regardless of the span if they are not part of the structural frame. (704.11)

Projections extending beyond the exterior wall cannot extend closer to than 40 inches to the fire separation distance line. (Table 705.2)

No limit on unprotected openings. There is no limit on protected openings. (Table 705.8)

Combustible projections extending within 5 feet of the line used to determine the fire separation distance shall be noncombustible, or at least 1-hour fire-resistive-rated construction or Type IVHT or fire-retardant-treated wood. (705.2.3)

East Side:

Group B - Bearing walls = 2-hr Nonbearing walls = 1-hr rating on the inside. (705.5, Tables 601 & 705.5)
Parapet or roof/ceiling protection required (705.11, Exception 4)

Fire protection is not required at the bottom flange of lintels, shelf angles and plates, spanning not more than 6 feet 4 inches if they are part of the structural frame and regardless of the span if they are not part of the structural frame. (704.11)

Projections extending beyond the exterior wall cannot extend closer to than 40 inches to the fire separation distance line. (Table 705.2)

Maximum unprotected openings = 75% of wall area. Maximum protected openings = 75% of wall area. (Table 705.8)

Combustible projections extending within 5 feet of the line used to determine the fire separation distance shall be noncombustible, or at least 1-hour fire-resistive-rated construction or Type IVHT or fire-retardant-treated wood. (705.2.3)

South Side:

Group B - Bearing walls = 2-hr Nonbearing walls = 0-hr rating on the inside. (705.5, Tables 601 & 705.5)
Bearing wall requires parapet, if wall is nonbearing, parapet not required (705.11, Exception 1)

Fire protection is not required at the bottom flange of lintels, shelf angles and plates, spanning not more than 6 feet 4 inches if they are part of the structural frame and regardless of the span if they are not part of the structural frame. (704.11)

Projections extending beyond the exterior wall cannot extend closer to than 40 inches to the fire separation distance line. (Table 705.2)

No limit on unprotected openings. There is no limit on protected openings. (Table 705.8)

Combustible projections extending within 5 feet of the line used to determine the fire separation distance shall be noncombustible, or at least 1-hour fire-resistive-rated construction or Type IVHT or fire-retardant-treated wood. (705.2.3)

West Side:

Group B - Bearing walls = 2-hr Nonbearing walls = 0-hr rating on the inside. (705.5, Tables 601 & 705.5)
Bearing wall requires parapet, if wall is nonbearing, parapet not required (705.11, Exception 1)

Fire protection is not required at the bottom flange of lintels, shelf angles and plates, spanning not more than 6 feet 4 inches if they are part of the structural frame and regardless of the span if they are not part of the structural frame. (704.11)

Projections extending beyond the exterior wall cannot extend closer to than 40 inches to the fire separation distance line. (Table 705.2)

No limit on unprotected openings. There is no limit on protected openings. (Table 705.8)

Combustible projections extending within 5 feet of the line used to determine the fire separation distance shall be noncombustible, or at least 1-hour fire-resistive-rated construction or Type IVHT or fire-retardant-treated wood. (705.2.3)

Parapet walls must extend 30 inches above the roofing.

The parapet wall is required to have the same fire rating as the wall and shall have noncombustible faces for the uppermost 18 inches. (705.11.1)

Parapet wall shall be coped or covered with weatherproof materials of a width not less than the thickness of the wall such that the fire-resistance rating is not decreased. (1503.3.1)

FIRE-RESISTANCE RATING REQUIREMENTS:(Table 601 except as noted)

Exterior walls . Minimum fire resistance rating = FIRE-RESISTANCE RATING FOR EXTERIOR WALLS above

Primary structural frame may be of any material. Minimum fire resistance rating = 0 hour
Interior bearing wall may be of any material. Minimum fire resistance rating = 0 hour
Interior nonbearing wall may be of any material. Minimum fire resistance rating = 0 hour
Floor/ceiling assembly may be of any material. Minimum fire resistance rating = 0 hour
Roof/ceiling assembly may be of any material. Minimum fire resistance rating = 0 hour
Shaft Enclosure may be of any material. Minimum fire resistance rating = 1 hour
Stairs may be of any material. Minimum fire resistance rating = 0 hour

MARKING AND IDENTIFICATION:

Fire walls, fire barriers, fire partitions, smoke barriers and smoke partitions or any other wall required to have protected openings or penetrations shall be effectively and permanently identified. (703.5)
Identification shall be located in accessible concealed floor, floor-ceiling or attic spaces;
Be located within 15 feet of the end of each wall and at intervals not exceeding 30 feet; and
Suggested wording: 'FIRE AND/OR SMOKE BARRIER - PROTECT ALL OPENINGS'

SHAFT REQUIREMENTS:

Openings other than those necessary for the purpose of the shaft shall not be permitted. (713.7.1)
Penetrations other than those necessary for the purpose of the shaft shall not be permitted. (713.8.1)
Exception: Membrane penetrations protected per 714.4.2 shall be permitted on the outside of shaft enclosure.
Shafts that do not extend to the bottom of the building shall:
1. Be enclosed at the lowest level with the same fire-resistance rating as the lowest floor but not less than the rating of the shaft enclosure; or
2. Terminate in a room having a use related to the purpose of the shaft. The room and openings shall have a fire-resistance rating at least equal to the shaft enclosure; or
3. Be protected by approved fire dampers installed at the lowest floor level within the shaft enclosure. (713.11)

FIRE PARTITIONS:

The following wall assemblies shall comply. (708.1)
Corridor walls including vestibules that is part of exit.
Fire partitions shall have a fire-resistance rating of not less than 1-hour. (708.3)
See exceptions.
Fire partitions shall extend from the top of the foundation or floor/ceiling assembly below to the underside of the floor or roof sheathing, slab or deck above or to the fire-resistive-rated floor/ceiling or roof/ceiling assembly above. (708.4)
See exceptions.
The supporting construction shall be protected to afford the required fire-resistance rating of the wall supported, except for tenant and sleeping unit separation wall and corridor walls.
See exceptions.

A 1-hour fire-resistive rating is required for smoke barriers. (709.3)
Smoke barriers shall form an effective membrane continuous from outside wall to outside wall and from the top of the foundation or floor/ceiling assembly below to the underside of the floor or roof sheathing, deck or slab above, including continuity through concealed spaces. (710.4)
See Section 710.5 for opening requirements.

PENETRATIONS OF FIRE RESISTIVE ASSEMBLIES:

WALLS ASSEMBLIES:

Penetrations of walls shall comply Section 714.4.1.1 or 714.4.1.2.

FLOOR/CEILING AND ROOF/CEILING ASSEMBLIES:

Penetrations of floor/ceiling and roof/ceiling assemblies shall comply Section 714.5.1.1 or 714.5.1.2.

DUCTS AND AIR TRANSFER OPENINGS:

Where required. (717.5) , Fire walls (717.5.1), Fire barriers (717.5.2), Shaft enclosures (717.5.3), Fire partitions (717.5.4) and Smoke barriers (717.5.5)

REQUIRED SEPARATION OF OCCUPANCIES: (508.4.4 & Table 508.4)

Uses are not separated by fire barriers. The construction of the building is based on the most restrictive use. (508.3.3)

SEPARATION OF INCIDENTAL USE AREAS: (Table 509.1)

Furnace rooms where any piece of equipment is over 400,000 BTU per hour input = Smoke barrier (509.4.2)

Rooms with any boiler over 15 psi and 10 horsepower = Smoke barrier (509.4.2)

Refrigerant machinery rooms = Smoke barrier (509.4.2)

Hydrogen cut-off rooms not classified as Group H = 1 hour

Incinerator rooms = 2 hours and an automatic sprinkler system

ROOFING REQUIREMENTS:

1. The roofing on this building is required to be Class C or better. (Table 1505.1)

ROOF DRAINAGE:

Where the exterior wall construction extends above the roof in such a manner that water will be entrapped if the primary drains allow build up for any reason, secondary (emergency overflow) roof drains or scuppers shall be provided. (1502.2)

1. Secondary drains or scuppers shall be located and sized to prevent the weight ponding water from exceeding the design load of the roof.

2. See section 1611.1 for design load requirements.

3. Scuppers shall not have an opening dimension of less than 4 inches. (1502.3)

4. See Chapter 11 of the International Plumbing code for design requirements.

Parapets shall be provided for aggregate surfaced roofs and the height shall comply with Table 1504.9 (1504.9)

Parapet walls shall be coped or covered with weatherproof materials. (1503.3.2)

DRAFTSTOPPING:

Draftstopping is not required in buildings equipped throughout with an automatic sprinkler system in accordance with NFPA 13. (718.4, Exception)

Draftstopping is not required in buildings equipped throughout with an automatic sprinkler system in accordance with NFPA 13. (718.3, Exception)

FIRE PUMPS:

When provided, fire pumps shall be located in rooms that are separated from all other areas by 2-hour fire barrier construction. (913.2.1)

Exception: Separation by 1-hour fire barriers is permitted in buildings equipped throughout with an automatic sprinkler system.

PORTABLE FIRE EXTINGUISHERS:

Portable fire extinguishers are required. (906.1)

See Section 906.1 and Table 906.1 for location requirements.

See Section 906.3 for size and distribution requirements.

STANDPIPE AND HOSE SYSTEMS:

Class III standpipe systems shall be installed throughout buildings where the floor level of the highest story is located more than 30 feet above the lowest level of fire department vehicle access. (905.3.1 #2)

Exception 1: Class I standpipes are allowed in buildings with an automatic sprinkler system.

905.3.1, Exception 2: Class I standpipes are allowed.

See sections 905.4, 905.5 and 905.6 for required locations.

See section 905.7 for cabinet requirements.

FIRE ALARM AND DETECTION SYSTEMS:

A manual fire alarm system is required. (907.2.2)

Exception: Manual alarm boxes are not required if the notification appliances will activate upon sprinkler waterflow.

See Section 907.4 for additional information about system.

ACCESSIBLE FACILITIES:

Accessible water fountains shall comply with ICC/ANSI A117.1, see Section 602.

Toilet facilities shall comply with ICC/ANSI A117.1, see Sections 603 through 609.

ADDITIONAL TOILET REQUIREMENTS:

Customers, patrons and visitors shall be provided with public toilet facilities in spaces intended for public utilization. (2902.3)

The route to the public facilities shall not pass through kitchens, storage rooms or closets. (2902.3.1)

Toilet rooms shall not open directly into a room used for the preparation of food for the public. (2902.3.2)

The path of travel to facilities shall not exceed a distance of 500 feet. (2902.3.3)

Directional signage indicating route to public facilities shall be posted. Such signage shall be located in a corridor or aisle at the entrance to the facilities. (2902.4.1)

Where a toilet is provided for use of multiple occupants, the egress door for the room shall not be lockable from the inside. (2902.3.6)

Where a building or tenant space requires a separate toilet facility for each sex and each toilet facility is required to have only one water closet,

two family/assisted-use toilet facilities shall be permitted to serve as required separate facilities. Toilet facilities shall not be required to

be identified for exclusive use by either sex. (2902.2.1)

See section 2903 fixture location requirements and partition requirements.

LIGHT AND VENTILATION:

1. Every space intended for human occupancy shall be provided with natural light by means of exterior glazed openings or shall be provided with artificial light. (1204.1)

2. Buildings shall be provided with natural ventilation or mechanical ventilation per the International Mechanical Code. (1202.1)

3. Rooms containing bathtubs, showers, spas and similar bathing fixtures shall be mechanically ventilated. (1202.5.2.1)

GLAZING REQUIREMENTS:

All glazing in hazardous locations is required to be of safety glazing material. (2406.1)

See Section 2406.4 for locations.

WALL AND CEILING FINISHES:

1. Wall and ceiling finish materials are required to comply with Sec. 803.13 and Table 803.13.

2. Textile wall and ceiling coverings shall have Class A flame spread index and shall be protected by automatic sprinklers or meet the criteria in Section 803.5, 803.6.

3. Expanded vinyl wall coverings shall comply with the requirements for textile wall and ceiling materials. (803.7)

4. Toilet room floors shall have a smooth, hard nonabsorbent surface that extends upward onto the walls at least 4 inches. (1209.2.1)

5. Walls within 2 feet of urinals and water closets shall have a smooth, hard nonabsorbent surface, to a height of 4 feet above the floor. (1209.2.2)

CEILING HEIGHTS:

Occupiable spaces, habitable spaces and corridors shall have a ceiling height of not less than 7 feet 6 inches. Bathrooms, toilet rooms, kitchens, storage rooms and laundry rooms shall be permitted to have a ceiling height of not less than 7 feet. (1208.2)

INSULATION NOTES:

1. Insulating materials shall have a flame-spread rating of no more than 25 and a smoke developed index of not more than 450. (720.2 for 'concealed installation' and Sec. 720.3 for 'exposed installation')
2. Where such materials are installed in concealed spaces, the flame spread and smoke developed limitations do not apply to facings, coverings and layers of reflective foil that are installed behind and in substantial contact with the unexposed surface of the ceiling, wall or floor finish. (720.2.1)

Foam plastic insulations are required to be protected. (2603)

CMS Manual System

Pub. 100-07 State Operations

Provider Certification

Department of Health &
Human Services (HHS)
Centers for Medicare &
Medicaid Services (CMS)

Transmittal 193

Date: September 20, 2019

SUBJECT: Revisions to Medicare State Operations Manual (SOM) Chapter 2

I. SUMMARY OF CHANGES: Revisions are being made to SOM Chapter 2 to clarify the process for Critical Access Hospitals (CAH) adding a provider-based location.

NEW/REVISED MATERIAL –

EFFECTIVE DATE: September 20, 2019

IMPLEMENTATION DATE: September 20, 2019

Disclaimer for manual changes only: The revision date and transmittal number apply to the red italicized material only. Any other material was previously published and remains unchanged. However, if this revision contains a table of contents, you will receive the new/revised information only, and not the entire table of contents.

II. CHANGES IN MANUAL INSTRUCTIONS: (N/A if manual not updated.)

(R = REVISED, N = NEW, D = DELETED) – (Only One Per Row.)

R/N/D	CHAPTER/SECTION/SUBSECTION/TITLE
R	Chapter 2/ Table of Contents
R	SOM Chapter 2/ 2004/ Provider-Based Determinations
R	SOM Chapter 2/ 2256/ H/ Off-Campus CAH Facilities

III. FUNDING: No additional funding will be provided by CMS; contractor activities are to be carried out within their FY 2019 operating budgets.

IV. ATTACHMENTS:

	Business Requirements
X	Manual Instruction
	Confidential Requirements
	One-Time Notification
	Recurring Update Notification

***Unless otherwise specified, the effective date is the date of service.**

State Operations Manual

Chapter 2 - The Certification Process

Table of Contents
(Rev. 193; Issued 09-20-19)

Transmittals for Chapter 2

Identification of Providers and Suppliers and Related Pre-Survey Activities

2004 - Provider-Based Determinations

(Rev. 193, Issued: 09-20-19, Effective: 09-20-19, Implementation: 09-20-19)

“Distinct Part” and “Provider-Based” are not synonymous terms. When a location, department, remote location or satellite is established as being provider-based, it is an integral part of the provider, covered by the provider’s Medicare agreement, and therefore subject to the same Medicare conditions of participation as any other part of that provider. Unless covered by a specific exception listed in the rule, the provider-based regulations at §413.65 apply to any provider of services under the Medicare program, as well as to physicians’ practices or clinics or other suppliers that are not themselves providers, but which the provider asserts are an integral part of that provider.

Providers are not required to seek a determination from CMS that all of their provider-based components satisfy the provider-based rules at [42 CFR 413.65](#), but they may voluntarily seek such determinations. The RO Division of Financial Management makes provider-based determinations in response to a specific request. If a provider requests the SA for a provider-based determination under the Medicare program for one or more of its component services, the SA must notify the RO immediately so that the request can be routed appropriately to the RO Division of Financial Management. In the case of a request concerning an off-campus department, remote location or satellite, the provider’s survey and certification file about the locations included under its provider agreement must not be revised to add the new location until and unless the provider is issued a positive determination about its request.

For Critical Access Hospitals (CAHs) adding a provider-based location – also see SOM Chapter 2, Section 2256H – Off-Campus CAH Facilities – Process Requirements.

2256H – Off-Campus CAH Facilities

(Rev. 193, Issued: 09-20-19, Effective: 09-20-19, Implementation: 09-20-19)

Section 42 CFR 485.610(e)(2) requires that if a CAH operates an off-campus provider-based facility as defined in §413.65(a)(2) (except for a rural health clinic (RHC)) or off-campus rehabilitation or psychiatric distinct part unit as defined in §485.647, that was created or acquired on or after January 1, 2008, then the off-campus facility must meet the requirement at 42 CFR 485.610(c) to be more than a 35 mile drive (or a 15 mile drive in the case of mountainous terrain or an area with only secondary roads) from another hospital or CAH. Off-campus CAH facilities that were in existence prior to January 1, 2008, are not subject to this requirement. The drive to another hospital or CAH is calculated from the off-campus facility’s location to the main campus of the other hospital or CAH.

If a non-IHS or non-Tribal CAH operates an off-campus provider-based facility, its proximity to an IHS or Tribal CAH or hospital is not considered when determining compliance with these requirements. Similarly, if an IHS or Tribal CAH operates an off-campus provider-based facility, its proximity to a non-IHS or non-Tribal CAH or hospital is not considered when determining compliance.

Definitions related to provider-based status are found at 42 CFR 413.65(a)(2):

“Campus: means the physical area immediately adjacent to the provider’s main buildings, other areas and structures that are not strictly contiguous to the main buildings, but are located within 250 yards of the main buildings, and any other areas determined on an individual case basis, by the CMS regional office, to be part of the provider’s campus.”

“Department of a provider: means a facility or organization that is either created by, or acquired by, a main provider for the purpose of furnishing health care services of the same type as those furnished by the main provider under the name, ownership, and financial and administrative control of the main provider, in accordance with the provisions of this section. A department of a provider comprises both the specific physical facility that serves as the site of services of a type for which payment could be claimed under the Medicare or Medicaid program, and the personnel and equipment needed to deliver the services at that facility. A department of a provider may not itself be qualified to participate in Medicare as a provider under §489.2 of this chapter, and the Medicare conditions of participation do not apply to a department as an independent entity. For purposes of this part, the term ‘department of a provider’ does not include an RHC or, except as specified in paragraph (n) of this section, an FQHC.”

“Remote location of a hospital: means a facility or organization that is either created by, or acquired by, a hospital that is the main provider for the purpose of furnishing inpatient hospital services under the name, ownership, and financial and administrative control of the main provider, in accordance with the provisions of this section. A remote location of a hospital comprises both the specific physical facility that serves as the site of services for which separate payment could be claimed under the Medicare or Medicaid program, and the personnel and equipment needed to deliver the services at that facility. The Medicare conditions of participation do not apply to a remote location of a hospital as an independent entity. For purposes of this part, the term “remote location of a hospital” does not include a satellite facility as defined in §412.22(h)(1) and §412.25(e)(1) of this chapter.”

“Provider-based entity: means a provider of health care services, or a RHC as defined in §405.2401(b) of this chapter, that is either created or acquired by the main provider for the purpose of furnishing health care services of a different type from those of the main provider under which the ownership and administrative and financial control of the main provider, in accordance with the provisions of this section. A provider-based entity comprises both the specific physical facility that serves as the site of services of a type for which payment could be claimed under the Medicare or Medicaid program, and the personnel and equipment needed to deliver the services at the facility. A provider-based entity may, by itself, be qualified to participate as a provider under §489.2, and the Medicare conditions of participation do apply to a provider-based entity as an independent entity.”

“Provider-based status: means the relationship between a main provider and a provider-based entity or a department of a provider, remote location of a hospital, or a satellite facility, that complies with the provisions of this section.”

The CAH off-campus location regulations at §485.610(e)(2) apply to off-campus distinct part units, as defined at §485.647, to departments that are off-campus, to remote locations of CAHs, as defined at §413.65(a)(2), and, on or after October 1, 2010, to off-campus facilities that furnish only clinical diagnostic laboratory tests operating as parts of CAHs. The requirements apply, regardless of whether the CAH is a grandfathered necessary provider CAH or not. However, the regulations also specifically state that they do not apply to RHCs that are provider-based to a CAH.

These regulations also do not apply to the following types of facilities/services owned and operated by a CAH, because such facilities or services generally are not eligible for provider-based status, in accordance with §413.65(a)(1)(ii):

- Ambulatory surgical centers (ASCs);
- Comprehensive outpatient rehabilitation facilities (CORFs);
- Home Health Agencies (HHAs);
- Skilled nursing facilities (SNFs);
- Hospices;
- Independent diagnostic testing facilities furnishing only services paid under a fee schedule, such as facilities that furnish only screening mammography services, facilities that furnish only clinical diagnostic laboratory tests, other than those operating as parts of a CAH, or facilities that furnish only some combination of these services.
- ESRD facilities;
- Departments of providers that perform functions necessary for the successful operation of the CAH, but for which separate CAH payment may not be claimed under Medicare or Medicaid, e.g., laundry, or medical records department; and
- Ambulances.

In the case of Federally Qualified Health Centers (FQHCs), although CMS rules permit them to be provider-based departments of a hospital or CAH, it is unlikely that there are new FQHCs that meet the provider-based criteria, since Health Resources and Services Administration (HRSA) requirements for separate FQHC governance make it unlikely an FQHC could meet provider-based governance requirements. However, there are grandfathered FQHCs that were in operation prior to April 7, 2000, which are permitted to retain their provider-based status.

Provider-based determinations are site-specific and based on the facility's location with respect to the main campus when the attestation is made to the RO. If a CAH relocates an off-campus facility, including off-campus facilities that were in existence or under development prior to January 1, 2008, and are currently grandfathered, the off-campus facility must comply with the

requirements at §485.610(e)(2) and the provider-based rules at §413.65. The CAH will resubmit an attestation to the RO for the new location to determine if it meets all the requirements at the new location.

In addition, if the main campus of the CAH relocates, it may wish to obtain a provider-based determination for all of its off-campus locations. However, this is a voluntary decision on the part of the CAH. There is no need for a new determination of compliance with the CAH location requirements at §485.610(e)(2) when there is no change of location of the off-campus facilities. If the CAH seeks a provider-based determination, the RO conducts the review in the same manner as described below.

Process Requirements

Under the general provider-based rules at §413.65, hospitals and CAHs are not required to seek an advance determination from CMS that their provider-based locations meet the provider-based requirements, but many choose to do so rather than risk the consequences of having erroneously claimed provider-based status for a facility. However, §485.610(e)(2) provides that a CAH can continue to meet the location requirement at §485.610(c) **only if** the off-campus provider-based location or off-campus distinct part unit is located more than a 35 mile drive (or 15 mile drive in the case of mountainous terrain or in areas where only secondary roads are available) from a hospital or another CAH. **Therefore, a CAH *should* seek an advance determination of compliance with the CAH location requirements for any off-campus provider-based facility established on or after January 1, 2008.**

If a CAH submits a provider-enrollment application (Form CMS-855) to its affiliated Medicare Administrative Contractor (MAC) noting that it is adding a provider-based location, the CAH should also submit documentation noting how it continues to comply with the CAH distance requirements at §485.610(e)(2) to ensure that the CAH will retain its status as a CAH.

The MAC reviews the CAH's Form CMS-855 for addition of a provider-based location and, once completed, forwards the form and any submitted documentation to their CMS affiliated Regional Office (RO) Division of Survey and Certification (DSC) for review of compliance with §485.610(e)(2). If the CAH does not submit documentation noting how it continues to comply with the CAH distance requirements in the provider-enrollment application (Form CMS-855), the CMS RO DSC requests that information from the CAH during their distance review.

The RO *DSC* reviews the *Form CMS-855 and any corresponding documentation from the CAH as well as any information received from the SA* for evidence that the **CAH's off-campus provider-based location is more than a 35 mile drive (or 15 miles in the case of mountainous terrain or an area with only secondary roads) from another hospital or CAH.**

If the RO DSC verifies that the CAH will continue to meet the §485.610(e)(2) distance requirements with the added provider-based location, the RO DSC issues a tie-in notice and notifies the MAC, the CMS RO Division of Financial Management and Fee for Service Operations (DFMFFSO), and the SA of the tie-in.

*However, if the RO DSC review verifies that the CAH's provider-based location **does not meet** the CAH distance requirements at §485.610(e)(2), the RO DSC notifies the CMS Central Office (CO), the MAC, the RO DFMFFSO, and the SA. Once notified of the RO DSC review:*

- The MAC does not take further action on the submitted CAH Form CMS-855 to add the provider-based location (under Chapter 15 of the Medicare Program Integrity Manual) until the MAC is notified of the CAH's decision as outlined below.*
- The RO DSC informs the CAH that its provider-based location causes the CAH to no longer meet the §485.610(e)(2) distance requirement and offers the CAH the following options (A, B, or C):*
 - A. **Termination of participation:** By adding the provider-based location, the CAH would be placed on a 90 day termination track (as outlined in Section 3012 of the SOM) or the CAH can voluntarily terminate its participation from the program all together.*
 - B. **Continued CAH certification:** The CAH may retain its CAH status by terminating the off-campus provider-based location arrangement that led to the non-compliance with the §485.610(e)(2) distance requirements within the 90 day termination period or by physically moving the provider-based location so that the distance requirements are met.*
 - C. **Conversion:** The CAH may continue to participate in Medicare by converting to a hospital. If the CAH chooses to convert to a hospital, the CAH would need to submit to the MAC another Form CMS-855 to terminate their CAH enrollment along with a separate Form CMS-855 to enroll as a hospital. The effective date of the CAH's hospital certification would coincide with the effective date of termination of CAH status. See Section 2005 of the SOM for the Medicare enrollment process.*

Once the RO DSC notifies the MAC of its review that the CAH is in compliance with §485.610(e)(2) distance requirements or, if not in compliance, of the CAH's choice of option A, B, or C (as described above), the MAC then proceeds with sending the Form CMS-855 and its recommendation for approval on the provider-based location to its affiliated RO DFMFFSO for a determination under §413.65.

- The RO DFMFFSO reviews the Form CMS-855 and confers with CMS CO and RO DSC on specific issues as needed.*
- The RO DFMFFSO sends the CAH/Hospital (Form CMS-855 applicant) a notice letter with the determination on its request for provider-based location designation, with copies sent to the MAC, RO DSC, and the SA).*

The CAH must comply with all applicable requirements at §485.610(e)(2) for the distance requirements and §413.65 for the provider-based rules.

*During the review process, CMS RO DFMFFSO also considers **additional** issues such as the following (this list is provided for informational purposes only; it is not all-inclusive):*

- The off-site facility must operate under the same license of the main provider, except in areas where the State requires a separate license for facilities that Medicare would treat as the department of the provider or in areas where State law does not address licensure.
- The clinical services of the off-site facility and the CAH main provider are fully integrated as evidenced by:
 - Professional staff have clinical privileges at the main provider;
 - The main provider maintains the same monitoring and oversight of the off-campus facility as it does for any other department of the provider;
 - The medical director or other similar official of the off-campus facility maintains a reporting relationship with the chief medical officer or other similar official of the main provider and is under the same type of supervision and accountability, and reporting as any other director, medical or otherwise of the main provider;
 - Medical staff committees or other professional committees at the main provider are responsible for medical activities in the off-campus facility and the main provider. This includes quality assurance, utilization review, and the coordination and integration of services, to the extent practical, between the off-campus facility and the main provider;
 - Medical records for patients treated in the off-campus facility are integrated into a unified retrieval system (or cross-referenced) of the main provider; and
 - Inpatient and outpatient services of the off-campus facility and the main provider are integrated, and patients treated at the off-campus facility who require further care have full access to all services of the main provider and are referred where appropriate to the corresponding inpatient or outpatient department of the main provider.
- The financial operations of the off-campus facility are fully integrated within the financial system of the main provider;
- The off-campus facility is held out to the public as part of the main provider. When patients enter the off-campus facility, they are made aware they are entering the main provider and will be billed accordingly;
- The off-campus facility is operated under the ownership (100 percent) and control of the main provider;
- The reporting relationship between the off-campus facility and the main provider must have the same frequency, intensity, and level of accountability that exists between the main provider and one of its existing departments;

- The off-campus facility is located within a 35 mile radius of the main provider. This distance is measured in radial miles or a straight line measurement between the main provider and the provider-based department, remote location, and/or distinct part unit;
- Off-campus outpatient departments must also comply with the following:
 - Physician services furnished in a department of the CAH must be billed with the correct site of service so that appropriate physician and practitioner payment amounts can be made;
 - CAH outpatient departments must comply with all of the terms of the CAH's provider agreement, including the CAH Conditions of Participation at 42 CFR Part 485, Subpart F;
 - Physicians working in departments of the main provider are obligated to comply with the non-discrimination provisions in §489.10(b);
 - CAH outpatient departments must treat all Medicare patients, for billing purposes, as CAH outpatients; and
 - When Medicare beneficiaries are treated in CAH outpatient departments that are located off-campus, the treatment is not required to be provided by the anti-dumping rules in §489.2, unless the off-campus facility meets the EMTALA definition of a dedicated emergency department found at 42 CFR 489.24(b).

Termination for Noncompliance

A CAH *that is* found *to be* out of compliance with the off-campus location requirements at §485.610(e)(2) is subject to termination of its Medicare provider agreement. In such cases, the CAH is placed on a 90-day termination track, as outlined in §3012. If the CAH corrects the *noncompliance within* this 90-day period, by terminating the off-campus provider-based arrangement that led to the non-compliance, then the provider agreement is not terminated.

A facility facing termination of its CAH status as a result of non-compliance with §485.610(e)(2) *distance requirements* could also continue to participate in Medicare by converting to a hospital, **assuming that the facility satisfies all requirements for participation as a hospital** in the Medicare program under the provisions at 42 CFR Part 482. Under the scenario *of a CAH not meeting the CAH distance requirements at §485.610(e)(2), the CAH would have the choice of A, B, or C –*

- A. **Termination of Participation:** By adding the provider-based location, the CAH would be placed on a 90 day termination track (as outlined in Section 3012 of the SOM) or the CAH can voluntarily terminate its participation from the program all together.*



- B. Continued CAH certification:** *The CAH may retain its CAH status by terminating the off-campus provider-based location arrangement that led to the non-compliance with the §485.610(e)(2) distance requirements within the 90 day termination period or by physically move the provider-based location so that the distance requirements are met.*
- C. Conversion:** *The CAH may continue to participate in Medicare by converting to a hospital. If the CAH chooses to convert to a hospital, the CAH would need to submit to the MAC another Form CMS-855 to terminate their CAH enrollment along with a separate Form CMS-855 to enroll as a hospital. If the CAH fails to comply with the CAH CoPs, and fails to convert and comply to the hospital CoPs, the provider agreement will be terminated. If the CAH applies to convert back to a hospital and meets the hospital CoPs, the effective date of the CAH's hospital certification would coincide with the effective date of termination of CAH status. A new CCN number would be assigned accordingly. See Section 2005 of the SOM for the Medicare enrollment process.*

Beginning October 1, 2010, off-campus CAH-owned clinical diagnostic laboratory facilities that do not satisfy the requirements to be provider-based to a CAH, including applicable distance requirements, may continue to participate separately in Medicare as a clinical diagnostic laboratory, but will no longer be considered to be part of the certified CAH.

Beaumont Cancer Treatment Center

CTC Design

3180 College Street Beaumont, TX 77702

Schematic Design Narrative: Structural System

This Design Narrative is intended for informational purposes only and is not to be used for construction, bidding or permit purposes.

June 23, 2023

Submitted to Baptist Hospitals of Southeast Texas

Smith Seckman Reid, Inc.

900 Threadneedle Street, Suite 600

Houston, TX 77079

Texas Firm Registration F-2874

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Introduction

This project consists of the construction of a new 3 story Medical Office Building for Baptist Hospitals of Southeast Texas located in Beaumont, Texas. The structure also has a one-story LINAC building that will be located on the North side of the building.

The purpose of this narrative is to provide the contractor with structural information in order to develop preliminary cost estimates and planning for the proposed building construction. It is anticipated that the design development and final construction documents may carry some of the information contained in the following narrative as a result of the typical design development of a building's final construction documents which incorporates owner, architectural, and building code requirements and constraints.

Design Criteria

Live Loads:

1st floor

Corridor	100 PSF
Office Space	100 PSF
Laboratories	100 PSF
MRI, PET CT	100 PSF

Second Floor

Corridor	80 PSF
Clinical Space	65 PSF
Partitions	+15 PSF
Common Areas	100 PSF
Mechanical Room	150 PSF

Third Floor

Corridor/ Lobbies	80 PSF
Clinical Space	60 PSF
Partitions	+15 PSF
Common Areas	100 PSF
Mechanical Room	150 PSF

Mechanical Penthouse (Part of Roof)	150 PSF
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Roof

Roof Live Load	20 PSF
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Seismic Loads:

Risk Category	II
Importance Factor	$I_e = 1.00$
Site Classification	D (assumed as default)
Mapped Spectral Acceleration 0.2 second	$S_s = 0.078$
Mapped spectral Acceleration 1.0 second	$S_1 = 0.045$
Site Coefficients	$F_A = 1.6$
	$F_V = 2.4$
Design Spectral Accelerations	$S_{DS} = 0.083g$
	$S_{D1} = 0.072g$
Seismic Design Category	B
Basic Seismic Force Resisting System	
1) Steel Systems Not Specifically Detailed for Seismic Resistance	
	$R = 3.0$
	$\Omega_o = 2.5$
	$C_d = 3.0$
	$C_s = 0.0277$

Wind Loads:

Per ASCE 7-16	
Ultimate Wind Speed	$V_{ult} = 137 \text{ mph}$
Basic Wind Speed	$V_{asd} =$
Risk Category	II
Importance Factor	$I_w = 1.0$
Exposure Category	C

Rain Loads:

Per ASCE 7-16	
Rain Intensity	$i = 4.84 \text{ in/hr}$

Dead Loads:

Structure	Self Weight
Floors	Self Weight
MPE, Ceiling, & Flooring Allowance	10 PSF
Roof, MPE Ceiling, & Roofing Allowance	25 PSF

Foundation System and 1st Floor

The foundations are assumed to be drilled belled piers installed to a depth below finished floor or exterior grade recommended by the Geotech report. The drilled belled piers will be connected to pile caps under the columns and interconnected with concrete grade beams. This foundation system assumption and depth shall be confirmed by a geotechnical investigation and report on the subsurface conditions by a reputable geotechnical engineer licensed in the state of Texas. The ground floor is assumed to be a concrete slab on grade that will be supported by grade beams running between the pile caps. It is anticipated that the top several feet of soil will be required to be removed and replaced with high quality fill material to allow for a slab on grade system.

LINAC Framing

The roof structure of the 1-story LINAC building will be partially comprised of steel wide flange beams spaced at 5' to 8' centers supporting a 1-½" conform roof deck with 3-½" light weight concrete deck. This portion of the building will be supported by 10" wide flange columns. The LINAC itself will be framed with concrete walls varying in thickness supporting a solid concrete slab. It is anticipated the walls will be between 3' to 4'-6" thick with some high-density concrete required and the roof will be 3' to 6'-6" thick. These thickness assumptions will need to be confirmed by radiation protection shielding design evaluation report preformed by a qualified physicist.

2nd, 3rd, and Penthouse Floor Framing

The proposed floor will be framed with composite steel wide flange beams and girders. The girders will run East-West and vary in size from W16 for the shorter spans and W18, W21, or W24 for the larger spans. The girders frame to 12" steel wide flange columns located on varying grid spacing, from 15' to 30', in accordance with architectural requirements. The non-girder beams will run North-South and vary in size from W14 for the shorter spans and W16 or W18 for the longer spans. The non-girder beams frame into the girders and columns at 8' to 10' increments. The floor will be a 2" composite metal deck with a 3-¼" light weight concrete deck, making 5-¼" total deck thickness, and will span East-West. The penthouse floor will be in line with adjacent roof structure. This floor will be framed in a similar manner as the 2nd and 3rd floor, with composite steel beams and girders of similar size and at similar spacing with a 2" composite metal deck and 3 -¼" of lightweight concrete, making 5-¼" total deck thickness.

Upper and Penthouse Roof Framing

The roof structure of the main building and the penthouse will be steel joists spaced at 5' centers supporting a 1-½" conform roof deck with 3-½" light weight concrete deck, making 5" total deck thickness. The joists will bear on steel girders framing East to West and framing into the sides of the columns.

Lateral Force Resisting System

The lateral load resisting system will be steel ordinary moment frames. These frames will be located at the outer North and South walls and the first interior column lines on the East and West sides of the building. The structural diaphragms of the second and third floor will be a 5-¼" light weight concrete filled composite steel deck. A portion of the roof level at the mechanical penthouse will also be a 5-¼" light weight concrete filled composite steel deck. The structural diaphragm of the main roof and the mechanical penthouse roof will be 5" light weight concrete filled conform roof deck. The lateral system of the LINAC building will be the concrete walls of the heavy radiation portion of the building. The steel portion of the building will be framed into and attached to the concrete walls for lateral support.

Material Specifications

Reinforcement:

Reinforcing Bars ASTM A615, Grade 60

Welded Wire Fabric (WWF): ASTM A185

Cast-in Place Concrete:

Normal Weight Concrete 28-day Compressive Strength, f'_c

Slab-on-grade:	4000 psi
Elevated slabs, 2 nd , 3 rd floors and Roof:	4000psi
Misc. Equipment pads:	4000psi

Structural Steel:

W shapes:	ASTM A992 Grade 50
Angles and channels:	ASTM A36
Plate:	ASTM A36 and ASTM A572, Grade 50
Square and Rectangular Tubes (HSS):	ASTM A500 Grade B
Round Tubes (HSS):	ASTM A501



All exposed structural steel shall be hot dipped galvanized.

Structure steel shall be designed, fabricated, and erected in accordance with “Load Factor Resistance Design Specifications for Structural Steel Buildings, AISC 360-16 and the AISC 303-16 “Code of Standard Practice for buildings and Bridges”

Steel Joists:

Steel open web joists shall meet the SJI Specification, latest edition

Steel Floor and Roof Deck:

Steel composite metal floor deck and non-composite metal roof deck shall meet the fabrication and design requirements of the SDI specification, latest edition

END OF THE DESIGN NARRATIVE

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Baptist Hospitals of Southeast Texas

Cancer Treatment Center
Beaumont, TX 77701

Schematic Design Narrative: Mechanical, Electrical, and Plumbing

This Design Narrative is intended for informational purposes only and is not to be used for construction, bidding or permit purposes.

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Submitted to Architectural Alliance Incorporated

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Introduction

SSR prepared this Design Narrative to describe ground -up construction of a greenfield medical office building in Beaumont, Texas for Baptist Hospitals of Southeast Texas. The intent of this Design Narrative is to provide information to contractors for developing a baseline of estimated construction cost. Information described within this Design Narrative has been compiled based on review of the scope of the building to be a cancer treatment center, design team and owner coordination meetings and the design documents developed by AAI.

Program

This Design Narrative is based on a planned program as documented within AAI's Schematic Design Package noted as Schematic Design received on 06-20-23.

Applicable Codes

2021 International Building Code
2021 International Existing Building Code
2021 International Energy Conservation Code
2021 International Residential Code
2021 International Fuel Gas Code
2021 Uniform Plumbing Code
2021 International Property Maintenance Code
2021 International Mechanical Code
2021 International Fire Code
2020 National Electrical Code 2015 TDSHS Hospital State Regulations

Mechanical

Design Criteria

Applicable Codes and Standards

In addition to the codes and standards listed above in the general/architectural sections, compliance with the following codes and standards will be required:

- ANSI - American National Standards Institute (ANSI)
- ASHRAE - American Society of Heating, Refrigerating and Air-Conditioning Engineers (62.1)
- USP 797 – Pharmaceutical Compounding – Sterile Preparations
- USP 800 – Hazardous Drugs – Handling in Healthcare Settings
- OSHA - Occupational Safety and Health Administration (OSHA)
- UL - Underwriter's Laboratories (UL)

Outside Design Conditions	Port Arthur, TX, USA WMO 722410	
	ASHRAE Cooling 0.4% DB/MCWB	95.1°F / 77.8°F
	ASHRAE Heating 99.6% DB	31.4°F
	Design Cooling	95.1 °F / 77.8 °F
	Design Heating	25.0°F
	Design Ambient for Air Cooled Sys.	105°F
Inside Design Conditions	Cooling	Exam Rooms: 75°F
		Imaging Rooms: 72°F
		Equipment Rooms: 75°F
		Pharmacy Compounding: 67°F
		Other Occupied Spaces: 72°F
	Heating	Exam Rooms: 72°F
		Imaging Rooms: 72°F
		Equipment Rooms: 75°F
		Pharmacy Compounding: 67°F
		Other Occupied Spaces: 72°F
	Maximum Relative Humidity	60 percent at 65°F
	Minimum Relative Humidity	30 percent at 75°F

Ventilation

ASHRAE 62.1 minimum for space function.

Chilled Water	42°F - 57°F Main Chiller
	40°F - 57°F Pharmacy Chiller
Heating Hot Water	135°F - 105°F
Water Pipe Sizing Criteria	Max 6 FPS, Pressure Drop: 4-inches H2O per 100 feet
	Primary Supply: 2500 fpm, 0.2-inches H2O per 100 feet
	Secondary Supply/ Return: 1200 fpm, 0.1-inches H2O per 100 feet
Air Duct Criteria	
	Exhaust: 1200 fpm, 0.1-inches H2O per 100 feet

Energy Compliance

Mechanical systems will be provided in accordance with the adopted IECC 2021. The design will meet and exceed the 10% cooling efficiency exception to eliminate economizers. Energy recovery will not be required based on the anticipated system capacities and code exceptions.

Hurricane and Wind Considerations

All roof mounted equipment will be designed to withstand appropriate wind load. Louvers will be rated for hurricanes and wind-driven rain. All fan stacks shall be guy-wired for wind rating.

Cooling

Cooling will be provided by (1) 200-ton air cooled scroll chiller, with the indicated capacity required at design chilled water and ambient air conditions. At AHRI conditions the chiller IPLV shall exceed 15.4 kW/ton at a minimum, with goal of 17.5 kW/ton. The pumping arrangement will be variable primary using (2) vertical inline centrifugal pumps (325 GPM at 100ft head). The pumps are N+1 redundant. A chilled water bypass with control valve will be provided for minimum chiller flow. A pump manual bypass for flowing water from a rental chiller shall be provided.

(1) dedicated 25-ton air cooled scroll chiller with hot gas bypass and integral dual pump set (35 GPM at 60 ft head) will be provided for the pharmacy. Cooling tons required will be at design chilled water and ambient air conditions. At AHRI conditions the chiller IPLV shall exceed 15.07 kW/ton at a minimum.

(1) 7-ton dedicated air cooled chiller with integral pumps will be provided to serve the linear accelerator. The chiller will be Filtrine or similar with a piping quick connect panel (QCP) located in the 1st floor mechanical room. The system will be provided with domestic water backup and controls for automatic changeover. An identical setup will be planned for the future linear accelerator with space allocated in the mechanical room for the QCP.

Chilled water risers will be provided full size from the roof down to the first floor. Valved and capped chilled water connections will be provided on the building exterior on the 1st floor for a rental chiller and pumps when needed.

All control valves shall be pressure independent.

Heating

Heating hot water will be provided by (2) 1,500 MBH natural gas condensing boilers. The boilers are N+1 redundant. The pumping arrangement will be variable primary using (2) vertical inline centrifugal pumps (100 GPM at 75ft head). The pumps are N+1 redundant. Flue and outdoor air intakes will be on the pent-house roof. Flue and intakes shall be stainless steel material.

All control valves shall be pressure independent.

Air Handling Units

The building will be served by (4) AHU systems. Each floor will be served by an AHU with a dedicated AHU for the pharmacy. AHUs will have fan arrays with N+1 redundant fans, backdraft dampers, and air-flow measurement totalizers. Backdraft dampers shall be provided on each fan. Each unit will be equipped with (2) redundant VFDs without bypass. UV lights will be provided in cooling coil sections. Units will be equipped with MERV 8A pre-filters and MERV 14A final filters. Units will be modular construction type, double wall with 2" insulation. Fiberglass insulation will be acceptable for interior units. Units will be internally isolated. Units will meet leakage Class 6 positive pressure and Class 3 negative pressure. Units will have outdoor air directly from louvers or intake hoods connected to them. Cooling coil drain pans will be insulated, double wall, stainless steel. All units shall have factory junction boxes, UV bulb circuits, Lighting Circuits. Each section shall have a factory controls port. All controls dampers shall have position sensing feedback. End switches are not acceptable.

The AHUs serving the 1st and 2nd floor will be in the 1st floor mechanical room. Supply and return ductwork will be routed up to serve the 2nd floor. The AHU serving the third floor will be located outside on the roof and will be of weatherproof construction and provided with service vestibule and roof curb for piping and mounting VFDs. Basis of design for AHU 3-1 on the roof shall be Annexair Biocomposite unit with integral wind driven rain intake louvers. AHU 3-1 shall also have a modulating outside air damper for floor pressure control. The damper shall modulate based on floor level negative pressure exhaust fans powering on, and outside airflow shall be measured by a unit mounted air flow measuring station.

The pharmacy AHU will be in a mechanical penthouse and will duct down to serve the pharmacy. The unit will be provided with a preheat hot water coil, dual cooling coils in series and piped in parallel with separate control valves. Outside airflow shall be measured by a unit mounted air flow measuring station.

The systems will use plenum return with exception of the pharmacy unit which will be fully ducted.

The following table contains initial AHU design parameters and sections required.

AHU	Service	CFM	TSP in.w.c	CC EWT/LWT °F	CC EAT DB/WB °F	CC LAT DB/WB °F
AHU-1-1	1F	22,000	5.5	42/57	75/62	50/49.8
AHU-2-1	2F	15,000	6.0	42/57	75/62	50/49.8

AHU-3-1	3F	15,000	5.5	42/57	75/62	50/49.8
AHU-3-2	3F Pharm	3,500	5.5	40/57	82/69	46/45.8

AHU	Service	SECTIONS									
AHU-1-1	1F	MB	PF	CC	Acc	SF	FF	DP			
AHU-2-1	2F	MB	PF	CC	Acc	SF	FF	DP			
AHU-3-1	3F	MB	PF	CC	Acc	SF	FF	DP			
AHU-3-2	3F Pharm	MB	PF	PHC	CC	ACC	CC	ACC	SF	FF	DP

MB-Mixing Box, PF-Pre-filter, PHC-Pre-Heat Coil, Acc-Access, CC-Cooling Coil, SF-Supply Fan, FF-Final Filter, DP-Discharge plenum

Fan Coil Units

There may be rooms that will require 24/7 cooling. Spaces will be determined at a later date. For pricing anticipate IDF and MDF data rooms, electrical and electrical switch gear rooms, imaging equipment rooms. For these areas dedicated chilled water fan coil units will be provided and connected to the main chilled water system.

If the facility needs to turn the chiller off during non-occupied hours, VRF concealed FCU shall be provided instead of fan coil units for these spaces. The condensing units shall be located on the 3rd story roof, 20'-0" from the ACC systems.

Exhaust Systems

A total of (9) exhaust fans are anticipated. Fans will be located on the 3rd floor roof and routed down through the roof and through shafts to lower floors as needed. (2) N+1 redundant fans with VFDs will serve the pharmacy hazardous rooms and compounding hood. The pharmacy fans will be industrial utility sets with manufacturer provided stack similar to Greenheck FJI. Motors will be designed for heavy duty vertical mounting with a factory mounted NEMA 3R disconnect switch. The fans will be furnished with motorized isolation air dampers. Other fans will be mushroom type power roof exhausters with roof curbs, motorized backdraft dampers with end switches, and factory mounted NEMA 3R disconnects. (1) general exhaust fan will serve restrooms, soiled rooms, janitor closets and similar spaces for the building. A dedicated fan is planned each for the bug room and mold block room on the first floor. This duct will be hazardous, and be fire wrapped with 2-hour fire insulation and be located in separated shafts up to the roof. Four rooms on the third floor have been designated to have negative air capability. (4) fans will be provided, with a wall switch in each room for controlling the fan when needed.

Fan	Service	CFM	TSP in. w.c.
EF-1	General Exhaust	4000	1.5
EF-2	3F Pharmacy	2000	3.0
EF-3	3F Pharmacy	2000	3.0
EF-4	1F Bug Room	300	1.5

EF-5	1F Mold Block Room	300	1.5
EF-6	3F Negative Air Room	250	0.5
EF-7	3F Negative Air Room	250	0.5
EF-8	3F Negative Air Room	250	0.5
EF-9	3F Negative Air Room	250	0.5

Air Terminal Units and Air Valves:

- Double wall, DDC controlled, pressure independent variable volume, parallel ECM fan powered duct terminal boxes for perimeter zones (approximately 15' from exterior wall or below roof). Fan powered terminals will be provided with 1" throwaway filters.
- Double wall, DDC controlled, pressure independent variable volume, single duct terminal boxes for interior or fully ducted spaces.
- Hot water reheat coils on terminal discharge, or without reheat for cooling only areas.
- Each VAV will have a factory provided 277-24V integral controls power transformer.
- Assume box density of 1 box for every 500-1,000 square feet of space.
- The classified pharmacy compounding rooms will be provided with blade type fast actuation air valves on supply, return, and exhaust systems. Supply air valves will be provided with reheat coils. All air valves shall be installed in an accessible location access panels are not acceptable.
- All control valves shall be pressure independent.

Piping:

- Chilled and hot water: Black steel, ERW or seamless 1-1/4" and larger, or copper Type L up to 2" dia.
- Drain lines: Copper Type M.
- Ball valves 2" and less, butterfly valves 2-1/2" and greater.

Piping Insulation:

- Chilled water: Foamglas: 0-1.25" pipe: 1" thick; 1.5"-12" pipe: 1.5" thick.
- Heating water: Foamglas: 0-1.25" pipe: 1.5" thick; 1.5"-12" pipe: 2" thick.
- Drain lines: Flexible tubular elastomeric - 0.5" thick.
- Chilled Water Pumps: flexible sheet elastomeric - 1" thick.
- Heating hot water Pumps – fiberglass 1.5" thick.
- Chilled water Expansion Tanks, Storage Tanks, Air Separators: flexible sheet elastomeric - 1" thick.
- Heating Hot water Expansion Tanks, Storage Tanks, Air Separators: fiberglass 1.5" thick

Supply, Exhaust and Return Air Ductwork:

- Medium pressure supply ductwork on floors between shafts and terminal units: galvanized steel sheet metal, SMACNA pressure class +4" wg.
- Low pressure supply ductwork downstream of terminal boxes or fan coils: galvanized steel sheet metal, SMACNA pressure class +2" wg.
- Return ductwork: galvanized steel sheet metal, SMACNA pressure class -2" wg.
- Exhaust ductwork: galvanized steel sheet metal, SMACNA pressure class -2" wg.

- Exposed insulation below 7'-0" in elevation shall be rigid foam glass.
- Ductwork insulation (all materials to have max flame spread/smoke developed rating of 25/50):
- Concealed supply or makeup air: 2", ¾ lb. density fiberglass batt, alum foil facing.
- Exposed insulation (supply, return, exhaust) on roof: 2" rigid fiberglass with weatherproof wrap. Use 1" on exhaust to hold the weatherproof covering. Provide a tented cover for water drainage.
- Return air transfer ducts will be internally lined with offsets for sound attenuation. Anticipate all walls will be to deck and transfer ducts sized at 0.02" static pressure.

Elbows will be full radius where possible, or rectangular with double thickness turning vanes otherwise. Round duct above 2" pressure class will be spiral. Flexible duct will be externally insulated. Manual dampers or splitters will be required at each branch or take-off of ductwork 4" pressure class and below. Provide young regulators for all inaccessible balance dampers.

Building Automation System (BAS) – Direct Digital Controls (DDC)

- A new BACnet MSTP Building Automation System (BAS) will be installed to monitor and have central control capability as well as remote access for all mechanical equipment, including replicating information from equipment VFDs. The BAS shall also monitor domestic hot water supply temp as well as misc. equipment alarms:
 - O2 Alarm panel and Remote Alarm panel
 - Domestic water booster pump BACnet connection
 - Domestic water recirculation pump status and alarm
 - LINAC chiller Status, Alarm and BACnet connection (and one future)
 - Controller at roll up chiller and roll up generator connections for alarm connections.
- All valve and damper actuators and thermostats shall be DDC.
- The Building Automation System (BAS) shall include control / monitoring of the following: AHUs, terminal units, exhaust fans, chiller systems, emergency generator monitoring and low-level fuel alarm, and sump pump monitoring and high-level alarm.
- All application specific controllers (ASCs) shall be BACnet certified with all necessary configuration/programming tools or software provided and licensed to the owner.
- All graphics, alarms, schedules, and passwords shall comply with published standards that shall be provided by the owner.

Air Outlets and Inlets:

- Ceiling diffusers: square plaque type.
- Ceiling diffusers – slot applications: 1" slot width, slot quantity based on airflow.
- Ceiling return and exhaust grilles: ½" eggcrate aluminum grid.
- Sidewall supply registers: Double deflection ¾" blade spacing.
- Sidewall return registers: Fixed ½" blade spacing 35-45 deg.
- Pharmacy compounding classified spaces: Laminar flow HEPA fan filter units.

Plumbing

Medical Gas

Oxygen will be supplied by connection to new 6x6 oxygen manifold system with a ¾" line to the project area. The oxygen manifold will be in the level 1 manifold room. New oxygen system will be provided with one ZVB and related area alarm panel per floor. The area alarm panel shall be located in the nurse's station. Above ceiling provide spare line size lockable valves above ceiling for future connection. Provide a new med gas wall outlets (1-oxygen) and related piping. Medical Gas oxygen system is a category 3 per NFPA 99. Master Alarm Panel will be located in level 1 registration area.

- Outlet type: quick connect
- Zone valve boxes with gauges
- Area alarm panels
- One master alarm panel
- Communication of alarms to the Building Automation System
- In-line service valves
- Medical gas outlets will be provided in spaces as follows:

Room Type	O2	VAC	MA	WAGD	N2O	CO2	N	Slide
Triage	1							
Procedure	1							
Infusion	1							
CT	1							
LINAC	1							

All medical gas outlets installed at heights subject to damage, such as those on gas rails, must be properly protected in accordance with NFPA 99.

Domestic Cold Water

A 3" domestic cold water supply line will enter the building from a water main on site. This supply line will enter the building and will be routed to a mechanical room created for plumbing to a duplex domestic water booster pump. From the booster pump the 3" line will be routed to a PRV station for level 1-3. The CW lines will be routed above the ceiling of the first floor up to a chase. Here the riser will rise to level 2. A cold water loop will be routed above the ceiling of level 1. This loop will provide cold water for the tenant and the toilet rooms. On level 2 the cold water risers will continue up to level 3. On level 2 a

cold water loop will be routed above the ceiling and provide cold water for all tenants and the toilet rooms. On level 3 the cold water riser will rise to the penthouse. A cold water loop will be routed above the ceiling of level 3. This loop will provide cold water for the tenant and the toilet rooms. On the Penthouse the cold water riser will terminate. A cold water line will be routed in the room to provide cold water for all the necessary mechanical equipment's.

All taps of cold water off the main riser will be provided with a shut off to the floor.

Domestic Hot Water

A CW line will be routed to 1-200 or optional 2-200 gal natural gas water heater (set at 140 deg) The heater will provide hot water for all levels tenant and toilet rooms The heater will be located in the penthouse on roof level. From the heater a hot water line will be routed to a single temp valve set at 120 deg from the temp valve. The hot water line will follow the cold water risers up thru the building.

A hot water loop with iso valve will be located above the ceiling on each level. At the end of each HW loop a hot water return line w/balance valve will connect to a hot water return riser. This HWR line will be routed back to the water heater to maintain 120 deg water. A redundant set of recirculating pumps will be provided at the heaters for the hot water return.

Sanitary and Vent Piping

The sanitary sewer system serving the building will exit the building w/approx. 1-6" main. Approx. 5-4" waste and vent risers will be routed up thru the vertical height of the building. There are two sets of elevators one a two cab and one a single cab. The double cab will require a sanitary waste line from the elevator sump pump (1-100 gpm) and the second single cab will require a single 50 gpm pump. The discharge lines from each pump will connect to the sanitary waste system. Floor drains will be provided in all mechanical rooms, toilet rooms and janitors closets.

Storm Drainage Piping

Storm water will be removed from the building roof via approx. 10-6" roof drains and 10-6" overflow drains. Approx. 2-10" storm downspouts and 2- overflow risers will be routed through the vertical height of the building. The storm downspouts will collect below slab to approx. 1-12" and one 8" horizontal mains routed to the west to 5'-0" outside the building at which point civil will connect. The overflow piping will be the same size as the primary and will exit the building at the exterior wall just 18" above finish slab. A cows tongue will be provided at each overflow drain exiting the building. All horizontal storm and overflow piping will be insulated.

Piping Material:

<i>System Type</i>	<i>Material Type</i>
<i>Domestic Water</i>	<i>Type "L" copper tubing with wrought soldered joint</i>
<i>Sanitary Waste / Vent above slab</i>	<i>Cast iron with no-hub fittings</i>

<i>Sanitary Waste / Vent below slab</i>	<i>Cast iron with no-hub fittings</i>
<i>Storm (Below Slab)</i>	<i>Cast iron with no-hub fittings</i>
<i>Storm (Above Slab)</i>	<i>Cast iron with no-hub fittings</i>
<i>Natural Gas Piping</i>	<i>Black steel with malleable iron fittings</i>
<i>Medical Gas</i>	<i>Type "K" copper w/brazed wrought copper fittings</i>

Option Storm (Below Slab): schedule 40 PVC pipe with solvent joints. Price both options for owner review.

Piping Insulation:

<i>System</i>	<i>Insulation Type</i>	<i>Thickness</i>
<i>Domestic Cold Water</i>	<i>Mineral fiber preformed pipe insulation with ASJ</i>	<i>1"</i>
<i>Domestic Hot Water</i>	<i>Mineral fiber preformed pipe insulation with ASJ</i>	<i>1-1/2"</i>
<i>Domestic Hot Return</i>	<i>Mineral fiber preformed pipe insulation with ASJ</i>	<i>1-1/2"</i>

Fixtures:

Plumbing fixture criteria as follows:

- All fixtures to be high efficiency.
- Flush valves to be Sloan or equal.
- Faucets to be Chicago or equal with 8" centers.
- Public toilets to be provided with hardwired sensor operated flush valves and faucets.
- Stops and supplies shall be McGuire or equal.
- Water closets to be provided with anti-microbial toilet seats.
- Public lavatories to be provided with thermostatic mixing valves. Provide 1 per fixture.
- Thermostatic mixing valve to be hi/lo flow and shall be by Leonard or equal.
- Mop sinks shall be terrazzo and shall be provided with check valves on supply lines.

<i>Plumbing Fixtures</i>		
<i>Fixture</i>	<i>Manufacturer</i>	<i>Notes</i>
<i>Water Closets (Public Use)</i>	<i>American Standard, Kohler Or Equal</i>	<i>Floor Mounted Floor Outlet</i>
<i>Lavatory</i>	<i>American Standard, Kohler Or Equal</i>	<i>Wall Mounted</i>
<i>Janitor Sink</i>	<i>Stern-Williams Or Equal</i>	<i>Provide with elevated vacuum breaker, stainless steel mop hanger</i>
<i>Electric Drinking Fountain</i>	<i>Elkay or equal</i>	
<i>Urinal</i>	<i>American Standard, Kohler or Equal</i>	<i>Wall Hung with chair carrier</i>

Fire Protection

Fire protection systems shall be inspected, tested, and maintained in accordance with the referenced standards.

Hazard Classification

The following hazard classifications are proposed for the sprinkler systems, but are to be determined once a structure type is selected:

- Light Hazard – Office, Meeting Rooms, Classrooms, Lobby, exam rooms
- Ordinary Hazard Group 1 – Retail, Storage
- Ordinary Hazard Group 2 – Storage rooms with heights of 12 feet or less

Pipe Materials Schedule:

<i>Pipe Materials</i>	
<i>System Type</i>	<i>Material Type</i>
<i>Fire Protection-2-1/2" and larger</i>	<i>Schedule 40 black steel using roll groove joints</i> <i>Victaulic is acceptable</i>
<i>Fire Protection- 2" and smaller</i>	<i>Schedule 40 black steel with malleable iron screwed fittings</i>

Fire Protection

The entire building will be provided w/a 100% hydraulically calculated automatic sprinkler system. The standpipe system will be supplied fire water via 1-6" riser and a 2 ½" fire dept regulating valve located on each floor located in one of the stair wells. An 6" fire main will enter the building via civil. The automatic sprinkler system will be served from the 6" riser w/a floor control valve on each floor. A 3" drain riser will also be provided for testing and exit the building thru an exterior wall just above grade. A 2way Siamese and 2way roof manifold will also be provided.

Standpipe system shall provide 100psi at the top of the standpipe and shall serve a two-way roof manifold.

All valves on system shall be supervising and report back to the fire alarm panel.

Fire department connection shall be supplied (per NFPA14.)

Fire hose threads and fittings used in connection with automatic sprinkler systems shall be National Standard hose threads (per IFC 903.3.6).

Sprinkler System

Automatic sprinkler systems will be monitored by an approved (fire alarm) supervising station (IBC 901.6.1).

All interior areas of the building will be provided with wet-pipe fire sprinkler protection in accordance with NFPA 13, the IBC, the IFC, and any requirements of the Owner's Insurance Carrier. Each floor shall be provided with a sprinkler control assembly consisting of control valves, water flow switches, and test and drain assemblies. This system will be monitored by the building fire alarm system. Sprinkler zones will be in accordance with NFPA 13 limitations.

Sprinklers shall be fully recessed and head locations shall be coordinated with Architect.

Electrical

Design Criteria

Applicable Codes and Standards:

In addition to the codes and standards listed above in the general/architectural sections, compliance with the following codes and standards will be required:

ANSI - American National Standards Institute (ANSI)

NFPA - National Fire Protection Association (90A, 96, 70, 110)

UL - Underwriter's Laboratories (UL)

NEC

Power Distribution System

Normal Power Utility Service

Electrical systems for the new medical office building (MOB) will originate from the new medium voltage primary and 480Y/277V, three phase, four wire secondary pad mounted transformer provided and installed by utility company. The Primary feeder for the transformer will originate on the medium voltage overhead line pole and will be extended from the pole, underground to the primary side of the utility transformer. Duct bank for this feeder will be provided by the contractor and will be constructed according to utility company standards.

Normal Power Main Service Load Analysis

Anticipated total connected normal power load will be comprised of the following loads.

• Chiller 1	325KVA
• Chiller 2 Pharmacy)	35KVA
• Chiller 3 (Linac)	20KVA
• Chiller 4(Future linac)	20KVA
• CHP1	20KVA
• CHP2	20KVA
• HWP-1	3KVA
• HWP-2	3KVA
• AHU-1-1	65KVA
• AHU-2-1	35KVA
• AHU-3-1	35KVA
• AHU-3-2	15KVA
• EF-1&2	5KVA
• EF-3	5KVA
• EF-4; 5; 6;7; 8; 9	15KVA
• Elevators (total of 3)	150KVA
• Lighting (1VA/Sq ft)	45KVA
• Exterior lighting	20KVA
• Receptacles (2VA/Sq ft)	90KVA
• Medical equipment	45KVA
• Linear accelerator	70KVA
• Linear accelerator (Future)	70KVA
• CT Scanner	100KVA
• Office equipment	30KVA
• Miscellaneous	40KVA
 TOTAL CONNECTED LOAD KVA	 1291KVA
 10% Spare capacity	 129KVA
TOTAL LOAD DEMAND KVA	1420KVA



TOTAL LOAD DEMAND	A	1710	A
1710A X1.25		2137	A
RECOMANDED SERVICE		2500	A

Based on the load analysis estimated rating of the utility transformer is 1500 KVA. Utility transformer will be installed on the 132" X 114" concrete utility pad. Transformer pad will be constructed by the contractor per utility company specs which are outlined in the Entergy "Customer Installation Standards For Electric Service", the document is available on line.

Secondary feeder from the transformer to the main switchboard will be encased in concrete underground duct-bank and will consist of 8-4" conduits including 7 sets of parallel feeders and one spare conduit. Each parallel run will include 4-500MCM conductors (3Phase and neutral) and one 350MCM grounding conductor. Total ampacity of all parallel feeders will be 2500A at 480V.

Normal Power Distribution System

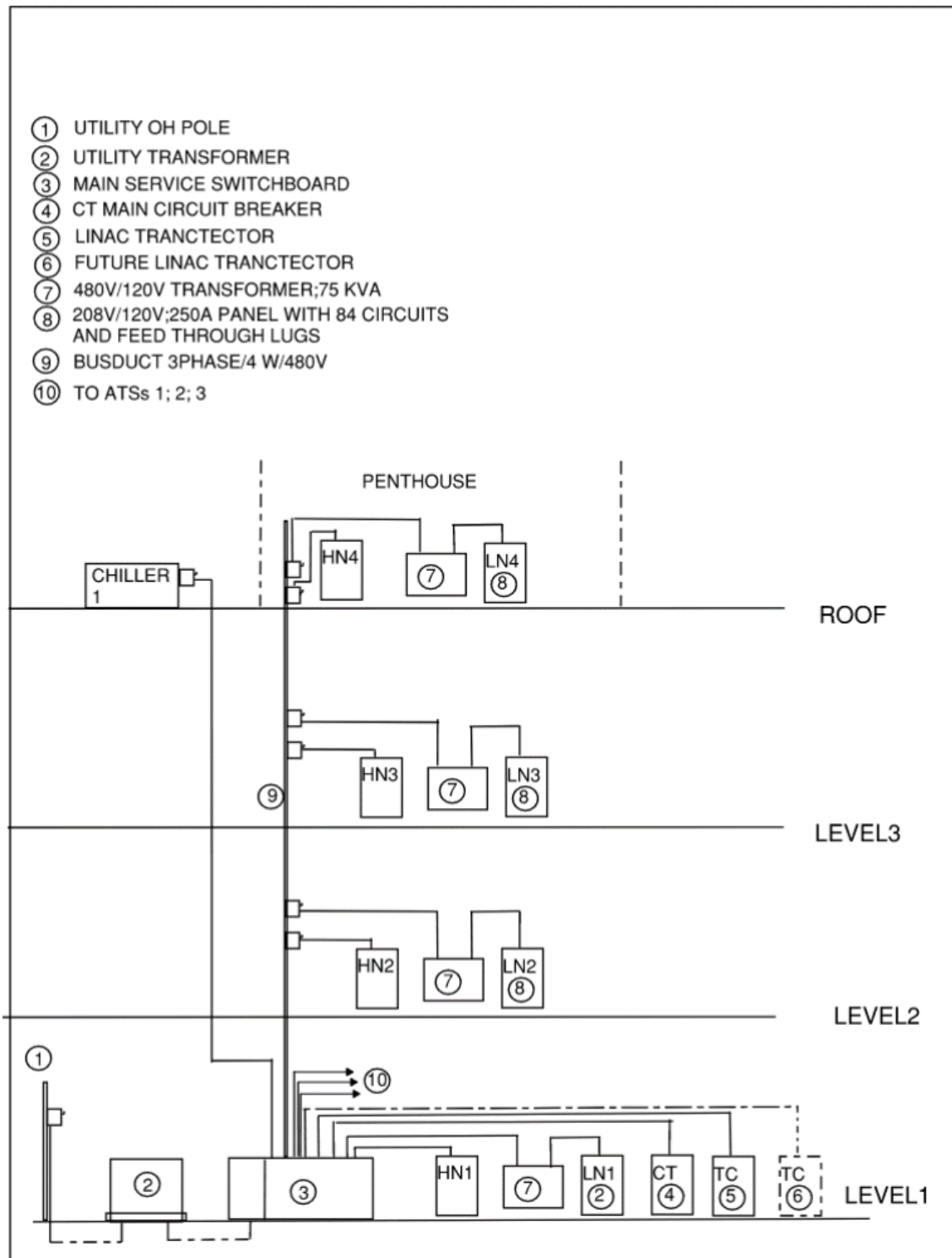
The new building will require a 2500 Amp main service which will originate in the main normal power switchboard located in the first-floor main electrical room. Estimated AIC rating and bus bracing of the switchboard is 65KA.

The main UL891 switchboard will consist of three sections. One section will be dedicated to the main service circuit breaker and two sections will have branch distribution circuit breakers.

The main and branch circuit breakers will have LSIG trip unit, and all circuit breakers rated 150A or more will be electronic type. Any circuit breaker rated 1200A or more will have arc flash maintenance switch as required by applicable codes.

The main switchboard will feed normal power 1200A, 480V/277V busduct which will be extended from the switchboard to the penthouse. The busduct will serve a 480V/277V, 100A lighting panel, and 75KVA, 480V/208V/Y transformers which will be located in electrical rooms on floors 2, 3 and penthouse. Transformer and lighting panel which will be in the first-floor electrical room will be fed from the switchboard. Each 75 KVA transformers will serve 250A, 208V/120V branch panels with 84 branch circuit. The panels will have feed through lugs to serve additional panels if needed in the future. 480V/277V lighting panels on floors 2 and 4 will be rated 225A, and panels on the floor 1 and in the penthouse will be rated 400A to have enough ampacity to serve mechanical equipment. The switchboard will also serve imaging equipment on the first floor and normal side of the transfer switches. All switchboard circuit breakers (Electronic and thermomagnetic) will have adjustable trip unit and will have ground fault protection. Circuit breakers rated 1200A and larger will have ARC FLASH maintenance switch.

Refer to preliminary riser diagram drawings for more information on electrical service throughout the building



Normal Power Distribution System Diagram

Emergency And Standby Power Distribution System

A complete automatic generator set system will be installed to provide emergency standby operation upon loss of utility power. The system will be designed for completely automatic unattended operation and capable of reaching operating range within ten seconds of initial start signal. Generation and distribution will be at 480 volts, 3 phase, 4 wire, 60 Hz.

Standby Power Preliminary Load Analysis

• Chiller 2 Pharmacy)	45KVA
• CHP1	20KVA
• CHP2	20KVA
• HWP-1	3KVA
• HWP-2	3KVA
• AHU-3-2	15KVA
• EF-3	5KVA
• Elevators (Only one on E)	50KVA
• Lighting (0.3VA/Sq ft)	15KVA
• Exterior lighting	10KVA
• Receptacles (0.5VA/Sq ft)	23KVA
• Medical	15KVA
• Office equipment	10KVA
• Data/communication	30KVA
• Miscellaneous	10KVA
• Refrigeration(meds.)	20KVA

TOTAL CONNECTED 294KVA

TOTAL LOAD DEMAND A 354 A

RECOMANDED generator size PF=0.8 300 KW/375 KVA

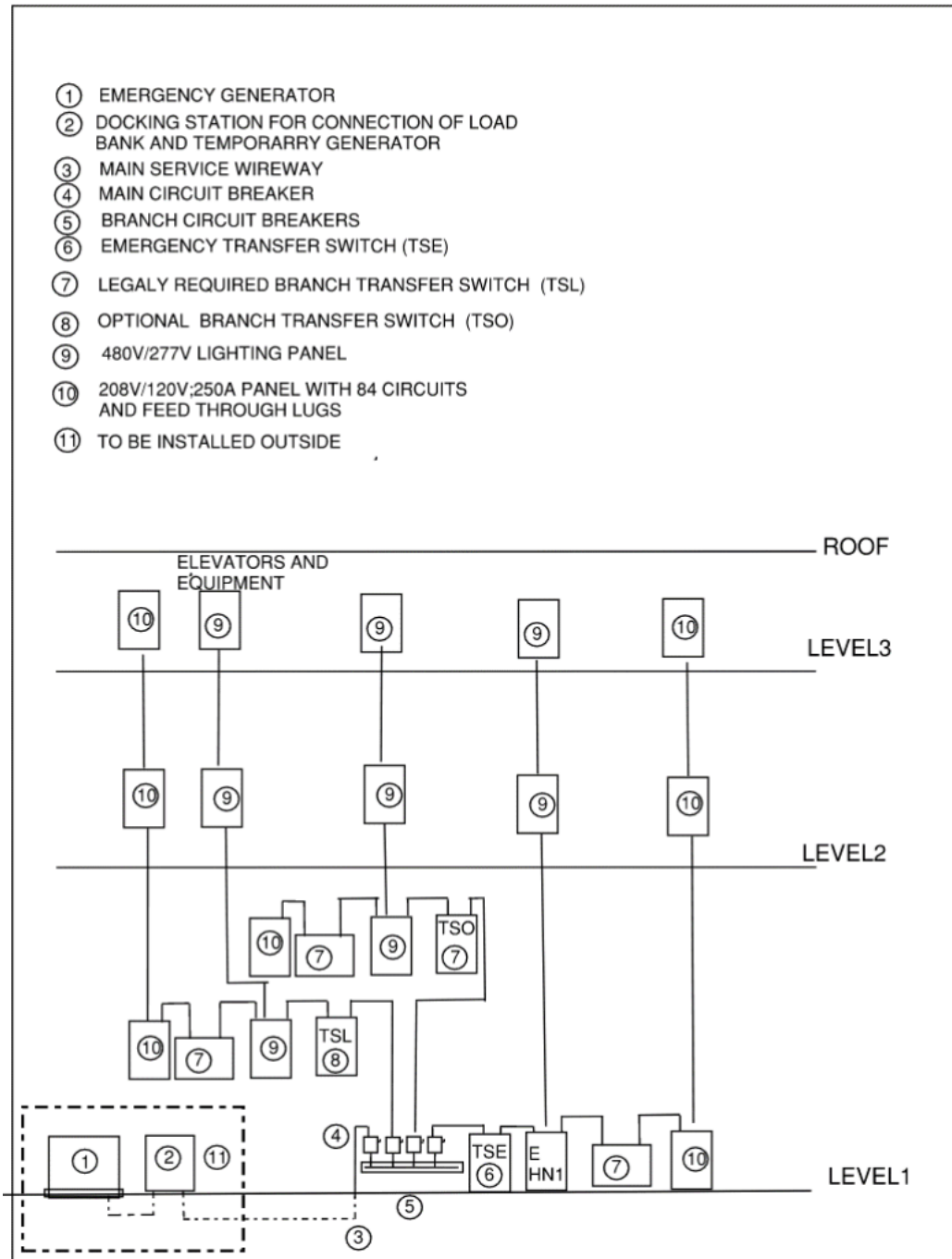
With anticipated load generator will run at 78 %

Based on the preliminary load analysis preliminary generator sizing project will require a 300KW generator. The generator will have integral 3P/ 600A circuit breaker with LSI trip unit and ground fault signal only. Generator integral belly fuel tank will have capacity to allow generator to run for a minimum of 4 hours at 100% loads and will have double wall (secondary containment) UL 2085 listed.

Acceptable manufacturers:

- Caterpillar
- Cummins

- Generac
- Kohler



Emergency/ Standby Riser Diagram

The generator will feed 600 A main wireway through a docking station which will be installed in the vicinity of the generator. The wireway will be located in the main emergency electrical room on the first floor.

The wireway will have main 600A/ 3P, enclosed circuit breaker and 3 enclosed branch circuit breakers. Three branch circuit breakers will serve one transfer switch for emergency standby power, one transfer switch for legally required branch standby power and one switch for optional branch standby power. Requirement and need to provide optional branch (transfer switch and circuit breaker) will be determined in the design phase. The main circuit breaker and all branch circuit breakers will be electronic type with LSI trip unit and ground fault signal.

All transfer switches will be in the main emergency switchboard room.
Refer to emergency power riser diagram for additional information.

The following systems will be served by emergency standby power:

- Egress lighting
- Exit lights
- Fire alarm panels/power supplies
- Security equipment power supplies
- Elevator cab lighting and ventilation

The following systems will be provided with legally required and optional branch backup power

- Elevators controller
- Mechanical equipment
- Medical equipment
- Any additional load designated by the owner.

Lighting And Lighting Control System

Lighting system:

The Illuminating Engineering Society's Illuminance Selection Procedure establishes targeted maintained illumination levels throughout all areas. Specific influences of glare, task complexity, surface reflectance characteristics, veiling brightness and user age contribute to the final determination of lighting levels for specific areas.

Local codes will take precedence when they dictate the use of alternative procedures or require minimum lighting levels for specific areas.

SPACE	FIXTURE TYPE	ILLUMINATION LEVEL fcd	CONTROL
LOBBY	DOWNLIGHTS/ DECORATIVE	30	CONTROL PANEL
INTERIOR CORRIDORS	2X4 DIRECT/INDIRECT	30	CONTROL PANEL
ELEVATOR LOBBIES	DOWNLIGHTS/ DECORATIVE	30	CONTROL PANEL
OFFICE	2X4 DIRECT/INDIRECT	50	VACANCY SENSOR/DIMMER
STAFF LOUNGE	2X4 DIRECT/INDIRECT	30	VACANCY SENSOR/DIMMER
SUPPORTING AREA	2X4 DIRECT/INDIRECT	40	VACANCY SENSOR
EXAM ROOMS	2X4 DIRECT/INDIRECT	50	MANUAL DIMMER
EL. MECH IDF ROOMS	STRIP/SUSPENDED	50	MANUAL SWITCH
WAITING AREA	DOWNLIGHTS/ DECORATIVE	30	CONTROL PANEL
INFUSION	2X4 DIRECT/INDIRECT	50	MANUAL DIMMER

Interior lighting for the Medical Office Building will generally be provided at 277V as well as be determined by the Owner's and Architect's fixture selections. All fixtures will be LED.

Recessed 2' x 4' direct-indirect LED lighting fixtures will be the building standard for the public areas, offices, patient care areas and corridors to provide optimum energy efficiency. Where lower light levels are required, dimmed led fixtures will be used.

Main lobby and elevators lobbies will have a combination of recessed downlights, and decorative fixtures. Wall washer downlights will be utilized for illumination of artwork.

Exit signs will have red letters and LED light sources with Chevron indicators and universal mounting.

Lighting Control

Lighting control will generally be accomplished with occupancy sensors, except where such control might pose a hazard. Public areas shall be controlled via lighting control panel and low voltage override switches to comply with applicable energy codes.

All exterior lighting will be controlled by the building lighting relay control panel. The panel will have interfaced photocell programmed to turn on/off

Stairwells:

LED, 4' wall-mounted decorative luminaires to provide general lighting. Must meet requirements outlined in ADA documents. Occupancy sensor control to step dim the fixture when the stairwell is unoccupied shall be provided as required to meet local energy code.

Lighting on the rooftop will consist of weatherproof LED cutoff luminaires installed on penthouse walls.

Fire Alarm System

A networked addressable electrically supervised micro-processor based fire alarm system will be installed, including control panels, automatic smoke and heat detectors, remote test switches, sprinkler flow and tamper switches monitoring, audio/visual signaling devices, remote annunciators and digital alarm communication transmitter.

Audio/visual signaling devices will be utilized in the facility to provide alarm notification.

Speaker/strobes will be installed in all public and interior areas as required. Upon system initiation the FACP will send a signal transmission to the central monitoring location, release exterior door locks (if any), activate elevator recall function, and HVAC unit shutdown as required, and notify the building occupants via audible and visual devices.

Duct smoke detectors rated for operation at zero airflow will be included in all fan systems exceeding 2,000 CFM capacity and anywhere vertical return duct risers split to serve two or more floors.

Standard smoke detectors will be in the top and bottom of the elevator shafts, in elevator equipment rooms, and in elevator lobbies to provide code required elevator recall and shunt trip functions. Heat detectors will be located in elevator shaft, elevator equipment room and other areas as required by code.

Double-action type manual pull stations will be installed at all exit/stairwell doors and as required (every 200 feet) by code. These alarms will immediately initiate alarm and smoke control system functions. While the building is expected to be fully sprinkled, any mechanical, electrical, storage, or other spaces that do not have sprinklers in them will be required to have a smoke detector installed.

Lightning Protection System

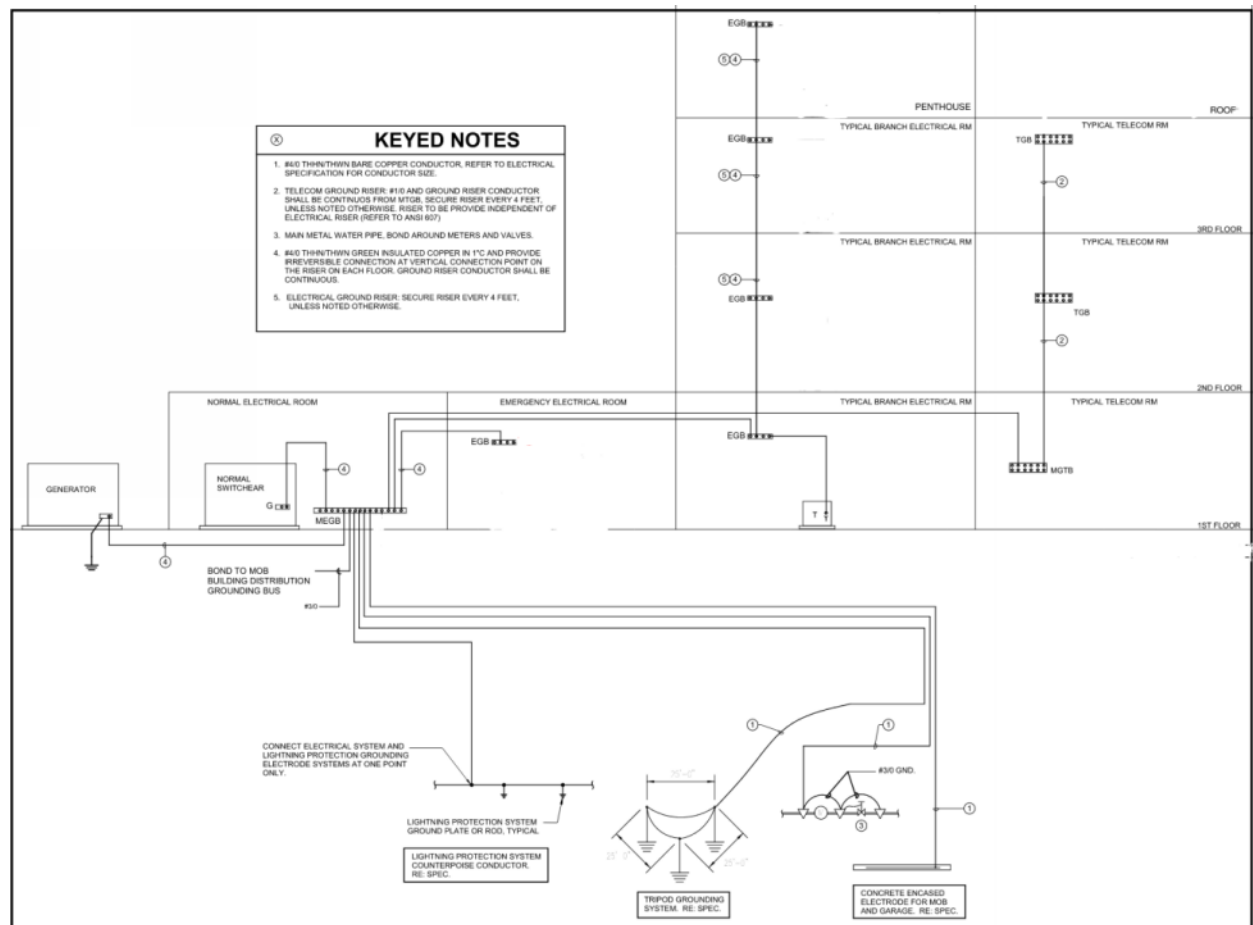
The building shall be provided with a lightning protection system, which shall conform to the requirements of Underwriter's Laboratories (UL) for a Master Label. The lightning protection system will include roof-mounted air terminals, down conductors. All metal items and equipment on roofs, such as exhaust fans, pipes, gutters, downspouts, and ladders will be protected by the lightning protection system. Conductors, terminals, and fittings at the roof line will be aluminum. Components below the roof line will be copper. Down conductors will be installed in PVC conduit. Entire lightning protection system will be bonded with the building grounding system. Roof penetrations required for down conductors will be made using thru-roof assemblies with solid riser bars and appropriate roof flashing. Conductors will not pass directly through the roof.

Upon completion of the installation of the lightning protection system the contractor will furnish the UL Master Label Certificate of Compliance issued by Underwriters Laboratories Inc

Grounding System

The entire electrical system of raceways and equipment will be grounded in accordance with Article 250 of the NEC. The grounding electrode system will be comprised of a 250 MCM copper grounding ring placed in the footing of the building, and multiple ground rods connected to the grounding ring. A

ground bus bar located in the Main Electrical room will be bonded to the grounding ring, main cold-water pipe, building steel and to ground bus in the normal main switchboards and emergency wireway.



Grounding System Riser Diagram

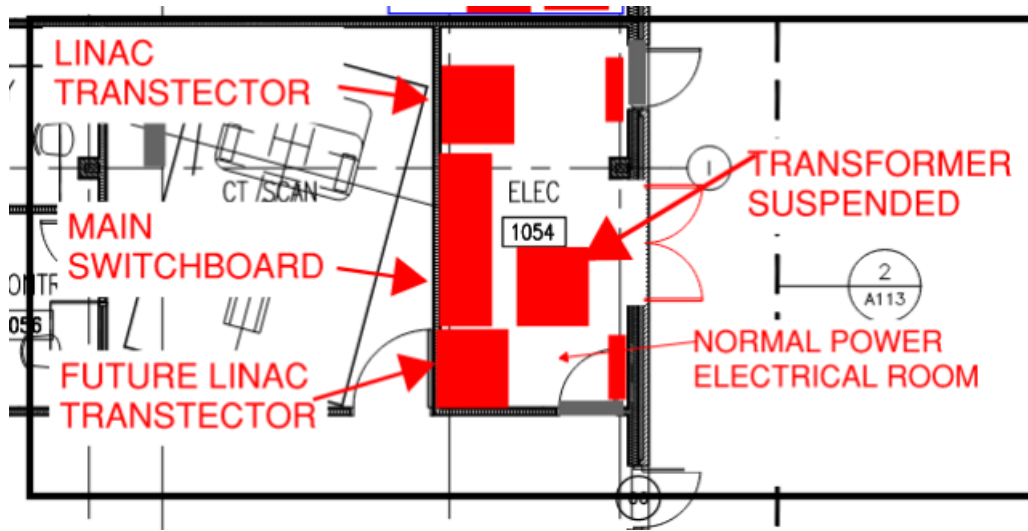
A grounding conductor sized in accordance with NEC will be used to bond ground bus in the main electrical room with the ground busses located in the satellite electrical rooms and telecom rooms. Ground buses will be copper with minimum dimensions of 24"X4"X1/4".

Electrical Rooms

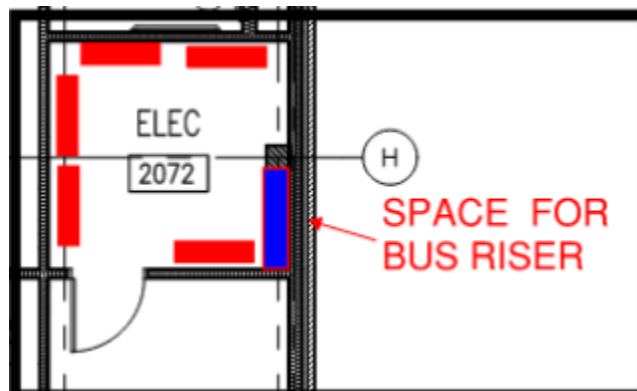
The following are anticipated electrical rooms in MOB. Actual size will be validated in DD phase.

- level 1- one emergency power electrical room for main wireway and 3 transfer switches
- Level 1-one normal power electrical room for main switchboard and distribution equipment
- which will include transformers, panels, and transformers for linear accelerators and electrical panels.

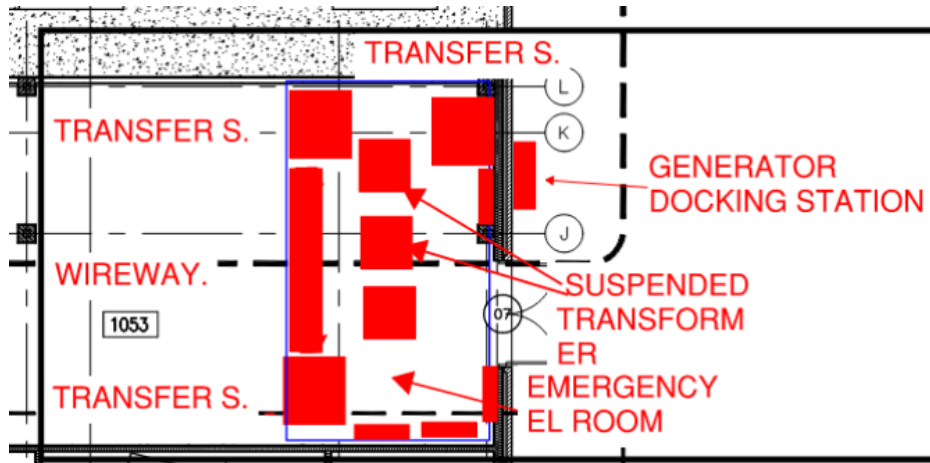
- Level 2 and 3 electrical rooms will include electrical panels.



Normal Power Electrical Room -1st Floor



Electrical Room -2nd Floor (Similar Layout On Floor 3)



Standby Power Electrical Room -1st Floor

Elevators

The elevators will be provided with emergency power for emergency lighting, communications, and ventilation. All elevators' controllers will be connected to emergency power but only one will stay in service during power outage. The other elevators will be lowered to the ground floor one by one and will remain there during power outage. During an outage, signals will be sent from the associated ATS to the elevator controllers to operate one elevator at a time. There will be one elevator sump-pump per elevator pit that will be fed from the standby power system.

Special Project Requirements

All branch circuits and feeders will be provided with an equipment ground wire.

All branch circuits will be provided with dedicated neutral conductors.

All branch circuit wiring will be in conduit. The minimum size power conduit will be ¾". Lighting circuit whips may be healthcare grade MC cable from junction box to light fixture. No daisy chain installations.

Two hour fire rated power circuit and control circuit assemblies will be provide to meet high rise and fire pump requirements.

Material Of Construction

Conductors

Conductors and cables 'conductors will made of soft-drawn annealed copper. Minimum size No. 12 for power and lighting circuits. Color-coded throughout. Listed terminals and connections throughout.

- Type THHN: No. 10 and 12 (solid conductors)
- Type THW: No. 8 and larger (stranded conductors)
- Type THHN: No. 14 (fixture wiring)

- Branch circuits of No.12 AWG at 120 volts extending over 66 feet from supply panel will be increased in size to No. 10 AWG. For 277 volts, the distance will be increased to 153 feet. All exposed non-current carrying metallic parts of electrical equipment and raceway system will be grounded and bonded.

Automatic Transfer Switches

All transfer switches will be 480V, 4 pole, open transition with the bypass. Transfer switches will have auxiliary contacts for elevators pretransfer signal and will have communication module for interface with BAS system. Remote ATS annunciation panel will be provided at the location designated by the user.

Distribution Transformers

Distribution transformers will be general duty, 220 degrees Celsius class with 150 degrees Celsius temperature rating. All transformers will have copper winding.

Disconnect Switches

All disconnect switches will be heavy duty, HP rated with copper buses.

Conduits

Conduit: Wiring will be installed in conduit. All conduits will be concealed except in utility areas. Minimum size of conduits will be 3/4 inch. Conduit supported at not more than 8-foot intervals with galvanized hangers.

- Underground: Primary conduit will be PVC encased in 4-inch thick red concrete.
- Exposed: Rigid galvanized steel conduit.
- Eight feet above floor and located within walls and ceiling- Zinc coated electric metallic tubing (EMT) conduit.
- Motors, transformers, and other equipment subject to vibration: Flexible metal or liquid tight flexible metal conduit
- Low voltage systems wiring run in air plenums or ceiling cavities will be installed in conduit or, if approved plenum rated cables may be used without conduits.

Surge Protective Devices (SPDs)

SPDs will be installed at the service entrance equipment, emergency distribution panels, any panel which serves imaging equipment, and any existing distribution panels which will feed exterior equipment like fans or HVAC equipment on the roof. Recommended manufacturers are Current Technology, Schneider Electric and GE.

Selective Coordination and Arc Flash Study

A selective coordination study, arc flash study, and relay settings of normal power and essential power distribution systems will be provided by the contractor or the third party selected by the contractor. Overcurrent protection at the service entrance equipment must be selectively coordinated with the utility overcurrent protective relays.



Each overcurrent protective relay installed as a part of the normal or essential power distribution system must be selectively coordinated with the overcurrent protective relay installed one level upstream



END OF THE DESIGN NARRATIVE

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ABBREVIATIONS

AB.	ANCHOR BOLT	FF	FINISH FLOOR	OC	ON CENTER	VENT	VENTILATION
A/C	AIR CONDITIONING	FFE	FINISH FLOOR ELEVATION	OD	OUTSIDE DIAMETER	VERT	VERTICAL
ACT	ACOUSTICAL CEILING TILE	FIN	FINISH FLOOR	OFCI	(OR OVERFLOW DRAIN) OWNER FURNISHED/ CONTRACTOR INSTALLED	VEST	VESTIBULE
A.D.	AREA DRAIN	FLR	FLUORESCENT	OFOI	OWNER FURNISHED/ OWNER INSTALLED	VIF	VERIFY IN FIELD
ADA	AMERICANS WITH DISABILITIES ACT	FM	FACTORY MUTUAL	OH	OPPOSITE HAND (OR OVERHEAD)	VIR	VAPOR RETARDER
ADJ	ADJUSTABLE	FO	FACE OF (SPECIFY ITEM)	OPNG	OPENING	VTR	VENT THRU ROOF
AFF	ABOVE FINISH FLOOR	FR	FACE OF BRICK	OPP	OPPOSITE	VWC	VINYL WALL COVERING
ALT	ALTERNATE	FOC	FACE OF CONCRETE	PERP	PERPENDICULAR	WC	WATER CLOSET
ALUM	ALUMINUM	FOS	FACE OF STUD	PL	PLATE (OR PROPERTY LINE)	WD	WOOD
ANOD	ANODIZED	FR	FIRE RESISTIVE	PLAM	PLASTER	WDW	WINDOW
APPROX	APPROXIMATE	FT	FEET / FOOT	PLAS	PLASTER	W	WITH
ARCH	ARCHITECT(URAL)	FTG	FOOTING	PLYWD	PLYWOOD	WH	WATER HEATER
ASPH	ASPHALT	FURR	FURRING / FURRED	PNT	PANEL	W/O	WITHOUT
BD	BOARD	GA	GAUGE	PR	PAINT	WP	WATERPROOF
BIT	BITUMINOUS	GALV	GALVANIZED	PSF	POUNDS PER SQUARE FOOT	WR	WATER RESISTANT
BLDG	BUILDING	GB	GRAB BAR	PSI	POUNDS PER SQUARE INCH	WT	WEIGHT
BLKG	BLOCKING	GC	GENERAL CONTRACTOR	PT	PRESSURE TREATED	WWF	WELDED WIRE FABRIC
BM	BEAM	GL	GLASS / GLAZING	PTN	PARTITION	WWM	WELDED WIRE MESH
B.O.	BOTTOM OF	GND	GROUND	PVC	POLYVINYL CHLORIDE	YD	YARD
BOT	BOTTOM	GR	GRADE	RA	RETURN AIR		
BRG	BEARING	GYP	GYPSPUM WALLBOARD	RAD	RADIUS		
B/TWN	BETWEEN	HB	HOSE BIB	RCP	REFLECTED CEILING PLAN		
BUR	BUILT-UP ROOF	HDR	HOLLOW CORE	RD	ROOF DRAIN		
CAB	CABINET	HDWR	HARDWARE	REBAR	REINFORCING BAR		
CBU	CEMENTITIOUS BACKER UNIT	HM	HOLLOW METAL	REC	RECESSED		
C/C	CENTER-TO-CENTER	HORIZ	HORIZONTAL	REF	REFERENCE		
CEM	CEMENT	HVAC	HEATING, VENTILATION, AND AIR CONDITIONING	REFR	REFRIGERATOR		
CER	CERAMIC	HW	HOT WATER	REINF	REINFORCING / REINFORCED		
C.G.	CORNER GUARD	ID	INSIDE DIAMETER	REQD	REQUIRED		
C.I.P.	CAST-IN-PLACE	IN	INCH	RES	RESILIENT		
C.J.	CONTROL JOINT	INCL	INCLUDE(D)	REV	REVISION		
CL	CENTERLINE	INSUL	INSULATION	RH	RIGHT HAND		
CLG	CEILING	INT	INTERIOR	RHR	RIGHT HAND REVERSE		
CLR	CLEAR(ANCE)	INV	INVERT	RM	ROOM		
CLOS	CLOSET	JAN	JANITOR	RO	ROUGH OPENING		
CMU	CONCRETE	JST	JOIST	RWL	RAINWATER LEADER		
COL	COLUMN	JT	JOINT	R&S	ROD AND SHELF		
CONC	CONCRETE	KD	KNOCK DOWN	SC	SOLID CORE		
CONSTR	CONSTRUCTION	KIT	KITCHEN	SCHED	SCHEDULE		
CONT	CONTINUOUS	KO	KNOCK OUT	SF	SQUARE FEET		
COORD	COORDINATE	LAB	LABORATORY	SHT	SHEET		
CORR	CORRIDOR	LAM	LABORATORY LAMINATE(D)	SIM	SIMILAR		
CTR	CENTER	LAV	LAVATORY	SPEC	SPECIFICATION		
C.Y.	CUBIC YARD	LF	LINEAL FOOT	SQ	SQUARE		
DBL	DOUBLE	LH	LEFT HAND	SS	STAINLESS STEEL		
DEMO	DEMOLITION	LHR	LEFT HAND REVERSE	ST	STONE		
DEPT	DEPARTMENT	LL	LIVE LOAD	STC	SOUND TRANSMISSION CLASS		
DET	DETAIL	LLH	LONG LEG HORIZONTAL	STD	STANDARD		
DIA	DIAMETER	LLV	LONG LEG VERTICAL	STL	STEEL		
DIAG	DIAGONAL	LWC	LIGHT WEIGHT CONCRETE	STOR	STORAGE		
DIM	DIMENSION	MACH	MACHINE	STRUCT	STRUCTURAL		
DISP	DISPENSER	MAS	MASONRY	SUSP	SUSPENDED		
DL	DEAD LOAD	MATL	MATERIAL	SYM	SYMMETRICAL		
DN	DOWN	MAX	MAXIMUM	TAS	TEXAS ACCESSIBILITY STANDARDS		
DR	DOOR	MDF	MEDIUM DENSITY FIBERBOARD	T&B	TOP AND BOTTOM		
DS	DOWNSPOUT	MECH	MECHANICAL	T&G	TONGUE AND GROOVE		
DWR	DRAWER	MEMB	MEMBRANE	TBD	TO BE DETERMINED		
EA	EACH	MFR	MANUFACTURER	TEL	TELEPHONE		
EF	EACH FACE / EXHAUST FAN	MEZZ	MEZZANINE	TER	TERRAZZO		
EJ	EXPANSION JOINT	MH	MANHOLE	THK	THICK(NESS)		
EIFS	EXTERIOR INSULATED FINISH SYSTEM	MIN	MINIMUM	TI	TENANT IMPROVEMENT		
ELEC	ELECTRICAL	MIR	MIRROR	TO	TOP OF (SPECIFY ITEM)		
ELEV	ELEVATION	MISC	MISCELLANEOUS	TOC	TOP OF CURB / CONCRETE		
EMER	EMERGENCY	MO	MASONRY OPENING	TOP	TOP OF PARAPET		
ENCL	ENCLOSURE	MR	MOISTURE RESISTANT	TOS	TOP OF STEEL		
EQ	EQUAL	MUL	MULLION	TOW	TOP OF WALL		
EQUIP	EQUIPMENT	N/A	NOT APPLICABLE	TPTN	TOILET PARTITION		
EW	EACH WAY	NIC	NOT IN CONTRACT	TS	TUBULAR STEEL		
EWG	ELECTRIC WATER COOLER	NO	NUMBER	TV	TELEVISION		
EXH	EXHAUST	NTS	NOT TO SCALE	TYP	TYPICAL		
EXIST	EXISTING			UC	UNDERCOUNTER		
EXP	EXPANSION / EXPOSED			UL	UNDERWRITERS LABORATORY		
EXT	EXTERIOR			UNO	UNLESS NOTED OTHERWISE		
FD	FLOOR DRAIN			VCT	VINYL COMPOSITION TILE		
FDN	FOUNDATION						
FE	FIRE EXTINGUISHER						
FEC	FIRE EXTINGUISHER						

TABS???????????



SCHEMATIC DESIGN REVIEW

REVIEWED BY:

DATE:

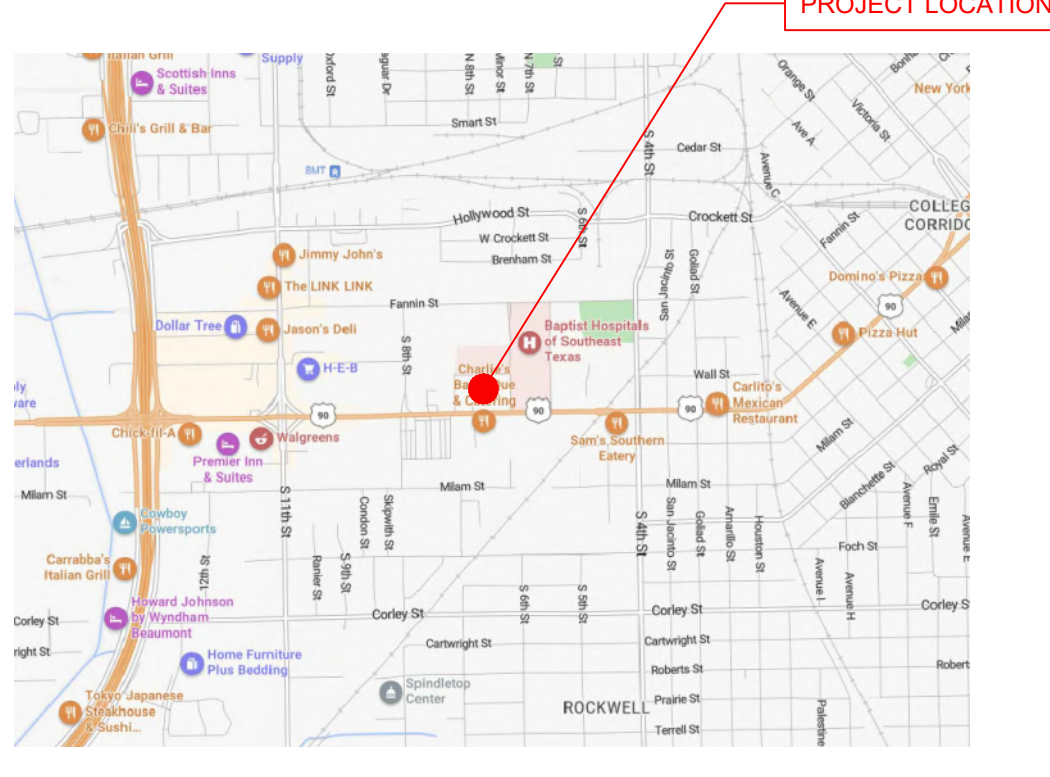
MATERIAL LEGEND

	CONCRETE		BLOCKING OR SHIM (CONTINUOUS)
	BRICK MASONRY		BLOCKING OR SHIM (INTERMITTENT)
	CONCRETE MASONRY UNITS		RIGID INSULATION
	PLYWOOD		BATT INSULATION
	GYPSUM BOARD		
	CALLED NORTH		

SYMBOL KEY

	DOOR NUMBER		PARTITION TYPES
	TOILET ACCESSORY		EXTERIOR ELEVATION TAG
	INTERIOR ELEVATION MARK		ROOM NAME & NUMBER
	ENLARGED DETAIL		WINDOW TYPE
	KEYNOTE		NORTH ARROW

LOCATION MAP



302 FLOOR OR GROUND SURFACES

302.1 GENERAL. Floor and ground surfaces shall be stable, firm, and slip resistant and shall comply with 302.

EXCEPTIONS:

1. Within animal containment areas, floor and ground surfaces shall not be required to be stable, firm, and slip resistant.
2. Areas of sport activity shall not be required to comply with 302.

302.2 CARPET. Carpet or carpet tile shall be securely attached and shall have a firm cushion, pad, or backing or no cushion or pad. Carpet or carpet tile shall have a level loop, textured loop, level cut pile, or level cut/uncut pile texture. Pile height shall be 1/2 inch (13 mm) maximum. Exposed edges of carpet shall be fastened to floor surfaces and shall have trim on the entire length of the exposed edge. Carpet edge trim shall comply with 303.

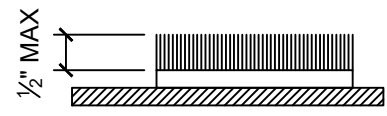


Figure 302.2 Carpet Pile Height

302.3 OPENINGS. Openings in floor or ground surfaces shall not allow passage of a sphere more than 1/2 inch (13 mm) diameter except as allowed in 407.4.3, 409.4.3, 410.4, 810.5.3 and 810.10. Elongated openings shall be placed so that the long dimension is perpendicular to the dominant direction of travel.

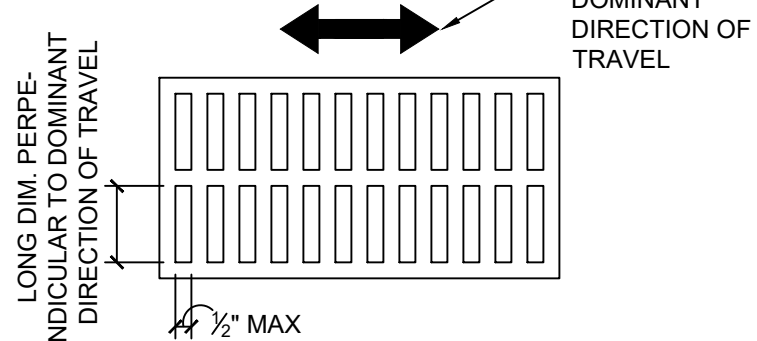


Figure 302.3 Elongated Openings in Floor or Ground Surfaces

303 CHANGE IN LEVELS

303.1 GENERAL. Where changes in level are permitted in floor or ground surfaces, they shall comply with 303.

EXCEPTIONS:

1. Animal containment areas shall not be required to comply with 303.
2. Areas of sport activity shall not be required to comply with 303.

303.2 VERTICAL. Changes in level of 1/4 inch (6.4 mm) high maximum shall be permitted to be vertical.

303.3 BEVELED. Changes in level between 1/4 inch (6.4 mm) high minimum and 1/2 inch (13 mm) high maximum shall be beveled with a slope not steeper than 1:2.

303.4 RAMPS. Changes in level greater than 1/2 inch (13 mm) high shall be ramped, and shall comply with 405 or 406.

304 TURNING SPACE

304.1 GENERAL. Turning space shall comply with 304.

304.2 FLOOR OR GROUND SURFACES. Floor or ground surfaces of a turning space shall comply with 302. Changes in level are not permitted.

EXCEPTION: Slopes not steeper than 1:48 shall be permitted.

304.3 SIZE. Turning space shall comply with 304.3.1 or 304.3.2.

304.3.1 CIRCULAR SPACE. The turning space shall be a space of 60 inches (1525 mm) diameter minimum. The space shall be permitted to include knee and toe clearance complying with 306.

304.3.2 T-SHAPED SPACE. The turning space shall be a T-shaped space within a 60 inch (1525 mm) square minimum with arms and base 36 inches (915 mm) wide minimum. Each arm of the T shall be clear of obstructions 12 inches (305 mm) minimum in each direction and the base shall be clear of obstructions 24 inches (610 mm) minimum. The space shall be permitted to include knee and toe clearance complying with 306 only at the end of either the base or one arm.

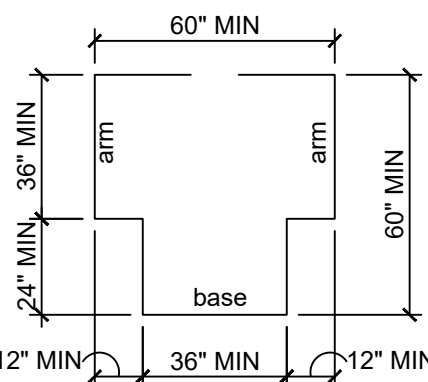


Figure 304.3.2 T-Shaped Turning Space

304.4 DOOR SWING. Doors shall be permitted to swing into turning spaces.

305 CLEAR FLOOR SPACE OR GROUND FLOOR SPACE

305.1 GENERAL. Clear floor or ground space shall comply with 305.

305.2 FLOOR OR GROUND SURFACES. Floor or ground surfaces of a clear floor or ground space shall comply with 302. Changes in level are not permitted.

EXCEPTION: Slopes not steeper than 1:48 shall be permitted.

305.3 SIZE. The clear floor or ground space shall be 30 inches (760 mm) minimum by 48 inches (1220 mm) minimum

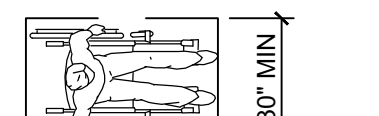


Figure 305.3 Clear Floor or Ground Space

305.4 KNEE AND TOE CLEARANCE. Unless otherwise specified, clear floor or ground space shall be permitted to include knee and toe clearance complying with 306.

305.5 POSITION. Unless otherwise specified, clear floor or ground space shall be positioned for either forward or parallel approach.

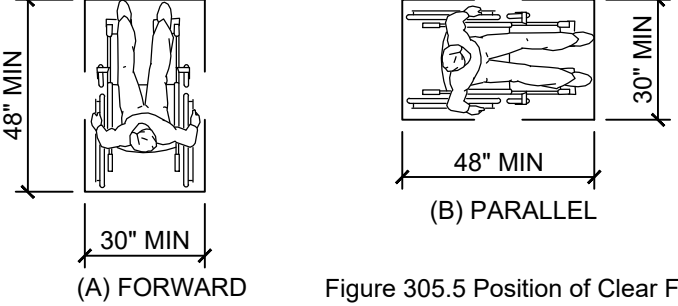


Figure 305.5 Position of Clear Floor or Ground Space

305.6 approach. One full unobstructed side of the clear floor or ground space shall adjoin an accessible route or adjoin another clear floor or ground space.

305.7 MANEUVERING CLEARANCE. Where a clear floor or ground space is located in an alcove or otherwise confined on all or part of three sides, additional maneuvering clearance shall be provided in accordance with 305.7.1 and 305.7.2.

305.7.1 FORWARD APPROACH. Alcoves shall be 36 inches (915 mm) wide minimum where the depth exceeds 24 inches (610 mm).

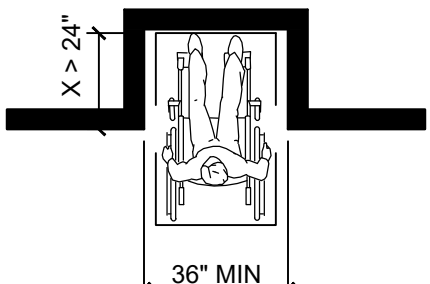


Figure 305.7.1 Maneuvering Clearance in an Alcove, Forward Approach

305.7.2 PARALLEL APPROACH. Alcoves shall be 60 inches (1525 mm) wide minimum where the depth exceeds 15 inches (380 mm).

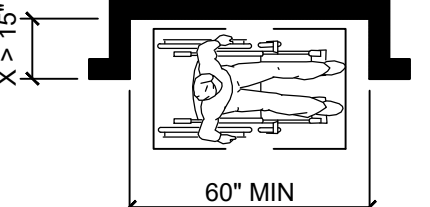
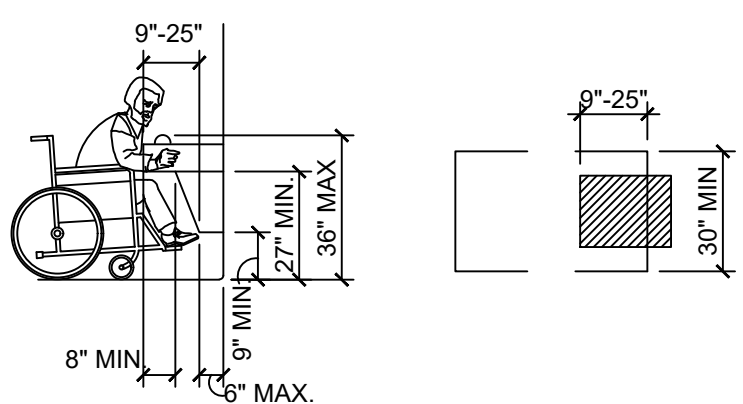


Figure 305.7.2 Maneuvering Clearance in an Alcove, Parallel Approach

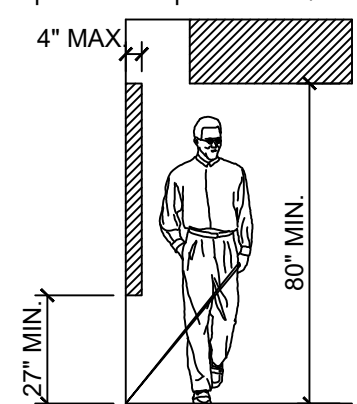
306 KNEE AND TOE CLEARANCE



307 PORTRUDING OBJECTS

307.2 PROTRUSION LIMITS. Objects with leading edges more than 27 inches (685 mm) and not more than 80 inches (2030 mm) above the finish floor or ground shall protrude 4 inches (100 mm) maximum horizontally into the circulation path.

EXCEPTION: Handrails shall be permitted to protrude 4 1/2 inches (115 mm) maximum.



307.3 POST-MOUNTED OBJECTS. Free-standing objects mounted on posts or pylons shall overhang circulation paths 12 inches (305 mm) maximum when located 27 inches (685 mm) minimum and 80 inches (2030 mm) maximum above the finish floor or ground. Where a sign or other obstruction is mounted between posts or pylons and the clear distance between the posts or pylons is greater than 12 inches (305 mm), the lowest edge of such sign or obstruction shall be 27 inches (685 mm) maximum or 80 inches (2030 mm) minimum above the finish floor or ground.

EXCEPTION: The sloping portions of handrails serving stairs and ramps shall not be required to comply with 307.3.

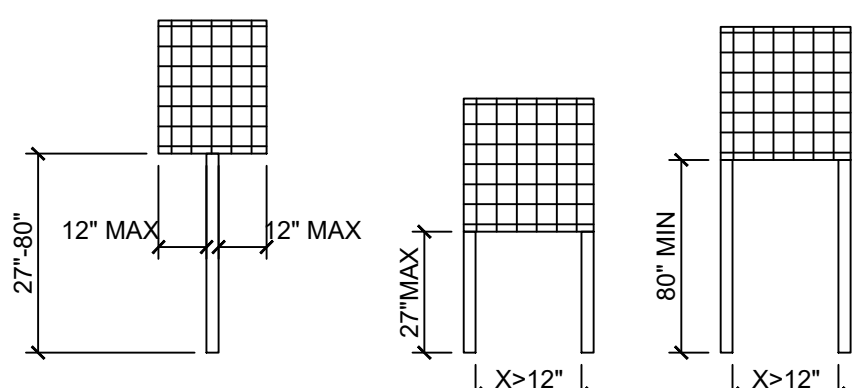


Figure 307.3 Post-Mounted Protruding Objects

307.4 VERTICAL CLEARANCE. Vertical clearance shall be 80 inches (2030 mm) high minimum. Guardrails or other barriers shall be provided where the vertical clearance is less than 80 inches (2030 mm) high. The leading edge of such guardrail or barrier shall be located 27 inches (685 mm) maximum above the finish floor or ground.

EXCEPTION: Door closers and door stops shall be permitted to be 78 inches (1980 mm) minimum above the finish floor or ground.

308 REACH RANGE

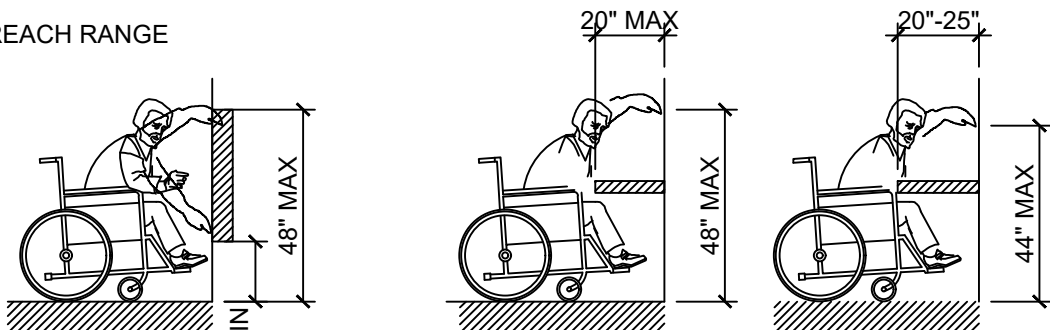


Figure 308.2.1 Unobstructed Forward Reach

Figure 308.2.2 Obstructed High Forward Reach

308.3 SIDE REACH.

308.3.1 UNOBSTRUCTED. Where a clear floor or ground space allows a parallel approach to an element and the side reach is unobstructed, the high side reach shall be 48 inches (1220 mm) maximum and the low side reach shall be 15 inches (380 mm) minimum above the finish floor or ground.

EXCEPTIONS:

1. An obstruction shall be permitted between the clear floor or ground space and the element where the depth of the obstruction is 10 inches (255 mm) maximum.
2. Operable parts of fuel dispensers shall be permitted to be 54 inches (1370 mm) maximum measured from the surface of the vehicular way where fuel dispensers are installed on existing curbs.

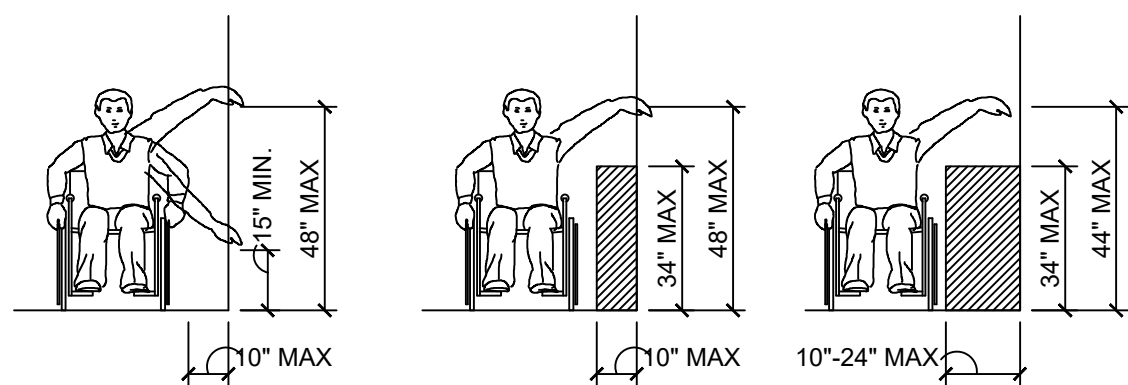


Figure 308.3.1 Unobstructed Side Reach

Figure 308.3.2 Obstructed High Side Reach

308.3.2 OBSTRUCTED HIGH REACH. Where a clear floor or ground space allows a parallel approach to an element and the high side reach is over an obstruction, the height of the obstruction shall be 34 inches (865 mm) maximum and the depth of the obstruction shall be 24 inches (610 mm) maximum. The high side reach shall be 48 inches (1220 mm) maximum for a reach depth of 10 inches (255 mm) maximum. Where the reach depth exceeds 10 inches (255 mm), the high side reach shall be 46 inches (1170 mm) maximum for a reach depth of 24 inches (610 mm) maximum.

EXCEPTIONS:

1. The top of washing machines and clothes dryers shall be permitted to be 36 inches (915 mm) maximum measured from the surface of the vehicular way where fuel dispensers are installed on existing curbs.
2. Operable parts of fuel dispensers shall be permitted to be 54 inches (1370 mm) maximum measured from the surface of the vehicular way where fuel dispensers are installed on existing curbs.

309 OPERABLE PARTS

309.4 OPERATION. Operable parts shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate operable parts shall be 5 pounds (22.2 N) maximum.

EXCEPTION: Gas pump nozzles shall not be required to provide operable parts that have an activating force of 5 pounds (22.2 N) maximum.

402 ACCESSIBLE ROUTES

402.2 COMPONENTS. Accessible routes shall consist of one or more of the following components: walking surfaces with a running slope not steeper than 1:20, doorways, ramps, curb ramps excluding the flared sides, elevators, and platform lifts. All components of an accessible route shall comply with the applicable requirements of Chapter 4.

403 WALKING SURFACE

403.3 SLOPE. The running slope of walking surfaces shall not be steeper than 1:20. The cross slope of walking surfaces shall not be steeper than 1:48.

403.5 CLEARANCES. Walking surfaces shall provide clearances complying with 403.5.

EXCEPTION: Within employee work areas, clearances on common use circulation paths shall be permitted to be decreased by work area equipment provided that the decrease is essential to the function of the work being performed.

403.5.1 CLEAR WIDTH. Except as provided in 403.5.2 and 403.5.3, the clear width of walking surfaces shall be 36 inches (915 mm) minimum.

EXCEPTION: The clear width shall be permitted to be reduced to 32 inches (815 mm) minimum for a length of 24 inches (610 mm) maximum provided that reduced width segments are separated by segments that are 48 inches (1220 mm) long minimum and 36 inches (915 mm) wide minimum.

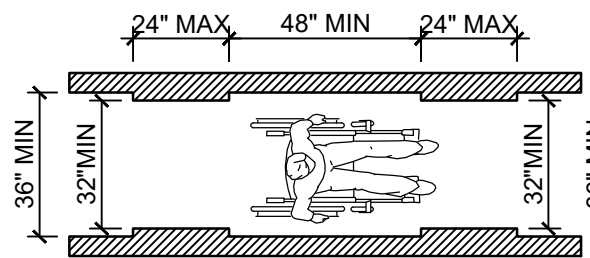


Figure 403.5.1 Clear Width of an Accessible Route

403.5.2 CLEAR WIDTH AT TURN. Where the accessible route makes a 180 degree turn around an element which is less than 48 inches (1220 mm) wide, clear width shall be 42 inches (1065 mm) minimum approaching the turn, 48 inches (1220 mm) minimum at the turn and 42 inches (1065 mm) minimum leaving the turn.

EXCEPTION: Where the clear width at the turn is 60 inches (1525 mm) minimum compliance with 403.5.2 shall not be required.

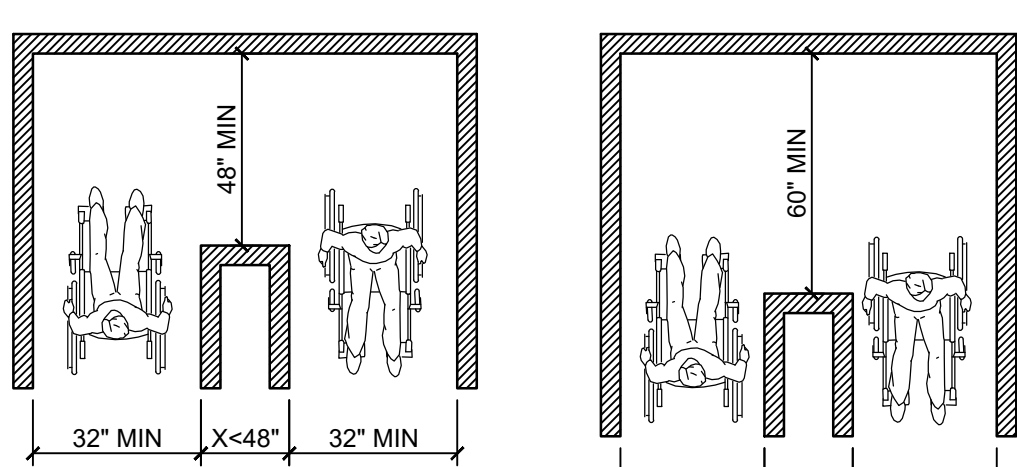


Figure 403.5.2 Clear Width at Turn

Figure 403.5.2 Clear Width at Turn (EXCEPTION)

403.5.3 PASSING SPACES. An accessible route with a clear width less than 60 inches (1525 mm) shall provide passing spaces at intervals of 200 feet (61 m) maximum. Passing spaces shall be either: a space 60 inches (1525 mm) minimum by 60 inches (1525 mm) minimum; or, an intersection of two walking surfaces providing a T-shaped space complying with 304.3.2 where the base and arms of the T are 60 inches (1525 mm) minimum beyond the intersection.

404.2.3 CLEAR WIDTH. Door openings shall provide a clear width of 32 inches (815 mm) minimum. Clear openings of doorways with swinging doors shall be measured between the face of the door and the stop, with the door open 90 degrees. Openings more than 24 inches (610 mm) deep shall provide a clear opening of 36 inches (915 mm) minimum. There shall be no projections into the required clear opening with lower than 34 inches (865 mm) above the finish floor or ground. Projections into the clear opening within 34 inches (865 mm) and 80 inches (2030 mm) above the finish floor or ground shall not exceed 4 inches (100 mm).

EXCEPTIONS:

1. In alterations, a projection of 5/8 inch (16 mm) maximum into the required clear width shall be permitted for the latch side stop.
2. Door closers and door stops shall be permitted to be 78 inches (1980 mm) minimum above the finish floor or ground.

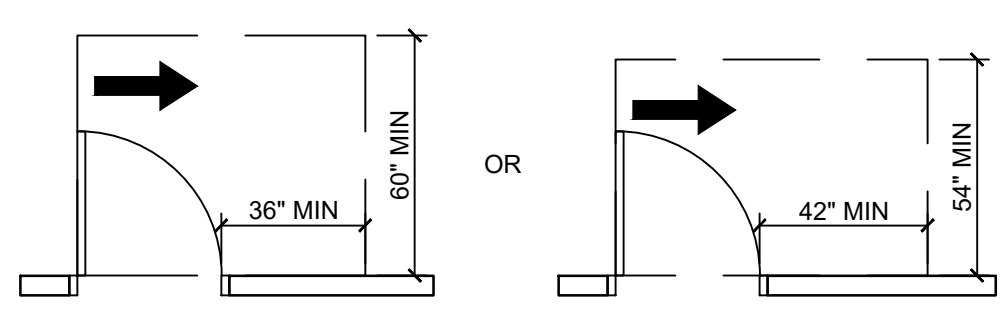
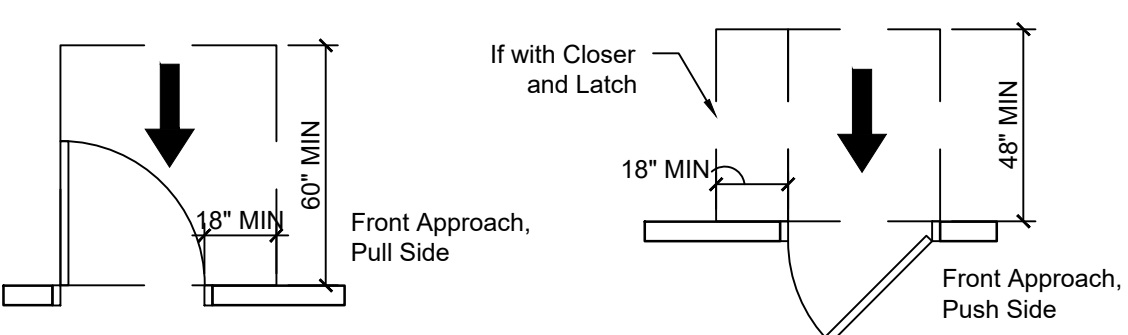


Figure 404.2.6 Doors in Series and Gates in Series

Figure 404.2.6 Doors in Series and Gates in Series

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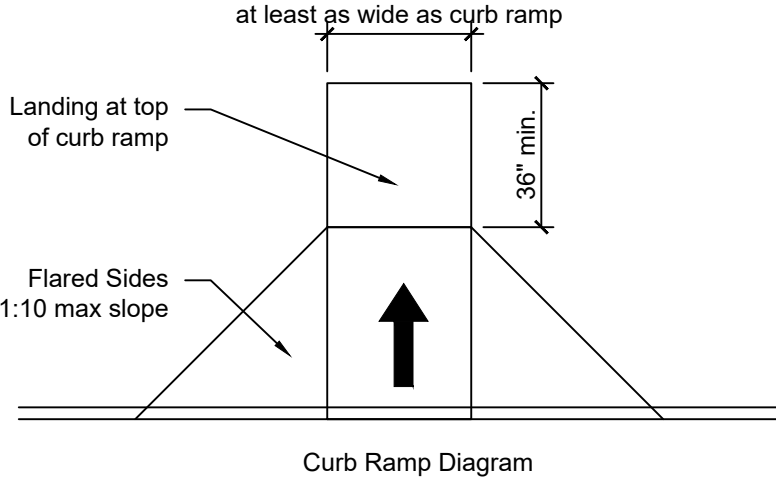
Figure 404.2.6 Doors in Series and Gates in Series

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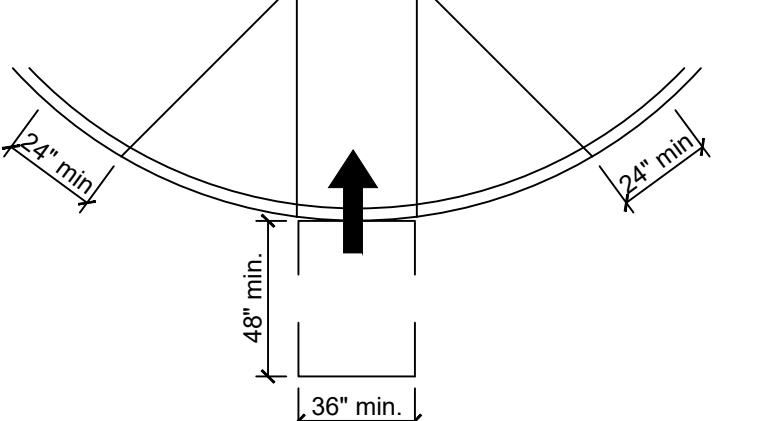
Figure 404.2.6 Doors in Series and Gates in Series

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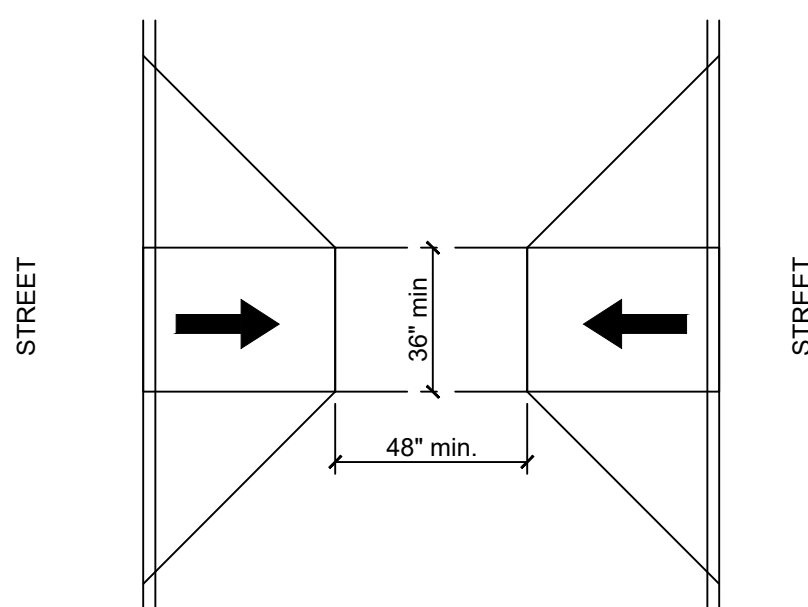
Figure 404.2.6 Doors in Series and Gates in Series



406.6 DIAGONAL CURB RAMPS. Diagonal or corner type curb ramps with returned curbs or other well-defined edges shall have the edges parallel to the direction of pedestrian flow. The bottom of diagonal curb ramps shall have a clear space 48 inches (1220 mm) minimum outside active traffic lanes of the roadway. Diagonal curb ramps provided at marked crossings shall provide the 48 inches (1220 mm) minimum clear space within the markings. Diagonal curb ramps with flared sides shall have a segment of curb 24 inches (610 mm) long minimum located on each side of the curb ramp and within the marked crossing.



406.7 ISLANDS. Raised islands in crossings shall be cut through level with the street or have curb ramps at both sides. Each curb ramp shall have a level area 48 inches (1220 mm) long minimum by 36 inches (915 mm) wide minimum at the top of the curb ramp in the part of the island intersected by the crossings. Each 48 inch (1220 mm) minimum by 36 inch (915 mm) minimum area shall be oriented so that the 48 inch (1220 mm) minimum length is in the direction of the running slope of the curb ramp it serves. The 48 inch (1220 mm) minimum by 36 inch (915 mm) minimum areas and the accessible route shall be permitted to overlap.



502 PARKING SPACES

502.2 VEHICLE SPACES. Car parking spaces shall be 96 inches (2440 mm) wide minimum and van parking spaces shall be 132 inches (3350 mm) wide minimum, shall be marked to define the width, and shall have an adjacent access aisle complying with 502.3.

EXCEPTION: Van parking spaces shall be permitted to be 96 inches (2440 mm) wide minimum where the access aisle is 96 inches (2440 mm) wide minimum.

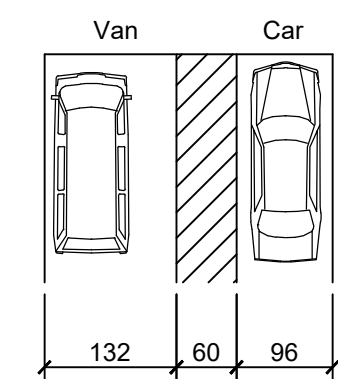


Figure 502.2 Vehicle Parking Spaces

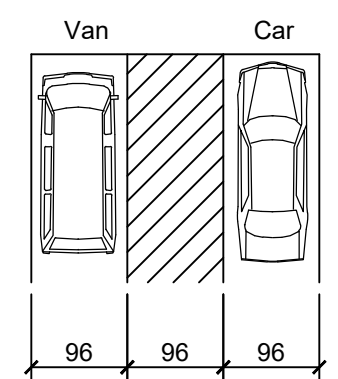


Figure 502.2 Vehicle Parking Spaces (Exception)

502.3.4 LOCATION. Access aisles shall not overlap the vehicular way. Access aisles shall be permitted to be placed on either side of the parking space except for angled van parking spaces which shall have access aisles located on the passenger side of the parking spaces.

502.5 VERTICAL CLEARANCE. Parking spaces for vans and access aisles and vehicular routes serving them shall provide a vertical clearance of 98 inches (2490 mm) minimum.

502.6 IDENTIFICATION. Parking space identification signs shall include the International Symbol of Accessibility complying with 703.7.2.1. Signs identifying van parking spaces shall contain the designation "van accessible." Signs shall be 60 inches (1525 mm) minimum above the finish floor or ground surface measured to the bottom of the sign.

503 PASSENGER LOADING ZONES

503.2 VEHICLE PULL-UP SPACE. Passenger loading

DO NOT SCALE. LEAD LAST FOOT. LEAD TAIL FOOT. DATE: 02/12/2023 1:54 PM SHEET SIZE: PERIOD SHEET SIZE: (42.00 x 36.00 inches)

504 STAIRWAYS

504.2 TREADS AND RISERS. All steps on a flight of stairs shall have uniform riser heights and uniform tread depths. Risers shall be 4 inches (100 mm) high minimum and 7 inches (180 mm) high maximum. Treads shall be 11 inches (280 mm) deep minimum.

504.3 OPEN RISERS. Open risers are not permitted.

504.4 TREAD SURFACE. Stair treads shall comply with 302. Changes in level are not permitted.

EXCEPTION: Treads shall be permitted to have a slope not steeper than 1:48.

504.5 NOSINGS. The radius of curvature at the leading edge of the tread shall be 1/2 inch (13 mm) maximum. Nosings that project beyond risers shall have the underside of the leading edge curved or beveled. Risers shall be permitted to slope under the tread at an angle of 30 degrees maximum from vertical. The permitted projection of the nosing shall extend 1 1/2 inches (38 mm) maximum over the tread below.

505 HANDRAILS

505.2 WHERE REQUIRED. Handrails shall be provided on both sides of stairs and ramps.

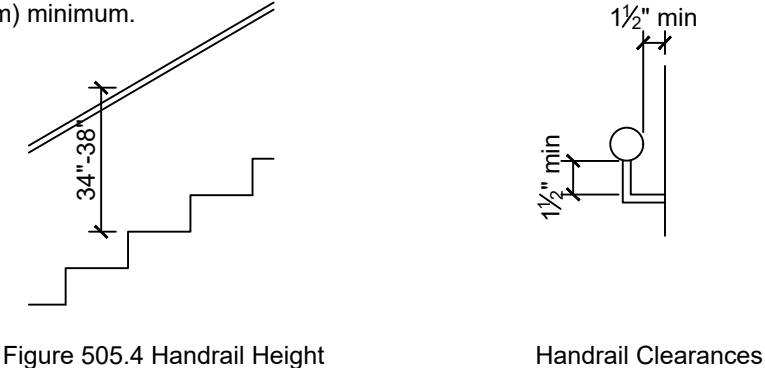
EXCEPTION: In assembly areas, handrails shall not be required on both sides of aisle ramps where a handrail is provided at either side or within the aisle width.

505.3 CONTINUITY. Handrails shall be continuous within the full length of each stair flight or ramp run. Inside handrails on switchback or dogleg stairs and ramps shall be continuous between flights or runs.

EXCEPTION: In assembly areas, handrails on ramps shall not be required to be continuous in aisles serving seating.

505.4 HEIGHT. Top of gripping surfaces of handrails shall be 34 inches (865 mm) minimum and 38 inches (965 mm) maximum vertically above walking surfaces, stair nosings, and ramp surfaces. Handrails shall be at a consistent height above walking surfaces, stair nosings, and ramp surfaces.

505.5 CLEARANCE. Clearance between handrail gripping surfaces and adjacent surfaces shall be 1 1/2 inches (38 mm) minimum.



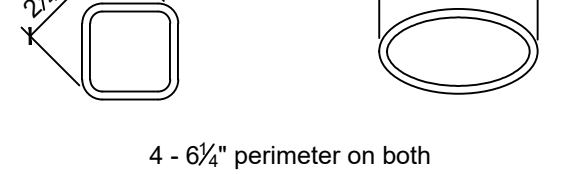
505.6 GRIPPING SURFACE. Handrail gripping surfaces shall be continuous along their length and shall not be obstructed along their tops or sides. The bottoms of handrail gripping surfaces shall not be obstructed for more than 20 percent of their length. Where provided, horizontal projections shall occur 1 1/2 inches (38 mm) minimum below the bottom of the handrail gripping surface.

EXCEPTIONS:
1. Where handrails are provided along walking surfaces with slopes not steeper than 1:20, the bottoms of handrail gripping surfaces shall be permitted to be obstructed along their entire length where they are integral to crash rails or bumper guards.

2. The distance between horizontal projections and the bottom of the gripping surface shall be permitted to be reduced by 1/8 inch (3.2 mm) for each 1/2 inch (13 mm) of additional handrail perimeter dimension that exceeds 4 inches (100 mm).

505.7.1 CIRCULAR CROSS SECTION. Handrail gripping surfaces with a circular cross section shall have an outside diameter of 1 1/4 inches (32 mm) minimum and 2 inches (51 mm) maximum.

505.7.2 NON-CIRCULAR CROSS SECTIONS. Handrail gripping surfaces with a non-circular cross section shall have a perimeter dimension of 4 inches (100 mm) minimum and 6 1/4 inches (160 mm) maximum, and a cross-section dimension of 2 1/4 inches (57 mm) maximum.



4 - 6/32" perimeter on both

505.10.1 TOP AND BOTTOM EXTENSION AT RAMPS. Ramp handrails shall extend horizontally above the landing for 12 inches (305 mm) minimum beyond the top and bottom of the ramp runs. Extensions shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent ramp run.

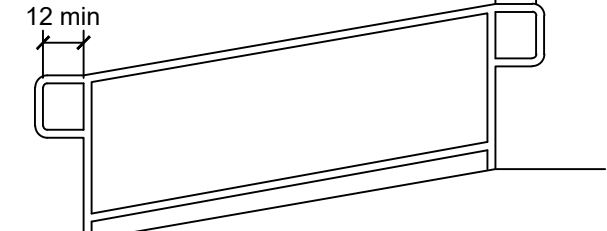
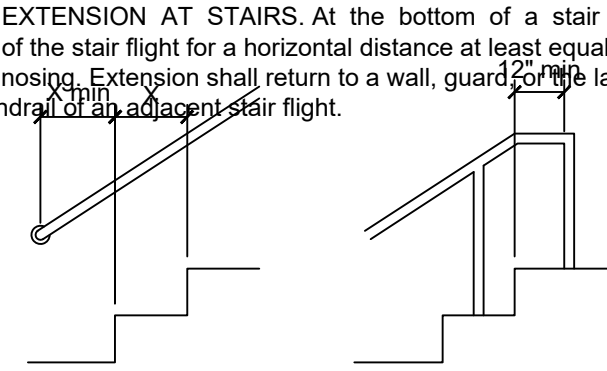


Figure 505.10.1 Top and Bottom Handrail Extension at Ramps

505.10.2 TOP EXTENSION AT STAIRS. At the top of a stair flight, handrails shall extend horizontally above the landing for 12 inches (305 mm) minimum beginning directly above the first riser nosing. Extensions shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent stair flight.



Top and Bottom Handrail Extension at Stairs

602 DRINKING FOUNTAINS

602.2 CLEAR FLOOR SPACE. Units shall have a clear floor or ground space complying with 305 positioned for a forward approach and centered on the unit. Knee and toe clearance complying with 306 shall be provided.

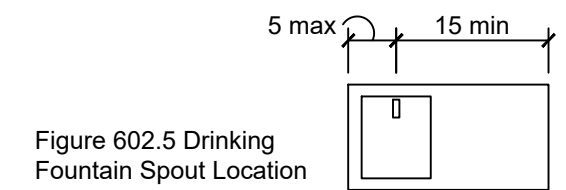


Figure 602.5 Drinking Fountain Spout Location

602.6 WATER FLOW. The spout shall provide a flow of water 4 inches (100 mm) high minimum and shall be located 5 inches (125 mm) maximum from the front of the unit. The angle of the water stream shall be measured horizontally relative to the front face of the unit. Where spouts are located less than 3 inches (75 mm) of the front of the unit, the angle of the water stream shall be 30 degrees maximum. Where spouts are located between 3 inches (75 mm) and 5 inches (125 mm) maximum from the front of the unit, the angle of the water stream shall be 15 degrees maximum.

602.7 DRINKING FOUNTAINS FOR STANDING PERSONS. Spout outlets of drinking fountains for standing persons shall be 38 inches (965 mm) minimum and 43 inches (1090 mm) maximum above the finish floor or ground.

603 TOILET AND BATHING ROOMS

603.2.2 OVERLAP. Required clear floor spaces, clearance at fixtures, and turning space shall be permitted to overlap.

603.2.3 DOOR SWING. Doors shall not swing into the clear floor space or clearance required for any fixture. Doors shall be permitted to swing into the required turning space.

EXCEPTIONS:

1. Doors to a toilet room or bathing room for a single occupant accessed only through a private office and not for common use or public use shall be permitted to swing into the clear floor space or clearance provided the swing of the door can be reversed to comply with 603.2.3.

2. Where the toilet room or bathing room is for individual use and a clear floor space complying with 305.3 is provided within the room beyond the arc of the door swing, doors shall be permitted to swing into the clear floor space or clearance required for any fixture.

603.3 MIRRORS. Mirrors located above lavatories or countertops shall be installed with the bottom edge of the reflecting surface 40 inches (1015 mm) maximum above the finish floor or ground. Mirrors not located above lavatories or countertops shall be installed with the bottom edge of the reflecting surface 35 inches (890 mm) maximum above the finish floor or ground.

603.4 COAT HOOKS AND SHELVES. Coat hooks shall be located within one of the reach ranges specified in 308. Shelves shall be located 40 inches (1015 mm) minimum and 48 inches (1220 mm) maximum above the finish floor.

604 WATER CLOSETS AND TOILET COMPARTMENTS

604.2 LOCATION. The water closet shall be positioned with a wall or partition to the rear and to one side. The centerline of the water closet shall be 16 inches (405 mm) minimum to 18 inches (455 mm) maximum from the side wall or partition, except that the water closet shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum from the side wall or partition in the ambulatory accessible toilet compartment specified in 604.8.2. Water closets shall be arranged for a left-hand or right-hand approach.



Wheelchair Accessible Water Closet

Ambulatory Accessible Water Closet

604.3.1 Size. Clearance around a water closet shall be 60 inches (1525 mm) minimum measured perpendicular from the side wall and 56 inches (1420 mm) minimum measured perpendicular from the rear wall.

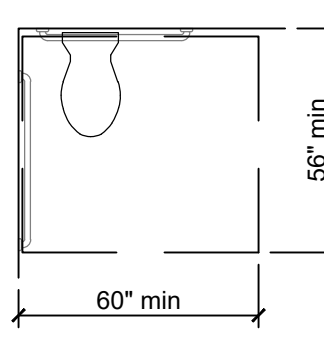


Figure 604.3.1 Size of Clearance at Water Closets

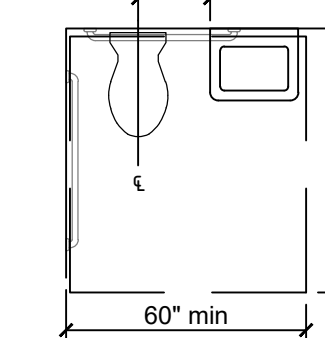


Figure 604.3.2 (Exception) Overlap of Water Closet Clearance in Residential Dwelling Units

505.10.1 TOP AND BOTTOM EXTENSION AT RAMPS. Ramp handrails shall extend horizontally above the landing for 12 inches (305 mm) minimum beyond the top and bottom of the ramp runs. Extensions shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent ramp run.

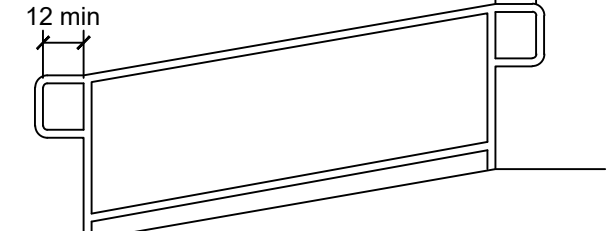
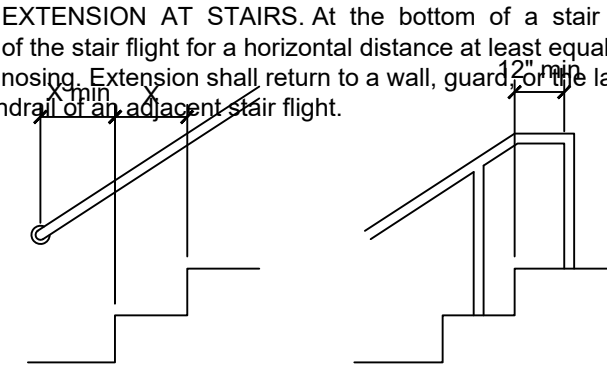


Figure 505.10.1 Top and Bottom Handrail Extension at Ramps

505.10.2 TOP EXTENSION AT STAIRS. At the top of a stair flight, handrails shall extend horizontally above the landing for 12 inches (305 mm) minimum beginning directly above the first riser nosing. Extensions shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent stair flight.



Top and Bottom Handrail Extension at Stairs

602 DRINKING FOUNTAINS

602.2 CLEAR FLOOR SPACE. Units shall have a clear floor or ground space complying with 305 positioned for a forward approach and centered on the unit. Knee and toe clearance complying with 306 shall be provided.

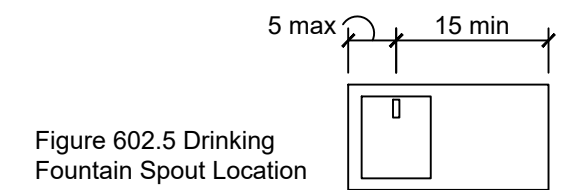


Figure 602.5 Drinking Fountain Spout Location

604.8.1.2 DOORS. Toilet compartment doors, including door hardware, shall comply with 404 except that if the approach is to the latch side of the compartment door, clearance between the door side of the compartment and any obstruction shall be 42 inches (1065 mm) minimum. Doors shall be located in the front partition or in the side wall or partition farthest from the water closet. Where located in the front partition, the door opening shall be 4 inches (100 mm) maximum from the side wall or partition farthest from the water closet. Where located in the side wall or partition, the door opening shall be 4 inches (100 mm) maximum from the front partition. The door shall be self-closing. A door pull complying with 404.2.7 shall be placed on both sides of the door near the latch. Toilet compartment doors shall not swing into the minimum required compartment area.

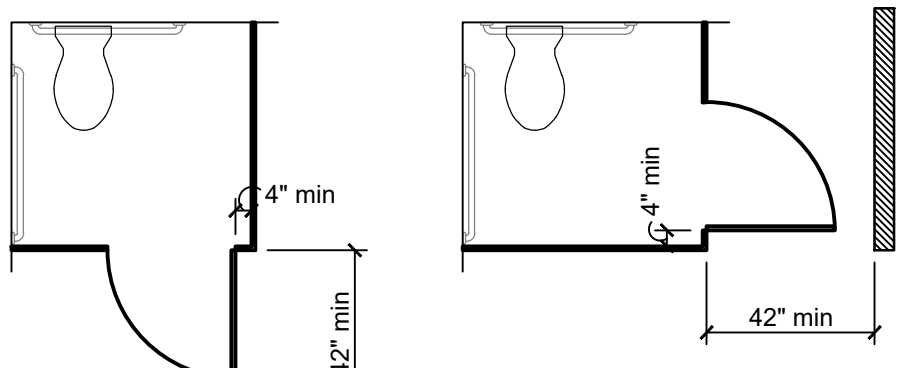
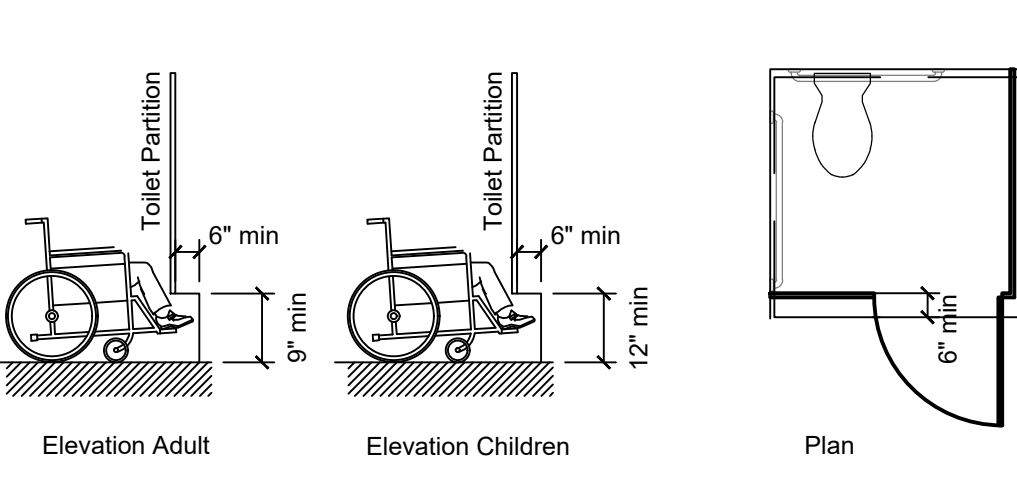


Figure 604.8.1.2 Wheelchair Accessible Toilet Compartment Doors

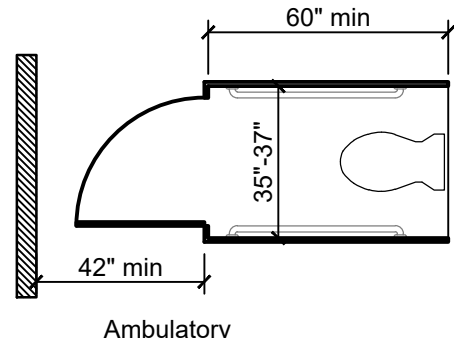
604.8.1.4 TOE CLEARANCE. The front partition and at least one side partition shall provide a toe clearance of 9 inches (230 mm) minimum above the finish floor and 6 inches (150 mm) deep minimum beyond the compartment-side face of the partition, exclusive of partition support members. Compartments for children's use shall provide a toe clearance of 12 inches (305 mm) minimum above the finish floor.

EXCEPTION: Toe clearance at the front partition is not required in a compartment greater than 62 inches (1575 mm) deep with a wall-hung water closet or 65 inches (1650 mm) deep with a floor-mounted water closet. Toe clearance at the side partition is not required in a compartment greater than 65 inches (1675 mm) wide. Toe clearance at the front partition is not required in a compartment for children's use that is greater than 65 inches (1650 mm) deep.



604.8.2.1 SIZE. Ambulatory accessible compartments shall have a depth of 60 inches (1525 mm) minimum and a width of 35 inches (890 mm) minimum and 37 inches (940 mm) maximum.

604.8.2.2 DOORS. Toilet compartment doors, including door hardware, shall comply with 404, except that if the approach is to the latch side of the compartment door, clearance between the door side of the compartment and any obstruction shall be 42 inches (1065 mm) minimum. The door shall be self-closing. A door pull complying with 404.2.7 shall be placed on both sides of the door near the latch. Toilet compartment doors shall not swing into the minimum required compartment area.



Ambulatory Compartment

605.2 HEIGHT AND DEPTH. Urinals shall be the stall-type or the wall-hung type with the rim 17 inches (430 mm) maximum above the finish floor or ground. Urinals shall be 13 1/2 inches (345 mm) deep minimum measured from the outer face of the urinal rim to the back of the fixture.

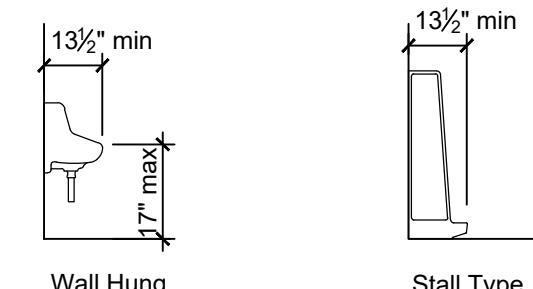


Figure 605.2 Height and Depth of Urinals

606 LAVATORIES AND SINKS

606.2 CLEAR FLOOR SPACE. A clear floor space complying with 305, positioned for a forward approach, and knee and toe clearance complying with 306 shall be provided.

EXCEPTIONS:

1. A parallel approach complying with 305 shall be permitted to a kitchen sink in a space where a cook top or conventional range is not provided and to wet bars.

2. A lavatory in a toilet room or bathing facility for a single occupant accessed only through a private office and not for common use or public use shall not be required to provide knee and toe clearance complying with 306.

3. In residential dwelling units, cabinetry shall be permitted under lavatories and kitchen sinks provided that all of the following conditions are met:

(a) the cabinetry can be removed without removal or replacement of the fixture;

(b) the finish floor extends under the cabinetry; and

(c) the walls behind and surrounding the cabinetry are finished.

4. A knee clearance of 24 inches (610 mm) minimum above the finish floor or ground shall be permitted at lavatories and sinks used primarily by children 6 through 12 years where the rim or counter surface is 31 inches (785 mm) maximum above the finish floor or ground.

5. A parallel approach complying with 305 shall be permitted to lavatories and sinks used primarily by children 5 years and younger.

6. The dip of the overflow shall not be considered in determining knee and toe clearances.

7. No more than one bowl of a multi-bowl sink shall be required to provide knee and toe clearance complying with 306.

606.3 HEIGHT. Lavatories and sinks shall be installed with the front of the higher of the rim or counter surface 34 inches (865 mm) maximum above the finish floor or ground.

606.4 FAUCETS. Controls for faucets shall comply with 309. Hand-operated metering faucets shall remain open for 10 seconds minimum.

607 BATHTUBS

607.2 CLEARANCE. Clearance in front of bathtubs shall extend the length of the bathtub and shall be 30 inches (760 mm) wide minimum. A lavatory complying with 606 shall be permitted at the control end of the clearance. Where a permanent seat is provided at the head end of the bathtub, the clearance shall extend 12 inches (305 mm) minimum beyond the wall at the head end of the bathtub.

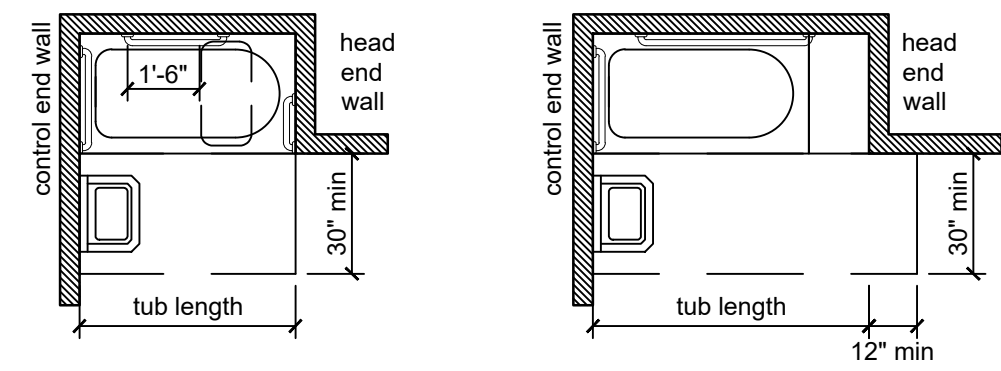
607.3 SEAT. A permanent seat at the head end of the bathtub or a removable in-tub seat shall be provided. Seats shall comply with 610.

607.4 GRAB BARS. Grab bars for bathtubs shall comply with 609 and shall be provided in accordance with 607.4.1 or 607.4.2.

607.4.1 BATHTUBS WITH PERMANENT SEATS. For bathtubs with permanent seats, grab bars shall be provided in accordance with 607.4.1.

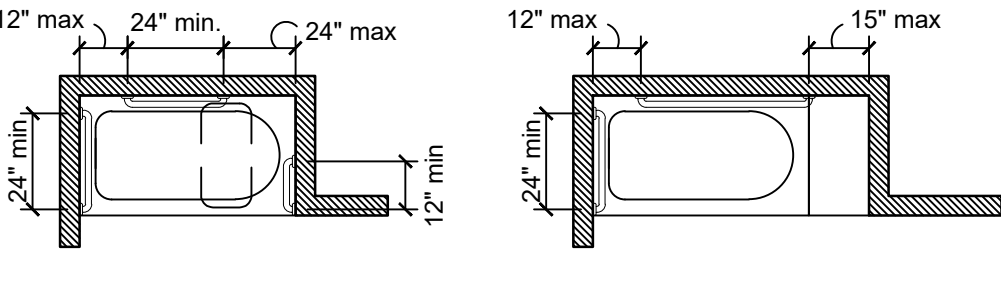
607.4.1.1 BACK WALL. Two grab bars shall be installed on the back wall, one located in accordance with 609.4 and the other located 8 inches (205 mm) minimum and 10 inches (255 mm) maximum above the rim of the bathtub. Each grab bar shall be installed 15 inches (380 mm) maximum from the head end wall and 12 inches (305 mm) maximum from the control end wall.

607.4.1.2 CONTROL END WALL. A grab bar 24 inches (610 mm) long minimum shall be installed on the control end wall at the front edge of the bathtub.



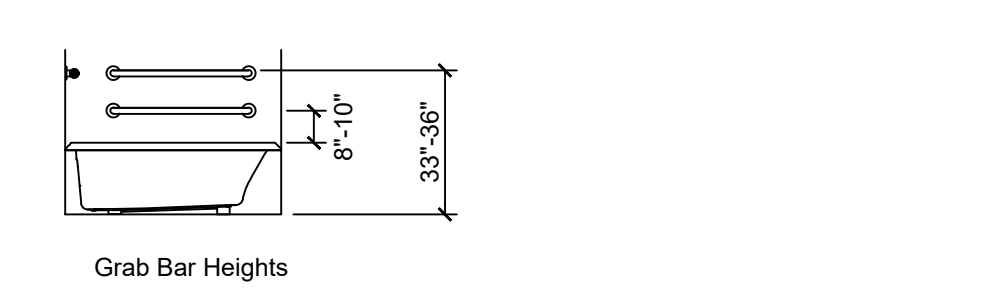
Removable in-tub Seat

Permanent Seat



Removable in-tub Seat

Permanent Seat



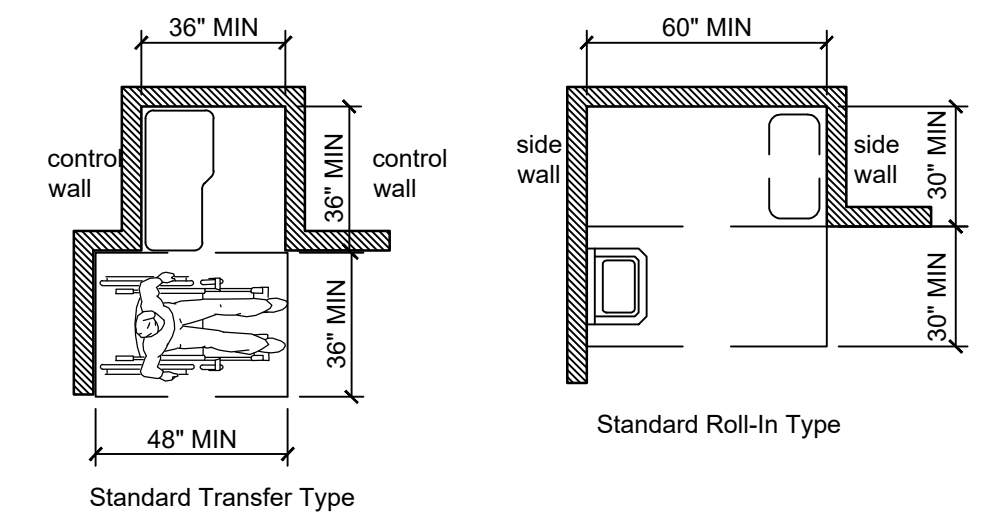
Grab Bar Heights

607.5 CONTROLS. Controls, other than drain stoppers, shall be located on an end wall. Controls shall be between the bathtub rim and grab bar, and between the open side of the bathtub and the centerline of the end of the bathtub. Controls shall comply with 309.4.

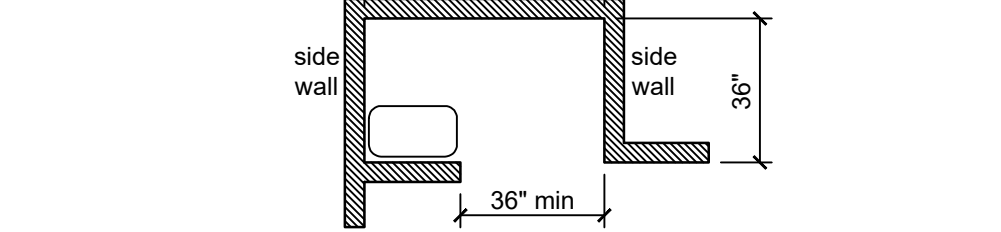
607.6 SHOWER SPRAY UNIT AND WATER. A shower spray unit with a hose 59 inches (1500 mm) long minimum that can be used both as a fixed-position shower head and as a hand-held shower shall be provided. The shower spray unit shall have an on/off control with a non-positive shut-off. If an adjustable-height shower head on a vertical bar is used, the bar shall be installed so not to obstruct the use of grab bars. Bathtub shower spray units shall deliver water that is 120°F (49°C) maximum.

608 SHOWER COMPARTMENTS

608.2.1 TRANSFER TYPE SHOWER COMPARTMENTS. Transfer type shower compartments shall be 36 inches (915 mm) by 36 inches (915 mm) clear inside dimensions measured at the center points of opposing sides and shall have a 36 inch (915 mm) wide minimum entry on the face of the shower compartment. Clearance of 36 inches (915 mm) wide minimum by 48 inches (1220 mm) long minimum measured from the control wall shall be provided.



Standard Transfer Type



Alternate Roll-In Type

609 GRAB BARS

609.2.1 CIRCULAR CROSS SECTION. Grab bars with circular cross sections shall have an outside diameter of 1 1/4 inches (32 mm) minimum and 2 inches (51 mm) maximum.

609.2.2 NON-CIRCULAR CROSS SECTION. Grab bars with non-circular cross sections shall have a cross-section dimension of 2 inches (51 mm) maximum and a perimeter dimension of 4 inches (100 mm) minimum and 4.8 inches (120 mm) maximum.

609.3 SPACING. The space between the wall and the grab bar shall be 1 1/2 inches (38 mm). The space between the grab bar and projecting objects below and at the ends shall be 1 1/2 inches (38 mm) minimum. The space between the grab bar and projecting objects above shall be 12 inches (305 mm) minimum.

609.4 POSITION OF GRAB BARS. Grab bars shall be installed in a horizontal position, 33 inches (840 mm) minimum and 36 inches (915 mm) maximum above the finish floor measured to the top of the gripping surface, except that at water closets for children's use complying with 604.9, grab bars shall be installed in a horizontal position 18 inches (455 mm) minimum and 27 inches (685 mm) maximum above the finish floor measured to the top of the gripping surface. The height of the lower grab bar on the back wall of a bathtub shall comply with 607.4.1.1 or 607.4.2.1.

609.5 SURFACE HAZARDS. Grab bars and any wall or other surfaces adjacent to grab bars shall be free of sharp or abrasive elements and shall have rounded edges.

609.6 FITTINGS. Grab bars shall not rotate within their fittings.

609.7 INSTALLATION. Grab bars shall be installed in any manner that provides a gripping surface at the specified locations and that does not obstruct the required clear floor space.

609.8 STRUCTURAL STRENGTH. Allowable stresses shall not be exceeded for materials used when a vertical or horizontal force of 250 pounds (112 N) is applied at any point on the grab bar, fastener, mounting device, or supporting structure.

610 SEATS

610.2 BATHTUB SEATS. The top of bathtub seats shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum above the bathroom finish floor. The depth of a removable in-tub seat shall be 15 inches (380 mm) minimum and 16 inches (405 mm) maximum. The seat shall be capable of secure placement. Permanent seats at the head end of the bathtub shall be 15 inches (380 mm) deep minimum and shall extend from the back wall to or beyond the outer edge of the bathtub.

610.3 SHOWER COMPARTMENT SEATS. Where a seat is provided in a standard roll-in shower compartment, it shall be a folding type, shall be installed on the side wall adjacent to the controls, and shall extend from the back wall to a point within 3 inches (75 mm) of the compartment entry. Where a seat is provided in an alternate roll-in type shower compartment, it shall be a folding type, shall be installed on the front wall opposite the back wall, and shall extend from the adjacent side wall to a point within 3 inches (75 mm) of the compartment entry. In transfer-type showers, the seat shall extend from the back wall to a point within 3 inches (75 mm) of the compartment entry. The top of the seat shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum above the bathroom finish floor. Seats shall comply with 610.3.1 or 610.3.2.

610.3.1 RECTANGULAR SEATS. The rear edge of a rectangular seat shall be 2 1/2 inches (64 mm) maximum and the front edge 15 inches (380 mm) minimum and 16 inches (405 mm) maximum from the seat wall. The side edge of the seat shall be 1 1/2 inches (38 mm) maximum from the adjacent wall.

610.3.2 L-SHAPED SEATS. The rear edge of an L-shaped seat shall be 2 1/2 inches (64 mm) maximum and the front edge 15 inches (380 mm) minimum and 16 inches (405 mm) maximum from the seat wall. The rear edge of the "L" portion of the seat shall be 1 1/2 inches (38 mm) maximum from the wall and the front edge shall be 14 inches (355 mm) minimum and 15 inches (380 mm) maximum from the wall. The end of the "L" shall be 22 inches (560 mm) minimum and 23 inches (585 mm) maximum from the main seat wall.

702 FIRE ALARM SYSTEMS

702.1 GENERAL. Fire alarm systems shall have permanently installed audible and visible alarms complying with NFPA 72 (1999 or 2002 edition) (incorporated by reference, see "Referenced Standards" in Chapter 1), except that the maximum allowable sound level of audible notification appliances complying with section 4-3.2.1 of NFPA 72 (1999 edition) shall have a sound level no more than 110 dB at the minimum hearing distance from the audible appliance. In addition, alarms in guest rooms required to provide communication features shall comply with sections 4-3 and 4-4 of NFPA 72 (1999 edition) or sections 7.4 and 7.5 of NFPA 72 (2002 edition).

EXCEPTION: Fire alarm systems in medical care facilities shall be permitted to be provided in accordance with industry practice.

703 SIGNS

703.1 GENERAL. Signs shall comply with 703. Where both visual and tactile characters are required, either one sign with both visual and tactile characters, or two separate signs, one with visual, and one with tactile characters, shall be provided.

703.2 RAISED CHARACTERS. Raised characters shall comply with 703.2 and shall be duplicated in braille complying with 703.3. Raised characters shall be installed in accordance with 703.4.

703.2.1 DEPTH. Raised characters shall be 1/32 inch (0.8 mm) minimum above their background.

703.2.2 CASE. Characters shall be uppercase.

703.2.3 STYLE. Characters shall be sans serif. Characters shall not be italic, oblique, script, highly decorative, or of other unusual forms.

703.2.4 CHARACTER PROPORTIONS. Characters shall be selected from fonts where the width of the uppercase letter "O" is 55 percent minimum and 110 percent maximum of the height of the uppercase letter "I".

703.2.5 CHARACTER HEIGHT. Character height measured vertically from the baseline of the character shall be 5/8 inch (16 mm) minimum and 2 inches (51 mm) maximum based on the height of the uppercase letter "I".

703.2.6 STROKE THICKNESS. Stroke thickness of the uppercase letter "I" shall be 15 percent

of the height of the character. 703.2.7 Character Spacing. Character spacing shall be measured between the two closest points of adjacent raised characters within a message, excluding word spaces. Where characters have rectangular cross sections, spacing between individual raised characters shall be 1/8 inch (3.2 mm) minimum and 4 times the raised character stroke width maximum. Where characters have other cross sections, spacing between individual raised characters shall be 1/16 inch (1.6 mm) minimum and 4 times the raised character stroke width maximum at the base of the cross sections, and 1/8 inch (3.2 mm) minimum and 4 times the raised character stroke width maximum at the top of the cross sections. Characters shall be separated from raised borders and decorative elements 3/8 inch (9.5 mm) minimum.

703.2.8 LINE SPACING. Spacing between the baselines of separate lines of raised characters within a message

USER SAVE: LEOT L450 (POST) LEOT T450 (POST) DATE: 02/16/2023 1:54 PM SHEET SIZE: PERIOD SHEET SIZE: 24.00 x 36.00 (inches)

216 SIGNS

216.1 General. Signs shall be provided in accordance with 216 and shall comply with 703. EXCEPTIONS:

1. Building directories, menus, seat and row designations in assembly areas, occupant names, building addresses, and company names and logos shall not be required to comply with 216.
2. In parking facilities, signs shall not be required to comply with 216.2, 216.3, and 216.6 through 216.12.
3. Temporary, 7 days or less, signs shall not be required to comply with 216.
4. In detention and correctional facilities, signs not located in public use areas shall not be required to comply with 216.

216.2 Designations. Interior and exterior signs identifying permanent rooms and spaces shall comply with 703.1, 703.2, and 703.5. Where pictograms are provided as designations of permanent interior rooms and spaces, the pictograms shall comply with 703.6 and shall have text descriptors complying with 703.2 and 703.5.

EXCEPTION: Exterior signs that are not located at the door to the space they serve shall not be required to comply with 703.2.

Advisory 216.2 Designations. Section 216.2 applies to signs that provide designations, labels, or names for interior rooms or spaces where the sign is not likely to change over time. Examples include interior signs labeling restrooms, room and floor numbers or letters, and room names. Tactile text descriptors are required for pictograms that are provided to label or identify a permanent room or space. Pictograms that provide information about a room or space, such as "no smoking," occupant logos, and the International Symbol of Accessibility, are not required to have text descriptors.

216.3 Directional and Informational Signs. Signs that provide direction to or information about interior spaces and facilities of the site shall comply with 703.5.

Advisory 216.3 Directional and Informational Signs. Information about interior spaces and facilities includes rules of conduct, occupant load, and similar signs. Signs providing direction to rooms or spaces include those that identify egress routes.

216.4 Means of Egress. Signs for means of egress shall comply with 216.4.

216.4.1 Exit Doors. Doors at exit passageways, exit discharge, and exit stairways shall be identified by tactile signs complying with 703.1, 703.2, and 703.6.

Advisory 216.4.1 Exit Doors. An exit passageway is a horizontal exit component that is separated from the interior spaces of the building by fire-resistance-rated construction and that leads to the exit discharge or public way. The exit discharge is that portion of an egress system between the termination of an exit and a public way.

216.4.2 Areas of Refuge. Signs required by section 1003.2.13.5.4 of the International Building Code (2000 edition) or section 1007.6.4 of the International Building Code (2003 edition) (incorporated by reference, see "Referenced Standards" in Chapter 1) to provide instructions in areas of refuge shall comply with 703.5.

216.4.3 Directional Signs. Signs required by section 1003.2.13.6 of the International Building Code (2000 edition) or section 1007.7 of the International Building Code (2003 edition) (incorporated by reference, see "Referenced Standards" in Chapter 1) to provide directions to accessible means of egress shall comply with 703.5.

216.5 Parking. Parking spaces complying with 502 shall be identified by signs complying with 502.6.

EXCEPTIONS:

1. Where a total of four or fewer parking spaces, including accessible parking spaces, are provided on a site, identification of accessible parking spaces shall not be required.
2. In residential facilities, where parking spaces are assigned to specific residential dwelling units, identification of accessible parking spaces shall not be required.

216.6 Entrances. Where not all entrances comply with 404, entrances complying with 404 shall be identified by the International Symbol of Accessibility complying with 703.7.2.1. Directional signs complying with 703.5 that indicate the location of the nearest entrance complying with 404 shall be provided at entrances that do not comply with 404.

Advisory 216.6 Entrances. Where a directional sign is required, it should be located to minimize backtracking. In some cases, this could mean locating a sign at the beginning of a route, not just at the inaccessible entrances to a building.

216.7 Elevators. Where existing elevators do not comply with 407, elevators complying with 407 shall be clearly identified with the International Symbol of Accessibility complying with 703.7.2.1.

216.8 Toilet Rooms and Bathing Rooms. Where existing toilet rooms or bathing rooms do not comply with 603, directional signs indicating the location of the nearest toilet room or bathing room complying with 603 within the facility shall be provided. Signs shall comply with 703.5 and shall include the International Symbol of Accessibility complying with 703.7.2.1. Where existing toilet rooms or bathing rooms do not comply with 603, the toilet rooms or bathing rooms complying with 603 shall be identified by the International Symbol of Accessibility complying with 703.7.2.1. Where clustered single user toilet rooms or bathing facilities are permitted to use exceptions to 213.2, toilet rooms or bathing facilities complying with 603 shall be identified by the International Symbol of Accessibility complying with 703.7.2.1 unless all toilet rooms and bathing facilities comply with 603.

216.9 TTYs. Identification and directional signs for public TTYs shall be provided in accordance with 216.9.

216.9.1 Identification Signs. Public TTYs shall be identified by the International Symbol of TTY complying with 703.7.2.2.

216.9.2 Directional Signs. Directional signs indicating the location of the nearest public TTY shall be provided at all banks of public pay telephones not containing a public TTY. In addition, where signs provide direction to public pay telephones, they shall also provide direction to public TTYs. Directional signs shall comply with 703.5 and shall include the International Symbol of TTY complying with 703.7.2.2.

216.10 Assistive Listening Systems. Each assembly area required by 219 to provide assistive listening systems shall provide signs informing patrons of the availability of the assistive listening system. Assistive listening signs shall comply with 703.8 and shall include the International Symbol of Access for Hearing Loss complying with 703.7.2.4.

EXCEPTION: Where ticket offices or windows are provided, signs shall not be required at each assembly area provided that signs are displayed at each ticket office or window informing patrons of the availability of assistive listening systems.

216.11 Check-Out Aisles. Where more than one check-out aisle is provided, check-out aisles complying with 904.3 shall be identified by the International Symbol of Accessibility complying with 703.7.2.1. Where check-out aisles are identified by numbers, letters, or functions, signs identifying check-out aisles complying with 904.3 shall be located in the same location as the check-out aisle identification.

EXCEPTION: Where all check-out aisles serving a single function comply with 904.3, signs complying with 703.7.2.1 shall not be required.

216.12 Amusement Rides. Signs identifying the type of access provided on amusement rides shall be provided at entries to queues and waiting lines. In addition, where accessible unload areas also serve as accessible load areas, signs indicating the location of the accessible load and unload areas shall be provided at entries to queues and waiting lines.

Advisory 216.12 Amusement Rides. Amusement rides designed primarily for children, amusement rides that are controlled or operated by the rider, and amusement rides without seats, are not required to provide wheelchair spaces, transfer seats, or transfer systems, and need not meet the sign requirements in 216.12. The load and unload areas of these rides must, however, be on an accessible route and must provide turning space.

703 SIGNS

703.1 General. Signs shall comply with 703. Where both visual and tactile characters are required, either one sign with both visual and tactile characters, or two separate signs, one with visual, and one with tactile characters, shall be provided.

703.2 Raised Characters. Raised characters shall comply with 703.2 and shall be duplicated in braille complying with 703.3. Raised characters shall be installed in accordance with 703.4.

Advisory 703.2 Raised Characters. Signs that are designed to be read by touch should not have sharp or abrasive edges.

703.2.1 Depth. Raised characters shall be 1/32 inch (0.8 mm) minimum above their background.

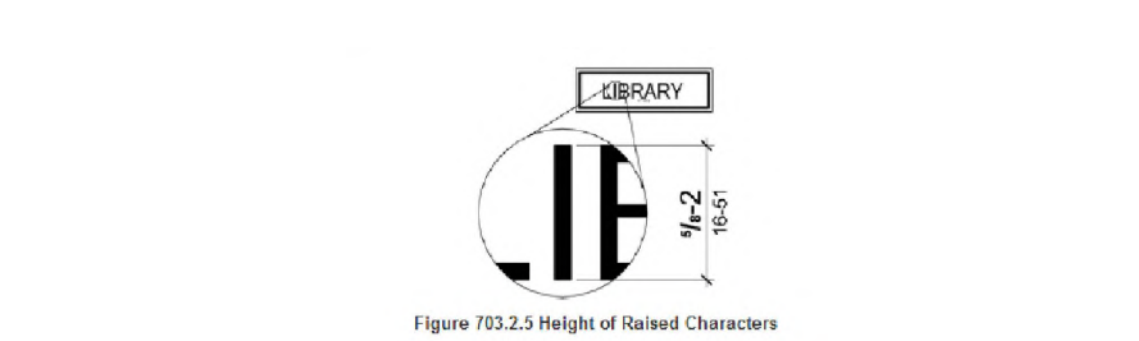
703.2.2 Case. Characters shall be uppercase.

703.2.3 Style. Characters shall be sans serif. Characters shall not be italic, oblique, script, highly decorative, or of other unusual forms.

703.2.4 Character Proportions. Characters shall be selected from fonts where the width of the uppercase letter "O" is 55 percent minimum and 110 percent maximum of the height of the uppercase letter "I".

703.2.5 Character Height. Character height measured vertically from the baseline of the character shall be 5/8 inch (16 mm) minimum and 2 inches (51 mm) maximum based on the height of the uppercase letter "I".

EXCEPTION: Where separate raised and visual characters with the same information are provided, raised character height shall be permitted to be 1/2 inch (13 mm) minimum.



703.2.6 Stroke Thickness. Stroke thickness of the uppercase letter "I" shall be 15 percent maximum of the height of the character.

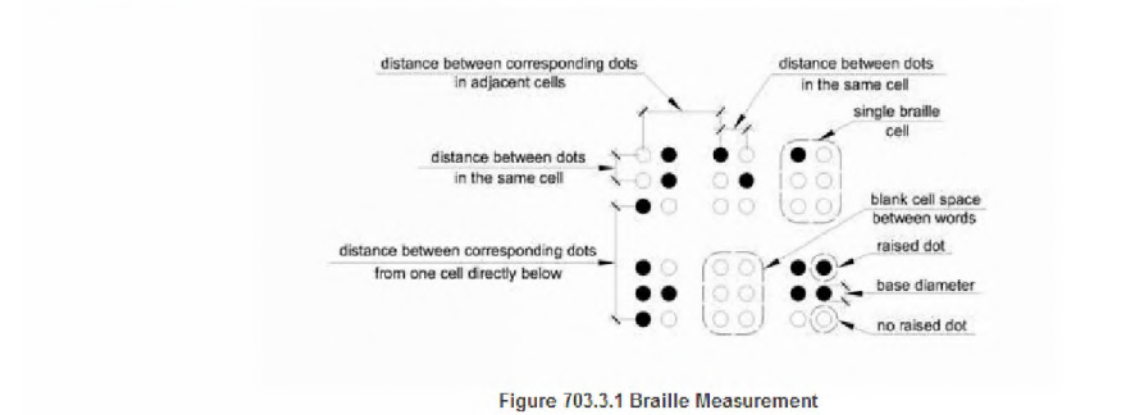
703.2.7 Character Spacing. Character spacing shall be measured between the two closest points of adjacent raised characters within a message, excluding word spaces. Where characters have rectangular cross sections, spacing between individual raised characters shall be 1/8 inch (3.2 mm) minimum and 4 times the raised character stroke width maximum. Where characters have other cross sections, spacing between individual raised characters shall be 1/16 inch (1.6 mm) minimum and 4 times the raised character stroke width maximum at the base of the cross sections, and 1/8 inch (3.2 mm) minimum and 4 times the raised character stroke width maximum at the top of the cross sections. Characters shall be separated from raised borders and decorative elements 3/8 inch (9.5 mm) minimum.

703.2.8 Line Spacing. Spacing between the baselines of separate lines of raised characters within a message shall be 135 percent minimum and 170 percent maximum of the raised character height.

703.3 Braille. Braille shall be contracted (Grade 2) and shall comply with 703.3 and 703.4.

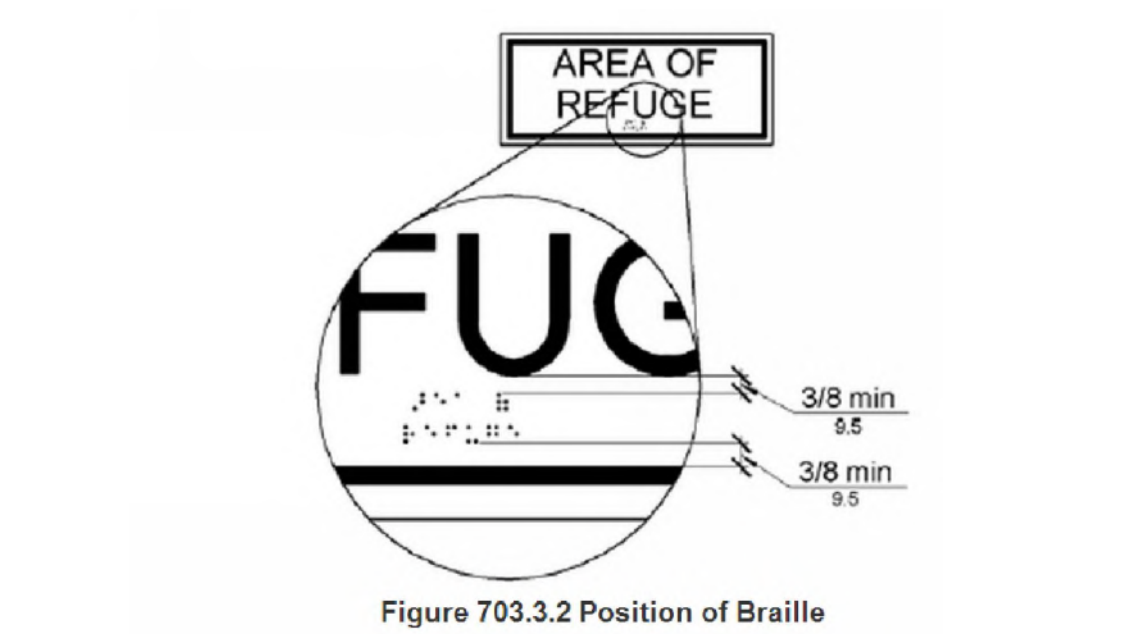
703.3.1 Dimensions and Capitalization. Braille dots shall have a domed or rounded shape and shall comply with Table 703.3.1. The indication of an uppercase letter or letters shall only be used before the first word of sentences, proper nouns and names, individual letters of the alphabet, initials, and acronyms.

Table 703.3.1 Braille Dimensions	
Measurement Range	Minimum in Inches to Maximum in Inches
Dot base diameter	0.059 (1.5 mm) to 0.063 (1.6 mm)
Distance between two dots in the same cell - Measured center to center.	0.060 (2.3 mm) to 0.100 (2.5 mm)
Distance between corresponding dots in adjacent cells - Measured center to center.	0.261 (6.1 mm) to 0.300 (7.6 mm)
Dot height	0.025 (0.6 mm) to 0.037 (0.9 mm)
Distance between corresponding dots from one cell directly below - Measured center to center.	0.395 (10 mm) to 0.400 (10.2 mm)



703.3.2 Position. Braille shall be positioned below the corresponding text. If text is multi-lined, braille shall be placed below the entire text. Braille shall be separated 3/8 inch (9.5 mm) minimum from any other tactile characters and 3/8 inch (9.5 mm) minimum from raised borders and decorative elements.

EXCEPTION: Braille provided on elevator car controls shall be separated 3/16 inch (4.8 mm) minimum and shall be located either directly below or adjacent to the corresponding raised characters or symbols.



703.4 Installation Height and Location. Signs with tactile characters shall comply with 703.4.

703.4.1 Height Above Finish Floor or Ground. Tactile characters on signs shall be located 48 inches (1220 mm) minimum above the finish floor or ground surface, measured from the baseline of the lowest tactile character and 60 inches (1525 mm) maximum above the finish floor or ground surface, measured from the baseline of the highest tactile character.

EXCEPTION: Tactile characters for elevator car controls shall not be required to comply with 703.4.1.

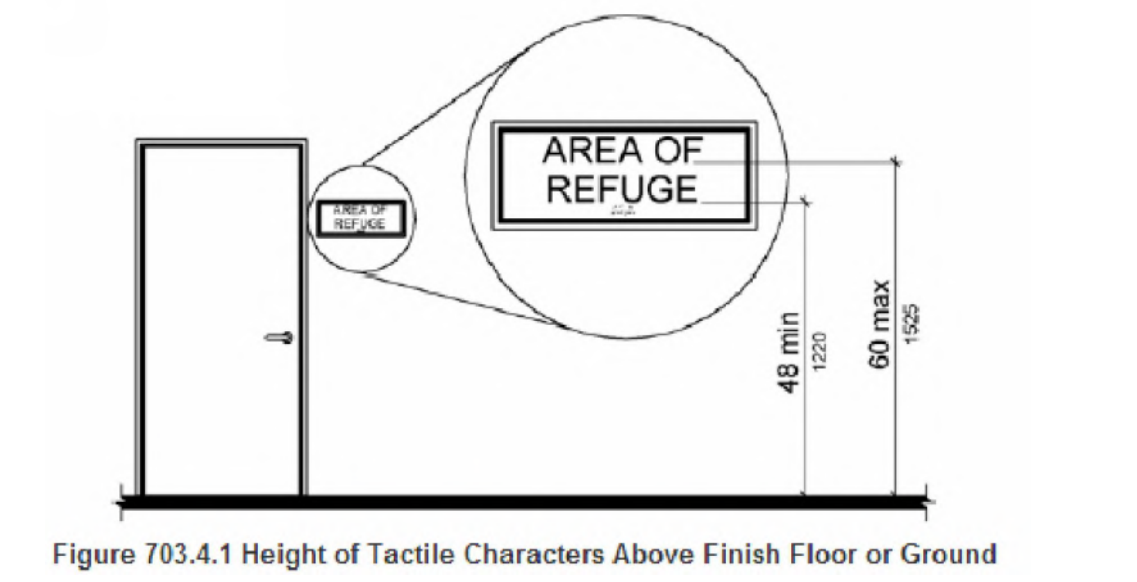
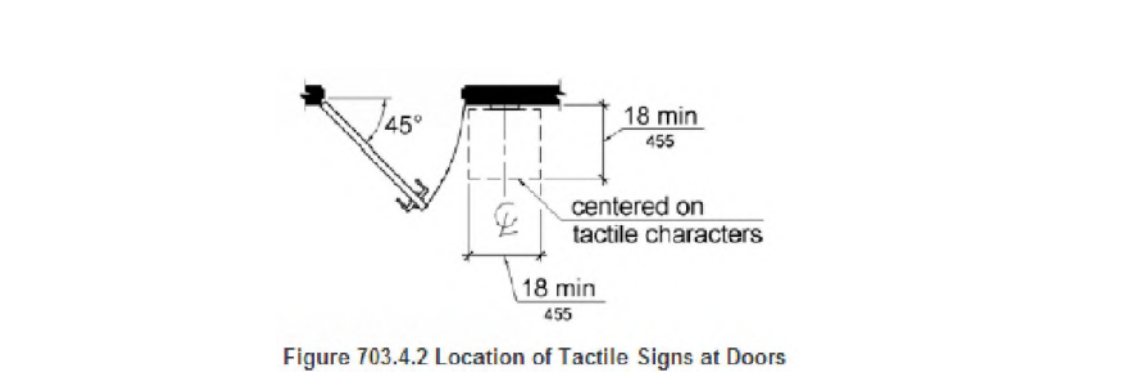


Figure 703.4.1 Height of Tactile Characters Above Finish Floor or Ground

703.4.2 Location. Where a tactile sign is provided at a door, the sign shall be located alongside the door at the latch side. Where a tactile sign is provided at double doors with one active leaf, the sign shall be located on the inactive leaf. Where a tactile sign is provided at double doors with two active leaves, the sign shall be located to the right of the right hand door. Where there is no wall space at the latch side of a single door or at the right side of double doors, signs shall be located on the nearest adjacent wall. Signs containing tactile characters shall be located so that a clear floor space of 18 inches (455 mm) minimum by 18 inches (455 mm) minimum, centered on the tactile characters, is provided beyond the arc of any door swing between the closed position and 45 degree open position.

EXCEPTION: Signs with tactile characters shall be permitted on the push side of doors with closers and without hold-open devices.



703.5 Visual Characters. Visual characters shall comply with 703.5.

EXCEPTION: Where visual characters comply with 703.2 and are accompanied by braille complying with 703.3, they shall not be required to comply with 703.5.2 through 703.5.9.

703.5.1 Finish and Contrast. Characters and their background shall have a non-glare finish. Characters shall contrast with their background with either light characters on a dark background or dark characters on a light background.

Advisory 703.5.1 Finish and Contrast. Signs are more legible for persons with low vision when characters contrast as much as possible with their background. Additional factors affecting the ease with which the text can be distinguished from its background include shadows cast by lighting sources, surface glare, and the uniformity of the text and its background colors and textures.

703.5.2 Case. Characters shall be uppercase or lowercase or a combination of both.

703.5.3 Style. Characters shall be conventional in form. Characters shall not be italic, oblique, script, highly decorative, or of other unusual forms.

703.5.4 Character Proportions. Characters shall be selected from fonts where the width of the uppercase letter "O" is 55 percent minimum and 110 percent maximum of the height of the uppercase letter "I".

703.5.5 Character Height. Minimum character height shall comply with Table 703.5.5. Viewing distance shall be measured as the horizontal distance between the character and an obstruction preventing further approach towards the sign. Character height shall be based on the uppercase letter "I".

Height to Finish Floor or Ground From Baseline of Character	Horizontal Viewing Distance	Minimum Character Height
40 inches (1015 mm) or less than or equal to 70 inches (1780 mm)	less than 72 inches (1830 mm)	5/8 inch (16 mm)
40 inches (1015 mm) or less than or equal to 70 inches (1780 mm)	72 inches (1830 mm) and greater	5/8 inch (16 mm), plus 1/8 inch (3.2 mm) per foot (305 mm) of viewing distance above 72 inches (1830 mm)
Greater than 70 inches (1780 mm) or less than or equal to 120 inches (3050 mm)	less than 180 inches (4570 mm)	2 inches (51 mm)
Greater than 70 inches (1780 mm) or less than or equal to 120 inches (3050 mm)	180 inches (4570 mm) and greater	2 inches (51 mm), plus 1/8 inch (3.2 mm) per foot (305 mm) of viewing distance above 180 inches (4570 mm)
greater than 120 inches (3050 mm)	less than 21 feet (6400 mm)	3 inches (75 mm)
greater than 120 inches (3050 mm)	21 feet (6400 mm) and greater	3 inches (75 mm), plus 1/8 inch (3.2 mm) per foot (305 mm) of viewing distance above 21 feet (6400 mm)

703.5.6 Height From Finish Floor or Ground. Visual characters shall be 40 inches (1015 mm) minimum above the finish floor or ground.

EXCEPTION: Visual characters indicating elevator car controls shall not be required to comply with 703.5.6.

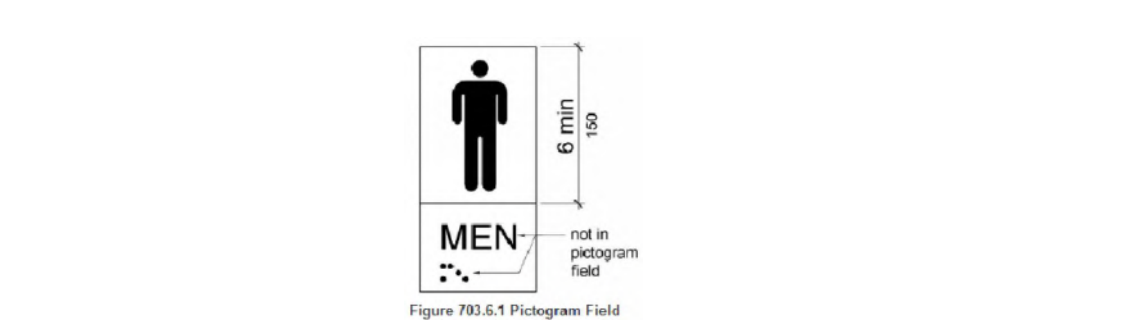
703.5.7 Stroke Thickness. Stroke thickness of the uppercase letter "I" shall be 10 percent minimum and 30 percent maximum of the height of the character.

703.5.8 Character Spacing. Character spacing shall be measured between the two closest points of adjacent characters, excluding word spaces. Spacing between individual characters shall be 10 percent minimum and 35 percent maximum of character height.

703.5.9 Line Spacing. Spacing between the baselines of separate lines of characters within a message shall be 135 percent minimum and 170 percent maximum of the character height.

703.6 Pictograms. Pictograms shall comply with 703.6.

703.6.1 Pictogram Field. Pictograms shall have a field height of 6 inches (150 mm) minimum. Characters and braille shall not be located in the pictogram field.



703.6.2 Finish and Contrast. Pictograms and their field shall have a non-glare finish. Pictograms shall contrast with their field with either a light pictogram on a dark field or a dark pictogram on a light field.

Advisory 703.6.2 Finish and Contrast. Signs are more legible for persons with low vision when characters contrast as much as possible with their background. Additional factors affecting the ease with which the text can be distinguished from its background include shadows cast by lighting sources, surface glare, and the uniformity of the text and background colors and textures.

703.6.3 Text Descriptors. Pictograms shall have text descriptors located directly below the pictogram field. Text descriptors shall comply with 703.2, 703.3 and 703.4.

703.7 Symbols of Accessibility. Symbols of accessibility shall comply with 703.7.

703.7.1 Finish and Contrast. Symbols of accessibility and their background shall have a non-glare finish. Symbols of accessibility shall contrast with their background with either a light symbol on a dark background or a dark symbol on a light background.

Advisory 703.7.1 Finish and Contrast. Signs are more legible for persons with low vision when characters contrast as much as possible with their background. Additional factors affecting the ease with which the text can be distinguished from its background include shadows cast by lighting sources, surface glare, and the uniformity of the text and background colors and textures.

703.7.2 Symbols.

703.7.2.1 International Symbol of Accessibility. The International Symbol of Accessibility shall comply with Figure 703.7.2.1.



703.7.2.2 International Symbol of TTY. The International Symbol of TTY shall comply with Figure 703.7.2.2.



703.7.2.3 Volume Control Telephones. Telephones with a volume control shall be identified by a pictogram of a telephone handset with radiating sound waves on a square field such as shown in Figure 703.7.2.3.



703.7.2.4 Assistive Listening Systems. Assistive listening systems shall be identified by the International Symbol of Access for Hearing Loss complying with Figure 703.7.2.4.



803 DRESSING, FITTING, AND LOCKER ROOMS

803.1 General. Dressing, fitting, and locker rooms shall comply with 803.

Advisory 803.1 General. Partitions and doors should be designed to ensure people using accessible dressing and fitting rooms privacy equivalent to that afforded other users of the facility. Section 903.5 requires dressing room bench seats to be installed so that they are at the same height as a typical wheelchair seat, 17 inches (430 mm) to 19 inches (485 mm). However, wheelchair seats can be lower than dressing room benches for people of short stature or children using wheelchairs.

803.2 Turning Space. Turning space complying with 904 shall be provided within the room.

803.3 Door Swing. Doors shall not swing into the room unless a clear floor or ground space complying with 305.3 is provided beyond the arc of the door swing.

803.4 Benches. A bench complying with 903 shall be provided within the room.

803.5 Coat Hooks and Shelves. Coat hooks provided within the room shall be located within one of the reach ranges specified in 308. Shelves shall be 40 inches (1015 mm) minimum and 48 inches (1220 mm) maximum above the finish floor or ground.

902 DINING SURFACES AND WORK SURFACES

902.1 General. Dining surfaces and work surfaces shall comply with 902.2 and 902.3.

EXCEPTION: Dining surfaces and work surfaces for children's use shall be permitted to comply with 902.4.

Advisory 902.1 General. Dining surfaces include, but are not limited to, bars, tables, lunch counters, and booths. Examples of work surfaces include writing surfaces, study carrels, student laboratory stations, baby changing and other tables or fixtures for personal grooming, coupon counters, and where covered by the ABA scoping provisions, employee work stations.

902.2 Clear Floor or Ground Space. A clear floor space complying with 305 positioned for a forward approach shall be provided. Knee and toe clearance complying with 306 shall be provided.

902.3 Height. The tops of dining surfaces and work surfaces shall be 28 inches (710 mm) minimum and 34 inches (865 mm) maximum above the finish floor or ground.

902.4 Dining Surfaces and Work Surfaces for Children's Use. Accessible dining surfaces and work surfaces for children's use shall comply with 902.4.

EXCEPTION: Dining surfaces and work surfaces that are used primarily by children 5 years and younger shall not be required to comply with 902.4 where a clear floor or ground space complying with 305 positioned for a parallel approach is provided.

902.4.1 Clear Floor or Ground Space. A clear floor space complying with 305 positioned for forward approach shall be provided. Knee and toe clearance complying with 306 shall be provided, except that knee clearance 24 inches (610 mm) minimum above the finish floor or ground shall be permitted.

902.4.2 Height. The tops of tables and counters shall be 28 inches (680 mm) minimum and 30 inches (760 mm) maximum above the finish floor or ground.

903 BENCHES

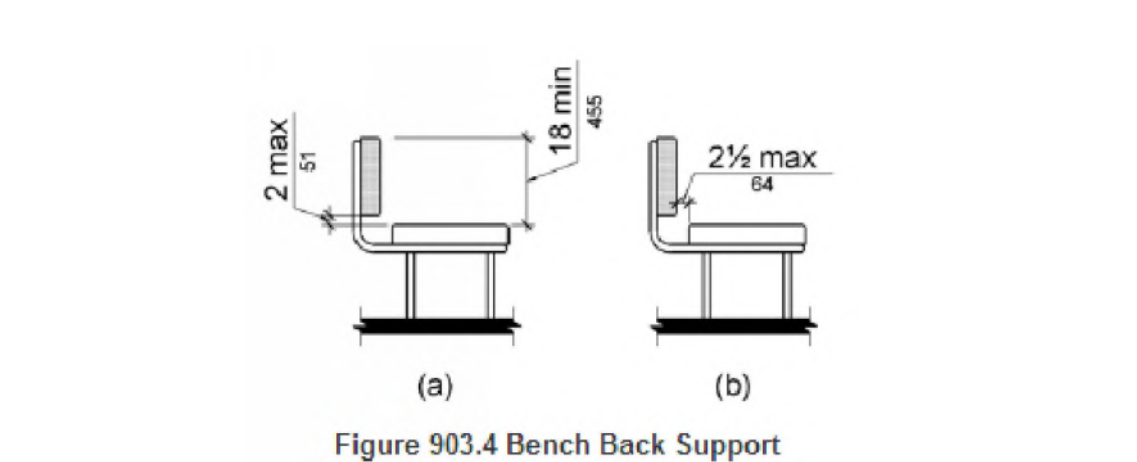
903.1 General. Benches shall comply with 903.

903.2 Clear Floor or Ground Space. Clear floor or ground space complying with 305 shall be provided and shall be positioned at the end of the bench seat and parallel to the short axis of the bench.

903.3 Size. Benches shall have seats that are 42 inches (1065 mm) long minimum and 20 inches (510 mm) deep minimum and 24 inches (610 mm) deep maximum.

903.4 Back Support. The bench shall provide for back support or shall be affixed to a wall. Back support shall be 42 inches (1065 mm) long minimum and shall extend from a point 2 inches (51 mm) maximum above the seat surface to a point 18 inches (455 mm) minimum above the seat surface. Back support shall be 2 1/2 inches (64 mm) maximum from the rear edge of the seat measured horizontally.

Advisory 903.4 Back Support. To assist in transferring to the bench, consider providing grab bars on a wall adjacent to the bench, but not on the seat back. If provided, grab bars cannot obstruct transfer to the bench.



903.5 Height. The top of the bench seat surface shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum above the finish floor or ground.

903.6 Structural Strength. Allowable stresses shall not be exceeded for materials used when a vertical or horizontal force of 250 pounds (1112 N) is applied at any point on the seat, fastener, mounting device, or supporting structure.

903.7 Wet Locations. Where installed in wet locations, the surface of the seat shall be slip resistant and shall not accumulate water.

904 CHECK-OUT AISLES AND SALES AND SERVICE COUNTERS

904.1 General. Check-out aisles and sales and service counters shall comply with the applicable requirements of 904.

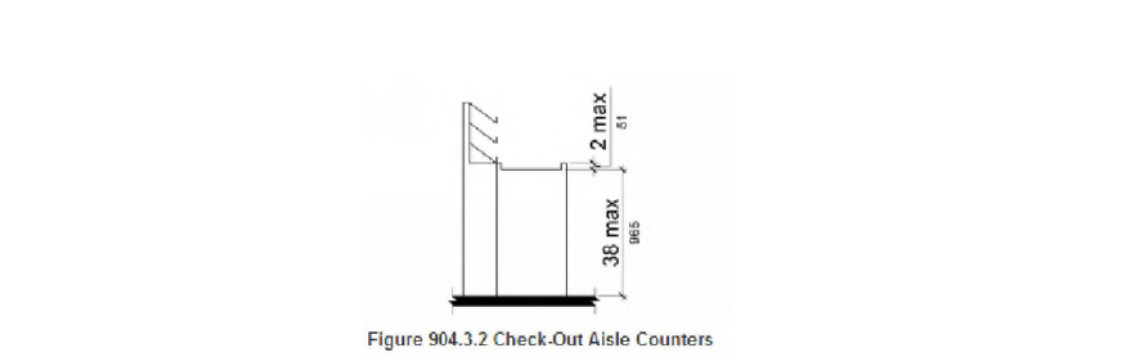
904.2 Approach. All portions of counters required to comply with 904 shall be located adjacent to a walking surface complying with 403.

Advisory 904.2 Approach. If a cash register is provided at the sales or service counter, locate the accessible counter close to the cash register so that a person using a wheelchair is visible to sales or service personnel and to minimize the reach for a person with a disability.

904.3 Check-Out Aisles. Check-out aisles shall comply with 904.3.

904.3.1 Aisle. Aisles shall comply with 403.

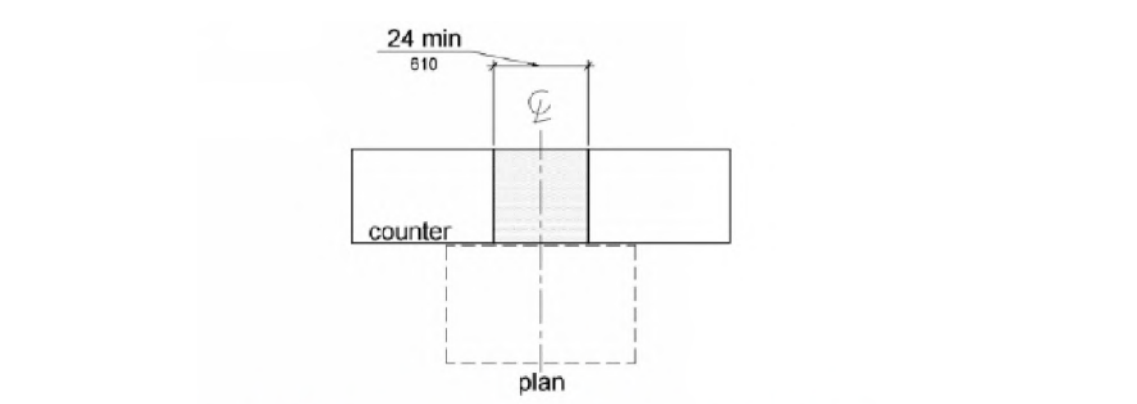
904.3.2 Counter. The counter surface height shall be 38 inches (965 mm) maximum above the finish floor or ground. The top of the counter edge protection shall be 2 inches (51 mm) maximum above the top of the counter surface on the aisle side of the check-out counter.



904.3.3 Check Writing Surfaces. Where provided, check writing surfaces shall comply with 902.3.

904.4 Sales and Service Counters. Sales counters and service counters shall comply with 904.4.1 or 904.4.2. The accessible portion of the counter top shall extend the same depth as the sales or service counter top.

EXCEPTION: In alterations, when the provision of a counter complying with 904.4 would result in a reduction of the number of existing counters at work stations or a reduction of the number of existing mail boxes, the counter shall be permitted to have a portion which is 24 inches (610 mm) long minimum complying with 904.4.1 provided that the required clear floor or ground space is centered on the accessible length of the counter.



904.4.1 Parallel Approach. A portion of the counter surface that is 36 inches (915 mm) long minimum and 36 inches (915 mm) high maximum above the finish floor shall be provided. A clear floor or ground space complying with 305 shall be positioned for a parallel approach adjacent to the 36 inch (915 mm) minimum length of counter.

EXCEPTION: Where the provided counter surface is less than 36 inches (915 mm) long, the entire counter surface shall be 36 inches (915 mm) high maximum above the finish floor.

904.4.2 Forward Approach. A portion of the counter surface that is 30 inches (760 mm) long minimum and 36 inches (915 mm) high maximum shall be provided. Knee and toe space complying with 306 shall be provided under the counter. A clear floor or ground space complying with 305 shall be positioned for a forward approach to the counter.

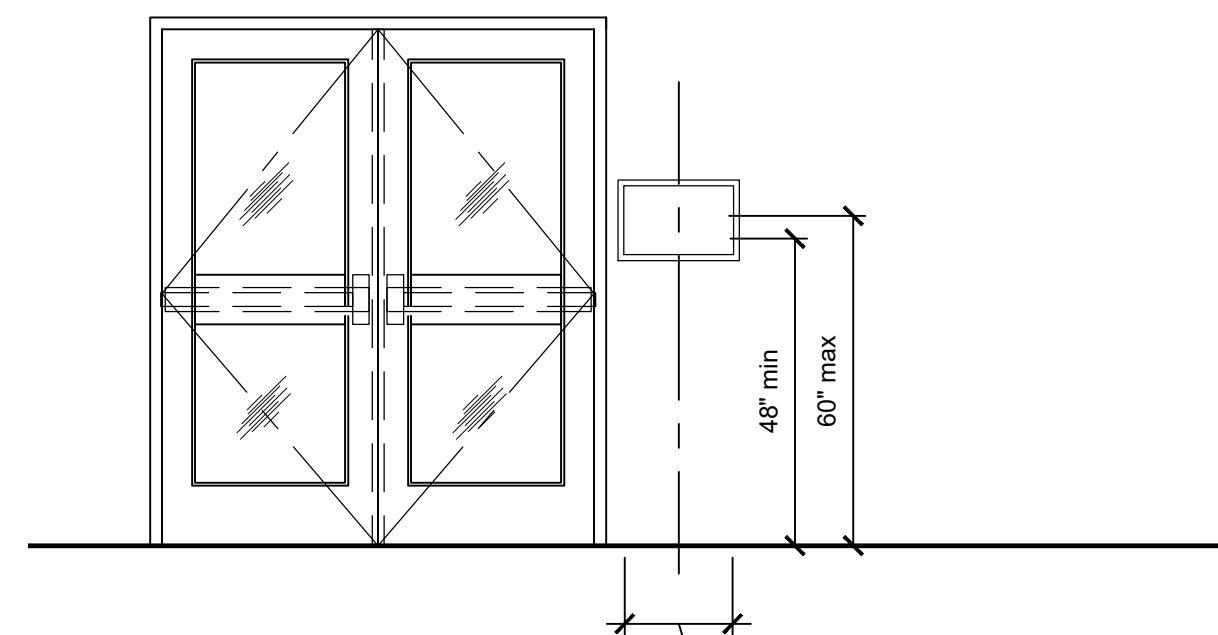
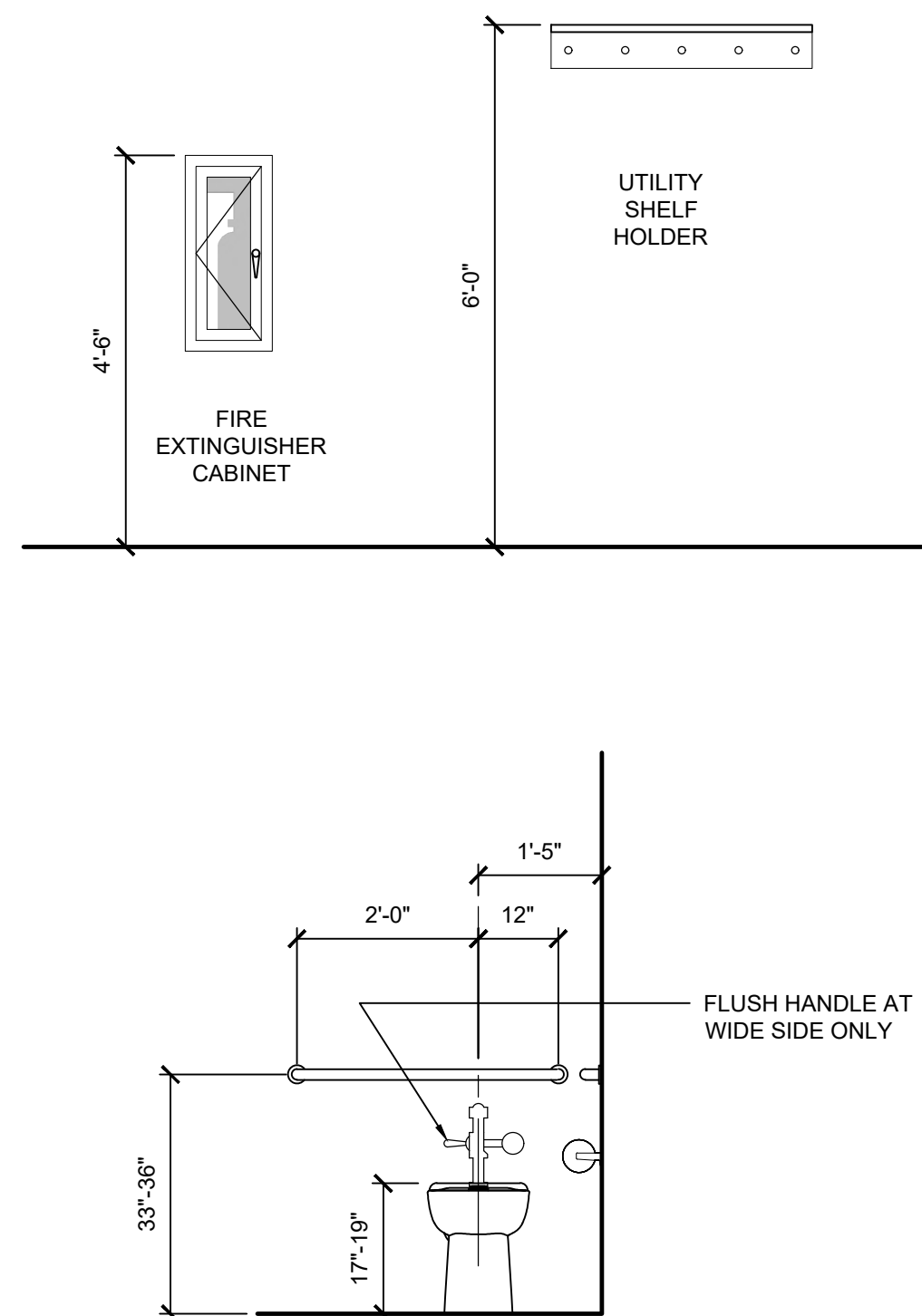
904.5 Food Service Lines. Counters in food service lines shall comply with 904.5.

904.5.1 Self-Service Shelves and Dispensing Devices. Self-service shelves and dispensing devices for tableware, dishware, condiments, food, and beverages shall comply with 308.

904.5.2 Tray Slides. The top of tray slides shall be 28 inches (710 mm) minimum and 34 inches (865 mm) maximum above the finish floor or ground.

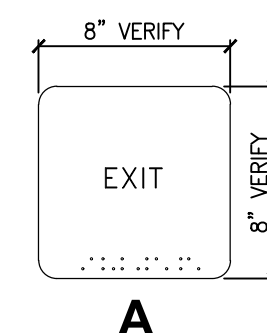
904.6 Security Glazing. Where counters or teller windows have security glazing to separate personnel from the public, a method to facilitate voice communication shall be provided. Telephone handset devices, if provided, shall comply with 704.3.

*LOCATE VAN ACCESSIBLE PARKING
TO THE LEFT OF ACCESS AISLE



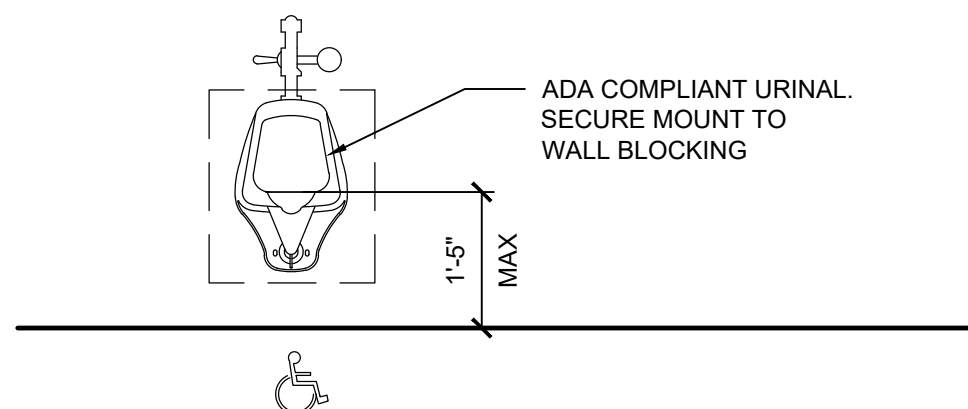
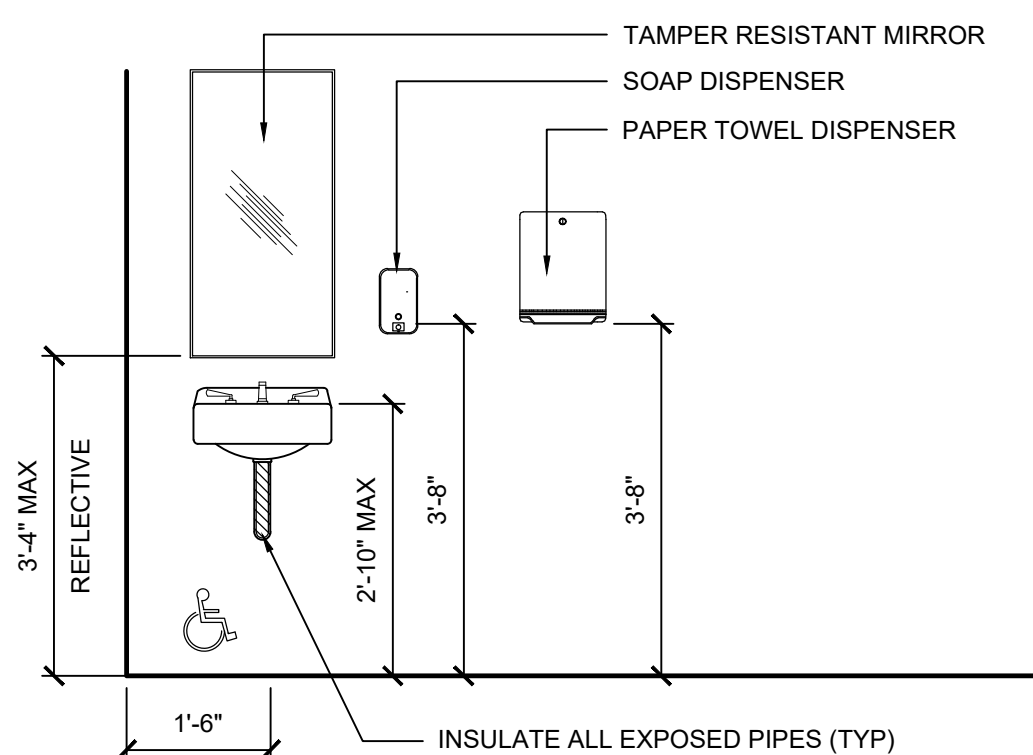
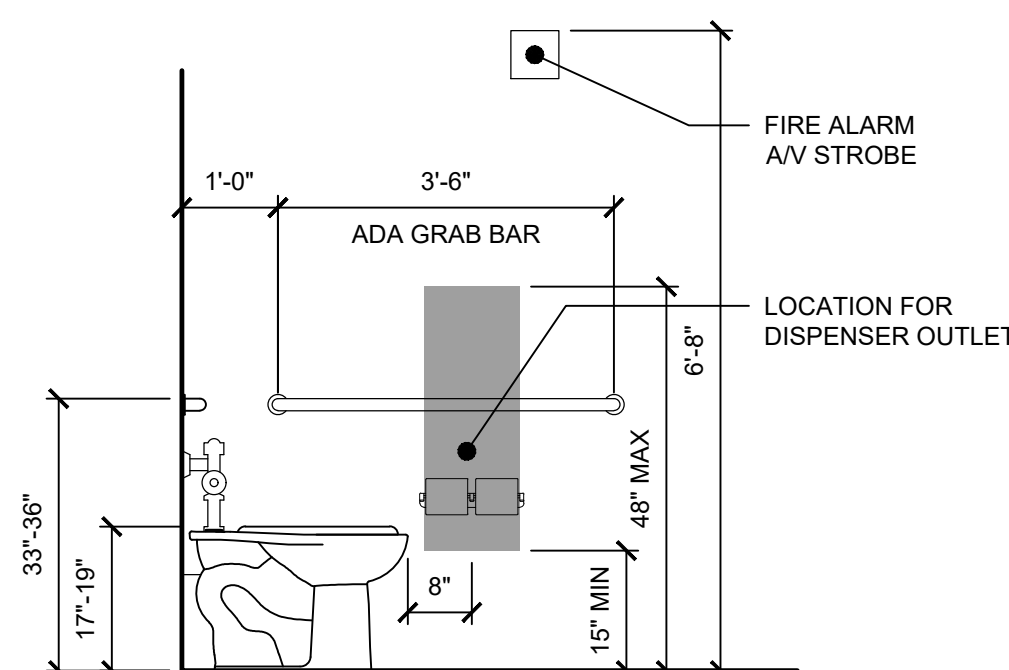
703.4.1 SIGN HEIGHT ABOVE FINISH FLOOR OR GROUND
TACTILE CHARACTERS ON SIGNS SHALL BE LOCATED 18" MIN. ABOVE FINISH FLOOR FROM THE BASELINE OF LOWEST TACTILE CHARACTER AND 60" MAX. ABOVE FINISH FLOOR FROM THE BASELINE OF HIGHEST TACTILE CHARACTER.

703.4.2 LOCATION
SIGN SHALL BE LOCATED ALONGSIDE THE DOOR AT LATCH SIDE. AT DOUBLE DOORS WITH ONE ACTIVE LEAF, LOCATE SIGN ON INACTIVE LEAF. AT DOUBLE DOORS WITH BOTH ACTIVE LEAVES, LOCATE SIGN AT THE RIGHT OF RIGHT HAND DOOR, WHERE NO WALL SPACE IS AVAILABLE, LOCATE SIGN AT THE NEAREST ADJACENT WALL. SIGNS CONTAINING TACTILE LETTERS SHALL BE LOCATED SO THAT A 18"X18" MIN. CLEAR FLOOR SPACE CENTERED ON TACTILE CHARACTERS, IS PROVIDED BEYOND THE ARC OF ANY DOOR SWING BETWEEN A CLOSED POSITION AND A 45° OPEN POSITION.



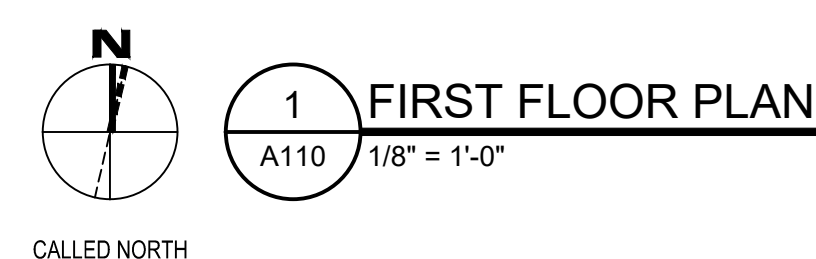
SIGNAGE GENERAL NOTES

1. VERIFY ALL SIGNAGE WITH OWNER/ARCHITECT.
2. PROVIDE THERMOSET PHENOLIC SIGNAGE WITH 3/4" HIGH TEXT AND TDSR / TAS 2012 COMPLIANT BRAILLE, RAISED AND COLOR CONTRAST.
3. ALL ROOM SIGNAGE TO BE MOUNTED 4'-0" MIN TO BOTTOM OF TACTILE CHARACTERS ABOVE FINISH FLOOR TO ADA STANDARD AS DIRECTED BY ARCHITECT.
4. ALL ROOM SIGNAGE TO BE MOUNTED WITH A CLEAR SPACE OF 18" x 18" MINIMUM CENTERLINE OF TACTILE CHARACTERS, BEYOND THE ARC OF THE DOOR SWING TO A STANDARD AS DIRECTED BY ARCHITECT.
5. ALL TEXT AND BRAILLE RAISED AND COLORS CONTRAST TO BE SPECIFIED BY ARCHITECT TO PREPARATION OF SHOP DRAWINGS.
6. PROVIDE SCALED LAYOUT OF ALL SIGNAGE.
7. HUMAN FIGURE, FONT TYPE, FONT SIZE AND BRAILLE TACTILE SHOWN FOR GRAPHIC REPRESENTATION PURPOSES ONLY.



ACCESSIBLE PARKING SPACES

- (a) a paved accessible parking space must include:
- (1) the international symbol of access painted conspicuously on the surface in a color that contrasts the pavement;
 - (2) the words "NO PARKING" painted on any access aisle adjacent to the parking space. The words must be painted:
 - (A) In all capital letters;
 - (B) with a letter height of at least one foot, and a stroke width of at least two inches;
 - (C) centered within each access aisle adjacent to the parking space;
- (3) a sign identifying the consequences of parking illegally in a paved accessible parking space. The sign must:
- (A) at a minimum state "Violators Subject to Fine and Towing" in a letter height of at least one inch;
 - (B) be mounted on a pole, post, wall or freestanding board;
 - (C) be no more than eight inches below a sign required by Texas Accessibility Standards, 502.6, and
 - (D) be installed so that the bottom edge of the sign is no lower than 4 feet and no higher than 6 feet above ground level.
- (b) a sign that meets the requirements set in Texas Accessibility Standards, 502.6 that includes the required language in subsection (a)(3)(A) satisfies this section.



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- J. ROB CLARK, AIA
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- www.architectsd.com

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CANCER TREATMENT CENTER
Baptist Hospitals of Southeast Texas

ISSUED FOR
SCHEMATIC DESIGN
DATE: 6/28/2023

DESIGN DEVELOPMENT
DATE: _____

BIDS & CONSTRUCTION
DATE: _____

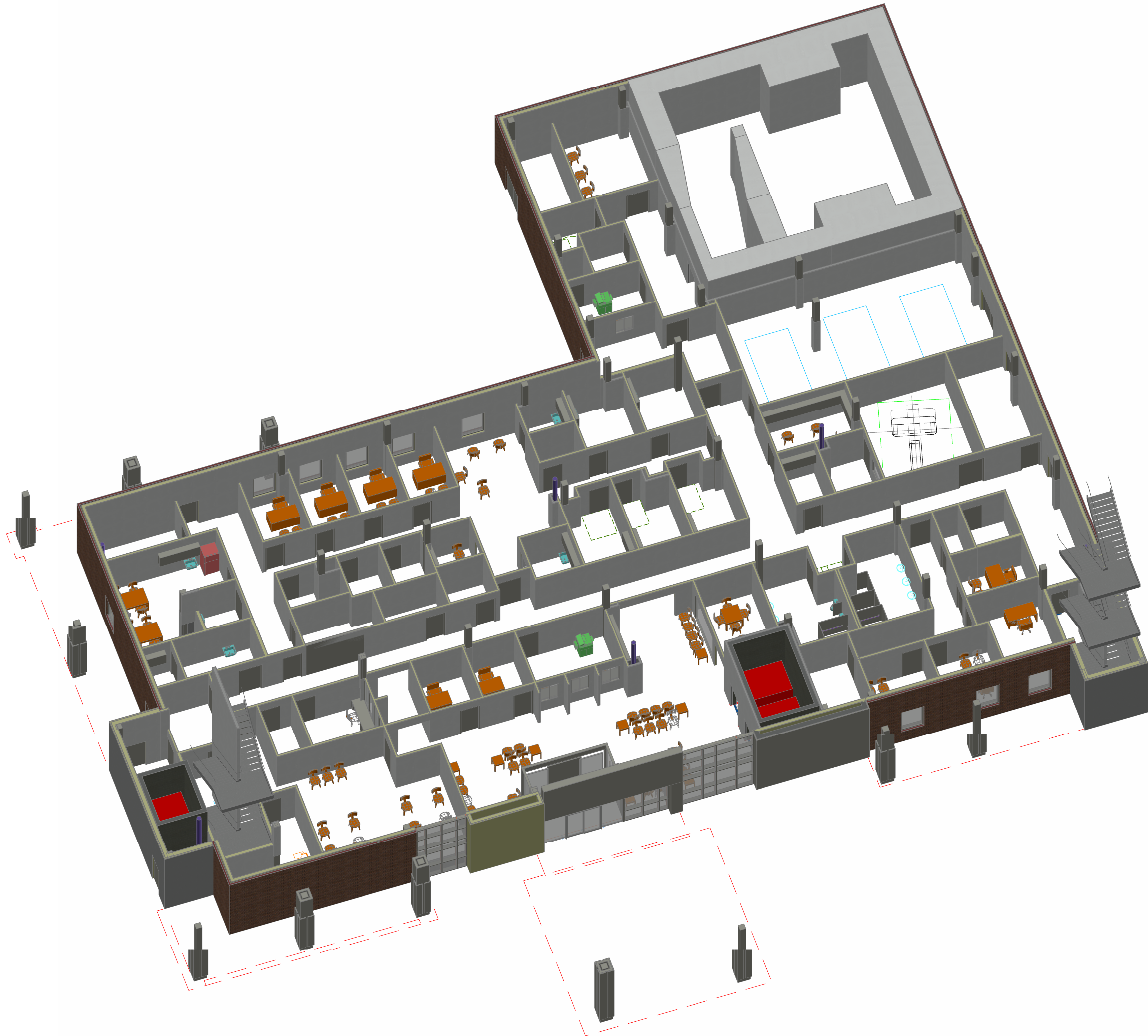
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DATE: _____

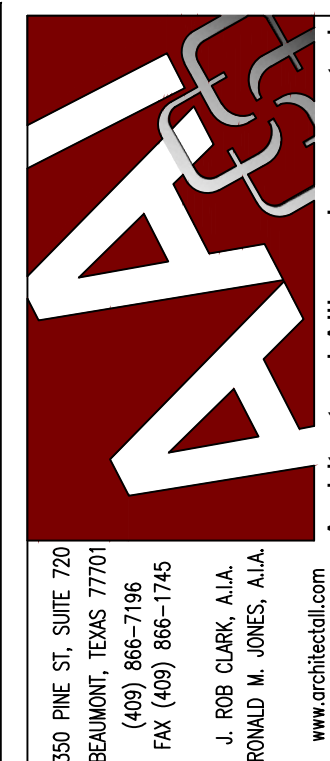
REVISION:
DATE: _____

SHEET NUMBER
A110

22042
PROJECT NUMBER



1 FIRST FLOOR 3D VIEW
A111 N.T.S.



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CANCER TREATMENT CENTER

Baptist Hospitals of Southeast Texas

3180 College Street

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DATE: _____

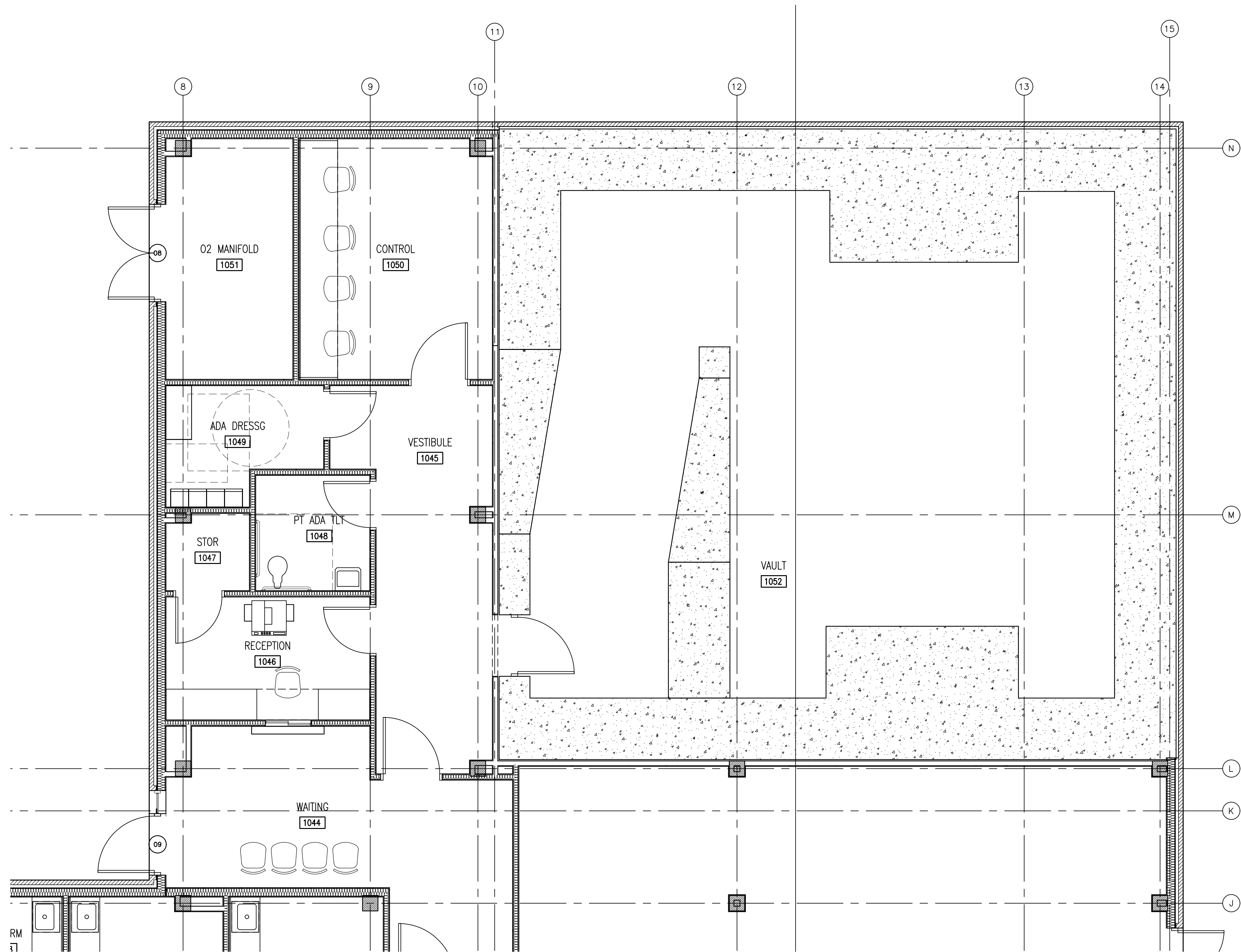
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FIRST FLOOR
DIMENSIONAL
PLAN

SHEET NUMBER

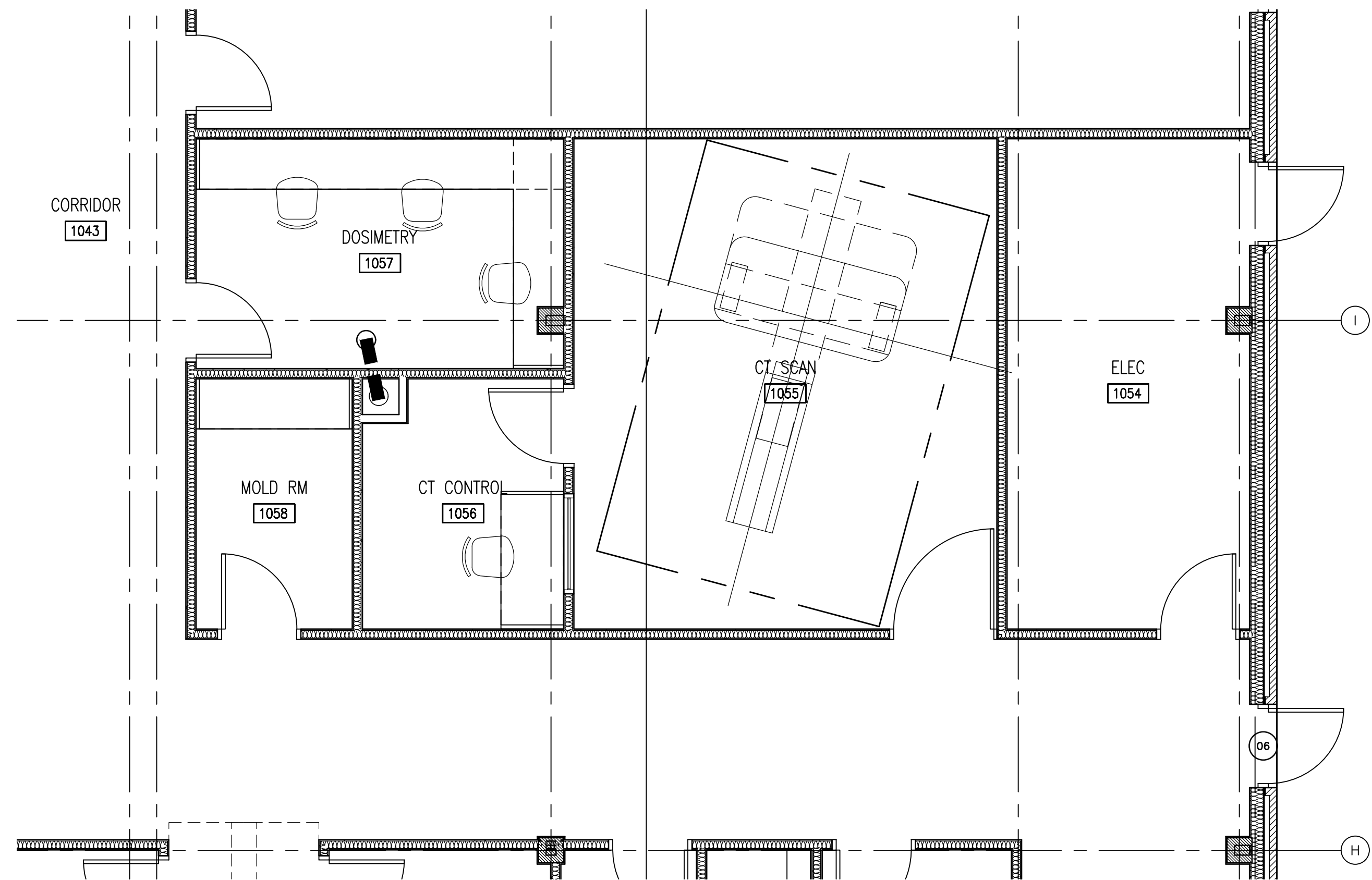
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22042
PROJECT NUMBER



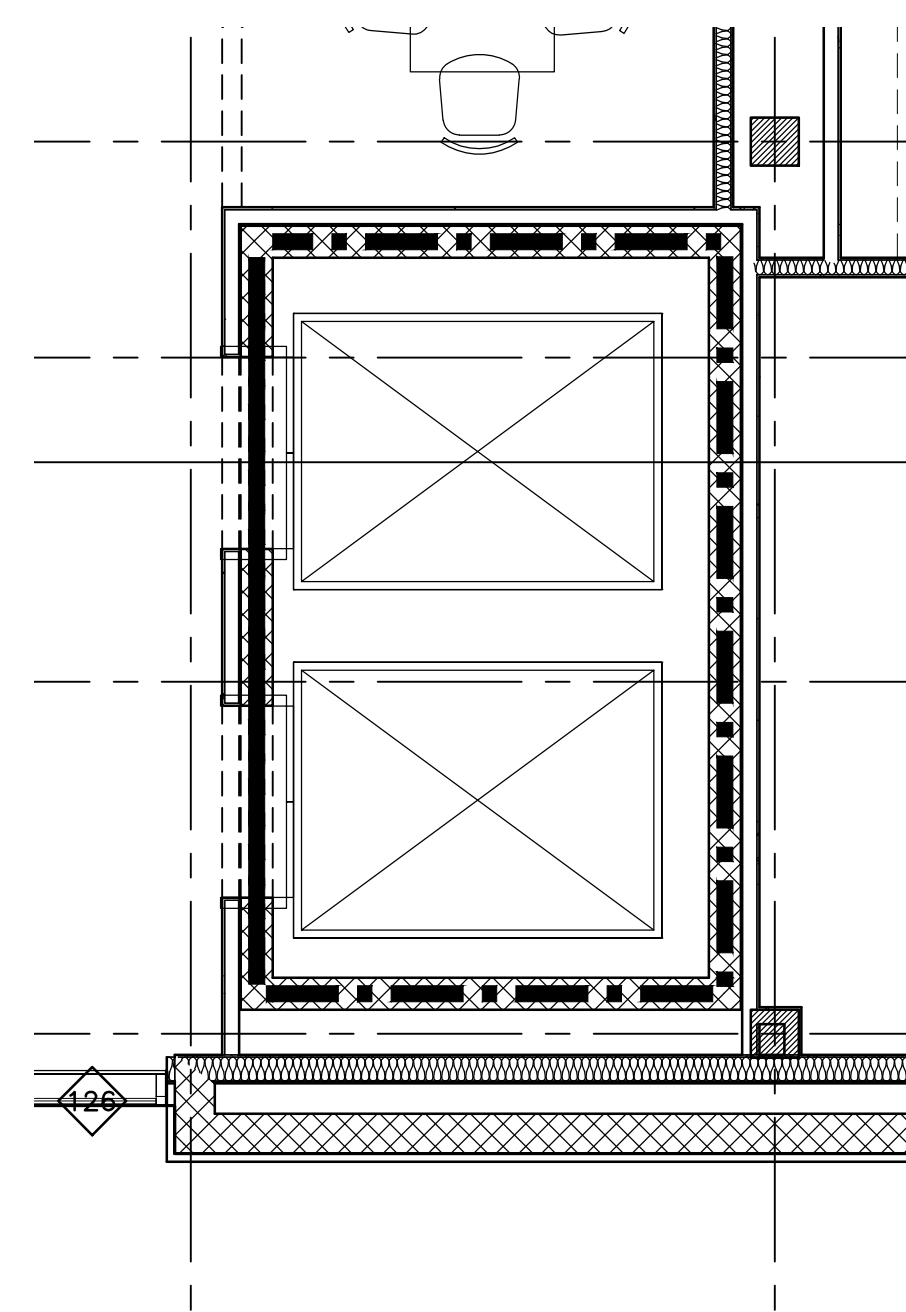
1 LINEAR ACCELERATOR ENLARGED PLAN

A113 1/4" = 1'-0"



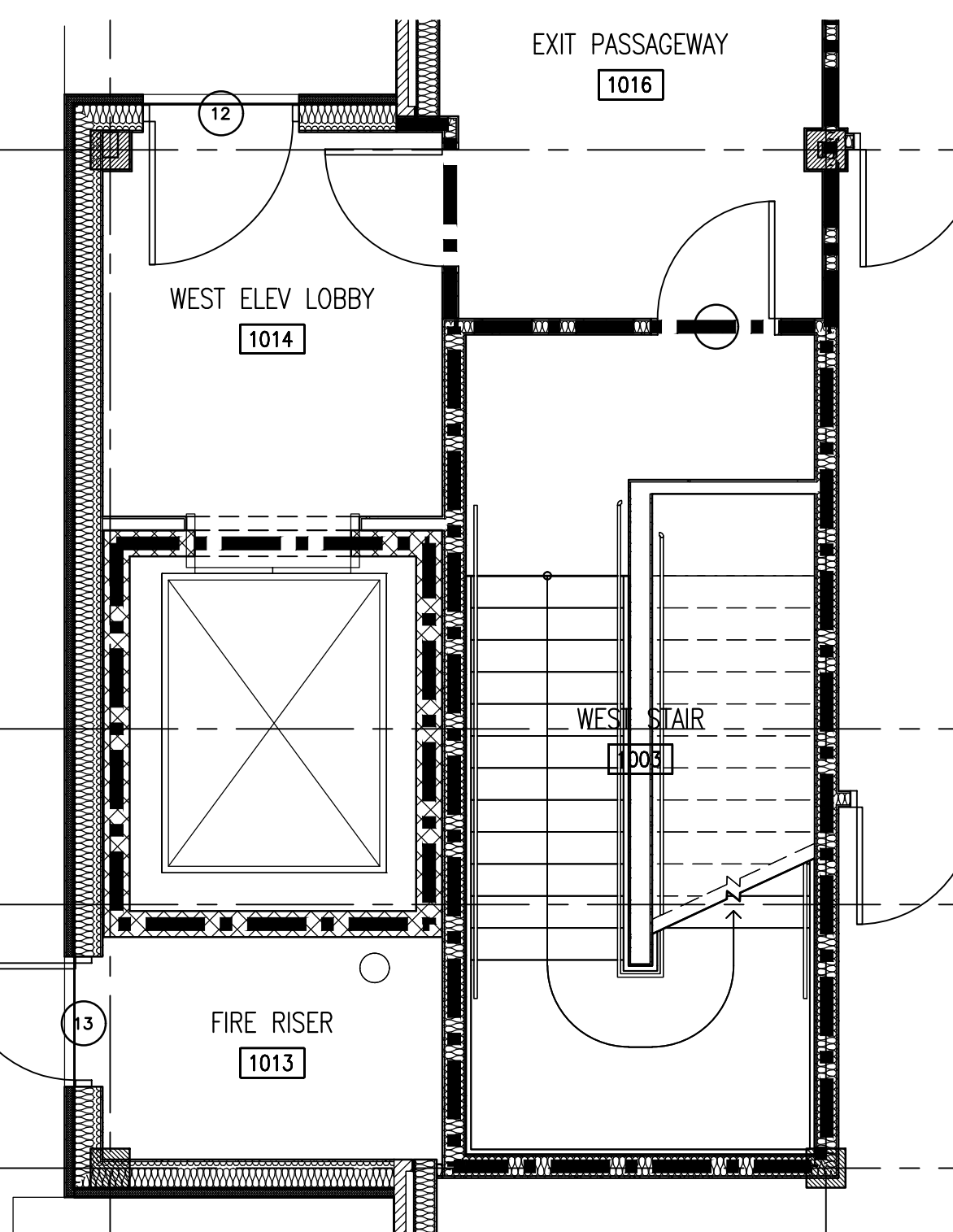
2 COMPUTED TOMOGRAPHY SCAN ENLARGED PLAN

A113 1/4" = 1'-0"



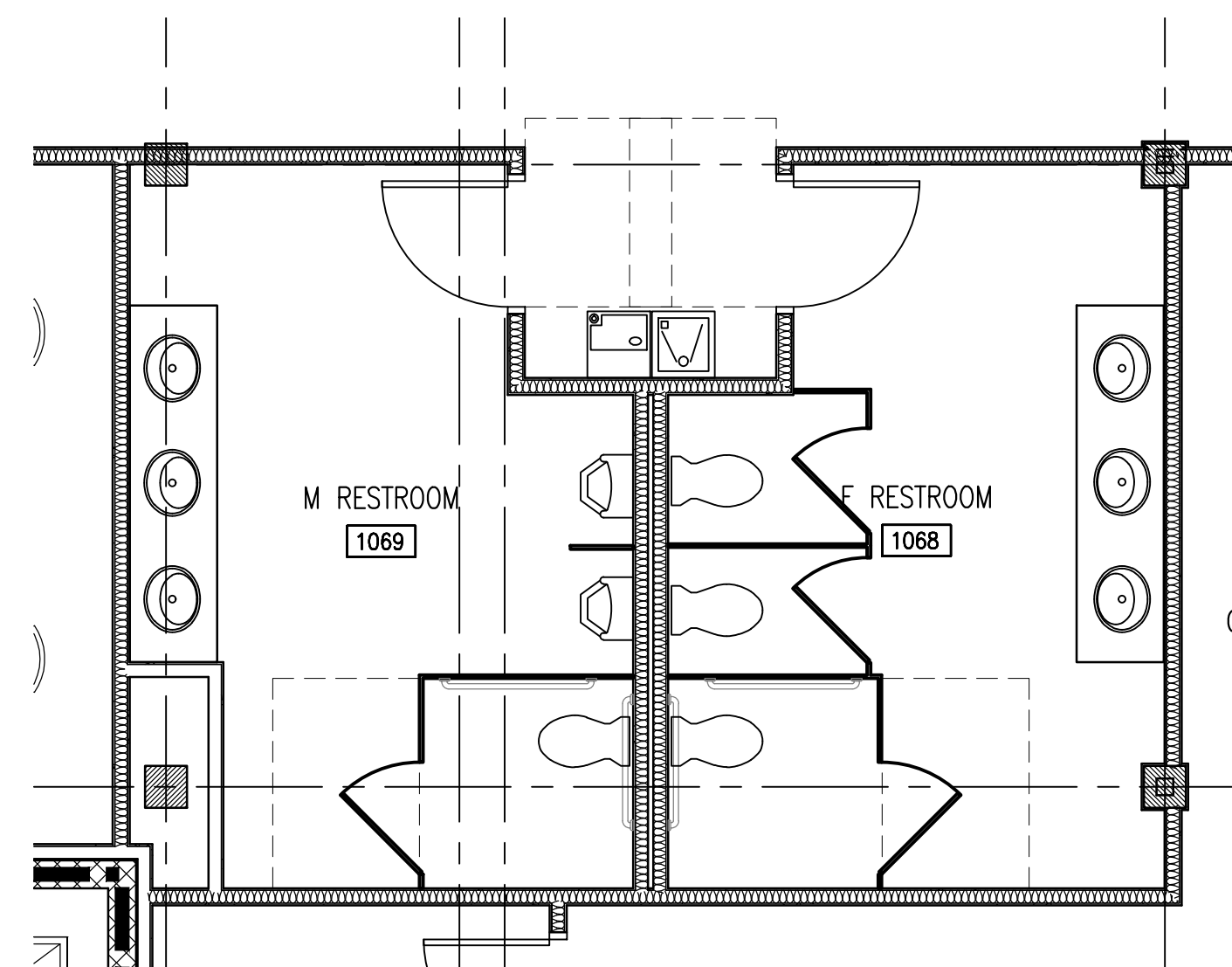
3 ELEVATOR A & B ENLARGED PLAN

A113 1/4" = 1'-0"



4 ELEVATOR C ENLARGED PLAN

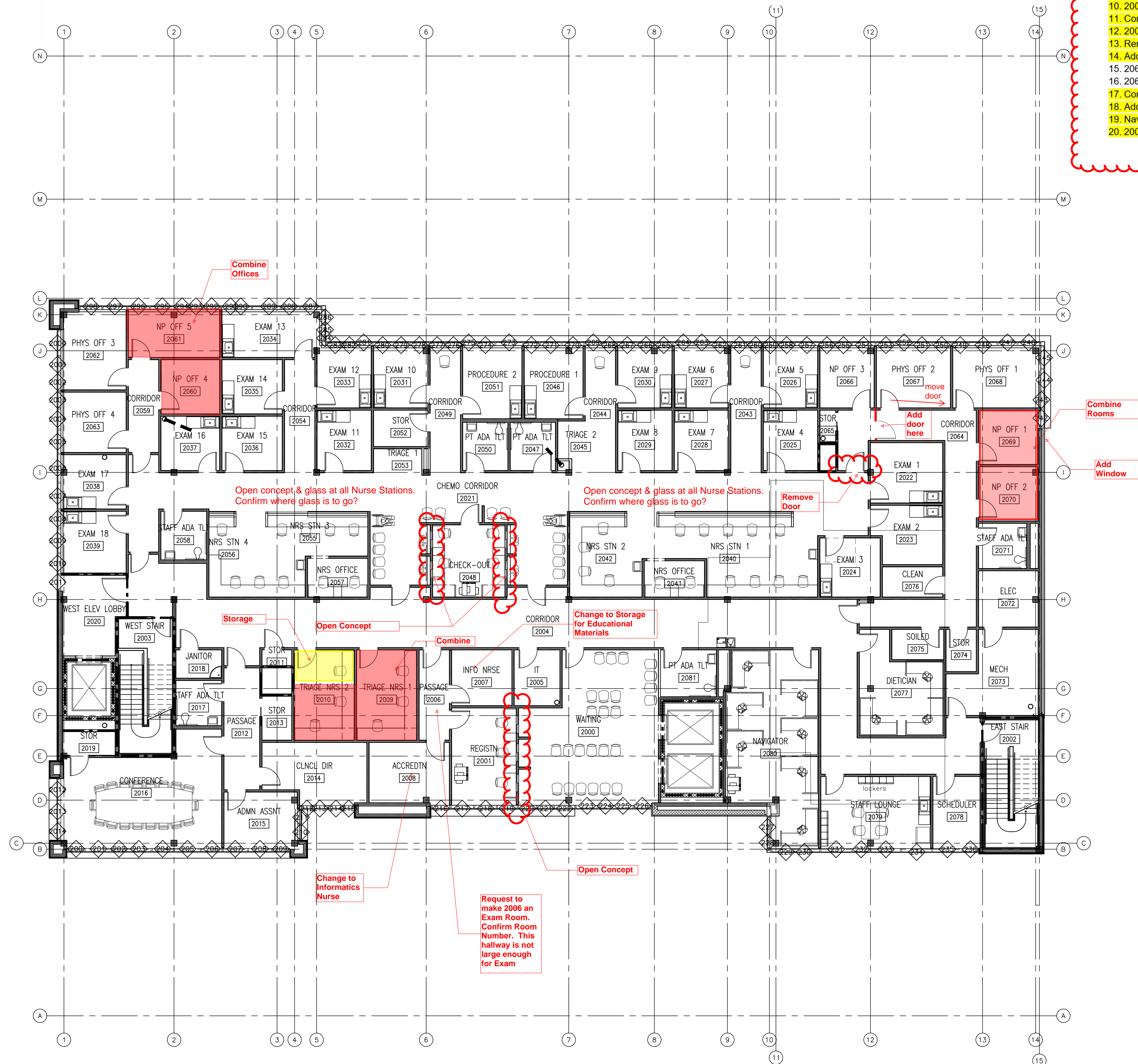
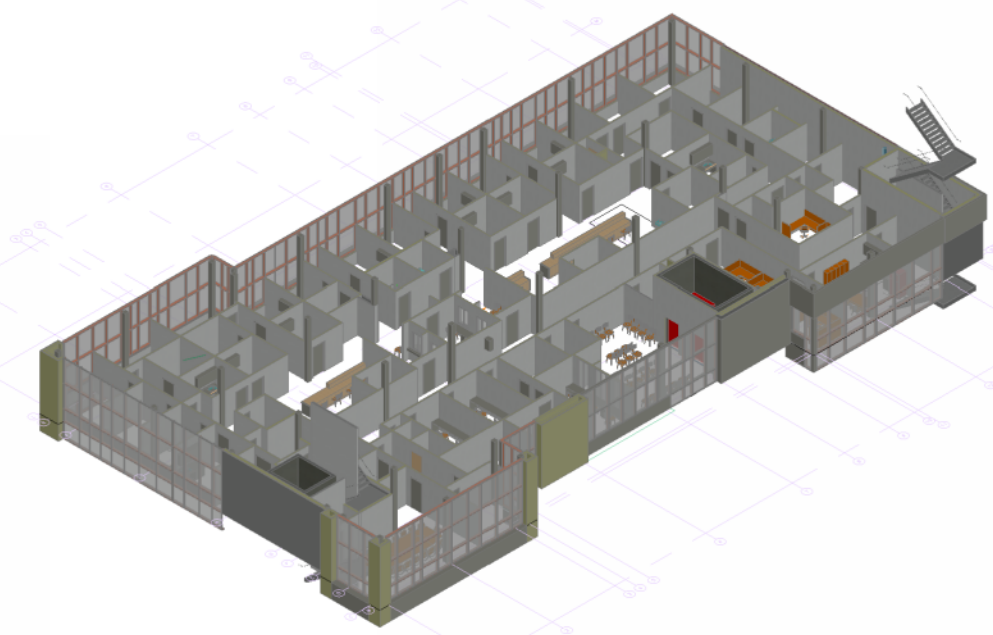
A113 1/4" = 1'-0"



5 RESTROOMS ENLARGED PLANS

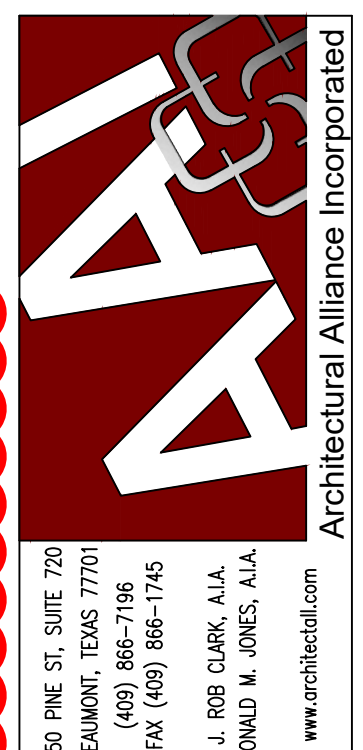
A113 1/4" = 1'-0"

2 3D ISOMETRIC VIEW
A120 N.T.S.



- Second Floor**
- 2062 Dr. Naqvi Office
 - Combine NP offices 2060 & 2061
 - Open concept and glass at all nurses stations
 - 2057 MA office
 - 2041 MA Office
 - 2048 open concept
 - 2001 open concept
 - 2008 Accreditation moved to JBR and replaced with Informatics nurse
 - 2014 Gay-Lynne and Michelle Chiasson
 - 2007 Storage for Education material
 - Combine 2009 & 2010 (slightly larger) and replace part of 2010 with storage
 - 2006 make exam room
 - Remove door in corridor going to 2066
 - Add door in corridor 2064 before room 2067
 - 2067 Dr. Khalil office
 - 2068 Dr. Akbari office
 - Combine NP offices 2069 and 2070
 - Add windows to 2069 & 2070
 - Navigator Office (Surgery, IP, Breast, Lung, Prostate, Colon, Nurse Educator)
 - 2001 open Concept (no glass)

1 SECOND FLOOR PLAN
A120 1/8" = 1'-0"
CALLED NORTH



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CANCER TREATMENT CENTER
Baptist Hospitals of Southeast Texas
3181 College Street
Beaumont, TX 77701

CONSULTANT:

ISSUED FOR SCHEMATIC DESIGN ☒
DATE: 6/28/2023
DESIGN DEVELOPMENT ☐
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DATE: _____
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DATE: _____
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DATE: _____

DRAWINGS SHEET TITLE
SECOND FLOOR PLAN

SHEET NUMBER
A120
22042
PROJECT NUMBER



1 SECOND FLOOR 3D VIEW
A121 N.T.S.

CANCER TREATMENT CENTER
Baptist Hospitals of Southeast Texas

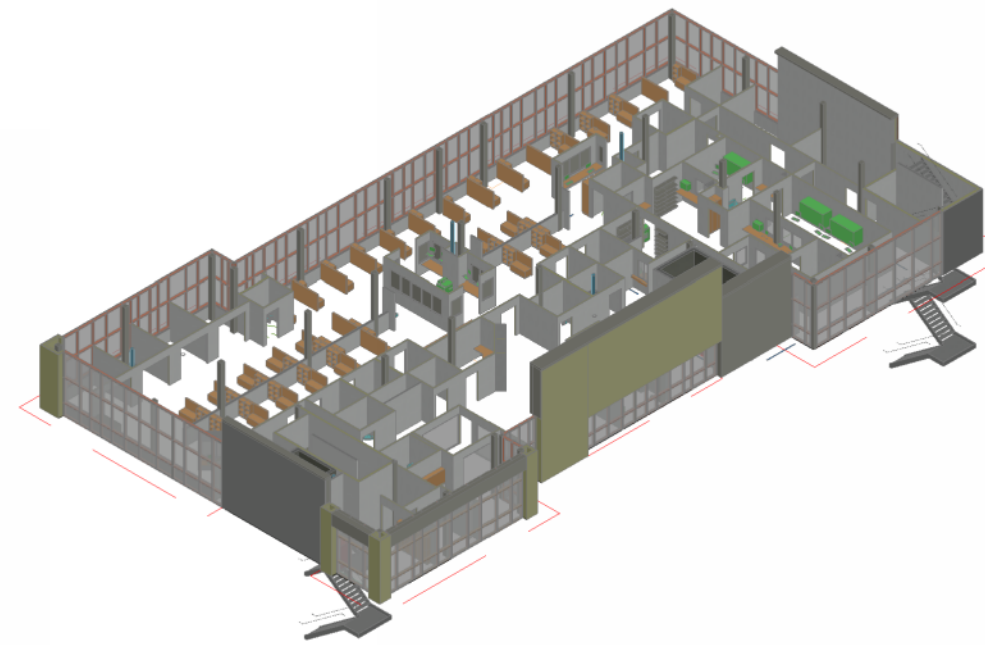
3180 College Street

CONSULTANT:

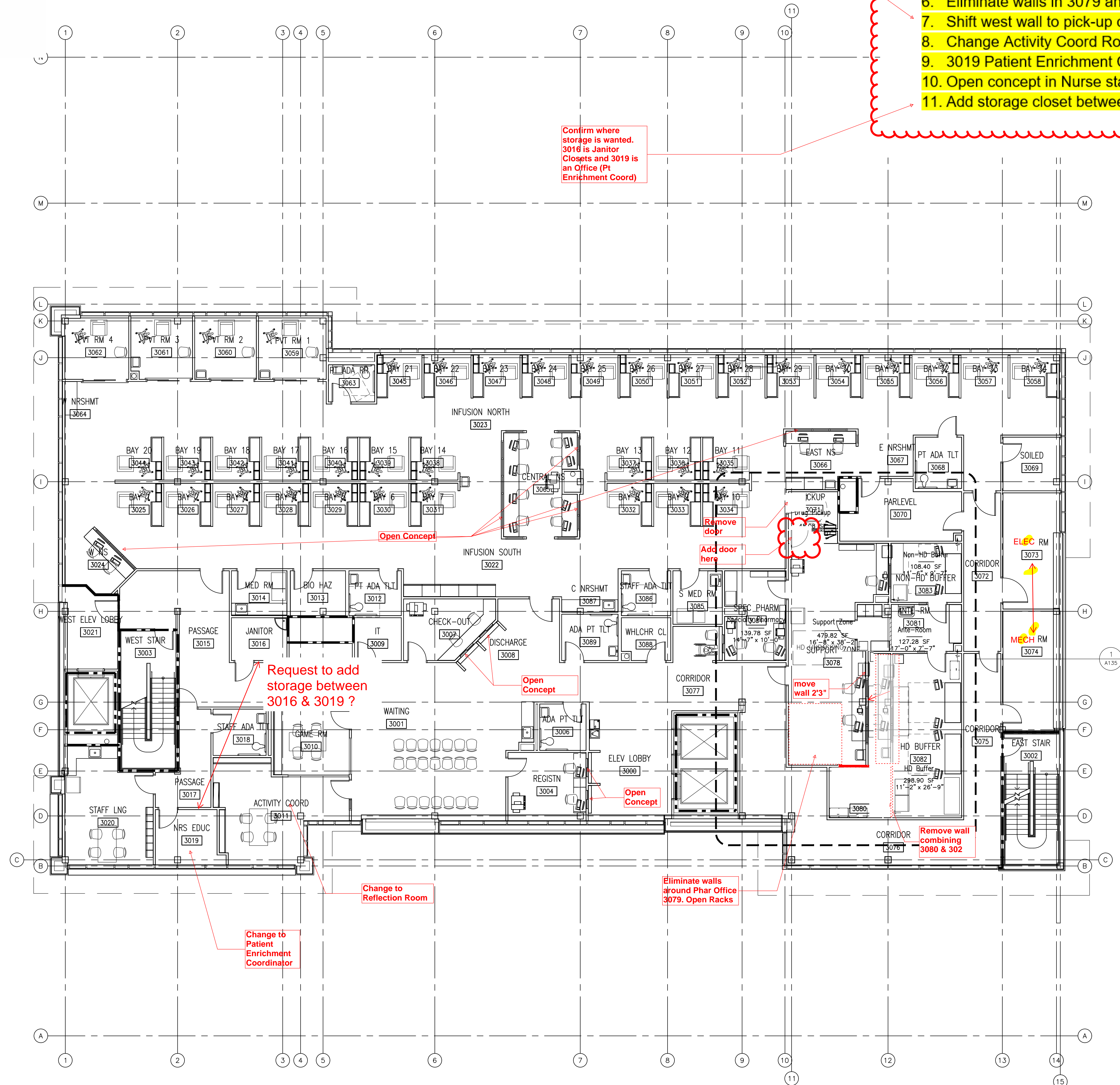
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DATE: 6/28/2023	
DESIGN DEVELOPMENT	<input type="checkbox"/>
DATE:	
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DATE:	
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DATE:	
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REVISION:	
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DRAWINGS SHEET TITLE
SECOND FLOOR
3D VIEW

SHEET NUMBER
A121
22042
PROJECT NUMBER

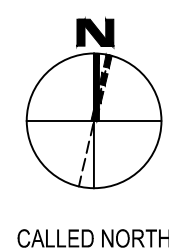


2 3D ISOMETRIC VIEW
A130 N.T.S.

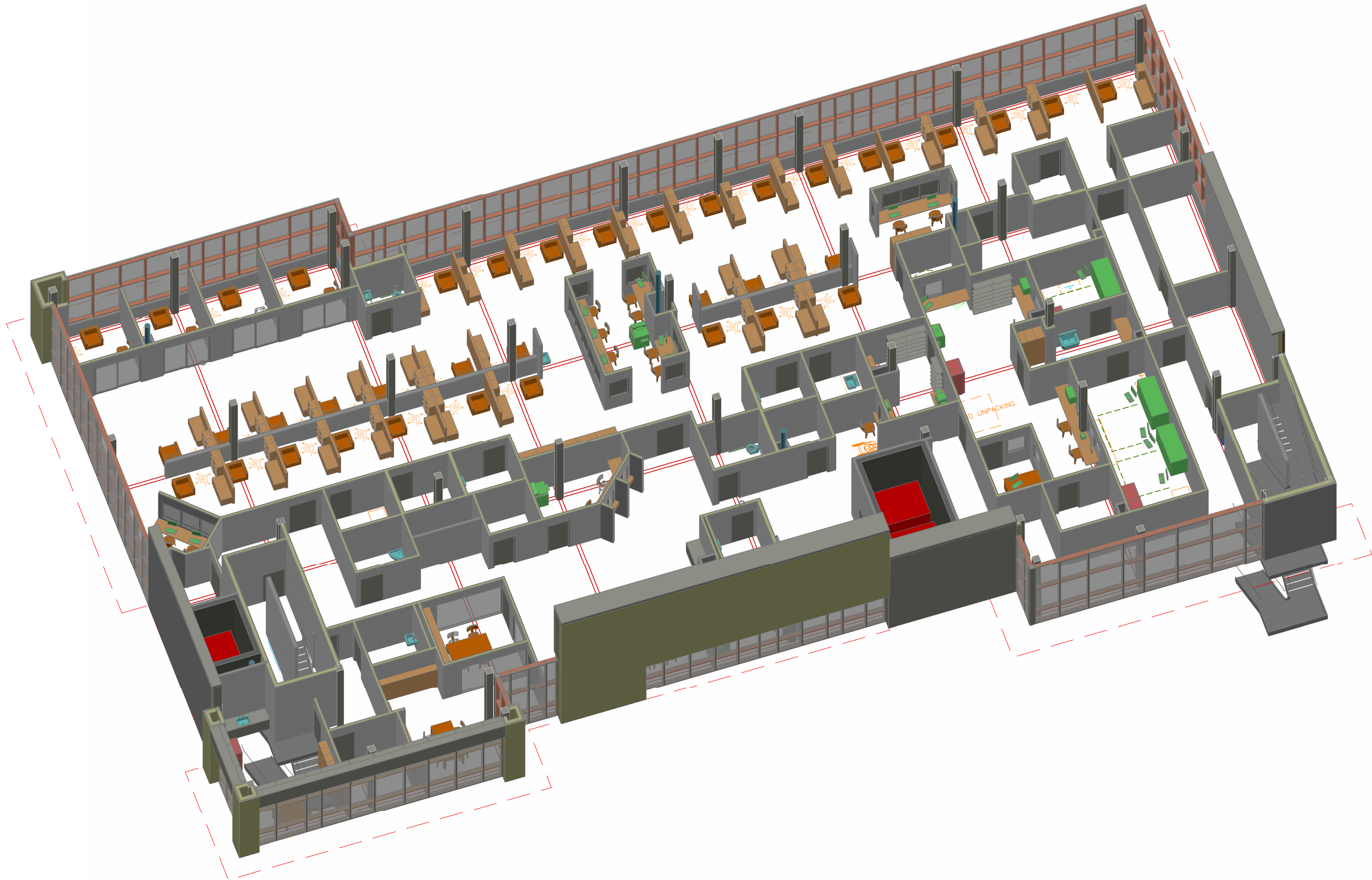


Third Floor

1. 3071 remove door & add where window is placed; place built in desk
2. Pass through window located next to room 3071 in room 3078
3. Shift wall in 3082 2-3' into 3078
4. Close door opening in 3080
5. Open wall between 3080 and 3082
6. Eliminate walls in 3079 and have open racks
7. Shift west wall to pick-up chemo chairs
8. Change Activity Coord Room to Reflection Room
9. 3019 Patient Enrichment Coordinator
10. Open concept in Nurse stations, Registration and discharge
11. Add storage closet between 3016 and 3019



1 THIRD FLOOR PLAN
A130 1/8" = 1'-0"



1 THIRD FLOOR 3D VIEW
A131 N.T.S.

CANCER TREATMENT CENTER

Baptist Hospitals of Southeast Texas

3180 College Street
Beaumont, TX 77701

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DATE: _____

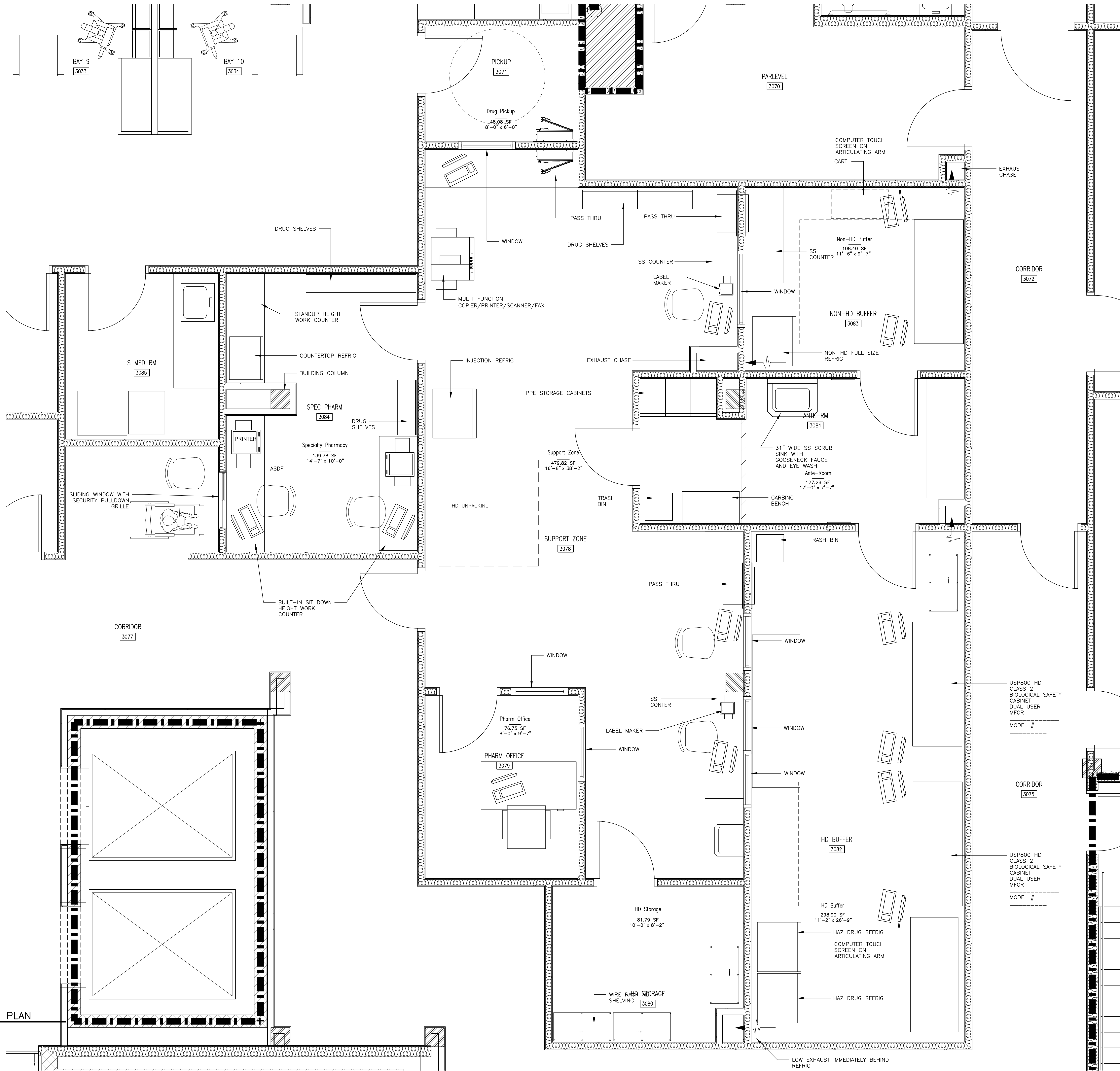
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THIRD FLOOR 3D
VIEW

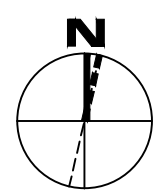
SHEET NUMBER

A131

22042
PROJECT NUMBER



LAST SAVE: 11/14/2023 11:22 PM SHEET SIZE: 30.00 x 42.00 (inches)



1 PHARMACY ENLARGED PLAN
A135 1/2" = 1'-0"

CALL NORTH

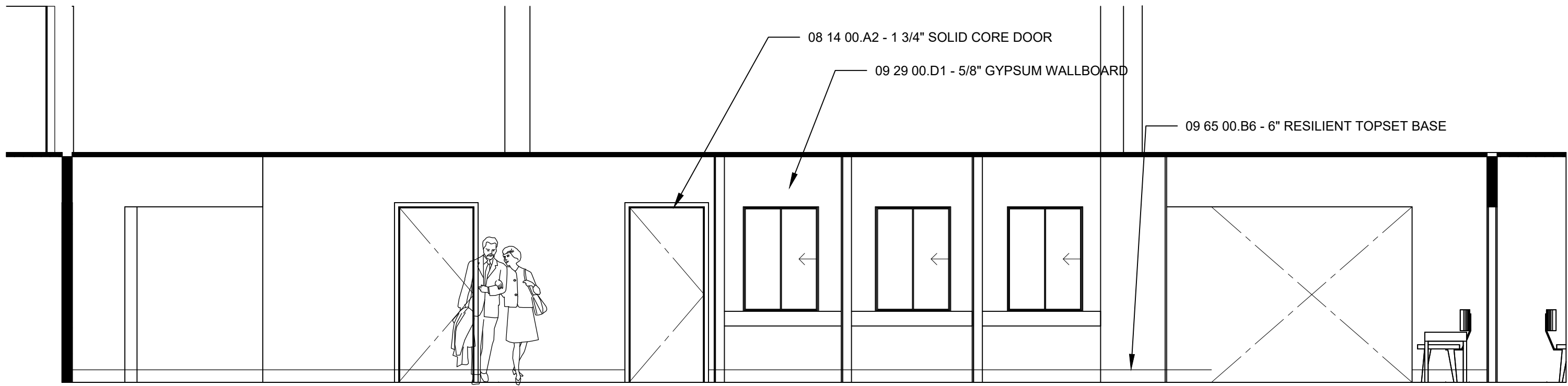
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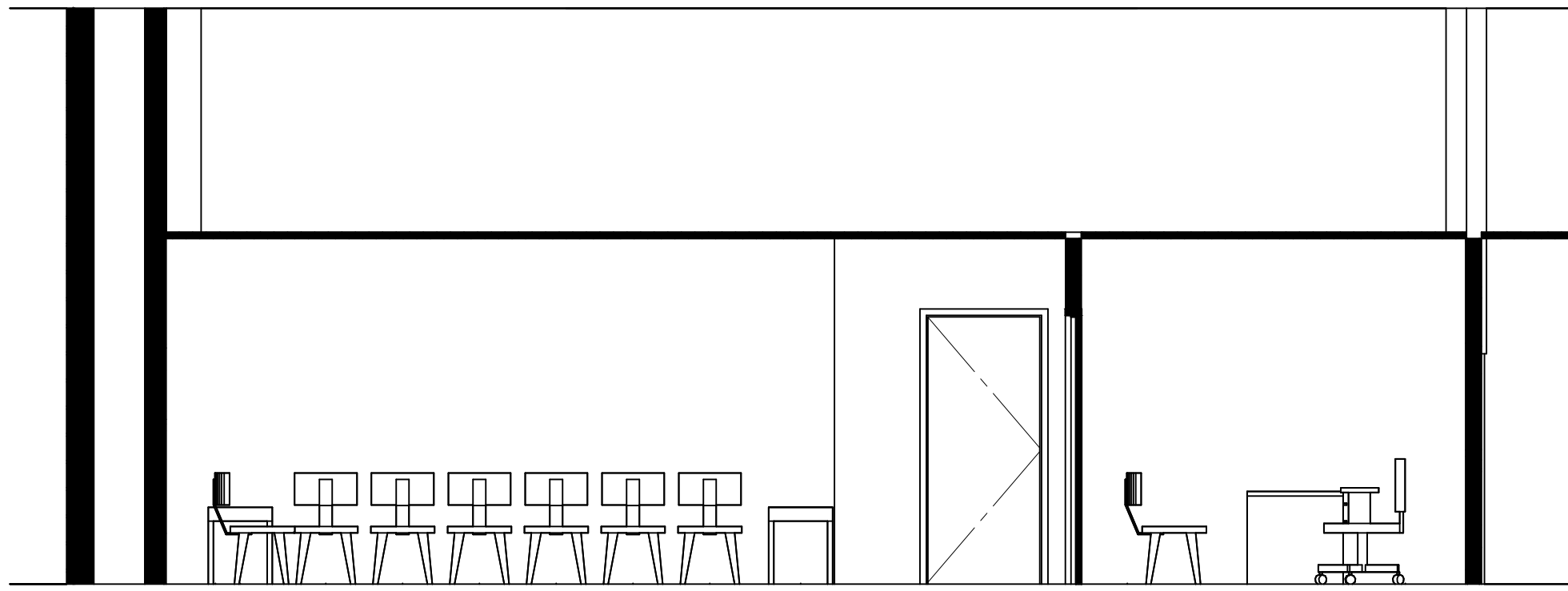
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REVISION: _____
DATE: _____

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ENLARGED PHARMACY PLAN

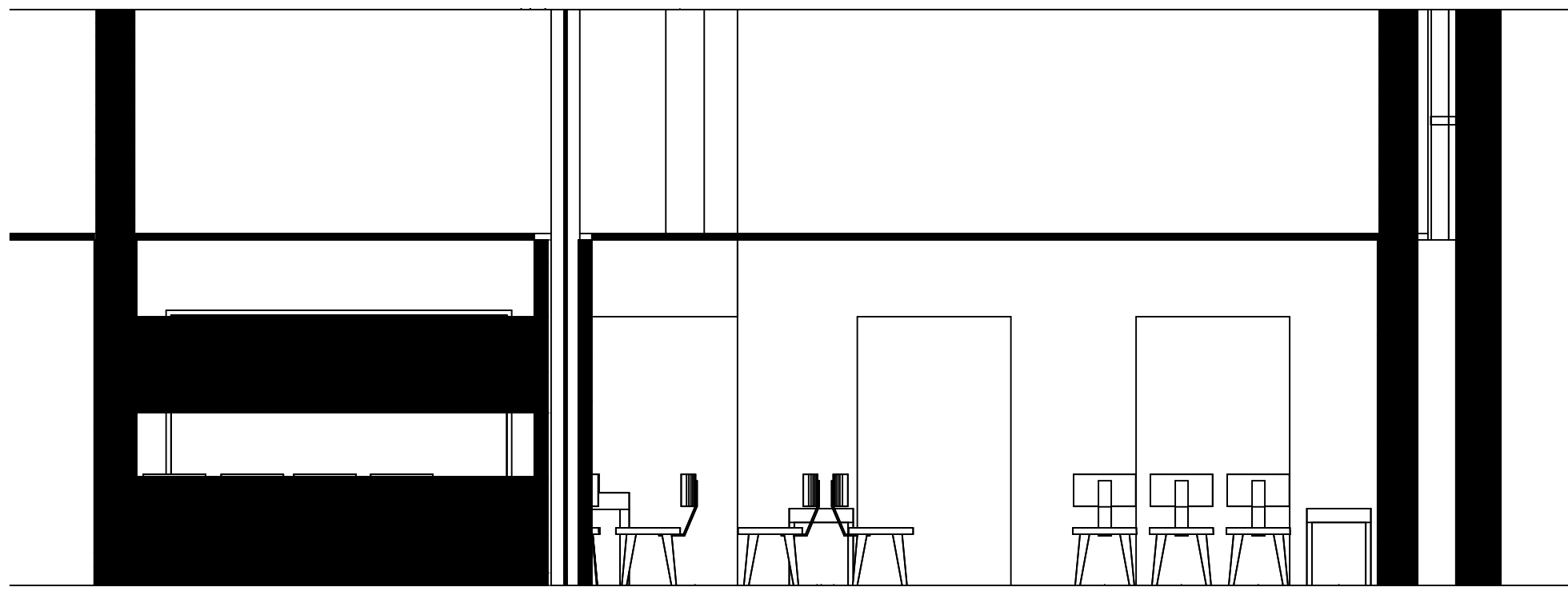
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A135
22042
PROJECT NUMBER



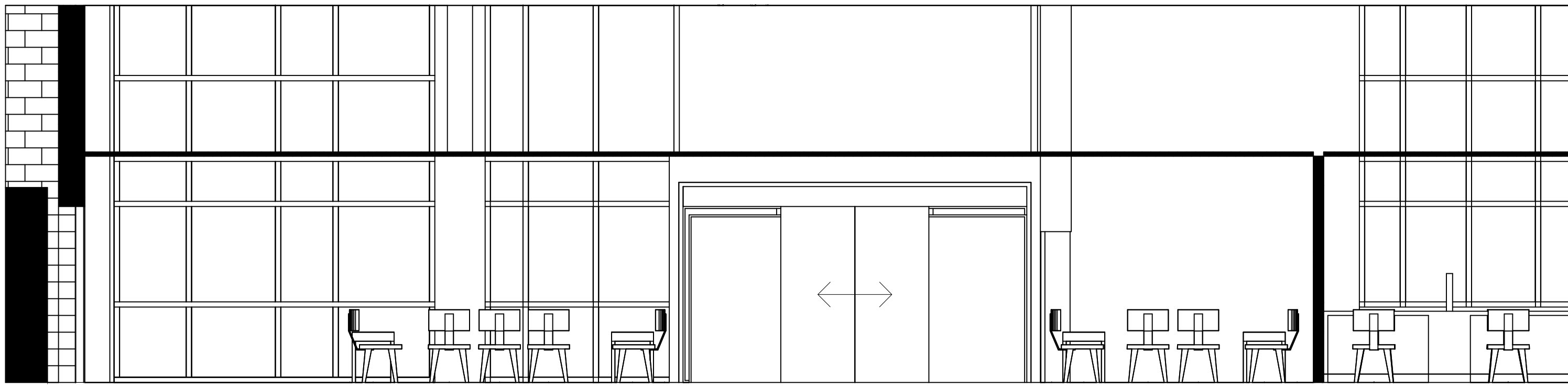
1 WAITING-1004
A400 1/4" = 1'-0"



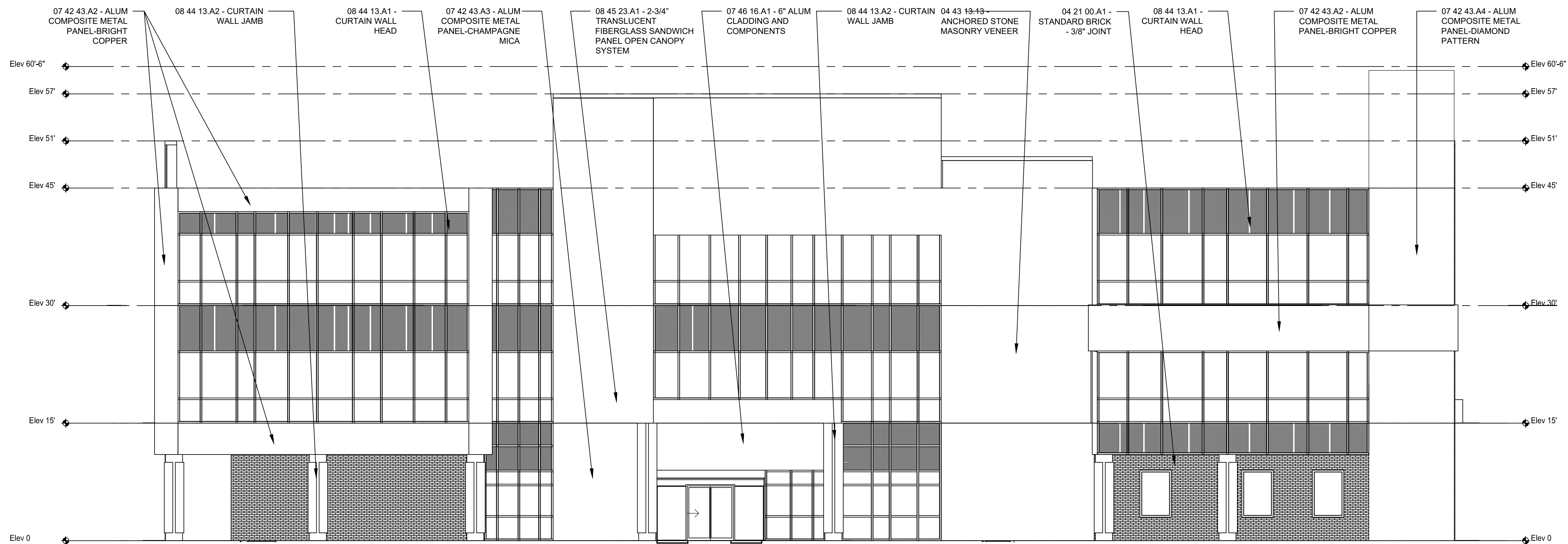
3 WAITING-1004
A400 1/4" = 1'-0"



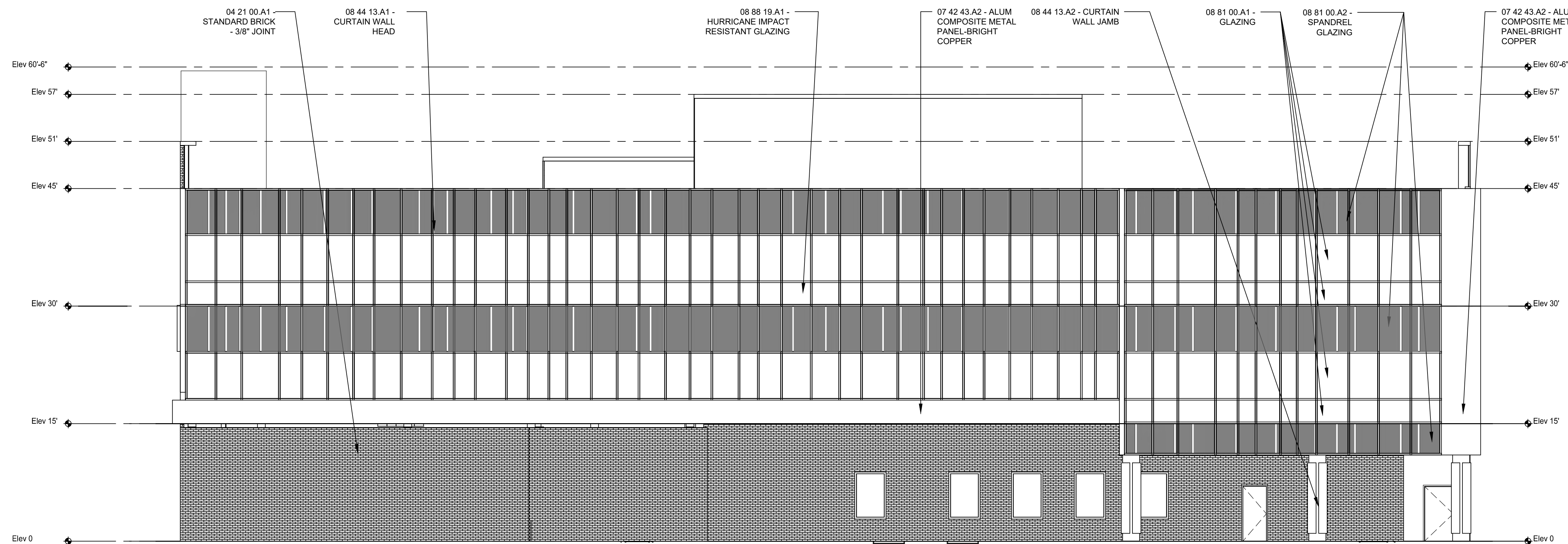
2 WAITING-1004
A400 1/4" = 1'-0"



4 WAITING-1004
A400 1/4" = 1'-0"



1 SOUTH ELEVATION
A600 1/8" = 1'-0"



2 NORTH ELEVATION
A600 1/8" = 1'-0"

REFERENCE KEYNOTES

DIVISION 04 - MASONRY

04 21 00 - CLAY UNIT MASONRY

04 21 00.01 - STANDARD BRICK - 3/8" JOINT

04 43 00 - STONE MASONRY

04 43 13.13 - ANCHORED STONE MASONRY VENEER

DIVISION 07 - THERMAL AND MOISTURE PROTECTION

07 42 00 - WALL PANELS

08 44 13.A2 - CURTAIN WALL JAMB

07 42 43.A2 - ALUM COMPOSITE METAL PANEL-BRIGHT COPPER

07 42 43.A3 - ALUM COMPOSITE METAL PANEL-CHAMPAGNE MICA

07 42 43.A4 - ALUM COMPOSITE METAL PANEL-DIAMOND PATTERN

07 46 00 - SIDING

07 46 16.A1 - 6" ALUM CLADDING AND COMPONENTS

DIVISION 08 - OPENINGS

08 44 00 - CURTAIN WALL AND GLAZED ASSEMBLIES

08 44 13.A1 - CURTAIN WALL HEAD

08 45 00 - TRANSLUCENT WALL AND ROOF ASSEMBLIES

08 45 23.A1 - 2-3/4" TRANSLUCENT FIBERGLASS SANDWICH PANEL OPEN CANOPY SYSTEM

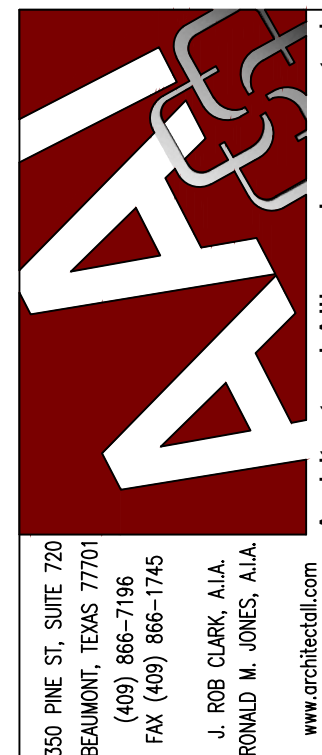
08 81 00 - GLASS GLAZING

08 81 00.A1 - GLAZING

08 81 00.A2 - SPANDREL GLAZING

08 88 00 - SPECIAL FUNCTION GLAZING

08 88 19.A1 - HURRICANE IMPACT RESISTANT GLAZING



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Baptist Hospitals of Southeast Texas
3181 College Street
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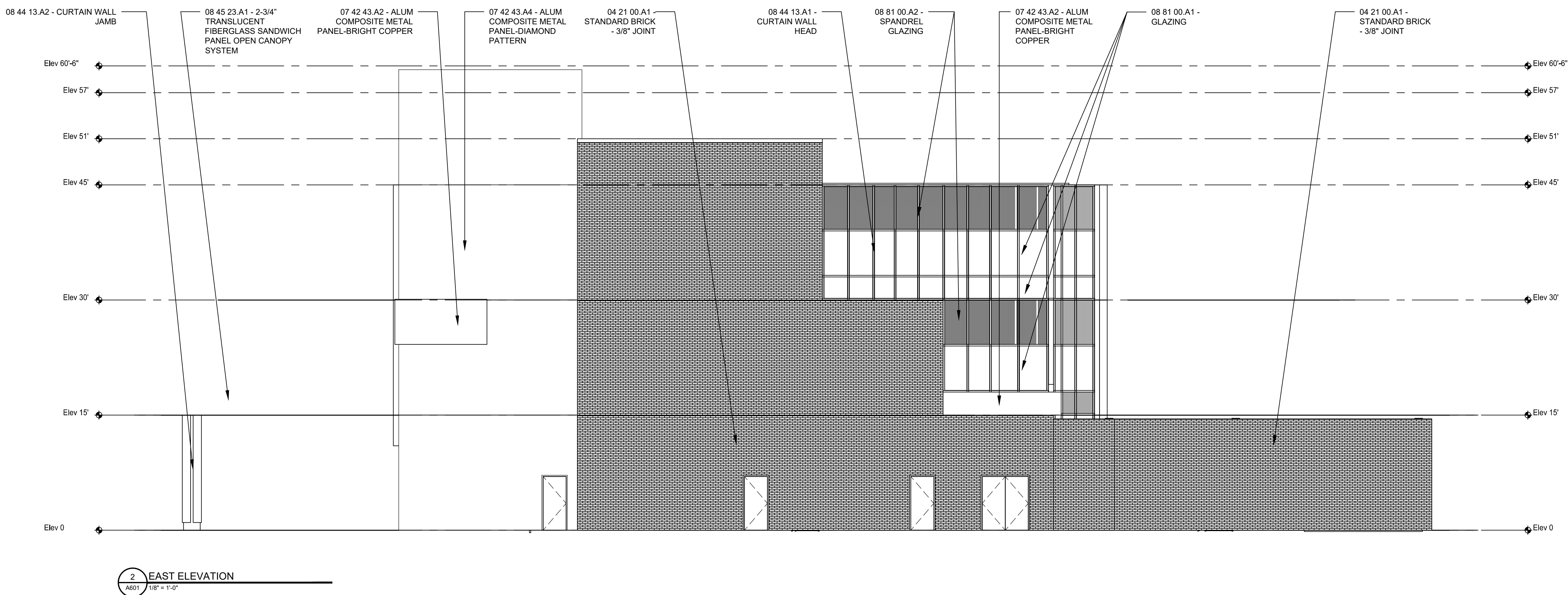
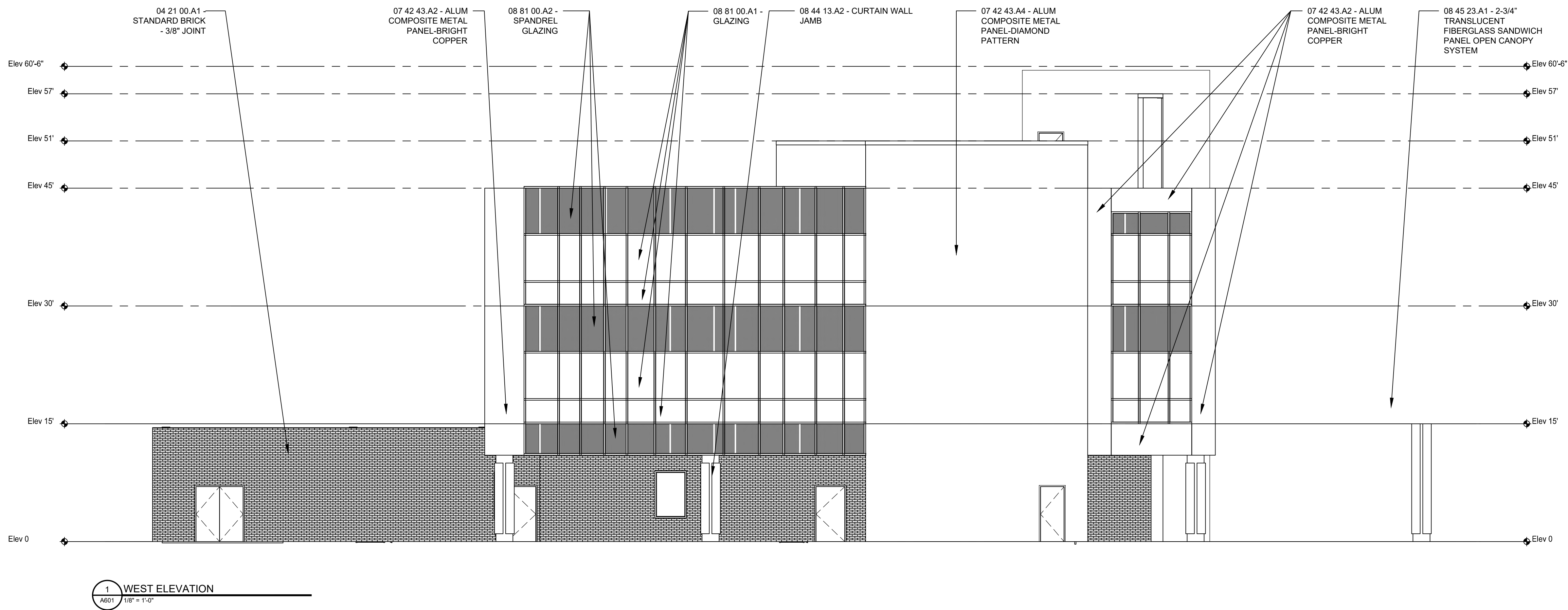
EXTERIOR
ELEVATIONS

SHEET NUMBER

A600

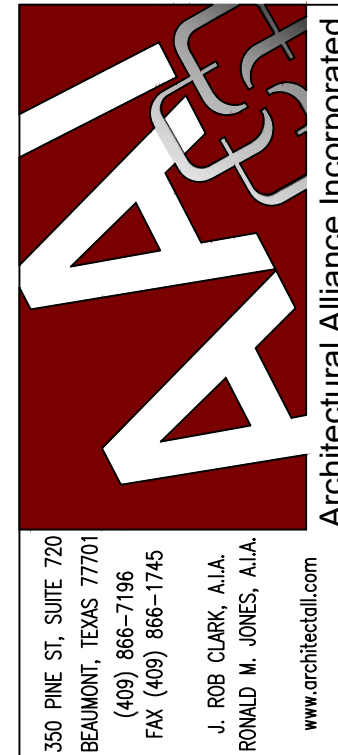
22042

PROJECT NUMBER



REFERENCE KEYNOTES

DIVISION 04 - MASONRY	
04 21 00 - CLAY UNIT MASONRY	
04 21 00.A1	- STANDARD BRICK - 3/8" JOINT
04 43 00 - STONE MASONRY	
04 43 13.13	- ANCHORED STONE MASONRY VENEER
DIVISION 07 - THERMAL AND MOISTURE PROTECTION	
07 42 00 - WALL PANELS	
08 44 13.A2	- CURTAIN WALL JAMB
07 42 43.A2	- ALUM COMPOSITE METAL PANEL-BRIGHT COPPER
07 42 43.A3	- ALUM COMPOSITE METAL PANEL-CHAMPAGNE MICA
07 42 43.A4	- ALUM COMPOSITE METAL PANEL-DIAMOND PATTERN
07 46 00 - SIDING	
07 46 16.A1	- 6" ALUM CLADDING AND COMPONENTS
DIVISION 08 - OPENINGS	
08 44 00 - CURTAIN WALL AND GLAZED ASSEMBLIES	
08 44 13.A1	- CURTAIN WALL HEAD
08 45 00 - TRANSLUCENT WALL AND ROOF ASSEMBLIES	
08 45 23.A1	- 2-3/4" TRANSLUCENT FIBERGLASS SANDWICH PANEL OPEN CANOPY SYSTEM
08 81 00 - GLASS GLAZING	
08 81 00.A1	- GLAZING
08 81 00.A2	- SPANDREL GLAZING
08 88 00 - SPECIAL FUNCTION GLAZING	
08 88 19.A1	- HURRICANE IMPACT RESISTANT GLAZING



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Baptist Hospitals of Southeast Texas
Beaumont, TX 77701

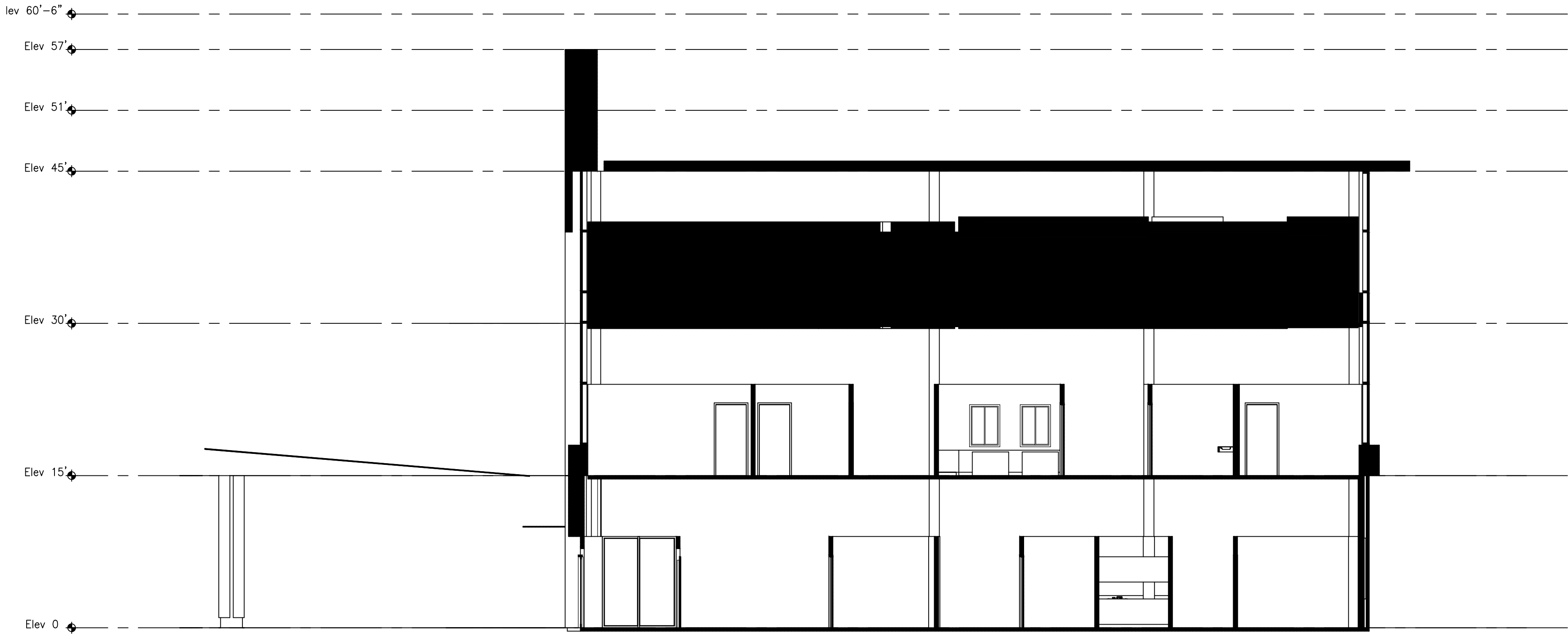
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DATE: _____
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DATE: _____

DRAWINGS SHEET TITLE
EXTERIOR ELEVATIONS

SHEET NUMBER
A601

22042
PROJECT NUMBER



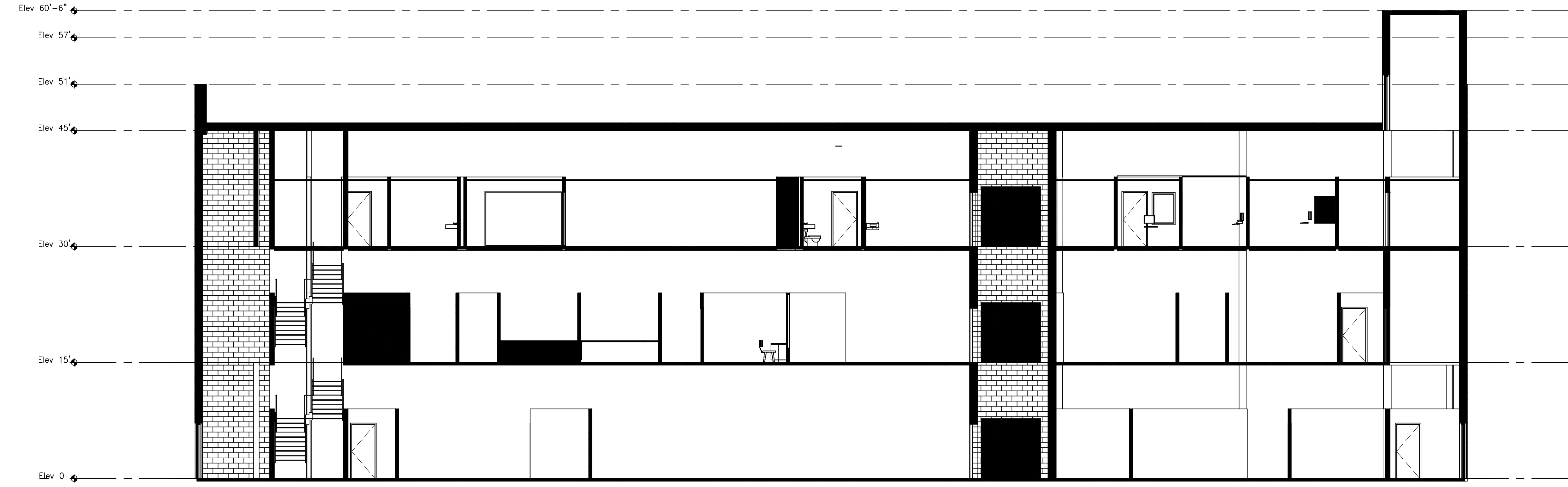
1 SECTION A
1/8" = 1'-0"



2 SECTION B
1/8" = 1'-0"



3 SECTION C
1/8" = 1'-0"



4 SECTION D
1/8" = 1'-0"

REFERENCE KEYNOTES

DIVISION 03 - CONCRETE

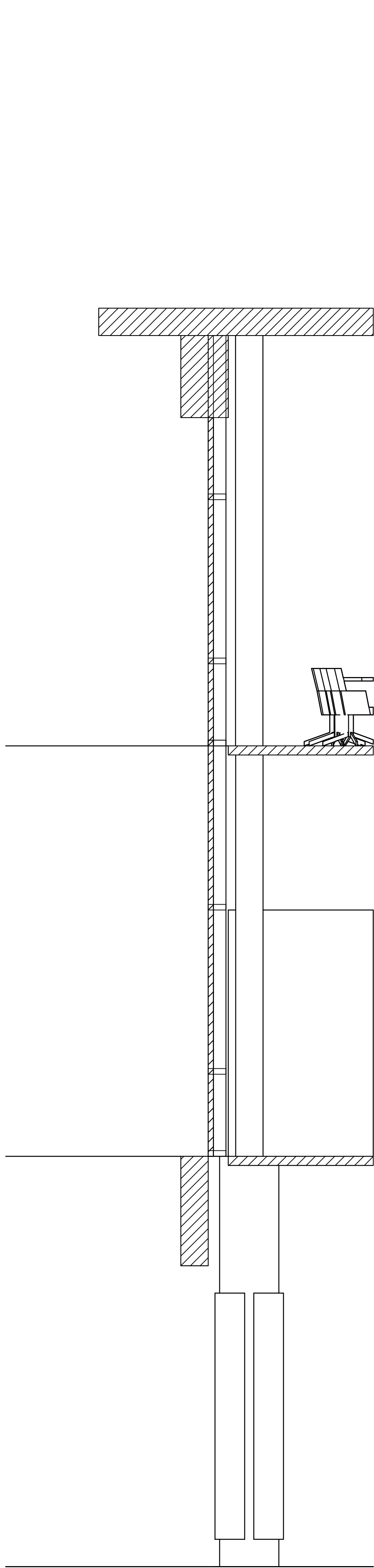
03 31 00 - STRUCTURAL CONCRETE

03 31 00.17 - 5" CAST-IN-PLACE CONCRETE SLAB W/ METAL DECKING

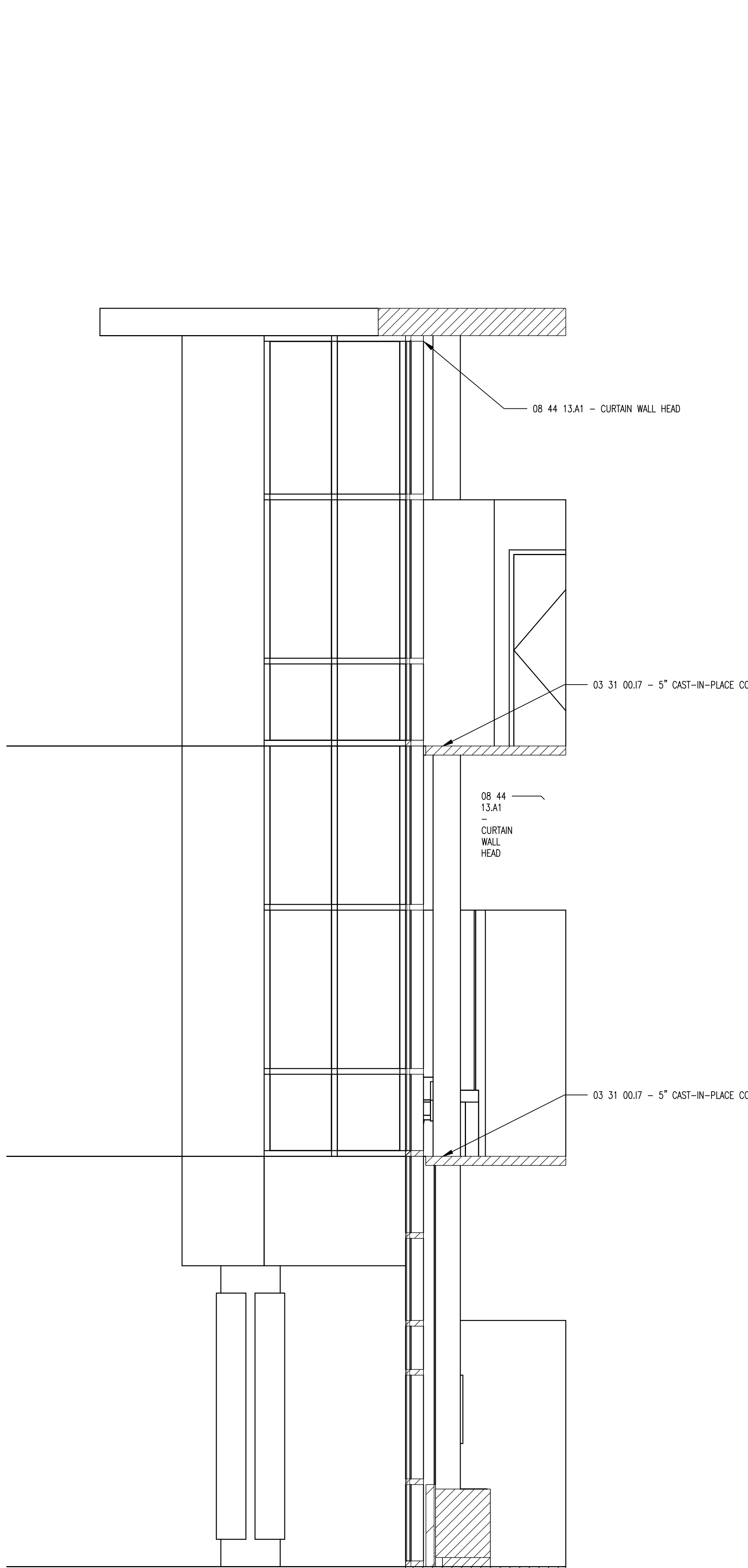
DIVISION 08 - OPENINGS

08 43 00 - STOREFRONTS

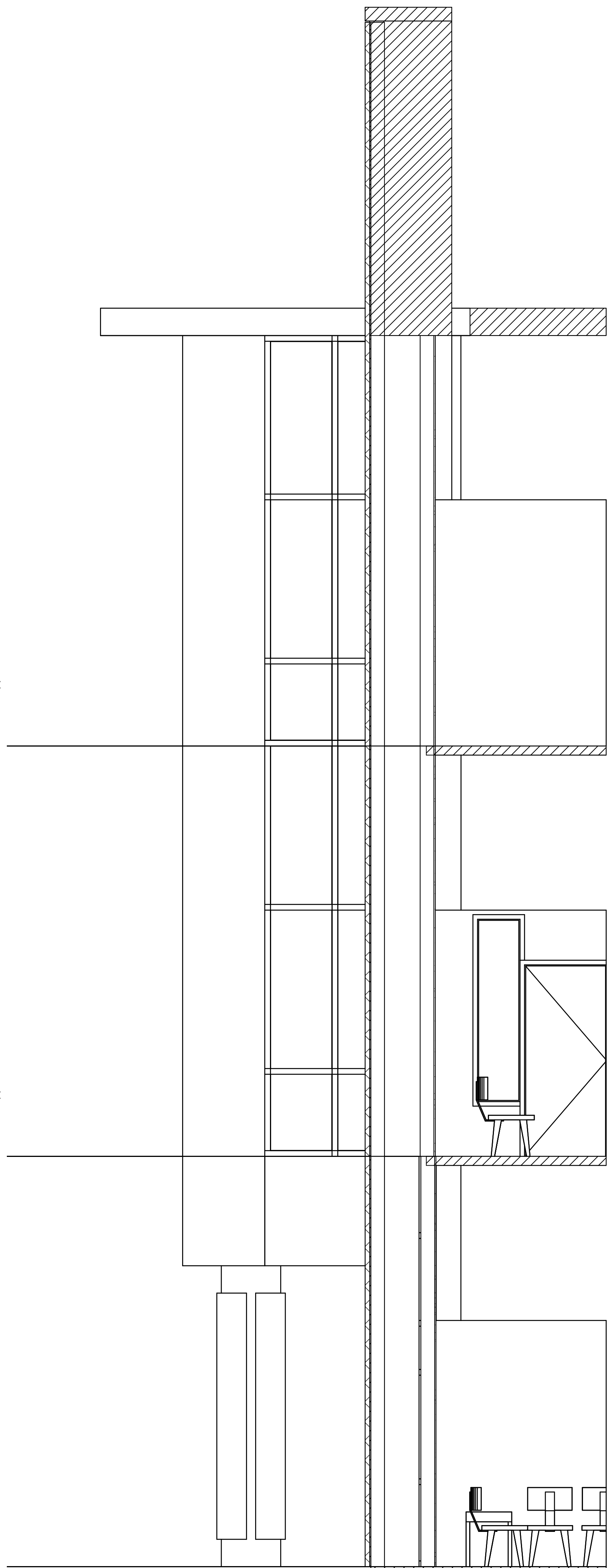
08 43 00.C12 - STOREFRONT DOOR HEAD - DOUBLE GLAZED



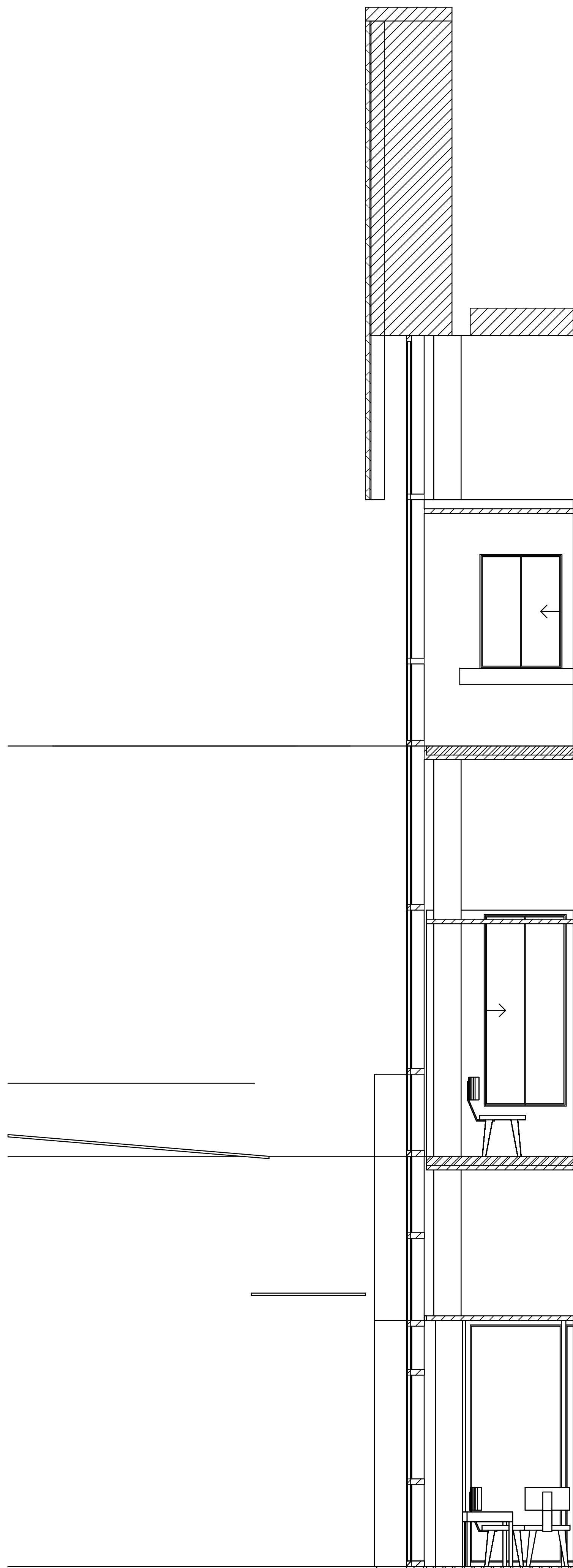
1 DETAIL
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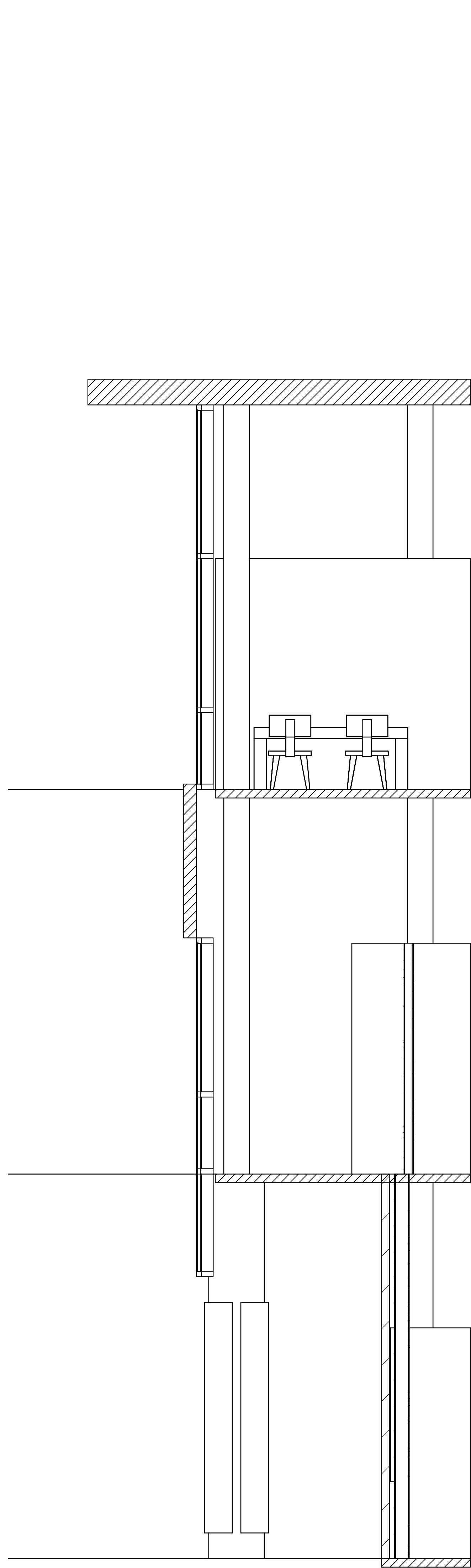


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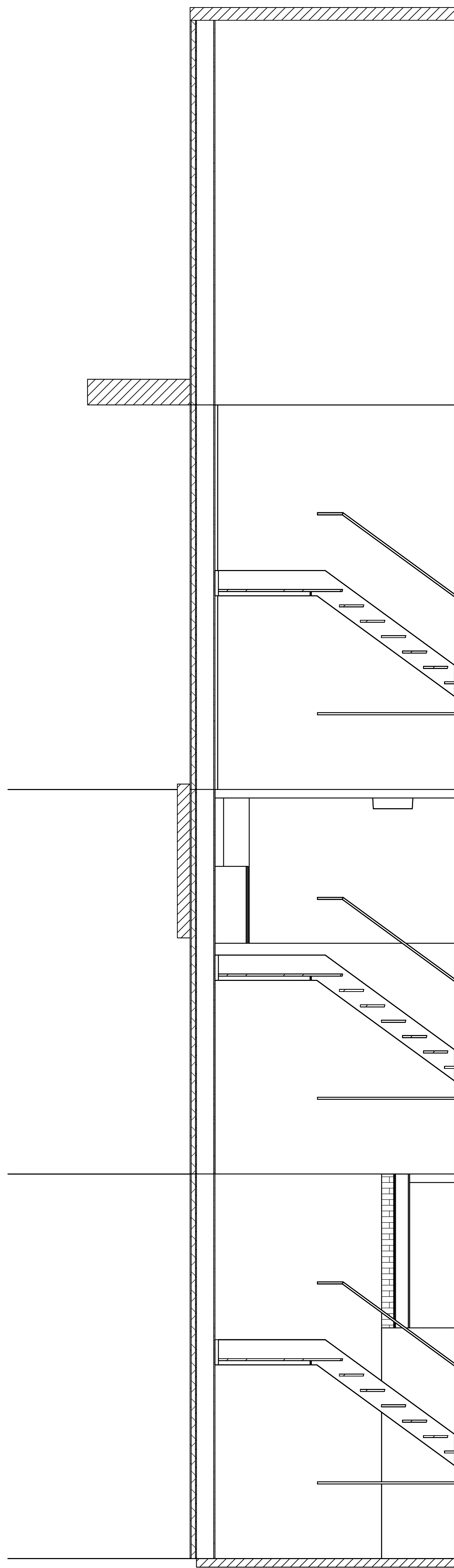


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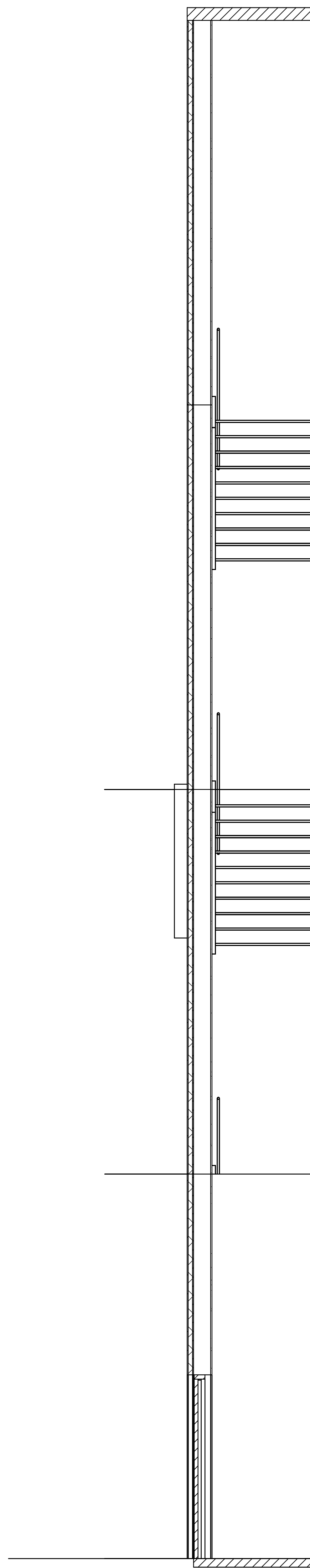
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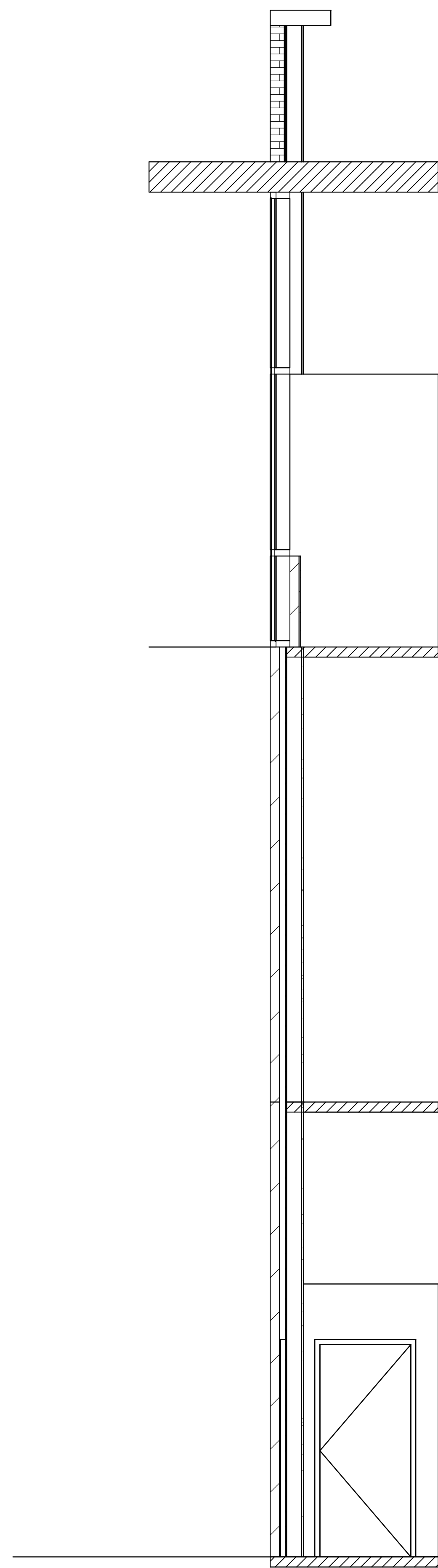
1 DETAIL (7)
3/8" = 1'-0"



2 DETAIL (8)
3/8" = 1'-0"

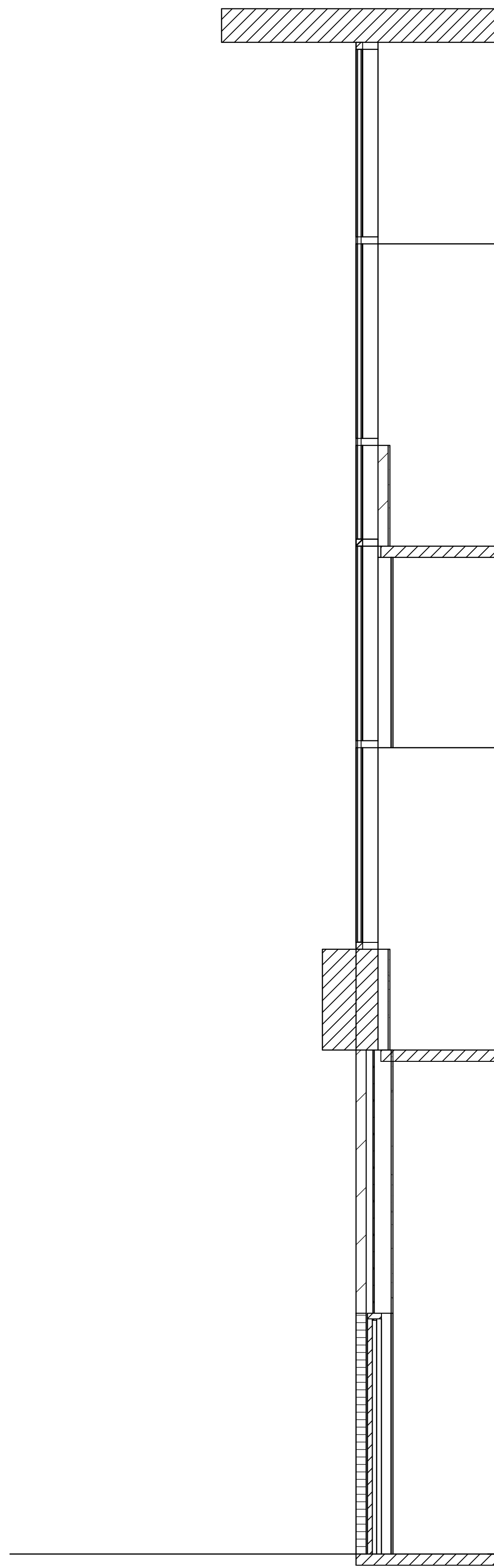


3 DETAIL (9)
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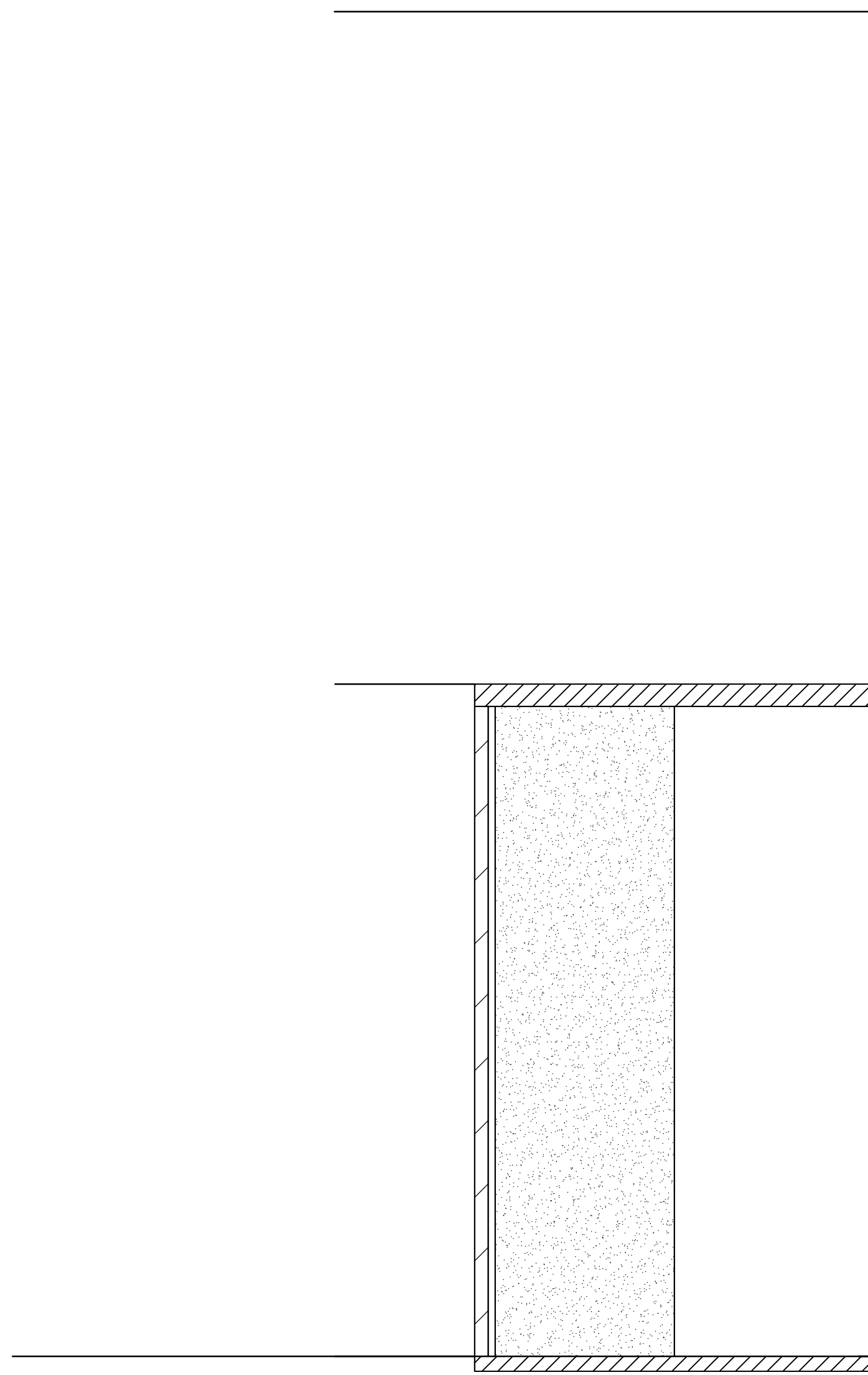


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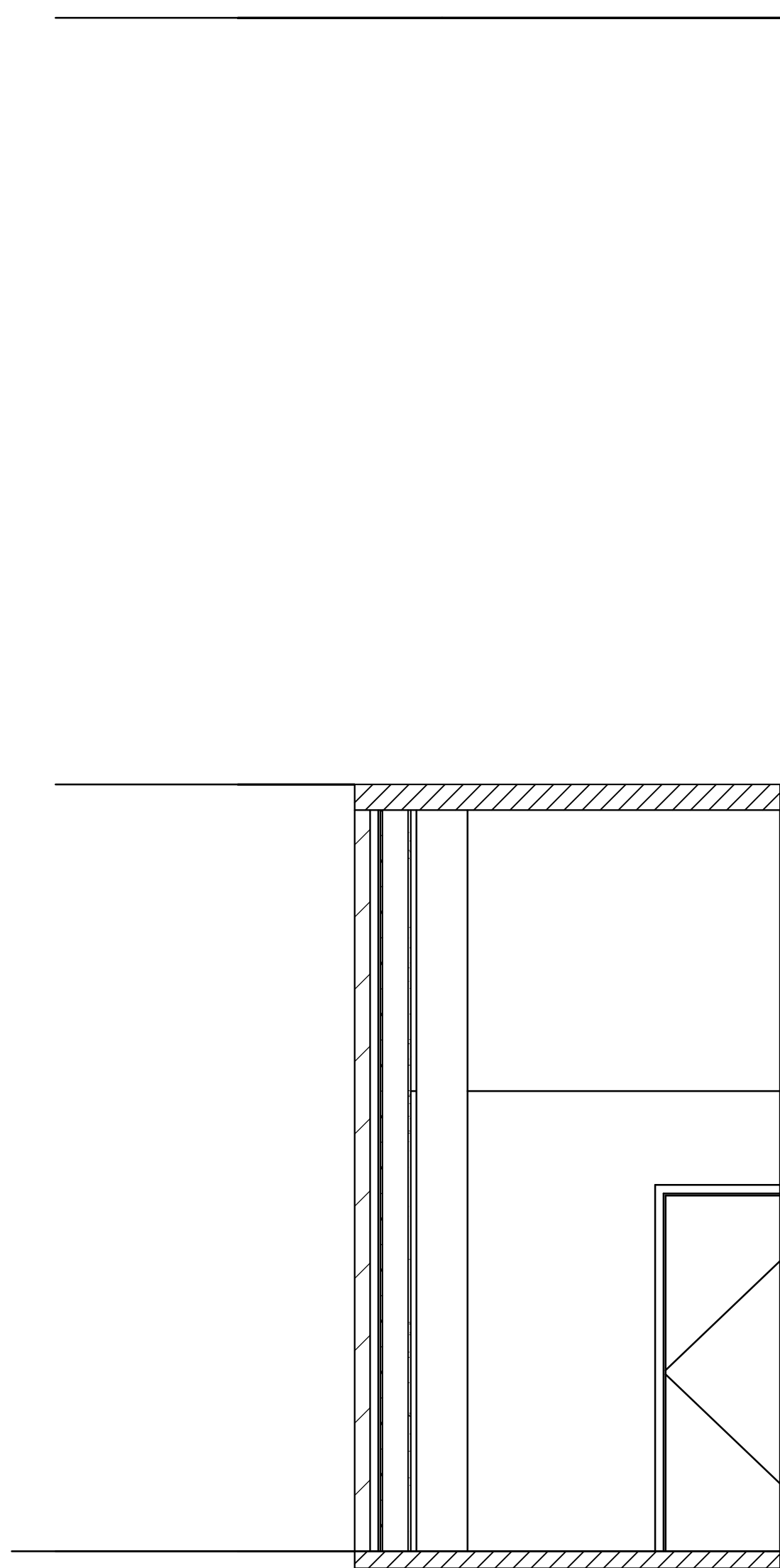
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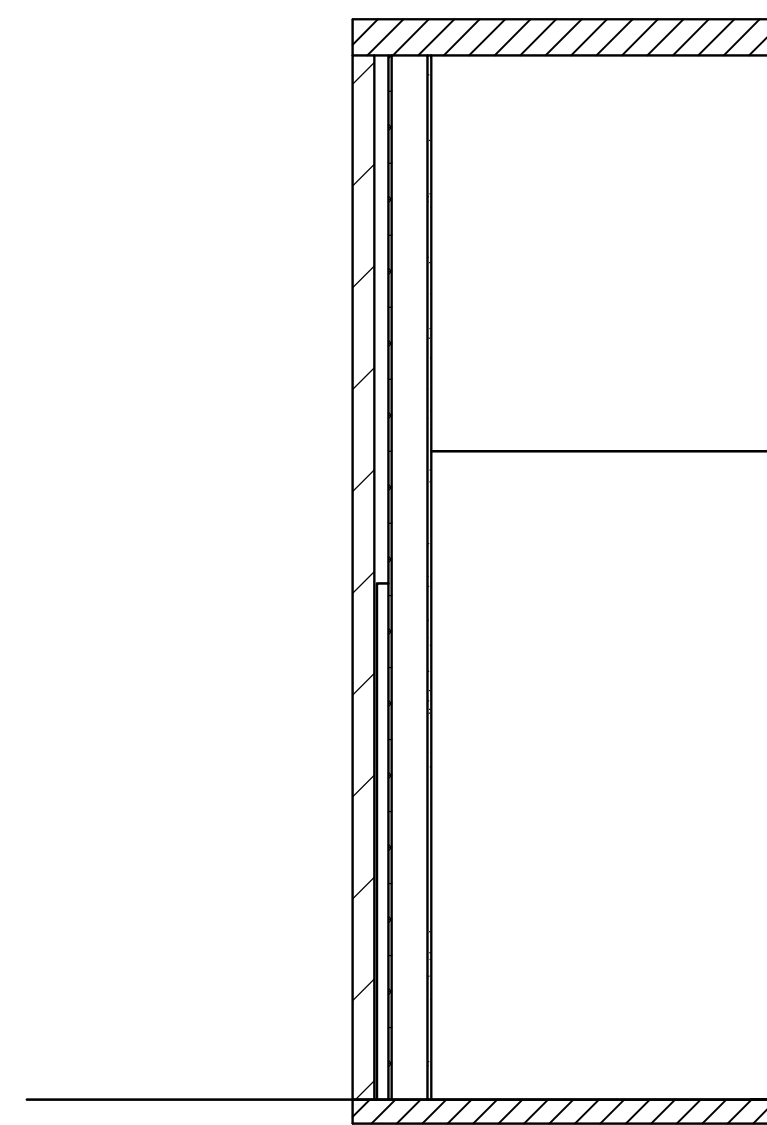
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3/8" = 1'-0"



2 DETAIL (12)
3/8" = 1'-0"



3 DETAIL (13)
3/8" = 1'-0"

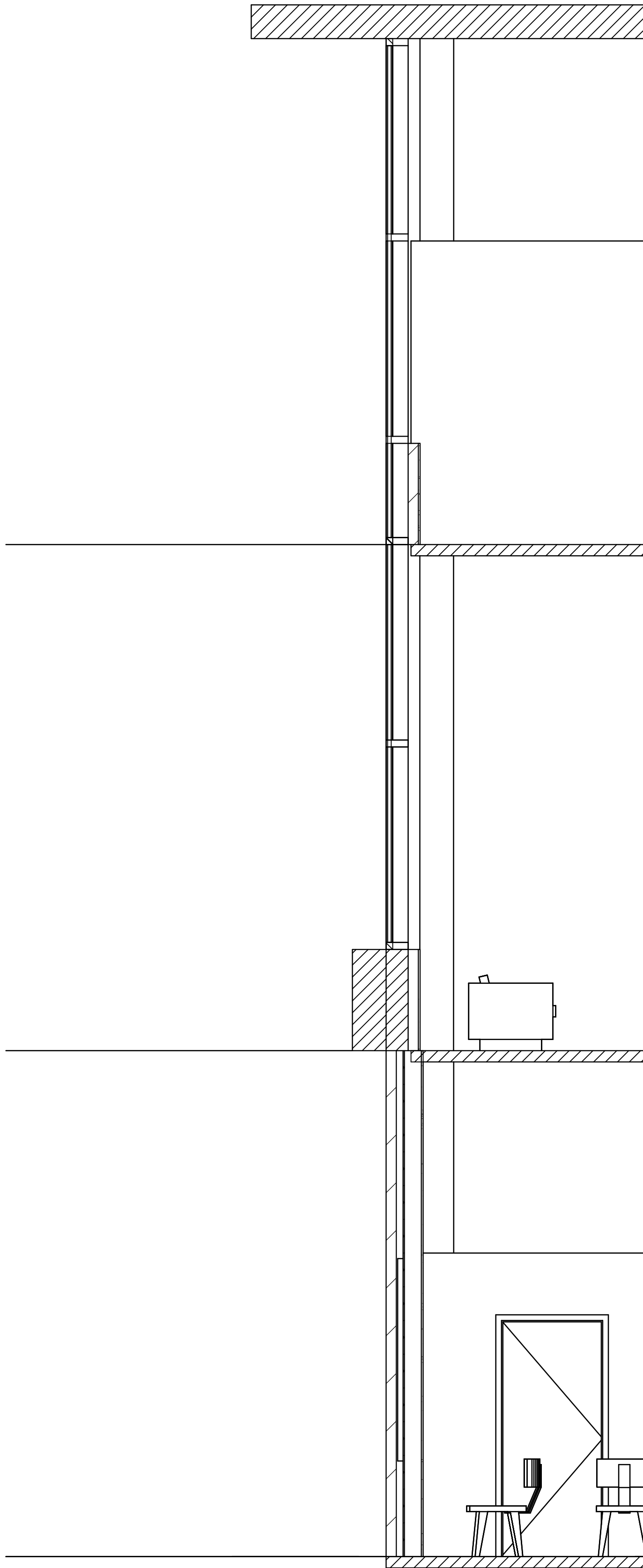


4 DETAIL (14)
3/8" = 1'-0"

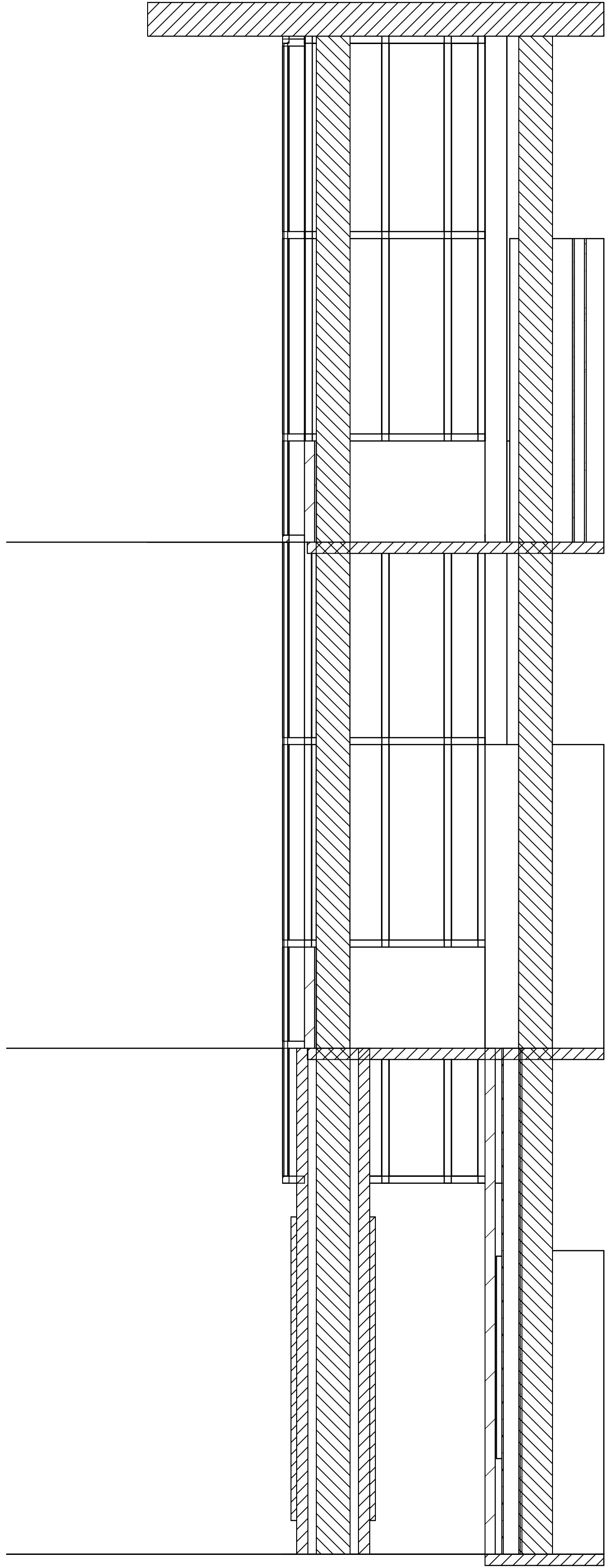
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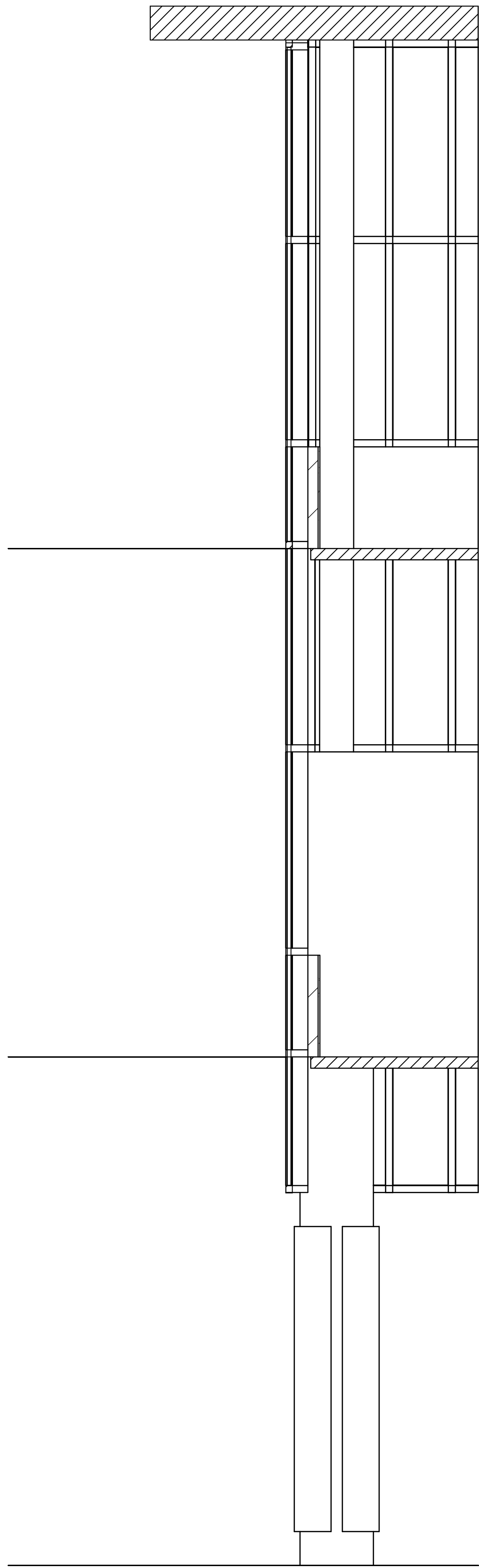
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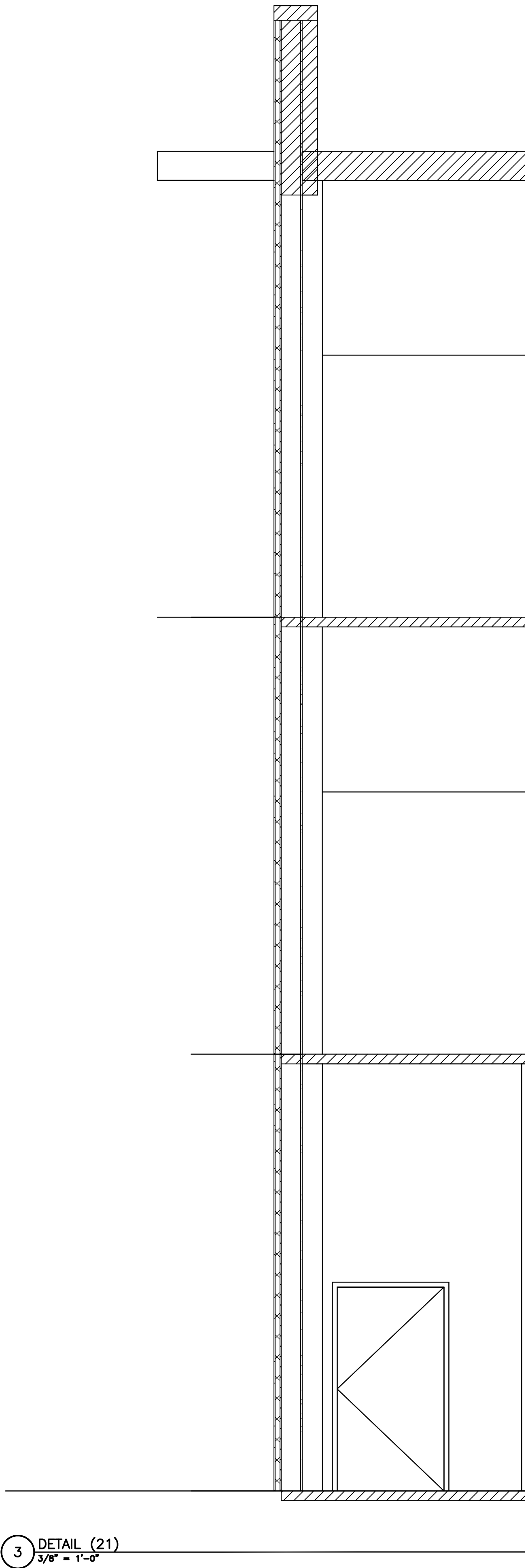
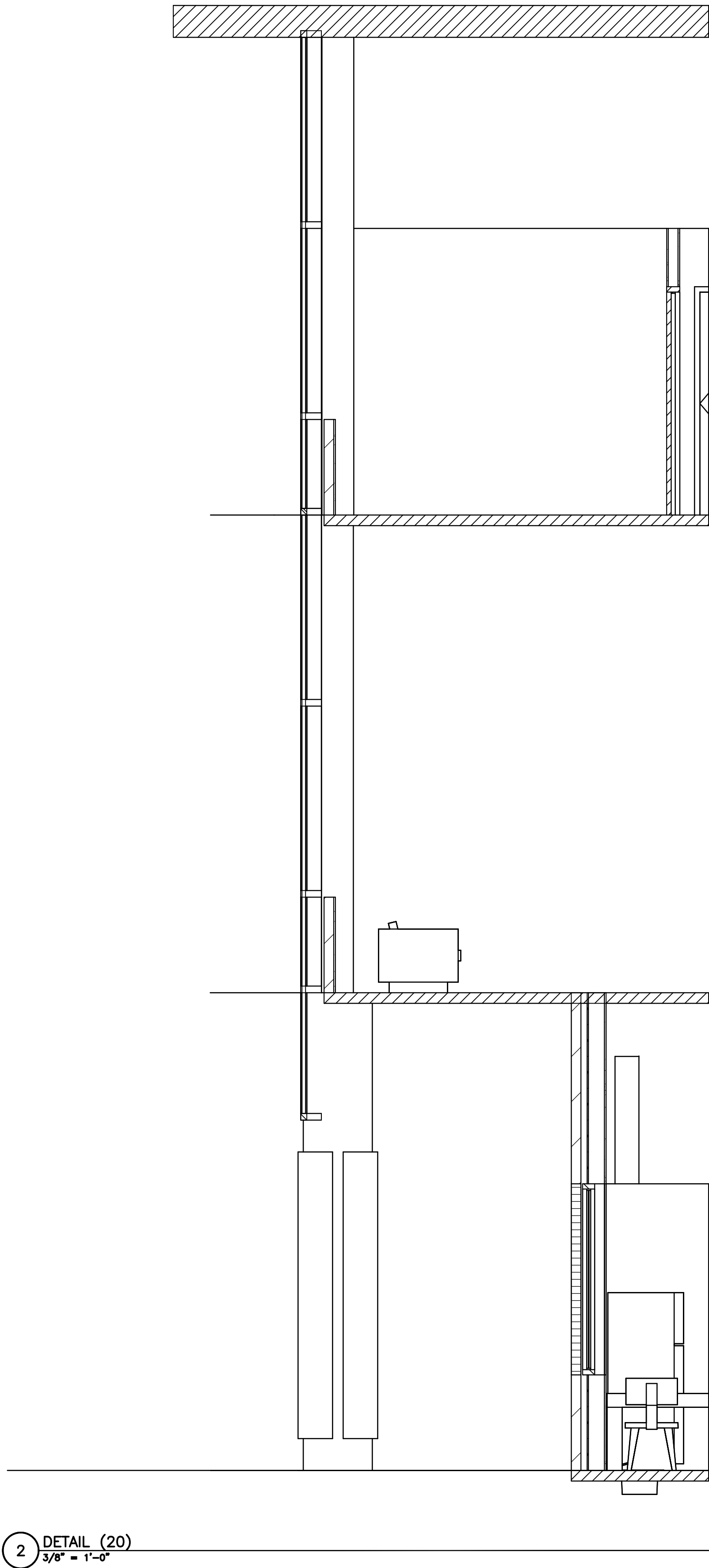
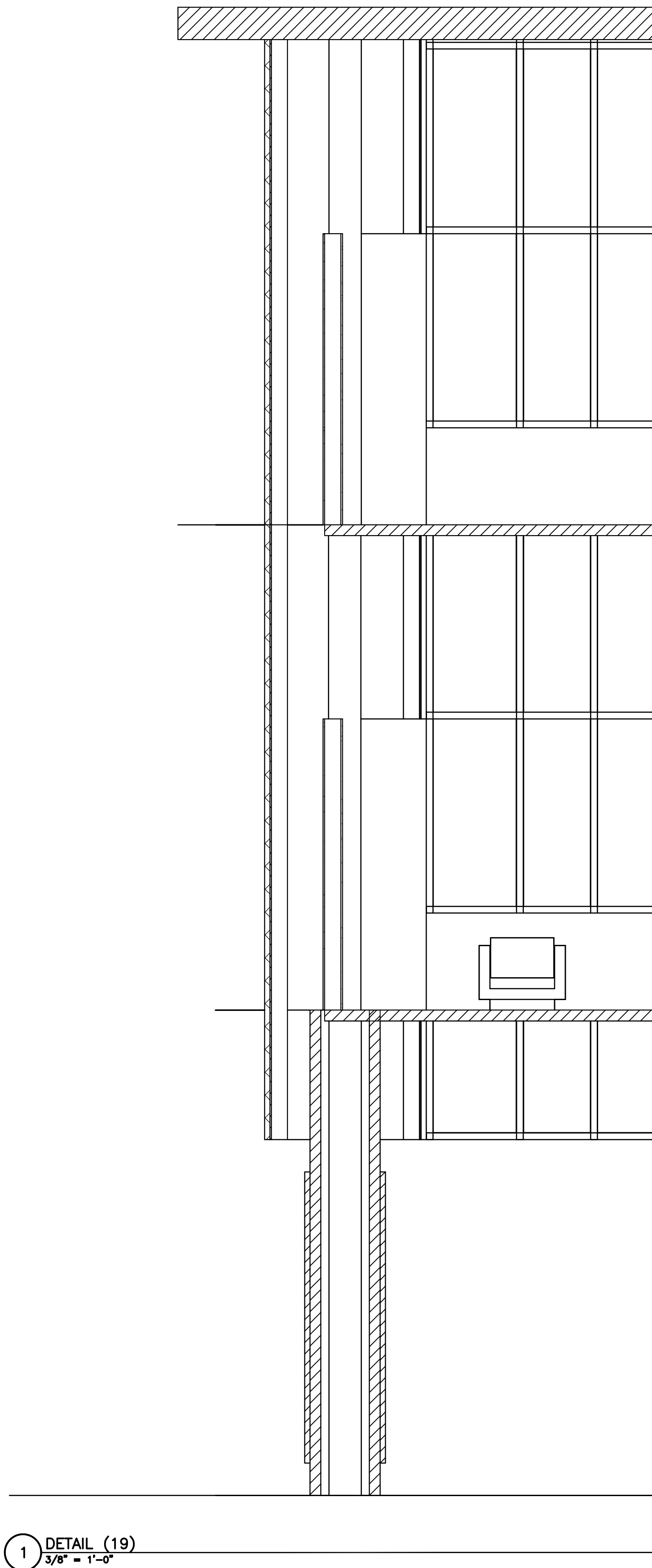
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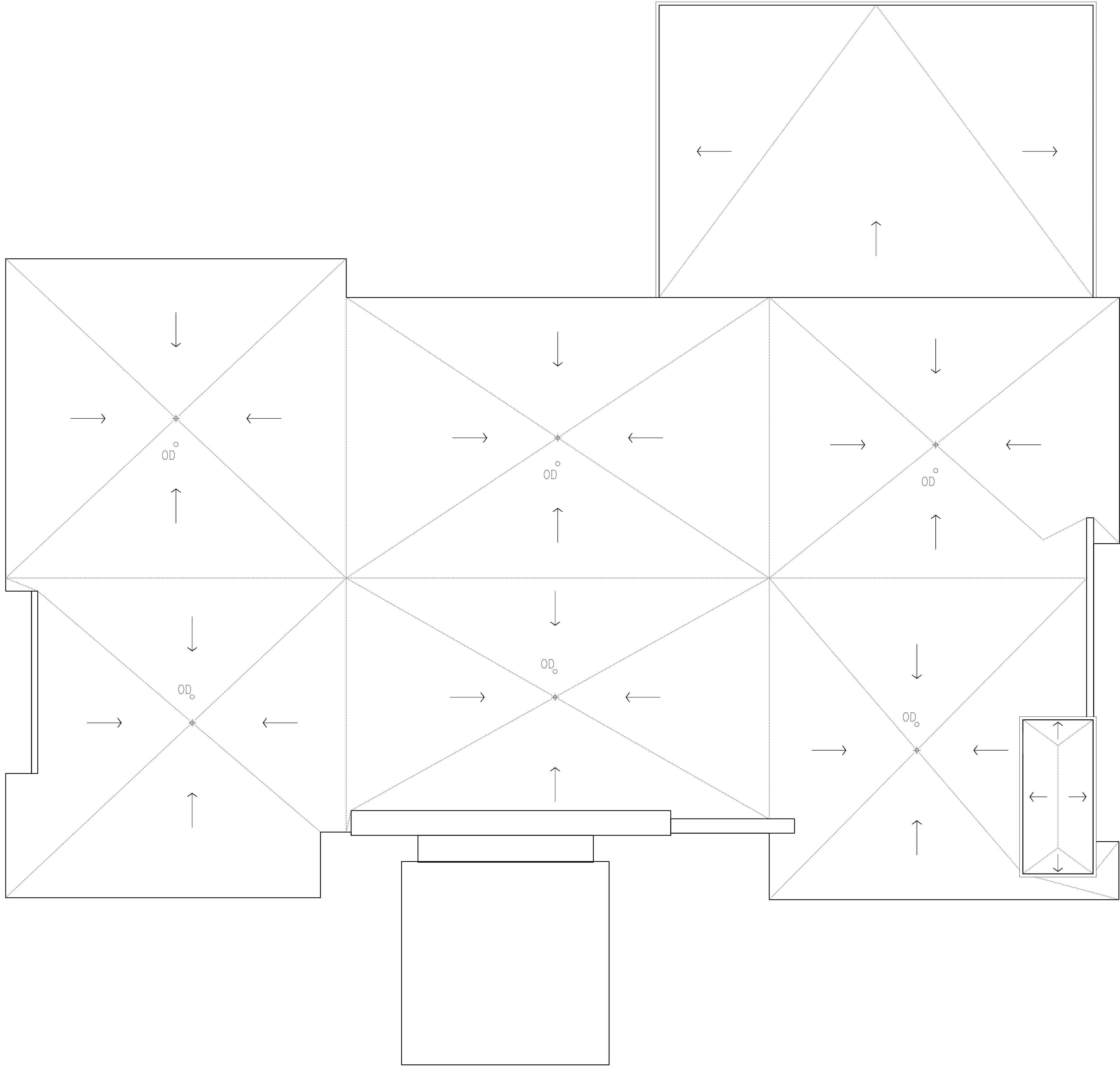
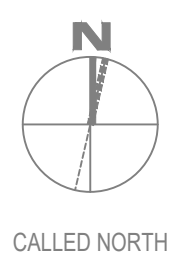
3 DETAIL (17)
3/8" = 1'-0"



4 DETAIL (18)
3/8" = 1'-0"



LAST DATE GREENPLAN LAST DATE GREENPLAN DATE: 03/12/2013 10 PM SHEET: R000



ROOF PLAN:
CANCER TREATMENT CENTER
SCALE: 1/8"=1'-0"(30"x42")

CANCER TREATMENT CENTER

Baptist Hospitals of Southeast Texas

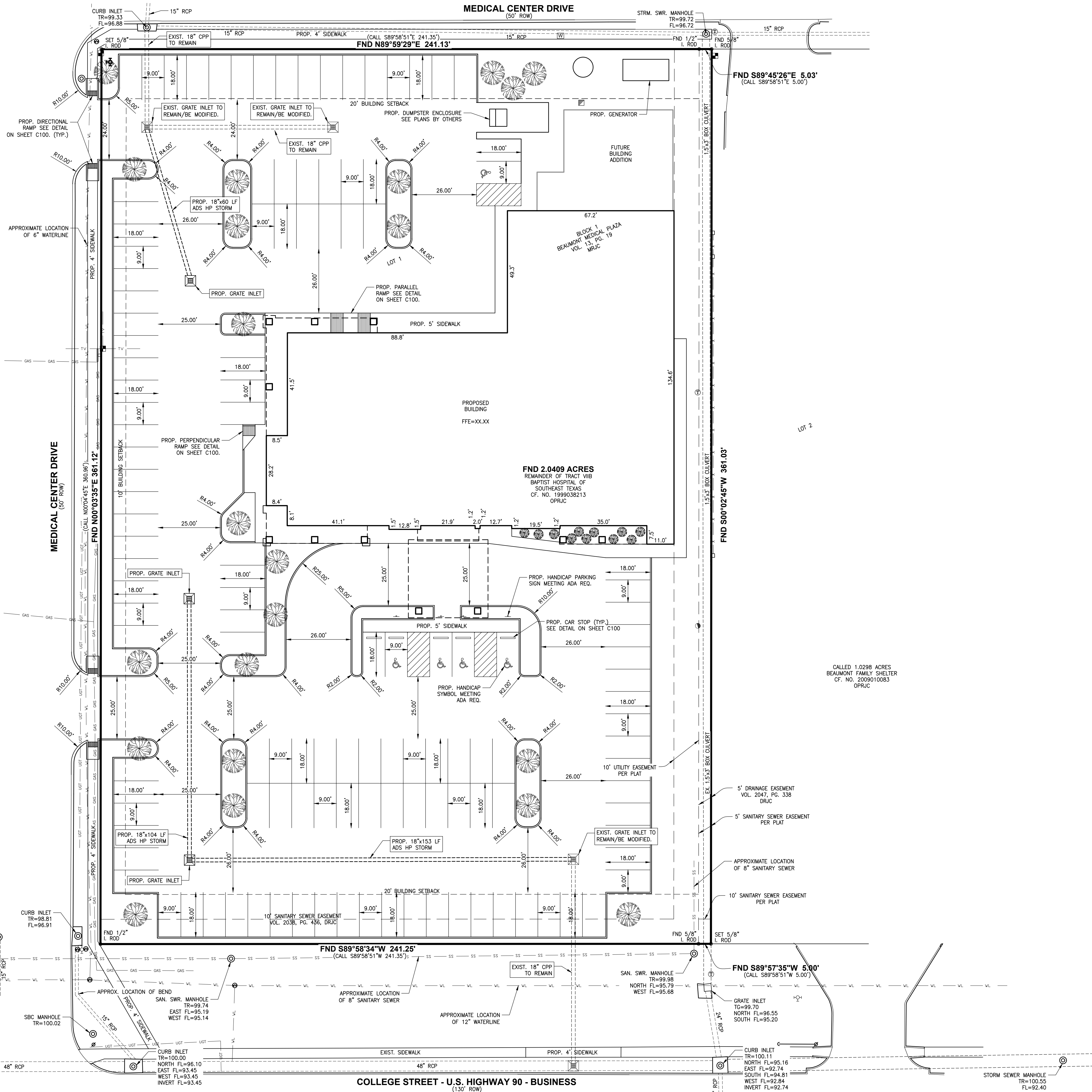
Beaumont, TX 77701

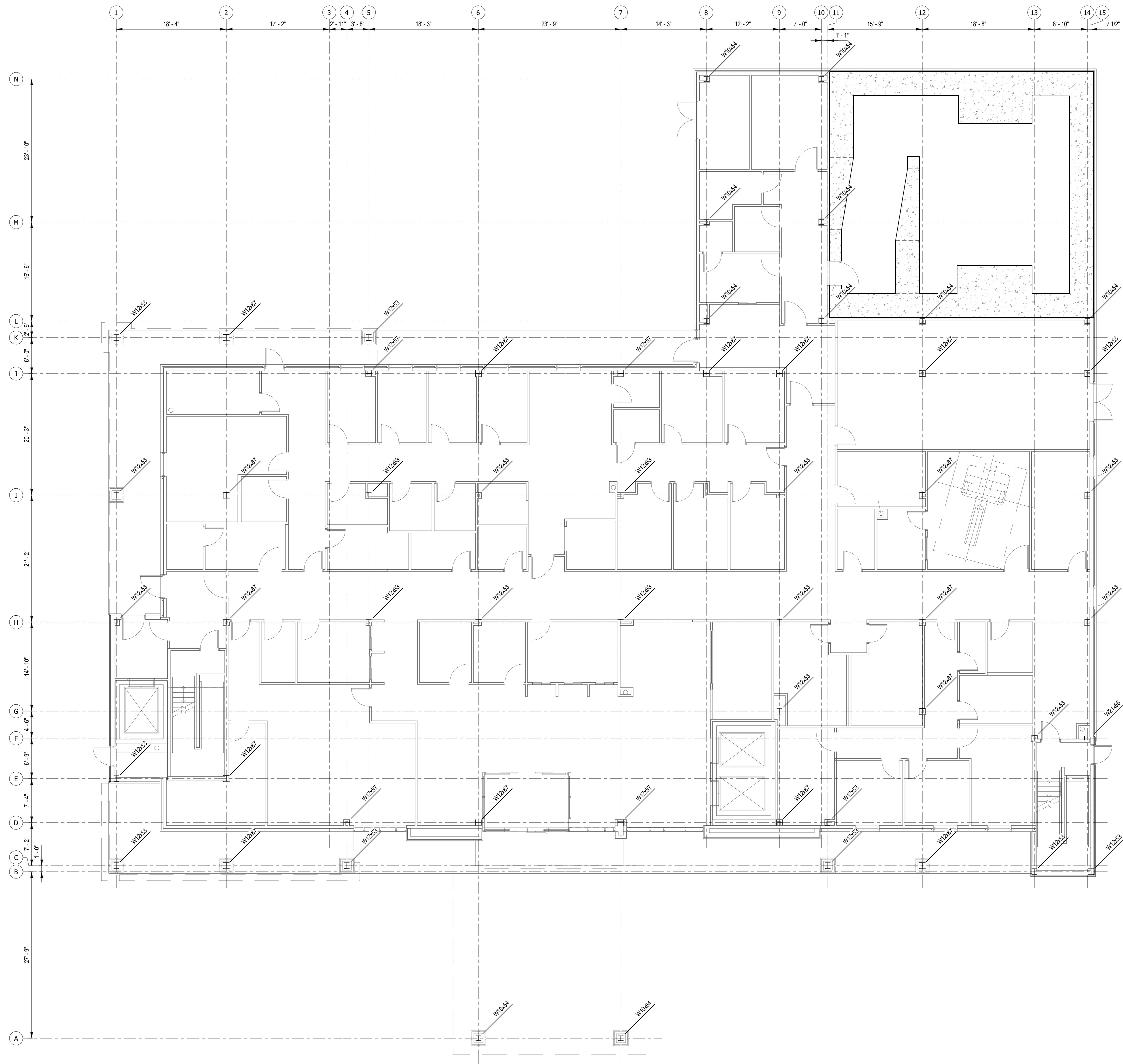
3180 College Street

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**PROPOSED
SITE PLAN**

SHEET NUMBER
C300
22042
PROJECT NUMBER





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

SSR Smith
Seckman
Reid, Inc.
900 Threadneedle Street, Suite 600
Houston, TX 77079
(713) 784-8211
FAX: (713) 952-8655
www.ssr-inc.com
TEXAS FIRM REGISTRATION #: F-2874

SSR Project #: 20640230

300 PINE ST. SUITE 720
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(409) 862-7188
FAX: (409) 864-1142
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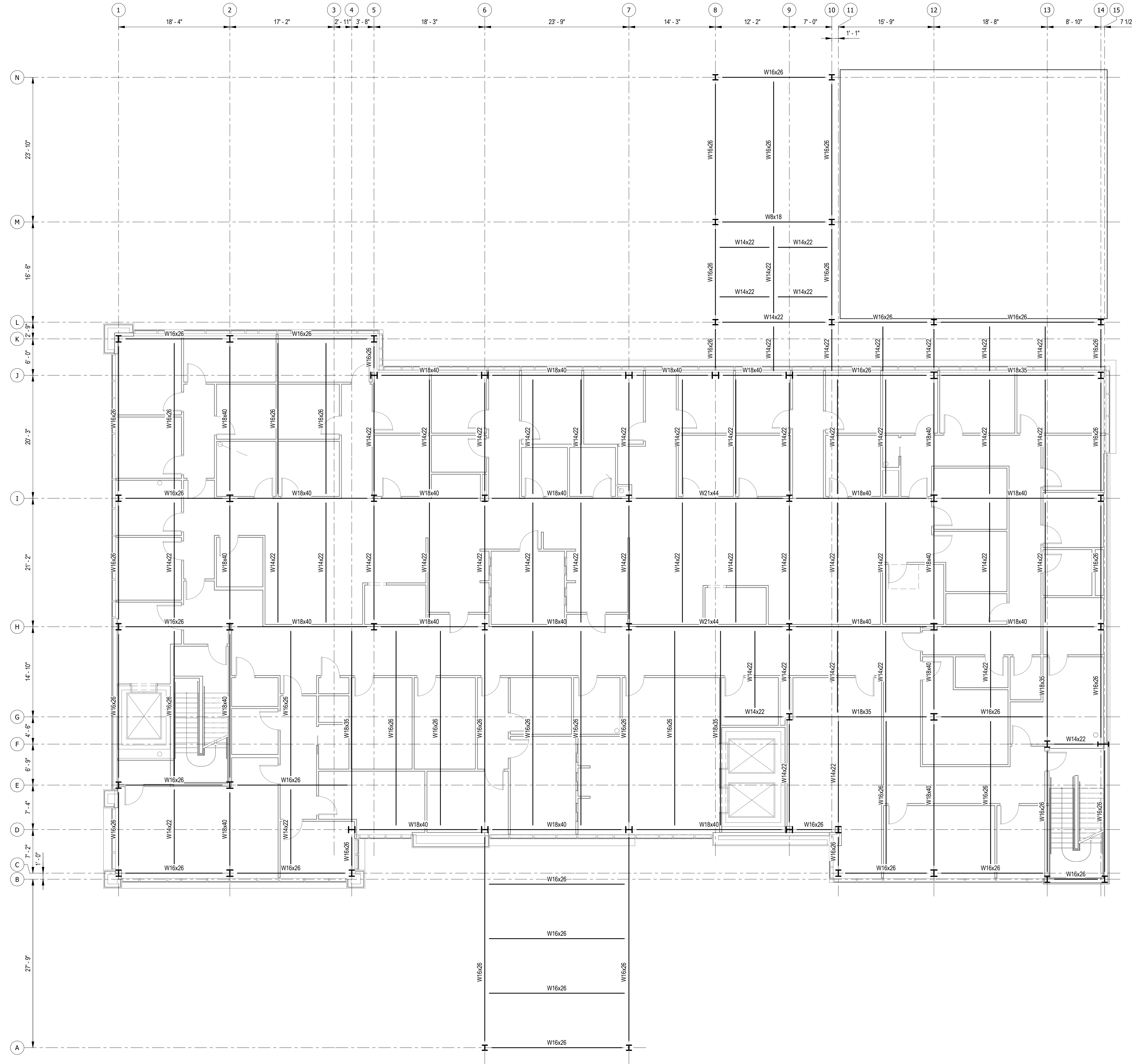
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DRAWINGS SHEET TITLE
FOUNDATION
PLAN

SHEET NUMBER
S100
22042
PROJECT NUMBER



1 SECOND FLOOR FRAMING
1/8" = 1'-0"

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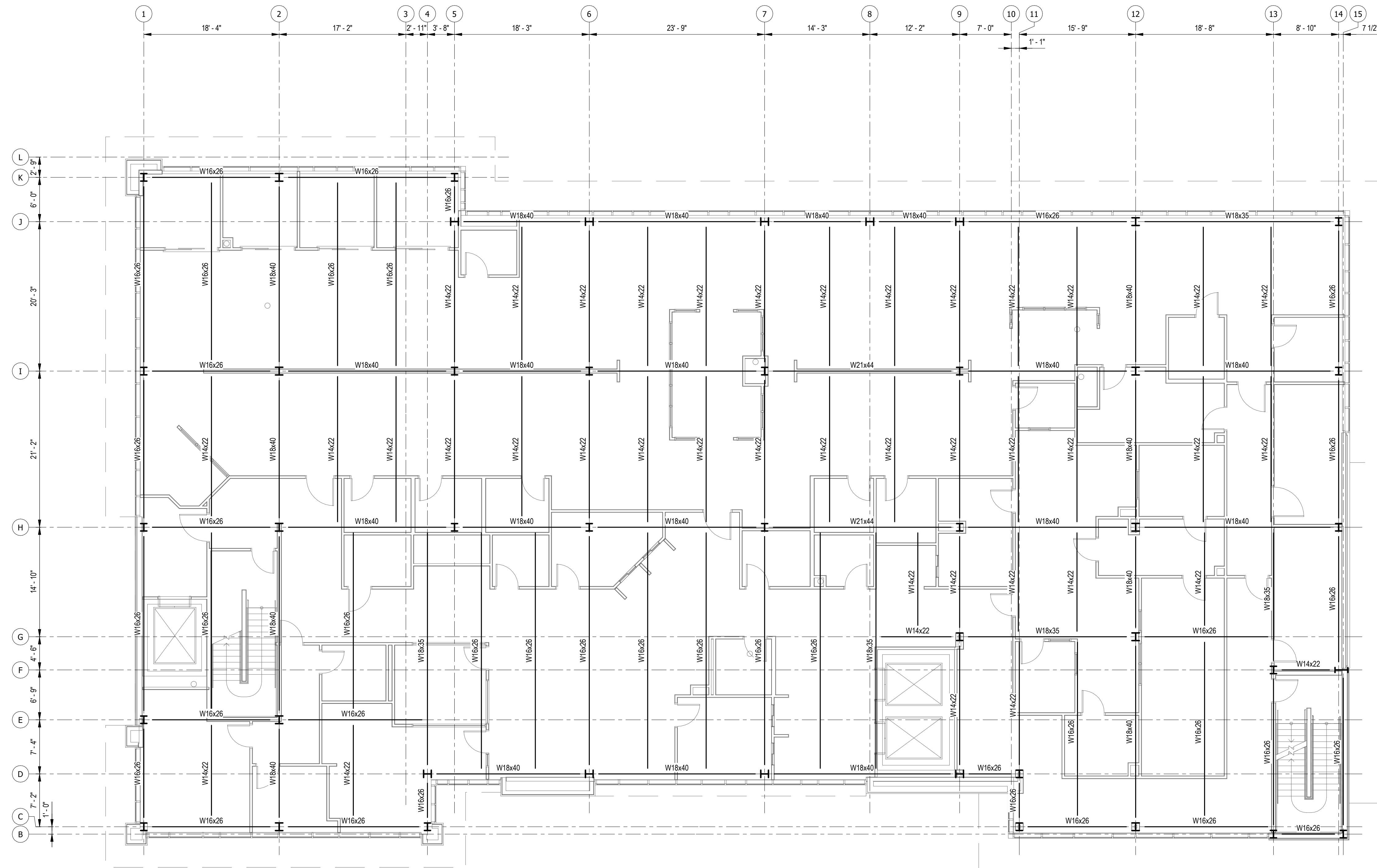
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Baumont, TX 77701

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DATE: _____
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____

DRAWINGS SHEET TITLE
SECOND FLOOR FRAMING PLAN

SHEET NUMBER
S200
22042
PROJECT NUMBER



1 THIRD FLOOR FRAMING
1/8" = 1'-0"

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Houston, TX 77009
(713) 784-8211
FAX: (713) 952-8655
www.ssr-inc.com
TEXAS FIRM REGISTRATION #: F-2874
SSR Project #: 20640230

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(409) 862-7188
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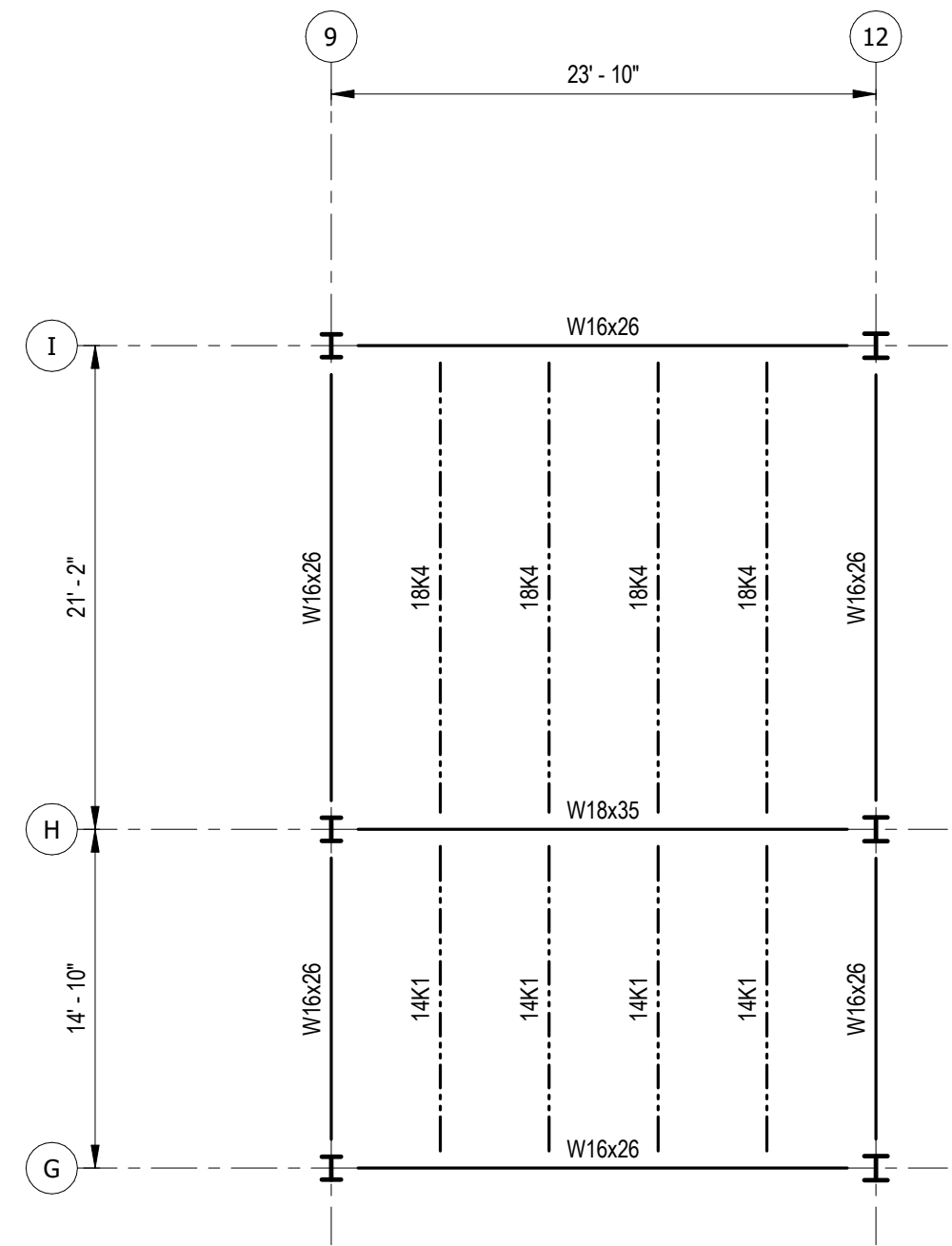
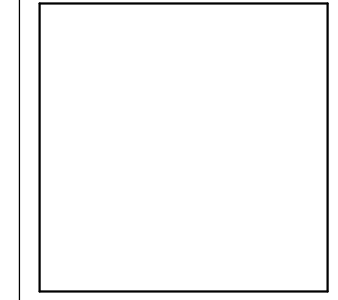
CANCER TREATMENT CENTER
Baptist Hospital of Southeast Texas
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Baumont, TX 77701

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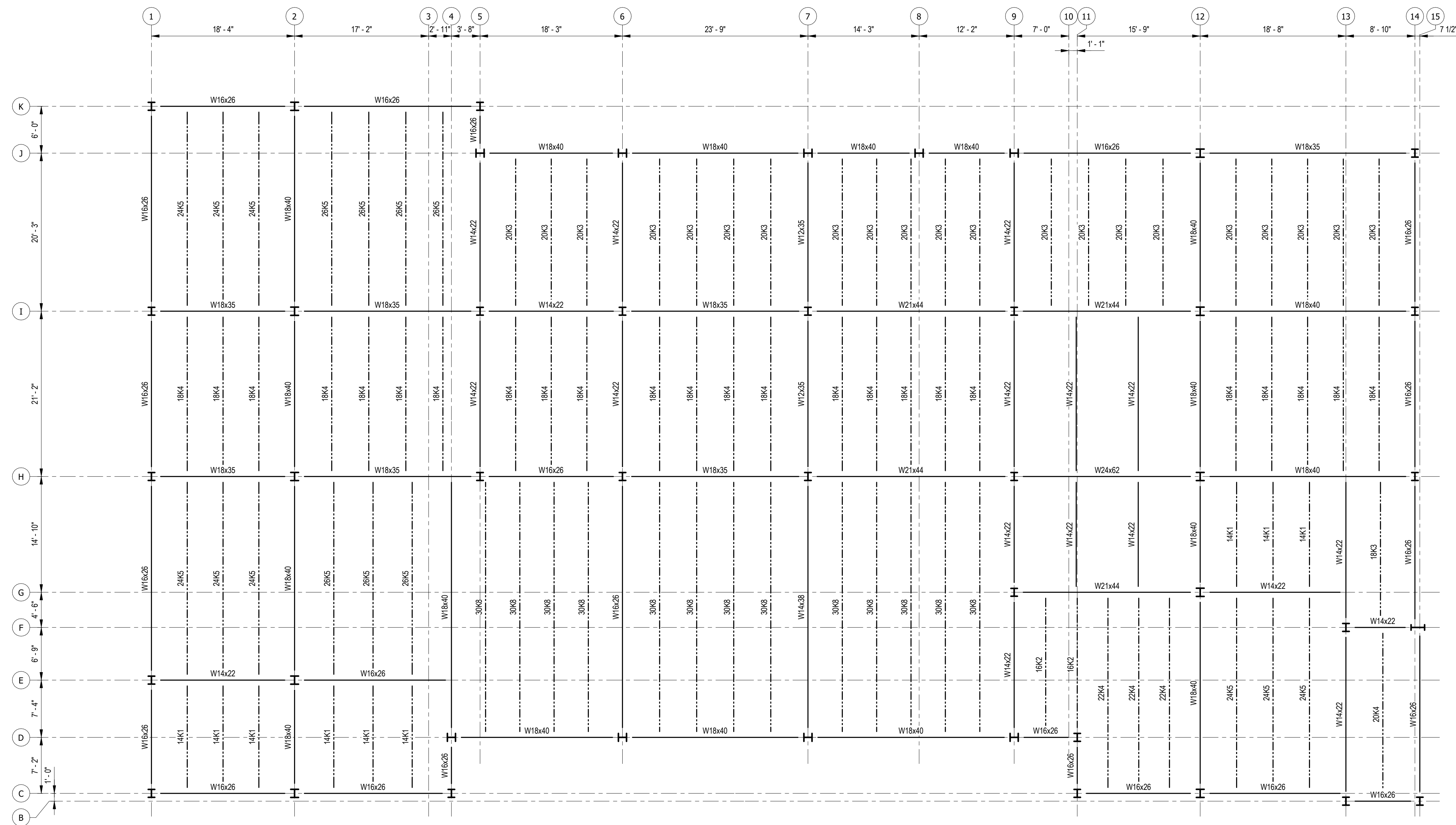
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REVISION: _____
DATE: _____
REVISION: _____
DATE: _____

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THIRD FLOOR FRAMING PLAN

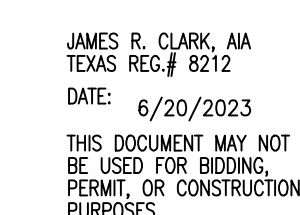
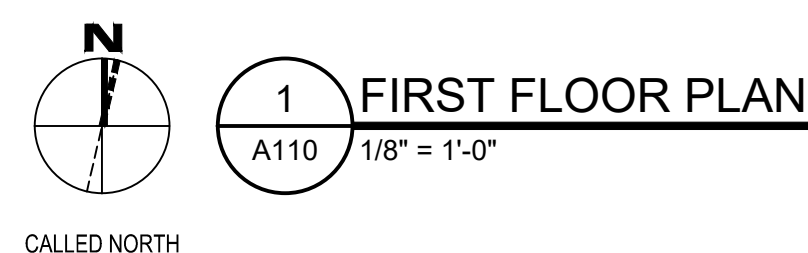
SHEET NUMBER
S201
22042
PROJECT NUMBER



2 PENTHOUSE ROOF FRAMING PLAN
1/8" = 1'-0"



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



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Baptist Hospitals of Southeast Texas

190 College Street

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DATE: 6-13-23

DESIGN DEVELOPMENT

BIDS & CONSTRUCTION

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 REGION: _____

DATE: _____

REVISION:
DATE:

REVISION:

DATE _____

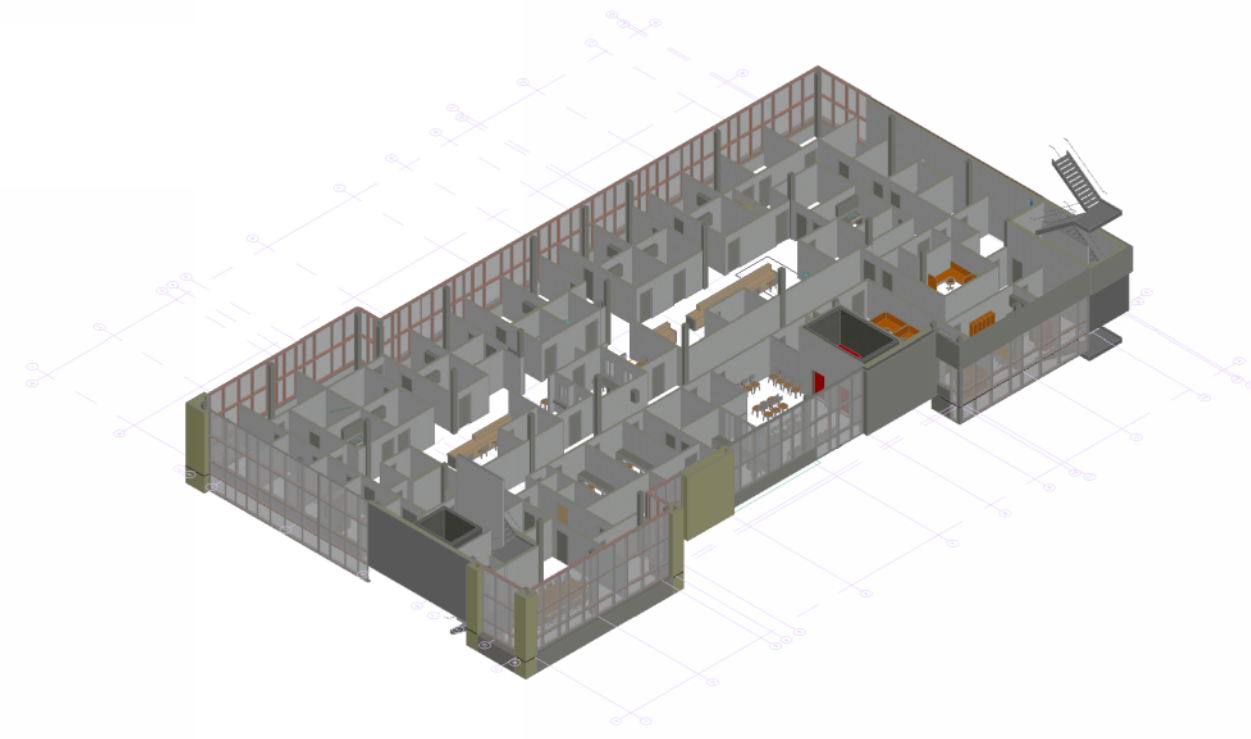
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FIRST FLOOR
PLAN

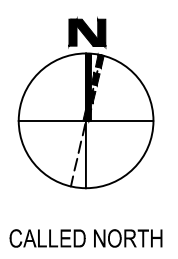
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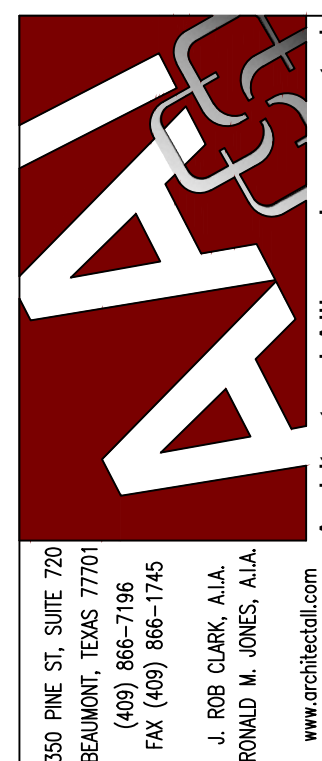
22042
PROJECT NUMBER



2 3D ISOMETRIC VIEW
A120 N.T.S.



1 SECOND FLOOR PLAN
A120 1/8" = 1'-0"



JAMES R. CLARK, AIA
TEXAS REG.# 8212
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CANCER TREATMENT CENTER

Baptist Hospitals of Southeast Texas

3180 College Street

CONSULTANT:

ISSUED FOR
SCHEMATIC DESIGN
DATE: 6-13-23

DESIGN DEVELOPMENT

BIDS & CONSTRUCTION

DATE: _____

DATE: _____

REVISION:
DATE:

REVISION:

DATE _____

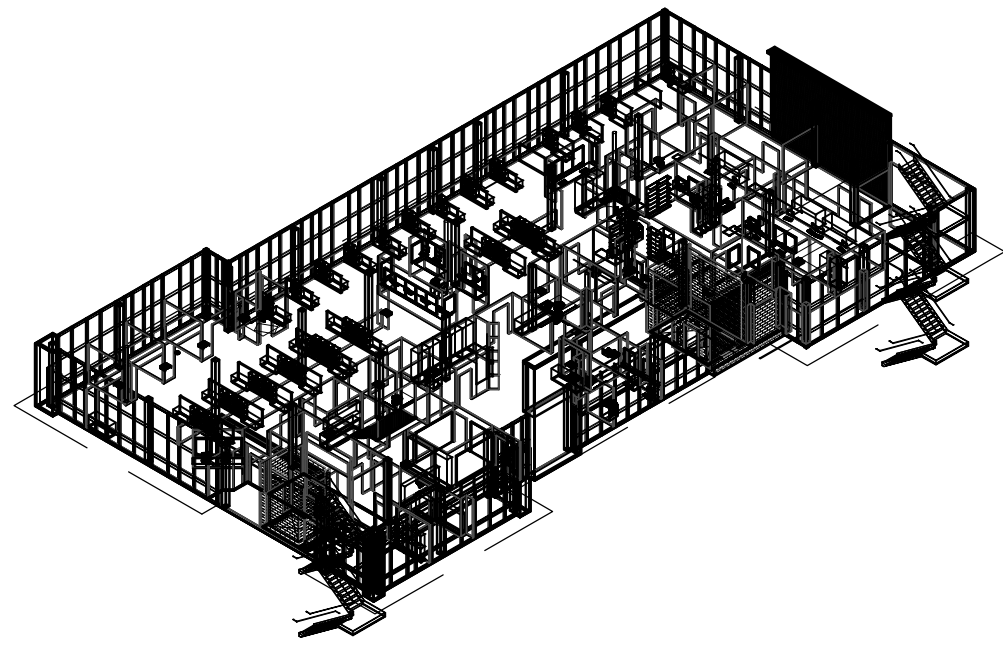
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THIRD FLOOR
PLAN

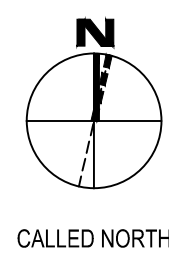
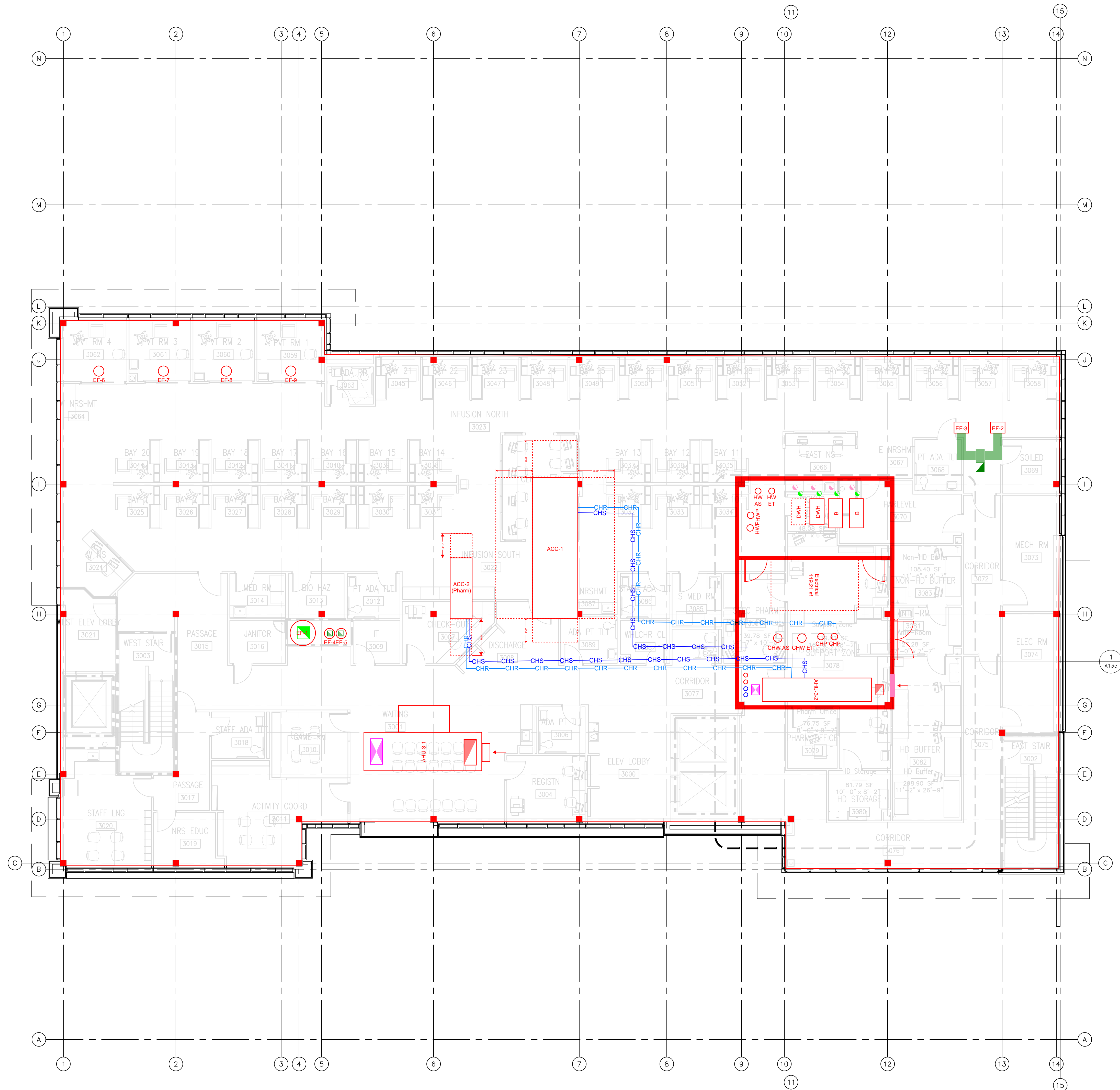
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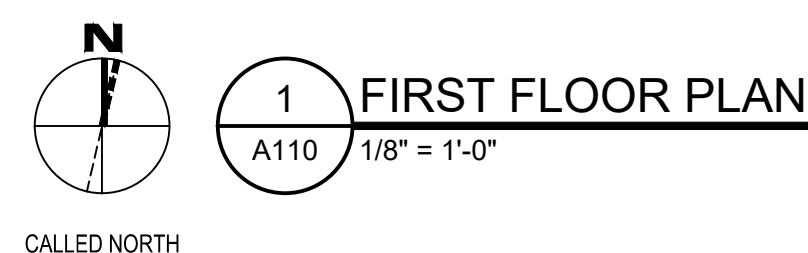
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PROJECT NUMBER

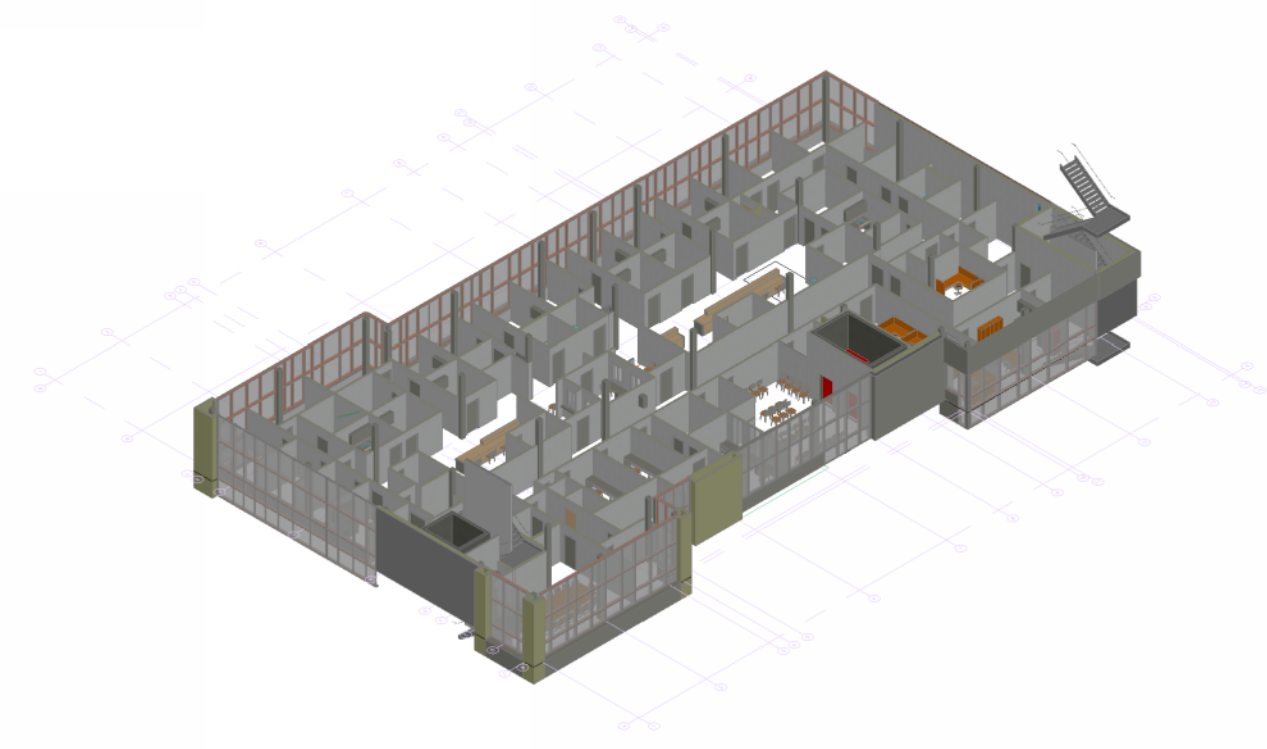


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A130 N.T.S.

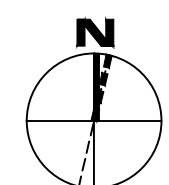


1 ROOF/PENTHOUSE
A130 1/8" = 1'-0"





2 3D ISOMETRIC VIEW
A120 N.T.S.



CALL NORTH

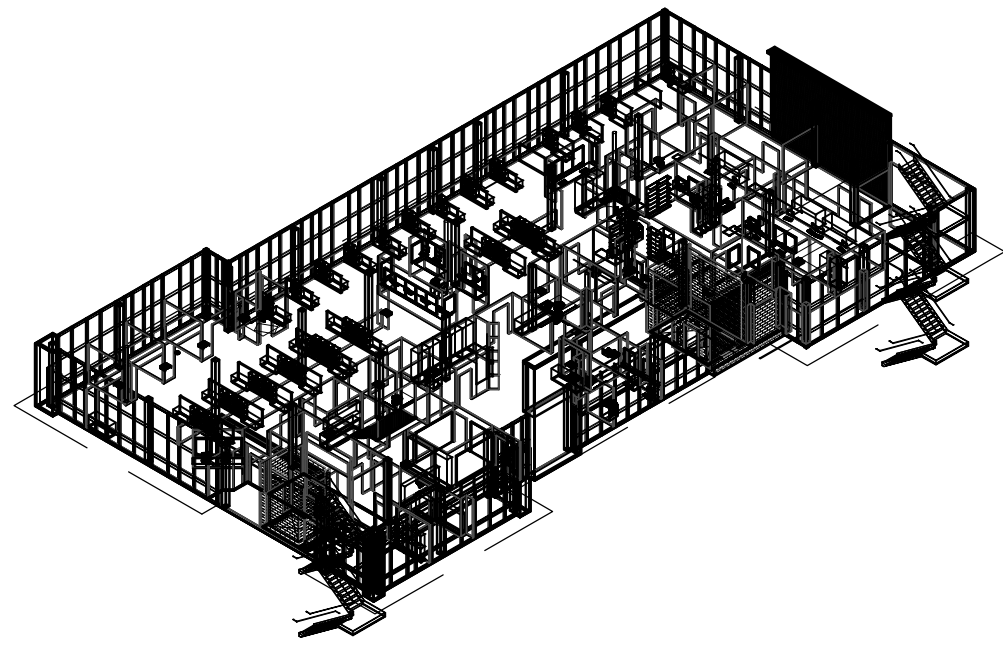
1 SECOND FLOOR PLAN
A120 1/8" = 1'-0"

CONSULTANT:

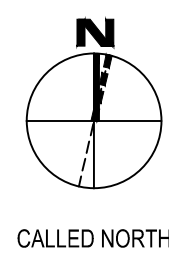
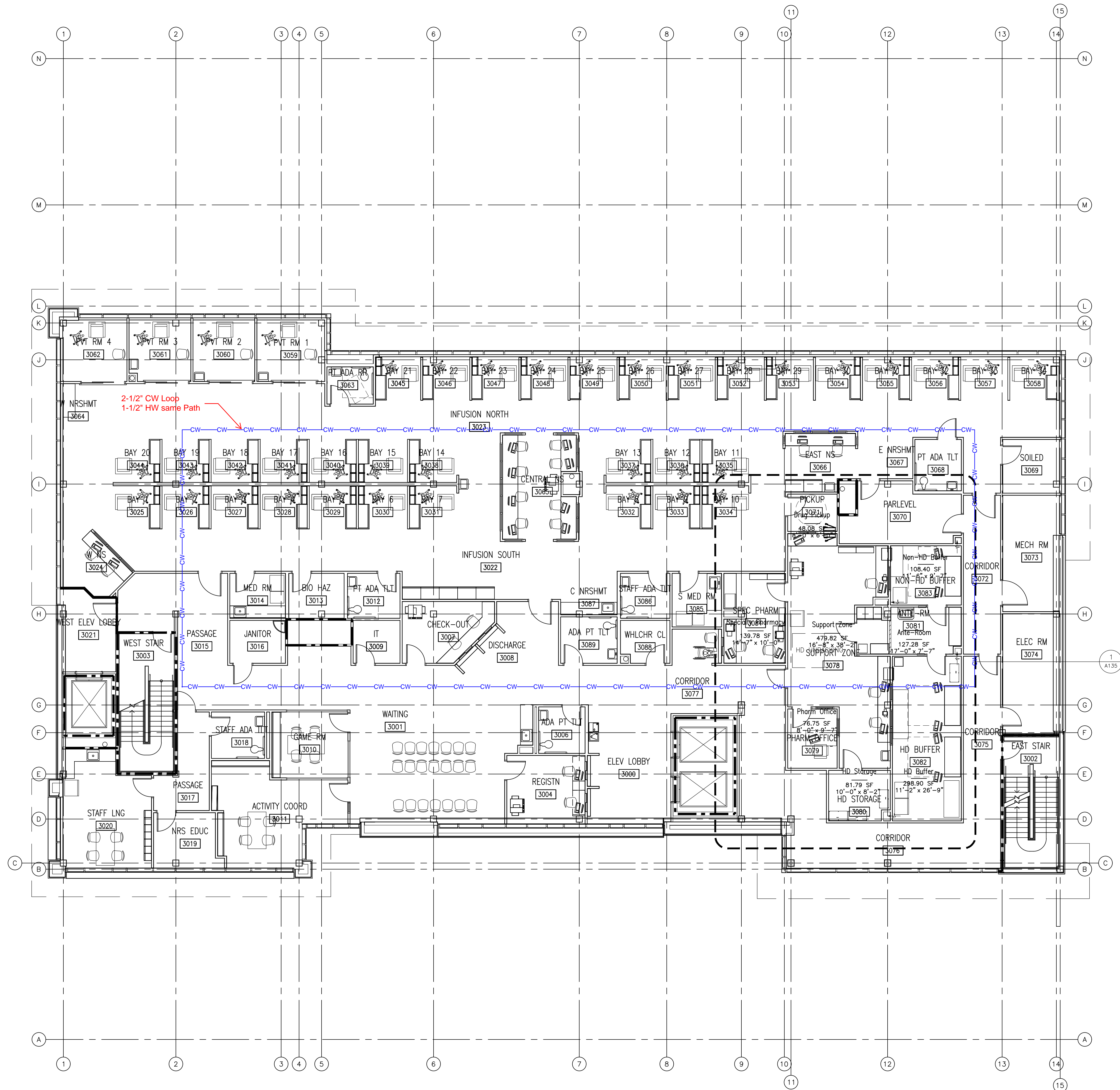
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SECOND FLOOR
PLAN

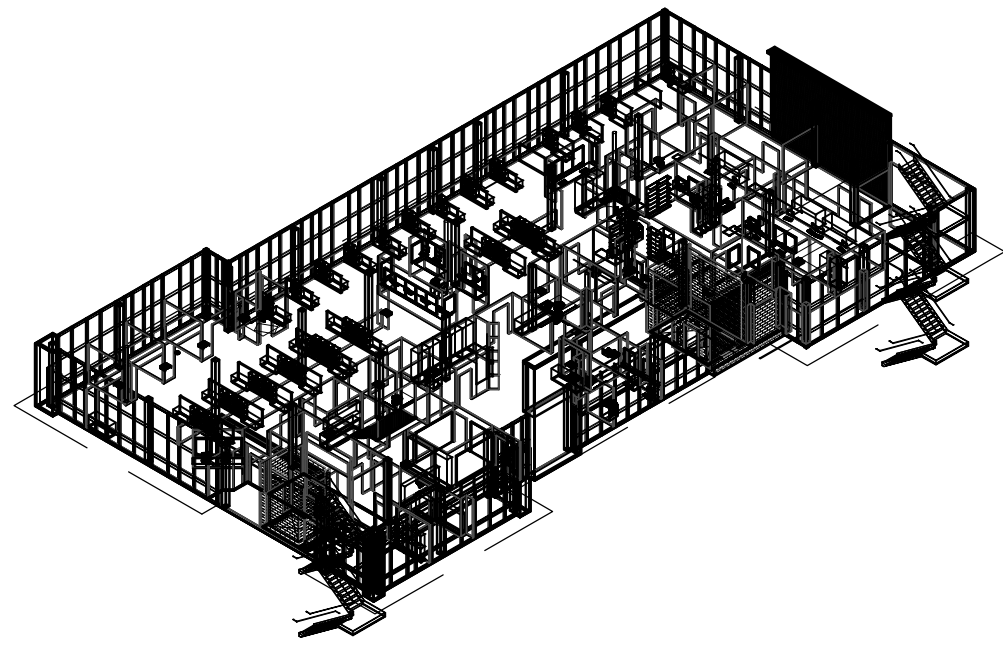
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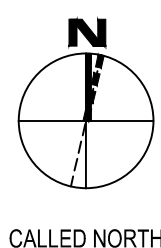
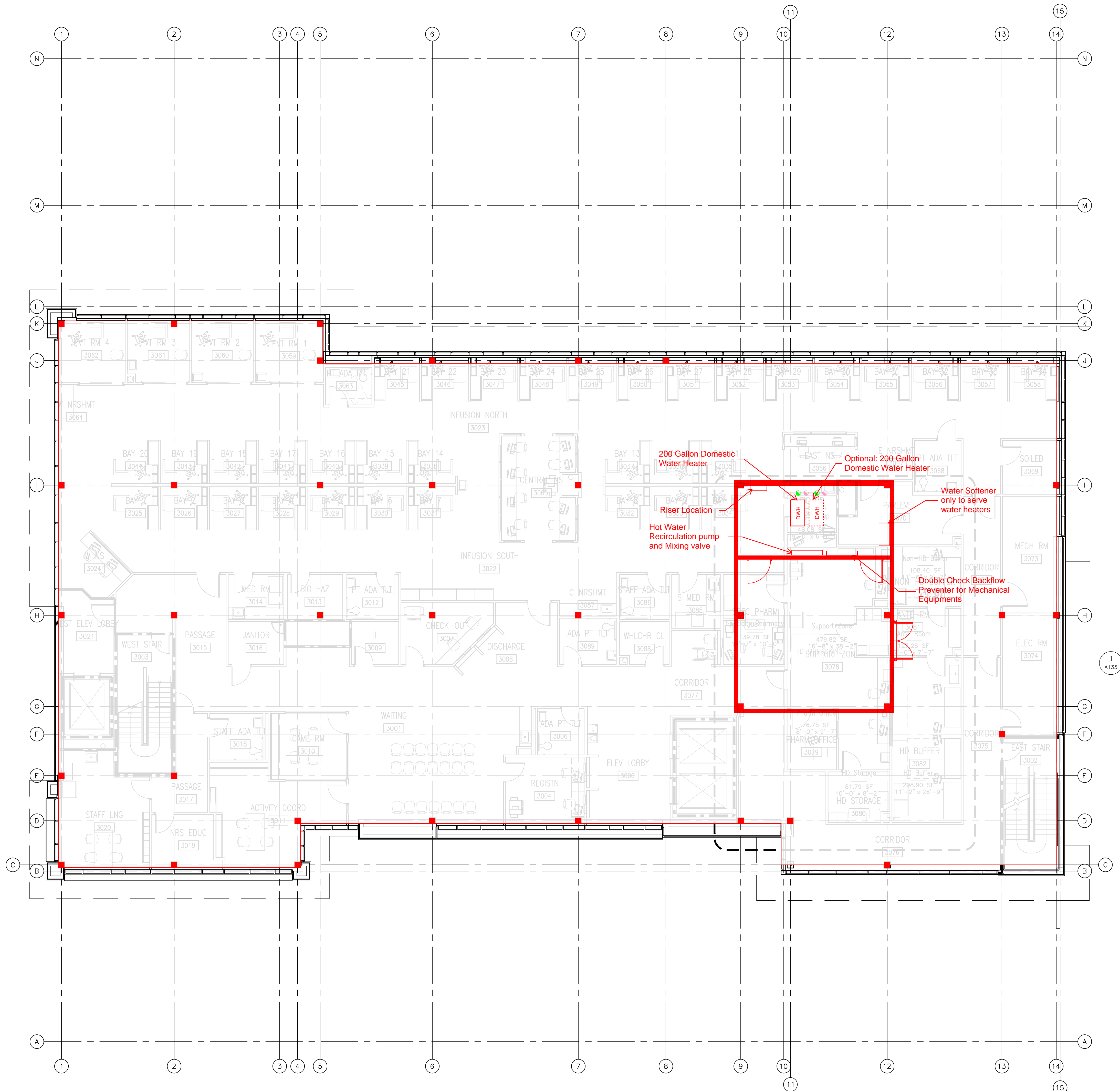
2 3D ISOMETRIC VIEW
A130 N.T.S.



1 THIRD FLOOR PLAN
A130 1/8" = 1'-0"



2 3D ISOMETRIC VIEW
A130 N.T.S.



1 A130 1/8" = 1'-0"

ROOF/PENTHOUSE

CANCER TREATMENT CENTER

Baptist Hospitals of Southeast Texas

Beaumont, TX 77701

3181 College Street

CONSULTANT:

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DRAWINGS SHEET TITLE
THIRD FLOOR
PLAN

SHEET NUMBER

A130

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