

MORIAH

MARTIN

SENIOR CAPSTONE

INTERIOR ARCHITECTURE AND DESIGN
UTAH STATE UNIVERSITY 2025

*D*EDICATION

TO MY AMAZING FAMILY, FRIENDS, AND
PROFESSORS,

YOUR SUPPORT, ENCOURAGEMENT, AND
GUIDANCE OVER THE LAST FOUR YEARS HAVE
HELPED ME GET TO WHERE I AM TODAY.
THANK YOU FOR BELIEVING IN ME, PUSHING
ME TO GROW, AND INSPIRING ME EVERY STEP
OF THE WAY.

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WOODHAVEN

ESTATE

Woodhaven is a single family residence nestled in a charming, tree-filled neighborhood in North Carolina. Filled with natural light, it offers a warm, airy retreat for everyday living and gatherings. The overall design focuses on timeless aesthetic and effortless balance to create a welcoming and peaceful home.

01

PROJECT BREIF

PROJECT TYPE

RESIDENTIAL

LOCATION

NORTH CAROLINA

SQUARE FOOTAGE

5,485

CAPSTONE FULFILLMENTS

3D RENDERINGS

EXTERIOR ELEVATIONS

RESIDENTIAL CONSTRUCTION DOCUMENTS

VERTICAL CIRCULATION REQUIREMENTS

RESCHECK

INSPIRATION

classic, transitional, timeless, balance, comfort



EXTERIOR RENDERING

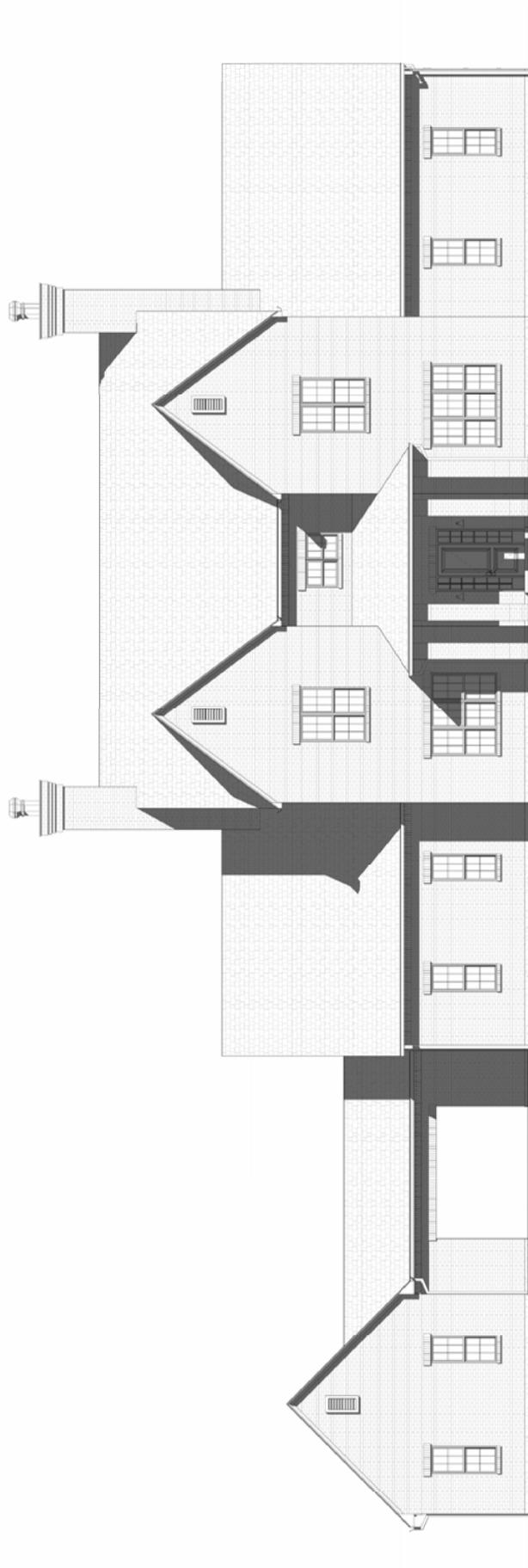


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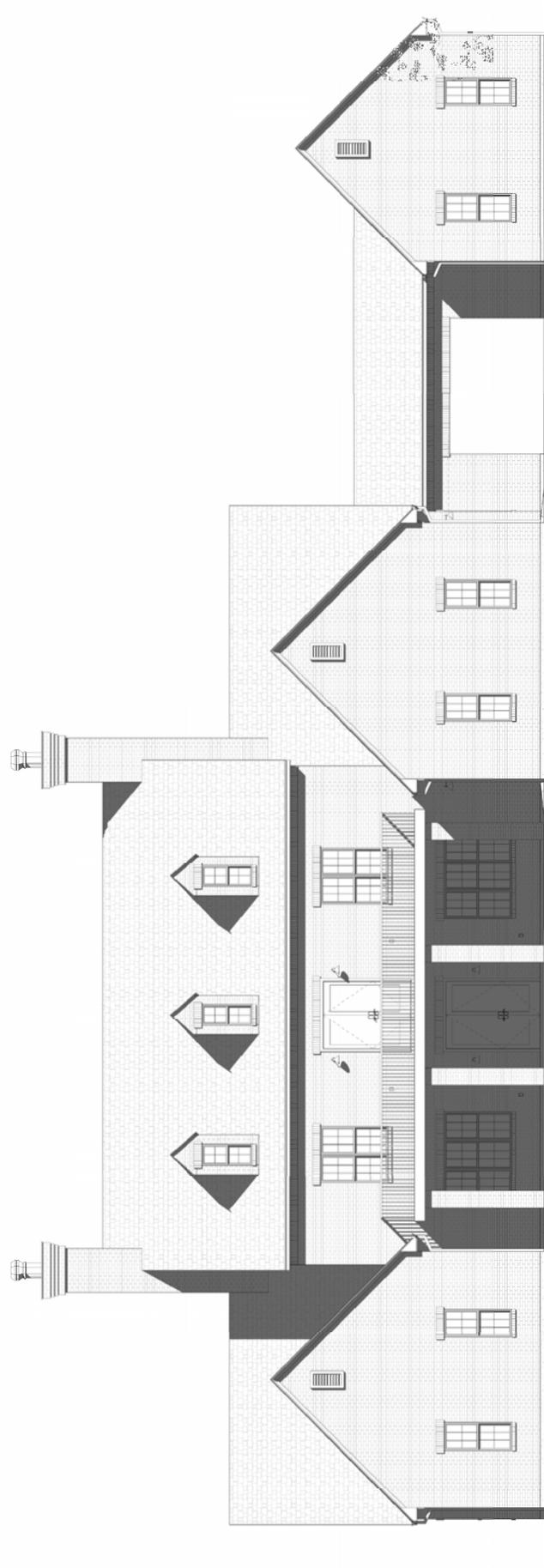


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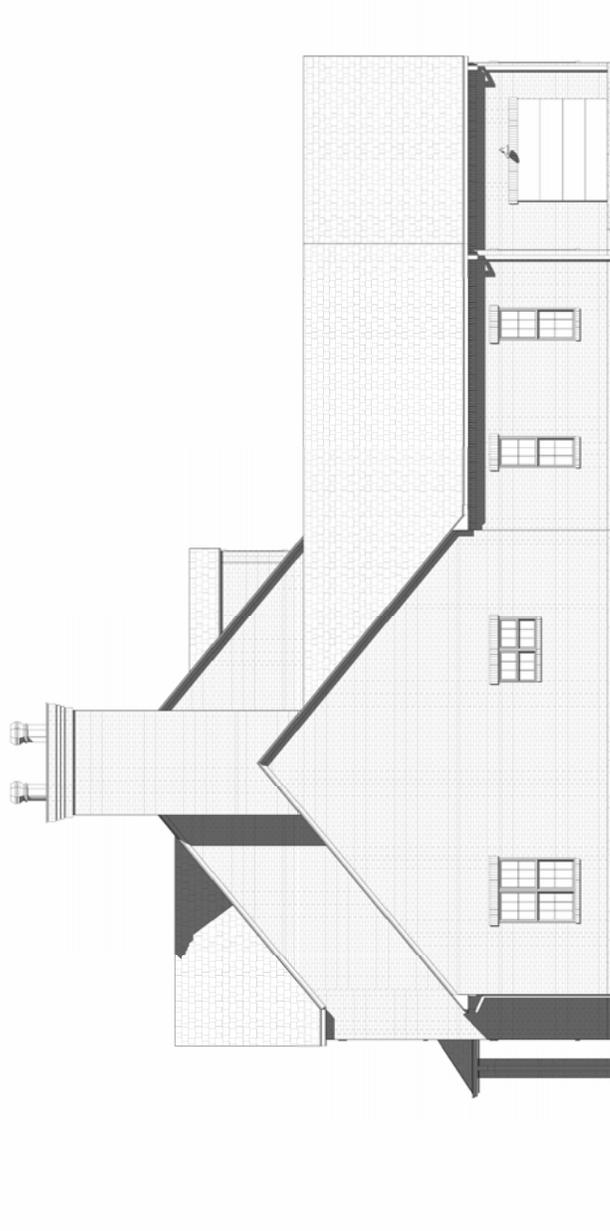




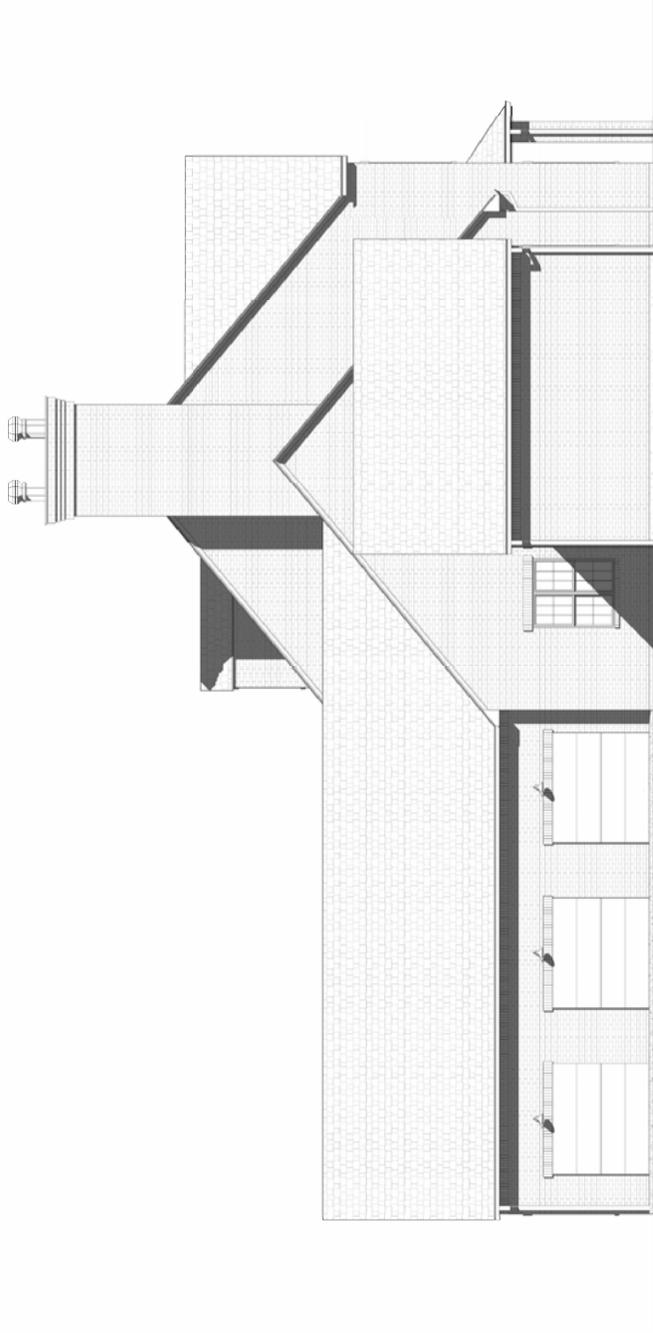
SOUTH ELEVATION



NORTH ELEVATION



EAST ELEVATION



WEST ELEVATION

Abbreviations

ABBR.	DESCRIPTION	ABBR.	DESCRIPTION
ACC STA	ACCESSIBLE STATION	MECH	MECHANICAL
AC	ACOUSTIC	MTL	METAL
ADJ	ADJUSTABLE	MN	MINIMUM
ALT	ALTERNATE	MSC	MISCELLANEOUS
ALUM	ALUMINUM	MT	MOUNT
AB	ANCHOR BOLT	INI	NEW
ANG	ANGLE	NC	NOT IN CONTRACT
ASPH	ASPHALT	NTS	NOT TO SCALE
BSMT	BASEMENT	OC	ON CENTER
BRG	BEARING	OPNG	OPENING
BM	BENCH MARK	OPP	OPPOSITE
BLDG	BUILDING	OD	OUTSIDE DIAMETER
BD	BOARD	OH	OVERHEAD
B.O.	BOTTOM OF	OFCI	OWNER FURNISHED/CONTRACTOR INSTALLED
BLDG	BUILDING	OFOI	OWNER FURNISHED/OWNER INSTALLED
SUR	BUILT UP ROOF	PARTN	PARTITION
CLG	CEILING	P-LAM	PLASTIC LAMINATE
CL	CENTERLINE	PL	PLATE
CT	CERAMIC TILE	PLY	PLYWOOD
CB	CHALK BOARD	PREFAB	PREFABRICATED
C	CHANNEL	PROJ	PROJECTION
CO	CLEAN OUT	QT	QUARRY TILE
COL	COLUMN	RAD	RADIUS
CONC	CONCRETE	REF	REFRIGERATOR
CONN	CONNECTION	RENF	REINFORCED
CONT	CONTINUOUS	REV	REVISION
CONTR	CONTRACTOR	RD	ROUND
DM	DIMENSION	SCHED	SCHEDULE
DWG	DRAWING	SM	SIMILAR
EA	EACH	SHT	SHEET
ELECT	ELECTRICAL	SPEC	SPECIFICATION
EW	ELECTRIC WATER COOLER	SQ	SQUARE
ELEV	ELEVATION	SS	STAINLESS STEEL
EQ	EQUIPMENT	STD	STANDARD
EQUIP	EQUIPMENT	STL	STEEL
EXIST	EXISTING	STOR	STORAGE
EL	EXISTING	STRUC	STRUCTURAL
EXP	EXPANSION	SUSP	SUSPENDED SUSPENSION
EXT	EXTERIOR	SYS	SYSTEM
FIN	FINISH	TB	TACKBOARD
FEC	FIRE EXTINGUISHER CABINET	TEL	TELEPHONE
FLR	FLOOR	TV	TELEVISION
FD	FLOOR DRAIN	TEMP	TEMPORARY
GALV	GALVANIZED	TS	TUBE STEEL
GI	GALVANIZED IRON	THRS	THRESHOLD
GA	GALVANIZED IRON	TOL	TOILET
GYP BD	GYP-SUM BOARD	T.O.	TOP OF
HWD	HARD WOOD	T.O. & B.O.	TOP AND BOTTOM
HT	HEIGHT	TYP	TYPICAL
HM	HOLLOW METAL	VERT	VERTICAL
HORIZ	HORIZONTAL	UNO.	UNLESS NOTED OTHERWISE
ID	INSIDE DIAMETER	WC	WATER CLOSET
INSUL	INSULATION	WM	WATER METER
INT	INTERIOR	WLD	WELDED WIRE FABRIC
IT	JOIN	W	WIDE FLANGE
MFR	MANUFACTURER	WDO	WINDOW
MB	MARKER BOARD	W	WITH
MAX	MAXIMUM	W/O	WITHOUT
		WOD	WOOD

Symbol Legend

SYMBOL	DESCRIPTION
	BUILDING SECTION
	SECTION CUT
	DETAIL BUBBLE
	INTERIOR ELEVATION
	EXTERIOR ELEVATION
	REVISIONS
	ELEVATION
	DOOR NUMBER
	WINDOW TYPES
	WALL TYPE
	ROOM TAGS
	SLOPE
	GRID BUBBLE
	KEY NOTES

Sheet Index

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EM101	Upper Floor Electrical Plan

WOODHAVEN RESIDENCE

2030 Woodhaven Rd, Charlotte, North Carolina 28211



Area Plans



WOODHAVEN RESIDENCE

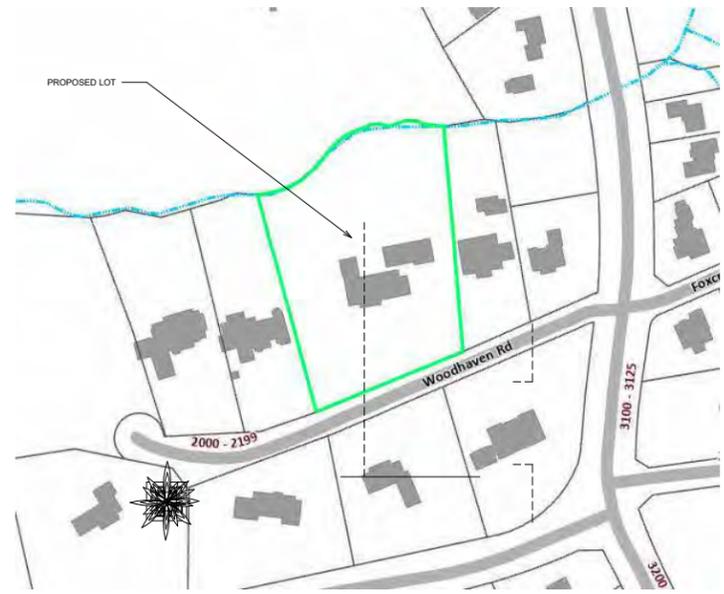
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DRAWN BY:
CHECKED BY:
ISSUED

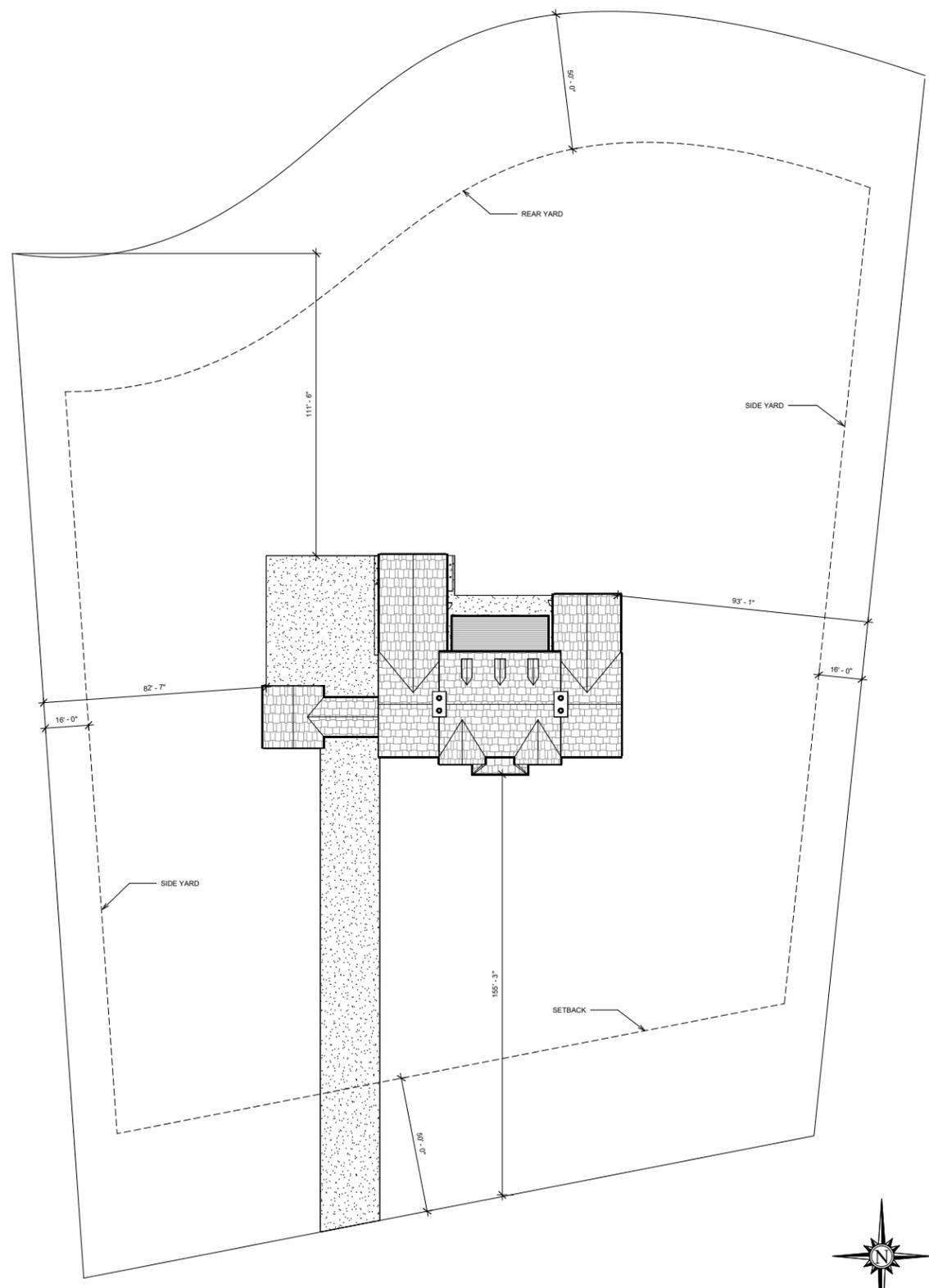
Cover Sheet

G100

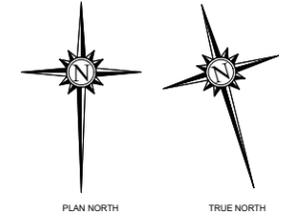
E
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2 Plat Map
G101 1/4" = 1'-0"



1 Site
G101 1" = 20'-0"



WOODHAVEN RESIDENCE
Martin Residence

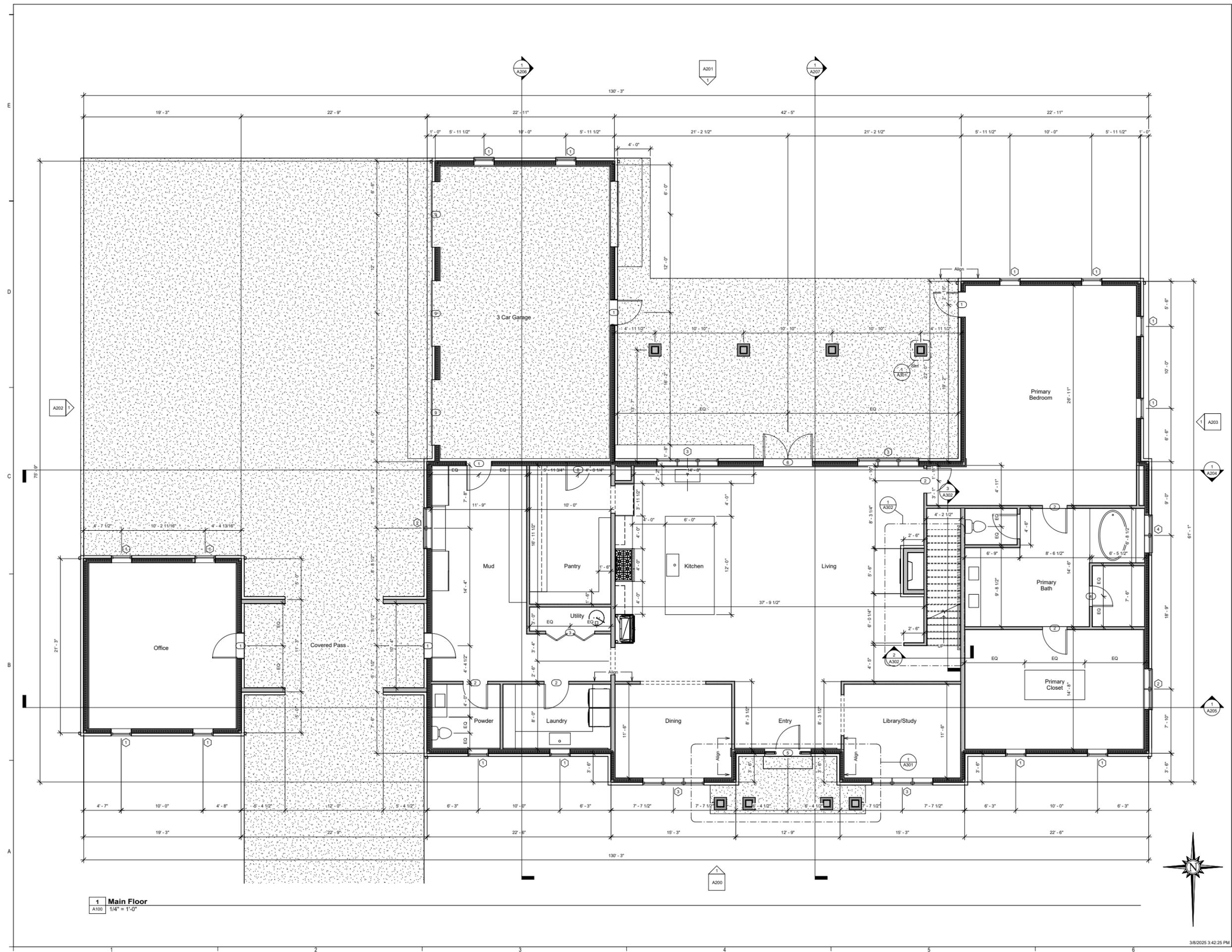
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PROJECT #
DESIGNED BY:
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Site Information
G101

DESIGNER: MORIAH N. MARTIN
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1 Main Floor
 A100 1/4" = 1'-0"

WOODHAVEN RESIDENCE
 Main Residence

MARK	DATE	DESCRIPTION

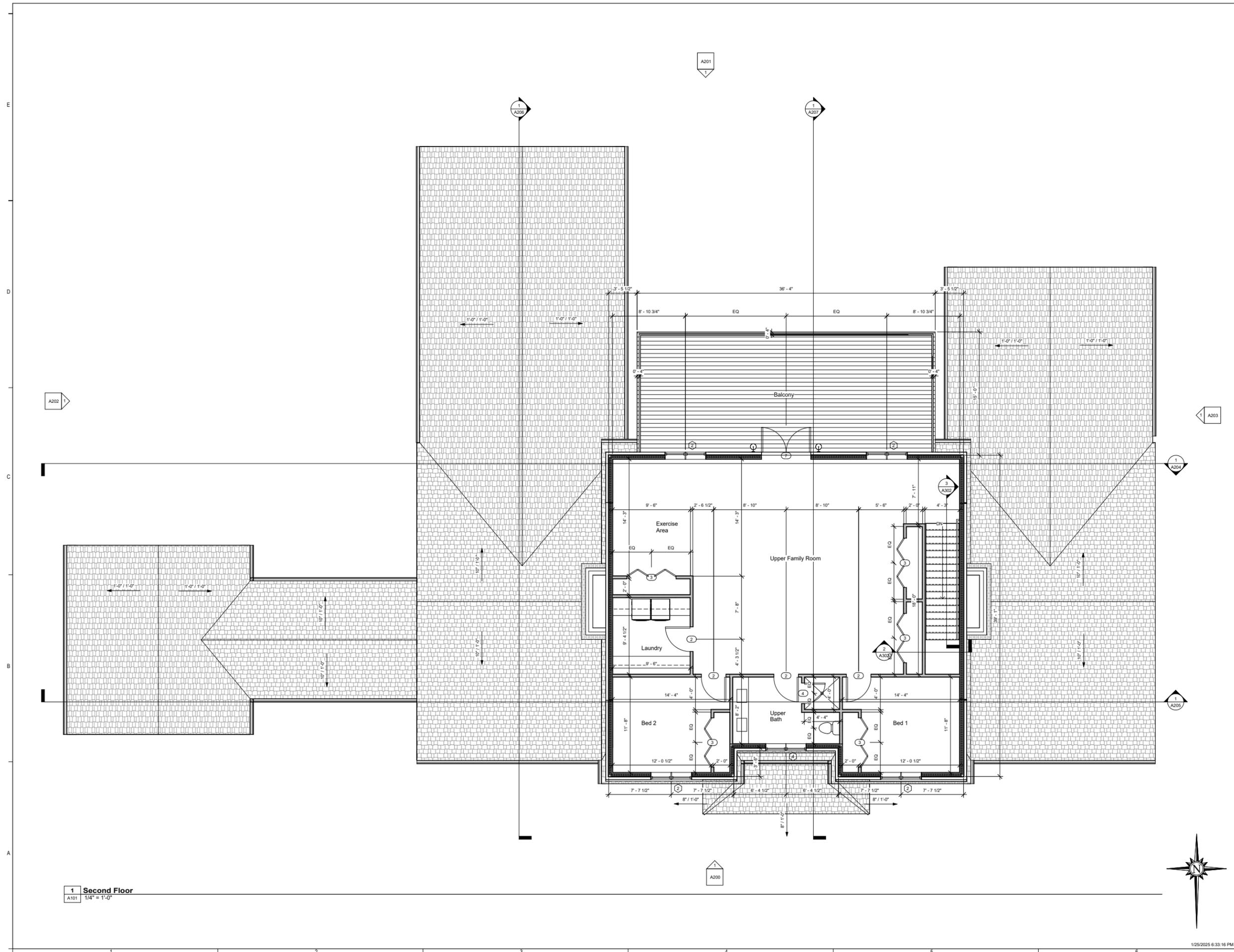
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Main Floor Plan

A100

DESIGNER: MORIAHN, MARTIN
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1 Second Floor
 A101 1/4" = 1'-0"



WOODHAVEN RESIDENCE
 Martin Residence

MARK	DATE	DESCRIPTION

PROJECT
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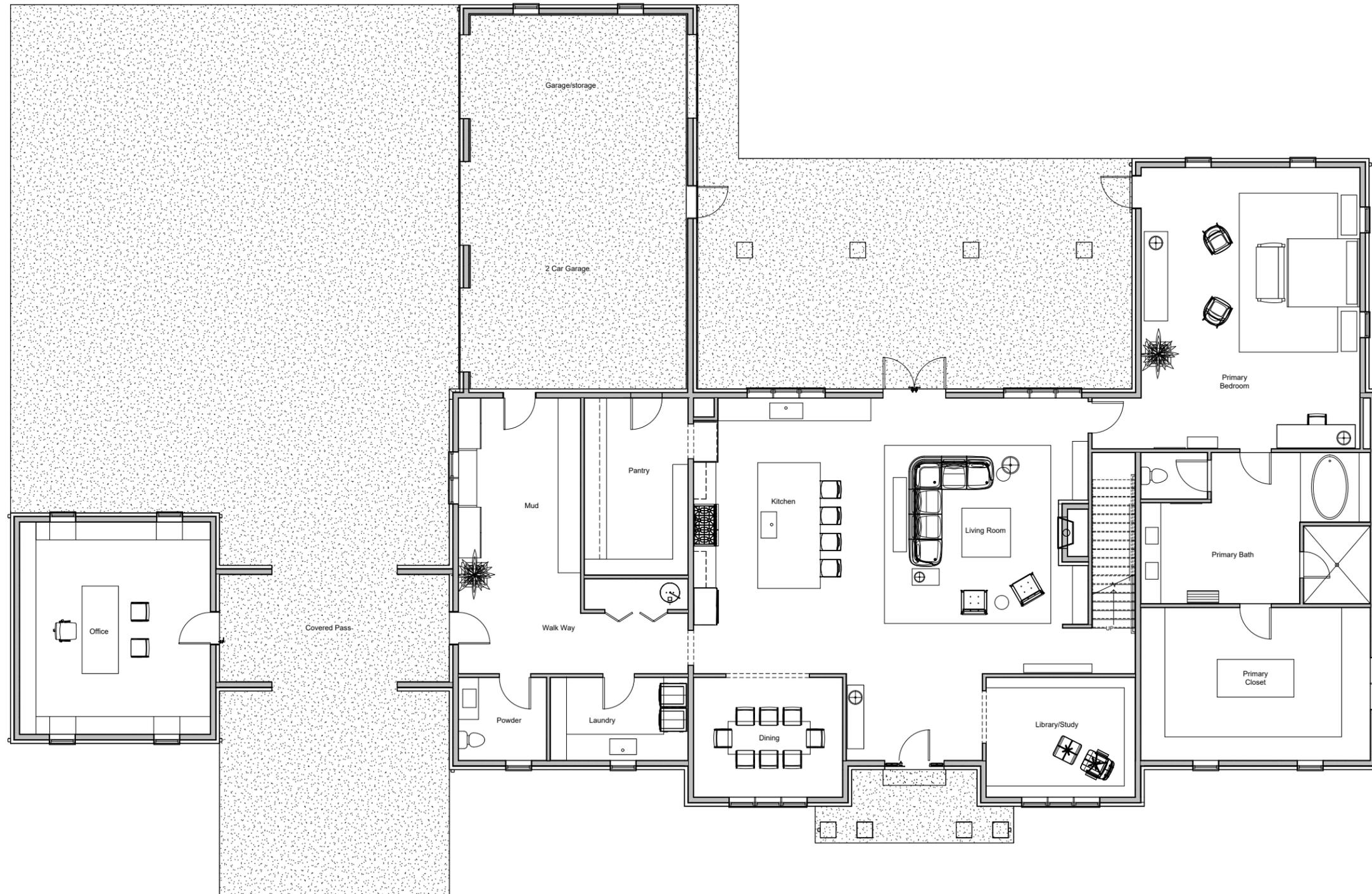
Upper Floor
 Plan

A101

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E
D
C
B
A



1 Main Floor Furniture
A102 1/4" = 1'-0"

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Main Residence

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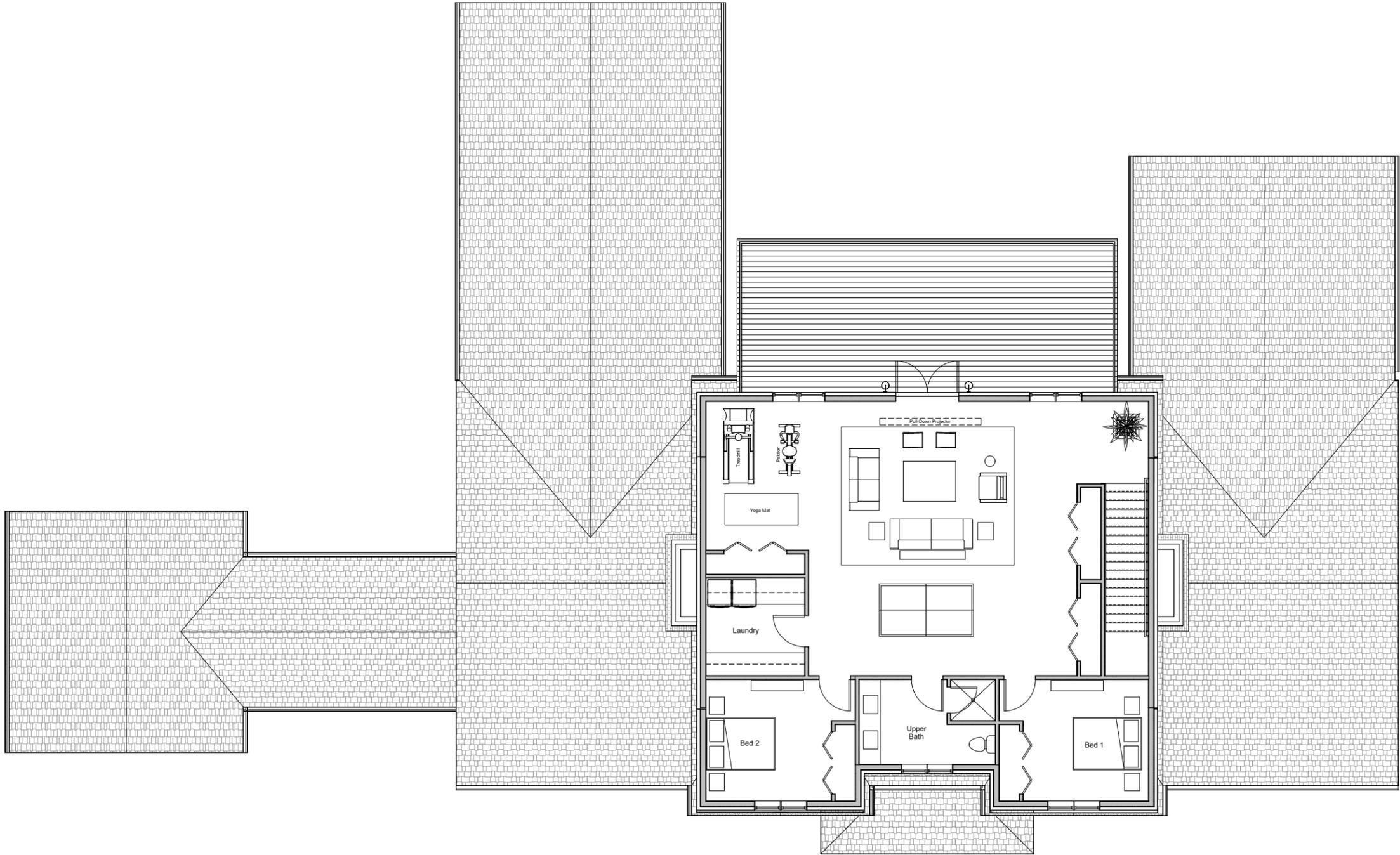
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Main Floor Furniture Plan

A102

E
D
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1 Second Floor Furniture
A103 1/4" = 1'-0"

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Martin Residence

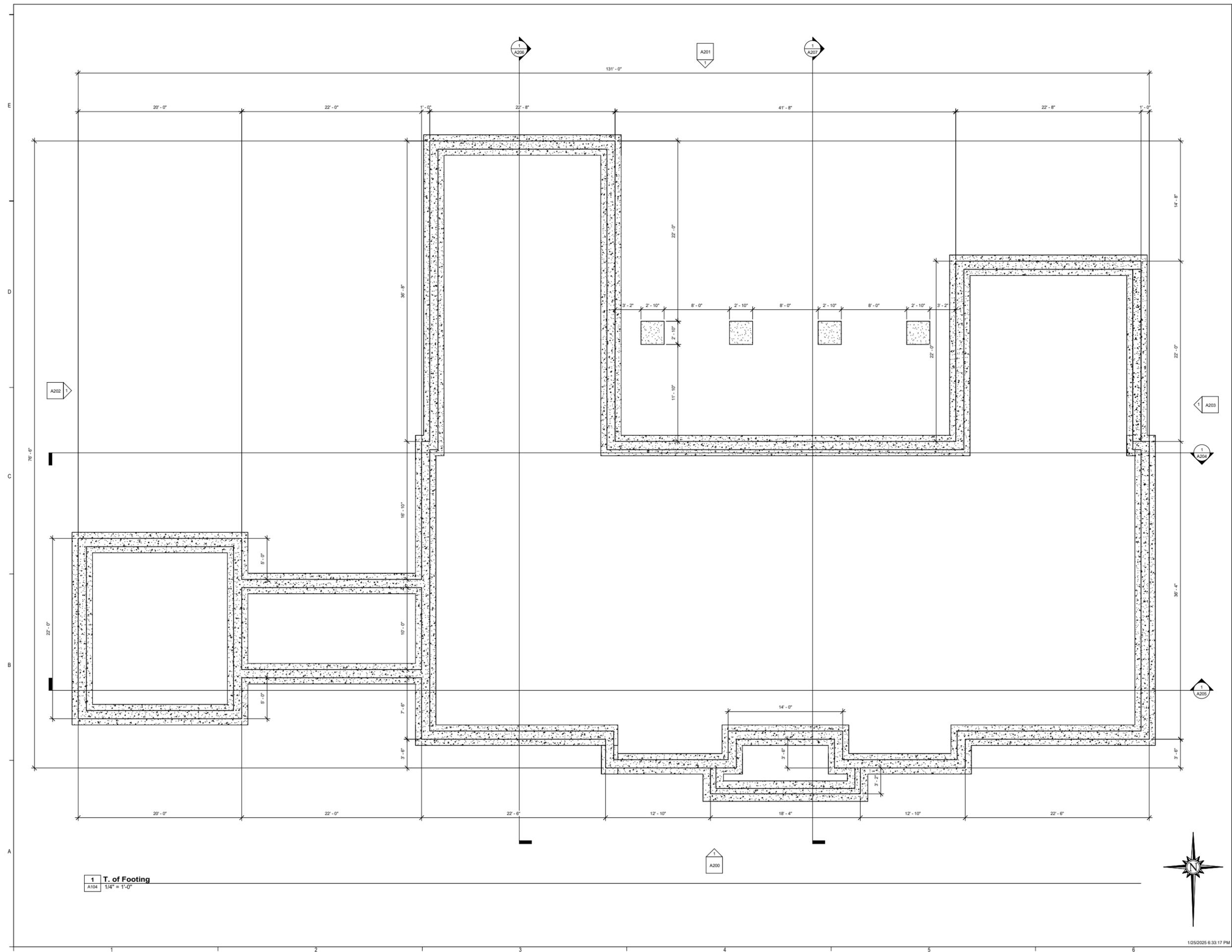
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Upper Floor Furniture Plan

A103



1 T. of Footing
 A104 1/4" = 1'-0"



WOODHAVEN RESIDENCE
 Martin Residence

MARK	DATE	DESCRIPTION

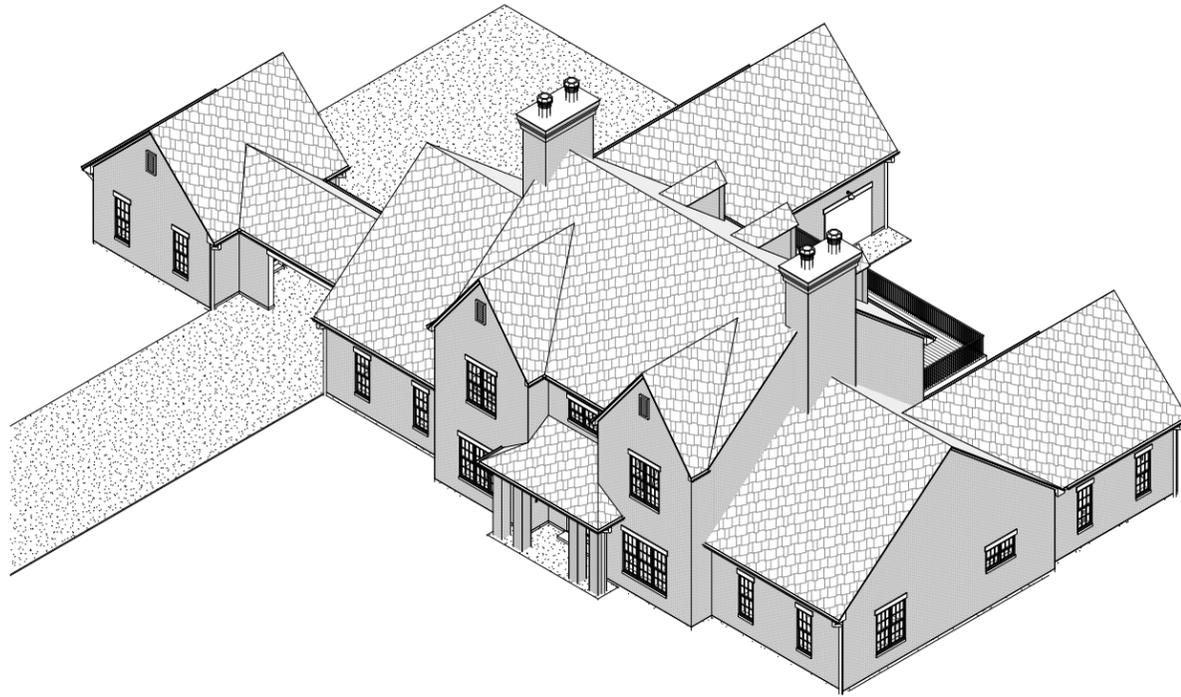
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Foundation Plan

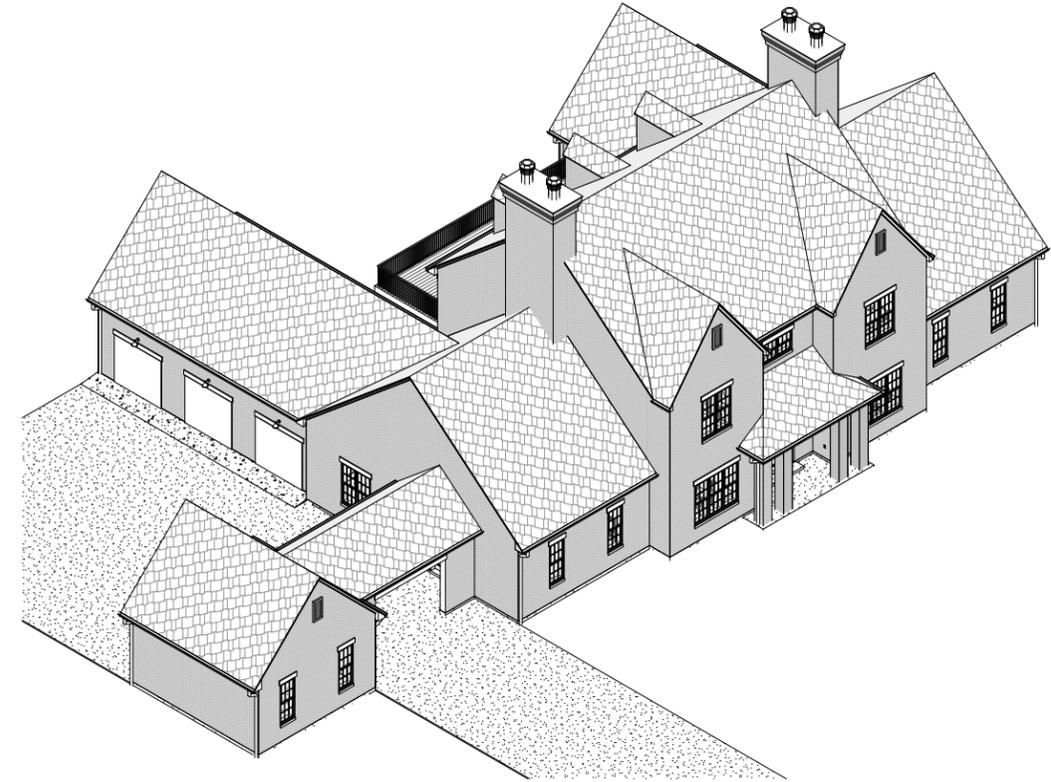
A104

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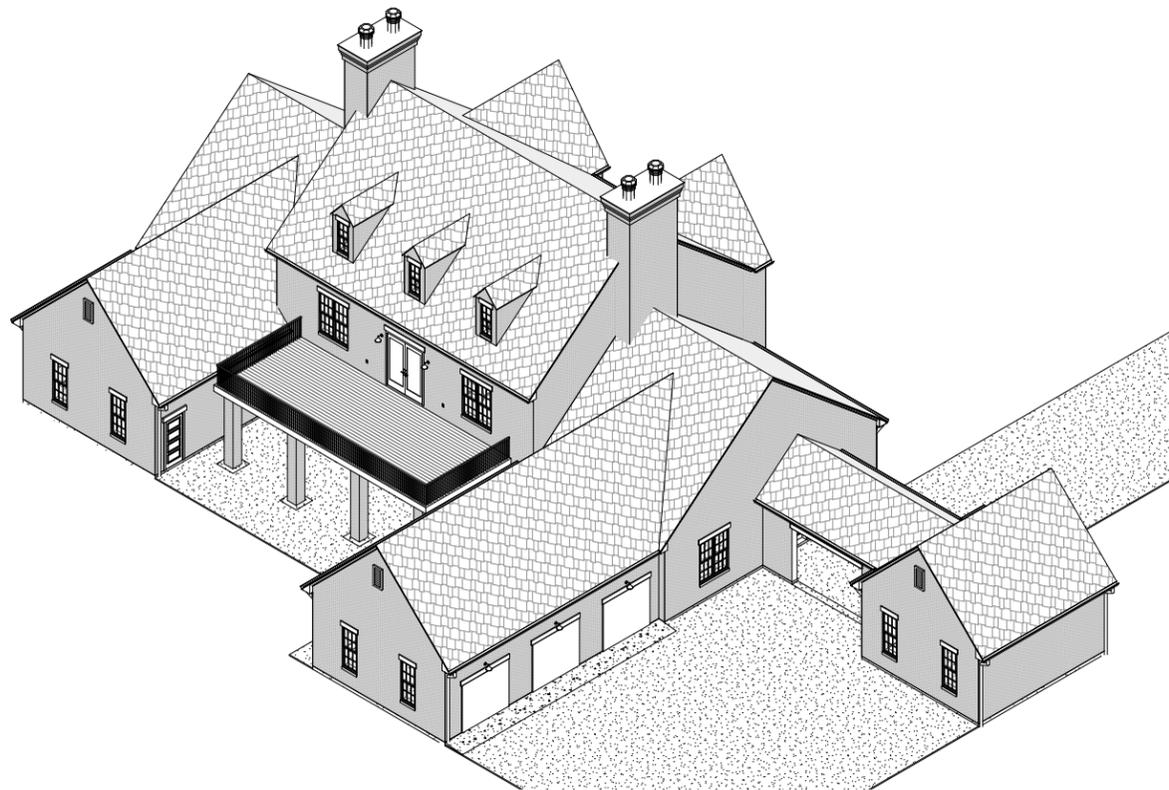
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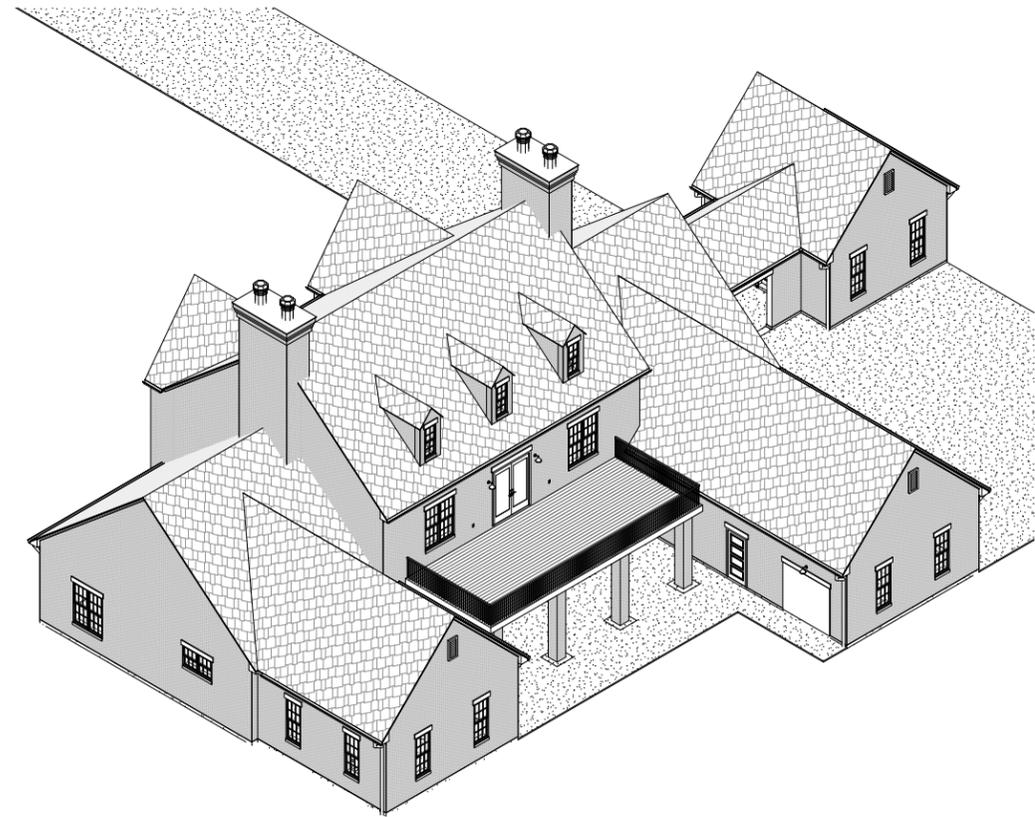
1 Axon 1
A106



2 Axon 2
A106



3 Axon 3
A106



4 Axon 4
A106

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1 South
A200 1/4" = 1'-0"

WOODHAVEN RESIDENCE
Main Residence

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PROJECT #:
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South Elevation
A200

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1 North
A201 1/4" = 1'-0"

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Marlin Residence

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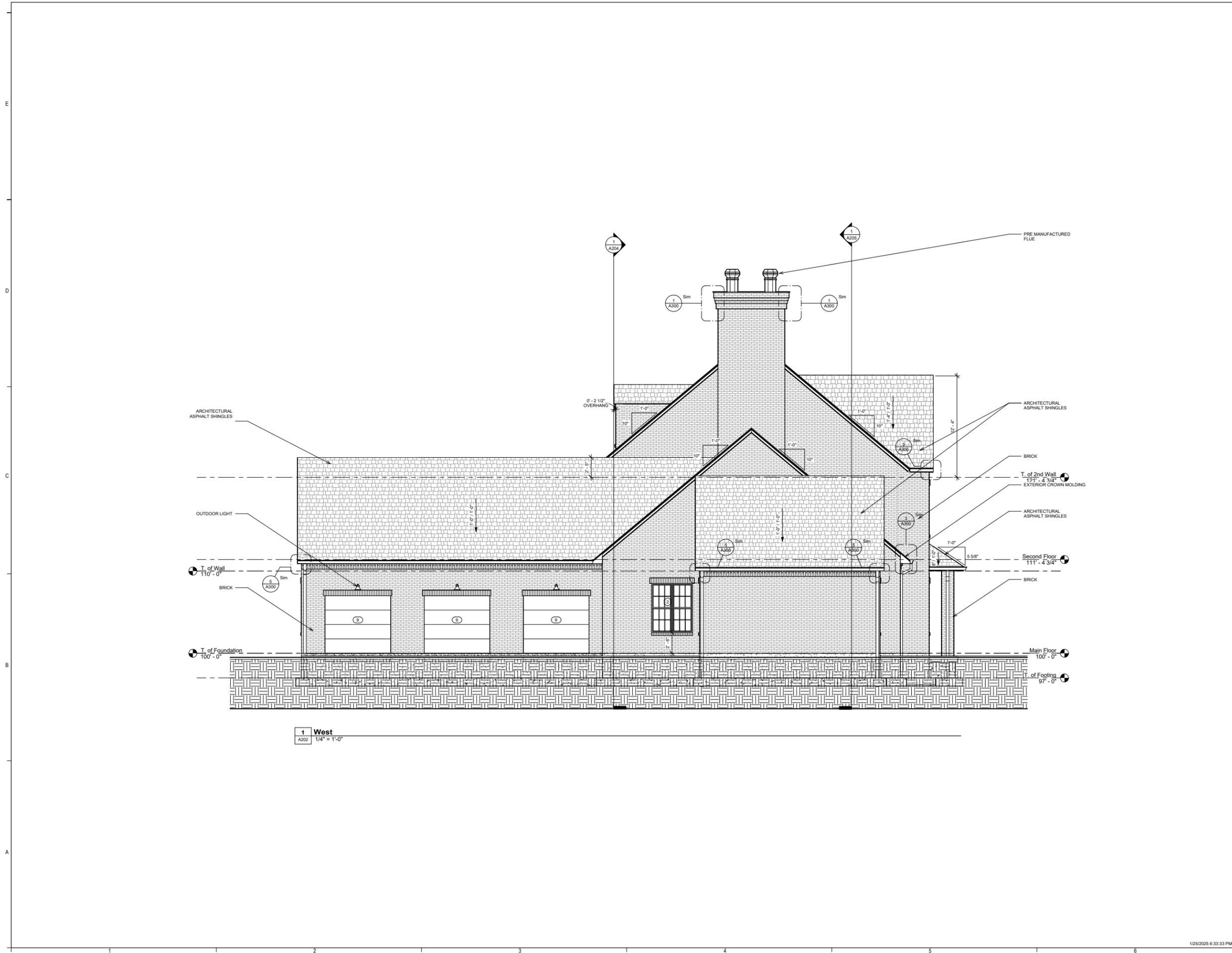
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North
Elevation
A201

DESIGNER
PHONE NUMBER
EMAIL

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ARCHITECTURAL ASPHALT SHINGLES

OUTDOOR LIGHT

T. of Wall 110'-0"

BRICK

T. of Foundation 100'-0"

0' - 2 1/2" OVERHANG

PRE-MANUFACTURED FLUE

ARCHITECTURAL ASPHALT SHINGLES

BRICK

T. of 2nd Wall 121' - 4 3/4"

EXTERIOR CROWN MOLDING

ARCHITECTURAL ASPHALT SHINGLES

Second Floor 111' - 4 3/4"

BRICK

Main Floor 100'-0"

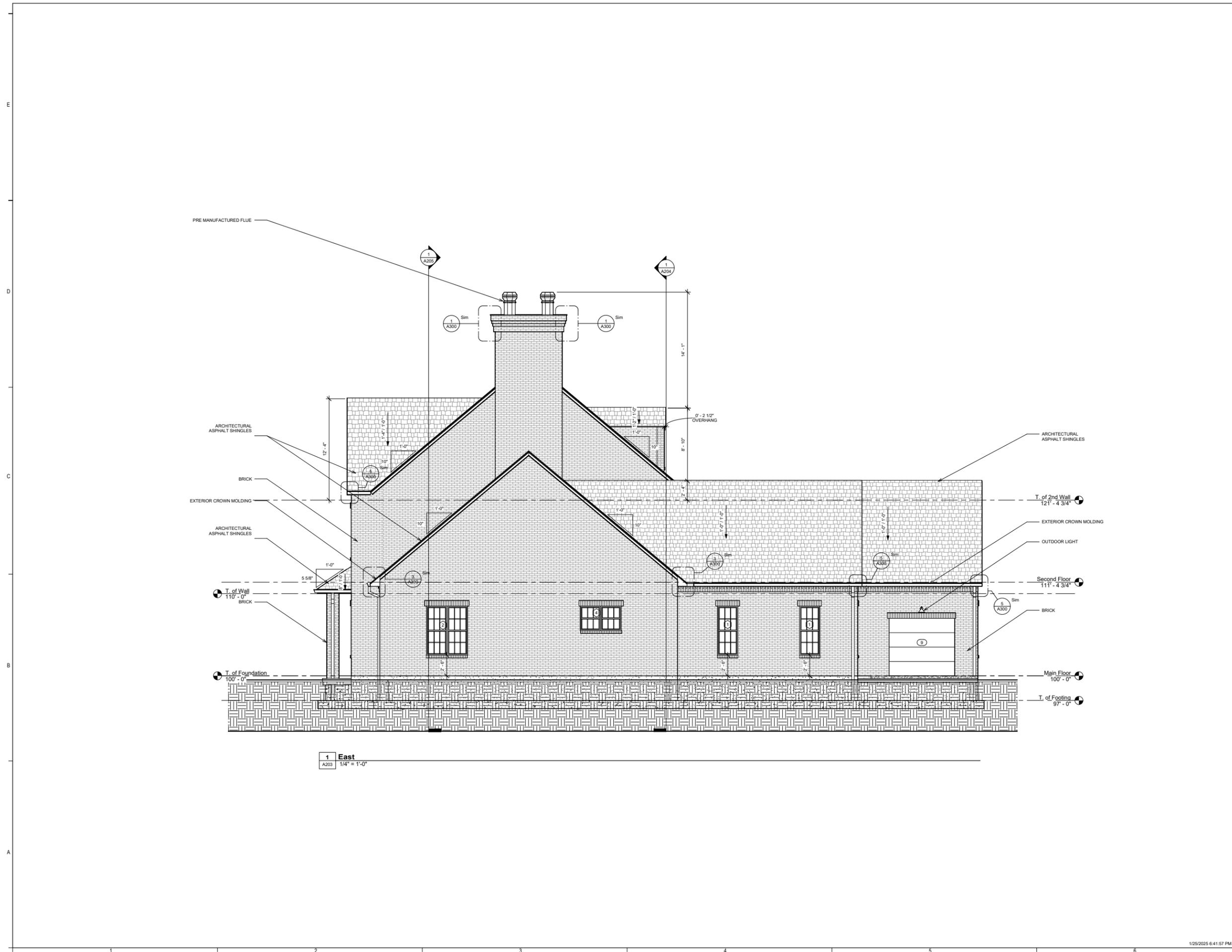
of Footing 97'-0"

1 West
A202 1/4" = 1'-0"

WOODHAVEN RESIDENCE
Marlin Residence

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1 Section 1
A204 1/4" = 1'-0"

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Martin Residence

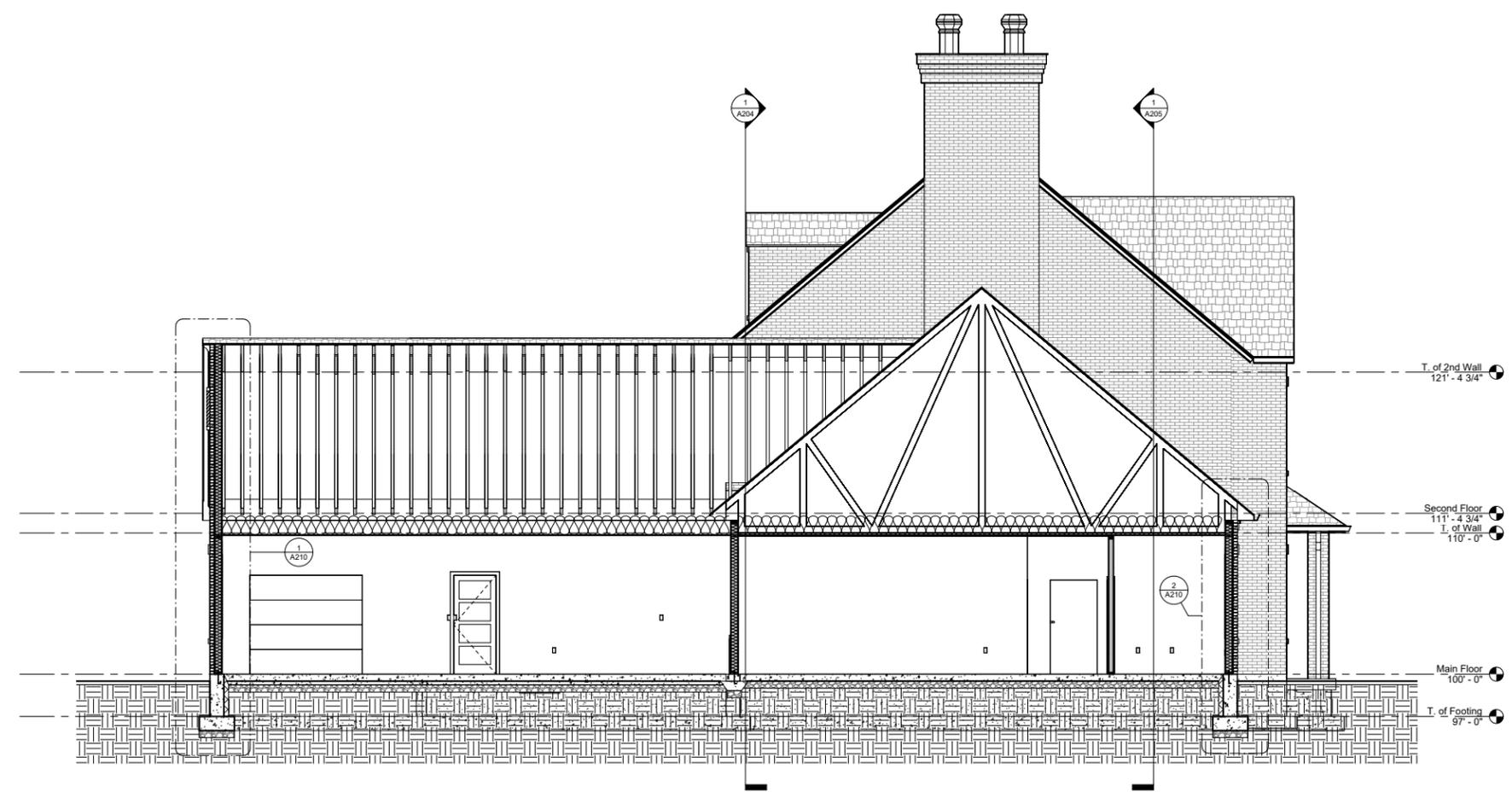
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E
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1 Section 3
A206 1/4" = 1'-0"

T. of 2nd Wall
121'-4 3/4"

Second Floor
111'-4 3/4"
T. of Wall
110'-0"

Main Floor
100'-0"

T. of Footing
97'-0"

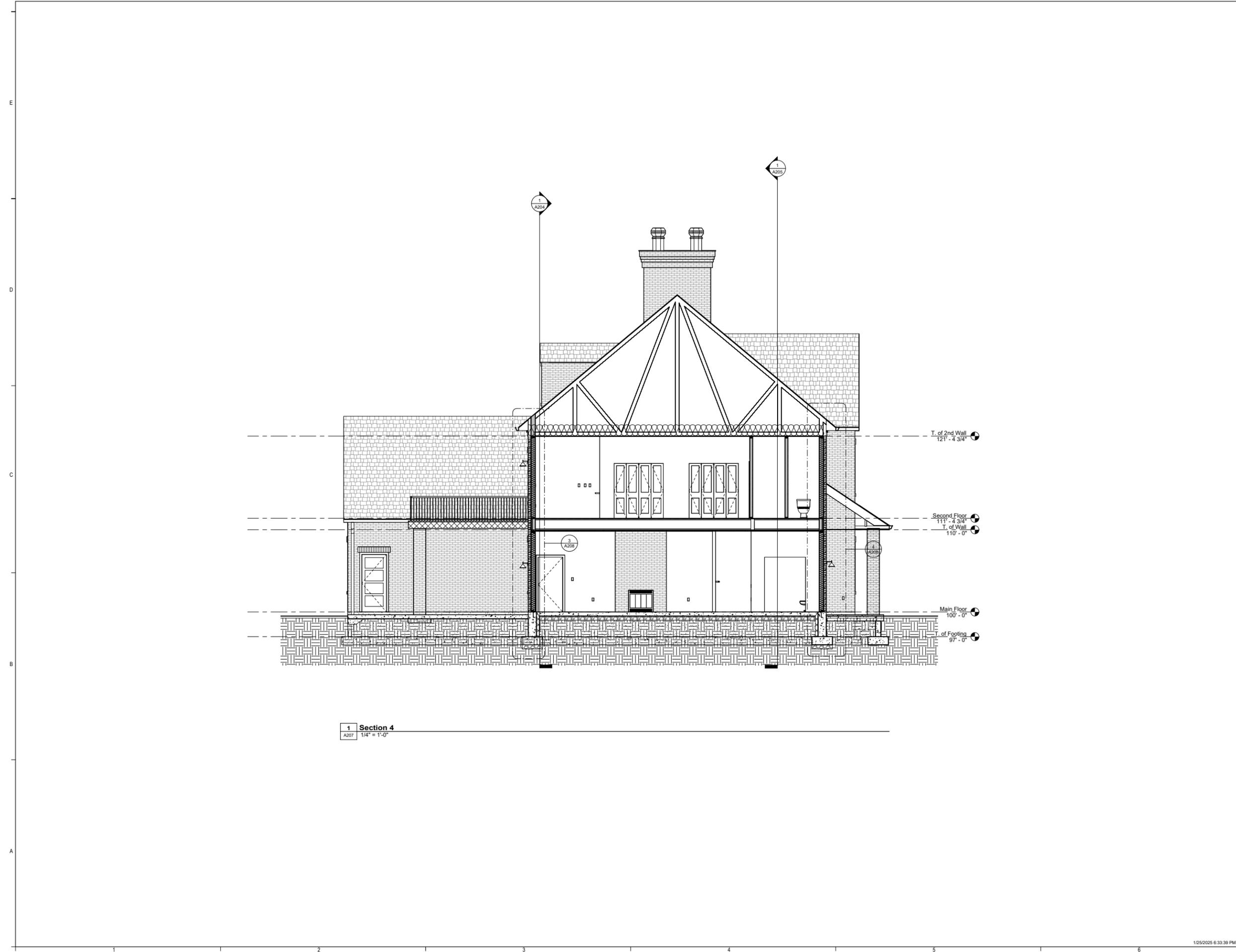
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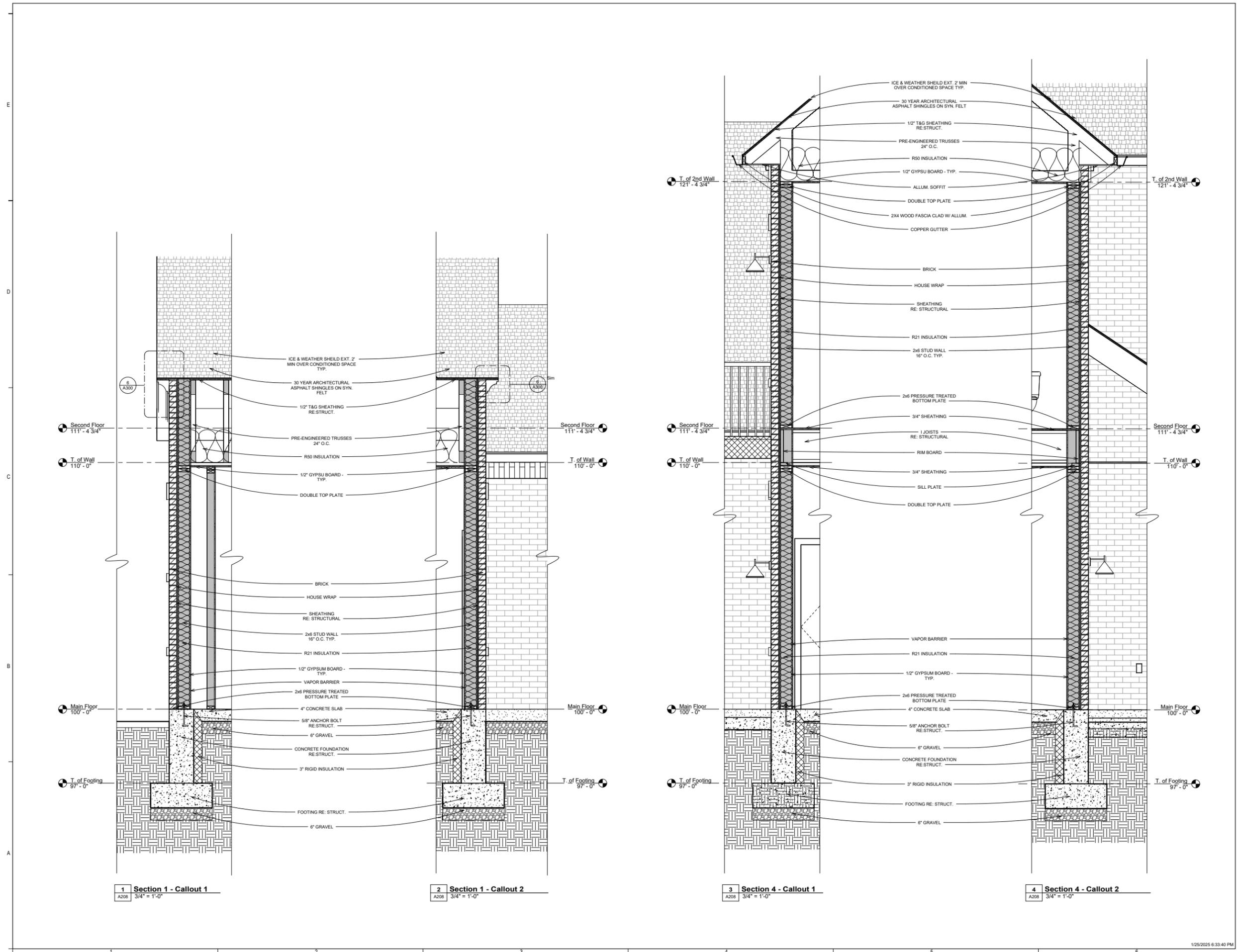


1 Section 4
A207 1/4" = 1'-0"

WOODHAVEN RESIDENCE
Martin Residence

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1 Section 1 - Callout 1
A208 3/4" = 1'-0"

2 Section 1 - Callout 2
A208 3/4" = 1'-0"

3 Section 4 - Callout 1
A208 3/4" = 1'-0"

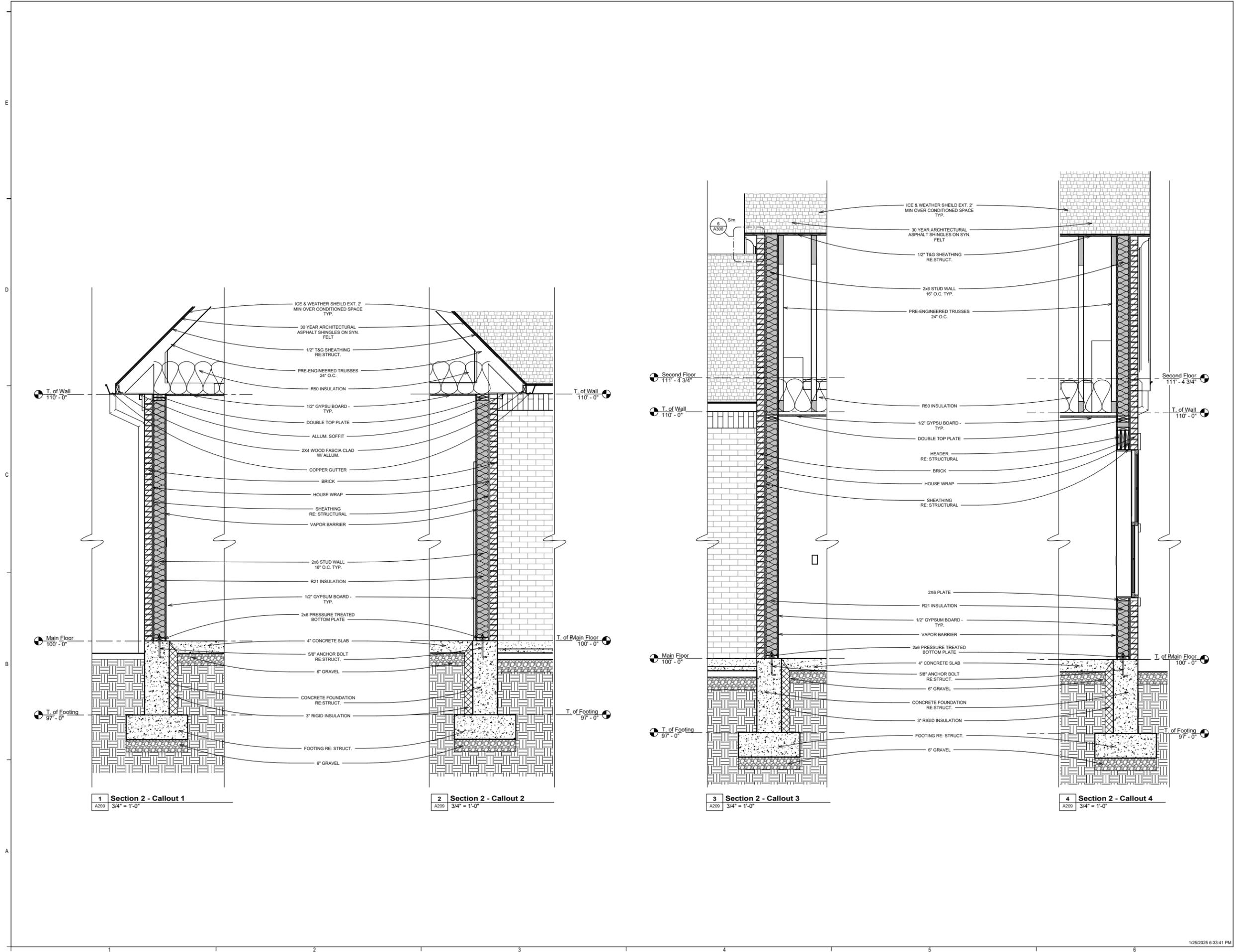
4 Section 4 - Callout 2
A208 3/4" = 1'-0"

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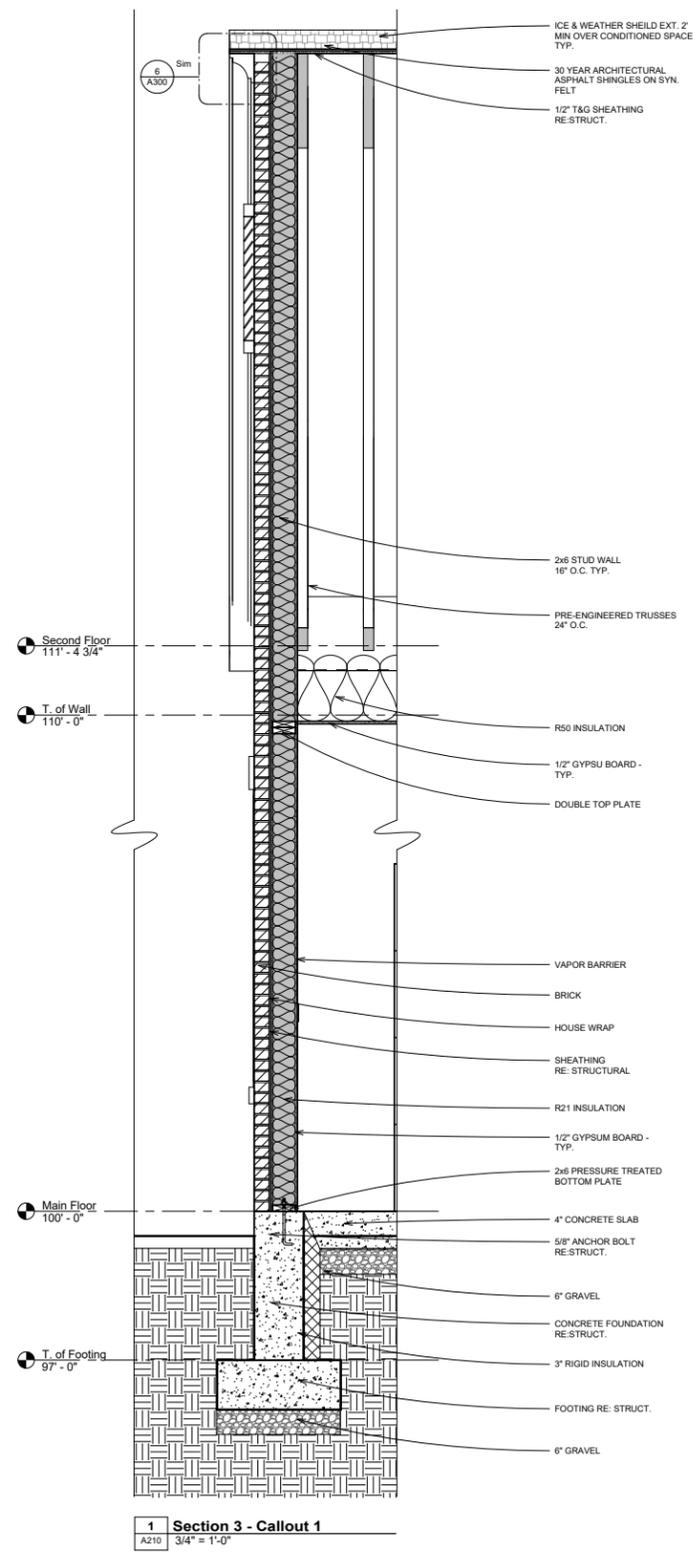


WOODHAVEN RESIDENCE
Martin Residence

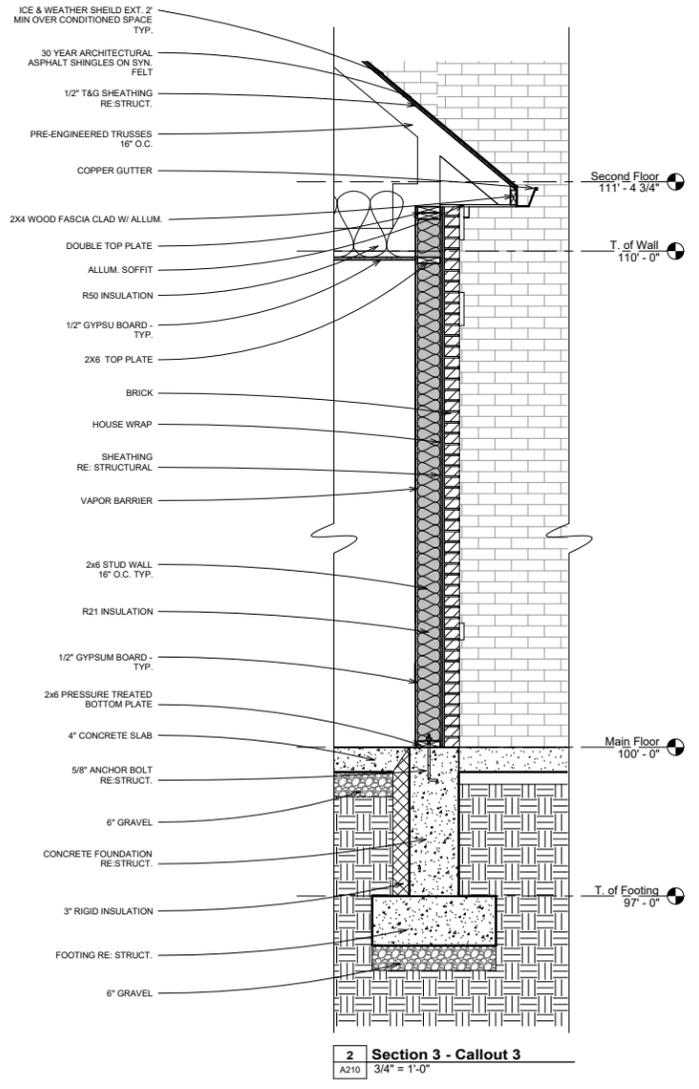
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1 Section 3 - Callout 1
A210 3/4" = 1'-0"



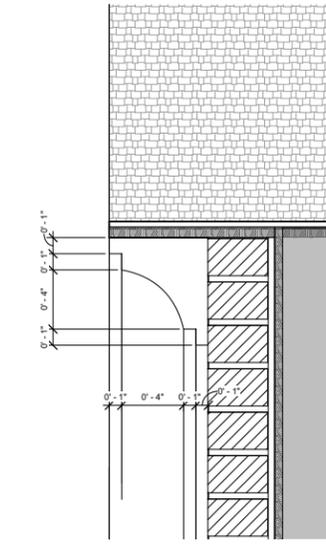
2 Section 3 - Callout 3
A210 3/4" = 1'-0"

WOODHAVEN RESIDENCE
Martin Residence

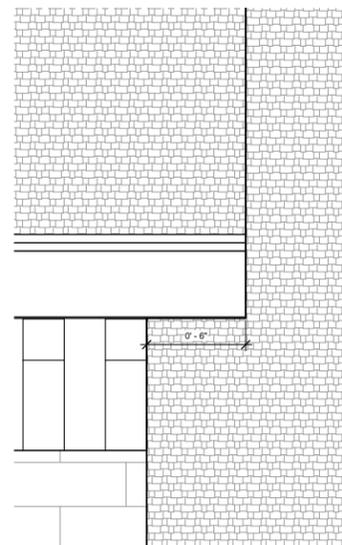
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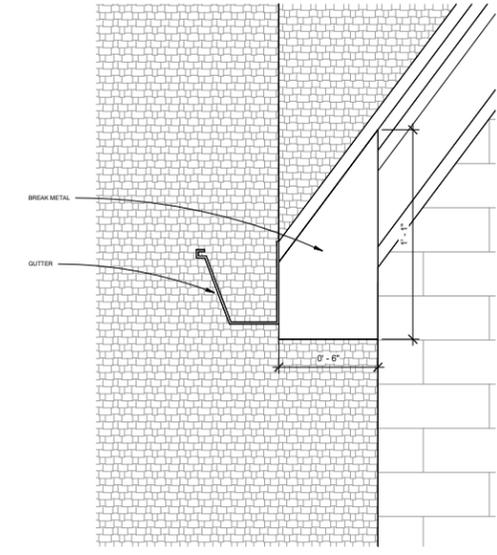
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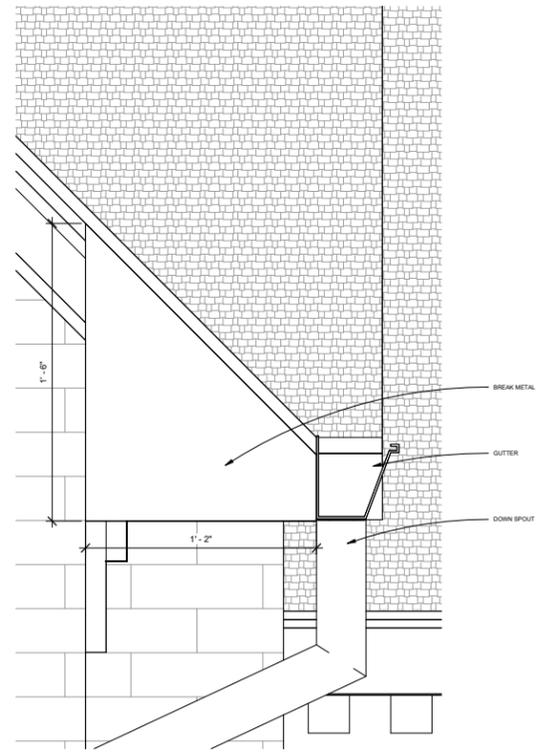
6 Roof Molding
A300 3" = 1'-0"



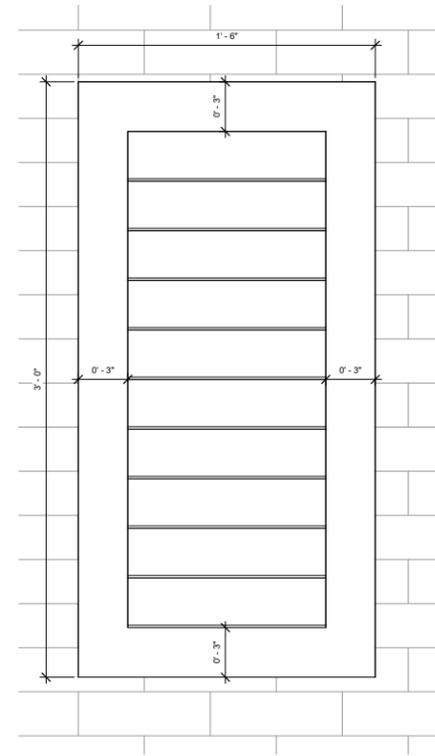
5 Roof Overhang DTL. 3
A300 3" = 1'-0"



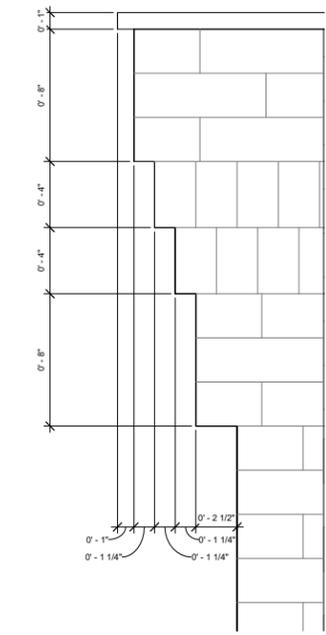
4 Roof Overhang DTL. 2
A300 3" = 1'-0"



3 Roof Overhang DTL. 1
A300 3" = 1'-0"



2 Vent Detail
A300 3" = 1'-0"



1 Chimney Detail
A300 3" = 1'-0"

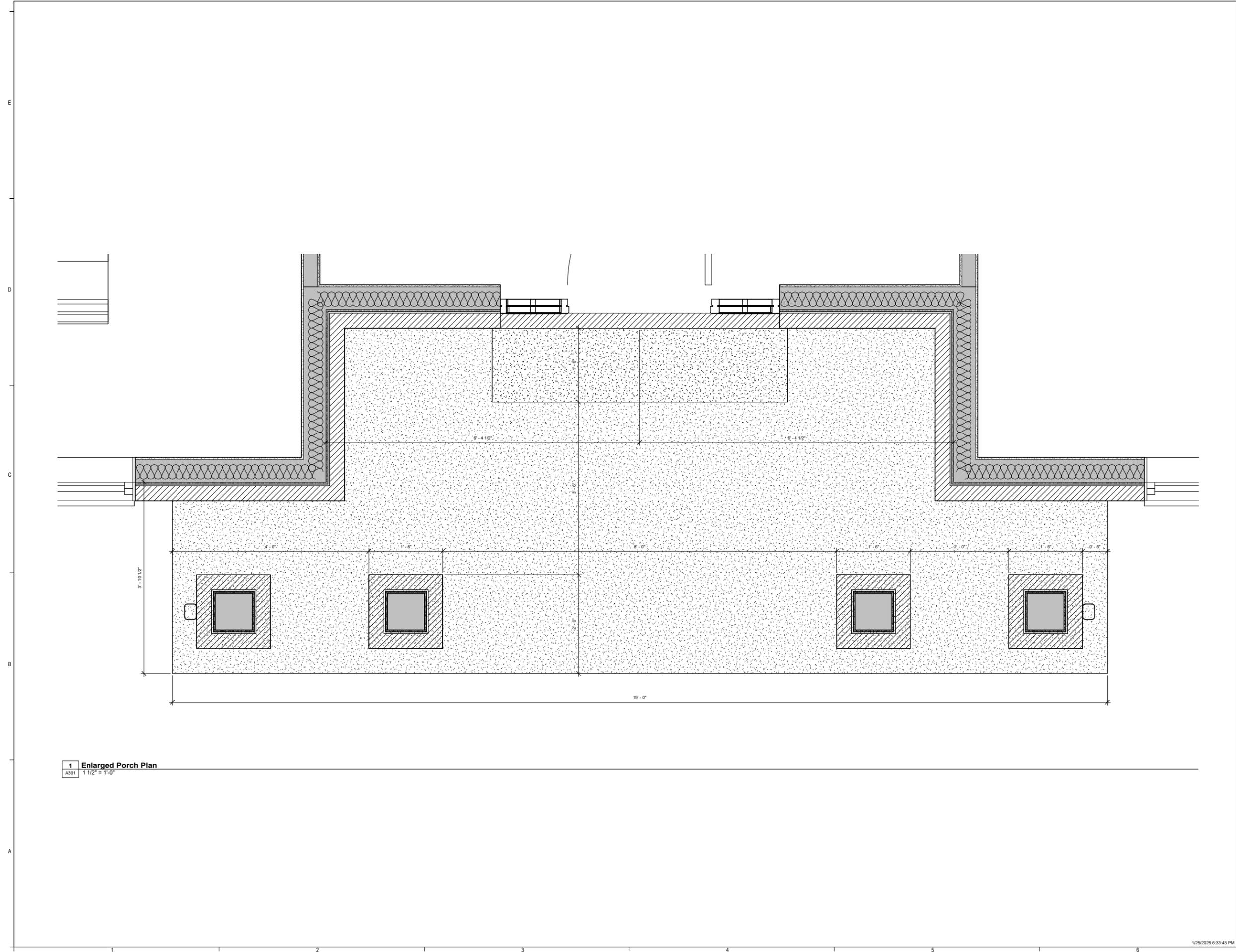
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Martin Residence

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Enlarged Porch Plan

A301

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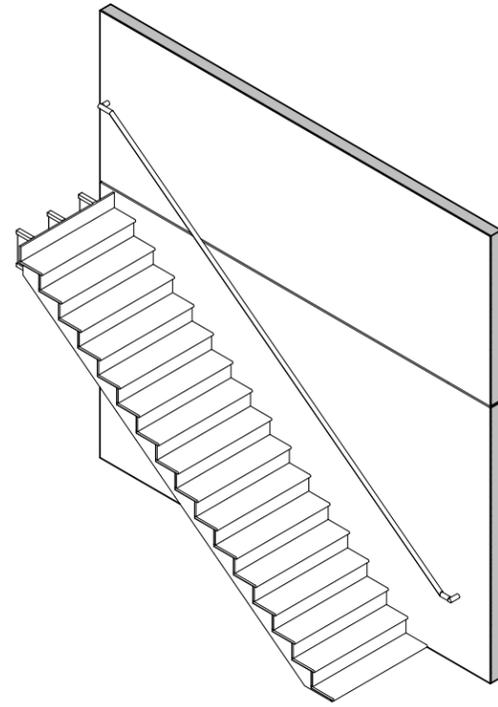
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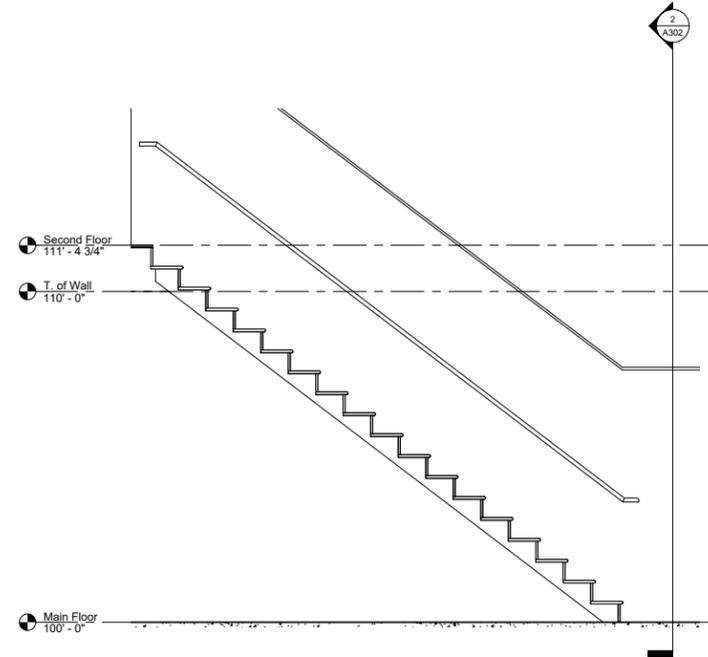
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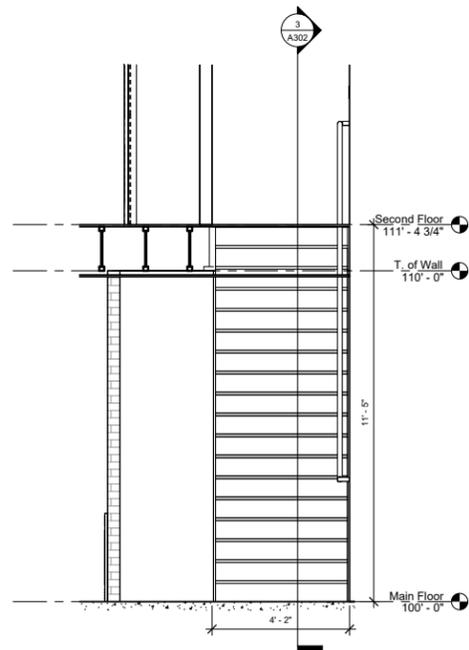
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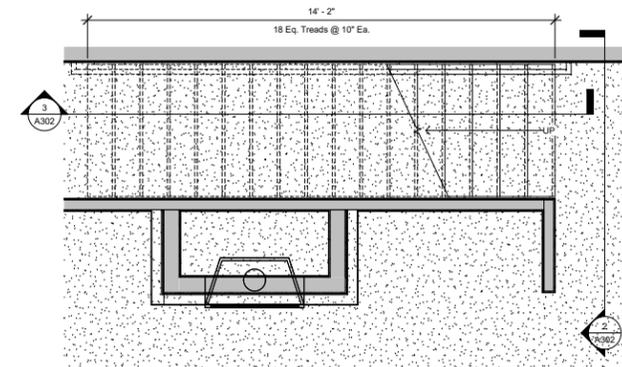
4 Stair Axon
A302



3 Stair Section 2
A302 1/2" = 1'-0"



2 Stair Section
A302 1/2" = 1'-0"



1 Enlarged Stair Plan
A302 1/2" = 1'-0"

WOODHAVEN RESIDENCE

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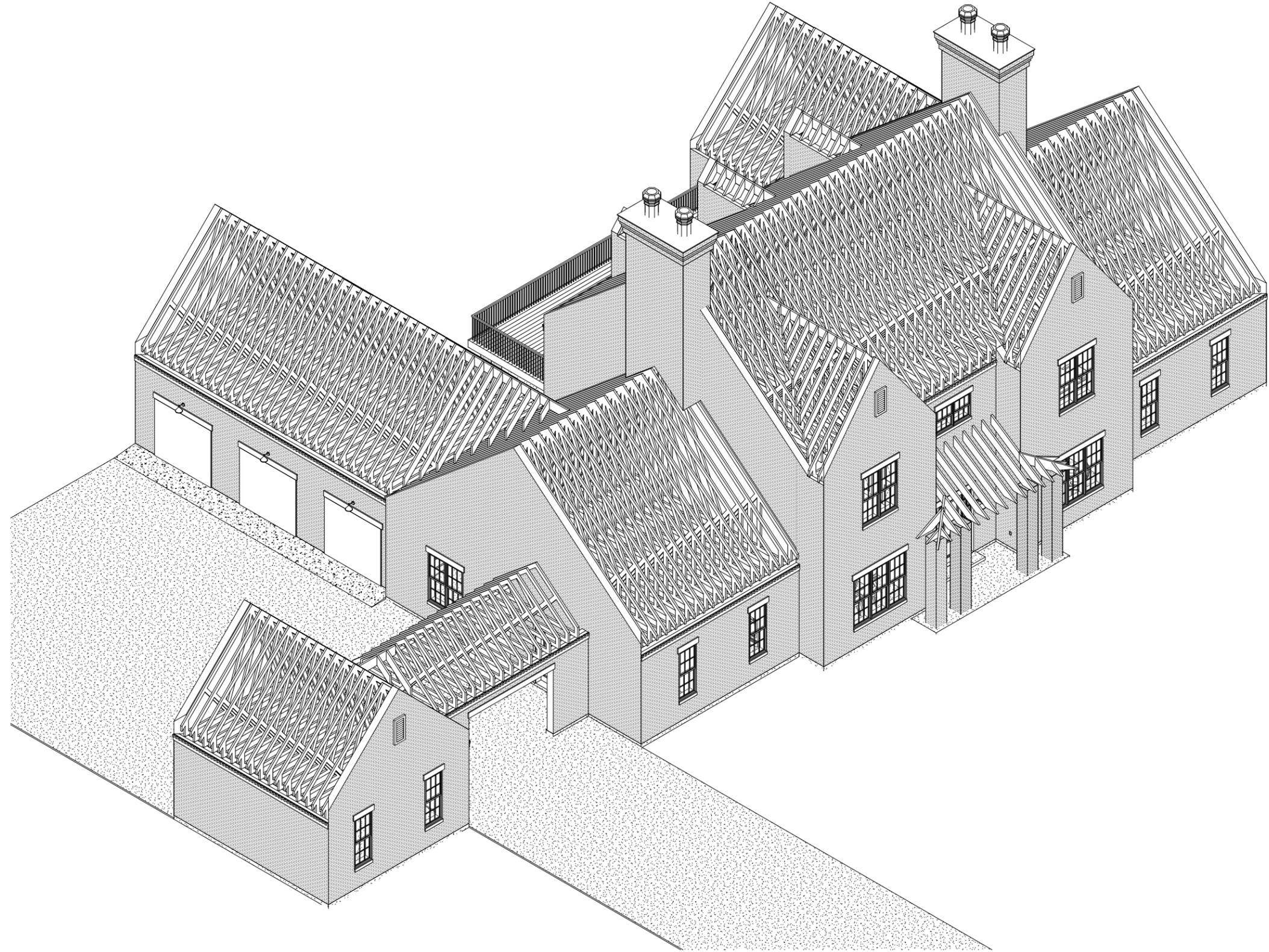
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PROJECT #:	
DESIGNED BY:	
DRAWN BY:	
CHECKED BY:	
ISSUED:	

Stair Drawings

A302

E
D
C
B
A



1 Roof Framing Axon
A400

1 2 3 4 5 6

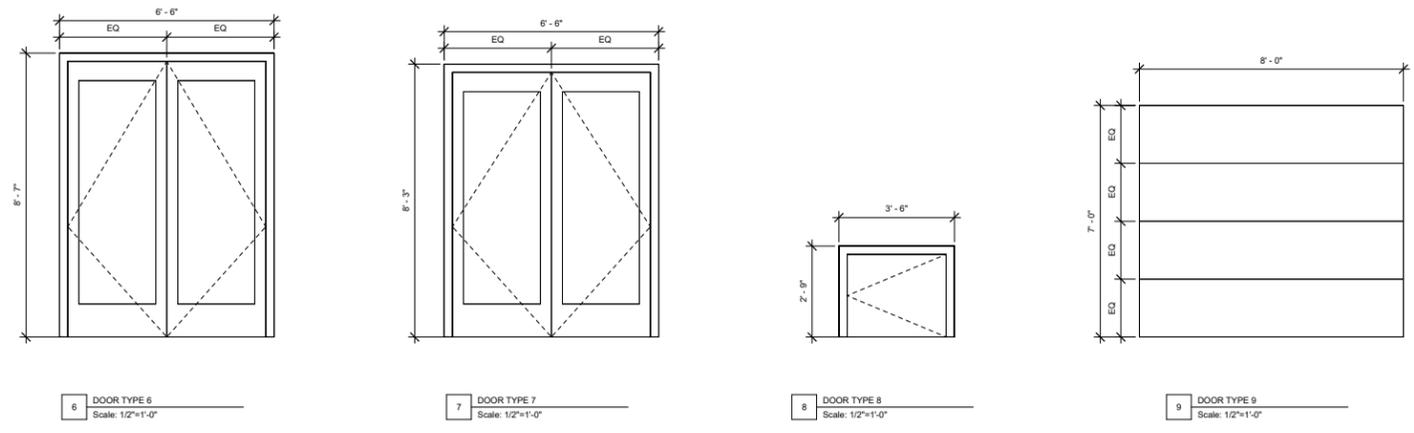
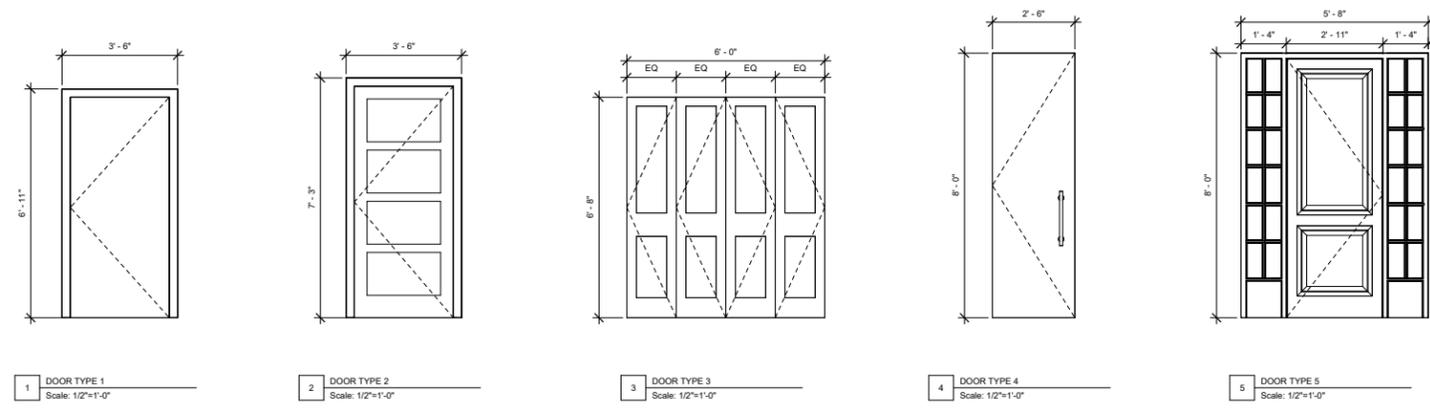
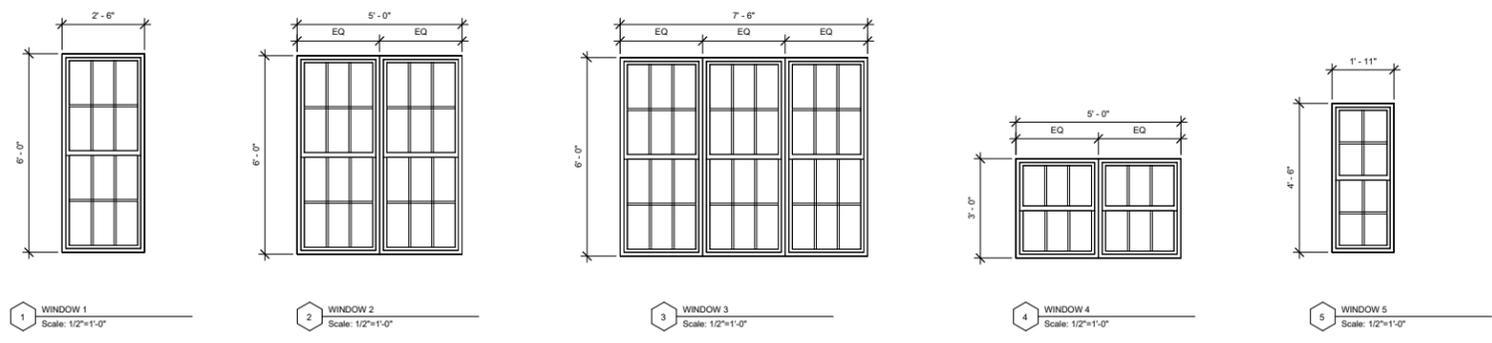
WOODHAVEN RESIDENCE

Woodhaven Residence
3020 Woodhaven Rd., Charlotte, North Carolina 28211

MARK	DATE	DESCRIPTION

PROJECT #
DESIGNED BY:
DRAWN BY:
CHECKED BY:
ISSUED

E
D
C
B
A



Door & Window Schedule
1/2" = 1'-0"

WOODHAVEN RESIDENCE

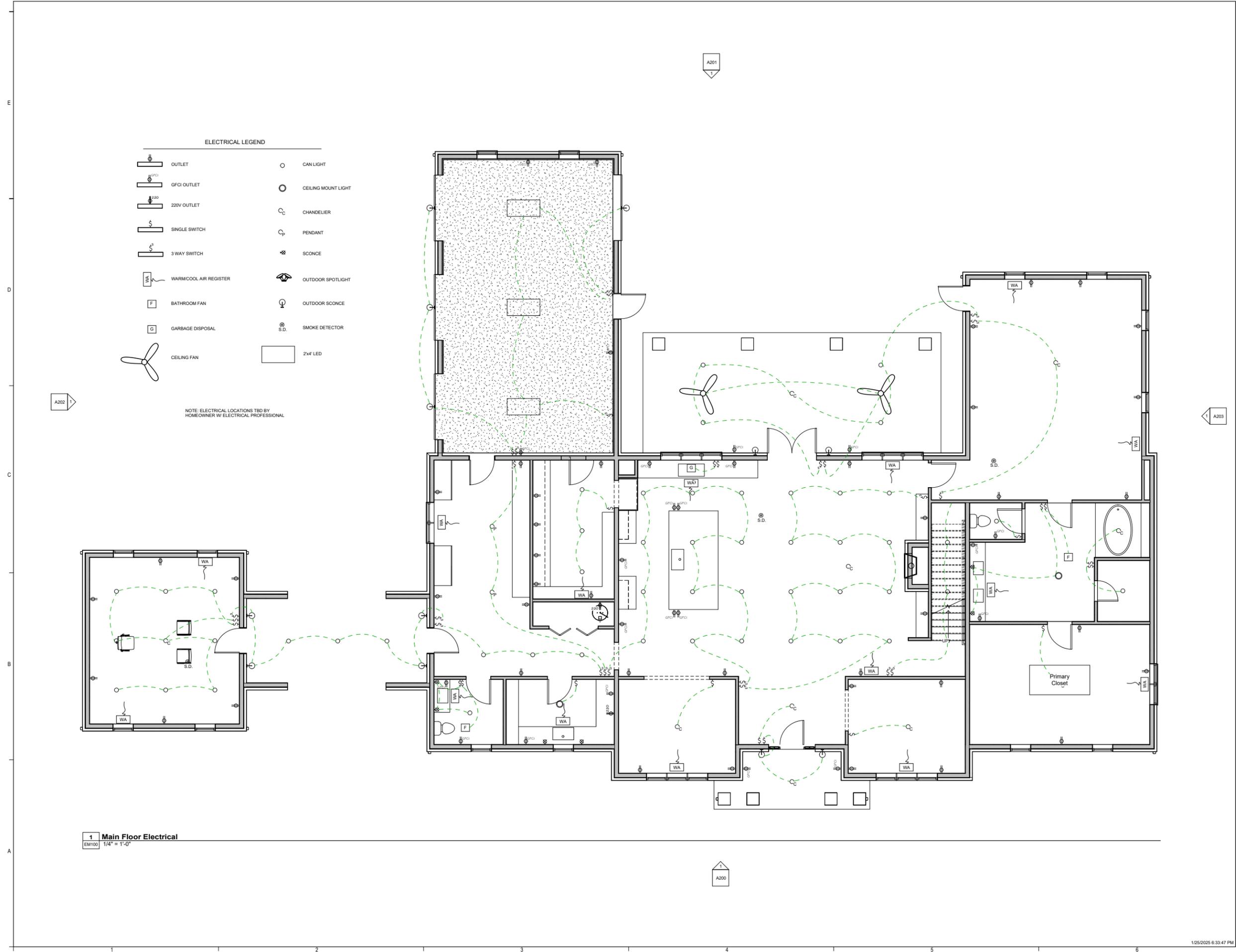
3020 Woodhaven Rd., Charlotte, North Carolina 28211
Martin Residence

MARK	DATE	DESCRIPTION

PROJECT #
DESIGNED BY:
DRAWN BY:
CHECKED BY:
ISSUED

Door & Window Schedules

DESIGNER: MORIAH N. MARTIN
PHONE NUMBER: 435.994.8138
EMAIL: moriamartin.design@gmail.com



ELECTRICAL LEGEND

- | | | | |
|--|------------------------|--|---------------------|
| | OUTLET | | CAN LIGHT |
| | GFCI OUTLET | | CEILING MOUNT LIGHT |
| | 220V OUTLET | | CHANDELIER |
| | SINGLE SWITCH | | PENDANT |
| | 3 WAY SWITCH | | SCONCE |
| | WARM/COOL AIR REGISTER | | OUTDOOR SPOTLIGHT |
| | BATHROOM FAN | | OUTDOOR SCONCE |
| | GARBAGE DISPOSAL | | SMOKE DETECTOR |
| | CEILING FAN | | 2x4' LED |

NOTE: ELECTRICAL LOCATIONS TBD BY HOMEOWNER W/ ELECTRICAL PROFESSIONAL

1 Main Floor Electrical
EM100 1/4" = 1'-0"

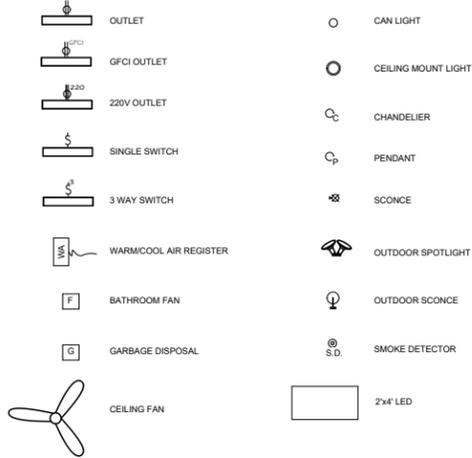
WOODHAVEN RESIDENCE
Martin Residence

MARK:	DATE:	DESCRIPTION:

PROJECT #
DESIGNED BY:
DRAWN BY:
CHECKED BY:
ISSUED

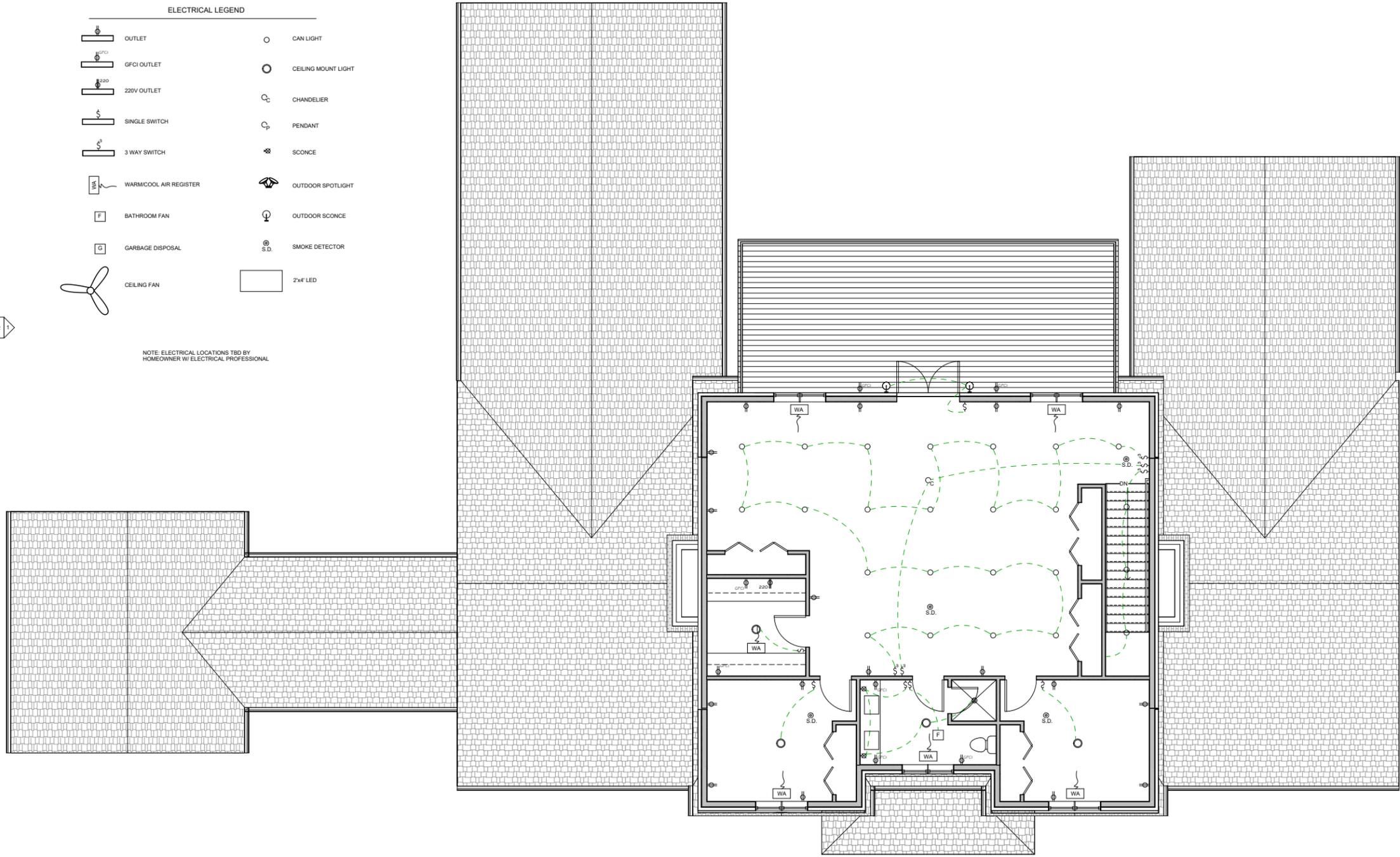
E
D
C
B
A

ELECTRICAL LEGEND



A202

NOTE: ELECTRICAL LOCATIONS TBD BY HOMEOWNER W/ ELECTRICAL PROFESSIONAL



1 Second Floor Electrical
EM101 1/4" = 1'-0"

WOODHAVEN RESIDENCE

Martin Residence
3020 Woodhaven Rd., Charlotte, North Carolina 28211

MARK:	DATE:	DESCRIPTION:

PROJECT #
DESIGNED BY:
DRAWN BY:
CHECKED BY:
ISSUED

Upper Floor
Electrical
Plan

EM101

DESIGNER MORIAH N. MARTIN
PHONE NUMBER 435.994.8138
EMAIL moriahmartin.design@gmail.com

RES-CHECK



Generated by REScheck-Web Software
Compliance Certificate

Project Woodhaven Residence

Energy Code: **2021 IECC**
 Location: **Charlotte, North Carolina**
 Construction Type: **Single-family**
 Project Type: **New Construction**
 Orientation: **Bldg. faces 180 deg. from North**
 Conditioned Floor Area: **5,503 ft2**
 Glazing Area: **9%**
 Climate Zone: **3 (3341 HDD)**
 Permit Date:
 Permit Number:
 All Electric: **false**
 Is Renewable: **false**
 Has Charger: **false**
 Has Battery: **false**
 Has Heat Pump: **false**

Construction Site:
 2030 Woodhaven Road
 Charlotte, North Carolina 28211

Owner/Agent:

Designer/Contractor:

Compliance: Passes using UA trade-off

Compliance: **0.5% Better Than Code** Maximum UA: **767** Your UA: **763** Maximum SHGC: **0.25** Your SHGC: **0.20**

The % Better or Worse Than Code Index reflects how close to compliance the house is based on code trade-off rules. It DOES NOT provide an estimate of energy use or cost relative to a minimum-code home.

Slab-on-grade tradeoffs are no longer considered in the UA or performance compliance path in REScheck. Each slab-on-grade assembly in the specified climate zone must meet the minimum energy code insulation R-value and depth requirements.

Envelope Assemblies

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Prop. U-Factor	Req. U-Factor	Prop. UA	Req. UA
Ceiling 1: Flat Ceiling or Scissor Truss	2,381	50.0	0.0	0.026	0.026	62	62
Ceiling 2: Flat Ceiling or Scissor Truss	1,561	50.0	0.0	0.026	0.026	41	41
Wall 1: Wood Frame, 16" o.c. Orientation: Front	293	21.0	0.0	0.057	0.060	14	15
Window Type 1: Wood Frame SHGC: 0.20 Orientation: Front	15			0.240	0.300	4	5
Window Type 1: Wood Frame SHGC: 0.20 Orientation: Front	15			0.240	0.300	4	5
Window Type: Wood Frame SHGC: 0.20 Orientation: Front	15			0.240	0.300	4	5

Project Title: Woodhaven Residence
 Data filename:

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Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Prop. U-Factor	Req. U-Factor	Prop. UA	Req. UA
Wall 2: Wood Frame, 16" o.c. Orientation: Right side	220	21.0	0.0	0.057	0.060	11	12
Door Type 2: Solid Door (under 50% glazing) Orientation: Right side	21			0.440	0.300	9	6
Wall 3: Wood Frame, 16" o.c. Orientation: Back	293	21.0	0.0	0.057	0.060	15	16
Window Type 1: Wood Frame SHGC: 0.20 Orientation: Back	15			0.240	0.300	4	5
Window Type 1: Wood Frame SHGC: 0.20 Orientation: Back	15			0.240	0.300	4	5
Wall 4: Wood Frame, 16" o.c. Orientation: Left side	220	21.0	0.0	0.057	0.060	13	13
Wall 5: Wood Frame, 16" o.c. Orientation: Front	240	21.0	0.0	0.057	0.060	12	13
Window Type 1: Wood Frame SHGC: 0.20 Orientation: Front	15			0.240	0.300	4	5
Window Type 1: Wood Frame SHGC: 0.20 Orientation: Front	15			0.240	0.300	4	5
Wall 6: Wood Frame, 16" o.c. Orientation: Left side	80	21.0	0.0	0.057	0.060	5	5
Wall 7: Wood Frame, 16" o.c. Orientation: Front	380	21.0	0.0	0.057	0.060	17	18
Window Type 2: Wood Frame SHGC: 0.20 Orientation: Front	30			0.240	0.300	7	9
Window Type 3: Wood Frame SHGC: 0.20 Orientation: Front	45			0.240	0.300	11	14
Wall 8: Wood Frame, 16" o.c. Orientation: Right side	80	21.0	0.0	0.057	0.060	5	5
Wall 9: Wood Frame, 16" o.c. Orientation: Front	270	21.0	0.0	0.057	0.060	12	13
Door Type 1: Solid Door (under 50% glazing) Orientation: Front	40			0.440	0.300	18	12
Window Type 4: Wood Frame SHGC: 0.20 Orientation: Front	15			0.250	0.300	4	5
Wall 10: Wood Frame, 16" o.c. Orientation: Left side	80	21.0	0.0	0.057	0.060	5	5
Wall 11: Wood Frame, 16" o.c. Orientation: Front	380	21.0	0.0	0.057	0.060	17	18
Window Type 2: Wood Frame SHGC: 0.20 Orientation: Front	30			0.240	0.300	7	9
Window Type 3: Wood Frame SHGC: 0.20 Orientation: Front	45			0.240	0.300	11	14
Wall 12: Wood Frame, 16" o.c. Orientation: Right side	80	21.0	0.0	0.057	0.060	5	5
Wall 13: Wood Frame, 16" o.c. Orientation: Front	240	21.0	0.0	0.057	0.060	12	13
Window Type 1: Wood Frame SHGC: 0.20 Orientation: Front	15			0.240	0.300	4	5

Project Title: Woodhaven Residence
Data filename:

Report date: 10/09/24
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Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Prop. U-Factor	Req. U-Factor	Prop. UA	Req. UA
Window Type 1: Wood Frame SHGC: 0.20 Orientation: Front	15			0.240	0.300	4	5
Wall 14: Wood Frame, 16" o.c. Orientation: Right side	943	21.0	0.0	0.057	0.060	49	52
Window Type 1: Wood Frame SHGC: 0.20 Orientation: Right side	15			0.240	0.300	4	5
Window Type 1: Wood Frame SHGC: 0.20 Orientation: Right side	15			0.240	0.300	4	5
Window Type 2: Wood Frame SHGC: 0.20 Orientation: Right side	30			0.240	0.300	7	9
Window Type 4: Wood Frame SHGC: 0.20 Orientation: Right side	15			0.240	0.300	4	5
Wall 15: Wood Frame, 16" o.c. Orientation: Back	240	21.0	0.0	0.057	0.060	12	13
Window Type 1: Wood Frame SHGC: 0.20 Orientation: Back	15			0.240	0.300	4	5
Window Type 1: Wood Frame SHGC: 0.20 Orientation: Back	15			0.240	0.300	4	5
Wall 16: Wood Frame, 16" o.c. Orientation: Left side	228	21.0	0.0	0.057	0.060	12	12
Door Type 2: Solid Door (under 50% glazing) Orientation: Left side	21			0.440	0.300	9	6
Wall 17: Wood Frame, 16" o.c. Orientation: Back	958	21.0	0.0	0.057	0.060	43	46
Door Type 3: Solid Door (under 50% glazing) Orientation: Back	51			0.460	0.300	23	15
Window Type 5: Wood Frame SHGC: 0.20 Orientation: Back	8			0.240	0.300	2	3
Window Type 2: Wood Frame SHGC: 0.20 Orientation: Back	30			0.240	0.300	7	9
Window Type 2: Wood Frame SHGC: 0.20 Orientation: Back	30			0.240	0.300	7	9
Window Type 2: Wood Frame SHGC: 0.20 Orientation: Back	30			0.240	0.300	7	9
Window Type 2: Wood Frame SHGC: 0.20 Orientation: Back	30			0.240	0.300	7	9
Window Type 5: Wood Frame SHGC: 0.20 Orientation: Back	8			0.240	0.300	2	3
Window Type 5: Wood Frame SHGC: 0.20 Orientation: Back	8			0.240	0.300	2	3
Wall 18: Wood Frame, 16" o.c. Orientation: Right side	374	21.0	0.0	0.057	0.060	16	17
Door Type 2: Solid Door (under 50% glazing) Orientation: Right side	21			0.440	0.300	9	6
Door Type 2: Solid Door (under 50% glazing) Orientation: Right side	21			0.440	0.300	9	6

Project Title: Woodhaven Residence
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Inspection Checklist

Energy Code: 2021 IECC

Requirements: 98.0% were addressed directly in the REScheck software

Text in the "Comments/Assumptions" column is provided by the user in the REScheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Pre-Inspection/Plan Review	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
103.1, 103.2 [PR1] ¹ 	Construction drawings and documentation demonstrate energy code compliance for the building envelope. Thermal envelope and energy compliance path represented on construction documents.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
103.1, 103.2, 403.8 [PR3] ¹ 	Construction drawings and documentation demonstrate energy code compliance for lighting and mechanical systems. Systems serving multiple dwelling units must demonstrate compliance with the IECC Commercial Provisions.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
302.1, 403.7 [PR2] ² 	Heating and cooling equipment is sized per ACCA Manual S based on loads calculated per ACCA Manual J or other methods approved by the code official.	Heating: Btu/hr _____ Cooling: Btu/hr _____	Heating: Btu/hr _____ Cooling: Btu/hr _____	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1 High Impact (Tier 1)	2 Medium Impact (Tier 2)	3 Low Impact (Tier 3)
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Project Title: Woodhaven Residence
Data filename:

Report date: 10/09/24
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Section # & Req.ID	Foundation Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
402.1.2 [FO1] ¹	Slab edge insulation R-value.	R-____ <input type="checkbox"/> Unheated <input type="checkbox"/> Heated	R-____ <input type="checkbox"/> Unheated <input type="checkbox"/> Heated	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values.
303.2, 402.2.10 [FO2] ¹	Slab edge insulation installed per manufacturer's instructions.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
402.1.2 [FO3] ¹	Slab edge insulation depth/length.	____ ft	____ ft	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values.
303.2.1 [FO11] ²	A protective covering is installed to protect exposed exterior insulation and extends a minimum of 6 in. below grade.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
403.9 [FO12] ²	Snow and ice-melting system controls installed to shut off system when pavement temperature > 50F and no precipitation.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Project Title: Woodhaven Residence
Data filename:

Report date: 10/09/24
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Section # & Req.ID	Framing / Rough-In Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
402.1, 402.3.4 [FR1] ¹	Door U-factor.	U-____	U-____	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values.
402.1, 402.3.1, 402.3.3, 402.5 [FR2] ¹	Glazing U-factor (area-weighted average).	U-____	U-____	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values.
402.1, 402.3.2, 402.3.3, 402.5 [FR3] ¹	Glazing SHGC value (area-weighted average).	SHGC: ____	SHGC: ____	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values.
303.1.3 [FR4] ¹	U-factors of fenestration products are determined in accordance with the NFRC test procedure or taken from the default table.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
402.4.1.1 [FR23] ¹	Air barrier and thermal barrier installed per manufacturer's instructions.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
402.4.3 [FR20] ¹	Fenestration that is not site built is listed and labeled as meeting AAMA /WDMA/CSA 101/I.S.2/A440 or has infiltration rates per NFRC 400 that do not exceed code limits.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
402.4.5 [FR16] ²	IC-rated recessed lighting fixtures sealed at housing/interior finish and labeled to indicate ≤2.0 cfm leakage at 75 Pa.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
403.3.1 [FR12] ¹	Supply and return ducts in attics insulated ≥ R-8 where duct is ≥ 3 inches in diameter and ≥ R-6 where < 3 inches.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
403.3.4 [FR13] ¹	Ducts, air handlers and filter boxes are sealed with joints/seams compliant with International Mechanical Code or International Residential Code, as applicable.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
403.3.7 [FR15] ³	Building cavities are not used as ducts or plenums.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Project Title: Woodhaven Residence
Data filename:

Report date: 10/09/24
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Section # & Req.ID	Framing / Rough-In Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
403.3.2 [FR28] ³	Ducts declared to be within the conditioned space are either 1) completely within the continuous air barrier and within the building thermal envelope, 2) buried within ceiling insulation in accordance with Section R403.3.6 and the air handler is located completely within the continuous air barrier and within the building thermal envelope and the duct leakage is ≤ 1.5 cfm / 100 square feet of conditioned floor area served by the duct system, or 3) the ceiling insulation R-value installed against and above the insulated duct \geq to the proposed ceiling insulation R-value, less the R-value of the insulation on the			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
403.4 [FR17] ²	HVAC piping conveying fluids above 105 °F or chilled fluids below 55 °F are insulated to $\geq R-3$.	R-____	R-____	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
403.4.1 [FR24] ¹	Protection of insulation on HVAC piping.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
402.4.6 [FR29] ³	Electrical and communication boxes installed in the thermal boundary of the envelope sealed to limit air leakage between conditioned and unconditioned spaces.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
403.5.2 [FR18] ²	Hot water pipes are insulated to $\geq R-3$.	R-____	R-____	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
403.6 [FR19] ²	Automatic or gravity dampers are installed on all outdoor air intakes and exhausts for mechanical ventilation systems.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
403.6.1 [FR30] ²	Ventilation systems in climate zones 7 & 8 shall utilize heat or energy recovery			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Project Title: Woodhaven Residence
 Data filename:

Report date: 10/09/24
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Section # & Req.ID	Insulation Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
303.1 [IN13] ²	All installed insulation is labeled or the installed R-values provided.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
402.1, 402.2.5, 402.2.6 [IN3] ¹	Wall insulation R-value. If this is a mass wall with at least ½ of the wall insulation on the wall exterior, the exterior insulation requirement applies (FR10).	R-_____ <input type="checkbox"/> Wood <input type="checkbox"/> Mass <input type="checkbox"/> Steel	R-_____ <input type="checkbox"/> Wood <input type="checkbox"/> Mass <input type="checkbox"/> Steel	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values.
303.2 [IN4] ¹	Wall insulation is installed per manufacturer's instructions.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Project Title: Woodhaven Residence
 Data filename:

Report date: 10/09/24
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Section # & Req.ID	Final Inspection Provisions	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
402.1, 402.2.1, 402.2.2, 402.2.6 [F11] ¹	Ceiling insulation R-value.	R-____ <input type="checkbox"/> Wood <input type="checkbox"/> Steel	R-____ <input type="checkbox"/> Wood <input type="checkbox"/> Steel	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values.
303.1.1.1, 303.2 [F12] ¹	Ceiling insulation installed per manufacturer's instructions. Blown insulation marked every 300 ft ² .			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
402.2.3 [F122] ²	Vented attics with air permeable insulation include baffle adjacent to soffit and eave vents that extends over insulation.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
402.2.4 [F13] ¹	Attic access hatch and door insulation ≥R-value of the adjacent assembly.	R-____	R-____	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
402.4.1.3 [F17] ¹	Blower door test @ 50 Pa. ≤5.0 ach in Climate Zones 1-2, and ≤3.0 ach in Climate Zones 3-8.	ACH 50 = ____	ACH 50 = ____	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
403.3.5 [F127] ¹	Ducts are pressure tested in accordance with ANEI/RESNET/ICC 380 or ASTM E1554 to determine air leakage with either: Rough-in test: Total leakage measured with a pressure differential of 0.1 inch w.g. across the system including the manufacturer's air handler enclosure if installed at time of test. Postconstruction test: Total leakage measured with a pressure differential of 0.1 inch w.g. across the entire system including the manufacturer's air handler enclosure.	____ cfm/100 ft ²	____ cfm/100 ft ²	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
403.3.6 [F14] ¹	Duct tightness test result of ≤4 cfm/100 ft ² across the system or ≤3 cfm/100 ft ² without air handler @ 25 Pa. Duct tightness ≤ 8 cfm/100 ft ² for ducts within thermal envelope. For rough-in tests, verification may need to occur during Framing Inspection.	____ cfm/100 ft ²	____ cfm/100 ft ²	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
403.3.4.1 [F124] ¹	Air handler leakage designated by manufacturer at ≤2% of design air flow.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
403.1.1 [F19] ²	Programmable thermostats installed for control of primary heating and cooling systems and initially set by manufacturer to code specifications.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
403.5.1 [F111] ²	Circulating service hot water systems have automatic or accessible manual controls.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Project Title: Woodhaven Residence
Data filename:

Report date: 10/09/24
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Section # & Req.ID	Final Inspection Provisions	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
403.2 [FI26] ²	Hot water boilers supplying heat through one- or two-pipe heating systems have automatic outdoor setback control to lower boiler water temperature based on outdoor temperature, indoor temperature or water temperature sensing.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
403.5.1.1 [FI28] ²	Heated water circulation systems have a circulation pump. The system return pipe is a dedicated return pipe or a cold water supply pipe. Gravity and thermosyphon circulation systems are not present. Controls for circulating hot water system pumps start the pump with signal for hot water demand within the occupancy. Controls automatically turn off the pump when water is in circulation loop is at set-point temperature and no demand for hot water exists.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
403.5.1.2 [FI29] ²	Electric heat trace systems comply with IEEE 515.1 or UL 515. Controls automatically adjust the energy input to the heat tracing to maintain the desired water temperature in the piping.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
403.5.3 [FI31] ²	Drain water heat recovery units tested in accordance with CSA B55.1. Potable water-side pressure loss of drain water heat recovery units < 3 psi for individual units connected to one or two showers. Potable water-side pressure loss of drain water heat recovery units < 2 psi for individual units connected to three or more showers.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
403.6.2 [FI25] ²	All mechanical ventilation system fans not part of tested and listed HVAC equipment meet efficacy and air flow limits per Table R403.6.2.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
403.10.1 [FI12] ³	Readily accessible switch on heaters for swimming pools or permanent in-ground spas. Switch operation does not change heater thermostat setting. Heater circuit breaker is installed independent of switch. Gas-fired heaters equipped with ignition pilots that are not continuously burning pilots.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
403.6.3 [FI33] ²	Mechanical ventilation systems tested and verified to meet the minimum flow rates required by Section R403.6.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
403.10.2 [FI19] ³	Timer switches or other automatic preset schedule control method are installed on heaters and pumps serving pools and permanent spas.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.

1 High Impact (Tier 1)
 2 Medium Impact (Tier 2)
 3 Low Impact (Tier 3)

Project Title: Woodhaven Residence
 Data filename:

Report date: 10/09/24
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Section # & Req.ID	Final Inspection Provisions	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
403.5.1.1.1 [FI32] ²	Demand recirculation water systems have automatic controls to start pump when hot water is requested.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
403.10.3 [FI20] ³	Outdoor heated pools and outdoor permanent spas have a vapor retardant cover.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
403.11 [FI34] ³	Electric powered portable spas controlled by APSP 14 requirements			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
404.1 [FI6] ¹	100% of permanent fixtures have high efficacy lamps.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
404.1.2 [FI23] ³	Fuel gas lighting systems have no continuous pilot light.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
404.1.1 [FI35] ³	Exterior lighting for multifamily buildings shall comply with Section C405.4.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
404.2 [FI36] ³	Permanent interior lighting shall be controlled with either a dimmer, occupancy sensor or other control built into the fixture.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
404.3 [FI37] ³	Exterior lighting \geq 30 watts shall have the following controls: manual on/off switch with automatic shut-off, automatic shut-off in daylight hours, and controls that override automatic shutoff that returns to automatic control within 24 hours.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
401.3 [FI7] ²	Compliance certificate posted with building specifications and compliance path and results.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
303.3 [FI18] ³	Manufacturer manuals for mechanical and water heating systems have been provided.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
408.2.4 [FI41] ³	More Efficient Duct Distribution: 100% of ducts in within building thermal envelope or 100% ductless systems or hydronic systems.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Project Title: Woodhaven Residence
Data filename:

Report date: 10/09/24
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2021 IECC Energy Efficiency Certificate

Insulation Rating	R-Value
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Above-Grade Wall	21.00
Below-Grade Wall	0.00
Floor	16.00
Ceiling / Roof	50.00
Ductwork (unconditioned spaces):	_____

Glass & Door Rating	U-Factor	SHGC
---------------------	----------	------

Window	0.24	0.20
Door	0.44	

Heating & Cooling Equipment	Efficiency
-----------------------------	------------

Heating System: _____	_____
Cooling System: _____	_____
Water Heater: _____	_____

Name: _____ Date: _____

Comments

NEW HORIZONS

New Horizons is a Pre-K daycare dedicated to providing an inclusive, nurturing, and enriching environment that supports early childhood development while ensuring accessibility for families of all financial backgrounds. Designed with a warm, nature-inspired aesthetic and a soft, inviting color palette, the space fosters a bright and welcoming atmosphere where children can thrive.

PROJECT BRIEF

PROJECT TYPE

COMMERCIAL

LOCATION

LOGAN, UTAH

SQUARE FOOTAGE

9,520

CAPSTONE FULFILLMENTS

SPECIALIST INTERVIEW

SPACE PLANNING

WAYFINDING

LIGHT & COLOR IMPACT ON HEALTH

EVIDENCE-BASED DESIGN

ECONOMIC DIVERSITY

INCLUSIVE DESIGN

THERMAL COMFORT PLAN

COMCHECK

MASTER FORMAT

SPECIALIST INTERVIEW

1. Restrooms and Facilities

- Classroom Bathrooms: Each classroom had one toilet and one sink. For younger children, shorter toilets were equipped with snap-on seats to accommodate smaller children.
- Infant Room: No bathroom within the infant room.
- Staff Facilities: Employee bathroom located at the front of the building, with offices and a storage room also in the front area.

2. Interior Design and Furnishings

- Color and Atmosphere: Walls were primarily white, creating a boring and bleak environment. The specialist recommended adding color to the space to make it feel more welcoming, though not overly bright.
- Classroom Flooring: Thin carpet over concrete in most areas, chosen for ease of cleaning but lacked softness, making falls uncomfortable for children.
- Hard-Floor Spaces: Art room, gym, kitchen, and restrooms had hard flooring for easy maintenance.
- Bathroom Flooring: Avoid tile with grout due to cleanliness concerns.
- Lighting: All lights had dimmers, allowing flexible brightness control.
- Doors and Security: All doors had baby gates, and doors to classrooms lacked windows.
- Exterior doors leading to the playground locked automatically for safety.
- Fingerprint-secured entry past the lobby.

3. Spatial Layout and Navigation

- Building Shape: The daycare was designed in a circular layout, making navigation easy and facilitating staff movement and supervision.
- Central Rooms: Infant rooms and rooms for 4-5-year-olds were centrally located, making them more accessible.
- Room Rotation and Variety: To prevent monotony and reduce stress from rigid routines, children rotated between classrooms, the gym, art room, library, and outdoor spaces. This setup helped provide a change of scenery and engaged the children throughout the day.
- Outdoor Area: Outdoor space included a playhouse, sandbox, and drinking fountain.
- The area had turf for easy maintenance, was fenced for safety, and had a door leading from the gym for easy access.

4. Additional Rooms and Equipment

- Shared Spaces: Besides classrooms, the facility included a gym, library, and art room, providing options for varied activities throughout the day.
- Laundry and Storage: Washing machine near the kitchen for items like sheets for mats.
- Each classroom had a dedicated storage closet for items not meant to be easily accessible.
- Extra clothing donations were available for children in case of accidents.

5. Daily Routines and Grouping by Age

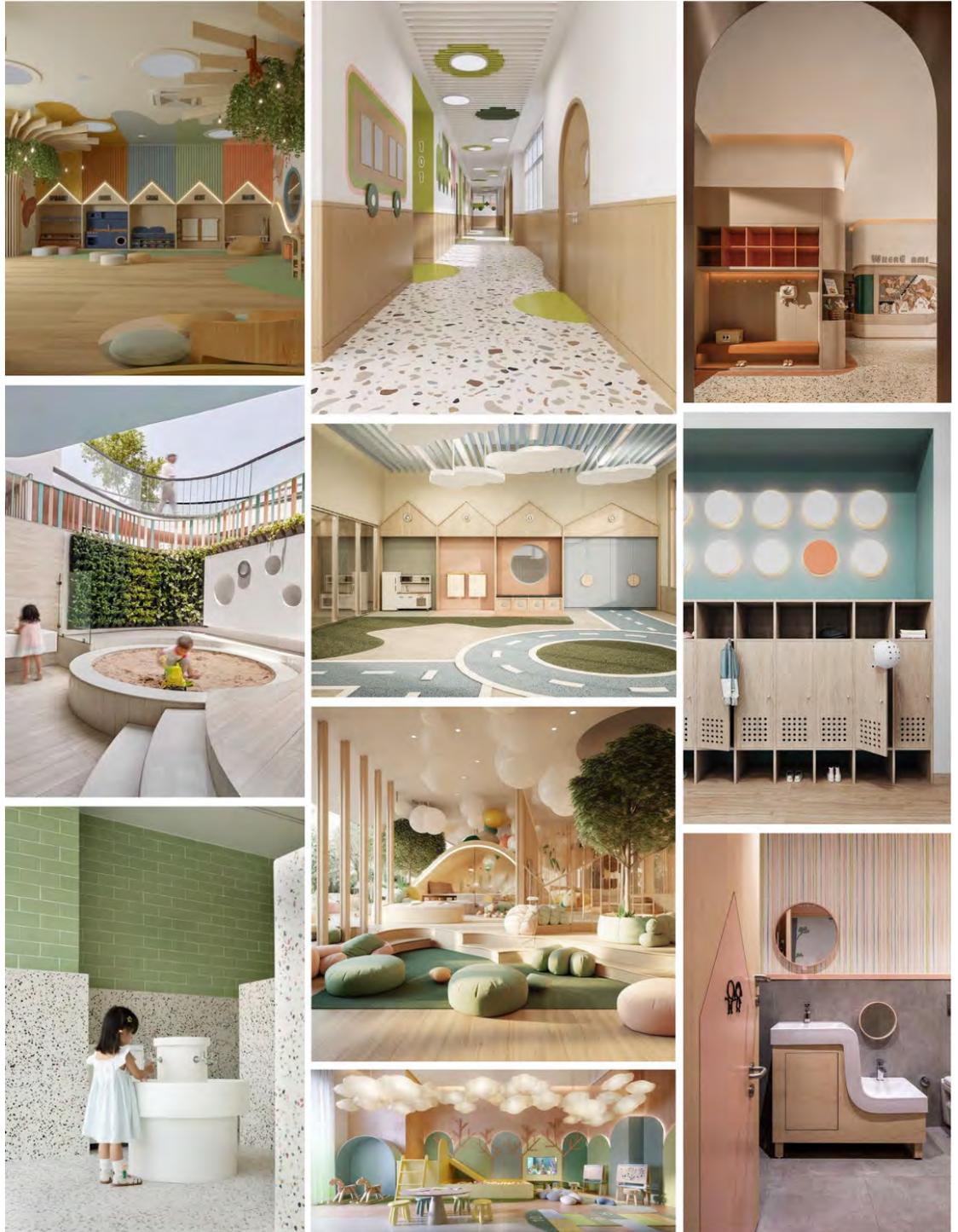
- Infant Rooms: Three infant rooms, each with a 1:4 adult-to-baby ratio, included play areas, rocking chairs, kitchenettes, toy storage, a couple of bouncers, and a swing.
- Infants required constant attention, making smaller group sizes essential.
- Toddlers (2-3 years): Two classrooms, with 4-5 children per adult. Ideally, splitting classes by smaller age groups (2-2.5 years and 2.5-3 years) would be beneficial due to differing developmental needs.
- Preschoolers (2-5 years): Children aged 2-5 rotated through spaces including the gym, art room, library, and outdoor area.
- Classrooms included toys, bookshelves, and storage. Older preschool rooms (3-4 years) incorporated additional items like a play kitchen and games.
- As children aged, group sizes increased to 6-7 children per teacher per state regulations; however, smaller groups allowed for more individualized attention.

6. General Recommendations and Observations

- Children benefit from structured schedules but need variation to prevent stress and maintain interest.
- Having distinct activity spaces outside of classrooms encouraged physical activity, provided sensory variety, and made long days more engaging.
- Outdoor areas should be spacious and inviting, as they are a favorite part of the day for most children.

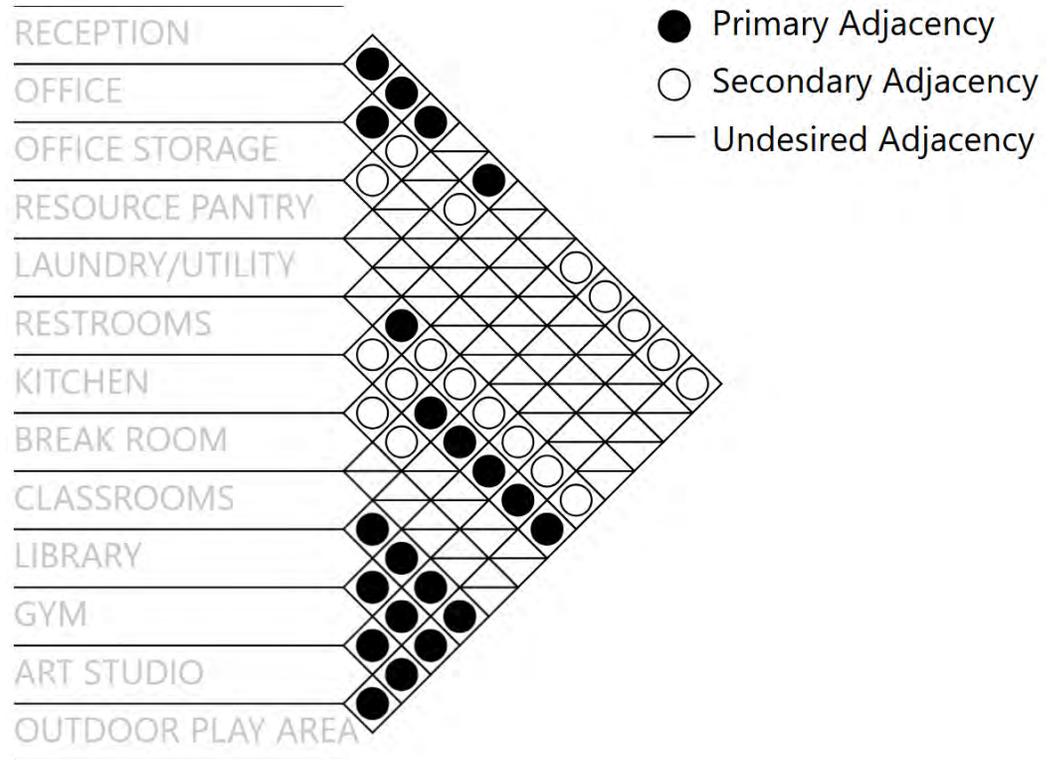
INSPIRATION

light, soft colorful, nature inspired, inviting

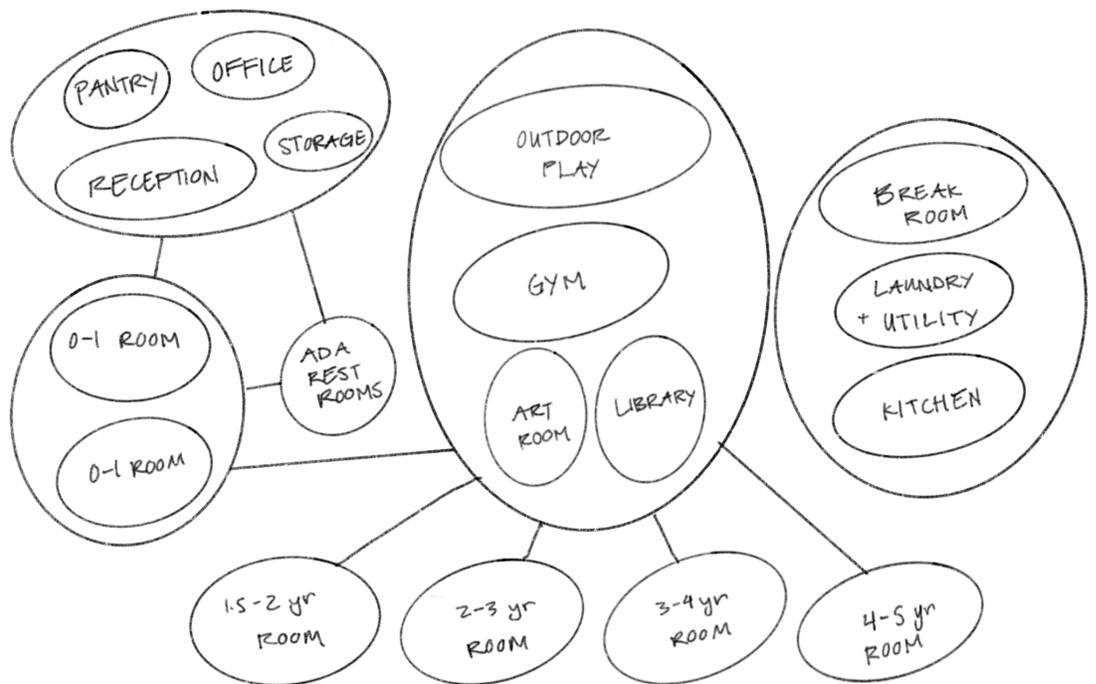


SPACE PLANNING

ADJACENCY MATRIX



BUBBLE DIAGRAM



FLOOR PLAN

The daycare's floor plan is thoughtfully designed to prioritize functionality, safety, and seamless circulation.

A secure reception area, complete with adjacent storage, a resource pantry, and an office space, welcomes families and ensures controlled entry.

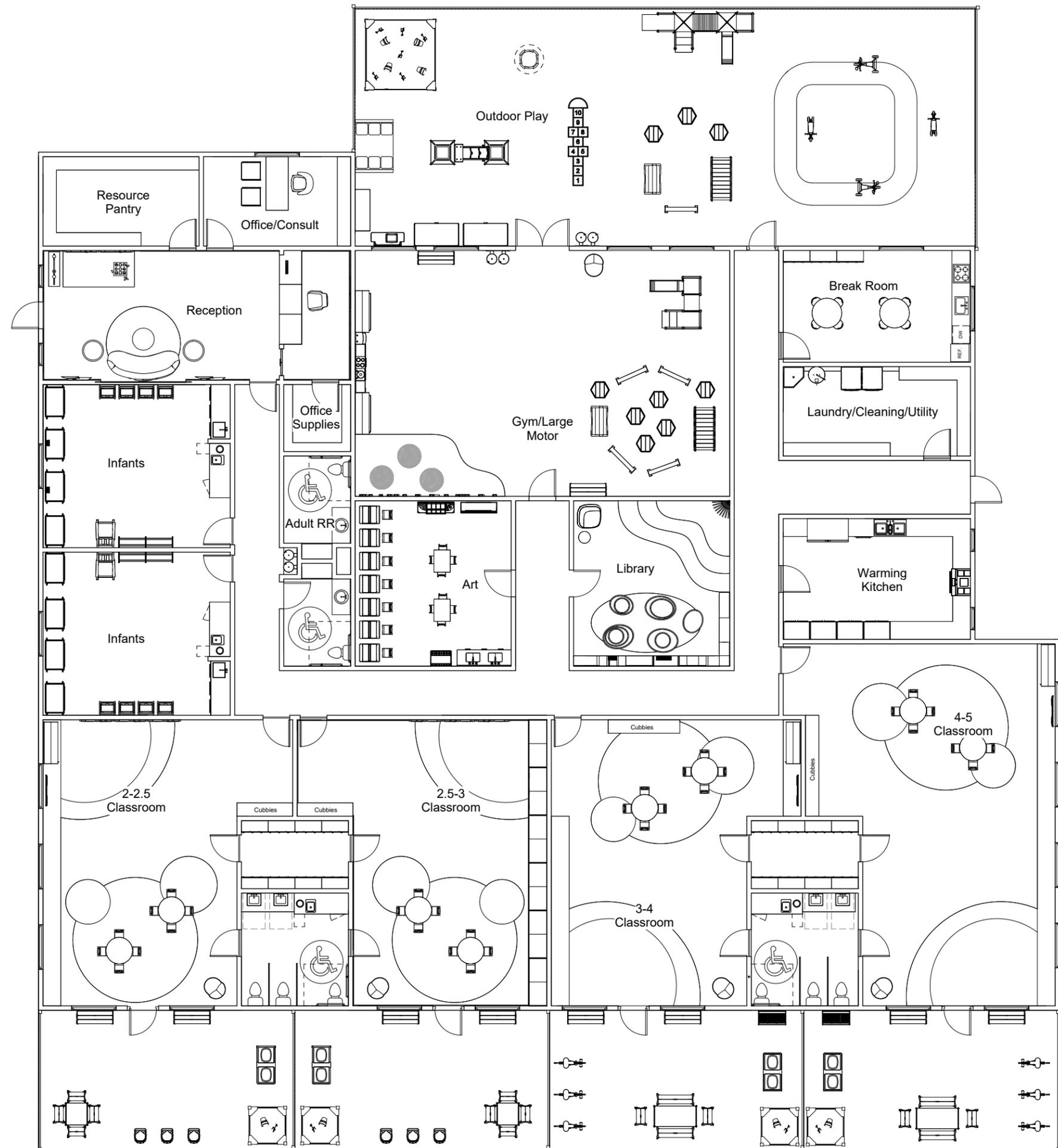
The two infant rooms are equipped with changing stations and a counter that includes a sink and microwave for formula preparation. The main restrooms for the facility are conveniently located near the infant rooms and reception area.

The other classrooms are organized by age group and are designed with shared restrooms and storage spaces between classrooms. Each classroom also has direct access to its own fenced outdoor play space.

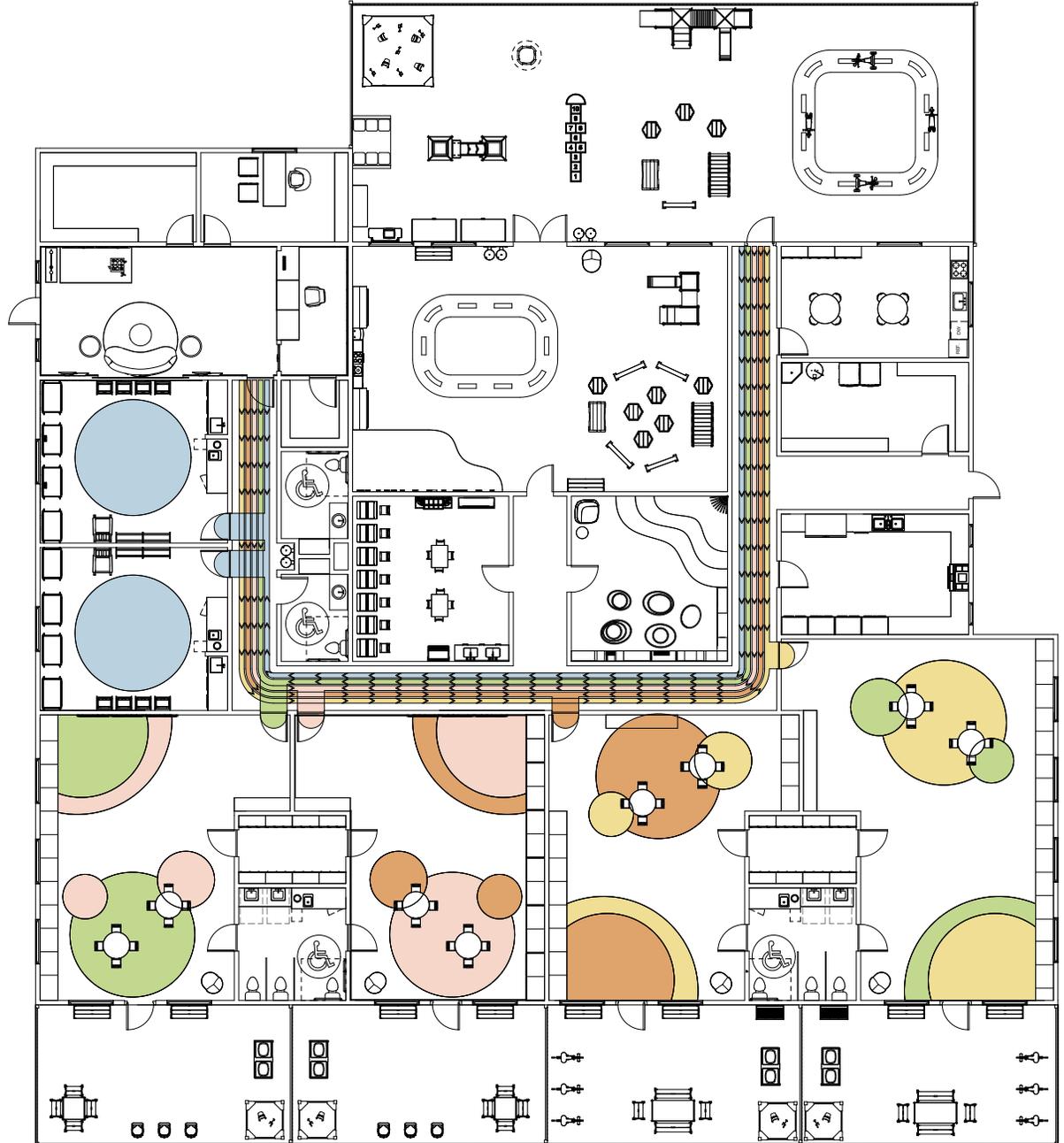
Shared spaces such as the gym, art room, and library are centrally located for easy access and smooth transitioning.

Staff areas are efficiently grouped together, including the break room, laundry/utility/cleaning room, and warming kitchen. A dedicated staff entrance on this side of the building ensures convenience and separation from public areas.

The space planning promotes logical circulation, with wide hallways and carefully planned zoning to minimize disruptions. Every detail contributes to a safe and well-organized environment for both children and staff.



WAYFINDING



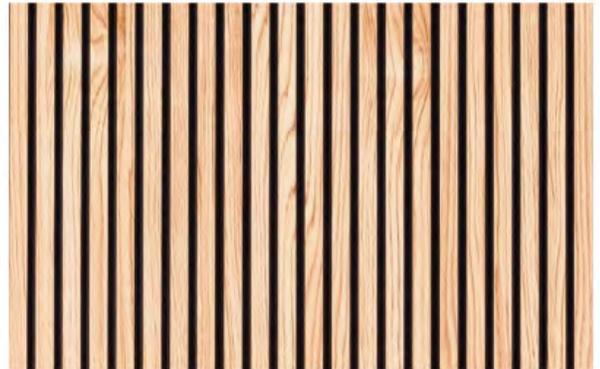
Wayfinding is essential in spatial design, helping occupants navigate using visual and physical cues. In a daycare, where children are still developing spatial awareness, intuitive wayfinding is especially important.

This project uses flooring colors as a functional and engaging wayfinding system. Each classroom is assigned a unique color, creating a strong visual association with its age group. Directional lines on the hallway floor guide children from common areas to their classrooms, reinforcing spatial organization and fostering independence while reducing confusion and the need for verbal instructions. Beyond functionality, this approach makes navigation more interactive and engaging. Children feel a sense of belonging with their classroom colors, while parents and staff benefit from a clear, efficient layout.

By integrating wayfinding into flooring design, this daycare ensures seamless, enjoyable, and developmentally supportive navigation for the children.

RECEPTION

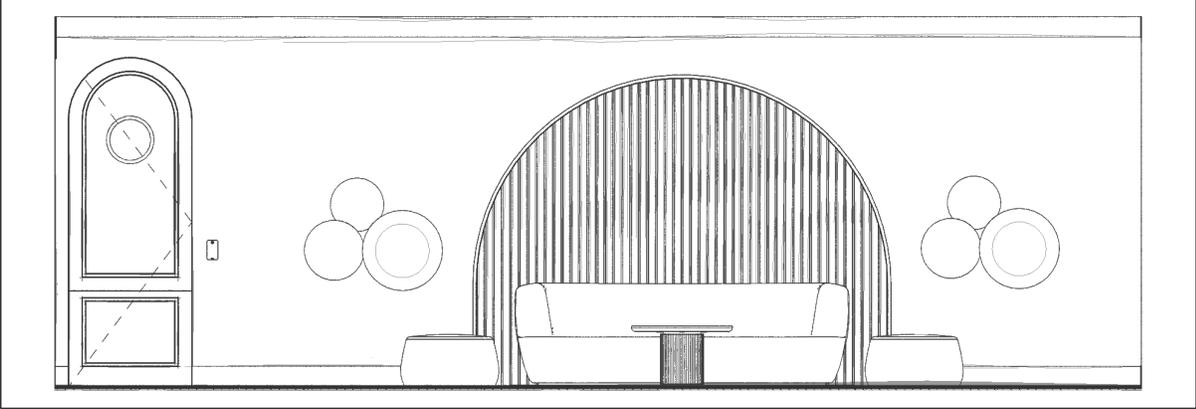
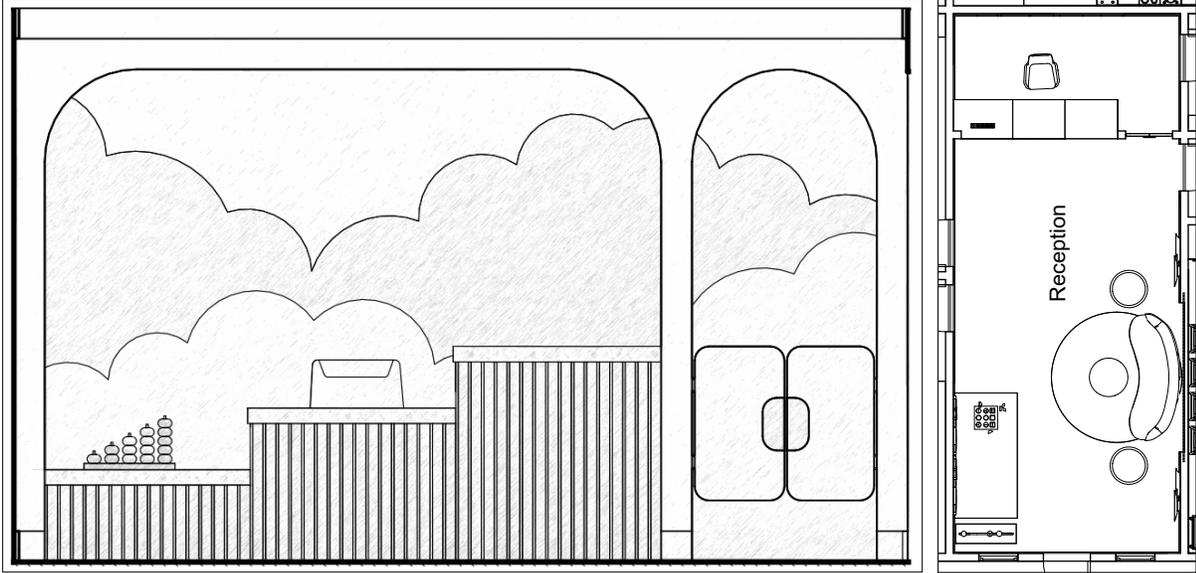
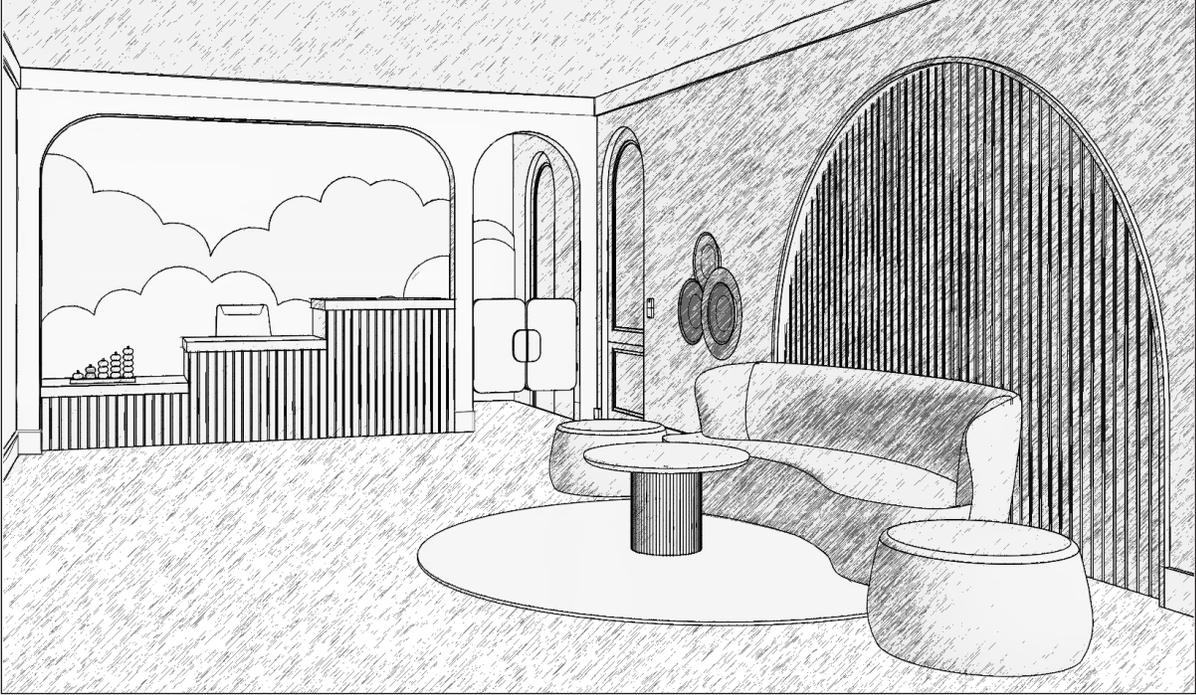
Concept and Materials



The reception area serves as a warm and inviting introduction to the daycare, featuring a comfortable sitting area for parents and a small play zone for children. A multi functional desk accommodates adults, wheelchair users, and children, with a playful toy integrated into the design. Adjacent spaces include a storage room, resource pantry, and private office. Security is ensured with a fingerprint scanner for controlled access. This space combines functionality and friendliness to set the tone for the daycare experience.

RECEPTION

Elevations and Rendering



CLASSROOMS

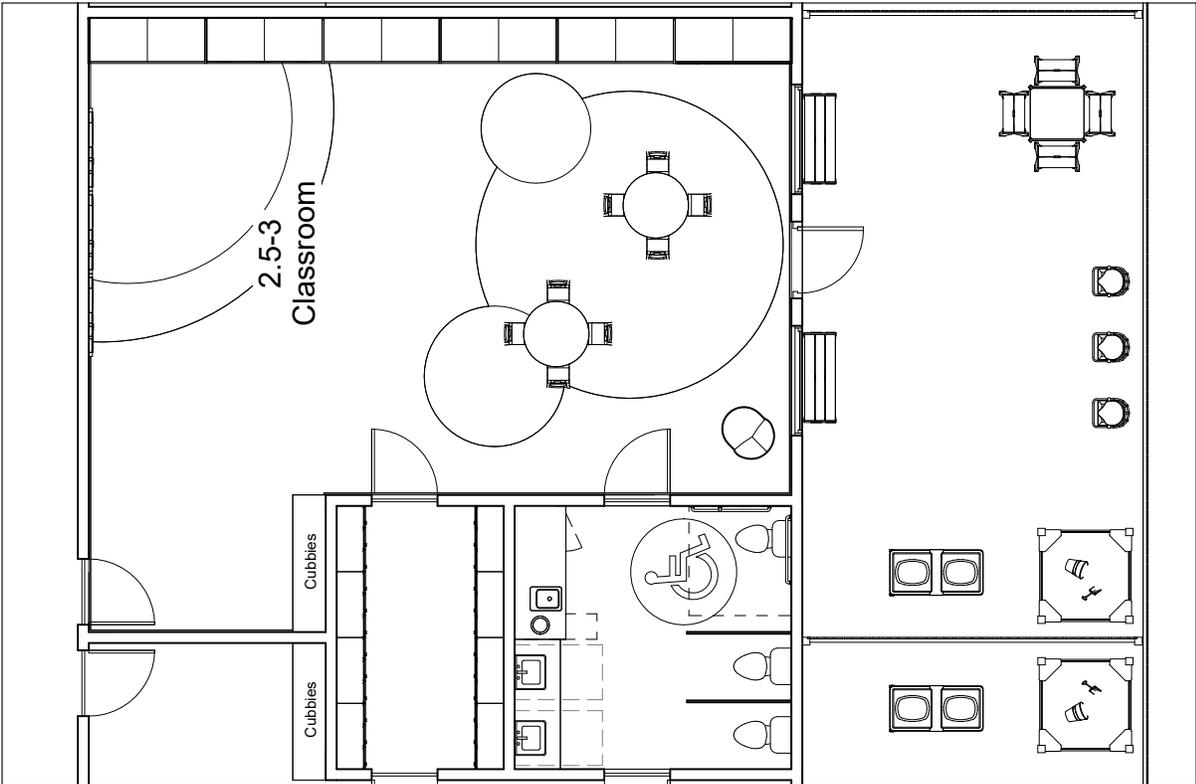
Concept and Materials



The classrooms are designed to cater to the needs of different age groups, creating safe, engaging, and developmentally appropriate spaces. Each room has access to a storage closet and child-friendly restrooms. Large windows provide natural light, while blackout roller shades and dimmable lighting offer flexibility for nap times. The classrooms prioritize comfort, safety, and a stimulating environment for learning and play.

CLASSROOMS

Elevations and Rendering



CLASSROOMS

Concept and Materials



The library is a cozy, quiet space designed to foster a love of reading and exploration. It features comfortable seating, low bookshelves for easy access, and a soft natural color palette to create a calming atmosphere. The library incorporates playful, child-friendly décor built-in elements, making it an inviting, inspiring, and engaging space for learning and imagination.

The overall design concept draws inspiration from nature to create a calming and imaginative environment for children. The blue carpet represents water and is accompanied with green stackable mats that resemble lily pads. Staggered steps lead up to a tree crafted from eco-friendly PET felt, offering a playful focal point. A forest scenery wallpaper continues this theme, along with rounded bookshelves that resemble hills. Overhead, a sky-blue ceiling with hanging cloud pendants completes the outdoor-inspired theme, encouraging a sense of wonder and exploration while fostering a connection to nature.

LIBRARY

Rendering



LIGHT & COLOR IMPACT ON HEALTH, SAFETY, AND WELL-BEING

Light and color significantly influence children’s well-being, affecting sleep, cognition, mood, and overall health. These are fundamental design elements that should never be overlooked. Proper use of light and color can create environments that promote growth, happiness, and well-being.

The qualities of light—brightness, saturation, and hue—play essential roles in shaping children’s emotions and behavior. Bright light amplifies emotions and alertness, while dim lighting supports relaxation and focus. Highly saturated colors heighten energy levels and engagement, whereas muted tones promote calmness. Different hues also affect physiological functions; blue light enhances focus but disrupts sleep if overused, whereas red light encourages melatonin production and relaxation, making it beneficial for rest areas in childcare centers.

Circadian rhythms, which dictate sleep-wake cycles, are regulated by light exposure. Blue light at night suppresses melatonin, leading to sleep disturbances, while warm-colored lighting in the evening supports mental health and restful sleep. Seasonal Affective Disorder (SAD), a form of depression triggered by reduced sunlight exposure, is commonly treated with light therapy, which mimics natural daylight to enhance mood and energy levels. Ensuring that children have access to bright, natural light during the day supports healthy sleep patterns, focus, and emotional well-being.

Color psychology plays a vital role in shaping children’s perception, behavior, and well-being. Warm colors such as red, orange, and yellow evoke energy, enthusiasm, and warmth but can also induce restlessness if overused. Cool colors like blue, green, and purple promote relaxation, concentration, and balance, making them ideal for calming learning environments. Neutral colors, including beige and soft grays, provide a sense of stability and inclusivity. Thoughtfully integrating color into children’s spaces can enhance emotional well-being, encourage productivity, and create a nurturing atmosphere for learning and play.

Lighting also influences spatial perception and atmosphere. Higher light sources create a sense of alertness and structure, while lower lighting fosters intimacy and comfort, essential in early childhood learning settings. In children’s learning environments, lighting and color selection are critical for emotional and cognitive development. Studies suggest that natural tones—such as greens, blues, and earthy hues—reduce anxiety, support concentration, and enhance inclusivity. Flexible seating arrangements with soft colors promote autonomy, collaboration, and engagement, allowing children to feel empowered in their learning environment.

Natural light exposure is particularly crucial for children’s health and cognitive function. Bright light improves mood, prevents circadian rhythm disorders, and supports vitamin D production, which is essential for bone health, cardiovascular function, and cognitive development. Research suggests that brightly lit classrooms enhance reading fluency and mathematical performance, whereas dim indoor lighting can impair memory and learning. Experts recommend maintaining indoor lighting at a minimum of 250 lux and incorporating windows, skylights, and light tunnels to maximize natural light exposure.

Balancing natural and artificial light is key in designing children’s spaces that support well-being. Thoughtful lighting design incorporates daylight-mimicking artificial lights, reflective surfaces, and adjustable lighting options—such as dimmers and task lamps—to accommodate different activities and sensory sensitivities. Warm lighting fosters relaxation, while cool lighting enhances focus and productivity, making it ideal for study areas.

LIGHT & COLOR IMPACT ON HEALTH, SAFETY, AND WELL-BEING CONT.

Beyond ambiance, safety considerations are crucial in lighting design for children's spaces. Minimizing glare, using diffused lighting, and ensuring secure fixture placement enhance visual comfort and reduce risks. Incorporating playful yet functional lighting elements, such as color-changing LED lights or themed fixtures, can further engage children and create an inviting atmosphere. Thoughtful integration of light and color in children's environments fosters emotional well-being, cognitive performance, and overall health, making it a fundamental aspect of designing safe, nurturing, and inspiring spaces for growth and development.

CITATIONS

Dewar, Gwen. "Why Kids Need Daylight to Thrive and Learn: The Benefits of Light." PARENTING SCIENCE, 11 Aug. 2023, parentingscience.com/kids-need-daylight/.

"Enhancing Early Education Classrooms: The Power of Color Theory in Furniture Selection." Children's Factory, 2 July 2024, www.childrensfactory.com/blog/2024/06/17/enhancing-early-education-classrooms-the-power-of-color-theory-in-furniture-selection/.

"The Psychological Impact of Light & Color | TCP Lighting Solutions." TCP, 12 Dec. 2017, www.tcpi.com/psychological-impact-light-color/.

Reed, Megan. "The Importance of Good Lighting in Child-Friendly Spaces." Residence Supply, 8 Dec. 2023, residencesupply.com/blogs/news/the-importance-of-good-lighting-in-child-friendly-spaces?srsId=AfmBOoog40eUywnn-EuX6vsmnalq3ex56MXGN9dpSmWfyl y0HRiWq-P4.

BEHAVIOR THEORY & EVIDENCE BASED DESIGN

Designing a daycare space requires an understanding of child development, behavioral theories, and evidence-based design principles to create an environment that supports learning, well-being, and inclusivity. Developmental psychology provides valuable insights into how children grow and interact with their surroundings, influencing the way spaces should be designed.

One essential aspect of daycare design is ensuring a strong sense of place. Research emphasizes the importance of creating environments that feel familiar and connected to the community, reducing anxiety and promoting engagement. This can be achieved through culturally responsive artwork, historical references, and the use of local materials. Additionally, a well-designed space enhances children's cognitive and emotional well-being by incorporating trauma-informed and universally designed elements, ensuring safety and comfort.

Behavioral theories further support the importance of environmental influence on child development. For example, B.F. Skinner's operant conditioning theory suggests that behavior is shaped through reinforcement, meaning that structured, organized spaces can encourage positive behaviors. Similarly, Bandura's social learning theory highlights how children learn through observation and imitation, reinforcing the need for thoughtfully designed spaces that promote constructive interactions. Bowlby's attachment theory also underscores the importance of creating secure and nurturing environments where children feel safe to explore and develop relationships.

Sensory considerations play a crucial role in daycare design, as different children have varying sensitivities to light, color, and texture. Implementing adaptable lighting, flexible seating, and designated creative areas helps accommodate diverse learning styles. Moreover, evidence-based design principles suggest that a balance between stimulation and calmness fosters an optimal learning environment.

Finally, versatility in design allows spaces to serve multiple functions and evolve with children's needs. Adaptable furniture, technology integration, and accessible design ensure that the daycare remains functional and engaging. By applying developmental psychology and evidence-based design principles, a daycare can become a nurturing, inclusive, and stimulating environment that supports children's growth, behavior, and overall well-being.

CITATIONS

Haugland, Randi. "An Interiors Approach to Designing Spaces for Children." Scott Edwards Architecture, Scott Edwards Architecture, 13 Nov. 2024, www.seallp.com/news-collection/an-interiors-approach-to-designing-spaces-for-children#:~:text=This%20concept%20is%20particularly%20salient,that%20facilitates%20learning%20and%20growth.

Kendra Cherry, MEd. "The 7 Most Influential Child Developmental Theories." Verywell Mind, Verywell Mind, 27 Jan. 2025, www.verywellmind.com/child-development-theories-2795068#:~:text=Behavioral%20Child%20Development%20Theories&text=According%20to%20the%20behavioral%20perspective,processes%20of%20association%20and%20reinforcement.

Oruncak, Eryn. "The Impact of Interior Design and Childhood Development." Elan, elan, 1 Oct. 2024, www.elan.design/post/the-impact-of-interior-design-and-childhood-development.

ECONOMIC DIVERSITY & INCLUSIVITY

This daycare is designed to promote social justice and economic diversity by prioritizing accessibility, inclusivity, and community support. Affordability is a key focus, with a sliding scale tuition model and subsidized slots in partnership with Head Start, ensuring that children from low-income families have access to quality care. Flexible hours accommodate parents with non-traditional or unpredictable work schedules, making childcare more accessible for working families. To go along with this, New Horizons offers childcare to all ages 0-5 years old in order to accommodate any families needs.

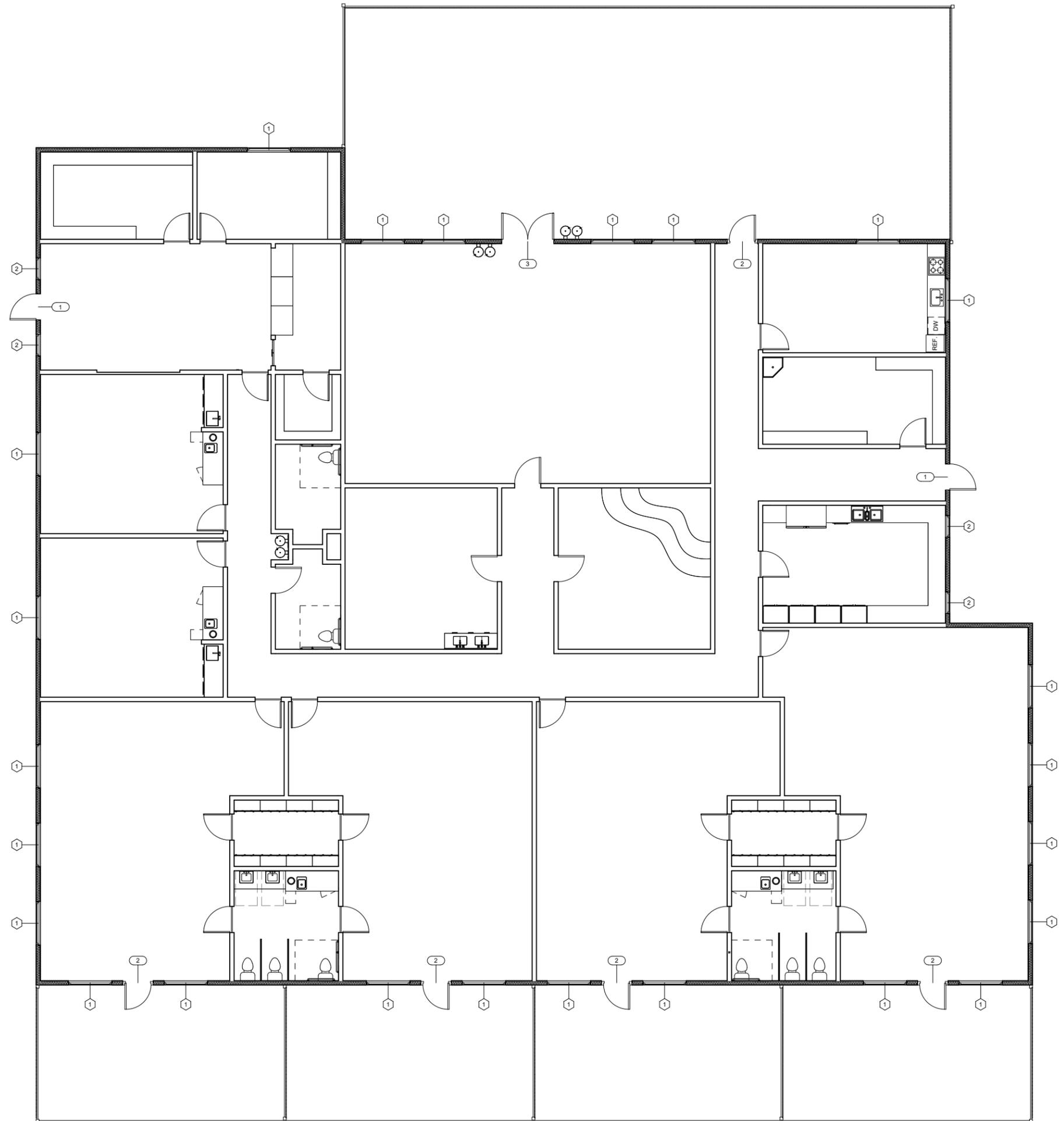
The facility itself embraces universal design principles, featuring wide doorways, ramps, and sensory-friendly spaces to support children and caregivers with disabilities. Learning environments are intentionally designed to be adaptable, with multi-use spaces that accommodate diverse learning styles and neurodiverse needs. Outdoor areas incorporate nature-inspired, low-cost play spaces made from donated materials, fostering creativity and exploration.

To address food security, an on-site kitchen provides nutritious meals for all children. Additionally, the daycare strengthens community connections by partnering with local nonprofits, libraries, and advocacy groups to offer parent workshops, legal aid, and free resources. A dedicated resource pantry near the reception area provides families in need with access to donated essentials such as food, clothing, and basic necessities.

Through these thoughtful design and programming choices, the daycare creates an equitable, welcoming environment that uplifts families, supports economic diversity, and fosters a strong, inclusive community.

THERMAL COMFORT PLAN

INSULATION LEGEND		
SYMBOL	CATEGORY	INSULATION VALUE
	EXTERIOR WALL	R-21
	DOOR TYPE 1	R-.35
	DOOR TYPE 2	R-.35
	DOOR TYPE 3	R-.35
	WINDOW TYPE 1	U-0.27
	WINDOW TYPE 2	U-0.27



COM-CHECK

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U- Factor ^(a)
Coating Grey, SHGC 0.24, [Bldg. Use 1 - School/University] (b) Window: Vinyl Frame: Operable, Perf. Specs.: Product ID SNX Coating Grey, SHGC 0.24, [Bldg. Use 1 - School/University] (b)	19	---	---	0.270	0.430
EAST					
Ext. Wall: Wood-Framed, 16in. o.c., [Bldg. Use 1 - School/University]	728	21.0	0.0	0.062	0.051
Door: Insulated Metal, Swinging, [Bldg. Use 1 - School/University]	26	---	---	0.360	0.370
Window: Vinyl Frame: Operable, Perf. Specs.: Product ID SNX Coating Grey, SHGC 0.24, [Bldg. Use 1 - School/University] (b)	19	---	---	0.270	0.430
Window: Vinyl Frame: Operable, Perf. Specs.: Product ID SNX Coating Grey, SHGC 0.24, [Bldg. Use 1 - School/University] (b)	19	---	---	0.270	0.430
Window: Vinyl Frame: Operable, Perf. Specs.: Product ID SNX Coating Grey, SHGC 0.24, [Bldg. Use 1 - School/University] (b)	19	---	---	0.270	0.430
Window: Vinyl Frame: Operable, Perf. Specs.: Product ID SNX Coating Grey, SHGC 0.24, [Bldg. Use 1 - School/University] (b)	19	---	---	0.270	0.430
Window: Vinyl Frame: Operable, Perf. Specs.: Product ID SNX Coating Grey, SHGC 0.24, [Bldg. Use 1 - School/University] (b)	10	---	---	0.270	0.430
Window: Vinyl Frame: Operable, Perf. Specs.: Product ID SNX Coating Grey, SHGC 0.24, [Bldg. Use 1 - School/University] (b)	10	---	---	0.270	0.430
Window: Vinyl Frame: Operable, Perf. Specs.: Product ID SNX Coating Grey, SHGC 0.24, [Bldg. Use 1 - School/University] (b)	19	---	---	0.270	0.430
SOUTH					
Ext. Wall: Wood-Framed, 16in. o.c., [Bldg. Use 1 - School/University]	771	21.0	0.0	0.062	0.051
EAST					
Window: Vinyl Frame: Operable, Perf. Specs.: Product ID SNX Coating Grey, SHGC 0.24, [Bldg. Use 1 - School/University] (b)	19	---	---	0.270	0.430
SOUTH					
Window: Vinyl Frame: Operable, Perf. Specs.: Product ID SNX Coating Grey, SHGC 0.24, [Bldg. Use 1 - School/University] (b)	19	---	---	0.270	0.430
Door: Insulated Metal, Swinging, [Bldg. Use 1 - School/University]	52	---	---	0.360	0.370
Window: Vinyl Frame: Operable, Perf. Specs.: Product ID SNX Coating Grey, SHGC 0.24, [Bldg. Use 1 - School/University] (b)	19	---	---	0.270	0.430
Window: Vinyl Frame: Operable, Perf. Specs.: Product ID SNX Coating Grey, SHGC 0.24, [Bldg. Use 1 - School/University] (b)	19	---	---	0.270	0.430
Window: Vinyl Frame: Operable, Perf. Specs.: Product ID SNX Coating Grey, SHGC 0.24, [Bldg. Use 1 - School/University] (b)	19	---	---	0.270	0.430
Window: Vinyl Frame: Operable, Perf. Specs.: Product ID SNX Coating Grey, SHGC 0.24, [Bldg. Use 1 - School/University] (b)	19	---	---	0.270	0.430
Door: Insulated Metal, Swinging, [Bldg. Use 1 - School/University]	26	---	---	0.360	0.370
WEST					
Ext. Wall: Wood-Framed, 16in. o.c., [Bldg. Use 1 - School/University]	728	21.0	0.0	0.062	0.051
Door: Insulated Metal, Swinging, [Bldg. Use 1 - School/University]	26	---	---	0.360	0.370
Window: Vinyl Frame: Operable, Perf. Specs.: Product ID SNX Coating Grey, SHGC 0.24, [Bldg. Use 1 - School/University] (b)	10	---	---	0.270	0.430
Window: Vinyl Frame: Operable, Perf. Specs.: Product ID SNX Coating Grey, SHGC 0.24, [Bldg. Use 1 - School/University] (b)	19	---	---	0.270	0.430
Window: Vinyl Frame: Operable, Perf. Specs.: Product ID SNX Coating Grey, SHGC 0.24, [Bldg. Use 1 - School/University] (b)	10	---	---	0.270	0.430
Window: Vinyl Frame: Operable, Perf. Specs.: Product ID SNX Coating Grey, SHGC 0.24, [Bldg. Use 1 - School/University] (b)	19	---	---	0.270	0.430
Window: Vinyl Frame: Operable, Perf. Specs.: Product ID SNX Coating Grey, SHGC 0.24, [Bldg. Use 1 - School/University] (b)	19	---	---	0.270	0.430
Window: Vinyl Frame: Operable, Perf. Specs.: Product ID SNX Coating Grey, SHGC 0.24, [Bldg. Use 1 - School/University] (b)	19	---	---	0.270	0.430
Window: Vinyl Frame: Operable, Perf. Specs.: Product ID SNX Coating Grey, SHGC 0.24, [Bldg. Use 1 - School/University] (b)	19	---	---	0.270	0.430

Project Title: New Horizons Daycare
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Exterior Lighting Compliance Certificate

Project Information

Energy Code: 2018 IECC
 Project Title: New Horizons Daycare
 Project Type: New Construction
 Exterior Lighting Zone: 0 (Unspecified)

Construction Site: _____ Owner/Agent: _____ Designer/Contractor: _____

Allowed Exterior Lighting Power

A Area/Surface Category	B Quantity	C Allowed Watts /	D Tradable Wattage	E Allowed Watts (B X C)
Total Tradable Watts (a) =				0
Total Allowed Watts =				0
Total Allowed Supplemental Watts (b) =				350

(a) Wattage tradeoffs are only allowed between tradable areas/surfaces.

(b) A supplemental allowance equal to 350 watts may be applied toward compliance of both non-tradable and tradable areas/surfaces.

Proposed Exterior Lighting Power

Exterior Lighting TBD: Exterior lighting zone not specified (see project screen)



COMcheck Software Version COMcheckWeb Mechanical Compliance Certificate

Project Information

Energy Code: 2018 IECC
 Project Title: New Horizons Daycare
 Location: Logan, Utah
 Climate Zone: 6b
 Project Type: New Construction

Construction Site: _____ Owner/Agent: _____ Designer/Contractor: _____

Additional Efficiency Package(s)

Credits: 1.0 Required 1.0 Proposed
 Reduced Air Infiltration, 1.0 credit

Mechanical Systems List

Quantity System Type & Description

Mechanical Compliance Statement

Compliance Statement: The proposed mechanical design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 2018 IECC requirements in COMcheck Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

 Name - Title Signature Date

Project Title: New Horizons Daycare
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Inspection Checklist

Energy Code: 2018 IECC

Requirements: 100.0% were addressed directly in the COMcheck software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
C103.2 [PR1] ¹	Plans and/or specifications provide all information with which compliance can be determined for the building envelope and document where exceptions to the standard are claimed.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C402.4.1 [PR10] ¹	The vertical fenestration area <= 30 percent of the gross above-grade wall area.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C402.4.1 [PR11] ¹	The skylight area <= 3 percent of the gross roof area.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C406 [PR9] ¹	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the additional energy efficiency package options.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)
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Section # & Req.ID	Footing / Foundation Inspection	Complies?	Comments/Assumptions
C303.2 [FO4] ²	Slab edge insulation installed per manufacturer's instructions.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C303.2.1 [FO6] ¹	Exterior insulation protected against damage, sunlight, moisture, wind, landscaping and equipment maintenance activities.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C105 [FO3] ²	Installed slab-on-grade insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values.
C402.2.4 [FO7] ²	Slab edge insulation depth/length. Slab insulation extending away from building is covered by pavement or >= 10 inches of soil.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. See the Envelope Assemblies table for values.

Additional Comments/Assumptions:

1 High Impact (Tier 1)	2 Medium Impact (Tier 2)	3 Low Impact (Tier 3)
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Section # & Req.ID	Framing / Rough-In Inspection	Complies?	Comments/Assumptions
C303.1.3 [FR12] ²	Fenestration products rated in accordance with NFRC.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C303.1.3 [FR13] ¹	Fenestration products are certified as to performance labels or certificates provided.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C402.4.3 [FR10] ¹	Vertical fenestration SHGC value.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values.
C402.4.3, C402.4.3.4 [FR8] ¹	Installed vertical fenestration U-factor and SHGC consistent with label specifications and as reported in plans and COMcheck reports.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values.
C402.5.7 [FR17] ³	Vestibules are installed on all building entrances. Doors have self-closing devices.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1 High Impact (Tier 1)	2 Medium Impact (Tier 2)	3 Low Impact (Tier 3)
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Section # & Req.ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C402.5.5, C403.2.4.3 [ME3] ³	Stair and elevator shaft vents have motorized dampers that automatically close. Reference section C403.7.7 for operational details.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C403.7.7 [ME58] ³	Outdoor air and exhaust systems have motorized dampers that automatically shut when not in use and meet maximum leakage rates. Check gravity dampers where allowed. Reference section language for operational details.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1 High Impact (Tier 1)	2 Medium Impact (Tier 2)	3 Low Impact (Tier 3)
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Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.6 [EL26] ²	Low-voltage dry-type distribution electric transformers meet the minimum efficiency requirements of Table C405.6.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C405.7 [EL27] ²	Electric motors meet the minimum efficiency requirements of Tables C405.7(1) through C405.7(4). Efficiency verified through certification under an approved certification program or the equipment efficiency ratings shall be provided by motor manufacturer (where certification programs do not exist).	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C405.8.2, C405.8.2.1 [EL28] ²	Escalators and moving walks comply with ASME A17.1/CSA B44 and have automatic controls configured to reduce speed to the minimum permitted speed in accordance with ASME A17.1/CSA B44 or applicable local code when not conveying passengers.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C405.9 [EL29] ²	Total voltage drop across the combination of feeders and branch circuits <= 5%.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)
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Section # & Req.ID	Insulation Inspection	Complies?	Comments/Assumptions
C303.1 [IN3] ¹	Roof insulation installed per manufacturer's instructions. Blown or poured loose-fill insulation is installed only where the roof slope is <=3 in 12.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C402.2.1 [IN20] ¹	Insulation installed on a suspended ceiling having ceiling tiles is not being specified for roof/ceiling assemblies. Continuous insulation board installed in 2 or more layers with edge joints offset between layers.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C303.1 [IN10] ²	Building envelope insulation is labeled with R-value or insulation certificate providing R-value and other relevant data.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C303.2 [IN7] ¹	Above-grade wall insulation installed per manufacturer's instructions.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C105 [IN6] ¹	Installed above-grade wall insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values.
C402.2.3 [IN8] ²	Installed floor insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values.
C402.2.6 [IN18] ³	Radiant panels and associated components, designed for heat transfer from the panel surfaces to the occupants or indoor space are insulated with a minimum of R-3.5.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C105 [IN2] ¹	Installed roof insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports. For some ceiling systems, verification may need to occur during Framing Inspection.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values.
C402.5.1.1 [IN1] ¹	All sources of air leakage in the building thermal envelope are sealed, caulked, gasketed, weather stripped or wrapped with moisture vapor-permeable wrapping material to minimize air leakage.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)
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Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C402.5 [F155] ¹	Building envelope contains a continuous air barrier that has been tested and deemed to limit air leakage <= 0.40 cfm/ft ² .	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C402.5.6 [F137] ¹	Weatherseals installed on all loading dock cargo door openings and provide direct contact along the top and sides of vehicles parked in the doorway.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C406.9 [F156] ¹	Reduced air infiltration. Air infiltration verified by whole-building pressurization testing conducted in accordance with ASTM E779 or ASTM E1827 by an independent third party. The measured air-leakage rate of the building envelope is <= 0.25 cfm/ft ² under a pressure differential of 0.3 inches water column, with the calculated surface area being the sum of the above- and below-grade building envelope. Comprehensive report documentation will be submitted to the code official and the building owner.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
C408.1.1 [F157] ¹	Building operations and maintenance documents will be provided to the owner. Documents will cover manufacturers' information, specifications, programming procedures and means of illustrating to owner how building, equipment and systems are intended to be installed, maintained, and operated.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)
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MASTER FORMAT

acoustical panel ceilings

SECTION 095113 - ACOUSTICAL PANEL CEILINGS**PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.
 - 1. Division 1 Section "Sustainable Design Requirements" for additional LEED requirements.

1.2 SUMMARY

- A. This Section includes acoustical panels, wood veneer panels and exposed suspension systems for ceilings.
- B. Products furnished, but not installed under this Section, include anchors, clips, and other ceiling attachment devices to be cast in concrete at ceilings.

1.3 DEFINITIONS

- A. AC: Articulation Class.
- B. CAC: Ceiling Attenuation Class.
- C. LR: Light Reflectance coefficient.
- D. NRC: Noise Reduction Coefficient.

1.4 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Coordinate Drawings: Reflected ceiling plans drawn to scale and coordinating penetrations and ceiling-mounted items. Show the following:
 - 1. Ceiling suspension members.
 - 2. Method of attaching hangers to building structure.
 - a. Furnish layouts for cast-in-place anchors, clips, and other ceiling attachment devices whose installation is specified in other Sections.
 - 3. Ceiling-mounted items including lighting fixtures, diffusers, grilles, speakers, sprinklers, access panels, and special moldings.

ACOUSTICAL PANEL CEILINGS**095113-1****NEW HORIZONS DAYCARE PROJECT**

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ACOUSTICAL PANEL CEILINGS**095113-1****NEW HORIZONS DAYCARE PROJECT**

4. Minimum Drawing Scale: 1/4 inch = 1 foot.
- C. Samples for Initial Selection: For components with factory-applied color finishes.
 - D. Samples for Verification: For each component indicated and for each exposed finish required, prepared on Samples of size indicated below.
 1. Acoustical Panel: Set of 6-inch square Samples of each type, color, pattern, and texture.
 2. Exposed Suspension System Members, Moldings, and Trim: Set of 12-inch- long Samples of each type, finish, and color.
 3. Wood Panel: Set of 12-inch square Samples of each type, color, pattern, and texture.
 - E. LEED Submittals: (For BP-E New Annex only).
 1. Product Data for Credit MR 4.1 and MR 4.2: For products having recycled content, documentation indicating percentages by weight of postconsumer and pre-consumer recycled content.
 - a. Include statement indicating costs for each product having recycled content.
 2. Product Data for Credit EQ 4.1: For sealants, including printed statement of VOC content.
 - F. Field quality-control test reports.
 - G. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, for each acoustical panel ceiling.
 - H. Research/Evaluation Reports: For each acoustical panel ceiling and components and anchor type.
 - I. Maintenance Data: For finishes to include in maintenance manuals.
- 1.5 QUALITY ASSURANCE
- A. Acoustical Testing Agency Qualifications: An independent testing laboratory, or an NVLAP-accredited laboratory, with the experience and capability to conduct the testing indicated, as documented according to ASTM E 548. NVLAP-accredited laboratories must document accreditation, based on a "Certificate of Accreditation" and a "Scope of Accreditation" listing the test methods specified.
 - B. Source Limitations: Obtain each type of acoustical ceiling panel, wood veneer panel and supporting suspension system through one source from a single manufacturer.
 1. Surface-Burning Characteristics: Provide acoustical panels with the following surface-burning characteristics complying with ASTM E 1264 for Class A materials as determined by testing identical products per ASTM E 84:

ACOUSTICAL PANEL CEILINGS**095113-2****NEW HORIZONS DAYCARE PROJECT**

- a. Smoke-Developed Index: 450 or less.
 - b. Flame Spread: 25 or less.
 - c. Smoke-Developed: 50 or less for Wood Veneer Panels.
- C. Seismic Standard: Provide acoustical panel ceilings designed and installed to withstand the effects of earthquake motions according to the following:
- 1. Standard for Ceiling Suspension Systems Requiring Seismic Restraint: Comply with ASTM E 580.
 - 2. CISCA's Guidelines for Systems Requiring Seismic Restraint: Comply with CISCA's "Guidelines for Seismic Restraint of Direct-Hung Suspended Ceiling Assemblies-- Seismic Zones 3 & 4.", as amended by the State of Utah Building Board.
- D. Pre-installation Conference: Conduct conference at Project site to comply with requirements in Division 1 Section "Project Management and Coordination."

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver acoustical panels, suspension system components, and accessories to Project site in original, unopened packages and store them in a fully enclosed, conditioned space where they will be protected against damage from moisture, humidity, temperature extremes, direct sunlight, surface contamination, and other causes.
- B. Before installing acoustical panels, permit them to reach room temperature and a stabilized moisture content.
- C. Do not store wood veneer panels in unconditioned spaces with humidity greater than 55% or lower than 25% relative humidity and temperatures lower than 50 degrees F or greater than 86 degrees F. Panels must not be exposed to extreme temperatures, for example, close to a heating source or near a window with direct sunlight.
- D. Handle acoustical panels carefully to avoid chipping edges or damaging units in any way.

1.7 PROJECT CONDITIONS

- A. Environmental Limitations: Do not install acoustical panel ceilings until spaces are enclosed and weatherproof, wet work in spaces is complete and dry, work above ceilings is complete, and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.
 - 1. Pressurized Plenums: Operate ventilation system for not less than 48 hours before beginning acoustical panel ceiling installation.

ACOUSTICAL PANEL CEILINGS

095113-3

NEW HORIZONS DAYCARE PROJECT

1.8 COORDINATION

- A. Coordinate layout and installation of acoustical panels and suspension system with other construction that penetrates ceilings or is supported by them, including light fixtures, HVAC equipment, fire-suppression system, and partition assemblies.

1.9 EXTRA MATERIALS

- A. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 1. Acoustical Ceiling Panels: Full-size panels equal to 2 percent of quantity installed.
 2. Suspension System Components: Quantity of each exposed component equal to 2 percent of quantity installed.

PART 2 - PRODUCTS

2.1 LEED REQUIREMENTS

- A. Recycled Content: Provide acoustical panels with recycled content as outlined below:
 1. Panel Types A: 80% Total recycled content.

2.2 MANUFACTURERS

- A. In other Part 2 articles where titles below introduce lists, the following requirements apply for product selection:
- B. Basis-of-Design Product: Subject to compliance with requirements, provide either the named product or a comparable product by another manufacturer. Products from other manufacturers must be pre-approved prior to bid date and should be delivered to GSBS for Architect and Owner review. Allow 10 working days for review. Submitted products will be evaluated for approval based on comparable construction makeup, LEED requirements for project, as well as design aesthetic.

2.3 ACOUSTICAL PANELS, GENERAL

- A. Acoustical Panel Standard: Provide manufacturer's standard panels of configuration indicated that comply with ASTM E 1264 classifications as designated by types, patterns, acoustical ratings, and light reflectances, unless otherwise indicated.
 1. Mounting Method for Measuring NRC: Type E-400; plenum mounting in which face of test specimen is 15-3/4 inches away from test surface per ASTM E 795.

ACOUSTICAL PANEL CEILINGS

095113-4

NEW HORIZONS DAYCARE PROJECT

- B. Acoustical Panel Colors and Patterns: Match appearance characteristics indicated for each product type.
 - 1. Where appearance characteristics of acoustical panels are indicated by referencing pattern designations in ASTM E 1264 and not manufacturers' proprietary product designations, provide products selected by Architect from each manufacturer's full range that comply with requirements indicated for type, pattern, color, light reflectance, acoustical performance, edge detail, and size.
 - C. Panel-Based Mold & Mildew Treatment: Provide acoustical panels treated with manufacturer's standard mold & mildew solution that inhibits fungus, mold, mildew, and gram-positive and gram-negative bacteria.
- 2.4 ACOUSTICAL PANELS FOR ACOUSTICAL PANEL CEILING TYPE "A"
- 1. Basis-of-Design Product: Subject to compliance with requirements, provide Armstrong, Ultima HRC.
 - B. Classification: Provide fire-resistance-rated panels complying with ASTM E 1264 for type, form, and pattern as follows:
 - 1. Type and Form: Type IV, mineral base with membrane-faced overlay; Form 2, water felted; with factory applied acrylic latex paint face finish.
 - 2. Pattern: C (perforated, small holes) E (lightly textured) I (embossed).
 - C. Color: White.
 - D. LR: Not less than 0.90.
 - E. NRC: Not less than 0.70.
 - F. CAC: Not less than 35.
 - G. AC: -NA-
 - H. Edge/Joint Detail: Beveled Tegular.
 - I. Thickness: 3/4 inch.
 - J. Modular Size:
 - 1. Type A: 24 by 24 inches.
 - K. Antimicrobial Treatment: Broad spectrum fungicide and bactericide based.
 - L. No added Urea Formaldehyde.

ACOUSTICAL PANEL CEILINGS**095113-5****NEW HORIZONS DAYCARE PROJECT**

2.5 METAL SUSPENSION SYSTEMS, GENERAL

- A. Recycled Content: Provide products made from steel sheet with average recycled content such that postconsumer recycled content plus one-half of preconsumer recycled content is not less than the percentages listed below.
- B. Metal Suspension System Standard: Provide manufacturer's standard direct-hung metal suspension systems of types, structural classifications, and finishes indicated that comply with applicable requirements in ASTM C 635.
- C. Finishes and Colors, General: Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes. Provide manufacturer's standard factory-applied finish for type of system indicated.
- D. Attachment Devices: Size for five times the design load indicated in ASTM C 635, Table 1, "Direct Hung," unless otherwise indicated.
 - 1. Anchors in Concrete: Anchors of type and material indicated below, with holes or loops for attaching hangers of type indicated and with capability to sustain, without failure, a load equal to five times that imposed by ceiling construction, as determined by testing per ASTM E 488 or ASTM E 1512 as applicable, conducted by a qualified testing and inspecting agency.
 - a. Type: Cast-in-place anchors.
 - b. Corrosion Protection: Carbon-steel components zinc plated to comply with ASTM B 633, Class Fe/Zn 5 (0.005 mm) for Class SC 1 service condition.
 - 2. Power-Actuated Fasteners in Concrete: Fastener system of type suitable for application indicated, fabricated from corrosion-resistant materials, with clips or other accessory devices for attaching hangers of type indicated, and with capability to sustain, without failure, a load equal to 10 times that imposed by ceiling construction, as determined by testing per ASTM E 1190, conducted by a qualified testing and inspecting agency.
- E. Wire Hangers, Braces, and Ties: Provide wires complying with the following requirements:
 - 1. Zinc-Coated Carbon-Steel Wire: ASTM A 641/A 641M, Class 1 zinc coating, soft temper.
 - 2. Size: Select wire diameter so its stress at three times hanger design load (ASTM C 635, Table 1, "Direct Hung") will be less than yield stress of wire, but provide not less than 0.106-inch- diameter wire.
- F. Hanger Rods: Mild steel, zinc coated or protected with rust-inhibitive paint.
- G. Angle Hangers: Angles with legs not less than 7/8 inch wide; formed with 0.04-inch- thick, galvanized steel sheet complying with ASTM A 653/A 653M, G90 coating designation; with bolted connections and 5/16-inch- diameter bolts.
- H. Seismic Struts: Manufacturer's standard compression struts designed to accommodate seismic forces.

ACOUSTICAL PANEL CEILINGS

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- I. Seismic Clips: Manufacturer's standard seismic clips designed and spaced to secure acoustical panels in-place.
- 2.6 METAL SUSPENSION SYSTEM FOR ACOUSTICAL PANEL CEILINGS – PANEL TYPE “A”.
- A. Available Products:
 - 1. Armstrong, Prelude XL HRC
 - 2. Approved Equals
 - B. Wide-Face, Capped, Double-Web, Steel Suspension System: Main and cross runners roll formed from cold-rolled steel sheet, prepainted, electrolytically zinc coated, or hot-dip galvanized according to ASTM A 653/A 653M, not less than G30 coating designation, with prefinished 15/16-inch- wide metal caps on flanges.
 - 1. Structural Classification: Heavy-duty system.
 - 2. End Condition of Cross Runners: Override (stepped) type.
 - 3. Face Design: Flat, flush.
 - 4. Cap Material: Steel cold-rolled sheet.
 - 5. Cap Finish: Painted white.
 - 6. Wall Molding: 7/8” flat, painted white.
 - 7. Recycled Content: Pre-consumer Recycled Content: 10%, Post-Consumer Recycled Content: 53%.
 - 8. Colors: Provide White for Panel Type A. Provide Silver Satin (SA) for Panel Type F.
- 2.7 ACOUSTICAL SEALANT
- A. Available Products:
 - 1. Acoustical Sealant for Exposed and Concealed Joints:
 - a. Pecora Corp; AC-20 FTR Acoustical and Insulation Sealant.
 - b. United States Gypsum Co.; SHEETROCK Acoustical Sealant.
 - B. Acoustical Sealant for Exposed and Concealed Joints: Manufacturer's standard nonsag, paintable, nonstaining latex sealant, with a VOC content of 250 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24), complying with ASTM C 834 and effective in reducing airborne sound transmission through perimeter joints and openings in building construction as demonstrated by testing representative assemblies according to ASTM E 90.
- 2.8 METAL EDGE MOLDINGS AND TRIM
- A. Basis-of-Design Product: Subject to compliance with requirements, provide Armstrong, Axiom Perimeter Trim for Type “A” ceilings and Armstrong, WoodWorks Perimeter Trim for Type “F” ceilings where indicated in the construction drawings.

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- B. Extruded-Aluminum Edge Moldings and Trim: Where indicated, provide manufacturer's extruded-aluminum edge moldings and trim of profile and shape indicated or referenced by manufacturer's designations, including splice plates, corner pieces, and attachment and other clips, complying with seismic design requirements and the following:
1. Aluminum Alloy: Alloy and temper recommended by aluminum producer and finisher for type of use and finish indicated, and with not less than the strength and durability properties of aluminum extrusions complying with ASTM B 221 for Alloy and Temper 6063-T5.
 2. Finish designations prefixed by AA comply with system established by the Aluminum Association for designating aluminum finishes.
 3. Conversion-Coated and Factory-Primed Finish: AA-M12C42R1x (Chemical Finish: cleaned with inhibited chemicals; acid-chromate-fluoride-phosphate conversion coating; organic coating as follows):
 - a. Manufacturer's standard, factory-applied prime-coat finish ready for field painting.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, including structural framing to which acoustical panel ceilings attach or abut, with Installer present, for compliance with requirements specified in this and other Sections that affect ceiling installation and anchorage and with requirements for installation tolerances and other conditions affecting performance of acoustical panel ceilings.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Measure each ceiling area and establish layout of acoustical panels to balance border widths at opposite edges of each ceiling. Avoid using less-than-half-width panels at borders, and comply with layout shown on reflected ceiling plans.

3.3 INSTALLATION, GENERAL

- A. General: Install acoustical panel ceilings to comply with ASTM C 636 and seismic requirements indicated, per manufacturer's written instructions and CISCA's "Ceiling Systems Handbook."
- B. Suspend ceiling hangers from building's structural members and as follows:
 1. Install hangers plumb and free from contact with insulation or other objects within ceiling plenum that are not part of supporting structure or of ceiling suspension system.
 2. Splay hangers only where required to miss obstructions; offset resulting horizontal forces by bracing, countersplaying, or other equally effective means.

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3. Splay hangers only where required and, if permitted with fire-resistance-rated ceilings, to miss obstructions; offset resulting horizontal forces by bracing, countersplaying, or other equally effective means.
 4. Where width of ducts and other construction within ceiling plenum produces hanger spacings that interfere with location of hangers at spacings required to support standard suspension system members, install supplemental suspension members and hangers in form of trapezes or equivalent devices. Size supplemental suspension members and hangers to support ceiling loads within performance limits established by referenced standards and publications.
 5. Secure wire hangers to ceiling suspension members and to supports above with a minimum of three tight turns. Connect hangers directly either to structures or to inserts, eye screws, or other devices that are secure and appropriate for substrate and that will not deteriorate or otherwise fail due to age, corrosion, or elevated temperatures.
 6. Secure flat, angle, channel, and rod hangers to structure, including intermediate framing members, by attaching to inserts, eye screws, or other devices that are secure and appropriate for both structure to which hangers are attached and type of hanger involved. Install hangers in a manner that will not cause them to deteriorate or fail due to age, corrosion, or elevated temperatures.
 7. Do not support ceilings directly from permanent metal forms or floor deck. Fasten hangers to cast-in-place hanger inserts, postinstalled mechanical or adhesive anchors, or power-actuated fasteners that extend through forms into concrete.
 8. Do not attach hangers to steel roof deck. Attach hangers to structural members.
 9. When steel framing does not permit installation of hanger wires at spacing required, install carrying channels or other supplemental support for attachment of hanger wires.
 10. Space hangers not more than 48 inches o.c. along each member supported directly from hangers, unless otherwise indicated; provide hangers not more than 8 inches from ends of each member.
- C. Secure bracing wires to ceiling suspension members and to supports with a minimum of four tight turns. Suspend bracing from building's structural members as required for hangers, without attaching to permanent metal forms, steel deck, or steel deck tabs. Fasten bracing wires into concrete with cast-in-place or postinstalled anchors.
- D. Install edge moldings and trim of type indicated at perimeter of acoustical ceiling area and where necessary to conceal edges of acoustical panels.
1. Apply acoustical sealant in a continuous ribbon concealed on back of vertical legs of moldings before they are installed.
 2. Screw attach moldings to substrate at intervals not more than 16 inches o.c. and not more than 3 inches from ends, leveling with ceiling suspension system to a tolerance of 1/8 inch in 12 feet. Miter corners accurately and connect securely.
 3. Do not use exposed fasteners, including pop rivets, on moldings and trim.
- E. Install suspension system runners so they are square and securely interlocked with one another. Remove and replace dented, bent, or kinked members.
- F. Install acoustical panels with undamaged edges and fit accurately into suspension system runners and edge moldings. Scribe and cut panels at borders and penetrations to provide a neat, precise fit.

ACOUSTICAL PANEL CEILINGS**095113-9****NEW HORIZONS DAYCARE PROJECT**

1. For reveal-edged panels on suspension system runners, install panels with bottom of reveal in firm contact with top surface of runner flanges.
2. Paint cut edges of panel remaining exposed after installation; match color of exposed panel surfaces using coating recommended in writing for this purpose by acoustical panel manufacturer.

3.4 CLEANING

- A. Clean exposed surfaces of acoustical panel ceilings, including trim, edge moldings, and suspension system members. Comply with manufacturer's written instructions for cleaning and touchup of minor finish damage. Remove and replace ceiling components that cannot be successfully cleaned and repaired to permanently eliminate evidence of damage.

END OF SECTION 095113

ACOUSTICAL PANEL CEILINGS

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MASTER FORMAT

tile carpeting

SECTION 096813 – TILE CARPETING**PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes modular, tufted carpet tile.
- B. Related Sections include the following:
 1. Division 01 Section "Sustainable Design Requirements" for additional LEED information. (For BP-E New Annex Building only).
 2. Division 09 Section "Resilient Base and Accessories, Resilient Tile Flooring" for resilient wall base and accessories installed with carpet tile.

1.3 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Project site.
 1. Review methods and procedures related to carpet tile installation including, but not limited to, the following:
 - a. Review delivery, storage, and handling procedures.
 - b. Review ambient conditions and ventilation procedures.
 - c. Review subfloor preparation procedures.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated. Include manufacturer's written data on physical characteristics, durability, and fade resistance. Include installation recommendations for each type of substrate.
- B. Shop Drawings: Show the following:
 1. Columns, doorways, enclosing walls or partitions, built-in cabinets, and locations where cutouts are required in carpet tiles.
 2. Carpet tile type, color, and dye lot.
 3. Type of installation.
 4. Pattern of installation.
 5. Pattern type, location, and direction.
 6. Pile direction.
 7. Type, color, and location of insets and borders.
 8. Type, color, and location of edge, transition, and other accessory strips.
 9. Transition details to other flooring materials.

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- C. Samples: For each of the following products and for each color and texture required. Label each Sample with manufacturer's name, material description, color, pattern, and designation indicated on Drawings and in schedules.
 - 1. Carpet Tile: Full-size Sample.
 - 2. Exposed Edge, Transition, and other Accessory Stripping: 12-inch- long Samples.
 - D. LEED Submittals: (For BP-E New Annex Building only).
 - 1. Product Data for Credit EQ 4.3:
 - a. For carpet tile, documentation indicating compliance with testing and product requirements of CRI's "Green Label Plus" program.
 - b. For installation adhesive, documentation including printed statement of VOC content.
 - 2. Credit MR 4.1 & MR 4.2: Manufacturers' product data including printed statement listing recycled content of carpet tile.
 - E. Product Schedule: For carpet tile. Use same designations indicated on Drawings.
- 1.5 INFORMATIONAL SUBMITTALS
- A. Qualification Data: For Installer.
 - B. Product Test Reports: For carpet tile, for tests performed by a qualified testing agency.
 - C. Sample Warranty: For special warranty.
- 1.6 CLOSEOUT SUBMITTALS
- A. Maintenance Data: For carpet tiles to include in maintenance manuals. Include the following:
 - 1. Methods for maintaining carpet tile, including cleaning and stain-removal products and procedures and manufacturer's recommended maintenance schedule.
 - 2. Precautions for cleaning materials and methods that could be detrimental to carpet tile.
- 1.7 MAINTENANCE MATERIAL SUBMITTALS
- A. Furnish extra materials, from the same product run, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Carpet Tile: Full-size units equal to 2 percent of amount installed for each type indicated, but not less than 10 sq. yd.
- 1.8 QUALITY ASSURANCE

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- A. **Installer Qualifications:** An experienced installer who is certified by the Floor Covering Installation Board or who can demonstrate compliance with its certification program requirements.
- B. **Fire-Test-Response Ratings:** Where indicated, provide carpet tile identical to those of assemblies tested for fire response according to NFPA 253 by a qualified testing agency.

1.9 DELIVERY, STORAGE, AND HANDLING

- A. Comply with CRI 104.

1.10 PROJECT CONDITIONS

- A. Comply with CRI 104 for temperature, humidity and ventilation limitations.
- B. **Environmental Limitations:** Do not deliver or install carpet tiles until spaces are enclosed and weathertight, wet work in spaces is complete and dry, and ambient temperature and humidity conditions are maintained at occupancy levels during the remainder of the construction period.
- C. Do not install carpet tiles over concrete slabs until slabs have cured and are sufficiently dry to bond with adhesive and concrete slabs have pH range recommended by carpet tile manufacturer.
- D. Where demountable partitions or other items are indicated for installation on top of carpet tiles, install carpet tiles before installing these items.

1.11 WARRANTY

- A. **Special Warranty for Carpet Tiles:** Manufacturer agrees to repair or replace components of carpet tile installation that fail in materials or workmanship within specified warranty period.
 1. Warranty does not include deterioration or failure of carpet tile due to unusual traffic, failure of substrate, vandalism, or abuse.
 2. Failures include, but are not limited to, more than 10 percent edge raveling, snags, runs, dimensional stability, excess static discharge, loss of tuft bind strength, loss of face fiber, and delamination.
 3. Warranty Period: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 CARPET TILE

- A. Subject to compliance with requirements, provide the product indicated herein. Product shall be purchased off of the new State of Utah carpet contract.
 1. **(CP1) Reception Carpet Tile** – Install using Ashlar pattern method.
 - a. Manufacturer: Patcraft

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- b. Collection: Forage
- c. Pattern: Contemplative 10676
- d. Color: #00320 MOSS
- e. Source:
 - 1) Contact: Erik Fuller.
 - 2) Phone Number: 801-792-6382
 - 3) Email Address: Erik.Fuller@patcraft.com
- B. Fiber Content: 100% Solution Dye, Type 6,6 Nylon
- C. Recycled Content:
 - a. Total Pre-Consumer recycled content: 27.7% minimum.
 - b. Total Post-Consumer recycled content: 11% minimum
 - c. Total Recycled Content: 38.7% minimum.
- D. Fiber Type: Eco Solution Q Nylon
- E. Pile Characteristic: Multi-Level Pattern Loop.
- F. Density: 6171 oz./cu. yd.
- G. Pile Thickness: .175 inches for finished carpet tile.
- H. Stitches: 12 stitches per inch.
- I. Gauge: 1/12 inch.
- J. Surface Pile Weight: 30 oz./sq. yd.
- K. Primary Backing: Non-Woven Synthetic
- L. Secondary Backing: EcoWorx Tile
- M. Size: 24"x24".
- N. Soil/Stain Protection: SSP Shaw Soil Protection
- O. Performance Characteristics: As follows:
 - 1. Critical Radiant Flux Classification: Not less than 0.45 W/sq. cm.
 - 2. Dry Breaking Strength: Not less than 100 lbf per ASTM D 2646.
 - 3. Dimensional Stability: 0.2 percent or less per ISO 2551 (Aachen Test).
 - 4. Colorfastness to Crocking: Not less than 4, wet and dry, per AATCC 165.
 - 5. Colorfastness to Light: Not less than 4 after 60 AFU (AATCC fading units) per AATCC 16, Option E.
 - 6. Antimicrobial Activity: Not less than 2-mm halo of inhibition for gram-positive bacteria; not less than 1-mm halo of inhibition for gram-negative bacteria; no fungal growth; per AATCC 174.
 - 7. Electrostatic Propensity: Less than 3 kV per AATCC 134.
 - 8. Sustainable Carpet Assessment Standard: NSF-140 Platinum.
 - 9. Indoor Air Quality: Green Label Plus Certified.
 - 10. VOC Limits: Provide carpet tile that complies with the following limits for VOC content when tested according to ASTM D 5116:
 - a. Total VOCs: 0.5 mg/sq. m x h.

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- b. 4-PC (4-Phenylcyclohexene): 0.05 mg/sq. m x h.
- c. Formaldehyde: 0.05 mg/sq. m x h.

2.2 CARPET TILE

- A. Subject to compliance with requirements, provide the product indicated herein. Product shall be purchased off of the new State of Utah carpet contract.
 - 1. **(CP2) Library Carpet Tile** – Install using Ashlar pattern method.
 - a. Manufacturer: Patcraft
 - b. Collection: Spatial Palette
 - c. Pattern: #10617 Spatial Palette
 - d. Color: #00460 PEACOCK
 - e. Source:
 - 1) Contact: Erik Fuller
 - 2) Phone Number: 801-792-6382
 - 3) Email Address: Erik.Fuller@patcraft.com
- B. Fiber Content: 100% Solution Dye, Type 6,6 Nylon
- C. Recycled Content:
 - a. Total Pre-Consumer recycled content: 27.7% minimum.
 - b. Total Post-Consumer recycled content: 11% minimum
 - c. Total Recycled Content: 38.7% minimum.
- D. Fiber Type: Eco Solution Q Nylon
- E. Pile Characteristic: Multi-Level Pattern Loop.
- F. Density: 7059 oz./cu. yd.
- G. Pile Thickness: High – .153 inches for finished carpet tile.
- H. Stitches: 12 stitches per inch .
- I. Gauge: 1/12 inch.
- J. Surface Pile Weight: 30 oz./sq. yd.
- K. Primary Backing: Non-Woven Synthetic.
- L. Secondary Backing: EcoWorx Tile.
- M. Size: 24"x24".
- N. Soil/Stain Protection: SSP Shaw Soil Protection.
- O. Performance Characteristics: As follows:
 - 1. Critical Radiant Flux Classification: Not less than 0.45 W/sq. cm.
 - 2. Dry Breaking Strength: Not less than 100 lbf per ASTM D 2646.
 - 3. Dimensional Stability: 0.2 percent or less per ISO 2551 (Aachen Test).
 - 4. Colorfastness to Crocking: Not less than 4, wet and dry, per AATCC 165.

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5. Colorfastness to Light: Not less than 4 after 60 AFU (AATCC fading units) per AATCC 16, Option E.
6. Antimicrobial Activity: Not less than 2-mm halo of inhibition for gram-positive bacteria; not less than 1-mm halo of inhibition for gram-negative bacteria; no fungal growth; per AATCC 174.
7. Electrostatic Propensity: Less than 3.5 kV per AATCC 134.
8. Sustainable Carpet Assessment Standard: NSF-140 Platinum.
9. Indoor Air Quality: Green Label Plus Certified.
10. VOC Limits: Provide carpet tile that complies with the following limits for VOC content when tested according to ASTM D 5116:
 - a. Total VOCs: 0.5 mg/sq. m x h.
 - b. 4-PC (4-Phenylcyclohexene): 0.05 mg/sq. m x h.
 - c. Formaldehyde: 0.05 mg/sq. m x h.

2.3 CARPET TILE

- A. Subject to compliance with requirements, provide the product indicated herein. Product shall be purchased off of the new State of Utah carpet contract.
 1. **(CP3) Break Room Carpet Tile** – Install using Ashlar pattern method.
 - a. Manufacturer: Interface.
 - b. Collection: Forage
 - c. Pattern: #10679 Wonderment.
 - d. Color: #00340 FERN.
 - e. Source:
 - 1) Contact: Barry Ryskamp.
 - 2) Phone Number: 801- 582-2809.
 - 3) Email Address: Barry.Ryskamp@interfaceflor.com
- B. Fiber Content: 100% Solution Dye, Type 6,6 Nylon
- C. Recycled Content:
 - a. Total Pre-Consumer recycled content: 34% minimum.
 - b. Total Post-Consumer recycled content: 32% minimum
 - c. Total Recycled Content: 66% minimum.
- D. Fiber Type: Universal Nylon
- E. Pile Characteristic: Tufted Cut & Loop.
- F. Density: 7266 oz./cu. yd.
- G. Pile Thickness: High – .109 inches for finished carpet tile.
- H. Stitches: 10 stitches per inch .
- I. Gauge: 5/64 inch.
- J. Surface Pile Weight: 22 oz./sq. yd.

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- K. Primary Backing: Manufacturer's Standard.
- L. Secondary Backing: GlasBac RE.
- M. Size: 19.69" x 19.69".
- N. Soil/Stain Protection: Protekt.
- O. Performance Characteristics: As follows:
 - 1. Critical Radiant Flux Classification: Not less than 0.45 W/sq. cm.
 - 2. Dry Breaking Strength: Not less than 100 lbf per ASTM D 2646.
 - 3. Dimensional Stability: 0.2 percent or less per ISO 2551 (Aachen Test).
 - 4. Colorfastness to Crocking: Not less than 4, wet and dry, per AATCC 165.
 - 5. Colorfastness to Light: Not less than 4 after 60 AFU (AATCC fading units) per AATCC 16, Option E.
 - 6. Antimicrobial Activity: Not less than 2-mm halo of inhibition for gram-positive bacteria; not less than 1-mm halo of inhibition for gram-negative bacteria; no fungal growth; per AATCC 174.
 - 7. Electrostatic Propensity: Less than 3.5 kV per AATCC 134.
 - 8. Sustainable Carpet Assessment Standard: NSF-140 Platinum.
 - 9. Indoor Air Quality: Green Label Plus Certified.
 - 10. VOC Limits: Provide carpet tile that complies with the following limits for VOC content when tested according to ASTM D 5116:
 - a. Total VOCs: 0.5 mg/sq. m x h.
 - b. 4-PC (4-Phenylcyclohexene): 0.05 mg/sq. m x h.
 - c. Formaldehyde: 0.05 mg/sq. m x h.

2.4 CARPET TILE

- A. Basis-of-Design Product: Subject to compliance with requirements, provide the product listed below or a comparable product by another manufacturer. Products from other manufacturers must be pre-approved prior to bid date and should be delivered to GSBS for Architect and Owner review. Allow 10 working days for review. Submitted products will be evaluated for approval based on comparable construction makeup as well as design aesthetic.
 - 1. **(CP4) Office & Storage Carpet Tile**
 - a. Manufacturer: Patcraft
 - b. Pattern: #10678 Wellbeing
 - c. Color: #00530 BIRCH
 - d. Source: Interface
 - 1) Contact: Erik Fuller.
 - 2) Phone Number: 801-792-6382
 - 3) Email Address: Erik.Fuller@patcraft.com
- B. Fiber Content: 55% Nylon; 27.5% Animal Hair; 17.5% Polyester
- C. Recycled Content:
 - a. Total Pre-Consumer recycled content: 36% minimum.
 - b. Total Post-Consumer recycled content: 0% minimum
 - c. Total Recycled Content: 36% minimum.

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- D. Fiber Type: See Item B above.
- E. Pile Characteristic: Hair Tile (Needlepunch).
- F. Density: 8945 oz./cu. yd.
- G. Pile Thickness: .165 inches for finished carpet tile.
- H. Stitches: 0 stitches per inch .
- I. Surface Pile Weight: 41 oz./sq. yd.
- J. Primary Backing: Manufacturer's Standard Material.
- K. Secondary Backing: Graphlar® Tile.
- L. Size: 19.69" x 19.69" (50 cm x 50 cm)
- M. Performance Characteristics: As follows:
 - 1. Critical Radiant Flux Classification: Not less than 0.45 W/sq. cm.
 - 2. Dry Breaking Strength: Not less than 100 lbf per ASTM D 2646.
 - 3. Dimensional Stability: 0.2 percent or less per ISO 2551 (Aachen Test).
 - 4. Colorfastness to Crocking: Not less than 4, wet and dry, per AATCC 165.
 - 5. Colorfastness to Light: Not less than 4 after 60 AFU (AATCC fading units) per AATCC 16, Option E.
 - 6. Antimicrobial Activity: Not less than 2-mm halo of inhibition for gram-positive bacteria; not less than 1-mm halo of inhibition for gram-negative bacteria; no fungal growth; per AATCC 174.
 - 7. VOC Limits: Provide carpet tile that complies with the following limits for VOC content when tested according to ASTM D 5116:
 - a. Total VOCs: 0.5 mg/sq. m x h.
 - b. 4-PC (4-Phenylcyclohexene): 0.05 mg/sq. m x h.
 - c. Formaldehyde: 0.05 mg/sq. m x h.

2.5 INSTALLATION ACCESSORIES

- A. Trowelable Leveling and Patching Compounds: Latex-modified, hydraulic-cement-based formulation provided or recommended by carpet tile manufacturer.
- B. Adhesives: Water-resistant, mildew-resistant, nonstaining, pressure-sensitive type to suit products and subfloor conditions indicated, that complies with flammability requirements for installed carpet tile and is recommended by carpet tile manufacturer for releasable installation.
 - 1. VOC Limits: Provide adhesives that comply with the following limits for VOC content when tested according to ASTM D 5116:
 - a. Total VOCs: 10.00 mg/sq. m x h.
 - b. Formaldehyde: 0.05 mg/sq. m x h.
 - c. 2-Ethyl-1-Hexanol: 3.00 mg/sq. m x h.

PART 3 - EXECUTION

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3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for maximum moisture content, alkalinity range, installation tolerances, and other conditions affecting carpet tile performance. Examine carpet tile for type, color, pattern, and potential defects.
- B. Concrete Subfloors: Verify that concrete slabs comply with ASTM F 710 and the following:
 - 1. Slab substrates are dry and free of curing compounds, sealers, hardeners, and other materials that may interfere with adhesive bond. Determine adhesion and dryness characteristics by performing bond and moisture tests recommended by carpet tile manufacturer.
 - 2. Subfloor finishes comply with requirements specified in Division 03 Section "Cast-in-Place Concrete" for slabs receiving carpet tile.
 - 3. Subfloors are free of cracks, ridges, depressions, scale, and foreign deposits.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. General: Comply with CRI 104, Section 6.2, "Site Conditions; Floor Preparation," and with carpet tile manufacturer's written installation instructions for preparing substrates indicated to receive carpet tile installation.
- B. Use trowelable leveling and patching compounds, according to manufacturer's written instructions, to fill cracks, holes, depressions, and protrusions in substrates. Fill or level cracks, holes and depressions 1/8 inch wide or wider and protrusions more than 1/32 inch , unless more stringent requirements are required by manufacturer's written instructions.
- C. Remove coatings, including curing compounds, and other substances that are incompatible with adhesives and that contain soap, wax, oil, or silicone, without using solvents. Use mechanical methods recommended in writing by carpet tile manufacturer.
- D. Broom and vacuum clean substrates to be covered immediately before installing carpet tile.

3.3 INSTALLATION

- A. General: Comply with CRI 104, Section 14, "Carpet Modules," and with carpet tile manufacturer's written installation instructions.
- B. Installation Method: Glue down; install every tile with full-spread, releasable, pressure-sensitive adhesive.
- C. Maintain dye lot integrity. Do not mix dye lots in same area.
- D. Cut and fit carpet tile to butt tightly to vertical surfaces, permanent fixtures, and built-in furniture including cabinets, pipes, outlets, edgings, thresholds, and nosings. Bind or seal cut edges as recommended by carpet tile manufacturer.

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- E. Extend carpet tile into toe spaces, door reveals, closets, open-bottomed obstructions, removable flanges, alcoves, and similar openings.
- F. Maintain reference markers, holes, and openings that are in place or marked for future cutting by repeating on finish flooring as marked on subfloor. Use nonpermanent, nonstaining marking device.
- G. Install pattern parallel to walls and borders.
- H. Stagger joints of carpet tiles so carpet tile grid is offset from access flooring panel grid. Do not fill seams of access flooring panels with carpet adhesive; keep seams free of adhesive.

3.4 CLEANING AND PROTECTION

- A. Perform the following operations immediately after installing carpet tile:
 - 1. Remove excess adhesive, seam sealer, and other surface blemishes using cleaner recommended by carpet tile manufacturer.
 - 2. Remove yarns that protrude from carpet tile surface.
 - 3. Vacuum carpet tile using commercial machine with face-beater element.
- B. Protect installed carpet tile to comply with CRI 104, Section 16, "Protecting Indoor Installations."
- C. Protect carpet tile against damage from construction operations and placement of equipment and fixtures during the remainder of construction period. Use protection methods indicated or recommended in writing by carpet tile manufacturer.

END OF SECTION 096813

TILE CARPETING

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MASTER FORMAT

interior architectural woodwork

SECTION 064023 - INTERIOR ARCHITECTURAL WOODWORK**PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Interior standing and running trim.
 - 2. Wood cabinets.
 - 3. Solid-surfacing-material window sills.
 - 4. Quartz Countertops
 - 5. Closet and utility shelving.
 - 6. Shop finishing of interior woodwork.
- B. Related Sections include the following:
 - 1. Division 01 Section "Sustainable Design Requirements" for additional LEED information.
 - 2. Division 06 Section "Rough Carpentry" for wood furring, blocking, shims, and hanging strips required for installing woodwork and concealed within other construction before woodwork installation.

1.3 DEFINITIONS

- A. Interior architectural woodwork includes wood furring, blocking, shims, and hanging strips for installing woodwork items unless concealed within other construction before woodwork installation.

1.4 SUBMITTALS

- A. Product Data: For each type of product indicated, including cabinet hardware and accessories and finishing materials and processes.
 - 1. Include data for fire-retardant treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements.
- B. Shop Drawings: Show location of each item, dimensioned plans and elevations, large-scale details, attachment devices, and other components.
 - 1. Show details full size.
 - 2. Show locations and sizes of furring, blocking, and hanging strips, including concealed blocking and reinforcement specified in other Sections.

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3. Show locations and sizes of cutouts and holes for plumbing fixtures, faucets and other items installed in architectural woodwork.
- C. Samples for Initial Selection:
1. Shop-applied transparent finishes.
 2. PVC edge material.
 3. Thermoset decorative panels.
 4. Solid-surfacing materials.
- D. Samples for Verification:
1. Lumber with or for transparent finish, not less than 5 inches wide by 24 inches long, for each species and cut, finished on 1 side and 1 edge.
 2. Veneer-faced panel products with or for transparent finish, 12 by 24 inches, for each species and cut. Include at least one face-veneer seam and finish as specified.
 3. Solid-surfacing materials, 6 inches square.
 4. Onyx materials, 12 inches square.
 5. Quartz materials, 12 inches square.
 6. Translucent Resin panels, 12 inches square.
 7. Corner pieces as follows:
 - a. Cabinet-front frame joints between stiles and rails, as well as exposed end pieces, 18 inches high by 18 inches wide by 6 inches deep.
 - b. Miter joints for standing trim.
 8. Exposed cabinet hardware and accessories, one unit for each type and finish.
- E. LEED Submittals: (For BP-E New Annex Building only).
1. Credit EQ 4.1: Manufacturers' product data for installation adhesives, including printed statement of VOC content.
 2. Credit EQ 4.4:
 - a. Composite wood manufacturer's product data for each composite wood product used indicating that the bonding agent contains no urea formaldehyde.
 - b. Adhesive manufacturer's product data for each adhesive used indicating that the adhesive contains no urea formaldehyde.
 3. Credit(s) MR 4.1 and MR 4.2: Product Data indicating percentages by weight of postconsumer and preconsumer recycled content for products having recycled content.
 - a. Include statement indicating costs for each product having recycled content.
 4. Credit MR 7: Certificates of chain-of-custody signed by manufacturers certifying that products specified to be made from certified wood were made from wood obtained from forests certified by an FSC-accredited certification body to comply with FSC 1.2, "Principles and Criteria." Include evidence that mill is certified for chain-of-custody by an FSC-accredited certification body.
 - a. Include statement indicating costs for each certified wood product.

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- F. Product Certificates: For each type of product, signed by product manufacturer.
- G. Woodwork Quality Standard Compliance Certificates: AWI Quality Certification Program certificates.
- H. Qualification Data: For Installer and fabricator.

1.5 QUALITY ASSURANCE

- A. Fabricator Qualifications: Shop that employs skilled workers who custom-fabricate products similar to those required for this Project and whose products have a record of successful in-service performance. Shop is a member of AWI.
- B. Installer Qualifications: Fabricator of products.
- C. Source Limitations: Engage a qualified woodworking firm to assume undivided responsibility for production of interior architectural woodwork with sequence-matched wood veneers.
- D. Quality Standard: Unless otherwise indicated, comply with AWI's "Architectural Woodwork Quality Standards" for grades of interior architectural woodwork indicated for construction, finishes, installation, and other requirements.
- E. Fire-Test-Response Characteristics: Where fire-retardant materials or products are indicated, provide materials and products with specified fire-test-response characteristics as determined by testing identical products per test method indicated by UL, ITS, or another testing and inspecting agency acceptable to authorities having jurisdiction. Identify with appropriate markings of applicable testing and inspecting agency in the form of separable paper label or, where required by authorities having jurisdiction, imprint on surfaces of materials that will be concealed from view after installation.
- F. Forest Certification: Provide interior architectural woodwork produced from wood obtained from forests certified by an FSC-accredited certification body to comply with FSC STD-01-001, "FSC Principles and Criteria for Forest Stewardship."
- G. Preinstallation Conference: Conduct conference at Project site to comply with requirements in Division 01 Section "Project Management and Coordination."

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Do not deliver woodwork until painting and similar operations that could damage woodwork have been completed in installation areas. If woodwork must be stored in other than installation areas, store only in areas where environmental conditions comply with requirements specified in "Project Conditions" Article.

1.7 PROJECT CONDITIONS

- A. Environmental Limitations: Do not deliver or install woodwork until building is enclosed, wet work is complete, and HVAC system is operating and maintaining temperature and relative humidity at occupancy levels during the remainder of the construction period.

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B. Field Measurements: Where woodwork is indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication, and indicate measurements on Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

1. Locate concealed framing, blocking, and reinforcements that support woodwork by field measurements before being enclosed, and indicate measurements on Shop Drawings.

1.8 COORDINATION

A. Coordinate sizes and locations of framing, blocking, furring, reinforcements, and other related units of Work specified in other Sections to ensure that interior architectural woodwork can be supported and installed as indicated.

B. Hardware Coordination: Coordinate Shop Drawings and fabrication with hardware requirements.

PART 2 - PRODUCTS

2.1 WOODWORK FABRICATORS

A. Available Fabricators: Subject to compliance with requirements, fabricators offering interior architectural woodwork that may be incorporated into the Work include the following:

1. Anderson Mill
2. Boswell Olsen
3. Fondell Woodwork
4. Fetzer's Inc.
5. Huetter Mill & Cabinet
6. Jensen Architectural Woodwork
7. Westwood Mill

2.2 MATERIALS

A. General: Provide materials that comply with requirements of AWI's quality standard for each type of woodwork and quality grade specified, unless otherwise indicated.

B. Wood Species and Cut for Transparent Finish: Rift Sawn White Oak.

C. Wood Products: Comply with the following:

1. Hardboard: AHA A135.4.
2. Medium-Density Fiberboard: ANSI A208.2, Grade MD, made with binder containing no urea formaldehyde.
3. Particleboard: ANSI A208.1, Grade M-2-Exterior Glue.
4. Particleboard: Straw-based particleboard complying with requirements in ANSI A208.1, Grade M-2, except for density.
5. Softwood Plywood: DOC PS 1, Medium Density Overlay.

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6. Veneer-Faced Panel Products (Hardwood Plywood): HPVA HP-1, made with adhesive containing no urea formaldehyde.
 7. Recycled Content of Medium-Density Fiberboard and Particleboard: Provide products to maximize recycled content as much as possible. Recycled content is calculated based on an equation of 100% postconsumer recycled content plus one-half of preconsumer recycled content.
- D. Thermoset Decorative Panels: Particleboard or medium-density fiberboard finished with thermally fused, melamine-impregnated decorative paper complying with LMA SAT-1.
1. Provide PVC or polyester edge banding complying with LMA EDG-1 on components with exposed or semiexposed edges.
- E. Solid-Surfacing Material: Homogeneous solid sheets of filled plastic resin complying with ISSFA-2.
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Corian; DuPont Polymers.
 - b. Avonite.
 - c. Pre-approved equals.
 2. Type: Standard type, unless Special Purpose type is indicated.
 3. Colors and Patterns: As selected by Architect from manufacturer's full range.
- F. Quartz Countertops:
1. Products: Basis-of-Design: Subject to compliance with requirements, provide the product listed below or a comparable product to be approved by the architect and owner prior to final bids being turned in. Please allow 7 days for this review period.
 2. Countertop Manufacturer: Hanstone; Product Code: #CL101 Aurora Snow
- 2.3 FIRE-RETARDANT-TREATED MATERIALS
- A. General: Where fire-retardant-treated materials are indicated, use materials complying with requirements in this Article, that are acceptable to authorities having jurisdiction, and with fire-test-response characteristics specified.
1. Do not use treated materials that do not comply with requirements of referenced woodworking standard or that are warped, discolored, or otherwise defective.
 2. Use fire-retardant-treatment formulations that do not bleed through or otherwise adversely affect finishes. Do not use colorants to distinguish treated materials from untreated materials.
 3. Identify fire-retardant-treated materials with appropriate classification marking of UL, U.S. Testing, Timber Products Inspection, or another testing and inspecting agency acceptable to authorities having jurisdiction.
- 2.4 CABINET HARDWARE AND ACCESSORIES

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- A. General: Provide cabinet hardware and accessory materials associated with architectural cabinets, except for items specified in Division 08 Section "Door Hardware (Scheduled by Describing Products)."
- B. For concealed hardware provide manufacturer's standard finish that complies with product class requirements of BHMA A156.9.
- C. Counter Supports: Shall be as indicated in construction documents.
- D. Counter Supports for Restrooms: Shall be as indicated in construction documents.
- E. Hardware Standard: Comply with BHMA A156.9 for items indicated by referencing BHMA numbers or items referenced to this standard.
- F. Frameless Concealed Hinges (European Type): BHMA A156.9, B01602, 135 degrees of opening, self-closing.
- G. Back-Mounted Pulls: BHMA A156.9, B02011.
- H. Wire Pulls: Back mounted, solid metal, 4 inches long, 5/16 inch in diameter.
- I. Reception Desk Pull: Doug Mockett, Pull #DP118C, Back mounted, 4 1/4 inches long, Finish: Satin Aluminum #94. Located at reception desk in area S101.
- J. Credenza Pulls: Doug Mockett, Pull #DP118B, Back mounted, 1 23/32 inches long, Finish: Satin Aluminum #94. Located at credenzas in areas S101 & S101A.
- K. Catches: Magnetic catches, BHMA A156.9, B03141.
- L. Adjustable Shelf Standards and Supports: BHMA A156.9, B04071; with shelf rests, B04081; BHMA A156.9, B04102; with shelf brackets, B04112.
- M. Shelf Rests: BHMA A156.9, B04013; metal.
- N. Adjustable Shelf Pins: 5mm stainless steel pins.
- O. Drawer Slides: Side-mounted, full-extension, zinc-plated steel drawer slides with steel ball bearings, BHMA A156.9, B05091, and rated for the following loads:
 - 1. Box Drawer Slides: For drawers not more than 6 inches high and 24 inches wide. 75 lbf
 - 2. File Drawer Slides: For drawers more than 6 inches high or 24 inches wide. 150 lbf.
 - 3. Accuride or Blum products only
- P. Door Locks: BHMA A156.11, E07121. Manufacturer: National; or other reviewed and approved by SLCC.
- Q. Drawer Locks: BHMA A156.11, E07041. Manufacturer: National; or other brand reviewed and approved by SLCC.
- R. CPU Holder: Adjustable CPU holder with 360 degree rotation, fully extending glide track and locking security devise. Manufacturer: Workrite; Product: Vertical CPU Holder #902. Contact: 800-959-9675 or www.workriteergo.com.

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- S. Keyboard Tray:
1. Product: subject to compliance with requirements, provide Workrite Ergonomics, "Pinnacle Arms – Adjustable Arms" keyboard tray or equal.
 - a. Ball bearing slide track to completely recess tray
 - b. 360 Deg. Swivel.
 - c. Height Range: Flush to 6" below worksurface.
 - d. Tilt Range: 15 Deg. Negative to 10 Deg. Positive
 - e. Height Adjustment: No knob, no-lever, Lift-N-Lock.
 - f. Height and Angle Controls: Fully independent.
- T. Grommets for Cable Passage through Countertops: 2-inch OD, satin chrome, grommets and matching plastic caps with slot for wire passage.
1. Product: Subject to compliance with requirements, provide "EDP series" by Doug Mockett & Company, Inc.
- U. Exposed Hardware Finishes: For exposed hardware, provide finish that complies with BHMA A156.18 for BHMA finish number indicated.
1. Satin Stainless Steel: BHMA 630.
- V. For concealed hardware, provide manufacturer's standard finish that complies with product class requirements in BHMA A156.9.
- W. Multi-purpose standoff buttons and support piece: For fastening resin panels to front of reception desk, use Doug Mockett & Company, Inc. #MPB7 5/8" diameter "button" devices. Use these "buttons" in conjunction with custom Anodized Aluminum bar stock support piece. Holes in this support piece shall be threaded to accept screws for buttons. Finish for all components: Anodized Aluminum.
- 2.5 MISCELLANEOUS MATERIALS
- A. Furring, Blocking, Shims, and Hanging Strips: Softwood or hardwood lumber, kiln dried to less than 15 percent moisture content.
 - B. Furring, Blocking, Shims, and Hanging Strips: Fire-retardant-treated softwood lumber, kiln dried to less than 15 percent moisture content.
 - C. Nails: Select material, type, size, and finish required for each use. Comply with FS FF-N-105 for applicable requirements.
 - D. Screws: Select material, type, size, and finish required for each use. Comply with ASMI B18.6.1 for applicable requirements.
 1. For metal framing supports, provide screws as recommended by metal-framing manufacturer.
 - E. Anchors: Select material, type, size, and finish required for each substrate for secure anchorage. Provide nonferrous-metal or hot-dip galvanized anchors and inserts on inside face of exterior

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walls and elsewhere as required for corrosion resistance. Provide toothed-steel or lead expansion sleeves for drilled-in-place anchors.

- F. Adhesives, General: Do not use adhesives that contain urea formaldehyde.
- G. VOC Limits for Installation Adhesives and Glues: Use installation adhesives that comply with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA Method 24):
 - 1. Wood Glues: 30 g/L.
 - 2. Contact Adhesive: 250 g/L.

2.6 FABRICATION, GENERAL

- A. Interior Woodwork Grade: Unless otherwise indicated, provide Premium-grade interior woodwork complying with referenced quality standard.
- B. Wood Moisture Content: Comply with requirements of referenced quality standard for wood moisture content in relation to ambient relative humidity during fabrication and in installation areas.
- C. Sand fire-retardant-treated wood lightly to remove raised grain on exposed surfaces before fabrication.
- D. Fabricate woodwork to dimensions, profiles, and details indicated. Ease edges to radius indicated for the following:
 - 1. Corners of Cabinets and Edges of Solid-Wood (Lumber) Members 3/4 Inch Thick or Less: 1/16 inch .
 - 2. Edges of Rails and Similar Members More Than 3/4 Inch Thick: 1/8 inch .
- E. Complete fabrication, including assembly, finishing, and hardware application, to maximum extent possible before shipment to Project site. Disassemble components only as necessary for shipment and installation. Where necessary for fitting at site, provide ample allowance for scribing, trimming, and fitting.
 - 1. Trial fit assemblies at fabrication shop that cannot be shipped completely assembled. Install dowels, screws, bolted connectors, and other fastening devices that can be removed after trial fitting. Verify that various parts fit as intended and check measurements of assemblies against field measurements indicated on Shop Drawings before disassembling for shipment.
- F. Shop-cut openings to maximum extent possible to receive hardware, appliances, plumbing fixtures, electrical work, and similar items. Locate openings accurately and use templates or roughing-in diagrams to produce accurately sized and shaped openings. Sand edges of cutouts to remove splinters and burrs.
 - 1. Seal edges of openings in countertops with a coat of varnish.

2.7 INTERIOR STANDING AND RUNNING TRIM FOR TRANSPARENT FINISH

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- A. Quality Standard: Comply with AWI Section 300.
- B. Grade: Premium.
- C. Wood Species and Cut: Rift Sawn White Oak. Match species and cut indicated for other types of transparent-finished architectural woodwork located in the building.
- D. Backout or groove backs of flat trim members and kerf backs of other wide, flat members, except for members with ends exposed in finished work.
- E. Assemble moldings in plant to maximum extent possible. Miter corners in plant and prepare for field assembly with bolted fittings designed to pull connections together.

2.8 WOOD CABINETS FOR TRANSPARENT FINISH

- A. Quality Standard: Comply with AWI Section 400 requirements for wood cabinets.
- B. Grade: Premium.
- C. AWI Type of Cabinet Construction: Flush overlay.
- D. Wood Species and Cut for Exposed Surfaces: Rift Sawn White Oak.
 - 1. Grain Direction: Vertically for drawer fronts, doors, and fixed panels.
 - 2. Matching of Veneer Leaves: Book match.
 - 3. Vertical Matching of Veneer Leaves: End match.
 - 4. Veneer Matching within Panel Face: Balance match.
 - 5. Veneer Matching within Room: Select and arrange cabinet face panels for similarity of grain pattern and color between adjacent panels
- E. Semiexposed Surfaces: Provide surface materials indicated below:
 - 1. Surfaces Other Than Drawer Bodies: Thermoset decorative panels. (~~ADD-04~~)
 - 2. Drawer Sides and Backs: Baltic Birch Plywood.
 - 3. Drawer Bottoms: Baltic Birch Plywood.
- F. Provide dust panels of 1/4-inch plywood or tempered hardboard above compartments and drawers, unless located directly under tops.
- G. Drawer joints shall be lock or rabbit joint at minimum.

2.9 SOLID-SURFACING-MATERIAL WINDOW SILLS

- A. Quality Standard: Comply with AWI Section 400 requirements for countertops.
- B. Grade: Custom.
- C. Solid-Surfacing-Material Thickness: 1/2 inch. See details in construction drawings.

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- D. Colors, Patterns, and Finishes: Provide materials and products that result in colors of solid-surfacing material complying with the following requirements:
 - 1. Manufacturer: Corian; Color: Vanilla.
- E. Fabricate sills in one piece, unless otherwise indicated. Comply with solid-surfacing-material manufacturer's written recommendations for adhesives, sealers, fabrication, and finishing.
 - 1. Fabricate sills with shop-applied edges of materials and configuration indicated.

2.10 QUARTZ COUNTERTOPS

- A. Quality Standard: Comply with AWI Section 700.
- B. Grade: Premium.
- C. Quartz Countertop Thickness: 3/4 inch.
- ~~D. Quartz Vertical Cladding Thickness: 1/2 inch.~~
- E. Colors, Patterns and Finishes: Provide materials and products that result in colors of quartz material complying with the following requirements:
 - 1. Countertop Manufacturer: Hanstone; Product Code: #CL101 Aurora Snow.
- F. Fabricate tops in one piece with shop-applied backsplashes and edges, unless otherwise indicated. Comply with quartz manufacturer's written recommendations for adhesives, sealers, fabrication, and finishing.
- G. Fabricate vertical cladding in one piece with shop-applied edges, unless otherwise indicated. Comply with quartz manufacturer's written recommendations for adhesives, sealers, fabrication and finishing in regards to vertical cladding installations.

2.11 CLOSET AND UTILITY SHELVING

- A. Shelf Material: 3/4-inch thermoset decorative panel with PVC or polyester edge banding.

2.12 SHOP FINISHING

- A. Quality Standard: Comply with AWI Section 1500, unless otherwise indicated.
- B. General: Finish architectural woodwork at fabrication shop as specified in this Section. Defer only final touchup, cleaning, and polishing until after installation.
- C. Preparation for Finishing: Comply with referenced quality standard for sanding, filling countersunk fasteners, sealing concealed surfaces, and similar preparations for finishing architectural woodwork, as applicable to each unit of work.
 - 1. Backpriming: Apply one coat of sealer or primer, compatible with finish coats, to concealed surfaces of woodwork. Apply two coats to back of paneling and to end-grain

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surfaces. Concealed surfaces of plastic-laminate-clad woodwork do not require backpriming when surfaced with plastic laminate, backing paper, or thermoset decorative panels.

D. Transparent Finish:

1. Grade: Premium.
2. AWI Finish System: Catalyzed polyurethane.
3. Staining: None required.
4. Filled Finish for Open-Grain Woods: After staining (if any), apply paste wood filler to open-grain woods and wipe off excess. Tint filler to match stained wood.
 - a. Apply wash-coat sealer after staining and before filling.
5. Sheen: Satin, 31-45 gloss units measured on 60-degree gloss meter per ASTM D 523.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Before installation, condition woodwork to average prevailing humidity conditions in installation areas.
- B. Before installing architectural woodwork, examine shop-fabricated work for completion and complete work as required, including removal of packing and backpriming.

3.2 INSTALLATION

- A. Grade: Install woodwork to comply with AWI Section 1700 requirements for the same grade specified in Part 2 for fabrication of type of woodwork involved.
- B. Assemble woodwork and complete fabrication at Project site to comply with requirements for fabrication in Part 2, to extent that it was not completed in the shop.
- C. Install woodwork level, plumb, true, and straight. Shim as required with concealed shims. Install level and plumb (including tops) to a tolerance of 1/8 inch in 96 inches .
- D. Scribe and cut woodwork to fit adjoining work, refinish cut surfaces, and repair damaged finish at cuts.
- E. Fire-Retardant-Treated Wood: Handle, store, and install fire-retardant-treated wood to comply with chemical treatment manufacturer's written instructions, including those for adhesives used to install woodwork.
- F. Anchor woodwork to anchors or blocking built in or directly attached to substrates. Secure with countersunk, concealed fasteners and blind nailing as required for complete installation. Use fine finishing nails or finishing screws for exposed fastening, countersunk and filled flush with woodwork and matching final finish if transparent finish is indicated.

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- G. Standing and Running Trim: Install with minimum number of joints possible, using full-length pieces (from maximum length of lumber available) to greatest extent possible. Do not use pieces less than 96 inches long, except where shorter single-length pieces are necessary. Scarf running joints and stagger in adjacent and related members.
1. Fill gaps, if any, between top of base and wall with plastic wood filler, sand smooth, and finish same as wood base if finished.
 2. Install standing and running trim with no more variation from a straight line than 1/8 inch in 96 inches .
- H. Cabinets: Install without distortion so doors and drawers fit openings properly and are accurately aligned. Adjust hardware to center doors and drawers in openings and to provide unencumbered operation. Complete installation of hardware and accessory items as indicated.
1. Install cabinets with no more than 1/8 inch in 96-inch sag, bow, or other variation from a straight line.
 2. Maintain veneer sequence matching of cabinets with transparent finish.
 3. Fasten wall cabinets through back, near top and bottom, at ends and not more than 16 inches o.c. with No. 10 wafer-head screws sized for 1-inch penetration into wood framing, blocking, or hanging strips.
- I. Countertops: Anchor securely by screwing through corner blocks of base cabinets or other supports into underside of countertop.
1. Align adjacent granite and solid-surfacing-material countertops and form seams to comply with manufacturer's written recommendations using adhesive in color to match countertop. Carefully dress joints smooth, remove surface scratches, and clean entire surface.
 2. Install countertops with no more than 1/8 inch in 96-inch sag, bow, or other variation from a straight line.
 3. Secure backsplashes to walls with adhesive.
 4. Caulk space between backsplash and wall with sealant specified in Division 7 Section "Joint Sealants."
- J. Touch up finishing work specified in this Section after installation of woodwork. Fill nail holes with matching filler where exposed.
- K. Utilize fasteners, adhesives and bonding agents recommended by manufacturer for type of installation indicated. Material that is chipped, warped, hazed or discolored as a result of installation or fabrication methods will be rejected.
- L. Install components plumb, level and rigid, scribed to adjacent finishes, in accordance with approved shop drawings and product data.
- M. Form field joints using manufacturer's recommended procedures. Locate seams in translucent panels so that they are not directly in line with seams in substrates.

3.3 ADJUSTING AND CLEANING

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- A. Repair damaged and defective woodwork, where possible, to eliminate functional and visual defects; where not possible to repair, replace woodwork. Adjust joinery for uniform appearance.
- B. Clean, lubricate, and adjust hardware.
- C. Clean woodwork on exposed and semiexposed surfaces. Touch up shop-applied finishes to restore damaged or soiled areas.

3.4 PROTECTION

- A. Provide final protection and maintain conditions in a manner acceptable to fabricator and Installer that ensures that woodwork is without damage or deterioration at the time of Substantial Completion.

END OF SECTION 064023

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SUNSET RIDGE

Sunset Ridge is a destination wedding venue that radiates natural elegance. It features versatile event spaces, functional back-of-house accommodations, and seamless indoor-outdoor flow. Natural materials, soft lighting, and multiple photo-worthy backdrops enhance the venue's charm and appeal. With neutral colors, arches, and an overall timeless aesthetic, this venue harmonizes with the surrounding landscape to offer a breathtaking, elegant setting for anyone's special day.

03

PROJECT BREIF

PROJECT TYPE
COMMERCIAL

LOCATION
MOAB, UTAH

SQUARE FOOTAGE
9,072

CAPSTONE FULFILLMENTS
CLIENT PROJECT
CLIENT CONTRACT
PROGRAMMING DOCUMENT
COLOR SELECTION
MULTIPLE ITERATIONS
3D RENDERINGS
EXTERIOR ELEVATIONS

CLIENT NOTES

For this project, the client, a wedding florist, wishes to open a destination wedding venue in Moab, Utah. She had a unique perspective and particular requests for the design and layout of this project. We also were able to get valuable insights from a wedding photographer which helped shape a comprehensive list of essential features and design priorities.

The client envisions a wedding venue that accommodates 150-200 guests with thoughtfully designed spaces for every stage of the event. Key features include versatile areas such as a ceremony space that can either transition into the reception area or dining. A spacious reception room should include a dance floor, plentiful outlets for a DJ, and be close to restrooms and other accommodations.

The design should also include a bridal suite and groom lounge that are large enough for each party and include private restrooms and closets. Other requests include a private space for pre-ceremony line-up, and a quiet sitting room for family to relax between events.

Supporting facilities include ample parking, public restrooms for guests, and a well-planned kitchen with a large sink, food prep area, ice, and a refrigerator room for catering and floral needs. Dedicated flower coolers, large metal tables, and storage for chairs and tables are essential. The venue also requires a large storage/janitorial/utility room. Outdoor spaces, such as a courtyard or shaded area (or space for a white tent), are a priority and a flexible prep room should also be incorporated.

Photography needs include abundant natural light through windows and skylights. Artificial lighting should be soft and high-quality for all events. It is imperative that there be multiple photo opportunities throughout the property. An accessible and beautiful exit area is a must, along with a dedicated hanger photo spot for the dress.

The overall aesthetic of the venue should capture the essence of the beautiful surrounding landscape. It should be designed with seamless indoor-outdoor transitions, with an emphasis on natural lighting to create a light and airy atmosphere. The client requested light colored walls and arches to be incorporated for an elegant, timeless feel that would be neutral to accommodate different wedding aesthetics and themes.

CLIENT CONTRACT

Moriah Martin Design
777 N 100 W #4
Logan, Utah 84321
moriahmartin.design@gmail.com
(435) 994-8138

Sunset Ridge Wedding Venue

Upon design consultation, Moriah Martin Design will prepare schematic design and design development drawings to illustrate suggested design concepts.

Upon your written approval of the design concepts, Moriah Martin Design will generate the necessary Interior Architectural drawings required for you to obtain your building permit.

These interior architectural services shall be provided for [XX%] of the total project cost. Total project cost is estimated at [Total Cost]. Any additional expenses incurred during the project will be billed separately and agreed upon by both parties in writing. An initial design fee of \$1,500 is required to be paid prior to commencing our services. This fee is non-refundable and is payable upon signing this agreement. The remainder of the fee shall be paid within 10 days of issuance of the building permit.

You also agree to reimburse Moriah Martin Design for any additional costs, including but not limited to travel expenses, duplication of plans, drawings and specifications, messenger services and the like.

Any changes to the scope of work must be agreed upon in writing by both parties. Should you request design services beyond the scope described in this agreement, such as changes to the design that necessitate alterations to the construction documents after your initial written approval, additional charges will apply. These charges will be invoiced at an hourly rate of \$100 per hour. Any hourly charges will be invoiced on a monthly basis and are payable upon receipt of the invoice. The client understands that changes may result in an extension of the project timeline.

In addition to all other legal rights, we shall be entitled to withhold delivery of our services, should you fail to make any payments due on the project.

The project is expected to be completed by [Estimated Completion Date], barring any unforeseen circumstances or delays beyond the control of the Designer.

In addition to our services, other consultants i.e. architectural, structural, electrical, and mechanical engineers may also be needed to participate in this project. You agree to enter contracts directly with these firms. We can recommend qualified consultants, or you may find your own. While our firm will provide construction documents, obtaining all necessary approvals from government agencies is your responsibility, in collaboration with your chosen builder.

During the course of your project, we will be available to make periodic visits to observe the work of these contractors to determine whether the contractor's work is proceeding in general conformity with our concepts as well as address construction questions. However, constant observation of work at the project is not within our scope. We are not responsible for the performance, quality, timeliness, or delivery of work, materials, or equipment provided by contractors who have signed agreements with you.

All concepts, drawings and specifications prepared by Moriah Martin Design and all copyrights and other proprietary rights applicable remain our property at all times. Project documents may not be used for any purpose other than completion of this specific project.

Both parties agree to keep all project-related information and details confidential. This includes design concepts, client information, and proprietary information shared during the project.

This contract shall be governed by and constructed in accordance with the laws of Utah. In the unlikely event that this relationship does not form to either of our satisfactions, fourteen days written notice is requested to address any problems. If the project is canceled for any reason, you will remain liable for all services provided as of the termination date. Moreover, if there are still items in dispute upon termination, we agree to submit to binding arbitration only in the state of Utah in accordance with the Commercial Arbitration Rules of the American Arbitration Association.

To instigate this project, please sign both copies of this letter and return one copy with your check for the initial deposit of \$1,000 made payable to Moriah Martin Design. Upon receipt, we will schedule your project. If the fully executed agreement is not received within thirty days from the date of the agreement, we reserve the right to re-quote our fees.

Sincerely,

Moriah Martin
Senior Designer
Moriah Martin Design
777 N 100 W #4
Logan, Utah 84321
(435) 994-8138

Client: _____ Date: _____

Designer: _____ Date: _____

PROGRAMMING

Goal: Design a wedding venue in Moab, Utah, that seamlessly integrates with its natural red rock surroundings, offering elegant, versatile spaces for both indoor and outdoor ceremonies and receptions. The design should prioritize guest comfort, operational efficiency, sustainability, and adaptability to accommodate a variety of wedding themes and guest sizes.

- Grand Entry: Create a welcoming first impression for guests. Includes a double door that opens into the main space, is adjacent to a coat closet, includes decorative elements and lighting.
- Main Reception/Ceremony Space: A versatile area for ceremonies, receptions, and dining. It will include high ceilings with a large skylight to maximize natural light, flexible seating arrangements for various events, and a use of arches and curtains around the perimeter for walkways.
- Bridal Suite: Provide luxurious amenities including a long vanity for the bridal party to get ready at, lounge seating, a walk-in closet, and a private bathroom.
- Groom Lounge: Feature a stylish retreat with comfortable seating, entertainment options, a closet, and private bathroom for getting ready.
- Parlor: Offer a quiet and elegant sitting area for smaller gatherings and conversations.
- Warming Kitchen: Equipped to support caterers with essential appliances and prep areas.
- Staging and Floral Prep Room: Include counters, portable stainless steel tables, refrigeration for flowers, and utility sinks to facilitate event/decor preparations.
- Indoor/Outdoor Storage: Each storage room will provide organized, easily accessible solutions for event supplies and furniture. They will also include double doors for ease of rolling out tables.
- Restrooms: Designed with high-end finishes and ADA-compliant stalls to enhance guest convenience.
- Utility: A cleaning closet will be located near the bathrooms for convenience, and mechanical equipment will be located on the roof.
- Mezzanine Floor: Offer a photo-opt that overlooks the ceremony space and gives access to each balcony.
- Office: Included for venue management and coordination.
- Front and Back Balconies: provide scenic views, photo-opts, and outdoor enjoyment.

Collect and Analyze Facts

- Existing conditions: Located in Moab, surrounded by panoramic red rock formations and stunning views. The property includes space and accommodations for both an indoor and outdoor wedding.
- Number of people to accommodate:
- Venue Capacity: Approximately 200 guests.

Space Adjacencies

- Main Areas: Ceremony/reception room, restrooms, coat closet, parlor, and exit to exterior should be easily accessible to guests.
- Service Spaces: Storage, warming kitchen, and staging rooms are to be located close together, adjacent to the main space, and include staff entrances.
- Bride and groom spaces are to be more secluded yet conveniently close to the main areas. The bridal suite has two exits for indoor and outdoor events.

User characteristics

- Target bookings: Couples seeking a destination wedding with stunning views and accommodations for a larger bridal party (more than an elopement).

Existing building parameters: The venue will be newly built using materials that reflect the desert environment's aesthetic and functional needs.

Budget: To be defined by cost of the building, land development, landscaping, and interior furnishings.

PROGRAMMING CONT.

Other considerations:

- Eco-friendly materials and energy-efficient designs
- Ensure structures are weather resistant for year-round use in southern Utah. Ensure structure withstands extreme heat, sunlight, and potential storms.
- ADA-compliant access to all essential public spaces.
- Include a large skylight and lighting considerations to support photography/videography needs
- A neutral color palette that compliments the surrounding landscape as well as any wedding colors.
- Uncover and test concepts
- Indoor/outdoor areas
- Both indoor and outdoor areas will be able to accommodate a reception, ceremony, and dining. Additional features include staff prep rooms, storage, lounging areas, and getting-ready spaces.

Determine Needs: Central space for ceremony, reception, and dining.

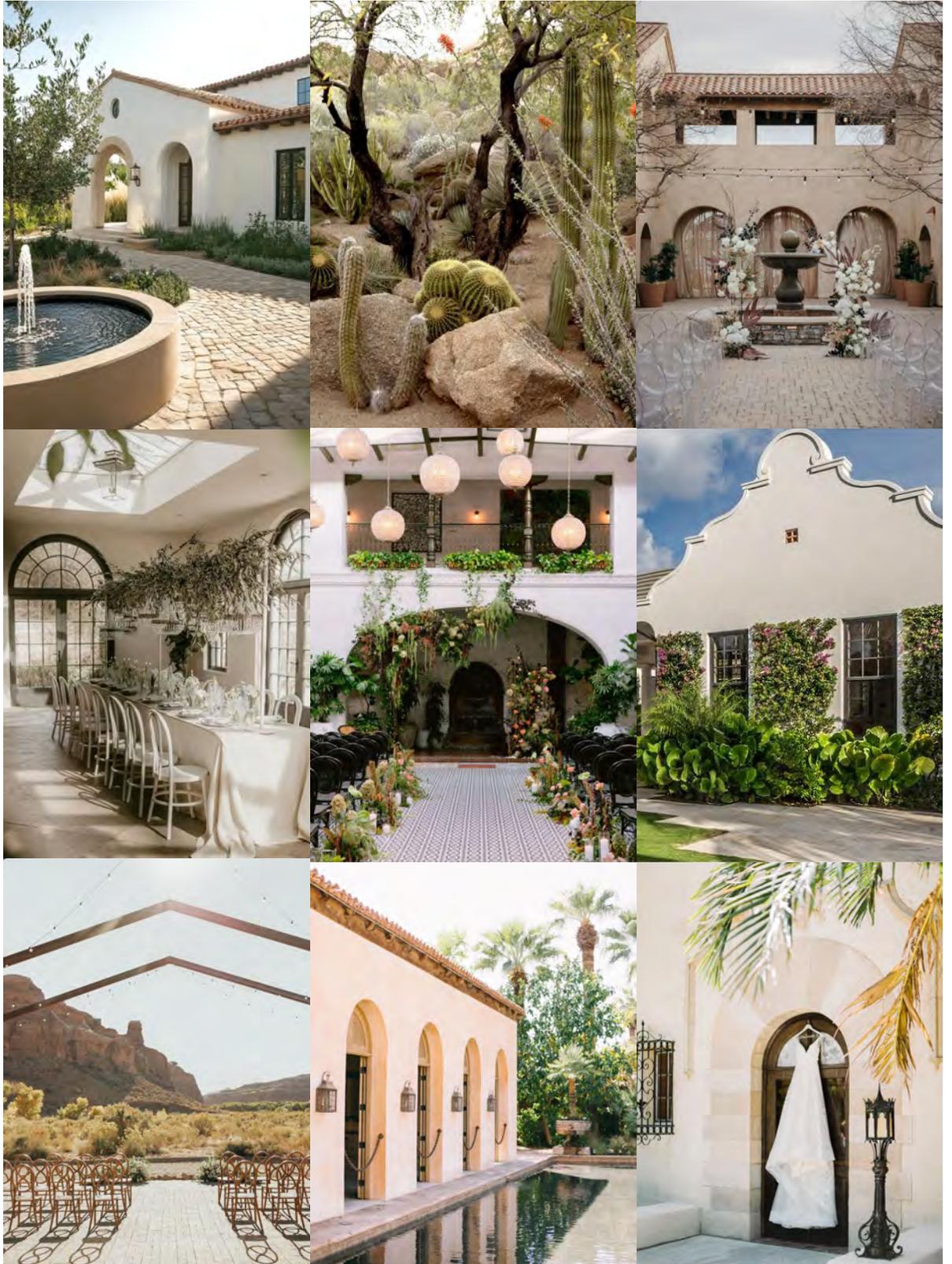
Spaces for staff operations, guest comfort, and seamless event transitions.

State the problem: Design a wedding venue in Moab Utah that can host both indoor and outdoor weddings.

- Form: Ensuring elegance and harmony with the surrounding landscape.
- Function: Catering to a variety of wedding styles and guest preferences.
- Economy: Balancing high-quality, eco-friendly materials with budget considerations.
- Time: Ensuring year-round usability and long-term durability.

INSPIRATION

mission revival, earthy, airy, timeless



MATERIAL BOARD



COLOR SELECTION

Sunset Ridge is a destination wedding venue that embodies natural elegance, versatility, and timelessness. The selected color palette plays a crucial role in supporting this design intent.

Color Palette Overview

- Off-white/Cream: Offers timeless simplicity, providing a soft, neutral backdrop that enhances the natural light and creates a serene atmosphere. It also contributes to the venue's timeless aesthetic, allowing other colors to shine.
- Sage/Olive Green: These shades evoke a sense of tranquility and connection to nature. They can be perceived as refreshing and calming, resonating with the native plants surrounding the venue. The use of green in various shades creates depth and interest while maintaining a cohesive look.
- Charcoal: This dark, rich color adds sophistication and contrast. It can be used to ground and define the space, providing visual weight that balances the lighter colors.
- Terracotta: This warm, earthy tone introduces warmth and an organic quality to the palette. It can reflect the natural materials used throughout the venue and create a harmonious relationship with the outdoor landscape, enhancing the overall charm.

Color Principles and Theories

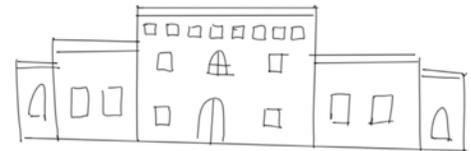
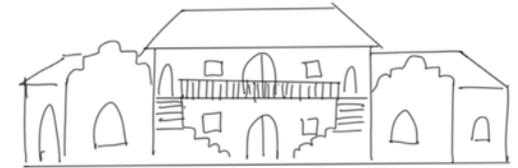
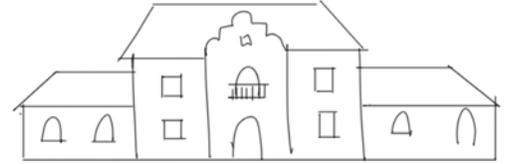
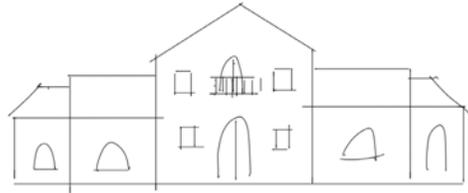
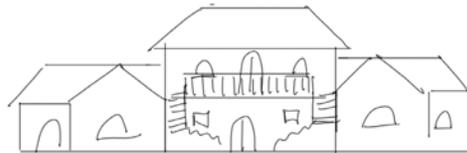
- Color Harmony: The chosen colors create a harmonious palette through analogous (green and terracotta) and complementary (charcoal and cream) relationships. This balance ensures a cohesive look throughout the venue, appealing to the senses and enhancing the overall design intent.
- Contrast and Balance: The combination of light (off-white/cream) and dark (charcoal) colors establishes visual contrast, making spaces feel dynamic yet balanced. The greens provide a bridge between these extremes, creating a soothing transition.

Color in Relation to Materials, Textures, Light, and Form

- Natural Materials: The color palette complements the use of natural materials, such as wood and stone, enhancing the venue's organic feel. For example, terracotta can mirror clay or brick elements, while sage greens can reflect the foliage and landscaping.
- Textures: Incorporating various textures, such as soft linens, rugged wood, and textured ceramics, adds depth and tactile interest. Textures interact with colors to create visual richness and sensory appeal.
- Light: Soft, natural lighting enhances the colors and materials used in the venue. The interplay of light and shadow can also accentuate forms, such as arches, creating dramatic visual effects.
- Form: The arches and other architectural features harmonize with the color palette, emphasizing the timeless aesthetic. The colors chosen can highlight these forms, drawing attention to the elegance of the design and how it relates to the surrounding natural environment.

Overall, the thoughtful integration of color, materials, textures, light, and form creates an elegant and breathtaking environment for special occasions at Sunset Ridge.

MULTIPLE ITERATIONS



EXTERIOR RENDERING



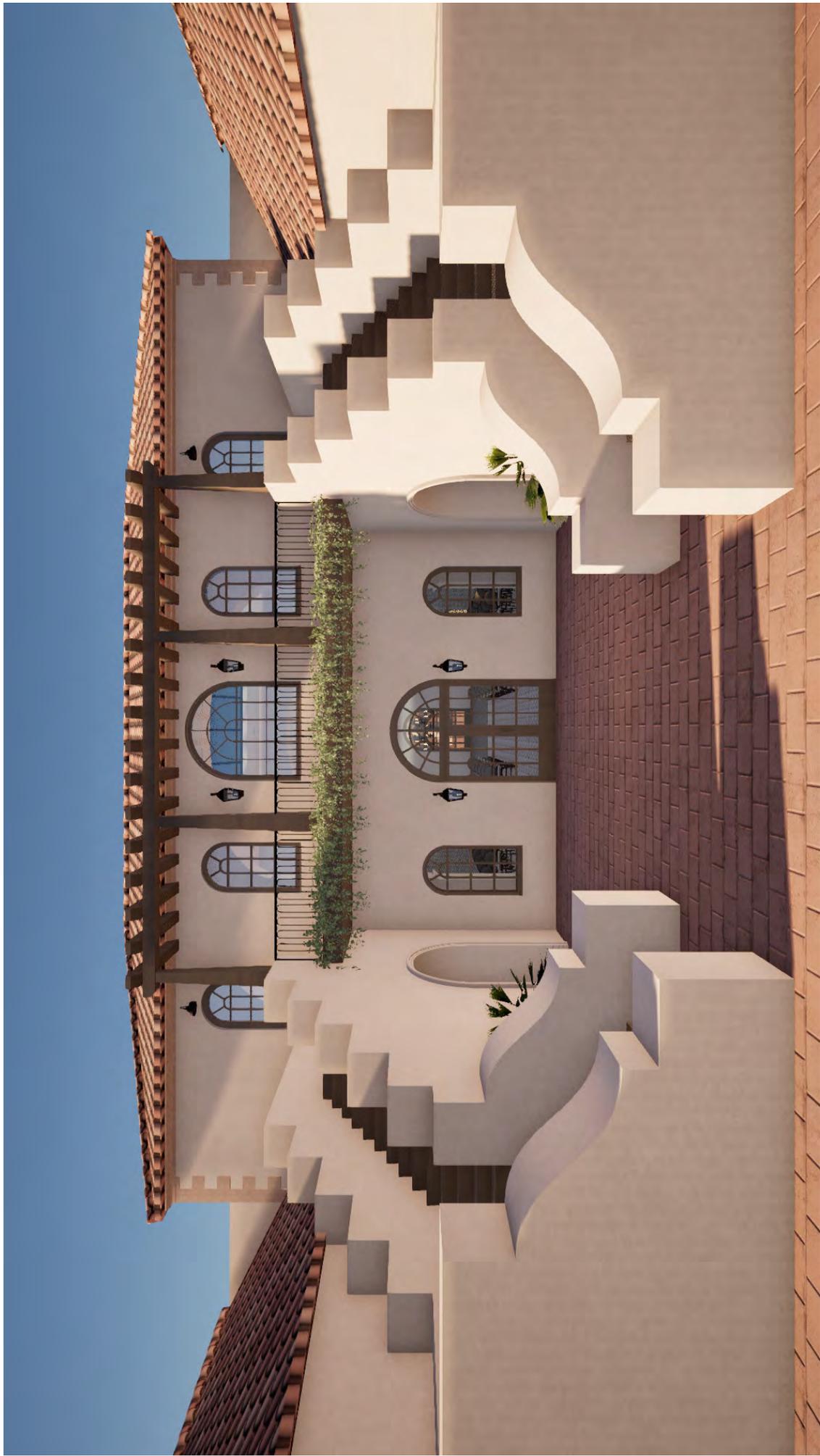
EXTERIOR RENDERING



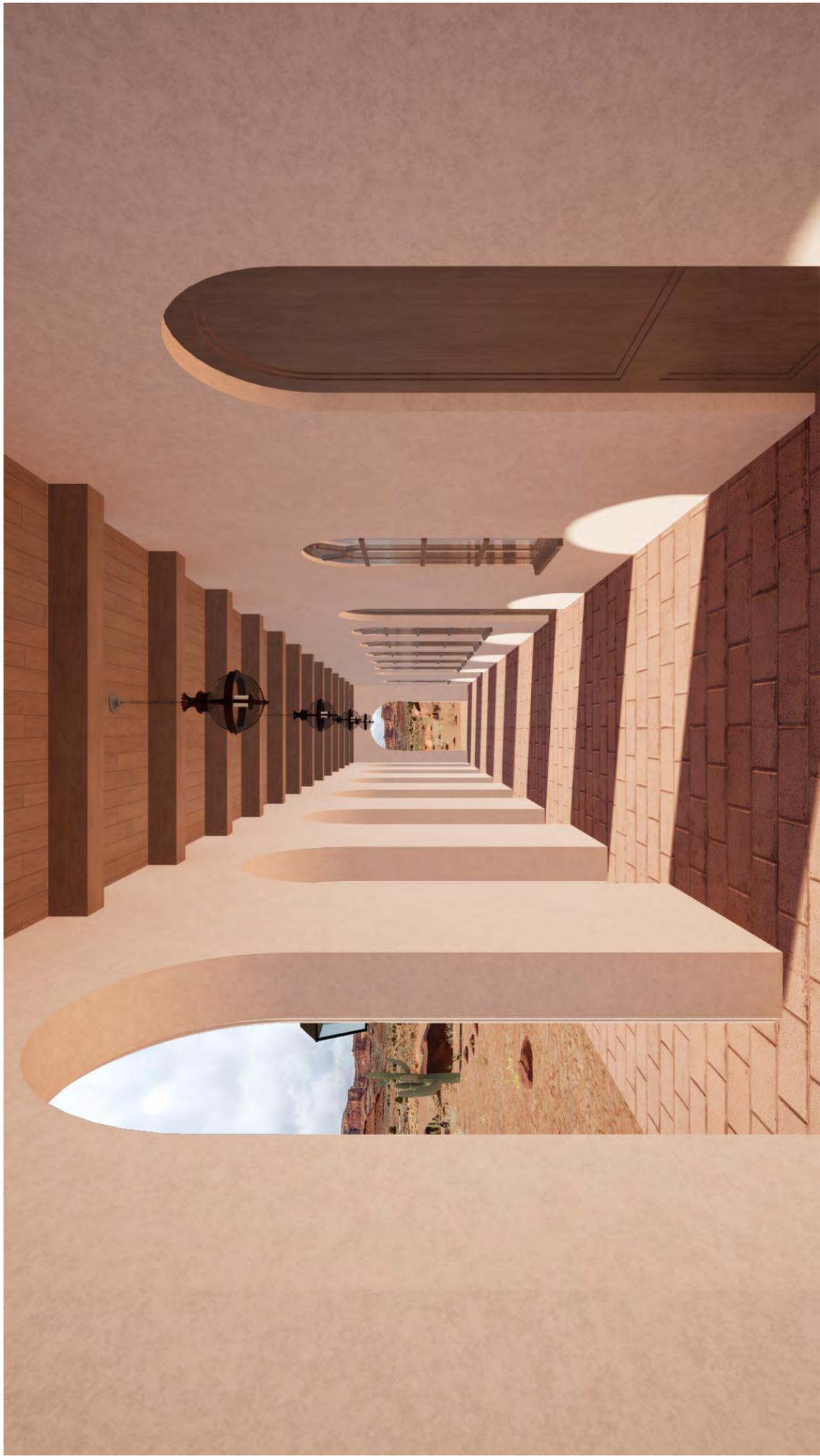
EXTERIOR RENDERING



EXTERIOR RENDERING



SIDE PASSAGE RENDERING

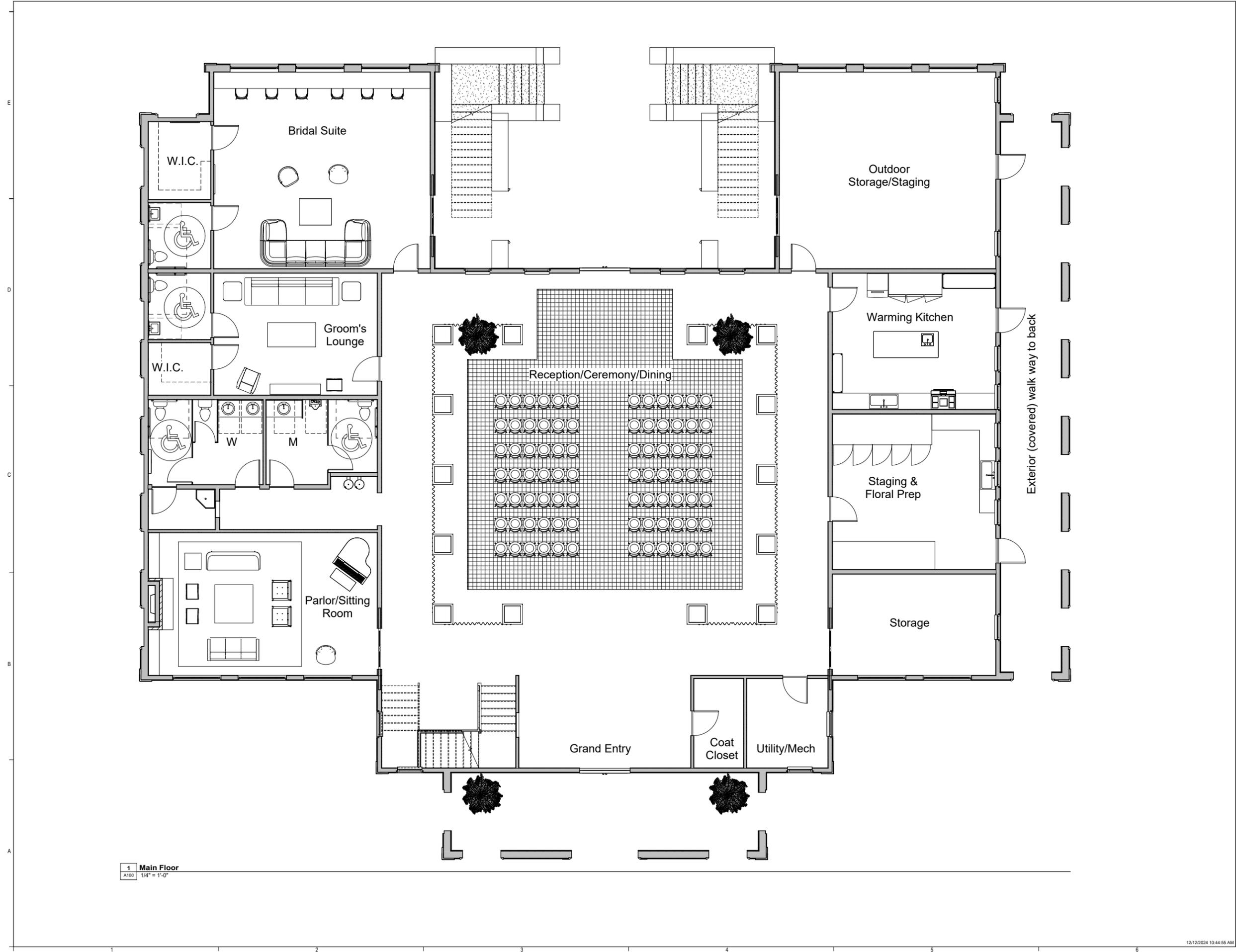


INTERIOR RENDERING



INTERIOR RENDERING





1 Main Floor
A100 1/4" = 1'-0"

SUNSET RIDGE
Wedding Venue

MARK	DATE	DESCRIPTION

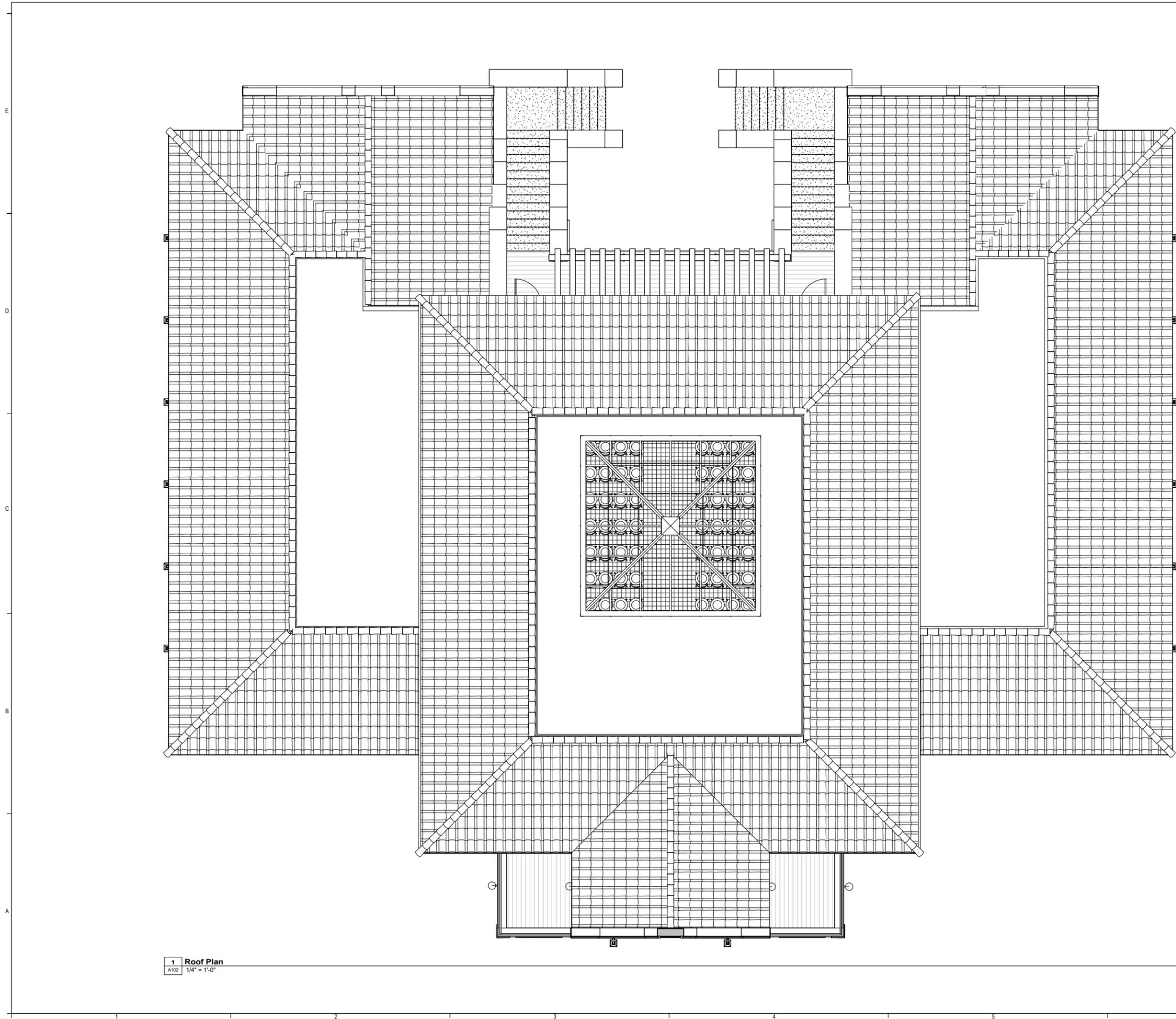
PROJECT #	
DESIGNED BY	
DRAWN BY	
CHECKED BY	
ISSUED	

Main Floor Plan

A100

DESIGNER MORIAH N. MARTIN
PHONE NUMBER 435.994.8138
EMAIL moriahmartin.design@gmail.com

Moab, Utah



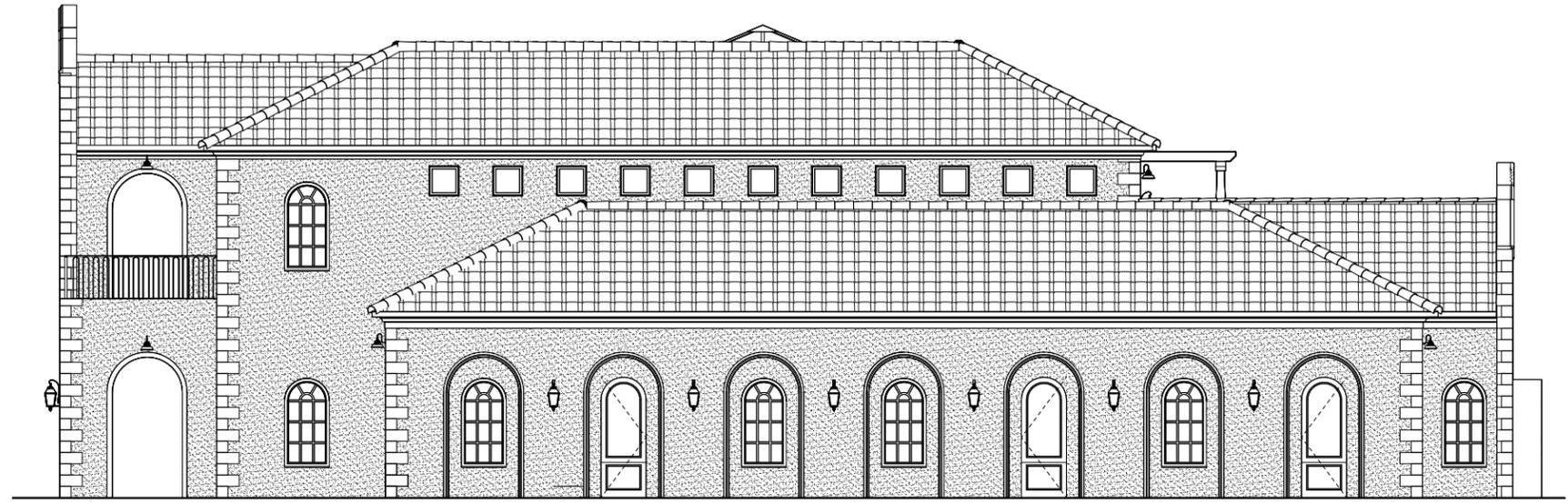
1 Roof Plan
A102 1/4" = 1'-0"

SUNSET RIDGE
Wedding Venue
Moab, Utah

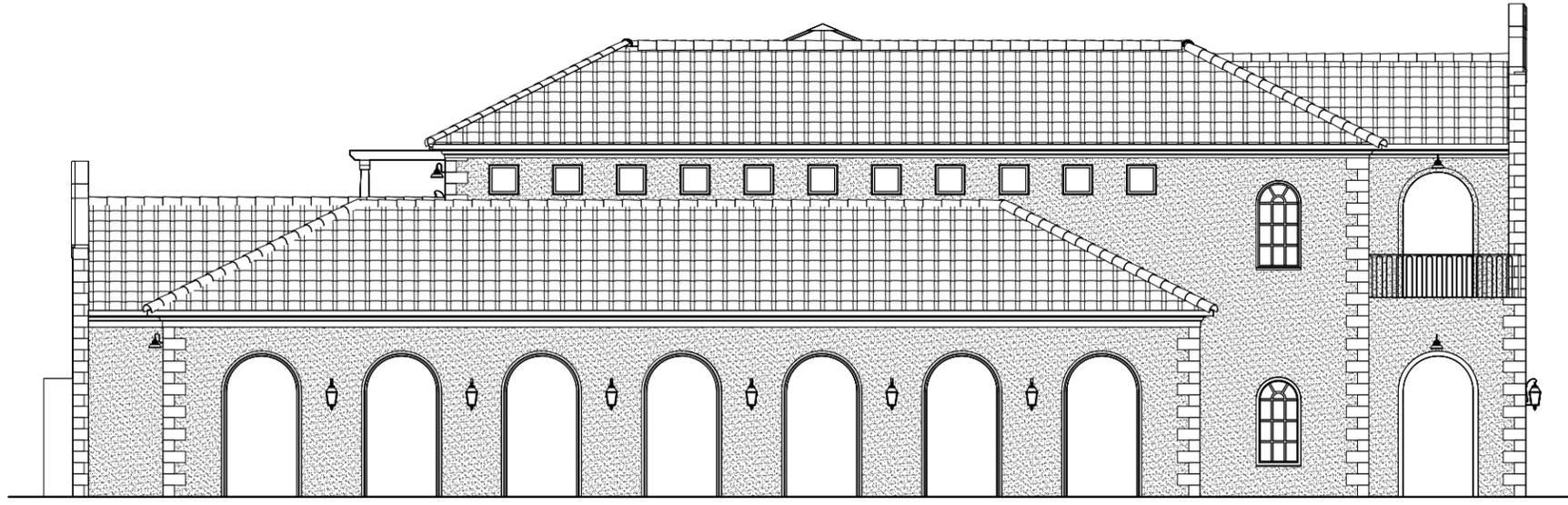
MARK	DATE	DESCRIPTION

PROJECT #:
DESIGNED BY:
DRAWN BY:
CHECKED BY:
ISSUED

E
D
C
B
A



1 East
A104 1/4" = 1'-0"



2 West
A104 1/4" = 1'-0"

SUNSET RIDGE
Wedding Venue

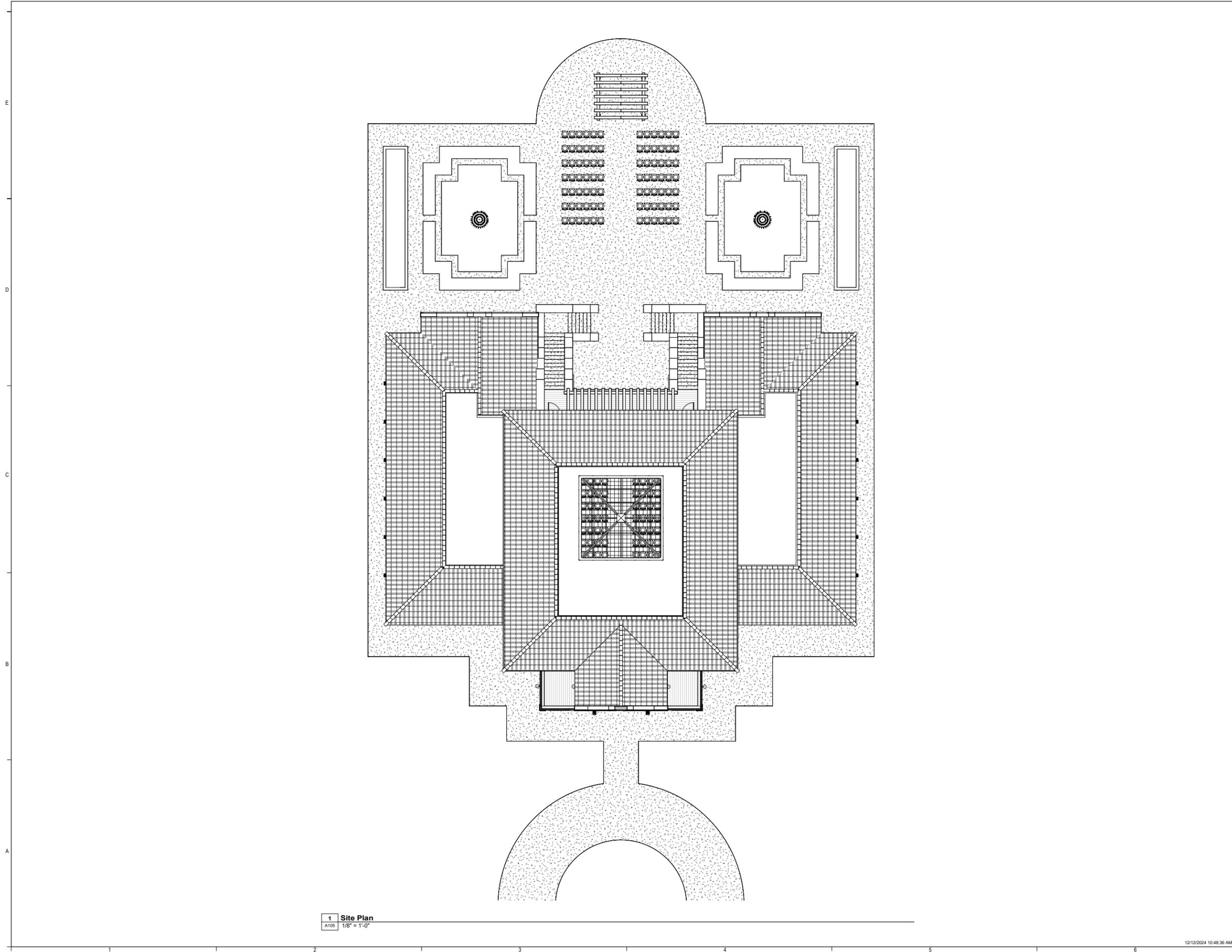
MARK	DATE	DESCRIPTION

PROJECT #
DESIGNED BY:
DRAWN BY:
CHECKED BY:
ISSUED

Side Elevations

A104

DESIGNER MORIAH N. MARTIN
PHONE NUMBER 435.994.8138
EMAIL moriamartin.design@gmail.com



1 Site Plan
A105 1/8" = 1'-0"

SUNSET RIDGE
Wedding Venue

MARK	DATE	DESCRIPTION

PROJECT #:
DESIGNED BY:
DRAWN BY:
CHECKED BY:
ISSUED

DESIGNER: MORIAH N. MARTIN
PHONE NUMBER: 435.994.8138
EMAIL: moriahmartin.design@gmail.com

Moab, Utah

LEAF &

LORE

Leaf & Lore is a small retail shop that offers a thoughtfully curated selection of books, plants, fresh flowers, and distinctive decor pieces. Housed in a restored historic Sinclair gas station in Logan, Utah, this adaptive reuse project breathes new life into a once-abandoned space, transforming it into a welcoming and memorable shopping experience. By re-purposing the existing structure, the project minimizes the need for new construction, offering both environmental benefits and cost savings. The store's name, Leaf & Lore, reflects its essence—celebrating the beauty of nature and storytelling, symbolizing growth, knowledge, and the richness of life.

05

PROJECT BREIF

PROJECT TYPE

COMMERCIAL

LOCATION

LOGAN, UTAH

SQUARE FOOTAGE

1,231

CAPSTONE FULFILLMENTS

ADAPTIVE REUSE

BRANDING PACKAGE

RENDERED FLOOR PLAN

2D RENDERINGS

CODE ANALYSIS

AWARENESS OF LAWS, CODES, STANDARDS

USE EXISTING SET OF CONSTRUCTION DOCUMENTS

TENANT IMPROVEMENT CONSTRUCTION DOCUMENTS

SPECIFY INTERIOR CONSTRUCTION MATERIALS

CABINET DETAIL

DOCUMENT ELECTRICAL AND MECHANICAL

SELECTION AND APPLICATION OF LUMINARIES

ENERGY, BUILDING CONTROL & SECURITY

TYPICAL FABRICATION, INSTALLATION & MAINTENANCE

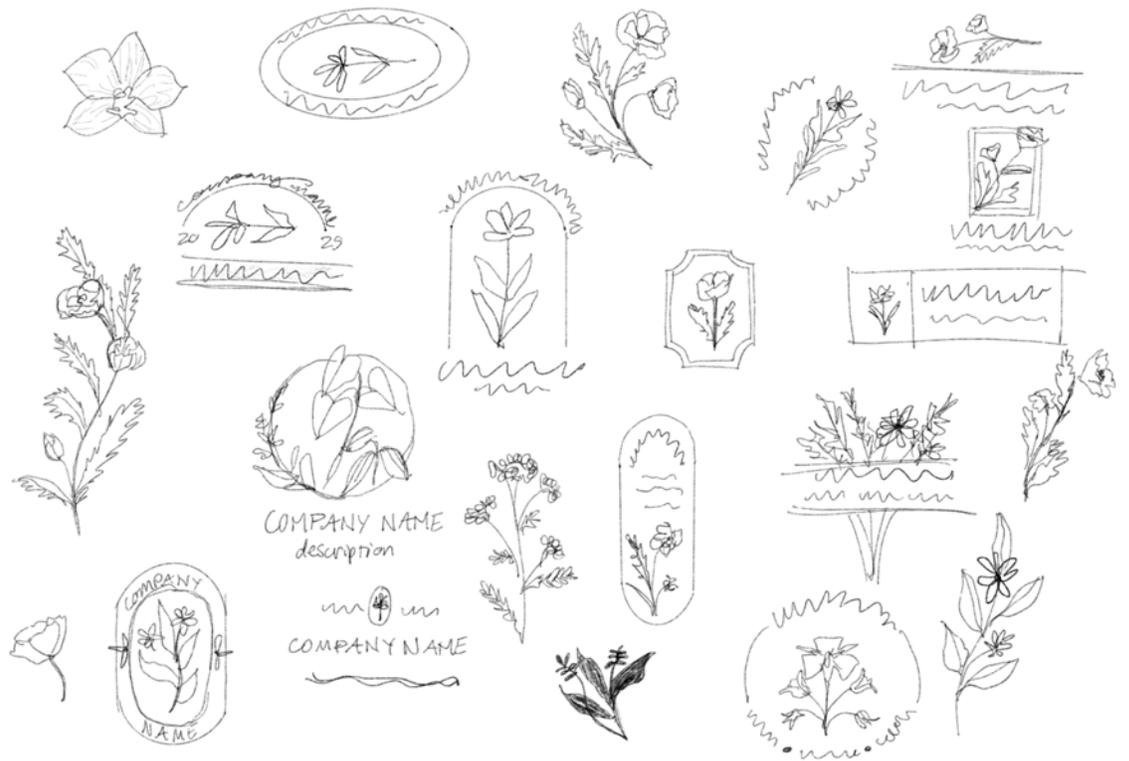
INSPIRATION

botanical, charming, cozy, feminine



BRANDING PROCESS

SKETCHES



LOGO ITERATIONS



BRANDING PACKAGE

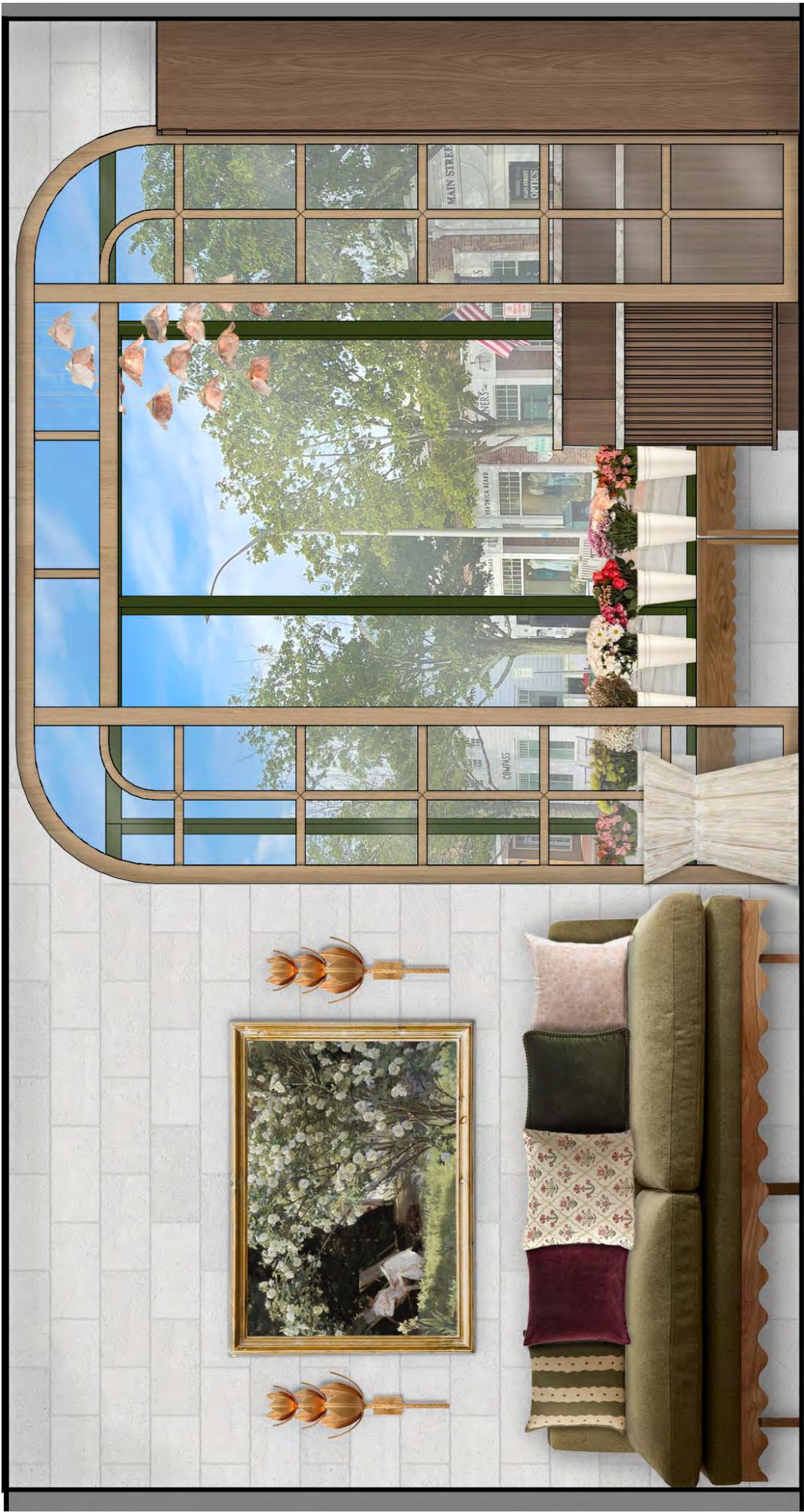


RENDERED FLOOR PLAN





POINT OF SALES An inviting focal point, where the shop's floral, feminine aesthetic comes to life. A custom walnut counter with a stunning marble top serves as both a functional workspace and a beautiful design statement. Behind it, the store's elegant sign reinforces the brand identity, while fresh flower displays add a touch of natural charm. Nearby shelving showcases curated small goods like stationery and cards, offering last-minute treasures for shoppers. Positioned near the drinking fountain and restroom, this space is both practical and thoughtfully designed, creating a welcoming first impression that sets the tone for the entire store.

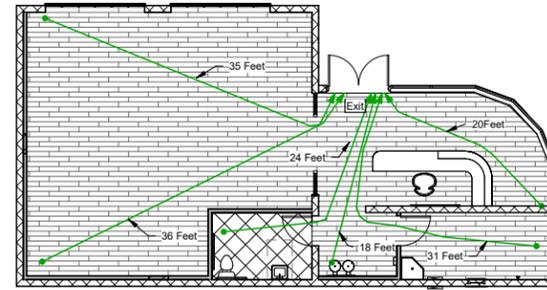


SEATING AREA The merchandising area extends the shop's charming, feminine aesthetic with a cozy seating nook that invites guests to relax and browse a book. A custom cased opening with glass elegantly separates this space from the point-of-sale area while maintaining an open, airy feel. This seating area enhances the shopping experience and provides a cute backdrop for shoppers to take pictures at.

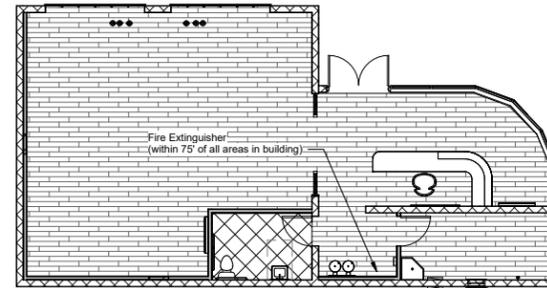
CODE ANALYSIS

Applicable Codes:	IBC 2021, IMC 2021, IFC 2020, IECC 2021, IPC 2021
Occupancy Classification:	M
Total Area (New - Gross):	1,231 sqft.
Occupancy Load:	20
Construction Type:	Type III B, Not Sprinkled
Allowable Height:	55 ft. Above Grade
Allowable Stories:	2
Allowable Sq. Footage:	12,500 sqft.
Fire Resistive Interior Walls:	0-Hour
Fire Resistive Exterior Walls:	2-Hour
Fire Separation Between Occupancies:	N/A
Fire Resistive Floor:	0-Hour
Fire Resistive Structural Frame:	0-Hour
Minimum Number of Exits:	1
Maximum Distance Between Exits:	75 ft.
Minimum Corridor Width:	36 min. (44 Preferred)
Minimum Width of Stairs:	N/A
Elevator:	N/A
Total Plumbing Fixtures:	1 Unisex
Lavatories:	1 Unisex
Drinking Fountains:	1 Fixture

CODE ANALYSIS MERCANTILE BUILDING BASED ON 2018 IBC



2 New Exiting Plan
G101 1/8" = 1'-0"



1 Fire Extinguisher Plan
G101 1/8" = 1'-0"



3 Vicinity Plan
G101

APPLICABLE CODES

IBC 2021, IMC 2021, IFC 2020, IECC 2021, IPC 2021, NEC 2020

DESIGN AREA - SMALL ASSEMBLY -> MERCANTILE

NEW (GROSS)	MAIN FLOOR	1231 SQ.FT.
TOTAL		1231 SQ.FT.

ALLOWABLE AREA

TYPE OF CONSTRUCTION	III-B
BASIC ALLOWABLE (I.B.C.) TABLE 506.2	12,500 SQ. FT.
PERIMETER	160 FT.
PERIMETER ON PUBLIC WAY OR OPEN SPACE	105 FT.
STORIES (ALLOWED/ACTUAL) TABLE 504.4	2/1
HEIGHT (ALLOWED/ACTUAL) TABLE 504.3	55/14.4'
FIRE SPRINKLER USED	NO
FIRE ALARM	NO

CLASSIFICATION

OCCUPANCY CLASSIFICATION	M
REQUIRED CONSTRUCTION (RATINGS)	
EXTERIOR WALLS FIRE SEPARATION DISTANCE	TABLE 602 x<5
OCCUPANCY M	FIRE RATING 1
Existing exterior walls are masonry with an assumed 3 hour rating	
FIRE RATING FOR BUILDING ELEMENTS	TABLE 601
STRUCTURAL FRAME	0
BEARING WALLS	
EXTERIOR	2
INTERIOR	0
NON-BEARING WALLS	
EXTERIOR	0
INTERIOR	0
FLOOR CONSTRUCTION	0
ROOF CONSTRUCTION	0
FIRE WALL (TABLE 706.4)	3
FIRE BARRIER (TABLE 707.3.10 - B)	2

OCCUPANT LOAD

OL = 1231/60 = 20

NUMBER OF EXITS REQUIRED (SEC. 1015, TABLE 1015.1, 1021 & TABLE 1021.1)

EXITS (REQUIRED/PROVIDED) 1

EXIT DISTANCES (TABLE 1021.2)

200 FEET EXIT DISTANCE ALLOWED BY CODE TABLE 1017.2

ACCESSIBILITY REQUIREMENTS

ACCESSIBILITY IS TO COMPLY WITH CHAPTER 11 2018 IBC AND FEDERAL ADA STANDARDS

PLUMBING REQUIREMENTS (TABLE 2902.10)

	5 MALE	5 FEMALE
	REQUIRED/PROVIDED	REQUIRED/PROVIDED
WATER CLOSETS	1/1	1/1
LAVATORIES	1/1	1/1

DRINKING FOUNTAINS - NA IBC 2903.2 Exception "e"
SERVICE SINK - NA IBC 2903.2 Exception "e"

(PROVIDED RESTROOMS ARE IN COMPLIANCE WITH TABLE 2902.1 IBC 2018)

SITE INFORMATION Refer to A001

PARKING SPACES PROVIDED 8
ACCESSIBLE PARKING SPACES PROVIDED 1

MORAH N. MARTIN
435.994.8138
morahmartin.design@gmail.com

DESIGNER
PHONE NUMBER
EMAIL

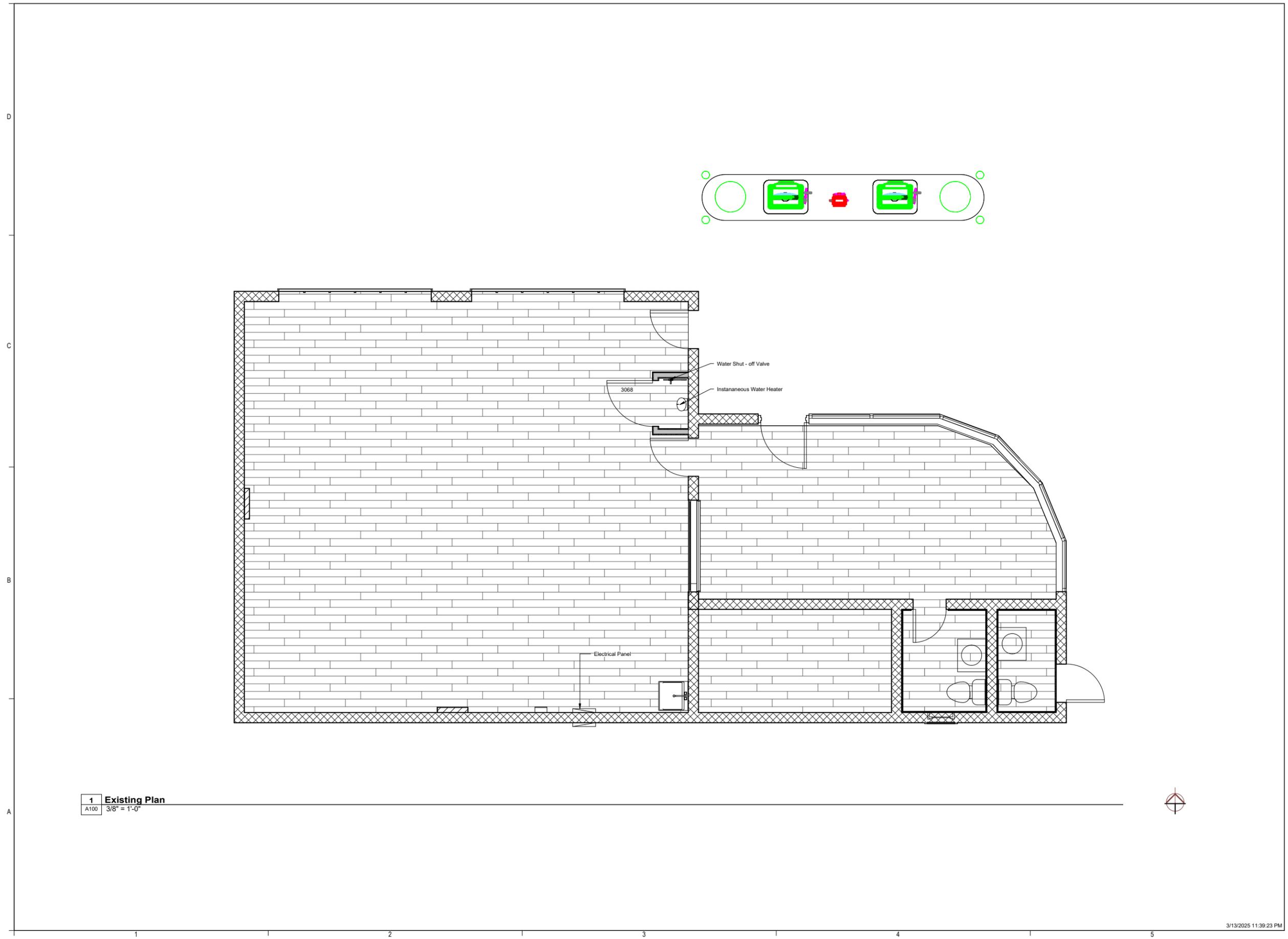
Leaf & Lore Shop
TENANT IMPROVEMENT - ADAPTIVE REUSE
OWNERS NAME N/A
PROJECT ADDRESS
96 East Center Street, Logan, Ut. 84321

MARK	DATE	DESCRIPTION
1	Date 1	Revision 1

PROJECT # 294
DESIGNED BY srm
DRAWN BY srm
CHECKED BY srm
ISSUED 4/5/2023

Code Analysis, Vicinity Map, Exit & F.E. Plans

G101



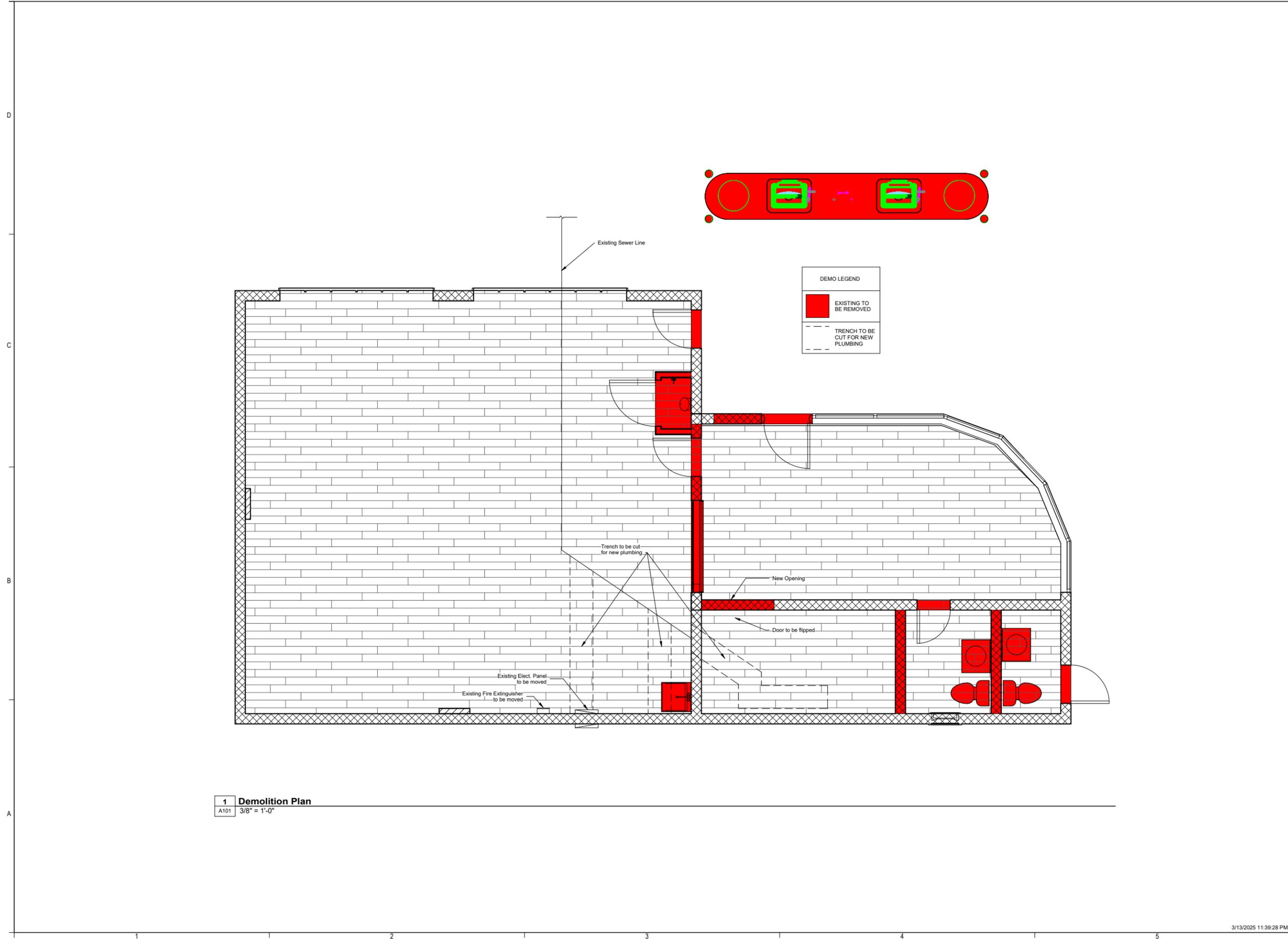
1 Existing Plan
A100 3/8" = 1'-0"

DESIGNER: MORIAH N. MARTIN
PHONE NUMBER: 435-994-8138
EMAIL: moriahmartin.design@gmail.com

Leaf & Lore Shop
TENANT IMPROVEMENT - ADAPTIVE REUSE
OWNERS NAME: N/A
PROJECT ADDRESS: 96 East Center Street, Logan, Ut. 84321

MARK:	DATE:	DESCRIPTION:

PROJECT #: 294
DESIGNED BY: srm
DRAWN BY: srm
CHECKED BY: srm
ISSUED: 4/5/2023



1 Demolition Plan
A101 3/8" = 1'-0"

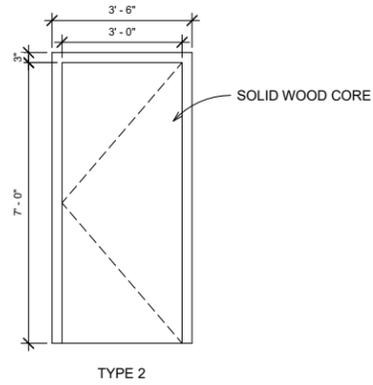
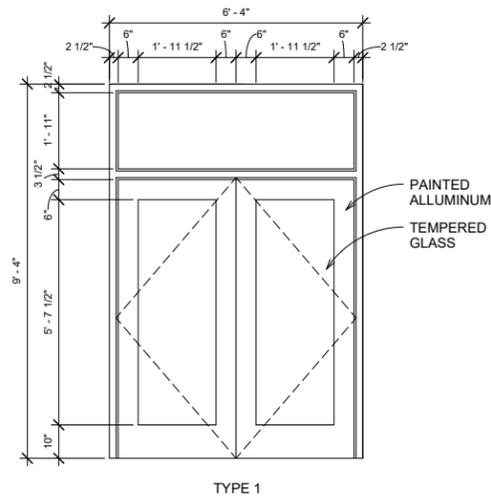
DEMO LEGEND	
	EXISTING TO BE REMOVED
	TRENCH TO BE CUT FOR NEW PLUMBING

DESIGNER: MORIAH MARTIN
PHONE NUMBER: 435.994.8138
EMAIL: moriahmartin.design@gmail.com

Leaf & Lore Shop
TENANT IMPROVEMENT - ADAPTIVE REUSE
OWNER'S NAME: N/A
PROJECT ADDRESS: 96 East Center Street, Logan, Ut. 84321

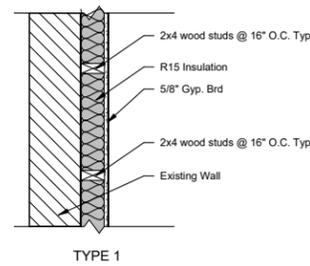
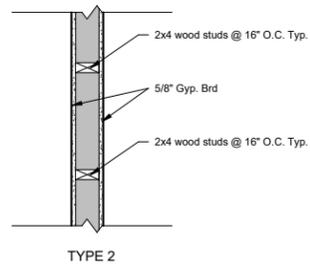
MARK	DATE	DESCRIPTION

PROJECT #: 294
DESIGNED BY: srm
DRAWN BY: srm
CHECKED BY: srm
ISSUED: 4/5/2023

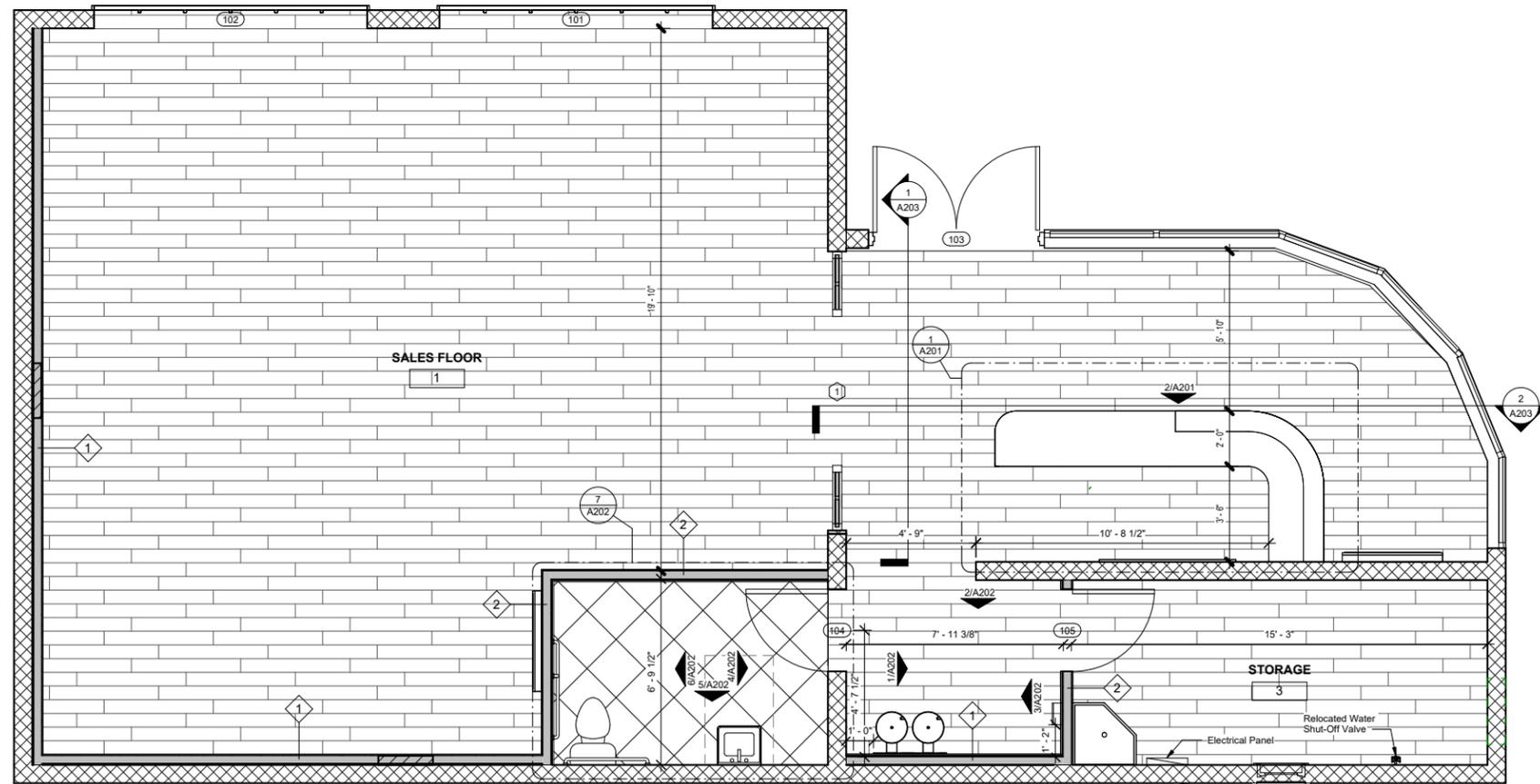


Door Types
1/2" = 1'-0"

Door Schedule				
Door Number	Width	Height	Size	Comments
101	10'-0"	8'-0"	0'-2"	EXISTING
102	10'-0"	8'-0"	0'-2"	EXISTING
103	6'-1 1/4"	7'-0"	0'-1 3/4"	TYPE 1
104	3'-0"	7'-0"	0'-2"	TYPE 2
105	3'-0"	7'-0"	0'-2"	TYPE 2



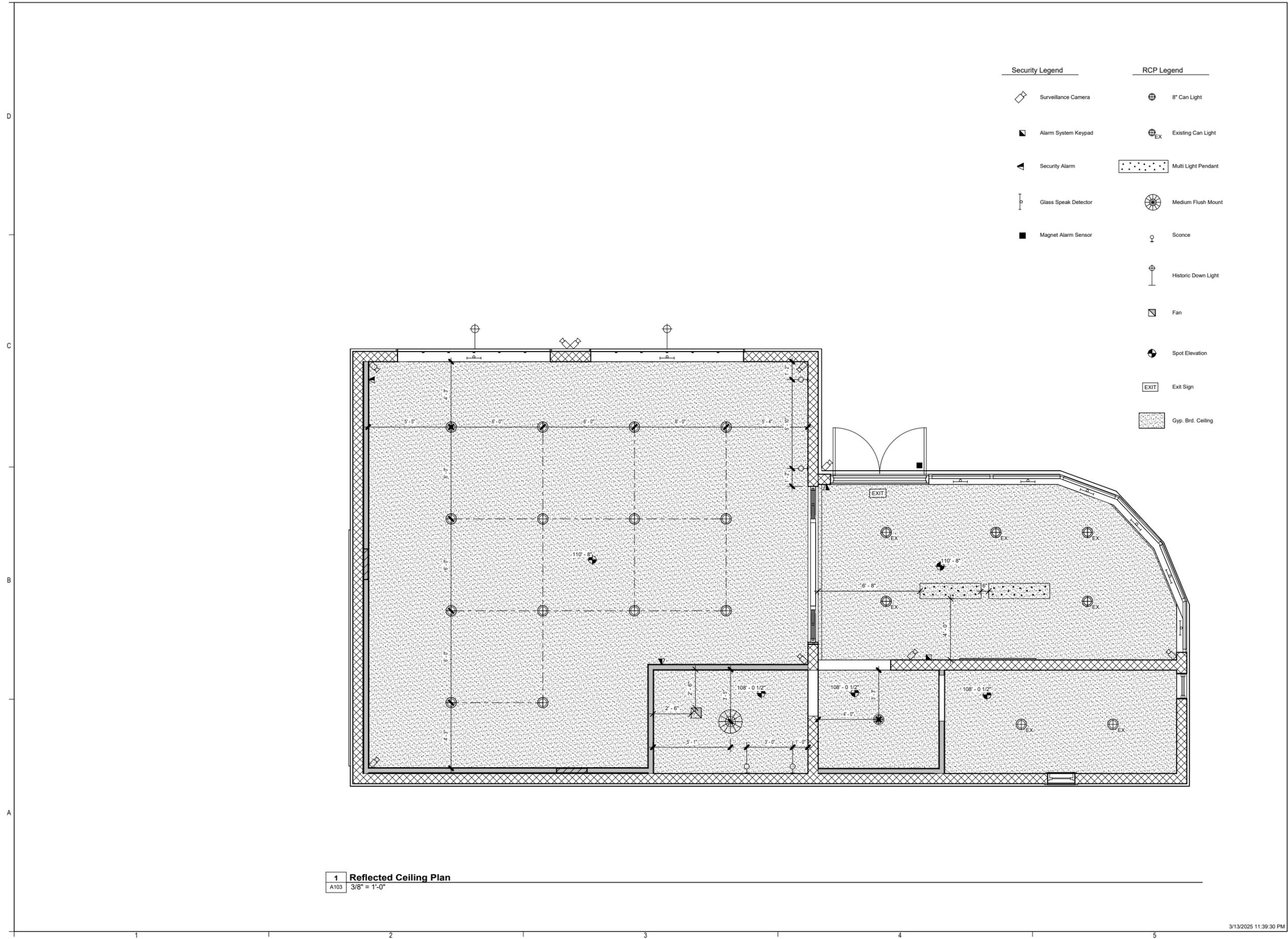
Wall Types
1" = 1'-0"



1 New Floor Plan
3/8" = 1'-0"

MARK:	DATE:	DESCRIPTION:

PROJECT #	294
DESIGNED BY:	srn
DRAWN BY:	srn
CHECKED BY:	srn
ISSUED	4/5/2023



- | Security Legend | | RCP Legend | |
|-----------------|----------------------|------------|---------------------|
| | Surveillance Camera | | 8' Can Light |
| | Alarm System Keypad | | Existing Can Light |
| | Security Alarm | | Multi Light Pendant |
| | Glass Speak Detector | | Medium Flush Mount |
| | Magnet Alarm Sensor | | Sconce |
| | | | Historic Down Light |
| | | | Fan |
| | | | Spot Elevation |
| | | | Exit Sign |
| | | | Gyp. Brd. Ceiling |

1 Reflected Ceiling Plan
A103 3/8" = 1'-0"

Leaf & Lore Shop
TENANT IMPROVEMENT - ADAPTIVE REUSE
OWNERS NAME N/A
PROJECT ADDRESS 96 East Center Street, Logan, Ut. 84321

DESIGNER MORIAH N. MARTIN
PHONE NUMBER 435.994.8138
EMAIL moriahmartin.design@gmail.com

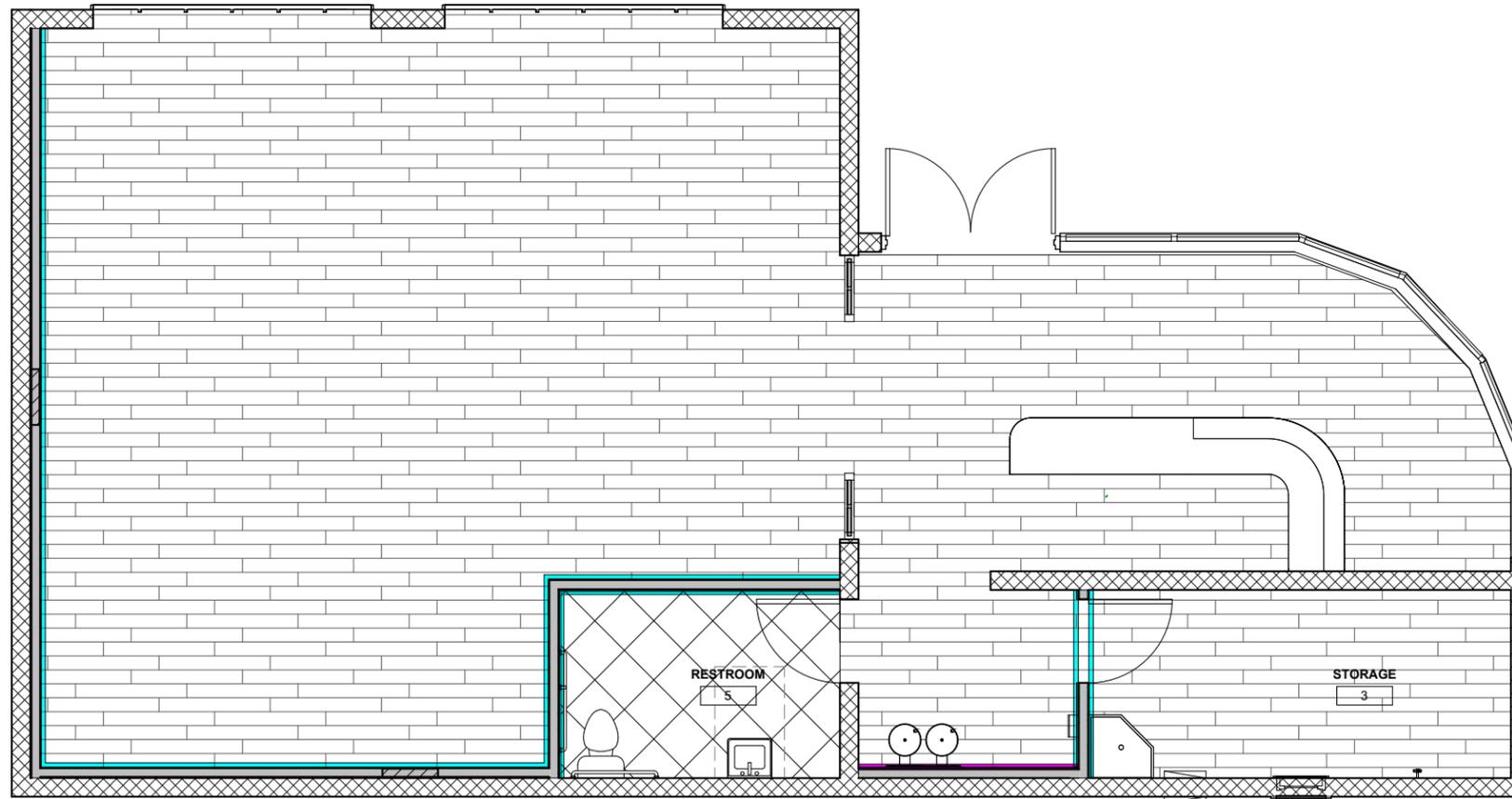
MARK	DATE	DESCRIPTION

PROJECT 294
DESIGNED BY srm
DRAWN BY srm
CHECKED BY srm
ISSUED 4/5/2023

D
C
B
A

FINISH SCHEDULE			
Key Name	Manufacturer	Product Name	Color/Finish
P1	Sherwin Williams	Eggshell Paint	Snowbound 7004
WC1	Morris & Co	Pimpernel Wallpaper	Bayleaf/Manila
LVP1	COREtec	Vinyl Plank Flooring	Calypso Oak
T1	Ann Sacks	18x18 Field Tile	Verde Tia
T2	Tiles of Ezra	EZR 1550	Thin Dust Bejmat
PLW1	Georgia-Pacific	Plywood	Finish Grade
PLW2	Georgia-Pacific	Painted Plywood	P1
V1	Oakwood Veneer Co	Quartered Veneer	Walnut
WD1	Stat Solution	Tambour Wood Panel	Walnut
STN1	Signorino	Marble Stab	Ceppo Sicilia

FINISH LEGEND	
	CORETEC VINYL PLANK FLOORING CALYPSO OAK
	ANN SACKS 18X18 FIELD TILE VERDE TIA
	SERWIN WILLIAMS EGG SHELL PAINT SNOWBOUND SW 7004
	MORRIS & CO PIMPERNEL WALLPAPER BAYLEAF/MANILA



1 Finish Plan
A104 3/8" = 1'-0"

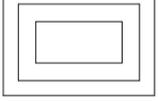
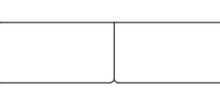
DESIGNER: MORIAH N. MARTIN
PHONE NUMBER: 435.994.8138
EMAIL: moriahmartin.design@gmail.com

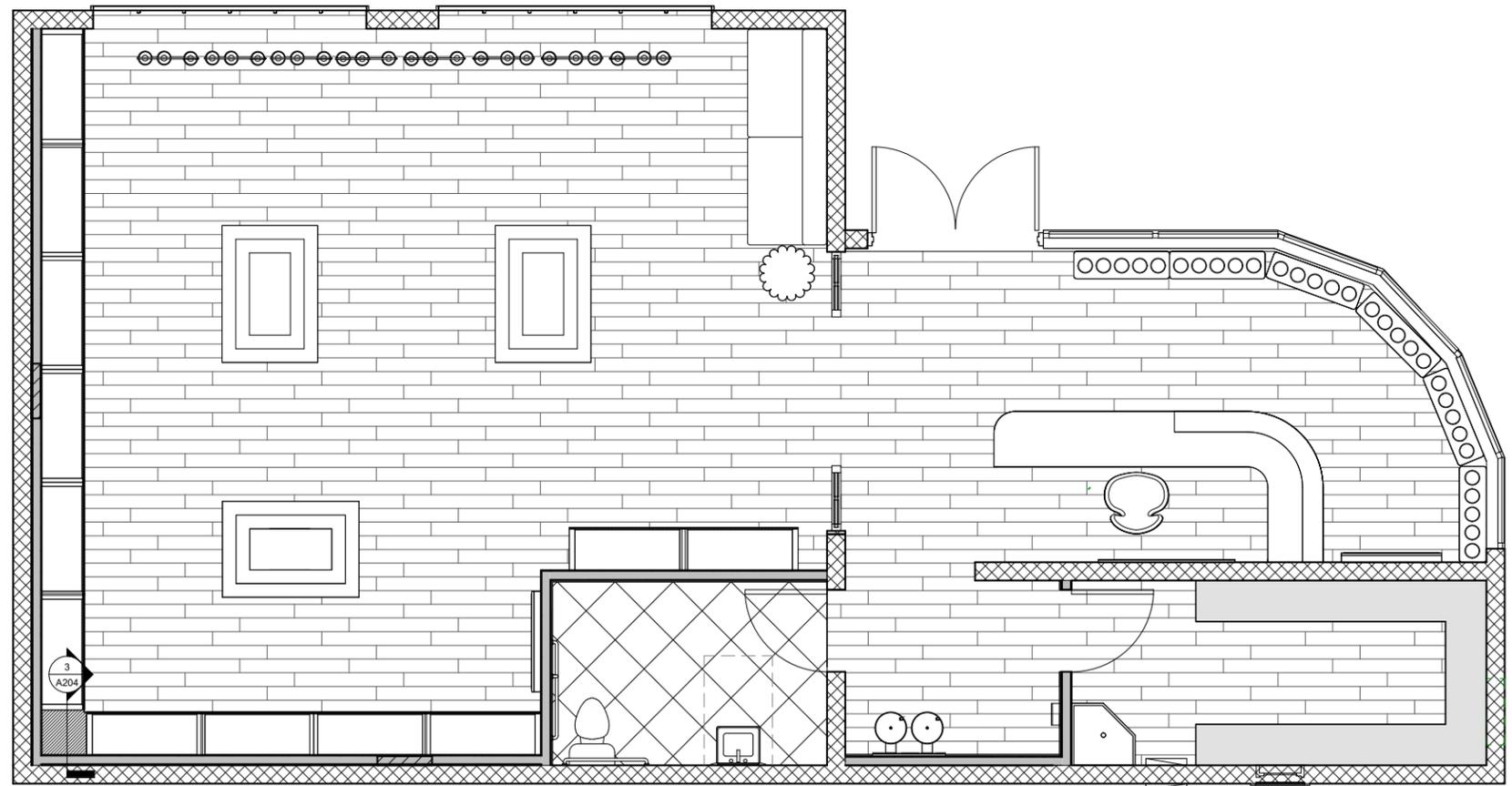
Leaf & Lore Shop
TENANT IMPROVEMENT - ADAPTIVE REUSE
OWNERS NAME: N/A
PROJECT ADDRESS: 96 East Center Street, Logan, Ut. 84321

MARK	DATE	DESCRIPTION

PROJECT # 294
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FURNITURE LEGEND	
	BOOKSHELF CUSTOM DESIGN QUANTITY: 12
	LAURIE BENCH 48X12X18 LE MAE BY LINDYE QUANTITY: 6
	SMALL PRODUCT DISPLAY CUSTOM DESIGN QUANTITY: 2
	ANNIE SCALLOPED SIDE TABLE CHAIRISH LISTING KENNETH LUDWIG CHICAGO QUANTITY: 1
	URBAN OAK DOWEL HANGING PLANTERS ICON MODERN QUANTITY: 8
	TIERED DISPLAY TABLE RECTANGULAR 3TRT8042HM DISPLAYS TO GO QUANTITY: 3
	ROMA SOFA MOSS UO HOME QUANTITY: 1
	MILLWORK 18"D SHELVING STORAGE 18" VERTICAL SPACING



1 Furniture Plan
A105 3/8" = 1'-0"

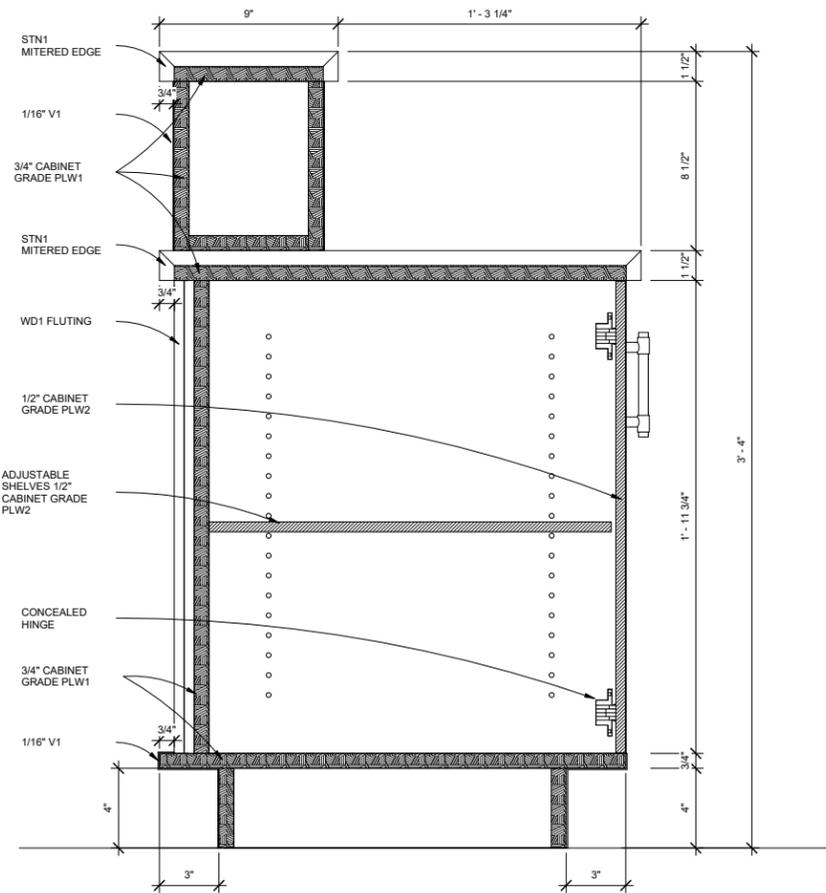
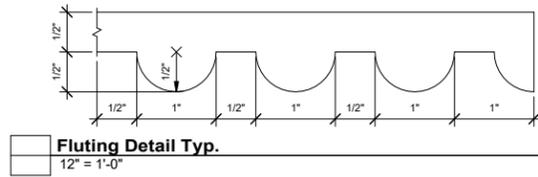
Leaf & Lore Shop

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OWNERS NAME N/A
PROJECT ADDRESS
96 East Center Street, Logan, Ut. 84321

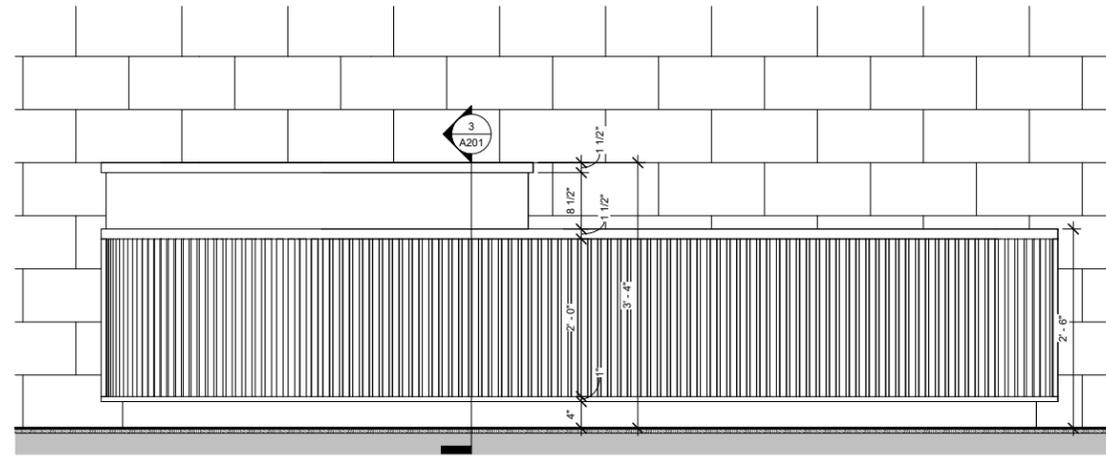
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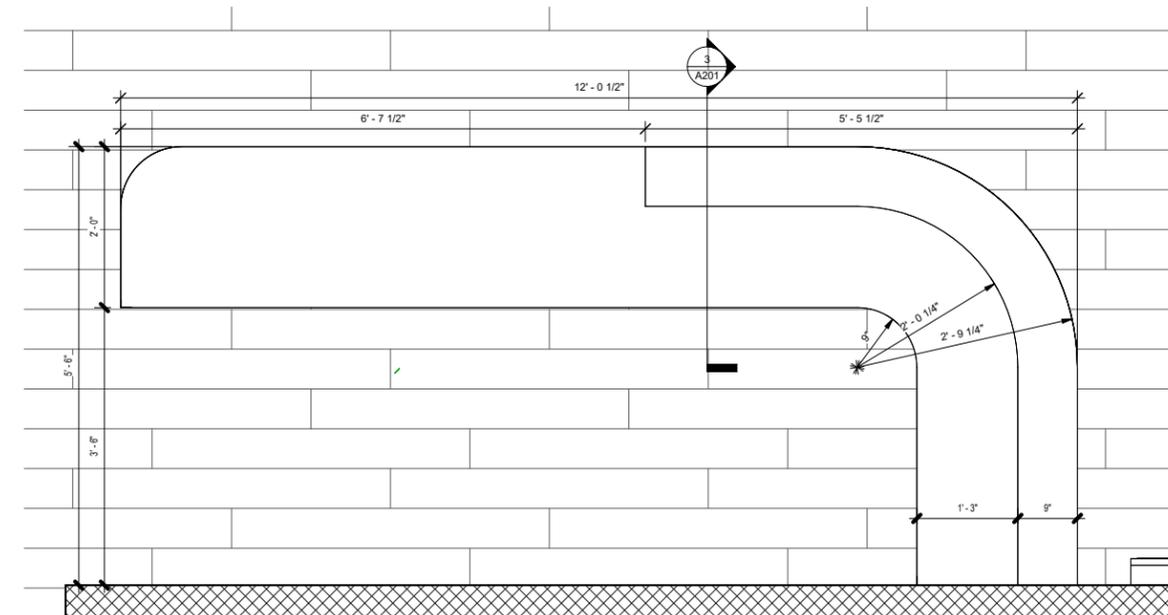
NOTE:
 Qty: 1
 Wood: TBD
 This drawing is for reference of general dimensions and design. Detailed dimensions, and construction requirements to be provided by cabinet maker



3 Millwork Section 1
 A201 3" = 1'-0"



2 Counter Elevation
 A201 1" = 1'-0"



1 Counter Enlarged Plan
 A201 1" = 1'-0"

DESIGNER: MORIAH N. MARTIN
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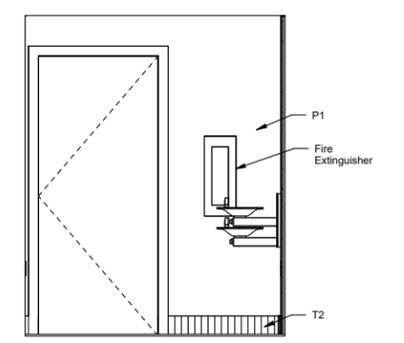
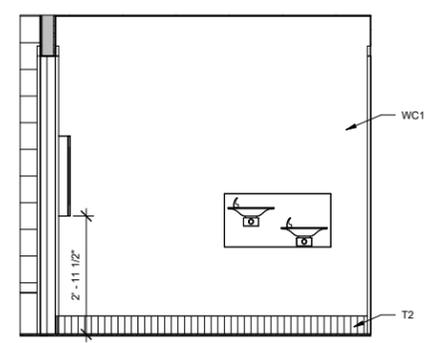
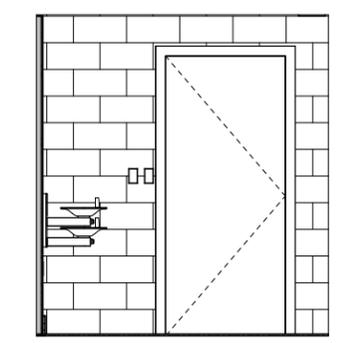
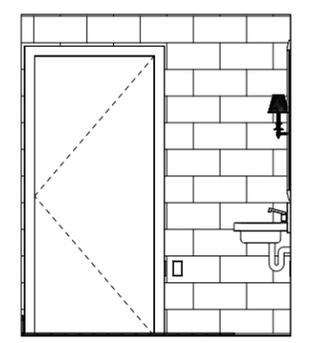
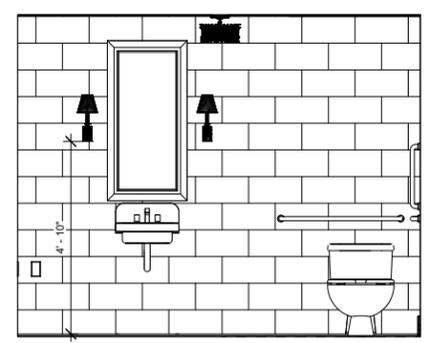
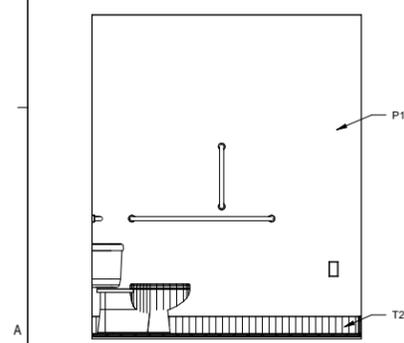
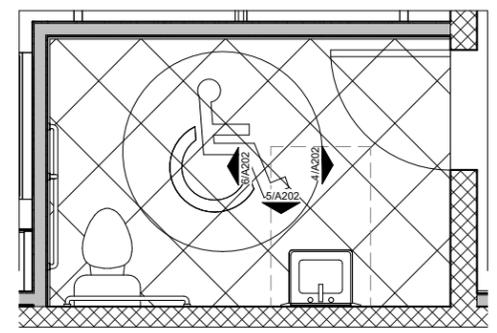
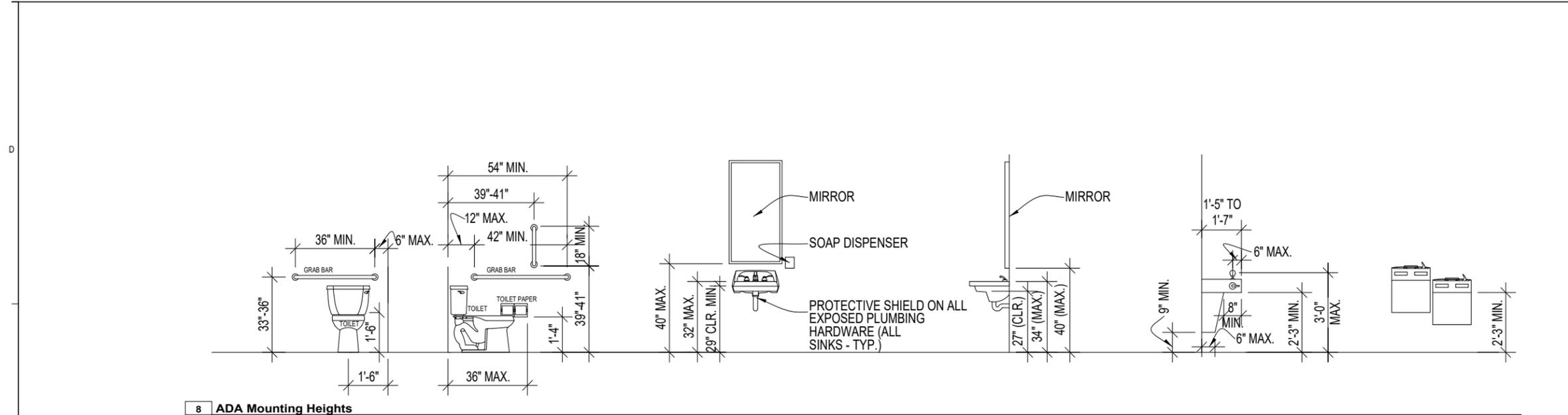
Leaf & Lore Shop
 TENANT IMPROVEMENT - ADAPTIVE REUSE
 OWNERS NAME: N/A
 PROJECT ADDRESS: 96 East Center Street, Logan, Ut. 84321

MARK:	DATE:	DESCRIPTION:

PROJECT: 294
 DESIGNED BY: srm
 DRAWN BY: srm
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 ISSUED: 4/5/2023

Counter Plan and Elevations

A201



MARK:	DATE:	DESCRIPTION:

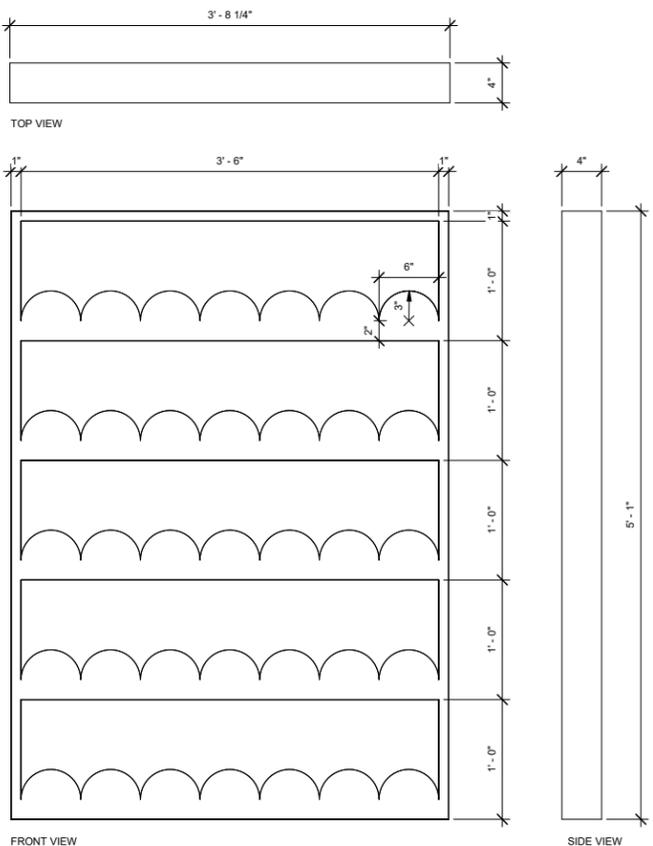
Restroom Plan and Elevations
A202

Leaf & Lore Shop
TENANT IMPROVEMENT - ADAPTIVE REUSE
OWNERS NAME: N/A
PROJECT ADDRESS: 96 East Center Street, Logan, Ut. 84321

DESIGNER: MCORIAH MARTIN
PHONE NUMBER: 435.994.8138
EMAIL: mcoriahmartin@design@gmail.com

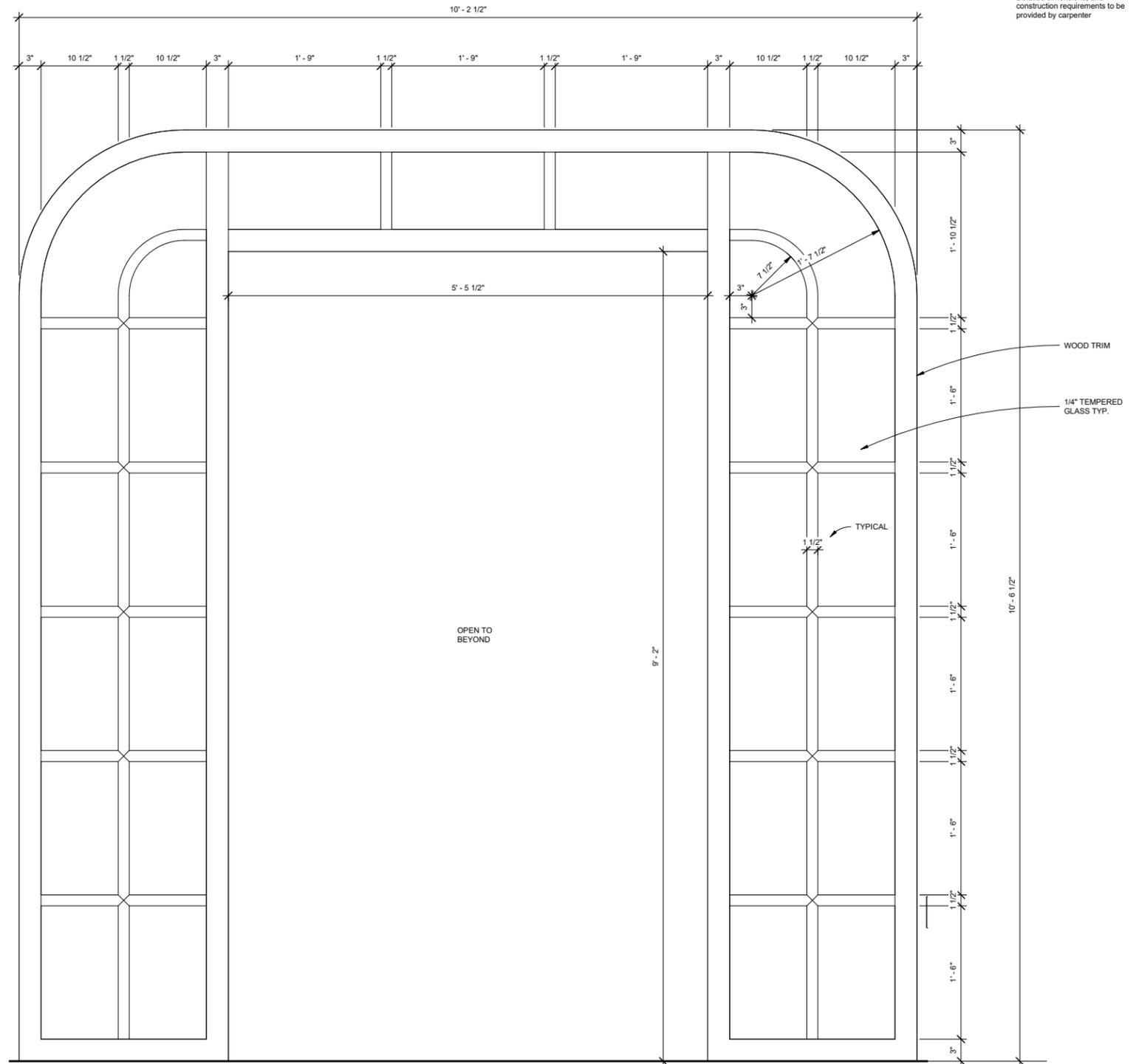
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NOTE:
 • Qty: 2
 • Wood: TBD
 • This drawing is for reference of general dimensions and design. Detailed dimensions, and construction requirements to be provided by carpenter



2 Wavy Shelf Detail
 A203 1 1/2" = 1'-0"

NOTE:
 • Qty: 1
 • Wood: TBD
 • This drawing is for reference of general dimensions and design. Detailed dimensions, and construction requirements to be provided by carpenter



1 Window Type 1
 A203 1 1/2" = 1'-0"

DESIGNER MORIAH N. MARTIN
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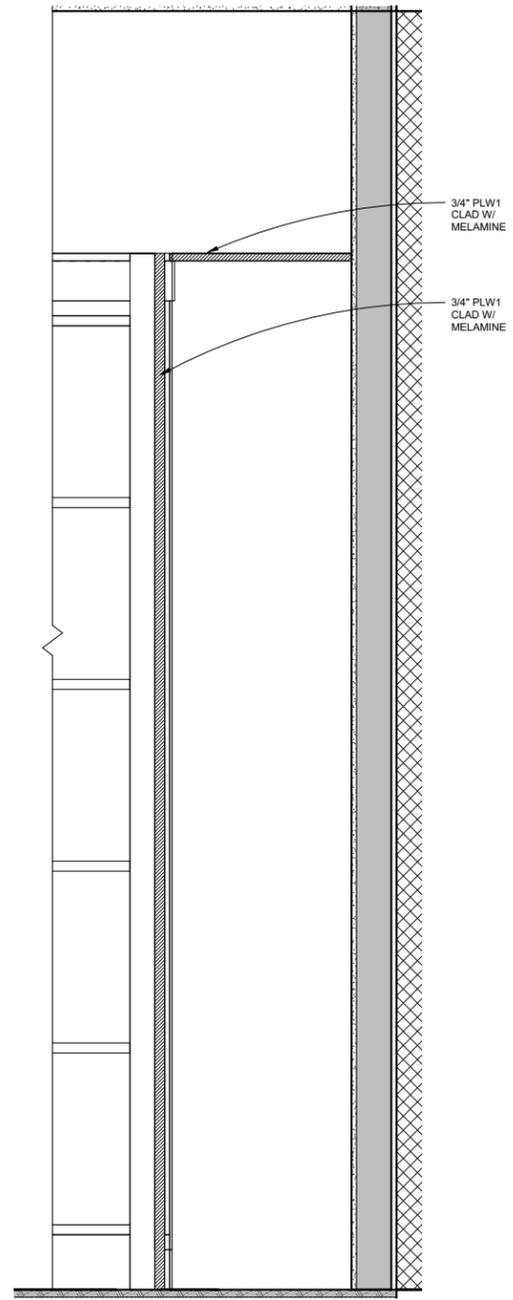
Leaf & Lore Shop
 TENANT IMPROVEMENT - ADAPTIVE REUSE
 OWNERS NAME N/A
 PROJECT ADDRESS 96 East Center Street, Logan, Ut, 84321

MARK	DATE	DESCRIPTION

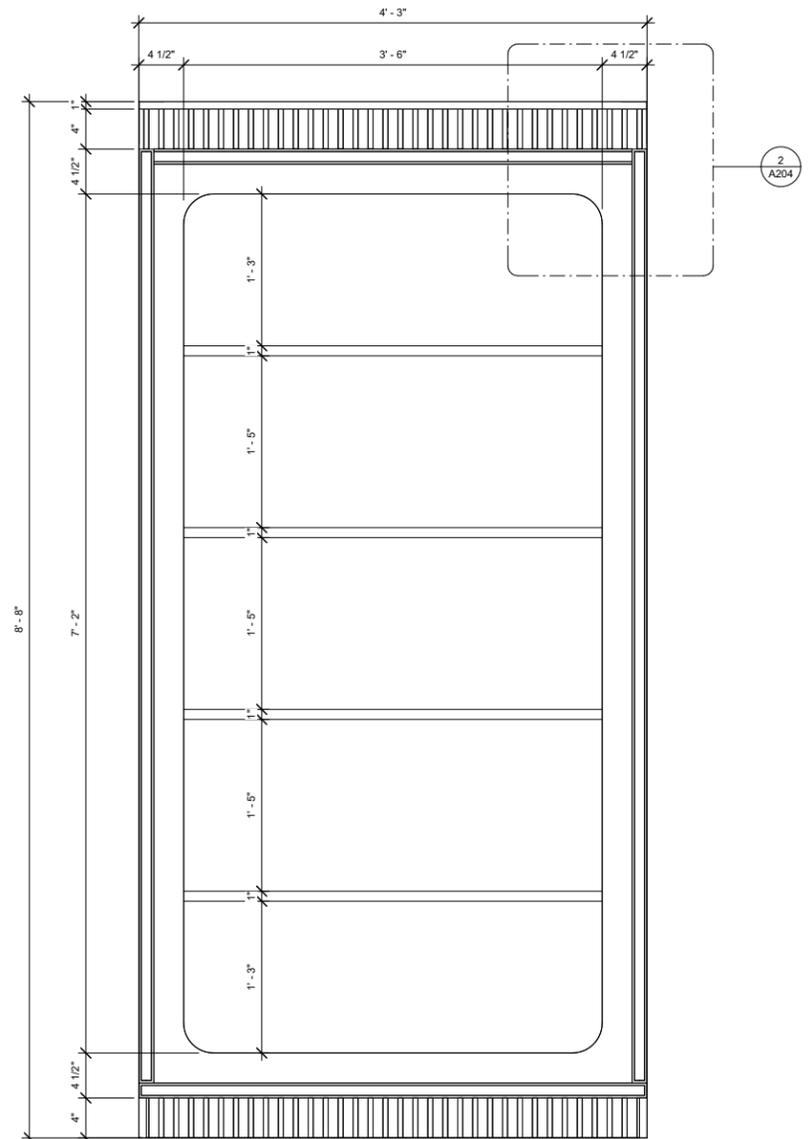
PROJECT # 294
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 DRAWN BY srm
 CHECKED BY srm
 ISSUED 4/5/2023

Custom Window and Shelving Details
A203

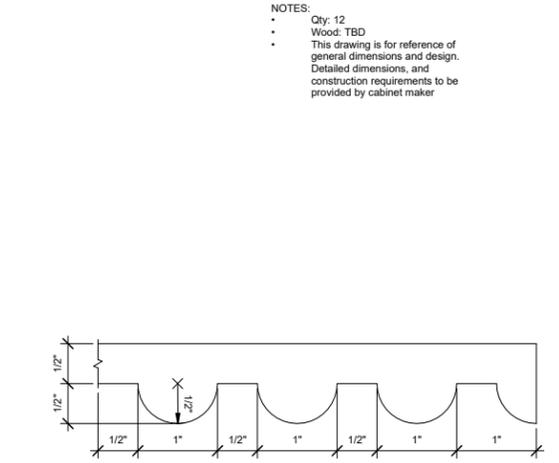
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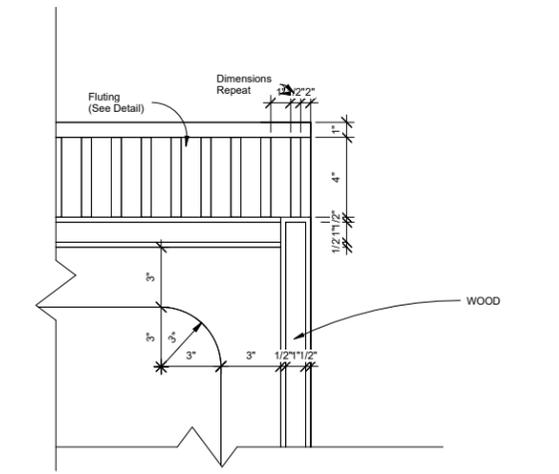
3 Bookshelf Section
A204 1 1/2" = 1'-0"



1 Bookshelf Detail
A204 1 1/2" = 1'-0"



Fluting Detail
12" = 1'-0"



2 Bookshelf Detail - Callout 1
A204 3" = 1'-0"

NOTES:
 • Qty: 12
 • Wood: TBD
 • This drawing is for reference of general dimensions and design. Detailed dimensions, and construction requirements to be provided by cabinet maker

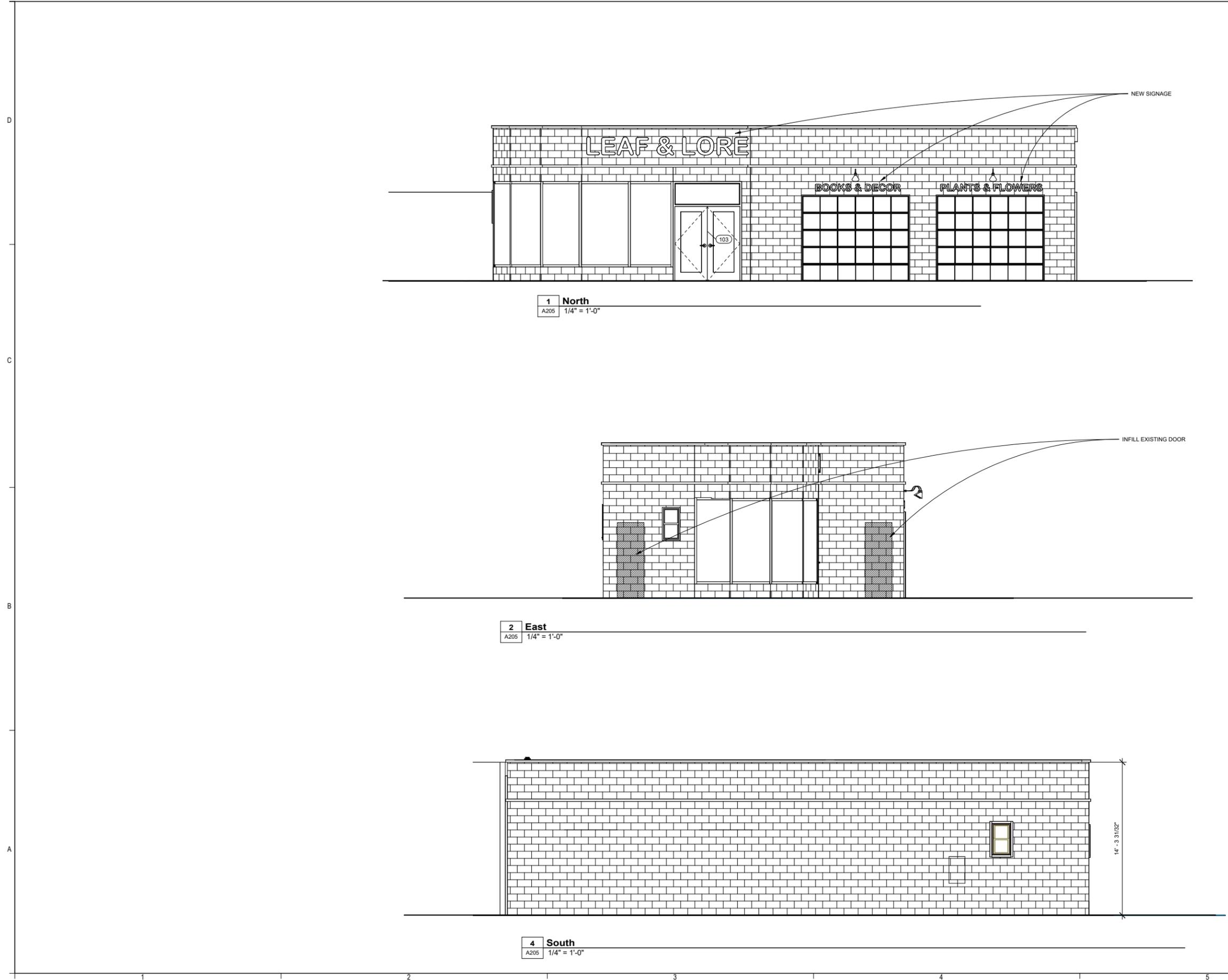
MARK:	DATE:	DESCRIPTION:

PROJECT # 294
 DESIGNED BY: srm
 DRAWN BY: srm
 CHECKED BY: srm
 ISSUED 4/8/2023

Bookshelf Detail
A204

Leaf & Lore Shop
 TENANT IMPROVEMENT - ADAPTIVE REUSE
 OWNERS NAME N/A
 PROJECT ADDRESS 96 East Center Street, Logan, Ut. 84321

DESIGNER MORIAH N. MARTIN
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1 North
A205 1/4" = 1'-0"

2 East
A205 1/4" = 1'-0"

4 South
A205 1/4" = 1'-0"

DESIGNER: MORIAH N. MARTIN
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Leaf & Lore Shop
TENANT IMPROVEMENT - ADAPTIVE REUSE
OWNER'S NAME: N/A
PROJECT ADDRESS: 96 East Center Street, Logan, Ut. 84321

MARK	DATE	DESCRIPTION

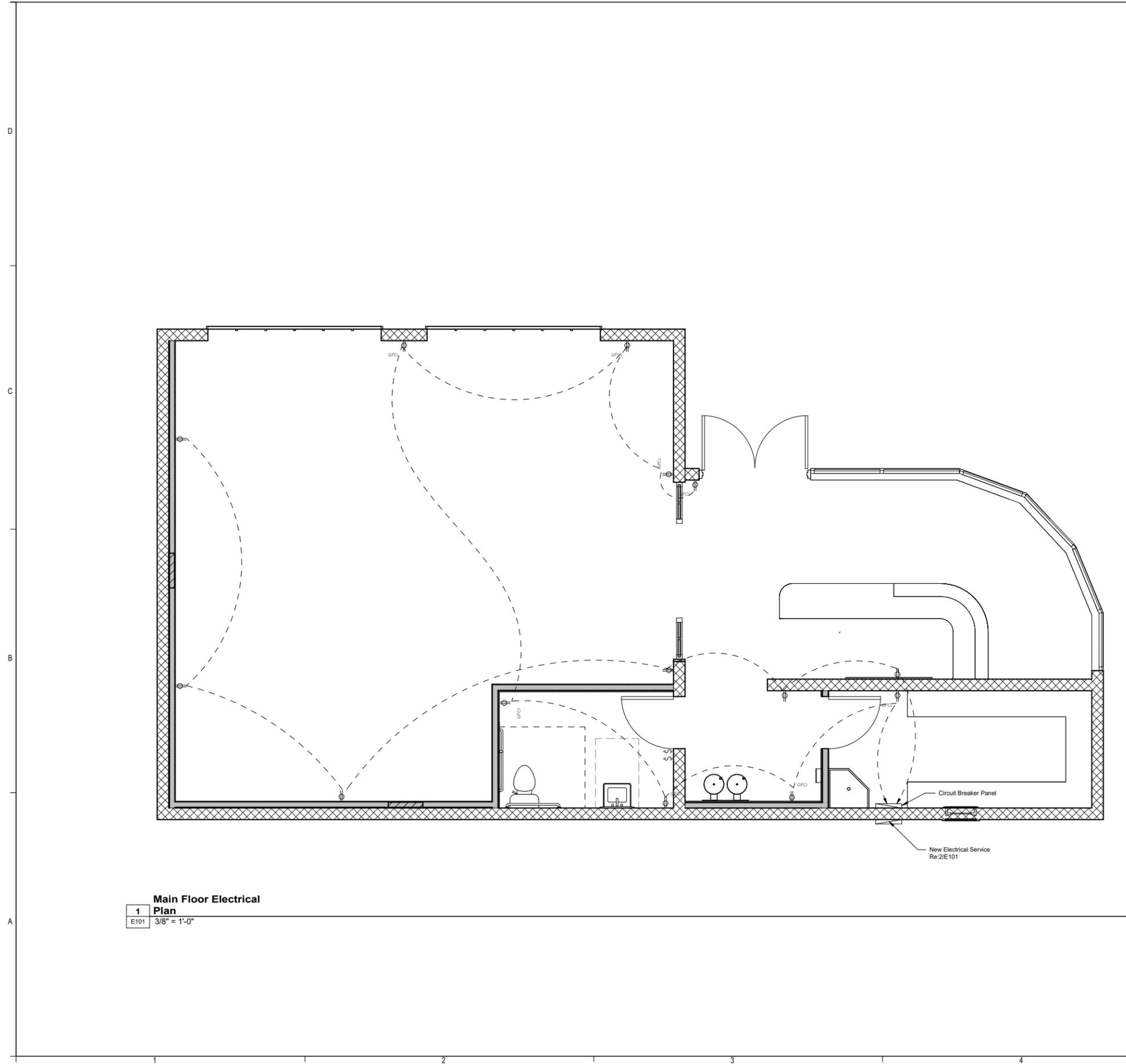
PROJECT # 294
DESIGNED BY: srm
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ISSUED: 4/5/2023

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ISSUED : 4/5/2023

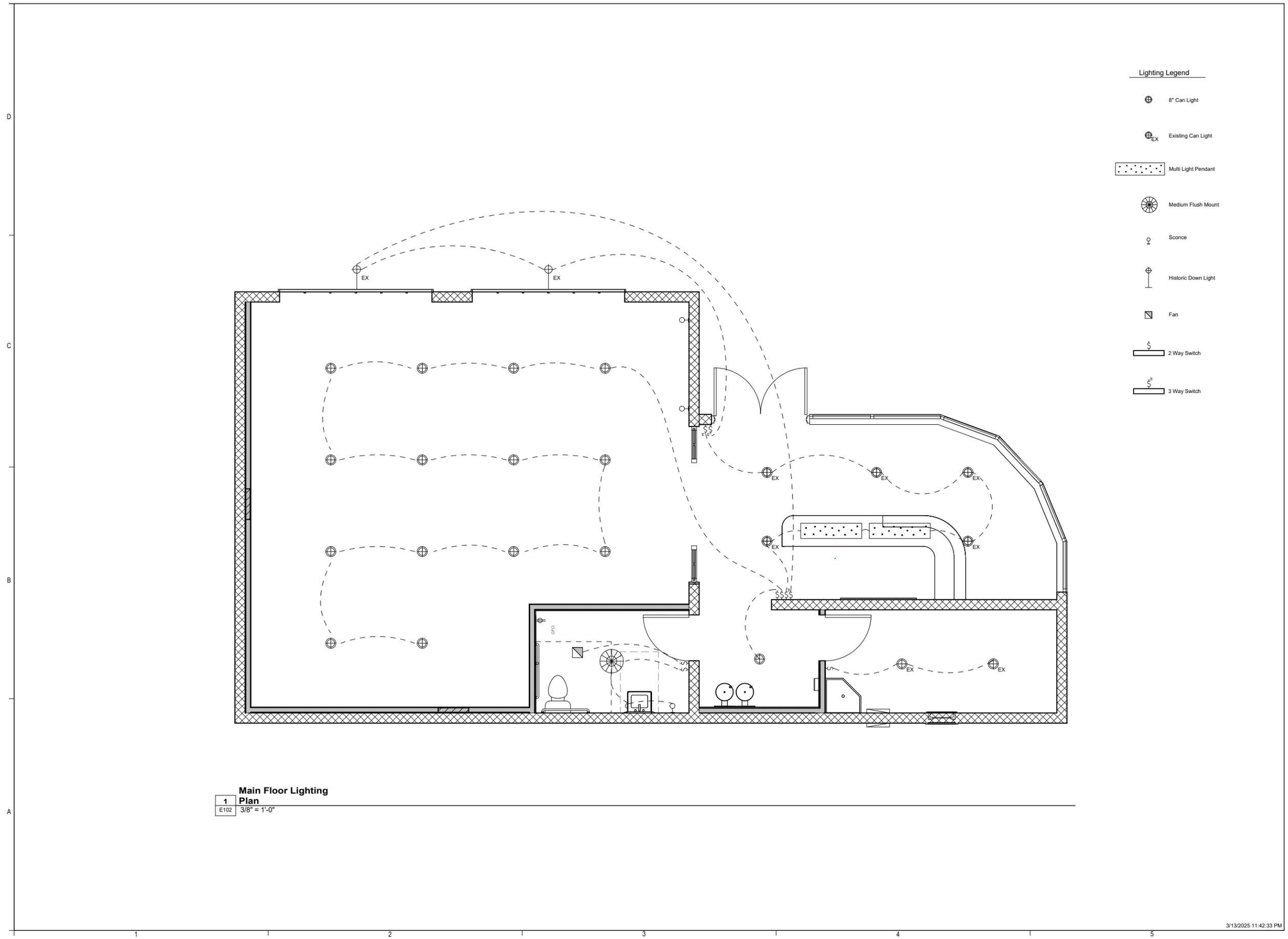


DESIGNER: MORIAH N. MARTIN
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 EMAIL: moriahmartin.design@gmail.com

Leaf & Lore Shop
 TENANT IMPROVEMENT - ADAPTIVE REUSE
 OWNERS NAME: N/A
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PROJECT #	294	
DESIGNED BY:	sm	
DRAWN BY:	sm	
CHECKED BY:	sm	
ISSUED	4/5/2023	

Electrical Power Plan
E101



Lighting Legend

-  8' Can Light
-  Existing Can Light
-  Multi Light Pendant
-  Medium Flush Mount
-  Sconce
-  Historic Down Light
-  Fan
-  2 Way Switch
-  3 Way Switch

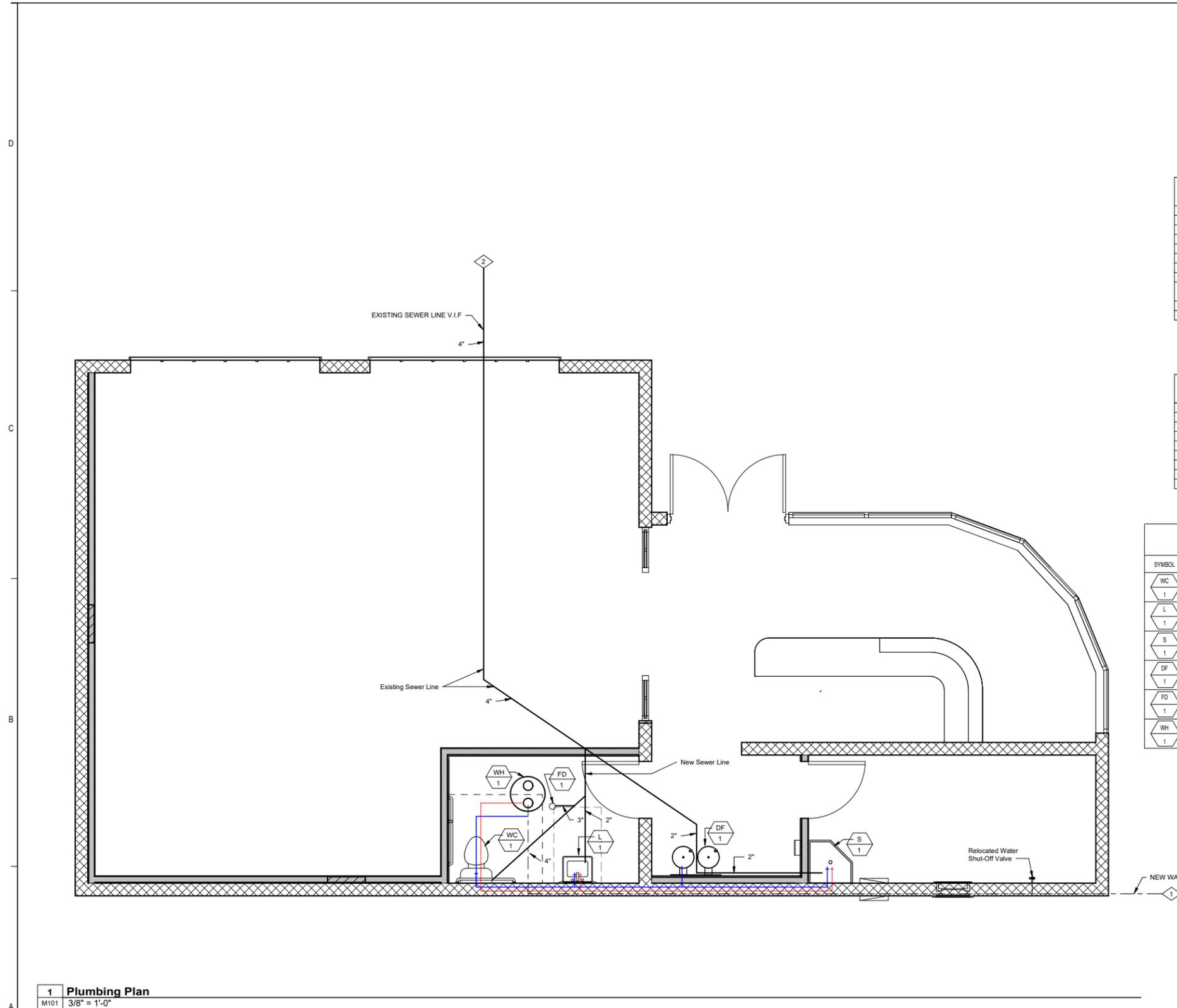
1 Main Floor Lighting Plan
 E102 3/8" = 1'-0"

DESIGNER: MORIAH N. MARTIN
 PHONE NUMBER: 435.994.8138
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Leaf & Lore Shop
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 OWNERS NAME: N/A
 PROJECT ADDRESS: 96 East Center Street, Logan, Ut. 84321

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PROJECT #: 294
 DESIGNED BY: srm
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 ISSUED: 4/5/2023



1 Plumbing Plan
M101 3/8" = 1'-0"

PIPE LEGEND	
	WASTE PIPE
	VENT PIPE
	DOMESTIC COLD WATER PIPE
	DOMESTIC HOT WATER PIPE

PIPE SIZING TABLE @ 5 PSI/100'				
PIPE SIZE	FIXTURE UNIT (MAX.)		FLOW (MAX.)	
	FLUSH TANK	FLUSH VALVE	VEL. (F.P.S.)	G.P.M.
1/2"	3	-	5.0	3
3/4"	8	-	5.1	7
1"	16	4	5.3	13
1 1/4"	47	10	7.1	27
1 1/2"	75	22	6.7	37
2"	230	110	7.1	70

PIPE SIZING TABLE		
PIPING	ABOVE GROUND	UNDER GROUND
WATER	TYPE-L COPPER	TYPE-K COPPER

WATER FIXTURE UNIT SCHEDULE			
QUANTITY	FIXTURES	WATER FIXTURE UNIT (WFU)	G.P.M.
3	HAND SINK	1.0	3.0
1	3 COMP. SINK	4.0	4.0
1	1 COMP. SINK	2.0	2.0
1	MOP SINK	3.0	3.0
1	FILL FAUCET	1.0	1.0
2	TOILET	1.6	NA
			WFU TOTAL
			13

PLUMBING FIXTURE SCHEDULE						
SYMBOL	FIXTURE	WASTE	VENT	C.W.	H.W.	NOTES
	WATER CLOSET	4"	2"	1/2"	-	
	LAVATORY	1-1/2"	1-1/2"	1/2"	1/2"	WALL HUNG
	SINK	1-1/2"	1-1/2"	1/2"	1/2"	
	DRINKING FOUNTAIN	1-1/2"	1-1/2"	1/2"	1/2"	
	FLOOR DRAIN	3"	-	1/4"	-	W TRAP PRIMER
	WATER HEATER	-	-	3/4"	3/4"	

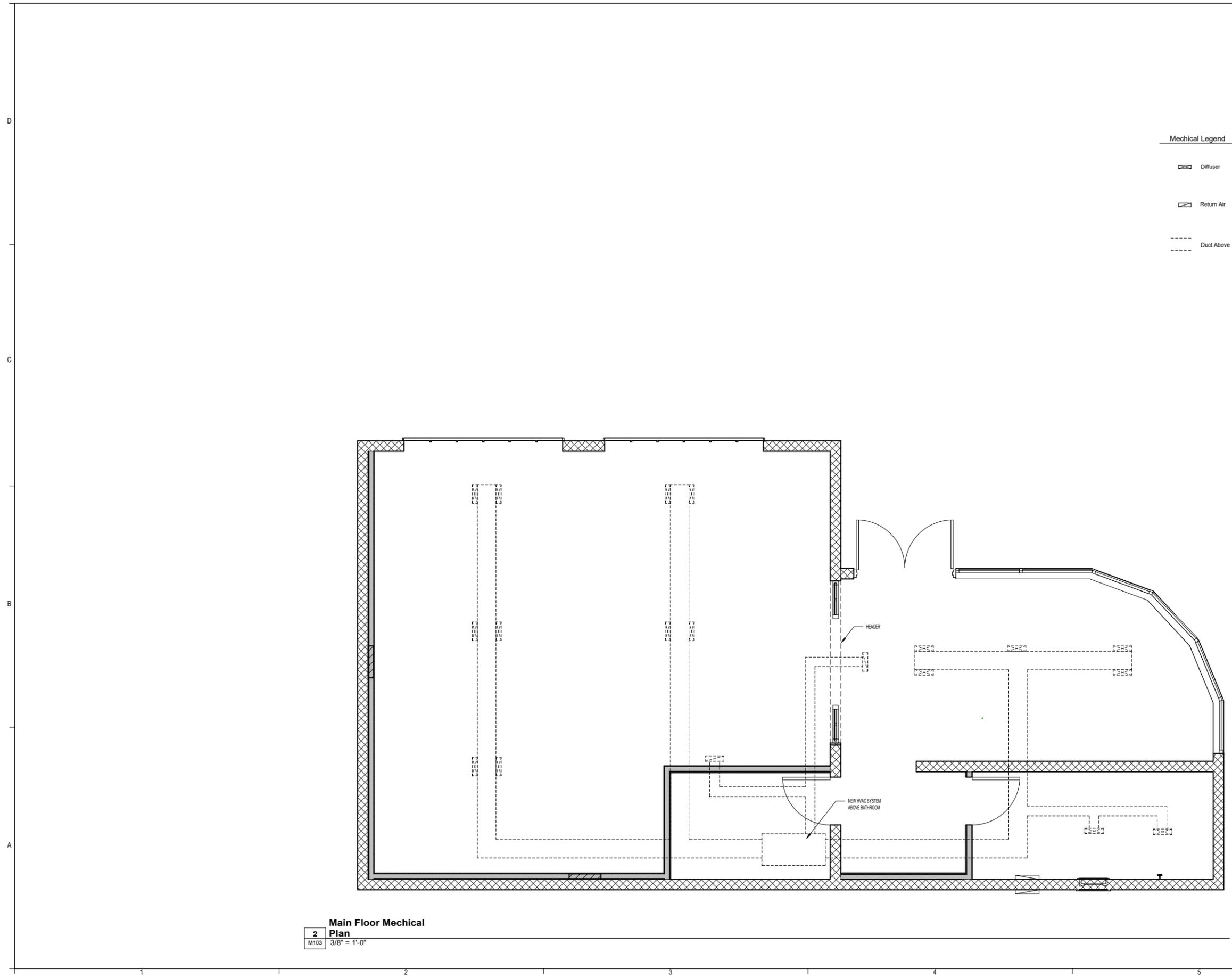
- GENERAL NOTES**
- VENT ALL FIXTURES AS REQUIRED BY CODE & BUILDING OFFICIALS
 - PROVIDE FLASHING, AND COUNTERFLASHING AT ALL ROOF PENETRATIONS.
 - AVOID SAW CUTTING FLOORS INDICATED TO HAVE STAINED CONCRETE FINISHES.
 - VERIFY SEWER AND WATER HOOKUPS W/ BUILDING REP. PRIOR TO COMMENCING WORK.
- KEYED NOTES**
- CONNECTION TO CITY WATER DETERMINE BEST LOCATION AT JOB SITE.
 - CONNECT NEW WASTE LINE TO EXISTING LOCATED BELOW FLOOR. VERIFY EXACT ROUTING AND LOCATION AT JOB SITE.

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Leaf & Lore Shop
TENANT IMPROVEMENT - ADAPTIVE REUSE
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PROJECT ADDRESS: 96 East Center Street, Logan, Ut. 84321

MARK	DATE	DESCRIPTION

Plumbing Plan
M101



Mechical Legend

	Diffuser
	Return Air
	Duct Above

2 Main Floor Mechical Plan
 M103 3/8" = 1'-0"

MARK	DATE	DESCRIPTION

PROJECT # 294
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 CHECKED BY: srm
 ISSUED : 4/5/2023

LUMINARIES

This retail store maximizes natural and artificial lighting to enhance ambiance and functionality. Large windows provide ample daylight, showcasing merchandise and supporting plant health, while layered artificial lighting ensures balance. Recessed can lights throughout the main space and a flush mount fixture in the restroom offer general illumination, while decorative sconces in the restroom and seating area add warmth. A multi-pendant fixture highlights the check-out counter, serving as both a focal point and task lighting. Together, these strategies create a welcoming, well-lit space that enhances the shopping experience and overall aesthetic.

To ensure proper illumination, the lighting design follows industry recommendations of 30–50 foot-candles (fc) for retail spaces. With a 1,231 sq. ft. area and an average target of 40 fc, the required lumens total 49,240. The store's artificial lighting includes 22 recessed can lights (~800 lumens each), providing 17,600 lumens; 4 sconces (~450 lumens each) contributing 1,800 lumens; two multi-light pendants (~2,400 lumens each) adding 4,800 lumens; and a flush mount fixture (~1,600 lumens). This results in a total of approximately 25,800 lumens from artificial sources. Natural daylight from large windows supplements this lighting, reducing the need for artificial illumination during the day. A layered lighting approach balances general, task, and ambient lighting, ensuring both functionality and an inviting atmosphere.

CURREY & COMPANY



Catrice 30-Light Linear Multi-Drop Pendant

9000-0679

In Stock

Overall: From 18"h to 125"h x 56"w x 20"d

Finish: Natural / Contemporary Silver Leaf / Silver

Materials: Capiz Shell / Metal

Item Weight: 69 lbs.

Number of Lights: 30

Suggested Bulb: 12v G4

Socket Type: G4

10/300

Cord: 10' Clear Silver

Shade: Natural Capiz Shell/Contemporary Silver Leaf

Shade Dimensions: 7.5" x 5"h

Rose-colored natural Capiz shells have become blossoms to ornament our Catrice 30-Light Multi-Drop Pendant. The canopy of this piece is luminous in a painted silver finish. This fixture is among Currey & Company's multi-drop pendant collection, which includes multiple configurations.

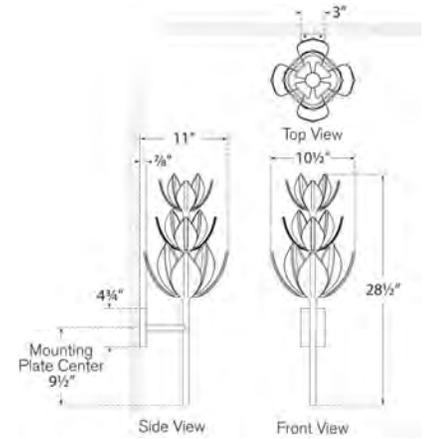
TEAR SHEET



Alberto Extra Large Three Tier Sconce
Item # JN 2045AB

Designer: Julie Neill

Height: 28.5"
Width: 10.5"
Extension: 11"
Backplate: 3" x 4.75" Rectangle
Finishes: AB, ABL, AGL, PW
Lightsource: Dedicated LED
Wattage: 12w (1400lm)
Weight: 14 Pounds
Note: Requires Smaller Outlet Box



VISUAL COMFORT & CO.



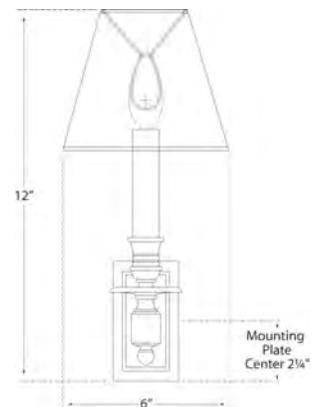
TEAR SHEET



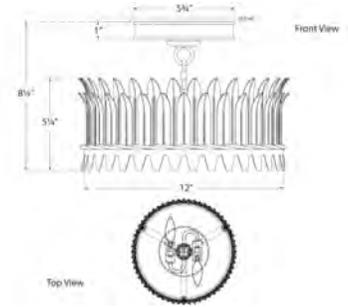
French Single Library Sconce
Item # S 2210HAB-L

Designer: Visual Comfort

Height: 12"
Width: 6"
Extension: 6.75"
Backplate: 2.5" x 4.5" Rectangle
Finishes: AN, BZ, HAB, PN
Shade Treatments: L
Shade Details: 3" x 6" x 5"
Socket: E12 Candelabra
Wattage: 40 B11
Weight: 3 Pounds
Note: Requires Smaller Outlet Box



VISUAL COMFORT & CO.



VISUAL COMFORT & Co.



Project: _____

Fixture Type: _____

Location: _____

Contact: _____

Everlume

• Wet Location Listed PROGRESS LED 

Description:

Everlume Collection 4 in. Satin White LED Low Profile Canless Recessed Downlight

Specifications:

- Dimmable to 10% brightness (See Dimming Notes)
- Americans With Disabilities Act (ADA) compliant

Performance:

Input Power	10 W
Input Voltage	120 VAC
Input Frequency	60 Hz
Lumens/LPW (Delivered)	825/82 (LM-79)
CCT	3000 K
CRI	90 CRI
Life (hours)	50000 (L70/TM-21)
EMI/RFI	FCC Title 47, Part 15, Class B
Warranty	5-year Limited Warranty
Labels	cCSAus Wet Location Listed ENERGY STAR® qualified Meets California Title 24 JA8-2019

P807000-028-30



Dimensions:

Diameter: 4-3/4 in
Height: 1-1/8 in

SECURITY SYSTEM



Galaxy® Dimension

Integrated intrusion and door control panel range

The Galaxy® Dimension series of security systems is a fully integrated intrusion and door control security solution for mid to large commercial security installations. It offers your customers a user-friendly system in a cost-effective and fully compliant Security Grade 3 package. With innovative wireless capability and user-friendly remote management options, the series provides high quality, reliable security solutions, with the flexibility to meet the needs of every commercial and industrial application.

Flexible & reliable communications

To ensure fail-safe communications, multiple path communication options for alarm signalling include GPRS, Ethernet and standard telephone line (PSTN). These options also allow maximum flexibility and customisation to capitalise on existing network infrastructures and minimise disruption for customers.

Attractive user interfaces and Mobile App

A choice of LCD Keypad and Keyprox options including the MK8, with a modern design and all the familiarity and functionality of the MK7, for ease of programming across the range. In addition, all user interfaces feature a proximity function allowing quick and secure set and unset without PIN code. The GX Remote control mobile App allows control of the system from anywhere in the world from your preferred smart device (requires E080-04 Ethernet module).

Audio verification ('Listen-in' Facility)

With Galaxy® Dimension, an Alarm Receiving Centre (ARC) can listen in using independent audio channels to identify the specific location where the alarm has been triggered and verify source and cause. This reduces false alarms and increases system reliability.

Programming software compatibility

The Remote Servicing Suite (RSS) is a maintenance tool enabling complete remote control of the panel, allowing installers to give customers instant support. Installers can complete remote routine inspection reducing the need for time consuming and costly site visits. The RSS software uses a common database to communicate with all Galaxy® panels from one programme. A networked version of the Remote Servicing Suite offers access to up-to-date records for all users. This guarantees the secure management of information in one central location. Both wired and wireless components can take advantage of the easy remote diagnostics and maintenance functionality in this software.

Secure wireless options

Cabling can be impractical due to building aesthetics, or simply too expensive. By removing cabling, particularly from large installations, significant time can be gained, costs saved and disruption to customer's operations can be minimised.

Galaxy Dimension is a hybrid control panel series that offers wired, wireless or a combination of both solutions and uses patented control panel software and bi-directional radio and agile routing technologies to provide secure and reliable security for commercial environments.

A combination of up to eight RF portals per installation, a wide range of intruder, perimeter, environmental and life safety wireless sensors which boast a 2km radio range (in open field) ensures the strongest signal path is used to keep control panel and sensors in constant communication and provides a flexible and customisable system to meet business needs.

NEW

Remotely manage sites and save time and money

The introduction of WIN-PAK for Galaxy end user software brings a new level of ease to managing up to five Galaxy systems simultaneously across multiple sites, from one central location. Designed to ease user management, the software manages user names, PINs, authority rights across sites, it automatically updates one or more Galaxy panels and allows users to be added and deleted in just a few mouse clicks. Improved command and control is achieved through specific Galaxy floor plans that clearly display alarms and other information which along with reporting and automation features provides users with a highly secure, powerful management tool that can be expanded to meet your security needs.

NEW

Fully managed and monitored integrated solutions

When the time is right, with WIN-PAK, the system can be expanded to include fully featured access control (NetAXS) and further expanded to a full management and monitoring system that includes multiple intruder systems, access control and CCTV surveillance all controlled by WIN-PAK.

The right choice

Galaxy Dimension offers customers a user-friendly, integrated security solution that is flexible and upgradeable to meet specific security needs. Honeywell provides sales and marketing support and organises frequent training to boost system understanding and to ensure trouble-free installations every time.

For more information on Galaxy® Dimension please go to www.honeywell.com/security/uk or contact our sales team using the details provided overleaf.

Features

- Up to 520 zones
- Up to 64 doors controlled
- Protecting up to 32 groups
- Up to 1000 users
- Up to 67 weekly schedules available
- Up to 32 yearly holiday schedules
- Door access controlled by access templates and group set status
- Areas behind a door can be unset automatically via card reader
- Users can be managed automatically and remotely in up to 5 Galaxy panels with WIN-PAK for Galaxy
- Events can be identified instantly using realistic floorplans with WIN-PAK for Galaxy.
- Access event log with 1000 events recorded in panel (separate intruder log)
- GPRS, Ethernet, PSTN, USB communications options
- Groups can be set via door control readers
- Evacuation control will allow doors to unlock in the event of fire
- Up to 32 audio verification channels
- Multi-language interface
- GX remote control Mobile App for remote management of up to 20 sites from a single smart device.
- The Galaxy Dimension range has been independently tested and is compliant to EN50131-3:2009, EN50131-6:2008, PD6662:2010
- Compatible with all wiegand readers
- Up to 8 wireless interface modules (RF portals)
- Up to 192 wireless zones
- Up to 100 key fobs
- Full bi-directional agile routing (patented technology)
- Full range of wired and wireless intrusion and environmental detectors

Attractive user interfaces

A range of LCD Keypad and Keyprox options

- MK8 keypad offers a modern keypad and keyprox design with all the familiarity and functionality of the MK7 keypad
- Familiar MK7 keypad for installer programming across the range
- Proximity function across all user interfaces allows quick and secure set and unset without PIN code
- Check and control the system from anywhere in the world with the mobile app **GX Remote Control** from your preferred smart device (requires E080-04 Ethernet module)

Wireless system expander module - RF Portal

- Bi-directional wireless interface with full range of intrusion and environmental detectors
- 868MHz frequency
- Up to 8 wireless interface modules (RF portals)
- Up to 192 wireless zones and up to 100 key fobs
- Full bi-directional agile routing (patented technology)
- Compatible with all Honeywell Alpha protocol sensors



Power Units

Galaxy® Power Unit 2.75A

- Rated at 1.2A for Grade 3 compliance
- Reports AC, Battery, fuse and tamper via RS485

Galaxy® Power RIO 2.75A

- Rated at 1.2A for Grade 3 compliance
- Reports AC, Battery, fuse and tamper via RS485
- Integrated RIO (8 inputs/4 outputs)

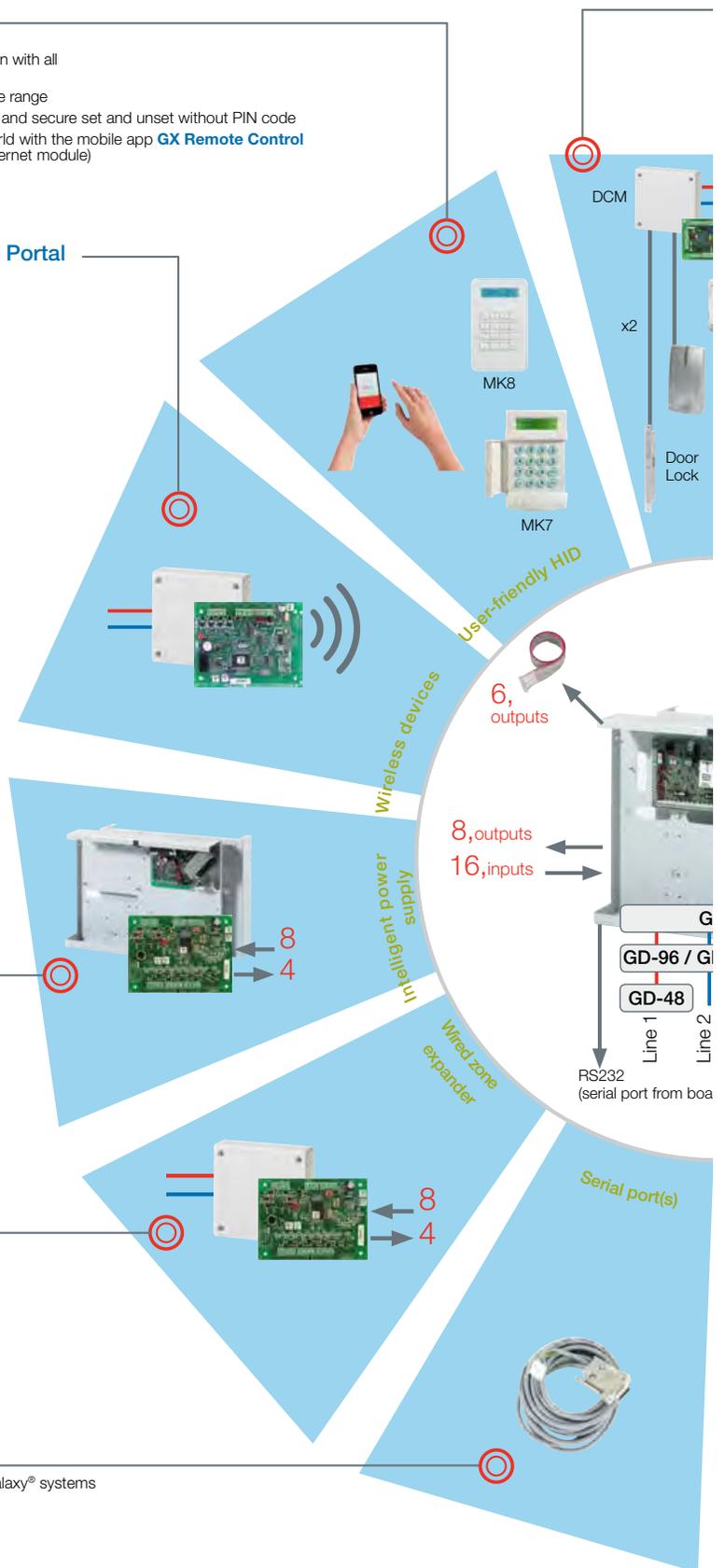
Galaxy® RIO (Remote Input/Output)

Provides zone and output expansion for Galaxy® Systems

- 8 fully programmable zones
- 4 programmable outputs
- Tamper protection
- Rotary switch for setting module address

RS232 Cable

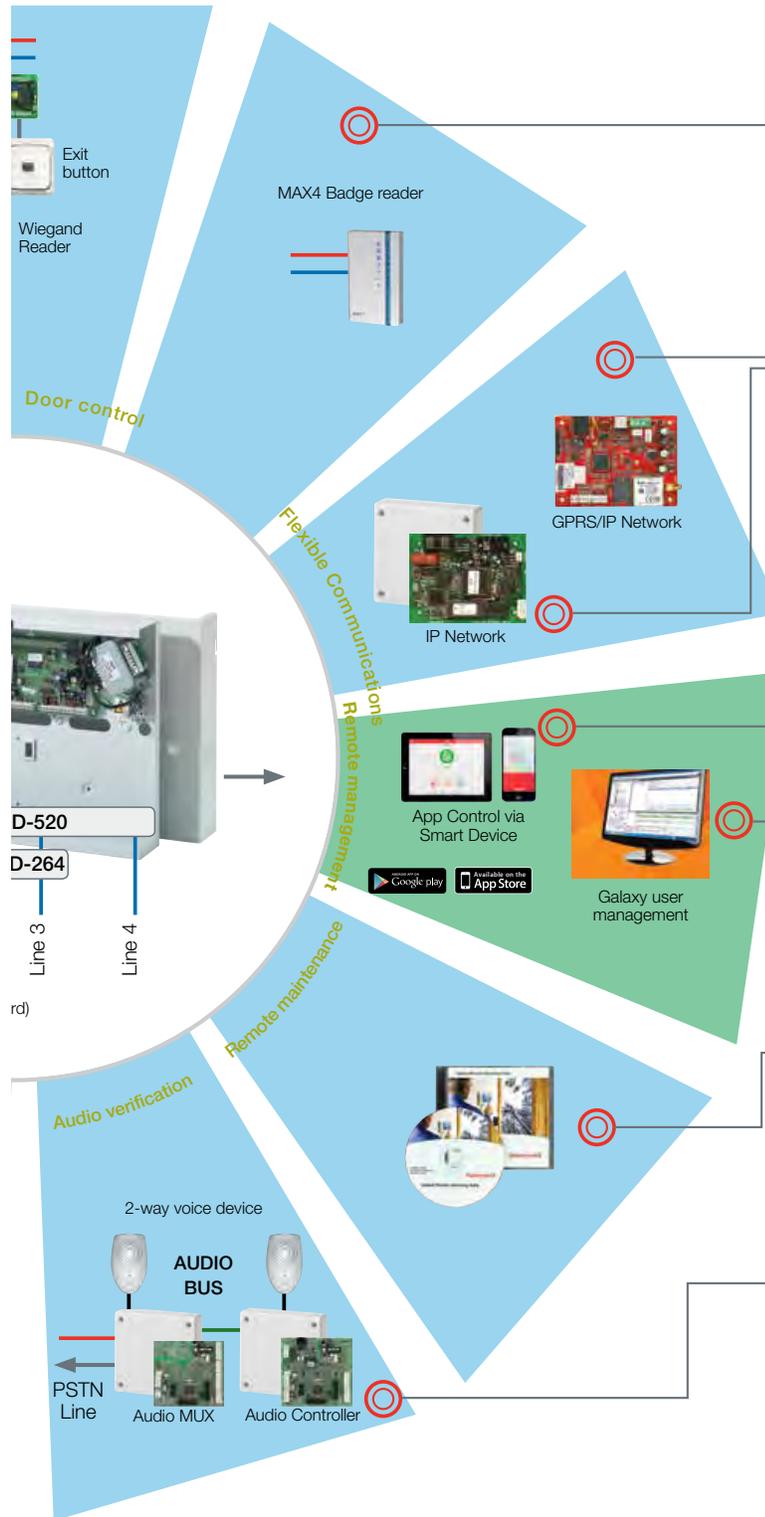
Enables communications between PCs or Printers and Galaxy® systems



DCM

- Door control module with two Wiegand inputs allows management of two doors
- Off line mode available for previous 100 valid users
- Users can be assigned to an Access Template giving an access time zone to each group (64 Access Templates available on GD-520)

- On line 1 only
- On lines 1, 2, 3 or 4



Proximity Reader - MAX4

- Complete door control in a single unit
- Can be used as standalone or integrated into the Galaxy® control system
- Connected on RS485 bus

GPRS/IP Communications

- GT-620NG and GT-640NG Modules
- Ethernet and GPRS/GSM modules provide flexible alarm signalling and remote servicing options
 - Enabled via Ethernet supporting TCP/IP protocol
 - Enhanced dual path signalling options:
 - 1) Ethernet backed up by PSTN
 - 2) GPRS backed up by PSTN
 - 3) Ethernet backed up by GPRS

Galaxy® Ethernet Module

Provides alarm signalling and remote servicing support for Galaxy® systems via 10 Base T Ethernet LAN/WAN supporting TCP/IP protocol

Remote management

GX Remote Control

- Basic remote management of home and premises security systems wherever you are
- One free app for all your systems
 - Simple secure 10 second login
 - Single touch interrogation of alarm history
 - Manage up to 20 systems from a single smart device
 - Single tap switch between property and user specific groups

WIN-PAK for Galaxy

- Manage tasks and monitor multiple panel systems centrally across locations and installations
- Delete a user in two clicks from multiple panels
 - Add a new user to multiple panels (up to 5) in three clicks
 - Manage user names, PINs, and authority rights across sites
 - Automatically update one or all Galaxy panels
 - Specific Galaxy floor plans that clearly identify alarms
 - Advanced reporting functionality

Remote Servicing Suite

- Provides complete remote servicing capability including off-line programming, real-time control and diagnostic reporting
- Programming upload and download
 - Event log and access log upload
 - Remote Routine Inspection (RRI)
 - Mimic panel for control functions
 - Online keypad support

Audio Devices

- Audio Controller PCB connects to panel and PSTN Phone line
- 2 audio channels as standard
- Digital Audio bus allows 8 additional audio MUX units
- Each MUX unit allows 4 analogue audio channels
- Each audio channel is mapped to 1 system group
- Optional 5-10 seconds of Pre and post-alarm recording is stored

Galaxy[®] Dimension

Integrated intrusion and door control panel range

Technical Specifications

Description	GD-48	GD-96	GD-264	GD-520
Zones onboard (maximum)	16 - (48)	16 - (96)	16 - (264)	16 - (520)
Inclusive wireless zones	32	80	192	192
Outputs (400mA) on-board	8	8	8	8
Trigger outputs on flying lead (10mA)	6	6	6	6
Integrated PSU	2,5 A	2,5 A	2,5 A	2,5 A
Output Current rating	1.2A	1.2A	1.2A	1.2A
RS485 Databuses	1	2	2	4
Keypads (Keyprox)	8 (3)	16 (7)	16 (7)	32 (24)
Bus mounted prox readers (MAX)	4	16	16	32
DCMs with 2 x Wiegand interfaces	4	16	16	32
DCM controlled doors	8	32	32	64
Wireless Portals	4	8	8	8
Users	100	250	1000	1000
7 Day Timer Schedules	19	35	67	67
Zone types	52	52	52	52
O/P types	81	81	81	81
Library	Yes	Yes	Yes	Yes
Event Log	1000	1500	1500	1500
Access Log	500	1000	1000	1000
Multi-users	Yes	Yes	Yes	Yes
Autoset	Yes	Yes	Yes	Yes
Pre-Check	Yes	Yes	Yes	Yes
Timed Lockout	Yes	Yes	Yes	Yes
Links	64	128	256	256
Part Set	Yes	Yes	Yes	Yes
Silent Part Set	Yes	Yes	Yes	Yes
RS232	Built-in	Built-in	Built-in	Built-in
Integrated PSTN (V 22)	Built-in	Built-in	Built-in	Built-in
Printer Output	Via RS232	Via RS232	Via RS232	Via RS232
Remote Servicing	Yes	Yes	Yes	Yes
Ethernet module	Optional	Optional	Optional	Optional
GSM/GPRS module	Optional	Optional	Optional	Optional
Groups	8	16	32	32
Audio Verification channels	8	32	32	32
SMS text	Yes	Yes	Yes	Yes
ISDN	Optional	Optional	Optional	Optional
Mobile App*	Yes	Yes	Yes	Yes
EN50131	Compliant to EN50131-3:2009, EN50131-6:2008, PD6662:2010 and certified by a third party testing agency			

* Requires E080-04 Ethernet module

Find out more:

www.honeywell.com/security/me

Honeywell Security and Fire

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HSFI-Dimension-14-ME(1015)DS-E
 October 2015
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Order References

Control Panels

C048-D1-XX ²	Galaxy [®] Dimension GD-48 control panel with PSTN Dialler
C096-D1-XX ²	Galaxy [®] Dimension GD-96 control panel with PSTN Dialler
C264-D1-XX ²	Galaxy [®] Dimension GD-264 control panel with PSTN Dialler
C520-D1-XX ²	Galaxy [®] Dimension GD-520 control panel with PSTN Dialler

Notes:

¹ Control panel part numbers containing new "-D-" reference indicates compliance to EN50131-3: 2009 and PD6662:2004/2010 tested and certified by a third party testing agency.
² Market variant: XX = E1 for English, Spanish, Italian, Portuguese, E2 for Benelux Region, E5 for French

User Interfaces

CP037-01	MK7 Keypad
CP038-01	MK7 Keypad
CP050-00-01	MK8 Keypad
CP051-00-01	MK8 Keypad

Modules

E080-04	Ethernet module
C079-2	RF portal in plastic housing
GT-620NG	IP Communications Module
GT-640NG	GPRS/IP Communications Module
C072	Galaxy RIO - 8 inputs/4 outputs

Door Control

C080	DCM - Door controller
C081	DCM - Door controller with PSU
C086	USB card reader interface
MX04	MAX4 proximity reader
YX0-0004	MAX keytag
YX0-0020	ASK proximity keytag (grey)

Remote User Management

WPG4X1	WIN-PAK for Galaxy, Single user 1 Galaxy Panel support
WPG4X5	WIN-PAK for Galaxy, Single user 5 Galaxy Panel support

For further information on WIN-PAK please refer to WIN-PAK for Galaxy Datasheet

Audio

C084	Audio interface module
C085	Audio MUX module
TP 800**	2 Way voice speaker-mic

**When used with the Audio interface order code C084

Remote Servicing

A227	Galaxy [®] SPI key (Blank)
C087	SPI key programmer
R056-CD-L	Standalone Remote Servicing Suite (RSS)
R057-CD-DG	Remote Servicing Suite with USB dongle & client/server version
R058-CD-DG	User Management Suite (UMS)

Mobile App downloads

Via Google play Android
<https://play.google.com/store>



Via iTunes Apple
<https://itunes.apple.com>

Accessories

A079	Dual Battery Monitor
A161	Printer interface
A229	Outputs trigger lead
A234	Galaxy [®] RS232 cable
A303-S	Mounting bracket for GT-20/40 and E080-4 modules

Power Supply Units

P026-01-B	Galaxy power RIO
P025-01-B	Galaxy power unit

Honeywell reserves the right to alter the specification of products without notice.

Honeywell

968XTP

HIGH SECURITY SWITCH



The 968XTP High Security Magnetic Switch is intended to monitor the open or closed position of moveable assemblies such as doors, windows or machinery safety barriers, where an attempt to defeat the switch is a concern.

The 968XTP High Security Contact provides maximum security for protection of safes, vaults and other high security applications.

Utilizing balanced magnetic contacts, the 968XTP is highly defeat resistant. In addition, internal circuitry provides 2400VDC of surge protection.

FEATURES

- Defeat-resistant from external magnetic tampering
- Includes tamper switch to notify of removal
- Uses industry standard mounting dimensions
- Suitable for Indoor/Outdoor use
- Epoxy sealed for protection from moisture and corrosion
- 3 ft stainless steel armored cable
- UL/cULus Listed

SPECIFICATIONS

- | | | |
|---|---------------------------------------|--|
| Switch Type
Form C (SPDT) | Tamper Rating
1 Amp @ 24VDC | Surge Protection
Up to 2400VDC |
| Contact Rating
25mA @ 24VDC
3 ft Stainless Steel Armored Cable | Gap
7/16 inches (11mm) | |

ORDERING

968XTP High Security Switch

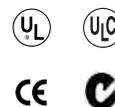
Honeywell Security & Custom Electronics

Honeywell
2 Corporate Drive
Melville, NY 11747
www.honeywell.com

L/968XTP/D
April 2007
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Honeywell

FG-1625/1625T GLASSBREAK DETECTOR



The FG-1625 Glassbreak Detector uses the latest technology to provide faster response and increased false alarm immunity. The FG-1625 is specifically designed to allow fast, easy installation, while the adjustable sensitivity

settings can compensate for the acoustics of any room. Optimum operation can be quickly verified using the FG-701 Glassbreak Simulator.

FEATURES

- **FlexCore™ Signal Processor**

The FlexCore Signal Processor is an Application-Specific Integrated Circuit (ASIC), which processes sound data in parallel rather than sequentially for faster, more accurate detection decisions. The combination of proven FlexGuard® performance with the speed of FlexCore processing provides unmatched false alarm immunity without compromising detection.

- **Easy Installation and Setup**

Honeywell's patented technology allows remote activation of Test Mode (with simulator). The FG-1625 has a centered wire entry hole, 45° terminal blocks and EOL terminals. A hand-clap feature verifies that the detector is functioning.

- **Selectable Sensitivity**

Two DIP switches on the FG-1625 make it easy to set the sensitivity to match the acoustics of the room. Four different sensitivity levels are available, ranging from very low to high. The range can then be verified remotely with the FlexGuard FG-701 Glassbreak Simulator.

- **Mount the Detector Anywhere**

Mounts on any wall, in the window frame, or on the ceiling, with no minimum range and a maximum range of 25' (7.6m) to the glass.

- **Covers All Glass Types**

The FG-1625 works on all glass types, including plate, tempered, laminated, wired, film-coated and sealed insulating glass.

- **Multiple Domain Signal Analysis**

The FG-1625 performs Multiple Domain Signal Analysis in which time, frequency and amplitude characteristics are evaluated for signal qualification. This enables the detector to accurately discriminate false alarms from true glassbreak events.

- **Enclosed PC Board**

The PCB is protected from potential damage during installation.

- **Patented Remote Test Mode**

The Patented Remote Test Mode can enable or disable the indicator LEDs using the FG-701 Glassbreak Simulator. The unit automatically resets from Test Mode in five minutes.

- **Mounting Locations**

The FG-1625 can be mounted on the ceiling, opposite wall, adjoining wall or the same wall as the glass.

FG-1625/1625T

GLASSBREAK DETECTOR

SPECIFICATIONS

Physical Dimensions

- White high impact ABS plastic housing
- 3 7/8" H x 2 2/5" W x 7/8" D (98mm x 62mm x 21.8mm)

Weight

- Product Only: 3.2oz (90g)
- Pkgd Product: 4.1oz (116g)

Range

- 25' (7.6m) maximum, omnidirectional. Range is adjustable; no minimum range

Alarm Relay

- FG-1625: Form A, 125mA max, 25VDC max
- FG-1625T: Form C, 125mA max, 25VDC max

Tamper Switch (FG-1625T only)

- Combination cover/wall tamper 25mA max, 24VDC max

Alarm Duration

- Five seconds (unaffected by alarm LED latching)

ESD Immunity

- 10kV discharges of either polarity to exposed surfaces

Power Requirements

- 6 - 18VDC, 12mA typical at 12VDC; 22mA max (Latched LED)
- AC ripple: 4V peak-to-peak at nominal 12VDC

RFI Immunity

- 30V/m, 10MHz - 1000MHz

Operating Temperature

- 14° to 122° F (-10° to 50° C)
- Storage: -4° to 122° F (-20° to 50° C)

Approvals and Listings

- FCC and IC verified
- CE
- C-Tick
- UL Listed
- ULC Listed

Glass Type/Thickness

Type*	Minimum	Maximum
Plate 3a	2.4mm (3/32")	10mm (3/8")
Tempered	3mm (1/8")	10mm (3/8")
Laminated	3mm (1/8")	14mm (9/16")
Wired	6mm (1/4")	6mm (1/4")
Coated 2,3b	3mm (1/8")	6.4mm (1/4")
Sealed	3mm (1/8")	6mm (1/4")
Insulating 1,3b	(Maximum overall 7/16")	

* Minimum size for all types is 28cm (11") square; glass must be framed in the wall or mounted in a barrier at least 0.9m (36") wide.

- 1 Protected only if both plates of the unit are broken.
- 2 Coated glass with security films, including films for solar protection, up to 12mil. thick may be used. Film Technologies International, Inc.'s GLASS-GUARD® GGLL 1200 has been evaluated with this product by Underwriters Laboratories, Inc.
- 3 In compliance with Underwriters Laboratories of Canada's Standard for Intrusion Detection Units (CAN/ULC-S306-M89):
 - a. Plate glass 3mm to 10mm can be used.
 - b. ULC recognizes a maximum range for protecting sealed insulated glass and coated glass of 12.5ft. (3.8m).

Note: The FG-1625/1625T detects shattering of framed glass by direct impact. It may not consistently detect breakage by blows that only crack the glass, by high velocity projectiles such as bullets, or glass broken without an impact.

Accessories Description

- FG-701 P/N 0-000-701-0 Glassbreak Simulator

FlexGuard® Glassbreak Simulator/Tester

- The sound of breaking glass is digitally simulated by the FG-701. The FG-701 is compatible for testing all Honeywell glassbreak detectors. Honeywell highly recommends testing glassbreak detectors before final installation.

ORDERING

- FG-1625** Glassbreak Detector
- FG-1625T** Glassbreak Detector with Tamper

Honeywell Security & Custom Electronics

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LFG1625/D
January 2007
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Honeywell

PERFORMANCE SERIES HBW2PER1V



Network WDR 2MP IR Bullet Camera

OPERATIONAL	
Video Standard	NTSC / PAL
Scanning System	Progressive
Image Sensor	1 / 2.8" 2 Megapixel progressive CMOS
Number Of Pixels(H × V)	1920 x 1080
Minimum Illumination	0.002 Lux / F1.6 (color, 30IRE), 0 Lux / F1.6 (IR ON)
S/N Ratio	More than 45 dB
Electronic Shutter Speed	1 / 3 ~ 1 / 100000s
IR Distance	Up to 30m(98.4 ft), depending on scene reflectance
IR Light Control	Manual / Smart IR / OFF
IR Light Number	1
Day/Night	Auto(ICR) / Color / B&W
Backlight Compensation	BLC / HLC / WDR
Wide Dynamic Range	120 dB
White Balance	Auto / Natural / Street Lamp / Outdoor / Manual / Customized Region
Gain Control	0-100
Noise Reduction	3D DNR
Privacy Masking	Off / On (4 Areas, Rectangle)
Motion Detection	Off / On (4 Zones, Rectangle)
Region Of Interest	Off / On (4 Zones)
Lens	3.6 mm Fixed, F1.6
Angle Of View	H: 87°, V: 46°
VIDEO	
Compression	H.265 / H.264 / Smart Codec / MJPEG (Sub Stream)
Resolution	1080p (1920 x 1080); 1.3M (1280 x 960); 720p (1280 x 720); D1 (704 x 576 / 704 x 480); VGA (640 x 480); CIF (352 x 288 / 352 x 240)
Frame Rate	Main Stream: 1920 x 1080 / 1280 x 960 / 1280 x 720 @ (1 ~ 25 / 30 fps) Sub Stream: 704 x 576 / 640 x 480 / 352 x 288 @ (1 ~ 25 fps); 704 x 480 / 640 x 480 / 352 x 240 @ (1 ~ 30 fps)
Bit Rate Control	CBR/VBR
Bit Rate	H.264: 32 Kbps-6144 Kbps H.265: 12 Kbps-6144 Kbps
Analytics	Motion Detection, Video Tampering, Scene Changing, Tripwire Intrusion

NETWORK	
Ethernet	RJ-45 (10/100 Base-T)
Supported Web Browsers	Internet Explorer (11.0+)
Supported OS	Windows® 7 32-bit / 64-bit; Windows® 10 32-bit / 64-bit
Protocols*	HTTP; HTTPS; TCP; ARP; RTSP; RTP; RTCP; UDP; SMTP; DHCP; DNS; PPPoE; IPv4/v6; QoS; UPnP; NTP; Bonjour; IEEE 802.1x; Multicast; ICMP; IGMP; TLS
Compatibility	ONVIF Profile S / G / Q / T
Maximum Users Access	20 users
Security	User account and password protection HTTPS, IP Filter, Digest authentication, User access log, TLS1.2 only, AES-128 / 256, SSH / Telnet closed, sFTP by default, PCIDSS compliance
Event	No SD card, SD card error, Capacity warning, Network disconnection, IP conflict, Illegal access
Micro SD	Supports max. 256 GB Micro SD card
ELECTRICAL	
Power Supply	DC12V, PoE (802.3 af)(Class 0)
Power Consumption	<4.9W
MECHANICAL	
Dimensions	Ø166.2 mm×70 mm (6.5"×2.8")
Product Weight	0.48 kg (1.1 lb)
Package Weight	0.57 kg (1.3 lb)
Construction	Die-cast aluminum housing with powder coat
Construction Color	RAL 9003 (White)
ENVIRONMENTAL	
Operating Temperature	-40°C ~ 60°C (-40°F ~ 140°F)
Relative Humidity	Less than 95%, non-condensing
Ingress Protection	IP66
REGULATORY	
Emissions	FCC Part 15B, EN 55032
Immunity	EN 50130-4
Safety	UL 60950-1, EN 62368-1
RoHS	EN 50581

* Some development may be required in specific user cases to support some of these protocols in the field as they mature over time.

Honeywell

PERFORMANCE SERIES NETWORK WDR 2MP IR BULLET CAMERA RECOMMENDED ACCESSORIES

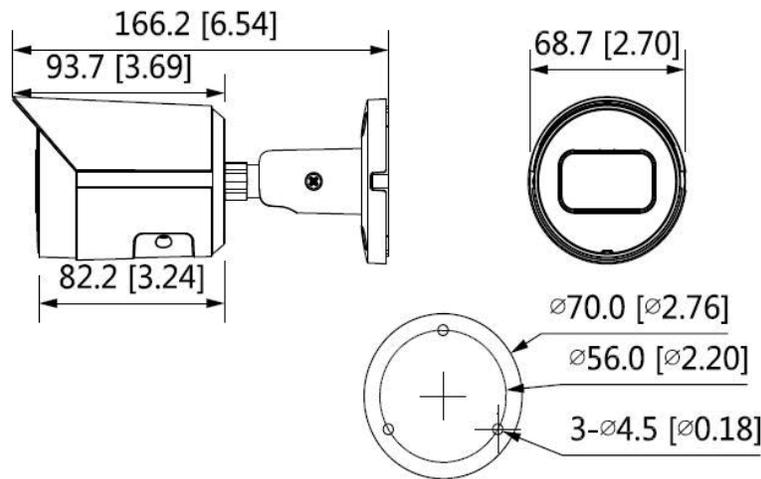
SYSTEM INTEGRATION	
HEN*4	8/16/32/64-Channel Performance Series 4K NVRs (H.264 and H.265)
HEN*3	4/8/16/32-Channel Performance Series 4K NVRs (H.264 and H.265)
HEN*3V	4 / 8 / 16- Channel Embedded NVRs (H.265)

MOUNTS AND ACCESSORIES		
HEJB**		Back box
HQA-PM2		Pole Mount Bracket
HBS2-BB**		Junction Box

**The HBS2-BB/HEJB must be used when installing the camera to HQA-PM2.

ORDERING	
HBW2PER1V	Network WDR 2MP IR Bullet Camera, 1 / 2.8" CMOS, 3.6 mm Fixed, 1 IR LEDs, PoE, IP66, H.265 / Smart Codec

DIMENSIONS



For more information

www.security.honeywell.com/uk
www.security.honeywell.com/me

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Honeywell



SP20ST

Indoor Siren

EN50131-4: 2009 Security Grade 2 Environmental Class II certified indoor siren.

Versatile and reliable with a modern and attractive design.

Features:

- **Sound:**
The SP20ST indoor siren generates 94.4dB at a distance of 1m and can be programmed to work with a monotone or bi-tonal frequency
- **Application:**
Suitable for local signalling (not valid for fire alarms)
- **Robust:**
The quality of the ABS plastic box and Mylar cone speaker protection ensures high reliability and durability of the siren
- **Versatile mounting:**
The design of the mounting surface facilitates installation in a wide variety of configurations
- **Easy connection:**
The SP20ST is an integrated siren that connects directly to the bell output of any panel
- **Attractive and discreet:**
The colour and texture of the cabinet has been designed to blend with the colours and types of most common wall surfaces

Specifications:

Features:	
Hold off Supply	9 – 18 VDC
Current	250mA @ 12 VDC
Siren	94.4dB a 1m (typical) Speaker 15W, peak 20 W
Sound Frequency	Bi-tonal: 1.4 – 1.9 KHz Monotone: 1.9KHz
Cabling	Bi-tonal: Red (+), Black (-) Monotone: Yellow (+), Black (-)
Operating Temperature	-20°C – 60°C
Humidity	5%~95% Relative humidity, non-condensing
Dimensions (h x w x d)	110 x 95 x 46 mm
Housing	White plastic ABS
Speaker Cone	High quality Mylar
Tamper	Form A (NC) \ 100mA @ 30 VDC

Ordering information:

SP20ST Indoor siren

Find out more:

Fax: +44 (0) 1698 738300
Email: securitysales@honeywell.com

Honeywell Security Group

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HSC-SP20ST-02-EN(0913)DS-C
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SPECIFICATIONS

TYPICAL FABRICATION, INSTALLATION METHODS, AND
MAINTENANCE REQUIREMENTS

RESILIENT INSTALLATION GUIDELINES FOR WPC PRODUCTS

I. GENERAL INFORMATION

These installation guidelines apply to the WPC products only. All instructions and recommendations should be followed for a satisfactory installation.

- Acclimation of material prior to installation is not required; however, the floor covering should be installed in a climate controlled environment with an ambient temperature range between 55°F - 85°F (13°C-29°C) or average temperature of 70°F (21.1°C).
- For installations involving 3 season scenarios, meaning, the dwelling or installed space is without climate control for extended periods during certain seasons of the year, the post installation temperature range allowed is an ambient room temperature between 32°F and 100°F (0°C- 37.7°C). This allowance is for floating floors only and does not apply to glue-down installations.
- Avoid exposure to direct sunlight for prolonged periods, doing so may result in discoloration. During peak sunlight hours, the use of drapes or blinds is recommended. Excess temperature due to direct sunlight can result in thermal expansion and UV fading.
- Install product after all other trades have completed work that could damage the flooring.
 - If cabinets are to be installed on top of the flooring (including islands), that area of material must be fully adhered to the subfloor (including an additional 2' beyond the cabinets and islands).
- To minimize shade variation, mix and install flooring from several cartons.
- Inspect all flooring for damage before installing. If you have any concerns about the product fit or finish, call Shaw Information Services at 1-800-441-7429. Claims will not be accepted for flooring that has been cut to size and/or installed.
- Use cementitious patching and leveling compounds that meet or exceed maximum moisture level and pH requirements. Use of gypsum-based patching and/or leveling compounds which contain Portland or high alumina cement and meet or exceed the compressive strength of 3,000 psi are acceptable.
- Installation Methods: Floating (on, above or below grade) / Glue Down (on, above or below grade)
- Required perimeter expansion spacing for Floating or Glue Down installation is as follows:
For areas less than 2500 sq. ft. use 1/4" gap
For areas larger than 2500 sq. ft. use 1/2" gap.
- WPC flooring is waterproof and reliably secures the flooring panels on all four sides. However, excessive moisture in the subfloor could promote mold, mildew, and other moisture related issues like the trapping of moisture emissions under the flooring, which may contribute to an unhealthy indoor environment.
- Additional layer of 6 mil poly film or equal vapor retarder with a perm rating of .1 or less may be used as an additional layer of protection.
- A second underlayment is allowed under any currently sold resilient product with attached underlayment in a residential application. If installed over a second underlayment, this underlayment cannot be greater than 3 mm thick. IIC (ASTM E492-09) and STC (ASTM E90-09) lab testing on certain resilient products tested with and without a second layer of underlayment, to date, does not indicate that a second underlayment will provide additional acoustic benefit.
- Crumb rubber underlayments are not an acceptable option for use with resilient floor coverings due to performance issues resulting from chemical incompatibilities.

II. SUBFLOOR INFORMATION

All subfloors must be clean, flat, dry, and structurally sound. The correct preparation of the subfloor is a major part of a successful installation. Subfloor must be flat: 3/16" in 10' or 1/8" in 6'.

A. WOOD SUBFLOORS

Do not install material over wood subfloors that lay directly on concrete or over dimensional lumber or plywood used over concrete. Refer to ASTM F1482 for panel underlayment recommendations.

1. Do not apply sheet plastic over wood subfloors.
2. Basements and crawl spaces must be dry. Use of a 6 mil black polyethylene is required to cover 100% of the crawl space earth. Crawl space clearance from ground to underside of joist is to be no less than 18" and perimeter vent spacing should be equal to 1.5% of the total square footage of the crawl space area to provide cross ventilation. Where necessary, local regulations prevail.
3. **DO NOT** install over sleeper construction subfloors or wood subfloors applied directly over concrete.
4. All other subfloors - Plywood, OSB, particleboard, chipboard, wafer board, etc. must be structurally sound and must be installed following their manufacturer's recommendations. Local building codes may only establish minimum requirements of the flooring system and may not provide adequate rigidity and support for proper installation and performance.
5. If needed add an additional layer of APA rated underlayment, fasten and secure according to the underlayment manufacturer's recommendations.
6. Resilient flooring is not recommended directly over fire-retardant treated plywood or preservative treated plywood. An additional layer of APA rated 1/4" thick underlayment should be installed.

B. CONCRETE SUBFLOORS

NEW AND EXISTING CONCRETE SUBFLOORS SHOULD MEET THE GUIDELINES OF THE LATEST EDITION OF ACI 302 AND ASTM F 710, "STANDARD PRACTICE FOR PREPARING CONCRETE FLOORS TO RECEIVE RESILIENT FLOORING" AVAILABLE FROM THE AMERICAN SOCIETY FOR TESTING AND MATERIALS, 100 BARR HARBOR DRIVE, WEST CONSHOHOCKEN, PA 19428; 610-832-9585; [HTTP://WWW.ASTM.ORG](http://www.astm.org).

- Floors shall be smooth, permanently dry, clean, and free all foreign material such as dust, wax, solvents, paint, grease, oils, and old adhesive residue. The surface must be hard and dense, and free from powder or flaking.
- If the adhesive residue is asphalt-based (cut-back), or any other type of adhesive is present, it must be removed by industry accepted methods such as mechanical removal or wet scraping.
- If a chemical abatement has been performed, use Shaw Surface Prep EXT (or equivalent/comparable product) to remove any residual chemicals present. Once Shaw Surface Prep EXT (or equivalent/comparable product) has been properly cleaned and removed, apply one coat of Shaw MRP (or equivalent/comparable product) for additional protection.
- Adhesive removal through the use of solvents or citrus adhesive removers is not recommended. Solvent residue left in or on the subfloor may affect the new adhesive and floor covering.

WARNING! DO NOT SAND, DRY SWEEP, DRY SCRAPE, DRILL, SAW, BEAD BLAST OR MECHANICALLY CHIP OR PULVERISE EXISTING RESILIENT FLOORING, BACKING, LINING FELT, ASPHALTIC "CUT BACK" ADHESIVES OR OTHER ADHESIVES.

These products may contain either asbestos fibers and/or crystalline silica. Avoid creating dust. Inhalation of such dust is a cancer and respiratory tract hazard. Smoking by individuals exposed to asbestos fibers greatly increases the risk of serious bodily harm. Unless positively certain that the product is a non-asbestos-containing material, you must presume it contains asbestos. Regulations may require that the material be tested to determine asbestos content and may govern the removal and disposal of material. See current edition of the Resilient Floor Covering Institute (RFCI) publication Recommended Work Practices for Removal of Resilient Floor Coverings for detailed information and instructions on removing all resilient covering structures. For current information go to www.rfci.com.

- Concrete slabs must be dry with no visible moisture.
- Required Moisture Testing - maximum moisture level per ASTM 1869 CaCl is 8 lbs. and ASTM 2170 In-situ Relative Humidity 90% per 1000 sq.ft. in 24 hours.
- Do not install over concrete with a history of high moisture or hydrostatic conditions. Excessive moisture in the subfloor could promote mold, mildew, and other moisture related issues like the trapping of moisture emissions under the flooring, which may contribute to an unhealthy indoor environment. Shaw Industries does not warrant nor is responsible for damage to floor covering due to moisture related issues.



- pH level of concrete should be between 7-10.
- The final responsibility for determining if the concrete is dry enough for installation of the flooring lies with the floor covering installer.

NOTE: IT MAY NOT BE THE FLOOR COVERING INSTALLER'S RESPONSIBILITY TO CONDUCT THESE TESTS. IT IS, HOWEVER, THE FLOOR COVERING INSTALLER'S RESPONSIBILITY TO MAKE SURE THESE TESTS HAVE BEEN CONDUCTED, AND THAT THE RESULTS ARE ACCEPTABLE PRIOR TO INSTALLING THE FLOOR COVERING. WHEN MOISTURE TESTS ARE CONDUCTED, IT INDICATES THE CONDITIONS ONLY AT THE TIME OF THE TEST.

LIGHTWEIGHT CONCRETE

All recommendations and guarantees as to the suitability and performance of lightweight concrete under resilient flooring are the responsibility of the lightweight concrete manufacturer. The installer of the lightweight product may be required to be authorized or certified by the manufacturer. Correct on-site mixing ratios and properly functioning pumping equipment are critical. To ensure proper mixture, slump testing is recommended.

- Lightweight aggregate concretes having dry densities greater than 90 lbs. per cubic foot may be acceptable under resilient flooring.
- Concrete slabs with heavy static and/or dynamic loads should be designed with higher strengths and densities to support such loads.
- Surface must be permanently dry, clean, smooth, free of all dust, and structurally sound.
- Perform Bond testing to determine compatibility of adhesive to the substrate. Shaw 9050 primer (or equivalent / comparable product) can be utilized to promote adhesion.
- Three internal relative humidity tests should be conducted for areas up to 1000 sq. ft. One additional test, for each additional 1000 sq. ft.

Radiant Heating: Radiant-heated subfloor systems can be concrete, wood or a combination of both.

The heating systems components must have a minimum of 1/2" separation from the flooring product. The system must be on and operational for at least 2 weeks prior to installation to reduce residual moisture. Three days prior to installation lower the temperature to 65°F, after installation gradually increase the temperature in increments of 5°F to avoid overheating. Maximum operating temperature should never exceed 85°F. Use of an in-floor temperature sensor is recommended to avoid overheating. Contact the manufacturer of your radiant heating system for further recommendations.

- *Electric Radiant Floors:* consist of electric cables (or) mats of electrically conductive materials mounted on the subfloor below the floor covering. Mesh systems are typically embedded in thin-set. When embedding the system components, use cementitious patching and leveling compounds that meet or exceed Shaw's maximum moisture level and pH requirements. Use of gypsum-based patching and/or leveling compounds which contain Portland or high alumina cement and meet or exceed the compressive strength of 3,000 psi are acceptable.
- *Hydronic Radiant Floors:* pump heated water from a boiler through tubing laid in a pattern under the flooring. Typically installed in channels under a wooden subfloor (or) imbedded in concrete slabs. Requires the installer follow a specific nailing pattern to avoid penetration of the heat system.

C. EXISTING FLOOR COVERINGS

Flooring can be installed over most existing hard-surface floor coverings, provided that the existing floor surface is fully adhered, clean, flat, dry, structurally sound and free of deflection.

- Existing sheet vinyl floors should not be heavily cushioned and not exceed more than one layer in thickness. Soft underlayment and soft substrates will compromise the product's locking ability as well as diminish its indentation resistance.
- Installation is **NOT** allowed over any type of carpet.
- Do **NOT** install over wood floors adhered to concrete.
- This product can be installed over existing ceramic/porcelain tile products with up to a 1/4 inch wide grout joint. If the grout joint width exceeds 1/4 inch, a cementitious patching compound should be used to fill the grout joint to make it smooth with the surface of the tile.

RAISED ACCESS PANEL SUBFLOORS

- Raised access panels must be stable, level, flat, free and clean of existing adhesives
- 24" x 24" panels are recommended.
- Lippage (variation of height) between of panels must not exceed 0.295" (0.75 mm)
- Gaps between panels must not exceed 0.039" (1 mm)
- There should be no deflection of the individual panels – Concave less than 0.0295" (0.75 mm)
- Flatness 1/8" in 10'
- Stagger the flooring tiles/planks to overlap the access panels
- Telegraphing of access panel seams may be visible and is not considered a product defect nor warranted by the flooring manufacturer.

If needed, overlay the panels with a 1/4" (6 mm) plywood and properly fasten to the access panels prior to the installation of the floorcovering. Prior to underlayment installation, repair any loose or unstable panels. Use the appropriate installation methods for the product.

III. INSTALLATION

Tools: Tape Measure, Utility Knife, Jigsaw, Tapping Block, Rubber Mallet, Pull Bar, 1/4" Spacers, T-Square, Safety Glasses, Broom or Vacuum and, if necessary, tools for subfloor repair.



To cut the flooring, simply measure and mark the flooring. Then, use a **t-square** and **utility knife** to score and snap. You will also need to back-cut the under pad (if applicable) on the bottom of the flooring. If you have difficulty using this method, you can use a jigsaw, circular saw or miter saw.

FLOATING INSTALLATION

WPC flooring is designed to be installed utilizing the floating method. Proper expansion space 1/4" (6.35 mm) is required. Undercut all doorjamb. Do not fasten wall moldings and or transition strips to the flooring.

Glue Down Installation: WPC products are approved for glue down installation over approved wood and concrete substrates. Follow adhesive label application instructions. Install flooring into wet adhesive to achieve a permanent bond. Maintain 1/4" (6.35 mm) perimeter expansion space. Refer to adhesive label for moisture limits of the adhesive. Roll flooring immediately after installation with a 100 lbs. 3-section roller.

Recommended Adhesive(s): Shaw 200 (or equivalent/comparable adhesive).

If alternative adhesives are used, a bond test should be performed to ensure compatibility.

Flooring patterns must be installed in a staggered (offset) pattern.



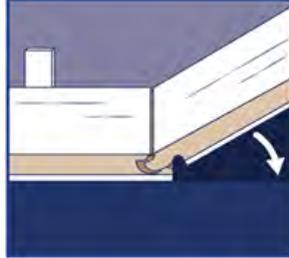
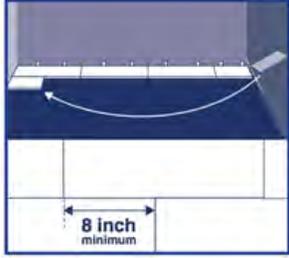
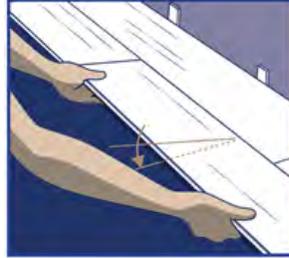
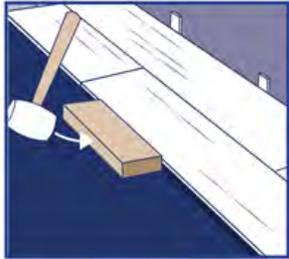
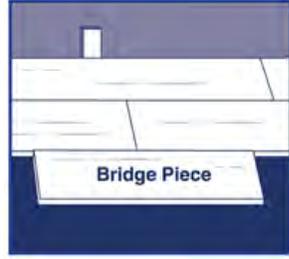
Remember to stagger end joints from row to row - 8+” for planks and 12+” for tiles.

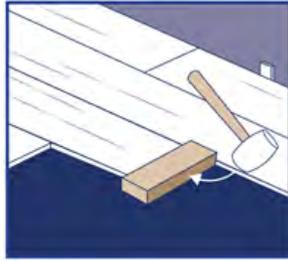
Planks: Use the cut-off end from the previous row to begin the next row. If the cut-off end is less than 8”, cut a new plank to be 8” or more to start the next row.

Tiles: Always begin a row with either a full tile or a half tile so the joints are consistently staggered in a “brick work” type pattern.



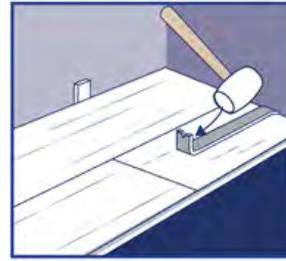
LAYOUT

 <p>Step 1: Begin installation working from left to right. Insert spacers at ends and edges where flooring meet wall. Use 1/4” spacer’s along walls to maintain proper expansion space.</p>	 <p>Step 2: Lock short end of flooring by inserting tongue into groove at an angle and drop in place. At end of the row, measure and cut the flooring to complete the row. Install the cut edge closest to the wall.</p>
 <p>Step 3: Use leftover flooring from first row as starter for second row. There must be at least 8” (20cm) between flooring end joints on adjacent rows. FOR TILE INSTALLATIONS: The distance between end joints should be equal to 12”(30cm) for proper appearance.</p>	 <p>Step 4: Lock long edge of flooring by inserting tongue into groove at an angle and drop in place. Slide flooring toward end of previously installed flooring until the tongue just touches the groove.</p>
 <p>Step 5: IMPORTANT! Use rubber mallet and tapping block to tap long edge of plank to ensure a tight fit. ANY GAPPING CAN COMPROMISE THE LOCKING SYSTEM!</p>	 <p>Step 6: Attach a scrap piece of floor to bridge the gap between ends of planks.</p> <p style="text-align: center;">Bridge Piece</p>

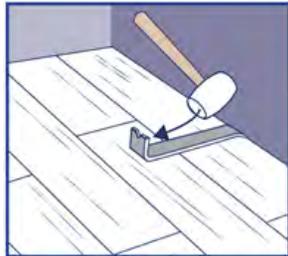


Step 7: Tap end of flooring with rubber mallet and tapping block to lock ends of flooring together. Remove bridge and continue towards wall until installing the final flooring in the row.

BE SURE TO TAP ON EDGE OF VINYL SO AS NOT TO DAMAGE LOCKING PROFILE.



Step 8: Use rubber mallet and pull bar to lock final piece in row. Insert spacer at end of row. Continue installation to final row.

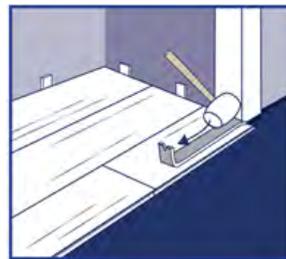


Step 9: Use rubber mallet and pull bar to lock long edges of flooring on final row.

INSTALLING UNDERNEATH DOOR JAMBS:



Step 1: Undercut space under door jamb to allow flooring to slide freely. Tap long edge with rubber mallet and tapping block to lock long edge.



Step 2: Use rubber mallet and pull bar to lock this piece of flooring



COMPLETION

- Protect all exposed edges of the flooring by installing wall molding and/or transition strips. Make sure that no plank will be secured in any way to the subfloor.
- For wet areas such as bathrooms caulk the perimeter of the floor with a flexible silicone caulk.
- Protect the finished flooring from exposure to direct sunlight to reduce fading and thermal expansion.
- Cutting resilient product into a fine point may lead to delamination. Use an ethyl cyanoacrylate based glue to help fuse the resilient point together. Be sure to clean all glue from the top surface immediately. Alcohol based glues may cause resilient products to swell.
- Adhering tape to the surface of your resilient flooring could damage the surface.
Do not use tape to secure floor protection directly to the floor during construction or renovation. Instead, adhere tape to the material used to protect the floor and secure it to the base molding along the wall. A material such as ram board can also be used to protect your flooring.

Verde Tia



Verde Tia is a dimensional, honed marble in shades of jade to forest green, the shifting, varied field interrupted by creamy white veining and grey to black mottling. Unlike most similar colored marbles that run toward blue, Verde Tia features golden undertones giving the stone warmth and elegance, making it a rare find.

RECOMMENDED USE



- Suitable for all indoor wall and medium duty flooring applications
- Suitable for installation on shower walls
- Outdoor use subject to climate and method of installation
- Please see Ann Sacks slip resistance and wet flooring application statement to determine usage in a wet area

INSTALLATION AND MAINTENANCE

- Install per industry standards for natural stone
- Always inspect material prior to installation – installed material cannot be accepted for return or credit
- Always lay out material prior to installation to properly blend and balance color
- It is recommended to seal natural stone with a penetrating sealer
- Periodic cleaning and resealing is recommended using products formulated for natural stone

COLLECTION

Field	12" x 24" (12.008" X 24.016" X 0.394")
Mosaic	Arches (Sheet: 10.250" X 12.125" X 0.394") Crown (Sheet: 11.563" X 12.500" X 0.394")
Trim	1" x 8" Box Liner (0.984" X 7.874" X 0.787")
Material	Marble
Color	Verde Tia, Verde Tia/Dolomite, Verde Tia/Dolomite/ Calacatta Verde
Price	Fields Starting at \$29.95/SF Mosaics Starting at \$76.52/SF (Pricing subject to change)
Lead Time	In-Stock. Ready to ship within 3 business days. (Lead Times are subject to change)



SCAN TO VIEW COLLECTION

Please note: variations in color, shade, surface texture and size are natural characteristics of all our products and should be expected. Images shown are representative, but may not indicate all variations in these characteristics.

01/29/2025

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Savoy Classic

Our Savoy Classic collection is crafted by Japanese artisans, using unique glazes that break over the tile edge, adding a strong design element to any setting. The inventoried collection has an extensive range of field, mosaic and trim formats, offering limitless possibilities at a great value.

RECOMMENDED USE

- Suitable for all indoor wall and medium-duty flooring applications — Bronze glaze suitable for indoor walls and light-duty flooring only
- Circle and Pleated not suitable for flooring applications
- Suitable for installation on shower walls (except Bronze)
- Suitable for submerged areas, such as pools or fountains (except Bronze)
- Outdoor use subject to climate and method of installation
- Material not affected by freeze/thaw conditions
- Suitable for high-temperature areas such as behind ranges and fireplace surrounds or pizza ovens, so long as temperatures do not exceed 500 degrees F
- Bronze NOT recommended for wet areas, since acidic or abrasive cleaners and certain pool chemicals may affect the finish
- Please see Ann Sacks slip-resistance and wet flooring statement to determine usage in a wet area



INSTALLATION AND MAINTENANCE

- Install per industry standards for ceramic tile
- Always inspect material prior to installation — installed material cannot be accepted for return or credit
- Always lay out material prior to installation to properly blend and balance color
- It is recommended to seal with a penetrating sealer before and after grouting
- Avoid acidic cleaners or abrasive scouring pads, especially for Bronze glaze
- If used in submerged areas, product must be ordered with paper faced mounting *(Minimum orders and additional fees may apply to custom ordered Paper-Faced Mosaics)*



Savoy tiles are made from 21% pre-consumer recycled content, including ceramic waste material from discarded clay and smashed tableware. The rest of the tile body is composed of 22% clay and 57% feldspar.

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Large Stack Mosaic in Ricepaper

COLLECTION

Field	2"x8" Ribbed (1.850" x 7.756" x 0.335") 3"x6" (2.835" x 5.787" x 0.276") 3"x12" (2.756" x 11.614" x 0.374") 4"x8" (3.875" x 7.756" x 0.276") 4" Hex (4.319" x 3.740" x 0.295") 6"x6" Circle (5.787" x 5.787" x 0.453") 6"x6" Flat (5.787" x 5.787" x 0.335") 6"x6" Pleated (5.787" x 5.787" x 0.453")
Mosaic	Arrowhead (Sheet: 10.402" x 12.573" x 0.276") Herringbone (Sheet: 11.083" x 11.102" x 0.236") Hive (Sheet: 11.472" x 12.614" x 0.236") Offset (Sheet: 11.102" x 11.772" x 0.236") ¾" Pennies (Sheet: 11.614" x 11.614" x 0.197") Small Stack (Sheet: 11.693" x 11.732" x 0.236") Large Stack (Sheet: 11.811" x 11.811" x 0.276") Swiss Cross (Sheet: 11.575" x 11.575" x 0.236") Thin Stack (Sheet: 11.811" x 11.811" x 0.256")
Paper Faced Mosaic	Arrowhead (Sheet: 10.402" x 12.573" x 0.276") Herringbone (Sheet: 11.083" x 11.102" x 0.236") Large Stack (Sheet: 11.811" x 11.811" x 0.276") Swiss Cross (Sheet: 11.575" x 11.575" x 0.236")
Trim	½"x8" Box Liner (0.512" x 7.756" x 0.394") 1"x8" Quarter Round (0.787" x 7.756" x 0.276") 2"x8" Bullnose SBN (1.850" x 7.756" x 0.276")
Material	Ceramic
Color	Bronze (metallic), Chalk, Cottonwood, Driftwood, Graphite, Juniper, Lantern, Linen, Lotus, Paperwhite, Ricepaper <i>*Juniper not available in: 4" Hex, 6"x6" Circle, 6"x6" Flat, 1"x8" Quarter Round, Herringbone Mosaic, Offset Mosaic, Small Stack Mosaic, Thin Stack</i> Paper Faced Cottonwood, Lantern, Lotus, Ricepaper
Lead Time	In-stock. Typical lead times are 1-2 weeks <i>(Lead Times are subject to change)</i>

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Savoy Classic

FIELD (Shown in Ricepaper)



2"x8" Ribbed



3"x6"



3"x12"



4"x8"



4" Hex



6"x6" Circle



6"x6" Pleated



6"x6" Flat

MOSAIC (Shown in Ricepaper)



Arrowhead



Herringbone



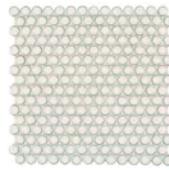
Hive



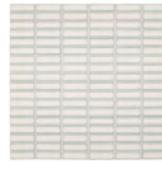
7/8"x17/8" Offset



Thin Stack



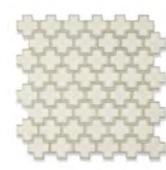
3/4" Pennies



5/8"x17/8" Stack



1"x4" Stack



Swiss Cross

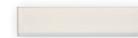
TRIM (Shown in Ricepaper)



1/2"x8" Box Liner



1"x8" Quarter Round



2"x8" Bullnose SBN

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Savoy Classic

COLOR PALETTE (Shown in Swiss Cross Mosaic)



Paperwhite



Chalk



Ricepaper



Cottonwood



Driftwood



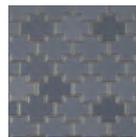
Lotus



Linen



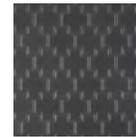
Juniper



Lantern



Bronze
(*metallic*)



Graphite

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Savoy Prints

Savoy Prints is a stunning graphic addition to the larger Savoy program (Field Tile, Mosaics and Trims) available in three gorgeous colorways: Blue and White, tonal Black and tonal White. Explore unlimited possibilities by combining with Savoy Classic to create custom patterns and color blends for the ultimate in bespoke design expression. Suitable to nearly every design style.



6" x 6" Insho Triangles in Black

RECOMMENDED USE

- Suitable for all indoor wall and light-duty flooring applications
- Suitable for installation on shower walls
- Outdoor use subject to climate and method of installation
- Material not affected by freeze/thaw conditions
- Suitable for high-temperature areas such as fireplaces, behind ranges or pizza ovens as long as temperatures do not exceed 500 degrees F.
- Please see Ann Sacks slip-resistance and wet flooring statement to determine usage in a wet area
- Testing data available upon request



INSTALLATION AND MAINTENANCE

- Install per TCNA Handbook for ceramic tile
- Always inspect material prior to installation — installed material cannot be accepted for return or credit
- Always lay out material prior to installation to properly blend and balance color
- It is recommended to seal with a penetrating sealer before and after grouting



Savoy tiles are made from 21% pre-consumer recycled content, including ceramic waste material from discarded clay and smashed tableware. The rest of the tile body is composed of 22% clay and 57% feldspar.

ANN SACKS®

COLLECTION

Field	Insho 6"x6" (5.748" x 5.748" x 0.315")
Design	Circles, Flowers, Lines, Triangles
Material	Ceramic
Color	Black, Blue, White
Lead Time	In-stock. Typical lead times are 1-2 weeks <i>(Lead times are subject to change)</i>

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5/2023

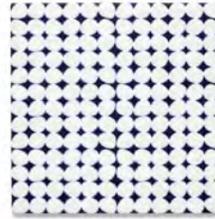
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Savoy Prints

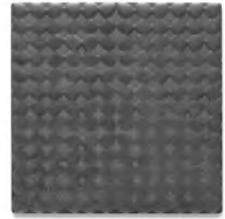
DESIGNS



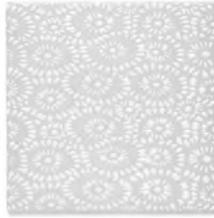
6"x6" Circles
in White



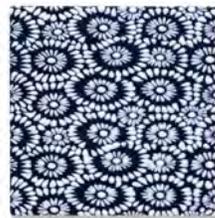
6"x6" Circles
in Blue



6"x6" Circles
in Black



6"x6" Flowers
in White



6"x6" Flowers
in Blue



6"x6" Flowers
in Black



6"x6" Lines
in White



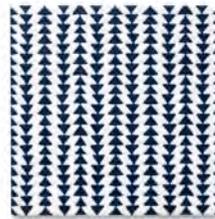
6"x6" Lines
in Blue



6"x6" Lines
in Black



6"x6" Triangles
in White



6"x6" Triangles
in Blue



6"x6" Triangles
in Black

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Savoy Dimensional

Savoy Dimensional is a bold offshoot of the larger Savoy program available in three designs and three artisan glazes. Explore unlimited possibilities by combining with Savoy Classic to create custom patterns and color blends for the ultimate in bespoke design expression. Suitable to nearly every design style.



3"x3" Anna Bevel in Lotus

RECOMMENDED USE

- Suitable for all indoor wall applications
- Suitable for installation on shower walls
- Outdoor use subject to climate and method of installation
- Material not affected by freeze/thaw conditions
- Suitable for high-temperature areas such as fireplaces, behind ranges or pizza ovens so long as temperatures do not exceed 500 degrees F.
- Testing data available upon request



wall



shower wall



freeze/thaw

INSTALLATION AND MAINTENANCE

- Install per TCNA Handbook for ceramic tile
- Always inspect material prior to installation — installed material cannot be accepted for return or credit
- Always lay out material prior to installation to properly blend and balance color
- It is recommended to seal with a penetrating sealer before and after grouting



Savoy tiles are made from 21% pre-consumer recycled content, including ceramic waste material from discarded clay and smashed tableware. The rest of the tile body is composed of 22% clay and 57% feldspar.

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COLLECTION

Field	Anna Bevel 3"x3" (2.835" x 2.835" x 0.570") 3"x6" (2.835" x 5.787" x 0.570") 4" Hex (4.319" x 3.740" x 0.531")
Material	Ceramic
Color	Cottonwood, Lotus, Ricepaper
Lead Time	In-stock. Typical Lead Times are 1-2 weeks <i>(Lead Times are subject to change)</i>

*Please note: variations in color, shade, surface texture and size are natural characteristics of all our products and should be expected. Images shown are representative, but may not indicate all variations in these characteristics.

7/2023

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Savoy Dimensional

FIELD (Shown in Lotus)



3" x 3"



4" Hex



3" x 6"

COLOR



Ricepaper
**Not available in 3" x 6"*



Cottonwood



Lotus

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*Please note: variations in color, shade, surface texture and size are natural characteristics of all our products and should be expected. Images shown are representative, but may not indicate all variations in these characteristics.
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INSTALLATION GUIDE | Moroccan Zellige

To ensure the proper installation of tiles, customers are responsible for hiring a professional installer. Tiles of Ezra is not responsible for installation, ongoing care and maintenance, or issues arising after receipt and installation of the product.

The authentic methods of Zellige tiles will result in your order including tiles with imperfections, including but not limited to: hairline cracks, dimples in the face of the tile, chips to the edges and/or the face of the tile exposing the clay beneath the glaze, uneven thickness, ink or fingerprints on the glaze surface, and variation in tone and size. When blended by your installer, these imperfections will give your installation the look of a traditional Zellige surface.

Due to the ancient Moroccan methods of making Zellige, you should expect to see variation within your order. Your sample tile(s) may not be an exact match to your purchased order, as your initial sample purchase may be produced at a different time, resulting in potential for variation in colour, shape and sizing.

If you do not plan to work with these inherent Zellige characteristics and then you should choose a more uniform tile type for your design aesthetic and installation needs.

Review your order

Upon receiving your order, please inspect thoroughly. Tiles of Ezra will not be held responsible for tiles that have already been installed.

Each piece of Zellige is made by hand. Extreme variations in colour, shape and thickness are to be expected. Irregular edges, chips, pits and small hairline cracks are common and to be expected. This forms part of the traditional aesthetic of Zellige installation.

Traditional Zellige tiles will have approximately 10-15% of these perfect imperfections. If you are after a more uniform look, we suggest increasing your order size by 15-20% to reduce the amount of variation during installation. If the Zellige tiles with these chips and pits are discarded, your install will lose the feel of an authentic Zellige installation. It is also important to note that the grout will fill these pits and chips to blend the overall aesthetic. Please note, you may also see some ink marks on the surface and sides of your tile, which is an indication of the hand made process. You may wish to swap these out using the overage tiles ordered.

When ordering please allow consideration for inherent variation and potential breakage in transit. It is strongly recommended that all orders include a minimum of 10-20% overage to avoid costly extras and potential schedule delays.

Before you install

Dust and residue on the tiles are typical. Tiles should be cleaned prior to beginning your installation (front and back). Use of a brush, or a damp cloth to remove loose dust and residue is suggested for the adhesive to bond correctly. DO NOT soak Unglazed Clay Zellige, as soaking unglazed tiles can lead to adhesion problems and efflorescence that is difficult to remove.

Due to the colour variation of Zellige, it is very important to blend the tiles from all boxes in your order. You should then lay out all tiles in the installation area to ensure any variation is evenly distributed before beginning your installation as this will avoid colour blocking. Both customer and installer should be active participants in the Zellige layout to select colour tones, and optimal variation prior to installation. Clear communication with your installer is crucial to the success of achieving a traditional Zellige aesthetic.

Achieving the traditional Zellige aesthetic, try to work with chips and pits and remember that grout will fill these perfect imperfections, giving you a more authentic installation.

For installing our pre-assembled mosaic sheets, these are created to fit together like a jigsaw, however, being a handmade product, each piece is unique. As such, we suggest you lay out your mosaics prior to installation and play around with the orientation of each piece to find which sheets work best together as these will vary, and everyone's preferences are different. It is not unusual or an indication of product defect to have varying gaps between joins. Once laid and installed with a complimentary grout colour, these joins are not noticeable. Some clients choose to have their installer manipulate the mosaic edges with a sander or an angle grinder to achieve a very snug fit—but keep in mind the beauty of Zellige is in the imperfections, so this is not a mandatory step for installation, merely personal preference and can be achieved should the client desire.

It is important to note that lighting can drastically affect the overall look of Zellige tiles. The more direct natural light you have, the brighter and glossier the tiles will look, and the darker or more shadowed your space is, the darker and more matte your tiles will look. For this reason, we always recommend viewing a sample in the intended installation space if possible, prior to ordering so that you can accurately understand the finished outcome.

Careful consideration should be given to the choice of grout colour, and the sizing of grout spaces. Explore neutral colour grouts from reputable brands such as Kerakoll, Mapei, Laficrete or Ardex. It is essential that you communicate with your professional installer about the intended outcome prior to beginning your installation. It can be helpful to provide reference imagery of your desired outcome to your installer. You can explore grout colour samples on site with your professional installer, and it is recommended you complete a test patch of grout to ensure you are satisfied with the chosen colour before applying to the entire installation.

Installation

Sealing Zellige tiles:

Glazed tiles do not require sealant.

For unglazed tiles, we recommend a minimum of two coats of sealant to be applied before installation, and one coat to be applied after grouting, once the surface is thoroughly clean and prepared.

A great impregnating sealant will protect your porous tiles from damage, water and oil absorption. We recommend a water based penetrating sealant that provides a protective coating to the tiles without changing the colour or texture and will ensure the longevity of the tile's appearance and significantly reduce the risk of staining.

The following products are examples of recommended sealants:

• Guard Industry TDS-2140 Protect Guard MG • Dry Treat Stain-Proof • Meta Crème and Stain Proof Plus, • Miracle Sealants 511 Porous Plus penetrating sealer

Apply sealer in accordance with manufacturer's instructions. We recommend using a paint brush or roller to apply (not a spray) to ensure an even and consistent coverage of product.

Consult a professional contractor and/or product technician for your specific project needs before purchase and installation.

Please note, any inclusion of Unglazed Clay pieces in your pre-assembled Zellige mosaics will also require sealant.

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Laying tiles

If cuts are required for your installation, ensure a professional installer utilises a waterjet tile cutter or angle grinder for the best result.

Ensure the tiling substrate is well prepared and levelled by a professional before placing the Zellige tiles.

Our clients and tilers have had great success using the following adhesive brands:

• MAPEI • Kerakoll • Ardex • Laticrete

Consult with your builder, installer or local adhesive specialist for an adhesive recommendation specific to your project needs prior to purchase and installation.

Evenly apply adhesive mixture to the install surface using a trowel. Butter the back of each tile with another layer of mixture making sure to apply the mixture in the same direction in order to prevent air pockets from forming. For a more level installation, use alternating quantities of adhesive on the back of the tiles to allow for depth variation. Tiles should be levelled as they are placed. Authentic Zellige installation features a naturally undulating surface. Discuss with your installer your desired aesthetic prior to installation.

Zellige tiles can be spaced in several ways based on design and client's preference. The traditional (and recommended) method for installation does not use standard grout joints; tiles are instead laid edge to edge OR with a 1-3mm grout space, or at a space preferred by designer and client. Due to the inherent variation in Zellige tile sizing, it's recommended to level with wedge spacers to align tiles during installation.

Installing Zellige in wet areas

If installing tiles in a wet area, slip resistance can be increased by increasing grout joint size, or installing using a staggered or herringbone layout, and/or applying an anti-slip product after installation is complete. We recommend consulting and engaging a professional contractor for your specific project needs before installation.

Grouting

We always recommend the use of grout, and not dry stacking (not using grout). The use of grout protects edges, ties the install together forming a cohesive, aesthetically appealing design, and protects against water ingress if used in a wet area, and dirt and debris ingress in all other areas. You may wish to consider using epoxy grout in wet area applications.

The use of grout will fill in all spaces, gaps and any surface pits, chips, cracks and imperfections. Our clients and tilers have had great success using the following grout brands:

• MAPEI • Kerakoll • Ardex • Laticrete

Consult with your installer or local grout specialist for a grout recommendation specific to your installation.

It is very important to carefully remove the excess grout with a damp sponge. Do not leave any grout to dry on the surface of Zellige tile as it is very difficult to remove after the grout has fully cured.

We recommend consulting and engaging a professional contractor for your specific project needs before installation.

Final coat sealing - For unglazed Zellige tiles only

Tiles are to be completely clean and dry. The removal of any residual grout, dust, spills, drips, drips or footprints to be removed before final coat of sealing.

Do not over-seal as thick or excessive application of sealant can dry unevenly and result in an undesirable surface on the tile. Allow sealer to cure, typically 1-2 days before using the space.

We recommend consulting and engaging a professional contractor for your specific project needs before installation.

Re-scaling

Unglazed Zellige and use of Zellige in wet areas should be re-sealed at least every 1-3 years, or as often as needed depending on traffic and wear. For areas exposed to moisture, you may need to re-seal more often.

For low traffic installation zones such as places with low exposure to soaps, oils, liquids etc, which may include fireplace surrounds, high walls etc, these areas can last up to 10 years before needing to be resealed.

For high traffic installation zones such as places with heavy exposure to soaps, oils, liquids etc, which may include splashbacks, shower floors, front entrances, kitchen floors etc, we recommend you re-seal these areas every 12-24 months or as required.

Always re-seal in accordance with sealant manufacturer's instructions.

Cleaning and Maintenance

Once installed and over periods of time Zellige tiles can wear like a natural stone product, which is part of the appeal of authentic Zellige tile. Customers should expect natural wear, fine lines on the tile surface, and patina to occur to the finish over time.

It is suggested you vacuum or sweep tiles regularly to remove abrasive material that can scratch the surface. Glazed Zellige may be cleaned like most types of glazed ceramic tiles. Neutral pH products are recommended for cleaning.

As you do on all natural finishes, promptly clean up any spills, especially oils, sauces, wines and grease on unglazed Zellige. Un-cleaned spills can cause staining. Stains on unsealed unglazed Zellige may be permanent so it is important to follow the sealing process and expect patina, natural aging, and wear of unglazed Zellige over time.

For cleaning and maintenance purposes, you can use mild soapy water, or see below suggestions of pH neutral cleaners:

• Miracle Sealants Heavy Duty Cleaner (Acid Substitute) • Dry Treat Rejuvenata Active • Guard Industry Guard Cleaner Eco: Soiled Floors

Use of acidic & alkaline cleaners and abrasive cleaning tools may damage Moroccan Zellige tiles and should be avoided.

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CARE & MAINTENANCE GUIDE – DOLOMITE

Although Dolomite and marble may look similar, their characteristics can differ significantly from slab to slab. Dolomite is a much denser natural stone compared to marble. This increased density makes Dolomite less porous, making it more suitable for areas in the home exposed to significant amounts of liquid, such as bathrooms and kitchens. Additionally, Dolomite is exceptionally durable and resistant to scratches, chips, stains, and cracks.

DURABILITY

In addition to being a striking visual feature, Dolomite is a highly durable and long-lasting stone material. Given the high activity in a kitchen, choosing a scratch-resistant and non-porous natural stone like Dolomite is an excellent option.

CLEANING

Standard cleaning products with non-abrasive properties, any mild dish soap and water or products specifically formulated for gloss surfaces. When you are cleaning your dolomite, avoid using acidic cleaners which include lemon juice or vinegar, ammonia, or other harsh chemicals. We recommend using products specifically made for stone such as PS87 PRO or CLEANER PRO. If food or liquid is spilled on your countertop, immediately wipe the area with a soft dishcloth.

SEALING

Unsealed dolomite can be stained by oil, wine, fruit juices, and other liquids. Sealing your dolomite surface reduces the likelihood of these substances penetrating the stone. Common acids like fruit juices, vinegar, and some cleaners can etch dolomite, so they should not be allowed to sit on the surface. Generally most dolomite countertops should be sealed annually. However, the porosity of dolomite can vary, and some areas may need more frequent sealing. To check if it's time to reseal a countertop, dribble hot water onto it. If the water beads up, the seal is intact. If the water soaks into the dolomite, it's time to reseal.

Compatible Sealer - Neutral silicon - for example - S70 ottochemie

INSTALLATION

Thanks to its versatility and durability, Dolomite is used for many applications. Super White Dolomite is most commonly used residentially for kitchen benchtops and splashbacks, or bathroom vanities, flooring and bathtubs. Low porosity, high resistance to water damage and extreme hardness makes this more than just a fashionable choice but a functional one as well.

Compatible adhesive - POLYURETHANE SILICONE - for examples SIKA FLEX 292i

Pre-pose treatment - PW10 - for limiting discolouration and rising pollutants



The Sherwin-Williams Company Care and Cleaning of Interior and Exterior Coatings

To clean and maintain the interior and exterior surfaces, we recommend these procedures.

To assure maximum washability and durability, wait at least two weeks before washing the dry paint film.

Exterior coatings typically are very soft and flexible to allow for expansion and contraction of the coating during changes of temperature. ANY hard scrubbing of standard exterior coatings is likely to damage the film.

Concentrated Cleaners, liquid or dry—

- Read all the package directions before using. It is always recommended to test any cleaner on a small, inconspicuous area prior to use.
- Mix or dilute the cleaner per package instructions. Solution strength may be adjusted depending on amount and type of soil.
- Remove any heavy debris and contaminants.
- Using a sponge or cloth, wash surface dirt and marks.
- Do not allow the cleaner to dry on the surface.
- Always clean from the bottom of a wall to the top.
- Rinse the surface thoroughly.
- Repeat if necessary.

Premixed spray cleaners—

- Read all the package directions before using. It is always recommended to test any cleaner on a small, inconspicuous area prior to use.
- Turn spray nozzle to desired spray pattern. (Open with nozzle facing away from you.)
- Remove any heavy debris and contaminants.
- Apply the cleaner to the dirt and marks; apply just enough to wet the area.
- Using a damp sponge or cloth, wipe to remove the surface dirt and marks and any excess cleaner. For difficult stains, some scrubbing may be necessary.
- Do not allow the cleaner to dry on the surface.
- If recommended on the cleaner package, rinse the surface thoroughly.
- Repeat if necessary.
- Return spray nozzle to the closed position.

Cautions

- Thoroughly read and understand all the label cautions prior to using any cleaner.
- Be sure that the cleaner is appropriate for the dirt/contamination.
- Do not mix together any cleaning compounds containing bleach and ammonia.
- Abrasive cleansers may damage a paint film, use very carefully.
- For cleaning mildew on WoodScapes Semi-Transparent Stain, use a maximum of 1 pint per gallon bleach and water solution.

The Sherwin-Williams Company Cleaning Products

CSG-ProClean Professional® Prep Wash Concentrate is an outstanding all-purpose cleaner/degreaser capable of removing soil, grime, and heavy grease deposits from a multitude of surfaces. It is a non-ionic built detergent liquid containing corrosion inhibitors, grease cutting materials, and water softening agents, for outstanding soil removal and exceptional hard water stability. The wetting and penetrating properties of this cleaner are outstanding. ProClean Professional Prep Wash Concentrate safely cleans all surfaces not harmed by water while leaving behind a clean fresh scent. It removes the toughest soils: grease, oil, wax, gum - even light carbon and many other difficult-to-remove soils. Suitable for use in federally inspected meat and poultry plants.

CSG-ProClean Professional® Mildew Eliminator is a fast acting answer to most mildew problems. Mildew Eliminator quickly kills fungus and mildew. When used in conjunction with typical surface preparation practices, the surfaces are ready to paint, varnish, or stain. For use on interior painted surfaces, wood, masonry, tile and grout, vinyl shower curtains, rubber or vinyl bathmats, tub and shower stalls, sinks, and counters. For exterior use on painted surfaces, wood siding and shingles, wood decks, and masonry surfaces.

CSG-Clean & Etch is a concentrated, water-reducible, phosphoric acid and detergent designed to clean and prepare concrete, masonry, steel, galvanized metal, and zinc surfaces for coating, staining, or sealing. Clean & Etch is ideal for cleaning and etching concrete floors, walls, basements, driveways, swimming pools, and containment areas. Clean & Etch will clean and provide a phosphate conversion coating for improved corrosion resistance to steel, galvanized metal, and zinc.

DeckScapes™ Deck Wash is designed to bring back the fresh, natural look of your deck. Enjoy the self-working, no scrub formulation. This product is an excellent choice to restore your surface or to use as a pretreatment for staining, preserving, or sealing. Use on decks and outdoor furniture made of pressure treated wood, cedar, pine, and most other woods. This product is intended for exterior use only.

DeckScapes™ Stain & Sealer Remover is specifically designed to remove most semi-transparent and weathered solid latex and oil-based stains from decks and other exterior wood. DeckScapes Stain & Sealer Remover allows you to change the color of your deck or siding by restoring the natural beauty of the wood. DeckScapes Stain & Sealer Remover can be used on all exterior wood surfaces such as decks, siding and fences and will remove the following stains and finishes:

- Polyurethane and some weathered latex paint.
- Oil-based toners, semi-transparent, and weathered solid stains.
- Water-based toners, semi-transparent, and weathered stain.
- Water-reducible toners, semi-transparent and weathered solid stains.
- Old, weathered, clear protective finishes.

DeckScapes Stain & Sealer Remover will restore color to severely weathered and discolored wood.

DeckScapes™ Revive® Deck & Siding Brightener is a fast-acting, ready-to-use cleaner specially formulated for cedar, redwood and other highly resinous exterior woods as well as dense woods such as mahogany. Due to the chemical characteristics of these types of woods, traditional cleaners can leave the surface with an unnatural, darkened appearance. DeckScapes Revive Deck & Siding Brightener will help remove dirt and unsightly stains caused by mildew and algae, gray and weathered wood, tannin bleed and nail bleed as well as stubborn mill glaze (a surface barrier to wood coatings found on most newly installed cedar and redwood) and restore the surface to its bright, clean natural look. DeckScapes Revive Deck & Siding Brightener can be used on any new or existing exterior structure including wood decks, fences, siding, shakes, shingles, boat docks, boardwalks, outdoor furniture, picnic tables, hot tubs, planters, benches, trellises and gazebos.

H&C Concrete Etching Solution is a phosphoric acid-based etcher that has been developed to acid etch concrete surfaces before applying H&C Silicone Acrylic Concrete Sealer, H&C Shield Plus Concrete Stain, and other coatings

Uses:

- Basement floors and walls
 - Garage floors, carports and driveways
 - Porches, patios, walkways, steps
 - Swimming pool aprons
 - Recreation areas
 - Parking structures and parking lots
 - Retaining walls
 - Containment areas
 - Tilt-up construction
 - Removes efflorescence (alkali salts)
 - Reduces the pH of new concrete and new mortar joints.
-

H&C Degreaser is a concentrated heavy-duty cleaner that will remove most automotive fluids (oil, grease, brake fluid, transmission fluid, gear fluid and antifreeze) from concrete and masonry surfaces. Its primary use is to degrease and prepare concrete, block, brick, and masonry.

Features:

- Removes grease and oil stains
- Prepares surfaces for paints, stains, and sealers
- Increases any coating's ability to bond with the surface by providing a clean substrate

Recommended Uses:

- Stadium Supports
 - Bridges and Bridge Structures
 - Parking Garages
 - Patios and Walkways
 - Pool Decks
 - Concrete Driveways
 - Garage Floors
 - Block & Stucco Walls
 - Athletic/Tennis/Shuffleboard Courts
 - Other Concrete Surfaces
 - Use prior to etching
-

How to Hang Wallpaper with Paste: A Step-by-Step Guide for Beginners

AUGUST 22, 2024

It starts with selecting the right wallpaper for your space and gathering the necessary tools, including a utility knife, wallpaper brush, and of course, the wallpaper paste. **Applying paste to the wall or the back of the wallpaper ensures that it adheres properly and lasts for years to come.** Knowing how to cut around outlets and windows can also make the process smoother and the finish more professional.

Once you have prepared your walls by cleaning and priming them, you're ready to start hanging. Measuring accurately and aligning the wallpaper correctly are crucial steps. This DIY project may seem daunting at first, but with a little patience and attention to detail, anyone can achieve a beautifully wallpapered room.

Preparing Your Walls

Adequate preparation is crucial for ensuring a flawless wallpaper application. This phase involves inspecting, cleaning, and priming your walls to create a perfect base for the wallpaper.

Wall Inspection and Repair

Before starting, inspect the walls for any imperfections. Look for cracks, holes, or bumps that might hinder a smooth wallpaper finish. Small cracks can be filled with spackling compound, while larger holes might need patching.

For textured walls, sanding them down is essential. Use medium-grit sandpaper to achieve a smooth surface.

Checklist:

- Identify cracks and holes.
- Fill and sand down imperfections.
- Ensure the wall surface is leveled.

Cleaning Walls and Removal of Old Wallpaper

Clean walls are vital for the wallpaper adhesive to stick properly. Remove any old wallpaper using a scraper and wallpaper remover solution.

Next, wash the walls with a mild soap and water solution to eliminate any dust, grease, or residue.

Cleaning Steps:

1. Scrape off old wallpaper.
2. Wash walls with soap and water.
3. Rinse and allow to dry completely.

Applying Primer for Smoothness

Priming the walls is a critical step in wallpaper prep to ensure the paste adheres properly. Use a high-quality wallpaper primer. Apply a thin, even coat using a roller, covering all areas where the wallpaper will go.

The primer helps seal the wall surface and provides a uniform base for the wallpaper.

Materials Needed:

- Wallpaper primer
- Roller and roller tray

Priming not only enhances adhesion but also makes future wallpaper removal easier.

Effective wall preparation is key to achieving a smooth, professional finish. By thoroughly inspecting, cleaning, and priming your walls, you set the stage for a successful wallpaper project.

Gathering Necessary Supplies

Preparing to hang wallpaper involves assembling a variety of tools and materials. This will ensure the job goes smoothly and results in a professional finish.

Choosing the Right Paste and Tools

Selecting the proper wallpaper paste is crucial. **Standard adhesive** works for most wallpaper types, but some wallpapers require **specialized paste**. Always check the manufacturer's recommendation.

Essential tools include:

- **Paste brush or roller** for even application.
- **Mixing bucket** to prepare the paste.
- **Sponge** for cleaning up excess paste during application.

Measuring and Cutting Tools

Accurate measurements are vital for a neat finish. A **tape measure** measures wall height and width. A **pencil** and **straight edge** help mark cut lines on the wallpaper. **Wallpaper scissors** and a **razor blade** ensure precise cutting.

Prepare a table for reference:

Tool	Purpose
Tape Measure	Measure wall dimensions
Pencil	Mark cut lines
Straight Edge	Ensure straight cuts
Wallpaper Scissors	Cut wallpaper
Razor Blade	Trim excess

Smoothing and Trimming Implements

Once the wallpaper is on the wall, use a **wallpaper smoother** to remove air bubbles and flatten the surface. Tools for trimming include a **razor blade** for neat edges and a **spirit level** to ensure alignment.

Additionally, a **seam roller** presses down the edges of each strip, ensuring they adhere firmly to the wall without curling or lifting.

WILLIAM MORRIS
Wallpaper

United States | USD \$

Planning Your Wallpaper Layout

Proper planning ensures the wallpaper application goes smoothly and aligns well with the room's features, such as doors and outlets. Key steps include assessing the room layout, addressing wallpaper pattern repeats and matches, and establishing a starting point.

Assessing the Room Layout

First, examine the room's layout. Identify features like doors, windows, and outlets. Measure the height and width of each wall. Take note of corners, as they often need precise cuts for a clean finish.

Using a **level line** and a **plumb line**, mark vertical and horizontal lines on the wall. These help in aligning the wallpaper correctly. Ensure all lines are straight and even, which prevents misalignment during application.

Wallpaper Pattern Repeat and Matching

Wallpaper patterns often have repeats that must be matched across strips. Determine the **pattern repeat length** by checking the wallpaper label. This tells you how often the pattern repeats and is critical for cutting strips correctly.

When cutting wallpaper, ensure each strip starts at the appropriate point in the pattern. This avoids mismatched designs that can be visually disruptive. Lay out the strips on the floor to match patterns before applying to the wall.

Establishing Your Starting Point

Deciding where to begin is crucial. Start at a less prominent corner or along a wall that isn't the room's focal point. This minimizes visibility of any mismatches. Mark a **vertical line** with a plumb line to guide the first strip.

Ensure the vertical line is straight and use it as a reference for aligning the wallpaper. This helps maintain a consistent alignment throughout the application process. Pay attention to outlets and switches, cutting an "X" as you go to avoid covering them.

Mixing and Applying Wallpaper Paste



Proper mixing and precise application of wallpaper paste are crucial for a smooth and durable finish.

Preparing the Paste

To start, it's essential to **select the right wallpaper paste** or adhesive for your specific type of wallpaper. **Read the manufacturer's instructions** on the paste package carefully.

Use a clean **bucket** for mixing. Add **water** first and then gradually pour the powder or paste into the bucket, continuously **stirring** to avoid lumps.

An electric stirrer or a paint mixing stick works well for ensuring a uniform consistency. **Follow the recommended water-to-paste ratio** closely for optimal results.

Paste Application Techniques

Begin by laying out all necessary tools: brush, roller, or pasting machine. For **paste-the-wall wallpaper**, apply the adhesive directly to the wall rather than the paper.

Use a **pasteing brush or roller** to spread the paste evenly. Start at the top and work your way down, ensuring an even coating.

For **traditional wallpapers**, apply paste to the back of the wallpaper, fold it paste-to-paste (also known as "booking"), and let it sit for the recommended time to activate the adhesive.

Avoid over-pasting and make sure to smooth out excess paste to prevent lumps.

Understanding Paste-the-Wall versus Pre-Pasted Wallpaper

Paste-the-wall wallpaper simplifies the process by allowing the adhesive to be applied directly to the wall. This method reduces mess and speeds up the application, as there's no need to soak the paper beforehand.

Pre-pasted wallpapers come with a dry layer of adhesive already on the back. To activate it, you need to submerge the paper in water or use a damp sponge.

Each type has its benefits: **Paste-the-wall** is often cleaner and quicker, whereas **pre-pasted** can be more straightforward for DIY enthusiasts. Proper preparation and applying techniques are crucial for both to avoid bubbles and ensure a smooth finish.

Hanging the Wallpaper

Hanging wallpaper involves careful alignment, adherence, and smoothing to ensure a flawless finish. Follow these steps to achieve professional results.

Aligning Wallpaper and Adhering to the Wall

Start by applying wallpaper paste to the wall. Spread the paste evenly using a roller or brush.

Next, align the wallpaper starting at the top of the wall. Use a plumb line or level to check vertical alignment. This ensures the wallpaper is straight.

Carefully press the wallpaper onto the wall, smoothing from the center outward. This helps remove any air bubbles and ensures the wallpaper adheres properly.

Smoothing Out Air Bubbles

Air bubbles can distort the look of your wallpaper. To smooth them out, use a squeegee or wallpaper smoothing tool.

Start at the center of the wallpaper and work your way to the edges. Apply firm, even pressure to push out any trapped air.

If bubbles persist, use a pin to carefully puncture and release the air. Smooth over the area again to ensure it lies flat.

Trimming Excess Wallpaper

Once the wallpaper is securely adhered and smoothed, trim the excess wallpaper. Use a sharp utility knife and a metal straightedge to cut along the ceiling, baseboards, and corners.

Ensure the cuts are clean and precise for a professional-looking finish. Excess wallpaper at the edges can be tucked neatly into creases or removed entirely.

Repeating this process for each strip of wallpaper will ensure a seamless result.

Finishing Touches and Cleaning Up

Taking care of the finishing details and cleanup is essential for a polished look. Ensuring seams are sealed and excess paste is removed will leave your wallpaper looking professional.

Sealing Seams and Edges

Sealing the seams and edges prevents the wallpaper from peeling away over time. After applying the wallpaper, run a seam roller along the edges to ensure good adhesion.

For added durability, consider applying a thin layer of adhesive or wallpaper seam sealer along the seams. This step is particularly important in high-traffic areas or rooms with high moisture levels, like bathrooms.

Cleaning Excess Paste

Wipe away any excess paste immediately after hanging each strip to avoid damage. Use a clean, damp sponge or cloth for this task.

Be gentle to avoid smudging the wallpaper. Rinse the sponge frequently, ensuring it remains clean throughout the process. This helps in preventing paste from drying and hardening on the wallpaper surface.

Reviewing Your Work

After completing the wallpaper application, step back and thoroughly inspect the walls. Look for any air bubbles, loose edges, or misaligned seams.

If air bubbles remain, use a pin or small needle to puncture and gently press out the air. Adjust any misaligned seams by carefully lifting and repositioning the wallpaper.

Tips for Specific Wallpaper Types



Different types of wallpapers require distinct approaches. From ensuring proper adhesion to maintaining longevity, each type has its unique needs.

Handling Peel-and-Stick Wallpaper

Peel-and-stick wallpaper is popular for its simplicity and mess-free application. To achieve the best results, ensure the wall surface is smooth and clean. Use a damp cloth and mild soap to remove any dust or grease.

Measure and cut the wallpaper panels before peeling off the backing. Align the top edge with the ceiling or a marked line. Apply the wallpaper section by section, smoothing out air bubbles

with a plastic smoothing tool. If you need to reposition it, gently peel it off and reapply. This type's adhesive allows for adjustments, making it ideal for renters.

Working with Textured or Heavy-Duty Wallpaper

Textured or heavy-duty wallpapers require more preparation. First, make sure the walls are dry and free of any uneven patches. Use a primer designed for textured wallpapers to ensure better adhesion.

When applying, use a thicker wallpaper paste specifically for heavy-duty paper. Apply paste evenly on the wall and ensure every part is covered. Start hanging from the top, and press the wallpaper firmly to prevent bubbles. A seam roller helps press down the seams securely. This type is great for adding depth and durability to high-traffic areas.

Decorating with Removable Wallpaper

Removable wallpaper offers flexibility and easy changes. Clean the surface thoroughly before applying. Unlike peel-and-stick, removable wallpaper often requires a light layer of adhesive paste. Apply the paste evenly on the wall to avoid lumps.

Begin by hanging from the top, smoothing down as you go. This type allows for repositioning within a short period, giving you time to correct any mistakes. It's an excellent option for temporary changes, allowing homeowners to refresh their décor without a long-term commitment. It's also ideal for accent walls or children's rooms.

Tools and Calculators



Using the right tools is crucial for hanging wallpaper with paste. Start with a **wallpaper calculator** to determine how much wallpaper you'll need. This prevents underestimating or overbuying material.

Essential Tools

- **Wallpaper paste** and a **paste brush** or **roller** for application.
- **Wallpaper smoothers** for removing air bubbles.
- **Utility knife** for precise trimming.
- **Straight edge** or **ruler** for accurate cuts.
- **Tape measure** for measuring walls and paper.
- **Pencil** to mark measurements on the wall.

Supporting Tools

- **Ladder** for reaching higher areas.
- **Plastic sheet** to protect the floor.
- **Sponge** and **bucket of water** for cleaning excess paste.

Wallpaper Calculator

A **wallpaper calculator** helps you measure wall lengths and heights, then computes the number of rolls needed. This tool factors in repeat patterns and allowances for trimming.

Using proper tools and a calculator ensures a more professional finish and reduces waste.

W ALLPAPER

D ESIGN

This wallpaper collection embodies the essence of Art Nouveau, a movement that sought to blend art with everyday life through organic forms, flowing lines, and intricate patterns. Inspired by nature, the designs highlight the movement's use of botanical motifs, elegant floral forms, and decorative borders. Other patterns reflect the era's artistic craftsmanship, from the fluidity of metalwork to the vibrancy of mosaic artistry. Each design captures the timeless beauty and sophistication of Art Nouveau, bringing its distinctive aesthetic into contemporary interiors.

06

PROJECT BRIEF

PROJECT TYPE
WALLPAPER LINE

CAPSTONE FULFILLMENTS
HISTORICAL PRECEDENT

HISTORIC PRECEDENT

Art Nouveau emerged in the late 19th century (circa 1890–1910) as a response to industrialization and academic art, seeking to integrate beauty into everyday life. Characterized by organic forms, flowing lines, and intricate patterns inspired by nature, the movement spanned architecture, interior design, graphic arts, and decorative arts. Prominent motifs included flowers, vines, and curving structures, creating a harmonious blend of form and function.

Floral motifs were central to Art Nouveau, appearing in nearly every aspect of design—from furniture and decorative elements to stained glass and textiles. Flowers symbolized nature’s vitality and the movement’s rejection of rigid, industrial forms. Alphonse Mucha’s celebrated posters, such as *Gismonda* (1894) and *JOB Cigarette Papers* (1896), became iconic representations of Art Nouveau flowing floral designs and elegant female figures. Similarly, Gustav Klimt incorporated intricate floral patterns and gold leaf into his paintings, including *The Kiss* (1907–1908), blending sensuality with ornate decoration.

Stained glass played a significant role in Art Nouveau visual identity. Louis Comfort Tiffany was a leading figure in American Art Nouveau, pioneering *Favrile glass*, a technique that created shimmering, light-diffusing effects. His work, such as the *Magnolia* and *Iris* stained glass panels and the Tiffany lamps, showcased nature-inspired designs with intricate detailing. French artist Jacques Gruber also contributed to the movement with his elaborate stained glass pieces, often depicting botanical themes.

Metalworking was revitalized during this period, with cast and wrought iron transformed into artistic, flowing designs. Victor Horta, a Belgian architect, was a pioneer in using iron, glass, and steel to create dynamic, open interiors, as seen in *Hôtel Tassel* (1892–1893), one of the first true Art Nouveau buildings. Hector Guimard’s iconic *Paris Métro* entrances (1899–1905) exemplified the movement’s sculptural approach to metalwork, featuring organic, plant-like forms.

Mosaic art became another hallmark of Art Nouveau, particularly in Barcelona, where Antoni Gaudí incorporated it into his architectural masterpieces. His works, including *Casa Batlló*, *Casa Vicens*, and *La Pedrera*, featured vibrant, irregular mosaics known as *trencadis*, adding texture and color to the movement’s signature curving forms. Gaudí’s most famous work, the *Sagrada Família*, remains one of the most recognized symbols of Art Nouveau architectural innovation.

Jewelry design was also transformed by Art Nouveau, with René Lalique pioneering a new approach that prioritized form and symbolism over traditional gemstones. He used unconventional materials such as enamel, horn, and glass to craft intricate, nature-inspired pieces. His dragonfly and orchid brooches became some of the most famous examples of Art Nouveau jewelry.

Art Nouveau influence extended beyond decorative arts into architecture, with designers creating “total works of art” that seamlessly blended structures, interiors, and furnishings. Victor Horta’s townhouses in Brussels, including *Hôtel Solvay* and *Hôtel van Eetvelde*, showcased his innovative use of ironwork, stained glass, and open-plan layouts. These masterpieces, along with *Hôtel Tassel*, are now UNESCO World Heritage sites, recognized for their contribution to modern architecture.

The movement also flourished in graphic design and illustration. Alphonse Mucha’s work defined the Art Nouveau aesthetic with sinuous lines, soft pastels, and elaborate floral patterns. His advertising posters, calendars, and decorative panels, such as *Reverie* (1897) and *Moët & Chandon* (1899), helped popularize the style worldwide.

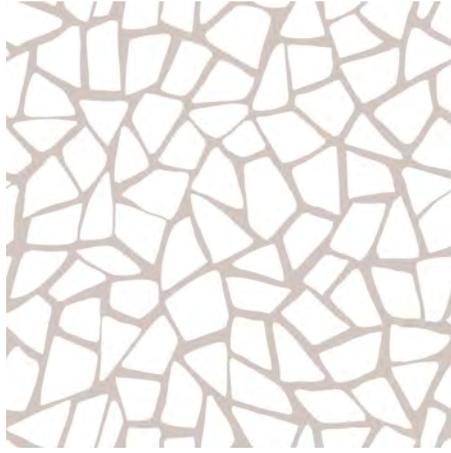
Though Art Nouveau declined in popularity by the early 20th century, its legacy endures in architecture, decorative arts, and contemporary design. The movement’s emphasis on organic beauty, craftsmanship, and artistic integration continues to inspire modern interpretations, ensuring its lasting impact on the world of art and design.

MOSAIC



This pattern is inspired by the mosaic creations by Gaudí during the Art Nouveau movement in Barcelona. Each color way is a different house or sculpture that he designed such as Casa Batlló, Casa Vicens, and La Pedrera.

COLORWAYS



quarry white



vicens mauve and green



batlló blue



pedrera purple

MOSAIC
quarry white



MOSAIC

vicens mauve and green



MOSAIC

batillo blue

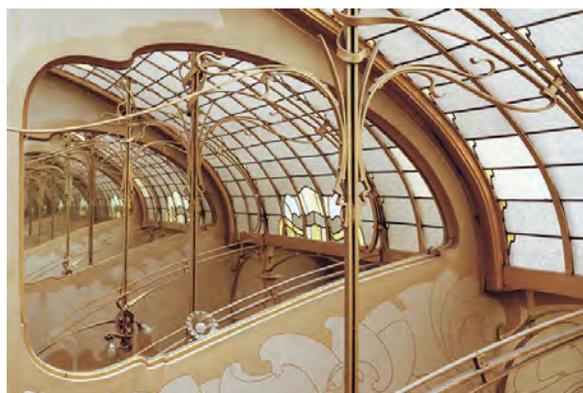
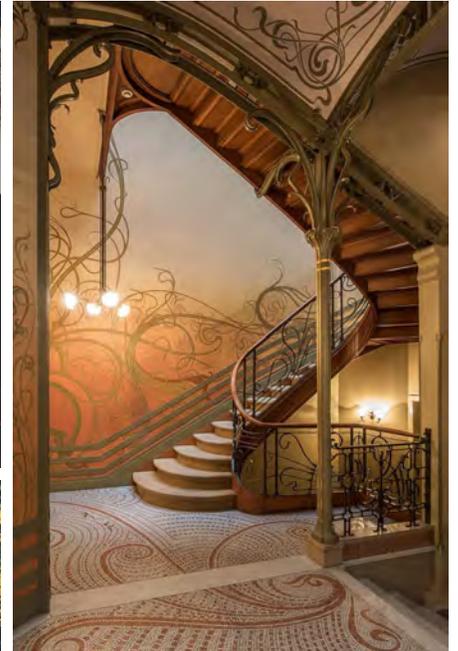


MOSAIC

padrera



METALWORK



This pattern is inspired by the way metalworking was revitalized by Art Nouveau. The industrial material was made into artistic flowing curves which became very popular during the movement. Some key inspiration for this design include Victor Horta's work, such as Hotel Tassel and Hotel Van Eetvelde, and Hector Guimard's iconic Paris Metro entrances.

COLORWAYS



verdigris



gilded ivy



verdant forge



wrought iron

METALWORK

verdigris



METALWORK

gilded ivy



METALWORK

verdant forge



METALWORK

wrought iron



DRAGONFLIES



This pattern draws inspiration from dragonflies, a prominent and recurring motif in Art Nouveau design. These creatures, symbolizing transformation and beauty, adorned jewelry, stained glass, pottery, and furniture. Renowned artist René Lalique crafted the iconic Dragonfly-Woman brooch, one of his most celebrated masterpieces. Each colorway in this design is named after a gemstone, paying homage to the exquisite materials used in fine Art Nouveau jewelry.

COLORWAYS



milky opal



green aventurine



blue moonstone



dark serpentine

DRAGONFLIES

milky opal



DRAGONFLIES

green aventurine



DRAGONFLIES

bleu moonstone

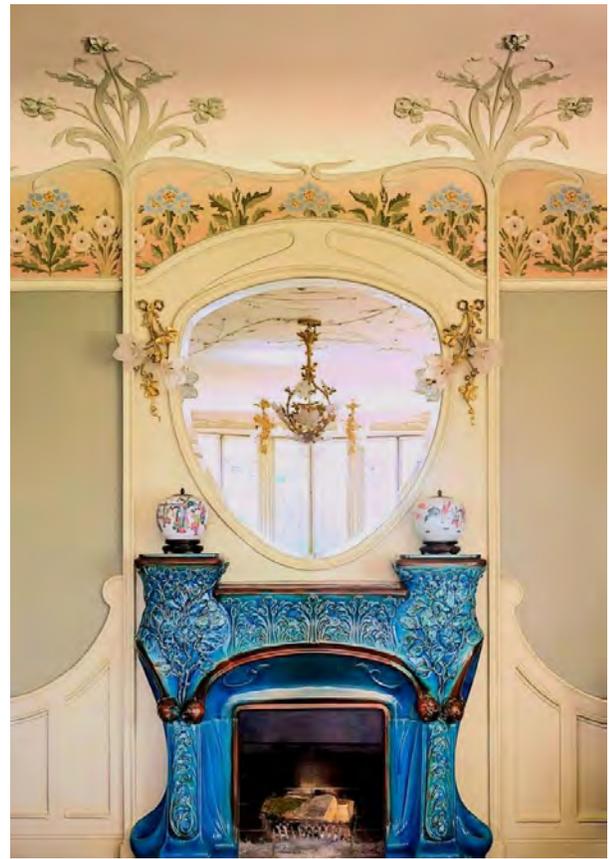


DRAGONFLIES

dark serpentine

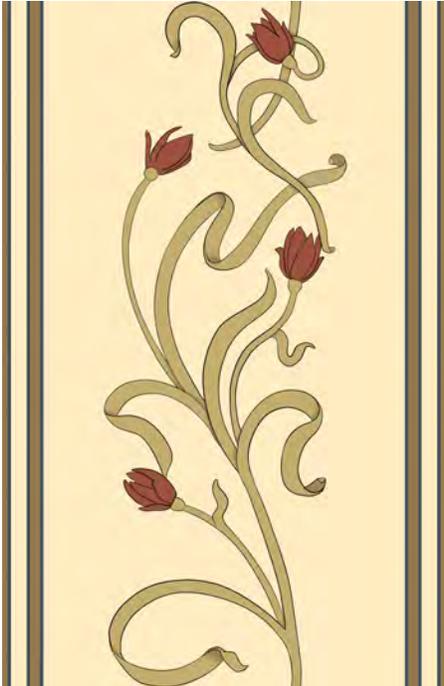


BOTANICAL STRIPE

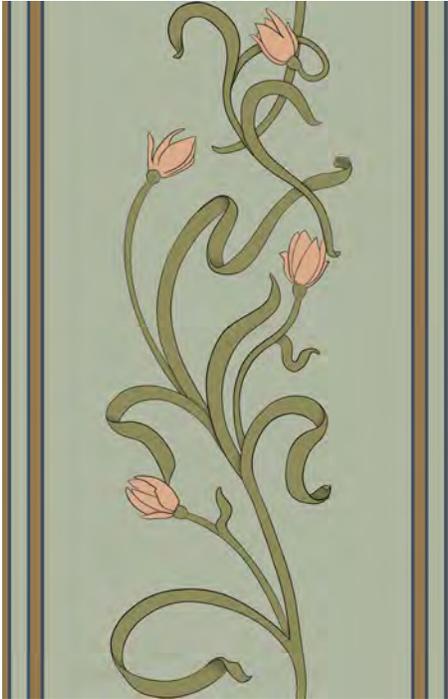


This pattern draws inspiration from the intricate floral and border designs found in both interior spaces and artwork from the Art Nouveau movement. The decorative panels of Alphonse Mucha, particularly his Times of the Day series, have influenced the color palette and naming of this design. Mucha's signature use of unifying frames across his panels is echoed in this wallpaper, creating a cohesive and structured composition.

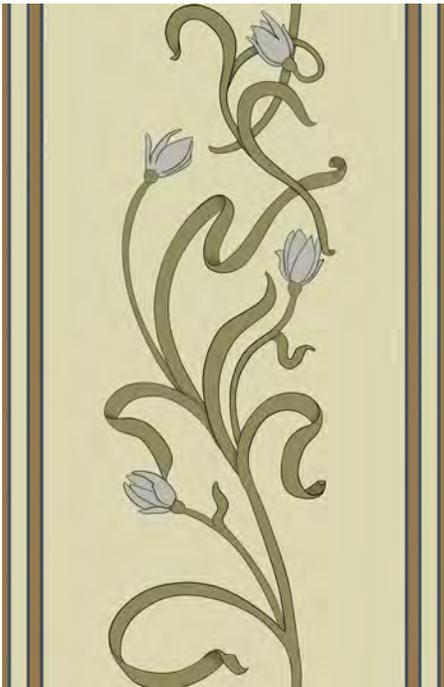
The floral elements are inspired by motifs seen in historic interiors, including those of the Vuitton Family Home, blending timeless elegance with artistic refinement.



evening contemplation



morning awakening



night's rest



brightness of day

BOTANICAL STRIPE

evening contemplation



BOTANICAL STRIPE

night's rest



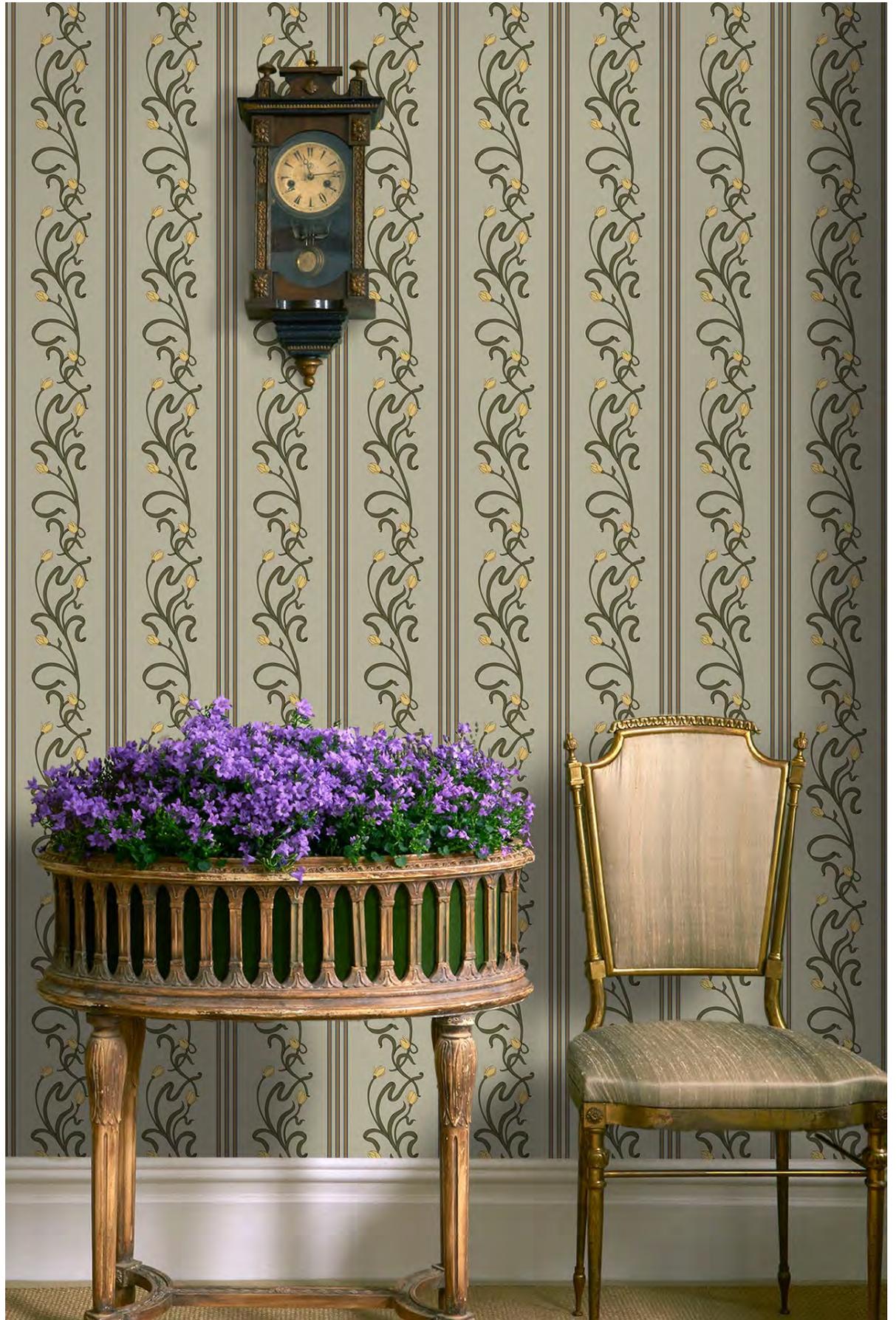
BOTANICAL STRIPE

morning awakening



BOTANICAL STRIPE

brightness of day



IRIS GARDEN



This wallpaper design is inspired by the prominent role of florals in the Art Nouveau movement, where they were seen in nearly every aspect of design—art, furniture, decorative elements, stained glass, and more. Flowers were not merely ornamental; they symbolized nature’s vitality and the movement’s desire to break away from rigid, industrial forms.

At the heart of this design is the iris, a flower deeply associated with Art Nouveau. Celebrated for its flowing, organic form, the iris perfectly embodies the movement’s emphasis on elegance, fluidity, and the harmony between art and nature. This pattern creates a timeless design that captures the essence of Art Nouveau in any space.

COLORWAYS



spring meadow



golden standard



pink petals



siberian silver

IRIS GARDEN

spring meadow



IRIS GARDEN

golden standard



IRIS GARDEN

pink petals



IRIS GARDEN

siberian silver



NORTHWOOD SHORES

Northwood Shores is a Cabin Resort located on the picturesque San Juan Island. This project features individual cabins for a personal retreat and a main lodge serving as the central hub for guest services and community gatherings. Designed in a Nordic/Scandinavian style, the lodge creates a cozy yet open atmosphere that connects guests with nature. Surrounded by lush trees and offering stunning lakeside views, this resort invites guests to relax, unwind, and enjoy the serene beauty of the island.

PROJECT BREIF

PROJECT TYPE

COMMERCIAL

LOCATION

SAN JUAN ISLAND, WA

SQUARE FOOTAGE

11,970 - MAIN LODGE

CAPSTONE FULFILLMENTS

CULTURAL EMPHASIS

PROGRAMMING

EXTERIOR ELEVATIONS

CONSTRUCTION VARIATION BY LOCATION

WELL BUILDING STANDARDS

CULTURAL EMPHASIS

Scandinavian and Nordic design is deeply rooted in the cultural values of the Nordic countries, emphasizing simplicity, functionality, and a connection to nature. This design philosophy, which emerged in the early 20th century and gained international recognition in the 1950s, focuses on creating harmonious, practical, and aesthetically pleasing spaces that enhance daily life. Minimalism is a core principle, with uncluttered interiors that prioritize essential elements while rejecting excess ornamentation. Functionality is equally important, ensuring that every design choice serves a practical purpose. This emphasis on utility reflects a post-war push for efficiency and affordability, making Scandinavian design both accessible and timeless.

Natural materials such as wood, stone, wool, and leather play a crucial role, bringing warmth and texture to interiors while reinforcing a deep connection to nature. A neutral color palette—typically consisting of white, gray, beige, and soft earth tones—creates a calming backdrop, often accented by subtle pops of color through textiles and accessories. Given the long, dark winters of the Nordic region, maximizing natural light is essential. Large windows, mirrors, and layered lighting help create bright, airy spaces that feel inviting and open. Additionally, the Danish concept of *hygge* influences Scandinavian interiors, promoting coziness and comfort through the use of soft textiles, warm lighting, and inviting atmospheres.

Scandinavian design also values democratic design, prioritizing affordability and high-quality craftsmanship to make beautiful, functional products accessible to all. Clean lines and open floor plans enhance a sense of spaciousness, while streamlined furniture balances form and function. Layered lighting, combining natural daylight, lamps, and candles, ensures a soft, warm ambiance. Comfort and practicality extend to furnishings, where ergonomic seating, cozy textiles, and efficient storage solutions contribute to a well-balanced environment.

Sustainability is another key aspect of Scandinavian design, emphasizing high-quality craftsmanship, durable materials, and eco-conscious production. By embracing longevity and rejecting excess consumerism, it fosters a mindful approach to both home and lifestyle. Ultimately, Scandinavian and Nordic design transcends aesthetics—it is a philosophy that harmonizes beauty, function, and nature, creating spaces that enhance daily life with warmth, simplicity, and enduring appeal.

PROGRAMMING

Goal: Design a Cabin Resort located on San Juan Island. With surrounding cabins to be booked, the goal is to create a main lodge to accommodate the guests. The purpose of the lodge is to serve as the central hub for guest services and community gathering, offering amenities and spaces that enhance the overall experience of the stay. Designed in a Nordic/Scandinavian style, the lodge aims to create a cozy yet open atmosphere that connects guests with nature. The individual cabins provide a more intimate, personal retreat where guests will stay.

- Reception/Check-in - A welcoming and efficient space for guest arrivals. Easy access from entrance with clear signage. Offer seating for guests waiting to check in and provide space for staff to assist guests.
- Lobby - cozy, communal space where guests can relax and socialize. Incorporate comfortable seating, a fireplace, and large windows to showcase views.
- Gift Shop - A well-organized space for guests to purchase souvenirs and local crafts.
- Restrooms - easily accessible and clean. Near communal areas like the lobby
- Event Room - Flexible spaces for different types of gatherings such as a family reunion or a corporate workshop.
- Kitchen/Dining - Provide an open/informal dining area and kitchen for self-service continental breakfast and coffee.
- Rental Area - Convenient access to rent bikes/kayaks, and get suggestions of nearby things to do/see.
- Outdoor seating/patio area - comfortable outdoor space to enjoy nature. Design with a patio, fire pits, clear view of the lake, and access to a hot tub.
- Laundry Facilities - Access to washers/dryers for longer-term guests
- Cleaning/Storage - Closet/room to store all necessary cleaning supplies, bedding, etc.
- Personal cabins - essential lodging amenities such as sleeping accommodations, kitchenette, dining, sitting area, and bathrooms.

Collect and Analyze Facts

- Existing conditions: Located on Vancouver island with waterfront views and surrounded by trees. The property includes space for a main lodge and individual cabins with access to outdoor activities such as hiking, kayaking, and biking.
- Number of people to accommodate:
- Lodge Capacity: The lodge will accommodate common areas, group meeting spaces, and dining facilities. The maximum guests staying would be about 100, so 60 should be accommodated at any given time.
- Cabin Capacity: Individual cabins will have 2 varying sizes to accommodate anywhere between 2-6 guests in a single cabin. With 16 cabins to be rented, the total guest capacity would be 80 with the average being 40 people needing to be accommodated at any given time.

Space Adjacencies

- Main Lodge: Check-in, Lobby, general store, dining area, group meeting spaces, restrooms, etc. should be easily accessible to encourage guest interaction.
- Cabins: Should be spread across the property to maximize privacy and views of nature, with easy access to the lodge, hiking trails, and the lake.
- Outdoor Spaces: common outdoor spaces, such as patios, hot tubs, and rentals, should be located near the lodge for easy management and guest access

User characteristics

- Target guests include couples, families, or groups those seeking a peaceful retreat, and access to outdoor activities

Existing building parameters: The lodge and cabins will be newly built and maintain a consistent aesthetic.

PROGRAMMING CONT.

Budget: defined by cost of building the main lodge, cabins, and associated amenities. This includes land development, interior furnishings, and essential guest services.

Other considerations

- Eco-friendly materials and energy-efficient designs
- Ensure structures are weather resistant for year-round use in PNW, be able to deal with a lot of rain, focus on warmth and insulation
- ADA compliant access to all public lodge spaces and some cabins.
- Include large pane windows for natural light and views of surrounding nature.
- Uncover and test concepts
- Indoor/outdoor areas
- Lodge: Indoor areas including a lobby, check-in, meeting spaces, restrooms, and a dining/kitchen area. Outdoor spaces include seating areas, a hot tub, lakeside patios, and outdoor fire pits.
- Cabins: Designed with essential indoor amenities will also have an outdoor deck and individual fire pits.

Determine Needs

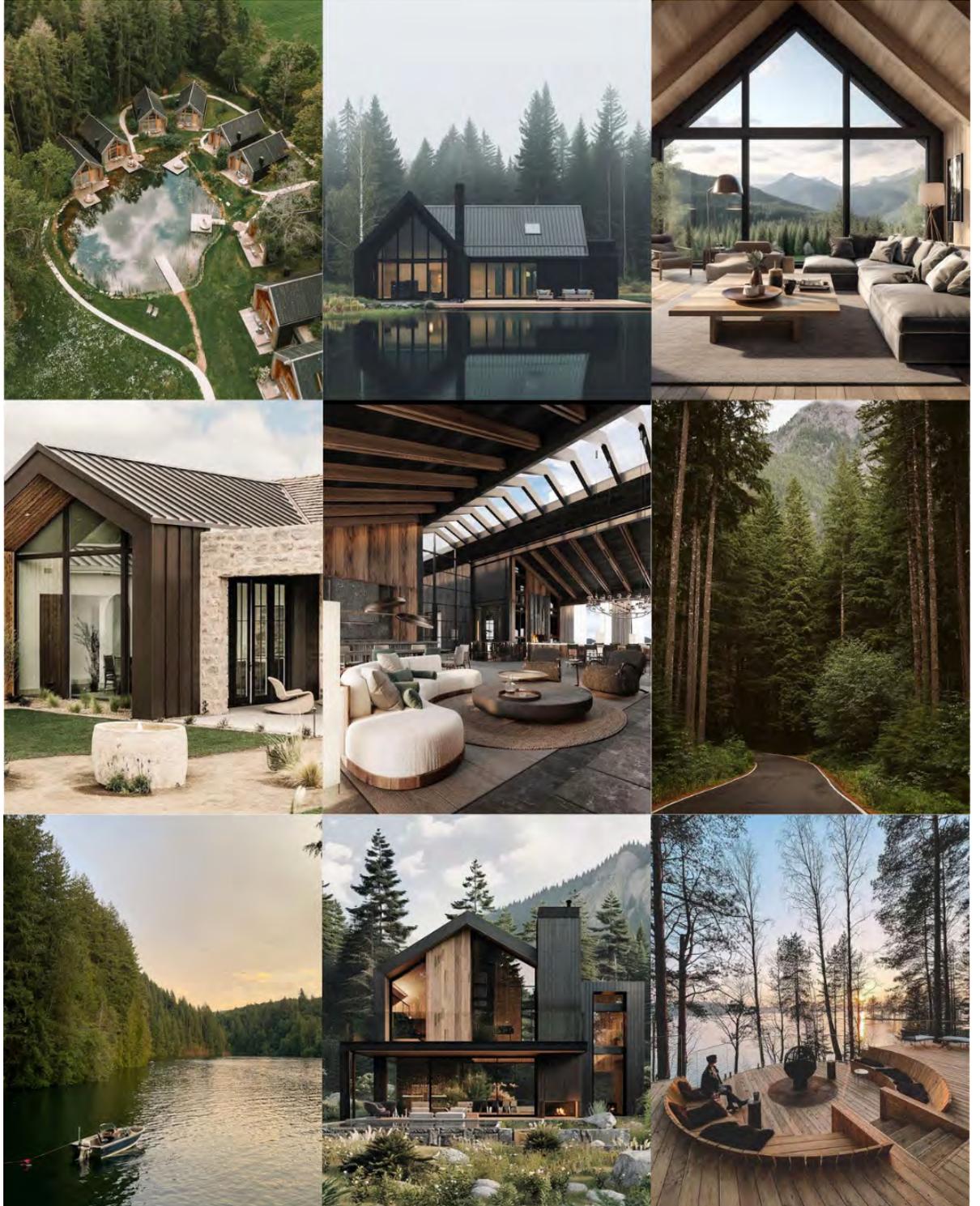
- Lodge: Central gathering place, offering services and amenities and making guests feel taken care of, welcome, and connected. Key features include a general store, complimentary continental breakfast and dining area, and cozy common spaces.
- Cabins: designed with essential amenities of overnight stays, a feeling of relaxation and privacy while connecting to nature.

State the problem

- Design a Cabin Resort in the PNW in a Scandinavian/Nordic style that provides a cozy, comfortable and secluded experience for guests, while supporting connection to nature and loved ones.
- Form: The design must be cozy, warm, and inviting while embracing clean, simple lines.
- Function: Cater to both individual retreat experiences in private cabins and shared, social experiences in the main lodge
- Economy: Budget must balance high-quality materials and eco-friendly construction with sustainability considerations
- Time: This project should be designed to be functional year-round and ensure long-term durability

INSPIRATION

woody, scandinavian, natural light and materials



SITE MAP

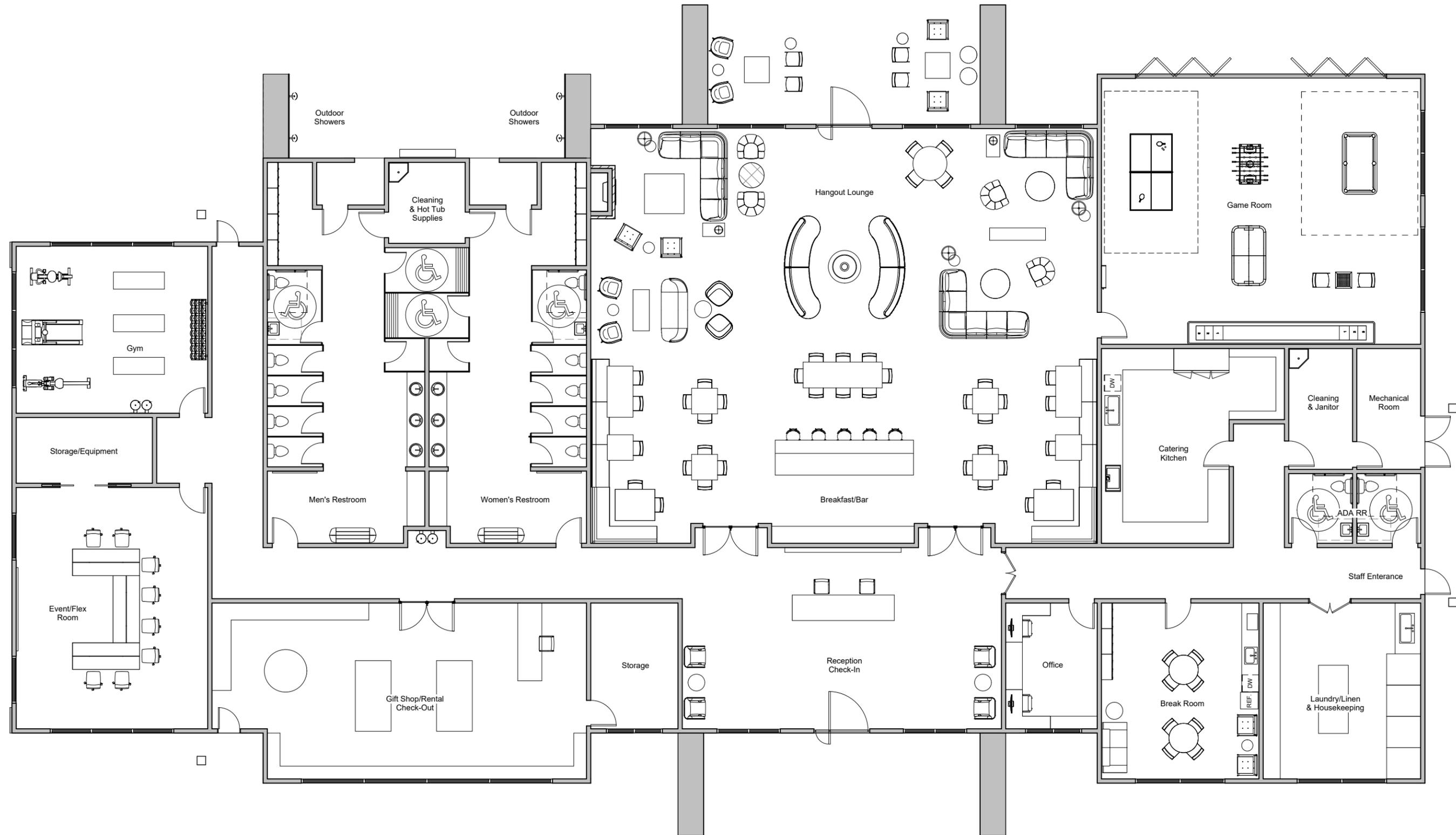


The Site: Northwood Shores Resort is a hidden gem in the heart of the Pacific North West and is a preferred location for nature lovers. The resort is waterfront, giving guests easy access to water activities such as fishing, boating, kayaking, swimming, and spending time on the beach. The resort is also close to many hiking and biking trails. Adventure is just a few steps away when you stay at our resort.

The Lodge: The main lodge is a central hub for the guests staying in the surrounding cabins. Within, visitors will find an inviting environment that offers amenities and spaces that enhance the overall experience of the stay. Guests can spend time inside at the main lounge and game room, or spend time outside around the fire pit, or soaking in the spa. Designed in a Nordic/Scandinavian style, the lodge aims to create a cozy yet open atmosphere that connects guests with nature and each other.

The Cabins: The Resort offers a collection of beautifully designed cabins to accommodate for a variety of visitors. Featuring clean lines, natural materials, and expansive windows, our cabins create bright, inviting spaces that seamlessly connect the indoors with the breathtaking surroundings. Whether you're seeking a solo retreat, a romantic escape, or a getaway for family and friends, our thoughtfully designed cabins provide the perfect balance of style and comfort. Immerse yourself in nature while enjoying Scandinavian inspired design and modern amenities for a truly serene and rejuvenating stay

LODGE FLOOR PLAN



NORTHWOOD SHORES LODGE



NORTH ELEVATION

EAST ELEVATION



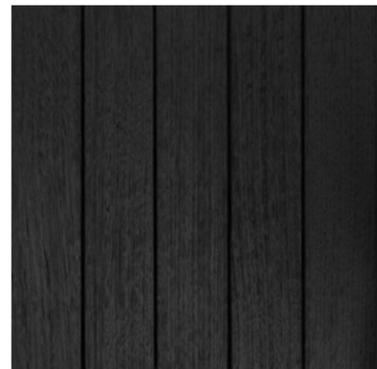
SOUTH ELEVATION

WEST ELEVATION

EXTERIOR CONCEPT & MATERIALS



Rounded Fieldstone



Black Wood Cladding



Cedar Cladding

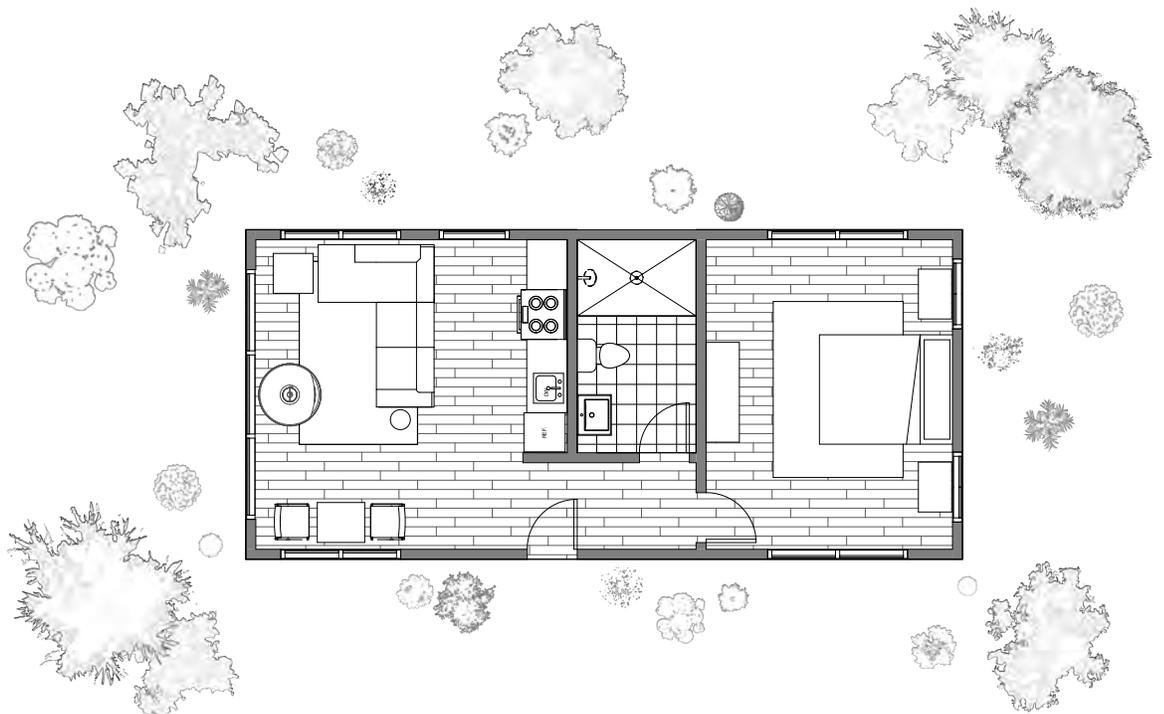
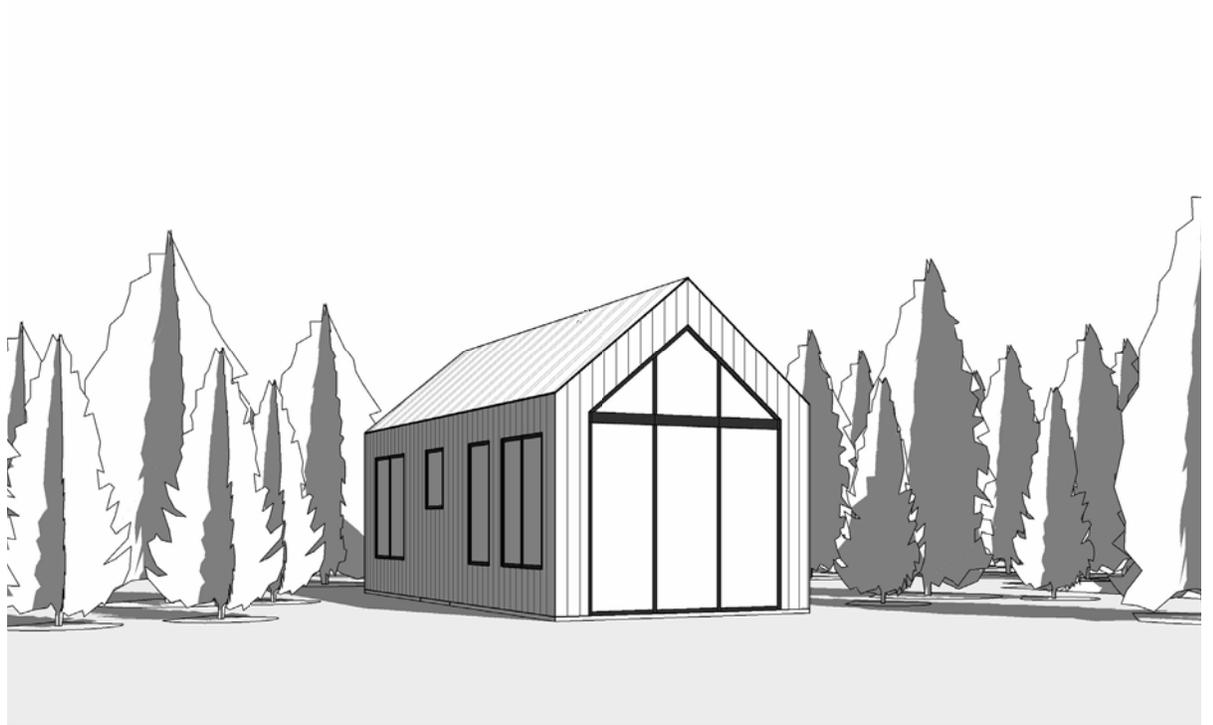


Metal Roofing

ONE BEDROOM CABIN

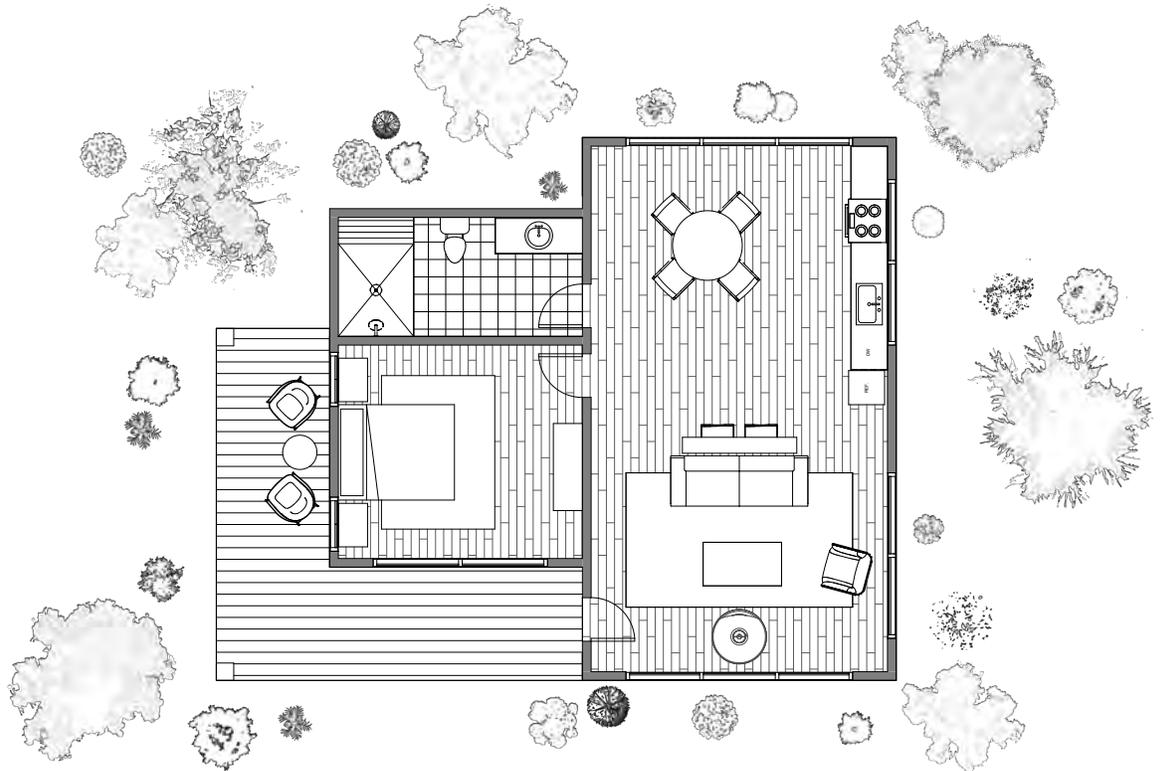
This option features a king bed, 32" flat-screen TV, suspended fireplace, and a fully equipped kitchenette. This option is perfect for solo or couple travelers wanting a relaxing stay surrounded by nature.

(Occupancy: 1-2)



ONE BEDROOM SUITE

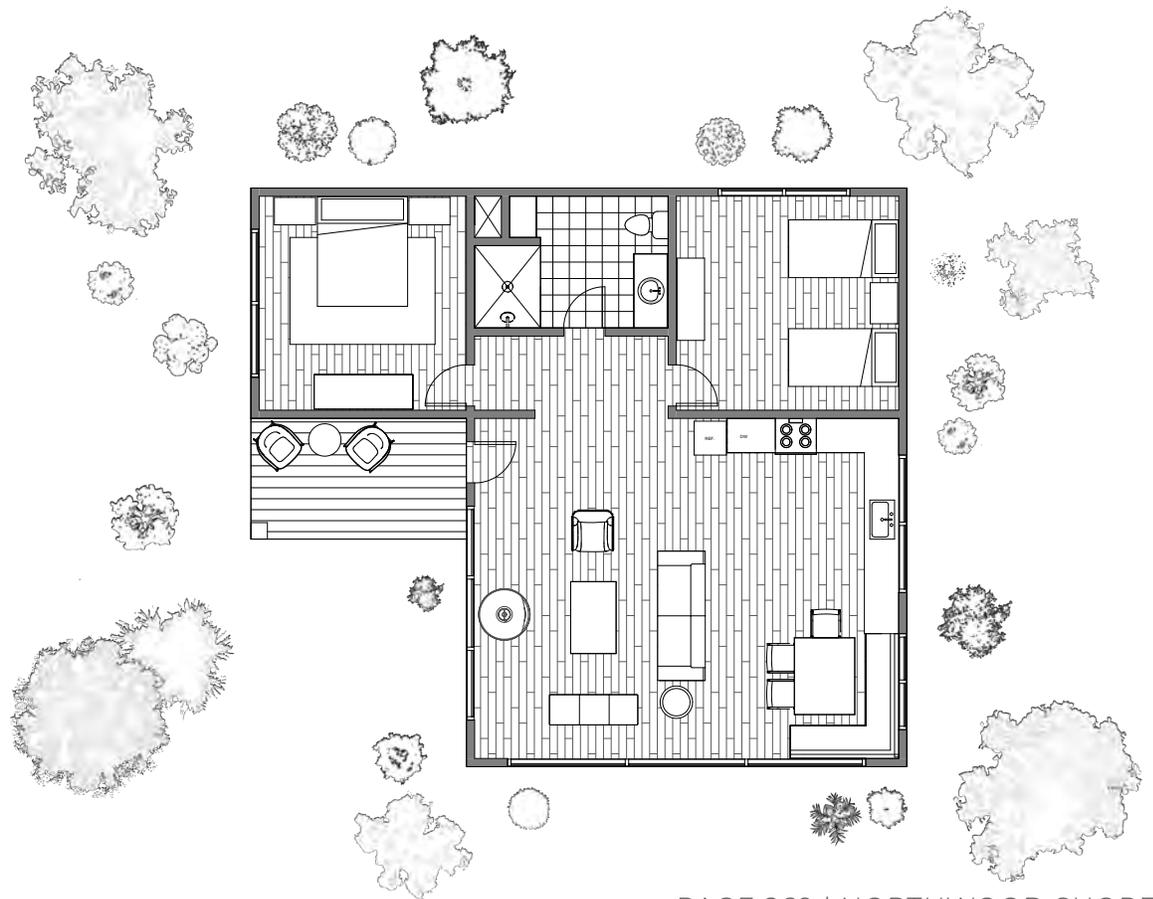
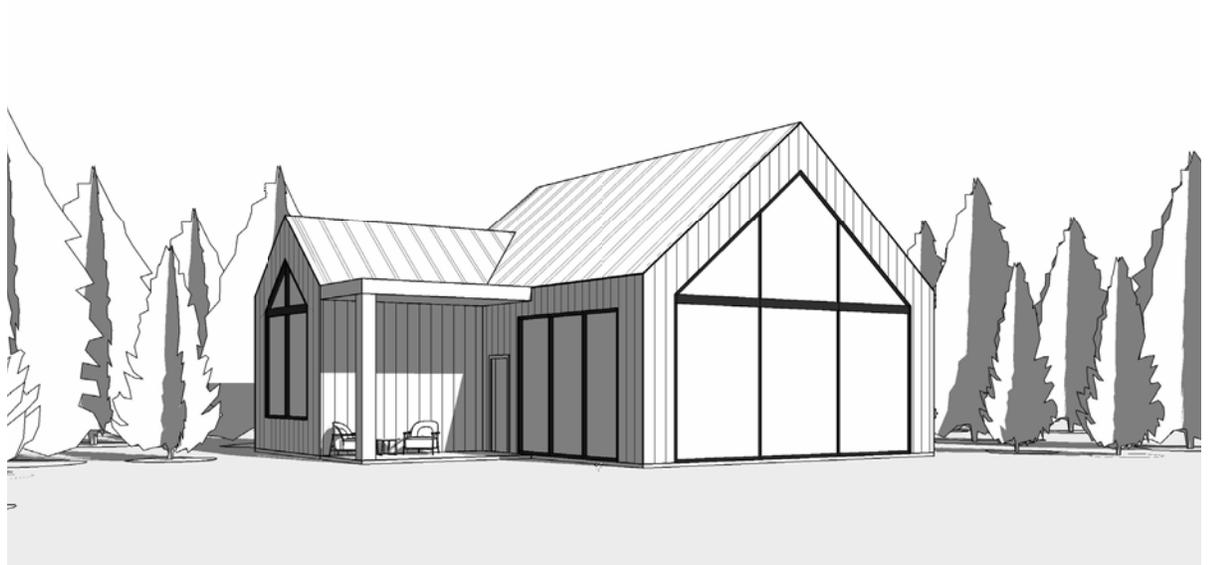
Elevate your stay with this beautifully designed suite, featuring a king bed, queen hide-a-bed, 32" flat-screen TV, and a suspended fireplace. The suite offers larger living spaces as well as a private deck for a more comfortable stay. (Occupancy: 1-4)



TWO BEDROOM CABIN

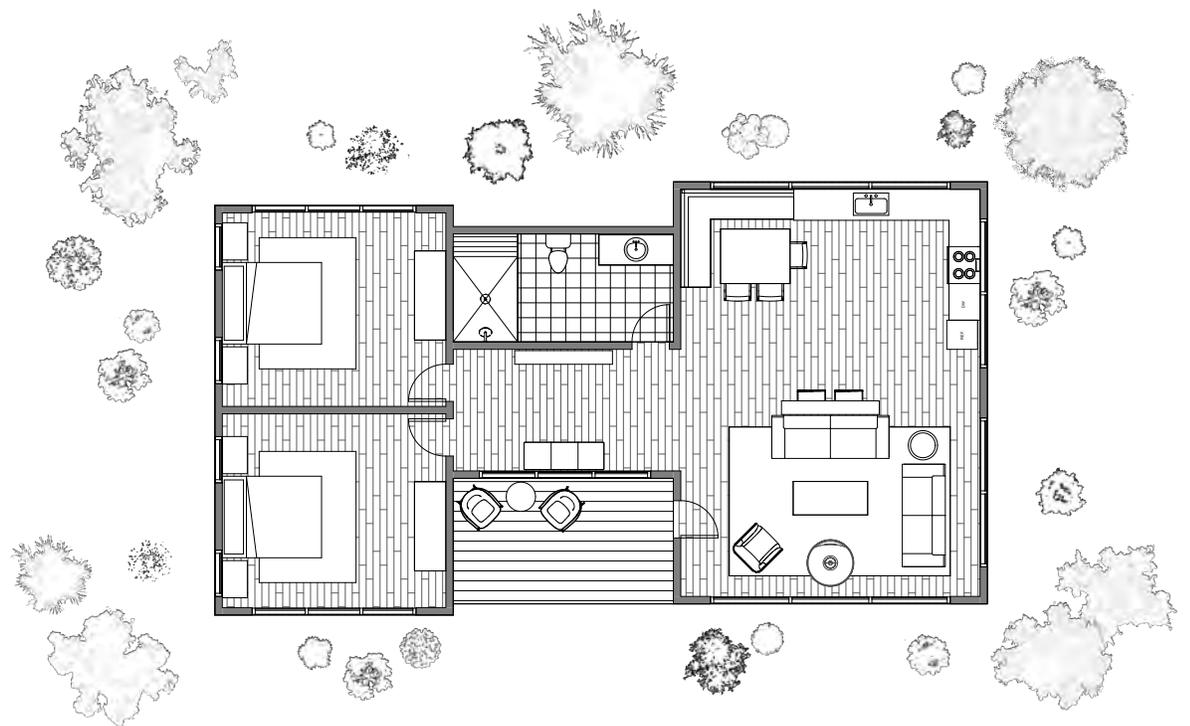
This cabin offers a king bed, 2 twin beds, and a queen hide-a-bed. The two bedrooms include 32" flat-screen TVs. There is an open concept living space, along with a suspended fireplace, a fully equipped kitchenette, and a private deck.

(Max occupancy: 6)



TWO BEDROOM SUITE

This suite offers two king beds each with a 32" flat-screen TV. Additionally, there is a queen hide-a-bed in the living space along with a suspended fireplace. A fully equipped kitchenette and a private deck add to the functionality and enjoyment of your stay. As an upgrade, this option offers more living space and more views outside.
(Max occupancy: 6)



CONSTRUCTION, TECHNOLOGY, AND MATERIAL CHOICE BY LOCATION

Construction, technology, and material choices vary significantly between Utah and the Pacific Northwest (PNW) due to differences in climate, seismic activity, and environmental conditions. Utah's dry, high-desert climate experiences extreme temperature swings, hot summers, and cold winters, requiring materials that can withstand UV exposure, snow loads, and potential drought conditions. In contrast, Washington's temperate climate sees high rainfall and humidity, making moisture management a critical aspect of construction. Buildings in the PNW require rain screens, vapor barriers, and durable siding materials such as fiber cement, treated wood, or metal to prevent mold and water damage. Roofing designs also differ, with Washington favoring steep-pitched roofs for effective water runoff, while Utah's designs accommodate heavy snowfall.

Code requirements further distinguish these regions. Washington has stricter seismic standards due to its higher earthquake risk, following the International Building Code (IBC) and ASCE 7 seismic design standards. The state also enforces the Washington State Energy Code (WSEC), which is more stringent than Utah's adoption of the International Energy Conservation Code (IECC). This results in higher insulation values, airtight construction, and more energy-efficient HVAC systems. Additionally, Washington has stricter fire regulations in areas near forests, requiring fire-resistant materials such as non-combustible siding and Class A roofing.

Material selection and technology must align with these regulatory and environmental demands. The PNW emphasizes continuous insulation, high-performance windows (often triple-pane), and mass timber construction, such as cross-laminated timber (CLT), which is widely available due to the region's abundant timber resources. Utah, on the other hand, often utilizes materials with strong thermal mass, such as concrete or rammed earth, to balance temperature fluctuations efficiently. While both regions prioritize sustainability, Washington's wet climate necessitates additional considerations for moisture control and energy efficiency. Understanding these regional differences is crucial for designing a project that is both durable and compliant with local regulations.

WELL STANDARDS

AIR **7 POINTS**

Y	?	N	Weight	ID	Part Name
Y			Required	A01.1	Meet Thresholds for Particulate Matter
Y			Required	A01.2	Meet Thresholds for Organic Gases
Y			Required	A01.3	Meet Thresholds for Inorganic Gases
Y			Required	A01.4	Meet Thresholds for Radon
Y			Required	A01.5	Measure Air Parameters
Y			Required	A02.1	Prohibit Indoor Smoking
Y			Required	A02.2	Prohibit Outdoor Smoking
Y			Required	A03.1	Ensure Adequate Ventilation
Y			Required	A04.1	Mitigate Construction Pollution
			2 points	A05.1	Meet Enhanced Thresholds for Particulate Matter
			1 point	A05.2	Meet Enhanced Thresholds for Organic Gases
			1 point	A05.3	Meet Enhanced Thresholds for Inorganic Gases
2			2 points	A06.1	Increase Outdoor Air Supply
			1 point	A06.2	Improve Ventilation Effectiveness
1			1 point	A07.1	Provide Operable Windows
1			1 point	A07.2	Manage Window Use
			1 point	A08.1	Install Indoor Air Monitors
			1 point	A08.2	Promote Air Quality Awareness
1			1 point	A09.1	Design Healthy Entryways
			1 point	A09.2	Perform Envelope Commissioning
			1 point	A10.1	Manage Combustion
			1 point	A11.1	Manage Pollution and Exhaust
1			1 point	A12.1	Implement Particle Filtration
			1 point	A13.1	Improve Supply Air
			2 points	A13.2	β Provide Clean Airflow Rates for Control of Infectious Aerosols
1			1 point	A14.1	Implement Ultraviolet Treatment for HVAC Surfaces

WATER **6 POINTS**

Y	?	N	Weight	ID	Part Name
Y			Required	W01.1	Verify Water Quality Indicators
Y			Required	W02.1	Meet Chemical Thresholds
Y			Required	W02.2	Meet Thresholds for Organics and Pesticides
Y			Required	W03.1	Monitor Chemical and Biological Water Quality
Y			Required	W03.2	Implement Legionella Management Plan
			1 point	W04.1	Meet Thresholds for Drinking Water Taste
			2 points	W05.1	Assess and Maintain Drinking Water Quality
			1 point	W05.2	Promote Drinking Water Transparency
			1 point	W06.1	Ensure Drinking Water Access
			1 point	W07.1	Design Envelope for Moisture Protection
			1 point	W07.2	Design Interiors for Moisture Management
			1 point	W07.3	Implement Mold and Moisture Management Plan
1			1 point	W08.1	Provide Bathroom Accommodations
1			1 point	W08.2	Ensure Bathroom Accommodations
1			1 point	W08.3	Support Effective Handwashing
1			1 point	W08.4	Provide Handwashing Supplies and Signage
2			2 points	W09B.1	Implement Safety Plan for Non-Potable Water Capture and Reuse

NOURISHMENT

9 POINTS

Y	?	N	Weight	ID	Part Name
Y			Required	N01.1	Provide Fruits and Vegetables
Y			Required	N01.2	Promote Fruit and Vegetable Visibility
Y			Required	N02.1	Provide Nutritional Information
Y			Required	N02.2	Address Food Allergens
Y			Required	N02.3	Label Sugar Content
1			1 point	N03.1	Limit Total Sugars
1			1 point	N03.2	Promote Whole Grains
1			1 point	N04.1	Optimize Food Advertising
			1 point	N05.1	Limit Artificial Ingredients
1			1 point	N06.1	Promote Healthy Portions
			1 point	N07.1	Provide Nutrition Education
2			2 points	N08.1	Support Mindful Eating
1			1 point	N09.1	Accommodate Special Diets
1			1 point	N09.2	Label Food Allergens and Intolerances
			1 point	N10.1	Provide Meal Support
1			1 point	N11.1	Implement Responsible Sourcing
			2 points	N12.1	Provide Gardening Space
			1 point	N13.1	Ensure Local Food Access
			1 point	N14.1	Limit Red and Processed Meats

LIGHT

8 POINTS

Y	?	?	Weight	ID	Part Name
Y			Required	L01.1	Provide Indoor Light
Y			Required	L02.1	Provide Visual Acuity
			3 points	L03.1	Meet Lighting for Day-Active People
			2 points	L04.1	Manage Glare from Electric Lighting
2			2 points	L05.1	Implement Daylight Plan
2			2 points	L05.2	Integrate Solar Shading
			2 points	L06.1	Conduct Daylight Simulation
1			1 point	L07.1	Balance Visual Lighting
			1 point	L08.1	Enhance Color Rendering Quality
			2 points	L08.2	Manage Flicker
2			2 points	L09.1	Enhance Occupant Controllability
1			1 point	L09.2	Provide Supplemental Lighting

MOVEMENT 8 POINTS

Y	?	N	Weight	ID	Part Name
Y			Required	V01.1	Design Active Buildings and Communities
Y			Required	V02.1	Support Visual Ergonomics
Y			Required	V02.2	Provide Height-Adjustable Work Surfaces
Y			Required	V02.3	Provide Chair Adjustability
Y			Required	V02.4	Provide Support at Standing Workstations
Y			Required	V02.5	Provide Workstation Orientation
			1 point	V03.1	Design Aesthetic Staircases
			1 point	V03.2	Integrate Point-of-Decision Signage
			1 point	V03.3	Promote Visible Stairs
2			2 points	V04.1	Provide Cycling Infrastructure
1			1 point	V04.2	Provide Showers, Lockers and Changing Facilities
1			2 points	V05.1	Select Sites with Pedestrian-friendly Streets
			2 points	V05.2	Select Sites with Access to Mass Transit
2			2 points	V06.1	Offer Physical Activity Opportunities
			2 points	V07.1	Provide Active Workstations
1			1 point	V08.1	Provide Indoor Activity Spaces
1			1 point	V08.2	Provide Outdoor Physical Activity Space
			1 point	V09.1	Offer Physical Activity Incentives
			1 point	V10.1	Provide Self-Monitoring Tools
			1 point	V11.1	Implement an Ergonomics Program
			1 point	V11.2	Commit to Ergonomic Improvements
			1 point	V11.3	β Support Remote Work Ergonomics

THERMAL COMFORT 5 POINTS

Y	?	N	Weight	ID	Part Name
Y			Required	T01.1	Provide Acceptable Thermal Environment
Y			Required	T01.2	Measure Thermal Parameters
			3 points	T02.1	Survey for Thermal Comfort
			2 points	T03.1	Provide Thermostat Control
1			1 point	T04.1	Provide Personal Cooling Options
			1 point	T04.2	Provide Personal Heating Options
1			1 point	T04.3	Allow Flexible Dress Code
1			1 point	T05.1	Implement Radiant Heating
1			1 point	T05.2	Implement Radiant Cooling
			1 point	T06.1	Monitor Thermal Environment
1			1 point	T07.1	Manage Relative Humidity
			1 point	T08β.1	Provide Windows with Multiple Opening Modes
			1 point	T09β.1	Manage Outdoor Heat
			1 point	T09β.2	Avoid Excessive Wind
			1 point	T09β.3	Support Outdoor Nature Access

SOUND				3 POINTS	
Y	?	N	Weight	ID	Part Name
Y			Required	S01.1	Label Acoustic Zones
Y			Required	S01.2	Provide Acoustic Design Plan
			3 points	S02.1	Limit Background Noise Levels
			1 point	S03.1	Design for Sound Isolation at Walls and Doors
			2 points	S03.2	Achieve Sound Isolation at Walls
			2 points	S04.1	Achieve Reverberation Time Thresholds
			2 points	S05.1	Implement Sound Reducing Surfaces
			1 point	S06.1	Provide Minimum Background Sound
			1 point	S06.2	Provide Enhanced Speech Reduction
1			1 point	S07B.1	Specify Impact Noise Reducing Flooring
2			2 points	S07B.2	Meet Thresholds for Impact Noise Rating
			1 point	S08.1	Provide Enhanced Speech Intelligibility
			1 point	S08.2	Prioritize Audio Devices and Policies
			1 point	S09B.1	Implement a Hearing Health Conservation Program

MATERIALS				3 POINTS	
Y	?	N	Weight	ID	Part Name
Y			Required	X01.1	Restrict Asbestos
Y			Required	X01.2	Restrict Mercury
Y			Required	X01.3	Restrict Lead
Y			Required	X02.1	Manage Asbestos Hazards
Y			Required	X02.2	Manage Lead Paint Hazards
Y			Required	X02.3	Manage Polychlorinated Biphenyl (PCB) Hazards
Y			Required	X03.1	Manage Exterior CCA Hazards
Y			Required	X03.2	Manage Lead Hazards
			1 point	X04.1	Assess and Mitigate Site Hazards
			1 point	X05.1	Select Compliant Interior Furnishings
			1 point	X05.2	Select Compliant Architectural and Interior Product
			2 points	X06.1	Limit VOCs from Wet-Applied Products
			2 points	X06.2	Restrict VOC Emissions from Furniture, Architectur
			1 point	X07.1	Select Products with Disclosed Ingredients
			1 point	X07.2	Select Products with Enhanced Ingredient Disclosu
			1 point	X07.3	Select Products with Third-Party Verified Ingredient
			1 point	X08.1	Select Materials with Enhanced Chemical Restrictio
			1 point	X08.2	Select Optimized Products
1			1 point	X09.1	Implement a Waste Management Plan
			1 point	X10.1	Manage Pests
1			1 point	X11.1	Improve Cleaning Practices
1			1 point	X11.2	Select Preferred Cleaning Products
			1 point	X12.1	β Reduce Respiratory Particle Exposure
			1 point	X12.2	Address Surface Hand Touch
			1 point	X13B.1	Select Products From Manufacturers that Provide Living Wages
			1 point	X13B.2	Select Products With Certified Raw Materials
			1 point	X13B.3	Select Manufacturers with Transparency in Supply Chain Practices

MIND				6 POINTS	
Y	?	N	Weight	ID	Part Name
Y			Required	M01.1	Promote Mental Health and Well-being
Y			Required	M02.1	Provide Connection to Nature
Y			Required	M02.2	Provide Connection to Place
			1 point	M03.1	Offer Mental Health Screening
			1 point	M03.2	Offer Mental Health Services
			1 point	M03.3	Offer Employee Mental Health Support
			1 point	M03.4	β Support Mental Health Recovery
1			1 point	M04.1	Offer Mental Health Education
1			1 point	M04.2	Offer Mental Health Education for Managers
2			2 points	M05.1	Develop Stress Management Plan
			1 point	M06.1	Support Healthy Working Hours
			1 point	M06.2	Provide Nap Policy and Space
			1 point	M07.1	Provide Restorative Space
			1 point	M08.1	Provide Restorative Programming
1			1 point	M09.1	Provide Nature Access Indoors
1			1 point	M09.2	Provide Nature Access Outdoors
			2 points	M10.1	Provide Tobacco Cessation Resources
			1 point	M10.2	Limit Tobacco Availability
			1 point	M11.1	Offer Substance Use Education
			1 point	M11.2	Provide Substance Use and Addiction Services

COMMUNITY				6 POINTS	
Y	?	N	Weight	ID	Part Name
Y			Required	C01.1	Provide WELL Feature Guide
Y			Required	C02.1	Facilitate Stakeholder Charrette
Y			Required	C02.2	Promote Health-Oriented Mission
Y			Required	C03.1	Develop Emergency Preparedness Plan
Y			Required	C04.1	Select Project Survey
Y			Required	C04.2	Administer Annual Survey and Report Results
			1 point	C05.1	Utilize Enhanced Survey
			1 point	C05.2	Utilize Pre- and Post-Occupancy Survey
			1 point	C05.3	Implement Action Plan
			1 point	C05.4	Facilitate Interviews, Focus Groups and/or Observations
			1 point	C06.1	Promote Health Benefits
			1 point	C06.2	Offer On-Demand Health Services
			1 point	C06.3	Offer Sick Leave
			1 point	C06.4	Support Community Immunity
			1 point	C06.5	β Provide Enhanced Health Benefits
1			1 point	C07.1	Promote Culture of Health
1			1 point	C07.2	Establish Health Promotion Leader
1			3 points	C08.1	Offer New Parent Leave
1			1 point	C09.1	Offer Workplace Breastfeeding Support
			2 points	C09.2	Design Lactation Room
			1 point	C10.1	Offer Childcare Support
			1 point	C10.2	Offer Family Leave
			1 point	C10.3	Offer Bereavement Support
			1 point	C11.1	Promote Community Engagement
			1 point	C11.2	Provide Community Space
			1 point	C12.1	Create DEI Assessment and Action Plan
			1 point	C12.2	Implement DEI Support Systems

			1 point	C12.3	Implement DEI Hiring Practices and Wage Equity
2			2 points	C13.1	Integrate Universal Design
			1 point	C13.2	β Support Inclusive Interior Navigation
			1 point	C13.3	β Support Inclusive Building & Neighborhood Wayfinding
			1 point	C14.1	Promote Emergency Resources
			1 point	C14.2	Provide Opioid Response Kit and Training
			1 point	C15β.1	Promote Business Continuity
			1 point	C15β.2	Support Emergency Resilience
			1 point	C15β.3	Facilitate Healthy Re-entry
			1 point	C15β.4	Establish Health Entry Requirements
			2 points	C16β.1	Allocate Affordable Units
			1 point	C17β.1	Disclose Labor Practices
			2 points	C17β.2	Implement Responsible Labor Practices
			2 points	C18β.1	Support Victims of Domestic Violence
			2 points	C19β.1	Establish Education and Support
			1 point	C20β.1	Provide Historical Acknowledgement
			1 point	C21.1	Plan for Neuro-inclusion
			2 points	C21.2	Create Spaces for Neuro-inclusion
			1 point	C21.3	Educate for Neuro-inclusion

INNOVATION **1 POINTS**

Y	?	N	Weight	ID	Part Name
			1 point	I01.1	Propose Innovation
1			1 point	I02.1	Achieve WELL AP
			1 point	I03.1	Offer WELL Educational Tours
			1 point	I04.1	Complete Health and Well-Being Programs
			5 points	I05.1	Achieve Green Building Certification
			2 points	I06.1	Assess Carbon Emissions
			3 points	I06.2	Set Carbon Reduction Goals
			3 points	I06.3	Meet Carbon Reduction Goals
			2 points	I06.4	Attain Carbon Neutrality

PRECONDITIONS

48 YES
 0 YMAYBE 100%
 0 YNO

OPTIMIZATION POINTS

62 YES
 0 MAYBE
 0 NO

Project Name:
 Date
 Enrollment type: **WELL Certification**
 Applicable Version: **v2 Q3-Q4 2024**

Projected point total: **62**
 Anticipated milestone level: **Gold***

*Subject to concept minimum points

is

AIR: The WELL Air concept aims to achieve high levels of indoor air quality across a building's lifetime through diverse strategies that include source elimination or reduction, active and passive building design and operation strategies and human behavior interventions

(A01) Air Quality: Provide a basic level of indoor air quality that contributes to the health and well-being of building users.

- The following thresholds will be met in occupiable spaces: PM2.5: 15 µg/m³ or lower.⁸ and PM10: 50 µg/m³ or lower.⁹ This will be verified by a Performance Test.
- A threshold of Total VOC: 500 µg/m³ or lower is met in occupiable spaces and verified by Sensor Data.
- The following thresholds are met in occupiable spaces: Carbon monoxide: 10 mg/m³ [9 ppm] or lower.⁸, and Ozone: 100 µg/m³ [51 ppb] or lower.¹⁰ This will be verified by Sensor Data.
- All regularly occupied spaces at or below grade meet Feature A03, Part 1, Option 1 and are verified by a letter of assurance from the engineer.
- The following pollutants are monitored in occupiable spaces at intervals no longer than once per year, and the results are submitted annually through the WELL digital platform: PM2.5, PM10, Total VOC, Carbon Monoxide, and Ozone.

(A02) Smoke-Free Environment: Deter smoking, minimize occupant exposure to secondhand smoke and reduce smoke pollution.

This project is a 100% smoke-free environment. Smoking and the use of e-cigarettes is prohibited in interior spaces within the project boundary. Smoking will also not be allowed in the vicinity of building entrances, operable windows, and building air intakes. Clear and visible permanent signage prohibiting smoking and vaping is located within 3 m of all functional building entrances, operable windows and building air intakes that open to any occupiable outdoor area.

(A03) Ventilation Design: Minimize indoor air quality issues through the provision of adequate ventilation.

This project includes a proper HVAC system design that will undergo regular system maintenance. Newly installed ventilation systems are designed to meet the supply and exhaust rates set in the ASHRAE 62.2-2016.¹³ ventilation guidelines, which must describe ventilation rates for at least 90% of the project area. The ventilation system is scheduled to be tested and balanced after project occupancy. Carbon dioxide threshold of 900 ppm or less is met in occupiable spaces.

(A04) Construction Pollution Management: Minimize the introduction of construction-related pollutants into indoor air, remediate construction-related indoor air contamination for human health and protect building products from degradation.

The project has not undergone construction activities after enrollment. For any unforeseen future construction, care will be taken during construction to prevent dust intrusion and/or to clear the space of dust, chemical vapors and other debris to avoid significant aggravation of indoor air quality. Air duct protection, moisture and dust management, filter replacement and proper equipment selection will be done to limit the exposure to an intense contamination period.

(A106) Enhanced Ventilation Design: Expel internally generated pollutants and improve air quality in the breathing zone through an increased supply of outdoor air or increased ventilation efficiency.

Carbon dioxide threshold of no more than 350 ppm above outdoor levels is met in occupiable spaces. CO2 levels serve as a proxy for other indoor pollutants.

(A107) Operable Windows: Increase the supply of high-quality outdoor air and promote a connection to the outdoor environment, by encouraging building users to open windows when outdoor air quality is acceptable.

At least 75% of the regularly occupied spaces have operable windows that provide access to the outdoor air. For the cabins, this will include the windows in the bathrooms, bedroom, and sitting room. In the lodge, operable windows will be found in the main hangout/dining space, game room, gym, flex room, reception, and office. Outdoor levels of PM2.5, temperature and humidity are monitored at intervals of at least once per hour, based on a data-gathering station located within 2.5 mi of the building. This monitoring system will be operated by the project.

(A109) Pollution Infiltration Management: Minimize the introduction of pollutants into indoor air through the building envelope and at building entrances.

All Functional building entrances will have rollout mats in place at entryways that span, at minimum, the width of the entrance and 10 ft long in the primary direction of travel (sum of indoor and outdoor length).

(A112) Air Filtration: Reduce indoor and outdoor airborne contaminants through air filtration.

For all spaces, media filters are used in the ventilation system to filter indoor air supplied to the space according to the provided table and will be verified by on-site photographs and a letter of assurance by the engineer. There will also be evidence that the filter has been replaced according to the manufacturer's recommendation and is submitted annually through the WELL digital platform.

(A113) Microbe and Mold Control: Reduce mold and bacteria growth within the building mechanical system.

All central air handling units use ultraviolet lamps to irradiate the surfaces of the cooling coils and drain pans. All cooling coils and drain pans not associated with central air handling units are irradiated by ultraviolet lamps, and may be opened for inspection for mold growth and cleaned, if necessary.

WATER: The WELL Water concept covers aspects of the quality, distribution and control of liquid water in a building. It includes features that address the availability and contaminant thresholds of drinking water, as well as features targeting the management of water to avoid damage to building materials and environmental conditions.

(W01) Water Quality Indicators: Verify the quality of water for human contact through easy-to-test parameters.

All water delivered to the project and intended for human contact (e.g., drinking, cooking and dishwashing, handwashing, showering or bathing) meets the following thresholds:

- Turbidity is less than or equal to 1.0 NTU, FTU or FNU (nephelometric turbidity, formazin turbidity or formazin nephelometric units, respectively).

- Coliforms are not detected in any 100 ml sample.

(W02) Drinking Water Quality: Provide access to drinking water that compiles with health-based limits on chemical composition.

- Testing will be conducted at drinking water dispensers for at least two of the pesticides from the list below. All contaminants in the list below that are reported by the lab must comply with the following thresholds:
 - Aldrin and Dieldrin (combined): 0.00003 mg/L or less.
 - Atrazine: 0.1 mg/L or less.
 - Carbofuran: 0.007 mg/L or less.
 - Chlordane: 0.0002 mg/L or less.
 - 2,4-Dichlorophenoxyacetic acid (2,4-D): 0.03 mg/L or less.
 - Dichlorodiphenyltrichloroethane (DDT) and metabolites: 0.001 mg/L or less.
 - Lindane: 0.002 mg/L or less.
 - Pentachlorophenol (PCP): 0.009 mg/L or less.
- Testing will be conducted at drinking water dispensers for at least three of the organic contaminants from the list below. All contaminants in the list below that are reported by the lab must comply with the following thresholds:
 - Benzene: 0.01 mg/L.
 - Benzo[a]pyrene: 0.0007 mg/L.
 - Carbon tetrachloride: 0.004 mg/L.
 - 1,2-Dichloroethane: 0.03 mg/L.
 - Tetrachloroethene (Tetrachloroethylene): 0.04 mg/L.
 - Toluene: 0.7 mg/L.
 - Trichloroethene (Trichloroethylene): 0.02 mg/L.
 - 2,4,6-Trichlorophenol: 0.2 mg/L.
 - Vinyl Chloride: 0.0003 mg/L.
 - Xylenes (o-, m- and p-): 0.5 mg/L.

(W03) Basic Water Management: Implement protocols to reduce risk of water quality loss and Legionella colonization.

For the lodge, turbidity, pH, residual chlorine, and total coliforms are sampled at drinking water dispensers in occupiable spaces at intervals of no less than once per year. Tests are required at 5% of drinking water dispensers, up to a maximum of four tests. The water quality results are submitted annually through the WELL digital platform. The project establishes a Legionella management plan covering hot water systems, cooling towers, decorative fountains, and other aerosolizing water systems. It includes:

- Defined roles for Legionella management, distinguishing project responsibilities from building management.
- A water system inventory and process flow diagrams.
- Hazard analysis of water assets, including explanations of external Legionella policies if applicable.
- Monitoring actions for key variables (e.g., temperature, chlorine levels), performance limits, and corrective actions.
- Identification of critical control points.
- Verification and validation procedures, including a sampling schedule if applicable.

- Documentation protocols for monitoring results and corrective actions.

The project will submit annually through the WELL digital platform documentation of monitoring results, corrective actions and *Legionella* sample results (if any) as stated in the Legionella management plan.

(W08) Hygiene Support: Ensure availability of bathrooms and support hygienic hand washing and toilet use particles for all individuals.

All bathrooms include trash receptacles in women's stalls and single-user bathrooms. Sanitary pads, tampons and/or other menstrual products at no cost are to be provided in women's and single-user bathrooms. A hook for storage support will be placed in each toilet stall. All occupants have access to at least one bathroom per occupiable floor that provides a stall that can accommodate a wheelchair user and care attendant. Infant changing tables will be in all ADA stalls and single-person public bathrooms. All regular occupants may confidentially request a syringe drop box, which is made available at no cost in one or more bathrooms. All single-user bathrooms are open to all individuals with accompanying signage. Floor drains are equipped with a self-primed liquid-seal trap or a waterless trap seal.

The public restrooms in the lodge have toilets that are equipped with hands-free flushing. Contactless soap dispensers and hand-drying accommodations are provided. Users can exit the bathroom hands-free. Faucets are sensor-activated, equipped with a programmable line-purge system, and have hot- and cold-water lines that are mixed at the point of use.

For all sinks where handwashing is expected (e.g., kitchen, bathrooms, and break room), the faucet design prevents the water column from flowing directly into the drain or a sink drain stopper is installed. Water does not splash outside the sink when the faucet is fully open. Newly installed sinks have at least 9 inches across in the smallest dimension, measured at the point where the user is expected to place hands during hand washing. The water column from the faucet spout to the basin is at least 8 inches in length (measured along flow of water, even if at an angle). The water column is at least 3 inches away from any edge of the sink.

All sinks intended for handwashing, such as those in bathrooms, break rooms, and food prep areas, must include fragrance-free liquid hand soap dispensed through sealed disposable cartridges or washable, closed refillable containers. Hand drying options include paper towels, HEPA-filtered hand dryers (except in healthcare settings), fabric towel rolls replaced before full use, or washable fabric towels with a designated container for used towels. Additionally, signage outlining proper handwashing steps must be displayed.

For the kitchen and dining spaces in the lodge, clear signage directing toward the nearest handwashing location is present at the entrance to all areas intended for food preparation and consumption.

In the individual cabins, the bathrooms will have fragrance-free hand soap in liquid dispensers with detachable and closed containers for soap refill. Soap containers must be washed and disinfected when emptied, before refilling. Reusable cloth towels will be provided in each cabin and be replaced and washed during room changeover or by request.

(W09) Onsite Non-Potable Water Reuse: Conserve water through non-potable water systems without compromising the health of the building occupants.

For all spaces, the project implements a safety plan for the non-potable water system, covering key roles for design, operations, maintenance, and third-party inspections. It includes a list of applicable codes and regulations, a process flow diagram outlining water sources, conveyances, treatment, and points of use, and a system description detailing contaminant loads, treatment devices, and expected water quality. Measures to minimize human exposure to pathogens, cross-connection control, and backflow prevention are outlined, along with signage and pipe color-coding for identification. Strategies for odor and nuisance control, emergency protocols for leaks or overflows, monitoring of operational parameters, routine maintenance schedules, and verification procedures, including Legionella testing if needed, are also included. There will also be submitted documentation of startup procedure, maintenance logs, results from verification tests, and third-party inspections. Conspicuous signage is present to distinguish potable from non-potable water, and to highlight the safety features and conservation goals of the non-potable water system.

NOURISHMENT: The WELL Nourishment concept requires the availability of fruits and vegetables and nutritional transparency. It encourages the creation of food environments, where the healthiest choice is the easiest choice.

(N01) Fruits and Vegetables: Promote the consumption of fruits and vegetables by increasing the availability and accessibility of fruits and vegetables.

The breakfast offered at the lodge includes a selection of at least two different individually selectable fruit offerings (containing no added sugar) and at least two different individually selectable non-fried vegetable offerings. Fruit and vegetable offerings are provided on a daily basis and are displayed on the countertop of the breakfast area.

(N02) Nutritional Transparency: Help individuals make informed food choices through nutritional labeling and allergy information.

Packaged foods and beverages and self-serve bulk foods will have nutritional information displayed at point-of-decision on packaging or adjacent signage. Such information includes total calories per serving, macronutrient content (total protein, total fat and total carbohydrate) in weight and/or as a percent of the estimated daily requirements (daily values) per serving or package, and total sugar content per serving or package. All standard food items do not contain more than 25 g of sugar per serving.

For the kitchen space, food is prepared on site on a daily basis. All food service staff, including managers, servers, and kitchen staff, are offered annual food allergy training covering key topics such as food allergies, anaphylaxis and emergency response protocols, communication procedures, cross-contact prevention, ingredient disclosure, and a knowledge test. During operating hours, at least one staff member who has completed the training within the past 12 months must be available to address food allergen-related questions and special requests.

(N03) Refined Ingredients: Help individuals avoid highly processed foods and refined ingredients.

Foods and beverages provided or sold daily by the project owner must meet the following standards: beverages contain no more than 25g of sugar per serving, at least 25% of beverages are sugar-free or free drinking water is available, and non-beverage food items (excluding whole fruit) do not exceed 25g of sugar per serving.

At least 50% of grain-based foods provided or sold daily contain a whole grain as the first ingredient. If both whole-grain and refined-grain options are available, whole-grain options are not priced higher than refined-grain counterparts.

(N04) Food Advertising: Encourage the selection and consumption of healthier food choices through advertising and messaging.

For food and beverages provided at the lodge, sugar-sweetened and deep-fried foods are not advertised or promoted, nor are deep-fried foods displayed under heat lamps. Additionally, all eating spaces feature at least two messages promoting either fruit and vegetable consumption or drinking water.

(N06) Portion Sizes: Promote healthy portion sizes and reduce unintended overconsumption and food waste.

All standard menu items contain no more than 650 calories, or at least 50% of higher-calorie items have a smaller, lower-cost portion available. In self-serve settings, dishware sizes are limited based on occupant type: plates (up to 10 inches in diameter or 79 in² surface area for adults and secondary students, 8 inches or 49 in² for primary students), bowls (16 fl oz for adults, 12 fl oz for secondary students, 8 fl oz for primary students), and cups (16 fl oz for adults, 12 fl oz for secondary students, 8 fl oz for primary students).

(N08) Mindful Eating: Encourage mindful eating behaviors and communal dining opportunities.

A dedicated eating space is located within 650 feet of the project boundary and includes seating for at least 25% of regular occupants at peak occupancy, either in a single space or multiple combined areas. It provides protection from environmental elements or is climate-controlled and offers a variety of seating arrangements for both small (up to 4 people) and large (more than 4 people) groups. Separately, employees have a daily meal break of at least 30 minutes.

(N09) Special Diets: Provide alternative food choices to individuals with dietary restriction, food allergies or intolerances, and label common food allergens.

At least one main dish meal option provided or sold daily is free from peanuts, tree nuts, gluten, wheat, soy, sesame, and all animal products, including seafood, dairy, and eggs. All foods and beverages provided or sold by the project owner are clearly labeled at the point of decision (e.g., packaging, menus, signage) to indicate the presence of common allergens and intolerances, including peanut, fish, shellfish, soy, milk, egg, wheat, tree nuts, sesame, and gluten.

(N11) Responsible Food Sourcing: Reduce dietary exposure to pesticides, hormones and antibiotics, limit environmental degradation and promote humane livestock practices.

At least 50% of the daily provided produce line is certified organic. At least 25% of the total animal product is certified organic. Sustainable and humane agriculture is promoted through certified organic and sustainable product labels.

LIGHT: The WELL Light concept promotes exposure to light and aims to create lighting environments that promote visual, mental and biological health.

(L01) Light Exposure: Provide indoor light exposure through daylight and electric light strategies.

The envelope glazing area is no less than 7% of the regularly occupied floor area in the lodge and individual cabins. Both the lodge and cabins have an abundance of large windows that allow natural light to come into the spaces.

(L02) Visual Lighting Design: Provide visual comfort and enhance visual acuity for all users through electric lighting.

In the lodge, there will be predetermined light levels. For this, more than 50% of the occupants are under 65 years old, and the outdoor space within the project boundary constitutes less than 5% of the interior project area. Additionally, at least 90% of the interior project area consists of specified room types that meet the following minimum illuminance thresholds: offices and classrooms require 30 foot-candles (fc) at the task surface, while circulation areas, storage spaces, dining areas, lounges, and restrooms require 10 fc at floor level or task surface.

In the individual cabins, lighting installed in kitchens and bathrooms comply with the illuminance thresholds specified by IES Lighting Library, Lighting Applications Standards Collection.

(L05) Daylight Design Strategies: Provide daylight exposure indoors through design strategies.

The lodge meets the following daylight access conditions:

- Tier 1: At least 70% of workstations are within 25 feet of envelope glazing with a visible light transmittance (VLT) greater than 40%, or envelope glazing covers at least 15% of the regularly occupied floor area with a VLT above 40%.
- Tier 2: At least 70% of workstations are within 16 feet of envelope glazing with a VLT greater than 40%, or envelope glazing covers at least 25% of the regularly occupied floor area with a VLT above 40%.

In the cabins, the vertical envelope glazing is no less than 15% of the regularly occupied floor area of each dwelling unit. Visible light transmittance (VLT) is greater than 40%.

In both the cabins and the lodge, there will be automatic shading that is automated to prevent glare, but does have manual controls that can be adjusted by regular occupants at all times. Shades in the lodge are regularly opened once a day.

(L07) Visual Balance: Create lighting environments that enhance visual comfort.

Lighting is designed by a professional and considers luminance ratios between vertical and horizontal zones, illuminance uniformity on task planes, changes in lighting characteristics (including light levels, color, and distribution), and the correlated color temperature (CCT) of the lighting used.

(L09) Occupant Lighting Control: Provide individuals with access to customizable lighting environments.

Ambient lighting systems in regularly occupied spaces are zoned according to the following criteria:

- **Tier 1 (1 point):** One lighting zone per 650 ft² or per 10 occupants.
- **Tier 2 (2 points):** One lighting zone per 320 ft² or per 5 occupants.

Rooms smaller than these thresholds or with fewer occupants are considered separate zones.

Each lighting zone includes at least three adjustable lighting levels or scenes and the ability to modify at least one of the following: color, correlated color temperature (CCT), or light distribution. Regular occupants can control their immediate lighting environment through manual controls in the space or

a digital interface on a computer or phone. Additionally, lighting for presentation or projection walls is separately controlled.

The project provides supplemental light fixtures to all employees upon request at no cost, with requests fulfilled within eight weeks. Additionally, at least one supplemental light fixture is available for trial use.

Supplemental light fixtures allow occupants to control light levels independently from the ambient lighting system. Users can adjust the fixture's location, and the light-emitting element remains hidden under normal use.

MOVEMENT: The WELL Movement concept promotes physical activity in everyday life through environmental design, policies and programs to ensure that movement opportunities are integrated into the fabric of our culture, buildings and communities.

(V01) Active Buildings and Communities: Facilitate all types of movement, including physical activity and exercise and reduce sedentary behavior through the intentional design of built spaces.

The project earns at least one point in one of the following features: Circulation Network (V03), Facilities for Active Occupants (V04), Site Planning and Selection (V05), or Physical Activity Spaces and Equipment (V08).

(V02) Ergonomic Workstation Design: Reduce the risk of physical strain on the body through ergonomic design at workstations that supports neutral body positions for seated and standing work and provides opportunities to alternate between seated and standing positions.

In the office, the monitor stands allow height, angle and horizontal adjustment. The two workstations can be adjusted by the user for both seated and standing work, through electric height-adjustable work surfaces that provide users with the ability to customize workstation height at both seated and standing positions. The seat height is also adjustable with the seat pan depth at 16.9 or less. The backrest lumbar support and armrest height are adjustable. There are no workstations at which users are regularly required to stand for 50% or more of their working hours. All eligible employees receive an orientation, either in-person or virtual, on workstation adjustability features, their benefits, and instructions for proper adjustments. Orientation resources are also provided for future reference.

(V04) Facilities for Active Occupants: Foster active commuting through facilities that support cycling to the building and active occupants more broadly.

Northwood Shores will offer bike storage at each cabin and the lodge, as well as rental bikes. Additional storage for personal bikes, along with a tire filling and repair station, will be available. The site is within 650 feet of a cycling network that connects riders to at least 10 use types within a 3-mile cycling distance.

Outdoor showers are provided near the spa, gym, and restroom. Changing stalls and lockers and included in the public restrooms. All of which is at no cost to the occupants.

(V05) Site Planning and Selection: Promote movement, physical activity and active living through site and nearby amenities that facilitate walkability and provide proximate access to public transportation.

The lodge entrances connect to a pedestrian network with sidewalks and have restricted vehicular traffic. Additionally, the nearby roads have speed limits of 25 mph or less with buffer protections, and street intersections are every 260-330 feet.

(V06) Encourage physical activity and exercise through no-cost physical activity opportunities for occupants.

There is access to yoga and meditation classes offered for all occupants at no additional cost. They will be available every other day and could be inside the flex room or outside depending on the weather .

(V08) Physical Activity Spaces and Equipment: Promote physical activity and exercise by providing access to physical activity spaces and equipment at no cost.

There is a dedicated gym in the lodge that is available at no cost to the guests and staff. It includes free weights, a treadmill, yoga mats, a peloton, and a rower. On the site, there are walking/biking trails and a swimming area in the lake.

THERMAL COMFORT: The WELL Thermal Comfort concept aims to promote human productivity and provide a maximum level of thermal comfort among all building users through improved HVAC system design and control and by meeting individual thermal preferences.

(T01) Thermal Performance: Provide a thermal environment that the majority of building users find acceptable.

Mixed-mode-conditioned spaces meet the requirements for both mechanically and naturally conditioned spaces, when each is in operation. Dry-bulb temperature, relative humidity, air speed, and mean radiant temperature are measured in regularly occupied spaces at least twice a year, with one measurement in the summer months (June, July, or August) and one in the winter months (December, January, or February). Results are submitted annually through the WELL digital platform, and the number and location of sampling points comply with the guidelines in the Performance Verification Guidebook.

(T04) Individual Thermal Control: Maximize and personalize thermal comfort among all individual

The individual cabins have a user-adjustable thermostat in the bedrooms and main living space to adjust heating and cooling. There is also a flexible dress code policy in place that allows regular occupants to dress for individual thermal preferences.

There is also radiant heating and cooling The lodge and cabins are also heated and cooled through radiant floors.

(T07) Humidity Control: Limit the growth of pathogens, reduce off-gassing and maintain thermal comfort by providing the appropriate level of humidity.

The mechanical system has the capability of maintaining relative humidity between 30% and 60% at all times by adding or removing moisture from the air

SOUND: The WELL Sound concept aims to bolster occupant health and well-being through the identification and mitigation of acoustical comfort parameters that shape occupant experiences in the built environment.

(S01) Sound Mapping: Incorporate strategic planning required to prevent issues of acoustic disturbance from various sources of noise.

The project provides a floor plan or design document identifying acoustic zones, including loud zones (e.g., mechanical room, kitchen, gym, social lounge, game room), quiet zones (e.g., wellness and rest spaces), mixed zones (e.g., flex room), circulation zones (e.g., hallways, lobbies), and not applicable zones (e.g., storage rooms). Additionally, a plan is in place to mitigate sound transmission between loud and quiet zones if they are adjacent.

(S07) Impact Noise Management: Reduce the level of impact noise radiation by designing resilient floors.

Quiet zones, excluding areas designated for concentration, achieve an IIC of 55. Areas for fitness need to meet a minimum IIC of 50. Enclosed areas intended for concentration and conferencing should have an IIC of 50, while open areas for concentration must achieve an IIC of 45. Lastly, areas designated for retail and dining should have an IIC of 45.

The project meets specific requirements for floor-ceiling construction based on Normalized Impact Sound Ratings (NISR) for various room types within the project boundary. These ratings, measured by a professional in acoustics according to ASTM E1007-19, ISO 16283, or an equivalent method, specify that quiet zones, excluding areas designated for concentration, located above achieve a minimum NISR of 52 for Tier 1 and 57 for Tier 2. Additionally, areas for fitness located below within the project boundary meet a minimum NISR of 47 for Tier 1 and 52 for Tier 2. Enclosed areas for concentration and conferencing located above also achieve an NISR of 47 for Tier 1 and 52 for Tier 2. Furthermore, open areas for concentration located above meet a minimum NISR of 42 for Tier 1 and 47 for Tier 2. Lastly, areas for retail and dining located below within the project boundary achieve a minimum NISR of 42 for Tier 1 and 47 for Tier 2.

MATERIAS: The WELL Materials concept aims to reduce human exposure, whether direct or through environmental contamination, to chemicals that may impact health during the construction, remodeling, furnishing and operation of buildings.

(X01) Material Restrictions: To reduce or eliminate human exposure to building materials known to be hazardous.

The project ensures that the following product categories do not contain more than 1,000 ppm of asbestos by weight or area: thermal protection, including insulation applied to pipes, fittings, boilers, tanks, and ducts; acoustic treatments; sheathing; roofing and siding; fire and smoke protection; joint protection; plaster and gypsum board; ceilings; and resilient flooring.

The project complies with various requirements for all spaces, including the installation of fluorescent, metal halide, and sodium lamps that adhere to RoHS restrictions or specified maximum mercury content limits. For fluorescent lamps, the maximum mercury content varies by type, with compact lamps (integral or non-integral) at 3.5 mg, T-5 circular lamps at 9 mg, T-5 linear lamps at 2.5 mg, T-8 eight-foot lamps at 10 mg, T-8 four-foot lamps at 3.5 mg, and T-8 U-bent lamps at 6 mg. High-pressure sodium lamps are capped at 10 mg for those 400 W or less and 32 mg for those over 400 W.

Additionally, newly installed fire alarm devices, environmental sensors, HVAC systems, occupancy and

motion sensors, meters, relays, thermostats, and load break switches either meet RoHS standards or have a lead content of no more than 0.1% (1,000 ppm). Newly installed paints within the project also comply with regulations, either by having a lead concentration of 100 ppm or below, containing no added lead carbonates or sulfates, or being certified lead-free by an ISO 14024-compliant Ecolabel or a recognized third-party certification. Alternatively, these paints meet the requirements of Feature X08: Materials Optimization.

(X02) Interior Hazardous Materials Management: Manage risks of human exposure to hazardous materials ubiquitously used in past construction practices.

The building was constructed after the enactment of an asbestos ban in construction products. The building was constructed after the enactment of lead paint ban. The building was constructed after the institution of any applicable laws banning or restricting PCBs.

(X03) CCA and Lead Management: Mitigate risks of human exposure to chromated copper arsenate (CCA) and lead.

All existing wood structures that lie outside the building envelope but within the project boundary where human presence is expected (e.g., wooden decks, fences near walkways, playgrounds and outdoor furniture) were installed after the enactment of laws banning chromated copper arsenate (CCA).

(X09) Waste Management: Mitigate environmental contamination and associated exposure to hazards present in certain wastes.

The project develops and implements a waste management plan for all batteries, pesticides, mercury-containing lamps and equipment, and electrical or electronic devices present during building operations. The plan defines roles, responsibilities, and vendors, identifies waste sources, estimates generation rates, and outlines strategies to minimize waste. It includes methods for waste collection, ensuring categorized waste is stored in labeled receptacles and removed within a year. Additionally, it establishes protocols for cleaning mercury spills, pesticides, and battery electrolyte fluid, as well as tracking, measuring, and reporting waste streams. Off-site waste shipment procedures are also in place.

(I1) Cleaning Products and Protocols: Provide cleaning effectiveness by selecting less hazardous products and establishing adequate cleaning protocols and practices.

The project retains a cleaning provider certified under Green Seal Standard for Commercial and Institutional Cleaning Services, operated by Green Seal Inc.

The project maintains a cleaning policy that lists all surface cleaning and disinfection products, ensuring they meet strict health and environmental standards. Cleaning products are either labeled as 'low-hazard' or 'safer' by an ISO 14024-compliant ecolabel or a recognized third-party certification, or they disclose ingredients through an approved Safety Data Sheet (SDS) with no hazardous substances present above 100 ppm. Additionally, they comply with Feature X08 Materials Optimization. Disinfectants used in the project have government-registered antimicrobial efficacy claims and contain only approved active ingredients such as citric acid, hydrogen peroxide, and ethanol. Their SDS documentation ensures they do not include hazardous classifications under the Globally Harmonized System (GHS).

MIND: The WELL Mind concept promotes mental health through policy, program and design strategies that seek to address the diverse factors that influence cognitive and emotional well-being.

(M01) Mental Health Promotion: Promote mental health and well-being through the provision of supportive programs, policies and resources.

The project ensures that employees and students have access to at least two mental health and well-being resources at no additional cost. These include quarterly education or awareness efforts, annual mental health and well-being training, and weekly mindfulness or restorative programming such as meditation or yoga. The project also maintains a policy that establishes healthy working hours and provides a dedicated space for relaxation, allowing breaks during work or school hours. Additionally, annual communication is provided to all employees and students, with onboarding materials for new members, detailing all available mental health benefits, resources, and programs.

(M02) Nature and Place: Support occupant well-being by incorporating the natural environment through the project and integrating design strategies.

The project integrates natural elements throughout the space, including common circulation routes, shared seating areas, and workstations. This includes the use of natural materials, patterns, shapes, images, or sounds. Additionally, the space features potted plants and access to nature views, enhancing the overall connection to the natural environment.

The project incorporates design elements that celebrate culture, place, and artistic expression while fostering human delight. It reflects the culture of its occupants, workplace, and surrounding community, integrating local architecture, materials, flora, and artwork. Art is thoughtfully incorporated throughout the space, enhancing aesthetic appeal and engagement. The design prioritizes elements that evoke joy and inspiration, creating a welcoming and enriching environment.

(M04) Mental Health Education: Promote mental health awareness and education through the provision of mental health-focused training or educational offerings.

Training in the form of in-person educational seminars are offered at least twice per year or on demand. They address how to manage personal mental health and well-being, covering topics such as developing mentally healthy habits and self-care practices, fostering relationships and social connections and managing mental health at work. They will also cover signs and symptoms of mental health distress, including how to identify emotional distress and appropriately respond.

Managers will undergo annual mental health training that addresses key topics such as identifying and reducing workplace stress-related issues, recognizing common mental health conditions, supporting employee well-being to prevent burnout and fatigue, and recognizing mental health concerns or crises. The training also increases awareness of workplace and community resources available to employees, equipping managers with the tools to foster a supportive work environment.

(M05) Stress Management: Identify areas of stress within the workplace and create a plan for stress management.

The project assesses at least three organization-wide metrics related to employee well-being, such as the frequency of employees working over 48 hours per week, absenteeism rates, unused paid time off, performance issues, retention and turnover rates, and employee satisfaction survey results indicating stress or burnout. Based on the findings, opportunities for improvement are identified, including organizational changes to reduce stress and increasing employee participation in decision-making on work-related issues. A stress management plan is then developed and

implemented, outlining the responsible leader, specific changes to be made, affected individuals, the implementation timeline, and executive leadership support.

(M09) Enhanced Access to Nature: Support access to nature and beauty by further incorporating nature through interior design, exterior design and access to nearby nature.

All workstations, conference room seats, and seating within common spaces either have a direct line of sight to nature or are within 33 ft of it whether it be a window outside or an indoor plant in the room.

The project has outdoor space available to all occupants immediately outside of the building.

Occupants are encouraged to access outdoor nature through signage, maps to nearby things to do, and the availability of breaks during the workday to go outside.

COMMUNITY: The WELL Community concept aims to support access to essential healthcare, build a culture of health that accommodates diverse population needs and establish an inclusive, engaged occupant community.

(C01) Health and Well-Being Promotion: Promote a deeper occupant understanding of the WELL features pursued by the project or organization and how building design, operations and policies impact health and well-being.

The project provides a physical or digital WELL feature guide, such as the WELL report, which is prominently displayed and made widely available to all occupants upon certification or review cycle completion. This guide outlines the WELL features achieved by the project or organization.

Additionally, quarterly communications, including emails, modules are sent to regular occupants, while new employees receive onboarding communications. These updates inform occupants about health resources, programs, amenities, and policies aligned with the WELL features, ensuring ongoing awareness and engagement.

(C02) Integrative Design: Facilitate a collaborative project process and support adherence to collective well-being and sustainability goals.

Early in the planning process for WELL designation, the project team facilitates a collaborative discussion involving key stakeholders, such as the owner, facilities manager, architects, engineers, contractors, employees, and, when applicable, community members. This discussion establishes health and well-being goals by identifying occupant needs and defining objectives for health promotion. Additionally, it sets environmental and equity goals, outlining strategies to reduce the project's climate impact, support a greener economy, protect water resources and ecosystems, promote sustainable material cycles, and enhance social equity and environmental justice within the community.

The project conducts tours of the space to communicate how existing building operations, maintenance, programs, and policies align with WELL requirements. These tours are made available to all stakeholders involved in the development process, including the owner, management team, facilities staff, architects, engineers, employees, occupants, residents, contractors, and community members. Additionally, new employees receive a tour as part of their onboarding process to familiarize them with the project's commitment to health and well-being.

The project establishes a health-oriented mission that outlines its objectives for health promotion and includes a commitment to supporting and improving occupant health. This mission incorporates

relevant organizational goals and strategies identified during the stakeholder charrette. It is made accessible to all occupants, ensuring transparency and reinforcing the project's dedication to well-being.

(C03) Emergency Preparedness: Enable organizations, families and individuals to prepare and respond to diverse emergency situations.

The project establishes a confidential process for vulnerable occupants, such as older adults, people with disabilities, pregnant women, and children, to identify their specific needs during emergencies. It evaluates potential hazards, determines high-risk threats, and sets emergency management planning priorities. A comprehensive emergency management plan is in place to address natural disasters, fires, health emergencies, technological failures, and human-caused incidents. The plan includes an annual inventory and maintenance of emergency resources, a regularly updated list of specialized personnel, and an annual review to ensure accessibility and relevance. Regular occupants receive education and training on emergency preparedness, including annual communications about emergency protocols and resources, onboarding guidance for new employees, and practice drills for high-risk hazards conducted at least annually, with other hazard drills occurring every two years.

(C04) Occupant Survey: Evaluate the experience and self-reported health and wellbeing of building users through occupant surveys.

A survey is created that covers the topics listed in Appendix C1.

(C07) Enhanced Health and Well-Being Promotion: Cultivate a culture that prioritizes and promotes the health and well-being of all individuals.

The project promotes occupant health and well-being through regular digital communications, education sessions, and an active health promotion group. Monthly digital communications reinforce the project's culture of health, market health programs and policies, highlight occupant stories, and provide educational resources on at least two topics within the ten WELL concepts. Quarterly education sessions, such as workshops and seminars, cover at least two different WELL concepts per year. Additionally, a dedicated health promotion group meets at least quarterly to plan and implement health programs and policies, fostering a strong culture of health within the project. The project employs a C-suite-level wellness officer to oversee employee well-being, with defined health metrics linked to performance evaluations. They provide annual reports to leadership and are supported by at least one employee in implementing health programs.

(C08) New Parent Support: Provide support for new parents to properly care for themselves and their children.

The project provides at least 12 weeks of paid parental leave for the birthing parent or primary caregiver and at least 2 weeks for the non-primary caregiver. This leave is separate from other types of leave and can be used consecutively or non-consecutively within a 12-month period. The project offers at least two support services for employees before and after parental leave, such as flexible work options, parental leave guidance, transition coaching, or manager training to support returning employees.

(C13) Accessibility and Universal Design: Make buildings more accessible, comfortable and usable for people of all backgrounds and abilities.

The project follows universal design best practices by ensuring physical accessibility, sensory-friendly elements, intuitive wayfinding, inclusive policies, assistive technology, and safety measures. Strategies include stair-free access, multi-sensory navigation aids, diversity training, remote access tech, and clear emergency egress plans.

INNOVATION: Innovation features pave the way for projects to develop unique strategies for creating healthier environments.

(I02) WELL Accredited Professional (WELL AP): To recognize projects that engage a WELL AP to support the WELL certification process.

There is a member of the project team that maintains accreditation until the project's initial certification is achieved.

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