

Three Kids Building

Lot #3 Club Drive

DESIGN LOADS

	LIVE LOAD (PSF)	DEAD LOAD (PSF)
TABLE R301.4		
DWELLING UNITS	40	10
SLEEPING ROOMS	30	10
ATTICS WITH STORAGE	20	10
ATTICS WITHOUT STORAGE	10	10
ROOF SNOW	20	10
STAIRS	40	10
DECKS	40	10
EXTERIOR BALCONIES	60	10
PASSENGER VEHICLE GARAGES	50	--
FIRE ESCAPES	40	10
GUARDRAILS AND HANDRAILS	200	--

MATERIALS

- FRAMING LUMBER SHALL BE #2 SPRUCE PINE FIR (SPF) WITH THE FOLLOWING DESIGN PROPERTIES:
F_b = 875 PSI F_v = 70 PSI E = 1.4E6 PSI
- FRAMING LUMBER EXPOSED TO WEATHER OR IN CONTACT WITH THE GROUND, CONCRETE OR MASONRY SHALL BE #2 SOUTHERN YELLOW PINE (SYP) TREATED IN ACCORDANCE WITH AWPAC22 WITH THE FOLLOWING DESIGN PROPERTIES:
F_b = 1050 PSI F_v = 95 PSI E = 1.6E6 PSI
- ENGINEERED WOOD BEAMS SHALL BE LAMINATED VENEER LUMBER (LVL) OR PARALLEL STRAND LUMBER (PSL) WITH THE FOLLOWING MINIMUM DESIGN PROPERTIES:
F_b = 2900 PSI F_v = 285 PSI E = 1.9E6 PSI
- STRUCTURAL STEEL SHALL CONFORM TO ASTM A-36 MINIMUM GRADE.
- BOLTS SHALL CONFORM TO A307 MINIMUM GRADE.
- REBAR SHALL BE DEFORMED STEEL CONFORMING TO ASTM A615 GRADE 60.
- POURED CONCRETE SHALL HAVE A MINIMUM SPECIFIED COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS. MATERIALS USED TO PRODUCE CONCRETE SHALL COMPLY WITH THE APPLICABLE STANDARDS LISTED IN ACI 318 OR ASTM C 1157.
- CONCRETE LOCATED PER TABLE R402.2 SHALL BE AIR ENTRAINED WITH THE TOTAL AIR CONTENT NOT LESS THAN 5 PERCENT OR MORE THAN 7 PERCENT.
- MASONRY UNITS SHALL CONFORM TO ACI 530/ASCE 5/TMS 402 AND MORTAR SHALL COMPLY WITH ASTM C 270.
- ALLOWABLE SOIL BEARING PRESSURE 2000 PSF.

GENERAL

ENGINEER'S SEAL APPLIES TO STRUCTURAL COMPONENTS ONLY AND DOES NOT CERTIFY ARCHITECTURAL LAYOUT OR DIMENSIONAL ACCURACY. ENGINEER IS NOT RESPONSIBLE FOR CONSTRUCTION METHODS OR ANY DEVIATION FROM THE PLANS.

ALL CONSTRUCTION, WORKMANSHIP, MATERIAL QUALITY AND SELECTION SHALL BE IN ACCORDANCE WITH THE NORTH CAROLINA STATE BUILDING CODE - RESIDENTIAL CODE 2018 EDITION FROM THE INTERNATIONAL RESIDENTIAL CODE 2018 (IRC), AND LOCAL CODES AND REGULATIONS. DIMENSIONS SHALL GOVERN OVER SCALE AND CODE SHALL GOVERN OVER DIMENSIONS.

ADDITIONAL LOADS

FIGURE R301.2(4) - ULTIMATE DESIGN WIND SPEEDS 115-120 MPH

FIGURE R301.2(2) - SEISMIC DESIGN CATEGORY B

TABLE R301.2(4) - DESIGN POSITIVE AND NEGATIVE PRESSURE FOR DOORS AND WINDOW FOR A MEAN ROOF HEIGHT OF 35 FEET OR LESS SHALL BE 25 PSF

TABLE R301.2(2) - COMPONENT AND CLADDING LOADS FOR A MEAN ROOF HEIGHT OF 30 FEET OR LESS LOCATED IN EXPOSURE B
ROOF VALUES BOTH POSITIVE AND NEGATIVE SHALL BE DESIGNED BASED ON ROOF PITCHES AS FOLLOWS:
45.4 PSF FOR 0:12 TO 2.25:12, 34.8 PSF FOR 2.25:12 TO 7:12 AND 21 PSF FOR 7:12 TO 12:12
WALL CLADDING IS DESIGNED FOR A 24.1 PSF POSITIVE AND NEGATIVE PRESSURE

ENERGY COMPLIANCE:

TABLE N1102.1 - REFER TO TABLE N1101.1 TO DETERMINE THE CLIMATE ZONE BY COUNTY AND REFER TO TABLE N1102.1 FOR R-VALUE INSULATION REQUIREMENTS LISTED BY ZONE.

TABLE N1102.1 - ZONE 7 - MAX. GLAZING U-FACTOR: 0.40, MIN. INSULATION R-VALUES: CEILING R-30, WALLS R-13, FLOORS R-19, BASEMENT WALLS R-7, SLAB PERIMETER R-0, CRAWL SPACE WALLS R-7.

TABLE N1102.1 - ZONE 8 - MAX. GLAZING U-FACTOR: 0.40, MIN. INSULATION R-VALUES: CEILING R-30, WALLS R-13, FLOORS R-19, BASEMENT WALLS R-8, SLAB PERIMETER R-5 (2 FT DEEP), CRAWL SPACE WALLS R-10.

CONSTRUCTION

- STEEL FLITCH BEAMS SHALL BE FASTENED TOGETHER WITH 1/2" DIAMETER BOLTS WITH WASHERS PLACED UNDER THE THREADED END OF THE BOLT. BOLTS SHALL BE SPACED AT MAXIMUM 24" o.c. STAGGERED TOP AND BOTTOM OF BEAM WITH A MINIMUM 2" EDGE DISTANCE. TWO BOLTS SHALL BE LOCATED AT 6" FROM EACH END OF FLITCH BEAM.
- STEEL BEAMS SHALL BE SUPPORTED AT EACH END WITH A MINIMUM BEARING LENGTH OF 3 1/2" AND FULL FLANGE WIDTH. BEAMS MUST BE ANCHORED AT EACH END WITH A MINIMUM OF FOUR 16d NAILS OR TWO 1/2" x 4" LAG SCREWS.
- ENGINEERED WOOD BEAMS SHALL BE INSTALLED WITH ALL CONNECTIONS PER MANUFACTURER'S INSTRUCTIONS.
- ALL BEAMS SHALL BE CONTINUOUSLY SUPPORTED Laterally AND SHALL BEAR FULL WIDTH ON THE SUPPORTING WALLS OR COLUMNS INDICATED WITH A MINIMUM OF THREE STUDS.
- SOLID BLOCKING SHALL BE PROVIDED AT ALL POINT LOADS TO TRANSFER LOADS THROUGH FLOOR LEVELS. COLUMNS SHALL BE CONTINUOUS TO THE FOUNDATION OR TO OTHER STRUCTURAL ELEMENTS.
- ENGINEERED WOOD FLOOR SYSTEMS AND ROOF TRUSS SYSTEMS SHALL BE PROVIDED FOR REVIEW AND COORDINATED WITH THE ENGINEER OF RECORD. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- WALL BRACING REQUIREMENTS SHALL BE IN ACCORDANCE WITH SECTION R602.10 OF THE NORTH CAROLINA RESIDENTIAL CODE.
- BRICK LINTELS SHALL BE 3 1/2 x 3 1/2 x 1/4 STEEL ANGLE FOR UP TO 60" MAXIMUM SPAN AND 6 x 4 x 5/16 FOR SPANS GREATER THAN 60".
- BRICK LINTELS AT SLOPED AREAS SHALL BE 4 x 3 1/2 x 1/4 STEEL ANGLE WITH 16d NAILS IN 3/16" HOLES IN 4" ANGLE LEG AT 12" o.c. TO DOUBLE RAFTER. WHEN THE SLOPE EXCEEDS 4:12 A MINIMUM OF 3 x 3 x 1/4 PLATES SHALL BE WELDED AT 24" o.c. ALONG THE STEEL ANGLE.

ABBREVIATIONS

CONC	CONCRETE
CONT	CONTINUOUS
DBL	DOUBLE
DJ	DOUBLE JOIST
DSP	DOUBLE STUD POCKET
EA	EACH
FL PT	FLAT PLATE
FTG	FOOTING
HGR	HANGER
LVL	LAMINATED VENEER LUMBER
NTS	NOT TO SCALE
OC	ON CENTER
PSL	PARALLEL STRAND LUMBER
PT	PRESSURE TREATED
SC	STUD COLUMN
SP	STUD POCKET
TJ	TRIPLE JOIST
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE

MEAN ROOF HEIGHT

1 STORY = 11'-0"
CLADDING POSITIVE & NEGATIVE PRESSURE = 21 PSF

1 1/2 STORY = 19'-0"
CLADDING POSITIVE & NEGATIVE PRESSURE = 34.8 PSF

2 STORY = 19'-0"
CLADDING POSITIVE & NEGATIVE PRESSURE = 34.8 PSF

ANCHOR BOLTS
INSTALL ANCHOR BOLTS, NUTS, AND WASHERS PER CODE AT ALL EXTERIOR WALL
TREATED PLATES AND AT INTERIOR BEARING WALL
TREATED PLATES ON SLAB FOUNDATIONS, TO BE A MINIMUM OF 6' O.C. AND WITHIN 12" FROM THE ENDS OF EACH PLATE.

DESIGN PRESSURES
MINIMUM RATING: 25 PSF

MI WINDOWS 3500 SERIES
LOW E-GLASS WINDOWS

SQUARE FOOTAGE

	HEATED SQUARE FT.	UNHEATED SQUARE FT.
FIRST FLOOR	1781	
SECOND FLOOR	1939	
FRONT PORCH		49
COVERED PORCH		279
2 CAR GARAGE		584
TOTAL	3720	912

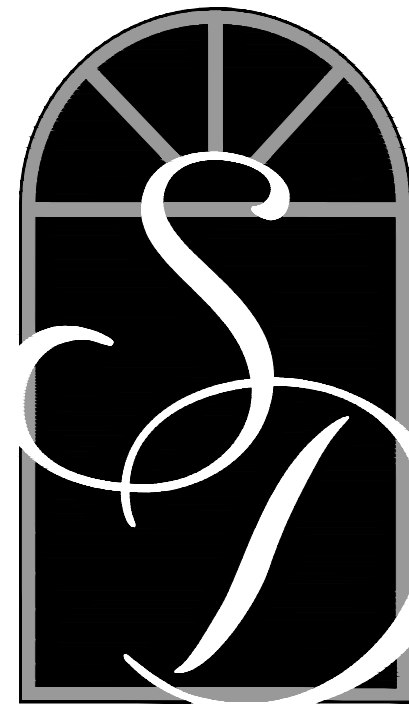
REVISION LOG

Rev	Description	Drawn By	Date	Sheets Affected	Brochure Required	Engineering Required
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						

TABLE N1102.1 CLIMATE ZONES 3-5

CLIMATE ZONES	FENESTRATION U-FACTOR ^b	SKYLIGHT ^b U-FACTOR	GLAZED FENESTRATION SHGC ^{b,a}	CEILING ^k R-VALUE	WOOD FRAMED WALL R-VALUE	MASS WALL R-VALUE ⁱ	FLOOR R-VALUE	BASEMENT ^c WALL R-VALUE	SLAB ^d R-VALUE AND DEPTH	CRAWL SPACE ^e WALL R-VALUE
3	0.35	0.55	0.30	20	13	5/13	19	10/15	10	10/15
4	0.35	0.55	0.30	38 OR 30 CONT ^j	15 OR 13+2.5 ^h	5/13	19	10/15	10	10/15
5	0.35	0.55	NR	38 OR 30 CONT ^j	19 OR 13+5 ^h OR 15+3.8 ^h	13/17 OR 13/12.50	22	10/15	10	10/15

- R-VALUES ARE MINIMUMS. U-FACTORS AND SHGC ARE MAXIMUMS.
- THE FENESTRATION U-FACTOR COLUMN EXCLUDES SKYLIGHTS. THE SHGC COLUMN APPLIES TO ALL GLAZED FENESTRATION.
- "10/13" MEANS R-10 CONT. INSULATED SHEATHING ON THE INTERIOR OR EXTERIOR OF THE HOME OR R-13 CAVITY INSULATION AT THE INTERIOR OF THE BASEMENT WALL OR CRAWL SPACE WALL.
- FOR MONOLITHIC SLABS, INSULATION SHALL BE APPLIED FROM THE INSPECTION GAP DOWNWARD TO THE BOTTOM OF THE FOOTING OR A MAXIMUM OF 18 INCHES BELOW GRADE, WHICHEVER IS LESS. FOR FLOATING SLABS, INSULATION SHALL EXTEND TO THE BOTTOM OF THE FOUNDATION WALL OR 24 INCHES, WHICHEVER IS LESS. R-5 SHALL BE ADDED TO THE REQUIRED SLAB EDGE R-VALUE FOR HEATED SLABS.
- R-19 FIBERGLASS BATTS COMPRESSED AND INSTALLED IN A NOMINAL 2x6 CAVITY IS DEEMED TO COMPLY. FIBERGLASS BATTS RATED R-19 OR HIGHER COMPRESSED AND INSTALLED IN A 2x4 WALL IS NOT DEEMED TO COMPLY.
- BASEMENT WALL INSULATION IS NOT REQUIRED IN WARM-HUMID LOCATIONS AS DEFINED BY FIGURE N1101.2 (1 AND 2) AND TABLE N1101.2.
- OR INSULATION SUFFICIENT TO FILL THE FRAMING CAVITY, R-19 MINIMUM.
- "13+5" MEANS R-13 CAVITY INSULATION PLUS R-5 INSULATED SHEATHING. 15+3 MEANS R-15 CAVITY INSULATION PLUS R-3 INSULATED SHEATHING. IF STRUCTURAL SHEATHING COVERS 25 PERCENT OR LESS OF THE EXTERIOR, INSULATING SHEATHING IS NOT REQUIRED WHERE STRUCTURAL SHEATHING IS USED. IF THE STRUCTURAL SHEATHING COVERS MORE THAN 25 PERCENT OF THE EXTERIOR, STRUCTURAL SHEATHING SHALL BE SUPPLEMENTED WITH INSULATED SHEATHING OF AT LEAST R-2. 13+2.5 MEANS R-13 CAVITY INSULATION PLUS R-2.5 SHEATHING.
- FOR MASS WALLS, THE SECOND R-VALUE APPLIES WHEN MORE THAN HALF THE INSULATION IS ON THE INTERIOR OF THE MASS WALL.
- R-30 SHALL BE DEEMED TO SATISFY THE CEILING INSULATION REQUIREMENT WHEREVER THE FULL HEIGHT OF THE UNCOMPRESSED R-30 INSULATION EXTENDS OVER THE WALL TOP PLATE AT THE EAVES. OTHERWISE R-38 INSULATION IS REQUIRED WHERE ADEQUATE CLEARANCE EXISTS OR INSULATION MUST EXTEND TO EITHER THE INSULATION BAFFLE OR WITHIN 1" OF THE ATTIC ROOF DECK.
- TABLE VALUE REQUIRED EXCEPT FOR ROOF EDGE WHERE THE SPACE IS LIMITED BY THE PITCH OR THE ROOF, THERE THE INSULATION MUST FILL THE SPACE UP TO THE AIR BAFFLE.



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Checked By: RWB

Date: 7-5-2024

Revision No. Revision Date

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Client:
3 Kids Building, LLC
Lot #3
Club Drive

Title:

Plan No.

3720

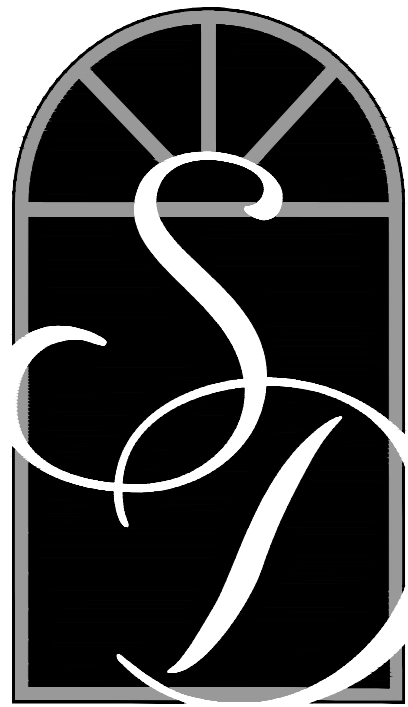
Sheet No. 1 Of 7



1 FRONT ELEVATION
SCALE: 1/4" = 1'-0"



2 RIGHT SIDE ELEVATION
SCALE: 1/4" = 1'-0"



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Sheet No. 2 Of 7



3 LEFT SIDE ELEVATION
SCALE: 1/4" = 1'-0"



4 REAR ELEVATION
SCALE: 1/4" = 1'-0"



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4

7

Sheet No.

Of

General Floor Plan Notes

General Floor Plan Notes shall apply unless noted otherwise on plan.

- Wall Heights: Typically 9'-1-1/2" at basement and first floor, and 8'-1-1/2" at bonus room, U.N.O.. All walls are constructed using a double top plate. Splices at Double Top Plate do not need to occur at Vertical Studs but must be at least 24" apart from Joint in other Top Plate layer. Special wall heights are noted on plans where they occur.
- Wall Thickness is shown 4" at both exterior and interior walls U.N.O. 2x6 frame shall be used at walls that back up to plumbing fixtures. Walls greater than 10' high shall be framed with 2x6 framing or greater and will be noted as a special condition where it occurs on plan.
- Header height shall be 7'-4" AFF at basement, 7'-8" AFF at first floor, and 7'-0" AFF at second floor, unless noted otherwise.
- All headers for exterior windows and doors are (2) 2x10 unless noted otherwise. Headers for interior doors shall be a min (2) 2x6
- Jacks: Openings up to 3'-4" wide shall have (1) 2x4 jack stud SPF on each side. Openings greater than 3'-4" wide shall have (2) 2x4 jack studs SPF on each side.
- Soffits, Coffered Ceilings, Trey Ceilings and other significant ceiling plan elements are shown on the floor plans and are denoted as single dashed lines. Unless specifically call out as included, Kitchens do not include soffits over wall cabinetry.
- Door & Window Frames, where occurring near corners, shall be a minimum of 4" from corner. Except for walk-in closets with doors near a corner, doors at closets shall be centered on closet.
- Windows: Shall have at least (1) window in each sleeping room, that meets egress. Shall be provided with tempered glass of hazardous glazing areas. False windows shall be installed with obscure glazing.
- Handrails and Guards at stairs shall be 34" above the finished surface of the ramp surface of the stair. Handrails at landings and overlooks of multilevel spaces shall be 36" above finished floor. Guards (pickets or balusters) shall be spaced so that a 4" cannot pass through the guards.
- Attic Access shall be provided at all attic area with a height greater than 30". Minimum clear attic access shall be 20" x 30". Pull down stairs and access doors in knee walls meeting minimum criteria are also acceptable.
- Garage Door to Living Space shall be 2'-8" x 6'-8" minimum size and shall be 20 minute fire rated and weather sealed.
- Provide 1/2" (minimum) gypsum board separation at walls and ceilings adjacent to the main house and attic areas. With habitable space above, the inside of all garage walls require 1/2" GWB supporting 5/8" type X GWB on ceiling.
- Provide the following minimum thermal protection for each wall, floor, etc. in the building thermal envelope:

Ceilings:	R-30 (energy heel)
Walls:	R-15
Cantilevered Floors:	R-19
Crawl Floors:	R-19
Basement Walls:	R-10 / R-15
- Wall bracing is per the CS-WSP method of R602.10.3.1, of the current North Carolina Residential Code, unless noted otherwise.

RISER HEIGHTS PER STAIR CONFIGURATION				
PLATE HEIGHT	10" FLOOR SYSTEM	14" FLOOR SYSTEM	16" FLOOR SYSTEM	
8'-1 1/2"	14 RISERS @ 7 11/16"	15 RISERS @ 7 1/2"	15 RISERS @ 7 5/8"	
9'-1 1/2"	16 RISERS @ 7 1/2"	16 RISERS @ 7 3/4"	17 RISERS @ 7 7/16"	
10'-1 1/2"	17 RISERS @ 7 3/4"	18 RISERS @ 7 9/16"	18 RISERS @ 7 11/16"	

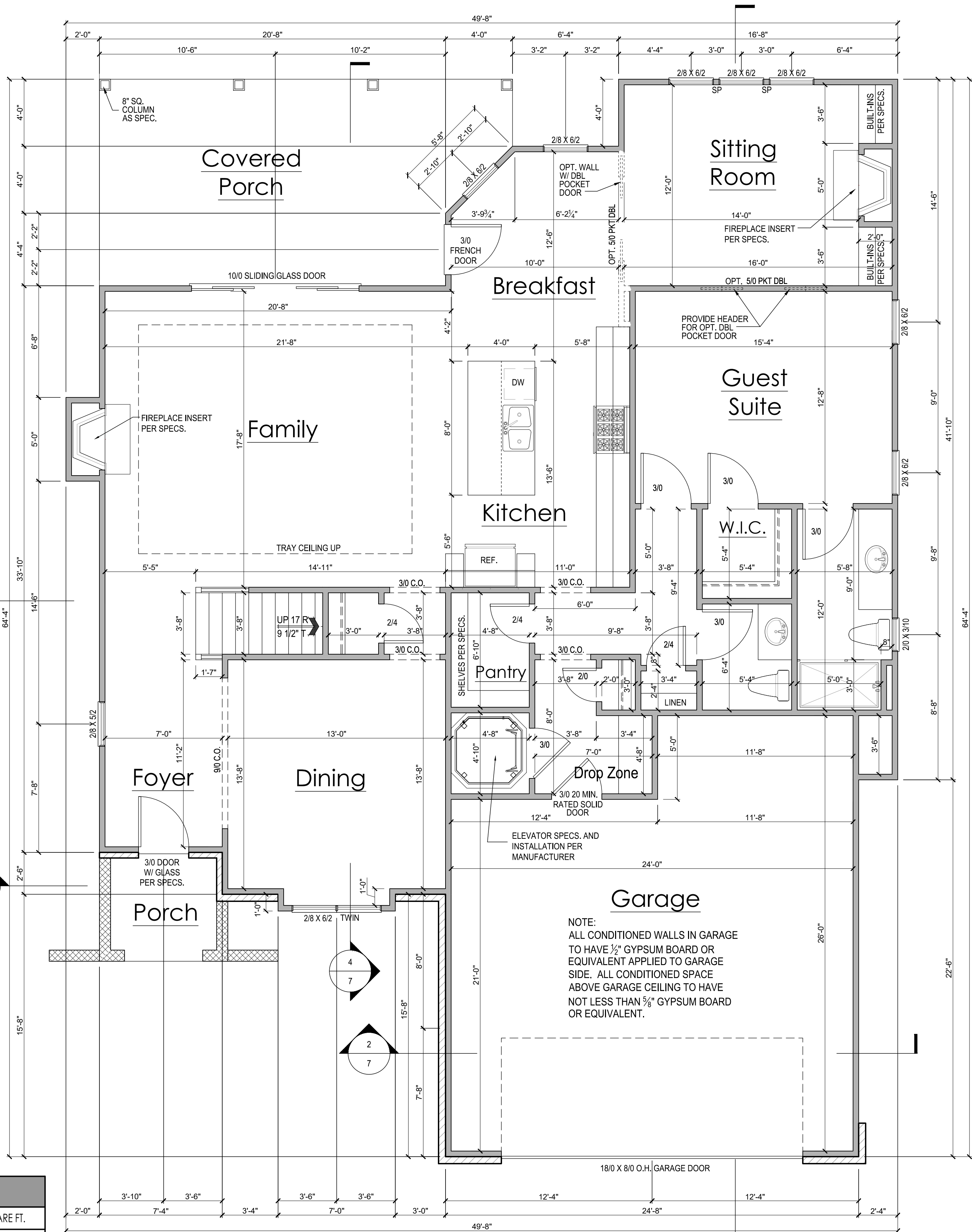
2 TYPICAL STAIR DETAIL

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

NOTE:
HANDRAILS SHALL BE PROVIDE ON AT LEAST ONE SIDE OF STAIR TREADS WITH 4, OR MORE RISERS. VERTICAL HT. OF HANDRAILS SHALL BE NOT LESS THAN 34" AND NO MORE THAN 38" PER NC 2018 RESIDENTIAL CODE SEC. R311.7.8

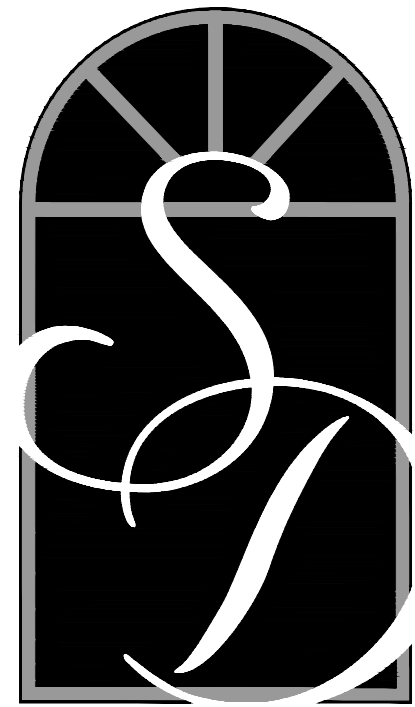
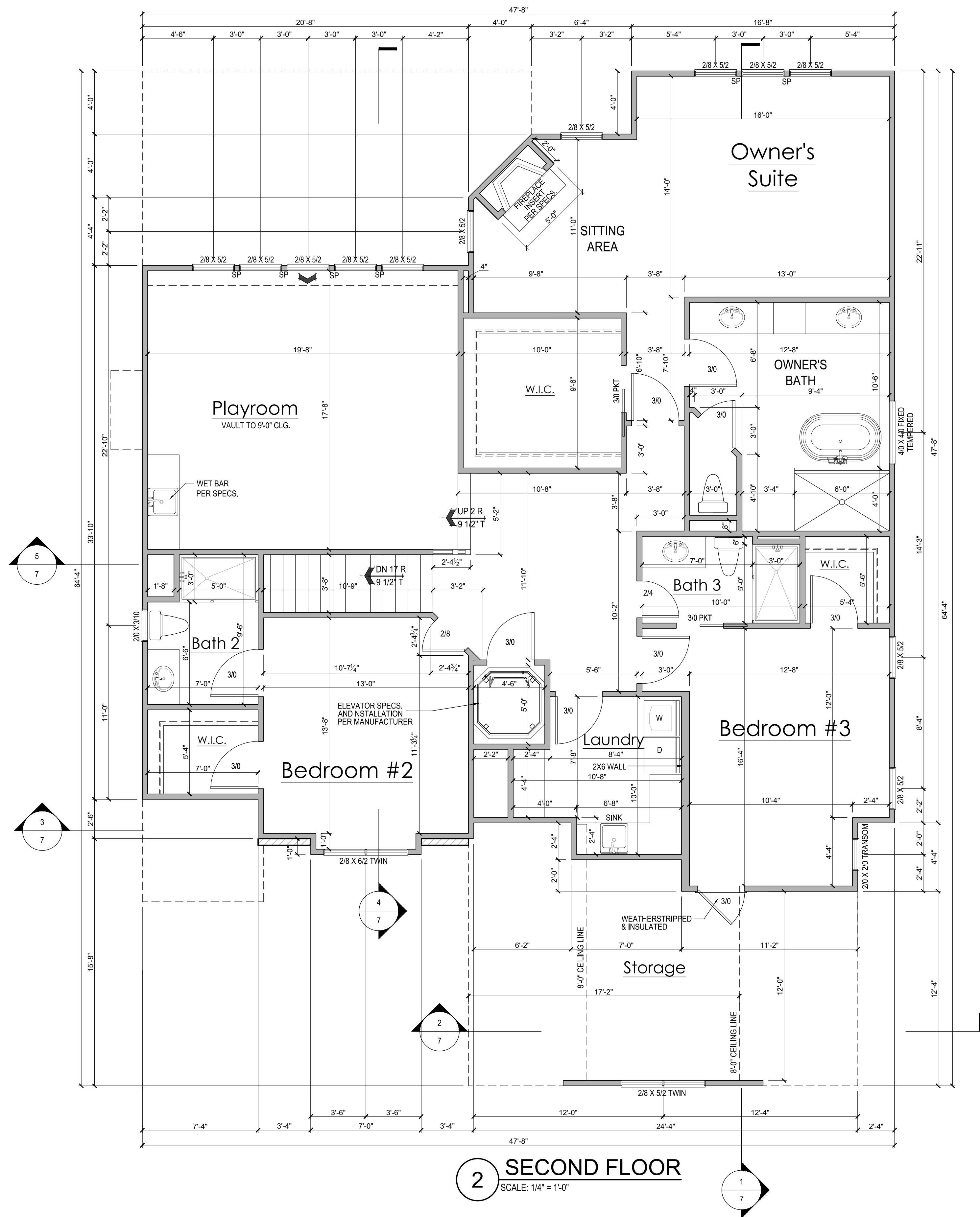
GUARDS ON ALL HANDRAILS SHALL BE PLACED SO THAT A SPHERE OF 4" CANNOT PASS THROUGH PER NC 2018 RESIDENTIAL CODE SEC. R312.1

SQUARE FOOTAGE		
	HEATED SQUARE FT.	UNHEATED SQUARE FT.
FIRST FLOOR	1781	
SECOND FLOOR	1939	
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1 FIRST FLOOR

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



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