BUILDING CODES

BUILDING CODES:

ALL DESIGN AND NEW CONSTRUCTION IS BASED ON AND SHALL BE IN ACCORDANCE WITH:

1. INTERNATIONAL BUILDING CODE, 2024 EDITION

2. STATE AND LOCAL AMENDMENTS: 2025 GEORGIA AMENDMENTS

3. REFERENCED STANDARDS WITH THE EFFECTIVE DATES INDICATED IN THE GOVERNING BUILDING CODE.

EXISTING BUILDING WORK:

ALL EVALUATION AND DESIGN ASSOCIATED WITH EXISTING CONDITIONS IS BASED ON:

1. INTERNATIONAL EXISTING BUILDING CODE, 2024 EDITION

2. STATE AND LOCAL AMENDMENTS: 2025 GEORGIA AMENDMENTS

3. IEBC COMPLIANCE PATH:
   - REPAIRS
   - PRESCRIPTIVE METHOD
   - WORK AREA METHOD
   - PERFORMANCE METHOD

4. STRUCTURAL SCOPE:
   - REPAIRS
   - ADDITION

DESIGN LOADS

DESIGN ROOF DEAD LOAD:

SEE LOAD MAPS ON S002A

DESIGN ROOF LIVE LOAD:

SEE LOAD MAPS ON S002A

DESIGN ROOF RAIN LOAD:

RAIN INTENSITY (100 YEAR, 1-HOUR RAINFALL)	3.2"/HR
DESIGN RAIN INTENSITY FOR STRUCTURAL DESIGN (100 YEAR, 15-MINUTE RAINFALL)	6.8"/HR
DESIGN DEPTH OF RAINWATER AT LOWEST POINT OF ROOF DURING DESIGN RAINFALL	XX"

DESIGN ELEVATED FLOOR DEAD LOAD:

SEE LOAD MAPS ON S002A

DESIGN SLAB-ON-GROUND LIVE LOAD:

UNIFORM LIVE LOAD	125 PSF

DESIGN ELEVATED FLOOR LIVE LOAD:

SEE LOAD MAPS ON S002A. REDUCTIONS APPLIED PER TRIBUTARY AREA AS PERMITTED BY CODE.

DESIGN SNOW LOAD:

GROUND SNOW LOAD, Pg	15 PSF
ALLOWABLE STRESS DESIGN GROUND SNOW LOAD, Pg(asd)	10.5
FLAT ROOF SNOW LOAD, Pf	XX PSF
MINIMUM ROOF SNOW LOAD, Pm	XX PSF
SNOW EXPOSURE FACTOR, Ce	1.0
RISK CATEGORY	II
SNOW THERMAL FACTOR (TYPICAL), Ct	1.00
SNOW THERMAL FACTOR (@ ATTACHED CANOPIES), Ct	1.20
WINTER WIND PARAMETER FOR SNOW DRIFT, W2	0.##
SEE SNOW DRIFT LOAD DIAGRAM ON SXXX FOR SNOW DRIFT LOADS	

DESIGN WIND LOAD:

BASIC DESIGN WIND SPEED, V	105 MPH
ALLOWABLE STRESS DESIGN WIND SPEED, Vasd	82 MPH
RISK CATEGORY	II
WIND EXPOSURE CATEGORY	C
COMPONENTS AND CLADDING WIND PRESSURE	SEE SCHEDULE
INTERNAL PRESSURE COEFFICIENT	+/-0.18

DESIGN SEISMIC LOAD:

RISK CATEGORY	II
SPECTRAL RESPONSE ACCELERATION PARAMETER, Ss	0.240
SPECTRAL RESPONSE ACCELERATION PARAMETER, S1	0.091
DESIGN SPECTRAL RESPONSE ACCELERATION PARAMETER, Sds	0.200
DESIGN SPECTRAL RESPONSE ACCELERATION PARAMETER, Sd1	0.130
SITE CLASS (AS DETERMINED BY GEOTECHNICAL INVESTIGATION)	D
BASIC SEISMIC-FORCE RESISTING SYSTEM	
ONE-STORY WOOD STRUCTURE ADDITION: LIGHT-FRAME (WOOD) WALLS SHEATHED WITH WOOD STRUCTURAL PANELS RATED FOR SHEAR RESISTANCE TWO-STORY STEEL STRUCTURE ADDITION: STEEL SYSTEMS NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE, EXCLUDING CANTILEVER COLUMN SYSTEMS	
RESPONSE MODIFICATION FACTOR, R	
ONE-STORY WOOD STRUCTURE ADDITION	6.5
TWO-STORY STEEL STRUCTURE ADDITION	3
DESIGN BASE SHEAR, V	
ONE-STORY WOOD STRUCTURE ADDITION	XXK
TWO-STORY STEEL STRUCTURE ADDITION	XXK
ANALYSIS PROCEDURE:	
EQUIVALENT LATERAL FORCE (ASCE 7, SECTION 12.8)	
SEISMIC DESIGN CATEGORY	B
SEISMIC IMPORTANCE FACTOR, Ie	1.00
SEISMIC RESPONSE COEFFICIENT, Cs	
ONE-STORY WOOD STRUCTURE ADDITION	XX
TWO-STORY STEEL STRUCTURE ADDITION	XX

NOTES:

1. NO PROVISIONS HAVE BEEN MADE FOR FUTURE HORIZONTAL OR VERTICAL EXPANSION.

COMPONENTS & CLADDING EXTERNAL PRESSURE LOADS (PSF) TWO-STORY STEEL ADDITION

IBC 2024: LOCATION PER ASCE 7-22: FIGURE 30.3-1 & 30.3-2A

EFFECTIVE WIND AREA (FT2)	ROOF					ROOF OVERHANGS			WALLS			PARAPETS	
	ALL ROOF ZONES	1'	1	2	3	ROH1, ROH1'	ROH2	ROH3	ALL WALL ZONES	4	5	P4 (+&-)	P5 (+&-)
<10	11.0	-24.8	-43.1	-56.9	-77.5	-39.0	-52.7	-73.4	24.8	-26.8	-33.0	77.6	98.8
20	10.3	-24.8	-40.3	-53.2	-70.2	-38.3	-47.9	-64.9	23.7	-25.7	-30.8	72.6	90.0
50	9.4	-24.8	-36.5	-48.4	-60.5	-37.4	-41.4	-53.6	22.2	-24.3	-27.9	66.0	78.5
>100	8.7	-24.8	-33.7	-44.7	-53.2	-36.7	-36.6	-45.0	21.1	-23.2	-25.7	61.0	69.7
>500	8.7	-16.8	-27.1	-36.2	-36.2	-22.9	-25.2	-25.2	18.6	-20.6	-20.6	49.4	49.4

ROOFTOP EQUIPMENT	
Phoriz =	43.6 PSF
Puplift =	-34.4 PSF

NOTES:

1 a = 4'-9". SEE ASSOCIATED ROOF PLAN MAP AND WALL ISOMETRIC FOR LOCATION OF ROOF AND WALL ZONES.

2 POSITIVE PRESSURE VALUES REFER TO FORCES ACTING TOWARDS BUILDING OR COMPONENT FACE, NEGATIVE PRESSURE VALUES REFER TO FORCES ACTING AWAY FROM BUILDING OR COMPONENT FACE.

3 EACH COMPONENT AND ITS CONNECTION SHALL BE DESIGNED FOR MAXIMUM POSITIVE AND NEGATIVE FORCES.

4 FOR COMPONENTS HAVING EFFECTIVE AREAS IN BETWEEN TABULATED VALUES, DESIGN LOADS MAY BE INTERPOLATED. OTHERWISE DESIGN LOAD SHALL BE TAKEN FROM THE NEXT LOWEST TABULATED EFFECTIVE AREA.

5 DESIGN VALUES SHOWN IN THIS TABLE ARE ULTIMATE VALUES FOR USE WITH LRFD DESIGN. VALUES MAY BE MULTIPLIED BY 0.6 FOR USE WITH SERVICE LEVEL OR ASD DESIGN. REFER TO THE BUILDING CODE FOR APPLICABLE LOAD COMBINATIONS.

6 PARAPET COMPONENTS AND CLADDING ARE THOSE ELEMENTS WHICH EXIST ABOVE THE HORIZONTAL PLANE OF THE ROOF AND SHALL BE DESIGNED FOR:

· POSITIVE AND NEGATIVE PRESSURES 4 OR 5 APPLIED TO THE SHEATHING OR PANELING AND ITS CONNECTION ON OUTSIDE FACE.

· POSITIVE PRESSURES 4 OR 5 APPLIED TO THE SHEATHING OR PANELING AND ITS CONNECTION ON ROOF SIDE FACE.

· NEGATIVE PRESSURES 2 OR 3 APPLIED TO THE SHEATHING OR PANELING AND ITS CONNECTION ON ROOF SIDE FACE.

· P4/5 SHALL BE APPLIED TO THE DESIGN OF THE STRUCTURAL ELEMENT OF THE PARAPET AND ITS CONNECTION, INCLUDING BUT NOT LIMITED TO THE STUD FRAMING OF THE PARAPET.

7 ROOTOP EQUIPMENT PRESSURES SHALL BE APPLIED HORIZONTALLY AND VERTICALLY TO COMPONENTS WHICH ARE EITHER ROOFTOP STRUCTURES OR ROOFTOP APPURTENANCES AND THEIR CONNECTION. EXAMPLES OF THIS ARE RTUs, AHUs, AND SCREEN WALLS.

8 ROH# : DENOTES DESIGN WIND PRESSURE VALUES WHICH SHALL BE APPLIED AT ROOF OVERHANGS TO TOP SURFACE CLADDING OR SHEATHING AND ITS CONNECTION. SOFFIT CLADDING OR SHEATHING SHALL BE DESIGNED FOR SIMILAR PRESSURE TO THE ADJACENT WALL PRESSURE. A COMBINATION OF THESE FORCES SHALL BE APPLIED TO THE STRUCTURAL ELEMENT OF THE OVERHANG AND ITS CONNECTION, INCLUDING BUT NOT LIMITED TO THE STUD FRAMING OF THE OVERHANG.

COMPONENTS & CLADDING EXTERNAL PRESSURE LOADS (PSF) ONE-STORY WOOD ADDITION

IBC 2024: LOCATION PER ASCE 7-22: FIGURE 30.3-1 & 30.3-2B/C

EFFECTIVE WIND AREA (FT2)	ROOF				ROOF OVERHANGS			WALLS		
	ALL ROOF ZONES	1	2	3	ROH1	ROH2	ROH3	ALL WALL ZONES	4	5
<10	18.0	-45.1	-59.6	-78.2	-62.1	-76.6	-95.2	24.4	-26.5	-32.7
20	15.5	-38.8	-51.5	-67.0	-54.6	-67.3	-82.9	23.3	-25.4	-30.5
50	12.8	-30.4	-40.7	-52.2	-44.8	-55.1	-66.6	21.9	-23.9	-27.6
>100	11.4	-24.7	-35.4	-41.0	-37.9	-48.6	-54.3	20.8	-22.8	-25.4
>500	9.9	-20.0	-30.2	-41.0	-30.6	-40.8	-51.7	18.2	-20.3	-20.3

NOTES:

1 a = 6'-6". SEE ASSOCIATED ROOF PLAN MAP AND WALL ISOMETRIC FOR LOCATION OF ROOF AND WALL ZONES.

2 POSITIVE PRESSURE VALUES REFER TO FORCES ACTING TOWARDS BUILDING OR COMPONENT FACE, NEGATIVE PRESSURE VALUES REFER TO FORCES ACTING AWAY FROM BUILDING OR COMPONENT FACE.

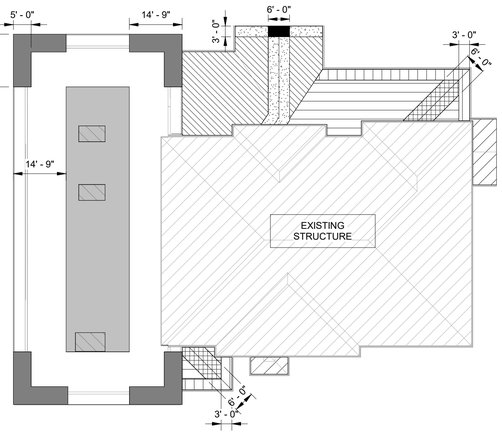
3 EACH COMPONENT AND ITS CONNECTION SHALL BE DESIGNED FOR MAXIMUM POSITIVE AND NEGATIVE FORCES.

4 FOR COMPONENTS HAVING EFFECTIVE AREAS IN BETWEEN TABULATED VALUES, DESIGN LOADS MAY BE INTERPOLATED. OTHERWISE DESIGN LOAD SHALL BE TAKEN FROM THE NEXT LOWEST TABULATED EFFECTIVE...

5 DESIGN VALUES SHOWN IN THIS TABLE ARE ULTIMATE VALUES FOR USE WITH LRFD DESIGN. VALUES MAY BE MULTIPLIED BY 0.6 FOR USE WITH SERVICE LEVEL OR ASD DESIGN. REFER TO THE BUILDING CODE FOR APPLICABLE LOAD COMBINATIONS.

6 ROOTOP EQUIPMENT PRESSURES SHALL BE APPLIED HORIZONTALLY AND VERTICALLY TO COMPONENTS WHICH ARE EITHER ROOFTOP STRUCTURES OR ROOFTOP APPURTENANCES AND THEIR CONNECTION. EXAMPLES OF THIS ARE RTUs, AHUs, AND SCREEN WALLS.

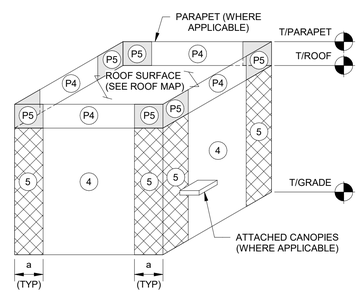
7 ROH# : DENOTES DESIGN WIND PRESSURE VALUES WHICH SHALL BE APPLIED AT ROOF OVERHANGS TO TOP SURFACE CLADDING OR SHEATHING AND ITS CONNECTION. SOFFIT CLADDING OR SHEATHING SHALL BE DESIGNED FOR SIMILAR PRESSURE TO THE ADJACENT WALL PRESSURE. A COMBINATION OF THESE FORCES SHALL BE APPLIED TO THE STRUCTURAL ELEMENT OF THE OVERHANG AND ITS CONNECTION, INCLUDING BUT NOT LIMITED TO THE STUD FRAMING OF THE OVERHANG.



ROOF PLAN

C&C DIAGRAM KEY:

- DENOTES FLAT ROOF ZONE 1 PRESSURES
- DENOTES FLAT ROOF ZONE 2 PRESSURES
- DENOTES FLAT ROOF ZONE 3 PRESSURES
- DENOTES GABLE ZONE 1 PRESSURES
- DENOTES GABLE ZONE 2 PRESSURES
- DENOTES GABLE ZONE 3 PRESSURES
- DENOTES HIP ZONE 1 PRESSURES
- DENOTES HIP ZONE 2 PRESSURES
- DENOTES HIP ZONE 3 PRESSURES



WALL ISOMETRIC

COMPONENTS & CLADDING DIAGRAM

1 / S002

SCALE: 1" = 20'-0"

BROWN AND CALDWELL
900 HAMMOND DRIVE, SUITE 500
ATLANTA, GA 30328

wendel

THIS DRAWING IS NOT VALID FOR CONSTRUCTION PURPOSES UNLESS IT BEARS THE SEAL AND SIGNATURE OF A DULY REGISTERED PROFESSIONAL

Project Status

NCWSA NEWTON COUNTY WATER & SEWERAGE AUTHORITY

Project Name

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: Designer
DRAWN: Author
CHECKED: Checker
CHECKED:
APPROVED: Approver
FILENAME

BC PROJECT NUMBER
Project Number
CLIENT PROJECT NUMBER

DESIGN CRITERIA

DRAWING NUMBER
S002

Plot Date: 3/12/2026 12:24:07 AM Path: Autodesk Docs://NCWSA Admin Bldg_ V25/0250683-NCWSA Office Addition-R25-STRUCT.rvt