DESIGN LOADS:

1. BUILDING LOADS:
   A. DEAD LOADS: (NON-BALLASTED ROOF)
      - ROOF DEAD LOAD: 20 PSF
      - FLOOR DEAD LOAD: (W/ LW TOPPING) 18 PSF
      - PARTITION LOAD IN OFFICE AREAS: 15 PSF
   B. LIVE LOADS: (UNIFORM LIVE LOAD CASES)
      - ROOF LIVE LOAD: 20 PSF
      - OFFICE LIVE LOAD: 50 PSF
      - MECHANICAL WELL: 60 PSF
        -IN ADDITION TO THE ROOF LIVE LOAD SHOWN
      - CORRIDOR LOAD: 80 PSF
      - SLAB ON GRADE LIVE LOAD: 100 PSF
        - REDUCED AS ALLOWED BY THE BUILDING CODE
        - INCLUDES LOBBY LIVE LOAD
   C. LIVE LOADS: (CONCENTRATED LOAD CASES)
      - CONCENTRATED LOADS ARE ASSUMED TO BE DISTRIBUTED OVER 30"x30" AREAS
      - OFFICES 2000 LB
      - CORRIDORS 2000 LB
      - LOBBIES 2000 LB
   D. SNOW LOADS:
      - GROUND SNOW LOAD (pg): 5 PSF
      - ROOF SNOW LOAD (pf): 8.5 PSF
      - SNOW IMPORTANCE FACTOR (Is): 1.0
      - SNOW THERMAL FACTOR (st): 1.0
      - SNOW EXPOSURE FACTOR (ce): 0.9
   E. WIND LOAD:
      - ULTIMATE WIND SPEED: Vult = 115 MPH
      - NOMINAL WIND SPEED: Vasd = 90 MPH
      - IMPORTANCE FACTOR: I = 1.0
      - RISK CATEGORY: II
      - INTERNAL PRESSURE COEFFICIENT: 0.18
      - WIND EXPOSURE CATEGORY: B
   F. EARTHQUAKE:
      - SEISMIC IMPORTANCE FACTOR: I = 1.0
      - MAPPED SPECTRAL RESPONSE ACCELERATIONS
        - S_s = 0.192
        - S_1 = 0.086
      - SITE CLASS IS ASSUMED TO BE "D"
      - SPECTRAL RESPONSE COEFFICIENTS
        - S_{ds} = 0.205
        - S_{d1} = 0.137
      - SEISMIC FORCE RESISTING SYSTEMS
        - LIGHT FRAMED WOOD WALLS WITH WOOD PANELS
      - SEISMIC RESPONSE COEFFICIENT: C_s = 0.04
      - DESIGN BASE SHEAR
        3.2 KIPS ULTIMATE
      - RESPONSE MODIFICATION FACTOR: R = 6.5
      - SEISMIC DESIGN CATEGORY: C
      - ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE (IBC 1617.1, ASCE 7-05 SECTION 9.5.5)

   G. LOAD SIGNAGE:
      - THE FLOOR DESIGN LIVE LOAD FOR EACH ELEVATED FLOOR STRUCTURE OR PORTION THEREOF THAT EXCEEDS 50 OUNDS PER SQUARE FOOT (PSF) SHALL BE STATED ON DURABLE SIGNED AND CONSPICUOUSLY POSTED BY THE OWNER IN THE APPLICABLE AREA(S) OF THE BUILDING.

WIND LOAD TABLE		
	MFWRS	C&C
WALL	10 PSF (+IP) 11 PSF (- IP)	+/- 20 PSF (10 SF) +/-16 PSF (500+ SF)
ROOF	-16.4 PSF (+ IP) -11.9 PSF (- IP)	-22.7 PSF (500+ SF) -27.2 PSF (250+ SF)

NOTE:

ALL ENGINEERED ASSEMBLIES NOT DESIGNED BY THE STRUCTURAL ENGINEER OF RECORD SHALL BE DESIGNED FOR THE COMPONENTS AND CLADDING LOADS ABOVE (16 PSF, MIN.) OR AS DIRECTED ELSEWHERE IN THE PLANS. THESE DESIGNS SHALL BE PERFORMED BY A REGISTERED PROFESSIONAL ENGINEER IN GEORGIA.

LAP SPLICE SCHEDULE CLASS B SPLICE		
REBAR	MASONRY & 3000 PSI CONCRETE	4000 PSI CONCRETE
#3	1'-10"	1'-7"
#4	2'-5"	2'-1"
#5	3'-0"	2'-7"
#6	3'-7"	3'-1"
#7	5'-3"	4'-6"
#8	6'-0"	5'-2"

CONCRETE MIX DESIGN SCHEDULE						
MIX LOCATION	CLASS	WEIGHT (PCF)	MIN. 28 DAY COMPRESSIVE STRENGTH (PSI)	SLUMP (INCHES)	PERCENT AIR	FLY ASH OR SLAG PERMITTED
SHALLOW FTGS	A	145	3000	3-5	0-3	YES
INTERIOR SOG	B	145	3000	3-5	0-3	YES

Table 2304.9.1: Fastening Schedule

CONNECTION	FASTENING (a, m)	LOCATION
1. Joist to sill or girder	3 - 8d common ($3^1/_4$" × 0.131"); 3 - 3" × 0.131" nails; 3 - 3" 14 gage staples	toenail
2. Bridging to joist	2 - 8d common ($3^1/_4$" × 0.131"); 2 - 3" × 0.131" nails; 2 - 3" 14 gage staples	toenail each end
3. 1" x 6" subfloor or less to each joist	2 - 8d common ($2^1/_2$" × 0.131")	face nail
4. Wider than 1" x 6" subfloor to each joist	3 - 8d common ($3^1/_4$" × 0.131")	face nail
5. 2" subfloor to joist or girder	2 - 16d common ($3^1/_2$" × 0.162")	blind and face nail
6. Sole plate to joist or blocking	16d ($3^1/_2$" × 0.135") at 16" o.c.; 3" × 0.131" nails at 8" o.c.; 3" 14 gage staples at 12" o.c.	typical face nail
Sole plate to joist or blocking at braced wall panel	3 - 16d ($3^1/_2$" × 0.135") at 16" o.c.; 3 - 3" x 0.131" nails at 16" o.c.; 3 - 3" 14 gage staples at 16" o.c.	braced wall panels
7. Top plate to stud	2 - 16d common ($3^1/_2$" × 0.162"); 3 - 3" x 0.131" nails; 3 - 3" 14 gage staples	end nail
8. Stud to sole plate	4 - 8d common ($2^1/_2$" × 0.131"); 4 - 3" x 0.131" nails; 3 - 3" 14 gage staples	toenail
	2 - 16d common ($3^1/_2$" × 0.162"); 3 - 3" x 0.131" nails; 3 - 3" 14 gage staples	end nail
9. Double studs	16d ($3^1/_2$" × 0.135") at 24" o.c.; 3" x 0.131" nail at 8" o.c.; 3" 14 gage staple at 8" o.c.	face nail
10. Double top plates	16d ($3^1/_2$" × 0.135") at 16" o.c.; 3" x 0.131" nail at 12" o.c.; 3" 14 gage staple at 12" o.c.	typical face nail
Double top plates	16d common ($3^1/_2$" × 0.162"); 12 - 3" x 0.131" nails; 12 - 3" 14 gage staples	top splice
11. Blocking between joists or rafters to top plate	3 - 8d common ($2^1/_2$" × 0.131"); 3 - 3" x 0.131" nails; 3 - 3" 14 gage staples	toenail
12. Rim joist to top plate	8d ($2^1/_2$" × 0.131") at 6" o.c.; 3" x 0.131" nail at 6" o.c.; 3" 14 gage staple at 6" o.c.	toenail
13. Ledger strips, logs and miscellaneous	3 - 16d common ($3^1/_2$" × 0.162"); 3 - 3" x 0.131" nails; 3 - 3" 14 gage staples	face nail
14. Continuous header, two pieces	16d common ($3^1/_2$" × 0.162")	16" o.c. along edge
15. Ceiling joists to plate	3 - 8d common ($2^1/_2$" × 0.131"); 3 - 3" x 0.131" nails; 3 - 3" 14 gage staples	toenail
16. Continuous header to stud	4 - 8d common ($2^1/_2$" × 0.131")	toenail
17. Ceiling joists, laps over partitions (see Section 2308.10.4.1, Table 2308.10.4.1)	3 - 16d common ($3^1/_2$" × 0.162") economons, Table 2308.10.4.1; 4 - 3" x 0.131" nails; 4 - 3" 14 gage staples	face nail
18. Ceiling joists to parallel rafters (see Section 2308.10.4.1, Table 2308.10.4.1)	3 - 16d common ($3^1/_2$" × 0.162") economons, Table 2308.10.4.1; 4 - 3" x 0.131" nails; 4 - 3" 14 gage staples	face nail
19. Rafter to plate (see Section 2308.10.1, Table 2308.10.1)	3 - 8d economons ($2^1/_2$" × 0.131"); 3 - 3" x 0.131" nails; 3 - 3" 14 gage staples	toenail
20. 1" diagonal brace to each stud and plate	2 - 8d economons ($2^1/_2$" × 0.131"); 2 - 3" x 0.131" nails; 2 - 3" 14 gage staples	face nail
21. 1" x 8" sheathing to each bearing	2 - 8d economons ($2^1/_2$" × 0.131")	face nail
22. Wider than 1" x 8" sheathing to each bearing	3 - 8d economons ($2^1/_2$" × 0.131")	face nail
23. Built-up corner studs	16d economons ($3^1/_2$" × 0.162"); 3" x 0.131" nails; 3" 14 gage staples	24" o.c.; 16" o.c.; 16" o.c.
24. Built-up girder and beams	20d economons (4" x 0.192") 32" o.c.; 3" x 0.131" nail at 24" o.c.; 3" 14 gage staple at 24" o.c.	face nail at top and bottom staggered on opposite sides
	20d economons (4" x 0.192"); 3 - 3" x 0.131" nails; 3 - 3" 14 gage staples	face nail at ends and at each splice
25. 2" planks	16d economons ($3^1/_2$" × 0.162")	at each bearing
26. Collar tie to rafter	3 - 10d economons (3" x 0.148"); 4 - 3" x 0.131" nails; 4 - 3" 14 gage staples	face nail
27. Jack rafter to hip	3 - 10d economons (3" x 0.148"); 4 - 3" x 0.131" nails; 4 - 3" 14 gage staples	toenail
	2 - 16d economons ($3^1/_2$" × 0.162"); 3 - 3" x 0.131" nails; 3 - 3" 14 gage staples	face nail
28. Roof rafter to 2-by ridge beam	2 - 16d economons ($3^1/_2$" × 0.162"); 3 - 3" x 0.131" nails; 3 - 3" 14 gage staples	toenail
	2 -16d economons ($3^1/_2$" × 0.162"); 3 - 3" x 0.131" nails; 3 - 3" 14 gage staples	face nail
29. Joist to band joist	3 - 16d economons ($3^1/_2$" × 0.162"); 4 - 3" x 0.131" nails; 4 - 3" 14 gage staples	face nail
30. Ledger strip	3 - 16d economons ($3^1/_2$" × 0.162")	face nail at each joist
31. Wood structural panels and particleboard[a] Subfloor, roof and wall sheathing (to framing)	$^5/_{16}$" and less	6d[b]; $2^1/_4$" × 0.113" nail[c]; $1^1/_2$" 16 gage[d]; 8d[e] or 6d[f]; $2^1/_4$" × 0.113" nail[c]; 2" 16 gage[d]; 8d[e]; 10d[f] or 8d[e]
	$^{7}/_{16}$" to $^{1}/_{2}$"	
	$^{19}/_{32}$" to 1"	
	$1^1/_8$" to $1^1/_4$"	
Single floor (combination subfloor underlayment to framing)	$^{3}/_{4}$" and less	6d[f]; 8d[e]; 10d[f] or 8d[e]
	$^{7}/_{8}$" to 1"	
	$1^1/_8$" to $1^1/_4$"	
32. Panel siding (to framing)	$^{1}/_{2}$" or less	6d[f]; 8d[e]
	$^{5}/_{8}$"	
33. Fiberboard sheathing[f]	$^{1}/_{2}$"	No. 11 gage roofing nail[g]; 6d common nail (2" x 0.113"); No. 15 gage staple[g]
	$^{25}/_{32}$"	No. 11 gage roofing nail[g]; 8d common nail ($2^1/_2$" x 0.131"); No. 16 gage staple[g]
34. Interior paneling	$^{1}/_{4}$"	6d[f]
	$^{3}/_{8}$"	8d[e]

For SI: 1 inch = 25.4 mm.

a. Common or box nails are permitted to be used except where otherwise stated.
b. Nails spaced at 6 inches on center on edges, 12 inches at intermediate supports except 6 inches at supports where spans are 48 inches or more. For nailing of wood structural panel and particleboard diaphragms and shear walls, refer to Section 2305. Nails for wall sheathing are permitted to be common, box or casing.
c. Common or deformed shank (6d - 2" x 0.113"; 8d - $2^1/_2$" x 0.131"; 10d - 3" x 0.148").
d. Crossed (6d - 2" x 0.113"; 8d - $2^1/_2$" x 0.131"; 10d - 3" x 0.148").
e. Common or casing (6d - $1^7/_8$" x 0.113"; 8d - $2^1/_2$" x 0.131"; 10d - 3" x 0.148").
f. Common or casing (6d - $1^7/_8$" x 0.106"; 8d - $2^1/_2$" x 0.128") or casing (6d - 2" x 0.099", 8d - $2^1/_2$" x 0.113") nail.
g. Fasteners spaced 5 inches on center at exterior edges and 6 inches on center at intermediate supports, when used as structural sheathing. Spacing shall be 6 inches on center on the edges and 12 inches on center at intermediate supports for nonstructural applications.
h. Corrosion-resistant roofing nails with $^3/_{8}$-inch-diameter head and $1^1/_4$-inch length for $^1/_2$-inch sheathing and $1^1/_4$-inch length for $^{25}/_{32}$-inch sheathing.
i. Corrosion-resistant staples with nominal $^7/_{16}$-inch crown or 1-inch crown and $1^1/_4$-inch length for $^1/_2$-inch sheathing and $1^5/_{16}$-inch length for $^{25}/_{32}$-inch sheathing. Panel supports at 16 inches (406 mm) if strength axis in the long direction of the panel, unless otherwise marked.
j. Casing (1$^7/_8$" x 0.080") or finish (1$^7/_8$" x 0.072") nails spaced 6 inches on panel edges, 12 inches at intermediate supports.
k. Panel supports at 24 inches. Casing or finish nails spaced 6 inches on panel edges, 12 inches at intermediate supports.
l. For roof sheathing applications, 8d nails ($2^1/_2$" x 0.113") are the minimum required for wood structural panels.
m. Staples shall have a minimum crown width of $^7/_{16}$-inch.
n. For roof sheathing applications, fasteners spaced 6 inches on center at edges, 6 inches at intermediate supports.
o. Fasteners spaced 4 inches on center at edges, 8 inches at intermediate supports for subfloor and wall sheathing and 8 inches on center at edges, 6 inches at intermediate supports for roof sheathing.
p. Fasteners spaced 4 inches on center at edges, 8 inches at intermediate supports.

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D. ERIC SMITH
6/22/2020

D E SMITH
Engineering & Design
314 Rose Creek Way
Woodstock, Georgia 30189
(770) 592-3366
www.desengineering.com

for

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Dacula, Georgia

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