

PROFESSIONAL SERVICES BY  
DRISCOLL ENGINEERING, INC.  
PO BOX 357577  
GAINESVILLE, FL 32609  
PH (352) 331-1513  
CA 8690

#### PLANS AND SPECIFICATIONS

The plans and specifications presented herein are applicable only for the anticipated construction at the locations shown. If construction plans change, the Design Professional should be notified so the plans and specifications can be re-evaluated. The Design Professional should be given the opportunity to review final plans and specifications to see if the intent of the plans and specifications has been followed and/or if supplemental details and recommendations are needed. The Design Professional warrants that the plans and specifications contained herein, have been prepared in accordance with generally accepted professional engineering practice. No other warranties are implied or expressed.

#### CORPORATE PROTECTION

It is understood and agreed that the Design Professional's Basic Services under this Agreement do not include project observation or review of the Contractor's performance or any other construction phase services, and that such services will be provided by the Client. The Client assumes all responsibility for interpretation of the contractor Documents and for construction observation and supervision and waives any claims against the Design Professional that may be in any way connected thereto.

In addition, the Client agrees, to the fullest extent permitted by law, to indemnify and hold the Design Professional harmless from any loss, claim or cost, including reasonable attorney's fees and costs of defense, arising or resulting from the performance of such services by other person or entities and from any and all claims arising from modifications, clarifications, interpretations, adjustments or changes made to Contract Documents to reflect changed field or other conditions, except for claims arising from the sole negligence or willful misconduct to the Design Professional.

#### OWNERSHIP OF INSTRUMENTS OF SERVICE

All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by the Design Professional as instruments of service shall remain the property of the Design Professional. The Design Professional shall retain all common law, statutory and other reserved rights, including the copyright thereto.

#### DEFECTS IN SERVICE

The Client shall promptly report to the Design Professional any defects or suspected defects in the Design Professional's work or services of which the Client becomes aware, so that the Design Professional may take measures to minimize the consequences of such a defect. The Client warrants that he or she will impose a similar notification requirement on all contractors in his or her Client/Contractor contract and shall require all subcontractors at any level to contain a like requirement. Failure by the Client, and the Client's contractors or subcontractors to notify the Design Professional, shall relieve the Design Professional of the costs of remedying the defects above the sum such remedy would have cost had prompt notification been given.

#### VERIFICATION OF EXISTING CONDITIONS

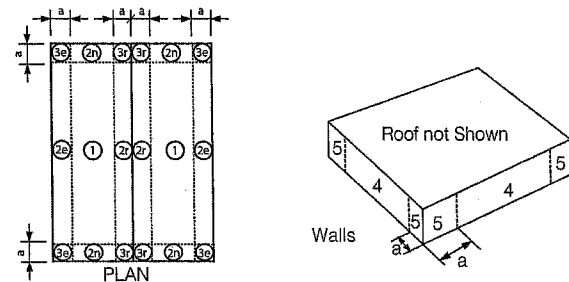
Inasmuch as the remodeling and/or rehabilitation of an existing building requires that certain assumptions be made regarding existing conditions, and because some of these assumptions may not be verifiable without expending additional sums of money or destroying otherwise adequate or serviceable portions of the building, the Client agrees, to the fullest extent permitted by law, to indemnify and hold the Design Professional harmless from any claim, liability or cost (including reasonable attorney's fees and costs of defense) for injury or economic loss arising or allegedly arising out of the professional services provided under this Agreement, excepting only those damages, liabilities, or costs attributable to the sole negligence or willful misconduct of the Design Professional.

Roof Wind Pressures for Positive & Negative Internal Pressure (+/- GCPI) - Parallel to Ridge  
All wind pressures include a load factor of 0.6

Roof Var	Start Dist ft	End Dist ft	Cp_min	Cp_max	GCPI	Pressure Pn_min* psf	Pressure Pn_max* psf	Pressure Pn_min* psf	Pressure Pn_max* psf
Roof (+Y)	0.000	6.500	-0.180	-0.900	0.180	0.34	-4.22	-7.42	-11.98
Roof (-Y)	0.000	6.500	-0.180	-0.900	0.180	0.34	-4.22	-7.42	-11.98
Roof (+Y)	6.500	13.000	-0.180	-0.900	0.180	0.34	-4.22	-7.42	-11.98
Roof (-Y)	6.500	13.000	-0.180	-0.900	0.180	0.34	-4.22	-7.42	-11.98
Roof (+Y)	13.000	26.000	-0.180	-0.500	0.180	0.34	-4.22	-3.11	-7.67
Roof (-Y)	13.000	26.000	-0.180	-0.500	0.180	0.34	-4.22	-3.11	-7.67
Roof (+Y)	26.000	66.000	-0.180	-0.300	0.180	0.34	-4.22	-0.95	-5.52
Roof (-Y)	26.000	66.000	-0.180	-0.300	0.180	0.34	-4.22	-0.95	-5.52

Notes Roof Pressures:  
Start Dist = Start Dist from Windward Edge End Dist = End Dist from Windward Edge  
Cp\_Max = Largest Coefficient Magnitude Cp\_Min = Smallest Coefficient Magnitude  
Pn\_max = qh\*G\*Cp\_max - qip\*(+GCPI) Pn\_min = qh\*G\*Cp\_max - qip\*(-GCPI)  
Pn\_min\* = qh\*G\*Cp\_min - qip\*(+GCPI) Pn\_max\* = qh\*G\*Cp\_min - qip\*(-GCPI)  
OH = Overhang X = Dir along Ridge Y = Dir Perpendicular to Ridge Z = Vertical  
\* The smaller uplift pressures due to Cp\_Min can become critical when wind is combined with roof live load or snow load; load combinations are given in ASCE 7  
+ Pressures Acting TOWARD Surface - Pressures Acting AWAY from Surface

Components and Cladding (C&C) Calculations per Ch 30 Part 1:



#### Certification

I hereby certify that the accompanying wind load analysis for the New Residence demonstrates compliance with the FBC 2020 7th Edition Section 1609, to the best of my knowledge.

#### Project Wind load Information

1. Ultimate wind speed = 130 MPH
2. Nominal wind speed = 101 MPH
3. Risk Category = II
4. Wind exposure for this design is Exposure B
5. Interior Pressure Coefficient or Gcpi = +/- 0.18
6. For design of MWFRS: see attached MECAWind Version 2.1.0.6 per ASCE 7-10
7. Roof Design live load 20 psf.
8. Floor Design load 40 psf.

#### Drawings

See drawings for additional details. In case of conflict, the more restrictive requirements of the drawings or these calculations govern.

#### Roof Structure

1. Trusses: Pre-engineered wood trusses at 24" o.c. The Truss engineering for this project was provided by Builders FirstSource, job # 3287786 Dated: 9-6-22 Signed & Sealed by Philip J. O'Regan P.E. # 60642 Dated: September 7, 2022.
2. Roof Sheathing: Sheathing to be or 7/16" Structural Sheathing min. to adequately resist exterior shear and uplift forces due to nailing. Panels to be facenailed w/ #8 ring shank (0.113 Dia.) @ 6" oc along edges and @ 6" oc along interior supports. Galv. metal edging to be nailed @ 4" oc.
3. Roofing: Asphalt roofing shall be installed per mfg. specifications to meet 130 m.p.h. windloading & in accord with the Florida Building Code 2020.

#### Exterior load bearing & shearwalls

1. Studs: Studs: 2 x 4 @ 16" o.c.  
Governing load combination: dead + wind  
Fv D+W = 55 psi  
Fb D+W = 1900 psi  
Use: SPF No. 2 grade or better

2. Shearwall Sheathing Minimum 7/16 structural sheathing, sheathing grade; attach all edges to framing with 8d common nails @ 6" o.c. attach to intermediate framing with 8d common nails @ 12" o.c. Sheathing shall be applied to outside face of all exterior frame walls. Use same nail pattern referenced above for non-shearwall segments also. Note that 8d common nails have a min 0.131 diameter.

See holdown sheet in windload analysis for location of all Simpson Holdown type & locations.

#### Headers

1. Wood headers @ doors & windows- 2- 2"x 12" #2 syp w/ 7/16" osb (typ)
2. Wood beams garage door & porches 2- 2"x 12" #2 syp w/ 7/16" osb (typ)
2. All truss to truss connections shall be designed & engineered by the roof truss mfg.

Foundations (sizes based on wind load requirements only):

- (1) Exterior Monolithic Footing: 20" deep x 12" wide w/ 2 #5 bars cont. 25" min bar lap.
- (2) Step Footing: 12" wide x 8" deep w/ 2 #5 bars cont.

#### SHEAR WALLS QUANTITY

TRANSVERSAL SHEARWALLS = 14'-0"

LONGITUDINAL SHEARWALLS = 51'-0"

#### SHEARWALLS

X = SIMPSON HTT4 CONNECTOR



Digitally  
signed by  
Michael E.  
Driscoll PE  
Date:  
2022.11.15  
16:47:56  
-05'00'

MICHAEL E DRISCOLL PE  
FL REG # 43922

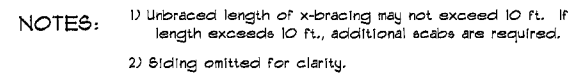
HIGH SPRINGS HOUSE  
347 SE SUNSET GLEN  
HIGH SPRINGS, FL DW22-39

DATE: 11-15-22

Sheet

WL 1

DRISCOLL ENGINEERING, INC.  
CONSULTING ENGINEERS  
PO BOX 357577  
GAINESVILLE, FL 32606  
PH (352) 331-1513  
CA 8690  
FX (352) 505-3366



TRUSSES

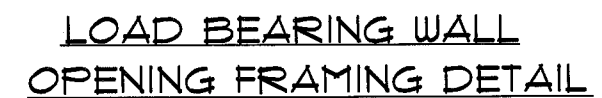
LOCKING @ 24" SPACING

TRUSS

COMMON NAILS

STUDS @ 16" O.C. MAX.

MIN 1/2" DRYWALL EACH SIDE

[illegible]

CONNECTOR SCHEDULE FOR LOAD BEARING & SHEAR WALLS					
TO CONNECT	TO	NO.	PRODUCT CODE	FASTENER	UPLIFT CAPACITY LBS
STUDS	BOTTOM PLATE	1	SDWC 15450	32" SPACING MAX.	360
STUDS	TOP PLATE	1	SDWC 15450	32" SPACING MAX.	360
JACK STUDS	HEADER	1	LSTA24	(18 ) 8d COMMON NAILS	1235
JACK STUDS	BOTTOM PLATE	1	SDWC 15450		360
TRUSS	TOP PLATE	1	H10		1015
TRUSS	HEADER	1	H10		1015
					1015
HIP TRUSS			H3		
4"x 4" POST	CONCRETE	1	ABU44	1- 5/8" DIA. ANCHOR 12- 16d COMMON	2200
4"x 4" POST	HEADER	2	LSTA24	(18 ) 8d COMMON NAILS	1235
HEADER	WOOD FRAME WALL	1	2- H6	8- 8d COMMON	860 EA
GABLE TRUSS	TOP PLATE	1	LSTA24	48" MAX SPACING	1705
BOTTOM PLATE	FOOTING/ SLAB			1/2" DIA.X 12" ANCHOR BOLT W/ 2"X 2" X 1/8" WASHER @ 32" O.C. MAX. & AT EACH BOARD END & OPENING 7" MIN. EMBED	2200
BOTTOM PLATE /WALL	FOOTING/ SLAB	1	HTT4	1- 5/8" DIA./18-16d COMMON AS SHOWN ON HOLDDOWN LOCATION SHEET	3080


MICHAEL E DRISCOLL PE  
FL REG # 43922

HIGH SPRINGS HOUSE  
347 SE SUNSET GLEN  
HIGH SPRINGS, FL DW/

DATE: 11-15-22

sheet

WL 2



**BRISCOLL ENGINEERING, INC.**  
**CONSULTING ENGINEERS**  
 PO BOX 357577 PH (852) 331-1513  
 GAINESVILLE, FL 32606 FX. (352) 505-5986  
 CA 86950