STRUCTURAL GENERAL NOTES

DESIGN LOADS: International Building Code; IBC 2009 Edition, except as noted

```
Occupancy Category, Table 1604.5
                                                       II Standard
                                                                  60 psf (used for drifting calculations)
                 Ground Snow,
                 Snow Exposure Factor Ce Table 1608.3.1 1.0
                 Snow importance Factor, Is Table 1604.5 1.0
                 Snow Thermal Factor, Ct Table 1608.3.2 1.1
                 Residential
                                                                    40 psf
Lateral
                 Wind IBC 1603.1.4, ASCE 7-05
                                                         Analytic Method
                         3 Second Gust Velocity
                                                                  100 mph
                         Importance Factor
                         Building Category and Internal Pressure Coefficient
                         IBC 1609.2, ASCE Figure 6-5
                                                                 Enclosed
                         Components and Cladding Pressures DP 25 uno. Also see arch.
 FOUNDATION DESIGN:
        Foundations are designed without an engineer's soil investigation. Foundation design criteria was
 assumed for purpose of foundation design and shall be confirmed by a soils engineer, at owner's expense, prior
 to construction. (This procedure may require revisions to foundation design, at additional expense to the owner,
if soils engineer determines that such design criteria are inappropriate for this building site.)
 Design of footings is based on
        Maximum allowable bearing pressure 1,500 psf
CONCRETE AND REINFORCEMENT:
 Concrete shall conform to applicable provisions of ACI-301 and 318.
 Minimum 28 day compressive strength (F'c) as follows:
        Footings and Walls: 3,000 \text{ w}/4-6\% air entrainment.
Interior Slabs: 4,000 psi w/ fibermesh
Cement Type: I/II
 Deformed reinforcement: ASTM A615 grade 60, except bars specified to be field_bent, stirrups, and ties which shall be
 Fibermesh: 100% virgin polypropylene, fibrillated fibers as manufactured by Fibermesh Co. per ASTM C-1116 type 111
 4.1.3 and ASTM C-1116 performance level one, 1.5 lb. per cubic yard.
 Welded Wire Fabric (WWF): ASTM A185. See also plan.
 Typical minimum foundation reinforcing: 2 #5 top and bottom, (except as noted) continuous at corners and steps.
 Reinforcement shall be fabricated and placed per ACI Manual of Standard Practice (ACI_315). At splices, lap bars 50
 diameters unless noted otherwise.
 Minimum 2 #5 around all four sides of all openings, extend min. 2'_0 beyond openings.
 Concrete cover over reinforcing: 1-1/2" for concrete placed against forms; 3" for concrete placed against earth. See
 In continuous members, splice top bars at mid span and bottom bars over supports.
 Keep reinforcement clean and free of dirt, oil, and scale. Oil forms prior to placing reinforcement.
 PLANT FABRICATED / PRE-ENGINEERED WOOD FRAMING:
 Trussed floor joists and roof joists shall be designed and stamped by a registered engineer to support the full dead loads and the
 superimposed design loads noted on the drawings.
        All pre-engineered trusses shall be designed for the deflection listed unless noted other on plans:
                 Floor: Total Load = L/240 or 1" max. Live Load = L/600
                 Roof: Total Load = L/240 or 1" max. Snow Load = L/360
         Stresses shall not exceed those listed in the current NDS. 15% stress increase may not be used.
        Web arrangement and member forces shall be determined by the fabricator.
         Manufacture and installation of trusses shall comply with
                 ANSI/TPI 1 "National Design Standard for Metal-Plate-Connected Wood Truss Construction",
                 TPI HIB "Commentary and Recommendations for Handling Installing and Bracing Metal Plate Connected Wood
                 TPI DSB "Recommended Design Specification for Temporary Bracing of Metal Plate Connected Wood Trusses".
         Calculations and shop drawings, including member sizes, lumber species and grades, and substantiating data for connector
 capacities, shall be submitted to the Architect and Engineer for review prior to fabrication.
 Manufactured "I"-series roof and floor joists shall be by TJI/ILevel, LPI, BCI, NJI, OJ with structural wood flanges and webs, and carry
Code approval for the composite section.
         Bridging and blocking shall be installed according to the fabricator's requirements.
         Shop drawings shall be submitted to the Architect for review prior to fabrication.
 Beams noted as LVL on plan shall be 1-3/4" wide Laminated Veneer Lumber beams of the depth noted on plan
         Shall be plant-fabricated and manufactured by I Level,
        Shall have the following minimum allowable design stresses:
        Fb = 2600 \text{ psi} Fv = 285 \text{ psi} Fc ( | | ) = 2460 \text{ psi} Fc(^) = 750 \text{ psi}
 Beams noted as PSL on plan shall be plant-fabricated
        Manufactured by I Level, and have the following minimum allowable design stresses:
        STRUCTURAL WOOD FRAMING:
 In-Grade Base Values have been used for design.
2x framing shall be Spruce-Pine-Fir S4S No. 2 and better unless noted.
 All lumber shall be 19% maximum moisture content, unless noted.
 Solid timber beams and posts shall be Douglas Fir-Larch No. 1.
 Studs shall be Spruce-Pine-Fir S4S No. 2 and better.
 Top and bottom plates shall be Spruce-Pine-Fir S4S No. 2 and better.
 Wood in contact with concrete shall be pressure-treated Spruce-Pine-Fir S4S No. 2 or Southern Yellow Pine.
 Conventional light framing shall comply with IBC Section 2308.
 Except as noted otherwise, minimum nailing shall be provided as specified in IBC Table 2304.9.1 "Fastening
 ALL PLYWOOD SHEATHING SHALL BE OSB SHEATHING AND SHALL BE APA GRADED WITH
 PANEL IDENTIFICATION INDEX, THICKNESS, AND NAILING AS NOTED ON THE DRAWINGS,
        Nail wall sheathing with 8d commons at 6" o.c. at panel edges, and 12" o.c. at intermediate framing
 except as noted.
        SHEATH ALL EXTERIOR WALLS. SHEATH INTERIOR WALLS AS SHOWN ON THE
 DRAWINGS. BLOCK AND NAIL ALL EDGES BETWEEN STUDS.
         Sheathing shall be continuous from bottom plate to top plate. Cut in "L" and "T" shapes around
 openings. Lap sheathing over rim joists min. 4" at all floors to tie upper and lower stud walls together.
         Minimum height of sheathing panels shall be 16" to assure that plates are tied to studs.
         Minimum 3-8d per stud and nail plates with "edge nail" spacing.
 Sole plate at all perimeter walls and at designated shear walls shall be nailed as for braced panels with 3-16d x 3
 1/2" long box nails (coated or deformed shank) per 16". 12d nails are not acceptable.
 Provide solid blocking between joists under jamb studs of openings.
 Pre-engineered, prefabricated trusses shall be designed for the fabricator by a Professional Engineer Registered
in the State of construction, and shall comply with Code Requirements.
         Truss to truss connections specified shall be by truss supplier, unless specifically noted on the drawings.
        Lower chord of gable end trusses shall be anchored to wall plate with framing anchors at 4'-0 spacing
 and laterally braced to roof framing at 8'-0 spacing.
        Truss supplier shall specify all floor and roof truss bracing and bridging.
 All roof rafters, joists, trusses, and beams shall be anchored to supports with metal framing anchors.
 Light gage framing anchors shown or required, shall be Simpson "Strong Tie" or equal Code approved
 connectors and installed with the number and type of nails recommended by the manufacturer to develop the
```

Note that heavy-duty hangers and skewed hangers may not be stocked locally and require special order

Unless otherwise indicated, install two lengths of solid blocking x joist depth x 12 inches long in floor framing

Lead holes for lag screws shall be drilled in accordance with Table 6.23 of the AITC Timber Construction

All beams and trusses shall be braced against rotation at points of bearing.

under column loads. Columns must have a continuous load path to foundation.

rated capacity.

from the factory.

Manual, 3rd edition.

	Anchor Rod		<u>ABBREVIA'</u>	TIONS KE	<u>EY</u>		
AB	(Bolt)	EF	Each Face	MACH	Machine	SC	Slip Critical
ADDL	Additional	EJ	Expansion Joint	MASY	Masonry	SCH	Schedule
ADJ	Adjustable	ELEV	Elevation	MATL	Material	SDST	Self Drilling Self Tapping
AFF	Above Finished Floor	ELEC	Electric (Electrical)	MAX	Maximum	SECT	Section
ALT	Alternate	ENGR	Engineer	MB	Machine bolt	SF	Square Feet
AMT	Amount	EQ	Equal	MECH	Mechanical	SHT	Sheet
ANCH	Anchor, Anchorage	EQUIP	Equipment	MEZZ	Mezzanine	SHTG	Sheathing
APPROX	Approximate	EQUIV	Equivalent	MFR	Manufacture, -er, -ed	SIM	Similar
ARCH	Architect, -ural	ES	Each Side	MIN	Minimum	SLH	Short Leg Horizontal
ATR	All Thread Rod	EST	Estimate	ML	Microllam	SLV	Short Leg Vertical
AVG	Average	E-W	East to West		(Trus-joist brand LVL)	SOG	Slab on Grade
ВС	Bottom of Concrete	EXC	Excavate	МО	Masonry Opening	SP	Spaces
BL	Brick Ledge	EXP	Expansion	MTL	Metal	SPEC	Specifications
BLK	Block	EXT	Exterior	NF	Near Face	SQ	Square
BLKG	Blocking	FND	Foundation	NIC	Not In Contract	ST	Snug Tight
BM	Beam	FF	Far Face, Finished Floor	NS	Near Side	STD	Standard
ВОТ	Bottom	F-F	Face to Face	N-S	North to South	STIFF	Stiffener
BRG	Bearing	FIG	Figure	NTS	Not to Scale	STL	Steel
BW	Bottom of Wall	FL	Flush	OCJ	OSHA Column Joist	STRUCT	Structure, -al
СВ	Counterbore	FLG	Flange	OD	Outside Diameter	SUPT	Support
CF	Cubic Foot	FLR	Floor	OF	Outside Face	SY	Square Yard
CG	Center of Gravity	FO	Face of	ОН	Opposite Hand	SYM	Symmetrical
CIP	Cast in Place	FP	Full Penetration	OPNG	Opening	T&B	Top and Bottom
CJ	Construction Joint	FS	Far Side	OPP	Opposite	T&G	Tongue and Groove
	(Control Joint)	FTG	Footing	OSB	Oriented Strand Board	ТВ	Top of Beam
CLG	Ceiling	GA	Gage (Gauge)	PAF	Powder Actuated Fast'nr	TC	Top of Concrete
CLR	Clear	GALV	Galvanized	PC	Precast	TD	Top of Deck
CM	Construction Manager	GC	General Contractor	PCF	Pounds Per Cubic Foot	THD	Thread
	(Management)	GEN	General	PEN	Penetration	THK	Thick, -ness
CMU	Concrete Masonry Unit	GL	Glue laminated (Glulam)	PERP	Perpendicular	TJ	Top of Joist
COL	Column	GND	Ground	PL	Property Line	TL	Total Load
COM	Common	GR	Grade	PLF	Pounds per Linear Foot	TPG	Topping
COMB	Combination	6 ₹p	Girder Truss	PNL	Panel	TRANS	Transverse
CONC	Concrete	BD	Gypsum Board	PP	Panel Point	TW	Top of Wall
CONN	Connection	HAS	Headed Anchor Stud	PS	Prestressed	TYP	Typical
CONT	Continue (Continuous)	HORIZ	Horizontal	PSF	Pounds per Square Foot	ULT	Ultimate
COORD	Coordinate, -tion	НТ	Height	PSI	Pounds per square Inch	UNO	Unless Noted Otherwise
CS	Countersink	ID	Inside Diameter	PSL	Parallel Strand Lumber	VERT	Vertical
CTR	Center	IF	Inside Face	PT	(generic term)	VIF	Verify in Field
CY	Cubic Yard	INT	Interior (Intermediate)	(it)	Post Tensioned	WA	Wedge Anchor
DAB	Deformed Anchor Bar	JB	Joist Bearing	(2)	Pressure Treated	WP	Work Point
DET	Detail	JST	Joist	PTN	Partition	WT	Weight
DEV	Develop	JΤ	Joint	PWD	Plywood	WWF	Welded Wire Fabric
DIAG	Diagonal	K	Kip (1,000 lbs.)	QTY	Quantity	XS	Extra Strong
DIM	Dimension	LD	Load	R	Radius	XSECT	Cross-section
DL	Dead Load	LL	Live Load	RE	Reference (refer to)	XXS	Double Extra Strong
DN	Down	LLH	Long Leg Horizontal	RECT	Rectangle		
DP	Drilled Pier	LLV	Long Leg Vertical	REINF	Reinforce, -ed, -ing	(E)	Existing
DT	Double Tee	LOC	Location	REQ	Required Required	(N)	New
DWG	Drawing	LSL	Laminated Strand	_ `	Requirement	(R)	Remove
DWL	Dowel		Lumber (generic term)	RET	Retaining		
EA	Each	LT	Light	RM	Room		
			Laminated Veneer	RMO	Rough Masonry Opening		
ECC	Eccentric	LVL	Laminated Veneer	KMO			

STRUCTURAL DRAWING INDEX GENERAL NOTES

FOUNDATION PLAN FIRST FLOOR FRAMING PLAN SECOND FLOOR FRAMING PLAN THIRD FLOOR FRAMING PLAN S1.5 ROOF FRAMING PLAN SECTIONS SECTIONS



ONGRES 4





FRANCIS IN

