### <u>Wall Types</u> Exterior walls 2x6 wood stud Interior walls 2x4 wood stud, unless noted otherwise Wall Keys (2) 2x wood studs on the flat (6) 2x6 wood stud wall, 16" oc Note: 2x4 wood stud wall, 16" oc unless otherwise noted Kev Notes 30" x 22" Minimum Attic Access $A \setminus$ Panel - Insulated (RO 34" x 26") Field locate for plumbing or mechanical

Verify size of fixture or appliance Adjust dimensions to accommodate Center - Place door or window centered on wall

# (SD) Smoke Detector (HD) Heat Detector

(CO) Carbon Monoxide Detector

## **Dimensions**

#### 1. Dimensions are to face of stud, unless noted otherwise. 2. Closets are 24" clear inside, unless dimensioned otherwise.

## Square Footages

1. Sq ft numbers are interior to room for use in calculating finishes. 2. Cabinets and fixtures not subtracted. 3. Add for doorways when floor finishes run through.

#### <u>Notes</u>

- 1. Exterior walls 2x6 wood stud @ 16" oc. Provide insulation & vapor barrier conforming to state or local codes. Interior sheathing 1/2" gypsum board. Provide 1/2" exterior rated sheathing, house wrap with drainage plane and siding. Provide step flashing at walls adjacent to roof planes.
- 2. Interior walls 2x4 wood stud @ 16" oc, unless noted otherwise.
- 3. Roof see structural for rafter sizes. Provide 5/8" exterior rated roof sheathing 15# roofing felt, ice & water shield at eaves and valleys, aluminum drip edge and asphalt shingles or metal roofing. Structure not calculated to support slate or tile. Flash all penetrations. Provide cricket at any added chimneys.
- 4. Provide roof and/or ceiling insulation per code. Provide soffit and ridge vents where required for insulation strategy. (Verify with code officer - closed cell spray foam or dense-pack cellulose installed at rafters and filling ridge and eaves generally contra-indicates venting, batt insulation always requires venting).
- 5. Provide smoke, carbon monoxide, and heat detectors where shown and where required by code and where required by local authorities.
- 6. Provide fire resistive materials where required by code, including but not limited to, firestopping at penetrations, 5/8" Type X drywall on walls and ceilings to separate garage (where garage present in design) from dwelling, and separation of dwellings (where more than one dwelling present in design), and protection of flammable insulation materials. See Table R306.6 IRC 2015.
- 7. Compliance with code requirements for rooms size and clearances, (hallway widths, room sizes, etc) assume 1/2" drywall on walls and 1/2" drywall on 3/4" strapping on ceilings. Adjust as required if materials differ.
- 8. Shear is only called out where Continuous Portal Frame will not suffice. See Section R602.10.4 (Pages 177 - 188) of the IRC 2015.

#### **General Design Notes**

- 1 Builder shall consult and follow the building code and other regulations in effect for the building site for all construction details not shown in these drawings. Requirements described here are specific to this design and/or are provided as reference. Additional building code or local requirements may apply.
- 2 Builder shall maintain a safe worksite, including but not limited to, provision of temporary supports where appropriate and adherence to applicable safety standards.
- 3 Design is based on the snow load listed on the framing plans, 100 mph basic wind speed, Exposure type B, soil bearing capacity of 2000 psf, and Seismic Category C, unless otherwise noted on the framing plans. Builder shall promptly inform Artform Home Plans of differing conditions.

# REVIEWED



#### Door & Window Notes

- 1. Rated Doors: Provide fire rated and/or self-closing doors where required by local codes or local author 24' Wide Garage
- 2. Trimmed Openings: Trimmed openings not shown on schedule. See Plan.
- 3. Window Tempering: Provide tempered windows where required by local codes or local authorities. Tempering column provided here for convenience. Windows have not been reviewed for tempering requirements.
- **4. Window RO's:** 1/4" or 1/2" on each of 4 sides allowed for window RO's, typical. Review framing size vs RO size. Adjust per manufacturer's requirements and/or builder preference.
- 5. Egress Windows: Provide minimum one door or window meeting egress requirements in basement, in each sleeping room, in each potential sleeping room, and other locations required by local code, in sizes required by local code. Note that casement windows coded by manufacturer as meeting IRC 2015 egress requirements typically need to be ordered with specific hardware. Emergency Escape Window Sizes (Section R310.2.1, R310.2.2, R310.2.3 and R310.2.4). Will also comply with NFPA 101.
- 6. Basement Windows: Add basement windows as required to meet state or local code requirements, including but not limited to egress and light/ventilation.
- 7. Skylights: Skylights are not shown on this schedule, but may be required. Consult builder and/or see floor
- 8. Minimum window sill height: IRC 2015 requires that floor window sills be 24" from floor. Confirm bottom of window opening relative to frame. Conform to IRC 2015 R312.1.

				DOOR SC	HEDULE
NUMBER	QTY	FLOOR	SIZE	WIDTH	HEIGHT
D01	1	1	1668 L IN	18 "	80 "
D02	2	1	2068 L IN	24 "	80 "
D03	3	1	2468 L IN	28 "	80 "
D04	2	1	2468 R IN	28 "	80 "
D05	2	1	2668 L IN	30 "	80 "
D06	2	1	2668 R IN	30 "	80 "
D07	1	1	2868 L EX	32 "	80 "
D08	1	1	2868 L EX	32 "	80 "
D09	1	1	2868 R EX	32 "	80 "
D10	1	1	3068 L EX	36 "	80 "
D11	1	1	3668 L/R IN	42 "	80 "
D12	1	1	5068 L/R IN	60 "	80 "
D13	1	1	16070	192 "	84 "

-(4)

# Remove wall and post

Convert Bathroom to mud room

# Boysenberry Biscotti



## Dear Code Officer.

These are predesigned home plans, designed to bring good design and construction drawings to people at more affordable prices and faster time frames than traditional architecture. Where traditional "internet" home plans disclaim all responsibility, we split responsibility between us (Artform) and the owner. We encourage the future homeowners to use a quality builder who can assist them with this. They are responsible for thermal and moisture decisions and for meeting code in ways that a quality builder should know without an explicit detail. We are responsible for things that are directly related to the design and/or that a quality builder couldn't reasonably figure out on their own - specifically the following IRC 2015 code sections:

- 1 Room sizes (Section R304) 2 - Ceiling Height (Section R305)
- 3 Floor space & ceiling height at Toilet, Bath and Shower Spaces (Section R307)
- 4 Hallway widths (Section R311.6) 5 - Door types & sizes (Section R311.2)

6 - Floor space in front of doors (Section R311.3) 7 - Stair width - The stairs in our designs will be a minimum of 36" wide measured wall surface to wall surface, allowing compliance with R311.7.1 with installation of correct handrail.

- 8 Stairway headroom (Section R311.7.2)
- 9 Stair treads and risers (Section R311.7.5) 10 - Landings for stairways (Section R311.7.6)

11 - Emergency Escape Window Sizes (Section R310.2.1, R310.2.2, R310.2.3 and R310.2.4). Casement windows may require manufacturer's emergency escape window hardware. Will also comply with NFPA 101.

12 - Structural Floor Framing (Section R502.3) Where dimensional lumber is shown, framing members will be sized according to this section of the code. Where engineered wood products are shown, those framing members will be size according to the manufacturer's tables for loads and spans, or sizes will have been calculating using manufacturer's published materials properties. 13 - See structural sheets for additional notes.

The builder can and should add information to this set, such as Rescheck, a hand markup of our generic thermal and moisture section, additional information about doors and windows (such as fire rating, tempering, etc), foundation drops relative to site grading, and sometimes their chosen method of basement egress. These drawings are not intended to be used without that additional information.

Where a construction address is shown on the drawings, it is for copyright control only. We have not inspected the site, adapted the design to state specific laws (except where it says so in the drawings) or site or region specific climate conditions. Homeowner and/or Builder shall be responsible for thermal and moisture control strategies, materials choices and compliance with applicable laws

and ordinances. Please do feel free to call us with any questions. We can and do update our drawings and standard notes to address specific

concerns, especially in jurisdictions where our clients will be building again. Dear Everybody,

With these drawings a copyright license is granted for a single construction only at Lot 13 Cottonwood Meadows, Sanford, ME. This is a License to Build, and does not include a License to Modify, except as required to conform to building code or fulfill builder's/owners responsibilities.

#### Permissible uses of these drawings:

1. All activities associated with construction at the listed address. 2. Pricing or preliminary discussions with zoning or code officials for construction at other addresses, with prior notification to Artform Home Plans - just use the Contact form on the web site http://www.artformhomeplans.com/contact.a5w

#### Not Permitted:

1. Application for any permits or other approvals for construction at properties other than the listed address, including but not limited to construction, zoning, conservation, or design review. 2. Modification of the basic design.

Use of these drawings outside these parameters is a violation of federal copyright law, punishable by both civil action and criminal prosecution, as it is stealing or enabling theft of "intellectual

property". Making modifications to plans, even significant ones, does not change this, under copyright law, that's considered "derivative works"

We can provide drawings suitable for use in obtaining design or zoning approvals without incurring the expense of a full set of construction drawings. Contact us for more information. AFHP CD Commons 20.2 X11 - IRC 2015

These drawings are intended for use by an experienced professional builder in responsible charge of the entire project, including but not limited to mechanical, electrical and sitework. Any additional adaptation for these trades or other trades must be determined prior to start of construction. Contact Artform for any adjustments needed.

Your use of these drawings constitutes an acceptance of responsibility as outlined in "Dear Code Officer" on the first page of these drawings, and on our web site: http://www.artformhomeplans.com/TermsConditions.a5w

If you have any concerns or questions, please feel free to contact us. We are happy to clarify matters that fall within our scope, as listed on the first page. We can also often provide affordable support for issues that are your responsibility, such as energy design/calcs, or additional detailing.

# H Artform Home Plans

AFHP Design # 702.140.v13 GL 2014-2020 Art Form Architecture 603.431.9559 Boysenberry Biscotti Lot 13 Cottonwood Meadows Sanford, ME

1/4"=1'-0" unless noted otherwise / Print @ 1:1 PDF created on: 6/1/2020, drawn by HMC

Issued for:

#### **Foundations**

- 1. No footing shall be poured on loose or unsuitable soils, in water or on frozen ground.
- 2. All exterior footings to conform to all applicable code requirements for frost protection.
- 3. All concrete shall have a minimum compressive strength of at least 3000 PSI at 28 days.
- 4. Foundation anchorage to comply with IRC 2015 Section R403.1.6, it shall consist of minimum size 1/2" diameter anchor bolts with 3/16" x 2" x 2" washers at a maximum of 72" oc for two stories or 48" oc for more than two stories. max of 12" from each corner, min of 2 bolts per wall. Anchor bolt shall extend 7" into concrete or grouted cells of concrete masonry units. Be aware that a garage under may be counted by your code officer as a story. Additional anchorage may be required at braced walls.

 $\overline{4}$ 

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- 5. Foundation reinforcing steel is to be installed in accordance with all applicable provisions of IRC 2015 Section 404.1.3.2
- **TYPICAL PERIMETER FOUNDATION WALL:**
- 8" poured concrete, 8 ft forms, min 7'-10" finished, with total of 3 rebar, as follows:
- (1) #4 rebar, 4" from top
- (1) #4 rebar @ vertical midpoint. Omit this rebar at walls 4 ft high or less.
- (1) #4 rebar, min 3" from bottom or per code • Lap corners & splices of rebar per code.

sill plates or straps must secure all sill plates.

• Secure sill to foundation with 1/2" diameter anchor bolts that extend 7" into concrete and tightened with a nut and washer @ 6' oc & max 12" from each corner & each end @ wood sill splices - if built-up sill, bolts must extend through all

#### **TYPICAL PERIMETER FOOTING:**

- 1. Use Footing chart(s) below to verify that depth of home matches chart. Depth is foundation dimension eave to eave. Contact Artform Home Plans if you believe the chart does not match the plan.
- 2. Select row for snow load shown on the structural plans. 3. Select a column for soil bearing pressure based on soil type and/or consultation with code officer.
- 4. The required footing size is at the intersection of the Snow Load and Soil PSF. Rebar is not required. Key or pin
- foundation wall to footing per code. FAQ - Adding rebar to footings does not reduce the required width. Rebar affects performance with earth movement, like an earthquake and has near zero effect on bearing capacity.

#### Guide to Soil PSF

3,000	Sandy gravel and/or gravel (GW and GP)
2,000	Sand, silty sand, clayey sand, silty gravel and
	clayey gravel (SW, SP, SM, SC, GM and GC)
1,500	Clay, sandy clay, silty clay, clayey silt, silt and
	sandy silt (CL, ML, MH and CH)

3	8" wall - Footing Size	e for 28 Ft wide	e house	
Snow	Story and	Load Bear	ing Value of	f Soil (PSF)
Load	type of structure	1500 PSF	2000 PSF	3000 PSF
50 PSF	1 Story - Plus Basement	17 x 6	12 x 6	12 x 6
55 PSF	1 Story – Plus Basement	17.75 x 6	12.5 x 6	12 x 6
50 PSF	1 Story - Plus Basement	18.5 x 6	13 x 6	12 x 6
65 PSF	1 Story - Plus Basement	19.25 x 6	13.5 x 6	12 x 6
70 PSF	1 Story - Plus Basement	20 x 6	14 x 6	12 x 6
Show	Story and	LOad Bear	ing value of	Soli (PSF)
Load	type of structure	1500 PSF	2000 PSF	3000 PSF
50 PSF	1 Story – Plus Basement	21 x 6.5	16 x 6	12 x 6
55 PSF	1 Story – Plus Basement	21.75 x 7	16.5 x 6	12 x 6
50 PSF	1 Story – Plus Basement	22.5 x 7.25	17 x 6	12 x 6
65 PSF	1 Story – Plus Basement	23.25 x 7.75	17.5 x 6	12 x 6
70 PSF	1 Story – Plus Basement	24 x 8	18 x 6	12 x 6
	8" wall - Footing Size	e for 36 Ft wide	e house	
6	Characteria	A start Description		C-HIDORY

Snow	Story and	Load Bear	ing Value of	f Soil (PSF)
Load	type of structure	1500 PSF	2000 PSF	3000 PSF
50 PSF	1 Story - Plus Basement	25 x 8.5	20 x 8	16 x 8
55 PSF	1 Story – Plus Basement	25.75 x 9	20.5 x 8	16 x 8
60 PSF	1 Story – Plus Basement	26.5 x 9.25	21 x 8	16 x 8
65 PSF	1 Story - Plus Basement	27.25 x 9.75	21.5 x 8	16 x 8
70 PSF	1 Story - Plus Basement	28 x 9	22 x 8	16 x 8

#### Foundation Contractor Check List Confirm or review the following prior to forming & pouring foundation

Initials Date Checked

 Confirmed soil bearing
 Checked w/GC for added foundation steps to suit grade
 Confirm sill plate thickness (foundation bolts to extend through all)
 Confirmed garage door size
 Checked w/GC for added basement windows
 Checked w/GC for added basement man doors
 Confirmed sizes & locations mech/plbg penetrations
 Confirmed sizes and locations of beams w/GC, added or adjusted beam pocke
 Confirmed location and installed electrical service grounding - See GC for location

		MINIMUM VERTICA	AL REINFORCEMENT - BAR SIZE	AND SPACING (inches)		
AXIMUM UNSUPPORTED WALL HEIGHT	MIAXIMUM UNBALANCED BACKFILL HEIGHT	Soil classes and design lateral soil (psf per foot of depth)				
(feet)	(feet)	GW, GP, SW, SP 30	GM, GC, SM, SM-SC and ML 45	SC, ML-CL and inorganic CL 60		
	4	NR	NR	NR		
	5	NR	NR	NR		
8	6	NR	NR	6 @ 37		
	7	NR	6 @ 36	6 @ 35		
	8	6 @ 41	6 @ 35	6 @ 26		

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20
20





scope, as listed on the first page. We can also often provide affordable support for issues that are your responsibility, such as energy design/calcs, or additional detailing.

# Artform Home Plans

AFHP Design # 702.140.v13 GL © 2014-2020 Art Form Architecture 603.431.9559 Boysenberry Biscotti Lot 13 Cottonwood Meadows Sanford, ME 1/4"=1'-0" unless noted otherwise / Print @ 1:1 PDF created on: 6/1/2020, drawn by HMC

Issued for: Construction

0





2 Cross Section @ Stair

represented in some areas)





R602.10.4 Construction methods for braced wall panels

Intermittent and continuously sheathed braced wall panels shall be constructed in accordance with this section and the methods listed in Table R602.10.4. TABLE 91.5.602.10.4



Method PFG: Portal frame at garage door openings shall be constructed in accordance with Figure R602.10.6.3. Note this method is allowed on either side of garage door openings.



FIGURE R602.10.6.3 METHOD PFG-PORTAL FRAME AT GARAGE DOOR OPENINGS IN SEISMIC DESIGN CATEGORIES A, B AND C

TABLE R602.10.6.4

			MAXIMUM OPENING WIDTH (feet) 18	TENSION STRAP CAPACITY REQUIRED (pounds) <sup>a, b</sup> Ultimate Design Wind Speed V <sub>ult</sub> (mph)					
FRAMING NOMINAL SIZE AND GRADE	MAXIMUM PONY WALL HEIGHT (feet) 0	MAXIMUM TOTAL WALL HEIGHT (feet) 10							
				110	115	130	110	115	130
				E	xposure	в	Exposure C		
				1,000	1,000	1,000	1,000	1,000	1,050
			9	1,000	1,000	1,000	1,000	1,000	1,750
	1	10	16	1,000	1,025	2,050	2,075	2,500	3,950
			18	1,000	1,275	2,375	2,400	2,850	DR
	e.	9	1,000	1,000	1,475	1,500	1,875	3,125	
	2	10	16	1,775	2,175	3,525	3,550	4,125	DR
2 × 4 No. 2 Grade			18	2,075	2,500	3,950	3,975	DR	DR
		9	1,150	1,500	2,650	2,675	3,175	DR	
	2	12	16	2,875	3,375	DR	DR	DR	DR
			18	3,425	3,975	DR	DR	DR	DR
		10	9	2,275	2,750	DR	DR	DR	DR
	4	12	12	3,225	3,775	DR	DR	DR	DR
			9	1,000	1,000	1,700	1,700	2,025	3,050
	2	12	16	1,825	2,150	3,225	3,225	3,675	DR
a v s chud carda			18	2,200	2,550	3,725	3,750	DR	DR
2 × o Stud Grade	8	2_	9	1,450	1,750	2,700	2,725	3,125	DR
	4	12	16	2,050	2,400	DR	DR	DR	DR
			18	3,350	3,800	DR	DR	DR	DR

a. DR = Design Required.

b. Straps shall be installed in accordance with manufacturer's recommendations.

_	Spacing
	See Section
	R602.10.6.3
3	6" edges 12"
	field
1	
	Varies by

## **Shear Wall Details** Not to Scale

Notes:

• See plans for locations where shear panels are required.

Details shown here are for one method and for typical conditions. An alternate shear method allowed per code or approved by the code officer may be substituted.

Note that if sheathing is to be used as wall bracing all vertical joints in required braced wall panels must be blocked. [2015 IRC section R602.10.10]



- Wood Framing Notes:
- 1. All structural wood shall be identified by a grade mark or certificate of inspection by a recognized inspection agency.
- 2. Structural wood shall be Spruce-Pine-Fir (SPF) #2 or better.
- 3. When used, LVL or PSL indicate Laminated Veneer Lumber or Parallel Strand Lumber, respectively. Products used shall equal or exceed the strength properties for the size indicated as manufactured by TrusJoist.
- 4. When used, TJI indicates wood I-joists as manufactured by TrusJoist. Products of alternate manufacturers may be substituted provided they meet or exceed the strength properties for the member specified.
- 5. All floor joists shall have bridging installed at mid-span or at 8'-0" oc maximum.
- 6. Floor systems are designed for performance with subfloor glued and screwed.
- 7. Per code R502.6.1 Floor joists splicing over bearing walls allowed, shall lap a min 3" over walls and shall be nailed together with a minimum of (3) 10d face nails. Also permitted is a wood or metal splice with strength equal to or greater than that provided by the nailed lap.
- 8. Per code R802.3.2 Ceiling joists splicing over bearing walls is allowed, shall lap a min 3" or butted over bearing partitions or beams and toenailed to the bearing member. Where ceiling joists are used to provide resistance to rafter thrust, lapped joists shall be nailed together in accordance with Table R802.5.1(9), and butted joists shall be tied together in a manner to resist such thrust. Joists that do not resist thrust shall be permitted to be nailed together in accordance with Table R602.3(1).
- 9. Provide blocking in the floor at structural points. Blocking may be 2x's or solid, but must have grain of wood vertical.
- 10. All wood permanently exposed to the weather, in contact with concrete or in contact with the ground shall meet code requirements for wood in these environments.
- 11. Deck ledgers shall be securely attached to the structure and/ or independently supported. Deck lateral load connection required see IRC 2015 Section R507.2.4
- 12. Wherever beams are noted as Flush framed, install joist hangers at all joists, sized appropriately for the members being connected.
- 13. Support the lower end of roof beams via minimum 2" horizontal bearing on a post, ledger or via an appropriately sized and configured hanger.
- 14. The ends of each joist, beam or girder shall have not less than 1.5" of bearing on wood or metal and not less then 3" on masonry or concrete except where supported on a 1" x 4" ribbon strip and nailed to the adjacent stud or by the use of approved joist hangers.
- 15. Post caps where required are typically calculated by supplier using weights based on these framing plans. Contact Art Form if additional information is needed.
- 16. Hangers, post caps, post bases, ties and other connectors shall be as manufactured by Simpson Strong Tie, as designed to connect the members shown, and shall be installed per manufacturer's instructions.
- Prefabricated Wood Trusses
- 1. Where trusses are indicated on the drawings, truss design shall be provided by truss manufacturer.
- 2. Trusses shall be designed in accordance with applicable provisions of the latest edition of the National Design Specifications for Wood Construction (NDS), American Forst and Paper Association (APA), and Design Specifications for Metal Plate Connected Wood Trusses (ANSI/TPI 1), Truss Plate Institute (TPI) and code of jurisdiction.
- 3. Manufacturer shall furnish design drawings bearing seal and registration number of a structural engineer licensed in the state where project will be built.



NOTE: Window and door headers and the number of jack studs to support them shall comply with IRC 2015 Tables R602.7 (1) and R 602.7 (2) NOTE: Most headers need (2) Jack Studs, confirm correct stud number for Header selected. Where beams are framed flush top, hold LVL down 1/4" to account for differential shrinkage, support joist with hangers as recommended by the manufacturer for the size of members and tributary loads-typical throughout **First Floor Framing** Structure designed for Snow Load of 60 psf 0 1 2 3

18'-0"

(6)

**T2** 

3'-5 1/2"

Toilets above shown for

reference. Review floor plans for

additional plumbing. Provide

plumbing bays or as required

Post Dimensions

- 3'-9 1/2"

Notes: Beam & Joist Sizing

- 1. Our beams sizes often differ from prescriptive code, because our designs are rarely the old style box colonial or cape with a center bearing wall upon which prescriptive code is based. We size our beams via calculations for this specific design, which may carry those loads separately via second floor beams and/or roof transfer beams. Beam or joist sizes, types and/or spacing may not be reduced or alternates substituted without our express permission.
- 2. Walls intended to be bearing are labeled as such. This information is provided to aid code officer in understanding the framing. It does not indicate permission to add loads to those walls, or any other walls.
- 3. Framing is sized for normal residential conditions. Contact Artform if additional loads are anticipated, including but not limited to waterbeds, large fish tanks, indoor hot tubs, multiple framed soffits or coffers.
- 4. In states where the designer is a licensed architect, (NH, MA, ME, CT & NY as of the date of issue) we are happy to stamp our drawings at no additional charge. In other states we are happy to provide calculations. Administration fees apply with provision of calculations. Code officer is encouraged to call with any guestions about our methodology.

Built-up Beams: Unless otherwise noted, connect multiple 1 3/4" ply beams as follows: 3 ply & up, fasteners are per side

#### <u>(2) 9 1/4" LVL:</u>

 Flush framed (2) rows 3 3/8" TrussLock @ 24" oc, or ○ (2) rows SDS 1/4x3 1/2 @ 24" oc •Framed under (2) rows 10d nails @ 24" oc

#### <u>(2) 11 1/4" LVL:</u>

 Flush framed (2) rows 3 3/8" TrussLock @ 19.2" oc, or (2) rows SDS 1/4x3 1/2 @ 19.2" oc • Framed under (2) rows 10d nails @ 24" oc

(2) 16" LVL or greater:

#### Flush framed

 (3) rows 3 3/8" TrussLock @ 19.2" oc, or (3) rows SDS 1/4x3 1/2 @ 19.2" oc • Framed under (2) rows 10d nails @ 24" oc

(3) 9 1/4" LVL: Flush framed

 $_{\odot}\,$  (2) rows 3 3/8" TrussLock @ 19.2" oc, or ○ (2) rows SDS 1/4x3 1/2 @ 19.2" oc • Framed under (2) rows 10d nails @ 24" oc

#### <u>(3) 11 1/4" LVL:</u> Flush framed

 (2) rows 3 3/8" TrussLock @ 16" oc, or (2) rows SDS 1/4x3 1/2 @ 16" oc • Framed under (2) rows 10d nails @ 24" oc

#### (3) <u>14" LVL:</u> Flush framed

 $_{\odot}~$  (3) rows 3 3/8" TrussLock @ 16" oc, or ○ (3) rows SDS 1/4x3 1/2 @ 16" oc • Framed under (2) rows 10d nails @ 24" oc

(3) <u>16" LVL or greater</u>:

 Flush framed  $\circ$  (3) rows 3 3/8" TrussLock @ 16" oc, or

 (3) rows SDS 1/4x3 1/2 @ 16" oc • Framed under (2) rows 10d nails @ 24" oc





#### (4) 9 1/4" LVL: Flush framed

 $\circ$  (2) rows 5" TrussLock @ 16" oc, or (2) rows SDS 1/4x6 @ 16" oc

#### (4) 11 1/4" LVL:

Flush framed

#### (4) 16" LVL or greater: Flush framed

• Framed under (2) rows 10d nails @ 24" oc

 $\circ~$  (2) rows 5" TrussLock @ 16" oc, or (2) rows SDS 1/4x6 @ 16" oc • Framed under (2) rows 10d nails @ 12" oc

 $\circ$  (3) rows 5" TrussLock @ 16" oc, or (3) rows SDS 1/4x6 @ 16" oc • Framed under (2) rows 10d nails @ 12" oc

#### Beam Substitutions:

(2) 9 1/4" LVL may replace a double or triple 2x10 beam. No other substitutions are allowed. Conventional lumber beams MAY NOT be substituted for LVL beams by any "rule of thumb". Substitutions must be calculated by either Artform or a structural engineer. If calculated by a structural engineer, provide stamped plans and/or calculations.

-(4)-

We specify LVL beams as built up members to allow framers to use existing stock. You may substitute single piece LVLs of equivalent overall size for built-up members, unless otherwise noted.

Built-up members MAY NOT replace single piece LVL's where specified.

Where a beam of 1 3/4" or less in width is specified as framed under, either brace at 48" or double member for lateral stability.