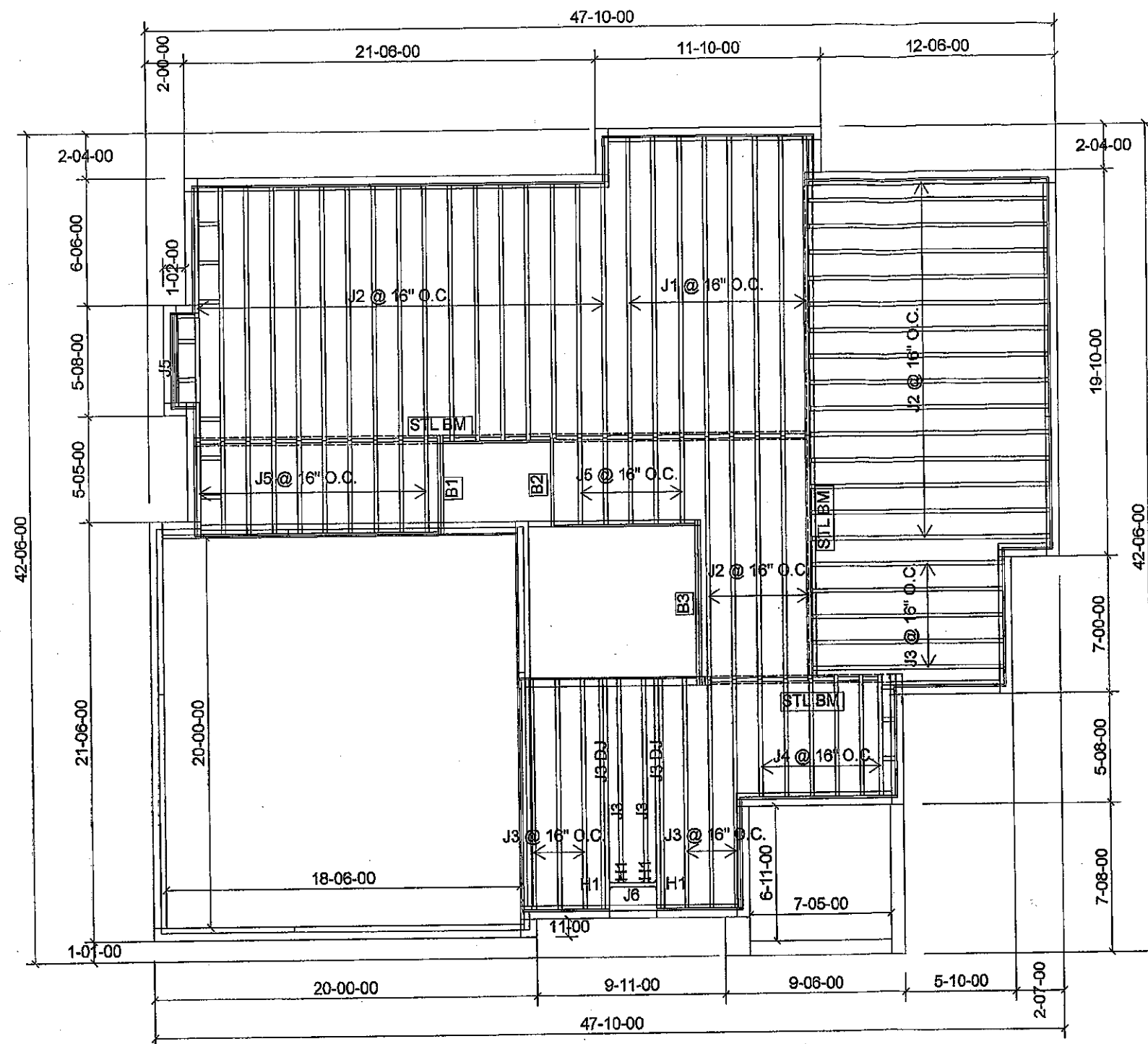
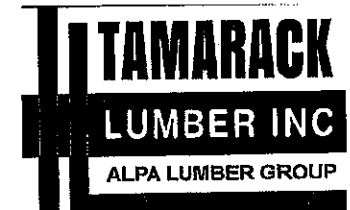




Products				
PlotID	Length	Product	Plies	Net Qty
J1	16'-00-00	9 1/2" NI-40x	1	8
J2	14'-00-00	9 1/2" NI-40x	1	37
J3	12'-00-00	9 1/2" NI-40x	1	13
J3 DJ	12'-00-00	9 1/2" NI-40x	2	4
J4	8'-00-00	9 1/2" NI-40x	1	6
J5	6'-00-00	9 1/2" NI-40x	1	16
J6	4'-00-00	9 1/2" NI-40x	1	1
B3	10'-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	2	2
B2	6'-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	1	1
B1	6'-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	2	2

Connector Summary		
Qty	Manuf	Product
2	H1	IUS2.56/9.5
2	H1	IUS2.56/9.5



FROM PLAN DATED: OCT 1 2018

BUILDER: GREENPARK HOMES

SITE: LAMBERTS LANE

MODEL: WOODCROFT 11

ELEVATION: 2

LOT: 50

CITY: CALEDON

SALESMAN: M.D.

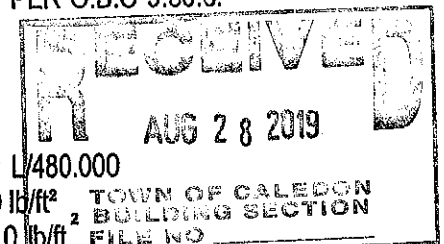
DESIGNER: PL

REVISION:

NOTES:

REFER TO THE NORDIC INSTALLATION GUIDE FOR PROPER STORAGE AND INSTALLATION.

SQUASH BLOCKS OF 2x4, 2x6, 2x8 #2 S.P.F REQ'D UNDER INTERIOR UNIFORM LOAD BEARING WALLS. **MULTIPLE SQUASH BLOCKS** REQ'D UNDER CONCENTRATED LOADS. SEE FIGURE 1. **CANTILEVERED JOISTS** INCLUDING CANT' OVER BRICK REQ. I-JOIST BLOCKING ALONG BEARING AND RIMBOARD CLOSURE AT ENDS. SEE FIGURES 4 & 5 FOR REINFORCEMENT REQUIREMENTS. FOR HOLES INCLUDING DUCT CHASE AND FIELD CUT OPENINGS SEE FIGURE 7, TABLES 1 & 2. **CERAMIC TILE** APPLICATION AS PER O.B.C 9.30.6.



LOADING:

DESIGN LOADS: L/480.000

LIVE LOAD: 40.0 lb/ft²

DEAD LOAD: 15.0 lb/ft²

TILED AREAS: 20 lb/ft²

SUBFLOOR: 3/4" GLUED AND NAILED

DATE: 2019-03-25

1st FLOOR

W.O.B



FROM PLAN DATED: OCT 1 2018

BUILDER: GREENPARK HOMES

SITE: LAMBERTS LANE

MODEL: WOODCROFT 11

ELEVATION: 2

LOT: 50

CITY: CALEDON

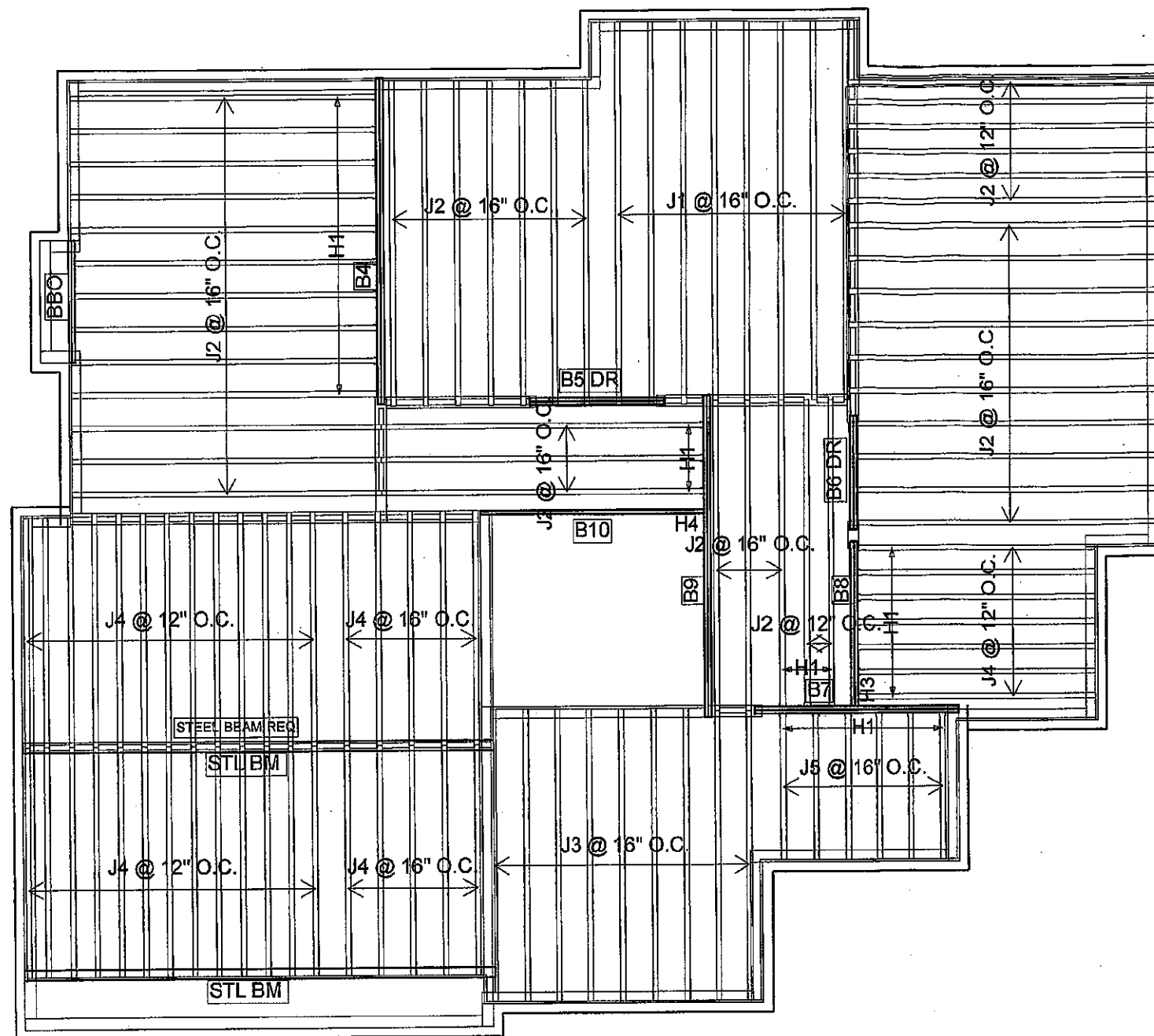
SALESMAN: M D

DESIGNER: PL

REVISION:

NOTES:

REFER TO THE NORDIC **INSTALLATION GUIDE** FOR PROPER STORAGE AND INSTALLATION. **SQUASH BLOCKS** OF 2x4, 2x6, 2x8 #2 S.P.F. REQ'D UNDER INTERIOR UNIFORM LOAD BEARING WALLS. **MULTIPLE SQUASH BLOCKS** REQ'D UNDER CONCENTRATED LOADS. SEE FIGURE 1. **CANTILEVERED JOISTS** INCLUDING CANT' OVER BRICK REQ. I-JOIST BLOCKING ALONG BEARING AND RIMBOARD CLOSURE AT ENDS. SEE FIGURE 7 TABLES 4 & 5 FOR REINFORCEMENT REQUIREMENTS. FOR **HOLES** INCLUDING **DUCT CHASE** AND **FIELD CUT OPENINGS** SEE FIGURE 7 TABLES 1 & 2 OF THE INSTALLATION GUIDE. **CERAMIC TILE** APPLICATION AS PER O.B.C. 9.30.6



Products				
PlotID	Length	Product	Plies	Net Qty
J1	16-00-00	9 1/2" NI-40x	1	8
J2	14-00-00	9 1/2" NI-40x	1	44
J3	12-00-00	9 1/2" NI-40x	1	9
J4	10-00-00	9 1/2" NI-40x	1	43
J5	6-00-00	9 1/2" NI-40x	1	6
B4	14-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	2	2
B9	14-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	2	2
B10	10-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	1	1
B7	10-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	2	2
B8	8-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	2	2
B5 DR	6-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	2	2
B6 DR	6-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	2	2

Connector Summary		
Qty	Manuf	Product
29	H1	IUS2.56/9.5
1	H3	HGUS410
1	H4	HUS1.81/10

LOADING:

DESIGN LOADS: L/480.000

LIVE LOAD: 40.0 lb/ft²

DEAD LOAD: 15.0 lb/ft²

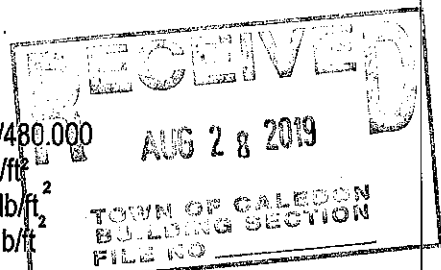
TILED AREAS: 20 lb/ft²

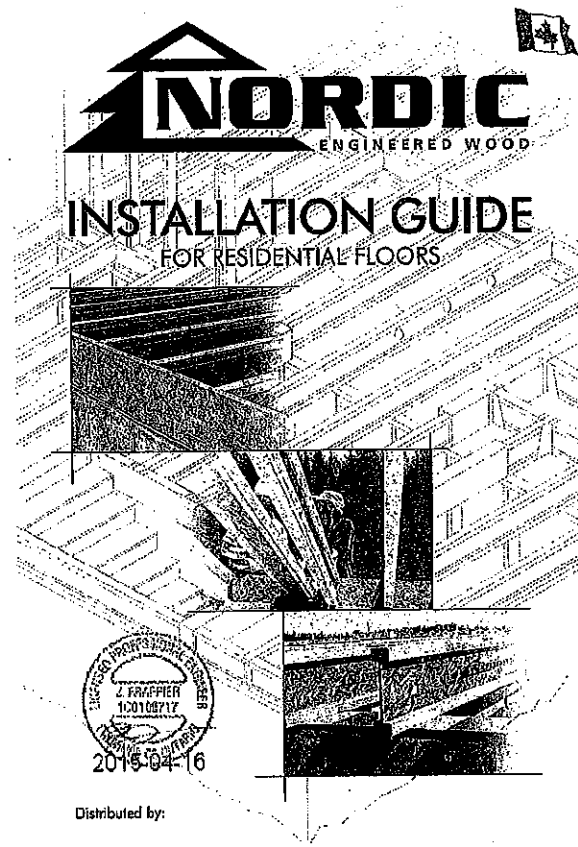
SUBFLOOR: 5/8" GLUED AND NAILED

DATE: 11/12/2018

2nd FLOOR

STANDARD





Distributed by:



N-CD-01 / November 2014

SAFETY AND CONSTRUCTION PRECAUTIONS



Do not walk on I-joists until fully fastened and braced, or serious injuries can result.



Never stack building materials over unfastened I-joists. Once sheathed, do not over-stress I-joist with concentrated loads from building materials.

WARNING

I-joists are not stable until completely installed, and will not carry any load until fully braced and sheathed.

Avoid Accidents by Following these Important Guidelines:

1. Brace and nail each I-joist as it is installed, using hangers, blocking panels, rim board, and/or cross-briding of joist ends. When I-joists are applied continuously over interior supports and a load-bearing wall is planned at that location, blocking will be required at the interior support.
2. When the building is completed, the floor sheathing will provide lateral support for the top flange of the I-joists. Until this sheathing is applied, temporary bracing, often called struts, or temporary sheathing must be applied to prevent I-joist rollover or buckling.
 - a. Temporary bracing or struts must be 1x4 inch minimum, at least 8 feet long and spaced no more than 8 feet on center, and must be secured with a minimum of two 2-1/2" nails fastened to the top surface of each I-joist. Nail the bracing to a lateral resistant at the end of each bay. Lap ends of adjoining bracing over at least two I-joists.
 - b. Or, sheathing (temporary or permanent) can be nailed to the top flange of the first 4 feet of I-joists at the end of the bay.
3. For cantilevered I-joists, brace top and bottom flanges, and brace ends with closure panels, rim board, or cross-briding.
4. Install and fully nail permanent sheathing to each I-joist before placing loads on the floor system. Then, stack building materials over beams or walls only.
5. Never install a damaged I-joist.

Improper storage or installation, failure to follow applicable building codes, failure to follow span ratings for Nordic I-joists, failure to follow allowable hole sizes and locations, or failure to use web stiffeners when required can result in serious accidents. Follow these installation guidelines carefully.

STORAGE AND HANDLING GUIDELINES

1. Bundle wrap can be slippery when wet. Avoid walking on wrapped bundles.
2. Store, stack, and handle I-joists vertically and level only.
3. Always stack and handle I-joists in the upright position only.
4. Do not store I-joists in direct contact with the ground and/or debris.
5. Protect I-joists from weather, and use spacers to separate bundles.
6. Bundled units should be kept intact until time of installation.
7. When handling I-joists with a crane on the job site, take a few simple precautions to prevent damage to the I-joists and injury to your work crew.
 - a. Pick I-joists in bundles as shipped by the supplier.
 - b. Orient the bundles so that the webs of the I-joists are vertical.
 - c. Pick the bundles at the 5th points, using a spreader bar if necessary.
8. Do not handle I-joists in a horizontal orientation.
9. NEVER USE OR TRY TO REPAIR A DAMAGED I-JOIST.



MAXIMUM FLOOR SPANS

1. Maximum clear spans applicable to single-span or multiple-span residential floor construction with a design live load of 40 psf and dead load of 15 psf. The ultimate limit states are based on the factored loads of 1.5L + 1.25D. The serviceability limit states include the consideration for floor vibration and a live load deflection limit of L/480. For multiple-span applications, the end spans shall be 40% or more of the adjacent span.
2. Spans are based on a composite floor with glued-nailed oriented strand board (OSB) sheathing with a minimum thickness of 5/8 inch for a joist spacing of 19.2 inches or less, or 3/4 inch for joist spacing of 24 inches. Adjustive shall meet the requirements given in CGS-71.25 Standard. No concrete topping or bridging element was assumed. Increased spans may be achieved with the use of gypsum and/or a row of blocking at mid-span.
3. Minimum bearing length shall be 1-3/4 inches for the end bearing, and 3-1/2 inches for the intermediate bearing.
4. Bearing stiffeners are not required when I-joists are used with the spans and spacing given in this table, except as required for hangers.
5. This span chart is based on uniform loads. For applications with other than uniform loads, an engineering analysis may be required based on the use of the design properties.
6. Tables are based on Limit States Design per CAN/CSA C84-09 Standard, and NBC 2010.
7. SI units conversion: 1 inch = 25.4 mm, 1 foot = 0.305 m

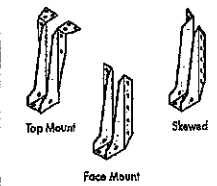
MAXIMUM FLOOR SPANS FOR NORDIC I-JOISTS SINGLE AND MULTIPLE SPANS

Joist Depth	Joist Series	Single spans On center spacing				Multiple spans On center spacing			
		16"	18"	19.2"	24"	16"	18"	19.2"	24"
9-1/2"	NL-20	13'-1"	13'-1"	13'-1"	13'-1"	13'-1"	13'-1"	13'-1"	13'-1"
	NL-40	16'-1"	16'-1"	16'-1"	16'-1"	16'-1"	16'-1"	16'-1"	16'-1"
	NL-60	18'-1"	18'-1"	18'-1"	18'-1"	18'-1"	18'-1"	18'-1"	18'-1"
	NL-70	17'-1"	17'-1"	17'-1"	17'-1"	17'-1"	17'-1"	17'-1"	17'-1"
11-7/8"	NL-20	15'-1"	15'-1"	15'-1"	15'-1"	15'-1"	15'-1"	15'-1"	15'-1"
	NL-40	18'-1"	18'-1"	18'-1"	18'-1"	18'-1"	18'-1"	18'-1"	18'-1"
	NL-60	19'-1"	19'-1"	19'-1"	19'-1"	19'-1"	19'-1"	19'-1"	19'-1"
	NL-70	18'-1"	18'-1"	18'-1"	18'-1"	18'-1"	18'-1"	18'-1"	18'-1"
14"	NL-20	18'-1"	18'-1"	18'-1"	18'-1"	18'-1"	18'-1"	18'-1"	18'-1"
	NL-40	21'-1"	21'-1"	21'-1"	21'-1"	21'-1"	21'-1"	21'-1"	21'-1"
	NL-60	22'-1"	22'-1"	22'-1"	22'-1"	22'-1"	22'-1"	22'-1"	22'-1"
	NL-70	21'-1"	21'-1"	21'-1"	21'-1"	21'-1"	21'-1"	21'-1"	21'-1"
16"	NL-20	20'-1"	20'-1"	20'-1"	20'-1"	20'-1"	20'-1"	20'-1"	20'-1"
	NL-40	23'-1"	23'-1"	23'-1"	23'-1"	23'-1"	23'-1"	23'-1"	23'-1"
	NL-60	24'-1"	24'-1"	24'-1"	24'-1"	24'-1"	24'-1"	24'-1"	24'-1"
	NL-70	23'-1"	23'-1"	23'-1"	23'-1"	23'-1"	23'-1"	23'-1"	23'-1"

CMC EVALUATION REPORT 13832-R

I-JOIST HANGERS

1. Hangers shown illustrate the three most commonly used metal hangers to support I-joists.
2. All nailing must meet the hanger manufacturer's recommendations.
3. Hangers should be selected based on the joist depth, flange width and load capacity based on the maximum spans.
4. Web stiffeners are required when the sides of the hangers do not laterally brace the top flange of the I-joist.

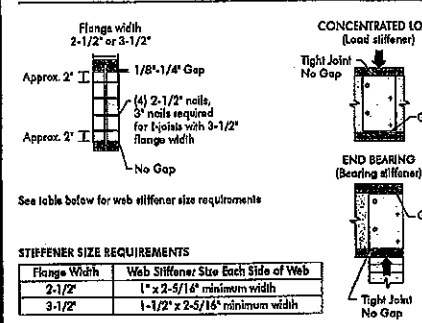


WEB STIFFENERS

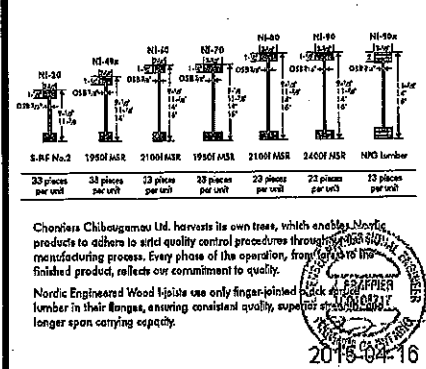
RECOMMENDATIONS:

- A bearing stiffener is required in all engineered applications with factored reactions greater than shown in the I-joist properties table found in the I-joist Construction Guide (CIG). The gap between the stiffener and the flange is at the top.
- A bearing stiffener is required when the I-joist is supported in a hanger and the sides of the hanger do not extend up to, and support, the top flange. The gap between the stiffener and the flange is at the top.
- A load stiffener is required at locations where a factored concentrated load greater than 2,870 lbs is applied to the top flange between supports, or in the case of a cantilever, anywhere between the cantilever tip and the support. These values are for standard term load duration, and may be adjusted for other load durations as permitted by the code. The gap between the stiffener and the flange is at the bottom.

FIGURE 2 WEB STIFFENER INSTALLATION DETAILS



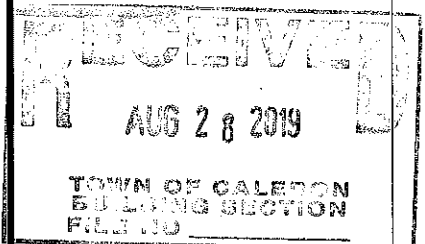
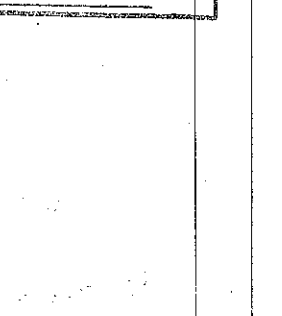
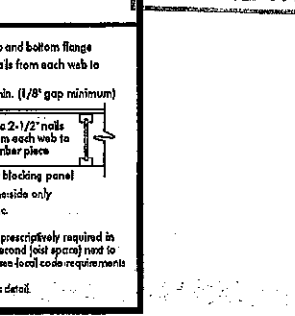
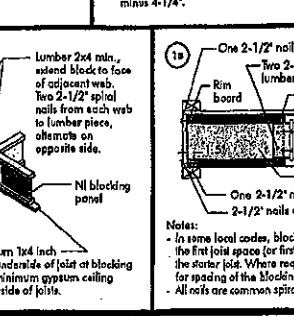
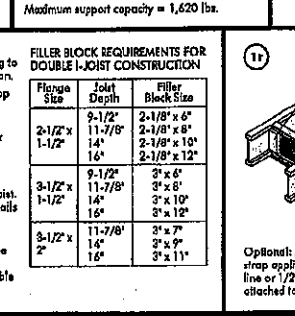
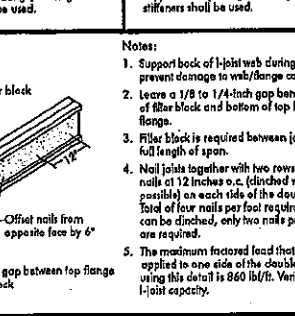
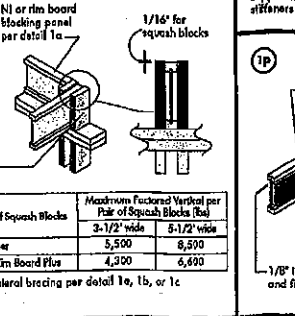
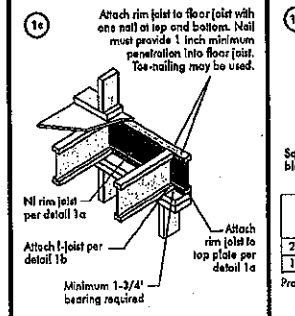
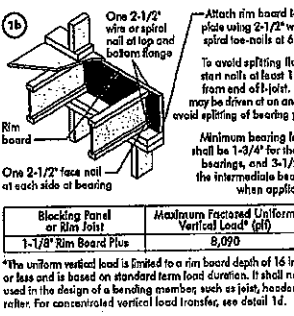
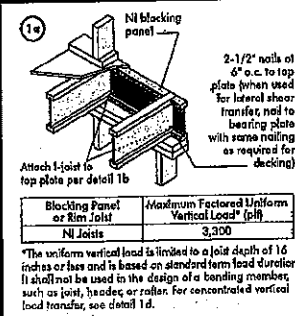
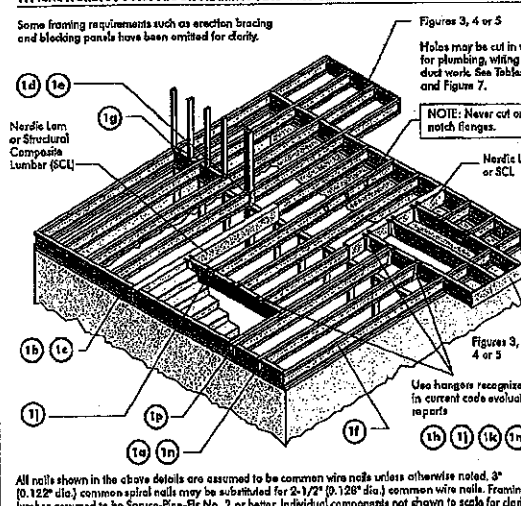
NORDIC I-JOIST SERIES



INSTALLING NORDIC I-JOISTS

1. Before laying out floor system components, verify that I-joist flange widths match hanger widths. If not, contact supplier.
2. Except for cutting to length, I-joist flanges should never be cut, drilled, or notched.
3. Install I-joists so that top and bottom flanges are within 1/2 inch of true vertical alignment.
4. I-joists must be anchored securely to supports before floor sheathing is attached, and supports for multiple spans must be level.
5. Minimum bearing lengths: 1-3/4 inches for end bearings and 3-1/2 inches for intermediate bearings.
6. When using hangers, set I-joists firmly in hanger bottoms to minimize settlement.
7. Leave a 1/16-inch gap between the I-joist and end headers.
8. Concentrated loads greater than those that can normally be expected in residential construction should only be applied to the top surface of the top flange. Normal concentrated loads include track lighting fixtures, audio equipment and security cameras. Never suspend unusual or heavy loads from the I-joist's bottom flange. Whenever possible, suspend all concentrated loads from the top of the I-joist. Or, attach the load to blocking that has been securely fastened to the I-joist webs.
9. Never install I-joists where they will be permanently exposed to weather, or where they will remain in direct contact with concrete or masonry.
10. Restrain ends of floor joists to prevent rollover. Use rim board, rim joists or I-joist blocking panels.
11. For I-joists installed over and beneath bearing walls, use full depth blocking panels, rim board, or squash blocks (cripple members) to transfer floor loads through the floor system to the wall or foundation below.
12. Due to shrinkage, common framing lumber set on edge may never be used as blocking or rim boards. I-joist blocking panels or other engineered wood products—such as rim board—must be cut to fit between the I-joists, and on I-joist-compatible depth selected.
13. Provide permanent lateral support of the bottom flange of all I-joists at interior supports of multiple-span joists. Similarly, support the bottom flange of all cantilevered I-joists at the end support next to the cantilever extension. In the completed structure, the gypsum wallboard ceiling provides this lateral support. Until the final finished ceiling is applied, temporary bracing or struts must be used.
14. If square-edge panels are used, edges must be supported between I-joists with 2x4 blocking. Glue panels to blocking to minimize squeaks. Blocking is not required under structural finish flooring, such as wood strip flooring, or if a separate underlayment layer is installed.
15. Nail spacing: Spacing nails installed to the flange's top face in accordance with the applicable building code requirements or approved building plans.

FIGURE 1 TYPICAL NORDIC I-JOIST FLOOR FRAMING AND CONSTRUCTION DETAILS





Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP

PASSED

1ST FLOOR FRAMING/Flush Beams/B3(1904)

Dry | 1 span | No cant.

November 12, 2018 09:12:09

BC CALC® Member Report

Build 6475

Job name:

Address:

City, Province, Postal Code: CALEDON

Customer:

Code reports: CCMC 12472-R

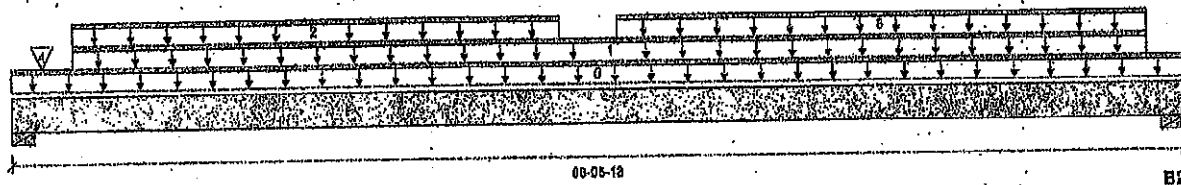
File name: WOODCROFT 11.mmdl

Description: 1ST FLOOR FRAMING/Flush Beams/B3(1904)

Specifier:

Designer: PL

Company:



Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 6-1/2"	1,362 / 0	777 / 0		
B2, 3-5/16"	938 / 0	509 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live	Dead	Snow	Wind	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	08-05-13	Top	10				00-00-00
1	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-05-08	08-02-08	Top	14	7			n/a
2	STAIRS	Unf. Lin. (lb/ft)	L	00-05-08	03-11-08	Top	240	120			n/a
3	STAIRS	Unf. Lin. (lb/ft)	L	04-04-08	08-02-08	Top	240	120			n/a
4	11(1767)	Conc. Pt. (lbs)	L	00-02-12	00-02-12	Top	416	267			n/a

Controls Summary

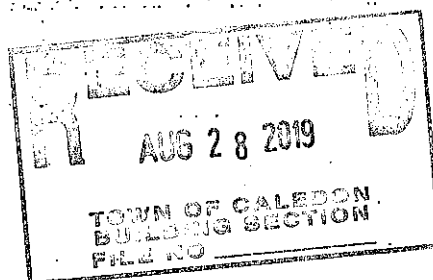
	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	3,880 ft-lbs	23,220 ft-lbs	16.7%	1	04-05-10
End Shear	1,598 lbs	11,571 lbs	13.8%	1	07-05-00
Total Load Deflection	L/999 (0.062")	n/a	n/a	4	04-03-14
Live Load Deflection	L/999 (0.04")	n/a	n/a	5	04-03-14
Max Defl.	0.062"	n/a	n/a	4	04-03-14
Span / Depth	9.9				

Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Wall/Plate 5-1/2" x 3-1/2"	2,999 lbs	38.5%	12.8%	Unspecified
B2	Wall/Plate 3-5/16" x 3-1/2"	2,044 lbs	41.2%	14.4%	Unspecified

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
 Design meets Code minimum (L/360) Live load deflection criteria.
 Calculations assume unbraced length of Top: 00-00-00, Bottom: 00-00-00.
 Resistance Factor phi has been applied to all presented results per CSA 086. **CONFORMS TO OBC 2012**
 BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA 086.
 Design based on Dry Service Condition.
 Importance Factor: Normal Part code: Part 0
 Connection design assumes point load is top-loaded. For connection design of side-loaded point loads, please consult a technical representative or professional of Record.
 Member has no side loads.



WOODCROFT 3-337-184
 STRUCTURAL
 COMPONENT ONLY

T-1903091



Boise Cascade



Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP

1ST FLOOR FRAMING\Flush Beams\B3(11904)

Dry | 1 span | No cant.

PASSED

November 12, 2018 09:12:09

BC CALCO® Member Report

Build 6476

Job name:

Address:

City, Province, Postal Code: CALEDON

Customer:

Code reports: CCMG 12472-R

File name: WOODCROFT 11.mmd

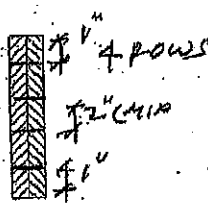
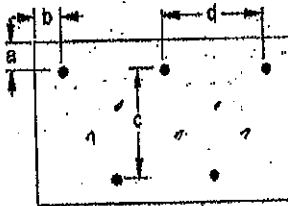
Description: 1ST FLOOR FRAMING\Flush Beams\B3(11904)

Specifier:

Designer: PL

Company:

Connection Diagram: Full Length of Member



a minimum = 1"

b minimum = 3"

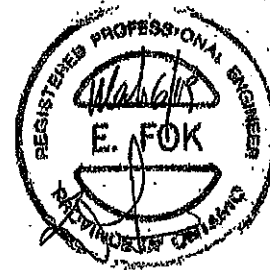
c = 1 1/2"

d = 8"

Connection design assumes point load is top-loaded. For connection design of side-loaded point loads, please consult a technical representative or professional of Record.
Member has no side loads.

Connectors are: Nails

3/8" ARBOX SPIRAL



Disclosure

Use of the Boise Cascade Software is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of suitability for a particular application. The output here is based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.

BC CALCO®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,

DWG NO. YAH 3-37-18H
STRUCTURAL
COMPONENT ONLY

per

T-190309(6)



Single 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP

PASSED

1ST FLOOR FRAMING\Flush Beams\B2(11992)

Dry | 1 span | No cant.

November 12, 2018 09:12:09

BC CALC® Member Report

Build 6475

Job name:

Address:

City, Province, Postal Code: CALEDON

Customer:

Code reports: CCMC 12472-R

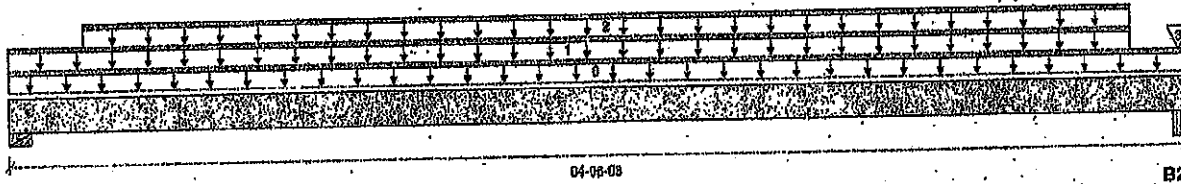
File name: WOODCROFT 11.mmd

Description: 1ST FLOOR FRAMING\Flush Beams\B2(11992)

Specifier:

Designer: PL

Company:



B1

Total Horizontal Product Length = 64-06-08

B2

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 3-1/2"	313 / 0	188 / 0		
B2, 2-1/2"	343 / 0	194 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live	Dead	Snow	Wind	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	04-06-08	Top	1.00	0.65	1.00	1.16	00-00-00
1	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	04-04-00	Top	31	15			n/a
2	STAIRS	Unf. Lin. (lb/ft)	L	00-03-08	04-04-00	Top	120	60			n/a
3	8(1764)	Conc. Pt. (lbs)	L	04-06-04	04-06-04	Top	39	31			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	707 ft-lbs	11,610 ft-lbs	6.1%	1	02-03-12
End Shear	401 lbs	5,785 lbs	6.9%	1	01-01-00
Total Load Deflection	L/999 (0.008")	n/a	n/a	4	02-03-12
Live Load Deflection	L/999 (0.004")	n/a	n/a	5	02-03-12
Max Defl.	0.008"	n/a	n/a	4	02-03-12
Span / Depth	5.3				

Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Wall/Plate 3-1/2" x 1-3/4"	680 lbs	26.0%	9.1%	Unspecified
B2	Beam 2-1/2" x 1-3/4"	758 lbs	40.5%	14.2%	Unspecified

Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

Calculations assume unbraced length of Top: 00-00-00, Bottom: 00-00-00.

Resistance Factor phi has been applied to all presented results per CSA 086.

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA 086.

Design based on Dry Service Condition.

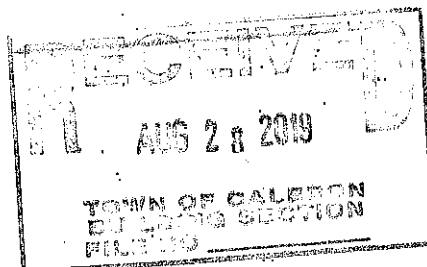
Importance Factor: Normal Part code: Part 9

CONFORMS TO ORC 2012

Disclosure

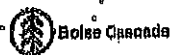
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BC-CALC®, BC-FRAMER®, AJS™, ALL-JOIST®, BC-RIM BOARD™, BCIO®, BOISE-GLULAM™, BC-FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®



DRAWN BY TAM 23.36.18H
STRUCTURAL
COMPONENT ONLY

T-1903090



Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP

PASSED

1ST FLOOR FRAMING Flush Beams B1 (1963)

Dry | 1 span | No cant.

November 12, 2018 09:12:09

BC CALCO® Member Report

Build 6476

Job name:

Address:

City, Province, Postal Code: CALEDON

Customer:

Code reports: CCMC 12472-R

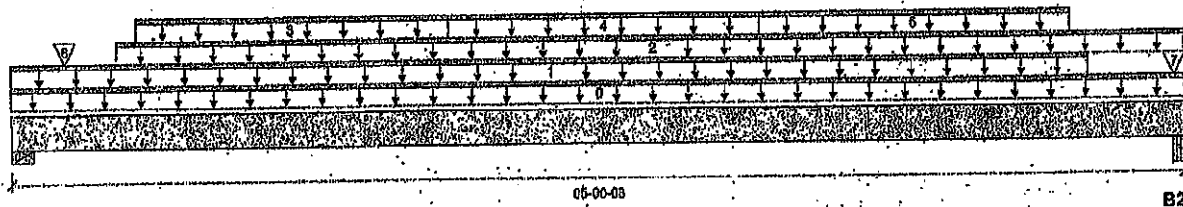
File name: WOODCROFT 11.mmdl

Description: 1ST FLOOR FRAMING Flush Beams B1 (1963)

Specifier:

Designer: PL

Company:



Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 3-1/2"	1,032 / 0	726 / 0		
B2, 5"	2,841 / 0	1,719 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live	Dead	Snow	Wind	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	05-00-08	Top	10				00-00-00
1	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	04-07-08	Top	18	9			n/a
2	7(1762)	Unf. Lin. (lb/ft)	L	00-05-08	05-00-08	Top		81			n/a
3	7(1762)	Unf. Lin. (lb/ft)	L	00-06-08	01-10-08	Top	445	222			n/a
4	7(1762)	Unf. Lin. (lb/ft)	L	01-10-08	03-02-08	Top	520	261			n/a
5	7(1762)	Unf. Lin. (lb/ft)	L	03-02-08	04-08-08	Top	484	243			n/a
6	6(1467)	Conc. Pt. (lbs)	L	00-02-12	00-02-12	Top	74	61			n/a
7	7(1762)	Conc. Ft. (lbs)	L	05-00-00	05-00-00	Top	1,764	956			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	2,944 ft-lbs	23,220 ft-lbs	12.7%	1	02-06-00
End Shear	2,371 lbs	11,571 lbs	20.5%	1	03-10-00
Total Load Deflection	L/999 (0.015")	n/a	n/a	4	02-05-07
Live Load Deflection	L/999 (0.009")	n/a	n/a	5	02-05-07
Max Defl.	0.015"	n/a	n/a	4	02-05-07
Span / Depth	8.6				

Bearing Supports	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Wall/Plate 3-1/2" x 3-1/2"	2,456 lbs	46.9%	16.4%	Unspecified
B2	Beam 5" x 3-1/2"	6,411 lbs	85.8%	30.0%	Unspecified

Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

Calculations assume member is fully braced.

Resistance Factor phi has been applied to all presented results per CSA 086. CONFORMS TO OBC 2012

BC CALCO analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA 086.

Design based on Dry Service Condition.

Importance Factor : Normal Part code : Part 9

Connection design assumes point load is top-loaded. For connection design of side-loaded point loads, please consult a technical representative or professional of Record.

Member has no side loads.



DWG NO. 14M 3335-198H
STRUCTURAL
COMPONENT ONLY

T. 1903089



Boise Cascade



Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP

PASSED

1ST FLOOR FRAMING\Flush Beams\B1(1963)

Dry | 1 span | No cant.

November 12, 2018 09:12:09

BC CALC® Member Report

Build 6475

Job name:

Address:

City, Province, Postal Code: CALEDON

Customer:

Code reports: CCMC 12472-R

File name: WOODCROFT 11.mmdl

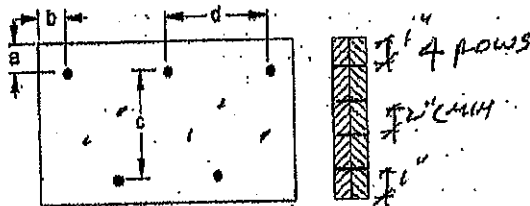
Description: 1ST FLOOR FRAMING\Flush Beams\B1(1963)

Specifier:

Designer: PL

Company:

Connection Diagram: Full Length of Member

a minimum = 1/2"
b minimum = 3"c = 1 1/2"
d = 6"

Connection design assumes point load is top-loaded. For connection design of side-loaded point loads, please consult a technical representative or professional of Record.
Member has no side loads.

Connectors are: 3/4" Nails
3/4" ARDOX SPIRAL



Disclosure

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Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.

BC CALC®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BC®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,

WOOD. TAM 3.335704
STRUCTURAL
COMPONENT ONLY

T-190308263



Boise Cascade



Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP

PASSED

2ND FLOOR FRAMING\Flush Beams\B4(11939)

Dry | 1 span | No cant.

November 12, 2018 09:12:09

BC CALCO® Member Report

Build 0475

Job name:

Address:

City, Province, Postal Code: CALEDON

Customer:

Code reports:

CCMC 12472-R

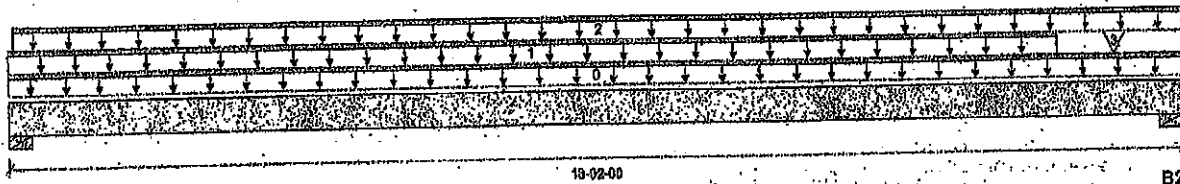
File name: WOODCROFT 11.mxd

Description: 2ND FLOOR FRAMING\Flush Beams\B4(11939)

Specifier:

Designer: PL

Company:



B1

Total Horizontal Product Length = 13-02-00

B2

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 3-1/2"	1,779 / 0	953 / 0		
B2, 5-1/2"	1,659 / 0	894 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live	Dead	Snow	Wind	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	13-02-00	Top	10	0.85	1.00	1.16	00-00-00
1	Smoothed Load	Unf. Lin. (lb/ft)	L	00-00-00	11-09-00	Top	258	130			n/a
2	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-12	13-02-00	Top	10	5			n/a
3	J2(2064)	Conc. Pt. (lbs)	L	12-05-00	12-05-00	Top	262	131			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	11,206 ft-lbs	23,220 ft-lbs	48.3%	1	07-01-00
End Shear	3,217 lbs	11,571 lbs	27.8%	1	01-01-00
Total Load Deflection	L/335 (0.45")	n/a	71.7%	4	06-05-00
Live Load Deflection	L/514 (0.293")	n/a	70.0%	5	06-05-00
Max Defl.	0.45"	n/a	n/a	4	06-05-00
Span / Depth	15.8				

Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Wall/Plate 3-1/2" x 3-1/2"	3,859 lbs	73.7%	25.8%	Unspecified
B2	Wall/Plate 5-1/2" x 3-1/2"	3,806 lbs	43.6%	15.4%	Unspecified

Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

Calculations assume member is fully braced.

Resistance Factor phi has been applied to all presented results per CSA 086. CONFORMS TO OBC 2012

BC CALCO analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA 086.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 0

Connection design assumes point load is top-loaded. For connection design of side-loaded point loads, please consult a technical representative or professional of Record.



WOODCROFT 11-18H
STRUCTURAL
COMPONENT ONLY

T-192095



Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP

PASSED

2ND FLOOR FRAMING\Flush Beams\B4(1939)

Dry | 1 span | No cent.

November 12, 2018 09:12:09

BC CALC® Member Report

Build 6475

Job name:

Address:

City, Province, Postal Code: CALEDON

Customer:

Code reports: CCMC 12472-R

File name: WOODCROFT 11.mmdl

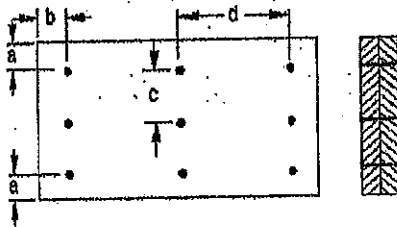
Description: 2ND FLOOR FRAMING\Flush Beams\B4(1939)

Specifier:

Designer: PL

Company:

Connection Diagram: Full Length of Member



a minimum = 2"

b minimum = 3"

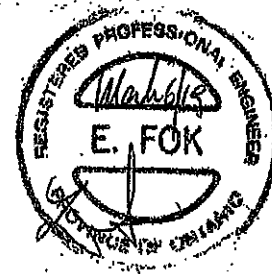
c = 2-3/4"

d = 6"

Connection design assumes point load is top-loaded. For connection design of side-loaded point loads, please consult a technical representative or professional of Record.

Connectors are: 1 Nails

3/4" ARDOX SPIRAL



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BC CALC®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BC®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®.

WOODCROFT 11.mmdl
STRUCTURAL
COMPONENT ONLY

PL

T-19009561



Boise Cascade



Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP

PASSED

2ND FLOOR FRAMING\Flush Beams\B9(12037)

Dry | 1 span | No cant.

November 12, 2018 09:12:09

BCALCO Member Report

Build 8476

Job name:

Address:

City, Province, Postal Code: CALEDON

Customer:

Code reports:

CCMC 12472-R

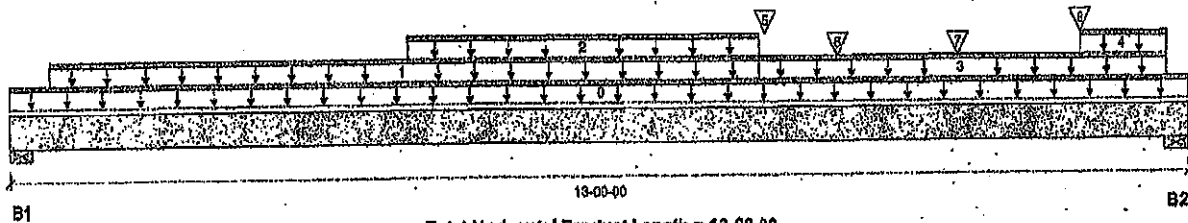
File name: WOODCROFT 11.mmd

Description: 2ND FLOOR FRAMING\Flush Beams\B9(12037)

Specifier:

Designer: PL

Company:



Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 5-1/2"	737 / 0	439 / 0		
B2, 5-1/2"	1,374 / 0	764 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live	Dead	Snow	Wind	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	13-00-00	Top	10	5			00-00-00
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-05-08	08-02-12	Top	10	5			n/a
2	STAIRS	Unf. Lin. (lb/ft)	L	04-04-12	08-02-12	Top	240	120			n/a
3	FC2 Floor Material	Unf. Lin. (lb/ft)	L	08-02-12	12-09-04	Top	7	4			n/a
4	FC2 Floor Material	Unf. Lin. (lb/ft)	L	11-09-08	12-09-04	Top	38	19			n/a
5	B10(12150)	Conc. Pt. (lbs)	L	08-03-10	08-03-10	Top	79	81			n/a
6	J2(1953)	Conc. Pt. (lbs)	L	09-01-08	09-01-08	Top	298	149			n/a
7	J2(12038)	Conc. Pt. (lbs)	L	10-05-08	10-05-08	Top	359	180			n/a
8	J2(12029)	Conc. Pt. (lbs)	L	11-09-08	11-09-08	Top	293	147			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	8,378 ft-lbs	23,220 ft-lbs	36.1%	1	07-01-13
End Shear	2,934 lbs	11,571 lbs	25.4%	1	11-09-00
Total Load Deflection	L/478 (0.306")	n/a	50.2%	4	06-08-01
Live Load Deflection	L/747 (0.196")	n/a	48.2%	5	06-08-01
Max Defl.	0.306"	n/a	n/a	4	06-08-01
Span / Depth	16.4				

Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Wall/Plate 6-1/2" x 3-1/2"	1,853 lbs	20.1%	7.0%	Unspecified
B2	Wall/Plate 5-1/2" x 3-1/2"	3,017 lbs	36.7%	12.8%	Unspecified

Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

Calculations assume member is fully braced.

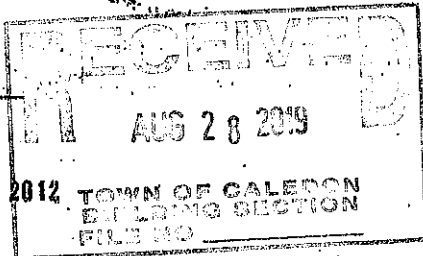
Resistance Factor phi has been applied to all presented results per CSA 086. CONFORMS TO CBC 2012.

BCALCO analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA 086.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9

Connection design assumes point load is top-loaded. For connection design of side-loaded point loads, please consult a technical representative or professional of Record.



WOOD. PAN 3344-18H
STRUCTURAL
COMPONENT ONLY

T-1903098



Boise Cascade



Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP 2ND FLOOR FRAMING/Flush Beams(B9(12037))

PASSED

BC CALC® Member Report

Build 6476

Job name:

Address:

City, Province, Postal Code: CALEDON

Customer:

Code reports: CCMC 12472-R

Dry | 1 span | No cant.

November 12, 2018 09:12:09

File name: WOODCROFT 11.mmdl

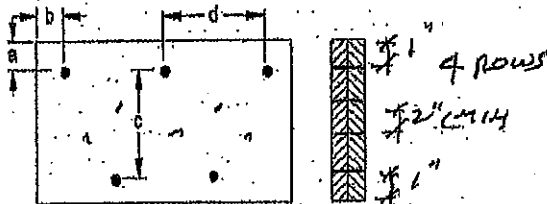
Description: 2ND FLOOR FRAMING/Flush Beams(B9(12037))

Specifier:

Designer: PL

Company:

Connection Diagram: Full Length of Member



a minimum = 1"
b minimum = 3"

c = 7-1/2"
d = 6"

Connection design assumes point load is top-loaded. For connection design of side-loaded point loads, please consult a technical representative or professional of Record.

Connectors are: 3/4" ARDOX SPIRAL Nails



Disclosure

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WOODCROFT 11.mmdl
STRUCTURAL
COMPONENT ONLY

BC CALC®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,

T. 9030986



Boise Cascade



Single 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP

2ND FLOOR FRAMING\Flush Beams\B10(12150)

PASSED

BC CALC® Member Report

Dry | 1 span | No cant.

November 12, 2018 09:12:09

Build 6475

Job name:

Address:

City, Province, Postal Code: CALEDON

Customer:

Code reports:

CCMC 12472-R

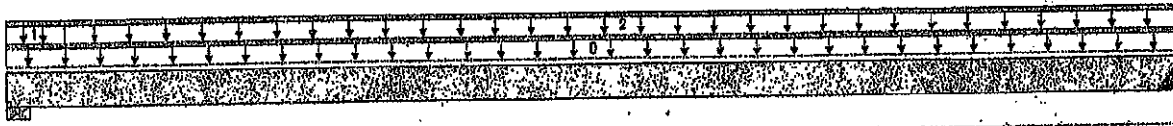
File name: WOODCROFT 11.mmdl

Description: 2ND FLOOR FRAMING\Flush Beams\B10(12150)

Specifier:

Designer: PL

Company:



B1 B2

09-03-04

Total Horizontal Product Length = 09-03-04'

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 5-1/2"	84 / 0	66 / 0		
B2, 3"	81 / 0	62 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live	Dead	Snow	Wind	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	09-03-04	Top	1.00	0.65	1.00	1.15	00-00-00
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	00-05-08	Top	16	8			n/a
2	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-05-08	09-03-04	Top	18	9			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	416 ft-lbs	11,610 ft-lbs	3.6%	1	04-08-14
End Shear	154 lbs	5,766 lbs	2.7%	1	01-03-00
Total Load Deflection	L/999 (0.016")	n/a	n/a	4	04-08-14
Live Load Deflection	L/999 (0.009")	n/a	n/a	5	04-08-14
Max Defl.	0.016"	n/a	n/a	4	04-08-14
Span / Depth	11.0				

Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Wall/Plate 5-1/2" x 1-3/4"	208 lbs	5.0%	1.8%	Unspecified
B2	Hanger 3" x 1-3/4"	200 lbs	n/a	3.1%	HUS1.81/10

Cautions

Header for the hanger HUS1.81/10 at B2 is a Double 1-3/4" x 9-1/2" VERSA-LAM® 1.7 2400 DF. Hanger model HUS1.81/10 and seat length were input by the user. Hanger has not been analyzed for adequate capacity.

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
 Design meets Code minimum (L/360) Live load deflection criteria.
 Calculations assume member is fully braced.
 Hanger Manufacturer: Unassigned
 Resistance Factor phi has been applied to all presented results per CSA O86.
 BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.
 Design based on Dry Service Condition.
 Importance Factor: Normal Part code: Part 9



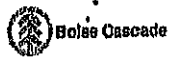
Disclosure

Use of the Boise Cascade Software is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of suitability for a particular application. The output here is based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.

BC CALC®, BC FRAMER®, AJR™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,

OWG NO. YAM 3340-184
 STRUCTURAL
 COMPONENT ONLY

T. 19030 94



Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP

PASSED

2ND FLOOR FRAMING\Flush Beams\B7(1886)

Dry | 1 span | No cant.

November 12, 2018 08:12:09

BC CALC® Member Report

Build 6476

Job name:

Address:

City, Province, Postal Code: CALEDON

Customer:

Code reports: CCMC 12472-R

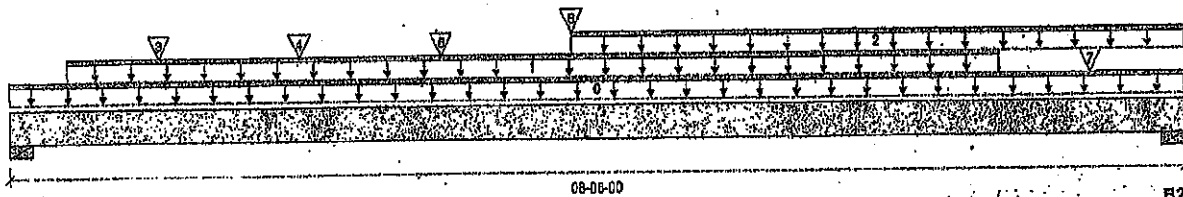
File name: WOODCROFT 11.mxd

Description: 2ND FLOOR FRAMING\Flush Beams\B7(1886)

Specifier:

Designer: PL

Company:



Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 3-1/2"	1,400 / 0	766 / 0		
B2, 6-1/2"	1,026 / 0	570 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	08-05-00	Top		10			00-00-00
1	Smoothed Load	Unf. Lin. (lb/ft)	L	00-05-00	07-01-00	Top	118	59			n/a
2	FC2 Floor Material	Unf. Lin. (lb/ft)	L	04-00-04	08-05-00	Top	10	5			n/a
3	J2(1894)	Conc. Pt. (lbs)	L	01-01-00	01-01-00	Top	292	146			n/a
4	J2(12187)	Conc. Pt. (lbs)	L	02-01-00	02-01-00	Top	250	125			n/a
5	J2(12182)	Conc. Pt. (lbs)	L	03-01-00	03-01-00	Top	234	117			n/a
6	B8(12057)	Conc. Pt. (lbs)	L	04-00-04	04-00-04	Top	694	377			n/a
7	J5(1893)	Conc. Pt. (lbs)	L	07-09-00	07-09-00	Top	112	56			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	6,523 ft-lbs	23,220 ft-lbs	28.1%	1	04-00-04
End Shear	3,033 lbs	11,571 lbs	26.2%	1	01-01-00
Total Load Deflection	L/999 (0.093")	n/a	n/a	4	04-00-04
Live Load Deflection	L/999 (0.08")	n/a	n/a	5	04-00-04
Max Defl.	0.083"	n/a	n/a	4	04-00-04
Span / Depth	9.8				



Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Wall/Plate 3-1/2" x 3-1/2"	3,046 lbs	58.2%	20.4%	Unspecified
B2	Wall/Plate 6-1/2" x 3-1/2"	2,251 lbs	27.4%	9.6%	Unspecified

Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

Calculations assume member is fully braced.

Resistance Factor phi has been applied to all presented results per CSA O86. CONFORMS TO DBC 2012

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9

Connection design assumes point load is top-loaded. For connection design of side-loaded point loads, please consult a technical representative or professional of Record.

BOISE CASCADE
STRUCTURAL
COMPONENT ONLY

T-19020916



Boise Cascade



Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP

2ND FLOOR FRAMING\Flush Beams\B7(11886)

Dry | 1 span | No cant.

PASSED

November 12, 2018 09:12:09

BC CALCS® Member Report

Build 6475

Job name:

Address:

City, Province, Postal Code: CALEDON

Customer:

Code reports: CCMC 12472-R

File name: WOODCROFT 11.mmdl

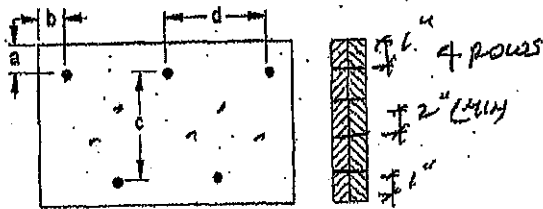
Description: 2ND FLOOR FRAMING\Flush Beams\B7(11886)

Specifier:

Designer: PL

Company:

Connection Diagram: Full Length of Member



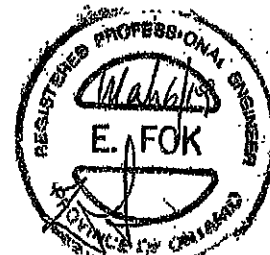
a minimum = 1"
b minimum = 3"

c = 1-1/2"
d = 6"

Connection design assumes point load is top-loaded. For connection design of side-loaded point loads, please consult a technical representative or professional of Record.

Connectors are: Nails

3 1/2" ARDOX SPIRAL



Disclosure

Use of the Boise Cascade Software is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of suitability for a particular application. The output here is based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.

BC CALCS®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BOI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®.

ENDING, TAN 3/4/2-18H
STRUCTURAL
COMPONENT ONLY

PL

T. (902)9661



Boise Cascade

Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP

PASSED

2ND FLOOR FRAMING/Flush Beams/B8(12057)

Dry | 1 span | No cant.

November 12, 2018 09:12:09

BCALCO Member Report

Build 6475

Job name:

Address:

City, Province, Postal Code: CALEDON

Customer:

Code reports: CCMC 12472-R

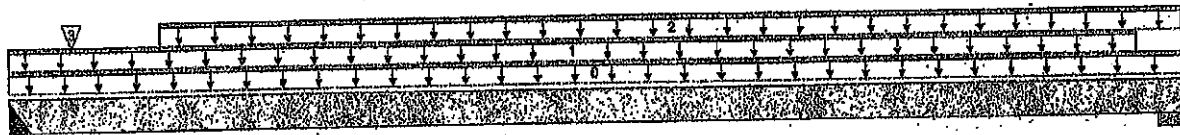
File name: WOODCROFT 11.mmdl

Description: 2ND FLOOR FRAMING/Flush Beams/B8(12057)

Specifier:

Designer: PL

Company:



B1

06-07-08

B2

Total Horizontal Product Length = 06-07-08

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 4"	720 / 0	392 / 0		
B2, 3-1/2"	771 / 0	417 / 0		

Load Summary

Item	Description	Load Type	Ref.	Start	End	Loc.	Live	Dead	Snow	Wind	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	06-07-08	Top	10				00-00-00
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	06-04-08	Top	19	9			n/a
2	Smoothed Load	Unf. Lin. (lb/ft)	L	00-10-08	06-07-08	Top	210	105			n/a
3	J4(12175)	Conc. Pt. (lbs)	L	00-04-08	00-04-08	Top	167	83			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	2,244 ft-lbs	23,220 ft-lbs	9.7%	1	03-04-08
End Shear	1,196 lbs	11,571 lbs	10.3%	1	05-06-08
Total Load Deflection	L/999 (0.021")	n/a	n/a	4	03-03-12
Live Load Deflection	L/999 (0.014")	n/a	n/a	5	03-03-12
Max Defl.	0.021"	n/a	n/a	4	03-03-12
Span / Depth	7.7				

Bearing Supports

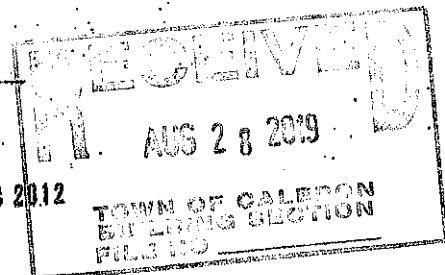
	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1 Hanger	4" x 3-1/2"	1,570 lbs	n/a	9.2%	HGUS410
B2 Wall/Plate	3-1/2" x 3-1/2"	1,576 lbs	32.1%	11.2%	Unspecified

Cautions

Header for the hanger HGUS410 at B1 is a Double 1-3/4" x 9-1/2" VERSA-LAM® 1.7 2400 DF. Hanger model HGUS410 and seat length were input by the user. Hanger has not been analyzed for adequate capacity.

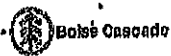
Notes

Design meets Code minimum (L/240) Total load deflection criteria.
 Design meets Code minimum (L/360) Live load deflection criteria.
 Calculations assume member is fully braced.
 Hanger Manufacturer: Unassigned
 Resistance Factor phi has been applied to all presented results per CSA O86. CONFORMS TO CBC 2012
 BCALCO analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.
 Design based on Dry Service Condition.
 Importance Factor: Normal Part code: Part 9
 Connection design assumes point load is top-loaded. For connection design of side-loaded point loads, please consult a technical representative or professional of Record.



DWNO, YAM 33-93-18H
 STRUCTURAL
 COMPONENT ONLY
 P614

T-1903097



Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP
2ND FLOOR FRAMING\Flush Beams\B8\12057

PASSED

BC CALC® Member Report

Build 6476

Job name:

Address:

City, Province, Postal Code: CALEDON

Customer:

Code reports: CCMC 12472-R

Dry | 1 span | No cant.

November 12, 2018 09:12:09

File name: WOODCROFT 11.mmdl

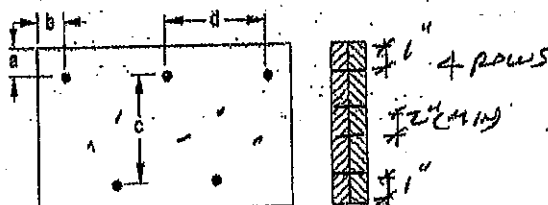
Description: 2ND FLOOR FRAMING\Flush Beams\B8\12057

Specifier:

Designer: PL

Company:

Connection Diagram: Full Length of Member



a minimum = 4"
b minimum = 3"

c = 7-1/2"
d = 12"

Connection design assumes point load is top-loaded. For connection design of side-loaded point loads, please consult a technical representative or professional of record.

Connectors are: 3/4" ARDOX SPIRAL Nails



Disclosure

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OWNED BY 3343-1811
STRUCTURAL COMPONENT ONLY

T-90209767



Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP 2ND FLOOR FRAMING/Dropped Beams/B5 DR(I2072)

PASSED

BC CALCO® Member Report

Dry | 1 span | No cant.

November 12, 2018 09:12:09

Build 6476

Job name:

File name: WOODCROFT 11.mmdl

Address:

Description: 2ND FLOOR FRAMING/Dropped Beams/B5 DR(I2072)

City, Province, Postal Code: CALEDON

Specifier:

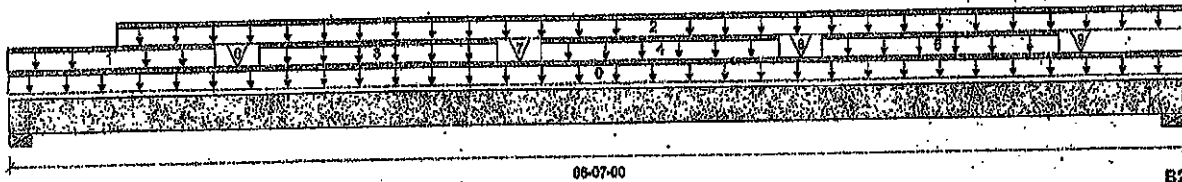
Customer:

Designer: PL

Code reports:

CCMC 12472-R

Company:



Total Horizontal Product Length = 05-07-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 3-1/2"	678 / 0	367 / 0		
B2, 3-1/2"	912 / 0	484 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	05-07-00	Top	10	10			00-00-00
1	Bk1(I2156)	Unf. Lin. (lb/ft)	L	00-00-00	00-11-12	Top	20	10			n/a
2	Smoothed Load	Unf. Lin. (lb/ft)	L	00-08-04	05-07-00	Top		2			n/a
3	Bk1(I2167)	Unf. Lin. (lb/ft)	L	01-02-04	02-03-12	Top	20	10			n/a
4	Bk1(I2119)	Unf. Lin. (lb/ft)	L	02-08-04	03-07-12	Top	20	10			n/a
5	Bk1(I2161)	Unf. Lin. (lb/ft)	L	03-10-04	04-11-12	Top	20	10			n/a
6	J2(I2081)	Conc. Pt. (lbs)	L	01-01-00	01-01-00	Top	339	170			n/a
7	J2(I2032)	Conc. Pt. (lbs)	L	02-05-00	02-05-00	Top	339	170			n/a
8	J1(I1965)	Conc. Pt. (lbs)	L	03-09-00	03-09-00	Top	401	201			n/a
9	J1(I1984)	Conc. Pt. (lbs)	L	05-01-00	05-01-00	Top	402	201			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	2,111 ft-lbs	23,220 ft-lbs	9.1%	1	02-05-00
End Shear	1,460 lbs	11,571 lbs	12.6%	1	01-01-00
Total Load Deflection	L/998 (0.014")	n/a	n/a	4	02-09-10
Live Load Deflection	L/998 (0.009")	n/a	n/a	6	02-09-10
Max Defl.	0.014"	n/a	n/a	4	02-09-10
Span / Depth	6.5				



Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Wall/Plate 3-1/2" x 3-1/2"	1,476 lbs	18.6%	9.9%	Unspecified
B2	Wall/Plate 3-1/2" x 3-1/2"	1,973 lbs	24.8%	13.2%	Unspecified

Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

Calculations assume unbraced length of Top: 00-03-06, Bottom: 00-03-06.

Resistance Factor phi has been applied to all presented results per CSA O86. CONFORMS TO NBC 2012

BC CALCO analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9

Connection design assumes point load is top-loaded. For connection design of side-loaded point loads, please consult a technical representative or professional of Record.

Member has no side loads.

DWG NO. TAW3-336784
STRUCTURAL
COMPONENT ONLY

T-1903092



Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP
2ND FLOOR FRAMING/Dropped Beams/B5 DR(I2072)

PASSED

BC CALC® Member Report
Build 6475

Job name:

Address:

City, Province, Postal Code: CALEDON

Customer:

Code reports: CCMC 12472-R

Dry | 1 span | No cant.

November 12, 2018 09:12:09

File name: WOODCROFT 11.mmdl

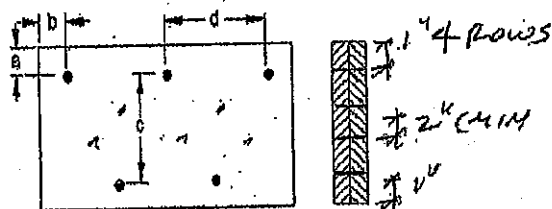
Description: 2ND FLOOR FRAMING/Dro...ed Beams/B5 DR(I2072)

Specifier:

Designer: PL

Company:

Connection Diagram: Full Length of Member



a minimum = 1"
b minimum = 3"

c = 7-1/2"
d = 6"

Connection design assumes point load is top-loaded. For connection design of side-loaded point loads, please consult a technical representative or professional of Record.
Member has no side loads.

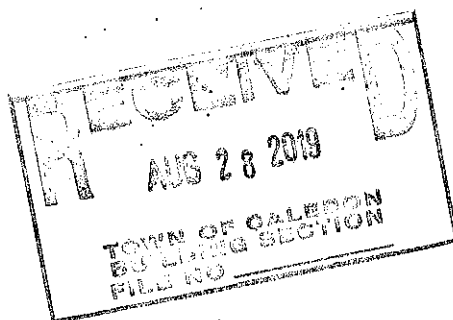
Connectors are: 1 - 1/2" Nails
3/4" ARDOX SPIRAL



Disclosure

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BC CALC®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorVault®, VERSA-LAM®, VERSA-RIM PLUS®,



DWG NO. YAM 3338-184
STRUCTURAL
COMPONENT ONLY

PL

E-19030940



Bolse Casade



Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP

2ND FLOOR FRAMING/Dropped Beams/B6 DR/(1903)

Dry | 1 span | No cant.

PASSED

November 12, 2018 09:12:09

BC CALCO Member Report

Build 6475

Job name:

Address:

City, Province, Postal Code: CALEDON

Customer:

Code reports: CCMC 12472-R

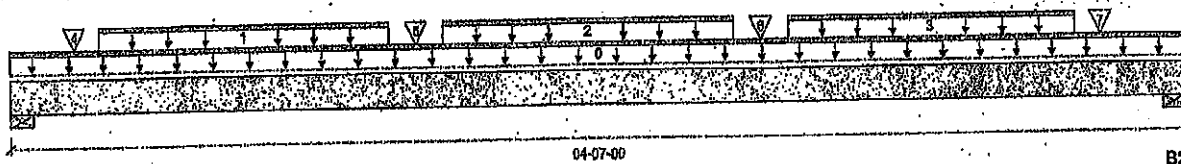
File name: WOODCROFT 11.mmdl

Description: 2ND FLOOR FRAMING/Dro...ed Beams/B6 DR/(1903)

Specifier:

Designer: PL

Company:



Total Horizontal Product Length = 04-07-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 3-1/2"	712 / 0	378 / 0		
B2, 3-1/2"	685 / 0	366 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 1.00	Dead 0.85	Snow 1.00	Wind 1.15	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	04-07-00	Top		10			00-00-00
1	BK1(12096)	Unf. Lin. (lb/ft)	L	00-04-04	01-05-12	Top	19	9			n/a
2	BK1(12092)	Unf. Lin. (lb/ft)	L	01-08-04	02-09-12	Top	19	9			n/a
3	BK1(12100)	Unf. Lin. (lb/ft)	L	03-00-04	04-01-12	Top	19	9			n/a
4	J2(11890)	Conc. Pt. (lbs)	L	00-08-00	00-08-00	Top	329	184			n/a
5	J2(11884)	Conc. Pt. (lbs)	L	01-07-00	01-07-00	Top	331	166			n/a
6	J2(11918)	Conc. Pt. (lbs)	L	02-11-00	02-11-00	Top	331	166			n/a
7	J2(11924)	Conc. Pt. (lbs)	L	04-03-00	04-03-00	Top	331	166			n/a

Controls Summary

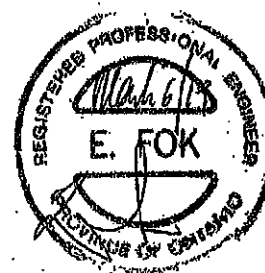
	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	1,144 ft-lbs	23,220 ft-lbs	4.9%	1	02-09-12
End Shear	824 lbs	11,671 lbs	7.1%	1	01-01-00
Total Load Deflection	L/999 (0.005")	n/a	n/a	4	02-03-13
Live Load Deflection	L/999 (0.003")	n/a	n/a	5	02-03-13
Max Defl.	0.005"	n/a	n/a	4	02-03-13
Span / Depth	5.2				

Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Wall/Plate 3-1/2" x 3-1/2"	1,540 lbs	19.4%	10.3%	Unspecified
B2	Wall/Plate 3-1/2" x 3-1/2"	1,485 lbs	18.7%	9.9%	Unspecified

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
 Design meets Code minimum (L/360) Live load deflection criteria.
 Calculations assume unbraced length of Top: 00-01-15, Bottom: 00-01-15.
 Resistance Factor phi has been applied to all presented results per CSA O86. **CONFORMS TO OBC 2012**
 BC CALCO analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.
 Design based on Dry Service Condition.
 Importance Factor: Normal Part code: Part 9
 Connection design assumes point load is top-loaded. For connection design of side-loaded point loads, please consult a technical representative or professional of Record.
 Member has no side loads.



DWG NO. YAM833.3 7.18H
 STRUCTURAL
 COMPONENT ONLY

T-1903093



Boise Cascade

**Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP****2ND FLOOR FRAMING/Dropped Beams\B6 DR\1903**

Dry | 1 span | No cant.

PASSED

November 12, 2018 09:12:09

BC CALC® Member Report

Build 8475

Job name:

Address:

City, Province, Postal Code: CALEDON

Customer:

Code reports:

CCMC 12472-R

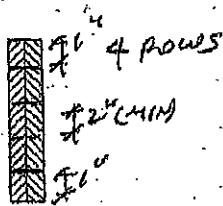
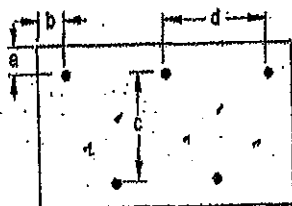
File name: WOODCROFT 11.mmdl

Description: 2ND FLOOR FRAMING/Dro...ed Beams\B6 DR\1903

Specifier:

Designer: PL

Company:

Connection Diagram: Full Length of Member

a minimum = 1/2"
b minimum = 3"

c = 1-1/2"
d = 6"

Connection design assumes point load is top-loaded. For connection design of side-loaded point loads, please consult a technical representative or professional of Record.
Member has no side loads.

Connectors are: 1. Nails

3/4" ARDUX SPIRAL

**Disclosure**

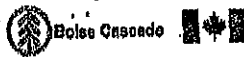
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BC CALC®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BC®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,

DW NO. YAM 3339-18H
STRUCTURAL
COMPONENT ONLY

16/11/18

T-190309361



Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP

PASSED

1ST FLOOR FRAMING/Flush Beams/B13(12798)

Dry | 1 span | No cant.

November 12, 2018 11:12:24

BC CALCO® Member Report

Build 6476

Job name:

Address:

City, Province, Postal Code: CALEDON

Customer:

Code reports: CCMC 12472-R

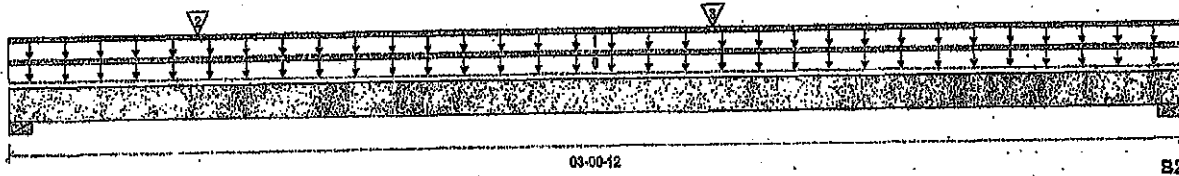
File name: WOODCROFT 11 ELEV 2 OPT DECK.mmdl

Description: 1ST FLOOR FRAMING/Flush Beams/B13(12798)

Specifier:

Designer: PL

Company:



Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 3-1/2"	455 / 0	306 / 0		
B2, 3-1/4"	253 / 0	203 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 1.00	Dead 0.85	Snow 1.00	Wind 1.15	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	03-00-12	Top		10			00-00-00
1	E27(12863)	Unf. Lin. (lb/ft)	L	00-00-00	03-00-12	Top		41			n/a
2	J2(12798)	Conc. Pl. (lbs)	L	00-06-00	00-06-00	Top	354	177			n/a
3	J2(12798)	Conc. Pl. (lbs)	L	01-10-00	01-10-00	Top	354	177			n/a

Controls Summary

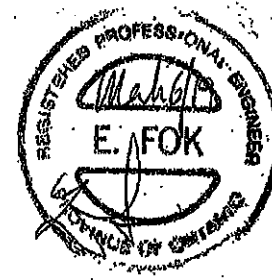
	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	601 ft-lbs	23,220 ft-lbs	2.6%	1	01-10-00
End Shear	687 lbs	11,571 lbs	4.9%	1	02-00-00
Total Load Deflection	L/999 (0.001")	n/a	n/a	4	01-06-10
Live Load Deflection	L/999 (0.001")	n/a	n/a	5	01-06-14
Max Defl.	0.001"	n/a	n/a	4	01-06-10
Span / Depth	3.3				

Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Wall/Plate 3-1/2" x 3-1/2"	1,064 lbs	20.3%	7.1%	Unspecified
B2	Wall/Plate 3-1/4" x 3-1/2"	634 lbs	13.0%	4.6%	Unspecified

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
 Design meets Code minimum (L/360) Live load deflection criteria.
 Calculations assume unbraced length of Top: 00-00-00, Bottom: 00-00-00.
 Resistance Factor phi has been applied to all presented results per CSA 086. CONFORMS TO CBC 2012
 BC CALCO analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA 086.
 Design based on Dry Service Condition.
 Importance Factor: Normal Part code: Part 9
 Connection design assumes point load is top-loaded. For connection design of side-loaded point loads, please consult a technical representative or professional of Record.



OWNED BY: 33-45-18H
 STRUCTURAL
 COMPONENT ONLY

T-1902099



Boise Cascade



Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP

PASSED

1ST FLOOR FRAMING\Flush Beams\B13(12798)

Dry | 1 span | No cant.

November 12, 2018 11:12:24

BC CALC® Member Report

Build 6476

Job name:

Address:

City, Province, Postal Code: CALEDON

Customer:

Code reports:

CCMC 12472-R

File name: WOODCROFT 11 ELEV 2 OPT DECK.mmd

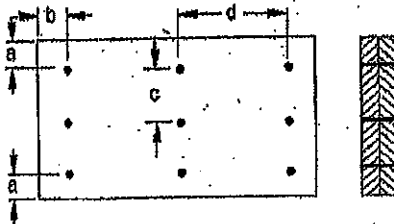
Description: 1ST FLOOR FRAMING\Flush Beams\B13(12798)

Specifier:

Designer: PL

Company:

Connection Diagram: Full Length of Member



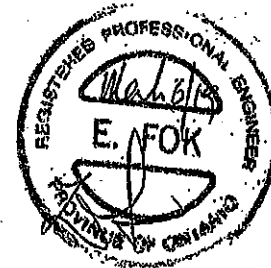
a minimum = 2"
b minimum = 3"

c = 2-3/4"
d = 6"

Connection design assumes point load is top-loaded. For connection design of side-loaded point loads, please consult a technical representative or professional of Record.

Connectors are: 7 Nails

3/4" ARDOX SPIRAL



Disclosure

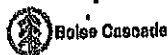
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BC CALC®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BC®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,

USE NO. 1 AM 3345 4181
STRUCTURAL
COMPONENT ONLY

10/11

T-19309961



Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP

PASSED

1ST FLOOR FRAMING\Flush Beams\B14(12799)

Dry | 1 span | No cant.

November 12, 2018 11:12:24

BC CALCO® Member Report

Build 6475

Job name:

Address:

City, Province, Postal Code: CALEDON

Customer:

Code reports:

CCMC 12472-R

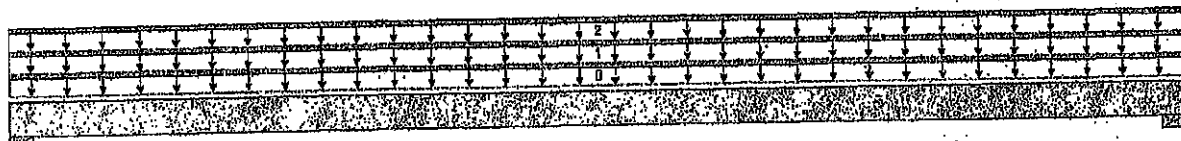
File name: WOODCROFT 11 ELEV 2 OPT DECK.mmdl

Description: 1ST FLOOR FRAMING\Flush Beams\B14(12799)

Specifier:

Designer: PL

Company:



03-01-00

B1

B2

Total Horizontal Product Length = 03-01-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 3-1/2"	13 / 0	84 / 0		
B2, 3-1/2"	13 / 0	84 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live	Dead	Snow	Wind	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	03-01-00	Top	10	41			00-00-00
1	E25(12856)	Unf. Lin. (lb/ft)	L	00-00-00	03-01-00	Top	9	4			n/a
2	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	03-01-00	Top					n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	66 ft-lbs	16,093 ft-lbs	0.4%	0	01-08-08
End Shear	35 lbs	7,521 lbs	0.5%	0	01-01-00
Total Load Deflection	L/999 (0")	n/a	n/a	4	01-08-08
Max Defl.	0"	n/a	n/a	4	01-08-08
Span / Depth	3.3				

Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Wall/Plate 3-1/2" x 3-1/2"	118 lbs	3.6%	1.2%	Unspecified
B2	Wall/Plate 3-1/2" x 3-1/2"	118 lbs	3.6%	1.2%	Unspecified

Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Calculations assume member is fully braced.

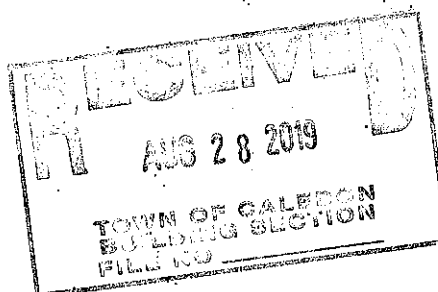
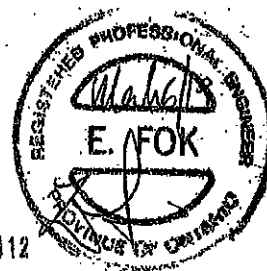
Resistance Factor phi has been applied to all presented results per CSA 086. CONFORMS TO DRC 2012

BC CALCO® analysis is based on Canadian Limit States Design, as per NECC 2015 and CSA 086.

Design based on Dry Service Condition.

Importance Factor : Normal Part code : Part 9

Member has no side loads.



DWG NO. YAM3346-18H
STRUCTURAL
COMPONENT ONLY

T-1903100



Boise Cascade



Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP

1ST FLOOR FRAMING/Flush Beams/B14(12799)

Dry | 1 span | No cant.

PASSED

November 12, 2018 11:12:24

BC CALC® Member Report

Build 6475

Job name:

Address:

City, Province, Postal Code: CALEDON

Customer:

Code reports: CCMC 12472-R

File name: WOODCROFT 11 ELEV 2 OPT DECK.mmdl

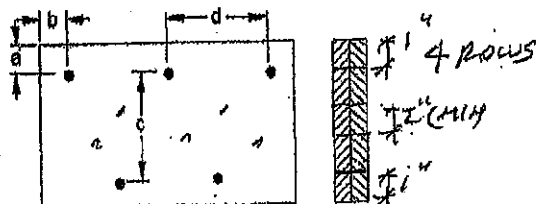
Description: 1ST FLOOR FRAMING/Flush Beams/B14(12799)

Specifier:

Designer: PL

Company:

Connection Diagram: Full Length of Member



a minimum = 0"
b minimum = 3"

c = 1-1/2"
d = 8"

Member has no side loads.

Connectors are: 3/4" Star Nails
3/4" ARBOX SPIRAL



Disclosure

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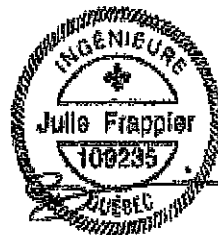
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ENGINEERED BY
3/4/18
STRUCTURAL
COMPONENT ONLY

T-1903100(2)

Maximum Floor Spans

Live Load = 40 psf, Dead Load = 30 psf
Simple Spans, L/480 Deflection Limit
3/4" OSB G&N Sheathing



Depth	Series	Bare				1/2" Gypsum Ceiling			
		On Centre Spacing				On Centre Spacing			
		12"	16"	19.2"	24"	12"	16"	19.2"	24"
9-1/2"	NI-20	15'-7"	14'-2"	13'-4"	12'-4"	15'-7"	14'-2"	13'-4"	12'-4"
	NI-40x	17'-0"	16'-0"	15'-1"	13'-11"	17'-5"	16'-1"	15'-1"	13'-11"
	NI-60	17'-2"	16'-2"	15'-5"	14'-3"	17'-6"	16'-5"	15'-5"	14'-3"
	NI-70	18'-0"	16'-11"	16'-3"	15'-6"	18'-5"	17'-3"	16'-7"	15'-6"
	NI-80	18'-3"	17'-1"	16'-5"	15'-9"	18'-8"	17'-5"	16'-9"	15'-10"
11-7/8"	NI-20	17'-10"	16'-10"	16'-0"	14'-10"	18'-6"	17'-1"	16'-0"	14'-10"
	NI-40x	19'-4"	17'-11"	17'-3"	15'-10"	19'-11"	18'-6"	17'-9"	15'-10"
	NI-60	19'-7"	18'-2"	17'-5"	16'-9"	20'-2"	18'-9"	17'-11"	17'-1"
	NI-70	20'-9"	19'-2"	18'-3"	17'-5"	21'-4"	19'-9"	18'-10"	17'-10"
	NI-80	21'-1"	19'-5"	18'-6"	17'-7"	21'-7"	20'-0"	19'-0"	18'-0"
14"	NI-90x	21'-8"	20'-0"	19'-1"	18'-0"	22'-2"	20'-6"	19'-6"	18'-6"
	NI-40x	21'-5"	19'-10"	18'-11"	17'-5"	22'-1"	20'-6"	19'-6"	17'-5"
	NI-60	21'-10"	20'-2"	19'-3"	18'-2"	22'-5"	20'-10"	19'-11"	18'-10"
	NI-70	23'-0"	21'-3"	20'-3"	19'-2"	23'-8"	21'-11"	20'-10"	19'-9"
	NI-80	23'-5"	21'-7"	20'-7"	19'-5"	24'-0"	22'-3"	21'-2"	20'-0"
16"	NI-90x	24'-1"	22'-3"	21'-2"	20'-0"	24'-8"	22'-10"	21'-9"	20'-7"
	NI-60	23'-9"	22'-0"	20'-11"	19'-10"	24'-6"	22'-9"	21'-8"	20'-6"
	NI-70	25'-1"	23'-2"	22'-0"	20'-10"	25'-9"	23'-10"	22'-9"	21'-6"
	NI-80	25'-6"	23'-6"	22'-4"	21'-2"	26'-1"	24'-2"	23'-1"	21'-10"
	NI-90x	26'-4"	24'-3"	23'-1"	21'-10"	26'-11"	24'-11"	23'-8"	22'-5"
Depth	Series	Mid-Span Blocking				Mid-Span Blocking and 1/2" Gypsum Ceiling			
		On Centre Spacing				On Centre Spacing			
		12"	16"	19.2"	24"	12"	16"	19.2"	24"
9-1/2"	NI-20	15'-7"	14'-2"	13'-4"	12'-4"	15'-7"	14'-2"	13'-4"	12'-4"
	NI-40x	17'-9"	16'-1"	15'-1"	13'-11"	17'-9"	16'-1"	15'-1"	13'-11"
	NI-60	18'-1"	16'-5"	15'-5"	14'-3"	18'-1"	16'-5"	15'-5"	14'-3"
	NI-70	19'-10"	17'-11"	16'-9"	15'-6"	19'-10"	17'-11"	16'-9"	15'-6"
	NI-80	20'-2"	18'-3"	17'-1"	15'-10"	20'-2"	18'-3"	17'-1"	15'-10"
11-7/8"	NI-20	18'-10"	17'-1"	16'-0"	14'-10"	18'-10"	17'-1"	16'-0"	14'-10"
	NI-40x	21'-3"	19'-3"	17'-9"	15'-10"	21'-3"	19'-3"	17'-9"	15'-10"
	NI-60	21'-9"	19'-8"	18'-5"	17'-1"	21'-9"	19'-8"	18'-5"	17'-1"
	NI-70	23'-4"	21'-5"	20'-1"	18'-6"	23'-8"	21'-5"	20'-1"	18'-6"
	NI-80	23'-7"	21'-10"	20'-5"	18'-11"	24'-1"	21'-10"	20'-5"	18'-11"
14"	NI-90x	24'-3"	22'-6"	21'-3"	19'-7"	24'-8"	22'-7"	21'-3"	19'-7"
	NI-40x	24'-2"	21'-5"	19'-6"	17'-5"	24'-2"	21'-5"	19'-6"	17'-5"
	NI-60	24'-9"	22'-5"	21'-0"	19'-6"	24'-9"	22'-5"	21'-0"	19'-6"
	NI-70	26'-1"	24'-3"	22'-9"	21'-0"	26'-8"	24'-3"	22'-9"	21'-0"
	NI-80	26'-6"	24'-7"	23'-3"	21'-6"	27'-1"	24'-10"	23'-3"	21'-6"
16"	NI-90x	27'-3"	25'-4"	24'-1"	22'-4"	27'-9"	25'-10"	24'-3"	22'-4"
	NI-60	27'-3"	24'-11"	23'-5"	21'-7"	27'-6"	24'-11"	23'-5"	21'-7"
	NI-70	28'-8"	26'-8"	25'-3"	23'-4"	29'-3"	26'-11"	25'-3"	23'-4"
	NI-80	29'-1"	27'-0"	25'-9"	23'-10"	29'-8"	27'-6"	25'-10"	23'-10"
	NI-90x	29'-11"	27'-10"	26'-6"	24'-10"	30'-6"	28'-5"	26'-11"	24'-10"

1. Maximum clear span applicable to simple-span residential floor construction with a design live load of 40 psf and dead load of 30 psf. The ultimate limit states are based on the factored loads of 1.50L + 1.25D. The serviceability limit states include the consideration for floor vibration, a live load deflection limit of L/480 and a total load deflection limit of L/240.

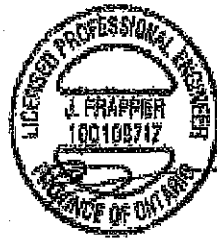
2. Spans are based on a composite floor with glued-nailed oriented strand board (OSB) sheathing with a minimum thickness of 3/4 inch for a joist spacing of 24 inches or less. The composite floor may include 1/2 inch gypsum ceiling and/or one row of blocking at mid-span with strapping. Strapping shall be minimum 1x4 inch strap applied to underside of joists at blocking line or 1/2 inch gypsum ceiling attached to joists.

3. Minimum bearing length shall be 1-3/4 inches for the end bearings.

4. Bearing stiffeners are not required when I-joists are used with the spans and spacings given in this table, except as required for hangers.

5. This span chart is based on uniform loads. For applications with other than uniformly distributed loads, an engineering analysis may be required based on the use of the design properties. Tables are based on Limit States Design per CSA O86-09, NBC 2010, and OBC 2012.

6. Joists shall be laterally supported at supports and continuously along the compression edge. Refer to technical documentation for installation guidelines and construction details. Nordic I-joists are listed in CCMC evaluation report 13032-R and APA Product Report PR-L274C.



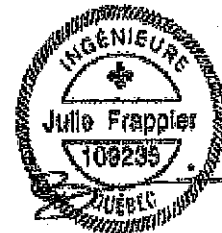
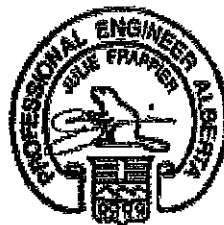
Maximum Floor Spans

Live Load = 40 psf, Dead Load = 15 psf
Simple Spans, L/480 Deflection Limit
5/8" OSB G&N Sheathing

Depth	Series	Bare				1/2" Gypsum Ceiling			
		On Centre Spacing				On Centre Spacing			
		12"	16"	19.2"	24"	12"	16"	19.2"	24"
9-1/2"	NI-20	15'-1"	14'-2"	13'-9"	N/A	15'-7"	14'-8"	14'-2"	N/A
	NI-40x	16'-1"	15'-2"	14'-8"	N/A	16'-7"	15'-7"	15'-1"	N/A
	NI-60	16'-3"	15'-4"	14'-10"	N/A	16'-8"	15'-9"	15'-3"	N/A
	NI-70	17'-1"	16'-1"	15'-6"	N/A	17'-5"	16'-5"	15'-10"	N/A
	NI-80	17'-3"	16'-3"	15'-8"	N/A	17'-8"	16'-7"	16'-0"	N/A
11-7/8"	NI-20	16'-11"	16'-0"	15'-5"	N/A	17'-6"	16'-6"	16'-0"	N/A
	NI-40x	18'-1"	17'-0"	16'-5"	N/A	18'-9"	17'-6"	16'-11"	N/A
	NI-60	18'-4"	17'-3"	16'-7"	N/A	19'-0"	17'-8"	17'-1"	N/A
	NI-70	19'-6"	18'-0"	17'-4"	N/A	20'-1"	18'-7"	17'-9"	N/A
	NI-80	19'-9"	18'-3"	17'-6"	N/A	20'-4"	18'-10"	17'-11"	N/A
14"	NI-90x	20'-4"	18'-9"	17'-11"	N/A	20'-10"	19'-3"	18'-5"	N/A
	NI-40x	20'-1"	18'-7"	17'-10"	N/A	20'-10"	19'-4"	18'-6"	N/A
	NI-60	20'-5"	18'-11"	18'-1"	N/A	21'-2"	19'-7"	18'-9"	N/A
	NI-70	21'-7"	20'-0"	19'-1"	N/A	22'-3"	20'-7"	19'-8"	N/A
	NI-80	21'-11"	20'-3"	19'-4"	N/A	22'-7"	20'-11"	20'-0"	N/A
16"	NI-90x	22'-7"	20'-11"	19'-11"	N/A	23'-3"	21'-6"	20'-6"	N/A
	NI-60	22'-3"	20'-8"	19'-9"	N/A	23'-1"	21'-5"	20'-6"	N/A
	NI-70	23'-6"	21'-9"	20'-9"	N/A	24'-3"	22'-5"	21'-5"	N/A
	NI-80	23'-11"	22'-1"	21'-1"	N/A	24'-8"	22'-10"	21'-9"	N/A
	NI-90x	24'-8"	22'-9"	21'-9"	N/A	25'-4"	23'-5"	22'-4"	N/A

Depth	Series	Mid-Span Blocking				Mid-Span Blocking and 1/2" Gypsum Ceiling			
		On Centre Spacing				On Centre Spacing			
		12"	16"	19.2"	24"	12"	16"	19.2"	24"
9-1/2"	NI-20	16'-8"	15'-3"	14'-5"	N/A	16'-8"	15'-3"	14'-5"	N/A
	NI-40x	17'-11"	16'-11"	16'-1"	N/A	18'-5"	17'-1"	16'-1"	N/A
	NI-60	18'-2"	17'-1"	16'-4"	N/A	18'-7"	17'-4"	16'-4"	N/A
	NI-70	19'-2"	17'-10"	17'-2"	N/A	19'-7"	18'-3"	17'-7"	N/A
	NI-80	19'-5"	18'-0"	17'-4"	N/A	19'-10"	18'-5"	17'-8"	N/A
11-7/8"	NI-20	19'-6"	18'-1"	17'-3"	N/A	19'-11"	18'-3"	17'-3"	N/A
	NI-40x	21'-0"	19'-6"	18'-8"	N/A	21'-7"	20'-2"	19'-2"	N/A
	NI-60	21'-4"	19'-9"	18'-11"	N/A	21'-11"	20'-4"	19'-6"	N/A
	NI-70	22'-6"	20'-10"	19'-11"	N/A	23'-0"	21'-5"	20'-5"	N/A
	NI-80	22'-9"	21'-1"	20'-1"	N/A	23'-3"	21'-7"	20'-8"	N/A
14"	NI-90x	23'-4"	21'-8"	20'-8"	N/A	23'-10"	22'-2"	21'-2"	N/A
	NI-40x	23'-7"	21'-11"	20'-11"	N/A	24'-3"	22'-7"	21'-7"	N/A
	NI-60	24'-0"	22'-3"	21'-3"	N/A	24'-8"	22'-11"	21'-11"	N/A
	NI-70	25'-3"	23'-4"	22'-3"	N/A	25'-10"	24'-0"	22'-11"	N/A
	NI-80	25'-7"	23'-8"	22'-7"	N/A	26'-2"	24'-4"	23'-2"	N/A
16"	NI-90x	26'-4"	24'-4"	23'-3"	N/A	26'-10"	24'-11"	23'-9"	N/A
	NI-60	26'-5"	24'-6"	23'-4"	N/A	27'-2"	25'-3"	24'-2"	N/A
	NI-70	27'-9"	25'-8"	24'-6"	N/A	28'-5"	26'-5"	25'-2"	N/A
	NI-80	28'-2"	26'-1"	24'-10"	N/A	28'-10"	26'-9"	25'-6"	N/A
	NI-90x	29'-0"	26'-10"	25'-7"	N/A	29'-7"	27'-5"	26'-2"	N/A

- Maximum clear span applicable to simple-span residential floor construction with a design live load of 40 psf and dead load of 15 psf. The ultimate limit states are based on the factored loads of 1.50L + 1.25D. The serviceability limit states include the consideration for floor vibration, a live load deflection limit of L/480 and a total load deflection limit of L/240.
- Spans are based on a composite floor with glued-nailed oriented strand board (OSB) sheathing with a minimum thickness of 5/8 inch for a joist spacing of 19.2 inches or less. The composite floor may include 1/2 inch gypsum ceiling and/or one row of blocking at mid-span with strapping. Strapping shall be minimum 1x4 inch strap applied to underside of joists at blocking line or 1/2 inch gypsum ceiling attached to joists.
- Minimum bearing length shall be 1-3/4 inches for the end bearings.
- Bearing stiffeners are not required when I-joists are used with the spans and spacings given in this table, except as required for hangers.
- This span chart is based on uniform loads. For applications with other than uniformly distributed loads, an engineering analysis may be required based on the use of the design properties. Tables are based on Limit States Design per CSA O86-09, NBC 2010, and OBC 2012.
- Joists shall be laterally supported at supports and continuously along the compression edge. Refer to technical documentation for installation guidelines and construction details. Nordic I-joists are listed in CCMC evaluation report 13032-R and APA Product Report PR-L274C.



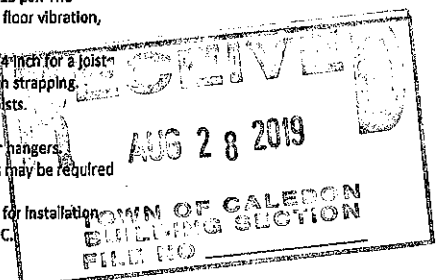
Maximum Floor Spans

Live Load = 40 psf, Dead Load = 15 psf
Simple Spans, L/480 Deflection Limit
3/4" OSB G&N Sheathing

Depth	Series	Bare				1/2" Gypsum Ceiling			
		On Centre Spacing				On Centre Spacing			
		12"	16"	19.2"	24"	12"	16"	19.2"	24"
9-1/2"	NI-20	15'-10"	15'-0"	14'-5"	13'-5"	16'-4"	15'-5"	14'-6"	13'-5"
	NI-40x	17'-0"	16'-0"	15'-5"	14'-9"	17'-5"	16'-5"	15'-10"	15'-2"
	NI-60	17'-2"	16'-2"	15'-7"	14'-11"	17'-6"	16'-7"	15'-11"	15'-3"
	NI-70	18'-0"	16'-11"	16'-3"	15'-7"	18'-5"	17'-3"	16'-7"	15'-11"
	NI-80	18'-3"	17'-1"	16'-5"	15'-9"	18'-8"	17'-5"	16'-9"	16'-1"
11-7/8"	NI-20	17'-10"	16'-10"	16'-2"	15'-6"	18'-6"	17'-4"	16'-9"	16'-1"
	NI-40x	19'-4"	17'-11"	17'-3"	16'-6"	19'-11"	18'-6"	17'-9"	17'-0"
	NI-60	19'-7"	18'-2"	17'-5"	16'-9"	20'-2"	18'-9"	17'-11"	17'-2"
	NI-70	20'-9"	19'-2"	18'-3"	17'-5"	21'-4"	19'-5"	18'-10"	17'-10"
	NI-80	21'-1"	19'-5"	18'-6"	17'-7"	21'-7"	20'-0"	19'-0"	18'-0"
14"	NI-90x	21'-8"	20'-0"	19'-1"	18'-0"	22'-2"	20'-6"	19'-6"	18'-6"
	NI-40x	21'-5"	19'-10"	18'-11"	17'-11"	22'-1"	20'-6"	19'-7"	18'-7"
	NI-60	21'-10"	20'-2"	19'-3"	18'-2"	22'-5"	20'-10"	19'-11"	18'-10"
	NI-70	23'-0"	21'-3"	20'-3"	19'-2"	23'-8"	21'-11"	20'-10"	19'-9"
	NI-80	23'-5"	21'-7"	20'-7"	19'-5"	24'-0"	22'-3"	21'-2"	20'-0"
16"	NI-90x	24'-1"	22'-3"	21'-2"	20'-0"	24'-8"	22'-10"	21'-9"	20'-7"
	NI-60	23'-9"	22'-0"	20'-11"	19'-10"	24'-6"	22'-9"	21'-8"	20'-6"
	NI-70	25'-1"	23'-2"	22'-0"	20'-10"	25'-9"	23'-10"	22'-9"	21'-6"
	NI-80	25'-6"	23'-6"	22'-4"	21'-2"	26'-1"	24'-2"	23'-1"	21'-10"
	NI-90x	26'-4"	24'-3"	23'-1"	21'-10"	26'-11"	24'-11"	23'-8"	22'-5"

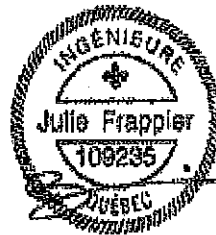
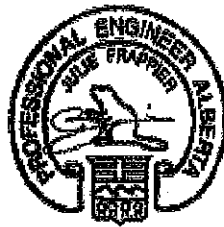
Depth	Series	Mid-Span Blocking				Mid-Span Blocking and 1/2" Gypsum Ceiling			
		On Centre Spacing				On Centre Spacing			
		12"	16"	19.2"	24"	12"	16"	19.2"	24"
9-1/2"	NI-20	16'-10"	15'-5"	14'-6"	13'-5"	16'-10"	15'-5"	14'-6"	13'-5"
	NI-40x	18'-8"	17'-2"	16'-3"	15'-2"	18'-10"	17'-2"	16'-3"	15'-2"
	NI-60	18'-11"	17'-6"	16'-6"	15'-5"	19'-2"	17'-6"	16'-6"	15'-5"
	NI-70	20'-0"	18'-7"	17'-9"	16'-7"	20'-5"	18'-11"	17'-10"	16'-7"
	NI-80	20'-3"	18'-10"	17'-11"	16'-10"	20'-8"	19'-3"	18'-2"	16'-10"
11-7/8"	NI-20	20'-1"	18'-5"	17'-5"	16'-2"	20'-1"	18'-5"	17'-5"	16'-2"
	NI-40x	21'-10"	20'-4"	19'-4"	17'-8"	22'-5"	20'-6"	19'-4"	17'-8"
	NI-60	22'-1"	20'-7"	19'-7"	18'-4"	22'-8"	20'-10"	19'-8"	18'-4"
	NI-70	23'-4"	21'-8"	20'-8"	19'-7"	23'-10"	22'-3"	21'-2"	19'-9"
	NI-80	23'-7"	21'-11"	20'-11"	19'-9"	24'-1"	22'-6"	21'-5"	20'-0"
14"	NI-90x	24'-3"	22'-6"	21'-6"	20'-4"	24'-8"	23'-0"	22'-0"	20'-9"
	NI-40x	24'-5"	22'-9"	21'-8"	19'-5"	25'-1"	23'-2"	21'-9"	19'-5"
	NI-60	24'-10"	23'-1"	22'-0"	20'-10"	25'-6"	23'-8"	22'-4"	20'-10"
	NI-70	26'-1"	24'-3"	23'-2"	21'-10"	26'-8"	24'-11"	23'-9"	22'-4"
	NI-80	26'-6"	24'-7"	23'-5"	22'-2"	27'-1"	25'-3"	24'-1"	22'-9"
16"	NI-90x	27'-3"	25'-4"	24'-1"	22'-9"	27'-9"	25'-11"	24'-8"	23'-4"
	NI-60	27'-3"	25'-5"	24'-2"	22'-10"	28'-0"	26'-2"	24'-9"	23'-1"
	NI-70	28'-8"	26'-8"	25'-4"	23'-11"	29'-3"	27'-4"	26'-1"	24'-8"
	NI-80	29'-1"	27'-0"	25'-9"	24'-4"	29'-8"	27'-9"	26'-5"	25'-0"
	NI-90x	29'-11"	27'-10"	26'-6"	25'-0"	30'-6"	28'-5"	27'-2"	25'-8"

- Maximum clear span applicable to simple-span residential floor construction with a design live load of 40 psf and dead load of 15 psf. The ultimate limit states are based on the factored loads of 1.50L + 1.25D. The serviceability limit states include the consideration for floor vibration, a live load deflection limit of L/480 and a total load deflection limit of L/240.
- Spans are based on a composite floor with glued-nailed oriented strand board (OSB) sheathing with a minimum thickness of 3/4 inch for a joist spacing of 24 inches or less. The composite floor may include 1/2 inch gypsum ceiling and/or one row of blocking at mid-span with strapping. Strapping shall be minimum 1x4 inch strap applied to underside of joists at blocking line or 1/2 inch gypsum ceiling attached to joists.
- Minimum bearing length shall be 1-3/4 inches for the end bearings.
- Bearing stiffeners are not required when I-joists are used with the spans and spacings given in this table, except as required for hangers.
- This span chart is based on uniform loads. For applications with other than uniformly distributed loads, an engineering analysis may be required based on the use of the design properties. Tables are based on Limit States Design per CSA O86-09, NBC 2010, and OBC 2012.
- Joists shall be laterally supported at supports and continuously along the compression edge. Refer to technical documentation for installation guidelines and construction details. Nordic I-joists are listed in CCMC evaluation report 13032-R and APA Product Report PR-L274C.



Maximum Floor Spans

Live Load = 40 psf, Dead Load = 30 psf
Simple Spans, L/480 Deflection Limit
5/8" OSB G&N Sheathing



Depth	Series	Bare				1/2" Gypsum Ceiling			
		On Centre Spacing				On Centre Spacing			
		12"	16"	19.2"	24"	12"	16"	19.2"	24"
9-1/2"	NI-20	15'-1"	14'-1"	13'-3"	N/A	15'-7"	14'-1"	13'-3"	N/A
	NI-40x	16'-1"	15'-2"	14'-8"	N/A	16'-7"	15'-7"	15'-1"	N/A
	NI-60	16'-3"	15'-4"	14'-10"	N/A	16'-8"	15'-9"	15'-3"	N/A
	NI-70	17'-1"	16'-1"	15'-6"	N/A	17'-5"	16'-5"	15'-10"	N/A
	NI-80	17'-3"	16'-3"	15'-8"	N/A	17'-8"	16'-7"	16'-0"	N/A
11-7/8"	NI-20	16'-11"	16'-0"	15'-5"	N/A	17'-6"	16'-6"	16'-0"	N/A
	NI-40x	18'-1"	17'-0"	16'-5"	N/A	18'-9"	17'-6"	16'-11"	N/A
	NI-60	18'-4"	17'-3"	16'-7"	N/A	19'-0"	17'-8"	17'-1"	N/A
	NI-70	19'-4"	18'-0"	17'-4"	N/A	20'-1"	18'-7"	17'-9"	N/A
	NI-80	19'-9"	18'-3"	17'-6"	N/A	20'-4"	18'-10"	17'-11"	N/A
	NI-90x	20'-4"	18'-9"	17'-11"	N/A	20'-10"	19'-3"	18'-5"	N/A
14"	NI-40x	20'-1"	18'-7"	17'-10"	N/A	20'-10"	19'-4"	18'-6"	N/A
	NI-60	20'-5"	18'-11"	18'-1"	N/A	21'-2"	19'-7"	18'-9"	N/A
	NI-70	21'-7"	20'-0"	19'-1"	N/A	22'-3"	20'-7"	19'-8"	N/A
	NI-80	21'-11"	20'-3"	19'-4"	N/A	22'-7"	20'-11"	20'-0"	N/A
	NI-90x	22'-7"	20'-11"	19'-11"	N/A	23'-3"	21'-6"	20'-6"	N/A
16"	NI-60	22'-3"	20'-8"	19'-5"	N/A	23'-1"	21'-5"	20'-6"	N/A
	NI-70	23'-6"	21'-9"	20'-9"	N/A	24'-3"	22'-5"	21'-5"	N/A
	NI-80	23'-11"	22'-1"	21'-1"	N/A	24'-8"	22'-10"	21'-9"	N/A
	NI-90x	24'-8"	22'-9"	21'-5"	N/A	25'-4"	23'-5"	22'-4"	N/A

Depth	Series	Mid-Span Blocking				Mid-Span Blocking and 1/2" Gypsum Ceiling			
		On Centre Spacing				On Centre Spacing			
		12"	16"	19.2"	24"	12"	16"	19.2"	24"
9-1/2"	NI-20	15'-7"	14'-1"	13'-3"	N/A	15'-7"	14'-1"	13'-3"	N/A
	NI-40x	17'-9"	16'-1"	15'-1"	N/A	17'-9"	16'-1"	15'-1"	N/A
	NI-60	18'-1"	16'-4"	15'-4"	N/A	18'-1"	16'-4"	15'-4"	N/A
	NI-70	19'-2"	17'-10"	16'-9"	N/A	19'-7"	17'-10"	16'-9"	N/A
	NI-80	19'-5"	18'-0"	17'-1"	N/A	19'-10"	18'-3"	17'-1"	N/A
11-7/8"	NI-20	18'-9"	17'-0"	16'-0"	N/A	18'-9"	17'-0"	16'-0"	N/A
	NI-40x	21'-0"	19'-3"	17'-9"	N/A	21'-3"	19'-3"	17'-9"	N/A
	NI-60	21'-4"	19'-8"	18'-5"	N/A	21'-8"	19'-8"	18'-5"	N/A
	NI-70	22'-6"	20'-10"	19'-11"	N/A	23'-0"	21'-4"	20'-0"	N/A
	NI-80	22'-9"	21'-1"	20'-1"	N/A	23'-3"	21'-7"	20'-5"	N/A
	NI-90x	23'-4"	21'-8"	20'-8"	N/A	23'-10"	22'-2"	21'-2"	N/A
14"	NI-40x	23'-7"	21'-5"	19'-6"	N/A	24'-1"	21'-5"	19'-6"	N/A
	NI-60	24'-0"	22'-3"	21'-0"	N/A	24'-8"	22'-5"	21'-0"	N/A
	NI-70	25'-3"	23'-4"	22'-3"	N/A	25'-10"	24'-0"	22'-9"	N/A
	NI-80	25'-7"	23'-8"	22'-7"	N/A	26'-2"	24'-4"	23'-2"	N/A
	NI-90x	26'-4"	24'-4"	23'-3"	N/A	26'-10"	24'-11"	23'-9"	N/A
16"	NI-60	26'-5"	24'-6"	23'-4"	N/A	27'-2"	24'-10"	23'-4"	N/A
	NI-70	27'-9"	25'-8"	24'-6"	N/A	28'-5"	26'-5"	25'-2"	N/A
	NI-80	28'-2"	26'-1"	24'-10"	N/A	28'-10"	26'-9"	25'-6"	N/A
	NI-90x	29'-0"	26'-10"	25'-7"	N/A	29'-7"	27'-5"	26'-2"	N/A

- Maximum clear span applicable to simple-span residential floor construction with a design live load of 40 psf and dead load of 30 psf. The ultimate limit states are based on the factored loads of 1.50L + 1.25D. The serviceability limit states include the consideration for floor vibration, a live load deflection limit of L/480 and a total load deflection limit of L/240.
- Spans are based on a composite floor with glued-nailed oriented strand board (OSB) sheathing with a minimum thickness of 5/8 inch for a joist spacing of 19.2 inches or less. The composite floor may include 1/2 inch gypsum ceiling and/or one row of blocking at mid-span with strapping. Strapping shall be minimum 1x4 inch strap applied to underside of joists at blocking line or 1/2 inch gypsum ceiling attached to joists.
- Minimum bearing length shall be 1-3/4 inches for the end bearings.
- Bearing stiffeners are not required when I-joists are used with the spans and spacings given in this table, except as required for hangers.
- This span chart is based on uniform loads. For applications with other than uniformly distributed loads, an engineering analysis may be required based on the use of the design properties. Tables are based on Limit States Design per CSA O86-09, NBC 2010, and OBC 2012.
- Joists shall be laterally supported at supports and continuously along the compression edge. Refer to technical documentation for installation guidelines and construction details. Nordic I-joists are listed in CCMC evaluation report 13032-R and APA Product Report PR-1274C.



Construction Detail

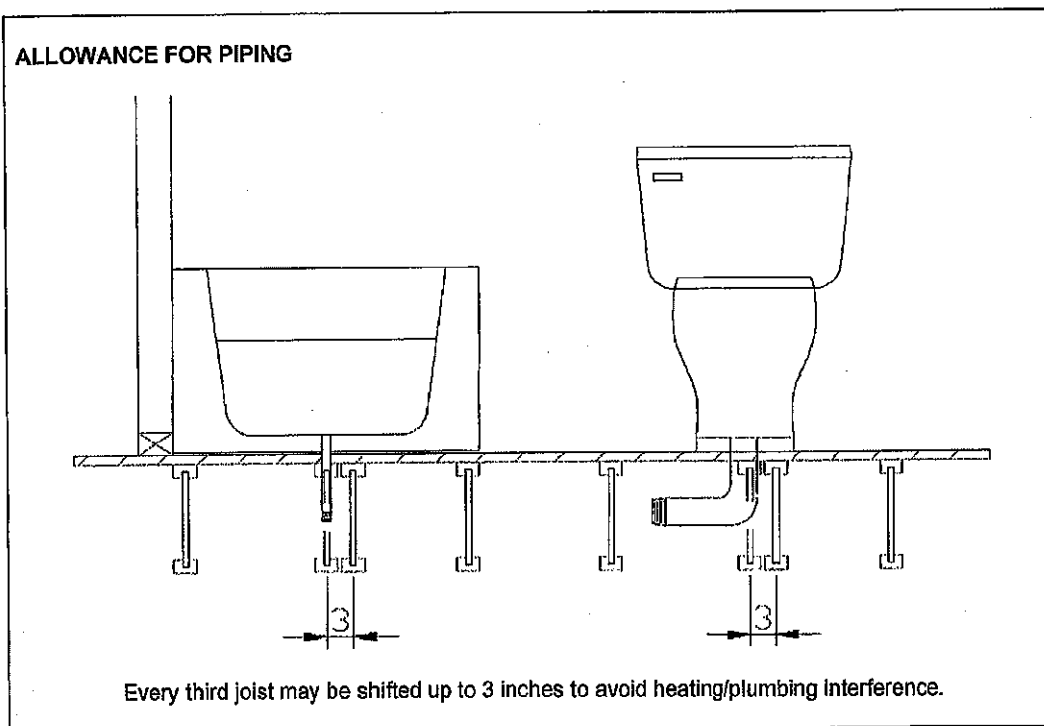
Limit States Design

Allowance for Piping (Installation Notes)

The floor layouts have usually not been checked for heating and/or plumbing interference. On-site adjustment of joists of up to 3 inches is permitted to avoid interferences. When moving a joist, the subfloor thickness shall be checked with code requirements when the joist spacing exceeds 19.2 inches. Except for cutting to length, I-joist flanges should never be cut, drilled, or notched.

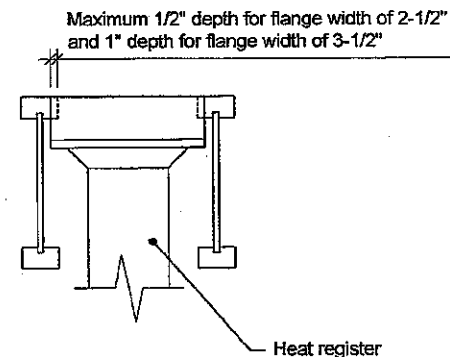
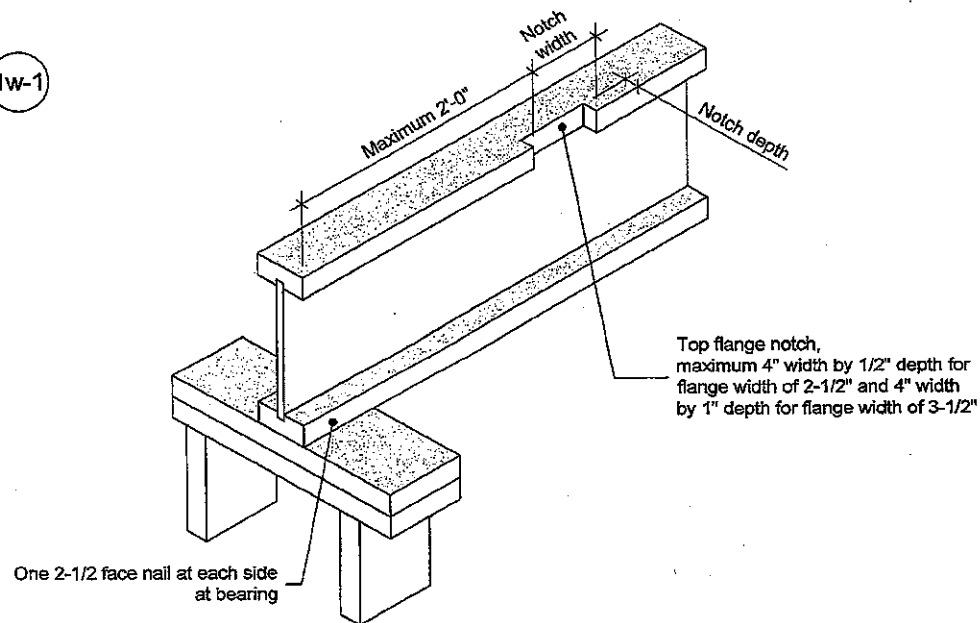
Installation of Nordic I-joists shall be as per *Nordic Joist Installation Guide for Residential Floors*. Refer to Tables 1 and 2 for maximum web hole and duct chase openings, respectively. These tables are based on the I-joists being used at their maximum spans. The minimum distance given may be reduced for shorter spans; contact your distributor for additional information.

The detail below shows the 3-inch allowance for piping. Every third joist may be shifted up to 3 inches to avoid heating/plumbing interference. For other applications, please contact your distributor.



Revised April 12, 2012

1w-1



Notes:

1. Blocking required at bearing for lateral support, not shown for clarity.
2. The maximum dimensions for a notch on the side of the top flange are 4-inch width by 1/2-inch depth for flange width of 2-1/2 inches, and 4-inch width by 1-inch depth for flange width of 3-1/2 inches.
3. This detail applies to simple-span joists and multiple-span joists where the notch is located at the end half-span.
4. For other applications, contact Nordic Structures.

This document supersedes all previous versions. If the document has been in effect for more than one year, consult nordic.ca or contact Nordic Structures.

All nails shown in the details are assumed to be common nails unless otherwise noted. Nails shall have a diameter not less than 0.128 inch for 2-1/2-inch nails, or 0.144 inch for 3-inch nails. Individual components not shown to scale for clarity.

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TITLE

Notch in I-joist for Heat Register

CATEGORY

I-joist - Typical Floor Framing and Construction Details

DOCUMENT

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DATE

2018-04-10

NUMBER

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