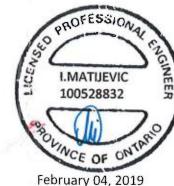


1. The loads used in the calculation of the attached approved components conform to the floor assembly shown on this layout.

2. The floor joists comply with the KOTT span table for the loads and spacing shown on this layout.

per the included multiple member connection detail.



This certification is to confirm that:

The floor system must be assembled in accordance to the KOTT Specifier Guide. Multi-ply members must be attached together as

All other components and structural elements supporting the floor system such as beams, walls, columns and foundation walls and footings including anchorage of components and bracing for lateral stability are the responsibility of others.



IM0219-003 Ground Floor LVL/LSL Label Description Width Depth Qty Plies Pcs |Length F9 Forex 1.75 11.875 12-0-0 .0E-3000Fb LVL Layout Name F8 1.75 10-0-0 Forex LOT-14 (AMELIA 3 EL-2 \_- TEERM) 2.0E-3000Fb LVL 1.75 | 11.875 F11 Forex 2 2 8-0-0 Design Method 2.0E-3000Fb LVL 1.75 11.875 Forex Description 2.0E-3000Fb LVL **GREEN YORK HOMES** F10 1.75 11.875 Forex 2 2 6-0-0 2.0E-3000Fb LVL BRAMPTON,ON Forex 1.75 11.875 4-0-0 Created 2.0E-3000Fb LVL May 29, 2018 Joist Builder Label Description Width Depth Qty Plies Pcs Length F17 LPI 20Plus 2.5 11.875 4 16-0-0 Sales Rep F18 LPI 20Plus 2.5 11.875 2 14-0-0 RM 2.5 11.875 4-0-0 F14 LPI 20Plus 3 Designer J1 LPI 20Plus 2.5 11.875 32 16-0-0 SB J6 LPI 20Plus 2.5 11.875 16 14-0-0 Shipping J5 LPI 20Plus 2.5 11.875 7 12-0-0 J4 LPI 20Plus 2.5 11.875 1 10-0-0 Project J10 LPI 20Plus 2.5 11.875 6 8-0-0 **Builder's Project** J2 LPI 20Plus 2.5 11.875 1 6-0-0 **Kott Lumber Company** Rim Board 14 Anderson Blvd Pcs Length Label Description Width Depth Qty Plies Stouffville, Ontario Norbord Rimboard 1.125 11.875 16 Canada Plus 1.125 X 11 875 L4A 7X4 Hanger 905-642-4400 Beam/Girder Supported **Ground Floor** Member Design Method LSD Pcs Description Skew Slope fasteners fasteners Building Code NBCC 2010 / OBC Unknown H1 1 2012 Hanger Floor 2 HUS1.81/10 30 10dx1 1/2 10 16d Loads 29 LF2511 1 #8x1 1/4WS H3 12 10d 40 1 HUS1.81/10 Live H5 15 Dead Blocking **Deflection Joist** Label Description Width Depth Qty Plies Pcs Length 480 BLK1 LPI 20 Plus 2.5 11.875 LinFt Varies 45-0-0 LL Span L/ 360 TL Span L/ LL Cant 2L/ 480 Framer to verify dimensions on the architectural drawings TL Cant 2L/ 360 Double joist only require filler/backer ply when supporting another Deflection Girder

member using a face-mounted hanger.

Install 2x4 blocking @ 24" o/c under parallel non-loadbearing walls. Install single-ply flush window header along inside face of rimboard/rimjoist

Refer to Nascor specifier guide for installation details.

Squash blocks recommended to be installed at end bearing on all first level

joists which support loading from above exceeding two levels floor or roof.

Load transfer blocks to \_\_\_\_
Load transfer blocks to \_\_\_
It shall be the framer's responsibility tria...
It shall be the framer's responsibility tria...
Refer to Multiple Member Connection Detail to ply only you nailing or bolting requirements.

Refer to Multiple Member Connection Detail to ply only you nailing or bolting requirements. Specifications forming part of the permit of rdance with the supplier's layout a All other components and structural elements supporting the floor system such as beams, walls, columns and foundation walls and footings including anchorage of components and bracing for lateral stability are the responsibility of others.

Hatch area represents ceramic tiled floor with an additional dead load of 5 PSF.

The framing shown on this layout may be deviate from the architectural drawings. Project Engineer to review and approve the deviation prior to construction.

5.25 X 10.25 (Dropped)

M-2057

LL Span L/

TL Span L/

LL Cant 2L/

TL Cant 2L/

Decking

Fastener

Vibration

Deck Thickness 360

240

480

360

OSB

3/4"

Nailed & Glued

Legend BY Point Load Support Load from Above Norbord Rimboard Plus 1.125 X 11.875 LPI 20Plus 11.875 Forex 2.0E-3000Fb LVL 1.75 X 11.875

All come

JOISTS SPACING 16"O/C TED OTHERWISE

64, Jardin Dr, Suite 3A

Vaughan, ON, L4K 3P3

Project # 17-55

Date: Dec 21, 2018

JARDIN DESIGN GROUP INC

Model: LOT-14 (AMELIA 3 EL-2)

OBC 2012 O.Reg 332/12 as amended

Nascor CCMC - 13535-R 3. LVL CCMC -12904-R

4. CAN/CSA-086-09 5. CCMC -12787-R APA PR-L310(C)

GREEN YORK HOMES GRANELLI HOMES PROJECT

AMELIA 3 EL-1 & 2 \_5BEDRM

**Kott Lumber Company** 

Building Code NBCC 2010 / OBC

LSD

40

15

480

360

480

360

360

240

480

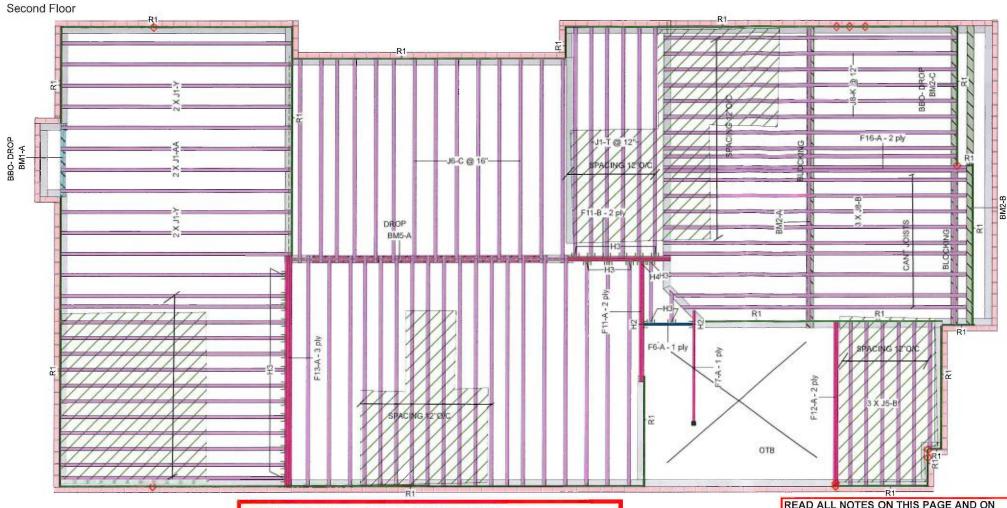
360

OSB

5/8"

Nailed & Glued

Gypsum 1/2"



THIS CERTIFICATION IS TO CONFIRM THAT:

1. THE LOADS USED IN THE CALCULATION OF THE ATTACHED APPROVED COMPONENTS CONFORM TO THE FLOOR ASSEMBLY SHOWN ON THIS LAYOUT.

2. THE FLOOR JOISTS COMPLY WITH THE NASCOR SPAN TABLE FOR THE LOADS AND SPACING SHOWN ON THIS LAYOUT.

THE FLOOR SYSTEM MUST BE ASSEMBLED IN ACCORDANCE TO THE NASCOR SPECIFIER GUIDE, MULTI-PLY MEMBERS MUST BE ATTACHED TOGETHER AS PER THE INCLUDED MULTIPLE

ALL OTHER COMPONENTS AND STRUCTURAL ELEMENTS SUPPORTING THE FLOOR SYSTEM SUCH AS BEAMS, WALLS, **COLUMNS AND FOUNDATION WALLS AND FOOTINGS** INCLUDING ANCHORAGE OF COMPONENTS AND BRACING FOR



READ ALL NOTES ON THIS PAGE AND ON ENGINEERING NOTE PAGE ENP-2. THIS NOTE PAGE IS AN INTEGRAL PART OF THIS CALCULATION SUMMARY PAGE AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS.

PASS THRU FRAMING SQUASH BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS

MAR 0 6 2019

Bullding Division

MEMBER CONNECTION DETAIL.

LATERAL STABILITY ARE THE RESPONSIBILITY OF OTHERS.



RECEIVED

LVL/LS	L (Flush)							MIAC
Label	Description	Width	Depth	Qty	Plies	Pcs	Length	NAS
F13	Forex 2.0E-3000Fb LVL	1.75	11.875	1	3	3	16-0-0	
F12	Forex 2.0E-3000Fb LVL	1.75	11.875	1	2	2	12-0-0	Layout Name AMELIA 3 EL-1 &
F11	Forex 2.0E-3000Fb LVL	1.75	11.875	2	2	4	8-0-0	Design Method
F7	Forex 2.0E-3000Fb LVL	1.75	11.875			1	8-0-0	Description
F6	Forex 2.0E-3000Fb LVL	1.75	11.875			1	4-0-0	GREEN YORK HO GRANELLI HOME
LVL/LS	L (Dropped)							BRAMPTON,ON
Label	Description	Width	Depth	Qty	Plies	Pcs	Length	Created
BM5	Forex 2.0E-3000Fb LVL	1.75	11.875	1	3	3	16-0-0	May 29, 2018
L.Inist (	(Flush)						1	Builder
Label	Description	Width	Depth	Qty	Plies	Pcs	Length	Sales Rep
J8	NJH	2.5	11.875	acy	1 1100	18	20-0-0	Designer
J1	NJH	2.5	11.875			50	16-0-0	SB
J6	NJH	2.5	11.875			14	14-0-0	
J5	NJH	2.5	11.875			5	12-0-0	Shipping
J3	NJH	2.5	11.875			1	8-0-0	Project
J9	NJH	2.5	11.875			2	4-0-0	Builder's Project
F16	NJH	2.5	11.875	1	2	2	20-0-0	Kott Lumber
Rim Bo	oard							14 Anderson Blvd
Label	Description	Width	Depth	Qty	Plies	Pcs	Length	Stouffville, Ontario
R1	Norbord Rimboard Plus 1.125 X 11.875	1.125	11.875			17	12	Canada L4A 7X4
Blockin	g					9		905-642-4400
Label	Description	Width	Depth	Qty	Plies	Pcs	Length	Second Floor
BLK1	NJH	2.5	11.875	LinFt		Varies	34-0-0	Design Method
Hanger				Bea	am/Girder		ported ember	Building Code N
		-		- 7		T -		1

H4 NOTES:

H2

НЗ

Label Pcs Description

26 LF2511

2 HUS1.81/10

1 HGUS410

Second Floor

Framer to verify dimensions on the architectural drawings.

Double joist only require filler/backer ply when supporting another member using a face-mounted hanger

Install 2x4 blocking @ 24" o/c under parallel non-loadbearing walls.

Install single-ply flush window header along inside face of rimboard/rimjoist Refer to Nascor specifier guide for installation details.

Skew Slope

fasteners

30 16d

12 10d

46 16d

fasteners

10 16d

1 #8x1 1/4WS

16 16d

Loads

Live

Dead

Deflection Joist

Deflection Girder

LL Span L/

TL Span L/

LL Cant 2L/

TL Cant 2L/

LL Span L/

TL Span L/

LL Cant 2L/

TL Cant 2L/

Decking

Thickness

Fastener

Ceiling:

Vibration

Deck

Squash blocks recommended to be installed at end bearing on all first level joists which support loading from above exceeding two levels floor or roof.

Load transfer blocks to be installed under all point loads. It shall be the framer's responsibility that floor joists and beams are fastened as per the hanger manufacturer's standards.

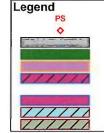
Refer to Multiple Member Connection Detail to ply to ply nailing or bolting

Rim parallel to joists: 1-1/8" rimboard with 2"x4" block (1/16" longer than rim depth) @ 16" o/c. All other components and structural elements supporting the floor system such as beams, walls, columns and foundation walls and footings including anchorage of components and bracing for lateral stability are the esponsibility of others.

Hatch area represents ceramic tiled floor with an additional dead load

The framing shown on this layout may be deviate from the architectural drawings. Project Engineer to review and approve the deviation prior o construction.

5 X 10.25 (Dropped)



Point Load Support Load from Above Norbord Rimboard Plus 1.125 X 11.875 NJH 11.875 Forex 2.0E-3000Fb LVL 1.75 X 11.875 Forex 2.0E-3000Fb LVL 1.75 X 11.875 1.75 X 9.5 (Dropped)

KOTT

Simpson Strong-Tie®

Component Solutions™

1. OBC 2012 O.Reg 332/12 as amended

5. CCMC -12787-R APA PR-L310(C)

**EWP Studio** 

Architectural Drawing Info

JARDIN DESIGN GROUP

64 JARDIN DR, SUITE 3A

VAUGHAN, ON L4K 3P3

JOISTS SPACING 16"O/C

NOTED OTHERWISE

2, Nascor CCMC - 13535-R 3, LVL CCMC -12904-R

4. CAN/CSA-O86-09

Project # 17-55 Model: AMELIA 3

Date: MAY 22,2018

# **Engineering Note Page (ENP-2)**

REVISION 2018-10-17

M-2057 LOT 14

# Please read all notes prior to installation of the component

## **DESIGN INFORMATION**

This building component is certified as an individual component for the loads and conditions shown on the calculation and drawing page.

The responsibility of the undersigned engineer is <u>only</u> limited to the calculation of this building component for the loads and conditions shown on this drawing.

The responsibility of the undersigned is limited to the verification of the structural capacity of the floor joists and LVL beams based on placement as shown on the layout. The loads applied are limited to the gravity effects of the specified loads. The structural integrity of the building and the effect of wind, uplift, seismic, lateral or other forces, calculation of adequate support and anchorage of components, as well as the dimensions and design loads used to calculate components are the responsibility of the overall building designer.

Floor joists and OSB rim board are designed to carry uniformly distributed loads only. Point loads should be transferred through the floor cavity with transfer blocks. Structural elements such as walls, posts, connectors, and transfer blocks are the responsibility of the overall building designer.

The undersigned engineer disclaims any responsibility for damages as a result of being furnished faulty or incorrect information, specifications and/or designs.

Installation of floor joists is to be carried out in accordance with the current edition of the manufacturer's literature available at <a href="http://www.kottgroup.com">http://www.kottgroup.com</a>.

#### CODE

This building component is designed in accordance with the National Building Code of Canada, the Ontario Building Code, CCMC and Canadian Standards Association guidelines.

#### COMPONENT

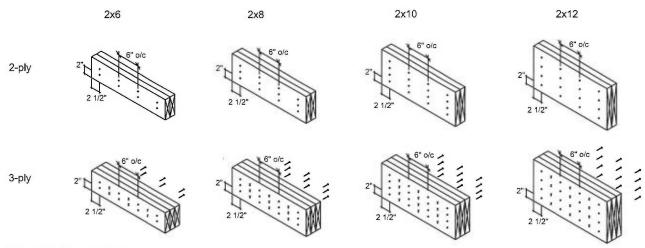
- 1. The building component used in construction must be the same as indicated on the drawings.
- 2. The building component must be installed and assembled as per specification shown on the drawing and in accordance with the manufacturer's assembly and installation.
- 3. Members consisting of multiple plies must be connected as per the document "Multi-ply Connection Details".
- 4. Pass-thru transfer block framing is required at all point loads over bearings.

# **HANDLING AND INSTALLATION**

Do not drill any hole, cut or notch a certified building component without a written preauthorization.



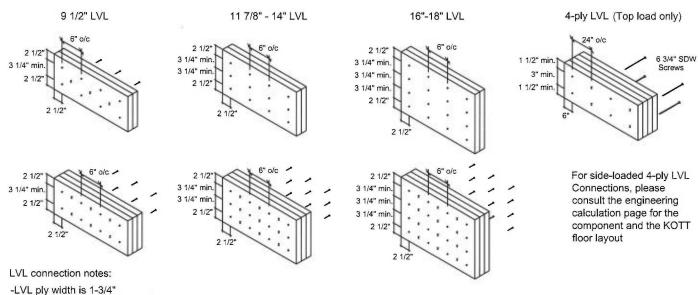
# **Conventional Connections**



Conventional connection notes:

- -Nails to be 3" long wire nails.
- -Nails to be located 2" min. from the top and bottom of the member. Start all nails 2 1/2" min. from ends.
- -Number of rows and spacing as per details shown, unless noted otherwise.
- "X" represents nail driven from the opposite side.

# LVL Connections



- -Nails to be 3 1/2" common wire nails.
- -Nails to be located 2 1/2" min. from the top and bottom of the member. Start all nails 2 1/2" min. from ends.
- -Minimum 3 1/4" spacing between rows.
- -Number of rows and spacing as per details shown, unless noted otherwise.
- "X" represents nail or screw driven from the opposite side.

# Multiple Member Connections

All connections are for uniformly distributed loads.

For multi-ply connections of I-joists, refer to Manufacturer's Installation Guide



KOTT Inc. 3228 Moodie Drive Ottawa, ON K2H 7V1 613-838-2775



Client:

Project: Address: Date: 1/29/2019

Designer:

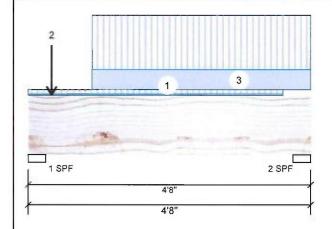
Job Name: LOT-14 (AMELIA 3 EL-2 \_4BEDRM)

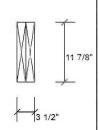
Project #

Forex 2.0E-3000Fb LVL

1.750" X 11.875"

2-Ply - PASSED Level: Ground Floor





Wind

N	lei	m	be	er	I	١t	0	rn	na	ti	0	ľ
_			_			_					_	_

Type:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal
General Load	
Floor Live:	40 PSF
Dead:	15 PSF

Application: Floor (Residential) Design Method: LSD **Building Code:** NBCC 2010 / OBC 2012

Load Sharing: Nο Deck: Not Checked Not Checked Vibration:

Unfactored	Reactions	UNPATTERNED	lb (Uplift)
Brg	Live	Dead	Snow

1	836	336	0	0
2	761	308	0	0

# **Bearings and Factored Reactions**

Bearing Length	Cap. F	React D/L lb	Total	Ld. Case	Ld. Comb.	
1 - SPF 3.500"	22%	419 / 1254	1673	L	1.25D+1.5L	
2 - SPF 3.500"	20%	384 / 1141	1526	L	1.25D+1.5L	

## **Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1441 ft-lb	2'4 3/8"	34261 ft-lb	0.042 (4%)	1.25D+1.5L	L
Unbraced	1441 ft-lb	2'4 3/8"	34261 ft-lb	0.042 (4%)	1.25D+1.5L	L
Shear	2109 lb	1'2 5/8"	11596 lb	0.182 (18%)	1.25D+1.5L	L
Perm Defl in.	0.002 (L/28861)	2'4 3/16"	0.140 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.004 (L/11672)	2'4 1/4"	0.140 (L/360)	0.030 (3%)	L	L
TL Defl inch	0.006 (L/8311)	2'4 1/4"	0.210 (L/240)	0.030 (3%)	D+L	L

#### **Design Notes**

- 1 Girders are designed to be supported on the bottom edge only.
- 2 Multiple plies must be fastened together as per manufacturer's details.
- 3 Top loads must be supported equally by all plies.
- 4 Top braced at bearings.
- 5 Bottom braced at bearings.
- 6 Lateral slenderness ratio based on full section width.

13	PROFESSIONA	EZ
LICENSES	I.MATIJEVIC 100528832	ENGINEER
1/2/2	DVINCE OF ONTO	
	WCE OF ON	

February 04, 2019

ı	ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
ı	1	Tie-In	0-0-0 to 4-2-8	(Span)1-2-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
ı	2	Point	0-4-10		Near Face	139 lb	371 lb	0 lb	0 lb	J1
ı	3	Part, Uniform	1-0-10 to 4-8-0		Near Face	117 PLF	312 PLF	0 PLF	0 PLF	
1										

**Refer to Multiple Member Connection** 

Pass-Thru Framing Squash Block is

required at all point loads over bearings

Detail for ply to ply nailing or bolting

#### requirements Notes

Self Weight

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

#### Lumber

Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or corrosive

## Handling & Installation

- LVL beams must not be cut or drilled Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals Damaged Beams must not be used
- Design assumes top edge is laterally restrained Provide lateral support at bearing points to avoid lateral displacement and rotation

For flat roofs provide proper drainage to prevent ponding

10 PLF

Manufacturer Info APA: PR-I 318

Kott Lumber Company 14 Anderson Blvd, Ontario Canada L4A 7X4 905-642-4400



READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT

IN THE DESIGN OF THIS COMPONENT.

CONTAINS SPECIFICATIONS AND CRITERIA USED





Client:

Project:

Address:

Date: 1/29/2019

Designer:

Job Name: LOT-14 (AMELIA 3 EL-2 \_4BEDRM)

Project #

Forex 2.0E-3000Fb LVL

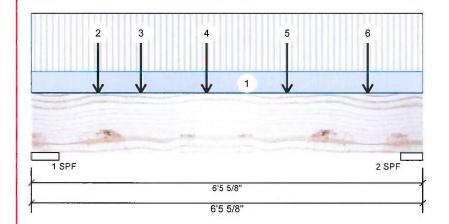
1.750" X 11.875"

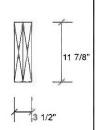
2-Ply - PASSED

Brg

1

Level: Ground Floor





Wind

Mem	ber	Inf	ori	ma	ti	on

Type:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal
General Load	
Floor Live:	40 PSF
Dead:	15 PSF

Application: Floor (Residential) Design Method: LSD Building Code: NBCC 2010 / OBC 2012 Load Sharing:

No Not Checked Not Checked

Unfactored Reactions UNPATTERNED	lb	(Uplift)
----------------------------------	----	----------

Dead

443

2	834	392	0	0

Snow

0

### **Analysis Results**

-							
	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
	Moment	2940 ft-lb	2'10 3/4"	34261 ft-lb	0.086 (9%)	1.25D+1.5L	L
	Unbraced	2940 ft-lb	2'10 3/4"	32711 ft-lb	0.090 (9%)	1.25D+1.5L	L
	Shear	1886 lb	1'4 5/8"	11596 lb	0.163 (16%)	1.25D+1.5L	L
	Perm Defl in.	0.006 (L/12240)	3'1 11/16"	0.192 (L/360)	0.030 (3%)	D	Uniform
	LL Defl inch	0.012 (L/5587)	3'1 3/8"	0.192 (L/360)	0.060 (6%)	L	L
	TL Defl inch	0.018 (L/3836)	3'1 1/2"	0.289 (L/240)	0.060 (6%)	D+L	L

Deck:

Vibration:

# **Bearings and Factored Reactions**

Live

972

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.	
1 - SPF	5.500"	17%	554 / 1458	2012	L	1.25D+1.5L	
2 - SPF	4.375"	18%	489 / 1251	1740	L	1.25D+1.5L	

#### **Design Notes**

- 1 Girders are designed to be supported on the bottom edge only.
- 2 Multiple plies must be fastened together as per manufacturer's details.
- 3 Top loads must be supported equally by all plies.
- 4 Top braced at bearings.
- 5 Bottom braced at bearings.

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.



February 04, 2019

Comments

Wind

0 PLF 0 lb J6

L	6 Lateral slenderness ratio based on full section width.								
l	ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	
	1	Part. Uniform	0-0-0 to 6-5-10		Тор	15 PLF	40 PLF	0 PLF	
	2	Point	1-1-4		Near Face	123 lb	288 lb	0 lb	
	3	Point	1-9-12		Near Face	129 lb	303 lb	0 lb	
	4	Point	2-10-12		Near Face	159 lb	368 lb	0 lb	
	5	Point	4-2-12		Near Face	171 lb	387 lb	0 lb	
	6	Point	5-6-12		Near Face	94 lb	201 lb	0 lb	
		Self Weight				10 PLF			

0 lb F17 Pass, Thru Framing Squash Block is required at all point loads over bearings

Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

#### Lumber

Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or corrosive

#### Handling & Installation

- LVL beams must not be out or drilled Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
- approvals
  Damaged Beams must not be used
  Design assumes top edge is laterally restrained
  Provide lateral support at bearing points to avoid
  lateral displacement and rotation

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info APA: PR-I 318

Kott Lumber Company 14 Anderson Blvd, Ontario Canada L4A 7X4 905-642-4400







Client:

Project:

Address:

Date: 1/29/2019

Designer: S B

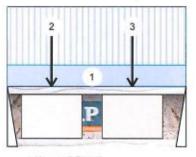
Job Name: LOT-14 (AMELIA 3 EL-2 \_4BEDRM)

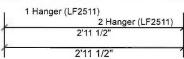
Project #:

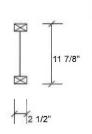
F14-A LPI 20Plus

11,875" - PASSED

Level: Ground Floor







Wind

Member In	formation
-----------	-----------

Туре:	Girder
Plies:	1
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal
General Load	
Floor Live:	40 PSF
Dead:	15 PSF

Application: Floor (Residential)
Design Method: LSD
Building Code: NBCC 2010 / OBC 2012

Load Sharing: No
Deck: Not Checked
Vibration: Not Checked

# **Unfactored Reactions UNPATTERNED Ib (Uplift)**

- 1	-				
	1	303	114	0	0
	2	281	106	0	0

Dead

Snow

# Analysis Results

Г	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
	Moment	416 ft-lb	2' 3/4"	6250 ft-lb	0.067 (7%)	1.25D+1.5L	L
	Shear	590 lb	1 1/4"	2345 lb	0.252 (25%)	1.25D+1.5L	L
	Perm Defl in.	0.002 (L/18574)	1'8 1/2"	0.092 (L/360)	0.020 (2%)	D	Uniform
	LL Defl inch	0.005 (L/6992)	1'8 1/2"	0.092 (L/360)	0.050 (5%)	L	L
	TL Defl inch	0.006 (L/5080)	1'8 1/2"	0.137 (L/240)	0.050 (5%)	D+L	L

# Bearings and Factored Reactions

Live

Brg

	_							
ſ	Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.	
	1 - Hanger	2.000"	37%	142 / 454	596	L	1.25D+1.5L	
	2 - Hanger	2.000"	35%	132 / 422	554	Ľ	1.25D+1.5L	

## **Design Notes**

- 1 Provide restraint at supports to ensure lateral stability.
- 2 Dead Load Deflection: Instant = 0.002", Long Term = 0.003"
- 3 Fill all hanger nailing holes.
- 4 See manufacture installation guide note E4 for installation details
- 5 Girders are designed to be supported on the bottom edge only.
- 6 Top flange braced at bearings.
- 7 Bottom flange braced at bearings.



February 04, 2019

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 2-11-8	(Span)1-4-9	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-8-12		Near Face	91 lb	242 lb	0 lb	0 lb	J5
3	Point	2-0-12		Near Face	98 lb	260 lb	0 lb	0 lb	J5

Pass-Thru Framing Squash Block is required at all point loads over bearings

Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

#### Notes

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This design is valid until 10/31/2020

#### Manufacturer Info

Louisiana-Pacific Corp 414 Union Street, Suite 2000 Nashville, TN 37219 (888) 820-0325 www.lpcorp.com CCMC: 12412-R APA: PR-L238C







Client: Project: Address:

Project:

Date: 1/29/2019

Designer: SB

Job Name: LOT-14 (AMELIA 3 EL-2 \_4BEDRM)

Project #:

Brg

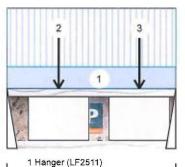
1 -Hanger

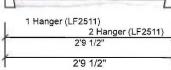
Hanger

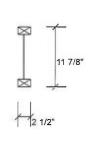
F14-B LPI 20Plus

11.875" - PASSED

Level: Ground Floor







Wind

Ld. Comb.

1.25D+1.5L

#### Member Information

Type:	Girder	Application:
Plies:	1	Design Method
Moisture Condition:	Dry	Building Code:
Deflection LL:	360	Load Sharing:
Deflection TL:	240	Deck:
Importance:	Normal	Vibration:
General Load		
Floor Live:	40 PSF	
Dead:	15 DCE	

pplication: Floor (Residential)
esign Method: LSD
uilding Code: NBCC 2010 / OBC 2012

No

k: Not Checked ration: Not Checked

## Unfactored Reactions UNPATTERNED lb (Uplift)

Live

**Bearings and Factored Reactions** 

Bearing Length

2.000"

	302	110	U	U	
2	351	136	0	0	

145 / 453

Cap. React D/L lb

38%

Dead

Snow

Total Ld. Case

598 L

## **Analysis Results**

Γ	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
	Moment	429 ft-lb	10 1/4"	6250 ft-lb	0.069 (7%)	1.25D+1.5L	L
l	Shear	691 lb	2'8 1/4"	2345 lb	0.295 (29%)	1.25D+1.5L	L
	Perm Defl in.	0.002 (L/17290)	1' 5/8"	0.086 (L/360)	0.020 (2%)	D	Uniform
l	LL Defl inch	0.005 (L/6655)	1' 1/2"	0.086 (L/360)	0.050 (5%)	L	L
l	TL Defl inch	0.006 (L/4805)	1' 9/16"	0.129 (L/240)	0.050 (5%)	D+L	L,

# Design Notes

- 1 Provide restraint at supports to ensure lateral stability.
- 2 Dead Load Deflection: Instant = 0.002", Long Term = 0.003"
- 3 Fill all hanger nailing holes.
- 4 See manufacture installation guide note E4 for installation details
- 5 Girders are designed to be supported on the bottom edge only.
- 6 Top flange braced at bearings.
- 7 Bottom flange braced at bearings.

2.000"	44%	170 / 527	697 L	1.25D+1.5
		-	OFESSIO	
		Se S	ROFESSIO	NA CZ
		15 6	MATIJEVI	
		\3 :	100528832	-
		1 6	1	$\neg$ $I$

February 04, 2019

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow		Comments
1	Tie-In	0-0-0 to 2-9-8	(Span)1-4-9	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-10-4		Far Face	113 lb	294 lb	0 lb	0 lb	J6
3	Point	2-2-4		Far Face	110 lb	282 lb	0 lb	0 lb	J6

Pass-Thru Framing Squash Block is required at all point loads over bearings

Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

#### Notes

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#### Manufacturer Info

Louisiana-Pacific Corp 414 Union Street, Suite 2000 Nashville, TN 37219 (888) 820-0325 www.lpcorp.com CCMC: 12412-R APA: PR-L238C







Client: Project:

Address:

Date: 1/29/2019

Designer:

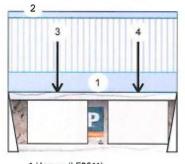
Job Name: LOT-14 (AMELIA 3 EL-2 \_4BEDRM)

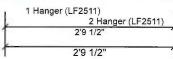
Project #

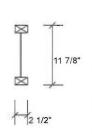
LPI 20Plus

11.875" - PASSED

Level: Ground Floor







Member	Information

Type:	Girder
Plies:	1
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal
General Load	
Floor Live:	40 PSF
Dead:	15 PSF

Application: Floor (Residential) Design Method: LSD **Building Code:** NBCC 2010 / OBC 2012 Load Sharing: Νo

Deck: Not Checked Not Checked Vibration:

# **Unfactored Reactions UNPATTERNED Ib (Uplift)**

Brg	Live	Dead	Snow	vvina
1	304	148	0	0
2	328	161	0	0

# **Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	436 ft-lb	9 3/4"	6250 ft-lb	0.070 (7%)	1.25D+1.5L	L
Shear	689 lb	2'8 1/4"	2345 lb	0.294 (29%)	1.25D+1.5L	L
Perm Defl in.	0.002 (L/14174)	1'1 9/16"	0.086 (L/360)	0.030 (3%)	D	Uniform
LL Defl inch	0.004 (L/6920)	1'1 3/8"	0.086 (L/360)	0.050 (5%)	L	L
TL Defl inch	0.007 (L/4650)	1'1 7/16"	0.129 (L/240)	0.050 (5%)	D+L	L

Allalysis	Actual	Location	VIIOMER	Capacity	Comb.	Case
Moment	436 ft-lb	9 3/4"	6250 ft-lb	0.070 (7%)	1.25D+1.5L	L
Shear	689 lb	2'8 1/4"	2345 lb	0.294 (29%)	1.25D+1.5L	L
Perm Defl in.	0.002 (L/14174)	1'1 9/16"	0.086 (L/360)	0.030 (3%)	D	Uniform
LL Defl inch	0.004 (L/6920)	1'1 3/8"	0.086 (L/360)	0.050 (5%)	L	L
TL Defl inch	0.007 (L/4650)	1'1 7/16"	0.129 (L/240)	0.050 (5%)	D+L	L

# Bearings and Factored Reactions

ocarings and ractorea reactions											
Bearing	Length	Cap. I	React D/L lb	Total	Ld. Case	Ld. Comb.	_				
1 - Hanger	2.000"	40%	185 / 455	640	L	1.25D+1.5L					
2 - Hanger	2.000"	44%	202 / 492	694	L	1.25D+1.5L					

#### Design Notes

- 1 Provide restraint at supports to ensure lateral stability.
- 2 Dead Load Deflection: Instant = 0.002", Long Term = 0.003"
- 3 Fill all hanger nailing holes.
- 4 See manufacture installation guide note E4 for installation details
- 5 Girders are designed to be supported on the bottom edge only.
- 6 Top flange braced at bearings.
- 7 Bottom flange braced at bearings.



February 04, 2019

Comments

J6

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	
1	Tie-In	0-0-0 to 2-9-8	(Span)1-3-7	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 2-9-8		Тор	3 PLF	0 PLF	0 PLF	0 PLF	
3	Point	0-9-12		Far Face	141 lb	291 lb	0 lb	0 lb	
4	Point	2-1-12		Far Face	133 lb	269 lb	0 lb	0 lb	

Pass-Thru Framing Squash Block is required at all point loads over bearings

**Refer to Multiple Member Connection** Detail for ply to ply nailing or bolting

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

#### requirements

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

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Manufacturer Info

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Louisiana-Pacific Corp 414 Union Street, Suite 2000 Nashville, TN 37219 (888) 820-0325 www.lpcorp.com CCMC: 12412-R APA: PR-L238C





Wind

0

0

Ld. Comb.

1.25D+1.5L

1.25D+1.5L

Page 1 of 1



Client:

Project:

Address:

Date: 1/29/2019

Designer:

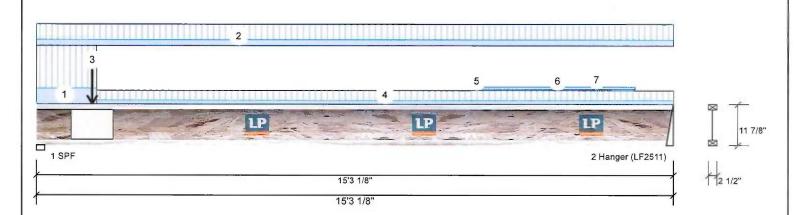
Job Name: LOT-14 (AMELIA 3 EL-2 \_4BEDRM)

Project #:

LPI 20Plus

11.875" - PASSED

Level: Ground Floor



/lember Info	rmation	Unfactored Reactions UNPATTERNED Ib (Uplift)							
Туре:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Sno	w
Plies:	1	Design Method:	LSD	1	660		255		0
Moisture Conditi	on: Dry	Building Code:	NBCC 2010 / OBC 2012	2	303		129		0
Deflection LL:	360	Load Sharing:	No	1					
Deflection TL:	240	Deck:	Not Checked						
mportance:	Normal	Vibration:	Not Checked						
General Load									
Floor Live:	40 PSF			Bearings	and Fac	tored R	eactions		
Dead:	15 PSF			Bearing I	Length	Cap.	React D/L lb	Total	Ld. Case
				1 - SPF 2	2.375"	80%	319 / 990	1309	L

**Analysis Results** 

	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
	Moment	2499 ft-lb	6'10 1/8"	6250 ft-lb	0.400 (40%)	1.25D+1.5L	L
	Shear	1287 lb	1 5/8"	2345 lb	0.549 (55%)	1.25D+1.5L	L
	Perm Defl in.	0.075 (L/2418)	7'5 1/4"	0.501 (L/360)	0.150 (15%)	D	Uniform
	LL Defl inch	0.187 (L/964)	7'4 3/8"	0.501 (L/360)	0.370 (37%)	L	L
	TL Defl inch	0.261 (L/689)	7'4 5/8"	0.751 (L/240)	0.350 (35%)	D+L	L
_				_			

## **Design Notes**

- 1 Provide restraint at supports to ensure lateral stability.
- 2 Dead Load Deflection: Instant = 0.075", Long Term = 0.112"
- 3 Fill all hanger nailing holes.
- 4 See manufacture installation guide note E4 for installation details
- 5 Girders are designed to be supported on the bottom edge only.
- 6 Top flange must be laterally braced at a maximum of 6'7" o.c.

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

2.000"

39%

162 / 455

2 -

Hanger



617 L

February 04, 2019

7 Bottom fl	ange braced at bearings	S.							
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-5-4	(Span)3-0-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 15-3-2	(Span)1-1-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-4-0		Far Face	136 lb	351 lb	0 lb	0 lb	F14
4	Tie-In	1-5-4 to 15-3-2	(Span)0-8-8	Тор	15 PSF	40 PSF	0 PSF	0 PSF	m. Farming Causeh Block is
5	Tapered Start	10-5-10		Тор	0 PLF	0 PLF	0 PLF	required	ru Framing Squash Block is I at all point loads over bearings
	End	10-7-7			1 PLF	0 PLF	0 PLF	0 PLF	
6	Part. Uniform	10-7-7 to 14-4-2		Тор	2 PLF	0 PLF	0 PLF		Multiple Member Connection
7	Part. Uniform	10-7-8 to 14-4-2		Тор	3 PLF	0 PLF	0 PLF	reguiren	or ply to ply nailing or bolting nents

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

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Manufacturer Info

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This design is valid until 10/31/2020

Version 18.80.219 Powered by iStruct™



Client:

Project:

Address:

Date: 1/29/2019

Designer:

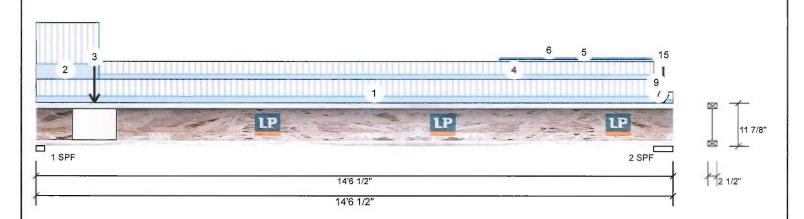
Job Name: LOT-14 (AMELIA 3 EL-2 \_4BEDRM)

Project #:

LPI 20Plus

11.875" - PASSED

Level: Ground Floor



Floor (Residential)

Not Checked

Not Checked

NBCC 2010 / OBC 2012

LSD

No

# Member Information Girder

Plies: Moisture Condition: Dry Deflection LL: 360 Deflection TL: 240 Importance: Normal General Load

40 PSF Floor Live: Dead: 15 PSF

# **Unfactored Reactions UNPATTERNED lb (Uplift)**

Brg	Live	Dead	Snow	Wind
1	648	248	0	0
2	387	174	0	0

## **Bearings and Factored Reactions**

Bearing	Length	Cap. F	React D/L lb	Total	Ld. Case	Ld. Comb.	
1 - SPF	2.375"	78%	310 / 972	1282	L	1.25D+1.5L	
2 - SPF	5.250"	44%	218 / 581	799	L	1.25D+1.5L	

## **Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2568 ft-lb	6'6 1/2"	6250 ft-lb	0.411 (41%)	1.25D+1.5L	L
Shear	1260 lb	1 5/8"	2345 lb	0.537 (54%)	1.25D+1.5L	L
Perm Defl in.	0.067 (L/2524)	6'11 11/16"	0.468 (L/360)	0.140 (14%)	D	Uniform
LL Defl inch	0.171 (L/984)	6'11 1/8"	0.468 (L/360)	0.370 (37%)	L	L
TL Defl inch	0.238 (L/708)	6'11 1/4"	0.702 (L/240)	0.340 (34%)	D+L	L
					<u> </u>	

Application:

Design Method:

**Building Code:** 

Load Sharing:

Deck:

Vibration:

#### **Design Notes**

- 1 Provide restraint at supports to ensure lateral stability.
- 2 Applied loads over end bearings and loads exceeding 250 lbs over intermediate bearings must be transferred directly to the support by rim board, blocking, squash blocks, or other device
- 3 Dead Load Deflection: Instant = 0.067", Long Term = 0.100"
- 4 See manufacture installation guide note E4 for installation details
- 5 Girders are designed to be supported on the bottom edge only.
- 6 Top flange must be laterally braced at a maximum of 6'6" o.c.

7 Bottom flange braced at bearings.

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

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THE.	DVINCE OF ONTE	
	bruary 04, 2019	

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow
1	Tie-In	0-0-0 to 14-1-4	(Span)1-3-0	Тор	15 PSF	40 PSF	0 PSF
2	Tie-In	0-0-0 to 1-5-4	(Span)3-0-0	Тор	15 PSF	40 PSF	0 PSF
3	Point	1-4-0		Near Face	116 lb	302 lb	0 lb
4	Tie-In	1-5-4 to 14-1-4	(Span)0-11-8	Тор	15 PSF	40 PSF	0 PSF
5	Part. Uniform	10-6-15 to 14-1-4		Тор	3 PLF	0 PLF	0 PLF
Continued on	page 2						

Pass-Thru Framing Squash Block is required at all point loads over bearings 0 PLF Refer to Multiple Member Connection

Detail for ply to ply nailing or bolting requirements

Comments

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible on ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

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#### Manufacturer Info

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Wind

0 PSF 0 PSF







Client:

Project: Address: Date: 1/29/2019

Designer: SB

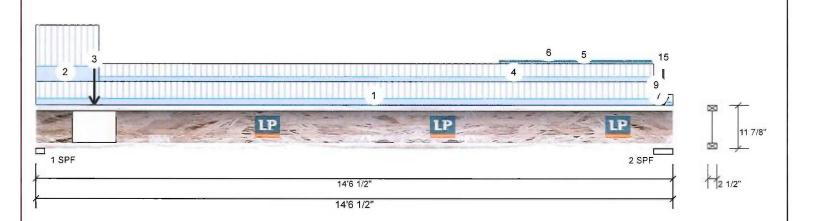
Job Name: LOT-14 (AMELIA 3 EL-2 \_4BEDRM)

Project #:

LPI 20Plus

11.875" - PASSED

Level: Ground Floor



.Continued	from page 1								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
6	Part. Uniform	10-7-0 to 14-1-4		Тор	2 PLF	0 PLF	0 PLF	0 PLF	
7	Tie-In	14-1-4 to 14-6-8	(Span)0-7-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
9	Part. Uniform	14-1-4 to 14-4-5		Тор	1 PLF	0 PLF	0 PLF	0 PLF	
10	Point	14-3-14		Тор	1 lb	3 lb	0 lb	0 lb	J6
	Bearing Length	0-1-8							
11	Point	14-3-14		Тор	1 lb	3 lb	0 lb	0 lb	J1
	Bearing Length	0-1-8							
12	Point	14-3-14		Тор	2 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-1-8							
13	Point	14-3-14		Тор	7 lb	19 lb	0 lb	0 lb	J6
	Bearing Length	0-1-8							
14	Point	14-3-14		Тор	8 lb	22 lb	0 lb	0 lb	J1
	Bearing Length	0-1-8							
15	Point	14-3-14		Тор	12 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-1-8							



February 04, 2019

Pass-Thru Framing Squash Block is required at all point loads over bearings

**Refer to Multiple Member Connection** Detail for ply to ply nailing or bolting requirements

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

#### Notes

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Manufacturer Info

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Client: Project:

Address:

Date: 1/29/2019

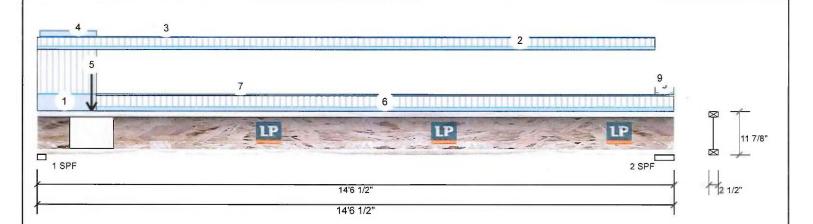
SB Designer: Job Name: LOT-14 (AMELIA 3 EL-2 \_4BEDRM)

Project #

LPI 20Plus

11.875" - PASSED

Level: Ground Floor



Member Information Type: Girden Plies: Moisture Condition: Dry Deflection LL: 360 Deflection TL: 240

Normal 40 PSF 15 PSF

Floor (Residential) Application: Design Method: LSD NBCC 2010 / OBC 2012 **Building Code:** 

Load Sharing: No Deck: Not Checked Vibration: Not Checked

#### Unfactored Reactions UNPATTERNED Ib (Uplift) Brg

2	223	109	U	U

Dead

270

Snow

Wind

# **Bearings and Factored Reactions**

Live

551

Bearing	Length	Cap. F	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	71%	338 / 827	1164	L	1.25D+1.5L
2 - SPF	5.250"	26%	136 / 335	471	L	1.25D+1.5L

**Analysis Results** 

Importance:

Floor Live: Dead:

General Load

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1834 ft-lb	6'1 1/8"	6250 ft-lb	0.293 (29%)	1.25D+1.5L	L
Shear	1144 lb	1 5/8"	2345 lb	0.488 (49%)	1.25D+1.5L	L
Perm Defl in.	0.056 (L/2990)	6'9 3/4"	0.468 (L/360)	0.120 (12%)	D	Uniform
LL Defl inch	0.115 (L/1461)	6'9 3/4"	0.468 (L/360)	0.250 (25%)	L	L
TL Defl inch	0.172 (L/982)	6'9 3/4"	0.702 (L/240)	0.240 (24%)	D+L	L

#### **Design Notes**

- 1 Provide restraint at supports to ensure lateral stability.
- 2 Dead Load Deflection: Instant = 0.056", Long Term = 0.084"
- 3 See manufacture installation guide note E4 for installation details
- 4 Girders are designed to be supported on the bottom edge only.
- 5 Top flange must be laterally braced at a maximum of 7'7" o.c.

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

1



February 04, 2019

O DOLLOTT IN	ange braced at bearing	3.							
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-4-2	(Span)3-0-0 to 3-0-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 14-1-4	(Span)0-7-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	0-0-10 to 14-1-4		Тор	1 PLF	0 PLF	0 PLF	0 PLF	
4	Part, Uniform	0-0-12 to 1-4-2		Тор	8 PLF	0 PLF			raming Squash Block is
5	Point	1-2-14		Far Face	161 lb	328 lb	0 lb	Quired at	all point loads over bearings F14
6	Tie-In	1-4-2 to 14-6-8	(Span)0-9-0	Тор	15 PSF	40 PSF			Itiple Member Connection
7	Part. Uniform	1-4-2 to 14-5-1		Тор	2 PLF	0 PLF	0 PLF De	tail for pl	y to ply nailing or bolting ts

#### Notes

Continued on page 2...

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

6 Rottom flance braced at hearings

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## Manufacturer Info

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Client:

Project:

Address:

Date:

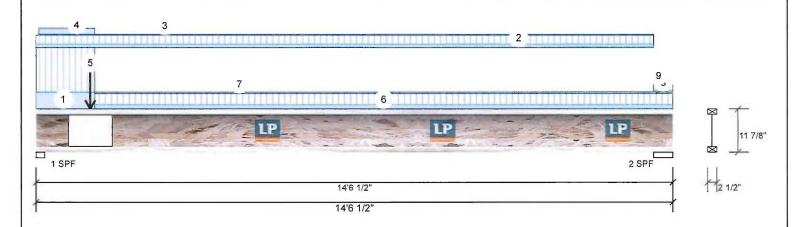
Designer: SB

Job Name: LOT-14 (AMELIA 3 EL-2 \_4BEDRM)

Project #:

11.875" - PASSED LPI 20Plus

Level: Ground Floor



..Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
8	Tie-In	14-1-4 to 14-6-8	(Span)0-4-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
9	Part, Uniform	14-1-4 to 14-5-1		Тор	1 PLF	0 PLF	0 PLF	0 PLF	



Pass-Thru Framing Squash Block is required at all point loads over bearings

**Refer to Multiple Member Connection** Detail for ply to ply nailing or bolting requirements

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

#### Notes

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Client:

Project:

Address:

Date: 1/29/2019

Designer: SB

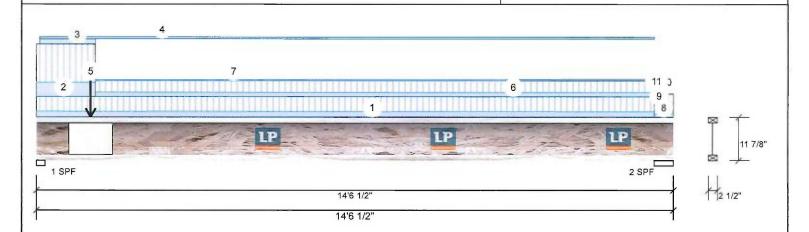
Job Name: LOT-14 (AMELIA 3 EL-2 \_4BEDRM)

Project #:

F17-D LPI 20Plus

11.875" - PASSED

Level: Ground Floor



# Type: Girder Plies: 1 Moisture Condition: Dry Deflection LL: 360 Deflection TL: 240 Importance: Normal General Load

40 PSF

15 PSF

Member Information

Application: Floor (Residential)
Design Method: LSD
Building Code: NBCC 2010 / OBC 2012
Load Sharing: No

Deck: Not Checked
Vibration: Not Checked

## Unfactored Reactions UNPATTERNED Ib (Uplift)

Brg	Live	Dead	Snow	Wind
1	632	311	0	0
2	327	162	0	0

## **Bearings and Factored Reactions**

Bearing	Length	Сар. К	eact D/L ib	lotai	Ld. Case	La. Comb.	
1 - SPF	2.375"	82%	389 / 948	1336	L	1.25D+1.5L	
2-SPF	5.250"	38%	202 / 491	694	L	1.25D+1.5L	

#### **Analysis Results**

Floor Live:

Dead:

Analysis Actual Location Allowed Capacity Comb. Case Moment 2576 ft-lb 6'6 5/16" 6250 ft-lb 0.412 (41%) 1.25D+1.5L L Shear 1313 lb 1 5/8" 2345 lb 0.560 (56%) 1.25D+1.5L L 6'11 3/16" 0.468 (L/360) 0.170 (17%) D Perm Defl in. 0.079 (L/2119) Uniform LL Defl inch 0.161 (L/1047) 6'11 3/16" 0.468 (L/360) 0.340 (34%) L TL Defl inch 0.240 (L/701) 6'11 3/16" 0.702 (L/240) 0.340 (34%) D+L

## Design Notes

- 1 Provide restraint at supports to ensure lateral stability.
- 2 Dead Load Deflection: Instant = 0.079", Long Term = 0.119"
- 3 See manufacture installation guide note E4 for installation details
- 4 Girders are designed to be supported on the bottom edge only.
- 5 Top flange must be laterally braced at a maximum of 6'6" o.c.

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.



February 04, 2019

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow
1	Tie-In	0-0-0 to 14-1-4	(Span)1-2-0 to 1-2-0	Тор	15 PSF	40 PSF	0 PSF
2	Tie-In	0-0-0 to 1-4-2	(Span)3-0-0 to 3-0-0	Тор	15 PSF	40 PSF	0 PSF
3	Part. Uniform	0-0-14 to 1-4-2		Тор	8 PLF	0 PLF	0 PLF
4	Part. Uniform	0-0-15 to 14-1-4		Тор	3 PLF	0 PLF	0 PLF
5	Point	1-2-14		Near Face	148 lb	304 lb	0 lb
6	Tie-In	1-4-2 to 14-1-4	(Span)0-11-0 to 0-11-0	Тор	15 PSF	40 PSF	0 PSF

PassPThru Framing Squash Block is required at all point loads over bearings

Comments

Referote Multiple Member Connection Detail for ply to ply nailing or bolting requirements

Continued on page 2...

#### Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

6 Bottom flange braced at bearings.

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#### Manufacturer info

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Wind

0 PSF





Project: Address: Designer: SB

Job Name: LOT-14 (AMELIA 3 EL-2 \_4BEDRM)

IM0219-003

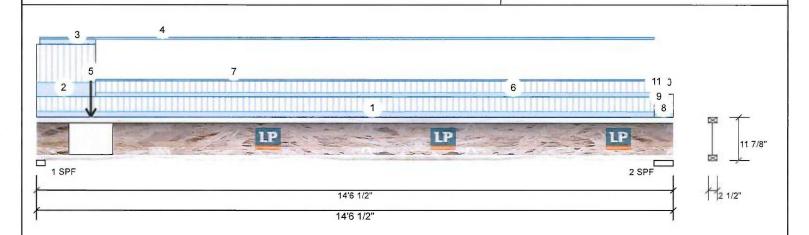
Page 2 of 2

Project #

11.875" - PASSED LPI 20Plus

isDesign™

Level: Ground Floor



Continued from p	age								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
7	Part. Uniform	1-4-2 to 14-1-4		Тор	2 PLF	0 PLF	0 PLF	0 PLF	
8	Tie-In	14-1-4 to 14-6-8	(Span)0-8-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
9	Tie-In	14-1-4 to 14-6-8	(Span)0-8-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
10	Part. Uniform	14-1-4 to 14-5-5		Тор	2 PLF	0 PLF	0 PLF	0 PLF	
11	Part. Uniform	14-1-4 to 14-5-4		Тор	2 PLF	0 PLF	0 PLF	0 PLF	
	9	8 Tie-In 9 Tie-In 10 Part. Uniform	8 Tie-In 14-1-4 to 14-6-8 9 Tie-In 14-1-4 to 14-6-8 10 Part. Uniform 14-1-4 to 14-5-5	8 Tie-In 14-1-4 to 14-6-8 (Span)0-8-0 9 Tie-In 14-1-4 to 14-6-8 (Span)0-8-0 10 Part. Uniform 14-1-4 to 14-5-5	8 Tie-In 14-1-4 to 14-6-8 (Span)0-8-0 Top 9 Tie-In 14-1-4 to 14-6-8 (Span)0-8-0 Top 10 Part. Uniform 14-1-4 to 14-5-5 Top	8 Tie-In 14-1-4 to 14-6-8 (Span)0-8-0 Top 15 PSF 9 Tie-In 14-1-4 to 14-6-8 (Span)0-8-0 Top 15 PSF 10 Part. Uniform 14-1-4 to 14-5-5 Top 2 PLF	8 Tie-In 14-1-4 to 14-6-8 (Span)0-8-0 Top 15 PSF 40 PSF 9 Tie-In 14-1-4 to 14-6-8 (Span)0-8-0 Top 15 PSF 40 PSF 10 Part. Uniform 14-1-4 to 14-5-5 Top 2 PLF 0 PLF	8 Tie-In 14-1-4 to 14-6-8 (Span)0-8-0 Top 15 PSF 40 PSF 0 PSF 9 Tie-In 14-1-4 to 14-6-8 (Span)0-8-0 Top 15 PSF 40 PSF 0 PSF 10 Part. Uniform 14-1-4 to 14-5-5 Top 2 PLF 0 PLF 0 PLF	8 Tie-In 14-1-4 to 14-6-8 (Span)0-8-0 Top 15 PSF 40 PSF 0 PSF 0 PSF 9 Tie-In 14-1-4 to 14-6-8 (Span)0-8-0 Top 15 PSF 40 PSF 0 PSF 0 PSF 10 Part. Uniform 14-1-4 to 14-5-5 Top 2 PLF 0 PLF 0 PLF 0 PLF



Pass-Thru Framing Squash Block is required at all point loads over bearings

**Refer to Multiple Member Connection** Detail for ply to ply nailing or bolting requirements

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.



This design is valid until 10/31/2020

#### Manufacturer Info

Louisiana-Pacific Corp 414 Union Street, Suite 2000 Nashville, TN 37219 (888) 820-0325 moo, grood, www CCMC: 12412-R APA: PR-L238C







Client:

Project: Address: Date: 1/29/2019

Designer: SB

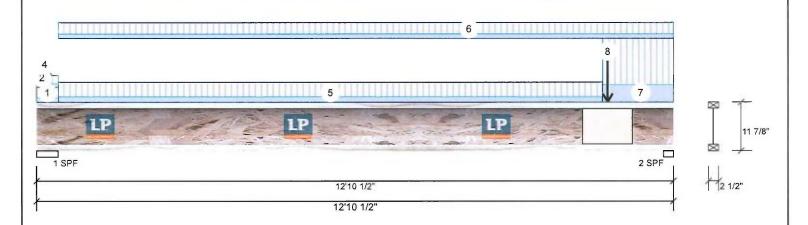
Job Name: LOT-14 (AMELIA 3 EL-2 \_4BEDRM)

Project #:

LPI 20Plus

11.875" - PASSED

Level: Ground Floor



#### **Unfactored Reactions UNPATTERNED lb (Uplift)** Member Information Type: Girder Floor (Residential) Brg Live Dead Snow Wind Application: LSD Plies: Design Method: 99 0 1 261 0 NBCC 2010 / OBC 2012 Moisture Condition: Dry **Building Code:** 2 539 203 0 0 Load Sharing: Deflection LL: 360 No Not Checked Deflection TL: 240 Deck: Importance: Normal Vibration: Not Checked General Load **Bearings and Factored Reactions** Floor Live: 40 PSF Dead: 15 PSF Cap. React D/L lb Total Ld. Case Ld. Comb. Bearing Length 1 - SPF 5.250" 28% 124 / 392 1.25D+1.5L 515 L 65% 254 / 809 1063 L 1.25D+1.5L 2 - SPF 2.375"

#### **Analysis Results**

Actual	Location	Allowed	Capacity	Comb.	Case
1741 ft-lb	7'4 13/16"	6250 ft-lb	0.279 (28%)	1.25D+1.5L	L
1042 lb	12'8 7/8"	2345 lb	0.444 (44%)	1.25D+1.5L	L
0.036 (L/4179)	6'10 3/16"	0.412 (L/360)	0.090 (9%)	D	Uniform
0.095 (L/1569)	6'10 1/8"	0.412 (L/360)	0.230 (23%)	L	L
0.130 (L/1141)	6'10 1/8"	0.618 (L/240)	0.210 (21%)	D+L	L
	1741 ft-lb 1042 lb 0.036 (L/4179) 0.095 (L/1569)	1741 ft-lb 7'4 13/16" 1042 lb 12'8 7/8" 0.036 (L/4179) 6'10 3/16" 0.095 (L/1569) 6'10 1/8"	1741 ft-lb 7'4 13/16" 6250 ft-lb 1042 lb 12'8 7/8" 2345 lb 0.036 (L/4179) 6'10 3/16" 0.412 (L/360) 0.095 (L/1569) 6'10 1/8" 0.412 (L/360)	1741 ft-lb     7'4 13/16"     6250 ft-lb     0.279 (28%)       1042 lb     12'8 7/8"     2345 lb     0.444 (44%)       0.036 (L/4179)     6'10 3/16"     0.412 (L/360)     0.090 (9%)       0.095 (L/1569)     6'10 1/8"     0.412 (L/360)     0.230 (23%)	1741 ft-lb     7'4 13/16"     6250 ft-lb     0.279 (28%) 1.25D+1.5L       1042 lb     12'8 7/8"     2345 lb     0.444 (44%) 1.25D+1.5L       0.036 (L/4179)     6'10 3/16"     0.412 (L/360) 0.090 (9%) D     D       0.095 (L/1569)     6'10 1/8"     0.412 (L/360) 0.230 (23%) L

#### **Design Notes**

- 1 Provide restraint at supports to ensure lateral stability.
- 2 Dead Load Deflection: Instant = 0.036", Long Term = 0.053"
- 3 See manufacture installation guide note E4 for installation details
- 4 Girders are designed to be supported on the bottom edge only.
- 5 Top flange must be laterally braced at a maximum of 7'9" o.c.

6 Bottom flange braced at bearings.

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.



February 04, 2019

O DOLLOIN	nange braced at bearing	j							
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-5-4	(Span)0-9-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 0-5-4	(Span)0-7-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part, Uniform	0-0-0 to 0-3-9		Тор	2 PLF	0 PLF	0 PLF	0 PLF	
4	Part, Uniform	0-0-0 to 0-3-8		Тор	1 PLF	0 PLF	0 PLF	0 PLF	Samina Caucah Black is
5	Tie-In	0-5-4 to 11-5-4	(Span)1-0-0	Тор	15 PSF	40 PSF	0 PSF	quired at	raming Squash Block is all point loads over bearings
6	Tie-In	0-5-4 to 12-10-8	(Span)0-9-8	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
7	Tie-In	11-5-4 to 12-10-8	(Span)3-2-0	Тор	15 PSF	40 PSF	0 PSF Re	fer to Mu	Itiple Member Connection y to ply nailing or bolting
8	Point	11-6-8		Far Face	106 lb	281 lb		uiremen	

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

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Kott Lumber Company 14 Anderson Blvd, Ontario Canada L4A 7X4 905-642-4400







Client:

Project:

Address:

Date: 1/29/2019

Designer: SB

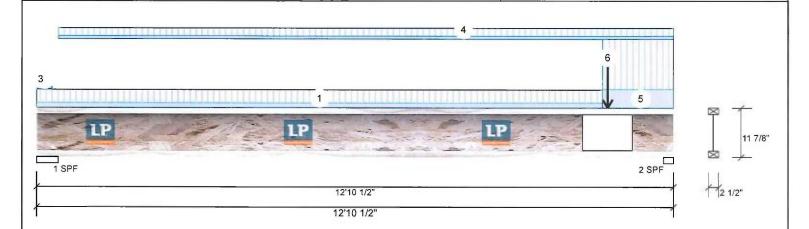
Job Name: LOT-14 (AMELIA 3 EL-2 \_4BEDRM)

Project #:

LPI 20Plus

11.875" - PASSED

Level: Ground Floor



Member Information

Type: Girder Plies: 1 Moisture Condition: Dry Deflection LL: Deflection TL: Importance: Normal General Load

40 PSF

15 PSF

Application: Floor (Residential) Design Method: LSD Building Code: NBCC 2010 / OBC 2012

Load Sharing: Deck: Not Checked Vibration: Not Checked Unfactored Reactions UNPATTERNED Ib (Uplift)

irg	Live	Dead	Snow	Wind
1	203	77	0	0
2	506	190	0	0

## **Bearings and Factored Reactions**

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.	
1 - SPF	5.250"	22%	96 / 305	401	L	1.25D+1.5L	
2 - SPF	2.375"	61%	238 / 759	997	T	1.25D+1.5I	

### **Analysis Results**

Floor Live:

Dead:

Analysis Actual Location Allowed Capacity Comb. Case 1439 ft-lb Moment 7'9 3/8" 6250 ft-lb 0.230 (23%) 1.25D+1.5L L 977 lb Shear 12'8 7/8" 2345 lb 0.417 (42%) 1.25D+1.5L L Perm Defl in, 0.029 (L/5064) 6'11 5/16" 0.412 (L/360) 0.070 (7%) D Uniform LL Defl inch 0.078 (L/1901) 6'11 5/16" 0.412 (L/360) 0.190 (19%) L TL Defl inch 0.107 (L/1382) 6'11 5/16" 0.618 (L/240) 0.170 (17%) D+L

#### Design Notes

- 1 Provide restraint at supports to ensure lateral stability.
- 2 Dead Load Deflection: Instant = 0.029", Long Term = 0.044"
- 3 See manufacture installation guide note E4 for installation details
- 4 Girders are designed to be supported on the bottom edge only.
- 5 Top flange must be laterally braced at a maximum of 8'4" o.c.

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.



February 04, 2019

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 11-5-4	(Span)0-10-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 0-3-12		Тор	1 PLF	0 PLF	0 PLF	0 PLF	
3	Part. Uniform	0-0-0 to 0-3-12		Тор	2 PLF	0 PLF	0 PLF	0 PLF	
4	Tie-In	0-5-4 to 12-10-8	(Span)0-6-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
5	Tie-In	11-5-4 to 12-10-8	(Span)3-2-0	Тор	15 PSF	40 PSF	O PSF	Thru Fra	ming Squash Block is point loads over bearings
6	Point	11-6-8		Near Face	114 lb	303 lb	0 lb	0 lb	F14

Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product black.

6 Bottom flange braced at bearings.

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Client: Project:

Address:

Date:

SB Designer: Job Name: LOT-14 (AMELIA 3 EL-2 \_4BEDRM)

Level: Ground Floor

Project #:

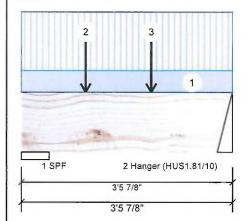
Forex 2.0E-3000Fb LVL

1.750" X 11.875" - PASSED

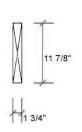
Brg

1

2



15 PSF



Wind

0

0

Member	Information

Туре:	Girder	Application:	Floor (Residential)
Plies:	1	Design Method:	LSD
Moisture Condition	Dry	Building Code:	NBCC 2010 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		

# **Unfactored Reactions UNPATTERNED Ib (Uplift)**

Dead

170

122

Live

360

259

Bearings	Bearings and Factored Reactions								
Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.			
1 - SPF	5.500"	13%	213 / 540	753	L	1.25D+1.5L			
2 - Hanger	3.000"	14%	152 / 389	541	L	1.25D+1.5L			

Snow

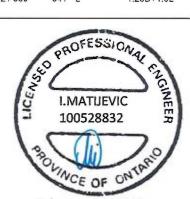
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#### **Analysis Results**

Dead:

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	485 ft-lb	1'11 1/4"	17130 ft-lb	0.028 (3%)	1.25D+1.5L	L
Unbraced	485 ft-lb	1'11 1/4"	13987 ft-lb	0.035 (3%)	1.25D+1.5L	L
Shear	526 lb	1'4 5/8"	5798 lb	0.091 (9%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/36212)	1'10 7/16"	0.097 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.002 (L/17367)	1'10 5/16"	0.097 (L/360)	0.020 (2%)	L	L
TL Defl inch	0.003 (L/11738)	1'10 5/16"	0.145 (L/240)	0.020 (2%)	D+L	L



## **Design Notes**

- 1 Fill all hanger nailing holes.
- 2 Girders are designed to be supported on the bottom edge only.
- 3 Top braced at bearings.
- 4 Bottom braced at bearings.

February 04, 2019

ID	Load Type	Location Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 3-5-14	Тор	30 PLF	80 PLF	0 PLF	0 PLF	
2	Point	1-0-12	Far Face	102 lb	206 lb	0 lb	0 lb	J4
3	Point	2-1-12	Far Face	69 lb	134 lb	0 lb	0 lb	J2
	Self Weight	Pass-Thru Framing Squas	h Block is	5 PLF				

Pass-Thru Framing Squash Block is required at all point loads over bearings

Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

## Handling & Installation

- andling & Installation

  LVL beams must not be cut or drilled

  Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals

  Damaged Beams must not be used

  Design assumes top edge is laterally restrained Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent

Manufacturer Info

Kott Lumber Company 14 Anderson Blvd, Ontario Canada L4A 7X4 905-642-4400





Client:

Project:

Address:

Date: 1/29/2019

Designer:

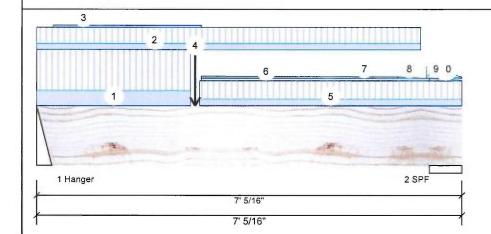
Job Name: LOT-14 (AMELIA 3 EL-2 \_4BEDRM)

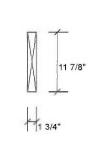
Project #

Forex 2.0E-3000Fb LVL

1.750" X 11.875" - PASSED

Level: Ground Floor





Wind

#### Member Information

Туре:	Girder
Plies:	1
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal
General Load	
Floor Live:	40 PSF
Dead:	15 PSF

Application: Design Method: **Building Code:** 

Load Sharing:

Deck:

Vibration:

Floor (Residential) NBCC 2010 / OBC 2012

No Not Checked Not Checked

# Unfactored Reactions UNPATTERNED Ib (Uplift)

410	199	0	0
295	156	0	0

Snow

Dead

## **Bearings and Factored Reactions**

Live

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	3.000"	22%	248 / 615	864	L	1.25D+1.5L

#### **Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1478 ft-lb	2'7 7/16"	17130 ft-lb	0.086 (9%)	1.25D+1.5L	L
Unbraced	1478 ft-lb	2'7 7/16"	7067 ft-lb	0.209 (21%)	1.25D+1.5L	L
Shear	649 lb	1'2 1/8"	5798 lb	0.112 (11%)	1,25D+1,5L	L
Perm Defl in.	0.006 (L/11753)	3' 11/16"	0.212 (L/360)	0.030 (3%)	D	Uniform
LL Defl inch	0.013 (L/5910)	3' 1/8"	0.212 (L/360)	0.060 (6%)	L	L
TL Defl inch	0.019 (L/3933)	3' 5/16"	0.318 (L/240)	0.060 (6%)	D+L	L

2 - SPF 6.438" 9% 195 / 442 1.25D+1.5L

# **Design Notes**

- 1 Fill all hanger nailing holes.
- 2 Girders are designed to be supported on the bottom edge only.
- 3 Top braced at bearings. 4 Bottom braced at bearings

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

Brg

1

2



February 04, 2019

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow
1	Tie-In	0-0-0 to 2-6-9	(Span)3-1-13	Тор	15 PSF	40 PSF	0 PSF
2	Tie-In	0-0-0 to 6-4-2	(Span)1-3-0	Тор	15 PSF	40 PSF	0 PSF
3	Part. Uniform	0-3-4 to 2-8-10		Тор	3 PLF	0 PLF	0 PLF
4	Point	2-7-7		Far Face	122 lb	259 lb	0 lb
5	Tie-In	2-8-5 to 7-0-5	(Span)1-5-0	Тор	15 PSF	40 PSF	0 PSF
6	Part. Uniform	2-8-10 to 6-5-14		Тор	4 PLF	0 PLF	0 PLF
7	Tapered Start	2-8-10		Тор	3 PLF	0 PLF	0 PLF
Continued or	page 2						

di 0 0 PRass-Thru Framing Squash Block is required at all point loads over bearings

<sup>0</sup> FRefer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements

#### Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown, it is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

#### Lumber

Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or corrosi

#### Handling & Installation

- LVL beams must not be cut or drilled Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals Damaged Beams must not be used
- Design assumes top edge is laterally restrained Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

APA: PR-L318

Manufacturer Info

Wind

0 PSF 0 PSF 0 PLF Comments

Kott Lumber Company 14 Anderson Blvd, Ontario Canada L4A 7X4 905-642-4400





Client:

Project:

Address:

Date: 1/29/2019

Designer: SB

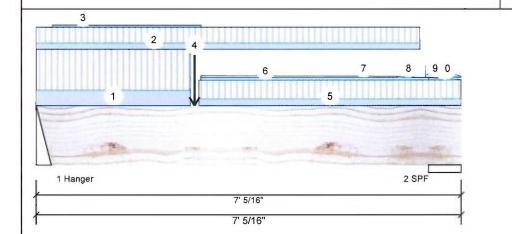
Job Name: LOT-14 (AMELIA 3 EL-2 \_4BEDRM)

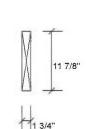
Project #:

Forex 2.0E-3000Fb LVL F7-B

1.750" X 11.875" - PASSED

Level: Ground Floor





Continued	from page 1								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
	End	5-11-10			2 PLF	0 PLF	0 PLF	0 PLF	
8	Tapered Start	5-11-10		Тор	2 PLF	0 PLF	0 PLF	0 PLF	
	End	6-4-2			0 PLF	0 PLF	0 PLF	0 PLF	
9	Tie-In	6-5-4 to 7-0-5	(Span)0-7-13 to 0-0-13	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
10	Tapered Start	6-5-14		Тор	4 PLF	0 PLF	0 PLF	0 PLF	
	End	7-0-5			1 PLF	0 PLF	0 PLF	0 PLF	
	Self Weight				5 PLF				



Pass-Thru Framing Squash Block is required at all point loads over bearings

**Refer to Multiple Member Connection** Detail for ply to ply nailing or bolting requirements

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design orderia and loadings shown, it is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

#### Lumber

Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or corrosive

#### Handling & Installation

- LVL beams must not be cut or drilled Refer to manufacturer's product information regarding installation requirements. multi-ply fastening details, beam strength values, and code approvals Damaged Beams must not be used
- Design assumes top edge is laterally restrained
  Provide lateral support at bearing points to avoid
  lateral displacement and rotation
- 6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info APA: PR-L318

Kott Lumber Company 14 Anderson Blvd, Ontario Canada L4A 7X4 905-642-4400





Client: Project:

Address:

Date: 1/29/2019

Designer:

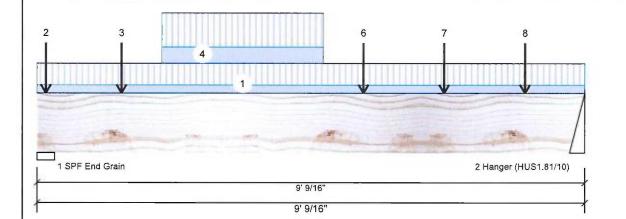
Job Name: LOT-14 (AMELIA 3 EL-2 \_4BEDRM)

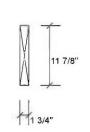
Project #

Forex 2.0E-3000Fb LVL

1.750" X 11.875" - PASSED

Level: Ground Floor





Wind

PROFESSIONAL

I.MATIJEVIC 100528832

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February 04, 2019

#### Member Information

Туре:	Girder	Application:	Floor (Residential)
Plies:	1	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

## **Unfactored Reactions UNPATTERNED Ib (Uplift)**

Dead

535

Snow

0

2	1290	544	0	0
_	-			
Rearings	and Factored	l Peactions		

#### **Analysis Results**

_							
	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
	Moment	5061 ft-lb	5'4 3/4"	17130 ft-lb	0.295 (30%)	1.25D+1.5L	L
	Unbraced	5061 ft-lb	5'4 3/4"	5210 ft-lb	0.971 (97%)	1.25D+1.5L	L
	Shear	2425 lb	7'10 7/16"	5798 lb	0.418 (42%)	1.25D+1.5L	L
	Perm Defl in.	0.035 (L/2951)	4'8 1/8"	0.288 (L/360)	0.120 (12%)	D	Uniform
	LL Defl inch	0.081 (L/1283)	4'8 9/16"	0.288 (L/360)	0.280 (28%)	L	L
	TL Defl inch	0.116 (L/894)	4'8 7/16"	0.432 (L/240)	0.270 (27%)	D+L	L

Live

1200

Bearing	Length	Cap. F	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	54%	668 / 1800	2468	L	1.25D+1.5L
2 - Hanger	3.000"	67%	680 / 1936	2616	L	1.25D+1.5L

Co

0 PSF

#### **Design Notes**

- 1 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 4 5
- 2 Fill all hanger nailing holes.
- 3 Girders are designed to be supported on the bottom edge only.
- 4 Top braced at bearings.

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

Brg

1

3 BOROTT D	raced at bearings.						
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow
1	Tie-In	0-0-0 to 9-0-9	(Span)3-11-7 to 3-11-7	Тор	15 PSF	40 PSF	0 PSF
2	Point	0-1-12		Тор	110 lb	248 lb	0 lb
3	Point	1-4-12		Far Face	77 lb	158 lb	0 lb
4	Part. Uniform	2-0-12 to 4-8-12		Far Face	59 PLF	123 PLF	0 PLF
6	Point	5-4-12		Far Face	126 lb	296 lb	0 lb
7	Point	6-8-12		Far Face	156 lb	393 lb	0 lb
ontinued on	page 2						

Wind

Pass-Thru Framing Squash Block is required at all point loads over bearings

Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

#### Lumber

Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or corrosive

#### Handling & Installation

- LVL beams must not be cut or drilled
  Refer to manufacturer's product information
  regarding installation requirements, multi-ply
  fastening details, beam strength values, and code
  approvals
- Damaged Beams must not be used
- Design assumes top edge is laterally restrained
  Provide lateral support at bearing points to avoid
  lateral displacement and rotation

For flat roofs provide proper drainage to prevent ponding

APA: PR-I 318

Manufacturer Info

Kott Lumber Company 14 Anderson Blvd, Ontario Canada L4A 7X4 905-642-4400





Client:

Project:

Address:

Date: 1/29/2019

Designer: SB

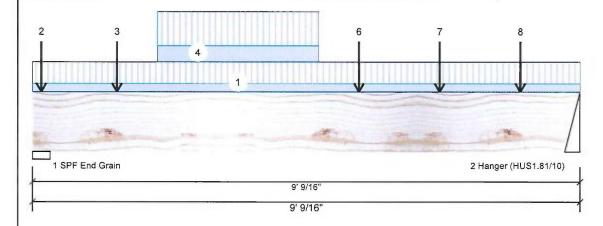
Job Name: LOT-14 (AMELIA 3 EL-2 \_4BEDRM)

Project #:

Forex 2.0E-3000Fb LVL

1.750" X 11.875" - PASSED

Level: Ground Floor



11 7/8

.Continued from page 1

8

ID Load Type

Point

Self Weight

Location 8-0-12

Trib Width

Side Far Face Dead 141 lb

Live 352 lb Snow 0 lb Wind Comments 0 lb J10

5 PLF



Pass-Thru Framing Squash Block is required at all point loads over bearings

Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

#### Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown, it is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or corrosive

# Handling & Installation

- andling & Installation
  LVL beams must not be cut or drilled
  Refer to manufacturer's product information
  regarding installation requirements, multi-ply
  fastening details, beam strength values, and code
  approvals
  Damaged Beams must not be used
  Design assumes top edge is laterally restrained
  Provide lateral support at bearing points to avoid
  lateral displacement and rotation

- 6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

APA: PR-L318



Kott Lumber Company 14 Anderson Blvd, Ontario Canada L4A 7X4 905-642-4400





Client:

Project:

Address:

Date: 1/29/2019

Designer:

SB

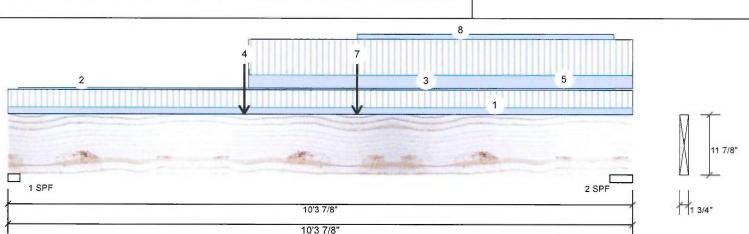
Job Name: LOT-14 (AMELIA 3 EL-2 \_4BEDRM)

Level: Ground Floor

Project #

Forex 2.0E-3000Fb LVL

1.750" X 11.875" - PASSED



#### Member Information **Unfactored Reactions UNPATTERNED Ib (Uplift)** Type: Girder Application: Floor (Residential) Brg Live Dead Snow Wind Plies: Design Method: 949 425 0 0 1 Moisture Condition: Dry **Building Code:** NBCC 2010 / OBC 2012 2 722 334 0 0 Deflection LL: Load Sharing: Νo Deflection TL: 240 Deck: Not Checked Importance: Normal Vibration: Not Checked General Load 40 PSF **Bearings and Factored Reactions** Floor Live: Dead: 15 PSF Bearing Length Cap. React D/L lb Total Ld. Case Ld. Comb. 1 - SPF 2.375" 76% 531 / 1424 1955 L 1.25D+1.5L 2 - SPF 4.500" 31% 417 / 1083 1501 L 1.25D+1.5L

## **Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	7161 ft-lb	3'10 7/8"	17130 ft-lb	0.418 (42%)	1.25D+1.5L	L
Unbraced	7161 ft-lb	3'10 7/8"	7194 ft-lb	0.995 (100%)	1.25D+1.5L	L
Shear	1924 lb	1'1 1/2"	5798 lb	0.332 (33%)	1.25D+1.5L	L
Perm Defl in.	0.054 (L/2188)	4'7 7/8"	0.329 (L/360)	0.160 (16%)	D	Uniform
LL Defl inch	0.123 (L/965)	4'7 11/16"	0.329 (L/360)	0.370 (37%)	L	L
TL Defl inch	0.177 (L/670)	4'7 3/4"	0.494 (L/240)	0.360 (36%)	D+L	L

## **Design Notes**

- 1 Girders are designed to be supported on the bottom edge only.
- 2 Top must be laterally braced at a maximum of 6'3" o.c.

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

l	Design Notes				ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE				3 (11)	
	Girders are designed to be supported on the bottom edge only.     Top must be laterally braced at a maximum of 6'3" o.c.     Bottom braced at bearings.					IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.				330 UNIVEE OF UNITED
l	ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	February 04, 2019
l	1	Tie-In	0-0-0 to 10-3-14	(Span)0-6-5	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
l	2	Part. Uniform	0-2-1 to 2-3-1		Тор	1 PLF	0 PLF	0 PLF	0 PLF	
l	3	Part, Uniform	2-3-1 to 10-0-4		Тор	1 PLF	0 PLF	0 PLF	0 PLF	
l	4	Point	3-10-14		Far Fa	ace 544 lb	1290 lb	0 lb	0 lb	F8
l	5	Tie-In	3-11-12 to 10-3-14	(Span)1-0-11	Тор	15 PSF	40 PSF			Framing Squash Block is
l	6	Point	5-9-3		Тор	48 lb	127 lb	0 lb	required at	all point loads over bearings
l	7	Point	5-9-3		Тор	4 lb	12 lb	0 lb	Refer to Mi	ultiple Member Connection
l	8	Part. Uniform	5-9-5 to 10-0-3		Тор	3 PLF	0 PLF	0 PLF		ly to ply nailing or bolting
I		Self Weight				5 PLF			requiremen	nts

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

#### Lumber

- Dry service conditions, unless noted otherwise
   LVL not to be treated with fire retardant or corrosive
- Handling & Installation
- LVL beams must not be cut or drilled Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals Damaged Beams must not be used
- Design assumes top edge is laterally restrained Provide lateral support at bearing points to avoid lateral displacement and rotation
- For flat roofs provide proper drainage to prevent ponding

Manufacturer Info APA: PR-L318

Kott Lumber Company 14 Anderson Blvd, Ontario Canada L4A 7X4 905-642-4400

I.MATIJEVIC 100528832

ENGINEER





Client:

Project:

Address:

Date: 1/29/2019

Designer: SB

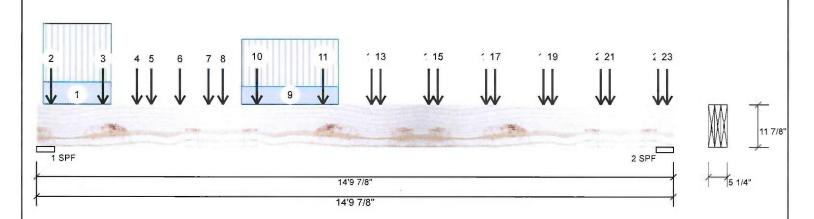
Job Name: LOT-14 (AMELIA 3 EL-2 \_4BEDRM)

Project #

BM5-A Forex 2.0E-3000Fb LVL 1.750" X 11.875"

3-Ply - PASSED

Level: Second Floor



Member Infor	mation		Unfactored Reactions UNPATTERNED Ib (Uplift)							
Туре:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snov	N	Wind
Plies:	3	Design Method:	LSD	1	3891		1585		0	0
Moisture Conditio	n: Dry	Building Code:	NBCC 2010 / OBC 2012	2	3817		1541		0	0
Deflection LL:	360	Load Sharing:	Yes							
Deflection TL:	240	Deck:	Not Checked							
Importance:	Normal	Vibration:	Not Checked							
General Load										
Floor Live:	40 PSF			<b>Bearings</b>	and Fac	tored l	Reactions			
Dead:	15 PSF			Bearing L	Length	Сар.	React D/L lb	Total	Ld. Case	Ld. Comb.
				1 - SPF 5	5.063"	48%	1981 / 5837	7818	L	1.25D+1.5L
		-41		2-SPF 4	4.813"	49%	1927 / 5725	7651	L	1.25D+1.5L
malucia Docul	E.a.									

#### Analysis Results

	-						
Г	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
	Moment	26622 ft-lb	7'9 9/16"	53447 ft-lb	0.498 (50%)	1.25D+1.5L	L
	Unbraced	26622 ft-lb	7'9 9/16"	50353 ft-lb	0.529 (53%)	1.25D+1.5L	L
	Shear	6935 lb	13'5 15/16"	17394 lb	0.399 (40%)	1.25D+1.5L	L
	Perm Defl in.	0.141 (L/1199)	7'5 1/16"	0.471 (L/360)	0.300 (30%)	D	Uniform
	LL Defl inch	0.350 (L/485)	7'5 1/4"	0.471 (L/360)	0.740 (74%)	L	L
	TL Defl inch	0.491 (L/345)	7'5 1/8"	0.706 (L/240)	0.700 (70%)	D+L	L

#### **Design Notes**

- 1 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 4 5
- 2 Girders are designed to be supported on the bottom edge only.
- 3 Multiple plies must be fastened together as per manufacturer's details.
- 4 Top loads must be supported equally by all plies.
- 5 Top braced at bearings.
- 6 Bottom braced at bearings.

7 Lateral slenderness ratio based on full section width

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

PROFESSIONAL I.MATUEVIC 100528832 SAOVINCE OF ONTHE February 04, 2019

Laterar	sichaciness ratio basea	of full section width.							
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-1-13 to 1-8-13		Тор	139 PLF	363 PLF	0 PLF	0 PLF	
2	Point	0-4-1		Тор	54 lb	138 lb	0 lb	Dace Thru	Framing Squash Block is
3	Point	1-6-9		Тор	99 lb	265 lb	0 ib	required at	al <sup>®</sup> point loads over bearings
4	Point	2-4-1		Тор	111 lb	285 lb	0 lb	0 lb	J1
5	Point	2-8-1		Тор	115 lb	306 lb	0 lb	Refer to Mu	Itiple Member Connection by to ply nailing or bolting
Continued or	n page 2							requiremen	

#### Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design enteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

#### Lumber

- Dry service conditions, unless noted otherwise
   LVL not to be treated with fire retardant or corrosive

## Handling & Installation

- LVL beams must not be cut or drilled
  Refer to manufacturer's product information
  regarding installation requirements, multi-ply
  fastening details, beam strength values, and code
  approvats
  Damaged Beams must not be used
- Design assumes top edge is laterally restrained
   Provide lateral support at bearing points to avoid lateral displacement and rotation

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info Forex APA: PR-L318

Kott Lumber Company 14 Anderson Blvd, Ontario Canada L4A 7X4 905-642-4400





Client:

Project:

Address:

Date: 1/29/2019

Designer: SB

Job Name: LOT-14 (AMELIA 3 EL-2 \_4BEDRM)

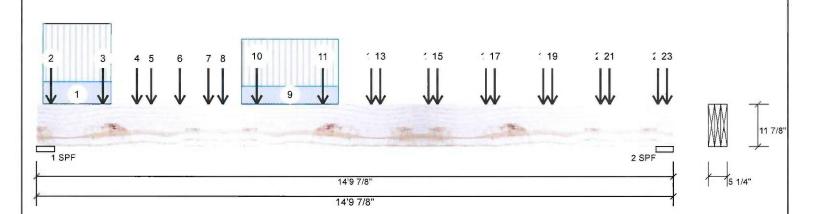
Project #:

Forex 2.0E-3000Fb LVL

1.750" X 11.875"

3-Ply - PASSED

Level: Second Floor



Continued	from page 1		_,						
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
6	Point	3-4-1		Тор	112 lb	286 lb	0 lb	0 lb	J1
7	Point	4-0-1		Тор	115 lb	306 lb	0 lb	0 lb	J6
8	Point	4-4-1		Тор	112 lb	285 lb	0 lb	0 lb	J1
9	Part, Uniform	4-9-5 to 7-0-5		Тор	112 PLF	296 PLF	0 PLF	0 PLF	
10	Point	5-1-9		Тор	115 lb	306 lb	0 lb	dl 0	J6
11	Point	6-8-1		Тор	142 lb	378 lb	0 lb	0 lb	J1
12	Point	7-9-9		Тор	125 lb	334 lb	0 lb	0 lb	J6
13	Point	8-0-1		Тор	142 lb	378 lb	0 lb	0 lb	J1
14	Point	9-1-9		Тор	125 lb	334 lb	0 lb	0 lb	J6
15	Point	9-4-1		Тор	142 lb	378 lb	0 lb	0 lb	J1
16	Point	10-5-9		Тор	125 lb	334 lb	0 lb	0 lb	J6
17	Point	10-8-1		Тор	142 lb	378 lb	0 lb	0 lb	J1
18	Point	11-9-9		Тор	125 lb	334 lb	0 lb	0 lb	J6
19	Point	12-0-1		Тор	142 lb	378 lb	0 lb	0 lb	J1
20	Point	13-1-9		Тор	125 lb	334 lb	0 lb	0 lb	J6
21	Point	13-4-1		Тор	142 lb	378 lb	0 lb	0 lb	J1
22	Point	14-5-9		Тор	62 lb	165 lb	0 lb	0 lb	J6
23	Point	14-8-1		Тор	70 lb	187 lb	0 lb	0 lb	J1
	Self Weight				14 PLF				



February 04, 2019

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown, it is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

#### Lumber

Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or corrosive

## chemicals

#### Handling & Installation

- andling & Installation
  LVL beams must not be cut or drilled
  Refer to manufacturer's product information
  regarding installation requirements, multi-ply
  fastening details, beam strength values, and code
  approvals
  Damaged Beams must not be used
  Design assumes top edge is laterally restrained
  Provide lateral support at bearing points to avoid
  lateral displacement and rotation

For flat roofs provide proper drainage to prevent ponding

Forex

Manufacturer Info

APA: PR-L318

Kott Lumber Company 14 Anderson Blvd, Ontario Canada L4A 7X4 905-642-4400









Client:

Project: Address: Date: 1/29/2019

Designer:

Job Name: LOT-14 (AMELIA 3 EL-2 \_4BEDRM)

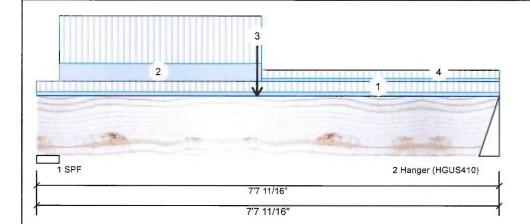
Project #

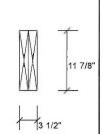
Forex 2.0E-3000Fb LVL

1.750" X 11.875"

2-Ply - PASSED

Level: Second Floor





Member Information	ì
--------------------	---

Type:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal
General Load	
Floor Live:	40 PSF
Dead:	15 PSF

Application: Design Method: **Building Code:** 

Load Sharing:

Deck:

Vibration:

Floor (Residential) LSD NBCC 2010 / OBC 2012

No Not Checked Not Checked

Unfactored	Reactions	UNPATTERNED	lb (Uplift)
Brg	Live	Dead	Snow

rg	Live	Dead	Snow	Wind
1	499	227	0	0
2	381	182	0	0

## **Bearings and Factored Reactions**

Bearing	Length	Cap. R	eact D/L lb	Total	Ld. Case	Ld. Comb.	
1 - SPF	4.467"	11%	284 / 748	1032	L	1.25D+1.5L	
2 - Hanger	4.000"	8%	228 / 571	799	L	1.25D+1.5L	

#### **Analysis Results**

	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
	Moment	2465 ft-lb	3'7 11/16"	34261 ft-lb	0.072 (7%)	1.25D+1.5L	L
	Unbraced	2465 ft-lb	3'7 11/16"	31940 ft-lb	0.077 (8%)	1.25D+1.5L	L
	Shear	857 lb	1'3 9/16"	11596 lb	0.074 (7%)	1.25D+1.5L	L
	Perm Defl in.	0.006 (L/15083)	3'7 3/4"	0.235 (L/360)	0.020 (2%)	D	Uniform
	LL Defl inch	0.013 (L/6640)	3'7 3/4"	0.235 (L/360)	0.050 (5%)	L	L
	TL Defl inch	0.018 (L/4610)	3'7 3/4"	0.353 (L/240)	0.050 (5%)	D+L	L
_							

PROFESSIONAL **I.MATIJEVIC** 100528832 SAOVINCE OF ONTARIO

February 04, 2019

#### **Design Notes**

- 1 Fill all hanger nailing holes.
- 2 Girders are designed to be supported on the bottom edge only.
- 3 Multiple plies must be fastened together as per manufacturer's details.
- 4 Top loads must be supported equally by all plies.
- 5 Top braced at bearings.
- 6 Bottom braced at bearings.

7 Lateral slenderness ratio based on full section width.

ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

READ ALL NOTES ON THIS PAGE AND ON THE

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow
1	Tie-In	0-0-0 to 7-7-11	(Span)0-9-0	Тор	15 PSF	40 PSF	0 PSF
2	Tie-In	0-4-7 to 3-8-9	(Span)3-4-0	Тор	15 PSF	40 PSF	0 PSF
3	Point	3-7-11		Near Face	193 lb	496 lb	0 lb
4	Tie-In	3-8-9 to 7-7-11	(Span)0-7-0	Тор	15 PSF	40 PSF	0 PSF
	Self Weight				10 PLF		

Pass-Thru Framing Squash Block is required at all point loads over bearings

**Refer to Multiple Member Connection** Detail for ply to ply nailing or bolting requirements

Comments

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown, it is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

#### Lumber

Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or corrosive

- Handling & Installation
- LVL beams must not be cut or drilled Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals Damaged Beams must not be used
- Design assumes top edge is laterally restrained Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info APA: PR-I 318

Wind

0 PSF 0 PSF

> Kott Lumber Company 14 Anderson Blvd, Ontario Canada L4A 7X4 905-642-4400









Client:

Project: Address:

1/29/2019

Page 1 of 2

Designer: SB

Job Name: LOT-14 (AMELIA 3 EL-2 \_4BEDRM)

Forex 2.0E-3000Fb LVL

1.750" X 11.875"

2-Ply - PASSED Level: Second Floor

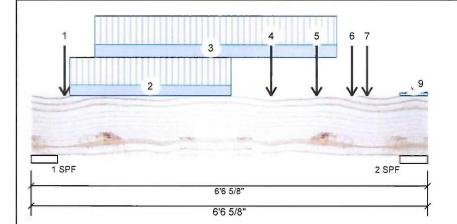
Brg

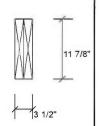
1

2

1 - SPF 5.250"

2 - SPF 5.500"





Wind

0

0

1.25D+1.5L

1.25D+1.5L

#### Member Information

-		
	Туре:	Girder
	Plies:	2
	Moisture Condition:	Dry
	Deflection LL:	360
	Deflection TL:	240
	Importance:	Normal
	General Load	
	Floor Live:	40 PSF
	Dead:	15 PSF

Application: Floor (Residential) Design Method:

**Building Code:** 

LSD NBCC 2010 / OBC 2012

Load Sharing: No Deck:

Not Checked Not Checked Vibration:

## **Unfactored Reactions UNPATTERNED Ib (Uplift)**

30%

26%

Dead

716

672

Snow

3363 L

3080 L

0

0

Live

1645

1493

Bearings and Fac	tored Reactions		
Bearing Length	Cap. React D/L lb	Total Ld. Case	Ld. Comb.

895 / 2467

840 / 2240

#### **Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4894 ft-lb	3'3 13/16"	34261 ft-lb	0.143 (14%)	1.25D+1.5L	L
Unbraced	4894 ft-lb	3'3 13/16"	32706 ft-lb	0.150 (15%)	1.25D+1.5L	L
Shear	3627 lb	5'2"	11596 lb	0.313 (31%)	1.25D+1.5L	L
Perm Defl in.	0.009 (L/7390)	3'3 5/8"	0.193 (L/360)	0.050 (5%)	D	Uniform
LL Defl inch	0.021 (L/3234)	3'3 7/16"	0.193 (L/360)	0.110 (11%)	L	L
TL Defl inch	0.031 (L/2250)	3'3 1/2"	0.289 (L/240)	0.110 (11%)	D+L	L

#### **Design Notes**

- 1 Girders are designed to be supported on the bottom edge only.
- 2 Multiple plies must be fastened together as per manufacturer's details.
- 3 Top loads must be supported equally by all plies.
- 4 Top braced at bearings.
- 5 Bottom braced at bearings.
- 6 Lateral slenderness ratio based on full section width.

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.



February 04, 2019

Load Type	Location							
	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
Point	0-6-10		Far Face	111 lb	256 lb	0 lb	0 lb	J1
Part. Uniform	0-7-10 to 3-3-10		Near Face	105 PLF	280 PLF	0 PLF	0 PLF	
Part. Uniform	1-0-10 to 5-0-10		Far Face	127 PLF	286 PLF	0 PLF	0 PLF	
Point	3-11-10		Near Face	111 lb	296 lb	0 lb	Pass-Thru	Framing Squash Block is
Point	4-8-10		Near Face	182 lb	381 lb	0 lb	required at	all point loads over bearings
Point	5-3-10		Near Face	29 lb	77 lb	0 lb	Refer to Mi	ultiple Member Connection
ge 2							Detail for p	ly to ply nailing or bolting
	Part. Uniform Part. Uniform Point Point	Part. Uniform     0-7-10 to 3-3-10       Part. Uniform     1-0-10 to 5-0-10       Point     3-11-10       Point     4-8-10       Point     5-3-10	Part. Uniform 0-7-10 to 3-3-10 Part. Uniform 1-0-10 to 5-0-10 Point 3-11-10 Point 4-8-10 Point 5-3-10	Part. Uniform         0-7-10 to 3-3-10         Near Face           Part. Uniform         1-0-10 to 5-0-10         Far Face           Point         3-11-10         Near Face           Point         4-8-10         Near Face           Point         5-3-10         Near Face	Part. Uniform         0-7-10 to 3-3-10         Near Face         105 PLF           Part. Uniform         1-0-10 to 5-0-10         Far Face         127 PLF           Point         3-11-10         Near Face         111 lb           Point         4-8-10         Near Face         182 lb           Point         5-3-10         Near Face         29 lb	Part. Uniform         0-7-10 to 3-3-10         Near Face         105 PLF         280 PLF           Part. Uniform         1-0-10 to 5-0-10         Far Face         127 PLF         286 PLF           Point         3-11-10         Near Face         111 lb         296 lb           Point         4-8-10         Near Face         182 lb         381 lb           Point         5-3-10         Near Face         29 lb         77 lb	Part. Uniform         0-7-10 to 3-3-10         Near Face         105 PLF         280 PLF         0 PLF           Part. Uniform         1-0-10 to 5-0-10         Far Face         127 PLF         286 PLF         0 PLF           Point         3-11-10         Near Face         111 lb         296 lb         0 lb           Point         4-8-10         Near Face         182 lb         381 lb         0 lb           Point         5-3-10         Near Face         29 lb         77 lb         0 lb	Part. Uniform         0-7-10 to 3-3-10         Near Face         105 PLF         280 PLF         0 PLF         0 PLF           Part. Uniform         1-0-10 to 5-0-10         Far Face         127 PLF         286 PLF         0 PLF         0 PLF           Point         3-11-10         Near Face         111 lb         296 lb         0 lb         Pass-Thru           Point         4-8-10         Near Face         182 lb         381 lb         0 lb         Refer t6 Interpretation           Point         5-3-10         Near Face         29 lb         77 lb         0 lb         Refer t6 Interpretation

#### Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown, it is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or corrosive

#### chemicals

## Handling & Installation

- andling & Installation

  LVL beams must not be cut or drilled

  Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals

  Damaged Beams must not be used

  Design assumes top edge is laterally restrained

  Provide lateral support at bearing points to avoid lateral displacement and rotation

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info APA: PR-L318

requirements

Kott Lumber Company 14 Anderson Blvd, Ontario Canada L4A 7X4 905-642-4400





Client:

Project: Address: Date: 1/29/2019

Designer:

Job Name: LOT-14 (AMELIA 3 EL-2 \_4BEDRM)

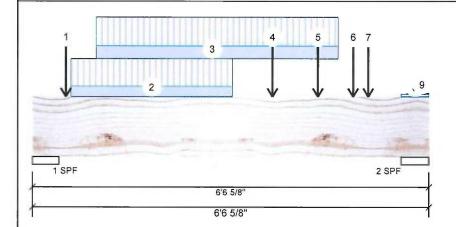
Project #:

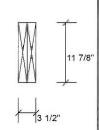
Forex 2.0E-3000Fb LVL

1.750" X 11.875"

2-Ply - PASSED

Level: Second Floor





.Continued from page	.Continued	from	page	1
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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
7	Point	5-6-10		Far Face	101 lb	226 lb	0 lb	0 lb	J1
8	Tie-In	6-1-2 to 6-6-10	(Span)1-0-1	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
9	Tie-In	6-2-4 to 6-6-10	(Span)0-3-15	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				10 PLF				



Pass-Thru Framing Squash Block is required at all point loads over bearings

**Refer to Multiple Member Connection** Detail for ply to ply nailing or bolting requirements

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

#### Lumber

- Dry service conditions, unless noted otherwise
   LVL not to be treated with fire retardant or corrosive
- chemicals

## Handling & Installation

- LVL beams must not be cut or drilled Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals Damaged Seams must not be used
- Design assumes top edge is laterally restrained
  Provide lateral support at bearing points to avoid
  lateral displacement and rotation

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info APA: PR-L318

Kott Lumber Company 14 Anderson Blvd, Ontario Canada L4A 7X4 905-642-4400

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	592 ft-lb	5'1 7/8"	34261 ft-lb	0.017 (2%)	1.25D+1.5L	L
Unbraced	592 ft-lb	5'1 7/8"	29876 ft-lb	0.020 (2%)	1.25D+1.5L	L
Shear	194 lb	9' 1/4"	11596 lb	0.017 (2%)	1.25D+1.5L	L
Perm Defl in.	0.004 (L/27908)	5'1 7/8"	0.324 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.004 (L/26047)	5'1 7/8"	0.324 (L/360)	0.010 (1%)	L	L
TL Defl inch	0.009 (L/13473)	5'1 7/8"	0.485 (L/240)	0.020 (2%)	D+L	L

#### **Design Notes**

- 1 Girders are designed to be supported on the bottom edge only.
- 2 Multiple plies must be fastened together as per manufacturer's details.
- 3 Top loads must be supported equally by all plies.
- 4 Top braced at bearings.
- 5 Bottom braced at bearings.

Self Weight

6 Lateral	slenderness ratio based	on full section width.	7						
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 10-3-12	(Span)0-11-5	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-2-5 to 10-3-12		Тор	1 PLF	0 PLF	0 PLF	0 PLF	
	Self Weight	Pass-Thru Framin	g Squash Bl	ock is	10 PLF		DE	AD ALL MOT	EC ON THE DA

Refer to Multiple Member Connection Detail for ply to ply nailing or bolting

requirements

required at all point loads over bearings

# Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

# Lumber

Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or corrosive

## Handling & Installation

- LVL beams must not be cut or drilled Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
- Design assumes top edge is laterally restrained Provide lateral support at bearing points to avoid lateral displacement and rotation

For flat roofs provide proper drainage to prevent ponding

10 PLF

Manufacturer Info APA: PR-L318

Kott Lumber Company 14 Anderson Blvd, Ontario Canada L4A 7X4 905-642-4400

IN THE DESIGN OF THIS COMPONENT.

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE

IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED





I.MATUEVIC 100528832

POLINCE OF ONTARIO

February 04, 2019







Client:

Project: Address: Date: Designer:

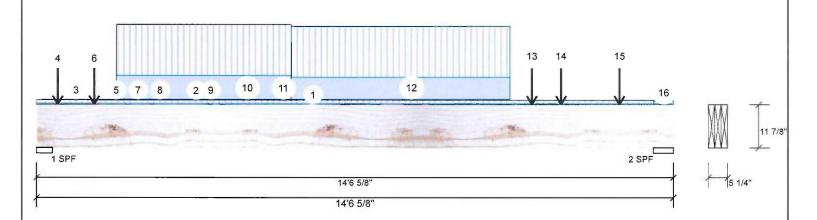
1/29/2019 SB

Job Name: LOT-14 (AMELIA 3 EL-2 \_4BEDRM)

Project #:

F13-A Forex 2.0E-3000Fb LVL 1.750" X 11.875"

3-Ply - PASSED Level: Second Floor



Member Info	rmation			Unfactored Reactions UNPATTERNED Ib (Uplift)						
Туре:	Girder	Application:	Floor (Residential)	Brg	Live	1/4	Dead	Snov	N	Wind
Plies:	3	Design Method:	LSD	1	2079		1064		0	0
Moisture Condition	on: Dry	Building Code:	NBCC 2010 / OBC 2012	2	2002		945		0	0
Deflection LL:	360	Load Sharing:	Yes	_						
Deflection TL:	240	Deck:	Not Checked							
Importance:	Normal	Vibration:	Not Checked							
General Load						-				
Floor Live:	40 PSF			<b>Bearings</b>	and Fac	tored Re	actions			
Dead:	15 PSF			Bearing l	Length	Cap. R	eact D/L lb	Total	Ld. Case	Ld. Comb.
				1 - SPF 4	4.375"	31%	1330 / 3118	4449	L	1.25D+1.5L
				2-SPF 5	5.500"	24%	1181 / 3003	4185	L	1.25D+1.5L

#### **Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	14991 ft-lb	7'2 3/8"	53447 ft-lb	0.280 (28%)	1.25D+1.5L	L
Unbraced	14991 ft-lb	7'2 3/8"	50470 ft-lb	0.297 (30%)	1.25D+1.5L	L
Shear	4377 lb	1'3 1/2"	17394 lb	0.252 (25%)	1.25D+1.5L	L
Perm Defl in.	0.089 (L/1875)	7'2 5/16"	0.462 (L/360)	0.190 (19%)	D	Uniform
LL Defl inch	0.180 (L/922)	7'2 7/8"	0.462 (L/360)	0.390 (39%)	L	L
TL Defl inch	0.269 (L/618)	7'2 5/8"	0.693 (L/240)	0.390 (39%)	D+L	L

#### **Design Notes**

- 1 Girders are designed to be supported on the bottom edge only.
- 2 Multiple plies must be fastened together as per manufacturer's details.
- 3 Top loads must be supported equally by all plies.
- 4 Top braced at bearings.
- 5 Bottom braced at bearings.
- 6 Lateral slenderness ratio based on full section width

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.



February 04, 2019

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow
1	Tie-In	0-0-0 to 14-1-4	(Span)0-10-8	Тор	15 PSF	40 PSF	0 PSF
2	Part. Uniform	0-1-9 to 5-11-10		Тор	2 PLF	0 PLF	0 PLF
3	Part, Uniform	0-1-9 to 1-3-13		Тор	1 PLF	0 PLF	0 PLF
4	Point	0-5-13		Far Face	92 lb	190 lb	0 lb
5	Part. Uniform	1-3-13 to 2-3-13		Тор	1 PLF	0 PLF	0 PLF
6	Point	1-3-13		Far Face	123 lb	255 lb	0 lb
ontinued on	page 2						

Pass-Thru Framing Squash Block is required at all point loads over bearings

Comments

Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements

#### Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown, it is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

#### Lumber

Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or corrosive

## Handling & Installation

- 1. LVI. beams must not be cut or drilled
  2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
  3. Darnaged Beams must not be used
- Daniga assumes top edge is laterally restrained
  Provide lateral support at bearing points to avoid
  lateral displacement and rotation

For flat roofs provide proper drainage to prevent ponding

APA: PR-L318

Manufacturer Info

Forex

Wind

0 PSF 0 PLF 0 PLF

> Kott Lumber Company 14 Anderson Blvd, Ontario Canada L4A 7X4 905-642-4400





Client:

Project:

Address:

Date:

1/29/2019

Designer:

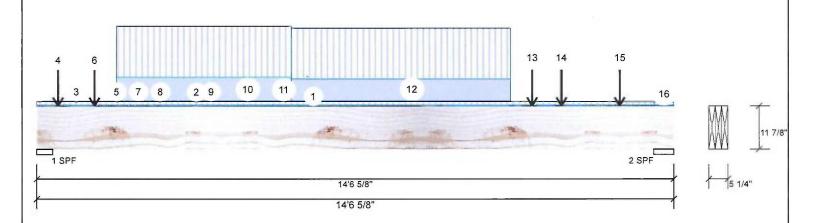
Job Name: LOT-14 (AMELIA 3 EL-2 \_4BEDRM)

Project #:

Forex 2.0E-3000Fb LVL

1.750" X 11.875"

3-Ply - PASSED Level: Second Floor



Continued fr	om page 1								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
7	Part, Uniform	1-9-13 to 5-9-13		Far Face	132 PLF	278 PLF	0 PLF	0 PLF	
8	Part. Uniform	2-3-13 to 3-3-13		Тор	1 PLF	0 PLF	0 PLF	0 PLF	
9	Part. Uniform	3-3-13 to 4-3-13		Тор	1 PLF	0 PLF	0 PLF	0 PLF	
10	Part, Uniform	4-3-13 to 5-3-13		Тор	1 PLF	0 PLF	0 PLF	0 PLF	
11	Part. Uniform	5-3-13 to 5-11-10		Тор	1 PLF	0 PLF	0 PLF	0 PLF	
12	Part. Uniform	5-9-13 to 10-9-13		Far Face	122 PLF	278 PLF	0 PLF	0 PLF	
13	Point	11-3-13		Far Face	93 lb	232 lb	0 lb	0 lb	J1
14	Point	11-11-13		Far Face	104 lb	278 lb	0 lb	0 lb	J1
15	Point	13-3-13		Far Face	139 lb	371 lb	0 lb	0 lb	J1
16	Tie-In	14-1-4 to 14-6-10	(Span)0-8-8	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				14 PLF				



Pass-Thru Framing Squash Block is required at all point loads over bearings

Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown, it is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

#### Lumber

- Dry service conditions, unless noted otherwise
   LVL not to be treated with fire retardant or corrosive

## Handling & Installation

- LVL beams must not be cut or drilled Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvats Damaged Beams must not be used
- Design assumes top edge is laterally restrained Provide lateral support at bearing points to avoid lateral displacement and rotation
- 6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex APA: PR-L318



Kott Lumber Company 14 Anderson Blvd, Ontario Canada L4A 7X4 905-642-4400



Client:

Project:

Address:

Date:

1/29/2019 Designer:

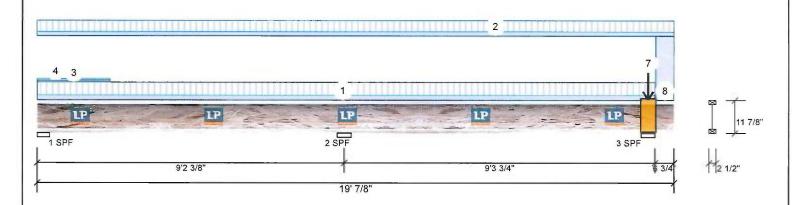
Job Name: LOT-14 (AMELIA 3 EL-2 \_4BEDRM)

Project #:

LPI 20Plus

11.875" - PASSED

Level: Second Floor



Member Infor	mation		
Type:	Girder	Application:	Floor (Residential)
Plies:	1	Design Method:	LSD
Moisture Conditio	n: Dry	Building Code:	NBCC 2010 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Dead:	15 PSF					
Analysis R	esults					
Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Mome	nt -579 ft-lb	9'2 3/8"	6250 ft-lb	0.093 (9%)	1.25D+1.5L	LL_
Pos Mome	nt 426 ft-lb	4' 3/4"	5688 ft-lb	0.075 (7%)	1.25D+1.5L	L

						_
Pos Moment	426 ft-lb	4' 3/4"	5688 ft-lb	0.075 (7%)	1.25D+1.5L	L
Shear	566 lb	18'6 1/8"	1970 lb	0.287 (29%)	1.25D+1.5S	L
Perm Defl in.	0.005 (L/22428)	4'4 1/2"	0.297 (L/360)	0.020 (2%)	D	Uniform
LL Defl inch	0.015 (L/6984)	4'7 5/16"	0.297 (L/360)	0.050 (5%)	L+0.5S	L_L
TL Defl inch	0.020 (L/5329)	4'6 5/8"	0.445 (L/240)	0.050 (5%)	D+L+0.5S	L_L
LL Cant	-0.002 (2L/5898)	Rt Cant	0.200 (2L/480)	0.011 (1%)	L	_L_
TL Cant	-0.002 (2L/7025)	Rt Cant	0.300 (2L/360)	0.006 (1%)	D+L	_L_

#### **Design Notes**

- 1 Provide restraint at supports to ensure lateral stability.
- 2 Applied loads over end bearings and loads exceeding 250 lbs over intermediate bearings must be transferred directly to the support by rim board, blocking, squash blocks, or other
- 3 Dead Load Deflection: Instant = 0.005", Long Term = 0.007"
- 4 Girders are designed to be supported on the bottom edge only.
- 5 Top flange braced at bearings.
- 6 Bottom flange braced at bearings.

Pass-Thru Framing Squash Block is required at all point loads over bearings

**Refer to Multiple Member Connection** Detail for ply to ply nailing or bolting requirements

**Unfactored Reactions UNPATTERNED Ib (Uplift)** 

Brg	Live	Dead	Snow	Wind	
1	113	51	1	0	
2	327	118	0 (-4)	0	
3	129	257	207	0	

Bearings	and	Factored	Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.	
1 - SPF	4.375"	15%	62 / 189	251	L	1.25D+1.5L	
2 - SPF	5.000"	16%	151 / 502	653	LL_	1.25D+1.5L	
3 - SPF	5.000"	25%	320 / 311	631	_L	1.25D+1.5S	



February 04, 2019

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

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This design is valid until 10/31/2020

#### Manufacturer Info

Louisiana-Pacific Corp 414 Union Street, Suite 2000 Nashville, TN 37219 (888) 820-0325 www.lpcorp.com CCMC: 12412-R APA: PR-L238C







Client:

Project: Address:

0 - 1 - 8

0-1-8

0-1-8

Top

Top

Top

18-3-10

18-3-10

18-6-6 to 19-0-14

1/29/2019

Designer:

Job Name: LOT-14 (AMELIA 3 EL-2 \_4BEDRM)

Project #:

LPI 20Plus

Bearing Length

Bearing Length

Bearing Length

Part, Uniform

Point

Point

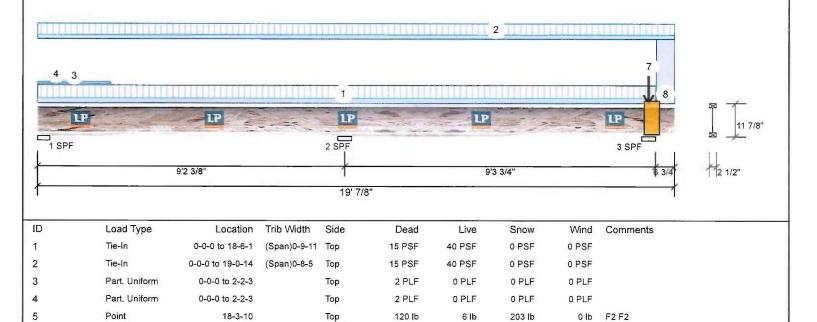
6

7

8

11.875" - PASSED

Level: Second Floor



7 lb

36 lb

80 PLF

0 lb

0 lb

0 PLF

0 lb

0 lb

0 PLF

0 lb

0 lb

0 PLF

Wall Self Weight

Wall Self Weight

Wall Self Weight



Pass-Thru Framing Squash Block is required at all point loads over bearings

Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements

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#### Notes

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Client:

Project:

Address:

Date: 1/29/2019

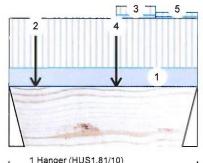
Designer: SB

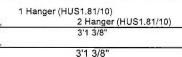
Job Name: LOT-14 (AMELIA 3 EL-2 \_4BEDRM)

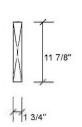
Forex 2.0E-3000Fb LVL

1,750" X 11,875" - PASSED

Level: Second Floor







Wind

#### Member Information

Type:	Girder
Plies:	1
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal
General Load	
Floor Live:	40 PSF
Dead:	15 PSF

Floor (Residential) Application: Design Method: LSD **Building Code:** NBCC 2010 / OBC 2012

Load Sharing: No Deck: Not Checked Vibration: Not Checked

#### **Unfactored Reactions UNPATTERNED Ib (Uplift)** Brg Live Dead Snow

2	454	178	0	0

193

# **Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	576 ft-lb	1'8 1/8"	17130 ft-lb	0.034 (3%)	1.25D+1.5L	L
Unbraced	576 ft-lb	1'8 1/8"	14337 ft-lb	0.040 (4%)	1.25D+1.5L	L
Shear	423 lb	1'2 1/8"	5798 lb	0.073 (7%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/35085)	1'7 9/16"	0.091 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.002 (L/13712)	1'7 9/16"	0.091 (L/360)	0.030 (3%)	L	L
TL Defl inch	0.003 (L/9859)	1'7 9/16"	0.137 (L/240)	0.020 (2%)	D+L	L

## **Bearings and Factored Reactions**

496

1

ſ	Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.	
	1 - Hanger	3.000"	25%	242 / 745	987	L	1.25D+1.5L	
$\frac{1}{2}$	2 - Hanger	3.000"	23%	222 / 680	902	L	1.25D+1.5L	

#### **Design Notes**

- 1 Fill all hanger nailing holes.
- 2 Girders are designed to be supported on the bottom edge only.
- 3 Top braced at bearings.
- 4 Bottom braced at bearings.



February 04, 2019

	Self Weight	Pass-Thru Framing 9	5 DI E			DEAD ALL	NOTES ON THE		
5	Tie-In	2-5-0 to 3-1-6 (S	Span)1-0-11	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
4	Point	1-9-4		Far Face	25 lb	66 lb	0 lb	0 lb	J9
3	Tie-In	1-9-4 to 2-5-0 (S	Span)2-1-11	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-5-4		Far Face	35 lb	94 lb	0 lb	0 lb	J9
1	Part, Uniform	0-0-0 to 3-1-6		Тор	90 PLF	240 PLF	0 PLF	0 PLF	
ID	Load Type	Location Tr	rib Width	Side	Dead	Live	Snow	Wind	Comments

EAD ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

#### **Refer to Multiple Member Connection** Detail for ply to ply nailing or bolting

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

- Dry service conditions, unless noted otherwise
   LVL not to be treated with fire retardant or corrosive
- 1. LVL beams must not be cut or drilled
  2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
  3. Damaged Beams must not be used

required at all point loads over bearings

- Davign assumes top edge is laterally restrained
  Provide lateral support at bearing points to avoid
  lateral displacement and rotation

For flat roofs provide proper drainage to prevent ponding

APA: PR-L318

Manufacturer Info

Kott Lumber Company 14 Anderson Blvd, Ontario

Canada L4A 7X4 905-642-4400





Client:

Project: Address: Date: 1/29/2019

Designer:

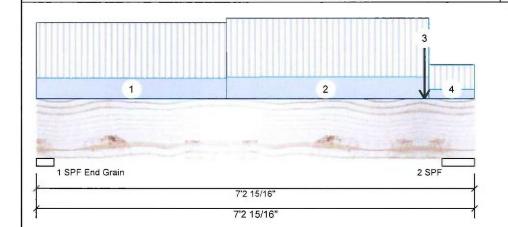
Job Name: LOT-14 (AMELIA 3 EL-2 \_4BEDRM)

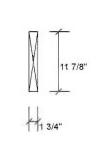
Project #:

Forex 2.0E-3000Fb LVL

1.750" X 11.875" - PASSED

Level: Second Floor





Wind

0

0

ENGINEER

### Member Information Girder Plies: Moisture Condition: Dry Deflection LL:

Deflection TL: 240 Importance: Normal General Load Floor Live:

40 PSF 15 PSF

Application: Floor (Residential) Design Method: Building Code: NBCC 2010 / OBC 2012 Load Sharing: Nο

Deck: Not Checked Not Checked Vibration:

Unfacto	red Reactions	S UNPATTER	NED lb (Uplift)
Brg	Live	Dead	Snow
1	248	110	0

268

**Bearings and Factored Reactions** Cap. React D/L lb Bearing Length

648

1 - SPF 3.500" 11% 138 / 373

Total Ld. Case Ld. Comb. 510 L 1.25D+1.5L

PROFESSIONAL

**I.MATIJEVIC** 100528832

SHOVINCE OF ONTARIO

February 04, 2019

0

End Grain

2 - SPF 6.438" 19% 335 / 972 1307 L 1.25D+1.5L

F6

## **Analysis Results**

Dead:

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	886 ft-lb	3'10 5/8"	17130 ft-lb	0.052 (5%)	1.25D+1.5L	L
Unbraced	886 ft-lb	3'10 5/8"	6876 ft-lb	0.129 (13%)	1.25D+1.5L	L
Shear	1164 lb	5'9 3/8"	5798 lb	0.201 (20%)	1.25D+1.5L	L
Perm Defl in.	0.004 (L/19184)	3'7 3/4"	0.218 (L/360)	0.020 (2%)	D	Uniform
LL Defl inch	0.009 (L/8370)	3'7 15/16"	0.218 (L/360)	0.040 (4%)	L	L
TL Defl inch	0.013 (L/5828)	3'7 7/8"	0.327 (L/240)	0.040 (4%)	D+L	L

## **Design Notes**

- 1 Girders are designed to be supported on the bottom edge only.
- 2 Top braced at bearings.
- 3 Bottom braced at bearings

o Dottom braces	at bournigo.								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	
1	Tie-In	0-0-0 to 3-1-12	(Span)3-1-13	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	3-1-12 to 6-5-14	(Span)3-4-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	6-5-0		Far Face	178 lb	454 lb	0 lb	0 lb	i
4	Tie-In	6-5-14 to 7-2-15	(Span)1-5-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				5 PLF				

Pass-Thru Framing Squash Block is required at all point loads over bearings

**Refer to Multiple Member Connection** Detail for ply to ply nailing or bolting requirements

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#### Notes

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#### Lumber

- Dry service conditions, unless noted otherwise
   LVL not to be treated with fire retardant or corrosive

# Handling & Installation

- LVL beams must not be cut or drilled Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
- Damaged Beams must not be used
- Daniga assumes top edge is laterally restrained
  Provide lateral support at bearing points to avoid
  lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

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