Ground Floor R1 F5-D - 1 ply (2x 8 Framing) 15-W @ 16 F5-C - 1 ply F3-A-2 p (2x 8 Framing) / BBO-DROP STEFL / / BLOCK BETWEEN JOISTS OVER STEEL BEAM F4-C - 2 ply Spcg @ 16" o/c 2 X .14-V All work shall conform to the R1 F5-B - 1 ply F5-A - 1 ply F6-B - 1 ply Building Code O Reg 332/12 the O T. Load transfer blocks to be installed the Substantial Building Code O Reg 332/12 as amond fastened as per the hanger manufacturer's standards.

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

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 member connection detail. 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.



CITY OF BRAMPTON BUILDING DIVISION REVIEWED

Engineered floor joists shall be installed in accordance with the supplier's layout and specifications forming part of the permit drawings.

This certification is to confirm that:

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

MARY FRENETTE

Qty Plies Pcs Length 4 Layout Name 8-0-0 LOT-17 (LIANA 2 EL-1) 2 4-0-0 Design Method Description GRANELLI HOMES CORP. BRAMPTON, ONT. Plies Pcs Length Created 16-0-0 2 14-0-0 May 29, 2018 2 12-0-0 Builder 4-0-0 2 **GREEN YORK HOMES** 2-0-0 Sales Rep 8 16-0-0

8 12-0-0 Designer 10-0-0 4 6-0-0 Shipping 1 4-0-0 Project **Builder's Project** Qty Plies Pcs Length **Kott Lumber Company** 13 14 Anderson Blvd

10 16d

22 14-0-0

Pcs Length Canada Varies 28-0-0 L4A 7X4 Varies 1-0-0 905-642-4400 lob Path Supported

GREEN YORK HOMES\GRANELLI Member HOME CORP\MODELS\LOT 17 LIAN fasteners 2-1\LOT-17 (LIANA 2 EL-1).isl Ground Floor 2 10dx1 1/2

Stouffville, Ontario

Design Method

Building Code NBCC 2010 / OBC 2012 Floor

LSD

240

480

360

OSB

3/4"

Nailed & Glued

Loads 40 Live Dead 15 **Deflection Joist** LL Span L/ 480 TL Span L/ 360 LL Cant 2L/ 480 TL Cant 2L/ 360 Deflection Girder LL Span L/ 360

TL Span L/ LL Cant 2L/ TL Cant 2L/ Decking

Deck Thickness Fastener

Vibration

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

Legend

to construction

Ground Floor

F4

F2

F1

LVL/LSL (Flush)

F3 Forex

Joist (Flush)

Label Description

Forex

Forex

Forex

Label Description

F15 LPI 20Plus

F7 LPI 20Plus

F8 LPI 20Plus

F6 LPI 20Plus

F5 LPI 20Plus

J6 LPI 20Plus

J5 LPI 20Plus

J3 LPI 20Plus

J2 LPI 20Plus

J1 LPI 20Plus

Label Description

Label Description

BLK1 LPI 20 Plus

rimboard/rimjoist.

bolting requirements

Label Pcs Description

29 LT259

Unknown

Hanger

1 HUS1.81/10

BLK2 NJH

R1 Norbord Rimboard 1.125

Plus 1.125 X 9.5

LPI 20Plus

J4

Rim Board

Blocking

Hanger

H1

H2

НЗ

NOTES:

2.0E-3000Fb LVL

2.0E-3000Fb LVL

2.0E-3000Fb LVL

2.0E-3000Fb LVL

Width Depth

9.5

9.5

9.5

9.5

Depth

9.5

9.5

9.5

9.5

9.5

9.5

9.5

9.5

9.5

9.5

9.5

Depth

9.5

9.5

Skew Slope

9.5 LinFt

Width Depth

2

Qty

Qty

LinFt

Plies

Beam/Girder

fasteners

4 10dx1 1/2

30 16d

2

1.75

1.75

1.75

1.75

Width

2.5

2.5

2.5

2.5

2.5

2.5

2.5

2.5

2.5

2.5

2.5

Width

2.5

2.5

. Framer to verify dimensions on the architectural drawings

3. Install 2x4 blocking @ 24" o/c under parallel non-load bearing walls. 4. Install single-ply flush window header along inside face of

6. Squash blocks recommended to be installed at end bearing on

Load transfer blocks to be installed under all point loads.

all first level joists which support loading from above exceeding

र्हिंगिर/shall be the framer's responsibility that floor joists and beams are

Rim parallel to joists: 1-1/8" rimboard with 2"x 4" block (1/16" longer than

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

rim depth @ 16" o/c). All other components and structural elements

foundation walls and footings including anchorage of components and

Hatch area represents ceramic tiled floor with an additional dead load

5.25 X 8 (Dropped)

supporting the floor system such as beams, walls, columns, and

bracing for lateral stability are the responsibility of Others.

2. Double joist only require filler/backer ply when supporting

5. Refer to Nascor specifier guide for installation works.

another member using a face-mounted hanger

**\Q** 111111

Point Load Support Load from Above Wall Opening Norbord Rimboard Plus 1.125 X 9.5 LPI 20Plus 9.5 Forex 2.0E-3000Fb LVL 1.75 X 9.5 0 X 0 (Dropped) 1.75 X 9.5 (Dropped)

m-2057

5. CCMC -12787-R APA PR-L310(C) Version 18.80.219 Powered by iStruct™

JOISTS SPACING 16"O/C

ARCHITECTURAL DRAWINGS:

JARDIN DESIGN GROUP INC.

Date: Rev.4; Dec 21,2018

2. Nascor CCMC - 13535-R

3. LVL CCMC -12904-R

4. CAN/CSA-O86-09

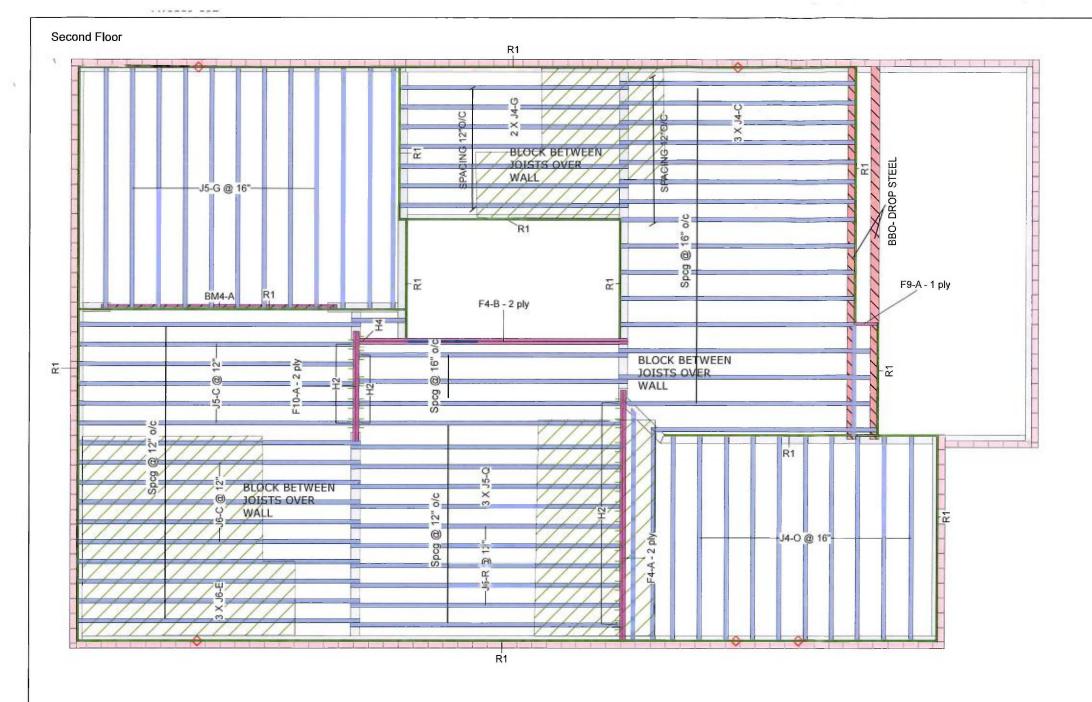
Project No: 17-55 Model: lot-17 (Liana 2 el-1)

64 Jardin Dr., Suite 3A, Vaughan, ON

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

UNIESS NOTED OTHERWISE

This layout is to be used as an installation guide only. It is meant to be used in conjunction with the architectural and structural drawings, not to replace them



JOISTS SPACING 16"O/C UNLESS NOTED OTHERWISE

ARCHITECTURAL DRAWINGS:

JARDIN DESIGN GROUP INC. 64 Jardin Dr., Suite 3A, Vaughan, ON Date: Rev.4; Dec 21,2018 Project No: 17-55 Model: LOT-17 (Liana 2 EL-1)

- 1. OBC 2012 O.Reg 332/12 as amended
- 2. Nascor CCMC 13535-R
- 3. LVL CCMC -12904-R
- 4. CAN/CSA-O86-09
- CCMC -12787-R APA PR-L310(C)

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 member connection detail. 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.

ROFESSIONA T.L. WISE 100083566 January 17, 2019

Second Floor LVL/LSL (Flush) Label Description Width Depth Qty Plies Pcs Length 2 F4 Forex 1.75 9.5 2 2.0E-3000Fb LVL F10 Forex 1.75 9.5 2.0E-3000Fb LVL 1.75 9.5 Forex 2-0-0 2.0E-3000Fb LVL LVL/LSL (Dropped) Width Depth Qty Plies Label Description Pcs Length BM4 Forex 1.75 12-0-0 2.0E-3000Fb LVL Joist (Flush) Qty Label Description Width | Depth | Plies Pcs Length J6 LPI 20Plus 9.5 16-0-0 11 Builder J5 LPI 20Plus 9.5 14-0-0 2.5 34 J4 LPI 20Plus 2.5 9.5 32 12-0-0 J1 LPI 20Plus 9.5 2.5 1 4-0-0 Rim Board Width Depth Qty Plies Pcs Length Label Description R1 Norbord Rimboard 1.125 9.5 Plus 1.125 X 9.5 Blocking Project Label Description Width Depth Qty Plies Pcs Length BLK1 LPI 20 Plus 2.5 9.5 LinFt Varies 5-0-0 Hanger Beam/Girder Supported Member Label Pcs Description Skew Slope fasteners fasteners 21 LT259 4 10dx1 1/2 2 10dx1 1/2 H4 1 HGUS410 46 16d 16 16d 905-642-4400 NOTES:

- 1. Framer to verify dimensions on the architectural drawings. 2. 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-load bearing walls.
- 4. Install single-ply flush window header along inside face of rimboard/rimjoist.
- 5. Refer to Nascor specifier guide for installation works.
- . 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.
- 7. Load transfer blocks to be installed under all point loads.
- 8. 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 requirements

Rim parallel to joists: 1-1/8" rimboard with 2"x 4" 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 responsibility of Others.

Hatch area represents ceramic tiled floor with an additional dead load

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

Legend Point Load Support Load from Above Norbord Rimboard Plus 1.125 X 9.5 LPI 20Plus 9.5 Forex 2.0E-3000Fb LVL 1.75 X 9.5 (Dropped) Forex 2.0E-3000Fb LVL 1.75 X 9.5 5.25 X 8 (Dropped)

Layout Name LOT-17 (LIANA 2 EL-1)

Design Method

Description GRANELLI HOMES CORP. BRAMPTON, ONT.

Created May 29, 2018

**GREEN YORK HOMES** Sales Rep

Designer

Shipping

**Builder's Project** 

**Kott Lumber Company** 

14 Anderson Blvd Stouffville, Ontario Canada L4A 7X4

Job Path

GREEN YORK HOMES\GRANELLI HOME CORP\MODELS\LOT 17 LIAN 2-1\LOT-17 (LIANA 2 EL-1).isl

LSD

Second Floor Design Method

Building Code NBCC 2010 / OBC 2012

Floor Loads Live 40 Dead 15 Deflection Joist 480 LL Span L/ 360 TL Span L/ LL Cant 2L/ 480 TL Cant 2L/ 360 Deflection Girder 360 LL Span L/ TL Span L/

240 LL Cant 2L/ 480 TL Cant 2L/ 360 Decking Deck OSB Thickness 5/8" Fastener Nailed & Glued Vibration Ceiling: Gypsum 1/2"

M- 2057



M-2057

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

**REVISION 2018-10-17** 

LOT 17

## 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

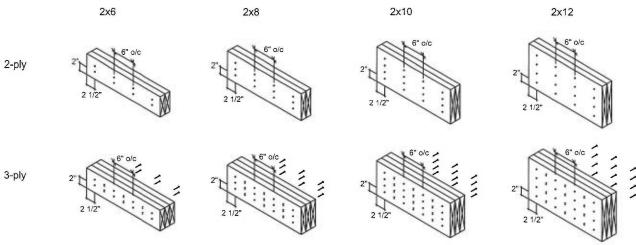
- 1. The building component used in construction must be the same as indicated on the drawings.
- 2. The building component must be installed and assembled as per specification shown on the drawing and in accordance with the manufacturer's assembly and installation.
- 3. Members consisting of multiple 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.



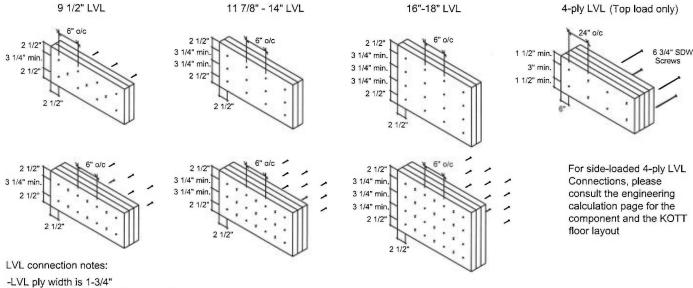
# **Conventional Connections**



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



Project: Address: **GREEN YORK HOMES** 

Date:

1/16/2019 Designer:

Job Name: LOT-17 (LIANA 2 EL-1)

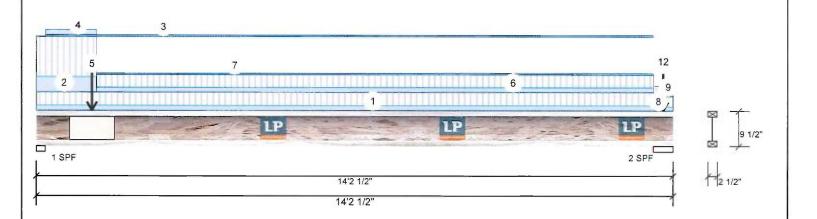
Page 1 of 2

Project #:

9.500" - PASSED LPI 20Plus

Level: Ground Floor

Unfactored Reactions UNPATTERNED Ib (Unlift)



	manon			Omaccore	a reacti	OIIS OIN ATTERN	D in (opinic)	
Туре:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow	Wind
Plies:	1	Design Method:	LSD	1	590	286	0	0
Moisture Condition	on: Dry	Building Code:	NBCC 2010 / OBC 2012	2	480	242	0	0
Deflection LL:	360	Load Sharing:	No					
Deflection TL:	240	Deck:	Not Checked					
Importance:	Normal	Vibration:	Not Checked					
General Load							_	
Floor Live:	40 PSF			Bearings a	and Facto	ored Reactions		
Dead:	15 PSF			Bearing L	ength	Cap. React D/L lb	Total Ld. Case	Ld. Comb.
				1 - SPF 2	.375"	77% 358 / 885	1243 L	1.25D+1.5L
				2-SPF 5	.250"	58% 302 / 719	1022 L	1.25D+1.5L

### **Analysis Results**

Member Information

l	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
l	Moment	2280 ft-lb	6'3 11/16"	4670 ft-lb	0.488 (49%)	1.25D+1.5L	L
١	Shear	1221 lb	1 5/8"	1990 lb	0.614 (61%)	1.25D+1.5L	L
ı	Perm Defl in.	0.109 (L/1503)	6'9 1/16"	0.457 (L/360)	0.240 (24%)	D	Uniform
	LL Defl inch	0.227 (L/725)	6'9 1/8"	0.457 (L/360)	0.500 (50%)	L	L
	TL Defl inch	0.336 (L/489)	6'9 1/8"	0.685 (L/240)	0.490 (49%)	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 device.
- 3 Dead Load Deflection: Instant = 0.109", Long Term = 0.164"
- 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 6'1" o.c.

L	7 Bottom flange	braced at bearings.				1 (0)				
I	ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
	1	Tie-In	0-0-0 to 13-9-4	(Span) 0-11-12	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	2	Tie-In	0-0-0 to 1-4-2	(Span) 2-11-13	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
١	3	Part. Uniform	0-2-7 to 13-9-3		Тор	2 PLF	0 PLF	0 PLF	0 PLF	
l	4	Part. Uniform	0-2-7 to 1-4-2		Тор	7 PLF	0 PLF	0 PLF	0 PLF	
k	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.

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

T.L. WISE 100083566

100083566

WCE OF ON

January 17, 2019





..... isDesign™

Client:

Project: Address:

GREEN YORK HOMES

Date:

1/16/2019

Page 2 of 2

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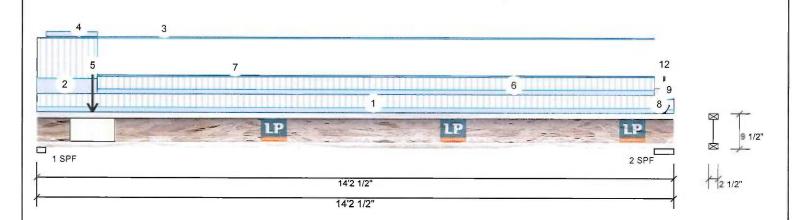
SB Designer:

Job Name: LOT-17 (LIANA 2 EL-1)

Project #:

9.500" - PASSED LPI 20Plus

Level: Ground Floor



.Continued 1	from page 1								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
5	Point	1-2-14		Near Face	145 lb	293 lb	0 lb	0 lb	F6
6	Tie-In	1-4-2 to 13-9-4	(Span)0-11-4	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
7	Part. Uniform	1-4-2 to 13-9-3		Тор	2 PLF	0 PLF	0 PLF	0 PLF	
8	Tie-In	13-9-4 to 14-2-8	(Span)0-9-4	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
9	Tie-In	13-9-4 to 14-2-8	(Span)0-6-12	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
10	Point	13-11-14		Тор	34 lb	89 lb	0 lb	0 lb	J5
	Bearing Length	0-1-8							
11	Point	13-11-14		Тор	39 lb	93 lb	0 lb	0 lb	J6
	Bearing Length	0-1-8							
12	Point	13-11-14		Тор	27 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-1-8							

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

#### 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.

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



This design is valid until 10/31/2020



Project: Address: **GREEN YORK HOMES** 

Date:

1/16/2019

Designer: SB

Job Name: LOT-17 (LIANA 2 EL-1)

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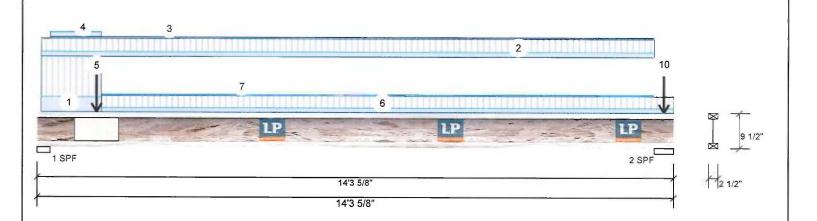
Page 1 of 2

Project #:

LPI 20Plus F15-B

9.500" - PASSED

Level: Ground Floor



Member Infor	mation			Unfactor	ed React	tions U	NPATTERNI	ED lb (	(Uplift)	
Туре:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Sno	w	Wind
Plies:	1	Design Method:	LSD	1	591		287		0	0
Moisture Condition	n: Dry	Building Code:	NBCC 2010 / OBC 2012	2	441		223		0	0
Deflection LL:	360	Load Sharing:	No	-						54
Deflection TL:	240	Deck:	Not Checked							
Importance:	Normal	Vibration:	Not Checked							
General Load					_					
Floor Live:	40 PSF			Bearings	and Fac	tored I	Reactions			
Dead:	15 PSF			Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
				1 - SPF	3.500"	73%	359 / 886	1245	L	1.25D+1.5L
				2 - SPF	5.250"	54%	278 / 661	939	L	1.25D+1.5L

### **Analysis Results**

ı	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
ı	Moment	2239 ft-lb	6'4 5/16"	4670 ft-lb	0.479 (48%)	1.25D+1.5L	L
١	Shear	1224 lb	2 3/4"	1990 lb	0.615 (62%)	1.25D+1.5L	L
	Perm Defl in.	0.108 (L/1523)	6'10 1/16"	0.457 (L/360)	0.240 (24%)	D	Uniform
	LL Defl inch	0.222 (L/739)	6'10 1/8"	0.457 (L/360)	0.490 (49%)	L	L
	TL Defl inch	0.330 (L/497)	6'10 1/8"	0.685 (L/240)	0.480 (48%)	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 device.
- 3 Dead Load Deflection: Instant = 0.108", Long Term = 0.162"
- 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 6'2" o.c.

/ BOLLOTT	lange braced at bearings.								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-1-2 to 1-5-4	(Span) 2-11-13	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-1-2 to 13-10-6	(Span) 0-11-12	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part, Uniform	0-3-8 to 13-10-4		Тор	2 PLF	0 PLF	0 PLF	0 PLF	
4	Part, Uniform	0-3-8 to 1-5-4		Тор	7 PLF	0 PLF	0 PLF	0 PLF	
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.

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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 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

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

T.L. WISE 100083566

100083566

January 17, 2019





Client:

GREEN YORK HOMES

Project: Address:

Date: 1/16/2019

Designer: SB

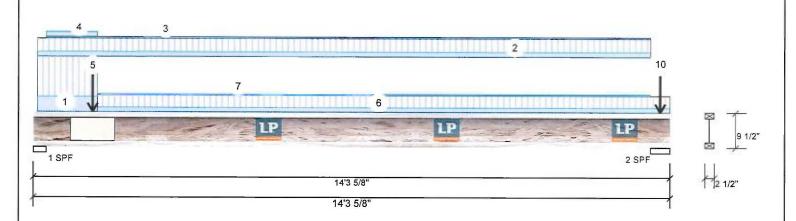
Job Name: LOT-17 (LIANA 2 EL-1)

Page 2 of 2

Project #:

F15-B LPI 20Plus 9.500" - PASSED

Level: Ground Floor



o				_	_				
Continued t	from page 1								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
5	Point	1-4-0		Far Face	149 lb	301 lb	0 lb	0 lb	F6
6	Tie-In	1-5-4 to 14-3-10	(Span)0-10-9	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
7	Part. Uniform	1-5-4 to 13-10-4		Тор	2 PLF	0 PLF	0 PLF	0 PLF	
8	Point	14-1-0		Тор	29 lb	75 lb	0 lb	di 0	J5
	Bearing Length	0-1-8							
9	Point	14-1-0		Тор	34 lb	79 lb	0 lb	0 lb	16
	Bearing Length	0-1-8							
10	Point	14-1-0		Тор	22 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-1-8							

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

### 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.

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



This design is valid until 10/31/2020

Client:

**GREEN YORK HOMES** 

Project: Address:

Date:

Designer: SB

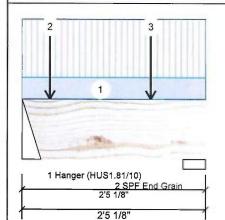
Job Name: LOT-17 (LIANA 2 EL-1)

1/16/2019

Forex 2.0E-3000Fb LVL

1.750" X 9.500" - PASSED

Level: Ground Floor



Wind

Page 1 of 1

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

15 PSF

Application: Floor (Residential) Design Method: LSD **Building Code:** Load Sharing:

Deck:

Vibration:

NBCC 2010 / OBC 2012 No

Not Checked Not Checked

Unfactored	Reactions	UNPATTERNED	lb (Uplift)
Bro	l ivo	Dead	Snow

1	299	116	0	0
2	258	101	0	0

# **Analysis Results**

Dead:

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	214 ft-lb	1'6 7/8"	11362 ft-lb	0.019 (2%)	1.25D+1.5L	L
Unbraced	214 ft-lb	1'6 7/8"	10729 ft-lb	0.020 (2%)	1.25D+1.5L	L
Shear	438 lb	11 3/4"	4638 lb	0.094 (9%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/58713)	1'4 3/8"	0.067 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.001 (L/23005)	1'4 9/16"	0.067 (L/360)	0.020 (2%)	L	L
TL Defl inch	0.001 (L/16529)	1'4 7/16"	0.100 (L/240)	0.010 (1%)	D+L	L

## **Bearings and Factored Reactions**

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	3.000"	15%	145 / 449	594	L	1.25D+1.5L
2 - SPF End Grain	3,625"	11%	127 / 387	514	L	1.25D+1.5L



- 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



January 17, 2019

ı	ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
ı	1	Tie-In	0-0-0 to 2-5-2	(Span)3-11-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
l	2	Point	0-4-6		Far Face	65 lb	175 lb	0 lb	0 lb	J3
١	3	Point	1-8-6		Far Face	72 lb	192 lb	0 lb	0 lb	J3
		Self Weight				4 PLF				Thru Framing Squash Block is ed 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.

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

- 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

Forex APA: PR-L318

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.

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



This design is



Client: **GREEN YORK HOMES** Date: 1/16/2019 Page 1 of 1 Project: Designer: SB isDesign™ Address: Job Name: LOT-17 (LIANA 2 EL-1) Project # Level: Ground Floor Forex 2.0E-3000Fb LVL 1.750" X 9.500" - PASSED 2 1 1 SPF 2 SPF End Grain 7'1 1/8' 7'1 1/8' Member Information Unfactored Reactions UNPATTERNED Ib (Uplift) Туре: Girder Application: Floor (Residential) Wind Brg Live Dead Snow Plies: Design Method: LSD 1 156 72 0 0 Moisture Condition: Dry **Building Code:** NBCC 2010 / OBC 2012 2 45 0 Deflection LL: Load Sharing: No Deflection TL: 240 Deck: Not Checked Importance: Normal Vibration: Not Checked General Load **Bearings and Factored Reactions** Floor Live: 40 PSF Dead: 15 PSF Bearing Length Cap. React D/L lb Total Ld. Case Ld. Comb. 1 - SPF 1.750" 17% 90 / 234 324 L 1.25D+1.5L PROFESSIONAL FINDINGER 2 - SPF 1.875" 7% 56 / 125 182 L 1.25D+1.5L Analysis Results End Grain Analysis Actual Location Allowed Capacity Comb. Case Moment 453 ft-lb 2'11 9/16" 11362 ft-lb 0.040 (4%) 1.25D+1.5L L LICENSED Unbraced 453 ft-lb 2'11 9/16" 5389 ft-lb 0.084 (8%) 1.25D+1.5L L Shear 228 lb 0.049 (5%) 1.25D+1.5L L 10 1/2" 4638 lb Perm Defl in. 0.004 3'4 1/8" 0.231 (L/360) 0.020 (2%) D Uniform (L/20045) 100083566 LL Defl inch 0.009 (L/9718) 3'3 1/2" 0.231 (L/360) 0.040 (4%) L TL Defl inch 0.013 (L/6545) 3'3 11/16" 0.346 (L/240) 0.040 (4%) D+L L **Design Notes** 1 Girders are designed to be supported on the bottom edge only. January 17, 2019 2 Top braced at bearings. 3 Bottom braced at bearings. ID Load Type Location Trib Width Side Dead Live Snow Wind Comments 1 Tie-In 0-0-0 to 7-1-2 (Span)0-7-14 Top 15 PSF 40 PSF 0 PSF 0 PSF 2 Part. Uniform 0-0-0 to 3-8-0 15 PLF 40 PLF Top 0 PLF 0 PLF Self Weight 4 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 Manufacturer Info Kott Lumber Company

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

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

This design is

Forex APA: PR-L318

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.

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





Address:

**GREEN YORK HOMES** 

Project:

Date:

1/16/2019 Designer: SB

Job Name: LOT-17 (LIANA 2 EL-1)

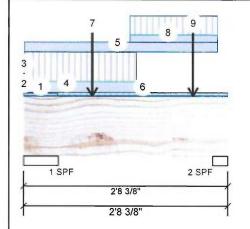
Project #:

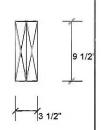
Forex 2.0E-3000Fb LVL

1.750" X 9.500"

2-Ply - PASSED

Level: Ground Floor





Page 1 of 2

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Member Infor	mation			Unfactor	red React	tions UNPATTE	RNED Ib	(Uplift)	
Туре:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	Sno	)W	Wind
Plies:	2	Design Method:	LSD	1	653	374		0	0
Moisture Condition	: Dry	Building Code:	NBCC 2010 / OBC 2012	2	490	280		0	0
Deflection LL:	360	Load Sharing:	No	_					
Deflection TL:	240	Deck:	Not Checked						
Importance:	Normal	Vibration:	Not Checked						
General Load									
Floor Live:	40 PSF			Bearings	and Fac	tored Reaction	S		
Dead:	15 PSF			Bearing	Length	Cap. React D/L	.lb Total	Ld. Case	Ld. Comb.
				1 - SPF	5.500"	12% 467 / 9	79 1446	L	1.25D+1.5L
				2-SPF	2.375"	21% 350 / 7	36 1086	L	1.25D+1.5L

**Analysis Results** 

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	579 ft-lb	1'3 9/16"	22724 ft-lb	0.025 (3%)	1.25D+1.5L	L
Unbraced	579 ft-lb	1'3 9/16"	22724 ft-lb	0.025 (3%)	1.25D+1.5L	L
Shear	713 lb	1'9 1/4"	9277 lb	0.077 (8%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/33703)	1'4 7/8"	0.072 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.001 (L/19171)	1'4 1/4"	0.072 (L/360)	0.020 (2%)	L	L
TL Defl inch	0.002 (L/12226)	1'4 1/2"	0.108 (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.
- 6 Lateral slenderness ratio based on full section width.

		THE TOTAL CONTRACT OF THE STREET							
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-5-6	(Span)0-10-7	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part, Uniform	0-0-0 to 0-0-2		Тор	46 PLF	123 PLF	0 PLF	0 PLF	J5
3	Part. Uniform	0-0-0 to 0-0-2		Тор	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
4	Part. Uniform	0-0-2 to 1-5-14		Тор	92 PLF	246 PLF	0 PLF	0 PLF	J5
5	Part. Uniform	0-0-2 to 2-6-12		Тор	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
	_								

Continued on page 2...

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 subability 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

- 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 Forex APA: PR-L318

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.

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



This design is v



Client: **GREEN YORK HOMES** 

Project: Address:

1/16/2019

Page 2 of 2

Designer: SB

Job Name: LOT-17 (LIANA 2 EL-1)

Project #:

Date:

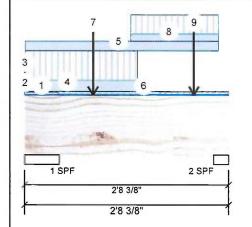
Forex 2.0E-3000Fb LVL

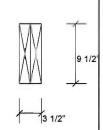
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1.750" X 9.500"

2-Ply - PASSED

Level: Ground Floor





Conf	inued from page 1								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
6	Tie-In	0-5-6 to 2-8-6	(Span)1-0-15	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
7	Point	0-10-14		Far Face	120 lb	319 lb	0 lb	0 lb	J5
8	Part. Uniform	1-4-14 to 2-6-12		Тор	59 PLF	158 PLF	0 PLF	0 PLF	J5
9	Point	2-2-14		Far Face	83 lb	220 lb	0 lb	0 lb	J5
	Self Weight				8 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

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

- 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
- - This design is valid until 10/18/2021

Manufacturer Info 6. For flat roofs provide proper drainage to prevent ponding

Forex

APA: PR-L318





Project: Address: **GREEN YORK HOMES** 

1/16/2019

Designer: SB

Job Name: LOT-17 (LIANA 2 EL-1)

Unfactored Reactions UNPATTERNED lb (Uplift)

Page 1 of 1

Project #:

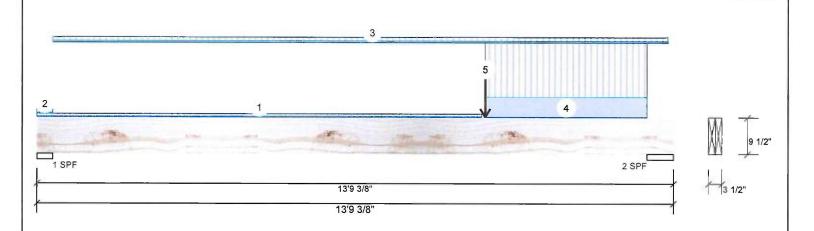
Date:

Forex 2.0E-3000Fb LVL

1.750" X 9.500"

2-Ply - PASSED

Level: Ground Floor



Туре:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow	Wind
Plies:	2	Design Method:	LSD	1	373	193	0	0
Moisture Conditio	n: Dry	Building Code:	NBCC 2010 / OBC 2012	2	1087	464	0	0
Deflection LL:	360	Load Sharing:	No	1.5				
Deflection TL:	240	Deck:	Not Checked					
Importance:	Normal	Vibration:	Not Checked	0				
General Load				()				
Floor Live:	40 PSF			Bearings a	and Fact	ored Reactions		
Dead:	15 PSF			Bearing L	ength	Cap. React D/L lb	Total Ld. Case	Ld. Comb.
				1 - SPF 4	.125"	9% 241 / 560	801 L	1.25D+1.5L
-				2-SPF 6	.875"	15% 580 / 1631	2211 L	1.25D+1.5L

### **Analysis Results**

Member Information

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4654 ft-lb	9'8 1/2"	22724 ft-lb	0.205 (20%)	1.25D+1.5L	L
Unbraced	4654 ft-lb	9'8 1/2"	19392 ft-lb	0.240 (24%)	1.25D+1.5L	L
Shear	1816 lb	12'5 3/4"	9277 lb	0.196 (20%)	1.25D+1.5L	L
Perm Defl in.	0.058 (L/2669)	7'3 7/8"	0.433 (L/360)	0.130 (13%)	D	Uniform
LL Defl inch	0.127 (L/1225)	7'5 1/4"	0.433 (L/360)	0.290 (29%)	L	L
TL Defl inch	0.186 (L/840)	7'4 13/16"	0.649 (L/240)	0.290 (29%)	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 Botto	om braced at bearings.								
6 Later	ral slenderness ratio based o	on full section width.							
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 9-7-10	(Span)0-6-2	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 0-4-2	(Span)0-7-6	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Tie-In	0-4-2 to 13-7-15	(Span)0-9-14	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
4	Part. Uniform	9-8-8 to 13-2-8		Тор	90 PLF	240 PLF	0 PLF	Pass-1	Thru Framing Squash Block is

required at all point loads over bearings Point 9-8-8 Far Face 116 lb 299 lb 0 lb Self Weight 8 PLF **Refer to Multiple Member Connection** Detail for ply to ply nailing or bolting

#### Notes

5

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 adge 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

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.

L4A 7X4 905-642-4400

Kott Lumber Company 14 Anderson Blvd, Ontario Canada

T.L. WISE 100083566

100083566

January 17, 2019

This design



Address:

...... ---

**GREEN YORK HOMES** 

Project:

1/16/2019

Designer: SB

Job Name: LOT-17 (LIANA 2 EL-1)

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Page 1 of 2

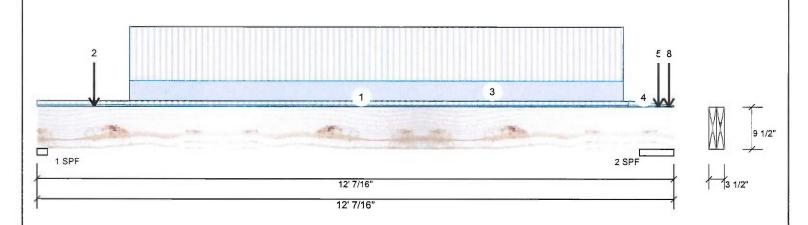
Date:

Forex 2.0E-3000Fb LVL

1.750" X 9.500"

2-Ply - PASSED

Level: Ground Floor



Member Inform	nation			Unfacto	red React	tions U	NPATTERNI	ED lb (	Uplift)	
Туре:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snov	/	Wind
Plies:	2	Design Method:	LSD	1	1545		622	(	כ	0
Moisture Condition:	: Dry	Building Code:	NBCC 2010 / OBC 2012	2	1769		735	(	)	0
Deflection LL:	360	Load Sharing:	No							
Deflection TL:	240	Deck:	Not Checked							
Importance:	Normal	Vibration:	Not Checked							
General Load										
Floor Live:	40 PSF			Bearing:	s and Fac	tored F	Reactions			
Dead:	15 PSF			Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
				1-SPF	2.375"	61%	777 / 2317	3094	L	1.25D+1.5L
				2-SPF	7.754"	21%	919 / 2654	3573	L	1.25D+1.5L

### **Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	9242 ft-lb	5'9 9/16"	22724 ft-lb	0.407 (41%)	1.25D+1.5L	L
Unbraced	9242 ft-lb	5'9 9/16"	20195 ft-lb	0.458 (46%)	1.25D+1.5L	L
Shear	3271 lb	11 1/8"	9277 lb	0.353 (35%)	1.25D+1.5L	L
Perm Defl in.	0.092 (L/1482)	5'9 9/16"	0.377 (L/360)	0.240 (24%)	D	Uniform
LL Defl inch	0.229 (L/594)	5'9 9/16"	0.377 (L/360)	0.610 (61%)	L	L
TL Defl inch	0.320 (L/424)	5'9 9/16"	0.566 (L/240)	0.570 (57%)	D+L	L

### **Design Notes**

- 1 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam
- 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.
- based on full section width

/ Lateral siend	emess ratio based	on full section width.							
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 11-2-3	(Span)1-0-4	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	1-0-15		Far Face	124 lb	332 lb	0 lb	0 lb	J5
3	Part. Uniform	1-8-15 to 11-0-15		Far Face	101 PLF	270 PLF	0 PLF	0 PLF	
4	Tie-In	11-2-3 to 12-0-7	(Span)1-1-0 to 0-2-12	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
5	Point	11-8-15		Far Face	48 lb	128 lb	0 lb	0 lb	J5

Continued on page 2...

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 beaming points to avoid
  lateral displacement and rotation

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info Forex APA: PR-L318

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.

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

T.L. WISE 100083566

100083566

January 17, 2019



This design is va

. - 3 - - . - . -Client: **GREEN YORK HOMES** Date: 1/16/2019 Page 2 of 2 Project: Designer: SB isDesign™ Job Name: LOT-17 (LIANA 2 EL-1) Address: Project #: Level: Ground Floor Forex 2.0E-3000Fb LVL 1.750" X 9.500" 2-Ply - PASSED 2 5 8 3 1 SPF 2 SPF 12' 7/16" 12' 7/16" .Continued from page 1 ID Location Trib Width Load Type Side Dead Live Wind Comments Snow 6 Point 11-11-5 Top 16 lb 34 lb 0 lb d10 J4 7 Point 11-11-5 23 lb 61 lb 0 lb Top 0 lb J5 8 Point 11-11-5 Тор 22 lb 0 lb 0 lb 0 lb Wall Self Weight Self Weight 8 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

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 out 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

Forex

APA: PR-L318

Manufacturer Info

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



This design is valid until 10/18/2021

Client:

Address:

**GREEN YORK HOMES** 

Project:

Date: 1/16/2019

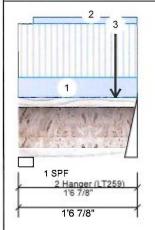
Designer: SB

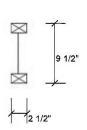
Job Name: LOT-17 (LIANA 2 EL-1)

Project #:

9.500" - PASSED LPI 20Plus

Level: Ground Floor





Page 1 of 1

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

15 PSF

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

Deck: Not Checked Not Checked Vibration:

Brg	Live	Dead	Snow	vvina	
1	65	31	0	0	
2	135	67	0	0	

Unfactored Reactions UNPATTERNED Ib (Uplift)

#### Bearings and Factored Reactions Bearing Length 1 - SPF 2.375" 8%

2.000"

2 -

Hanger

Cap. React D/L lb Total Ld. Case Ld. Comb. 39 / 98 136 L 1.25D+1.5L 18% 84 / 202 286 L 1.25D+1.5L

## **Analysis Results**

Dead:

l	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
l	Moment	52 ft-lb	1' 1/8"	4670 ft-lb	0.011 (1%)	1.25D+1.5L	L
l	Shear	272 lb	1'5 5/8"	1990 lb	0.137 (14%)	1.25D+1.5L	L
	Perm Defl in.	0.000 (L/54318)	11 7/8"	0.044 (L/360)	0.010 (1%)	D	Uniform
	LL Defl inch	0.001 (L/27008)	11 7/8"	0.044 (L/360)	0.010 (1%)	L	L
	TL Defl inch	0.001 (L/18039)	11 7/8"	0.067 (L/240)	0.010 (1%)	D+L	L

### **Design Notes**

- 1 Provide restraint at supports to ensure lateral stability.
- 2 Dead Load Deflection: Instant = 0.000", Long Term = 0.000"
- 3 Fill all hanger nailing holes.
- 4 Girders are designed to be supported on the bottom edge only.
- 5 Top flange braced at bearings.
- 6 Bottom flange braced at bearings.

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January 17, 2010	

January 17, 2019

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	
1	Tie-In	0-0-0 to 1-6-14	(Span)3-2-8	Тор	15 PSF	40 PSF	0 PSF	
2	Part. Uniform	0-2-6 to 1-6-14		Тор	8 PLF	0 PLF	0 PLF	
3	Point	1-3-7		Near Face	49 lb	99 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 requirements

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this raport. 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.

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 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

Wind

0 PSF 0 PLF Comments





Client:

Project: Address:

**GREEN YORK HOMES** 

1/16/2019 Date:

Designer: SB

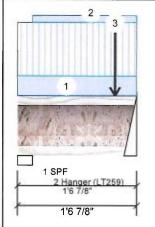
Job Name: LOT-17 (LIANA 2 EL-1)

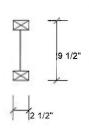
Project #:

LPI 20Plus 9.500" - PASSED

\*\*\*\*\*\*\*\*\*

Level: Ground Floor





Page 1 of 1

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Member Inform	lember Information		
Туре:	Girder		
Plies:	1		
Moisture Condition:	Dry		
Deflection LL:	360		
Deflection TL:	240		
Importance:	Normal		
General Load			
Floor Live:	40 PSF		

15 PSF

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

Not Checked Not Checked Unfactored Reactions UNPATTERNED Ib (Uplift) Brg Live Dead Snow Wind 63 30 0 1 2 120 59 0 0

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

Total Ld. Case Ld. Comb. 1 - SPF 2.375" 8% 37 / 94 131 L 1.25D+1.5L 2 -2.000" 16% 74 / 180 254 L 1.25D+1.5L Hanger

## **Analysis Results**

Dead:

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	48 ft-lb	11 11/16"	4670 ft-lb	0.010 (1%)	1.25D+1.5L	L
Shear	240 lb	1'5 5/8"	1990 lb	0.121 (12%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/59285)	11 1/2"	0.044 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.001 (L/29321)	11 1/2"	0.044 (L/360)	0.010 (1%)	L	L
TL Defl inch	0.001 (L/19618)	11 1/2"	0.067 (L/240)	0.010 (1%)	D+L	L

Vibration:

## **Design Notes**

- 1 Provide restraint at supports to ensure lateral stability.
- 2 Dead Load Deflection: Instant = 0.000", Long Term = 0.000"
- 3 Fill all hanger nailing holes.
- 4 Girders are designed to be supported on the bottom edge only.
- 5 Top flange braced at bearings.

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January 17, 2019

l	o Bollom hange	braced at bearings.							
	ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	
	1	Tie-In	0-0-0 to 1-6-14	(Span)3-2-8	Тор	15 PSF	40 PSF	0 PSF	
ı	2	Part. Uniform	0-2-6 to 1-6-14		Тор	8 PLF	0 PLF	0 PLF	
	3	Point	1-3-7		Far Face	40 lb	82 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 requirements

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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

Wind

0 PSF

Comments





**GREEN YORK HOMES** 

Project:

Address:

1/16/2019

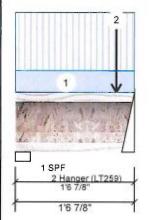
Designer: SB

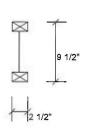
Job Name: LOT-17 (LIANA 2 EL-1)

LPI 20Plus

9.500" - PASSED

Level: Ground Floor





Wind

0

0

0

0

Page 1 of 1

M	lem	ber	Inf	ori	ma	tic	n

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

15 PSF

Application: Design Method:

Building Code:

Load Sharing:

Deck:

Vibration:

Floor (Residential) LSD NBCC 2010 / OBC 2012

Brg

1

2

No Not Checked Not Checked

## Unfactored Reactions UNPATTERNED Ib (Uplift) Snow

Dead

22

44

Live

59

115

Bearings and Factored Reactions								
Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.		
1 - SPF	2.375"	7%	28 / 88	116	L	1.25D+1.5L		
2 - Hanger	2.000"	14%	55 / 173	227	L	1.25D+1.5L		

## **Analysis Results**

Dead:

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	39 ft-lb	11"	4670 ft-lb	0.008 (1%)	1.25D+1.5L	L
Shear	214 lb	1'5 5/8"	1990 lb	0.108 (11%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
LL Defl inch	0.000 (L/33835)	10 7/8"	0.044 (L/360)	0.010 (1%)	L	L
TL Defl inch	0.001	10 7/8"	0.067 (L/240)	0.010 (1%)	D+L	L

## **Design Notes**

- 1 Provide restraint at supports to ensure lateral stability.
- 2 Dead Load Deflection: Instant = 0.000", Long Term = 0.000"
- 3 Fill all hanger nailing holes.
- 4 Girders are designed to be supported on the bottom edge only.
- 5 Top flange braced at bearings.

6 Bottom flange braced at bearings.

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January 17, 2019

I	ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
I	1	Tie-In	0-0-0 to 1-6-14	(Span)3-2-8	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
l	2	Point	1-4-0		Near Face	28 lb	73 lb	0 lb	0 lb	J2

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

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 littended. 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





GREEN YORK HOMES

Project: Address:

1/16/2019 Date: Designer: SB

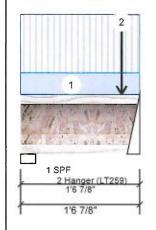
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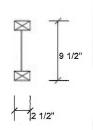
Project #:

9.500" - PASSED LPI 20Plus

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Level: Ground Floor





Wind

0

Page 1 of 1

Member Inform	nation			Unfacto	red Reac	tions U	NPATTERN	ED lb (	Uplift)
Туре:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Sno	N
Plies:	1	Design Method:	LSD	1	59		22		0
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012	2	118		44		0
Deflection LL:	360	Load Sharing:	No	1					
Deflection TL:	240	Deck:	Not Checked						
Importance:	Normal	Vibration:	Not Checked	1					
General Load							···· -		
Floor Live:	40 PSF			Bearing:	s and Fac	tored	Reactions		
Dead:	15 PSF			Bearing	Length	Сар.	React D/L lb	Total	Ld. Case
				1-SPF	2.375"	7%	28 / 89	116	L

Bearing:	s and Fac	tored	Reactions			
Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	7%	28 / 89	116	L	1.25D+1.5L
2 - Hanger	2.000"	15%	55 / 177	231	L	1.25D+1.5L

#### Analysis Location Allowed Case Actual Capacity Comb. Moment 39 ft-lb 11 1/16" 4670 ft-lb 0.008 (1%) 1.25D+1.5L L Shear 218 lb 1'5 5/8" 1990 lb 0.110 (11%) 1.25D+1.5L L Perm Defl in. 0.000 (L/999) 0 999.000 (L/0) 0.000 (0%) LL Defl inch 0.000 10 15/16" 0.044 (L/360) 0.010 (1%) L (L/33432) TL Defl inch 0.001 10 15/16" 0.067 (L/240) 0.010 (1%) D+L 1. (L/24349)

### **Design Notes** 1 Provide restraint at supports to ensure lateral stability. 2 Dead Load Deflection: Instant = 0.000", Long Term = 0.000"

3 Fill all hanger nailing holes.

**Analysis Results** 

- 4 Girders are designed to be supported on the bottom edge only.
- 5 Top flange braced at bearings.

6 Bottom flange braced at bearings.



January 17, 2019

	ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
	1	Tie-In	0-0-0 to 1-6-14	(Span)3-2-8	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
l	2	Point	1-4-0		Far Face	28 lb	76 lb	0 lb	0 lb	J2

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

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





**GREEN YORK HOMES** 

Project:

Address:

Date: 1/16/2019

Designer: SB

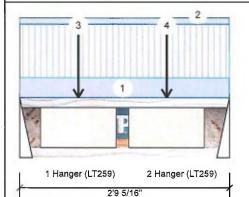
Job Name: LOT-17 (LIANA 2 EL-1)

Project #:

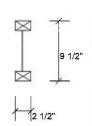
9.500" - PASSED LPI 20Plus

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Level: Ground Floor



2'9 5/16"



Page 1 of 1

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

Floor (Residential) Application: Design Method: LSD **Building Code:** 

Load Sharing:

NBCC 2010 / OBC 2012 No

Deck: Not Checked Not Checked Vibration:

## Unfactored Reactions UNPATTERNED Ib (Uplift)

Brg	Live	Dead	Snow	Wind
1	301	149	0	0
2	293	145	0	0

## Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	436 ft-lb	1'8 1/4"	4670 ft-lb	0.093 (9%)	1.25D+1.5L	L
Shear	633 lb	1 1/4"	1990 lb	0.318 (32%)	1.25D+1.5L	L
Perm Defl in.	0.003 (L/10410)	1'5 1/2"	0.086 (L/360)	0.030 (3%)	D	Uniform
LL Defl inch	0.006 (L/5151)	1'5 9/16"	0.086 (L/360)	0.070 (7%)	L	L
TL Defl inch	0.009 (L/3446)	1'5 1/2"	0.128 (L/240)	0.070 (7%)	D+L	L

**Bearings and Factored Reactions** 

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.	
1 - Hanger	2.000"	41%	187 / 452	639	Ļ	1.25D+1.5L	
2 - Hanger	2.000"	39%	181 / 439	621	L	1.25D+1.5L	

### **Design Notes**

- 1 Provide restraint at supports to ensure lateral stability.
- 2 Dead Load Deflection: Instant = 0.003", Long Term = 0.004"
- 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



January 17, 2019

- 1	/ Dottom hange	braced at bearings.								
	ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
	1	Tie-In	0-0-0 to 2-9-5	(Span)1-3-7	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	2	Part. Uniform	0-0-0 to 2-9-5		Тор	3 PLF	0 PLF	0 PLF	0 PLF	
	3	Point	0-9-5		Near Face	128 lb	258 lb	0 lb		J5
	4	Point	1-11-5		Near Face	131 lb	265 lb	0 lb	Pass-	Thru Framing Squash Block is ed at all point loads over bearings

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

#### 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.

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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





GREEN YORK HOMES

Project: Address:

1/16/2019

Designer: SB

Job Name: LOT-17 (LIANA 2 EL-1)

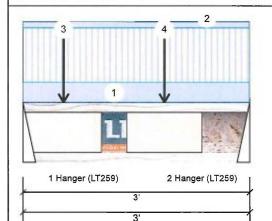
Project #:

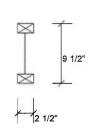
Date:

LPI 20Plus

9.500" - PASSED

Level: Ground Floor





Page 1 of 1

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				-	

Type: Girden Plies: 1 Moisture Condition: Dry Deflection LL: Deflection TL: 240 Importance: Normal General Load Floor Live: 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 lb (Uplift) Dead Snow Live Wind 264 131 0 1 2 0 209 103 0

## **Analysis Results**

Dead:

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	407 ft-lb	1'10 7/16"	4670 ft-lb	0.087 (9%)	1.25D+1.5L	Ļ
Shear	552 lb	1 1/4"	1990 lb	0.277 (28%)	1.25D+1.5L	L
Perm Defl in.	0.003 (L/12219)	1'10 7/16"	0.093 (L/360)	0.030 (3%)	D	Uniform
LL Defl inch	0.006 (L/6031)	1'10 7/16"	0.093 (L/360)	0.060 (6%)	L	L
TL Defl inch	0.008 (L/4038)	1'10 7/16"	0.140 (L/240)	0.060 (6%)	D+L	L

# Bearings and Factored Reactions

ľ								
	Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.	_
	1 - Hanger	2.000"	36%	164 / 396	559	L	1.25D+1.5L	
	2 - Hanger	2.000"	28%	129 / 313	442	L	1.25D+1.5L	

## **Design Notes**

- 1 Provide restraint at supports to ensure lateral stability.
- 2 Dead Load Deflection: Instant = 0.003", Long Term = 0.004"
- 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.



January 17, 2019

н	/ DOMOTH II	ango	biacea at bearings.								
	ID		Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
	1		Tie-In	0-0-0 to 3-0-0	(Span)1-8-11	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
ı	2		Part. Uniform	0-0-0 to 3-0-0		Тор	4 PLF	0 PLF	0 PLF	0 PLF	
ı	3		Point	0-6-7		Far Face	80 lb	160 lb	0 lb		J3
	4		Point	1-10-7		Far Face	103 lb	209 lb	0 lb	Pass-T	Thru Framing Squash Block is ed at all point loads over bearings
- 1											3

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 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:

**GREEN YORK HOMES** 

Project:

Address:

Date:

1/16/2019

Designer: SB

Job Name: LOT-17 (LIANA 2 EL-1)

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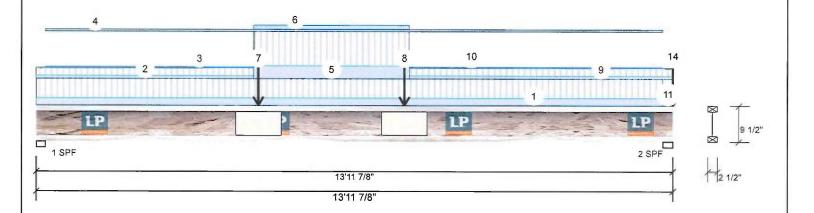
Page 1 of 2

Project #:

9.500" - PASSED LPI 20Plus

...--- ---

Level: Ground Floor



Member Inforn	nation			Unfactor	red React	ions UN	PATTERN	ED lb (	(Uplift)	
Туре:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Sno	w	Wind
Plies:	1	Design Method:	LSD	1	375		183		0	0
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012	2	507		257		0	0
Deflection LL:	360	Load Sharing:	No							
Deflection TL:	240	Deck:	Not Checked							
Importance:	Normal	Vibration:	Not Checked							
General Load										
Floor Live:	40 PSF			Bearings	and Fac	tored Re	actions			
Dead:	15 PSF			Bearing	Length	Cap. R	eact D/L lb	Total	Ld. Case	Ld. Comb.
				1 - SPF	2.375"	49%	228 / 563	791	L	1.25D+1.5L
				2 - SPF	2.625"	66%	321 / 761	1082	L	1.25D+1.5L

### **Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3347 ft-lb	7'1"	4670 ft-lb	0.717 (72%)	1.25D+1.5L	L
Shear	784 lb	1 5/8"	1990 lb	0.394 (39%)	1.25D+1.5L	L
Perm Defl in.	0.154 (L/1070)	6'11 7/16"	0.457 (L/360)	0.340 (34%)	D	Uniform
LL Defl inch	0.314 (L/523)	6'11 3/8"	0.457 (L/360)	0.690 (69%)	L	L
TL Defl inch	0.468 (L/351)	6'11 3/8"	0.685 (L/240)	0.680 (68%)	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 device.
- 3 Dead Load Deflection: Instant = 0.154", Long Term = 0.230"
- 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 4'11" o.c.

7 Bottom flange braced at bearings.



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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 13-9-4	(Span) 0-11-12	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 4-9-6	(Span)0-4-11	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	0-2-6 to 4-9-6		Тор	1 PLF	0 PLF	0 PLF	0 PLF	
4	Part. Uniform	0-2-6 to 13-9-2		Тор	2 PLF	0 PLF	0 PLF	0 PLF	

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.

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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:

**GREEN YORK HOMES** 

Date: 1/16/2019

Designer: SB

Job Name: LOT-17 (LIANA 2 EL-1)

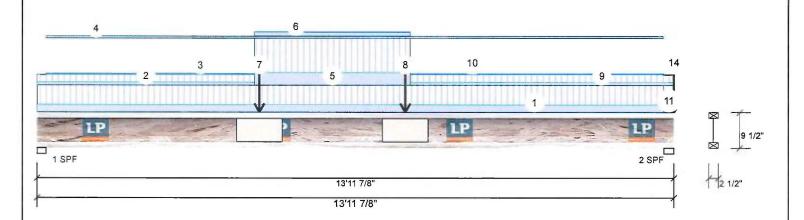
Page 2 of 2

Project #:

LPI 20Plus 9.500" - PASSED

\*\*\*\*

Level: Ground Floor



.Continued f	rom page 1									
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments	
5	Tie-In	4-9-6 to 8-2-6	(Span)1-8-11 to 1-8-11	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
6	Part, Uniform	4-9-6 to 8-2-6		Тор	4 PLF	0 PLF	0 PLF	0 PLF		
7	Point	4-10-10		Near Face	59 lb	120 lb	0 lb	0 lb	F5	
8	Point	8-1-2		Near Face	67 lb	135 lb	0 lb	0 lb	F5	
9	Tie-In	8-2-6 to 13-11-14	(Span)0-4-11	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
10	Part. Uniform	8-2-6 to 13-9-2		Тор	1 PLF	0 PLF	0 PLF	0 PLF		
11	Tie-In	13-9-4 to 13-11-14	(Span)0-8-13	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
12	Point	13-11-14		Тор	29 lb	75 lb	0 lb	0 lb	J5	
	Bearing Length	0-1-8								
13	Point	13-11-14		Тор	34 lb	79 lb	0 lb	0 lb	J6	
	Bearing Length	0-1-8								
14	Point	13-11-14		Тор	22 lb	0 lb	0 lb	0 lb	Wall Self Weight	
	Bearing Length	0-1-8								

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

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

Louisiana-Pacific Corp 414 Union Street, Suite 2000 Nashville, TN 37219 (888) 820-0325 www.lpcorp.com CCMC: 12412-R APA: PR-L238C Kott Lumber Company 14 Anderson Blvd, Ontario Canada L4A 7X4 905-642-4400



This design is valid until 10/31/2020



**GREEN YORK HOMES** 

Project: Address:

Date: 1/16/2019

Designer: SB

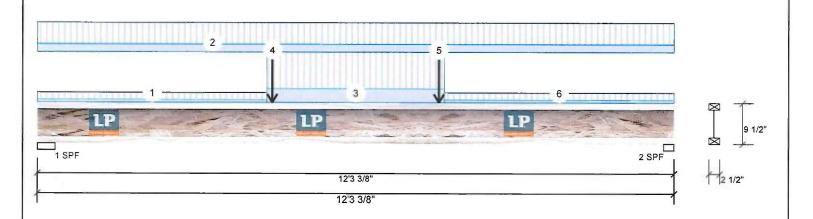
Job Name: LOT-17 (LIANA 2 EL-1)

Unfactored Reactions UNPATTERNED In (Unlift)

Project #:

9.500" - PASSED LPI 20Plus

Level: Ground Floor



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Type:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow	Wind
Plies:	1	Design Method:	LSD	1	331	125	0	0
Moisture Condition	on: Dry	Building Code:	NBCC 2010 / OBC 2012	2	324	122	0	0
Deflection LL:	360	Load Sharing:	No					
Deflection TL:	240	Deck:	Not Checked					
Importance:	Normal	Vibration:	Not Checked					
General Load								
Floor Live:	40 PSF			Bearings a	and Factor	red Reactions		
Dead:	15 PSF			Bearing L	ength	Cap. React D/L lb	Total Ld. Case	Ld. Comb.
				1 - SPF 4	.125"	37% 156 / 496	652 L	1.25D+1.5L
				2 - SPF 2	.375"	40% 152 / 486	638 L	1.25D+1.5L

### **Analysis Results**

Member Information

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2390 ft-lb	6'2 3/4"	4670 ft-lb	0.512 (51%)	1.25D+1.5L	L
Shear	637 lb	3 3/8"	1990 lb	0.320 (32%)	1.25D+1.5L	L
Perm Defl in.	0.071 (L/2003)	6'2 1/2"	0.395 (L/360)	0.180 (18%)	D	Uniform
LL Defl inch	0.189 (L/753)	6'2 9/16"	0.395 (L/360)	0.480 (48%)	L	L
TL Defl inch	0.260 (L/547)	6'2 9/16"	0.593 (L/240)	0.440 (44%)	D+L	L

## **Design Notes**

- 1 Provide restraint at supports to ensure lateral stability.
- 2 Dead Load Deflection: Instant = 0.071", Long Term = 0.107"
- 3 Girders are designed to be supported on the bottom edge only.
- 4 Top flange must be laterally braced at a maximum of 5'11" o.c.

5 Bottom flange braced at bearings.



Page 1 of 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Сопшень
1	Tie-In	0-0-0 to 4-5-3	(Span)0-4-2	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 12-3-6	(Span) 0-11-14	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Tie-In	4-5-3 to 7-10-3	(Span)1-8-11	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
4	Point	4-6-7		Far Face	44 lb	115 lb	0 lb	0 lb	F5
5	Point	7-8-15		Far Face	44 lb	118 lb	0 lb		Thru Framing Squash Block is
6	Tie-In	Tie-In 7-10-3 to 12-3-6 (\$		Тор	15 PSF	40 PSF	0 PSF	<b>FEAGUIT</b>	ed at all point loads over bearings

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

### 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.

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This design is valid until

## 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





it: GREEN YORK HOMES

Project:

Address:

Date: 1/16/2019

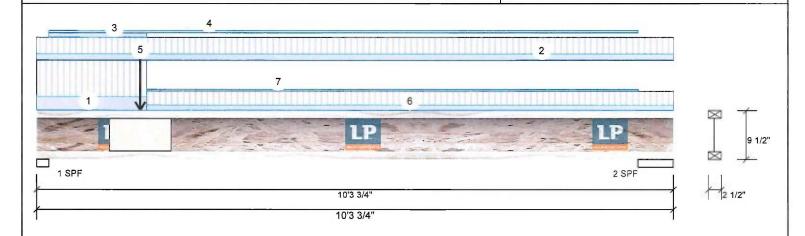
Designer: SB

Job Name: LOT-17 (LIANA 2 EL-1)

Project #:

F8-A LPI 20Plus 9.500" - PASSED

Level: Ground Floor



#### **Member Information** Unfactored Reactions UNPATTERNED Ib (Uplift) Type: Girder Application: Floor (Residential) Live Dead Snow Wind Brg Plies: 1 Design Method: LSD 505 1 251 0 0 Moisture Condition: Dry **Building Code:** NBCC 2010 / OBC 2012 2 324 160 0 0 Deflection LL: 360 Load Sharing: Nο Deflection TL: 240 Deck: Not Checked Importance: Vibration: Not Checked Normal General Load **Bearings and Factored Reactions** Floor Live: 40 PSF Dead: **15 PSF** Bearing Length Cap. React D/L lb Total Ld. Case Ld. Comb. 1 - SPF 2.375" 67% 314 / 758 1072 L 1,25D+1.5L 2 - SPF 6.875" 39% 199 / 486 685 L 1.25D+1.5L

#### **Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1756 ft-lb	4'2 15/16"	4670 ft-lb	0.376 (38%)	1.25D+1.5L	L
Shear	1047 lb	1 5/8"	1990 lb	0.526 (53%)	1.25D+1.5L	L
Perm Defl in.	0.048 (L/2431)	4'8 3/4"	0.322 (L/360)	0.150 (15%)	D	Uniform
LL Defl inch	0.095 (L/1223)	4'8 11/16"	0.322 (L/360)	0.290 (29%)	L	L
TL Defl inch	0.143 (L/814)	4'8 3/4"	0.483 (L/240)	0.300 (30%)	D+L	L

## **Design Notes**

- 1 Provide restraint at supports to ensure lateral stability.
- 2 Dead Load Deflection; Instant = 0.048", Long Term = 0.072"
- 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 6'10" o.c.

6 Bottom flange braced at bearings.

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January 17, 2019	

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January 17, 2019

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind Comments
1	Tie-In	0-0-0 to 1-9-6	(Span)3-2-8	Тор	15 PSF	40 PSF	0 PSF	0 PSF
2	Tie-In	0-0-0 to 10-3-12	(Span)1-5-3	Тор	15 PSF	40 PSF	0 PSF	0 PSF
3	Part. Uniform	0-2-6 to 1-9-6		Тор	8 PLF	0 PLF	0 PLF	0 PLF
4	Part. Uniform	0-2-6 to 9-8-15		Тор	4 PLF	0 PLF	0 PLF	0 PLF
5	Point	1-8-2		Far Face	103 lb	209 lb	0 lb	Pass-Thru Framing Squash Block is
6	Tie-In	1-9-6 to 10-3-12	(Span)1-2-13	Тор	15 PSF	40 PSF	0 PSF	required at all point loads over bearings
7	Part. Uniform	1-9-6 to 9-8-15		Тор	3 PLF	0 PLF	0 PLF	Refer to Multiple Member Connection Detail for ply to ply nailing or bolting

#### 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.

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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

requirements





Project: Address: GREEN YORK HOMES

1/16/2019 Date:

Designer: SB

Job Name: LOT-17 (LIANA 2 EL-1)

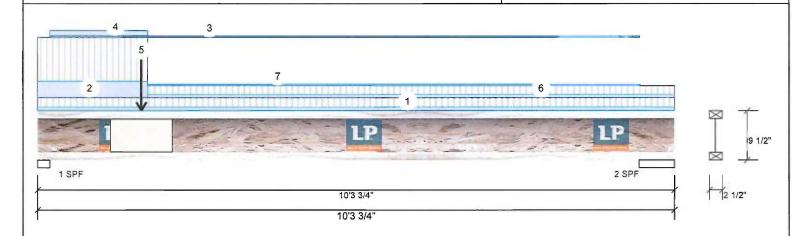
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Page 1 of 1

Project #:

9.500" - PASSED LPI 20Plus

Level: Ground Floor



#### Unfactored Reactions UNPATTERNED Ib (Uplift) Member Information Girden Floor (Residential) Dead Snow Type: Application: Live Wind Plies: 1 Design Method: LSD 439 219 0 0 1 NBCC 2010 / OBC 2012 Moisture Condition: Dry **Building Code:** 2 192 97 0 0 Deflection LL: 360 Load Sharing: No Deflection TL: 240 Deck: Not Checked Importance: Normal Vibration: Not Checked General Load **Bearings and Factored Reactions** Floor Live: 40 PSF Dead: 15 PSF Bearing Length Cap. React D/L lb Total Ld. Case Ld. Comb. 58% 1 - SPF 2.375" 274 / 658 932 L 1.25D+1.5L 1.25D+1.5L 2 - SPF 6.875" 23% 121 / 288 409 L

## Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1272 ft-lb	3'1 13/16"	4670 ft-lb	0.272 (27%)	1.25D+1.5L	L
Shear	911 lb	1 5/8"	1990 lb	0.458 (46%)	1.25D+1.5L	L
Perm Defl in.	0.034 (L/3418)	4'6 3/16"	0.322 (L/360)	0.110 (11%)	D	Uniform
LL Defl inch	0.066 (L/1747)	4'6"	0.322 (L/360)	0.210 (21%)	L	L
TL Defl inch	0.100 (L/1156)	4'6 1/16"	0.483 (L/240)	0.210 (21%)	D+L	L

## Design Notes

- 1 Provide restraint at supports to ensure lateral stability.
- 2 Dead Load Deflection: Instant = 0.034", Long Term = 0.051"
- 3 See manufacture installation guide note E4 for installation details
- 4 Girders are designed to be supported on the bottom edge only.
- 5 To

6	6 Bottom flange braced at bearings.
5	5 Top flange must be laterally braced at a maximum of 7"11" o.c.



January 17, 2019

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind Comments
1	Tie-In	0-0-0 to 10-3-12	(Span)0-8-5	Тор	15 PSF	40 PSF	0 PSF	0 PSF
2	Tie-In	0-0-0 to 1-9-6	(Span)3-2-8	Тор	15 PSF	40 PSF	0 PSF	0 PSF
3	Part, Uniform	0-2-6 to 9-9-0		Тор	2 PLF	0 PLF	0 PLF	0 PLF
4	Part. Uniform	0-2-6 to 1-9-6		Тор	8 PLF	0 PLF	0 PLF	0 PLF
5	Point	1-8-2		Near Face	131 lb	264 lb	0 lb	Pass-Thru Framing Squash Block is
6	Tie-In	1-9-6 to 10-3-12	(Span)0-7-11	Тор	15 PSF	40 PSF	0 PSF	required at all point loads over bearings
7	Part. Uniform	1-9-6 to 9-9-0		Тор	2 PLF	0 PLF	0 PLF	Refer to Multiple Member Connection Detail for ply to ply nailing or bolting

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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requirements





Client: Project: Address:

GREEN YORK HOMES

1/16/2019

Designer: SB

Job Name: LOT-17 (LIANA 2 EL-1)

Project #:

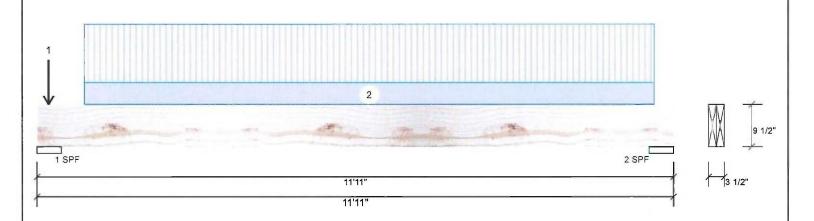
Date:

Forex 2.0E-3000Fb LVL

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1.750" X 9.500"

2-Ply - PASSED Level: Second Floor



viember Intol	iber Information Unfactored Reactions UNPATTERNED ib (Upiiπ)							
Туре:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow	Wind
Plies:	2	Design Method:	LSD	1	1378	565	0	0
Moisture Condition	n: Dry	Building Code:	NBCC 2010 / OBC 2012	2	1362	559	0	0
Deflection LL:	360	Load Sharing:	No					
Deflection TL:	240	Deck:	Not Checked					
Importance:	Normal	Vibration:	Not Checked					
General Load								
Floor Live:	40 PSF			Bearings	and Facto	ored Reactions		
Dead:	15 PSF			Bearing l	_ength	Cap. React D/L lb	Total Ld. Case	Ld. Comb.
				1 - SPF 5	5.500"	23% 706 / 2068	2774 L	1.25D+1.5L
				2 - SPF 5	5.500"	23% 699 / 2043	2742 L	1.25D+1.5L

## **Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	7560 ft-lb	5'11 5/8"	22724 ft-lb	0.333 (33%)	1.25D+1.5L	L
Unbraced	7560 ft-lb	5'11 5/8"	20280 ft-lb	0.373 (37%)	1.25D+1.5L	L
Shear	2345 lb	1'2 1/4"	9277 lb	0.253 (25%)	1.25D+1.5L	L
Perm Defl in.	. 0.074 (L/1812)	5'11 9/16"	0.371 (L/360)	0.200 (20%)	D	Uniform
LL Defl inch	0.180 (L/740)	5'11 9/16"	0.371 (L/360)	0.490 (49%)	L	L
TL Defl inch	0.254 (L/525)	5'11 9/16"	0.556 (L/240)	0.460 (46%)	D+L	L

## **Design Notes**

- 1 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam
- 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.

I	ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow
I	1	Point	0-2-10		Тор	52 lb	138 lb	0 lb
I	2	Part. Uniform	0-10-10 to 11-6-10		Тор	92 PLF	244 PLF	0 PLF
I		Self Weight				8 PLF		

T.L. WISE 100083566 100083566 January 17, 2019

Page 1 of 1

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

Wind

0 lb

Comments

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

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 strongth values, and code
  approvals
  Damaged Beams must not be used
  Design assumes top edge is laterally restrained
  Provide lateral support at beaming points to avoid
  lateral displacement and rotation

For flat roofs provide proper drainage to prevent ponding

READ ALL NOTES ON THIS PAGE AND ON THE

Forex

Manufacturer Info

APA: PR-L318

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.

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

This design



Client:

**GREEN YORK HOMES** 

Project: Address:

Date: 1/16/2019

Designer:

Job Name: LOT-17 (LIANA 2 EL-1)

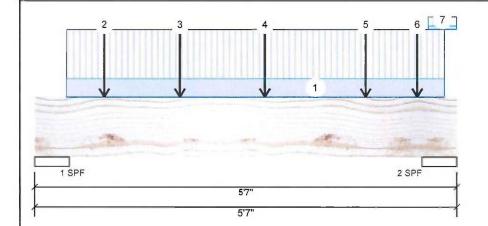
Project #:

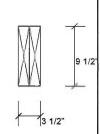
Forex 2.0E-3000Fb LVL

1.750" X 9.500"

2-Ply - PASSED

Level: Second Floor





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Page 1 of 2

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#### Member Information

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

15 PSF

Application: Floor (Residential) Design Method:

Building Code: NBCC 2010 / OBC 2012 No

Load Sharing: Deck: Not Checked

Vibration: Not Checked

## Unfactored Reactions UNPATTERNED Ib (Uplift)

ыу	Live	Dead	SHOW	vviria
1	1316	519	0	0
2	1973	812	0	0

Dood

### **Bearings and Factored Reactions**

Bearing	Length	Cap. I	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.500"	22%	649 / 1973	2622	L	1.25D+1.5L
2 - SPF	5.500"	34%	1016 / 2960	3975	L	1.25D+1.5L

**Analysis Results** 

Dead:

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3184 ft-lb	3' 9/16"	22724 ft-lb	0.140 (14%)	1.25D+1.5L	L
Unbraced	3184 ft-lb	3' 9/16"	22724 ft-lb	0.140 (14%)	1.25D+1.5L	L
Shear	3785 lb	4'4 3/4"	9277 lb	0.408 (41%)	1.25D+1.5L	L
Perm Defl in.	0.007 (L/7853)	2'10 1/8"	0.160 (L/360)	0.050 (5%)	D	Uniform
LL Defl inch	0.019 (L/3081)	2'10 1/8"	0.160 (L/360)	0.120 (12%)	L	L
TL Defl inch	0.026 (L/2213)	2'10 1/8"	0.240 (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.

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January 17, 2019

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-5-1 to 5-5-1		Far Face	104 PLF	276 PLF	0 PLF	0 PLF	
2	Point	0-11-1		Near Face	112 lb	292 lb	0 lb	0 lb	J5
3	Point	1-11-1		Near Face	105 lb	281 lb	0 lb	0 lb	J5
4	Point	3-0-9		Near Face	123 lb	327 lb	0 lb	0 lb	J5
5	Point	4-4-9		Near Face	100 lb	268 lb	0 lb	0 lb	J5
6	Point	5-0-12		Near Face	322 lb	722 lb	0 lb	0 lb	F4

Continued on page 2...

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 autiability of the intended application, and to verify the dimensions and loads.

Notes

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

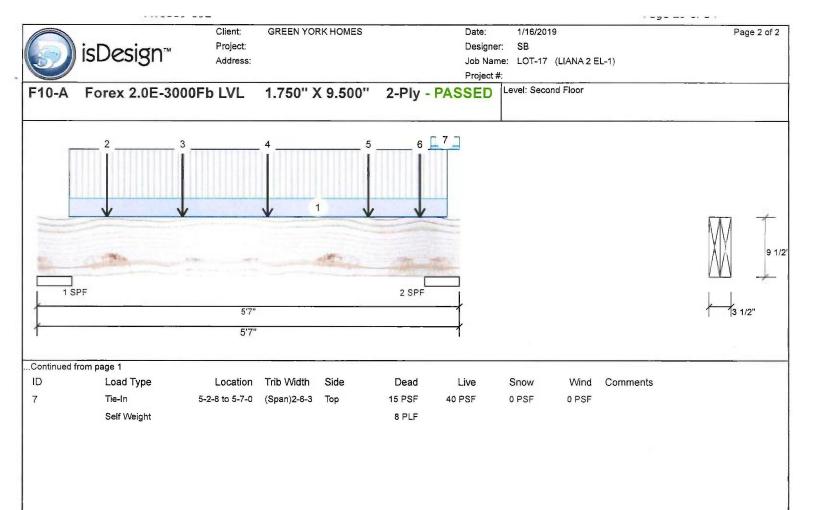
- LVL beams must not be cut or drilled
  Refer to manufacturer's product information
  regarding installation requirements. multi-ply
  fastening details, beam strength values, and code
  approvals
  Damaged Beams must not be used
- Design assumes top edge is laterally restrained Provide lateral support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

6. For flat roofs provide proper drainage to prevent punding

Manufacturer Info APA: PR-L318

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 This design is IN THE DESIGN OF THIS COMPONENT.





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.

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

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 10/18/2021

Manufacturer Info

Forex

APA: PR-L318



Client: Project:

Address:

**GREEN YORK HOMES** 

Date: 1/16/2019

Designer:

Job Name: LOT-17 (LIANA 2 EL-1)

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Page 1 of 2

Project #:

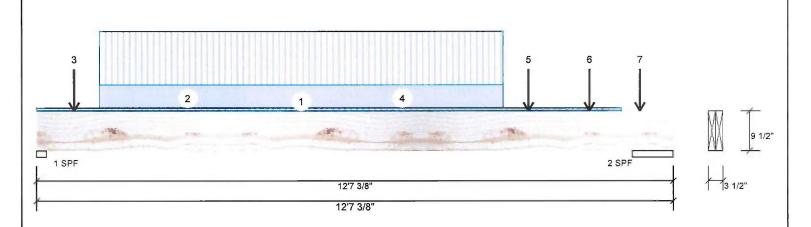
Forex 2.0E-3000Fb LVL

\*\*\*\*\*

1.750" X 9.500"

2-Ply - PASSED

Level: Second Floor



Member Infor	mation			Unfactore	d Reacti	ons UNPATTERNI	D lb (Uplift)	
Type:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow	Wind
Plies:	2	Design Method:	LSD	1	1567	722	0	0
Moisture Conditio	n: Dry	Building Code:	NBCC 2010 / OBC 2012	2	1790	804	0	0
Deflection LL:	360	Load Sharing:	No					
Deflection TL:	240	Deck:	Not Checked					
Importance:	Normal	Vibration:	Not Checked					
General Load								
Floor Live:	40 PSF			Bearings a	and Fact	ored Reactions		
Dead:	15 PSF			Bearing L	ength.	Cap. React D/L lb	Total Ld. Case	Ld. Comb.
				1 - SPF 2	.375"	64% 902 / 2351	3253 L	1.25D+1.5L
				2 - SPF 9	.714"	18% 1005 / 2685	3690 L	1.25D+1.5L

### **Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case	
Moment	9822 ft-lb	6'	22724 ft-lb	0.432 (43%)	1.25D+1.5L	L	
Unbraced	9822 ft-lb	6'	20006 ft-lb	0.491 (49%)	1.25D+1.5L	L	
Shear	3223 lb	11 1/8"	9277 lb	0.347 (35%)	1.25D+1.5L	L	
Perm Defl in.	0.115 (L/1224)	6' 1/16"	0.391 (L/360)	0.290 (29%)	D	Uniform	
LL Defl inch	0.251 (L/561)	6'	0.391 (L/360)	0.640 (64%)	L	L	
TL Defl inch	0.366 (L/385)	6' 1/16"	0.587 (L/240)	0.620 (62%)	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

o Lateral s	sienderness ratio based	on full section width.								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments	
1	Tie-In	0-0-0 to 11-7-2	(Span)0-6-7	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
2	Part. Uniform	0-2-7 to 11-1-5		Тор	1 PLF	0 PLF	0 PLF	0 PLF		
3	Point	0-8-15		Far Face	104 lb	238 lb	0 lb	0 lb	J5	
4	Part. Uniform	1-2-15 to 9-2-15		Far Face	114 PLF	266 PLF	0 PLF	0 PLF		
5	Point	9-8-15		Far Face	128 lb	294 lb	0 lb	0 lb	J5	
6	Point	10-11-7		Far Face	123 lb	292 lb	0 lb	0 lb	J5	

This design

Continued on page 2...

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design ordern 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 venfy 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 out or drifted
  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 beaming points to avoid
  lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex APA: PR-L318

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

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IN THE DESIGN OF THIS COMPONENT.

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

T.L. WISE 100083568

100083566

January 17, 2019





. - - - - . - . Client: **GREEN YORK HOMES** Date: 1/16/2019 Page 2 of 2 isDesign™ Project: Designer: SB Job Name: LOT-17 (LIANA 2 EL-1) Address: Project #: Level: Second Floor Forex 2.0E-3000Fb LVL 1.750" X 9.500" 2-Ply - PASSED 3 5 6 2 4 1 SPF 2 SPF 12'7 3/8' 12'7 3/8" .Continued from page 1 ID Load Type Location Trib Width Side Live Dead Snow Wind Comments 7 Point 11-11-7 Far Face 105 lb 281 lb 0 lb 0 lb J5 Self Weight 8 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

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.

chemicals

- 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

Forex APA: PR-L318 Kott Lumber Company 14 Anderson Blvd, Ontario L4A 7X4 905-642-4400

This design is valid until 10/18/2021

. - - - - - - -Client: **GREEN YORK HOMES** Date: 1/16/2019 Page 1 of 1 Designer: Project: SB isDesign™ Address: Job Name: LOT-17 (LIANA 2 EL-1) Project # Level: Second Floor Forex 2.0E-3000Fb LVL 1.750" X 9.500" 2-Ply - PASSED 3 1 Hanger (HGUS410) 2 SPF 13'7 13'7 Unfactored Reactions UNPATTERNED Ib (Uplift) Member Information Туре: Girden Floor (Residential) Brg Dead Snow Wind Application: Live Plies: 2 Design Method: LSD 722 322 0 0 1 Moisture Condition: Dry NBCC 2010 / OBC 2012 **Building Code:** 2 357 0 0 186 Deflection LL: 360 Load Sharing: No Deflection TL: 240 Deck: Not Checked Importance: Vibration: Not Checked Normal General Load Floor Live: 40 PSF Bearings and Factored Reactions Dead: 15 PSF Bearing Length Cap. React D/L lb Total Ld. Case Ld. Comb. 4.000" 14% 403 / 1083 1486 L 1.25D+1.5L Hanger 6% 1.25D+1.5L Analysis Results 2 - SPF 5.500" 233 / 536 768 L PROFESSIONALTINANTEER Analysis Actual Location Allowed Capacity Comb. 4669 ft-lb Moment 5' 1/16" 22724 ft-lb 0.205 (21%) 1.25D+1.5L L Unbraced 4669 ft-lb 5' 1/16" 19429 ft-lb 0.240 (24%) 1.25D+1.5L L Shear 1402 lb 1' 3/4" 9277 lb 0.151 (15%) 1.25D+1.5L L Perm Defl in. 0.058 (L/2668) Uniform 6'2 5/8" 0.431 (L/360) 0.130 (13%) D LL Defl inch 0.128 (L/1209) 6'1 5/16" 0.431 (L/360) 0.300 (30%) L TL Defl inch 0.186 (L/832) 6'1 3/4" 0.646 (L/240) 0.290 (29%) D+L L 100083566 **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. January 17, 2019 5 Top braced at bearings. 6 Bottom braced at bearings. 7 Lateral slenderness ratio based on full section width. ID Load Type Trib Width Side Dead Live Snow Wind Comments Location 0 PSF Tie-In (Span)1-0-13 Top 15 PSF 40 PSF 0 PSF 0-0-0 to 2-3-14 40 PSF Pass-Thru Framing Squash Block is 2 Tie-In 0-0-0 to 13-1-8 (Span)0-8-3 Top 15 PSF

3

Lumber

5

chemicals

Handling & Installation

2-5-7 to 5-11-7

13-1-8 to 13-7-0

13-2-10 to 13-7-0

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
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 pending

This design is

90 PLF

15 PSF

15 PSF

8 PLF

Top

(Span)0-5-11 Top

(Span)0-10-5 Top

Manufacturer Info Forex

APA: PR-L318

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.

0 PLF

0 PSF

0 PSF

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



240 PLF

40 PSF

40 PSF

required at all point loads over bearings

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

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

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.

Part. Uniform

Self Weight

Tie-In

Tie-In

Version 18.80.219 Powered by iStruct™

Client:

GREEN YORK HOMES

Project:

Address:

1/16/2019 Date:

Designer: SB

Job Name: LOT-17 (LIANA 2 EL-1)

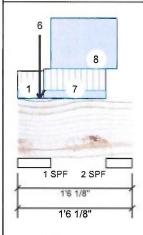
Project #:

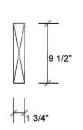
Forex 2.0E-3000Fb LVL

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1.750" X 9.500" - PASSED

Level: Second Floor





Page 1 of 2

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Member Information						Unfactored Reactions UNPATTERNED Ib (Uplift)							
Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snov	N	Wind				
1	Design Method:	LSD	1	283		457	56	6	0				
Dry	Building Code:	NBCC 2010 / OBC 2012	2	10		39		0	0				
360	Load Sharing:	No	1 2 2										
240	Deck:	Not Checked											
Normal	Vibration:	Not Checked											
							_						
40 PSF			Bearing:	s and Fac	tored f	Reactions							
15 PSF			Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.				
			1 - SPF	5.250"	37%	571 / 991	1561	L	1.25D+1.5S +0.5L				
nalysis Results					2%	55/0	55	Uniform	1.4D				
	Girder 1 Dry 360 240 Normal 40 PSF 15 PSF	Girder Application: 1 Design Method: Building Code: 360 Load Sharing: 240 Deck: Normal Vibration: 40 PSF 15 PSF	Girder Application: Floor (Residential)  Design Method: LSD  Building Code: NBCC 2010 / OBC 2012  Load Sharing: No  Deck: Not Checked  Normal Vibration: Not Checked	Application: Floor (Residential)   Brg	Application: Floor (Residential)   Brg   Live	Application: Floor (Residential)   Brg   Live	Application: Floor (Residential)   Brg   Live   Dead	Application: Floor (Residential)   Brg	Application: Floor (Residential)   Brg   Live   Dead   Snow				

1	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
ı	Moment	10 ft-lb	9 5/8"	7385 ft-lb	0.001 (0%)	1.4D	Uniform
ı	Unbraced	10 ft-lb	9 5/8"	7385 ft-lb	0.001 (0%)	1.4D	Uniform
ı	Shear	40 lb	5 1/4"	3015 lb	0.013 (1%)	1.4D	Uniform
ı	Perm Defl in.	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
ı	LL Defl inch	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
I	TL Defl inch	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
ì							



January 17, 2019

## **Design Notes**

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

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-4-2	(Span)1-3-7	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-3-8		Тор	10 lb	0 lb	23 lb	0 lb	
3	Point	0-3-8		Тор	18 lb	0 lb	0 lb	0 lb	Wall Self Weight
4	Point	0-3-8		Тор	386 lb	262 lb	537 lb	0 lb	F12 F12
5	Point	0-3-8		Тор	2 lb	0 lb	6 lb	dl 0	
6	Point	0-3-8		Тор	6 lb	0 lb	0 lb	0 lb	Wall Self Weight
7	Tie-In	0-4-2 to 1-2-0	(Span)1-4-9	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
ontinued or	n page 2								

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
  Demaged Beams must not be used
  Design assumes top edge is laterally restrained
  Provide lateral support at beaming points to avoid
  lateral displacement and rotation

- For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex APA: PR-L318

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Kott Lumber Company 14 Anderson Blvd, Ontario

This design

Canada

L4A 7X4 905-642-4400

Client:

Address:

GREEN YORK HOMES Project:

1/16/2019 Date:

SB Designer:

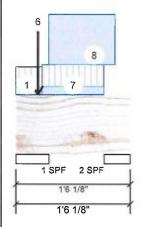
Job Name: LOT-17 (LIANA 2 EL-1)

Project #:

Forex 2.0E-3000Fb LVL

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1.750" X 9.500" - PASSED Level: Second Floor



Page 2 of 2

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.Continued from page 1

Self Weight

ID Load Type Location Trib Width Side Dead 8 Part. Uniform 0-5-4 to 1-3-12 64 PLF Top

4 PLF

Snow 0 PLF

Live

0 PLF

Wind Comments

0 PLF 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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Lumber

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

Handling & Installation

chemicals

andling & Installation

LVL beams must not be out or drilled

LVL beams must not be out or drilled

LVL beams must not be out or drilled

regarding installation requirements, multi-ply

fastening details, beams 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

This design is valid until 10/18/2021

Forex APA: PR-L318

Manufacturer Info

