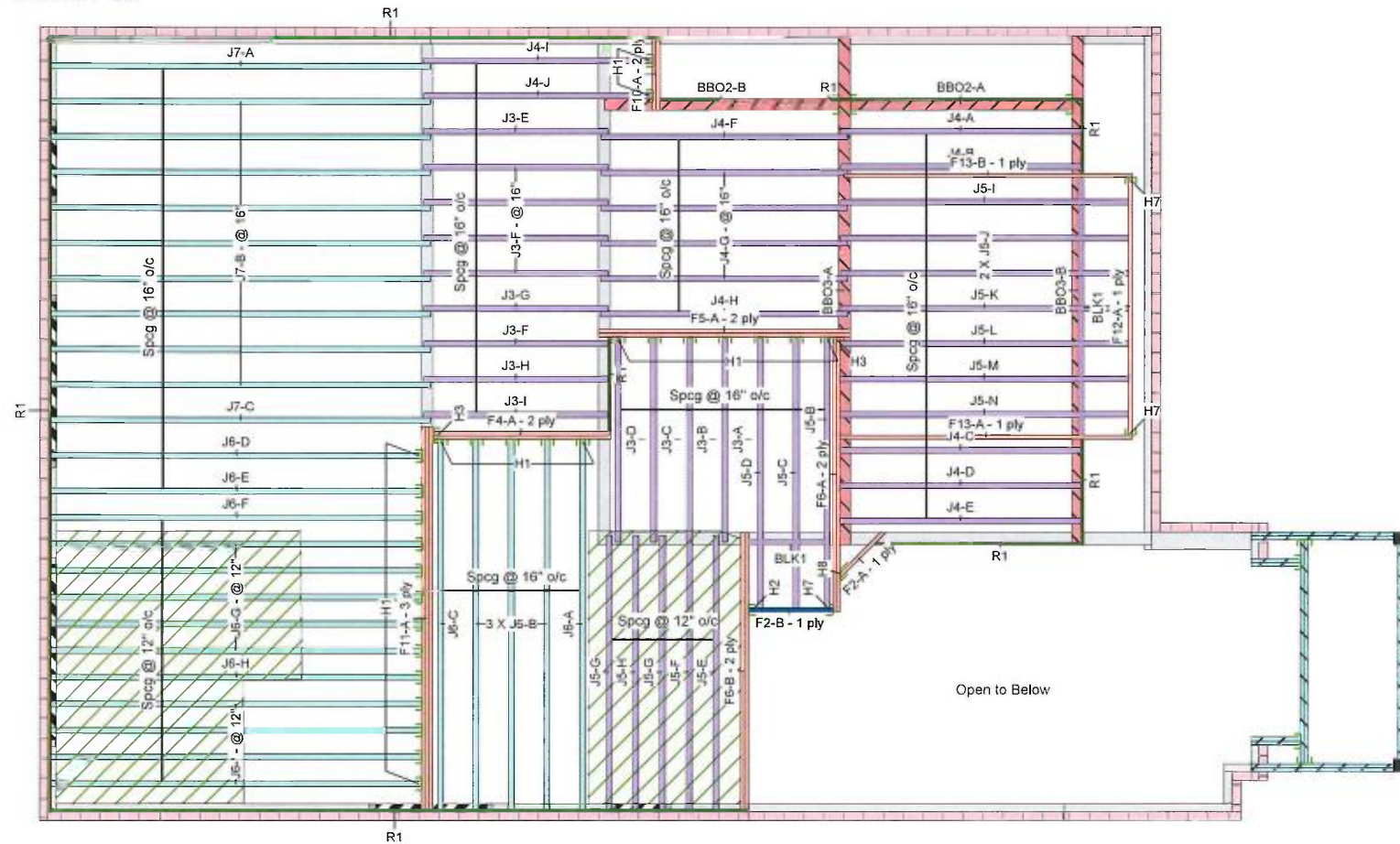


SIMPSON
Strong-Tie

Second Floor



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.

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

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

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



Legend

	Load from Above
	Wall
	Wall Opening
	Norbord Rimboard Plus 1.125 X 9.5
	NJ60H 9.5
	NJH 9.5

- OBC 2012 O.Reg 332/12 as amended
- Nascor CCMC - 13535-R
- LVL CCMC -14056-R
- CAN/CSA-O86-09
- CCMC -12787-R APA PR-L310(C)

Second Floor
LVL/LSL (Flush)

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
F11	Forex 2.0E-3000Fb LVL	1.75	9.5	1	3	3	16-0-0
F6	Forex 2.0E-3000Fb LVL	1.75	9.5	2	2	4	12-0-0
F13	Forex 2.0E-3000Fb LVL	1.75	9.5			2	12-0-0
F5	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	10-0-0
F12	Forex 2.0E-3000Fb LVL	1.75	9.5			1	10-0-0
F4	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	8-0-0
F2	Forex 2.0E-3000Fb LVL	1.75	9.5			2	4-0-0
F10	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	4-0-0

Joist (Flush)

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
J7	NJ60H	2.5	9.5			11	16-0-0
J6	NJ60H	2.5	9.5			18	14-0-0
J5	NJH	2.5	9.5			15	12-0-0
J4	NJH	2.5	9.5			13	10-0-0
J3	NJH	2.5	9.5			13	8-0-0

Rim Board

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
R1	Norbord Rimboard Plus 1.125 X 9.5	1.125	9.5			10	12

Blocking

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
BLK1	NJH	2.5	9.5	LinFt		Varies	11-0-0

Hanger

		Beam/Girder			Supported Member	
Label	Pcs	Description	Skew	Slope	fasteners	fasteners
H1	27	LT259			4 10dx1 1/2	2 10dx1 1/2
H2	1	HUS1.81/10			30 16d	10 16d
H3	2	HGUS410			46 16d	16 16d
H4	9	Unknown Hanger				
H7	3	HUCQ1.81/9-SDS				
H8	1	LSSUI25	Right			

NOTES:

- Framer to verify dimensions on the architectural drawings.
- Double joist only require filler/backer ply when supporting another member using a face-mounted hanger.
- Install 2x4 blocking @ 24" o/c under parallel non-load bearing walls.
- Install single-ply flush window header along inside face of rimboard/rimjoist.
- 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.
- Load transfer blocks to be installed under all point loads.
- It shall be the framer's responsibility that floor joists and beams are fastened as per the hanger manufacturer's standards.

Refer to Multiple Member Connection Detail to ply to ply nailing or bolting 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 of 5 PSF

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.

ARCHITECTURAL DRAWINGS:

JARDIN DESIGN GROUP INC.
64 Jardin Dr., Suite 3A, Vaughan, ON
Date: Rev.2; May 22,2018
Project No: 17-55
Model: Liana 1

NASCOR

Layout Name
LIANA 1 (ELEV.2) 4 BEDROOM

Design Method
LSD

Description
GRANELLI HOME CORP.
BRAMPTON, ONT.

Created
May 29, 2018

Builder
GREEN YORK HOMES

Sales Rep
RM

Designer
RCO

Shipping
Project

Builder's Project

Kott Lumber Company

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

Job Path

D:\Users\rochavillo\WORK FROM HOME\GREEN YORK HOMES\GRANELLI HOME CORP\MODELS\LIANA 1\LIANA 1 ELEV 2\FLOOR\4 BEDRM\LIANA 1 (ELEV.2).isl

Second Floor

Design Method

LSD

Building Code

NBCC 2010 / OBC
2012

Floor

Loads

Live 40
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/ 240

LL Cant 2L/ 480
TL Cant 2L/ 360

Decking

Deck OSB
Thickness 5/8"

Fastener Nailed & Glued

Vibration

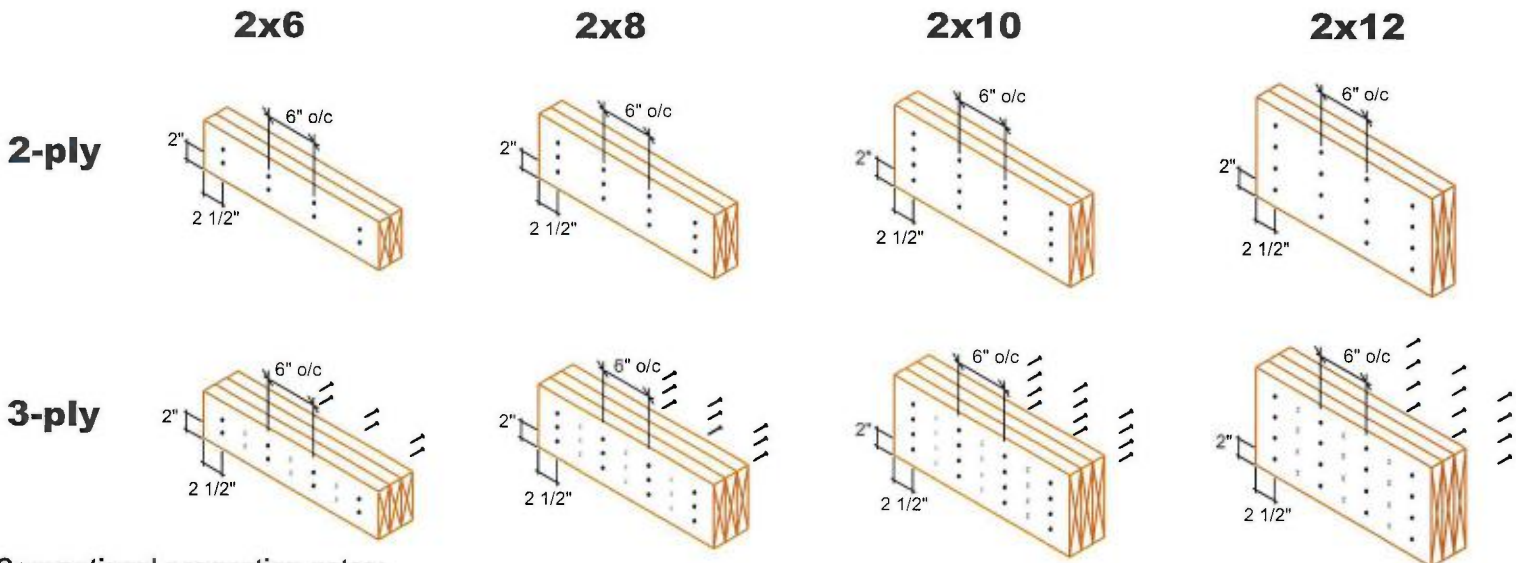
Ceiling: Gypsum 1/2"

M-2057 LOT 29

MULTIPLE MEMBER CONNECTIONS

GREEN YORK HOMES-
GRANELLI HOME CORP-
LIANA 1 (ELEV.2)

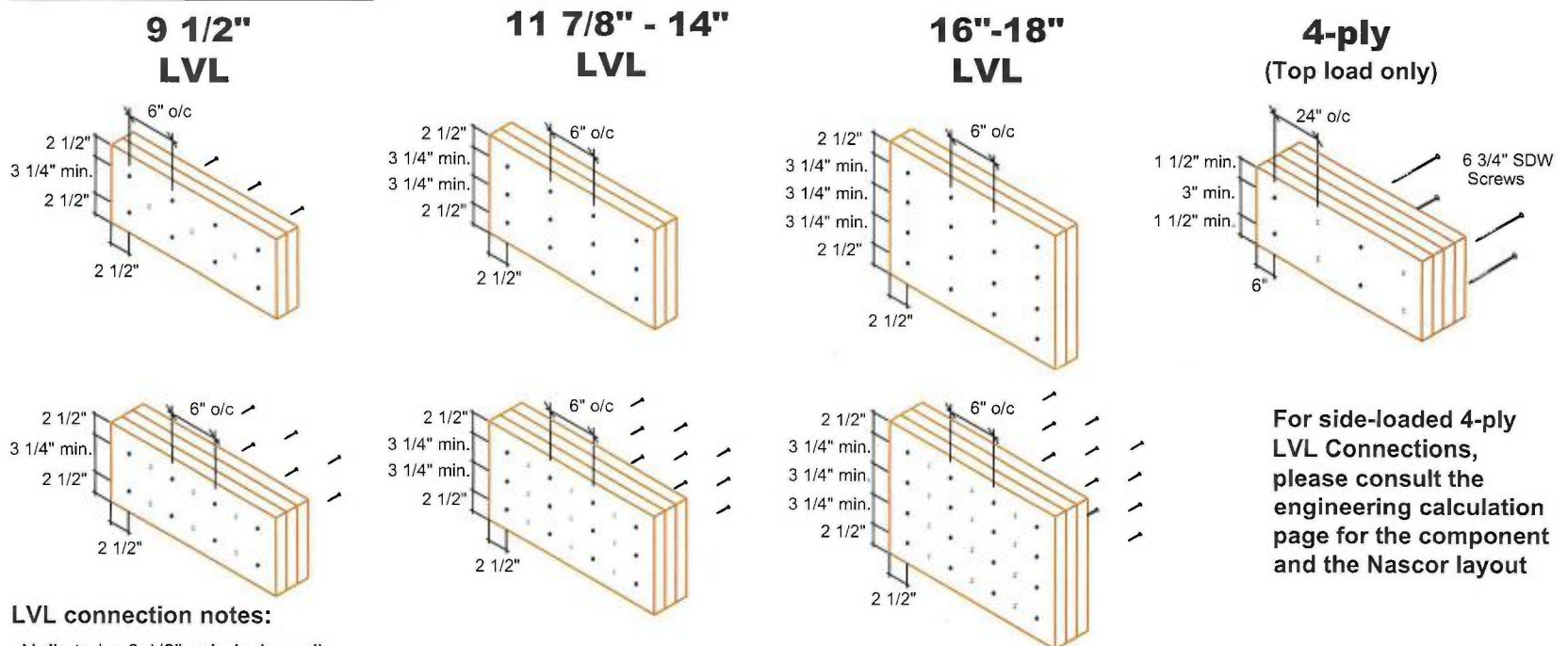
Conventional Connections (for uniform distributed loads)



Conventional connection notes:

- Nails to be 3" 10d spiral wire nails.
- Nails to be located a minimum of 2" from the top and bottom of the member. Start all nails a minimum of 2 1/2" in from ends.
- Number of rows and spacing as per details shown, unless noted otherwise.
- "X" represents nail driven from the opposite side.

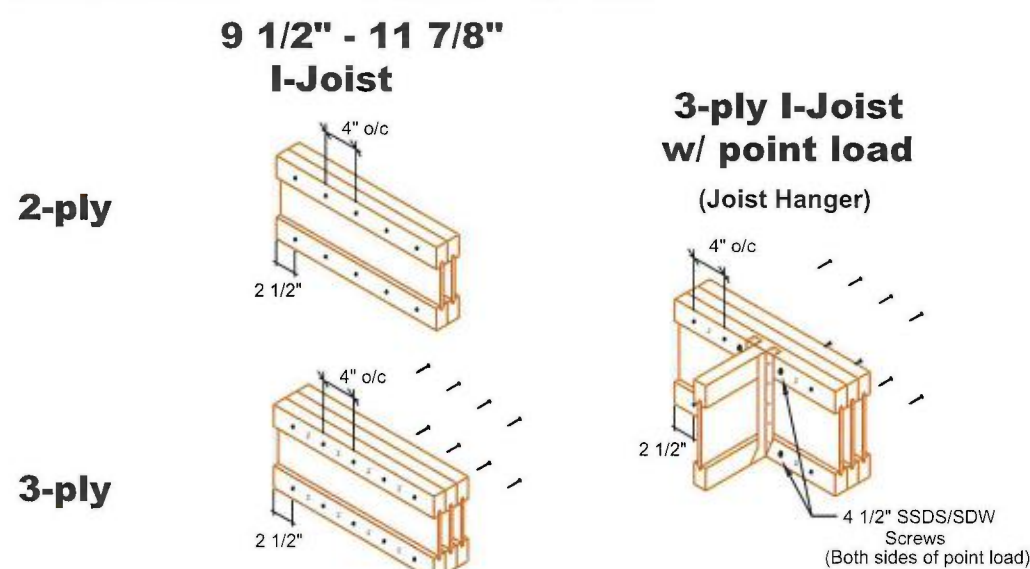
LVL Connections (for uniform distributed loads)



LVL connection notes:

- Nails to be 3 1/2" spiral wire nails.
- Nails to be located a minimum of 2 1/2" from the top and bottom of the member. Start all nails a minimum of 2 1/2" in 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.

Vertical I-Joist Connections (for uniform distributed loads)



Vertical I-Joist connection notes:

- Nails to be 3" spiral wire nails.
- Nails to be located at centre of top and bottom flanges. Start all nails a minimum of 2 1/2" in from ends.
- Number of rows and spacing as per details shown, unless noted otherwise.
- "X" represents nail driven from the opposite side.

**MULTI-PLY
CONNECTION
DETAILS**

Date: November 30, 2016
Scale: NTS



KOTT
3228 Moodie Drive
Ottawa, ON
K2H 7V1
Ph: 613-838-2775
Fx: 613-838-4751

Engineering Note Page (ENP-2)

REVISION 2009-10-09

M-2057**LOT 29****Please read all notes prior to installation of the component****GREEN YORK HOMES-
GRANELLI HOME CORP-
LIANA 1 (ELEV.2)****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 only 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 NASCOR 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 squash blocks. Structural elements such as walls, posts, connectors, and squash 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 NASCOR joists is to be carried out in accordance with the current edition of the manufacturer's approved literature available at <http://www.nascor.ca>.

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

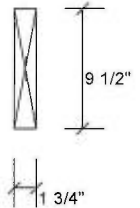
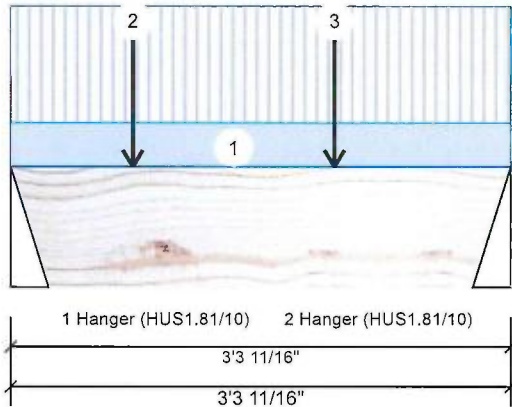
1. The building component used in construction must be the same as indicated on the drawings.
2. The building component must be installed and assembled as per specification shown on the drawing and in accordance with the manufacturer's assembly and installation.
3. Members consisting of multiple plies must be connected as per the document "Multi-ply Connection Details".
4. Pass-thru squash 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 pre-authorization.

F1-B Forex 2.0E-3000Fb LVL 1.750" X 9.500" - PASSED

Level: Ground Floor


Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	171	80	0	0
2	152	73	0	0

Bearings and Factored Reactions

Bearing	Length	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	3.000"	9%	100 / 256	356 L	1.25D+1.5L
2 - Hanger	3.000"	8%	91 / 229	320 L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	258 ft-lb	2' 7/16"	11362 ft-lb	0.023 (2%)	1.25D+1.5L	L
Unbraced	258 ft-lb	2' 7/16"	10006 ft-lb	0.026 (3%)	1.25D+1.5L	L
Shear	274 lb	11 3/4"	4638 lb	0.059 (6%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/45769)	1'9 1/4"	0.098 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.002 (L/21849)	1'9"	0.098 (L/360)	0.020 (2%)	L	L
TL Defl inch	0.002 (L/14790)	1'9 1/16"	0.146 (L/240)	0.020 (2%)	D+L	L

Design Notes

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

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

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

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



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 3-3-11		Top	15 PLF	40 PLF	0 PLF	0 PLF	
2	Point	0-9-11		Far Face	41 lb	90 lb	0 lb	0 lb	J2
3	Point	2-1-11		Far Face	50 lb	101 lb	0 lb	0 lb	J2
	Self Weight				4 PLF				

Notes

Calculated Structural 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

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

chemicals
Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex
APA: PR-L318



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



NE0010-020

EWP

EWP Studio

Simpson Strong-Tie®

Component Solutions™

Client: GREEN YORK HOMES

Project:

Address:

Date: 5/31/2018

Designer: RCO

Job Name: LIANA 1 (ELEV.2)

Project #:

PAGE 3 OF 41

Page 1 of 1

F1-C Forex 2.0E-3000Fb LVL 1.750" X 9.500" - PASSED

Level: Ground Floor

2

1

1 Hanger (HUS1.81/10)

2 SPF

2'8 7/8"

2'8 7/8"

9 1/2"

1 3/4"

Member Information

Unfactored Reactions UNPATTERNED lb (Uplift)

Type: Girder

Plies: 1

Moisture Condition: Dry

Deflection LL: 360

Deflection TL: 240

Importance: Normal

General Load

Floor Live: 40 PSF

Dead: 15 PSF

Application: Floor (Residential)

Design Method: LSD

Building Code: NBCC 2010 / OBC 2012

Load Sharing: No

Deck: Not Checked

Vibration: Not Checked

Brg

Live

Dead

Snow

Wind

1

12

11

0

0

2

13

11

0

0

Bearings and Factored Reactions

Bearing

Length

Cap. React D/L lb

Total

Ld. Case

Ld. Comb.

1 - Hanger

3.000"

1%

13 / 17

31 L

1.25D+1.5L

2 - SPF

4.375"

1%

14 / 19

33 L

1.25D+1.5L

Analysis Results

Analysis

Actual

Location

Allowed

Capacity

Comb.

Case

Moment

15 ft-lb

1'3 3/4"

11362 ft-lb

0.001 (0%)

1.25D+1.5L

L

Unbraced

15 ft-lb

1'3 3/4"

10562 ft-lb

0.001 (0%)

1.25D+1.5L

L

Shear

8 lb

1'7 3/4"

4638 lb

0.002 (0%)

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/999)

0

999.000 (L/0)

0.000 (0%)

TL Defl inch

0.000 (L/999)

0

999.000 (L/0)

0.000 (0%)

Design Notes

1 Fill all hanger nailing holes.

2 Girders are designed to be supported on the bottom edge only.

3 Top braced at bearings.

4 Bottom braced at bearings.

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

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

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

LICENSED PROFESSIONAL ENGINEER

N.A. EL-MASRI

PROVINCIAL SEAL

Jun 04, 2018

ID

Load Type

Location

Trib Width

Side

Dead

Live

Snow

Wind

Comments

1

Tie-In

0-0-0 to 2-8-14

(Span)0-5-5

Top

15 PSF

40 PSF

0 PSF

0 PSF

2

Part. Uniform

0-0-0 to 2-4-6

Top

1 PLF

0 PLF

0 PLF

0 PLF

Self Weight

4 PLF

Notes

Calculated Structural 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

1. Dry service conditions, unless noted otherwise

2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled

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

3. Damaged Beams must not be used

4. Design assumes top edge is laterally restrained

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

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex

APA: PR-L318

KOTT

NASCOR

Kott Lumber Company

14 Anderson Blvd, Ontario

Canada

L4A 7X4

905-642-4400

EWP Studio Version 18.32.085 Powered by iStruct™

SIMPSON

Strong-Tie

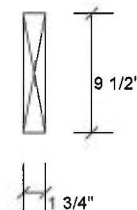
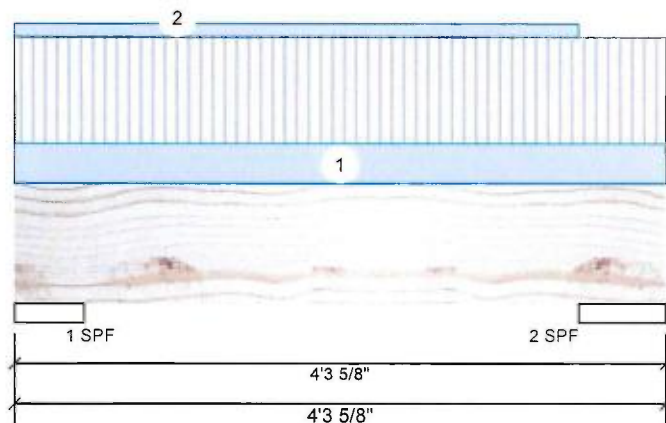


Client: GREEN YORK HOMES
Project:
Address:

Date: 5/31/2018
Designer: RCO
Job Name: LIANA 1 (ELEV.2)
Project #:

F2-B	Forex 2.0E-3000Fb LVL	1.750" X 9.500" - PASSED
------	-----------------------	--------------------------

Level: Ground Floor



Member Information

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

Unfactored Reactions UNPATTERNED Ib (Uplift)

Brg	Live	Dead	Snow	Wind
1	50	33	0	0
2	53	33	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.500"	2%	41 / 76	117	L	1.25D+1.5L
2 - SPF	6.875"	2%	42 / 80	121	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	81 ft-lb	2'1 1/8"	11362 ft-lb	0.007 (1%)	1.25D+1.5L	L
Unbraced	81 ft-lb	2'1 1/8"	9540 ft-lb	0.008 (1%)	1.25D+1.5L	L
Shear	51 lb	3'	4638 lb	0.011 (1%)	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/999)	0	999.000 (L/0)	0.000 (0%)		
TL Defl inch	0.001 (L/46449)	2'1 3/16"	0.170 (L/240)	0.010 (1%)	D+L	L

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

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

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



Design Notes

- 1 Girders are designed to be supported on the bottom edge only.
- 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 4-3-10	(Span)1-2-7	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 3-8-12		Top	3 PLF	0 PLF	0 PLF	0 PLF	
	Self Weight				4 PLF				

Notes

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

Lumber

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

chemicals

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex
APA: PR-L318

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

NASCOR

NEUO 10-020

EWP

EWP Studio

Simpson Strong-Tie®

Component Solutions™

Client: GREEN YORK HOMES

Project:

Address:

Date: 5/31/2018

Designer: RCO

Job Name: LIANA 1 (ELEV.2)

Project #:

Page 1 of 1

F3-A Forex 2.0E-3000Fb LVL 1.750" X 9.500" - PASSED

Level: Ground Floor

3

2

1

5

6

4

1 Hanger (HUS1.81/10)

2 SPF

6'3 1/8"

6'3 1/8"

9 1/2"

3/4"

Member Information

Unfactored Reactions UNPATTERNED lb (Uplift)

Type: Girder	Application: Floor (Residential)	Brg	Live	Dead	Snow	Wind
Plies: 1	Design Method: LSD	1	340	159	0	0
Moisture Condition: Dry	Building Code: NBCC 2010 / OBC 2012	2	233	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						
Dead: 15 PSF						

Bearings and Factored Reactions

Bearing	Length	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	3.000"	18%	199 / 511	710 L	1.25D+1.5L
2 - SPF	6.875"	7%	152 / 349	501 L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	839 ft-lb	1'11 7/8"	11362 ft-lb	0.074 (7%)	1.25D+1.5L	L
Unbraced	839 ft-lb	1'11 7/8"	6701 ft-lb	0.125 (13%)	1.25D+1.5L	L
Shear	514 lb	11 3/4"	4638 lb	0.111 (11%)	1.25D+1.5L	L
Perm Defl in. (L/11950)	0.006	2'9 1/8"	0.185 (L/360)	0.030 (3%)	D	Uniform
LL Defl inch	0.011 (L/6054)	2'8 9/16"	0.185 (L/360)	0.060 (6%)	L	L
TL Defl inch	0.017 (L/4019)	2'8 13/16"	0.278 (L/240)	0.060 (6%)	D+L	L

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

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

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

LICENSED PROFESSIONAL ENGINEER

N.A. EL-MASRI

PROVINCE OF ONTARIO

Jun 04, 2018

Design Notes

1 Fill all hanger nailing holes.

2 Girders are designed to be supported on the bottom edge only.

3 Top braced at bearings.

4 Bottom braced at bearings.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-10-15	(Span)3-6-5	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 6-3-2	(Span)1-5-2	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-10-1		Far Face	73 lb	152 lb	0 lb	0 lb	F1
4	Tie-In	1-10-15 to 6-3-2	(Span)1-2-14	Top	15 PSF	40 PSF	0 PSF	0 PSF	
5	Part. Uniform	1-11-2 to 5-8-0		Top	3 PLF	0 PLF	0 PLF	0 PLF	
6	Part. Uniform	1-11-2 to 5-8-0		Top	4 PLF	0 PLF	0 PLF	0 PLF	
	Self Weight				4 PLF				

Notes

chemicals

Handling & Installation

Lumber

6. For flat roofs provide proper drainage to prevent ponding

Calculated Structural 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.

1. LVL beams must not be cut or drilled.

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

3. Damaged Beams must not be used

4. Design assumes top edge is laterally restrained

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

Manufacturer Info

Forex

APA: PR-L318

KOTT

NASCOR

Kott Lumber Company

14 Anderson Blvd, Ontario

Canada

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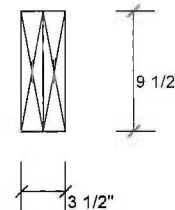
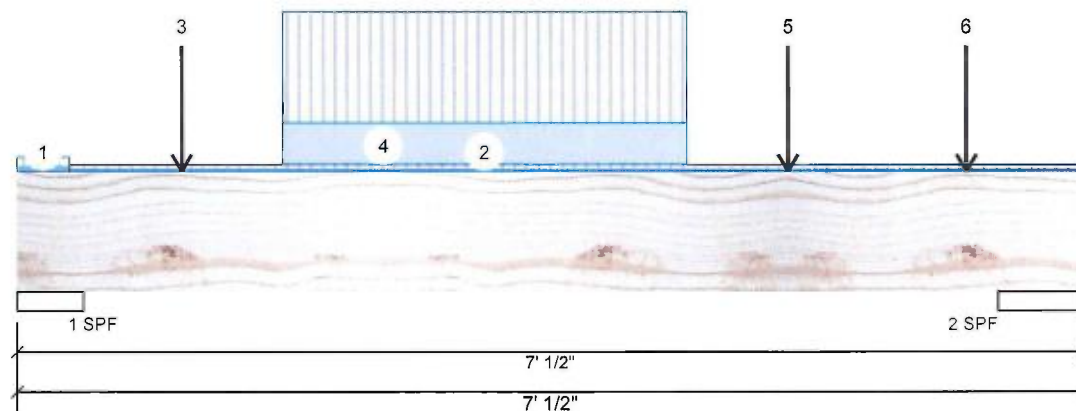
Client: GREEN YORK HOMES
Project:
Address:

Date: 5/31/2018
Designer: RCO
Job Name: LIANA 1 (ELEV.2)
Project #:

Page 1 of 1

F4-B Forex 2.0E-3000Fb LVL 1.750" X 9.500" 2-Ply - PASSED

Level: Ground Floor



Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	669	277	0	0
2	862	351	0	0

Bearings and Factored Reactions

Bearing	Length	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.250"	12%	346 / 1004	1350 L	1.25D+1.5L
2 - SPF	6.875"	12%	439 / 1293	1732 L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2221 ft-lb	3'5 13/16"	22724 ft-lb	0.098 (10%)	1.25D+1.5L	L
Unbraced	2221 ft-lb	3'5 13/16"	21975 ft-lb	0.101 (10%)	1.25D+1.5L	L
Shear	1694 lb	5'8 7/8"	9277 lb	0.183 (18%)	1.25D+1.5L	L
Perm Defl in.	0.008 (L/9580)	3'5 5/8"	0.205 (L/360)	0.040 (4%)	D	Uniform
LL Defl inch	0.019 (L/3901)	3'5 5/8"	0.205 (L/360)	0.090 (9%)	L	L
TL Defl inch	0.027 (L/2772)	3'5 5/8"	0.308 (L/240)	0.090 (9%)	D+L	L

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

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

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



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.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-4-2	(Span)1-0-10	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-4-2 to 7-0-8	(Span)0-5-14	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-1-1		Near Face	88 lb	234 lb	0 lb	0 lb	J5
4	Part. Uniform	1-9-1 to 4-5-1		Near Face	86 PLF	230 PLF	0 PLF	0 PLF	
5	Point	5-1-1		Near Face	108 lb	288 lb	0 lb	0 lb	J5
6	Point	6-3-2		Near Face	122 lb	323 lb	0 lb	0 lb	F8
	Self Weight				8 PLF				

Notes

Calculated Structural 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

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

chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. 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



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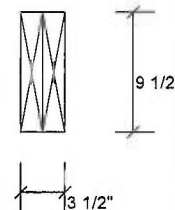
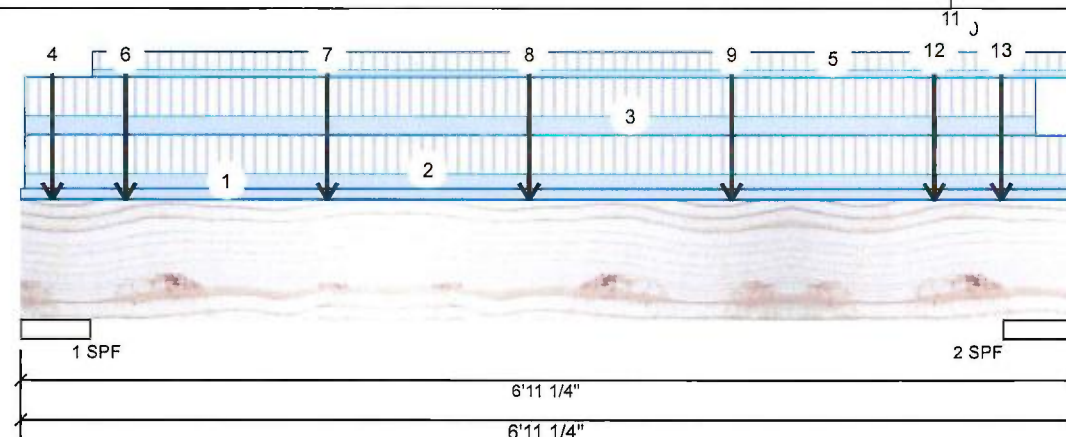
Client: GREEN YORK HOMES
Project:
Address:

Date: 5/31/2018
Designer: RCO
Job Name: LIANA 1 (ELEV.2)
Project #:

Page 1 of 2

F4-C Forex 2.0E-3000Fb LVL 1.750" X 9.500" 2-Ply - PASSED

Level: Ground Floor



Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	5607	2698	0	0
2	2555	1390	0	0

Bearings and Factored Reactions

Bearing	Length	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.500"	99%	3372 / 8411	11783 L	1.25D+1.5L
2 - SPF	5.500"	47%	1737 / 3833	5570 L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	7859 ft-lb	3'4 11/16"	22724 ft-lb	0.346 (35%)	1.25D+1.5L	L
Unbraced	7859 ft-lb	3'4 11/16"	21978 ft-lb	0.358 (36%)	1.25D+1.5L	L
Shear	4616 lb	1'2 1/4"	9277 lb	0.498 (50%)	1.25D+1.5L	L
Perm Defl in.	0.033 (L/2213)	3'5 7/16"	0.205 (L/360)	0.160 (16%)	D	Uniform
LL Defl inch	0.062 (L/1195)	3'5 3/8"	0.205 (L/360)	0.300 (30%)	L	L
TL Defl inch	0.095 (L/776)	3'5 3/8"	0.307 (L/240)	0.310 (31%)	D+L	L

Design Notes

- 1 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 4.5.
- 2 Girders are designed to be supported on the bottom edge only.
- 3 Multiple plies must be fastened together as per manufacturer's details.
- 4 Top loads must be supported equally by all plies.
- 5 Top braced at bearings.
- 6 Bottom braced at bearings.
- 7 Lateral slenderness ratio based on full section width.

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

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

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



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 6-11-4		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
2	Part. Uniform	0-0-5 to 6-11-4		Top	106 PLF	283 PLF	0 PLF	0 PLF	J7
3	Part. Uniform	0-0-5 to 6-8-5		Far Face	136 PLF	280 PLF	0 PLF	0 PLF	
4	Point	0-2-8		Top	1254 lb	2945 lb	0 lb	0 lb	F11 F11
5	Part. Uniform	0-5-11 to 6-11-4		Top	50 PLF	133 PLF	0 PLF	0 PLF	J3

Continued on page 2...

Notes

Calculated Structural 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

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

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. 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



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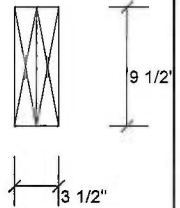
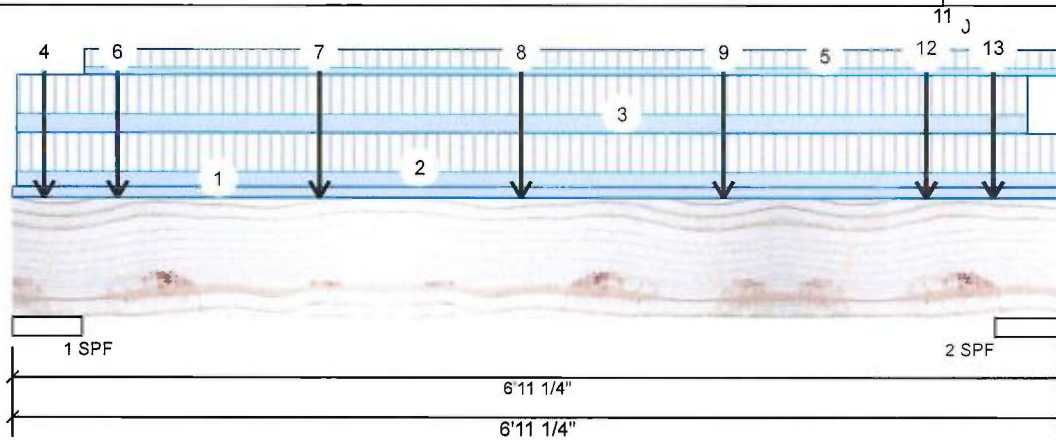
Client: GREEN YORK HOMES
Project:
Address:

Date: 5/31/2018
Designer: RCO
Job Name: LIANA 1 (ELEV.2)
Project #:

Page 2 of 2

F4-C Forex 2.0E-3000Fb LVL 1.750" X 9.500" 2-Ply - PASSED

Level: Ground Floor



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
6	Point	0-8-5		Near Face	73 lb	154 lb	0 lb	0 lb	J3
7	Point	2-0-5		Near Face	82 lb	167 lb	0 lb	0 lb	J3
8	Point	3-4-5		Near Face	29 lb	59 lb	0 lb	0 lb	J3
9	Point	4-8-5		Near Face	32 lb	68 lb	0 lb	0 lb	J1
10	Tie-In	6-0-5 to 6-6-8	(Span)2-11-3	Top	15 PSF	40 PSF	0 PSF	0 PSF	
11	Part. Uniform	6-0-5 to 6-5-1		Top	7 PLF	0 PLF	0 PLF	0 PLF	
12	Point	6-0-5		Near Face	22 lb	45 lb	0 lb	0 lb	J1
13	Point	6-5-10		Near Face	11 lb	12 lb	0 lb	0 lb	F1
	Self Weight				8 PLF				

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

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

Notes

Calculated Structural 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

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

chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multiply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. 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



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Date: 5/31/2018

Designer: RCO

Job Name: LIANA 1 (ELEV.2)

Project #:

Page 1 of 1

F5-BForex 2.0E-3000Fb LVL1.750" X 9.500"2-Ply - PASSED

Level: Ground Floor

2

3

4

5

1

1 SPF End Grain

2 Hanger (HGUS410)

8'8 15/16"

8'8 15/16"

9 1/2"

3 1/2"

Member Information

Unfactored Reactions UNPATTERNED lb (Uplift)

Type: Girder

Plies: 2

Moisture Condition: Dry

Deflection LL: 360

Deflection TL: 240

Importance: Normal

General Load

Floor Live: 40 PSF

Dead: 15 PSF

Application: Floor (Residential)

Design Method: LSD

Building Code: NBCC 2010 / OBC 2012

Load Sharing: No

Deck: Not Checked

Vibration: Not Checked

Brg	Live	Dead	Snow	Wind
1	795	377	0	0
2	1170	525	0	0

Analysis Results

Bearings and Factored Reactions

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3658 ft-lb	4'7 3/4"	22724 ft-lb	0.161 (16%)	1.25D+1.5L	L
Unbraced	3658 ft-lb	4'7 3/4"	21435 ft-lb	0.171 (17%)	1.25D+1.5L	L
Shear	2240 lb	7'8 3/16"	9277 lb	0.241 (24%)	1.25D+1.5L	L
Perm Defl in.	0.022 (L/4332)	4'5 15/16"	0.269 (L/360)	0.080 (8%)	D	Uniform
LL Defl inch	0.048 (L/2031)	4'6 3/16"	0.269 (L/360)	0.180 (18%)	L	L
TL Defl inch	0.070 (L/1383)	4'6 1/16"	0.404 (L/240)	0.170 (17%)	D+L	L

Bearing	Length	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	5.500"	12%	471 / 1192	1663	L	1.25D+1.5L
2 - Hanger	4.000"	23%	656 / 1755	2411	L	1.25D+1.5L

Design Notes

Notes

1 Fill all hanger nailing holes.

2 Girders are designed to be supported on the bottom edge only.

3 Multiple plies must be fastened together as per manufacturer's details.

4 Top loads must be supported equally by all plies.

5 Top braced at bearings.

6 Bottom braced at bearings.

7 Lateral slenderness ratio based on full section width.

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex
APA: PR-L318

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Date: 5/31/2018

Designer: RCO

Job Name: LIANA 1 (ELEV.2)

Project #:

PAGE 12 OF 41

Page 1 of 2

F6-C Forex 2.0E-3000Fb LVL 1.750" X 9.500" 2-Ply - PASSED

Level: Ground Floor

Member Information				Unfactored Reactions UNPATTERNED lb (Uplift)									
Type:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow	Wind					
Plies:	2	Design Method:	LSD	1	188	125	0	0					
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012	2	279	169	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												
Dead:	15 PSF												

Bearings and Factored Reactions						
Bearing	Length	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	9%	156 / 282	439	L	1.25D+1.5L
2 - SPF	6.875"	4%	212 / 418	629	L	1.25D+1.5L

Analysis Results						
Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1837 ft-lb	5'10 11/16"	22724 ft-lb	0.081 (8%)	1.25D+1.5L	L
Unbraced	1837 ft-lb	5'10 11/16"	20878 ft-lb	0.088 (9%)	1.25D+1.5L	L
Shear	546 lb	9' 1/8"	9277 lb	0.059 (6%)	1.25D+1.5L	L
Perm Defl in.	0.016 (L/7265)	5'2 1/8"	0.322 (L/360)	0.050 (5%)	D	Uniform
LL Defl inch	0.027 (L/4220)	5'2 11/16"	0.322 (L/360)	0.090 (9%)	L	L
TL Defl inch	0.043 (L/2670)	5'2 7/16"	0.483 (L/240)	0.090 (9%)	D+L	L

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

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

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

LICENSED PROFESSIONAL ENGINEER

N.A. EL-MASRI

PROVINCIAL OF ONTARIO

Jun 04, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 10-3-12	(Span)0-4-9	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 9-8-9		Top	1 PLF	0 PLF	0 PLF	0 PLF	
3	Tie-In	4-0-10 to 5-11-9	(Span)3-6-5	Top	15 PSF	40 PSF	0 PSF	0 PSF	
4	Part. Uniform	4-0-10 to 5-11-9		Top	4 PLF	0 PLF	0 PLF	0 PLF	
5	Point	5-10-11		Near Face	80 lb	171 lb	0 lb	0 lb	F1
6	Tie-In	5-11-9 to 10-3-12	(Span)0-11-7	Top	15 PSF	40 PSF	0 PSF	0 PSF	

Continued on page 2...

Notes

Calculated Structural 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

1. Dry service conditions, unless noted otherwise

2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled.

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

3. Damaged Beams must not be used

4. Design assumes top edge is laterally restrained

5. 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

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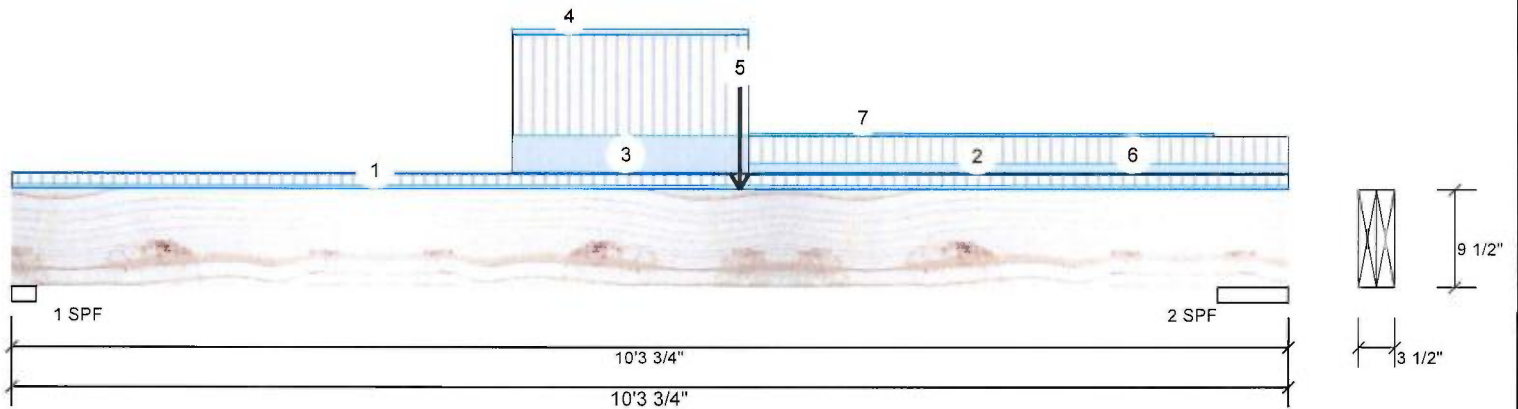
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Project:
Address:

Date: 5/31/2018
Designer: RCO
Job Name: LIANA 1 (ELEV.2)
Project #:

Page 2 of 2

F6-C Forex 2.0E-3000Fb LVL 1.750" X 9.500" 2-Ply - PASSED

Level: Ground Floor



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
7	Part. Uniform	5-11-9 to 9-8-9		Top	2 PLF	0 PLF	0 PLF	0 PLF	
	Self Weight				8 PLF				

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

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

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



Notes

Calculated Structural 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

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

chemicals

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

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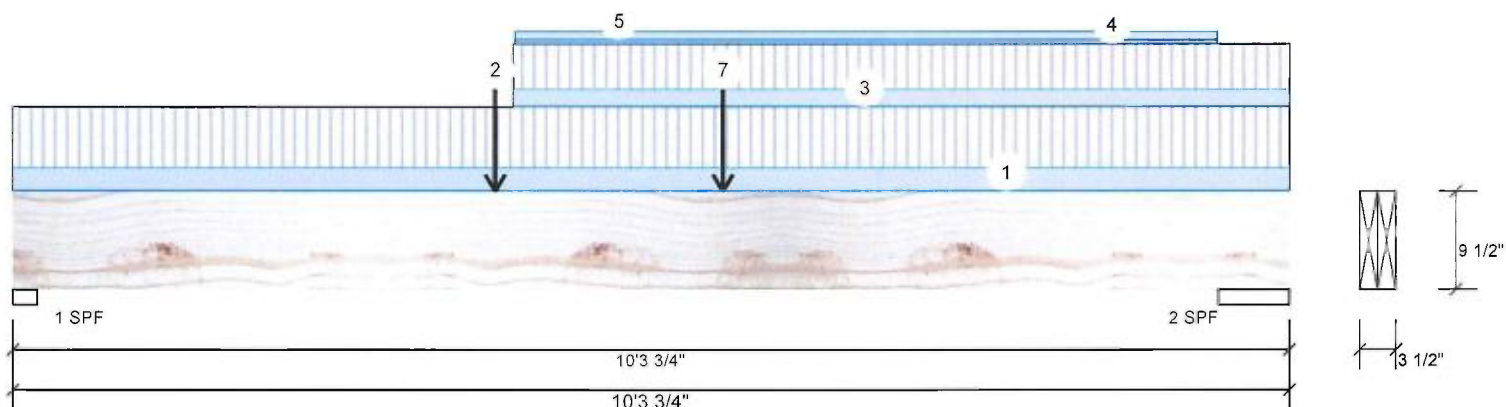
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Job Name: LIANA 1 (ELEV.2)
Project #:

Page 1 of 2

F6-D Forex 2.0E-3000Fb LVL 1.750" X 9.500" 2-Ply - PASSED

Level: Ground Floor



Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	876	424	0	0
2	683	342	0	0

Bearings and Factored Reactions

Bearing	Length	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	36%	530 / 1315	1845 L	1.25D+1.5L
2 - SPF	6.875"	10%	428 / 1024	1452 L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	6654 ft-lb	3'10 7/8"	22724 ft-lb	0.293 (29%)	1.25D+1.5L	L
Unbraced	6654 ft-lb	3'10 7/8"	20878 ft-lb	0.319 (32%)	1.25D+1.5L	L
Shear	1808 lb	11 1/8"	9277 lb	0.195 (19%)	1.25D+1.5L	L
Perm Defl in.	0.048 (L/2440)	4'7 3/4"	0.322 (L/360)	0.150 (15%)	D	Uniform
LL Defl inch	0.100 (L/1158)	4'7 9/16"	0.322 (L/360)	0.310 (31%)	L	L
TL Defl inch	0.148 (L/785)	4'7 11/16"	0.483 (L/240)	0.310 (31%)	D+L	L

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

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

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



Design Notes

- Girders are designed to be supported on the bottom edge only.
- Multiple plies must be fastened together as per manufacturer's details.
- Top loads must be supported equally by all plies.
- Top braced at bearings.
- Bottom braced at bearings.
- Lateral slenderness 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 10-3-12	(Span)0-9-3	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	3-10-14		Far Face	525 lb	1170 lb	0 lb	0 lb	F5
3	Tie-In	4-0-10 to 10-3-12	(Span)0-6-13	Top	15 PSF	40 PSF	0 PSF	0 PSF	
4	Part. Uniform	4-0-13 to 9-8-12		Top	1 PLF	0 PLF	0 PLF	0 PLF	
5	Part. Uniform	4-0-13 to 9-8-12		Top	2 PLF	0 PLF	0 PLF	0 PLF	
6	Point	5-8-15		Top	25 lb	68 lb	0 lb	0 lb	

Continued on page 2...

Notes

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

Lumber

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

chemicals

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex
APA: PR-L318



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





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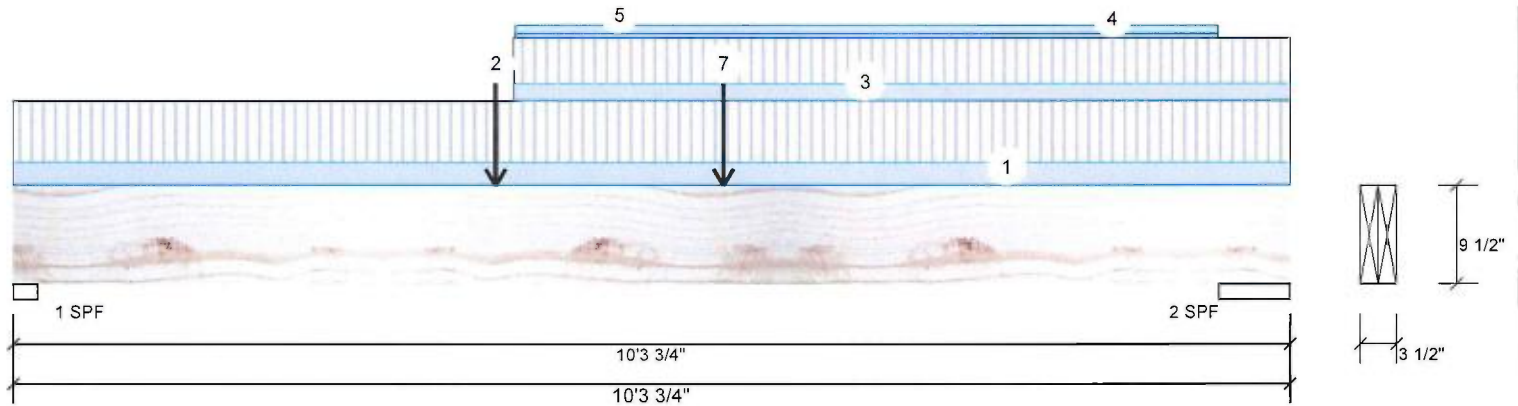
Client: GREEN YORK HOMES
Project:
Address:

Date: 5/31/2018
Designer: RCO
Job Name: LIANA 1 (ELEV.2)
Project #:

Page 2 of 2

F6-D Forex 2.0E-3000Fb LVL 1.750" X 9.500" 2-Ply - PASSED

Level: Ground Floor



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
7	Point	5-8-15		Top	35 lb	92 lb	0 lb	0 lb	
	Self Weight				8 PLF				

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

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

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



Notes

Calculated Structural 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

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

chemicals

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex
APA: PR-L318



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





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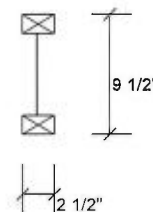
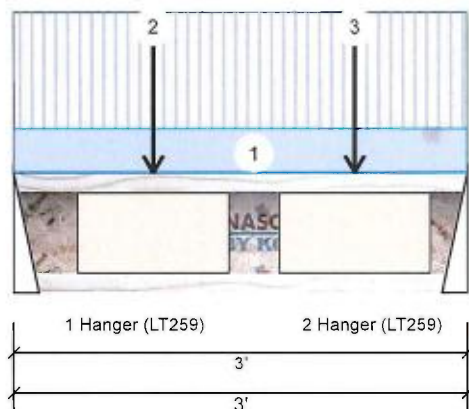
Client: GREEN YORK HOMES
Project:
Address:

Date: 5/31/2018
Designer: RCO
Job Name: LIANA 1 (ELEV.2)
Project #:

Page 1 of 1

F7-A NJH 9.500" - PASSED

Level: Ground Floor



Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	331	124	0	0
2	358	134	0	0

Bearings and Factored Reactions

Bearing	Length	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	41%	155 / 497	652 L	1.25D+1.5L
2 - Hanger	2.000"	45%	168 / 537	705 L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	505 ft-lb	11 1/16"	3830 ft-lb	0.132 (13%)	1.25D+1.5L	L
Unbraced	505 ft-lb	11 1/16"	3411 ft-lb	0.148 (15%)	1.25D+1.5L	L
Shear	698 lb	2'10 3/4"	1580 lb	0.442 (44%)	1.25D+1.5L	L
Perm Defl in.	0.003 (L/12051)	1'3 15/16"	0.093 (L/360)	0.030 (3%)	D	Uniform
LL Defl inch	0.007 (L/4523)	1'3 15/16"	0.093 (L/360)	0.080 (8%)	L	L
TL Defl inch	0.010 (L/3288)	1'3 15/16"	0.140 (L/240)	0.070 (7%)	D+L	L

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

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

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



Design Notes

- 1 Fill all hanger nailing holes.
- 2 Girders are designed to be supported on the bottom edge only.
- 3 Top flange unbraced.
- 4 Bottom flange braced 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	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-11-1		Near Face	114 lb	304 lb	0 lb	0 lb	J9
3	Point	2-3-1		Near Face	106 lb	282 lb	0 lb	0 lb	J9

Notes

Calculated Structural 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

1. Dry service conditions, unless noted otherwise
2. Ljoist not to be treated with fire retardant or corrosive

chemicals

Handling & Installation

1. Ljoist flanges must not be cut or drilled
2. Refer to latest copy of the Ljoist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details
3. Damaged Ljoists must not be used
4. Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. Web stiffeners for point load as shown Minimum point load bearing length >= 3.5 inches
7. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Nascor by Kott



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





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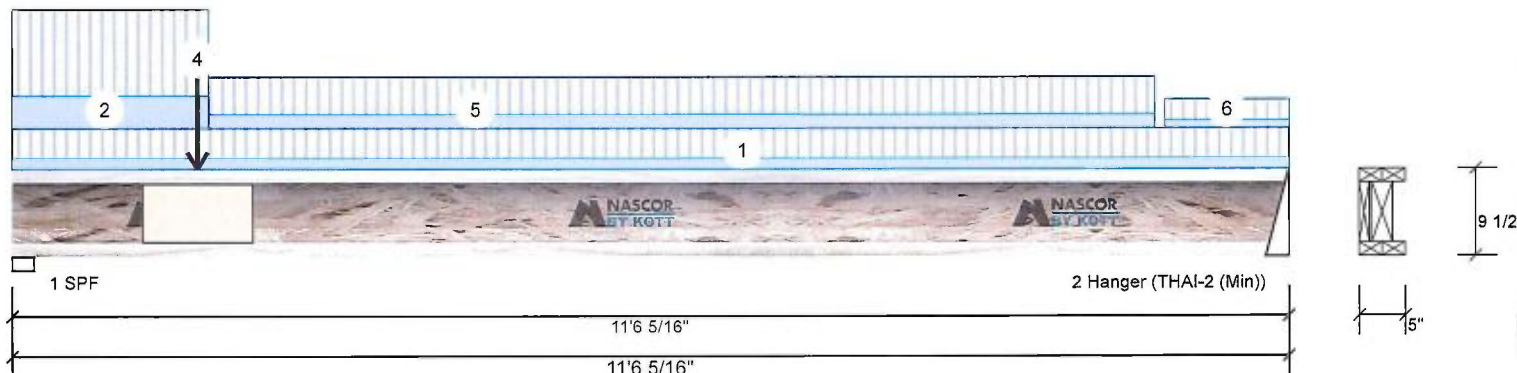
Client: GREEN YORK HOMES
Project:
Address:

Date: 5/31/2018
Designer: RCO
Job Name: LIANA 1 (ELEV.2)
Project #:

Page 1 of 1

F8-A NJH 9.500" 2-Ply - PASSED

Level: Ground Floor



Member Information

Type:	Girder	Application:	Floor (Residential)
Ply:	2	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	543	210	0	0
2	323	122	0	0

Bearings and Factored Reactions

Bearing	Length	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	34%	262 / 814	1076 L	1.25D+1.5L
2 - Hanger	2.500"	20%	153 / 484	637 L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2033 ft-lb	5'1 9/16"	7660 ft-lb	0.265 (27%)	1.25D+1.5L	L
Unbraced	2033 ft-lb	5'1 9/16"	2038 ft-lb	0.997 (100%)	1.25D+1.5L	L
Shear	1052 lb	1 5/8"	3160 lb	0.333 (33%)	1.25D+1.5L	L
Perm Defl in.	0.029 (L/4604)	5'6 1/2"	0.375 (L/360)	0.080 (8%)	D	Uniform
LL Defl inch	0.077 (L/1754)	5'6 5/8"	0.375 (L/360)	0.210 (21%)	L	L
TL Defl inch	0.106 (L/1270)	5'6 5/8"	0.562 (L/240)	0.190 (19%)	D+L	L

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

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

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



Design Notes

- 1 Fill all hanger nailing holes.
- 2 Girders are designed to be supported on the bottom edge only.
- 3 Multiple plies must be fastened together as per manufacturer's details.
- 4 Top loads must be supported equally by all plies.
- 5 Top flange must be laterally braced at a maximum of 7'10" o.c.
- 6 Bottom flange braced at bearings.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 11-6-5	(Span)1-2-1	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 1-9-6	(Span)3-5-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
4	Point	1-8-2		Near Face	82 lb	200 lb	0 lb	0 lb	F7
5	Tie-In	1-9-6 to 10-3-12	(Span)1-5-15	Top	15 PSF	40 PSF	0 PSF	0 PSF	
6	Tie-In	10-4-14 to 11-6-5	(Span)0-9-15	Top	15 PSF	40 PSF	0 PSF	0 PSF	

Notes

Calculated Structural 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

1. Dry service conditions, unless noted otherwise
2. Joist not to be treated with fire retardant or corrosive

chemicals

Handling & Installation

1. Joist flanges must not be cut or drilled
2. Refer to latest copy of the Joist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details
3. Damaged Joists must not be used
4. Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. Web stiffeners for point load as shown Minimum point load bearing length >= 3.5 inches
7. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Nascor by Kott



Kott Lumber Company
14 Anderson Blvd, Ontario
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L4A 7X4
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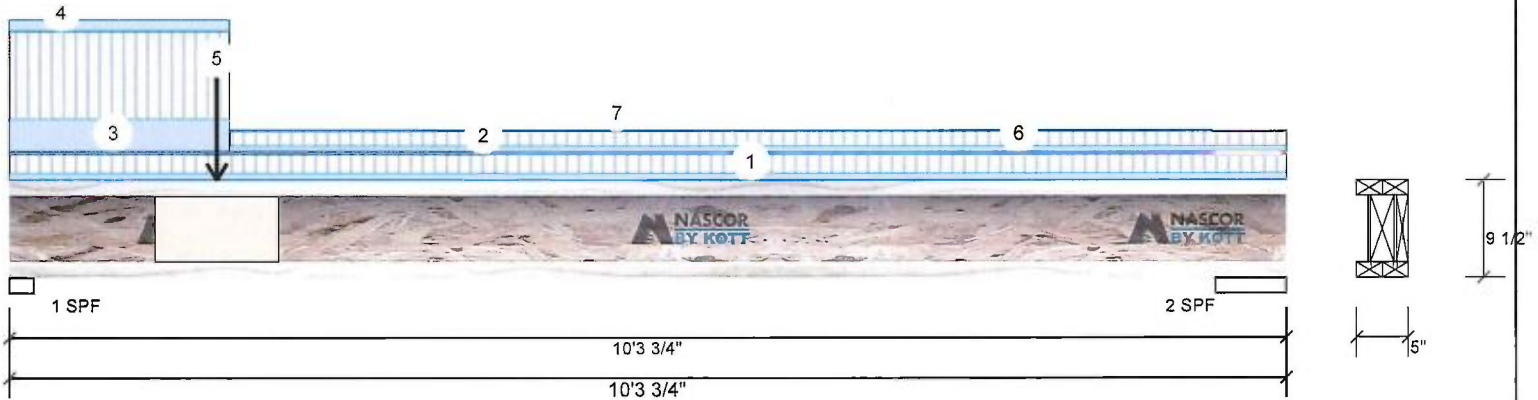
Client: GREEN YORK HOMES
Project:
Address:

Date: 5/31/2018
Designer: RCO
Job Name: LIANA 1 (ELEV.2)
Project #:

Page 1 of 1

F8-B NJH 9.500" 2-Ply - PASSED

Level: Ground Floor



Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	469	223	0	0
2	197	93	0	0

Bearings and Factored Reactions

Bearing	Length	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	31%	278 / 704	982 L	1.25D+1.5L
2 - SPF	6.875"	13%	116 / 295	411 L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1313 ft-lb	2'11 5/8"	7660 ft-lb	0.171 (17%)	1.25D+1.5L	L
Unbraced	1313 ft-lb	2'11 5/8"	1322 ft-lb	0.993 (99%)	1.25D+1.5L	L
Shear	958 lb	1 5/8"	3160 lb	0.303 (30%)	1.25D+1.5L	L
Perm Defl in.	0.017 (L/6969)	4'6"	0.322 (L/360)	0.050 (5%)	D	Uniform
LL Defl inch	0.035 (L/3306)	4'5 7/8"	0.322 (L/360)	0.110 (11%)	L	L
TL Defl inch	0.052 (L/2242)	4'5 7/8"	0.483 (L/240)	0.110 (11%)	D+L	L

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

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

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



Design Notes

- Girders are designed to be supported on the bottom edge only.
- Multiple plies must be fastened together as per manufacturer's details.
- Top loads must be supported equally by all plies.
- Top flange must be laterally braced at a maximum of 9'6" o.c.
- Bottom flange braced at bearings.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 10-3-12	(Span)0-8-15	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 9-8-8		Top	2 PLF	0 PLF	0 PLF	0 PLF	
3	Tie-In	0-0-0 to 1-9-6	(Span)3-5-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
4	Part. Uniform	0-0-0 to 1-9-6		Top	9 PLF	0 PLF	0 PLF	0 PLF	
5	Point	1-8-2		Far Face	131 lb	290 lb	0 lb	0 lb	F7
6	Tie-In	1-9-6 to 10-3-12	(Span)0-7-1	Top	15 PSF	40 PSF	0 PSF	0 PSF	
7	Part. Uniform	1-9-6 to 9-8-8		Top	1 PLF	0 PLF	0 PLF	0 PLF	

Notes

Calculated Structural 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
- Joist not to be treated with fire retardant or corrosive chemicals

chemicals

Handling & Installation

- Joist flanges must not be cut or drilled
- Refer to latest copy of the Joist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details
- Damaged Joists must not be used
- Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

- Provide lateral support at bearing points to avoid lateral displacement and rotation
- Web stiffeners for point load as shown Minimum point load bearing length >= 3.5 inches
- For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Nascor by Kott



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



NEUO 18-0220

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Client: GREEN YORK HOMES

Project:

Address:

Date: 5/31/2018

Designer: RCO

Job Name: LIANA 1 (ELEV.2)

Project #:

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Page 1 of 1

F9-A NJH 9.500" 2-Ply - PASSED

Level: Ground Floor

Member Information				Unfactored Reactions UNPATTERNED lb (Uplift)											
Type:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow	Wind							
Plies:	2	Design Method:	LSD	1	590	221	0	0							
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012	2	237	89	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														
Dead:	15 PSF														
				Bearings and Factored Reactions											
Bearing	Length	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.									
1 - SPF	2.375"	37%	276 / 884	1161	L	1.25D+1.5L									
2 - SPF	4.125"	15%	111 / 355	467	L	1.25D+1.5L									

Analysis Results						
Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1944 ft-lb	5'4 3/4"	7660 ft-lb	0.254 (25%)	1.25D+1.5L	L
Unbraced	1944 ft-lb	5'4 3/4"	1951 ft-lb	0.996 (100%)	1.25D+1.5L	L
Shear	1140 lb	1 5/8"	3160 lb	0.361 (36%)	1.25D+1.5L	L
Perm Defl in.	0.040 (L/4158)	6'7 5/8"	0.462 (L/360)	0.090 (9%)	D	Uniform
LL Defl inch	0.107 (L/1558)	6'7 5/8"	0.462 (L/360)	0.230 (23%)	L	L
TL Defl inch	0.147 (L/1134)	6'7 5/8"	0.693 (L/240)	0.210 (21%)	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 flange must be laterally braced at a maximum of 8' o.c. 5 Bottom flange braced at bearings.						

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

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

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

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 14-3-6	(Span)0-4-9	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 1-9-6	(Span)3-5-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-8-2		Near Face	134 lb	358 lb	0 lb	0 lb	F7
4	Tie-In	1-9-6 to 14-3-6	(Span)0-11-7	Top	15 PSF	40 PSF	0 PSF	0 PSF	

Notes

chemicals

Handling & Installation

1. Joist flanges must not be cut or drilled.
 2. Refer to latest copy of the Joist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details.
 3. Damaged Joists must not be used.
 4. Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

Lumber

1. Dry service conditions, unless noted otherwise.
 2. Joist not to be treated with fire retardant or corrosive.

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

6. Web stiffeners for point load as shown Minimum point load bearing length>= 3.5 inches

7. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Nascor by Kott

KOTT

NASCOR

Kott Lumber Company

14 Anderson Blvd, Ontario

Canada

L4A 7X4

905-642-4400

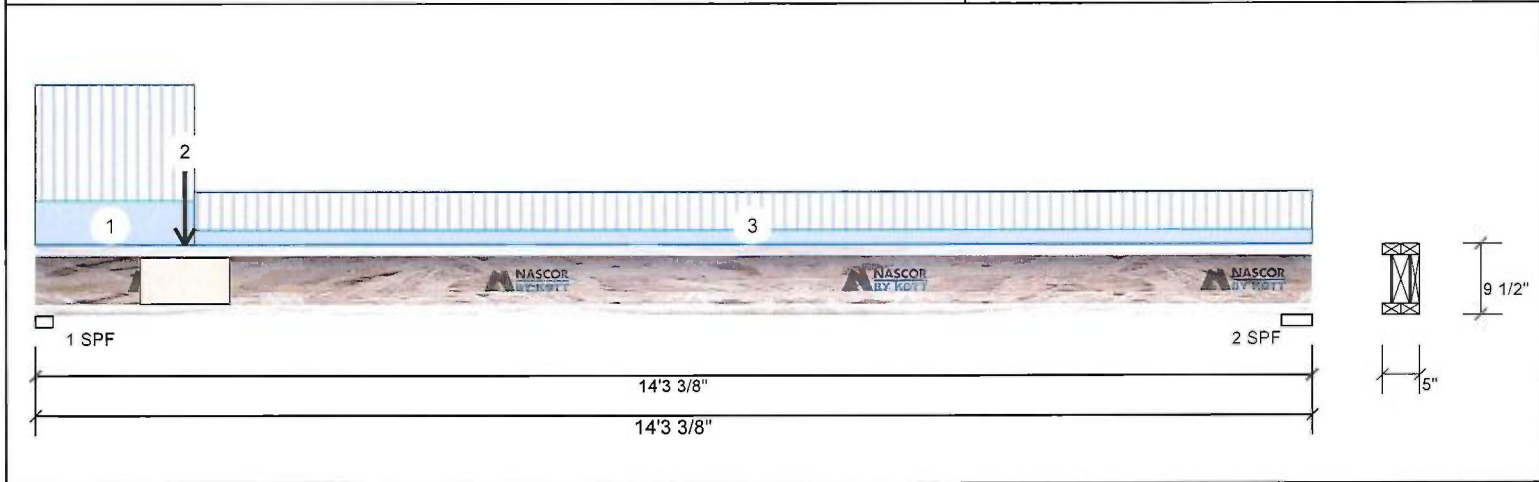
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SIMPSON

Strong-Tie

F9-B NJH 9.500" 2-Ply - PASSED

Level: Ground Floor



Member Information				Unfactored Reactions UNPATTERNED lb (Uplift)					
Type:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow	Wind	
Plies:	2	Design Method:	LSD	1	531	199	0	0	
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012	2	204	77	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								
Dead:	15 PSF								

Bearings and Factored Reactions					
Bearing	Length	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	33%	249 / 796	1045 L	1.25D+1.5L
2 - SPF	4.125"	13%	96 / 306	402 L	1.25D+1.5L

Analysis Results						
Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1707 ft-lb	5'2 15/16"	7660 ft-lb	0.223 (22%)	1.25D+1.5L	L
Unbraced	1707 ft-lb	5'2 15/16"	1714 ft-lb	0.996 (100%)	1.25D+1.5L	L
Shear	1027 lb	1 5/8"	3160 lb	0.325 (32%)	1.25D+1.5L	L
Perm Defl in.	0.035 (L/4746)	6'7 5/16"	0.462 (L/360)	0.080 (8%)	D	Uniform
LL Defl inch	0.094 (L/1779)	6'7 5/16"	0.462 (L/360)	0.200 (20%)	L	L
TL Defl inch	0.129 (L/1294)	6'7 5/16"	0.693 (L/240)	0.190 (19%)	D+L	L

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

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

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

LICENSED PROFESSIONAL ENGINEER

N.A. EL-MASRI

PROVINCIAL OF ONTARIO

Jun 04, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-9-6	(Span)3-5-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	1-8-2		Far Face	124 lb	331 lb	0 lb	0 lb	F7
3	Tie-In	1-9-6 to 14-3-6	(Span)1-1-9	Top	15 PSF	40 PSF	0 PSF	0 PSF	

Notes

Calculated Structural 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

1. Dry service conditions, unless noted otherwise

2. Joist not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. Joist flanges must not be cut or drilled

2. Refer to latest copy of the Joist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details

3. Damaged Joists must not be used

4. Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

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

6. Web stiffeners for point load as shown Minimum point load bearing length>= 3.5 inches

7. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Nascor by Kott

KOTT

NASCOR

Kott Lumber Company

14 Anderson Blvd, Ontario

Canada

L4A 7X4

905-642-4400

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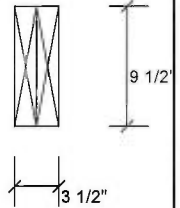
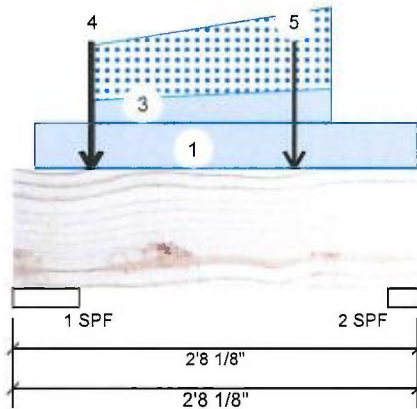
Client: GREEN YORK HOMES
Project:
Address:

Date: 5/31/2018
Designer: RCO
Job Name: LIANA 1 (ELEV.2)
Project #:

Page 1 of 2

F10-A Forex 2.0E-3000Fb LVL 1.750" X 9.500" 2-Ply - PASSED

Level: Second Floor



Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	272	661	1056	0
2	143	198	134	0

Bearings and Factored Reactions

Bearing	Length	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.250"	25%	826 / 1720	2546 L	1.25D+1.5S +0.5L
2 - SPF	2.375"	11%	248 / 214	462 L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	395 ft-lb	1'1 9/16"	22724 ft-lb	0.017 (2%)	1.25D+1.5S +0.5L	L
Unbraced	395 ft-lb	1'1 9/16"	22724 ft-lb	0.017 (2%)	1.25D+1.5S +0.5L	L
Shear	638 lb	1'2"	7792 lb	0.082 (8%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/39438)	1'4 5/8"	0.072 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.001 (L/29384)	1'3"	0.072 (L/360)	0.010 (1%)	S+0.5L	L
TL Defl inch	0.002 (L/16882)	1'3 3/4"	0.108 (L/240)	0.010 (1%)	D+S+0.5L	L

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

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

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

Design Notes

- 1 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 4.5.
- 2 Girders are designed to be supported on the bottom edge only.
- 3 Multiple plies must be fastened together as per manufacturer's details.
- 4 Top loads must be supported equally by all plies.
- 5 Top braced at bearings.
- 6 Bottom braced at bearings.
- 7 Lateral slenderness ratio based on full section width.



Notes

Calculated Structural 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

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

chemicals

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex
APA: PR-L318



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





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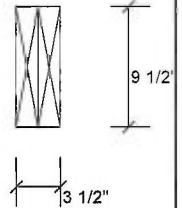
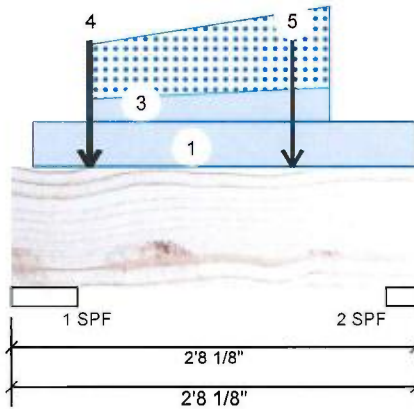
Client: GREEN YORK HOMES
Project:
Address:

Date: 5/31/2018
Designer: RCO
Job Name: LIANA 1 (ELEV.2)
Project #:

Page 2 of 2

F10-A Forex 2.0E-3000Fb LVL 1.750" X 9.500" 2-Ply - PASSED

Level: Second Floor



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-1-12 to 2-8-2		Top	64 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
2	Point	0-6-2		Top	458 lb	0 lb	1038 lb	0 lb	F14 F14
3	Tapered Start	0-6-2		Top	32 PLF	0 PLF	76 PLF	0 PLF	
	End	2-1-4			48 PLF	0 PLF	115 PLF	0 PLF	
4	Point	0-6-5		Far Face	86 lb	230 lb	0 lb	0 lb	J4
5	Point	1-10-5		Far Face	69 lb	185 lb	0 lb	0 lb	J4
	Self Weight				8 PLF				

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

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

Notes
Calculated Structural 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
1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

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

Manufacturer Info

Forex
APA: PR-L318



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





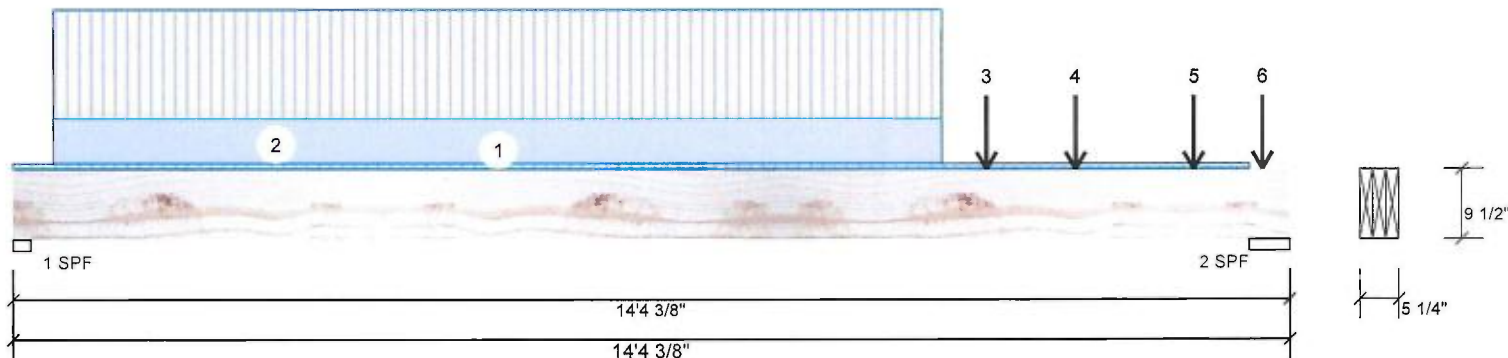
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Project:
Address:

Date: 5/31/2018
Designer: RCO
Job Name: LIANA 1 (ELEV.2)
Project #:

Page 1 of 1

F11-A Forex 2.0E-3000Fb LVL 1.750" X 9.500" 3-Ply - PASSED Level: Second Floor



Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	3	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012
Deflection LL:	360	Load Sharing:	Yes
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	1909	863	0	0
2	2945	1254	0	0

Bearings and Factored Reactions

Bearing	Length	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	51%	1079 / 2864	3943 L	1.25D+1.5L
2 - SPF	5.500"	34%	1567 / 4417	5984 L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	14206 ft-lb	7' 5/8"	35449 ft-lb	0.401 (40%)	1.25D+1.5L	L
Unbraced	14206 ft-lb	7' 5/8"	34190 ft-lb	0.416 (42%)	1.25D+1.5L	L
Shear	4299 lb	13' 2 1/8"	13915 lb	0.309 (31%)	1.25D+1.5L	L
Perm Defl in.	0.149 (L/1117)	7' 1/2"	0.461 (L/360)	0.320 (32%)	D	Uniform
LL Defl inch	0.333 (L/499)	7' 11/16"	0.461 (L/360)	0.720 (72%)	L	L
TL Defl inch	0.481 (L/345)	7' 11/16"	0.692 (L/240)	0.700 (70%)	D+L	L

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

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

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

Design Notes

- Girders are designed to be supported on the bottom edge only.
- Multiple plies must be fastened together as per manufacturer's details.
- Top loads must be supported equally by all plies.
- Top braced at bearings.
- Bottom braced at bearings.
- Lateral slenderness 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 13-10-15	(Span)0-6-2	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-5-7 to 10-5-7		Far Face	115 PLF	278 PLF	0 PLF	0 PLF	
3	Point	10-11-7		Far Face	104 lb	278 lb	0 lb	0 lb	J6
4	Point	11-11-7		Far Face	122 lb	324 lb	0 lb	0 lb	J6
5	Point	13-3-7		Far Face	139 lb	371 lb	0 lb	0 lb	J6
6	Point	14-0-11		Near Face	384 lb	959 lb	0 lb	0 lb	F4
	Self Weight				11 PLF				



Notes

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

Lumber

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

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex
APA: PR-L318



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





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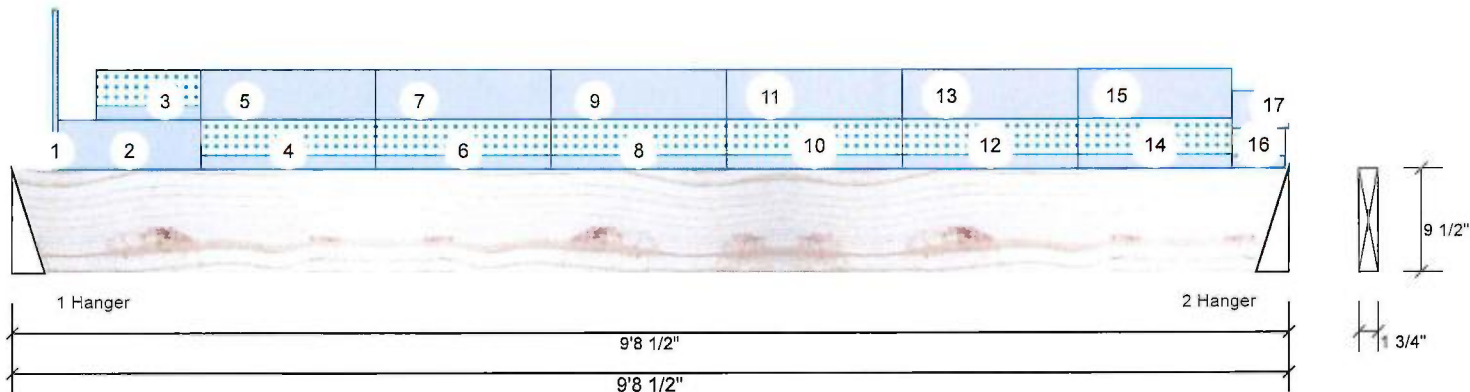
Client: GREEN YORK HOMES
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Address:

Date: 5/31/2018
Designer: RCO
Job Name: LIANA 1 (ELEV.2)
Project #:

Page 1 of 2

F12-A Forex 2.0E-3000Fb LVL 1.750" X 9.500" - PASSED

Level: Second Floor



Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	0	164	76	0
2	0	171	85	0

Bearings and Factored Reactions

Bearing	Length	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	3.000"	10%	205 / 114	319 L	1.25D+1.5S
2 - Hanger	3.000"	10%	213 / 128	341 L	1.25D+1.5S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	779 ft-lb	4'10 5/16"	9544 ft-lb	0.082 (8%)	1.25D+1.5S	L
Unbraced	779 ft-lb	4'10 5/16"	3994 ft-lb	0.195 (20%)	1.25D+1.5S	L
Shear	278 lb	11 3/4"	3896 lb	0.071 (7%)	1.25D+1.5S	L
Perm Defl in.	0.027 (L/4130)	4'10 1/4"	0.311 (L/360)	0.090 (9%)	D	Uniform
LL Defl inch	0.014 (L/8256)	4'10 5/16"	0.311 (L/360)	0.040 (4%)	S	L
TL Defl inch	0.041 (L/2753)	4'10 1/4"	0.467 (L/240)	0.090 (9%)	D+S	L

Design Notes

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

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

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

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



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-3-12 to 0-4-4		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
2	Part. Uniform	0-4-4 to 1-5-5		Top	25 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
3	Part. Uniform	0-7-12 to 1-5-5		Top	7 PLF	0 PLF	18 PLF	0 PLF	
4	Part. Uniform	1-5-5 to 2-9-5		Top	7 PLF	0 PLF	18 PLF	0 PLF	
5	Part. Uniform	1-5-5 to 2-9-5		Top	25 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
6	Part. Uniform	2-9-5 to 4-1-5		Top	7 PLF	0 PLF	18 PLF	0 PLF	
7	Part. Uniform	2-9-5 to 4-1-5		Top	25 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
8	Part. Uniform	4-1-5 to 5-5-5		Top	7 PLF	0 PLF	18 PLF	0 PLF	

Continued on page 2...

Notes Calculated Structural 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 1. Dry service conditions, unless noted otherwise 2. LVL not to be treated with fire retardant or corrosive chemicals Handling & Installation 1. LVL beams must not be cut or drilled 2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals 3. Damaged Beams must not be used 4. Design assumes top edge is laterally restrained 5. Provide lateral support at bearing points to avoid lateral displacement and rotation 6. For flat roofs provide proper drainage to prevent ponding	Manufacturer Info Forex APA: PR-L318 	Kott Lumber Company 14 Anderson Blvd, Ontario Canada L4A 7X4 905-642-4400
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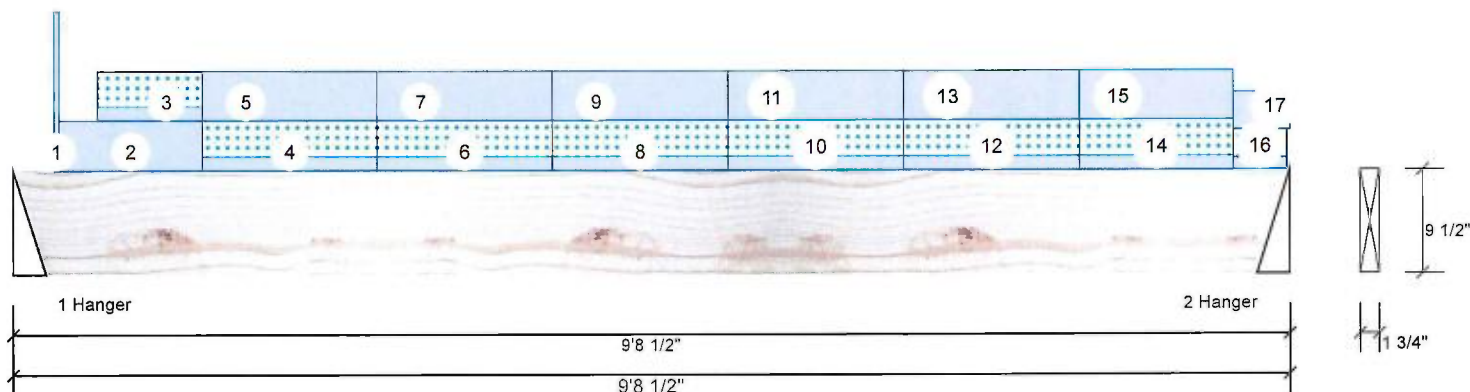
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Address:

Date: 5/31/2018
Designer: RCO
Job Name: LIANA 1 (ELEV.2)
Project #:

Page 2 of 2

F12-A Forex 2.0E-3000Fb LVL 1.750" X 9.500" - PASSED

Level: Second Floor



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
9	Part. Uniform	4-1-5 to 5-5-5		Top	25 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
10	Part. Uniform	5-5-5 to 6-9-5		Top	7 PLF	0 PLF	18 PLF	0 PLF	
11	Part. Uniform	5-5-5 to 6-9-5		Top	25 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
12	Part. Uniform	6-9-5 to 8-1-5		Top	7 PLF	0 PLF	18 PLF	0 PLF	
13	Part. Uniform	6-9-5 to 8-1-5		Top	25 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
14	Part. Uniform	8-1-5 to 9-3-5		Top	7 PLF	0 PLF	18 PLF	0 PLF	
15	Part. Uniform	8-1-5 to 9-3-5		Top	25 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
16	Part. Uniform	9-3-5 to 9-8-3		Top	6 PLF	0 PLF	14 PLF	0 PLF	
17	Part. Uniform	9-3-5 to 9-8-8		Top	19 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
	Self Weight				4 PLF				

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

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

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



Notes

Calculated Structural 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

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

chemicals

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex
APA: PR-L318



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





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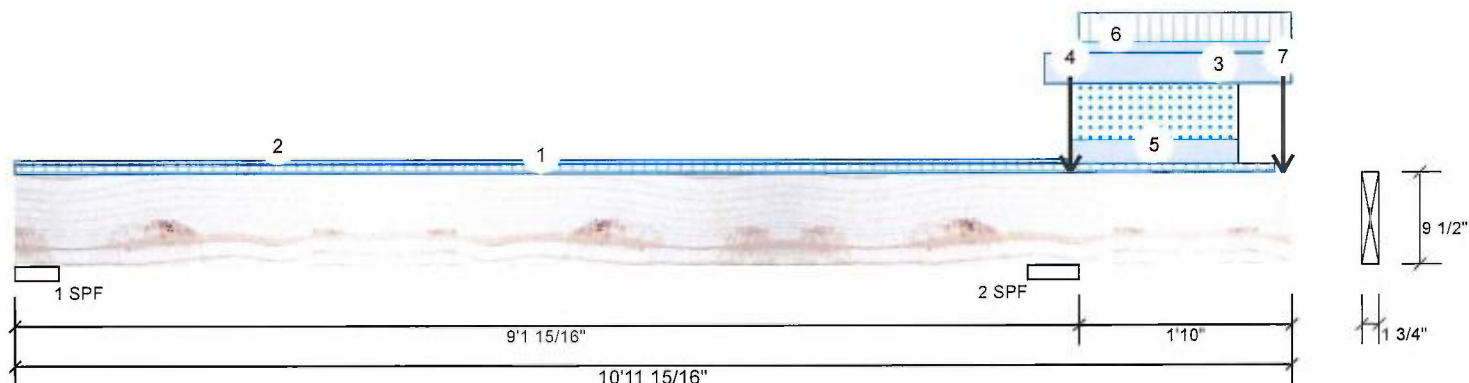
Client: GREEN YORK HOMES
Project:
Address:

Date: 5/31/2018
Designer: RCO
Job Name: LIANA 1 (ELEV.2)
Project #:

Page 1 of 2

F13-A Forex 2.0E-3000Fb LVL 1.750" X 9.500" - PASSED

Level: Second Floor



Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	105	(-1)	0 (-33)	0
2	310	826	719	0

Bearings and Factored Reactions

Bearing	Length	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	4.563"	5%	-1 / 185 185 (-55)	L ₋	0.9D+1.5L
2 - SPF	5.250"	40%	1032 / 1233	2265 LL	1.25D+1.5S +0.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-930 ft-lb	9'1 15/16"	7726 ft-lb	0.120 (12%)	1.25D+1.5L	L ₋
Unbraced	-1198 ft-lb	9'1 15/16"	4322 ft-lb	0.277 (28%)	1.25D+1.5S +0.5L	L ₋
Pos Moment	269 ft-lb	3'6 1/4"	8294 ft-lb	0.032 (3%)	0.9D+1.5L	L ₋
Unbraced	269 ft-lb	3'6 1/4"	5773 ft-lb	0.047 (5%)	0.9D+1.5L	L ₋
Shear	701 lb	9'11 7/16"	4638 lb	0.151 (15%)	1.25D+1.5S +0.5L	L ₋
Perm Defl in.	0.011 (L/9417)	5'9 3/16"	0.287 (L/360)	0.040 (4%)	D	Uniform
LL Defl inch	0.015 (L/6903)	4'7 9/16"	0.287 (L/360)	0.050 (5%)	L	L ₋
TL Defl inch	0.023 (L/4543)	5'6 3/8"	0.431 (L/240)	0.050 (5%)	D+S+0.5L	L ₋
LL Cant	0.018 (2L/2401)	Rt Cant	0.200 (2L/480)	0.092 (9%)	S+0.5L	L ₋
TL Cant	0.042 (2L/1038)	Rt Cant	0.300 (2L/360)	0.141 (14%)	D+S+0.5L	L ₋

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

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

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



Design Notes

- 1 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 4.5.
- 2 Girders are designed to be supported on the bottom edge only.
- 3 Tie-down connection required at bearing 1 for uplift 55 lb (Combination 1.25D+1.5S+0.5L, Load Case L₋).
- 4 Top braced at bearings.
- 5 Bottom braced at bearings.

Notes

Calculated Structural 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

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

chemicals

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex
APA: PR-L318



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





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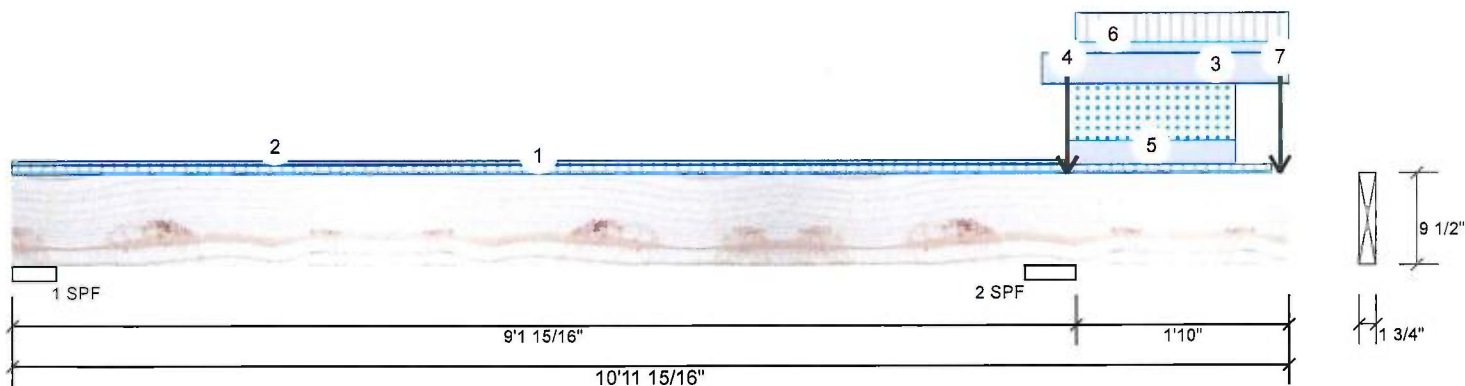
Client: GREEN YORK HOMES
Project:
Address:

Date: 5/31/2018
Designer: RCO
Job Name: LIANA 1 (ELEV.2)
Project #:

Page 2 of 2

F13-A Forex 2.0E-3000Fb LVL 1.750" X 9.500" - PASSED

Level: Second Floor



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 10-10-3	(Span)0-10-3	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 9-0-13	(Span)0-5-13	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	8-10-7 to 10-11-15		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
4	Point	9-1-1		Top	202 lb	0 lb	390 lb	0 lb	F15 F15
5	Part. Uniform	9-1-1 to 10-6-7		Top	63 PLF	0 PLF	152 PLF	0 PLF	
6	Tie-In	9-1-15 to 10-11-15	(Span)3-10-14	Top	15 PSF	40 PSF	0 PSF	0 PSF	
7	Point	10-11-1		Far Face	164 lb	0 lb	76 lb	0 lb	F12
	Self Weight				4 PLF				

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

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

Notes

Calculated Structural 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

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

chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. 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



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Client: GREEN YORK HOMES

Project:

Address:

Date: 5/31/2018

Designer: RCO

Job Name: LIANA 1 (ELEV.2)

Project #:

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Page 1 of 2

F13-B Forex 2.0E-3000Fb LVL 1.750" X 9.500" - PASSED

Level: Second Floor

Member Information				Unfactored Reactions UNPATTERNED lb (Uplift)											
Type:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow	Wind							
Plies:	1	Design Method:	LSD	1	116	1	0 (-37)	0							
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012	2	157	801	797	0							
Deflection LL:	360	Load Sharing:	No												
Deflection TL:	240	Deck:	Not Checked												
Importance:	Normal	Vibration:	Not Checked												
General Load															
Floor Live:	40 PSF														
Dead:	15 PSF														

Bearings and Factored Reactions						
Bearing	Length	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.625"	9%	1 / 179	180 (-54)	L_	1.25D+1.5L
2 - SPF	5.250"	40%	1001 / 1274	2275	LL	1.25D+1.5S +0.5L

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-1144 ft-lb	9'	11248 ft-lb	0.102 (10%)	1.25D+1.5S +0.5L	_L
Unbraced	-1144 ft-lb	9'	4322 ft-lb	0.265 (26%)	1.25D+1.5S +0.5L	LL
Pos Moment	280 ft-lb	3'5 1/8"	8408 ft-lb	0.033 (3%)	0.9D+1.5L	L_
Unbraced	280 ft-lb	3'5 1/8"	5672 ft-lb	0.049 (5%)	0.9D+1.5L	L_
Shear	664 lb	9'9 1/2"	4638 lb	0.143 (14%)	1.25D+1.5S +0.5L	_L
Perm Defl in.	0.010 (L/10431)	5'7 13/16"	0.288 (L/360)	0.030 (3%)	D	Uniform
LL Defl inch	0.015 (L/6902)	4'5 5/8"	0.288 (L/360)	0.050 (5%)	L	L_
TL Defl inch	0.021 (L/4995)	5'4 3/4"	0.431 (L/240)	0.050 (5%)	D+S+0.5L	_L
LL Cant	0.017 (2L/2601)	Rt Cant	0.200 (2L/480)	0.085 (8%)	S+0.5L	_L
TL Cant	0.039 (2L/1118)	Rt Cant	0.300 (2L/360)	0.131 (13%)	D+S+0.5L	_L

Design Notes
1 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 4.5.
2 Girders are designed to be supported on the bottom edge only.
3 Tie-down connection required at bearing 1 for uplift 54 lb (Combination 0.9D+1.5S, Load Case _L).
4 Top braced at bearings.
5 Bottom braced at bearings.

Notes

Calculated Structural 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

1. Dry service conditions, unless noted otherwise

2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled

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

3. Damaged Beams must not be used

4. Design assumes top edge is laterally restrained

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

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex

APA: PR-L318

KOTT

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14 Anderson Blvd, Ontario

Canada

L4A 7X4

905-642-4400

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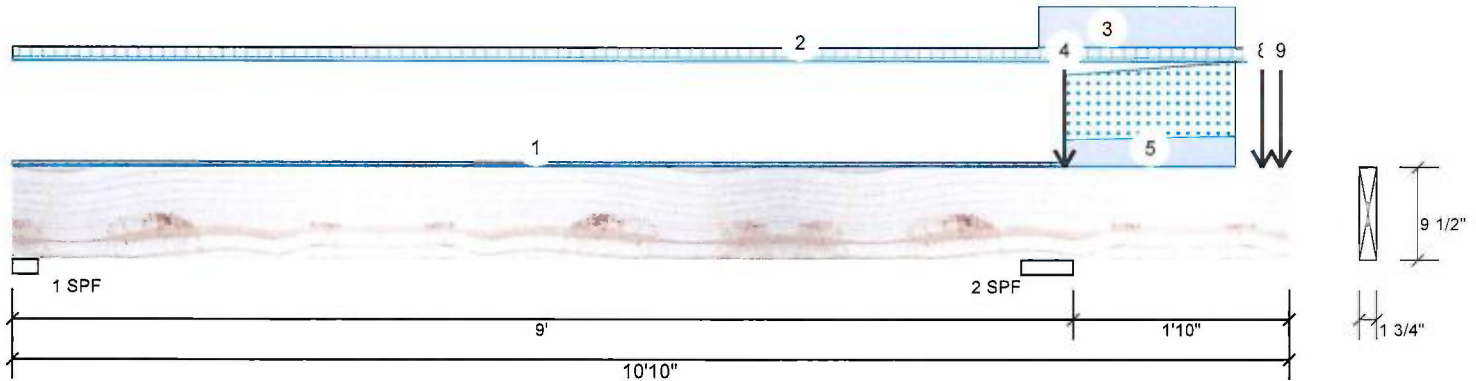
Client: GREEN YORK HOMES
Project:
Address:

Date: 5/31/2018
Designer: RCO
Job Name: LIANA 1 (ELEV.2)
Project #:

Page 2 of 2

F13-B Forex 2.0E-3000Fb LVL 1.750" X 9.500" - PASSED

Level: Second Floor



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 8-10-14	(Span)0-3-15 to 0-3-15	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 10-8-4	(Span)1-0-1 to 1-0-1	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	8-8-8 to 10-4-8		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
4	Point	8-11-2		Top	232 lb	0 lb	460 lb	0 lb	F15 F15
5	Tapered Start	8-11-2		Top	53 PLF	0 PLF	128 PLF	0 PLF	
	End	10-4-8			61 PLF	0 PLF	146 PLF	0 PLF	
6	Point	10-7-4		Top	6 lb	0 lb	0 lb	0 lb	Wall Self Weight
7	Point	10-7-4		Top	7 lb	0 lb	17 lb	0 lb	
8	Point	10-7-4		Top	26 lb	0 lb	0 lb	0 lb	Wall Self Weight
9	Point	10-9-2		Near Face	171 lb	0 lb	85 lb	0 lb	F12
	Self Weight				4 PLF				

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

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

Notes

Calculated Structural 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

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

chemicals

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex
APA: PR-L318



Kott Lumber Company
14 Anderson Blvd, Ontario
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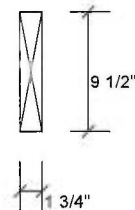
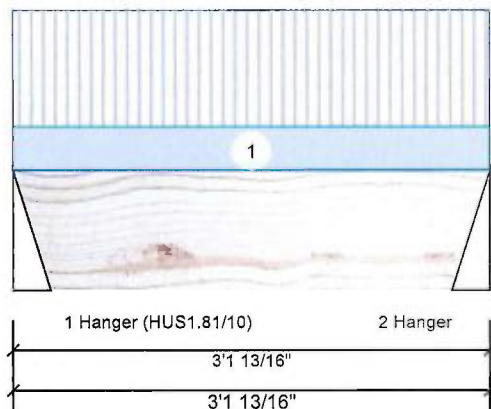
Client: GREEN YORK HOMES
Project:
Address:

Date: 5/31/2018
Designer: RCO
Job Name: LIANA 1 (ELEV.2)
Project #:

Page 1 of 1

F1-A Forex 2.0E-3000Fb LVL 1.750" X 9.500" - PASSED

Level: Second Floor



Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	378	148	0	0
2	378	148	0	0

Bearings and Factored Reactions

Bearing	Length	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	3.000"	19%	185 / 567	752 L		1.25D+1.5L
2 - Hanger	3.000"	19%	185 / 567	752 L		1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	460 ft-lb	1'6 15/16"	11362 ft-lb	0.040 (4%)	1.25D+1.5L	L
Unbraced	460 ft-lb	1'6 15/16"	10144 ft-lb	0.045 (5%)	1.25D+1.5L	L
Shear	285 lb	2'2 1/16"	4638 lb	0.061 (6%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/29538)	1'6 15/16"	0.093 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.003 (L/11546)	1'6 15/16"	0.093 (L/360)	0.030 (3%)	L	L
TL Defl inch	0.004 (L/8301)	1'6 15/16"	0.139 (L/240)	0.030 (3%)	D+L	L

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

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

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



Design Notes

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

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform Self Weight	0-0-0 to 3-1-13		Top	90 PLF 4 PLF	240 PLF	0 PLF	0 PLF	

Notes

Calculated Structural 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

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

chemicals

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex
APA: PR-L318



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





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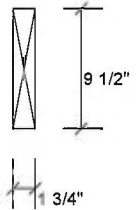
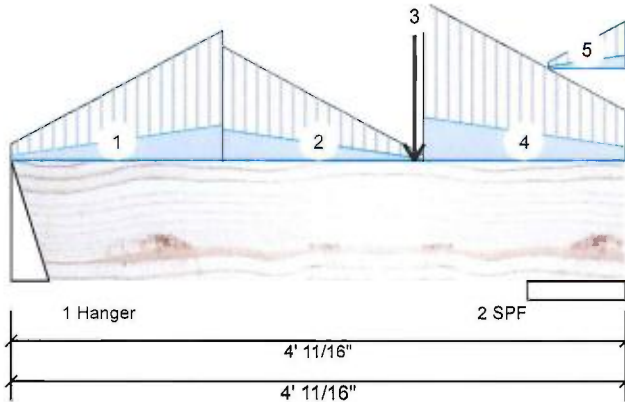
Client: GREEN YORK HOMES
Project:
Address:

Date: 5/31/2018
Designer: RCO
Job Name: LIANA 1 (ELEV.2)
Project #:

Page 1 of 1

F2-A Forex 2.0E-3000Fb LVL 1.750" X 9.500" - PASSED

Level: Second Floor



Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	42	23	0	0
2	80	39	0	0

Bearings and Factored Reactions

Bearing	Length	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	3.000"	2%	29 / 63	92 L	1.25D+1.5L
2 - SPF	7.778"	2%	48 / 121	169 L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	94 ft-lb	2'2 7/16"	11362 ft-lb	0.008 (1%)	1.25D+1.5L	L
Unbraced	94 ft-lb	2'2 7/16"	9657 ft-lb	0.010 (1%)	1.25D+1.5L	L
Shear	88 lb	2'8 3/16"	4638 lb	0.019 (2%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
LL Defl inch	0.001 (L/60406)	1'11 13/16"	0.109 (L/360)	0.010 (1%)	L	L
TL Defl inch	0.001 (L/40550)	1'11 5/8"	0.164 (L/240)	0.010 (1%)	D+L	L

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

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

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



Design Notes

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

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-4-13	(Span)0-2-8 to 1-7-4	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	1-4-13 to 2-8-11	(Span)1-4-13 to 0-0-14	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	2-8-0		Far Face	15 lb	40 lb	0 lb	0 lb	J8
4	Tie-In	2-8-11 to 4-0-11	(Span)1-11-8 to 0-7-8	Top	15 PSF	40 PSF	0 PSF	0 PSF	
5	Tie-In	3-6-9 to 4-0-11	(Span)0-0-14 to 0-7-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
Self Weight					4 PLF				

Notes

Calculated Structural 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

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

chemicals

Handling & Installation

1. LVL beams must not be cut or drilled.
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals.
3. Damaged Beams must not be used.
4. Design assumes top edge is laterally restrained.
5. 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



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14 Anderson Blvd, Ontario
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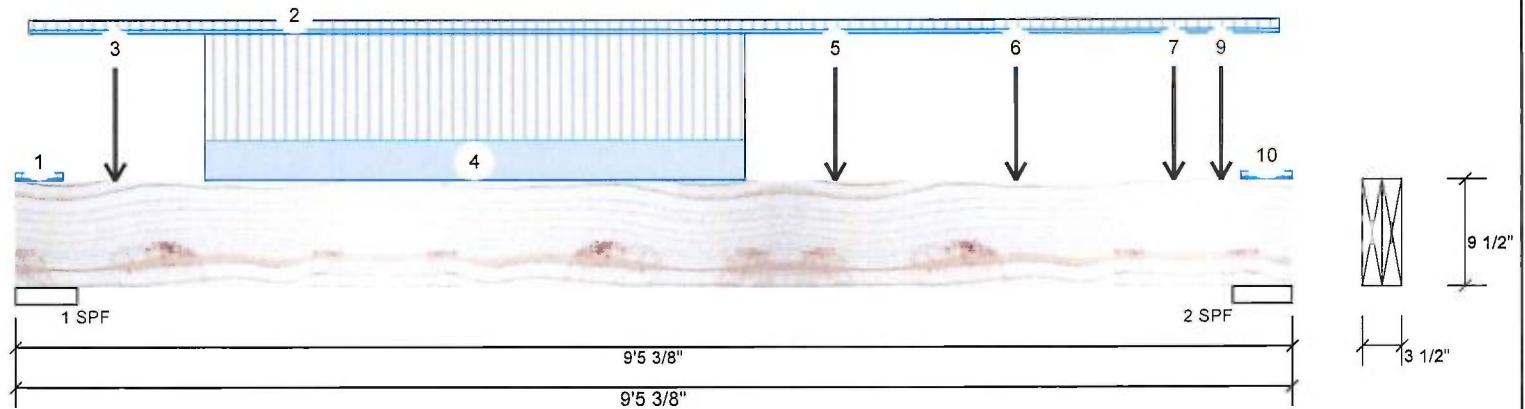


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F5-A Forex 2.0E-3000Fb LVL 1.750" X 9.500" 2-Ply - PASSED

Level: Second Floor



Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	708 (-2)	303	0	0
2	649 (-115)	259	0	0

Bearings and Factored Reactions

Bearing	Length	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.500"	12%	379 / 1063	1441 L	1.25D+1.5L
2 - SPF	5.250"	11%	324 / 974	1297 L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3030 ft-lb	4'8 3/16"	22724 ft-lb	0.133 (13%)	1.25D+1.5L	L
Unbraced	3030 ft-lb	4'8 3/16"	21237 ft-lb	0.143 (14%)	1.25D+1.5L	L
Shear	1394 lb	1'2 1/4"	9277 lb	0.150 (15%)	1.25D+1.5L	L
Perm Defl in.	0.019 (L/5399)	4'8 11/16"	0.289 (L/360)	0.070 (7%)	D	Uniform
LL Defl inch	0.046 (L/2287)	4'8 11/16"	0.289 (L/360)	0.160 (16%)	L	L
TL Defl inch	0.065 (L/1607)	4'8 11/16"	0.434 (L/240)	0.150 (15%)	D+L	L

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

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

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



Design Notes

- Girders are designed to be supported on the bottom edge only.
- Multiple plies must be fastened together as per manufacturer's details.
- Top loads must be supported equally by all plies.
- Top braced at bearings.
- Bottom braced at bearings.
- Lateral slenderness 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 0-4-4	(Span)0-4-15	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-1-4 to 9-4-4	(Span)0-8-9	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	0-8-14		Near Face	55 lb	145 lb	0 lb	0 lb	J3
4	Part. Uniform	1-4-14 to 5-4-14		Near Face	57 PLF	151 PLF	0 PLF	0 PLF	
5	Point	6-0-14		Near Face	72 lb	191 lb	0 lb	0 lb	J5
6	Point	7-4-14		Near Face	65 lb	174 lb	0 lb	0 lb	J5

Continued on page 2...

Notes

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

Lumber

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

chemicals

Handling & Installation

- LVL beams must not be cut or drilled
- Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
- Damaged 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



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Simpson Strong-Tie®
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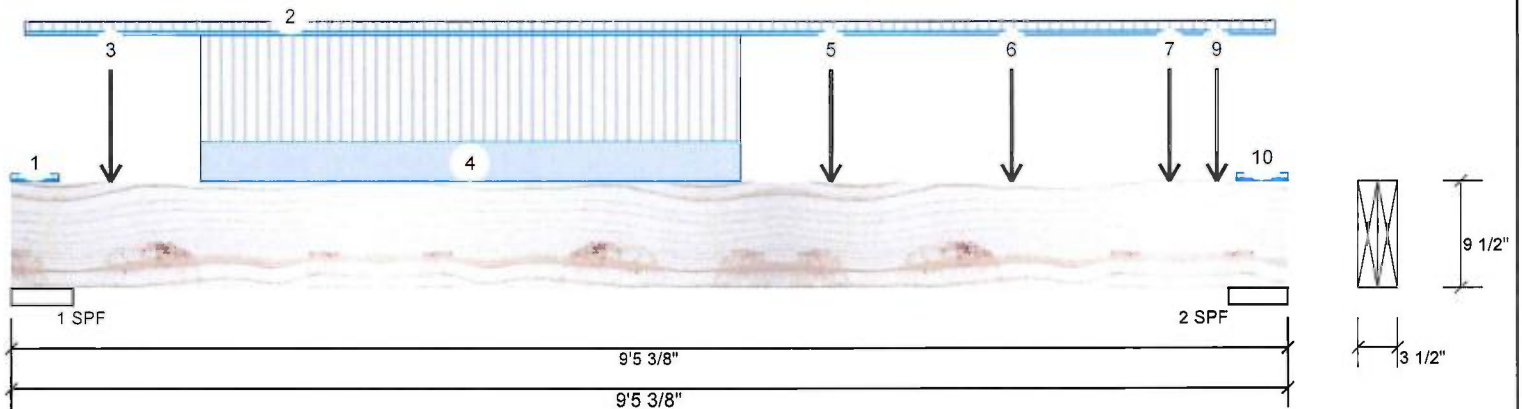
Client: GREEN YORK HOMES
Project:
Address:

Date: 5/31/2018
Designer: RCO
Job Name: LIANA 1 (ELEV.2)
Project #:

Page 2 of 2

F5-A Forex 2.0E-3000Fb LVL 1.750" X 9.500" 2-Ply - PASSED

Level: Second Floor



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
7	Point	8-6-14		Near Face	40 lb	105 lb	0 lb	0 lb	J5
8	Point	8-11-1		Near Face	-22 lb	0 lb	0 lb	0 lb	F6
9	Point	8-11-1		Near Face	0 lb	-117 lb	0 lb	0 lb	F6
10	Tie-In	9-0-13 to 9-5-6	(Span)0-4-15	Top	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				8 PLF				

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

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

Notes

Calculated Structural 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

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

chemicals

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex
APA: PR-L318



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





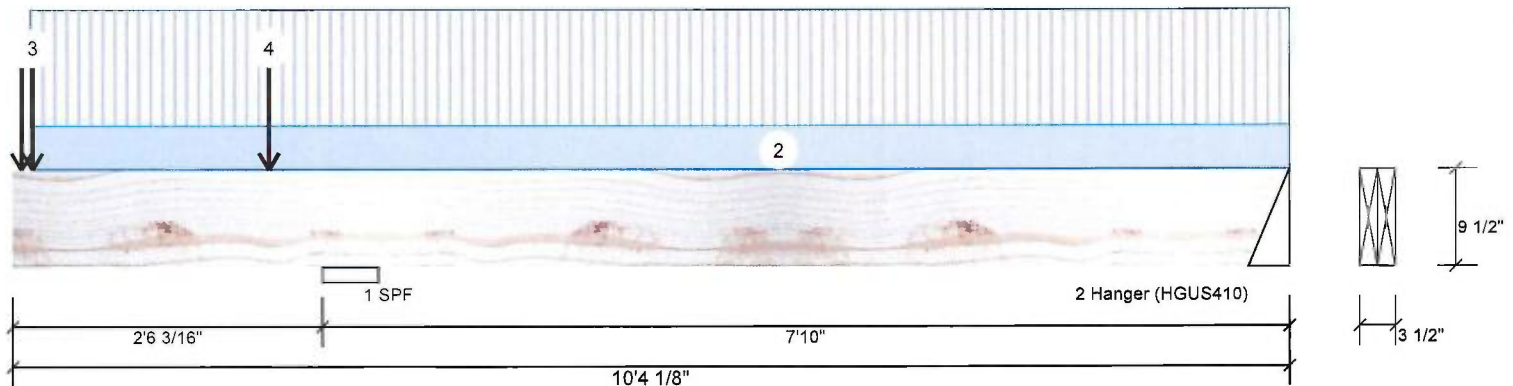
EWP Studio
Simpson Strong-Tie®
Component Solutions™

Client: GREEN YORK HOMES
Project:
Address:

Date: 5/31/2018
Designer: RCO
Job Name: LIANA 1 (ELEV.2)
Project #:

F6-A	Forex 2.0E-3000Fb LVL	1.750" X 9.500"	2-Ply - PASSED
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Level: Second Floor



Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Unfactored Reactions UNPATTERNED Ib (Uplift)

Brg	Live	Dead	Snow	Wind
1	658	316	0	0
2	0 (-117)	(-22)	0	0

Bearings and Factored Reactions

Bearing	Length	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.500"	12%	395 / 987	1382	LL	1.25D+1.5L
2 - Hanger	4.000"	0%	-20 / 41 22 (-242)		_L	0.9D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-2162 ft-lb	2'8 15/16"	22724 ft-lb	0.095 (10%)	1.25D+1.5L	L _u
Unbraced	-2162 ft-lb	2'8 15/16"	21662 ft-lb	0.100 (10%)	1.25D+1.5L	L _u
Pos Moment	7 ft-lb	9'2 15/16"	14770 ft-lb	0.000 (0%)	0.9D+1.5L	L _t
Unbraced	7 ft-lb	9'2 15/16"	14770 ft-lb	0.000 (0%)	0.9D+1.5L	L _t
Shear	978 lb	1'8 11/16"	9277 lb	0.105 (11%)	1.25D+1.5L	L _u
Perm Defl in.	0.004 (L/22511)	5'7 5/16"	0.244 (L/360)	0.020 (2%)	D	Uniform
LL Defl inch	0.013 (L/6952)	5'10 1/8"	0.244 (L/360)	0.050 (5%)	L	L _u
TL Defl inch	0.017 (L/5316)	5'9 7/16"	0.367 (L/240)	0.050 (5%)	D+L	L _u
LL Cant	0.035 (2L/1727)	Lt Cant	0.200 (2L/480)	0.175 (17%)	L	L _u
TL Cant	0.048 (2L/1247)	Lt Cant	0.300 (2L/360)	0.161 (16%)	D+L	L _u

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

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

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



Design Notes

- 1 Fill all hanger nailing holes.
- 2 Girders are designed to be supported on the bottom edge only.
- 3 Multiple plies must be fastened together as per manufacturer's details.
- 4 Top loads must be supported equally by all plies.
- 5 Tie-down connection required at bearing 2 for uplift 242 lb (Combination 1.25D+1.5L, Load Case L_u).
- 6 Top braced at bearings.
- 7 Bottom braced at bearings.
- 8 Lateral slenderness ratio based on full section width.

Notes

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

Lumber

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

chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. 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

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





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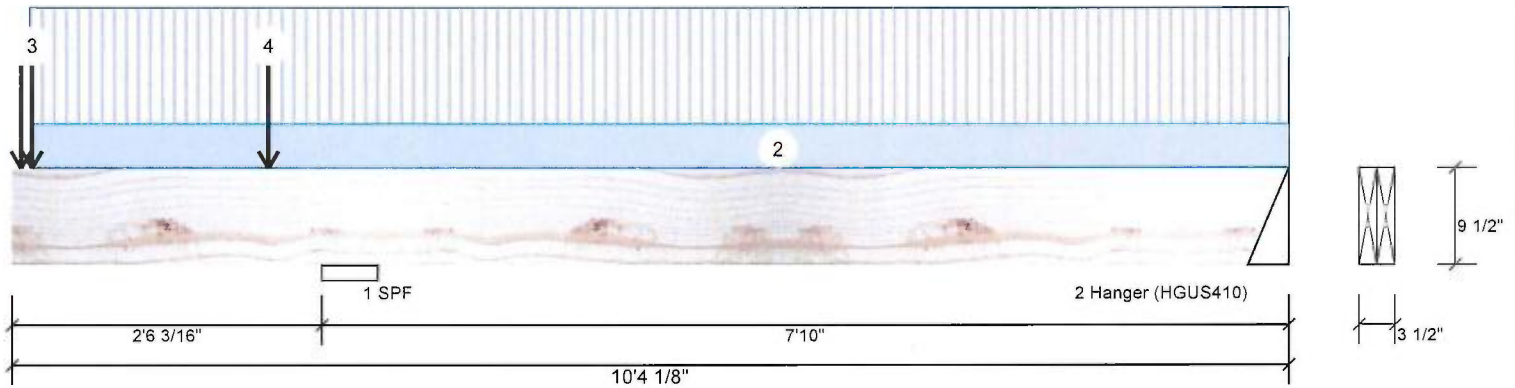
Client: GREEN YORK HOMES
Project:
Address:

Date: 5/31/2018
Designer: RCO
Job Name: LIANA 1 (ELEV.2)
Project #:

Page 2 of 2

F6-A Forex 2.0E-3000Fb LVL 1.750" X 9.500" 2-Ply - PASSED

Level: Second Floor



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Point	0-0-14		Far Face	148 lb	378 lb	0 lb	0 lb	F1
2	Tie-In	0-1-12 to 10-4-2	(Span)0-4-3	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	0-1-15		Near Face	23 lb	42 lb	0 lb	0 lb	F2
4	Point	2-1-0		Near Face	18 lb	49 lb	0 lb	0 lb	J8
	Self Weight				8 PLF				

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

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Lumber

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chemicals

Handling & Installation

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2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. 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

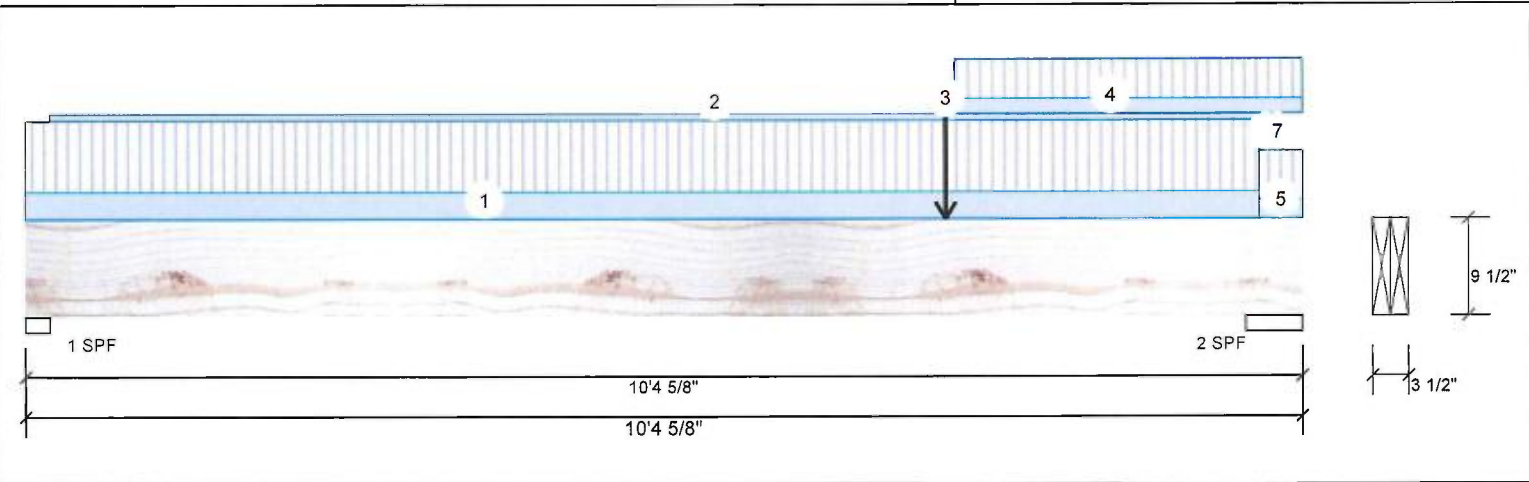


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	EWP Studio	Client: GREEN YORK HOMES	Date: 5/31/2018	Page 1 of 2
	Simpson Strong-Tie®	Project:	Designer: RCO	
	Component Solutions™	Address:	Job Name: LIANA 1 (ELEV.2)	
			Project #:	

F6-B Forex 2.0E-3000Fb LVL 1.750" X 9.500" 2-Ply - PASSED	Level: Second Floor
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Member Information				Unfactored Reactions UNPATTERNED lb (Uplift)						
Type:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow	Wind		
Plies:	2	Design Method:	LSD	1	208	128	0	0		
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012	2	424	214	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									
Dead:	15 PSF									
				Bearings and Factored Reactions						
				Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
				1 - SPF	2.375"	9%	160 / 312	472	L	1.25D+1.5L
				2 - SPF	5.500"	8%	268 / 636	904	L	1.25D+1.5L

Analysis Results						
Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1955 ft-lb	7'5 13/16"	22724 ft-lb	0.086 (9%)	1.25D+1.5L	L
Unbraced	1955 ft-lb	7'5 13/16"	20806 ft-lb	0.094 (9%)	1.25D+1.5L	L
Shear	817 lb	9'2 3/8"	9277 lb	0.088 (9%)	1.25D+1.5L	L
Perm Defl in.	0.016 (L/7225)	5'5 1/8"	0.328 (L/360)	0.050 (5%)	D	Uniform
LL Defl inch	0.031 (L/3827)	5'6 3/4"	0.328 (L/360)	0.090 (9%)	L	L
TL Defl inch	0.047 (L/2502)	5'6 1/4"	0.493 (L/240)	0.100 (10%)	D+L	L

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

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



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

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



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 10-0-6	(Span)1-0-14	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-2-6 to 10-0-6		Top	2 PLF	0 PLF	0 PLF	0 PLF	
3	Point	7-5-13		Near Face	148 lb	378 lb	0 lb	0 lb	F1
4	Tie-In	7-6-11 to 10-4-10	(Span)0-7-2	Top	15 PSF	40 PSF	0 PSF	0 PSF	
5	Tie-In	10-0-6 to 10-4-10	(Span)0-8-14	Top	15 PSF	40 PSF	0 PSF	0 PSF	
6	Part. Uniform	10-0-6 to 10-1-14		Top	1 PLF	0 PLF	0 PLF	0 PLF	

Continued on page 2...

Notes Calculated Structural 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 1. Dry service conditions, unless noted otherwise 2. LVL not to be treated with fire retardant or corrosive chemicals	Handling & Installation 1. LVL beams must not be cut or drilled. 2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals 3. Damaged Beams must not be used 4. Design assumes top edge is laterally restrained 5. 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  
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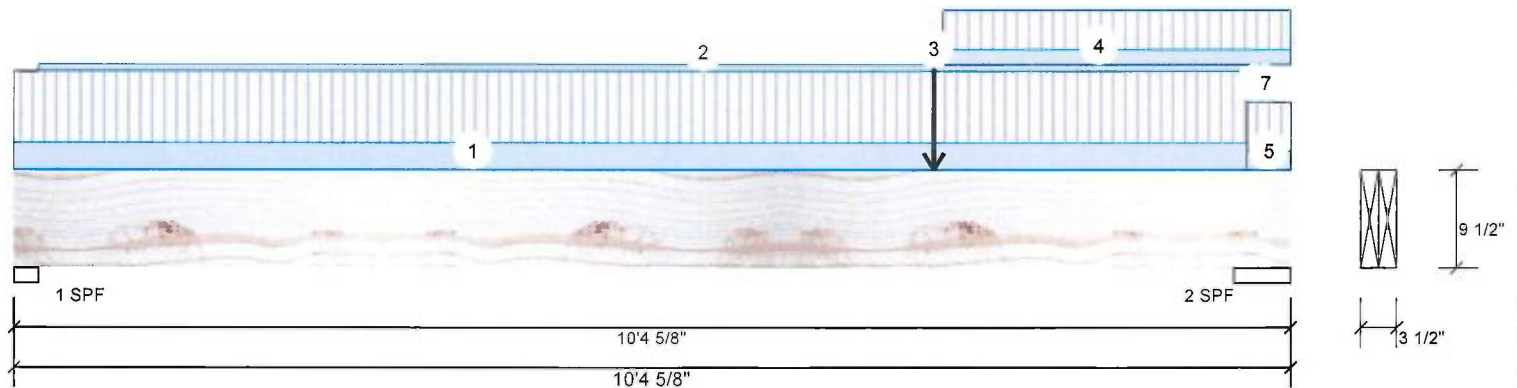
Client: GREEN YORK HOMES
Project:
Address:

Date: 5/31/2018
Designer: RCO
Job Name: LIANA 1 (ELEV.2)
Project #:

Page 2 of 2

F6-B Forex 2.0E-3000Fb LVL 1.750" X 9.500" 2-Ply - PASSED

Level: Second Floor



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
7	Tapered Start	10-1-14		Top	1 PLF	0 PLF	0 PLF	0 PLF	
	End	10-2-14			0 PLF	0 PLF	0 PLF	0 PLF	
	Self Weight				8 PLF				

Notes

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Manufacturer Info

Forex
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NASCOR