# Ground Floor F11-A - 1 ply F11-B - 1 ply F11-C - 1 ply

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.

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

READ ALL NOTES ON THIS PAGE AND ON READ ALL INC. LO REPORT OF THIS ENGINEERING NOTE PAGE ENP-2. THIS NOTE PAGE IS AN INTEGRAL PART OF THIS CONTROL OF THIS CONTRO USED IN THE DESIGN OF THIS COMPONENT.

acifications forming part of the permit drawing end

All work shall conform to the Or Building Code O. Reg. 332/12 as ame

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

esponsibility of others.

Ground Floor LVL/LSL

F10

F9

F6

F7

F5

Joist

J8

F13

F11

J5 NJH

F12 NJH

J4 NJH

J3 NJH

J2 NJH

Rim Board

Blocking

Hanger

Label

H2

НЗ

H4

H5

BLK1 NJH

Label Description

Forex

Forex

Forex

Label Description

NJ60H

NJH

Label Description

11.875

Label Description

Norbord Rimboar

Pcs Description

3 HU310-2

1 HGUS410

1 HUS1.81/10

member using a face-mounted hanger.

Rim parallel to joists: 1-1/8" rimboard with

2"x4" block (1/16" longer than rim depth) @ 16" o/c.

the floor system such as beams, walls, columns and

foundation walls and footings including anchorage of

components and bracing for lateral stability are the

All other components and structural elements supporting

Framer to verify dimensions on the architectural drawings.

Refer to Nascor specifier guide for installation details.

I oad transfer blocks to be installed under all point loads.

are fastened as per the hanger manufacturer's standards.

It shall be the framer's responsibility that floor joists and beams

Hatch area represents ceramic tiled floor with an additional dead load

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

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

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

Install single-ply flush window header along inside face of rimboard/rimjoist

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.

34 LF2511

Plus 1.125 X

2.0E-3000Fb LVL

2.0E-3000Fb LVL

2.0E-3000Fb LVI

2.0E-3000Fb LVL

2.0E-3000Fb LVL

Point Load Support Load from Above Norbord Rimboard Plus 1.125 X 11.87 NJ60H 11.875 NJH 11.875

Forex 2.0E-3000Fb LVL 1.75 X 11.875 5.25 X 10.25 (Dropped)

Qty

Qty

Qty

Qty

Width Depth

1.75 11.875

1.75 11.875

1.75

1.75

1.75

Width

2.5

2.5

11.875

11 875

11.875

Depth

11.875

11.875

2.5 11.875

2.5 11.875

2.5 11.875

2.5 11.875

2.5 11.875

2.5 11.875

Width Depth

1.125 11.875

Width Depth

2.5 | 11.875 | LinFt

Skew Slope

Plies

2

2

Plies

Plies

Beam/Girder

fasteners

14 16d

12 10d

46 16d

30 16d

2

2

1

2

Pcs

10

4

3

4

30

13

3

13

Pcs Length Layout Name 16-0-0 AMELIA 2 EL- 1 & 2 14-0-0 Design Method 6-0-0 Description **GREEN YORK HOMES** 4-0-0 **GRANELLI HOMES PROJECT** BRAMPTON,ON Created Length 18-0-0 May 28, 2018 18-0-0 Builder 14-0-0 Sales Rep 4-0-0 16-0-0 Designer 14-0-0 SB 12-0-0 Shipping 4-0-0 Project Builder's Project Pcs Length Kott Lumber Company 14 Anderson Blvd Stouffville, Ontario Canada Pcs Length 14A7X4 Varies 37-0-0

905-642-4400 Supported Ground Floor Member Design Method fasteners Building Code NBCC 2010 / OBC 6 10d 1 #8x1 1/4WS Floor 16 16d Loads 10 16d

LSD

2012

40 15

480

360

480

360

360

240

480

360

Dead Deflection Joist LL Span L/ TL Span L/

LL Cant 2L/ TL Cant 2L/ Deflection Girder

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

TL Cant 2L/ Decking

**OSB** Deck Thickness 3/4" Nailed & Glued Fastener Vibration

M-2057 LOT 4

Architectural Drawing Info

JARDIN DESIGN GROUP 64 JARDIN DR, SUITE 3A VAUGHAN, ON L4K 3P3 Project # 17-55 Model: AMELIA 2

Date: MAY 22,2018 REV: 2

N.A. EL-MASRI

NE0618-017

**EWP Studio** 

JOISTS SPACING 16"O/C

NOTED OTHERWISE

Simpson Strong-Tie® Component Solutions™

EWP Studio Version 18.32.085 Powered by iStruct™

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

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

2. Nascor CCMC - 13535-R

3. LVL CCMC -12904-R

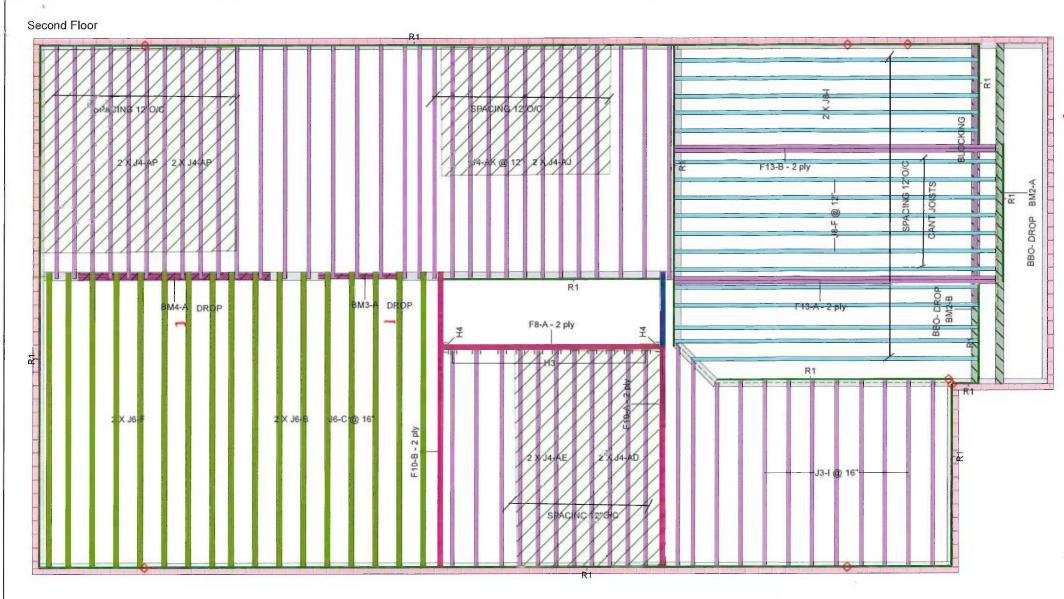
4. CAN/CSA-O86-09

UNLESS

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



19-444457.000.00 RR.



Architectural Drawing Info

JARDIN DESIGN GROUP 64 JARDIN DR, SUITE 3A VAUGHAN, ON L4K 3P3 Project # 17-55 Model: AMELIA 2 Date: MAY 22,2018

JOISTS SPACING 16"O/C UNLESS NOTED OTHERWISE

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

**EWP Studio** Simpson Strong-Tie® Component Solutions™

#### 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.

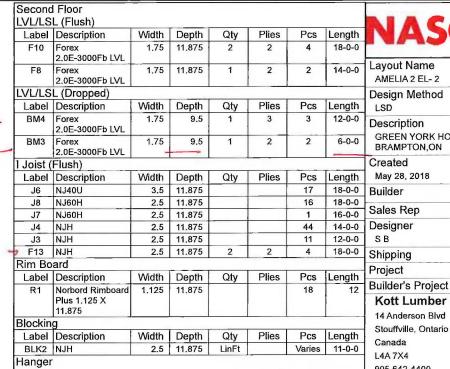
This layout is to be used as an installation guide only. It is meant to be used in conjunction with the architectural and structural drawings, not to replace them

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.

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.





				Beam/Girder	Supported Member	
Label	Pcs	Description	Skew	Slope	fasteners	fasteners
НЗ	11	LF2511			12 10d	1 #8x1 1/4WS
H4	2	HGUS410			46 16d	16 16d

#### NOTES:

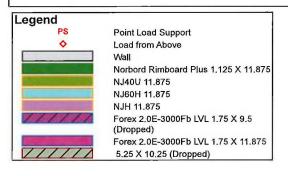
- Framer to verify dimensions on the architectural drawings
- . Double joist only require filler/backer ply when supporting another member using a face-mounted hanger.
- Install 2x4 blocking @ 24" o/c under parallel non-loadbearing walls.
- Install single-ply flush window header along inside face of rimboard/rimjoist Refer to Nascor specifier guide for installation details.
- Squash blocks recommended to be installed at end bearing on all first level
- joists which support loading from above exceeding two levels floor or roof. Load transfer blocks to 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"x4" block (1/16" longer than rim depth) @ 16" o/c. All other components and structural elements supporting the floor system such as beams, walls, columns and foundation walls and footings including anchorage of components and bracing for lateral stability are the esponsibility of others.

Hatch area represents ceramic tiled floor with an additional dead load

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



Layout Name AMELIA 2 EL- 2 Design Method Description **GREEN YORK HOMES** BRAMPTON.ON Created May 28, 2018 Builder Sales Rep Designer SB Shipping

> **Kott Lumber Company** 14 Anderson Blvd

Stouffville, Ontario 1.4A 7X4

905-642-4400 Second Floor Design Method

LSD Building Code NBCC 2010 / OBC Floor

40

15

480

360

480

360

360

240

480

360

Loads Live Dead Deflection Joist LL Span L/

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

Deflection Girder LL Span L/

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

Decking Deck OSB Thickness 5/8"

Fastener Nailed & Glued Vibration Gypsum 1/2" Ceiling:

M-2057

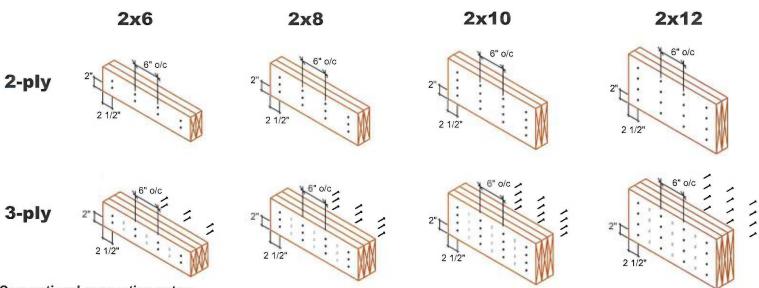
LOT 4

INEUD 10-U 11 PAGE Z OF 30

# ILTIPLE MEMBER CONNECTIONS

**ON-AMELIA 2 ELE-1-2** 

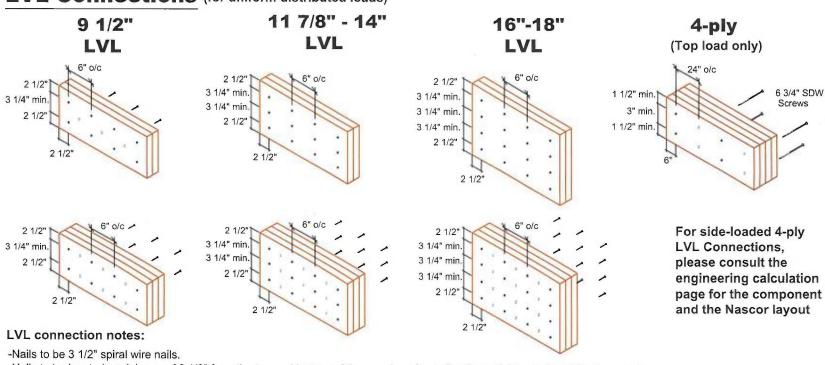
# Conventional Connections (for uniform distributed loads)



# Conventional connection notes:

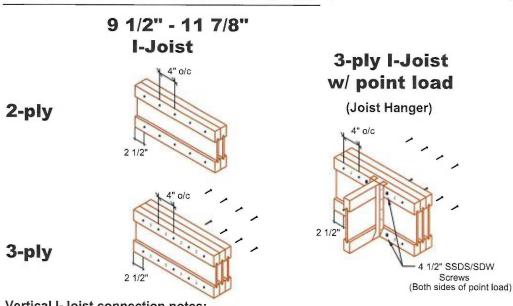
- -Nails to be 3" 10d spiral wire nails.
- -Nails to be located a minimum of 2" from the top and bottom of the member. Start all nails a minimum of 2 1/2" in from ends.
- -Number of rows and spacing as per details shown, unless noted otherwise.
- "X" represents nail driven from the opposite side.

# LVL Connections (for uniform distributed loads)



- -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.



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

REVISION 2009-10-09

M-2057 LOT 4

# Please read all notes prior to installation of the component

GREEN YORK HOMES-BRAMPTON-ON-AMELIA 2 ELE-1-2

# **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 <u>only</u> limited to the calculation of this building component for the loads and conditions shown on this drawing.

The responsibility of the undersigned is limited to the verification of the structural capacity of the 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 <a href="http://www.nascor.ca">http://www.nascor.ca</a>.

# CODE

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

# **COMPONENT**

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





Client: Project: Address:

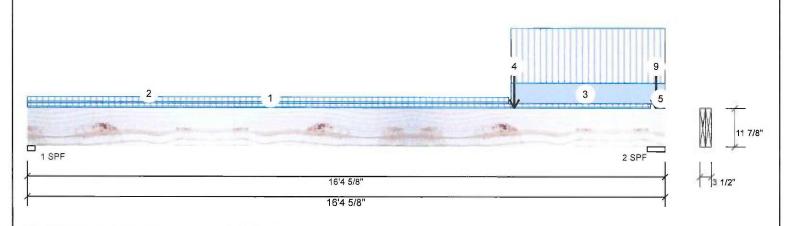
5/30/2018

Designer:

Job Name: AMELIA 2 EL- 1 Project #:

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

2-Ply - PASSED Level: Ground Floor



#### Member Information Unfactored Reactions UNPATTERNED Ib (Uplift) Girder Type: Application: Floor (Residential) Wind Brg Live Snow Dead Plies: Design Method: 970 457 0 0 Moisture Condition: Dry Building Code: NBCC 2010 / OBC 2012 3301 2 1385 0 Deflection LL: 360 Load Sharing: No Deflection TL: 240 Deck: Not Checked Importance: Vibration: Not Checked Normal General Load **Bearings and Factored Reactions** Floor Live: 40 PSF 15 PSF Dead: Bearing Length Cap. React D/L lb Total Ld. Case Ld. Comb. 1 - SPF 2.375" 40% 571 / 1454 2025 L 1.25D+1.5L 2 - SPF 5.500" 56% 1731 / 4951 6682 L 1.25D+1.5L

#### **Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	19001 ft-lb	12'6 3/16"	34261 ft-lb	0.555 (55%)	1.25D+1.5L	L
Unbraced	19001 ft-lb	12'6 3/16"	22688 ft-lb	0.837 (84%)	1.25D+1.5L	L
Shear	5852 lb	15'	11596 lb	0.505 (50%)	1.25D+1.5L	L
Perm Defl in.	0.158 (L/1204)	8'11 7/8"	0.528 (L/360)	0.300 (30%)	D	Uniform
LL Defl inch	0.363 (L/523)	9'1"	0.528 (L/360)	0.690 (69%)	L	L
TL Defl inch	0,522 (L/365)	9' 5/8"	0.793 (L/240)	0.660 (66%)	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.



Lateral	sienderness ratio basec	on full section width.							
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 16-0-2	(Span)0-8-3	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 12-4-7	(Span) 0-11-13	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	12-5-3 to 16-4-10		Тор	90 PLF	240 PLF	0 PLF	0 PLF	
4	Point	12-6-3		Near Face	1124 lb	2798 lb	0 lb	0 lb	F9
5	Part. Uniform	16-1-14 to 16-4-10		Тор	1 PLF	0 PLF	0 PLF	0 PLF	

Continued on page 2...

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

#### Lumber

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

#### chemicals Handling & Installation

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

6. For flat roofs provide proper drainage to prevent

#### Manufacturer Info

APA: PR-L318

Kott Lumber Company 14 Anderson Blvd. Ontario Canada





Page 2 of 2

**EWP Studio** Simpson Strong-Tie® Component Solutions™

Client: Project: Address:

5/30/2018 Date:

Designer: SB

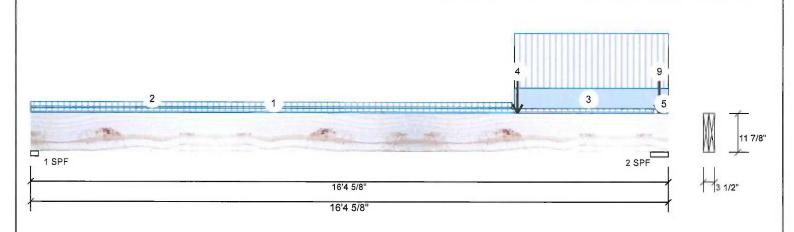
Job Name: AMELIA 2 EL- 1

Project #:

F10-C Forex 2.0E-3000Fb LVL 1.750" X 11.875"

2-Ply - PASSED

Level: Ground Floor



ı	Continued from p	age 1							
I	ID	Load Type	Location Trib Width	Side	Dead	Live	Snow	Wind	Comments
I	6	Point	16-1-14	Тор	10 lb	26 lb	0 lb	0 lb	J1
I	7	Point	16-1-14	Тор	2 lb	5 lb	0 lb	0 lb	J1
I	8	Point	16-1-14	Тор	11 lb	30 lb	0 lb	0 lb	J4
I	9	Point	16-1-14	Тор	9 lb	0 lb	0 lb	0 lb	Wall Self Weight
١		Self Weight			10 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

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 varify the dimensions and loads.

#### Lumber

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

chemicals

- 1. LVIL beams must not be cut or drilled
  2. Refer to manutacturer'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

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex APA: PR-L318









Client: Project: Address:

5/30/2018 Date:

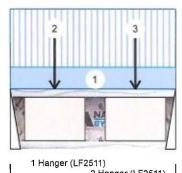
Designer: SB

Job Name: AMELIA 2 EL- 1

Level: Ground Floor

Project #:

#### F11-A NJH 11.875" - PASSED

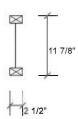


2 Hanger (LF2511) 2'8 13/16" 2'8 13/16"

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.

1

2



Wind

0

0

0

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		

Bearings	s and Fa	ctored I	Reactions				
Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.	
1 - Hanger	2.000"	34%	130 / 416	546	L	1.25D+1.5L	
2 - Hanger	2.000"	35%	134 / 430	565	L	1.25D+1.5L	

Unfactored Reactions UNPATTERNED Ib (Uplift)

Dead

104

107

Live

277

287

#### Analysis Results Analysis Case Actual Location Allowed Capacity Comb. 333 ft-lb 1' 5/16" 5390 ft-lb Moment 0.062 (6%) 1.25D+1.5L L Unbraced 333 ft-lb 1' 5/16" 4941 ft-lb 0.067 (7%) 1.25D+1.5L L 0.309 (31%) 1.25D+1.5L L 559 lb Shear 2'7 9/16" 1810 lb Perm Defl in. 0.001 1'3 1/16" 0.084 (L/360) 0.020 (2%) D Uniform (L/22796) LL Defl inch 0.004 (L/8538) 1'3 1/16" 0.084 (L/360) 0.040 (4%) L TL Defl inch 0.005 (L/6212) 1'3 1/16" 0.126 (L/240) 0.040 (4%) D+L

#### **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.

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 2-8-13	(Span)1-3-7	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-8-13		Far Face	94 lb	251 lb	0 lb	0 lb	J3
3	Point	2-0-13		Far Face	91 lb	243 lb	0 lb	0 lb	J3



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

# Lumber

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

#### Handling & Installation

- nandling & Installation

  1. Jiosit flanges must not be out or drilled

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

  3. Damaged Libists must not be used

  4. 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 stitleners for point load as shown Minimum paint load bearing length?= 3.5 inches.
   For flat roofs provide proper drainage to prevent ponding.

Manufacturer Info

Nascor by Kott







Brg

1

2

1 -

2 -

Hanger

Hanger



Client: Project: Address:

5/30/2018 Date:

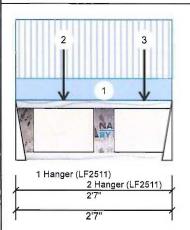
Designer: SB

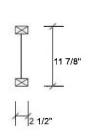
Job Name: AMELIA 2 EL- 1

Level: Ground Floor

Project #:

#### 11.875" - PASSED F11-B NJH





Wind

0

1.25D+1.5L

1.25D+1.5L

Page 1 of 1

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

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

150 / 480

179 / 572

Snow

0

0

630 L

751 L

#### Analysis Results Analysis Location Allowed Actual Capacity Comb. Case 417 ft-lb 9 1/2" 5390 ft-lb 0.077 (8%) 1.25D+1.5L L Moment 417 ft-lb Unbraced 9 1/2" 5011 ft-lb 0.083 (8%) 1.25D+1.5L L 2'5 3/4" 1810 lb 746 lb Shear 0.412 (41%) 1.25D+1.5L L Perm Defl in. 0.002 9 1/2" 0.079 (L/360) 0.020 (2%) D Uniform (L/18292) LL Defl inch 0.004 (L/6850) 9 1/2" 0.079 (L/360) 0.050 (5%) L L TL Defl inch 0.006 (L/4984) 9 1/2" 0.119 (L/240) 0.050 (5%) D+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.

39%

46%

Unfactored Reactions UNPATTERNED Ib (Uplift)

Dead

120

143

Live

320

382

2.000"

2.000"

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.

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 2-7-0	(Span)1-3-7	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-9-8		Far Face	128 lb	342 lb	0 lb	0 lb	J5
3	Point	2-1-8		Far Face	110 lb	293 lb	0 lb	0 lb	J5
3	Point	2-1-8		Far Face	110 lb	293 lb	0 lb	0 lb	J5



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

#### Lumber

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

#### Handling & Installation

- Mining & instantation

  Moist flanges must not be cut or drilled

  Refer to latest copy of the Libist product information

  details for framing details, sufferer tables, web hole

  chart, bridging details, multi-ply fastening details and

  handling/erection details

  Damaged blosts 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 lengthre: 3,5 inches.
   For flat roofs provide proper drainage to prevent bonding.

Manufacturer Info

Nascor by Kott









Client: Project: Address:

5/30/2018 Date:

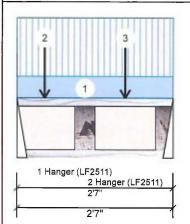
Designer: SB

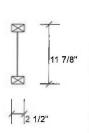
Job Name: AMELIA 2 EL- 1

Level: Ground Floor

Project #:

#### F11-C NJH 11.875" - PASSED





Wind

Ld. Comb. 1.25D+1.5L

1.25D+1.5L

Total Ld. Case

756 L

633 L

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

~					
1	384	144	0	0	
2	322	121	0	0	
100					
Bearings	and Factore	d Reactions			

180 / 576

151 / 482

Cap. React D/L lb

Unfactored Reactions UNPATTERNED Ib (Uplift)

Live

Bearing Length

Hanger

Hanger

2 -

2.000"

2,000"

#### **Analysis Results** Analysis Location Allowed Capacity Comb. Case Moment 420 ft-lb 1'9 1/2" 5390 ft-lb 0.078 (8%) 1.25D+1.5L L 420 ft-lb Unbraced 1'9 1/2" 5011 ft-lb 0.084 (8%) 1.25D+1.5L L Shear 751 lb 1 1/4" 1810 lb 0.415 (41%) 1.25D+1.5L L Perm Defl in. 0.002 1'9 1/2" 0.079 (L/360) 0.020 (2%) D Uniform (L/18157) LL Defl inch 0.004 (L/6812) 1'9 1/2" 0.079 (L/360) 0.050 (5%) L L TL Defl inch 0.006 (L/4954) 1'9 1/2" 0.119 (L/240) 0.050 (5%) D+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.

47%

39%

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 2-7-0	(Span)1-3-7 to 1-3-7	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-5-8		Far Face	111 lb	295 lb	dl 0	0 lb	J5
3	Point	1-9-8		Far Face	129 lb	344 lb	0 lb	0 lb	J5



#### Notes

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

#### Lumber

- Dry service conditions, unless noted otherwise
   IJoist not to be treated with fire retardant or corrosive
- chemicals
- Handling & Installation
- I Dist flanges must not be cut or drilled.

  Refer to latest copy of the I birst product information of details for framing details, stiffener tables, web hole chart, bridging details, multiply fastening details and handling/erection details.

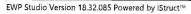
  Damaged Libosts must not be used.
  Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.
- Provide lateral support at bearing points to avoid lateral displacement and rotation
   Web stiffeners for point load as shown Minimum point load bearing length>= 3,5 inches
   For flat roofs provide proper drainage to prevent pointing.

Manufacturer Info

Nascor by Kott







Client: Project: Address: Date: 5/30/2018

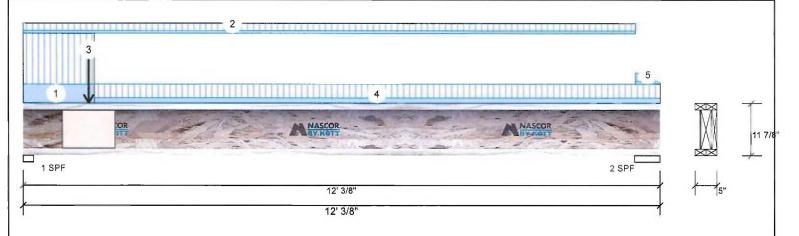
> Designer: SB

Job Name: AMELIA 2 EL- 1

Project #:

F12-A 11,875" 2-Ply - PASSED NJH

Level: Ground Floor



Unfactored Reactions UNPATTERNED Ib (Uplift)						
w	Wind					
0	0					
0	0					
Ld. Case	Ld. Comb.					
L	1.25D+1.5L					
L	1.25D+1.5L					
3	I Ld. Case B L					

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1243 ft-lb	4'8 13/16"	10780 ft-lb	0.115 (12%)	1.25D+1.5L	L
Unbraced	1243 ft-lb	4'8 13/16"	1248 ft-lb	0.996 (100%)	1.25D+1.5L	L
Shear	914 lb	1 5/8"	3620 lb	0.252 (25%)	1.25D+1.5L	L
Perm Defl in.	0.011 (L/12159)	5'6 3/16"	0.383 (L/360)	0.030 (3%)	D	Uniform
LL Defl inch	0.030 (L/4552)	5'6 3/16"	0.383 (L/360)	0.080 (8%)	L	L
TL Defl inch	0.042 (L/3312)	5'6 3/16"	0.574 (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.

**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 11'2" o.c.

5 Bottom flange braced at bearings.

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.

Ł	3 Dottom narige	braced at bearings.					TOINT LOAD	DO OTEN D			
	ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments	
l	1	Tie-In	0-0-0 to 1-4-2	(Span)3-1-13	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
1	2	Tie-In	0-0-0 to 11-6-14	(Span)0-5-8	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
١	3	Point	1-2-14		Far Face	107 lb	287 lb	0 lb	0 lb	F11	
l	4	Tie-In	1-4-2 to 12-0-6	(Span)0-10-8	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
	5	Tie-In	11-6-14 to 12-0-6	(Span)0-6-5 to 0-0-13	Тор	15 PSF	40 PSF	0 PSF	0 PSF		



Page 1 of 1

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

# Lumber

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

Handling & Installation

Joint flanges must not be cut or drilled Refer to latest copy of the Joint product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details 1.

narioning/erection details
Damaged Ubsits must not be used
Design assumes top flange to be laterally restrained
by altached 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.

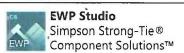
Manufacturer Info

Nascor by Kott

KOTT NASCO







Client: Project: Address: Date: 5/30/2018

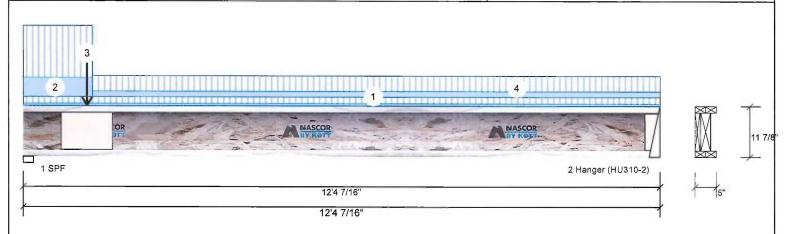
Designer:

Job Name: AMELIA 2 EL- 1

Project #:

F12-B 11.875" 2-Ply - PASSED NJH

Level: Ground Floor



Member Into	rmation			Unfactored Reactions UNPATTERNED Ib (Uplift)						
Туре:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow	Wind		
Plies:	2	Design Method:	LSD	1	473	178	0	0		
Moisture Conditi	on: Dry	Building Code:	NBCC 2010 / OBC 2012	2	193	72	0	0		
Deflection LL:	360	Load Sharing:	No							
Deflection TL:	240	Deck:	Not Checked							
Importance:	Normal	Vibration:	Not Checked							
General Load										
Floor Live:	40 PSF			Bearings a	nd Factor	ed Reactions				
Dead:	15 PSF			Bearing Le	enath	Cap. React D/L lb	Total Ld. Case	Ld. Comb.		

							1 - SPF	2.375"	28%	222 / 710
Analysis R	esults						2 - Hanger	2.500"	10%	91 / 290
Analysis	Actual	Location	Allowed	Capacity	Comb.	Case				
							L			

Moment	1321 ft-lb	5'1 9/16"	10780 ft-lb	0.123 (12%)	1.25D+1.5L	L
Unbraced	1321 ft-lb	5'1 9/16"	1322 ft-lb	0.999 (100%)	1.25D+1.5L	L
Shear	913 lb	1 5/8"	3620 lb	0.252 (25%)	1.25D+1.5L	L
Perm Defl in.	0.013 (L/11026)	5'10 1/8"	0.403 (L/360)	0.030 (3%)	D	Uniform
LL Defl inch	0.035 (L/4136)	5'10 1/8"	0,403 (L/360)	0.090 (9%)	L	L
TL Defl inch	0.048 (L/3008)	5'10 1/8"	0.604 (L/240)	0.080 (8%)	D+L	L

**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 10'10" o.c.
- 6 Bottom flange braced at bearings.

7 Web stiffeners required at Bearing 2

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

L	7 VVED Su	iteners required at Beari	ng 2.							
١	ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
l	1	Tie-In	0-0-0 to 12-4-7	(Span)0-4-11	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
l	2	Tie-In	0-0-0 to 1-4-2	(Span)3-1-13	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
ļ	3	Point	1-2-14		Near Face	104 lb	277 lb	0 lb	0 lb	F11
l	4	Tie-In	1-4-2 to 12-4-7	(Span)0-11-5	Тор	15 PSF	40 PSF	0 PSF	0 PSF	



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

# Lumber

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

#### Handling & Installation

- Handling & Installation

  1. Joist flanges must not be cut or drilled

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

  3. Damaged Liousts must not be used

  4. 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>= 3,6 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

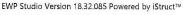
932 L

380 L

1.25D+1.5L

1.25D+1.5L





0

0

Client: Project: Address: Date: 5/30/2018

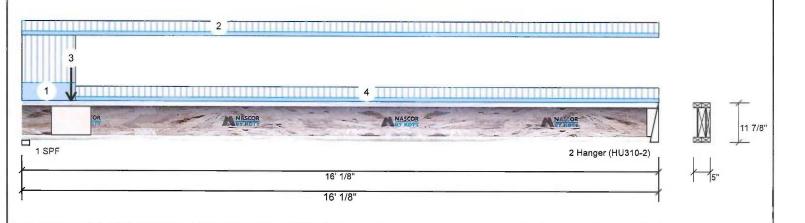
Designer:

Job Name: AMELIA 2 EL- 1

Project #:

F13-C 11.875" 2-Ply - PASSED NJH

Level: Ground Floor



#### Unfactored Reactions UNPATTERNED Ib (Uplift) Type: Girder Application: Floor (Residential) Brg Live Dead Snow Wind Plies: Design Method: 629 236 0 Moisture Condition: Dry **Building Code:** NBCC 2010 / OBC 2012 2 243 91 0 Deflection LL: Load Sharing: Deflection TL: Deck: Not Checked Importance: Normal Vibration: Not Checked General Load Floor Live: 40 PSF **Bearings and Factored Reactions** Dead:

- 1	Analysis Astrol La	 0	0	Δ								Ē
	Analysis Results				Hanger	2.500"	13%	114 / 364	478	L	1.25D+1.5L	
L					_	0.500#	400/	444 1004	470	1	4.050 . 4.51	
ı					1 - SPF	2.375"	37%	295 / 944	1238	L	1.25D+1.5L	
1	Dead: 15 PSF				Bearing	Length	Cap. R	React D/L lb	Total	Ld. Case	Ld. Comb.	

I	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
l	Moment	2103 ft-lb	6'10 15/16"	10780 ft-lb	0.195 (20%)	1.25D+1.5L	L
I	Unbraced	2103 ft-lb	6'10 15/16"	2107 ft-lb	0.998 (100%)	1.25D+1.5L	L
l	Shear	1219 lb	1 5/8"	3620 lb	0.337 (34%)	1.25D+1.5L	L
l	Perm Defl in.	0.033 (L/5696)	7'8"	0.524 (L/360)	0.060 (6%)	D	Uniform
l	LL Defl inch	0.088 (L/2135)	7'8"	0.524 (L/360)	0.170 (17%)	L	L
l	TL Defl inch	0.122 (L/1553)	7'8"	0.786 (L/240)	0.150 (15%)	D+L	L
ſ							

### Design Notes

1 Fill all hanger nailing holes.

Member Information

- 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 9' o.c.
- 6 Bottom flange braced at bearings.
- 7 Web stiffeners required at Bearing 2.

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** 

ъ											
I	ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments	
١	1	Tie-In	0-0-0 to 1-4-2	(Span)3-0-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
ŀ	2	Tie-In	0-0-0 to 16-0-2	(Span)0-8-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF		OPROFESSIONAL
١	3	Point	1-2-14		Far Face	143 lb	382 lb	0 lb	0 lb	F11	
١	4	Tie-In	1-4-2 to 16-0-2	(Span)0-8-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF		S N.A. EL-MASRI
١											Char Enjoy

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

# Lumber

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

#### Handling & Installation

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

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 roots provide proper drainage to prevent ponding

Manufacturer Info

Nascor by Kott



Kott Lumber Company 14 Anderson Blvd, Ontario Canada L4A 7X4





Jun 04, 2018

Client: Project: Address

5/30/2018 Date:

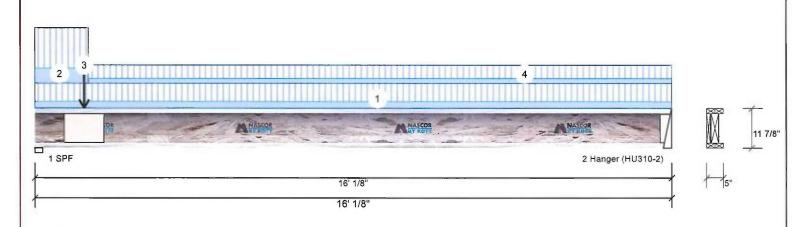
Designer: SB

Job Name: AMELIA 2 EL- 1

Project #:

F13-D 11.875" 2-Ply - PASSED NJH

Level: Ground Floor



#### Unfactored Reactions LINPATTERNED In (Unlift) Member Information Girder Type: Application: Floor (Residential) Live Dead Snow Plies: 2 Design Method: LSD 723 271 0 1 NBCC 2010 / OBC 2012 Moisture Condition: Dry **Building Code:** 0 2 398 149 Deflection LL: 360 Load Sharing: Deflection TL: 240 Deck: Not Checked Importance: Normal Vibration: Not Checked General Load Floor Live: 40 PSF Dead: 15 PSF Bearing Length Cap. React D/L ib

#### **Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3230 ft-lb	7'5 3/4"	10780 ft-lb	0.300 (30%)	1.25D+1.5L	L
Unbraced	3230 ft-lb	7'5 3/4"	3243 ft-lb	0.996 (100%)	1.25D+1.5L	L
Shear	1400 lb	1 5/8"	3620 lb	0.387 (39%)	1.25D+1.5L	L
Perm Defl in.	0.051 (L/3734)	7'9 13/16"	0.524 (L/360)	0.100 (10%)	D	Uniform
LL Defl inch	0.135 (L/1400)	7'9 13/16"	0.524 (L/360)	0.260 (26%)	L	L
TL Defl inch	0.185 (L/1018)	7'9 13/16"	0.786 (L/240)	0.240 (24%)	D+L	L

#### **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 7'5" o.c.
- 6 Bottom flange braced at bearings.
- 7 Web stiffeners required at Bearing 2.

omaciorea Re		( -   /
	 4-71774	2000

Bearings and Fac	tored Reactions			_
Rearing Length	Can React D/I lb	Total Id Case	Ld Comb	

339 / 1084

187 / 597

1423 L

784 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** 

43%

22%

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

USED IN THE DESIGN OF THIS COMPONENT.

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

1 - SPF 2.375"

2.500"

2 -

Hanger

		3							
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 16-0-2	(Span)1-4-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 1-4-2	(Span)3-0-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-2-14		Near Face	120 lb	320 lb	0 lb	0 lb	F11
4	Tie-In	1-4-2 to 16-0-2	(Span)1-0-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	



Page 1 of 1

Wind

0

0

1.25D+1.5L

1.25D+1.5L

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

#### Lumber

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

#### Handling & Installation

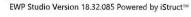
- Libist flanges must not be cut or drilled Refer to latest copy of the Jusist product information details for framing details, siftfener tables, web hole chart, bridging details, multi-ply festening details and handling/erection details Damaged Jusists must not be used Design assumes to plange to be laterally restrained by attached sheathing or as specified in engineering notes.

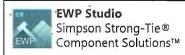
- Provide lateral support at bearing points to avoid lateral displacement and rotation
   Web stiffeners for point load as shown Minimum point load bearing length:> 3,5 inches
   For flat roofs provide proper drainage to prevent ponding.

Manufacturer Info

Nascor by Kott







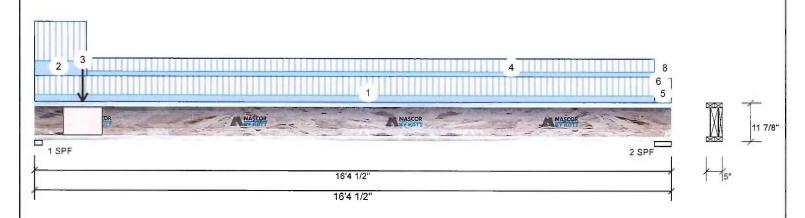
Client: Project: Address: Date: 5/30/2018

Designer: SB

Job Name: AMELIA 2 EL- 1

Project #:

11.875" F13-E NJH 2-Ply - PASSED Level: Ground Floor



# Member Information

Туре:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal

40 PSF

15 PSF

Application: Design Method: **Building Code:** Load Sharing: Deck:

Vibration:

Floor (Residential) 1SD NBCC 2010 / OBC 2012

No

Not Checked Not Checked

# Unfactored Reactions UNPATTERNED Ib (Uplift)

Brg	Live	Dead	Snow	vvina
1	741	278	0	0
2	416	157	0	0

#### Bearings and Factored Reactions

_								
	Bearing	Length	Сар.	React D/L lb	Total	Ld. Case	Ld. Comb.	
	1 - SPF	2.375"	44%	348 / 1112	1460	L	1.25D+1.5L	
	2 - SPF	5.250"	23%	196 / 624	821	L	1.25D+1.5L	

# **Analysis Results**

General Load Floor Live:

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3385 ft-lb	7'6 13/16"	10780 ft-lb	0.314 (31%)	1.25D+1.5L	L
Unbraced	3385 ft-lb	7'6 13/16"	3390 ft-lb	0.999 (100%)	1.25D+1.5L	L
Shear	1436 lb	1 5/8"	3620 lb	0.397 (40%)	1.25D+1.5L	L
Perm Defl in.	0.054 (L/3540)	7'10 3/4"	0.529 (L/360)	0.100 (10%)	D	Uniform
LL Defl inch	0.143 (L/1328)	7'10 3/4"	0.529 (L/360)	0.270 (27%)	L	L
TL Defl inch	0.197 (L/966)	7'10 3/4"	0.793 (L/240)	0.250 (25%)	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 7'3" 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

15									
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 15-11-4	(Span)1-5-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 1-4-2	(Span)3-0-0 to 3-0-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-2-14		Far Face	121 lb	322 lb	0 lb	0 lb	F11
4	Tie-In	1-4-2 to 15-11-4	(Span)1-0-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
5	Tie-In	15-11-4 to 16-4-8	(Span)0-8-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
6	Tie-In	15-11-4 to 16-4-8	(Span)0-8-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
Continued o	n page 2								

# EL-MASRI Jun 04% 2018

#### Notes

Calculated Structured Designs is responsible only of the candidated and the designs in responsibility of the contractor to ensure the component suitability of the design of the component suitability of the intended application, and to verify the dimensions and loads,

#### Lumber

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

chemicals

#### Handling & Installation

- Loust flanges must not be out or drilled Refer to latest copy of the Lioist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handing/erection details. 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 lengthis—3.5 inches.
   For flat roofs provide proper drainage to prevent upondina.

Manufacturer Info

Nascor by Kott





Client: Project: Address:

5/30/2018 Date:

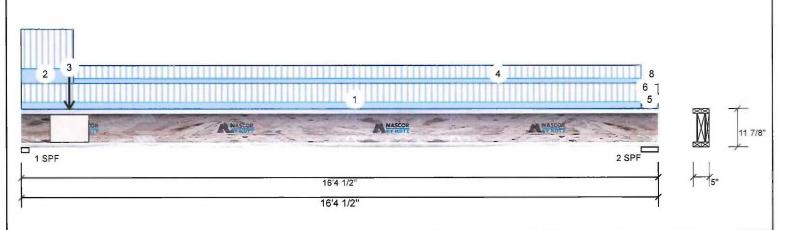
Designer: SB

Job Name: AMELIA 2 EL- 1

Project #:

2-Ply - PASSED 11.875" F13-E NJH

Level: Ground Floor



.Continued from page 1

ID Location Trib Width Side Dead Live Snow Wind Comments Load Type Part. Uniform 16-1-14 to 16-4-8 Top 2 PLF 0 PLF 0 PLF 0 PLF 0 PLF 0 PLF 0 PLF Part. Uniform 16-1-14 to 16-4-8 2 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.

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

#### Lumber

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

#### Handling & Installation

- Handling & Installation

  1. Busis flanges must not be cut or drilled

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

  1. Damaged Lioists must not be used

  4. 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

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





Page 2 of 2

INEUU IO-U I/ PAGE 10 OF 30

**EWP Studio** Simpson Strong-Tie® Component Solutions™ Client: Project: Address:

5/30/2018 Date:

Designer: SB

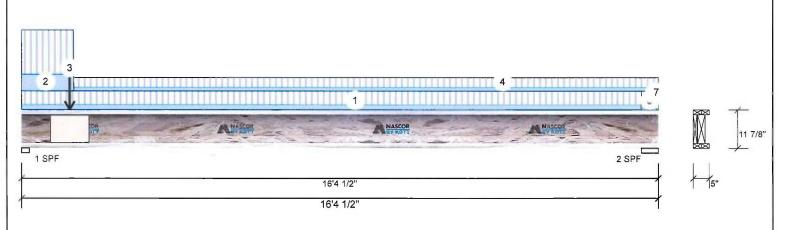
Job Name: AMELIA 2 EL- 1

Page 1 of 1

Project #

11.875" 2-Ply - PASSED F13-F NJH

Level: Ground Floor



Member Infor	nation			Unfactore	d Reactio	ns UNPATTERN	ED lb (Uplift)	
Туре:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow	Wind
Plies:	2	Design Method:	LSD	1	673	252	0	0
Moisture Condition	: Dry	Building Code:	NBCC 2010 / OBC 2012	2	287	108	0	0
Deflection LL:	360	Load Sharing:	No					
Deflection TL:	240	Deck:	Not Checked	7				
Importance:	Normal	Vibration:	Not Checked					
General Load								
Floor Live:	40 PSF			Bearings a	nd Facto	red Reactions		
Dead:	15 PSF			Bearing L	ength	Cap. React D/L lb	Total Ld. Case	Ld. Comb.
				1 - SPF 2.	.375"	40% 316 / 1010	1326 L	1.25D+1.5L

2 - SPF 5.250"

#### Analysis Results

ſ	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
l	Moment	2438 ft-lb	7'1 7/8"	10780 ft-lb	0.226 (23%)	1.25D+1.5L	L
l	Unbraced	2438 ft-lb	7'1 7/8"	2454 ft-lb	0.994 (99%)	1.25D+1.5L	L
l	Shear	1305 lb	1 5/8"	3620 lb	0.360 (36%)	1.25D+1.5L	L
l	Perm Defl in.	0.039 (L/4884)	7'9 3/8"	0.529 (L/360)	0.070 (7%)	D	Uniform
l	LL Defl inch	0.104 (L/1832)	7'9 3/8"	0.529 (L/360)	0.200 (20%)	L	L
١	TL Defl inch	0.143 (L/1332)	7'9 3/8"	0.793 (L/240)	0.180 (18%)	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.

16%

135 / 430

566 L

1.25D+1.5L

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 flange must be laterally braced at a maximum of 8'5" o.c.

5 Bottom f	lange braced at bearings.								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 15-11-4	(Span)0-11-0 to 0-11-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 1-4-2	(Span)3-0-0 to 3-0-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	ROFESSIONA
3	Point	1-2-14		Near Face	144 lb	384 lb	0 lb	0 lb	F11
4	Tie-In	1-4-2 to 16-4-8	(Span)0-8-0 to 0-8-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	N.A. EL-MASRI
5	Tie-In	15-11-4 to 16-4-8	(Span)0-4-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	Char Emari
6	Part. Uniform	16-1-14 to 16-4-8		Тор	2 PLF	0 PLF	0 PLF	0 PLF	TUD TEACE TO A S
7	Part. Uniform	16-1-14 to 16-4-8		Тор	1 PLF	0 PLF	0 PLF	0 PLF	341104, 2010
									Turni i a

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

# Lumber

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

#### Handling & Installation

- Handling & Installation

  1. Blost flanges must not be out or drilled

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

  3. Damaged Lioists must not be used

  4. 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



Nascor by Kott







Client: Project: Address:

5/30/2018 Date:

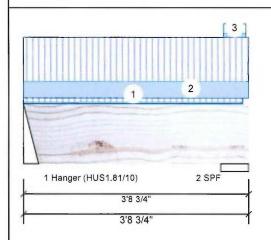
Designer: SB Job Name: AMELIA 2 EL- 1

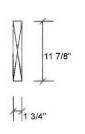
Project #:

Forex 2.0E-3000Fb LVL

1.750" X 11.875" - PASSED

Level: Ground Floor





Page 1 of 1

Member Info	rmation			Unfacto	red Reac	tions U	NPATTERNI	ED lb (L	Jplift)	
Туре:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snow		Wind
Plies:	1	Design Method:	LSD	1	462		182	0		0
Moisture Condition	on: Dry	Building Code:	NBCC 2010 / OBC 2012	2	534		210	0		0
Deflection LL:	360	Load Sharing:	No	100						
Deflection TL:	240	Deck:	Not Checked							
Importance:	Normal	Vibration:	Not Checked							
General Load										
Floor Live:	40 PSF			Bearings	and Fac	tored F	Reactions			
Dead:	15 PSF			Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
				1 -	3.000"	24%	227 / 693	920	L	1.25D+1.5L
				Hanger						
Analysis Resu	ılts			2 - SPF	5.500"	18%	262 / 801	1063	L	1.25D+1.5L

Allalysis ites	uits					
Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	646 ft-lb	1'9 1/8"	17130 ft-lb	0.038 (4%)	1.25D+1.5L	L
Unbraced	646 ft-lb	1'9 1/8"	13452 ft-lb	0.048 (5%)	1.25D+1.5L	L
Shear	304 lb	1'2 1/8"	5798 lb	0.052 (5%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/32215)	1'9 1/8"	0.105 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.003	1'9 1/8"	0.105 (L/360)	0.030 (3%)	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.

(L/12665) TL Defl inch 0.004 (L/9091) 1'9 1/8" 0.157 (L/240) 0.030 (3%) D+L

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 BEARING

# **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 3-7-9	(Span)1-1-8	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part, Uniform	0-0-0 to 3-8-12		Тор	90 PLF	240 PLF	0 PLF	0 PLF	
3	Tie-In	3-3-12 to 3-8-3	(Span)2-7-10 to 2-7-9	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				5 PLF				



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

#### Lumber

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

#### Handling & Installation

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

Manufacturer Info

Forex APA: PR-L318







Client: Project: Address: Date: 5/30/2018

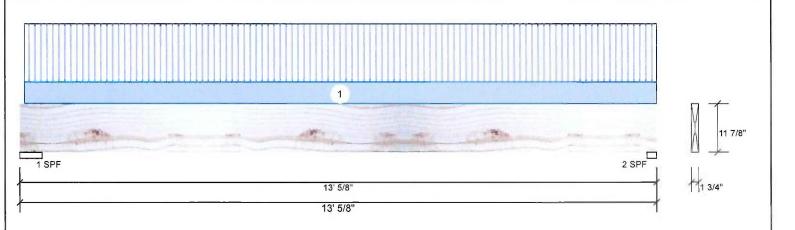
> Designer: SB Job Name: AMELIA 2 EL- 1

Project #:

Forex 2.0E-3000Fb LVL

1.750" X 11.875" - PASSED

Level: Ground Floor



Type:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	Sno	)W	Wind
Plies:	1	Design Method:	LSD	1	120	77		0	0
Moisture Condition	n: Dry	Building Code:	NBCC 2010 / OBC 2012	2	117	74		0	0
Deflection LL:	360	Load Sharing:	No						
Deflection TL:	240	Deck:	Not Checked						
Importance:	Normal	Vibration:	Not Checked						
General Load									
Floor Live:	40 PSF			Bearings	and Facto	red Reaction	ns		
Dead:	15 PSF			Bearing L	_ength	Cap. React [	D/L lb Total	Ld. Case	Ld. Comb.
				1 - SPF 5	5.500"	5% 96	/ 180 276	L	1.25D+1.5L
				2 - SPE 2	375"	11% 93	/ 176 269	1	1.25D+1.5I

**Analysis Results** 

Member Information

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	824 ft-lb	6'7 7/8"	17130 ft-lb	0.048 (5%)	1.25D+1.5L	L
Unbraced	824 ft-lb	6'7 7/8"	3591 ft-lb	0.229 (23%)	1.25D+1.5L	L
Shear	222 lb	1'4 5/8"	5798 lb	0.038 (4%)	1,25D+1,5L	L
Perm Defl in.	0.014 (L/10405)	6'7 7/8"	0.417 (L/360)	0.030 (3%)	D	Uniform
LL Defl inch	0.023 (L/6605)	6'7 7/8"	0.417 (L/360)	0.050 (5%)	L	L
TL Defl inch	0.037 (L/4040)	6'7 7/8"	0.626 (L/240)	0.060 (6%)	D+L	L

### **Design Notes**

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

2 Top bra	ced at bearings.					FOINT LOP	IDS OVER E	LAKING
3 Bottom	braced at bearings.							
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind
1 1	Tie-In	0-1-2 to 13-0-10	(Span)0-11-0	Top	15 PSF	40 PSF	0 PSF	0 PSF

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.

Unfactored Reactions UNPATTERNED lb (Uplift)

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	0-1-2 to 13-0-10	(Span)0-11-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				5 PLF				



Page 1 of 1

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

# Lumber

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

#### Handling & Installation

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

6. For flat roofs provide proper drainage to prevent punding

Manufacturer Info

Forex APA: PR-L318







**EWP Studio** Simpson Strong-Tie® Component Solutions™

Client: Project: Address: Date:

Designer: SB

Job Name: AMELIA 2 EL- 1

Project #:

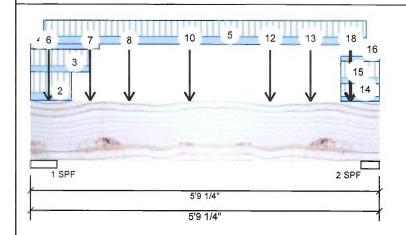
Forex 2.0E-3000Fb LVL

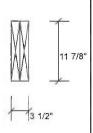
1.750" X 11.875"

2-Ply - PASSED

Level: Ground Floor

5/30/2018





#### Member Information

Type: Girder Plies: 2 Moisture Condition: Dry Deflection LL: 360 Deflection TL: 240 Importance: Normal General Load

40 PSF

15 PSF

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

LSD

NBCC 2010 / OBC 2012

Load Sharing: No Deck:

Vibration:

Not Checked Not Checked

Floor (Residential)

# Unfactored Reactions UNPATTERNED Ib (Uplift)

Brg	Live	Dead	Snow	Wind
1	3319	1453	0	0
2	3053	1319	0	0

### **Bearings and Factored Reactions**

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.	
1-SPF	5.250"	60%	1817 / 4978	6795	L	1.25D+1.5L	
2 - SPF	3.625"	80%	1648 / 4579	6227	L	1.25D+1.5L	

#### Analysis Results

Floor Live:

Dead:

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	5096 ft-lb	2'7 5/8"	34261 ft-lb	0.149 (15%)	1.25D+1.5L	L
Unbraced	5096 ft-lb	2'7 5/8"	33024 ft-lb	0.154 (15%)	1.25D+1.5L	L
Shear	4068 lb	1'4 3/8"	11596 lb	0.351 (35%)	1.25D+1.5L	L
Perm Defl in.	0.008 (L/7346)	2'9 3/4"	0.172 (L/360)	0.050 (5%)	D	Uniform
LL Defl inch	0.019 (L/3189)	2'9 1/2"	0.172 (L/360)	0.110 (11%)	L	L
TL Defl inch	0.028 (L/2224)	2'9 9/16"	0.258 (L/240)	0.110 (11%)	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.



		on rate occion main,							
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
2	Part, Uniform	0-0-0 to 0-8-2		Тор	122 PLF	326 PLF	0 PLF	0 PLF	J1
3	Part. Uniform	0-0-0 to 0-11-10		Тор	96 PLF	255 PLF	0 PLF	0 PLF	J4
4	Part, Uniform	0-0-0 to 1-1-10		Тор	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
5	Part. Uniform	0-2-10 to 5-6-10		Far Face	123 PLF	253 PLF	0 PLF	0 PLF	
6	Point	0-3-10		Near Face	111 lb	296 lb	0 lb	0 lb	J8
Continued on	page 2								

#### Notes

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

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

#### chemicals

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent

Manufacturer Info

APA: PR-L318



Client: Project: Address:

5/30/2018 Date:

Designer: SB

Job Name: AMELIA 2 EL- 1

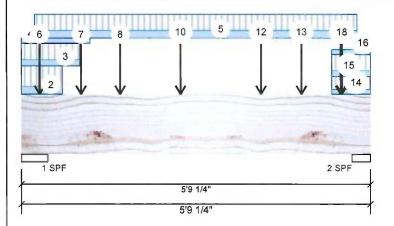
Project #:

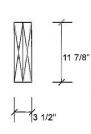
Forex 2.0E-3000Fb LVL

1.750" X 11.875"

2-Ply - PASSED

Level: Ground Floor





Page 2 of 2

Continued	from page 1							
ID	Load Type	Location Tri	ib Width Side	Dead	Live	Snow	Wind	Comments
7	Point	0-11-14	Тор	520 lb	1340 lb	0 lb	0 lb	вмз вмз
8	Point	1-7-10	Near Face	149 lb	398 lb	0 lb	0 lb	F13
10	Point	2-7-10	Near Face	128 lb	342 lb	0 lb	0 lb	J5
12	Point	3-11-10	Near Face	110 lb	293 lb	0 lb	0 lb	J5
13	Point	4-7-10	Near Face	91 lb	243 lb	0 lb	0 lb	F13
14	Part. Uniform	5-1-10 to 5-9-4	Тор	75 PLF	199 PLF	0 PLF	0 PLF	J1
15	Part. Uniform	5-1-10 to 5-9-4	Тор	96 PLF	255 PLF	0 PLF	0 PLF	J4
16	Part. Uniform	5-1-10 to 5-9-4	Тор	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
17	Point	5-3-7	Тор	445 lb	1139 lb	0 lb	0 lb	вмз вмз
18	Point	5-3-10	Near Face	81 lb	215 lb	0 lb	0 lb	J8
	Self Weight			10 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

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

#### Lumber

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

chemicals

#### Handling & Installation

1. LVL beams must not be sut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastering 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







Client: Project: Address:

5/30/2018 Date:

Designer: SB

Job Name: AMELIA 2 EL- 1

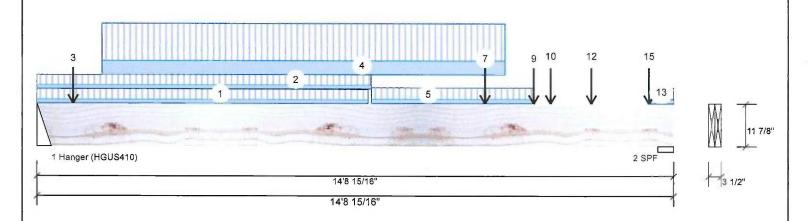
Project #

Forex 2.0E-3000Fb LVL

1.750" X 11.875"

2-Ply - PASSED

Level: Ground Floor



Member Inforn	nation				Unfacto	red React	ions UNPATTERN	IED lb (Uplift)	
Туре:	Girder	Aı	oplication:	Floor (Residential)	Brg	Live	Dead	Snow	Wind
Plies:	2	De	esign Method:	LSD	1	2798	1124	0	0
Moisture Condition:	Dry	Bu	uilding Code:	NBCC 2010 / OBC 2012	2	2830	1139	0	0
Deflection LL:	360	Lo	ad Sharing:	No	_				
Deflection TL:	240	D	eck:	Not Checked					
Importance:	Normal	Vi	bration:	Not Checked					
General Load									
Floor Live:	40 PSF				Bearings	s and Fac	tored Reactions		
Dead:	15 PSF				Bearing	Length	Cap. React D/L lb	Total Ld. Case	Ld. Comb.
					1 -	4.000"	54% 1405 / 4197	5602 L	1.25D+1.5L
					Hanger				
nalysis Result	S				2 - SPF	4.376"	60% 1424 / 4245	5668 L	1.25D+1.5L
Analysis Act	ual L	ocation Allow	ed Capac	ity Comb. Case					

20001 ft-lb Moment 7'5 13/16" 34261 ft-lb 0.584 (58%) 1.25D+1.5L L Unbraced 20001 ft-lb 7'5 13/16" 24916 ft-lb 0.803 (80%) 1.25D+1.5L L 5567 lb Shear 13'5 7/16" 11596 lb 0.480 (48%) 1.25D+1.5L L Perm Defl in. 0.160 (L/1060) 7'4 7/8" 0.472 (L/360) 0.340 (34%) D Uniform LL Defl inch 0.400 (L/426) 7'4 7/8" 0.472 (L/360) 0.850 (85%) L TL Defl inch 0.560 (L/304) 7'4 7/8" 0.709 (L/240) 0.790 (79%) 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 braced at bearings.
- 6 Bottom braced at bearings.

7 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 7-8-1	(Span)3-6-1 to 3-4-15	Тор	15 PSF	40 PSF	0 PSF	0 PSF	25
2	Tie-In	0-0-0 to 7-8-15	(Span)3-5-8	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	0-10-1		Near Face	107 lb	286 lb	0 lb	0 lb	J4
4	Part. Uniform	1-6-1 to 10-10-1		Near Face	93 PLF	247 PLF	0 PLF	0 PLF	
5	Tie-In	7-9-0 to 11-6-1	(Span)3-9-15 to 3-9-14	Тор	15 PSF	40 PSF	0 PSF	0 PSF	C

Continued on page 2...

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

#### Lumber

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

chemicals

#### Handling & Installation

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

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

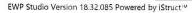
APA: PR-L318



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



Jun 04, 2018



Client: **EWP Studio** Project: Simpson Strong-Tie® Address: Component Solutions™ Forex 2.0E-3000Fb LVL

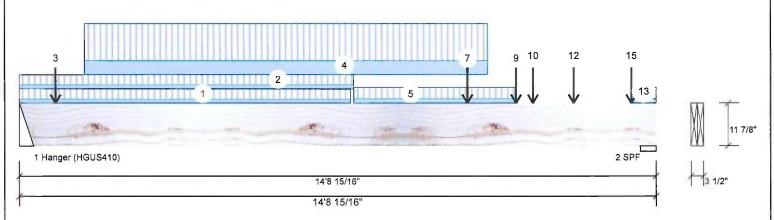
5/30/2018 Date: Designer: SB

Job Name: AMELIA 2 EL- 1

Project #:

1.750" X 11.875" 2-Ply - PASSED

Level: Ground Floor



.Continued	from page 1								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
6	Point	10-4-9		Тор	13 lb	35 lb	0 lb	0 lb	
7	Point	10-4-9		Far Face	182 lb	462 lb	0 lb	0 lb	F5
8	Point	11-6-1		Far Face	32 lb	84 lb	0 lb	0 lb	J2
9	Point	11-6-1		Near Face	80 lb	213 lb	0 lb	0 lb	J4
10	Point	11-10-12		Near Face	72 lb	193 lb	0 lb	0 lb	F12
11	Point	12-10-1		Far Face	34 lb	92 lb	0 lb	0 lb	J2
12	Point	12-10-1		Near Face	94 lb	251 lb	0 lb	0 lb	J3
13	Tie-In	14-2-1 to 14-8-15	(Span)3-9-14 to 3-9-14	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
14	Point	14-2-1		Far Face	25 lb	67 lb	0 lb	0 lb	J2
15	Point	14-2-1		Near Face	91 lb	242 lb	0 lb	0 lb	J3
	Self Weight				10 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.

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 varify the dimensions and loads.

# Lumber

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

#### Handling & Installation

andling & Installation

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

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex APA: PR-L318



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





Page 2 of 2



Client: Project: Address:

5/30/2018 Date:

SB Designer:

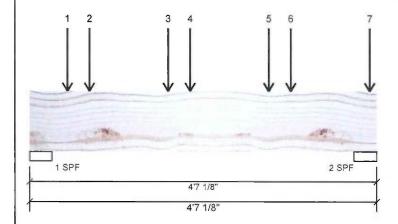
Job Name: AMELIA 2 EL- 1

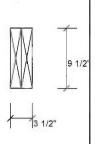
Project #:

Forex 2.0E-3000Fb LVL **BM3-A** 

1.750" X 9.500"

2-Ply - PASSED Level: Second Floor





Wind

Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition	on: 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	1	

	Unfactored	Reactions	UNPATTERNED	lb (Uplift)
Ī	Brg	Live	Dead	Snow

1	1340	520	0	0	
2	1139	445	0	0	

# **Bearings and Factored Reactions**

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1-SPF	3.516"	35%	650 / 2010	2660	L	1.25D+1.5L
2 - SPF	3.625"	29%	556 / 1709	2265	L	1.25D+1.5L

#### **Analysis Results**

Member Information

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2504 ft-lb	2'1 1/2"	22724 ft-ib	0.110 (11%)	1.25D+1.5L	L
Unbraced	2504 ft-lb	2'1 1/2"	22724 ft-lb	0.110 (11%)	1.25D+1.5L	L
Shear	1923 lb	3'6 3/4"	9277 lb	0.207 (21%)	1.25D+1.5L	L
Perm Defl in.	0.005 (L/10742)	2'1 9/16"	0.137 (L/360)	0.030 (3%)	D	Uniform
LL Defl inch	0.012 (L/4171)	2'1 9/16"	0.137 (L/360)	0.090 (9%)	L	L
TL Defl inch	0.016 (L/3005)	2'1 9/16"	0.206 (L/240)	0.080 (8%)	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

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.

READ ALL NOTES ON THIS PAGE AND ON

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.



ı	Lateral	sicilacitics fatto pasca off	full section width.							
	ID	Load Type	Location Trib Widt	h Side	Dead	Live	Snow	Wind	Comments	
	1	Point	0-6-0	Тор	162 lb	432 lb	0 lb	0 lb	J1	
	2	Point	0-9-8	Тор	127 lb	338 lb	0 lb	0 lb	J4	
	3	Point	1-10-0	Тор	162 lb	432 lb	0 lb	0 lb	J1	
	4	Point	2-1-8	Тор	127 lb	338 lb	0 lb	0 lb	J4	
	5	Point	3-2-0	Тор	162 lb	432 lb	0 lb	0 lb	J1	

Continued on page 2...

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

#### Lumber

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

chemicals

#### Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

APA: PR-L318







Page 2 of 2



Client: Project: Address: Date:

5/30/2018 Designer: SB

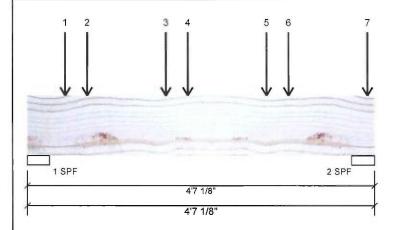
Job Name: AMELIA 2 EL- 1

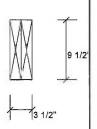
Project #:

**BM3-A** Forex 2.0E-3000Fb LVL

1.750" X 9.500"

2-Ply - PASSED Level: Second Floor





...Continued from page 1

1	D	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
(	3	Point	3-5-8		Тор	127 lb	338 lb	0 lb	0 lb	J4
7	7	Point	4-6-0		Тор	63 lb	169 lb	0 lb	0 lb	J1
1		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.

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

#### Lumber

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

chemicals

Handling & Installation

1. LVIL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-pluy 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.

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex APA: PR-L318







Client: Project: Address:

5/30/2018 SB

Job Name: AMELIA 2 EL- 1

Project #:

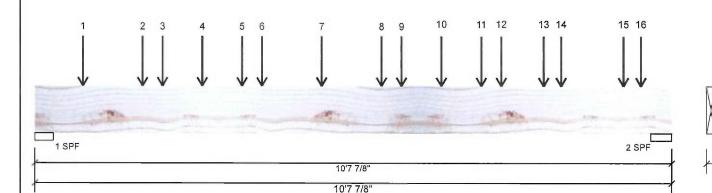
Designer:

Date:

BM4-A Forex 2.0E-3000Fb LVL

1.750" X 9.500"

3-Ply - PASSED Level: Second Floor



**Member Information** Type: Girder Plies: 3 Moisture Condition: Dry Deflection LL: 360 Deflection TL: 240

Normal

40 PSF

**15 PSF** 

Application: Design Method:

Floor (Residential)

NBCC 2010 / OBC 2012 **Building Code:** Load Sharing: Yes

Deck: Vibration: Not Checked Not Checked

# Unfactored Reactions UNPATTERNED Ib (Uplift)

Brg	Live	Dead	Snow	VVind	
1	2952	1269	0	0	
2	3096	1297	0	0	

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.	
1 - SPF	3.688"	50%	1586 / 4428	6014	L	1.25D+1.5L	
2 - SPF	4.188"	46%	1621 / 4644	6265	L	1.25D+1.5L	

**Analysis Results** 

Importance:

Dead:

General Load Floor Live:

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	15176 ft-lb	4'9 11/16"	35449 ft-lb	0.428 (43%)	1.25D+1.5L	L
Unbraced	15176 ft-lb	4'9 11/16"	35449 ft-lb	0.428 (43%)	1.25D+1.5L	L
Shear	5599 lb	1' 7/16"	13915 lb	0.402 (40%)	1.25D+1.5L	L
Perm Defl in.	0.086 (L/1413)	5'3 9/16"	0.337 (L/360)	0.250 (25%)	D	Uniform
LL Defl inch	0.201 (L/605)	5'3 5/8"	0.337 (L/360)	0.600 (60%)	L	L
TL Defl inch	0.287 (L/424)	5'3 5/8"	0.506 (L/240)	0.570 (57%)	D+L	L

Design Notes

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



	eletidetilieee tade bacca eli	Tun oconom Width.								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments	
1	Point	0-9-11		Тор	278 lb	686 lb	0 lb	0 lb	J1 J4	
2	Point	1-9-11		Тор	117 lb	257 lb	0 lb	0 lb	J4	
3	Point	2-1-11		Тор	162 lb	431 lb	0 lb	0 lb	J1	
4	Point	2-9-11		Тор	117 lb	257 lb	0 lb	0 lb	J4	
5	Point	3-5-11		Тор	162 lb	431 lb	0 lb	0 lb	J1	
Continued or	n page 2									

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

- chemicals

#### Handling & Installation

- andling & Installation
  LVL beams must not be cuit 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 udge is laterally restrained
  Provide lateral support at the bearing points to avoid
  lateral displacement and rotation

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

APA: PR-L318



Simpson Strong-Tie® Component Solutions™ Project: Address:

Job Name: AMELIA 2 EL- 1

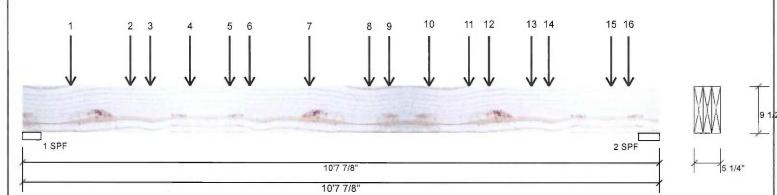
Project #:

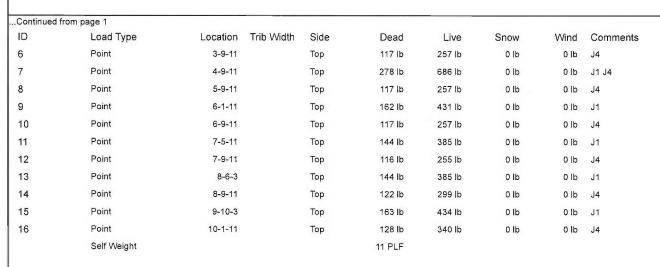
Forex 2.0E-3000Fb LVL

1.750" X 9.500"

3-Ply - PASSED

Level: Second Floor





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.

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

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

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

APA: PR-L318









Client: Project: Address:

5/30/2018 Date:

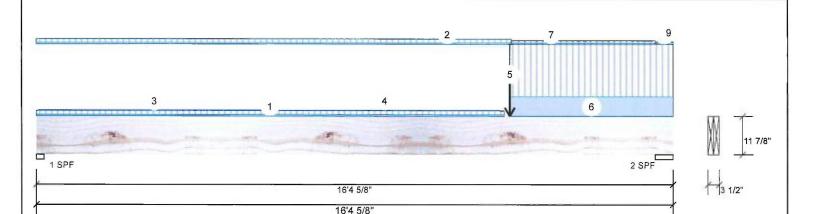
Designer: SB

Job Name: AMELIA 2 EL- 1

Project #:

Forex 2.0E-3000Fb LVL

2-Ply - PASSED Level: Second Floor 1.750" X 11.875"



#### Member Information Unfactored Reactions UNPATTERNED lb (Uplift) Girder Type: Floor (Residential) Application: Live Dead Snow Wind Plies: 2 Design Method: LSD 818 1 0 Moisture Condition: Dry NBCC 2010 / OBC 2012 **Building Code:** 0 0 2 2494 1160 Deflection LL: 360 Load Sharing: No Deflection TL: 240 Deck: Not Checked Importance: Normal Vibration: Not Checked General Load Floor Live: 40 PSF **Bearings and Factored Reactions** Dead: 15 PSF Cap. React D/L lb Total Ld. Case Ld. Comb. Bearing Length 1 - SPF 2.375" 35% 557 / 1228 1785 L 1.25D+1.5L 1450 / 3741 1.25D+1.5L 2 - SPF 5.500" 44% 5191 L

#### **Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	15265 ft-lb	12'2 1/4"	34261 ft-lb	0.446 (45%)	1.25D+1.5L	L
Unbraced	15265 ft-lb	12'2 1/4"	22688 ft-lb	0.673 (67%)	1.25D+1.5L	L
Shear	4477 lb	15'	11596 lb	0.386 (39%)	1,25D+1,5L	L
Perm Defl in.	0.145 (L/1312)	8'10 3/4"	0.528 (L/360)	0.270 (27%)	D	Uniform
LL Defl inch	0.290 (L/656)	9'	0.528 (L/360)	0.550 (55%)	L	L
TL Defl inch	0.435 (L/437)	8'11 9/16"	0.793 (L/240)	0.550 (55%)	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.

o Lateral	sienderness ratio based	on full section width.							
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comment
1	Tie-In	0-0-0 to 12-0-8	(Span) 0-10-11	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 12-2-10	(Span)0-10-5	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	0-0-9 to 11-11-1		Тор	2 PLF	0 PLF	0 PLF	0 PLF	
4	Tapered Start	0-0-10		Тор	1 PLF	0 PLF	0 PLF	0 PLF	
	End	11-11-1			0 PLF	0 PLF	0 PLF	0 PLF	
5	Point	12-2-4		Far Face	862 lb	1824 lb	0 lb	0 lb	F8
Continued or	n page 2								

ontinued on page 2...

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

#### Lumber

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

#### chemicals

#### Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

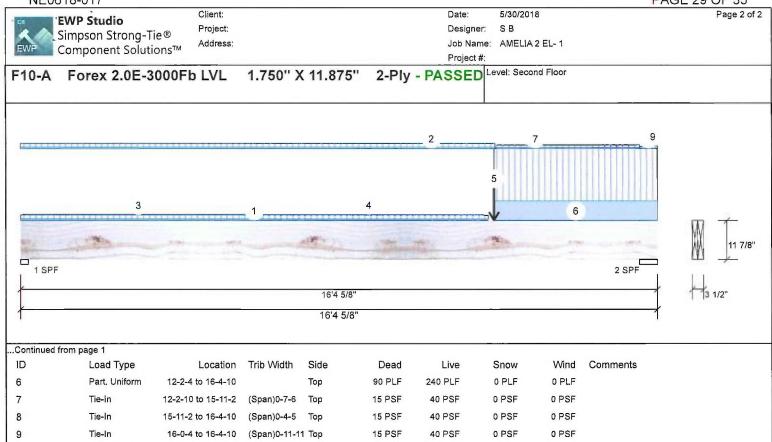
#### Manufacturer Info

APA: PR-L318

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



Page 1 of 2



10 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.

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

Self Weight

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

chemicals

# Handling & Installation

LIVINITY & INSTANTATION

LIVI, beams must not be cut or drilled

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

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

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

APA: PR-L318









Client: Project: Address: 5/30/2018

Designer:

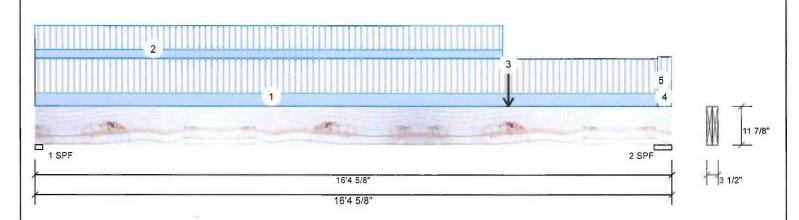
Job Name: AMELIA 2 EL- 1

Project #

Forex 2.0E-3000Fb LVL

1.750" X 11.875"

2-Ply - PASSED Level: Second Floor



ember Information					Unfactored Reactions UNPATTERNED Ib (Uplift)					
Туре:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snov	N	Wind
Plies:	2	Design Method:	LSD	1	700		368		0	0
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012	2	1629		782		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			Bearing:	s and Fac	tored F	Reactions			
Dead:	15 PSF	1		Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
				1 - SPF	2.375"	30%	460 / 1050	1511	L	1.25D+1.5L
				2 - SPF	5,500"	29%	977 / 2443	3420	L	1.25D+1.5L

Analysis I	Results
------------	---------

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	12574 ft-lb	12'2 1/4"	34261 ft-lb	0.367 (37%)	1.25D+1.5L	L
Unbraced	12574 ft-lb	12'2 1/4"	22688 ft-lb	0.554 (55%)	1.25D+1.5L	L
Shear	3351 lb	15'	11596 lb	0.289 (29%)	1.25D+1.5L	L
Perm Defl in.	0.118 (L/1617)	8'10 3/8"	0.528 (L/360)	0.220 (22%)	D	Uniform
LL Defl inch	0.241 (L/788)	8'11 7/16"	0.528 (L/360)	0.460 (46%)	L	L
TL Defl inch	0.359 (L/530)	8'11 1/16"	0.793 (L/240)	0.450 (45%)	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.

o Lateral Si	enderness ratio based								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comment
1	Tie-In	0-0-0 to 16-0-4	(Span)0-11-8	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 12-0-8	(Span)0-8-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	12-2-4		Near Face	816 lb	1854 lb	0 lb	0 lb	F8
4	Tie-In	16-0-4 to 16-4-10	(Span)0-4-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
5	Tie-In	16-0-4 to 16-4-10	(Span)0-8-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				10 PLF				

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 ousformer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

#### Lumber

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

6. For flat roofs provide proper drainage to prevent ponding

#### Manufacturer Info

Forex APA: PR-L318







Client: Project: Address:

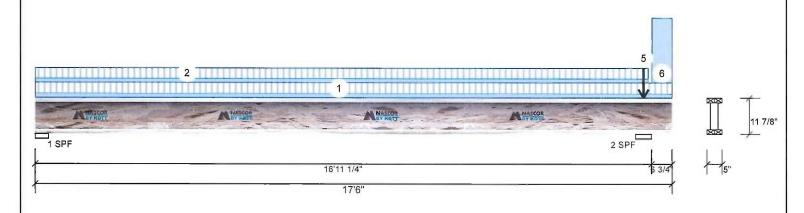
5/30/2018 Designer:

Job Name: AMELIA 2 EL- 1

Project #:

2-Ply - PASSED F13-A 11.875" NJH

Level: Second Floor



# Member Information

Туре:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition:	Dry	<b>Building Code:</b>	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	224	82	0 (-2)	0
2	261	300	217	0

### **Bearings and Factored Reactions**

Bearing	Length	Сар.	React D/L Ib	lotai	Ld. Case	La. Comb.	
1 - SPF	4.375"	12%	102 / 337	440	L_	1.25D+1.5L	
2 - SPF	5.250"	24%	375 / 500	875	LL	1.25D+1.5L +0.5S	

#### **Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-103 ft-lb	16'11 1/4"	9702 ft-lb	0.011 (1%)	1.25D+1.5S +0.5L	_L
Unbraced	-103 ft-lb	16'11 1/4"	9651 ft-lb	0.011 (1%)	1.25D+1.5S +0.5L	_L
Pos Moment	1711 ft-lb	8'4 1/2"	10780 ft-lb	0.159 (16%)	1.25D+1.5L	L_
Unbraced	1711 ft-lb	8'4 1/2"	1717 ft-lb	0.996 (100%)	1.25D+1.5L	L_
Shear	589 lb	16'11 1/4"	3186 lb	0.185 (18%)	1.25D+1.5S	_L
Perm Defl in.	0.027 (L/7357)	8'4 1/4"	0.542 (L/360)	0.050 (5%)	D	Uniform
LL Defl inch	0.076 (L/2581)	8'5 1/4"	0.542 (L/360)	0.140 (14%)	L	L_
TL Defl inch	0.102 (L/1911)	8'4 15/16"	0.813 (L/240)	0.130 (13%)	D+L	L <u>:</u>
LL Cant	-0.008 (2L/1791)	Rt Cant	0.200 (2L/480)	0.038 (4%)	L	L_
TL Cant	-0.010 (2L/1395)	Rt Cant	0.300 (2L/360)	0.032 (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 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 9'9" o.c.
- 5 Bottom flange must be laterally braced at a maximum of 10'5" o.c.

# EL-MASRL

FAGE 31 OF 33

Page 1 of 2

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

# Lumber

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

#### Handling & Installation

- iandling & Installation
  6.
  Nefer to latest copy of the Justs product information details for framing details, stiffener tables, web hole chart, bridging details, multi-pyl fastening details and handling/erection details

  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 stitleners for point load as shown Minimum point load bearing lengths—3.5 inches
   For flat roofs provide proper drainage to prevent pending.

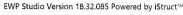
Manufacturer Info

Nascor by Kott



Kott Lumber Company 14 Anderson Blvd, Ontario L4A 7X4





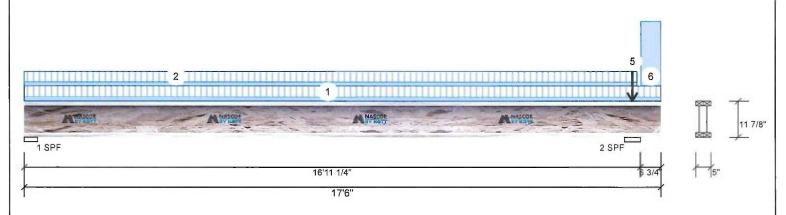
Client: Project: Address: Date: 5/30/2018 Designer:

Job Name: AMELIA 2 EL- 1

Project #:

11.875" 2-Ply - PASSED F13-A NJH

Level: Second Floor



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments	
1	Tie-In	0-0-0 to 17-6-0	(Span)0-8-3	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
2	Tie-In	0-0-0 to 16-10-2	(Span)0-7-13	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
3	Point	16-8-10		Тор	35 lb	0 lb	0 lb	0 lb	Wall Self Weight	
4	Point	16-8-10		Тор	126 lb	27 lb	215 lb	0 lb	F1 F1	
5	Point	16-8-10		Тор	5 lb	0 lb	0 lb	0 lb	Wall Self Weight	
6	Part, Uniform	16-11-6 to 17-6-0		Тор	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight	

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.

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

#### Lumber

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

chemicals

- andling & Installation

  5.

  Jost flanges must not be cut or drilled

  Refer to latest copy of the Jusist product information of details for framing details, stiffener tables, web hole chart, bridging details, multiply fastening details and handling/erection details

  Damaged blosts 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 lengthers 3,5 inches
   For flat roofs provide proper drainage to prevent panding

Manufacturer Info

Nascor by Kott

KOTT NASCO

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



Page 2 of 2

Client: Project: Address:

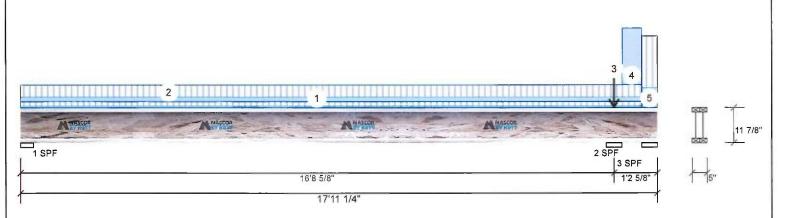
5/30/2018 Designer: SB

AMELIA 2 EL- 1 Job Name:

Project #:

2-Ply - PASSED F13-B NJH 11.875"

Level: Second Floor



Туре:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Noisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
mportance:	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	64	0	0
2	764	335	0	0
3	0 (-494)	(-160)	0	0

# **Bearings and Factored Reactions**

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	4.375"	9%	80 / 257	337	L_	1.25D+1.5L
2 - SPF	5.250"	23%	419 / 1146	1565	LL	1.25D+1.5L
3 - SPF	5.250"	27%	-224 / -737	-961 (-961)	L_	1.25D+1.5L

Analysis Actual Location Allowed Capacity Comb. Case Neg Moment -889 ft-lb 16'8 5/8" 10780 ft-lb 0.082 (8%) 1.25D+1.5L LL -889 ft-lb 16'8 5/8" 10039 ft-lb 0.089 (9%) 1.25D+1.5L LL Unbraced Pos Moment 1135 ft-lb 7'4" 10780 ft-lb 0.105 (11%) 1.25D+1.5L L\_ 1.25D+1.5L L\_ 1135 ft-lb 1139 ft-lb 0.997 Unbraced (100%)1095 lb 16'8 5/8" 3620 lb 0.302 (30%) 1.25D+1.5L LL Shear 8' 5/16" 0.547 (L/360) 0.030 (3%) D Perm Defl in. 0.018 Uniform

(L/11068) LL Defl inch 0.047 (L/4149) 8' 5/16" 0.547 (L/360) 0.090 (9%) L TL Defl inch 0.065 (L/3018) 8' 5/16" 0.821 (L/240) 0.080 (8%) D+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

**Analysis Results** 

- 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 Tie-down connection required at bearing 3 for uplift 961 lb (Combination 1.25D+1.5L, Load Case L )
- 5 Top flange must be laterally braced at a maximum of 11'6" o.c.
- 6 Bottom flange must be laterally braced at a maximum of 10'5" o.c.

ID Side Dead Live Wind Comments Load Type Location Trib Width Snow 15 PSF 40 PSF 0 PSF 0 PSF Tie-In 0-0-0 to 17-6-0 (Span)0-3-11 Top 1 0 PSF 2 0-0-0 to 17-6-0 15 PSF 40 PSF 0 PSF Tie-In (Span)0-10-5 Top Point Top 31 lb 0 lb 0 lb Wall Self Weight 3 16-8-10 0 lb

Continued on page 2...

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

# Lumber

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

chemicals

#### Handling & Installation

- Linstituting or installation.

  Librat flanges must not be cut or drilled.

  Refer to latest copy of the iJust product information details for framing details, sulfiener tables, web hole chart, bridging details, multiply fastening details and handling/erection details.

  Damaged IJolists must not be used.

  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 stitleners 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 L4A 7X4



POFESSION



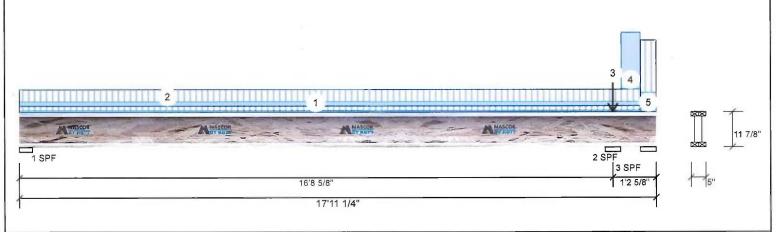
Client: Project: Address: Date: Designer:

SB Job Name: AMELIA 2 EL- 1

Project #:

11.875" 2-Ply - PASSED F13-B NJH

Level: Second Floor



..Continued from page 1

I	ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
I	4	Part. Uniform	16-11-6 to 17-5-14		Тор	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
ı	5	Tie-In	17-6-0 to 17-11-4	(Span)3-8-3	Тор	15 PSF	40 PSF	0 PSF	0 PSF	

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.

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

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

- Handling & Installation

  1. Julist flanges must not be cut or drilled

  2. Refer to latest copy of the Julist product information details for framing details, stiffener tables, web hole chart, undrign details, suffener tables, web hole chart, undrign details and handling/erection detail.

  3. Damaged blosts must not be used

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

Manufacturer Info

Nascor by Kott









Client: Project: Address: Date:

5/30/2018

Designer: Job Name: AMELIA 2 EL- 1

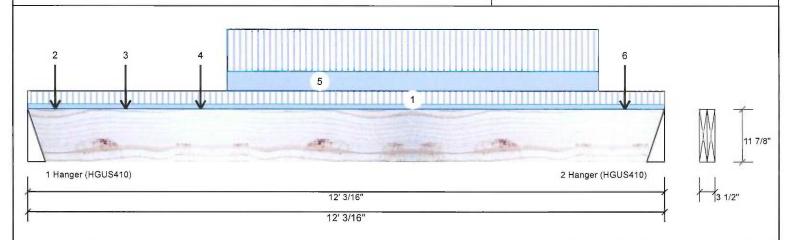
Project #:

Forex 2.0E-3000Fb LVL

1.750" X 11.875"

2-Ply - PASSED

Level: Second Floor



nation			
Girder		Application:	Floor (Residential)
2		Design Method:	LSD
Dry		Building Code:	NBCC 2010 / OBC 2012
360		Load Sharing:	No
240		Deck:	Not Checked
Normal		Vibration:	Not Checked
40 PSF			
15 PSF			
	Girder 2 Dry 360 240 Normal	Girder 2 Dry 360 240 Normal	Girder Application: Design Method: Dry Building Code: Load Sharing: Deck: Normal Vibration:

Unfactored	Reactions	UNPATTERNE	lb (	(Uplift)

Brg	Live	Dead	Snow	Wind
1	1854	816	0	0
2	1824	862	0	0

# **Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	10792 ft-lb	6' 7/16"	34261 ft-lb	0.315 (31%)	1.25D+1.5L	L
Unbraced	10792 ft-lb	6' 7/16"	28134 ft-lb	0.384 (38%)	1.25D+1.5L	L
Shear	3604 lb	1'3 1/8"	11596 lb	0.311 (31%)	1,25D+1.5L	L
Perm Defl in.	0.065 (L/2121)	6' 7/16"	0.383 (L/360)	0.170 (17%)	D	Uniform
LL Defl inch	0.140 (L/983)	6' 1/8"	0.383 (L/360)	0,370 (37%)	L	L
TL Defl inch	0.205 (L/671)	6' 1/4"	0.574 (L/240)	0.360 (36%)	D+L	L

# **Bearings and Factored Reactions**

ľ	Bearing	Length	Сар.	React D/L lb	Total	Ld. Case	Ld. Comb.	
	1 - Hanger	4.000"	37%	1021 / 2780	3801	L	1.25D+1.5L	
	2 - Hanger	4.000"	37%	1078 / 2736	3814	L	1.25D+1.5L	

#### **Design Notes**

- 1 Fill all hanger nailing holes.
- 2 Girders are designed to be supported on the bottom edge only.
- 3 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 MEMBI CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS.

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



	sicilaciliess latio basea e	iii iaii oootioii iiiaaii.		_			_		
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 12-0-3	(Span)3-9-7	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-6-4		Near Face	90 lb	240 lb	0 lb	0 lb	J4
3	Point	1-10-4		Near Face	124 lb	330 lb	0 lb	0 lb	J4
4	Point	3-3-4		Near Face	109 lb	290 lb	0 lb	0 lb	J4
5	Part. Uniform	3-9-4 to 10-9-4		Near Face	113 PLF	240 PLF	0 PLF	0 PLF	
6	Point	11-3-4		Near Face	109 lb	227 lb	0 lb	0 lb	J4
	Self Weight				10 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

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

#### Handling & Installation

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

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

APA: PR-L318

Kott Lumber Company 14 Anderson Blvd, Ontario



