Engineering Note Page (ENP-2)

REVISION 2018-10-17

Please read all notes prior to installation of the component

DESIGN INFORMATION

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

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

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

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

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

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

CODE

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

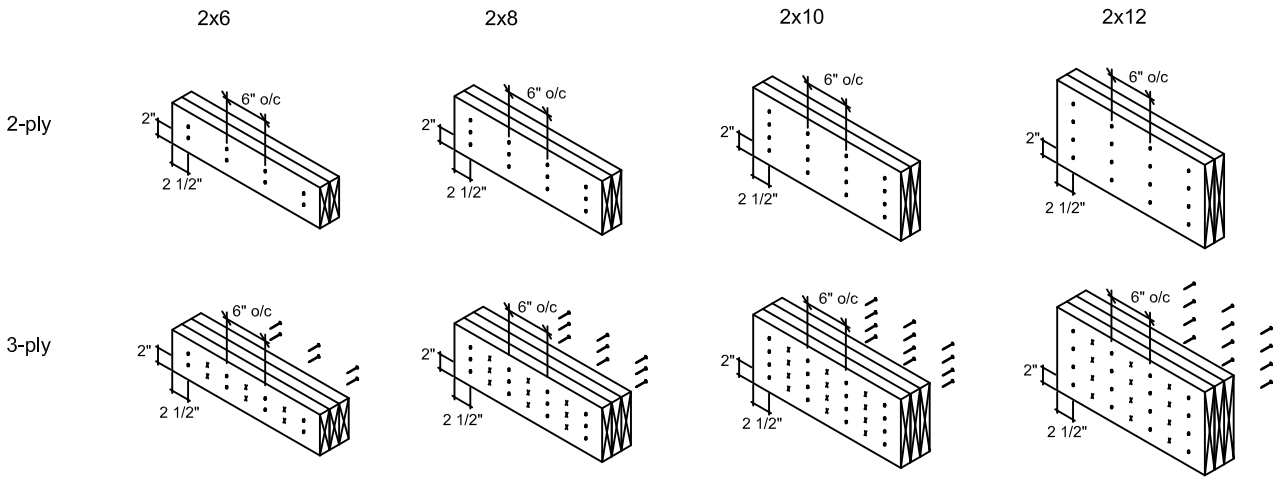
COMPONENT

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

HANDLING AND INSTALLATION

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

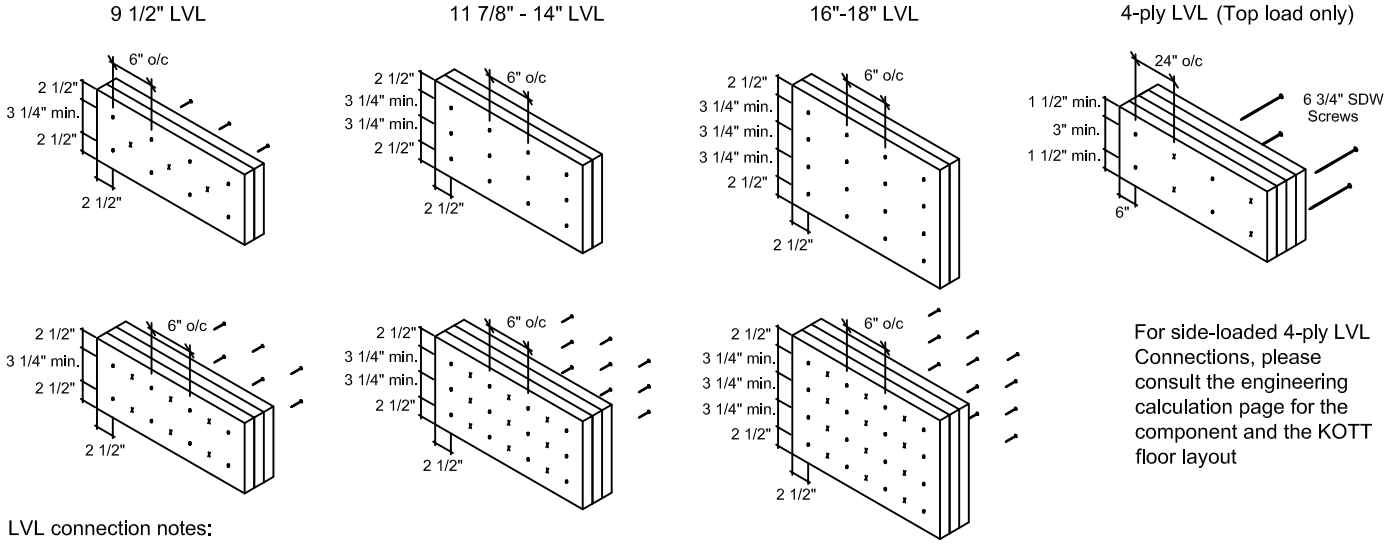
Conventional Connections



Conventional connection notes:

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

LVL Connections



For side-loaded 4-ply LVL Connections, please consult the engineering calculation page for the component and the KOTT floor layout

LVL connection notes:

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

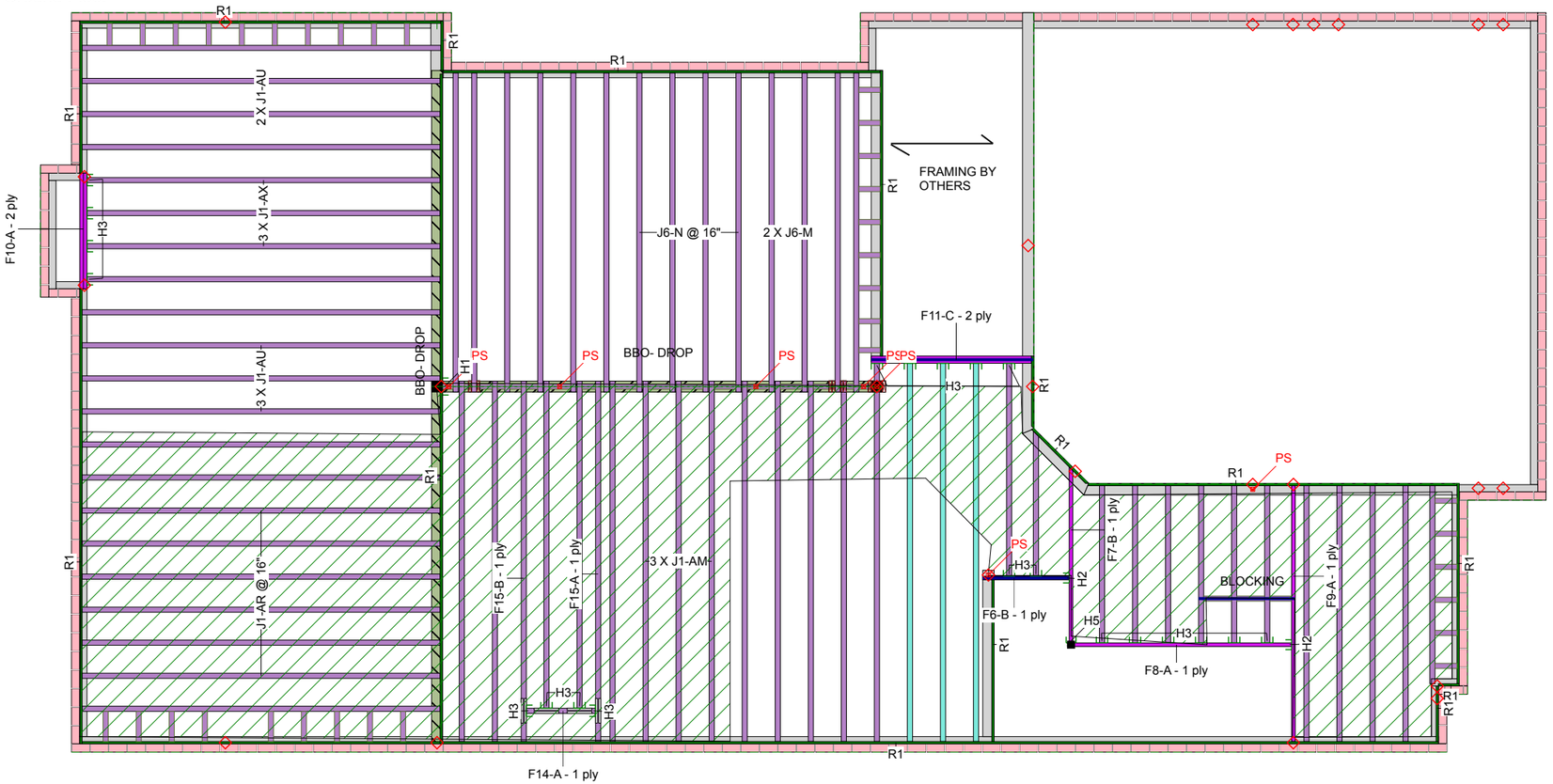
Multiple Member Connections

All connections are for uniformly distributed loads.

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

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

Ground Floor



Ground Floor
LVL/LSL

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
F9	Forex 2.0E-3000Fb LVL	1.75	11.875			1	12-0-0
F8	Forex 2.0E-3000Fb LVL	1.75	11.875			1	10-0-0
F11	Forex 2.0E-3000Fb LVL	1.75	11.875	1	2	2	8-0-0
F7	Forex 2.0E-3000Fb LVL	1.75	11.875			1	8-0-0
F10	Forex 2.0E-3000Fb LVL	1.75	11.875	1	2	2	6-0-0
F6	Forex 2.0E-3000Fb LVL	1.75	11.875			1	4-0-0

I Joist

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
F15	LPI 20Plus	2.5	11.875			2	16-0-0
F14	LPI 20Plus	2.5	11.875			1	4-0-0
J1	LPI 20Plus	2.5	11.875			32	16-0-0
J6	LPI 20Plus	2.5	11.875			16	14-0-0
J5	LPI 20Plus	2.5	11.875			4	12-0-0
J4	LPI 20Plus	2.5	11.875			1	10-0-0
J10	LPI 20Plus	2.5	11.875			7	8-0-0
J2	LPI 20Plus	2.5	11.875			1	6-0-0
J7	NJ60H	2.5	11.875			3	16-0-0

Rim Board

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
R1	Norbord Rimboard Plus 1.125 X 11.875	1.125	11.875			16	12

Hanger

Label	Pcs	Description	Skew	Slope	Beam/Girder fasteners	Supported Member fasteners
H1	1	Unknown Hanger				
H2	2	HUS1.81/10			30 10dx1 1/2	10 16d
H3	21	LF2511			12 10d	1 #8x1 1/4WS
H5	1	HUS1.81/10				

Blocking

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
BLK1	LPI 20 Plus	2.5	11.875	LinFt		Varies	48-0-0

NOTES:

1. Framer to verify dimensions on the architectural drawings.
2. Double joist only require filler/backer ply when supporting another member using a face-mounted hanger.
3. Install 2x4 blocking @ 24" o/c under parallel non-loadbearing walls.
4. Install single-ply flush window header along inside face of rimboard/rimjoist
5. Refer to Nascor specifier guide for installation details.
6. Squash blocks recommended to be installed at end bearing on all first level joists which support loading from above exceeding two levels floor or roof.
7. Load transfer blocks to be installed under all point loads.
8. It shall be the framer's responsibility that floor joists and beams are fastened as per the hanger manufacturer's standards.

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

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

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

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

NASCOR

Layout Name
LOT 5 (AMELIA 3)

Design Method
LSD

Description
GREEN YORK HOMES
GRANELLI HOMES PROJECT
BRAMPTON,ON

Created
May 29, 2018

Builder

Sales Rep
RM

Designer
S B

Shipping

Project

Builder's Project

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

Ground Floor

Design Method	LSD
Building Code	NBCC 2010 / OBC 2012

Floor

Loads	
Live	40
Dead	15
Deflection Joist	
LL Span L/	480
TL Span L/	360
LL Cant 2L/	480
TL Cant 2L/	360
Deflection Girder	
LL Span L/	360
TL Span L/	240
LL Cant 2L/	480
TL Cant 2L/	360
Decking	
Deck	OSB
Thickness	3/4"
Fastener	Nailed & Glued
Vibration	

Architectural Drawing Info

JARDIN DESIGN GROUP
64 JARDIN DR, SUITE 3A
VAUGHAN,ON L4K 3P3
Project # 17-55
Model: LOT-5 (AMELIA 3)
Date: AUG 30, 2018

JOISTS SPACING 16"O/C UNLESS NOTED OTHERWISE

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 KOTT span table for the loads and spacing shown on this layout.
The floor system must be assembled in accordance to the KOTT 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.

LICENSED PROFESSIONAL ENGINEER
I.MATIJEVIC
100528832
PROVINCE OF ONTARIO

December 18, 2018

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)

Legend

PS	Point Load Support
◇	Load from Above
	Wall
	Norbord Rimboard Plus 1.125 X 11.875
	LPI 20Plus 11.875
	NJ60H 11.875
	Forex 2.0E-3000Fb LVL 1.75 X 11.875
	5.25 X 10.25 (Dropped)

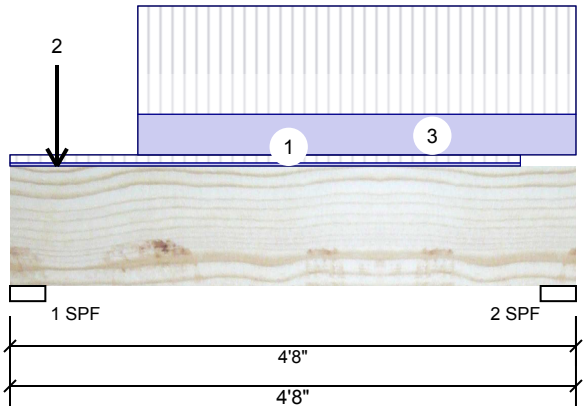
isDesign™

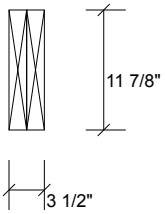
Client:
Project:
Address:

Date: 12/17/2018
Designer: S B
Job Name: LOT 5 (AMELIA 3)
Project #:

F10-A Forex 2.0E-3000Fb LVL 1.750" X 11.875" 2-Ply - PASSED

Level: Ground Floor





Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	836	336	0	0
2	761	308	0	0

Bearings and Factored Reactions

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

Analysis Results

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

Design Notes

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

LICENSED PROFESSIONAL ENGINEER
I.MATIJEVIC
100528832
PROVINCE OF ONTARIO

December 18, 2018

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

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

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

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

Notes

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

Lumber

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

Handling & Installation

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

This design is valid until 10/18/2021

Manufacturer Info

Forex
APA: PR-L318

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

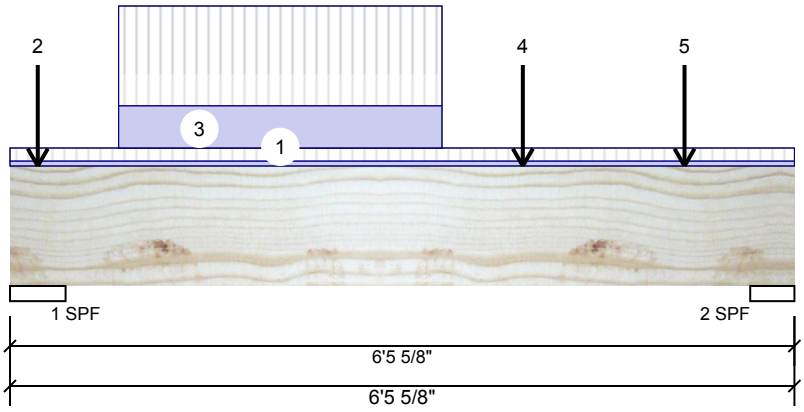
isDesign™

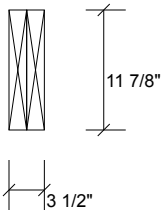
Client:
Project:
Address:

Date: 12/17/2018
Designer: S B
Job Name: LOT 5 (AMELIA 3)
Project #:

F11-C Forex 2.0E-3000Fb LVL 1.750" X 11.875" 2-Ply - PASSED

Level: Ground Floor





Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	837	383	0	0
2	823	385	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.500"	15%	479 / 1256	1735	L	1.25D+1.5L
2 - SPF	4.375"	18%	482 / 1234	1716	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2763 ft-lb	3'2 11/16"	34261 ft-lb	0.081 (8%)	1.25D+1.5L	L
Unbraced	2763 ft-lb	3'2 11/16"	32711 ft-lb	0.084 (8%)	1.25D+1.5L	L
Shear	1902 lb	5'2 1/8"	11596 lb	0.164 (16%)	1.25D+1.5L	L
Perm Defl in.	0.005 (L/12838)	3'3 1/4"	0.192 (L/360)	0.030 (3%)	D	Uniform
LL Defl inch	0.012 (L/5833)	3'3 1/16"	0.192 (L/360)	0.060 (6%)	L	L
TL Defl inch	0.017 (L/4011)	3'3 1/8"	0.289 (L/240)	0.060 (6%)	D+L	L

Design Notes

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

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

December 18, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 6-5-10		Top	15 PLF	40 PLF	0 PLF	0 PLF	
2	Point	0-2-12		Top	1 lb	0 lb	0 lb	0 lb	Wall Bearing
3	Part. Uniform	0-10-12 to 3-6-12		Near Face	129 PLF	305 PLF	0 PLF	0 PLF	
4	Point	4-2-12		Near Face	171 lb	387 lb	0 lb	0 lb	
5	Point	5-6-12		Near Face	94 lb	201 lb	0 lb	0 lb	
	Self Weight				10 PLF				

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

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

Notes

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

Lumber

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

Handling & Installation

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

This design is valid until 10/18/2021

Manufacturer Info

Forex
APA: PR-L318

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

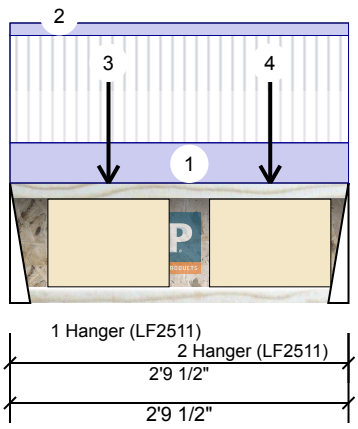
isDesign™

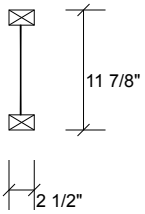
Client:
Project:
Address:

Date: 12/17/2018
Designer: S B
Job Name: LOT 5 (AMELIA 3)
Project #:

F14-A LPI 20Plus 11.875" - PASSED

Level: Ground Floor





Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

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

Bearings and Factored Reactions

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

Analysis Results

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

Design Notes

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

December 18, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 2-9-8	(Span)1-3-7	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 2-9-8		Top	3 PLF	0 PLF	0 PLF	0 PLF	
3	Point	0-9-12		Far Face	141 lb	291 lb	0 lb	0 lb	J6
4	Point	2-1-12		Far Face	133 lb	269 lb	0 lb	0 lb	J6

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

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

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

Notes

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

KOTT

This design is valid until 10/31/2020

Manufacturer Info

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

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

NASCOR

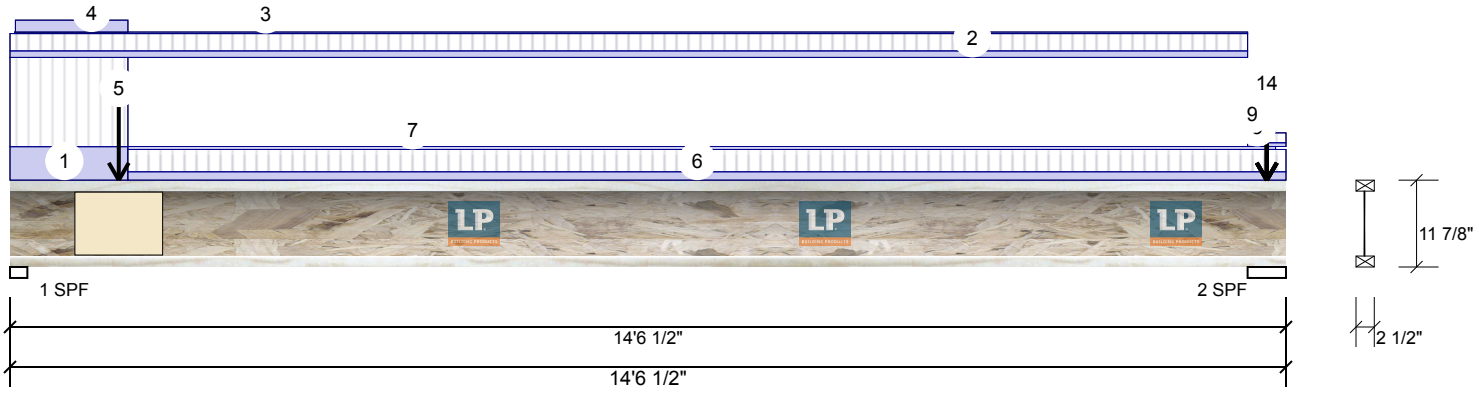
isDesign™

Client:
Project:
Address:

Date: 12/17/2018
Designer: S B
Job Name: LOT 5 (AMELIA 3)
Project #:

F15-A LPI 20Plus 11.875" - PASSED

Level: Ground Floor



Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	551	270	0	0
2	547	275	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	71%	338 / 827	1164	L	1.25D+1.5L
2 - SPF	5.250"	64%	343 / 821	1164	L	1.25D+1.5L

Analysis Results

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

Design Notes

1 Provide restraint at supports to ensure lateral stability.
2 Applied loads over end bearings and loads exceeding 250 lbs over intermediate bearings must be transferred directly to the support by rim board, blocking, squash blocks, or other device.
3 Dead Load Deflection: Instant = 0.056", Long Term = 0.084"
4 See manufacture installation guide note E4 for installation details
5 Girders are designed to be supported on the bottom edge only.
6 Top flange must be laterally braced at a maximum of 7'7" o.c.
7 Bottom flange braced at bearings.

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

December 18, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-4-2	(Span)3-0-0 to 3-0-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 14-1-4	(Span)0-7-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	0-0-10 to 14-1-4		Top	1 PLF	0 PLF	0 PLF	0 PLF	
4	Part. Uniform	0-0-12 to 1-4-2		Top	8 PLF	0 PLF	0 PLF	0 PLF	
5	Point	1-2-14		Far Face	161 lb	328 lb	0 lb	0 lb	514

Continued on page 2...

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

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

Notes

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

KOTT

This design is valid until 10/31/2020

Manufacturer Info

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

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

NASCOR

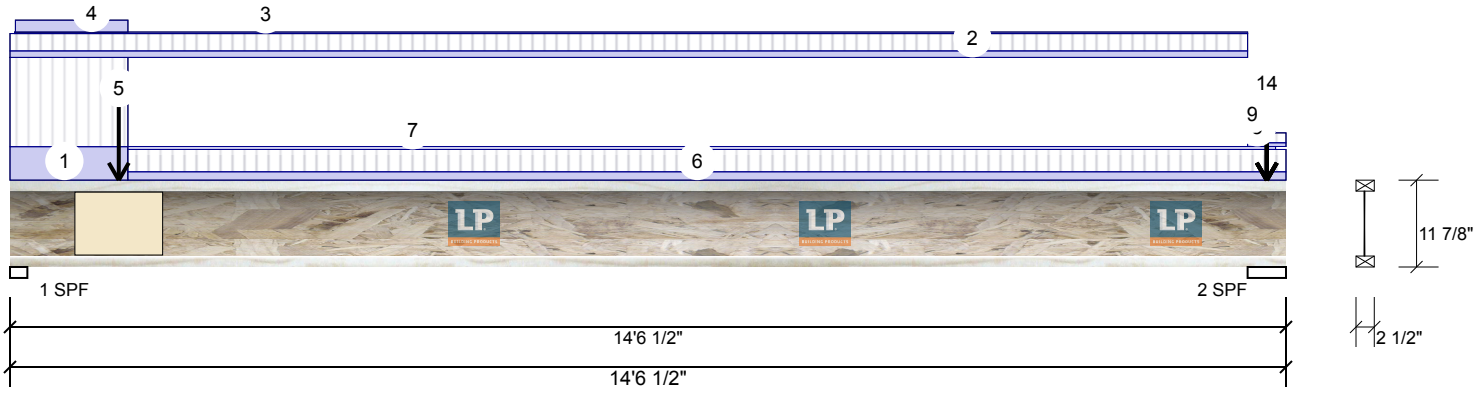
isDesign™

Client:
Project:
Address:

Date: 12/17/2018
Designer: S B
Job Name: LOT 5 (AMELIA 3)
Project #:

F15-A LPI 20Plus 11.875" - PASSED

Level: Ground Floor



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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
6	Tie-In	1-4-2 to 14-6-8	(Span)0-9-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
7	Part. Uniform	1-4-2 to 14-5-1		Top	2 PLF	0 PLF	0 PLF	0 PLF	
8	Tie-In	14-1-4 to 14-6-8	(Span)0-4-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
9	Part. Uniform	14-1-4 to 14-5-1		Top	1 PLF	0 PLF	0 PLF	0 PLF	
10	Point	14-3-14		Top	37 lb	98 lb	0 lb	0 lb	J1
	Bearing Length	0-1-8							
11	Point	14-3-14		Top	51 lb	136 lb	0 lb	0 lb	J6
	Bearing Length	0-1-8							
12	Point	14-3-14		Top	31 lb	80 lb	0 lb	0 lb	J1
	Bearing Length	0-1-8							
13	Point	14-3-14		Top	4 lb	10 lb	0 lb	0 lb	J6
	Bearing Length	0-1-8							
14	Point	14-3-14		Top	43 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-1-8							

December 18, 2018

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

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

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

Notes

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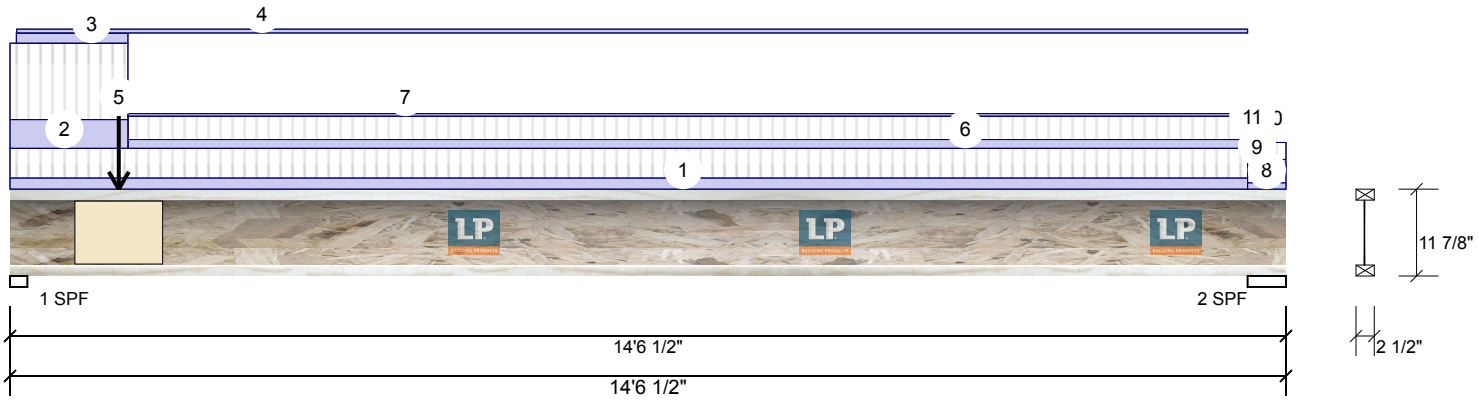
Client:
Project:
Address:

Date: 12/17/2018
Designer: S B
Job Name: LOT 5 (AMELIA 3)
Project #:

F15-B LPI 20Plus 11.875" - PASSED

Level: Ground Floor



Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

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

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	82%	389 / 948	1336	L	1.25D+1.5L
2 - SPF	5.250"	38%	202 / 491	694	L	1.25D+1.5L

Analysis Results

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

Design Notes

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

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

LICENSED PROFESSIONAL ENGINEER
I.MATIJEVIC
100528832
PROVINCE OF ONTARIO
December 18, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 14-1-4	(Span)1-2-0 to 1-2-0	Top	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	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	0-0-14 to 1-4-2		Top	8 PLF	0 PLF	0 PLF	0 PLF	
4	Part. Uniform	0-0-15 to 14-1-4		Top	3 PLF	0 PLF	0 PLF	0 PLF	
5	Point	1-2-14		Near Face	148 lb	304 lb	0 lb	0 lb	F14
6	Tie-In	1-4-2 to 14-1-4	(Span)0-11-0 to 0-11-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	

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

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

Continued on page 2...

Notes

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

KOTT

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NASCOR

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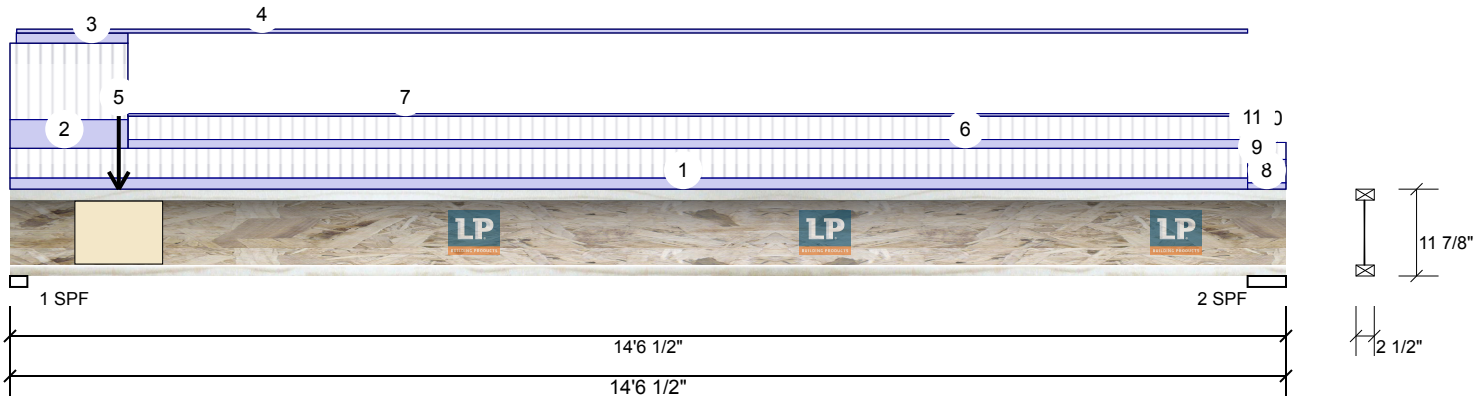
Client:
Project:
Address:

Date: 12/17/2018
Designer: S B
Job Name: LOT 5 (AMELIA 3)
Project #:

F15-B LPI 20Plus 11.875" - PASSED

Level: Ground Floor



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

December 18, 2018

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

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

Notes

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

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905-642-4400

NASCOR

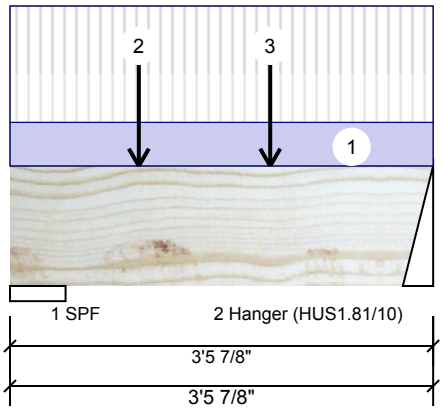
isDesign™

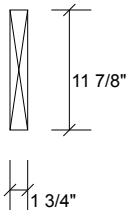
Client:
Project:
Address:

Date: 12/17/2018
Designer: S B
Job Name: LOT 5 (AMELIA 3)
Project #:

F6-B Forex 2.0E-3000Fb LVL 1.750" X 11.875" - PASSED

Level: Ground Floor





Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	360	170	0	0
2	259	122	0	0

Bearings and Factored Reactions

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

Analysis Results

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

Design Notes

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

December 18, 2018

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

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

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

Notes

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

Lumber

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

Handling & Installation

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

This design is valid until 10/18/2021

Manufacturer Info

Forex
APA: PR-L318

KOTT

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

NASCOR

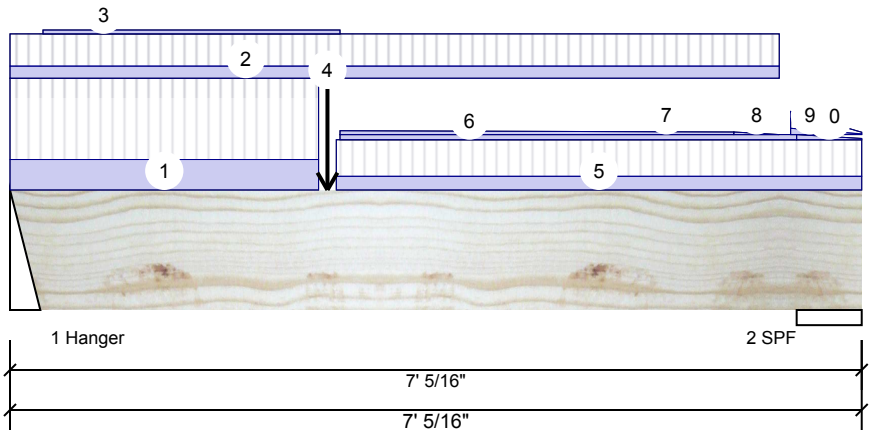
isDesign™

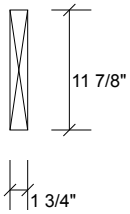
Client:
Project:
Address:

Date: 12/17/2018
Designer: S B
Job Name: LOT 5 (AMELIA 3)
Project #:

F7-B Forex 2.0E-3000Fb LVL 1.750" X 11.875" - PASSED

Level: Ground Floor





Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	410	199	0	0
2	295	156	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	3.000"	22%	248 / 615	864	L	1.25D+1.5L
2 - SPF	6.438"	9%	195 / 442	637	L	1.25D+1.5L

Analysis Results

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

Design Notes

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

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

LICENSED PROFESSIONAL ENGINEER
I.MATIJEVIC
100528832
PROVINCE OF ONTARIO

December 18, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 2-6-9	(Span)3-1-13	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 6-4-2	(Span)1-3-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	0-3-4 to 2-8-10		Top	3 PLF	0 PLF	0 PLF	0 PLF	
4	Point	2-7-7		Far Face	122 lb	259 lb	0 lb	0 lb	F6
5	Tie-In	2-8-5 to 7-0-5	(Span)1-5-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
6	Part. Uniform	2-8-10 to 6-5-14		Top	4 PLF	0 PLF	0 PLF	0 PLF	
7	Tapered Start	2-8-10		Top	3 PLF	0 PLF	0 PLF	0 PLF	

Continued on page 2...

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

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

Notes

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

Lumber

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

Handling & Installation

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

This design is valid until 10/18/2021

Manufacturer Info

Forex
APA: PR-L318

KOTT

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905-642-4400

NASCOR

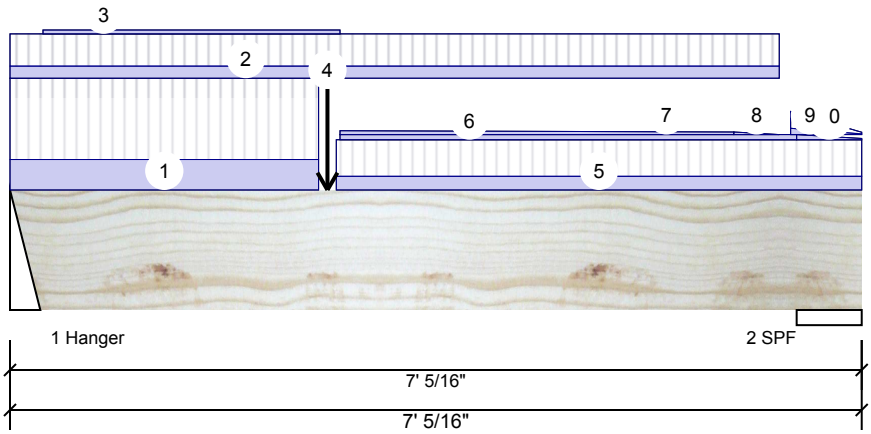
isDesign™

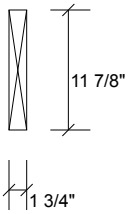
Client:
Project:
Address:

Date: 12/17/2018
Designer: S B
Job Name: LOT 5 (AMELIA 3)
Project #:

F7-B Forex 2.0E-3000Fb LVL 1.750" X 11.875" - PASSED

Level: Ground Floor





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

December 18, 2018

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

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

Notes

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

Lumber

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

Handling & Installation

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

This design is valid until 10/18/2021

Manufacturer Info

Forex
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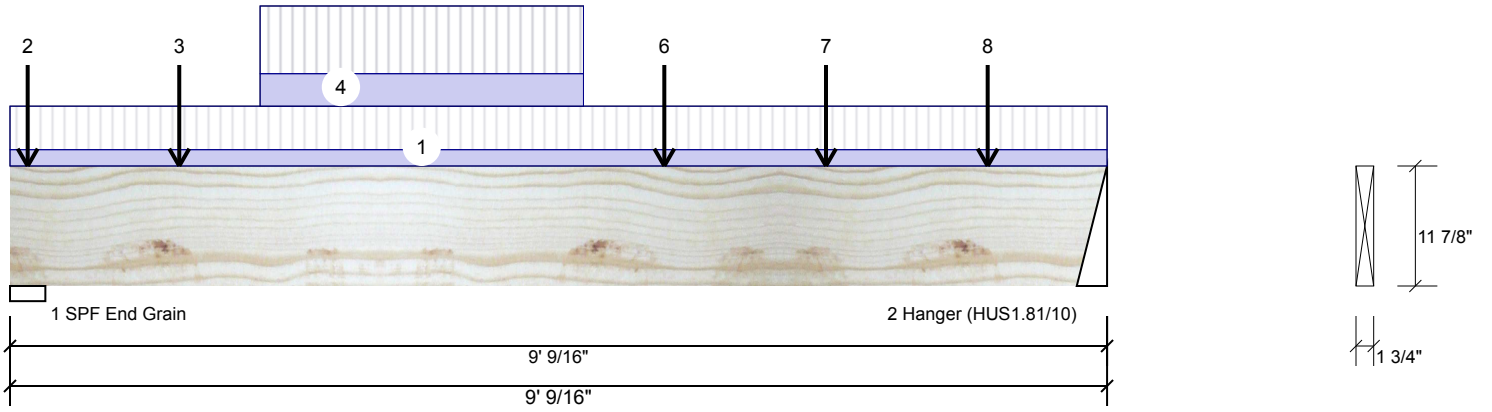
Address:

Date: 12/17/2018
Designer: S B
Job Name: LOT 5 (AMELIA 3)
Project #:

F8-A Forex 2.0E-3000Fb LVL 1.750" X 11.875" - PASSED

Level: Ground Floor



Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	1200	535	0	0
2	1290	544	0	0

Bearings and Factored Reactions

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

Analysis Results

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

Design Notes

1 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 4.5.
2 Fill all hanger nailing holes.
3 Girders are designed to be supported on the bottom edge only.
4 Top braced at bearings.
5 Bottom braced at bearings.

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

December 18, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 9-0-9	(Span)3-11-7 to 3-11-7	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-1-12		Top	110 lb	248 lb	0 lb	0 lb	C4
3	Point	1-4-12		Far Face	77 lb	158 lb	0 lb	0 lb	J10
4	Part. Uniform	2-0-12 to 4-8-12		Far Face	59 PLF	123 PLF	0 PLF	0 PLF	
6	Point	5-4-12		Far Face	126 lb	296 lb	0 lb	0 lb	J10
7	Point	6-8-12		Far Face	156 lb	393 lb	0 lb	0 lb	J10

Continued on page 2...

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

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

Notes

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

Lumber

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

Handling & Installation

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

This design is valid until 10/18/2021

Manufacturer Info

Forex
APA: PR-L318

KOTT

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

NASCOR

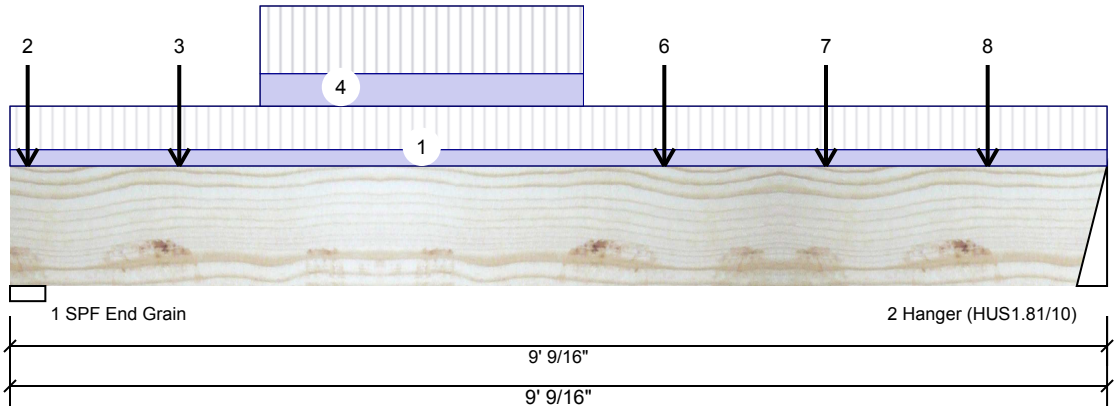
isDesign™

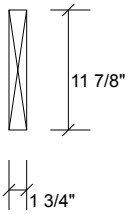
Client:
Project:
Address:

Date: 12/17/2018
Designer: S B
Job Name: LOT 5 (AMELIA 3)
Project #:

F8-A Forex 2.0E-3000Fb LVL 1.750" X 11.875" - PASSED

Level: Ground Floor





...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
8	Point	8-0-12		Far Face	141 lb	352 lb	0 lb	0 lb	J10
	Self Weight				5 PLF				

LICENSED PROFESSIONAL ENGINEER
I.MATIJEVIC
100528832
PROVINCE OF ONTARIO

December 18, 2018

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

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

Notes

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Lumber

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

Handling & Installation

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

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KOTT

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14 Anderson Blvd, Ontario
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905-642-4400

NASCOR

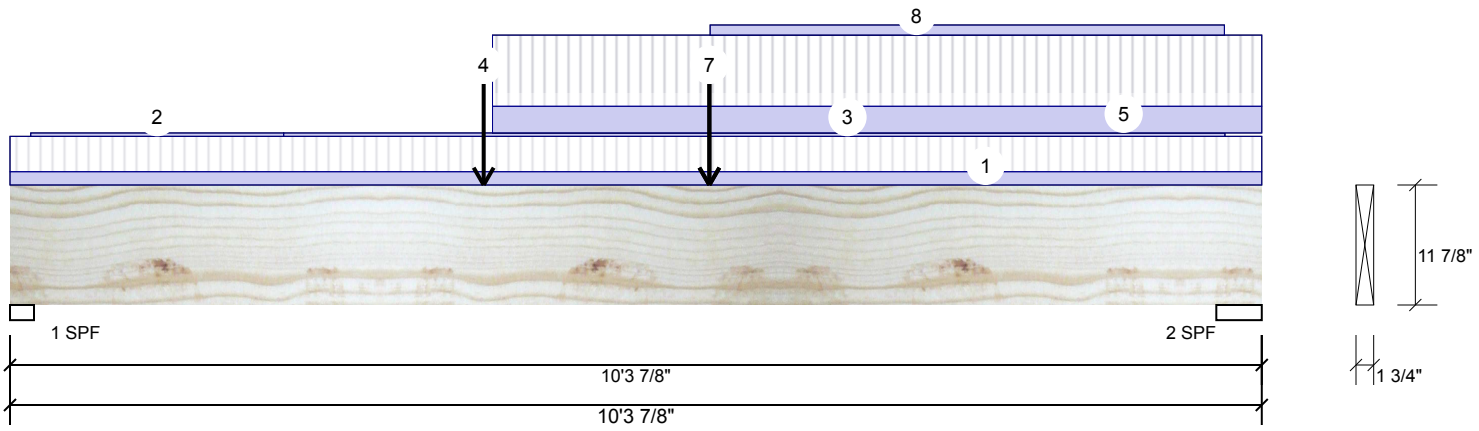
isDesign™

Client:
Project:
Address:

Date: 12/17/2018
Designer: S B
Job Name: LOT 5 (AMELIA 3)
Project #:

F9-A Forex 2.0E-3000Fb LVL 1.750" X 11.875" - PASSED

Level: Ground Floor



Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	949	425	0	0
2	722	334	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	76%	531 / 1424	1955	L	1.25D+1.5L
2 - SPF	4.500"	31%	417 / 1083	1501	L	1.25D+1.5L

Analysis Results

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

Design Notes

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

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

LICENSED PROFESSIONAL ENGINEER
I.MATIJEVIC
100528832
PROVINCE OF ONTARIO

December 18, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 10-3-14	(Span)0-6-5	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-2-1 to 2-3-1		Top	1 PLF	0 PLF	0 PLF	0 PLF	
3	Part. Uniform	2-3-1 to 10-0-4		Top	1 PLF	0 PLF	0 PLF	0 PLF	
4	Point	3-10-14		Far Face	544 lb	1290 lb	0 lb	0 lb	F8
5	Tie-In	3-11-12 to 10-3-14	(Span)1-0-11	Top	15 PSF	40 PSF	0 PSF	0 PSF	
6	Point	5-9-3		Top	48 lb	127 lb	0 lb	0 lb	
7	Point	5-9-3		Top	4 lb	12 lb	0 lb	0 lb	
8	Part. Uniform	5-9-5 to 10-0-3		Top	3 PLF	0 PLF	0 PLF	0 PLF	
	Self Weight				5 PLF				

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

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

Notes

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

Lumber

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

Handling & Installation

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

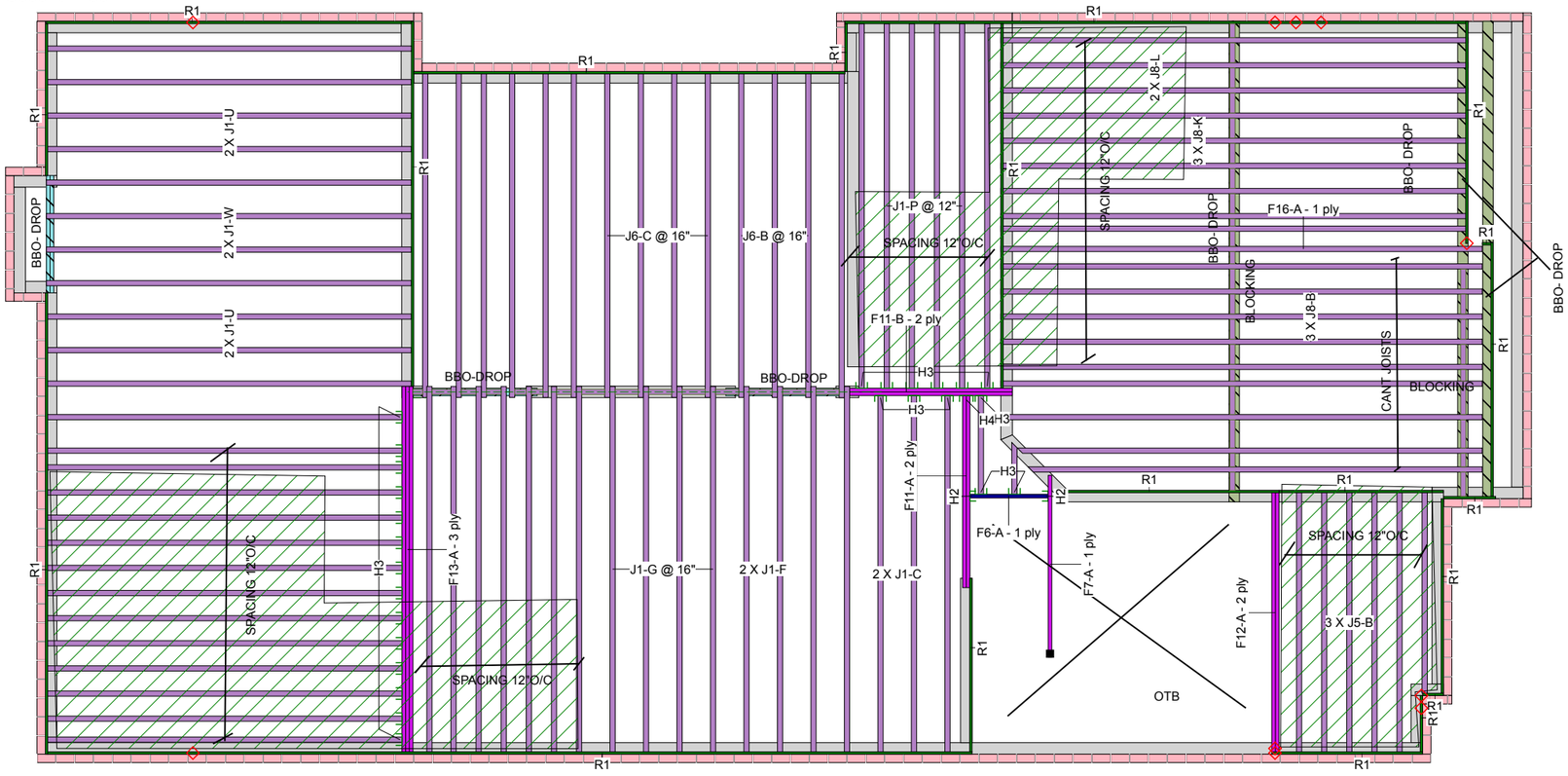
This design is valid until 10/18/2021

Manufacturer Info

Forex
APA: PR-L318

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

Second Floor



Architectural Drawing Info
JARDIN DESIGN GROUP 64 JARDIN DR, SUITE 3A VAUGHAN,ON L4K 3P3 Project # 17-55 Model: LOT 5 (AMELIA 3) Date: AUG 30, 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)

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 KOTT span table for the loads and spacing shown on this layout.
The floor system must be assembled in accordance to the KOTT 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.

December 18, 2018

Second Floor
LVL/LSL

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
F13	Forex 2.0E-3000Fb LVL	1.75	11.875	1	3	3	16-0-0
F12	Forex 2.0E-3000Fb LVL	1.75	11.875	1	2	2	12-0-0
F11	Forex 2.0E-3000Fb LVL	1.75	11.875	2	2	4	8-0-0
F7	Forex 2.0E-3000Fb LVL	1.75	11.875			1	8-0-0
F6	Forex 2.0E-3000Fb LVL	1.75	11.875			1	4-0-0

I Joist

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
J8	LPI 20Plus	2.5	11.875			18	20-0-0
J1	LPI 20Plus	2.5	11.875			49	16-0-0
J6	LPI 20Plus	2.5	11.875			14	14-0-0
J5	LPI 20Plus	2.5	11.875			5	12-0-0
J10	LPI 20Plus	2.5	11.875			1	8-0-0
J9	LPI 20Plus	2.5	11.875			2	4-0-0
F16	LPI 20Plus	2.5	11.875			1	20-0-0

Rim Board

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
R1	Norbord Rimboard Plus 1.125 X 11.875	1.125	11.875			18	12

Blocking

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
BLK1	LPI 20 Plus	2.5	11.875	LinFt		Varies	34-0-0

Hanger

Label	Pcs	Description	Skew	Slope	Beam/Girder fasteners	Supported Member fasteners
H2	2	HUS1.81/10			30 16d	10 16d
H3	26	LF2511			12 10d	1 #8x1 1/4WS
H4	1	HGUS410			46 16d	16 16d

NOTES:

1. Framer to verify dimensions on the architectural drawings.
2. Double joist only require filler/backer ply when supporting another member using a face-mounted hanger.
3. Install 2x4 blocking @ 24" o/c under parallel non-loadbearing walls.
4. Install single-ply flush window header along inside face of rimboard/rimjoist
5. Refer to Nascor specifier guide for installation details.
6. Squash blocks recommended to be installed at end bearing on all first level joists which support loading from above exceeding two levels floor or roof.
7. Load transfer blocks to be installed under all point loads.
8. It shall be the framer's responsibility that floor joists and beams are fastened as per the hanger manufacturer's standards.

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

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

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

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

Legend

PS ◇	Point Load Support
	Load from Above
	Wall
	Norbord Rimboard Plus 1.125 X 11.875
	LPI 20Plus 11.875
	Forex 2.0E-3000Fb LVL 1.75 X 11.875
	1.75 X 9.5 (Dropped)
	5 X 10.25 (Dropped)

NASCOR

Layout Name	LOT 5 (AMELIA 3)
Design Method	LSD
Description	GREEN YORK HOMES GRANELLI HOMES PROJECT BRAMPTON,ON
Created	May 29, 2018
Builder	
Sales Rep	RM
Designer	S B
Shipping	
Project	
Builder's Project	

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

Second Floor

Design Method	LSD
Building Code	NBCC 2010 / OBC 2012

Floor

Loads	
Live	40
Dead	15
Deflection Joist	
LL Span L/	480
TL Span L/	360
LL Cant 2L/	480
TL Cant 2L/	360
Deflection Girder	
LL Span L/	360
TL Span L/	240
LL Cant 2L/	480
TL Cant 2L/	360
Decking	
Deck	OSB
Thickness	5/8"
Fastener	Nailed & Glued
Vibration	
Ceiling:	Gypsum 1/2"

KOTT

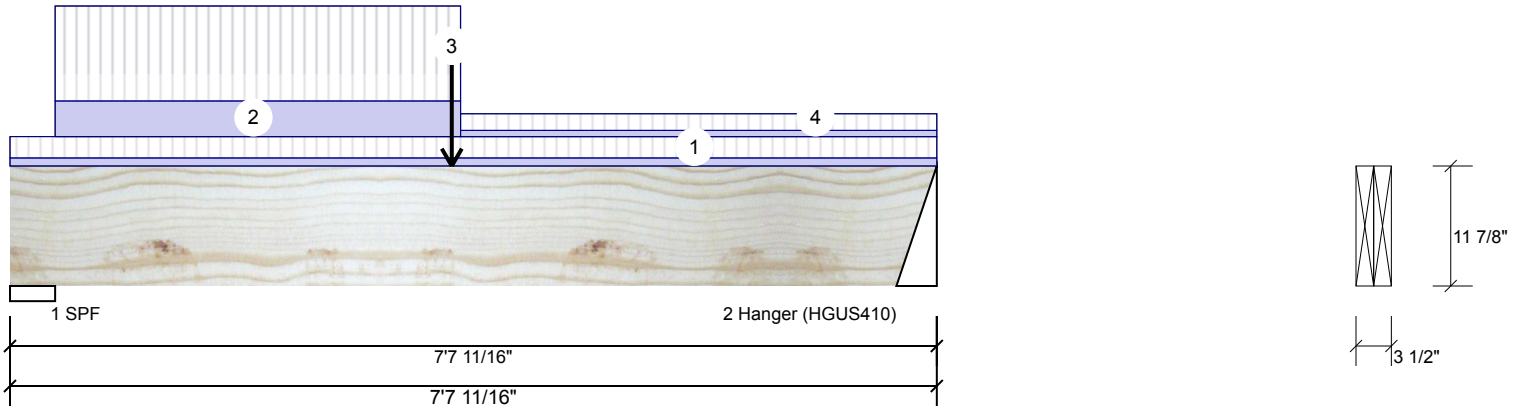
isDesign™

Client:
Project:
Address:

Date: 12/17/2018
Designer: S B
Job Name: LOT 5 (AMELIA 3)
Project #:

F11-A Forex 2.0E-3000Fb LVL 1.750" X 11.875" 2-Ply - PASSED

Level: Second Floor



Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	489	224	0	0
2	372	179	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	4.467"	11%	280 / 733	1013	L	1.25D+1.5L
2 - Hanger	4.000"	8%	224 / 558	782	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2402 ft-lb	3'7 11/16"	34261 ft-lb	0.070 (7%)	1.25D+1.5L	L
Unbraced	2402 ft-lb	3'7 11/16"	31940 ft-lb	0.075 (8%)	1.25D+1.5L	L
Shear	838 lb	1'3 9/16"	11596 lb	0.072 (7%)	1.25D+1.5L	L
Perm Defl in.	0.006 (L/15375)	3'7 3/4"	0.235 (L/360)	0.020 (2%)	D	Uniform
LL Defl inch	0.012 (L/6820)	3'7 3/4"	0.235 (L/360)	0.050 (5%)	L	L
TL Defl inch	0.018 (L/4725)	3'7 3/4"	0.353 (L/240)	0.050 (5%)	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 braced at bearings.
6 Bottom braced at bearings.
7 Lateral slenderness ratio based on full section width.

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December 18, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 7-7-11	(Span)0-9-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-4-7 to 3-8-9	(Span)3-4-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	3-7-11		Near Face	187 lb	477 lb	0 lb	0 lb	F6
4	Tie-In	3-8-9 to 7-7-11	(Span)0-7-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				10 PLF				

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

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

Notes

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Lumber

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

Handling & Installation

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

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Manufacturer Info

Forex
APA: PR-L318

Kott Lumber Company
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L4A 7X4
905-642-4400

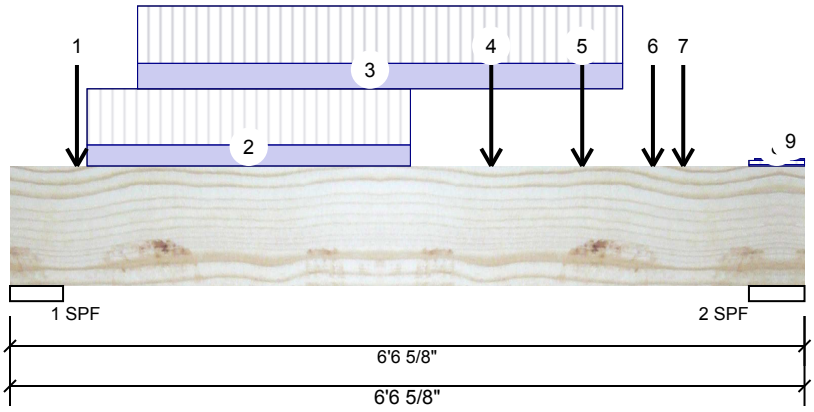
isDesign™

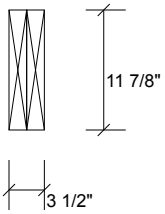
Client:
Project:
Address:

Date: 12/17/2018
Designer: S B
Job Name: LOT 5 (AMELIA 3)
Project #:

F11-B Forex 2.0E-3000Fb LVL 1.750" X 11.875" 2-Ply - PASSED

Level: Second Floor





Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	1641	715	0	0
2	1474	665	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.250"	30%	894 / 2461	3355	L	1.25D+1.5L
2 - SPF	5.500"	26%	831 / 2211	3042	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4870 ft-lb	3'3 5/8"	34261 ft-lb	0.142 (14%)	1.25D+1.5L	L
Unbraced	4870 ft-lb	3'3 5/8"	32706 ft-lb	0.149 (15%)	1.25D+1.5L	L
Shear	3588 lb	5'2"	11596 lb	0.309 (31%)	1.25D+1.5L	L
Perm Defl in.	0.009 (L/7425)	3'3 5/8"	0.193 (L/360)	0.050 (5%)	D	Uniform
LL Defl inch	0.021 (L/3252)	3'3 7/16"	0.193 (L/360)	0.110 (11%)	L	L
TL Defl inch	0.031 (L/2262)	3'3 1/2"	0.289 (L/240)	0.110 (11%)	D+L	L

Design Notes

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

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December 18, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Point	0-6-10		Far Face	111 lb	256 lb	0 lb	0 lb	J1
2	Part. Uniform	0-7-10 to 3-3-10		Near Face	105 PLF	280 PLF	0 PLF	0 PLF	
3	Part. Uniform	1-0-10 to 5-0-10		Far Face	127 PLF	286 PLF	0 PLF	0 PLF	
4	Point	3-11-10		Near Face	111 lb	296 lb	0 lb	0 lb	J1
5	Point	4-8-10		Near Face	179 lb	372 lb	0 lb	0 lb	F11
6	Point	5-3-10		Near Face	25 lb	67 lb	0 lb	0 lb	J1

Continued on page 2...

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

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

Notes

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

Lumber

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

Handling & Installation

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

This design is valid until 10/18/2021

Manufacturer Info

Forex
APA: PR-L318

KOTT

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

NASCOR

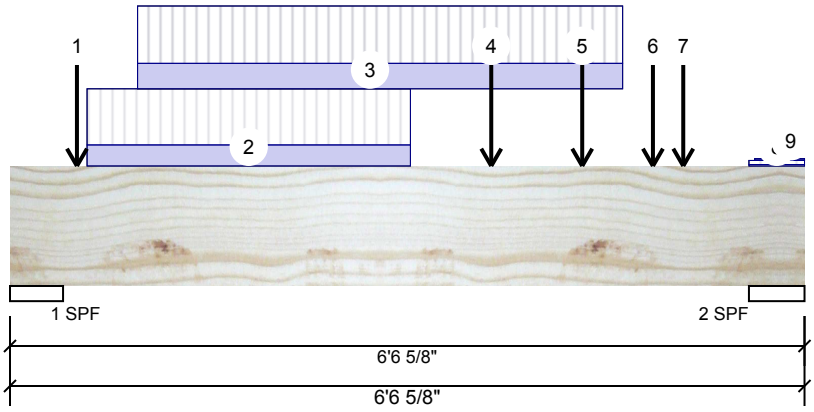
isDesign™

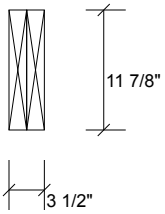
Client:
Project:
Address:

Date: 12/17/2018
Designer: S B
Job Name: LOT 5 (AMELIA 3)
Project #:

F11-B Forex 2.0E-3000Fb LVL 1.750" X 11.875" 2-Ply - PASSED

Level: Second Floor





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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
7	Point	5-6-10		Far Face	99 lb	221 lb	0 lb	0 lb	J1
8	Tie-In	6-1-2 to 6-6-10	(Span)1-0-1	Top	15 PSF	40 PSF	0 PSF	0 PSF	
9	Tie-In	6-1-11 to 6-6-10	(Span)0-3-15	Top	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				10 PLF				

December 18, 2018

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

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

Notes

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

Lumber

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

Handling & Installation

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

This design is valid until 10/18/2021

Manufacturer Info

Forex
APA: PR-L318

KOTT

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

NASCOR

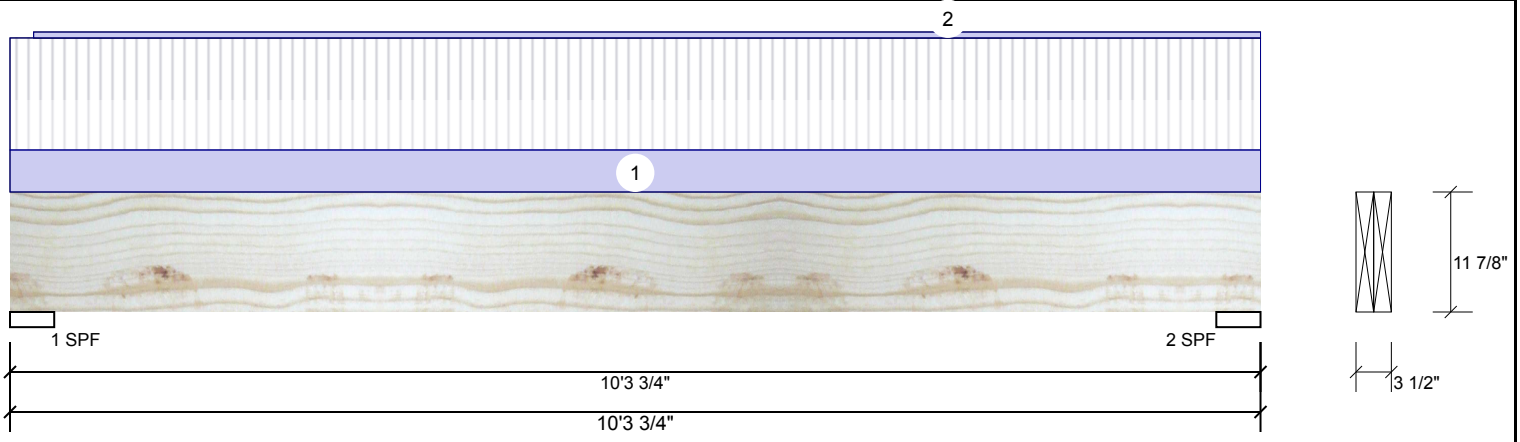
isDesign™

Client:
Project:
Address:

Date: 12/17/2018
Designer: S B
Job Name: LOT 5 (AMELIA 3)
Project #:

F12-A Forex 2.0E-3000Fb LVL 1.750" X 11.875" 2-Ply - PASSED

Level: Second Floor



Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	97	91	0	0
2	97	91	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	4.375"	3%	113 / 146	259	L	1.25D+1.5L
2 - SPF	4.375"	3%	113 / 146	259	L	1.25D+1.5L

Analysis Results

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

Design Notes

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

LICENSED PROFESSIONAL ENGINEER
I.MATIJEVIC
100528832
PROVINCE OF ONTARIO

December 18, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 10-3-12	(Span)0-11-5	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-2-5 to 10-3-12		Top	1 PLF	0 PLF	0 PLF	0 PLF	
	Self Weight				10 PLF				

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

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

Notes

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

Lumber

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

Handling & Installation

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

This design is valid until 10/18/2021

Manufacturer Info

Forex
APA: PR-L318

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

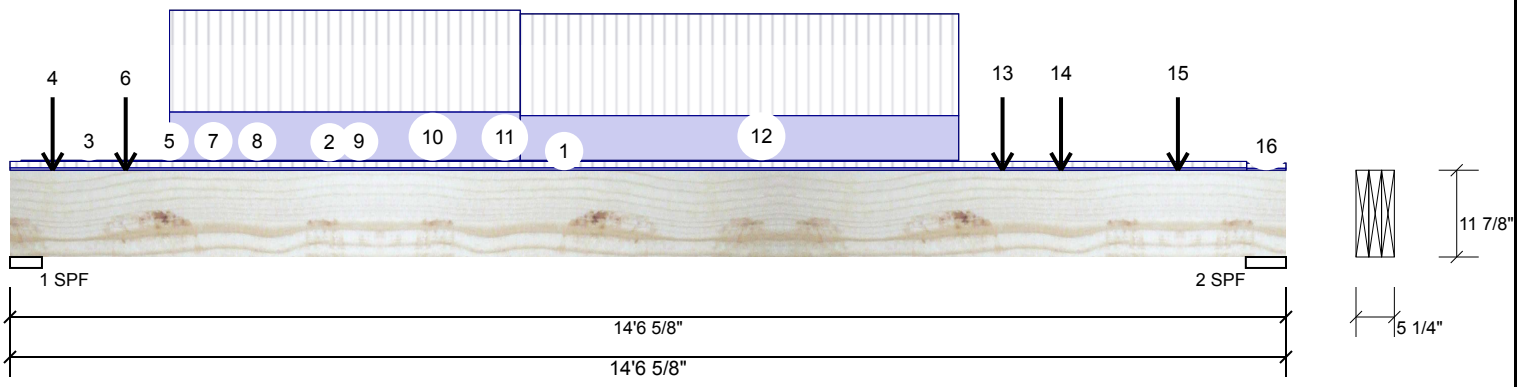
isDesign™

Client:
Project:
Address:

Date: 12/17/2018
Designer: S B
Job Name: LOT 5 (AMELIA 3)
Project #:

F13-A Forex 2.0E-3000Fb LVL 1.750" X 11.875" 3-Ply - PASSED

Level: Second Floor



Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	2079	1064	0	0
2	2002	945	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	4.375"	31%	1330 / 3118	4449	L	1.25D+1.5L
2 - SPF	5.500"	24%	1181 / 3003	4185	L	1.25D+1.5L

Analysis Results

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

Design Notes

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

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December 18, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 14-1-4	(Span)0-10-8	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-1-9 to 5-11-10		Top	2 PLF	0 PLF	0 PLF	0 PLF	
3	Part. Uniform	0-1-9 to 1-3-13		Top	1 PLF	0 PLF	0 PLF	0 PLF	
4	Point	0-5-13		Far Face	92 lb	190 lb	0 lb	0 lb	31
5	Part. Uniform	1-3-13 to 2-3-13		Top	1 PLF	0 PLF	0 PLF	0 PLF	
6	Point	1-3-13		Far Face	123 lb	255 lb	0 lb	0 lb	31

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

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

Continued on page 2...

Notes

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Lumber

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Handling & Installation

1. LVL beams must not be cut or drilled
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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

This design is valid until 10/18/2021

Manufacturer Info

Forex
APA: PR-L318

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

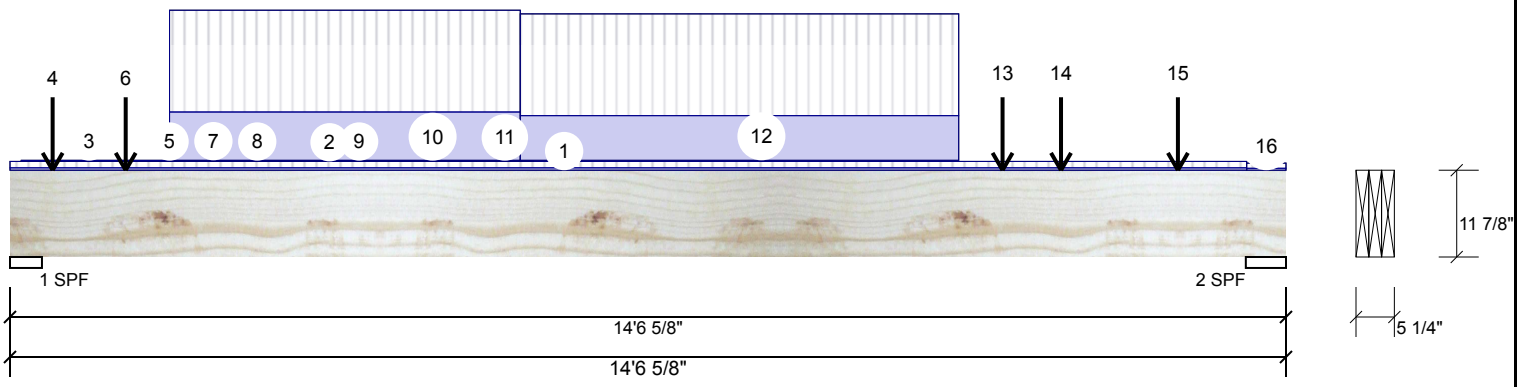
isDesign™

Client:
Project:
Address:

Date: 12/17/2018
Designer: S B
Job Name: LOT 5 (AMELIA 3)
Project #:

F13-A Forex 2.0E-3000Fb LVL 1.750" X 11.875" 3-Ply - PASSED

Level: Second Floor



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

December 18, 2018

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

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

Notes

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Lumber

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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

This design is valid until 10/18/2021

Manufacturer Info

Forex
APA: PR-L318

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

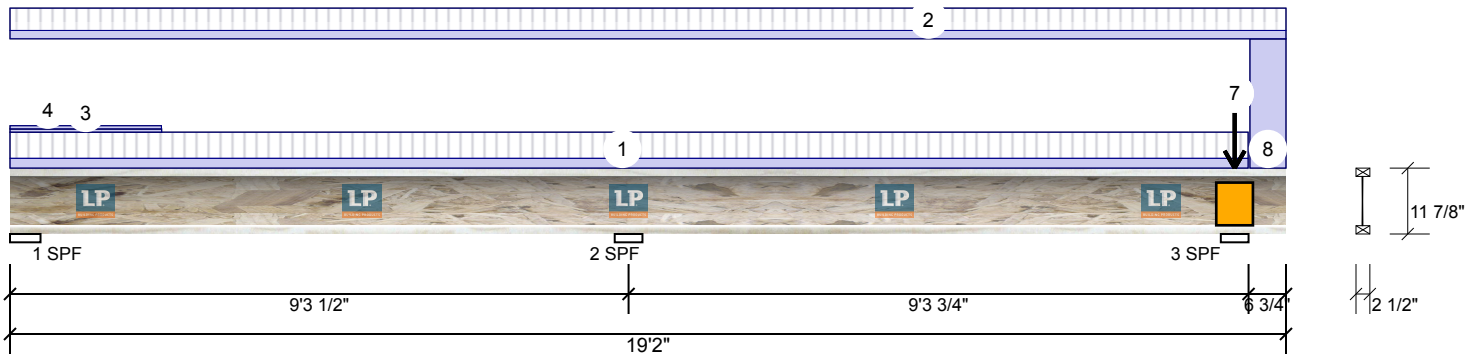
isDesign™

Client:
Project:
Address:

Date: 12/17/2018
Designer: S B
Job Name: LOT 5 (AMELIA 3)
Project #:

F16-A LPI 20Plus 11.875" - PASSED

Level: Second Floor



Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	116	52	1	0
2	322	117	0 (-4)	0
3	331	338	201	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.500"	14%	64 / 193	257	L__	1.25D+1.5L
2 - SPF	5.000"	16%	148 / 502	650	LL_	1.25D+1.5L
3 - SPF	5.000"	34%	421 / 617	1038	_LL	1.25D+1.5L +0.5S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-575 ft-lb	9'3 1/2"	6250 ft-lb	0.092 (9%)	1.25D+1.5L	LL_
Pos Moment	428 ft-lb	4'1 15/16"	5500 ft-lb	0.078 (8%)	1.25D+1.5L	L__
Shear	656 lb	18'7 1/4"	1853 lb	0.354 (35%)	1.25D+1.5S	__L
Perm Defl in.	0.005 (L/22195)	4'5 3/4"	0.297 (L/360)	0.020 (2%)	D	Uniform
LL Defl inch	0.015 (L/6927)	4'8 1/2"	0.297 (L/360)	0.050 (5%)	L+0.5S	L_L
TL Defl inch	0.020 (L/5283)	4'7 13/16"	0.445 (L/240)	0.050 (5%)	D+L+0.5S	L_L
LL Cant	-0.002 (2L/5898)	Rt Cant	0.200 (2L/480)	0.011 (1%)	L	_L_
TL Cant	0.002 (2L/5522)	Rt Cant	0.300 (2L/360)	0.008 (1%)	D+L+0.5S	L_L

Design Notes

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

December 18, 2018

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

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

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

Notes

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

KOTT

This design is valid until 10/31/2020

Manufacturer Info

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

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

NASCOR

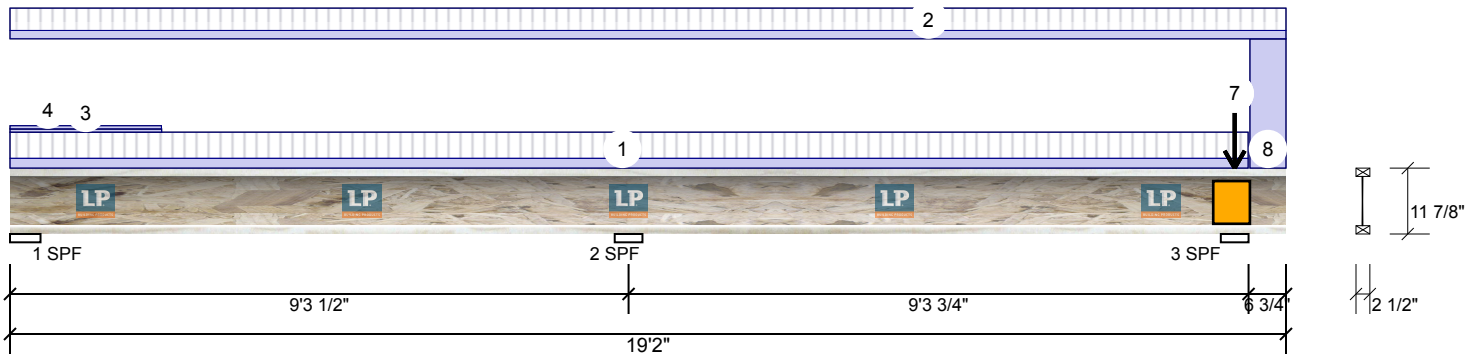
isDesign™

Client:
Project:
Address:

Date: 12/17/2018
Designer: S B
Job Name: LOT 5 (AMELIA 3)
Project #:

F16-A LPI 20Plus 11.875" - PASSED

Level: Second Floor



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 18-7-3	(Span)0-9-11	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 19-2-0	(Span)0-8-5	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	0-0-0 to 2-3-5		Top	2 PLF	0 PLF	0 PLF	0 PLF	
4	Part. Uniform	0-0-0 to 2-3-5		Top	2 PLF	0 PLF	0 PLF	0 PLF	
5	Point	18-4-12		Top	199 lb	204 lb	197 lb	0 lb	F2 F2
	Bearing Length	0-1-8							
6	Point	18-4-12		Top	7 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-1-8							
7	Point	18-4-12		Top	36 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-1-8							
8	Part. Uniform	18-7-8 to 19-2-0		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight

December 18, 2018

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

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

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

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KOTT

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Manufacturer Info

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

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

NASCOR

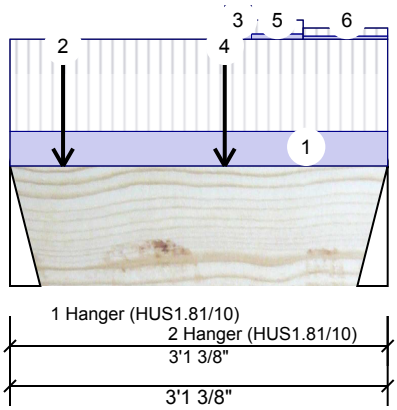
isDesign™

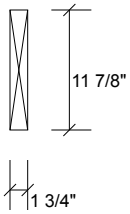
Client:
Project:
Address:

Date: 12/17/2018
Designer: S B
Job Name: LOT 5 (AMELIA 3)
Project #:

F6-A Forex 2.0E-3000Fb LVL 1.750" X 11.875" - PASSED

Level: Second Floor





Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	477	187	0	0
2	449	176	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	3.000"	24%	233 / 716	949	L	1.25D+1.5L
2 - Hanger	3.000"	23%	220 / 674	894	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	568 ft-lb	1'8 1/8"	17130 ft-lb	0.033 (3%)	1.25D+1.5L	L
Unbraced	568 ft-lb	1'8 1/8"	14337 ft-lb	0.040 (4%)	1.25D+1.5L	L
Shear	386 lb	1'2 1/8"	5798 lb	0.067 (7%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/35583)	1'7 9/16"	0.091 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.002 (L/13914)	1'7 9/16"	0.091 (L/360)	0.030 (3%)	L	L
TL Defl inch	0.003 (L/10003)	1'7 9/16"	0.137 (L/240)	0.020 (2%)	D+L	L

Design Notes

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

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

LICENSED PROFESSIONAL ENGINEER
I.MATIJEVIC
100528832
PROVINCE OF ONTARIO

December 18, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 3-1-6		Top	90 PLF	240 PLF	0 PLF	0 PLF	
2	Point	0-5-4		Far Face	28 lb	74 lb	0 lb	0 lb	J9
3	Tie-In	1-9-4 to 1-11-14	(Span)3-1-11 to 3-1-11	Top	15 PSF	40 PSF	0 PSF	0 PSF	
4	Point	1-9-4		Far Face	23 lb	61 lb	0 lb	0 lb	J9
5	Tie-In	1-11-14 to 2-5-0	(Span)1-9-11	Top	15 PSF	40 PSF	0 PSF	0 PSF	
6	Tie-In	2-5-0 to 3-1-6	(Span)1-0-11	Top	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				5 PLF				

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

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

Notes

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

Lumber

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

Handling & Installation

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

This design is valid until 10/18/2021

Manufacturer Info

Forex
APA: PR-L318

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

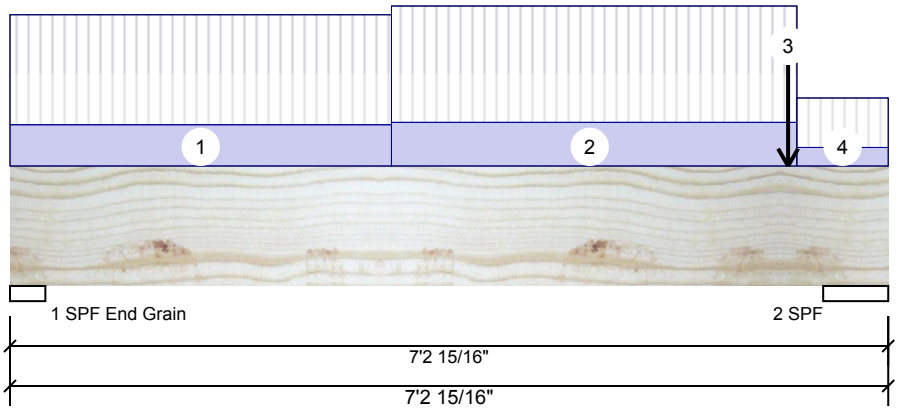
isDesign™

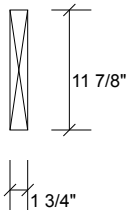
Client:
Project:
Address:

Date: 12/17/2018
Designer: S B
Job Name: LOT 5 (AMELIA 3)
Project #:

F7-A Forex 2.0E-3000Fb LVL 1.750" X 11.875" - PASSED

Level: Second Floor





Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	248	110	0	0
2	643	266	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	11%	138 / 372	510	L	1.25D+1.5L
2 - SPF	6.438"	19%	333 / 965	1298	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	884 ft-lb	3'10 9/16"	17130 ft-lb	0.052 (5%)	1.25D+1.5L	L
Unbraced	884 ft-lb	3'10 9/16"	6876 ft-lb	0.129 (13%)	1.25D+1.5L	L
Shear	1154 lb	5'9 3/8"	5798 lb	0.199 (20%)	1.25D+1.5L	L
Perm Defl in.	0.004 (L/19225)	3'7 3/4"	0.218 (L/360)	0.020 (2%)	D	Uniform
LL Defl inch	0.009 (L/8390)	3'7 15/16"	0.218 (L/360)	0.040 (4%)	L	L
TL Defl inch	0.013 (L/5841)	3'7 7/8"	0.327 (L/240)	0.040 (4%)	D+L	L

Design Notes

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

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	
1	Tie-In	0-0-0 to 3-1-12	(Span)3-1-13	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	3-1-12 to 6-5-14	(Span)3-4-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	6-5-0		Far Face	176 lb	449 lb	0 lb	0 lb	F6
4	Tie-In	6-5-14 to 7-2-15	(Span)1-5-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				5 PLF				

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