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

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

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

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

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

<u>CODE</u>

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

COMPONENT

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

HANDLING AND INSTALLATION

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

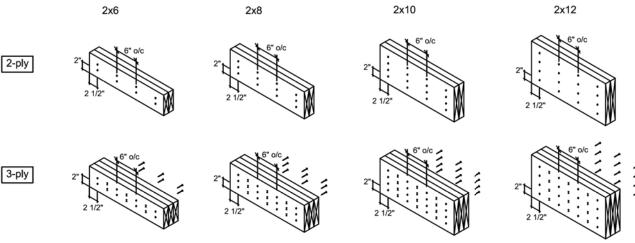


CITY OF RICHMOND HILL BUILDING DIVISION

09/22/2022

RECEIVED
Per: joshua.nabua

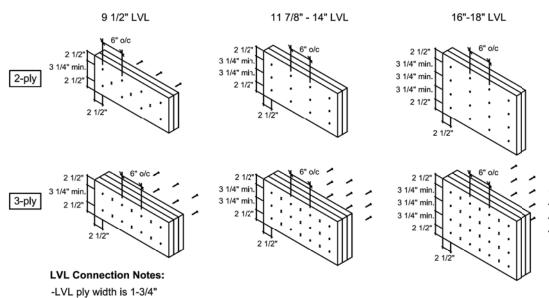
Conventional Connections



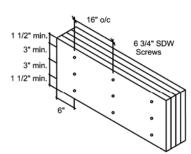
Conventional Connection Notes:

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

LVL Connections



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



4-ply 9 1/2"-18"

FOR 4 PLY BEAMS*, ATTACH PLIES TOGETHER USING 6-3/4" SDW SCREWS (HEAD ON LOADED SIDE) IN 3 ROWS @ 16" C/C.

USE AN ADDITIONAL THREE (3) 6-3/4" SDW SCREWS ON EACH SIDE (OF EACH FACE) AT POINT LOAD LOCATIONS @ 1/2 SPACING, WHERE APPLICABLE.

*UNLESS NOTED OTHERWISE ON LAYOUT OR CALCULATION SHEET OF BEAM IN THE FLOOR PACKAGE

Multiple Member Connections

All connections are for uniformly distributed loads.

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



KOTTY INC. RICHMOND HILL 3228 Moodie Grive ISION Ottawa, ON K2H V2 / 22/2022 613-838-2775

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Per:____joshua.nabua_

Last revised: February 19, 2021

KTF-GREENPARK-PINETREE 38-3-3 IM0621-174 Page 3 of 30 Ground Floor JOB INFORMATION Ground Floor LVL/LSI Builder Label Description Qty Plies Pcs Length Width Depth GREENPARK F9 11.875 14-0-0 Forex 2.0E-3000Fb LVL Project ROUNDEL HOMES INC F16 1.75 11.875 8-0-0 2.0E-3000Fb LVL Shipping F8 11.875 Forex 1.75 4-0-0 PINETREE 38-3-3 2.0E-3000Fb LVL RICHMOND HILL,ON I Joist Sales Rep Label Description Width Depth Qty Plies Pcs Length RALHP MIRIGELLO F4 AJS 24 3.5 11.875 18-0-0 3.5 11.875 F3 AJS 24 Start Joist Run (Level) 5 16-0-0 Designer F2 AJS 24 3.5 11.875 2 4-0-0 WC F1 AJS 24 3.5 11.875 2-0-0 4 **Plotted** J8 AJS 24 3.5 11.875 11 18-0-0 F1-C - 1 ply June 09, 2021 J7 AJS 24 3.5 11.875 14 16-0-0 Layout Name 구 도 F1-D - 1 ply J6 AJS 24 3.5 11.875 16 14-0-0 PT38-3-3 STANDARD & DECK CONDITION 1 12-0-0 J5 AJS 24 3.5 11.875 J4 AJS 24 3.5 11.875 10-0-0 2 Job Path 3.5 11.875 J3 AJS 24 8-0-0 DESIGN CRITERIA F9-C - 1 ply J10 AJS 24 3.5 11.875 11 6-0-0 **Ground Floor** J1 AJS 24 3.5 11.875 1 2-0-0 2X8 FRAMING Design Method LSD (Canada) Rim Board NBCC 2015 / OBC 2012 **Building Code** Label Description Width Depth Qty Plies Pcs Length Floor 2 X J8-J ಹ − -J8-H - @ 16"-15 R1 Norbord Rimboar 1.125 11.875 12-0-0 Plus 1.125 X Loads 11 875 Live 40 Blocking Dead 15 Label Description Width Depth Qty Plies Pcs Length Decking BLK1 AJS 24 3.5 11.875 LinFt Varies 14-0-0 F16-B - 1 ply OSB Deckina Hanger 3/4" Thickness Beam/Girder Supported Fastener Nailed & Glued Member J10-G Vibration Label Pcs Description Skew Slope fasteners fasteners Gypsum 1/2" Ceiling: H2 25 LF3511 12 10d 2 #8x1 1/4WS

-3 X J10-F-

-H2-F8-B - 1 ply, J10-D

F8-A - 1 ply 중

CCMC References

Boise - 12472-R , 12787-R LP - 12412-R Forex - 14056-R

Kott Inc.

3228 Moodie Dr, Ottawa

613-838-2775 / 905-642-4400

14 Anderson Blvd, Uxbridge Ontario

1. All blocking to be cut from 12' joists

2. 2' & 4' Lengths to be cut from 8' Length, 6' lengths to be cut from 12' Length

3. Ends of joists to be laterally supported

4. Packing of Steel beams and attachment by others

5. Shower and water closet flange locations are approximate only, consult architectural drawing for exact locations

6. Beams identified as "B" are dropped and supplied by others

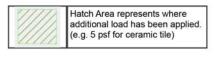
7. Install 2x4 blocking @ 24" o/c under parallel non-loadbearing walls

8. Load transfer blocks to be installed under all point loads

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

10. Hangers and Fasteners to be installed as per manufacturer

11. Framing shown on this layout may deviate from architectural drawings. Arch / Eng to review and approve the deviation prior to construction.



Version 21.20.293 Powered by iStruct™ Dataset: embedded

AJS140 I-Joists can be substituted with LP20 I-Joists for 9.5" and 11.875" depths shown on this layout.

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

F2-A - 1 ply

BLK1





Client: Project:

GREENPARK

Address: PINETREE 38-3-3 RICHMOND HILL, ON 6/28/2021

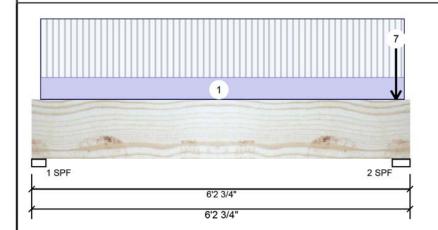
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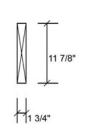
Project #:

PT38-3-3 STANDARD & DECK CONDITION Job Name: ROUNDEL HOMES INC

F16-A Forex 2.0E-3000Fb LVL 1.750" X 11.875" - PASSED

Level: Ground Floor





0

0

Member Information Type: Plies: 1 Moisture Condition: Dry Deflection LL: 480 Deflection TL: 240

Importance: Normal - II General Load 40 PSF Floor Live: 15 PSF Dead:

Application: Floor (Residential) Design Method: LSD Building Code: NBCC 2015 / OBC 2012

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

Unfactored Reactions UNPATTERNED Ib (Uplift) Brg Direction Live Dead Wind Snow 72 1 Vertical 42 0 208 771 708 2 Vertical

Bearings and Factored Reactions

Bearing Length Dir. Cap. React D/L lb Total Ld. Case Ld. Comb. 1 - SPF 2.813" Vert 7% 52 / 109 161 L 1.25D+1.5L 2 - SPF 3.500" Vert 69% 964 / 1270 2234 L 1.25D+1.5S +L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case	
Moment	231 ft-lb	3'1 1/16"	13190 ft-lb	0.018 (2%)	1.25D+1.5L	L	
Unbraced	231 ft-lb	3'1 1/16"	13190 ft-lb	0.018 (2%)	1.25D+1.5L	L	
Shear	107 lb	1'2 11/16"	4464 lb	0.024 (2%)	1.25D+1.5L	L	
Perm Defl in.	0.001 (L/65188)	3'1 1/16"	0.194 (L/360)	0.006 (1%)	D	Uniform	
LL Defl inch	0.002 (L/37062)	3'1 1/16"	0.146 (L/480)	0.013 (1%)	L+0.5S	L	
TL Defl inch	0.003 (L/23629)	3'1 1/16"	0.291 (L/240)	0.010 (1%)	D+L+0.5S	L	

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

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



Design Notes

- 1 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 3.5.
- 2 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 3 Girders are designed to be supported on the bottom edge only.
- 4 Top must be continuously laterally braced.
- 5 Bottom must be laterally 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.

O DOMONTH	iddi be idlerally braced a	it bearings.							
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-1-12 to 6-1-10	0-7-6	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	6-0-0		Тор	673 lb	133 lb	701 lb	0 lb	F19 F19 B2 B2
	Bearing Length	0-5-8							
3	Point	6-0-0		Тор	3 lb	0 lb	7 lb	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 application, and to verify the dimensions and loads.

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

This design is valid until 5/24/2024

Forex APA: PR-L318

Manufacturer Info

3228 Moodie Dr. Ottawa, Ontari 618-838-2775 D/\905-642-4400





Client: Project: Address:

GREENPARK

PINETREE 38-3-3 RICHMOND HILL, ON

6/28/2021 Input by:

Project #:

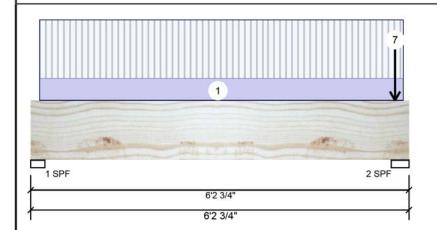
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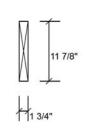
Job Name: PT38-3-3 STANDARD & DECK CONDITION

ROUNDEL HOMES INC

1.750" X 11.875" - PASSED F16-A Forex 2.0E-3000Fb LVL

Level: Ground Floor





Continued f	rom page 1								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Bearing Length	0-5-8							
4	Point	6-0-0		Тор	18 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-5-8							
5	Point	6-0-0		Тор	22 lb	0 lb	0 lb	0 lb	Wall Self Weight
1	Bearing Length	0-5-8							
6	Point	6-0-0		Тор	6 lb	0 lb	0 lb	0 lb	Wall Self Weight
1	Bearing Length	0-5-8							
7	Point	6-0-0		Тор	6 lb	0 lb	0 lb	0 lb	Wall Self Weight
1	Bearing Length	0-5-8							
1	Self Weight				5 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.

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

PASS-THRU SQUASH BLOCK FRAMING 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.

- Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or corrosive
- Handling & Installation
- 1. LVL beams must not be cutor 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 roiation

- For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

APA: PR-L318

3228 Moodie Dr. Ottawa, Ontario 61B-838-2775 D/\905-642-4400



joshua.nabua

This design is valid until 5/24/2024

Page 6 of 81



Client: Project:

GREENPARK

PINETREE 38-3-3 Address:

RICHMOND HILL, ON

6/28/2021

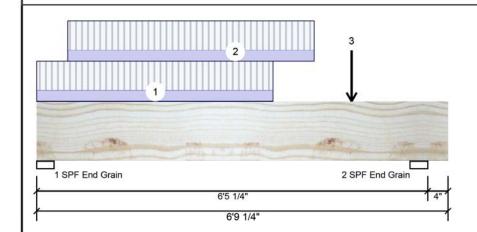
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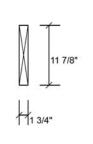
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PT38-3-3 STANDARD & DECK CONDITION Job Name: ROUNDEL HOMES INC

F16-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 2015 / OBC 2012
Deflection LL:	480	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		

Unfactored Reactions UNPATTERNED Ib (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	432	177	0	0
2	Vertical	299	128	0	0
1					

Analysis Results

Dead:

Ī	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
	Moment	1229 ft-lb	3' 1/2"	17130 ft-lb	0.072 (7%)	1.25D+1.5L	L_
	Unbraced	1229 ft-lb	3' 1/2"	17130 ft-lb	0.072 (7%)	1.25D+1.5L	L_
	Shear	712 lb	5'1 7/8"	5798 lb	0.123 (12%)	1.25D+1.5L	L_
	Perm Defl in.	0.005 (L/15434)	3'1 15/16"	0.202 (L/360)	0.023 (2%)	D	Uniform
	LL Defl inch	0.012 (L/6322)	3'1 13/16"	0.152 (L/480)	0.076 (8%)	L	LL
	TL Defl inch	0.016 (L/4485)	3'1 7/8"	0.303 (L/240)	0.054 (5%)	D+L	LL
	LL Cant	-0.001 (2L/5804)	Rt Cant	0.200 (2L/480)	0.007 (1%)	L	LL
	TL Cant	-0.002 (2L/4116)	Rt Cant	0.300 (2L/240)	0.006 (1%)	D+L	LL

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.438"	Vert	19%	221 / 648	869	L_	1.25D+1.5L
2 - SPF End Grain	3.500"	Vert	13%	160 / 448	608	L_	1.25D+1.5L

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

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



June 29, 2021

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Girders are designed to be supported on the bottom edge only.
- 3 Top must be continuously laterally braced.

15 PSF

4 Bottom must have sheathing attached or be continuously braced.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 3-10-12	1-11-4	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-6-2 to 4-6-14		Near Face	29 PLF	78 PLF	0 PLF	0 PLF	
3	Point	5-2-4		Near Face	42 lb	112 lb	0 lb	0 lb	J10
	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.

- Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or corrosive
- Handling & Installation
- 1. UVL beams must not be cutor drilled
 2. Refer to manufacturer's product information regarding installation requirements, multi-ph fastening details, beam stength values, and codi approvals
 3. Damaged Beams must not be used

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

For flat roofs provide proper drainage to prevent ponding

This design is valid until 5/24/2024

Forex

APA: PR-L318

Manufacturer Info



Page 23 of 81



Client: Project: Address:

GREENPARK

PINETREE 38-3-3 RICHMOND HILL, ON 6/28/2021

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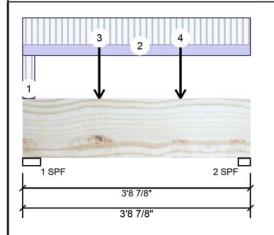
Project #:

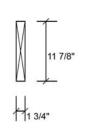
Job Name: PT38-3-3 STANDARD & DECK CONDITION

ROUNDEL HOMES INC

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

Level: Ground Floor





Member Info	rmation			Unfa	actored Re	actions UNI	PATTERNED I	b (Uplift)	
Type:	Girder	Application:	Floor (Residential)	Brg	Direction	Live	Dead	Snow	Wind
Plies:	1	Design Method:	LSD	1	Vertical	267	111	0	0
Moisture Condition	on: Dry	Building Code:	NBCC 2015 / OBC 2012	2	Vertical	248	104	0	0
Deflection LL:	480	Load Sharing:	No						
Deflection TL:	240	Deck:	Not Checked						
Importance:	Normal - II	Vibration:	Not Checked						
General Load					the control of the co	- 115	Former 2		
Floor Live:	40 PSF			Bear	rings and F	actored Rea	actions		
Dead:	15 PSF			Bea	aring Length	Dir. Cap	. React D/L lb	Total Ld. Case	Ld. Comb.
				1-	SPF 3.500"	Vert 149	6 139 / 401	540 L	1.25D+1.5L
					SPF 2.394"	Vert 199	6 130 / 372	502 L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	468 ft-lb	1'10 1/16"	17130 ft-lb	0.027 (3%)	1.25D+1.5L	L
Unbraced	468 ft-lb	1'10 1/16"	17130 ft-lb	0.027 (3%)	1.25D+1.5L	L
Shear	387 lb	1'3 3/8"	5798 lb	0.067 (7%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/42975)	1'10 3/4"	0.112 (L/360)	0.008 (1%)	D	Uniform
LL Defl inch	0.002 (L/17585)	1'10 11/16"	0.084 (L/480)	0.027 (3%)	L	L
TL Defl inch	0.003	1'10 11/16"	0.169 (L/240)	0.019 (2%)	D+L	L

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

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

Manufacturer Info



June 29, 2021

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Girders are designed to be supported on the bottom edge only.
- 3 Top must be continuously laterally braced.
- 4 Bottom must have sheathing attached or be continuously braced.

_		0								
1	ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
٠	1	Tie-In	0-0-0 to 0-2-6	1-5-8	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
:	2	Part. Uniform	0-0-0 to 3-8-14		Тор	20 PLF	50 PLF	0 PLF	0 PLF	
١:	3	Point	1-3-1		Far Face	61 lb	164 lb	0 lb	0 lb	J10
4	4	Point	2-7-1		Far Face	57 lb	153 lb	0 lb	0 lb	J10
l		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.

- Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or corrosive
- Handling & Installation
- I. UVL beams must not be cutor drilled
 Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam stength 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 rolation

For flat roofs provide proper drainage to prevent ponding

This design is valid until 5/24/2024

APA: PR-L318

3228 Moodie Dr. Ottawa, Ontario 61B-838-2775 D/\905-642-4400

Page 24 of 8



Project:

Client: GREENPARK

Address: PINETREE 38-3-3 RICHMOND HILL, ON 6/28/2021

WC Input by:

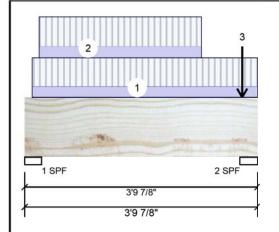
Project #:

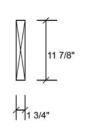
Job Name: PT38-3-3 STANDARD & DECK CONDITION

ROUNDEL HOMES INC

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

Level: Ground Floor





Member Info	rmation			Unfa	actored Rea	actions UNP	ATTERNED I	b (Uplift)	
Type:	Girder	Application:	Floor (Residential)	Brg	Direction	Live	Dead	Snow	Wind
Plies:	1	Design Method:	LSD	1	Vertical	292	119	0	0
Moisture Condition	on: Dry	Building Code:	NBCC 2015 / OBC 2012	2	Vertical	314	127	0	0
Deflection LL:	480	Load Sharing:	No	1					
Deflection TL:	240	Deck:	Not Checked						
Importance:	Normal - II	Vibration:	Not Checked	1					
General Load					UST SERVE	98 DECEM	1.04000.2		
Floor Live:	40 PSF			Bear	ings and Fa	actored Rea	ctions		
Dead:	15 PSF			Bea	ring Length	Dir. Cap.	React D/L lb	Total Ld. Case	Ld. Comb.
				1 - 3	SPF 3.313"	Vert 16%	148 / 438	586 L	1.25D+1.5L
	• 1007			2-5	SPF 3.500"	Vert 17%	159 / 471	630 L	1.25D+1.5L

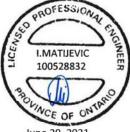
Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	475 ft-lb	1'10 7/16"	17130 ft-lb	0.028 (3%)	1.25D+1.5L	L
Unbraced	475 ft-lb	1'10 7/16"	17130 ft-lb	0.028 (3%)	1.25D+1.5L	L
Shear	407 lb	2'6 1/2"	5798 lb	0.070 (7%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/43582)	1'10 9/16"	0.113 (L/360)	0.008 (1%)	D	Uniform
LL Defl inch	0.002 (L/17633)	1'10 9/16"	0.084 (L/480)	0.027 (3%)	L	L
TL Defl inch	0.003 (L/12554)	1'10 9/16"	0.169 (L/240)	0.019 (2%)	D+L	L

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

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



June 29, 2021

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Girders are designed to be supported on the bottom edge only.
- 3 Top must be continuously laterally braced.
- 4 Bottom must have sheathing attached or be continuously braced.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-1-8 to 3-9-14		Тор	32 PLF	85 PLF	0 PLF	0 PLF	
2	Part. Uniform	0-2-13 to 2-10-13		Far Face	33 PLF	88 PLF	0 PLF	0 PLF	
3	Point	3-6-13		Far Face	21 lb	57 lb	0 lb	0 lb	J10
	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.

- Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or corrosive
- Handling & Installation
- I. UVL beams must not be cutor drilled
 Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam stength 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 rolation

For flat roofs provide proper drainage to prevent ponding

This design is valid until 5/24/2024

APA: PR-L318

Manufacturer Info

3228 Moodie Dr. Ottawa, Ontario 61B-838-2775 D/\905-642-4400

oshua.nabua

Wind

0

0



Client: Project: Address:

GREENPARK

PINETREE 38-3-3 RICHMOND HILL, ON 6/28/2021

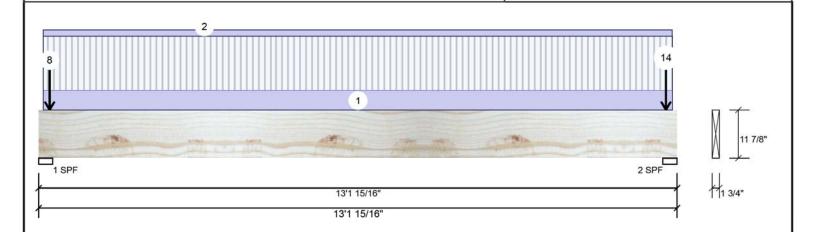
WC Input by:

Project #:

PT38-3-3 STANDARD & DECK CONDITION Job Name: ROUNDEL HOMES INC

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

Level: Ground Floor



Member Information Unfactored Reactions UNPATTERNED Ib (Uplift) Type: Application: Floor (Residential) Brg Direction Live Dead Snow Plies: 1 Design Method: LSD 168 171 1 Vertical 23 Moisture Condition: Dry Building Code: NBCC 2015 / OBC 2012 23 2 Vertical 168 167 Deflection LL: 480 Load Sharing: No Deflection TL: 240 Deck: Not Checked Importance: Normal - II Vibration: Not Checked General Load Bearings and Factored Reactions 40 PSF Floor Live: 15 PSF Dead: Bearing Length Dir. Cap. React D/L lb Total Ld. Case Ld. Comb. 1 - SPF 3.446" Vert 13% 213 / 274 488 L 1.25D+1.5L +S 2 - SPF 3.500" Vert 13% 208 / 274 483 L 1.25D+1.5L Analysis Results +S Analysis Location Allowed Comb. Actual Capacity Case

Moment 1222 ft-lb 6'6 15/16" 17130 ft-lb 0.071 (7%) 1.25D+1.5L L 6'6 15/16" 17130 ft-lb Unbraced 1222 ft-lb 0.071 (7%) 1.25D+1.5L L 11'10 9/16" 5798 lb 0.056 (6%) 1.25D+1.5L L 327 lb Shear Perm Defl in. 0.023 (L/6655) 6'7" 0.424 (L/360) 0.054 (5%) D Uniform LL Defl inch 0.034 (L/4495) 6'7" 0.318 (L/480) 0.107 (11%) L+0.5S L

TL Defl inch 0.057 (L/2683) 6'7" 0.635 (L/240) 0.089 (9%) D+L+0.5S

Design Notes

- 1 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 3.446196660483.
- 2 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam
- 3 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 4 Girders are designed to be supported on the bottom edge only.
- 5 Top must be continuously laterally braced.
- 6 Bottom must be laterally braced at bearings.

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

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



June 29, 2021

O DOLLOIII I	nast be laterally bracea t	at bearings.							
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-1-2 to 13-0-13	0-7-12	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-1-2 to 13-0-12		Тор	3 PLF	0 PLF	0 PLF	0 PLF	
3	Point	0-2-11		Тор	6 lb	0 lb	15 lb	0 lb	
	Bearing Length	0-5-8							
4	Point	0-2-11		Тор	29 lb	0 lb	0 lb	0 lb	Wall Self Weight

Continued on page 2...

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

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

6. For flat roofs provide proper drainage to prevent

This design is valid until 5/24/2024

Manufacturer Info APA: PR-L318



shua.nabua

Page 26 of 81



.Continued from page 1

Client: Project: Address:

GREENPARK

PINETREE 38-3-3

RICHMOND HILL, ON

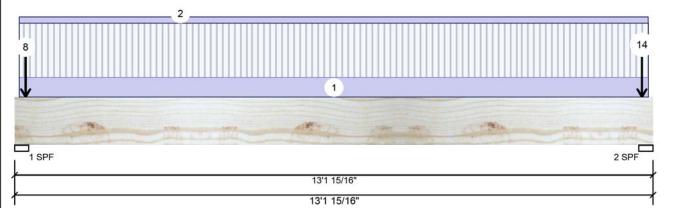
6/28/2021

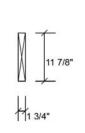
WC Input by:

Job Name: PT38-3-3 STANDARD & DECK CONDITION ROUNDEL HOMES INC

F9-B Forex 2.0E-3000Fb LVL

Project #: 1.750" X 11.875" - PASSED Level: Ground Floor





ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
	Bearing Length	0-5-8							
5	Point	0-2-11		Тор	2 lb	0 lb	4 lb	0 lb	
	Bearing Length	0-5-8							
6	Point	0-2-11		Тор	7 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-5-8							
7	Point	0-2-11		Тор	2 lb	0 lb	4 lb	0 lb	
	Bearing Length	0-5-8							
8	Point	0-2-11		Тор	11 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-5-8							
9	Point	12-11-3		Тор	2 lb	0 lb	4 lb	0 lb	
.11.00	Bearing Length	0-5-8							
10	Point	12-11-3		Тор	7 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-5-8							
11	Point	12-11-3		Тор	2 lb	0 lb	4 lb	0 lb	
	Bearing Length	0-5-8							
12	Point	12-11-3		Тор	7 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-5-8							
13	Point	12-11-3		Тор	6 lb	0 lb	15 lb	0 lb	
	Bearing Length	0-5-8							
14	Point	12-11-3		Тор	29 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-5-8						DEAD AL	I NOTES ON THIS PAG

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.

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

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

Notes

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

- Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or corrosive
- Handling & Installation
- 1. LVL beams must not be cutor 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 roiation

For flat roofs provide proper drainage to prevent ponding

5 PLF

Forex APA: PR-L318

Manufacturer Info

3228 Moodie Dr. Ottawa, Ontario 618-838-2775D/\905-642-4400



This design is valid until 5/24/2024 joshua.nabua

Self Weight

PROFESSIONAL

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June 29, 2021

Page 27 of 8



Client: Project: Address:

GREENPARK

PINETREE 38-3-3

RICHMOND HILL, ON

6/28/2021

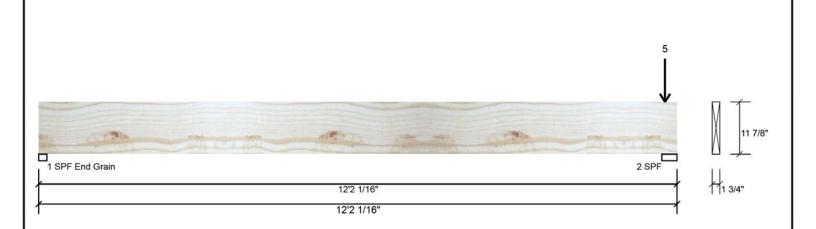
WC Input by:

PT38-3-3 STANDARD & DECK CONDITION Job Name: Project #: ROUNDEL HOMES INC

F9-C Forex 2.0E-3000Fb LVL

1.750" X 11.875" - PASSED

Level: Ground Floor



Type:	Girder	Application:	Floor (Residential)	I
Plies:	1	Design Method:	LSD	ı
Moisture Condit	tion: Dry	Building Code:	NBCC 2015 / OBC 2012	ı
Deflection LL:	480	Load Sharing:	No	l
Deflection TL:	240	Deck:	Not Checked	ı
Importance:	Normal - II	Vibration:	Not Checked	l
General Load				ŀ
Floor Live:	40 PSF			ı
Dead:	15 PSF			Ì

Analy	ysis	Resu	ts
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Member Information

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	117 ft-lb	6' 3/16"	11135 ft-lb	0.011 (1%)	1.4D	Uniform
Unbraced	117 ft-lb	6' 3/16"	11135 ft-lb	0.011 (1%)	1.4D	Uniform
Shear	39 lb	1'1 3/4"	3769 lb	0.010 (1%)	1.4D	Uniform
Perm Defl in.	0.005 (L/29701)	6' 1/4"	0.395 (L/360)	0.012 (1%)	D	Uniform
LL Defl inch	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
TL Defl inch	0.005 (L/29701)	6' 1/4"	0.592 (L/240)	0.008 (1%)	D+S+0.5L	L

Design Notes

- 1 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 3.5.
- 2 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 3 Girders are designed to be supported on the bottom edge only.
- 4 Top must be continuously laterally braced.

5 Bottom must be laterally braced at bearings.

Direction	Live	Dead	Snow	Wind
Vertical	0	29	0	0
Vertical	47	93	60	0
	Vertical	Vertical 0	Vertical 0 29	Vertical 0 29 0

Unfactored Reactions UNPATTERNED lb (Uplift)

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	1.875"	Vert	3%	40 / 0	40	Uniform	1.4D
2-SPF	3.500"	Vert	7%	117 / 137	254	L	1.25D+1.5S

2 - SPF 3.500" Vert 117 / 137 254 L

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

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



+L

5 BOLLOTTI III	ust be laterally braced at be	earings.							
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Point	11-11-5		Тор	18 lb	47 lb	0 lb	0 lb	J8
1	Bearing Length	0-5-8							
2	Point	11-11-5		Тор	11 lb	0 lb	0 lb	0 lb	Wall Self Weight
1	Bearing Length	0-5-8							
3	Point	11-11-5		Тор	24 lb	0 lb	60 lb	0 lb	
Continued on p	page 2								

Notes

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- Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or corrosive
- Handling & Installation
- I. UVL beams must not be cutor drilled
 Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam stength 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 rolation

For flat roofs provide proper drainage to prevent ponding

This design is valid until 5/24/2024

APA: PR-L318

Manufacturer Info

3228 Moodie Dr. Ottawa, Ontario 61B-838-2775 D/\905-642-4400



oshua.nabua

Page 28 of 81



Project: Address:

Client: GREENPARK

PINETREE 38-3-3

RICHMOND HILL, ON

Input by:

Project #:

6/28/2021

WC

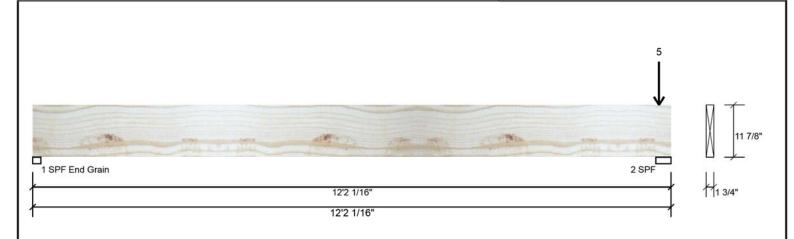
Job Name: PT38-3-3 STANDARD & DECK CONDITION

ROUNDEL HOMES INC

F9-C Forex 2.0E-3000Fb LVL

1.750" X 11.875" - PASSED

Level: Ground Floor



Continued	from	page	1
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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
	Bearing Length	0-5-8							
5	Point	11-11-5		Тор	11 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-5-8							
	Self Weight				5 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.

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

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 4. Design assumes top edge is laterally restrained
 5. Provide lateral support at bearing points to avoid lateral displacement and roiation

- For flat roofs provide proper drainage to prevent ponding

This design is valid until 5/24/2024

Manufacturer Info APA: PR-L318

3228 Moodie Dr. Ottawa, Ontario 618-838-2775D/\905-642-4400

J5-C

J5-B

J5-A

F11-A - 2 ply

3-9r

F7-A - 2 pl

F7-B - 2 pl

KTF-GREENPARK-PINETREE 38-3-3 IM0621-174 Page 13 of 30 Second Floor JOB INFORMATION LVL/LSL Builder Label Description Qty Plies Pcs Length Width Depth GREENPARK

F19 2 20-0-0 Forex 2.0E-3000Fb LVI Project ROUNDEL HOMES INC FH4 1.75 9.5 4-0-0 2.0E-3000Fb LVL Shipping F18 1.75 11.875 18-0-0 Forex PINETREE 38-3-3 2.0E-3000Fb LVL RICHMOND HILL,ON F10 Forex 1.75 11.875 2 2 14-0-0 2.0E-3000Fb LVL Sales Rep Forex 1.75 11.875 14-0-0 RALHP MIRIGELLO 2.0E-3000Fb LVL F11 Forey 1.75 11.875 2 12-0-0 2.0E-3000Fb LVL F12 1.75 11.875 8-0-0 2.0E-3000Fb LVL F17 1.75 11.875 Forex 2 4-0-0 2.0E-3000Fb LVL F7 11.875 2-0-0 2.0E-3000Fb LVL

Joist	70 TO		SV 73		5		88 ua
Label	Description	Width	Depth	Qty	Plies	Pcs	Length
J8	AJS 24	3.5	11.875			16	18-0-0
J7	AJS 24	3.5	11.875			20	16-0-0
J6	AJS 24	3.5	11.875			17	14-0-0
J5	AJS 24	3.5	11.875			16	12-0-0
J10	AJS 24	3.5	11.875			2	6-0-0
Rim Bo	ard		20 00				() ()
Label	Description	Width	Depth	Qty	Plies	Pcs	Length
		4 405	44.075			- 10	40.00

Norbord Rimboard 1.125 11.875 12 12-0-0 Dead Plus 1.125 X 11.875 Blocking

Label Description Width Depth Qty Plies Pcs Length BLK1 AJS 24 3.5 11.875 LinFt Varies 51-0-0 Hanger

					Beam/Girder	Member
Label	Pcs	Description	Skew	Slope	fasteners	fasteners
H1	1	HUS1.81/10			30 16d	10 16d
H2	21	LF3511			12 10d	2 #8x1 1/4W

Designer WC **Plotted** June 09, 2021 Layout Name PT38-3-3 STANDARD & DECK CONDITION Job Path **DESIGN CRITERIA**

Second Floor

Design Method LSD (Canada) Building Code NBCC 2015 / OBC 2012

Floor Loads Live

40 15 Decking OSB Decking 5/8"

Fastener Vibration

Gypsum 1/2" Ceiling:

Roof Loads vs Live

Dead

Snow

10.3 21

Decking Decking

CCMC References

Boise - 12472-R , 12787-R LP - 12412-R Forex - 14056-R

Kott Inc.

3228 Moodie Dr, Ottawa

613-838-2775 / 905-642-4400

14 Anderson Blvd, Uxbridge Ontario

Nailed & Glued

SPF Plywood

1. All blocking to be cut from 12' joists

2. 2' & 4' Lengths to be cut from 8' Length, 6' lengths to be cut from 12' Length

3. Ends of joists to be laterally supported

4. Packing of Steel beams and attachment by others

5. Shower and water closet flange locations are approximate only, consult architectural drawing for exact locations

6. Beams identified as "B" are dropped and supplied by others

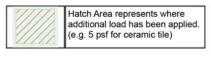
7. Install 2x4 blocking @ 24" o/c under parallel non-loadbearing walls

8. Load transfer blocks to be installed under all point loads

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

10. Hangers and Fasteners to be installed as per manufacturer

11. Framing shown on this layout may deviate from architectural drawings. Arch / Eng to review and approve the deviation prior to construction.



AJS140 I-Joists can be substituted with LP20 I-Joists for 9.5" and 11.875" depths shown on this layout.

J5-G

J5-F

J5-E

-J6-I - @ 16"

BLK1

Legend CITY OF RICHMOND HILL Rad from Above DIVISION 0 Wall Opening / / / / / / Norbord Rimboard Plus 1,125 X 11,875 AJS 24 11.875 Forex 2.0E-3000Fb LVL 1.75 X 9.5 (Dropped) CEVED ////// Forex 2:0E-3000Fb LVL 1.75 X 9.5

Version 21.20.293 Powered by iStruct™ Dataset: embedded

Second Floor

R1H1-I

BLK1

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

2 X J8-C 2

F12-A - 2 ply

Page 43 of 8



Client: Project: Address:

GREENPARK

PINETREE 38-3-3

6/28/2021

WC Input by:

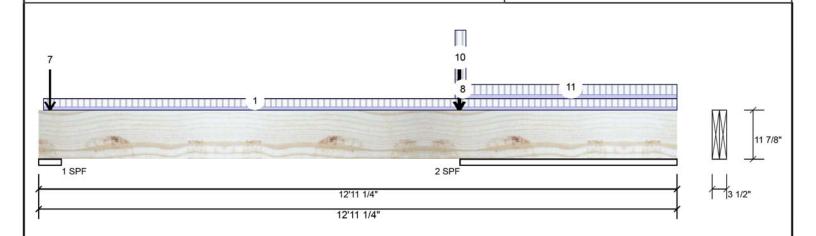
Project #:

PT38-3-3 STANDARD & DECK CONDITION ROUNDEL HOMES INC

Forex 2.0E-3000Fb LVL F10-A

RICHMOND HILL, ON 1.750" X 11.875"

2-Ply - PASSED Level: Second Floor



Member Infori	nation			Unfa	actored Rea	actions I	JNP	ATTERNED II	b (Uplif	ft)	
Type:	Girder	Application:	Floor (Residential)	Brg	Direction	Li	ve	Dead		Snow	Wind
Plies:	2	Design Method:	LSD	1	Vertical		57	132		114	0
Moisture Condition	: Dry	Building Code:	NBCC 2015 / OBC 2012	2	Vertical	4	36	260		0	0
Deflection LL:	480	Load Sharing:	No								
Deflection TL:	240	Deck:	Not Checked								
Importance:	Normal - II	Vibration:	Not Checked								
General Load					- 1.5.7 \$2.0g-w	115 35	2254	* 3 + 15 + 2			
Floor Live:	40 PSF			Bear	rings and F	actored	Rea	ctions			
Dead:	15 PSF			Bea	aring Length	Dir.	Сар.	React D/L lb	Total	Ld. Case	Ld. Comb.
				1 -	SPF 5.500"	Vert	4%	165 / 171	336	L	1.25D+1.5S
Analysis Basyli	755			2 -	SPF 52.901"	Vert	1%	325 / 655	979	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	326 ft-lb	4'7 15/16"	34261 ft-lb	0.010 (1%)	1.25D+1.5L	L
Unbraced	326 ft-lb	4'7 15/16"	34261 ft-lb	0.010 (1%)	1.25D+1.5L	L
Shear	633 lb	7'6 7/16"	11596 lb	0.055 (5%)	1.25D+1.5L	L
Perm Defl in.	0.002 (L/52186)	4'6 7/16"	0.273 (L/360)	0.007 (1%)	D	Uniform
LL Defl inch	0.002 (L/55822)	4'7 1/16"	0.205 (L/480)	0.009 (1%)	L+0.5S	L
TL Defl inch	0.004 (L/26973)	4'6 3/4"	0.410 (L/240)	0.009 (1%)	D+L+0.5S	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 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 3 Girders are designed to be supported on the bottom edge only.
- 4 Multiple plies must be fastened together as per manufacturer's details.
- 5 Top loads must be supported equally by all plies.
- 6 Top must be continuously laterally braced.
- 7 Bottom must be laterally braced at a maximum of 8'6" o.c.
- 8 Lateral slenderness ratio based on full section width.

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

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



Notes

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

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

Handling & Installation

I. UVL beams must not be cutor drilled
 Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam stength 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 rolation

6. For flat roofs provide proper drainage to prevent

This design is valid until 5/24/2024

Manufacturer Info Forex

APA: PR-L318

3228 Moodie Dr. Ottawa, Ontario 61B-838-2775 D/\905-642-4400

oshua.nabua



Client: Project: Address:

GREENPARK

6/28/2021

Project #:

WC Input by:

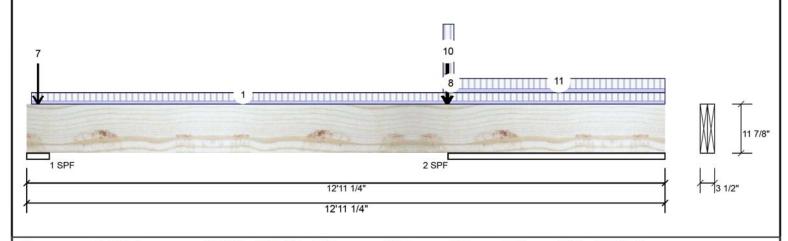
Job Name: PT38-3-3 STANDARD & DECK CONDITION ROUNDEL HOMES INC

Forex 2.0E-3000Fb LVL F10-A

RICHMOND HILL, ON 1.750" X 11.875"

PINETREE 38-3-3

2-Ply - PASSED Level: Second Floor



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-1-3 to 12-11-4	0-3-11	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-2-12		Тор	17 lb	0 lb	41 lb	0 lb	
	Bearing Length	0-5-8							
3	Point	0-2-12		Тор	8 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-5-8							
4	Point	0-2-12		Тор	6 lb	0 lb	15 lb	0 lb	
	Bearing Length	0-5-8							
5	Point	0-2-12		Тор	3 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-5-8							
6	Point	0-2-12		Тор	23 lb	0 lb	58 lb	0 lb	
	Bearing Length	0-5-8							
7	Point	0-2-12		Тор	11 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-5-8							
8	Tie-In	8-5-2 to 8-7-12	1-8-14	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
9	Point	8-6-0		Near Face	111 lb	253 lb	0 lb	0 lb	F17
10	Point	8-6-5		Тор	2 lb	6 lb	0 lb	0 lb	
	Bearing Length	0-3-8							
11	Tie-In	8-7-12 to 12-11-4	0-4-5	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				10 PLF				

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

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



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

- Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or corrosive
- Handling & Installation
- I. UVL beams must not be cutor 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 rolation
- For flat roofs provide proper drainage to prevent ponding

This design is valid until 5/24/2024

Manufacturer Info Forex APA: PR-L318

3228 Moodie Dr. Ottawa, Ontario 61B-838-2775 D/\905-642-4400

joshua.nabua

Page 45 of 8



Client: GREENPARK

Address:

Project:

6/28/2021

Project #:

WC Input by:

PT38-3-3 STANDARD & DECK CONDITION

ROUNDEL HOMES INC

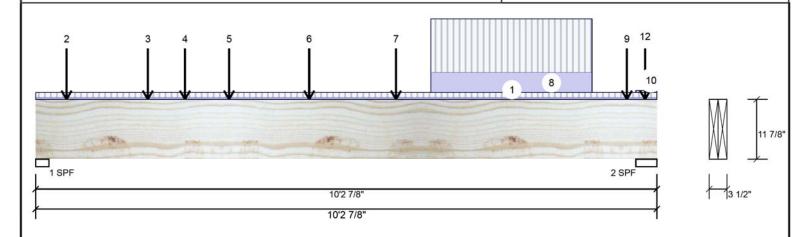
F11-A Forex 2.0E-3000Fb LVL

RICHMOND HILL, ON 1.750" X 11.875"

PINETREE 38-3-3

2-Ply - PASSED

Level: Second Floor



Member Inform	nation			Unfa	actored Rea	actions UNP	ATTERNED II	o (Uplift)	
Type:	Girder	Application:	Floor (Residential)	Brg	Direction	Live	Dead	Snow	Wind
Plies:	2	Design Method:	LSD	1	Vertical	1348	599	0	0
Moisture Condition:	Dry	Building Code:	NBCC 2015 / OBC 2012	2	Vertical	1459	697	5	0
Deflection LL:	480	Load Sharing:	No						
Deflection TL:	240	Deck:	Not Checked						
Importance:	Normal - II	Vibration:	Not Checked						
General Load					otor President	115 100 1000	(Name)		
Floor Live:	40 PSF			Bear	rings and F	actored Read	ctions		
Dead:	15 PSF			Bea	aring Length	Dir. Cap.	React D/L lb	Total Ld. Case	Ld. Comb.
				1 -	SPF 2.625"	Vert 49%	749 / 2022	2771 L	1.25D+1.5L
Analysis Results				2 -	SPF 4.138"	Vert 34%	871 / 2193	3064 L	1.25D+1.5L +S

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	6721 ft-lb	4'6 1/16"	34261 ft-lb	0.196 (20%)	1.25D+1.5L	L
Unbraced	6721 ft-lb	4'6 1/16"	34261 ft-lb	0.196 (20%)	1.25D+1.5L	L
Shear	2815 lb	1'2 1/2"	11596 lb	0.243 (24%)	1.25D+1.5L	L
Perm Defl in.	0.030 (L/3914)	5' 5/16"	0.327 (L/360)	0.092 (9%)	D	Uniform
LL Defl inch	0.066 (L/1770)	5'	0.245 (L/480)	0.271 (27%)	L+0.5S	L
TL Defl inch	0.097 (L/1219)	5' 1/8"	0.490 (L/240)	0.197 (20%)	D+L+0.5S	L

Design Notes

- 1 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 4.138366788285.
- 2 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 3 Girders are designed to be supported on the bottom edge only.
- 4 Multiple plies must be fastened together as per manufacturer's details.
- 5 Top loads must be supported equally by all plies.
- 6 Top must be continuously laterally braced.
- 7 Bottom must have sheathing attached or be continuously braced.
- 8 Lateral slenderness ratio based on full section width.

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

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



June 29, 2021

I	ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
ı	1	Tie-In	0-0-0 to 10-2-14	0-7-2	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
ı	2	Point	0-6-1		Near Face	90 lb	239 lb	0 lb	0 lb	J6
ı	3	Point	1-10-1		Near Face	96 lb	256 lb	0 lb	0 lb	J6
ı	4	Point	2-5-6		Near Face	98 lb	177 lb	0 lb	0 lb	F9

Continued on 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.

- Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or corrosive
- Handling & Installation
- I. UVL beams must not be cutor drilled
 Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam stength 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 rolation

6. For flat roofs provide proper drainage to prevent

This design is valid until 5/24/2024

Manufacturer Info Forex

APA: PR-L318



oshua.nabua



Client: Project:

GREENPARK

6/28/2021

WC Input by:

Job Name: PT38-3-3 STANDARD & DECK CONDITION ROUNDEL HOMES INC

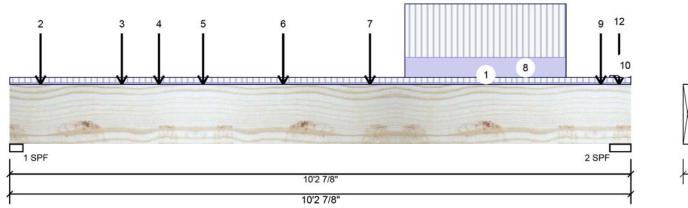
Address: F11-A Forex 2.0E-3000Fb LVL

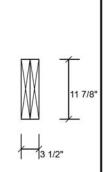
PINETREE 38-3-3 RICHMOND HILL, ON

1.750" X 11.875"

Project #: 2-Ply - PASSED

Level: Second Floor





.Continued fr	rom page 1								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
5	Point	3-2-1		Near Face	102 lb	271 lb	0 lb	0 lb	J6
6	Point	4-6-1		Near Face	136 lb	364 lb	0 lb	0 lb	J6
7	Point	5-11-3		Near Face	149 lb	260 lb	0 lb	0 lb	F18
8	Part. Uniform	6-6-1 to 9-2-1		Near Face	95 PLF	254 PLF	0 PLF	0 PLF	
9	Point	9-8-15		Near Face	119 lb	317 lb	0 lb	0 lb	J6
10	Tie-In	9-10-12 to 10-2-14	0-2-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
11	Point	10-0-9		Тор	2 lb	0 lb	5 lb	0 lb	
	Bearing Length	0-5-8							
12	Point	10-0-9		Тор	61 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-5-8							
	Self Weight				10 PLF				

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

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



Notes

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

 1. IVI, beams must not be cutor drilled

 2. Refer to manufacturer's product information regarding installation equirements, 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 rolation

- For flat roofs provide proper drainage to prevent ponding

This design is valid until 5/24/2024

Manufacturer Info Forex APA: PR-L318

3228 Moodie Dr. Ottawa, Ontario 61B-838-2775 D/\905-642-4400





Client: GREENPARK

Address:

Project:

PINETREE 38-3-3

6/28/2021

Project #:

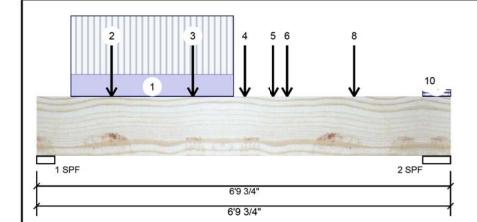
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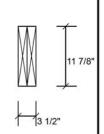
> PT38-3-3 STANDARD & DECK CONDITION ROUNDEL HOMES INC

F12-A Forex 2.0E-3000Fb LVL

RICHMOND HILL, ON 1.750" X 11.875"

2-Ply - PASSED Level: Second Floor





Member Information Unfactored Reactions UNPATTERNED Ib (Uplift) Type: Application: Floor (Residential) Brg Direction Live Dead Snow Wind Plies: 2 Design Method: LSD 1653 697 0 1 Vertical 0 Moisture Condition: Dry Building Code: NBCC 2015 / OBC 2012 686 0 0 2 Vertical 1519 Deflection LL: 480 Load Sharing: No Deflection TL: 240 Deck: Not Checked Importance: Normal - II Vibration: Not Checked General Load **Bearings and Factored Reactions** 40 PSF Floor Live: 15 PSF Dead: Bearing Length Dir. Cap. React D/L lb Total Ld. Case Ld. Comb. 1 - SPF 3.563" Vert 44% 872 / 2479 3351 1 1.25D+1.5L 1.25D+1.5L 2 - SPF 5.500" Vert 26% 857 / 2279 3136 L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case	
Moment	5854 ft-lb	3'5"	34261 ft-lb	0.171 (17%)	1.25D+1.5L	L	
Unbraced	5854 ft-lb	3'5"	34261 ft-lb	0.171 (17%)	1.25D+1.5L	L	
Shear	3520 lb	5'4 3/8"	11596 lb	0.304 (30%)	1.25D+1.5L	L	
Perm Defl in.	0.012 (L/6106)	3'5"	0.206 (L/360)	0.059 (6%)	D	Uniform	
LL Defl inch	0.028 (L/2659)	3'4 9/16"	0.155 (L/480)	0.181 (18%)	L	L	
TL Defl inch	0.040 (L/1852)	3'4 3/4"	0.309 (L/240)	0.130 (13%)	D+L	L	

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

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



June 29, 2021

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 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 must be continuously laterally braced.
- 6 Bottom must have sheathing attached or be continuously braced.

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.

1	r Luteral Sieriae	incoo ratio basea on	Tan occuon main.								
l	ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments	
ı	1	Part. Uniform	0-6-12 to 3-2-12		Far Face	119 PLF	318 PLF	0 PLF	0 PLF		
ı	2	Point	1-2-12		Near Face	144 lb	384 lb	0 lb	0 lb	J7	
ı	3	Point	2-6-12		Near Face	137 lb	315 lb	0 lb	0 lb	J7	
ı	4	Point	3-5-0		Near Face	104 lb	225 lb	0 lb	0 lb	J7	
ı	5	Point	3-10-12		Far Face	174 lb	424 lb	0 lb	0 lb	J8	

Notes

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.

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

6. For flat roofs provide proper drainage to prevent

This design is valid until 5/24/2024

APA: PR-L318

Manufacturer Info

3228 Moodie Dr. Ottawa, Ontario 618-838-2775 D/\905-642-4400





Client: Project: Address:

GREENPARK

6/28/2021 Input by:

Project #:

WC

Job Name: PT38-3-3 STANDARD & DECK CONDITION

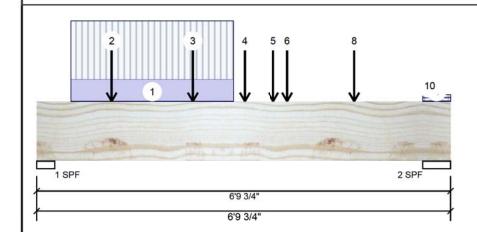
ROUNDEL HOMES INC

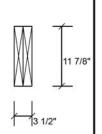
Forex 2.0E-3000Fb LVL F12-A

RICHMOND HILL, ON 1.750" X 11.875"

PINETREE 38-3-3

2-Ply - PASSED Level: Second Floor





Continued fr	om page 1								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
6	Point	4-1-8		Near Face	122 lb	261 lb	0 lb	0 lb	J7
7	Point	5-2-12		Far Face	169 lb	391 lb	0 lb	0 lb	J8
8	Point	5-2-12		Near Face	146 lb	312 lb	0 lb	0 lb	J7
9	Tie-In	6-4-4 to 6-9-12	0-4-2	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
10	Tie-In	6-4-4 to 6-9-12	0-3-14	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	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.

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

PASS-THRU SQUASH BLOCK FRAMING 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.

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

- Handling & Installation
- Handling & Installation

 1. IVI, beams must not be cutor drilled

 2. Refer to manufacturer's product information regarding installation equirements, 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 rolation

- This design is valid until 5/24/2024

For flat roofs provide proper drainage to prevent ponding

APA: PR-L318

Manufacturer Info

3228 Moodie Dr. Ottawa, Ontario 618-838-2775 D/ \905-642-4400



Client: Project: Address:

GREENPARK

6/28/2021

WC Input by:

Project #:

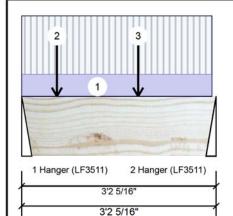
Job Name: PT38-3-3 STANDARD & DECK CONDITION ROUNDEL HOMES INC

F17-A Forex 2.0E-3000Fb LVL

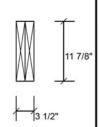
RICHMOND HILL, ON 1.750" X 11.875"

PINETREE 38-3-3

2-Ply - PASSED Level: Second Floor



15 PSF



Wind

Member	Information
-	0: 1

Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2015 / OBC 2012
Deflection LL:	480	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		

Unfactored Reactions UNPATTERNED Ib (Uplift) Brg Direction Live Dead

1	Vertical	253	111	0	0
2	Vertical	213	96	0	0

Analysis Results

Dead:

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	385 ft-lb	1'10 15/16"	34261 ft-lb	0.011 (1%)	1.25D+1.5L	L
Unbraced	385 ft-lb	1'10 15/16"	34261 ft-lb	0.011 (1%)	1.25D+1.5L	L
Shear	325 lb	1'1 7/8"	11596 lb	0.028 (3%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/100882)	1'8 13/16"	0.099 (L/360)	0.004 (0%)	D	Uniform
LL Defl inch	0.001 (L/43950)	1'9 1/8"	0.075 (L/480)	0.011 (1%)	L	L
TL Defl inch	0.001 (L/30615)	1'9"	0.149 (L/240)	0.008 (1%)	D+L	L

Bearings and Factored Reactions

Ī	Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
	1 - Hanger	2.000"	Vert	10%	139 / 380	519	L	1.25D+1.5L
	2 - Hanger	2.000"	Vert	8%	120 / 319	439	L	1.25D+1.5L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Fill all hanger nailing holes.
- 3 Girders are designed to be supported on the bottom edge only.
- 4 Multiple plies must be fastened together as per manufacturer's details.
- 5 Top loads must be supported equally by all plies.
- 6 Top must be continuously laterally braced.
- 7 Bottom must have sheathing attached or be continuously braced.
- 8 Lateral slenderness ratio based on full section width.

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

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

READ ALL NOTES ON THIS FAGE 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.



June 29, 2021

ı	ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow
ı	1	Part. Uniform	0-0-0 to 3-1-8		Тор	32 PLF	84 PLF	0 PLF
ı	2	Point	0-6-15		Far Face	33 lb	87 lb	0 lb

Point 1-10-15 Far Face 44 lb Self Weight 10 PLF

Notes

3

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

- Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or corrosive
- Handling & Installation
- I. UVL beams must not be cutor drilled
 Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam stength 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 rolation

6. For flat roofs provide proper drainage to prevent

117 lb

APA: PR-L318

Manufacturer Info

0 lb

3228 Moodie Dr. Ottawa, Ontario 61B-838-2775 D/\905-642-4400



This design is valid until 5/24/2024 oshua.nabua

Wind

0 PLF 0 lb

0 lb

Comments

J10

J10

Wind

Ld. Comb.

1.25D+1.5L

1 25D+1 5I

(0.9D+1.5L)

0

0



Client: Project: Address:

GREENPARK

6/28/2021 Input by:

Project #:

WC

PT38-3-3 STANDARD & DECK CONDITION

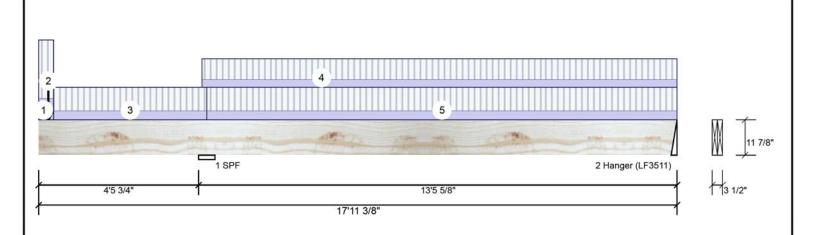
ROUNDEL HOMES INC

F18-A Forex 2.0E-3000Fb LVL

RICHMOND HILL, ON 1.750" X 11.875"

PINETREE 38-3-3

2-Ply - PASSED Level: Second Floor



2 -

Hanger

2.000"

Member Inform	nation			Unfa	actored Rea	ctions	UNP	ATTERNED I	b (Upl	ift)
Type:	Girder	Application:	Floor (Residential)	Brg	Direction		Live	Dead		Snow
Plies:	2	Design Method:	LSD	1	Vertical		814	441		0
Moisture Condition	Dry	Building Code:	NBCC 2015 / OBC 2012	2	Vertical		260	149		0
Deflection LL:	480	Load Sharing:	No	-						
Deflection TL:	240	Deck:	Not Checked							
Importance:	Normal - II	Vibration:	Not Checked							
General Load										
Floor Live:	40 PSF			Bear	rings and Fa	actore	d Read	ctions		
Dead:	15 PSF			Bea	aring Length	Dir.	Cap.	React D/L lb	Total	Ld. Case
				1 - 3	SPF 5.500"	Vert	15%	551 / 1221	1772	LL

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-2676 ft-lb	4'8 1/2"	30835 ft-lb	0.087 (9%)	1.25D+1.5L	L_
Unbraced	-2676 ft-lb	4'8 1/2"	24982 ft-lb	0.107 (11%)	1.25D+1.5L	L_
Pos Moment	2141 ft-lb	11'9 1/2"	34261 ft-lb	0.062 (6%)	1.25D+1.5L	_L
Unbraced	2141 ft-lb	11'9 1/2"	34261 ft-lb	0.062 (6%)	1.25D+1.5L	_L
Shear	841 lb	5'11 1/8"	11596 lb	0.073 (7%)	1.25D+1.5L	LL
Perm Defl in.	0.010 (L/15458)	12'2 3/16"	0.438 (L/360)	0.023 (2%)	D	Uniform
LL Defl inch	0.040 (L/3964)	11'3 5/16"	0.328 (L/480)	0.121 (12%)	L	_L
TL Defl inch	0.050 (L/3169)	11'5 15/16"	0.657 (L/240)	0.076 (8%)	D+L	_L
LL Cant	0.062 (2L/1738)	Lt Cant	0.224 (2L/480)	0.276 (28%)	L	L_
TL Cant	0.071 (2L/1517)	Lt Cant	0.448 (2L/240)	0.158 (16%)	D+L	L_

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

Vert

14%

186 / 534 720 (-1) _L

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



June 29, 2021

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Fill all hanger nailing holes.
- 3 Girders are designed to be supported on the bottom edge only.
- 4 Multiple plies must be fastened together as per manufacturer's details.
- 5 Top loads must be supported equally by all plies.
- 6 Tie-down connection required at bearing 2 for uplift 1 lb (Combination 0.9D+1.5L, Load Case L_).
- 7 Top must be continuously laterally braced.
- 8 Bottom must be laterally braced at a maximum of 17'8 1/8" o.c.
- 9 Lateral slenderness ratio based on full section width

Notes

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

- Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or corrosive
- Handling & Installation
- I. UVL beams must not be cutor drilled
 Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam stength 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 rolation
- 6. For flat roofs provide proper drainage to prevent

This design is valid until 5/24/2024

Manufacturer Info Forex APA: PR-L318

3228 Moodie Dr. Ottawa, Ontario 61B-838-2775 D/\905-642-4400



Page 51 of 81



Client: Project: Address:

GREENPARK

PINETREE 38-3-3

6/28/2021

Project #:

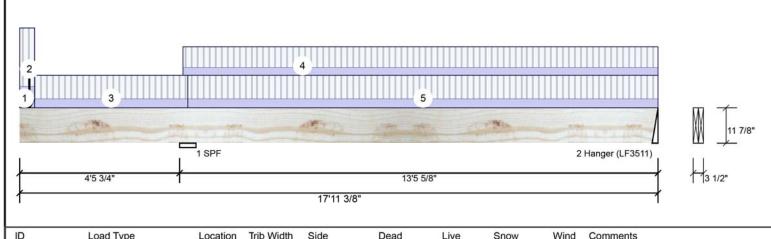
WC Input by:

Job Name: PT38-3-3 STANDARD & DECK CONDITION ROUNDEL HOMES INC

Forex 2.0E-3000Fb LVL F18-A

RICHMOND HILL, ON 1.750" X 11.875"

2-Ply - PASSED Level: Second Floor



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-5-0	1-8-14	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-3-4		Far Face	96 lb	213 lb	0 lb	0 lb	F17
3	Tie-In	0-5-0 to 4-8-8	0-8-9	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
4	Tie-In	4-6-14 to 17-11-6	0-7-7	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
5	Tie-In	4-8-8 to 17-11-6	0-8-9	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				10 PLF				

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

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



Notes

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

- Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or corrosive
- 1. LVL beams must not be cutor 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 roiation

Handling & Installation

- For flat roofs provide proper drainage to prevent ponding

This design is valid until 5/24/2024

Forex APA: PR-L318

Manufacturer Info

3228 Moodie Dr. Ottawa, Ontario 61B-838-2775 D/\905-642-4400



CSD BUILD joshua.nabua



Forex 2.0E-3000Fb LVL

F19-A

Client: Project:

GREENPARK

6/28/2021

Project #:

WC Input by:

PT38-3-3 STANDARD & DECK CONDITION Job Name:

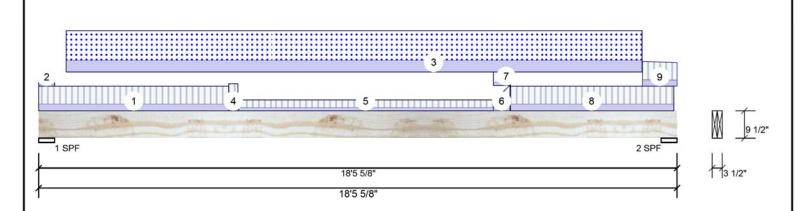
ROUNDEL HOMES INC

Address: PINETREE 38-3-3

RICHMOND HILL, ON 1.750" X 9.500"

2-Ply - PASSED

Level: Second Floor



Member Information Unfactored Reactions UNPATTERNED Ib (Uplift) Type: Application: Floor (Residential) Brg Direction Live Dead Wind Snow Plies: 2 Design Method: LSD 267 373 506 1 Vertical Moisture Condition: Dry Building Code: NBCC 2015 / OBC 2012 378 494 2 Vertical 294 Deflection LL: 480 Load Sharing: No Deflection TL: 240 Deck: Not Checked Importance: Normal - II Vibration: Not Checked General Load **Bearings and Factored Reactions** 40 PSF Floor Live: 15 PSF Dead: Bearing Length Dir. Cap. React D/L lb Total Ld. Case Ld. Comb. 1 - SPF 5.500" Vert 13% 466 / 1026 1492 L 1.25D+1.5S +L 2 - SPF 5.500" Vert 13% 473 / 1035 1508 L 1.25D+1.5S Analysis Results +L

Analysis Actual Location Allowed Capacity Comb Case 6373 ft-lb 9'2 5/8" 22724 ft-lb 0.280 (28%) 1.25D+1.5S L Moment Unbraced 6373 ft-lb 9'2 5/8" 16552 ft-lb 0.385 (39%) 1.25D+1.5S L +L Shear 1361 lb 1'3" 9277 lb 0.147 (15%) 1.25D+1.5S L Perm Defl in. 0.184 (L/1155) 9'2 3/4" 0.589 (L/360) 0.312 (31%) D Uniform LL Defl inch 0.325 (L/652) 9'2 3/4" 0.442 (L/480) 0.736 (74%) S+0.5L L TL Defl inch 0.509 (L/417) 9'2 3/4" 0.884 (L/240) 0.576 (58%) D+S+0.5L

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

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



0

0

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 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 must be laterally braced at a maximum of 18'5 5/8" o.c.
- 6 Bottom must be laterally braced at bearings.

	/ Lateral	sieriderriess ratio based i	on full section width.							
	ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
ı	1	Tie-In	0-0-0 to 5-5-11	0-10-15	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	2	Tie-In	0-0-0 to 0-5-8	0-2-3	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	3	Part. Uniform	0-9-8 to 17-5-8		Тор	24 PLF	0 PLF	60 PLF	0 PLF	
ı	4	Tie-In	5-5-11 to 5-8-14	0-11-15	Тор	15 PSF	40 PSF	0 PSF	0 PSF	

Notes

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.

- 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 informatio regarding installation requirements, multi-pl details, beam strength values, and co
- naged Beams must not be used
- Design assumes top edge is laterally restrained
 Provide lateral support at bearing points to avoid
 lateral displacement and rolation

6. For flat roofs provide proper drainage to prevent

This design is valid until 5/24/2024

Forex

Manufacturer Info

APA: PR-L318



shua nabua



Client: Project:

GREENPARK

6/28/2021

WC Input by:

Job Name: PT38-3-3 STANDARD & DECK CONDITION

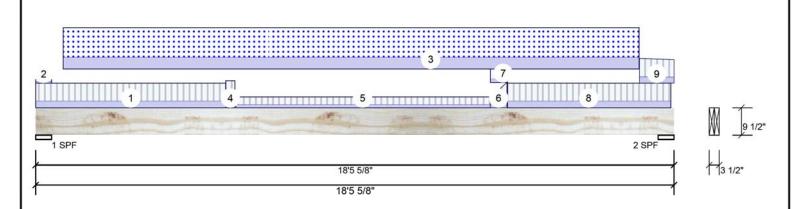
Address:

PINETREE 38-3-3 RICHMOND HILL, ON

Project #: ROUNDEL HOMES INC

Level: Second Floor

1.750" X 9.500" F19-A Forex 2.0E-3000Fb LVL 2-Ply - PASSED



ŀ	Continued from p	age 1								
I	ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
I	5	Tie-In	5-9-3 to 13-1-10	0-4-12	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
I	6	Tie-In	13-1-10 to 13-7-6	0-4-7 to 0-11-3	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
I	7	Tie-In	13-1-10 to 13-7-9	0-6-3	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
I	8	Tie-In	13-7-9 to 18-4-8	0-10-14	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
I	9	Tie-In	17-5-10 to 18-5-10	0-11-3 to 0-10-10	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
I		Self Weight				8 PLF				

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

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

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Notes

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 LVL not to be treated with fire retardant or corrosive
- Handling & Installation
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 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 rolation
- 6. For flat roofs provide proper drainage to prevent

Forex

This design is valid until 5/24/2024

Manufacturer Info

APA: PR-L318

3228 Moodie Dr. Ottawa, Ontario 61B-838-2775 D/\905-642-4400



Client: Project: Address:

GREENPARK

Input by:

WC

PT38-3-3 STANDARD & DECK CONDITION ROUNDEL HOMES INC

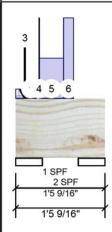
Forex 2.0E-3000Fb LVL F7-A

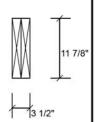
PINETREE 38-3-3 RICHMOND HILL, ON 1.750" X 11.875"

Project #: 2-Ply - PASSED

Level: Second Floor

6/28/2021





Member Infor	mation			Unfa	actored Rea	actions UNP	ATTERNED I	b (Upl	ift)	
Type:	Girder	Application:	Floor (Residential)	Brg	Direction	Live	Dead		Snow	Wind
Plies:	2	Design Method:	LSD	1	Vertical	2	46		0	0
Moisture Conditio	n: Dry	Building Code:	NBCC 2015 / OBC 2012	2	Vertical	0	21		0	0
Deflection LL:	480	Load Sharing:	No							
Deflection TL:	240	Deck:	Not Checked	1						
Importance:	Normal - II	Vibration:	Not Checked	1						
General Load					and the second	115	* Supper 2			
Floor Live:	40 PSF			Bear	rings and F	actored Rea	ctions			
Dead:	15 PSF			Bea	aring Length	Dir. Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
				1-	SPF 5.250"	Vert 1%	64 / 0	64	Uniform	1.4D
Analysis Posul	P.C.			2 -	SPF 5.250"	Vert 0%	29/0	29	Uniform	1.4D

Analysis Results

Γ	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
l	Moment	5 ft-lb	9 1/8"	22269 ft-lb	0.000 (0%)	1.4D	Uniform
l	Unbraced	5 ft-lb	9 1/8"	22269 ft-lb	0.000 (0%)	1.4D	Uniform
l	Shear	18 lb	7/16"	7537 lb	0.002 (0%)	1.4D	Uniform
	Perm Defl in.	0.000 (L/804346)	9 1/8"	0.024 (L/360)	0.000 (0%)	D	Uniform
l	LL Defl inch	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
	TL Defl inch	0.000	9 1/8"	0.036 (L/240)	0.000 (0%)	D+L	L

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

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

PROFESSIONA I.MATIJEVIC 100528832 INCE OF June 29, 2021

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 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 must be continuously laterally braced.
- 6 Bottom must have sheathing attached or be continuously braced.
- 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.

ID Load Type Trib Width Side Wind Location Dead Live Snow Comments Tie-In 0-0-0 to 0-4-2 0-2-0 Top 15 PSF 40 PSF 0 PSF 0 PSF Point 0-1-13 Top 13 lb 0 lb 0 lb 0 lb Wall Self Weight Bearing Length 0-5-8 Point 0-1-13 9 lb 0 lb 0 lb Wall Self Weight 3 0 lb Top

Continued on 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.

- Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or corrosive
- Handling & Installation
- I. UVL beams must not be cutor drilled
 Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam stength 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 rolation

6. For flat roofs provide proper drainage to prevent

This design is valid until 5/24/2024

Forex APA: PR-L318

Manufacturer Info 3228 Moodie Dr. Ottawa, Ontario 61B-838-2775 D/\905-642-4400



oshua.nabua

Page 55 of 81



F7-A

Forex 2.0E-3000Fb LVL

Project: Address:

Client: GREENPARK

6/28/2021 Input by:

WC

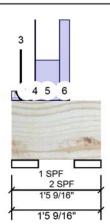
Job Name: PT38-3-3 STANDARD & DECK CONDITION

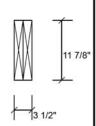
PINETREE 38-3-3 RICHMOND HILL, ON

1.750" X 11.875"

Project #: ROUNDEL HOMES INC

Level: Second Floor 2-Ply - PASSED





Continued f	.Continued from page 1												
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments				
	Bearing Length	0-5-8											
4	Part. Uniform	0-4-9 to 0-4-11		Тор	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight				
5	Part. Uniform	0-4-11 to 0-9-7		Тор	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight				
6	Part. Uniform	0-9-7 to 0-11-6		Тор	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight				
	Self Weight				10 PLF								

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

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



Notes

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

Handling & Installation

- 1. LVL beams must not be cutor 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 roiation
- For flat roofs provide proper drainage to prevent ponding

This design is valid until 5/24/2024

Manufacturer Info Forex

APA: PR-L318

3228 Moodie Dr. Ottawa, Ontario 618-838-2775D/\905-642-4400



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Client: Address:

Project:

GREENPARK

6/28/2021 WC Input by:

PT38-3-3 STANDARD & DECK CONDITION

ROUNDEL HOMES INC

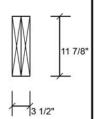
1.750" X 11.875" F7-B Forex 2.0E-3000Fb LVL

PINETREE 38-3-3 RICHMOND HILL, ON

Project #: 2-Ply - PASSED

Level: Second Floor





nation	Unfactored Reactions UNPATTERNED Ib (Uplift)								
Girder	Application:	Floor (Residential)	Brg	Direction	Live	Dead		Snow	Wind
2	Design Method:	LSD	1	Vertical	0	28		0	0
Dry	Building Code:	NBCC 2015 / OBC 2012	2	Vertical	0	61		0	0
480	Load Sharing:	No							
240	Deck:	Not Checked							
Normal - II	Vibration:	Not Checked							
				(1.07	116 2500000	14660			
40 PSF			Bear	rings and Fa	actored Read	ctions			
15 PSF			Bea	aring Length	Dir. Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
			1 -	SPF 2.633"	Vert 1%	39 / 0	39	Uniform	1.4D
			2 -	SPF 5.250"	Vert 1%	85 / 0	85	Uniform	1.4D
	Girder 2 Dry 480 240 Normal - II	Girder Application: Design Method: Building Code: Load Sharing: Deck: Normal - II Vibration: 40 PSF 15 PSF	Girder Application: Floor (Residential) 2 Design Method: LSD Building Code: NBCC 2015 / OBC 2012 480 Load Sharing: No 240 Deck: Not Checked Normal - II Vibration: Not Checked	Application: Floor (Residential) Brg	Girder Application: Floor (Residential) 2 Design Method: LSD Building Code: NBCC 2015 / OBC 2012 480 Load Sharing: No 240 Deck: Not Checked Normal - II Vertical 2 Vertical 40 PSF 15 PSF Bearings and Fe Bearing Length 1 - SPF 2.633" 2 - SPF 5.250"	Application: Floor (Residential) Brg Direction Live	Application: Floor (Residential) Brg Direction Live Dead	Application: Floor (Residential) Brg Direction Live Dead	Application: Floor (Residential) Brg Direction Live Dead Snow

Analysis Results

Γ	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
l	Moment	8 ft-lb	6 3/16"	22269 ft-lb	0.000 (0%)	1.4D	Uniform
l	Unbraced	8 ft-lb	6 3/16"	22269 ft-lb	0.000 (0%)	1.4D	Uniform
l	Shear	35 lb	1'2 1/2"	7537 lb	0.005 (0%)	1.4D	Uniform
	Perm Defl in.	0.000 (L/536616)	6 3/16"	0.024 (L/360)	0.001 (0%)	D	Uniform
l	LL Defl inch	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
l	TL Defl inch	0.000	6 3/16"	0.036 (L/240)	0.000 (0%)	D	Uniform

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

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

ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE

READ ALL NOTES ON THIS PAGE AND ON THE

IS AN INTEGRAL PART OF THIS DRAWING AS IT

CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

PROFESSIONAL I.MATIJEVIC 100528832 ONTP VINCE OF June 29, 2021

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 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 must be continuously laterally braced.
- 6 Bottom must have sheathing attached or be continuously braced.
- 7 Lateral slenderness ratio based on full section width.

ID Load Type Location Trib Width Side Dead Live Wind Comments Snow 1 Part. Uniform 0-2-12 to 1-2-5 Top 80 PLF 0 PLF 0 PLF 0 PLF Wall Self Weight 10 PLF Self Weight

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- Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or corrosive
- Handling & Installation
- I. UVL beams must not be cutor drilled
 Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam stength 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 rolation

6. For flat roofs provide proper drainage to prevent

This design is valid until 5/24/2024

APA: PR-L318

Manufacturer Info

3228 Moodie Dr. Ottawa, Ontario 61B-838-2775 D/\905-642-4400



Client: Project:

GREENPARK

PINETREE 38-3-3 Address:

RICHMOND HILL, ON

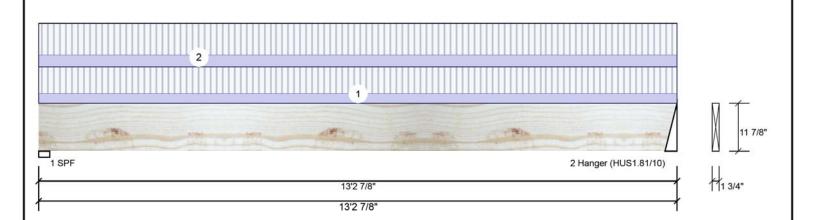
6/28/2021

WC Input by:

Project #:

PT38-3-3 STANDARD & DECK CONDITION Job Name: ROUNDEL HOMES INC

Forex 2.0E-3000Fb LVL 1.750" X 11.875" - PASSED Level: Second Floor



Brg

1

2

Direction

Vertical

Vertical

Member Information Type: Plies: 1 Moisture Condition: Dry Deflection LL: 480 Deflection TL: 240 Importance:

Normal - II

40 PSF 15 PSF

Application: Floor (Residential) Design Method: LSD

Building Code: NBCC 2015 / OBC 2012 Load Sharing: No

Deck: Not Checked Vibration: Not Checked

Bearings and Factored Reactions

Unfactored Reactions UNPATTERNED Ib (Uplift)

Live

176

177

Bearing Length Dir. Cap. React D/L lb Total Ld. Case Ld. Comb. 1 - SPF 2.750" Vert 13% 122 / 264 386 1 1.25D+1.5L 2 -3.000" Vert 10% 122 / 265 388 L 1.25D+1.5L Hanger

Dead

98

QR

Snow

0

0

Wind

0

0

Analysis Results

General Load

Floor Live:

Dead:

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1213 ft-lb	6'7 5/16"	17130 ft-lb	0.071 (7%)	1.25D+1.5L	L
Unbraced	1213 ft-lb	6'7 5/16"	17130 ft-lb	0.071 (7%)	1.25D+1.5L	L
Shear	321 lb	1'2 5/8"	5798 lb	0.055 (6%)	1.25D+1.5L	L
Perm Defl in.	0.020 (L/7562)	6'7 3/8"	0.430 (L/360)	0.048 (5%)	D	Uniform
LL Defl inch	0.037 (L/4186)	6'7 3/8"	0.322 (L/480)	0.115 (11%)	L	L
TL Defl inch	0.057 (L/2694)	6'7 3/8"	0.644 (L/240)	0.089 (9%)	D+L	L

Design Notes

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

1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.

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.

REFER TO MULTIPLE MEMBER **CONNECTION DETAIL FOR PLY TO PLY**

NAILING OR BOLTING REQUIREMENTS.

PASS-THRU SQUASH BLOCK

FRAMING IS REQUIRED AT ALL

POINT LOADS OVER BEARINGS.



June 29, 2021

11	D	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1		Tie-In	0-0-0 to 13-2-14	0-3-11	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2		Tie-In	0-0-0 to 13-2-14	0-4-5	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
		Self Weight				5 PLF				

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- Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or corrosive
- Handling & Installation
- 1. UVL beams must not be cutor drilled
 2. Refer to manufacturer's product information regarding installation requirements, multi-ph fastening details, beam stength values, and codi approvals
 3. Damaged Beams must not be used

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

6. For flat roofs provide proper drainage to prevent

This design is valid until 5/24/2024

APA: PR-L318

Manufacturer Info

3228 Moodie Dr. Ottawa, Ontario 618-838-2775 D/\905-642-4400



Page 65 of 8



Client: Project: Address:

GREENPARK

PINETREE 38-3-3

6/28/2021

Project #:

WC Input by:

PT38-3-3 STANDARD & DECK CONDITION

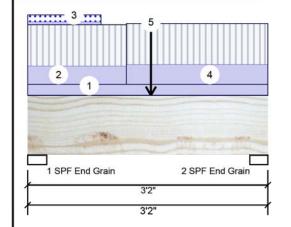
ROUNDEL HOMES INC

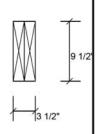
FH4-A Forex 2.0E-3000Fb LVL

RICHMOND HILL, ON 1.750" X 9.500"

2-Ply - PASSED

Level: Second Floor





Member Information								
Type:	Girder	Application:	Floor (Residential)					
Plies:	2	Design Method:	LSD					
Moisture Condition:	Dry	Building Code:	NBCC 2015 / OBC 2012					
Deflection LL:	480	Load Sharing:	No					
Deflection TL:	240	Deck:	Not Checked					
Importance:	Normal - II	Vibration:	Not Checked					
General Load								
Floor Live:	40 PSF							
Dead:	15 PSF							

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-	na	IVSIS	RASII	116

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1378 ft-lb	1'7 7/16"	22724 ft-lb	0.061 (6%)	1.25D+1.5S +L	L
Unbraced	1378 ft-lb	1'7 7/16"	22724 ft-lb	0.061 (6%)	1.25D+1.5S +L	L
Shear	918 lb	2'1 1/2"	9277 lb	0.099 (10%)	1.25D+1.5S +L	L
Perm Defl in.	0.002 (L/13507)	1'7 7/16"	0.093 (L/360)	0.027 (3%)	D	Uniform
LL Defl inch	0.003 (L/10839)	1'7 7/16"	0.070 (L/480)	0.044 (4%)	S+0.5L	L
TL Defl inch	0.006 (L/6013)	1'7 7/16"	0.140 (L/240)	0.040 (4%)	D+S+0.5L	L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 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 must be continuously laterally braced.
- 6 Bottom must have sheathing attached or be continuously braced.
- 7 Lateral slenderness ratio based on full section width.

Unfactored Reactions UNPATTERNED Ib (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	474	505	304	0
2	Vertical	474	504	280	0
I					

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	21%	631 / 1016	1647	L	1.25D+1.5L +S
2 - SPF End Grain	3.000"	Vert	21%	630 / 990	1620	L	1.25D+1.5L +S

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

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

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June 29, 2021

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

- Handling & Installation
- 1. UVL beams must not be cutor drilled
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 3. Damaged Beams must not be used
- Design assumes top edge is laterally restrained
 Provide lateral support at bearing points to avoid
 lateral displacement and rolation
- 6. For flat roofs provide proper drainage to prevent

This design is valid until 5/24/2024

Manufacturer Info APA: PR-L318

3228 Moodie Dr. Ottawa, Ontario 61B-838-2775 D/\905-642-4400



Page 66 of 81



Client: Project: Address:

GREENPARK

PINETREE 38-3-3

6/28/2021 Input by:

WC

Job Name: PT38-3-3 STANDARD & DECK CONDITION

RICHMOND HILL, ON

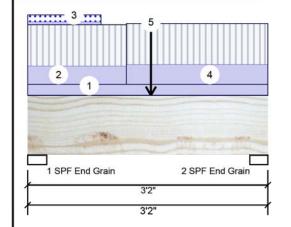
Project #: ROUNDEL HOMES INC

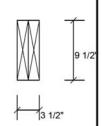
FH4-A Forex 2.0E-3000Fb LVL

1.750" X 9.500"

2-Ply - PASSED

Level: Second Floor





ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 3-2-0		Тор	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
2	Part. Uniform	0-0-0 to 1-3-9		Тор	134 PLF	300 PLF	0 PLF	0 PLF	J7
3	Part. Uniform	0-0-0 to 0-11-9		Тор	21 PLF	0 PLF	51 PLF	0 PLF	
4	Part. Uniform	1-3-9 to 3-2-0		Тор	144 PLF	299 PLF	0 PLF	0 PLF	J7
5	Point	1-7-7		Тор	268 lb	0 lb	535 lb	0 lb	Header Column
	Bearing Length	0-3-8							
	Self Weight				8 PLF				

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

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

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 4. Design assumes top edge is laterally restrained
 5. Provide lateral support at bearing points to avoid lateral displacement and roiation

For flat roofs provide proper drainage to prevent ponding

This design is valid until 5/24/2024

Forex APA: PR-L318

Manufacturer Info

3228 Moodie Dr. Ottawa, Ontario 618-838-2775D/\905-642-4400

