

This certification is to confirm that: 1. The loads used in the calculation of the attached approved components conform to the floor assembly shown on this layout. 2. The floor joists comply with the Nascor span table for the loads and spacing shown on this layout.

The floor system must be assembled in accordance to the Nascor Specifier Guide. Multi-ply members must be attached together as per the included multiple member connection detail. All other components and structural elements supporting the floor system such as beams, walls, columns and foundation walls and footings including anchorage of components and bracing for lateral stability are the responsibility of others.

For conventional wood framing framing shall conform to OBC.9.28

PROFESSIONAL T.L. WISE 100083566 VCE OF ON August 21, 2018

All work shall conform to the Ontario Building Code O. Reg. 332/12 as amended



3. LVL CCMC -14056-R

4. CAN/CSA-086-09

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

Legend



Load from Above Wall Wall Opening Norbord Rimboard Plus 1.125 X 9.5 NJ 9.5 NJ60U 9.5 NJH 9.5 Forex 2.0E-3000Fb LVL 1.75 X 9.5

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

2. Nascor CCMC - 13535-R

F1 1.75 9.5 2.0E-3000Fb LVL Joist (Flush) Label Description Width Depth Qty Plies Pcs Ler F6 NJ 1.5 9.5 6 F5 NJ 1.5 9.5 F4 NJ 1.5 9.5 F3 NJ 1.5 9.5 J7 NJ60U 3.5 9.5 10 18. J6 NJ60U 3.5 9.5 15 J9 NJH 16 25 9.5 3 J4 NJH 2.5 9.5 19 14 J3 NJH 9.5 2.5 2 12-J2 NJH 2.5 9.5 3 10-J1 NJH 2.5 9.5 Rim Board Width Depth Qty Plies Label Description Pcs Len Norbord Rimboard Plus 1.125 X 9.5 1.125 9.5 15 Blocking Width Depth Qty Plies Pcs Length Label Description 9.5 LinFt Varies 33-0-0 BLK1 NJH Hanger

					Dodnin Girdor	Member
Label	Pcs	Description	Skew	Slope	fasteners	fasteners
H2	6	LT2-159			4 10dx1 1/2	2 10dx1 1/2
НЗ	12	LT259			4 10dx1 1/2	2 10dx1 1/2
H4	1	LT259				
H5	4	LT359			4 10d	2 10dx1 1/2
H8	1	LT359				

Beam/Girder

NOTES:

Ground Floor LVL/LSL (Flush)

F2

Label Description

Forex 2.0E-3000Fb LVL

Framer to verify dimensions on the architectural drawings.

2. Double joist only require filler/backer ply when supporting another member using a face-mounted hanger.

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

i. Refer to Nascor specifier guide for installation works. 6. Squash blocks recommended to be installed at end bearing on all first level joists which support loading from above exceeding two levels floor or roof.

. Load transfer blocks to be installed under all point loads

3. It shall be the framer's responsibility that floor joists and beams are fastened as per the hanger manufacturer's standards.

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

Rim parallel to joists: 1-1/8" rimboard with 2"x 4" block (1/16" longer than rim depth @ 16" o/c). All other components and structural elements supporting the floor system such as beams, walls, columns, and foundation walls and footings including anchorage of components and bracing for lateral stability are the responsibility of Others.

Hatch area represents ceramic tiled floor with an addtional dead load

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

ARCHITECTURAL DRAWINGS:

REGION DESIGN INC. 8700 Dufferin St., Concord, ON Date: Rev.2; July 2018 Project No: 17-04-19 Model: Millwood 12

	Width	Depth	Qty	Plies	Pcs	Length	NASCO
	1.75	9.5	2	2	4	6-0-0	
	1.75	9.5			1	6-0-0	Layout Name MILLWOOD 12-2
							Design Method
	Width	Depth	Qty	Plies	Pcs	Length	LSD
	1.5	9.5	3	2	6	16-0-0	Description
	1.5	9.5	2	2	4	14-0-0	MINNISALE HOMES
	1.5	9.5	2	2	4	4-0-0	BRAMPTON, ONT.
	1.5	9.5	2	2	4	2-0-0	
	3.5	9.5			10	18-0-0	Created
	3.5	9.5			15	16-0-0	June 28, 2018
	2.5	9.5			3	16-0-0	Builder
	2.5	9.5			19	14-0-0	GREENPARK
	2.5	9.5			2	12-0-0	Sales Rep
	2.5	9.5			3	10-0-0	RM
	2.5	9.5			2	8-0-0	
							Designer
	Width	Depth	Qty	Plies	Pcs	Length	RCO
ı	1.125	9.5			15	12	Shipping
							Project
						T	Builder's Project
	Midth	Donth	Ohr	Plice	Pre	Length	

**Kott Lumber Company** 

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

Job Path S:\CUSTOMERS\GREENPARK \MINNISALE HOMES\MODELS MILLWOOD 12\MILLWOOD12-2 \FLOOR\REV\MILLWOOD 12-2.isl

**Ground Floor** 

LSD Design Method Building Code NBCC 2010 / OBC 2012 Floor

Loads 40 Live 15 Dead Deflection Joist 480 LL Span L/ 360 TL Span L/ 480 LL Cant 2L/ TL Cant 2L/ 360 Deflection Girder LL Span L/ 360 TL Span L/ 240 LL Cant 2L/ 480 TL Cant 2L/ 360

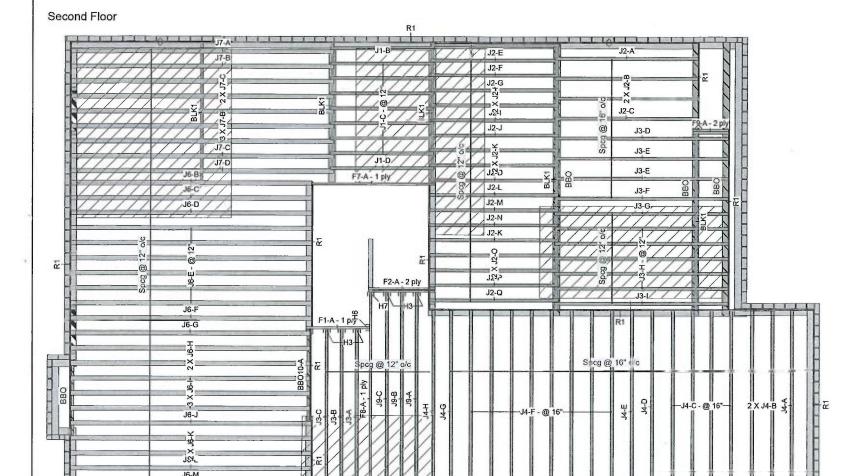
Decking SPF Plywood Deck Thickness Fastener Nailed & Glued Vibration

1"X4", 1 Row at Strapping Midspan

Version 18.40.162 Powered by iStruct™

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

KOTT



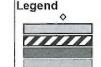
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Multi-ply members must be attached together as per the included multiple member connection detail. All other components and structural elements supporting the floor system such as beams, walls, columns and foundation walls and footings including anchorage of components and bracing for lateral stability are the responsibility of others.





Load from Above Wali Wall Opening Norbord Rimboard Plus 1.125 X 9.5 NJ60U 9.5 NJH 9.5

- 1. OBC 2012 O.Reg 332/12 as amended
- 2. Nascor CCMC 13535-R
- 3. LVL CCMC -14056-R
- 4. CAN/CSA-086-09
- 5. CCMC -12787-R APA PR-L310(C)

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
F8	Forex 2.0E-3000Fb LVL	1.75	9.5			1	16-0-0
F7	Forex 2.0E-3000Fb LVL	1.75	9.5			1	10-0-0
F2	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	6-0-0
F1	Forex 2.0E-3000Fb LVL	1.75	9.5			1	6-0-0
F9	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	4-0-0
LVL/LS	L (Dropped)						
Label	Description	Width	Depth	Qty	Plies	Pcs	Length
BBO10	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	8-0-0
I Joist (	Flush)						
Label	Description	Width	Depth	Qty	Plies	Pcs	Length
J7	NJ60U	3.5	9.5	-		9	18-0-0
J6	NJ60U	3.5	9.5			21	16-0-0
J9	NJH	2.5	9.5			3	16-0-0
J4	NJH	2.5	9.5			19	14-0-0
J3	NJH	2.5	9.5			14	12-0-0
J2	NJH	2.5	9.5			22	10-0-0
J1	NJH	2.5	9.5			9	8-0-0
Rim Bo	ard						
Label	Description	Width	Depth	Qty	Plies	Pcs	Length
R1	Norbord Rimboard Plus 1.125 X 9.5	1.125	9.5			18	12
Blockin	g						
Label	Description	Width	Depth	Qty	Plies	Pcs	Length
BLK1	NJH	2.5	9.5	LinFt		Varies	38-0-0

H3 6 LT259 H6 1 HUS1.81/10 30 16d 10 16d H7 1 HUCQ1.81/9-NOTES

Skew Slope

fasteners

4 10dx1 1/2

2 10dx1

. Framer to verify dimensions on the architectural drawings. 2. Double joist only require filler/backer ply when supporting another member using a face-mounted hanger.

Label Pcs Description

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

Refer to Nascor specifier guide for installation works.

. Squash blocks recommended to be installed at end bearing on all first level joists which support loading from above exceeding two levels floor or roof

. Load transfer blocks to be installed under all point loads. 3. It shall be the framer's responsibility that floor joists and beams are

fastened as per the hanger manufacturer's standards.

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

Rim parallel to joists: 1-1/8" rimboard with 2"x 4" block (1/16" longer than rim depth @ 16" o/c). All other components and structural elements supporting the floor system such as beams, walls, columns, and foundation walls and footings including anchorage of components and bracing for lateral stability are the responsibility of Others.

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

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

ARCHITECTURAL DRAWINGS:

REGION DESIGN INC. 8700 Dufferin St., Concord, ON Date: Rev.2; July 2018 Project No: 17-04-19 Model: Millwood 12

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		1	BIAC	
cs	Lengt	h	NAS	
ı	16-0-			9011
			Laviarit Name	(A) = 2)
1	10-0-	0	Layout Name MILLWOOD 12-2	
	0.0	^		
2	6-0-	U	Design Method	
1	6-0-	0	LSD	
			Description	
2	4-0-	0	MINNISALE HOME BRAMPTON, ONT.	S
		-	Created	
cs	Lengti	h	June 28, 2018	
2	8-0-			
			Builder	
			GREENPARK	
cs	Lengti		Sales Rep	
)	18-0-	_	RM	
1	16-0-	-	Designer	
3	16-0-	_	RCO	
9 4	14-0-	_	Shipping	
2	10-0-	_	Project	
)	8-0-8		Builder's Project	
			Kott Lumber (	Company
cs	Lengtl	h	14 Anderson Blvd	Jompany
8	1:		Stouffville, Ontario	
			Canada	
		_	L4A 7X4	
cs	Lengtl		905-642-4400	
ies	38-0-	U	Job Path	
Cun	norted		S:\CUSTOMERS\G	DEENIDADK
	ported mber		MINNISALE HOME	
_	teners		\MILLWOOD 12\MIL	LWOOD12-2
	dx1 1/2		\FLOOR\REV\MILL\	WOOD 12-2.isl
	16d	┪	Second Floor	
			Design Method	LSD
		Ц	Building Code NB	CC 2010 / OBC 2012
		П	Floor	2012
			Loads	
		Н	Live	40
		П	Dead	15
		П	Deflection Joist	
	10	Ш	LL Span L/	480
			TL Span L/	360
		П	LL Cant 2L/	480
			TL Cant 2L/	360
		П	Deflection Girder	
			LL Span L/	360
			TL Span L/	240
			LL Cant 2L/	480
			TL Cant 2L/	360
			Decking	
			Deck	SPF Plywood
			Thickness	5/8"
		. 1		Made of Oheard

Fastener

Vibration

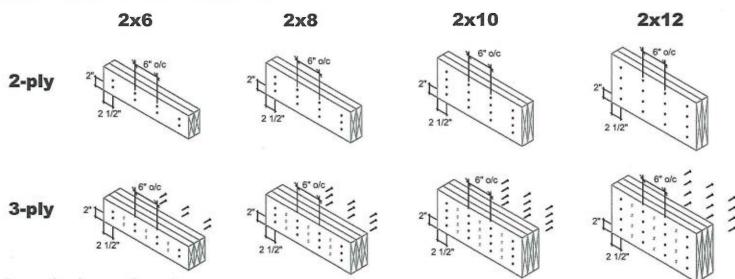
Ceiling:

Nailed & Glued

Gypsum 1/2"

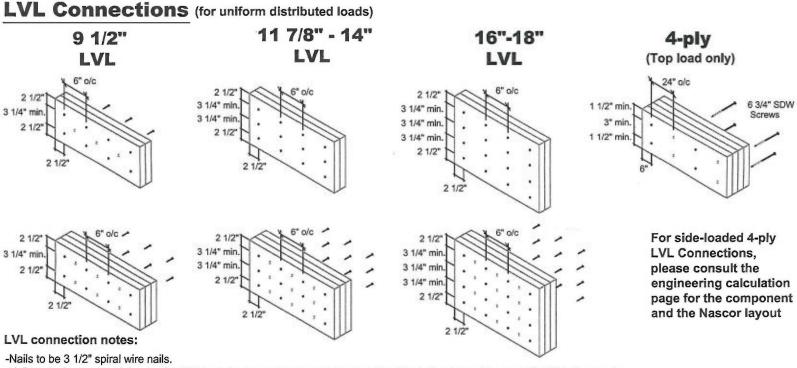
# **MULTIPLE MEMBER CONNECTIONS**

# Conventional Connections (for uniform distributed loads)



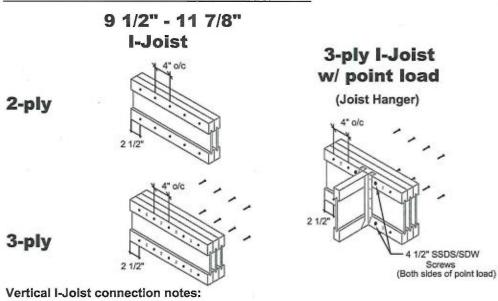
### Conventional connection notes:

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



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

# Vertical I-Joist Connections (for uniform distributed loads)



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

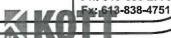


**MULTI-PLY** CONNECTION DETAILS

Date: November 30, 2016

Scale: NTS

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



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

**REVISION 2009-10-09** 

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

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

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

Installation of NASCOR joists is to be carried out in accordance with the current edition of the manufacturer's approved literature available at http://www.nascor.ca.

### CODE

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

### COMPONENT

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

### HANDLING AND INSTALLATION

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



# MULTIPLE MEMBER CONNECTIONS

### Conventional Connections (for uniform distributed loads)

2x8

2x12

2-ply



2x6





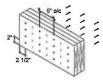


3-ply









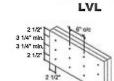
### Conventional connection notes:

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

11 7/8" - 14"

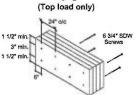
### LVL Connections (for uniform distributed loads)

9 1/2" LVL

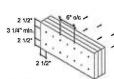


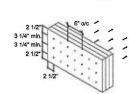
16"-18" LVL

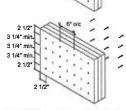
3 1/4" mln 3 1/4" min 2 1/2"



4-ply







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

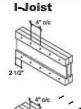
### LVL connection notes:

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

## Vertical I-Joist Connections (for uniform distributed loads)

9 1/2" - 11 7/8"

2-ply



3-ply I-Joist w/ point load

(Joist Hanger)



4 1/2" SSDS/SDW Screws (Both sides of point load)

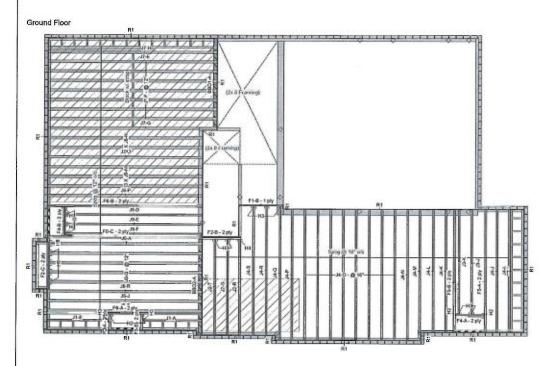
### 3-ply

Vertical I-Joist connection notes:

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

MULTI -PLY CONNECTION

3228 Moodle Drive Ottawa, ON K2H 7V1 Ph: 613-838-2775



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as beams, walls, columns and foundation

walls and footings including anchorage of

are the responsibility of others.

components and bracing for lateral stability



V/a9 ////// NJ 9.5 NJH 9.5

Load from Above Wall Opening Norbord Rimboard Plus 1,125 X 9.5 NJ60U 9.5 Forex 2.0E-3000Fb LVL 1.75 X 9.5

- 1. OBC 2012 O.Reg 332/12 as amended
- 2. Nascor CCMC 13535-R
- 3. LVL CCMC -14056-R
- 4. CAN/CSA-O86-09

Legend

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

Label	Descr	iption	Width	Depth		Qty	Plies	Pcs	Length
F2	Forex 2.0E-3	000Fb LVL	1.75	9,5		2	2	4	6-0-0
F1	Forex 2.0E-3	000Fb LVL	1.75	9.5				1	6-0-0
Joist (	Flush								
Label	Descr	iption	Width	Depth	Т	Qty	Plies	Pcs	Length
F6	NJ		1.5	9.5		3	2	6	16-0-0
F5	NJ		1.5	9.5	1	2	2	4	14-0-6
F4	NJ		1.5	9.5		2	2	4	4-0-0
F3	M		1.5	9.5	1	2	2	4	2-0-0
J7	NJ60U	1	3.5	9.5	T			10	18-0-0
J6	NJ60L	ı	35	9.5				15	16-0-0
19	NJH		2.5	9.5	1			3	16-0-0
J4	NJH		2.5	9.5	1			19	14-0-0
J3	NJH		2.5	9.5	1			2	12-0-0
J2	NJH		2.5	9.5	1			3	10-0-0
J1	HLM		2.5	9,5	1			2	8-0-0
Rim Bo	ard								
Label	Descr	iption	Width	Depth	T	Qty	Plies	Pcs	Length
R1		d Rimboard 125 X 9.5	1.125	9.5				15	12
3lockin	q				_				
Label	Descr	iption	Width	Depth	Τ	Qty	Plies	Pcs	Length
BLK1	NJH		2.5	9.5	1	LinFt		Varies	33-0-0
langer						Bea	ım/Girdei		ported
Label	Pcs	Description	1   5	kew S	lope	l fa	steners		teners
H2	6	LT2-159		-			0dx1 1/2	2 10	dx1 1/2
НЗ	12	LT259			_		0dx1 1/2		dx1 1/2

NOTES:

Cround Clear

- . Framer to verify dimensions on the architectural drawings
- Framer to verny omensions on the architectural orawings.
   Double joist only require filer/backer ply when supporting another member using a face-mounted hanger.
   Install 2x4 blocking @ 24" of under parallel non-load bearing walls.
   Install 2x4 blocking @ 10 and the place of th

H4 1 LT259

H5 4 LT359

H8 1 LT359

- 4. Install sngle-ply this window header along inside face of imboardingipiset.
  5. Refer to Nascor specifier guide for installation works.
  6. Squash blocks recommended to be installed at end bearing on all first level joists which support loading from above exceeding two levels foror or for f.
  7. Load transfer blocks to be installed under all point loads.
  8. It shall be the firmer's responsibility that floor joists and beams are fastened as per the hanger manufacturer's standards.

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

Rim parallel to loists: 1-1/8" rimboard with 2"x 4" block (1/16" longer than rum parareit to josis: 1-1/8 immodard with Z x 4 imock (11/6 immography) imm depth @ 16 oc). All other components and structural elements supporting the floor system such as beams, walls, columns, and foundation wals and foolings including anchorage of components and bracing for lateral stability are the responsibility of Others.

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ARCHITECTURAL DRAWINGS:

REGION DESIGNANCE 8700 Dufferin St. Concord, ON Date: Rev.2: July 2018 Project No: 17-04-19 Model: Milwood 12

NASCOR Layout Name MILLWOOD 12-2 Design Method Description MINNISALE HOMES BRAMPTON, ONT. Created June 28, 2018 Builder GREENPARK Sales Rep RM Designer RCO Shipping Project Builder's Project Kott Lumber Company 14 Anderson Blvd Stouffville Ontario Canada L4A 7X4 905-842-4400 Job Path S.\CUSTOMERS\GREENPARK 2 10dx1 1/2 VAINNISALE HOMES/MODELS WILLWOOD 12/MILLWOOD 12-2
VFLOOR/REV/MILLWOOD 12-2.isl Ground Floor Design Method LSD Building Code NBCC 2010 / OBC Floor Loads 40 Dead 15 Deflection Joist LL Span L/ 460 TL Span L/ 360 LL Cant 2L/ 480 TL Cant 2L/ 360 Deflection Girder

LL Span L/

TL Span L/

LL Cant 2L/

TL Cant 2L/

Decking

Thickness

Fastener

Vibration

Strapping

Deck

360

240

480

360

SPF Plywood

Naded & Glued

1"X4", 1 Row at

isDesign™

Client:

GREENPARK

Project: Address:

Date: 8/20/2018

RCO

Designer: Job Name: MILLWOOD 12-1

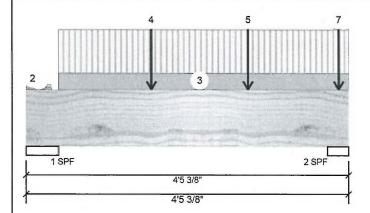
Project #:

Forex 2.0E-3000Fb LVL F2-B

1.750" X 9.500"

2-Ply - PASSED

Level: Ground Floor



9 1/2

Page 2 of 2

..Continued from page 1

ID Load Type Location Trib Width Side 7 Point 4-3-12 Near Face

110 lb

Live 262 lb Snow 0 lb Wind Comments

0 lb J2

Self Weight

8 PLF

Dead

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

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

Notes

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

Lumber

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

Handling & Installation

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

approvals

Damaged Beams must not be used

Design assumes top edge is laterally restrained

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

For flat roofs provide proper drainage to prevent ponding

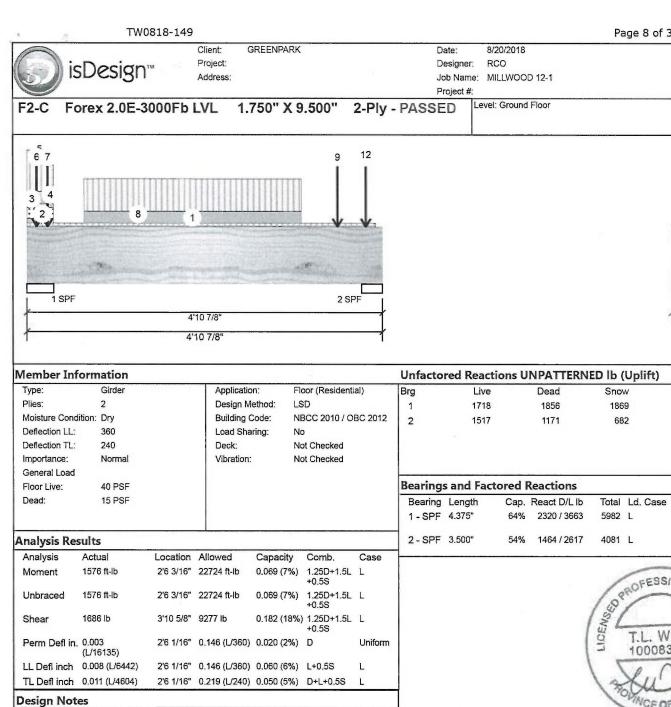
This design is valid until 7/10/2021

Manufacturer Info

Forex APA: PR-L318

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

Version 18.40.162 Powered by iStruct™





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

Γ	ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
l	1	Tie-In	0-0-0 to 4-9-12	(Span)1-3-3	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
l	2	Part. Uniform	0-0-0 to 0-4-6		Тор	44 PLF	0 PLF	102 PLF	0 PLF	
l	3	Part. Uniform	0-0-0 to 0-4-6		Тор	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight

This design

Continued on page 2...

candinated decipied besigns a responsibility of the 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

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

### chemicals

Handling & Installation

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

Manufacturer Info Forex APA: PR-L318

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

Kott Lumber Company Canada L4A 7X4 905-642-4400



Page 1 of 2



Wind

0

0

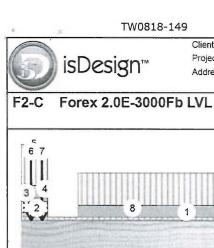
Ld. Comb. 1.25D+1.5S

1.25D+1.5L

+0.51

+0.58





**GREENPARK** 

Client:

Project: Address: Date: Designer:

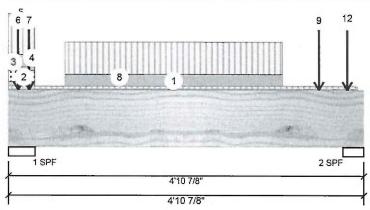
8/20/2018

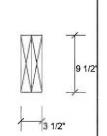
Job Name: MILLWOOD 12-1

RCO

Project #:

1.750" X 9.500" 2-Ply - PASSED Level: Ground Floor





Page 2 of 2

Continued	from page 1								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
4	Part. Uniform	0-0-0 to 0-4-6		Тор	120 PLF	319 PLF	0 PLF	0 PLF	J6
5	Part. Uniform	0-0-0 to 0-4-6		Тор	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
6	Point	0-1-10		Тор	1341 lb	640 lb	1810 lb	0 lb	BBO3 BBO3
7	Point	0-3-7		Near Face	166 lb	360 lb	22 lb	0 lb	J6
8	Part. Uniform	0-9-7 to 3-9-7		Near Face	117 PLF	311 PLF	0 PLF	0 PLF	
9	Point	4-3-7		Near Face	121 lb	324 lb	0 lb	0 lb	J6
10	Point	4-8-2		Тор	19 lb	0 lb	0 lb	0 lb	Wall Self Weight
11	Point	4-8-2		Тор	824 lb	740 lb	682 lb	0 lb	BBO3 BBO3
12	Point	4-8-2		Тор	18 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Self Weight				8 PLF				

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

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

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 inlended application, and to verify the dimensions and loads.

Handling & Installation

andling & installation

LVL beams must not be cut or drilled

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

Demaged Beams must not be used

Design assumes top edge is laterally reastrained

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

Manufacturer Info

Forex APA: PR-L318



Client: GREENPARK

Project: Address: Date: 8/20/2018

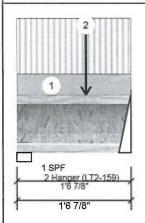
Designer: RCO

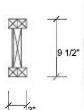
Job Name: MILLWOOD 12-1

Project #:

2-Ply - PASSED 9.500"

Level: Ground Floor





Wind 0 0

Ld. Comb. 1.25D+1.5L

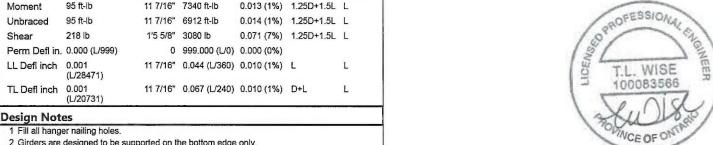
1.25D+1.5L

Page 1 of 1

Member Info	rmation			Unfactor	ed React	ions U	NPATTERNI	ED Ib (	(Uplift)
Type:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snov	W
Plies:	2	Design Method:	LSD	1	95		35		0
Moisture Conditi	ion: Dry	Building Code:	NBCC 2010 / OBC 2012	2	118		44		0
Deflection LL:	360	Load Sharing:	No						
Deflection TL:	240	Deck:	Not Checked						
Importance:	Normal	Vibration:	Not Checked						
General Load									
Floor Live:	40 PSF			Bearings	and Fact	tored F	Reactions		
Dead:	15 PSF			Bearing	Length	Сар.	React D/L lb	Total	Ld. Cas
				1-SPF	2.375"	7%	44 / 142	186	L

### **Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	95 ft-lb	11 7/16"	7340 ft-lb	0.013 (1%)	1.25D+1.5L	L
Unbraced	95 ft-lb	11 7/16"	6912 ft-lb	0.014 (1%)	1.25D+1.5L	L
Shear	218 lb	1'5 5/8"	3080 lb	0.071 (7%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/999)	0	999.000 (1/0)	0.000 (0%)		
LL Defl inch	0.001 (L/28471)	11 7/16°	0.044 (L/360)	0.010 (1%)	L	L
TL Defl inch	0.001 (L/20731)	11 7/16"	0.067 (L/240)	0.010 (1%)	D+L	L



2 -

Hanger

2.000"

9%

55 / 176

231 L

August 21, 2018

1	ΓIII	all	nange	r na	alling	noies.
-	~					

- 2 Girders are designed to be supported on the bottom edge only.
- 3 Multiple plies must be fastened together as per manufacturer's details.
- 4 Top loads must be supported equally by all plies.
- 5 Top flange braced at bearings.
- 6 Rottom flange braced at hearings

o bottom hange	braced at bearings.								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-6-14	(Span)3-3-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-11-7		Far Face	41 lb	110 lb	0 lb		J1 u Framing Squash Block is at all point loads over bearings

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

Notes

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

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

Handling & Installation

Handling & Installation

1. Moist flanges must not be cut or drilled

2. Refer to latest copy of the Lloist product information details for framing details, sufferer tables, web hole chart, bridging details, multi-ply festering details and handling/eraction details

3. Damaged bloists must not be used

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

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

 Web stiffeness for point load as shown Minimum point load bearing lengths. 3.5 Inches

 For flat roofs provid pending.

READ ALL NOTES C

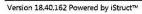
READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

Manufacturer Info

Nascor by Kott

This design is va









Client: GREENPARK

Project: Address: Date: 8/20/2018

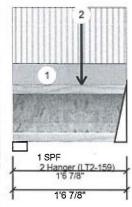
Designer: **RCO** 

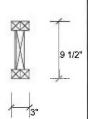
Job Name: MILLWOOD 12-1

Project #:

2-Ply - PASSED NJ 9.500"

Level: Ground Floor





Page 1 of 1

Member Inf	ormation						Unfacto	red React	ions U	NPATTERN	ED lb (	Uplift)	
Type:	Girder		Applicatio	n: F	loor (Residenti	ial)	Brg	Live		Dead	Sno	W	Wind
Plies:	2		Design M	ethod: La	SD		1	92		35		0	0
Moisture Cond	ition: Dry		Building C	Code: N	BCC 2010 / O	BC 2012	2	114		43		0	0
Deflection LL:	360		Load Sha	ring: N	o								
Deflection TL:	240		Deck:	N	ot Checked								
Importance:	Normal		Vibration:	N	lot Checked								
General Load								1 =					·
Floor Live:	40 PSF						Bearing	s and Fact	ored b	Reactions			
Dead:	15 PSF						Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
							1 - SPF	2.375"	7%	43 / 139	182	L	1.25D+1.5L
Analysis Res	sults						2 - Hanger	2.000"	9%	53 / 171	224	L	1.25D+1.5L
Analysis	Actual	Location	Allowed	Capacity	Comb.	Case							
Moment	92 ft-lb	11 7/16"	7340 ft-lb	0.012 (1%)	1.25D+1.5L	L					1		-
Unbraced	92 ft-lb	11 7/16"	6912 ft-lb	0.013 (1%)	1.25D+1.5L	L					/	a OFESSI	ONA
Shear	211 lb	1'5 5/8"	3080 lb	0.068 (7%)	1.25D+1.5L	L					10	1	TEN!
Perm Defl in.	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)						0	181		G.F.
LL Defl inch	0.001 (L/29622)	11 7/16"	0.044 (L/360)	0.010 (1%)	L	L				1	ICEA	T.L. W	ONAL ENGINEERS

L

### Design Notes

TL Defl inch 0.001

1 Fill all hanger nailing holes.

(L/21543)

- 2 Girders are designed to be supported on the bottom edge only.
- 3 Multiple plies must be fastened together as per manufacturer's details.
- 4 Top loads must be supported equally by all plies.
- 5 Top flange braced at bearings.
- 6 Bottom flange braced at bearings.

100083566 VCE OF ON August 21, 2018

ID .	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-6-14	(Span)3-3-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-11-7		Near Face	39 lb	104 lb	0 lb	0 lb	J1

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

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

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and (loadings shown. It is the responsibility of the customers suitability of the inflander policition, and to verify the dimensions and loads.

### Lumber

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

Handling & Installation

1. Joint flanges must not be cut or drilled

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

3. Damaged lotists must not be used

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

11 7/16" 0.067 (L/240) 0.010 (1%) D+L

This design is v

Provide lateral support at beering points to avoid lateral displacement and rotation
 Web stiffeness for point load as shown Minimum point load bearing length=3.5 Inches
 For flat roofs provide ponding
 READ ALL NOTES C ENGINEERING NOT

READ ALL NOTES ON THIS PAGE AND ON THE

Manufacturer Info

Nascor by Kott

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.







Client:

Project: Address: **GREENPARK** 

Date: 8/20/2018

Designer: RCO

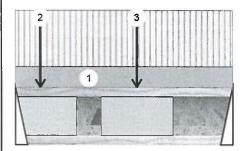
Job Name: MILLWOOD 12-1

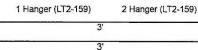
Project #:

9.500"

2-Ply - PASSED

Level: Ground Floor







Wind 0 0

Page 1 of 1

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

	Brg	Live	Dead	Snow	_
	1	358	134	0	
2012	2	236	88	0	
	Passina	a and Cartana	al Danations		
	bearing	s and Factore	d Reactions		

Unfactored Reactions UNPATTERNED lb (Uplift)

			ults	inalysis Res
Capacity Comb. Case	Allowed	Location	Actual	Analysis
0.069 (7%) 1.25D+1.5L L	7340 ft-lb	1'8 1/8"	506 ft-lb	Moment
0.108 (11%) 1.25D+1.5L L	4678 ft-lb	1'8 1/8"	506 ft-lb	Unbraced
0.226 (23%) 1.25D+1.5L L	3080 lb	1 1/4"	697 ib	Shear
0) 0.020 (2%) D Uniform	0.093 (L/360)	1'8 1/8"	0.001 (L/23286)	Perm Defl in.
0) 0.040 (4%) L L	0.093 (L/360)	1'8 1/8"	0.004 (L/8709)	LL Defl inch
0) 0.040 (4%) D+L L	0.140 (L/240)	1'8 1/8"	0.005 (L/6339)	TL Defl inch
0) 0.020 (2%) D 0) 0.040 (4%) L	0.093 (L/360) 0.093 (L/360)	1'8 1/8" 1'8 1/8"	0.001 (L/23286) 0.004 (L/8709)	Perm Defl in.

E	Bearing:	s and Factored Reactions           Length         Cap.         React D/L lb         Total         Ld. Case         Ld. Comb.           2.000"         27%         167 / 536         704         L         1.25D+1.5L						
	Bearing	Length	Сар.	React D/L lb	Total	Ld. Case	Ld. Comb.	
	1 - Hanger	2.000"	27%	167 / 536	704	L	1.25D+1.5L	
	2 - Hanger	2.000"	18%	110 / 354	465	L	1.25D+1.5L	

**Design Notes** 1 Fill all hanger nailing holes.

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

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

4 Top loads must be supported equally by all plies.

5 Top flange braced at bearings.

6 Bottom flange braced at bearings.

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LICENS	T.L. WIS 1000835	E 66
13	SUD	MARIE
Augi	ust 21, 20	18

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 3-0-0	(Span)1-8-15	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-4-2		Far Face	72 lb	192 lb	0 lb	0 lb	J3
3	Point	1-8-2		Far Face	111 lb	297 lb	0 lb		u 柠aming Squash Block is at all point loads over bearings

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

### Notes

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

Handling & Installation

and liming & installation.

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

Demaged Loists must not be used.
Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

5. Provide lateral support at bearing points to evoid lateral displacement and rotation 6. Web stiffeners for point load as shown Minimum point load bearing length>= 3.5 inches 7. For flat roofs proponding

This design is

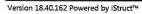
READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT

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

Manufacturer Info

Nascor by Kott









Client:

**GREENPARK** Project:

Address:

Date: Designer: 8/20/2018

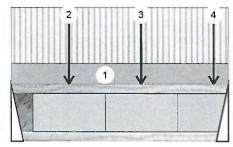
**RCO** 

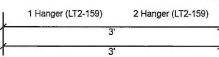
Job Name: MILLWOOD 12-1

Project #:

NJ 9.500" 2-Ply - PASSED

Level: Ground Floor







Wind

0

0

Page 1 of 1

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

**Bearings and Factored Reactions** 

Live

370

466

Brg

1

2

Unfactored Reactions UNPATTERNED Ib (Uplift)

Dead

139

175

Snow

0

0

Bearing	Length	Сар.	React D/L lb	Total	Ld. Case	Ld. Comb.	
1 - Hanger	2.000"	28%	173 / 555	729	L	1.25D+1.5L	
2 - Hanger	2.000"	35%	218 / 700	918	L	1.25D+1.5L	

Wind

0 PSF 0 lb J9

### Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	596 ft-lb	1'9 9/16"	7340 ft-lb	0.081 (8%)	1.25D+1.5L	L
Unbraced	596 ft-lb	1'9 9/16"	4678 ft-lb	0.127 (13%)	1.25D+1.5L	L
Shear	911 lb	2'10 3/4"	3080 lb	0.296 (30%)	1.25D+1.5L	L
Perm Defl in.	0.002 (L/19334)	1'8 15/16"	0.093 (L/360)	0.020 (2%)	D	Uniform
LL Defl inch	0.005 (L/7254)	1'8 7/8"	0.093 (L/360)	0.050 (5%)	L	L,
TL Defl inch	0.006 (L/5275)	1'8 7/8"	0.140 (L/240)	0.050 (5%)	D+L	L

### Design Notes

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

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow
1	Tie-In	0-0-0 to 3-0-0	(Span)1-8-15	Тор	15 PSF	40 PSF	0 PSF
2	Point	0-9-9		Near Face	100 lb	268 lb	0 lb
3	Point	1-9-9		Near Face	105 lb	279 lb	0 lb
4	Point	2-9-9		Near Face	69 lb	185 lb	0 lb

August 21, 2018

T.L. WISE TO 100083566

100083566

Pass-Thru Praming Squash Block is required at all point loads over bearings Refer to Multiple Member Connection

Comments

Detail for ply to ply nailing or bolting requirements

### Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown, it is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended amplication, and in waith the dimensions and least's Lumber

Dry service conditions, unless noted otherwise
 Upist not to be treated with fire retardant or corresive

### chemicals

Handling & Installation

Libid flanges must not be cut or drilled Libid flanges must not be cut or drilled Refer to letest copy of the Libids product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details Damaged Libids must not be used

Damaged Lioists must not be used
 Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

Provide lateral support at bearing points to avoid lateral displacement and rotation
 Was bifferens for point load as shown Minimum point load bearing len (>> 3.5 inches
 For flat roofs provided to the pointing of the pointing

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

Nascor by Kott

This design is v



Page 1 of 1



GREENPARK Client:

Project:

Address:

8/20/2018 Date: Designer:

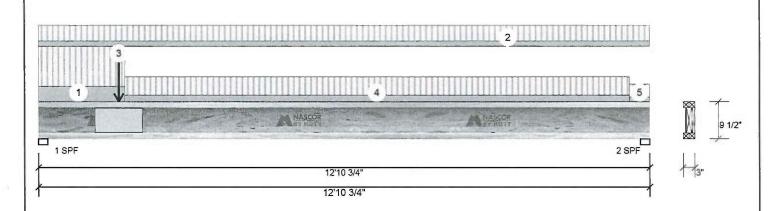
RCO

Job Name: MILLWOOD 12-1

Project #:

2-Ply - PASSED NJ 9.500"

Level: Ground Floor



Vlember Info	rmation			Unfactored Reactions UNPATTERNED lb (Uplift)						
Type:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snow		Wind
Plies:	2	Design Method:	LSD	1	612		229	0		0
Moisture Conditi	on: Dry	Building Code:	NBCC 2010 / OBC 2012	2	374		140	0		0
Deflection LL:	360	Load Sharing:	No							
Deflection TL:	240	Deck:	Not Checked							
Importance:	Normal	Vibration:	Not Checked							
General Load										
Floor Live:	40 PSF			Bearings	and Fac	tored I	Reactions			
Dead:	15 PSF			Bearing	Length	Cap.	React D/L lb	Total Lo	. Case	Ld. Comb.
				1-SPF	2.375"	45%	286 / 918	1205 L		1.25D+1.5L
				2-SPF	2.375"	27%	175 / 560	735 L		1,25D+1.5L

### **Analysis Results**

	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
	Moment	2525 ft-lb	5'9 7/8"	7340 ft-lb	0.344 (34%)	1.25D+1.5L	L
	Unbraced	2525 ft-lb	5'9 7/8"	2551 ft-lb	0.990 (99%)	1.25D+1.5L	L
	Shear	1181 lb	1 5/8"	3080 lb	0.383 (38%)	1.25D+1.5L	L
	Perm Defl in.	0.055 (L/2734)	6'3 1/16"	0.421 (L/360)	0.130 (13%)	D	Uniform
	LL Defl inch	0.148 (L/1024)	6'3 1/16"	0.421 (L/360)	0.350 (35%)	L	L
	TL Defl inch	0.203 (L/745)	6'3 1/16"	0.631 (L/240)	0.320 (32%)	D+L	L
_							

### Design Notes

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

5 Bottom flange braced at bearings.



August 21, 2018

Load Type	Location	Trib Width	Side	Dead	Live	Snow	Т
Tie-In	0-0-0 to 1-9-14	(Span)3-3-0	Тор	15 PSF	40 PSF	0 PSF	
Tie-In	0-0-0 to 12-10-12	(Span)1-2-10	Тор	15 PSF	40 PSF	0 PSF	
Point	1-8-6		Far Face	88 lb	236 lb	0 lb	
Tie-In	1-9-14 to 12-5-10	(Span)1-5-6	Тор	15 PSF	40 PSF	0 PSF	
Tie-In	12-5-10 to 12-10-12	(Span)1-0-4	Тор	15 PSF	40 PSF	0 PSF	1
	Tie-In Tie-In Point Tie-In	Tie-In 0-0-0 to 1-9-14 Tie-In 0-0-0 to 12-10-12 Point 1-8-6 Tie-In 1-9-14 to 12-5-10 Tie-In 12-5-10 to	Tie-In 0-0-0 to 1-9-14 (Span)3-3-0 Tie-In 0-0-0 to 12-10-12 (Span)1-2-10 Point 1-8-6 Tie-In 1-9-14 to 12-5-10 (Span)1-5-6 Tie-In 12-5-10 to (Span)1-0-4	Tie-In 0-0-0 to 1-9-14 (Span)3-3-0 Top Tie-In 0-0-0 to 12-10-12 (Span)1-2-10 Top Point 1-8-6 Far Face Tie-In 1-9-14 to 12-5-10 (Span)1-5-6 Top Tie-In 12-5-10 to (Span)1-0-4 Top	Tie-In         0-0-0 to 1-9-14         (Span)3-3-0         Top         15 PSF           Tie-In         0-0-0 to 12-10-12         (Span)1-2-10         Top         15 PSF           Point         1-8-6         Far Face         88 lb           Tie-In         1-9-14 to 12-5-10         (Span)1-5-6         Top         15 PSF           Tie-In         12-5-10 to         (Span)1-0-4         Top         15 PSF	Tie-In         0-0-0 to 1-9-14         (Span)3-3-0         Top         15 PSF         40 PSF           Tie-In         0-0-0 to 12-10-12         (Span)1-2-10         Top         15 PSF         40 PSF           Point         1-8-6         Far Face         88 lb         236 lb           Tie-In         1-9-14 to 12-5-10         (Span)1-5-6         Top         15 PSF         40 PSF           Tie-In         12-5-10 to         (Span)1-0-4         Top         15 PSF         40 PSF	Tie-In         0-0-0 to 1-9-14         (Span)3-3-0         Top         15 PSF         40 PSF         0 PSF           Tie-In         0-0-0 to 12-10-12         (Span)1-2-10         Top         15 PSF         40 PSF         0 PSF           Point         1-8-6         Far Face         88 lb         236 lb         0 lb           Tie-In         1-9-14 to 12-5-10         (Span)1-5-6         Top         15 PSF         40 PSF         0 PSF           Tie-In         12-5-10 to         (Span)1-0-4         Top         15 PSF         40 PSF         0 PSF

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

Comments

Wind

0 PSF 0 PSF 0 lb

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

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

### Lumber

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

- Andling & Installation

  I. Joist flanges must not be cut or drilled

  Refer to latest copy of the Judist product information details for framing details, stiffener tables, web hole teach, thicking details, multi-ply fastening details and handling/erection details

  Demaged Judist must not be used

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

Provide lateral support at bearing points to avoid lateral displacement and rotation
 Web stiffeners for point load as shown Minimum point load bearing length>= 3.5 inches
 For flat roofs proving READ ALL NOTES ON READ ALL NOTES ON

This design is

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE

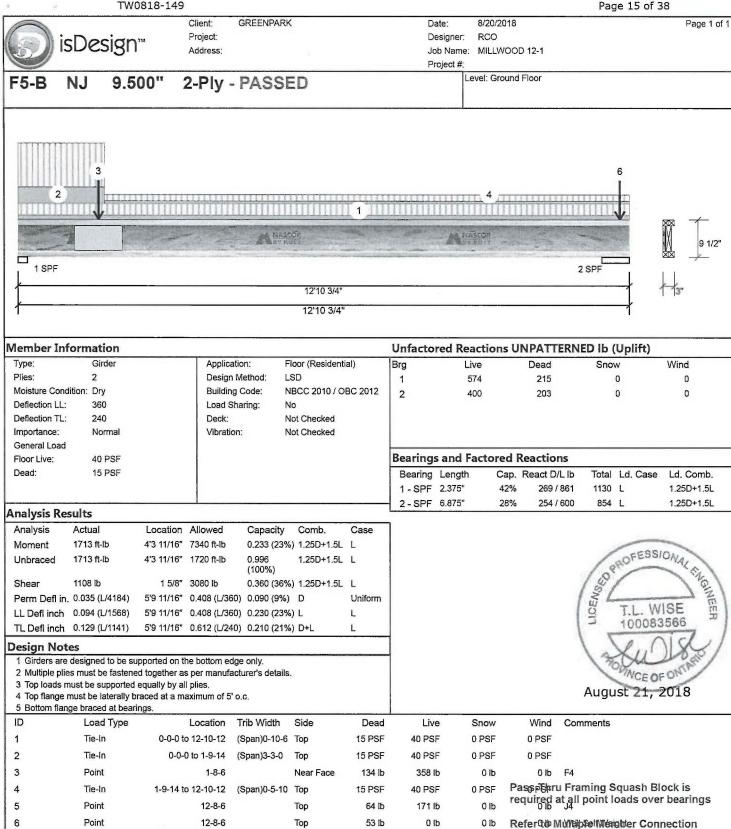
IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

Manufacturer Info

Nascor by Kott







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 loa Lumber

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

Handling & Installation

andling & Installation
Libels flarges must not be dut or drilled
Refer to latest copy of the Libits product information
details for framing details, stiffarer tables, web hole
chart, tridging details, multi-by istatening details and
handling/srection details
Design assumes to plange to be laterally restrained
by attached sheathing or as specified in engineering
notes.

Provide lateral support at bearing points to avoid lateral displacement and rotation
 Web stiffeners for point load as shown Minimum point load bearing length>= 3.5 inches
 For flat roots prov

This design is

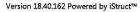
Manufacturer Info Nascor by Kott

requirements

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

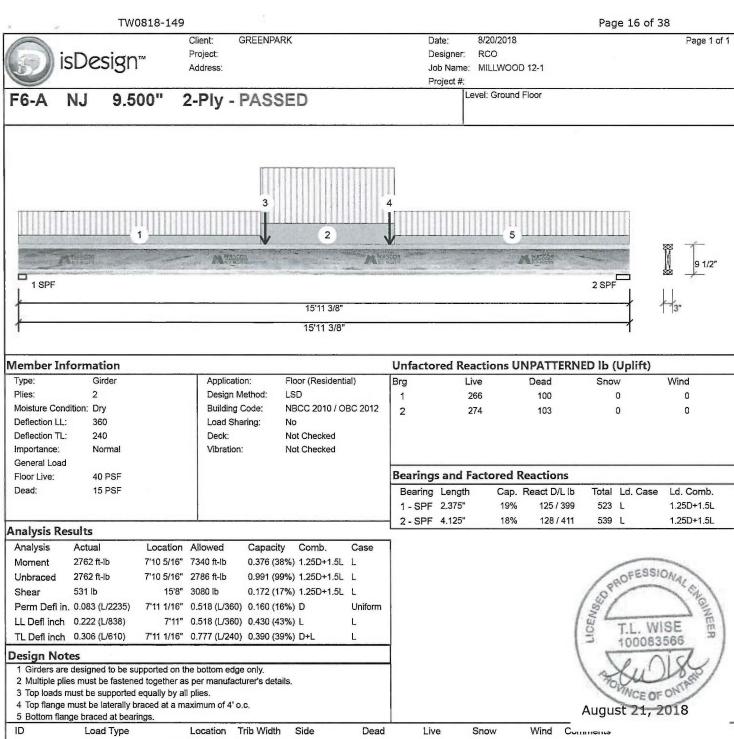
Kott Lumber Company 14 Anderson Blvd, Ontario L4A 7X4







Detail for ply to ply nailing or bolting





ı	ID	Load Type	Location	THE WIGHT	Side	Deau	Live	SHOW	Willia	Comments
l	1	Tie-In	0-0-0 to 6-3-14	(Span)0-8-15	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
l	2	Tie-In	6-3-14 to 9-9-14	(Span)1-8-15	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
l	3	Point	6-5-6		Near Face	44 lb	118 lb	0 lb	0 lb	F3
l	4	Point	9-8-6		Near Face	43 lb	114 lb	0 lb	Pass Thru	F3 I Framing Squash Block is
l	5	Tie-In	9-9-14 to 15-11-6	(Span)0-8-15	Тор	15 PSF	40 PSF	0 PSF	required a	at all point loads over bearings
1										

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

### Notes

Lumber

Dry service conditions, unless noted otherwise
 Uoist not to be treated with fire retardant or cor

Handling & Installation

and ling & Installation

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

Provide lateral support at bearing points to avoid lateral displacement and rotation.
 Web stiffeners for point load as shown Minimum point load bearing let 100 3.5 inches
 For flat roofs provided to the pointing of the pointin

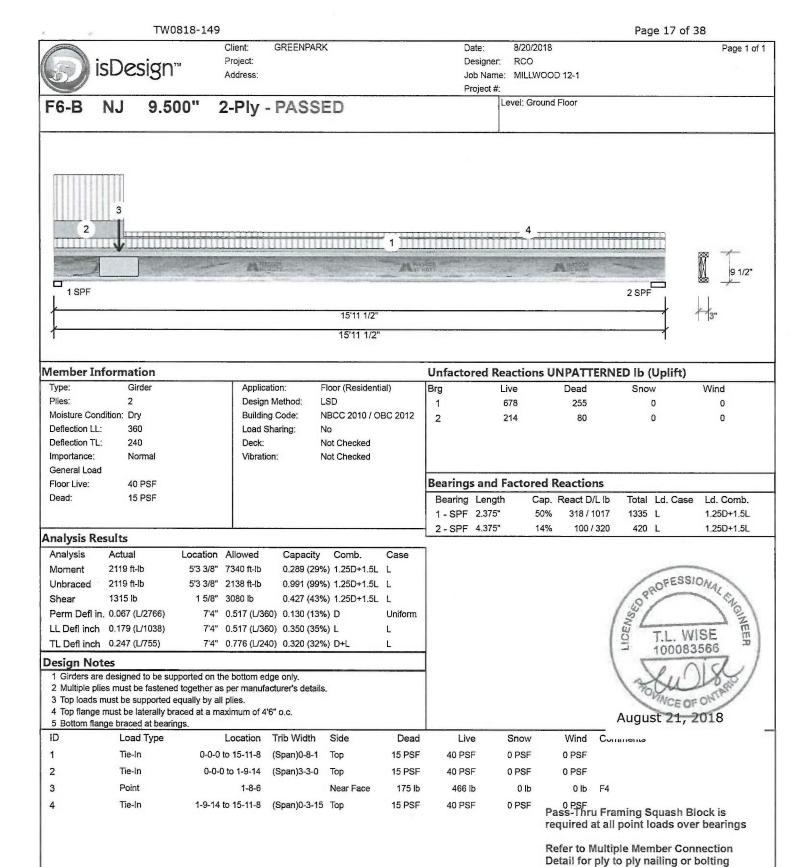
This design is va

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.

Nascor by Kott

Manufacturer Info





Notes

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

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

Handling & Installation

Joint lange as installation. 
Libel thanges must not be cut or drilled. 
Refer to latest copy of the Julist product information 
details for framing details, stiffner tables, web hole 
chart, bridging details, multi-by fastening details and 
handling/inection details. 
Demaged Julist must not be used 
Design assumes top flenge to be laterally restrained 
by attached sheathing or as specified in engineering 
notes.

Provide lateral support at bearing points to avoid lateral displacement and rotation
 Web stiffeners for point load as shown Minimum count load hearing auchboa 15 inches.

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.

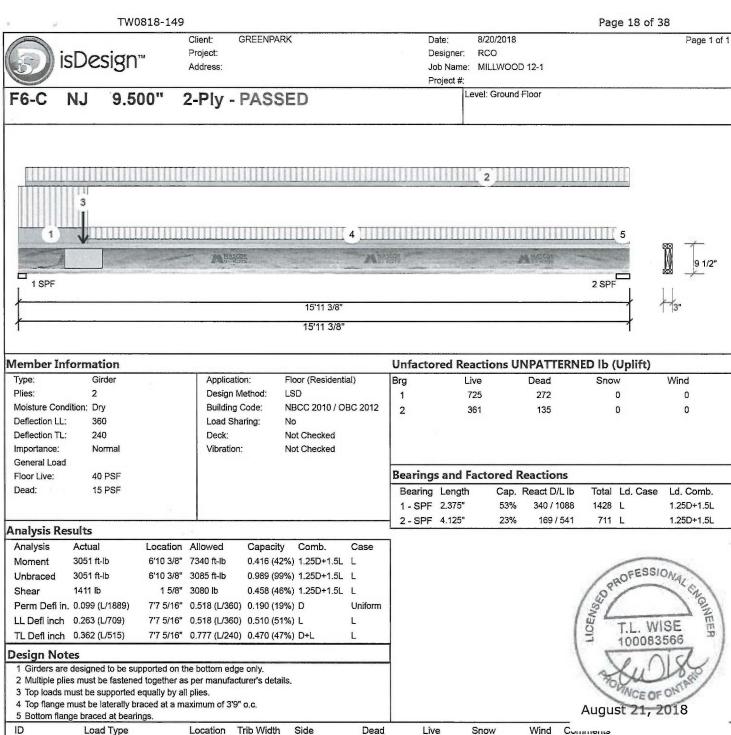
Manufacturer Info

Nascor by Kott

requirements

This design is v







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

### Notes

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

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

Handling & Installation

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

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

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

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

7. For flat roofs provide ponding

READ ALL NOTES C PONDING PROPERTY.

READ ALL NOT 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

Nascor by Kott







Client:

GREENPARK Project:

Address:

Date:

8/20/2018

Designer: RCO

Job Name: MILLWOOD 12-1 (WOD)

Project #:

Forex 2.0E-3000Fb LVL

1.750" X 9.500"

2-Ply - PASSED

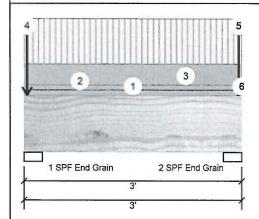
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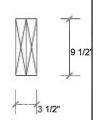
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2

Grain

Level: Ground Floor





Wind

0

0

Page 1 of 2

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

Bearings	and	<b>Factored</b>	Reactions

Live

1075

1075

Unfactored Reactions UNPATTERNED Ib (Uplift)

Dead

839

839

Snow

127

127

Jeaning.	o alla la	. wored i	teactions			
Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	35%	1049 / 1676	2725	L	1.25D+1.5L +0.5S
2 - SPF End	3.000"	35%	1049 / 1676	2725	L	1.25D+1.5L +0.5S

**Analysis Results** 

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	721 ft-lb	1'6"	22724 ft-lb	0.032 (3%)	1.25D+1.5L	L
Unbraced	721 ft-lb	1'6"	22724 ft-lb	0.032 (3%)	1.25D+1.5L	L
Shear	1051 lb	2' 1/4"	9277 lb	0.113 (11%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/24450)	1'6"	0.088 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.002 (L/17678)	1'6"	0.088 (L/360)	0.020 (2%)	L+0.5S	L
TL Defl inch	0.003 (L/10260)	1'6"	0.131 (L/240)	0.020 (2%)	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 Girders are designed to be supported on the bottom edge only.
- 3 Multiple plies must be fastened together as per manufacturer's details.
- 4 Top loads must be supported equally by all plies.
- 5 Top braced at bearings.
- 6 Bottom braced at bearings.
- 7 Lateral slenderness ratio based on full section width.

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August 21, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 3-0-0		Тор	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
2	Part. Uniform	0-0-0 to 3-0-0		Near Face	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
3	Part, Uniform	0-0-0 to 3-0-0		Near Face	164 PLF	348 PLF	0 PLF	0 PLF	J7

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

andiling & Installation

LVL beams must not be cut or drilled

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

Damaged Beams must not be used

Design assumes top edge is laterally restrained

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

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

APA: PR-I 318

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.







Project: Address:

Client:

**GREENPARK** 

Date:

8/20/2018

RCO Designer:

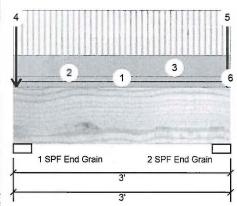
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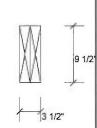
Project #:

1.750" X 9.500"

2-Ply - PASSED

Level: Ground Floor





Page 2 of 2

Continued	from page 1								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
4	Point	0-0-8		Тор	462 lb	553 lb	127 lb	0 lb	Header Column Header Column
5	Point	2-11-8		Тор	462 lb	553 lb	127 lb	0 lb	Header Column Header Column
6	Part. Uniform	3-0-0 to 3-0-0		Near Face	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
	Self Weight				8 PLF				

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

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

Notes

Handling & Installation

Handling & Installation

1. LVL beams must not be cut or drilled

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

3. Damaged Beams must not be used

4. Design assumes top edge is laterally restrained

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

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info Forex APA: PR-L318

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

This design is valid until 7/10/2021



Client:

Project: Address: GREENPARK

Date:

8/20/2018

Page 1 of 2

Designer: RCO

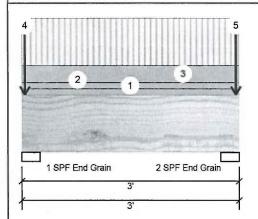
Job Name: MILLWOOD 12-1 (WOD)

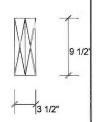
Project #:

FH3-B Forex 2.0E-3000Fb LVL

1.750" X 9.500" 2-Ply - PASSED

Level: Ground Floor





Wind

0

0

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

Bearings and Factored Read	tions

Live

980

980

Brg

2

**Unfactored Reactions UNPATTERNED Ib (Uplift)** 

Dead

704

704

Snow

127

127

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	31%	881 / 1533	2413	L	1.25D+1.5L +0.5S
2 - SPF End Grain	3.000"	31%	881 / 1533	2413	L	1.25D+1.5L +0.5S

Analysis Results

	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
l	Moment	628 ft-lb	1'6"	22724 ft-lb	0.028 (3%)	1.25D+1.5L	L
l	Unbraced	628 ft-lb	1'6"	22724 ft-lb	0.028 (3%)	1.25D+1.5L	L
l	Shear	910 lb	11 3/4"	9277 lb	0.098 (10%)	1.25D+1.5L	L
	Perm Defl in.	0.001 (L/29920)	1'6"	0.088 (L/360)	0.010 (1%)	D	Uniform
	LL Defl inch	0.002 (L/19530)	1'6"	0.088 (L/360)	0.020 (2%)	L+0.5S	L
	TL Defl inch	0.003 (L/11817)	1'6"	0.131 (L/240)	0.020 (2%)	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 Girders are designed to be supported on the bottom edge only.
- 3 Multiple plies must be fastened together as per manufacturer's details.
- 4 Top loads must be supported equally by all plies.
- 5 Top braced at bearings.
- 6 Bottom braced at bearings.
- 7 Lateral slenderness ratio based on full section width.

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August 21, 2018	

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments	
1	Part. Uniform	0-0-0 to 3-0-0		Тор	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight	
2	Part. Uniform	0-0-0 to 3-0-0		Near Face	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight	
3	Part. Uniform	0-0-0 to 3-0-0		Near Face	118 PLF	315 PLF	0 PLF	0 PLF	J6	

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.

### Lumber

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

### chemicals

### Handling & Installation

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

For flat roofs provide proper drainage to prevent ponding Manufacturer Info Forex APA: PR-L318

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





GREENPARK Client:

Address:

Project:

Date: Designer:

8/20/2018

RCO

Page 2 of 2

Job Name: MILLWOOD 12-1 (WOD)

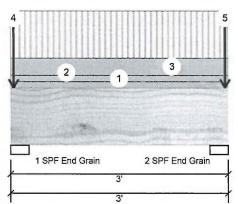
Project #:

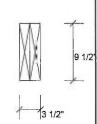
Forex 2.0E-3000Fb LVL

1.750" X 9.500"

2-Ply - PASSED

Level: Ground Floor





Continued	from page 1								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
4	Point	0-0-8		Тор	396 lb	507 lb	127 lb	0 lb	Header Column Header Column
5	Point	2-11-8		Тор	396 lb	507 lb	127 lb	0 lb	Header Column Header Column
	Self Weight				8 PLF				

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

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

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 endfor the contractor to ensure the component suitability of the Intended application, and to verify the dimensions and loads.

Lumber

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

Handling & Installation

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

approvals

Damaged Beams must not be used

Design assumes top edge is laterally restrained

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

This design is valid until 7/10/2021

For flat roofs provide proper drainage to prevent ponding

Forex APA: PR-L318

Manufacturer Info



Address:

Project:

**GREENPARK** 

Date: 8/20/2018

Designer: **RCO** 

Job Name: MILLWOOD 12-2 (WOD)

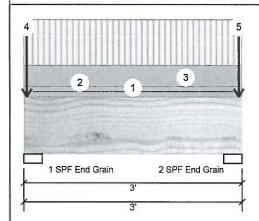
Project #:

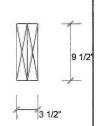
Forex 2.0E-3000Fb LVL

1.750" X 9.500"

2-Ply - PASSED

Level: Ground Floor





Page 1 of 2

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

	Brg	Live	Dead	Snow	Wind
	1	1075	827	127	0
2	2	1075	827	127	0

**Unfactored Reactions UNPATTERNED Ib (Uplift)** 

### Analysis Results Analysis Actual Location Allowed Capacity Comb. Case 721 ft-lb 1'6" 22724 ft-lb 0.032 (3%) 1.25D+1.5L L Moment 721 ft-lb 1'6" 22724 ft-lb 0.032 (3%) 1.25D+1.5L L Unbraced 1051 lb 2' 1/4" 9277 lb 0.113 (11%) 1.25D+1.5L L Shear Perm Defl in. 0.001 1'6" 0.088 (L/360) 0.010 (1%) D Uniform (L/24450) 0.002 1'6" 0.088 (L/360) 0.020 (2%) L+0.5S LL Defl inch L (L/17678) 0.003 TL Defl inch 1'6" 0.131 (L/240) 0.020 (2%) D+L+0.5S

### **Bearings and Factored Reactions**

Bearing Length Cap. React D/L lb Total Ld. Case Ld. Comb. 1-SPF 3.000" 35% 1034 / 1676 2710 L 1.25D+1.5L +0.5S End Grain

2-SPF 3.000" 35% 1034 / 1676 2710 L End Grain

1.25D+1.5L +0.5S

**Design Notes** 

- 1 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam
- 2 Girders are designed to be supported on the bottom edge only.
- 3 Multiple plies must be fastened together as per manufacturer's details.
- 4 Top loads must be supported equally by all plies.

(L/10260)

- 5 Top braced at bearings.
- 6 Bottom braced at bearings.
- 7 Lateral slenderness ratio based on full section width

1	ROFESSIONAL	13
LICENSED	T.L. WISE 100083566	GINEER
13	SUDIS WINCE OF ON!	

August 21, 2018

Latera	dictidentieso ratio basea of	Tan Scoton Width.								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments	
1	Part. Uniform	0-0-0 to 3-0-0		Тор	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight	
2	Part. Uniform	0-0-0 to 3-0-0		Near Face	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight	
3	Part, Uniform	0-0-0 to 3-0-0		Near Face	164 PLF	348 PLF	0 PLF	0 PLF	J7	
Continued or	n page 2									

Notes

Lumber

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

chemicals

Handling & Installation

LVL beams must not be cut or drilled

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

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

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info Forex APA: PR-L318

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

This design is valid until 7/10/2021



Client:

Address:

**GREENPARK** 

Project:

Date: Designer: 8/20/2018

RCO

Job Name: MILLWOOD 12-2 (WOD)

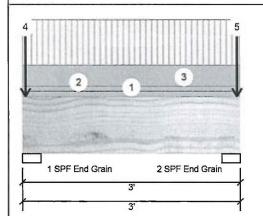
Project #:

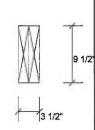
Forex 2.0E-3000Fb LVL

1.750" X 9.500"

2-Ply - PASSED

Level: Ground Floor





Page 2 of 2

Continued fr	rom page 1								
מו	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
4	Point	0-0-8		Тор	450 lb	553 lb	127 lb	0 ib	Header Column Header Column
5	Point	2-11-8		Тор	450 lb	553 lb	127 lb	0 ib	Header Column Header Column
	Self Weight				8 PLF				

Notes

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

Lumber

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

chemicals

Handling & Installation

testening details, beam strength values, and code approvals
Damaged Beams must not be used
Design assumes top adge is laterally restrained
Provide lateral support at bearing points to avoid lateral displacement and rotation

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex

APA: PR-L318

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

This design is valid until 7/10/2021



Client:

**GREENPARK** 

Project: Address:

Date: 8/20/2018

Designer: **RCO** 

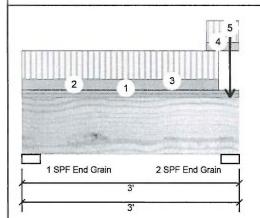
Job Name: MILLWOOD 12-2 (WOD)

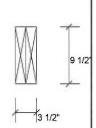
Project #:

Forex 2.0E-3000Fb LVL

1.750" X 9.500" 2-Ply - PASSED

Level: Ground Floor





Wind

0

Page 1 of 2

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

Bearings and	<b>Factored Reactio</b>	ns

Live

471

987

Brg

1

2

Grain

**Unfactored Reactions UNPATTERNED lb (Uplift)** 

Dead

308

698

Snow

0

127

Cap. React D/L lb Ld. Comb. Bearing Length Total Ld. Case 385 / 706 1091 L 1.25D+1.5L 1-SPF 3.000" 14% End Grain 2-SPF 3.000" 31% 872 / 1544 2416 L 1.25D+1.5L +0.58 End

### Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	630 ft-lb	1'6 1/16"	22724 ft-lb	0.028 (3%)	1.25D+1.5L	L
Unbraced	630 ft-lb	1'6 1/16"	22724 ft-lb	0.028 (3%)	1.25D+1.5L	L
Shear	971 lb	11 3/4"	9277 lb	0.105 (10%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/29818)	1'6 1/16"	0.088 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.002 (L/19455)	1'6 1/16"	0.088 (L/360)	0.020 (2%)	L+0.5S	L
TL Defl inch	0.003 (∐11773)	1'6 1/16"	0.131 (L/240)	0.020 (2%)	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 Girders are designed to be supported on the bottom edge only.
- 3 Multiple plies must be fastened together as per manufacturer's details.
- 4 Top loads must be supported equally by all plies.
- 5 Top braced at bearings.
- 6 Bottom braced at bearings.

lenderness ratio based of	n full section width.							
Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
Part. Uniform	0-0-0 to 3-0-0		Тор	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
Part. Uniform	0-0-0 to 3-0-0		Near Face	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
Part, Uniform	0-0-0 to 2-8-9		Near Face	117 PLF	312 PLF	0 PLF	0 PLF	J6
	Load Type Part. Uniform Part. Uniform	Part. Uniform 0-0-0 to 3-0-0 Part. Uniform 0-0-0 to 3-0-0	Load Type Location Trib Width Part. Uniform 0-0-0 to 3-0-0 Part. Uniform 0-0-0 to 3-0-0	Load Type Location Trib Width Side Part. Uniform 0-0-0 to 3-0-0 Top Part. Uniform 0-0-0 to 3-0-0 Near Face	Load Type         Location         Trib Width         Side         Dead           Part. Uniform         0-0-0 to 3-0-0         Top         40 PLF           Part. Uniform         0-0-0 to 3-0-0         Near Face         40 PLF	Load Type         Location         Trib Width         Side         Dead         Live           Part. Uniform         0-0-0 to 3-0-0         Top         40 PLF         0 PLF           Part. Uniform         0-0-0 to 3-0-0         Near Face         40 PLF         0 PLF	Load Type         Location         Trib Width         Side         Dead         Live         Snow           Part. Uniform         0-0-0 to 3-0-0         Top         40 PLF         0 PLF         0 PLF           Part. Uniform         0-0-0 to 3-0-0         Near Face         40 PLF         0 PLF         0 PLF	Load Type         Location         Trib Width         Side         Dead         Live         Snow         Wind           Part. Uniform         0-0-0 to 3-0-0         Top         40 PLF         0 P

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

chemicals

Handling & Installation

approvals Damaged Beams must not be used

Design assumes top edge is laterally restreined Provide lateral support at bearing points to avoid lateral displacement and rotation

For flat roofs provide proper drainage to prevent ponding

This design is valid until 7/10/2021

Forex APA: PR-L318

Manufacturer Info

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

T.L. WISE 100083566

100083566

NCE OF ON

August 21, 2018



Version 18.40.162 Powered by iStruct™





Client: Project:

Address:

**GREENPARK** 

Date: 8/20/2018

Designer: **RCO** 

Job Name: MILLWOOD 12-2 (WOD)

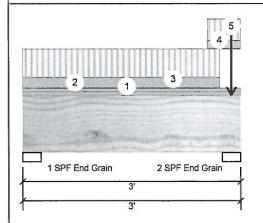
Project #:

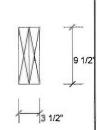
Forex 2.0E-3000Fb LVL

1.750" X 9.500"

2-Ply - PASSED

Level: Ground Floor





Page 2 of 2

Continued	from	page	1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
4	Part. Uniform	2-6-9 to 3-0-0		Near Face	93 PLF	234 PLF	0 PLF	0 PLF	J6
5	Point	2-10-8		Тор	383 lb	505 lb	127 lb	0 lb	Header Column Header Column
	Self Weight				8 PLF				

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

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

Handling & Installation

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

For flat roofs provide proper drainage to prevent ponding

Forex

Manufacturer Info

APA: PR-L318

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

This design is valid until 7/10/2021

Second Floor

Design Method

Floor

Loads Live

Dead Deflection Joist

LL Span L/ TL Span L/

LL Cant 2L/

TI Cant 21/

LL Span L/

TI. Span L/

LL Cant 2L/

TL Cant 2L/

Decking

Thickness

Fastener

Vibration

Ceiling:

Deck

Deflection Girder

fasteners

2 10dx1 1/2

10 16d

MINNISALE HOMES/MODELS WILLWOOD 12WILLWOOD 12-2

VFLOOR/REVMILLWOOD 12-2.isl

Building Code NBCC 2010 / OBC

LSD

2012

15

480

350

480

360

360

240

480

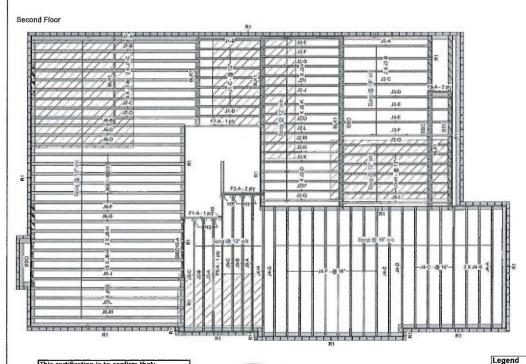
360

5/8"

SPF Plywood

Natied & Glued

Gypsum 1/2"



This certification is to confirm that: 1. The loads used in the calculation of the attached approved components conform to the floor assembly shown on this layout. 2. The floor joists comply with the Nascor span table for the loads and spacing shown on this layout.

The floor system must be assembled in accordance to the Nascor Specifier Guide. Multi-ply members must be attached together as per the included multiple member connection detail. All other components and structural elements supporting the floor system such as beams, walls, columns and foundation walls and footings including anchorage of components and bracing for lateral stability are the responsibility of others.



Load from Above Wall Wall Opening Norbord Rimboard Plus 1.125 X 9.5 NJ60U 9.5 NJH 9.5

- 1. OBC 2012 O.Reg 332/12 as amended
- 2 Nascor CCMC 13535-R
- 3. LVL CCMC -14056-R
- 4. CAN/CSA-086-09
- 5. CCMC -12787-R APA PR-L310(C)

Second								
	L (Flush)							NIACCOL
	Description	Width	Depth	Qty	Plies	Pcs	Length	NASCO
F8	Forex 2 0E-3000Fb LVL	1.75	9.5			1	16-0-0	
F7	Forex 2.0E-3000Fb LVL	1.75	9.5			1	10-0-0	Layout Name MILLWOOD 12-2
F2	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	6-0-0	Design Method LSD
F1	Forex 2.0E-3000Fb LVL	1.75	9.5			1	6-0-0	Description
F9	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	4-0-0	MINNISALE HOMES BRAMPTON, ONT.
	L (Dropped)					9		Created
Label	Description	Width	Depth	Qty	Plies	Pcs	Length	June 28, 2018
BBO10	Forex 2.0E-3000Fb LVL	1.75	9,5	1	2	2	8-0-0	Builder GREENPARK
l Joist (	Flush)							
Label	Description	Width	Depth	Qty	Plies	Pcs	Length	Sales Rep
J7	NJ60U	35	9.5			9	18-0-0	RM
J6	NJ60U	3.5	9.5			21	16-0-0	Designer
78	HIN	25	9.5			3	16-0-0	RCO
J4	NJH	2.5	9.5			19	14-0-0	Shipping
J3	NJH	2.5	9.5			14	12-0-0	
J2	NJH	2.5	9,5			22	10-0-0	Project
J1	HUM	2.5	9.5			9	8-0-0	Builder's Project
Rim Bo	ard							Kott Lumber Company
Label	Description	Width	Depth	Qty	Plies	Pcs	Length	14 Anderson Blvd
R1	Norbord Rimboard Plus 1.125 X 9.5	1.125	9.5			18	12	Stouffville, Ontario
Blockin	g							Canada
	Description	Width	Depth	Qty	Plies	Pcs	Length	L4A 7X4 905-642-4400
BLK1		25	9.5	LinFt		Varies	38-0-0	
Hanger			gs	Bea	ım/Girde		ported ember	Job Path  S./CUSTOMERS/GREENPARK  WINNISALE HOMES/MODELS

HUCO1.81/9-NOTES Framer to verify dimensions on the architectural drawings.

Skew Slope

fasteners

4 10dx1 1/2

30 16d

- 2. Double joist only require fillenbacker ply when supporting another member using a face-mounted hanger.

  3. Install 2x4 blocking @ 24\* ofc under parallel non-load bearing walls.
- Install single-ply flush window header along inside face of rimboard/rimjoist.
   Refer to Nascor specifier guide for installation works.
   Squash blocks recommended to be installed at end bearing on at first level joists which support loading from above exceeding two levels floor or roof.
- I nad transfer blocks to be installed under all point loads It is half be the framer's responsibility that floor joints and beams are fastened as per the hanger manufacturer's standards.

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

Rim parallel to joists: 1-1/8" rimboard with 2"x 4" block (1/16" longer than rim depth @ 16" o/c). All other components and structural elements supporting the floor system such as beams, walls, columns, and coundation walls and foolings including anchorage of components and bracing for lateral stability are the responsibility of Others.

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

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

ARCHITECTURAL DRAWINGS:

Label Pcs Description

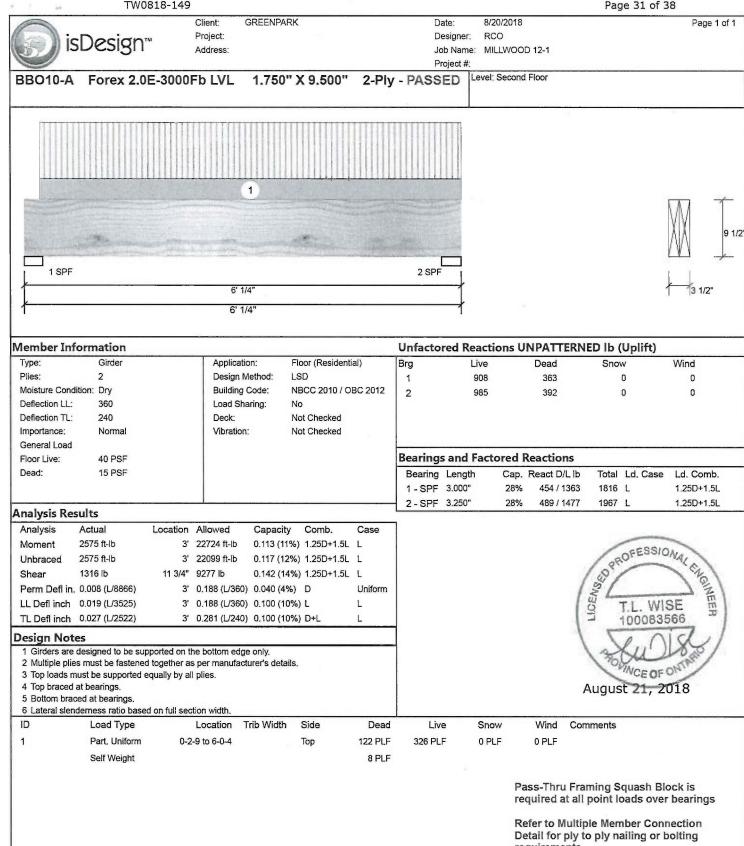
H3 6 LT259 H6 1 HUS1.81/10

H7 1

REGION DESIGN INC 8700 Dufferin St., Concord, ON Date: Rev.2: July 2018 Project No: 17-04-19 Model: Millwood 12

Version 18.40.162 Powered by iStruct\*\*

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



requirements

Notes

Calculated Subcurred Designs is responsible only or 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

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 drilk Refer to manufacturer's pro regarding installation requirer fastening details, beam strength

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

Manufacturer Info

APA: PR-L318

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







GREENPARK Client:

Project: Address:

8/20/2018 Date:

Designer:

Job Name: MILLWOOD 12-1

Forex 2.0E-3000Fb LVL

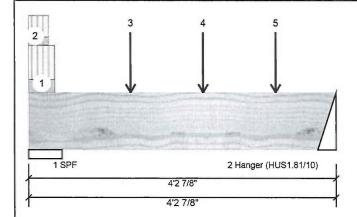
1.750" X 9.500" - PASSED

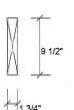
Brg

1

2

Level: Second Floor





Wind

0

0

Page 1 of 1

Viember Inform	nation	K5 (4)	
Type:	Girder	Application:	Floor (Residential)
Plies:	1	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

**Bearings and Factored Reactions** 

Live

323

371

Unfactored Reactions UNPATTERNED Ib (Uplift)

Dead

136

155

Snow

0

0

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.	_
1 - SPF	5.500"	11%	170 / 485	655	L	1.25D+1.5L	
2 - Hanger	3.000"	19%	193 / 557	750	L	1.25D+1.5L	

### **Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	793 ft-lb	2'4 7/8"	11362 ft-lb	0.070 (7%)	1.25D+1.5L	L
Unbraced	793 ft-lb	2'4 7/8"	9250 ft-lb	0.086 (9%)	1.25D+1.5L	L
Shear	745 lb	3'3 1/8"	4638 lb	0.161 (16%)	1.25D+1.5L	L
Perm Defl in.	0.003 (L/16865)	2'4 7/8"	0.122 (L/360)	0.020 (2%)	D	Uniform
LL Defl inch	0.006 (L/6943)	2'4 7/8"	0.122 (L/360)	0.050 (5%)	L	L
TL Defl inch	0.009 (L/4918)	2'4 7/8"	0.183 (L/240)	0.050 (5%)	D+L	L

### Design Notes

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



August 21, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-4-6	(Span)0-7-7	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 0-3-6	(Span)0-4-9	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-4-14		Near Face	96 lb	243 lb	0 lb	0 lb	J3
4	Point	2-4-14		Near Face	90 lb	228 lb	0 lb	0 lb	J3
5	Point	3-4-14		Near Face	86 lb	217 lb	dl 0	Pass-Thru	I Framing Squash Block is at all point loads over bearings
	Self Weight				4 PLF			required	it an point loads over bearings

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

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

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

Handling & Installation

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

This design is val

Forex APA: PR-L318

Manufacturer Info

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

Kott Lumber Company 14 Anderson Blvd, Ontario L4A 7X4





Client: GREENPARK

Project: Address: Date: 8/20/2018

Designer: RCO

Job Name: MILLWOOD 12-1

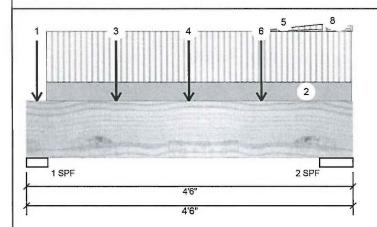
Project #:

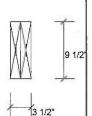
Forex 2.0E-3000Fb LVL

1.750" X 9.500"

2-Ply - PASSED

Level: Second Floor





Page 1 of 2

lember Info	rmation		
Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition	on: Dry	Building Code:	NBCC 2010 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF	1	

Unfactored Reactions UNPATTERNED Ib (Uplift) Brg Live Dead Snow Wind 1 1581 661 0 0 0 0 2 1014 404

### Bearings and Factored Reactions Bearing Length Cap. React D/L lb Total Ld, Case Ld. Comb. 1 - SPF 3.500" 42% 826 / 2371 3197 L 1.25D+1.5L 1.25D+1.5L 2-SPF 5.500" 17% 506 / 1521 2026 1

### Analysis Results

Dead:

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1973 ft-lb	2'2 7/8"	22724 ft-lb	0.087 (9%)	1.25D+1.5L	L
Unbraced	1973 ft-lb	2'2 7/8"	22724 ft-lb	0.087 (9%)	1.25D+1.5L	Ļ
Shear	1424 lb	3'3 3/4"	9277 lb	0.153 (15%)	1.25D+1.5L	L
Perm Defl in.	0.003 (L/13554)	2'2 15/16"	0.129 (L/360)	0.030 (3%)	D	Uniform
LL Defl inch	0.009 (L/5394)	2'2 15/16"	0.129 (L/360)	0.070 (7%)	L	L
TL Defl inch	0.012 (L/3859)	2'2 15/16"	0.194 (L/240)	0.060 (6%)	D+L	L

### **Design Notes**

- 1 Girders are designed to be supported on the bottom edge only.
- 2 Multiple plies must be fastened together as per manufacturer's details.
- 3 Top loads must be supported equally by all plies.

15 PSF

- 4 Top braced at bearings.
- 5 Bottom braced at bearings.
- 6 Lateral slenderness ratio based on full section width.

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August 21, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments	
1	Point	0-1-12		Near Face	313 lb	715 lb	0 lb	0 lb	F8	
2	Part. Uniform	0-3-5 to 4-5-13		Тор	90 PLF	240 PLF	0 PLF	0 PLF		
3	Point	1-2-14		Near Face	114 lb	290 lb	0 lb	0 lb	J9	
4	Point	2-2-14		Near Face	108 lb	277 lb	0 lb	0 lb	J9	
5	Tie-In	3-2-14 to 4-1-1	(Span)0-1-12 to 1-3-6	Тор	15 PSF	40 PSF	0 PSF	0 PSF		

This design is

Continued on page 2...

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

### Lumber

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

### chemicals

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

For flat roofs provide proper drainage to prevent ponding

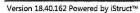
Manufacturer Info

Forex APA: PR-L318

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

IN THE DESIGN OF THIS COMPONENT.









GREENPARK Client:

Project: Address:

8/20/2018

Designer: RCO

Job Name: MILLWOOD 12-1

Project #:

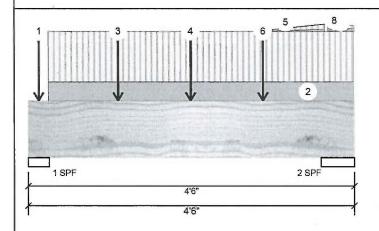
Date:

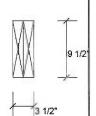
Forex 2.0E-3000Fb LVL

1.750" X 9.500"

2-Ply - PASSED

Level: Second Floor





Page 2 of 2

Continued	from page 1								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
6	Point	3-2-14		Near Face	110 lb	283 lb	0 lb	0 lb	J9
7	Tie-In	4-1-10 to 4-6-0	(Span)0-3-13	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
8	Tie-In	4-1-10 to 4-6-0	(Span)0-8-3	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				8 PLF				

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

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

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

### Lumber

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

Handling & Installation

- Handling & Installation

  1. LVL beams must not be cut or drilled

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

  3. Demaged Beams must not be used

  4. Design assumes top edge is listerally restrained

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

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info Forex APA: PR-L318

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

This design is valid until 7/10/2021

Page 1 of 1



**GREENPARK** Client:

Project: Address:

8/20/2018 Date:

RCO

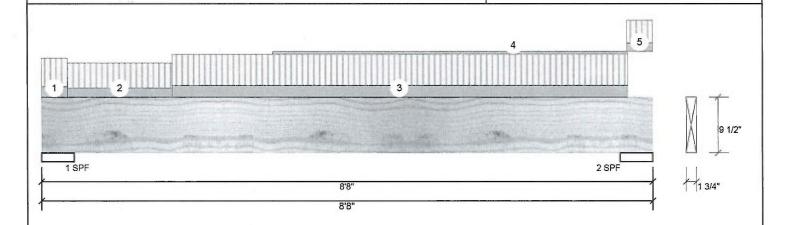
Designer: Job Name: MILLWOOD 12-1

Project #:

Forex 2.0E-3000Fb LVL

1.750" X 9.500" - PASSED

Level: Second Floor



Member Inform	nation			Unfactor	red React	tions UN	IPATTERNI	ED lb (	Uplift)	
Туре:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snov	N	Wind
Plies:	1	Design Method:	LSD	1	84		51		0	0
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012	2	88		56		0	0
Deflection LL:	360	Load Sharing:	No	1						
Deflection TL:	240	Deck:	Not Checked							
Importance:	Normal	Vibration:	Not Checked							
General Load										
Floor Live:	40 PSF			Bearings	and Fac	tored Re	eactions			
Dead:	15 PSF			Bearing	Length	Cap. F	React D/L lb	Total	Ld. Case	Ld. Comb.
				1-SPF	5.500"	3%	64 / 127	191	L	1.25D+1.5L
				2-SPF	5.500"	3%	71 / 132	203	L	1.25D+1.5L

**Analysis Results** 

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	366 ft-lb	4'4 5/8"	11362 ft-lb	0.032 (3%)	1.25D+1.5L	L
Unbraced	366 ft-lb	4'4 5/8"	4734 ft-lb	0.077 (8%)	1.25D+1.5L	L
Shear	150 lb	7'5 3/4"	4638 lb	0.032 (3%)	1.25D+1.5L	L
Perm Defl in.	0.005 (L/18245)	4'4 3/8"	0.263 (L/360)	0.020 (2%)	D	Uniform
LL Defl inch	0.008 (L/11470)	4'4 1/8"	0.263 (L/360)	0.030 (3%)	L	L
TL Defl inch	0.013 (L/7043)	4'4 1/4"	0.394 (L/240)	0.030 (3%)	D+L	L

T.L. WISE 100083566 100083566 WCE OF ONT August 21, 2018

**Design Notes** 

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

2 Top braced at bearings.

3 Bottom braced at bearings.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind C
1	Tie-In	0-0-0 to 0-4-6	(Span)0-11-7	Тор	15 PSF	40 PSF	0 PSF	0 PSF
2	Tie-In	0-4-6 to 1-10-4	(Span)0-10-1	Тор	15 PSF	40 PSF	0 PSF	0 PSF
3	Tie-In	1-10-4 to 8-3-12	(Span)1-0-9	Тор	15 PSF	40 PSF	0 PSF	0 PSF
4	Part. Uniform	3-3-7 to 8-3-12		Тор	2 PLF	0 PLF	0 PLF	0 PLF
5	Tie-In	8-3-10 to 8-8-0	(Span)0-8-15	Тор	15 PSF	40 PSF	0 PSF	Pass Tyru Framing Squash Block is
	Self Weight				4 PLF			required at all point loads over bearings

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

Notes

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

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

chemicals

Handling & Installation

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

fastering users, supprovals approvals Damaged Beams must not be used Design essumes top edge is laterally restrained Provide lateral support at bearing points to avoid lateral displacement and rotation

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex APA: PR-L318

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



This design is va

Page 1 of 1



Client:

Project:

**GREENPARK** 

Address:

Date: 8/20/2018

Designer: RCO

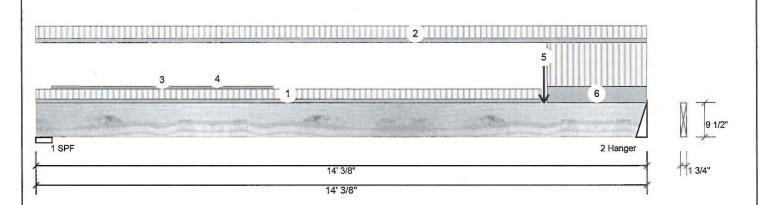
Job Name: MILLWOOD 12-1

Project #:

Forex 2.0E-3000Fb LVL

1.750" X 9.500" - PASSED

Level: Second Floor



Member Info	rmation			Unfactore	d Reactio	ons UNPATTERNI	ED lb (Uplift)	
Type:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow	Wind
Plies:	1	Design Method:	LSD	1	352	182	0	0
Moisture Condition	on: Dry	Building Code:	NBCC 2010 / OBC 2012	2	715	313	0	0
Deflection LL:	360	Load Sharing:	No	_				
Deflection TL:	240	Deck:	Not Checked					
Importance:	Normal	Vibration:	Not Checked	1				
General Load								
Floor Live:	40 PSF			Bearings a	nd Facto	red Reactions		
Dead:	15 PSF			Bearing Le	enath	Cap. React D/L lb	Total Ld Case	Ld. Comb.

1 - SPF 4.375"

2 -

Hanger

3.000"

16%

38%

228 / 528

391 / 1072

Analysis Results Location Allowed Capacity Comb. Case Analysis Actual 3003 ft-lb 11362 ft-lb 0.264 (26%) 1.25D+1.5L L 8'8" Moment 3003 ft-lb 8'8" 3005 ft-lb 0.999 1.25D+1.5L L Unbraced (100%)Shear 1266 lb 13' 5/8" 4638 lb 0.273 (27%) 1.25D+1.5L L Perm Defl in. 0.096 (L/1694) 7'4 1/4" 0.451 (L/360) 0.210 (21%) D Uniform LL Defl inch 0.203 (L/801) 7'5 1/2" 0.451 (L/360) 0.450 (45%) L 1

7'5 1/8" 0.677 (L/240) 0.440 (44%) D+L

T.L. WISE 100083566 100083566 NCEOF

August 21, 2018

1.25D+1.5L

1.25D+1.5L

755 L

1463 L

**Design Notes** 

1 Fill all hanger nailing holes.

TL Defl inch 0.299 (L/544)

- 2 Girders are designed to be supported on the bottom edge only.
- 3 Top must be laterally braced at a maximum of 12'4 7/8" o.c.

4 Bottom braced at bearings.

+ Dottom	bracea at bearings.								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 11-7-2	(Span) 0-10-14	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-in	0-0-0 to 14-0-6	(Span)1-1-2	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	0-4-5 to 5-5-8		Тор	2 PLF	0 PLF	0 PLF	0 PLF	
4	Part. Uniform	0-4-5 to 5-5-8		Тор	3 PLF	0 PLF	0 PLF		rraming Squash Block is
5	Point	11-8-0		Far Face	155 lb	371 lb	0 lb	required a	at pl point loads over bearings
6	Tie-In	11-8-14 to 14-0-6	(Span) 3-10-13	Тор	15 PSF	40 PSF	0 PSF		fultiple Member Connection ply to ply nailing or bolting
	Self Weight				4 PLF			requireme	

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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 corro

chemicals

Handling & Installation

LVL beams must not be cut or drilled

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

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info Forex APA: PR-L318

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Client:

GREENPARK Project:

Address:

8/20/2018 Date:

RCO Designer: Job Name: MILLWOOD 12-1

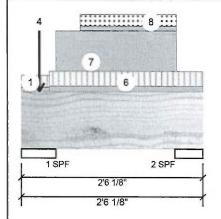
Project #:

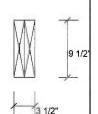
Forex 2.0E-3000Fb LVL

1.750" X 9.500"

2-Ply - PASSED

Level: Second Floor





Page 1 of 2

lember Intor	rmation			Unfactor	red Reac	tions UN	IPATTERN	ED lb (l	Uplift)	
Type:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snow	1	Wind
Plies:	2	Design Method:	LSD	1	36		129	15	5	0
Moisture Conditio	n: Dry	Building Code:	NBCC 2010 / OBC 2012	2	36		98	18	3	0
Deflection LL:	360	Load Sharing:	No	1						
Deflection TL:	240	Deck:	Not Checked							
Importance:	Normal	Vibration:	Not Checked							
General Load										
Floor Live:	40 PSF			Bearings	and Fac	tored R	eactions			
Dead:	15 PSF			Bearing	Length	Cap. F	React D/L lb	Total	Ld. Case	Ld. Comb.
				1 - SPF	5.750"	2%	161 / 54	215	L	1.25D+1.5L
				2-SPF	4.625"	2%	123 / 53	176	L	1.25D+1.5L

### **Analysis Results**

Γ	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
l	Moment	65 ft-lb	1'3 3/4"	14770 ft-lb	0.004 (0%)	1.25D+1.5S	L
l	Unbraced	65 ft-lb	1'3 3/4"	14770 ft-lb	0.004 (0%)	1.25D+1.5S	L
ı	Shear	18 lb	1'2 1/2"	6030 lb	0.003 (0%)	1.25D+1.5S	L
l	Perm Defl in.	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
ı	LL Defl inch	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
L	TL Defl inch	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
۳							

### Design Notes

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

/ Late	erai sieriuerriess ratio baseu t	on full section width.							
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-4-10	(Span)1-2-5	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-3-0		Тор	1 lb	0 lb	3 lb	0 lb	
3	Point	0-3-0		Тор	18 lb	0 lb	0 lb	0 lb	Wall Self Weight
4	Point	0-3-0		Тор	15 lb	0 lb	0 lb	0 lb	Wall Self Weight
6	Tie-In	0-4-10 to 2-6-2	(Span)1-5-11	Тор	15 PSF	40 PSF	0 PSF	0 PSF	

Continued on 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

- Handling & Installation

  1. LVL beams must not be out or drilled

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

  3. Damaged Beams must not be used

  4. Design assumes top edge is laterally restrained

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

For flat roofs provide proper drainage to prevent ponding

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Manufacturer Info Forex APA: PR-L318

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T.L. WISE 100083566

100083566

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August 21, 2018





GREENPARK Client:

Project: Address:

Date: 8/20/2018 Designer:

RCO

Job Name: MILLWOOD 12-1

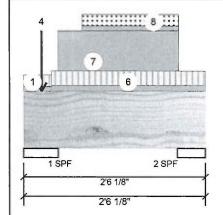
Project #:

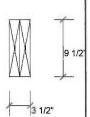
Forex 2.0E-3000Fb LVL

1.750" X 9.500"

2-Ply - PASSED

Level: Second Floor





Page 2 of 2

Continued	from	page	1

w Wind Comments
LF 0 PLF Wall Self Weight
LF 0 PLF

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

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

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### Lumber

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

chemicals

Handling & Installation

Handling & Installation

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

For flat roofs provide proper drainage to prevent ponding

Forex APA: PR-L318

Manufacturer Info

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

This design is valid until 7/10/2021