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)

2x10 2x12 2x6 2x8 2-ply 3-ply

Conventional connection notes:

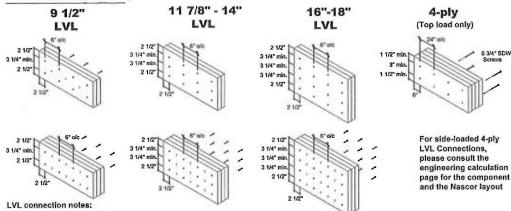
-Nails to be 3" 10d spiral wire nails.

-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.

LVL Connections (for uniform distributed loads)



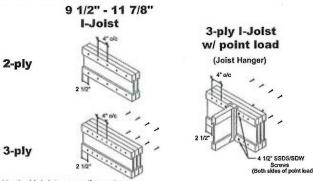
-Nails to be 3 1/2" spiral wire nails.

- -Malls to be located a minimum of 2 1/2* from the top and bottom of the member, Start all nails a minimum of 2 1/2* in from ends.

 -Minimum 3 1/4* spacing between rows.
- -Number of rows and spacing as per details shown, unless noted otherwise.

 -"X" represents nail or screw driven from the opposite side.

Vertical I-Joist Connections (for uniform distributed loads)



Vertical I-Joist connection notes:

- -Nails to be 3" spiral wire nails.
- -Nalis to be 3 spin-over lists.

 -Nalis to be docated at center of top and bottom flanges. Start all nalls a minimum of 2 1/2" in from ends.

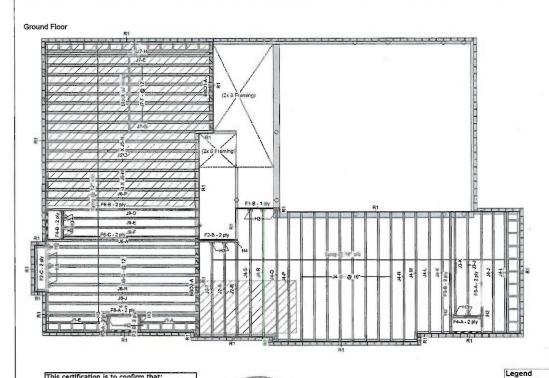
 -Number of rows and spacing as per details shown, unless noted otherwise.

 "X" represents nail driven from the opposite side.

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

DETAILS

MULTI -PLY CONNECTION



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 Opening Norbord Rimboard Plus 1.125 X 9.5 NJ 95 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

3. LVL CCMC -14056-R

4. CAN/CSA-086-09

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

Ground								
	L (Flush) Description	Width	Depth	Qty	Plies	Pcs	Length	NAS
F2	Forex 2.0E-3000Fb LVL	1.75	9.5	2	2	4	6-0-0	
F1	Forex 2.0E-3000Fb LVL	1.75	9.5			1	6-0-0	Layout Name MILLWOOD 12-2
Joist (Design Method						
							Length	LSD
F6	NJ	1.5	9.5	3	2	6	16-0-0	Description
F5	NJ	1.5	9.5	2	2	4	14-0-0	MINNISALE HOM
F4	NJ	1.5	9,5	2	2	4	4-0-0	BRAMPTON, ONT
F3	NJ	1.5	9.5	2	2	4	2-0-0	
J7	NJ60U	3.5	9.5			10	18-0-0	Created
J6	NJ60U	35	9.5			15	16-0-0	June 28. 2018
J9	NJH	2.5	9.5			3	16-0-0	Builder
J4	NJH	2.5	9.5			19	14-0-0	GREENPARK
J3	NJH	2.5	9.5			2	12-0-0	Sales Rep
J2	NJH	2.5	9.5			3	10-0-0	RM
J1	NJH	2.5	9.5			2	8-0-0	
Rim Bo	ard							Designer
Label	Description	Width	Depth	City	Plios	Pcs	Longth	RCO
R1	Norbord Rimboard	1.125	9.5			15	12	Shipping
	Plus 1.125 X 9.5							Project
Blockin								Builder's Project
Label	Description	Width	Depth	Qty	Plies	Pcs	Length	Kott Lumber
BLK1	NJH	2.5	9.5	Un ^r t		Varies	33-0-0	Kott Lumber

NOTES:

Hanger

 Label
 Pcs
 Description

 H2
 6
 LT2-159

 H3
 12
 LT259

H4 1 LT259 H5 4 LT359 H8 1 LT359

1. Framer to verify dimensions on the architectural drawings. 2. Double joist only require filter/backer 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 all first level joists which support loading from above exceeding two levels floor or roof.

And transfer blocks to be installed under all point loads.

B. 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 (2) 15" oic). 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 filed floor with an additional 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 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

lth	De		Qt	у	Plies	Pcs	Length	LSD
1.5		9.5	3		2	6	16-0-0	Description
.5		9.5	2		2	4	14-0-0	MINNISALE HOMES
.5		9,5	2	_	2	4	4-0-0	BRAMPTON, ONT.
5		9.5	2		2	4	2-0-0	Created
3.5		9.5		4		10	18-0-0	June 28, 2018
35		9.5	_			15	16-0-0	Builder
2.5		9.5	_	-		3	16-0-0	
2.5		9.5	_	-	$\overline{}$	19	14-0-0	GREENPARK
2.5		9.5	_	-+		3	10-0-0	Sales Rep
2.5		9.5	_	-	_	2	8-0-0	- RM
2.3		8.9	_	_			0-0-0	Designer
lth	De	-45-	CI	. 1	Plios	Pcs	Longth	RCO
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23		9.5				13	12	
	_	_						Project
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							mber	Canada
S	kew	Sic	pe	fa	steners		teners	L4A 7X4
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Client:

GREENPARK

Project: Address:

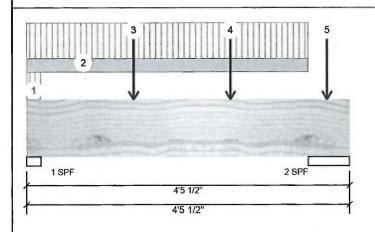
8/20/2018 Date:

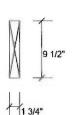
Designer: **RCO**

Job Name: MILLWOOD 12-1

Project #:

Level: Ground Floor Forex 2.0E-3000Fb LVL 1.750" X 9.500" - PASSED





Page 1 of 1

Unfactored Reactions UNPATTERNED lb (Uplift) Member Information Brg Wind Girder Application: Floor (Residential) Live Dead Snow Type: Plies: Design Method: LSD 598 240 0 0 1 **Building Code:** NBCC 2010 / OBC 2012 Moisture Condition: Dry 678 283 0 0 2 Deflection LL: Load Sharing: No Deflection TL: 240 Deck: Not Checked Importance: Normal Vibration: Not Checked General Load **Bearings and Factored Reactions** 40 PSF Floor Live: 15 PSF Cap. React D/L lb Ld. Comb. Dead: Total Ld. Case Bearing Length 1.25D+1.5L 47% 300 / 897 1197 L 1 - SPF 2.375" 354 / 1018 1.25D+1.5L 2 - SPF 6.875" 19% 1371 L

		D	
Ana	IVSIS	Resu	ITS
	,,,,,,,,	11-0	

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1328 ft-lb	1'10 3/16"	11362 ft-lb	0.117 (12%)	1.25D+1.5L	L
Unbraced	1328 ft-lb	1'10 3/16"	9065 ft-lb	0.147 (15%)	1.25D+1.5L	L
Shear	1017 lb	3'1 7/8"	4638 lb	0.219 (22%)	1.25D+1.5L	L
Perm Defl in.	0.005 (L/9820)	2' 3/16"	0.127 (L/360)	0.040 (4%)	D	Uniform
LL Defl inch	0.012 (L/3932)	2' 3/16"	0.127 (L/360)	0.090 (9%)	L	L
TL Defl inch	0.016 (L/2808)	2' 3/16"	0.191 (L/240)	0.090 (9%)	D+L	L

Design Notes

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



August 21, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-2-6	(Span)3-4-10	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 3-10-10		Тор	45 PLF	120 PLF	0 PLF	0 PLF	
3	Point	1-5-12		Near Face	145 lb	363 lb	0 lb	0 lb	J4
4	Point	2-9-12		Near Face	139 lb	352 lb	0 lb	0 lb	J4
5	Point	4-1-12		Near Face	42 lb	82 lb	0 lb	0 lb	J4
	Self Weight				4 PLF				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

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

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

Handling & Installation

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

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



This design is





Client:

GREENPARK

Project: Address:

8/20/2018 Date:

Designer: **RCO**

Job Name: MILLWOOD 12-1

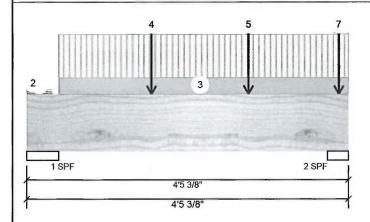
Forex 2.0E-3000Fb LVL

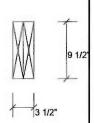
1.750" X 9.500"

2-Ply - PASSED

Level: Ground Floor

Unfactored Reactions UNPATTERNED Ib (Uplift)





Page 1 of 2

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Type:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snow	,	Wind	
Plies:	2	Design Method:	LSD	1	697		288	0)	0	
Moisture Condition	n: Dry	Building Code:	NBCC 2010 / OBC 2012	2	1058		435	0	j	0	
Deflection LL:	360	Load Sharing:	No								ı
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	Ld. Case	Ld. Comb.	
				1 - SPF	5.375"	12%	360 / 1046	1405	L	1.25D+1.5L	
				2-SPF	3.500"	28%	543 / 1587	2130	L	1.25D+1.5L	

-		-	
Ana	vsis	Resu	lts

Member Information

	,						
Ī	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
	Moment	1532 ft-lb	2'2 7/8"	22724 ft-lb	0.067 (7%)	1.25D+1.5L	L
	Unbraced	1532 ft-lb	2'2 7/8"	22724 ft-lb	0.067 (7%)	1.25D+1.5L	L
	Shear	1081 lb	3'5 1/8"	9277 lb	0.117 (12%)	1.25D+1.5L	L
	Perm Defl in.	0.003 (L/16770)	2'3 7/16"	0.128 (L/360)	0.020 (2%)	D	Uniform
	LL Defl inch	0.007 (L/6853)	2'3 7/16"	0.128 (L/360)	0.050 (5%)	L	L
	TL Defl inch	0.009 (L/4865)	2'3 7/16"	0.192 (L/240)	0.050 (5%)	D+L	L



Design Notes

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

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-4-4	(Span)0-4-4	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 0-4-2	(Span)0-6-13	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	0-5-6 to 4-5-6		Тор	90 PLF	240 PLF	0 PLF	0 PLF	
4	Point	1-8-12		Near Face	107 lb	261 lb	0 lb	0 lb	J2
5	Point	3-0-12		Near Face	104 lb	252 lb	0 lb	0 lb	J2
6	Tie-In	4-3-0 to 4-5-6	(Span)3-4-10	Top	15 PSF	40 PSF	0 PSF	0 PSF	

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 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 corrosive

chemicals

Handling & Installation

- and illing & Installation
 LVL beams must not be cut or drilled
 Refer to manufacturer's product information
 regarding installation requirements, multi-pit
 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

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



Version 18.40.162 Powered by iStruct™





Client: Project: Address: GREENPARK

Date: 8/20/2018

Designer: **RCO** Page 2 of 2

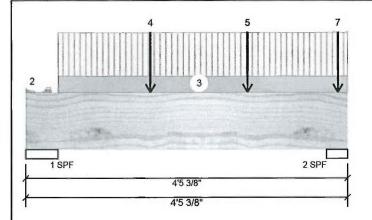
Job Name: MILLWOOD 12-1 Project #:

Forex 2.0E-3000Fb LVL F2-B

1.750" X 9.500"

2-Ply - PASSED

Level: Ground Floor



..Continued from page 1

ID Load Type

Self Weight

Location Trib Width

Side

Dead Live 262 lb Snow 0 lb Wind Comments

0 lb J2

7

4-3-12 Near Face

110 lb

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 bessed 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
- 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 supporf at bearing points to avoid lateral displacement and rotation

- 6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info APA: PR-L318

Kott Lumber Company 14 Anderson Blvd, Onlario





GREENPARK Client:

Project: Address:

8/20/2018 Date:

Designer: RCO

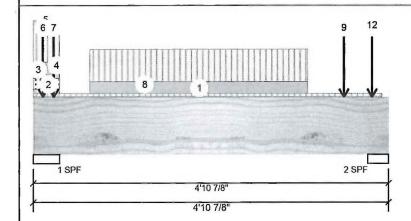
Job Name: MILLWOOD 12-1

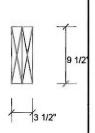
Forex 2.0E-3000Fb LVL

1.750" X 9.500"

2-Ply - PASSED

Level: Ground Floor





Page 1 of 2

Member Information						
Туре:	Girder	Application:				
Plies:	2	Design Method				
Moisture Condition:	Dry	Building Code:				
Deflection LL:	360	Load Sharing:				
Deflection TL:	240	Deck:				
Importance:	Normal	Vibration:				
General Load						
Floor Live:	40 PSF					
Dead:	15 PSF					

Unfactored Reactions UNPATTERNED Ib (Uplift) Live Dead Snow

Brg	Live	Dead	Snow	Wind
1	1718	1856	1869	0
2	1517	1171	682	0

Analysis Results Comb. Analysis Actual Location Allowed Capacity 1576 ft-lb 2'6 3/16" 22724 ft-lb 0.069 (7%) 1.25D+1.5L L Moment +0.58 2'6 3/16" 22724 ft-lb 1.25D+1.5L L Unbraced 1576 ft-lb 0.069 (7%) +0.5S 0.182 (18%) 1.25D+1.5L L 1686 lb 3'10 5/8" 9277 lb Shear +0.5S

Perm Defl in. 0.003 (L/16135) LL Defl inch 0.008 (L/6442)

2'6 1/16" 0.146 (L/360) 0.020 (2%) D

2'6 1/16" 0.146 (L/360) 0.060 (6%) L+0.5S 2'6 1/16" 0.219 (L/240) 0.050 (5%) D+L+0.5S **Bearings and Factored Reactions**

Cap. React D/L lb Bearing Length Total I.d Case Ld Comb 1 - SPF 4.375" 2320 / 3663 5982 L 1.25D+1.5S 64% +0.5L 2-SPF 3.500" 1.25D+1.5L 54% 1464 / 2617 4081 L +0.5S



August 21, 2018

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.

TL Defl inch 0.011 (L/4604)

7 Lateral slenderness ratio based on full section width.

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

This design

Floor (Residential)

No Not Checked Not Checked

NBCC 2010 / OBC 2012

Case

Uniform

L

Continued on page 2...

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

Lumber

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

chemicals

Handling & Installation

- LVI, beams must not be cut or drilled Refer to manufacturer's product information regarding installation requirements, multi-phy 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 bonding

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.





isDesign[™]

Client: GREENPARK

Project:

Address:

Date: 8/20/2018

Designer: **RCO**

Job Name: MILLWOOD 12-1

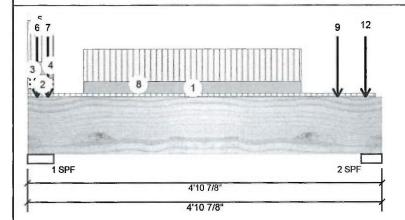
Project #:

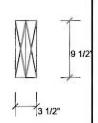
Forex 2,0E-3000Fb LVL

1.750" X 9.500"

2-Ply - PASSED

Level: Ground Floor





Page 2 of 2

.Continued	from page 1								
ID	Load Type	Location T	rib 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

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

Lumber

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

chemicals

Handling & Installation

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

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex APA: PR-L318

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



isDesign™

GREENPARK Client:

Project: Address:

8/20/2018 Date:

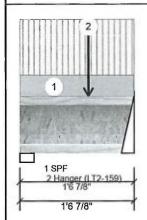
Designer: RCO

Job Name: MILLWOOD 12-1

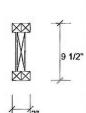
Project #:

2-Ply - PASSED 9,500"

Level: Ground Floor



NJ



Wind 0 n

Ld. Comb. 1.25D+1.5L 1.25D+1.5L

Page 1 of 1

Member Info	rmation			Unfacto	red React	tions UNPATTER	NED lb (Uplift)
Туре:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow
Plies:	2	Design Method:	LSD	1	95	35	0
Moisture Conditi	on: 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			Bearing:	s and Fac	tored Reactions	
Dead:	15 PSF			Bearing	Length	Can React D/L lb	Total Ld Ca

Dead:	15 PSF	Bearing	Length	Cap.	React D/L lb	Total	Ld. Ca
		1 - SPF	2.375"	7%	44 / 142	186	L
		2-	2.000"	9%	55 / 176	231	L
nalysis Res	ults	Hanger					

Analysis Ke	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 (L/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



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	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	

Point 2

0-11-7

Far Face

41 lb

110 lb

0 lb

Manufacturer Info

Nascor by Kott

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 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
 Uoist not to be treated with fire retardant or corrosive
- Handling & Installation
- landling & Installation.

 Note flanges must not be cut or drilled.
 Refer to latest copy of the Moist product information details for framing details, stiffener tables, web hole chart. bridging details, multiply fastening details and handling/erection details.

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

alteral dispracement and rotation.

6. Web stiffeners for point load as shown Minimum point load bearing len: = 3.5 inches.

7. For flat roofs provid READ ALL NOTES Condition.

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 Canada L4A 7X4 905-642-4400

This design is





isDesign™

GREENPARK Client:

Project:

Address:

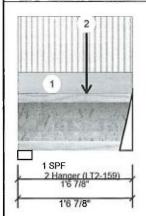
Date: 8/20/2018 Designer: RCO

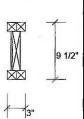
Job Name: MILLWOOD 12-1

Project #:

9.500" 2-Ply - PASSED F3-B NJ

Level: Ground Floor





Page 1 of 1

Member Inf	ormation						Unfacto	red React	ions U	NPATTERN	ED lb ((Uplift)	
Туре:	Girder	-	Applicatio	n: f	loor (Residenti	ial)	Brg	Live		Dead	Sno	w	Wind
Plies:	2		Design M	ethod: L	SD		1	92		35		0	0
Moisture Cond	ition: Dry		Building C	Code: N	NBCC 2010 / O	BC 2012	2	114		43		0	0
Deflection LL:	360		Load Sha	ring: N	No								
Deflection TL:	240		Deck:	1	Not Checked								
Importance:	Normal		Vibration:	1	Not Checked								
General Load													
Floor Live:	40 PSF						Bearing:	s and Fac	tored l	Reactions			
Dead:	15 PSF						Bearing	Length	Сар.	React D/L lb	Total	Ld. Case	Ld. Comb.
							1 - SPF	2.375"	7%	43 / 139	182	L	1.25D+1.5L
							2-	2.000"	9%	53 / 171	224	L	1.25D+1.5L
Analysis Res	sults						Hanger						
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							
Unbraced	92 ft-lb	11 7/16"	6912 ft-lb	0.013 (1%)	1.25D+1.5L	L					/	HOLEGOI	ONAL
Shear	211 lb	1'5 5/8"	3080 lb	0.068 (7%)	1.25D+1.5L	L					10	/	(E)
Perm Defl in.	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)	1					0.0	191		1 0
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
TL Defl inch	0.001 (L/21543)	11 7/16"	0.067 (L/240)	0.010 (1%)	D+L	L				1	7	100083	110
Design Not	es]				18	Xu	1000
	er nailing holes.	B - C × B 5 × 1		0.01			1				1	VINCE DE	ONTE
	designed to be si										A	10201	0110
	s must be fasten	_	•	irer's details	i.						Augu	ist 21, 2	2010
	ust be supported		plies.										
	oraced at bearing: ge braced at bear												
o bottom hang	Load Type	nigo.	Location Ti	rib Width	Side	Dead	Live		ow	Wind Con	ments		

1

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.

Tie-In

Point

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

chemicals

Handling & Installation

andling & Installation

Joist flanges must not be cut or drilled

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

Damaged Lolists must not be used

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

0-0-0 to 1-6-14 (Span)3-3-0 Top

0-11-7

15 PSF

Near Face

39 lb

40 PSF

104 lb

Provide lateral support at bearing points to avoid lateral displacement and rotation.
 Web stiffeners for point load as shown Minimum point load bearing les unes 3.5 larches.
 For flat roofs provide READ ALL NOTES Oppording.

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.

This design is vi

Manufacturer Info

Nascor by Kott

0 PSF

0 lb

0 PSF

requirements

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







Client:

Project: Address:

GREENPARK

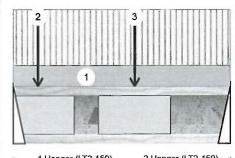
8/20/2018 Date: RCO Designer:

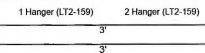
Job Name: MILLWOOD 12-1

Project #:

2-Ply - PASSED NJ 9.500"

Level: Ground Floor







Wind

0

0

0

Page 1 of 1

Unfactored Reactions UNPATTERNED lb (Uplift)

Member Info	rmation		
Туре:	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		

Brg Live Dead Snow 358 0 134 1

236

2

Bearing	Bearings and Factored Reactions										
Bearing	Length	Cap.	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					

88

Analysis Results

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

Hanger	1076	1107 334	403 L	1.23D+1.3L
			ROFE	SSIONA
		/	8	WISE PROSE
		(T.L.	WISE 19 083566
1		/	Ski	nisc/
			POWNCE	OF ONTARIO

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 f raming S at all point le

August 21, 2018

ing Squash Block is uired 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 ensure the component suitability of the inlended application, and to verify the dimensions and is

Lumber

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

Handling & Installation

amouring & Installation.

Lioist flanges must not be cut or drilled.
Refer to latest copy of the Lioist product information details for framing details, suffener tables, web hold-chart, bridging details, multi-phy fastening details and handling/erection details.

Damaged Lioists must not be used.
Design assumes top flange to be laterally restrained by attached shealthing 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
 Per flat roots proyending

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.

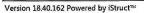
Manufacturer Info

Nascor by Kott

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



This design is





Client:

GREENPARK

Project: Address:

8/20/2018 Date: Designer:

RCO

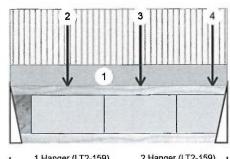
Job Name: MILLWOOD 12-1

Project #:

Brg

1

NJ 9.500" 2-Ply - PASSED Level: Ground Floor





Wind

0

0

Page 1 of 1

L	1 Hanger (LT2-159)	2 Hanger (LT2-159)	1
	3"		1
	3'		1

Туре:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition	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			
Floor Live:	40 PSF		

2	466	175	0	

Unfactored Reactions UNPATTERNED lb (Uplift)

Dead

139

Snow

0

Live

370

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

Wind

0 PSF

Analysis Results

Dead:

Member Information

Г	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.

15 PSF

5 Top flange braced at bearings.

6 Bottom flange braced at bearings.



August 21, 2018

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

0 lb J9 Pass-Thru Praming Squash Block is required at all point loads over bearings

Comments

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.

Lumber

chemicals

Handling & Installation

- landling & Installation.

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

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

Provide lateral support at bearing points to avoid lateral displacement and rotation
 Web stiffeners for point load as shown Minimum point load bearing lengths = 3.5 inches.

This design is v

IS AN INTEGRAL PART OF THIS DRAWING AS IT **CONTAINS SPECIFICATIONS AND CRITERIA USED**

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IN THE DESIGN OF THIS COMPONENT.

Manufacturer Info

Nascor by Kott





Client:

GREENPARK

Project: Address:

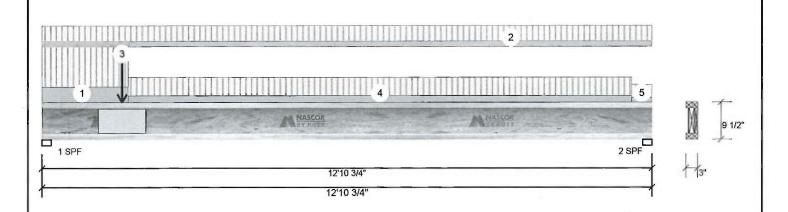
8/20/2018 Date: Designer:

RCO

Job Name: MILLWOOD 12-1

Project #:

9.500" NJ 2-Ply - PASSED Level: Ground Floor



Member Inform	nation			Unfactored Reactions UNPATTERNED Ib (Uplift)						
Туре:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snov	W	Wind
Plies:	2	Design Method:	LSD	1	612		229		0	0
Moisture Condition	: 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	s and Fac	tored	Reactions			
Dead:	15 PSF			Bearing	Length	Сар.	React D/L lb	Total	Ld. 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

o Dolloin ii	ango bracoa at boarn	90.						
1D	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind
1	Tie-In	0-0-0 to 1-9-14	(Span)3-3-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF
2	Tie-In	0-0-0 to 12-10-12	(Span)1-2-10	Тор	15 PSF	40 PSF	0 PSF	0 PSF
3	Point	1-8-6		Far Face	88 lb	236 lb	0 lb	0 lb
4	Tie-In	1-9-14 to 12-5-10	(Span)1-5-6	Тор	15 PSF	40 PSF	0 PSF	0 PSF Pass-Thru
5	Tie-In	12-5-10 to 12-10-12	(Span)1-0-4	Тор	15 PSF	40 PSF	0 PSF	requiret a

0 lb F4 0 PSF ss-Thru Framing Squash Block is ପ୍ରାମିଆର at all point loads over bearings

Comments

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 coetractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

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

chemicals

- Handling & Installation
- landling & Installation.

 Note flanges must not be cut or drilled.
 Refer to latest copy of the Lioist product information details for framing details, stiffener tables, web note thank. bridging details, must hip his stateming details and handling ferection details.

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

Provide fateral 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

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

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

This design is





Client:

GREENPARK

Project:

Address:

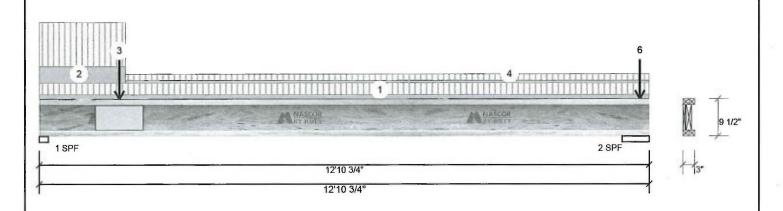
Date: 8/20/2018

Designer: **RCO**

Job Name: MILLWOOD 12-1

Project #:

9.500" NJ 2-Ply - PASSED Level: Ground Floor



Unfactored Reactions UNPATTERNED Ib (Uplift) Member Information Wind Type: Girder Application: Floor (Residential) Brg Live Dead Snow LSD Design Method: Plies: 574 215 0 0 1 NBCC 2010 / OBC 2012 Moisture Condition: Dry **Building Code:** 400 203 0 0 2 Deflection II: 360 Load Sharing: No Deflection TL: 240 Deck: Not Checked Not Checked Importance: Normal Vibration: General Load Bearings and Factored Reactions Floor Live: 40 PSF Dead: 15 PSF Cap. React D/L lb Total Ld. Case Ld. Comb. Bearing Length 1 - SPF 2.375" 42% 269 / 861 1130 L 1.25D+1.5L 2 - SPF 6.875" 28% 254 / 600 854 L 1.25D+1.5L

Analysis Results

Г	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
	Moment	1713 ft-lb	4'3 11/16"	7340 ft-lb	0.233 (23%)	1.25D+1.5L	L
	Unbraced	1713 ft-lb	4'3 11/16"	1720 ft-lb	0.996 (100%)	1.25D+1.5L	L
	Shear	1108 lb	1 5/8"	3080 lb	0.360 (36%)	1.25D+1.5L	L
	Perm Defl in.	0.035 (L/4184)	5'9 11/16"	0.408 (L/360)	0.090 (9%)	D	Uniform
	LL Defl inch	0.094 (L/1568)	5'9 11/16"	0.408 (L/360)	0.230 (23%)	L	L
	TL Defl inch	0.129 (L/1141)	5'9 11/16"	0.612 (L/240)	0.210 (21%)	D+L	L
_							

Design Notes

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

5 Bottom flange 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 12-10-12	(Span)0-10-6	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-łn	0-0-0 to 1-9-14	(Span)3-3-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-8-6		Near Face	134 lb	358 lb	0 lb	0 lb	F4
4	Tie-In	1-9-14 to 12-10-12	(Span)0-5-10	Тор	15 PSF	40 PSF	0 PSF	Passebur	Framing Squash Block is
5	Point	12-8-6		Тор	64 lb	171 lb	0 lb	required a	at all point loads over bearings
6	Point	12-8-6		Тор	53 lb	0 lb	0 lb		/ហើងpaelWeigher Connection ply to ply nailing or bolting ents

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.

Lumber

andling & Installation

andling & Installation

Lioist flanges must not be cut or drilled

Refer to latest copy of the Lioist product information details for framing details, sufferer lables, web hote chart, bridging details, multi-by fastening details and handling/erection details

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

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.

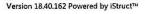
READ ALL NOTES ON THIS PAGE AND ON THE

Manufacturer Info

Nascor by Kott

Kott Lumber Company 14 Anderson Blvd, Ontario L4A 7X4

This design is







Client

GREENPARK

Project^{*} Address:

8/20/2018 Date:

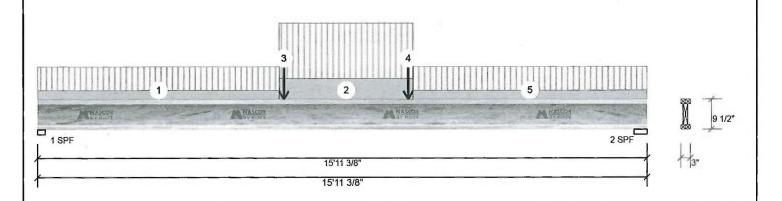
Designer: **RCO**

Job Name: MILLWOOD 12-1

Project #:

NJ 9.500" 2-Ply - PASSED F6-A

Level: Ground Floor



Vlember Info	rmation	Unfactored Reactions UNPATTERNED Ib (Uplift)								
Type:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow	Wind		
Plies:	2	Design Method:	LSD	1	266	100	0	0		
Moisture Condition	on: Dry	Building Code:	NBCC 2010 / OBC 2012	2	274	103	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 Factor	ed Reactions				
Dead:	15 PSF			Bearing Le	ength C	ap. React D/L lb	Total Ld. Case	Ld. Comb.		
				1-SPF 2.	375"	9% 125 / 399	523 L	1.25D+1.5L		
				2-SPF 4.	125"	8% 128 / 411	539 L	1.25D+1.5L		
Landania Dans	.la.			-						

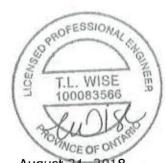
Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2762 ft-lb	7'10 5/16"	7340 ft-lb	0.376 (38%)	1.25D+1.5L	L
Unbraced	2762 ft-lb	7'10 5/16"	2786 ft-lb	0.991 (99%)	1.25D+1.5L	L
Shear	531 lb	15'8"	3080 lb	0.172 (17%)	1.25D+1.5L	L
Perm Defl in.	0.083 (L/2235)	7'11 1/16"	0.518 (L/360)	0.160 (16%)	D	Uniform
LL Defl inch	0.222 (L/838)	7'11"	0.518 (L/360)	0.430 (43%)	L	L
TL Defl inch	0.306 (L/610)	7'11 1/16"	0.777 (L/240)	0.390 (39%)	D+L	L

Design Notes

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

5 Bottom flange braced at bearings.



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Сопшень
1	Tie-In	0-0-0 to 6-3-14	(Span)0-8-15	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	6-3-14 to 9-9-14	(Span)1-8-15	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	6-5-6		Near Face	44 lb	118 lb	0 lb	0 lb	F3
4	Point	9-8-6		Near Face	43 lb	114 lb	0 lb	Page Thr	E3 u Framing Squash Block is
5	Tie-In	9-9-14 to 15-11-6	(Span)0-8-15	Тор	15 PSF	40 PSF	0 PSF	req9i7ea	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 ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

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

chemicals

Handling & Installation

- andling & Installation

 Lioist flanges must not be cut or drilled

 Refer to latest copy of the Lioist product information
 details for framing details, suffigner tobles, web hole
 chart, thridging details, multi-py fastening details and
 handling/erection details
 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.
 Web stiffeners for point load as shown Minimum point load bearing leng use 3.5 inches.
 For flat roofs provide READ ALL NOTES Opportung.

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







Client:

GREENPARK

Project: Address:

8/20/2018 Date:

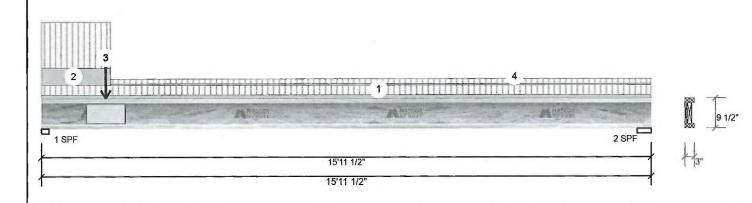
Designer: RCO

Job Name: MILLWOOD 12-1

Project #:

2-Ply - PASSED 9.500"

Level: Ground Floor



Member Information					Unfactored Reactions UNPATTERNED Ib (Uplift)						
Type:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snov	W	Wind	
Plies:	2	Design Method:	LSD	1	678		255		0	0	
Moisture Condition	n: Dry	Building Code:	NBCC 2010 / OBC 2012	2	214		80		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 F	Reactions				
Dead:	15 PSF			Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.	
				1-SPF	2.375"	50%	318 / 1017	1335	L	1.25D+1.5L	
				2-SPF	4.375"	14%	100 / 320	420	L	1.25D+1.5L	

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2119 ft-lb	5'3 3/8"	7340 ft-lb	0.289 (29%)	1.25D+1.5L	L
Unbraced	2119 ft-lb	5'3 3/8"	2138 ft-lb	0.991 (99%)	1.25D+1.5L	L
Shear	1315 lb	1 5/8"	3080 lb	0.427 (43%)	1.25D+1.5L	L
Perm Defl in.	0.067 (L/2766)	7'4"	0.517 (L/360)	0.130 (13%)	D	Uniform
LL Defl inch	0.179 (L/1038)	7'4"	0.517 (L/360)	0.350 (35%)	L	L
TL Defl inch	0.247 (L/755)	7'4"	0.776 (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 4'6" o.c.

5 Bottom flange braced at bearings.



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Commenta
1	Tie-In	0-0-0 to 15-11-8	(Span)0-8-1	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 1-9-14	(Span)3-3-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-8-6		Near Face	175 lb	466 lb	0 lb	0 lb	F4
4	Tie-In	1-9-14 to 15-11-8	(Span)0-3-15	Тор	15 PSF	40 PSF	0 PSF	0 PSF	u Eramina Sa

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
 Uplist not to be treated with fire retardant or corrosive

Handling & Installation

- manuling & Installation

 1. Joist flanges must not be cut or drifted

 2. Refer to latest copy of the Libist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-py f

Provide lateral support at bearing points to avoid lateral displacement and rotation
 Web stiffeners for point load as shown Minimum point load bearing len "bes" 3.5 Inches
 For flat roofs provide

READ ALL NOTES ON THIS PAGE AND ON THE IS AN INTEGRAL PART OF THIS DRAWING AS IT IN THE DESIGN OF THIS COMPONENT. This design is v

ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE CONTAINS SPECIFICATIONS AND CRITERIA USED

Manufacturer Info

Nascor by Kott





GREENPARK

Project: Address:

Client:

8/20/2018 Date:

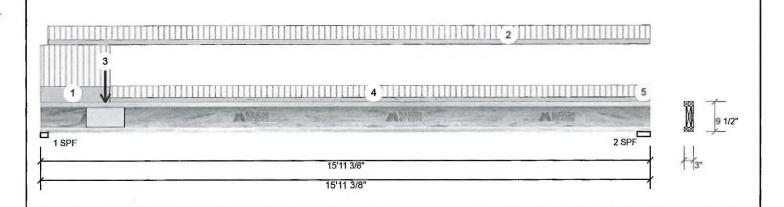
RCO Designer:

Job Name: MILLWOOD 12-1

Project #:

2-Ply - PASSED 9.500" NJ

Level: Ground Floor



Member Infor	mation		Unfactored Reactions UNPATTERNED Ib (Uplift)							
Type:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Sno	w	Wind
Plies:	2	Design Method:	LSD	1	725		272		0	0
Moisture Condition	n: Dry	Building Code:	NBCC 2010 / OBC 2012	2	361		135		0	0
Deflection LL:	360	Load Sharing:	No							
Deflection TL:	240	Deck:	Not Checked	1						
Importance:	Normal	Vibration:	Not Checked							
General Load										
Floor Live:	40 PSF	1		Bearings	s and Fact	tored R	eactions			
Dead:	15 PSF			Bearing	Length	Cap. I	React D/L lb	Total	Ld. Case	Ld. Comb.
				1 - SPF	2.375"	53%	340 / 1088	1428	L	1.25D+1.5L
				2-SPF	4.125"	23%	169 / 541	711	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3051 ft-lb	6'10 3/8"	7340 ft-lb	0.416 (42%)	1.25D+1.5L	L
Unbraced	3051 ft-lb	6'10 3/8"	3085 ft-lb	0.989 (99%)	1.25D+1.5L	L
Shear	1411 lb	1 5/8"	3080 lb	0.458 (46%)	1.25D+1.5L	L
Perm Defl in	0.099 (L/1889)	7'7 5/16"	0.518 (L/360)	0.190 (19%)	D	Uniform
LL Defl inch	0.263 (L/709)	7'7 5/16"	0.518 (L/360)	0.510 (51%)	L	L
TL Defl inch	0.362 (L/515)	7'7 5/16"	0.777 (L/240)	0.470 (47%)	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 3'9" o.c.

5 Bottom flange braced at bearings.



August 21, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comme
1	Tie-In	0-0-0 to 1-9-14	(Span)3-3-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-2-6 to 15-11-6	(Span)1-0-15	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-8-6		Far Face	139 lb	370 lb	0 lb	0 lb	F4
4	Tie-In	1-9-14 to 15-7-4	(Span)0-11-1	Тор	15 PSF	40 PSF	0 PSF	0 PSF Pass-Thr	u Framii
5	Tie-In	15-7-4 to 15-11-6	(Span)0-6-13	Тор	15 PSF	40 PSF	0 PSF	reqQiPet	

ing Squash Block is oint 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 inlended application, and to verify the dimensions and loads.

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

 1. Joist fianges must not be cut or drilled

 2. Refer to latest copy of the Joist product information details for framing details, stiffener tables, web hold-chart. bridging details, multiply fastering details and handlingferection details

 3. Damaged Joist must not be used

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

This design is v

Provide lateral support at bearing points to avoid lateral displacement and rotation
 Web stiffeners for point load as shown Minimum point load bearing lengthes 3.5 Inches.
 For first roots provide 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



Page 20 of 38



Client:

GREENPARK

Project: Address:

8/20/2018 Date: Designer:

RCO

Job Name: MILLWOOD 12-1 (WOD)

Unfactored Reactions UNPATTERNED lb (Uplift)

Dead

839

839

Project #:

Forex 2.0E-3000Fb LVL FH3-A

1.750" X 9.500"

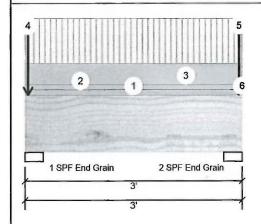
2-Ply - PASSED

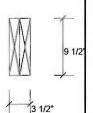
Brg

1

2

Level: Ground Floor





Wind

0

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	Factored	Reactions	
1	Danis		L 0	D1 D#	

Live

1075

1075

Cap. React D/L lb Total Ld. Case Ld. Comb. Bearing Length 1-SPF 3.000" 35% 1049 / 1676 2725 L 1.25D+1.5L +0.58 End Grain 2-SPF 3.000" 1049 / 1676 2725 L 1.25D+1.5L +0.5S End Grain

Snow

127

127

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.

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.

Lumber

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

chemicals

Handling & Installation

- andling & Installation.

 LVL beams must not be cut or drilled.

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

 Damaged Beams must not be used.

 Design assumes top edge is laterally restrained.

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

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info Forex APA: PR-L318

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 Canada L4A 7X4 905-642-4400

T.L. WISE

100083566

WOE OF OHTE

August 21, 2018







isDesign[™]

Client: Project: Address: GREENPARK

8/20/2018 Date:

Designer: RCO

Job Name: MILLWOOD 12-1 (WOD)

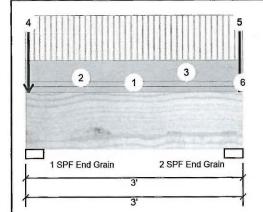
Project #:

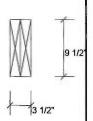
Forex 2.0E-3000Fb LVL FH3-A

1.750" X 9.500"

2-Ply - PASSED

Level: Ground Floor





Page 2 of 2

om page 1								
Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
Point	0-0-8		Тор	462 lb	553 lb	127 lb	0 lb	Header Column Header Column
Point	2-11-8		Тор	462 lb	553 lb	127 lb	0 lb	Header Column Header Column
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				
1	Load Type Point Point Part. Uniform	Load Type Location Point 0-0-8 Point 2-11-8 Part. Uniform 3-0-0 to 3-0-0	Load Type Location Trib Width Point 0-0-8 Point 2-11-8 Part. Uniform 3-0-0 to 3-0-0	Load Type Location Trib Width Side Point 0-0-8 Top Point 2-11-8 Top Part. Uniform 3-0-0 to 3-0-0 Near Face	Load Type Location Trib Width Side Dead Point 0-0-8 Top 462 lb Point 2-11-8 Top 462 lb Part. Uniform 3-0-0 to 3-0-0 Near Face 80 PLF	Load Type Location Trib Width Side Dead Live Point 0-0-8 Top 462 lb 553 lb Point 2-11-8 Top 462 lb 553 lb Part. Uniform 3-0-0 to 3-0-0 Near Face 80 PLF 0 PLF	Load Type Location Trib Width Side Dead Live Snow Point 0-0-8 Top 462 lb 553 lb 127 lb Point 2-11-8 Top 462 lb 553 lb 127 lb Part. Uniform 3-0-0 to 3-0-0 Near Face 80 PLF 0 PLF 0 PLF	Load Type Location Trib Width Side Dead Live Snow Wind Point 0-0-8 Top 462 lb 553 lb 127 lb 0 lb Point 2-11-8 Top 462 lb 553 lb 127 lb 0 lb Part. Uniform 3-0-0 to 3-0-0 Near Face 80 PLF 0 PLF 0 PLF 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

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

Lumber

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

chemicals

Handling & Installation

1. LVL beams must not be cut or drilled

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

3. Demaged Beams must not be used

4. Design assumes top edge is laterally restrained

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

For flat roofs provide proper drainage to prevent pending

Manufacturer Info Forex APA: PR-L318

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



isDesign[™]

GREENPARK Client:

Project: Address:

8/20/2018 Date:

RCO Designer: Job Name:

MILLWOOD 12-1 (WOD)

Project #:

Forex 2.0E-3000Fb LVL FH3-B

TW0818-149

1.750" X 9.500"

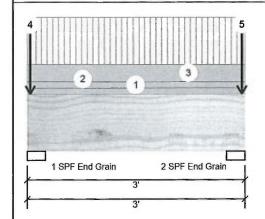
2-Ply - PASSED

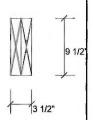
Brg

1

2

Level: Ground Floor





Wind

0

n

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	1	

Bearings and	Factored	Reactions

Live

980

980

Unfactored Reactions UNPATTERNED lb (Uplift)

Dead

704

704

Snow

127

127

Bearing Length Cap. React D/L lb Total Ld. Case Ld. Comb. 1.25D+1.5L 1 - SPF 3.000" 31% 881 / 1533 2413 L +0.58 End Grain 2-SPF 3.000" 881 / 1533 2413 L 1.25D+1.5L +0.58 End Grain

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	628 ft-lb	1'6"	22724 ft-lb	0.028 (3%)	1.25D+1.5L	L
Unbraced	628 ft-lb	1'6"	22724 ft-lb	0.028 (3%)	1.25D+1.5L	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.

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

This design

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 nesture the component suitability of the inlended 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
- LVI, beams must not be cut or drilled
 Refer to manufracturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code
- fastening decains, southern approvals approvals Damaged Beams must not be used Design assumes top edge is laterally restrained Provide fateral 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.

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

T.L. WISE 100083566

100083566

August 21, 2018





isDesign™

GREENPARK Client:

Project: Address:

8/20/2018 Date:

Designer: RCO

Job Name: MILLWOOD 12-1 (WOD)

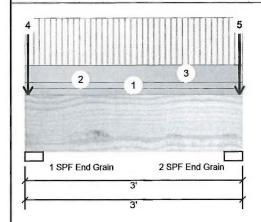
Project #:

Forex 2.0E-3000Fb LVL FH3-B

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	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
	Solf Moight				8 DI F				

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

Calcutated 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.

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

chemicals

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 lateraty 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, Onlario Canada L4A 7X4 905-642-4400





Client: Project: Address: GREENPARK

8/20/2018 Date: Designer:

RCO

Job Name: MILLWOOD 12-2 (WOD)

Project #:

Forex 2.0E-3000Fb LVL

1.750" X 9.500"

2-Ply - PASSED

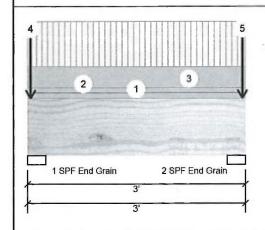
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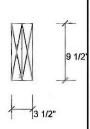
1

2

Grain

Level: Ground Floor





Wind

0

0

Page 1 of 2

Member Inform	nation		
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		
Doug.			

Bearings :	and	Factored	Reactions

Live

1075

1075

Unfactored Reactions UNPATTERNED Ib (Uplift)

Dead

827

827

Snow

127

127

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

1 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 4.5.

1'6" 0.131 (L/240) 0.020 (2%) D+L+0.5S L

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

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	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 leadings 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

L. 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

Forex APA: PR-L318

Manufacturer Info

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

PROFESSIONAL CHOMES

100083566

August 21, 2018





isDesign™

Client: Project: Address: **GREENPARK**

Date: 8/20/2018 Designer:

RCO

Page 2 of 2

Job Name: MILLWOOD 12-2 (WOD)

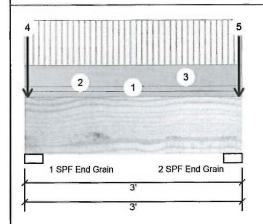
Project #:

Forex 2.0E-3000Fb LVL FH2-A

1.750" X 9.500"

2-Ply - PASSED

Level: Ground Floor



9 1/2

Continued	from pa	age 1
ID		Loa

ID	Load Type
4	Point
5	Point

Tı

2-11-8

Dead 450 lb

Live 553 lb

553 lb

Snow 127 lb

127 lb

Wind 0 lb

0 lb

Comments Header Column Header Column

Header Column Header

Self Weight

450 lb

8 PLF

Column

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 lintended application, and to verify the dimensions and loads.

Lumber

chemicals

- 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 of a 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



Client: Project:

Address:

GREENPARK

Date:

8/20/2018 Designer: **RCO**

Page 1 of 2

MILLWOOD 12-2 (WOD) Job Name:

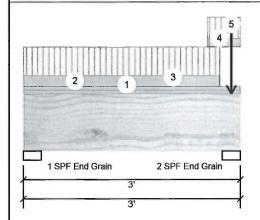
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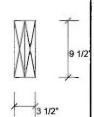
Forex 2.0E-3000Fb LVL

1.750" X 9.500"

2-Ply - PASSED

Level: Ground Floor





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	6	
Dead:	15 PSF		
		I.	

Brg	Live	Dead	Snow	Wind
1	471	308	0	0
2	987	698	127	0

Unfactored Reactions UNPATTERNED Ib (Uplift)

Analysis Results Capacity Analysis Actual Location Allowed Comb. Case Moment 630 ft-lb 1'6 1/16" 22724 ft-lb 0.028 (3%) 1.25D+1.5L L 630 ft-lb 1'6 1/16" 22724 ft-lb 0.028 (3%) 1.25D+1.5L L Unbraced 971 lb 0.105 (10%) 1.25D+1.5L L 11 3/4" 9277 lb Shear Perm Defl in. 0.001 1'6 1/16" 0.088 (L/360) 0.010 (1%) D Uniform (L/29818) 0.002 1'6 1/16" 0.088 (L/360) 0.020 (2%) L+0.5S LL Defl inch (L/19455) 0.003 1'6 1/16" 0.131 (L/240) 0.020 (2%) D+L+0.5S L TL Defl inch (L/11773)

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	14%	385 / 706	1091	L	1.25D+1.5L
2 - SPF End Grain	3.000"	31%	872 / 1544	2416	L	1.25D+1.5L +0.5S



- 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.

OROFESSIONAL
(Se)
T.L. WISE (1)
V.0182/
MOE OF ONTRE
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 2-8-9		Near Face	117 PLF	312 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 corrosive

Handling & Installation

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

Kott Lumber Company 14 Anderson Blvd, Ontario L4A7X4 905-642-4400





Client: Project:

Address:

GREENPARK

Date:

8/20/2018

Page 2 of 2

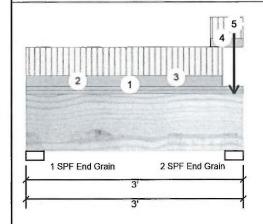
Designer: **RCO**

Job Name: MILLWOOD 12-2 (WOD)

Project #:

Forex 2.0E-3000Fb LVL

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



..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		127 lb	0 lb	Header Column Header Column
ļ.	Self Weight				8 PLF				

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

Handling & Installation

Handling & Installation

1. UV beams must not be cut or drilled

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

3. Damaged Beams must not be used

4. Design assumes top edge is laterally restrained

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

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



	Pa Pa	7.00	100	J2-E			J2-A		J-N	10	
	//// 1/3	- 1/1///	77	125	1			-	N N	-	
	12/24/5	- 1/1//	1//	12-0	Tr.	_	3	-	2		
	/////	-51	1///	73	19-			_		H	
1////	2	-3 7/3/7/5	VII	.01		i i	JS-0		H H	H	
1/1///		1/7////	1/	141				3	F9-A - 2 ply	1	
////	1 1 34	17////	16	- ×	- 1	-	.a.e			IH.	
111111	1// 1/00	//310///	1200	9 ×	- 17				U N	li i	
1	//ABI//	97 K-19///	1//6		-5	2	J3-E	0		1	
11/1/11	// 80//			N Tark	9 1	-	J3-F	BBO	並	1	
11/11/1	//360//		th reducations	22-41		111	-J3-G	777	1	-	
		I		10-W	- 1	111	1111	111	EK.	H	
1		<u> </u>	1	- DK	- 40	110	1/2/	111		10	
- b		1 1			- 48	11/	1//0/	///	3/4	III.	
9		4	1	100	- 28	4	34	1	8448	IH.	
1		F2-A - 2 ply		.0-0	- 1	1/3	///	4		III.	
	36-1	40161			-	1.1.1	7.351	- Amelina	2K-Z-1	III.	
	36 G	FIA.18					RL	1		FIT	-
	20	T T T T			1.1	11				111	
		= T°T			8 1	1 1				111	
	×	3 E 3pep@12 b/c			1	Spcg	€ 10° o/c			\Box	_
	1	2 2									
	3	역 [] 취외되취.			1.1	11	* 3		-C - @ 16"-	2X.#-B	4
	36-3	388	3	 '	et -0 16	++	1 21 31	-		1 1	3
				111	1 1	11					
	9				1 1	11					
	â										
	36-41		1								
		THE VIEW AND VIEW	4								

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.



111111

Legend

Load from Above 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
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	HLM	2.5	9.5			14	12-0-0
J2	HLM	2.5	9.5			22	10-0-0
J١	NJH	2.5	9.5			8	8-0-0
Rim Bo							
Labol	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		Vanes	38-0-0

Beam/Girder Suppo Label Pcs Description Skew Slope fasteners faster H3 6 LT259 H6 1 HUS1.81/10 4 10dx1 1/2 2 10dx 10 1 30 16d H7. 1 HUCO1.81/9-SDS

- Framer to verify dimensions on the architectural drawings.
 Double joist only require filter/backer ply when supporting another member using a face-mountled hanger.
 Install Zed blocking @ 24° of curder parallel non-load bearing walls.
 Install single-joy flush window header along inside face of
- 4. Install single-ply tus wmoow neader along inside acc or imboard/imploits.
 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 floor or roof.
 7. Load transfer blocks to be installed under all point loads.
 8. It shall be the framer's responsibility that floor joists and beams are fastened as per the hanger manufacturer's standards.

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

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

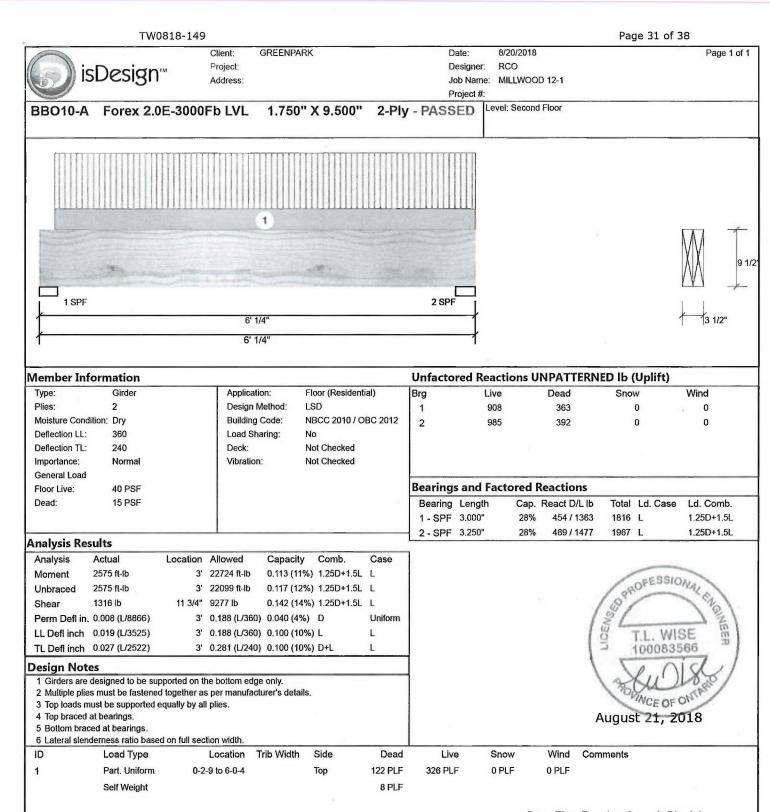
Hatch area represents ceramic tiled floor with an additional dead load of 5 PSF

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

ARCHITECTURAL DRAWINGS:

REGION DESIGN INC. REGION DESIGN INC.
Date: Rev.2; July 2018
Project No: 17-04-19
Model: Milliwood 12

16-0-0	
10-0-	
10-0-0	Layout Name
10-0-0	MILLWOOD 12-2
6-0-0	
	LSD
6-0-0	
	Description
4-0-0	
	BRAMPTON, ONT.
	Created
ength 8-0-0	
0-0-0	Builder
	GREENPARK
engti	Sales Rep
18-0-0	RM
16-0-0	
16-0-1	RCO
14-0-0	
12-0-0	Shipping
10-0-0	
8-0-4	Builder's Project
	Kott Lumber Company
engt	
1:	Stouffville, Ontario
	Canada
	L4A 7X4
38-0-	11
38-0-	Job Path
	SACUSTOMERS/GREENPARK
ortod nber	MINNISALE HOMES/MODELS
ners	VMINNISALE HOMES\MODELS VMILLWOOD 12\MILLWOOD12-2
x1 1/2	VFLOOR\REV\MILLWOOD 12-2.isi
16d	Second Floor
	Design Method LSD
	Building Code NBCC 2010 / OBC
	2012
	Floor
	Loads
	10,0
	Dead 15
	Dead 15 Deflection Joist
	Dead 15 Deflection Joist LL Span L/ 480
	Doad 15
	Doad 15
	Doad 15 Deflection Joist LL Span L/ 480 TL Span L/ 360 LL Cant 2L/ 480 TL Cant 2L/ 360
	Doad
	Dead 15
	Dead 15
	Doad
	Dead 15
	Doad
prior	Doad
prior	Doad



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

Celculated 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 produ-regarding installation requirement fastening details, beam strength vaed Reams must not be used
- 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

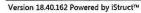
For flat roofs provide proper drainage to prevent ponding

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.

Kott Lumber Company 14 Anderson Blvd, Ontario L4A7X4









Client: Project: Address: **GREENPARK**

Date: 8/20/2018

Designer: **RCO**

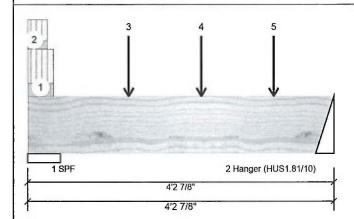
Job Name: MILLWOOD 12-1

Project #:

Forex 2.0E-3000Fb LVL

1.750" X 9.500" - PASSED

Level: Second Floor





Wind 0 0

Ld. Comb.

1.25D+1.5L 1.25D+1.5L

Page 1 of 1

Member Infor	mation			Unfacto	red React	ions U	NPATTERN	ED lb	(Uplift)
Туре:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Sno	w
Plies:	1	Design Method:	LSD	1	323		136		0
Moisture Condition	n: Dry	Building Code:	NBCC 2010 / OBC 2012	2	371		155		0
Deflection LL:	360	Load Sharing:	No						
Deflection TL:	240	Deck:	Not Checked	1					
Importance:	Normal	Vibration:	Not Checked						
General Load									
Floor Live:	40 PSF			Bearings	and Fact	ored l	Reactions		
Dead:	15 PSF			Bearing	Length	Cap.	React D/L lb	Total	Ld. Case
				1-SPF	5.500"	11%	170 / 485	655	L
Analysis Resul	ts			2 - Hanger	3.000"	19%	193 / 557	750	L
Analysis Ac	tual Loca	ation Allowed Capac	ity Comb. Case						

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



August 21, 2018

1	Fill al	hanger	nailing	hole

Design Notes

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

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

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 information
 regarding installation requirements, multi-ply
 fastening details, beam strength values, and code
- approvals
 Damaged Beams must not be used
 Design assumes top edge is laterally restrained
 Provide lateral support at bearing points to avoid
 lateral displacement and rotation

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex APA: PR-L318

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
This design is val

IN THE DESIGN OF THIS COMPONENT.



Client:

Project: Address: GREENPARK

8/20/2018 Date:

Designer: RCO

Job Name: MILLWOOD 12-1

Project #:

1 - SPF 3.500"

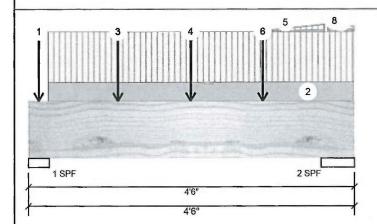
2 - SPF 5.500"

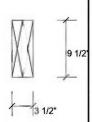
Forex 2.0E-3000Fb LVL

1.750" X 9.500"

2-Ply - PASSED

Level: Second Floor





1.25D+1.5L

1.25D+1.5L

Page 1 of 2

Melliper Tillotti	lation		
Туре:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 20
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF	1	

	Brg	Live	Dead	Snow	Wind	
	1	1581	661	0	0	
012	2	1014	404	0	0	
		15.	ID			
	Bearings a	ind Facto	ored Reactions			
	Bearing L	enath	Cap. React D/L lb	Total Ld. Case	Ld. Comb.	

826 / 2371

506 / 1521

3197 L

2026 L

Unfactored Reactions UNPATTERNED lb (Uplift)

42%

17%

Analysis Results

Member Information

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	L
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
		,	,			



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

/	ROFEBSIONAL	1
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13	100083566	
1	NOE OF ONTE	

August 21, 2018

O LUCCION .	dichacificad fallo paoca c	it fall ocollott filadit.							
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	

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 inlended application, and to verify the dimensions and loads.

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

Handling & Installation

Handling & Installation

1. LVL beams must not be cut or drilled

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

3. Damaged Beams must not be used

4. Design assumes top edge is laterally restrained

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

This design is

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.



isDesign™

Client: GREENPARK

Project:

Address:

Date: 8/20/2018

Designer: RCO

Job Name: MILLWOOD 12-1

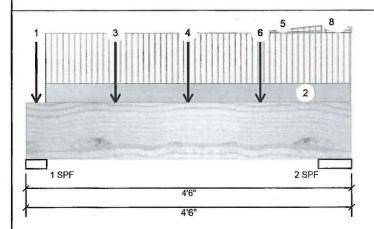
Project #:

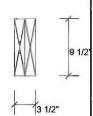
Forex 2.0E-3000Fb LVL

1.750" X 9.500"

2-Ply - PASSED

Level: Second Floor





Page 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

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.

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

chemicals
Handling & Installation

1. LVL beams must not be cut or drilled

2. Refer to manufacturer's product information regarding installation requerements, mutti-ply fastering details, beam strength values, and code approvals

approvals

Banan must not be used

4. anaged Banan must not be used

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

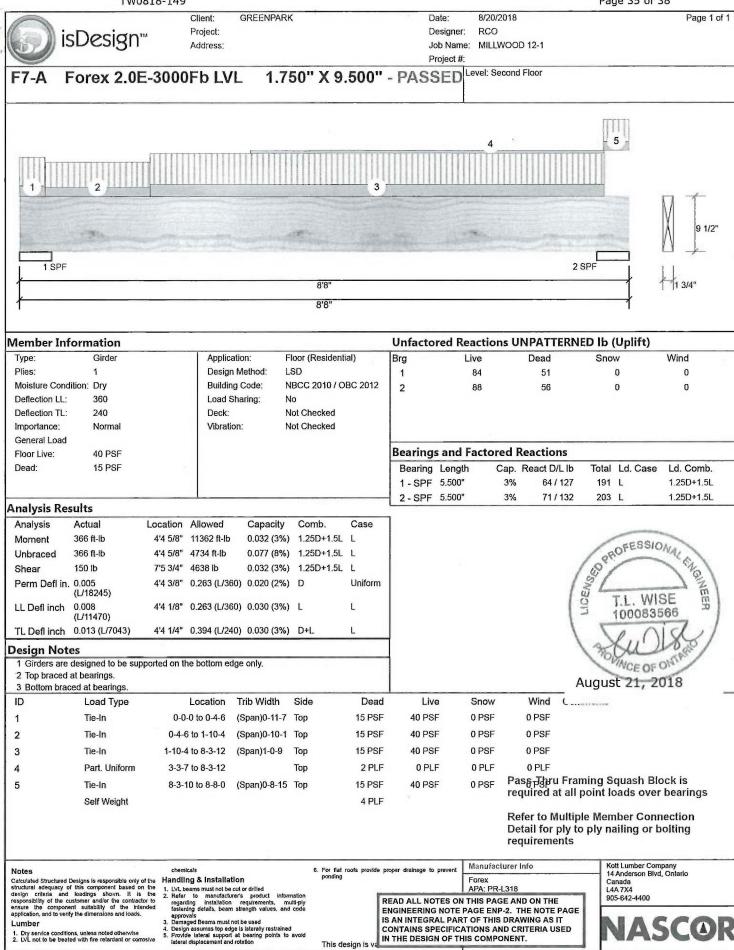
For flat roofs provide proper drainage to prevent ponding

Manufacturer Info Forex

APA: PR-L318

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





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.

This design is

Lumber



Client:

GREENPARK

Project: Address: Date: 8/20/2018

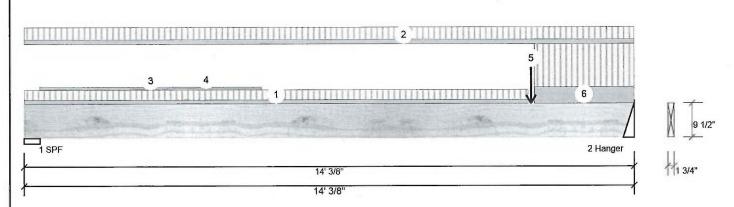
Designer: RCO

Job Name: MILLWOOD 12-1

Project #:

Forex 2.0E-3000Fb LVL

1.750" X 9.500" - PASSED Level: Second Floor



Member Info	rmation			Unfacto	red React	ions U	NPATTERNI	D lb (Uplift)	
Type:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snov	N	Wind
Plies:	1	Design Method:	LSD	1	352		182	-	0	0
Moisture Condition	on: Dry	Building Code:	NBCC 2010 / OBC 2012	2	715		313	9	0	0
Deflection LL:	360	Load Sharing:	No							
Deflection TL:	240	Deck:	Not Checked							
Importance:	Normal	Vibration:	Not Checked							
General Load										
Floor Live:	40 PSF			Bearing:	s and Fac	tored l	Reactions			
Dead:	15 PSF			Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
				1-SPF	4.375"	16%	228 / 528	755	L	1.25D+1.5L
Inalysis Resu	ılts			2 - Hanger	3.000"	38%	391 / 1072	1463	L	1.25D+1.5L

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3003 ft-lb	8'8"	11362 ft-lb	0.264 (26%)	1.25D+1.5L	L
Unbraced	3003 ft-lb	8'8"	3005 ft-lb	0.999 (100%)	1.25D+1.5L	L
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	L
TL Defl inch	0.299 (L/544)	7'5 1/8"	0.677 (L/240)	0.440 (44%)	D+L	L

T.L. WISE

August 21, 2018

Design Notes

- 1 Fill all hanger nailing holes.
- 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.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	
1	Tie-In	0-0-0 to 11-7-2	(Span) 0-10-14	Тор	15 PSF	40 PSF	0 PSF	
2	Tie-In	0-0-0 to 14-0-6	(Span)1-1-2	Тор	15 PSF	40 PSF	0 PSF	
3	Part. Uniform	0-4-5 to 5-5-8		Тор	2 PLF	0 PLF	0 PLF	
4	Part. Uniform	0-4-5 to 5-5-8		Тор	3 PLF	0 PLF	0 PLF	1
5	Point	11-8-0		Far Face	155 lb	371 lb	0 lb	I
6	Tie-In	11-8-14 to 14-0-6	(Span) 3-10-13	Тор	15 PSF	40 PSF	0 PSF	1
	Self Weight				4 PLF			i

0 PSF 0 PLF Pas9-74 Framing Squash Block is required at அl point loads over bearings

Comments

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 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 con

chemicals

Handling & Installation

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

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info Forex APA: PR-L318

Wind

0 PSF

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 Canada L4A 7X4 905-642-4400

This design is



Client:

GREENPARK

Project:

Date:

8/20/2018

Designer: RCO

MILLWOOD 12-1 Job Name:

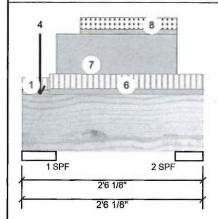
Project #:

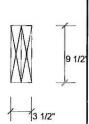
Forex 2.0E-3000Fb LVL F9-A

1.750" X 9.500"

2-Ply - PASSED

Level: Second Floor





Page 1 of 2

Wember Info	rmation			Unfactore	ed Reacti	ions U	NPATTERN	ED lb (U	lplift)	
Туре:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snow		Wind
Plies:	2	Design Method:	LSD	1	36		129	15		0
Moisture Condition	on: Dry	Building Code:	NBCC 2010 / OBC 2012	2	36		98	18		0
Deflection LL:	360	Load Sharing:	No							
Deflection TL:	240	Deck:	Not Checked	1						
Importance:	Normal	Vibration:	Not Checked							
General Load										
Floor Live:	40 PSF			Bearings	and Fact	ored P	Reactions			
Dead:	15 PSF			Bearing L	ength	Сар.	React D/L lb	Total L	d. Case	Ld. Comb.
				1 - SPF 5	5.750"	2%	161 / 54	215 L		1.25D+1.5L
				2-SPF 4	1.625"	2%	123 / 53	176 L		1.25D+1.5L

Ana	ysis	Resu	ts

1	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case	Т
1	Vloment	65 ft-lb	1'3 3/4"	14770 ft-lb	0.004 (0%)	1.25D+1.5S	L	
Į	Jnbraced	65 ft-lb	1'3 3/4"	14770 ft-lb	0.004 (0%)	1.25D+1.5S	L	
5	Shear	18 lb	1'2 1/2"	6030 lb	0.003 (0%)	1.25D+1.5S	L	
F	Perm Defl in.	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)			
Ĺ	L Defl inch	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)			
7	TL Defl inch	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)			

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.

(2)	PROFESSIONAL	2
LICENS	T.L. WISE 100083566	NEER
13	WOE OF ONTER	6/
-	WCE OF ON	

August 21, 2018

	manual ratio bassa	on run occupin man,							
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 fb	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

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. If 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 corrostor

chemicals

Handling & Installation

- Handling & Installation

 1. LVL beams must not be cut or drilled

 2. Refer to manufacturer's product information regarding installation requirements, mutil-ply fastening delaits, 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 conding

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



This de

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GREENPARK Client:

Address:

Project:

Date:

8/20/2018

RCO Designer: Job Name: MILLWOOD 12-1

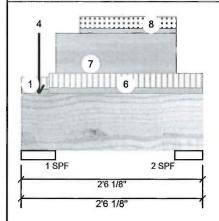
Project #:

Forex 2.0E-3000Fb LVL

1.750" X 9.500"

2-Ply - PASSED

Level: Second Floor



Page 2 of 2

Continued	from	page	1
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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
7	Part. Uniform	0-5-12 to 2-1-12		Тор	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
8	Part. Uniform	0-9-12 to 2-1-12		Тор	10 PLF	0 PLF	23 PLF	0 PLF	
	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

NOISE

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 lineaded application, and to verify the dimensions and loads.

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

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 fastering details, beam strength values, and code approvals

 3. Damaged Beams must not be used

 4. Design assumes top edge is lateraty restrained

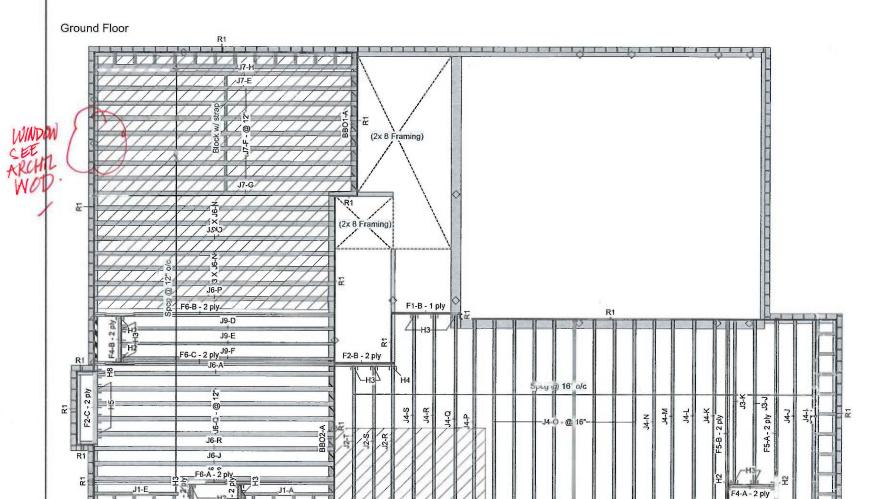
 5. Provide lateral support at bearing points to avoid Isteral displacement and rotation

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



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.



l_egend



Load from Above Wall Opening Norbord Rimboard Plus 1.125 X 9.5 NJ 9.5 N.I601195 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
- 3. LVL CCMC -14056-R
- 4. CAN/CSA-O86-09
- 5. CCMC -12787-R APA PR-L310(C)

LVL/LS	iL (Flus	sh)								RIAC
Label	Descr	iption	Width	Dept	1	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	Layout Name MILLWOOD 12
Joist ((Flush)	Design Metho								
Label	Descr	iption	Width	Dept	1	Qty	Plies	Pcs	Length	LSD
F6	NJ		1.5	9.	5	3	2	6	16-0-0	Description
F5	NJ		1.5	9.	5	2	2	4	14-0-0	MINNISALE HO
F4	NJ		1.5	9.	5	2	2	4	4-0-0	BRAMPTON, C
F3	NJ		1.5	9.	5	2	2	4	2-0-0	
J7	NJ60U		3.5	9.	5			10	18-0-0	Created
J6	NJ60U		3.5	9.5	5			15	16-0-0	June 28, 2018
J9	NJH		2.5	9.	5			3	16-0-0	Builder
J4	NJH		2.5	9.	5			19	14-0-0	GREENPARK
J3	NJH		2.5	9.5	5			2	12-0-0	Sales Rep
J2	NJH		2.5	9.	5			3	10-0-0	RM
J1	NJH		2.5	9.5	ĵ			2	8-0-0	
Rim Bo	ard									Designer
Label	Descri	iption	Width	Depth	1 (Qty	Plies	Pcs	Length	RCO
R1		d Rimboard	1.125	9.5	5			15	12	Shipping
DII-t-		125 X 9.5								Project
Blockin	_		100 141	·		1				Builder's Proje
Label		ption	Width	Depth		Qty	Plies	Pcs	Length	Kott Lumbe
BLK1	NJH		2.5	9.5	5 L	inFt		Varies	33-0-0	
Hanger										14 Anderson Bl
						Bea	am/Girder		ported	Stouffville, Onta
								_	mber	Canada
Label	Pcs Description		n SI	kew S	lope	fa	steners	fas	teners	L4A 7X4
H2	6	LT2-159					10dx1 1/2		dx1 1/2	905-642-4400
НЗ	12	LT259				4 1	10dx1 1/2	2 10	dx1 1/2	Job Path
H4	1	LT259								S:\CUSTOMER
H5	4	LT359					4 10d	2 10	dx1 1/2	MINNISALE HO

NOTES:

H8 1 LT359

Ground Floor VI /I QI /Fluch

- 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.
- I. Install 2x4 blocking @ 24" o/c under parallel non-load bearing walls. . Install single-ply flush window header along inside face of
- Refer to Nascor specifier guide for installation works.

fastened as per the hanger manufacturer's standards.

- Squash blocks recommended to be installed at end bearing on all first level joists which support loading from above exceeding two levels floor or roof.
- . Load transfer blocks to be installed under all point loads. . It shall be the framer's responsibility that floor joists and beams are
- Refer to Multiple Member Connection Detail to ply to ply nailing or boltina 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

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

Building Code O. Reg. 332/12 as amended

Engineered floor joists shall be installed in accordance with the supplier's layout and specifications forming part of the permit drawings. IASCO

ayout Name

MILLWOOD 12-2 Design Method

Description MINNISALE HOMES

BRAMPTON, ONT. Created

June 28, 2018 3uilder

Sales Rep Designer

RCO Shipping roject

Builder's Project **Kott Lumber Company**

14 Anderson Blvd Stouffville, Ontario Canada L4A 7X4

905-642-4400 lob Path

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

Ground Floor

Design Method LSD Building Code NBCC 2010 / OBC 2012

Floor Loads Live Dead Deflection Joist

40

15

360

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

Deflection Girder LL Span L/ 360 TL Span L/ 240 LL Cant 2L/ 480

TL Cant 2L/ Decking Deck

SPF Plywood Thickness Fastener Nailed & Glued

Vibration 1"X4", 1 Row at Strapping

MAR / FRE 18 - 4/14/2:000.00 RA

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



R1 R1 R1

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.

JG-M

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.



Engineered floor joists shall be installed Engineered moor joists snam be instanced in accordance with the supplier's layout and specifications forming part of the permit drawings.

All work shall conform to the Ontario Building Gode O. Heg. 332/12 as amended



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-O86-09

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

Label	Description	Width	Depth	Qty	Plies	Pcs	Length	8
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	L
F2	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	6-0-0	1
F1	Forex 2.0E-3000Fb LVL	1.75	9.5			1	6-0-0	1
F9	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	4-0-0	
VL/LS	L (Dropped)			•				1
Label	Description	Width	Depth	Qty	Plies	Pcs	Length	
BBO10	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	8-0-0	1
Joist (Flush)							L
Label	Description	Width	Depth	Qty	Plies	Pcs	Length	ŀ
J7	NJ60U	3.5	9.5			9	18-0-0	
J6	NJ60U	3.5	9.5			21	16-0-0	I
J9	NJH	2.5	9.5			3	16-0-0	
J4	NJH	2.5	9.5			19	14-0-0	ŀ
J3	NJH	2.5	9.5			14	12-0-0	E
J2	NJH	2.5	9.5			22	10-0-0	Ľ
J1	NJH	2.5	9.5			9	8-0-0	ļ
im Bo	ard							Γ
Label	Description	Width	Depth	Qty	Plies	Pcs	Length	
R1	Norbord Rimboard Plus 1.125 X 9.5	1.125	9.5			18	12	
lockin	g							
Label	Description	Width	Depth	Qty	Plies	Pcs	Length	
BLK1	NJH	2.5	9.5	LinFt		Varies	38-0-0	L
langer				Bei	am/Girde		ported ember	

The framing shown on this layout 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

14/1 york shall conform to the Ontario Building Code O. Reg. 332/12 as amended

Engineered floor joists shall be installed in accordance with the supplier's layout and specifications forming part of the permit drawings

										Page 30 of 38	Terret III		
Second													
LVL/LS				NAS	COD								
	Descri	ption	Widt	_	pth	Qty	Plies	Pcs	Length	INAD	CUK		
F8		000Fb LVL	1.7		9.5			1	16-0-0	10 377.00			
F7	Forex 2.0E-30	000Fb LVL	1.7	5	9.5			1	10-0-0	Layout Name MILLWOOD 12-2	7		
F2	Forex	000Fb LVL	1.7	5	9.5	1	2	2	6-0-0	Design Method			
F1	Forex	000Fb LVL	1.7	5	9.5			1	6-0-0	LSD Description			
F9	Forex	000Fb LVL	1.7	5	9.5	1	2	2	4-0-0	MINNISALE HOME BRAMPTON, ONT			
LVL/LS										Created			
	Descri		Widt	h De	pth	Qty	Plies	Pcs	Length	June 28, 2018			
BBO10	Forex		1.7		9.5	1	2	2	8-0-0	Builder			
1 1-1-4	,	000Fb LVL		72					L .	GREENPARK			
I Joist (ntion	MEJA	h D-	nth	Ott	Diag	Doc	Longth	Sales Rep			
J7	Descri NJ60U	puon	Widt 3.		pth 9.5	Qty	Plies	Pcs 9	Length 18-0-0	RM			
J6	NJ60U		3.		9.5			21	16-0-0	Designer	-		
J9	NJH		2.		9.5			3	16-0-0	RCO			
J4	NJH		2.		9.5			19	14-0-0	Shipping			
J3	NJH		2.		9.5			14	12-0-0	<u> </u>			
J2	NJH		2.		9.5			22	10-0-0	Project			
J1 Rim Bo	NJH		2.	5	9.5			9	8-0-0	Builder's Project			
-	Descri	ntion	Widt	h Do	pth	Qty	Plies	Pcs	Length	Kott Lumber	Company		
R1		d Rimboard	1.12		9.5	≪ty.	1 1103	18	12	14 Anderson Blvd			
	Plus 1.	125 X 9.5							L	Stouffville, Ontario			
Blockin										Canada			
	Descri	ption	Widt	h De	pth	Qty	Plies	Pcs	Length	L4A 7X4			
	NJH		2.	5	9.5	LinFt		Varies	38-0-0	905-642-4400			
Hanger						-	(6' 1			Job Path	ODEENDADIA		
						Re	am/Girder		oported ember	S:\CUSTOMERS\(
Label	Pcs	Descriptio	п Т	Skew	Slop	ne f	asteners		teners	\MILLWOOD 12\MILLWOOD12-2			
H3	6	LT259	••	J.C.W	5,0		10dx1 1/2	_	0dx1 1/2	\FLOOR\REV\MIL	LWOOD 12-2.isl		
H6	1	HUS1.81/1	0				30 16d		0 16d	Second Floor			
H7	_1_	HUCQ1.81							-	Design Method	LSD		
NOTES		SDS						1		Building Code N	BCC 2010 / OBC 2012		
1. Fram	er to ver	ify dimension	ns on t	he arch	itectur	al drawi	ngs.			Floor	2012		
2. Doubl	e joist o	nly require fi	iller/bac	ker ply	when	supporti				Loads			
		per using a f					nooring wel	le.		Live	40		
		cking @ 24" bly flush win						ia.		Dead	15		
	ard/rimic			addi dil		1000				Deflection Joist			
5. Refer	to Naso	or specifier	guide fo	or instal	ation	works.				LL Span L/	480		
		s recommen								TL Span L/	360		
		ists which s or or roof.	upport	ioading	irom a	above ex	cceeding				480		
		blocks to be	installe	ed unde	r all n	oint load	S.			LL Cant 2L/	360		
8. It shall	l be the	framer's res	ponsibi	lity that	floor j	oists and		е		TL Cant 2L/			
fasten	ed as p	er the hange	er manu	ıfacture	r's sta	ndards.				Deflection Girde	r 360		
Refer to	Multiple	Member Co	nnecti	nn Deta	il to ni	v to nlv i	nailing or			LL Span L/	360 240		
bolting re			or it ic cell	Deta	., pi	, while i	.aming O			TL Span L/	480		
-			- 1		Nr. 45	(.1	4011	u		LL Cant 2L/	360		
		oists: 1-1/8" o/c). All oth								TL Cant 2L/ Decking	200		
		or system :								Decking	SPF Plywood		
foundation	on walls	and footing	s includ	ling and	horag	e of com	ponents ar	nd		Thickness	5/8"		
bracing 1	ror latera	al stability ar	e the re	esponsi	ollity o	r Others				Fastener	Nailed & Glued		
Hatch ar	ea repre	esents cerar	nic tiled	l floor w	ith an	addtion	al dead loa	d		Vibration	. rance & Gradu		
of 5 PSF										Ceiling:	Gypsum 1/2"		
The fram	ning sho	wn on this la	ayout m	ay devi	ate fro	m the a	rchitectural						
and star		musinana Dan	in at En			us and a	nnrovo tho	doviatio	n neine	1	7 7		

LOT 33

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

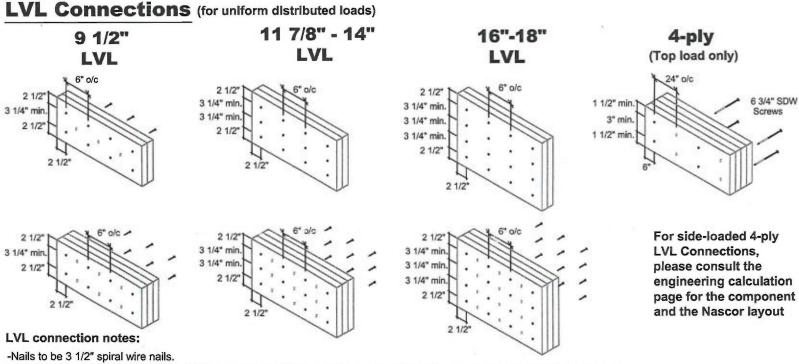
MULTIPLE MEMBER CONNECTIONS

Conventional Connections (for uniform distributed loads)

2x12 2x10 2x8 2x6 2-ply 3-ply

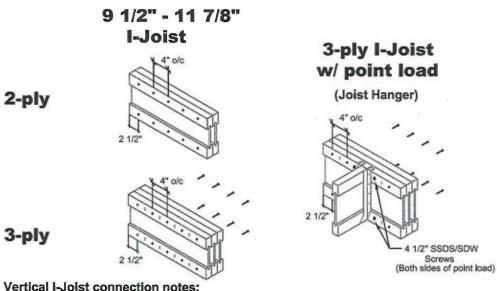
Conventional connection notes:

- -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.



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

Vertical I-Joist Connections (for uniform distributed loads)



Vertical I-Joist connection notes:

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

MULTI-PLY CONNECTION **DETAILS**

Date: November 30, 2016

Scale: NTS

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