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

The responsibility of the undersigned is limited to the verification of the structural capacity of the 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)

2-ply

2x6



2x8





3-ply









Conventional connection notes:

Conventional confliction indies.

-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.

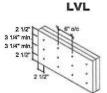
-Number of rows and spacing as per details shown, unless noted otherwise.

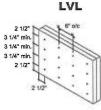
-"X" represents nall driven from the opposite side.

11 7/8" - 14"

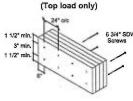
LVL Connections (for uniform distributed loads)

9 1/2" LVL 3 1/4" mir 2 1/2

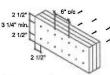


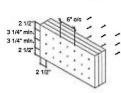


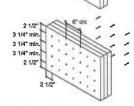
16"-18"



4-ply







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

LVL connection notes:

- -Nails to be 3 1/2" spiral wire nails.
- -Nails to be located a minimum of 2 1/2" from the top and bottom of the member. Start all nails a minimum of 2 1/2" in from ends.

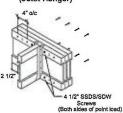
 -Minimum 3 1/4" spacing between rows.
- -Number of rows and spacing as per details shown, unless noted otherwise.
 -"X" represents nail or screw driven from the opposite side.

Vertical I-Joist Connections (for uniform distributed loads)

9 1/2" - 11 7/8" **I-Joist**

2-ply





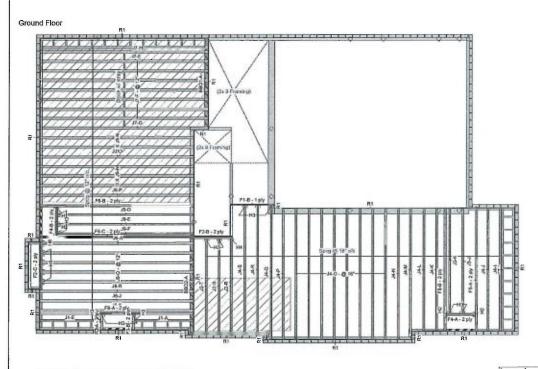


Vertical I-Joist connection notes

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

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

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 NI95 NJ60U 9.5 Forex 2.0E-3000Fb LVL 1.75 X 9.5

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

2. Nascor CCMC - 13535-R

3. LVL CCMC -14056-R

4. CAN/CSA-086-09

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

Ground	Floor							
LVL/LS	L (Flush)							NIA CCOD
Label	Description	Width	Depth	Qty	Plies	Pcs	Length	NASCOR
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 (Flush)							Design Method
Label	Description	Width	Depth	Qty	Plies	Pcs	Length	LSD
F6	NJ	1.5	9.5	3	- 2	6	16-0-0	Description
F5	NJ	15	9.5	2	. 2	4	14-0-0	MINNISALE HOMES
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	16-0-0	Created
36	NJ60U	3.5	9.5			15	16-0-0	June 28. 2018
19	ÑJH	2.5	9.5			3	16-0-0	Builder
34	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	Qty	Plies	Pcs	Length	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	
BLK1	HLN	2.5	9.5	LinFt		Varies	33-0-0	Kott Lumber Company
Hanger								14 Anderson Blvd

╛	6	LT2-159		4 10dx1 1/2	2 10dx1 1
٦	12	LT259		4 10dx1 1/2	2 10dx1 1
	1	LT259			
7	4	LT359		4 10d	2 10dx1 1

NOTES:

1 LT359

H2 H3 H4 H5 HB

Framer to verify dimensions on the architectural drawings.
 Double joist only require filler/backer ply when supporting

Label Pcs Description | Skew Slope | fasteners

- to booke loss only require internative py when supporting another member using a face-mounted hanger.

 In Install 2x4 blocking @ 24" ofc under parallel non-load bearing walls.

 In Install single-ply flush window header along inside face of
- 4. Install single-py flush window header along lisside face of imboard/mips of period process. A second process of the control of the 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 foor or roof.
 7. Load transfer blocks to be installed under all point loads.
 8. It shall be the frameter resonability that from viels and heams.
- . It shall be the framer's responsibility that floor joists and beams are fastened as per the hanger manufacturer's standards.

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

Rim parallel to joists: 1-1/8" rimboard with 2"x.4" block (1/16" longer than rim depth @ 16" col.). All other components and structural elements supporting the floor system such as beams, valus, columns, and foundation waits 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 of 5 PSF

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

ARCHITECTURAL DRAWINGS:

REGION DESIGN INC. B700 Dufferin St. Concord, ON Date: Rev.2; July 2018 Project No: 17-04-19 Model: Millwood 12

1	6-0-0	7					
		Layout Name					
100	6-0-0	MILLWOOD 12-2					
_							
	11	Design Method					
	Length	LSD					
3	16-0-0	Description					
4	14-0-0	MINNISALE HOMES					
1	4-0-0	BRAMPTON, ONT.					
1	2-0-0	Created					
0	16-0-0	June 28. 2018					
5	16-0-0	Builder					
3	16-0-0						
9	14-0-0	GREENPARK					
	12-0-0	Sales Rep					
3	10-0-0	RM					
2	8-0-0	Designer					
		RCO					
CS	Length						
5	12	Shipping					
_	_	Project					
_		Builder's Project					
CS	Length	Kott Lumber Company					
ies	33-0-0						
		14 Anderson Blvd					
	ported	Stouffville, Ontario					
Me	ember	Canada					
	teners	L4A 7X4					
2 10	dx1 1/2	905-642-4400					
2 10	dx1 1/2	Job Path					
		S.CUSTOMERS\GREENPARK					
2 10	dx1 1/2	UMINNISALE HOMESWHODELS					
	- 11	WILLWOOD 12WILLWOOD12-2					
	1	VFLOOR/REVMILLWOOD 12-2.isl					
	- 1	Ground Floor					
	- 1	Design Method LSD					
	- 1	Building Code NBCC 2010 / OBC					
	- 1	Building Code Macc 2015 / OBC 2012					
		Floor					
		Loads					
		Live 40					
		Live					
		Dunu					
		Deflection Joist					
		LL Span L/ 480					
		TL Span L/ 360					
		LL Cant 2L/ 480					
		TL Cant 2L/ 360					
		Deflection Girder					
		LL Span L/ 360					
		TL Span L/ 240					
		LL Cant 2L/ 480					
		1					
		TL Cant 2L/ 360					
		Decking					
		Deck SPF Plywood					
	- 1	Thickness 3/4*					
		Fastener Naded & Glued					
ation	prior	Vibration					
		Strapping 1°X4°, 1 Row at					
_		Midspan					
1							



GREENPARK

Project: Address: Date:

8/20/2018

Page 1 of 1

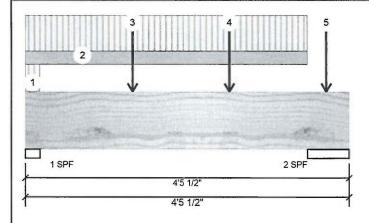
Designer: RCO Job Name: MILLWOOD 12-1

Project #:

Forex 2.0E-3000Fb LVL

1.750" X 9.500" - PASSED

Level: Ground Floor



Type:	Girder
Plies:	1
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal
General Load	
Floor Live:	40 PSF
Dead:	15 PSF

Application: Floor (Residential)

Design Method: LSD **Building Code:**

Deck: Vibration: NBCC 2010 / OBC 2012

Load Sharing: No

Not Checked

Not Checked

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	598	240	0	0
2	678	283	0	0

Bearings and Factored Reactions

	Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.	
ı	1 - SPF	2.375"	47%	300 / 897	1197	L	1.25D+1.5L	
4	2-SPF	6.875"	19%	354 / 1018	1371	L	1.25D+1.5L	

Analysis Results

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 (1/360)	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	
							-

T.L. WISE 100083566 100083566 NCE OF ON August 21, 2018

Design Notes

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

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Co
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 Sq

quash Block is required at all point loads over bearings

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

Notes

Lumber

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

chemicals

Handling & Installation

- LVL beams must not be cut or drilled
 Refer to manufacturer's product information
 regarding installation requirements, multi-ply
 festening details, beam strength values, and code 1.
- approvals

 Damaged Beams must not be used

 Design essumes top edge is laterally restrained

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

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



Project: Address: **GREENPARK**

Date: Designer:

8/20/2018 **RCO**

Job Name: MILLWOOD 12-1

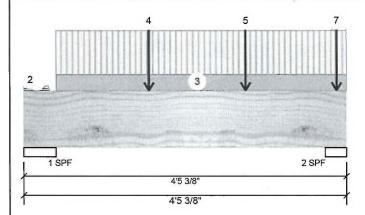
Page 1 of 2

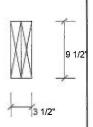
Project #:

Forex 2.0E-3000Fb LVL

1.750" X 9.500"

Level: Ground Floor 2-Ply - PASSED





-	-				-	- 4						
IV.	π	em	he	38	- 1	221	-	PHO	21	н	-	m
14		CILL	w	200		5 1 1	·		aı	ы	u	

Type:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal
General Load	
Floor Live:	40 PSF
Dead:	15 PSF

Application: Floor (Residential)

Design Method: LSD NBCC 2010 / OBC 2012 **Building Code:**

Load Sharing: No

Deck: Not Checked Vibration: Not Checked Unfactored Reactions UNPATTERNED Ib (Uplift)

Brg	Live	Dead	Snow	Wind
1	697	288	0	0
2	1058	435	0	0

Bearings and Factored Reactions

	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				

Analysis Results

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



- 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

10	PROFESSIONAL	1
LICENS	T.L. WISE 100083566	GINEER
13	SUD S	
Aug	ust 21, 2018	

O Edicidi.	dicinacificad ratio basca o	it fall scotlor wider.								
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	Тор	15 PSF	40 PSF	0 PSF	0 PSF		

This design

Notes

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

Continued on page 2...

Handling & Installation

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

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex APA: PR-L318

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: GREENPARK

Project: Address: Date:

8/20/2018

Designer:

RCO Job Name: MILLWOOD 12-1

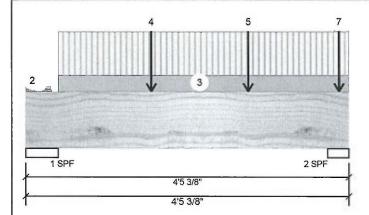
Project #:

Forex 2.0E-3000Fb LVL

1.750" X 9.500"

2-Ply - PASSED

Level: Ground Floor



9 1/2

Page 2 of 2

..Continued from page 1

ID Load Type 7

Point

4-3-12

Location Trib Width Side Near Face Dead 110 lb

Live 262 lb Snow 0 lb Wind Comments 0 lb J2

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 Intended application, and to verify the dimensions and loads.

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

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 approvable

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

APA: PR-L318

Manufacturer Info

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

This design is valid until 7/10/2021

isDesign™

Member Information

Client:

GREENPARK

Project: Address: Date:

8/20/2018

Level: Ground Floor

RCO Designer:

Job Name: MILLWOOD 12-1

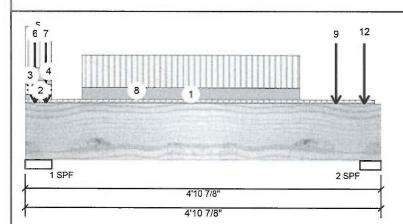
Project #:

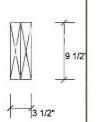
F2-C Forex 2.0E-3000Fb LVL 1.750" X 9.500"

2-Ply - PASSED

Brg

2





Wind

0

0

+0.5\$

Page 1 of 2

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

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

Unfactored Reactions UNPATTERNED Ib (Uplift)

1718

1517

Dead

1856

1171

Snow

1869

682

Analysis Results Analysis Actual Location Allowed Capacity Comb. 1576 ft-lb Moment 2'6 3/16" 22724 ft-lb 0.069 (7%) 1.25D+1.5L L +0.5SUnbraced 1576 ft-lb 2'6 3/16" 22724 ft-lb 0.069 (7%) 1.25D+1.5L L +0.5S0.182 (18%) 1.25D+1.5L L 1686 lb Shear 3'10 5/8" 9277 lb +0.58 Perm Defl in. 0.003 2'6 1/16" 0.146 (L/360) 0.020 (2%) D Uniform (L/16135) 0.008 (L/6442) LL Defl inch 2'6 1/16" 0.146 (L/360) 0.060 (6%) L+0.5S TL Defl inch 0.011 (L/4604) 2'6 1/16" 0.219 (L/240) 0.050 (5%) D+L+0.5S



Design Notes

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

/ Lateral	sienderness ratio based o	on full section wiath.							
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	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

Continued on page 2...

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criticis 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 corre

Handling & Installation

anduling & Instaliation

LVL beams must not be cut or drilled

Refer to manufacturer's product information
regarding instaliation 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
isteral 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. This design

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



Version 18.40.162 Powered by iStruct™





Address:

GREENPARK

Project:

Date:

8/20/2018

RCO Designer: Job Name: MILLWOOD 12-1

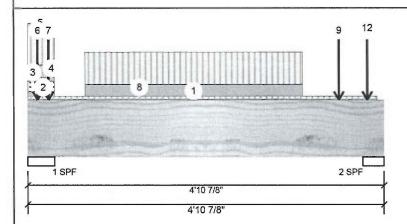
Project #:

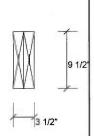
Forex 2.0E-3000Fb LVL F2-C

1.750" X 9.500"

2-Ply - PASSED

Level: Ground Floor





Page 2 of 2

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

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

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

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.

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 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

APA: PR-L318

Forex

Manufacturer Info

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



Client: **GREENPARK**

Project: Address: Date:

8/20/2018 **RCO**

Page 1 of 1

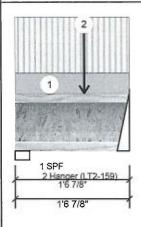
Designer:

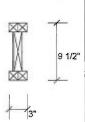
MILLWOOD 12-1 Job Name:

Project #:

2-Ply - PASSED NJ 9.500"

Level: Ground Floor





Wind 0 0

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

Member Infori	mation			Unfacto	red Reac	ions U	NPATTERNI	ED lb (Uplift)
Type:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snov	V
Plies:	2	Design Method:	LSD	1	95		35		0
Moisture Condition	n: 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	Сар.	React D/L lb	Total	Ld. Case
				1 - SPF	2.375"	7%	44 / 142	186	L
				2-	2.000"	9%	55 / 176	231	L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	95 ft-lb	11 7/16"	7340 ft-lb	0.013 (1%)	1.25D+1.5L	L
Unbraced	95 ft-lb	11 7/16"	6912 ft-lb	0.014 (1%)	1.25D+1.5L	L
Shear	218 lb	1'5 5/8"	3080 lb	0.071 (7%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/999)	0	999.000 (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

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

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	
2	Point	0-11-7		Far Face	41 lb	110 lb	0 lb	0 lb Pass-Thr	J1 u 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 fals 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

Handling & Installation

- Handling & Installation

 1. Idiost flarges must not be cut or drilled

 2. Refer to latest copy of the Boist product information
 details for framing details, sufferer tables, web hole
 chart, bridging details, multi-ply fastening details and
 handlingleraction details

 3. Demaged Lioists must not be used

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

Hanger

Nascor by Kott

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

This design is v

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







GREENPARK Client:

Project: Address:

8/20/2018 Date:

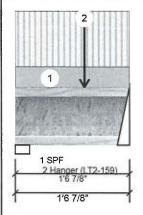
RCO Designer:

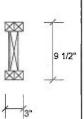
Job Name: MILLWOOD 12-1

Project #:

NJ 2-Ply - PASSED 9.500"

Level: Ground Floor





Wind 0 0

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

Page 1 of 1

rmation			Unfactored Reactions UNPATTERNED Ib (Uplift)						
Girder	Application:	Floor (Residential)	Brg	Live		Dead	Sno	w	1
2	Design Method:	LSD	1	92		35		0	
on: Dry	Building Code:	NBCC 2010 / OBC 2012	2	114		43		0	
360	Load Sharing:	No	-						
240	Deck:	Not Checked							
Normal	Vibration:	Not Checked							
40 PSF			Bearings	and Fact	ored l	Reactions			
15 PSF			Bearing 1	Length	Сар.	React D/L lb	Total	Ld. Case	_
			1 - SPF 2	2.375"	7%	43 / 139	182	L	
ılts			- 2 - 2 Hanger	2.000"	9%	53 / 171	224	L	ì
	Girder 2 on: Dry 360 240 Normal 40 PSF 15 PSF	Girder Application: 2 Design Method: 360 Building Code: Load Sharing: Deck: Normal Vibration: 40 PSF 15 PSF	Girder 2 Design Method: LSD on: Dry Building Code: NBCC 2010 / OBC 2012 Load Sharing: No 240 Deck: Not Checked Normal Vibration: Not Checked 40 PSF 15 PSF	Application: Floor (Residential) Brg 1	Application: Floor (Residential) Brg Live	Application: Floor (Residential) Brg Live 1 92 2 114 1 14 14 14 14 14	Application: Floor (Residential) Brg Live Dead	Application: Floor (Residential) Brg Live Dead Snot	Application: Floor (Residential) Brg Live Dead Snow

Analysis	Actua
Mamont	92 ff_II

	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	
	Shear	211 lb	1'5 5/8"	3080 lb	0.068 (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/29622)	11 7/16"	0.044 (L/360)	0.010 (1%)	L	L	
	TL Defl inch	0.001 (L/21543)	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	
2	Point	0-11-7		Near Face	39 lb	104 lb	0 lb	0 lb Pass-Thri	J1 u 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
 Uplist not to be treated with fire retardant or corre

chemicals

Handling & Installation

landling & Installation

Libist flenges must not be cut or drilled

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

Demaged IJoist must not be used

Design assumes top flenge to be laterally restrained by attached sheathing 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 lent—bear 3.5 Inches
 For flat roofs provide READ ALL NOTES C

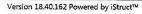
READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT **CONTAINS SPECIFICATIONS AND CRITERIA USED** IN THE DESIGN OF THIS COMPONENT.

Manufacturer Info

Nascor by Kott

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









GREENPARK

Project: Address: Date:

8/20/2018

RCO Designer:

Job Name: MILLWOOD 12-1

Project #

Brg

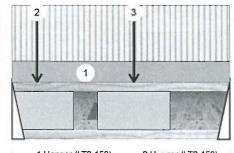
1

2

Hanger

2-Ply - PASSED NJ 9.500"

Level: Ground Floor



1 Hanger (LT2-159) 2 Hanger (LT2-159)



Wind

0

0

Page 1 of 1

Member Information Type: 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 15 PSF Dead:

Bearing	s and Fac	tored I	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-	2.000"	18%	110 / 354	465	L	1.25D+1.5L

Unfactored Reactions UNPATTERNED Ib (Uplift)

Dead

134

88

Snow

0

0

Live

358

236

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 1'8 1/8" 0.093 (L/360) 0.020 (2%) D Uniform (L/23286) LL Defl inch 0.004 (L/8709) 1'8 1/8" 0.093 (L/360) 0.040 (4%) L TL Defl inch 0.005 (L/6339) 1'8 1/8" 0.140 (L/240) 0.040 (4%) D+L

Design Notes

- 1 Fill all hanger nailing holes.
- 2 Girders are designed to be supported on the bottom edge only.
- 3 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.

TO WOE OF ONTER
August 21, 2018
 Comments

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	13
3	Point	1-8-2		Far Face	111 lb	297 lb	0 lb		u 柠aming Squash Block is at all point loads over bearings

Refer to Multiple Member Connection

Detail for ply to ply nailing or bolting requirements

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the dealgn 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
 Use to be treated with fire retardant or corresponding to the contract of the contract

Handling & Installation

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

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

This design is

Manufacturer Info

Nascor by Kott

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 14A 7X4 905-642-4400

T.L. WISE 100083566

100083566





Client: GREENPARK

Project: Address:

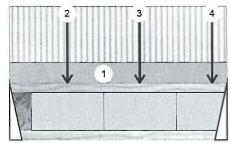
Date: 8/20/2018 Designer: RCO

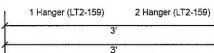
Job Name: MILLWOOD 12-1

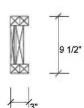
Project #:

2-Ply - PASSED NJ 9.500"

Level: Ground Floor







Page 1 of 1

Member 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		

Analysis Results									
Analysis	Actual	Location	Allowed	Capacity	Comb.	Case			
Moment	596 ft-lb	1'9 9/16"	7340 ft-lb	0.081 (8%)	1.25D+1.5L	L			
Unbraced	596 ft-lb	1'9 9/16"	4678 ft-lb	0.127 (13%)	1.25D+1.5L	L			
Shear	911 lb	2'10 3/4"	3080 lb	0.296 (30%)	1.25D+1.5L	L			
Perm Defl in	. 0.002 (L/19334)	1'8 15/16"	0.093 (L/360)	0.020 (2%)	D	Uniform			

1'8 7/8" 0.093 (L/360) 0.050 (5%) L

1'8 7/8" 0.140 (L/240) 0.050 (5%) D+L

Design Notes

1 Fill all hanger nailing holes.

LL Defl inch 0.005 (L/7254)

TL Defl inch 0.006 (L/5275)

- 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.

Unfactored	Reactions	UNPATTERNE) lb	(Uplift)
		MACHINE TO STATE OF THE STATE O		

Brg	Live	Dead	Snow	Wind
1	370	139	0	0
2	466	175	0	0

Bearings and Factored Reactions

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

Wind

0 PSF 0 lb J9



August 21, 2018

L	6 Bottom liange	braced at bearings.							
	ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	
	1	Tie-In	0-0-0 to 3-0-0	(Span)1-8-15	Тор	15 PSF	40 PSF	0 PSF	
	2	Point	0-9-9		Near Face	100 lb	268 lb	0 lb	
	3	Point	1-9-9		Near Face	105 lb	279 lb	0 lb	F
	4	Point	2-9-9		Near Face	69 lb	185 lb	0 lb	r

Pass-Thru Framing 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

Notes

Colcutated Structured Designs is responsible only of the structural adequacy of this component based on the dealign 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 dimensalons and loads. Lumber

Dry service conditions, unless noted otherwise
 Doist not to be treated with fire retardant or corresponding to the contract of the co

Handling & Installation

ARGUING & INSCRIBATION

Local flags seems to the cut or drilled

Refer to latest copy of the Locist product information
details for framing details, stiffener tables, web hole
chart, bridging details, multi-lay frastening details and
handling/erection details

Demaged Loists must not be used

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

Provide lateral support at bearing points to avoid lateral displacement and rotation
 Web stiffeness for point load as shown Minimum point load bearing len 19=3.5 inches
 For flat roofs provid

L

This design is v

Nascor by Kott

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

Manufacturer Info

IN THE DESIGN OF THIS COMPONENT.

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







Client:

GREENPARK

Project: Address: Date:

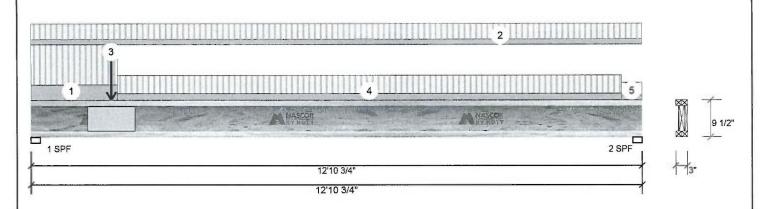
8/20/2018

RCO Designer: MILLWOOD 12-1 Job Name:

Project #:

2-Ply - PASSED NJ 9.500"

Level: Ground Floor



Member Info	ember Information				Unfactored Reactions UNPATTERNED Ib (Uplift)					
Type:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snov	V	Wind
Plies:	2	Design Method:	LSD	1	612		229		0	0
Moisture Condition	on: Dry	Building Code:	NBCC 2010 / OBC 2012	2	374		140		0	0
Deflection LL:	360	Load Sharing:	No							
Deflection TL:	240	Deck:	Not Checked	1						
Importance:	Normal	Vibration:	Not Checked							
General Load										
Floor Live:	40 PSF			Bearings a	and Fact	ored I	Reactions			
Dead:	15 PSF			Bearing L	ength.	Cap.	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

_	-							
Г	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case	
l	Moment	2525 ft-lb	5'9 7/8"	7340 ft-1b	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.

Load Type

Tie-In

Tie-In

Point

Tie-In

Tie-In

4 Top flange must be laterally braced at a maximum of 4'2" o.c.

5 Bottom flange braced at bearings.



0 PSF	
0 PSF	
0 lb	F4
0 PSF ss-Thru	Framing Squash Block is

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

reguired at all point loads over bearings

Comments

Notes

ID

1

2

3

4

5

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

Handling & Installation

Location

1-8-6

12-5-10 to

12-10-12

0-0-0 to 1-9-14

0-0-0 to 12-10-12

1-9-14 to 12-5-10

Trib Width

(Span)3-3-0

(Span)1-5-6

(Span)1-0-4

(Span)1-2-10 Top

Side

Top

Top

Top

Far Face

annuing & Installation

Joist flanges must not be cut or drilled

Refer to latest copy of the Upist product information details for framing details, stiffener tables, web hole-bart, bridging details, multi-byl pastenling details and handling/erection details

Demaged Libits must not be used

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

This design is

Dead

15 PSF

15 PSF

15 PSF

15 PSF

88 lb

Live

40 PSF

40 PSF

236 lb

40 PSF

40 PSF

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

Manufacturer Info Nascor by Kott

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.

Snow

0 PSF

0 PSF

0 PSF

0 PSF

0 lb

Wind

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





GREENPARK

Client: Project: Address: Date:

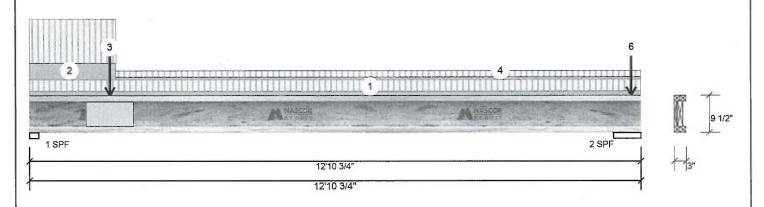
8/20/2018 **RCO**

Designer: Job Name: MILLWOOD 12-1

Project #:

2-Ply - PASSED NJ 9.500"

Level: Ground Floor



Member Inform	Nember Information					Unfactored Reactions UNPATTERNED Ib (Uplift)					
Туре:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow	Wind			
Plies:	2	Design Method:	LSD	1	574	215	0	0			
Moisture Condition	: Dry	Building Code:	NBCC 2010 / OBC 2012	2	400	203	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	and Fact	ored Reactions					
Dead:	15 PSF			Bearing L	ength	Cap. React D/L lb	Total Ld. Case	Ld. Comb.			
				1-SPF 2	.375"	42% 269 / 861	1130 L	1.25D+1.5L			

2 - SPF 6.875"

28%

254 / 600

Wind

0 PSF 0 PSF 854 L

Analysis Results

-							
	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.



1.25D+1.5L

August 21, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	_
1	Tie-In	0-0-0 to 12-10-12	(Span)0-10-6	Тор	15 PSF	40 PSF	0 PSF	
2	Tie-In	0-0-0 to 1-9-14	(Span)3-3-0	Тор	15 PSF	40 PSF	0 PSF	
3	Point	1-8-6		Near Face	134 lb	358 lb	0 lb	
4	Tie-In	1-9-14 to 12-10-12	(Span)0-5-10	Тор	15 PSF	40 PSF	0 PSF	
5	Point	12-8-6		Тор	64 lb	171 lb	0 lb	
6	Point	12-8-6		Тор	53 lb	0 lb	0 lb	

0 lb F4 Passe Faru Framing Squash Block is required at all point loads over bearings

Comments

Refercto Multipse Weighter Connection Detail for ply to ply nailing or bolting requirements

Notes

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

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

chemicals

Handling & Installation

- Handling & Installation

 1. Juleit flenges must not be cut or drilled

 2. Refer to latest copy of the Juleit product information details for framing details, stifferen tables, web hole chart, bridging details, multi-ply festening defails and handling/erection details

 3. Damaged Juleits must not be used

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

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

Manufacturer Info

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

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



This design is





Client: **GREENPARK**

Project: Address: Date:

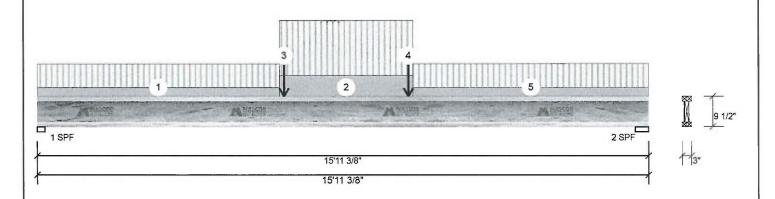
8/20/2018 **RCO**

Designer: Job Name: MILLWOOD 12-1

Project #:

2-Ply - PASSED NJ 9.500"

Level: Ground Floor



Member Infor	mation			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 Conditio	n: Dry	Building Code:	NBCC 2010 / OBC 2012	2	274		103	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			Bearings a	and Fact	ored R	leactions		
Dead:	15 PSF			Bearing L	ength	Cap.	React D/L lb	Total Ld. Case	Ld. Comb.
		8		1 - SPF 2	2.375"	19%	125 / 399	523 L	1.25D+1.5L
				2-SPF 4	1.125"	18%	128 / 411	539 L	1.25D+1.5L

-		_	
Ana	VSIS	Resu	lts

	,						
	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
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.

Load Type

Tie-In

Tie-In

Point

Point

Tie-In

4 Top flange must be laterally braced at a maximum of 4' o.c.

5 Bottom flange braced at bearings.



Wind	Сопшень
0 PSF	
0 PSF	
0 lb	F3
0 lb	E3 I Framing Squash Block is

required at all point loads over bearings Refer to Multiple Member Connection Detail for ply to ply nailing or bolting

Notes

ID

1 2

3

4

5

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 continuous.

Handling & Installation

Location

9-8-6

9-9-14 to 15-11-6 (Span)0-8-15 Top

0-0-0 to 6-3-14

6-3-14 to 9-9-14

Trib Width

(Span)0-8-15 Top

(Span)1-8-15 Top

Near Face

Near Face

Liditaling & Installation.

Lidist flanges must not be cut or drilled.
Refer to latest copy of the Lidist product Information details for framing details, sufferier tables, web hote-bart, bridging details, multi-ley) tastening details and handling/erection details.

Demaged Lidist 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
 Ten flat rote strought

This design is va

Dead

15 PSF

15 PSF

44 lb

43 lb

15 PSF

Live

40 PSF

40 PSF

118 lb

114 lb

40 PSF

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

Manufacturer Info

Nascor by Kott

Snow

0 PSF

0 PSF

0 lb

0 lb

0 PSF

0

0

requirements

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





Client:

Project: Address: Date:

8/20/2018

RCO Designer:

MILLWOOD 12-1 Job Name:

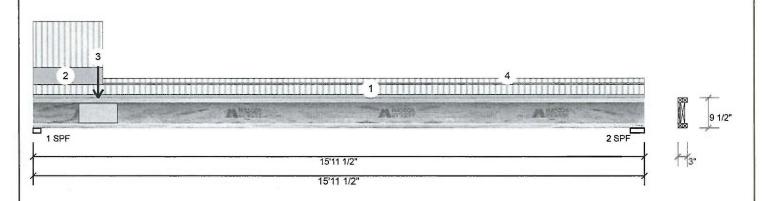
Project #:

NJ 9.500"

2-Ply - PASSED

GREENPARK

Level: Ground Floor



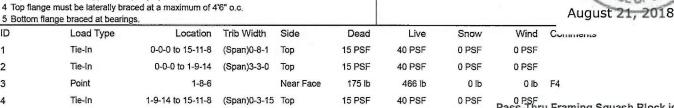
/lember Info	rmation			Unfactor	ed React	tions U	NPATTERNI	ED lb (Uplift)	
Type:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snov	v	Wind
Plies:	2	Design Method:	LSD	1	678		255	11.0	0	0
Moisture Conditi	on: Dry	Building Code:	NBCC 2010 / OBC 2012	2	214		80		0	0
Deflection LL:	360	Load Sharing:	No							
Deflection TL:	240	Deck:	Not Checked							
Importance:	Normal	Vibration:	Not Checked							
General Load										
Floor Live:	40 PSF			Bearings	and Fac	tored l	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

L.							
Г	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
l	Moment	2119 ft-lb	5'3 3/8"	7340 ft-lb	0.289 (29%)	1.25D+1.5L	L
l	Unbraced	2119 ft-lb	5'3 3/8"	2138 ft-lb	0.991 (99%)	1.25D+1.5L	L
l	Shear	1315 lb	1 5/8"	3080 lb	0.427 (43%)	1.25D+1.5L	L
l	Perm Defl in.	0.067 (L/2766)	7'4"	0.517 (L/360)	0.130 (13%)	D	Uniform
l	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
m							

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.



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

T.L. WISE

100083566

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

ID

1

2

3

1

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

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

Handling & Installation

- Handling & Installation

 1. Uoist flarges must not be cut or drilled

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

 3. Damaged lobists must not be used

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

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

Web stiffeners for point load as shown Minimum point load bearing len. 1>= 3.5 inches
 For flat roofs provid READ ALL NOTES O

Nascor by Kott

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

Kott Lumber Company 14 Anderson Bivd, Ontario Canada L4A 7X4 Manufacturer Info



Client: **GREENPARK**

Project: Address: Date:

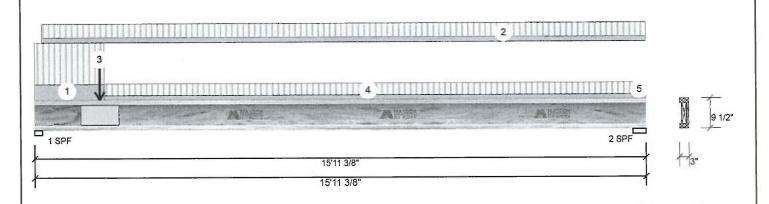
8/20/2018

RCO Designer: Job Name: MILLWOOD 12-1

Project #:

2-Ply - PASSED 9.500" NJ

Level: Ground Floor



lember Inforn	ember Information					Unfactored Reactions UNPATTERNED Ib (Uplift)					
Type:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snov	N	Wind	
Plies:	2	Design Method:	LSD	1	725		272		0	0	
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012	2	361		135		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			Bearing	s and Fac	tored R	leactions				
Dead:	15 PSF			Bearing	Length	Cap.	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.



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Соппень
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	u Framing Squash Block is
5	Tie-In	15-7-4 to 15-11-6	(Span)0-6-13	Тор	15 PSF	40 PSF	0 PSF	req@iP&a	at all point loads over bearings

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

Notes

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

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

Handling & Installation

- Handling & Installation

 1. Jloist finges must not be cut or drilled

 2. Refer to latest copy of the Ljoist product information
 details for framing details, stiffener tables, web hole
 chart, bridging details, mutil-ply testening details and
 handling/rection details

 3. Demaged Ljoists must not be used

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

Provide lateral support at bearing points to avoid lateral displacement and rotation
 Web stiffeners for point load as shown Minimum point load bearing en-the-3.5 inches
 For flat roofs 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

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

This design is v





Client: Project: Address: **GREENPARK**

8/20/2018 Date:

RCO Designer:

Job Name: MILLWOOD 12-1 (WOD)

Project #:

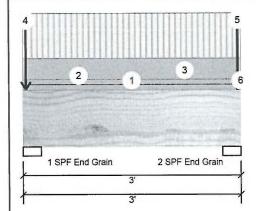
Brg

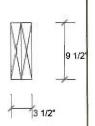
2

Grain

Forex 2.0E-3000Fb LVL

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





Wind

0

0

Ld. Comb.

1.25D+1.5L

1.25D+1.5L +0.58

+0.58

Page 1 of 2

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		

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

Live

1075

1075

Unfactored Reactions UNPATTERNED lb (Uplift)

Dead

839

839

Snow

127

127

2725 L 1-SPF 3.000" 1049 / 1676 End Grain 2-SPF 3.000" 35% 1049 / 1676 2725 L End

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	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.

/ Lateral s	sienderness ratio based of									
ID	Load Type	Location T	rib Width	Side	Dead	Live	Snow	Wind	Comments	
1	Part, Uniform	0-0-0 to 3-0-0		Тор	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight	
2	Part. Uniform	0-0-0 to 3-0-0		Near Face	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight	
3	Part. Uniform	0-0-0 to 3-0-0		Near Face	164 PLF	348 PLF	0 PLF	0 PLF	J7	
Continued or	page 2									

Notes

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 Intended application, and to verify the dimensions and loads. Lumber

Handling & Installation

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

For flat roofs provide proper drainage to prevent ponding

Forex APA: PR-L318

Manufacturer Info

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

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

T.L. WISE 100083566

100083566

August 21, 2018







Client: Project: Address: **GREENPARK**

8/20/2018

RCO

Page 2 of 2

Designer: Job Name: MILLWOOD 12-1 (WOD)

Project #:

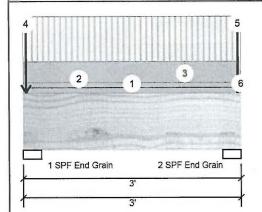
Date:

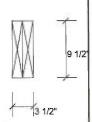
Forex 2.0E-3000Fb LVL

1.750" X 9.500"

2-Ply - PASSED

Level: Ground Floor





Continued from	m page 1								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
4	Point	0-0-8		Тор	462 lb	553 lb	127 lb	0 lb	Header Column Header Column
5	Point	2-11-8		Тор	462 lb	553 lb	127 lb	0 16	Header Column Header Column
6	Part. Uniform	3-0-0 to 3-0-0		Near Face	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
	Self Weight				8 PLF				

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

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

Notes

Lumber

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

For flat roofs provide proper drainage to preven ponding

This design is valid until 7/10/2021

Manufacturer Info Forex

APA: PR-L318

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



Client: Project:

Address:

GREENPARK

Date:

8/20/2018

Page 1 of 2

Designer: RCO Job Name: MILLWOOD 12-1 (WOD)

Project #:

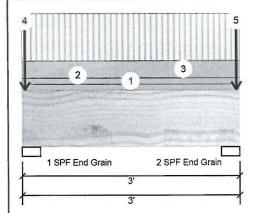
Forex 2.0E-3000Fb LVL

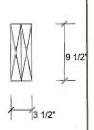
1.750" X 9.500"

2-Ply - PASSED

Brg

1 2 Level: Ground Floor





Wind

0

0

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

Bearings	and	Factored	Reactions

Live

980

980

Unfactored Reactions UNPATTERNED Ib (Uplift)

Dead

704

704

Snow

127

127

Dear 1119.	o dila i de		Ted care in			
Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	31%	881 / 1533	2413	L	1.25D+1.5L +0.5S
2 - SPF End Grain	3.000"	31%	881 / 1533	2413	L	1.25D+1.5L +0.5S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
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.

/ Lateral	sienderness ratio based of	n 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
	ID 1 2 3	ID Load Type 1 Part. Uniform 2 Part. Uniform	1 Part. Uniform 0-0-0 to 3-0-0 2 Part. Uniform 0-0-0 to 3-0-0	ID Load Type Location Trib Width 1 Part. Uniform 0-0-0 to 3-0-0 2 Part. Uniform 0-0-0 to 3-0-0	ID Load Type Location Trib Width Side 1 Part. Uniform 0-0-0 to 3-0-0 Top 2 Part. Uniform 0-0-0 to 3-0-0 Near Face	ID Load Type Location Trib Width Side Dead 1 Part. Uniform 0-0-0 to 3-0-0 Top 40 PLF 2 Part. Uniform 0-0-0 to 3-0-0 Near Face 40 PLF	ID Load Type Location Trib Width Side Dead Live 1 Part. Uniform 0-0-0 to 3-0-0 Top 40 PLF 0 PLF 2 Part. Uniform 0-0-0 to 3-0-0 Near Face 40 PLF 0 PLF	ID Load Type Location Trib Width Side Dead Live Snow 1 Part. Uniform 0-0-0 to 3-0-0 Top 40 PLF 0 PLF 0 PLF 2 Part. Uniform 0-0-0 to 3-0-0 Near Face 40 PLF 0 PLF 0 PLF	ID Load Type Location Trib Width Side Dead Live Snow Wind 1 Part. Uniform 0-0-0 to 3-0-0 Top 40 PLF 0 PLF 0 PLF 0 PLF 2 Part. Uniform 0-0-0 to 3-0-0 Near Face 40 PLF 0 PLF 0 PLF 0 PLF

This design

Continued on page 2...

Conclained Structural adequacy of this component based on the design criteria and loadings shown, it is the responsibility of the customer and/or the contractor to ensure the component suitability of the Intended application, and to verify the dimensions and loads.

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

chemicals Handling & Installation

- 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

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



Client: Project: Address: GREENPARK

Date:

8/20/2018

RCO Designer:

Page 2 of 2

Project #:

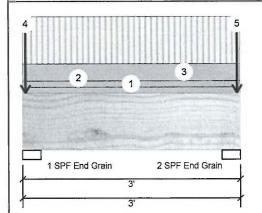
Forex 2.0E-3000Fb LVL FH3-B

1.750" X 9.500"

2-Ply - PASSED

Level: Ground Floor

Job Name: MILLWOOD 12-1 (WOD)



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	d1 0	Header Column Header Column
5	Point	2-11-8		Тор	396 lb	507 lb	127 lb	0 lb	Header Column Header Column
	Self Weight				8 PLF				

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

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

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

LIVL 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 encourage.

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

Manufacturer Info Forex

APA: PR-L318

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

This design is valid until 7/10/2021



Client: Project: Address: GREENPARK

8/20/2018

Page 1 of 2

RCO Designer:

Job Name: MILLWOOD 12-2 (WOD)

Project #:

Date:

Forex 2.0E-3000Fb LVL

1.750" X 9.500"

2-Ply - PASSED

Brg

1

2

End Grain

End Grain

2-SPF 3.000"

Level: Ground Floor

Unfactored Reactions UNPATTERNED Ib (Uplift)

35%

Dead

827

827

1034 / 1676

Snow

127

127

T.L. WISE 100083566

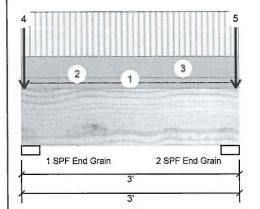
100083566

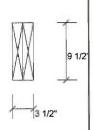
NCE OF ON

August 21, 2018

Comments Wall Self Weight

Wall Self Weight





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		

Bearings	and Fac	tored F	Reactions
Bearing	Length	Cap.	React D/L lb
1-SPF	3.000"	35%	1034 / 1676

Live

1075

1075

Total	Ld. Case	Ld. Comb.	
2710	L	1.25D+1.5L +0.5S	
2710	L	1.25D+1.5L +0.5S	

Wind

0

0

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	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.

0-0-0 to 3-0-0

0-0-0 to 3-0-0

- 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.

Part. Uniform

5 Top bra	ced at bearings.							
6 Bottom	braced at bearings.			W				
7 Lateral	slenderness ratio based o	n full section width.	Sacran I					
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind
1	Part. Uniform	0-0-0 to 3-0-0		Тор	40 PLF	0 PLF	0 PLF	0 PLF

Near Face

Near Face

Part. Uniform Continued on page 2...

Notes

2

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design critieria 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 con

Handling & Installation

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

 Damaged Beams must not be used

 Design assumes top edge is laterally restrained

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

40 PLF

164 PLF

0 PLF

348 PLF

Manufacturer Info Forex

0 PLF

J7

APA: PR-L318

0 PLF

0 PLF

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



This design is valid until 7/10/2021





Client: Address:

GREENPARK Project:

Date:

8/20/2018

RCO Designer:

Job Name: MILLWOOD 12-2 (WOD)

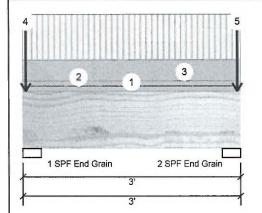
Project #:

Forex 2.0E-3000Fb LVL

1.750" X 9.500"

2-Ply - PASSED

Level: Ground Floor



9 1/2

Page 2 of 2

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

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and losdings 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 con

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. Damagad Beams must not be used

4. Design assumes top adge 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

This design is valid until 7/10/2021

Manufacturer Info

Forex APA: PR-L318

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

Forex 2.0E-3000Fb LVL

isDesign™

Client: Project: Address: **GREENPARK**

Date:

8/20/2018

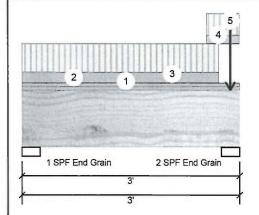
Designer: **RCO** Page 1 of 2

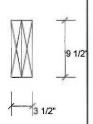
Job Name: MILLWOOD 12-2 (WOD)

Project #:

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		
Dead:	15 PSF	1	

Bearings	and Fac	tored Reactions	
Bearing	Length	Cap. React D/L lb	То

Live

471

987

Ld. Comb. otal Ld. Case 1-SPF 3.000" 385 / 706 1091 L 1.25D+1.5L

End Grain

Brg

1

2

2-SPF 3.000" 31% 872 / 1544 2416 L End Grain

Unfactored Reactions UNPATTERNED lb (Uplift)

Dead

308

Snow

0

127

1.25D+1.5L +0.5S

Wind

0

0

Analysis Results

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

Design Notes

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

/ Lateral	sienderness rado based o	n tuli 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 2-8-9		Near Face	117 PLF	312 PLF	0 PLF	0 PLF	J6
Continued or	n page 2								

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

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 APA: PR-L318

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

T.L. WISE 100083566

100083566

August 21, 2018

This design is valid until 7/10/2021



Client: Project:

Address:

GREENPARK

Date:

8/20/2018

RCO

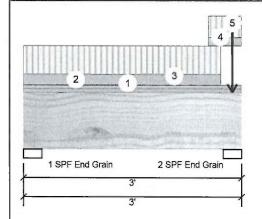
Page 2 of 2

Designer: Job Name: MILLWOOD 12-2 (WOD) Project #:

FH2-B Forex 2.0E-3000Fb LVL 1.750" X 9.500"

2-Ply - PASSED

Level: Ground Floor



9 1/2

Continued	from	page	1

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

Self Weight 8 PLF

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

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

Handling & Installation

Handling & Installation

1. LVL beams must not be cut or drilled

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

3. Damaged Beams must not be used

4. Design assumes top edge is laterally restrained

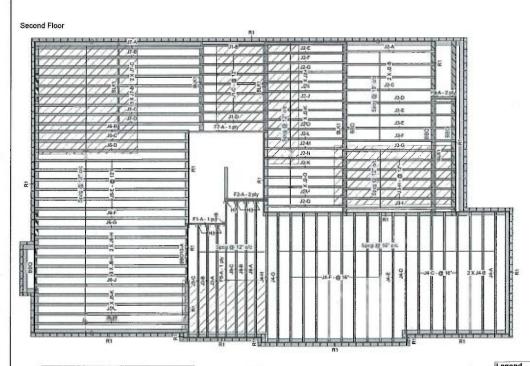
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info Forex APA: PR-L318

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

This design is valid until 7/10/2021



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 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)

LVL/LSI	L (Flush)							DIACCOL
	Description	Width	Depth	Qty	Plies	Pcs	Length	NASCO
	Forex 2.0E-3000Fb LVL	1.75	9.5			1	16-0-0	
	Forex 2.0E-3000Fb LVL	1.75	9.5			1	10-0-0	Layout Name MILLY/OOD 12-2
	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	6-0-0	Design Method
	Forex 2.0E-3000Fb L.VL	1,75	9.5			1	6-0-0	Description
	Forex 2.0E-3000Fb LVŁ	1.75	9.5	1	2	2	4-0-0	MINNISALE HOMES BRAMPTON, ONT.
LVL/LSI	L (Dropped)							Created
Label	Description	Width	Depth	Qty	Plies	Pcs	Length	June 28, 2018
BBO10	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	8-0-0	Builder GREENPARK
Joist (Flush)							
Label	Description	Width	Depth	Qty	Plies	Pcs	Length	Sales Rep
J7	NJ60U	35	9.5			9	18-0-0	RM
J6	NJ60U	35	9.5			21	16-0-0	Designer
	HUM	25	9.5			3	16-0-0	RCO
J4	HLM	2.5	9.5			19	14-0-0	Shipping
J3	NJH	2.5	9.5			14	12-0-0	
J2	HLM	2.5	9.5			22	10-0-0	Project
	HUM	2.5	9.5			9	8-0-0	Builder's Project
Rim Bo								Kott Lumber Company
Label	Description	Width	Depth	Qty	Plies	Pcs	Length	14 Anderson Blvd
	Norbord Rimboard Plus 1.125 X 9.5	1.125	9.5			18	12	Stouffville, Ontario
Blocking	g							
	Description	Width	Depth	Qty	Plies	Pcs	Length	L4A 7X4 905-642-4400
Label		25	9.5	LinFl		Varies	38-0-0	

					Beam/Girder	Member
abel	Pcs	Description	Skew	Slope	fasteners	fasteners
НЗ	- 6	LT259			4 10dx1 1/2	2 10dx1 1/2
H6	1	HUS1.81/10			30 16d	10 16d
H7 -	1	HUCO1.81/9-				
OTES		SDS				

- Framer to verify dimensions on the architectural drawings.
 Double joist only require fillenbacker ply when supporting another member using a face-mounted hanger.
- anoure memoer using a race-mounted nanger.

 3. Install 2x4 blocking @ 24* o/c under parallel non-load bearing walls.

 4. Install single-ply flush window header along inside face of rimboard/rimjoist.
- nimboard/irrigiotal.

 5. Refer lo Nascor specifier guide for installation works.

 6. Squash blocks recommended to be installed at end bearing on all first level josts which support loading from above exceeding two levels 'foor or root.'

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

 6. It shall be the framer's responsibility that foor joists and beams are fastened as per the hanger moundanture's standards.

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

Rim parallel to joists: 1-1/8* rimboard with 2*x 4* block (1/16* longer than rim depth @ 16* ck). 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.

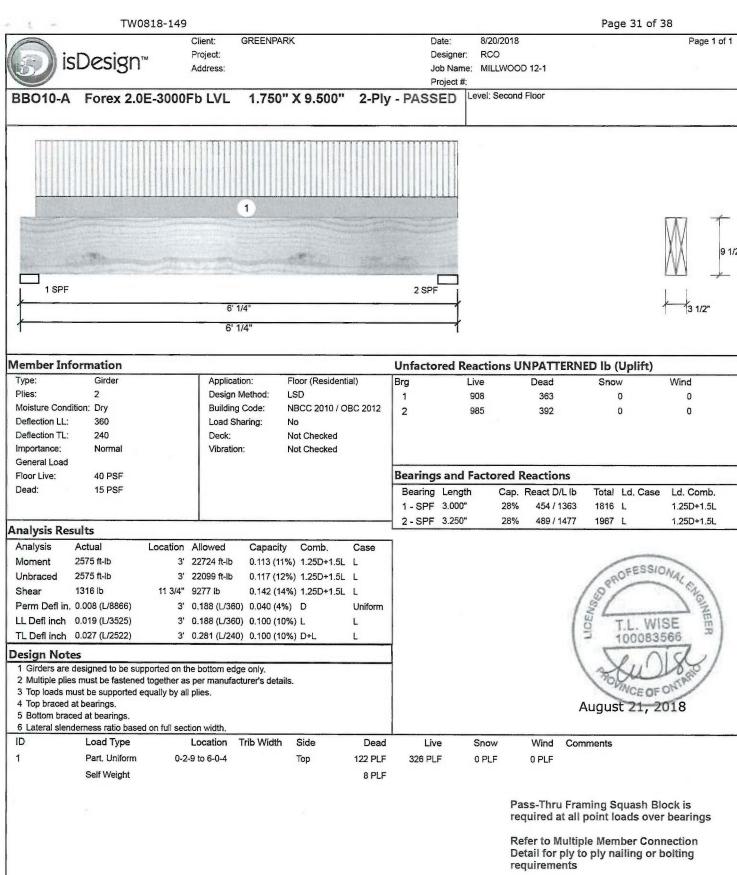
Halch area represents ceramic bled floor with an additional dead load of 5 PSF

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

ARCHITECTURAL DRAWINGS:

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

16-0-0 Layout Name MILLWOOD 12-2 6-0-0 Design Method LSD Description MINISALE HOMES BRAMPTON, ONT. Created ength share 28, 2018	
MILLWOOD 12-2 6-0-0 Design Method LSD Description Description MINNISALE HOMES BRAMPTON, ONT. Created	
MILLWOOD 12-2 6-0-0 Design Method LSD Description Description MINNISALE HOMES BRAMPTON, ONT. Created	
6-0-0 Design Method LSD Description A-0-0 MINNISALE HOMES BRAMPTON, ONT. Created	
6-0-0 LSD Description	
6-0-0 Description 4-0-0 MINNISALE HOMES BRAMPTON, ONT. Created	
4-0-0 MINNISALE HOMES BRAMPTON, ONT. Created	-
BRAMPTON, ONT. Created	
Created	
	-
000	_
Builder	
GREENPARK	
ength Sales Rep	
8-0-0 RM	
6-0-0 Designer	
6-0-0 RCO	
4-0-0 Shipping	_
2-0-0	
0-0-0 Project	-
8-0-0 Builder's Project	
Kott Lumber Company	
14 Anderson Blvd	
Stoutfville, Ontano	
Canada	
ength L4A 7X4	
905-642-4400	
Job Path	
orted S.1CUSTOMERS/GREENPARK	
ber WINNISALE HOMESWODELS WILLWOOD 12WILLWOOD12-2	
IELOOPIDEMAIILLIVOOD 12-7 is	1
1 1/2	-
6d Second Floor	D.
Second Floor Design Method	
6d Second Floor	G
Design Method LS Building Code NBCC 2010 / OB	G
Second Floor Design Method LS Building Code NBCC 2010 / OB 20	G
Second Floor Design Method Ls Building Code NBCC 2010 / OR 20 Floor Loads	G
Second Floor Design Method Ls Building Code NBCC 2010 / 05 Floor Loads Live	IG 12
Second Floor Design Method Ls Building Code NBCC 2010 / 05 Floor Loads Live	1G 12 40
8d Second Floor Design Method Using Code NBCC 2010 / OE Floor Loads Live Dead Deflection Joist LL Span I/ 4	1G 12 40 15
Second Floor Design Method L5 Building Code NBCC 2010 / OE Floor Loads Live Dead Deflection Joist LL Span L/ 4 TL Span L/ 3	1G 12 40 15
Second Floor Design Method L5 Building Code NBCC 2010 / OE Floor Loads Live Dead Deflection Joist LL Span L/ 4 TL Span L/ 3	1G 12 40 15
Second Floor	1G 12 40 15
Second Floor Design Method LS	1G 112 40 40 115 80 80 80
Second Floor Design Method LS	40 40 15 80 80 80
Second Floor	1G 12 40 40 15 80 80 80 80
Second Floor Design Method LS	1G 112 40 40 115 80 80 80 80
Second Floor Design Method LS	1G 12 40 40 15 80 80 80 80
Second Floor Design Method L5	40 40 40 45 50 50 50 60 60 60 60
Second Floor Design Method LS	40 40 40 45 50 50 50 60 60 60 60
Second Floor Design Method LS	40 40 40 45 50 50 50 60 60 60 60
Second Floor Design Method LS	1G 112 40 40 115 30 60 80 60 80 60 60 60 60 60 60 60 60 60 60 60 60 60
Second Floor	1G 112 40 40 115 30 60 80 60 80 60 60 60 60 60 60 60 60 60 60 60 60 60



Notes

Lumber

chemicals

Handling & Installation

LVL beams must not be cut or drilled

Refer to manufacturer's product information
regerding 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







GREENPARK Client:

Project: Address:

Date:

8/20/2018

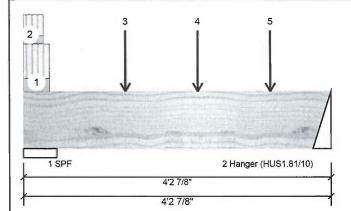
Designer: **RCO**

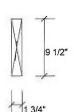
MILLWOOD 12-1 Job Name:

Project #:

Forex 2.0E-3000Fb LVL

1.750" X 9.500" - PASSED Level: Second Floor





Page 1 of 1

Member Info	rmation		
Туре:	Girder	Application:	Floor (Residential)
Plies:	1	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		

Unfactored Reactions UNPATTERNED Ib (Uplift)						
Brg	Live	Dead	Snow	Wind		
1	323	136	0	0		
2	371	155	0	0		

Bearing Length 1 - SPF 5.500" 2 -

3.000"

Hanger

Bearings and Factored Reactions Cap. React D/L lb Ld. Comb. Total Ld. Case 655 L 11% 170 / 485 1.25D+1.5L 19% 193 / 557 750 L 1.25D+1.5L

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

Design Notes

Dead:

1 Fill all hanger nailing holes.

15 PSF

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

OPROFESSIONAL EL	
T.L. WISE 100083566	
1 Su 180/	
August 21, 2018	

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

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

Notes

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

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

chemicals Handling & Installation

- maged Beams must not be used

For flat roofs provide proper drainage to prevent conding

This design is va

Manufacturer Info Forex APA: PR-L318

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

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

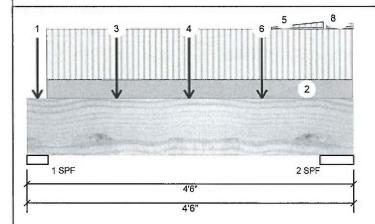
Designer: RCO

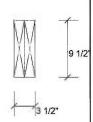
MILLWOOD 12-1 Job Name:

Project #:

Forex 2.0E-3000Fb LVL

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





Page 1 of 2

B #		- 7				
IVIE	emb	er II	nto	rma	tioit	٦
IAIC			110	111110	LIVE	

Type:	Girder
Plies;	2
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal
General Load	
Floor Live:	40 PSF

15 PSF

Application: Floor (Residential) Design Method:

Building Code: NBCC 2010 / OBC 2012

Load Sharing: No Not Checked Deck:

Vibration: Not Checked

Unfactored Reactions UNPATTERNED Ib (Uplift)

Brg	Live	Dead	Snow	Wind
1	1581	661	0	0
2	1014	404	0	0

Bearings and Factored Reactions

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

Analysis Results

Dead:

•	many sis ites	car co					
	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.

10	ROFESSIONAL	/
ENSE	T.L. WISE	MEE
1 7	100083566	
135	WCE OF ONT	

August 21, 2018

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

Continued on page 2...

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

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

Handling & Installation

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

approvals

Damaged Beams must not be used

Design assumes top edge is laterally restrained

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

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™





GREENPARK

Project: Address: Date:

8/20/2018

RCO

Page 2 of 2

Designer: Job Name: MILLWOOD 12-1

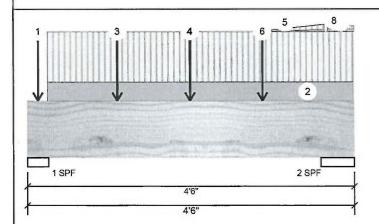
Project #:

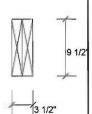
Forex 2.0E-3000Fb LVL

1.750" X 9.500"

2-Ply - PASSED

Level: Second Floor





Continued	from	page	1
-----------	------	------	---

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

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

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

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

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

This design is valid until 7/10/2021

Forex APA: PR-L318

Manufacturer Info

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

Version 18.40.162 Powered by iStruct™





GREENPARK

Project: Address: Date:

8/20/2018

Designer: **RCO** Page 1 of 1

Job Name: Project #:

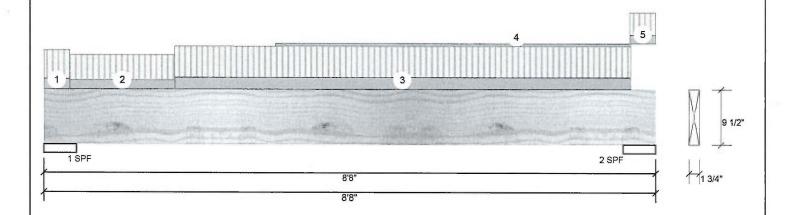
Forex 2.0E-3000Fb LVL

1.750" X 9.500" - PASSED

Level: Second Floor

MILLWOOD 12-1

Unfactored Positions UNDATTERNED In (Unlife)



Melliper Tilloli	nation			Untacto	rea keac	tions U	MPATTEKN	נחוומט) מו עם	
Type:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snow	Wind
Plies:	1	Design Method:	LSD	1	84		51	0	0
Moisture Condition	n: Dry	Building Code:	NBCC 2010 / OBC 2012	2	88		56	0	0
Deflection LL:	360	Load Sharing:	No	1 -					5.
Deflection TL:	240	Deck:	Not Checked	1					
Importance:	Normal	Vibration:	Not Checked	1					
General Load									
Floor Live:	40 PSF	1		Bearings	and Fac	tored l	Reactions		
Dead:	15 PSF			Bearing	Length	Сар.	React D/L lb	Total Ld. Cas	E Ld. Comb.
				1-SPF	5.500"	3%	64 / 127	191 L	1.25D+1.5L
				2-SPF	5.500"	3%	71 / 132	203 L	1.25D+1.5L

		_	_
Ana	22010	Resu	400
MIIA	1 V S I S	vezn	ııs

Member Information

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



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

Load Type

Part. Uniform

Self Weight

Tie-In

Tie-In

Tie-In

Tie-In

esign Note	es					
TL Defl inch	0.013 (L/7043)	4'4 1/4"	0.394 (L/240)	0.030 (3%)	D+L	L
LL Defl inch	0.008 (L/11470)	4'4 1/8"	0.263 (L/360)	0.030 (3%)	L	L
Perm Defl in.	0.005 (L/18245)	4'4 3/8"	0.263 (L/360)	0.020 (2%)	D	Uniform
Shear	150 lb	7'5 3/4"	4638 lb	0.032 (3%)	1.25D+1.5L	L
Unbraced	366 ft-lb	4'4 5/8"	4734 ft-lb	0.077 (8%)	1.25D+1.5L	L
Moment	300 11-10	44 5/6	11362 II-ID	0.032 (3%)	1.25D+1.5L	L

August 21, 2018 Trib Width Side Location Dead Live Wind Snow 0-0-0 to 0-4-6 (Span)0-11-7 Top 15 PSF 40 PSF 0 PSF 0 PSF 0-4-6 to 1-10-4 (Span)0-10-1 Top 15 PSF 40 PSF 0 PSF 0 PSF 1-10-4 to 8-3-12 (Span)1-0-9 Top 15 PSF 40 PSF 0 PSE 0 PSF 3-3-7 to 8-3-12 2 PLF 0 PLF 0 PLF 0 PLF Pass Thru Framing Squash Block is 8-3-10 to 8-8-0 (Span)0-8-15 Top 15 PSF 40 PSF

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

required at all point loads over bearings

ID

1

2

3

5

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

Lumber

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

Handling & Installation

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

5. For flat roofs provide proper drainage to prevent

This design is v

4 PLF

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 905-642-4400

T.L. WISE 100083566

100083566

VINCE OF ON





Project: Address: GREENPARK

Date: Designer:

8/20/2018 RCO

Job Name: MILLWOOD 12-1

Page 1 of 1

Project #

3.000"

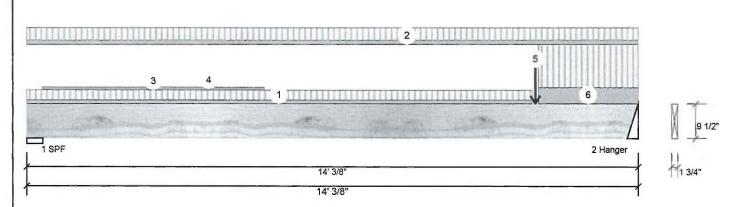
Hanger

38%

391 / 1072

1463 L

1.750" X 9.500" - PASSED Level: Second Floor Forex 2.0E-3000Fb LVL F8-A



Member Info	rmation			Unfactored Reactions UNPATTERNED Ib (Uplift)						
Type:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snow		Wind
Plies:	1	Design Method:	LSD	1	352		182	0		0
Moisture Condition	on: Dry	Building Code:	NBCC 2010 / OBC 2012	2	715		313	0		0
Deflection LL:	360	Load Sharing:	No	_						
Deflection TL:	240	Deck:	Not Checked							
Importance:	Normal	Vibration:	Not Checked							
General Load										
Floor Live:	40 PSF			Bearings a	ind Facto	ored F	Reactions			
Dead:	15 PSF			Bearing Le	ength	Сар.	React D/L lb	Total Ld.	Case	Ld. Comb.
		1		1-SPF 4	.375"	16%	228 / 528	755 L		1.25D+1.5L

Analysis Results Analysis Actual Location Allowed Capacity Comb. Case 8'8" 11362 ft-lb 3003 ft-lb Moment 0.264 (26%) 1.25D+1.5L L 3003 ft-lb Unbraced 8'8" 3005 ft-lb 0.999 1.25D+1.5L L (100%)1266 lb 13' 5/8" 4638 lb 0.273 (27%) 1.25D+1.5L L Shear 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

T.L. WISE 100083566 100083566 INCE OF ONE

1.25D+1.5L

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 b	braced at bearings.												
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments				
1	Tie-In	0-0-0 to 11-7-2	(Span) 0-10-14	Тор	15 PSF	40 PSF	0 PSF	0 PSF					
2	Tie-In	0-0-0 to 14-0-6	(Span)1-1-2	Тор	15 PSF	40 PSF	0 PSF	0 PSF					
3	Part. Uniform	0-4-5 to 5-5-8		Тор	2 PLF	0 PLF	0 PLF	0 PLF					
4	Part. Uniform	0-4-5 to 5-5-8		Тор	3 PLF	0 PLF	0 PLF	Pasg-Fluffru	Pas9-Filtru Framing Squash Block is			अनिर्मात्य Framing Squash Block	
5	Point	11-8-0		Far Face	155 lb	371 lb	0 lb	required a	tall point loads over	bearings			
6	Tie-In	11-8-14 to 14-0-6	(Span) 3-10-13	Тор	15 PSF	40 PSF	0 PSF		Multiple Member Connection				
	Self Weight				4 PLF		Detail for ply to ply nailing or bolting requirements						
4													

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 con

chemicals

Handling & Installation

Handling & Installation

1. IVIL beams must not be cut or drilled

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

3. Demaged Beams must not be used

4. Design assumes top edge is laterally restrained

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

Manufacturer Info Forey

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



GREENPARK Client:

Project: Address:

8/20/2018

RCO Designer:

Job Name: MILLWOOD 12-1

Project #:

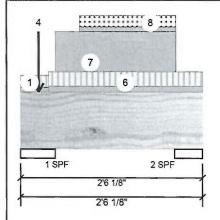
Date:

Forex 2.0E-3000Fb LVL F9-A

1.750" X 9.500"

2-Ply - PASSED

Level: Second Floor



9 1/2

1.25D+1.5L

Page 1 of 2

nation			Unfactor	red Reacti	ons UNPATTERN	ED lb (Uplift)	
Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow	Wind
2	Design Method:	LSD	1	36	129	15	0
Dry	Building Code:	NBCC 2010 / OBC 2012	2	36	98	18	0
360	Load Sharing:	No					
240	Deck:	Not Checked					
Normal	Vibration:	Not Checked					
40 PSF			Bearings	and Fact	ored Reactions		
15 PSF			Bearing	Length	Cap. React D/L lb	Total Ld. Case	Ld. Comb.
			1 - SPF	5.750"	2% 161 / 54	215 L	1.25D+1.5L
	Girder 2 Dry 360 240 Normal	Girder Application: 2 Design Method: Dry Building Code: 360 Load Sharing: 240 Deck: Normal Vibration:	Girder Application: Floor (Residential) 2 Design Method: LSD Dry Building Code: NBCC 2010 / OBC 2012 360 Load Sharing: No 240 Deck: Not Checked Normal Vibration: Not Checked	Girder Application: Floor (Residential) Design Method: LSD 1 Dry Building Code: NBCC 2010 / OBC 2012 360 Load Sharing: No 240 Deck: Not Checked Normal Vibration: Not Checked 40 PSF 15 PSF Bearings	Girder Application: Floor (Residential) Brg Live 2 Design Method: LSD 1 36 Dry Building Code: NBCC 2010 / OBC 2012 2 36 360 Load Sharing: No 2 36 240 Deck: Not Checked Not Checked Normal Vibration: Not Checked Bearings and Fact 40 PSF Bearing Length	Application: Floor (Residential) Brg Live Dead	Application: Floor (Residential) Brg Live Dead Snow

2 - SPF 4.625"

2%

123 / 53

176 L

T.L. WISE 100083566

100083566

August 21, 2018

Analysis Results

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



- 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.

/ Lateral S	ienderness 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 0-4-10	(Span)1-2-5	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-3-0		Тор	1 lb	0 lb	3 lb	0 lb	
3	Point	0-3-0		Тор	18 lb	0 lb	0 lb	0 lb	Wall Self Weight
4	Point	0-3-0		Тор	15 lb	0 lb	0 lb	0 lb	Wall Self Weight
6	Tie-In	0-4-10 to 2-6-2	(Span)1-5-11	Тор	15 PSF	40 PSF	0 PSF	0 PSF	

Continued on page 2...

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 corr

chemicals

Handling & Installation

- landling & Installation.

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

Manufacturer Info Forex

APA: PR-L318

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

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

Version 18.40.162 Powered by iStruct™



isDesign™

Client:

Project:

Address:

GREENPARK

Date:

8/20/2018

Page 2 of 2

RCO Designer:

Job Name: MILLWOOD 12-1

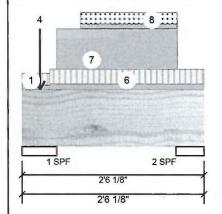
Project #:

Forex 2.0E-3000Fb LVL F9-A

1.750" X 9.500"

2-Ply - PASSED

Level: Second Floor



..Continued from page 1

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	

8 PLF Self Weight

> 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 Ine design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to resure the component suitability of the Intended application, and to verify the dimensions and loads.

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

Handling & Installation

- Handling & Installation

 1. LVL beams must not be cut or drilled

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

 3. Damaged Beams must not be used

 4. Design assumes top edge is literally restrained

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

For flat roofs provide proper drainage to prevent ponding

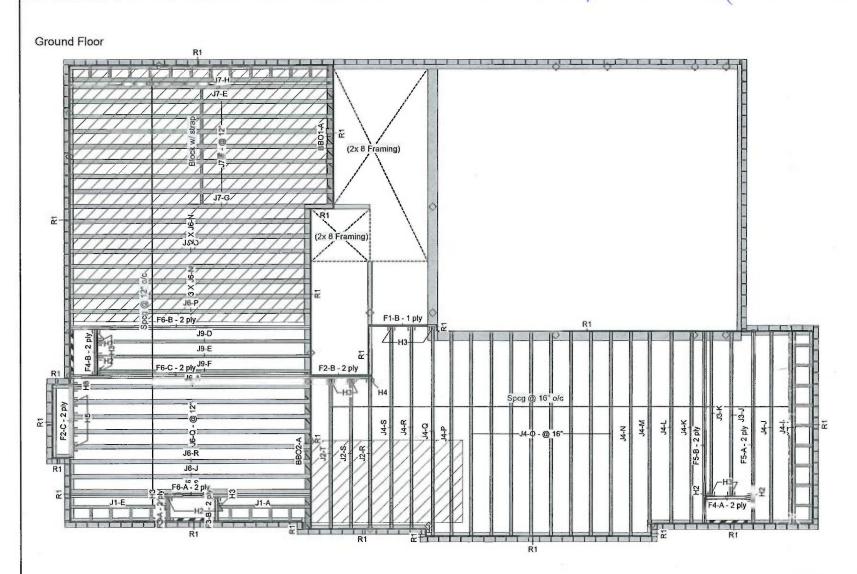
This design is valid until 7/10/2021

Manufacturer Info

Forex APA: PR-L318

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

Version 18.40.162 Powered by iStruct™



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.



Legend

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

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

2. Nascor CCMC - 13535-R

3. LVL CCMC -14056-R

4. CAN/CSA-O86-09

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

CITY OF BRAMPTON BUILDING DIVISION REVIEWED

JAN 0 4 2019

MARY MENETTE

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

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

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

ARCHITECTURAL DRAWINGS:

Ground Floor LVL/LSL (Flush)

F2

F1

Label Description

Forex

Forex

Label Description

Joist (Flush)

F6 NJ

F5 NJ

F4 NJ

F3 NJ

J9

J7 NJ60U

J6 NJ60U

J4 NJH

J3 NJH

J2 NJH

J1 NJH

Label Description

Label Description

Label Pcs Description

6 LT2-159

12 LT259

1 LT259

H5 4 LT359

H8 1 LT359

rimboard/rimjoist.

two levels floor or roof.

Norbord Rimboard

Plus 1.125 X 9.5

Rim Board

R1

Blocking

Hanger

H2

НЗ

H4

NOTES:

BLK1 NJH

2.0E-3000Fb LVL

2.0E-3000Fb LVL

Width Depth

Width Depth

9.5

9.5

9.5

9.5

9.5

9.5

9.5

9.5

9.5

9.5

9.5

9.5

9.5

9.5

Skew Slope

3

2

2

2

2

2

Beam/Girder

fasteners

4 10dx1 1/2

4 10dx1 1/2

4 10d

Supported

Member

fasteners

2 10dx1 1/2

1.75

1.75

1.5

1.5

1.5

1.5

3.5

3.5

2.5

2.5

2.5

2.5

2.5

1.125

1. Framer to verify dimensions on the architectural drawings

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

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

6. Squash blocks recommended to be installed at end bearing on

all first level joists which support loading from above exceeding

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

rim depth @ 16" o/c). All other components and structural elements

foundation walls and footings including anchorage of components and

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

supporting the floor system such as beams, walls, columns, and

bracing for lateral stability are the responsibility of Others.

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

Rim parallel to joists: 1-1/8" rimboard with 2"x 4" block (1/16" longer than

Load transfer blocks to be installed under all point loads.

fastened as per the hanger manufacturer's standards.

another member using a face-mounted hanger.

Refer to Nascor specifier guide for installation works.

Qty Plies Pcs Length 6-0-0 4 Layout Name 6-0-0 MILLWOOD 12-2 Design Method Pcs Length Qty Plies LSD 2 6 16-0-0 Description 4 14-0-0 MINNISALE HOMES BRAMPTON, ONT. 4 4-0-0 4 2-0-0 Created 10 18-0-0 June 28, 2018 15 16-0-0 3 16-0-0 Builder 19 14-0-0 **GREENPARK** 2 12-0-0 Sales Rep 3 10-0-0 RM 2 8-0-0 Designer RCO Width Depth Qty Plies Pcs Length Shipping 15 Project Builder's Project WidthDepthQtyPliesPcsLength2.59.5LinFtVaries33-0-0

Kott Lumber Company

14 Anderson Blvd Stouffville, Ontario Canada L4A 7X4 2 10dx1 1/2 905-642-4400 2 10dx1 1/2

Job Path

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

Ground Floor

LSD Design Method Building Code NBCC 2010 / OBC 2012

40

15

480

360

480

360

360

240

480

360

1"X4", 1 Row at

Floor Loads Live

Dead Deflection Joist LL Span L/ TL Span L/

LL Cant 2L/ TL Cant 2L/

Deflection Girder LL Span L/

TL Span L/ LL Cant 2L/

TL Cant 2L/ Decking

Strapping

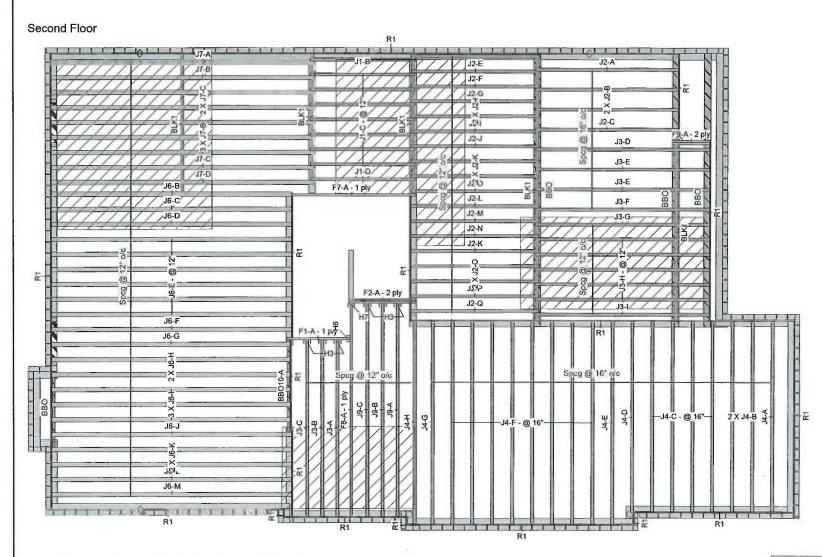
Deck SPF Plywood Thickness 3/4"

Nailed & Glued Fastener Vibration

OT 003

18-411414.000.00 RR

Version 18.40.162 Powered by iStruct™ 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



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.



Legend

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)

P. P. P. P. L.	L (Flush)	BIACC						
	Description	Width	Depth	Qty	Plies	Pcs	Length	NASC
F8	Forex 2.0E-3000Fb LVL	1.75	9.5			1	16-0-0	
F7	Forex 2.0E-3000Fb LVL	1.75	9.5			1	10-0-0	Layout Name MILLWOOD 12-2
F2	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	6-0-0	Design Method LSD
F1	Forex 2.0E-3000Fb LVL	1.75	9.5			1	6-0-0	Description
F9	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	4-0-0	MINNISALE HOMES BRAMPTON, ONT.
LVL/LS	L (Dropped)							Created
Label	Description	Width	Depth	Qty	Plies	Pcs	Length	June 28, 2018
BBO10	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	8-0-0	Builder
I Joist (Flush)							GREENPARK
Label	Description	Width	Depth	Qty	Plies	Pcs	Length	Sales Rep
J7	NJ60U	3.5	9.5			9	18-0-0	RM
J6	NJ60U	3.5	9.5			21	16-0-0	Designer
J9	NJH	2.5	9.5			3	16-0-0	RCO
J4	NJH	2.5	9.5			19	14-0-0	Shipping
J3	NJH	2.5	9.5			14	12-0-0	
J2	NJH	2.5	9.5			22	10-0-0	Project
J1	NJH	2.5	9.5			9	8-0-0	Builder's Project
Rim Bo					_		·	Kott Lumber Co
Label	Description	Width	Depth	Qty	Plies	Pcs	Length	14 Anderson Blvd
R1	Norbord Rimboard Plus 1.125 X 9.5	1.125	9.5			18	12	Stouffville, Ontario
Blockin	g							Canada
Label	Description	Width	Depth	Qty	Plies	Pcs	Length	L4A 7X4
BLK1	NJH	2.5	9.5	LinFt		Varies	38-0-0	905-642-4400
Hanger								Job Path
				Bea	am/Girde		ported ember	S:\CUSTOMERS\GRE \MINNISALE HOMES\I

H7 1 HUCQ1.81/9-NOTES SDS

Skew Slope

fasteners

4 10dx1 1/2

30 16d

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

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

rimboard/rimjoist.
5. Refer to Nascor specifier guide for installation works.

Label Pcs Description

1 HUS1.81/10

H3 6 LT259

H6

Second Floor

 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.

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

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

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

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

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

			OKEEN AN							
Pcs Length			Sales Rep							
9	18-0-	0	RM							
21	16-0-	0	Designer							
3	16-0-	0	RCO							
19	14-0-		Shipping	-						
14	12-0-									
22	10-0-	_	Project							
9	8-0-	0	Builder's Proje	ect						
_			Kott Lumber Company							
Pcs	Lengt		14 Anderson Bl	vd						
18	1	2	Stouffville, Onta	ario						
_		-	Canada							
Pcs	Lengt	h	L4A 7X4							
/aries	38-0-		905-642-4400							
arico	000		Job Path							
Sun	ported	1	, ,	SIGREENPARK						
	mber			OMES\MODELS						
	teners			NMILLWOOD12-2						
	dx1 1/2			AILLWOOD 12-2.isl						
) 16d		Second Floo	r						
			Design Method	LSD						
			Building Code	NBCC 2010 / OBC						
				2012						
		П	Floor							
		П	Loads							
		П	Live	40 15						
		П								
			Deflection Joist							
		П	LL Span L/	480						
			TL Span L/	360						
			LL Cant 2L/	480						
		П	TL Cant 2L/	360						
			Deflection Girder							
			LL Span L/	360						
			TL Span L/	240						
			LL Cant 2L/	480						
ın			TL Cant 2L/	360						
			Decking							
1.1			Deck	SPF Plywood						
			Thickness	5/8"						
			Fastener	Nailed & Glued						
11			Vibration							
			Ceiling:	Gypsum 1/2"						
		0.5								
viation prior			1	A - 17						
			-07	003						

MULTIPLE MEMBER CONNECTIONS

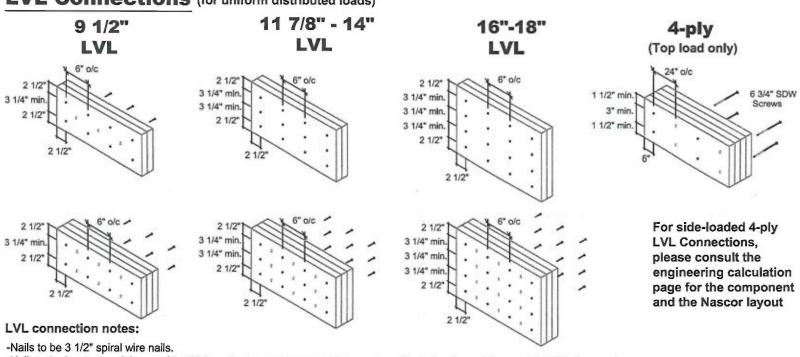
Conventional Connections (for uniform distributed loads)

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

Conventional connection notes:

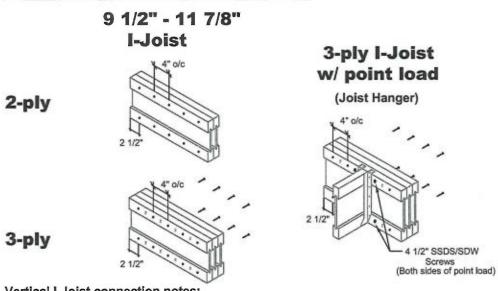
- -Nails to be 3" 10d spiral wire nails.
- -Nails to be located a minimum of 2" from the top and bottom of the member. Start all nails a minimum of 2 1/2" in from ends.
- -Number of rows and spacing as per details shown, unless noted otherwise.
- "X" represents nail driven from the opposite side.

LVL Connections (for uniform distributed loads)



- -Nails to be 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

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

Ex: 613-838-4751