Engineering Note Page (ENP-2)

REVISION 2009-10-09

Please read all notes prior to installation of the component

DESIGN INFORMATION

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

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

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

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

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

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

CODE

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

COMPONENT

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

HANDLING AND INSTALLATION

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

MULTIPLE MEMBER CONNECTIONS

Conventional Connections (for uniform distributed loads)

2-ply

2x6







3-ply









Conventional connection notes:

-Nails to be 3" 10d spiral wire nails.
-Nails to be located a minimum of 2" from the top and bottom of the member. Start all nails a minimum of 2 1/2" in from ends.

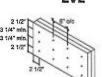
11 7/8" - 14"

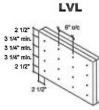
-Number of rows and spacing as per details shown, unless noted otherwise.
- "X" represents nall driven from the opposite side.

LVL Connections (for uniform distributed loads)

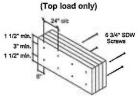
LVL

9 1/2"

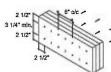


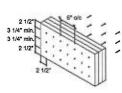


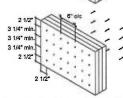
16"-18"



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.

-Mainimum 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



3-ply I-Joist w/ point load



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

3-ply

MULTI -PLY CONNECTION

DETAILS

Vertical I-Joist connection notes:

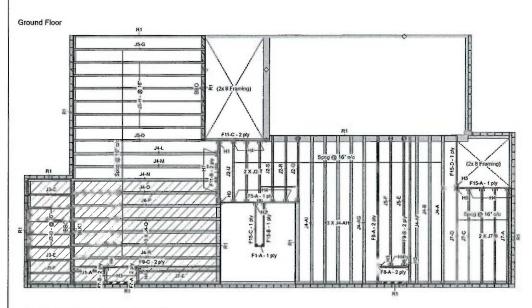
-Nails to be 3" spiral wire nails.

-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 detalls shown, unless noted otherwise.
- "X" represents nail driven from the opposite side.



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



WHERE FOUNDATION WALLS MUST BE LATERALLY SUPPORTED AND NO DETAIL IS PROVIDED BY THE BUILDING DESIGNER, SEE DETAIL U3 IN THE NASCOR SPECIFIER GUIDE

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

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





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

- 1. DBC 2012 O.Reg 332/12 as amended
- 2. Nascor CCMC 13535-R 3. LVL CCMC -14058-R
- 4 CAN/CSA-086-09
- 5. CCMC -12787-R APA PR-L310(C)

Ground							
LVL/LS	L (Flush)						
Label	Description	Widlh	Depth	Qty	Plies	Pcs	Length
F5	Forex 2.0E-3000Fb LVL	1.75	9.5			1	10-0-0
F11	Forex 2.0E-3000Fb LVL	1.75	9.5	2	2	4	8-0-0
F15	Forex 2.0E-3000Fb LVL	1.75	9.5			4	6-0-0
F1	Forex 2.0E-3000Fb LVL	1.75	9.5			1	2-0-0
I Joist (Flush)						
Label	Description	Width	Depth	Qty	Plies	Pcs	Length
F9	NJ	15	9,5	3	2	6	16-0-0
F8	NJ	1.5	9.5	1	2	2	4-0-0
F7	NJ	1.5	9.5	2	2	4	2-0-0
J4	NJ60U	35	9.5			17	16-0-0
J5	NJH	2.5	9.5			10	14-0-0
J7	NJH	2.5	9.5			6	10-0-0
J2	NJH	2.5	9.5			6	8-0-0
J3	NJH	2.5	9.5			7	6-0-0
Jt	NJH	2.5	9.5			1	4-0-0
Rim Bo	ard						
Label	Description	Width	Depth	Qty	Plies	Pcs	Length
R1	Norbord Rimboard Plus 1.125 X 9.5	1.125	9.5			12	12
Blockin	g						
Label	Description	Width	Depth	Oty	Plies	Pcs	Length
BLK1	NJH	2.5	9.5	LinFt		Varies	8-0-0
Hange						-	

						Member	1
Label	Pcs	Description	Skew	Slope	fasteners	fasteners	1
HI	1	HGUS410			46 16d	16 16d	1
H2	2	HUS1.81/10			30 16d	10 16d	1
Н3	4	LT2-159			4 10dx1 1/2	2 10dx1 1/2	1
H4	16	LT259			4 10dx1 1/2	2 10dx1 1/2	1
H5	1	L90					1
H7	4	LT359			4 10d	2 10dx1 1/2	1
H8	1	LT259					1
H9	1	HUCQ1.81/9- SDS]

NOTES:

- 1. Framer to verify dimensic
 2. Double joist only require to another member using a l
 3. Install 2x4 blocking @ 24'
 4. Install single-ply flush win rimboard/inmjoist.
 5. Refer to Nascor specifier.
- Refer to Nascor specifier
 Squash blocks recomment all first level joists which is two levels floor or roof.
 Load transfer blocks to be it shall be the framer's respectively.
- fastened as per the hang

Refer to Multiple Member C

Rim paraflel to joists: 1-1/8* nm depth @ 16" o/c). All observed on the supporting the floor system foundation walls and footing bracing for lateral stability are the responsibility of Others.

Hatch area represents ceramic filed floor with an additional dead load

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

ARCHITECTURAL DRAWINGS:

VA3 DESIGN VA3 DESIGN 255 Consumers Rd., Suite 120, Toronto, ON Date: Rev.5; July 23,2018 Project No: 18012 Model: Hemlock 3

L	1.75	9.5			1	10-0-0	
	1.75	9.5	2	2	4	8-0-0	Layout Name
L							HEMLOCK 3-2
ιl	1.75	9.5			4	6-0-0	Design Method
	1.75	9,5			1	2-0-0	LSD
L							Description
_						,	MINNISALE HOMES CORP. BRAMPTON, ONT.
	Width	Depth	Qty	Plies	Pcs	Length	
_	1.5	9.5	3	2	6	16-0-0	Revised
_	1.5	9.5 9.5	1 2	2	2	2-0-0	August 13, 2018
-	35	9.5		2_	17	16-0-0	Builder
-	2.5	9.5			10	14-0-0	GREENPARK
	2.5	9,5			6	10-0-0	Sales Rep
	2.5	9.5			6	8-0-0	RM
	2.5	9.5			7	6-0-0	Designer
	2.5	9.5			1	4-0-0	RCO
_							Shipping
_	Width	Depth	Qty	Plies	Pcs	Length	Project
rd	1.125	9.5			12	12	Builder's Project
_							Kott Lumber Company
-	Width	Depth	Oty	Plies	Pcs	Length	
-	2.5	9,5	LinFt	riies	Varies	8-0-0	14 Anderson Blvd
-	2.0	3.0	Cant		TOTICS	000	Stouffville, Ontario Canada
			Bea	am/Girde	r Suc	ported	Lanada LAA 7X4
						ember	905-642-4400
tio	n S	kew Slo	pe fa	steners	fas	teners	
10				46 16d		6 16d	Job Path
1/1	0			30 16d		0 16d	D.\Users\rochav.llo\WORK FROM HOME\GREENPARK\MINNISALE
_		_		10dx1 1/2		ldx1 1/2	HOMESWEMLOCK 3WEMLOCK 3-
		-	41	0dx1 1/2	210	dx1 1/2	VFLOOR/REVIF-HEMLOCK 3-2 ENG
_		-	_	4 10d	246	dx1 1/2	Ground Floor
_	_	_	_	4 100	210	WAT 172	Design Method LSD
81	9-				_		Building Code NBCC 2010 / OBC 2012
_				-		_	Floor
							Loads
sio	ns on the	architectu	ral drawin	os.			Live 40
e fi	ler/backe	r ply when	supportir			- 1	Dead 15
		led hange			n.	- 1	Deflection Joist
		r parallel ne er along in			IIS.	- 1	LL Span L/ 480
				VI		- 1	TL Span L/ 360
		nstallation					LL Cant 2L/ 480
		installed a				- 1	TL Cant 2L/ 360
	apport to	ong nom	aco 10 cm	occoung			Deflection Girder
		under all p					LL Span L/ 360
		that floor		beams a	re		TL Span L/ 240
we	, manufa	Aurer & Sta	rudius.				LL Cant 2L/ 480
Co	nnection	Detail to pl	y to ply n	ailing or			TL Cant 2L/ 360
							Decking
۹۰,	mhoard s	with 2"x 4"	block (1/	in" longer	than		Deck SPF Plywood
		nents and					Thickness 3/4"
n s	uch as be	eams, walls	s, column	s, and		- 1	Fastener Nailed & Glued
		anchorag		ponents a	nd		Vibration
en (the tesp	onsibility o	OURIS.			- 1	



GREENPARK Client:

Project: Address: Date:

8/13/2018

RCO Designer:

Job Name: HEMLOCK 3-2

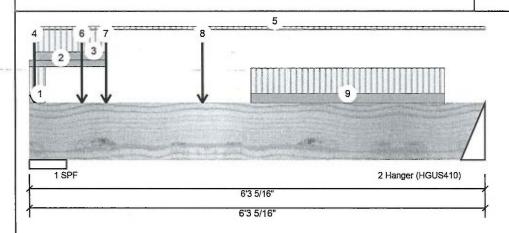
Project #

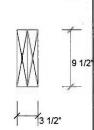
Forex 2.0E-3000Fb LVL

1.750" X 9.500"

2-Ply - PASSED

Level: Ground Floor





Mind

Page 1 of 2

Type:	Girder
Plies:	2
Moisture Condition:	Dry

15 PSF

Deflection LL: 360 Deflection TL: 240 Importance: Normal General Load 40 PSF Floor Live:

Member Information

Application: Floor (Residential) Design Method: **Building Code:** NBCC 2010 / OBC 2012 Load Sharing:

No Not Checked Not Checked

Unfactored Reactions UNPATTERNED Ib (Uplift)

Dig	Live	Dead	CHOW	VVIIIG
1	3682	1598	0	0
2	916	382	0	0

Analysis Results

Dead:

Analysis Actual Location Allowed Capacity Comb. Case 3105 ft-lb 0.137 (14%) 1.25D+1.5L L 2'4 5/8" 22724 ft-lb Moment 3105 ft-lb Unbraced 2'4 5/8" 22724 ft-lb 0.137 (14%) 1.25D+1.5L L Shear 3100 lb 1'2 13/16" 9277 lb 0.334 (33%) 1.25D+1.5L L Perm Defl in. 0.010 (L/6979) 3' 7/8" 0.185 (L/360) 0.050 (5%) D Uniform LL Defl inch 0.023 (L/2958) 3'1 3/16" 0.185 (L/360) 0.120 (12%) L 1 TL Defl inch 0.032 (L/2078) 3'1 3/16" 0.278 (L/240) 0.120 (12%) D+L

Deck:

Vibration:

Bearings and Factored Reactions Bea

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.	
1 - SPF	6.078"	57%	1997 / 5523	7520	L	1.25D+1.5L	
2 - Hanger	4.000"	18%	477 / 1374	1851	L	1.25D+1.5L	

Design Notes

- 1 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 4.5.
- 2 Fill all hanger nailing holes.
- 3 Girders are designed to be supported on the bottom edge only.
- 5 Top loads must be supported equally by all plies.
- 6 Top braced at bearings.
- 7 Bottom braced at bearings.
- 8 Lateral slenderness ratio based on full section width

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



icridentess ratio based t	off full Scotloff Width.							
Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
Part. Uniform	0-0-0 to 0-2-10		Тор	123 PLF	296 PLF	0 PLF	0 PLF	J4
Part. Uniform	0-0-0 to 1-0-10		Тор	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
Part. Uniform	0-0-10 to 1-0-10		Тор	97 PLF	250 PLF	0 PLF	0 PLF	J4
Point	0-0-14		Near Face	350 lb	893 lb	0 lb	0 lb	F5
	Load Type Part. Uniform Part. Uniform Part. Uniform	Part. Uniform 0-0-0 to 0-2-10 Part. Uniform 0-0-0 to 1-0-10 Part. Uniform 0-0-10 to 1-0-10	Load Type Location Trib Width Part. Uniform 0-0-0 to 0-2-10 Part. Uniform 0-0-0 to 1-0-10 Part. Uniform 0-0-10 to 1-0-10	Load Type Location Trib Width Side Part. Uniform 0-0-0 to 0-2-10 Top Part. Uniform 0-0-0 to 1-0-10 Top Part. Uniform 0-0-10 to 1-0-10 Top	Load Type Location Trib Width Side Dead Part. Uniform 0-0-0 to 0-2-10 Top 123 PLF Part. Uniform 0-0-0 to 1-0-10 Top 80 PLF Part. Uniform 0-0-10 to 1-0-10 Top 97 PLF	Load Type Location Trib Width Side Dead Live Part. Uniform 0-0-0 to 0-2-10 Top 123 PLF 296 PLF Part. Uniform 0-0-0 to 1-0-10 Top 80 PLF 0 PLF Part. Uniform 0-0-10 to 1-0-10 Top 97 PLF 250 PLF	Load Type Location Trib Width Side Dead Live Snow Part. Uniform 0-0-0 to 0-2-10 Top 123 PLF 296 PLF 0 PLF Part. Uniform 0-0-0 to 1-0-10 Top 80 PLF 0 PLF 0 PLF Part. Uniform 0-0-10 to 1-0-10 Top 97 PLF 250 PLF 0 PLF	Load Type Location Trib Width Side Dead Live Snow Wind Part. Uniform 0-0-0 to 0-2-10 Top 123 PLF 296 PLF 0 PLF 0 PLF 0 PLF Part. Uniform 0-0-0 to 1-0-10 Top 80 PLF 0 PLF 0 PLF 0 PLF 0 PLF Part. Uniform 0-0-10 to 1-0-10 Top 97 PLF 250 PLF 0 PLF 0 PLF

Continued on page 2...

Celculated Shockment besigns is responsible only in activating adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended

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

Handling & Installation

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

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.



Client:

Address:

Project:

GREENPARK

Date:

8/13/2018

Page 2 of 2

RCO Designer:

Job Name: HEMLOCK 3-2

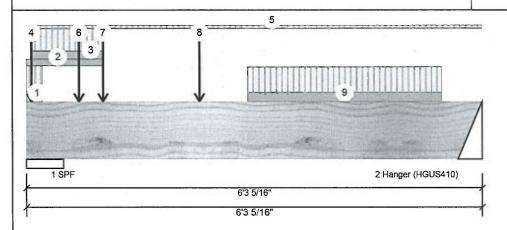
Project #:

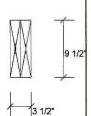
Forex 2.0E-3000Fb LVL

1.750" X 9.500"

2-Ply - PASSED

Level: Ground Floor





Continued fr	rom page 1								
iD	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
5	Tie-In	0-1-12 to 6-3-5	(Span)1-6-2	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
6	Point	0-8-11		Тор	659 lb	1641 lb	0 lb	0 lb	F4 F4 F3 F3
7	Point	1-0-10		Far Face	191 lb	392 lb	0 lb	dl 0	J4
8	Point	2-4-10		Far Face	161 lb	391 lb	0 lb	0 lb	J4
9	Part. Uniform	3-0-10 to 5-8-10		Far Face	110 PLF	293 PLF	0 PLF	0 PLF	
	Self Weight				8 PLF				

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

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

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 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

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



GREENPARK Client:

Project: Address:

8/13/2018 Date:

Designer: RCO

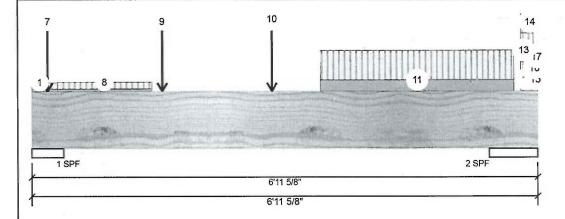
Job Name: HEMLOCK 3-2

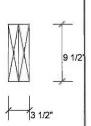
Project #:

Forex 2.0E-3000Fb LVL

1.750" X 9.500" 2-Ply - PASSED

Level: Ground Floor





Page 1 of 2

	-	-	-
IR/I amb	AM Im	FARM	ntinn
Memb	SEL TIL	IOLIII	auuui

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

Floor (Residential) Application: Design Method:

Building Code: NBCC 2010 / OBC 2012 Load Sharing: No Deck:

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

Live	Dead	Snow	Wind
1875	848	0	0
609	282	0	0
	1875	1875 848	1875 848 0

Bearings and Factored Reactions

Dearing.	and i a		teachorns.			
Bearing	Length	Сар.	React D/L lb	Total	Ld. Case	Ld. Comb.
1-SPF	5.250"	34%	1060 / 2812	3872	L	1.25D+1.5L
2 - SPF	8.000"	7%	353 / 914	1267	L	1.25D+1.5L

Analysis Results

A	nalysis	Actual	Location	Allowed	Capacity	Comb.	Case
M	oment	2490 ft-lb	1'9 5/8"	22724 ft-lb	0.110 (11%)	1.25D+1.5L	L
U	nbraced	2490 ft-lb	1'9 5/8"	22015 ft-lb	0.113 (11%)	1.25D+1.5L	L
SI	near	1931 lb	1'2"	9277 lb	0.208 (21%)	1.25D+1.5L	L
P	erm Defl in.	0.008 (L/8960)	3'1 3/8"	0.200 (L/360)	0.040 (4%)	D	Uniform
LI	Defl inch	0.019 (L/3866)	3'1 7/16"	0.200 (L/360)	0.090 (9%)	L	L
TI	Defl inch	0.027 (L/2701)	3'1 7/16"	0.299 (L/240)	0.090 (9%)	D+L	L

Design Notes

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

5 Top bra	ced at bearings.						
6 Bottom	braced at bearings.						
7 Lateral	slenderness ratio based of	n full section width.					
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow
1	Tie-In	0-0-0 to 0-4-4	(Span)1-3-9	Тор	15 PSF	40 PSF	0 PSF

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-4-4	(Span)1-3-9	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-2-10		Тор	17 lb	46 lb	0 lb	0 lb	J5
3	Point	0-2-10		Тор	6 lb	13 lb	0 lb	0 lb	J2
4	Point	0-2-10		Тор	20 lb	0 lb	0 lb	0 Њ	Wall Self Weight
5	Point	0-2-10		Тор	401 lb	922 lb	0 lb	0 lb	F11 F11
Continued on	page 2								

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 loadings.

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

Handling & Installation

- maged 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

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 TOURS 100083566

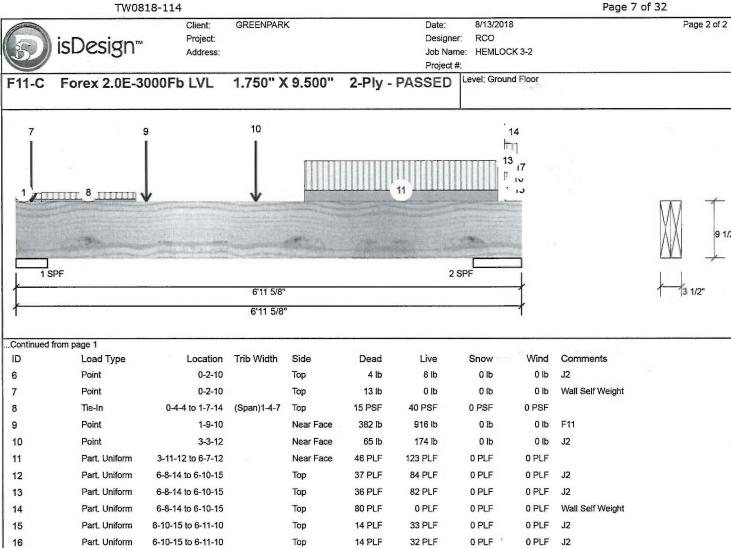
100083566

August 17, 2018



Version 18.40.162 Powered by iStruct™





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

Wall Self Weight

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

17

igns is responsible only or the ils component based on the adings shown. It is the mer and/or the contractor to suitability of the intended

Part. Uniform

Self Weight

Lumber

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

6-10-15 to 6-11-10

Handling & Installation

Damaged Beams must not be used

For flat roofs provide proper drainage to prevent conding

0 PLF

31 PLF

8 PLF

Top

0 PLF

0 PLF

Manufacturer Info

APA: PR-L318

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

This design is valid until 7/10/2021



GREENPARK Client:

Project:

Address:

Date:

8/13/2018 RCO Designer:

Job Name: HEMLOCK 3-2

Project #:

Forex 2.0E-3000Fb LVL

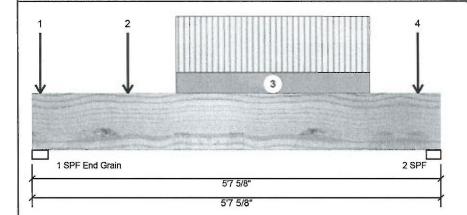
1.750" X 9.500" - PASSED

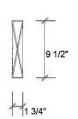
Brg

1

2

Level: Ground Floor





Wind

0

0

Page 1 of 1

Member Info	rmation		
Type:	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		
Dead:	15 PSF		

Bearings and	Factored	Reactions

Live

665

516

Unfactored Reactions UNPATTERNED Ib (Uplift)

Dead

273

599

Snow

2

56

bearings	una i acco	Ca Ifca	CCIOIIS			
Bearing	Length	Cap. Rea	act D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	2.625"	39%	342 / 999	1341	L	1.25D+1.5L +0.5S
2 - SPF	2.375"	61%	749 / 802	1551	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1343 ft-lb	2'10 1/2"	11362 ft-lb	0.118 (12%)	1.25D+1.5L +0.5S	L
Unbraced	1343 ft-lb	2'10 1/2"	6976 ft-lb	0.193 (19%)	1.25D+1.5L +0.5S	L
Shear	1547 lb	4'8 1/2"	4638 lb	0.333 (33%)	1.25D+1.5L +0.5S	L
Perm Defl in.	0.008 (L/7849)	2'10 7/8"	0.178 (L/360)	0.050 (5%)	D	Uniform
LL Defl inch	0.018 (L/3587)	2'9 15/16"	0.178 (L/360)	0.100 (10%)	L+0.5S	L
TL Defl inch	0.026 (L/2462)	2'10 3/16"	0.267 (L/240)	0.100 (10%)	D+L+0.5S	L

Design Notes

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

Load Type

Part. Uniform

Self Weight

Point

Point

Point

Location Trib Width Side Dead Live Snow Wind 0-1-6 Near Face 97 lb 259 lb 0 lb 0 lb 0 lb 0 lb 1-3-14 Near Face 92 lb 245 lb 0 PLF 0 PLF 1-11-14 to 4-7-14 Near Face 72 PLF 193 PLF 5-3-14 Near Face 470 lb 163 lb 4 PLF



T.L. WISE TO 100083566

100083566

O Ib J7
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

ID

1

2

3

4

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

Handling & Installation

This design is va

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.





Client: **GREENPARK**

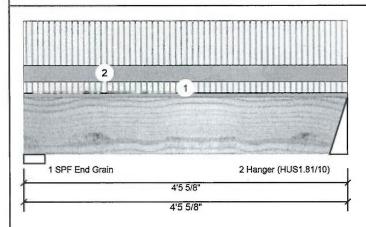
Project: Address: Date:

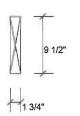
8/13/2018 RCO Designer:

Job Name: HEMLOCK 3-2

Project #:

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





Wind

0

0

Page 1 of 1

Member Inf	ormation					
Type:	Girder		Application	n: Fl	oor (Residenti	al)
Plies:	1		Design M	ethod: LS	SD	
Moisture Cond	lition: Dry		Building C	Code: NI	BCC 2010 / O	BC 2012
Deflection LL:	360		Load Sha	ring: No	0	
Deflection TL:	240		Deck:	Ne	ot Checked	
Importance:	Normal		Vibration:	N	ot Checked	
General Load						
Floor Live:	40 PSF					
Dead:	15 PSF					
Analysis Re	sults					
Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	337 ft-lb	2'3 1/16"	11362 ft-lb	0.030 (3%)	1.25D+1.5L	L
Unbraced	337 ft-lb	2'3 1/16"	8769 ft-lb	0.038 (4%)	1.25D+1.5L	L
Shear	203 lb	1' 1/4"	4638 lb	0.044 (4%)	1.25D+1.5L	L
Perm Defl in	. 0.001 (L/36948)	2'3 1/16"	0.135 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.003 (L/15591)	2'3 1/16"	0.135 (L/360)	0.020 (2%)	L	L

Bearings and Fac	tored Reactions			
Bearing Length	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.

96 / 274

Snow

0

0

371 L

364 L

1-SPF 3.500" End Grain

Hanger

3.000"

Brg

1

2

95 / 269

Unfactored Reactions UNPATTERNED lb (Uplift)

Dead

77

76

Live

183

179

1.25D+1.5L

1.25D+1.5L

T.L. WISE TOO 100083566 100083566 WCE OF ONTAR

August 17, 2018

Design	Notes

TL Defl inch

1 Fill all hanger nailing holes.

(L/10965)

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

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 4-5-10	(Span)0-9-14	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 4-5-10	(Span)3-2-13	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				4 PLF				

This de

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

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

Notes

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

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

Handling & Installation

Hallouling & Installation

1. LVL beams must not be cut or drilled

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

3. Damaged Beams must not be used

4. Design assumes top edge is laterally restrained

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

2'3 1/16" 0.203 (L/240) 0.020 (2%) D+L

Manufacturer Info Forex

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

14A7X4

905-642-4400



GREENPARK Client:

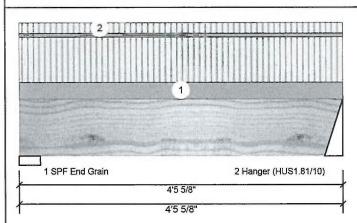
Project: Address: Date:

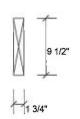
8/13/2018 Designer: RCO

Job Name: HEMLOCK 3-2

Project #:

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





Wind

0

0

Page 1 of 1

Туре:	Girder		Applicatio	n: Fl	oor (Residenti	al)
Plies:	1		Design M	ethod: L	SD	
Moisture Cond	ition: Dry		Building C	ode: N	BCC 2010 / O	BC 2012
Deflection LL:	360		Load Sha	ring: N	0	
Deflection TL:	240		Deck:	N	ot Checked	
Importance:	Normal		Vibration:	N	ot Checked	
General Load						
Floor Live:	40 PSF					
Dead:	15 PSF					
Analysis Res	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	365 ft-lb	2'3 1/16"	11362 ft-lb	,	1.25D+1.5L	l.
	303 (17)	23 1/10	11302 11-15			_
	265 A Ih	2'2 1/16"	2760 ft lb	0.042 (404)		
Unbraced	365 ft-lb	2'3 1/16"	* . * *	0.042 (4%)		
Unbraced Shear	220 lb	1' 1/4"	4638 lb	0.047 (5%)	1.25D+1.5L	L
Unbraced	220 lb	1' 1/4"	* . * *	0.047 (5%)	1.25D+1.5L	
Unbraced Shear	220 lb 0.001	1' 1/4"	4638 lb 0.135 (L/360)	0.047 (5%) 0.010 (1%)	1.25D+1.5L D	L

Bearings and Factored Reactions

Live

198

195

Unfactored Reactions UNPATTERNED lb (Uplift)

Dead

83

81

Snow

0

0

394 L

Bearing Length Cap. React D/L lb Total Ld. Case Ld. Comb. 104 / 298 1.25D+1.5L 1-SPF 3.500" End

Grain

Brg

1

2

3.000" 10% 102 / 292 Hanger

1.25D+1.5L

T.L. WISE MAN 100083566 100083566 VCE OF ONTAR

August 17, 2018

Design Notes

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

, Dolloin	bracea at bearinge.								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 4-5-10	(Span)3-6-15	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 4-5-10	(Span)0-9-14	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				4 PLF				

This des

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

chemicals

Handling & Installation

- I.IVL 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
- Institution approvals

 Damaged Beams must not be used

 Demaged seams 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

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





GREENPARK

Client: Project: Address: Date:

8/13/2018

Designer: RCO

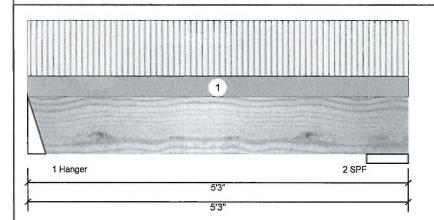
Job Name: HEMLOCK 3-2

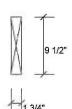
Project #:

Forex 2.0E-3000Fb LVL

1.750" X 9.500" - PASSED

Level: Ground Floor





Page 1 of 1

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

Brg	Live	Dead	Snow	Wind
1	70	36	0	0
2	79	40	0	0

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	157 ft-lb	2'5 9/16"	11362 ft-lb	0.014 (1%)	1.25D+1.5L	L
Unbraced	157 ft-lb	2'5 9/16"	8088 ft-lb	0.019 (2%)	1.25D+1.5L	L
Shear	90 lb	11 3/4"	4638 lb	0.019 (2%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/66907)	2'5 9/16"	0.152 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.002 (L/34092)	2'5 9/16"	0.152 (L/360)	0.010 (1%)	L	L
TL Defl inch	0.002 (L/22584)	2'5 9/16"	0.228 (L/240)	0.010 (1%)	D+L	L

Bearings and Factored Reactions Bearing Length Cap. React D/L lb Total Ld. Case Ld. Comb. 3.000" 4% 44 / 105 149 L 1.25D+1.5L Hanger 1.25D+1.5L 2-SPF 6.875" 2% 50 / 118 169 L



August 17, 2018

1	Fill	all	hanger	nailing	hole

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

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 5-3-0	(Span)1-5-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				4 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

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

Handling & Installation

- ATIOLITING & 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 adge is laterally restrained

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

- For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

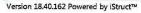
APA: PR-L318

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

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



This design is va







Client: Project: Address:

GREENPARK

8/13/2018 Date: RCO Designer:

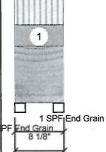
Job Name: HEMLOCK 3-2

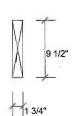
Project #:

Forex 2.0E-3000Fb LVL

TW0818-114

1.750" X 9.500" - PASSED Level: Ground Floor





Wind

0

0

Page 1 of 1

/lember Inf	ormation						Unfacto	red Reacti	ons U	NPATTERN	ED Ib	(Uplift)
Туре:	Girder		Applicatio	n: F	loor (Residenti	al)	Brg	Live		Dead	Sno	w
Plies:	1		Design Me	ethod: L	SD		1	25		11		0
Moisture Cond	ition: Dry		Building C	code: N	IBCC 2010 / O	BC 2012	2	25		11		0
Deflection LL:	360		Load Sha	ring: N	1 0							
Deflection TL:	240		Deck:	١	lot Checked							
Importance:	Normal		Vibration:	١	lot Checked							
General Load												
Floor Live:	40 PSF						Bearing	s and Fact	ored l	Reactions		
Dead:	15 PSF						Bearing	Length	Cap.	React D/L ib	Total	Ld. Case
							1 - SPF End	1.750"	2%	13 / 37	51	L
Analysis Res	sults						Grain					
Analysis	Actual	Location	Allowed	Capacity	Comb.	Case	2-SPF	1.750"	2%		51	
Moment	5 ft-lb	4 1/16"	11362 ft-lb	0.000 (0%)	1.25D+1.5L	L	End Grain				/	T.L. W
Unbraced	5 ft-lb	4 1/16"	11362 ft-lb	0.000 (0%)	1.25D+1.5L	L					10	OF
Shear	40 lb	-(2 3/8")	4638 lb	0.009 (1%)	1.25D+1.5L	L				- 2	10,	
Perm Defl in.	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)						1	& L	
LL Defl inch	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)						- 1	0	T.L. W
TL Defl inch	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)	i					1	7	100083

Bearings	s and Fac	tored R	eactions			
Bearing	Length	Cap. I	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	1.750"	2%	13 / 37	51	L	1.25D+1.5L
2 - SPF End Grain	1.750"	2%	13 / 37	51	OFESSIO	1.25D+1.5L

WISE 100083566 ugust 17, 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	(Αι
1	Tie-In	0-0-0 to 0-8-2	(Span)3-8-7	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
	Self Weight				A PI F					

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

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

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

Handling & Installation

- Handling & installation

 1. IVI. beams must not be cut or drilled

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

 3. Damegad 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

Manufacturer Info

Forex

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.



2



Client: **GREENPARK**

Project: Address: Date:

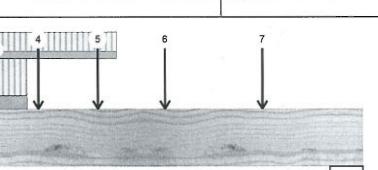
8/13/2018 RCO

Level: Ground Floor

Designer: Job Name: HEMLOCK 3-2

Project #:

Forex 2.0E-3000Fb LVL 1.750" X 9.500" - PASSED



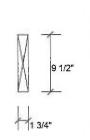
Brg

1

2

2-SPF 5.500"

2 SPF 1 Hanger 8'1 8'1'



Wind

0

0

1.25D+1.5L

Page 1 of 1

Nember Infor	mation		
Type:	Girder	Application:	Floor (Residential)
Plies:	1	Design Method:	LSD
Moisture Conditio	n: Dry	Building Code:	NBCC 2010 / OBC 201
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	100	

Bearings and Factored Reactions										
Bearing			React D/L lb	Total	Ld. Case	Ld. Comb.				
1 - Hanger	3.000"	68%	656 / 2008	2664	L	1.25D+1.5L				

574 / 1741

Snow

2315 L

0

0

Unfactored Reactions UNPATTERNED Ib (Uplift)

39%

Dead

525

459

Live

1339

1160

Analysis Results Analysis Actual Location Allowed Capacity Comb. Moment 5089 ft-lb 3'7 3/8" 11362 ft-lb 0.448 (45%) 1.25D+1.5L L 5089 ft-lb 3'7 3/8" 5098 ft-lb 0.998 1.25D+1.5L L Unbraced (100%)2309 lb 6'10 3/4" 4638 lb 0.498 (50%) 1.25D+1.5L L Perm Defl in. 0.047 (L/1899) 3'10 3/4" 0.250 (L/360) 0.190 (19%) D Uniform LL Defl inch 0.120 (L/751) 3'10 5/8" 0.250 (L/360) 0.480 (48%) L L TL Defi inch 0.167 (L/538) 3'10 5/8" 0.375 (L/240) 0.450 (45%) D+L L

T.L. WISE 100083566 VCE OF ONTAR

August 17, 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 7'3 3/4" o.c.

Ł	4 Bollom brace	a at bearings.									
I	ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments	165
ı	1	Part. Uniform	0-1-0 to 3-5-8		Тор	90 PLF	240 PLF	0 PLF	0 PLF		
ı	2	Point	1-4-6		Far Face	65 lb	174 lb	0 lb	0 lb	J2	
l	3	Part, Uniform	2-0-6 to 4-8-6		Far Face	46 PLF	123 PLF	0 PLF	0 PLF		
l	4	Point	3-7-6		Near Face	81 lb	195 lb	0 lb	0 lb	F15	
I	5	Point	4-5-4		Near Face	76 lb	179 lb	0 lb		Framing Squash Block is	
١	6	Point	5-4-6		Far Face	155 lb	413 lb	0 lb	required at	all point loads over bearings	
ĺ	7	Point	6-8-6		Far Face	150 lb	400 lb	0 lb		ulttple Member Connection	
١		Self Weight				4 PLF			Detail for p requiremen	ly to ply nailing or bolting its	

Notes

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

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

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

3. Damaged Beams must not be used

4. Design assumes top edge is laterally restrained

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

6. For flat roofs provide proper drainage to prevent

This design

Manufacturer Info APA: PR-L318

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





GREENPARK

Client: Project: Address: Date:

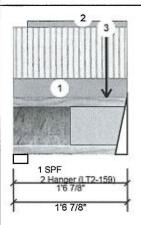
8/13/2018 RCO Designer:

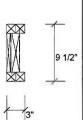
Job Name: HEMLOCK 3-2

Project #:

2-Ply - PASSED NJ 9.500"

Level: Ground Floor





1.25D+1.5L

1.25D+1.5L

Page 1 of 1

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

Unfactored Reactions UNPATTERNED Ib (Uplift)									
Brg	Live	Dead	Snow	Wind					
1	71	34	0	0					
2	172	85	0	0					

Bearings and Factored Reactions Bearing Length Cap. React D/L lb Total Ld. Case Ld. Comb. 1 - SPF 2.375" 6% 42 / 107 149 L 2.000" 14% 106 / 258 363 L 2 -Hanger

Analysis Res	Analysis Results							
Analysis	Actual	Location	Allowed	Capacity	Comb.	Case		
Moment	64 ft-lb	1'1 3/16"	7340 ft-lb	0.009 (1%)	1.25D+1.5L	L		
Unbraced	64 ft-lb	1'1 3/16"	6912 ft-lb	0.009 (1%)	1.25D+1.5L	L		
Shear	349 lb	1'5 5/8"	3080 lb	0.113 (11%)	1.25D+1.5L	L		
Perm Defl in.	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)				
LL Defl inch	0.000 (L/45568)	1' 5/8"	0.044 (L/360)	0.010 (1%)	L	L		
TL Defl inch	0.001 (L/30524)	1' 9/16"	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	Part. Uniform	0-2-6 to 1-6-14		Тор	8 PLF	0 PLF	0 PLF	0 PLF	
3	Point	1-3-7		Near Face	69 lb	141 lb			Framing Squash Block is all point loads over bearings

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

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

Dry service conditions, unless noted otherwise
 Usist not to be treated with fire retardent or corresive

Handling & Installation

andling & installation!
Libels flanges must not be cut or drilled
Refer to latest copy of the Liotst product information
details for framing details. siftener tables, web hote
chart, bridging details, multi-ply fastening details and
handling/enection details
Damaged Liotst 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.
 For flat roofs:
 READ ALL NOTES ON THE PACIFIC PAC

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.

This design is valid until 17 TO/2021







GREENPARK Client:

Project: Address: Date:

Brg

1

2

Hanger

8/13/2018

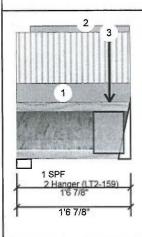
RCO

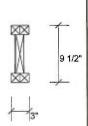
Designer: Job Name: HEMLOCK 3-2

Project #:

2-Ply - PASSED 9.500"

Level: Ground Floor





Wind

0

0

Page 1 of 1

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

Bearin	gs and Fac	tored	Reactions			
Bearin	ng Length	Сар.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SP	PF 2.375"	5%	35 / 90	125	L	1.25D+1.5L
2	2 000"	20/	60 / 148	208	1	1.25D+1.5I

Snow

0

0

Unfactored Reactions UNPATTERNED Ib (Uplift)

Dead

28

48

Live

60

98

Analysis Results Actual Location Allowed Capacity Comb. Analysis 42 ft-lb 11" 7340 ft-lb 0.006 (1%) 1.25D+1.5L L Moment 42 ft-lb 11" 6912 ft-lb 0.006 (1%) 1.25D+1.5L L Unbraced 0.063 (6%) 1.25D+1.5L L 1'5 5/8" 3080 lb 194 lb Shear 0 999.000 (L/0) 0.000 (0%) Perm Defl in. 0.000 (L/999) LL Defl inch 0.000 10 7/8" 0.044 (L/360) 0.010 (1%) L (L/67719) TL Defl inch 0.000 10 7/8" 0.067 (L/240) 0.010 (1%) D+L (L/45357)



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	Part. Uniform	0-2-6 to 1-6-14		Тор	8 PLF	0 PLF	0 PLF	0 PLF	
3	Point	1-3-7		Far Face	27 lb	56 lb			Framing Squash Block is all point loads over bearings

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

Notes

Lumber

Handling & Installation

Handling & Installation

1. Julist langes must not be cut or drilled

2. Rafer to latest copy of the IJoist product information details for framing details, sufferent tables, web holischert, bridging details, multi-phy testening details and handling/erection datails

3. Dernaged Loists must not be used

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

Provide lateral support at bearing points to avoid lateral displacement and rotation.
 Web stiffeness for point load as shown Minhmum point load beart.
 For flat roofs READ ALL NOTES ON TI ponding ENGINEERING NOTE PA

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.

This design is valid until 17 10/2021







Client:

Project:

GREENPARK

Address:

Date: 8/13/2018

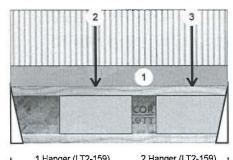
RCO Designer:

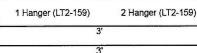
Job Name: HEMLOCK 3-2

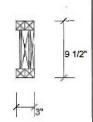
Project #:

2-Ply - PASSED 9.500"

Level: Ground Floor







Page 1 of 1

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

Brg Live Dead Snow Wind 295 111 0 0 1 2 398 149 0 0

Unfactored Reactions UNPATTERNED Ib (Uplift)

Analysis Results Capacity Comb. Analysis Location Allowed Case Actual 576 ft-lb 0.078 (8%) 1.25D+1.5L L 1'2 1/8" 7340 ft-lb Moment 576 ft-lb 1'2 1/8" 4678 ft-lb 0.123 (12%) 1.25D+1.5L L Unbraced 776 lb 2'10 3/4" 3080 lb 0.252 (25%) 1.25D+1.5L L Shear 1'2 1/8" 0.093 (L/360) 0.020 (2%) D Uniform Perm Defl in. 0.002 (L/20392)LL Defl inch 0.004 (L/7661) 1'2 1/8" 0.093 (L/360) 0.050 (5%) L L TL Defl inch 0.006 (L/5569) 1'2 1/8" 0.140 (L/240) 0.040 (4%) D+L L

Bearings and Factored Reactions Bearing Length Cap. React D/L lb Total Ld. Case Ld. Comb. 2 000" 22% 138 / 442 581 L 1.25D+1.5L Hanger 2.000" 1.25D+1.5L 2 -30% 187 / 597 783 L



August 17, 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 3-0-0	(Span)1-8-15	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	1-2-2		Far Face	127 lb	338 lb	0 lb	0 lb	J5
3	Point	2-6-2		Far Face	94 lb	250 lb			J5 Framing Squash Block is 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, if is the responsibility of the customer endfor the contractor to ensure the component suitability of the Intended application, and to verify the dimensions and loads.

Lumber

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

chemicals

Handling & Installation

- andling & Installation

 I Joist flanges must not be cut or drilled

 Refer to latest copy of the IJoist product information details for framing details, sufferer tables, web note chart, bridging details, multi-ply fastening details and handling/eraction details

 Damaged IJoist must not be used

 Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.
- 5. Provide lateral support at bearing points to avoid

Hanger

For that code support at opening points to avoid lateral displacement and rotation
 Web stiffeners for point load as shown Minimum point load bearing length> 3.5 loches
 For that roots proudes among declared to previous ponding

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 905-642-4400



Page 1 of 2



2

1 SPF

GREENPARK Client:

Project:

Address:

Date: 8/13/2018

Designer: RCO

Job Name: HEMLOCK 3-2 Project #:

2-Ply - PASSED 9.500" NJ

Level: Ground Floor

2 SPF

Member Inform	nation		75	Unfactore	d Reacti	ons UNPATTERI	NED lb (Uplift)	
Type:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow	Wind
Plies:	2	Design Method:	LSD	1	722	271	0	0
Moisture Condition	: Dry	Building Code:	NBCC 2010 / OBC 2012	2	1030	495	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 Reactions		
Dead:	15 PSF			Bearing L	ength.	Cap. React D/L lb	Total Ld. Case	Ld. Comb.
				1-SPF 2	.375"	53% 339 / 1083	1422 L	1.25D+1.5L
				2-SPF 6	.875"	70% 619 / 1546	2164 L	1.25D+1.5L

15' 3/4' 15' 3/4'

Ana	lysis	Resu	ts
-----	-------	------	----

Γ	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case	
	Moment	3260 ft-lb	6'8 1/16"	7340 ft-lb	0.444 (44%)	1.25D+1.5L	L	
	Unbraced	3260 ft-lb	6'8 1/16"	3269 ft-lb	0.997 (100%)	1.25D+1.5L	L	
	Shear	1397 lb	1 5/8"	3080 lb	0.454 (45%)	1.25D+1.5L	L	
l	Perm Defl in.	0.091 (L/1892)	7'1 11/16"	0.481 (L/360)	0.190 (19%)	D	Uniform	
l	LL Defl inch	0.244 (L/710)	7'1 11/16"	0.481 (L/360)	0.510 (51%)	L	L	
l	TL Defl inch	0.335 (L/516)	7'1 11/16"	0.721 (L/240)	0.460 (46%)	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 3'8" o.c.

5 Bottom flange braced at bearings.



This design is vi

Continued on page 2...

Notes

NOLUES
Calculated Shuctured 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 endor 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
 Unless not to be treated with fire retardant or corrosive

Handling & Installation

landling & Installation.

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

Damaged Jolest 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 len_b=3.5 inches
 For flat roofs provide

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 L4A 7X4 905-642-4400

T.L. WISE

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August 17, 2018





Page 2 of 2



GREENPARK Client:

Project: Address:

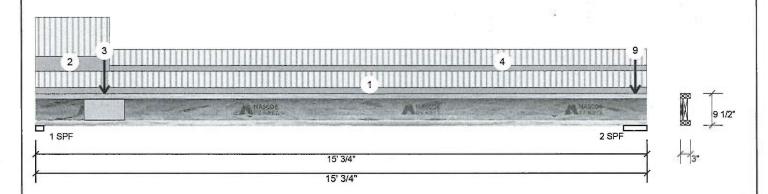
8/13/2018 Date: RCO

Designer: Job Name: HEMLOCK 3-2

Project #:

NJ 9.500" 2-Ply - PASSED

Level: Ground Floor



Continued	from page 1									
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments	
8	Point	14-9-6		Тор	71 lb	188 lb	0 lb	0 lb	J2	
9	Point	14-9-6		Тор	107 lb	0 lb	0 lb	0 lb	Wall 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

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

Lumber

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

Handling & Installation

Handling & Installation

1. Lioist flarges must not be cut or drilled

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

3. Damsged 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 length>= 3.5 inches
 7. For flat roofs provide proper drainage to prevent ponding

This design is valid until 7/10/2021

Manufacturer Info Nascor by Kott

Page 1 of 1



Client: GREENPARK

Project: Address: Date:

8/13/2018 Designer: RCO

Job Name: HEMLOCK 3-2

Project #:

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

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		Ĭ
(1)		
	A CALCAL TO A MARCON TO A MARCON TO THE PARTY OF THE PART	9 -
1 SPF	2 SF	- 60
	15' 3/4"	

Vlember Inform	nation			Unfacto	red Reac	tions U	NPATTERNI	ED lb (Uplift)	
Type:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snov	V	Wind
Plies:	2	Design Method:	LSD	1	642		240		0	0
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012	2	373		276	6	9	0
Deflection LL:	360	Load Sharing:	No	1 -						
Deflection TL:	240	Deck:	Not Checked							
Importance:	Normal	Vibration:	Not Checked							
General Load										
Floor Live:	40 PSF			Bearing	s and Fac	tored F	Reactions			
Dead:	15 PSF	0 5		Bearing	Length	Сар.	React D/L lb	Total	Ld. Case	Ld. Comb.
		1		1-SPF	2.375"	47%	300 / 962	1263	L	1.25D+1.5L
and the Company				2-SPF	6.875"	31%	345 / 594	940	L	1.25D+1.5L

ľ	Anaiysis Ke	suits					
ľ	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
l	Moment	2136 ft-lb	5'6 3/8"	7340 ft-lb	0.291 (29%)	1.25D+1.5L	L
	Unbraced	2136 ft-lb	5'6 3/8"	2138 ft-lb	0.999 (100%)	1.25D+1.5L	L
l	Shear	1242 lb	1 5/8"	3080 lb	0.403 (40%)	1.25D+1.5L	L
ŀ	Perm Defl in	0.060 (L/2896)	6'10 13/16"	0.481 (L/360)	0.120 (12%)	D	Uniform
ŀ	LL Defl inch	0.159 (L/1086)	6'10 13/16"	0.481 (L/360)	0.330 (33%)	L+0.5S	L

TL Defi inch 0.219 (L/790) 6'10 13/16" 0.721 (L/240) 0.300 (30%) D+L+0.5S L

T.L. WISE 100083566 100083566 WCE OF ONTAR August 17, 2018

1.25D+1.5L 1.25D+1.5L +0.58

Design Notes

- 1 Girders are designed to be supported on the bottom edge only.
- 2 Multiple plies must be fastened together as per manufacturer's details.
- 3 Top loads must be supported equally by all plies.
- 4 Top flange must be laterally braced at a maximum of 4'6" o.c.

5 Bottom flange braced at bearings.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-9-14	(Span)3-3-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 15-0-12	(Span)0-8-10	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-8-6		Far Face	149 lb	398 lb	0 lb	0 lb	F8
4	Tie-In	1-9-14 to 15-0-12	(Span)0-7-6	Тор	15 PSF	40 PSF	0 PSF	Pass ^{Officia}	Framing Squash Block is
5	Point	14-9-6		Тор	30 lb	0 lb	69 lb	requiredigit	all point loads over bearings
6	Point	14-9-6		Тор	53 lb	0 lb	0 lb	Refer to Me	Wall Self Weight Connection
7	Point	14-9-6		Тор	45 lb	119 lb			ly4o ply nailing or bolting
8	Point	14-9-6		Тор	53 lb	0 lb	0 lb	requiremer	115Vall Self Weight

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
 Lioist not to be treated with fire retardant or corrosive

Handling & Installation

Handling & Installation

1. Uplet flages must not be cut or drilled

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

3. Damaged Joists must not be used

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

This design is va

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

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

Manufacturer Info

Nascor by Kott



Page 1 of 2



Client: **GREENPARK**

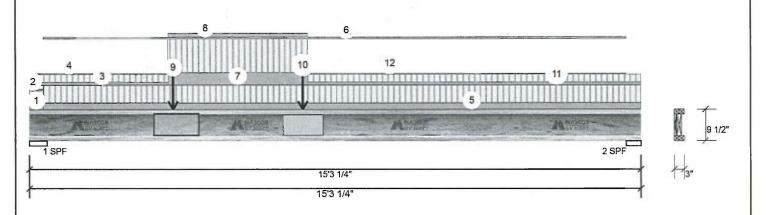
Project: Address: Date:

8/13/2018 RCO Designer:

Job Name: HEMLOCK 3-2

Project #:

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



Member Infor	mation			Unfactore	ed React	ions U	NPATTERNI	ED lb (U	lplift)	
Туре:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snow		Wind
Plies:	2	Design Method:	LSD	1	437		214	0		0
Moisture Conditio	n: Dry	Building Code:	NBCC 2010 / OBC 2012	2	331		161	0		0
Deflection LL:	360	Load Sharing:	No							
Deflection TL:	240	Deck:	Not Checked							
Importance:	Normal	Vibration:	Not Checked							
General Load										
Floor Live:	40 PSF			Bearings	and Fac	tored F	Reactions			
Dead:	15 PSF	51		Bearing L	_ength	Cap.	React D/L lb	Total I	_d, Case	Ld. Comb.
				1-SPF 5	5.250"	30%	267 / 655	923 L	L	1.25D+1.5L
				2-SPF 4	4.375"	23%	201 / 497	699 I	_	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3691 ft-lb	6'10 1/8"	7340 ft-lb	0.503 (50%)	1.25D+1.5L	L
Unbraced	3691 ft-lb	6'10 1/8"	3712 ft-lb	0.995 (99%)	1.25D+1.5L	L
Shear	906 lb	4 1/2"	3080 lb	0.294 (29%)	1.25D+1.5L	L
Perm Defl in.	0.117 (L/1501)	7'3 7/16"	0.486 (L/360)	0.240 (24%)	D	Uniform
LL Defl inch	0.238 (L/735)	7'3 7/16"	0.486 (L/360)	0.490 (49%)	L	L
TL Defl inch	0.355 (L/493)	7'3 7/16"	0.730 (L/240)	0.490 (49%)	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 3'4" o.c.



D DULLUIII II	iange braced at bearing	5.							
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-4-2	(Span)0-8-9	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part, Uniform	0-0-0 to 0-4-2		Тор	2 PLF	0 PLF	0 PLF	0 PLF	
3	Tie-In	0-1-2 to 3-5-10	(Span)0-4-15	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
4	Part, Uniform	0-1-2 to 3-5-10		Тор	1 PLF	0 PLF	0 PLF	0 PLF	
5	Tie-In	0-4-2 to 15-3-4	(Span)0-11-1	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
6	Part, Uniform	0-4-2 to 14-10-13		Тор	2 PLF	0 PLF	0 PLF	0 PLF	
7	Tie-In	3-5-10 to 6-11-10	(Span)1-8-15	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
Continued on	page 2								

Notes

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

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

Handling & Installation

arruting & Installation

I Joist flanges must not be cut or drillad

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

Demaged Lolest 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
 (For flat roofs)
 READ ALL NOTES ON T

This design

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



Version 18.40.162 Powered by iStruct™



Page 2 of 2



Client: GREENPARK

Project: Address:

8/13/2018 Date:

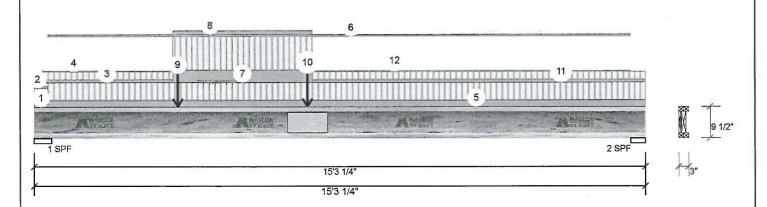
Designer: **RCO**

Job Name: HEMLOCK 3-2

Project #:

2-Ply - PASSED NJ 9.500"

Level: Ground Floor



n page 1								
Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
Part, Uniform	3-5-10 to 6-11-10		Тор	4 PLF	0 PLF	0 PLF	0 PLF	
Point	3-7-2		Near Face	48 lb	98 lb	0 lb	0 lb	F7
Point	6-10-2		Near Face	85 lb	172 lb	0 lb	0 lb	F7
Tie-In	6-11-10 to 15-3-4	(Span)0-4-15	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
Part. Uniform	6-11-10 to 14-10-13		Тор	1 PLF	0 PLF	0 PLF	0 PLF	
	Part. Uniform Point Point Tie-In	Load Type Location Part. Uniform 3-5-10 to 6-11-10 Point 3-7-2 Point 6-10-2 Tie-In 6-11-10 to 15-3-4 Part. Uniform 6-11-10 to	Load Type Location Trib Width Part. Uniform 3-5-10 to 6-11-10 Point 3-7-2 Point 6-10-2 Tie-In 6-11-10 to 15-3-4 (Span)0-4-15 Part. Uniform 6-11-10 to	Load Type Location Trib Width Side Part. Uniform 3-5-10 to 6-11-10 Top Point 3-7-2 Near Face Point 6-10-2 Near Face Tie-In 6-11-10 to 15-3-4 (Span)0-4-15 Top Part. Uniform 6-11-10 to Top	Load Type Location Trib Width Side Dead Part. Uniform 3-5-10 to 6-11-10 Top 4 PLF Point 3-7-2 Near Face 48 lb Point 6-10-2 Near Face 85 lb Tie-In 6-11-10 to 15-3-4 (Span)0-4-15 Top 15 PSF Part. Uniform 6-11-10 to Top 1 PLF	Load Type Location Trib Width Side Dead Live Part. Uniform 3-5-10 to 6-11-10 Top 4 PLF 0 PLF Point 3-7-2 Near Face 48 lb 98 lb Point 6-10-2 Near Face 85 lb 172 lb Tie-In 6-11-10 to 15-3-4 (Span)0-4-15 Top 15 PSF 40 PSF Part. Uniform 6-11-10 to Top 1 PLF 0 PLF	Load Type Location Trib Width Side Dead Live Snow Part. Uniform 3-5-10 to 6-11-10 Top 4 PLF 0 PLF 0 PLF Point 3-7-2 Near Face 48 lb 98 lb 0 lb Point 6-10-2 Near Face 85 lb 172 lb 0 lb Tie-In 6-11-10 to 15-3-4 (Span)0-4-15 Top 15 PSF 40 PSF 0 PSF Part. Uniform 6-11-10 to Top 1 PLF 0 PLF 0 PLF	Load Type Location Trib Width Side Dead Live Snow Wind Part. Uniform 3-5-10 to 6-11-10 Top 4 PLF 0 PLF 0 PLF 0 PLF 0 PLF 0 PLF Point 3-7-2 Near Face 48 lb 98 lb 0 lb 0 lb 0 lb Point 6-10-2 Near Face 85 lb 172 lb 0 lb 0 lb Tie-In 6-11-10 to 15-3-4 (Span)0-4-15 Top 15 PSF 40 PSF 0 PSF 0 PSF Part. Uniform 6-11-10 to Top 1 PLF 0 PLF 0 PLF 0 PLF

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

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

Colculated 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 correstor

Handling & Installation

- Handling & Installation

 1. Joist flarges must not be cut or drilled

 2. Refer to latest copy of the IJoist product information details for framing details, stifferer tables, web noise chart, bridging details, multiply testering details and handling/erection details

 3. Demaged loots must not be used

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

5. Provide lateral support at bearing points to avoid fateral displacement and rotation
6. Web stiffeners for point load as shown Minimum point load bearing length>= 3.5 inches
7. For flat roofs provide proper drainage to prevent ponding

This design is valid until 7/10/2021

Manufacturer Info

Nascor by Kott



Client:

Project: Address: **GREENPARK**

Date:

8/13/2018 RCO

Designer: Job Name: HEMLOCK 3-2 (WOD)

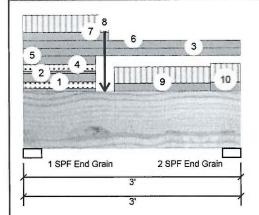
Project #:

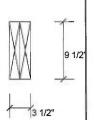
Forex 2.0E-3000Fb LVL

1.750" X 9.500"

2-Ply - PASSED

Level: Ground Floor





Wind

0

0

Ld. Comb.

1.25D+1.5S

1.25D+1.5L

Page 1 of 2

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

Bearings and Factored Reactions											
Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	_					
1-SPF	3.000"	15%	619 / 251	870	L						

Live

129

131

Unfactored Reactions UNPATTERNED Ib (Uplift)

Dead

495

320

End Grain 2-SPF 3.000"

End Grain

Brg

1

2

400 / 196 597 L 10%

Snow

167

69

T.L. WISE 100083566

100083566

August 17, 2018

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	565 ft-lb	1'1 1/2"	16588 ft-lb	0.034 (3%)	1.25D+1.5S	L
Unbraced	565 ft-lb	1'1 1/2"	16588 ft-lb	0.034 (3%)	1.25D+1.5S	L
Shear	550 lb	11 3/4"	6772 lb	0.081 (8%)	1.25D+1.5S	L
Perm Defl in.	0.002 (∐18231)	1'1 13/16"	0.088 (L/360)	0.020 (2%)	D	Uniform
LL Defl inch	0.001 (L/38904)	1'1 1/2"	0.088 (L/360)	0.010 (1%)	S+0.5L	L
TL Defl inch	0.003 (L/12418)	1'1 1/2"	0.131 (L/240)	0.020 (2%)	D+S+0.5L	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.

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

O La	terai sienuerness ratio baseu on r	uli section widui.								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments	
1	Part. Uniform	0-0-0 to 1-0-0		Тор	14 PLF	0 PLF	34 PLF	0 PLF		
2	Part. Uniform	0-0-0 to 1-0-0		Тор	44 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight	
3	Part. Uniform	0-0-0 to 3-0-0		Тор	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight	
4	Part. Uniform	0-0-0 to 1-0-0		Near Face	14 PLF	0 PLF	34 PLF	0 PLF		
5	Part. Uniform	0-0-0 to 1-0-0		Near Face	44 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 criteria and loadings shown, it is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended Lumber

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

Handling & Installation

- Handling & Installation

 1. LVL beams must not be out or drilled

 2. Refer to manufacturer's product information regerding 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

Manufacturer Info APA: PR-L318

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

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



This design

isDesign™

Client:

Project: Address: GREENPARK

Date: Designer: 8/13/2018

RCO

Page 2 of 2

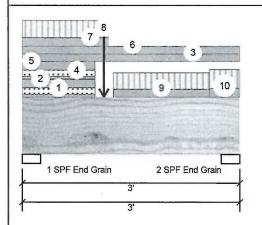
Job Name: HEMLOCK 3-2 (WOD) Project #:

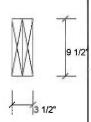
Forex 2.0E-3000Fb LVL

1.750" X 9.500"

2-Ply - PASSED

Level: Ground Floor





Continued fro	om page 1								24
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
6	Part. Uniform	0-0-0 to 3-0-0		Near Face	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
7	Part. Uniform	0-0-0 to 1-2-3		Near Face	43 PLF	90 PLF	0 PLF	0 PLF	J3
8	Point	1-1-8		Тор	312 lb	0 lb	168 lb	0 lb	Header Column Header Column
9	Part. Uniform	1-3-1 to 2-7-1		Near Face	41 PLF	85 PLF	0 PLF	0 PLF	J3
10	Part. Uniform	2-7-1 to 3-0-0		Near Face	46 PLF	97 PLF	0 PLF	0 PLF	J3
	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

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

tastening details, beam strength values, and code approvals.

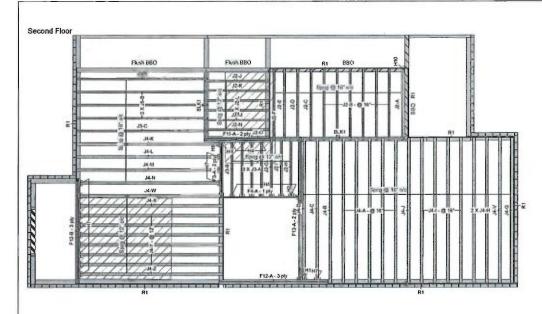
Damaged Beams must not be used
Design assumes top adge is laterally restrained
Provide lateral support at bearing points to avoid lateral displacement and rotation

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info Forex APA: PR-L318

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

This design is valid until 7/10/2021



4 BEDROOM OPTION

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

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 111111

Load from Above Wall Opening Norbord Rimboard Plus 1.125 X 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-086-09
- 5. CCMC -12787-R APA PR-L310(C)

LVL/L										BIACON
	Desci	iption	Width			Qty	Plies	Pcs	Length	NASCO
F13	Forex 2.0E-3	1000Fb LVL	1.75		9.5	1	2	2	16-0-0	
F12	Forex 2.0E-3	1000Fb LVL	1.75		9.5	2	3	6	12-0-0	Layout Name HEMLOCK 3-2
F11	Forex 2.0E-3	000Fb LVL	1.75		9.5	1	2	2	8-0-0	Design Method LSD
F4	Forex 2.0E-3	000Fb LVL	1.75		9.5	- 1		1	8-0-0	Description
F3	Forex 2.0E-3	1000Fb LVL	1.75		9.5	1	2	2	6-0-0	MINNISALE HOMES CORP. BRAMPTON, ONT.
Joist	(Flush)								Created
Label	Descr	iption	Width	De	pth	Oty	Plies	Pcs	Length	June 25, 2018
J4	NJ60L)	3.5		9.5			30	16-0-0	Builder
J5	ИЈН		25		9.5			5	14-0-0	GREENPARK
J2	NJH		2.5		9.5			21	8-0-0	
J3 Rim Bo	NJH		2.5	_	9.5			4	6-0-0	Sales Rep RM
	Desci	intion I	Width	De	pth	Qly	Plies	Pcs	Length	Designer
R1		rd Rimboard	1.125		9.5	41,	1 1103	9	12	RCO
		.125 X 9.5						-		Shipping
Blockin	ng							4		11 0
Label	Desca	ription	Width	De	pth	Oty	Plies		Length	Project
BLK1	NJH		25		9.5 L	inFt		Varies	13-0-0	Builder's Project
Hange						Be	am/Girder	Me	ported ember	Kott Lumber Company 14 Anderson Blvd Stouffville, Ontario
Label	Pcs	Description	n S	kew	Slope		steners		teners	Canada
H1	2	HGUS410					46 16d		6 16d	L4A 7X4
H2	1	HUS1.81/10)				30 16d		0 16d	905-642-4400
H4	11	LT259				4	10dx1 1/2	2 10	dx1 1/2	
146	1	LT359								Job Path
H7	15	LT359					4 10d	2 10	dx1 1/2	D:\Users\rochavilo\WORK FROM HOME\GREENPARKMINNISALE
H10	1	Unknown Hanger								HOMESIMEMLOCK 3'HEMLOCK VFLOOR'REVS BED OPTHEMLO

NOTES:

LVL/LSL (Flush)

- 1. Framer to verify dimensions on the architectural drawings.
 2. Double joist only require filler/backer ply when supporting another member using a face-mounted hanger.
 3. Instal 24 blockering @ 24 oil under parallel non-load bearing walls.
 4. Instal's highe-ply flush window header along inside face of imboard/innigostectifier guide for installation works.
 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.
- two levels foor or roof.
 Load transfer blocks to be installed under all point loads.
 It shall be the framer's responsibility that foor joists and beams are fastened as per the hanger manufacturer's standards.

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

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

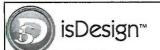
Hatch area represents ceramic filed floor with an additional dead load of 5 PSF

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:

VA3 DESIGN 255 Consumers Rd., Suite 120, Toronto, ON Date: May 24,2018 Project No: 18012 Model: Hernlock 3

	PARKWINNISALE
HOMESWEMLO	DCK 3/HEMLOCK 3- BED OPT/HEMLOC
Second Floo	r
Design Method	LSD
Building Code	NBCC 2010 / OBC 2012
Floor	
Loads	
Live	40
Dead	15
Deflection Jois	t
LL Span L/	480
TL Span L/	360
LL Cant 2L/	480
TL Cant 2L/	360
Deflection Giro	ler
LL Span L/	360
TL Span L/	240
LL Cant 2L/	480
TL Cant 2L/	360
Decking	
Deck	SPF Plywood
Thickness	5/8"
Fastener	Nailed & Glued
Vibration	
Ceiling:	Gypsum 1/2"



Client:

Project: Address: GREENPARK

Date: Designer: 8/13/2018

RCO

Job Name: HEMLOCK 3-2

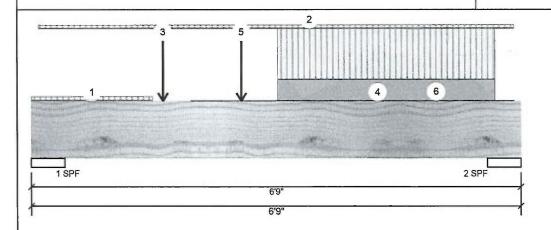
Project #:

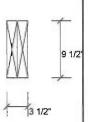
Forex 2.0E-3000Fb LVL

1.750" X 9.500"

2-Ply - PASSED

Level: Second Floor





Page 1 of 1

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

Unfacto	red Reactions	S UNPATTER	NED lb (Uplif	t)
Brg	Live	Dead	Snow	Wind
1	922	401	0	0
2	554	262	0	0

Bearings and Factored Reactions Cap. React D/L lb Bearing Length Total Ld. Case Ld. Comb. 1-SPF 5.500" 16% 502 / 1383 1884 L 1.25D+1.5L 2 - SPF 5.500" 10% 327 / 832 1159 L 1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2614 ft-lb	1'9 3/4"	22724 ft-lb	0.115 (12%)	1.25D+1.5L	L
Unbraced	2614 ft-lb	1'9 3/4"	22023 ft-lb	0.119 (12%)	1.25D+1.5L	L
Shear	2025 lb	1'2 1/4"	9277 lb	0.218 (22%)	1.25D+1.5L	L
Perm Defl in.	0.008 (L/8434)	3' 11/16"	0.199 (L/360)	0.040 (4%)	D	Uniform
LL Defl inch	0.019 (L/3742)	3' 1/16"	0.199 (L/360)	0.100 (10%)	L	L
TL Defl inch	0.028 (L/2592)	3' 1/4"	0.298 (L/240)	0.090 (9%)	D+L	L

Design Notes

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

ROFESSIONALS	
T.L. WISE 100083566	1
Sull 8	1
	The same

August 17, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-8-0	(Span)0-4-7	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-1-4 to 6-7-14	(Span)0-3-9	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-9-12		Near Face	388 lb	972 lb	0 lb	0 lb	F3
4	Part. Uniform	2-2-6 to 6-7-14		Тор	1 PLF	0 PLF	0 PLF	PassPffir	u Framing Squash Block is
5	Point	2-10-12		Near Face	53 lb	117 lb	0 lb		atrall point loads over bearings
6	Part. Uniform	3-4-12 to 6-4-12		Near Face	49 PLF	112 PLF	0 PLF	Refer to 1	Multiple Member Connection
	Self Weight				8 PLF			Detail for requirem	ply to ply nailing or bolting

This design is va

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

Lumber

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

Handling & Installation

- 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

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.



Page 1 of 2



Client: GREENPARK

Project: Address: Date:

8/13/2018 RCO

Designer: Job Name: HEMLOCK 3-2

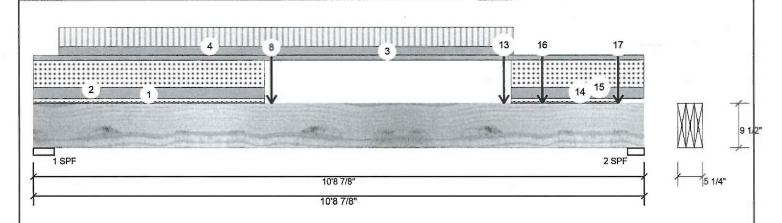
Project #:

Forex 2.0E-3000Fb LVL

1.750" X 9.500"

3-Ply - PASSED

Level: Second Floor



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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	1427	2224	2465	0
2	1595	2230	2408	0

Bearings and Factored Reactions

Bearing	Length	Сар.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	4.375"	51%	2779 / 4411	7191	L	1.25D+1.5S +0.5L
2-SPF	3.500"	64%	2788 / 4409	7197	L	1.25D+1.5S

Analysis Results Analysis Actual Location Allowed Capacity Comb. Case Moment 16700 ft-lb 4'2 3/8" 35449 ft-lb 0.471 (47%) 1.25D+1.5S L +0.5L 0.471 (47%) 1.25D+1.5S L 16700 ft-lb 4'2 3/8" 35449 ft-lb Unbraced +0.5L 6381 lb 9'8 5/8" 13915 lb 0.459 (46%) 1.25D+1.5S L Shear +0.5L Perm Defl in. 0.144 (L/848) 5'4" 0.340 (L/360) 0.420 (42%) D Uniform LL Defl inch 0.200 (L/614) 5'3 3/8" 0.340 (L/360) 0.590 (59%) S+0.5L 5'3 5/8" 0.510 (L/240) 0.670 (67%) D+S+0.5L TL Defl inch 0.344 (L/356)



Design Notes

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

Member Information

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

o Laterar sic	ilucificas fallo pasca	on fair scouldit width.								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments	
1	Part. Uniform	0-0-0 to 4-0-14		Тор	23 PLF	0 PLF	53 PLF	0 PLF		
2	Part. Uniform	0-0-0 to 4-0-14		Тор	173 PLF	0 PLF	403 PLF	0 PLF		
3	Part. Uniform	0-0-0 to 10-8-14		Тор	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight	
4	Part. Uniform	0-5-7 to 8-5-7		Near Face	133 PLF	288 PLF	0 PLF	0 PLF		
8	Point	4-2-6		Тор	442 lb	0 lb	988 lb	0 lb	Header Column	

This des

Continued on page 2...

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

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 1.

parmassis, deans success and code approvals

Damaged Beams must not be used

Design essumes top edge is laterally restrained

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

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

APA: PR-1.318

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





Page 2 of 2



Client: GREENPARK

Project: Address:

8/13/2018 Date:

RCO Designer:

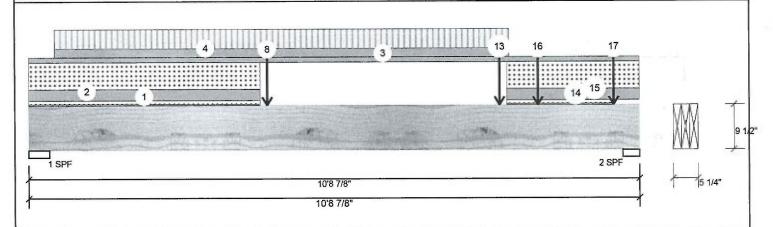
Job Name: HEMLOCK 3-2 Project #:

Forex 2.0E-3000Fb LVL

1.750" X 9.500"

3-Ply - PASSED

Level: Second Floor



Continued fro	om page 1								and the second
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
13	Point	8-3-6		Тор	442 lb	0 lb	988 lb	0 lb	Header Column
14	Part. Uniform	8-4-14 to 10-3-6		Тор	23 PLF	0 PLF	53 PLF	0 PLF	
15	Part. Uniform	8-4-14 to 10-8-14		Тор	173 PLF	0 PLF	403 PLF	0 PLF	
16	Point	8-11-7		Near Face	136 lb	336 lb	0 lb	0 lb	J4
17	Point	10-3-7		Near Face	143 lb	382 lb	0 lb	0 lb	J4
	Self Weight				11 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

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

Handling & Installation

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

approvals

Damaged Beams must not be used

Design assumes top edge is laterally restrained

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

For flat roofs provide proper drainage to prevent ponding

Forex APA: PR-L318

Manufacturer Info

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

This design is valid until 7/10/2021

Page 1 of 1



Client:

Project: Address: GREENPARK

Date:

8/13/2018

RCO Designer:

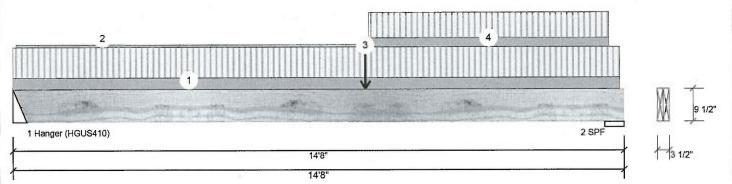
Job Name: HEMLOCK 3-2

Project #:

Forex 2.0E-3000Fb LVL

1.750" X 9.500" 2-Ply - PASSED

Level: Second Floor



/lember Inf	ormation						Unfacto	red React	ions U	NPATTERN	ED lb (Uplift)	
Type:	Girder		Applicatio	n: F	loor (Resident	al)	Brg	Live		Dead	Snow	Wind
Plies:	2		Design M	ethod: L	SD		1	422		234	0	0
Moisture Condi	tion: Dry		Building C	Code: N	IBCC 2010 / O	BC 2012	2	585		292	0	0
Deflection LL:	360		Load Sha	ring: N	lo							
Deflection TL:	240		Deck:	N	lot Checked							
Importance: General Load	Normal		Vibration:	N	lot Checked							
Floor Live:	40 PSF						Bearing	s and Fac	tored F	Reactions		
Dead:	15 PSF		1				Bearing	Length	Cap.	React D/L lb	Total Ld. Case	Ld. Comb.
							1 - Hanger	4.000"	9%	292 / 632	925 L	1.25D+1.5L
nalysis Res	ults						2-SPF	5.500"	10%	365 / 877	1242 L	1.25D+1.5L
Analysis	Actual	Location	Allowed	Capacity	Comb.	Case						The same of the sa
Moment	5610 ft-lb	8'5 3/4"	22724 ft-lb	0.247 (25%	6) 1.25D+1.5L	L					OFESSI	DNA
Unbraced	5610 ft-lb	8'5 3/4"	18853 ft-lb	0.298 (30%	6) 1.25D+1.5L	L					100	101
Shear	1154 lb	13'5 3/4"	9277 lb	0.124 (12%	6) 1.25D+1.5L	L	1				T.L. WI	15
Perm Defl in.	0.083 (L/2020)	7'7 1/8"	0.467 (L/360)	0.180 (18%	6) D	Uniform				1	N TY IAM	OF E
LL Defl inch	0.168 (L/999)	7'8 1/8"	0.467 (L/360)	0.360 (36%	6) L	L				- 1	O J.L. W	OE T
TL Defl inch	•		0.700 (L/240)		•	L				1	100083	500
Design Note					,		1			1	1.0.0	184
	er nailing holes.						1				135000	TO SERVI
	designed to be su	pported on t	he bottom edge	only.							MOE OF	ON
3 Multiple plies must be fastened together as per manufacturer's details.							1				August 17, 2	018
the state of the s	ust be supported	equally by al	l plies.				1				, agast I.,	
5 Top braced	•											
	ed at bearings. derness ratio bas	od on full oor	tion width									
ID	Load Type	eu on juli sec		rib Width	Side	Dead	Liv		ow	Wind Cor	nments	

Lateral	sienderness ratio based	on full section with.						
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind Comments
1	Tie-In	0-0-0 to 14-6-12	(Span)1-1-2	Тор	15 PSF	40 PSF	0 PSF	0 PSF
2	Part, Uniform	0-1-0 to 8-3-11		Тор	2 PLF	0 PLF	0 PLF	0 PLF
3	Point	8-5-12		Far Face	239 lb	583 lb	0 lb	0 lb F4 Pass-Thru Framing Squash Block is
4	Tie-In	8-6-10 to 14-3-12	(Span) 0-10-14	Тор	15 PSF	40 PSF	0 PSF	required at all point loads over bearings
	Self Weight				8 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 critaria 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
 LVI, not to be treated with fire retardant or corrosive

Handling & Installation

Handling & Installation

1. IVL beams must not be cut or drilled

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

3. Damagad Beams must not be used

4. Design assumes top edge is laterally restrained

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

This desi

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.







Client: GREENPARK

Project: Address:

RCO Designer:

Job Name: HEMLOCK 3-2

Project #:

Date:

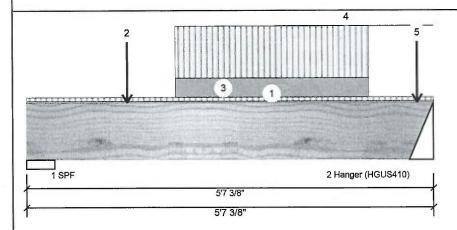
Forex 2.0E-3000Fb LVL

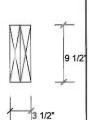
1.750" X 9.500"

2-Ply - PASSED

Level: Second Floor

8/13/2018





Page 1 of 1

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

Unfactored Reactions UNPATTERNED Ib (Uplift)

Brg	Live	Dead	Snow	Wind
1	663	271	0	0
2	972	388	0	0
1				

Bearings and Factored Reactions

_							
Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.	
1-SPF	4.651"	13%	338 / 995	1333	L	1.25D+1.5L	
2 - Hanger	4.000"	19%	484 / 1458	1942	L	1.25D+1.5L	

Analysis Results

Analysis Actual Location Allowed Capacity Comb. Case Moment 1881 ft-lb 2'9 13/16" 22724 ft-lb 0.083 (8%) 1.25D+1.5L L Unbraced 1881 ft-lb 2'9 13/16" 22724 ft-lb 0.083 (8%) 1.25D+1.5L L Shear 1373 lb 1'1 3/8" 9277 lb 0.148 (15%) 1.25D+1.5L L Perm Defl in. 0.005 (L/12746) 2'9 7/8" 0.167 (L/360) 0.030 (3%) D Uniform LL Defl inch 0.012 (L/5124) 2'9 7/8" 0.167 (L/360) 0.070 (7%) L L TL Defl inch 0.016 (L/3655) 2'9 7/8" 0.251 (L/240) 0.070 (7%) D+L L									
Unbraced 1881 ft-lb 2'9 13/16" 22724 ft-lb 0.083 (8%) 1.25D+1.5L L Shear 1373 lb 1'1 3/8" 9277 lb 0.148 (15%) 1.25D+1.5L L Perm Defl in. 0.005 (2'9 7/8" 0.167 (L/360) 0.030 (3%) D Uniform (L/12746) LL Defl inch 0.012 (L/5124) 2'9 7/8" 0.167 (L/360) 0.070 (7%) L L	Γ	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case	
Shear 1373 lb 1'1 3/8" 9277 lb 0.148 (15%) 1.25D+1.5L L Perm Defl in. 0.005 (L/12746) 2'9 7/8" 0.167 (L/360) 0.030 (3%) D Uniform LL Defl inch 0.012 (L/5124) 2'9 7/8" 0.167 (L/360) 0.070 (7%) L L	l	Moment	1881 ft-lb	2'9 13/16"	22724 ft-lb	0.083 (8%)	1.25D+1.5L	L	
Perm Defl in. 0.005 2'9 7/8" 0.167 (L/360) 0.030 (3%) D Uniform (L/12746) LL Defl inch 0.012 (L/5124) 2'9 7/8" 0.167 (L/360) 0.070 (7%) L L	ŀ	Unbraced	1881 ft-lb	2'9 13/16"	22724 ft-lb	0.083 (8%)	1.25D+1.5L	L	
(L/12746) LL Defl inch 0.012 (L/5124) 2'9 7/8" 0.167 (L/360) 0.070 (7%) L	l	Shear	1373 lb	1'1 3/8"	9277 lb	0.148 (15%)	1.25D+1.5L	L	
		Perm Defl in.		2'9 7/8"	0.167 (L/360)	0.030 (3%)	D	Uniform	
TL Defl inch 0.016 (L/3655) 2'9 7/8" 0.251 (L/240) 0.070 (7%) D+L L	١	LL Defl inch	0.012 (L/5124)	2'9 7/8"	0.167 (L/360)	0.070 (7%)	L	L	
	l	TL Defl inch	0.016 (L/3655)	2'9 7/8"	0.251 (L/240)	0.070 (7%)	D+L	L	

Design Notes

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

e ratio based on full section width



	/ Lateral siendel	rness ratio based on	tuli section width.								
1	D	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments	
	1 -	Tie-In	0-0-0 to 5-7-6	(Span)1-1-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
2	2	Point	1-4-11		Far Face	143 lb	382 lb	0 lb	0 lb	J4	
;	3	Part. Uniform	2-0-11 to 4-8-11		Far Face	109 PLF	290 PLF	0 PLF	PasspIhr	u Framing Squash Block is	
4	4	Part. Uniform	3-5-5 to 5-7-6		Тор	1 PLF	0 PLF	0 PLF	required	at all point loads over bearings	
!	5	Point	5-4-11		Far Face	134 lb	358 lb	0 lb	Refer ⁰ tle I	Multiple Member Connection	
		Self Weight				8 PLF			Detail for	ply to ply nailing or bolting	

Notes

Lumber

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

Handling & Installation

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

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

This des

Manufacturer Info

requirements

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™



Page 1 of 1

GREENPARK Client:

Project: Address:

8/13/2018 Date:

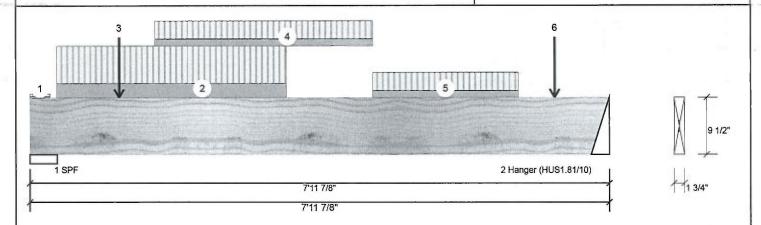
RCO Designer:

Job Name: HEMLOCK 3-2

Level: Second Floor

Project #:

1.750" X 9.500" - PASSED Forex 2.0E-3000Fb LVL



Member Info	rmation			Unfactore	d React	ions UNPATTERN	ED lb (Uplift)
Туре:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow
Plies:	1	Design Method:	LSD	1	978	389	0
Moisture Condition	on: Dry	Building Code:	NBCC 2010 / OBC 2012	2	583	239	0
Deflection LL:	360	Load Sharing:	No				
Deflection TL:	240	Deck:	Not Checked				
Importance:	Normal	Vibration:	Not Checked				
General Load							
Floor Live:	40 PSF			Bearings :	and Fact	ored Reactions	
Dead:	15 PSF			Bearing L	_ength	Cap. React D/L lb	Total Ld. Case

Analysis Results

ı	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
l	Moment	3003 ft-lb	3'2 15/16"	11362 ft-lb	0.264 (26%)	1.25D+1.5L	L
	Unbraced	3003 ft-lb	3'2 15/16"	4978 ft-lb	0.603 (60%)	1.25D+1.5L	L
ı	Shear	1594 lb	1'1 1/4"	4638 lb	0.344 (34%)	1.25D+1.5L	L
	Perm Defl in.	0.028 (L/3259)	3'9 3/4"	0.250 (L/360)	0.110 (11%)	D	Uniform
ı	LL Defl inch	0.069 (L/1310)	3'9 9/16"	0.250 (L/360)	0.270 (27%)	L	L
	TL Defl inch	0.096 (L/934)	3'9 5/8"	0.374 (L/240)	0.260 (26%)	D+L	L

Design Notes

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

Brg	Live	Dead	Snow	Wind					
	070	200	_	•					

2	583	239	0	Ü

Bearings and Factored Reactions											
Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.					
1-SPF	4.500"	40%	486 / 1467	1953	L	1.25D+1.5L					
2 - Hanger	3.000"	30%	298 / 874	1172	L	1.25D+1.5L					



0

August 17, 2018

4 DULLUIII	braced at bearings.									
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments	
1	Tie-In	0-0-0 to 0-3-6	(Span)0-10-7	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
2	Part. Uniform	0-4-8 to 3-6-8		Тор	90 PLF	240 PLF	0 PLF	0 PLF		
3	Point	1-2-12		Far Face	46 lb	117 lb	0 lb	0 lb	J3	
4	Part. Uniform	1-8-12 to 4-8-12		Far Face	44 PLF	112 PLF	0 PLF	0 PLF		
5	Part. Uniform	4-8-12 to 6-8-12		Far Face	45 PLF	116 PLF	0 PLF	0 PLF		
6	Point	7-2-12		Far Face	42 lb	111 lb	0 lb	Pass-Thr	u Framing Squash Block is at all point loads over bearings	
	Self Weight				4 PI F			required	at an point loads over boarings	

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

Manufacturer info

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

testerning detains, partition approvals approvals
pamaged Beams must not be used
Design assumes top edge is laterally restrained
Provide lateral support at bearing points to avoil
lateral displacement and rotation

For flat roofs provide proper drainage to prevent ponding

IN THE DESIGN OF THIS COMPONENT.

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

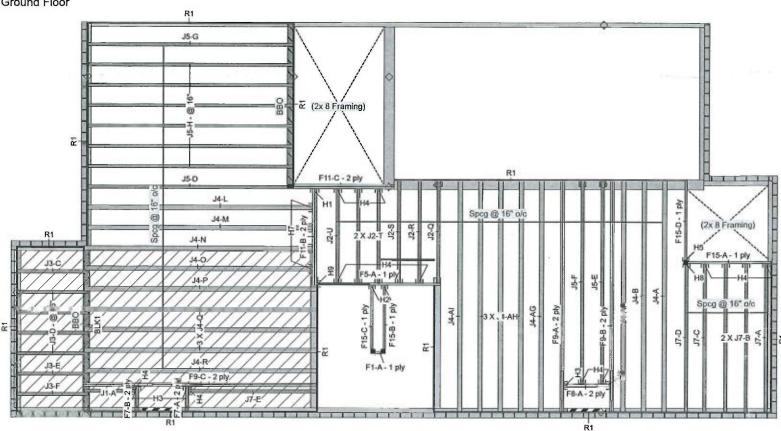
Forex

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

This desi

Lumber





WHERE FOUNDATION WALLS MUST BE LATERALLY SUPPORTED AND NO DETAIL IS PROVIDED BY THE BUILDING DESIGNER, SEE DETAIL U3 IN THE NASCOR SPECIFIER GUIDE

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.





OF BRAMPTON BUILDING DIVISION MARY FRE

Legend



Load from Above Wall Wall Opening Norbord Rimboard Plus 1.125 X 9.5 NI95 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)

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

LVL/LS Label	Desci		Width	De	pth	C	Qty	Plies	Pcs	Length	
F5	Forex	3000Fb LVL	1.75		9.5		,	, ,,,,,	1	10-0-0	40-6
F11	Forex		1.75		9.5		2	2	4	8-0-0	Layout Nar
F15	Forex 2.0E-3000Fb LVL		1.75		9.5				4	6-0-0	Design Met
F1	Forex 2.0E-3	3000Fb LVL	1.75		9.5				1	2-0-0	Description
Joist (Flush			0	1616-5						MINNISALE
	Desci	ription	Width	De	pth	C	ty	Plies	Pcs	Length	BRAMPTON
F9	NJ		1.5		9.5		3	2	6	16-0-0	Revised
F8	NJ		1.5		9.5		1	2	2	4-0-0	August 13, 2
F7	NJ		1.5		9.5		2	2	4	2-0-0	Builder
J4	NJ60L	j	3.5		9.5				17	16-0-0	GREENPAR
J5	NJH		2.5		9.5				10	14-0-0	
J7	NJH		2.5		9.5				6	10-0-0	Sales Rep
J2	NJH		2.5		9.5				6	8-0-0	RM
J3	NJH		2.5 2.5		9.5				7	6-0-0	Designer
J1	NJH				9.5				1	4-0-0	RCO
Rim Bo											Shipping
Label	Descr	1	Width	De	pth	C	ty	Plies	Pcs	Length	Project
R1		rd Rimboard .125 X 9.5	1.125		9.5				12	12	Builder's Pr
Blockin	g										Kott Lun
Label	Descr	iption	Width	De	pth	Q	ty	Plies	Pcs	Length	14 Andersor
BLK1	NJH	4	2.5		9.5	Liı	nFt		Varies	8-0-0	Stouffville, C
Hanger Label		Doggring		kovi	Cle			ım/Girder	Me	ported ember	Canada L4A 7X4 905-642-440
	Pcs	Description	1 5	kew	Slop	Je		steners	-	teners	Job Path
H1	1	HGUS410	46 16d 16 16d			D:\Users\roc					
H2	2	HUS1.81/10	,			+		30 16d		0 16d	HOME\GRE
H3 H4	16	LT2-159 LT259				+		0dx1 1/2		dx1 1/2	HOMES\HE
H4 H5	16	L1259		4 10dx1 1/2		210	ldx1 1/2	\FLOOR\RE			
H7	4	LT359	_			+		4 10d	2 40	dx1 1/2	Ground FI
H8	1	LT259	-			+		4 100	210	UXT 1/Z	Design Meth
H9	1	HUCQ1.81/	9-			+				Build	

NOTES:

Ground Floor

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

SDS

- 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/rimioist. Refer to Nascor specifier guide for installation works.
- Squash blocks recommended to be installed at end bearing on all first level joists which support loading from above exceeding two levels floor or roof.
- . Load transfer blocks to be installed under all point loads.
- 8. It shall be the framer's responsibility that floor joists and beams are fastened as per the hanger manufacturer's standards.

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

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

Hatch area represents ceramic tiled floor with an additional dead load

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

ARCHITECTURAL DRAWINGS:

VA3 DESIGN 255 Consumers Rd., Suite 120, Toronto, ON Date: Rev.5; July 23,2018 Project No: 18012 Model: Hemlock 3

NASCOR Layout Name

HEMLOCK 3-2 Design Method LSD

Description MINNISALE HOMES CORP.

BRAMPTON, ONT. Revised

August 13, 2018 Builder **GREENPARK**

Designer **RCO**

Shipping Project Builder's Project

Kott Lumber Company 14 Anderson Blvd

Stouffville, Ontario Canada L4A 7X4 905-642-4400

Job Path D:\Users\rochavillo\WORK FROM HOME\GREENPARK\MINNISALE HOMES\HEMLOCK 3\HEMLOCK 3-2 \FLOOR\REV\F-HEMLOCK 3-2 ENG

Ground Floor

LSD Design Method Building Code NBCC 2010 / OBC 2012

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

TL Span L/ 240 LL Cant 2L/ 480 TL Cant 2L/ 360 Decking SPF Plywood Deck

Thickness

Fastener

Vibration

37R

3/4"

Nailed & Glued

18-411410,000-00.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

Job Path

Second Floor

Design Method

Deflection Joist

LL Span L/

TL Span L/

LL Cant 2L/

TL Cant 2L/

LL Span L/

TL Span L/

LL Cant 2L/

TL Cant 2L/

Decking

Thickness

Fastener

Vibration

Deck

Deflection Girder

Floor

Loads

Live

Dead

2 10dx1 1/2

D:\Users\rochavillo\WORK FROM HOME\GREENPARK\MINNISALE

HOMES\HEMLOCK 3\HEMLOCK 3-2

\FLOOR\REV\5 BED OPT\HEMLOCK

Building Code NBCC 2010 / OBC

LSD

2012

40

15

480

360

480

360

360

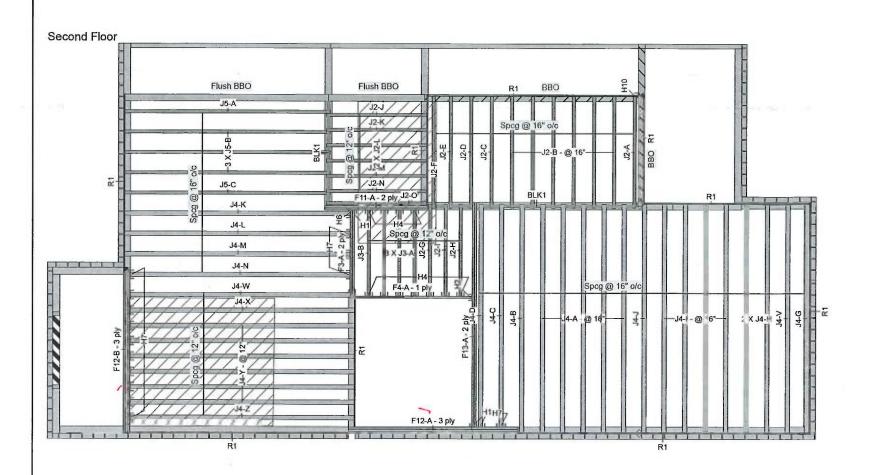
240

480

360

SPF Plywood

Nailed & Glued



4 BEDROOM OPTION

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 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)



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.

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

ARCHITECTURAL DRAWINGS:

VA3 DESIGN 255 Consumers Rd., Suite 120, Toronto, ON Date: May 24,2018 Project No: 18012 Model: Hemlock 3

Secon										kanasa sa
LVL/LS										ALACCO!
Label	Descr	iption	Width	De	pth	Qty	Plies	Pcs	Length	NASCO
F13	Forex 2.0E-3	000Fb LVL	1.75		9.5	1	2	2	16-0-0	
F12	Forex 2.0E-3	000Fb LVL	1.75		9.5	2	3	6	12-0-0	Layout Name HEMLOCK 3-2
F11	Forex 2.0E-3	000Fb LVL	1.75		9.5	1	2	2	8-0-0	Design Method
F4	Forex 2.0E-3	000Fb LVL	1.75		9.5			1	8-0-0	Description
F3	Forex 2.0E-3	000Fb LVL	1.75		9.5	1	2	2	6-0-0	MINNISALE HOMES CORP. BRAMPTON, ONT.
I Joist	(Flush)					_				Created
Label	Descr	iption	Width	De	pth	Qty	Plies	Pcs	Length	June 25, 2018
J4	NJ60U		3.5		9.5			30	16-0-0	Builder
J5	NJH		2.5		9.5			5	14-0-0	GREENPARK
J2	NJH		_ 2.5	-	9.5		122	21	8-0-0	
	J3 NJH		2.5		9.5			4	6-0-0	Sales Rep
Rim Bo	pard				-35					RM
Label			Width	De	pth	Qty	Plies	Pcs	Length	Designer
R1		rd Rimboard 125 X 9.5	1.125		9.5			9	12	RCO
Blockin				-						Shipping
Label		iption	Width	De	pth	Qty	Plies	Pcs	Length	Project
BLK1	NJH	1	2.5	_	9.5	LinFt		Varies	13-0-0	Builder's Project
Hange	r									Kott Lumber Company
						Bea	am/Girde		oported ember	14 Anderson Blvd
Label	Pcs	Description	n Si	kew	Slope	e fa	steners	fas	teners	Stouffville, Ontario
H1	2	HGUS410					46 16d	1	6 16d	Canada
H2	1	HUS1.81/10)				30 16d	1	0 16d	L4A 7X4
H4	11	LT259				4	10dx1 1/2	2 10)dx1 1/2	905-642-4400
										Late Date

4 10d

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

1 LT359 15 LT359

Unknown

Hanger

1

H6

H7

H10

NOTES:

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

I. Install single-ply flush window header along inside face of rimboard/rimjoist.

6. Refer to Nascor specifier guide for installation works.

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

Load transfer blocks to be installed under all point loads.

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

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

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

Hatch area represents ceramic tiled floor with an addtional dead load

MULTIPLE MEMBER CONNECTIONS

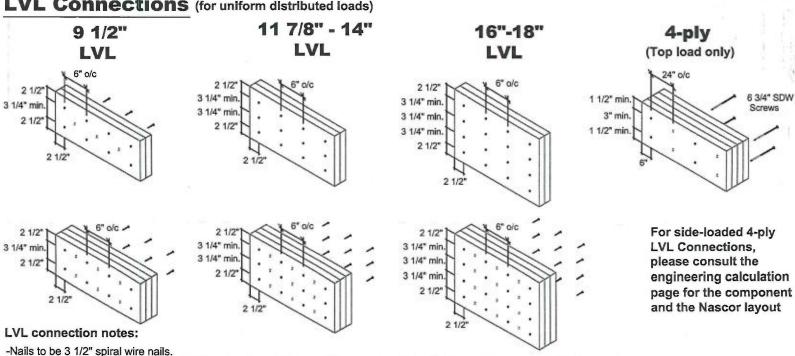
Conventional Connections (for uniform distributed loads)

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

Conventional connection notes:

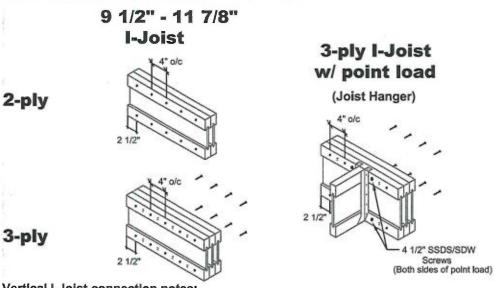
- -Nails to be 3" 10d spiral wire nails.
- -Nails to be located a minimum of 2" from the top and bottom of the member. Start all nails a minimum of 2 1/2" in from ends.
- -Number of rows and spacing as per details shown, unless noted otherwise.
- "X" represents nail driven from the opposite side.

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.

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

Date: November 30, 2016 Scale: NTS

MULTI-PLY

CONNECTION

DETAILS