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.



IULTIPLE MEMBER CONNECTI

Conventional Connections (for uniform distributed loads)

2x6

2x8

2x10

2x12

2-ply





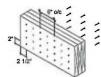


3-ply









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.

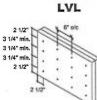
 -"X" represents nail driven from the opposite side.

LVL Connections (for uniform distributed loads)

9 1/2" LVL

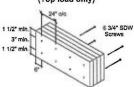


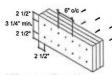
11 7/8" - 14" LVL

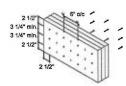


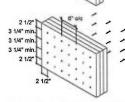
16"-18"

4-ply (Top load only)









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

LVL connection notes:

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

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

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

Vertical I-Joist Connections (for uniform distributed loads)

9 1/2" - 11 7/8"

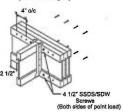


2-ply



w/ point load (Joist Hanger)

3-ply I-Joist



3-ply

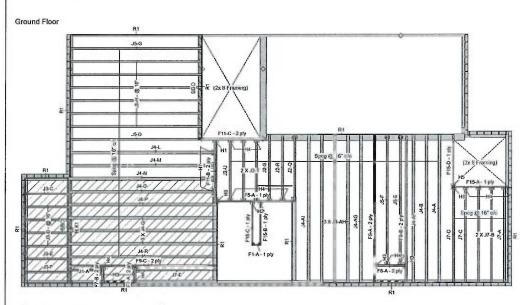
Vertical I-Joist connection notes:

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

3228 Moodle Drive

MULTI -PLY CONNECTION DETAILS

Ottawa, ON K2H 7V1 Ph: 613-838-2775 13-838-4751



WHERE FOUNDATION WALLS MUST BE LATERALLY SUPPORTED AND NO DETAIL IS PROVIDED BY THE BUILDING DESIGNER, SEE DETAIL US 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.





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

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

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
F5	Forex 2.0E-3000Fb LVL	1.75	9.5			1	10-0-0
Fil	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
l Joist (Flush)						
Label	Description	Width	Depth	Qty	Plies	Pcs	Length
F9	NJ	1.5	9.5	3	2	6	16-0-0
F8	NJ	1.5	9.5	1	2	2	4-0-0
F7	NJ	15	9.5	2	2	4	2-0-0
J4	NJ60U	35	9.5			17	16-0-0
J5	HUN	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
J1	HUM	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		. 7		145-		
Label	Description	Width	Depth	Qty	Plies	Pcs	Length
BLK1	NJH	2.5	9,5	LinFt		Varies	8-0-0

NOTES

Ground Floor LVL/LSL (Flush)

- 1. Fran 2. Doub
- anoth
 3. Insta
 4. Insta
 finbo
 5. Refe
 6. Squa
 all fin
 two I
 7. Load
 8. It she
 faste

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

F5	Forex	OOOF6 LVL	1.75		9.5			- 1	10-0-0				
F11	Forex		1.75		9.5	,2	2	4	8-0-0	Layout Name HEMLOCK 3-2			
F15	Forex	000Fb LVL	1.75		9.5	_		4	6-0-0	Design Method	Design Method		
F1	Forex	000Fb LVL	1.75	-	9.5			1	2-0-0	LSD			
		000Fb LVL		Ļ_						Description MINNISALE HOR	HES CORD		
Label			Width	De	nth	Qty	Plies	Pcs	Length	BRAMPTON, ON			
F9	NJ	spuore	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, 2018			
F7	NJ		15		9.5	2	2	4	2-0-0	Builder			
J4	NJ60L		35		9.5			17	16-0-0	GREENPARK			
J5	NJH		2.5		9.5			10	14-0-0	Sales Rep			
J7 J2	HLM		2.5 2.5		9.5 9.5	_		6	10-0-0 8-0-0	RM			
J2 J3	NJH		2.5		9.5	_	-	7	6-0-0	Designer			
J1	NJH		2.5		9.5			1	4-0-0	RCO			
Rim Bo				_	,					Shipping			
Label	Descr	iption	Width	De	pth	Qty	Plies	Pcs	Length	Project			
R1	Norbo	rd Rimboard			9.5			12	12				
		125 X 9.5							L	Builder's Project			
Blockir			Width	I n-	_4L T	O4	Plies	Pcs	Length	Kott Lumbe			
BLK1	Descr	iption	2.5		pth 9,5	Qty	Piles	Varies	8-0-0	14 Anderson Blv			
Hange			2.3		9.51	CHIPT_		Adtica	8-0-0	Stouffville, Ontari	ю		
lalige	•					He	am/Girde	r Su	ported	Canada 14A7X4			
									ember	905-642-4400			
Label	Pcs	Descriptio	n S	kew	Slo	pe fa	asteners	fas	teners				
H1	1	HGUS410					46 16d		6 16d	Job Path	W DWORK FROM		
H2	2	HUS1.81/1	0	- 1			30 16d		0 16d		Holwork From Varkhinnisale		
Н3	4	LT2-159					10dx1 1/2		dx1 1/2	HOMESVHEMLO	CK 3 HEMLOCK 3-2		
H4 H5	16	LT259				1 4	10dx1 1/2	210	ldx1 1/2		HEMLOCK 3-2 ENG		
H7	4	LT359		_	_	_	4 10d	210	dx1 1/2	Ground Floor			
Н8	1	LT259				\neg		1		Design Method	LSD		
H9	1	HUCQ1.81	<i>1</i> 9-			1		1		Building Code	NBCC 2010 / OBC 2012		
		SDS				i				Floor	Luic		
NOTES										Loads			
1 Fram	er to ve	rify dimensio	ons on the	archi	tectur	al drawir	nas.			Live	40		
2. Doub	le joist o	nly require fi	ller/backe	r ply	when	supporti				Dead	15		
		ber using a facking @ 24"								Deflection Joist			
		ply flush win						us.		LL Span L/	480		
rimbo	ard/nm)	oist.			-					TL Span L/	360		
		or specifier (orina on			LL Cant 2L/	480		
		sists which s								TL Cant 2L/	360		
two le	vels for	or or roof.		_			11111			Deflection Girde			
		blocks to be framer's res								LL Span L/	360		
		er the hange					1 Dearns of	•		TL Span L/	240		
										LL Cant 2L/	480		
Referto bolting r		Member Co	onnection	Detai	to ph	y to ply n	railing or			TL Cant 2L/	360		
										Decking			
Rim par	allel to j	oists: 1-1/8"	rimboard	with 2	'x 4"	block (1/	16° longer	than	- 1	Deck	SPF Plywood 3/4*		
nm depl	h@16	o/c). All oth oor system s	er compo	ments	and:	structura	I elements		1	Thickness	Naded & Glued		
foundati	on walls	and footings	s including	ganci	horag	e of com	ponents ar	nd		Fastener Vibration	Nated & Gibed		
Hatch a		esents ceran	nic filed fi	oor w	ith an	addtiona	al dead loa	d					
The fran	nina sha	wn on this la	evout may	devi	ale fro	om the ar	rchitectural		- 1				

isDesign™

Client:

GREENPARK

Project: Address: Date:

8/13/2018

RCO

Designer: Job Name: HEMLOCK 3-2

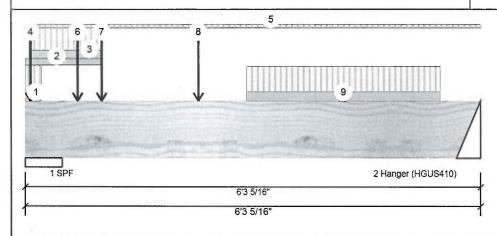
Project #:

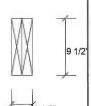
Forex 2.0E-3000Fb LVL F11-B

1.750" X 9.500"

2-Ply - PASSED

Level: Ground Floor





Page 1 of 2

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		

Unfactored Reactions UNPATTERNED Ib (Uplift)

Brg	Live	Dead	Snow	Wind
1	3682	1598	0	0
2	916	382	0	0
1				

Bearings and Factored Reactions

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

Analysis Results

Member Information

	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
	Moment	3105 ft-lb	2'4 5/8"	22724 ft-lb	0.137 (14%)	1.25D+1.5L	L
	Unbraced	3105 ft-lb	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	L
	TL Defl inch	0.032 (L/2078)	3'1 3/16"	0.278 (L/240)	0.120 (12%)	D+L	L
_							



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

Load Type

Part. Uniform

Part. Uniform

Part. Uniform

Point



Live Wind Comments 296 PLF 0 PLF OPLE .14 0 PLF 0 PLF 0 PLF Wall Self Weight 250 PLF 0 PLF 0 PLF

0 lb

Continued on page 2...

ID

1

2

3

4

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

Location

0 - 0 - 14

0-0-0 to 0-2-10

0-0-0 to 1-0-10

0-0-10 to 1-0-10

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
Demaged Beams must not be used
Provide lateral support at bearing points to avoid
lateral displacement and retails

Trib Width

Side

Top

Тор

Top

Near Face

lateral displacement and rotation

For flat roofs provide proper drainage to prevent pending

Dead

123 PLF

80 PLF

97 PLF

350 lb

893 lb

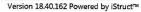
Manufacturer Info APA: PR-L318

0 lb

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







Address:

GREENPARK

Project:

Date:

8/13/2018

Designer: RCO

Job Name: HEMLOCK 3-2

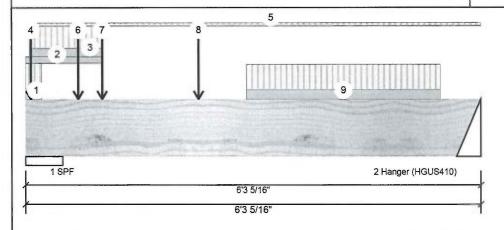
Project #:

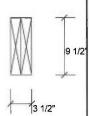
Forex 2.0E-3000Fb LVL

1.750" X 9.500"

2-Ply - PASSED

Level: Ground Floor





Page 2 of 2

Continued	from 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	0 lb	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

Notes

NOLVES

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

Handling & Installation

1. LVL beams must not be cut or drilled

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

3. Demaged Beams must not be used

4. Design assumes top edge is laterally restrained

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

This design is valid until 7/10/2021

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex APA: PR-L318

GREENPARK

Project: Address: Date:

8/13/2018

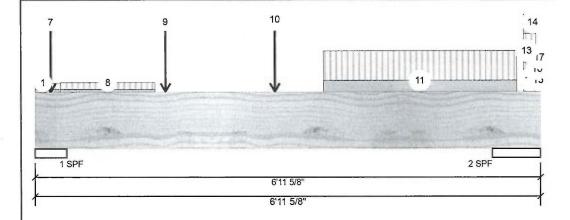
Page 1 of 2

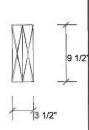
Designer: RCO

Job Name: HEMLOCK 3-2 Project #:

1.750" X 9.500" 2-Ply - PASSED Forex 2.0E-3000Fb LVL F11-C

Level: Ground Floor





Wind

0

Total Ld. Case

3872 L

1267 L

0

Ld. Comb.

1.25D+1.5L 1.25D+1.5L

iviembe	r information
Type:	Girdor

1,100.	011 401
Plies:	2
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal
General Load	
Floor Live:	40 PSF

15 PSF

Application: Design Method: **Building Code:**

Load Sharing:

Floor (Residential) LSD

NBCC 2010 / OBC 2012 No

Not Checked Deck: Vibration: Not Checked Unfactored Reactions UNPATTERNED lb (Uplift) Brg Live Dead Snow

1875

Bearings and Factored Reactions

Bearing Length

1 - SPF 5.250"

2-SPF 8.000"

2	609	282	0	0

Cap. React D/L lb

1060 / 2812

353 / 914

34%

7%

848

Analysis Results

Dead:

Ī	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
	Moment	2490 ft-lb	1'9 5/8"	22724 ft-lb	0.110 (11%)	1.25D+1.5L	L
	Unbraced	2490 ft-lb	1'9 5/8"	22015 ft-lb	0.113 (11%)	1,25D+1.5L	L
	Shear	1931 lb	1'2"	9277 lb	0.208 (21%)	1.25D+1.5L	L
	Perm Defl in.	0.008 (L/8960)	3'1 3/8"	0.200 (L/360)	0.040 (4%)	D	Uniform
	LL Defl inch	0.019 (L/3866)	3'1 7/16"	0.200 (L/360)	0.090 (9%)	L	L
	TL Defl inch	0.027 (L/2701)	3'1 7/16"	0.299 (L/240)	0.090 (9%)	D+L	L
-							

T.L. WISE 100083566 100083566 August 17, 2018

Design Notes

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

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-4-4	(Span)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 lb	Wall Self Weight
5	Point	0-2-10		Тор	401 lb	922 lb	0 lb	0 lb	F11 F11
Continued or	n nage 2								

Continued on page 2...

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

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

Handling & Installation

- andining & InStallation

 LVL beams must not be cut or drilled

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

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

For flat roots provide proper drainage to prevent ponding

This desig

Manufacturer Info APA: PR-L318

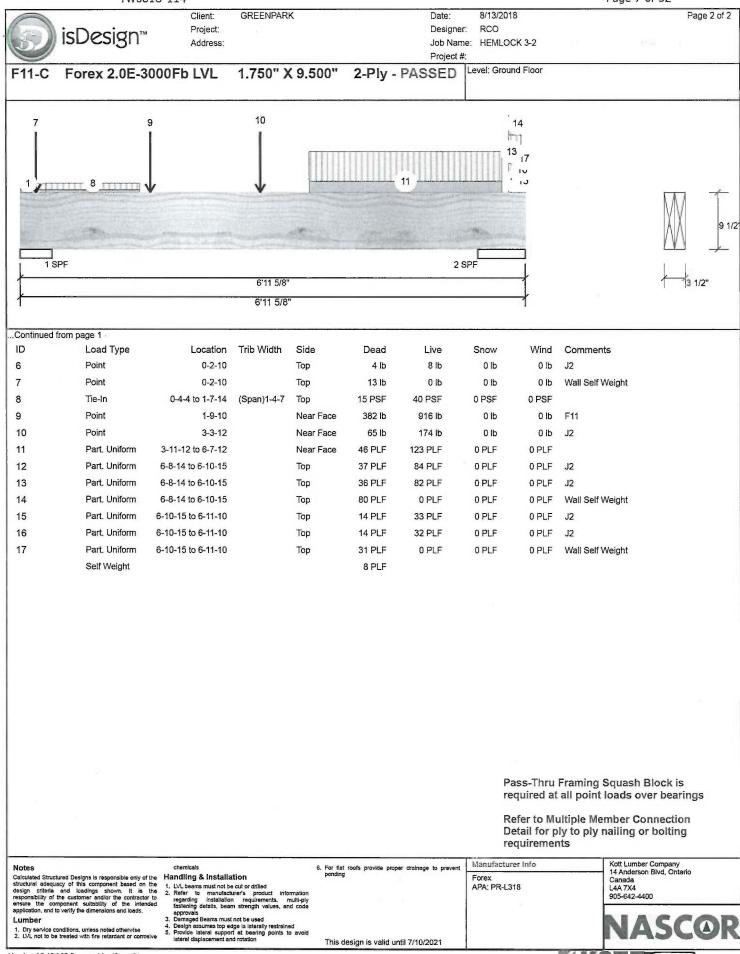
READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

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



Version 18.40.162 Powered by iStruct™





This design is valid until 7/10/2021

Project:

GREENPARK

Address:

Date:

8/13/2018

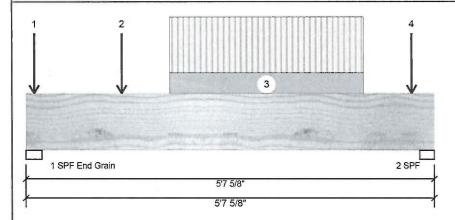
RCO Designer:

Job Name: HEMLOCK 3-2

Project #:

F15-A Forex 2.0E-3000Fb LVL 1.750" X 9.500" - PASSED

Level: Ground Floor





Page 1 of 1

_					
B.4 .		Y			
Ινιε	:mp	er II	nto	rma	tion

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

Unfactored Reactions UNPATTERNED Ib (Uplift)

Brg	Live	Dead	Snow	Wind
1	665	273	2	0
2	516	599	56	0

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 +0.5\$	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

Bearings and Factored Reactions

Bearing	Length	Cap.	React 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

Design Notes

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

3 Bottom braced at bearings.



August 17, 2018

IC	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Point	0-1-6		Near Face	97 lb	259 lb	0 lb	0 lb	J7
2	Point	1-3-14		Near Face	92 lb	245 lb	0 lb	0 lb	J7
3	Part. Uniform	1-11-14 to 4-7-14		Near Face	72 PLF	193 PLF	0 PLF	0 PLF	
4	Point	5-3-14		Near Face	470 lb	163 lb	58 lb	_0 lb	J7 Framing Squash Block is
	Self Weight				4 PLF				all point loads over bearings

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

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

Lumber

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

Handling & Installation

- andling & Installation.

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

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

This design is val

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex APA: PR-L318

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

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GREENPARK

Address:

Project:

Date:

8/13/2018

Page 1 of 1

Designer:

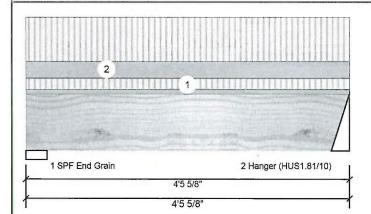
Job Name: HEMLOCK 3-2

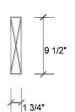
Project #:

F15-B Forex 2.0E-3000Fb LVL 1.750" X 9.500" - PASSED

Brg

Level: Ground Floor





Wind

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

1 2	183 179	77 76	0	0
	(10	70	Ü	ŭ
Rearing	and Factored	Reactions		

Dead

Unfactored Reactions UNPATTERNED Ib (Uplift)

Live

Analysis Res	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
TL Defl inch	0.004 (L/10965)	2'3 1/16"	0.203 (L/240)	0.020 (2%)	D+L	L

Bearing Length Cap. React D/L lb Total Ld. Case Ld. Comb. 96 / 274 1-SPF 3.500" 8% 371 L 1.25D+1.5L End Grain 2 -3.000" 9% 95 / 269 364 L 1.25D+1.5L Hanger



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.

Member Information

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				

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

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

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

Handling & Installation

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

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info Forex

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This des



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Project: Address:

8/13/2018

Designer: RCO

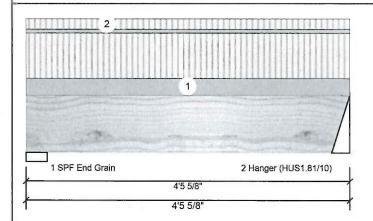
Job Name: HEMLOCK 3-2

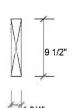
Project #:

Date:

F15-C Forex 2.0E-3000Fb LVL 1.750" X 9.500" - PASSED

Level: Ground Floor





Wind

Page 1 of 1

Girder	Application:	Floor (Residential)
1	Design Method:	LSD
Dry	Building Code:	NBCC 2010 / OBC 2012
360	Load Sharing:	No
240	Deck:	Not Checked
Normal	Vibration:	Not Checked
40 PSF		
15 PSF	i	
	1 Dry 360 240 Normal	1 Design Method: Dry Building Code: 360 Load Sharing: 240 Deck: Normal Vibration:

Unfactored	Reactions	UNPATTERNED	lb (Uplift)
Brg	Live	Dead	Snow

1	198	83	U	U
2	195	81	0	0

Analysis Results

Member Information

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	365 ft-lb	2'3 1/16"	11362 ft-lb	0.032 (3%)	1.25D+1.5L	L
Unbraced	365 ft-lb	2'3 1/16"	8769 ft-lb	0.042 (4%)	1.25D+1.5L	L
Shear	220 lb	1' 1/4"	4638 lb	0.047 (5%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/34346)	2'3 1/16"	0.135 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.003 (L/14366)	2'3 1/16"	0.135 (L/360)	0.030 (3%)	L	L
TL Defl inch	0.005 (L/10129)	2'3 1/16"	0.203 (L/240)	0.020 (2%)	D+L	L

Bearings and Factored Reactions

	Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.	
	1 - SPF End Grain	3.500"	9%	104 / 298	401	L	1.25D+1.5L	
	2 - Hanger	3.000"	10%	102 / 292	394	L	1.25D+1.5L	
_					/	- GESSIO	No.	•

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.

Load Type

Self Weight

Tie-In

Tie-In

/	PROFESSIONALENG	\
LICENSED	T.L. WISE 100083566	NEER
1	Sul 18	
Aua	ust 17, 2018	

40 PSF	0 PSF	0 PSF	
40 PSF	0 PSF	0 PSF	

Wind

Snow

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

Comments

ID

2

Lumber

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

chemicals

Handling & Installation

Location

0-0-0 to 4-5-10

Trib Width

0-0-0 to 4-5-10 (Span)0-9-14 Top

(Span)3-6-15 Top

Side

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

Dead

15 PSF

15 PSF

4 PLF

Manufacturer Info Forex

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Project:

Date:

8/13/2018

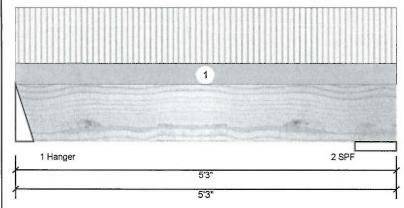
Designer: **RCO** Job Name: HEMLOCK 3-2

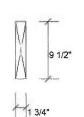
Project #:

1.750" X 9.500" - PASSED Forex 2.0E-3000Fb LVL F15-D

Address:

Level: Ground Floor





Page 1 of 1

lember Inf	ormation						Unfacto	red React	ions U	NPATTERN	ED lb (Uplift)	
Туре:	Girder		Applicatio	n: Fl	oor (Residenti	al)	Brg	Live		Dead	Snov	W	Wind
Plies:	1		Design M	ethod: LS	SD		1	70		36		0	0
Moisture Cond	ition: Dry		Building C	Code: N	BCC 2010 / O	BC 2012	2	79		40		0	0
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						Bearing	s and Fact	tored	Reactions			
Dead:	15 PSF						Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
							1 - Hanger	3.000"	4%	44 / 105	149	L	1.25D+1.5L
nalysis Res	sults						2-SPF	6.875"	2%	50 / 118	169	Ļ	1.25D+1.5L
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						ee8810	
Unbraced	157 ft-lb	2'5 9/16"	8088 ft-lb	0.019 (2%)	1.25D+1.5L	L					108	0	MAL
Shear	90 lb	11 3/4"	4638 lb	0.019 (2%)	1.25D+1.5L	L					10		10
Perm Defl in.	0.001 (∐66907)	2'5 9/16"	0.152 (L/360)	0.010 (1%)	D	Uniform				- /	FINS	T 1 - 10/15	SE SE
LL Defl inch	0.002 (L/34092)	2'5 9/16"	0.152 (L/360)	0.010 (1%)	L	L				1	7	100083	566
TL Defl inch	0.002 (L/22584)	2'5 9/16"	0.228 (L/240)	0.010 (1%)	D+L	L				\	1	1.0	1841

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

August 17, 2018

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 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

landling & 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 approvels
Demaged Beams must not be used
Design assumes top edge is laterally restrained.
Provide lateral support at bearing points to evoid lateral displacement and rotation

Manufacturer Info APA: PR-L318

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Project: Address: Date:

8/13/2018 RCO

Page 1 of 1

Designer: Job Name: HEMLOCK 3-2

Project #:

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





Wind

0 0

Ld. Comb.

1.25D+1.5L

Snow

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	1	

	1	25	11	0	
12	2	25	11	0	
	Bearings	and Factore	d Reactions		

Live

Unfactored Reactions UNPATTERNED Ib (Uplift)

Dead

Analysis Res	Analysis Results											
Analysis	Actual	Location	Allowed	Capacity	Comb.	Case	_					
Moment	5 ft-lb	4 1/16"	11362 ft-lb	0.000 (0%)	1.25D+1.5L	L						
Unbraced	5 ft-lb	4 1/16"	11362 ft-lb	0.000 (0%)	1.25D+1.5L	L						
Shear	40 lb	-(2 3/8")	4638 lb	0.009 (1%)	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/999)	0	999.000 (L/0)	0.000 (0%)								
TL Defl inch	0.000 (L/999)	0	999,000 (L/0)	0.000 (0%)								

Bearing	Length	Сар.	React D/L lb	Total	Ld. Case
1 - SPF End Grain	1.750"	2%	13 / 37	51	L
2-SPF	1.750"	2%	13 / 37	51	L
End Grain				/	OFESSIO
				1 08	and the same of



August 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
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				4 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

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

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

For flat roofs provide proper drainage to prevent ponding

Brg

Manufacturer Info Forex

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Client:

GREENPARK

Project: Address:

3

Date:

8/13/2018

RCO Designer:

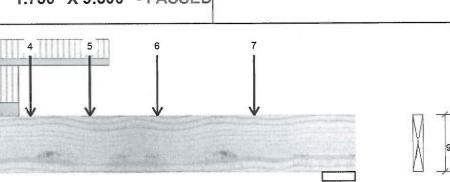
Job Name: HEMLOCK 3-2

Project #:

Forex 2.0E-3000Fb LVL

2

Level: Ground Floor 1.750" X 9.500" - PASSED



1 Hanger

8'1

Unfactored	Reactions	LINPATTERNED	lb	(Unlift)	

Member Info	rmation			Unfacto	red Reaction	S UNPATTER!	NED
Туре:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	
Plies:	1	Design Method:	LSD	1	1339	525	
Moisture Condition	on: Dry	Building Code:	NBCC 2010 / OBC 2012	2	1160	459	
Deflection LL:	360	Load Sharing:	No				
Deflection TL:	240	Deck:	Not Checked				
Importance:	Normal	Vibration:	Not Checked				
General Load							
Floor Live:	40 PSF	ì		Bearing	s and Factore	d Reactions	

Dead: 15 PSF

Bearing	Length	Cap. I	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	3.000"	68%	656 / 2008	2664	L	1.25D+1.5L
2-SPF	5.500"	39%	574 / 1741	2315	L	1.25D+1.5L

Snow

0

0

Wind

0

0

Analysis Results

	770.77					
Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	5089 ft-lb	3'7 3/8"	11362 ft-lb	0.448 (45%)	1.25D+1.5L	L
Unbraced	5089 ft-lb	3'7 3/8"	5098 ft-lb	0.998 (100%)	1.25D+1.5L	L
Shear	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
TI Deflinch	0.167 (1/538)	3'10 5/8"	0.375 (L/240)	0.450 (45%)	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 must be laterally braced at a maximum of 7'3 3/4" o.c.



August 17, 2018

4 Bottom b	raced at bearings.								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-1-0 to 3-5-8		Тор	90 PLF	240 PLF	0 PLF	0 PLF	
2	Point	1-4-6		Far Face	65 lb	174 lb	0 lb	0 lb	J2
3	Part. Uniform	2-0-6 to 4-8-6		Far Face	46 PLF	123 PLF	0 PLF	0 PLF	
4	Point	3-7-6		Near Face	81 lb	195 lb	0 lb	0 lb	F15
5	Point	4-5-4		Near Face	76 lb	179 lb	0 lb	Pass-Thru	Framing Squash Block is
6	Point	5-4-6		Far Face	155 lb	413 lb	0 lb	required at	all point loads over bearings
7	Point	6-8-6		Far Face	150 lb	400 lb	0 lb		ultiple Member Connection
	Self Weight				4 PLF			Detail for p requirement	ly to ply nailing or bolting nts

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component besed on his 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
 LVL not to be treated with fire retardant or corrosive

Handling & Installation

- and ling & Installation

 LVL beams must not be cut or drilled

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

 Damaged Beams must not be used

 Design assumes top edge is laterally restrained

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

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info Forex APA: PR-L318

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Project: Address:

8/13/2018 Date:

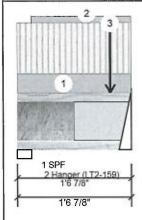
Designer RCO

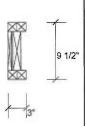
Job Name: HEMLOCK 3-2

Project #:

2-Ply - PASSED NJ 9.500"

Level: Ground Floor





Ld. Comb.

1.25D+1.5L

1.25D+1.5L

Page 1 of 1

Member Info	ormation			Unfacto	red Reaction	S UNPATTER	NED Ib (Uplif	t)
Type:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow	Wind
Plies:	2	Design Method:	LSD	1	71	34	0	0
Moisture Condi	tion: Dry	Building Code:	NBCC 2010 / OBC 2012	2	172	85	0	0
Deflection LL:	360	Load Sharing:	No					
Deflection TL:	240	Deck:	Not Checked	()				
Importance:	Normal	Vibration:	Not Checked					
General Load								
Floor Live:	40 PSF			Bearing	s and Factor	ed Reactions		

Bearing Length

2.000"

1 - SPF 2.375"

Hanger

Cap. React D/L lb

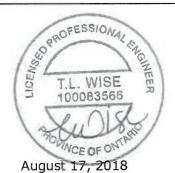
42 / 107

106 / 258

6%

14%

Analysis Res	ults						
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	_



Total Ld. Case

149 L

363 L

Design Notes

Dead:

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

15 PSF

- 5 Top flange braced at bearings.
- 6 Bottom flange braced at bearings.

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

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
 Uses not to be treated with fire retardant or continuous.

Handling & Installation

- Handling & Installation

 1. Libist flanges must not be cut or drilled

 2. Refer to latest copy of the Libist product Information details for framing details, stiffener tables, web hole tohar, bridging details, multi-ply testening details and handling/erection details

 3. Demaged Loists must not be used

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

Provide lateral support at bearing points to avoid lateral displacement and rotation.
 Web stiffeness for point load as shown Minimum point load bearing.
 For flat roofs READ ALL NOTES ON THE POINT POINT PARTY OF THE PARTY OF TH

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

Manufacturer Info

Nascor by Kott

This design is valid until 11 10/2021





GREENPARK

Project: Address:

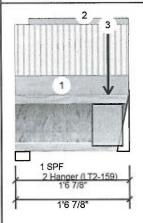
8/13/2018 Date: RCO

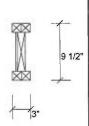
Designer: Job Name: HEMLOCK 3-2

Project #:

2-Ply - PASSED NJ 9.500"

Level: Ground Floor





Page 1 of 1

Member I	nformation			Unfacto	red Reactions	S UNPATTERI	NED lb (Uplift)	1
Type:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow	

Plies: 2 Design Method: LSD NBCC 2010 / OBC 2012 Moisture Condition: Dry **Building Code:** Deflection LL: 360 Load Sharing: Not Checked Deflection TL: 240 Deck: Importance: Normal Vibration: Not Checked General Load Floor Live: 40 PSF **15 PSF** Dead:

Wind 28 0 0 60 48 0 98

Bearings and Factored Reactions Cap. React D/L lb Total Ld. Case Ld. Comb. Bearing Length 125 L 1 - SPF 2.375" 35 / 90 1.25D+1.5L 5% 2.000" 8% 60 / 148 208 L 1.25D+1.5L

Analysis Results

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

T.L. WISE 100083566 100083566 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 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

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
 Uses not to be treated with fire retardant or corrosive

Handling & Installation

- arriculting is Installation.

 Librist flanges must not be cut or drilled.

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

 Damaged bloists 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 bearts 7. For flat roofs

Hanger

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 ruizuzi

Manufacturer Info Nascor by Kott







GREENPARK Client:

Project: Address: Date:

8/13/2018

Page 1 of 1

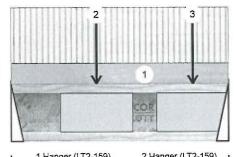
RCO Designer:

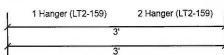
Job Name: HEMLOCK 3-2

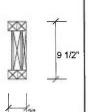
Project #:

2-Ply - PASSED NJ 9.500"

Level: Ground Floor







Wind

0

0

Member	Information
-	
-	O!

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) Live Dead Snow Brg

111

295

1

2 39	8 14	.9	U	U
		_		
Bearings and Fa	ctored React	ions		
Pooring Longth	Con Poor	D/I lb Total	Ld Caso Lo	Comb

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	576 ft-lb	1'2 1/8"	7340 ft-lb	0.078 (8%)	1.25D+1.5L	L
Unbraced	576 ft-lb	1'2 1/8"	4678 ft-lb	0.123 (12%)	1.25D+1.5L	L
Shear	776 lb	2'10 3/4"	3080 lb	0.252 (25%)	1.25D+1.5L	L
Perm Defl in.	0.002 (L/20392)	1'2 1/8"	0.093 (L/360)	0.020 (2%)	D	Uniform
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

bearing.	Julia Lac	coica i	teactions.				
Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.	
1 - Hanger	2.000"	22%	138 / 442	581	L	1.25D+1.5L	
2 - Hanger	2.000"	30%	187 / 597	783	L	1.25D+1.5L	

Design Notes

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

Load Type Tie-In

Point

Point

- 5 Top flange braced at bearings.
- 6 Bottom flange braced at bearings.



0 PSF 0 lb J5 Pass-Thru Framing Squash Block is

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

required at all point loads over bearings

Comments

ID

1

2

3

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

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

Handling & Installation

Location

1-2-2

2-6-2

0-0-0 to 3-0-0

Trib Width

(Span)1-8-15 Top

Side

Far Face

Far Face

- Distribution must not be cut or drilled Refer to latest copy of the Units product Information details for farming details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details Damaged Joiets must not be used
- Danaged uposts 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

This design

Dead

15 PSF

127 lb

94 lb

Live

40 PSF

338 lb

250 lb

Snow

0 PSF

0 lb

Manufacturer Info

Nascor by Kott

Wind

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:

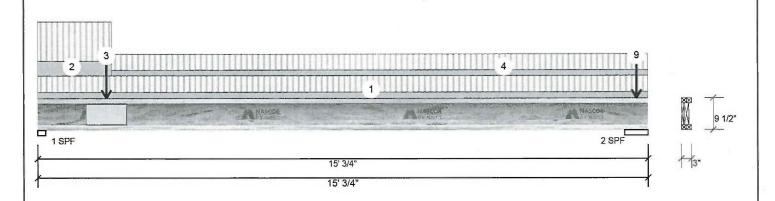
Project: Address: GREENPARK

8/13/2018 Date:

RCO. Designer: Job Name: HEMLOCK 3-2

Project #:

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



Member Infor	mation			Unfactor	ed React	ions UNPATTER	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	n: 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	1					
General Load									
Floor Live:	40 PSF			Bearings	and Fac	tored Reactions			
Dead:	15 PSF			Bearing	Length	Cap. React D/L lt	Total Ld. Case	Ld. Comb.	
				1-SPF	2.375"	53% 339 / 1083	3 1422 L	1.25D+1.5L	
		<u> </u>		2-SPF	6.875"	70% 619 / 1546	3 2164 L	1.25D+1.5L	

Analysis Results

_	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
	Perm Defl in.	0.091 (L/1892)	7'1 11/16"	0.481 (山/360)	0.190 (19%)	D	Uniform
	LL Defl inch	0.244 (L/710)	7'1 11/16"	0.481 (L/360)	0.510 (51%)	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.

I	5 Bottom flange	braced at bearings.								
I	ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
I	1	Tie-In	0-0-0 to 15-0-12	(Span)1-4-6	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
١	2	Tie-In	0-0-0 to 1-9-14	(Span)3-3-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
I	3	Point	1-8-6		Near Face	111 lb	295 lb	0 lb	0 lb	F8
ı	4	Tie-In	1-9-14 to 15-0-12	(Span)1-3-10	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
I	5	Point	14-9-6		Тор	19 lb	49 lb	0 lb	0 lb	J4
I	6	Point	14-9-6		Тор	118 lb	314 lb	0 lb	0 lb	J4
ı	7	Point	14-9-6		Тор	12 lb	32 lb	0 lb	0 lb	J4

Continued on page 2...

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

Dry service conditions, unless noted otherwise
 Use to be treated with fire retardant or corresive

Handling & Installation

- Librat langes must not be cut or drilled Refer to latest copy of the Librat product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details Damaged Librats must not be used
- Damaged Usiass 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 lang-lang-3.5 Inches
 For flat roofs provide READ ALL NOTES C

Nascor by Kott

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

Manufacturer Info

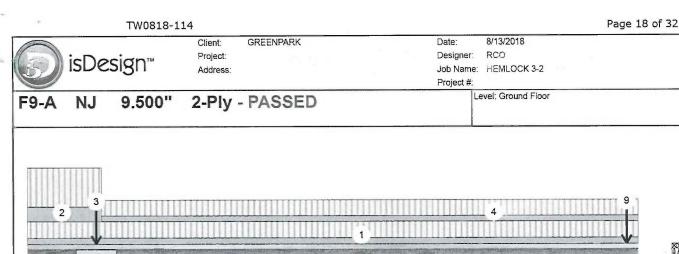
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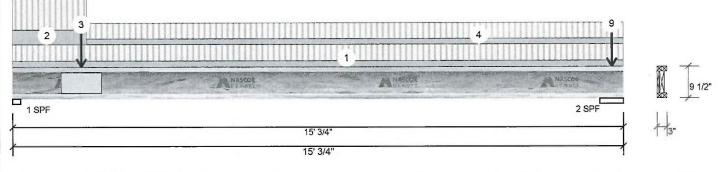


August 17, 2018



Page 2 of 2





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

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
 Unist not to be treated with fire retardant or corresive

Handling & Installation

Handling & Installation

1. Uoist flanges must not be cut or drilled

2. Refer to latest copy of the Lioist product information details for framing details, sufficient to ables, web hole-charb bridging details, nutlity fastering details and handling/section details

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 lateral displacement and rotation

For flat roofs provide proper drainage to prevent pointing.

This is the support at bearing points to avoid lateral support at bearing points of lateral support at bearing points at bearing displacement and rotation. 1.

Manufacturer Info

Nascor by Kott



Client:

GREENPARK

Project: Address:

Date:

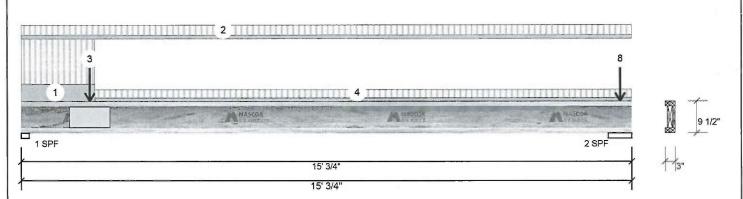
8/13/2018

Designer: RCO HEMLOCK 3-2

Job Name: Project #:

NJ 9.500" 2-Ply - PASSED F9-B

Level: Ground Floor



lember Infor	mation			Unfactore	d Reactio	ons UNPATTERN	ED lb (Uplift)	
Туре:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow	Wind
Plies:	2	Design Method:	LSD	1	642	240	0	0
Moisture Condition	n: Dry	Building Code:	NBCC 2010 / OBC 2012	2	373	276	69	0
Deflection LL:	360	Load Sharing:	No					
Deflection TL:	240	Deck:	Not Checked					
Importance:	Normal	Vibration:	Not Checked					
General Load								
Floor Live:	40 PSF			Bearings a	nd Facto	red Reactions		
Dead:	15 PSF			Bearing Le	ength	Cap. React D/L lb	Total Ld. Case	Ld. Comb.
				1-SPF 2	.375"	47% 300 / 962	1263 L	1.25D+1.5L
nalysis Resul	ts	I		2-SPF 6.	.875"	31% 345 / 594	940 L	1.25D+1.5L +0.5S

Analysis Ke	suits					
Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
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
Shear	1242 lb	1 5/8"	3080 lb	0.403 (40%)	1.25D+1.5L	L
Perm Defl in.	0.060 (L/2896)	6'10 13/16"	0.481 (L/360)	0.120 (12%)	D	Uniform
LL Defl inch	0.159 (L/1086)	6'10 13/16"	0.481 (L/360)	0.330 (33%)	L+0.5S	L
TL Defl inch	0.219 (L/790)	6'10 13/16"	0.721 (L/240)	0.300 (30%)	D+L+0.5\$	L



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

- 2 Multiple plies must be fastened together as per manufacturer's details.
- 3 Top loads must be supported equally by all plies.
- 4 Top flange must be laterally braced at a maximum of 4'6" o.c.

a Bollom	nange braced at bearing	JS.							
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 OTTE	Framing Squash Block is
5	Point	14-9-6		Тор	30 lb	0 lb	69 lb	requiredigt	all point loads over bearings
6	Point	14-9-6		Тор	53 lb	0 lb	0 lb	Refer to bu	ultiple Member 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	requiremen	115Wall Self Weight

Notes

Natures

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
 Upost not to be treated with fire retardant or contains

Handling & Installation

- Handling & Installation

 1. Julist flarges must not be cut or drilled

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

 3. Damaged floists must not be used

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

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

6. Web stiffeners for point load as shown Minimum point load bearing length>= 3.5 Inches

7. For flat roofs provide READ ALL NOTES Conciling

This design is va

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

IN THE DESIGN OF THIS COMPONENT.

Manufacturer Info

Nascor by Kott





GREENPARK Client:

Project: Address: Date:

8/13/2018

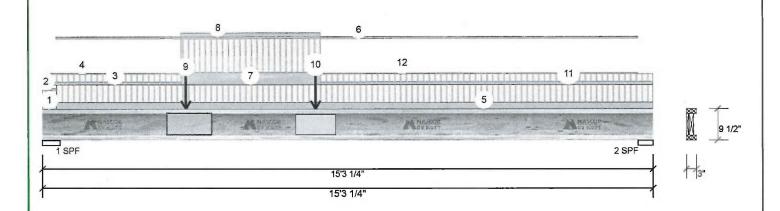
RCO Designer:

Job Name: HEMLOCK 3-2

Project #:

2-Ply - PASSED NJ 9.500"

Level: Ground Floor



Member Information					Unfactored Reactions UNPATTERNED lb (Uplift)				
Type:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow	Wind	
Plies:	2	Design Method:	LSD	1	437	214	0	0	
Moisture Condition	on: 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 Facto	ored Reactions			
Dead:	15 PSF			Bearing	Length	Cap. React D/L lb	Total Ld. Case	Ld. Comb.	
				1 - SPF	5.250"	30% 267 / 655	923 L	1.25D+1.5L	

2 - SPF 4.375"

23%

201 / 497

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.

5 Bottom flange braced at bearings

2 BOLLOITI IIA	nge braced at bearing	3.								
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 n	age 2									

Continued on page 2...

Notes

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

chemicals

Handling & Installation

- andling & Installation

 I Joist flanges must not be cut or drilled

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

 Demaged Lolists must not be used

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

This design

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 goodes condended in reserve

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

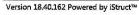
Nascor by Kott



1.25D+1.5L

699 L

August 17, 2018





Page 2 of 2



Client: GREENPARK

Project: Address: Date:

8/13/2018 RCO

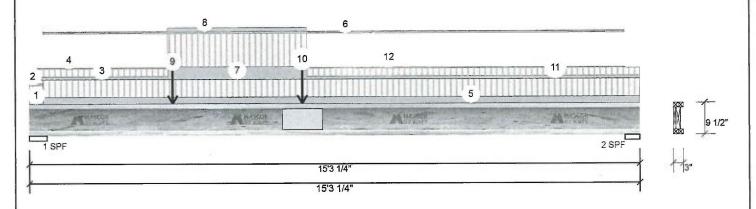
Designer: Job Name: HEMLOCK 3-2

Project #:

9.500" NJ F9-C

2-Ply - PASSED

Level: Ground Floor



Continued from p	age 1								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
8	Part. Uniform	3-5-10 to 6-11-10		Тор	4 PLF	0 PLF	0 PLF	0 PLF	
9	Point	3-7-2		Near Face	48 lb	98 lb	0 lb	0 lb	F7
10	Point	6-10-2	40	Near Face	85 lb	172 lb	0 lb	0 lb	F7
11	Tie-In	6-11-10 to 15-3-4	(Span)0-4-15	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
12	Part. Uniform	6-11-10 to 14-10-13		Тор	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

Notes

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

Lumber

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

Handling & Installation

- Handling & Installation

 1. Liolst flanges must not be cut or drilled

 2. Rafer to latest copy of the Lioist product information details for framing details, eitherer tables, web hole chort. bridging details, multi-ply testening details and handling/erection details

 3. Demaged Lioists 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 isteral displacement and rotation.
 Web stiffeners for point load as shown Minimum point load bearing length>= 3.5 Inches
 For flat roofs provide proper drainage to pravent ponding.

This design is valid until 7/10/2021

Manufacturer Info

Nascor by Kott



GREENPARK

Project: Address: Date:

8/13/2018

Page 1 of 2

Designer: RCO

HEMLOCK 3-2 (WOD) Job Name:

Project #:

Forex 2.0E-3000Fb LVL FH3-A

1.750" X 9.500"

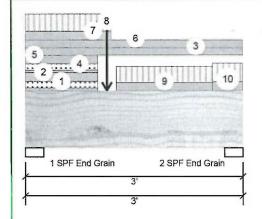
2-Ply - PASSED

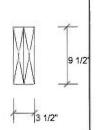
Brg

1

2

Level: Ground Floor





Wind

0

0

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

Bearings	and	Factored	Re	eacti	ons	
Bearing	Lengti	n Car) F	React	D/L	ΙĿ

Live

129

131

Unfactored Reactions UNPATTERNED lb (Uplift)

Dead

495

320

Total Ld. Case Ld. Comb. 1-SPF 3.000" 619 / 251 870 L 1.25D+1.5S 15% End Grain 2-SPF 3.000" 10% 400 / 196 1.25D+1.5L 597 1. End Grain

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

Load Type

Part. Uniform

Part. Uniform

Part. Uniform

Part, Uniform

Part, Uniform



Snow

167

69

Wind Comments 0 PLF 0 PLF Wall Self Weight 0 PLF Wall Self Weight

Wall Self Weight

Continued on page 2...

Notes

ID

1

2

3

4

5

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

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

Handling & Installation

Location

0-0-0 to 1-0-0

0-0-0 to 1-0-0

0-0-0 to 3-0-0

0-0-0 to 1-0-0

0-0-0 to 1-0-0

Trib Width

Side

Top

Top

Top

Near Face

Near Face

This design

- andling & Installation

 LVL beams must not be cut or drilled

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

 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

Dead

14 PLF

44 PLF

40 PLF

14 PLF

44 PLF

Live

0 PLF

0 PLF

0 PLF

0 PLF

0 PLF

Manufacturer Info APA: PR-L318

0 PLF

0 PLF

Snow

34 PLF

0 PLF

0 PLF

34 PLF

0 PLF

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

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



Version 18.40.162 Powered by iStruct™





Project: Address: GREENPARK

Date: 8/13/2018

Designer: RCO

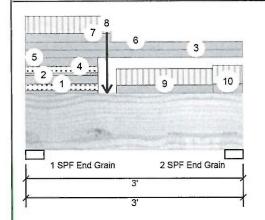
Job Name: HEMLOCK 3-2 (WOD)

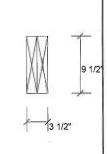
Project #:

FH3-A Forex 2.0E-3000Fb LVL 1,750" X 9.500"

2-Ply - PASSED

Level: Ground Floor





Page 2 of 2

Continued from	page 1								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
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

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

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

chemicals

- Handling & Installation
- landling & Installation

 LVL beams must not be cut or drilled.

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

 Demagae Beams must not be used.

 Design assumes top edge is laterally restretned.

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

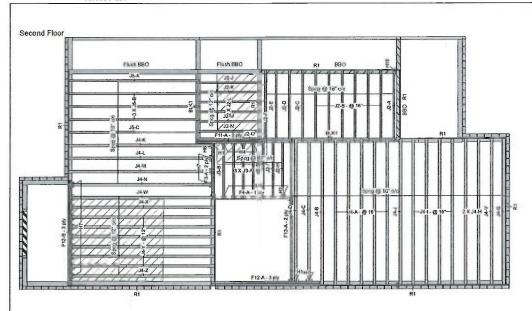
For flat roofs provide proper drainage to prevent ponding

Forex APA: PR-L318

Manufacturer Info

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

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 0



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)

Second Floor LVL/LSL (Flush) Width Depth Qty Plies Pcs Length Label Description F13 Forex 2.0E-3000Fb LVL 12-0-2 6 F12 1 75 9.5 Forey 2.0E-3000Fb LVL 8-0-F11 Forex 2.0E-3000Fb LVL 1.75 9.5 2 8-0-F4 Forex 2.0E-3000Fb LVL 1.75 60 2 Forex 2.0E-3000Fb LVL Joist (Flush)
 Width
 Depth
 Qty
 Plies
 Pcs
 Length

 3.5
 9.5
 30
 16-0 Label Description J4 NJ60 J5 NJH 5 14-0-21 8-0 2.5 9.5 J2 NJH J3 NJH 2.5 9.5 2.5 9.5 4 6-0-Rim Board Width Depth | Qty | Plies | Pcs | Length Label Description 1.125 Plus 1.125 X 9.5 Blocking Width Depth Qty Plies Pcs Lengt 25 9.5 LinFt Varies 13-0-Label Description BLK1 NJH Hanger Beam/Girder

Member Label Pcs Description Skew Slope fasteners fasteners H1 2 HGUS410 H2 1 HUS1.81/10 46 16d 16 16d 30 16d H4 11 LT259 4 10dx1 1/2 2 10dx1 1/2 H6 1 LT359 H7 15 LT359 4 10d 2 10dx1 1/ H10 1 Unknown Hanger

NOTES:

- Framer to verify dimensions on the architectural drawings.
 Double joist only require file ribacker ply when supporting
- another member using a face-mounted hanger.
- anouter memoer using a frect-mounten ranger.

 I install 2x4 blocking @ 2x7 cut outlet partiel non-load bearing walls.

 I install single-ply flush window header along inside face of imboard/minjoist.

 5. Refer to Nascor specifier guide for installation works.

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

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

Rim parallel to joists: 1-1/8" rimboard with 2"x 4" block (1/16" longer than from depth @ 16" o/o). 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: Hemlock 3

н	3	
ч	_	Layout Name
	۱,	HEMLOCK 3-2
Ц	0	Design Method
н		LSD
Н	ויי	Description
Н	ō	MINNISALE HOMES CORP.
		BRAMPTON, ONT.
	_	Created
t		June 25. 2018
Н		Builder
H		GREENPARK
Н		Sales Rep
-	_	RM
t	7	Designer
t	2	RCO
		Shipping
	_	Project
t		
Н	0	Builder's Project
d		Kott Lumber Company
ď		14 Anderson Blvd
5		Stouffville, Ontario
		Canada L4A 7X4
2		905-642-4400
		Job Path
2	Ц	D:\Users\rochavilk\\WORK FROM HOME\GREENPARK\/JINNISALE
		HOMESTHEMLOCK 3THEMLOCK 3-2
	Г	VFLOORVREVAS BED OPTHEMLOCI
	П	Second Floor
	Ш	Design Method LSD
		Building Code NBCC 2010 / OBC 2012
	П	Floor
		Loads
		Live 40
ı	Ш	Dead 15
J	П	Deflection Joist
ı	l	LL Span L/ 480

TL Span L/

LL Cant 2L/

TL Cant 2L/

LL Span L/

TL Span L/

fl Cant 21/

TI Cant 21/

Decking

Fastener

Vibration

Ceiling:

Deck Thickness

Deflection Girder

360

480

360

360

240

480

360

SPF Plywood

Nailed & Glued

Gypsum 1/2"

Project:

GREENPARK

Address:

8/13/2018 Date:

Designer: RCO

Job Name: HEMLOCK 3-2

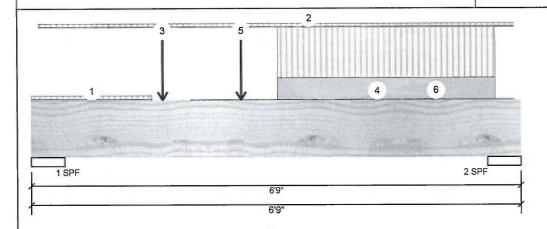
Project #:

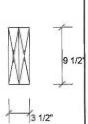
Forex 2.0E-3000Fb LVL

1.750" X 9.500"

2-Ply - PASSED

Level: Second Floor





Page 1 of 1

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	
1	922	401	0	0	
2	554	262	0	0	
Bearing	s and Factore	d Reactions			

Unfactored Reactions UNPATTERNED Ib (Uplift)

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

Analysis Results

Member Information

	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
ı	Moment	2614 ft-lb	1'9 3/4"	22724 ft-lb	0.115 (12%)	1.25D+1.5L	L
ı	Unbraced	2614 ft-lb	1'9 3/4"	22023 ft-lb	0.119 (12%)	1.25D+1.5L	L
l	Shear	2025 lb	1'2 1/4"	9277 lb	0.218 (22%)	1.25D+1.5L	L
l	Perm Defl in.	0.008 (L/8434)	3' 11/16"	0.199 (L/360)	0.040 (4%)	D	Uniform
l	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



- 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.



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	required attall point loads over bearings		
6	Part. Uniform	3-4-12 to 6-4-12		Near Face	49 PLF	112 PLF	0 PLF	Refer to I	Multiple Member Connection	
	Self Weight				8 PLF				ply to ply nailing or bolting	

This design is vali

Notes

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

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

chemicals

Handling & Installation

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

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info Forex APA: PR-L318

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



Member Information

Client:

Address:

GREENPARK

Project:

Date: 8/13/2018

Designer: RCO

HEMLOCK 3-2 Job Name:

Project #:

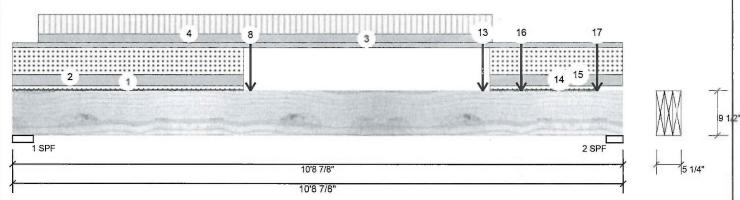
Forex 2.0E-3000Fb LVL

1.750" X 9.500"

3-Ply - PASSED

Level: Second Floor

Unfactored Positions LINDATTERNED Ib (Unlift)



Member Imo	rmauon			Uniactor	ed Keacti	ons u	INPATTERIN	בט ום (נ	piirty	
Туре:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snow		,
Plies:	3	Design Method:	LSD	1	1427		2224	2465		
Moisture Condition	on: Dry	Building Code:	NBCC 2010 / OBC 2012	2	1595		2230	2408		
Deflection LL:	360	Load Sharing:	Yes							
Deflection TL:	240	Deck:	Not Checked							
Importance:	Normal	Vibration:	Not Checked							
General Load										_
Floor Live:	40 PSF			Bearings	and Facto	ored F	Reactions			
Dead:	15 PSF			Bearing	Length	Сар.	React D/L lb	Total	Ld. Case	_
				1-SPF	4.375"	51%	2779 / 4411	7191	L	

Analysis Results 2-SPF 3.500" 64% 2788 / 4409 Analysis Actual Location Allowed Capacity Comb. Case 16700 ft-lb 4'2 3/8" 35449 ft-lb 0.471 (47%) 1.25D+1.5S L Moment +0.5L 0.471 (47%) 1.25D+1.5S L Unbraced 16700 ft-lb 4'2 3/8" 35449 ft-lb +0.5L 0.459 (46%) 1.25D+1.5S L 6381 lb 9'8 5/8" 13915 lb 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 L TL Defl inch 0.344 (L/356) 5'3 5/8" 0.510 (L/240) 0.670 (67%) D+S+0.5L

1.25D+1.5S +0.5I T.L. WISE 100083566 100083566 WCE OF ONT August 17, 2018

7197 L

Wind 0 0

Ld. Comb. 1.25D+1.5S +0.5L

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

L	O Edicial Sicilia	illess ratio based on	full Section width.								
ľ	ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments	
l	1	Part. Uniform	0-0-0 to 4-0-14		Тор	23 PLF	0 PLF	53 PLF	0 PLF		
l	2	Part. Uniform	0-0-0 to 4-0-14		Тор	173 PLF	0 PLF	403 PLF	0 PLF		
l	3	Part. Uniform	0-0-0 to 10-8-14		Тор	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight	
l	4	Part. Uniform	0-5-7 to 8-5-7		Near Face	133 PLF	288 PLF	0 PLF	0 PLF		
l	8	Point	4-2-6		Тор	442 lb	0 lb	988 lb	0 lb	Header Column	
ı											

Continued on page 2...

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

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

Handling & Installation

andling & Installation

LVL beams must not be cut or drilled

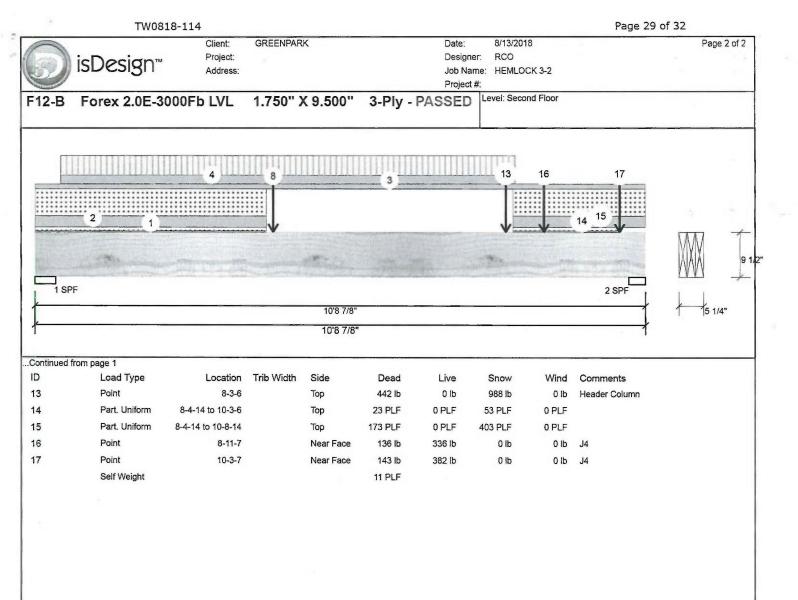
Refer to manufacturer's product information
regarding installation requirements, multi-ply
fastening details, beam strength values, and code
approvals

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

This desi

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.



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

Handling & Installation

- LVL beams must not be cut or drilled
 Refer to manufacturer's product infor regarding installation requirements, m

For flat roofs provide proper drainage to prevent ponding

This design is valid until 7/10/2021

Manufacturer Info Forex

APA: PR-L318



Client:

Project:

Address:

GREENPARK

8/13/2018 Date:

Designer^{*} RCO

Job Name: HEMLOCK 3-2

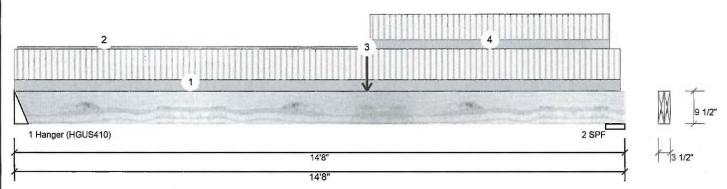
Project #:

Forex 2.0E-3000Fb LVL F13-A

1.750" X 9.500"

2-Ply - PASSED

Level: Second Floor



Member Info	rmation						Unfacto	red React	ions U	NPATTERNI	ED lb (Uplift)	
Туре:	Girder		Application	on: I	loor (Residenti	ial)	Brg	Live		Dead	Snov	v	Wind
Plies:	2		Design M	fethod:	SD		1	422		234	(0	0
Moisture Condition	on: Dry		Building (Code: I	NBCC 2010 / O	BC 2012	2	585		292	(0	0
Deflection LL:	360		Load Sha	aring: 1	No		-						
Deflection TL:	240		Deck:	1	Not Checked								
Importance:	Normal		Vibration:	: 1	Not Checked								
General Load													
Floor Live:	40 PSF		1				Bearing	s and Fact	ored I	Reactions			
Dead:	15 PSF						Bearing	Length	Сар.	React D/L lb	Total	Ld. Case	Ld. Comb.
							1 -	4.000"	9%	292 / 632	925	L	1.25D+1.5L
	-1-		l l				Hanger		11227		004000		
Analysis Resu	ilts						2-SPF	5.500"	10%	365 / 877	1242	L	1.25D+1.5L
Analysis A	Actual	Location	Allowed	Capacity	Comb.	Case							-
Moment 5	5610 ft-lb	8'5 3/4"	22724 ft-lb	0.247 (259	6) 1.25D+1.5L	L					/	OFESSI	DAYA.
Unbraced 5	610 ft-lb	8'5 3/4"	18853 ft-lb	0.208 (309	6) 1 25D+1 5I	1	1				1 61	-	100

Unbraced 0.298 (30%) 1.25D+1.5L L 1154 lb 13'5 3/4" 9277 lb Shear 0.124 (12%) 1.25D+1.5L L Perm Defl in. 0.083 (L/2020) 7'7 1/8" 0.467 (L/360) 0.180 (18%) D Uniform LL Defl inch 0.168 (L/999) 7'8 1/8" 0.467 (L/360) 0.360 (36%) L L TL Defl inch 0.251 (L/668) 7'7 13/16" 0.700 (L/240) 0.360 (36%) D+L



- 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 hearings

	slenderness ratio based	on full agation width						
/ Lateral	sienderness ratio based	on full section wath.						
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

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

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

Handling & Installation

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

 Demaged 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

100083566

NCEOFON

August 17, 2018



isDesign™

Client:

Address:

GREENPARK

Project:

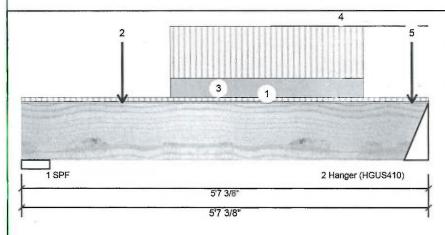
8/13/2018 Date:

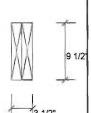
RCO Designer:

Job Name: HEMLOCK 3-2

Project #:

1.750" X 9.500" Forex 2.0E-3000Fb LVL 2-Ply - PASSED Level: Second Floor





Wind 0 0

Ld. Comb. 1.25D+1.5L

1.25D+1.5L

Page 1 of 1

Page 31 of 32

Member Infor	nation			Unfacto	red Reac	tions U	NPATTERN	ED lb (Uplift)
Type:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snov	N
Plies:	2	Design Method:	LSD	1	663		271		0
Moisture Condition	: Dry	Building Code:	NBCC 2010 / OBC 2012	2	972		388		0
Deflection LL:	360	Load Sharing:	No	1					
Deflection TL:	240	Deck:	Not Checked						
Importance:	Normal	Vibration:	Not Checked						
General Load		100.00000							
Floor Live:	40 PSF			Bearing	s and Fac	tored	Reactions		
Dead:	15 PSF			Bearing	Length	Cap.	React D/L lb	Total	Ld. Case
		1		1-SPF	4.651"	13%	338 / 995	1333	L

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



Case

1942 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.
- 7 Lateral slenderness ratio based on full section width

/ Lateral	sienuemess ratio baseu i	on full section width.								
ID	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	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	Part. Uniform	3-5-5 to 5-7-6		Тор	1 PLF	0 PLF	0 PLF	required at all point loads over bearing		
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 requirem	ply to ply nailing or bolting ents	

This des

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 subability of the inlended application, and to verify the dimensions and loads.

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

chemicals Handling & Installation

LVL beams must not be cut or drilled Refer to manufacturer's product regarding installation requirement

tastening decisis, bearn surriger values, and comprovals opprovals

Demaged Bearns must not be used

Demaged Bearns must not be used

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

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info Forex APA: PR-L318

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

4.000"

Hanger

484 / 1458



GREENPARK Client:

Project:

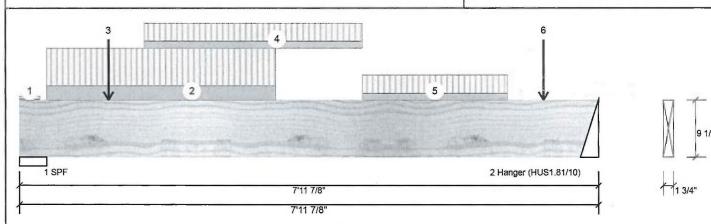
Date:

8/13/2018

Designer: RCO Job Name: HEMLCCK 3-2

Project #:

1.750" X 9.500" - PASSED Level: Second Floor Forex 2.0E-3000Fb LVL F4-A



Aember Info	rmation			Unfactor	red Reac	tions U	INPATTERNI	ED lb (Uplift)	
Type:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snow	Wind
Plies:	1	Design Method:	LSD	1	978		389	0	0
Moisture Condition	on: Dry	Building Code:	NBCC 2010 / OBC 2012	2	583		239	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	Reactions		
Dead:	15 PSF			Bearing	Length	Сар.	React D/L lb	Total Ld. Case	Ld. Comb.
				1-SPF	4.500"	40%	486 / 1467	1953 L	1.25D+1.5L
nalysis Results				2 - Hanger	3,000"	30%	298 / 874	1172 L	1.25D+1.5L

Analysis Results											
Analysis	Actual	Location	Allowed	Capacity	Comb.	Case					
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					
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					
LL Defl inch	0.069 (L/1310)	3'9 9/16"	0.250 (L/360)	0.270 (27%)	L	L					
TI Deflinch	0.096 (1./934)	3'9 5/8"	0.374 (1./240)	0.260 (26%)	D+I	1					

T.L. WISE 100083566 100083566

> WCE OF O August 17, 2018

De	sig	n	Notes
1	Fill	all	hanger nailing holes.

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

3	a qoi	raced	at t	eanr	igs.	

4 Bottom	praced 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	13
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	0 lb Pass-Ini	ru Framing Squash Block is at all point loads over bearings
	Self Weight				4 PLF				

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

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

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

Handling & Installation

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

For flat roofs provide proper drainage to prevent ponding

This design

Manufacturer Info

Forex

APA: PR-L318

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40

15

480

360

480

360

360

240

480

360

SPF Plywood

Nailed & Glued

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.

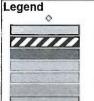
All work shall conform to the Ontario Building Code O. Reg. 332/12 as amended

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









Load from Above Wall Wall Opening Norbord Rimboard Plus 1.125 X 9.5 NJ 95 NJ60U 9.5 NJH 9.5 Forex 2.0E-3000Fb LVL 1.75 X 9.5

- 1. OBC 2012 O.Reg 332/12 as amended
- 2. Nascor CCMC 13535-R
- 3. LVL CCMC -14056-R
- 4. CAN/CSA-O86-09
- 5. CCMC -12787-R APA PR-L310(C)

VL/LSL (Flush)									NASCOR			
Label	Descr	Description		Dep	oth	Qty	Plies	Pcs	Length	MASCOR		
F5	Forex 2.0E-3	000Fb LVL	1.75	,	9.5			1	10-0-0	10000		
F11	Forex 2.0E-3	000Fb LVL	1.75	:	9.5	2	2	4	8-0-0	Layout Name HEMLOCK 3-2		
F15	Forex 2.0E-3	000Fb LVL	1.75	9	9.5			4	6-0-0	Design Method LSD		
F1	Forex 2.0E-3	000Fb LVL	1.75		9.5			1	2-0-0	Description		
Joist (Flush)									MINNISALE HOMES CORP.			
Label	Descr	iption	Width	Dep	oth	Qty	Plies	Pcs	Length	BRAMPTON, ONT.		
F9	NJ		1.5	9	9.5	3	2	6	16-0-0	Revised		
F8	NJ		1.5		9.5	1	2	2	4-0-0	August 13, 2018		
F7	NJ		1.5	9	9.5	2	2	4	2-0-0	Builder		
J4	NJ60U		3.5		9.5			17	16-0-0	GREENPARK		
J5	NJH		2.5	9	9.5			10	14-0-0			
J7	NJH		2.5	9	9.5			6	10-0-0	Sales Rep		
J2	NJH		2.5		9.5			6	8-0-0	RM		
J3	NJH		2.5	9	9.5			7	6-0-0	Designer		
J1	NJH		2.5	9	9.5			1	4-0-0	RCO		
Rim Bo	ard									Shipping		
Label	Description		Width	Dep	th (Qty Plies		Pcs	Length	Project		
R1	Norbord Rimboard Plus 1.125 X 9.5		1.125	ę	9.5			12	12	Builder's Project		
Blockin		120 / 0.0								Kott Lumber Company		
	Descri	ntion	Width	Dep	th (Qty	Plies	Pcs	Length			
BLK1	NJH		2.5			inFt	1 1103			14 Anderson Blvd		
langer			2.0		,.J L			Valles	8-0-0	Stouffville, Ontario		
Beam/Girder Supported Member									Canada L4A 7X4			
Label Pcs Descripti			n Skew Slop			e fasteners		-	teners	905-642-4400		
H1	1	HGUS410			po	46 16d			6 16d	Job Path		
H2	2	HUS1.81/10				_	30 16d	10 16d		D:\Users\rochavillo\WORK FROM		
НЗ	4	LT2-159					4 10dx1 1/2		dx1 1/2	HOME\GREENPARK\MINNISALE		
H4	16	LT259					0dx1 1/2		dx1 1/2	HOMES\HEMLOCK 3\HEMLOCK 3-2 \FLOOR\REV\F-HEMLOCK 3-2 ENG(
H5	1	L90										
H7	4	LT359				4 10d		2 10	dx1 1/2	Ground Floor		
H8	1	LT259								Design Method LSD		
H9	1	HUCQ1.81/9- SDS				i i				Building Code NBCC 2010 / OBC 2012		
NOTES:										Floor		

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

Loads

Live

Dead

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

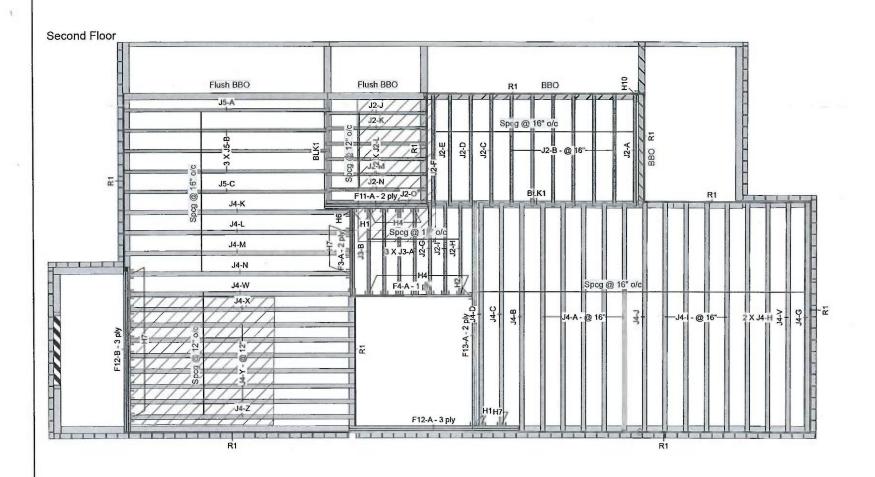
Vibration

Deck

Deflection Girder

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



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 0



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
- 3. LVL CCMC -14056-R
- 4. CAN/CSA-O86-09
- 5. CCMC -12787-R APA PR-L310(C)



2. Nascor CCMC - 13535-R

2.0E-3000Fb LVL F4 8-0-0 1 75 9.5 Forex 2.0E-3000Fb LVL F3 Forex 1.75 9.5 6-0-0 2.0E-3000Fb LVL I Joist (Flush) Width Depth Qty Plies Label Description Pcs Length J4 NJ60U 3.5 9.5 30 16-0-0 J5 NJH 2.5 9.5 5 14-0-0 J2 NJH 2.5 9.5 21 8-0-0 4 6-0-0 J3 NJH 2.5 9.5 Rim Board Label Description Width Depth Qty Plies Pcs Length R1 Norbord Rimboard 1.125 9.5 Plus 1.125 X 9.5 Blocking Width Depth Qty Plies Pcs Length Label Description BLK1 NJH 2.5 9.5 LinFt Varies 13-0-0 Builder's Project Hanger Beam/Girder Supported Member Skew Slope Label Pcs Description fasteners fasteners

Width

1.75

Depth

9.5

9.5

9.5

Qty

Plies

2

46 16d

30 16d

4 10dx1 1/2

4 10d

2

1 Unknown Hanger

2 HGUS410

1 LT359 15 LT359

H4 11 LT259

1 HUS1.81/10

Second Floor LVL/LSL (Flush) Label Description

2.0E-3000Fb LVL

2.0E-3000Fb LVL

Forex

Forex

F13

F12

F11

H1

H2

H6

H7

H10

NOTES:

Framer to verify dimensions on the architectural drawings.

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

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

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

. Refer to Nascor specifier guide for installation works. 6. Squash blocks recommended to be installed at end bearing on

all first level joists which support loading from above exceeding two levels floor or roof.

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

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

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

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

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

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

ARCHITECTURAL DRAWINGS:

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

Pcs Length 16-0-0 Layout Name 12-0-0 HEMLOCK 3-2 8-0-0 Design Method LSD Description MINNISALE HOMES CORP. BRAMPTON, ONT. Created June 25, 2018 Builder **GREENPARK** Sales Rep Designer RCO Shipping

Kott Lumber Company

14 Anderson Blvd Stouffville, Ontario Canada 14A7X4 905-642-4400

Job Path 2 10dx1 1/2

16 16d

10 16d

2 10dx1 1/2

Project

D:\Users\rochavillo\WORK FROM HOME\GREENPARK\MINNISALE HOMES\HEMLOCK 3\HEMLOCK 3-2 \FLOOR\REV\5 BED OPT\HEMLOCK

Second Floor

Design Method LSD Building Code NBCC 2010 / OBC 2012 Floor Loads 40 Live Dead 15 **Deflection Joist** 480 LL Span L/ TL Span L/ 360 LL Cant 2L/ 480 360 TL Cant 2L/ Deflection Girder LL Span L/ 360 TL Span L/ 240 LL Cant 2L/ 480 TL Cant 2L/ 360 Decking Deck SPF Plywood Thickness 5/8" Nailed & Glued Fastener

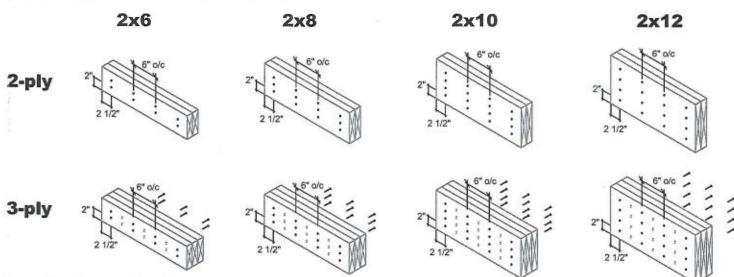
Gypsum 1/2"

Vibration

Ceiling:

MULTIPLE MEMBER CONNECTIONS

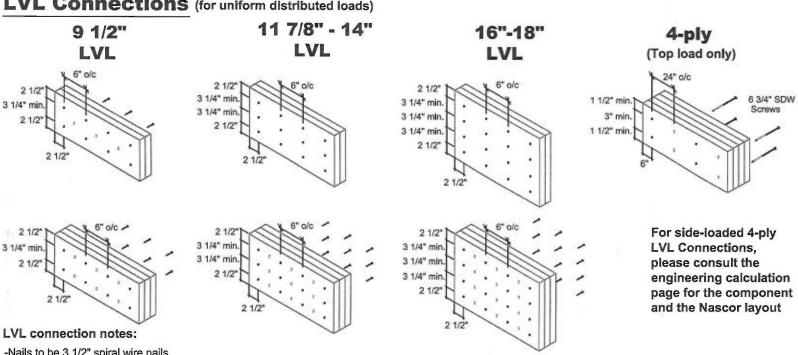
Conventional Connections (for uniform distributed loads)



Conventional connection notes:

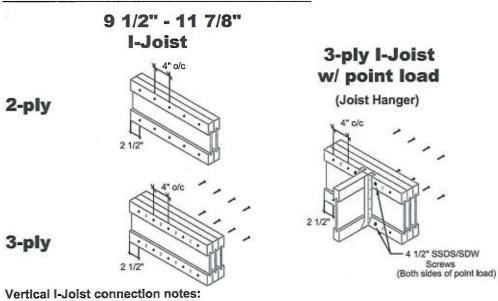
- -Nails to be 3" 10d spiral wire nails.
- -Nails to be located a minimum of 2" from the top and bottom of the member. Start all nails a minimum of 2 1/2" in from ends.
- -Number of rows and spacing as per details shown, unless noted otherwise.
- "X" represents nail driven from the opposite side.

LVL Connections (for uniform distributed loads)



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

Vertical I-Joist Connections (for uniform distributed loads)



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

MULTI-PLY CONNECTION DETAILS

> Date: November 30, 2016 Scale: NTS

KOTT 3228 Moodie Drive Ottawa, ON K2H 7V1