Engineering Note Page (ENP-2) Lor

REVISION 2009-10-09

Please read all notes prior to installation of the component

DESIGN INFORMATION

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

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

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

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

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

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

CODE

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

COMPONENT

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

HANDLING AND INSTALLATION

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



MULTIPLE MEMBER CONNECTIONS

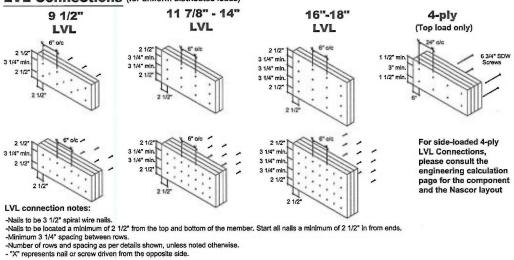
Conventional Connections (for uniform distributed loads)

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

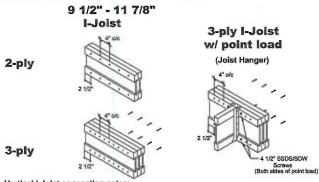
Conventional connection notes:

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

LVL Connections (for uniform distributed loads)



Vertical I-Joist Connections (for uniform distributed loads)



Vertical I-Joist connection notes:

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

KOTT 3228 Moodle Drive Ottawa, ON K2H 7V1 Ph: 613-838-2775 Fx: 613-838-4751

MULTI-PLY CONNECTION

F7-R - 2 pl

PAGE 3 OF 30

Design Method LSD

Created

Builder

Sales Rep

RO

Shipping

Builder's Project

Stouffville, Onlario Canada

K2H7V1

S:\CUSTOMERS\GREENPARK

Ground Floor

LSD

Loads Live Dead

LL Span U

Deflection Girder

TI Cant 2L/

Layout Name GRANDBROOKE 1-ELEV 1

Description

June 25, 2018

GREENPARK

RM Designer

Project

Kott Lumber Company

14 Anderson Blvd

905-642-4400

Joh Path

WINNISALE HOMESMODELS IGRANDBROOKE 1/FLOORS **IGRANDBROOKE 1-ELEV 1.isl**

Design Method

Building Code NBCC 2010 / OBC 2012 Floor

40

15

480

360

480

360

360

240

480

240

OSB

3/4"

Deflection Joist

TL Span L/ LL Cant 2L/ TL Cant 2L/

LL Span L/ TL Span L/ LL Cant 2L/

Decking Deck

Thickness Fastener Nailed & Glued Vibration

REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY

NAILING OR BOLTING REQUIREMENTS. PASS THRU FRAMING SQUASH BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS

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



Ground Floor LVL/LSL (Flush) Label Description Width Depth Qty Plies Pcs Length F3 Forex 1.75 9.5 2 14-0-0 2.0E-3000Fb LVL 1.75 F5 2 14-0-0 Forex 2.0E-3000Fb LVL 9.5 1.75 9.5 6-0-0 F1 Forex 2.0E-3000Fb LVL I Joist (Flush)
 Width
 Depth
 Qty
 Plies
 Pcs
 Length

 1.5
 9.5
 3
 2
 6
 14-0-0
 Label Description 6 14-0-0 4 4-0-0 42 14-0-0 F7 1.5 9.5 J5 NJH 2.5 9.5 J3 NJH 2.5 9.5 2.5 9.5 4 12-0-0 1 6-0-0 J2 NJH J1 NJH Rim Board Label Description Width Depth Qty Plies Pcs Length R1 Norbord Rimboard 1.125 9.5 12 Plus 1.125 X 9.5

Hanger Beam/Girder Supported Member Label Pcs Description Skew Slope fasteners fasteners H5 4 LT2-159 H6 10 LT259

Width Depth Qty Plies Pcs Length
2.5 9.5 LinFt Varies 18-0-0

NOTES:

Rt

BLK1 F1-A - 1 ply

2"X8"@16"on

2 X6 @16 0/c

Framer to verify dimensions on the architectural drawings Prainer to verny dimensions on the accinecture of damings.
 Double joids only require filter/backer ply when supporting another member using a face-mounted hanger.
 Install 24 blocking @ 24*00 under parallel non-load bearing walls.
 Install single-ply flush window header along inside face of imboord/bringist.

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

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

Rim parallel to loists: 1-1/8" rimboard with 2"x4" block (1/16" longer than Number of the construction of the component of the construction of the 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 are represents ceramic tiled floor with an additional dead load

fasteners fasteners
4 10dx1 1/2 2 10dx1 1/2 and structural drawings. Project Engineer to review and apporve the deviation 4 10dx1 1/2 2 10dx1 1/2 prior to construction

ARCHITECTURAL DRAWINGS:

ARDIN DESIGN GROUP 64 Jardin Dr., Suite 3A Date: Rev. 1, 5/22/2018 roject No: 18-24 Jodel: Grandbrooke 1 Flevation 1

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

2. Nascor CCMC - 13535-R

3. IVI. CCMC -14056-R

4. CAN/CSA-086-09 5. CCMC -12787-R APA PR-L310(C)

Legend

UNEXCAVATED

0

Point Load Support Load from Above Wall Opening Norbord Rimboard Plus 1.125 X 9.5 NJ95 NJH 9.5

Forex 2.0E-3000Fb LVL 1.75 X 9.5

0

R1

RI

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 BRACTING FOR LATERAL STABILITY ARE THE RESPONSIBILITY OF OTHERS.

Version 18.40.105 Powered by iStruct**

Blocking

BLK1 NJH

Label Description

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

Varies 18-0-0



GREENPARK Project:

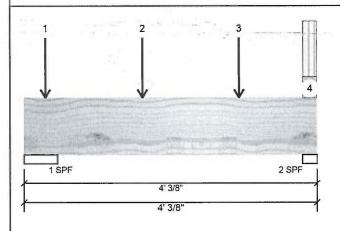
Address:

8/10/2018 Date: Designer: RO

Job Name: GRANDBROOKE 1-ELEV 1

Project #:

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





lember Information				Unfactored Reactions UNPATTERNED Ib (Uplift)					
Туре:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow	Wind	
Plies:	1	Design Method:	LSD	1	320	128	0	0	
Moisture Condition	on: Dry	Building Code:	NBCC 2010 / OBC 2012	2	333	132	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	Cap. React D/L lb	Total Ld. Case	Ld. Comb.	

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	690 ft-lb	17 1/2"	11362 ft-lb	0.061 (6%)	1.25D+1.5L	L
Unbraced	690 ft-lb	1'7 1/2"	9427 ft-lb	0.073 (7%)	1.25D+1.5L	L
Shear	640 lb	3'1 1/4"	4638 lb	0.138 (14%)	1.25D+1.5L	L
Perm Defl in.	0.002 (L/20141)	2' 5/8"	0.117 (L/360)	0.020 (2%)	D	Uniform
LL Defl inch	0.005 (L/7912)	2' 9/16"	0.117 (L/360)	0.050 (5%)	L	L
TL Defl inch	0.007 (L/5681)	2' 9/16"	0.175 (L/240)	0.040 (4%)	D+L	L

Design Notes

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

3 Bottom braced at bearings

REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS.

11%

26%

160 / 480

165 / 500

640 L

664 L

PASS THRU FRAMING SQUASH BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS.

1 - SPF 5.500"

2 - SPF 2.375"

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



1.25D+1.5L

1.25D+1.5L

O DOLLOIN	bracea at bearings.								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Point	0-3-8		Far Face	14 lb	38 lb	0 lb	0 lb	J1
2	Point	1-7-8		Far Face	119 lb	315 lb	0 lb	dl 0	J1
3	Point	2-11-8		Far Face	108 lb	290 lb	0 lb	0 lb	J1
4	Tie-In	3-10-0 to 4-0-6	(Span)2-6-6	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				4 PLF				

Notes

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

Lumber

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

chemicais

Handling & Installation

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

For flat roofs provide proper drainage to prevent ponding

Forex

Manufacturer Info APA: PR-L318

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





Project:

GREENPARK

Address:

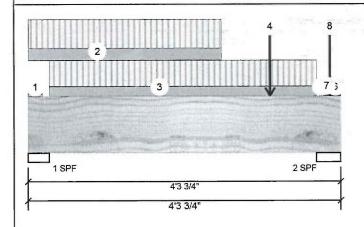
Date:

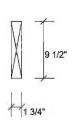
Designer: RO Job Name: GRANDBROOKE 1-ELEV 1

Project #:

Forex 2.0E-3000Fb LVL

1.750" X 9.500" - PASSED Level Ground Floor





Memb	er l	nfo	rm	a	ti	on
					_	

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

Unfactored Reactions UNPATTERNED Ib (Uplift)

Brg	Live	Dead	Snow	Wind
1	1009	417	0	0
2	1987	854	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.	
1-SPF	3.500"	54%	522 / 1514	2035	L	1.25D+1.5L	
2-SPF	4.000"	94%	1068 / 2980	4048	L	1.25D+1.5L	

Analysis Results

	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
	Moment	1825 ft-lb	2'1 1/2"	11362 ft-lb	0.161 (16%)	1.25D+1.5L	L
	Unbraced	1825 ft-lb	2'1 1/2"	9065 ft-lb	0.201 (20%)	1.25D+1.5L	L
	Shear	1922 lb	3'3"	4638 lb	0.414 (41%)	1.25D+1.5L	L
	Perm Defl in.	0.006 (L/7071)	2'1 9/16"	0.127 (1/360)	0.050 (5%)	D	Uniform
	LL Defl inch	0.016 (L/2890)	2'1 11/16"	0.127 (L/360)	0.120 (12%)	L	L
	TL Defl inch	0.022 (L/2052)	2'1 9/16"	0.191 (L/240)	0.120 (12%)	D+L	L
***				*******			

Application:

Design Method:

Building Code:

Load Sharing:

Deck:

Vibration:

REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS.

PASS THRU FRAMING SQUASH BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS

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



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 Top braced at bearings

Wind Comme	nts
0 PSF	
0 PLF	
0 PLF	
0 lb J5	
0 PLF Wall Self	Weight
	0 PLF 0 PLF 0 lb J5

Floor (Residential)

Not Checked Not Checked

NBCC 2010 / OBC 2012

LSD

No

Continued on page 2...

Notes

6

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 structure and the contractor to ensure the component suitability of the intended

Tie-In Part. Uniform

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

chemicals

Handling & Installation

4-0-14 to 4-3-12

ATIONING A INSEARCHAIGHT IN LIVE SEARCH TO THE ATION OF T

4-0-14 to 4-3-12 (Span)0-3-12 Top

- 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

40 PSF

0 PLF

15 PSF

40 PLF

Manufacturer Info APA: PR-L318

0 PSF

0 PLF

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



0 PSF

0 PLF Wall Self Weight







Client: Project:

Address:

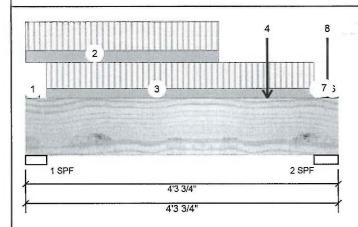
GREENPARK

8/10/2018

Designer: RO Job Name: GRANDBROOKE 1-ELEV 1

Project #:

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



..Continued from page 1

8

ID Load Type

Point

Self Weight

4-2-0

Location Trib Width

Side Top

Dead 467 lb

Live 1065 lb Snow 0 lb Wind Comments 0 lb F5 F5

4 PLF

REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS.

PASS THRU FRAMING SQUASH BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS.

Notes

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

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

chemicals

Handling & Installation

LVL beams must not be cut or drilled

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

fastening ceans, occasionate approvals

Damaged Beams must not be used

Design assumes top edge is laterally restrained

Provide lateral support at bearing points to avoid

lateral displacement and rotation

For flat roofs provide proper drainage to prevent ponding

This design is valid until 7/10/2021

Manufacturer Info Forex APA: PR-L318

Kott Lumber Company 14 Anderson Blvd, Ontario K2H7V1 905-642-4400



Notes

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

Handling & Installation

ms must not be cut or drilled to manufacturer's product g installation requirements. LVL beams Refer to

leasency 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

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







Client: Project:

Address:

GREENPARK

Date:

Designer: RO

Job Name: GRANDBROOKE 1-ELEV 1

Unfactored Positions UNDATTERNED Ib (Unlift)

REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS.

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

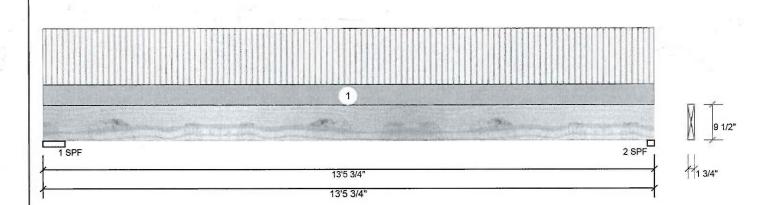
CONTAINS SPECIFICATIONS AND CRITERIA

CALCULATION SUMMARY PAGE AS IT

PASS THRU FRAMING SQUASH BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS.

Project #:

Forex 2.0E-3000Fb LVL 7.750" x 9.500" - PASSED Level: Ground Floor



Melliper Illion	ember information					Onfactored Reactions ONPATTERNED ID (Opint)						
Type:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snov	V	Wind		
Plies:	1	Design Method:	LSD	1	132		76		0	0		
Moisture Condition	n: Dry	Building Code:	NBCC 2010 / OBC 2012	2	126		72		0	0		
Deflection LL:	360	Load Sharing:	No									
Deflection TL:	240	Deck:	Not Checked									
Importance:	Normal	Vibration:	Not Checked									
General Load									•••			
Floor Live:	40 PSF			Bearings	and Fac	tored l	Reactions					
Dead:	15 PSF			Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.		
				1-SPF	5.875"	5%	95 / 198	293	L	1.25D+1.5L		
				2-SPF	1.875"	14%	90 / 188	278	L	1.25D+1.5L		

Analysis Results

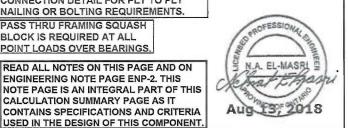
Manakau Infarmation

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	889 ft-lb	6'10 7/8"	11362 ft-lb	0.078 (8%)	1.25D+1.5L	L
Unbraced	889 ft-lb	6'10 7/8"	2877 ft-lb	0.309 (31%)	1.25D+1.5L	L
Shear	241 lb	1'2 5/8"	4638 lb	0.052 (5%)	1.25D+1.5L	L
Perm Defl in.	0.029 (L/5284)	6'10 7/8"	0.432 (1/360)	0.070 (7%)	D	Uniform
LL Defl inch	0.051 (L/3036)	6'10 7/8"	0.432 (L/360)	0.120 (12%)	L	L
TL Defl inch	0.081 (L/1928)	6'10 7/8"	0.648 (L/240)	0.120 (12%)	D+L	L

Design Notes

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

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 13-5-12	(Span)0-11-7	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				4 PLF				



Notes

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

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

Handling & Installation

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

paperovals

Damaged Beams must not be used

Design assumes top edge is laterally restrained

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

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

APA: PR-L318

Kott Lumber Company 14 Anderson Blvd, Ontario Canada K2H7V1 905-642-4400







GREENPARK

Date:

Page 1 of 2

Project: Address:

Designer: RO

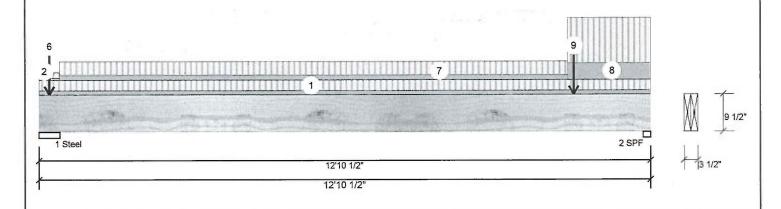
Job Name: GRANDBROOKE 1-ELEV 1

Project #:

Forex 2.0E-3000Fb LVL

1.750" X 9.500"

2-Ply - PASSED - Brevel-Ground Floor



Nember Information				Unfactored Reactions UNPATTERNED Ib (Uplift)				
Type:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow	Wind
Plies:	2	Design Method:	LSD	1	1293	600	0	0
Moisture Conditio	n: Dry	Building Code:	NBCC 2010 / OBC 2012	2	514	240	0	0
Deflection LL:	360	Load Sharing:	No	2				
Deflection TL:	240	Deck:	Not Checked					
Importance:	Normal	Vibration:	Not Checked					
General Load								
Floor Live:	40 PSF			Bearings an	d Factore	d Reactions		
Dead:	15 PSF			Bearing Len	gth C	ap. React D/L lb	Total Ld. Case	Ld. Comb.
				1 - Steel 5.25	50" 2	6% 750 / 1939	2689 L	1.25D+1.5L
				2-SPF 1.87	'5" 2	7% 300 / 771	1072 L	1.25D+1.5L

Anal	ysis	Resu	lts
------	------	------	-----

	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
	Moment	1975 ft-lb	7'5 5/8"	22724 ft-lb	0.087 (9%)	1.25D+1.5L	L
	Unbraced	1975 ft-lb	7'5 5/8"	19684 ft-lb	0.100 (10%)	1.25D+1.5L	L
	Shear	922 lb	11'11 7/8"	9277 lb	0.099 (10%)	1.25D+1.5L	L
	Perm Defl in.	0.029 (L/5103)	6'9 3/16"	0.414 (L/360)	0.070 (7%)	D	Uniform
	LL Defl inch	0.055 (L/2710)	6'10 3/16"	0.414 (L/360)	0.130 (13%)	L	L
	TL Defl inch	0.084 (L/1770)	6'9 13/16"	0.620 (L/240)	0.140 (14%)	D+L	L
-							

Design Notes

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

REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS.

PASS THRU FRAMING SQUASH BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS.

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



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 12-10-8	(Span)0-9-3	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 0-5-4	(Span)0-5-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	0-2-10		Тор	388 lb	932 lb	0 lb	0 lb	BBO4 BBO4
4	Point	0-2-10		Тор	29 lb	70 lb	0 lb	0 lb	J5
5	Point	0-2-10		Тор	11 lb	30 lb	0 lb	0 lb	J5
Continued or	n page 2								

Notes

Lumber

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

Handling & Installation

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

approvals

Damaged Beams must not be used

Design assumes top adge is laterally restrained

Provide lateral support at bearing points to avoid

lateral displecement and rotation

For flat roofs provide proper drainage to prevent ponding

This design is valid until 7/10/2021

Manufacturer Info APA: PR-L318

Kott Lumber Company 14 Anderson Blvd, Ontario Canada K2H7V1



GREENPARK

Date:

Page 2 of 2

isDesign™

Project:

Address:

Designer:

Job Name: GRANDBROOKE 1-ELEV 1

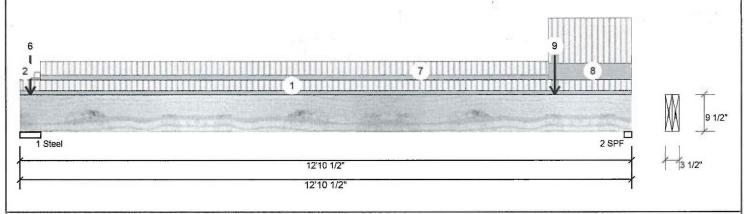
Project #:

Forex 2.0E-3000Fb LVL

1.750" X 9.500"

2-Ply - PASSED

Level: Ground Floor



m page 1								
Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
Point	0-2-10		Тор	24 lb	0 lb	0 lb	0 lb	Wall Self Weight
Tie-In	0-5-4 to 11-1-10	(Span) 0-11-13	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
Tie-In	11-1-10 to 12-10-8	(Span)3-3-4	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
Point	11-3-2		Near Face	93 lb	250 lb	0 lb	0 lb	F7
Self Weight				8 PLF				
	Point Tie-In Tie-In Point	Load Type Location Point 0-2-10 Tie-In 0-5-4 to 11-1-10 Tie-In 11-1-10 to 12-10-8 Point 11-3-2	Load Type Location Trib Width Point 0-2-10 Tie-In 0-5-4 to 11-1-10 (Span) 0-11-13 Tie-In 11-1-10 to 12-10-8 (Span)3-3-4 Point 11-3-2	Load Type Location Trib Width Side Point 0-2-10 Top Tie-In 0-5-4 to 11-1-10 (Span) Top 0-11-13 0-11-13 Tie-In 11-1-10 to 12-10-8 (Span)3-3-4 Top Point 11-3-2 Near Face	Load Type Location Trib Width Side Dead Point 0-2-10 Top 24 lb Tie-In 0-5-4 to 11-1-10 (Span) Top 15 PSF 0-11-13 Tie-In 11-1-10 to 12-10-8 (Span)3-3-4 Top 15 PSF Point 11-3-2 Near Face 93 lb	Load Type Location Trib Width Side Dead Live Point 0-2-10 Top 24 lb 0 lb Tie-In 0-5-4 to 11-1-10 (Span) 0-11-13 Top 15 PSF 40 PSF Tie-In 11-1-10 to 12-10-8 (Span)3-3-4 Top 15 PSF 40 PSF Point 11-3-2 Near Face 93 lb 250 lb	Load Type Location Trib Width Side Dead Live Snow Point 0-2-10 Top 24 lb 0 lb 0 lb Tie-In 0-5-4 to 11-1-10 (Span) O-11-13 Top 15 PSF 40 PSF 0 PSF Tie-In 11-1-10 to 12-10-8 (Span)3-3-4 Top 15 PSF 40 PSF 0 PSF Point 11-3-2 Near Face 93 lb 250 lb 0 lb	Load Type Location Trib Width Side Dead Live Snow Wind Point 0-2-10 Top 24 lb 0 lb 0 lb 0 lb 0 lb Tie-In 0-5-4 to 11-1-10 (Span) 0-11-13 Top 15 PSF 40 PSF 0 PSF 0 PSF Tie-In 11-1-10 to 12-10-8 (Span)3-3-4 Top 15 PSF 40 PSF 0 PSF 0 PSF Point 11-3-2 Near Face 93 lb 250 lb 0 lb 0 lb

REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS.

PASS THRU FRAMING SQUASH BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS.

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



Notes

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

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

Handling & Installation

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

fastening outsine, vo-approvals
Demaged Beams must not be used
Demaged Beams must not be used
Design essumes top edge is laterally restreined
Provide lateral support at bearing points to avoid
lateral displacement and rotation

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

APA: PR-L318

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





Page 1 of 1



Client:

GREENPARK

Project:

Address:

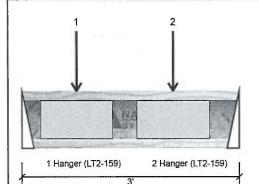
Date:

Designer: RO Job Name: GRANDBROOKE 1-ELEV 1

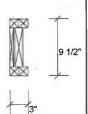
Project #:

F7-A NJ 9.500" 2-Ply - PASSED

Level: Ground Floor



3'



wember into	rmation		
Туре:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Conditi	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	272	102	0	0
2	251	94	0	0

Unfactored Reactions UNPATTERNED Ib (Uplift)

Analysis Results Analysis Actual Location Allowed Capacity Comb. 398 ft-lb 2'1 1/16" 7340 ft-lb 0.054 (5%) 1.25D+1.5L L Moment 398 ft-lb 2'1 1/16" 4678 ft-lb 0.085 (9%) 1.25D+1.5L L Unbraced 0.174 (17%) 1.25D+1.5L L 535 lb 1 1/4" 3080 lb Shear Perm Defl in. 0.001 1'8 1/8" 0.093 (L/360) 0.010 (1%) D Uniform (LJ28832) 0.003 1'8 3/16" 0.093 (L/360) 0.030 (3%) L LL Defl inch L (L/10801) TL Defl inch 0.004 (L/7858) 1'8 3/16" 0.140 (L/240) 0.030 (3%) D+L L

Bearings and Factored Reactions

Bearing	Length	Сар.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	21%	127 / 408	535	L	1.25D+1.5L
2 - Hanger	2.000"	19%	118 / 377	494	L	1.25D+1.5L

REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS.

PASS THRU FRAMING SQUASH BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS.

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



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

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Point	0-9-1		Near Face	95 lb	253 lb	0 lb	0 lb	J3
2	Point	2-1-1		Near Face	101 lb	270 lb	0 lb	0 lb	J3

Notes

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

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

Handling & Installation

In Italian Sea in Section Activities in the cut or drilled Refer to latest copy of the Lloist product information details for farming details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details Damaged Lloists must not be used Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

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

Manufacturer Info Nascor by Kott

Kott Lumber Company 14 Anderson Blvd, Ontario Canada K2H7V1 905-642-4400









isDesign™

Client:

GREENPARK

Address:

Project:

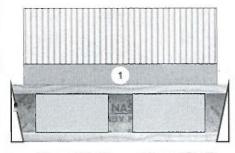
Designer: RO

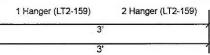
Job Name: GRANDBROOKE 1-ELEV 1

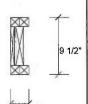
Project #:

NJ 9.500" 2-Ply - PASSED FOR

Level: Ground Floor







Member	Information
Type:	Girder
Dline	2

Plies: Moisture Condition: Dry Deflection LL: 360 240 Deflection TI: Importance: Normal General Load

Floor Live: 40 PSF

15 PSF

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

No

Deck: Not Checked Vibration: Not Checked

3rg	Live	Dead	Snow	Wind
1	250	93	0	0
2	252	94	0	0

Analysis Results

Dead:

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	359 ft-lb	1'6"	7340 ft-lb	0.049 (5%)	1.25D+1.5L	L
Unbraced	359 ft-lb	1'6"	4678 ft-lb	0.077 (8%)	1.25D+1.5L	L
Shear	495 lb	2'10 3/4"	3080 lb	0.161 (16%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/31404)	1'6"	0.093 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.003 (L/11693)	1'6"	0.093 (L/360)	0.030 (3%)	L	L
TI Deflinch	0.004 (1/8521)	1'6"	0.140 (1/240)	0.030 (3%)	D+L	L

Design Notes

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

Unfactored Reactions UNP	ATTERNED Ib (Uplift)	

Bearing	gs and Fac	tored	Reactions			
Bearin	g Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hange	2.000" r	19%	116 / 374	491	L	1.25D+1.5L
2-	2.000"	19%	117 / 378	495	L	1.25D+1.5L

Hanger REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS.

PASS THRU FRAMING SQUASH BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS.

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



ID Trib Width Load Type Location Side Dead Live Snow Comments 1 Part. Uniform 0-2-1 to 2-10-1 Near Face 70 PLF 188 PLF 0 PLF 0 PLF

Notes

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

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

Handling & Installation

- Lindfling & Installation.

 Lioist langes must not be cut or drilled.

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

 Demaged Lioists must not be used.

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

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

This design is valid until 7/10/2021



Nascor by Kott

Kott Lumber Company 14 Anderson Blvd, Ontario Canada K2H7V1 905-642-4400







GREENPARK

Page 1 of 1



Client:

Project: Address:

Désigner: RO

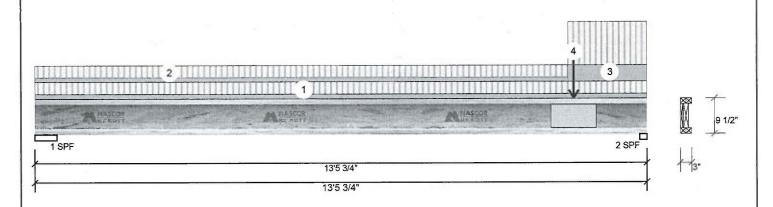
Job Name: GRANDBROOKE 1-ELEV 1

Project #:

9.500" NJ

2-Ply - PASSED

Level-Orgund-Floor



Member Infor	mation			Unfactore	d Reacti	ons UN	NPATTERNI	ED lb (Upl	ift)	
Туре:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snow		Wind
Plies:	2	Design Method:	LSD	1	287		108	0		0
Moisture Conditio	n: Dry	Building Code:	NBCC 2010 / OBC 2012	2	556		208	0		0
Deflection LL:	360	Load Sharing:	No							
Deflection TL:	240	Deck:	Not Checked							
Importance:	Normal	Vibration:	Not Checked							
General Load										
Floor Live:	40 PSF			Bearings a	and Facto	ored R	eactions			
Dead:	15 PSF			Bearing L	ength.	Cap. I	React D/L lb	Total Ld.	Case	Ld. Comb.
				1-SPF 5	.875"	18%	135 / 431	565 L		1.25D+1.5L
				2-SPF 1	.875"	43%	261 / 834	1094 L		1.25D+1.5L

Analysis Results

	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
	Moment	2005 ft-lb	7'11 1/16"	7340 ft-lb	0.273 (27%)	1.25D+1.5L	L
	Unbraced	2005 ft-lb	7'11 1/16"	2017 ft-lb	0.994 (99%)	1.25D+1.5L	L
	Shear	1079 lb	13'4 5/8"	3080 lb	0.350 (35%)	1.25D+1.5L	L
	Perm Defl in.	0.046 (L/3358)	7'2 3/8"	0.432 (L/360)	0.110 (11%)	D	Uniform
	LL Defl inch	0.123 (L/1259)	7'2 3/8"	0.432 (L/360)	0.290 (29%)	Ĺ	L
	TL Defl inch	0.170 (L/916)	7'2 3/8"	0.648 (L/240)	0.260 (26%)	D+L	L
-							

Design Notes

- 1 Girders are designed to be supported on the bottom edge only.
- 2 Multiple plies must be fastened together as per manufacturer's details.
- 3 Top loads must be supported equally by all plies.
- 4 Top flange must be laterally braced at a maximum of 4'8" o.c.

5 Bottom flange braced at bearings

REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS.

PASS THRU FRAMING SQUASH BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS.

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	o Dottoill hailgo	minnes at accounting	•							
Ī	ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
l	1	Tie-In	0-0-0 to 13-5-12	(Span)0-11-3	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	2	Tie-In	0-0-0 to 11-8-14	(Span)0-10-9	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
l	3	Tie-In	11-8-14 to 13-5-12	(Span)3-3-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
١	4	Point	11-10-6		Near Face	102 lb	272 lb	0 lb	0 lb	F7

Notes

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

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

- Lioist flanges must not be cut or drilled
 Refer to latest copy of the Lioist product information details for framing details, stiffener tables, web hole chart, bridging details, multiply tastening details and handling/erection details
 Demaged Lioists must not be used
 Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

Provide lateral support at bearing points to avoid lateral displacement and rotation
 Web stiffeners for point load as shown Minimum point load bearing lengthers 3.5 inches
 For flat roofs provide proper drainage to prevent populing.

Manufacturer Info Nascor by Kott

Kott Lumber Company 14 Anderson Blvd, Ontario Canada K2H7V1



Analysis Results Analysis Actual Location Allowed Capacity Comb. Case 2184 ft-lb 7'8 11/16" 7340 ft-lb 0.298 (30%) 1.25D+1.5L L Moment Unbraced 2184 ft-lb 7'8 11/16" 2202 ft-lb 0.992 (99%) 1.25D+1.5L L Shear 1102 lb 13'4 5/8" 3080 lb 0.358 (36%) 1.25D+1.5L L Perm Defl in. 0.050 (U3086) 7'1 13/16" 0.432 (L/360) 0.120 (12%) D Uniform LL Defl inch 0.134 (L/1157) 7'1 13/16" 0.432 (L/360) 0.310 (31%) L TL Defl inch 0.185 (L/841) 7'1 13/16" 0.648 (L/240) 0.290 (29%) D+L

Design Notes

言語がは

- 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.

REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS.

PASS THRU FRAMING SQUASH BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS.

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



3 BOROTT	nange braced at beam	ıys.								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments	
1	Tie-In	0-0-0 to 11-8-14	(Span)1-0-7	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
2	Tie-In	0-0-0 to 13-5-12	(Span)1-0-9	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
3	Tie-In	11-8-14 to 13-5-12	(Span)3-3-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
4	Point	11-10-6		Far Face	94 lb	251 lb	0 lb	0 lb	F7	

Notes

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

Lumber

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

Handling & Installation

Identified of installation:

Julist flanges must not be cut or drilled.
Refer to latest copy of the Lloist product information details for framing details, utilitieser tables, web hole chart, bridging details, multi-ply fastening details and handlinglerection details.

Damaged Lloists 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 lengther 3.5 inches
 For flat roofs provide proper drainage to prevent

Manufacturer Info Nascor by Kott

Kott Lumber Company 14 Anderson Blvd, Ontario Canada K2H7V1









isDesign™

Client:

Project: Address: Date: Designer:

8/10/2018 RO

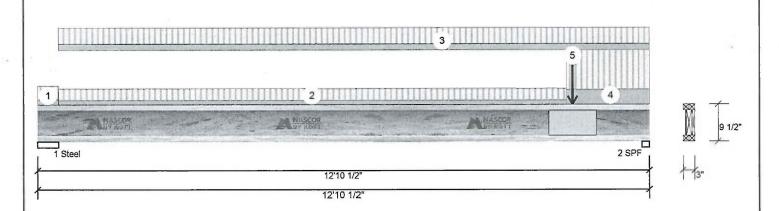
Job Name: GRANDBROOKE 1-ELEV 1

Project #:

NJ

9.500" 2-Ply - PASSED

Level: Ground Floor



Member Info	rmation			Unfactored	Reactio	ns UNPATTERN	ED lb (Uplift)	
Туре:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow	Wind
Plies:	2	Design Method:	LSD	1	325	122	0	0
Moisture Condition	on: Dry	Building Code:	NBCC 2010 / OBC 2012	2	583	218	0	0
Deflection LL:	360	Load Sharing:	No	1000				
Deflection TL:	240	Deck:	Not Checked					
Importance:	Normal	Vibration:	Not Checked					
General Load		1000 540						
Floor Live:	40 PSF			Bearings ar	nd Facto	red Reactions		
Dead:	15 PSF			Bearing Lei	ngth	Cap. React D/L lb	Total Ld. Case	Ld. Comb.
				1 - Steel 5.2	50"	21% 152 / 487	639 L	1.25D+1.5L
				2-SPF 1.8	175"	45% 273 / 874	1147 L	1.25D+1.5L

Analysis Results

	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
	Moment	2187 ft-lb	7'4 7/16"	7340 ft-lb	0.298 (30%)	1.25D+1.5L	L
	Unbraced	2187 ft-lb	7'4 7/16"	2202 ft-lb	0.993 (99%)	1.25D+1.5L	L
	Shear	1130 lb	12'9 3/8"	3080 lb	0.367 (37%)	1.25D+1.5L	L
	Perm Defl in.	0.047 (L/3196)	6'9 3/4"	0.414 (L/360)	0.110 (11%)	D	Uniform
	LL Defl inch	0.124 (L/1197)	6'9 13/16"	0.414 (L/360)	0.300 (30%)	L	L
١	TL Defl inch	0.171 (L/871)	6'9 13/16"	0.620 (L/240)	0.280 (28%)	D+L	L
_							

Design Notes

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

REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS.

PASS THRU FRAMING SQUASH BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS.

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



L	J Dollom hange	braced at bearings	·							
Γ	ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
l	1	Tie-In	0-0-0 to 0-5-4	(Span)1-1-4	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
l	2	Tie-In	0-5-4 to 11-1-10	(Span)0-11-7	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
l	3	Tie-In	0-5-4 to 12-10-8	(Span)1-3-13	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
l	4	Tie-In	11-1-10 to 12-10-8	(Span)3-3-4	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
l	5	Point	11-3-2		Far Face	94 lb	252 lb	0 lb	0 lb	F7

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

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

Handling & Installation

Dist flanges must not be cut or drilled Refer to latest copy of the Lloist product information details for framing details, stifferer tables, web hole chart. bridging details, multi-ply festening details and handling/erection details Damaged Lloists must not be used

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

Provide lateral support at bearing points to avoid lateral displacement and rotation.
 Web stiffeness for point load as shown Minimum point load bearing length>= 3.5 Inches
 7. For flat roofs provide proper drainage to prevent poncing.

Manufacturer Info

Nascor by Kott

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



PAGE 17 OF 30

Layout Name GRANDBROOKE 1-ELEV 1 Design Method LSD Description Created June 25, 2018 Builder GREENPARK Sales Rep RM Designer RO Shipping Project

Bullder's Project Kott Lumber Company 14 Anderson Bivd

Stouffville, Ontario Canada K2H7V1

905-642-4400 Job Path

S:/CUSTOMERS/GREENPARK WINNISALE HOMES/MODELS /GRANDBROOKE 1/FLOORS **IGRANDBROOKE 1-ELEV 1.jsJ**

2012

40

15

360

480

360

360

240

480

240

OSB

5/8"

Nailed & Glued

Second Floor Design Method Building Code NBCC 2010 / OBC

Floor Loads Live Dead Deflection Joist 480

LL Span L/ TL Span L/ LL Cant 2L/ TL Cant 2L/

Deflection Girder LL Span, L/ TL Span L/ LL Cant 2L/

TL Cant 2L/ Decking Deck Thickness

Gypsum 1/2" REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY

PASS THRU FRAMING SQUASH BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS.

Fastener

Vibration

NAILING OR BOLTING REQUIREMENTS.

Cellina:

N.A. EL-MASSI

Aug 13/ 2018

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



RI RI F2-A-1 ply J3-C F6-A - 3 ply DROPPED BBO RI R1

Second LVL/LS									
	Descr		Width	De	pth	Qly	Plies	Pcs	Length
F6	Forex 2.0E-3	000Fb LVL	1.75	5	9.5	2	3	6	14-0-0
F5	Forex 2.0E-3	000Fb LVL	1.7	5	9.5	1	2	2	14-0-0
F2	Forex 2.0E-3	000Fb LVL	1.75	5	9.5			1	8-0-0
F4	Forex 2.0E-3	000Fb LVL	1.75		9.5	2	2	4	6-0-0
LVL/LS	L (Dro	pped)		-					
Label	Descr	iption	Width	De	pth	Qty	Plies	Pcs	Length
BB04	Forex 2.0E-3	000Fb LVL	1.75	-	9.5	1	3	3	10-0-0
Joist (Flush)								
Label	Descr	iption	Widt	De	pth	Qty	Plies	Pcs	Length
J5	NJH	-	2.5	5	9.5			50	14-0-0
J3	NJH		2.5	i i	9.5			25	12-0-0
J1	NJH		2.5	5	9.5			6	4-0-0
Rim Bo	ard								
Label	Descr	iption	Widt		pth	Qty	Plies	Pcs	Length
R1		rd Rimboard 125 X 9.5	1.12	5	9.5			13	12
Hangei	r					Ве	am/Girde		pported lember
Label	Pcs	Description	n	Skew	Slope	e 1	asteners	fa	steners
H1	. 1	HGUS410					46 16d	1	16 16d
H2	1	LF179	_				10 10d	1 #8	x1 1/4W8
H3	1	HGUS5.50/	10				46 16d		16 16d
H4	1	Unknown Hanger							
H6	32	LT259					10dx1 1/2		0dx1 1/2

Label Description

BLK1 NJH

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 hange.
24 Install 24 blocking @ 24 foc under parallel non-load bearing walls.
24 Install single-ply flush window header along inside face of rimboard/firmjoist.

Before his black-or specifier quide for installations under

nmooardrimpost.
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

have levels floor or roof.

Load transfer blocks to be installed under all point loads.
It shall be the frame'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" nimboard with 2"x4" block (1/16" longer than nim 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 are 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 apporve the deviat prior to construction.

ARCHITECTURAL DRAWINGS:

JARDIN DESIGN GROUP 64 Jardin Dr., Suite 3A Date: Rev. 1, 5/22/2018 Project No: 18-24 Model: Grandbrooke 1, Elevation 1

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) Legend

Point Load Support

Load from Above

1111111

PS



Wali Wall Opening Norbord Rimboard Plus 1.125 X 9.5 NJH 9.5 Forex 2.0E-3000Fb LVL 1.75 X 9.5 Forex 2.0E-3000Fb LVL 1.75 X 9.5 (Dropped)

THIS CERTIFICATION IS TO CONFIRM THAT:

I. THE LOADS USED IN THE CALCULATION OF THE ATTACHED SHOWN ON THIS LAYOUT.

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. NULTI-PLY NEMBERS MUST BE ATTACHED TOGETHER AS PER THE INCLUDED MULTIPLE MEMBER CONNECTION DETAIL.

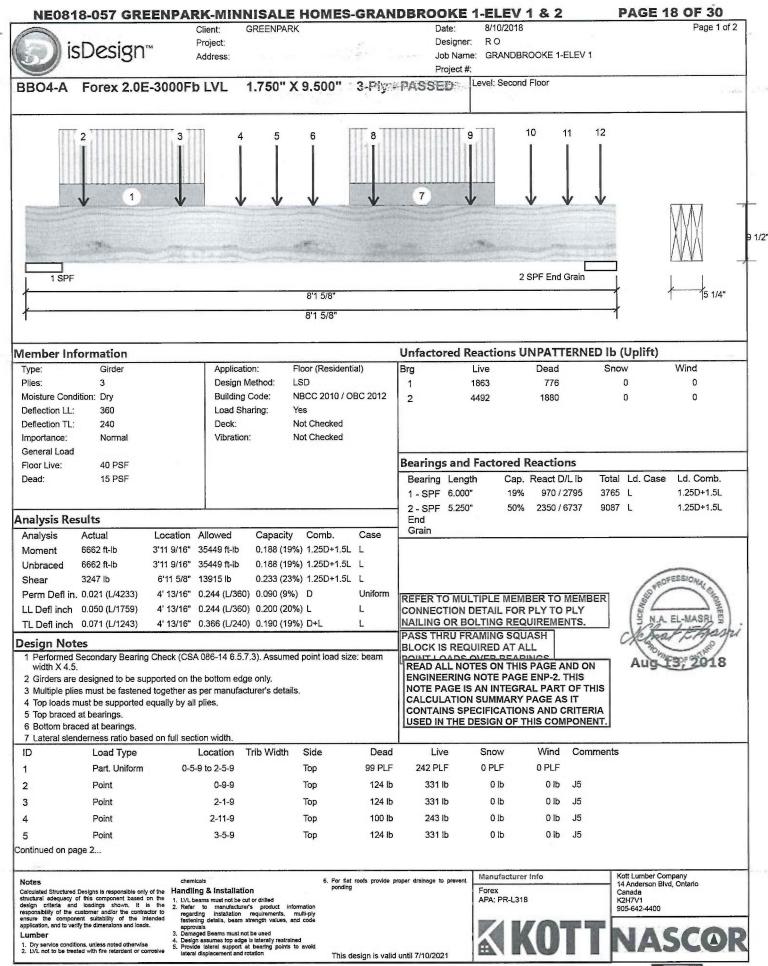
ALL OTHER COMPONENTS AND STRUCTURAL ELEMENTS SUPPORTING THE FLOOR SYSTEM SUCH AS BEAMS, WALLS, COLUMNS AND FOUNDRIST ON WALLS AND FOOTINGS INCLUDING ANCHORAGE OF COMPONENTS AND BRACING FOR LATERAL STABILITY ARE THE RESPONSIBILITY OF OTHERS.

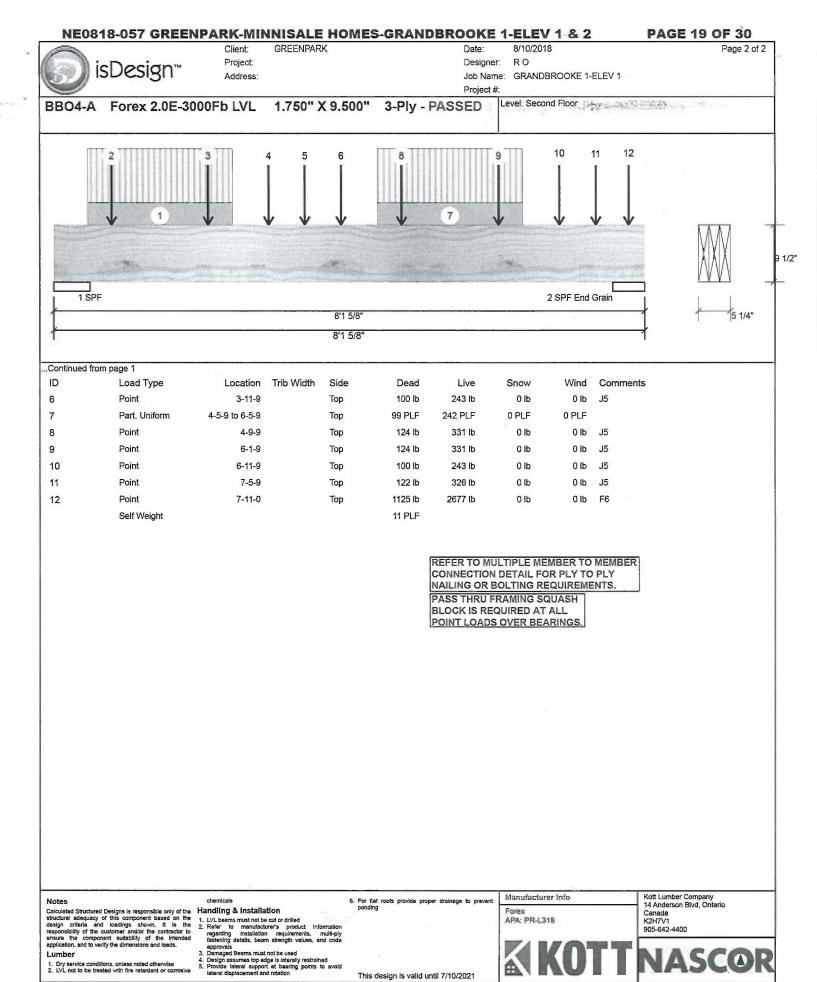
Version 18,40,105 Powered by iStruct*

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

Varies 25-0-0

Width Depth Qty Plies Pcs Length
2.5 9.5 LinFt Varies 25-0-0





This design is valid until 7/10/2021

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

Lumber

isDesign™

Client: Address:

GREENPARK

Project:

Date: Designer:

RO

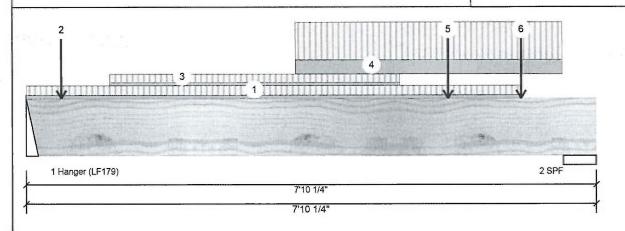
Job Name: GRANDBROOKE 1-ELEV 1

Project #:

F2-A Forex 2.0E-3000Fb LVL

1.750" X 9.500" - PASSED

Level: Second Floor





Member Information

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

15 PSF

Application: Floor (Residential) Design Method: LSD NBCC 2010 / OBC 2012 Building Code:

Load Sharing: No Deck: Not Checked Vibration: Not Checked

	Unfactored	Reactions	UNPATTERNED	lb	(Uplift)
--	------------	-----------	-------------	----	----------

Brg	Live	Dead	Snow	Wind
1	649	258	0	0
2	1017	397	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.	
•	2.000"	50%	322 / 974	1296	L	1.25D+1.5L	
Hanger	5 500"	3/1%	497 / 1526	2022	1	1 25D+1 5I	

Analysis Results

Dead:

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3295 ft-lb	4'4 7/16"	11362 ft-lb	0.290 (29%)	1.25D+1.5L	L
Unbraced	3295 ft-lb	4'4 7/16"	5069 ft-lb	0.650 (65%)	1.25D+1.5L	L
Shear	1662 lb	6'8"	4638 lb	0.358 (36%)	1.25D+1.5L	L
Perm Defl in.	0.029 (L/3084)	4' 1/8"	0.245 (L/360)	0.120 (12%)	D	Uniform
LL Defl inch	0.073 (L/1205)	4' 3/16"	0.245 (L/360)	0.300 (30%)	L	L
TL Defl inch	0.102 (L/866)	4' 3/16"	0.368 (L/240)	0.280 (28%)	D+L	L
	Moment Unbraced Shear Perm Defl in. LL Defl inch	Moment 3295 ft-lb Unbraced 3295 ft-lb	Moment 3295 ft-lb 4'4 7/16" Unbraced 3295 ft-lb 4'4 7/16" Shear 1662 lb 6'8" Perm Defl in. 0.029 (L/3084) 4' 1/8" LL Defl inch 0.073 (L/1205) 4' 3/16"	Moment 3295 ft-lb 4'4 7/16" 11362 ft-lb Unbraced 3295 ft-lb 4'4 7/16" 5069 ft-lb Shear 1662 lb 6'8" 4638 lb Perm Defl in. 0.029 (L/3084) 4' 1/8" 0.245 (L/360) LL Defl inch 0.073 (L/1205) 4' 3/16" 0.245 (L/360)	Moment 3295 ft-lb 4'4 7/16" 11362 ft-lb 0.290 (29%) Unbraced 3295 ft-lb 4'4 7/16" 5069 ft-lb 0.650 (65%) Shear 1662 lb 6'8" 4638 lb 0.358 (36%) Perm Defl in. 0.029 (L/3084) 4' 1/18" 0.245 (L/360) 0.120 (12%) LL Defl inch 0.073 (L/1205) 4' 3/16" 0.245 (L/360) 0.300 (30%)	Moment 3295 ft-lb 4'4 7/16" 11362 ft-lb 0.290 (29%) 1.25D+1.5L Unbraced 3295 ft-lb 4'4 7/16" 5069 ft-lb 0.650 (65%) 1.25D+1.5L Shear 1662 lb 6'8" 4638 lb 0.358 (36%) 1.25D+1.5L Perm Defl in. 0.029 (L/3084) 4' 1/8" 0.245 (L/360) 0.120 (12%) D LL Defl inch 0.073 (L/1205) 4' 3/16" 0.245 (L/360) 0.300 (30%) L

REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS.

PASS THRU FRAMING SQUASH BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS.

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



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.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 6-9-13	(Span)3-0-2	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-5-13		Far Face	20 lb	53 lb	0 lb	0 lb	J1
3	Part. Uniform	1-1-13 to 5-1-13		Far Face	20 PLF	54 PLF	0 PLF	0 PLF	
4	Part. Uniform	3-8-9 to 7-4-9		Тор	90 PLF	240 PLF	0 PLF	0 PLF	
5	Point	5-9-13		Far Face	24 lb	63 lb	0 lb	0 lb	J1
6	Point	6-9-13		Far Face	17 lb	44 lb	0 lb	0 lb	J1
	Self Weight				4 PLF				

Notes

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

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

chemicals

Handling & Installation

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

approvals

Damaged Beams must not be used

Design assumes top edge is laterally restrained

Provide lateral support at bearing points to avoid

lateral displacement and rotation

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info Forex

APA: PR-L318

Kott Lumber Company 14 Anderson Blvd, Ontario Canada K2H7V1 905-642-4400





GREENPARK

Project:

Address:

Date:

Designer: RO

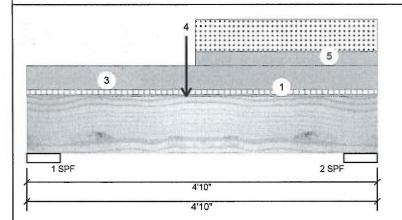
Job Name: GRANDBROOKE 1-ELEV 1

Project #:

Forex 2.0E-3000Fb LVL 1.750" % 9.500"

2-Ply - PASSED

Level: Second Floor



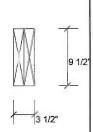
Application:

Design Method:

Building Code:

Load Sharing:

Deck: Vibration:



Wind

0

0

Ld. Comb.

1.25D+1.5S +0.5L

1.25D+1.5S

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

Floor (Residential) NBCC 2010 / OBC 2012

Snow Brg Live Dead 40 326 185 1 2 40 376 310

6%

9%

Cap. React D/L lb

407 / 297

471 / 465

Unfactored Reactions UNPATTERNED lb (Uplift)

Location Allowed Case Capacity Comb. 0.046 (5%) 1.25D+1.5S L 0.046 (5%) 1.25D+1.5S L 0.064 (6%) 1.25D+1.5S L

LSD

No Not Checked

Not Checked

Analysis Actual 964 ft-lb 2'2 1/2" 20906 ft-lb Moment 2'2 1/2" 20906 ft-lb 964 ft-lb Unbraced 1'2 1/4" 8535 lb Shear 545 lb Perm Defl in. 0.003 2'4 1/16" 0.135 (L/360) 0.020 (2%) D Uniform (1/14644)0.003 LL Defl inch 2'3 5/8" 0.135 (L/360) 0.020 (2%) S+0.5L L (L/15915) TL Defl inch 0.006 (L/7627) 2'3 7/8" 0.202 (L/240) 0.030 (3%) D+S+0.5L

REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS.

Bearings and Factored Reactions

Bearing Length 1-SPF 5.500"

2-SPF 5.500"

PASS THRU FRAMING SQUASH BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS

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



Total Ld. Case

704 L

936 L

Design Notes

Analysis Results

- 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.
- based on full applies width

o Laterai	i siendemess ratio pased o	on full section wiath.							
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 4-10-0	(Span)0-9-13	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	0-0-0 to 4-10-0		Тор	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
4	Point	2-2-8		Тор	134 lb	0 lb	230 lb	0 lb	Header Column
5	Part. Uniform	2-4-0 to 4-10-0		Тор	46 PLF	0 PLF	106 PLF	0 PLF	
	Self Weight				8 PLF				

Notes

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

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

Handling & Installation

Alfulling of installation.

LVL beams must not be cut or drilled

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

maged Beams must not be used

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

For flat roofs provide proper drainage to prevent conding

Manufacturer Info APA: PR-L318

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







GREENPARK

Project: Address: Date:

8/10/2018

Page 1 of 1

Designer: RO Job Name: GRANDBROOKE 1-ELEV 1

Project #:

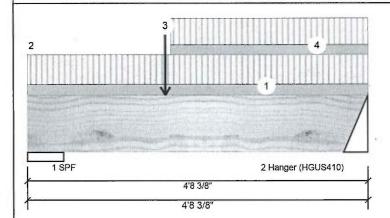
Forex 2.0E-3000Fb LVL

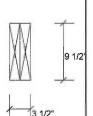
1.750" X 9.500" 2-Ply - PASSEY: Level: Second Floor

1

2 -

Hanger





Wind

0

Ld. Comb.

1.25D+1.5L

1.25D+1.5L

0

Total Ld. Case

928 L

610 L

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

Unfacto	red Reactions	UNPATTER	NED lb (Uplift)
Brg	Live	Dead	Snow

2	296	133	0	0

Cap. React D/L lb

248 / 681

167 / 443

198

Analysis Results

Anal	ysis	Actual	Location	Allowed	Capacity	Comb.	Case
Morr	nent	1299 ft-lb	1'10 7/8"	22724 ft-lb	0.057 (6%)	1.25D+1.5L	L
Unbi	raced	1299 ft-lb	1'10 7/8"	22724 ft-lb	0.057 (6%)	1.25D+1.5L	L
Shea	ar	882 lb	1'2 3/4"	9277 lb	0.095 (10%)	1.25D+1.5L	L
Pern	n Defl in.	0.002 (L/22583)	1'11 9/16"	0.133 (᠘/360)	0.020 (2%)	D	Uniform
LL D	efl inch	0.005 (L/9524)	1'11 1/16"	0.133 (L/360)	0.040 (4%)	L	L
TLD	efl inch	0.007 (L/6699)	1'11 1/4"	0.199 (L/240)	0.040 (4%)	D+L	L

REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS.

7%

6%

PASS THRU FRAMING SQUASH BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS

454

Bearings and Factored Reactions

Bearing Length

4.000"

1-SPF 6.000"

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



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 Sie	nuemess ratio paseu t	on full section wider.							
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 4-8-6	(Span)0-8-7	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 0-1-4		Тор	1 PLF	0 PLF	0 PLF	0 PLF	
3	Point	1-10-14		Near Face	258 lb	649 lb	0 lb	0 lb	F2
4	Tie-In	1-11-12 to 4-8-6	(Span)0-7-9	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				8 PLF				

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

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

Handling & Installation

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

For flat roofs provide proper drainage to prevent conding

APA: PR-L318

Manufacturer Info

Kott Lumber Company K2H7V1 905-642-4400







GREENPARK

Date:

Project: Address:

Designer: RO

Job Name: GRANDBROOKE 1-ELEV 1

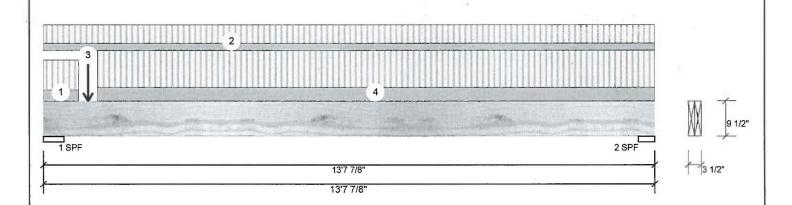
Project #:

Forex 2.0E-3000Fb LVL

1.750" X 9.500"

2-Ply - PASSED

Level: Second Floor



Member Info	rmation			Unfacto	red React	ions U	NPATTERN	ED lb	(Uplift)
Туре:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Sno	w
Plies:	2	Design Method:	LSD	1	2130		933		0
Moisture Conditi	on: Dry	Building Code:	NBCC 2010 / OBC 2012	2	276		159		0
Deflection LL:	360	Load Sharing:	No	3.73					
Deflection TL:	240	Deck:	Not Checked						
Importance:	Normal	Vibration:	Not Checked						
General Load									
Floor Live:	40 PSF			Bearing:	s and Fact	ored	Reactions		
Dead:	15 PSF			Bearing	Length	Сар.	React D/L lb	Total	Ld. Case
				1-SPF	5.500"	37%	1167 / 3194	4361	L
				2-SPF	4.375"	7%	199 / 414	613	L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2849 ft-lb	3'9 1/4"	22724 ft-lb	0.125 (13%)	1.25D+1.5L	L
Unbraced	2849 ft-lb	3'9 1/4"	19408 ft-lb	0.147 (15%)	1.25D+1.5L	L
Shear	4307 lb	1'2 1/4"	9277 lb	0.464 (46%)	1.25D+1.5L	L
Perm Defl in.	0.043 (L/3581)	6'4 11/16"	0.432 (L/360)	0.100 (10%)	D	Uniform
LL Defl inch	0.083 (L/1865)	6'3 1/8"	0.432 (L/360)	0.190 (19%)	L	L
TL Defl inch	0.127 (L/1227)	6'3 11/16"	0.648 (L/240)	0.200 (20%)	D+L	L
				,		Ĺ

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.

Self Weight

- 4 Top braced at bearings.
- 5 Bottom braced at bearings.

REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS.

PASS THRU FRAMING SQUASH BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS.

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



Wind 0 0

Ld. Comb.

1.25D+1.5L

1.25D+1.5L

6 Lateral slenderness ratio based on full section width. ID Load Type Trib Width Side Dead Live Snow Wind Comments Location 1 Tie-In 0-0-0 to 0-9-6 (Span)0-8-11 Top 15 PSF 40 PSF 0 PSF 0 PSF 2 Tie-In 0-0-0 to 13-7-14 (Span)0-5-5 Top 15 PSF 40 PSF 0 PSF 0 PSF 3 Point 1-0-0 0 lb 0 lb F6 Far Face 856 lb 2052 lb 4 1-2-10 to 13-7-14 15 PSF 40 PSF 0 PSF 0 PSF Tie-In (Span) Top 0-10-11

Notes

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

Lumber

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

Handling & Installation

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

 Damaged Beams must not be used

 Design assumes top edge is laterally restrained

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

For flat roofs provide proper drainage to prevent ponding

8 PLF

Manufacturer Info Forex APA: PR-L318

Kott Lumber Company 14 Anderson Blvd, Ontario K2H7V1 905-642-4400





Notes

Continued on page 2...

6

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

Part. Uniform

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

chemicals

Handling & Installation

6-3-3 to 10-3-3

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 adde is laterally

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

For flat roofs provide proper drainage to prevent ponding

20 PLF

Near Face

Manufacturer Info
Forex

0 PLF

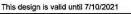
APA: PR-L318

Kott Lumber Company 14 Anderson Blvd, Ontario Canada K2H7V1 905-642-4400



0 PLF





54 PLF

NE0818-057 GREENPARK-MINNISALE HOMES-GRANDBROOKE 1-ELEV 1 & 2 **PAGE 25 OF 30** GREENPARK Client: Date: 8/10/2018 Page 2 of 2 Project: Designer: RO isDesign™ Address: Job Name: GRANDBROOKE 1-ELEV 1 Project #: Level: Second Floor Forex 2.0E-3000Fb LVL 1.750 × 9.590" 3-Ply - PASSED F6-B 10 1 LVL 2 Hanger (HGUS5.50/10) 12'6 1/8' 12'6 1/8" ..Continued from page 1 ID Location Trib Width Side Live Load Type Dead Snow Wind Comments 7 Point 10-11-3 63 lb Near Face 24 lb 0 lb 0 lb J1 8 Point 11-9-3 Far Face 102 lb 272 lb 0 lb 0 lb 0 PSF 9 Tie-In 11-11-3 to 12-6-2 (Span)3-0-2 15 PSF 40 PSF 0 PSF Top 10 Point 11-11-3 Near Face 17 lb 46 lb 0 lb 0 lb J1 Self Weight 11 PLF

> REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS.

PASS THRU FRAMING SQUASH BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS.

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

Lumber

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

chemicals

Handling & Installation

Handling & Installation

1. IVL beams must not be cut or drilled

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

3. Damaged Beams must not be used

4. Design assumes top edge is laterally restrained

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

Manufacturer Info

Forex

APA: PR-L318

Kott Lumber Company 14 Anderson Blvd, Ontario Canada K2H7V1





Layout Name **GRANDBROOKE 1-ELEV 1** Design Method

LSD

Description Created

June 25, 2018 Builder

GREENPARK Sales Rep

RM Designer

RO Shipping

Project Builder's Project

Kott Lumber Company

14 Anderson Blvd Stouffville, Ontario

Canada K2H7V1 905-642-4400

Job Path

S:\CUSTOMERS\GREENPARK \MINNISALE HOMES\MODELS **\GRANDBROOKE 1\FLOORS** \GRANDBROOKE 1-ELEV 1.isl

Ground Floor Design Method

Building Code NBCC 2010 / OBC 2012

LSD

40

15

480

360

480

360

360

240

480

240

OSB

3/4"

Nailed & Glued

Floor Loads Live Dead

Deflection Joist LL Span L/ TL Span L/

LL Cant 2L/ TL Cant 2L/

Deflection Girder LL Span L/

TL Span L/ LL Cant 2L/ TL Cant 2L/

Decking Deck **Thickness**

Fastener Vibration

R1 3 X J5-AJ OF BRAMPTON DING DIVISION REVIEWED -9H-BLK1 F1-A - 1 ply 2"X8"@16"o/c LANDING. MARK DERKSEN UNEXCAVATED 18-331269 00000 PA 2"X8"@16"o/c REFER TO MULTIPLE MEMBER TO MEMBER

Label	L (Flush) Description		Width	De	pth	C	ty	Plies	Pcs	Length		
F3	Forex 2.0E-3000FI	b LVL	1.75		9.5				2	14-0-0		
F5	Forex 2.0E-3000FI	b LVL	1.75		9.5		1	2	2	14-0-0		
F1	Forex 2.0E-3000Fb LVL		1.75		9.5				2	6-0-0		
l Joist (Flush)											
Label	Description	1	Width	De	pth	C	Qty	Plies	Pcs	Length		
F8	NJ		1.5		9.5		3	2	6	14-0-0		
F7	NJ		1.5		9.5		2	2	4	4-0-0		
J5	NJH		2.5		9.5				42	14-0-0		
J3	NJH		2.5	i	9.5				4	12-0-0		
J2	NJH		2.5	i	9.5				1	6-0-0		
J1	NJH		2.5	i	9.5				3	4-0-0		
Rim Bo	ard									0		
Label	Description		Width	De	pth	C	Σty	Plies	Pcs	Length		
R1	Norbord Rin Plus 1.125 >		1.125	5	9.5				12	12		
Hangei	r				•		Bea	am/Girdei		pported ember		
Label	Pcs Des	criptio	n	Skew	Slop	ре	fa	steners	1	fasteners		
												

2.5 9.5 LinFt

IOTES:

- Framer to verify dimensions on the architectural drawings. . Double joist only require filler/backer ply when supporting
- another member using a face-mounted hanger. Install 2x4 blocking @ 24"o/c under parallel non-load bearing walls. . Install single-ply flush window header along inside face of
- rimboard/rimjoist. Refer to Nascor specifier guide for installation works. Squash blocks recommended to be installed at end bearing on all first level joists which support loading from above exceeding
- two levels floor or roof. Load transfer blocks to be installed under all point loads. It shall be the frame's responsibility that floor joists and beams are fastened as per the hanger manufacturer's standards.

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

tim parallel to joists: 1-1/8" rimboard with 2"x4" block (1/16" longer than m depth @ 16"o/c). All other components and structural elements upporting the floor system such as beams, walls, columns, and undation walls, and footings including anchorage of components and acing for lateral stability are the responsibility of Others.

latch are represents ceramic tiled floor with an additional dead load

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

and the second second

ARCHITECTURAL DRAWINGS:

JARDIN DESIGN GROUP 64 Jardin Dr., Suite 3A Date: Rev. 1, 5/22/2018 Project No: 18-24 Model: Grandbrooke 1, Elevation 1

- 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)

Legend



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

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

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.

All work shall conform to the Ontario

Building Code O. Reg. 332/12 as amended

CONNECTION DETAIL FOR PLY TO PLY

NAILING OR BOLTING REQUIREMENTS.

READ ALL NOTES ON THIS PAGE AND ON

NOTE PAGE IS AN INTEGRAL PART OF THIS

CONTAINS SPECIFICATIONS AND CRITERIA

USED IN THE DESIGN OF THIS COMPONENT.

N.A. EL-MASRI

Aug 13, 2018

ENGINEERING NOTE PAGE ENP-2. THIS

CALCULATION SUMMARY PAGE AS IT

PASS THRU FRAMING SQUASH

POINT LOADS OVER BEARINGS.

BLOCK IS REQUIRED AT ALL

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.

Version 18.40.105 Powered by iStruct™

H5

H6

Blocking

Label Description

4 LT2-159

10 LT259

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

2 10dx1 1/2

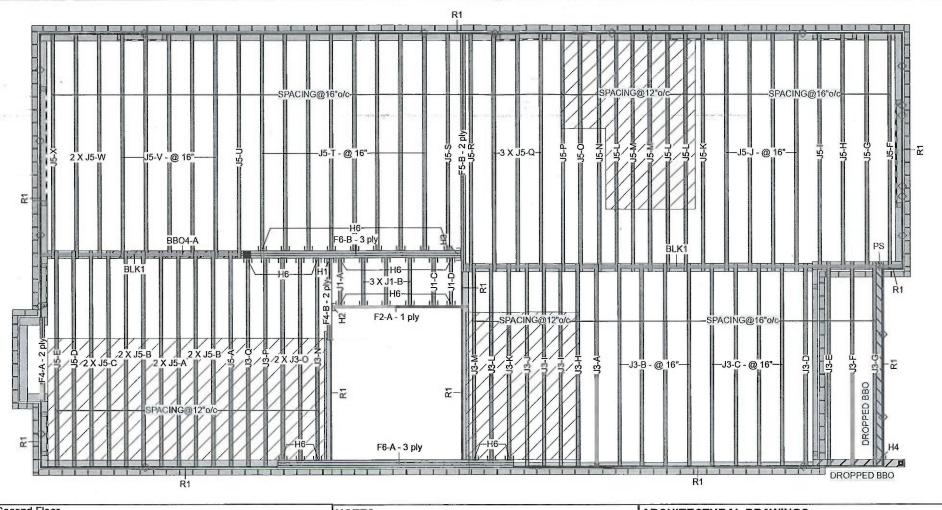
2 10dx1 1/2

Varies 18-0-0

4 10dx1 1/2

4 10dx1 1/2

Width Depth | Qty | Plies | Pcs | Length



Label	Description	Width	Depth	Qty	Plies	Pcs	Length
F6	Forex 2.0E-3000Fb LVL	1.75	9.5	2	3	6	14-0-0
F5	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	14-0-0
F2	Forex 2.0E-3000Fb LVL	1.75	9.5			1	8-0-0
F4	Forex 2.0E-3000Fb LVL	1.75	9.5	2	2	4	6-0-0
LVL/LS	L (Dropped)		- 12				
Label	Description	Width	Depth	Qty	Plies	Pcs	Length
BBO4	Forex 2.0E-3000Fb LVL	1.75	9.5	1	3	3	10-0-0
l Joist (Flush)	3					
Label	Description	Width	Depth	Qty	Plies	Pcs	Length
J5	NJH	2.5	9.5			50	14-0-0
J3	NJH	2.5	9.5			25	12-0-0
J1	NJH	2.5	9.5			6	4-0-0
Rim Bo	ard				130		
Label	Description	Width	Depth	Qty	Plies	Pcs	Length
R1	Norbord Rimboard Plus 1.125 X 9.5	1.125	9.5			13	12

					Beam/Girder	Supported Member	and structu
Label	Pcs	Description	Skew	Slope	fasteners	fasteners	phor to cor
H1	1	HGUS410			46 16d	16 16d	
H2	1	LF179	11 52		10 10d	1 #8x1 1/4WS	
H3	1	HGUS5.50/10			46 16d	16 16d	
H4	1	Unknown Hanger					
H6	32	LT259	8	- 33	4 10dx1 1/2	2-10dx1-1/2	esternia.
D1 1-7-							

Width Depth Qty

2.5 9.5 LinFt

Label Description

BLK1 NJH

NOTES:

- . Framer to verify dimensions on the architectural drawings. Double joist only require filler/backer ply when supporting another member using a face-mounted hanger.
- Install 2x4 blocking @ 24"o/c under parallel non-load bearing walls. . Install single-ply flush window header along inside face of
- rimboard/rimjoist.

 Refer to Nascor specifier guide for installation works. Squash blocks recommended to be installed at end bearing on all first level joists which support loading from above exceeding
- two levels floor or roof. Load transfer blocks to be installed under all point loads. . It shall be the frame'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"x4" 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 oundation walls, and footings including anchorage of components and pracing for lateral stability are the responsibility of Others.

Hatch are 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 apporve the deviation prior to construction.

ARCHITECTURAL DRAWINGS:

JARDIN DESIGN GROUP 64 Jardin Dr., Suite 3A Date: Rev. 1, 5/22/2018 Project No: 18-24 Model: Grandbrooke 1, Elevation 1

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)

Point Load Support

egend

PS 0









Layout Name **GRANDBROOKE 1-ELEV 1** Design Method

LSD Description

Created

June 25, 2018 Builder

GREENPARK

Sales Rep RM

Designer

RO Shipping

Project

Builder's Project

Kott Lumber Company

14 Anderson Blvd Stouffville, Ontario Canada K2H7V1

905-642-4400

Job Path

S:\CUSTOMERS\GREENPARK \MINNISALE HOMES\MODELS **IGRANDBROOKE 1\FLOORS** \GRANDBROOKE 1-ELEV 1.isl

Second Floor

Design Method LSD Building Code NBCC 2010 / OBC 2012

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

240 TL Span L/ 480 LL Cant 2L/ TL Cant 2L/ 240 Decking OSB Deck Thickness 5/8 Nailed & Glued Fastener

Vibration Gypsum 1/2" Ceiling:

REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS. PASS THRU FRAMING SQUASH

BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS.

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



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.

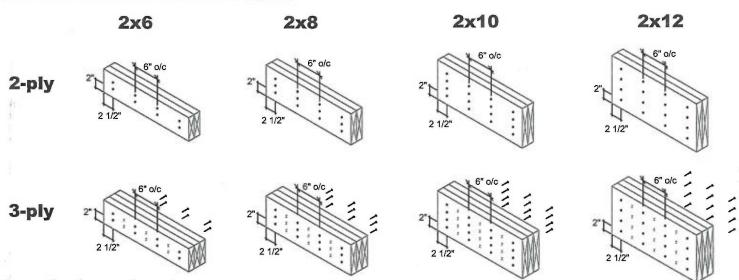
ALL OTHER COMPONENTS AND STRUCTURAL ELEMENTS. SUPPORTING THE FLOOR SYSTEM SUCH AS BEAMS, WALLS, COLUMNS AND FOUNDATION WALLS AND FOOTINGS INCLUDING ANCHORAGE OF COMPONENTS AND BRACING FOR LATERAL STABILITY ARE THE RESPONSIBILITY OF OTHERS.

Plies Pcs Length

Varies 25-0-0

MULTIPLE MEMBER CONNECTIONS

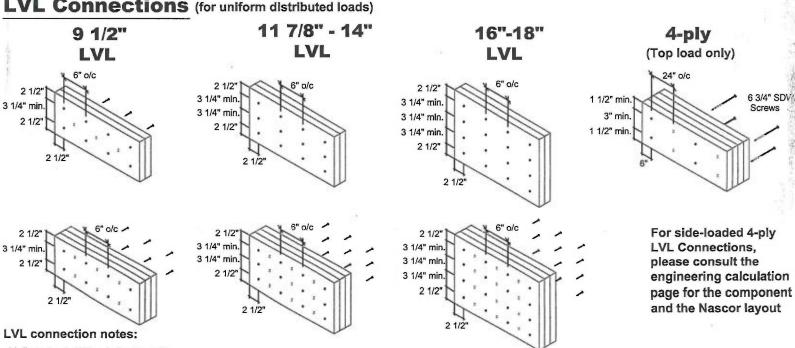
Conventional Connections (for uniform distributed loads)



Conventional connection notes:

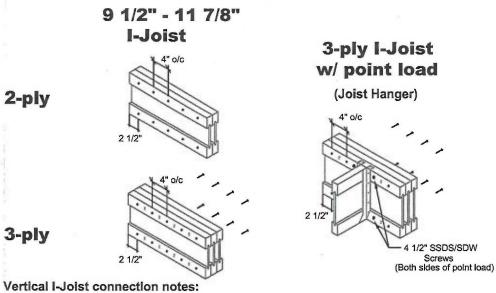
- -Nails to be 3" 10d spiral wire nails.
- -Nails to be located a minimum of 2" from the top and bottom of the member. Start all nails a minimum of 2 1/2" in from ends.
- -Number of rows and spacing as per details shown, unless noted otherwise.
- "X" represents nail driven from the opposite side.

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 Moodle Drive Ottawa, ON K2H 7V1 Ph: 613-838-2775 Fx: 613-838-4751