# **Engineering Note Page (ENP-2)**

**REVISION 2018-10-17** 

# Please read all notes prior to installation of the component

# **DESIGN INFORMATION**

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

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

The responsibility of the undersigned is limited to the verification of the structural capacity of the 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 transfer blocks. Structural elements such as walls, posts, connectors, and transfer 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 floor joists is to be carried out in accordance with the current edition of the manufacturer's literature available at http://www.kottgroup.com.

# 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 transfer block framing is required at all r  $\underset{East Gwillimbury}{\overset{\text{\tiny arings}}{\leftarrow}}$  arings.

Do not drill any hole, cut or notch a certified building Ontario Building Code, as amended, and the preauthorization.

HANDLING AND INS

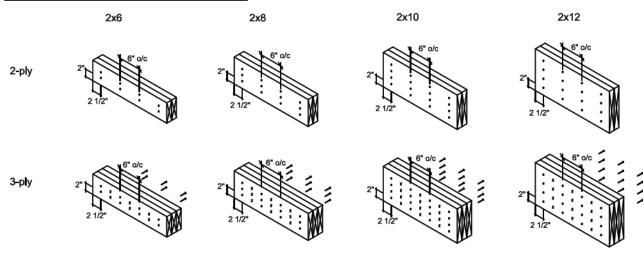
These plans have been reviewed for use with the corrections as noted. No other changes may be made without written approval of the Bauliding Standards Branch. All work must comply with times. The building permit must be clearly posted on site at all times.

Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			



GREENPARK-TRINAR HALL-GLENWAY 3A EL3

# **Conventional Connections**



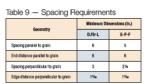
Conventional connection notes:

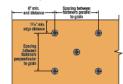
- -Nails to be 3" long wire nails.
- -Nalls to be located 2" mln. from the top and bottom of the member. Start all nalls 2 1/2" mln. from ends.
- -Number of rows and spacing as per details shown, unless noted otherwise.

3 1/4" mlr

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

### SIMPSON SDW SPACING REQUIREMENT



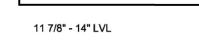


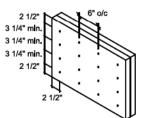
Spacing Requirements

# **LVL Connections**

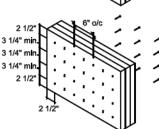
HEAD OF ALL SPECIFIED NAILS AND SCREWS MUST BE ON THE LOADED SIDE

9 1/2" LVL

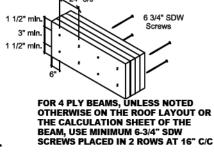




16"-18" LVL



4-ply LVL (Top load only)





- -LVL ply width is 1-3/4"
- -Nalls to be 3 1/2" common wire nalls.
- -Nails to be located 2 1/2" min. from the top and bottom of the member.
- -Minimum 3 1/4" spacing between rows.
- -Number of rows and spacing as per details shown, unless noted otherwise.
- "X" represents nall or screw driven from the opposite side.



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# Multiple Member Connections

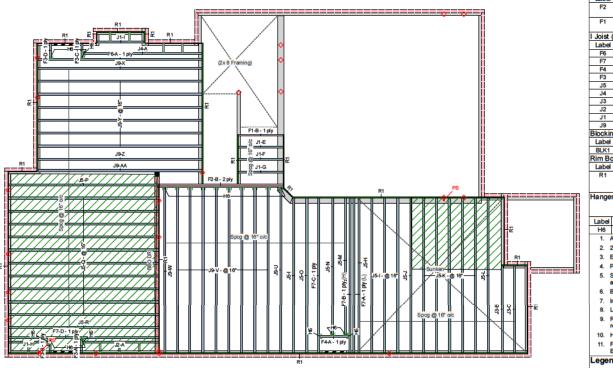
All connections are for uniformly distributed loads.

For multi-ply connections of I-joists, refer to Manufacturer's Installation Guide

				Date
Bu	ilding Code	H. Authier	43236	2021-02-08
Se	wage System			
Zc	ning			

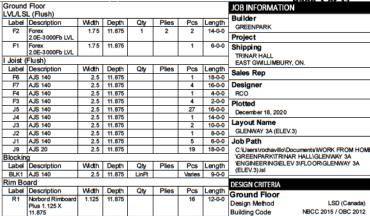


KOTT Inc. 3228 Moodie Drive Ottawa, ON K2H 7V1 613-838-2775 Ground Floor



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.

EFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS. BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARING



						Member
bel	Pcs	Description	Skew	Slope	fasteners	fasteners
16	21	I E2544				

 All blocking to be cut from 12' joists 2. 2' & 4' Lengths to be cut from 8' Length, 6' lengths to be cut from 12' Length

Beam/Girder

3. Ends of joists to be laterally supported 4. Packing of Steel beams and attachment by others

5. Shower and water doset flange locations are approximate only, consult architectural drawing for exact locations

6. Beams identified as "B" are dropped and supplied by others

7. Install 2x4 blocking @ 24" o/c under parallel non-loadbearing walls

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

9. Refer to Multiple Member Connection Detail for ply to ply nailing or bolting

10. Hangers and Fasteners to be installed as per manufacturer

Framing shown on this layout may deviate from architectural drawings. Architeng to review and approve the deviation prior to construction.

Legend 

Point Load Support Load from Above Wall Opening Norbord Rimboard Flus 1.125 X 11.875

AJS 140 11.875 AJS 20 11.875 Forex 2.0E-3000Fb LVL 1.75 X Kott Lumber Company 14 Anderson Blvd Stouffville, Ontario Canada L4A 7X4 905-642-4400

LP - 12412-R Forex - 14056-R

Floor

Loads

Live

Dead

Deflection Joist

Deflection Girder

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

Decking

Thickness

astener

Vibration

**CCMC References** 

Boise - 12472-R , 12787-R

Supported



VENGINEERING/ELEV 3\FLOOR\GLENWAY 3A

LSD (Canada)

15

480

480

360

360

240

480

360

OSB

3/4"

Nailed & Glued

NBCC 2015 / OBC 2012



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Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			



### F3-A

December 18, 2020 08:11:30

Page 4 of 31

**PASSED** 

**BC CALC® Member Report Build 7364** 

Dry | 1 span | No cant.

Job name: Address:

TRINAR HALL

EAST GWILLIMBURY, ON.

C:\Users\rochavillo\Docu...\GLENWAY 3A (ELEV.3).isl File name:

Description: Level - Ground Floor

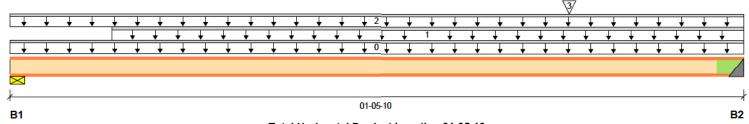
City, Province, Postal Code:

Customer:

Specifier:

**RCO** Designer:

Code reports: CCMC 12787-R Company: **GREENPARK** 



Total Horizontal Product Length = 01-05-10

Position Summany (Down / Halift) (Iba)

Reaction Sur	illiary (Down / O	pilit) (ibs)			
Bearing	Live	Dead	Snow	Wind	
B1, 2-3/8"	73 / 0	37 / 0			
B2, 2"	145 / 0	74 / 0			

Lo	ad Summary						Live	Dead	Snow	Wind	Tributary
	Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	01-05-10	Тор		3			00-00-00
1		Unf. Lin. (lb/ft)	L	00-02-07	01-05-10	Тор		8			n\a
2		Unf. Lin. (lb/ft)	L	00-00-00	01-05-10	Тор	64	24			n\a
3	J2	Conc. Pt. (lbs)	L	01-01-07	01-01-07	Front	124	62			n\a

		Factored	Demand/		
Controls Summary	Factored Demand	Resistance	Resistance	Case	Location
Pos. Moment	68 ft-lbs	5305 ft-lbs	1.3%	1	01-01-07
End Reaction	311 lbs	2207 lbs	14.1%	1	01-05-10
End Shear	288 lbs	2350 lbs	12.3%	1	01-03-10
Total Load Deflection	L/999 (0.001")	n\a	n\a	4	01-00-13
Live Load Deflection	L/999 (0")	n\a	n\a	5	01-00-13
Max Defl.	0.001"	n\a	n\a	4	01-00-13
Span / Depth	1.2				

Beari	ng Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Wall/Plate	2-3/8" x 2-1/2"	155 lbs	4.2%	9.2%	Spruce-Pine-Fir
B2	Hanger	2" x 2-1/2"	311 lbs	14.1%	14.1%	LF2511



# **Cautions**

Web stiffeners required at bearing B2.

Hanger LF2511 requires (12) 10dx1.5 face nails, (2) 10dx1.5 joist nails.

Header for the hanger LF2511 is a Single 2-1/2" x 11-7/8" I-joist



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Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			

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

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.



### F<sub>3</sub>-A

Dry | 1 span | No cant.

Page 5 of 31 **PASSED** 

**BC CALC® Member Report** 

**Build 7364** Job name:

Address:

December 18, 2020 08:11:30

C:\Users\rochavillo\Docu...\GLENWAY 3A (ELEV.3).isl File name:

**RCO** 

TRINAR HALL Description: Level - Ground Floor

EAST GWILLIMBURY, ON.

City, Province, Postal Code: Specifier: Customer: Designer:

Code reports: CCMC 12787-R GREENPARK Company:

Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

Design meets User specified (1") Maximum Total load deflection criteria.

Calculations assume member is fully braced. Hanger Manufacturer: Simpson Strong-Tie, Inc.

Resistance Factor phi has been applied to all presented results per CSA O86.

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.

Design based on Dry Service Condition. Importance Factor: Normal Part code: Part 9



These plans have been reviewed for use with the corrections as noted. No other changes may be made without written approval of the Building Standards Branch. All work must comply with Zoning By-Law 2018-043, as amended, and the Ontario Building Code, as amended. These approved documents must be kept on site at all times. The building permit must be clearly posted on site at all times.

Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			

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.

**ENGINEERING NOTE PAGE ENP-2. THIS** 

CALCULATION SUMMARY PAGE AS IT

# Disclosure

Use of the Boise Cascade Software is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of suitability for a particular application. The output here is based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.

BC CALC®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,



## F3-B

Dry | 1 span | No cant.

Page 6 of 31 **PASSED** 

**BC CALC® Member Report** 

**Build 7364** 

December 18, 2020 08:11:30

Job name: Address:

TRINAR HALL

EAST GWILLIMBURY, ON.

C:\Users\rochavillo\Docu...\GLENWAY 3A (ELEV.3).isl File name:

Description: Level - Ground Floor

City, Province, Postal Code:

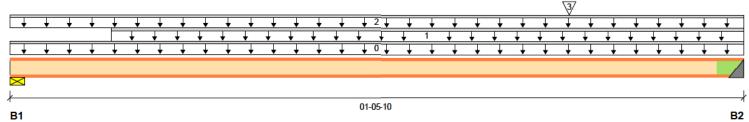
Customer:

Specifier:

**RCO** Designer:

Code reports: CCMC 12787-R Company: **GREENPARK** 

Wind



Total Horizontal Product Length = 01-05-10

Snow

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead
B1, 2-3/8"	61 / 0	31/0
B2, 2"	99 / 0	51/0

	ad Summary Description	Load Type	Ref.	Start	End	Loc.	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L		01-05-10			3			00-00-00
1	· ·	Unf. Lin. (lb/ft)	L	00-02-07	01-05-10	Тор		8			n\a
2		Unf. Lin. (lb/ft)	L	00-00-00	01-05-10	Тор	64	24			n\a
3	J1	Conc. Pt. (lbs)	L	01-01-07	01-01-07	Back	66	33			n\a

		Factored	Demand/		
Controls Summary	<b>Factored Demand</b>	Resistance	Resistance	Case	Location
Pos. Moment	46 ft-lbs	5305 ft-lbs	0.9%	1	00-11-08
End Reaction	213 lbs	2207 lbs	9.6%	1	01-05-10
End Shear	189 lbs	2350 lbs	8.1%	1	01-03-10
Total Load Deflection	L/999 (0")	n\a	n\a	4	00-11-05
Live Load Deflection	L/999 (0")	n\a	n\a	5	00-11-05
Max Defl.	0"	n\a	n\a	4	00-11-05
Span / Depth	1.2				

Bearing	g Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Wall/Plate	2-3/8" x 2-1/2"	131 lbs	3.6%	7.8%	Spruce-Pine-Fir
B2	Hanger	2" x 2-1/2"	213 lbs	9.6%	9.6%	LF2511



# **Cautions**

Web stiffeners required at bearing B2.

Hanger LF2511 requires (12) 10dx1.5 face nails, (2) 10dx1.5 joist nails.

Header for the hanger LF2511 is a Single 2-1/2" x 11-7/8" I-joist



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Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			

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USED IN THE DESIGN OF THIS COMPONENT.

ENGINEERING NOTE PAGE ENP-2. THIS



F3-B

Specifier:

Dry | 1 span | No cant. December 18, 2020 08:11:30

**BC CALC® Member Report Build 7364** 

Job name: Address: TRINAR HALL

EAST GWILLIMBURY, ON.

C:\Users\rochavillo\Docu...\GLENWAY 3A (ELEV.3).isl File name:

Page 7 of 31

**PASSED** 

Description: Level - Ground Floor

City, Province, Postal Code:

Customer: **RCO** Designer:

Code reports: CCMC 12787-R GREENPARK Company:

Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

Design meets User specified (1") Maximum Total load deflection criteria.

Calculations assume member is fully braced. Hanger Manufacturer: Simpson Strong-Tie, Inc.

Resistance Factor phi has been applied to all presented results per CSA O86.

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.

Design based on Dry Service Condition. Importance Factor: Normal Part code: Part 9



These plans have been reviewed for use with the corrections as noted. No other changes may be made without written approval of the Building Standards Branch. All work must comply with Zoning By-Law 2018-043, as amended, and the Ontario Building Code, as amended. These approved documents must be kept on site at all times. The building permit must be clearly posted on site at all times.

Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			

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NOTE PAGE IS AN INTEGRAL PART OF THIS

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USED IN THE DESIGN OF THIS COMPONENT.

**ENGINEERING NOTE PAGE ENP-2. THIS** 

CALCULATION SUMMARY PAGE AS IT

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BC CALC®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,



F3-C

Dry | 1 span | No cant.

December 18, 2020 08:11:30

Page 8 of 31 **PASSED** 

BC CALC® Member Report

**Build 7364** Job name:

Address: TRINAR HALL

C:\Users\rochavillo\Docu...\GLENWAY 3A (ELEV.3).isl File name:

Description: Level - Ground Floor

EAST GWILLIMBURY, ON.

City, Province, Postal Code:

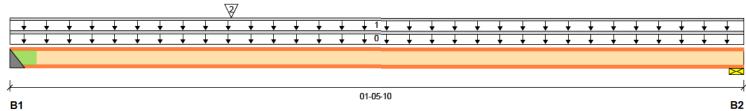
Customer:

Code reports: CCMC 12787-R Specifier:

Designer: **RCO** 

GREENPARK Company:

Wind



Total Horizontal Product Length = 01-05-10

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Sno
B1, 2"	191 / 0	73 / 0	
B2, 2-3/8"	103 / 0	41 / 0	

Lo	ad Summary						Live	Dead	Snow	Wind	Tributary
Tag	Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	01-05-10	Тор		3			00-00-00
1		Unf. Lin. (lb/ft)	L	00-00-00	01-05-10	Тор	64	24			n\a
2	J4	Conc. Pt. (lbs)	L	00-05-05	00-05-05	Front	200	75			n\a

		Factored	Demand/		
Controls Summary	<b>Factored Demand</b>	Resistance	Resistance	Case	Location
Pos. Moment	116 ft-lbs	5305 ft-lbs	2.2%	1	00-05-05
End Reaction	379 lbs	2207 lbs	17.1%	1	00-00-00
End Shear	357 lbs	2350 lbs	15.2%	1	00-02-00
Total Load Deflection	L/999 (0.001")	n\a	n\a	4	00-05-05
Live Load Deflection	L/999 (0.001")	n\a	n\a	5	00-05-05
Max Defl.	0.001"	n\a	n\a	4	00-05-05
Span / Depth	1.2				

Bearing	g Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Hanger	2" x 2-1/2"	379 lbs	17.1%	17.1%	LF2511
B2	Wall/Plate	2-3/8" x 2-1/2"	205 lbs	5.6%	12.2%	Spruce-Pine-Fir

# Cautions

Web stiffeners required at bearing B1.

Hanger LF2511 requires (12) 10dx1.5 face nails, (2) 10dx1.5 joist nails.

Header for the hanger LF2511 is a Single 2-1/2" x 11-7/8" I-joist

# **Notes**

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

Design meets User specified (1") Maximum Total load deflection criteria.

Calculations assume member is fully braced.

Hanger Manufacturer: Simpson Strong-Tie, Inc.

Resistance Factor phi has been applied to all presented results per CSA O86.

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 20

REFER TO MULTIPLE MEMBER TO MEMBER

CONNECTION DETAIL FOR PLY TO PLY

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9



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	Discipline	Reviewer	BCIN	Date
	Building Code	H. Authier	43236	2021-02-08
_	Sewage System			
L	Zoning			

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Use of the Boise Cascade Software is

Disclosure

ROFESSIONA

BC CALC®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,

Guide and applicable building codes. To

questions, please call (800)232-0788

obtain Installation Guide or ask

before installation.

NAILING OR BOLTING REQUIREMENTS. Page 5 of 14 BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS.



F3-D

Dry | 1 span | No cant.

Page 9 of 31 **PASSED** 

December 18, 2020 08:11:30

**BC CALC® Member Report** 

**Build 7364** Job name:

Address:

Customer:

TRINAR HALL

EAST GWILLIMBURY, ON.

C:\Users\rochavillo\Docu...\GLENWAY 3A (ELEV.3).isl File name:

Description: Level - Ground Floor

Wind

City, Province, Postal Code:

Specifier:

**RCO** Designer:

Code reports: CCMC 12787-R **GREENPARK** Company:

01-05-10 **B1** B2

Total Horizontal Product Length = 01-05-10

# Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow
B1, 2"	66 / 0	26 / 0	
B2, 2-3/8"	68 / 0	28 / 0	

Loa	ad Summary						Live	Dead	Snow	Wind	Tributary
Tag	Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	01-05-10	Тор		3			00-00-00
1		Unf. Lin. (lb/ft)	L	00-00-00	01-05-10	Тор	27	10			n\a
2		Unf. Lin. (lb/ft)	L	00-00-00	01-05-10	Тор	64	24			n\a

		Factored	Demand/		
Controls Summary	Factored Demand	Resistance	Resistance	Case	Location
Pos. Moment	34 ft-lbs	5305 ft-lbs	0.6%	1	00-08-10
End Reaction	137 lbs	1684 lbs	8.1%	1	01-05-10
End Shear	101 lbs	2350 lbs	4.3%	1	00-02-00
Total Load Deflection	L/999 (0")	n\a	n\a	4	00-08-10
Live Load Deflection	L/999 (0")	n\a	n\a	5	00-08-10
Max Defl.	0"	n\a	n\a	4	00-08-10
Span / Depth	1.2				

	Bearing	Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
Ī	B1	Hanger	2" x 2-1/2"	131 lbs	5.9%	5.9%	LF2511
	B2	Wall/Plate	2-3/8" x 2-1/2"	137 lbs	3.7%	8.1%	Spruce-Pine-Fir

### Cautions

Web stiffeners required at bearing B1.

Hanger LF2511 requires (12) 10dx1.5 face nails, (2) 10dx1.5 joist nails.

Header for the hanger LF2511 is a Single 2-1/2" x 11-7/8" I-joist

### **Notes**

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

Design meets User specified (1") Maximum Total load deflection criteria.

Calculations assume member is fully braced.

Hanger Manufacturer: Simpson Strong-Tie, Inc.

Resistance Factor phi has been applied to all presented results per CSA O86.

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 20

Design based on Dry Service Condition.

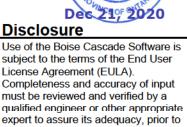
Importance Factor: Normal Part code: Part 9



These plans have been reviewed for use with the corrections as noted. No other changes may be made without written approval of the Building Standards Branch. All work must comply with Zoning By-Law 2018-043, as amended, and the Ontario Building Code, as amended. These approved documents must be kept on site at all es. The building permit must be clearly ted on site at all times.

	Discipline	Reviewer	BCIN	Date
	Building Code	H. Authier	43236	2021-02-08
	Sewage System			
U	Zoning			

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.



ROFESSIONA

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BC CALC®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,

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

BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS.



# F4-A

Dry | 1 span | No cant.

Page 10 of 31 **PASSED** 

**BC CALC® Member Report** 

December 18, 2020 08:11:30

**Build 7364** Job name:

Customer:

Address: TRINAR HALL

EAST GWILLIMBURY, ON.

C:\Users\rochavillo\Docu...\GLENWAY 3A (ELEV.3).isl File name:

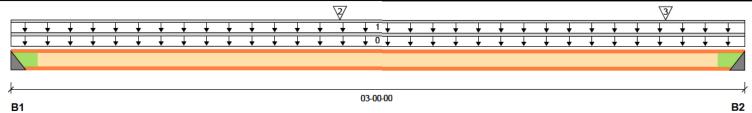
Description: Level - Ground Floor

City, Province, Postal Code:

Specifier:

**RCO** Designer:

Code reports: CCMC 12787-R Company: **GREENPARK** 



Total Horizontal Product Length = 03-00-00

Reaction Summary (Down / Uplift) (lbs)

itoaotion ea					
Bearing	Live	Dead	Snow	Wind	
B1, 2"	284 / 0	110 / 0			
B2 2"	446 / 0	171 / 0			

L	Load Summary					Live	Dead	Snow	Wind	Tributary	
Ta	g Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	03-00-00	Тор		3			00-00-00
1		Unf. Lin. (lb/ft)	L	00-00-00	03-00-00	Тор	34	13			n\a
2	J5	Conc. Pt. (lbs)	L	01-04-02	01-04-02	Back	384	144			n\a
3	J5	Conc. Pt. (lbs)	L	02-08-02	02-08-02	Back	243	91			n\a

Camtuala Sumana		Factored	Demand/		
Controls Summary	Factored Demand	Resistance	Resistance	Case	Location
Pos. Moment	636 ft-lbs	5305 ft-lbs	12.0%	1	01-04-02
End Reaction	883 lbs	2207 lbs	40.0%	1	03-00-00
End Shear	871 lbs	2350 lbs	37.1%	1	02-10-00
Total Load Deflection	L/999 (0.008")	n\a	n\a	4	01-04-02
Live Load Deflection	L/999 (0.006")	n\a	n\a	5	01-04-02
Max Defl.	0.008"	n\a	n\a	4	01-04-02
Span / Depth	2.8				

Bearing	g Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Hanger	2" x 2-1/2"	564 lbs	25.5%	25.6%	LF2511
B2	Hanger	2" x 2-1/2"	883 lbs	39.9%	40.0%	LF2511



## Cautions

Web stiffeners required at bearing B1.

Hanger LF2511 requires (12) 10dx1.5 face nails, (2) 10dx1.5 joist nails.

Web stiffeners required at bearing B2.

Header for the hanger LF2511 is a Single 2-1/2" x 11-7/8" I-joist Header for the hanger LF2511 is a Single 2-1/2" x 11-7/8" I-joist



East Gwillimbury

These plans have been reviewed for use with the corrections as noted. No other changes may be made without written approval of the Building Standards Branch. All work must comply with Zoning By-Law 2018-043, as amended, and the Ontario Building Code, as amépaded. These approved documents must be kept on site at all times. The building nermy must be clearly times. mes. The building permit must be clearly osted on site at all times.

Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			

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

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.



### F4-A

Dry | 1 span | No cant. December 18, 2020 08:11:30

C:\Users\rochavillo\Docu...\GLENWAY 3A (ELEV.3).isl

Page 11 of 31

**PASSED** 

**BC CALC® Member Report Build 7364** 

City, Province, Postal Code:

Description: Level - Ground Floor

Address: TRINAR HALL

EAST GWILLIMBURY, ON.

File name:

Specifier:

Customer: **RCO** Designer:

Code reports: CCMC 12787-R

GREENPARK Company:

Notes

Job name:

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

Design meets User specified (1") Maximum Total load deflection criteria.

Calculations assume member is fully braced. Hanger Manufacturer: Simpson Strong-Tie, Inc.

Resistance Factor phi has been applied to all presented results per CSA O86.

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.

Design based on Dry Service Condition. Importance Factor: Normal Part code: Part 9



These plans have been reviewed for use with the corrections as noted. No other changes may be made without written approval of the Building Standards Branch. All work must comply with Zoning By-Law 2018-043, as amended, and the Ontario Building Code, as amended. These approved documents must be kept on site at all times. The building permit must be clearly posted on site at all times.

Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			

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.

**ENGINEERING NOTE PAGE ENP-2. THIS** 

CALCULATION SUMMARY PAGE AS IT

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# F6-A

Dry | 1 span | No cant.

Page 12 of 31 **PASSED** 

December 18, 2020 08:11:30

**BC CALC® Member Report Build 7364** 

Job name: Address:

TRINAR HALL

EAST GWILLIMBURY, ON.

C:\Users\rochavillo\Docu...\GLENWAY 3A (ELEV.3).isl File name:

Wind

Description: Level - Ground Floor

City, Province, Postal Code:

Customer:

Specifier:

**RCO** Designer:

Code reports: CCMC 12787-R Company: GREENPARK

16-10-08 **B2** 

Total Horizontal Product Length = 16-10-08

Snow

# Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead
B1, 2-3/8"	538 / 0	225 / 0
B2, 4-3/8"	324 / 0	143 / 0

Lo	ad Summary				Live	Dead	Snow	Wind	Tributary		
	Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	16-10-08	Тор		3			00-00-00
1		Unf. Lin. (lb/ft)	L	00-00-00	04-07-06	Тор	32	12			n\a
2		Unf. Lin. (lb/ft)	L	04-07-06	16-10-08	Тор	11	4			n∖a
3		Unf. Lin. (lb/ft)	L	00-00-00	16-10-08	Тор	19	7			n∖a
4	F3	Conc. Pt. (lbs)	L	01-03-10	01-03-10	Back	66	26			n\a
5	F3	Conc. Pt. (lbs)	L	04-06-02	04-06-02	Back	191	73			n\a

Controls Summary	Ftd Bd	Factored	Demand/	0	
Controls Summary	Factored Demand	Resistance	Resistance	Case	Location
Pos. Moment	3364 ft-lbs	5305 ft-lbs	63.4%	1	06-01-13
End Reaction	1088 lbs	1684 lbs	64.6%	1	00-00-00
End Shear	1067 lbs	2350 lbs	45.4%	1	00-02-06
Total Load Deflection	L/495 (0.399")	n\a	48.5%	4	07-10-04
Live Load Deflection	L/707 (0.279")	n\a	50.9%	5	07-10-04
Max Defl.	0.399"	n\a	39.9%	4	07-10-04
Span / Depth	16.6				

Bearin	g Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Wall/Plate	2-3/8" x 2-1/2"	1088 lbs	29.8%	64.6%	Spruce-Pine-Fir
B2	Wall/Plate	4-3/8" x 2-1/2"	666 lbs	9.9%	34.8%	Spruce-Pine-Fir

## **Notes**

Design meets Code minimum (L/240) Total load deflection criteria. Design meets Code minimum (L/360) Live load deflection criteria.

Design meets User specified (1") Maximum Total load deflection criteria.

Calculations assume member is fully braced.

Resistance Factor phi has been applied to all presented results per CSA O86. BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 20 posted on site at all time

Design based on Dry Service Condition. Importance Factor: Normal Part code: Part 9



These plans have been reviewed for use with the These plans have been reviewed for use with the corrections as noted. No other changes may be made without written approval of the Building Standards Branch. All work must comply with Zoning By-Law 2018-043, as amended, and the Ontario Building Code, as amépided. These approved documents must be kept on site at all.

Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			



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BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS.

NOTE PAGE IS AN INTEGRAL PART OF THIS CALCULATION SUMMARY PAGE AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

READ ALL NOTES ON THIS PAGE AND ON

**ENGINEERING NOTE PAGE ENP-2. THIS** 



# F7-A

Dry | 1 span | No cant.

Page 13 of 31 PASSED

December 18, 2020 08:11:30

**BC CALC® Member Report** 

Build 7364 Job name:

Address:

TRINAR HALL

EAST GWILLIMBURY, ON.

File name: C:\Users\rochavillo\Docu...\GLENWAY 3A (ELEV.3).isl

Description: Level - Ground Floor

City, Province, Postal Code:

Customer:

Specifier:

Designer: RCO

Code reports: CCMC 12787-R Company: GREENPARK

<b>—</b>	<b>+</b>	<b>+</b>	<b>+</b>	<b>+</b>	<b>+</b>	<b>+</b>	<b>+</b>	<b>+</b>	<b>+</b>	<b>+</b>	<b>+</b>	<b>+</b>	<b>+</b>	<b>+</b>	↓ 2 ↓	$\overline{}$	$\overline{}$	$\neg$	$\neg$	$\overline{}$	$\neg$	$\overline{}$	$\neg$	$\neg$	$\neg$	$\neg$	$\neg$	$\overline{}$	$\overline{}$	$\neg$
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1															45 44 43															
															15-11-12															
B1																														B

Total Horizontal Product Length = 15-11-12

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 2-3/8"	145 / 0	74 / 0		
B2 6-7/8"	152 / 0	78 / 0		

Lo	ad Summary						Live	Dead	Snow	Wind	Tributary
Tag	Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	15-11-12	Тор		3			00-00-00
1		Unf. Lin. (lb/ft)	L	00-00-00	15-11-12	Top	8	3			n\a
2		Unf. Lin. (lb/ft)	L	00-00-00	15-11-12	Тор	10	4			n\a

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
				Case	
Pos. Moment	1171 ft-lbs	5305 ft-lbs	22.1%	1	07-09-10
End Reaction	311 lbs	1684 lbs	18.5%	1	00-00-00
End Shear	303 lbs	2350 lbs	12.9%	1	00-02-06
Total Load Deflection	L/999 (0.124")	n\a	n\a	4	07-09-10
Live Load Deflection	L/999 (0.082")	n\a	n\a	5	07-09-10
Max Defl.	0.124"	n\a	n\a	4	07-09-10
Span / Depth	15.5				

Bearing	y Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Wall/Plate	2-3/8" x 2-1/2"	311 lbs	8.5%	18.5%	Spruce-Pine-Fir
B2	Wall/Plate	6-7/8" x 2-1/2"	326 lbs	3.1%	17.0%	Spruce-Pine-Fir

# Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

Design meets User specified (1") Maximum Total load deflection criteria.

Calculations assume member is fully braced.

Resistance Factor phi has been applied to all presented results per CSA O86. BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 20

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9



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Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			



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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. NOTE PAGE IS AN INTEGRAL PART OF THIS CALCULATION SUMMARY PAGE AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

READ ALL NOTES ON THIS PAGE AND ON

**ENGINEERING NOTE PAGE ENP-2. THIS** 



City, Province, Postal Code:

# Single 11-7/8" AJS® 140

### **F7-B**

Dry | 1 span | No cant.

Page 14 of 31 **PASSED** 

December 18, 2020 08:11:30

**BC CALC® Member Report** 

Job name:

Customer:

Address:

**Build 7364** 

C:\Users\rochavillo\Docu...\GLENWAY 3A (ELEV.3).isl File name:

Level - Ground Floor

TRINAR HALL

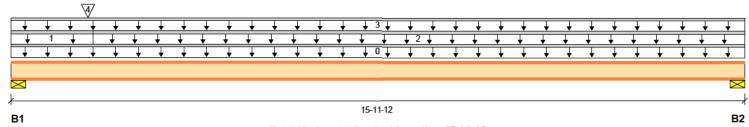
EAST GWILLIMBURY, ON.

Specifier:

Description:

**RCO** Designer:

Code reports: CCMC 12787-R GREENPARK Company:



Total Horizontal Product Length = 15-11-12

## Reaction Summary (Down / Unlift) (lbs)

reaction out	illiary (Down / O				
Bearing	Live	Dead	Snow	Wind	
B1, 2-3/8"	627 / 0	258 / 0			
B2, 6-7/8"	188 / 0	91 / 0			

Lo	ad Summary						Live	Dead	Snow	Wind	Tributary
	Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	15-11-12	Тор		3			00-00-00
1		Unf. Lin. (lb/ft)	L	00-00-00	01-09-06	Тор	64	24			n\a
2		Unf. Lin. (lb/ft)	L	01-09-06	15-11-12	Тор	9	3			n\a
3		Unf. Lin. (lb/ft)	L	00-00-00	15-11-12	Тор	8	3			n\a
4	F4	Conc. Pt. (lbs)	L	01-08-02	01-08-02	Back	446	171			n∖a

Camtuala Comonana		Factored	Demand/		
Controls Summary	Factored Demand	Resistance	Resistance	Case	Location
Pos. Moment	1956 ft-lbs	5305 ft-lbs	36.9%	1	05-01-11
End Reaction	1263 lbs	1684 lbs	75.0%	1	00-00-00
End Shear	1234 lbs	2350 lbs	52.5%	1	00-02-06
Total Load Deflection	L/888 (0.207")	n\a	27.0%	4	07-01-06
Live Load Deflection	L/1292 (0.142")	n\a	27.9%	5	07-01-06
Max Defl.	0.207"	n\a	20.7%	4	07-01-06
Span / Depth	15.5				

Bearing	Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Wall/Plate	2-3/8" x 2-1/2"	1263 lbs	34.6%	75.0%	Spruce-Pine-Fir
B2	Wall/Plate	6-7/8" x 2-1/2"	396 lbs	3.7%	20.7%	Spruce-Pine-Fir

# Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

Design meets User specified (1") Maximum Total load deflection criteria.

Calculations assume member is fully braced.

Resistance Factor phi has been applied to all presented results per CSA O86. BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 20 Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9



These plans have been reviewed for use with the corrections as noted. No other changes may be made without written approval of the Building Standards Branch. All work must comply with Zoning By-Law 2018-043, as amended, and the ntario Building Code, as amended. These proved documents must be kept on site at all imes. The building permit must be clearly osted on site at all times.

Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			

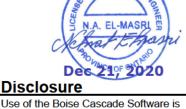
READ ALL NOTES ON THIS PAGE AND ON

NOTE PAGE IS AN INTEGRAL PART OF THIS

USED IN THE DESIGN OF THIS COMPONENT.

**ENGINEERING NOTE PAGE ENP-2. THIS** 

CALCULATION SUMMARY PAGE AS IT CONTAINS SPECIFICATIONS AND CRITERIA



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F7-C

December 18, 2020 08:11:30

**BC CALC® Member Report Build 7364** 

Dry | 1 span | No cant.

Page 15 of 31

**PASSED** 

Job name:

Customer:

Address: TRINAR HALL

EAST GWILLIMBURY, ON.

C:\Users\rochavillo\Docu...\GLENWAY 3A (ELEV.3).isl

Description: Level - Ground Floor

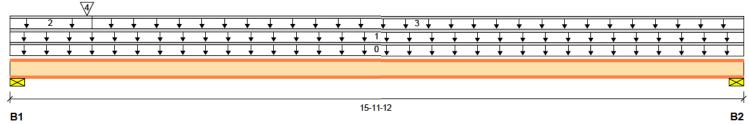
City, Province, Postal Code:

Specifier:

File name:

**RCO** Designer:

Code reports: CCMC 12787-R GREENPARK Company:



Total Horizontal Product Length = 15-11-12

Reaction Summary (Down / Unlift) (lbs)

Neaction Ou	illiliary (Down / O	piliti (ibəj			
Bearing	Live	Dead	Snow	Wind	
B1, 2-3/8"	731 / 0	297 / 0			
B2, 6-7/8"	468 / 0	196 / 0			

Lo	ad Summary						Live	Dead	Snow	Wind	Tributary
	Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	15-11-12	Тор		3			00-00-00
1	_	Unf. Lin. (lb/ft)	L	00-00-00	15-11-12	Тор	24	9			n∖a
2		Unf. Lin. (lb/ft)	L	00-00-00	01-09-06	Тор	64	24			n∖a
3		Unf. Lin. (lb/ft)	L	01-09-06	15-11-12	Тор	29	11			n∖a
4	F4	Conc. Pt. (lbs)	L	01-08-02	01-08-02	Front	284	110			n\a

<b>Controls Summary</b>	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	3677 ft-lbs	5305 ft-lbs	69.3%	1	07-03-11
End Reaction	1468 lbs	1684 lbs	87.1%	1	00-00-00
End Shear	1433 lbs	2350 lbs	61.0%	1	00-02-06
Total Load Deflection	L/467 (0.394")	n\a	51.4%	4	07-08-07
Live Load Deflection	L/662 (0.278")	n\a	54.4%	5	07-08-07
Max Defl.	0.394"	n\a	39.4%	4	07-08-07
Span / Depth	15.5				

Bearing	Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Wall/Plate	2-3/8" x 2-1/2"	1468 lbs	40.2%	87.1%	Spruce-Pine-Fir
B2	Wall/Plate	6-7/8" x 2-1/2"	947 lbs	9.0%	49.4%	Spruce-Pine-Fir

## Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

Design meets User specified (1") Maximum Total load deflection criteria.

Calculations assume member is fully braced.

Resistance Factor phi has been applied to all presented results per CSA O86. BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 20 Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9



These plans have been reviewed for use with the corrections as noted. No other changes may be made without written approval of the Building Standards Branch. All work must comply with Zoning By-Law 2018-043, as amended, and the ntario Building Code, as amended. These proved documents must be kept on site at all imes. The building permit must be clearly osted on site at all times.

Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			

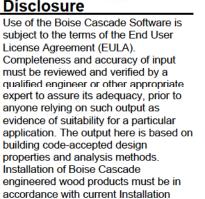
READ ALL NOTES ON THIS PAGE AND ON

NOTE PAGE IS AN INTEGRAL PART OF THIS

USED IN THE DESIGN OF THIS COMPONENT.

**ENGINEERING NOTE PAGE ENP-2. THIS** 

CALCULATION SUMMARY PAGE AS IT CONTAINS SPECIFICATIONS AND CRITERIA



BC CALC®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,

before installation.

Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788

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

BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS.



F7-D

December 18, 2020 08:11:30

Page 16 of 31

**PASSED** 

BC CALC® Member Report

Dry | 1 span | No cant.

Build 7364 Job name:

Address:

TRINAR HALL

EAST GWILLIMBURY, ON.

File name: C:\Users\rochavillo\Docu...\GLENWAY 3A (ELEV.3).isl

Description: Level - Ground Floor

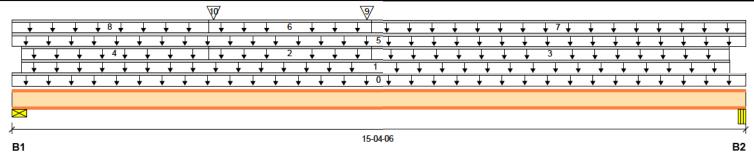
City, Province, Postal Code:

Customer:

Specifier:

Designer: RCO

Code reports: CCMC 12787-R Company: GREENPARK



Total Horizontal Product Length = 15-04-06

# Reaction Summary (Down / Uplift) (lbs)

Roudilon Gui	illiary (Bowlin o	pility (ibo)			
Bearing	Live	Dead	Snow	Wind	
B1, 2-3/8"	424 / 0	234 / 0			
B2, 4-1/8"	361 / 0	202 / 0			

Loa	nd Summary						Live	Dead	Snow	Wind	Tributary
	Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	15-04-06	Тор		3			00-00-00
1		Unf. Lin. (lb/ft)	L	00-02-06	15-00-06	Тор		3			n\a
2		Unf. Lin. (lb/ft)	L	04-01-06	07-06-06	Тор		4			n\a
3		Unf. Lin. (lb/ft)	L	07-06-06	15-00-05	Тор		1			n\a
4		Unf. Lin. (lb/ft)	L	00-02-06	04-01-06	Тор		1			n\a
5		Unf. Lin. (lb/ft)	L	00-00-00	15-04-06	Тор	21	8			n\a
6		Unf. Lin. (lb/ft)	L	04-01-06	07-06-06	Тор	32	12			n\a
7		Unf. Lin. (lb/ft)	L	07-06-06	15-04-06	Тор	9	3			n\a
8		Unf. Lin. (lb/ft)	L	00-00-00	04-01-06	Тор	9	3			n\a
9	F3	Conc. Pt. (lbs)	L	07-05-02	07-05-02	Front	145	74			n\a
10	F3	Conc. Pt. (lbs)	L	04-02-10	04-02-10	Front	99	51			n\a

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	3971 ft-lbs	5305 ft-lbs	74.9%	1	07-05-02
End Reaction	928 lbs	1684 lbs	55.1%	1	00-00-00
End Shear	916 lbs	2350 lbs	39.0%	1	00-02-06
Total Load Deflection	L/470 (0.382")	n\a	51.1%	4	07-05-02
Live Load Deflection	L/729 (0.246")	n\a	49.4%	5	07-05-02
Max Defl.	0.382"	n\a	38.2%	4	07-05-02
Span / Depth	15.1				

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N.A. EL-MASRI S
Des 21, 2020

Beari	ing Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistanc Member
B1	Wall/Plate	2-3/8" x 2-1/2"	928 lbs	25.4%	55.1%
B2	Beam	4-1/8" x 2-1/2"	793 lbs	12.5%	41.4%

These plans have been reviewed for use with the corrections as noted. No other changes may be made without written approval of the Building Standards Branch. All work must comply with Zoning By-Law 2018-043, as amended, and the Ontario Building Code, as amépided. These approved documents must be kept on site at all times. The building permit must be clearly posted on site at all times.

East Gwillimbury

Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			

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.



F7-D

Designer:

Dry | 1 span | No cant. December 18, 2020 08:11:30

**RCO** 

BC CALC® Member Report Build 7364 Job name:

File name: C:\Users\rochavillo\Docu...\GLENWAY 3A (ELEV.3).isl
Description: Level - Ground Floor

TRINAR HALL

EAST GWILLIMBURY, ON. City, Province, Postal Code:

Specifier:

Code reports: CCMC 12787-R Company: GREENPARK

Notes

Address:

Customer:

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

Design meets User specified (1") Maximum Total load deflection criteria.

Calculations assume member is fully braced.

Resistance Factor phi has been applied to all presented results per CSA O86.

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.

Design based on Dry Service Condition.

Importance Factor : Normal Part code : Part 9



These plans have been reviewed for use with the corrections as noted. No other changes may be made without written approval of the Building Standards Branch. All work must comply with Zoning By-Law 2018-043, as amended, and the Ontario Building Code, as amejaded. These approved documents must be kept on site at all times. The building permit must be clearly posted on site at all times.

Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			

# **Disclosure**

Use of the Boise Cascade Software is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of suitability for a particular application. The output here is based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.

Page 17 of 31

**PASSED** 

BC CALC®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,

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** 

NE1220-151

isDesign

Client:

Project: Address: **GREENPARK** 

TRINAR HALL EAST GWILLIMBURY, ON. Date: 12/18/2020 Input by: RCO

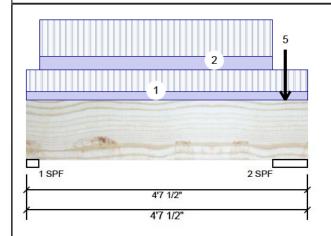
Job Name: GLENWAY 3A (ELEV.3)

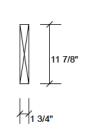
Project #:

### F1-B Forex 2.0E-3000Fb LVL

# 1.750" X 11.875" - PASSED

Level: Ground Floor





Page 18 of 31

### Member Information

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

Application: Floor (Residential) Design Method: **Building Code:** NBCC 2015 / OBC 2012

Load Sharing: No

Deck: Not Checked Vibration: Not Checked

## Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
Brg 1	127	58	0	0
2	331	184	0	0

## **Bearings and Factored Reactions**

Bearing Length	Cap. R	eact D/L lb	lotal	Ld. Case	Ld. Comb.
1 - SPF 2.375"	10%	72 / 191	263	L	1.25D+1.5L
2_SPE 6875"	10%	230 / 497	727	1	1.25D+1.5I

### Analysis Results

ľ	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
I	Moment	261 ft-lb	2'1 1/2"	17130 ft-lb	0.015 (2%)	1.25D+1.5L	L
I	Unbraced	261 ft-lb	2'1 1/2"	11299 ft-lb	0.023 (2%)	1.25D+1.5L	L
I	Shear	132 lb	1'1 1/2"	5798 lb	0.023 (2%)	1.25D+1.5L	L
I	Perm Defl in.	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
	LL Defl inch	0.001 (L/33129)	2'1 9/16"	0.133 (L/360)	0.010 (1%)	L	L
	TL Defl inch	0.002 (L/22857)	2'1 9/16"	0.199 (L/240)	0.010 (1%)	D+L	L

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.

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.



### 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.

4 BUILDIN DIACEL	at bearings.				
ID	Load Type	Location	Trib Width	Side	Dead
1	Tie-In	0-0-0 to 4-7-8	0-7-4	Тор	15 PSF
2	Part. Uniform	0-2-10 to 4-0-10		Тор	15 PLF
3	Point	4-3-2		Тор	71 lb
4	Point	4-3-2		Тор	2 lb
5	Point	4-3-2		Тор	48 lb
	Self Weight				5 PLF

Live	Snow	Wind	Comments
40 PSF	0 PSF	0 PSF	

🕆 East Gwillimbury PLF Building Standards Branch BCIN #16487

These plans have been reviewed for use with the O lb corrections as noted. No other changes may be made without written approval of the Building O lb Standards Branch. All work must comply with Zoning By-Law 2018-043, as amended, and the Outario Building Code, as amepided. These approved documents must be kept on site at all times. The building permit must be clared: times. The building permit must be clearly posted on site at all times.

Wall Self Weight

### Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design orineria 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 regarding installation requirement fastening details, beam strength value approvals

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

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	Discipline	Reviewer	BCIN	Date	١.
	Building Code	H. Authier	43236	2021-02-08	ľ
rain	Sewage System				ŀ
	Zoning				1
			1		П

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



NE1220-151 Page 19 of 31 Client: GREENPARK Date: 12/18/2020 Project: Input by: RCO isDesign Address: TRINAR HALL Job Name: GLENWAY 3A (ELEV.3) EAST GWILLIMBURY, ON. Project #: Level: Ground Floor 1.750" X 11.875" Forex 2.0E-3000Fb LVL 2-Ply - PASSED F2-B 10 3 1 SPF 2 SPF 12'11 7/8' 12'11 7/8" Member Information Unfactored Reactions UNPATTERNED lb (Uplift) Application: Brg Dead Wind Type: Floor (Residential) Live Snow Plies 2 Design Method: 2447 979 0 0 1 Moisture Condition: Dry **Building Code:** NBCC 2015 / OBC 2012 0 5402 2242 0 2 Deflection LL: 360 Load Sharing: No Deflection TL: 240 Deck: Not Checked Importance: Vibration: Not Checked Normal General Load Bearings and Factored Reactions Floor Live: 40 PSF 15 PSF Dead: Bearing Length Cap. React D/L lb Total Ld. Case Ld. Comb. 1 - SPF 2.625" 1224 / 3671 4895 I 1 25D+1 5L 2 - SPF 6.875" 74% 2802 / 8103 10905 I 1.25D+1.5L Analysis Results Actual Comb Case **Analysis** Location Allowed Capacity 0.488 (49%) 1.25D+1.5L L Moment 16721 ft-lb 6'4 5/16" 34261 ft-lb Unbraced 16721 ft-lb 6'4 5/16" 27196 ft-lb 0.615 (61%) 1.25D+1.5L L READ ALL NOTES ON THIS PAGE AND ON AL PROFESSIONAL ENGINEERING NOTE PAGE ENP-2. THIS Shear 5217 lb 1'1 3/4" 11596 lb 0.450 (45%) 1.25D+1.5L L NOTE PAGE IS AN INTEGRAL PART OF THIS Perm Defl in. 0.101 (L/1468) 6'3 15/16" 0.411 (L/360) 0.250 (25%) D Uniform CALCULATION SUMMARY PAGE AS IT LL Defl inch 0.253 (L/584) 6'3 15/16" 0.411 (L/360) 0.620 (62%) L L CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT. A. EL-MASRI TL Defl inch 0.354 (L/418) 6'3 15/16" 0.616 (L/240) 0.570 (57%) D+L L REFER TO MULTIPLE MEMBER TO MEMBER Design Notes CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS. 1 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam Dec 21, 2020 PASS THRU FRAMING SQUASH width X 4.5 **BLOCK IS REQUIRED AT ALL** 2 Girders are designed to be supported on the bottom edge only. POINT LOADS OVER BEARINGS 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 Trib Width Load Type Location Side Dead Live Snow Wind Comments Tie-In 0-0-0 to 4-7-10 0-9-5 15 PSF East Gwillimbury 'SF 1 Top 2 Point 0-9-2 Near Face 0 lb 123 lb 34 These plans have been reviewed for use with the PLF corrections as noted. No other changes may be made without written approval of the Building PLF Standards Branch. All work must comply with Zoning By-Law 2018-043, as amended, and the 4 Ontario Building Code, as amended. These SF approved documents must be kept on site at all times. The building reprint must be clarely. 3 Part Uniform 1-5-2 to 12-1-2 Near Face 128 PLF Part Uniform 4-8-12 to 8-3-4 Top 68 PLF 5 Tie-In 8-4-6 to 12-11-14 0-8-5 15 PSF Top Continued on page 2... times. The building permit must be clearly posted on site at all times. 43236

Notes

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 weiff the dimensions and loads. LVL beams must not be cut or drilled
 Refer to manufacturer's product regarding installation requiremen

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

**Handling & Installation** 

aged Beams m

Daniaged beams must not be used

Design assumes top edge is laterally restrained

Provide lateral support at bearing points to avoid

lateral displacement and rotation

H. Authier

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



NE1220-151 Page 20 of 31 Client: **GREENPARK** Date: 12/18/2020

isDesign Address:

Project:

TRINAR HALL

Input by: RCO

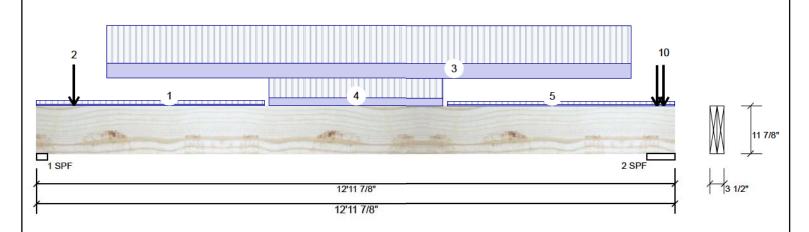
Job Name: GLENWAY 3A (ELEV.3)

EAST GWILLIMBURY, ON. Project #:

Forex 2.0E-3000Fb LVL F2-B

1.750" X 11.875" 2-Ply - PASSED

Level: Ground Floor



Continued fr	om page 1								
ID	Load Type	Location Trib Width	Side	Dead	Live	Snow	Wind	Comments	
6	Point	12-7-8	Тор	1088 lb	2675 lb	0 lb	0 lb	F2 F2	
7	Point	12-7-8	Тор	72 lb	193 lb	0 lb	0 lb	<b>J</b> 9	
8	Point	12-7-8	Тор	57 lb	0 lb	0 lb	0 lb	Wall Self Weight	
9	Point	12-7-8	Тор	5 lb	0 lb	0 lb	0 lb	Wall Self Weight	
10	Point	12-9-2	Near Face	44 lb	106 lb	0 lb	0 lb	J9	
	Self Weight			10 PLF					

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. 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.



These plans have been reviewed for use with the corrections as noted. No other changes may be made without written approval of the Building Standards Branch. All work must comply with Zoning By-Law 2018-043, as amended, and the Ontario Building Code, as amépaded. These approved documents must be kept on site at all times. The building permit must be clearly posted on site at all times.

## Notes

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

- 1. IVI. 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
- Design assumes top edge is laterally restrained Provide lateral support at bearing points to avoid lateral displacement and rotation 4. 5.
- For flat roofs provide proper dr ponding

	Discipline	recviewer	BCIN	Date	
	Building Code	H. Authier	43236	2021-02-08	ı
rain	Sewage System				ı
	Zoning				

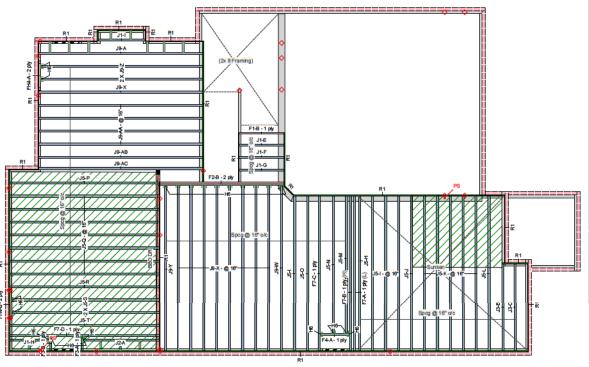
Kott Lumber Company 14 Anderson Blvd, Ontario Canada L4A 7X4 905-642-4400



This design is valid until 10/15/2022 CSD DESIGN



Ground Floor



CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS. BLOCK IS REQUIRED AT ALL

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

JOB INFORMATION Ground Floor LVL/LSL (Flush) Builder Label Description Width Depth Qty Plies Pcs Length GREENPARK 1.75 11.875 F2 Forex 2 2 14-0-0 2.0E-3000Fb LVL Project F1 1.75 11.875 6-0-0 Shipping 2.0E-3000Fb LVL TRINAR HALL FH4 1.75 4-0-0 Forex EAST GWILLIMBURY, ON. 2.0E-3000Fb LVL Sales Rep I Joist (Flush) Label Description Width Depth Qty Plies Pcs Length Designer F7 AJS 140 2.5 11.875 4 16-0-0 RCO F4 A.IS 140 2.5 11.875 4-0-0 Plotted 2 2-0-0 27 16-0-0 F3 AJS 140 2.5 11.875 December 18, 2020 J5 AJS 140 2.5 11.875 Layout Name J3 AJS 140 J2 AJS 140 2.5 11.875 2 10-0-0 GLENWAY 3A (ELEV.3) DECK CONDITION 2.5 11.875 1 8-0-0 J1 AJS 140 2.5 11.875 5 6-0-0 Job Path J9 AJS 20 20 18-0-0 2.5 11.875 C:\Users\rochavillo\Documents\WORK FROM HOME \GREENPARK\TRINAR HALL\GLENWAY 3A\ELEV 3 Blocking VFLOOR/DECK CONDITION/GLENWAY 3A Label Description Width Depth Qty Plies Pcs Length (FLEV 3) isl BLK1 AJS 140 2.5 11.875 LinFt Varies 13-0-0 Rim Board Label Description Width Depth Qty Plies Pcs Length Ground Floor Norbord Rimboar Plus 1,125 X 1.125 11.875 16 12-0-0 Design Method 11.875 **Building Code** Hanger Floor

Label	Pcs	Description	Skew	Slope	faster
H6	22	LF2511			

- 1. All blocking to be cut from 12' joists 2. 2' & 4' Lengths to be cut from 8' Length, 6' lengths to be cut from 12' Length
- 3. Ends of joists to be laterally supported
- 4. Packing of Steel beams and attachment by others
- 5. Shower and water doset flange locations are approximate only, consult architectural drawing for exact locations
- 6. Beams identified as "B" are dropped and supplied by others 7. Install 2x4 blocking @ 24" o/c under parallel non-loadbearing walls
- 8. Load transfer blocks to be installed under all point loads
- 9. Refer to Multiple Member Connection Detail for ply to ply nailing or bolting
- 10. Hangers and Fasteners to be installed as per manufacturer

Framing shown on this layout may deviate from architectural drawings. Architeng to review and approve the deviation prior to construction.



Point Load Support Load from Above Wall Opening Norbord Rimboard Flus 1.125 X 11.875 AJS 140 11.875 AJS 20 11.875 Forex 2.0E-3000Fb LVL 1.75 X

**CCMC References** Boise - 12472-R , 12787-R

Supported

Member

fasteners

Loads

Live

Dead

Deflection Joist

Deflection Girder

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

Decking

Thickness

astener

Vibration

LP - 12412-R Forex - 14056-R

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



LSD (Canada)

15

480

480

360

360

240

480

360

OSB

3/4"

Nailed & Glued

NBCC 2015 / OBC 2012



These plans have been reviewed for use with the corrections as noted. No other changes may be made without written approval of the Building Standards Branch. All work must comply with Zoning By-Law 2018-043, as amended, and the Ontario Building Code, as amended. These approved documents must be kept on site at all times. The building permit must be clearly posted on site at all times.

Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			

Hatch Area represents where additional load has been applicate, 5 psf for ceramic tile)

Version 19.60.173 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

NE1220-151 Page 22 of 31 Client: **GREENPARK** 12/18/2020 Date:

Project: isDesign

Address: TRINAR HALL Input by: RCO

GLENWAY 3A (ELEV.3) DECK CONDITION Job Name:

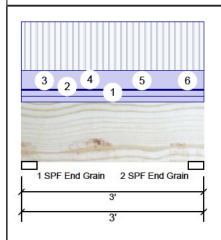
Project #

Forex 2.0E-3000Fb LVL

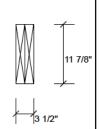
1.750" X 11.875"

EAST GWILLIMBURY, ON.

Level: Ground Floor 2-Ply - PASSED



Member Information



Ld. Comb.

1 25D+1 5L

1.25D+1.5L

viciniber inito			
Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition	on: Dry	Building Code:	NBCC 2015 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load		SA 44 1 (4 A 4 5 A	
Floor Live:	40 PSF		

### Brg Dead Snow Wind Live 1 507 324 0 0 0 508 325 n 2

Cap. React D/L lb

405 / 760

406 / 762

Unfactored Reactions UNPATTERNED lb (Uplift)

### 15 PSF Dead: Analysis Results **Analysis** Actual Location Allowed Capacity Comb Case 0.020 (2%) 1.25D+1.5L L Moment 671 ft-lb 1'6" 34261 ft-lb Unbraced 671 ft-lb 1'6" 34261 ft-lb 0.020 (2%) 1.25D+1.5L L Shear 961 lb 1'2 1/8" 11596 lb 0.083 (8%) 1.25D+1.5L L Perm Defl in. 0.001 1'6" 0.088 (L/360) 0.010 (1%) D Uniform

(L/41807) LL Defl inch 0.001 1'6" 0.088 (L/360) 0.010 (1%) L (L/26712) TL Defl inch 0.002 1'6" 0.131 (L/240) 0.010 (1%) D+L (L/16298)

Grain 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.

15%

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

Bearings and Factored Reactions

Bearing Length

1 - SPF 3.000"

2 - SPF 3.000"

Fnd Grain

End

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



Total Ld. Case

1166 I

1168 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

O Edicidi Sicil	aciness ratio basea o	ii idii Seedoii Widai.			
ID	Load Type	Location	Trib Width	Side	Dead
1	Part. Uniform	0-0-0 to 3-0-0		Тор	40 PLF
2	Part. Uniform	0-0-0 to 3-0-0		Near Face	40 PLF
3	Tapered Start	0-0-0		Near Face	1 PLF
	End	1-1-9			2 PLF
4	Part. Uniform	0-0-0 to 3-0-0		Near Face	125 PLF
Continued on pa	ge 2				



`^ſind Comments Wall Self Weight

Wall Self Weight

These plans have been reviewed for use with the corrections as noted. No other changes may be larger made without written approval of the Building Standards Branch. All work must comply with LF Zoning By-Law 2018-043, as amended, and the Ontario Building Code, as aménded. These LF approved documents must be kept on site at all plants. The standard without the contract of the standard with the standard without the clearly standard without the clearly standard without the clearly standard without the clearly standard without the contract with the standard without the standard with the standard without the standar times. The building permit must be clearly posted on site at all times.

PLF

### Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design orineria 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 regarding installation requirement
- maged Beams must not be used
- Daniaged beams must not be used Design assumes top edge is laterally restrained Provide lateral support at bearing points to avoid lateral displacement and rotation
- 6. For flat roofs provide proper dr

	Discipline	Reviewer	BCIN	Date	
	Building Code	H. Authier	43236	2021-02-08	ı
air	Sewage System				ı
	Zoning				

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



This design is valid until 10/15/2022 CSD DESIGN NE1220-151 Page 23 of 31 Client: **GREENPARK** Date: 12/18/2020

isDesign Address:

Project:

TRINAR HALL

Job Name:

Input by: RCO

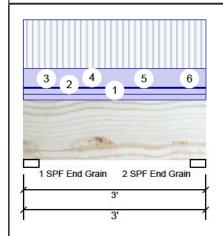
GLENWAY 3A (ELEV.3) DECK CONDITION

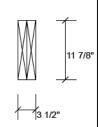
Project #:

FH4-A Forex 2.0E-3000Fb LVL

EAST GWILLIMBURY, ON. 1.750" X 11.875"

2-Ply - PASSED Level: Ground Floor





Continued from p	page 1								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
5	Tapered Start	1-1-9		Near Face	2 PLF	5 PLF	0 PLF	0 PLF	
	End	2-5-9			2 PLF	5 PLF	0 PLF	0 PLF	
6	Tapered Start	2-5-9		Near Face	2 PLF	5 PLF	0 PLF	0 PLF	
	End	3-0-0			2 PLF	4 PLF	0 PLF	0 PLF	
	Self Weight				10 PLF				

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. 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.



These plans have been reviewed for use with the corrections as noted. No other changes may be made without written approval of the Building Standards Branch. All work must comply with Zoning By-Law 2018-043, as amended, and the Ontario Building Code, as amépaded. These approved documents must be kept on site at all times. The building permit must be clearly posted on site at all times.

## Notes

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

- 1. LVL beams must not be out or drilled
  2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastering details, beam strength values, and code approvals
  3. Damaged Beams must not be used
  4. Design assumes top edge is laterally restrained
  5. Provide lateral support at bearing points to avoid lateral displacement and rotation
- For flat roofs provide proper dra ponding

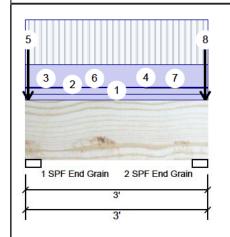
	Discipline	Reviewer	BCIN	Date
	Building Code	H. Authier	43236	2021-02-08
air	Sewage System			
	Zoning			

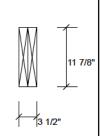
Kott Lumber Company 14 Anderson Blvd, Ontario Canada L4A 7X4 905-642-4400



NE1220-151 Page 24 of 31 Client: **GREENPARK** 12/18/2020 Date: Project: Input by: RCO isDesign Address: GLENWAY 3A (ELEV.3) DECK CONDITION TRINAR HALL Job Name: EAST GWILLIMBURY, ON. Project #: 2-Ply - PASSED Level: Ground Floor 1.750" X 11.875" Forex 2.0E-3000Fb LVL

Bra





Wind

Member Information							
Type:	Girder	Application:	Floor (Residential)				
Plies:	2	Design Method:	LSD				
Moisture Condition:	Dry	Building Code:	NBCC 2015 / OBC 2012				
Deflection LL:	360	Load Sharing:	No				
Deflection TL:	240	Deck:	Not Checked				
Importance:	Normal	Vibration:	Not Checked				
General Load		22-12-7 (42-2-128-128-128-128-128-128-128-128-128-					
Floor Live:	40 PSF						
Dead:	15 PSF						

"				
1	514	446	169	0
2	513	446	169	0

Dead

Unfactored Reactions UNPATTERNED lb (Uplift)

Live

**Bearings and Factored Reactions** 

### Analysis Results Capacity **Analysis** Actual Location Allowed Comb Case 657 ft-lb 0.019 (2%) 1.25D+1.5L L Moment 1'6" 34261 ft-lb Unbraced 657 ft-lb 1'6" 34261 ft-lb 0.019 (2%) 1.25D+1.5L L Shear 940 lb 1'9 7/8" 11596 lb 0.081 (8%) 1.25D+1.5L L Perm Defl in. 0.001 1'6" 0.088 (L/360) 0.010 (1%) D Uniform (L/37791) LL Defl inch 0.001 1'6" 0.088 (L/360) 0.010 (1%) L+0.5S (L/29305) TL Defl inch 0.002 1'6" 0.131 (L/240) 0.010 (1%) D+L+0.5S (L/16506)

### Bearing Length Cap. React D/L lb Total Ld. Case Ld. Comb. 1 - SPF 3.000" 557 / 940 1497 I 1.25D+1.5L Fnd Grain

1.25D+1.5L 2 - SPF 3.000" 19% 557 / 939 1496 L End Grain

NOTE PAGE IS AN INTEGRAL PART OF THIS CALCULATION SUMMARY PAGE AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT. 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

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



### **Design Notes**

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

/ Lateral s	sienderness ratio based or	n tuli section wiath.			
ID	Load Type	Location	Trib Width	Side	Dead
1	Part. Uniform	0-0-0 to 3-0-0		Тор	40 PLF
2	Part. Uniform	0-0-0 to 3-0-0		Near Face	40 PLF
3	Tapered Start	0-0-0		Near Face	1 PLF
	End	0-7-9			2 PLF



PLF These plans have been reviewed for use with the These plans have been reviewed for use with the corrections as noted. No other changes may beput made without written approval of the Building Standards Branch. All work must comply with Zoning By-Law 2018-043, as amended, and the PLF Ontario Building Code, as amépaded. These approved documents must be kept on site at all puts. The suit of the suit of

Comments Wall Self Weight

Wall Self Weight

Continued on page 2...

Notes

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

- Dry service conditions, unless noted otherwise
   LVL not to be treated with fire retardant or corro
- **Handling & Installation**
- LVL beams must not be cut or drilled
   Refer to manufacturer's product regarding installation requirement maged Beams must not be used
- Daniaged beams must not be used Design assumes top edge is laterally restrained Provide lateral support at bearing points to avoid lateral displacement and rotation
- 6. For flat roofs provide proper dr

	Discipline	Reviewer	BCIN	Date	
	Building Code	H. Authier	43236	2021-02-08	
air	Sewage System				
	Zoning				

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



NE1220-151 Page 25 of 31 Client: **GREENPARK** 12/18/2020 Page 4 of 4

isDesign Address:

Project:

TRINAR HALL

Date: Input by:

RCO

GLENWAY 3A (ELEV.3) DECK CONDITION

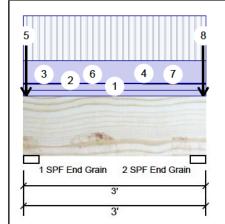
Job Name: Project #:

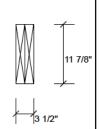
Forex 2.0E-3000Fb LVL FH4-B

1.750" X 11.875"

EAST GWILLIMBURY, ON.

2-Ply - PASSED Level: Ground Floor





10000 00000									
Continued from p	age 1								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
4	Part. Uniform	0-0-0 to 3-0-0		Near Face	148 PLF	304 PLF	0 PLF	0 PLF	J5
5	Point	0-0-8		Тор	87 lb	51 lb	169 lb	0 lb	Header Column Header Column
6	Tapered Start	0-7-9		Near Face	2 PLF	5 PLF	0 PLF	0 PLF	
	End	1-11-9			2 PLF	5 PLF	0 PLF	0 PLF	
7	Tapered Start	1-11-9		Near Face	2 PLF	5 PLF	0 PLF	0 PLF	
	End	3-0-0			1 PLF	2 PLF	0 PLF	0 PLF	
8	Point	2-11-8		Тор	87 lb	51 lb	169 lb	0 lb	Header Column Header Column
	Self Weight				10 PLF				

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.

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.



These plans have been reviewed for use with the corrections as noted. No other changes may be made without written approval of the Building Standards Branch. All work must comply with Zoning By-Law 2018-043, as amended, and the Ontario Building Code, as amépaded. These approved documents must be kept on site at all times. The building permit must be clearly posted on site at all times.

## Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design orineria 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
- 1. LVL beams must not be out or drilled
  2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastering details, beam strength values, and code approvals
  3. Damaged Beams must not be used
  4. Design assumes top edge is laterally restrained
  5. Provide lateral support at bearing points to avoid lateral displacement and rotation

- For flat roofs provide prope ponding

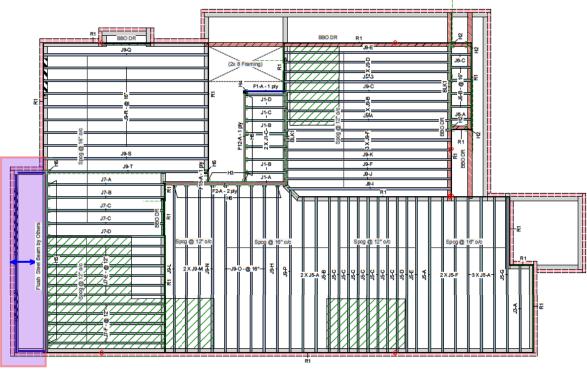
	Discipline	Reviewer	BCIN	Date
drair	Building Code	H. Authier	43236	2021-02-08
urair	Sewage System			
	Zoning			
			1	1

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



NE1220-151

Second Floor



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.

REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS. BLOCK IS REQUIRED AT ALL



These plans have been reviewed for use with the corrections as noted. No other changes may be made without written approval of the Building Standards Branch. All work must comply with Zoning By-Law 2018-043, as amended, and the Ontario Building Code, as amended. These approved documents must be kent on site at all times. The building permit must be clearly posted on site at all times.

East Gwillimbury

Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			

JOB INFORMATION

15

480 360

480 360

360

240

480

360

5/8"

SPF Plywood

Nailed & Glued

Gypsum 1/2"

LL Cant 2L/

TL Cant 2L/

Decking

Decking Thickness

Fastener

Ceilina:

Vibration

LP - 12412-R

Canada

905-642-4400

Forex - 14056-R

**CCMC References** Boise - 12472-R , 12787-R

								Page 26 of 31
Second LVI /I S	l Floor L (Flush)							JOB INFORMATION
	Description	Width	Depth	Qty	Plies	Pcs	Length	Builder GREENPARK
F2	Forex 2.0E-3000Fb LVL	1.75	11.875	1	2	2	14-0-0	Project
F12	Forex 2.0E-3000Fb LVL	1.75	11.875			1	10-0-0	Shipping
F1	Forex 2.0E-3000Fb LVL	1.75	11.875			1	6-0-0	TRINAR HALL EAST GWILLIMBURY, ON.
F15	Forex	1.75	11.875			1	2-0-0	Sales Rep
I Joist (	2.0E-3000Fb LVL Flush)							- Designer - RCO
Label	Description	Width	Depth	Qty	Plies	Pcs	Length	1.00
J5	AJS 140	2.5	11.875			19	16-0-0	Plotted
J7	AJS 140	2.5	11.875			16	12-0-0	December 18, 2020
J3	AJS 140	2.5	11.875			1	10-0-0	Layout Name
J1	AJS 140	2.5	11.875			7	6-0-0	GLENWAY 3A (ELEV.3)
J6	AJS 140	2.5	11.875			6	4-0-0	Job Path
J9	AJS 20	2.5	11.875			35	18-0-0	C:\Users\rochavillo\Documents\WORK FROM HOME
Blockin	g							GREENPARKITRINAR HALLIGLENWAY 3A
Label	Description	Width	Depth	Qty	Plies	Pcs	Length	VENGINEERING/ELEV 3\FLOOR\GLENWAY 3A
BLK1	AJS 140	2.5	11.875	LinFt		Varies	14-0-0	(ELEV.3).isl
Rim Bo	ard							DESIGN CRITERIA
Label	Description	Width	Depth	Qty	Plies	Pcs	Length	
R1	Norbord Rimboard	1.125	11.875			17	12-0-0	Second Floor
	Plus 1.125 X							Design Method LSD (Canada)
	11.875				l		<u> </u>	Building Code NBCC 2015 / OBC 2012

					Beam/Girder	Supported Member	Floor Loads
Label	Pcs	Description	Skew	Slope	fasteners	fasteners	Live
H2	4	Unknown Hanger					Dead
H3	2	HUS1.81/10			30 16d	10 16d	Deflection Joist
H4	1	HUCQ1.18/9- SDS					LL Span L/ TL Span L/
H5	16	LF2511			12 10d	1 #8x1 1/4WS	LL Cant 2L/
H6	1	LF2511					TL Cant 2L/
H6	1	LF2511					Deflection Girder
H6	16	LF2511					LL Span L/
		ing to be cut from					TL Span L/

2. 2' & 4' Lengths to be cut from 8' Length, 6' lengths to be cut from 12' Length

3. Ends of joists to be laterally supported

4. Packing of Steel beams and attachment by others

Shower and water closet flange locations are approximate only, consult architectural drawing for exact locations

6. Beams identified as "B" are dropped and supplied by others

7. Install 2x4 blocking @ 24" o/c under parallel non-loadbearing walls

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

9. Refer to Multiple Member Connection Detail for ply to ply nailing or bolting

10. Hangers and Fasteners to be installed as per manufacturer

11. Framing shown on this layout may deviate from architectural drawings. Architectural drawings. Eng to review and approve the deviation prior to construction.

Legend

Point Load Support Load from Above Wall Opening Norbord Rimboard Plus 1.125 ) 11.875 AJS 140 11.875 AJS 20 11.875 Forex 2.0E-3000Fb LVL 1.75 X Kott Lumber Company 14 Anderson Blvd KOTT Stouffville, Ontario L4A7X4



e.g. 5 psf for ceramic tile)

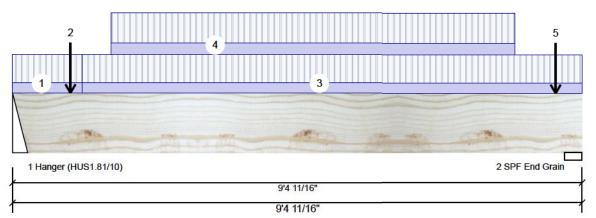
Hatch Area represents where

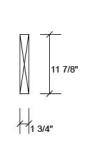
al load has been applied

Version 19.60.173 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

Page 27 of 31 NE1220-151 Client: **GREENPARK** Date: 12/18/2020 Project: Input by: RCO isDesign Address: TRINAR HALL Job Name: GLENWAY 3A (ELEV.3) EAST GWILLIMBURY, ON. Project #: Level: Second Floor F12-A Forex 2.0E-3000Fb LVL 1.750" X 11.875" - PASSED 2 5 4 3





### Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	1	Design Method:	LSD
Moisture Condition	on: Dry	Building Code:	NBCC 2015 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load		SAN ANT LIBERT SAN AND	
Floor Live:	40 PSF		

### Unfactored Reactions UNPATTERNED Ib (Uplift) Brg Live Dead

Brg	Live	Dead	Snow	Wind
1	695	285	0	0
2	715	293	0	0

### **Analysis Results**

Dead:

15 PSF

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3129 ft-lb	4'8"	17130 ft-lb	0.183 (18%)	1.25D+1.5L	L
Unbraced	3129 ft-lb	4'8"	5011 ft-lb	0.624 (62%)	1.25D+1.5L	L
Shear	1236 lb	1'2 1/8"	5798 lb	0.213 (21%)	1.25D+1.5L	L
Perm Defl in.	0.022 (L/4806)	4'8 1/16"	0.299 (L/360)	0.070 (7%)	D	Uniform
LL Defl inch	0.055 (L/1968)	4'8 1/16"	0.299 (L/360)	0.180 (18%)	L	L
TL Defl inch	0.077 (L/1396)	4'8 1/16"	0.449 (L/240)	0.170 (17%)	D+L	L

# **Bearings and Factored Reactions**

Bearing Leng	th Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.	_
1 - 3.000 Hanger	" 36%	356 / 1043	1398	L	1.25D+1.5L	
2 - SPF 3.500 End Grain	" 32%	366 / 1072	1438	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 Top braced at bearings.
- 4 Bottom braced at bearings

READ ALL NOTES ON THIS PAGE AND ON	٦
ENGINEERING NOTE PAGE ENP-2. THIS	
NOTE PAGE IS AN INTEGRAL PART OF THIS	s
CALCULATION SUMMARY PAGE AS IT	
CONTAINS SPECIFICATIONS AND CRITERIA	١
USED IN THE DESIGN OF THIS COMPONEN	Т.
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

Snow

Live



ID	Load Type	Location	Trib Width	Side	Dead
1	Tie-In	0-0-0 to 1-1-13	1-10-9	Тор	15 PSF
2	Point	0-11-7		Near Face	37 lb
3	Tie-In	1-1-13 to 9-4-11	1-10-6	Тор	15 PSF
4	Part. Uniform	1-7-7 to 8-3-7		Near Face	31 PLF
5	Point	8-11-7		Near Face	26 lb
	Self Weight				5 PLF

40 PSF	0 PSF	0 PSF		
99 lb	0 lb	0 lb	J1	
4^ ====	Town of	^ °SF		
8	East Gwillimbur	y <sub>PLF</sub>		
Our sous, Our failure	p	0 lb	J1	

Wind

Comments

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## Notes

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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 regarding installation requirement fastening details, beam strength value 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 dr ponding

	Discipline	Reviewer	BCIN	Date	
	Building Code	H. Authier	43236	2021-02-08	
air	Sewage System				
	Zoning				

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



NE1220-151

isDesign

Client: **GREENPARK** 

Project: Address:

TRINAR HALL

EAST GWILLIMBURY, ON.

Date: 12/18/2020 Input by: RCO

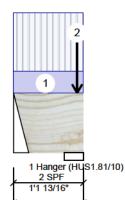
Job Name: GLENWAY 3A (ELEV.3)

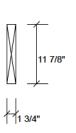
Project #:

F15-A Forex 2.0E-3000Fb LVL 1.750" X 11.875" - PASSED

Brg

Level: Second Floor





Wind

Ld. Comb. 1.25D+1.5L

1.25D+1.5L

Page 28 of 31

Mor	nber	Infor	mat	ion
IVICI	IIDEI		IIIat	IVII

40 PSF 15 PSF

1'1 13/16"

Type:	Girder	Application:	Floor (Residential)
Plies:	1	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2015 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load			

## Unfactored Reactions UNPATTERNED lb (Uplift)

Dead

Cap. React D/L lb

Live

**Bearings and Factored Reactions** 

Bearing Length

2 - SPF 3.813"

Hanger

3.000"

1	41	18	0	0
2	195	76	0	0

22 / 61

95 / 292

### **Analysis Results**

Floor Live:

Dead:

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	10 ft-lb	6 1/2"	17130 ft-lb	0.001 (0%)	1.25D+1.5L	L
Unbraced	10 ft-lb	6 1/2"	17130 ft-lb	0.001 (0%)	1.25D+1.5L	L
Shear	56 lb	1'2 1/8"	5798 lb	0.010 (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%)		

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

2%

9%

USED IN THE DESIGN OF THIS COMPONENT. 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



Total Ld. Case

83 L

387 L

# **Design Notes**

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

ID	Load Type	Location	Irib Width	Side	Dead
1	Tie-In	0-0-0 to 1-1-13	1-10-9	Тор	15 PSF
2	Point	1-0-9		Far Face	56 lb
	Self Weight				5 PLF

Live	Snow	Wind	Comments
40 PSF	0 PSF	0 PSF	
149 lb	0 lb	0 lb	J9



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## Notes

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

- 1. IVI, beams must not be out or drilled
  2. Refer to manufacturer's product info regarding installation requirements, r fastening details, beam strength values, an approvals
  3. Damaged Beams must not be used
- Daniaged beams must not be used Design assumes top edge is laterally restrained Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drain

Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			

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



NE1220-151

isDesign

Project:

Address:

Client: **GREENPARK** 

TRINAR HALL

EAST GWILLIMBURY, ON.

Date: 12/18/2020

Brg

1

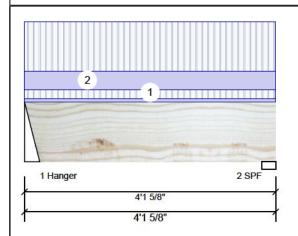
Input by: RCO

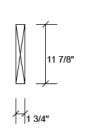
Job Name: GLENWAY 3A (ELEV.3)

Project #:

F1-A Forex 2.0E-3000Fb LVL 1.750" X 11.875" - PASSED

Level: Second Floor





Wind

0

Page 29 of 31

Mem	ber	Info	rmation

Type:	Girder	Application:	Floor (Residential)
Plies:	1	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2015 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load		Sp. 16.4 (1) (2) (1) (3) (3) (3) (3)	
Floor Live:	40 PSF		

## Unfactored Reactions UNPATTERNED lb (Uplift)

Dead

47

Bearings and Factored Reactions					
2	97	46	U	U	

Snow

0

### Analysis Results

15 PSF

Dead:

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	177 ft-lb	2' 15/16"	17130 ft-lb	0.010 (1%)	1.25D+1.5L	L
Unbraced	177 ft-lb	2' 15/16"	11809 ft-lb	0.015 (1%)	1.25D+1.5L	L
Shear	89 lb	1'2 1/8"	5798 lb	0.015 (2%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
LL Defl inch	0.001 (L/49670)	2'1"	0.126 (L/360)	0.010 (1%)	L	L
TL Defl inch	0.001 (L/33657)	2'1"	0.189 (L/240)	0.010 (1%)	D+L	L

Live

98

Bearing Length Cap. React D/L lb Total Ld.	Case Ld. Comb.
1 - 3.000" 5% 58 / 147 206 L	1.25D+1.5L
Hanger	
2 - SPF 2.750" 7% 58 / 146 204 L	1.25D+1.5L

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.

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



### 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
1	Tie-In	0-0-0 to 4-1-10	0-2-3	Тор	15 PSF
2	Part. Uniform	0-0-0 to 4-1-10		Тор	15 PLF
	Self Weight				5 PLF

Comments Live Snow Wind 40 PSF 0 PSF 0 PSF " PLF



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### Notes

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- 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 regarding installation requirement fastening details, beam strength value approvals
   Damaged Beams must not be used
- Daniaged beams must not be used
  Design assumes top edge is laterally restrained
  Provide lateral support at bearing points to avoid
  lateral displacement and rotation
- H. Authier 43236

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



NE1220-151 Page 30 of 31 Client: **GREENPARK** Date: 12/18/2020 Project: Input by: RCO isDesign Address: TRINAR HALL Job Name: GLENWAY 3A (ELEV.3) EAST GWILLIMBURY, ON. Project #: Level: Second Floor 1.750" X 11.875" Forex 2.0E-3000Fb LVL 2-Ply - PASSED 2 4 5 3 1 6 1 SPF 2 SPF 12'10 1/4" 12'10 1/4"

Member Information					Unfactored Reactions UNPATTERNED Ib (Uplift)				
Type:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow	Wind	
Plies:	2	Design Method:	LSD	1	2344	956	0	0	
Moisture Condition:	Dry	Building Code:	NBCC 2015 / OBC 2012	2	2675	1088	0	0	
Deflection LL:	360	Load Sharing:	No	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					
Deflection TL:	240	Deck:	Not Checked						
Importance:	Normal	Vibration:	Not Checked						
General Load		22 12 7 (22 21 22 22 22 22 22 22 22 22 22 22 22 2			10.00.000.000.000	2.10			
Floor Live:	40 PSF			Bearings and Factored Reactions					
Dead:	15 PSF			Bearing	Length	Cap. React D/L lb	Total Ld. Case	Ld. Comb.	
				1 - SPF	2.750"	80% 1195 / 3516	4711 L	1.25D+1.5L	

**Analysis Results** 

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	16472 ft-lb	6'11 3/16"	34261 ft-lb	0.481 (48%)	1.25D+1.5L	L
Unbraced	16472 ft-lb	6'11 3/16"	27232 ft-lb	0.605 (60%)	1.25D+1.5L	L
Shear	5306 lb	1'1 7/8"	11596 lb	0.458 (46%)	1.25D+1.5L	L
Perm Defl in	. 0.102 (L/1449)	6'5 1/4"	0.410 (L/360)	0.250 (25%)	D	Uniform
LL Defl inch	0.251 (L/588)	6'5 1/4"	0.410 (L/360)	0.610 (61%)	L	L
TL Defl inch	0.353 (L/418)	6'5 1/4"	0.615 (L/240)	0.570 (57%)	D+L	L

### **Design Notes**

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

6 Lateral sienderness ratio based on full section width.						
	ID	Load Type	Location	Trib Width	Side	Dead
	1	Tie-In	0-0-0 to 4-7-0	0-7-2	Тор	15 PSF
	2	Point	1-1-7		Near Face	167 lb
	3	Part. Uniform	1-9-7 to 12-5-7		Near Face	129 PLF
	4	Point	4-7-14		Far Face	18 lb
	5	Point	8-5-0		Far Face	285 lb
	6	Tie-In	8-5-14 to 12-6-0	0-6-10	Тор	15 PSF
Continued on page 2						

Notes

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 3. Damaged Beams must not be used

- Dry service conditions, unless noted otherwise
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- Handling & Installation
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H. Authier 43236

2 - SPF 5.500"

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Wind

PLF

0 PSF 0 lb Comments

45% 1359 / 4012

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

PASS THRU FRAMING SQUASH

POINT LOADS OVER BEARINGS

Snow

0 PSF

East Gwillimbury Building Standards Branch BCIN #16487

**BLOCK IS REQUIRED AT ALL** 

Live

40 PSF

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



1.25D+1.5L

PROFESSIONAL CHORES

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CSD DESIGN

NE1220-151 Page 31 of 31 Client: **GREENPARK** Date: 12/18/2020 Page 8 of 8 Project: Input by: RCO isDesign Address: TRINAR HALL Job Name: GLENWAY 3A (ELEV.3) EAST GWILLIMBURY, ON. Project #: Level: Second Floor 1.750" X 11.875" Forex 2.0E-3000Fb LVL 2-Ply - PASSED F2-A 2 4 5 3 1 6 7 1 SPF 2 SPF 12'10 1/4" 12'10 1/4" .Continued from page 1 ID Location Trib Width Side Dead Live Snow Wind Comments Load Type 7 15 PSF 40 PSF 0 PSF 0 PSF Tie-In 12-6-0 to 12-10-4 0-2-10 Top Self Weight 10 PLF 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. 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. East Gwillimbury These plans have been reviewed for use with the corrections as noted. No other changes may be made without written approval of the Building Standards Branch. All work must comply with Zoning By-Law 2018-043, as amended, and the Ontario Building Code, as amépaded. These approved documents must be kept on site at all times. The building nermy must be clearly times.

> For flat roofs provide proper drain ponding

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Canada

L4A 7X4 905-642-4400

times. The building permit must be clearly posted on site at all times.

H. Authier 43236

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

Handling & Installation

4. 5.

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Notes