



Client: GREENPARK

Date: 7/17/2023

Project:

Input by: W C

Address:

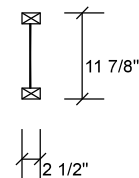
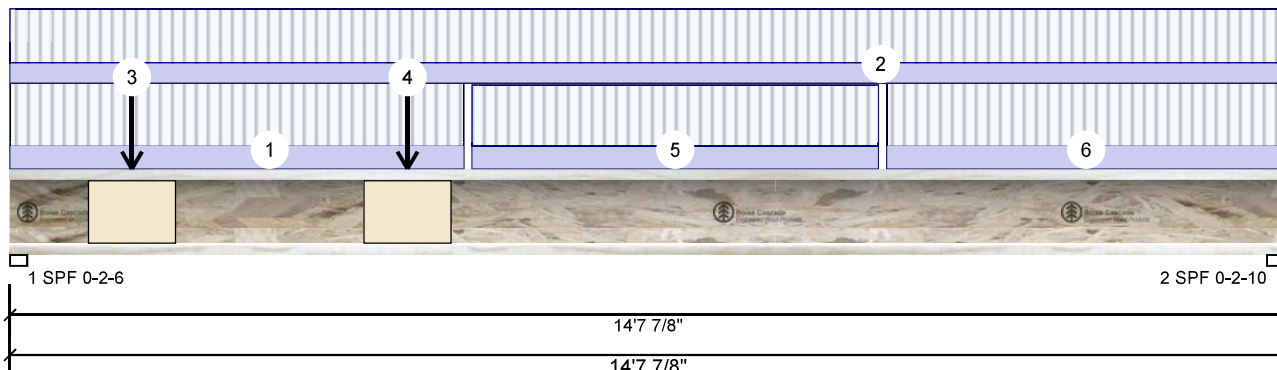
Job Name: VILLA 1-3 STD

Project #:

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OSHAWA ON  
BLUE COPY  
OF PERMIT PLANS  
NOV 21 2023

PER: *C. M...*  
CHIEF BUILDING OFFICIAL

F6-B AJS 140 11.875" - PASSED MHP 23033



## Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	1	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2015 OBC 2012(2020 Update)
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

## Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	502	188	0	0
2	Vertical	435	163	0	0

## Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	Vert	59%	235 / 753	988	L	1.25D+1.5L
2 - SPF	2.625"	Vert	49%	204 / 653	857	L	1.25D+1.5L

## Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3138 ft-lb	6'11 7/8"	5305 ft-lb	0.591 (59%)	1.25D+1.5L	L
Unbraced	3138 ft-lb	6'11 7/8"	5305 ft-lb	0.591 (59%)	1.25D+1.5L	L
Shear	973 lb	1 5/8"	2350 lb	0.414 (41%)	1.25D+1.5L	L
Perm Defl in.	0.080 (L/2143)	7'2 11/16"	0.479 (L/360)	0.168 (17%)	D	Uniform
LL Defl inch	0.215 (L/803)	7'2 11/16"	0.479 (L/360)	0.448 (45%)	L	
TL Defl inch	0.295 (L/584)	7'2 11/16"	0.718 (L/240)	0.411 (41%)	D+L	L



## Design Notes

- Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- Girders are designed to be supported on the bottom edge only.
- If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
- Bottom flange must be laterally braced at a maximum of 10' 1 1/16" o.c.

READ ALL NOTES ON THIS PAGE AND ON THE  
ENGINEERING NOTES: EWP-FLOORS. THE NOTE  
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USED IN THE DESIGN OF THIS COMPONENT.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 5-2-9	0-9-3	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 14-7-14	0-8-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-4-13		Far Face	23 lb	62 lb	0 lb	0 lb	F1
4	Point	4-6-13		Far Face	16 lb	43 lb	0 lb	0 lb	F1
5	Tie-In	5-3-11 to 9-11-11	0-9-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
6	Tie-In	10-0-13 to 14-7-14	0-9-3	Top	15 PSF	40 PSF	0 PSF	0 PSF	

## Notes

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

## Lumber

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

## chemicals

## Handling &amp; Installation

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

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

## Manufacturer Info

Boise Cascade Wood Products  
1111 W. Jefferson St.  
Boise, ID 83702  
(800) 232-0788  
www.bc.com  
CCMC: 12787

Kott Inc.  
3228 Moodie Dr, Ottawa, Ontario  
613-838-2775 / 905-642-4400



This design is valid until 4/17/2026



Client: GREENPARK

Date: 7/17/2023

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Project:

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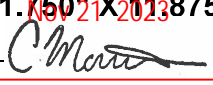
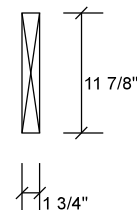
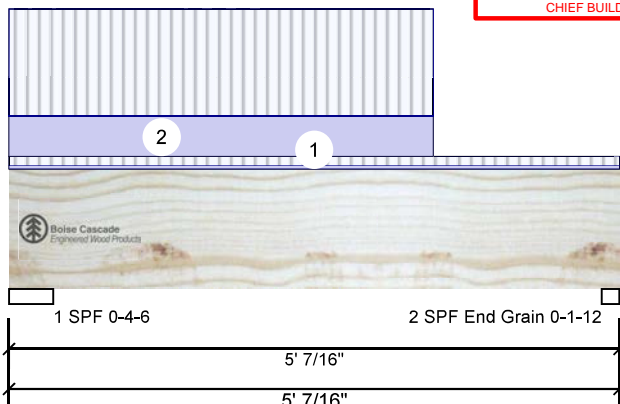
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Job Name: VILLA 1-3 STD

Project #:

ZADORRA ESTATES  
OSHAWA ON  
BLUE COPY  
OF PERMIT PLANS  
Nov 21, 2023

F7 Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" - PASSED MHP 23033 Level: Ground Floor

PER:   
CHIEF BUILDING OFFICIAL

## Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	1	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2015 OBC 2012(2020 Update)
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

## Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	460	189	0	0
2	Vertical	229	100	0	0

## Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	4.375"	Vert	20%	236 / 690	926	L	1.25D+1.5L
2 - SPF	1.750"	Vert	15%	126 / 343	469	L	1.25D+1.5L
End Grain							

## Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	859 ft-lb	2'5 1/16"	17696 ft-lb	0.049 (5%)	1.25D+1.5L	L
Unbraced	859 ft-lb	2'5 1/16"	17696 ft-lb	0.049 (5%)	1.25D+1.5L	L
Shear	434 lb	3'10 13/16"	6608 lb	0.066 (7%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/40192)	2'6 11/16"	0.155 (L/360)	0.009 (1%)	D	Uniform
LL Defl inch	0.003 (L/16709)	2'6 9/16"	0.155 (L/360)	0.022 (2%)	L	L
TL Defl inch	0.005 (L/11802)	2'6 5/8"	0.232 (L/240)	0.020 (2%)	D+L	L

## Design Notes

- Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- Girders are designed to be supported on the bottom edge only.
- Top must be continuously laterally braced.
- Bottom must be laterally braced at bearings.



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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 5-0-7	0-4-9	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 3-6-0		Top	66 PLF	175 PLF	0 PLF	0 PLF	
	Self Weight				6 PLF				

## Notes

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## Lumber

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

chemicals

## Handling &amp; Installation

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

- For flat roofs provide proper drainage to prevent ponding

## Manufacturer Info

Boise Cascade Wood Products  
1111 W. Jefferson St.  
Boise, ID 83702  
(800) 232-0788  
www.bc.com  
CCMC: 12472

Kott Inc.  
3228 Moodie Dr, Ottawa, Ontario  
613-838-2775 / 905-642-4400



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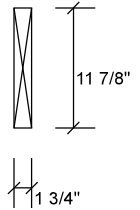
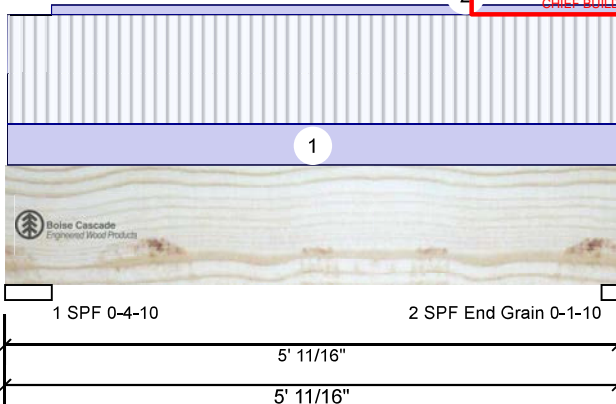
Job Name: VILLA 1-3 STD

Project #:

RECEIVED  
ZADORRA ESTATES  
OSHAWA ON  
OF PERMIT PLANS  
NOV 21 2023

F7-A Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" - PASSED MHP 23033

PER: *C. M...*  
CHIEF BUILDING OFFICIAL



## Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	1	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2015 OBC 2012(2020 Update)
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

## Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	30	29	0	0
2	Vertical	27	27	0	0

## Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	4.632"	Vert	2%	36 / 44	81	L	1.25D+1.5L
2 - SPF	1.625"	Vert	2%	33 / 40	74	L	1.25D+1.5L
End Grain							

## Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	83 ft-lb	2'7 13/16"	17696 ft-lb	0.005 (0%)	1.25D+1.5L	L
Unbraced	83 ft-lb	2'7 13/16"	17696 ft-lb	0.005 (0%)	1.25D+1.5L	L
Shear	47 lb	1'4 1/2"	6608 lb	0.007 (1%)	1.25D+1.5L	L
Perm Defl in. (L/227212)	0.000	2'7 7/8"	0.155 (L/360)	0.002 (0%)	D	Uniform
LL Defl inch (L/225086)	0.000	2'7 7/8"	0.155 (L/360)	0.002 (0%)	L	L
TL Defl inch (L/113072)	0.000	2'7 7/8"	0.233 (L/240)	0.002 (0%)	D+L	L



## Design Notes

- Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- Girders are designed to be supported on the bottom edge only.
- Top must be continuously laterally braced.
- Bottom must be laterally braced at bearings.

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-4 to 5-0-11	0-3-6	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-4-10 to 5-0-11		Top	1 PLF	0 PLF	0 PLF	0 PLF	
	Self Weight				6 PLF				

## Notes

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

## Lumber

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

chemicals

## Handling &amp; Installation

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

- For flat roofs provide proper drainage to prevent ponding

This design is valid until 4/17/2026

## Manufacturer Info

Boise Cascade Wood Products  
1111 W. Jefferson St.  
Boise, ID 83702  
(800) 232-0788  
www.bc.com  
CCMC: 12472

Kott Inc.

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Client: GREENPARK

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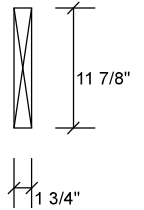
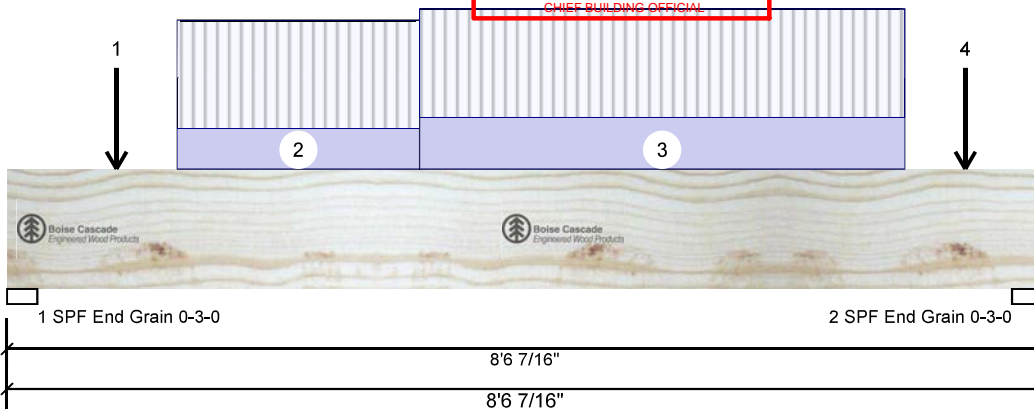
Address:

Job Name: VILLA 1-3 STD

Project #:

ZADORRA ESTATES  
OSHAWA ON  
OF PERMIT PLANS  
Nov 21, 2023PER:   
CHIEF BUILDING OFFICIAL

F8 Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" - PASSED Level: Ground Floor MHP 23033



## Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	1	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2015 OBC 2012(2020 Update)
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

## Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	363	175	0	0
2	Vertical	380	199	0	0

## Bearings and Factored Reactions

Bearing	Length	Dir.	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	14%	219 / 545	764	L	1.25D+1.5L
2 - SPF End Grain	3.000"	Vert	15%	249 / 570	819	L	1.25D+1.5L

## Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1700 ft-lb	4'3 11/16"	17696 ft-lb	0.096 (10%)	1.25D+1.5L	L
Unbraced	1700 ft-lb	4'3 11/16"	17696 ft-lb	0.096 (10%)	1.25D+1.5L	L
Shear	796 lb	7'3 9/16"	6608 lb	0.120 (12%)	1.25D+1.5L	L
Perm Defl in. (L/10241)	0.010	4'3 5/8"	0.272 (L/360)	0.035 (4%)	D	Uniform
LL Defl inch	0.019 (L/5144)	4'3 1/4"	0.272 (L/360)	0.070 (7%)	L	L
TL Defl inch	0.029 (L/3424)	4'3 5/16"	0.408 (L/240)	0.070 (7%)	D+L	L

## Design Notes

- Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- Girders are designed to be supported on the bottom edge only.
- Top must be continuously laterally braced.
- Bottom must have sheathing attached or be continuously braced.



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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Point	0-10-13		Near Face	32 lb	85 lb	0 lb	0 lb	J2
2	Part. Uniform	1-4-13 to 3-4-13		Near Face	36 PLF	97 PLF	0 PLF	0 PLF	
3	Part. Uniform	3-4-13 to 7-4-13		Near Face	46 PLF	97 PLF	0 PLF	0 PLF	
4	Point	7-10-13		Near Face	36 lb	76 lb	0 lb	0 lb	J2
	Self Weight				6 PLF				

## Notes

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

## Lumber

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

chemicals

## Handling &amp; Installation

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

- For flat roofs provide proper drainage to prevent ponding

This design is valid until 4/17/2026

## Manufacturer Info

Boise Cascade Wood Products  
1111 W. Jefferson St.  
Boise, ID 83702  
(800) 232-0788  
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Client: GREENPARK

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ZADORRA ESTATES OF OSHAWA

Job Name: VILLA 1-3 STD

OSHAWA ON

Project #:

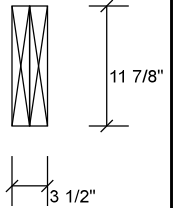
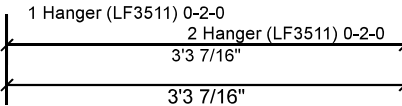
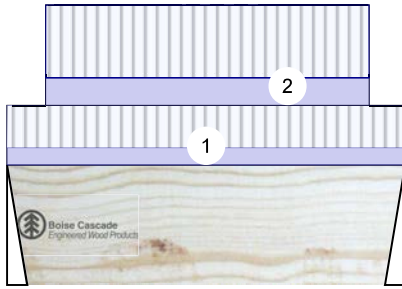
OF PERMIT PLANS

1.750" X 11.875" 2-Ply

PASSED MHP 23033

Level: Ground Floor

F9 Versa-Lam LVL 2.1E 3100 SP



## Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2015 OBC 2012(2020 Update)
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

## Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	164	83	0	0
2	Vertical	166	84	0	0

## Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	Vert	5%	104 / 247	350	L	1.25D+1.5L
2 - Hanger	2.000"	Vert	5%	104 / 248	353	L	1.25D+1.5L

## Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	282 ft-lb	1'7 3/4"	35392 ft-lb	0.008 (1%)	1.25D+1.5L	L
Unbraced	282 ft-lb	1'7 3/4"	35392 ft-lb	0.008 (1%)	1.25D+1.5L	L
Shear	245 lb	1'1 7/8"	13217 lb	0.019 (2%)	1.25D+1.5L	L
Perm Defl in. (L/293415)	0.000	1'7 3/4"	0.103 (L/360)	0.001 (0%)	D	Uniform
LL Defl inch (L/144153)	0.000	1'7 3/4"	0.103 (L/360)	0.002 (0%)	L	L
TL Defl inch (L/96663)	0.000	1'7 3/4"	0.154 (L/240)	0.002 (0%)	D+L	L

## Design Notes

- Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- Fill all hanger nailing holes.
- Left Header: DF, Thickness: 3 1/2"
- Right Header: DF, Thickness: 3 1/2"
- Girders are designed to be supported on the bottom edge only.
- Multiple plies must be fastened together as per manufacturer's details.
- Top loads must be supported equally by all plies.
- Top must be continuously laterally braced.
- Bottom must have sheathing attached or be continuously braced.
- Lateral slenderness ratio based on full section width.



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## Notes

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## Lumber

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

chemicals

## Handling &amp; Installation

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

- For flat roofs provide proper drainage to prevent ponding

## Manufacturer Info

Boise Cascade Wood Products  
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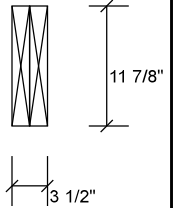
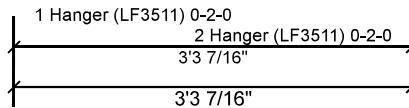
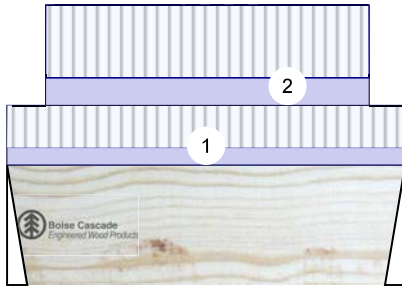
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OSHAWA ON  
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OF PERMIT PLANS  
Nov 21 2023

F9 Versa-Lam LVL 2.1E 3100 SP

1.750" X 11.875" 2-Ply - PASSED Level: Ground Floor

MHP 23033

PER: *C. Mante*  
CHIEF BUILDING OFFICIAL



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 3-3-7		Top	17 PLF	42 PLF	0 PLF	0 PLF	
2	Part. Uniform	0-3-13 to 2-11-13		Far Face	27 PLF	72 PLF	0 PLF	0 PLF	
	Self Weight				12 PLF				



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## Notes

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## Lumber

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

## Handling &amp; Installation

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

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 4/17/2026

## Manufacturer Info

Boise Cascade Wood Products  
1111 W. Jefferson St.  
Boise, ID 83702  
(800) 232-0788  
www.bc.com  
CCMC: 12472

## Kott Inc.

3228 Moodie Dr, Ottawa, Ontario  
613-838-2775 / 905-642-4400





Client: GREENPARK

Date: 7/17/2023

Project:

Input by: W C

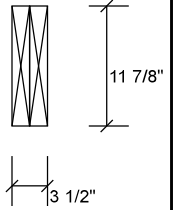
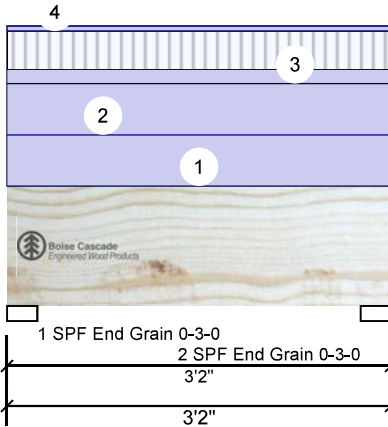
Address:

Job Name: VILLA 1-3 STD &amp; WOC

Project #:

ZADORRA ESTATES OF OSHAWA  
OSHAWA ON  
BLUE COPY  
OF PERMIT PLANS  
NOV 21 2023

FH1 Versa-Lam LVL 2.1E 3100 SP

1.750" X 11.875" 2-Ply PASSED Level Ground Floor  
MHP 23033PER:   
CHIEF BUILDING OFFICIAL

## Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2015 OBC 2012(2020 Update)
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

## Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	48	169	0	0
2	Vertical	48	169	0	0

## Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	4%	211 / 71	283	L	1.25D+1.5L
2 - SPF End Grain	3.000"	Vert	4%	211 / 71	283	L	1.25D+1.5L

## Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	174 ft-lb	1'7"	25482 ft-lb	0.007 (1%)	1.25D+1.5L	L
Unbraced	174 ft-lb	1'7"	25482 ft-lb	0.007 (1%)	1.25D+1.5L	L
Shear	189 lb	1'11 1/8"	9516 lb	0.020 (2%)	1.25D+1.5L	L
Perm Defl in. (L/197272)	0.000	1'7"	0.093 (L/360)	0.002 (0%)	D	Uniform
LL Defl inch (L/702510)	0.000	1'7"	0.093 (L/360)	0.001 (0%)	L	L
TL Defl inch (L/154021)	0.000	1'7"	0.140 (L/240)	0.002 (0%)	D+L	L



## Design Notes

- Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- Girders are designed to be supported on the bottom edge only.
- Multiple plies must be fastened together as per manufacturer's details.
- Top loads must be supported equally by all plies.
- Top must be continuously laterally braced.
- Bottom must have sheathing attached or be continuously braced.
- Lateral slenderness ratio based on full section width.

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 3-2-0		Top	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
2	Part. Uniform	0-0-0 to 3-2-0		Near Face	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
3	Tapered Start	0-0-0		Near Face	11 PLF	30 PLF	0 PLF	0 PLF	
	End	3-2-0			11 PLF	30 PLF	0 PLF	0 PLF	

Continued on page 2...

## Notes

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## Lumber

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

## Handling &amp; Installation

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

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Client: GREENPARK

Date: 7/17/2023

Project:

Input by: W C

Address:

Job Name: VILLA 1-3 STD &amp; WOC

Project #:

ASSOCIATION OF THE CITY OF OSHAWA  
OSHAWA ON  
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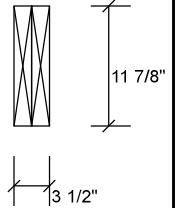
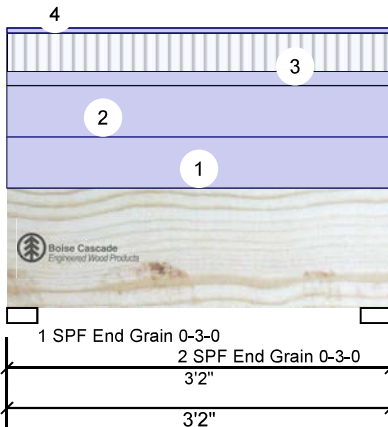
FH1 Versa-Lam LVL 2.1E 3100 SP

1.750" X 11.875"

2-Ply

Level: Ground Floor  
MHP 23033

PER: *C. Mante*  
CHIEF BUILDING OFFICIAL



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
4	Part. Uniform	0-0-0 to 3-2-0		Near Face	4 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
	Self Weight				12 PLF				



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chemicals

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3228 Moodie Dr, Ottawa, Ontario  
613-838-2775 / 905-642-4400



Ground Floor

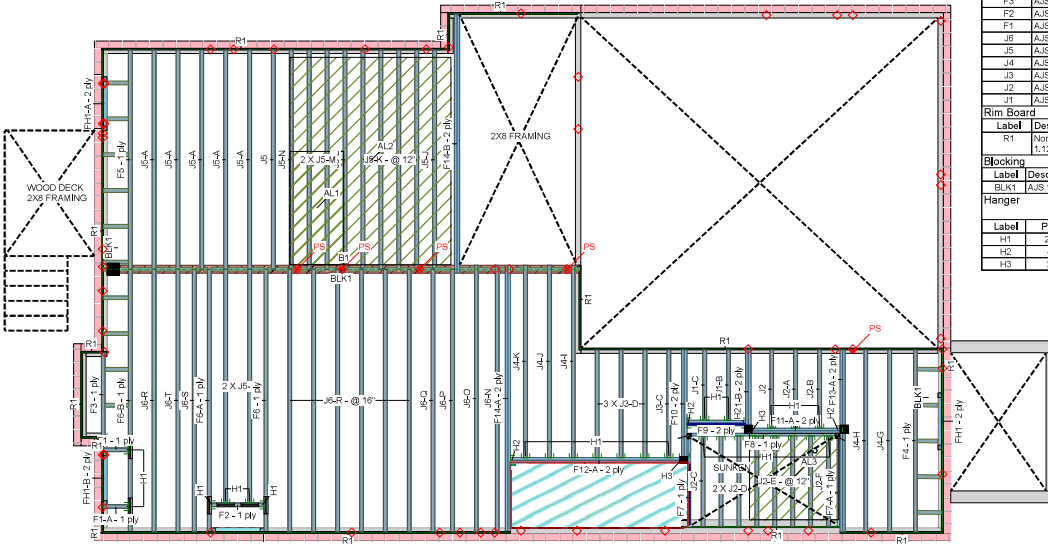
ENG-M072-11-KITE-GREENPARK-ZADORRA ESTATES-VILLA 1-3

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 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 requirements
10. Hangers and Fasteners to be installed as per manufacturer
11. Framing shown on this layout may deviate from architectural drawings, Arch / Eng to review and approve the deviation prior to construction.
12. Multi ply beams with side loading to have all fasteners installed with the head on the side of the applied load
13. Confirmation of adequate support & anchorage of components is the responsibility of the building designer; suggested uplift connectors are as shown
14. Where beam hangs on side of 3-ply member, it is recommended that the equivalent quantity and size of nails required for the hanger attachment also be installed on opposite side of the 3-ply member

Installation Guide



[Open your phone's camera and  
hover over the QR code to access it]



Ground Floor  
LVL/LSL (Flush)

Label	Description	Width	Depth	Qty	Pies	Pcs	Length
F14	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	2	2	4	16-0
F13	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	12-0
F12	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	10-0
F8	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875			1	10-0
F10	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	8-0
F11	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	2	2	4	6-0
F7	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875			2	6-0
FH1	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	3	2	6	4-0
F9	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	4-0

Joist (Flush)

Label	Description	Width	Depth	Pcs	Length
F6	AJS 140	2.5	11.875	3	16-0
F5	AJS 140	2.5	11.875	1	14-0
F4	AJS 140	2.5	11.875	1	12-0
F3	AJS 140	2.5	11.875	1	6-0
F2	AJS 140	2.5	11.875	1	4-0
J6	AJS 140	2.5	11.875	13	16-0
J5	AJS 140	2.5	11.875	17	14-0
J4	AJS 140	2.5	11.875	5	12-0
J3	AJS 140	2.5	11.875	4	8-0
J2	AJS 140	2.5	11.875	11	6-0
J1	AJS 140	2.5	11.875	2	4-0

Rim Board

Label	Description	Width	Depth	Pcs	Length
R1	Norbord Rimboard Plus 1.125 X 11.875	1.125	11.875	11	12-0

Blocking

Label	Description	Width	Depth	Qty	Pcs	Length
BLK1	AJS 140	2.5	11.875	LtrF	Varies	40-0

Hanger

Label	Pcs	Description	fasteners	fasteners
H1	26	LF3511	12 10d x 1 1/2	1 #8 x 1 1/4 WS
H2	4	LF3511	12 10d	2 #8 x 1 1/4 WS
H3	2	HUG410 (Min)	14 18d	6 10d

JOB INFORMATION

<b>Builder</b> GREENPARK
<b>Project</b> ZADORRA ESTATES OSHAWA, ON
<b>Sales Rep</b> RALPH MIRIGELLO
<b>Designer</b> V.C.
<b>Plotted</b> July 17, 2023
<b>Layout Name</b> VILLA 1-3 DC
<b>Job Path</b> 8:\CUSTOMERS\GREENPARK\ZADORRA ESTATES WOODSIDE\BILLA 1\BILLA 1-3\F-VILLA 1-3DC\BILLA 1-3 DC.dwg

DESIGN CRITERIA

<b>Ground Floor</b>
<b>Design Method</b> LSD (Canada)
<b>Bulking Code</b> NBCC 2015 CBC 2012(2020 Update)

Floor

<b>Loads</b>
Dead
Live

Deflection Joist

LL Span /
TL Span /

Deflection Flush Girder

LL Span /
TL Span /

Deflection Dropped Girder

LL Span /
TL Span /

Deflection Header

LL Span /
TL Span /

Decking

Decking
Thickness
Fastener

CCMC References

Boise - 12472-R, 12787-R
LP - 12412-R, Roseburg - 13310-R
Forex - 14026-R

Kott Inc.

3228 Wood Dr. Ottawa
14 Anderson Blvd. Uxbridge
Ontario
613-838-2775 /
905-642-4400



Legend

PS	Point Load Support
Load from Above	
Wall	
Wall Opening	
Norbord Rimboard Plus 1.125 X 11.875	
AJS 140 11.875	
Versa-Lam LVL 2.1E 3100 SP 1.75 X 11.875	
1.75 X 9.5 (Dropped)	

Hatch Area represents where  
additional load has been applied.  
(e.g. 5 psf for ceramic tile)





Client: GREENPARK

Date: 7/17/2023

Page 1 of 6

Project:

Input by: W C

Address:

ZADORRA ESTATES OF OSHAWA  
OSHAWA ON  
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Job Name:

VILLA 1-3 DC

Project #:

FH1 Versa-Lam LVL 2.1E 3100 SP

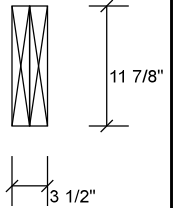
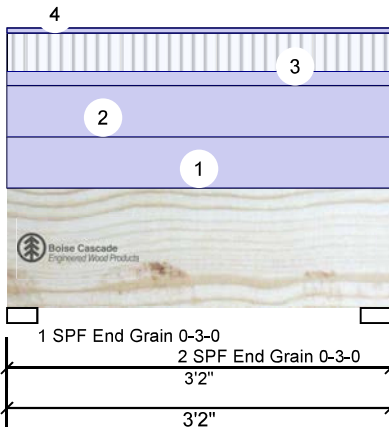
1.750" X 11.875"

2-Ply

Level Ground Floor

MHP 23033

PER: *C. M...*  
CHIEF BUILDING OFFICIAL



## Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2015 OBC 2012(2020 Update)
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

## Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	48	169	0	0
2	Vertical	48	169	0	0

## Bearings and Factored Reactions

Bearing	Length	Dir.	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	4%	211 / 71	283	L	1.25D+1.5L
2 - SPF End Grain	3.000"	Vert	4%	211 / 71	283	L	1.25D+1.5L

## Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	174 ft-lb	1'7"	25482 ft-lb	0.007 (1%)	1.25D+1.5L	L
Unbraced	174 ft-lb	1'7"	25482 ft-lb	0.007 (1%)	1.25D+1.5L	L
Shear	189 lb	1'11 1/8"	9516 lb	0.020 (2%)	1.25D+1.5L	L
Perm Defl in. (L/197272)	0.000	1'7"	0.093 (L/360)	0.002 (0%)	D	Uniform
LL Defl inch (L/702510)	0.000	1'7"	0.093 (L/360)	0.001 (0%)	L	L
TL Defl inch (L/154021)	0.000	1'7"	0.140 (L/240)	0.002 (0%)	D+L	L

## Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Girders are designed to be supported on the bottom edge only.
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JULY 18, 2023

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2	Part. Uniform	0-0-0 to 3-2-0		Near Face	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
3	Tapered Start	0-0-0		Near Face	11 PLF	30 PLF	0 PLF	0 PLF	
	End	3-2-0			11 PLF	30 PLF	0 PLF	0 PLF	

Continued on page 2...

## Notes

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## Lumber

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chemicals

## Handling &amp; Installation

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Client: GREENPARK

Date: 7/17/2023

Page 2 of 6

Project:

Input by: W C

Address:

Job Name: VILLA 1-3 DC

ASSOCIATION OF THE CITY OF OSHAWA  
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NOV 21 2023

Project #:

FH1 Versa-Lam LVL 2.1E 3100 SP

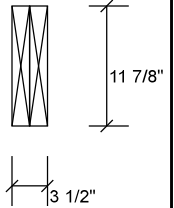
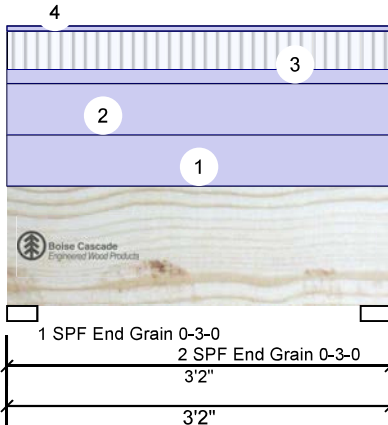
1.750" X 11.875"

2-Ply

Level: Ground Floor

MHP 23033

PER: *C. Mante*  
CHIEF BUILDING OFFICIAL



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
4	Part. Uniform	0-0-0 to 3-2-0		Near Face	4 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
	Self Weight				12 PLF				



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Page 3 of 6

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ZADORRA ESTATES OF OSHAWA  
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Job Name:

VILLA 1-3 DC

Project #:

FH1-A Versa-Lam LVL 2.1E 3100 SP

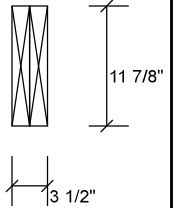
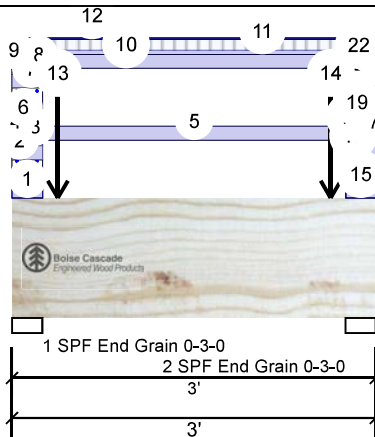
1.750" X 11.875" 2-Ply

- PASSED Level Ground Floor

MHP 23033

Nov 21 2023

PER: *C. M...*  
CHIEF BUILDING OFFICIAL



## Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2015 OBC 2012(2020 Update)
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

## Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	76	410	239	0
2	Vertical	75	410	239	0

## Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	9%	512 / 434	946	L	1.25D+1.5S+L
2 - SPF End Grain	3.000"	Vert	9%	512 / 434	946	L	1.25D+1.5S+L

## Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	213 ft-lb	1'5 15/16"	23005 ft-lb	0.009 (1%)	1.25D+1.5L	L
Unbraced	213 ft-lb	1'5 15/16"	23005 ft-lb	0.009 (1%)	1.25D+1.5L	L
Shear	222 lb	1'9 1/8"	8591 lb	0.026 (3%)	1.25D+1.5L	L
Perm Defl in. (L/154042)	0.000	1'6"	0.088 (L/360)	0.002 (0%)	D	Uniform
LL Defl inch (L/359168)	0.000	1'6"	0.088 (L/360)	0.001 (0%)	S+0.5L	L
TL Defl inch (L/107806)	0.000	1'6"	0.131 (L/240)	0.002 (0%)	D+S+0.5L	L

## Design Notes

- 1 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 3.
- 2 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 3.
- 3 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 4 Girders are designed to be supported on the bottom edge only.
- 5 Multiple plies must be fastened together as per manufacturer's details.
- 6 Top loads must be supported equally by all plies.
- 7 Top must be continuously laterally braced.
- 8 Bottom must have sheathing attached or be continuously braced.
- 9 Lateral slenderness ratio based on full section width.



JULY 18, 2023

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## Notes

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## Lumber

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

## chemicals

## Handling &amp; Installation

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

6. For flat roofs provide proper drainage to prevent ponding

## Manufacturer Info

Boise Cascade Wood Products  
1111 W. Jefferson St.  
Boise, ID 83702  
(800) 232-0788  
www.bc.com  
CCMC: 12472

Kott Inc.  
3228 Moodie Dr, Ottawa, Ontario  
613-838-2775 / 905-642-4400



This design is valid until 4/17/2026



Client: GREENPARK

Date: 7/17/2023

Page 4 of 6

Project:

Input by: W C

Address:

Job Name: VILLA 1-3 DC

ZADORRA ESTATES  
OSHAWA ON  
OF PERMIT PLANS

Project #:

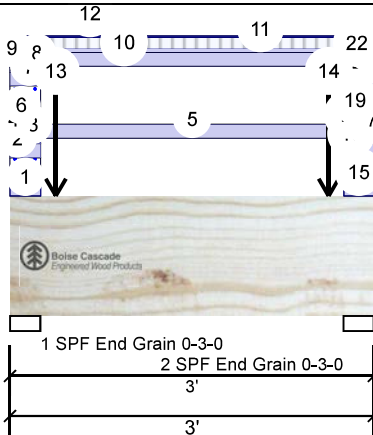
FH1-A Versa-Lam LVL 2.1E 3100 SP

1.750" X 11.875" 2-Ply

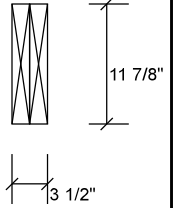
Level: Ground Floor

Nov 21 2023

PER: *C. Mante*  
CHIEF BUILDING OFFICIAL



JULY 18, 2023



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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 0-3-1		Top	30 PLF	0 PLF	80 PLF	0 PLF	
2	Part. Uniform	0-0-0 to 0-3-1		Top	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
3	Tapered Start	0-0-0		Top	4 PLF	10 PLF	0 PLF	0 PLF	
	End	0-3-1			4 PLF	10 PLF	0 PLF	0 PLF	
4	Part. Uniform	0-0-0 to 0-3-1		Top	2 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
5	Part. Uniform	0-0-0 to 3-0-0		Top	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
6	Part. Uniform	0-0-0 to 0-3-1		Near Face	30 PLF	0 PLF	80 PLF	0 PLF	
7	Part. Uniform	0-0-0 to 0-3-1		Near Face	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
8	Tapered Start	0-0-0		Near Face	4 PLF	10 PLF	0 PLF	0 PLF	
	End	0-3-1			4 PLF	10 PLF	0 PLF	0 PLF	
9	Part. Uniform	0-0-0 to 0-3-1		Near Face	2 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
10	Part. Uniform	0-0-0 to 3-0-0		Near Face	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
11	Tapered Start	0-0-0		Near Face	12 PLF	31 PLF	0 PLF	0 PLF	
	End	3-0-0			12 PLF	31 PLF	0 PLF	0 PLF	
12	Part. Uniform	0-0-0 to 3-0-0		Near Face	4 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
13	Point	0-4-9		Top	210 lb	24 lb	199 lb	0 lb	Header Column Header Column
	Bearing Length	0-3-8							
14	Point	2-7-9		Top	210 lb	24 lb	199 lb	0 lb	Header Column Header Column
	Bearing Length	0-3-8							
15	Part. Uniform	2-9-1 to 3-0-0		Near Face	30 PLF	0 PLF	80 PLF	0 PLF	
16	Part. Uniform	2-9-1 to 3-0-0		Near Face	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
17	Tapered Start	2-9-1		Near Face	4 PLF	10 PLF	0 PLF	0 PLF	
	End	3-0-0			4 PLF	10 PLF	0 PLF	0 PLF	
18	Part. Uniform	2-9-1 to 3-0-0		Near Face	2 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
19	Part. Uniform	2-9-1 to 3-0-0		Top	30 PLF	0 PLF	80 PLF	0 PLF	
20	Part. Uniform	2-9-1 to 3-0-0		Top	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
21	Tapered Start	2-9-1		Top	4 PLF	10 PLF	0 PLF	0 PLF	
	End	3-0-0			4 PLF	10 PLF	0 PLF	0 PLF	
22	Part. Uniform	2-9-1 to 3-0-0		Top	2 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
	Self Weight				12 PLF				

## Notes

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

## Lumber

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

chemicals

## Handling &amp; Installation

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

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 4/17/2026

## Manufacturer Info

Boise Cascade Wood Products  
1111 W. Jefferson St.  
Boise, ID 83702  
(800) 232-0788  
www.bc.com  
CCMC: 12472

## Kott Inc.

3228 Moodie Dr, Ottawa, Ontario  
613-838-2775 / 905-642-4400





Client: GREENPARK

Date: 7/17/2023

Page 5 of 6

Project:

Input by: W C

Address:

Job Name: VILLA 1-3 DC

 ZADORRA ESTATES OF OSHAWA  
 OSHAWA ON  
 OF PERMIT PLANS

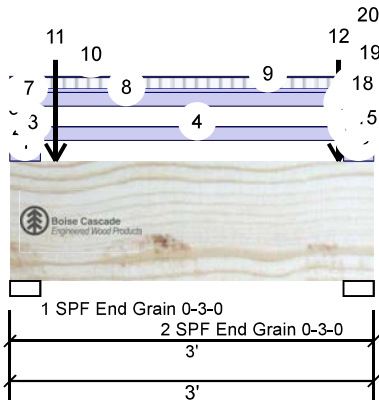
Project #:

FH1-B Versa-Lam LVL 2.1E 3100 SP

1.750" X 11.875" 2-Ply

Level: Ground Floor

MHP 23033

 PER:   
 CHIEF BUILDING OFFICIAL


## Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2015 OBC 2012(2020 Update)
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

## Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	84	323	10	0
2	Vertical	86	449	255	0

## Bearings and Factored Reactions

Bearing	Length	Dir.	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	7%	403 / 126	529	L	1.25D+1.5L
2 - SPF End Grain	3.000"	Vert	11%	561 / 469	1029	L	1.25D+1.5S +L

## Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	196 ft-lb	1'5 15/16"	23713 ft-lb	0.008 (1%)	1.25D+1.5L	L
Unbraced	196 ft-lb	1'5 15/16"	23713 ft-lb	0.008 (1%)	1.25D+1.5L	L
Shear	209 lb	1'2 7/8"	8855 lb	0.024 (2%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/173282)	1'6"	0.088 (L/360)	0.002 (0%)	D	Uniform
LL Defl inch	0.000 (L/539229)	1'6 7/16"	0.088 (L/360)	0.001 (0%)	L+0.5S	L
TL Defl inch	0.000 (L/131163)	1'6 1/8"	0.131 (L/240)	0.002 (0%)	D+L+0.5S	L

## Design Notes

- 1 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 3.
- 2 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 3.
- 3 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 4 Girders are designed to be supported on the bottom edge only.
- 5 Multiple plies must be fastened together as per manufacturer's details.
- 6 Top loads must be supported equally by all plies.
- 7 Top must be continuously laterally braced.
- 8 Bottom must have sheathing attached or be continuously braced.
- 9 Lateral slenderness ratio based on full section width.



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## Notes

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## Lumber

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

chemicals

## Handling &amp; Installation

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

6. For flat roofs provide proper drainage to prevent ponding

## Manufacturer Info

Boise Cascade Wood Products  
 1111 W. Jefferson St.  
 Boise, ID 83702  
 (800) 232-0788  
 www.bc.com  
 CCMC: 12472

Kott Inc.  
 3228 Moodie Dr, Ottawa, Ontario  
 613-838-2775 / 905-642-4400







Client: GREENPARK

Date: 7/17/2023

Page 6 of 6

Project:

Input by: W C

Address:

Job Name: VILLA 1-3 DC

ZADORRA ESTATES  
OSHAWA ON  
OF PERMIT PLANS  
1.750" X 11.875" 2-Py - PASSED  
NOV 21 2023

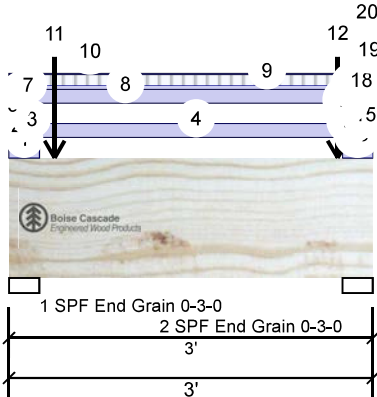
Project #:

FH1-B Versa-Lam LVL 2.1E 3100 SP

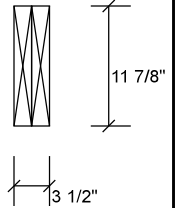
1.750" X 11.875" 2-Py - PASSED Level Ground Floor

MHP 23033

PER: *C. Mante*  
CHIEF BUILDING OFFICIAL



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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 0-3-0		Top	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
2	Tapered Start	0-0-0		Top	5 PLF	13 PLF	0 PLF	0 PLF	
	End	0-3-0			5 PLF	13 PLF	0 PLF	0 PLF	
3	Part. Uniform	0-0-0 to 0-3-0		Top	2 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
4	Part. Uniform	0-0-0 to 3-0-0		Top	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
5	Part. Uniform	0-0-0 to 0-3-0		Near Face	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
6	Tapered Start	0-0-0		Near Face	5 PLF	13 PLF	0 PLF	0 PLF	
	End	0-3-0			5 PLF	13 PLF	0 PLF	0 PLF	
7	Part. Uniform	0-0-0 to 0-3-0		Near Face	2 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
8	Part. Uniform	0-0-0 to 3-0-0		Near Face	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
9	Tapered Start	0-0-0		Near Face	12 PLF	31 PLF	0 PLF	0 PLF	
	End	3-0-0			12 PLF	31 PLF	0 PLF	0 PLF	
10	Part. Uniform	0-0-0 to 3-0-0		Near Face	4 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
11	Point	0-4-8		Top	137 lb	32 lb	0 lb	0 lb	Header Column Header Column
	Bearing Length	0-3-8							
12	Point	2-8-8		Top	259 lb	32 lb	252 lb	0 lb	Header Column Header Column Header Column Header Column
	Bearing Length	0-3-8							
13	Part. Uniform	2-9-0 to 3-0-0		Top	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
14	Tapered Start	2-9-0		Top	5 PLF	13 PLF	0 PLF	0 PLF	
	End	3-0-0			5 PLF	13 PLF	0 PLF	0 PLF	
15	Part. Uniform	2-9-0 to 3-0-0		Top	2 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
16	Part. Uniform	2-9-0 to 3-0-0		Near Face	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
17	Tapered Start	2-9-0		Near Face	5 PLF	13 PLF	0 PLF	0 PLF	
	End	3-0-0			5 PLF	13 PLF	0 PLF	0 PLF	
18	Part. Uniform	2-9-0 to 3-0-0		Near Face	2 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
19	Part. Uniform	2-11-1 to 3-0-0		Top	30 PLF	0 PLF	80 PLF	0 PLF	
20	Part. Uniform	2-11-1 to 3-0-0		Near Face	30 PLF	0 PLF	80 PLF	0 PLF	
	Self Weight				12 PLF				

## Notes

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## Lumber

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2. LVL not to be treated with fire retardant or corrosive chemicals

chemicals

## Handling &amp; Installation

1. LVL beams must not be cut or drilled
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4. Design assumes top edge is laterally restrained
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## Manufacturer Info

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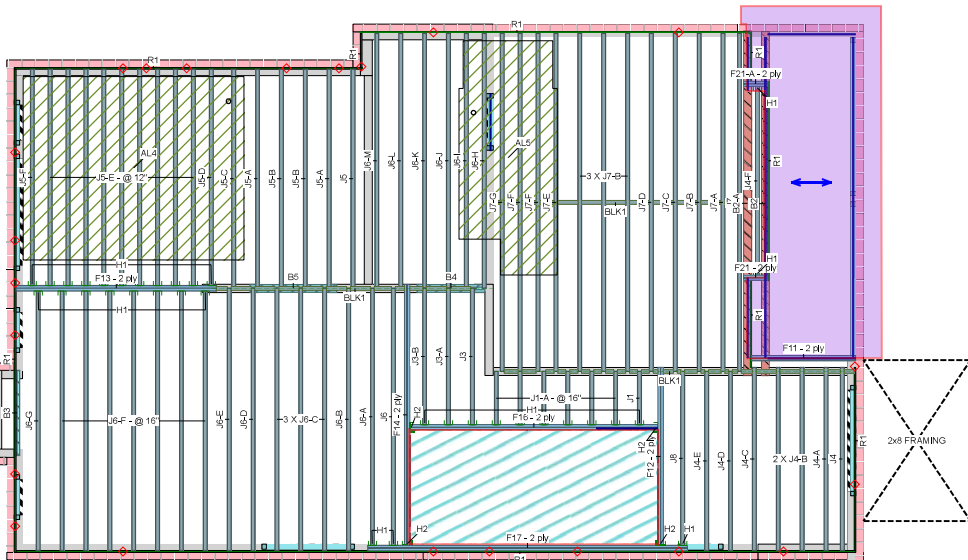


This design is valid until 4/17/2026

ENG-M0723-115-KTZ-GREENPARK-ZADORRA ESTATES-VILLA 1-3

Page 14 of 56

Second Floor



Second Floor LVL/LSL (Flush)							
Label	Description	Width	Depth	Qty	Pies	Pcs	Len
F17	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	18'
F14	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	16'
F16	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	14'
F13	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	12'
F12	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	10'
F11	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	6'
F21	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	2	2	4	24'
Joist (Flush)							
Label	Description	Width	Depth			Pcs	Len
J7	AJS 140	2.5	11.875			12	20'-0"
J8	AJS 140	2.5	11.875			22	16'-0"
J5	AJS 140	2.5	11.875			17	14'-0"
J4	AJS 140	2.5	11.875			8	12'-0"
J9	AJS 140	2.5	11.875			1	10'-0"
J3	AJS 140	2.5	11.875			3	8'-0"
J1	AJS 140	2.5	11.875			7	4'-0"
Rim Board							
Label	Description	Width	Depth			Pcs	Len
R1	Discontinued Rimboard Plus 1.125 X 11.875	1.125	11.875			13	12'-0"
Blocking							
Label	Description	Width	Depth	Qty		Pcs	Len
BLK1	AJS 140	2.5	11.875	LIFT	Varies	Varies	38'-0"
Hanger							
				Beam/Girder		Supported Member	
Label	Pcs	Description	fasteners		fasteners		
H1	34	LP2511	12 10d		1 #8x1 1/4WIS		
H2	4	LP3511	12 10d		2 #8x1 1/4WIS		

**JOB INFORMATION**

<b>Builder</b>	GREENPARK
<b>Project</b>	ZADORRA ESTATES OSHAWA, ON
<b>Shipping</b>	
<b>Sales Rep</b>	RALPH MIRIGELLO
<b>Designer</b>	W.C.
<b>Plotted</b>	June 13, 2023
<b>Layout Name</b>	VILLA 1-3 ALL OPT
<b>Job Path</b>	8:\CUSTOMERS\GREENPARK\ZADORRA ESTATES MODELS\BILLA 1\BILLA 1-3\F-B\BILLA 1-3\BILLA 1-3.rvt

**DESIGN CRITERIA**

<b>Second Floor</b>	LSO (Canada)
<b>Design Method</b>	NBCC 2015
<b>Building Code</b>	OSBC 2012(2020 Update)

**Floor Loads**

Live	40
Dead	15

**Deflection Joist**

LL Span /	360
TL Span /	240

**Deflection Flush Girder**

LL Span /	360
TL Span /	240

**Deflection Dropped Girder**

LL Span /	360
TL Span /	240

**Deflection Header**

LL Span /	360
TL Span /	240

**Decking**

Thickness	5/8"
Fastener	Nailed & Glued

**CCMC References**

Boise - 12472-R, 12787-R  
LP - 12412-R, Roseburg - 13310-R  
Forex - 14035-R

**Kott Inc.**

3228 Woodle Dr. Ottawa  
14 Anderson Blvd. Uxbridge  
Ontario  
613-838-2775 /  
905-642-4400

**Legend**

PS	Point Load Support
Load from Above	
Wall	
Wall Opening	
Norbord Rimboard Plus 1.125 X 11.875	
AJS 140 11.875	
Versa-Lam LVL 2.1E 3100 SP 1.75 X 11.875	
1.75 X 9.5 (Cropped)	

Installation Guide



(Open your phone's camera and  
hover over this QR code to access it)

Hatch Area represents where  
additional load has been applied.  
(e.g. 5 psf for ceramic tile)

- All blocking to be cut from 12' joists
- 2' & 4' Lengths to be cut from 8' Length, 6' lengths to be cut from 12' Length
- Ends of joists to be laterally supported
- Packing of Steel beams and attachment by others
- Shower and water closet flange locations are approximate only; consult architectural drawing for exact locations
- Beams identified as "B" are dropped and supplied by others
- Install 2x4 blocking @ 24" o/c under parallel non-loadbearing walls
- Load transfer blocks to be installed under all point loads
- Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements
- Hangers and Fasteners to be installed as per manufacturer
- Framing shown on this layout may deviate from architectural drawings. Arch / Eng to review and approve the deviation prior to construction.
- Multi ply beams with side loading to have all fasteners installed with the head on the side of the applied load.
- Confirmation of adequate support & anchorage of components is the responsibility of the building designer; suggested uplift connectors are as shown.
- Where beam hangs on side of 3-ply member, it is recommended that the beam's joint quantity and size of nails required for the hanger attachment also be installed on opposite side of the 3-ply member



Client: GREENPARK

Date: 7/17/2023

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Project:

Input by: W C

Address:

Job Name: VILLA 1-3 STD

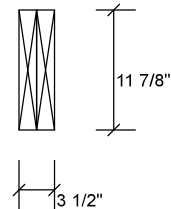
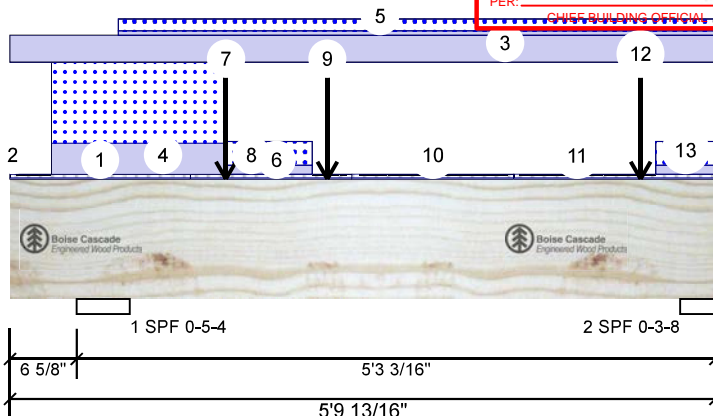
ZADORRA ESTATES  
OSHAWA ON  
OF PERMIT PLANS  
NOV 21 2023

Project #:

F11 Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply **PA SSED** Level Second Floor **MHP 23033**

PER: *C. M...*

CHIEF BUILDING OFFICIAL



## Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2015 OBC 2012(2020 Update)
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

## Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	33	709	921	0
2	Vertical	27	442	404	0

## Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.250"	Vert	20%	886 / 1414	2300	LL	1.25D+1.5S +L
2 - SPF	3.500"	Vert	16%	552 / 634	1186	_L	1.25D+1.5S +L

## Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-29 ft-lb	6' 9/16"	26898 ft-lb	0.001 (0%)	1.25D+1.5L +S	_L
Unbraced	-29 ft-lb	6' 9/16"	26423 ft-lb	0.001 (0%)	1.25D+1.5L +S	_L
Pos Moment	1736 ft-lb	2' 5' 5/8"	35392 ft-lb	0.049 (5%)	1.25D+1.5S +L	_L
Unbraced	1736 ft-lb	2' 5' 5/8"	34310 ft-lb	0.051 (5%)	1.25D+1.5S +L	_L
Shear	1055 lb	1' 11' 3/4"	13217 lb	0.080 (8%)	1.25D+1.5S +L	LL
Perm Defl in.	0.002 (L/24040)	3' 11/16"	0.161 (L/360)	0.015 (1%)	D	Uniform
LL Defl inch	0.003 (L/20813)	2' 11' 1/8"	0.161 (L/360)	0.017 (2%)	S+0.5L	_L
TL Defl inch	0.005 (L/11164)	2' 11' 7/8"	0.241 (L/240)	0.021 (2%)	D+S+0.5L	_L
LL Cant	-0.001 (2L/11978)	Lt Cant	0.200 (2L/360)	0.006 (1%)	S+0.5L	_L
TL Cant	-0.002 (2L/6676)	Lt Cant	0.300 (2L/240)	0.007 (1%)	D+S+0.5L	_L



JULY 18, 2023

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USED IN THE DESIGN OF THIS COMPONENT.

## Design Notes

- 1 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 3.5.
- 2 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 3 Girders are designed to be supported on the bottom edge only.
- 4 Multiple plies must be fastened together as per manufacturer's details.

## Notes

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

## Lumber

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

## chemicals

## Handling &amp; Installation

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

6. For flat roofs provide proper drainage to prevent ponding

## Manufacturer Info

Boise Cascade Wood Products  
1111 W. Jefferson St.  
Boise, ID 83702  
(800) 232-0788  
www.bc.com  
CCMC: 12472

Kott Inc.  
3228 Moodie Dr, Ottawa, Ontario  
613-838-2775 / 905-642-4400



This design is valid until 4/17/2026



Client: GREENPARK

Date: 7/17/2023

Project:

Input by: W C

Address:

Job Name: VILLA 1-3 STD

Project #:

ZADORRA ESTATES  
OSHAWA ON  
BLUE COPY  
OF PERMIT PLANS  
NOV 21 2023

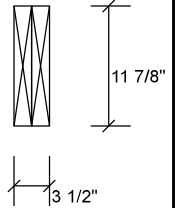
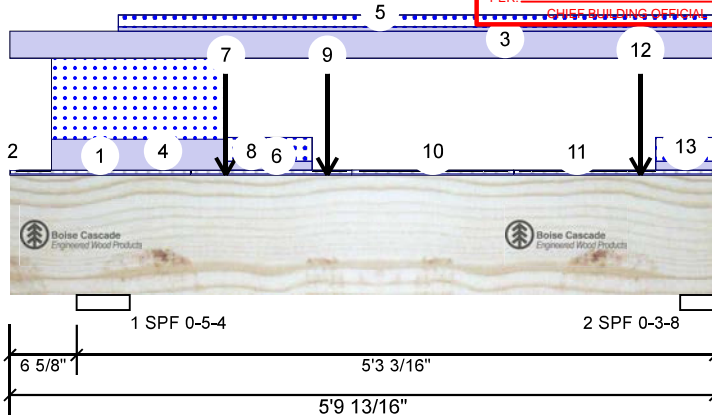
F11 Versa-Lam LVL 2.1E 3100 SP

1.750" X 11.875"

2-Ply

Level Second Floor

MHP 23033

PER: *C. M...*  
CHIEF BUILDING OFFICIAL

- 5 Top loads must be supported equally by all plies.  
6 Top must be laterally braced at a maximum of 5'9 13/16" o.c.  
7 Bottom must be laterally braced at bearings.  
8 Lateral slenderness ratio based on full section width.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-5-14	0-3-1	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 0-0-9		Top	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
3	Part. Uniform	0-0-0 to 5-9-13		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
4	Part. Uniform	0-4-2 to 1-9-6		Top	92 PLF	0 PLF	240 PLF	0 PLF	
5	Part. Uniform	0-10-12 to 5-9-13		Top	13 PLF	0 PLF	35 PLF	0 PLF	
6	Tie-In	1-5-14 to 2-9-14	0-3-1	Top	15 PSF	40 PSF	0 PSF	0 PSF	
7	Point	1-9-6		Top	241 lb	0 lb	525 lb	0 lb	F15
	Bearing Length	0-5-8							
8	Part. Uniform	1-9-6 to 2-5-14		Top	27 PLF	0 PLF	70 PLF	0 PLF	
9	Point	2-7-6		Top	61 lb	0 lb	99 lb	0 lb	Header Column
	Bearing Length	0-5-8							
10	Tie-In	2-9-14 to 4-1-14	0-3-1	Top	15 PSF	40 PSF	0 PSF	0 PSF	
11	Tie-In	4-1-14 to 5-9-13	0-3-1	Top	15 PSF	40 PSF	0 PSF	0 PSF	
12	Point	5-2-6		Top	61 lb	0 lb	99 lb	0 lb	Header Column
	Bearing Length	0-5-8							
13	Part. Uniform	5-3-14 to 5-9-13		Top	27 PLF	0 PLF	70 PLF	0 PLF	
	Self Weight				12 PLF				



JULY 18, 2023

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## Notes

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## Lumber

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

chemicals

## Handling &amp; Installation

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

6. For flat roofs provide proper drainage to prevent ponding

## Manufacturer Info

Boise Cascade Wood Products  
1111 W. Jefferson St.  
Boise, ID 83702  
(800) 232-0788  
www.bc.com  
CCMC: 12472

This design is valid until 4/17/2026

Kott Inc.  
3228 Moodie Dr, Ottawa, Ontario  
613-838-2775 / 905-642-4400





Client: GREENPARK

Date: 7/17/2023

Project:

Input by: W C

Address:

Job Name: VILLA 1-3 STD

Project #:

REPRODUCTION OF OSHAWA  
OSHAWA ON  
OF PERMIT PLANS  
NOV 21 2023

PER: *C. Mart*  
CHIEF BUILDING OFFICIAL

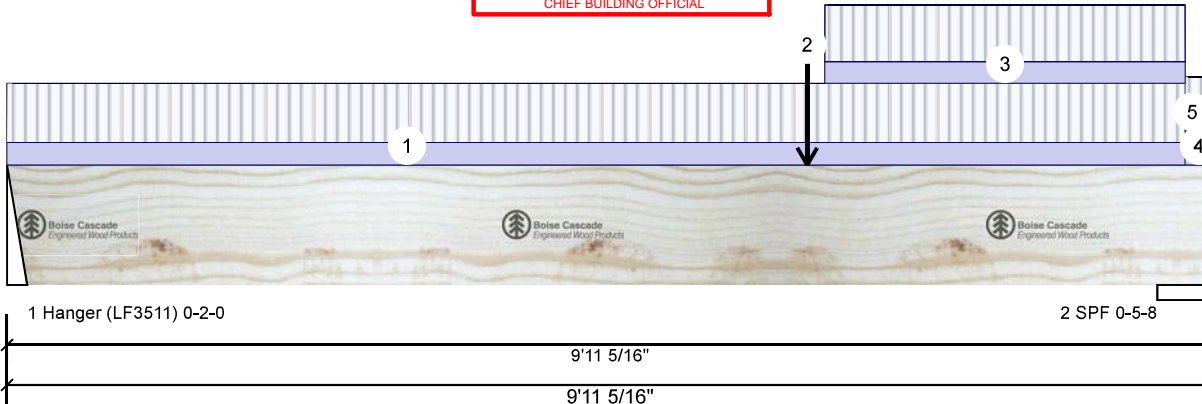
F12 Versa-Lam LVL 2.1E 3100 SP

1.750" X 11.875"

2-Fly

PASSED Level Second Floor

MHP 23033



## Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2015 OBC 2012(2020 Update)
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

## Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	312	200	0	0
2	Vertical	590	339	0	0

## Bearings and Factored Reactions

Bearing	Length	Dir.	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	Vert	9%	250 / 468	719	L	1.25D+1.5L
2 - SPF	5.500"	Vert	11%	424 / 885	1309	L	1.25D+1.5L

## Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3285 ft-lb	6'7 3/16"	35392 ft-lb	0.093 (9%)	1.25D+1.5L	L
Unbraced	3285 ft-lb	6'7 3/16"	35392 ft-lb	0.093 (9%)	1.25D+1.5L	L
Shear	1175 lb	8'5 15/16"	13217 lb	0.089 (9%)	1.25D+1.5L	L
Perm Defl in.	0.012 (L/9815)	5'1 15/16"	0.315 (L/360)	0.037 (4%)	D	Uniform
LL Defl inch	0.020 (L/5745)	5'2 9/16"	0.315 (L/360)	0.063 (6%)	L	L
TL Defl inch	0.031 (L/3624)	5'2 3/8"	0.472 (L/240)	0.066 (7%)	D+L	L

## Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Fill all hanger nailing holes.
- 3 Left Header: DF, Thickness: 3 1/2"
- 4 Girders are designed to be supported on the bottom edge only.
- 5 Multiple plies must be fastened together as per manufacturer's details.
- 6 Top loads must be supported equally by all plies.
- 7 Top must be continuously laterally braced.
- 8 Bottom must be laterally braced at a maximum of 6'7 3/16" o.c.
- 9 Lateral slenderness ratio based on full section width.



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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 9-8-9	0-7-7	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	6-7-3		Far Face	303 lb	586 lb	0 lb	0 lb	F16
3	Tie-In	6-8-15 to 9-8-9	0-7-1	Top	15 PSF	40 PSF	0 PSF	0 PSF	
4	Tie-In	9-8-9 to 9-11-5	0-3-1	Top	15 PSF	40 PSF	0 PSF	0 PSF	

Continued on page 2...

## Notes

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## Lumber

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

chemicals

## Handling &amp; Installation

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

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 4/17/2026

## Manufacturer Info

Boise Cascade Wood Products  
1111 W. Jefferson St.  
Boise, ID 83702  
(800) 232-0788  
www.bc.com  
CCMC: 12472

Kott Inc.  
3228 Moodie Dr, Ottawa, Ontario  
613-838-2775 / 905-642-4400







Client: GREENPARK

Date: 7/17/2023

Project:

Input by: W C

Address:

Job Name: VILLA 1-3 STD

ZADORRA ESTATES  
OSHAWA ON  
NOV 21 2023

Project #:

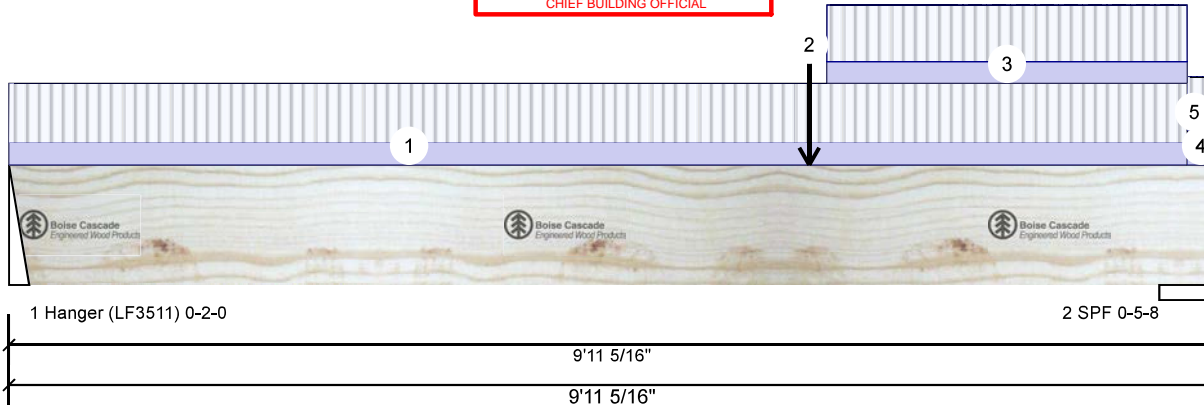
F12 Versa-Lam LVL 2.1E 3100 SP

1.750" X 11.875"

2-Fly

MHP 23033

PER: *C. M...*  
CHIEF BUILDING OFFICIAL



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
5	Tie-In	9-8-9 to 9-11-5	0-4-15	Top	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				12 PLF				



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**Lumber**

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

**chemicals****Handling & Installation**

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

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 4/17/2026

**Manufacturer Info**

Boise Cascade Wood Products  
1111 W. Jefferson St.  
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(800) 232-0788  
www.bc.com  
CCMC: 12472

**Kott Inc.**

3228 Moodie Dr, Ottawa, Ontario  
613-838-2775 / 905-642-4400





Client: GREENPARK

Date: 7/17/2023

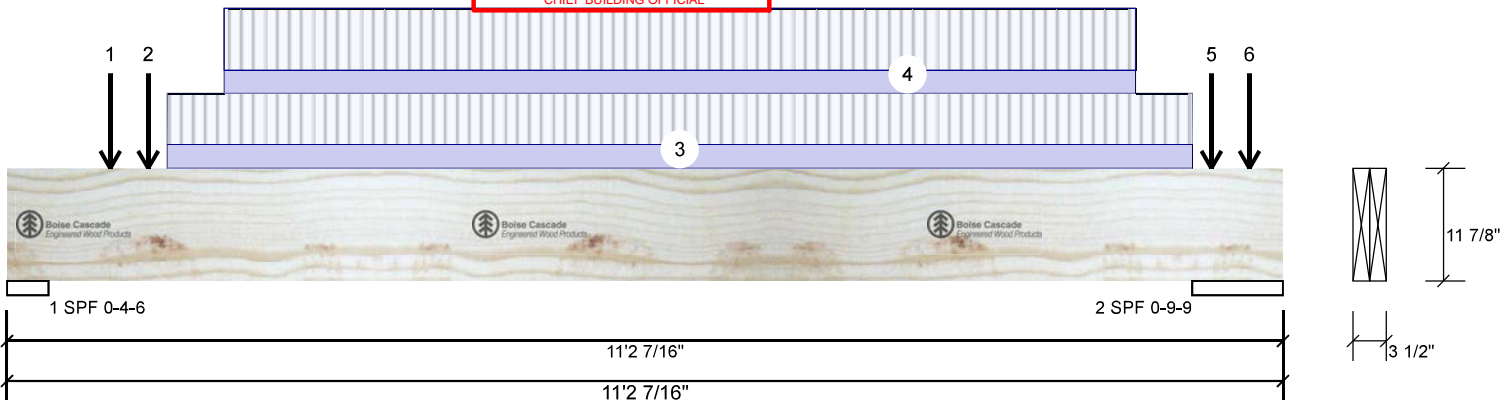
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Address:

Job Name: VILLA 1-3 STD

Project #:

ZADORRA ESTATES  
OSHAWA ON  
OF PERMIT PLANS  
NOV 21 2023PER: *C. M...*  
CHIEF BUILDING OFFICIALF13 Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Fly **PA SSED** Level Second Floor **MHP 23033**

## Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2015 OBC 2012(2020 Update)
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

## Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	2546	1111	0	0
2	Vertical	2921	1274	0	0

## Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	4.375"	Vert	55%	1388 / 3819	5208	L	1.25D+1.5L
2 - SPF	9.563"	Vert	29%	1592 / 4381	5974	L	1.25D+1.5L

## Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	13748 ft-lb	5'4 9/16"	35392 ft-lb	0.388 (39%)	1.25D+1.5L	L
Unbraced	13748 ft-lb	5'4 9/16"	35392 ft-lb	0.388 (39%)	1.25D+1.5L	L
Shear	5901 lb	1'4 1/4"	13217 lb	0.446 (45%)	1.25D+1.5L	L
Perm Defl in.	0.054 (L/2274)	5'4 9/16"	0.339 (L/360)	0.158 (16%)	D	Uniform
LL Defl inch	0.124 (L/985)	5'4 9/16"	0.339 (L/360)	0.365 (37%)	L	
TL Defl inch	0.177 (L/687)	5'4 9/16"	0.508 (L/240)	0.349 (35%)	D+L	L

## Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 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 must be continuously laterally braced.
- 5 Bottom must have sheathing attached or be continuously braced.
- 6 Lateral slenderness ratio based on full section width.



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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Point	0-10-14		Far Face	105 lb	232 lb	0 lb	0 lb	J5
2	Point	1-2-14		Near Face	141 lb	375 lb	0 lb	0 lb	J6
3	Part, Uniform	1-4-14 to 10-4-14		Far Face	108 PLF	238 PLF	0 PLF	0 PLF	
4	Part, Uniform	1-10-14 to 9-10-14		Near Face	107 PLF	286 PLF	0 PLF	0 PLF	
5	Point	10-6-14		Near Face	92 lb	244 lb	0 lb	0 lb	J6
6	Point	10-10-14		Far Face	86 lb	186 lb	0 lb	0 lb	J5
	Self Weight				12 PLF				

## Notes

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

## Lumber

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

chemicals

## Handling &amp; Installation

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

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 4/17/2026

## Manufacturer Info

Boise Cascade Wood Products  
1111 W. Jefferson St.  
Boise, ID 83702  
(800) 232-0788  
www.bc.com  
CCMC: 12472

Kott Inc.

3228 Moodie Dr, Ottawa, Ontario  
613-838-2775 / 905-642-4400





Client: GREENPARK

Date: 7/17/2023

Page 38 of 44

Project:

Input by: W C

Address:

ZADORRA ESTATES  
OSHAWA ON  
OF PERMIT PLANS  
NOV 21 2023

Job Name:

VILLA 1-3 STD

Project #:

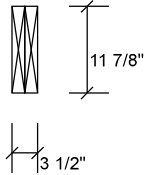
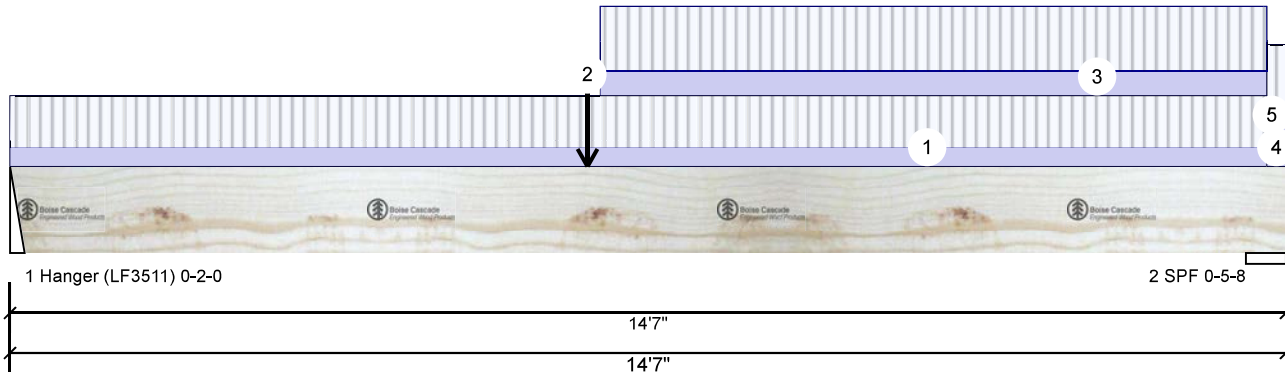
F14 Versa-Lam LVL 2.1E 3100 SP

1.750" X 11.875"

2-Fly

Level Second Floor

MHP 23033

PER:   
CHIEF BUILDING OFFICIAL

## Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2015 OBC 2012(2020 Update)
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

## Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	531	328	0	0
2	Vertical	555	334	0	0

## Bearings and Factored Reactions

Bearing	Length	Dir.	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	Vert	16%	411 / 797	1208	L	1.25D+1.5L
2 - SPF	5.500"	Vert	11%	418 / 833	1251	L	1.25D+1.5L

## Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	6858 ft-lb	6'7 3/16"	35392 ft-lb	0.194 (19%)	1.25D+1.5L	L
Unbraced	6858 ft-lb	6'7 3/16"	35392 ft-lb	0.194 (19%)	1.25D+1.5L	L
Shear	1170 lb	1'1 7/8"	13217 lb	0.089 (9%)	1.25D+1.5L	L
Perm Defl in.	0.053 (L/3188)	7' 1/2"	0.469 (L/360)	0.113 (11%)	D	Uniform
LL Defl inch	0.092 (L/1831)	7' 1/2"	0.469 (L/360)	0.197 (20%)	L	L
TL Defl inch	0.145 (L/1163)	7' 1/2"	0.704 (L/240)	0.206 (21%)	D+L	L

## Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Fill all hanger nailing holes.
- 3 Left Header: DF, Thickness: 3 1/2"
- 4 Girders are designed to be supported on the bottom edge only.
- 5 Multiple plies must be fastened together as per manufacturer's details.
- 6 Top loads must be supported equally by all plies.
- 7 Top must be continuously laterally braced.
- 8 Bottom must be laterally braced at a maximum of 7'11 13/16" o.c.
- 9 Lateral slenderness ratio based on full section width.



JULY 18, 2023

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 14-4-6	0-4-10	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	6-7-3		Near Face	349 lb	710 lb	0 lb	0 lb	F16
3	Tie-In	6-8-15 to 14-4-6	0-5-14	Top	15 PSF	40 PSF	0 PSF	0 PSF	
4	Tie-In	14-4-6 to 14-7-0	0-2-2	Top	15 PSF	40 PSF	0 PSF	0 PSF	

Continued on page 2...

## Notes

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## Lumber

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

chemicals

## Handling &amp; Installation

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

6. For flat roofs provide proper drainage to prevent ponding

## Manufacturer Info

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CCMC: 12472

Kott Inc.  
3228 Moodie Dr, Ottawa, Ontario  
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This design is valid until 4/17/2026



Client: GREENPARK

Date: 7/17/2023

Project:

Input by: W C

Address:

Job Name: VILLA 1-3 STD

Project #:

ASSOCIATION OF THE CITY OF OSHAWA  
OSHAWA ON  
BLUE COPY  
OF PERMIT PLANS  
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F14 Versa-Lam LVL 2.1E 3100 SP

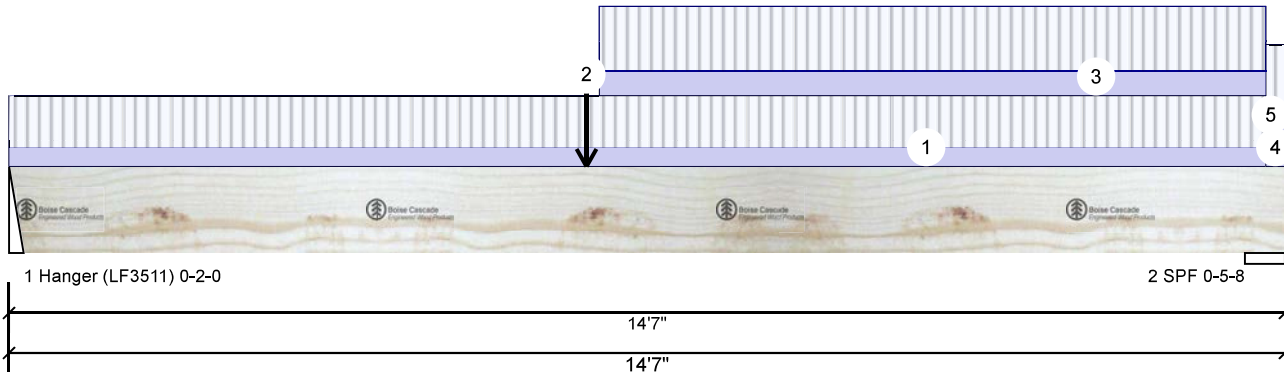
1.750" X 11.875"

2-Fly

Level Second Floor

MHP 23033

PER: *C. Mante*  
CHIEF BUILDING OFFICIAL



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
5	Tie-In	14-4-6 to 14-7-0	0-5-14	Top	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				12 PLF				



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**Handling & Installation**

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

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 4/17/2026

**Manufacturer Info**

Boise Cascade Wood Products  
1111 W. Jefferson St.  
Boise, ID 83702  
(800) 232-0788  
www.bc.com  
CCMC: 12472

**Kott Inc.**

3228 Moodie Dr, Ottawa, Ontario  
613-838-2775 / 905-642-4400





Client: GREENPARK

Date: 7/17/2023

Project:

Input by: W C

Address:

ZADORRA ESTATES  
OSHAWA ON  
OF PERMIT PLANS  
NOV 21 2023

Job Name: VILLA 1-3 STD

Project #:

Page 40 of 44

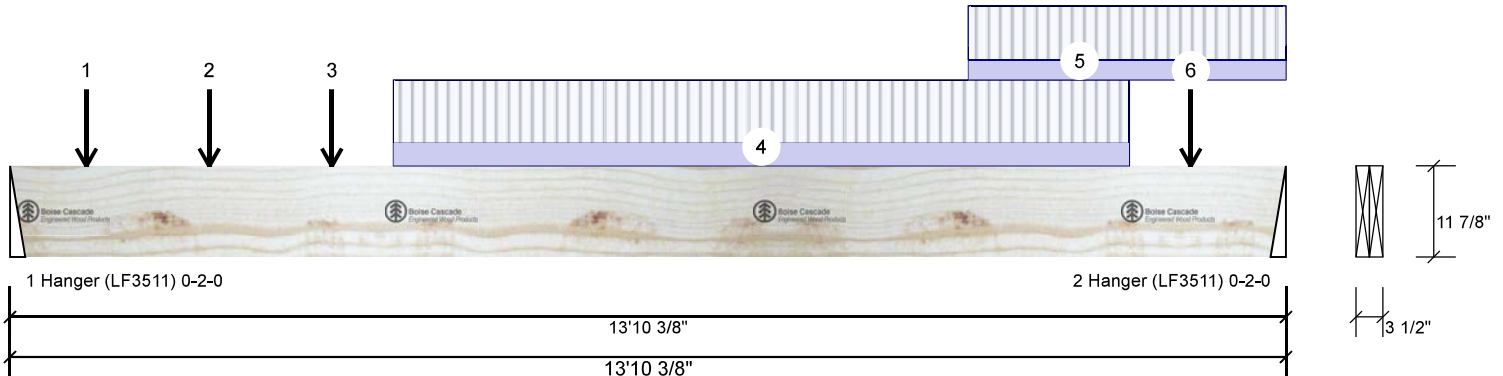
F16 Versa-Lam LVL 2.1E 3100 SP

1.750" X 11.875"

2-Fly

Level Second Floor

MHP 23033

PER:   
CHIEF BUILDING OFFICIAL

## Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2015 OBC 2012(2020 Update)
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

## Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	710	349	0	0
2	Vertical	586	303	0	0

## Bearings and Factored Reactions

Bearing	Length	Dir.	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	Vert	20%	437 / 1064	1501	L	1.25D+1.5L
2 - Hanger	2.000"	Vert	16%	379 / 879	1258	L	1.25D+1.5L

## Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4070 ft-lb	6'4 7/16"	35392 ft-lb	0.115 (12%)	1.25D+1.5L	L
Unbraced	4070 ft-lb	6'4 7/16"	35392 ft-lb	0.115 (12%)	1.25D+1.5L	L
Shear	1499 lb	1'1 7/8"	13217 lb	0.113 (11%)	1.25D+1.5L	L
Perm Defl in.	0.033 (L/4903)	6'10 1/8"	0.455 (L/360)	0.073 (7%)	D	Uniform
LL Defl inch	0.064 (L/2546)	6'9 11/16"	0.455 (L/360)	0.141 (14%)	L	L
TL Defl inch	0.098 (L/1676)	6'9 7/8"	0.683 (L/240)	0.143 (14%)	D+L	L

## Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Fill all hanger nailing holes.
- 3 Left Header: DF, Thickness: 3 1/2"
- 4 Right Header: DF, Thickness: 3 1/2"
- 5 Girders are designed to be supported on the bottom edge only.
- 6 Multiple plies must be fastened together as per manufacturer's details.
- 7 Top loads must be supported equally by all plies.
- 8 Top must be continuously laterally braced.
- 9 Bottom must have sheathing attached or be continuously braced.
- 10 Lateral slenderness ratio based on full section width.



JULY 18, 2023

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Point	0-10-0		Far Face	65 lb	174 lb	0 lb	0 lb	J3
2	Point	2-2-0		Far Face	76 lb	201 lb	0 lb	0 lb	J3
3	Point	3-6-0		Far Face	79 lb	211 lb	0 lb	0 lb	J3

Continued on page 2...

## Notes

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## Lumber

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

chemicals

## Handling &amp; Installation

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

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 4/17/2026

## Manufacturer Info

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Boise, ID 83702  
(800) 232-0788  
www.bc.com  
CCMC: 12472

Kott Inc.  
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Client: GREENPARK

Date: 7/17/2023

Project:

Input by: W C

Address:

Job Name: VILLA 1-3 STD

Project #:

ZADORRA ESTATES  
OSHAWA ON  
NOV 21 2023

OF PERMIT PLANS

1.750" X 11.875"

2-Fly

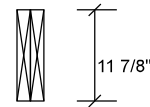
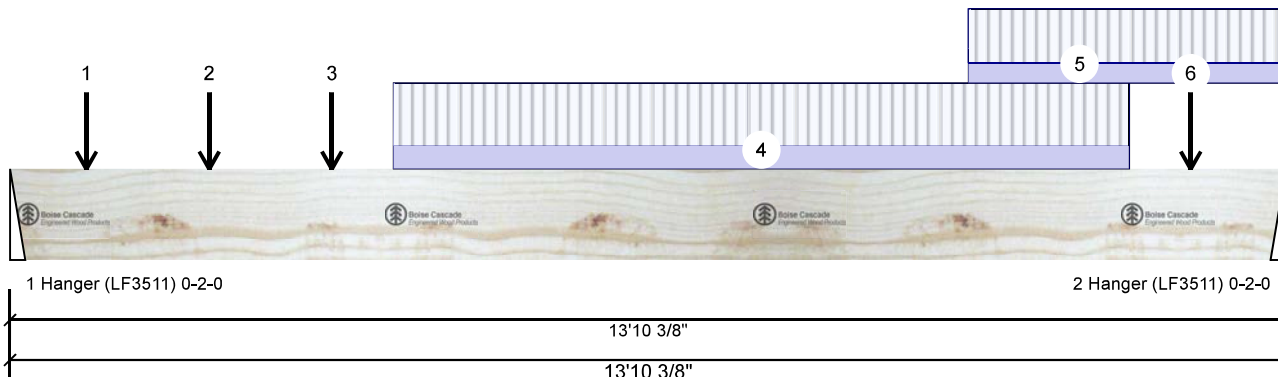
MHP 23033

PER: *C. M...*

CHIEF BUILDING OFFICIAL

F16 Versa-Lam LVL 2.1E 3100 SP

Level Second Floor



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
4	Part. Uniform	4-2-0 to 12-2-0		Far Face	22 PLF	58 PLF	0 PLF	0 PLF	
5	Part. Uniform	10-4-15 to 13-10-6		Top	19 PLF	50 PLF	0 PLF	0 PLF	
6	Point	12-10-0		Far Face	27 lb	73 lb	0 lb	0 lb	J1
	Self Weight				12 PLF				



JULY 18, 2023

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**chemicals****Handling & Installation**

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Client: GREENPARK

Date: 7/17/2023

Page 42 of 44

Project:

Input by: W C

Address:

Job Name: VILLA 1-3 STD

ASSOCIATION OF OSHAWA  
ZADORRA ESTATES  
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NOV 21 2023

Project #:

F21 Versa-Lam LVL 2.1E 3100 SP

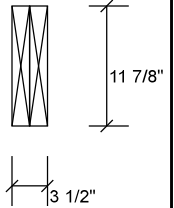
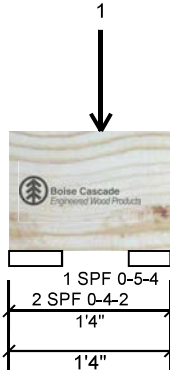
1.750" X 11.875"

2-Fly

Level Second Floor

MHP 23033

PER: *C. M...*  
CHIEF BUILDING OFFICIAL



## Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2015 OBC 2012(2020 Update)
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

## Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	66	33	0	0
2	Vertical	86	40	0	0

## Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.250"	Vert	1%	41 / 98	140	L	1.25D+1.5L
2 - SPF	4.125"	Vert	2%	50 / 130	179	L	1.25D+1.5L

## Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	50 ft-lb	9 1/16"	35392 ft-lb	0.001 (0%)	1.25D+1.5L	L
Unbraced	50 ft-lb	9 1/16"	35392 ft-lb	0.001 (0%)	1.25D+1.5L	L
Shear	174 lb	-(0)	13217 lb	0.013 (1%)	1.25D+1.5L	L
Perm Defl in. (L/2463789)	0.000	9 1/8"	0.022 (L/360)	0.000 (0%)	D	Uniform
LL Defl inch (L/992353)	0.000	9 1/8"	0.022 (L/360)	0.000 (0%)	L	L
TL Defl inch (L/707421)	0.000	9 1/8"	0.034 (L/240)	0.000 (0%)	D+L	L

## Design Notes

- Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- Girders are designed to be supported on the bottom edge only.
- Multiple plies must be fastened together as per manufacturer's details.
- Top must be continuously laterally braced.
- Bottom must have sheathing attached or be continuously braced.
- Lateral slenderness ratio based on full section width.



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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Point	0-9-2		Far Face	57 lb	152 lb	0 lb	0 lb	J4
	Self Weight				12 PLF				

## Notes

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## Lumber

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

chemicals

## Handling &amp; Installation

- LVL beams must not be cut or drilled
- Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
- Damaged Beams must not be used
- Design assumes top edge is laterally restrained
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- For flat roofs provide proper drainage to prevent ponding

## Manufacturer Info

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This design is valid until 4/17/2026



Client: GREENPARK

Date: 7/17/2023

Project:

Input by: W C

Address:

Job Name: VILLA 1-3 STD

Project #:

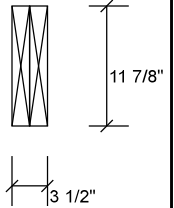
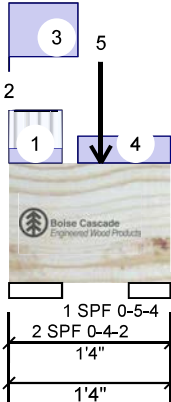
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F21-A Versa-Lam LVL 2.1E 3100 SP

1.750" X 11.875" 2-Ply -

Level Second Floor

MHP 23033

PER:   
CHIEF BUILDING OFFICIAL

## Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2015 CBC 2012(2020 Update)
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

## Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	90	92	0	0
2	Vertical	86	65	0	0

## Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.250"	Vert	2%	115 / 135	251	L	1.25D+1.5L
2 - SPF	4.125"	Vert	2%	81 / 129	210	L	1.25D+1.5L

## Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	53 ft-lb	9 1/16"	35392 ft-lb	0.002 (0%)	1.25D+1.5L	L
Unbraced	53 ft-lb	9 1/16"	35392 ft-lb	0.002 (0%)	1.25D+1.5L	L
Shear	141 lb	-(0)	13217 lb	0.011 (1%)	1.25D+1.5L	L
Perm Defl in. (L/1964651)	0.000	9 1/8"	0.022 (L/360)	0.000 (0%)	D	Uniform
LL Defl inch (L/996757)	0.000	9 1/8"	0.022 (L/360)	0.000 (0%)	L	L
TL Defl inch (L/661266)	0.000	9 1/8"	0.034 (L/240)	0.000 (0%)	D+L	L

## Design Notes

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-5-4	1-5-3	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 0-0-1		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
3	Part. Uniform	0-0-0 to 0-6-13		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
4	Part. Uniform	0-6-13 to 1-4-0		Top	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight

Continued on page 2...

## Notes

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## Lumber

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2. LVL not to be treated with fire retardant or corrosive

chemicals

## Handling &amp; Installation

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Client: GREENPARK

Date: 7/17/2023

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Project:

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Address:

Job Name: VILLA 1-3 STD

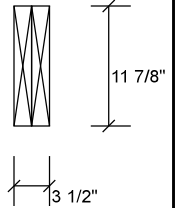
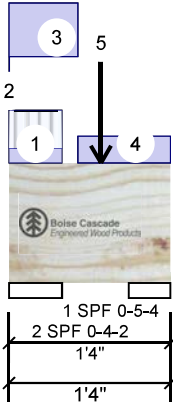
ASSOCIATION OF THE CITY OF OSHAWA  
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Project #:

F21-A Versa-Lam LVL 2.1E 3100 SP

1.750" X 11.875" 2-Ply - PASSED Level Second Floor  
 MHP 23033

PER: *C. Mante*  
 CHIEF BUILDING OFFICIAL



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
5	Point	0-9-2		Near Face	56 lb	151 lb	0 lb	0 lb	J4
	Self Weight				12 PLF				



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