



Client: GREENPARK

Date: 5/23/2023

Page 1 of 33

Project:

Input by: W C

Address: ZADORRA ESTATES

Job Name: CAROL 12-3 STD

OSHAWA ON

Project #:

F1 AJS 140 11.875" - PASSED

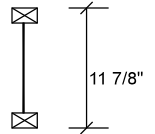
OF PERMIT PLANS

Nov 16 2023

Level: Ground Floor



1 Hanger (LF2511) 0-2-0
2 SPF 0-2-6
1'5 3/8"
1'5 3/8"



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	44	17	0	0
2	Vertical	46	17	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%	21 / 66	87	L	1.25D+1.5L
2 - SPF	2.375"	Vert	5%	22 / 69	91	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	22 ft-lb	8 1/2"	5305 ft-lb	0.004 (0%)	1.25D+1.5L	L
Unbraced	22 ft-lb	8 1/2"	5305 ft-lb	0.004 (0%)	1.25D+1.5L	L
Shear	74 lb	1 1/4"	2350 lb	0.032 (3%)	1.25D+1.5L	L
Perm Defl in. (L/220659)	0.000	8 1/2"	0.040 (L/360)	0.002 (0%)	D	Uniform
LL Defl inch (L/82747)	0.000	8 1/2"	0.040 (L/360)	0.004 (0%)	L	L
TL Defl inch (L/60180)	0.000	8 1/2"	0.060 (L/240)	0.004 (0%)	D+L	L



JULY 24, 2023

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: SPF, Thickness: 2 1/2"
- 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.
- If sheathing is not attached to the bottom flange, bottom flange must be laterally braced at maximum 2' o.c.

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-5-6	1-6-12	Top	15 PSF	40 PSF	0 PSF	0 PSF	

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
- Ljoist not to be treated with fire retardant or corrosive chemicals

chemicals

Handling & Installation

- Ljoist flanges must not be cut or drilled
- Refer to latest copy of the Ljoist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details
- Damaged Ljoists 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: 5/23/2023

Page 2 of 33

Project:

Input by: W C

Address: ZADORRA ESTATES

Job Name: CAROL 12-3 STD

OSHAWA ON

Project #:

CORPORATION OF THE CITY OF OSHAWA

TRUE COPY

F13 AJS 140 11.875" - PASSED

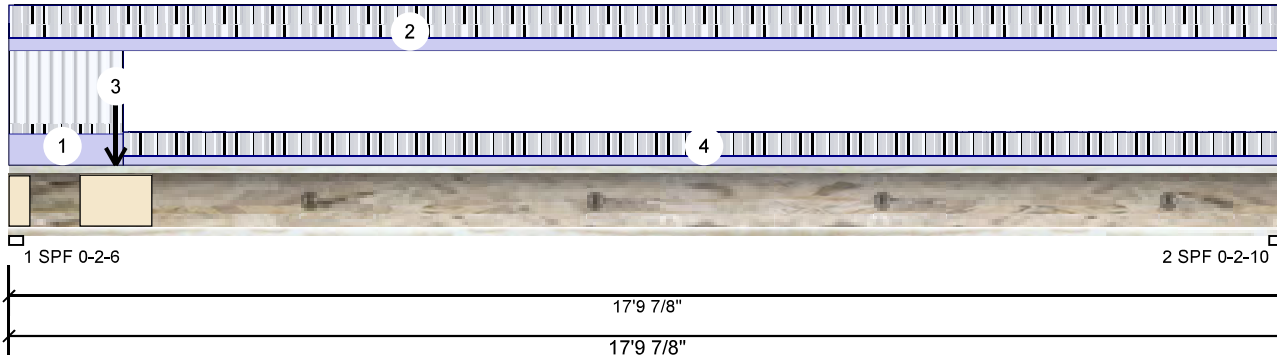
OF PERMIT PLANS

Nov 16 2023

Level: Ground Floor

PER:

CHIEF BUILDING OFFICIAL



11 7/8"

2 1/2"

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	885	332	0	0
2	Vertical	447	168	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	Vert	76%	416 / 1326	1742	L	1.25D+1.5L
2 - SPF	2.625"	Vert	51%	210 / 671	881	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4144 ft-lb	8'1 1/4"	5305 ft-lb	0.781 (78%)	1.25D+1.5L	L
Unbraced	4144 ft-lb	8'1 1/4"	5305 ft-lb	0.781 (78%)	1.25D+1.5L	L
Shear	1717 lb	1 5/8"	2350 lb	0.731 (73%)	1.25D+1.5L	L
Perm Defl in.	0.155 (L/1356)	8'7 13/16"	0.584 (L/360)	0.266 (27%)	D	Uniform
LL Defl inch	0.413 (L/509)	8'7 13/16"	0.584 (L/360)	0.707 (71%)	L	
TL Defl inch	0.569 (L/370)	8'7 13/16"	0.877 (L/240)	0.649 (65%)	D+L	L



JULY 24, 2023

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 If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
- 4 Bottom flange must be laterally braced at a maximum of 16'4" o.c.
- 5 Web stiffeners required at Bearing 1.

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-7-3	1-8-2	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 17-9-14	0-8-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-5-15		Far Face	164 lb	435 lb	0 lb	0 lb	F2
4	Tie-In	1-7-3 to 17-9-14	0-5-13	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

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

chemicals

Handling & Installation

1. Joist flanges must not be cut or drilled
2. 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
3. Damaged Joists must not be used
4. Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

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

This design is valid until 4/17/2026

Manufacturer Info

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Client: GREENPARK

Date: 5/23/2023

Page 3 of 33

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OSHAWA ON
CORPORATION OF THE CITY OF OSHAWA
TRUE COPY

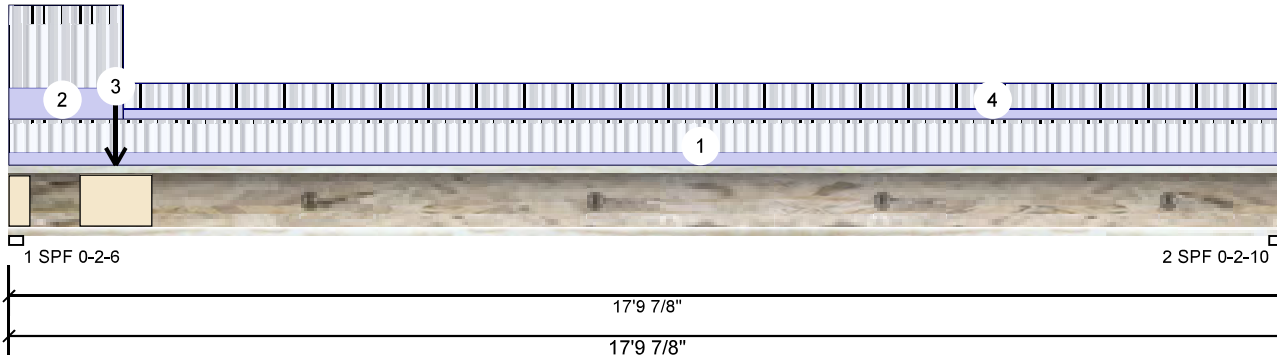
Job Name: CAROL 12-3 STD

Project #:

F13-A AJS 140 11.875" - PASSED

OF PERMIT PLANS
Nov 16 2023

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 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	888	334	0	0
2	Vertical	467	175	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	Vert	77%	417 / 1333	1750	L	1.25D+1.5L
2 - SPF	2.625"	Vert	53%	219 / 700	919	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4291 ft-lb	8'2 1/16"	5305 ft-lb	0.809 (81%)	1.25D+1.5L	L
Unbraced	4291 ft-lb	8'2 1/16"	5305 ft-lb	0.809 (81%)	1.25D+1.5L	L
Shear	1725 lb	1 5/8"	2350 lb	0.734 (73%)	1.25D+1.5L	L
Perm Defl in.	0.161 (L/1311)	8'8 1/16"	0.584 (L/360)	0.275 (27%)	D	Uniform
LL Defl inch	0.428 (L/492)	8'8 1/16"	0.584 (L/360)	0.732 (73%)	L	
TL Defl inch	0.588 (L/358)	8'8 1/16"	0.877 (L/240)	0.671 (67%)	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 If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
- 4 Bottom flange must be laterally braced at a maximum of 16'4" o.c.
- 5 Web stiffeners required at Bearing 1.



JULY 24, 2023

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 17-9-14	0-8-3	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 1-7-3	1-8-2	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-5-15		Near Face	158 lb	420 lb	0 lb	0 lb	F2
4	Tie-In	1-7-3 to 17-9-14	0-6-5	Top	15 PSF	40 PSF	0 PSF	0 PSF	

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. Joist not to be treated with fire retardant or corrosive chemicals

chemicals

Handling & Installation

1. Joist flanges must not be cut or drilled
2. 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
3. Damaged Joists must not be used
4. Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

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

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This design is valid until 4/17/2026



Client: GREENPARK

Date: 5/23/2023

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Project:

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Address: ZADORRA ESTATES

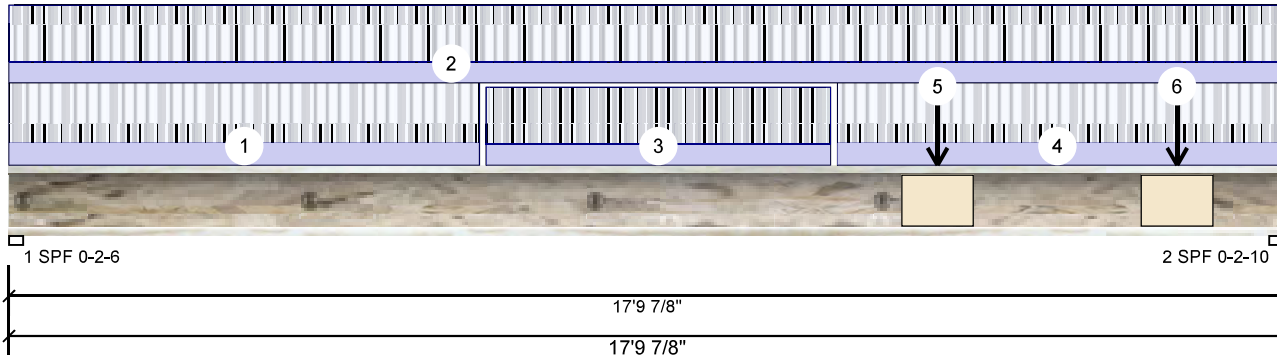
Job Name: CAROL 12-3 STD

OSHAWA ON

Project #:

F13-B AJS 140 11.875" - PASSED

Level: Ground Floor

 PERMIT PLANS
 Nov 16 2023
 PER: *C. Maitre*
 CHIEF BUILDING OFFICIAL


11 7/8"

2 1/2"

Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	1	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	497	186	0	0
2	Vertical	552	206	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	Vert	58%	233 / 746	979	L	1.25D+1.5L
2 - SPF	2.625"	Vert	63%	258 / 828	1086	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4316 ft-lb	9'1 15/16"	5305 ft-lb	0.814 (81%)	1.25D+1.5L	L
Unbraced	4316 ft-lb	9'1 15/16"	5305 ft-lb	0.814 (81%)	1.25D+1.5L	L
Shear	1069 lb	17'8"	2350 lb	0.455 (45%)	1.25D+1.5L	L
Perm Defl in.	0.159 (L/1323)	8'11 11/16"	0.584 (L/360)	0.272 (27%)	D	Uniform
LL Defl inch	0.425 (L/495)	8'11 3/4"	0.584 (L/360)	0.727 (73%)	L	
TL Defl inch	0.584 (L/360)	8'11 3/4"	0.877 (L/240)	0.666 (67%)	D+L	L



JULY 24, 2023

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 If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
- 4 Bottom flange must be laterally braced at a maximum of 12'11 5/8" o.c.

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 6-6-14	0-8-8	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 17-9-14	0-8-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Tie-In	6-8-0 to 11-5-12	0-8-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
4	Tie-In	11-6-14 to 17-9-14	0-8-8	Top	15 PSF	40 PSF	0 PSF	0 PSF	
5	Point	12-11-10		Far Face	15 lb	41 lb	0 lb	0 lb	F1
6	Point	16-3-13		Far Face	15 lb	41 lb	0 lb	0 lb	F1

Notes

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Lumber

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

chemicals

Handling & Installation

1. Joist flanges must not be cut or drilled
2. 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
3. Damaged Joists must not be used
4. Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

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

Manufacturer Info

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Client: GREENPARK

Date: 5/23/2023

Page 5 of 33

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OSHAWA ON

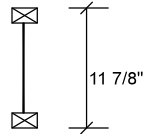
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F1-A AJ5 140 11.875" - PASSED

OF PERMIT PLANS
Nov 16 2023

Level: Ground Floor



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	43	16	0	0
2	Vertical	41	15	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	Vert	5%	20 / 65	85	L	1.25D+1.5L
2 - Hanger	2.000"	Vert	5%	19 / 62	81	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	17 ft-lb	7 3/4"	5305 ft-lb	0.003 (0%)	1.25D+1.5L	L
Unbraced	17 ft-lb	7 3/4"	5305 ft-lb	0.003 (0%)	1.25D+1.5L	L
Shear	67 lb	1 5/8"	2350 lb	0.029 (3%)	1.25D+1.5L	L
Perm Defl in. (L/246418)	0.000	7 13/16"	0.034 (L/360)	0.001 (0%)	D	Uniform
LL Defl inch (L/92407)	0.000	7 13/16"	0.034 (L/360)	0.004 (0%)	L	L
TL Defl inch (L/67205)	0.000	7 13/16"	0.051 (L/240)	0.004 (0%)	D+L	L



JULY 24, 2023

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.
- Right Header: SPF, Thickness: 2 1/2"
- 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.
- If sheathing is not attached to the bottom flange, bottom flange must be laterally braced at maximum 2' o.c.

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-3-3	1-8-1	Top	15 PSF	40 PSF	0 PSF	0 PSF	

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
- Ljoist not to be treated with fire retardant or corrosive chemicals

chemicals

Handling & Installation

- Ljoist flanges must not be cut or drilled
- Refer to latest copy of the Ljoist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details
- Damaged Ljoists 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

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Client: GREENPARK

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Page 6 of 33

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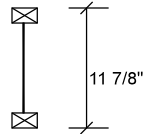
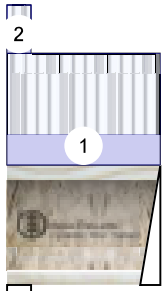
OSHAWA ON

Project #:

F1-B AJS 140 11.875" - PASSED

 CORPORATION OF THE CITY OF OSHAWA
 TRUE COPY
 OF PERMIT PLANS
 Nov 16 2023

Level: Ground Floor



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	49	18	0	0
2	Vertical	41	15	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	Vert	6%	23 / 73	96	L	1.25D+1.5L
2 - Hanger	2.000"	Vert	5%	19 / 62	81	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	17 ft-lb	7 3/4"	5305 ft-lb	0.003 (0%)	1.25D+1.5L	L
Unbraced	17 ft-lb	7 3/4"	5305 ft-lb	0.003 (0%)	1.25D+1.5L	L
Shear	71 lb	1 5/8"	2350 lb	0.030 (3%)	1.25D+1.5L	L
Perm Defl in. (L/245617)	0.000	7 3/4"	0.034 (L/360)	0.001 (0%)	D	Uniform
LL Defl inch (L/92106)	0.000	7 3/4"	0.034 (L/360)	0.004 (0%)	L	L
TL Defl inch (L/66986)	0.000	7 3/4"	0.051 (L/240)	0.004 (0%)	D+L	L



JULY 24, 2023

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.
- Right Header: SPF, Thickness: 2 1/2"
- 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.
- If sheathing is not attached to the bottom flange, bottom flange must be laterally braced at maximum 2' o.c.

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTES: EWP-FLOORS. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA 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 1-3-3	1-8-1	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 0-2-6	0-8-11	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

chemicals

Handling & 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

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: 12787

Kott Inc.

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





Client: GREENPARK

Date: 5/23/2023

Page 7 of 33

Project:

Input by: W C

Address: ZADORRA ESTATES

Job Name: CAROL 12-3 STD

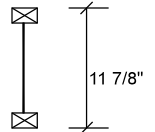
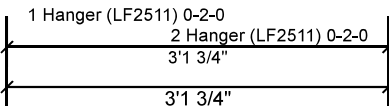
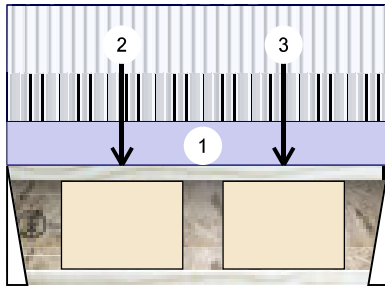
OSHAWA ON

Project #:

F2 AJS 140 11.875" - PASSED

 OF PERMIT PLANS
 Nov 16 2023

Level: Ground Floor



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	420	158	0	0
2	Vertical	435	164	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	Vert	51%	197 / 630	827	L	1.25D+1.5L
2 - Hanger	2.000"	Vert	53%	204 / 653	857	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	672 ft-lb	1'1 3/16"	5305 ft-lb	0.127 (13%)	1.25D+1.5L	L
Unbraced	672 ft-lb	1'1 3/16"	5305 ft-lb	0.127 (13%)	1.25D+1.5L	L
Shear	851 lb	3' 1/2"	2350 lb	0.362 (36%)	1.25D+1.5L	L
Perm Defl in. (L/13938)	0.003	1'5 3/4"	0.098 (L/360)	0.026 (3%)	D	Uniform
LL Defl inch	0.007 (L/5239)	1'5 3/4"	0.098 (L/360)	0.069 (7%)	L	L
TL Defl inch	0.009 (L/3808)	1'5 3/4"	0.147 (L/240)	0.063 (6%)	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: SPF, Thickness: 2 1/2"
- Right Header: SPF, Thickness: 2 1/2"
- 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.
- If sheathing is not attached to the bottom flange, bottom flange must be laterally braced at maximum 2' o.c.



JULY 24, 2023

 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 3-1-12	0-9-4	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-11-6		Far Face	145 lb	386 lb	0 lb	0 lb	J4
3	Point	2-3-6		Far Face	140 lb	372 lb	0 lb	0 lb	J4

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
- Joist not to be treated with fire retardant or corrosive chemicals

chemicals

Handling & 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: 5/23/2023

Page 8 of 33

Project:

Input by: W C

Address: ZADORRA ESTATES

Job Name: CAROL 12-3 STD

OSHAWA ON

Project #:

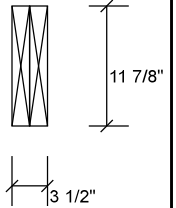
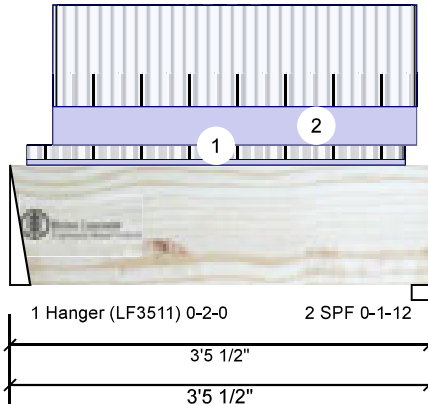
F20 Versa-Lam LVL 2.1E 3100 SP

1.750'

X 11.875' 2-Ply

PASSED

Level: Ground Floor



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	567	234	0	0
2	Vertical	636	259	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	Vert	15%	292 / 850	1143	L	1.25D+1.5L
2 - SPF	1.750"	Vert	34%	324 / 954	1279	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1060 ft-lb	1'9"	35392 ft-lb	0.030 (3%)	1.25D+1.5L	L
Unbraced	1060 ft-lb	1'9"	35392 ft-lb	0.030 (3%)	1.25D+1.5L	L
Shear	1154 lb	1'1 7/8"	13217 lb	0.087 (9%)	1.25D+1.5L	L
Perm Defl in. (L/85633)	0.000	1'8 15/16"	0.109 (L/360)	0.004 (0%)	D	Uniform
LL Defl inch (L/34765)	0.001	1'8 15/16"	0.109 (L/360)	0.010 (1%)	L	L
TL Defl inch (L/24727)	0.002	1'8 15/16"	0.164 (L/240)	0.010 (1%)	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"
- 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.



JULY 24, 2023

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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 & 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



This design is valid until 4/17/2026



Client: GREENPARK

Date: 5/23/2023

Page 9 of 33

Project:

Input by: W C

Address:

ZADORRA ESTATES

Job Name:

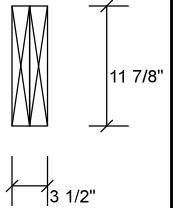
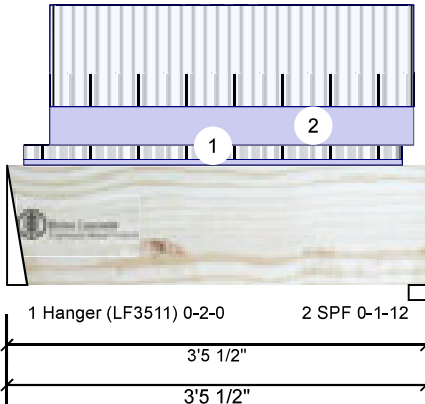
CAROL 12-3 STD

OSHAWA ON

Project #:

F20 Versa-Lam LVL 2.1E 3100 SP 1.750' X 11.875' 2-Ply

Level: Ground Floor



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-1-11 to 3-3-2		Top	19 PLF	50 PLF	0 PLF	0 PLF	
2	Part. Uniform	0-4-4 to 3-4-4		Near Face	131 PLF	349 PLF	0 PLF	0 PLF	
	Self Weight				12 PLF				



JULY 24, 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 & 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

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1111 W. Jefferson St.
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www.bc.com
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3228 Moodie Dr, Ottawa, Ontario
613-838-2775 / 905-642-4400





Client: GREENPARK

Date: 5/23/2023

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Project:

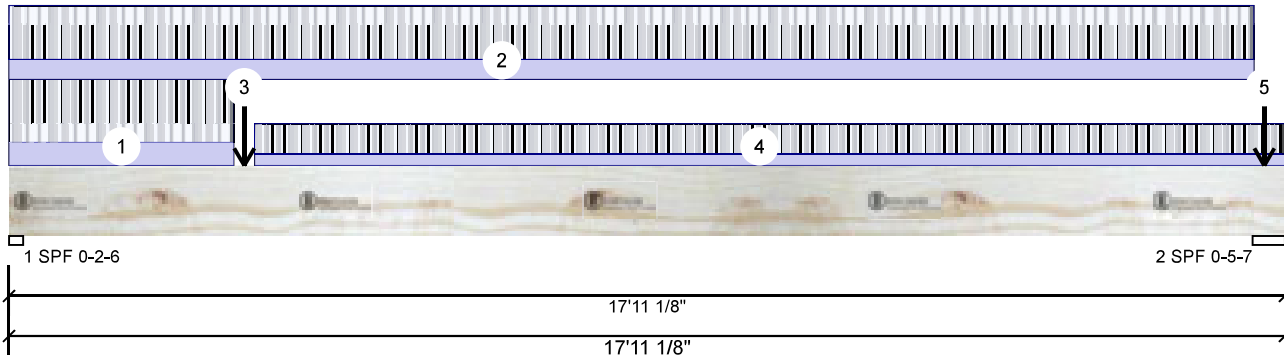
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Address: ZADORRA ESTATES
OSHAWA ON

Job Name: CAROL 12-3 STD

Project #:

F23 Versa-Lam LVL 2.1E 3100 SP 1.750' X 11.875' 2-Ply - PASSED Level: Ground Floor



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	1148	556	0	0
2	Vertical	816	431	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	Vert	47%	695 / 1722	2416	L	1.25D+1.5L
2 - SPF	5.455"	Vert	15%	538 / 1223	1762	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	7128 ft-lb	3'10 9/16"	35392 ft-lb	0.201 (20%)	1.25D+1.5L	L
Unbraced	7128 ft-lb	3'10 9/16"	35392 ft-lb	0.201 (20%)	1.25D+1.5L	L
Shear	2312 lb	1'2 1/4"	13217 lb	0.175 (17%)	1.25D+1.5L	L
Perm Defl in.	0.088 (L/2364)	8'3 5/8"	0.580 (L/360)	0.152 (15%)	D	Uniform
LL Defl inch	0.166 (L/1261)	8'1 5/16"	0.580 (L/360)	0.285 (29%)	L	
TL Defl inch	0.254 (L/823)	8'2 1/8"	0.870 (L/240)	0.292 (29%)	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 loads must be supported equally by all plies.
- 5 Top must be continuously laterally braced.
- 6 Bottom must be laterally braced at a maximum of 14'4" o.c.
- 7 Lateral slenderness ratio based on full section width.



JULY 24, 2023

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTES: EWP-FLOORS. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA 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 3-1-15	0-7-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 17-5-14	0-6-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	3-3-11		Far Face	410 lb	1026 lb	0 lb	0 lb	F7
4	Tie-In	3-5-7 to 17-11-2	0-3-6	Top	15 PSF	40 PSF	0 PSF	0 PSF	
5	Point	17-7-10		Near Face	144 lb	350 lb	0 lb	0 lb	F20
	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 & 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
- 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

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613-838-2775 / 905-642-4400





Client: GREENPARK

Date: 5/23/2023

Page 11 of 33

Project:

Input by: W C

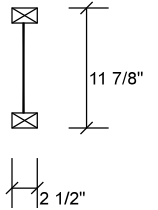
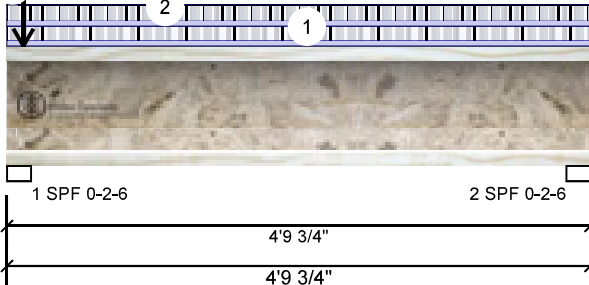
Address: ZADORRA ESTATES
OSHAWA ON

Job Name: CAROL 12-3 STD

Project #:

F3 AJS 140 11.875" - PASSEDCORPORATION OF THE CITY OF OSHAWA
TRUE COPY
OF PERMIT PLANS
Nov 16 2023

Level: Ground Floor

11
6**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	171	361	25	0
2	Vertical	124	47	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	Vert	48%	451 / 208	659	L	1.25D+1.5S +L
2 - SPF	2.375"	Vert	16%	59 / 186	245	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	264 ft-lb	2'4 3/4"	4934 ft-lb	0.054 (5%)	1.25D+1.5L	L
Unbraced	264 ft-lb	2'4 3/4"	4934 ft-lb	0.054 (5%)	1.25D+1.5L	L
Shear	269 lb	1 5/8"	2186 lb	0.123 (12%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/39826)	2'4 9/16"	0.151 (L/360)	0.009 (1%)	D	Uniform
LL Defl inch	0.004 (L/15460)	2'4 7/8"	0.151 (L/360)	0.023 (2%)	L+0.5S	L
TL Defl inch	0.005 (L/11137)	2'4 13/16"	0.227 (L/240)	0.022 (2%)	D+L+0.5S	L



JULY 24, 2023

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 If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
- 4 Bottom flange must be laterally braced at bearings.

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTES: EWP-FLOORS. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA 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 4-9-12	0-7-7	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 4-9-12	0-8-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	0-0-0 to 0-1-2		Top	20 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
4	Tapered Start	0-0-0		Top	2 PLF	5 PLF	0 PLF	0 PLF	
	End	0-1-2			2 PLF	5 PLF	0 PLF	0 PLF	

Continued on page 2...

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. Joist not to be treated with fire retardant or corrosive

chemicals**Handling & Installation**

1. Joist flanges must not be cut or drilled
2. 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
3. Damaged Joists must not be used
4. Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

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

This design is valid until 4/17/2026

Manufacturer Info

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CCMC: 12787

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Client: GREENPARK

Date: 5/23/2023

Page 12 of 33

Project:

Input by: W C

Address: ZADORRA ESTATES

Job Name: CAROL 12-3 STD

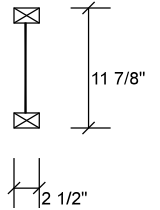
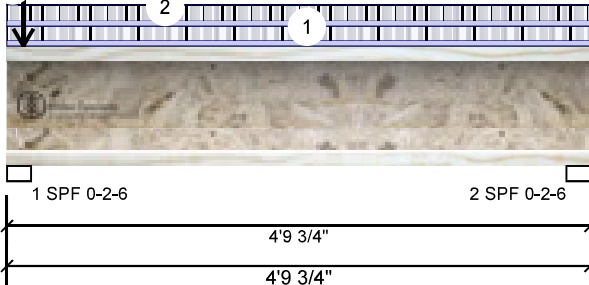
OSHAWA ON

Project #:

F3 AJS 140 11.875" - PASSED

 CORPORATION OF THE CITY OF OSHAWA
 TRUE COPY
 OF PERMIT PLANS
 Nov 16 2023

Level: Ground Floor

 11
 7
 6


...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
5	Part. Uniform	0-0-0 to 0-1-2		Top	1 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
6	Part. Uniform	0-0-0 to 0-1-2		Top	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
7	Part. Uniform	0-0-0 to 0-4-6		Top	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
8	Tapered Start	0-0-0		Top	4 PLF	10 PLF	0 PLF	0 PLF	
	End	0-4-6			4 PLF	10 PLF	0 PLF	0 PLF	
9	Part. Uniform	0-0-0 to 0-4-6		Top	2 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
10	Part. Uniform	0-0-0 to 0-4-6		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
11	Point	0-1-10		Top	263 lb	43 lb	25 lb	0 lb	B4
	Bearing Length	0-1-8							



JULY 24, 2023

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

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. Joist not to be treated with fire retardant or corrosive chemicals

chemicals

Handling & Installation

1. Joist flanges must not be cut or drilled
2. 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
3. Damaged Joists must not be used
4. Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. Web stiffeners for point load as shown Minimum point load bearing length >= 3.5 inches
7. For flat roofs provide 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: 12787

Kott Inc.

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




Client: GREENPARK

Date: 5/23/2023

Page 13 of 33

Project:

Input by: W C

Address: ZADORRA ESTATES

Job Name: CAROL 12-3 STD

OSHAWA ON

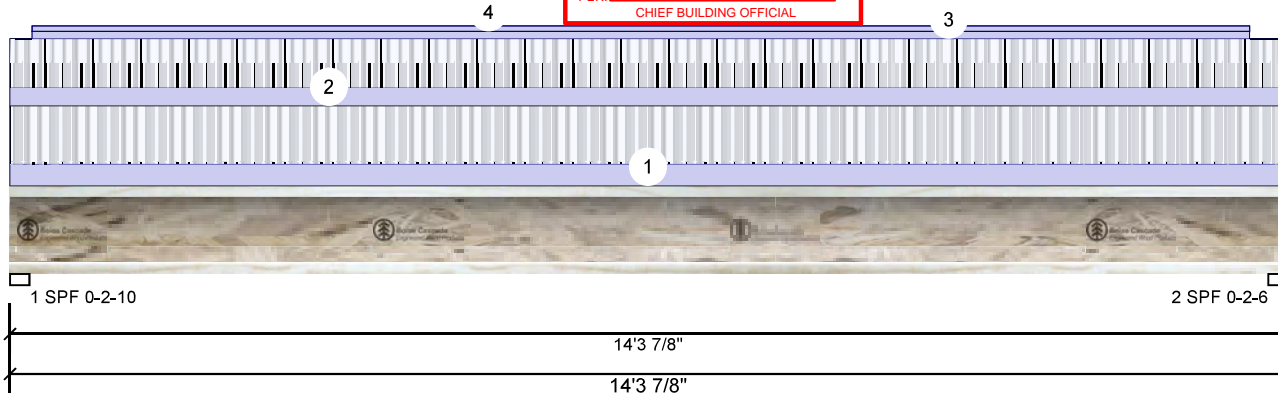
Project #:

F5 AJS 140 11.875" - PASSED

TRUE COPY
OF PERMIT PLANS
Nov 16 2023

Level: Ground Floor

PER: *Chait*
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	418	205	0	0
2	Vertical	417	204	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.625"	Vert	51%	257 / 627	884	L	1.25D+1.5L
2 - SPF	2.375"	Vert	52%	255 / 625	880	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3042 ft-lb	7'2 1/16"	5305 ft-lb	0.573 (57%)	1.25D+1.5L	L
Unbraced	3042 ft-lb	7'2 1/16"	5305 ft-lb	0.573 (57%)	1.25D+1.5L	L
Shear	866 lb	1 7/8"	2350 lb	0.369 (37%)	1.25D+1.5L	L
Perm Defl in.	0.091 (L/1845)	7'2 1/16"	0.468 (L/360)	0.195 (20%)	D	Uniform
LL Defl inch	0.184 (L/913)	7'2 1/16"	0.468 (L/360)	0.394 (39%)	L	
TL Defl inch	0.276 (L/611)	7'2 1/16"	0.702 (L/240)	0.393 (39%)	D+L	L



JULY 24, 2023

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 If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
- 4 Bottom flange 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 14-3-14	0-9-8	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 14-3-14	0-8-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	0-3-0 to 13-10-15		Top	4 PLF	0 PLF	0 PLF	0 PLF	
4	Part. Uniform	0-3-0 to 13-10-15		Top	3 PLF	0 PLF	0 PLF	0 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. Joist not to be treated with fire retardant or corrosive chemicals

chemicals

Handling & Installation

1. Joist flanges must not be cut or drilled
2. 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
3. Damaged Joists must not be used
4. Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. Web stiffeners for point load as shown Minimum point load bearing length >= 3.5 inches
7. For flat roofs provide 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: 5/23/2023

Page 14 of 33

Project:

Input by: W C

Address: ZADORRA ESTATES
OSHAWA ON


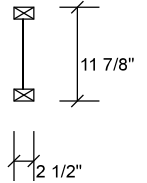
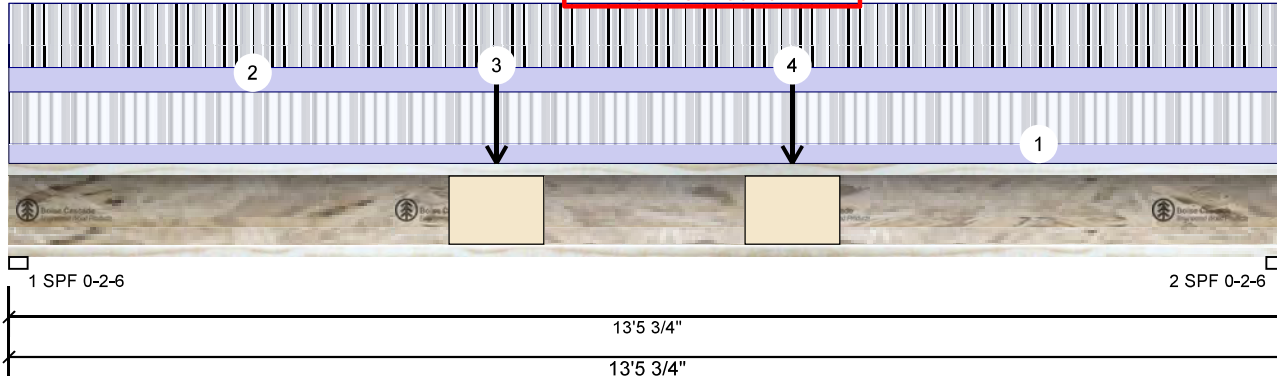
Job Name: CAROL 12-3 STD

Project #:

F6 AJS 140 11.875" - PASSED

OF PERMIT PLANS
Nov 16 2023

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 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	433	163	0	0
2	Vertical	433	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	51%	204 / 650	854	L	1.25D+1.5L
2 - SPF	2.375"	Vert	51%	204 / 649	853	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2918 ft-lb	6'8 7/8"	5305 ft-lb	0.550 (55%)	1.25D+1.5L	L
Unbraced	2918 ft-lb	6'8 7/8"	5305 ft-lb	0.550 (55%)	1.25D+1.5L	L
Shear	838 lb	1 5/8"	2350 lb	0.357 (36%)	1.25D+1.5L	L
Perm Defl in.	0.064 (L/2471)	6'8 7/8"	0.440 (L/360)	0.146 (15%)	D	Uniform
LL Defl inch	0.170 (L/931)	6'8 7/8"	0.440 (L/360)	0.387 (39%)	L	
TL Defl inch	0.234 (L/676)	6'8 7/8"	0.660 (L/240)	0.355 (35%)	D+L	L



JULY 24, 2023

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 If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
- 4 Bottom flange must be laterally braced at a maximum of 5'2 7/16" o.c.

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTES: EWP-FLOORS. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA 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 13-5-12	0-7-12	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 13-5-12	0-9-9	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	5-1-13		Near Face	17 lb	44 lb	0 lb	0 lb	F1
4	Point	8-3-5		Near Face	17 lb	44 lb	0 lb	0 lb	F1

Notes

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Lumber

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

Handling & Installation

1. Joist flanges must not be cut or drilled
2. 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
3. Damaged Joists must not be used
4. Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. Web stiffeners for point load as shown Minimum point load bearing length >= 3.5 inches
7. For flat roofs provide 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: 5/23/2023

Page 15 of 33

Project:

Input by: W C

Address:

ZADORRA ESTATES

Job Name:

CAROL 12-3 STD

OSHAWA ON

Project #:

CORPORATION OF THE CITY OF OSHAWA

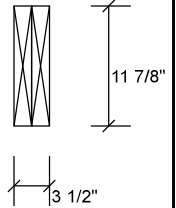
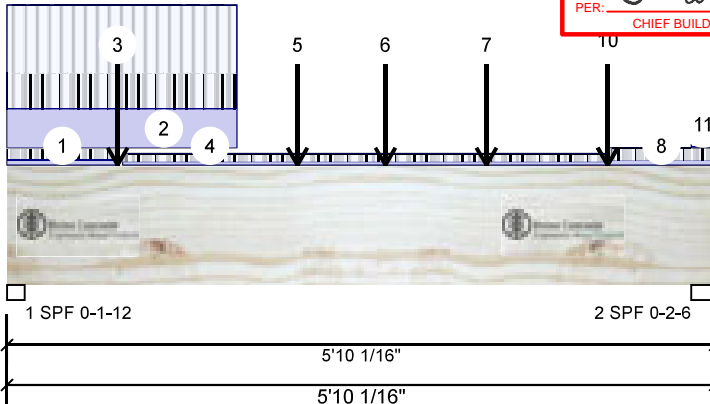
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Nov 16 2023

PER: [Signature]

CHIEF BUILDING OFFICIAL

F7 Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply PASSED Level: Ground Floor



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	1158	467	0	0
2	Vertical	1014	415	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	1.750"	Vert	62%	584 / 1737	2320	L	1.25D+1.5L
2 - SPF	2.375"	Vert	40%	518 / 1521	2039	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3031 ft-lb	3'1 7/16"	35392 ft-lb	0.086 (9%)	1.25D+1.5L	L
Unbraced	3031 ft-lb	3'1 7/16"	35392 ft-lb	0.086 (9%)	1.25D+1.5L	L
Shear	2662 lb	4'7 13/16"	13217 lb	0.201 (20%)	1.25D+1.5L	L
Perm Defl in.	0.004 (L/18923)	2'10 5/8"	0.187 (L/360)	0.019 (2%)	D	Uniform
LL Defl inch	0.009 (L/7665)	2'10 5/8"	0.187 (L/360)	0.047 (5%)	L	L
TL Defl inch	0.012 (L/5455)	2'10 5/8"	0.281 (L/240)	0.044 (4%)	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.



JULY 24, 2023

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTES: EWP-FLOORS. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA 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 0-10-15	1-1-5	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 1-10-12		Near Face	138 PLF	369 PLF	0 PLF	0 PLF	
3	Point	0-10-15		Far Face	15 lb	41 lb	0 lb	0 lb	J6
4	Part. Uniform	0-11-7 to 4-11-7		Far Face	11 PLF	30 PLF	0 PLF	0 PLF	
5	Point	2-4-12		Near Face	113 lb	301 lb	0 lb	0 lb	J4

Continued on page 2...

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

Handling & Installation

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

- For flat roofs provide proper drainage to prevent ponding

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: 5/23/2023

Page 16 of 33

Project:

Input by: W C

Address:

ZADORRA ESTATES

Job Name:

CAROL 12-3 STD

OSHAWA ON

Project #:

CORPORATION OF THE CITY OF OSHAWA

TRUE COPY

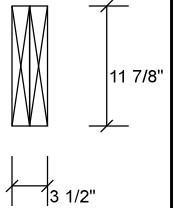
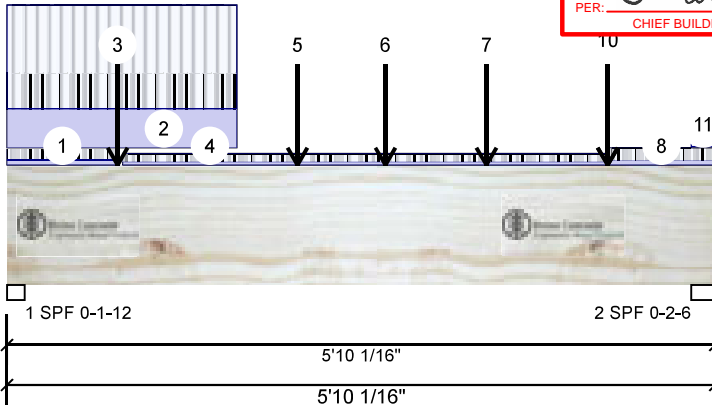
Nov 16 2023

PER: *C. Matijevic*

CHIEF BUILDING OFFICIAL

F7 Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply PASSED

Level: Ground Floor



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
6	Point	3-1-7		Near Face	92 lb	245 lb	0 lb	0 lb	J3
7	Point	3-11-7		Near Face	108 lb	288 lb	0 lb	0 lb	J3
8	Tie-In	4-11-7 to 5-10-1	1-1-5	Top	15 PSF	40 PSF	0 PSF	0 PSF	
9	Point	4-11-7		Far Face	14 lb	39 lb	0 lb	0 lb	J6
10	Point	4-11-7		Near Face	134 lb	356 lb	0 lb	0 lb	J3
11	Tie-In	5-7-11 to 5-10-1	0-4-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				12 PLF				



JULY 24, 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 & 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: 5/23/2023

Page 17 of 33

Project:

Input by: W C

Address: ZADORRA ESTATES

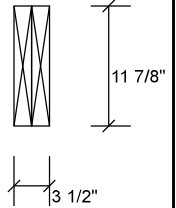
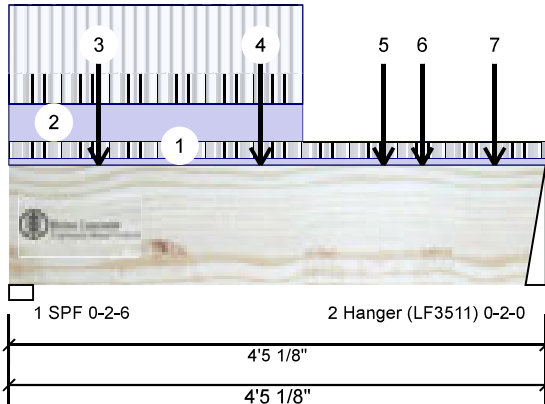
Job Name: CAROL 12-3 STD

OSHAWA ON

Project #:

F7-A Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply PASSED

Level: Ground Floor



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	1106	441	0	0
2	Vertical	1026	410	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	Vert	43%	551 / 1659	2210	L	1.25D+1.5L
2 - Hanger	2.000"	Vert	27%	513 / 1538	2051	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2154 ft-lb	2'1 3/16"	35392 ft-lb	0.061 (6%)	1.25D+1.5L	L
Unbraced	2154 ft-lb	2'1 3/16"	35392 ft-lb	0.061 (6%)	1.25D+1.5L	L
Shear	2656 lb	3'3 1/4"	13217 lb	0.201 (20%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/34926)	2'2 5/8"	0.140 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.004 (L/13929)	2'2 5/8"	0.140 (L/360)	0.026 (3%)	L	L
TL Defl inch	0.005 (L/9958)	2'2 5/8"	0.209 (L/240)	0.024 (2%)	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 Right 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 have sheathing attached or be continuously braced.
- 9 Lateral slenderness ratio based on full section width.



JULY 24, 2023

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

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 & 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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Boise, ID 83702
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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: 5/23/2023

Page 18 of 33

Project:

Input by: W C

Address: ZADORRA ESTATES

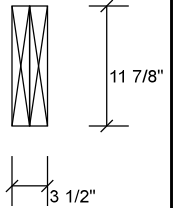
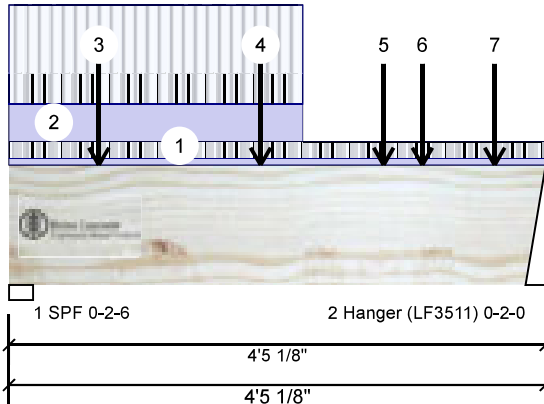
Job Name: CAROL 12-3 STD

OSHAWA ON

Project #:

F7-A Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply PASSED

Level: Ground Floor



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 4-5-2	1-8-2	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 2-5-1		Far Face	146 PLF	390 PLF	0 PLF	0 PLF	
3	Point	0-8-14		Near Face	25 lb	66 lb	0 lb	0 lb	J6
4	Point	2-0-14		Near Face	31 lb	83 lb	0 lb	0 lb	J6
5	Point	3-1-1		Far Face	150 lb	399 lb	0 lb	0 lb	J4
6	Point	3-4-14		Near Face	29 lb	78 lb	0 lb	0 lb	J6
7	Point	4-0-1		Far Face	99 lb	264 lb	0 lb	0 lb	J4
	Self Weight				12 PLF				



JULY 24, 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 & 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: 5/23/2023

Page 19 of 33

Project:

Input by: W C

Address: ZADORRA ESTATES

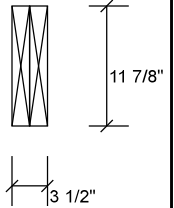
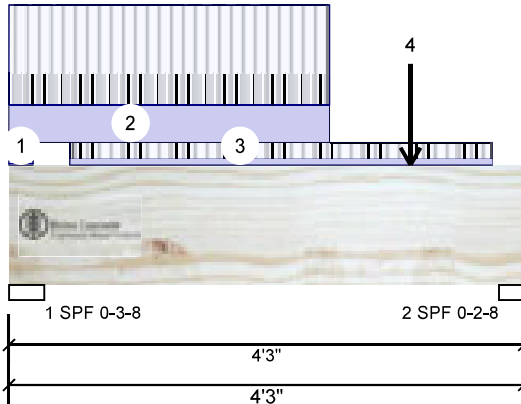
Job Name: CAROL 12-3 STD

OSHAWA ON

Project #:

F7-E Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply PASSED

Level: Ground Floor



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	742	304	0	0
2	Vertical	635	263	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	20%	380 / 1113	1493	L	1.25D+1.5L
2 - SPF	2.500"	Vert	24%	328 / 952	1280	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1323 ft-lb	2'1 15/16"	35392 ft-lb	0.037 (4%)	1.25D+1.5L	L
Unbraced	1323 ft-lb	2'1 15/16"	35392 ft-lb	0.037 (4%)	1.25D+1.5L	L
Shear	1777 lb	3' 5/8"	13217 lb	0.134 (13%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/59116)	2'2 1/8"	0.129 (L/360)	0.006 (1%)	D	Uniform
LL Defl inch	0.002 (L/24166)	2'2 1/8"	0.129 (L/360)	0.015 (1%)	L	L
TL Defl inch	0.003 (L/17154)	2'2 1/8"	0.194 (L/240)	0.014 (1%)	D+L	L



JULY 24, 2023

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	Tie-In	0-0-0 to 0-2-6	0-4-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 2-7-12		Near Face	114 PLF	304 PLF	0 PLF	0 PLF	
3	Part. Uniform	0-6-0 to 3-11-14		Top	19 PLF	50 PLF	0 PLF	0 PLF	
4	Point	3-3-12		Near Face	148 lb	396 lb	0 lb	0 lb	J3
	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 & 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



This design is valid until 4/17/2026



Client: GREENPARK

Date: 7/21/2023

Page 1 of 2

Project:

Input by: W C

Address: ZADORRA ESTATES

Job Name: CAROL 12-3 DC

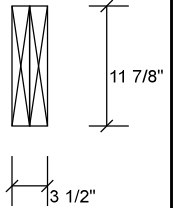
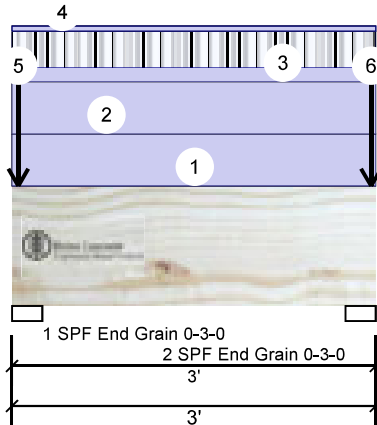
OSHAWA ON

Project #:

FH6 Versa-Lam LVL 2.1E 3100 SP

1.750' X 11.875' 2-Ply - PASSED

Level: Ground Floor



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	121	494	341	0
2	Vertical	72	448	257	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	12%	618 / 633	1250	L	1.25D+1.5S +L
2 - SPF End Grain	3.000"	Vert	10%	560 / 458	1018	L	1.25D+1.5S +L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	151 ft-lb	1'6"	23359 ft-lb	0.006 (1%)	1.25D+1.5L	L
Unbraced	151 ft-lb	1'6"	23359 ft-lb	0.006 (1%)	1.25D+1.5L	L
Shear	170 lb	1'2 7/8"	8723 lb	0.019 (2%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/232359)	1'6"	0.088 (L/360)	0.002 (0%)	D	Uniform
LL Defl inch	0.000 (L/886563)	1'6"	0.088 (L/360)	0.000 (0%)	L+0.5S	L
TL Defl inch	0.000 (L/184106)	1'6"	0.131 (L/240)	0.001 (0%)	D+L+0.5S	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 loads must be supported equally by all plies.
- 5 Top must be continuously laterally braced.
- 6 Bottom must have sheathing attached or be continuously braced.
- 7 Lateral slenderness ratio based on full section width.



JULY 24, 2023

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 3-0-0		Top	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
2	Part. Uniform	0-0-0 to 3-0-0		Near Face	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
3	Tapered Start	0-0-0		Near Face	11 PLF	28 PLF	0 PLF	0 PLF	
	End	3-0-0			11 PLF	28 PLF	0 PLF	0 PLF	

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 & 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: 7/21/2023

Page 2 of 2

Project:

Input by: W C

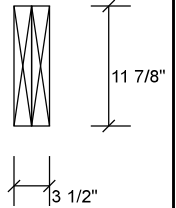
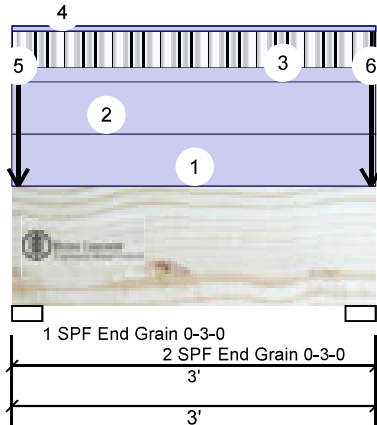
Address: ZADORRA ESTATES

Job Name: CAROL 12-3 DC

OSHAWA ON

Project #:

FH6 Versa-Lam LVL 2.1E 3100 SP 1.750' X 11.875' 2-Ply - PASSED Level: Ground Floor



...Continued from page 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	4 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
5	Point	0-0-10		Top	334 lb	79 lb	341 lb	0 lb	Header Column Header Column F1
	Bearing Length	0-3-8							
6	Point	2-11-9		Top	288 lb	30 lb	257 lb	0 lb	Header Column Header Column
	Bearing Length	0-3-8							
	Self Weight				12 PLF				



JULY 24, 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 & Installation**

1. LVL beams must not be cut or drilled
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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

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www.bc.com
CCMC: 12472

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





Client: GREENPARK

Date: 5/23/2023

Page 20 of 33

Project:

Input by: W C

Address: ZADORRA ESTATES

Job Name: CAROL 12-3 STD

OSHAWA ON

Project #:

F10 Versa-Lam LVL 2.1E 3100 SP

1.750" X 11.875"

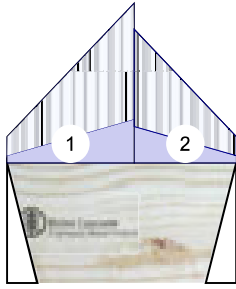
Level: Second Floor

PASSED

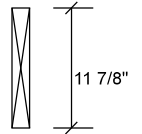
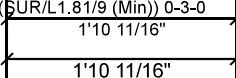
Nov 16 2023

PER:

CHIEF BUILDING OFFICIAL



1 Hanger (SUR/L1.81/9 (Min)) 0-3-0



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	13	10	0	0
2	Vertical	13	10	0	0

Bearings and Factored Reactions

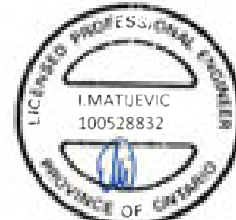
Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	3.000"	Vert	1%	13 / 19	32	L	1.25D+1.5L
2 - Hanger	3.000"	Vert	1%	13 / 19	33	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	12 ft-lb	11 3/8"	17696 ft-lb	0.001 (0%)	1.25D+1.5L	L
Unbraced	12 ft-lb	11 3/8"	17696 ft-lb	0.001 (0%)	1.25D+1.5L	L
Shear	7 lb	1'2 7/8"	6608 lb	0.001 (0%)	0.9D+1.5L	L
Perm Defl in.	0.000 (L/3750263)	11 3/8"	0.051 (L/360)	0.000 (0%)	D	Uniform
LL Defl inch	0.000 (L/2640230)	11 3/8"	0.051 (L/360)	0.000 (0%)	L	L
TL Defl inch	0.000 (L/1549420)	11 3/8"	0.076 (L/240)	0.000 (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 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 Top must be continuously laterally braced.
- 7 Bottom must have sheathing attached or be continuously braced.



JULY 24, 2023

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-0-9	0-1-4 to 0-7-9	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	1-0-9 to 1-10-11	0-6-5 to 0-1-4	Top	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				6 PLF				

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 & 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

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This design is valid until 4/17/2026



Client: GREENPARK

Date: 5/23/2023

Page 21 of 33

Project:

Input by: W C

Address: ZADORRA ESTATES

Job Name: CAROL 12-3 STD

OSHAWA ON

Project #:

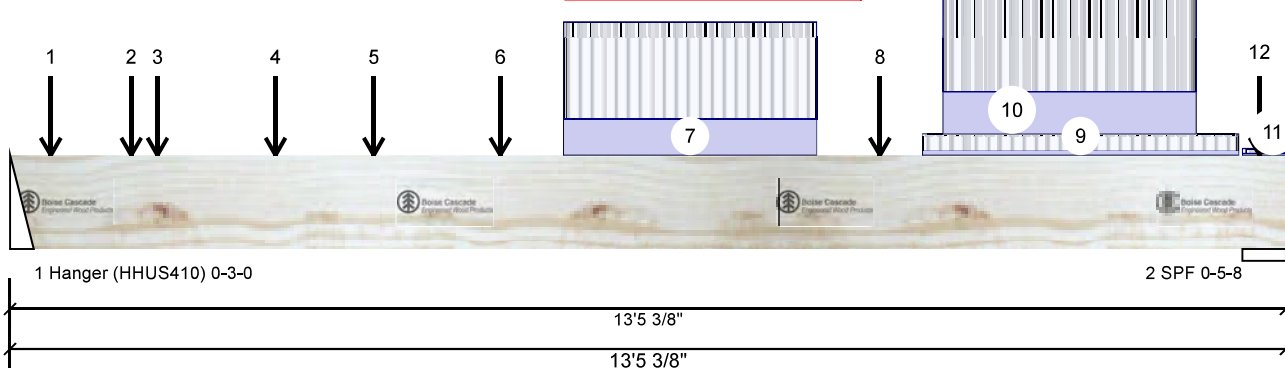
F11 Versa-Lam LVL 2.1E 3100 SP

1.750'

X 11.875' 2-Ply

PASSED

Level: Second Floor



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	2108	880	0	0
2	Vertical	2038	885	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L	lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	3.000"	Vert	37%	1101 / 3162	4262	L		1.25D+1.5L
2 - SPF	5.500"	Vert	35%	1106 / 3056	4163	L		1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	13180 ft-lb	6'6 7/8"	35392 ft-lb	0.372 (37%)	1.25D+1.5L	L
Unbraced	13180 ft-lb	6'6 7/8"	35392 ft-lb	0.372 (37%)	1.25D+1.5L	L
Shear	4525 lb	1'2 7/8"	13217 lb	0.342 (34%)	1.25D+1.5L	L
Perm Defl in.	0.081 (L/1911)	6'7 1/2"	0.429 (L/360)	0.188 (19%)	D	Uniform
LL Defl inch	0.192 (L/804)	6'7 5/16"	0.429 (L/360)	0.448 (45%)	L	
TL Defl inch	0.273 (L/566)	6'7 5/16"	0.643 (L/240)	0.424 (42%)	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 have sheathing attached or be continuously braced.
- 9 Lateral slenderness ratio based on full section width.



JULY 24, 2023

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Point	0-5-2		Near Face	105 lb	281 lb	0 lb	0 lb	J4
2	Point	1-3-5		Far Face	10 lb	13 lb	0 lb	0 lb	F10
3	Point	1-6-10		Near Face	147 lb	391 lb	0 lb	0 lb	J4
4	Point	2-9-9		Near Face	141 lb	377 lb	0 lb	0 lb	J4

Continued on page 2...

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

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

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CCMC: 12472

Kott Inc.

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





Client: GREENPARK

Date: 5/23/2023

Page 22 of 33

Project:

Input by: W C

Address: ZADORRA ESTATES

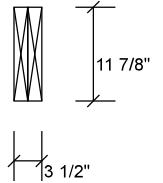
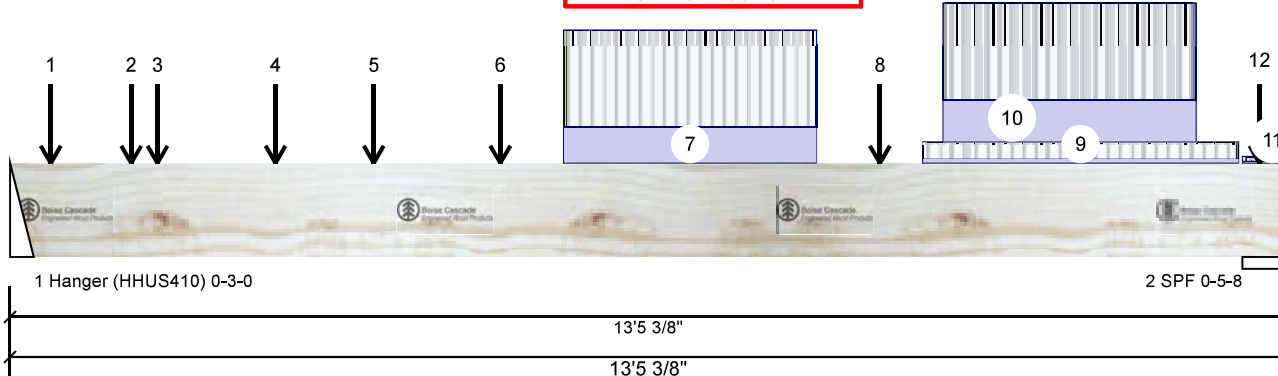
Job Name: CAROL 12-3 STD

OSHAWA ON

Project #:

F11 Versa-Lam LVL 2.1E 3100 SP 1.750' X 11.875' 2-Ply

Level: Second Floor



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
5	Point	3-10-0		Near Face	147 lb	391 lb	0 lb	0 lb	J4
6	Point	5-2-0		Near Face	165 lb	440 lb	0 lb	0 lb	J4
7	Part. Uniform	5-10-0 to 8-6-0		Near Face	111 PLF	297 PLF	0 PLF	0 PLF	
8	Point	9-2-0		Near Face	156 lb	395 lb	0 lb	0 lb	J3
9	Part. Uniform	9-7-6 to 12-11-6		Top	15 PLF	50 PLF	0 PLF	0 PLF	
10	Part. Uniform	9-10-0 to 12-6-0		Near Face	129 PLF	297 PLF	0 PLF	0 PLF	
11	Tie-In	12-11-14 to 13-5-6	0-4-7	Top	15 PSF	40 PSF	0 PSF	0 PSF	
12	Point	13-2-0		Near Face	43 lb	100 lb	0 lb	0 lb	J3
	Self Weight				12 PLF				



JULY 24, 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 & 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: 5/23/2023

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Project:

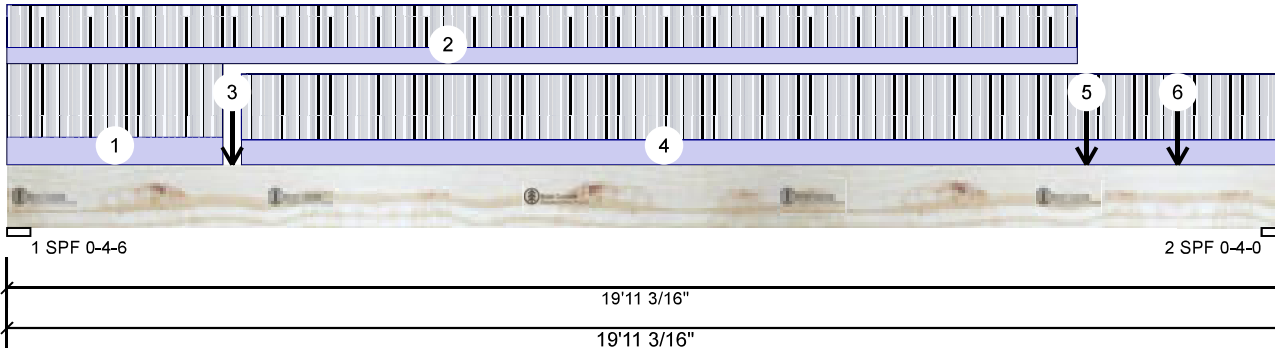
Input by: W C

Address: ZADORRA ESTATES
OSHAWA ON

Job Name: CAROL 12-3 STD

Project #:

F17 Versa-Lam LVL 2.1E 3100 SP 1.750' X 11.875' 2-Ply PASSED Level: Second Floor



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	1343	656	0	0
2	Vertical	2220	1036	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	4.375"	Vert	30%	820 / 2014	2834	L	1.25D+1.5L
2 - SPF	4.000"	Vert	54%	1295 / 3329	4624	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	12884 ft-lb	14'4 1/4"	35392 ft-lb	0.364 (36%)	1.25D+1.5L	L
Unbraced	12884 ft-lb	14'4 1/4"	35392 ft-lb	0.364 (36%)	1.25D+1.5L	L
Shear	4573 lb	18'7 5/16"	13217 lb	0.346 (35%)	1.25D+1.5L	L
Perm Defl in.	0.209 (L/1109)	10'3 15/16"	0.645 (L/360)	0.325 (32%)	D	Uniform
LL Defl inch	0.426 (L/545)	10'4 9/16"	0.645 (L/360)	0.661 (66%)	L	L
TL Defl inch	0.636 (L/365)	10'4 3/8"	0.968 (L/240)	0.657 (66%)	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 loads must be supported equally by all plies.
- 5 Top must be continuously laterally braced.
- 6 Bottom must be laterally braced at a maximum of 13'4 3/16" o.c.
- 7 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 3-4-7	0-5-15	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 16-8-10	0-3-7	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	3-6-3		Far Face	361 lb	895 lb	0 lb	0 lb	F7
4	Tie-In	3-7-15 to 19-11-3	0-5-5	Top	15 PSF	40 PSF	0 PSF	0 PSF	
5	Point	16-10-6		Near Face	880 lb	2108 lb	0 lb	0 lb	F11

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 & 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: 5/23/2023

Page 24 of 33

Project:

Input by: W C

Address: ZADORRA ESTATES

Job Name: CAROL 12-3 STD

OSHAWA ON

Project #:

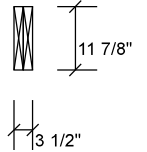
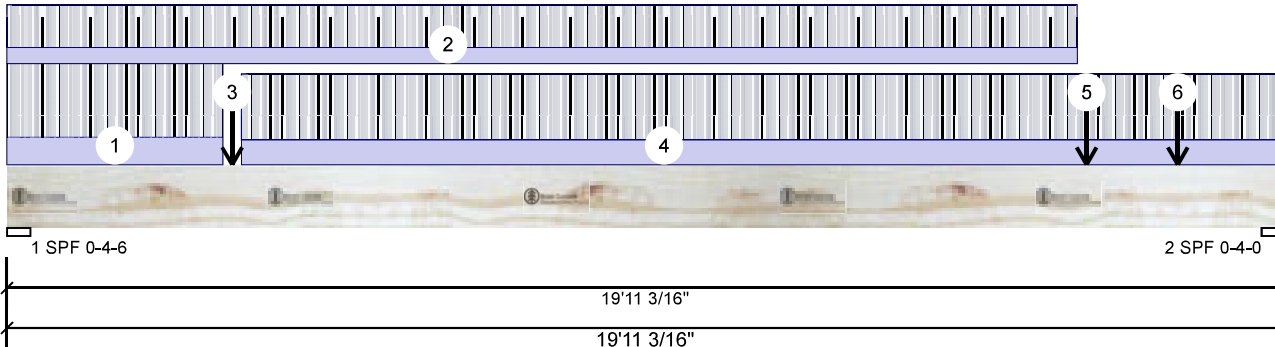
F17 Versa-Lam LVL 2.1E 3100 SP

1.750"

X 11.875" 2-Ply

PASSED

Level: Second Floor



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
6	Point	18-3-7		Near Face	10 lb	13 lb	0 lb	0 lb	F10
	Self Weight				12 PLF				



JULY 24, 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 & 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

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Client: GREENPARK

Date: 5/23/2023

Page 25 of 33

Project:

Input by: W C

Address: ZADORRA ESTATES

Job Name: CAROL 12-3 STD

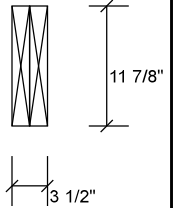
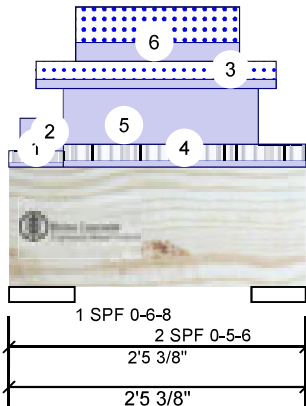
OSHAWA ON

Project #:

F20-A Versa-Lam LVL 2.1E 3100 SP 1.750'

X 11.875' 2-Ply PASSED

Level: Second Floor



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	27	141	64	0
2	Vertical	28	117	57	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	6.500"	Vert	2%	176 / 123	298	L	1.25D+1.5S +L
2 - SPF	5.375"	Vert	3%	146 / 99	244	L	1.25D+1.5L +S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	98 ft-lb	1'3 3/16"	31145 ft-lb	0.003 (0%)	1.25D+1.5S +L	L
Unbraced	98 ft-lb	1'3 3/16"	31145 ft-lb	0.003 (0%)	1.25D+1.5S +L	L
Shear	68 lb	1'6 3/8"	11631 lb	0.006 (1%)	1.25D+1.5S +L	L
Perm Defl in.	0.000 (L/615506)	1'3 3/16"	0.053 (L/360)	0.001 (0%)	D	Uniform
LL Defl inch	0.000 (L/985102)	1'3 3/16"	0.053 (L/360)	0.000 (0%)	S+0.5L	L
TL Defl inch	0.000 (L/378816)	1'3 3/16"	0.079 (L/240)	0.001 (0%)	D+S+0.5L	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 loads must be supported equally by all plies.
- 5 Top must be continuously laterally braced.
- 6 Bottom must be laterally braced at bearings.
- 7 Lateral slenderness ratio based on full section width.



JULY 24, 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 & 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
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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



This design is valid until 4/17/2026



Client: GREENPARK

Date: 5/23/2023

Page 26 of 33

Project:

Input by: W C

Address:

ZADORRA ESTATES

Job Name: CAROL 12-3 STD

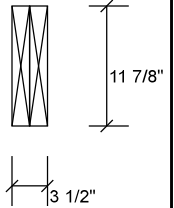
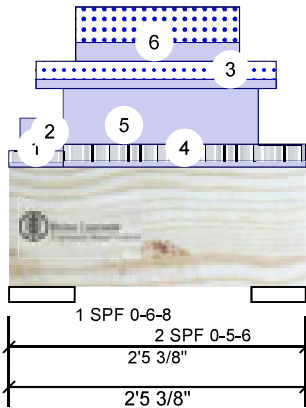
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Project #:

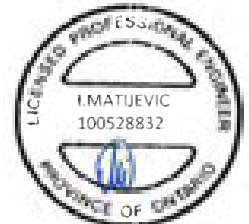
F20-A Versa-Lam LVL 2.1E 3100 SP 1.750'

X 11.875" 2-Ply PASSED

Level: Second Floor



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-5-6	0-5-1	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-1-2 to 0-5-6		Top	47 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
3	Part. Uniform	0-2-11 to 2-2-7		Top	13 PLF	0 PLF	26 PLF	0 PLF	
4	Tie-In	0-5-6 to 2-5-6	0-7-2	Top	15 PSF	40 PSF	0 PSF	0 PSF	
5	Part. Uniform	0-5-6 to 2-0-11		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
6	Part. Uniform	0-6-10 to 1-10-13		Top	27 PLF	0 PLF	51 PLF	0 PLF	
	Self Weight				12 PLF				



JULY 24, 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 & 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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Boise, ID 83702
(800) 232-0788
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CCMC: 12472

Kott Inc.
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Client: GREENPARK

Date: 5/23/2023

Page 27 of 33

Project:

Input by: W C

Address: ZADORRA ESTATES

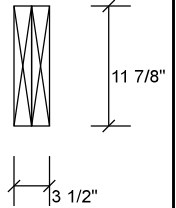
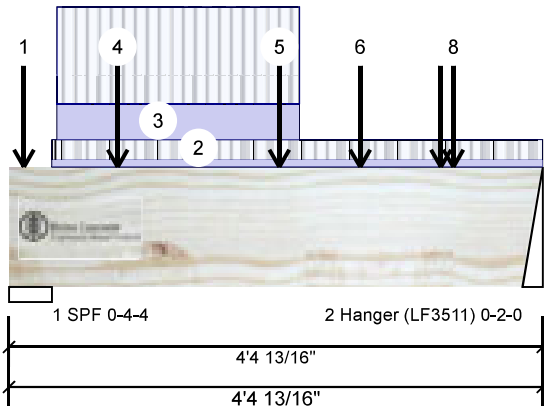
Job Name: CAROL 12-3 STD

OSHAWA ON

Project #:

F7-B Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply

Level: Second Floor



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	913	373	0	0
2	Vertical	895	361	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	4.250"	Vert	20%	467 / 1370	1836	L	1.25D+1.5L
2 - Hanger	2.000"	Vert	23%	451 / 1343	1794	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1927 ft-lb	2'2 3/4"	35392 ft-lb	0.054 (5%)	1.25D+1.5L	L
Unbraced	1927 ft-lb	2'2 3/4"	35392 ft-lb	0.054 (5%)	1.25D+1.5L	L
Shear	2236 lb	3'2 15/16"	13217 lb	0.169 (17%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/40560)	2'3 9/16"	0.134 (L/360)	0.009 (1%)	D	Uniform
LL Defl inch	0.003 (L/16187)	2'3 9/16"	0.134 (L/360)	0.022 (2%)	L	L
TL Defl inch	0.004 (L/11570)	2'3 9/16"	0.200 (L/240)	0.021 (2%)	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 Right 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 have sheathing attached or be continuously braced.
- 9 Lateral slenderness ratio based on full section width.



JULY 24, 2023

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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 & 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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www.bc.com
CCMC: 12472

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



This design is valid until 4/17/2026



Client: GREENPARK

Date: 5/23/2023

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Project:

Input by: W C

Address: ZADORRA ESTATES

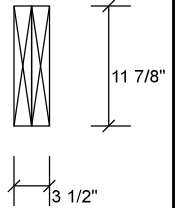
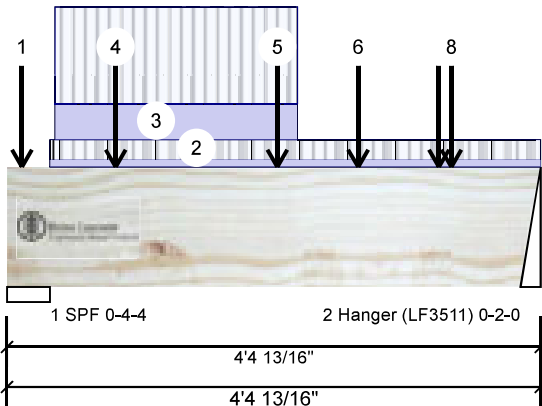
Job Name: CAROL 12-3 STD

OSHAWA ON

Project #:

F7-B Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply

Level: Second Floor



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Point	0-1-8		Top	5 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-5-8							
2	Tie-In	0-4-4 to 4-4-13	1-9-6	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	0-4-12 to 2-4-12		Far Face	130 PLF	348 PLF	0 PLF	0 PLF	
4	Point	0-10-12		Near Face	26 lb	71 lb	0 lb	0 lb	J6
5	Point	2-2-12		Near Face	32 lb	85 lb	0 lb	0 lb	J6
6	Point	2-10-12		Far Face	115 lb	307 lb	0 lb	0 lb	J4
7	Point	3-6-12		Near Face	28 lb	74 lb	0 lb	0 lb	J6
8	Point	3-7-15		Far Face	108 lb	287 lb	0 lb	0 lb	J4
	Self Weight				12 PLF				



JULY 24, 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 & 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

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Client: GREENPARK

Date: 5/23/2023

Page 29 of 33

Project:

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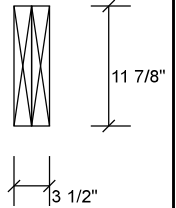
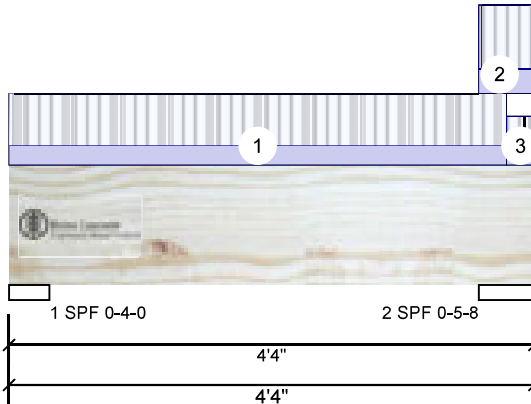
Job Name: CAROL 12-3 STD

OSHAWA ON

Project #:

F7-C Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply

Level: Second Floor



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	22	33	0	0
2	Vertical	28	37	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	4.000"	Vert	1%	41 / 33	74	L	1.25D+1.5L
2 - SPF	5.500"	Vert	1%	46 / 43	89	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	59 ft-lb	2'1 1/4"	32915 ft-lb	0.002 (0%)	1.25D+1.5L	L
Unbraced	59 ft-lb	2'1 1/4"	32915 ft-lb	0.002 (0%)	1.25D+1.5L	L
Shear	34 lb	1'3 7/8"	8591 lb	0.004 (0%)	1.4D	Uniform
Perm Defl in.	0.000 (L/634058)	2'1 1/4"	0.122 (L/360)	0.001 (0%)	D	Uniform
LL Defl inch	0.000 (L/956795)	2'1 1/4"	0.122 (L/360)	0.000 (0%)	L	L
TL Defl inch	0.000 (L/381345)	2'1 1/4"	0.183 (L/240)	0.001 (0%)	D+L	L



JULY 24, 2023

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 be laterally braced at bearings.
- Lateral slenderness ratio based on full section width.

READ ALL NOTES ON THIS PAGE AND ON THE
ENGINEERING NOTES: EWP-FLOORS. THE NOTE
PAGE IS AN INTEGRAL PART OF THIS DRAWING
AS IT CONTAINS SPECIFICATIONS AND CRITERIA
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 4-1-4	0-3-2	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	3-10-8 to 4-4-0	0-3-14	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Tie-In	4-1-4 to 4-4-0	0-2-2	Top	15 PSF	40 PSF	0 PSF	0 PSF	
	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

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

chemicals

Handling & Installation

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

- For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

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: 5/23/2023

Page 30 of 33

Project:

Input by: W C

Address: ZADORRA ESTATES

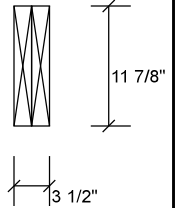
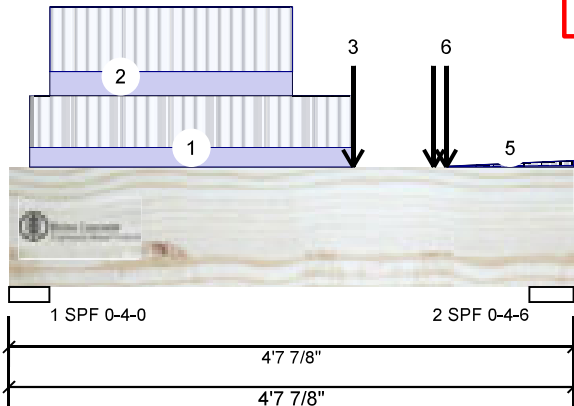
Job Name: CAROL 12-3 STD

OSHAWA ON

Project #:

F7-D Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply

Level: Second Floor



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)

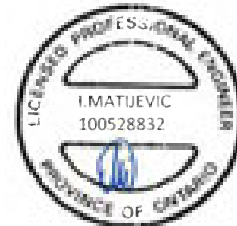
Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	1277	506	0	0
2	Vertical	1142	455	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	4.000"	Vert	30%	633 / 1916	2549	L	1.25D+1.5L
2 - SPF	4.375"	Vert	24%	569 / 1714	2283	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2573 ft-lb	2'3 5/8"	35392 ft-lb	0.073 (7%)	1.25D+1.5L	L
Unbraced	2573 ft-lb	2'3 5/8"	35392 ft-lb	0.073 (7%)	1.25D+1.5L	L
Shear	3424 lb	3'3 5/8"	13217 lb	0.259 (26%)	1.25D+1.5L	L
Perm Defl in.	0.002 (L/29892)	2'3 7/8"	0.136 (L/360)	0.012 (1%)	D	Uniform
LL Defl inch	0.004 (L/11765)	2'3 7/8"	0.136 (L/360)	0.031 (3%)	L	L
TL Defl inch	0.006 (L/8442)	2'3 7/8"	0.204 (L/240)	0.028 (3%)	D+L	L



JULY 24, 2023

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 loads must be supported equally by all plies.
- 5 Top must be continuously laterally braced.
- 6 Bottom must have sheathing attached or be continuously braced.
- 7 Lateral slenderness ratio based on full section width.

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

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-2-1 to 2-10-1		Far Face	105 PLF	279 PLF	0 PLF	0 PLF	
2	Part. Uniform	0-4-1 to 2-4-1		Near Face	130 PLF	348 PLF	0 PLF	0 PLF	
3	Point	2-10-1		Near Face	115 lb	307 lb	0 lb	0 lb	J4
4	Point	3-6-1		Far Face	137 lb	366 lb	0 lb	0 lb	J3

Continued on page 2...

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 & 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
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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: 5/23/2023

Page 31 of 33

Project:

Input by: W C

Address:

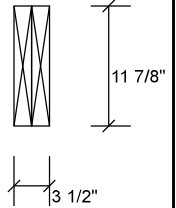
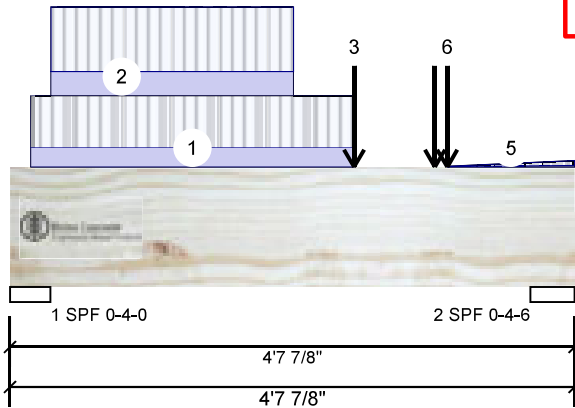
ZADORRA ESTATES
OSHAWA ON
CORPORATION OF THE CITY OF OSHAWA
TRUE COPY

Job Name: CAROL 12-3 STD

Project #:

F7-D Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply PASSED

Level: Second Floor



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
5	Tie-In	3-7-4 to 4-7-14	0-0-14 to 0-7-9	Top	15 PSF	40 PSF	0 PSF	0 PSF	
6	Point	3-7-4		Near Face	109 lb	292 lb	0 lb	0 lb	J4
	Self Weight				12 PLF				



JULY 24, 2023

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Notes

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Lumber

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chemicals**Handling & Installation**

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This design is valid until 4/17/2026



Client: GREENPARK

Date: 5/23/2023

Page 32 of 33

Project:

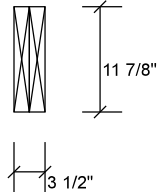
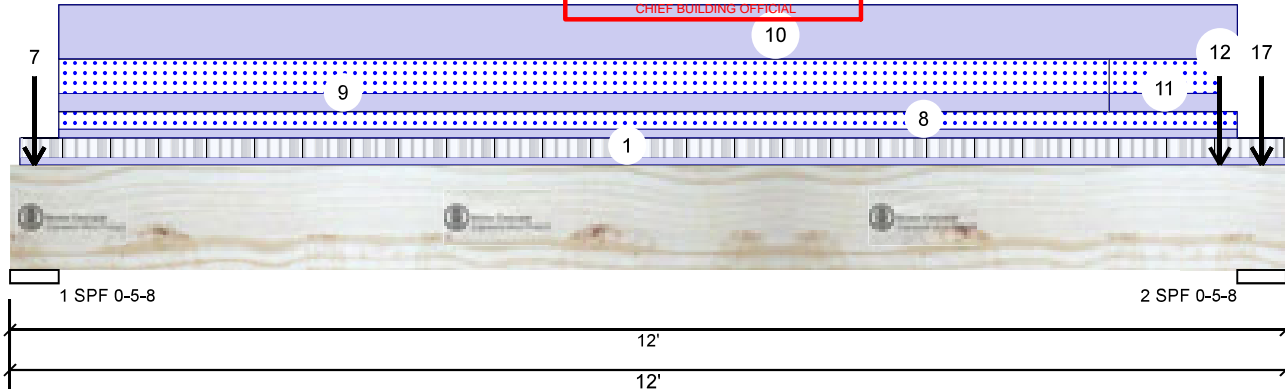
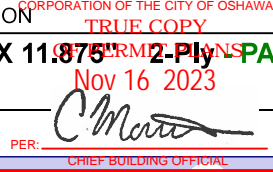
Input by: W C

Address: ZADORRA ESTATES

Job Name: CAROL 12-3 STD

OSHAWA ON

Project #:

F9 Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply PASSED Level: Second Floor


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	173	942	578	0
2	Vertical	594	2083	2126	0

Bearings and Factored Reactions

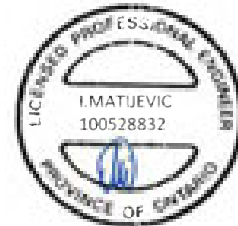
Bearing	Length	Dir.	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.501"	Vert	19%	1178 / 1040	2217	L	1.25D+1.5S +L
2 - SPF	5.500"	Vert	54%	2604 / 3783	6387	L	1.25D+1.5S +L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4878 ft-lb	6'1 5/16"	32561 ft-lb	0.150 (15%)	1.25D+1.5L +S	L
Unbraced	4878 ft-lb	6'1 5/16"	32561 ft-lb	0.150 (15%)	1.25D+1.5L +S	L
Shear	1778 lb	10'6 5/8"	13217 lb	0.134 (13%)	1.25D+1.5S +L	L
Perm Defl in.	0.052 (L/2605)	6' 5/16"	0.374 (L/360)	0.138 (14%)	D	Uniform
LL Defl inch	0.035 (L/3884)	6' 3/4"	0.374 (L/360)	0.093 (9%)	S+0.5L	L
TL Defl inch	0.086 (L/1559)	6' 1/2"	0.560 (L/240)	0.154 (15%)	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 4.5.
- 2 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 4.5.
- 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 be laterally braced at bearings.
- 9 Lateral slenderness ratio based on full section width.



JULY 24, 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 & 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.
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613-838-2775 / 905-642-4400



This design is valid until 4/17/2026



Client: GREENPARK

Date: 5/23/2023

Page 33 of 33

Project:

Input by: W C

Address:

ZADORRA ESTATES

Job Name: CAROL 12-3 STD

OSHAWA ON

Project #:

CORPORATION OF THE CITY OF OSHAWA

TRUE COPY

07 TERM PLANS

Nov 16 2023

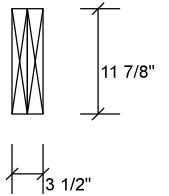
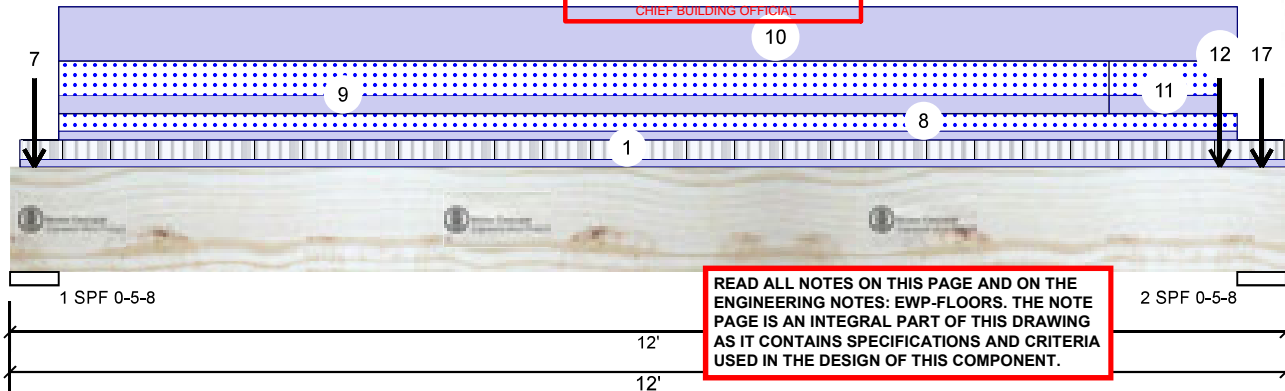
PER: *C. Maita*

CHIEF BUILDING OFFICIAL



JULY 24, 2023

F9 Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply PASSED Level: Second Floor



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-1-2 to 12-0-0	0-8-11	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-2-12		Top	24 lb	0 lb	46 lb	0 lb	
	Bearing Length	0-5-8							
3	Point	0-2-12		Top	21 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-5-8							
4	Point	0-2-12		Top	24 lb	0 lb	46 lb	0 lb	
	Bearing Length	0-5-8							
5	Point	0-2-12		Top	20 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-5-8							
6	Point	0-2-12		Top	23 lb	0 lb	43 lb	0 lb	
	Bearing Length	0-5-8							
7	Point	0-2-12		Top	19 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-5-8							
8	Part. Uniform	0-5-8 to 11-6-8		Top	13 PLF	0 PLF	26 PLF	0 PLF	
9	Part. Uniform	0-5-8 to 10-4-1		Top	27 PLF	0 PLF	51 PLF	0 PLF	
10	Part. Uniform	0-5-8 to 11-6-8		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
11	Part. Uniform	10-4-1 to 11-4-9		Top	27 PLF	0 PLF	51 PLF	0 PLF	
12	Point	11-4-9		Top	562 lb	113 lb	818 lb	0 lb	F15
	Bearing Length	0-5-8							
13	Point	11-9-4		Top	8 lb	0 lb	14 lb	0 lb	
	Bearing Length	0-5-8							
14	Point	11-9-4		Top	6 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-5-8							
15	Point	11-9-4		Top	708 lb	310 lb	892 lb	0 lb	F14
	Bearing Length	0-5-8							
16	Point	11-9-4		Top	13 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-5-8							
17	Point	11-9-4		Top	1 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-5-8							
	Self Weight				12 PLF				

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 & 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
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