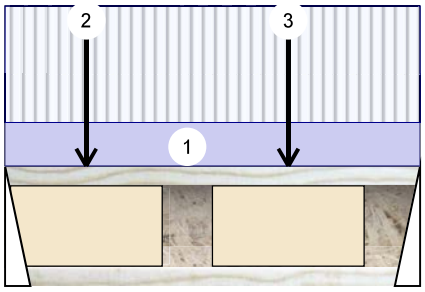
iStructDesign

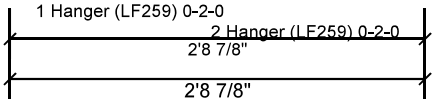
Client: GREENPARK
Project: ZADORRA ESTATES
Address: ZADORRA ESTATES OSHAWA,ON

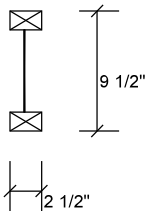
Date: 6/29/2023
Input by: W C
Job Name: RIVER 5-2 STD
Project #:

F1 AJS 140 9.500" - PASSED

Level: Ground Floor







Member Information

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

Application:	Floor (Residential)
Design Method:	LSD
Building Code:	NBCC 2015 OBC 2012(2020 Update)
Load Sharing:	No
Deck:	Not Checked
Vibration:	Not Checked

Unfactored Reactions UNPATTERNED lb (Uplift)

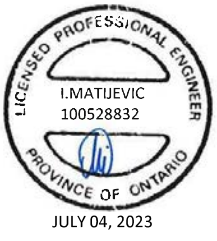
Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	288	108	0	0
2	Vertical	246	92	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	Vert	36%	135 / 433	568	L	1.25D+1.5L
2 - Hanger	2.000"	Vert	30%	116 / 368	484	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	352 ft-lb	1'10 7/16"	4095 ft-lb	0.086 (9%)	1.25D+1.5L	L
Unbraced	352 ft-lb	1'10 7/16"	4095 ft-lb	0.086 (9%)	1.25D+1.5L	L
Shear	563 lb	1 1/4"	1830 lb	0.307 (31%)	1.25D+1.5L	L
Perm Defl in.	0.002 (L/19004)	1'8 15/16"	0.084 (L/360)	0.019 (2%)	D	Uniform
LL Defl inch	0.004 (L/7153)	1'8 15/16"	0.084 (L/360)	0.050 (5%)	L	L
TL Defl inch	0.006 (L/5197)	1'8 15/16"	0.126 (L/240)	0.046 (5%)	D+L	L



JULY 04, 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. Fill all hanger nailing holes.
3. Left Header: SPF, Thickness: 2 1/2"
4. Right Header: SPF, Thickness: 2 1/2"
5. Girders are designed to be supported on the bottom edge only.
6. If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
7. 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 2-8-14	0-7-3	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-6-7		Far Face	81 lb	216 lb	0 lb	0 lb	J5
3	Point	1-10-7		Far Face	95 lb	252 lb	0 lb	0 lb	J5

Notes

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Lumber

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

Handling & Installation

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

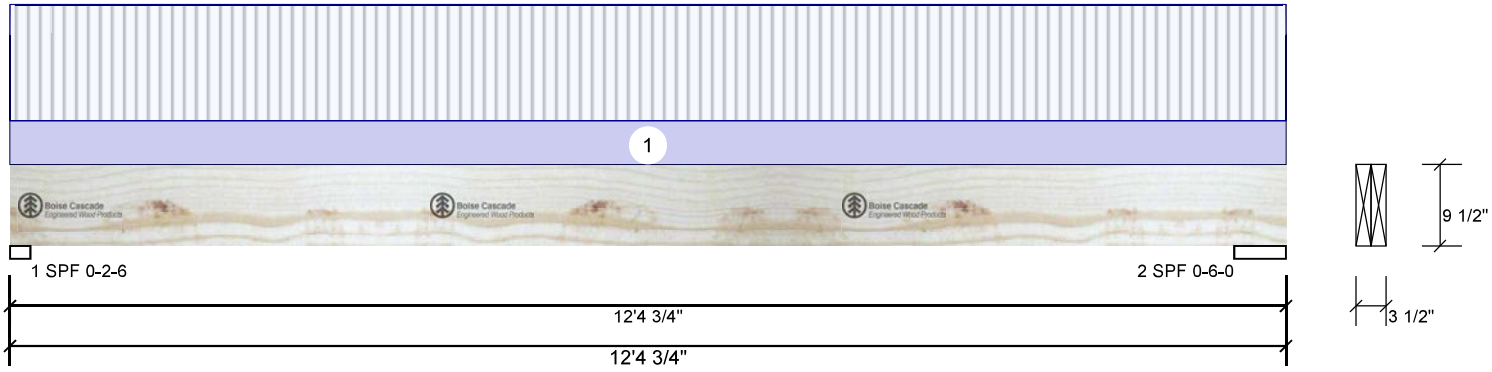
Kott Inc.
3228 Moodie Dr, Ottawa, Ontario
613-838-2775 / 905-642-4400

CSD DRAW DESIGN BUILD

Client:	GREENPARK	Date:	6/29/2023
Project:	ZADORRA ESTATES	Input by:	W C
Address:	ZADORRA ESTATES OSHAWA,ON	Job Name:	RIVER 5-2 STD
		Project #:	

F10 Versa-Lam LVL 2.1E 3100 SP 1.750" X 9 1/2" 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)

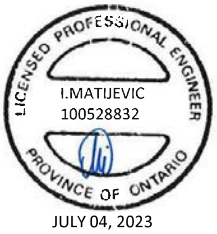
Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	98	94	0	0
2	Vertical	103	99	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	Vert	5%	118 / 147	265	L	1.25D+1.5L
2 - SPF	6.031"	Vert	2%	124 / 155	278	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	766 ft-lb	6' 9/16"	23220 ft-lb	0.033 (3%)	1.25D+1.5L	L
Unbraced	766 ft-lb	6' 9/16"	23220 ft-lb	0.033 (3%)	1.25D+1.5L	L
Shear	231 lb	11 7/8"	10574 lb	0.022 (2%)	1.25D+1.5L	L
Perm Defl in.	0.013 (L/10826)	6' 9/16"	0.394 (L/360)	0.033 (3%)	D	Uniform
LL Defl inch	0.014 (L/10363)	6' 9/16"	0.394 (L/360)	0.035 (3%)	L	L
TL Defl inch	0.027 (L/5295)	6' 9/16"	0.591 (L/240)	0.045 (5%)	D+L	L



JULY 04, 2023

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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.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 12-4-12	0-4-14	Top	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				9 PLF				

Notes

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

Lumber

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

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.
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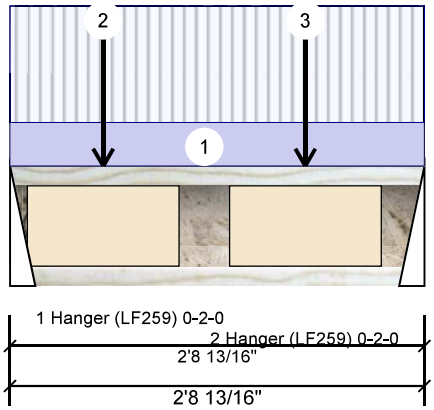
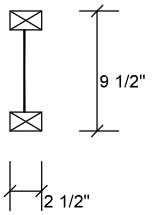
613-838-2775 / 905-642-4400

Client:	GREENPARK	Date:	6/29/2023
Project:	ZADORRA ESTATES	Input by:	W C
Address:	ZADORRA ESTATES OSHAWA,ON	Job Name:	RIVER 5-2 STD
		Project #:	
		Level:	Ground Floor

F1-A AJS 140 9.500" - PASSED





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)

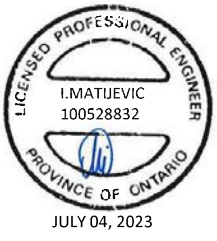
Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	242	91	0	0
2	Vertical	224	84	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	Vert	30%	114 / 363	477	L	1.25D+1.5L
2 - Hanger	2.000"	Vert	28%	105 / 335	440	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	286 ft-lb	1'11 3/8"	4095 ft-lb	0.070 (7%)	1.25D+1.5L	L
Unbraced	286 ft-lb	1'11 3/8"	4095 ft-lb	0.070 (7%)	1.25D+1.5L	L
Shear	472 lb	1 1/4"	1830 lb	0.258 (26%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/22728)	1'6 11/16"	0.084 (L/360)	0.016 (2%)	D	Uniform
LL Defl inch	0.004 (L/8523)	1'6 11/16"	0.084 (L/360)	0.042 (4%)	L	L
TL Defl inch	0.005 (L/6199)	1'6 11/16"	0.126 (L/240)	0.039 (4%)	D+L	L



JULY 04, 2023

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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: SPF, Thickness: 2 1/2"
4. Right Header: SPF, Thickness: 2 1/2"
5. Girders are designed to be supported on the bottom edge only.
6. If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
7. If sheathing is not attached to the bottom flange, bottom flange must be laterally braced at maximum 2' o.c.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 2-8-13	0-7-3	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-7-6		Far Face	72 lb	192 lb	0 lb	0 lb	J4
3	Point	1-11-6		Far Face	78 lb	208 lb	0 lb	0 lb	J4

Notes

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Lumber

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

Handling & Installation

1. IJoist flanges must not be cut or drilled
2. Refer to latest copy of the IJoist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details
3. Damaged IJoists 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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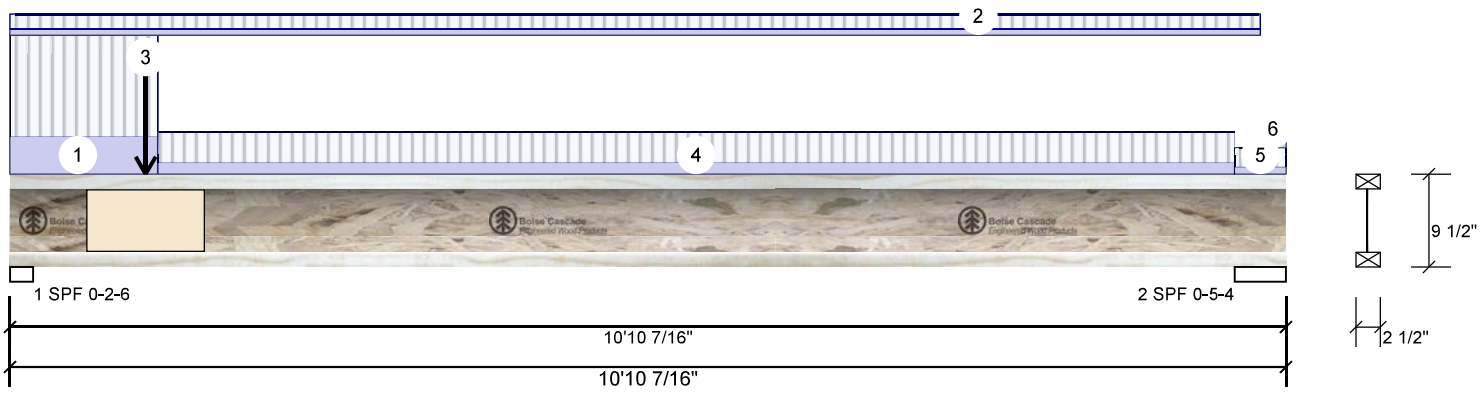
Project:	ZADORRA ESTATES	Input by:	W C
Address:	ZADORRA ESTATES OSHAWA,ON	Job Name:	RIVER 5-2 STD
		Project #:	

CORPORATION OF THE CITY OF OSHAWA
TRUE COPY
OF PERMIT PLANS
Nov 04 2023
PER: _____
CHIEF BUILDING OFFICIAL

MHP 23024

F2 AJS 140 9.500" - PASSED

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	393	147	0	0
2	Vertical	170	64	0	0

Bearings and Factored Reactions

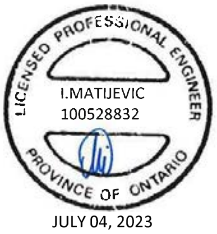
Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	Vert	47%	184 / 590	774	L	1.25D+1.5L
2 - SPF	5.250"	Vert	18%	80 / 254	334	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	978 ft-lb	4'4 3/4"	4095 ft-lb	0.239 (24%)	1.25D+1.5L	L
Unbraced	978 ft-lb	4'4 3/4"	4095 ft-lb	0.239 (24%)	1.25D+1.5L	L
Shear	756 lb	1 5/8"	1830 lb	0.413 (41%)	1.25D+1.5L	L
Perm Defl in.	0.024 (L/5247)	5' 3/8"	0.345 (L/360)	0.069 (7%)	D	Uniform
LL Defl inch	0.063 (L/1968)	5' 3/8"	0.345 (L/360)	0.183 (18%)	L	L
TL Defl inch	0.087 (L/1431)	5' 3/8"	0.518 (L/240)	0.168 (17%)	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 9'8 9/16" 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 1-3-2	1-5-10	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 10-7-13	0-2-11	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-1-14		Far Face	84 lb	224 lb	0 lb	0 lb	F1
4	Tie-In	1-3-2 to 10-5-3	0-5-5	Top	15 PSF	40 PSF	0 PSF	0 PSF	
5	Tie-In	10-5-3 to 10-10-7	0-3-5	Top	15 PSF	40 PSF	0 PSF	0 PSF	
6	Tie-In	10-7-13 to 10-10-7	0-2-11	Top	15 PSF	40 PSF	0 PSF	0 PSF	

Notes

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Lumber

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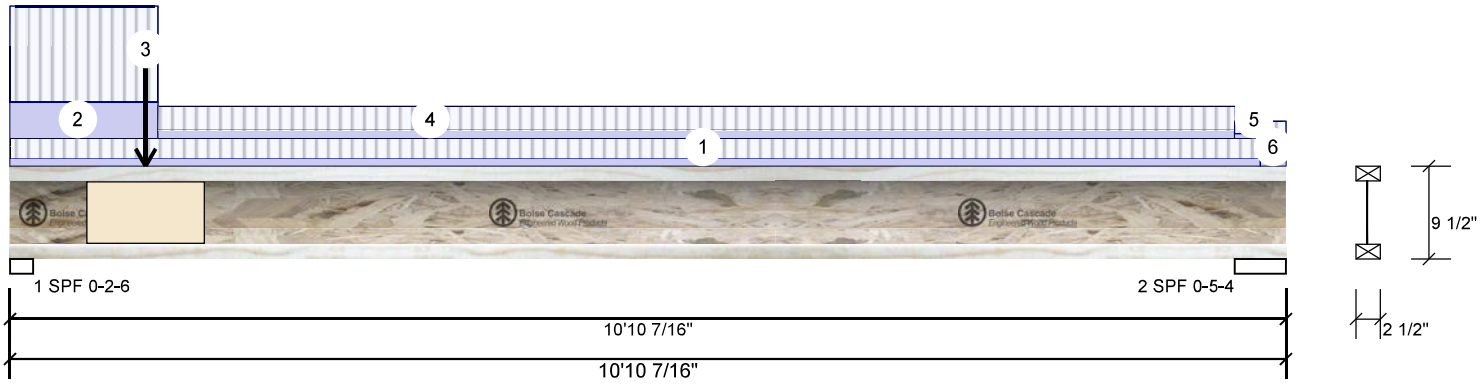
F2-A AJS 140 9.500" - PASSED

Level: Ground Floor



Member Information

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

Application:	Floor (Residential)
Design Method:	LSD
Building Code:	NBCC 2015 OBC 2012(2020 Update)
Load Sharing:	No
Deck:	Not Checked
Vibration:	Not Checked

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	413	155	0	0
2	Vertical	172	64	0	0

Bearings and Factored Reactions

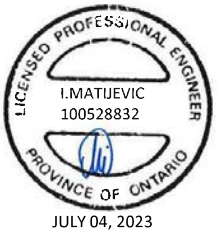
Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	Vert	49%	194 / 620	814	L	1.25D+1.5L
2 - SPF	5.250"	Vert	18%	81 / 257	338	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1002 ft-lb	4'3 13/16"	4095 ft-lb	0.245 (24%)	1.25D+1.5L	L
Unbraced	1002 ft-lb	4'3 13/16"	4095 ft-lb	0.245 (24%)	1.25D+1.5L	L
Shear	795 lb	1 5/8"	1830 lb	0.434 (43%)	1.25D+1.5L	L
Perm Defl in.	0.024 (L/5121)	5' 3/16"	0.345 (L/360)	0.070 (7%)	D	Uniform
LL Defl inch	0.065 (L/1922)	5' 3/16"	0.345 (L/360)	0.187 (19%)	L	L
TL Defl inch	0.089 (L/1397)	5' 3/16"	0.518 (L/240)	0.172 (17%)	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 9'8 9/16" 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 10-7-13	0-3-11	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 1-3-2	1-5-10	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-1-14		Near Face	91 lb	242 lb	0 lb	0 lb	F1
4	Tie-In	1-3-2 to 10-5-3	0-4-5	Top	15 PSF	40 PSF	0 PSF	0 PSF	
5	Tie-In	10-5-3 to 10-10-7	0-2-5	Top	15 PSF	40 PSF	0 PSF	0 PSF	
6	Tie-In	10-7-13 to 10-10-7	0-3-11	Top	15 PSF	40 PSF	0 PSF	0 PSF	

Notes

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Lumber

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

Handling & Installation

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

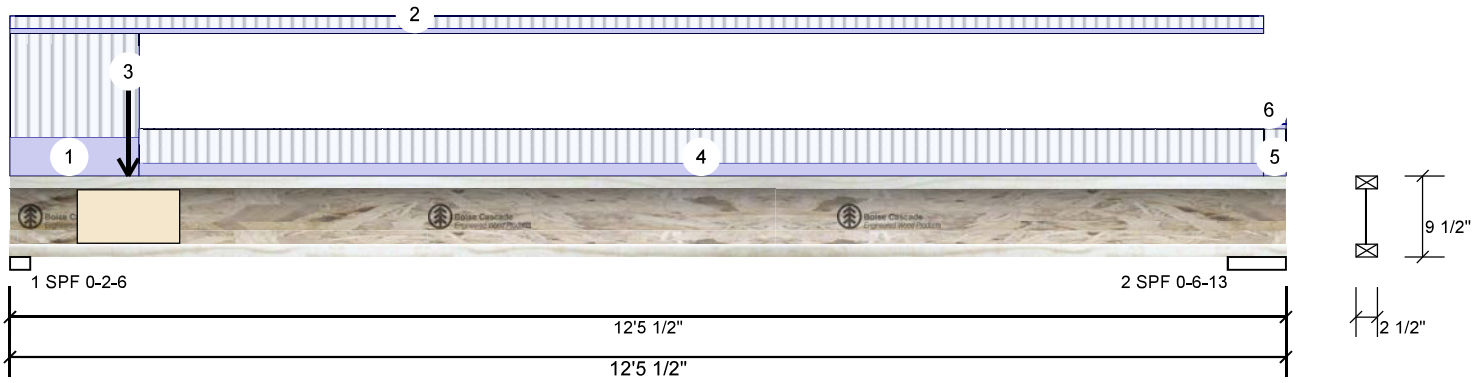
Boise Cascade Wood Products
1111 W. Jefferson St.
Boise, ID 83702
(800) 232-0788
www.bc.com
CCMC: 12787

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

Client:	GREENPARK	Date:	6/29/2023
Project:	ZADORRA ESTATES	Input by:	W C
Address:	ZADORRA ESTATES OSHAWA,ON	Job Name:	RIVER 5-2 STD
		Project #:	

F3 AJS 140 9.500" - PASSED

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	434	162	0	0
2	Vertical	194	73	0	0

Bearings and Factored Reactions

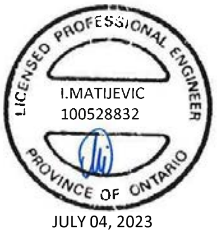
Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	Vert	52%	203 / 650	853	L	1.25D+1.5L
2 - SPF	6.813"	Vert	21%	91 / 292	383	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1208 ft-lb	5'2"	4095 ft-lb	0.295 (30%)	1.25D+1.5L	L
Unbraced	1208 ft-lb	5'2"	4095 ft-lb	0.295 (30%)	1.25D+1.5L	L
Shear	836 lb	1 5/8"	1830 lb	0.457 (46%)	1.25D+1.5L	L
Perm Defl in.	0.037 (L/3848)	5'9 5/16"	0.394 (L/360)	0.094 (9%)	D	Uniform
LL Defl inch	0.098 (L/1442)	5'9 5/16"	0.394 (L/360)	0.250 (25%)	L	L
TL Defl inch	0.135 (L/1049)	5'9 5/16"	0.591 (L/240)	0.229 (23%)	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 11'3 5/8" o.c.



JULY 04, 2023

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-3-2	1-5-11	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 12-2-14	0-2-3	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-1-14		Far Face	92 lb	246 lb	0 lb	0 lb	F1
4	Tie-In	1-3-2 to 12-2-14	0-5-13	Top	15 PSF	40 PSF	0 PSF	0 PSF	
5	Tie-In	12-2-14 to 12-5-8	0-5-13	Top	15 PSF	40 PSF	0 PSF	0 PSF	
6	Tie-In	12-2-14 to 12-5-8	0-2-3	Top	15 PSF	40 PSF	0 PSF	0 PSF	

Notes

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Lumber

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

Handling & Installation

1. IJoist flanges must not be cut or drilled
2. Refer to latest copy of the IJoist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details
3. Damaged IJoists 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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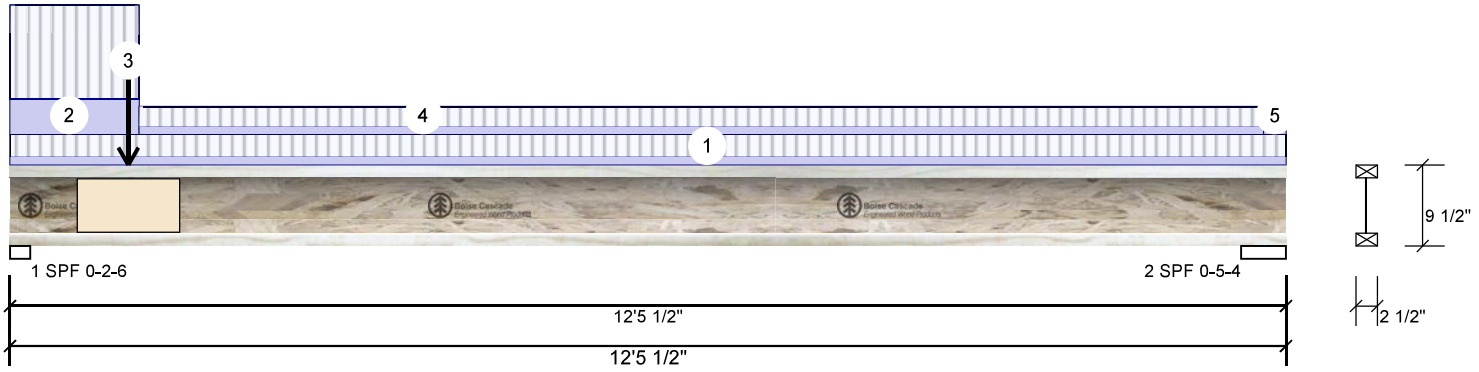
Client:	GREENPARK	Date:	6/29/2023
Project:	ZADORRA ESTATES	Input by:	W C
Address:	ZADORRA ESTATES OSHAWA,ON	Job Name:	RIVER 5-2 STD
		Project #:	
		Level:	Ground Floor

CONSTRUCTION OF THE CITY OF OSHAWA
TRUE COPY
OF PERMIT PLANS
Nov 04 2023
PER:
CHIEF BUILDING OFFICIAL

MHP 23024

F3-A AJS 140 9.500" - PASSED



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	482	181	0	0
2	Vertical	196	74	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	Vert	57%	226 / 723	949	L	1.25D+1.5L
2 - SPF	5.250"	Vert	21%	92 / 295	387	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1282 ft-lb	5'1 1/8"	4095 ft-lb	0.313 (31%)	1.25D+1.5L	L
Unbraced	1282 ft-lb	5'1 1/8"	4095 ft-lb	0.313 (31%)	1.25D+1.5L	L
Shear	930 lb	1 5/8"	1830 lb	0.508 (51%)	1.25D+1.5L	L
Perm Defl in.	0.040 (L/3594)	5'9 11/16"	0.398 (L/360)	0.100 (10%)	D	Uniform
LL Defl inch	0.106 (L/1348)	5'9 11/16"	0.398 (L/360)	0.267 (27%)	L	L
TL Defl inch	0.146 (L/980)	5'9 11/16"	0.597 (L/240)	0.245 (24%)	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 11'3 5/8" o.c.

LICENSED PROFESSIONAL ENGINEER
I.MATIJEVIC
100528832
PROVINCE OF ONTARIO
JULY 04, 2023

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 12-5-8	0-4-3	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 1-3-2	1-5-11	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-1-14		Near Face	108 lb	288 lb	0 lb	0 lb	F1
4	Tie-In	1-3-2 to 12-2-14	0-3-13	Top	15 PSF	40 PSF	0 PSF	0 PSF	
5	Tie-In	12-2-14 to 12-5-8	0-3-13	Top	15 PSF	40 PSF	0 PSF	0 PSF	

Notes

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Lumber

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

Handling & Installation

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

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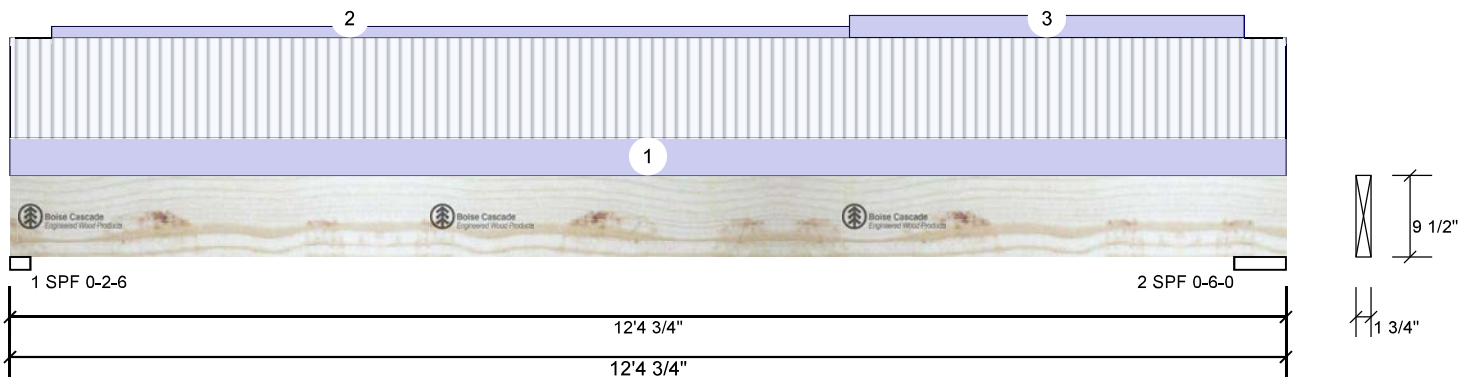
Client:	GREENPARK	Date:	6/29/2023
Project:	ZADORRA ESTATES	Input by:	W C
Address:	ZADORRA ESTATES OSHAWA,ON	Job Name:	RIVER 5-2 STD
		Project #:	

F4 Versa-Lam LVL 2.1E 3100 SP 1.750 ...SSED

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	55	55	0	0
2	Vertical	58	61	0	0

Bearings and Factored Reactions

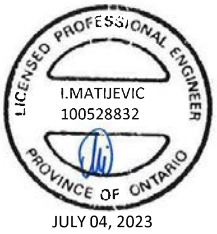
Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	Vert	6%	69 / 82	152	L	1.25D+1.5L
2 - SPF	6.031"	Vert	3%	76 / 87	163	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	442 ft-lb	6' 15/16"	11494 ft-lb	0.038 (4%)	1.25D+1.5L	L
Unbraced	442 ft-lb	6' 15/16"	11494 ft-lb	0.038 (4%)	1.25D+1.5L	L
Shear	134 lb	11'1 3/16"	5234 lb	0.026 (3%)	1.25D+1.5L	L
Perm Defl in.	0.016 (L/8991)	6' 13/16"	0.394 (L/360)	0.040 (4%)	D	Uniform
LL Defl inch	0.015 (L/9271)	6' 9/16"	0.394 (L/360)	0.039 (4%)	L	L
TL Defl inch	0.031 (L/4564)	6' 11/16"	0.591 (L/240)	0.053 (5%)	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 Top must be continuously laterally braced.
4 Bottom must be laterally braced at bearings.



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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 12-4-12	0-2-12	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-4-14 to 8-1-14		Top	1 PLF	0 PLF	0 PLF	0 PLF	
3	Part. Uniform	8-1-14 to 11-11-14		Top	2 PLF	0 PLF	0 PLF	0 PLF	
	Self Weight				5 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
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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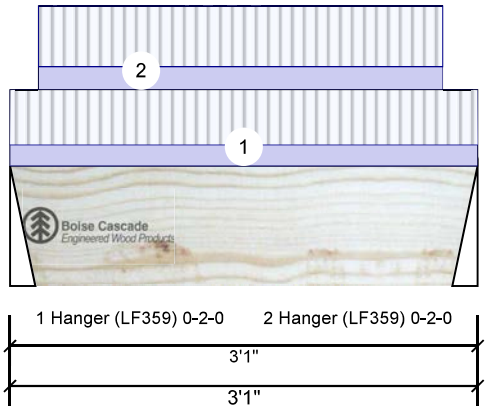
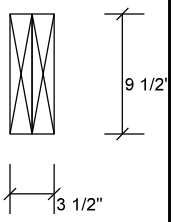
Client:	GREENPARK	Date:	6/29/2023
Project:	ZADORRA ESTATES	Input by:	W C
Address:	ZADORRA ESTATES OSHAWA,ON	Job Name:	RIVER 5-2 STD
		Project #:	

F5 Versa-Lam LVL 2.1E 3100 SP 1.750" X 9 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)

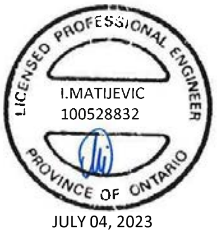
Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	182	84	0	0
2	Vertical	179	83	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	Vert	5%	105 / 273	378	L	1.25D+1.5L
2 - Hanger	2.000"	Vert	5%	104 / 269	372	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	269 ft-lb	1'6 1/2"	23220 ft-lb	0.012 (1%)	1.25D+1.5L	L
Unbraced	269 ft-lb	1'6 1/2"	23220 ft-lb	0.012 (1%)	1.25D+1.5L	L
Shear	254 lb	2'1 1/2"	10574 lb	0.024 (2%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/183855)	1'6 9/16"	0.096 (L/360)	0.002 (0%)	D	Uniform
LL Defl inch	0.000 (L/83903)	1'6 9/16"	0.096 (L/360)	0.004 (0%)	L	L
TL Defl inch	0.001 (L/57612)	1'6 9/16"	0.144 (L/240)	0.004 (0%)	D+L	L



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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: 5 1/4"
4. Right Header: DF, Thickness: 3 1/2"
5. Girders are designed to be supported on the bottom edge only.
6. Multiple plies must be fastened together as per manufacturer's details.
7. Top loads must be supported equally by all plies.
8. Top must be continuously laterally braced.
9. Bottom must have sheathing attached or be continuously braced.
10. Lateral slenderness ratio based on full section width.

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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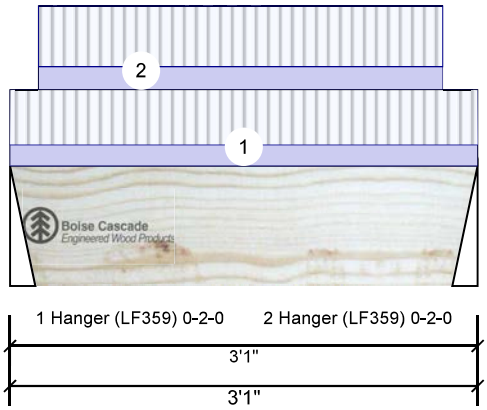
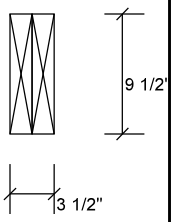
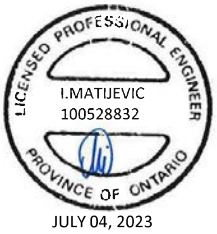
Level: Ground Floor





ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 3-1-0		Top	23 PLF	60 PLF	0 PLF	0 PLF	
2	Part. Uniform	0-2-4 to 2-10-4		Near Face	25 PLF	66 PLF	0 PLF	0 PLF	
	Self Weight				9 PLF				



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Manufacturer Info

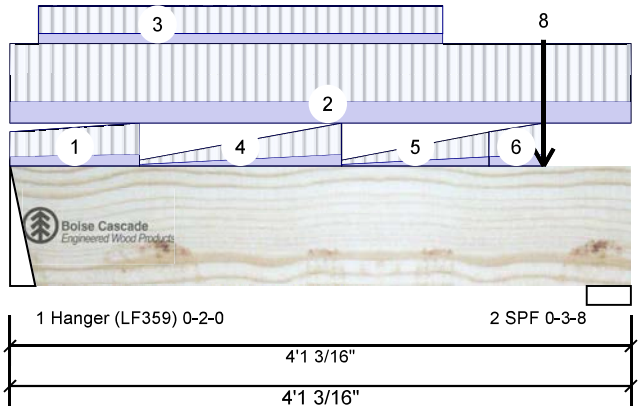
Boise Cascade Wood Products
1111 W. Jefferson St.
Boise, ID 83702
(800) 232-0788
www.bc.com
CCMC: 12472

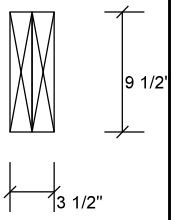
Kott Inc.
3228 Moodie Dr, Ottawa, Ontario
613-838-2775 / 905-642-4400

Client:	GREENPARK	Date:	6/29/2023
Project:	ZADORRA ESTATES	Input by:	W C
Address:	ZADORRA ESTATES OSHAWA,ON	Job Name:	RIVER 5-2 STD
		Project #:	

F6 Versa-Lam LVL 2.1E 3100 SP 1.750" X 9 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	140	71	0	0
2	Vertical	130	69	0	0

Bearings and Factored Reactions

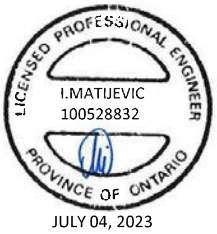
Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	Vert	4%	89 / 210	299	L	1.25D+1.5L
2 - SPF	3.500"	Vert	4%	87 / 195	282	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	263 ft-lb	1'11 7/16"	23220 ft-lb	0.011 (1%)	1.25D+1.5L	L
Unbraced	263 ft-lb	1'11 7/16"	23220 ft-lb	0.011 (1%)	1.25D+1.5L	L
Shear	193 lb	3' 3/16"	10574 lb	0.018 (2%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/139085)	1'11 13/16"	0.125 (L/360)	0.003 (0%)	D	Uniform
LL Defl inch	0.001 (L/71158)	1'11 3/4"	0.125 (L/360)	0.005 (1%)	L	L
TL Defl inch	0.001 (L/47074)	1'11 3/4"	0.188 (L/240)	0.005 (1%)	D+L	L

Design Notes

1 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 3.5.
2 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
3 Fill all hanger nailing holes.
4 Left Header: DF, Thickness: 3 1/2"
5 Girders are designed to be supported on the bottom edge only.
6 Multiple plies must be fastened together as per manufacturer's details.
7 Top loads must be supported equally by all plies.
8 Top must be continuously laterally braced.
9 Bottom must have sheathing attached or be continuously braced.
10 Lateral slenderness ratio based on full section width.



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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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		Project #:	

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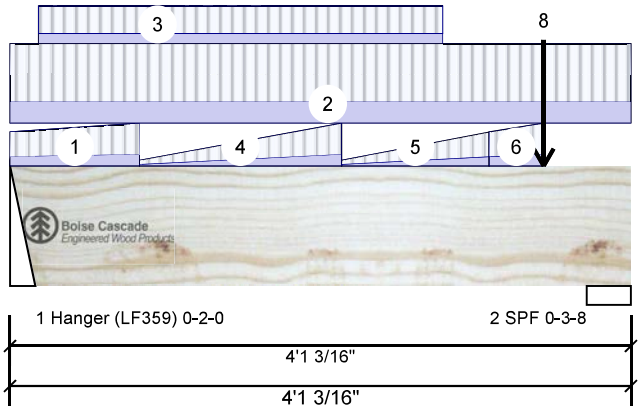
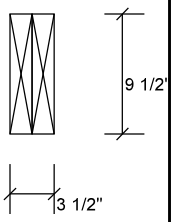
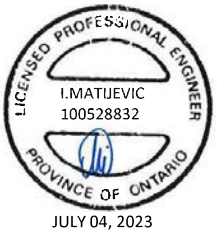
Level: Ground Floor





ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-10-4	0-5-3 to 0-6-8	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 4-1-3		Top	15 PLF	40 PLF	0 PLF	0 PLF	
3	Part. Uniform	0-2-4 to 2-10-4		Near Face	7 PLF	19 PLF	0 PLF	0 PLF	
4	Tie-In	0-10-4 to 2-2-4	0-0-14 to 0-6-8	Top	15 PSF	40 PSF	0 PSF	0 PSF	
5	Tie-In	2-2-4 to 3-1-15	0-0-14 to 0-5-2	Top	15 PSF	40 PSF	0 PSF	0 PSF	
6	Tie-In	3-1-15 to 3-6-4	0-5-2 to 0-6-8	Top	15 PSF	40 PSF	0 PSF	0 PSF	
7	Point	3-6-4		Top	2 lb	4 lb	0 lb	0 lb	
	Bearing Length	0-3-8							
8	Point	3-6-4		Top	1 lb	2 lb	0 lb	0 lb	
	Bearing Length	0-3-8							
	Self Weight				9 PLF				



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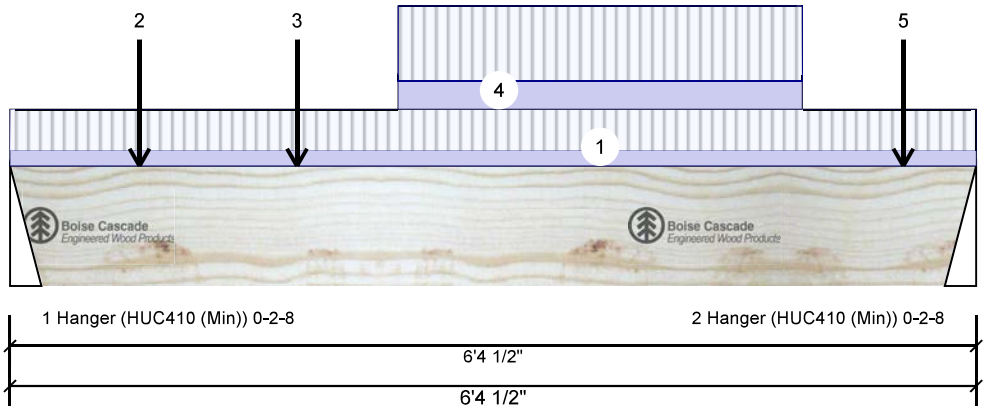
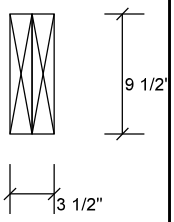
F7 Versa-Lam LVL 2.1E 3100 SP 1.750" X 9 PASSED

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)

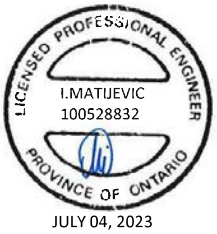
Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	600	255	0	0
2	Vertical	627	265	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.500"	Vert	13%	318 / 900	1218	L	1.25D+1.5L
2 - Hanger	2.500"	Vert	13%	331 / 940	1271	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1865 ft-lb	3'2 3/16"	23220 ft-lb	0.080 (8%)	1.25D+1.5L	L
Unbraced	1865 ft-lb	3'2 3/16"	23220 ft-lb	0.080 (8%)	1.25D+1.5L	L
Shear	1127 lb	5'4 1/2"	10574 lb	0.107 (11%)	1.25D+1.5L	L
Perm Defl in.	0.005 (L/14427)	3'2 3/16"	0.203 (L/360)	0.025 (2%)	D	Uniform
LL Defl inch	0.012 (L/6085)	3'2 3/16"	0.203 (L/360)	0.059 (6%)	L	L
TL Defl inch	0.017 (L/4280)	3'2 3/16"	0.304 (L/240)	0.056 (6%)	D+L	L



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Design Notes

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

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
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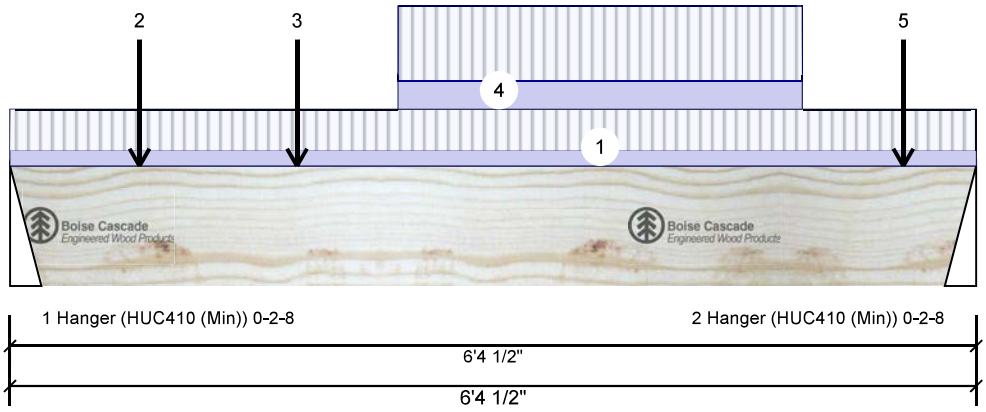
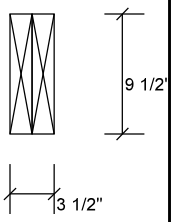
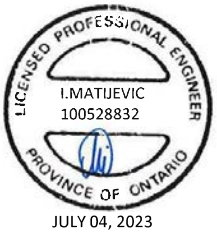




ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 6-4-8	1-9-10	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-10-4		Near Face	50 lb	134 lb	0 lb	0 lb	J3
3	Point	1-10-12		Near Face	58 lb	155 lb	0 lb	0 lb	J3
4	Part. Uniform	2-6-12 to 5-2-12		Near Face	49 PLF	131 PLF	0 PLF	0 PLF	
5	Point	5-10-12		Near Face	48 lb	129 lb	0 lb	0 lb	J3
	Self Weight				9 PLF				



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Lumber

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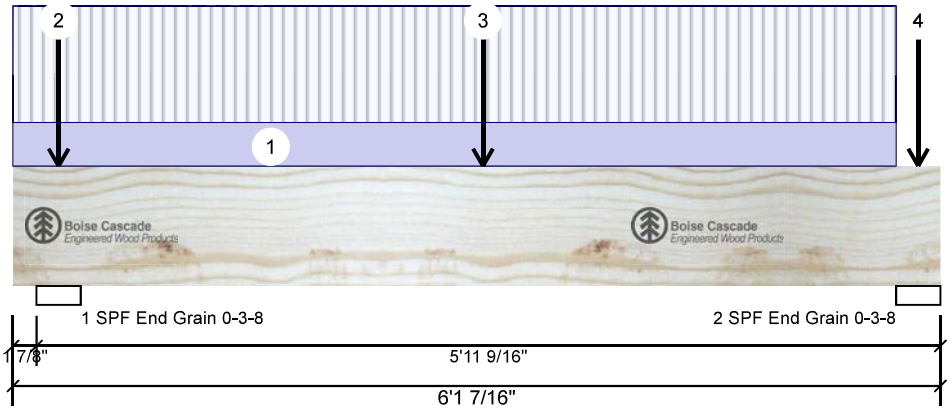
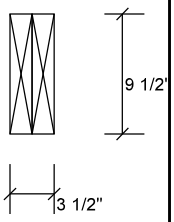
F7-A Versa-Lam LVL 2.1E 3100 SP 1.750" X - PASSED

Level: Ground Floor





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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	1003	472	0	0
2	Vertical	1488	665	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	16%	590 / 1504	2094	LL	1.25D+1.5L
2 - SPF End Grain	3.500"	Vert	24%	831 / 2233	3064	_L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4851 ft-lb	3'1 3/16"	23220 ft-lb	0.209 (21%)	1.25D+1.5L	_L
Unbraced	4851 ft-lb	3'1 3/16"	23220 ft-lb	0.209 (21%)	1.25D+1.5L	_L
Shear	1770 lb	5' 7/16"	10574 lb	0.167 (17%)	1.25D+1.5L	_L
Perm Defl in.	0.010 (L/7056)	3'1 3/16"	0.186 (L/360)	0.051 (5%)	D	Uniform
LL Defl inch	0.021 (L/3186)	3'1 3/16"	0.186 (L/360)	0.113 (11%)	L	_L
TL Defl inch	0.031 (L/2195)	3'1 3/16"	0.279 (L/240)	0.109 (11%)	D+L	_L
LL Cant	-0.002 (2L/2203)	Lt Cant	0.200 (2L/360)	0.008 (1%)	L	_L
TL Cant	-0.002 (2L/1517)	Lt Cant	0.300 (2L/240)	0.008 (1%)	D+L	_L

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5. Top must be continuously laterally braced.
6. Bottom must be laterally braced at a maximum of 5'8 1/16" o.c.
7. Lateral slenderness ratio based on full section width.

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Handling & Installation

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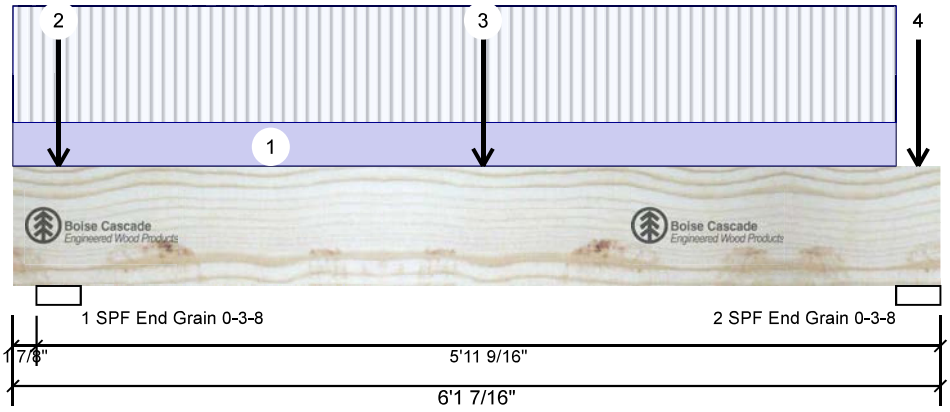

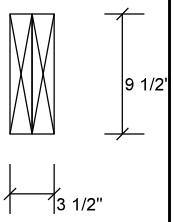

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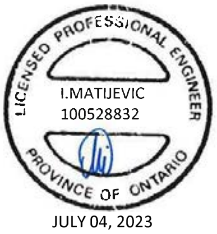
2	Point	0-3-10		Near Face	71 lb	140 lb	0 lb	0 lb	F6
3	Point	3-1-3		Top	716 lb	1651 lb	0 lb	0 lb	C3
	Bearing Length	0-3-8							
4	Point	5-11-11		Far Face	265 lb	627 lb	0 lb	0 lb	F7
	Self Weight				9 PLF				



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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

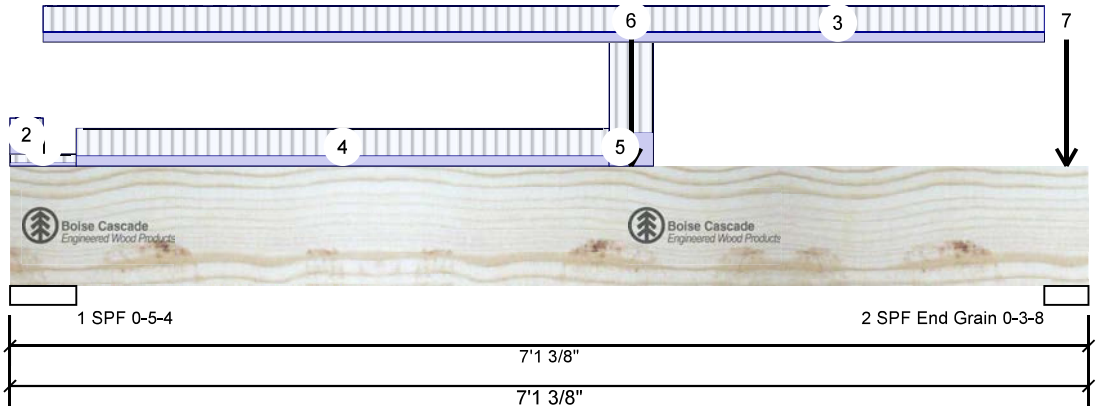
Kott Inc.
3228 Moodie Dr, Ottawa, Ontario
613-838-2775 / 905-642-4400

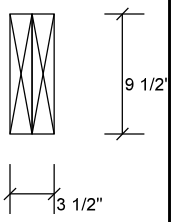
Client:	GREENPARK	Date:	6/29/2023
Project:	ZADORRA ESTATES	Input by:	W C
Address:	ZADORRA ESTATES OSHAWA,ON	Job Name:	RIVER 5-2 STD
		Project #:	

MHP 23024

F7-B Versa-Lam LVL 2.1E 3100 SP 1.750" X - 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)

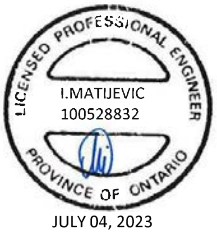
Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	214	121	0	0
2	Vertical	798	371	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.250"	Vert	4%	152 / 320	472	L	1.25D+1.5L
2 - SPF End Grain	3.500"	Vert	13%	464 / 1197	1662	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1033 ft-lb	4'1 3/16"	23220 ft-lb	0.045 (4%)	1.25D+1.5L	L
Unbraced	1033 ft-lb	4'1 3/16"	23220 ft-lb	0.045 (4%)	1.25D+1.5L	L
Shear	408 lb	6' 3/8"	10574 lb	0.039 (4%)	1.25D+1.5L	L
Perm Defl in.	0.003 (L/22982)	3'8 3/8"	0.217 (L/360)	0.016 (2%)	D	Uniform
LL Defl inch	0.006 (L/12443)	3'8 7/16"	0.217 (L/360)	0.029 (3%)	L	L
TL Defl inch	0.010 (L/8072)	3'8 3/8"	0.326 (L/240)	0.030 (3%)	D+L	L



JULY 04, 2023

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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 4'1 3/16" o.c.
7 Lateral slenderness ratio based on full section width.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-5-4	0-2-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 0-2-10	0-6-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Tie-In	0-2-10 to 6-9-14	0-6-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
4	Tie-In	0-5-4 to 3-11-7	0-6-4	Top	15 PSF	40 PSF	0 PSF	0 PSF	

Continued on page 2...

Notes

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Lumber

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

Handling & 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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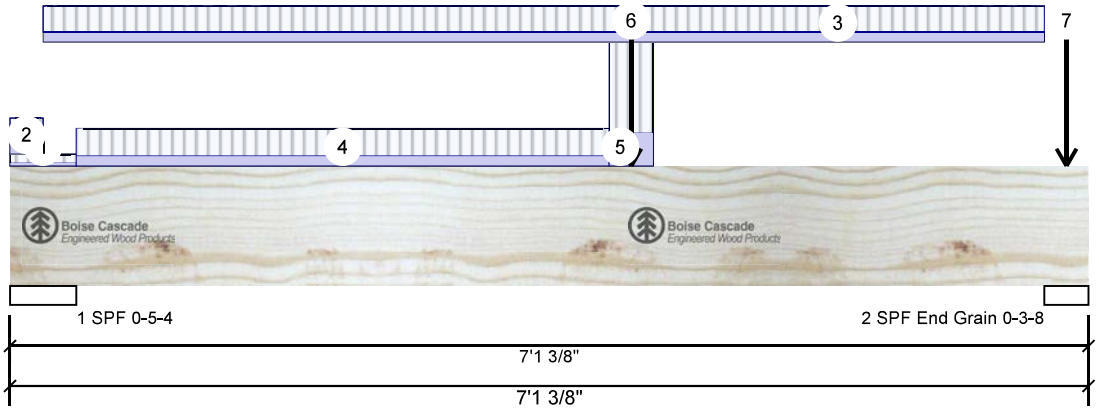
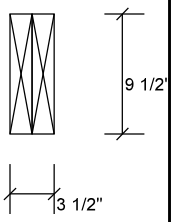
Project:	ZADORRA ESTATES	Input by:	W C
Address:	ZADORRA ESTATES OSHAWA,ON	Job Name:	RIVER 5-2 STD
		Project #:	

F7-B Versa-Lam LVL 2.1E 3100 SP 1.750" X - PASSED

Level: Ground Floor





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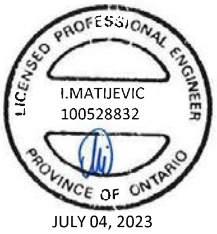
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
5	Tie-In	3-11-7 to 4-2-15	1-8-11	Top	15 PSF	40 PSF	0 PSF	0 PSF	
6	Point	4-1-3		Far Face	83 lb	179 lb	0 lb	0 lb	F5
7	Point	6-11-10		Near Face	255 lb	600 lb	0 lb	0 lb	F7
	Self Weight				9 PLF				



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Notes

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Lumber

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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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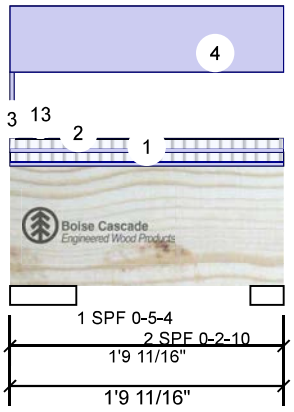
CCMC: 12472

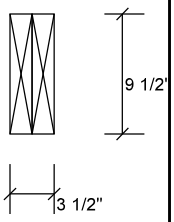
Kott Inc.
3228 Moodie Dr, Ottawa, Ontario
613-838-2775 / 905-642-4400

Client:	GREENPARK	Date:	6/29/2023
Project:	ZADORRA ESTATES	Input by:	W C
Address:	ZADORRA ESTATES OSHAWA,ON	Job Name:	RIVER 5-2 STD
		Project #:	

F8 Versa-Lam LVL 2.1E 3100 SP 1.750" X 9 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)

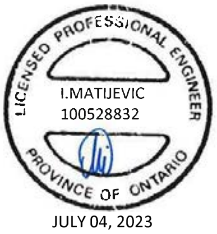
Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	20	86	0	0
2	Vertical	16	66	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.250"	Vert	2%	107 / 30	138	L	1.25D+1.5L
2 - SPF	2.625"	Vert	3%	82 / 24	106	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	27 ft-lb	1' 1/8"	16021 ft-lb	0.002 (0%)	1.25D+1.5L	L
Unbraced	27 ft-lb	1' 1/8"	16021 ft-lb	0.002 (0%)	1.25D+1.5L	L
Shear	20 lb	1'2 3/4"	7296 lb	0.003 (0%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/1024588)	1' 3/16"	0.042 (L/360)	0.000 (0%)	D	Uniform
LL Defl inch	0.000 (L/4250349)	1' 3/16"	0.042 (L/360)	0.000 (0%)	L	L
TL Defl inch	0.000 (L/825575)	1' 3/16"	0.064 (L/240)	0.000 (0%)	D+L	L



JULY 04, 2023

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Design Notes

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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.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-9-11	0-3-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 1-9-11	0-3-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	0-0-0 to 0-0-5		Top	66 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
4	Part. Uniform	0-0-0 to 1-9-11		Top	66 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight

Continued on page 2...

Notes

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Lumber

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Handling & Installation

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

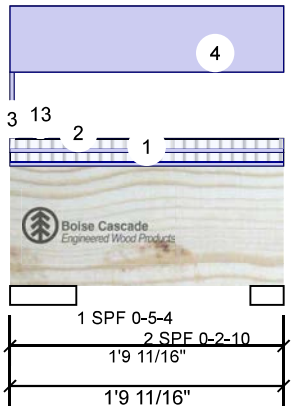
isDesign

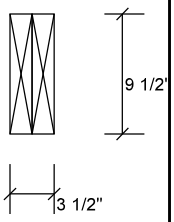
Client: GREENPARK
Project: ZADORRA ESTATES
Address: ZADORRA ESTATES OSHAWA,ON

Date: 6/29/2023
Input by: W C
Job Name: RIVER 5-2 STD
Project #:

F8 Versa-Lam LVL 2.1E 3100 SP 1.750" X 9 PASSED

Level: Ground Floor





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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
5	Tapered Start	0-2-7		Top	1 PLF	4 PLF	0 PLF	0 PLF	
	End	0-2-7			1 PLF	4 PLF	0 PLF	0 PLF	
6	Tapered Start	0-2-7		Top	1 PLF	4 PLF	0 PLF	0 PLF	
	End	0-2-7			1 PLF	4 PLF	0 PLF	0 PLF	
7	Tapered Start	0-2-7		Top	1 PLF	4 PLF	0 PLF	0 PLF	
	End	0-2-7			1 PLF	4 PLF	0 PLF	0 PLF	
8	Tapered Start	0-2-7		Top	1 PLF	4 PLF	0 PLF	0 PLF	
	End	0-2-7			1 PLF	4 PLF	0 PLF	0 PLF	
9	Tapered Start	0-2-7		Top	1 PLF	4 PLF	0 PLF	0 PLF	
	End	0-2-7			1 PLF	4 PLF	0 PLF	0 PLF	
10	Tapered Start	0-2-7		Top	1 PLF	4 PLF	0 PLF	0 PLF	
	End	0-2-7			1 PLF	4 PLF	0 PLF	0 PLF	
11	Tapered Start	0-2-7		Top	1 PLF	4 PLF	0 PLF	0 PLF	
	End	0-2-7			1 PLF	4 PLF	0 PLF	0 PLF	
12	Tapered Start	0-2-7		Top	1 PLF	4 PLF	0 PLF	0 PLF	
	End	0-2-7			1 PLF	4 PLF	0 PLF	0 PLF	
13	Tapered Start	0-2-7		Top	1 PLF	4 PLF	0 PLF	0 PLF	
	End	0-2-7			1 PLF	4 PLF	0 PLF	0 PLF	
	Self Weight				9 PLF				

JULY 04, 2023

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Lumber

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Handling & Installation

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2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
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www.bc.com
CCMC: 12472

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613-838-2775 / 905-642-4400

KOTT

CSD DRAW DESIGN BUILD

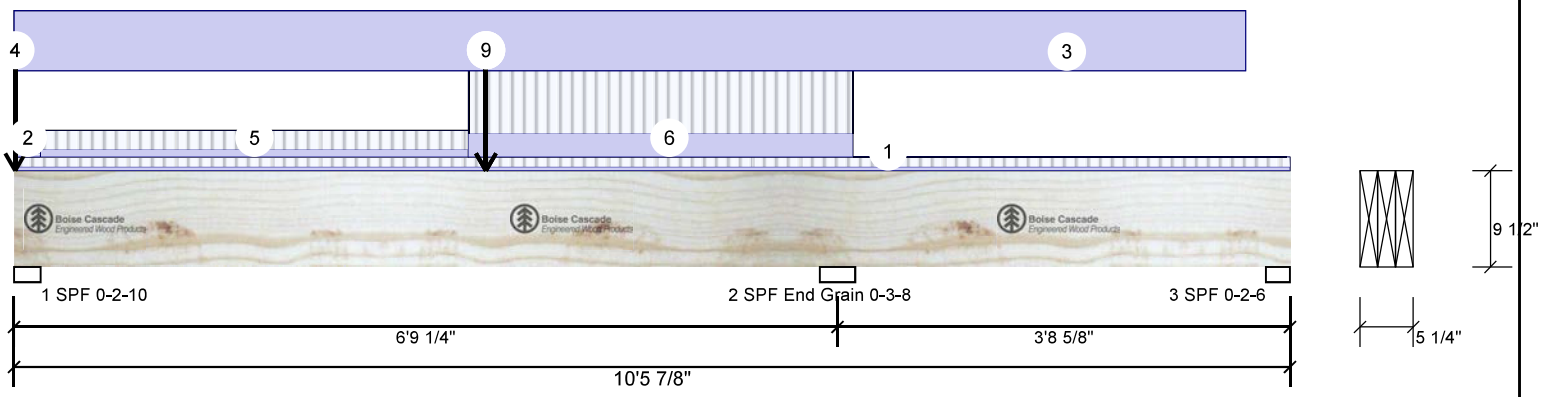
Client:	GREENPARK	Date:	6/29/2023
Project:	ZADORRA ESTATES	Input by:	W C
Address:	ZADORRA ESTATES OSHAWA,ON	Job Name:	RIVER 5-2 STD
		Project #:	

CORPORATION OF THE CITY OF OSHAWA
TRUE COPY
OF PERMIT PLANS
Nov 04 2023
PER:
CHIEF BUILDING OFFICIAL

MHP 23024

F9 Versa-Lam LVL 2.1E 3100 SP 1.750" X 9 PASSED

Level: Ground Floor



Member Information

Type:	Girder
Plies:	3
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal - II
General Load	
Floor Live:	40 PSF
Dead:	15 PSF

Application:	Floor (Residential)
Design Method:	LSD
Building Code:	NBCC 2015 OBC 2012(2020 Update)
Load Sharing:	Yes
Deck:	Not Checked
Vibration:	Not Checked

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	3101	1514	0	0
2	Vertical	1071	1001	0	0
3	Vertical	0 (-219)	(-54)	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.625"	Vert	77%	1891 / 4651	6542	L_	1.25D+1.5L
2 - SPF End Grain	3.500"	Vert	15%	1256 / 1614	2870	LL	1.25D+1.5L
3 - SPF	2.375"	Vert	0%	0 / 0	0 (-431)		(1.25D+1.5L)

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-2184 ft-lb	6'9 1/4"	36222 ft-lb	0.060 (6%)	1.25D+1.5L	LL
Unbraced	-2184 ft-lb	6'9 1/4"	36222 ft-lb	0.060 (6%)	1.25D+1.5L	LL
Pos Moment	2598 ft-lb	3'10 9/16"	36222 ft-lb	0.072 (7%)	1.25D+1.5L	L_
Unbraced	2598 ft-lb	3'10 9/16"	36222 ft-lb	0.072 (7%)	1.25D+1.5L	L_
Shear	1798 lb	5'10"	15860 lb	0.113 (11%)	1.25D+1.5L	LL
Perm Defl in.	0.006 (L/12828)	3'4 1/16"	0.220 (L/360)	0.028 (3%)	D	Uniform
LL Defl inch	0.009 (L/9310)	3'5 7/16"	0.220 (L/360)	0.039 (4%)	L	L_
TL Defl inch	0.015 (L/5397)	3'4 13/16"	0.331 (L/240)	0.044 (4%)	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 Tie-down connection required at bearing 3 for uplift 431 lb (Combination 1.25D+1.5L, Load Case L_).
6 Top must be continuously laterally braced.
7 Bottom must be laterally braced at a maximum of 3'10 9/16" o.c.
8 Lateral slenderness ratio based on full section width.

LICENSED PROFESSIONAL ENGINEER
I.MATIJEVIC
100528832
PROVINCE OF ONTARIO
JULY 04, 2023

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Lumber

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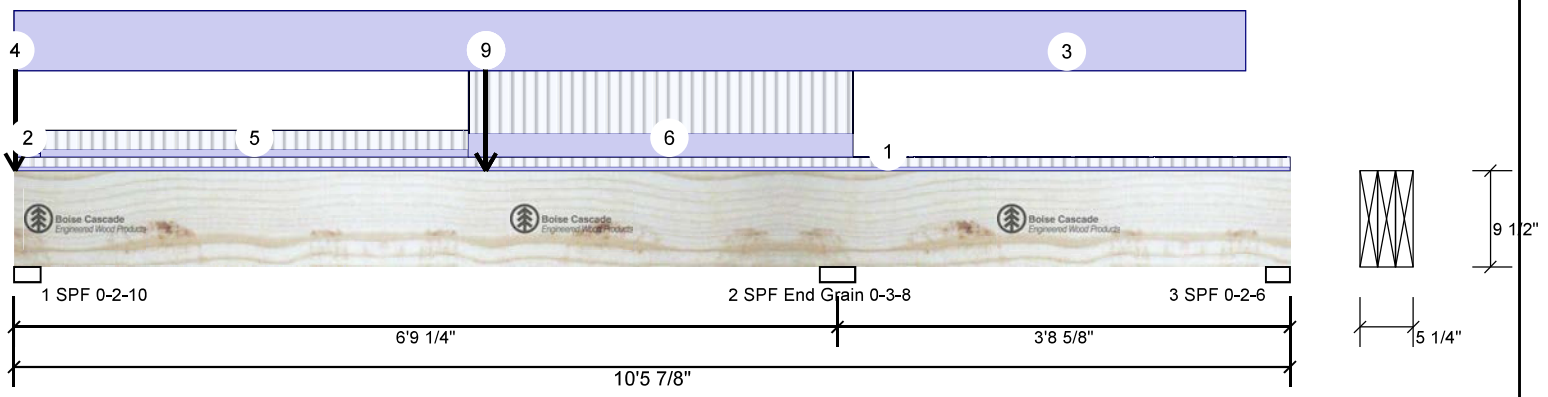
Address:	ZADORRA ESTATES OSHAWA,ON	Job Name:	RIVER 5-2 STD
		Project #:	

F9 Versa-Lam LVL 2.1E 3100 SP 1.750" X 9 PASSED

Level: Ground Floor



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 10-5-14	0-3-5	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 0-2-10	0-2-11	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	0-0-0 to 10-1-8		Top	66 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
4	Point	0-0-2		Top	1131 lb	2736 lb	0 lb	0 lb	F12
	Bearing Length	0-3-8							
5	Tie-In	0-2-10 to 3-8-13	0-6-7	Top	15 PSF	40 PSF	0 PSF	0 PSF	
6	Tie-In	3-8-13 to 6-10-12	1-8-11	Top	15 PSF	40 PSF	0 PSF	0 PSF	
7	Point	3-10-9		Top	3 lb	8 lb	0 lb	0 lb	
	Bearing Length	0-3-8							
8	Point	3-10-9		Top	271 lb	617 lb	0 lb	0 lb	F11
	Bearing Length	0-3-8							
9	Point	3-10-9		Near Face	84 lb	182 lb	0 lb	0 lb	F5
	Self Weight				14 PLF				

JULY 04, 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

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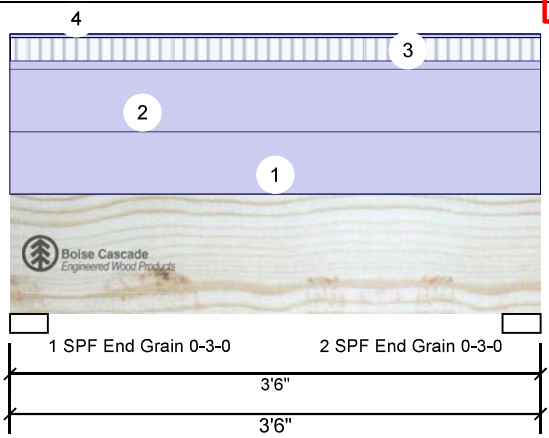
Boise, ID 83702
(800) 232-0788
www.bc.com
CCMC: 12472

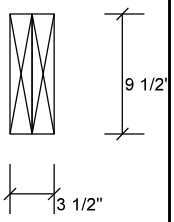
Kott Inc.
3228 Moodie Dr, Ottawa, Ontario
613-838-2775 / 905-642-4400

Client:	GREENPARK	Date:	6/29/2023
Project:	ZADORRA ESTATES	Input by:	W C
Address:	ZADORRA ESTATES OSHAWA,ON	Job Name:	RIVER 5-2 STD
		Project #:	

FH5 Versa-Lam LVL 2.1E 3100 SP 1.750" X 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	33	213	0	0
2	Vertical	33	213	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	4%	266 / 50	316	L	1.25D+1.5L
2 - SPF End Grain	3.000"	Vert	4%	266 / 50	316	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	220 ft-lb	1'9"	15093 ft-lb	0.015 (1%)	1.25D+1.5L	L
Unbraced	220 ft-lb	1'9"	15093 ft-lb	0.015 (1%)	1.25D+1.5L	L
Shear	220 lb	2'5 1/2"	6873 lb	0.032 (3%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/68776)	1'9"	0.104 (L/360)	0.005 (1%)	D	Uniform
LL Defl inch	0.000 (L/439686)	1'9"	0.104 (L/360)	0.001 (0%)	L	L
TL Defl inch	0.001 (L/59473)	1'9"	0.156 (L/240)	0.004 (0%)	D+L	L

Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2 Girders are designed to be supported on the bottom edge only.
3 Multiple plies must be fastened together as per manufacturer's details.
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5 Top must be laterally braced at a maximum of 3'6" o.c.
6 Bottom must be laterally braced at a maximum of 3'6" o.c.
7 Lateral slenderness ratio based on full section width.

JULY 04, 2023

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 3-6-0		Top	51 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
2	Part. Uniform	0-0-0 to 3-6-0		Near Face	51 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
3	Tapered Start	0-0-0		Near Face	7 PLF	19 PLF	0 PLF	0 PLF	
	End	3-6-0			7 PLF	19 PLF	0 PLF	0 PLF	

Continued on page 2...

Notes

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Lumber

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

Handling & 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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www.bc.com
CCMC: 12472

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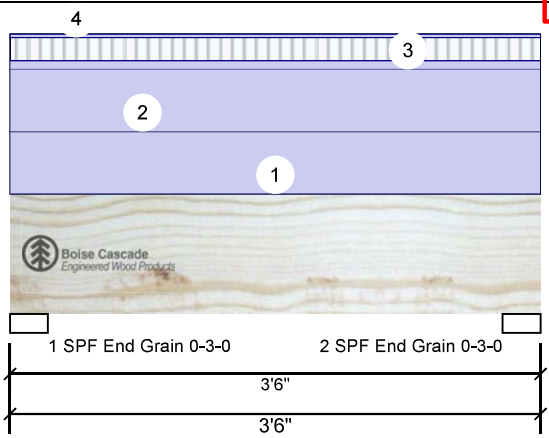
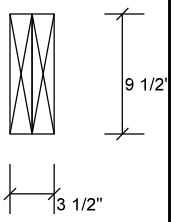
Client:	GREENPARK	Date:	6/29/2023
Project:	ZADORRA ESTATES	Input by:	W C
Address:	ZADORRA ESTATES OSHAWA,ON	Job Name:	RIVER 5-2 STD
		Project #:	

FH5 Versa-Lam LVL 2.1E 3100 SP 1.750" X PASSED

Level: Ground Floor





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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
4	Part. Uniform	0-0-0 to 3-6-0		Near Face	3 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
	Self Weight				9 PLF				

JULY 04, 2023

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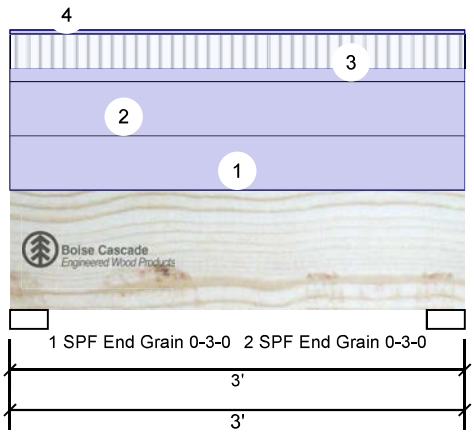
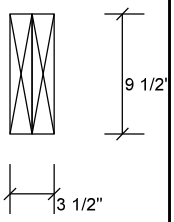
Client:	GREENPARK	Date:	6/29/2023
Project:	ZADORRA ESTATES	Input by:	W C
Address:	ZADORRA ESTATES OSHAWA,ON	Job Name:	RIVER 5-2 DC
		Project #:	

FH6 Versa-Lam LVL 2.1E 3100 SP 1.750" X 9.250" — 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	39	157	0	0
2	Vertical	39	157	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	3%	196 / 59	254	L	1.25D+1.5L
2 - SPF End Grain	3.000"	Vert	3%	196 / 59	254	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	146 ft-lb	1'6"	16254 ft-lb	0.009 (1%)	1.25D+1.5L	L
Unbraced	146 ft-lb	1'6"	16254 ft-lb	0.009 (1%)	1.25D+1.5L	L
Shear	171 lb	1' 1/2"	7401 lb	0.023 (2%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/130052)	1'6"	0.088 (L/360)	0.003 (0%)	D	Uniform
LL Defl inch	0.000 (L/522544)	1'6"	0.088 (L/360)	0.001 (0%)	L	L
TL Defl inch	0.000 (L/104135)	1'6"	0.131 (L/240)	0.002 (0%)	D+L	L

Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
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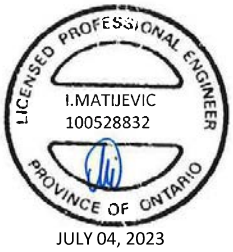
6 Bottom must be laterally braced at a maximum of 3' o.c.
7 Lateral slenderness ratio based on full section width.



JULY 04, 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	41 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
2	Part. Uniform	0-0-0 to 3-0-0		Near Face	41 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
3	Tapered Start	0-0-0		Near Face	10 PLF	26 PLF	0 PLF	0 PLF	
	End	3-0-0			10 PLF	26 PLF	0 PLF	0 PLF	

Continued on page 2...

Notes

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Lumber

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

Handling & Installation

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2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
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This design is valid until 4/17/2026

Manufacturer Info

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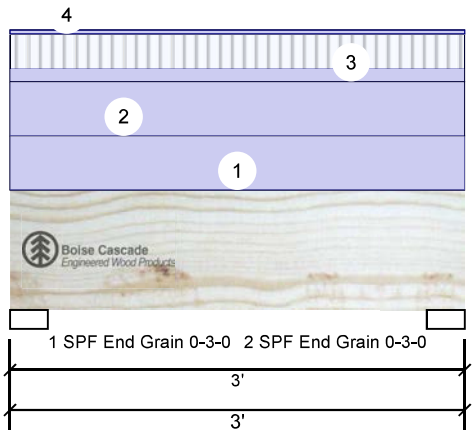
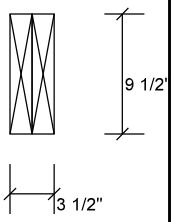
Client:	GREENPARK	Date:	6/29/2023
Project:	ZADORRA ESTATES	Input by:	W C
Address:	ZADORRA ESTATES OSHAWA,ON	Job Name:	RIVER 5-2 DC
		Project #:	

FH6 Versa-Lam LVL 2.1E 3100 SP 1.750" X PASSED

Level: Ground Floor





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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
4	Part. Uniform	0-0-0 to 3-0-0		Near Face	3 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
	Self Weight				9 PLF				

JULY 04, 2023

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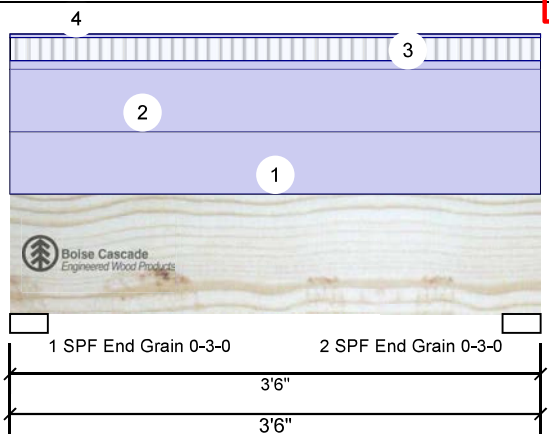
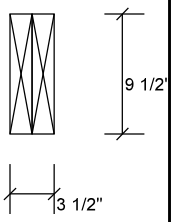
		Project #:	

FH6-A Versa-Lam LVL 2.1E 3100 SP 1.750" X [illegible] PASSED

Level: Ground Floor





Member Information

Type:	Girder	Application:	Floor (Residential)
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Floor Live:	40 PSF		
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Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	33	213	0	0
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Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
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Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	220 ft-lb	1'9"	15093 ft-lb	0.015 (1%)	1.25D+1.5L	L
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Shear	220 lb	2'5 1/2"	6873 lb	0.032 (3%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/68776)	1'9"	0.104 (L/360)	0.005 (1%)	D	Uniform
LL Defl inch	0.000 (L/439686)	1'9"	0.104 (L/360)	0.001 (0%)	L	L
TL Defl inch	0.001 (L/59473)	1'9"	0.156 (L/240)	0.004 (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.
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JULY 04, 2023

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 3-6-0		Top	51 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
2	Part. Uniform	0-0-0 to 3-6-0		Near Face	51 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
3	Tapered Start	0-0-0		Near Face	7 PLF	19 PLF	0 PLF	0 PLF	
	End	3-6-0			7 PLF	19 PLF	0 PLF	0 PLF	

Continued on page 2...

Notes

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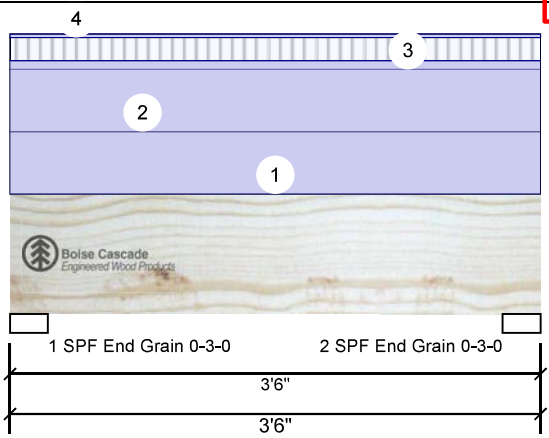
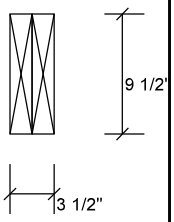
FH6-A Versa-Lam LVL 2.1E 3100 SP 1.750" X **PASSED** Level: Ground Floor





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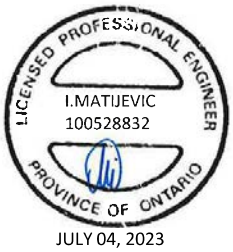
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
4	Part. Uniform	0-0-0 to 3-6-0		Near Face	3 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
	Self Weight				9 PLF				



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This design is valid until 4/17/2026

Manufacturer Info

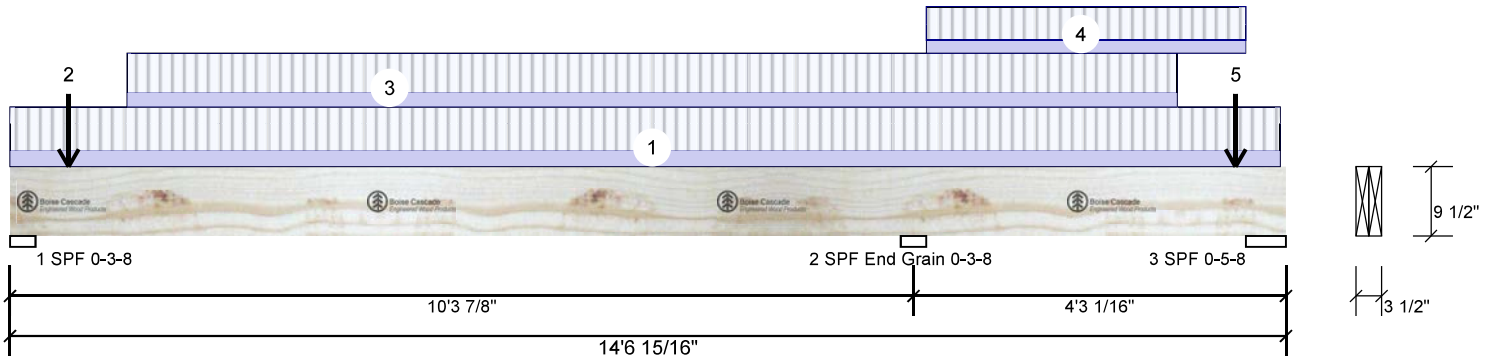
Boise Cascade Wood Products
1111 W. Jefferson St.
Boise, ID 83702
(800) 232-0788
www.bc.com
CCMC: 12472

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

Client:	GREENPARK	Date:	6/29/2023
Project:	ZADORRA ESTATES	Input by:	W C
Address:	ZADORRA ESTATES OSHAWA,ON	Job Name:	RIVER 5-2 STD
		Project #:	

F11 Versa-Lam LVL 2.1E 3100 SP 1.750" X 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	617	271	0	0
2	Vertical	1651	716	0	0
3	Vertical	72	27	0	0

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-2987 ft-lb	10'3 7/8"	23220 ft-lb	0.129 (13%)	1.25D+1.5L	LL
Pos Moment	2547 ft-lb	4'4 1/4"	23220 ft-lb	0.110 (11%)	1.25D+1.5L	L_
Unbraced	2547 ft-lb	4'4 1/4"	23220 ft-lb	0.110 (11%)	1.25D+1.5L	L_
Shear	1543 lb	9'4 5/8"	10574 lb	0.146 (15%)	1.25D+1.5L	LL
Perm Defl in.	0.016 (L/7642)	4'9 1/4"	0.336 (L/360)	0.047 (5%)	D	Uniform
LL Defl inch	0.038 (L/3168)	4'9 7/8"	0.336 (L/360)	0.114 (11%)	L	L_
TL Defl inch	0.054 (L/2240)	4'9 11/16"	0.505 (L/240)	0.107 (11%)	D+L	L_

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	17%	338 / 940	1279	L_	1.25D+1.5L
2 - SPF End Grain	3.500"	Vert	26%	897 / 2482	3380	LL	1.25D+1.5L
3 - SPF	5.500"	Vert	6%	32 / 630	662 (-465)	_L	1.25D+1.5L (0.9D+1.5L)

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. Tie-down connection required at bearing 3 for uplift 465 lb (Combination 0.9D+1.5L, Load Case L_).
6. Top must be continuously laterally braced.
7. Bottom must have sheathing attached or be continuously braced.
8. Lateral slenderness ratio based on full section width.

JULY 04, 2023

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 14-6-2	1-11-3	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-8-1		Near Face	28 lb	76 lb	0 lb	0 lb	J2
3	Part. Uniform	1-4-1 to 13-4-1		Near Face	26 PLF	70 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

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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CCMC: 12472

Kott Inc.
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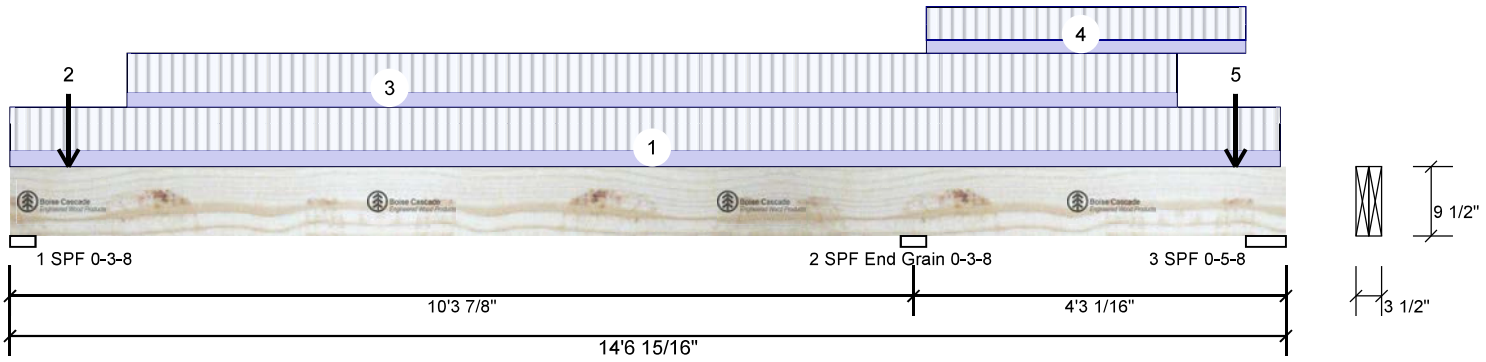
613-838-2775 / 905-642-4400

Client:	GREENPARK	Date:	6/29/2023
Project:	ZADORRA ESTATES	Input by:	W C
Address:	ZADORRA ESTATES OSHAWA,ON	Job Name:	RIVER 5-2 STD
		Project #:	

F11 Versa-Lam LVL 2.1E 3100 SP 1.750" X [illegible] PASSED

Level: Second Floor



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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
4	Part. Uniform	10-5-10 to 14-1-7		Top	23 PLF	60 PLF	0 PLF	0 PLF	
5	Point	14-0-1		Near Face	31 lb	82 lb	0 lb	0 lb	J2
	Self Weight				9 PLF				

JULY 04, 2023

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613-838-2775 / 905-642-4400

iStructDesign

Client: GREENPARK
Project: ZADORRA ESTATES
Address: ZADORRA ESTATES OSHAWA,ON

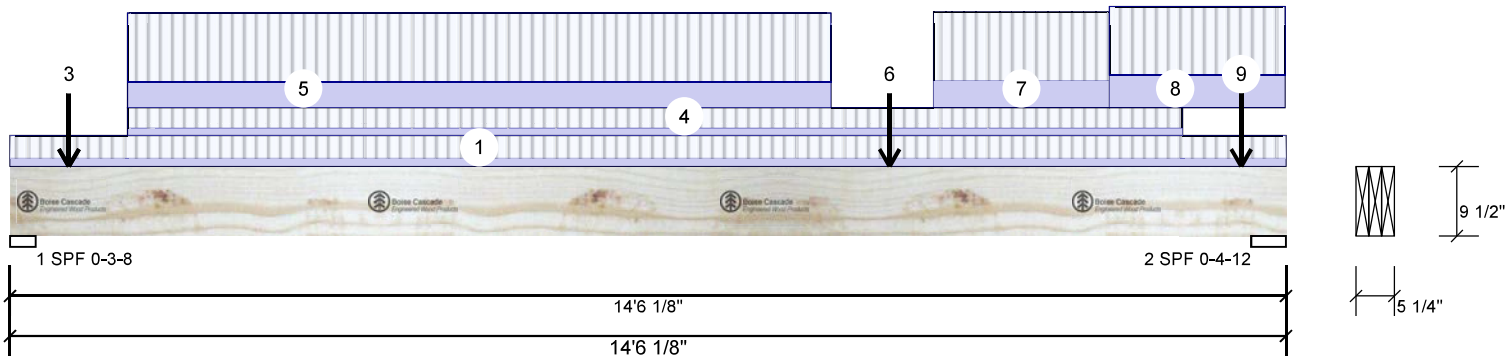
Date: 6/29/2023
Input by: W C
Job Name: RIVER 5-2 STD
Project #:

CORPORATION OF THE CITY OF OSHAWA
TRUE COPY
OF PERMIT PLANS
Nov 04 2023
PER:
CHIEF BUILDING OFFICIAL

MHP 23024

F12 Versa-Lam LVL 2.1E 3100 SP 1.750" X PASSED

Level: Second Floor



Member Information

Type:	Girder
Plies:	3
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal - II
General Load	
Floor Live:	40 PSF
Dead:	15 PSF

Application:	Floor (Residential)
Design Method:	LSD
Building Code:	NBCC 2015 OBC 2012(2020 Update)
Load Sharing:	Yes
Deck:	Not Checked
Vibration:	Not Checked

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	2736	1131	0	0
2	Vertical	2807	1207	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	49%	1413 / 4104	5517	L	1.25D+1.5L
2 - SPF	4.750"	Vert	37%	1508 / 4211	5719	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	18816 ft-lb	7'2 1/2"	36222 ft-lb	0.519 (52%)	1.25D+1.5L	L
Unbraced	18816 ft-lb	7'2 1/2"	36222 ft-lb	0.519 (52%)	1.25D+1.5L	L
Shear	5739 lb	1'1"	15860 lb	0.362 (36%)	1.25D+1.5L	L
Perm Defl in.	0.173 (L/968)	7'2 9/16"	0.465 (L/360)	0.372 (37%)	D	Uniform
LL Defl inch	0.417 (L/402)	7'2 1/2"	0.465 (L/360)	0.896 (90%)	L	L
TL Defl inch	0.590 (L/284)	7'2 1/2"	0.698 (L/240)	0.845 (85%)	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 have sheathing attached or be continuously braced.
7 Lateral slenderness ratio based on full section width.

LICENSED PROFESSIONAL ENGINEER
I.MATIJEVIC
100528832
PROVINCE OF ONTARIO
JULY 04, 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 14-6-2	1-11-3	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-8-1		Far Face	28 lb	76 lb	0 lb	0 lb	J2
3	Point	0-8-1		Near Face	113 lb	302 lb	0 lb	0 lb	J6
4	Part. Uniform	1-4-1 to 13-4-1		Far Face	26 PLF	70 PLF	0 PLF	0 PLF	
5	Part. Uniform	1-4-1 to 9-4-1		Near Face	89 PLF	237 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

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
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www.bc.com
CCMC: 12472

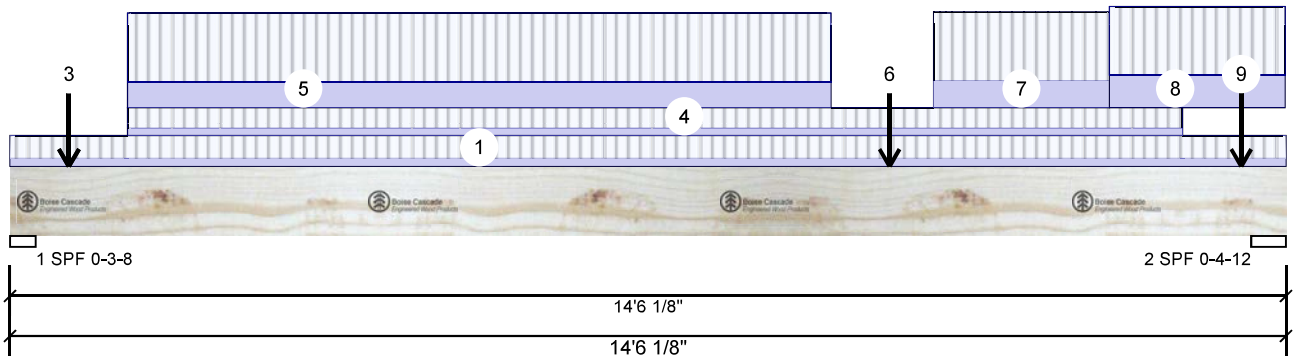
Kott Inc.
3228 Moodie Dr, Ottawa, Ontario
613-838-2775 / 905-642-4400

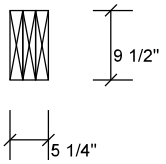
KOTT
CSD DRAW DESIGN BUILD

Client:	GREENPARK	Date:	6/29/2023
Project:	ZADORRA ESTATES	Input by:	W C
Address:	ZADORRA ESTATES OSHAWA,ON	Job Name:	RIVER 5-2 STD
		Project #:	

F12 Versa-Lam LVL 2.1E 3100 SP 1.750" X PASSED

Level: Second Floor





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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
6	Point	10-0-1		Near Face	104 lb	276 lb	0 lb	0 lb	J6
7	Part. Uniform	10-6-1 to 12-6-1		Near Face	93 PLF	237 PLF	0 PLF	0 PLF	
8	Part. Uniform	12-6-1 to 14-6-1		Near Face	112 PLF	237 PLF	0 PLF	0 PLF	
9	Point	14-0-1		Far Face	31 lb	82 lb	0 lb	0 lb	J2
	Self Weight				14 PLF				

JULY 04, 2023

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Lumber

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Handling & Installation

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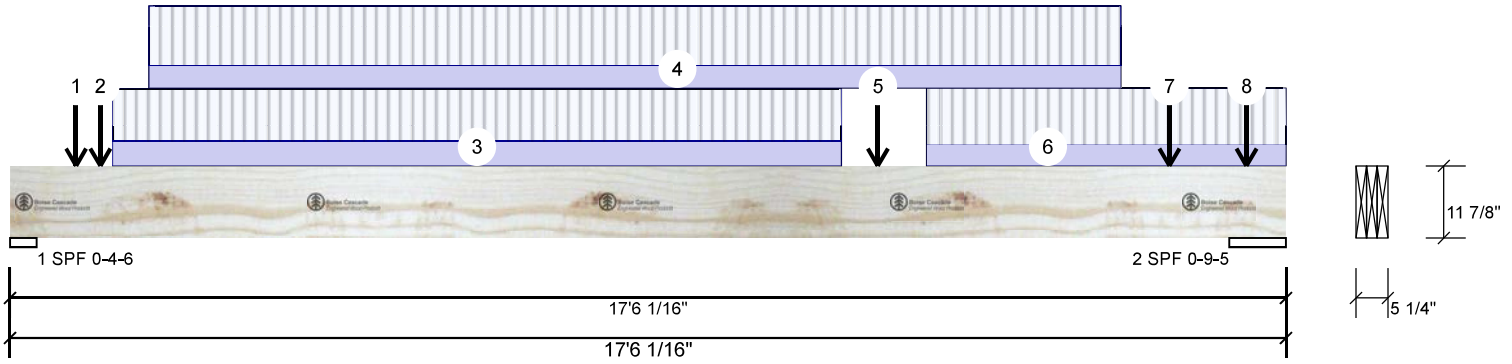
Client:	GREENPARK	Date:	6/29/2023
Project:	ZADORRA ESTATES	Input by:	W C
Address:	ZADORRA ESTATES OSHAWA,ON	Job Name:	RIVER 5-2 STD
		Project #:	

CORPORATION OF THE CITY OF OSHAWA
TRUE COPY
OF PERMIT PLANS
Nov 04 2023
PER:
CHIEF BUILDING OFFICIAL

MHP 23024

F13 Versa-Lam LVL 2.1E 3100 SP 1.750" X - PASSED

Level: Second Floor



Member Information

Type:	Girder
Plies:	3
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal - II
General Load	
Floor Live:	40 PSF
Dead:	15 PSF

Application:	Floor (Residential)
Design Method:	LSD
Building Code:	NBCC 2015 OBC 2012(2020 Update)
Load Sharing:	Yes
Deck:	Not Checked
Vibration:	Not Checked

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	3519	1632	0	0
2	Vertical	3994	1757	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	4.375"	Vert	52%	2040 / 5278	7318	L	1.25D+1.5L
2 - SPF	9.340"	Vert	27%	2196 / 5991	8187	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	30896 ft-lb	8'6 5/8"	55212 ft-lb	0.560 (56%)	1.25D+1.5L	L
Unbraced	30896 ft-lb	8'6 5/8"	55212 ft-lb	0.560 (56%)	1.25D+1.5L	L
Shear	7740 lb	1'4 1/4"	19825 lb	0.390 (39%)	1.25D+1.5L	L
Perm Defl in.	0.218 (L/908)	8'6 7/16"	0.550 (L/360)	0.397 (40%)	D	Uniform
LL Defl inch	0.477 (L/415)	8'6 9/16"	0.550 (L/360)	0.868 (87%)	L	L
TL Defl inch	0.695 (L/285)	8'6 9/16"	0.824 (L/240)	0.843 (84%)	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.
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LICENSED PROFESSIONAL ENGINEER
I.MATIJEVIC
100528832
PROVINCE OF ONTARIO
JULY 04, 2023

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Point	0-10-14		Near Face	95 lb	200 lb	0 lb	0 lb	J5
2	Point	1-2-14		Far Face	115 lb	306 lb	0 lb	0 lb	J5
3	Part. Uniform	1-4-14 to 11-4-14		Near Face	97 PLF	204 PLF	0 PLF	0 PLF	
4	Part. Uniform	1-10-14 to 15-2-14		Far Face	88 PLF	233 PLF	0 PLF	0 PLF	
5	Point	11-10-14		Near Face	115 lb	238 lb	0 lb	0 lb	J5
6	Part. Uniform	12-6-14 to 17-6-1		Near Face	83 PLF	221 PLF	0 PLF	0 PLF	

Continued on page 2...

Notes

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Lumber

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Handling & Installation

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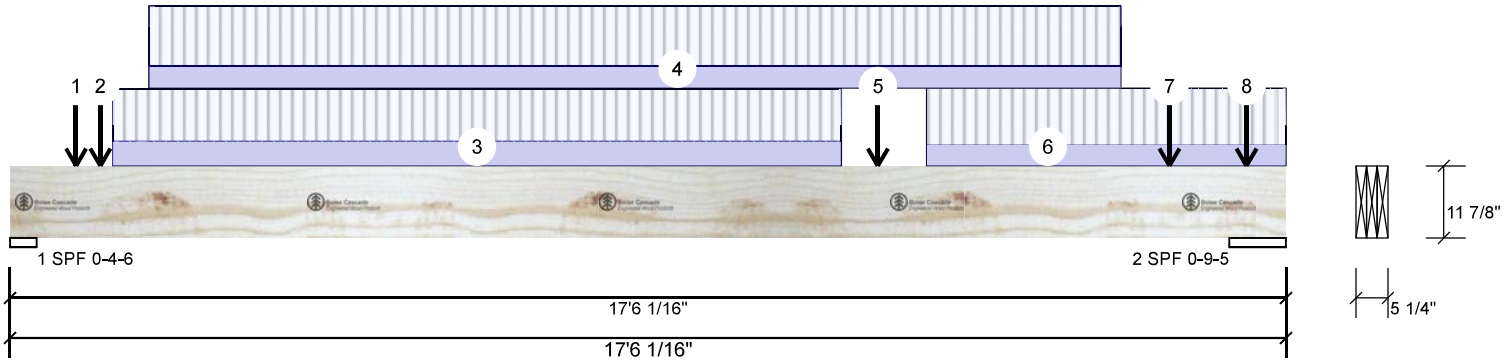
F13 Versa-Lam LVL 2.1E 3100 SP 1.750" X - PASSED

Level: Second Floor



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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
7	Point	15-10-14		Far Face	105 lb	279 lb	0 lb	0 lb	J5
8	Point	16-11-9		Far Face	95 lb	253 lb	0 lb	0 lb	J5
	Self Weight				18 PLF				

JULY 04, 2023

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