Engineering Notes: EWP-Floors

MHP 23032

KOTT

PLEASE READ ALL NOTES PRIOR TO INSTALLATION OF THE COMPONENT

RESPONSIBILTIES

THE RESPONSIBILITY OF THE UNDERSIGNED ENGINEER IS ONLY LIMITED TO THE CALCULATION OF THIS BUILDING COMPONENT FOR THE LOADS AND CONDITIONS SHOWN ON THIS DRAWING.

THE RESPONSIBILITY OF THE UNDERSIGNED IS LIMITED TO THE VERIFICATION OF THE STRUCTURAL CAPACITY OF THE FLOOR JOISTS AND LVL BEAMS BASED ON PLACEMENT AS SHOWN ON THE LAYOUT. THE LOADS APPLIED ARE LIMITED TO THE GRAVITY EFFECTS OF THE SPECIFIED LOADS. THE STRUCTURAL INTEGRITY OF THE BUILDING AND THE EFFECT OF WIND, UPLIFT, SEISMIC, LATERAL OR OTHER FORCES, CALCULATION OF ADEQUATE SUPPORT AND ANCHORAGE OF COMPONENTS, AS WELL AS THE DIMENSIONS AND DESIGN LOADS USED TO CALCULATE COMPONENTS ARE THE RESPONSIBILITY OF THE OVERALL BUILDING DESIGNER. FLOOR JOISTS AND OSB RIM BOARD ARE DESIGNED TO CARRY UNIFORMLY DISTRIBUTED LOADS ONLY. POINT LOADS SHOULD BE TRANSFERRED THROUGH THE FLOOR CAVITY WITH TRANSFER BLOCKS. STRUCTURAL ELEMENTS SUCH AS WALLS, POSTS, CONNECTORS, AND TRANSFER BLOCKS ARE THE RESPONSIBILITY OF THE OVERALL BUILDING DESIGNER.

THE UNDERSIGNED ENGINEER DISCLAIMS ANY RESPONSIBILITY FOR DAMAGES AS A RESULT OF BEING FURNISHED FAULTY OR INCORRECT INFORMATION, SPECIFICATIONS AND/OR DESIGNS.

COMPONENT DESIGN INFORMATION

1. THIS BUILDING COMPONENT IS CERTIFIED AS AN INDIVIDUAL COMPONENT FOR THE LOADS AND CONDITIONS SHOWN ON THE CALCULATION PAGE BASED ON INFORMATION PROVIDED BY KOTT DESIGN.
2. THE BUILDING COMPONENT USED IN CONSTRUCTION MUST BE THE SAME AS INDICATED ON THE DRAWINGS.
3. UNLESS NOTED OTHERWISE ON THE LAYOUT OR BEAM CALCULATION SHEET, MEMBERS CONSISTING OF MULTIPLE PLIES MUST BE CONNECTED AS PER THE DOCUMENT "MULTIPLE MEMBER CONNECTION DETAILS" SHOWN ON PAGE 2 OF THIS DOCUMENT.
4. PASS-THRU TRANSFER BLOCK FRAMING IS REQUIRED AT ALL POINT LOADS OVER BEARINGS.
5. IT IS ASSUMED THAT EACH LVL BEAM WHERE NOT SEATED IN A HANGER IS ATTACHED USING (4) FOUR 3-1/4" COMMON SPIRAL NAILS FOR UP TO 5.5" LONG BEARINGS AND USING (6) SIX 3-1/4" COMMON SPIRAL NAILS FOR BEARINGS EQUAL TO OR LONGER THAN 5.5", UNLESS INDICATED OTHERWISE.

CODE

THIS BUILDING COMPONENT IS DESIGNED IN ACCORDANCE WITH THE NATIONAL BUILDING CODE OF CANADA, THE ONTARIO BUILDING CODE, CCMC AND CANADIAN STANDARDS ASSOCIATION GUIDELINES.

HANDLING AND INSTALLATION

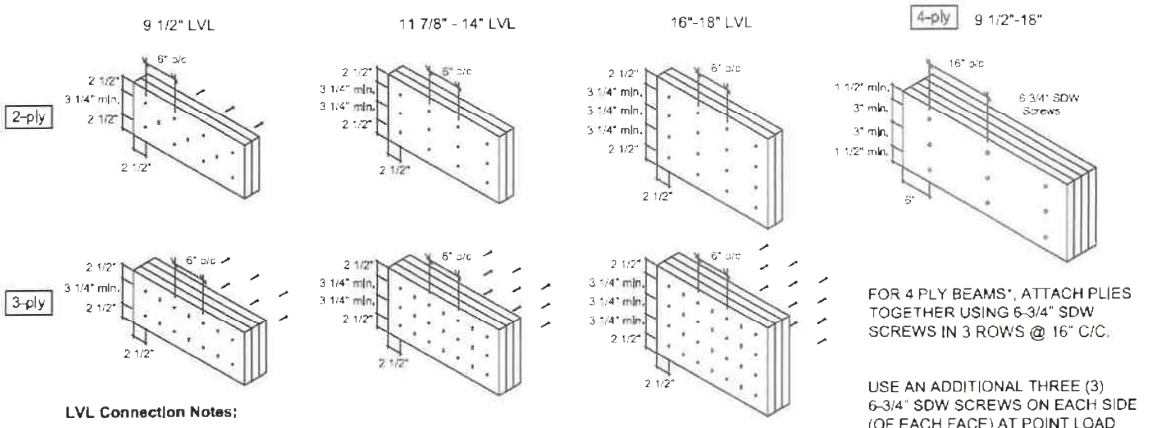
1. DO NOT DRILL ANY HOLE, CUT OR NOTCH A CERTIFIED BUILDING COMPONENT WITHOUT A WRITTEN PRE-AUTHORIZATION.
2. INSTALLATION AND ASSEMBLY OF FLOOR JOISTS AND LVL BEAMS IS TO BE CARRIED OUT IN ACCORDANCE WITH THE CURRENT EDITION OF THE MANUFACTURER'S LITERATURE.

MHP 23032

MULTIPLE MEMBER CONNECTIONS FOR BEAMS SHOWN ON KOTT LAYOUTS

KOTT

MULTIPLE MEMBER CONNECTIONS FOR UNIFORMLY DISTRIBUTED TOP & SIDE LOADED LVL BEAMS SHOWN ON KOTT LAYOUTS



LVL Connection Notes:

-LVL ply width is 1-3/4"
-Nails to be 3 1/2" common wire nails.
-Nails to be located 2 1/2" min. from the top and bottom of the member. Start all nails 2 1/2" min. from ends.
-Minimum 3 1/4" spacing between rows,
-Number of rows and spacing as per details shown, unless noted otherwise.
- "X" represents nail driven from the opposite side.
- Head of all specified screws must be on the loaded side.

FOR 4 PLY BEAMS*, ATTACH PLIES TOGETHER USING 6-3/4" SDW SCREWS IN 3 ROWS @ 16" C/C.

USE AN ADDITIONAL THREE (3) 6-3/4" SDW SCREWS ON EACH SIDE (OF EACH FACE) AT POINT LOAD LOCATIONS @ 1/2 SPACING, WHERE APPLICABLE.

UNLESS NOTED OTHERWISE ON LAYOUT OR CALCULATION SHEET OF BEAM IN THE FLOOR PACKAGE

FOR MULTIPLE MEMBER CONNECTION OF BOISE ALLJOISTS REFER TO THE BOISE CASCADE INSTALLATION GUIDE

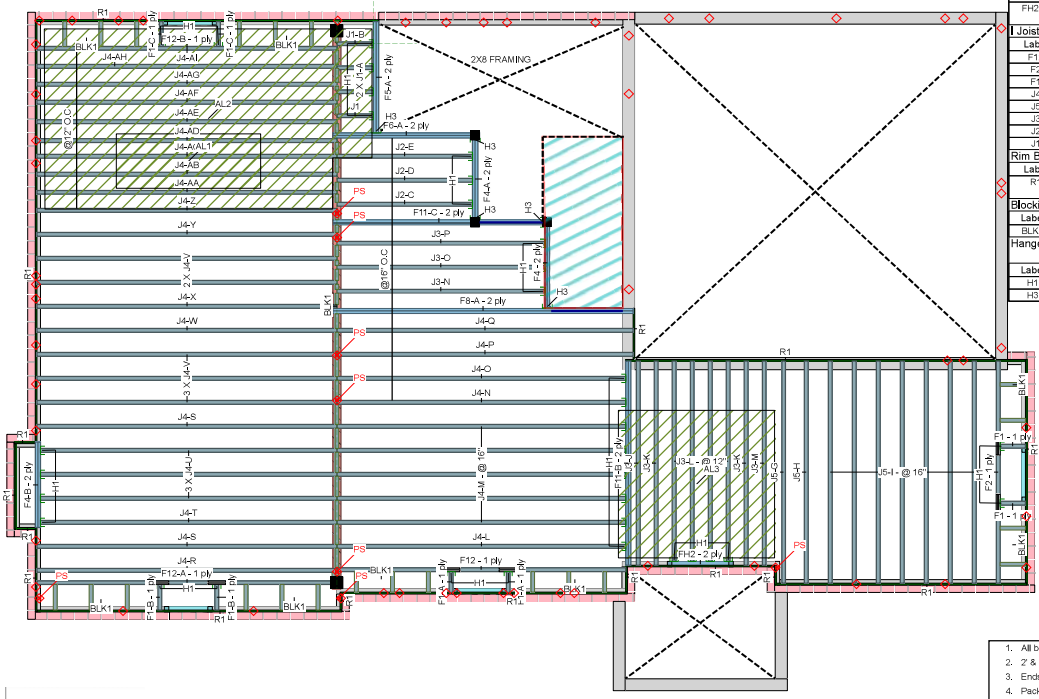
Installation Guide

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

Last Revised January 13, 2023

MHP 23032

Ground Floor



Ground Floor
LVL/LSL (Flush)

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
F8	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	18-0-0
F11	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	2	2	4	12-0-0
F6	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	10-0-0
F5	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	8-0-0
F4	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	3	2	6	6-0-0
FH2	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	4-0-0

Joist (Flush)

Label	Description	Width	Depth	Pcs	Length
F12	AJS 140	2.5	11.875	3	18-0-0
F2	AJS 140	2.5	11.875	1	14-0-0
F1	AJS 140	2.5	11.875	8	2-0-0
J4	AJS 140	2.5	11.875	35	18-0-0
J5	AJS 140	2.5	11.875	9	14-0-0
J3	AJS 140	2.5	11.875	11	12-0-0
J2	AJS 140	2.5	11.875	3	8-0-0
J1	AJS 140	2.5	11.875	4	4-0-0

Rim Board

Label	Description	Width	Depth	Pcs	Length
R1	Norbord Rimboard Plus 1.125 X 11.875	1.125	11.875	13	12-0-0

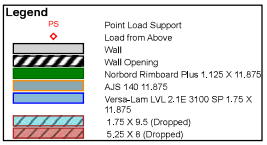
Blocking

Label	Description	Width	Depth	Qty	Pcs	Length
BLK1	AJS 140	2.5	11.875	LinFt	Varies	53-0-0

Hanger

Label	Pcs	Description	Beam/Girder fasteners	Supported Member fasteners
H1	34	LF2511	12 10dx1 1/2	1 #8x1 1/4WS
H3	5	LF3511	12 10d	2 #8x1 1/4WS

Legend



JOB INFORMATION

Builder
GREENPARK

Project

Shipping
ZADORRA ESTATES
OSHAWA,ON

Sales Rep
RALPH MIRIGELLO

Designer
W.C

Plotted
June 16, 2023

Layout Name
ROSE 12-1 STD

Job Path
S:\CUSTOMERS\GREENPARK\ZADORRA ESTATES\MODELS\ROSE 12\ROSE 12-1\F-ROSE 12-1\ROSE 12-1.lsl

DESIGN CRITERIA

Ground Floor

Design Method	LSD (Canada)
Building Code	NBCC 2015 OBC 2012(2020 Update)

Floor

Loads

Live	40
Dead	15

Deflection Joist

LL Span	L/ 360
TL Span	L/ 240

Deflection Flush Girder

LL Span	L/ 360
TL Span	L/ 240

Deflection Dropped Girder

LL Span	L/ 360
TL Span	L/ 240

Deflection Header

LL Span	L/ 360
TL Span	L/ 240

Decking

Decking	OSB
Thickness	3/4"
Fastener	Nailed & Glued

CCMC References
Boise - 12472-R , 12787-R
LP - 12412-R, Roseburg - 13310-R
Forex - 14056-R

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

Installation Guide

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

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

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

Where beam hangs on side of 3-ply member, it is recommended that the equivalent quantity and size of nails required for the hanger attachment also be installed on opposite side of the 3-ply member

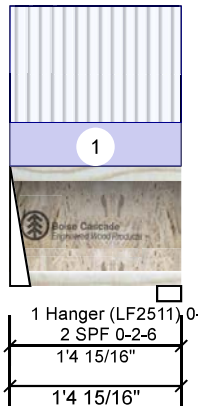
Client: GREENPARK
Project:
Address: ZADORRA ESTATES OSHAWA,ON

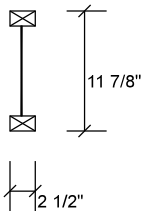
MHP 23032

Date: 7/13/2023
Input by: W C
Job Name: ROSE 12-1 STD
Project #:

F1 A.[illegible]375" - 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	44	16	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%	20 / 66	86	L	1.25D+1.5L
2 - SPF	2.375"	Vert	5%	21 / 69	90	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	21 ft-lb	8 1/4"	5305 ft-lb	0.004 (0%)	1.25D+1.5L	L
Unbraced	21 ft-lb	8 1/4"	5305 ft-lb	0.004 (0%)	1.25D+1.5L	L
Shear	73 lb	1 1/4"	2350 lb	0.031 (3%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/224856)	8 5/16"	0.039 (L/360)	0.002 (0%)	D	Uniform
LL Defl inch	0.000 (L/84321)	8 5/16"	0.039 (L/360)	0.004 (0%)	L	L
TL Defl inch	0.000 (L/61324)	8 5/16"	0.059 (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 Fill all hanger nailing holes.
3 Left Header: SPF, Thickness: 2 1/2"
4 Girders are designed to be supported on the bottom edge only.
5 If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
6 If sheathing is not attached to the bottom flange, bottom flange must be laterally braced at maximum 2' o.c.

JULY 14, 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 1-4-15	1-7-0	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. 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

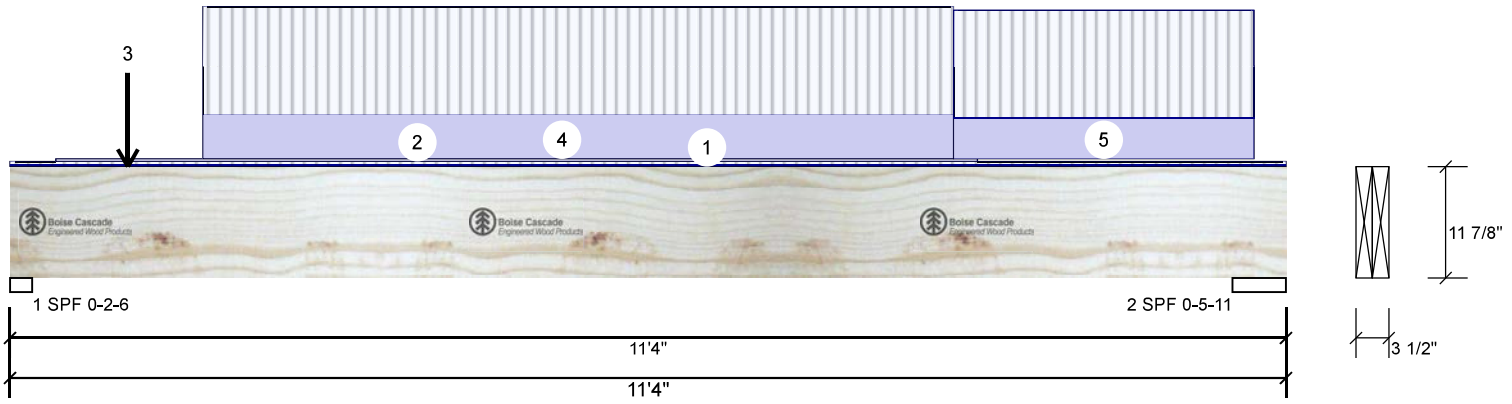
Client: GREENPARK
Project:
Address: ZADORRA ESTATES OSHAWA,ON

MHP 23032

Date: 7/13/2023
Input by: W C
Job Name: ROSE 12-1 STD
Project #:

F11-B V 1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED

Level: Ground Floor



Member Information

Type:	Girder
Plies:	2
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	1703	802	0	0
2	Vertical	1829	821	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	Vert	70%	1002 / 2555	3557	L	1.25D+1.5L
2 - SPF	5.699"	Vert	31%	1026 / 2743	3769	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	10000 ft-lb	5'6 1/4"	35392 ft-lb	0.283 (28%)	1.25D+1.5L	L
Unbraced	10000 ft-lb	5'6 1/4"	35392 ft-lb	0.283 (28%)	1.25D+1.5L	L
Shear	4146 lb	1'2 1/4"	13217 lb	0.314 (31%)	1.25D+1.5L	L
Perm Defl in.	0.046 (L/2806)	5'6 3/16"	0.359 (L/360)	0.128 (13%)	D	Uniform
LL Defl inch	0.099 (L/1303)	5'6 3/8"	0.359 (L/360)	0.276 (28%)	L	L
TL Defl inch	0.145 (L/890)	5'6 5/16"	0.539 (L/240)	0.270 (27%)	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.

JULY 14, 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 11-4-0	0-3-5	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-4-14 to 8-7-2		Top	8 PLF	0 PLF	0 PLF	0 PLF	
3	Point	1-0-9		Far Face	174 lb	421 lb	0 lb	0 lb	J4
4	Part. Uniform	1-8-9 to 8-4-9		Far Face	132 PLF	320 PLF	0 PLF	0 PLF	
5	Part. Uniform	8-4-9 to 11-0-9		Far Face	121 PLF	320 PLF	0 PLF	0 PLF	
	Self Weight				12 PLF				

Notes

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

Lumber

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

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

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CSD DRAW DESIGN BUILD

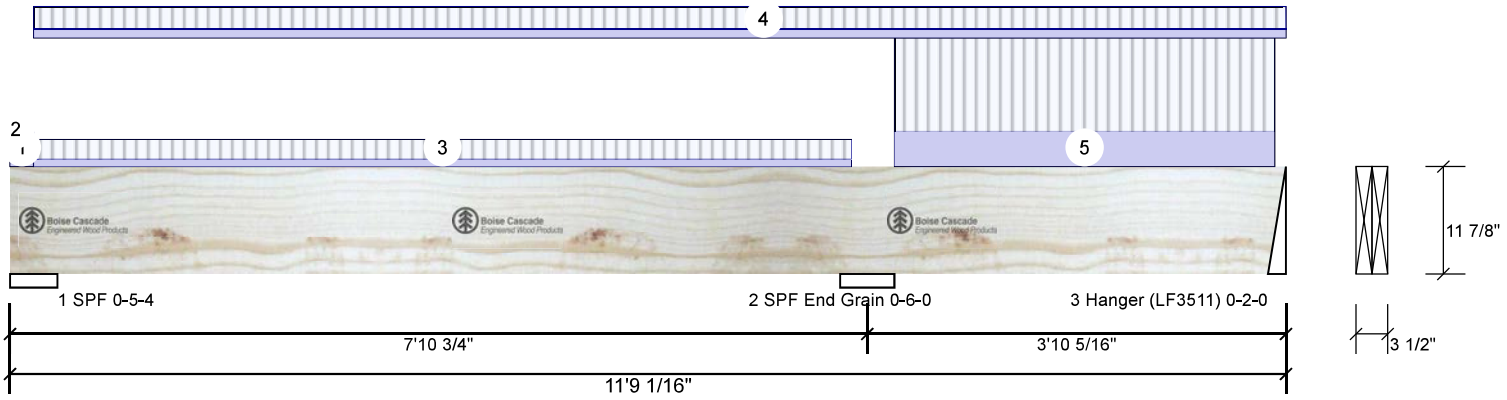
Client: GREENPARK
Project:
Address: ZADORRA ESTATES OSHAWA,ON

MHP 23032

Date: 7/13/2023
Input by: W C
Job Name: ROSE 12-1 STD
Project #:

F11-C V 1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED

Level: Ground Floor



Member Information

Type:	Girder
Plies:	2
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	140	93	0	0
2	Vertical	466	267	0	0
3	Vertical	152	65	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.250"	Vert	3%	116 / 223	339	L_	1.25D+1.5L
2 - SPF End Grain	6.000"	Vert	5%	335 / 702	1037	LL	1.25D+1.5L
3 - Hanger	2.000"	Vert	5%	80 / 308 388 (-20)		_L	1.25D+1.5L (0.9D+1.5L)

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-616 ft-lb	7'10 3/4"	35392 ft-lb	0.017 (2%)	1.25D+1.5L	LL
Unbraced	-616 ft-lb	7'10 3/4"	32757 ft-lb	0.019 (2%)	1.25D+1.5L	LL
Pos Moment	475 ft-lb	3'5 7/16"	33622 ft-lb	0.014 (1%)	1.25D+1.5L	L_
Unbraced	475 ft-lb	3'5 7/16"	33622 ft-lb	0.014 (1%)	1.25D+1.5L	L_
Shear	349 lb	6'7 7/8"	13217 lb	0.026 (3%)	1.25D+1.5L	LL
Perm Defl in.	0.001 (L/84101)	3'8 3/4"	0.251 (L/360)	0.004 (0%)	D	Uniform
LL Defl inch	0.002 (L/46508)	3'10 1/8"	0.251 (L/360)	0.008 (1%)	L	L_
TL Defl inch	0.003 (L/29956)	3'9 5/8"	0.376 (L/240)	0.008 (1%)	D+L	L_

JULY 14, 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. 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. Negligible uplift at end of short span.
8. Top must be continuously laterally braced.
9. Bottom must be laterally braced at bearings.
10. Lateral slenderness ratio based on full section width.

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
1111 W. Jefferson St.
Boise, ID 83702
(800) 232-0788
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Kott Inc.
3228 Moodie Dr, Ottawa, Ontario
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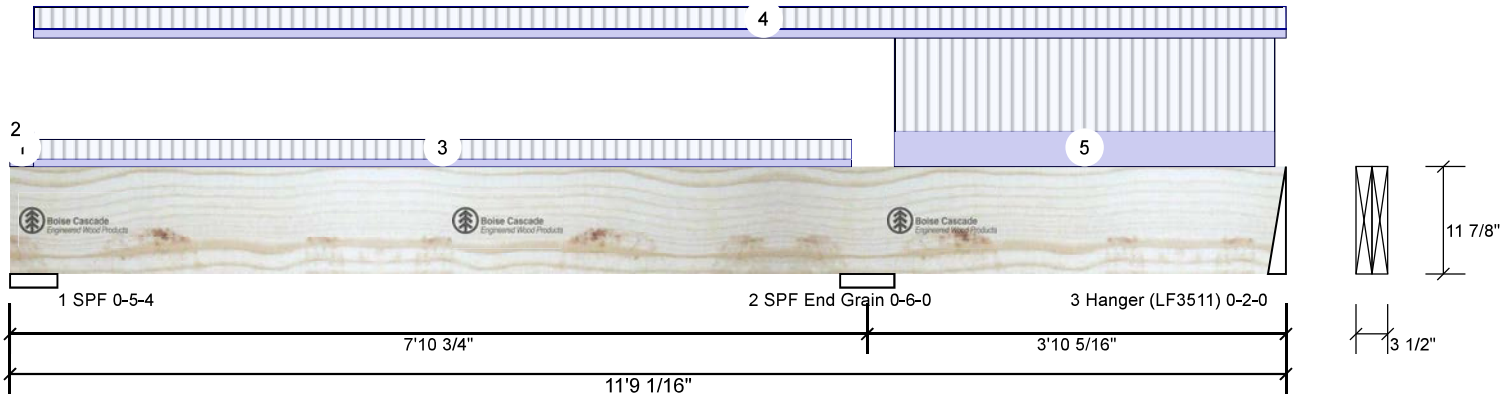
Client: GREENPARK
Project:
Address: ZADORRA ESTATES OSHAWA,ON

MHP 23032

Date: 7/13/2023
Input by: W C
Job Name: ROSE 12-1 STD
Project #:

F11-C V 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 0-2-10	0-4-1	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 0-2-10	0-3-15	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Tie-In	0-2-10 to 7-9-0	0-6-1	Top	15 PSF	40 PSF	0 PSF	0 PSF	
4	Tie-In	0-2-10 to 11-9-1	0-6-15	Top	15 PSF	40 PSF	0 PSF	0 PSF	
5	Part. Uniform	8-1-12 to 11-7-13		Top	36 PLF	95 PLF	0 PLF	0 PLF	
	Self Weight				12 PLF				

LICENSED PROFESSIONAL ENGINEER
I.MATIJEVIC
100528832
PROVINCE OF ONTARIO
JULY 14, 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

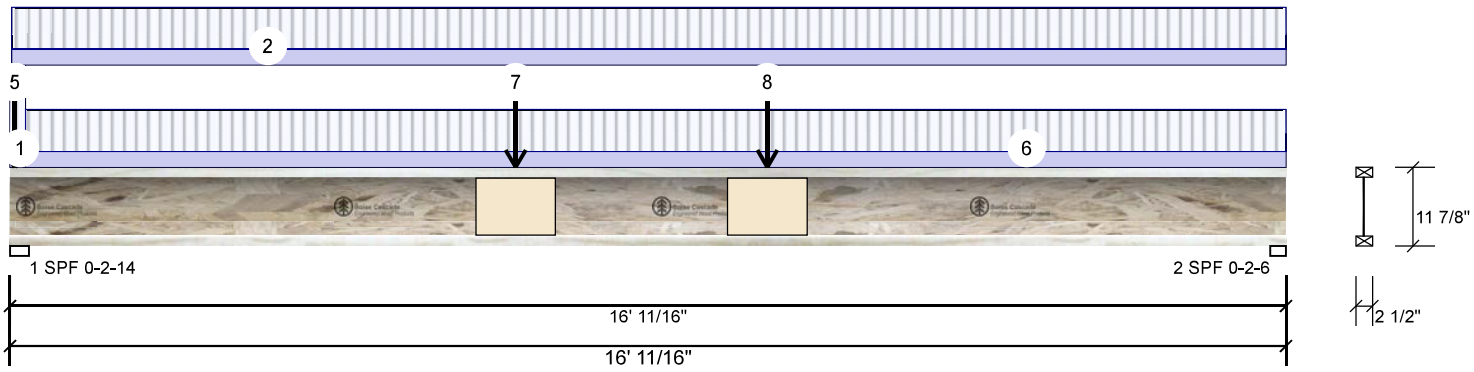
CSD DRAW DESIGN BUILD

Client:	GREENPARK	Date:	7/13/2023
Project:		Input by:	W C
Address:	ZADORRA ESTATES OSHAWA,ON	Job Name:	ROSE 12-1 STD
		Project #:	

MHP 23032

F12 A .875" - 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	516	209	0	0
2	Vertical	451	169	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.875"	Vert	58%	262 / 774	1036	L	1.25D+1.5L
2 - SPF	2.388"	Vert	53%	211 / 676	887	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3603 ft-lb	8' 11/16"	5305 ft-lb	0.679 (68%)	1.25D+1.5L	L
Unbraced	3603 ft-lb	8' 11/16"	5305 ft-lb	0.679 (68%)	1.25D+1.5L	L
Shear	876 lb	2 1/8"	2350 lb	0.373 (37%)	1.25D+1.5L	L
Perm Defl in.	0.108 (L/1754)	8' 9/16"	0.525 (L/360)	0.205 (21%)	D	Uniform
LL Defl inch	0.288 (L/657)	8' 9/16"	0.525 (L/360)	0.548 (55%)	L	L
TL Defl inch	0.395 (L/478)	8' 9/16"	0.787 (L/240)	0.502 (50%)	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 6'6 5/16" o.c.

JULY 14, 2023

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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	1-1-13	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-4 to 16-0-11	0-7-13	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	0-0-12		Top	12 lb	29 lb	0 lb	0 lb	J4
	Bearing Length	0-1-8							
4	Point	0-0-12		Top	12 lb	30 lb	0 lb	0 lb	J6
	Bearing Length	0-1-8							
5	Point	0-0-12		Top	14 lb	0 lb	0 lb	0 lb	Wall Self Weight

Continued on page 2...

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

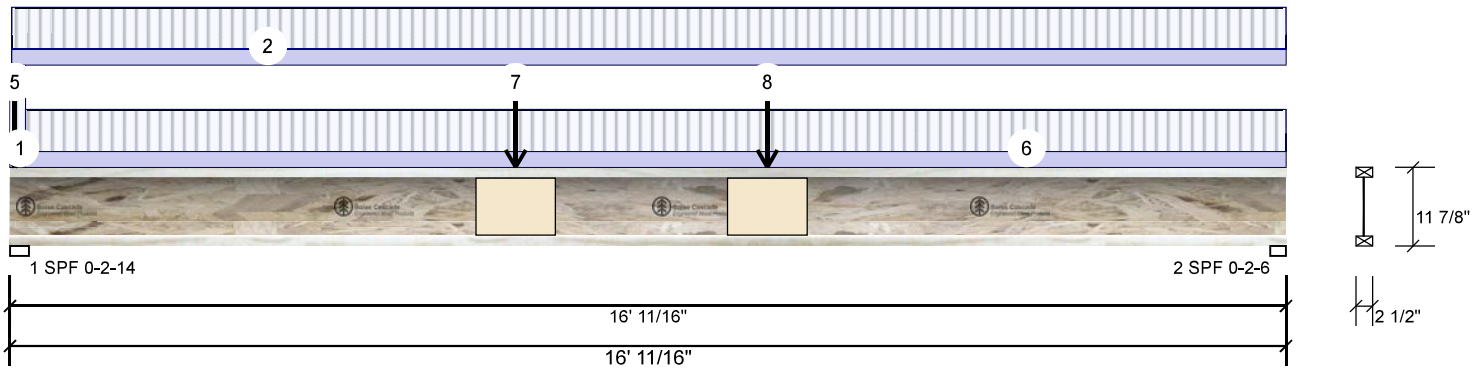
Client: GREENPARK
Project:
Address: ZADORRA ESTATES OSHAWA,ON

MHP 23032

Date: 7/13/2023
Input by: W C
Job Name: ROSE 12-1 STD
Project #:

F12 A .875" - PASSED

Level: Ground Floor



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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
	Bearing Length	0-1-8							
6	Tie-In	0-2-6 to 16-0-11	0-7-13	Top	15 PSF	40 PSF	0 PSF	0 PSF	
7	Point	6-4-6		Near Face	13 lb	35 lb	0 lb	0 lb	F1
8	Point	9-6-6		Near Face	13 lb	35 lb	0 lb	0 lb	F1

LICENSED PROFESSIONAL ENGINEER
I.MATIJEVIC
100528832
PROVINCE OF ONTARIO
JULY 14, 2023

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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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CSD DRAW DESIGN BUILD

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MHP 23032

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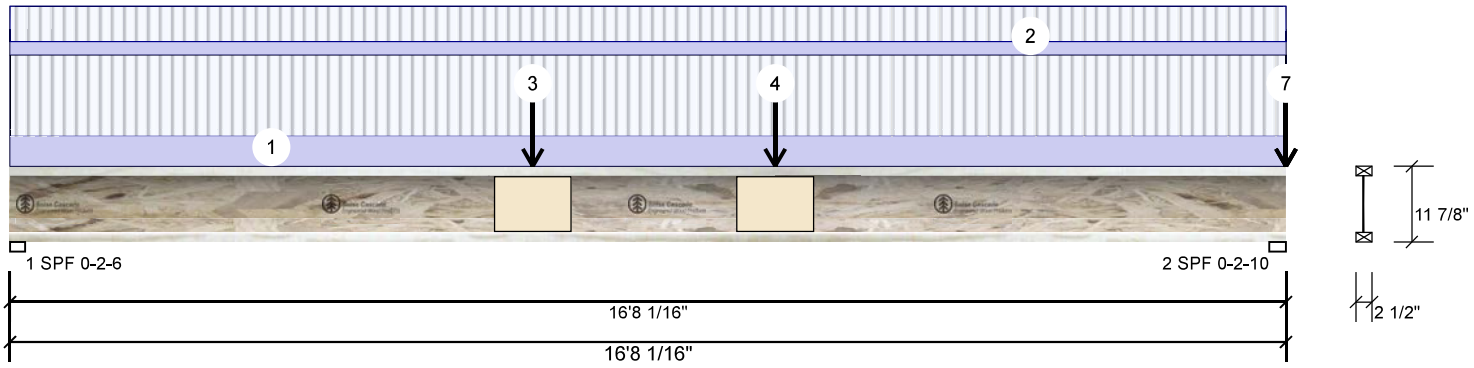
Input by: W C
Job Name: ROSE 12-1 STD
Project #:

F12-A 11.875" - 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	420	158	0	0
2	Vertical	481	197	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%	198 / 630	828	L	1.25D+1.5L
2 - SPF	2.625"	Vert	56%	246 / 722	968	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3564 ft-lb	8'3 3/4"	5305 ft-lb	0.672 (67%)	1.25D+1.5L	L
Unbraced	3564 ft-lb	8'3 3/4"	5305 ft-lb	0.672 (67%)	1.25D+1.5L	L
Shear	818 lb	16'6 3/16"	2350 lb	0.348 (35%)	1.25D+1.5L	L
Perm Defl in.	0.115 (L/1714)	8'3 15/16"	0.546 (L/360)	0.210 (21%)	D	Uniform
LL Defl inch	0.304 (L/646)	8'3 15/16"	0.546 (L/360)	0.557 (56%)	L	L
TL Defl inch	0.419 (L/469)	8'3 15/16"	0.819 (L/240)	0.512 (51%)	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 6'9 15/16" o.c.

JULY 14, 2023

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 16-8-1	0-9-7	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 16-8-1	0-4-2	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	6-9-15		Near Face	17 lb	44 lb	0 lb	0 lb	F1
4	Point	9-11-15		Near Face	17 lb	44 lb	0 lb	0 lb	F1
5	Point	16-8-1		Top	12 lb	29 lb	0 lb	0 lb	J4
	Bearing Length	0-1-8							
6	Point	16-8-1		Top	12 lb	30 lb	0 lb	0 lb	J6

Continued on page 2...

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

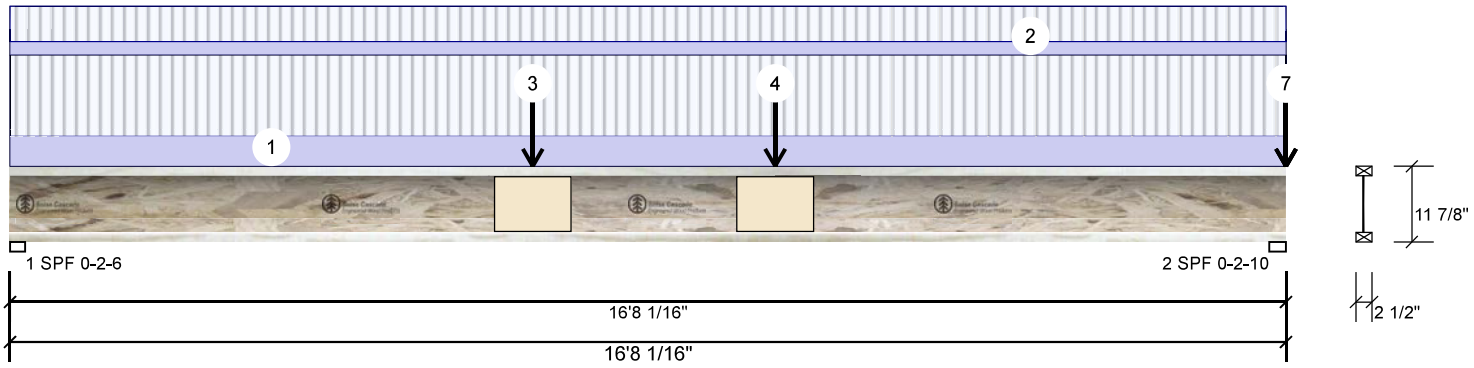
Kott Inc.
3228 Moodie Dr, Ottawa, Ontario
613-838-2775 / 905-642-4400

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

Date: 7/13/2023
Input by: W C
Job Name: ROSE 12-1 STD
Project #:

F12-A 11.875" - PASSED

Level: Ground Floor



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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
	Bearing Length	0-1-8							
7	Point	16-8-1		Top	14 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-1-8							

JULY 14, 2023

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Handling & Installation

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3. Damaged IJoists must not be used
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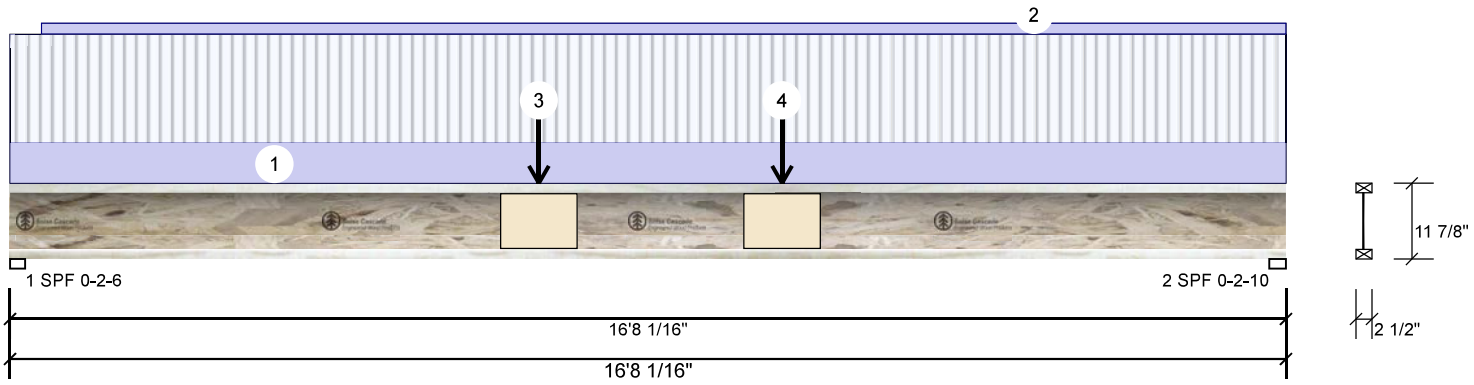
Client: GREENPARK
Project:
Address: ZADORRA ESTATES OSHAWA,ON

MHP 23032

Date: 7/13/2023
Input by: W C
Job Name: ROSE 12-1 STD
Project #:

F12-B 11.875" - 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	208	99	0	0
2	Vertical	211	101	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	Vert	26%	123 / 313	436	L	1.25D+1.5L
2 - SPF	2.625"	Vert	25%	126 / 316	442	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2001 ft-lb	8'3 5/16"	5305 ft-lb	0.377 (38%)	1.25D+1.5L	L
Unbraced	2001 ft-lb	8'3 5/16"	5305 ft-lb	0.377 (38%)	1.25D+1.5L	L
Shear	435 lb	16'6 3/16"	2350 lb	0.185 (19%)	1.25D+1.5L	L
Perm Defl in.	0.076 (L/2578)	8'4"	0.546 (L/360)	0.140 (14%)	D	Uniform
LL Defl inch	0.159 (L/1235)	8'4"	0.546 (L/360)	0.292 (29%)	L	L
TL Defl inch	0.235 (L/835)	8'4"	0.819 (L/240)	0.287 (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 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 6'10 15/16" o.c.

JULY 14, 2023

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 16-8-1	0-6-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-4-15 to 16-8-1		Top	2 PLF	0 PLF	0 PLF	0 PLF	
3	Point	6-10-15		Far Face	21 lb	43 lb	0 lb	0 lb	F1
4	Point	10-1-0		Far Face	21 lb	43 lb	0 lb	0 lb	F1

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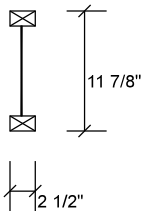
Client: GREENPARK
Project:
Address: ZADORRA ESTATES OSHAWA,ON

MHP 23032

Date: 7/13/2023
Input by: W C
Job Name: ROSE 12-1 STD
Project #:

F1-A 1.875" - 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	38	14	0	0
2	Vertical	35	13	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.442"	Vert	4%	18 / 56	74	L	1.25D+1.5L
2 - Hanger	2.000"	Vert	4%	17 / 53	70	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	13 ft-lb	7 1/8"	5305 ft-lb	0.002 (0%)	1.25D+1.5L	L
Unbraced	13 ft-lb	7 1/8"	5305 ft-lb	0.002 (0%)	1.25D+1.5L	L
Shear	57 lb	1 11/16"	2350 lb	0.024 (2%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/295574)	7 3/16"	0.030 (L/360)	0.001 (0%)	D	Uniform
LL Defl inch	0.000 (L/110840)	7 3/16"	0.030 (L/360)	0.003 (0%)	L	L
TL Defl inch	0.000 (L/80611)	7 3/16"	0.046 (L/240)	0.003 (0%)	D+L	L

JULY 14, 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. Right Header: SPF, Thickness: 2 1/2"
4. Girders are designed to be supported on the bottom edge only.
5. If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
6. 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 1-1-14	1-7-0	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

CSD DRAW DESIGN BUILD

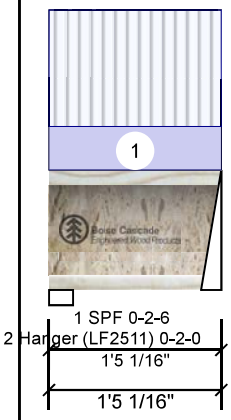
Client: GREENPARK
Project:
Address: ZADORRA ESTATES OSHAWA,ON

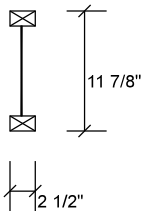
MHP 23032

Date: 7/13/2023
Input by: W C
Job Name: ROSE 12-1 STD
Project #:

F1-B 1.875" - 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	46	17	0	0
2	Vertical	44	17	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%	22 / 69	91	L	1.25D+1.5L
2 - Hanger	2.000"	Vert	5%	21 / 66	87	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	22 ft-lb	8 11/16"	5305 ft-lb	0.004 (0%)	1.25D+1.5L	L
Unbraced	22 ft-lb	8 11/16"	5305 ft-lb	0.004 (0%)	1.25D+1.5L	L
Shear	74 lb	1 5/8"	2350 lb	0.031 (3%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/222704)	8 3/4"	0.039 (L/360)	0.002 (0%)	D	Uniform
LL Defl inch	0.000 (L/83514)	8 3/4"	0.039 (L/360)	0.004 (0%)	L	L
TL Defl inch	0.000 (L/60737)	8 3/4"	0.059 (L/240)	0.004 (0%)	D+L	L

JULY 14, 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. Right Header: SPF, Thickness: 2 1/2"
4. Girders are designed to be supported on the bottom edge only.
5. If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
6. 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 1-5-1	1-7-0	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. 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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CCMC: 12787

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

CSD DRAW DESIGN BUILD

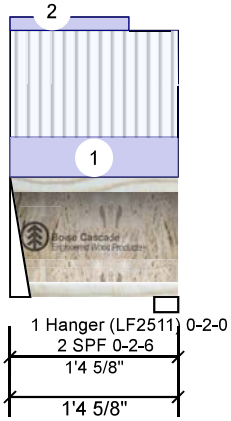
Client: GREENPARK
Project:
Address: ZADORRA ESTATES OSHAWA,ON

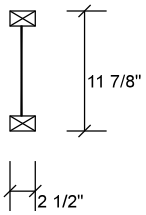
MHP 23032

Date: 7/13/2023
Input by: W C
Job Name: ROSE 12-1 STD
Project #:

F1-C 1.875" - 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	43	21	0	0
2	Vertical	45	20	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	Vert	6%	27 / 64	91	L	1.25D+1.5L
2 - SPF	2.375"	Vert	5%	24 / 68	92	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	22 ft-lb	8 1/8"	5305 ft-lb	0.004 (0%)	1.25D+1.5L	L
Unbraced	22 ft-lb	8 1/8"	5305 ft-lb	0.004 (0%)	1.25D+1.5L	L
Shear	77 lb	1 1/4"	2350 lb	0.033 (3%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/176712)	8 1/16"	0.038 (L/360)	0.002 (0%)	D	Uniform
LL Defl inch	0.000 (L/86028)	8 3/16"	0.038 (L/360)	0.004 (0%)	L	L
TL Defl inch	0.000 (L/57862)	8 1/8"	0.057 (L/240)	0.004 (0%)	D+L	L

JULY 14, 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. Girders are designed to be supported on the bottom edge only.
5. If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
6. 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 1-4-10	1-7-1	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 0-11-12		Top	8 PLF	0 PLF	0 PLF	0 PLF	

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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Boise, ID 83702
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CCMC: 12787

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

CSD DRAW DESIGN BUILD

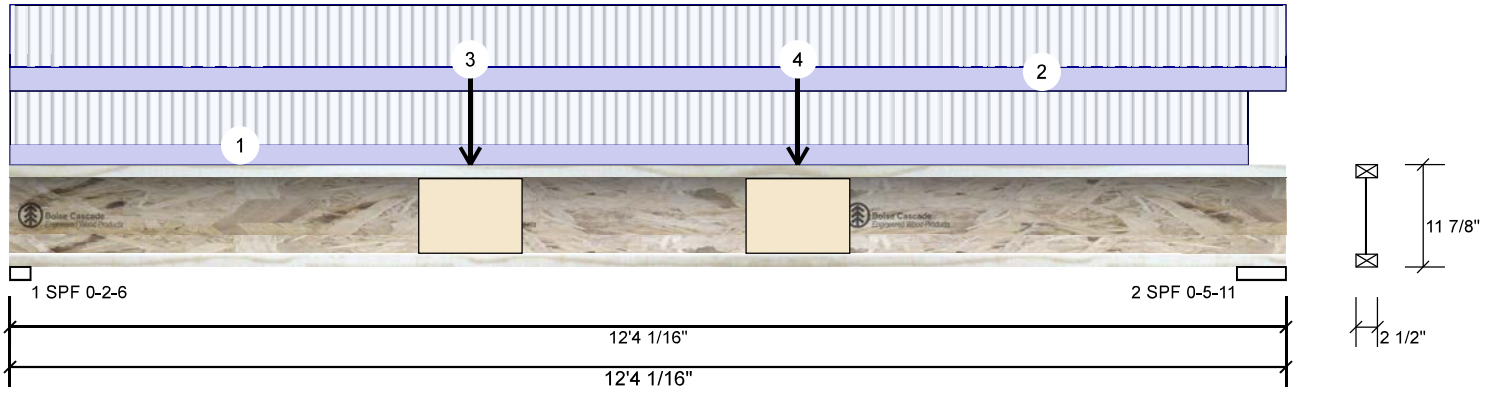
Client: GREENPARK
Project:
Address: ZADORRA ESTATES OSHAWA,ON

MHP 23032

Date: 7/13/2023
Input by: W C
Job Name: ROSE 12-1 STD
Project #:

F2 A. 375" - 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	393	147	0	0
2	Vertical	400	149	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	Vert	46%	184 / 590	774	L	1.25D+1.5L
2 - SPF	5.699"	Vert	41%	187 / 599	786	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2352 ft-lb	6' 3/8"	5305 ft-lb	0.443 (44%)	1.25D+1.5L	L
Unbraced	2352 ft-lb	6' 3/8"	5305 ft-lb	0.443 (44%)	1.25D+1.5L	L
Shear	758 lb	11'11 1/8"	2350 lb	0.323 (32%)	1.25D+1.5L	L
Perm Defl in.	0.042 (L/3343)	6' 3/8"	0.393 (L/360)	0.108 (11%)	D	Uniform
LL Defl inch	0.113 (L/1248)	6' 3/8"	0.393 (L/360)	0.289 (29%)	L	L
TL Defl inch	0.156 (L/909)	6' 3/8"	0.590 (L/240)	0.264 (26%)	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 4'8 5/8" o.c.

JULY 14, 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 11-11-11	0-8-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 12-4-1	0-9-6	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	4-5-7		Near Face	16 lb	44 lb	0 lb	0 lb	F1
4	Point	7-7-7		Near Face	16 lb	44 lb	0 lb	0 lb	F1

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. 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
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Boise, ID 83702
(800) 232-0788
www.bc.com
CCMC: 12787

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

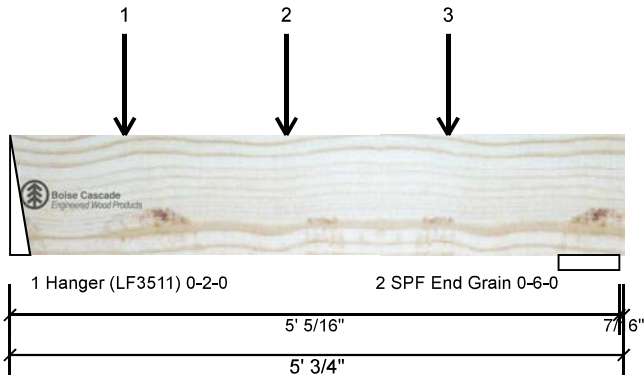
Client: GREENPARK
Project:
Address: ZADORRA ESTATES OSHAWA,ON

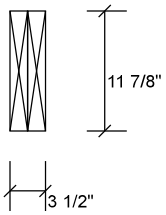
MHP 23032

Date: 7/13/2023
Input by: W C
Job Name: ROSE 12-1 STD
Project #:

F4 Vers 3100 SP 1.750" X 11.875" 2-Ply - PASSED

Level: Ground Floor





Member Information

Type:	Girder
Plies:	2
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	463	202	0	0
2	Vertical	408	184	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	Vert	12%	253 / 695	947	L_	1.25D+1.5L
2 - SPF End Grain	6.000"	Vert	4%	230 / 612	841	L_	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1292 ft-lb	2'3 3/8"	35392 ft-lb	0.036 (4%)	1.25D+1.5L	L_
Unbraced	1292 ft-lb	2'3 3/8"	35392 ft-lb	0.036 (4%)	1.25D+1.5L	L_
Shear	945 lb	1'1 7/8"	13217 lb	0.071 (7%)	1.25D+1.5L	L_
Perm Defl in.	0.001 (L/53080)	2'4 13/16"	0.156 (L/360)	0.007 (1%)	D	Uniform
LL Defl inch	0.002 (L/22725)	2'4 3/4"	0.156 (L/360)	0.016 (2%)	L	LL
TL Defl inch	0.004 (L/15912)	2'4 3/4"	0.233 (L/240)	0.015 (2%)	D+L	LL
LL Cant	-0.000 (2L/15438)	Rt Cant	0.200 (2L/360)	0.000 (0%)	L	LL
TL Cant	-0.000 (2L/10803)	Rt Cant	0.300 (2L/240)	0.000 (0%)	D+L	LL

JULY 14, 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: 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 must be continuously laterally braced.
7. Bottom must have sheathing attached or be continuously braced.
8. 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

This design is valid until 4/17/2026

Manufacturer Info

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CCMC: 12472

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CSD DRAW DESIGN BUILD

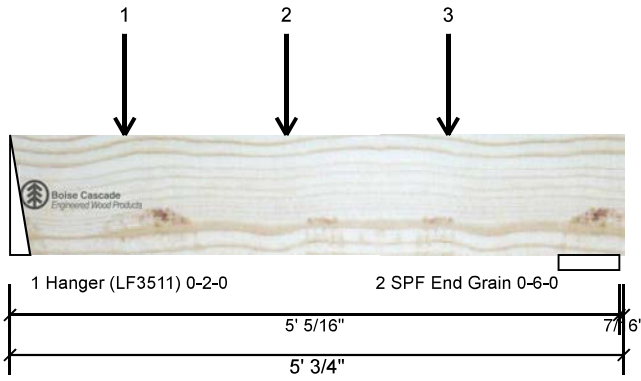
Client: GREENPARK
Project:
Address: ZADORRA ESTATES OSHAWA,ON

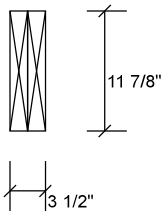
MHP 23032

Date: 7/13/2023
Input by: W C
Job Name: ROSE 12-1 STD
Project #:

F4 Vers 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	Point	0-11-6		Far Face	104 lb	279 lb	0 lb	0 lb	J3
2	Point	2-3-6		Far Face	115 lb	306 lb	0 lb	0 lb	J3
3	Point	3-7-6		Far Face	107 lb	286 lb	0 lb	0 lb	J3
	Self Weight				12 PLF				

LICENSED PROFESSIONAL ENGINEER
I.MATIJEVIC
100528832
PROVINCE OF ONTARIO
JULY 14, 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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Date: 7/13/2023
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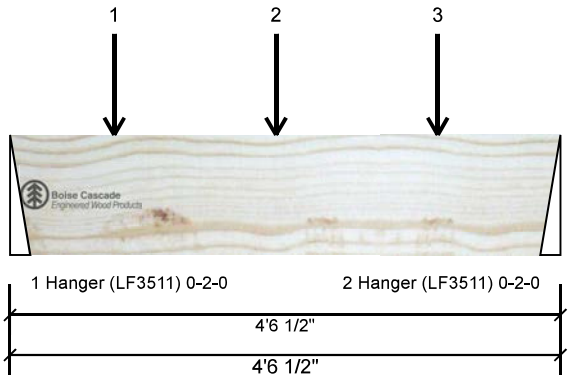
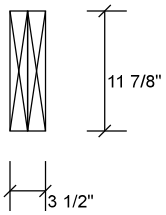
F4-A Ve E 3100 SP 1.750" X 11.875" 2-Ply - PASSED

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	286	135	0	0
2	Vertical	274	131	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	Vert	8%	169 / 430	599	L	1.25D+1.5L
2 - Hanger	2.000"	Vert	8%	163 / 410	574	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	755 ft-lb	2'2 5/16"	35392 ft-lb	0.021 (2%)	1.25D+1.5L	L
Unbraced	755 ft-lb	2'2 5/16"	35392 ft-lb	0.021 (2%)	1.25D+1.5L	L
Shear	596 lb	1'1 7/8"	13217 lb	0.045 (5%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/92395)	2'2 7/8"	0.144 (L/360)	0.004 (0%)	D	Uniform
LL Defl inch	0.001 (L/42380)	2'2 3/4"	0.144 (L/360)	0.008 (1%)	L	L
TL Defl inch	0.002 (L/29054)	2'2 3/4"	0.217 (L/240)	0.008 (1%)	D+L	L

JULY 14, 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: 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 must be continuously laterally braced.
8 Bottom must have sheathing attached or be continuously braced.
9 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

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

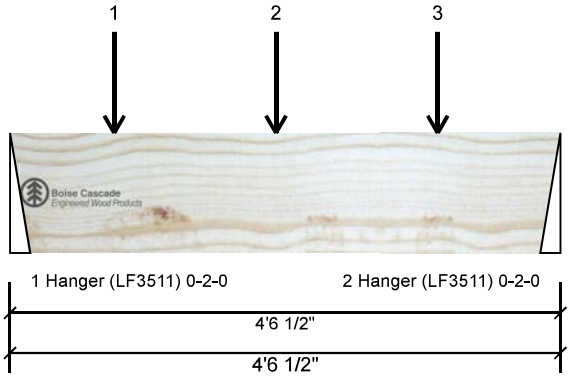
Client: GREENPARK
Project:
Address: ZADORRA ESTATES OSHAWA,ON

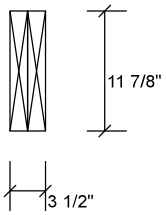
MHP 23032

Date: 7/13/2023
Input by: W C
Job Name: ROSE 12-1 STD
Project #:

F4-A Ve E 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	Point	0-10-5		Far Face	66 lb	175 lb	0 lb	0 lb	J2
2	Point	2-2-5		Far Face	75 lb	199 lb	0 lb	0 lb	J2
3	Point	3-6-5		Far Face	71 lb	186 lb	0 lb	0 lb	J2
	Self Weight				12 PLF				

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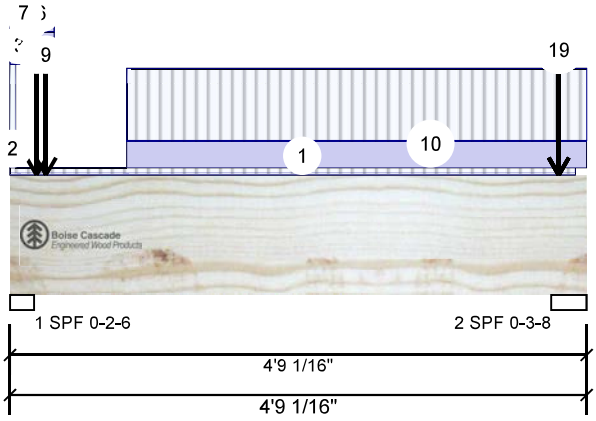
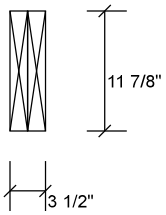
F4-B Ve E 3100 SP 1.750" X 11.875" 2-Ply - PASSED

Level: Ground Floor





Member Information

Type:	Girder
Plies:	2
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	1809	1273	396	0
2	Vertical	1770	1220	348	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	Vert	92%	1591 / 3110	4701	L	1.25D+1.5L +S
2 - SPF	3.500"	Vert	60%	1525 / 3003	4527	L	1.25D+1.5L +S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1874 ft-lb	2'3 7/16"	35392 ft-lb	0.053 (5%)	1.25D+1.5L +S	L
Unbraced	1874 ft-lb	2'3 7/16"	35392 ft-lb	0.053 (5%)	1.25D+1.5L +S	L
Shear	2637 lb	1'2 1/4"	13217 lb	0.200 (20%)	1.25D+1.5L +S	L
Perm Defl in.	0.001 (L/36002)	2'3 9/16"	0.146 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.003 (L/15670)	2'3 13/16"	0.146 (L/360)	0.023 (2%)	L+0.5S	L
TL Defl inch	0.005 (L/10918)	2'3 13/16"	0.220 (L/240)	0.022 (2%)	D+L+0.5S	L

Design Notes

1 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 2.375.
2 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 3.5.
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.
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CSD DRAW DESIGN BUILD

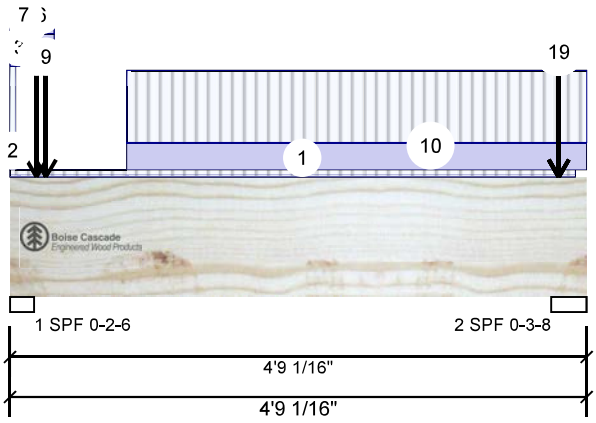
Client: GREENPARK
Project:
Address: ZADORRA ESTATES OSHAWA,ON

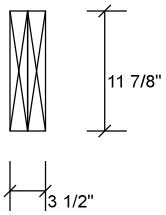
MHP 23032

Date: 7/13/2023
Input by: W C
Job Name: ROSE 12-1 STD
Project #:

F4-B Ve E 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 4-7-15	0-7-9	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 0-0-9		Top	157 PLF	338 PLF	0 PLF	0 PLF	J4
3	Part. Uniform	0-0-0 to 0-1-9		Top	30 PLF	0 PLF	79 PLF	0 PLF	
4	Part. Uniform	0-0-0 to 0-4-6		Top	45 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
6	Part. Uniform	0-0-0 to 0-4-6		Top	2 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
7	Part. Uniform	0-0-0 to 0-4-6		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
8	Point	0-2-10		Top	765 lb	766 lb	365 lb	0 lb	B9 Header Column
	Bearing Length	0-5-8							
9	Point	0-3-9		Near Face	237 lb	501 lb	29 lb	0 lb	J4
10	Part. Uniform	0-11-9 to 4-9-1		Near Face	130 PLF	346 PLF	0 PLF	0 PLF	
11	Point	4-6-5		Top	23 lb	50 lb	0 lb	0 lb	J4
	Bearing Length	0-5-8							
12	Point	4-6-5		Top	19 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-5-8							
13	Point	4-6-5		Top	706 lb	697 lb	340 lb	0 lb	B9
	Bearing Length	0-5-8							
14	Point	4-6-5		Top	26 lb	57 lb	0 lb	0 lb	J4
	Bearing Length	0-5-8							
17	Point	4-6-5		Top	18 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-5-8							
18	Point	4-6-5		Top	29 lb	62 lb	0 lb	0 lb	J4
	Bearing Length	0-5-8							
19	Point	4-6-5		Top	19 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-5-8							
	Self Weight				12 PLF				

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JULY 14, 2023

Notes

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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
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613-838-2775 / 905-642-4400

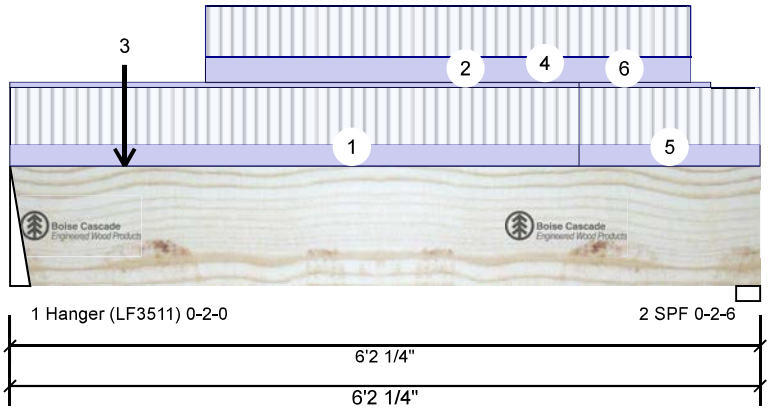
Client: GREENPARK
Project:
Address: ZADORRA ESTATES OSHAWA,ON

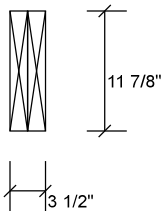
MHP 23032

Date: 7/13/2023
Input by: W C
Job Name: ROSE 12-1 STD
Project #:

F5-A Ve E 3100 SP **1.750" X 11.875" 2-Ply - PASSED**

Level: Ground Floor





Member Information

Type:	Girder
Plies:	2
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	239	150	0	0
2	Vertical	234	146	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	Vert	7%	187 / 358	545	L	1.25D+1.5L
2 - SPF	2.375"	Vert	10%	183 / 351	534	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	820 ft-lb	3' 15/16"	35392 ft-lb	0.023 (2%)	1.25D+1.5L	L
Unbraced	820 ft-lb	3' 15/16"	35392 ft-lb	0.023 (2%)	1.25D+1.5L	L
Shear	484 lb	1'1 7/8"	13217 lb	0.037 (4%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/49332)	3' 7/8"	0.198 (L/360)	0.007 (1%)	D	Uniform
LL Defl inch	0.002 (L/30633)	3' 7/8"	0.198 (L/360)	0.012 (1%)	L	L
TL Defl inch	0.004 (L/18898)	3' 7/8"	0.297 (L/240)	0.013 (1%)	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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3 Left Header: DF, Thickness: 3 1/2"
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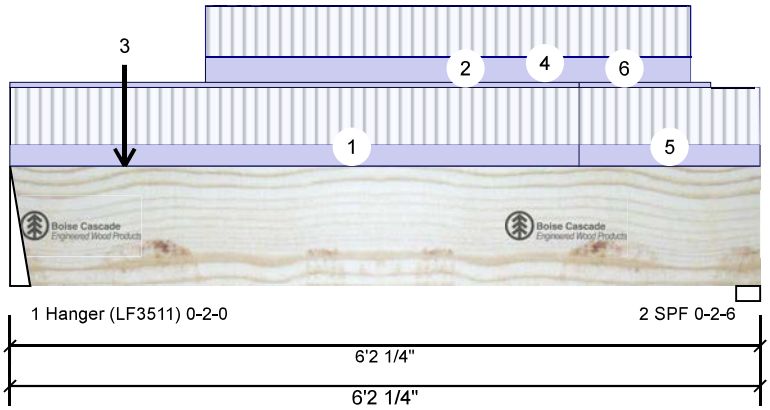

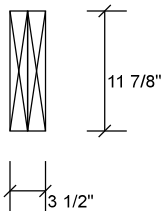

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 4-8-5	1-1-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 4-8-5		Top	4 PLF	0 PLF	0 PLF	0 PLF	
3	Point	0-11-6		Far Face	23 lb	48 lb	0 lb	0 lb	J1
4	Part. Uniform	1-7-6 to 5-7-6		Far Face	19 PLF	39 PLF	0 PLF	0 PLF	
5	Tie-In	4-8-5 to 6-2-4	1-1-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
6	Part. Uniform	4-8-5 to 5-9-5		Top	4 PLF	0 PLF	0 PLF	0 PLF	
	Self Weight				12 PLF				

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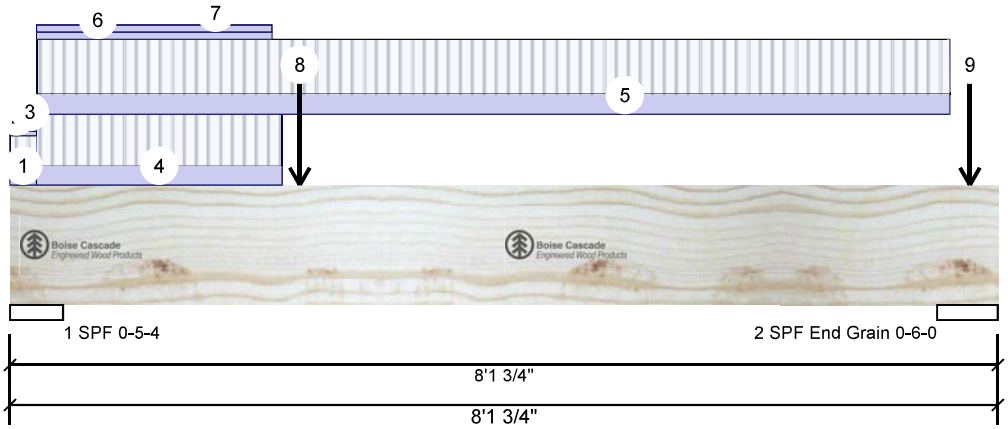

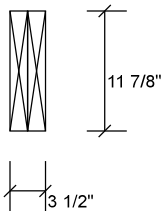

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Application:	Floor (Residential)
Design Method:	LSD
Building Code:	NBCC 2015 OBC 2012(2020 Update)
Load Sharing:	No
Deck:	Not Checked
Vibration:	Not Checked

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	304	217	0	0
2	Vertical	802	490	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.250"	Vert	6%	271 / 456	727	L	1.25D+1.5L
2 - SPF End Grain	6.000"	Vert	8%	613 / 1203	1815	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1184 ft-lb	2'4 11/16"	35392 ft-lb	0.033 (3%)	1.25D+1.5L	L
Unbraced	1184 ft-lb	2'4 11/16"	35392 ft-lb	0.033 (3%)	1.25D+1.5L	L
Shear	597 lb	1'5 1/8"	13217 lb	0.045 (5%)	1.25D+1.5L	L
Perm Defl in.	0.003 (L/28699)	3'9 1/2"	0.244 (L/360)	0.013 (1%)	D	Uniform
LL Defl inch	0.004 (L/20616)	3'9"	0.244 (L/360)	0.017 (2%)	L	L
TL Defl inch	0.007 (L/11998)	3'9 1/4"	0.367 (L/240)	0.020 (2%)	D+L	L

JULY 14, 2023

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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 be laterally braced at a maximum of 5'6 1/16" 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 0-2-10	0-4-9	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 0-2-10		Top	2 PLF	0 PLF	0 PLF	0 PLF	
3	Part. Uniform	0-0-0 to 0-2-10		Top	1 PLF	0 PLF	0 PLF	0 PLF	
4	Tie-In	0-2-10 to 2-2-15	0-6-9	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

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

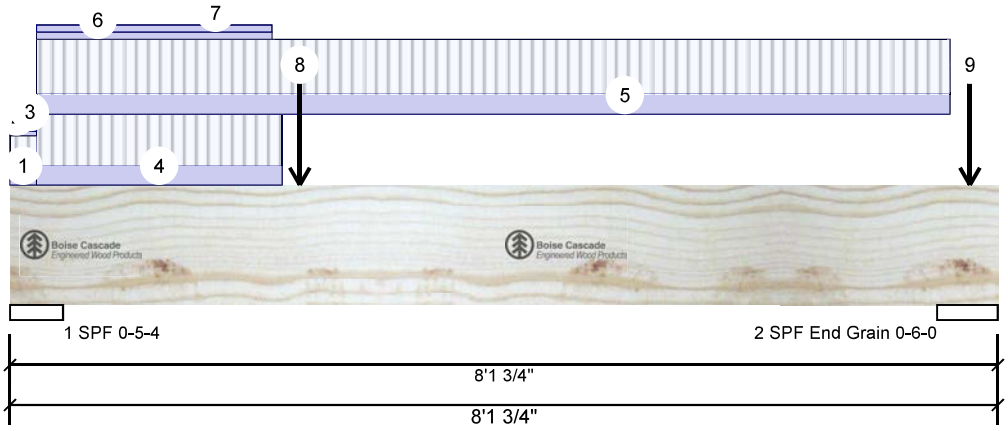
Client: GREENPARK
Project:
Address: ZADORRA ESTATES OSHAWA,ON

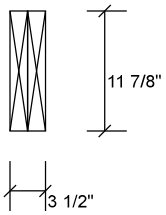
MHP 23032

Date: 7/13/2023
Input by: W C
Job Name: ROSE 12-1 STD
Project #:

F6-A Ve E 3100 SP 1.750" X 11.875" 2-Ply - PASSED

Level: Ground Floor





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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
5	Tie-In	0-2-10 to 7-9-0	0-6-15	Top	15 PSF	40 PSF	0 PSF	0 PSF	
6	Part. Uniform	0-2-10 to 2-1-15		Top	3 PLF	0 PLF	0 PLF	0 PLF	
7	Part. Uniform	0-2-10 to 2-1-15		Top	3 PLF	0 PLF	0 PLF	0 PLF	
8	Point	2-4-11		Far Face	150 lb	239 lb	0 lb	0 lb	F5
9	Point	7-11-0		Top	365 lb	645 lb	0 lb	0 lb	C3
	Bearing Length	0-3-8							
	Self Weight				12 PLF				

JULY 14, 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
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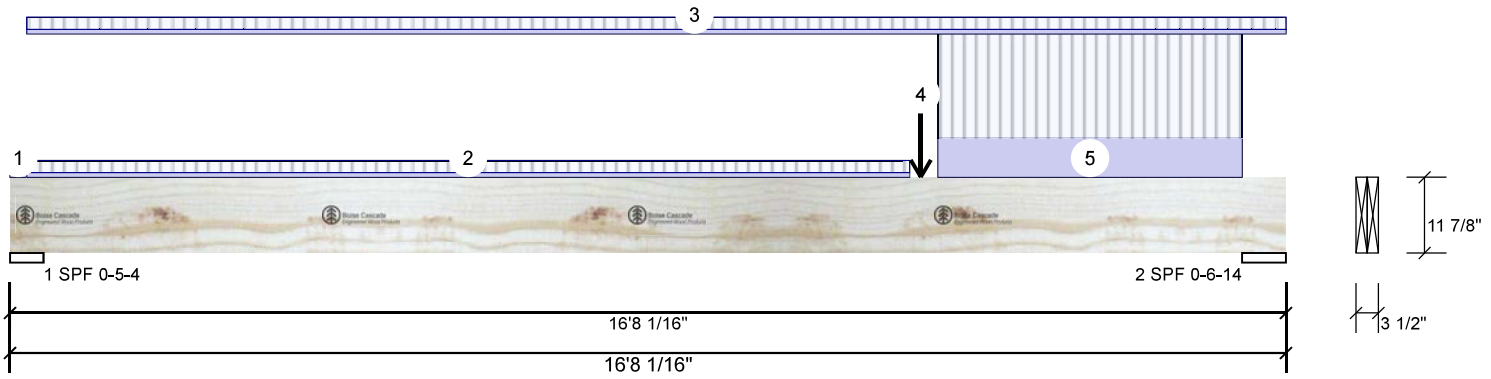
Address: ZADORRA ESTATES OSHAWA,ON

MHP 23032

Date: 7/13/2023
Input by: W C
Job Name: ROSE 12-1 STD
Project #:

F8-A Ve E 3100 SP 1.750" X 11.875" 2-Ply - PASSED

Level: Ground Floor



Member Information

Type:	Girder
Plies:	2
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	561	316	0	0
2	Vertical	1248	590	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.250"	Vert	11%	395 / 841	1236	L	1.25D+1.5L
2 - SPF	6.875"	Vert	18%	738 / 1872	2610	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	7272 ft-lb	11'10 13/16"	35392 ft-lb	0.205 (21%)	1.25D+1.5L	L
Unbraced	7272 ft-lb	11'10 13/16"	35392 ft-lb	0.205 (21%)	1.25D+1.5L	L
Shear	2175 lb	15'1 5/16"	13217 lb	0.165 (16%)	1.25D+1.5L	L
Perm Defl in.	0.072 (L/2643)	8'8 1/2"	0.526 (L/360)	0.136 (14%)	D	Uniform
LL Defl inch	0.140 (L/1354)	8'9 15/16"	0.526 (L/360)	0.266 (27%)	L	L
TL Defl inch	0.212 (L/895)	8'9 1/2"	0.789 (L/240)	0.268 (27%)	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 11'10 13/16" 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 0-2-10	0-6-7	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-2-10 to 11-9-1	0-6-9	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Tie-In	0-2-10 to 16-8-1	0-6-7	Top	15 PSF	40 PSF	0 PSF	0 PSF	
4	Point	11-10-13		Far Face	202 lb	463 lb	0 lb	0 lb	F4
5	Part. Uniform	12-1-8 to 16-1-3		Top	70 PLF	185 PLF	0 PLF	0 PLF	
	Self Weight				12 PLF				

Notes

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Lumber

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

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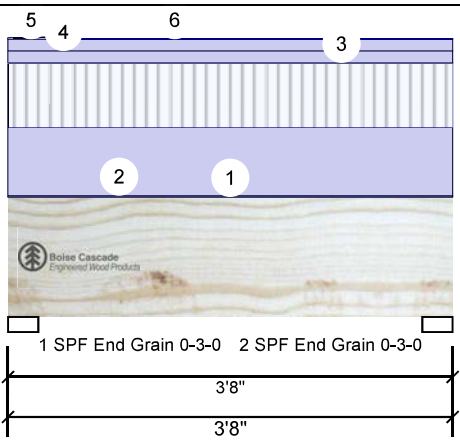
Client: GREENPARK
Project:
Address: ZADORRA ESTATES OSHAWA,ON

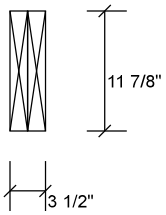
MHP 23032

Date: 7/13/2023
Input by: W C
Job Name: ROSE 12-1 STD
Project #:

FH2 Ve E 3100 SP 1.750" X 11.875" 2-Ply - PASSED

Level: Ground Floor





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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	401	596	0	0
2	Vertical	400	596	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	13%	745 / 601	1346	L	1.25D+1.5L
2 - SPF End Grain	3.000"	Vert	13%	744 / 600	1344	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	993 ft-lb	1'10"	32207 ft-lb	0.031 (3%)	1.25D+1.5L	L
Unbraced	993 ft-lb	1'10"	32207 ft-lb	0.031 (3%)	1.25D+1.5L	L
Shear	1113 lb	2'5 1/8"	12027 lb	0.093 (9%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/41459)	1'10"	0.110 (L/360)	0.009 (1%)	D	Uniform
LL Defl inch	0.001 (L/61771)	1'10"	0.110 (L/360)	0.006 (1%)	L	L
TL Defl inch	0.002 (L/24809)	1'10"	0.165 (L/240)	0.010 (1%)	D+L	L

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.

JULY 14, 2023

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 3-8-0		Near Face	4 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
2	Part. Uniform	0-0-0 to 3-8-0		Near Face	229 PLF	217 PLF	0 PLF	0 PLF	J3
3	Part. Uniform	0-0-0 to 3-8-0		Top	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
4	Part. Uniform	0-0-0 to 3-8-0		Near Face	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight

Continued on page 2...

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CSD DRAW DESIGN BUILD