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

Engineering Notes: EWP Floors

MHP 23035

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.

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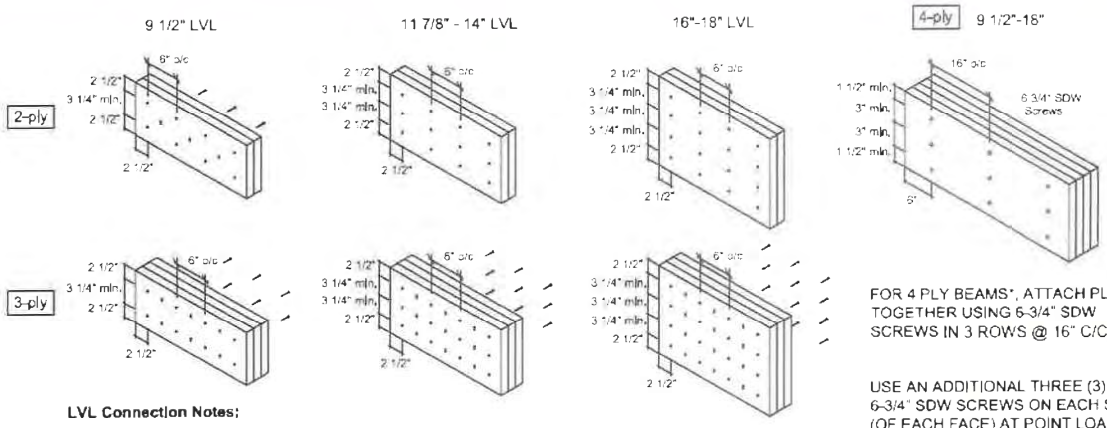
MULTIPLE MEMBER CONNECTIONS FOR BEAMS SHOWN ON KOTT LAYOUTS

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

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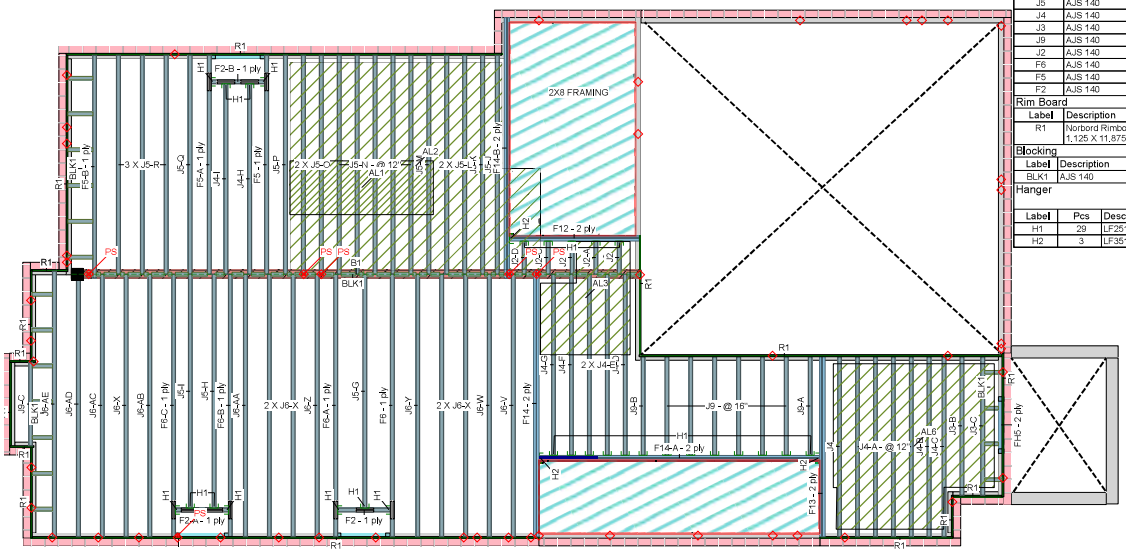
Ground Floor



Ground Floor
LVL/LSL (Flush)

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
F14	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	3	2	6	16-0-0
F13	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	12-0-0
F12	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	8-0-0
FH5	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	4-0-0

I Joist (Flush)

Label	Description	Width	Depth	Pcs	Length
J6	AJS 140	2.5	11.875	14	16-0-0
J5	AJS 140	2.5	11.875	20	14-0-0
J4	AJS 140	2.5	11.875	14	12-0-0
J3	AJS 140	2.5	11.875	2	8-0-0
J9	AJS 140	2.5	11.875	9	6-0-0
J2	AJS 140	2.5	11.875	5	2-0-0
F6	AJS 140	2.5	11.875	4	16-0-0
F5	AJS 140	2.5	11.875	3	14-0-0
F2	AJS 140	2.5	11.875	3	4-0-0

Rim Board

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

Blocking

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

Hanger

Label	Pcs	Description	Beam/Girder fasteners	Supported Member fasteners
H1	29	LF2511	12 10dx1 1/2	1 #8x1 1/4WS
H2	3	LF3511	12 10d	2 #8x1 1/4WS

JOB INFORMATION

Builder
GREENPARK

Project

Shipping
ZADORRA ESTATES
OSHAWA,ON

Sales Rep
RALPH MIRIGELLO

Designer
W.C

Plotted
July 18, 2023

Layout Name
VILLA 3-2 STD

Job Path
S:\CUSTOMERS\GREENPARK\ZADORRA ESTATES\MODELS\VILLA 3\VILLA 3-2\F-VILLA 3-2\VILLA 3-2 STD.isl

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

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

Legend

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

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)

This placement plan is to be used as an installation guide only. It is meant to be used in conjunction with the manufacturers installation guide, the architectural and structural drawings, and not to replace them.

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MHP 23035

Ground Floor

Installation Guide

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Ground Floor LVL/LSL (Flush)

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Joist (Flush)

Label	Description	Width	Depth	Pcs	Length
J6	AJS 140	2.5	11.875	17	16-0-0
J5	AJS 140	2.5	11.875	22	14-0-0
J4	AJS 140	2.5	11.875	12	12-0-0
J3	AJS 140	2.5	11.875	2	8-0-0
J9	AJS 140	2.5	11.875	9	6-0-0
J2	AJS 140	2.5	11.875	5	2-0-0
F6	AJS 140	2.5	11.875	2	16-0-0
F5	AJS 140	2.5	11.875	1	14-0-0
F2	AJS 140	2.5	11.875	1	4-0-0

Rim Board

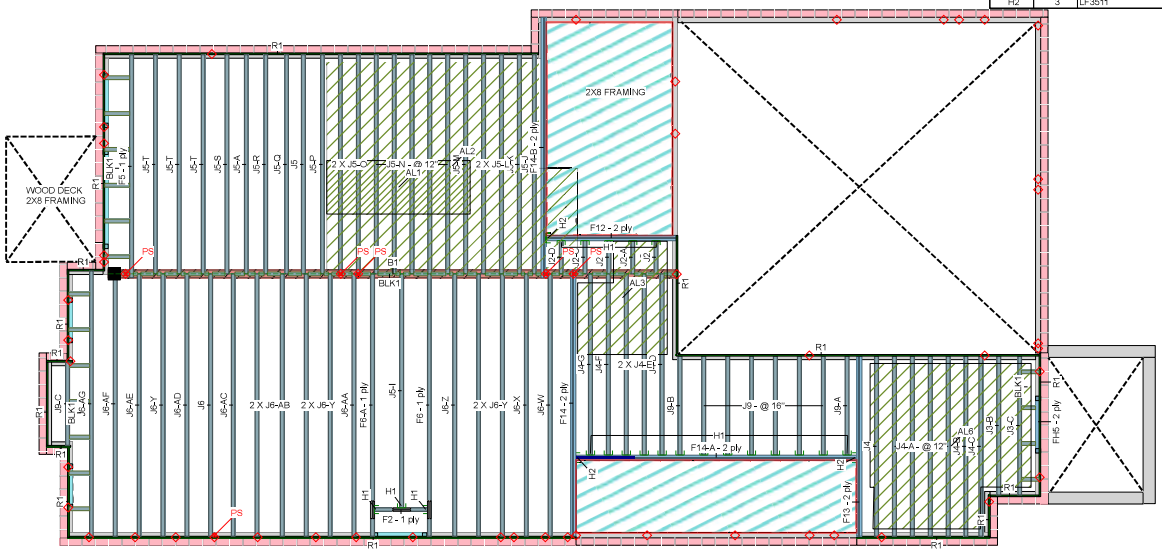
Label	Description	Width	Depth	Pcs	Length
R1	Norbord Rimboard Plus 1.125 X 11.875	1.125	11.875	11	12-0-0

Blocking

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

Hanger

Label	Pcs	Description	Beam/Girder fasteners	Supported Member fasteners
H1	21	LF2511	12 10dx1 1/2	1 #8x1 1/4WS
H2	3	LF3511	12 10d	2 #8x1 1/4WS



JOB INFORMATION

Builder
GREENPARK

Project

Shipping
ZADORRA ESTATES
OSHAWA,ON

Sales Rep
RALPH MIRIGELLO

Designer
WC

Plotted
July 18, 2023

Layout Name
VILLA 3-2 WOC

Job Path
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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

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Legend

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

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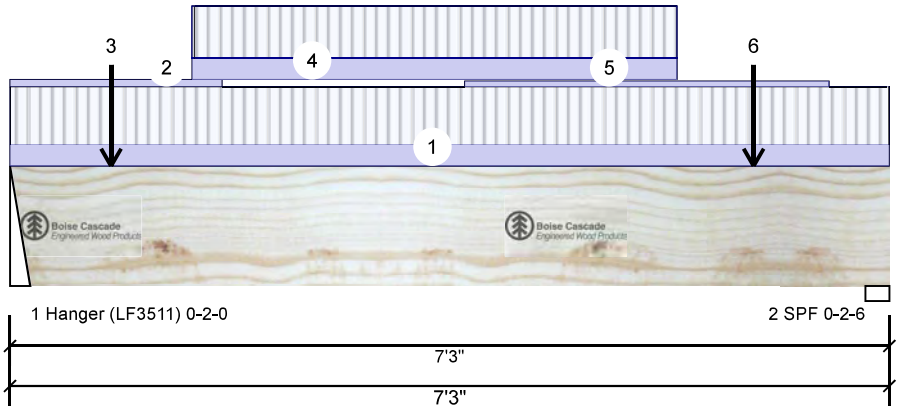
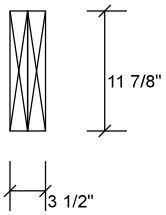
MHP 23035

Client: GREENPARK Date: 7/18/2023 Page 1 of 36
Project: Input by: W.C
Add TATES Job Name: VILLA 3-2 STD
Project #:

F12 Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED

Level: Ground Floor





Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	262	159	0	0
2	Vertical	255	156	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%	199 / 393	592	L	1.25D+1.5L
2 - SPF	2.375"	Vert	11%	195 / 382	577	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1032 ft-lb	3'7 1/2"	35392 ft-lb	0.029 (3%)	1.25D+1.5L	L
Unbraced	1032 ft-lb	3'7 1/2"	35392 ft-lb	0.029 (3%)	1.25D+1.5L	L
Shear	492 lb	1'1 7/8"	13217 lb	0.037 (4%)	1.25D+1.5L	L
Perm Defl in.	0.002 (L/34715)	3'7 7/16"	0.234 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.004 (L/20527)	3'7 5/16"	0.234 (L/360)	0.018 (2%)	L	L
TL Defl inch	0.007 (L/12899)	3'7 3/8"	0.351 (L/240)	0.019 (2%)	D+L	L

Design Notes

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

JULY 19, 2023

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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

Kott Inc.
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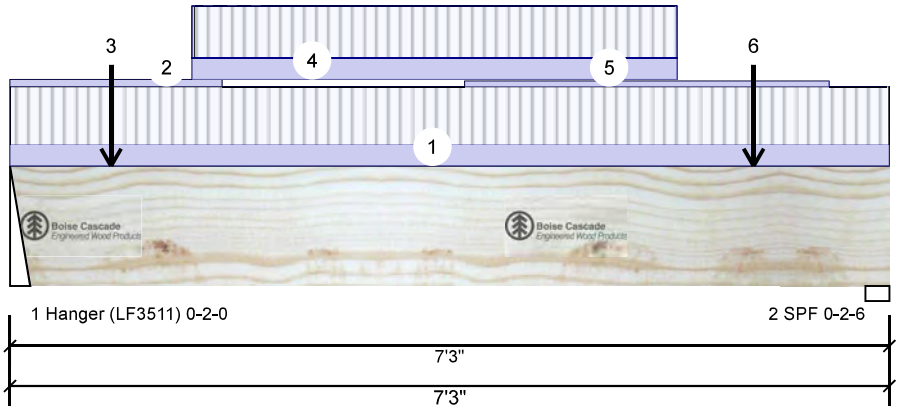
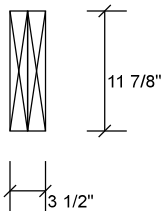
F12 Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED

Level: Ground Floor





ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 7-3-0	1-0-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 1-9-0		Top	5 PLF	0 PLF	0 PLF	0 PLF	
3	Point	0-10-0		Near Face	20 lb	42 lb	0 lb	0 lb	J2
4	Part. Uniform	1-6-0 to 5-6-0		Near Face	15 PLF	36 PLF	0 PLF	0 PLF	
5	Part. Uniform	3-9-0 to 6-9-1		Top	4 PLF	0 PLF	0 PLF	0 PLF	
6	Point	6-1-10		Near Face	20 lb	41 lb	0 lb	0 lb	J2
	Self Weight				12 PLF				

JULY 19, 2023

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Client: GREENPARK Date: 7/18/2023
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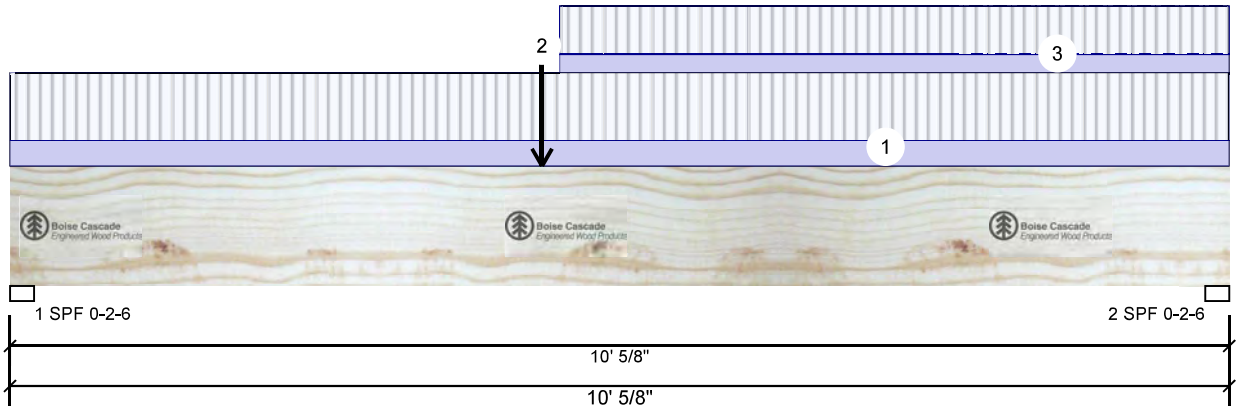
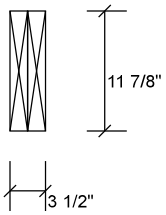
MHP 23035

F13 Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED

Level: Ground Floor





Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	644	354	0	0
2	Vertical	557	309	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	Vert	28%	443 / 965	1408	L	1.25D+1.5L
2 - SPF	2.375"	Vert	24%	387 / 835	1222	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	5482 ft-lb	4'4 5/8"	35392 ft-lb	0.155 (15%)	1.25D+1.5L	L
Unbraced	5482 ft-lb	4'4 5/8"	35392 ft-lb	0.155 (15%)	1.25D+1.5L	L
Shear	1361 lb	1'2 1/4"	13217 lb	0.103 (10%)	1.25D+1.5L	L
Perm Defl in.	0.019 (L/6178)	4'10 5/16"	0.326 (L/360)	0.058 (6%)	D	Uniform
LL Defl inch	0.036 (L/3261)	4'10 1/8"	0.326 (L/360)	0.110 (11%)	L	L
TL Defl inch	0.055 (L/2134)	4'10 1/4"	0.489 (L/240)	0.112 (11%)	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 5'8" o.c.
7. Lateral slenderness ratio based on full section width.

JULY 19, 2023

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 10-0-10	0-5-12	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	4-4-10		Far Face	444 lb	932 lb	0 lb	0 lb	F14
3	Tie-In	4-6-6 to 10-0-10	0-4-2	Top	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				12 PLF				

Notes

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

Lumber

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

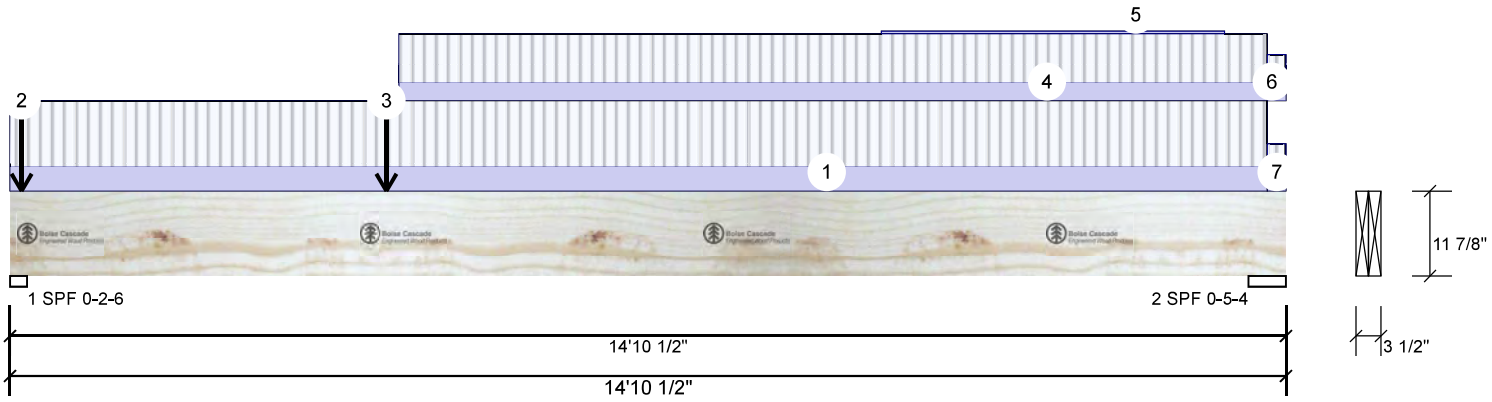
CORPORATION OF THE CITY OF OSHAWA
TRUE COPY
OF PERMIT PLANS
Nov 04 2023
PER: BUILDING DIVISION

Client: GREENPARK Date: 7/18/2023
Project: Input by: W.C
Add TATES Job Name: VILLA 3-2 STD
Project #:

MHP 23035

F14 Versa-Lam LVL 2.1E 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	1745	935	0	0
2	Vertical	712	391	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	Vert	74%	1169 / 2617	3787	L	1.25D+1.5L
2 - SPF	5.250"	Vert	14%	489 / 1068	1557	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	10111 ft-lb	4'4 11/16"	35392 ft-lb	0.286 (29%)	1.25D+1.5L	L
Unbraced	10111 ft-lb	4'4 11/16"	35392 ft-lb	0.286 (29%)	1.25D+1.5L	L
Shear	2463 lb	1'2 1/4"	13217 lb	0.186 (19%)	1.25D+1.5L	L
Perm Defl in.	0.075 (L/2285)	6'10 1/16"	0.479 (L/360)	0.158 (16%)	D	Uniform
LL Defl inch	0.147 (L/1170)	6'9 5/16"	0.479 (L/360)	0.308 (31%)	L	L
TL Defl inch	0.223 (L/774)	6'9 9/16"	0.718 (L/240)	0.310 (31%)	D+L	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 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
3 Girders are designed to be supported on the bottom edge only.
4 Multiple plies must be fastened together as per manufacturer's details.
5 Top loads must be supported equally by all plies.
6 Top must be continuously laterally braced.
7 Bottom must be laterally braced at a maximum of 10'5 13/16" o.c.
8 Lateral slenderness ratio based on full section width.

JULY 19, 2023

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 14-7-14	0-7-12	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-1-10		Top	330 lb	565 lb	0 lb	0 lb	C3
	Bearing Length	0-3-8							
3	Point	4-4-10		Near Face	600 lb	1314 lb	0 lb	0 lb	F14

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

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MHP 23035

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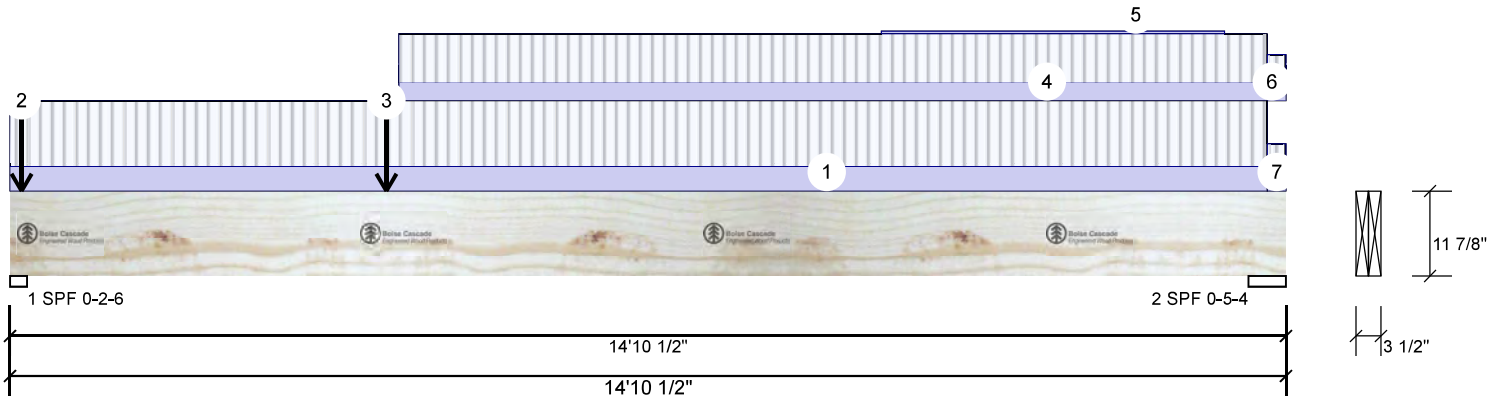
Level: Ground Floor



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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
4	Tie-In	4-6-6 to 14-7-14	0-5-12	Top	15 PSF	40 PSF	0 PSF	0 PSF	
5	Part. Uniform	10-1-14 to 14-1-14		Top	1 PLF	0 PLF	0 PLF	0 PLF	
6	Tie-In	14-7-14 to 14-10-8	0-3-15	Top	15 PSF	40 PSF	0 PSF	0 PSF	
7	Tie-In	14-7-14 to 14-10-8	0-4-1	Top	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				12 PLF				

JULY 19, 2023

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Lumber

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isDesign

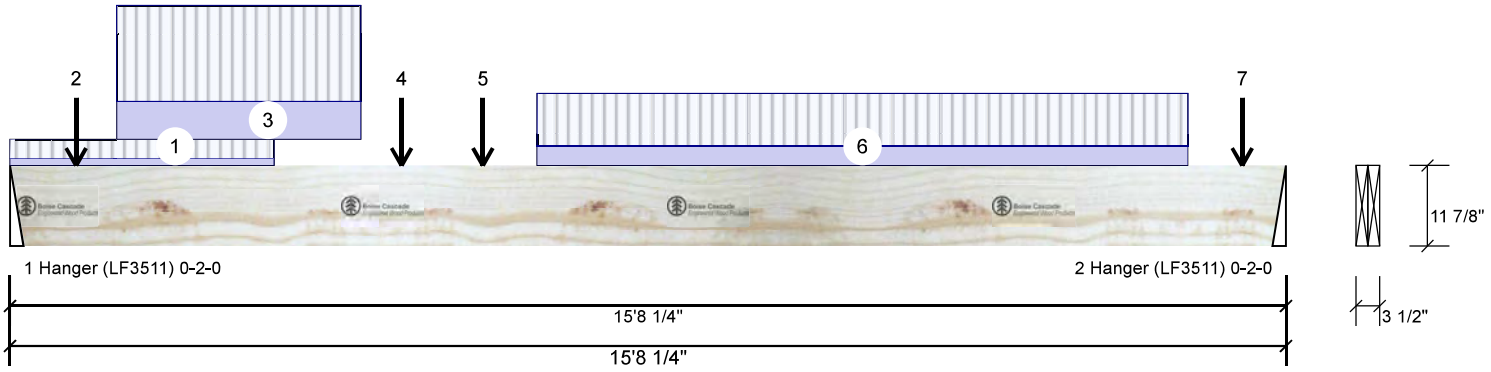
Client: GREENPARK
Project:
Add TATES

Date: 7/18/2023
Input by: W.C.
Job Name: VILLA 3-2 STD
Project #:

MHP 23035

F14-A Versa-Lam LVL 2.1E 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	1314	600	0	0
2	Vertical	932	444	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%	750 / 1970	2720	L	1.25D+1.5L
2 - Hanger	2.000"	Vert	26%	556 / 1398	1954	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	8377 ft-lb	7' 9/16"	35392 ft-lb	0.237 (24%)	1.25D+1.5L	L
Unbraced	8377 ft-lb	7' 9/16"	35392 ft-lb	0.237 (24%)	1.25D+1.5L	L
Shear	2627 lb	1'1 7/8"	13217 lb	0.199 (20%)	1.25D+1.5L	L
Perm Defl in.	0.080 (L/2309)	7'8 1/8"	0.516 (L/360)	0.156 (16%)	D	Uniform
LL Defl inch	0.172 (L/1079)	7'7 13/16"	0.516 (L/360)	0.334 (33%)	L	L
TL Defl inch	0.253 (L/735)	7'8"	0.774 (L/240)	0.326 (33%)	D+L	L

Design Notes

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

LICENSED PROFESSIONAL ENGINEER
I.MATIJEVIC
100528832
PROVINCE OF ONTARIO
JULY 19, 2023

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 3-2-15		Top	15 PLF	40 PLF	0 PLF	0 PLF	
2	Point	0-9-12		Far Face	78 lb	197 lb	0 lb	0 lb	J4
3	Part. Uniform	1-3-12 to 4-3-12		Far Face	79 PLF	201 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

This design is valid until 4/17/2026

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KOTT

CSD DRAW DESIGN BUILD

CORPORATION OF THE CITY OF OSHAWA
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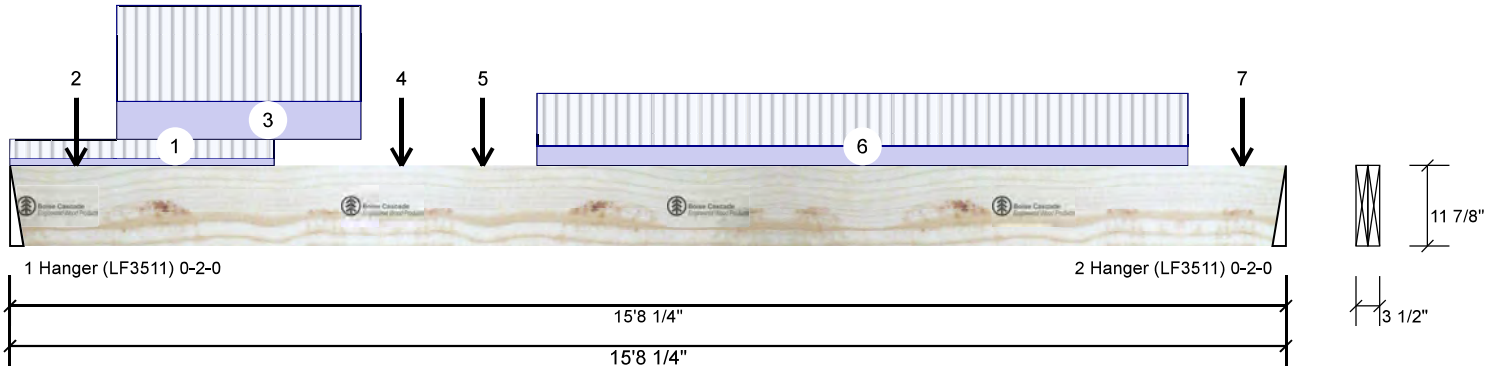
OF PERMIT PLANS
Nov 04 2023
PER: BUILDING DIVISION

Client: GREENPARK Date: 7/18/2023
Project: Input by: W.C
Add TATES Job Name: VILLA 3-2 STD
MHP 23035
Project #:

F14-A Versa-Lam LVL 2.1E 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
4	Point	4-9-12		Far Face	77 lb	197 lb	0 lb	0 lb	J4
5	Point	5-9-12		Far Face	48 lb	128 lb	0 lb	0 lb	J9
6	Part. Uniform	6-5-12 to 14-5-12		Far Face	41 PLF	110 PLF	0 PLF	0 PLF	
7	Point	15-1-12		Far Face	42 lb	111 lb	0 lb	0 lb	J9
	Self Weight				12 PLF				

LICENSED PROFESSIONAL ENGINEER
I.MATIJEVIC
100528832
PROVINCE OF ONTARIO
JULY 19, 2023

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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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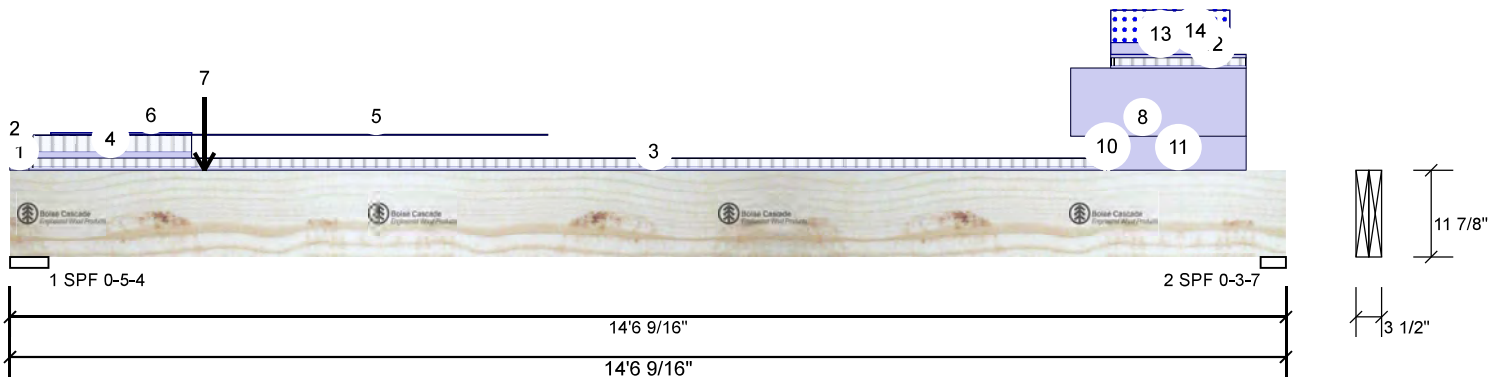
F14-B Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED

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	341	296	4	0
2	Vertical	104	359	48	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.250"	Vert	8%	369 / 512	882	L	1.25D+1.5L
2 - SPF	3.464"	Vert	11%	449 / 71	521	L	1.25D+1.5S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1687 ft-lb	5'9 5/8"	32915 ft-lb	0.051 (5%)	1.25D+1.5L +S	L
Unbraced	1687 ft-lb	5'9 5/8"	32915 ft-lb	0.051 (5%)	1.25D+1.5L +S	L
Shear	789 lb	1'5 1/8"	12160 lb	0.065 (6%)	1.25D+1.5L	L
Perm Defl in.	0.025 (L/6595)	7'3 7/8"	0.465 (L/360)	0.055 (5%)	D	Uniform
LL Defl inch	0.020 (L/8539)	6'10 1/8"	0.465 (L/360)	0.042 (4%)	L+0.5S	L
TL Defl inch	0.045 (L/3726)	7'1 3/8"	0.697 (L/240)	0.064 (6%)	D+L+0.5S	L

Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2 Girders are designed to be supported on the bottom edge only.
3 Multiple plies must be fastened together as per manufacturer's details.
4 Top loads must be supported equally by all plies.
5 Top must be laterally braced at a maximum of 2'1 1/16" o.c.
6 Bottom must be laterally braced at a maximum of 12'3 15/16" o.c.
7 Lateral slenderness ratio based on full section width.

JULY 19, 2023

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-2-10	0-5-13	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 0-2-10	0-2-3	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Tie-In	0-2-10 to 12-5-7	0-3-2	Top	15 PSF	40 PSF	0 PSF	0 PSF	
4	Tie-In	0-2-10 to 2-0-14	0-5-14	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
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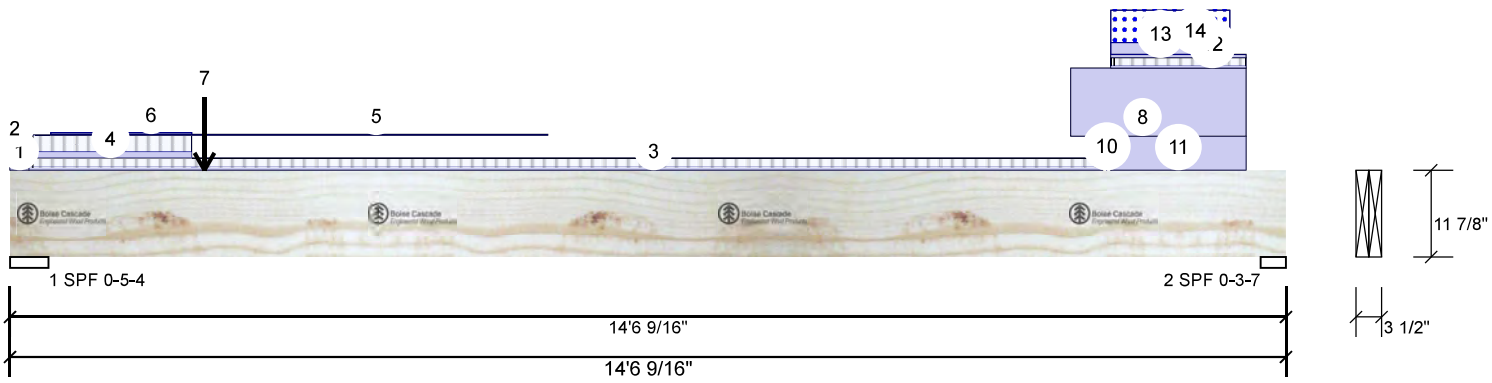

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
5	Part. Uniform	0-5-9 to 6-1-9		Top	1 PLF	0 PLF	0 PLF	0 PLF	
6	Part. Uniform	0-5-9 to 2-0-14		Top	2 PLF	0 PLF	0 PLF	0 PLF	
7	Point	2-2-10		Near Face	159 lb	262 lb	0 lb	0 lb	F12
8	Part. Uniform	12-1-1 to 14-1-1		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
9	Tapered Start	12-6-0		Top	0 PLF	1 PLF	0 PLF	0 PLF	
	End	12-6-0			0 PLF	1 PLF	0 PLF	0 PLF	
10	Part. Uniform	12-6-0 to 12-6-0		Top	4 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
11	Part. Uniform	12-6-9 to 14-1-1		Top	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
12	Tapered Start	12-6-9		Top	3 PLF	9 PLF	0 PLF	0 PLF	
	End	14-1-1			3 PLF	9 PLF	0 PLF	0 PLF	
13	Part. Uniform	12-6-9 to 14-1-1		Top	4 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
14	Part. Uniform	12-6-9 to 13-10-14		Top	14 PLF	0 PLF	38 PLF	0 PLF	
	Self Weight				12 PLF				

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PROVINCE OF ONTARIO
JULY 19, 2023

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

Notes

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Lumber

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

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

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

isDesign

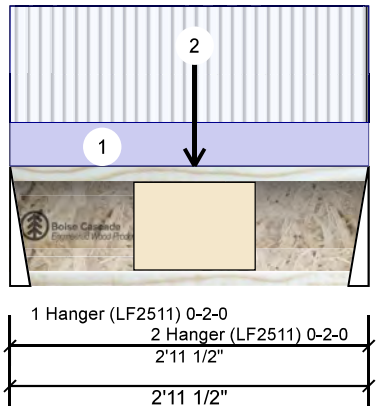
Client: GREENPARK
Project:
Add TATES

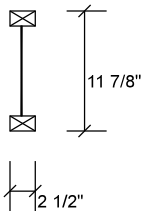
Date: 7/18/2023
Input by: W.C.
Job Name: VILLA 3-2 STD
Project #:

MHP 23035

F2 AJS 140 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	245	92	0	0
2	Vertical	258	97	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 / 368	482	L	1.25D+1.5L
2 - Hanger	2.000"	Vert	32%	121 / 387	508	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	614 ft-lb	1'6 1/4"	5305 ft-lb	0.116 (12%)	1.25D+1.5L	L
Unbraced	614 ft-lb	1'6 1/4"	5305 ft-lb	0.116 (12%)	1.25D+1.5L	L
Shear	501 lb	2'10 1/4"	2350 lb	0.213 (21%)	1.25D+1.5L	L
Perm Defl in.	0.002 (L/15620)	1'6 5/16"	0.092 (L/360)	0.023 (2%)	D	Uniform
LL Defl inch	0.006 (L/5840)	1'6 5/16"	0.092 (L/360)	0.062 (6%)	L	L
TL Defl inch	0.008 (L/4251)	1'6 5/16"	0.137 (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: 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 2-11-8	0-9-4	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	1-6-4		Far Face	154 lb	412 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

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Job Name: VILLA 3-2 STD
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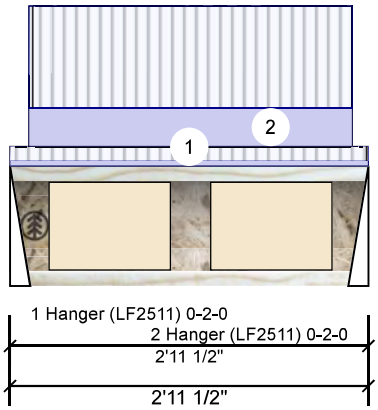
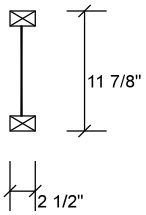
F2-A AJS 140 11.875" PASSED

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	335	125	0	0
2	Vertical	340	127	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	Vert	41%	157 / 502	659	L	1.25D+1.5L
2 - Hanger	2.000"	Vert	42%	159 / 510	669	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	463 ft-lb	1'5 3/4"	5305 ft-lb	0.087 (9%)	1.25D+1.5L	L
Unbraced	463 ft-lb	1'5 3/4"	5305 ft-lb	0.087 (9%)	1.25D+1.5L	L
Shear	662 lb	2'10 1/4"	2350 lb	0.282 (28%)	1.25D+1.5L	L
Perm Defl in.	0.002 (L/19766)	1'5 3/4"	0.092 (L/360)	0.018 (2%)	D	Uniform
LL Defl inch	0.004 (L/7403)	1'5 3/4"	0.092 (L/360)	0.049 (5%)	L	L
TL Defl inch	0.006 (L/5386)	1'5 3/4"	0.137 (L/240)	0.045 (4%)	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: 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 2-11-8	0-9-4	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-1-14 to 2-9-14		Far Face	82 PLF	219 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

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Job Name: VILLA 3-2 STD
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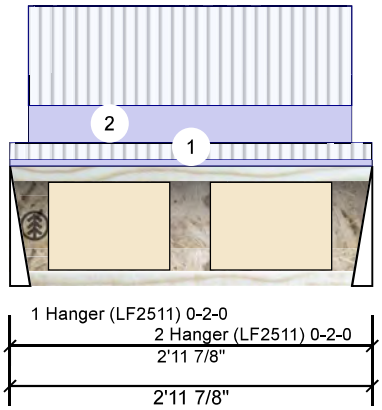
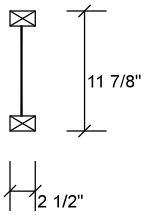
F2-B AJS 140 11.875" PASSED

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	287	107	0	0
2	Vertical	284	106	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	Vert	35%	134 / 431	565	L	1.25D+1.5L
2 - Hanger	2.000"	Vert	35%	132 / 427	559	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	399 ft-lb	1'5 15/16"	5305 ft-lb	0.075 (8%)	1.25D+1.5L	L
Unbraced	399 ft-lb	1'5 15/16"	5305 ft-lb	0.075 (8%)	1.25D+1.5L	L
Shear	559 lb	1 1/4"	2350 lb	0.238 (24%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/23174)	1'5 15/16"	0.093 (L/360)	0.016 (2%)	D	Uniform
LL Defl inch	0.004 (L/8635)	1'5 15/16"	0.093 (L/360)	0.042 (4%)	L	L
TL Defl inch	0.005 (L/6291)	1'5 15/16"	0.139 (L/240)	0.038 (4%)	D+L	L

JULY 19, 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 2-11-14	0-9-3	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-1-13 to 2-9-13		Near Face	67 PLF	180 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

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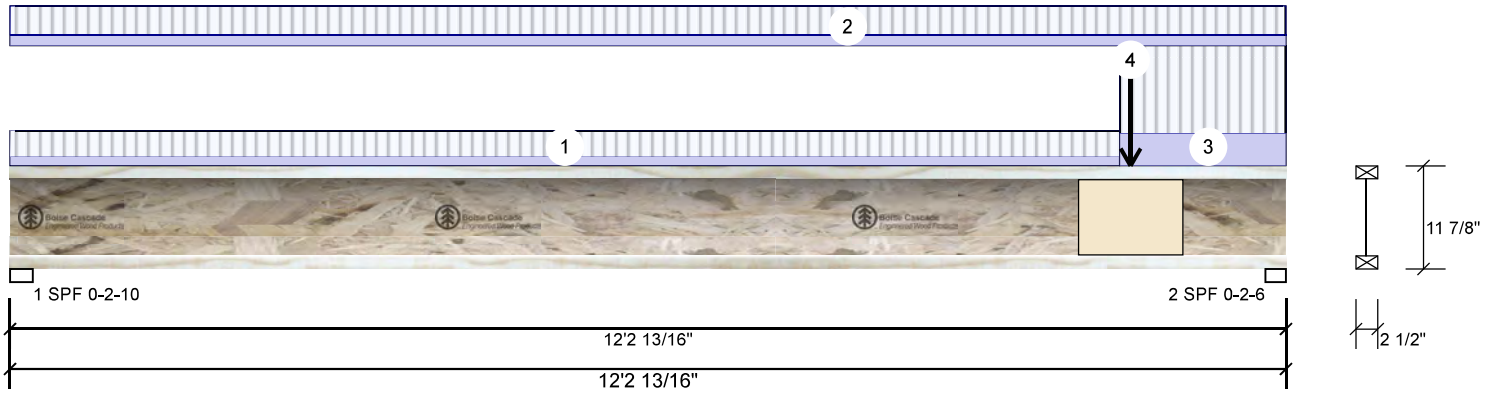

Member Information

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	281	105	0	0
2	Vertical	564	211	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.625"	Vert	32%	132 / 422	554	L	1.25D+1.5L
2 - SPF	2.375"	Vert	66%	264 / 846	1110	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1862 ft-lb	7' 3/8"	5305 ft-lb	0.351 (35%)	1.25D+1.5L	L
Unbraced	1862 ft-lb	7' 3/8"	5305 ft-lb	0.351 (35%)	1.25D+1.5L	L
Shear	1087 lb	12'1 3/16"	2350 lb	0.463 (46%)	1.25D+1.5L	L
Perm Defl in.	0.035 (L/4082)	6'5"	0.398 (L/360)	0.088 (9%)	D	Uniform
LL Defl inch	0.094 (L/1529)	6'5"	0.398 (L/360)	0.235 (24%)	L	L
TL Defl inch	0.129 (L/1112)	6'5"	0.597 (L/240)	0.216 (22%)	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 10'8 15/16" o.c.

I.MATIJEVIC
100528832
LICENSED PROFESSIONAL ENGINEER
PROVINCE OF ONTARIO
JULY 19, 2023

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 10-7-11	0-5-10	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 12-2-13	0-6-6	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Tie-In	10-7-11 to 12-2-13	1-7-3	Top	15 PSF	40 PSF	0 PSF	0 PSF	
4	Point	10-8-15		Far Face	106 lb	284 lb	0 lb	0 lb	F2

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
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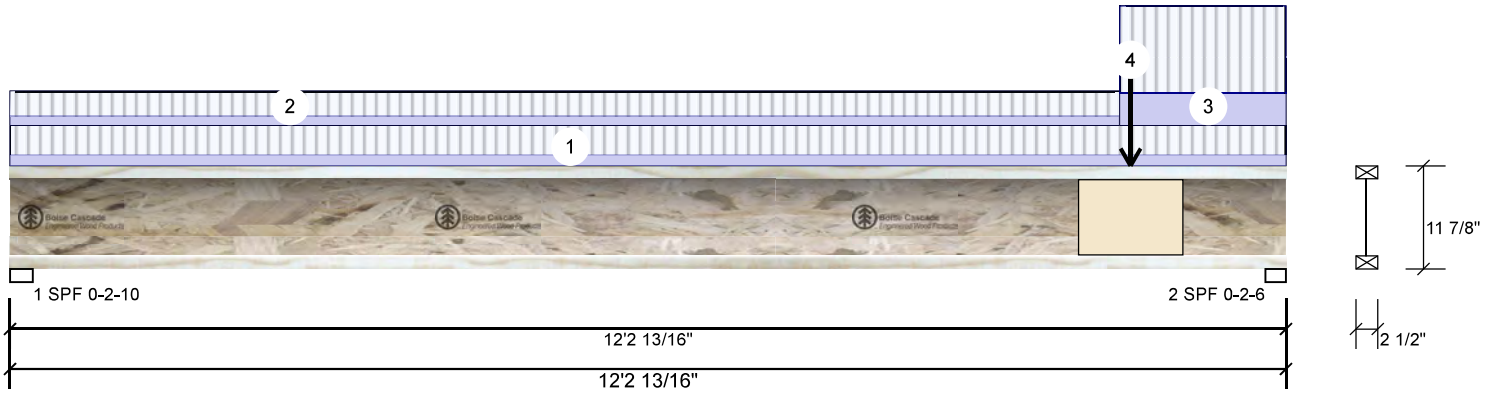

Member Information

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	282	106	0	0
2	Vertical	567	212	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.625"	Vert	32%	132 / 423	555	L	1.25D+1.5L
2 - SPF	2.375"	Vert	66%	265 / 851	1116	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1867 ft-lb	7' 1/2"	5305 ft-lb	0.352 (35%)	1.25D+1.5L	L
Unbraced	1867 ft-lb	7' 1/2"	5305 ft-lb	0.352 (35%)	1.25D+1.5L	L
Shear	1093 lb	12'1 3/16"	2350 lb	0.465 (47%)	1.25D+1.5L	L
Perm Defl in.	0.035 (L/4072)	6'5 1/16"	0.398 (L/360)	0.088 (9%)	D	Uniform
LL Defl inch	0.094 (L/1525)	6'5 1/16"	0.398 (L/360)	0.236 (24%)	L	L
TL Defl inch	0.129 (L/1109)	6'5 1/16"	0.597 (L/240)	0.216 (22%)	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 10'8 15/16" 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 12-2-13	0-6-7	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 10-7-11	0-5-9	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Tie-In	10-7-11 to 12-2-13	1-7-3	Top	15 PSF	40 PSF	0 PSF	0 PSF	
4	Point	10-8-15		Near Face	107 lb	287 lb	0 lb	0 lb	F2

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

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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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(800) 232-0788
www.bc.com
CCMC: 12787

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

KOTT

CSD DRAW DESIGN BUILD

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

isDesign

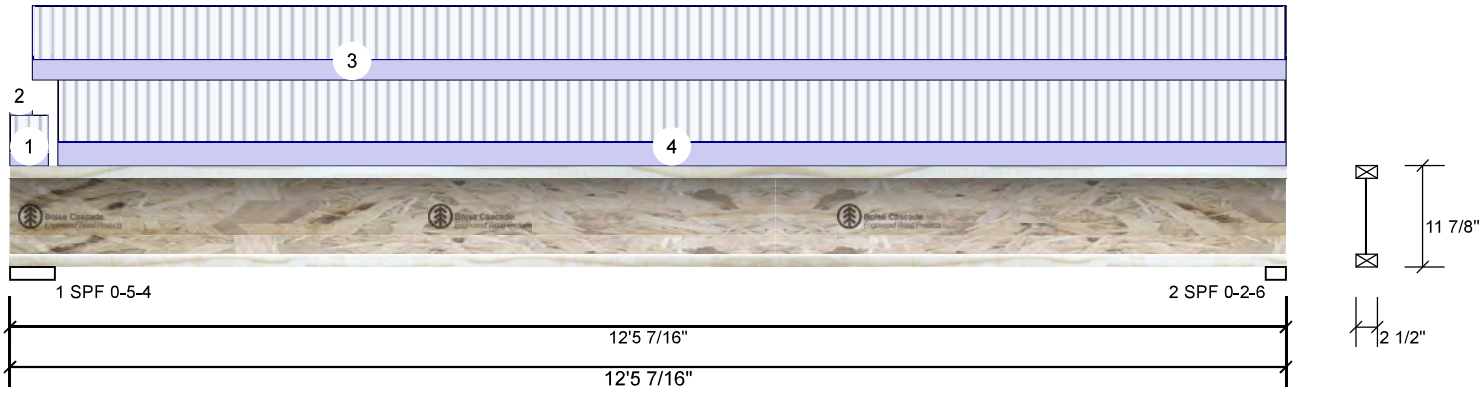
Client: GREENPARK
Project:
Add TATES

Date: 7/18/2023
Input by: W.C.
Job Name: VILLA 3-2 STD
Project #:

MHP 23035

F5-B AJS 140 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	353	132	0	0
2	Vertical	351	131	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.250"	Vert	36%	165 / 530	695	L	1.25D+1.5L
2 - SPF	2.375"	Vert	41%	164 / 526	690	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2015 ft-lb	6'4 3/16"	5305 ft-lb	0.380 (38%)	1.25D+1.5L	L
Unbraced	2015 ft-lb	6'4 3/16"	5305 ft-lb	0.380 (38%)	1.25D+1.5L	L
Shear	675 lb	12'3 13/16"	2350 lb	0.287 (29%)	1.25D+1.5L	L
Perm Defl in.	0.037 (L/3845)	6'4 3/16"	0.398 (L/360)	0.094 (9%)	D	Uniform
LL Defl inch	0.099 (L/1442)	6'4 3/16"	0.398 (L/360)	0.250 (25%)	L	L
TL Defl inch	0.137 (L/1049)	6'4 3/16"	0.597 (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 bearings.

JULY 19, 2023

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-4-8	0-5-7	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 0-2-10	0-2-9	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Tie-In	0-2-10 to 12-5-7	0-8-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
4	Tie-In	0-5-10 to 12-5-7	0-9-3	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

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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
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F6 AJS 140 11.875" - PASSED

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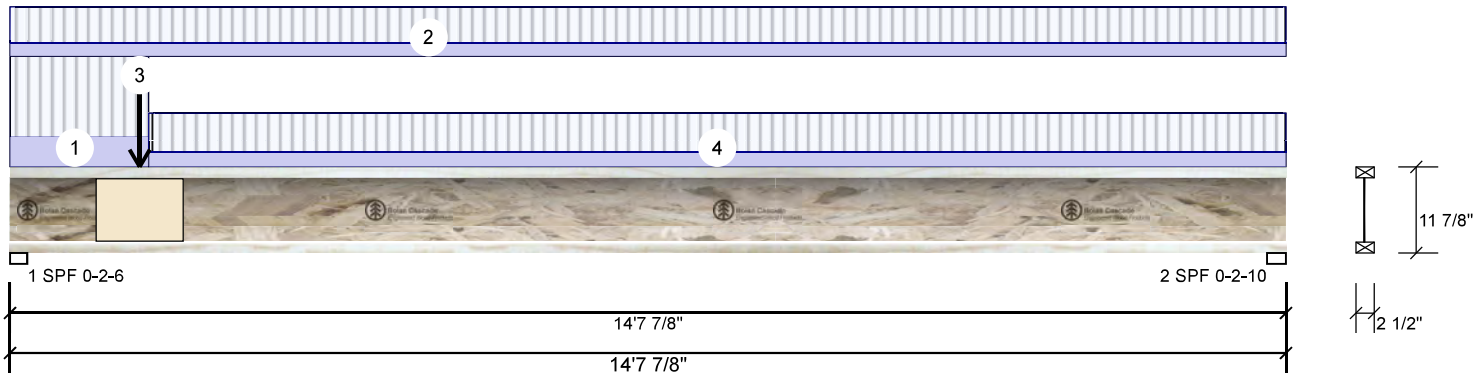

Member Information

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	716	269	0	0
2	Vertical	461	173	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	Vert	84%	336 / 1074	1410	L	1.25D+1.5L
2 - SPF	2.625"	Vert	52%	216 / 691	907	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3394 ft-lb	6'10 3/8"	5305 ft-lb	0.640 (64%)	1.25D+1.5L	L
Unbraced	3394 ft-lb	6'10 3/8"	5305 ft-lb	0.640 (64%)	1.25D+1.5L	L
Shear	1386 lb	1 5/8"	2350 lb	0.590 (59%)	1.25D+1.5L	L
Perm Defl in.	0.088 (L/1960)	7'1 15/16"	0.479 (L/360)	0.184 (18%)	D	Uniform
LL Defl inch	0.234 (L/735)	7'1 15/16"	0.479 (L/360)	0.490 (49%)	L	L
TL Defl inch	0.322 (L/535)	7'1 15/16"	0.718 (L/240)	0.449 (45%)	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 13'2" o.c.

JULY 19, 2023

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-7-2	1-7-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 14-7-14	0-8-8	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-5-14		Far Face	97 lb	258 lb	0 lb	0 lb	F2
4	Tie-In	1-7-2 to 14-7-14	0-9-4	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
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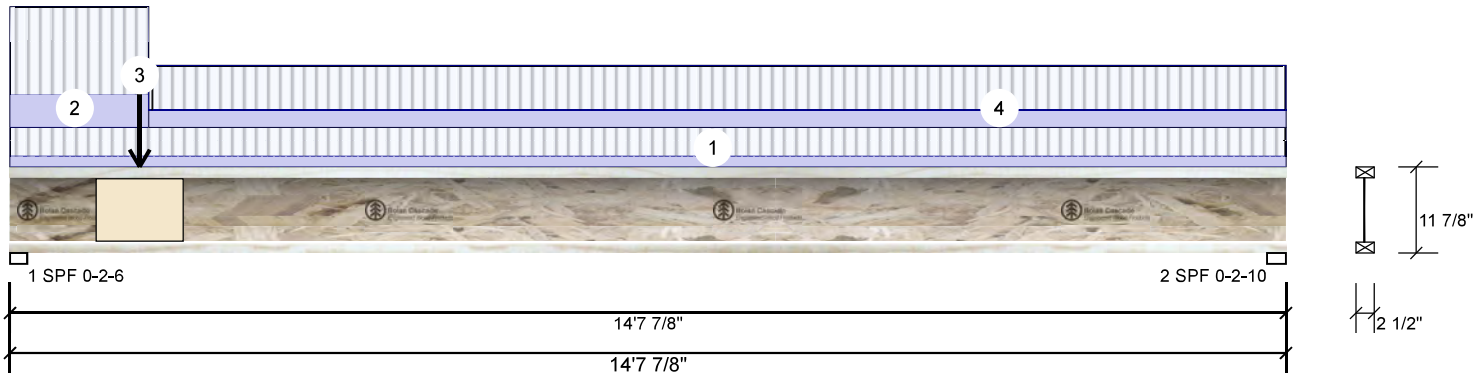

Member Information

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	659	247	0	0
2	Vertical	417	156	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	Vert	77%	309 / 988	1297	L	1.25D+1.5L
2 - SPF	2.625"	Vert	47%	195 / 625	820	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3078 ft-lb	6'10 1/16"	5305 ft-lb	0.580 (58%)	1.25D+1.5L	L
Unbraced	3078 ft-lb	6'10 1/16"	5305 ft-lb	0.580 (58%)	1.25D+1.5L	L
Shear	1275 lb	1 5/8"	2350 lb	0.543 (54%)	1.25D+1.5L	L
Perm Defl in.	0.080 (L/2160)	7'1 7/8"	0.479 (L/360)	0.167 (17%)	D	Uniform
LL Defl inch	0.213 (L/810)	7'1 7/8"	0.479 (L/360)	0.444 (44%)	L	L
TL Defl inch	0.293 (L/589)	7'1 7/8"	0.718 (L/240)	0.407 (41%)	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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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 14-7-14	0-6-4	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 1-7-2	1-7-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-5-14		Near Face	92 lb	245 lb	0 lb	0 lb	F2
4	Tie-In	1-7-2 to 14-7-14	0-9-12	Top	15 PSF	40 PSF	0 PSF	0 PSF	

Notes

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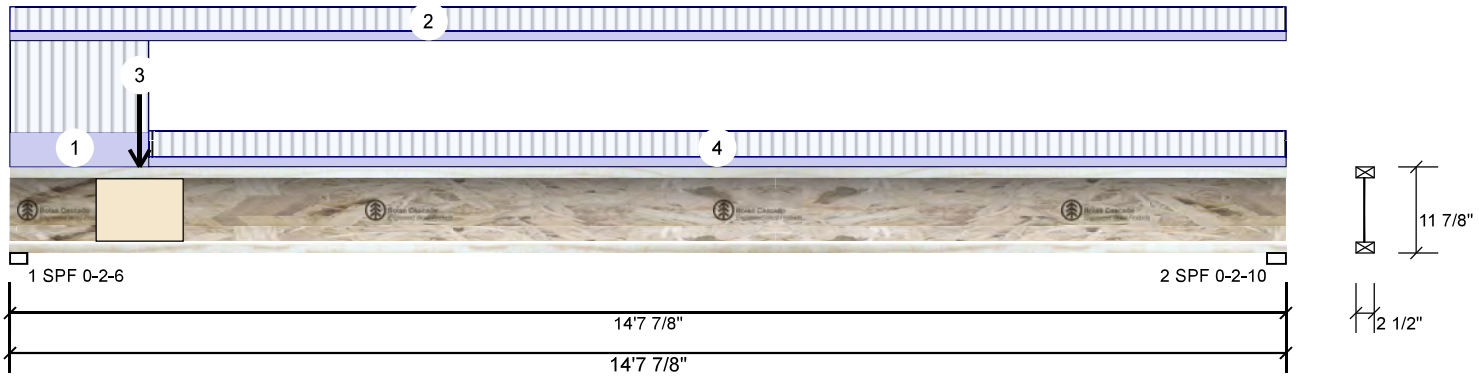

Member Information

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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	633	237	0	0
2	Vertical	292	110	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	Vert	74%	296 / 949	1245	L	1.25D+1.5L
2 - SPF	2.625"	Vert	33%	137 / 438	575	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2312 ft-lb	6'3 11/16"	5305 ft-lb	0.436 (44%)	1.25D+1.5L	L
Unbraced	2312 ft-lb	6'3 11/16"	5305 ft-lb	0.436 (44%)	1.25D+1.5L	L
Shear	1224 lb	1 5/8"	2350 lb	0.521 (52%)	1.25D+1.5L	L
Perm Defl in.	0.060 (L/2859)	7' 1/8"	0.479 (L/360)	0.126 (13%)	D	Uniform
LL Defl inch	0.161 (L/1071)	7' 1/8"	0.479 (L/360)	0.336 (34%)	L	L
TL Defl inch	0.221 (L/779)	7' 1/8"	0.718 (L/240)	0.308 (31%)	D+L	L

Design Notes

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-7-2	1-7-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 14-7-14	0-5-1	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-5-14		Far Face	127 lb	340 lb	0 lb	0 lb	F2
4	Tie-In	1-7-2 to 14-7-14	0-5-7	Top	15 PSF	40 PSF	0 PSF	0 PSF	

Notes

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