

CORPORATION OF THE CITY OF OSHAWA



Document Outlines the Objectives, Restrictions and Limitations of EWP Component Seals

Sealed Engineered Wood Product (EWP) Components:

(Includes, but not limited to: I-Joists, LVL, LSL, Dimensional Lumber)

Modulus Engineering Ltd. (MEL) provides EWP component review among a variety of other engineering services to our clients. The scope of the work provided by EWP component review is governed by the arrangement between MEL and our client and not intended to extend or imply to extend beyond this scope. If further review or other engineering work beyond this scope is required, MEL may be retained by the client at the discretion of MEL.

It is becoming more common that component review is requested by project engineers or building designers as a means of additional verification of proprietary EWP components they have specified on their drawings or by building departments for verification of components not covered explicitly in the building code. The intent of this document is to clarify the objectives of the review of the EWP components to ensure the project engineer or building designer and the building official understand the limitations of the component seals. Of particular importance, it should not be implied that the EWP component review and subsequent component seals provided are to be considered as review of the overall structure. This remains the responsibility of the project engineer of record (EOR) or building designer (Architect or other).

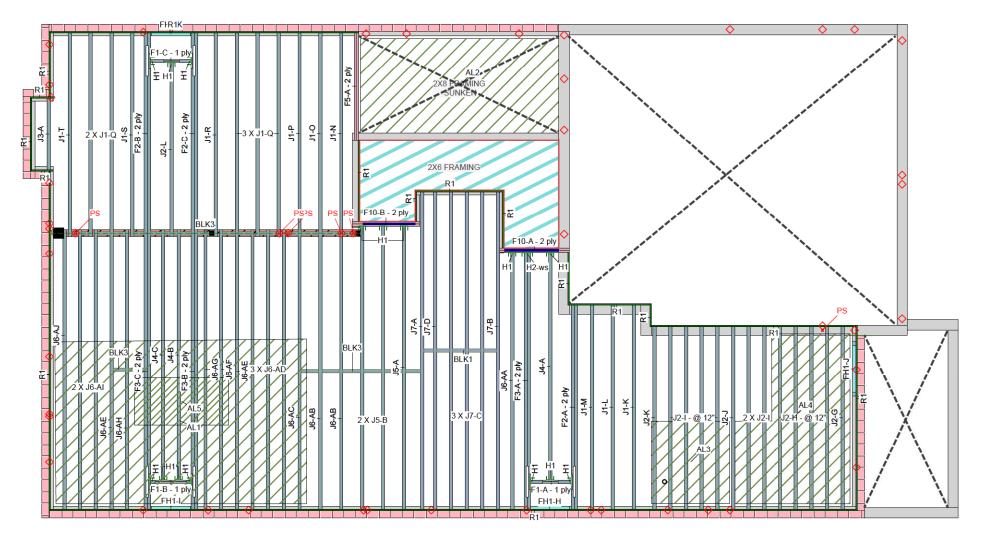
MEL reviews components produced by various proprietary design software programs, including: Mitek Sapphire (or Sapphire Supply), CSD iStruct, Simpson Strong-Tie Component Solutions, EZCad Wood-I and WoodWorks Sizer. Each program produces design notes that similarly attempt to clarify the limitations of the individual component design, with slight differences in language. The <u>General Notes</u> provided here are intended to supplement the notes on the sealed components and replace them where contradictions exist. If the intent is unclear, please contact MEL directly to ensure there are no unanswered questions.

General Notes:

- Although MEL reviews components submitted together with layouts provided by our clients (in order to review how the components frame to one another to check member to member loading in the structural model and to review the suitability of hangers noted as well as to determine lamination details provided on the component drawing), the individual component seal stands alone as a unique individual member design/review and the loading noted should also be verified by the building designer or EOR.
- Reactions shown are for gravity loads (vertical) or out of plane wind loads (horizontal, when reviewing wall components) on the member as noted only and does not include any additional loads that may be imposed by other factors such as overturning of shearwalls due to wind or seismic loads.
- Minimum bearing length noted is based on the EWP material itself unless the bearing capacity for the support is specifically noted (most often the case), for the full width of the member supported. If the capacity of the bearing material is less than the capacity of the member itself, a larger bearing length may be required, to be determined by building designer or EOR.
- Adequate bearing surface for large point loads from above must be provided, to be determined by building designer or EOR unless noted on the component design.
- Where bracing or lateral support assumptions are not noted on the component design, continuous bracing for any compression edge, point load location and bearing or support location is assumed.
- Design is based on Dry service condition, defined as an EMC average over the year of 15% or less and never over 19%.
- Dimensions and location of supports as provided and as noted on component design, to be verified by others.
- Lamination details provided on the component drawing have been designed as per CSA-086.
- Any hangers specified have been reviewed in accordance with manufacturers published capacity for gravity and uplift loads only.
- Any flat roof applications must have adequate drainage to avoid ponding and potential overloading of the structure as designed
- Building designer or EOR must ensure the structure is adequate to support the reactions shown (may include uplift at a bearing)
- Building designer or EOR is responsible for the overall structural design including the lateral stability of the structure.
- Products to be installed as per manufacturers instructions and/or as per details provided by the building designer or EOR
- Products should be stored on site and handled as per manufacturers recommendations.
- Damaged products or those modified outside the scope of the manufacturers recommendations should not be installed unless approved by an engineer or building official



MHP 23018



Label Description Width Depth Qty Plies Pcs Length														
LVL/LSL (Flush)														J
Table Description Width Depth Qty Plies Pcs Length		_		-0										В
F5			ption					(Qty	2 855	5	2 E154	The second secon	٦,
F10	F5		00051-11/4	1.	75	11.8	75		1	2		2	8-0-0	_
2.0E-3000Fb LVL S I Joist (Flush)	E40	_	000Fb LVL	4.	7.	44.0			•	_	+		0.0.0	4
I Joist (Flush)	F10		000Fb I VI	1.	/5	11.8	3/5		2			4	6-0-0	4
Label Description Width Depth Qty Plies Pcs Length	Lloist (S
F3				Wid	th	Der	oth	(Otv	Plies		Pcs	Length	! ا
F2 AJS 140 2.5 11.875 3 2 6 14-0-0 F1 AJS 140 2.5 11.875 3 4-0-0 4-0-0 AJS 140 2.5 11.875 3 4-0-0 4-0-0 D <td></td> <td></td> <td>•</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>•</td> <td></td> <td>+</td> <td></td> <td></td> <td></td>			•						•		+			
F1			-				$\overline{}$				+			S
J6	F1			2	2.5		_		_		\top	3		L
J4	J5	AJS 14	ł0	2	2.5	11.8	375				T	3	20-0-0	D
J1	J6	AJS 14	10	2	2.5	11.8	375				T	15	18-0-0	ĺ١
J1	J4	AJS 14	10	2	2.5	11.8	375					3	16-0-0	P
J2 AJS 140 2.5 11.875 14 12-0-0 L	J1	AJS 14	10	2	2.5	11.8	375					14	14-0-0]]
Second S	J2	AJS 14	10	2	2.5	11.8	375					14	12-0-0	⊢
Rim Board Label Description Width Depth Qty Plies Pcs Length Description Label Description Width Depth Qty Plies Pcs Length Description Label Description Width Depth Qty Plies Pcs Length Description Width Depth Qty Plies Pcs Length Description Label Description Width Depth Qty Plies Pcs Length Description Label Description Label Description Label Pcs Description Skew Slope Statemers Supported Member Label Pcs Description Skew Slope Statemers Testing Test	J3	AJS 140		2	2.5	11.8	375					1	6-0-0	
Label Description Width Depth Qty Plies Pcs Length Plis 1.125 11.875 13 12-0-0 Plis 1.125 11.875 13 12-0-0 Plis 1.125 11.875 13 12-0-0 Plis 1.125 11.875 Pcs Length Pcs Len	J7	7 AJS 20		2	2.5	11.8	375					6	22-0-0	Ŀ
R1	Rim Bo	ard												J
Plus 1.125 X	Label	Descri	ption			Dep	oth	(Qty	Plies	s	Pcs	Length	DE
11.875 Blocking Bull B	R1			1.13	25	11.8	375					13	12-0-0	G
Blocking														De
Label Description Width Depth Qty Plies Pcs Length	Blockin													Вι
BLK3 AJS 140 2.5 11.875 LinFt Varies 22-0-0 L			iption	Wid	lth	Der	oth	(Otv	Plies	5	Pcs	I ength	fι
BLK1 AJS 20 2.5 11.875 LinFt Varies 4-0-0 LinFt LinFt Varies 4-0-0 LinFt L			•		_				•	. 1100	+			Lo
Beam/Girder Supported Member					_									Liv
Beam/Girder Supported Member Label Pcs Description Skew Slope fasteners T H1 15 LF2511 12 10d 1 #8x1 1/4WS D H2 1 HU310-2 14 16d 6 10d L		-												De
Label Pcs Description Skew Slope fasteners T H1 15 LF2511 12 10d 1 #8x1 1/4WS D H2 1 HU310-2 14 16d 6 10d L	3							Bea	am/Giro	der	Sur	ported	De	
H1 15 LF2511 12 10d 1 #8x1 1/4WS D L 1 HU310-2 14 16d 6 10d L										Me	ember	lιι		
H1 15 LF2511 12 10d 1 #8x1 1/4WS D H2 1 HU310-2 14 16d 6 10d L	Label Pcs Description			n	Sk	ew	Slo	ре	fa	stener	s	fas	teners	1т.
H2 1 HU310-2 14 16d 6 10d L	H1 15 LF2511					12 10d			1 #8x1 1/4WS		be			
	H2 1 HU310-2									14 16d		6	10d	Ju
]TL

OB INFORMATION Builder **GREENPARK** roject ZADORRA ESTATES Shipping PENROSE 1- EL 2 OSHAWA,ON Sales Rep RALPH MIRIGELLO Designer W C Plotted June 01, 2022 _ayout Name PENROSE 1-EL 2 Job Path ESIGN CRITERIA Fround Floor

LSD (Canada) Design Method NBCC 2015 / OBC 2012 Building Code Floor _oads ive 40 15 Dead Deflection Joist 480 L Span L/ L Span L/ 240 Deflection Flush Girder 480 LSpan L/ TL Span L/ 240 Deflection Dropped Girder 480 LL Span L/ TL Span L/ 240 **Deflection Header**

CCMC References Boise - 12472-R , 12787-R LP - 12412-R

Forex - 14056-R Kott Inc.

LL Span L/

TL Span L/ Decking

Decking Thickness

3228 Moodie Dr, Ottawa

613-838-2775 / 905-642-4400



480 240

OSB

3/4"

- 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.

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. 12. Multi ply beams with side loading to have all fasteners installed with the head on the side of the applied load

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

AJS140 I-Joists can be substituted with LP20 I-Joists for 9.5" and 11.875" depths shown on this layout.

Legend

Web Stiffener

AJS 20 11.875

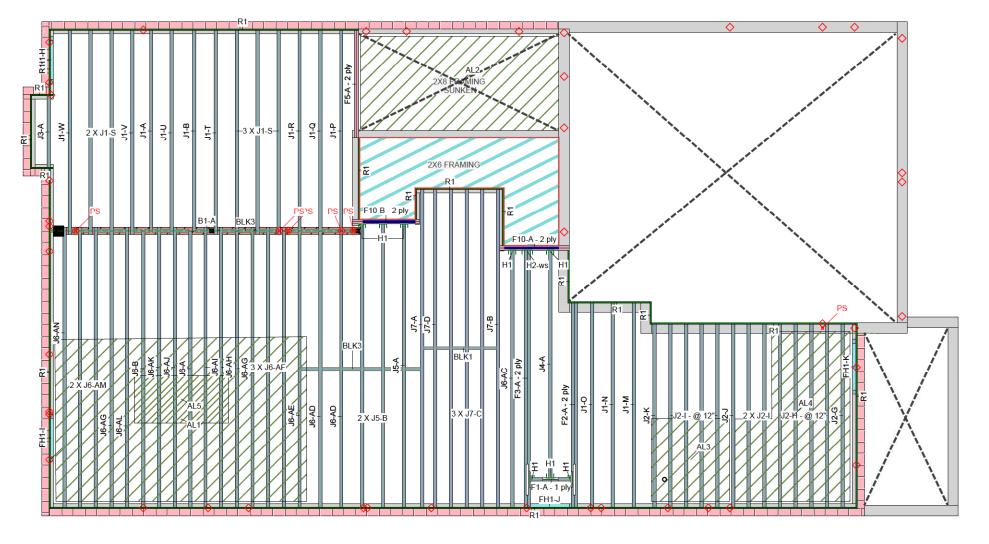
-WS PS ٥

In Hanger Label Denotes Web Stiffene Point Load Support Load from Above





MHP 23018



Ground											J
LVL/LS											В
Label	Descr	iption	Wid	3333	Depth		Qty	Plies	Pcs	Length	17
F5	Forex		1.	75	11.875		1	2	2	8-0-0	
		000Fb LVL						_			P
F10	Forex 2.0E-3	000Fb LVL	1.	75	11.875		2	2	4	6-0-0	s
Joist (Flush)										۱
Label	Descr	iption	Wid	lth	Depth	(Qty	Plies	Pcs	Length	1
F3	AJS 14	10	2	2.5	11.875		1	2	2	18-0-0	1_
F2	AJS 14	10	2	2.5	11.875		1	2	2	14-0-0	s
F1	AJS 14	10	2	2.5	11.875				1	4-0-0	Ľ
J5	AJS 14	10	2	2.5	11.875				3	20-0-0] D
J6	AJS 14	10	2	2.5	11.875				19	18-0-0	י 1
J4	AJS 14	10	2	2.5	11.875				1	16-0-0	P
J1	AJS 14	AJS 140		2.5	11.875				17	14-0-0	Ι,
J2	AJS 14	AJS 140		2.5	11.875				13	12-0-0	⊢
J3	AJS 14		2	2.5	11.875				1	6-0-0	ᄔ
J7	AJS 20)	2	2.5	11.875				6	22-0-0	L
Rim Bo	ard										<u>J</u>
Label	Descr	iption	Wid	lth	Depth		Qty	Plies	Pcs	Length	D
R1	Norbor Plus 1. 11.875		1.13	25	11.875				13	12-0-0	G D
Blockin	g			•							В
Label	Descr	iption	Wid	lth	Depth	(Qty	Plies	Pcs	Length	F
BLK3	AJS 14	10	2	2.5	11.875	L	inFt		Varies	20-0-0	Lo
BLK1	AJS 20)	2	2.5	11.875	L	inFt		Varies	4-0-0	Li
Hanger				•							D
							Bea	am/Girder	Sup	ported	D
								Me	ember	LI	
Label	Pcs Description		ion Skew		w S	Slope fasteners		steners	s fasteners		Įπ
H1	8	LF2511						12 10d	1 #8x	1 1/4WS	D
H2	1	HU310-2						14 16d	6	10d]ա
											1=

oor						7	JOB INFORMATION
Flush)							Builder
escription	Width	Depth	Qty	Plies	Pcs	Length	
rex	1.75	11.875	1	2	2	8-0-0	GREENPARK
E-3000Fb LVL							Project
rex	1.75	11.875	2	2	4	6-0-0	ZADORRA ESTATES
E-3000Fb LVL							Shipping
sh)							PENROSE 1- EL 2
escription	Width	Depth	Qty	Plies	Pcs	Length	OSHAWA,ON
S 140	2.5	11.875	1	2	2	18-0-0	Sales Rep
S 140	2.5	11.875	1	2	2	14-0-0	
S 140	2.5	11.875			1	4-0-0	RALPH MIRIGELLO
S 140	2.5	11.875			3	20-0-0	Designer
S 140	2.5	11.875			19	18-0-0	wc
S 140	2.5	11.875			1	16-0-0	Plotted
S 140	2.5	11.875			17	14-0-0	June 01, 2022
S 140	2.5	11.875			13	12-0-0	Layout Name
S 140	2.5	11.875			1	6-0-0	,
S 20	2.5	11.875			6	22-0-0	PENROSE 1-EL 2 DECK CONDITION
1							Job Path
escription	Width	Depth	Qty	Plies	Pcs	Length	DESIGN CRITERIA
rbord Rimboard	1.125	11.875			13	12-0-0	Ground Floor
10 1 125 V			1	1		1	

LSD (Canada) Design Method NBCC 2015 / OBC 2012 Building Code Floor _oads ive 40 15 Dead Deflection Joist 480 L Span L/ L Span L/ 240 Deflection Flush Girder 480 LSpan L/ TL Span L/ 240 **Deflection Dropped Girder** 480 LL Span L/ TL Span L/ 240 Deflection Header LL Span L/ 480 240 TL Span L/ Decking Decking OSB Thickness 3/4" CCMC References

Boise - 12472-R , 12787-R LP - 12412-R Forex - 14056-R

Kott Inc.

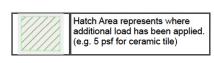
3228 Moodie Dr, Ottawa

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.

This placement plan is to be used as an installation guide only. It is meant to be used in conjunction with the manufacturers installed with the head on the side of the applied load



AJS140 I-Joists can be substituted with LP20 I-Joists for 9.5" and 11.875" depths shown on this layout.

Legend

Web Stiffener

Wall Opening

AJS 140 11.875

AJS 20 11.875

-WS PS ٥

In Hanger Label Denotes Web Stiffene Point Load Support Load from Above

Norbord Rimboard Plus 1.125 X 11.875





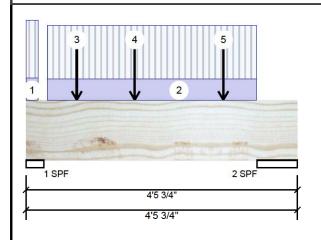
ClientOF PERRENBARKIS Project: Dec 06 2023

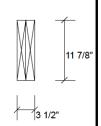
Date: 6/1/2022 Page 1 of 22 ME0722-058

Input by: WC

Job Name: PENROSE 1-EL 2 ME22-5722-1 Project #: ZADORRA ESTATES

F10-A Forex 2.0E-3000Fb LVL CHEF 11.750 11.875 vel Gound Floor





1.25D+1.5L

Unfactored Reactions UNPATTERNED Ib (Uplift) Member Information Application: Floor (Residential) Type: Brg Direction Live Dead Snow Wind Plies: 2 Design Method: LSD 701 284 Vertical 0 0 Moisture Condition: Dry **Building Code:** NBCC 2015 / OBC 2012 Vertical 690 283 0 0 Deflection LL: 480 Load Sharing: No Deflection TL: 240 Deck: Not Checked Importance: Normal - II Vibration: Not Checked General Load **Bearings and Factored Reactions** 40 PSF Floor Live: 15 PSF Dead: Bearing Length Dir. Cap. React D/L lb Total Ld. Case Ld. Comb. 355 / 1051 1.25D+1.5L 1-SPF 3.500" Vert 19% 1406 L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1413 ft-lb	1'9 1/2"	34261 ft-lb	0.041 (4%)	1.25D+1.5L	L
Unbraced	1413 ft-lb	1'9 1/2"	34261 ft-lb	0.041 (4%)	1.25D+1.5L	L
Shear	1246 lb	2'9 7/8"	11596 lb	0.107 (11%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/30689)	1'9 1/2"	0.121 (L/360)	0.012 (1%)	D	Uniform
LL Defl inch	0.004 (L/12275)	1'9 1/2"	0.091 (L/480)	0.039 (4%)	L	L
TL Defl inch	0.005 (L/8768)	1'9 1/2"	0.182 (L/240)	0.027 (3%)	D+L	L

LAMINATE WITH:

2 - SPF 8.000"

2 ROWS OF 3.25" AIR NAILS FACE SPACING AT 12 IN O/C. NAIL FROM LOADED FACE MIN HANGER NAILS: (JOIST/BEAM) 3 IN

Vert

8%

354 / 1035

1389 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.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Commer
1	Tie-In	0-0-0 to 0-2-6	1-10-11	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-4-3 to 3-9-9		Тор	27 PLF	70 PLF	0 PLF	0 PLF	
3	Point	0-10-1		Near Face	115 lb	306 lb	0 lb	0 lb	J6
4	Point	1-9-8		Near Face	160 lb	426 lb	0 lb	0 lb	F3
	•								

Continued on page 2...

PROFESSIONAL CIL HOVINCE OF ONTARIO

SEE GENERAL NOTES DOC: ME-TC02 V 03-2017 NOTE: ALTERING THIS DOCUMENT VOIDS THE ENGINEERS SEAL

MODULUS ENGINEERING LTD.

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.

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

landling & Installation

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

For flat roofs provide proper drainage to prevent ponding

This design is valid until 5/24/2024

Manufacturer Info Forex APA: PR-L318

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

CSD DESIG



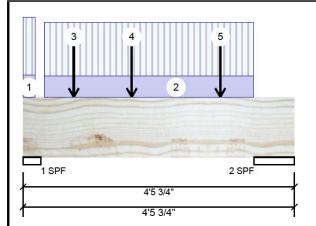
6/1/2022 Date: Input by:

ME0722-058 WC

Job Name: PENROSE 1-EL 2 Project #: ZADORRA ESTATES

ME22-5722-2

F10-A Forex 2.0E-3000Fb LVL CHIEF 1/17/50** X 11.875 Level Gound Floor PASSED



11 7/8'

Page 2 of 22

.Continued from page 1

ID Location Trib Width Wind Comments Load Type Side Live Dead Snow 3-3-1 151 lb 402 lb 0 lb 0 lb 5 Point Near Face J4 Self Weight 10 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.

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

Handling & Installation

Handling & Installation

1. IVI. beams must not be cut or drilled

2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastering 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

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info Forex

APA: PR-L318

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







Date: 6/1/2022

ME0722-058 Input by: WC

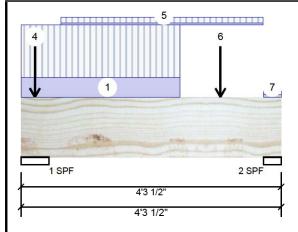
Job Name: PENROSE 1-EL 2 ZADORRA ESTATES

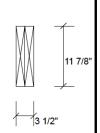
ME22-5722-3

Page 3 of 22

Forex 2.0E-3000Fb LVL CHIEF 11:750*** 11.875







0

Total Ld. Case

1784 L

1371 L

Wind

Ld. Comb.

1.25D+1.5L

1.25D+1.5L

0

Member Information Type:

Plies 2 Moisture Condition: Dry Deflection LL: 480 Deflection TL: 240 Importance: Normal - II General Load Floor Live: 40 PSF

15 PSF

Application: Floor (Residential) Design Method: LSD

NBCC 2015 / OBC 2012

Load Sharing: No Deck: Not Checked Vibration: Not Checked

Building Code:

Unfactored Reactions UNPATTERNED Ib (Uplift) Brg Direction Live Dead Snow 872 381 Vertical

Vertical 684 276 0 0

Cap. React D/L lb

15%

18%

476 / 1308

345 / 1027

Analysis Results

Dead:

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1330 ft-lb	2'2 1/2"	34261 ft-lb	0.039 (4%)	1.25D+1.5L	L
Unbraced	1330 ft-lb	2'2 1/2"	34261 ft-lb	0.039 (4%)	1.25D+1.5L	L
Shear	1980 lb	3' 1/8"	11596 lb	0.171 (17%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/31468)	2'2 5/8"	0.122 (L/360)	0.011 (1%)	D	Uniform
LL Defl inch	0.004 (L/12519)	2'2 5/8"	0.092 (L/480)	0.038 (4%)	L	L
TL Defl inch	0.005 (L/8956)	2'2 5/8"	0.183 (L/240)	0.027 (3%)	D+L	L

LAMINATE WITH:

Bearing Length

1-SPF 5.500"

2 - SPF 3.500"

Bearings and Factored Reactions

Dir.

Vert

Vert

2 ROWS OF 3.25" AIR NAILS FACE SPACING AT 12 IN O/C. NAIL FROM LOADED FACE MIN HANGER NAILS: (JOIST/BEAM) 3 IN

Design Notes

- 1 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 4.5.
- 2 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 3 Girders are designed to be supported on the bottom edge only.
- 4 Multiple plies must be fastened together as per manufacturer's details.
- 5 Top loads must be supported equally by all plies.
- 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.

ID Load Type Location Trib Width Side Dead Live Snow Wind Comments NCE OF OF 137 PLF 367 PLF 0 PLF 0 PLF Part. Uniform 0-0-0 to 2-7-8 Near Face SEE GENERAL NOTES Wall Self Weight DOC: ME-TC02 V 03-2017 2 Point 0-2-12 Top 27 lb 0 lb 0 lb NOTE: ALTERING THIS DOCUMENT VOIDS THE ENGINEERS SEAL Bearing Length 0-5-8

Continued on page 2...

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

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

landling & Installation

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

For flat roofs provide proper drainage to prevent ponding

This design is valid until 5/24/2024

Forex APA: PR-L318

Manufacturer Info

3228 Moodie Dr, Ottawa, Ontario

613-838-2775 / 905-642-4400

MODULUS ENGINEERING LTD.

PROFESSIONAL



CSD DESIGN



6/1/2022 Date: Input by:

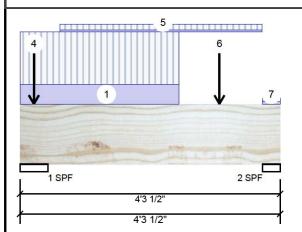
ME0722-058 WC

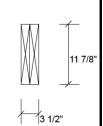
Job Name: PENROSE 1-EL 2 ZADORRA ESTATES

Level Ground Floor

ME22-5722-4

Forex 2.0E-3000Fb LVL CHIEF PULT BOTTON 11.875 F10-B PASSED





Page 4 of 22

Continued from p	Continued from page 1										
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments		
3	Point	0-2-12		Тор	1 lb	0 lb	0 lb	0 lb	Wall Self Weight		
	Bearing Length	0-5-8									
4	Point	0-2-12		Тор	6 lb	0 lb	0 lb	0 lb	Wall Self Weight		
	Bearing Length	0-5-8									
5	Part. Uniform	0-7-15 to 3-11-15		Тор	15 PLF	40 PLF	0 PLF	0 PLF			
6	Point	3-3-8		Near Face	168 lb	448 lb	0 lb	0 lb	J5		
7	Tie-In	4-0-0 to 4-3-8	1-0-11	Тор	15 PSF	40 PSF	0 PSF	0 PSF			
	Self Weight				10 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.

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

Handling & Installation

Handling & Installation

1. IVI. beams must not be cut or drilled

2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastering 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

For flat roofs provide proper drainage to prevent ponding

Forex

Manufacturer Info APA: PR-L318

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



This design is valid until 5/24/2024 CSD DESIGN



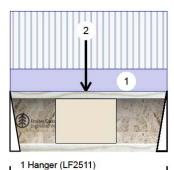
Date: 6/1/2022 ME0722-058 Input by: WC

Job Name: PENROSE 1-EL 2

ME22-5722-5 ZADORRA ESTATES

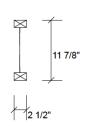
AJS 140 F1-A

Project #: Level Gound Floor



2 Hanger (LF2511) 2'7 1/16' 2'7 1/16

15 PSF



Page 5 of 22

Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	1	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2015 / OBC 2012
Deflection LL:	480	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		

Unfactored Reactions UNPATTERNED Ib (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	270	101	0	0
2	Vertical	255	96	0	0

Analysis Results

Dead:

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	555 ft-lb	1'3 1/16"	5305 ft-lb	0.105 (10%)	1.25D+1.5L	L
Unbraced	555 ft-lb	1'3 1/16"	5305 ft-lb	0.105 (10%)	1.25D+1.5L	L
Shear	524 lb	1 1/4"	2350 lb	0.223 (22%)	1.25D+1.5L	L
Perm Defl in.	0.002 (L/15698)	1'3 1/16"	0.079 (L/360)	0.023 (2%)	D	Uniform
LL Defl inch	0.005 (L/5887)	1'3 1/16"	0.059 (L/480)	0.082 (8%)	L	L
TL Defl inch	0.007 (L/4281)	1'3 1/16"	0.119 (L/240)	0.056 (6%)	D+L	L

Bearings and Factored Reactions

-								
	Bearing	Length	Dir.	Cap. Re	eact D/L lb	Total	Ld. Case	Ld. Comb.
	1 -	2.000"	Vert	33%	126 / 405	531	L	1.25D+1.5L
	Hanger							
	2 -	2.000"	Vert	31%	119 / 382	502	L	1.25D+1.5L
	Hanger							

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 Girders are designed to be supported on the bottom edge only.
- 4 If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
- 5 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	Comr
1	Tie-In	0-0-0 to 2-7-1	0-10-12	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	1-3-0		Far Face	162 lb	432 lb	0 lb	0 lb	J4

MODULUS ENGINEERING LTD. PROFESSIONAL CITY nments

> SEE GENERAL NOTES DOC: ME-TC02 V 03-2017 NOTE: ALTERING THIS DOCUMENT VOIDS THE ENGINEERS SEAL

ROVINCE OF ONTARIO

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.

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

Handling & Installation

- Handling & Installation

 1. Joist 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 fastering 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.

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

This design is valid until 5/24/2024

Manufacturer Info

Boise Cascade Wood Products 1111 W. Jefferson St.

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

CSD DESIGN





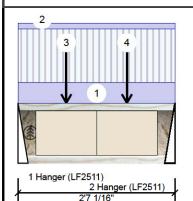
Date: 6/1/2022 ME0722-058

Input by: WC

Job Name: PENROSE 1-EL 2 ME22-5722-6 Project #: ZADORRA ESTATES

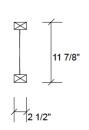
AJS 140 F1-B

evel Gound Floor



2'7 1/16

15 PSF



Wind

Page 6 of 22

Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	1	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2015 / OBC 2012
Deflection LL:	480	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		

Unfactored Reactions UNPATTERNED lb (Uplift) Direction Live Dead

1	Vertical	360	211	0	0
2	Vertical	361	209	0	0

Analysis Results

Dead:

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	540 ft-lb	1'2 3/4"	5305 ft-lb	0.102 (10%)	1.25D+1.5L	L
Unbraced	540 ft-lb	1'2 3/4"	5305 ft-lb	0.102 (10%)	1.25D+1.5L	L
Shear	796 lb	1 1/4"	2350 lb	0.339 (34%)	1.25D+1.5L	L
Perm Defl in.	0.003 (L/11185)	1'3 1/8"	0.079 (L/360)	0.032 (3%)	D	Uniform
LL Defl inch	0.004 (L/6544)	1'3 7/16"	0.059 (L/480)	0.073 (7%)	L	L
TL Defl inch	0.007 (L/4129)	1'3 5/16"	0.119 (L/240)	0.058 (6%)	D+L	L

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap. Re	act D/L lb	Total	Ld. Case	Ld. Comb.
1 -	2.000"	Vert	50%	264 / 540	804	L	1.25D+1.5L
Hanger							
2 -	2.000"	Vert	50%	261 / 542	803	L	1.25D+1.5L
Hanger							

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 Girders are designed to be supported on the bottom edge only.
- 4 If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
- 5 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 Live Wind Comments Dead Snow 0-0-0 to 2-7-1 0-10-12 15 PSF 40 PSF 0 PSF 0 PSF Tie-In Top 1 Part. Uniform 0-0-0 to 2-7-1 Тор 4 PLF 0 PLF 0 PLF 0 PLF 2 **Point** 0-9-9 Far Face 191 lb 315 lb 0 lb 0 lb J4 1-9-9 Far Face 184 lb 314 lb 0 lb 0 lb Point



ROVINCE OF ONTARIO SEE GENERAL NOTES DOC: ME-TC02 V 03-2017 NOTE: ALTERING THIS DOCUMENT VOIDS THE ENGINEERS SEAL

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.

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

Handling & Installation

- and ling & installation
 Loist flanges must not be cut or drilled
 Refer to latest copy of the Lloist product information
 details for framing details, stiffener tables, web hole
 chart, bridging details, multi-ply fastening details and
 handlingferection details
 Damaged Lloists must not be used
 Design assumes top flange to be laterally restrained
 by attached sheathing or as specified in engineering
 notes.

2

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

This design is valid until 5/24/2024

Manufacturer Info

Boise Cascade Wood Products 1111 W. Jefferson St.

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





Date: 6/1/2022 ME0722-058 Input by:

WC

Job Name: PENROSE 1-EL 2 Project #: ZADORRA ESTATES

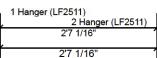
ME22-5722-7

Page 7 of 22

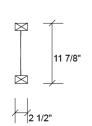
F1-C **AJS 140**

Level Ground Floor





15 PSF



Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	1	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2015 / OBC 2012
Deflection LL:	480	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	204	76	0	0
2	Vertical	216	81	0	0

Analysis Results

Dead:

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	432 ft-lb	1'4 1/16"	5305 ft-lb	0.081 (8%)	1.25D+1.5L	L
Unbraced	432 ft-lb	1'4 1/16"	5305 ft-lb	0.081 (8%)	1.25D+1.5L	L
Shear	418 lb	2'5 13/16"	2350 lb	0.178 (18%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/20191)	1'4 1/16"	0.079 (L/360)	0.018 (2%)	D	Uniform
LL Defl inch	0.004 (L/7558)	1'4 1/16"	0.059 (L/480)	0.064 (6%)	L	L
TL Defl inch	0.005 (L/5500)	1'4 1/16"	0.119 (L/240)	0.044 (4%)	D+L	L

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap. R	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	Vert	25%	96 / 306	402	L	1.25D+1.5L
2 - Hanger	2.000"	Vert	27%	101 / 324	426	L	1.25D+1.5L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Fill all hanger nailing holes.
- 3 Girders are designed to be supported on the bottom edge only.
- 4 If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
- 5 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 Wind Snow 0-0-0 to 2-7-1 0-10-15 **15 PSF** 40 PSF 0 PSF 0 PSF 1 Tie-In Top 2 Point 1-4-1 Near Face 122 lb 326 lb 0 lb 0 lb J2



MODULUS ENGINEERING LTD.

SEE GENERAL NOTES DOC: ME-TC02 V 03-2017 NOTE: ALTERING THIS DOCUMENT VOIDS THE ENGINEERS SEAL

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.

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

Handling & Installation

- AGNOLING & INSTALIATION

 I. Justisf langes must not be cut or drilled

 Refer to latest copy of the Lloist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details

 Damaged Lloists must not be used

 Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

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

This design is valid until 5/24/2024

Manufacturer Info

Boise Cascade Wood Products 1111 W. Jefferson St.

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

CSD DESIGN





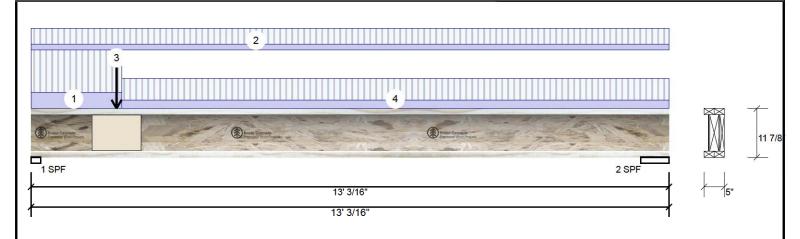
6/1/2022 Date: ME0722-058 Page 8 of 22

Input by: WC

evel Gound Floor

Job Name: PENROSE 1-EL 2 ME22-5722-8 Project #: ZADORRA ESTATES

F2-A **AJS 140**



Member Inform	nation			Unfactored Reactions UNPATTERNED lb (Uplift)					
Type:	Girder	Application:	Floor (Residential)	Brg	Direction	Live	Dead	Snow	Wind
Plies:	2	Design Method:	LSD	1	Vertical	609	229	0	0
Moisture Condition:	Dry	Building Code:	NBCC 2015 / OBC 2012	1 2	Vertical	394	148	0	0
Deflection LL:	480	Load Sharing:	No	1					
Deflection TL:	240	Deck:	Not Checked	1					
Importance:	Normal - II	Vibration:	Not Checked	1					
General Load				<u> </u>					
Floor Live:	40 PSF			Bea	rings and Fa	actored Read	ctions		
Dead:	15 PSF			Bea	aring Length	Dir. Cap.	React D/L lb	Total Ld. Case	Ld. Comb.
				1-	SPF 2.375"	Vert 36%	286 / 914	1200 L	1.25D+1.5L
Ali.				2-	SPF 6.875"	Vert 20%	185 / 591	775 L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2480 ft-lb	5'7 9/16"	10610 ft-lb	0.234 (23%)	1.25D+1.5L	L
Unbraced	2480 ft-lb	5'7 9/16"	10610 ft-lb	0.234 (23%)	1.25D+1.5L	L
Shear	1178 lb	1 5/8"	4700 lb	0.251 (25%)	1.25D+1.5L	L
Perm Defl in.	0.025 (L/5980)	6'1 1/8"	0.412 (L/360)	0.060 (6%)	D	Uniform
LL Defl inch	0.066 (L/2244)	6'1 1/8"	0.309 (L/480)	0.214 (21%)	L	L
TL Defl inch	0.091 (L/1632)	6'1 1/8"	0.619 (L/240)	0.147 (15%)	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 If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.

6 Bottom flange must be laterally braced at a maximum of 11'3 1/4" o.c.

o Dottom namgo	made be laterally brat	ood at a maximiam t							
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Com
1	Tie-In	0-0-0 to 1-10-3	1-6-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 13-0-3	0-6-12	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-8-15		Far Face	96 lb	255 lb	0 lb	0 lb	F1
4	Tie-In	1-10-3 to 13-0-3	0-9-4	Тор	15 PSF	40 PSF	0 PSF	0 PSF	

D. A. SHEDMAN D. A. SHERMAN 100123373 mments ROVINCE OF ONTARIO

MODULUS ENGINEERING LTD.

SEE GENERAL NOTES DOC: ME-TC02 V 03-2017 NOTE: ALTERING THIS DOCUMENT VOIDS THE ENGINEERS SEAL

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.

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

Handling & Installation

- Handling & Installation

 1. Joist 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 fastering 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.

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

This design is valid until 5/24/2024

Manufacturer Info

Boise Cascade Wood Products 1111 W. Jefferson St.

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

Kott Inc.





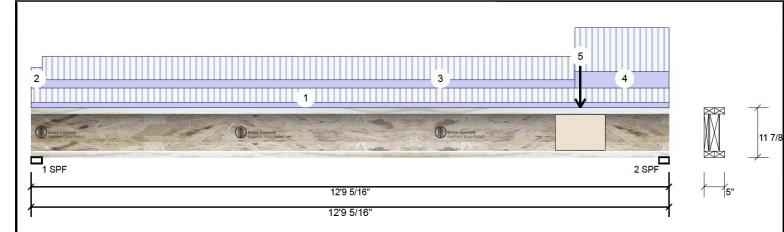
Page 9 of 22 Date: 6/1/2022 ME0722-058

Input by: WC

vel Gound Floor

Job Name: PENROSE 1-EL 2 ME22-5722-9 Project #: ZADORRA ESTATES

AJS 140 F2-B



Member Information Unfactored Reactions UNPATTERNED Ib (Uplift) Floor (Residential) Type: Application: Brg Direction Live Dead Snow Wind Plies: Design Method: LSD 348 130 Vertical 0 0 Moisture Condition: Dry **Building Code:** NBCC 2015 / OBC 2012 Vertical 547 205 0 0 Deflection LL: 480 Load Sharing: No Deflection TL: 240 Deck: Not Checked Importance: Normal - II Vibration: Not Checked General Load **Bearings and Factored Reactions** 40 PSF Floor Live: 15 PSF Dead: Bearing Length Dir. Cap. React D/L lb Total Ld. Case Ld. Comb. 20% 163 / 522 685 L 1.25D+1.5L 1 - SPF 2.625" Vert 2 - SPF 2.375" Vert 32% 256 / 821 1077 L 1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2309 ft-lb	7' 1/16"	10610 ft-lb	0.218 (22%)	1.25D+1.5L	L
Unbraced	2309 ft-lb	7' 1/16"	10610 ft-lb	0.218 (22%)	1.25D+1.5L	L
Shear	1056 lb	12'7 11/16"	4700 lb	0.225 (22%)	1.25D+1.5L	L
Perm Defl in.	0.023 (L/6395)	6'7 1/4"	0.416 (L/360)	0.056 (6%)	D	Uniform
LL Defl inch	0.063 (L/2396)	6'7 1/4"	0.312 (L/480)	0.200 (20%)	L	L
TL Defl inch	0.086 (L/1743)	6'7 1/4"	0.624 (L/240)	0.138 (14%)	D+L	L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 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 If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.

6 Bottom flange must be laterally braced at a maximum of 11' o.c.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Co
1	Tie-In	0-0-0 to 12-9-5	0-5-12	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 0-2-10	0-6-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Tie-In	0-2-10 to 10-10-12	0-9-4	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
4	Tie-In	10-10-12 to 12-9-5	1-6-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
5	Point	11-0-0		Near Face	76 lb	204 lb	0 lb	0 lb	F1

O7/14/2022 Comments ROVINCE OF ONTARIO SEE GENERAL NOTES DOC: ME-TC02 V 03-2017

MODULUS ENGINEERING LTD.

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.

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

Handling & Installation

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

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

Manufacturer Info

Boise Cascade Wood Products 1111 W. Jefferson St.

www.bc.com CCMC: 12787

Boise, ID 83702 (800) 232-0788

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

NOTE: ALTERING THIS DOCUMENT VOIDS THE ENGINEERS SEAL







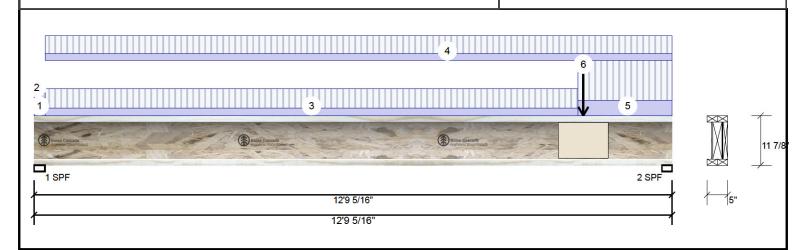
Page 10 of 22 Date: 6/1/2022 ME0722-058

Input by: WC

Job Name: PENROSE 1-EL 2 ME22-5722-10 Project #: ZADORRA ESTATES

F2-C **AJS 140**

evel Gound Floor



Member Inforn	nation			Unfactored Reactions UNPATTERNED Ib (Uplift)						
Type:	Girder	Application:	Floor (Residential)	Brg	Direction	Live	Dead	Snow	Wind	
Plies:	2	Design Method:	LSD	1	Vertical	390	146	0	0	
Moisture Condition:	Dry	Building Code:	NBCC 2015 / OBC 2012	2	Vertical	603	226	0	0	
Deflection LL:	480	Load Sharing:	No	1						
Deflection TL:	240	Deck:	Not Checked	1						
Importance:	Normal - II	Vibration:	Not Checked	1						
General Load				⊢						
Floor Live:	40 PSF			Bear	rings and F	actored Rea	ctions			
Dead:	15 PSF			Bea	aring Length	Dir. Cap.	React D/L lb	Total Ld. Case	Ld. Comb.	
				1 - 3	SPF 2.625"	Vert 22%	183 / 585	768 L	1.25D+1.5L	
				2-	SPF 2.375"	Vert 35%	283 / 905	1188 L	1.25D+1.5L	

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2587 ft-lb	6'11 5/8"	10610 ft-lb	0.244 (24%)	1.25D+1.5L	L
Unbraced	2587 ft-lb	6'11 5/8"	10610 ft-lb	0.244 (24%)	1.25D+1.5L	L
Shear	1165 lb	12'7 11/16"	4700 lb	0.248 (25%)	1.25D+1.5L	L
Perm Defl in.	0.026 (L/5706)	6'7 1/8"	0.416 (L/360)	0.063 (6%)	D	Uniform
LL Defl inch	0.070 (L/2140)	6'7 1/8"	0.312 (L/480)	0.224 (22%)	L	L
TL Defl inch	0.096 (L/1556)	6'7 1/8"	0.624 (L/240)	0.154 (15%)	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 If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.

6 Bottom flange must be laterally braced at a maximum of 11' o.c.

П	ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Cor
	1	Tie-In	0-0-0 to 0-2-10	0-6-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
:	2	Tie-In	0-0-0 to 0-2-10	0-4-4	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	3	Tie-In	0-2-10 to 10-10-12	0-8-12	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
١.	4	Tie-In	0-2-10 to 12-9-5	0-8-4	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
ļ	5	Tie-In	10-10-12 to 12-9-5	1-6-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	6	Point	11-0-0		Far Face	81 lb	216 lb	0 lb	0 lb	F1

D. A. SHEDMAN D. A. SHERMAN 100123373 Comments ROVINCE OF ONTARIO

SEE GENERAL NOTES DOC: ME-TC02 V 03-2017 NOTE: ALTERING THIS DOCUMENT VOIDS THE ENGINEERS SEAL

MODULUS ENGINEERING LTD.

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.

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

Handling & Installation

- AGNOLING & INSTALIATION

 I. Justisf langes must not be cut or drilled

 Refer to latest copy of the Lloist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details

 Damaged Lloists must not be used

 Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

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

1111 W. Jefferson St.

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

Manufacturer Info

Boise Cascade Wood Products

Kott Inc.

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





isDesign

CORPORATION OF THE CITY OF OSHAWA ClientoF PERREENBARKIS Project: Dec 06 2023

Date: 6/1/2022 ME0722-058 Input by: WC

evel Gound Floor

Project #:

Job Name: PENROSE 1-EL 2 ZADORRA ESTATES

ME22-5722-11

Snow

0

0

Wind

Ld. Comb.

1.25D+1.5L

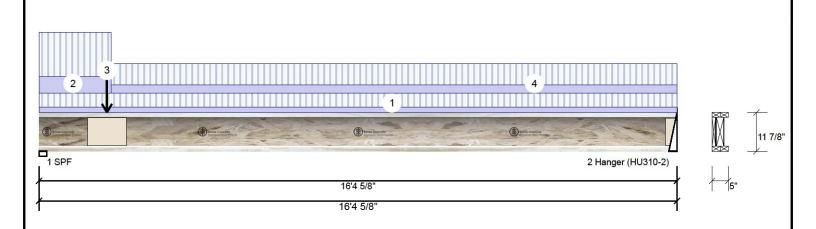
1.25D+1.5L

0

0

Page 11 of 22

AJS 140 F3-A



Member Information Unfactored Reactions UNPATTERNED Ib (Uplift) Type: Application: Floor (Residential) Brg Direction Live Dead Plies: Design Method: LSD 693 260 Vertical Moisture Condition: Dry Building Code: NBCC 2015 / OBC 2012 Vertical 426 160 Deflection LL: 480 Load Sharing: No Deflection TL: 240 Deck: Not Checked Importance: Normal - II Vibration: Not Checked General Load **Bearings and Factored Reactions** 40 PSF Floor Live: 15 PSF Dead: Bearing Length Dir. Cap. React D/L lb Total Ld. Case 325 / 1040 1 - SPF 2.375" Vert 40% 1364 L 2 -2.500" Vert 18% 200 / 639 839 L **Analysis Results** Hanger

L							
	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
	Moment	3576 ft-lb	7'6 7/8"	10610 ft-lb	0.337 (34%)	1.25D+1.5L	L
	Unbraced	3576 ft-lb	7'6 7/8"	10610 ft-lb	0.337 (34%)	1.25D+1.5L	L
	Shear	1343 lb	1 5/8"	4700 lb	0.286 (29%)	1.25D+1.5L	L
	Perm Defl in.	0.057 (L/3386)	7'11 7/8"	0.537 (L/360)	0.106 (11%)	D	Uniform
	LL Defl inch	0.152 (L/1269)	7'11 7/8"	0.403 (L/480)	0.378 (38%)	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.

7'11 7/8" 0.805 (L/240) 0.260 (26%) D+L

2 Fill all hanger nailing holes.

TL Defl inch 0.209 (L/923)

- 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 If sheathing is not attached to the top flange, top flange must be laterally braced at maximum
- 7 Bottom flange must be laterally braced at a maximum of 14'7 11/16" o.c.
- 8 Web stiffeners required at Bearing 2

ı	O WED SUITCHE	3 required at Dearing	9 4.							
	ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Commen
	1	Tie-In	0-0-0 to 16-4-10	0-5-12	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	2	Tie-In	0-0-0 to 1-10-3	1-6-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	3	Point	1-8-15		Near Face	101 lb	270 lb	0 lb	0 lb	F1
	4	Tie-In	1-10-3 to 16-4-10	0-8-12	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
ı										

NOTE: ALTERING THIS DOCUMENT VOIDS THE ENGINEERS SEAL

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.

- Dry service conditions, unless noted otherwise
 Upoint not to be treated with fire retardant or corrosive
- Handling & Installation
- Libit flanges must not be cut or drilled Refer to latest copy of the Lloist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling-ferection details Damaged Lloists must not be used Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

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

This design is valid until 5/24/2024

Manufacturer Info

Boise Cascade Wood Products 1111 W. Jefferson St.

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

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

MODULUS ENGINEERING LTD.

PROFESSIONAL CONTRACTOR

100123373

ROVINCE OF ONTARIO

SEE GENERAL NOTES DOC: ME-TC02 V 03-2017



CSD DESIGN

isDesign

CORPORATION OF THE CITY OF OSHAWA ClientoF PERREENBARKIS Project: Dec 06 2023

Date: 6/1/2022

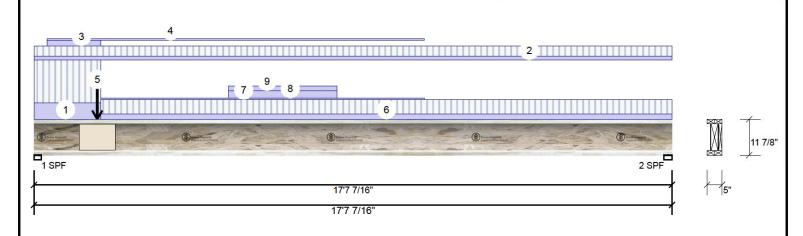
Level Gound Floor

ME0722-058 Input by: WC

Job Name: PENROSE 1-EL 2 ME22-5722-12 Project #: ZADORRA ESTATES

Page 12 of 22

F3-B **AJS 140**



ation			Unfa	actored Rea	ctions UNP	ATTERNED II	b (Uplift)	
Girder	Application:	Floor (Residential)	Brg	Direction	Live	Dead	Snow	Wind
2	Design Method:	LSD	1	Vertical	699	397	0	0
Dry	Building Code:	NBCC 2015 / OBC 2012	2	Vertical	338	167	0	0
480	Load Sharing:	No						
240	Deck:	Not Checked						
Normal - II	Vibration:	Not Checked						
			<u> </u>					
40 PSF			Bea	rings and Fa	actored Rea	ctions		
15 PSF			Bea	aring Length	Dir. Cap.	React D/L lb	Total Ld. Case	Ld. Comb.
			1 -	SPF 2.375"	Vert 46%	496 / 1048	1545 L	1.25D+1.5L
			2 -	SPF 2.625"	Vert 21%	209 / 507	716 L	1.25D+1.5L
	Girder 2 Dry 480 240 Normal - II 40 PSF 15 PSF	Girder 2 Design Method: Building Code: 480 Load Sharing: 240 Deck: Vibration: 40 PSF 15 PSF	Girder Application: Floor (Residential) Design Method: LSD Dry Building Code: NBCC 2015 / OBC 2012 Load Sharing: No Deck: Not Checked Vibration: Not Checked	Application: Floor (Residential) Brg	Girder Application: Floor (Residential) Design Method: LSD Building Code: NBCC 2015 / OBC 2012 Load Sharing: No Deck: Not Checked Vibration: Not Checked Wormal - II Application: Floor (Residential) NBCC 2015 / OBC 2012 Vertical Vertical Pearings and Family Searing Length 1 - SPF 2.375" 2 - SPF 2.625"	Application: Floor (Residential) Brg Direction Live	Application: Floor (Residential) Design Method: LSD Design Method: LSD 1 Vertical 699 397	Application: Floor (Residential) Design Method: LSD 1 Vertical 699 397 0 0 2 Vertical 338 167 0 0 2 Vertical 338 167 0 0 0 2 Vertical 338 38 38 38 38 38 38

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3658 ft-lb	7'5 7/8"	10610 ft-lb	0.345 (34%)	1.25D+1.5L	L
Unbraced	3658 ft-lb	7'5 7/8"	10610 ft-lb	0.345 (34%)	1.25D+1.5L	L
Shear	1525 lb	1 5/8"	4700 lb	0.324 (32%)	1.25D+1.5L	L
Perm Defl in	0.091 (L/2289)	8'3 7/16"	0.578 (L/360)	0.157 (16%)	D	Uniform
LL Defl inch	0.156 (L/1330)	8'5 3/4"	0.433 (L/480)	0.361 (36%)	L	L
TL Defl inch	0.247 (L/841)	8'4 15/16"	0.866 (L/240)	0.285 (29%)	D+L	L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Girders are designed to be supported on the bottom edge only.
- 3 Multiple plies must be fastened together as per manufacturer's details.
- 4 Top loads must be supported equally by all plies.
- 5 If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.

6 Bottom flange must be laterally braced at a maximum of 15'10 7/16" o.c.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Co
1	Tie-In	0-0-0 to 1-10-3	1-6-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 17-7-7	0-4-4	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	0-4-6 to 1-10-3		Тор	8 PLF	0 PLF	0 PLF	0 PLF	
4	Part. Uniform	0-4-6 to 10-9-7		Тор	2 PLF	0 PLF	0 PLF	0 PLF	
5	Point	1-8-15		Far Face	209 lb	361 lb	0 lb	0 lb	F1

D. A. SHEDAAAN comments ROVINCE OF ONTARIO

> SEE GENERAL NOTES DOC: ME-TC02 V 03-2017 NOTE: ALTERING THIS DOCUMENT VOIDS THE ENGINEERS SEAL

MODULUS ENGINEERING LTD.

Notes

Continued on page 2...

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

Lumber

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

Handling & Installation

- Handling & Installation

 1. Joist 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 fastering 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.

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

This design is valid until 5/24/2024

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 DESIGN



6/1/2022 Date: Input by: WC

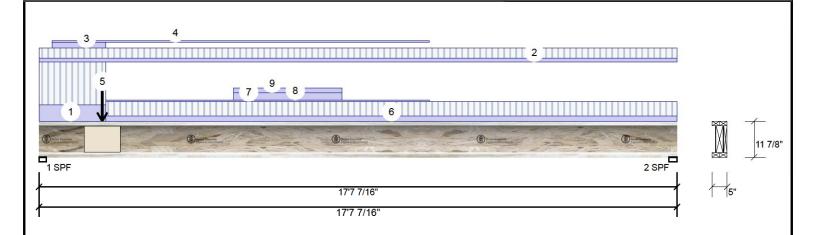
Level Gound Floor

ME0722-058

Job Name: PENROSE 1-EL 2 ME22-5722-13 Project #: ZADORRA ESTATES

Page 13 of 22

F3-B **AJS 140**



ŀ·	.Continued from page	age 1								
	ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
	6	Tie-In	1-10-3 to 17-7-7	0-6-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	7	Part. Uniform	1-10-3 to 10-9-6		Тор	2 PLF	0 PLF	0 PLF	0 PLF	
	8	Part. Uniform	5-4-7 to 8-4-6		Тор	10 PLF	0 PLF	0 PLF	0 PLF	
	9	Part. Uniform	5-4-7 to 8-4-6		Тор	7 PLF	0 PLF	0 PLF	0 PLF	



Notes

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

Lumber

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

Handling & Installation

- Handling & Installation

 1. Jusist 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 Lioists must not be used

 4. Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

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

Manufacturer Info

1111 W. Jefferson St. Boise, ID 83702 (800) 232-0788

www.bc.com CCMC: 12787

Kott Inc. Boise Cascade Wood Products

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

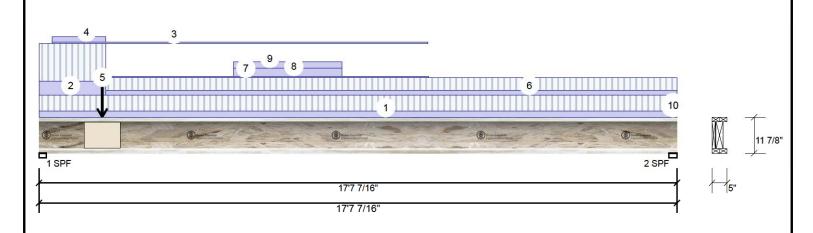


Page 14 of 22 Date: 6/1/2022

ME0722-058 Input by: WC

Job Name: PENROSE 1-EL 2 ME22-5722-14 Project #: ZADORRA ESTATES

Level Ground Floor F3-C **AJS 140**



Member Inforn	nation			Unf	actored Rea	actions UN	IPATTERN	IED lb (Սլ	olift)	
Туре:	Girder	Application:	Floor (Residential)	Brg	Direction	Live	D	ead	Snow	Wind
Plies:	2	Design Method:	LSD	1	Vertical	800		461	0	0
Moisture Condition:	Dry	Building Code:	NBCC 2015 / OBC 2012	2	Vertical	440		219	0	0
Deflection LL:	480	Load Sharing:	No	1						
Deflection TL:	240	Deck:	Not Checked	1						
Importance:	Normal - II	Vibration:	Not Checked	1						
General Load				<u> </u>						
Floor Live:	40 PSF			Bea	rings and Fa	actored R	eactions			
Dead:	15 PSF			Bea	aring Length	Dir. Ca	ap. React D	/L lb Tota	al Ld. Case	Ld. Comb.
				1 -	SPF 2.375"	Vert 5	3% 576 / °	1201 177	7 L	1.25D+1.5L
A				2 -	SPF 2.625"	Vert 2	7% 273 /	659 93	3 L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4654 ft-lb	7'8 1/2"	10610 ft-lb	0.439 (44%)	1.25D+1.5L	L
Unbraced	4654 ft-lb	7'8 1/2"	10610 ft-lb	0.439 (44%)	1.25D+1.5L	L
Shear	1754 lb	1 5/8"	4700 lb	0.373 (37%)	1.25D+1.5L	L
Perm Defl in	. 0.117 (L/1784)	8'4 1/8"	0.578 (L/360)	0.202 (20%)	D	Uniform
LL Defl inch	0.197 (L/1054)	8'6 5/8"	0.433 (L/480)	0.456 (46%)	L	L
TL Defl inch	0.314 (L/662)	8'5 5/8"	0.866 (L/240)	0.362 (36%)	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 If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.

6 Bottom flange must be laterally braced at a maximum of 15'10 7/16" o.c.

•									
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 17-4-13	0-7-12	Тор	15 PSF	40 PSF	0 PSF	0 PSF	1
2	Tie-In	0-0-0 to 1-10-3	1-6-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	0-4-6 to 10-8-15		Тор	3 PLF	0 PLF	0 PLF	0 PLF	
4	Part. Uniform	0-4-6 to 1-10-3		Тор	8 PLF	0 PLF	0 PLF	0 PLF	
5	Point	1-8-15		Near Face	211 lb	360 lb	0 lb	0 lb	F1

Continued on page 2...

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

Notes

- Dry service conditions, unless noted otherwise
 Upist not to be treated with fire retardant or corrosive
- Handling & Installation
- Handling & Installation

 1. Joist 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 fastering 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.

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

This design is valid until 5/24/2024

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

MODULUS ENGINEERING LTD.

D. A. SHEDMAN

D. A. SHERMAN

ROVINCE OF ONTARIO

SEE GENERAL NOTES DOC: ME-TC02 V 03-2017

NOTE: ALTERING THIS DOCUMENT VOIDS THE ENGINEERS SEAL



CSD DESIGN

CORPORATION OF THE CITY OF OSHAWA Clientor PERRENDARKIS Project: Dec 06 2023 isDesign

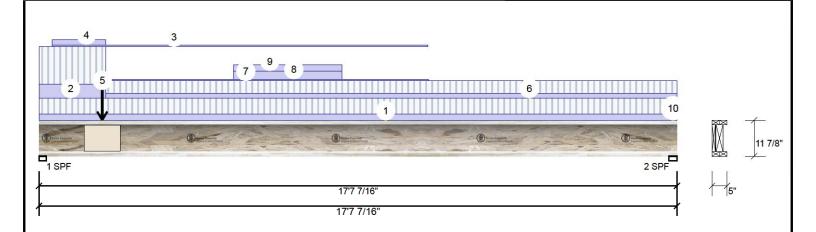
6/1/2022 Date:

ME0722-058 Input by: WC

Job Name: PENROSE 1-EL 2 ME22-5722-15 Project #: ZADORRA ESTATES

Page 15 of 22

Level Gound Floor F3-C **AJS 140**



Continued from page 1										
	ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
	6	Tie-In	1-10-3 to 17-7-7	0-6-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	7	Part. Uniform	1-10-3 to 10-9-0		Тор	3 PLF	0 PLF	0 PLF	0 PLF	
	8	Part. Uniform	5-4-7 to 8-4-6		Тор	13 PLF	0 PLF	0 PLF	0 PLF	
	9	Part. Uniform	5-4-7 to 8-4-6		Тор	10 PLF	0 PLF	0 PLF	0 PLF	
	10	Tie-In	17-4-13 to 17-7-7	0-5-12	Тор	15 PSF	40 PSF	0 PSF	0 PSF	



Notes

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

Lumber

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

Handling & Installation

- Handling & Installation

 1. Jusist 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 Libists must not be used

 4. Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

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

This design is valid until 5/24/2024

Manufacturer Info

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

www.bc.com CCMC: 12787

Kott Inc.





ClientOF PERRENBARKIS Project: Dec 06 2023

Date: 6/1/2022 WC

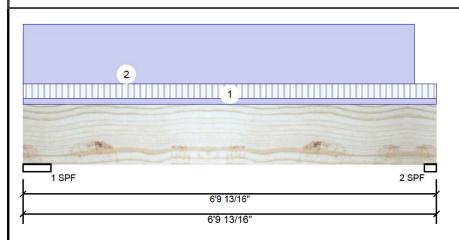
ME0722-058 Input by: Job Name: PENROSE 1-EL 2

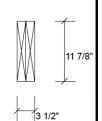
ME22-5722-16 ZADORRA ESTATES

Forex 2.0E-3000Fb LVL

vel Ground Floor

Project #:





Wind

1.25D+1.5L

0

0

Page 16 of 22

Unfactored Reactions UNPATTERNED Ib (Uplift) Member Information Floor (Residential) Type: Application: Brg Direction Live Dead Snow Plies Design Method: LSD 68 342 Vertical 0 Moisture Condition: Dry **Building Code:** NBCC 2015 / OBC 2012 Vertical 63 288 0 Deflection LL: 480 Load Sharing: No Deflection TL: 240 Deck: Not Checked Importance: Normal - II Vibration: Not Checked General Load **Bearings and Factored Reactions** Floor Live: 40 PSF 15 PSF Dead: Bearing Length Dir. Cap. React D/L lb Total Ld. Case Ld. Comb. 1-SPF 5.500" 428 / 102 530 L 1.25D+1.5L Vert 7%

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	739 ft-lb	3'6 7/16"	22612 ft-lb	0.033 (3%)	1.25D+1.5L	L
Unbraced	739 ft-lb	3'6 7/16"	22612 ft-lb	0.033 (3%)	1.25D+1.5L	L
Shear	325 lb	5'7 9/16"	7653 lb	0.043 (4%)	1.25D+1.5L	L
Perm Defl in.	0.005 (L/15727)	3'6 7/16"	0.210 (L/360)	0.023 (2%)	D	Uniform
LL Defl inch	0.001 (L/79075)	3'6 1/2"	0.157 (L/480)	0.006 (1%)	L	L
TL Defl inch	0.006 (L/13118)	3'6 7/16"	0.314 (L/240)	0.018 (2%)	D+L	L

TOP LOADED LAMINATE WITH:

Vert

13%

361 / 94

455 1

2 ROWS OF 3.25" AIR NAILS FACE SPACING AT 12 IN O/C. NAIL FROM ONE FACE

2 - SPF 2.375"

Design Notes

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

ID	Load Type	Location	Trib Width	Side	Dead	Live
1	Tie-In	0-0-0 to 6-9-13	0-5-12	Тор	15 PSF	40 PSF
2	Part. Uniform	0-0-0 to 6-5-8		Тор	80 PLF	0 PLF

MODULUS ENGINEERING LTD. PROFESSIONAL

POVINCE OF ONTER 0 PSF 0 PSF Wall Self Weight 0 PLF 0 PLF SEE GENERAL NOTES 10 PLF DOC: ME-TC02 V 03-2017 Self Weight NOTE: ALTERING THIS DOCUMENT VOIDS THE ENGINEERS SEAL

For flat roofs provide proper drainage to prevent ponding

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

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

landling & Installation

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

Design assumes top edge is laterally restrained Provide lateral support at bearing points to avoid lateral displacement and rotation

This design is valid until 5/24/2024

Manufacturer Info Forex

APA: PR-L318

Snow

Comments

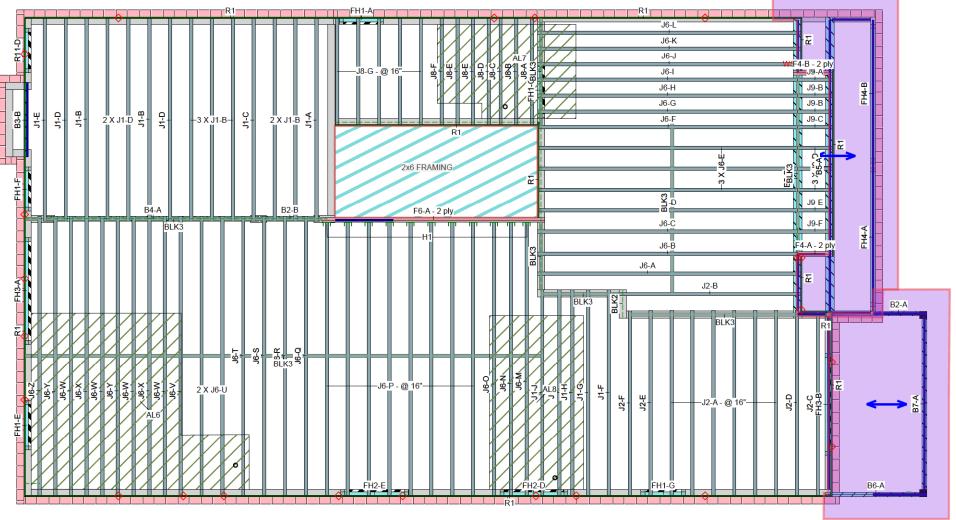
Wind







MHP 23018



Second											JOB INFORMATION
LVL/LS	_		10/:-	41	\4l_	Τ,	24.	Dias	D	Lawath	Builder
	Descri	iption	Wid		epth	_	Qty	Plies	Pcs	Length	GREENPARK
F6	F6 Forex 2.0E-3000Fb LVL		1.	75 1	1.875		1	2	2	16-0-0	Project
F4	F4 Forex 2.0E-3000Fb LVL		1.	75 1	1.875		2	2	4	4-0-0	ZADORRA ESTATES
I Joist (Flush)										Shipping
Label			Wid	th [Depth	(Qty	Plies	Pcs	Length	PENROSE 1- EL 2 OSHAWA.ON
J6	AJS 14	10	2	2.5 1	1.875				41	18-0-0	Sales Rep
J1	AJS 14	10	2	2.5 1	1.875				19	14-0-0	RALPH MIRIGELLO
J2	AJS 14	10	2	2.5 1	1.875				11	12-0-0	
J8	AJS 14	10	2	2.5 1	1.875				12	8-0-0	Designer
J9	AJS 14	10	2	2.5 1	1.875				9	4-0-0	WC
Rim Board											Plotted
Label	Descri	iption	Wid	th [epth	(Qty	Plies	Pcs	Length	June 01, 2022
R1	Norbor Plus 1. 11.875		1.125 11		11.875				16	12-0-0	Layout Name PENROSE 1-EL 2 & DEG
Blockin	g										Job Path
Label	Descri	iption	Wid	th [epth	(Qty	Plies	Pcs	Length	DESIGN CRITERIA
BLK3	AJS 14	10	2	2.5 1	1.875	L	inFt		Varies	84-0-0	Second Floor
Hanger						•	Bea	am/Girde		ported ember	Design Method Building Code
Label	Descriptio	n	Ske	w SI	lope	fa	steners	fas	teners	<u>_</u>	
H1	11	LF2511				-		12 10d	1 #8x	1 1/4WS	Floor
									•		Loads

ZADORRA ESTATES ipping ENROSE 1- EL 2 SHAWA,ON les Rep ALPH MIRIGELLO signer / C otted une 01, 2022 yout Name ENROSE 1-EL 2 & DECK CONDITION b Path SIGN CRITERIA cond Floor LSD (Canada) sign Method NBCC 2015 / OBC 2012 uilding Code oor oads Live 15 Dead **Deflection Joist** 480 LL Span L/ 240 TL Span L/ **Deflection Flush Girder** LL Span L/ 480 TL Span L/ 240 **Deflection Dropped Girder** 480 LL Span L/ TL Span L/ 240 Deflection Header 480 LL Span L/ 240 TL Span L/ Decking Decking OSB Thickness 5/8" CCMC References Boise - 12472-R , 12787-R LP - 12412-R Forex - 14056-R

Kott Inc. 3228 Moodie Dr, Ottawa 14 Anderson Blvd, Uxbridge Contario

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.

on the side of the applied load

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

AJS140 I-Joists can be substituted with LP20 I-Joists for 9.5" and 11.875" depths shown on this layout.

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. 12. Multi ply beams with side loading to have all fasteners installed with the head



Web Stiffener

-WS PS

In Hanger Label Denotes Web Stiffene Point Load Support Load from Above



٥

Wall Opening Norbord Rimboard Plus 1.125 X 11.875 AJS 140 11.875

Forex 2.0E-3000Fb LVL 1.75 X 11.875



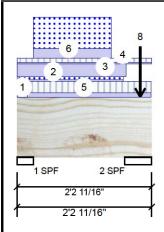
Date: 6/1/2022 ME0722-058 Input by: WC

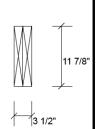
Job Name: PENROSE 1-EL 2 Project #: ZADORRA ESTATES

ME22-5722-17

F4-A Forex 2.0E-3000Fb LVL

Level Second Floor -IPASSED





Page 17 of 22

Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2015 / OBC 2012
Deflection LL:	480	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 Ib (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	96	183	175	0
2	Vertical	122	247	193	0

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	223 ft-lb	1' 1/8"	34261 ft-lb	0.007 (1%)	1.25D+1.5S +L	L
Unbraced	223 ft-lb	1' 1/8"	34261 ft-lb	0.007 (1%)	1.25D+1.5S +L	L
Shear	164 lb	1'3 1/8"	11596 lb	0.014 (1%)	1.25D+1.5S +L	L
Perm Defl in	. 0.000 (L/92391)	1' 3/16"	0.054 (L/360)	0.004 (0%)	D	Uniform
LL Defl inch	0.000 (L/67298)	1' 1/8"	0.041 (L/480)	0.007 (1%)	S+0.5L	L
TL Defl inch	0.001 (L/38937)	1' 1/8"	0.081 (L/240)	0.006 (1%)	D+S+0.5L	L

Bearings and Factored Reactions

Bearing	Length	Dir.	Сар.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.256"	Vert	8%	229 / 358	587	L	1.25D+1.5S +L
2-SPF	5.375"	Vert	6%	309 / 410	720	L	1.25D+1.5S +L

Design Notes

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

TOP LOADED LAMINATE WITH:

2 ROWS OF 3.25" AIR NAILS FACE SPACING AT 12 IN O/C. NAIL FROM ONE FACE



DOC: ME-TC02 V 03-2017 NOTE: ALTERING THIS DOCUMENT VOIDS THE ENGINEERS SEAL

Manufacturer Info

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.

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

Handling & Installation

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

Design assumes top edge is laterally restrained
Provide lateral support at bearing points to avoid
lateral displacement and rotation

This design is valid until 5/24/2024

6. For flat roofs provide proper drainage to prevent ponding

Forex APA: PR-L318





6/1/2022 Date: Input by:

ME0722-058 WC

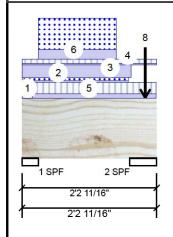
Job Name: PENROSE 1-EL 2 ZADORRA ESTATES ME22-5722-18

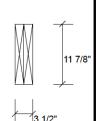
Page 18 of 22

F4-A Forex 2.0E-3000Fb LVL

CHIEF BYING MO OF VCIAL 4 874"

2/PLY-PASSER Level Second Floor





ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-2-2	0-7-8	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 1-9-0		Тор	10 PLF	0 PLF	23 PLF	0 PLF	
3	Part. Uniform	0-0-0 to 1-9-10		Тор	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
4	Tie-In	0-0-0 to 2-2-11	0-8-8	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
5	Tie-In	0-2-2 to 2-2-8	1-10-3	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
6	Part. Uniform	0-3-4 to 1-6-11		Тор	62 PLF	0 PLF	208 PLF	0 PLF	
7	Point	2-0-6		Тор	18 lb	0 lb	60 lb	0 lb	
	Bearing Length	0-5-8							
8	Point	2-0-6		Тор	68 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-5-8							
	Self Weight				10 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.

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

Handling & Installation

Handling & Installation

1. IVI. beams must not be cut or drilled

2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastering 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

For flat roofs provide proper drainage to prevent ponding

Forex

APA: PR-L318

Manufacturer Info

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







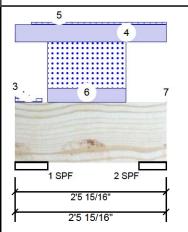
ClientoF PERREENBARKIS Project: Dec 06 2023

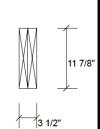
Date: 6/1/2022 ME0722-058 Input by: WC

Level Second Floor

Job Name: PENROSE 1-EL 2 ME22-5722-19 Project #: ZADORRA ESTATES

Forex 2.0E-3000Fb LVL PASSED





Page 19 of 22

Membe	er Inf	forma	ition
-------	--------	-------	-------

Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2015 / OBC 2012
Deflection LL:	480	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 Ib (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	16	167	153	0
2	Vertical	11	146	117	0

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	163 ft-lb	1'3 5/16"	33575 ft-lb	0.005 (0%)	1.25D+1.5S +L	L
Unbraced	163 ft-lb	1'3 5/16"	33575 ft-lb	0.005 (0%)	1.25D+1.5S +L	L
Shear	120 lb	1'6 3/8"	11364 lb	0.011 (1%)	1.25D+1.5S +L	L
Perm Defl in	. 0.000 (L/119899)	1'3 7/16"	0.054 (L/360)	0.003 (0%)	D	Uniform
LL Defl inch	0.000 (L/89952)	1'3 5/16"	0.041 (L/480)	0.005 (1%)	S+0.5L	L
TL Defl inch	0.000 (L/51398)	1'3 3/8"	0.081 (L/240)	0.005 (0%)	D+S+0.5L	L

Bearings and Factored Reactions

Bearing	Length	Dir.	Сар.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	6.500"	Vert	3%	209 / 246	455	L	1.25D+1.5S +L
2 - SPF	5.375"	Vert	3%	182 / 186	368	L	1.25D+1.5S +L

Design Notes

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

TOP LOADED LAMINATE WITH:

2 ROWS OF 3.25" AIR NAILS FACE SPACING AT 12 IN O/C. NAIL FROM ONE FACE



DOC: ME-TC02 V 03-2017 NOTE: ALTERING THIS DOCUMENT VOIDS THE ENGINEERS SEAL

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.

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

Handling & Installation

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

Design assumes top edge is laterally restrained
Provide lateral support at bearing points to avoid
lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info Forex APA: PR-L318

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







6/1/2022 Date:

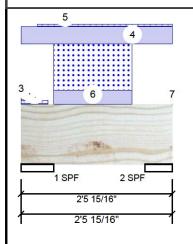
ME0722-058 Input by: WC

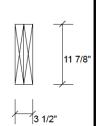
Job Name: PENROSE 1-EL 2 ZADORRA ESTATES

ME22-5722-20

CHIEF BUNGING DRYCIAL 1 875" Forex 2.0E-3000Fb LVL

2/PLY PASSED Level Second Floor





Page 20 of 22

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-5-6	0-3-6	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 0-3-4	0-2-10	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	0-0-0 to 0-0-0		Тор	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
4	Part. Uniform	0-0-0 to 2-5-15		Тор	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
5	Tie-In	0-3-4 to 2-5-15	0-2-10	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
6	Part. Uniform	0-6-8 to 1-9-15		Тор	62 PLF	0 PLF	210 PLF	0 PLF	
7	Part. Uniform	2-5-15 to 2-5-15		Тор	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
	Self Weight				10 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.

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

Handling & Installation

Handling & Installation

1. IVI. beams must not be cut or drilled

2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastering 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

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info Forex

APA: PR-L318

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



This design is valid until 5/24/2024 CSD DESIGN





Date: 6/1/2022

ME0722-058 Input by: WC

Job Name: PENROSE 1-EL 2 Project #: ZADORRA ESTATES

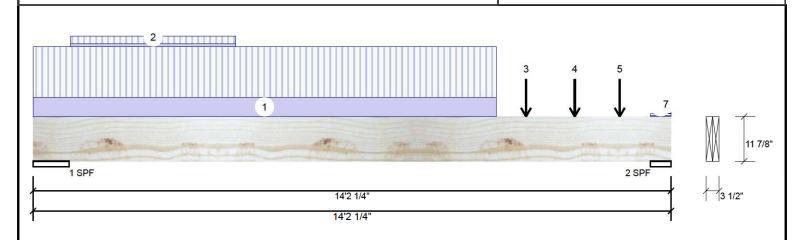
ME22-5722-21

Page 21 of 22

Forex 2.0E-3000Fb LVL

CHIEF BYILD WOOF SCIAL 1 975"

evel Second Floor PASSED



Member Inform		Unfa	Unfactored Reactions UNPATTERNED lb (Uplift)								
Type: Girder		Application:	Application: Floor (Residential)		Direction	Live		Dead	Snow		Wind
Plies:	2	Design Method:	LSD	1	Vertical	27	45	1108		0	0
Moisture Condition:	Dry	Building Code:	NBCC 2015 / OBC 2012	2	Vertical	22	25	944		0	0
Deflection LL:	480	Load Sharing:	No	1							
Deflection TL:	240	Deck:	Not Checked	1							
Importance:	Normal - II	Vibration:	Not Checked	1							
General Load				\vdash							
Floor Live:	40 PSF			Bearings and Factored Reactions							
Dead:	15 PSF			Bea	aring Length	Dir.	Сар.	React D/L lb	Total	Ld. Case	Ld. Comb.
				1 -	SPF 9.625"	Vert	27%	1385 / 4118	5503	L	1.25D+1.5L
A				2 -	SPF 5.500"	Vert	38%	1180 / 3338	4517	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	15494 ft-lb	7'2"	34261 ft-lb	0.452 (45%)	1.25D+1.5L	L
Unbraced	15494 ft-lb	7'2"	34261 ft-lb	0.452 (45%)	1.25D+1.5L	L
Shear	5184 lb	12'8 7/8"	11596 lb	0.447 (45%)	1.25D+1.5L	L
Perm Defl in.	0.108 (L/1452)	7'3"	0.435 (L/360)	0.248 (25%)	D	Uniform
LL Defl inch	0.264 (L/593)	7'2 13/16"	0.326 (L/480)	0.809 (81%)	L	L
TL Defl inch	0.372 (L/421)	7'2 7/8"	0.653 (L/240)	0.570 (57%)	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.									
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 10-3-9		Near Face	134 PLF	356 PLF	0 PLF	0 PLF	1
2	Part. Uniform	0-10-0 to 4-6-1		Тор	20 PLF	54 PLF	0 PLF	0 PLF	
3	Point	10-11-9		Near Face	171 lb	416 lb	0 lb	0 lb	J6
4	Point	12-0-9		Near Face	153 lb	359 lb	0 lb	0 lb	J6
5	Point	13-0-9		Near Face	135 lb	320 lb	0 lb	0 lb	J6

LAMINATE WITH:

2 ROWS OF 3.25" AIR NAILS FACE SPACING AT 12 IN O/C. NAIL FROM LOADED FACE

MIN HANGER NAILS: (JOIST/BEAM) 3 IN

PROFESSIONAL THE PROFES

MODULUS ENGINEERING LTD.

SEE GENERAL NOTES DOC: ME-TC02 V 03-2017

ROVINCE OF ONTARIO

NOTE: ALTERING THIS DOCUMENT VOIDS THE ENGINEERS SEAL

Continued on page 2...

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.

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

Handling & Installation

- I. UV. beams must not be cut or drilled
 Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvate
 Damaged Beams must not be used
- Design assumes top edge is laterally restrained Provide lateral support at bearing points to avoid lateral displacement and rotation
- For flat roofs provide proper drainage to prevent ponding

Manufacturer Info Forex APA: PR-L318

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



CORPORATION OF THE CITY OF OSHAWA ClientoF PERRENPARKIS Project: Dec 06 2023 isDesign Forex 2.0E-3000Fb LVL

6/1/2022 Date: ME0722-058

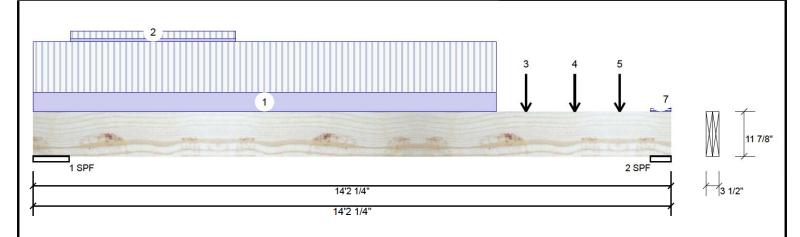
Input by: WC Job Name: PENROSE 1-EL 2

Project #:

ME22-5722-22 ZADORRA ESTATES

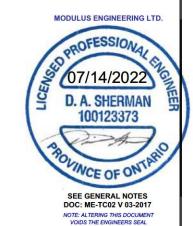
Page 22 of 22

CHIEF BYILD MOID FYCIAL 1 875" Level Second Floor -IPASSED



..Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
6	Tie-In	13-8-12 to 14-2-4	0-4-6	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
7	Tie-In	13-9-14 to 14-2-4	0-3-10	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				10 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.

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

Handling & Installation

Handling & Installation

1. IVI. beams must not be cut or drilled

2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastering 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

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info Forex

APA: PR-L318

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



