Boise Cascade Double 1-3/4" x 9-1/4" VERSA-LAM® 2.0 3100 SP									F	PASSED							
			1st	Floor\Di	ropp	ed Beam	s\BM2(i55	5) (Drop	ppe	d Be	am)						
BC CAL	C® Member	Report			I	Dry 1 spa	in No cant						Fe	ebruary	/ 24, 20	21 1	5:08:58
Build 74	93						File nam	ю. ,	2100	1004	mmdl						
Address	с.						Descript	ion [.]	2 100 1st F	Floor\I	u Dronner	1 Ream	s\B	M2(i55	5)		
City. Sta	te. Zip:						Specifie	r:	1011	1001 (1	Jioppot	Doam		1012(100	,		
Custome	er:						Designe	r:									
Code rep	ports:	ESR-1040					Compan	y:									
												_					
¥ 1	→	$\overline{++++}$	+ + +	++	+	++	$\begin{array}{cccc} \downarrow 1 \downarrow & \downarrow \\ \hline 0 \downarrow & \downarrow \end{array}$	+ $+$ $+$	+	+	$\frac{+}{+}$	+ +		 ↓	+ +	+	¥
/ B1						11	1-08-08										B2
51				Tot	al Ho	rizontal Pro	oduct Lengt	h = 11-08	8-08								52
Reaction	on Summ	ary (Dow	n / Uplift)	(lbs)			now		\ A/i =	. d		B	oof	Livo			
B1. 5-1/2)"	Live		323 / 0		3	now		83	/ 278		29	<u></u>	0			
B2, 2"	-			333 / 0					91	/ 407		32	<u>25</u> /	0			
Load S	Summary								L	ive	Dead	Snov	N	Wind	Roof Live	٦	ributary
Tag Des	cription		Load Type		Ref.	Start	End	Loc.	1	00%	90%	115%	6	160%	125%		
0 Sel	f-Weight		Unf. Lin. (I	b/ft)	L	00-00-00	11-08-08	Тор			9					C	0-00-00
1 Sm	oothed Load	d	Unf. Lin. (I	b/ft)	L	02-11-04	08-11-04	Тор			48				48		n∖a
2 M4	(C5) (c1)		Conc. Pt. (lbs)	L	01-11-04	01-11-04	Тор			11/				140		n∖a
6 IVI4	(CT)		Conc. Pl. (ibs)	L	09-11-04	09-11-04	тор			144				194		n∖a
Contro	ls Summ	ary Valu	le	% A	llowa	ible l	Duration	Cas	se	Loca	tion						
Pos. Moi	ment	184	3 ft-lbs	11.3	3%		125%	1		05-1	1-04						
Neg. Mo	ment	-83	ft-lbs	0.4	%		160%	90)	09-1	1-04						
End She	ar Dofication	650 - L/00		8.4	%		125%	1		10-0	9-04						
Total Loa		1 L/9	99 (0.09 ^{°°})	n∖a		1	n∖a ∍\∍	1		06-0	0-12						
Live Loa	a Deflection	L/9	99 (0.043°) ว"	n\a		1	n∖a n∖a	92	2	06-0	0-12						
Span / D	l. Ionth	0.03	5	n\a		ſ	n\a	1		06-0	0-12						
Span / D	ерш	14.	J														
Roarin	a Sunnor	te Dim (I)		Value	0	% Allow	% Allow	Moto	rial								
B1	<u>a Calumn</u>	5_1/2" \	(3_1/2"	616 lbs		3000001 4 4%			neci	fied							
B2	Column	2" x 3-1	1/2"	658 lbs	-	13.0%	12.5%	Uns	peci	fied							
Natar																	
Design n	neets Code	minimum /I	/240) Total I	nad defle	oction	criteria											
Design n	neets Code	minimum (I	/360) Live In	ad defler	ction of	criteria											

- -

Design meets arbitrary (1") Maximum Total load deflection criteria.

Design meets arbitrary (0.75") Maximum live load deflection criteria.

Calculations assume unbraced length of Top: 01-10-08, Bottom: 01-10-08.

 $\operatorname{BC}\operatorname{CALC}\nolimits \ensuremath{\mathbb{R}}$ analysis is based on IBC 2012.

Wind loads determined from building geometry were used in selected product's verification.

Design based on Dry Service Condition.



Double 1-3/4" x 9-1/4" VERSA-LAM® 2.0 3100 SP 1st Floor\Dropped Beams\BM2(i55) (Dropped Beam)



February 24, 2021 15:08:58

BC CALC® Member	Report	Dry 1 span No cant.	February 24, 2
Build 7493			
Job name:		File name:	2100199A.mmdl
Address:		Description:	1st Floor\Dropped Beams\BM2(i55)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1040	Company:	

Connection Diagram: Full Length of Member



a minimum = 2" c = 5-1/4" b minimum = 3" d = 24"

Connectors are: 3-1/4 in. Pneumatic Gun Nails

Disclosure

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Во	oise Cascade	Dou	ble 1-3	/4"	x 14" VE	ERSA-LA	M® 2.0	0 3100	0 SP			P	ASSED
		1st	Floor\D	ropp	bed Beams	s\GDH(i57)) (Dropp	ed Bea	am)	_			
BC CAL Build 74	.C® Member Re	port			Dry 1 spa	n No cant.				F	ebruary	24, 202	1 15:08:58
Job name: File name: 2100199A.mmdl													
Address	3:					Descriptio	on: 1s	t Floor\[Dropped	Beams\0	GDH(i57	`)	
City, Sta	ate, Zip:					Specifier:							
Custom Code re	er: Poorts: ES	SR-1040				Company	,-						
Code le		51(-1040				Company	-						
	3	+ + + + +	1 ↓ ↓	¥		8	↓	+ +	+ +	2		, L L	,
¥	+ + + +	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	i i	¥	\downarrow \downarrow \downarrow	•↓ ↓ ,	+ + +	•	↓ ↓	+ +	+ +	+ +	+ +
1 B1					21	-05-00							82
51			То	tal He	orizontal Pro	duct Length	= 21-05-0	0					DL
Reacti	ion Summar	y (Down / Uplift)	(lbs)		_					_			
Bearing B1 31"		Live	Dead	0	S	now	<u> </u>	Vind 05 / 110	חם	Roo	f Live 1 / 0		
B1, 31 B2, 31"			1027 /	0			2	45 / 690)	872	/0		
·													
Load S	Summary							Live	Dead	Snow	Wind	Roof	Tributary
Tag De	scription	Load Type		Ref.	Start	End	Loc.	100%	90%	115%	160%	Live 125%	
0 Se	lf-Weight	Unf. Lin. (I	b/ft)	L	00-00-00	21-05-00	Тор		14				00-00-00
1 Sn	noothed Load	Unf. Lin. (I	b/ft)	L	02-09-04	10-09-04	Тор		88			88	n∖a
2 Sn	noothed Load	Unf. Lin. (I	b/ft) (Iba)	L	12-09-04	20-07-12	Тор		88			88 256	n∖a n∖a
3 IVI2 8 M1	2(C1) 1(c5)	Conc. Pt.	(IDS) (Ibs)	L	01-09-04 11_00_0/	01-09-04 11_00_0/	Тор		200 171			350 166	n∖a n∖a
0 101	(00)	0010.11.	(103)	L	11-00-04	11-00-04	TOP		17.1			100	ma
Contro	ols Summary	Value	%	Allow	able D	Duration	Case	Loca	tion				
Pos. Mo	oment	5923 ft-lbs	16.	8%	1	125%	1	09-0	9-04				
Total Lo	ad Deflection	1 14 1 IDS 1 /1111 (0 177")	9.0 21	70 6%	r	120% n\a	1	10-0	9-00 9-04				
Live Loa	ad Deflection	L/999 (0.081")	n\a	0 /0	r	n\a	98	10-0	9-04				
Max De	fl.	0.177"	17.	7%	r	n\a	1	10-0	9-04				
Span / [Depth	14.0											
Conc. L	oad (B1)	622 lbs	6.8	%	1	100%							
Conc. L	oad (B2)	355 IDS	3.9	%	1	100%							
Bearir	ng Supports	Dim. (LxW)	Value		% Allow Support	% Allow Member	Materia	al					
B1	Wall/Plate	31" x 3-1/2"	2166 lbs	6	4.7%	2.7%	Spruce	e-Pine-F	-ir				
B2	Wall/Plate	31" x 3-1/2"	1899 lbs	6	4.1%	2.3%	Spruce	e-Pine-F	-ır				
Notes													
Design	meets Code mir	nimum (L/240) Total I	oad defle	ectior	n criteria.								
Design	meets Code mir	nimum (L/360) Live Io	ad defle	ction	criteria.								
Design	meets arbitrary	(1") Maximum Total I	oad defle	ectior	n criteria.								
Design	meets arbitrary ((0.75") Maximum live	load de	flection	on criteria.								
Calculat	tions assume un	ibraced length of Top	o: 01-10-	08, B	ottom: 01-1	0-08.							
BU UAL Wind Ior	പയ analysis is i ads determined	based on IBC 2012. from building geome	trv were	lisod	l in selected	l product's v	erification	1					
Desian I	based on Drv Se	ervice Condition.		4500			omoaion	•					
0	,												
Design I Design I Design I	meets Code mir meets Code mir meets arbitrary (himum (L/360) Live Ic (1") Maximum Total I	oad defle oad defle	ction ection	criteria. criteria. criteria.								
Design	meets arbitrary	(0.75") Maximum live	e load de	flection	on criteria.								
	C® analveie ie ł	pased on IRC 2012		JU, D		0-00.							
Wind loa	ads determined	from building geome	try were	used	l in selected	l product's v	erification	l.					
Design I	based on Dry Se	ervice Condition.											



Double 1-3/4" x 14" VERSA-LAM® 2.0 3100 SP 1st Floor\Dropped Beams\GDH(i57) (Dropped Beam)



February 24, 2021 15:08:58

BC CALC® Member	Report	Dry 1 span No cant.	February 24, 20
Build 7493			
Job name:		File name:	2100199A.mmdl
Address:		Description:	1st Floor\Dropped Beams\GDH(i57)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1040	Company:	

Connection Diagram: Full Length of Member



Connectors are: 3-1/4 in. Pneumatic Gun Nails

Disclosure

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BC CALC® Member Report

Double 1-3/4" x 9-1/4" VERSA-LAM® 2.0 3100 SP 1st Floor\Flush Beams\BM1(i60) (Flush Beam)

Dry | 1 span | No cant.



February 24, 2021 15:08:58

Build 7493			
Job name:		File name:	2100199A.mmdl
Address:		Description:	1st Floor\Flush Beams\BM1(i60)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1040	Company:	
		2011.pdi.i.j.	

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets arbitrary (1") Maximum Total load deflection criteria.
Design meets arbitrary (0.75") Maximum live load deflection criteria.
Calculations assume unbraced length of Top: 03-05-00, Bottom: 03-05-00.
Hanger Manufacturer: Unassigned
BC CALC® analysis is based on IBC 2012.
Wind loads determined from building geometry were used in selected product's verification.

Connection Diagram: Full Length of Member



Design based on Dry Service Condition.

a minimum = 2" c = 5-1/4" b minimum = 3" d = 24"

1 = 24"

Connectors are: 3-1/4 in. Pneumatic Gun Nails

Disclosure

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	Boise Cascade		Quadru	uple 1	-3/4	" x 16" \	/ERSA-L	AM	® 2.0 31	00 SP	•		P	ASSED
BC	Ist Floor\Flush Beams\FB1(i59) (Flush Beam) BC CALC® Member Report Dry 2 spans No cant. February 24, 2021 15:08:58													
Build Job Add City Cus	d 7493 name: ress: , State, Zip: tomer:						File name Descriptio Specifier: Designer:	e: on:	2100199A 1st Floor\F	mmdl Flush Be	eams\FB1) I (i59)		
Cod	e reports: ES	R-1040					Company	<i>'</i> :						
				₹¥ + + +	+ +	+ + + + +					₹₹		+ + + + + +	
B1			21-	10-04					B2		12-0	01-12		B3
				То	tal Ho	orizontal Pro	duct Length	= 34-0	0-00					
Rea Bear	action Summary	/ (Down Live	i / Uplift)	(Ibs) _{Dead}		S	now		Wind		Roo	f Live		
B1,	3-1/2"	275/9		4333 /	0				1287 / 26	637	376	1 / 131		
B2,	3-1/2"	666 / 0		8818 /	0				2046 / 42	297	7303	3 / 12		
B3,	3-1/2"	167 / 94		1468 /	0				323 / 964	1	217:	2 / 1033		
Loa	ad Summary								Live	Dead	Snow	Wind	Roof Live	Tributary
Tag	Description		Load Type		Ref.	Start	End	Loc.	100%	90%	115%	160%	125%	
0	Self-Weight		Unf. Lin. (lb	o/ft)	L	00-00-00	34-00-00	Тор		32				00-00-00
1	FC1 Floor Material		Unf. Lin. (lb	0/ft)	L	00-00-00	34-00-00	Тор	30	/				n∖a
2	E19(131)		Unf. Lin. (lb	0/ft)	L	00-00-00	12-03-08	Тор		57			00	n∖a
3	Smoothed Load		Unf. Lin. (Ib	D/TL)	L	12-11-04	20-11-04	Тор		87			88	n∖a
4	E10(129)		Uni. Lin. (it Linf Lin, (it)/IL) \/#\)	L	21-08-08	34-00-00	Тор		57 744			767	n\a
6	E 15(129) E 15(129)		Uni. Lin. (il. Linf Lin (ili)/1L) \/ft)	L 1	21-00-00	22-00-12	Top		744 566			707 537	n\a
7	E15(i29)		Unflin (Ib	/ft)	1	31_11_12	32-08-12	Top		558			525	n\a
8	-		Conc Pt (I	hs)	1	02-00-12	02-00-12	Top		1060			1154	n\a
9	-		Conc. Pt. (I	bs)	1	04-00-12	04-00-12	Тор		970			973	n\a
10	M2(c3)		Conc. Pt. (I	bs)	-	06-00-12	06-00-12	Тор		175			175	n\a
11	-		Conc. Pt. (I	bs)	L	08-00-12	08-00-12	Тор		970			973	n\a
12	-		Conc. Pt. (I	bs)	L	10-00-12	10-00-12	Тор		990			1013	n\a
13	-		Conc. Pt. (I	bs)	L	12-00-12	12-00-12	Тор		920			927	n\a
18	-		Conc. Pt. (I	bs)	L	24-00-15	24-00-15	Тор		1026			1196	n\a
19	E19(i31)		Conc. Pt. (I	bs)	L	04-07-00	04-07-00	Тор		384			382	n\a
20	E19(i31)		Conc. Pt. (I	bs)	L	07-05-00	07-05-00	Тор		418			416	n\a
22	E15(i29)		Conc. Pt. (I	bs)	L	26-11-00	26-11-00	Тор		589			594	n∖a
23	E15(i29)		Conc. Pt. (I	bs)	L	28-00-12	28-00-12	Тор					-5	n∖a
24	E15(i29)		Conc. Pt. (I	bs)	L	29-01-00	29-01-00	Тор		586			618	n\a
25				ha)	1	20 01 00	29-01-00	Ton					-13	n∖a
	E15(129)		Conc. Pt. (I	us)	L .	29-01-00	20-01-00	TOP						
26			Conc. Pt. (I Conc. Pt. (I	bs) bs)	L	31-11-08	31-11-08	Тор		743			793	n\a
26 27	- - -		Conc. Pt. (I Conc. Pt. (I Conc. Pt. (I	bs) bs) bs)	L L	31-11-08 31-11-08	31-11-08 31-11-08	Тор Тор Тор		743			793 -13	n\a n\a

Controls Summary	Value	% Allowable	Duration	Case	Location	
Pos. Moment	35295 ft-lbs	37.8%	125%	6	08-00-12	
Neg. Moment	-32867 ft-lbs	35.2%	125%	4	21-10-04	
End Shear	7936 lbs	29.8%	125%	6	01-07-08	
Cont. Shear	8623 lbs	32.4%	125%	4	23-04-00	
Total Load Deflection	L/538 (0.483")	44.6%	n∖a	6	09-06-12	
Live Load Deflection	L/1103 (0.235")	32.6%	n∖a	269	09-06-12	
Total Neg. Defl.	L/999 (-0.051")	n\a	n∖a	6	25-11-04	



BC CALC® Member Report

Quadruple 1-3/4" x 16" VERSA-LAM® 2.0 3100 SP



1st Floor\Flush Beams\FB1(i59) (Flush Beam) Dry | 2 spans | No cant.

February 24, 2021 15:08:58

Code reports:	ESR-1040	Company:						
Customer:		Designer:						
City, State, Zip:		Specifier:						
Address:		Description	1st Floor\Flush Beams\FB1(i59)					
Job name:		File name:	2100199A.mmdl					
Build 7493								
	•	, , , ,	•					

Controls Summary	Value	% Allowable	Duration	Case	Location
Max Defl.	0.483"	48.3%	n\a	6	09-06-12
Span / Depth	16.2				

Bearing	J Supports	Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate	3-1/2" x 7"	8094 lbs	77.7%	44.0%	Spruce-Pine-Fir
B2	Column	3-1/2" x 7"	16120 lbs	90.8%	87.7%	Unspecified
B3	Beam	3-1/2" x 7"	3640 lbs	19.8%	19.8%	VL 2.0 3100 SP

Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

Design meets arbitrary (1") Maximum Total load deflection criteria.

Design meets arbitrary (0.75") Maximum live load deflection criteria.

Calculations assume member is fully braced.

BC CALC® analysis is based on IBC 2012.

Wind loads determined from building geometry were used in selected product's verification.

Design based on Dry Service Condition.

Connection Diagram: Full Length of Member



Calculated Side Load = 762.3 lb/ft Bolts are assumed to be Grade A307 or Grade 2 or higher. Connectors are: 5/8 in. Staggered Through Bolt

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