Boise Cascade

Single 11-7/8" BCI® 4500s-1.8

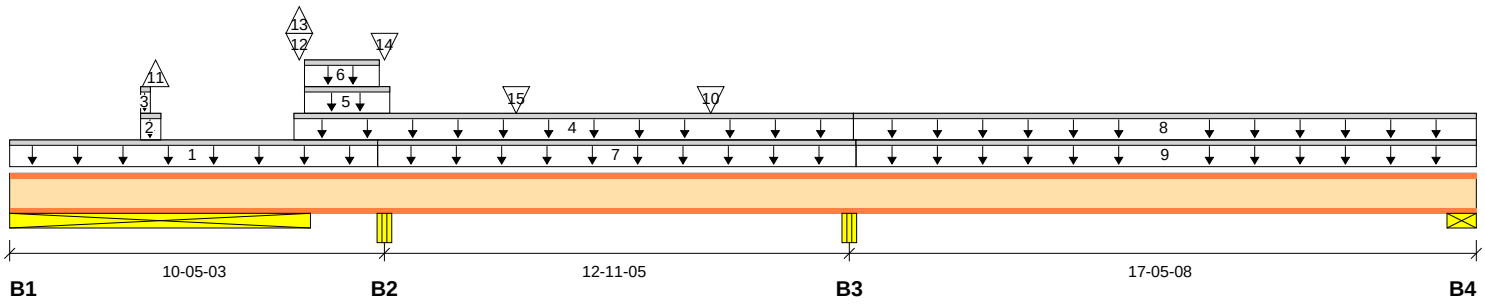
PASSED

Crawl\Floor Joists\FJ-1(i16657) (Floor Joist)

BC CALC® Member Report | Dry | 3 spans | No cant. | 19.2 OCS | Repetitive | Glued & nailed | February 2, 2021 13:16:56

Build 7493

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	Crawl\Floor Joists\FJ-1(i16657)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 40-10-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 100-1/2"	757 / 1109	335 / 0			79 / 0
B2, 4-1/2"	1181 / 322	961 / 0			0 / 0
B3, 4-1/2"	1259 / 0	478 / 0			0 / 0
B4, 4-1/2"	489 / 30	104 / 0			0 / 0

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	10-02-15	Top	32	8				n\a
2	E2(i62)	Unf. Lin. (lb/ft)	L	03-07-12	04-02-08	Top	251	424			141	n\a
3	E2(i62)	Unf. Lin. (lb/ft)	L	03-07-12	03-11-00	Top		93				n\a
4	FC1 Floor Material	Unf. Lin. (lb/ft)	L	07-11-00	23-05-14	Top	12	3				n\a
5	FC1 Floor Material	Unf. Lin. (lb/ft)	L	08-02-08	10-07-00	Top		21				n\a
6	20(i96)	Unf. Lin. (lb/ft)	L	08-02-08	10-03-08	Top		73				n\a
7	FC1 Floor Material	Unf. Lin. (lb/ft)	L	10-02-15	23-06-12	Top	29	7				n\a
8	FC1 Floor Material	Unf. Lin. (lb/ft)	L	23-05-14	40-10-00	Top	32	8				n\a
9	FC1 Floor Material	Unf. Lin. (lb/ft)	L	23-06-12	40-10-00	Top	32	8				n\a
10	-	Conc. Pt. (lbs)	L	19-06-04	19-06-04	Top	320	274				n\a
11	E2(i62)	Conc. Pt. (lbs)	L	04-00-12	04-00-12	Top	-658					n\a
12	E2(i62)	Conc. Pt. (lbs)	L	08-00-12	08-00-12	Top	60	56				n\a
13	E2(i62)	Conc. Pt. (lbs)	L	08-00-12	08-00-12	Top	-89					n\a
14	18(i94)	Conc. Pt. (lbs)	L	10-05-04	10-05-04	Top	393	485				n\a
15	16(i91)	Conc. Pt. (lbs)	L	14-01-04	14-01-04	Top		85				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2016 ft-lbs	66.7%	100%	3	33-04-15
Neg. Moment	-2535 ft-lbs	83.8%	100%	6	23-04-08
End Reaction	1092 lbs	76.6%	100%	3	00-00-00
Int. Reaction	2142 lbs	89.0%	100%	5	10-05-03
End Shear	563 lbs	34.6%	100%	3	40-05-08
Cont. Shear	897 lbs	55.2%	100%	6	23-02-04
Total Load Deflection	L/651 (0.316")	36.9%	n\a	3	32-08-08
Live Load Deflection	L/745 (0.276")	64.4%	n\a	20	32-05-12
Total Neg. Defl.	L/999 (-0.024")	n\a	n\a	4	27-01-07
Max Defl.	0.316"	21.1%	n\a	3	32-08-08
Span / Depth	17.3				
Dist. Load (B1)	855.82 lb/ft	39.8%	100%		
Conc. Load (B1)	116 lbs	11.6%	100%		

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
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City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	

Bearing Supports		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate	100-1/2" x 1-3/4"	1092 lbs	1.5%	76.6%	Unspecified
B1	Uplift		774 lbs			
B2	Beam	4-1/2" x 1-3/4"	2142 lbs	67.1%	89.0%	Unspecified
B3	Beam	4-1/2" x 1-3/4"	1737 lbs	54.5%	72.2%	Unspecified
B4	Wall/Plate	4-1/2" x 1-3/4"	593 lbs	17.7%	41.6%	Unspecified

Cautions

Uplift of -774 lbs found at bearing B1.

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 11-7/8" BCI® 4500s-1.8

PASSED

Crawl\Floor Joists\FJ-1(i16659) (Floor Joist)

BC CALC® Member Report | Dry | 3 spans | No cant. | 19.2 OCS | Repetitive | Glued & nailed | February 2, 2021 13:16:56

Build 7493

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
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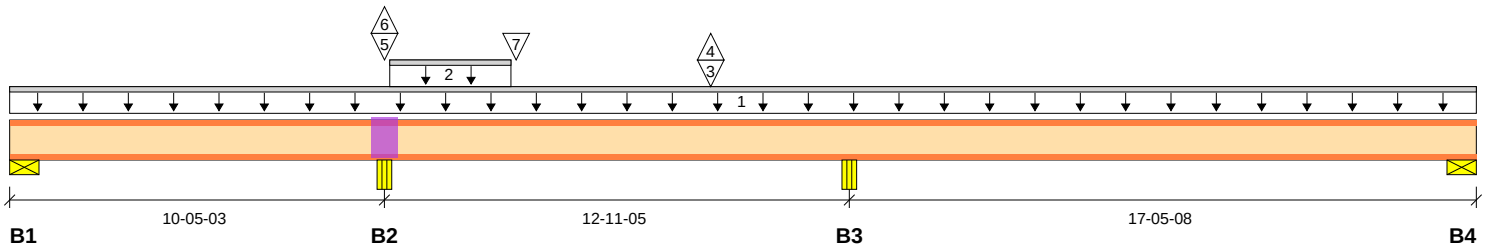

Total Horizontal Product Length = 40-10-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 4-1/2"	347 / 82	16 / 0			
B2, 4-1/2"	1760 / 216	933 / 0			
B3, 4-1/2"	1423 / 108	617 / 0			
B4, 4-1/2"	498 / 41	93 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	-	Unf. Lin. (lb/ft)	L	00-00-00	40-10-00	Top	64	16				n\a
2	17(i92)	Unf. Lin. (lb/ft)	L	10-07-00	13-11-08	Top		73				n\a
3	-	Conc. Pt. (lbs)	L	19-06-04	19-06-04	Top	311	350				n\a
4	-	Conc. Pt. (lbs)	L	19-06-04	19-06-04	Top	-95					n\a
5	18(i94)	Conc. Pt. (lbs)	L	10-05-04	10-05-04	Top	769	290				n\a
6	18(i94)	Conc. Pt. (lbs)	L	10-05-04	10-05-04	Top	-22					n\a
7	16(i91)	Conc. Pt. (lbs)	L	14-01-03	14-01-03	Top		117				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2008 ft-lbs	66.4%	100%	3	33-04-15
Neg. Moment	-2885 ft-lbs	95.4%	100%	6	23-04-08
End Reaction	592 lbs	41.5%	100%	3	40-10-00
Int. Reaction	2040 lbs	84.7%	100%	6	23-04-08
End Shear	562 lbs	34.6%	100%	3	40-05-08
Cont. Shear	1167 lbs	71.8%	100%	6	23-02-04
Total Load Deflection	L/655 (0.314")	36.6%	n\a	3	32-08-08
Live Load Deflection	L/709 (0.29")	67.7%	n\a	11	32-05-12
Total Neg. Defl.	L/999 (-0.055")	n\a	n\a	4	28-06-03
Max Defl.	0.314"	20.9%	n\a	3	32-08-08
Span / Depth	17.3				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate	4-1/2" x 1-3/4"	364 lbs	10.9%	25.5%	Unspecified
B2	Beam	4-1/2" x 1-3/4"	1602 lbs	84.5%	66.5%	Unspecified
B3	Beam	4-1/2" x 1-3/4"	2040 lbs	64.0%	84.7%	Unspecified
B4	Wall/Plate	4-1/2" x 1-3/4"	592 lbs	17.7%	41.5%	Unspecified

Cautions

Uplift of -66 lbs found at bearing B1.
Squash Blocks required at support B2.

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Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 11-7/8" BCI® 4500s-1.8

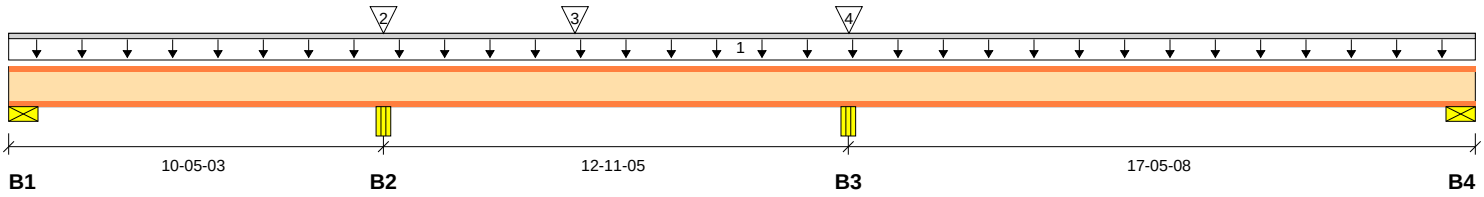
PASSED

Crawl\Floor Joists\FJ-1(i16662) (Floor Joist)

BC CALC® Member Report | Dry | 3 spans | No cant. | 19.2 OCS | Repetitive | Glued & nailed | February 2, 2021 13:16:56

Build 7493

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	Crawl\Floor Joists\FJ-1(i16662)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 40-10-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 4-1/2"	298 / 52	47 / 0			
B2, 4-1/2"	1418 / 0	547 / 0			
B3, 4-1/2"	1085 / 0	330 / 0			
B4, 4-1/2"	432 / 23	97 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	40-10-00	Top	56	14				n\a
2	18(i94)	Conc. Pt. (lbs)	L	10-05-04	10-05-04	Top	651	298				n\a
3	21(i97)	Conc. Pt. (lbs)	L	15-09-03	15-09-03	Top		125				n\a
4	9(i102)	Conc. Pt. (lbs)	L	23-04-12	23-04-12	Top	49	27				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	1839 ft-lbs	60.8%	100%	2	33-02-02
Neg. Moment	-2032 ft-lbs	67.2%	100%	5	23-04-08
End Reaction	529 lbs	37.1%	100%	2	40-10-00
Int. Reaction	1964 lbs	81.6%	100%	4	10-05-03
End Shear	503 lbs	31.0%	100%	2	40-05-08
Cont. Shear	705 lbs	43.4%	100%	5	23-06-12
Total Load Deflection	L/702 (0.293")	34.2%	n\a	2	32-05-12
Live Load Deflection	L/830 (0.248")	57.8%	n\a	7	32-05-12
Total Neg. Defl.	L/999 (-0.044")	n\a	n\a	2	18-11-13
Max Defl.	0.293"	19.5%	n\a	2	32-05-12
Span / Depth	17.3				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate	4-1/2" x 1-3/4"	345 lbs	10.3%	24.2%	Unspecified
B2	Beam	4-1/2" x 1-3/4"	1964 lbs	61.6%	81.6%	Unspecified
B3	Beam	4-1/2" x 1-3/4"	1415 lbs	44.4%	58.8%	Unspecified
B4	Wall/Plate	4-1/2" x 1-3/4"	529 lbs	15.8%	37.1%	Unspecified

Notes

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

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Single 11-7/8" BCI® 4500s-1.8

PASSED

Crawl\Floor Joists\FJ-1(i16663) (Floor Joist)

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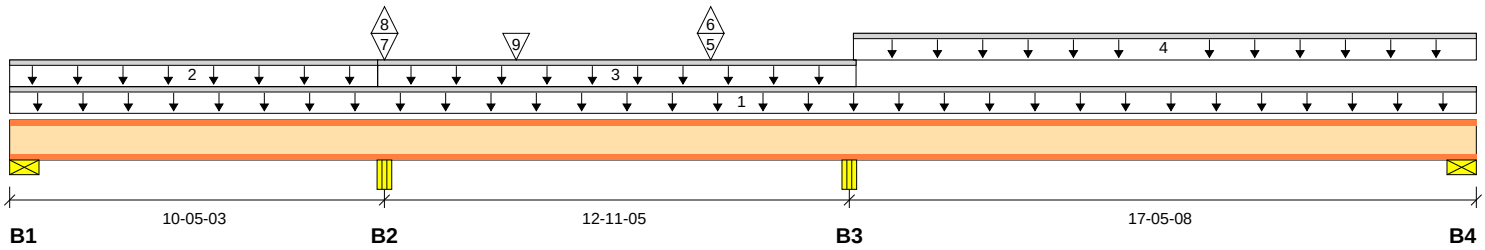

Total Horizontal Product Length = 40-10-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 4-1/2"	344 / 67	49 / 0			
B2, 4-1/2"	1228 / 206	439 / 0			
B3, 4-1/2"	1340 / 92	476 / 0			
B4, 4-1/2"	495 / 37	104 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	40-10-00	Top	32	8				n\a
2	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	10-02-15	Top	32	8				n\a
3	FC1 Floor Material	Unf. Lin. (lb/ft)	L	10-02-15	23-06-12	Top	3	1				n\a
4	FC1 Floor Material	Unf. Lin. (lb/ft)	L	23-05-14	40-10-00	Top	32	8				n\a
5	-	Conc. Pt. (lbs)	L	19-06-04	19-06-04	Top	476	291				n\a
6	-	Conc. Pt. (lbs)	L	19-06-04	19-06-04	Top	-74					n\a
7	18(i94)	Conc. Pt. (lbs)	L	10-05-04	10-05-04	Top	406	155				n\a
8	18(i94)	Conc. Pt. (lbs)	L	10-05-04	10-05-04	Top	-20					n\a
9	16(i91)	Conc. Pt. (lbs)	L	14-01-04	14-01-04	Top		64				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2067 ft-lbs	68.3%	100%	3	33-04-15
Neg. Moment	-2620 ft-lbs	86.6%	100%	6	23-04-08
End Reaction	599 lbs	42.0%	100%	3	40-10-00
Int. Reaction	1816 lbs	75.5%	100%	6	23-04-08
End Shear	569 lbs	35.0%	100%	3	40-05-08
Cont. Shear	977 lbs	60.1%	100%	6	23-02-04
Total Load Deflection	L/628 (0.328")	38.2%	n\a	3	32-05-12
Live Load Deflection	L/716 (0.287")	67.0%	n\a	11	32-05-12
Total Neg. Defl.	L/999 (-0.042")	n\a	n\a	3	17-11-15
Max Defl.	0.328"	21.8%	n\a	3	32-05-12
Span / Depth	17.3				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate	4-1/2" x 1-3/4"	393 lbs	11.7%	27.6%	Unspecified
B2	Beam	4-1/2" x 1-3/4"	1666 lbs	52.2%	69.2%	Unspecified
B3	Beam	4-1/2" x 1-3/4"	1816 lbs	57.0%	75.5%	Unspecified
B4	Wall/Plate	4-1/2" x 1-3/4"	599 lbs	17.9%	42.0%	Unspecified

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Notes

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Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
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Disclosure

Boise Cascade

Single 11-7/8" BCI® 4500s-1.8

PASSED

Crawl\Floor Joists\FJ-1(i16664) (Floor Joist)

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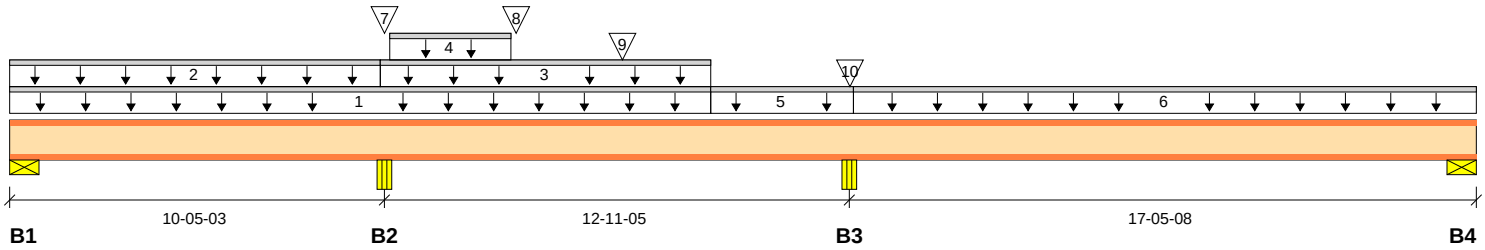

Total Horizontal Product Length = 40-10-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 4-1/2"	340 / 49	47 / 0			
B2, 4-1/2"	1123 / 0	569 / 0			
B3, 4-1/2"	1156 / 0	372 / 0			
B4, 4-1/2"	494 / 21	110 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	19-06-04	Top	32	8				n\a
2	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	10-03-13	Top	32	8				n\a
3	FC1 Floor Material	Unf. Lin. (lb/ft)	L	10-03-13	19-06-04	Top	20	5				n\a
4	FC1 Floor Material	Unf. Lin. (lb/ft)	L	10-07-00	13-11-07	Top		41				n\a
5	FC1 Floor Material	Unf. Lin. (lb/ft)	L	19-06-04	23-05-14	Top	52	13				n\a
6	FC1 Floor Material	Unf. Lin. (lb/ft)	L	23-05-14	40-10-00	Top	64	16				n\a
7	18(i94)	Conc. Pt. (lbs)	L	10-05-04	10-05-04	Top	336	156				n\a
8	12(i85)	Conc. Pt. (lbs)	L	14-01-03	14-01-03	Top		98				n\a
9	14(i89)	Conc. Pt. (lbs)	L	17-00-12	17-00-12	Top		61				n\a
10	9(i102)	Conc. Pt. (lbs)	L	23-04-12	23-04-12	Top	51	28				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2097 ft-lbs	69.3%	100%	2	33-02-02
Neg. Moment	-2253 ft-lbs	74.5%	100%	5	23-04-08
End Reaction	604 lbs	42.4%	100%	2	40-10-00
Int. Reaction	1692 lbs	70.3%	100%	4	10-05-03
End Shear	574 lbs	35.3%	100%	2	40-05-08
Cont. Shear	802 lbs	49.4%	100%	5	23-06-12
Total Load Deflection	L/617 (0.334")	38.9%	n\a	2	32-05-12
Live Load Deflection	L/726 (0.283")	66.1%	n\a	7	32-05-12
Total Neg. Defl.	L/999 (-0.048")	n\a	n\a	2	19-02-08
Max Defl.	0.334"	22.2%	n\a	2	32-05-12
Span / Depth	17.3				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate	4-1/2" x 1-3/4"	387 lbs	11.6%	27.2%	Unspecified
B2	Beam	4-1/2" x 1-3/4"	1692 lbs	53.1%	70.3%	Unspecified
B3	Beam	4-1/2" x 1-3/4"	1527 lbs	47.9%	63.5%	Unspecified
B4	Wall/Plate	4-1/2" x 1-3/4"	604 lbs	18.1%	42.4%	Unspecified

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Disclosure

Boise Cascade

Single 11-7/8" BCI® 4500s-1.8

PASSED

Crawl\Floor Joists\FJ-1(i16666) (Floor Joist)

BC CALC® Member Report | Dry | 3 spans | No cant. | 19.2 OCS | Repetitive | Glued & nailed | February 2, 2021 13:16:56

Build 7493

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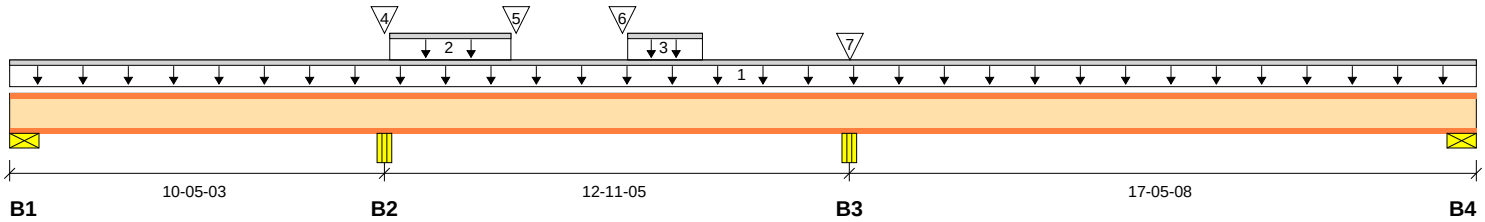
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 40-10-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 4-1/2"	340 / 59	40 / 0			
B2, 4-1/2"	1566 / 0	740 / 0			
B3, 4-1/2"	1356 / 0	499 / 0			
B4, 4-1/2"	494 / 26	107 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	-	Unf. Lin. (lb/ft)	L	00-00-00	40-10-00	Top	64	16				n\a
2	FC1 Floor Material	Unf. Lin. (lb/ft)	L	10-07-00	13-11-07	Top		32				n\a
3	15(i90)	Unf. Lin. (lb/ft)	L	17-02-08	19-03-07	Top		36				n\a
4	18(i94)	Conc. Pt. (lbs)	L	10-05-04	10-05-04	Top	690	301				n\a
5	16(i91)	Conc. Pt. (lbs)	L	14-01-03	14-01-03	Top		114				n\a
6	14(i89)	Conc. Pt. (lbs)	L	17-00-12	17-00-12	Top		36				n\a
7	9(i102)	Conc. Pt. (lbs)	L	23-04-12	23-04-12	Top	172	100				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2070 ft-lbs	68.4%	100%	2	33-04-15
Neg. Moment	-2398 ft-lbs	79.3%	100%	5	23-04-08
End Reaction	601 lbs	42.1%	100%	2	40-10-00
Int. Reaction	2307 lbs	95.8%	100%	4	10-05-03
End Shear	571 lbs	35.1%	100%	2	40-05-08
Cont. Shear	811 lbs	49.9%	100%	5	23-06-12
Total Load Deflection	L/628 (0.328")	38.2%	n\a	2	32-05-12
Live Load Deflection	L/726 (0.283")	66.1%	n\a	7	32-05-12
Total Neg. Defl.	L/999 (-0.038")	n\a	n\a	2	19-08-04
Max Defl.	0.328"	21.9%	n\a	2	32-05-12
Span / Depth	17.3				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate	4-1/2" x 1-3/4"	381 lbs	11.4%	26.7%	Unspecified
B2	Beam	4-1/2" x 1-3/4"	2307 lbs	72.3%	95.8%	Unspecified
B3	Beam	4-1/2" x 1-3/4"	1855 lbs	58.2%	77.1%	Unspecified
B4	Wall/Plate	4-1/2" x 1-3/4"	601 lbs	17.9%	42.1%	Unspecified

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	Crawl\Floor Joists\FJ-1(i16666)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 11-7/8" BCI® 4500s-1.8

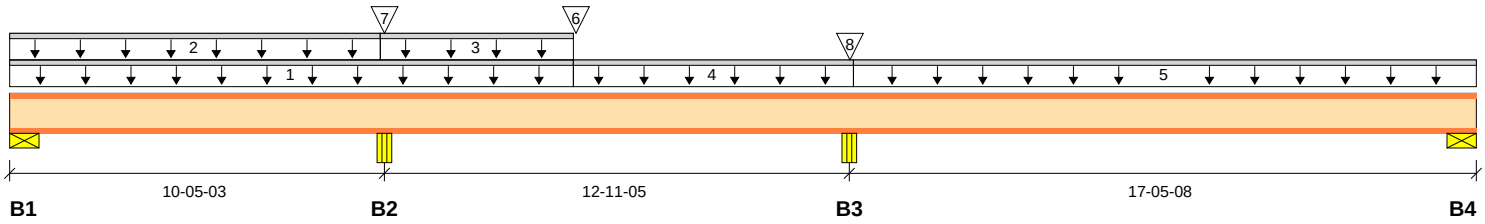
PASSED

Crawl\Floor Joists\FJ-1(i16668) (Floor Joist)

BC CALC® Member Report | Dry | 3 spans | No cant. | 19.2 OCS | Repetitive | Glued & nailed | February 2, 2021 13:16:56

Build 7493

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	Crawl\Floor Joists\FJ-1(i16668)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 40-10-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 4-1/2"	340 / 79	28 / 0			
B2, 4-1/2"	1185 / 0	554 / 0			
B3, 4-1/2"	1238 / 0	453 / 0			
B4, 4-1/2"	494 / 32	102 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	15-08-05	Top	32	8				n\a
2	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	10-03-13	Top	32	8				n\a
3	FC1 Floor Material	Unf. Lin. (lb/ft)	L	10-03-13	15-08-05	Top	12	3				n\a
4	FC1 Floor Material	Unf. Lin. (lb/ft)	L	15-08-05	23-05-14	Top	44	11				n\a
5	FC1 Floor Material	Unf. Lin. (lb/ft)	L	23-05-14	40-10-00	Top	64	16				n\a
6	-	Conc. Pt. (lbs)	L	15-09-03	15-09-03	Top	339	412				n\a
7	18(i94)	Conc. Pt. (lbs)	L	10-05-04	10-05-04	Top	217	111				n\a
8	9(i102)	Conc. Pt. (lbs)	L	23-04-12	23-04-12	Top	51	28				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2145 ft-lbs	70.9%	100%	3	15-09-04
Neg. Moment	-2574 ft-lbs	85.1%	100%	5	23-04-08
End Reaction	596 lbs	41.8%	100%	2	40-10-00
Int. Reaction	1739 lbs	72.2%	100%	4	10-05-03
End Shear	566 lbs	34.8%	100%	2	40-05-08
Cont. Shear	828 lbs	50.9%	100%	4	10-07-07
Total Load Deflection	L/642 (0.321")	37.4%	n\a	2	32-05-12
Live Load Deflection	L/726 (0.283")	66.1%	n\a	7	32-05-12
Total Neg. Defl.	L/999 (-0.032")	n\a	n\a	3	06-06-08
Max Defl.	0.321"	21.4%	n\a	2	32-05-12
Span / Depth	17.3				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate	4-1/2" x 1-3/4"	369 lbs	11.0%	25.9%	Unspecified
B2	Beam	4-1/2" x 1-3/4"	1739 lbs	54.5%	72.2%	Unspecified
B3	Beam	4-1/2" x 1-3/4"	1691 lbs	53.0%	70.3%	Unspecified
B4	Wall/Plate	4-1/2" x 1-3/4"	596 lbs	17.8%	41.8%	Unspecified

Cautions

Uplift of -50 lbs found at bearing B1.

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	Crawl\Floor Joists\FJ-1(i16668)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 11-7/8" BCI® 4500s-1.8

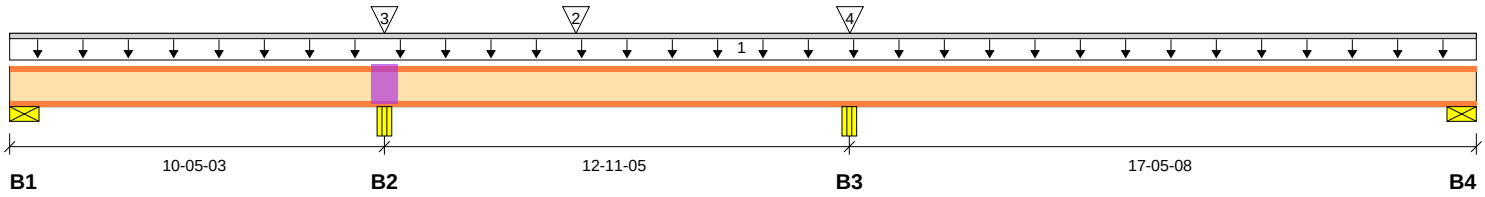
PASSED

Crawl\Floor Joists\FJ-1(i16671) (Floor Joist)

BC CALC® Member Report | Dry | 3 spans | No cant. | 19.2 OCS | Repetitive | Glued & nailed | February 2, 2021 13:16:56

Build 7493

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	Crawl\Floor Joists\FJ-1(i16671)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 40-10-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 4-1/2"	340 / 59	57 / 0			
B2, 4-1/2"	1581 / 0	570 / 0			
B3, 4-1/2"	1235 / 0	364 / 0			
B4, 4-1/2"	494 / 26	112 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	-	Unf. Lin. (lb/ft)	L	00-00-00	40-10-00	Top	64	16				n\a
2	-	Conc. Pt. (lbs)	L	15-09-03	15-09-03	Top		117				n\a
3	18(i94)	Conc. Pt. (lbs)	L	10-05-04	10-05-04	Top	705	305				n\a
4	9(i102)	Conc. Pt. (lbs)	L	23-04-12	23-04-12	Top	51	28				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2110 ft-lbs	69.7%	100%	2	33-02-02
Neg. Moment	-2304 ft-lbs	76.2%	100%	5	23-04-08
End Reaction	606 lbs	42.5%	100%	2	40-10-00
Int. Reaction	1599 lbs	66.4%	100%	5	23-04-08
End Shear	576 lbs	35.4%	100%	2	40-05-08
Cont. Shear	805 lbs	49.5%	100%	5	23-06-12
Total Load Deflection	L/612 (0.336")	39.2%	n\a	2	32-05-12
Live Load Deflection	L/726 (0.283")	66.1%	n\a	7	32-05-12
Total Neg. Defl.	L/999 (-0.054")	n\a	n\a	2	18-09-12
Max Defl.	0.336"	22.4%	n\a	2	32-05-12
Span / Depth	17.3				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate	4-1/2" x 1-3/4"	397 lbs	11.9%	27.9%	Unspecified
B2	Beam	4-1/2" x 1-3/4"	1112 lbs	67.5%	46.2%	Unspecified
B3	Beam	4-1/2" x 1-3/4"	1599 lbs	50.1%	66.4%	Unspecified
B4	Wall/Plate	4-1/2" x 1-3/4"	606 lbs	18.1%	42.5%	Unspecified

Cautions

Squash Blocks required at support B2.

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	Crawl\Floor Joists\FJ-1(i16671)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 11-7/8" BCI® 4500s-1.8

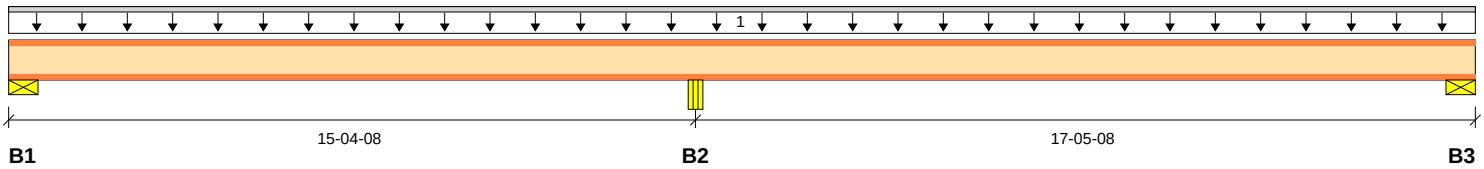
PASSED

Crawl\Floor Joists\FJ-2(i16655) (Floor Joist)

BC CALC® Member Report | Dry | 2 spans | No cant. | 19.2 OCS | Repetitive | Glued & nailed | February 2, 2021 13:16:56

Build 7493

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	Crawl\Floor Joists\FJ-2(i16655)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 32-10-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 4-1/2"	448 / 80	92 / 0			
B2, 4-1/2"	1284 / 0	321 / 0			
B3, 4-1/2"	498 / 48	113 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	32-10-00	Top	64	16				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2143 ft-lbs	70.8%	100%	3	25-02-02
Neg. Moment	-2538 ft-lbs	83.9%	100%	1	15-04-08
End Reaction	611 lbs	42.8%	100%	3	32-10-00
Int. Reaction	1605 lbs	66.7%	100%	1	15-04-08
End Shear	581 lbs	35.7%	100%	3	32-05-08
Cont. Shear	819 lbs	50.4%	100%	1	15-06-12
Total Load Deflection	L/599 (0.344")	40.1%	n\a	3	24-05-12
Live Load Deflection	L/710 (0.29")	67.6%	n\a	6	24-05-12
Total Neg. Defl.	L/999 (-0.069")	n\a	n\a	3	09-11-14
Max Defl.	0.344"	22.9%	n\a	3	24-05-12
Span / Depth	17.3				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate	4-1/2" x 1-3/4"	539 lbs	16.1%	37.9%	Unspecified
B2	Beam	4-1/2" x 1-3/4"	1605 lbs	50.3%	66.7%	Unspecified
B3	Wall/Plate	4-1/2" x 1-3/4"	611 lbs	18.2%	42.8%	Unspecified

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 11-7/8" BCI® 4500s-1.8

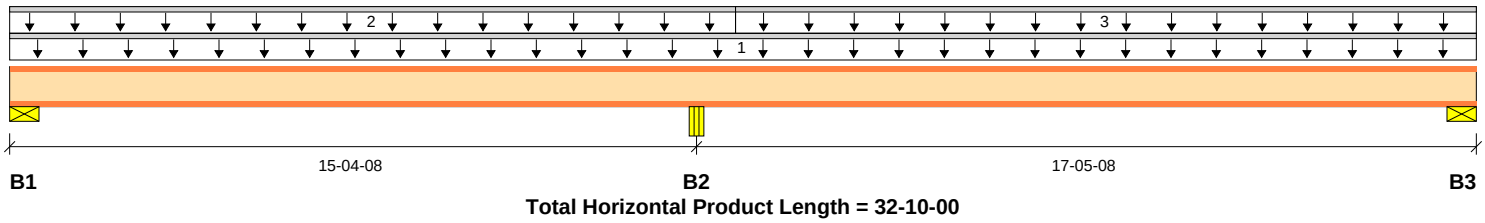
PASSED

Crawl\Floor Joists\FJ-2(i16665) (Floor Joist)

BC CALC® Member Report | Dry | 2 spans | No cant. | 19.2 OCS | Repetitive | Glued & nailed | February 2, 2021 13:16:56

Build 7493

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	Crawl\Floor Joists\FJ-2(i16665)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 32-10-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 4-1/2"	422 / 80	86 / 0			
B2, 4-1/2"	1248 / 0	312 / 0			
B3, 4-1/2"	498 / 45	113 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	32-10-00	Top	32	8				n\a
2	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	16-03-00	Top	28	7				n\a
3	FC1 Floor Material	Unf. Lin. (lb/ft)	L	16-03-00	32-10-00	Top	32	8				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2148 ft-lbs	71.0%	100%	3	25-02-02
Neg. Moment	-2480 ft-lbs	82.0%	100%	1	15-04-08
End Reaction	611 lbs	42.9%	100%	3	32-10-00
Int. Reaction	1560 lbs	64.8%	100%	1	15-04-08
End Shear	581 lbs	35.8%	100%	3	32-05-08
Cont. Shear	812 lbs	50.0%	100%	1	15-06-12
Total Load Deflection	L/597 (0.344")	40.2%	n\a	3	24-05-12
Live Load Deflection	L/710 (0.29")	67.6%	n\a	6	24-05-12
Total Neg. Defl.	L/999 (-0.071")	n\a	n\a	3	09-11-14
Max Defl.	0.344"	23.0%	n\a	3	24-05-12
Span / Depth	17.3				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate	4-1/2" x 1-3/4"	508 lbs	15.2%	35.6%	Unspecified
B2	Beam	4-1/2" x 1-3/4"	1560 lbs	48.9%	64.8%	Unspecified
B3	Wall/Plate	4-1/2" x 1-3/4"	611 lbs	18.3%	42.9%	Unspecified

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 11-7/8" BCI® 4500s-1.8

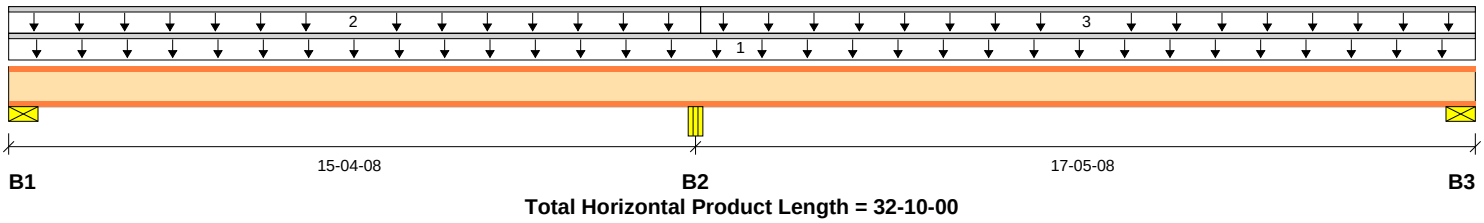
PASSED

Crawl\Floor Joists\FJ-2(i16667) (Floor Joist)

BC CALC® Member Report | Dry | 2 spans | No cant. | 19.2 OCS | Repetitive | Glued & nailed | February 2, 2021 13:16:56

Build 7493

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	Crawl\Floor Joists\FJ-2(i16667)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 32-10-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 4-1/2"	366 / 81	71 / 0			
B2, 4-1/2"	1180 / 0	295 / 0			
B3, 4-1/2"	500 / 39	115 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	32-10-00	Top	32	8				n\a
2	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	15-05-14	Top	20	5				n\a
3	FC1 Floor Material	Unf. Lin. (lb/ft)	L	15-05-14	32-10-00	Top	32	8				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2170 ft-lbs	71.7%	100%	3	25-02-02
Neg. Moment	-2360 ft-lbs	78.0%	100%	1	15-04-08
End Reaction	616 lbs	43.2%	100%	3	32-10-00
Int. Reaction	1475 lbs	61.3%	100%	1	15-04-08
End Shear	586 lbs	36.0%	100%	3	32-05-08
Cont. Shear	812 lbs	50.0%	100%	1	15-06-12
Total Load Deflection	L/590 (0.349")	40.7%	n\a	3	24-05-12
Live Load Deflection	L/706 (0.291")	67.9%	n\a	6	24-05-12
Total Neg. Defl.	L/999 (-0.077")	n\a	n\a	3	09-09-07
Max Defl.	0.349"	23.2%	n\a	3	24-05-12
Span / Depth	17.3				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate	4-1/2" x 1-3/4"	438 lbs	13.1%	30.7%	Unspecified
B2	Beam	4-1/2" x 1-3/4"	1475 lbs	46.2%	61.3%	Unspecified
B3	Wall/Plate	4-1/2" x 1-3/4"	616 lbs	18.4%	43.2%	Unspecified

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 11-7/8" BCI® 4500s-1.8

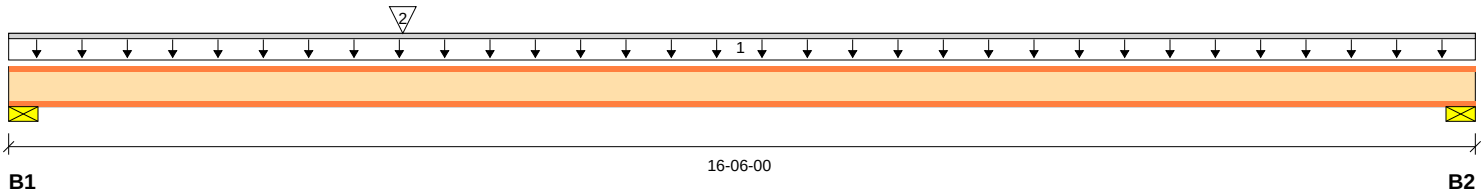
PASSED

Crawl\Floor Joists\FJ-3(i16509) (Floor Joist)

BC CALC® Member Report | Dry | 1 span | No cant. | 19.2 OCS | Repetitive | Glued & nailed | February 2, 2021 13:16:56

Build 7493

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	Crawl\Floor Joists\FJ-3(i16509)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 16-06-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 4-1/2"	360 / 0	177 / 0			
B2, 4-1/2"	360 / 0	120 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	16-06-00	Top	44	11				n\a
2	1(i75)	Conc. Pt. (lbs)	L	04-05-03	04-05-03	Top		117				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	1966 ft-lbs	65.0%	100%	1	07-07-05
End Reaction	536 lbs	37.6%	100%	1	00-00-00
End Shear	516 lbs	31.7%	100%	1	00-04-08
Total Load Deflection	L/647 (0.294")	37.1%	n\a	1	08-01-06
Live Load Deflection	L/932 (0.204")	51.5%	n\a	2	08-03-06
Max Defl.	0.294"	19.6%	n\a	1	08-01-06
Span / Depth	16.0				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate	4-1/2" x 1-3/4"	536 lbs	16.0%	37.6%	Unspecified
B2	Wall/Plate	4-1/2" x 1-3/4"	480 lbs	14.3%	33.7%	Unspecified

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 11-7/8" BCI® 4500s-1.8

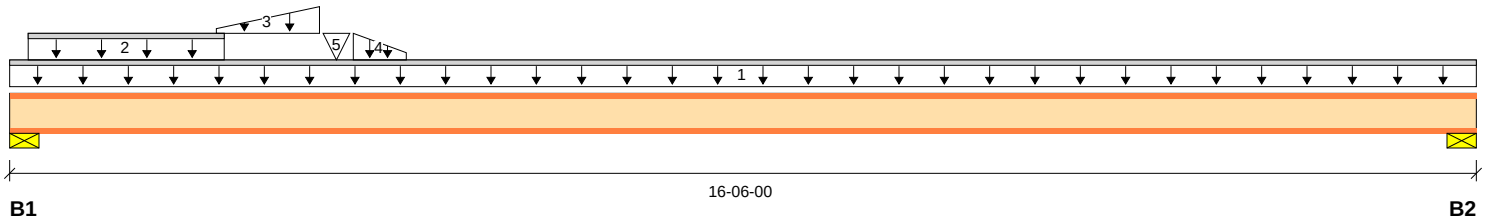
PASSED

Crawl\Floor Joists\FJ-3(i16510) (Floor Joist)

BC CALC® Member Report | Dry | 1 span | No cant. | 19.2 OCS | Repetitive | Glued & nailed | February 2, 2021 13:16:56

Build 7493

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	Crawl\Floor Joists\FJ-3(i16510)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 16-06-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 4-1/2"	432 / 0	241 / 0			
B2, 4-1/2"	432 / 0	136 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	16-06-00	Top	52	13				n\a
2	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-02-08	02-04-15	Top		12				n\a
3	FC1 Floor Material	Trapezoidal (lb/ft)	L	02-03-14		Top		16				n\a
					03-05-13			91				
4	FC1 Floor Material	Trapezoidal (lb/ft)	L	03-10-06		Top		84				n\a
					04-05-09			23				
5	2(i77)	Conc. Pt. (lbs)	L	03-08-02	03-08-02	Top		36				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2295 ft-lbs	75.9%	100%	1	07-09-09
End Reaction	673 lbs	47.2%	100%	1	00-00-00
End Shear	646 lbs	39.8%	100%	1	00-04-08
Total Load Deflection	L/553 (0.345")	43.4%	n\a	1	08-01-09
Live Load Deflection	L/776 (0.246")	61.9%	n\a	2	08-03-09
Max Defl.	0.345"	23.0%	n\a	1	08-01-09
Span / Depth	16.0				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate	4-1/2" x 1-3/4"	673 lbs	20.1%	47.2%	Unspecified
B2	Wall/Plate	4-1/2" x 1-3/4"	569 lbs	17.0%	39.9%	Unspecified

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 11-7/8" BCI® 4500s-1.8

PASSED

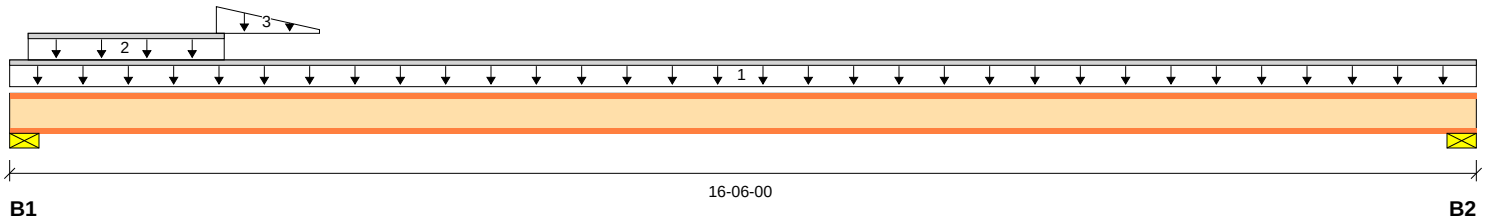
Crawl\Floor Joists\FJ-3(i16511) (Floor Joist)

BC CALC® Member Report
Build 7493

Dry | 1 span | No cant. | 19.2 OCS | Repetitive | Glued & nailed

February 2, 2021 13:16:56

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	Crawl\Floor Joists\FJ-3(i16511)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 16-06-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 4-1/2"	528 / 0	307 / 0			
B2, 4-1/2"	528 / 0	149 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	16-06-00	Top	64	16				n\a
2	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-02-08	02-04-15	Top		61				n\a
3	FC1 Floor Material	Trapezoidal (lb/ft)	L	02-03-14		Top		87				n\a
					03-05-13			12				

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2661 ft-lbs	88.0%	100%	1	08-00-07
End Reaction	835 lbs	58.6%	100%	1	00-00-00
End Shear	795 lbs	48.9%	100%	1	00-04-08
Total Load Deflection	L/478 (0.399")	50.2%	n\a	1	08-02-10
Live Load Deflection	L/635 (0.3")	75.6%	n\a	2	08-02-10
Max Defl.	0.399"	26.6%	n\a	1	08-02-10
Span / Depth	16.0				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate	4-1/2" x 1-3/4"	835 lbs	25.0%	58.6%	Unspecified
B2	Wall/Plate	4-1/2" x 1-3/4"	677 lbs	20.2%	47.5%	Unspecified

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 11-7/8" BCI® 4500s-1.8

PASSED

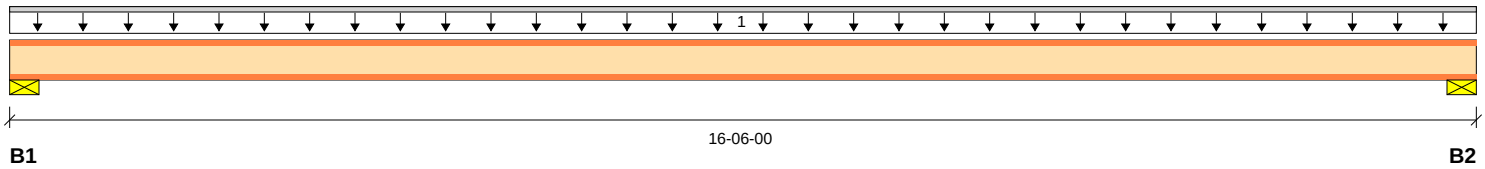
Crawl\Floor Joists\FJ-3(i16512) (Floor Joist)

BC CALC® Member Report
Build 7493

Dry | 1 span | No cant. | 19.2 OCS | Repetitive | Glued & nailed

February 2, 2021 13:16:56

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	Crawl\Floor Joists\FJ-3(i16512)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 16-06-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 4-1/2"	360 / 0	90 / 0			
B2, 4-1/2"	360 / 0	90 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	16-06-00	Top	44	11				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	1717 ft-lbs	56.8%	100%	1	08-03-00
End Reaction	450 lbs	31.6%	100%	1	00-00-00
End Shear	429 lbs	26.4%	100%	1	00-04-08
Total Load Deflection	L/746 (0.255")	32.2%	n\a	1	08-03-00
Live Load Deflection	L/932 (0.204")	51.5%	n\a	2	08-03-00
Max Defl.	0.255"	17.0%	n\a	1	08-03-00
Span / Depth	16.0				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate	4-1/2" x 1-3/4"	450 lbs	13.4%	31.6%	Unspecified
B2	Wall/Plate	4-1/2" x 1-3/4"	450 lbs	13.4%	31.6%	Unspecified

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 11-7/8" BCI® 4500s-1.8

PASSED

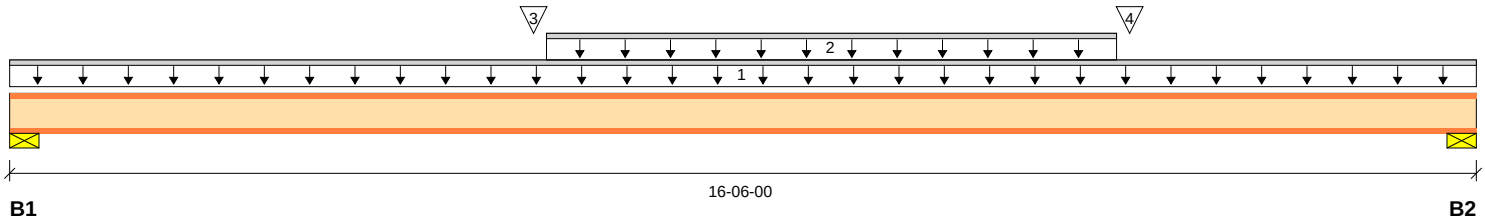
Crawl\Floor Joists\FJ-3(i16513) (Floor Joist)

BC CALC® Member Report
Build 7493

Dry | 1 span | No cant. | 19.2 OCS | Repetitive | Glued & nailed

February 2, 2021 13:16:56

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	Crawl\Floor Joists\FJ-3(i16513)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 16-06-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 4-1/2"	432 / 0	161 / 0			
B2, 4-1/2"	432 / 0	177 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	16-06-00	Top	52	13				n\a
2	FC1 Floor Material	Unf. Lin. (lb/ft)	L	06-00-08	12-05-07	Top		9				n\a
3	4(i78)	Conc. Pt. (lbs)	L	05-10-12	05-10-12	Top		31				n\a
4	5(i79)	Conc. Pt. (lbs)	L	12-07-03	12-07-03	Top		31				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2390 ft-lbs	79.0%	100%	1	08-02-15
End Reaction	609 lbs	42.7%	100%	1	16-06-00
End Shear	584 lbs	36.0%	100%	1	16-01-08
Total Load Deflection	L/537 (0.355")	44.7%	n\a	1	08-02-15
Live Load Deflection	L/776 (0.246")	61.9%	n\a	2	08-02-15
Max Defl.	0.355"	23.6%	n\a	1	08-02-15
Span / Depth	16.0				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate	4-1/2" x 1-3/4"	594 lbs	17.7%	41.7%	Unspecified
B2	Wall/Plate	4-1/2" x 1-3/4"	609 lbs	18.2%	42.7%	Unspecified

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

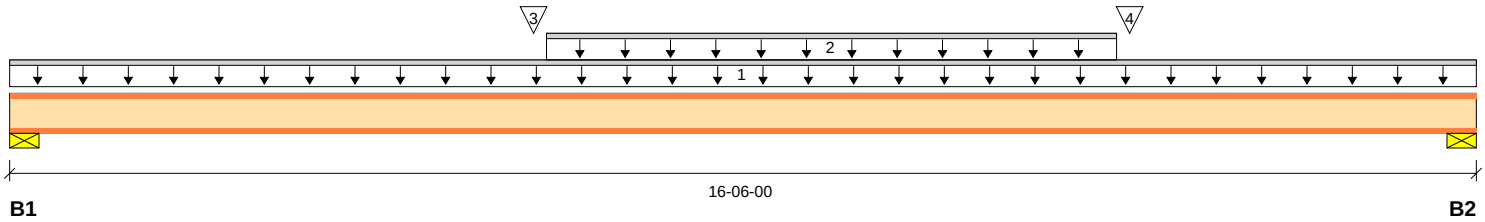
Single 11-7/8" BCI® 4500s-1.8

PASSED

Crawl\Floor Joists\FJ-3(i16514) (Floor Joist)

BC CALC® Member Report
Build 7493
Dry | 1 span | No cant. | 19.2 OCS | Repetitive | Glued & nailed
February 2, 2021 13:16:56

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	Crawl\Floor Joists\FJ-3(i16514)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 16-06-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 4-1/2"	360 / 0	154 / 0			
B2, 4-1/2"	360 / 0	172 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	16-06-00	Top	44	11				n\a
2	FC1 Floor Material	Unf. Lin. (lb/ft)	L	06-00-08	12-05-07	Top		15				n\a
3	4(i78)	Conc. Pt. (lbs)	L	05-10-12	05-10-12	Top		26				n\a
4	5(i79)	Conc. Pt. (lbs)	L	12-07-03	12-07-03	Top		26				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2127 ft-lbs	70.3%	100%	1	08-02-15
End Reaction	532 lbs	37.3%	100%	1	16-06-00
End Shear	511 lbs	31.5%	100%	1	16-01-08
Total Load Deflection	L/606 (0.314")	39.6%	n\a	1	08-02-15
Live Load Deflection	L/932 (0.204")	51.5%	n\a	2	08-02-15
Max Defl.	0.314"	21.0%	n\a	1	08-02-15
Span / Depth	16.0				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate	4-1/2" x 1-3/4"	513 lbs	15.3%	36.0%	Unspecified
B2	Wall/Plate	4-1/2" x 1-3/4"	532 lbs	15.9%	37.3%	Unspecified

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 11-7/8" BCI® 4500s-1.8

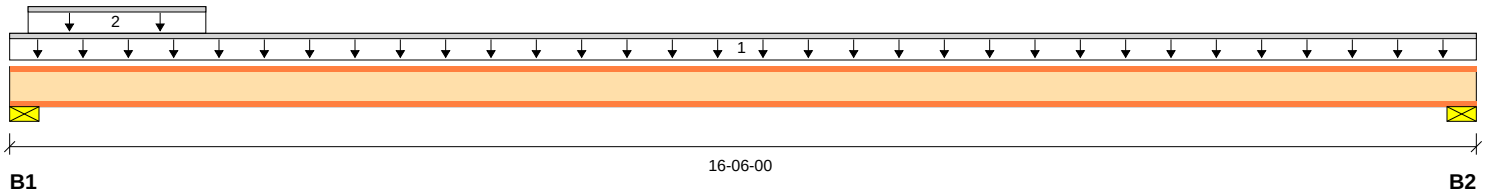
PASSED

Crawl\Floor Joists\FJ-3(i16515) (Floor Joist)

BC CALC® Member Report | Dry | 1 span | No cant. | 19.2 OCS | Repetitive | Glued & nailed | February 2, 2021 13:16:56

Build 7493

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	Crawl\Floor Joists\FJ-3(i16515)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 16-06-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 4-1/2"	432 / 0	148 / 0			
B2, 4-1/2"	432 / 0	110 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	16-06-00	Top	52	13				n\a
2	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-02-08	02-02-08	Top		21				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2083 ft-lbs	68.8%	100%	1	08-03-03
End Reaction	581 lbs	40.8%	100%	1	00-00-00
End Shear	553 lbs	34.0%	100%	1	00-04-08
Total Load Deflection	L/614 (0.31")	39.1%	n\a	1	08-03-03
Live Load Deflection	L/776 (0.246")	61.9%	n\a	2	08-03-03
Max Defl.	0.31"	20.7%	n\a	1	08-03-03
Span / Depth	16.0				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate	4-1/2" x 1-3/4"	581 lbs	17.4%	40.8%	Unspecified
B2	Wall/Plate	4-1/2" x 1-3/4"	543 lbs	16.2%	38.1%	Unspecified

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 11-7/8" BCI® 4500s-1.8

PASSED

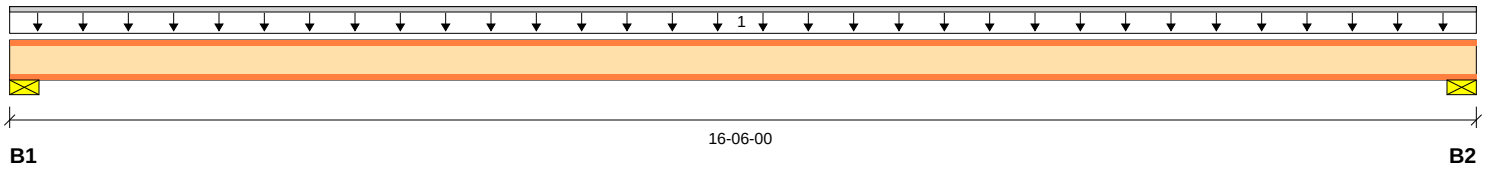
Crawl\Floor Joists\FJ-3(i16516) (Floor Joist)

BC CALC® Member Report
Build 7493

Dry | 1 span | No cant. | 19.2 OCS | Repetitive | Glued & nailed

February 2, 2021 13:16:56

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	Crawl\Floor Joists\FJ-3(i16516)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 16-06-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 4-1/2"	528 / 0	132 / 0			
B2, 4-1/2"	528 / 0	132 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	16-06-00	Top	64	16				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2520 ft-lbs	83.3%	100%	1	08-03-00
End Reaction	660 lbs	46.3%	100%	1	00-00-00
End Shear	630 lbs	38.8%	100%	1	00-04-08
Total Load Deflection	L/508 (0.375")	47.2%	n\a	1	08-03-00
Live Load Deflection	L/635 (0.3")	75.6%	n\a	2	08-03-00
Max Defl.	0.375"	25.0%	n\a	1	08-03-00
Span / Depth	16.0				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate	4-1/2" x 1-3/4"	660 lbs	19.7%	46.3%	Unspecified
B2	Wall/Plate	4-1/2" x 1-3/4"	660 lbs	19.7%	46.3%	Unspecified

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 11-7/8" BCI® 4500s-1.8

PASSED

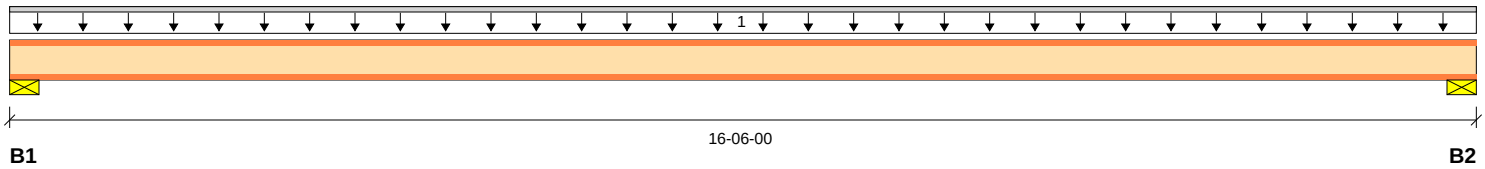
Crawl\Floor Joists\FJ-3(i16517) (Floor Joist)

BC CALC® Member Report
Build 7493

Dry | 1 span | No cant. | 19.2 OCS | Repetitive | Glued & nailed

February 2, 2021 13:16:56

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	Crawl\Floor Joists\FJ-3(i16517)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 16-06-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 4-1/2"	528 / 0	132 / 0			
B2, 4-1/2"	528 / 0	132 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	16-06-00	Top	64	16				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2520 ft-lbs	83.3%	100%	1	08-03-00
End Reaction	660 lbs	46.3%	100%	1	00-00-00
End Shear	630 lbs	38.8%	100%	1	00-04-08
Total Load Deflection	L/508 (0.375")	47.2%	n\a	1	08-03-00
Live Load Deflection	L/635 (0.3")	75.6%	n\a	2	08-03-00
Max Defl.	0.375"	25.0%	n\a	1	08-03-00
Span / Depth	16.0				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate	4-1/2" x 1-3/4"	660 lbs	19.7%	46.3%	Unspecified
B2	Wall/Plate	4-1/2" x 1-3/4"	660 lbs	19.7%	46.3%	Unspecified

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 11-7/8" BCI® 4500s-1.8

PASSED

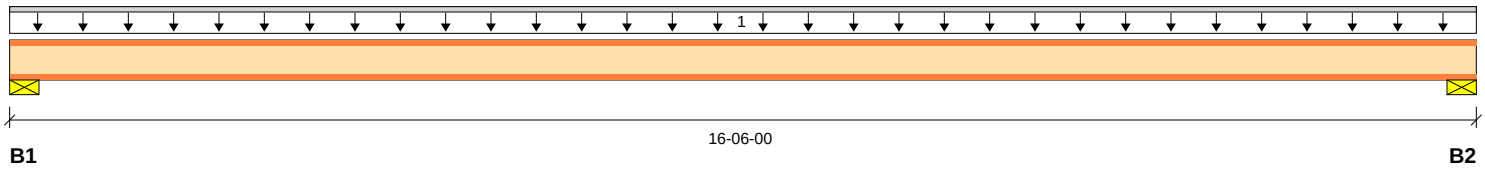
Crawl\Floor Joists\FJ-3(i16517) - 01 (Floor Joist)

BC CALC® Member Report
Build 7493

Dry | 1 span | No cant. | 19.2 OCS | Repetitive | Glued & nailed

February 2, 2021 13:16:56

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	Crawl\Floor Joists\FJ-3(i16517)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 16-06-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 4-1/2"	528 / 0	132 / 0			
B2, 4-1/2"	528 / 0	132 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	16-06-00	Top	64	16				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2520 ft-lbs	83.3%	100%	1	08-03-00
End Reaction	660 lbs	46.3%	100%	1	00-00-00
End Shear	630 lbs	38.8%	100%	1	00-04-08
Total Load Deflection	L/508 (0.375")	47.2%	n\a	1	08-03-00
Live Load Deflection	L/635 (0.3")	75.6%	n\a	2	08-03-00
Max Defl.	0.375"	25.0%	n\a	1	08-03-00
Span / Depth	16.0				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate	4-1/2" x 1-3/4"	660 lbs	19.7%	46.3%	Unspecified
B2	Wall/Plate	4-1/2" x 1-3/4"	660 lbs	19.7%	46.3%	Unspecified

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 11-7/8" BCI® 4500s-1.8

PASSED

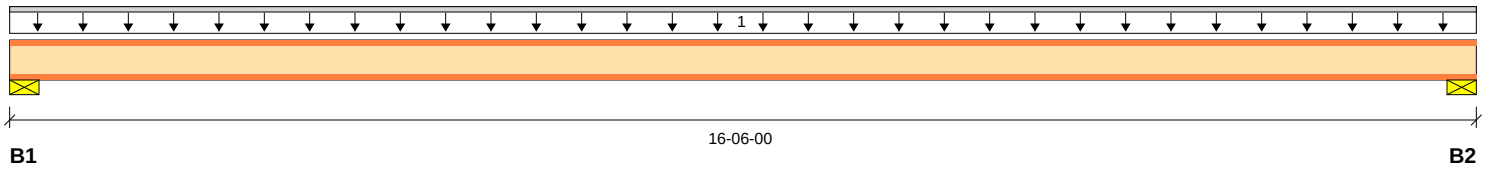
Crawl\Floor Joists\FJ-3(i16517) - 02 (Floor Joist)

BC CALC® Member Report
Build 7493

Dry | 1 span | No cant. | 19.2 OCS | Repetitive | Glued & nailed

February 2, 2021 13:16:56

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	Crawl\Floor Joists\FJ-3(i16517)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 16-06-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 4-1/2"	528 / 0	132 / 0			
B2, 4-1/2"	528 / 0	132 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	16-06-00	Top	64	16				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2520 ft-lbs	83.3%	100%	1	08-03-00
End Reaction	660 lbs	46.3%	100%	1	00-00-00
End Shear	630 lbs	38.8%	100%	1	00-04-08
Total Load Deflection	L/508 (0.375")	47.2%	n\a	1	08-03-00
Live Load Deflection	L/635 (0.3")	75.6%	n\a	2	08-03-00
Max Defl.	0.375"	25.0%	n\a	1	08-03-00
Span / Depth	16.0				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate	4-1/2" x 1-3/4"	660 lbs	19.7%	46.3%	Unspecified
B2	Wall/Plate	4-1/2" x 1-3/4"	660 lbs	19.7%	46.3%	Unspecified

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 11-7/8" BCI® 4500s-1.8

PASSED

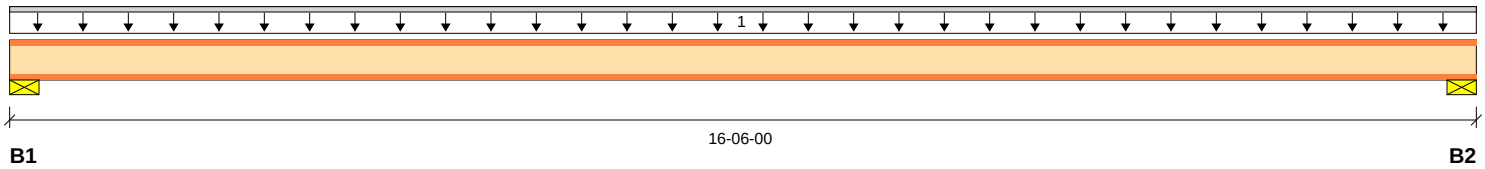
Crawl\Floor Joists\FJ-3(i16517) - 03 (Floor Joist)

BC CALC® Member Report
Build 7493

Dry | 1 span | No cant. | 19.2 OCS | Repetitive | Glued & nailed

February 2, 2021 13:16:56

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	Crawl\Floor Joists\FJ-3(i16517)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 16-06-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 4-1/2"	528 / 0	132 / 0			
B2, 4-1/2"	528 / 0	132 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	16-06-00	Top	64	16				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2520 ft-lbs	83.3%	100%	1	08-03-00
End Reaction	660 lbs	46.3%	100%	1	00-00-00
End Shear	630 lbs	38.8%	100%	1	00-04-08
Total Load Deflection	L/508 (0.375")	47.2%	n\a	1	08-03-00
Live Load Deflection	L/635 (0.3")	75.6%	n\a	2	08-03-00
Max Defl.	0.375"	25.0%	n\a	1	08-03-00
Span / Depth	16.0				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate	4-1/2" x 1-3/4"	660 lbs	19.7%	46.3%	Unspecified
B2	Wall/Plate	4-1/2" x 1-3/4"	660 lbs	19.7%	46.3%	Unspecified

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 11-7/8" BCI® 4500s-1.8

PASSED

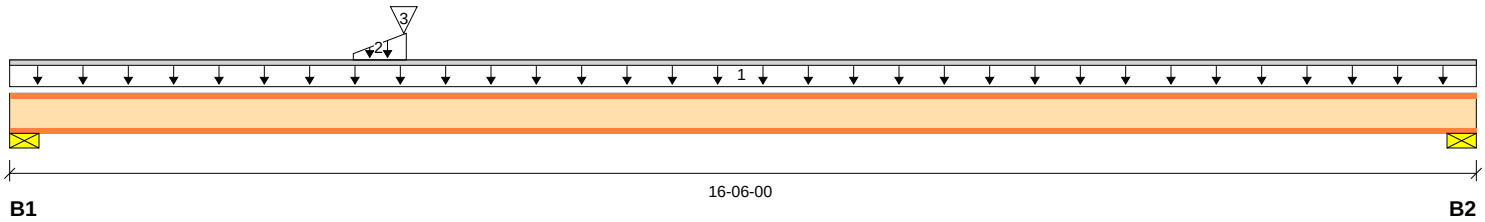
Crawl\Floor Joists\FJ-3(i16539) (Floor Joist)

BC CALC® Member Report
Build 7493

Dry | 1 span | No cant. | 19.2 OCS | Repetitive | Glued & nailed

February 2, 2021 13:16:56

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	Crawl\Floor Joists\FJ-3(i16539)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 16-06-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 4-1/2"	264 / 0	119 / 0			
B2, 4-1/2"	264 / 0	84 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	16-06-00	Top	32	8				n\a
2	FC1 Floor Material	Trapezoidal (lb/ft)	L	03-10-06		Top		19				n\a
					04-05-09			80				
3	1(i75)	Conc. Pt. (lbs)	L	04-05-03	04-05-03	Top		40				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	1408 ft-lbs	46.5%	100%	1	07-09-09
End Reaction	383 lbs	26.9%	100%	1	00-00-00
End Shear	368 lbs	22.6%	100%	1	00-04-08
Total Load Deflection	L/904 (0.211")	26.5%	n\a	1	08-01-09
Live Load Deflection	L/1271 (0.15")	37.8%	n\a	2	08-03-09
Max Defl.	0.211"	14.0%	n\a	1	08-01-09
Span / Depth	16.0				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate	4-1/2" x 1-3/4"	383 lbs	11.4%	26.9%	Unspecified
B2	Wall/Plate	4-1/2" x 1-3/4"	348 lbs	10.4%	24.4%	Unspecified

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 11-7/8" BCI® 4500s-1.8

PASSED

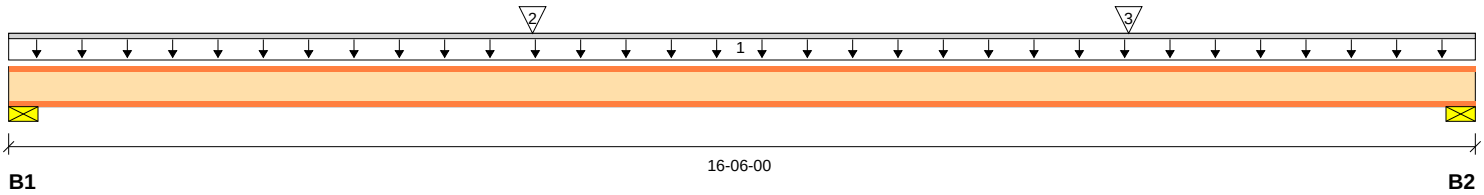
Crawl\Floor Joists\FJ-3(i16540) (Floor Joist)

BC CALC® Member Report
Build 7493

Dry | 1 span | No cant. | 19.2 OCS | Repetitive | Glued & nailed

February 2, 2021 13:16:56

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	Crawl\Floor Joists\FJ-3(i16540)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 16-06-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 4-1/2"	264 / 0	78 / 0			
B2, 4-1/2"	264 / 0	82 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	16-06-00	Top	32	8				n\a
2	4(i78)	Conc. Pt. (lbs)	L	05-10-12	05-10-12	Top		14				n\a
3	5(i79)	Conc. Pt. (lbs)	L	12-07-03	12-07-03	Top		14				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	1324 ft-lbs	43.8%	100%	1	08-02-06
End Reaction	346 lbs	24.3%	100%	1	16-06-00
End Shear	331 lbs	20.4%	100%	1	16-01-08
Total Load Deflection	L/965 (0.197")	24.9%	n\a	1	08-02-06
Live Load Deflection	L/1271 (0.15")	37.8%	n\a	2	08-02-06
Max Defl.	0.197"	13.2%	n\a	1	08-02-06
Span / Depth	16.0				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate	4-1/2" x 1-3/4"	342 lbs	10.2%	24.0%	Unspecified
B2	Wall/Plate	4-1/2" x 1-3/4"	346 lbs	10.3%	24.3%	Unspecified

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 11-7/8" BCI® 4500s-1.8

PASSED

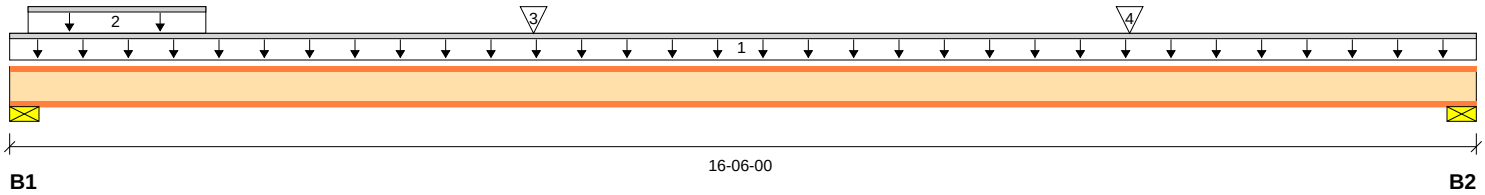
Crawl\Floor Joists\FJ-3(i16541) (Floor Joist)

BC CALC® Member Report
Build 7493

Dry | 1 span | No cant. | 19.2 OCS | Repetitive | Glued & nailed

February 2, 2021 13:16:56

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	Crawl\Floor Joists\FJ-3(i16541)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 16-06-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 4-1/2"	264 / 0	173 / 0			
B2, 4-1/2"	264 / 0	84 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	16-06-00	Top	32	8				n\a
2	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-02-08	02-02-08	Top		52				n\a
3	4(i78)	Conc. Pt. (lbs)	L	05-10-12	05-10-12	Top		11				n\a
4	5(i79)	Conc. Pt. (lbs)	L	12-07-03	12-07-03	Top		11				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	1357 ft-lbs	44.9%	100%	1	07-11-14
End Reaction	437 lbs	30.7%	100%	1	00-00-00
End Shear	413 lbs	25.4%	100%	1	00-04-08
Total Load Deflection	L/937 (0.203")	25.6%	n\a	1	08-02-06
Live Load Deflection	L/1271 (0.15")	37.8%	n\a	2	08-02-06
Max Defl.	0.203"	13.6%	n\a	1	08-02-06
Span / Depth	16.0				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate	4-1/2" x 1-3/4"	437 lbs	13.1%	30.7%	Unspecified
B2	Wall/Plate	4-1/2" x 1-3/4"	348 lbs	10.4%	24.4%	Unspecified

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 11-7/8" BCI® 4500s-1.8

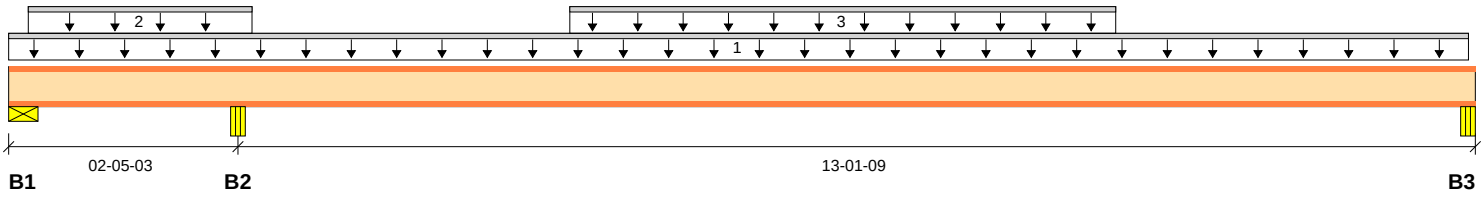
PASSED

Crawl\Floor Joists\FJ-4(i16542) (Floor Joist)

BC CALC® Member Report | Dry | 2 spans | No cant. | 19.2 OCS | Repetitive | Glued & nailed | February 2, 2021 13:16:56

Build 7493

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	Crawl\Floor Joists\FJ-4(i16542)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 15-06-12

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 4-1/2"	43 / 202	0 / 269			
B2, 4-1/2"	478 / 0	732 / 0			
B3, 4-1/2"	181 / 0	209 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	15-05-14	Top	32	8				n\a
2	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-02-08	02-07-00	Top		52				n\a
3	10(i84)	Unf. Lin. (lb/ft)	L	05-11-07	11-09-00	Top		73				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	1338 ft-lbs	44.2%	100%	3	09-06-14
Neg. Moment	-1154 ft-lbs	38.2%	100%	1	02-05-03
End Reaction	390 lbs	27.4%	100%	3	15-06-12
Int. Reaction	1210 lbs	50.3%	100%	1	02-05-03
End Shear	483 lbs	29.7%	100%	3	00-04-08
Cont. Shear	625 lbs	38.5%	100%	1	02-02-15
Total Load Deflection	L/1212 (0.127")	19.8%	n\a	3	09-02-09
Live Load Deflection	L/999 (0.046")	n\a	n\a	6	09-02-09
Total Neg. Defl.	L/999 (-0.001")	n\a	n\a	3	01-07-06
Max Defl.	0.127"	8.5%	n\a	3	09-02-09
Span / Depth	13.0				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate	4-1/2" x 1-3/4"	0 lbs	n\a	n\a	Unspecified
B1	Uplift		472 lbs			
B2	Beam	4-1/2" x 1-3/4"	1210 lbs	37.9%	50.3%	Unspecified
B3	Beam	4-1/2" x 1-3/4"	390 lbs	12.2%	27.4%	Unspecified

Cautions

Uplift of -472 lbs found at bearing B1.

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	Crawl\Floor Joists\FJ-4(i16542)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 11-7/8" BCI® 4500s-1.8

PASSED

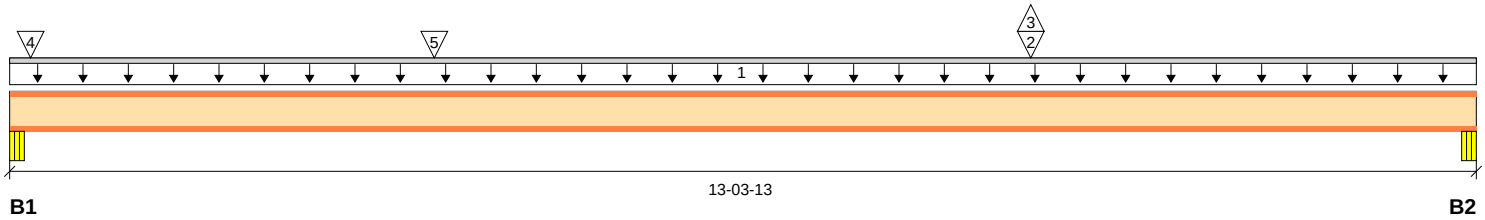
Crawl\Floor Joists\FJ-5(i16656) (Floor Joist)

BC CALC® Member Report
Build 7493

Dry | 1 span | No cant. | 19.2 OCS | Repetitive | Glued & nailed

February 2, 2021 13:16:56

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	Crawl\Floor Joists\FJ-5(i16656)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 13-03-13

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 4-1/2"	654 / 7	308 / 0			
B2, 4-1/2"	380 / 18	157 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	13-03-13	Top	32	8				n\a
2	-	Conc. Pt. (lbs)	L	09-03-04	09-03-04	Top	239	125				n\a
3	-	Conc. Pt. (lbs)	L	09-03-04	09-03-04	Top	-25					n\a
4	18(i94)	Conc. Pt. (lbs)	L	00-02-05	00-02-05	Top	373	177				n\a
5	16(i91)	Conc. Pt. (lbs)	L	03-10-04	03-10-04	Top		58				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	1684 ft-lbs	55.7%	100%	1	08-11-03
End Reaction	963 lbs	67.6%	100%	1	00-00-00
End Shear	522 lbs	32.1%	100%	1	12-11-05
Total Load Deflection	L/930 (0.164")	25.8%	n\a	1	07-00-14
Live Load Deflection	L/999 (0.112")	n\a	n\a	3	07-00-14
Max Defl.	0.164"	10.9%	n\a	1	07-00-14
Span / Depth	12.8				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Beam	4-1/2" x 1-3/4"	963 lbs	30.2%	67.6%	Unspecified
B2	Beam	4-1/2" x 1-3/4"	537 lbs	16.8%	37.7%	Unspecified

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 11-7/8" BCI® 4500s-1.8

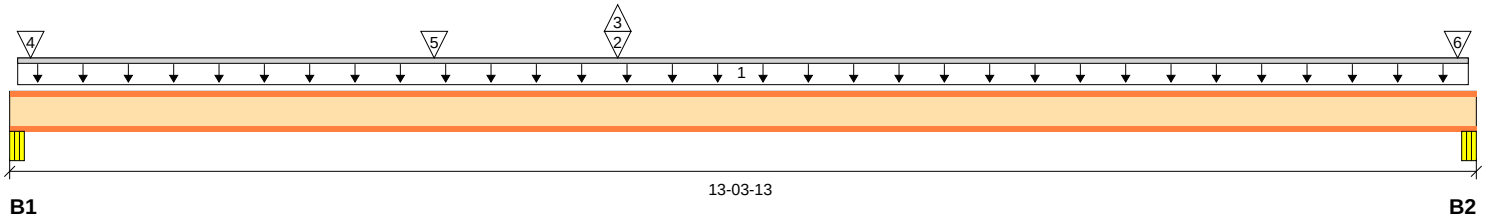
PASSED

Crawl\Floor Joists\FJ-5(i16670) (Floor Joist)

BC CALC® Member Report | Dry | 1 span | No cant. | 19.2 OCS | Repetitive | Glued & nailed | February 2, 2021 13:16:56

Build 7493

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	Crawl\Floor Joists\FJ-5(i16670)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 13-03-13

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 4-1/2"	470 / 236	307 / 0			
B2, 4-1/2"	378 / 164	222 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	-	Unf. Lin. (lb/ft)	L	00-00-14	13-02-15	Top	32	8				n\a
2	BK1(i16639)	Conc. Pt. (lbs)	L	05-06-04	05-06-04	Top	282	316				n\a
3	BK1(i16639)	Conc. Pt. (lbs)	L	05-06-04	05-06-04	Top	-400					n\a
4	18(i94)	Conc. Pt. (lbs)	L	00-02-05	00-02-05	Top	93	37				n\a
5	12(i85)	Conc. Pt. (lbs)	L	03-10-04	03-10-04	Top		43				n\a
6	9(i102)	Conc. Pt. (lbs)	L	13-01-13	13-01-13	Top	51	28				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2706 ft-lbs	89.5%	100%	1	05-06-04
Neg. Moment	-12 ft-lbs	0.4%	100%	2	05-06-04
End Reaction	777 lbs	54.5%	100%	1	00-00-00
End Shear	635 lbs	39.1%	100%	1	00-04-08
Total Load Deflection	L/639 (0.238")	37.5%	n\a	1	06-01-05
Live Load Deflection	L/1129 (0.135")	42.5%	n\a	3	06-02-11
Max Defl.	0.238"	15.9%	n\a	1	06-01-05
Span / Depth	12.8				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Beam	4-1/2" x 1-3/4"	777 lbs	24.4%	54.5%	Unspecified
B2	Beam	4-1/2" x 1-3/4"	600 lbs	18.8%	42.1%	Unspecified

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 14" BCI® 4500s-1.8

PASSED

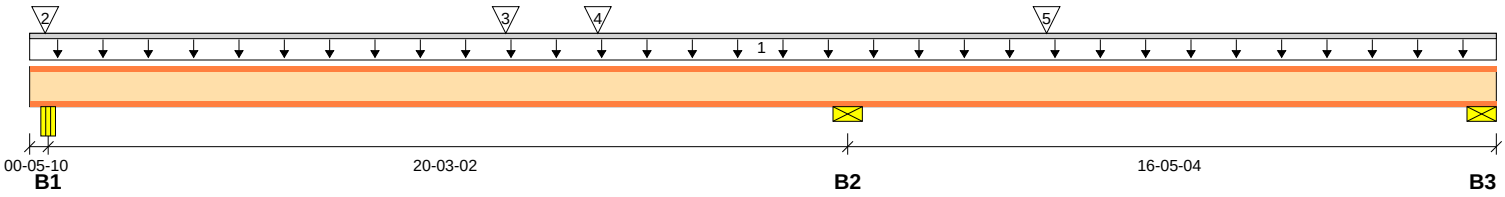
1st Floor\Floor Joists\FJ-1(i16495) (Floor Joist)

BC CALC® Member Report
Build 7493

Dry | 3 spans | L cant. | 16 OCS | Repetitive | Glued & nailed

February 2, 2021 13:16:56

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-1(i16495)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 37-02-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 5-1/4"	466 / 12	371 / 0			94 / 0
B2, 3-1/2"	1156 / 0	515 / 0			0 / 0
B3, 2-1/2"	374 / 86	70 / 0			0 / 0

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	37-02-00	Top	50	13				n\a
2	E18(i195)	Conc. Pt. (lbs)	L	00-04-11	00-04-11	Top		221			94	n\a
3	24(i199)	Conc. Pt. (lbs)	L	12-00-13	12-00-13	Top		89				n\a
4	29(i203)	Conc. Pt. (lbs)	L	14-04-12	14-04-12	Top		89				n\a
5	27(i202)	Conc. Pt. (lbs)	L	25-09-04	25-09-04	Top		89				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2722 ft-lbs	75.9%	100%	3	09-09-15
Neg. Moment	-3125 ft-lbs	87.2%	100%	5	20-08-12
End Reaction	444 lbs	37.0%	100%	2	37-02-00
Int. Reaction	1671 lbs	71.1%	100%	5	20-08-12
End Shear	431 lbs	23.6%	100%	2	36-11-08
Cont. Shear	896 lbs	49.1%	100%	5	20-07-00
Total Load Deflection	L/578 (0.42")	41.5%	n\a	3	10-01-13
Live Load Deflection	L/810 (0.3")	59.2%	n\a	14	09-11-14
Total Neg. Defl.	L/999 (-0.076")	n\a	n\a	3	26-10-07
Max Defl.	0.42"	28.0%	n\a	3	10-01-13
Cant. Max Defl.	-0.03"	n\a	n\a	3	00-00-00
Span / Depth	17.4				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Beam	5-1/4" x 1-3/4"	837 lbs	12.1%	33.1%	Unspecified
B2	Wall/Plate	3-1/2" x 1-3/4"	1671 lbs	64.2%	71.1%	Unspecified
B3	Wall/Plate	2-1/2" x 1-3/4"	444 lbs	23.9%	37.0%	Unspecified

Cautions

Design assumes Top and Bottom flanges to be restrained.

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-1(i16495)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1.5") Cantilever Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.
Cantilevers require sheathed bottom flanges, blocking at cantilever support and closure at ends.

Disclosure

Boise Cascade

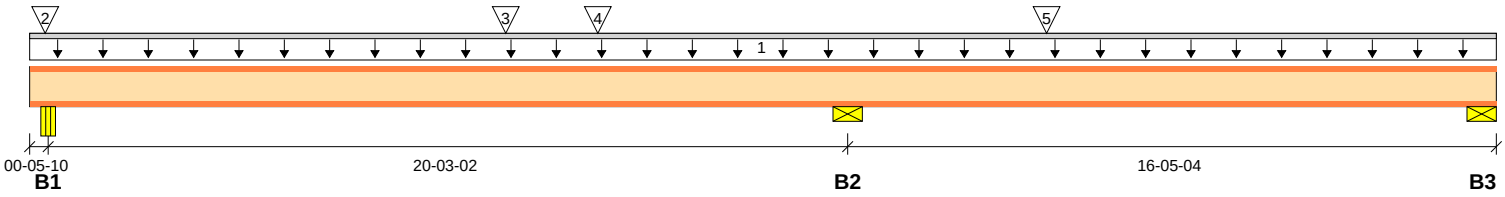
Single 14" BCI® 4500s-1.8

PASSED

1st Floor\Floor Joists\FJ-1(i16496) (Floor Joist)

BC CALC® Member Report
Build 7493
Dry | 3 spans | L cant. | 16 OCS | Repetitive | Glued & nailed
February 2, 2021 13:16:56

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-1(i16496)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 37-02-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 5-1/4"	479 / 12	323 / 0			76 / 0
B2, 3-1/2"	1189 / 0	480 / 0			0 / 0
B3, 2-1/2"	384 / 88	73 / 0			0 / 0

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	37-02-00	Top	52	13				n\a
2	E18(i195)	Conc. Pt. (lbs)	L	00-04-12	00-04-12	Top		178			76	n\a
3	24(i199)	Conc. Pt. (lbs)	L	12-00-13	12-00-13	Top		72				n\a
4	29(i203)	Conc. Pt. (lbs)	L	14-04-12	14-04-12	Top		72				n\a
5	27(i202)	Conc. Pt. (lbs)	L	25-09-04	25-09-04	Top		72				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2715 ft-lbs	75.7%	100%	3	09-08-01
Neg. Moment	-3110 ft-lbs	86.8%	100%	5	20-08-12
End Reaction	457 lbs	38.1%	100%	2	37-02-00
Int. Reaction	1670 lbs	71.1%	100%	5	20-08-12
End Shear	444 lbs	24.3%	100%	2	36-11-08
Cont. Shear	892 lbs	48.9%	100%	5	20-07-00
Total Load Deflection	L/580 (0.419")	41.4%	n\a	3	10-01-13
Live Load Deflection	L/788 (0.309")	60.9%	n\a	14	10-01-13
Total Neg. Defl.	L/999 (-0.078")	n\a	n\a	3	26-10-07
Max Defl.	0.419"	27.9%	n\a	3	10-01-13
Cant. Max Defl.	-0.03"	n\a	n\a	3	00-00-00
Span / Depth	17.4				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Beam	5-1/4" x 1-3/4"	802 lbs	11.6%	31.8%	Unspecified
B2	Wall/Plate	3-1/2" x 1-3/4"	1670 lbs	64.1%	71.1%	Unspecified
B3	Wall/Plate	2-1/2" x 1-3/4"	457 lbs	24.6%	38.1%	Unspecified

Cautions

Design assumes Top and Bottom flanges to be restrained.

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-1(i16496)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1.5") Cantilever Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.
Cantilevers require sheathed bottom flanges, blocking at cantilever support and closure at ends.

Disclosure

Boise Cascade

Single 14" BCI® 4500s-1.8

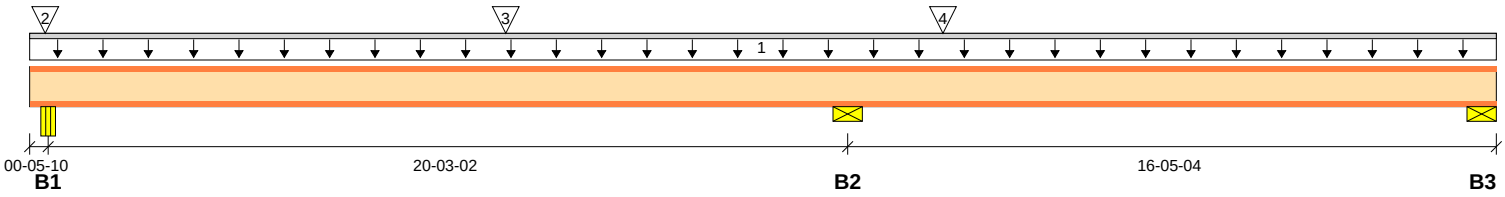
PASSED

1st Floor\Floor Joists\FJ-1(i16499) (Floor Joist)

BC CALC® Member Report | Dry | 3 spans | L cant. | 16 OCS | Repetitive | Glued & nailed | February 2, 2021 13:16:56

Build 7493

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-1(i16499)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 37-02-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 5-1/4"	429 / 11	276 / 0			68 / 0
B2, 3-1/2"	1065 / 0	378 / 0			0 / 0
B3, 2-1/2"	344 / 79	64 / 0			0 / 0

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	37-02-00	Top	46	12				n\a
2	E18(i195)	Conc. Pt. (lbs)	L	00-04-12	00-04-12	Top		159			68	n\a
3	24(i199)	Conc. Pt. (lbs)	L	12-00-13	12-00-13	Top		64				n\a
4	30(i205)	Conc. Pt. (lbs)	L	23-01-12	23-01-12	Top		64				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2317 ft-lbs	64.6%	100%	3	09-06-02
Neg. Moment	-2628 ft-lbs	73.3%	100%	5	20-08-12
End Reaction	409 lbs	34.1%	100%	2	37-02-00
Int. Reaction	1443 lbs	61.4%	100%	5	20-08-12
End Shear	397 lbs	21.7%	100%	2	36-11-08
Cont. Shear	746 lbs	40.9%	100%	5	20-07-00
Total Load Deflection	L/685 (0.355")	35.0%	n\a	3	10-01-13
Live Load Deflection	L/880 (0.276")	54.6%	n\a	14	10-01-13
Total Neg. Defl.	L/999 (-0.069")	n\a	n\a	3	26-10-13
Max Defl.	0.355"	23.6%	n\a	3	10-01-13
Cant. Max Defl.	-0.026"	n\a	n\a	3	00-00-00
Span / Depth	17.4				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Beam	5-1/4" x 1-3/4"	706 lbs	10.2%	27.9%	Unspecified
B2	Wall/Plate	3-1/2" x 1-3/4"	1443 lbs	55.4%	61.4%	Unspecified
B3	Wall/Plate	2-1/2" x 1-3/4"	409 lbs	22.0%	34.1%	Unspecified

Cautions

Design assumes Top and Bottom flanges to be restrained.

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-1(i16499)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1.5") Cantilever Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.
Cantilevers require sheathed bottom flanges, blocking at cantilever support and closure at ends.

Disclosure

Boise Cascade

Single 14" BCI® 4500s-1.8

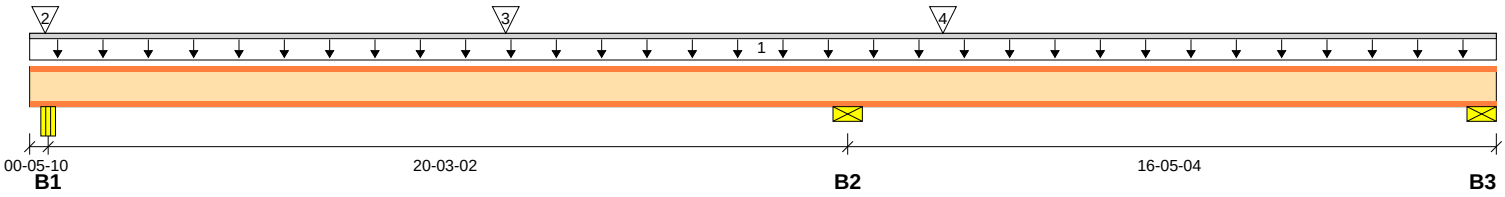
PASSED

1st Floor\Floor Joists\FJ-1(i16500) (Floor Joist)

BC CALC® Member Report | Dry | 3 spans | L cant. | 16 OCS | Repetitive | Glued & nailed | February 2, 2021 13:16:56

Build 7493

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-1(i16500)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 37-02-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 5-1/4"	493 / 12	323 / 0			80 / 0
B2, 3-1/2"	1223 / 0	438 / 0			0 / 0
B3, 2-1/2"	395 / 91	74 / 0			0 / 0

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	37-02-00	Top	53	13				n\a
2	E18(i195)	Conc. Pt. (lbs)	L	00-04-12	00-04-12	Top		188			80	n\a
3	24(i199)	Conc. Pt. (lbs)	L	12-00-13	12-00-13	Top		76				n\a
4	30(i205)	Conc. Pt. (lbs)	L	23-01-12	23-01-12	Top		76				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2667 ft-lbs	74.4%	100%	3	09-06-02
Neg. Moment	-3024 ft-lbs	84.3%	100%	5	20-08-12
End Reaction	469 lbs	39.1%	100%	2	37-02-00
Int. Reaction	1661 lbs	70.7%	100%	5	20-08-12
End Shear	455 lbs	24.9%	100%	2	36-11-08
Cont. Shear	858 lbs	47.0%	100%	5	20-07-00
Total Load Deflection	L/596 (0.408")	40.3%	n\a	3	10-01-13
Live Load Deflection	L/766 (0.317")	62.6%	n\a	14	10-01-13
Total Neg. Defl.	L/999 (-0.079")	n\a	n\a	3	26-10-13
Max Defl.	0.408"	27.2%	n\a	3	10-01-13
Cant. Max Defl.	-0.03"	n\a	n\a	3	00-00-00
Span / Depth	17.4				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Beam	5-1/4" x 1-3/4"	816 lbs	11.8%	32.3%	Unspecified
B2	Wall/Plate	3-1/2" x 1-3/4"	1661 lbs	63.8%	70.7%	Unspecified
B3	Wall/Plate	2-1/2" x 1-3/4"	469 lbs	25.2%	39.1%	Unspecified

Cautions

Design assumes Top and Bottom flanges to be restrained.

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-1(i16500)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1.5") Cantilever Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.
Cantilevers require sheathed bottom flanges, blocking at cantilever support and closure at ends.

Disclosure

Boise Cascade

Single 14" BCI® 4500s-1.8

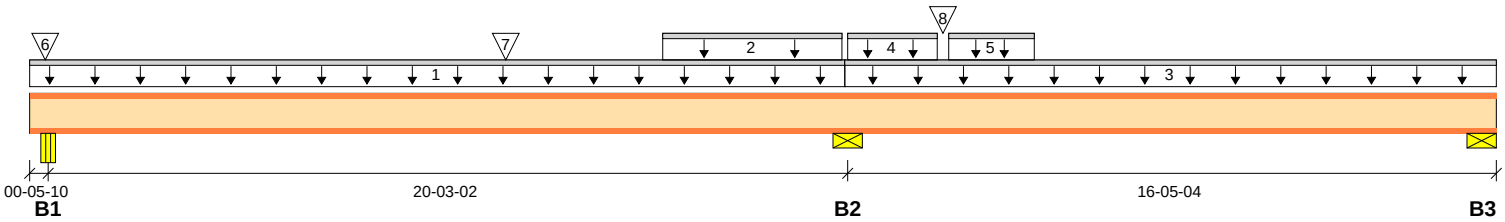
PASSED

1st Floor\Floor Joists\FJ-1(i16501) (Floor Joist)

BC CALC® Member Report | Dry | 3 spans | L cant. | 16 OCS | Repetitive | Glued & nailed | February 2, 2021 13:16:56

Build 7493

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-1(i16501)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 37-02-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 5-1/4"	422 / 16	276 / 0			69 / 0
B2, 3-1/2"	1123 / 0	622 / 0			0 / 0
B3, 2-1/2"	395 / 78	87 / 0			0 / 0

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	20-07-14	Top	46	11				n\a
2	FC2 Floor Material	Unf. Lin. (lb/ft)	L	16-00-08	20-07-00	Top		19				n\a
3	FC2 Floor Material	Unf. Lin. (lb/ft)	L	20-07-14	37-02-00	Top	53	13				n\a
4	FC2 Floor Material	Unf. Lin. (lb/ft)	L	20-08-12	23-00-00	Top		30				n\a
5	FC2 Floor Material	Unf. Lin. (lb/ft)	L	23-03-08	25-05-08	Top		30				n\a
6	E18(i195)	Conc. Pt. (lbs)	L	00-04-12	00-04-12	Top		161			69	n\a
7	24(i199)	Conc. Pt. (lbs)	L	12-00-13	12-00-13	Top		65				n\a
8	30(i205)	Conc. Pt. (lbs)	L	23-01-12	23-01-12	Top		82				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2277 ft-lbs	63.5%	100%	3	09-06-02
Neg. Moment	-2931 ft-lbs	81.7%	100%	5	20-08-12
End Reaction	482 lbs	40.2%	100%	2	37-02-00
Int. Reaction	1745 lbs	74.3%	100%	5	20-08-12
End Shear	468 lbs	25.7%	100%	2	36-11-08
Cont. Shear	893 lbs	48.9%	100%	5	20-10-08
Total Load Deflection	L/697 (0.349")	34.4%	n\a	3	10-01-13
Live Load Deflection	L/894 (0.272")	53.7%	n\a	14	10-01-13
Total Neg. Defl.	L/999 (-0.053")	n\a	n\a	3	26-07-01
Max Defl.	0.349"	23.2%	n\a	3	10-01-13
Cant. Max Defl.	-0.025"	n\a	n\a	3	00-00-00
Span / Depth	17.4				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Beam	5-1/4" x 1-3/4"	698 lbs	10.1%	27.7%	Unspecified
B2	Wall/Plate	3-1/2" x 1-3/4"	1745 lbs	67.0%	74.3%	Unspecified
B3	Wall/Plate	2-1/2" x 1-3/4"	482 lbs	25.9%	40.2%	Unspecified

Cautions

Design assumes Top and Bottom flanges to be restrained.

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-1(i16501)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1.5") Cantilever Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.
Cantilevers require sheathed bottom flanges, blocking at cantilever support and closure at ends.

Disclosure

Boise Cascade

Single 14" BCI® 4500s-1.8

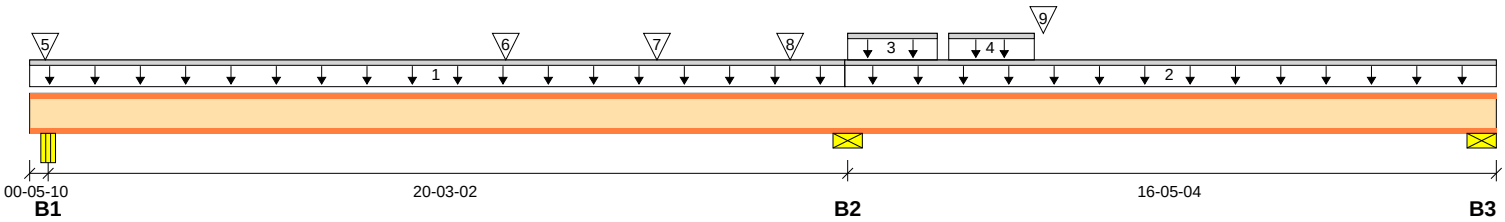
PASSED

1st Floor\Floor Joists\FJ-1(i16502) (Floor Joist)

BC CALC® Member Report | Dry | 3 spans | L cant. | 16 OCS | Repetitive | Glued & nailed | February 2, 2021 13:16:56

Build 7493

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-1(i16502)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 37-02-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 5-1/4"	286 / 24	176 / 0			44 / 0
B2, 3-1/2"	940 / 0	525 / 0			0 / 0
B3, 2-1/2"	403 / 53	109 / 0			0 / 0

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	20-07-14	Top	31	8				n\a
2	FC2 Floor Material	Unf. Lin. (lb/ft)	L	20-07-14	37-02-00	Top	54	14				n\a
3	FC2 Floor Material	Unf. Lin. (lb/ft)	L	20-08-12	23-00-00	Top		27				n\a
4	FC2 Floor Material	Unf. Lin. (lb/ft)	L	23-03-08	25-05-08	Top		27				n\a
5	E18(i195)	Conc. Pt. (lbs)	L	00-04-12	00-04-12	Top		104			44	n\a
6	24(i199)	Conc. Pt. (lbs)	L	12-00-13	12-00-13	Top		42				n\a
7	43(i219)	Conc. Pt. (lbs)	L	15-10-12	15-10-12	Top		30				n\a
8	45(i221)	Conc. Pt. (lbs)	L	19-03-04	19-03-04	Top		42				n\a
9	53(i234)	Conc. Pt. (lbs)	L	25-08-04	25-08-04	Top		88				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	1854 ft-lbs	51.7%	100%	2	29-07-10
Neg. Moment	-2417 ft-lbs	67.4%	100%	5	20-08-12
End Reaction	512 lbs	42.7%	100%	2	37-02-00
Int. Reaction	1465 lbs	62.3%	100%	5	20-08-12
End Shear	498 lbs	27.3%	100%	2	36-11-08
Cont. Shear	852 lbs	46.7%	100%	5	20-10-08
Total Load Deflection	L/978 (0.2")	24.5%	n\a	2	29-01-15
Live Load Deflection	L/1272 (0.154")	37.7%	n\a	13	29-01-15
Total Neg. Defl.	L/999 (-0.043")	n\a	n\a	2	15-02-02
Max Defl.	0.225"	15.0%	n\a	3	09-11-14
Cant. Max Defl.	-0.017"	n\a	n\a	3	00-00-00
Span / Depth	17.4				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Beam	5-1/4" x 1-3/4"	462 lbs	6.7%	18.3%	Unspecified
B2	Wall/Plate	3-1/2" x 1-3/4"	1465 lbs	56.3%	62.3%	Unspecified
B3	Wall/Plate	2-1/2" x 1-3/4"	512 lbs	27.5%	42.7%	Unspecified

Cautions

Design assumes Top and Bottom flanges to be restrained.

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-1(i16502)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1.5") Cantilever Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.
Cantilevers require sheathed bottom flanges, blocking at cantilever support and closure at ends.

Disclosure

Boise Cascade

Single 14" BCI® 4500s-1.8

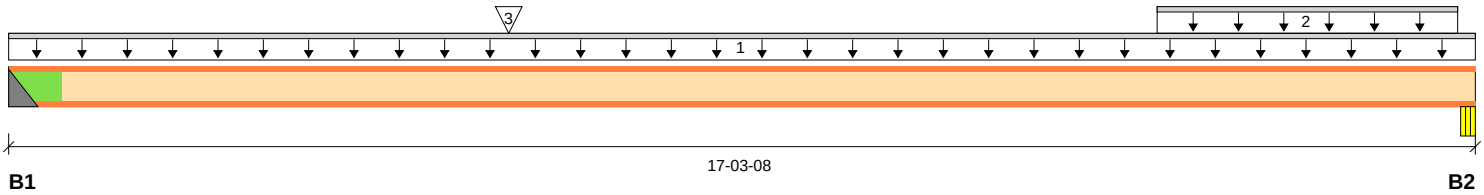
PASSED

1st Floor\Floor Joists\FJ-10(i16476) (Floor Joist)

BC CALC® Member Report | Dry | 1 span | No cant. | 16 OCS | Repetitive | Glued & nailed | February 2, 2021 13:16:56

Build 7493

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-10(i16476)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 17-03-08

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 2"	435 / 0	172 / 0			
B2, 2-1/2"	437 / 0	263 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	17-03-08	Top	50	13				n\a
2	FC2 Floor Material	Unf. Lin. (lb/ft)	L	13-06-08	17-01-00	Top		41				n\a
3	32(i233)	Conc. Pt. (lbs)	L	05-10-12	05-10-12	Top		72				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2630 ft-lbs	73.3%	100%	1	08-06-05
End Reaction	700 lbs	58.3%	100%	1	17-03-08
End Shear	687 lbs	37.6%	100%	1	17-01-00
Total Load Deflection	L/641 (0.319")	37.4%	n\a	1	08-06-05
Live Load Deflection	L/929 (0.22")	51.7%	n\a	2	08-06-05
Max Defl.	0.319"	21.3%	n\a	1	08-06-05
Span / Depth	14.6				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Hanger	2" x 1-3/4"	607 lbs	63.9%	42.1%	IUS1.81/9.5
B2	Beam	2-1/2" x 1-3/4"	700 lbs	21.3%	58.3%	Unspecified

Cautions

Web stiffeners required at bearing B1.
Header for the hanger IUS1.81/9.5 is a Double 1-3/4" x 14" LVL Beam.
Hanger IUS1.81/9.5 requires (8) 10d face nails, (2) 10dx1.5 joist nails.

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
Hanger Manufacturer: Simpson Strong-Tie, Inc.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 14" BCI® 4500s-1.8

PASSED

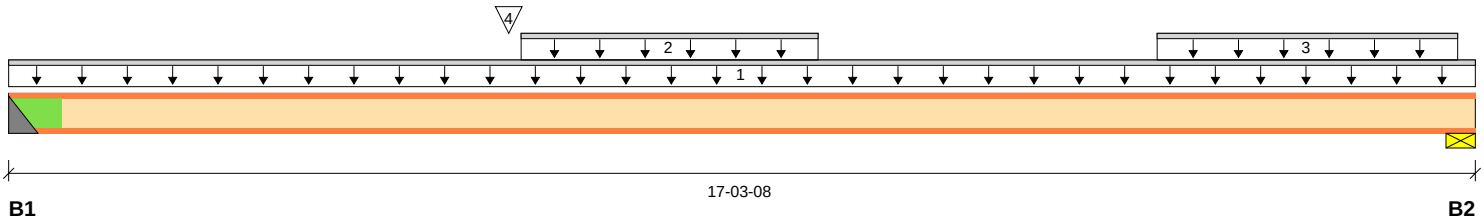
1st Floor\Floor Joists\FJ-10(i16477) (Floor Joist)

BC CALC® Member Report
Build 7493

Dry | 1 span | No cant. | 19.2 OCS | Repetitive | Glued & nailed

February 2, 2021 13:16:56

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-10(i16477)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 17-03-08

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 2"	435 / 0	178 / 0			
B2, 2-1/2"	437 / 0	197 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	17-03-08	Top	50	13				n\a
2	FC2 Floor Material	Unf. Lin. (lb/ft)	L	06-00-08	09-06-08	Top		8				n\a
3	FC2 Floor Material	Unf. Lin. (lb/ft)	L	13-06-08	17-01-00	Top		16				n\a
4	32(i233)	Conc. Pt. (lbs)	L	05-10-12	05-10-12	Top		72				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2658 ft-lbs	74.1%	100%	1	08-02-12
End Reaction	634 lbs	52.8%	100%	1	17-03-08
End Shear	621 lbs	34.0%	100%	1	17-01-00
Total Load Deflection	L/655 (0.312")	36.7%	n\a	1	08-08-00
Live Load Deflection	L/948 (0.216")	50.6%	n\a	2	08-08-00
Max Defl.	0.312"	20.8%	n\a	1	08-08-00
Span / Depth	14.6				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Hanger	2" x 1-3/4"	613 lbs	64.5%	42.6%	IUS1.81/9.5
B2	Wall/Plate	2-1/2" x 1-3/4"	634 lbs	34.1%	52.8%	Unspecified

Cautions

Web stiffeners required at bearing B1.
Header for the hanger IUS1.81/9.5 is a Double 1-3/4" x 14" LVL Beam.
Hanger IUS1.81/9.5 requires (8) 10d face nails, (2) 10dx1.5 joist nails.

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
Hanger Manufacturer: Simpson Strong-Tie, Inc.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

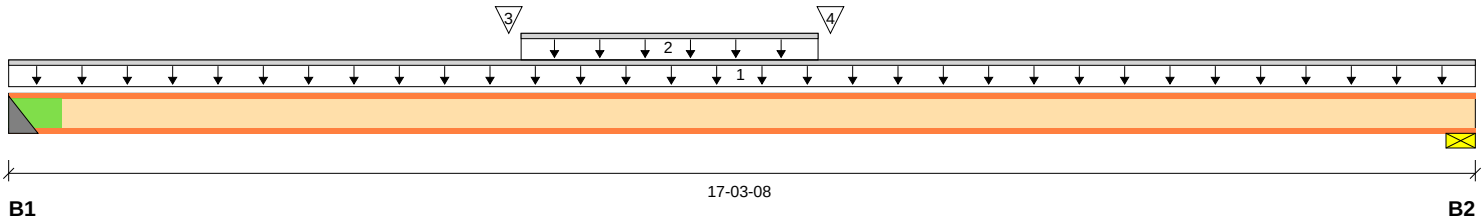
Single 14" BCI® 4500s-1.8

PASSED

1st Floor\Floor Joists\FJ-10(i16478) (Floor Joist)

BC CALC® Member Report
Build 7493
Dry | 1 span | No cant. | 16 OCS | Repetitive | Glued & nailed
February 2, 2021 13:16:56

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-10(i16478)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 17-03-08

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 2"	383 / 0	251 / 0			
B2, 2-1/2"	385 / 0	220 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	17-03-08	Top	44	11				n\a
2	FC2 Floor Material	Unf. Lin. (lb/ft)	L	06-00-08	09-06-08	Top		49				n\a
3	32(i233)	Conc. Pt. (lbs)	L	05-10-12	05-10-12	Top		63				n\a
4	39(i215)	Conc. Pt. (lbs)	L	09-08-04	09-08-04	Top		44				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	3006 ft-lbs	83.8%	100%	1	08-02-12
End Reaction	605 lbs	50.4%	100%	1	17-03-08
End Shear	625 lbs	34.2%	100%	1	00-02-00
Total Load Deflection	L/582 (0.351")	41.2%	n\a	1	08-05-06
Live Load Deflection	L/1054 (0.194")	45.5%	n\a	2	08-08-00
Max Defl.	0.351"	23.4%	n\a	1	08-05-06
Span / Depth	14.6				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Hanger	2" x 1-3/4"	634 lbs	66.7%	44.0%	IUS1.81/9.5
B2	Wall/Plate	2-1/2" x 1-3/4"	605 lbs	32.5%	50.4%	Unspecified

Cautions

Web stiffeners required at bearing B1.
Header for the hanger IUS1.81/9.5 is a Double 1-3/4" x 14" LVL Beam.
Hanger IUS1.81/9.5 requires (8) 10d face nails, (2) 10dx1.5 joist nails.

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
Hanger Manufacturer: Simpson Strong-Tie, Inc.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 14" BCI® 4500s-1.8

PASSED

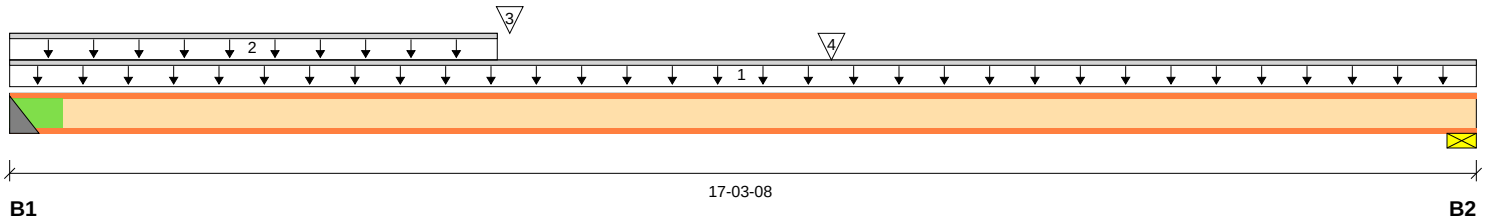
1st Floor\Floor Joists\FJ-10(i16479) (Floor Joist)

BC CALC® Member Report
Build 7493

Dry | 1 span | No cant. | 16 OCS | Repetitive | Glued & nailed

February 2, 2021 13:16:56

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-10(i16479)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 17-03-08

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 2"	351 / 0	425 / 0			
B2, 2-1/2"	352 / 0	194 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	17-03-08	Top	41	10				n\a
2	47(i223)	Unf. Lin. (lb/ft)	L	00-00-00	05-09-00	Top		57				n\a
3	32(i233)	Conc. Pt. (lbs)	L	05-10-12	05-10-12	Top		58				n\a
4	39(i215)	Conc. Pt. (lbs)	L	09-08-04	09-08-04	Top		58				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2705 ft-lbs	75.4%	100%	1	07-09-08
End Reaction	776 lbs	53.9%	100%	1	00-00-00
End Shear	758 lbs	41.5%	100%	1	00-02-00
Total Load Deflection	L/627 (0.326")	38.3%	n\a	1	08-03-03
Live Load Deflection	L/1152 (0.177")	41.7%	n\a	2	08-08-14
Max Defl.	0.326"	21.7%	n\a	1	08-03-03
Span / Depth	14.6				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Hanger	2" x 1-3/4"	776 lbs	81.7%	53.9%	IUS1.81/9.5
B2	Wall/Plate	2-1/2" x 1-3/4"	546 lbs	29.4%	45.5%	Unspecified

Cautions

Web stiffeners required at bearing B1.
Header for the hanger IUS1.81/9.5 is a Double 1-3/4" x 14" LVL Beam.
Hanger IUS1.81/9.5 requires (8) 10d face nails, (2) 10dx1.5 joist nails.

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
Hanger Manufacturer: Simpson Strong-Tie, Inc.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

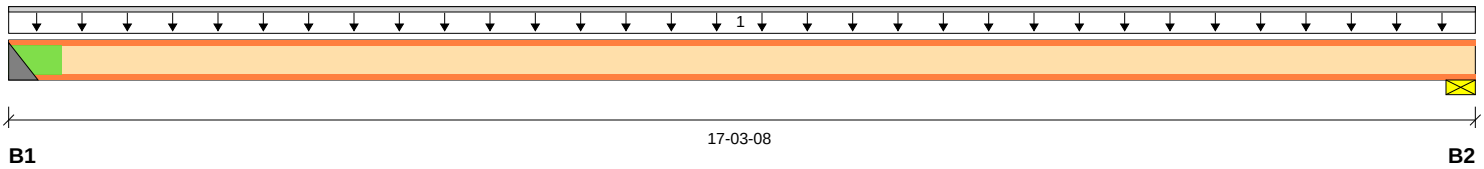
Single 14" BCI® 4500s-1.8

PASSED

1st Floor\Floor Joists\FJ-10(i16480) (Floor Joist)

BC CALC® Member Report
Build 7493
Dry | 1 span | No cant. | 19.2 OCS | Repetitive | Glued & nailed
February 2, 2021 13:16:56

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-10(i16480)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 17-03-08

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 2"	338 / 0	85 / 0			
B2, 2-1/2"	340 / 0	85 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	17-03-08	Top	39	10				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	1781 ft-lbs	49.7%	100%	1	08-07-08
End Reaction	425 lbs	35.4%	100%	1	17-03-08
End Shear	415 lbs	22.7%	100%	1	00-02-00
Total Load Deflection	L/975 (0.21")	24.6%	n\a	1	08-07-08
Live Load Deflection	L/1219 (0.168")	39.4%	n\a	2	08-07-08
Max Defl.	0.21"	14.0%	n\a	1	08-07-08
Span / Depth	14.6				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Hanger	2" x 1-3/4"	423 lbs	44.5%	29.4%	IUS1.81/9.5
B2	Wall/Plate	2-1/2" x 1-3/4"	425 lbs	22.9%	35.4%	Unspecified

Cautions

Web stiffeners required at bearing B1.
Header for the hanger IUS1.81/9.5 is a Double 1-3/4" x 14" LVL Beam.
Hanger IUS1.81/9.5 requires (8) 10d face nails, (2) 10dx1.5 joist nails.

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
Hanger Manufacturer: Simpson Strong-Tie, Inc.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 14" BCI® 4500s-1.8

PASSED

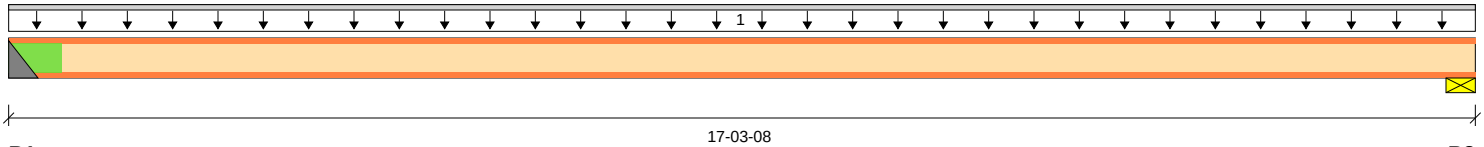
1st Floor\Floor Joists\FJ-10(i16481) (Floor Joist)

BC CALC® Member Report
Build 7493

Dry | 1 span | No cant. | 19.2 OCS | Repetitive | Glued & nailed

February 2, 2021 13:16:56

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-10(i16481)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 17-03-08

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 2"	552 / 0	138 / 0			
B2, 2-1/2"	555 / 0	139 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	17-03-08	Top	64	16				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2905 ft-lbs	81.0%	100%	1	08-07-08
End Reaction	693 lbs	57.8%	100%	1	17-03-08
End Shear	677 lbs	37.1%	100%	1	00-02-00
Total Load Deflection	L/598 (0.342")	40.1%	n\a	1	08-07-08
Live Load Deflection	L/747 (0.274")	64.2%	n\a	2	08-07-08
Max Defl.	0.342"	22.8%	n\a	1	08-07-08
Span / Depth	14.6				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Hanger	2" x 1-3/4"	690 lbs	72.6%	47.9%	IUS1.81/9.5
B2	Wall/Plate	2-1/2" x 1-3/4"	693 lbs	37.3%	57.8%	Unspecified

Cautions

Web stiffeners required at bearing B1.
Header for the hanger IUS1.81/9.5 is a Double 1-3/4" x 14" LVL Beam.
Hanger IUS1.81/9.5 requires (8) 10d face nails, (2) 10dx1.5 joist nails.

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
Hanger Manufacturer: Simpson Strong-Tie, Inc.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 14" BCI® 4500s-1.8

PASSED

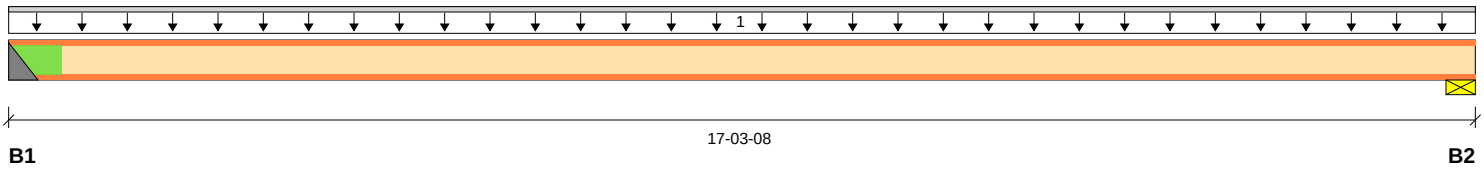
1st Floor\Floor Joists\FJ-10(i16482) (Floor Joist)

BC CALC® Member Report
Build 7493

Dry | 1 span | No cant. | 19.2 OCS | Repetitive | Glued & nailed

February 2, 2021 13:16:56

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-10(i16482)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 17-03-08

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 2"	552 / 0	138 / 0			
B2, 2-1/2"	555 / 0	139 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	17-03-08	Top	64	16				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2905 ft-lbs	81.0%	100%	1	08-07-08
End Reaction	693 lbs	57.8%	100%	1	17-03-08
End Shear	677 lbs	37.1%	100%	1	00-02-00
Total Load Deflection	L/598 (0.342")	40.1%	n\a	1	08-07-08
Live Load Deflection	L/747 (0.274")	64.2%	n\a	2	08-07-08
Max Defl.	0.342"	22.8%	n\a	1	08-07-08
Span / Depth	14.6				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Hanger	2" x 1-3/4"	690 lbs	72.6%	47.9%	IUS1.81/9.5
B2	Wall/Plate	2-1/2" x 1-3/4"	693 lbs	37.3%	57.8%	Unspecified

Cautions

Web stiffeners required at bearing B1.
Header for the hanger IUS1.81/9.5 is a Double 1-3/4" x 14" LVL Beam.
Hanger IUS1.81/9.5 requires (8) 10d face nails, (2) 10dx1.5 joist nails.

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
Hanger Manufacturer: Simpson Strong-Tie, Inc.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 14" BCI® 4500s-1.8

PASSED

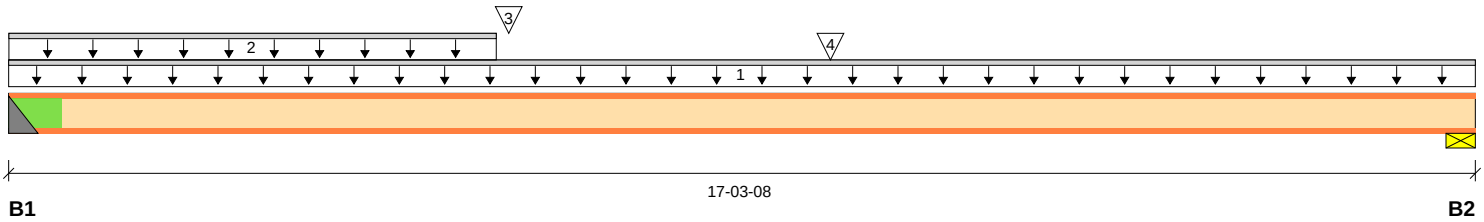
1st Floor\Floor Joists\FJ-10(i16493) (Floor Joist)

BC CALC® Member Report
Build 7493

Dry | 1 span | No cant. | 16 OCS | Repetitive | Glued & nailed

February 2, 2021 13:16:56

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-10(i16493)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 17-03-08

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 2"	383 / 0	447 / 0			
B2, 2-1/2"	384 / 0	218 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	17-03-08	Top	44	11				n\a
2	48(i224)	Unf. Lin. (lb/ft)	L	00-00-01	05-09-00	Top		57				n\a
3	32(i233)	Conc. Pt. (lbs)	L	05-10-12	05-10-12	Top		61				n\a
4	39(i215)	Conc. Pt. (lbs)	L	09-08-04	09-08-04	Top		85				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2972 ft-lbs	82.9%	100%	1	08-00-06
End Reaction	829 lbs	57.6%	100%	1	00-00-00
End Shear	811 lbs	44.4%	100%	1	00-02-00
Total Load Deflection	L/571 (0.358")	42.1%	n\a	1	08-06-01
Live Load Deflection	L/1056 (0.194")	45.4%	n\a	2	08-08-14
Max Defl.	0.358"	23.9%	n\a	1	08-06-01
Span / Depth	14.6				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Hanger	2" x 1-3/4"	829 lbs	87.3%	57.6%	IUS1.81/9.5
B2	Wall/Plate	2-1/2" x 1-3/4"	602 lbs	32.4%	50.2%	Unspecified

Cautions

Web stiffeners required at bearing B1.
Header for the hanger IUS1.81/9.5 is a Double 1-3/4" x 14" LVL Beam.
Hanger IUS1.81/9.5 requires (8) 10d face nails, (2) 10dx1.5 joist nails.

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
Hanger Manufacturer: Simpson Strong-Tie, Inc.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Double 14" BCI® 4500s-1.8

PASSED

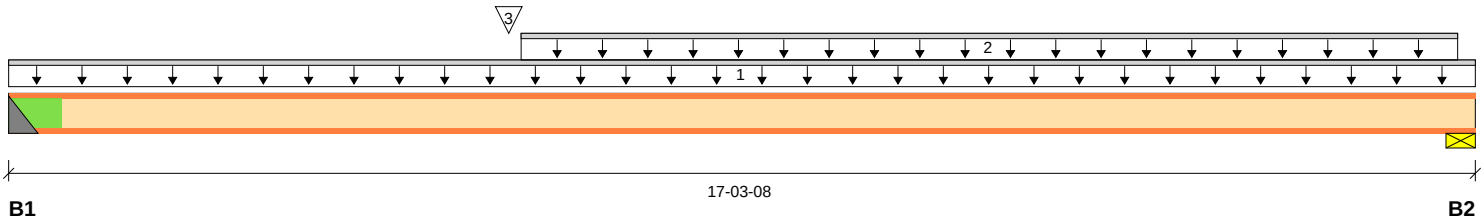
1st Floor\Floor Joists\FJ-11-2(i16489) (Floor Joist)

BC CALC® Member Report
Build 7493

Dry | 1 span | No cant. | 19.2 OCS | Repetitive | Glued & nailed

February 2, 2021 13:16:56

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-11-2(i16489)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 17-03-08

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 2"	247 / 0	295 / 0			
B2, 2-1/2"	248 / 0	499 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	17-03-08	Top	29	7				n\a
2	33(i204)	Unf. Lin. (lb/ft)	L	06-00-08	17-01-00	Top		57				n\a
3	32(i233)	Conc. Pt. (lbs)	L	05-10-12	05-10-12	Top		41				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2995 ft-lbs	41.8%	100%	1	09-01-09
End Reaction	747 lbs	31.1%	100%	1	17-03-08
End Shear	740 lbs	20.3%	100%	1	17-01-00
Total Load Deflection	L/1059 (0.193")	22.7%	n\a	1	08-09-14
Live Load Deflection	L/999 (0.068")	n\a	n\a	2	08-08-00
Max Defl.	0.193"	12.9%	n\a	1	08-09-14
Span / Depth	14.6				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Hanger	2" x 3-1/2"	542 lbs	45.5%	18.8%	IUS3.56/9.5
B2	Wall/Plate	2-1/2" x 3-1/2"	747 lbs	20.1%	31.1%	Unspecified

Cautions

Web stiffeners required at bearing B1.
Header for the hanger IUS3.56/9.5 is a Double 1-3/4" x 14" LVL Beam.
Hanger IUS3.56/9.5 requires (10) 10d face nails, (2) 10dx1.5 joist nails.

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
Hanger Manufacturer: Simpson Strong-Tie, Inc.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 14" BCI® 4500s-1.8

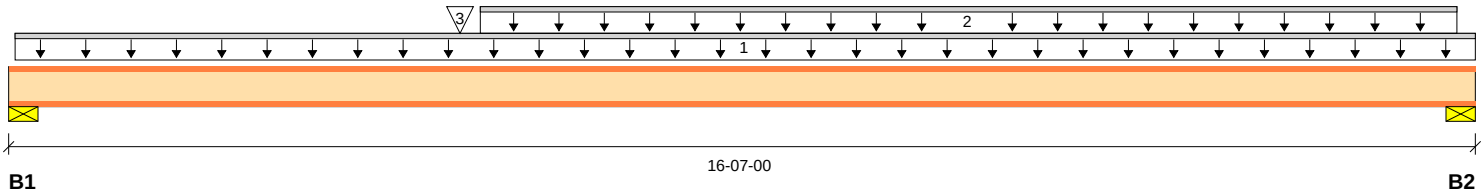
PASSED

1st Floor\Floor Joists\FJ-12(i16488) (Floor Joist)

BC CALC® Member Report | Dry | 1 span | No cant. | 19.2 OCS | Repetitive | Glued & nailed | February 2, 2021 13:16:56

Build 7493

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-12(i16488)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 16-07-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 3-1/2"	212 / 0	294 / 0			
B2, 2-1/2"	211 / 0	475 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-14	16-07-00	Top	26	6				n\a
2	-	Unf. Lin. (lb/ft)	L	05-04-00	16-04-08	Top		57				n\a
3	53(i234)	Conc. Pt. (lbs)	L	05-01-04	05-01-04	Top		36				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2644 ft-lbs	73.7%	100%	1	08-07-06
End Reaction	687 lbs	57.2%	100%	1	16-07-00
End Shear	680 lbs	37.3%	100%	1	16-04-08
Total Load Deflection	L/695 (0.28")	34.5%	n\a	1	08-04-09
Live Load Deflection	L/999 (0.091")	n\a	n\a	2	08-04-09
Max Defl.	0.28"	18.7%	n\a	1	08-04-09
Span / Depth	13.9				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate	3-1/2" x 1-3/4"	506 lbs	19.4%	34.9%	Unspecified
B2	Wall/Plate	2-1/2" x 1-3/4"	687 lbs	36.9%	57.2%	Unspecified

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 14" BCI® 4500s-1.8

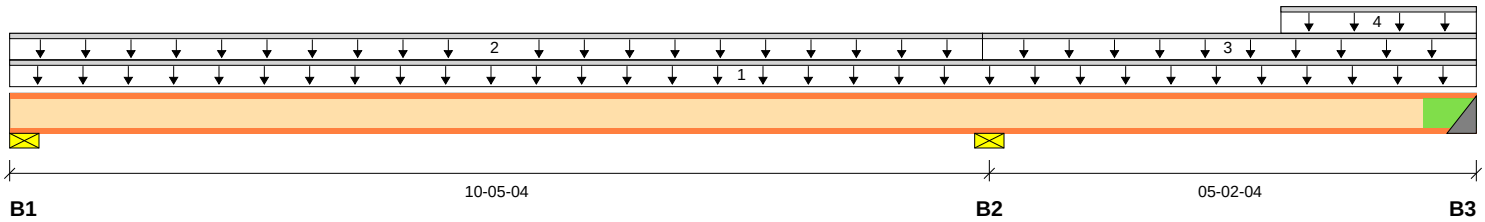
PASSED

1st Floor\Floor Joists\FJ-13(i16441) (Floor Joist)

BC CALC® Member Report | Dry | 2 spans | No cant. | 24 OCS | Repetitive | Glued & nailed | February 2, 2021 13:16:56

Build 7493

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-13(i16441)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 15-07-08

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 2-1/2"	365 / 5	89 / 0			
B2, 3-1/2"	755 / 0	201 / 0			
B3, 2"	149 / 117	54 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	15-07-08	Top	40	10				n\a
2	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	10-04-06	Top	40	10				n\a
3	FC2 Floor Material	Unf. Lin. (lb/ft)	L	10-04-06	15-07-08	Top	20	5				n\a
4	FC2 Floor Material	Unf. Lin. (lb/ft)	L	13-06-08	15-07-08	Top		28				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	969 ft-lbs	27.0%	100%	2	04-06-04
Neg. Moment	-819 ft-lbs	22.9%	100%	1	10-05-04
End Reaction	455 lbs	37.9%	100%	2	00-00-00
Int. Reaction	956 lbs	40.7%	100%	1	10-05-04
End Shear	434 lbs	23.8%	100%	2	00-02-08
Cont. Shear	580 lbs	31.8%	100%	1	10-03-08
Total Load Deflection	L/999 (0.048")	n\a	n\a	2	05-00-01
Live Load Deflection	L/999 (0.039")	n\a	n\a	5	05-00-01
Total Neg. Defl.	L/999 (-0.003")	n\a	n\a	2	12-03-11
Max Defl.	0.048"	n\a	n\a	2	05-00-01
Span / Depth	8.8				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate	2-1/2" x 1-3/4"	455 lbs	24.5%	37.9%	Unspecified
B2	Wall/Plate	3-1/2" x 1-3/4"	956 lbs	36.7%	40.7%	Unspecified
B3	Hanger	2" x 1-3/4"	203 lbs	21.4%	14.1%	IUS1.81/9.5

Cautions

Uplift of -64 lbs found at bearing B3.

Web stiffeners required at bearing B3.

Hanger IUS1.81/9.5 requires (8) 10d face nails, (2) 10dx1.5 joist nails.

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-13(i16441)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
Hanger Manufacturer: Simpson Strong-Tie, Inc.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 14" BCI® 4500s-1.8

PASSED

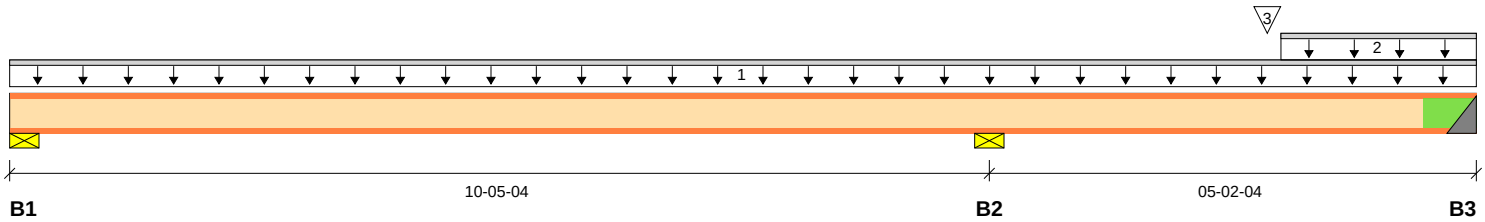
1st Floor\Floor Joists\FJ-13(i16442) (Floor Joist)

BC CALC® Member Report
Build 7493

Dry | 2 spans | No cant. | 24 OCS | Repetitive | Glued & nailed

February 2, 2021 13:16:56

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-13(i16442)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 15-07-08

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 2-1/2"	365 / 7	86 / 0			
B2, 3-1/2"	811 / 0	283 / 0			
B3, 2"	198 / 117	151 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	15-07-08	Top	80	20				n\a
2	FC2 Floor Material	Unf. Lin. (lb/ft)	L	13-06-08	15-07-08	Top		37				n\a
3	55(i15561)	Conc. Pt. (lbs)	L	13-04-12	13-04-12	Top		130				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	952 ft-lbs	26.6%	100%	2	04-06-04
Neg. Moment	-875 ft-lbs	24.4%	100%	1	10-05-04
End Reaction	451 lbs	37.6%	100%	2	00-00-00
Int. Reaction	1095 lbs	46.6%	100%	1	10-05-04
End Shear	430 lbs	23.6%	100%	2	00-02-08
Cont. Shear	585 lbs	32.1%	100%	1	10-03-08
Total Load Deflection	L/999 (0.047")	n\a	n\a	2	05-00-01
Live Load Deflection	L/999 (0.039")	n\a	n\a	5	05-00-01
Total Neg. Defl.	L/999 (-0.001")	n\a	n\a	2	11-05-08
Max Defl.	0.047"	n\a	n\a	2	05-00-01
Span / Depth	8.8				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate	2-1/2" x 1-3/4"	451 lbs	24.3%	37.6%	Unspecified
B2	Wall/Plate	3-1/2" x 1-3/4"	1095 lbs	42.0%	46.6%	Unspecified
B3	Hanger	2" x 1-3/4"	348 lbs	36.7%	24.2%	IUS1.81/9.5

Cautions

Web stiffeners required at bearing B3.
Hanger IUS1.81/9.5 requires (8) 10d face nails, (2) 10dx1.5 joist nails.

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-13(i16442)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
Hanger Manufacturer: Simpson Strong-Tie, Inc.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 14" BCI® 4500s-1.8

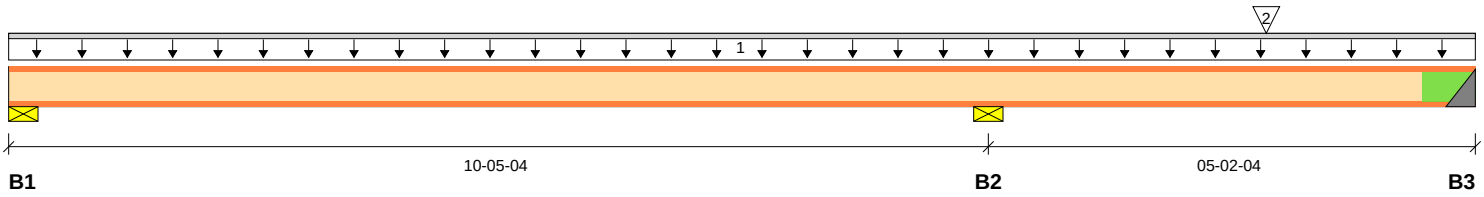
PASSED

1st Floor\Floor Joists\FJ-13(i16443) (Floor Joist)

BC CALC® Member Report | Dry | 2 spans | No cant. | 24 OCS | Repetitive | Glued & nailed | February 2, 2021 13:16:56

Build 7493

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-13(i16443)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 15-07-08

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 2-1/2"	365 / 7	87 / 0			
B2, 3-1/2"	811 / 0	266 / 0			
B3, 2"	198 / 117	90 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	15-07-08	Top	80	20				n\a
2	55(i15561)	Conc. Pt. (lbs)	L	13-04-12	13-04-12	Top		130				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	956 ft-lbs	26.7%	100%	2	04-06-04
Neg. Moment	-866 ft-lbs	24.2%	100%	1	10-05-04
End Reaction	452 lbs	37.7%	100%	2	00-00-00
Int. Reaction	1078 lbs	45.9%	100%	1	10-05-04
End Shear	431 lbs	23.6%	100%	2	00-02-08
Cont. Shear	584 lbs	32.0%	100%	1	10-03-08
Total Load Deflection	L/999 (0.047")	n\a	n\a	2	05-00-01
Live Load Deflection	L/999 (0.039")	n\a	n\a	5	05-00-01
Total Neg. Defl.	L/999 (-0.001")	n\a	n\a	2	11-08-02
Max Defl.	0.047"	n\a	n\a	2	05-00-01
Span / Depth	8.8				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate	2-1/2" x 1-3/4"	452 lbs	24.3%	37.7%	Unspecified
B2	Wall/Plate	3-1/2" x 1-3/4"	1078 lbs	41.4%	45.9%	Unspecified
B3	Hanger	2" x 1-3/4"	287 lbs	30.2%	19.9%	IUS1.81/9.5

Cautions

Web stiffeners required at bearing B3.

Hanger IUS1.81/9.5 requires (8) 10d face nails, (2) 10dx1.5 joist nails.

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-13(i16443)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
Hanger Manufacturer: Simpson Strong-Tie, Inc.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 14" BCI® 4500s-1.8

PASSED

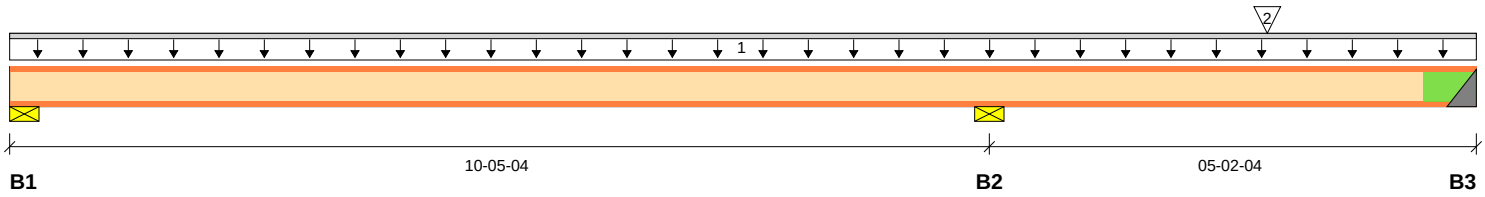
1st Floor\Floor Joists\FJ-13(i16443) - 01 (Floor Joist)

BC CALC® Member Report
Build 7493

Dry | 2 spans | No cant. | 24 OCS | Repetitive | Glued & nailed

February 2, 2021 13:16:56

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-13(i16443)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 15-07-08

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 2-1/2"	365 / 7	87 / 0			
B2, 3-1/2"	811 / 0	266 / 0			
B3, 2"	198 / 117	90 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	15-07-08	Top	80	20				n\a
2	55(i15561)	Conc. Pt. (lbs)	L	13-04-12	13-04-12	Top		130				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	956 ft-lbs	26.7%	100%	2	04-06-04
Neg. Moment	-866 ft-lbs	24.2%	100%	1	10-05-04
End Reaction	452 lbs	37.7%	100%	2	00-00-00
Int. Reaction	1078 lbs	45.9%	100%	1	10-05-04
End Shear	431 lbs	23.6%	100%	2	00-02-08
Cont. Shear	584 lbs	32.0%	100%	1	10-03-08
Total Load Deflection	L/999 (0.047")	n\a	n\a	2	05-00-01
Live Load Deflection	L/999 (0.039")	n\a	n\a	5	05-00-01
Total Neg. Defl.	L/999 (-0.001")	n\a	n\a	2	11-08-02
Max Defl.	0.047"	n\a	n\a	2	05-00-01
Span / Depth	8.8				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate	2-1/2" x 1-3/4"	452 lbs	24.3%	37.7%	Unspecified
B2	Wall/Plate	3-1/2" x 1-3/4"	1078 lbs	41.4%	45.9%	Unspecified
B3	Hanger	2" x 1-3/4"	287 lbs	30.2%	19.9%	IUS1.81/9.5

Cautions

Web stiffeners required at bearing B3.
Hanger IUS1.81/9.5 requires (8) 10d face nails, (2) 10dx1.5 joist nails.

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-13(i16443)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
Hanger Manufacturer: Simpson Strong-Tie, Inc.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 14" BCI® 4500s-1.8

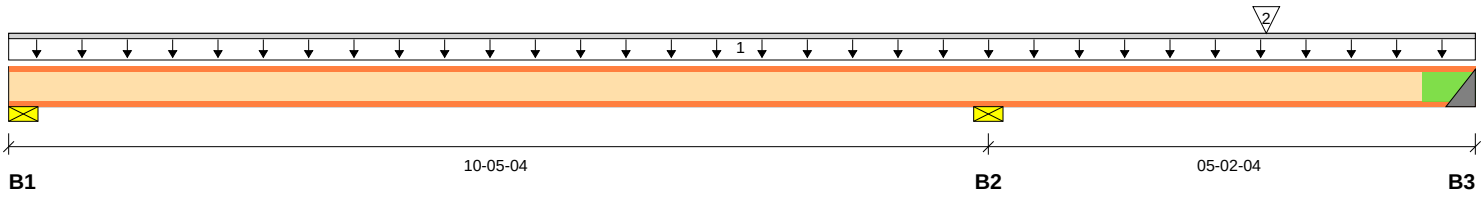
PASSED

1st Floor\Floor Joists\FJ-13(i16445) (Floor Joist)

BC CALC® Member Report | Dry | 2 spans | No cant. | 24 OCS | Repetitive | Glued & nailed | February 2, 2021 13:16:56

Build 7493

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-13(i16445)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 15-07-08

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 2-1/2"	270 / 5	64 / 0			
B2, 3-1/2"	600 / 0	203 / 0			
B3, 2"	146 / 87	73 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	15-07-08	Top	59	15				n\a
2	55(i15561)	Conc. Pt. (lbs)	L	13-04-12	13-04-12	Top		108				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	706 ft-lbs	19.7%	100%	2	04-06-04
Neg. Moment	-643 ft-lbs	17.9%	100%	1	10-05-04
End Reaction	334 lbs	27.8%	100%	2	00-00-00
Int. Reaction	802 lbs	34.1%	100%	1	10-05-04
End Shear	318 lbs	17.4%	100%	2	00-02-08
Cont. Shear	432 lbs	23.7%	100%	1	10-03-08
Total Load Deflection	L/999 (0.035")	n\a	n\a	2	05-00-01
Live Load Deflection	L/999 (0.028")	n\a	n\a	5	05-00-01
Total Neg. Defl.	L/999 (-0.001")	n\a	n\a	2	11-06-06
Max Defl.	0.035"	n\a	n\a	2	05-00-01
Span / Depth	8.8				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate	2-1/2" x 1-3/4"	334 lbs	18.0%	27.8%	Unspecified
B2	Wall/Plate	3-1/2" x 1-3/4"	802 lbs	30.8%	34.1%	Unspecified
B3	Hanger	2" x 1-3/4"	219 lbs	23.0%	15.2%	IUS1.81/9.5

Cautions

Web stiffeners required at bearing B3.

Hanger IUS1.81/9.5 requires (8) 10d face nails, (2) 10dx1.5 joist nails.

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-13(i16445)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
Hanger Manufacturer: Simpson Strong-Tie, Inc.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Double 14" BCI® 4500s-1.8

PASSED

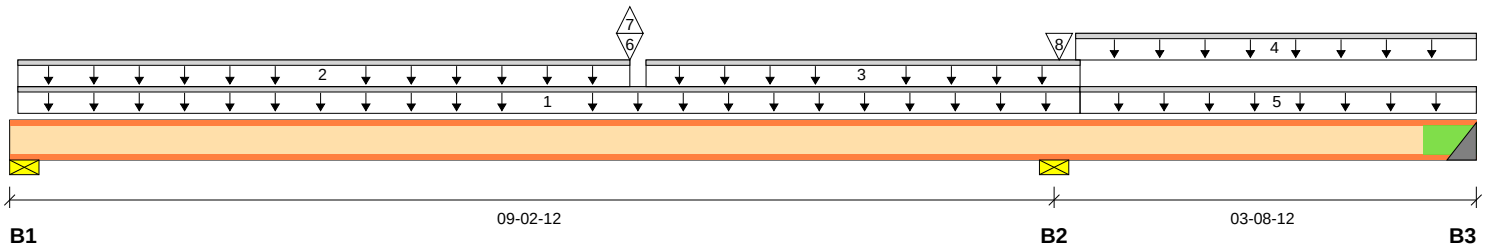
1st Floor\Floor Joists\FJ-14-2(i16434) (Floor Joist)

BC CALC® Member Report
Build 7493

Dry | 2 spans | No cant. | 19.2 OCS | Repetitive | Glued & nailed

February 2, 2021 13:16:56

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-14-2(i16434)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 12-11-08

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 3-1/2"	229 / 50	90 / 0			
B2, 5-1/2"	520 / 153	293 / 0			
B3, 2"	84 / 122	0 / 6			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-14	09-05-08	Top	20	5				n\a
2	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-14	05-05-12	Top	20	5				n\a
3	FC2 Floor Material	Unf. Lin. (lb/ft)	L	05-07-08	09-05-08	Top	16	4				n\a
4	52(i227)	Unf. Lin. (lb/ft)	L	09-05-00	12-11-08	Top		24				n\a
5	FC2 Floor Material	Unf. Lin. (lb/ft)	L	09-05-08	12-11-08	Top	22	6				n\a
6	FJ-15-2(i16574)	Conc. Pt. (lbs)	L	05-05-12	05-05-12	Top	232	168				n\a
7	FJ-15-2(i16574)	Conc. Pt. (lbs)	L	05-05-12	05-05-12	Top	-159					n\a
8	51(i226)	Conc. Pt. (lbs)	L	09-03-04	09-03-04	Top		14				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	947 ft-lbs	13.2%	100%	3	05-05-12
Neg. Moment	-681 ft-lbs	9.5%	100%	1	09-02-12
End Reaction	319 lbs	11.0%	100%	3	00-00-00
Int. Reaction	813 lbs	16.1%	100%	1	09-02-12
End Shear	309 lbs	8.5%	100%	3	00-03-08
Cont. Shear	506 lbs	13.9%	100%	1	09-00-00
Total Load Deflection	L/999 (0.02")	n\a	n\a	3	05-01-04
Live Load Deflection	L/999 (0.013")	n\a	n\a	7	04-11-11
Total Neg. Defl.	L/999 (-0.001")	n\a	n\a	3	10-07-08
Max Defl.	0.02"	n\a	n\a	3	05-01-04
Span / Depth	7.7				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate	3-1/2" x 3-1/2"	319 lbs	6.1%	11.0%	Unspecified
B2	Wall/Plate	5-1/2" x 3-1/2"	813 lbs	9.9%	16.1%	Unspecified
B3	Hanger	2" x 3-1/2"	78 lbs	6.6%	2.7%	IUS3.56/9.5
B3	Uplift		128 lbs			

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-14-2(i16434)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	

Cautions

Uplift of -128 lbs found at bearing B3.
Web stiffeners required at bearing B3.
Header for the hanger IUS3.56/9.5 is a Double 1-3/4" x 14" LVL Beam.
Hanger IUS3.56/9.5 requires (10) 10d face nails, (2) 10dx1.5 joist nails.

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
Hanger Manufacturer: Simpson Strong-Tie, Inc.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Double 14" BCI® 4500s-1.8

PASSED

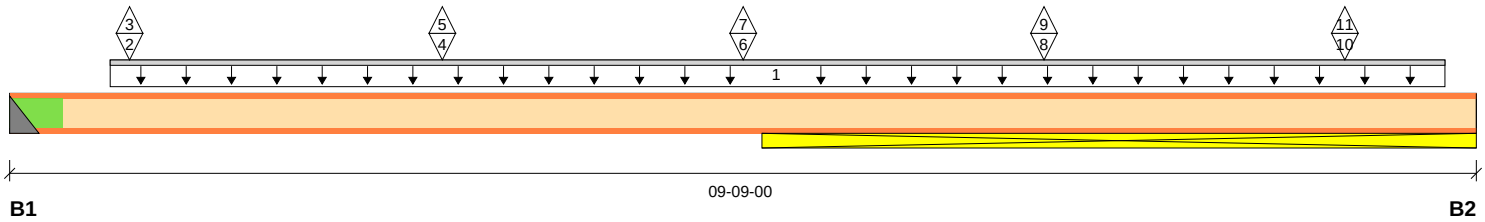
1st Floor\Floor Joists\FJ-15-2(i16574) (Floor Joist)

BC CALC® Member Report
Build 7493

Dry | 1 span | No cant. | 19.2 OCS | Repetitive | Glued & nailed

February 2, 2021 13:16:56

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-15-2(i16574)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 09-09-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 2"	163 / 115	161 / 0			
B2, 57"	825 / 530	794 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	50(i225)	Unf. Lin. (lb/ft)	L	00-08-00	09-06-08	Top		57				n\a
2	-	Conc. Pt. (lbs)	L	00-09-09	00-09-09	Top	186	50				n\a
3	-	Conc. Pt. (lbs)	L	00-09-09	00-09-09	Top	-136					n\a
4	FJ-13(i16442)	Conc. Pt. (lbs)	L	02-10-08	02-10-08	Top	213	149				n\a
5	FJ-13(i16442)	Conc. Pt. (lbs)	L	02-10-08	02-10-08	Top	-136					n\a
6	FJ-13(i16443)	Conc. Pt. (lbs)	L	04-10-08	04-10-08	Top	213	86				n\a
7	FJ-13(i16443)	Conc. Pt. (lbs)	L	04-10-08	04-10-08	Top	-136					n\a
8	FJ-13(i16444)	Conc. Pt. (lbs)	L	06-10-08	06-10-08	Top	213	86				n\a
9	FJ-13(i16444)	Conc. Pt. (lbs)	L	06-10-08	06-10-08	Top	-136					n\a
10	FJ-13(i16445)	Conc. Pt. (lbs)	L	08-10-08	08-10-08	Top	158	70				n\a
11	FJ-13(i16445)	Conc. Pt. (lbs)	L	08-10-08	08-10-08	Top	-101					n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	271 ft-lbs	3.8%	100%	1	02-00-00
End Reaction	1618 lbs	55.8%	100%	1	09-09-00
End Shear	323 lbs	8.8%	100%	1	00-02-00
Total Load Deflection	L/999 (0.003")	n\a	n\a	1	02-03-12
Live Load Deflection	L/999 (0.001")	n\a	n\a	3	01-04-08
Max Defl.	0.003"	n\a	n\a	1	02-03-12
Span / Depth	4.3				
Dist. Load (B2)	56.90 lb/ft	1.6%	90%		
Conc. Load (B2)	299 lbs	15.0%	100%		

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Hanger	2" x 3-1/2"	324 lbs	27.2%	11.2%	IUS3.56/9.5
B2	Wall/Plate	57" x 3-1/2"	1618 lbs	1.9%	55.8%	Unspecified

Cautions

Web stiffeners required at bearing B1.

Hanger IUS3.56/9.5 requires (10) 10d face nails, (2) 10dx1.5 joist nails.

Distributed side-load and/or concentrated side loads 7,8,9,10,11,12 exceeds allowable magnitude for connection design. Please consult a technical representative or Professional Engineer for the design of the connection.

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-15-2(i16574)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
Hanger Manufacturer: Simpson Strong-Tie, Inc.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 14" BCI® 4500s-1.8

PASSED

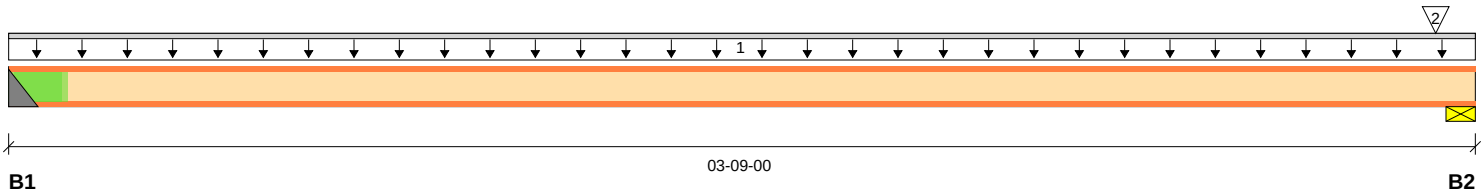
1st Floor\Floor Joists\FJ-16(i16435) (Floor Joist)

BC CALC® Member Report
Build 7493

Dry | 1 span | No cant. | 19.2 OCS | Repetitive | Glued & nailed

February 2, 2021 13:16:56

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-16(i16435)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 03-09-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 2"	29 / 0	7 / 0			
B2, 4-1/2"	32 / 0	145 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	03-09-00	Top	16	4				n\a
2	51(i226)	Conc. Pt. (lbs)	L	03-07-12	03-07-12	Top		137				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	28 ft-lbs	0.8%	100%	1	01-09-04
End Reaction	177 lbs	12.2%	100%	1	03-09-00
End Shear	33 lbs	1.8%	100%	1	00-02-00
Total Load Deflection	L/999 (0")	n\a	n\a	1	01-09-04
Live Load Deflection	L/999 (0")	n\a	n\a	2	01-09-04
Max Defl.	0"	n\a	n\a	1	01-09-04
Span / Depth	2.9				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Hanger	2" x 1-3/4"	36 lbs	3.8%	2.5%	IUS1.81/9.5
B2	Wall/Plate	4-1/2" x 1-3/4"	177 lbs	5.3%	12.2%	Unspecified

Cautions

Web stiffeners required at bearing B1.
Hanger IUS1.81/9.5 requires (8) 10d face nails, (2) 10dx1.5 joist nails.

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
Hanger Manufacturer: Simpson Strong-Tie, Inc.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Double 14" BCI® 4500s-1.8

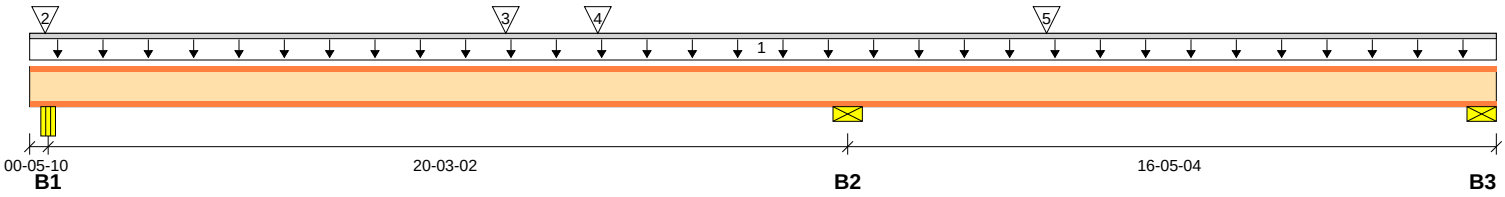
PASSED

1st Floor\Floor Joists\FJ-2-2(i16497) (Floor Joist)

BC CALC® Member Report | Dry | 3 spans | L cant. | 16 OCS | Repetitive | Glued & nailed | February 2, 2021 13:16:56

Build 7493

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-2-2(i16497)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 37-02-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 5-1/4"	556 / 14	396 / 0			93 / 0
B2, 3-1/2"	1381 / 0	604 / 0			0 / 0
B3, 2-1/2"	446 / 102	79 / 0			0 / 0

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	37-02-00	Top	60	15				n\a
2	E18(i195)	Conc. Pt. (lbs)	L	00-04-12	00-04-12	Top		218			93	n\a
3	24(i199)	Conc. Pt. (lbs)	L	12-00-13	12-00-13	Top		88				n\a
4	29(i203)	Conc. Pt. (lbs)	L	14-04-12	14-04-12	Top		126				n\a
5	27(i202)	Conc. Pt. (lbs)	L	25-09-04	25-09-04	Top		88				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	3242 ft-lbs	45.2%	100%	3	09-09-15
Neg. Moment	-3720 ft-lbs	51.9%	100%	5	20-08-12
End Reaction	526 lbs	21.9%	100%	2	37-02-00
Int. Reaction	1985 lbs	42.2%	100%	5	20-08-12
End Shear	510 lbs	14.0%	100%	2	36-11-08
Cont. Shear	1072 lbs	29.4%	100%	5	20-07-00
Total Load Deflection	L/877 (0.277")	27.4%	n\a	3	10-01-13
Live Load Deflection	L/1230 (0.198")	39.0%	n\a	14	10-01-13
Total Neg. Defl.	L/999 (-0.054")	n\a	n\a	3	26-10-07
Max Defl.	0.277"	18.5%	n\a	3	10-01-13
Cant. Max Defl.	-0.02"	n\a	n\a	3	00-00-00
Span / Depth	17.4				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Beam	5-1/4" x 3-1/2"	952 lbs	6.9%	18.9%	Unspecified
B2	Wall/Plate	3-1/2" x 3-1/2"	1985 lbs	38.1%	42.2%	Unspecified
B3	Wall/Plate	2-1/2" x 3-1/2"	526 lbs	14.1%	21.9%	Unspecified

Cautions

Design assumes Top and Bottom flanges to be restrained.

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-2-2(i16497)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1.5") Cantilever Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.
Cantilevers require sheathed bottom flanges, blocking at cantilever support and closure at ends.

Disclosure

Boise Cascade

Double 14" BCI® 4500s-1.8

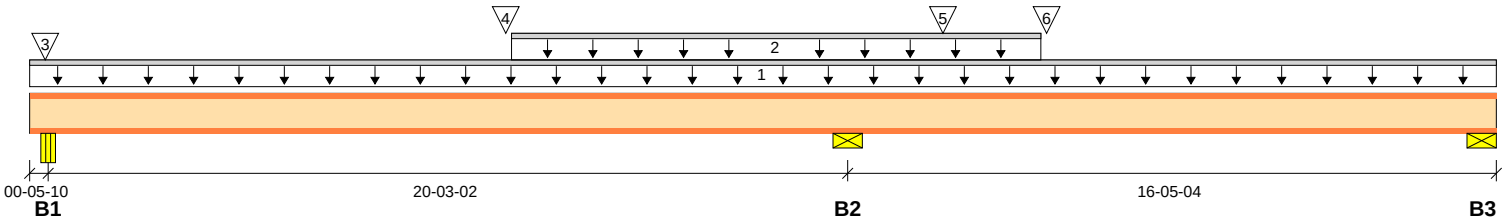
PASSED

1st Floor\Floor Joists\FJ-2-2(i16498) (Floor Joist)

BC CALC® Member Report | Dry | 3 spans | L cant. | 16 OCS | Repetitive | Glued & nailed | February 2, 2021 13:16:56

Build 7493

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-2-2(i16498)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 37-02-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 5-1/4"	506 / 13	394 / 0			84 / 0
B2, 3-1/2"	1257 / 0	1168 / 0			0 / 0
B3, 2-1/2"	406 / 93	69 / 0			0 / 0

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	37-02-00	Top	55	14				n\a
2	28(i201)	Unf. Lin. (lb/ft)	L	12-02-09	25-07-08	Top		57				n\a
3	E18(i195)	Conc. Pt. (lbs)	L	00-04-12	00-04-12	Top		199			84	n\a
4	24(i199)	Conc. Pt. (lbs)	L	12-00-13	12-00-13	Top		80				n\a
5	30(i205)	Conc. Pt. (lbs)	L	23-01-12	23-01-12	Top		25				n\a
6	27(i202)	Conc. Pt. (lbs)	L	25-09-04	25-09-04	Top		55				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	3264 ft-lbs	45.5%	100%	3	10-01-13
Neg. Moment	-4056 ft-lbs	56.6%	100%	5	20-08-12
End Reaction	475 lbs	19.8%	100%	2	37-02-00
Int. Reaction	2425 lbs	51.6%	100%	5	20-08-12
End Shear	461 lbs	12.6%	100%	2	36-11-08
Cont. Shear	1304 lbs	35.7%	100%	5	20-07-00
Total Load Deflection	L/861 (0.282")	27.9%	n\a	3	10-01-13
Live Load Deflection	L/1352 (0.18")	35.5%	n\a	14	10-01-13
Total Neg. Defl.	L/999 (-0.05")	n\a	n\a	3	26-10-07
Max Defl.	0.282"	18.8%	n\a	3	10-01-13
Cant. Max Defl.	-0.02"	n\a	n\a	3	00-00-00
Span / Depth	17.4				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Beam	5-1/4" x 3-1/2"	900 lbs	6.5%	17.8%	Unspecified
B2	Wall/Plate	3-1/2" x 3-1/2"	2425 lbs	46.6%	51.6%	Unspecified
B3	Wall/Plate	2-1/2" x 3-1/2"	475 lbs	12.8%	19.8%	Unspecified

Cautions

Design assumes Top and Bottom flanges to be restrained.

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-2-2(i16498)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1.5") Cantilever Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.
Cantilevers require sheathed bottom flanges, blocking at cantilever support and closure at ends.

Disclosure

Boise Cascade

Single 14" BCI® 4500s-1.8

PASSED

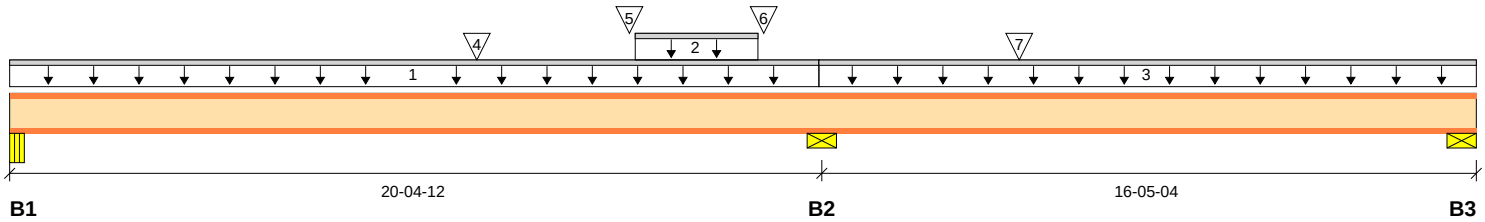
1st Floor\Floor Joists\FJ-3(i16469) (Floor Joist)

BC CALC® Member Report
Build 7493

Dry | 2 spans | No cant. | 16 OCS | Repetitive | Glued & nailed

February 2, 2021 13:16:56

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-3(i16469)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 36-10-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 4-1/4"	270 / 28	92 / 0			
B2, 3-1/2"	775 / 0	493 / 0			
B3, 2-1/2"	290 / 50	50 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	20-03-14	Top	30	7				n\a
2	46(i222)	Unf. Lin. (lb/ft)	L	15-08-08	18-09-08	Top		57				n\a
3	FC2 Floor Material	Unf. Lin. (lb/ft)	L	20-03-14	36-10-00	Top	39	10				n\a
4	24(i199)	Conc. Pt. (lbs)	L	11-08-13	11-08-13	Top		41				n\a
5	43(i219)	Conc. Pt. (lbs)	L	15-06-12	15-06-12	Top		29				n\a
6	45(i221)	Conc. Pt. (lbs)	L	18-11-04	18-11-04	Top		19				n\a
7	53(i234)	Conc. Pt. (lbs)	L	25-04-04	25-04-04	Top		56				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	1638 ft-lbs	45.7%	100%	2	09-05-15
Neg. Moment	-2170 ft-lbs	60.5%	100%	1	20-04-12
End Reaction	340 lbs	28.3%	100%	3	36-10-00
Int. Reaction	1268 lbs	53.9%	100%	1	20-04-12
End Shear	348 lbs	19.1%	100%	2	00-04-04
Cont. Shear	690 lbs	37.8%	100%	1	20-03-00
Total Load Deflection	L/943 (0.256")	25.5%	n\a	2	10-01-10
Live Load Deflection	L/1390 (0.174")	34.5%	n\a	5	09-09-13
Total Neg. Defl.	L/999 (-0.048")	n\a	n\a	2	26-03-10
Max Defl.	0.256"	17.1%	n\a	2	10-01-10
Span / Depth	17.2				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Beam	4-1/4" x 1-3/4"	362 lbs	6.5%	24.9%	Unspecified
B2	Wall/Plate	3-1/2" x 1-3/4"	1268 lbs	48.7%	53.9%	Unspecified
B3	Wall/Plate	2-1/2" x 1-3/4"	340 lbs	18.3%	28.3%	Unspecified

Boise Cascade

Single 14" BCI® 4500s-1.8

PASSED

1st Floor\Floor Joists\FJ-3(i16469) (Floor Joist)

BC CALC® Member Report
Build 7493

Dry | 2 spans | No cant. | 16 OCS | Repetitive | Glued & nailed

February 2, 2021 13:16:56

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-3(i16469)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 14" BCI® 4500s-1.8

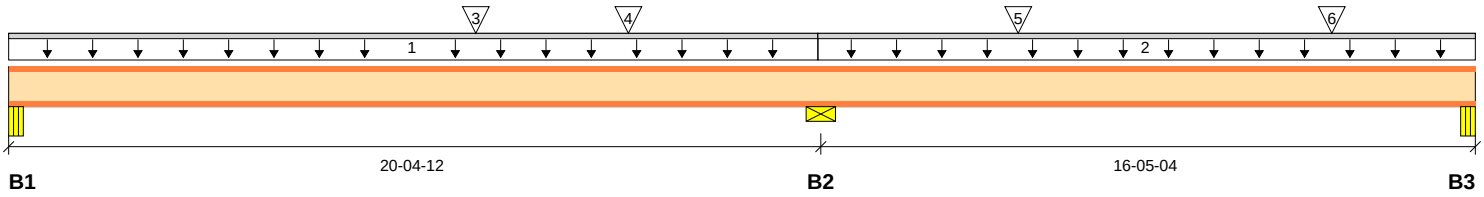
PASSED

1st Floor\Floor Joists\FJ-3(i16470) (Floor Joist)

BC CALC® Member Report | Dry | 2 spans | No cant. | 16 OCS | Repetitive | Glued & nailed | February 2, 2021 13:16:56

Build 7493

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-3(i16470)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 36-10-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 4-1/4"	457 / 28	132 / 0			
B2, 3-1/2"	1047 / 0	427 / 0			
B3, 2-1/2"	291 / 85	91 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	20-03-14	Top	51	13				n\a
2	FC2 Floor Material	Unf. Lin. (lb/ft)	L	20-03-14	36-10-00	Top	39	10				n\a
3	24(i199)	Conc. Pt. (lbs)	L	11-08-13	11-08-13	Top		70				n\a
4	43(i219)	Conc. Pt. (lbs)	L	15-06-12	15-06-12	Top		50				n\a
5	53(i234)	Conc. Pt. (lbs)	L	25-04-04	25-04-04	Top		54				n\a
6	35(i211)	Conc. Pt. (lbs)	L	33-02-12	33-02-12	Top		56				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2567 ft-lbs	71.6%	100%	2	09-02-02
Neg. Moment	-2775 ft-lbs	77.4%	100%	1	20-04-12
End Reaction	590 lbs	40.7%	100%	2	00-00-00
Int. Reaction	1474 lbs	62.7%	100%	1	20-04-12
End Shear	567 lbs	31.1%	100%	2	00-04-04
Cont. Shear	845 lbs	46.3%	100%	1	20-03-00
Total Load Deflection	L/618 (0.39")	38.8%	n\a	2	09-09-13
Live Load Deflection	L/820 (0.294")	58.5%	n\a	5	09-09-13
Total Neg. Defl.	L/999 (-0.074")	n\a	n\a	2	26-04-01
Max Defl.	0.39"	26.0%	n\a	2	09-09-13
Span / Depth	17.2				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Beam	4-1/4" x 1-3/4"	590 lbs	10.6%	40.7%	Unspecified
B2	Wall/Plate	3-1/2" x 1-3/4"	1474 lbs	56.6%	62.7%	Unspecified
B3	Beam	2-1/2" x 1-3/4"	383 lbs	11.7%	31.9%	Unspecified

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Use of the Boise Cascade Software is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of suitability for a particular application. The output here is based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.

BC CALC®, BC FRAMER® , AJS™, ALLJOIST® , BC RIM BOARD™, BCI® , BOISE GLULAM™, BC FloorValue® , VERSA-LAM®, VERSA-RIM PLUS® ,

Boise Cascade

Single 14" BCI® 4500s-1.8

PASSED

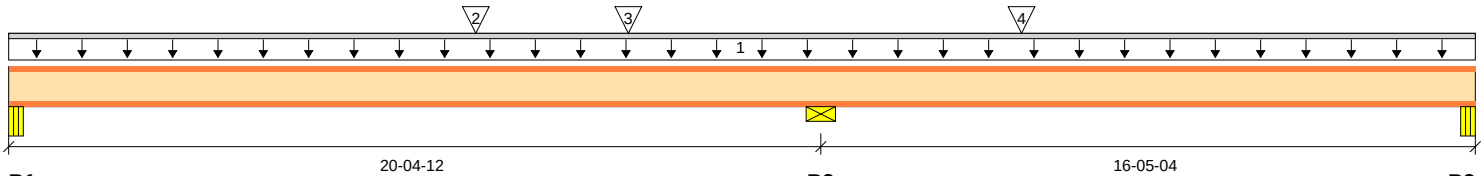
1st Floor\Floor Joists\FJ-3(i16473) (Floor Joist)

BC CALC® Member Report
Build 7493

Dry | 2 spans | No cant. | 16 OCS | Repetitive | Glued & nailed

February 2, 2021 13:16:56

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-3(i16473)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 36-10-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 4-1/4"	493 / 39	142 / 0			
B2, 3-1/2"	1250 / 0	488 / 0			
B3, 2-1/2"	406 / 91	81 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	36-10-00	Top	55	14				n\a
2	24(i199)	Conc. Pt. (lbs)	L	11-08-13	11-08-13	Top		76				n\a
3	43(i219)	Conc. Pt. (lbs)	L	15-06-12	15-06-12	Top		54				n\a
4	32(i233)	Conc. Pt. (lbs)	L	25-05-04	25-05-04	Top		76				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2757 ft-lbs	76.9%	100%	2	09-02-02
Neg. Moment	-3195 ft-lbs	89.1%	100%	1	20-04-12
End Reaction	635 lbs	43.8%	100%	2	00-00-00
Int. Reaction	1738 lbs	74.0%	100%	1	20-04-12
End Shear	610 lbs	33.4%	100%	2	00-04-04
Cont. Shear	922 lbs	50.5%	100%	1	20-03-00
Total Load Deflection	L/576 (0.419")	41.7%	n\a	2	09-09-13
Live Load Deflection	L/761 (0.317")	63.1%	n\a	5	09-09-13
Total Neg. Defl.	L/999 (-0.077")	n\a	n\a	2	26-04-09
Max Defl.	0.419"	27.9%	n\a	2	09-09-13
Span / Depth	17.2				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Beam	4-1/4" x 1-3/4"	635 lbs	11.4%	43.8%	Unspecified
B2	Wall/Plate	3-1/2" x 1-3/4"	1738 lbs	66.8%	74.0%	Unspecified
B3	Beam	2-1/2" x 1-3/4"	487 lbs	14.8%	40.5%	Unspecified

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 14" BCI® 4500s-1.8

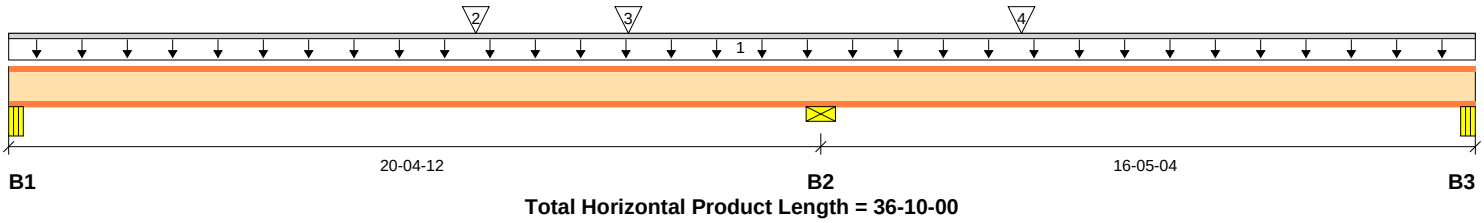
PASSED

1st Floor\Floor Joists\FJ-3(i16474) (Floor Joist)

BC CALC® Member Report | Dry | 2 spans | No cant. | 16 OCS | Repetitive | Glued & nailed | February 2, 2021 13:16:56

Build 7493

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-3(i16474)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 36-10-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 4-1/4"	480 / 38	148 / 0			
B2, 3-1/2"	1217 / 0	501 / 0			
B3, 2-1/2"	395 / 89	75 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	36-10-00	Top	54	14				n\a
2	24(i199)	Conc. Pt. (lbs)	L	11-08-13	11-08-13	Top		103				n\a
3	43(i219)	Conc. Pt. (lbs)	L	15-06-12	15-06-12	Top		54				n\a
4	32(i233)	Conc. Pt. (lbs)	L	25-05-04	25-05-04	Top		76				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2771 ft-lbs	77.3%	100%	2	09-05-15
Neg. Moment	-3176 ft-lbs	88.6%	100%	1	20-04-12
End Reaction	627 lbs	43.3%	100%	2	00-00-00
Int. Reaction	1718 lbs	73.1%	100%	1	20-04-12
End Shear	604 lbs	33.1%	100%	2	00-04-04
Cont. Shear	918 lbs	50.3%	100%	1	20-03-00
Total Load Deflection	L/573 (0.421")	41.9%	n\a	2	09-09-13
Live Load Deflection	L/782 (0.309")	61.4%	n\a	5	09-09-13
Total Neg. Defl.	L/999 (-0.078")	n\a	n\a	2	26-04-09
Max Defl.	0.421"	28.1%	n\a	2	09-09-13
Span / Depth	17.2				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Beam	4-1/4" x 1-3/4"	627 lbs	11.2%	43.3%	Unspecified
B2	Wall/Plate	3-1/2" x 1-3/4"	1718 lbs	66.0%	73.1%	Unspecified
B3	Beam	2-1/2" x 1-3/4"	470 lbs	14.3%	39.2%	Unspecified

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Double 14" BCI® 4500s-1.8

PASSED

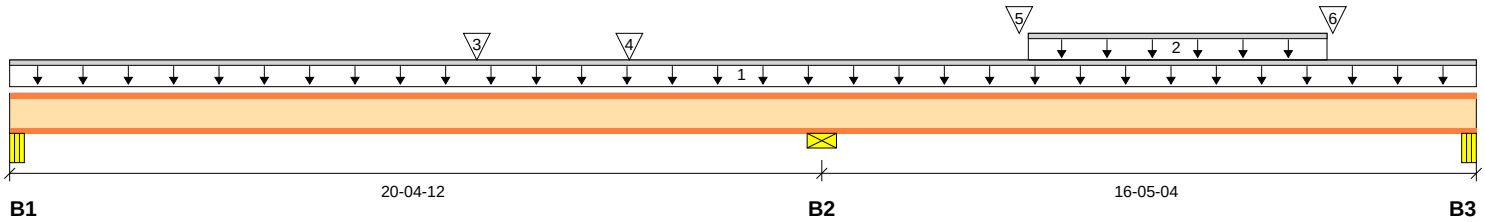
1st Floor\Floor Joists\FJ-4-2(i16471) (Floor Joist)

BC CALC® Member Report
Build 7493

Dry | 2 spans | No cant. | 16 OCS | Repetitive | Glued & nailed

February 2, 2021 13:16:56

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-4-2(i16471)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 36-10-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 4-1/4"	466 / 37	116 / 0			
B2, 3-1/2"	1184 / 0	665 / 0			
B3, 2-1/2"	384 / 87	268 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	36-10-00	Top	52	13				n\a
2	FC2 Floor Material	Unf. Lin. (lb/ft)	L	25-07-00	33-01-00	Top		39				n\a
3	24(i199)	Conc. Pt. (lbs)	L	11-08-13	11-08-13	Top		76				n\a
4	43(i219)	Conc. Pt. (lbs)	L	15-06-12	15-06-12	Top		54				n\a
5	53(i234)	Conc. Pt. (lbs)	L	25-04-04	25-04-04	Top		76				n\a
6	35(i211)	Conc. Pt. (lbs)	L	33-02-12	33-02-12	Top		70				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2445 ft-lbs	34.1%	100%	2	09-00-04
Neg. Moment	-3454 ft-lbs	48.2%	100%	1	20-04-12
End Reaction	652 lbs	27.2%	100%	3	36-10-00
Int. Reaction	1849 lbs	39.3%	100%	1	20-04-12
End Shear	639 lbs	17.5%	100%	3	36-07-08
Cont. Shear	932 lbs	25.5%	100%	1	20-06-08
Total Load Deflection	L/1208 (0.2")	19.9%	n\a	2	09-05-15
Live Load Deflection	L/1457 (0.166")	33.0%	n\a	5	09-09-13
Total Neg. Defl.	L/999 (-0.019")	n\a	n\a	3	16-05-05
Max Defl.	0.2"	13.3%	n\a	2	09-05-15
Span / Depth	17.2				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Beam	4-1/4" x 3-1/2"	582 lbs	5.2%	20.1%	Unspecified
B2	Wall/Plate	3-1/2" x 3-1/2"	1849 lbs	35.5%	39.3%	Unspecified
B3	Beam	2-1/2" x 3-1/2"	652 lbs	9.9%	27.2%	Unspecified

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-4-2(i16471)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Double 14" BCI® 4500s-1.8

PASSED

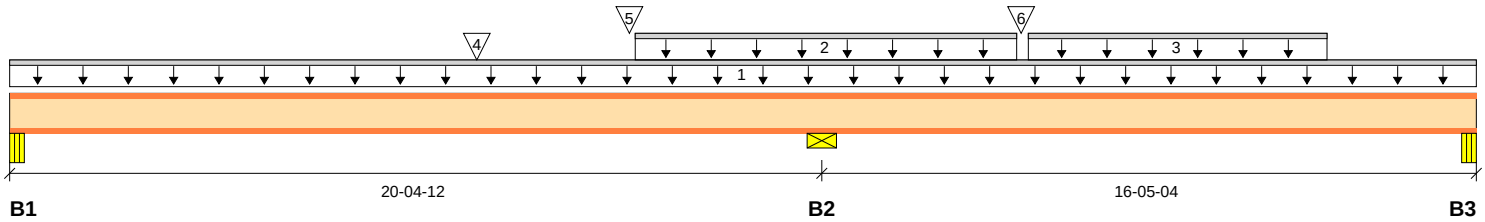
1st Floor\Floor Joists\FJ-4-2(i16472) (Floor Joist)

BC CALC® Member Report
Build 7493

Dry | 2 spans | No cant. | 16 OCS | Repetitive | Glued & nailed

February 2, 2021 13:16:56

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-4-2(i16472)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 36-10-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 4-1/4"	493 / 39	143 / 0			
B2, 3-1/2"	1251 / 0	1100 / 0			
B3, 2-1/2"	406 / 91	155 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	36-10-00	Top	55	14				n\a
2	40(i216)	Unf. Lin. (lb/ft)	L	15-08-08	25-03-08	Top		57				n\a
3	FC2 Floor Material	Unf. Lin. (lb/ft)	L	25-07-00	33-01-00	Top		17				n\a
4	24(i199)	Conc. Pt. (lbs)	L	11-08-13	11-08-13	Top		80				n\a
5	43(i219)	Conc. Pt. (lbs)	L	15-06-12	15-06-12	Top		57				n\a
6	-	Conc. Pt. (lbs)	L	25-04-13	25-04-13	Top		80				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2764 ft-lbs	38.5%	100%	2	09-04-01
Neg. Moment	-3857 ft-lbs	53.8%	100%	1	20-04-12
End Reaction	561 lbs	23.4%	100%	3	36-10-00
Int. Reaction	2351 lbs	50.0%	100%	1	20-04-12
End Shear	611 lbs	16.7%	100%	2	00-04-04
Cont. Shear	1186 lbs	32.5%	100%	1	20-03-00
Total Load Deflection	L/1039 (0.232")	23.1%	n\a	2	09-09-13
Live Load Deflection	L/1379 (0.175")	34.8%	n\a	5	09-09-13
Total Neg. Defl.	L/999 (-0.022")	n\a	n\a	2	24-04-12
Max Defl.	0.232"	15.5%	n\a	2	09-09-13
Span / Depth	17.2				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Beam	4-1/4" x 3-1/2"	635 lbs	5.7%	21.9%	Unspecified
B2	Wall/Plate	3-1/2" x 3-1/2"	2351 lbs	45.1%	50.0%	Unspecified
B3	Beam	2-1/2" x 3-1/2"	561 lbs	8.5%	23.4%	Unspecified

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-4-2(i16472)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 14" BCI® 4500s-1.8

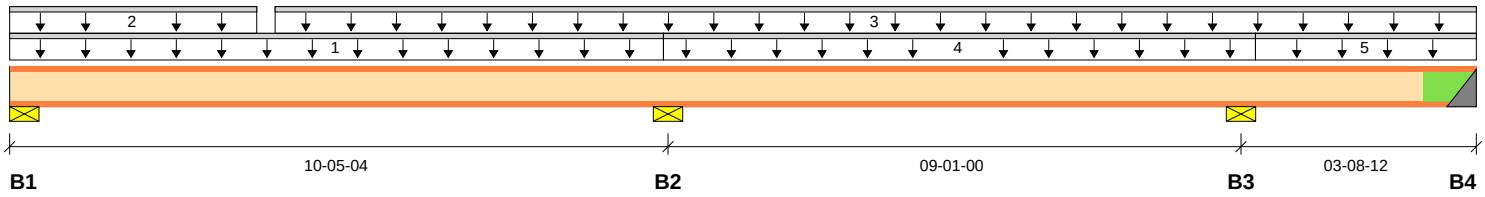
PASSED

1st Floor\Floor Joists\FJ-5(i16440) (Floor Joist)

BC CALC® Member Report | Dry | 3 spans | No cant. | 24 OCS | Repetitive | Glued & nailed | February 2, 2021 13:16:56

Build 7493

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-5(i16440)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 23-03-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 2-1/2"	334 / 17	79 / 0			
B2, 3-1/2"	697 / 0	174 / 0			
B3, 5-1/2"	400 / 0	78 / 0			
B4, 2"	121 / 67	14 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	10-04-06	Top	40	10				n\a
2	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	03-11-00	Top	34	9				n\a
3	FC2 Floor Material	Unf. Lin. (lb/ft)	L	04-02-08	23-03-00	Top	30	7				n\a
4	FC2 Floor Material	Unf. Lin. (lb/ft)	L	10-04-06	19-09-00	Top	20	5				n\a
5	FC2 Floor Material	Unf. Lin. (lb/ft)	L	19-09-00	23-03-00	Top	22	6				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	866 ft-lbs	24.2%	100%	2	04-08-01
Neg. Moment	-794 ft-lbs	22.1%	100%	4	10-05-04
End Reaction	413 lbs	34.4%	100%	2	00-00-00
Int. Reaction	871 lbs	37.1%	100%	4	10-05-04
End Shear	394 lbs	21.6%	100%	2	00-02-08
Cont. Shear	513 lbs	28.1%	100%	4	10-03-08
Total Load Deflection	L/999 (0.043")	n\a	n\a	2	05-01-09
Live Load Deflection	L/999 (0.035")	n\a	n\a	7	05-01-09
Total Neg. Defl.	L/999 (-0.006")	n\a	n\a	2	13-06-08
Max Defl.	0.043"	n\a	n\a	2	05-01-09
Span / Depth	8.8				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate	2-1/2" x 1-3/4"	413 lbs	22.2%	34.4%	Unspecified
B2	Wall/Plate	3-1/2" x 1-3/4"	871 lbs	33.4%	37.1%	Unspecified
B3	Wall/Plate	5-1/2" x 1-3/4"	479 lbs	11.7%	19.0%	Unspecified
B4	Hanger	2" x 1-3/4"	135 lbs	14.2%	9.4%	IUS1.81/9.5

Cautions

Uplift of -53 lbs found at bearing B4.
Web stiffeners required at bearing B4.
Header for the hanger IUS1.81/9.5 is a Double 1-3/4" x 14" LVL Beam.
Hanger IUS1.81/9.5 requires (8) 10d face nails, (2) 10dx1.5 joist nails.

Boise Cascade

Single 14" BCI® 4500s-1.8

PASSED

1st Floor\Floor Joists\FJ-5(i16440) (Floor Joist)

BC CALC® Member Report | Dry | 3 spans | No cant. | 24 OCS | Repetitive | Glued & nailed | February 2, 2021 13:16:56

Build 7493

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-5(i16440)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
Hanger Manufacturer: Simpson Strong-Tie, Inc.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 14" BCI® 4500s-1.8

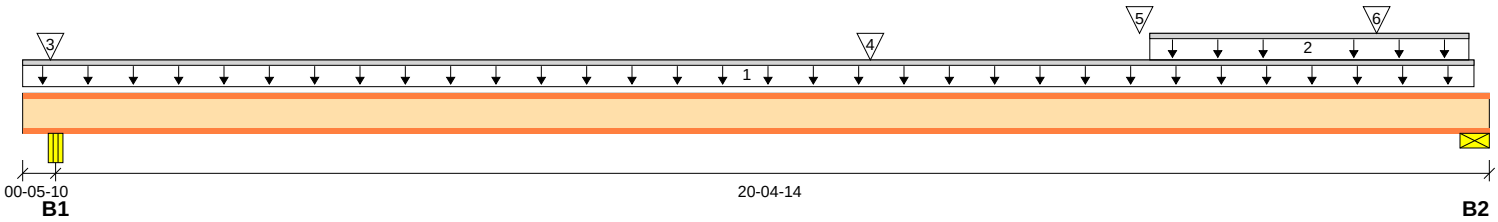
PASSED

1st Floor\Floor Joists\FJ-6(i16503) (Floor Joist)

BC CALC® Member Report | Dry | 2 spans | L cant. | 19.2 OCS | Repetitive | Glued & nailed | February 2, 2021 13:16:56

Build 7493

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-6(i16503)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 20-10-08

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 5-1/4"	282 / 0	208 / 0			40 / 0
B2, 3-1/2"	269 / 0	281 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	20-07-14	Top	27	7				n\a
2	FC2 Floor Material	Unf. Lin. (lb/ft)	L	16-00-08	20-07-00	Top		38				n\a
3	E18(i195)	Conc. Pt. (lbs)	L	00-04-12	00-04-12	Top		94			40	n\a
4	24(i199)	Conc. Pt. (lbs)	L	12-00-13	12-00-13	Top		38				n\a
5	43(i219)	Conc. Pt. (lbs)	L	15-10-12	15-10-12	Top		27				n\a
6	45(i221)	Conc. Pt. (lbs)	L	19-03-04	19-03-04	Top		21				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2165 ft-lbs	60.4%	100%	3	11-08-15
Neg. Moment	-4 ft-lbs	0.1%	100%	1	00-05-10
End Reaction	550 lbs	37.9%	100%	3	20-10-08
Int. Reaction	490 lbs	19.4%	100%	1	00-05-10
End Shear	547 lbs	30.0%	100%	1	20-07-00
Cont. Shear	373 lbs	20.4%	100%	1	00-08-04
Total Load Deflection	L/697 (0.347")	34.4%	n\a	3	10-09-07
Live Load Deflection	L/1112 (0.218")	43.2%	n\a	10	10-05-10
Total Neg. Defl.	2xL/1998 (-0.023")	n\a	n\a	3	00-00-00
Max Defl.	0.347"	23.2%	n\a	3	10-09-07
Cant. Max Defl.	-0.023"	n\a	n\a	3	00-00-00
Span / Depth	17.3				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Beam	5-1/4" x 1-3/4"	490 lbs	7.1%	19.4%	Unspecified
B2	Wall/Plate	3-1/2" x 1-3/4"	550 lbs	21.1%	37.9%	Unspecified

Cautions

Design assumes Top and Bottom flanges to be restrained.

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-6(i16503)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1.5") Cantilever Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.
Cantilevers require sheathed bottom flanges, blocking at cantilever support and closure at ends.

Disclosure

Boise Cascade

Double 14" BCI® 4500s-1.8

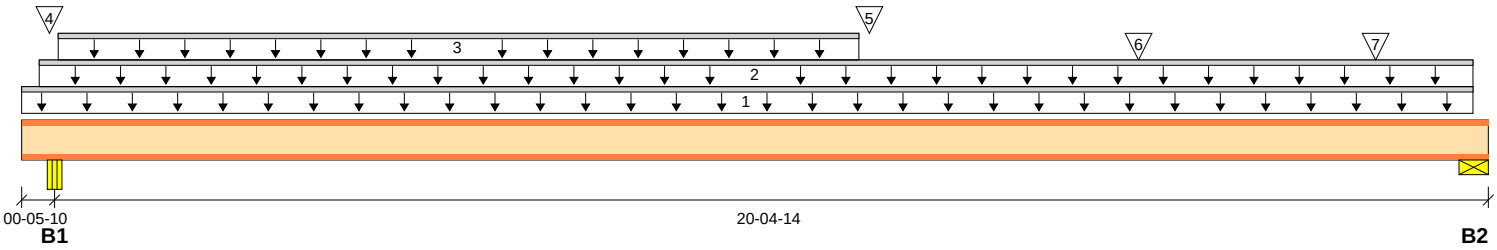
PASSED

1st Floor\Floor Joists\FJ-7-2(i16504) (Floor Joist)

BC CALC® Member Report | Dry | 2 spans | L cant. | 19.2 OCS | Repetitive | Glued & nailed | February 2, 2021 13:16:56

Build 7493

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-7-2(i16504)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 20-10-08

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 5-1/4"	293 / 0	674 / 0			46 / 0
B2, 3-1/2"	280 / 0	345 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	20-07-14	Top	23	6				n\a
2	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-03-00	20-07-14	Top	4	1				n\a
3	23(i196)	Unf. Lin. (lb/ft)	L	00-06-04	11-11-00	Top		57				n\a
4	E18(i195)	Conc. Pt. (lbs)	L	00-04-12	00-04-12	Top		108			46	n\a
5	24(i199)	Conc. Pt. (lbs)	L	12-00-13	12-00-13	Top		44				n\a
6	43(i219)	Conc. Pt. (lbs)	L	15-10-12	15-10-12	Top		31				n\a
7	45(i221)	Conc. Pt. (lbs)	L	19-03-04	19-03-04	Top		44				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	3900 ft-lbs	54.4%	100%	3	09-08-09
Neg. Moment	-4 ft-lbs	n\a	100%	1	00-05-10
End Reaction	624 lbs	21.5%	100%	3	20-10-08
Int. Reaction	967 lbs	19.1%	100%	1	00-05-10
End Shear	622 lbs	17.0%	100%	1	20-07-00
Cont. Shear	825 lbs	22.6%	100%	1	00-08-04
Total Load Deflection	L/707 (0.343")	34.0%	n\a	3	10-04-02
Live Load Deflection	L/1913 (0.127")	25.1%	n\a	10	10-07-14
Total Neg. Defl.	2xL/1998 (-0.025")	n\a	n\a	3	00-00-00
Max Defl.	0.343"	22.8%	n\a	3	10-04-02
Cant. Max Defl.	-0.025"	n\a	n\a	3	00-00-00
Span / Depth	17.3				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Beam	5-1/4" x 3-1/2"	967 lbs	7.0%	19.1%	Unspecified
B2	Wall/Plate	3-1/2" x 3-1/2"	624 lbs	12.0%	21.5%	Unspecified

Cautions

Design assumes Top and Bottom flanges to be restrained.

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-7-2(i16504)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1.5") Cantilever Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.
Cantilevers require sheathed bottom flanges, blocking at cantilever support and closure at ends.

Disclosure

Boise Cascade

Single 14" BCI® 4500s-1.8

PASSED

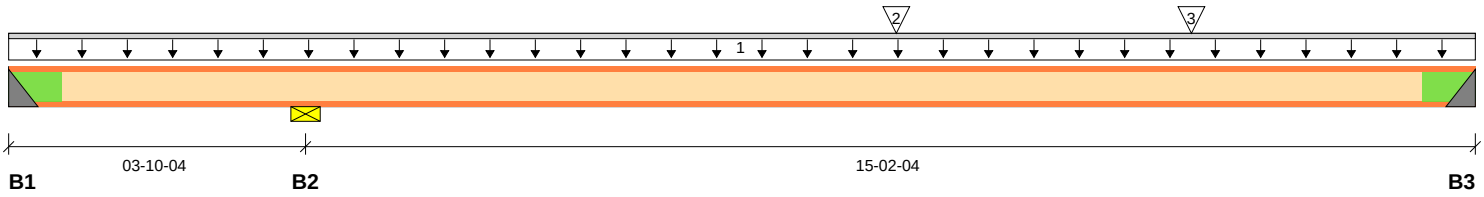
1st Floor\Floor Joists\FJ-8(i16437) (Floor Joist)

BC CALC® Member Report
Build 7493

Dry | 2 spans | No cant. | 24 OCS | Repetitive | Glued & nailed

February 2, 2021 13:16:56

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-8(i16437)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 19-00-08

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 2-1/2"	97 / 264	0 / 81			
B2, 3-1/2"	807 / 0	286 / 0			
B3, 2"	321 / 1	132 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	19-00-08	Top	50	13				n\a
2	25(i6120)	Conc. Pt. (lbs)	L	11-06-05	11-06-05	Top		46				n\a
3	43(i219)	Conc. Pt. (lbs)	L	15-04-04	15-04-04	Top		51				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	1425 ft-lbs	39.7%	100%	3	12-08-11
Neg. Moment	-1387 ft-lbs	38.7%	100%	1	03-10-04
End Reaction	453 lbs	31.5%	100%	3	19-00-08
Int. Reaction	1093 lbs	46.5%	100%	1	03-10-04
End Shear	443 lbs	24.3%	100%	3	18-10-08
Cont. Shear	593 lbs	32.5%	100%	1	04-00-00
Total Load Deflection	L/999 (0.122")	n\a	n\a	3	12-00-01
Live Load Deflection	L/999 (0.085")	n\a	n\a	6	11-10-10
Total Neg. Defl.	L/999 (-0.004")	n\a	n\a	3	02-03-14
Max Defl.	0.122"	n\a	n\a	3	12-00-01
Span / Depth	12.9				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Hanger	2-1/2" x 1-3/4"	16 lbs	0.4%	1.0%	HU 14
B1	Uplift		345 lbs			
B2	Wall/Plate	3-1/2" x 1-3/4"	1093 lbs	42.0%	46.5%	Unspecified
B3	Hanger	2" x 1-3/4"	453 lbs	47.7%	31.5%	IUS1.81/9.5

Cautions

Uplift of -345 lbs found at bearing B1.
Web stiffeners required at bearing B1.
Header for the hanger HU14 is a Double 1-3/4" x 14" LVL Beam.
Hanger HU14 requires (28) 10d face nails, (8) 10dx1.5 joist nails.
Web stiffeners required at bearing B3.
Header for the hanger IUS1.81/9.5 is a Double 1-3/4" x 14" LVL Beam.
Hanger IUS1.81/9.5 requires (8) 10d face nails, (2) 10dx1.5 joist nails.

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-8(i16437)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
Hanger Manufacturer: Simpson Strong-Tie, Inc.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 14" BCI® 4500s-1.8

PASSED

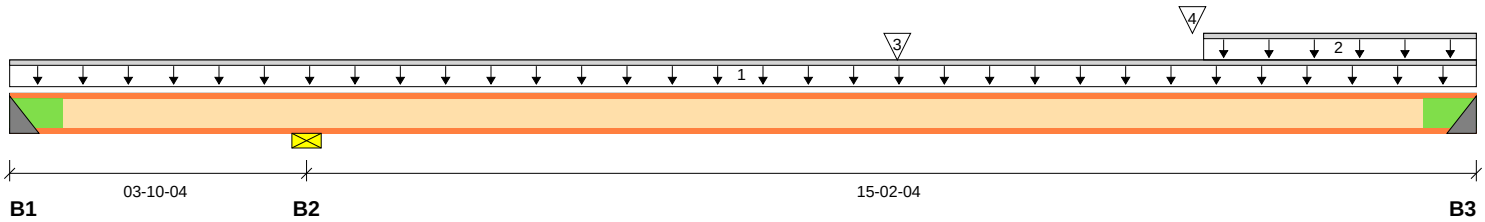
1st Floor\Floor Joists\FJ-8(i16438) (Floor Joist)

BC CALC® Member Report
Build 7493

Dry | 2 spans | No cant. | 24 OCS | Repetitive | Glued & nailed

February 2, 2021 13:16:56

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-8(i16438)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 19-00-08

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 2-1/2"	103 / 279	0 / 98			
B2, 3-1/2"	854 / 0	327 / 0			
B3, 2"	339 / 1	196 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	19-00-08	Top	53	13				n\a
2	FC2 Floor Material	Unf. Lin. (lb/ft)	L	15-06-00	19-00-08	Top		16				n\a
3	25(i6120)	Conc. Pt. (lbs)	L	11-06-05	11-06-05	Top		49				n\a
4	43(i219)	Conc. Pt. (lbs)	L	15-04-04	15-04-04	Top		66				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	1570 ft-lbs	43.8%	100%	3	12-08-11
Neg. Moment	-1513 ft-lbs	42.2%	100%	1	03-10-04
End Reaction	536 lbs	37.2%	100%	3	19-00-08
Int. Reaction	1181 lbs	50.3%	100%	1	03-10-04
End Shear	522 lbs	28.6%	100%	3	18-10-08
Cont. Shear	640 lbs	35.0%	100%	1	04-00-00
Total Load Deflection	L/1345 (0.135")	17.8%	n\a	3	12-00-01
Live Load Deflection	L/999 (0.09")	n\a	n\a	6	11-10-10
Total Neg. Defl.	L/999 (-0.004")	n\a	n\a	3	02-03-14
Max Defl.	0.135"	9.0%	n\a	3	12-00-01
Span / Depth	12.9				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Hanger	2-1/2" x 1-3/4"	4 lbs	0.1%	0.3%	HU 14
B1	Uplift		377 lbs			
B2	Wall/Plate	3-1/2" x 1-3/4"	1181 lbs	45.4%	50.3%	Unspecified
B3	Hanger	2" x 1-3/4"	536 lbs	56.4%	37.2%	IUS1.81/9.5

Cautions

Uplift of -377 lbs found at bearing B1.
Web stiffeners required at bearing B1.
Header for the hanger HU14 is a Double 1-3/4" x 14" LVL Beam.
Hanger HU14 requires (28) 10d face nails, (8) 10dx1.5 joist nails.
Web stiffeners required at bearing B3.
Header for the hanger IUS1.81/9.5 is a Double 1-3/4" x 14" LVL Beam.
Hanger IUS1.81/9.5 requires (8) 10d face nails, (2) 10dx1.5 joist nails.

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-8(i16438)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
Hanger Manufacturer: Simpson Strong-Tie, Inc.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 14" BCI® 4500s-1.8

PASSED

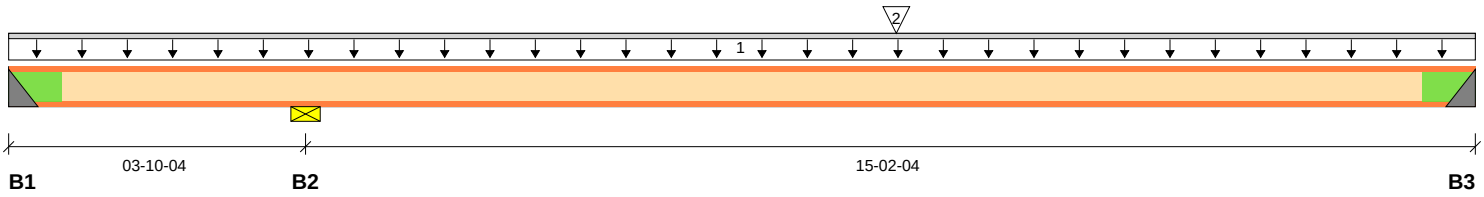
1st Floor\Floor Joists\FJ-8(i16439) (Floor Joist)

BC CALC® Member Report
Build 7493

Dry | 2 spans | No cant. | 24 OCS | Repetitive | Glued & nailed

February 2, 2021 13:16:56

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-8(i16439)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 19-00-08

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 2-1/2"	77 / 192	0 / 47			
B2, 3-1/2"	590 / 0	186 / 0			
B3, 2"	234 / 1	71 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	19-00-08	Top	37	10				n\a
2	25(i6120)	Conc. Pt. (lbs)	L	11-06-05	11-06-05	Top		34				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	983 ft-lbs	27.4%	100%	3	12-05-14
Neg. Moment	-971 ft-lbs	27.1%	100%	1	03-10-04
End Reaction	306 lbs	21.2%	100%	3	19-00-08
Int. Reaction	775 lbs	33.0%	100%	1	03-10-04
End Shear	298 lbs	16.3%	100%	3	18-10-08
Cont. Shear	422 lbs	23.1%	100%	1	04-00-00
Total Load Deflection	L/999 (0.084")	n\a	n\a	3	11-10-15
Live Load Deflection	L/999 (0.062")	n\a	n\a	6	11-10-15
Total Neg. Defl.	L/999 (-0.003")	n\a	n\a	3	02-03-14
Max Defl.	0.084"	n\a	n\a	3	11-10-15
Span / Depth	12.9				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Hanger	2-1/2" x 1-3/4"	30 lbs	0.8%	1.9%	HU 14
B1	Uplift		239 lbs			
B2	Wall/Plate	3-1/2" x 1-3/4"	775 lbs	29.8%	33.0%	Unspecified
B3	Hanger	2" x 1-3/4"	306 lbs	32.2%	21.2%	IUS1.81/9.5

Cautions

Uplift of -239 lbs found at bearing B1.
Web stiffeners required at bearing B1.
Header for the hanger HU14 is a Double 1-3/4" x 14" LVL Beam.
Hanger HU14 requires (28) 10d face nails, (8) 10dx1.5 joist nails.
Web stiffeners required at bearing B3.
Header for the hanger IUS1.81/9.5 is a Double 1-3/4" x 14" LVL Beam.
Hanger IUS1.81/9.5 requires (8) 10d face nails, (2) 10dx1.5 joist nails.

Boise Cascade

Single 14" BCI® 4500s-1.8

PASSED

1st Floor\Floor Joists\FJ-8(i16439) (Floor Joist)

BC CALC® Member Report | Dry | 2 spans | No cant. | 24 OCS | Repetitive | Glued & nailed | February 2, 2021 13:16:56

Build 7493

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-8(i16439)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
Hanger Manufacturer: Simpson Strong-Tie, Inc.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 14" BCI® 4500s-1.8

PASSED

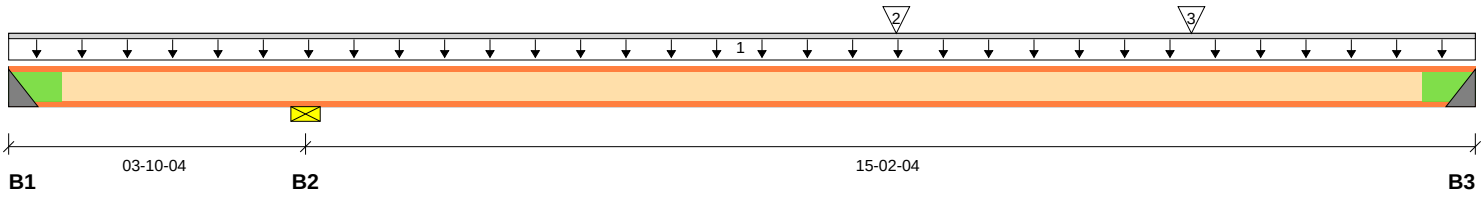
1st Floor\Floor Joists\FJ-8(i16475) (Floor Joist)

BC CALC® Member Report
Build 7493

Dry | 2 spans | No cant. | 16 OCS | Repetitive | Glued & nailed

February 2, 2021 13:16:56

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-8(i16475)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 19-00-08

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 2-1/2"	97 / 266	0 / 73			
B2, 3-1/2"	810 / 0	266 / 0			
B3, 2"	320 / 1	125 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	19-00-08	Top	50	13				n\a
2	25(i6120)	Conc. Pt. (lbs)	L	11-06-05	11-06-05	Top		28				n\a
3	43(i219)	Conc. Pt. (lbs)	L	15-04-04	15-04-04	Top		51				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	1377 ft-lbs	38.4%	100%	3	12-08-11
Neg. Moment	-1363 ft-lbs	38.0%	100%	1	03-10-04
End Reaction	446 lbs	30.9%	100%	3	19-00-08
Int. Reaction	1076 lbs	45.8%	100%	1	03-10-04
End Shear	435 lbs	23.8%	100%	3	18-10-08
Cont. Shear	582 lbs	31.9%	100%	1	04-00-00
Total Load Deflection	L/999 (0.123")	n\a	n\a	3	12-00-01
Live Load Deflection	L/999 (0.089")	n\a	n\a	6	12-00-01
Total Neg. Defl.	L/999 (-0.004")	n\a	n\a	3	02-03-14
Max Defl.	0.123"	n\a	n\a	3	12-00-01
Span / Depth	12.9				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Hanger	2-1/2" x 1-3/4"	24 lbs	0.7%	1.5%	HU 14
B1	Uplift		338 lbs			
B2	Wall/Plate	3-1/2" x 1-3/4"	1076 lbs	41.3%	45.8%	Unspecified
B3	Hanger	2" x 1-3/4"	446 lbs	46.9%	30.9%	IUS1.81/9.5

Cautions

Uplift of -338 lbs found at bearing B1.
Web stiffeners required at bearing B1.
Header for the hanger HU14 is a Double 1-3/4" x 14" LVL Beam.
Hanger HU14 requires (28) 10d face nails, (8) 10dx1.5 joist nails.
Web stiffeners required at bearing B3.
Header for the hanger IUS1.81/9.5 is a Double 1-3/4" x 14" LVL Beam.
Hanger IUS1.81/9.5 requires (8) 10d face nails, (2) 10dx1.5 joist nails.

Boise Cascade

Single 14" BCI® 4500s-1.8

PASSED

1st Floor\Floor Joists\FJ-8(i16475) (Floor Joist)

BC CALC® Member Report | Dry | 2 spans | No cant. | 16 OCS | Repetitive | Glued & nailed | February 2, 2021 13:16:56

Build 7493

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-8(i16475)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
Hanger Manufacturer: Simpson Strong-Tie, Inc.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 14" BCI® 4500s-1.8

PASSED

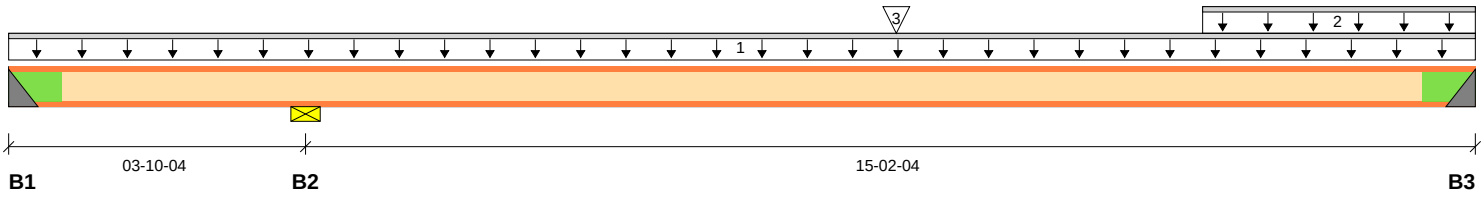
1st Floor\Floor Joists\FJ-8(i16492) (Floor Joist)

BC CALC® Member Report
Build 7493

Dry | 2 spans | No cant. | 24 OCS | Repetitive | Glued & nailed

February 2, 2021 13:16:56

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-8(i16492)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 19-00-08

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 2-1/2"	103 / 279	0 / 82			
B2, 3-1/2"	854 / 0	295 / 0			
B3, 2"	339 / 1	178 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	19-00-08	Top	53	13				n\a
2	FC2 Floor Material	Unf. Lin. (lb/ft)	L	15-06-00	19-00-08	Top		25				n\a
3	25(i6120)	Conc. Pt. (lbs)	L	11-06-05	11-06-05	Top		49				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	1486 ft-lbs	41.4%	100%	3	12-07-11
Neg. Moment	-1454 ft-lbs	40.5%	100%	1	03-10-04
End Reaction	517 lbs	35.9%	100%	3	19-00-08
Int. Reaction	1149 lbs	48.9%	100%	1	03-10-04
End Shear	502 lbs	27.5%	100%	3	18-10-08
Cont. Shear	623 lbs	34.1%	100%	1	04-00-00
Total Load Deflection	L/1416 (0.128")	16.9%	n\a	3	12-00-04
Live Load Deflection	L/999 (0.09")	n\a	n\a	6	12-00-04
Total Neg. Defl.	L/999 (-0.004")	n\a	n\a	3	02-03-14
Max Defl.	0.128"	8.5%	n\a	3	12-00-04
Span / Depth	12.9				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Hanger	2-1/2" x 1-3/4"	20 lbs	0.6%	1.2%	HU 14
B1	Uplift		361 lbs			
B2	Wall/Plate	3-1/2" x 1-3/4"	1149 lbs	44.1%	48.9%	Unspecified
B3	Hanger	2" x 1-3/4"	517 lbs	54.5%	35.9%	IUS1.81/9.5

Cautions

Uplift of -361 lbs found at bearing B1.
Web stiffeners required at bearing B1.
Header for the hanger HU14 is a Double 1-3/4" x 14" LVL Beam.
Hanger HU14 requires (28) 10d face nails, (8) 10dx1.5 joist nails.
Web stiffeners required at bearing B3.
Header for the hanger IUS1.81/9.5 is a Double 1-3/4" x 14" LVL Beam.
Hanger IUS1.81/9.5 requires (8) 10d face nails, (2) 10dx1.5 joist nails.

Boise Cascade

Single 14" BCI® 4500s-1.8

PASSED

1st Floor\Floor Joists\FJ-8(i16492) (Floor Joist)

BC CALC® Member Report | Dry | 2 spans | No cant. | 24 OCS | Repetitive | Glued & nailed | February 2, 2021 13:16:56

Build 7493

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-8(i16492)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
Hanger Manufacturer: Simpson Strong-Tie, Inc.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 14" BCI® 4500s-1.8

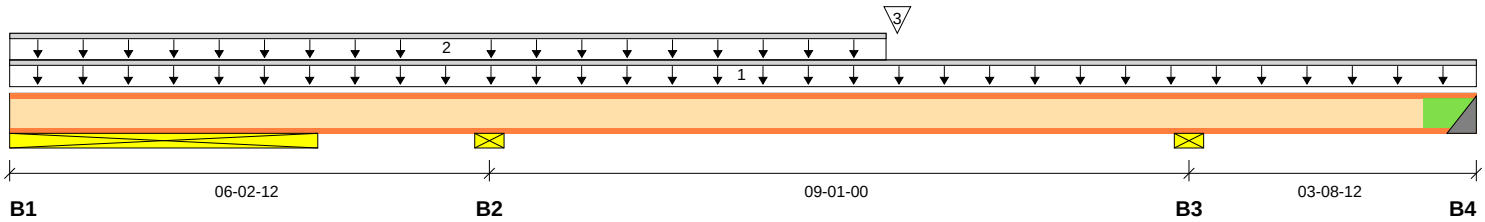
PASSED

1st Floor\Floor Joists\FJ-8(i16494) (Floor Joist)

BC CALC® Member Report | Dry | 3 spans | No cant. | 19.2 OCS | Repetitive | Glued & nailed | February 2, 2021 13:16:56

Build 7493

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-8(i16494)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 19-00-08

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 48"	209 / 81	236 / 0			
B2, 3-1/2"	310 / 0	448 / 0			
B3, 5-1/2"	313 / 0	202 / 0			
B4, 2"	73 / 52	0 / 35			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	19-00-08	Top	40	10				n\a
2	27(i200)	Unf. Lin. (lb/ft)	L	00-00-00	11-04-08	Top		57				n\a
3	26(i6120)	Conc. Pt. (lbs)	L	11-06-05	11-06-05	Top		11				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	505 ft-lbs	14.1%	100%	3	10-05-00
Neg. Moment	-432 ft-lbs	12.0%	100%	4	06-02-12
End Reaction	444 lbs	30.6%	100%	2	00-00-00
Int. Reaction	758 lbs	32.2%	100%	4	06-02-12
End Shear	114 lbs	6.3%	100%	3	04-00-00
Cont. Shear	431 lbs	23.6%	100%	4	06-04-08
Total Load Deflection	L/999 (0.023")	n\a	n\a	3	10-06-07
Live Load Deflection	L/999 (0.01")	n\a	n\a	8	10-09-05
Total Neg. Defl.	L/999 (-0.001")	n\a	n\a	3	16-09-04
Max Defl.	0.023"	n\a	n\a	3	10-06-07
Span / Depth	7.8				
Dist. Load (B1)	106.90 lb/ft	5.3%	100%		
Conc. Load (B1)	7 lbs	0.7%	100%		

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate	48" x 1-3/4"	444 lbs	1.2%	30.6%	Unspecified
B2	Wall/Plate	3-1/2" x 1-3/4"	758 lbs	29.1%	32.2%	Unspecified
B3	Wall/Plate	5-1/2" x 1-3/4"	514 lbs	12.6%	20.4%	Unspecified
B4	Hanger	2" x 1-3/4"	38 lbs	4.0%	2.6%	IUS1.81/9.5
B4	Uplift		87 lbs			

Cautions

Uplift of -87 lbs found at bearing B4.
Web stiffeners required at bearing B4.
Header for the hanger IUS1.81/9.5 is a Double 1-3/4" x 14" LVL Beam.
Hanger IUS1.81/9.5 requires (8) 10d face nails, (2) 10dx1.5 joist nails.

Boise Cascade

Single 14" BCI® 4500s-1.8

PASSED

1st Floor\Floor Joists\FJ-8(i16494) (Floor Joist)

BC CALC® Member Report | Dry | 3 spans | No cant. | 19.2 OCS | Repetitive | Glued & nailed | February 2, 2021 13:16:56

Build 7493

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-8(i16494)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
Hanger Manufacturer: Simpson Strong-Tie, Inc.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 14" BCI® 4500s-1.8

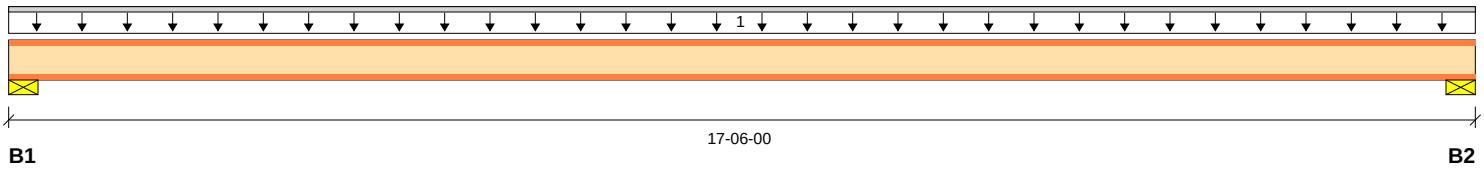
PASSED

1st Floor\Floor Joists\FJ-9(i16483) (Floor Joist)

BC CALC® Member Report | Dry | 1 span | No cant. | 19.2 OCS | Repetitive | Glued & nailed | February 2, 2021 13:16:56

Build 7493

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-9(i16483)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 17-06-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 2-1/2"	560 / 0	140 / 0			
B2, 2-1/2"	560 / 0	140 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	17-06-00	Top	64	16				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2962 ft-lbs	82.6%	100%	1	08-09-00
End Reaction	700 lbs	58.3%	100%	1	00-00-00
End Shear	683 lbs	37.4%	100%	1	00-02-08
Total Load Deflection	L/582 (0.355")	41.3%	n\a	1	08-09-00
Live Load Deflection	L/727 (0.284")	66.0%	n\a	2	08-09-00
Max Defl.	0.355"	23.7%	n\a	1	08-09-00
Span / Depth	14.8				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate	2-1/2" x 1-3/4"	700 lbs	37.6%	58.3%	Unspecified
B2	Wall/Plate	2-1/2" x 1-3/4"	700 lbs	37.6%	58.3%	Unspecified

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 14" BCI® 4500s-1.8

PASSED

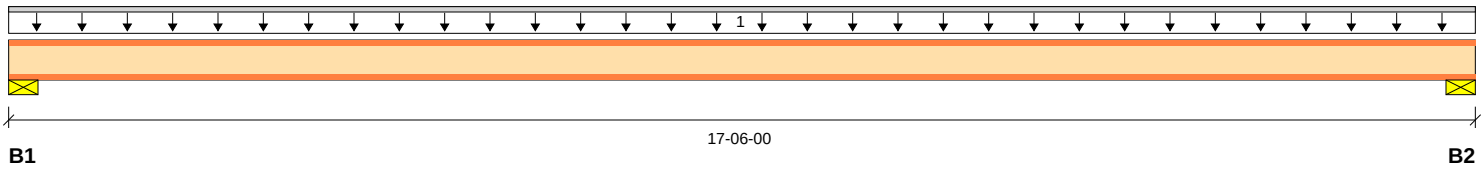
1st Floor\Floor Joists\FJ-9(i16483) - 01 (Floor Joist)

BC CALC® Member Report
Build 7493

Dry | 1 span | No cant. | 19.2 OCS | Repetitive | Glued & nailed

February 2, 2021 13:16:56

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-9(i16483)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 17-06-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 2-1/2"	560 / 0	140 / 0			
B2, 2-1/2"	560 / 0	140 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	17-06-00	Top	64	16				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2962 ft-lbs	82.6%	100%	1	08-09-00
End Reaction	700 lbs	58.3%	100%	1	00-00-00
End Shear	683 lbs	37.4%	100%	1	00-02-08
Total Load Deflection	L/582 (0.355")	41.3%	n\a	1	08-09-00
Live Load Deflection	L/727 (0.284")	66.0%	n\a	2	08-09-00
Max Defl.	0.355"	23.7%	n\a	1	08-09-00
Span / Depth	14.8				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate	2-1/2" x 1-3/4"	700 lbs	37.7%	58.3%	Unspecified
B2	Wall/Plate	2-1/2" x 1-3/4"	700 lbs	37.6%	58.3%	Unspecified

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 14" BCI® 4500s-1.8

PASSED

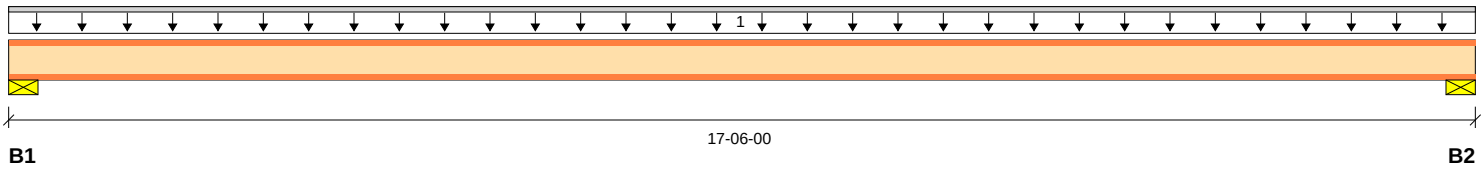
1st Floor\Floor Joists\FJ-9(i16483) - 02 (Floor Joist)

BC CALC® Member Report
Build 7493

Dry | 1 span | No cant. | 19.2 OCS | Repetitive | Glued & nailed

February 2, 2021 13:16:56

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-9(i16483)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 17-06-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 2-1/2"	560 / 0	140 / 0			
B2, 2-1/2"	560 / 0	140 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	17-06-00	Top	64	16				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2962 ft-lbs	82.6%	100%	1	08-09-00
End Reaction	700 lbs	58.3%	100%	1	00-00-00
End Shear	683 lbs	37.4%	100%	1	00-02-08
Total Load Deflection	L/582 (0.355")	41.3%	n\a	1	08-09-00
Live Load Deflection	L/727 (0.284")	66.0%	n\a	2	08-09-00
Max Defl.	0.355"	23.7%	n\a	1	08-09-00
Span / Depth	14.8				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate	2-1/2" x 1-3/4"	700 lbs	37.7%	58.3%	Unspecified
B2	Wall/Plate	2-1/2" x 1-3/4"	700 lbs	37.6%	58.3%	Unspecified

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 14" BCI® 4500s-1.8

PASSED

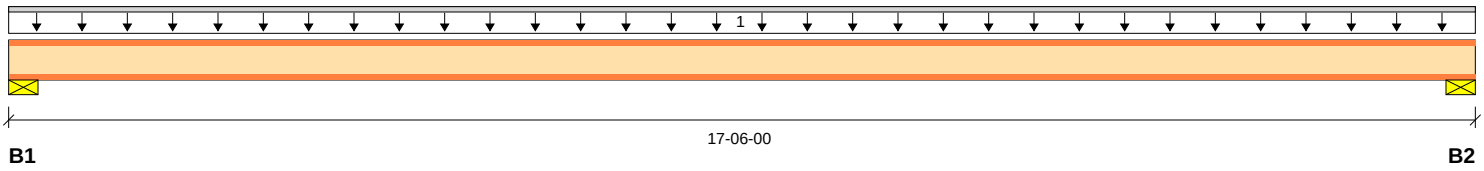
1st Floor\Floor Joists\FJ-9(i16483) - 03 (Floor Joist)

BC CALC® Member Report
Build 7493

Dry | 1 span | No cant. | 19.2 OCS | Repetitive | Glued & nailed

February 2, 2021 13:16:56

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-9(i16483)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 17-06-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 2-1/2"	560 / 0	140 / 0			
B2, 2-1/2"	560 / 0	140 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	17-06-00	Top	64	16				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2962 ft-lbs	82.6%	100%	1	08-09-00
End Reaction	700 lbs	58.3%	100%	1	17-06-00
End Shear	683 lbs	37.4%	100%	1	00-02-08
Total Load Deflection	L/582 (0.355")	41.3%	n\a	1	08-09-00
Live Load Deflection	L/727 (0.284")	66.0%	n\a	2	08-09-00
Max Defl.	0.355"	23.7%	n\a	1	08-09-00
Span / Depth	14.8				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate	2-1/2" x 1-3/4"	700 lbs	37.6%	58.3%	Unspecified
B2	Wall/Plate	2-1/2" x 1-3/4"	700 lbs	37.6%	58.3%	Unspecified

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure

Boise Cascade

Single 14" BCI® 4500s-1.8

PASSED

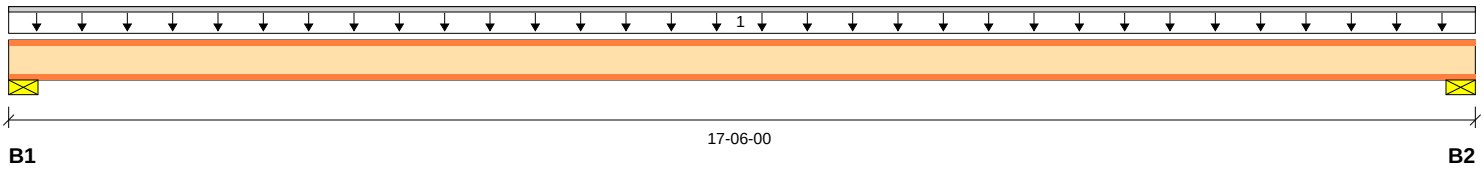
1st Floor\Floor Joists\FJ-9(i16487) (Floor Joist)

BC CALC® Member Report
Build 7493

Dry | 1 span | No cant. | 19.2 OCS | Repetitive | Glued & nailed

February 2, 2021 13:16:56

Job name:		File name:	2547509 OFV030 PRELUDE.mmdl
Address:		Description:	1st Floor\Floor Joists\FJ-9(i16487)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1336	Company:	



Total Horizontal Product Length = 17-06-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 2-1/2"	448 / 0	112 / 0			
B2, 2-1/2"	448 / 0	112 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	OCS
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	17-06-00	Top	51	13				n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2368 ft-lbs	66.0%	100%	1	08-09-00
End Reaction	560 lbs	46.6%	100%	1	00-00-00
End Shear	546 lbs	29.9%	100%	1	00-02-08
Total Load Deflection	L/728 (0.284")	33.0%	n\a	1	08-09-00
Live Load Deflection	L/910 (0.227")	52.8%	n\a	2	08-09-00
Max Defl.	0.284"	18.9%	n\a	1	08-09-00
Span / Depth	14.8				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate	2-1/2" x 1-3/4"	560 lbs	30.1%	46.6%	Unspecified
B2	Wall/Plate	2-1/2" x 1-3/4"	560 lbs	30.1%	46.6%	Unspecified

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1.5") Maximum Total load deflection criteria.
Design meets arbitrary (1") Maximum live load deflection criteria.
Calculations assume member is fully braced.
BC CALC® analysis is based on IBC 2015.
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.

Disclosure