isDesign

Client:

Project:

Address:

Date:

Input by:

Job Name: Hornsby

Level: Level

10/21/2022

Page 1 of 10

Project #:

B1 between kitchen & dining room onCENTER 2.1E LVL 1.750" X 11.875" 2-Ply - PASSED

2 1 2 SPF 1 SPF 14'7' 14'7"

Member Info	rmation			Read	tions UNP	ATTERN	ED lb (Uplift	t)		
Туре:	Girder	Application:	Floor	Brg	Direction	Live	Dead	Snow	Wind	Const
Plies:	2	Design Method:	ASD	1	Vertical	1112	1631	1543	0	0
Moisture Condition	on: Dry	Building Code:	IRC 2018	2	Vertical	1112	1631	1543	0	0
Deflection LL:	480	Load Sharing:	No	-						
Deflection TL:	240	Deck:	Not Checked							
Importance:	Normal - II									
Temperature:	Temp <= 100°F			Bea	rings					
				Bea	aring Length	Dir.	Cap. React D/	L lb Tota	Ld. Case	Ld. Comb.
				1 -	SPF 3.500"	Vert	70% 1631 / 1	992 3623	3 L	D+0.75(L+S)
				2.	SPF 3.500"	Vert	70% 1631 / 1	992 3623	3 L	D+0.75(L+S)

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	12391 ft-lb	7'3 1/2"	24470 ft-lb	0.506 (51%)	D+0.75(L+S)	L
Unbraced	12391 ft-lb	7'3 1/2"	12423 ft-lb	0.997 (100%)	D+0.75(L+S)	L
Shear	3101 lb	1'3 3/8"	9081 lb	0.341 (34%)	D+0.75(L+S)	L
LL Defl inch	0.256 (L/661)	7'3 9/16"	0.353 (L/480)	0.726 (73%)	0.75(L+S)	L
TL Defl inch	0.467 (L/363)	7'3 9/16"	0.706 (L/240)	0.661 (66%)	D+0.75(L+S)	L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- 3 Refer to last page of calculations for fasteners required for specified loads.
- 4 Girders are designed to be supported on the bottom edge only.
- 5 Top loads must be supported equally by all plies.
- 6 Top must be laterally braced at a maximum of 7'3 3/4" o.c.
- 7 Bottom must be laterally braced at end bearings.
- 8 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Tie-In Far	0-0-0 to 14-7-0	5-11-0	Тор	10 PSF	0 PSF	20 PSF	0 PSF	0 PSF	roof
1	Tie-In Near	0-0-0 to 14-7-0	4-8-0	Тор	10 PSF	0 PSF	20 PSF	0 PSF	0 PSF	roof
2	Tie-In Far	0-0-0 to 14-7-0	5-11-0	Far Face	10 PSF	10 PSF	0 PSF	0 PSF	0 PSF	ceiling
2	Tie-In Near	0-0-0 to 14-7-0	0-0-0	Тор	10 PSF	10 PSF	0 PSF	0 PSF	0 PSF	ceiling

Continued on page 2...

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

Lumber

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

Handling & Installation

and ling & Installation.

LVL beams must not be out or drilled.
Refer to manufacturer's product information regarding installation requirements, multi-ply testening details, beam strength values, and code approvals.

Damaged Beams must not be used.
Design assumes top odge is laterally restrained.
Provide lateral support at bearing points to avoid lateral displacement and rotation.

For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

BlueLinx 1950 Spectrum Circle, Suite 300 Marietta, GA 30067 877-914-7770 www.buildoncenter.com

Manufacturer Info

ICC-ES: ESR-2909, ESR-2913, ESR-1210

Page 2 of 10 10/21/2022 Date: Client: Project: Input by: isDesign Job Name: Hornsby Address: Project #: onCENTER 2.1E LVL 1.750" X 11.875" 2-Ply - PASSED Level: Level B1 between kitchen & dining room 2 2 SPF 1 SPF 14'7 14'7' .Continued from page 1 Comments Location Trib Width Side Dead 0.9 Live 1 Snow 1.15 Wind 1.6 Const. 1.25 ID Load Type 0 PSF 0 PSF 0 PSF ceiling 10 PSF 20 PSF 3 Tie-In Far 0-0-0 to 14-7-0 0-0-0 Top 0 PSF ceiling 20 PSF 0 PSF 0 PSF 10 PSF 3 Tie-In Near 0-0-0 to 14-7-0 4-8-0 Top 12 PLF Self Weight Manufacturer Info 6. For flat roofs provide proper drainage to prevent Notes Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads. Handling & Installation and ling & Installation
LVL beams must not be out or drilled
Refer to manufacturer's product information
regarding installation requirements, multi-pti
testening otetals, beam strength values, and code
approvals
Damaged Beams must not be used
Design assumes top edge is laterally restrained
Provide lateral support at bearing points to avoid
lateral displacement and rotation 1950 Spectrum Circle, Suite 300 Marietta, GA 30067 877-914-7770 www.buildoncenter.com Lumber ICC-ES: ESR-2909, ESR-2913,

ESR-1210

Version 21.80.417 Powered by iStruct™ Dataset: 22081504.276

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



Client

Project:

Address:

Date:

10/21/2022 Input by:

Job Name: Hornsby Project #:

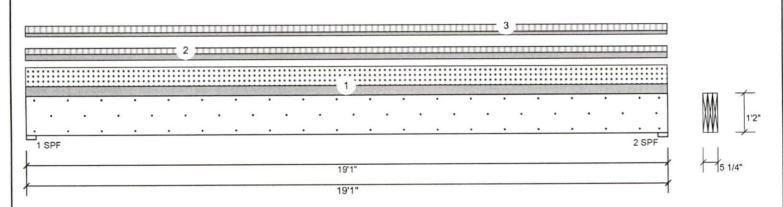
onCENTER 2.1E LVL 1.750" X 14.000" 3-Ply - PASSED B2 between dining & great rooms

Level: Level

Page 3 of 10

0

0



Reactions UNPATTERNED Ib (Uplift) Member Information Wind Const Dead Snow Direction Live Type: Girder Application: Floor Brg 2385 0 1638 2589 Plies: 3 Design Method: ASD 1 Vertical Moisture Condition: Dry Building Code: IRC 2018 1638 2589 2385 0 Vertical Load Sharing: Yes Deflection LL: Deck: Not Checked Deflection TL: Normal - II Importance: Temp <= 100°F Temperature: **Bearings** Ld. Comb. Cap. React D/L lb Total Ld. Case Bearing Length Dir. 5607 L D+0.75(L+S) 72% 2589 / 3018 1 - SPF 3.500" Vert D+0.75(L+S) 2 - SPF 3.500" Vert 2589 / 3018 5607 L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	25478 ft-lb	9'6 1/2"	51379 ft-lb	0.496 (50%)	D+0.75(L+S)	L
Unbraced	25478 ft-lb	9'6 1/2"	25498 ft-lb	0.999 (100%)	D+0.75(L+S)	L
Shear	4934 lb	1'5 1/2"	16060 lb	0.307 (31%)	D+0.75(L+S)	L
LL Defl inch	0.360 (L/621)	9'6 9/16"	0.466 (L/480)	0.773 (77%)	0.75(L+S)	L
TL Defl inch	0.669 (L/334)	9'6 9/16"	0.931 (L/240)	0.718 (72%)	D+0.75(L+S)	L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not
- 3 Refer to last page of calculations for fasteners required for specified loads.
- 4 Girders are designed to be supported on the bottom edge only.
- 5 Top loads must be supported equally by all plies.
- 6 Top must be laterally braced at a maximum of 6'3 1/16" o.c.
- 7 Bottom must be laterally braced at end bearings.
- 8 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments	
1	Tie-In Far	0-0-0 to 19-1-0	7-10-0	Тор	10 PSF	0 PSF	20 PSF	0 PSF	0 PSF	roof	
1	Tie-In Near	0-0-0 to 19-1-0	4-8-0	Тор	10 PSF	0 PSF	20 PSF	0 PSF	0 PSF	roof	
2	Tie-In Far	0-0-0 to 19-1-0	7-10-0	Far Face	10 PSF	10 PSF	0 PSF	0 PSF	0 PSF	ceiling	
2	Tie-In Near	0-0-0 to 19-1-0	0-0-0	Тор	10 PSF	10 PSF	0 PSF	0 PSF	0 PSF	ceiling	

Continued on page 2...

Notes

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

Lumber

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

Handling & Installation

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

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info BlueLinx 1950 Spectrum Circle, Suite 300 Marietta, GA 30067

877-914-7770 www.buildoncenter.com ICC-ES: ESR-2909, ESR-2913, ESR-1210

This design is valid until 11/3/2024

Page 4 of 10 Date: 10/21/2022 Client Input by: Project: isDesign Job Name: Hornsby Address: Project #: B2 between dining & great rooms on CENTER 2.1E LVL 1.750" X 14.000" 3-Ply - PASSED Level: Level 1 SPF 2 SPF 19'1' 19'1' .Continued from page 1 Wind 1.6 Const. 1.25 Comments ID Load Type Location Trib Width Side Dead 0.9 Live 1 Snow 1.15 20 PSF 0 PSF 0 PSF 0 PSF ceiling 10 PSF 3 Tie-In Far 0-0-0 to 19-1-0 0-0-0 Top 0 PSF 0 PSF 0 PSF ceiling 20 PSF 10 PSF 3 Tie-In Near 0-0-0 to 19-1-0 4-8-0 Тор 21 PLF Self Weight

Notes

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Lumber

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Darraged Beams must not be used.
Design assumes top edge is laterally restrained.
Provide lateral support at bearing points to avoid lateral displacement and rotation.

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info BlueLinx

1950 Spectrum Circle, Suite 300 Marietta, GA 30067 877-914-7770 www.buildoncenter.com

ICC-ES: ESR-2909, ESR-2913, ESR-1210

This design is valid until 11/3/2024

Version 21.80.417 Powered by iStruct™ Dataset: 22081504.276

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Tier	esign		roject:					Input		Henry					
I ISL	esign	A	ddress:					Proje		Hornsby					
B3 center o	arport	onCENTER 2	2.1E LVL	1.750	" X 16.000	" 3-Ply	- PAS			vel: Level					
1 SPF Member Info Type: Plies: Moisture Condi	Girder 3 tion: Dry		Applicatic Design M Building (ethod: /	23'3 1/2" 23'3 1/2" 23'3 1/2" RSD RC 2018		Brg 1	tions Directi Vertica	ion I	ATTERN Live 2717 2717	ı	(Uplift) Dead 1643	Snow 0 0	Wind 0 0	1/4" 1/4" Const 0 0
Deflection LL:	480		Load Sha		Yes		-			=					
Deflection TL:	240		Deck:	1	Not Checked										
Importance: Temperature:	Normal Temp <:														
							Beari	ngs							
								ring L		Dir.		React D/L It		Ld. Case	Ld. Comb.
							250 000	PF 3.		Vert	56%	1643 / 271 1643 / 271			D+L D+L
Analysis Res	ults		,				2-5	PF 3.	.500	Vert	56%	1043 / 2/ 1	4300		U+L
Analysis	Actual	Location	Allowed	Capacity	Comb.	Case									
Moment	24443 ft-lb	11'7 3/4"		0.430 (439	200	L									
Unbraced	24443 ft-lb	11'7 3/4"	24454 ft-lb	1.000 (100%)	D+L	L									
Shear	4251 lb	1'7 1/2"	15960 lb	0.266 (279	%) D+L	L									
LL Defl inch	0.400 (L/685					L									
TL Defl inch) 11'7 13/16"	1.143 (L/240)	0.562 (569	%) D+L	L	1								
Design Note		t lateral movemen	t andt-*	at the sect	honrings Later	ral curps t	1								
may also be 2 Fasten all pi to exceed 6' 3 Refer to last 4 Girders are 5 Top must be 6 Bottom mus	required at the lies using 3 round in the lies using 3 round in the lies are the li	Interest movement the interior bearings was of 10d Box nail ulations for fastened a supported on the sed at a maximum praced at end bear based on single pl	s by the buildid (128x3") a ers required for bottom edge of 7'6 1/2" o.c. ings.	ng code. t 12" o.c. Ma or specified le only.	aximum end di										
ID	Load Typ	e	Location 7	rib Width	Side	Dead 0.9	L	ive 1	Snow	1.15	Wind 1	.6 Const.	1.25 Co	mments	
1	Uniform		1	1-8-0	Near Face	10 PSF	20) PSF		0 PSF	0 PS	SF 0	PSF cei	ling (no roof)	
	Self Weig	ht				24 PLF									
										Manufactur	rer info				
Notes		chemic	als		6. For fla	at roofs provide p	roper drain	age to pre	event	manuraciul	er 11110				

Notes

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

Lumber

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

The design of the customer shows the contractor to ensure the component suitability of the intended application, installation requirements, multi-ply fasterning details, beam strength values, and code approvals

2. LVL not to be treated with fire retardant or corrosive the contractor of the con

For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

BlueLinx

1930 Spectrum Circle, Suite 300
Marietta, GA 30067
877-914-7770
www.buildoncenter.com
ICC-ES: ESR-2909, ESR-2913,
ESR-1210

10/21/2022 Page 6 of 10 Date: Client: Project: Input by: isDesign Job Name: Hornsby Address: Project #: 2-Ply - PASSED | Level: Level onCENTER 2.1E LVL 1.750" X 9.250" B4 between carport & rear porch 3 2 1 2 SPF 1 SPF 11'5 1/2' 11'5 1/2" Reactions UNPATTERNED Ib (Uplift) Member Information Wind Const Live Dead Snow Brg Direction Type: Girder Application: Floor 1630 0 0 1276 668 Plies: Design Method: ASD 1 Vertical 0 0 **Building Code:** IRC 2018 668 1137 1444 Moisture Condition: Dry 2 Vertical No Deflection LL: 480 Load Sharing: Not Checked Deck: Deflection TL: 240 Normal - II Importance: Temperature: Temp <= 100°F **Bearings** Total Ld. Case Ld. Comb. Cap. React D/L lb Dir. Bearing Length D+0.75(L+S) 3000 L 58% 1276 / 1724 1 - SPF 3.500" Vert D+0.75(L+S) 2 - SPF 3.500" Vert 52% 1137 / 1584 2721 L Analysis Results Location Allowed Capacity Comb. Case Analysis Actual 7669 ft-lb 5'4 7/16" 15318 ft-lb 0.501 (50%) D+0.75(L+S) L Moment 5'4 7/16" 7670 ft-lb 1.000 D+0.75(L+S) L Unbraced 7669 ft-lb (100%)0.374 (37%) D+0.75(L+S) L 1' 3/4" 7074 lb 2645 lb Shear LL Defl inch 0.215 (L/614) 5'7 13/16" 0.275 (L/480) 0.781 (78%) 0.75(L+S) L 5'7 11/16" 0.550 (L/240) 0.678 (68%) D+0.75(L+S) L TL Defl inch 0.373 (L/354) Design Notes 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code. 2 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6". 3 Refer to last page of calculations for fasteners required for specified loads 4 Concentrated load fastener specification is in addition to hanger fasteners if a hanger is present. 5 Girders are designed to be supported on the bottom edge only. 6 Top loads must be supported equally by all plies. 7 Top must be laterally braced at a maximum of 10'1 7/16" o.c. 8 Bottom must be laterally braced at end bearings. 9 Lateral slenderness ratio based on single ply width Dead 0.9 Live 1 Snow 1.15 Wind 1.6 Const. 1.25 Comments Trib Width Side ID Load Type Location 0 PSF ceiling 0 PSF 10 PSF 20 PSF 0 PSF 5-10-0 Near Face Uniform 1 0 PSF 0 PSF 10 PSF 0 PSF 20 PSF roof Uniform 11-8-0 Top 2 400 lb 0 lb 0 lb rear porch beam Far Face 300 lb 0 lb 3-2-0 3 Point 9 PLF Self Weight Manufacturer Info For flat roofs provide proper drainage to prevent ponding chemicals BlueLinx Handling & Installation Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended and ling & Installation
LVL beams must not be out or drilled
Refer to manufacturer's product information
regarding installation requirements, multi-pit
tastening obtails, beam strength values, and code
approvals
Damaged Beams must not be used
Design assumes top odge is laterally restrained
Provide lateral support at bearing points to avoid
lateral displacement and rotation 1950 Spectrum Circle, Suite 300 Marietta, GA 30067 877-914-7770 www.buildoncenter.com application, and to verify the dimensions and loads ICC-ES: ESR-2909, ESR-2913, Lumber Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or corrosive. ESR-1210 This design is valid until 11/3/2024



Client:

Project: Address: Date:

10/21/2022

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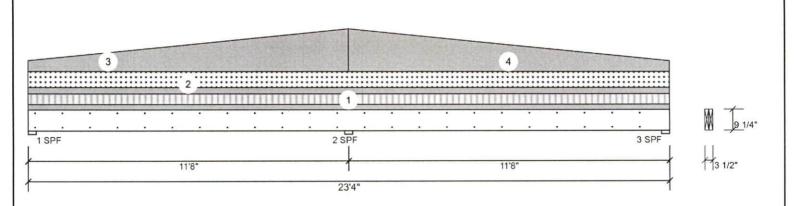
Input by:

Job Name: Hornsby

Project #:

B5 rear carport onCENTER 2.1E LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level



Bearings

Bearing Length

1 - SPF 3.500"

2 - SPF 3.500"

3 - SPF 3.500"

Type:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	480
Deflection TL:	240
Importance:	Normal - II
Temperature:	Temp <= 100°F

Floor Application: Design Method: ASD **Building Code:** IRC 2018 Load Sharing: No Deck: Not Checked

Rea	ctions UNPA	ATTERNED	lb (Uplift)		
Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	91	375	307	0	0
2	Vertical	285	1498	961	0	0
3	Vertical	91	375	307	0	0

Cap. React D/L lb

13%

47%

13%

372 / 329

1504 / 965

372 / 329

Dir.

Vert

Vert

Vert

Total Ld. Case

702 L_

2469 LL

702 L

Ld. Comb.

D+S

D+S

D+S

Analysis Results Comb. Case Location Allowed Capacity Analysis Actual 11'8" 15318 ft-lb 0.178 (18%) D+S LL Neg Moment -2722 ft-lb -2722 ft-lb 11'8" 3545 ft-lb 0.768 (77%) D+S LL Unbraced 0.103 (10%) D+0.75(L+S) _L Pos Moment 1577 ft-lb 18'6" 15318 ft-lb Unbraced 1577 ft-lb 18'6" 3545 ft-lb 0.445 (44%) D+0.75(L+S) _L 1066 lb 10'9" 7074 lb 0.151 (15%) D+S Shear LL Defl inch 0.035 (L/3941) 17'9 15/16" 0.286 (L/480) 0.122 (12%) 0.75(L+S) TL Defl inch 0.072 (L/1911) 5'4 9/16" 0.572 (L/240) 0.126 (13%) D+0.75(L+S) L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
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- 7 Bottom must be laterally braced at end bearings.
- 8 Lateral slenderness ratio based on single ply width

1	ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
	1	Uniform		1-0-0	Тор	10 PSF	20 PSF	0 PSF	0 PSF	0 PSF	ceiling trib
	2	Uniform		2-3-0	Тор	12 PSF	0 PSF	30 PSF	0 PSF	0 PSF	rake
	3	Tapered Start	0-0-0		Тор	20 PLF	0 PLF	0 PLF	0 PLF	0 PLF	gable
	1										

Continued on page 2...

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

Lumber

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

Handling & Installation

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

 Darnagad Boarns must not be used

 Design assumes top edge is laterally restrained

 Provide lateral support at bearing points to avoid
 lateral displacement and rotation
- For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

Manufacturer Info BlueLinx Marietta, GA 30067 877-914-7770 www.buildoncenter.com ICC-ES: ESR-2909, ESR-2913, ESR-1210

1950 Spectrum Circle, Suite 300

isDesign

Client:

Project: Address: Date:

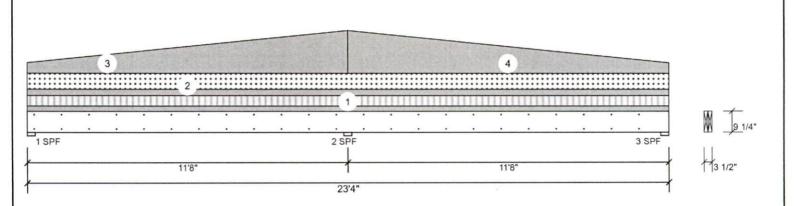
10/21/2022

Page 8 of 10

Input by:

Job Name: Hornsby Project #:

B5 rear carport onCENTER 2.1E LVL 1.750" X 9.250" 2-Ply - PASSED



Continued from page 1											
١	ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
I		End	11-8-0			80 PLF	0 PLF	0 PLF	0 PLF	0 PLF	
١	4	Tapered Start	11-8-0		Тор	80 PLF	0 PLF	0 PLF	0 PLF	0 PLF	gable
١		End	23-4-0			20 PLF	0 PLF	0 PLF	0 PLF	0 PLF	
١		Self Weight				9 PLF					
1											

Notes

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Lumber

chemicals

Handling & Installation

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Manufacturer Info BlueLinx 1950 Spectrum Circle, Suite 300 Marietta, GA 30067 877-914-7770

www.buildoncenter.com ICC-ES: ESR-2909, ESR-2913, ESR-1210

Client: Date: 10/21/2022 Page 9 of 10 Project: Input by: isDesign Address: Job Name: Hornsby Project #: B6 right car port onCENTER 2.1E LVL 1.750" X 16.000" 4-Ply - PASSED 3 2 1 1 SPF 2 SPF 23'3 1/2' 23'3 1/2' Reactions UNPATTERNED Ib (Uplift) Member Information Brg Girde Floor Direction Live Dead Snow Wind Const Type: Application: 3035 0 0 Design Method: ASD Vertical 1359 3444 Plies: 4 1 Building Code: Moisture Condition: Dry IRC 2018 Vertical 1359 2634 3064 0 0 2 Deflection LL: 480 Load Sharing: Yes Not Checked Deflection TL: 360 Deck: Importance: Normal - II Temp <= 100°F Temperature: Bearings Total Ld. Case Ld. Comb. Bearing Length Dir. Cap. React D/L lb D+0.75(L+S) 1 - SPF 3.500" 64% 3035 / 3602 6637 L Vert D+0.75(L+S) 2 - SPF 3.500" Vert 57% 2634 / 3317 5951 1 Analysis Results Actual Location Allowed Capacity Comb. Case Analysis 0.396 (40%) D+0.75(L+S) L 34487 ft-lb 11'3 1/4" 87119 ft-lb Moment 34487 ft-lb 11'3 1/4" 34582 ft-lb 0.997 D+0.75(L+S) L Unbraced (100%)Shear 5658 lb 1'7 1/2" 24472 lb 0.231 (23%) D+0.75(L+S) L LL Defl inch 0.378 (L/726) 11'6 13/16" 0.571 (L/480) 0.662 (66%) 0.75(L+S) L 11'6 5/8" 0.762 (L/360) 0.896 (90%) D+0.75(L+S) L TL Defl inch 0.683 (L/402) **Design Notes** 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code. 2 Fasten all plies using 3 rows of SDW22634 at 24" o.c. Maximum end distance not to exceed 3 Refer to last page of calculations for fasteners required for specified loads. 4 Simpson fasteners applied from a single side of the member use tip values where published. 5 Girders are designed to be supported on the bottom edge only. 6 Top loads must be supported equally by all plies. 7 Top must be laterally braced at a maximum of 7'1 11/16" o.c. 8 Bottom must be laterally braced at end bearings 9 Lateral slenderness ratio based on single ply width Wind 1.6 Const. 1.25 Comments ID Location Trib Width Side Dead 0.9 Live 1 Snow 1.15 Load Type 10 PSF 20 PSF 0 PSF 0 PSF 0 PSF ceiling Uniform 5-10-0 Top 0 PSF 10 PSF 0 PSF 20 PSF 0 PSF roof framing Uniform 12-8-0 Top 2 0 PLF 0 PLF 0 PLF 0 PLF gable 60 PLF 3 Tapered Start 0-0-0 Top 20 PLF 0 PLF 0 PLF 0 PLF 0 PLF 9-0-0 End Continued on page 2... Manufacturer Info 6. For flat roofs provide proper drainage to prevent Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and leadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads. Handling & Installation BlueLinx 1950 Spectrum Circle, Suite 300 LVL beams must not be cut or drilled Refer to manufacturer's product informat Marietta, GA 30067 regarding installation requirements, multi-ply fastening details, beam strength values, and code 877-914-7770 www.buildoncenter.com ICC-ES: ESR-2909, ESR-2913, paraged Bears must not be used
Design assumes top edge is laterally restrained
Provide lateral support at bearing points to avoid
lateral displacement and rotation Lumber ESR-1210 Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or corrosive This design is valid until 11/3/2024

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Continued from page 1 ID Load Type	Location Trib W	idth Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments	
4 Part. Uniform	0-0-0 to 9-0-0 2-3-0	Тор	12 PSF	0 PSF	30 PSF	0 PSF	0 PSF		
Self Weight			33 PLF						
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Notes	chemicals	6. Fo	r flat roofs provide pr	oper drainage to p	revers	turer Info			
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