

Address:

84 Lumber-Fayetteville #2307 CC2424-GL-505 CS

Lot 505 Creekside Oaks South

Date: 1/24/2025 Input by: Kyle Militzer

Job Name: CC2424-GL-505 CS Project #: CC2424-GL-505 CS

1.750" X 14.000" 2.0E 2900Fb PWT LVL 2-Ply - PASSED

Application:

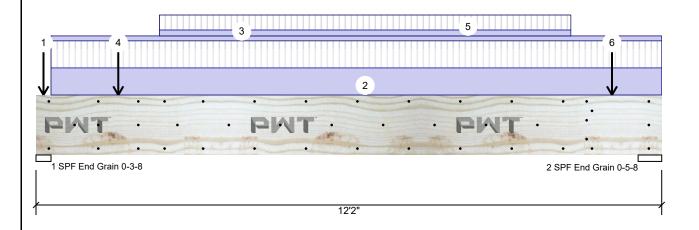
Design Method:

Building Code:

Load Sharing:

Deck:

Level: 2nd Floor



ASD

No

IRC 2018

Not Checked



Page 1 of 3

Member Information

Type: Plies: 2 Moisture Condition: Dry Deflection LL: 360 Deflection TL: 240 Importance: Normal - II

Temperature: Temp <= 100°F

General Load

40 PSF Floor Live: 15 PSF Dead:

Reactions PATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	4557	4271	0	0	0
2	Vertical	5044	4740	0	0	0

Analysis Results

Comb. Case Analysis Actual Location Allowed Capacity Moment 26327 ft-lb 6' 1/16" 26792 ft-lb 98% D+L L Shear 7879 lb 10'6 1/2" 9310 lb 85% D+I L LL Defl inch 0.238 (L/583) 6' 0.385 (L/360) 62% L L TL Defl inch 0.456 (L/304) 6' 0.577 (L/240) 79% D+L

Bearings

Grain

Bearing Length Dir. Cap. React D/L lb Total Ld. Case Ld. Comb. 1-SPF 3.500" Vert 4271 / 4557 8829 L D+I End Grain 2 - SPF 5.500" 4740 / 5044 9784 L D+L Vert End

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings.
- 2 Dead Load Deflection: Instant = 0.219", Long Term = 0.328".
- 3 Fasten all plies using 3 rows of 16d Sinker Nails (.148x3.25") at 12" o.c. Maximum end distance not to exceed 6". Clinch Nails where possible.
- 4 Refer to last page of calculations for fasteners required for specified loads.
- 5 Concentrated load fastener specification is in addition to hanger fasteners if a hanger is
- 6 Girders are designed to be supported on the bottom edge only.
- 7 Top loads must be supported equally by all plies.
- 8 Top must be laterally braced at a maximum of 2'6" o.c.

9 Bottom must be laterally braced at end bearings.

O Bottom mact a	o laterally bracea at el	ia bearinge.								
ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Point	0-1-12		Тор	1 lb	0 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-3-8								
2	Part. Uniform	0-3-8 to 12-2-0		Тор	531 PLF	531 PLF	0 PLF	0 PLF	0 PLF	
3	Part. Uniform	0-3-8 to 12-2-0		Тор	96 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
4	Point	1-7-3		Near Face	183 lb	463 lb	0 lb	0 lb	0 lb	J11

This design is valid until 9/3/2027

Continued on page 2...

Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

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Manufacturer Info Pacific Woodtech Corp

1850 Park Lane Burlington, WA 98233 (800) 515-7570 www.pwtewp.com ICC-ES: ESR-2909 ESR-2403 APA:

PR-L233 PR-L280

U.S. Lumber 2160 Satellite Blvd., Suite 450, GA U.S.A 888-613-5078

Version 24.60.996 Powered by iStruct™ Dataset: 25010801.1457



84 Lumber-Fayetteville #2307 CC2424-GL-505 CS

Lot 505 Creekside Oaks South

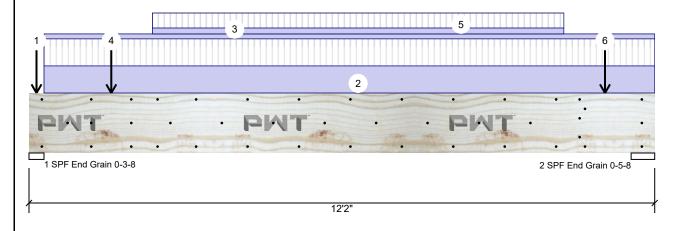
Date: 1/24/2025 Input by:

Kyle Militzer Job Name: CC2424-GL-505 CS Project #: CC2424-GL-505 CS

1.750" X 14.000" 2.0E 2900Fb PWT LVL 2-Ply - PASSED

Address:

Level: 2nd Floor





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.Continued from page 1

Trib Width Dead 0.9 Wind 1.6 Const. 1.25 ID Load Type Location Side Live 1 Snow 1.15 Comments 5 Part. Uniform 2-4-13 to 10-4-13 Near Face 116 PLF 294 PLF 0 PLF 0 PLF 0 PLF 6 Point 11-2-6 Near Face 283 lb 481 lb 0 lb 0 lb 0 lb J11 Self Weight 14 PLF

Notes

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U.S. Lumber 2160 Satellite Blvd., Suite 450, GA U.S.A 888-613-5078





Client: Project: Address: 84 Lumber-Fayetteville #2307 CC2424-GL-505 CS

Lot 505 Creekside Oaks South

Date: 1/24/2025
Input by: Kyle Militzer

Job Name: CC2424-GL-505 CS
Project #: CC2424-GL-505 CS

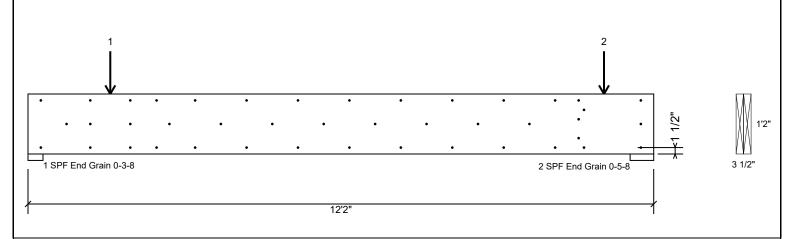
Page 3 of 3

FB4 2.0E 2900Fb PWT LVL

1.750" X 14.000"

2-Ply - PASSED

Level: 2nd Floor



Multi-Ply Analysis

Fasten all plies using 3 rows of 16d Sinker Nails (.148x3.25") at 12" o.c., except for regions covered by concentrated load fastening. Maximum end distance not to exceed 6". Clinch Nails where possible.

Capacity	58.1 %
Load	205.0 PLF
Yield Limit per Foot	352.8 PLF
Yield Limit per Fastener	117.6 lb.
См	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	D+L
Duration Factor	1.00

Concentrated Load

Fasten at concentrated side load at 1-7-3 with a minimum of (6) – 16d Sinker Nails (.148x3.25") in the pattern shown.

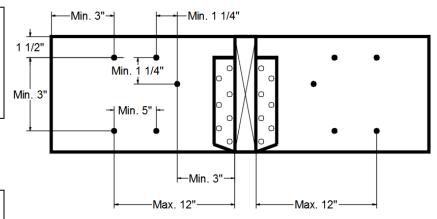
J		
Capacity	45.8 %	
Load	323.0lb.	
Total Yield Limit	705.4 lb.	
Cg	0.9998	
Cg См	1	
Yield Limit per Fastener	117.6 lb.	
Yield Mode	IV	
Load Combination	D+L	
Duration Factor	1.00	

Concentrated Load

Fasten at concentrated side load at 11-2-6 with a minimum of (5) – 16d Sinker Nails (.148x3.25") in the pattern shown.

Capacity 65.0 % Load 382.0lb. Total Yield Limit 587.8 lb. 0.9998 Сg См Yield Limit per Fastener 117.6 lb. Yield Mode IV _oad Combination D+L 1.00 Duration Factor

Min/Max fastener distances for Concentrated Side Loads



Notes

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ICC-ES: ESR-2909 ESR-2403 APA:
PR-L233 PR-L280

U.S. Lumber 2160 Satellite Blvd., Suite 450, GA U.S.A 30097 888-613-5078



Client: 84 Lumber-Fayetteville #2307

Project: CC2424-GL-505 CS

Address:

Lot 505 Creekside Oaks South

Date: 1/24/2025 Input by: Kyle Militzer

Job Name: CC2424-GL-505 CS
Project #: CC2424-GL-505 CS

FB2 2.0E 2900Fb PWT LVL

1.750" X 14.000"

2-Ply - PASSED Level: 2nd Floor

Bearings

Bearing Length

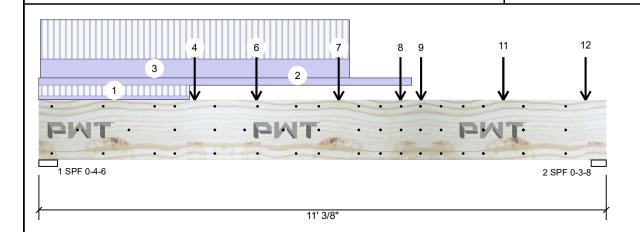
1 - SPF 4.375"

2 - SPF 3.500"

Dir.

Vert

Vert



Floor



Ld. Comb.

D+L

D+I

Page 1 of 5

Member Informatio

Type:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal - II
Temperature:	Temp <= 100°F

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

Application:

Reactions PATTERNED Ib (Uplift) Snow Wind Const Brg Direction Live Dead 1390 0 0 0 Vertical 2595 (-168) 1 1325 0 0 0 2 Vertical 2773 (-100)

Cap. React D/L lb

79%

1390 / 2595

1325 / 2773

Total Ld. Case

3985 L

4099 L

Floor Live: 40 PSF Dead: 15 PSF

General Load

•	analysis Results								
	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case		
	Moment	11204 ft-lb	5'10"	26792 ft-lb	42%	D+L	L		
	Shear	4544 lb	9'6 7/8"	9310 lb	49%	D+L	L		
	LL Defl inch	0.108 (L/1169)	5'8 1/4"	0.350 (L/360)	31%	L	L		

5'8 1/4" 0.525 (L/240) 31%

Design Notes

TL Defl inch 0.163 (L/773)

- 1 Provide support to prevent lateral movement and rotation at the end bearings.
- 2 Dead Load Deflection: Instant = 0.055", Long Term = 0.083".
- 3 Fasten all plies using 3 rows of 16d Sinker Nails (.148x3.25") at 12" o.c. Maximum end distance not to exceed 6". Clinch Nails where possible.
- 4 Refer to last page of calculations for fasteners required for specified loads.
- 5 Concentrated load fastener specification is in addition to hanger fasteners if a hanger is present.
- 6 Girders are designed to be supported on the bottom edge only.
- 7 Top loads must be supported equally by all plies.
- 8 Top must be laterally braced at end bearings.
- 9 Bottom must be laterally braced at end bearing

9 Dolloili iliusi k	be laterally braced at e	iu bearings.								
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	0-0-0 to 2-11-2	1-10-2 to 1-10-2	Тор	15 PSF	40 PSF	0 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 7-2-14		Тор	48 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
3	Part. Uniform	0-0-6 to 6-0-6		Far Face	131 PLF	268 PLF	0 PLF	0 PLF	0 PLF	
4	Point	3-0-6		Near Face	126 lb	484 lb	0 lb	0 lb	0 lb	J9

This design is valid until 9/3/2027

Continued on page 2...

Notes

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Version 24.60.996 Powered by iStruct™ Dataset: 25010801.1457

CSD DRAW DESIGN



84 Lumber-Fayetteville #2307 Client:

Project: CC2424-GL-505 CS

Address:

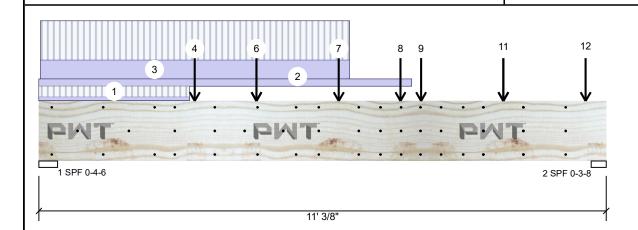
Date: Lot 505 Creekside Oaks South

1/24/2025 Input by: Kyle Militzer Job Name: CC2424-GL-505 CS Project #: CC2424-GL-505 CS

2.0E 2900Fb PWT LVL FB₂

1.750" X 14.000" 2-Ply - PASSED

Level: 2nd Floor





Page 2 of 5

.Continued	from	page	1
ID.		1 -	_

ID	Load Type	Location T	Trib Width Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
5	Point	4-2-12	Near Fac	e -53 lb	101 lb	0 lb	0 lb	0 lb	J11
6	Point	4-2-12	Near Fac	e 0 lb	-268 lb	0 lb	0 lb	0 lb	J11
7	Point	5-10-0	Near Fac	e 225 lb	525 lb	0 lb	0 lb	0 lb	J11
8	Point	7-0-6	Far Face	232 lb	536 lb	0 lb	0 lb	0 lb	J7
9	Point	7-5-3	Near Fac	e 334 lb	524 lb	0 lb	0 lb	0 lb	J11
10	Point	9-0-6	Far Face	187 lb	530 lb	0 lb	0 lb	0 lb	J7
11	Point	9-0-6	Near Fac	e 183 lb	524 lb	0 lb	0 lb	0 lb	J11
12	Point	10-7-9	Near Fac	e 112 lb	320 lb	0 lb	0 lb	0 lb	J11
	Self Weight			14 PLF					

Notes

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Client: 84 Lumber-Fayetteville #2307 Project: CC2424-GL-505 CS

Address: Lot 505 Creekside Oaks South Date: 1/24/2025 Input by:

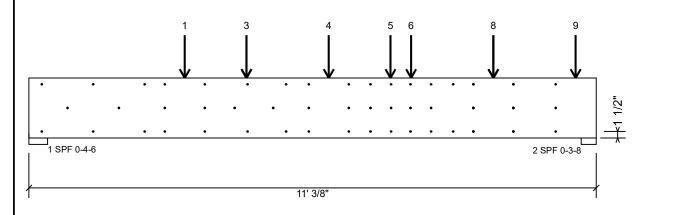
Kyle Militzer Job Name: CC2424-GL-505 CS Project #: CC2424-GL-505 CS

2.0E 2900Fb PWT LVL FB2

1.750" X 14.000"

2-Ply - PASSED

Level: 2nd Floor





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Multi-Ply Analysis

Fasten all plies using 3 rows of 16d Sinker Nails (.148x3.25") at 12" o.c.. except for regions covered by concentrated load fastening. Maximum end distance not to exceed 6". Clinch Nails where possible.

Capacity	56.6 %
Load	199.5 PLF
Yield Limit per Foot	352.8 PLF
Yield Limit per Fastener	117.6 lb.
См	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	D+L
Duration Factor	1.00

Concentrated Load

Fasten at concentrated side load at 3-0-6 with a minimum of (6) - 16d Sinker Nails (.148x3.25") in the pattern shown.

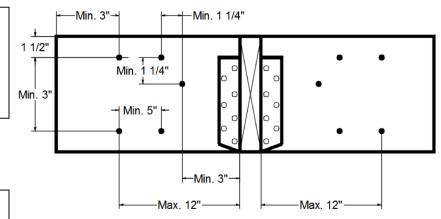
Capacity	43.2 %	
Load	305.0lb.	
Total Yield Limit	705.4 lb.	
Cg	0.9998	
Cg Cm	1	
Yield Limit per Fastener	117.6 lb.	
Yield Mode	IV	
Load Combination	D+L	
Duration Factor	1.00	

Concentrated Load

Fasten at concentrated side load at 5-10-0 with a minimum of (6) - 16d Sinker Nails (.148x3.25") in the pattern shown.

Capacity 53.2 % Load 375.0lb. Total Yield Limit 705.4 lb. 0.9998 Сg См Yield Limit per Fastener 117.6 lb. Yield Mode IV oad Combination D+L Duration Factor 1.00

Min/Max fastener distances for Concentrated Side Loads



Notes

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U.S. Lumber 2160 Satellite Blvd., Suite 450, GA U.S.A 888-613-5078

This design is valid until 9/3/2027

Version 24.60.996 Powered by iStruct™ Dataset: 25010801.1457



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Project: CC2424-GL-505 CS
Address: Lot 505 Creekside Oaks South

Date: 1/24/2025 Input by: Kyle Militzer Job Name: CC2424-GL-505 CS Page 4 of 5

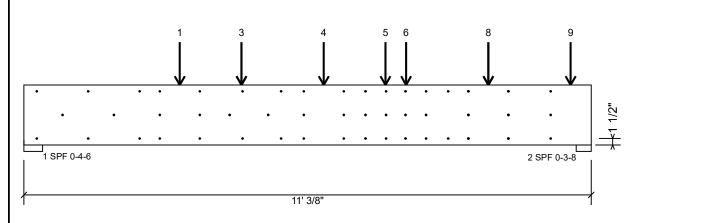
FB2 2.0E 2900Fb PWT LVL

1.750" X 14.000"

2-Ply - PASSED

Level: 2nd Floor

CC2424-GL-505 CS



1'2" 3 1/2"

Multi-Ply Analysis

Concentrated Load

Fasten at concentrated side load at 7-0-6 with a minimum of (6) – 16d Sinker Nails (.148x3.25") in the pattern shown.

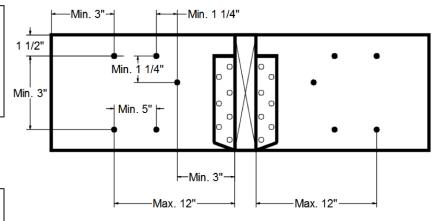
<u>.</u>		
Capacity	54.4 %	
Load	384.0lb.	
Total Yield Limit	705.4 lb.	
Cg	0.9998	
Cg Cm	1	
Yield Limit per Fastener	117.6 lb.	
Yield Mode	IV	
Load Combination	D+L	
Duration Factor	1 00	

Concentrated Load

Fasten at concentrated side load at 7-5-3 with a minimum of (6) – 16d Sinker Nails (.148x3.25") in the pattern shown.

pattern snown.		
Capacity	60.8 %	
Load	429.0lb.	
Total Yield Limit	705.4 lb.	
Cg	0.9998	
Cg Cm	1	
Yield Limit per Fastener	117.6 lb.	
Yield Mode	IV	
Load Combination	D+L	
Duration Factor	1 00	

Min/Max fastener distances for Concentrated Side Loads



Notes

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Client: 84 Lumber-Fayetteville #2307
Project: CC2424-GL-505 CS

Project: CC2424-GL-505 CS
Address: Lot 505 Creekside Oaks South

Date: 1/24/2025 Input by: Kyle Militzer

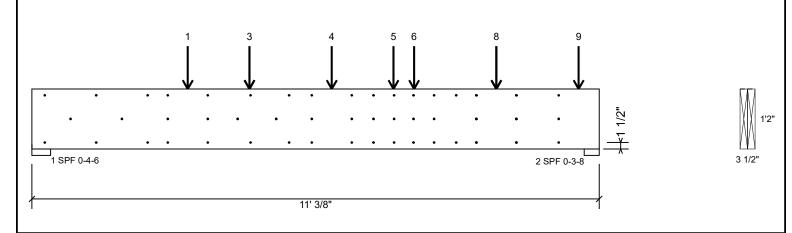
Job Name: CC2424-GL-505 CS Project #: CC2424-GL-505 CS Page 5 of 5

FB2 2.0E 2900Fb PWT LVL

1.750" X 14.000"

2-Ply - PASSED

Level: 2nd Floor





Concentrated Load

Fasten at concentrated side load at 9-0-6 with a minimum of (6) – 16d Sinker Nails (.148x3.25") in the pattern shown.

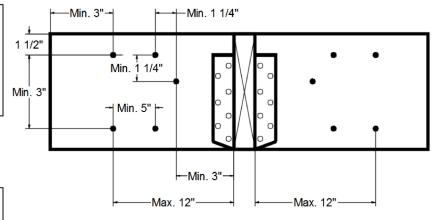
l'		
Capacity	50.8 %	
Load	358.5lb.	
Total Yield Limit	705.4 lb.	
Cg	0.9998	
См	1	
Yield Limit per Fastener	117.6 lb.	
Yield Mode	IV	
Load Combination	D+L	
Duration Factor	1 00	

Concentrated Load

Fasten at concentrated side load at 10-7-9 with a minimum of (3) – 16d Sinker Nails (.148x3.25") in the

pattern snown.		
Capacity	61.2 %	
Load	216.0lb.	
Total Yield Limit	352.7 lb.	
Cg Cm	0.9998	
См	1	
Yield Limit per Fastener	117.6 lb.	
Yield Mode	IV	
Load Combination	D+L	
Duration Factor	1.00	

Min/Max fastener distances for Concentrated Side Loads



Notes

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Version 24.60.996 Powered by iStruct™ Dataset: 25010801.1457

CSD DRAW DESIGN



Address:

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Lot 505 Creekside Oaks South

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2.0E 2900Fb PWT LVL 1.750" X 24.000" 4-Ply - PASSED

Application:

Design Method:

Building Code:

Load Sharing:

Deck:

Floor

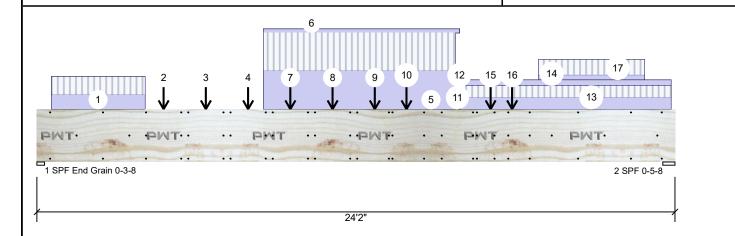
ASD

Yes

IRC 2018

Not Checked

Level: 2nd Floor





Ld. Comb.

D+L

D+L

Page 1 of 8

Member Informatioı

Type: Girder 4 Moisture Condition: Dry Deflection LL: 360 Deflection TL: 240 Importance: Normal - II

Temp <= 100°F Temperature: General Load

Floor Live: **40 PSF** 15 PSF Dead:

Reactions PATTERNED Ib (Uplift)

Dir.

Vert

Vert

Bearings

End Grain

Bearing Length

1 - SPF 3.500"

2 - SPF 5.500"

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	5685	5659	0	0	0
2	Vertical	6391	6675	0	0	0

Cap. React D/L lb

80%

5659 / 5685

6675 / 6391

Total Ld. Case

11343 L

13066 L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	89566 ft-lb	12'6 9/16"	147033 ft-lb	61%	D+L	L
Shear	12351 lb	21'8 1/2"	31920 lb	39%	D+L	L
LL Defl inch	0.294 (L/963)	12'1 1/2"	0.785 (L/360)	37%	L	L
TL Defl inch	0.592 (L/477)	12'1 13/16"	1.178 (L/240)	50%	D+L	L

No. Co. Maria							
TL Defl inch	0.592 (L/477)	12'1 13/16"	1.178 (L/240)	50%	D+L	L	
LL Defl inch	0.294 (L/963)	12'1 1/2"	0.785 (L/360)	37%	L	L	
Shear	12351 lb	21'8 1/2"	31920 lb	39%	D+L	L	
Moment	89566 ft-lb	12'6 9/16"	147033 ft-lb	61%	D+L	L	

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings.
- 2 Dead Load Deflection: Instant = 0.299", Long Term = 0.448".
- 3 Fasten all plies using 3 rows of SDW22634 at 24" o.c. Maximum end distance not to exceed
- 4 Refer to last page of calculations for fasteners required for specified loads.
- 5 Concentrated load fastener specification is in addition to hanger fasteners if a hanger is present.
- 6 Simpson fasteners applied from a single side of the member use tip values where published.
- 7 Girders are designed to be supported on the bottom edge only.
- 8 Top loads must be supported equally by all plies.
- 9 Top must be laterally braced at a maximum of 4'9 11/16" o.c.
- 10 Bottom must be laterally braced at end bearings.

Ī	ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments	
	1	Part. Uniform	0-6-10 to 4-1-0		Far Face	219 PLF	280 PLF	0 PLF	0 PLF	0 PLF		
	2	Point	4-9-10		Far Face	359 lb	482 lb	0 lb	0 lb	0 lb	J7	
	3	Point	6-4-13		Far Face	368 lb	483 lb	0 lb	0 lb	0 lb	J7	
	4	Point	8-0-0		Far Face	319 lb	483 lb	0 lb	0 lb	0 lb	J7	

This design is valid until 9/3/2027

Continued on page 2...

Notes

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Manufacturer Info

Pacific Woodtech Corp 1850 Park Lane Burlington, WA 98233 (800) 515-7570

www.pwtewp.com ICC-ES: ESR-2909 ESR-2403 APA: PR-L233 PR-L280

Client: 84 Lumber-Fayetteville #2307

Address:

Project: CC2424-GL-505 CS

Lot 505 Creekside Oaks South

Date: 1/24/2025

Input by: Kyle Militzer

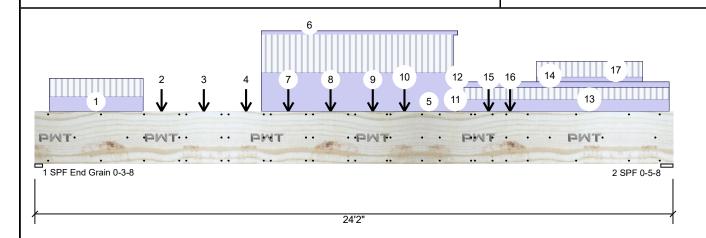
Job Name: CC2424-GL-505 CS

Project #: CC2424-GL-505 CS

FB3 2.0E 2900Fb PWT LVL 1.750"

1.750" X 24.000" 4-Ply - PASSED

Level: 2nd Floor





Page 2 of 8

Continued fr	om page 1									
ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
5	Part. Uniform	8-7-0 to 15-10-4		Тор	586 PLF	586 PLF	0 PLF	0 PLF	0 PLF	
6	Part. Uniform	8-7-0 to 16-0-0		Тор	54 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
7	Point	9-7-3		Far Face	296 lb	483 lb	0 lb	0 lb	0 lb	J7
8	Point	11-2-6		Far Face	353 lb	493 lb	0 lb	0 lb	0 lb	J7
9	Point	12-9-10		Far Face	312 lb	440 lb	0 lb	0 lb	0 lb	J7
10	Point	14-0-0		Far Face	359 lb	495 lb	0 lb	0 lb	0 lb	J7
11	Part. Uniform	15-10-4 to 16-0-0		Тор	180 PLF	180 PLF	0 PLF	0 PLF	0 PLF	
12	Point	16-0-0		Far Face	386 lb	488 lb	0 lb	0 lb	0 lb	J7
13	Part. Uniform	16-0-0 to 24-0-0		Тор	180 PLF	180 PLF	0 PLF	0 PLF	0 PLF	
14	Part. Uniform	16-0-0 to 24-0-0		Тор	86 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
15	Point	17-2-4		Far Face	404 lb	236 lb	0 lb	0 lb	0 lb	J7
16	Point	18-0-0		Far Face	111 lb	332 lb	0 lb	0 lb	0 lb	J7
17	Part. Uniform	19-0-0 to 23-0-0		Far Face	79 PLF	236 PLF	0 PLF	0 PLF	0 PLF	
	Self Weight				48 PLF					

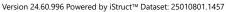
Notes

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Manufacturer Info

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Client: 84 Lur Project: CC242

Address:

84 Lumber-Fayetteville #2307 CC2424-GL-505 CS

Lot 505 Creekside Oaks South

Date: 1/24/2025
Input by: Kyle Militzer

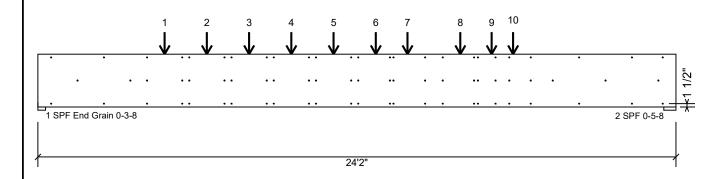
Job Name: CC2424-GL-505 CS Project #: CC2424-GL-505 CS

FB3 2.0E 2900Fb PWT LVL

1.750" X 24.000"

4-Ply - PASSED

Level: 2nd Floor





Page 3 of 8

Multi-Ply Analysis

Fasten all plies using 3 rows of SDW22634 at 24" o.c.. except for regions covered by concentrated load fastening. Maximum end distance not to exceed 12".

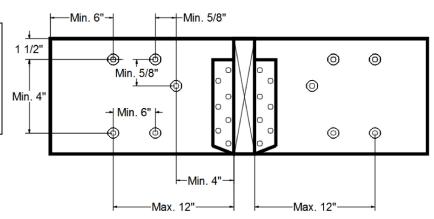
Capacity	83.2 %
Load	374.3 PLF
Yield Limit per Foot	450.0 PLF
Yield Limit per Fastener	300.0 lb.
См	1
Yield Mode	Lookup
Edge Distance	1 1/2"
Min. End Distance	6"
Load Combination	D+L
Duration Factor	1.00

Concentrated Load

Fasten at concentrated side load at 4-9-10 with a minimum of (6) – SDW22634 in the pattern shown. All fasteners shall be installed with the head on the

side of the applied load. Capacity 26.3 % 630.8lb. I oad Total Yield Limit 2400.0 lb. 1.0000 Cg См Yield Limit per Fastener 400.0 lb. Yield Mode Lookup Load Combination D+I Duration Factor 1.00

Min/Max fastener distances for Concentrated Side Loads



Notes

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Pacific Woodtech Corp 1850 Park Lane Burlington, WA 98233 (800) 515-7570 www.pwtewp.com

www.pwtewp.com ICC-ES: ESR-2909 ESR-2403 APA: PR-L233 PR-L280



Client: 84 Lumber-Fayetteville #2307

Project: CC2424-GL-505 CS Address: Lot 505 Creekside Oaks South Date: 1/24/2025 Input by: Kyle Militzer

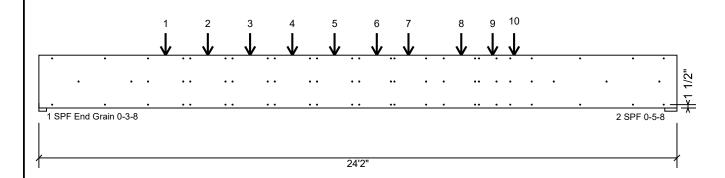
Job Name: CC2424-GL-505 CS Project #: CC2424-GL-505 CS

2.0E 2900Fb PWT LVL

1.750" X 24.000"

4-Ply - PASSED

Level: 2nd Floor





Page 4 of 8

Multi-Ply Analysis

Concentrated Load

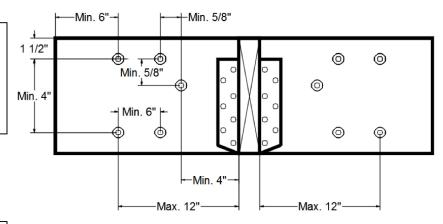
Fasten at concentrated side load at 6-4-13 with a minimum of (6) – SDW22634 in the pattern shown. All fasteners shall be installed with the head on the side of the applied load.

side of the applicational	
Capacity	26.6 %
Load	638.3lb.
Total Yield Limit	2400.0 lb.
Cg	1.0000
CM	1
Yield Limit per Fastener	400.0 lb.
Yield Mode	Lookup
Load Combination	D+L
Duration Factor	1.00

Concentrated Load

Fasten at concentrated side load at 8-0-0 with a minimum of (6) – SDW22634 in the pattern shown. All fasteners shall be installed with the head on the side of the applied load.

Min/Max fastener distances for Concentrated Side Loads



Notes

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Manufacturer Info

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www.pwtewp.com ICC-ES: ESR-2909 ESR-2403 APA: PR-L233 PR-L280



Address:

CC2424-GL-505 CS

Date: 1/24/2025 Input by: Lot 505 Creekside Oaks South

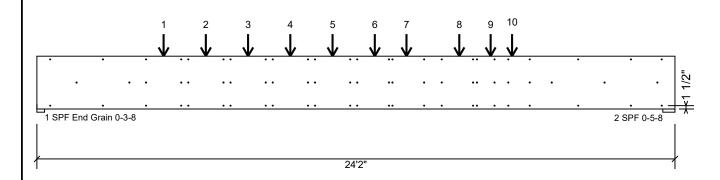
Kyle Militzer Job Name: CC2424-GL-505 CS Project #: CC2424-GL-505 CS

2.0E 2900Fb PWT LVL

1.750" X 24.000"

4-Ply - PASSED

Level: 2nd Floor





Page 5 of 8

Multi-Ply Analysis

Concentrated Load

Fasten at concentrated side load at 9-7-3 with a minimum of (6) – SDW22634 in the pattern shown. All fasteners shall be installed with the head on the side of the applied load.

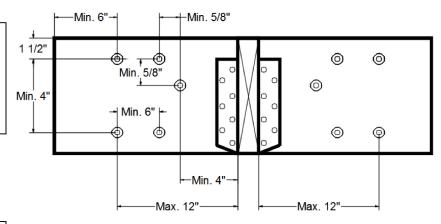
side of the applied load	·•	
Capacity	24.3 %	
Load	584.3lb.	
Total Yield Limit	2400.0 lb.	
Cg	1.0000	
См	1	
Yield Limit per Fastener	400.0 lb.	
Yield Mode	Lookup	
Load Combination	D+L	
Duration Factor	1 00	

Concentrated Load

Fasten at concentrated side load at 11-2-6 with a minimum of (6) – SDW22634 in the pattern shown. All fasteners shall be installed with the head on the side of the applied load.

Capacity	26.4 %	
Load	634.5lb.	
Total Yield Limit	2400.0 lb.	
Cg	1.0000	
См	1	
Yield Limit per Fastener	400.0 lb.	
Yield Mode	Lookup	
Load Combination	D+L	
Duration Factor	1.00	
	-	

Min/Max fastener distances for Concentrated Side Loads



Notes

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U.S. Lumber 2160 Satellite Blvd., Suite 450, GA U.S.A 30097 888-613-5078

This design is valid until 9/3/2027

Version 24.60.996 Powered by iStruct™ Dataset: 25010801.1457



CC2424-GL-505 CS Address: Lot 505 Creekside Oaks South Date: 1/24/2025 Input by:

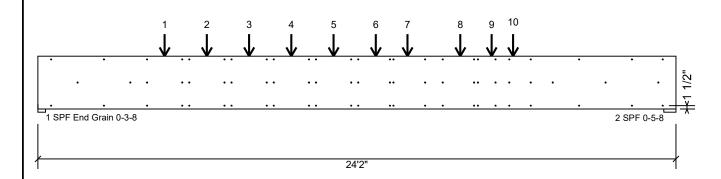
Kyle Militzer Job Name: CC2424-GL-505 CS Project #: CC2424-GL-505 CS

2.0E 2900Fb PWT LVL

1.750" X 24.000"

4-Ply - PASSED

Level: 2nd Floor





Page 6 of 8

Multi-Ply Analysis

Concentrated Load

Fasten at concentrated side load at 12-9-10 with a minimum of (6) – SDW22634 in the pattern shown. All fasteners shall be installed with the head on the side of the applied load.

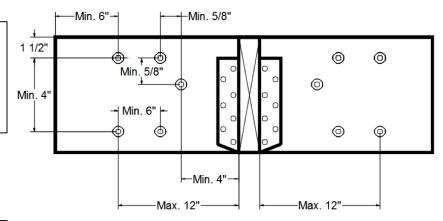
Capacity	23.5 %	
Load	564.0lb.	
Total Yield Limit	2400.0 lb.	
Cg	1.0000	
См	1	
Yield Limit per Fastener	400.0 lb.	
Yield Mode	Lookup	
Load Combination	D+L	
Duration Factor	1.00	

Concentrated Load

Fasten at concentrated side load at 14-0-0 with a minimum of (6) – SDW22634 in the pattern shown. All fasteners shall be installed with the head on the side of the applied load.

Capacity	26.7 %	
Load	640.5lb.	
Total Yield Limit	2400.0 lb.	
Cg	1.0000	
См	1	
Yield Limit per Fastener	400.0 lb.	
Yield Mode	Lookup	
Load Combination	D+L	
Duration Factor	1.00	

Min/Max fastener distances for Concentrated Side Loads



Notes

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www.pwtewp.com ICC-ES: ESR-2909 ESR-2403 APA: PR-L233 PR-L280



Address:

CC2424-GL-505 CS

Lot 505 Creekside Oaks South

Date: 1/24/2025 Input by: Kyle Militzer

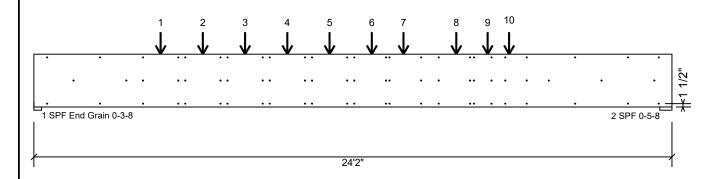
Job Name: CC2424-GL-505 CS Project #: CC2424-GL-505 CS

2.0E 2900Fb PWT LVL

1.750" X 24.000"

4-Ply - PASSED

Level: 2nd Floor





Page 7 of 8

Multi-Ply Analysis

Concentrated Load

Fasten at concentrated side load at 16-0-0 with a minimum of (6) – SDW22634 in the pattern shown. All fasteners shall be installed with the head on the side of the applied load.

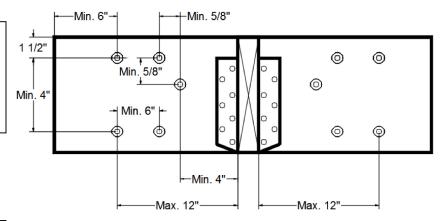
side of the applicational			
Capacity	27.3 %		
Load	655.5lb.		
Total Yield Limit	2400.0 lb.		
Cg	1.0000		
CM	1		
Yield Limit per Fastener	400.0 lb.		
Yield Mode	Lookup		
Load Combination	D+L		
Duration Factor	1.00		

Concentrated Load

Fasten at concentrated side load at 17-2-4 with a minimum of (6) – SDW22634 in the pattern shown. All fasteners shall be installed with the head on the side of the applied load.

Capacity	20.0 %	
Load	480.0lb.	
Total Yield Limit	2400.0 lb.	
Cg	1.0000	
CM	1	
Yield Limit per Fastener	400.0 lb.	
Yield Mode	Lookup	
Load Combination	D+L	
Duration Factor	1.00	

Min/Max fastener distances for Concentrated Side Loads



Notes

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Manufacturer Info

PR-L233 PR-L280

Pacific Woodtech Corp 1850 Park Lane Burlington, WA 98233 (800) 515-7570 www.pwtewp.com ICC-ES: ESR-2909 ESR-2403 APA:

This design is valid until 9/3/2027

Version 24.60.996 Powered by iStruct™ Dataset: 25010801.1457

U.S. Lumber 2160 Satellite Blvd., Suite 450, GA U.S.A 30097 888-613-5078



CC2424-GL-505 CS Address:

Lot 505 Creekside Oaks South

Date: 1/24/2025 Input by: Kyle Militzer

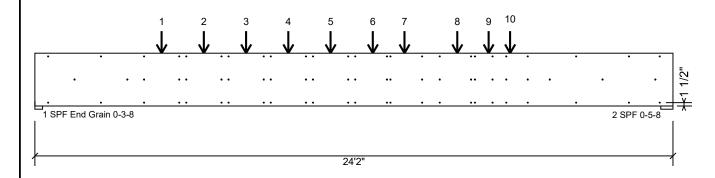
Job Name: CC2424-GL-505 CS Project #: CC2424-GL-505 CS

2.0E 2900Fb PWT LVL

1.750" X 24.000"

4-Ply - PASSED

Level: 2nd Floor





Page 8 of 8

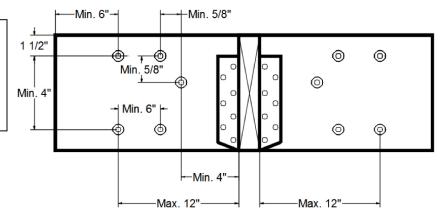
Multi-Ply Analysis

Concentrated Load

Fasten at concentrated side load at 18-0-0 with a minimum of (6) – SDW22634 in the pattern shown. All fasteners shall be installed with the head on the side of the applied load

side of the applied load.	
Capacity	13.8 %
Load	332.3lb.
Total Yield Limit	2400.0 lb.
Cg	1.0000
См	1
Yield Limit per Fastener	400.0 lb.
Yield Mode	Lookup
Load Combination	D+L
Duration Factor	1.00

Min/Max fastener distances for Concentrated Side Loads



Notes

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This design is valid until 9/3/2027

Version 24.60.996 Powered by iStruct™ Dataset: 25010801.1457





Address:

84 Lumber-Fayetteville #2307

CC2424-GL-505 CS Lot 505 Creekside Oaks South Date: 1/24/2025 Input by:

Kyle Militzer Job Name: CC2424-GL-505 CS Project #: CC2424-GL-505 CS

2.0E 2900Fb PWT LVL 1.750" X 24.000" 3-Ply - PASSED

Application:

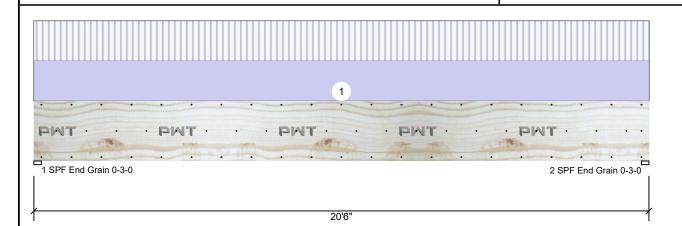
Design Method:

Building Code:

Load Sharing:

Deck:

Level: 2nd Floor



Floor

ASD

Yes

IRC 2018

Not Checked



Page 1 of 2

Mamhar	Information
VICIIIDCI	minormation

Type:	Girder
Plies:	3
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal -
Temperature:	Temp <=

- II Temp <= 100°F

General Load

40 PSF Floor Live: 15 PSF Dead:

Reactions PATTERNED Ib (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	410	780	0	0	0
2	Vertical	410	780	0	0	0

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	5887 ft-lb	10'3"	110274 ft-lb	5%	D+L	L
Shear	928 lb	18'3"	23940 lb	4%	D+L	L
LL Defl inch	0.014 (L/17132)	10'3 1/16"	0.672 (L/360)	2%	L	L
TL Defl inch	0.041 (L/5905)	10'3 1/16"	1.007 (L/240)	4%	D+L	L

Moment	5887 ft-lb	10'3"	110274 ft-lb	5%	D+L	L
Shear	928 lb	18'3"	23940 lb	4%	D+L	L
LL Defl inch	0.014 (L/17132)	10'3 1/16"	0.672 (L/360)	2%	L	L
TL Defl inch	0.041 (L/5905)	10'3 1/16"	1.007 (L/240)	4%	D+L	L

Bearings

Bearir	ng Length	Dir.	Cap. I	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SF End Grain	F 3.000"	Vert	10%	780 / 410	1190	L	D+L
2 - SF End Grain	F 3.000"	Vert	10%	780 / 410	1190	L	D+L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings.
- 2 Dead Load Deflection: Instant = 0.027", Long Term = 0.040".
- 3 Fasten all plies using 3 rows of 16d Sinker Nails (.148x3.25") at 12" o.c. Maximum end distance not to exceed 6". Nail from both sides. Clinch Nails where possible.
- 4 Refer to last page of calculations for fasteners required for specified loads.
- 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 end bearings.
- 8 Bottom must be laterally braced at end bearings.

Live 1 Snow 1.15 Wind 1.6 Const. 1.25 Comments

Load Type Location Trib Width Side Dead 0.9 40 PLF 0 PLF Part. Uniform 0-0-0 to 20-6-0 Top 40 PLF 0 PLF 0 PLF

> 36 PLF Self Weight

Notes

1

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U.S. Lumber 2160 Satellite Blvd., Suite 450, GA U.S.A 888-613-5078



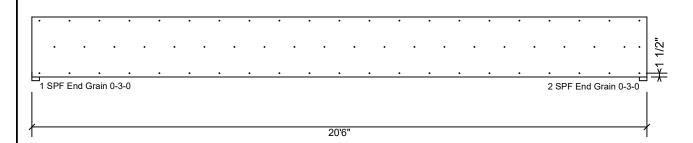
Client: 84 Lumber-Fayetteville #2307

Project: Address:

CC2424-GL-505 CS Lot 505 Creekside Oaks South Date: 1/24/2025 Input by:

Kyle Militzer Job Name: CC2424-GL-505 CS Project #: CC2424-GL-505 CS

2.0E 2900Fb PWT LVL 1.750" X 24.000" HD₁ 3-Ply - PASSED Level: 2nd Floor





5 1/4"

Page 2 of 2

Multi-Ply Analysis

Fasten all plies using 3 rows of 16d Sinker Nails (.148x3.25") at 12" o.c.. Nail from both sides. Maximum end distance not to exceed 6". Clinch Nails where possible.

Capacity	0.0 %	
Load	0.0 PLF	
Yield Limit per Foot	352.8 PLF	
Yield Limit per Fastener	117.6 lb.	
CM	1	
Yield Mode	IV	
Edge Distance	1 1/2"	
Min. End Distance	3"	
Load Combination		
Duration Factor	1.00	

Notes

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