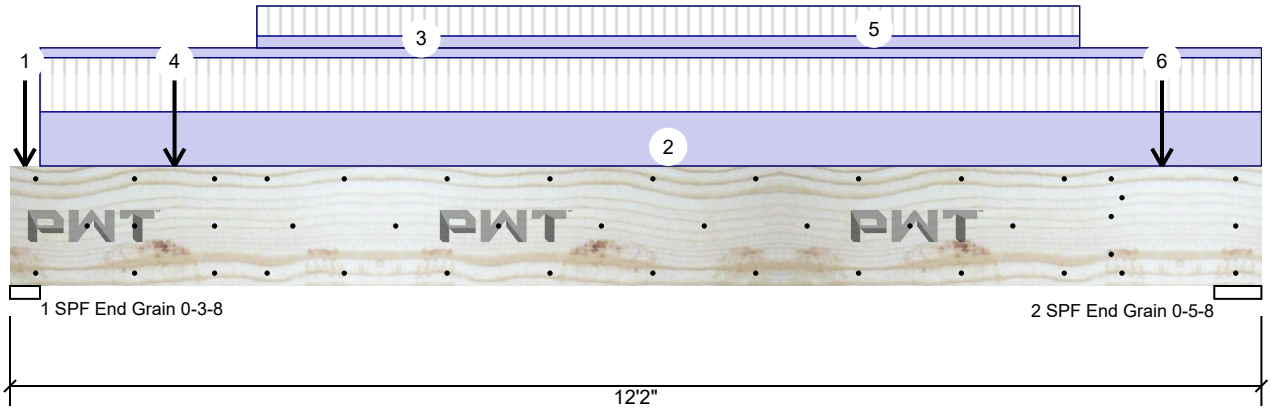
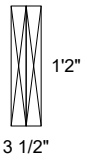
Client:	84 Lumber-Fayetteville #2307	Date:	1/24/2025
Project:	CC2424-GL-505 CS	Input by:	Kyle Militzer
Address:	Lot 505 Creekside Oaks South	Job Name:	CC2424-GL-505 CS
		Project #:	CC2424-GL-505 CS

FB4 2.0E 2900Fb PWT LVL 1.750" X 14.000" 2-Ply - PASSED

Level: 2nd Floor





Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IRC 2018
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

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

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	96%	4271 / 4557	8829	L	D+L
2 - SPF End Grain	5.500"	Vert	68%	4740 / 5044	9784	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
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+L	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	L

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 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 a maximum of 2'6" o.c.
9. Bottom must be laterally braced at end bearings.

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		Top	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		Top	531 PLF	531 PLF	0 PLF	0 PLF	0 PLF	
3	Part. Uniform	0-3-8 to 12-2-0		Top	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

Continued on page 2...

Notes

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Client:	84 Lumber-Fayetteville #2307	Date:	1/24/2025
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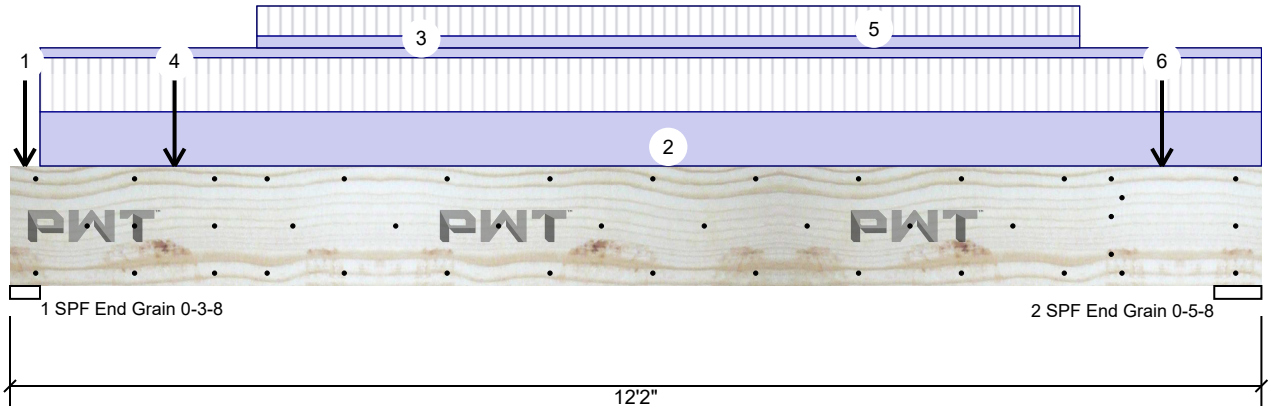
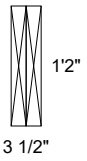
Address:	Lot 505 Creekside Oaks South	Job Name:	CC2424-GL-505 CS
		Project #:	CC2424-GL-505 CS

FB4 2.0E 2900Fb PWT LVL 1.750" X 14.000" 2-Ply - PASSED

Level: 2nd Floor





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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	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					

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FB4 2.0E 2900Fb PWT LVL 1.750" X 14.000" 2-Ply - PASSED

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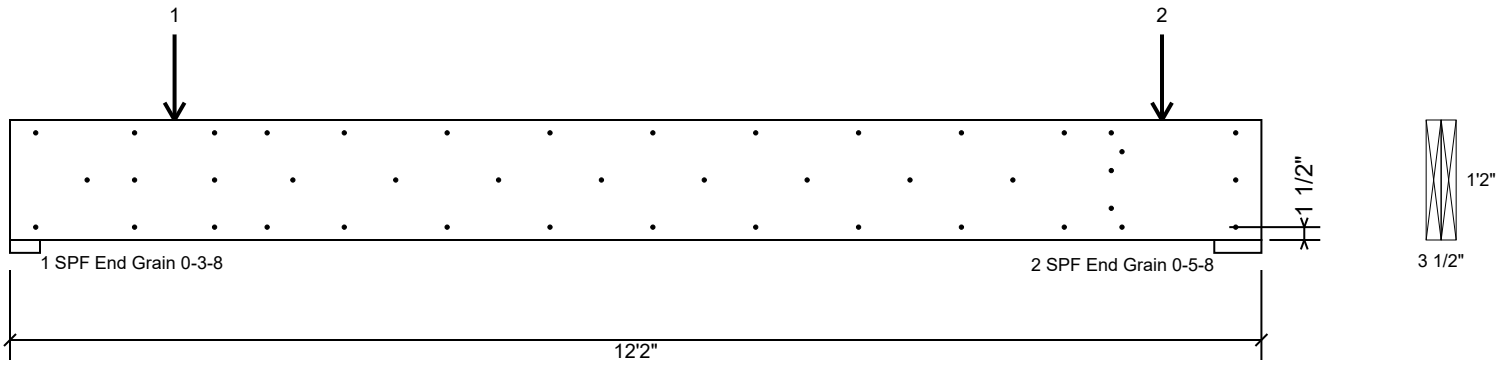


Multi-Ply Analysis

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	58.1 %
Load	205.0 PLF
Yield Limit per Foot	352.8 PLF
Yield Limit per Fastener	117.6 lb.
Cм	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.

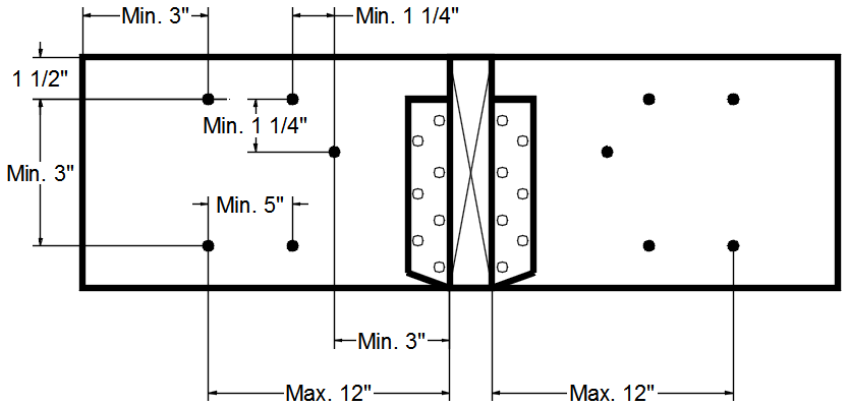
Capacity	45.8 %
Load	323.0lb.
Total Yield Limit	705.4 lb.
Cg	0.9998
Cм	1
Yield Limit per Fastener	117.6 lb.
Yield Mode	IV
Load Combination	D+L
Duration Factor	1.00

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.
Cg	0.9998
Cм	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



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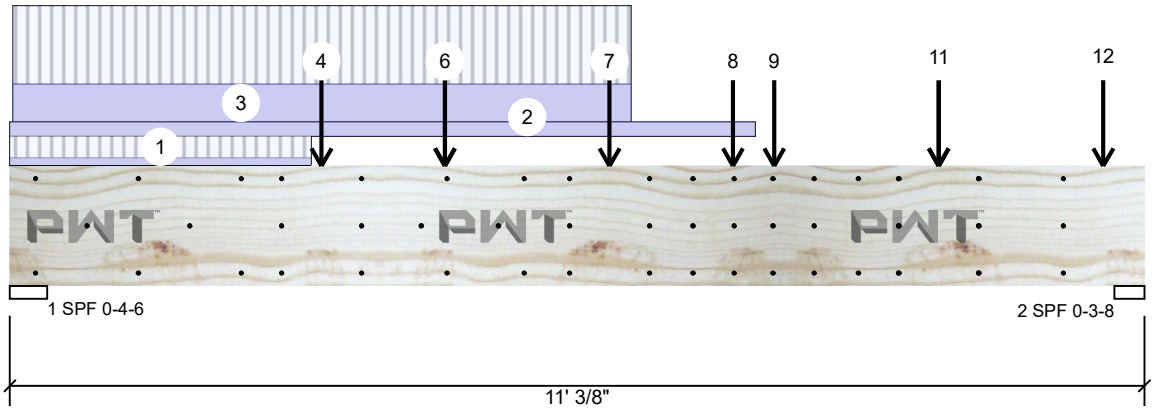
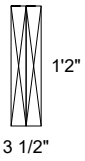
		Project #:	CC2424-GL-505 CS

FB2 2.0E 2900Fb PWT LVL 1.750" X 14.000" 2-Ply - PASSED

Level: 2nd Floor





Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IRC 2018
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Reactions PATTERNED lb (Uplift)

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

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	4.375"	Vert	61%	1390 / 2595	3985	L	D+L
2 - SPF	3.500"	Vert	79%	1325 / 2773	4099	L	D+L

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
TL Defl inch	0.163 (L/773)	5'8 1/4"	0.525 (L/240)	31%	D+L	L

Design Notes

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 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	Top	15 PSF	40 PSF	0 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 7-2-14		Top	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

Continued on page 2...

Notes

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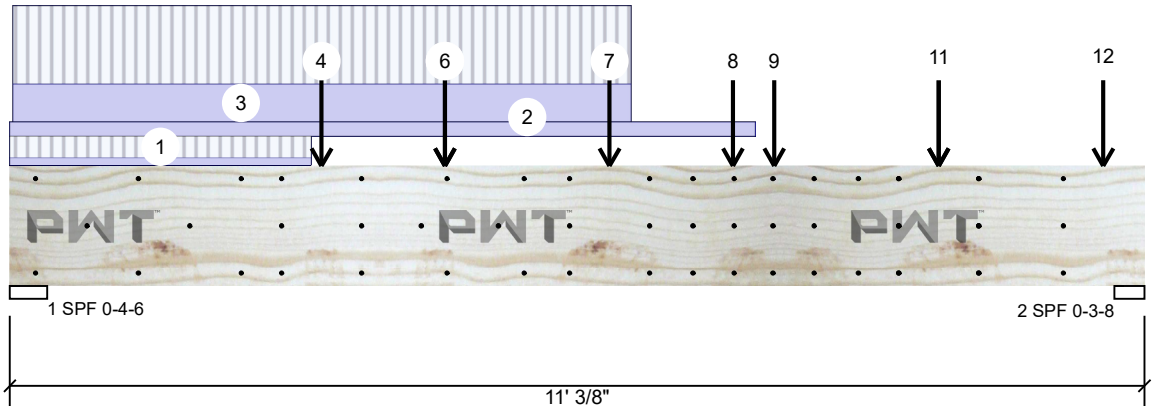
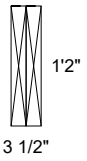
		Project #:	CC2424-GL-505 CS

FB2 2.0E 2900Fb PWT LVL 1.750" X 14.000" 2-Ply - PASSED

Level: 2nd Floor





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ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
5	Point	4-2-12		Near Face	-53 lb	101 lb	0 lb	0 lb	0 lb	J11
6	Point	4-2-12		Near Face	0 lb	-268 lb	0 lb	0 lb	0 lb	J11
7	Point	5-10-0		Near Face	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 Face	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 Face	183 lb	524 lb	0 lb	0 lb	0 lb	J11
12	Point	10-7-9		Near Face	112 lb	320 lb	0 lb	0 lb	0 lb	J11
	Self Weight				14 PLF					

Notes

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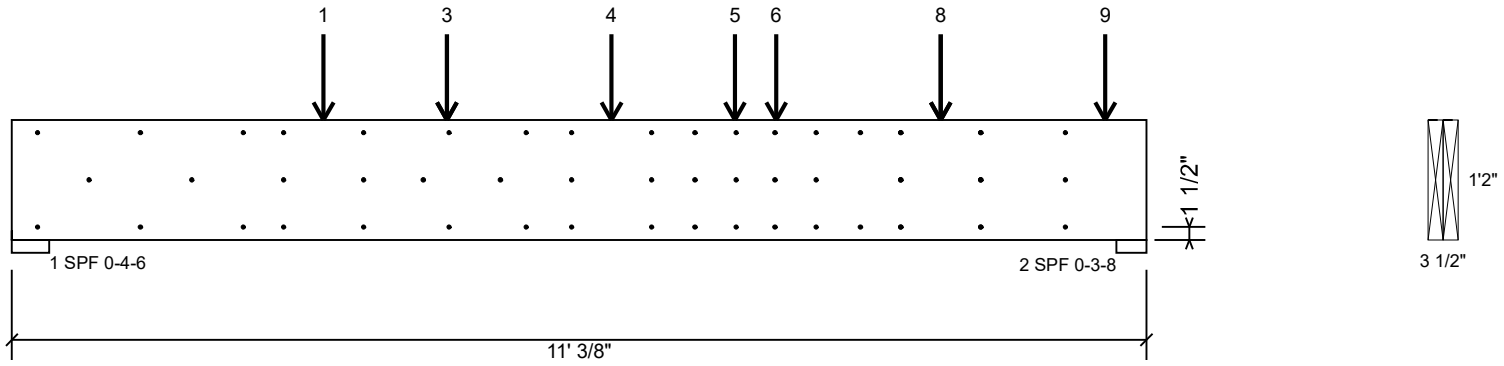
Level: 2nd Floor



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	56.6 %
Load	199.5 PLF
Yield Limit per Foot	352.8 PLF
Yield Limit per Fastener	117.6 lb.
Cм	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.

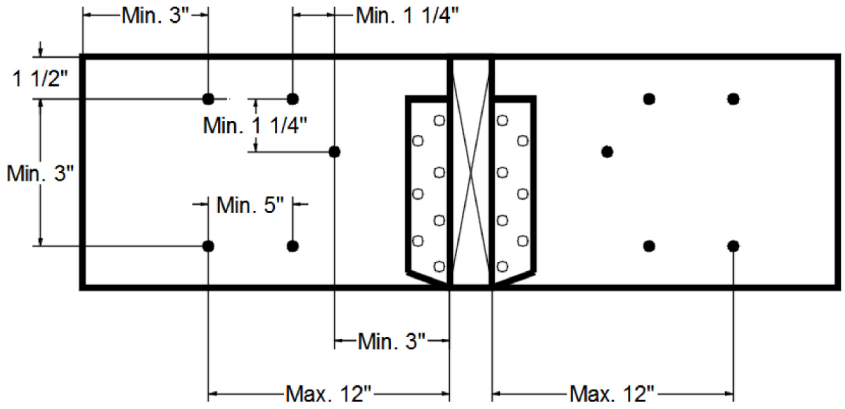
Capacity	43.2 %
Load	305.0lb.
Total Yield Limit	705.4 lb.
Cg	0.9998
Cм	1
Yield Limit per Fastener	117.6 lb.
Yield Mode	IV
Load Combination	D+L
Duration Factor	1.00

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.
Cg	0.9998
Cм	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



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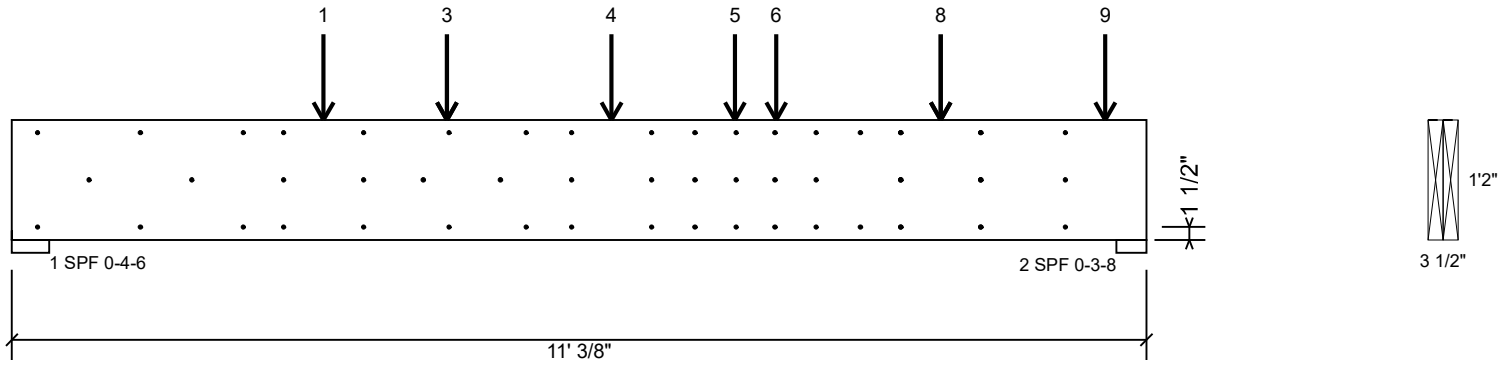
FB2 2.0E 2900Fb PWT LVL 1.750" X 14.000" 2-Ply - PASSED

Level: 2nd Floor



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.

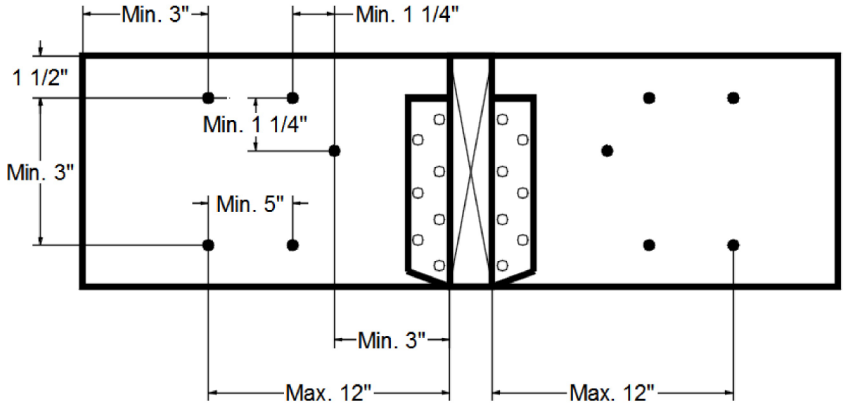
Capacity	54.4 %
Load	384.0lb.
Total Yield Limit	705.4 lb.
Cg	0.9998
Cм	1
Yield Limit per Fastener	117.6 lb.
Yield Mode	IV
Load Combination	D+L
Duration Factor	1.00

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.

Capacity	60.8 %
Load	429.0lb.
Total Yield Limit	705.4 lb.
Cg	0.9998
Cм	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



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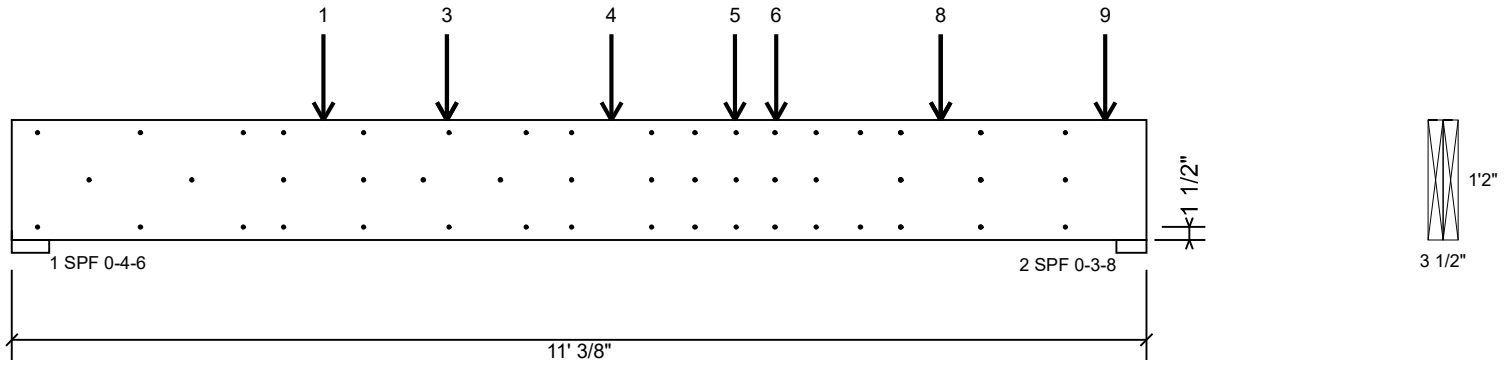


Multi-Ply Analysis

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.

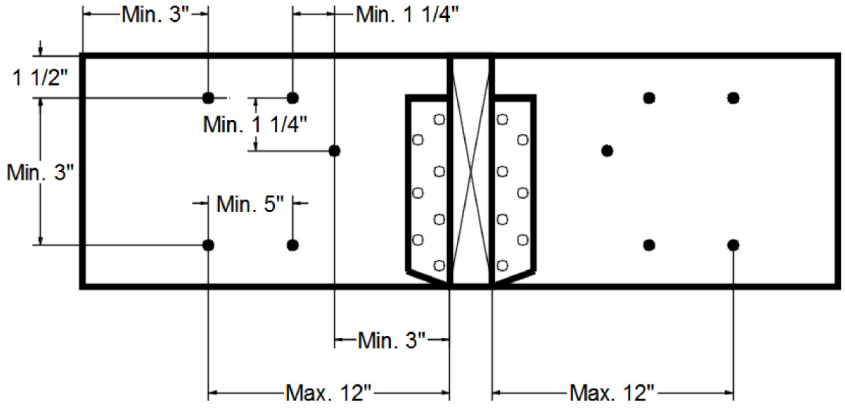
Capacity	50.8 %
Load	358.5lb.
Total Yield Limit	705.4 lb.
Cg	0.9998
Cм	1
Yield Limit per Fastener	117.6 lb.
Yield Mode	IV
Load Combination	D+L
Duration Factor	1.00

Concentrated Load

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

Capacity	61.2 %
Load	216.0lb.
Total Yield Limit	352.7 lb.
Cg	0.9998
Cм	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



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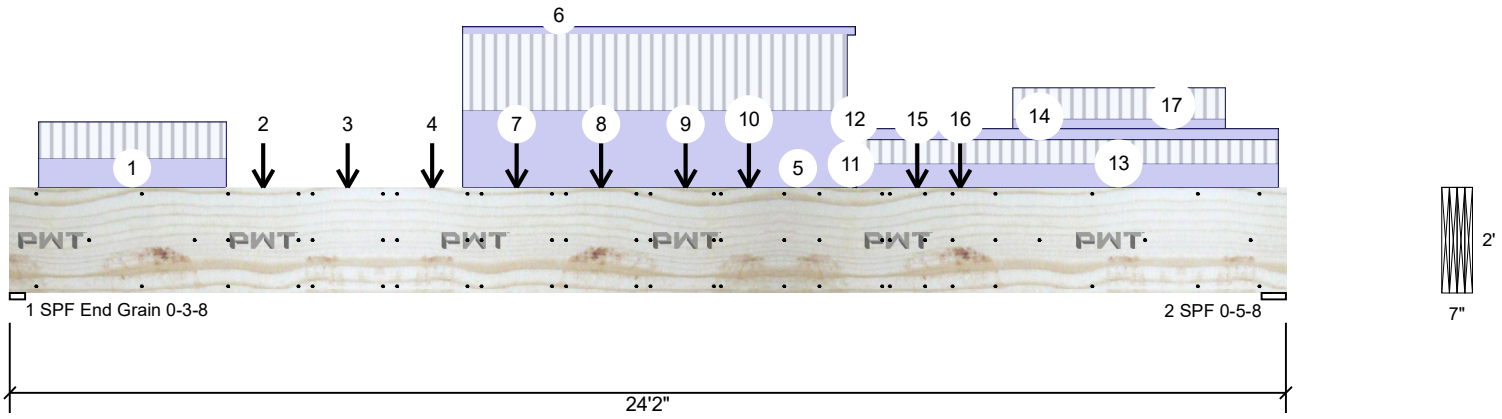
2160 Satellite Blvd., Suite 450, GA
U.S.A
30097
888-613-5078

Client:	84 Lumber-Fayetteville #2307	Date:	1/24/2025
Project:	CC2424-GL-505 CS	Input by:	Kyle Militzer
Address:	Lot 505 Creekside Oaks South	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



Member Information

Type:	Girder	Application:	Floor
Plies:	4	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IRC 2018
Deflection LL:	360	Load Sharing:	Yes
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Reactions PATTERNED lb (Uplift)

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

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	62%	5659 / 5685	11343	L	D+L
2 - SPF	5.500"	Vert	80%	6675 / 6391	13066	L	D+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

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 12".
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.

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

Continued on page 2...

Notes

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This design is valid until 9/3/2027

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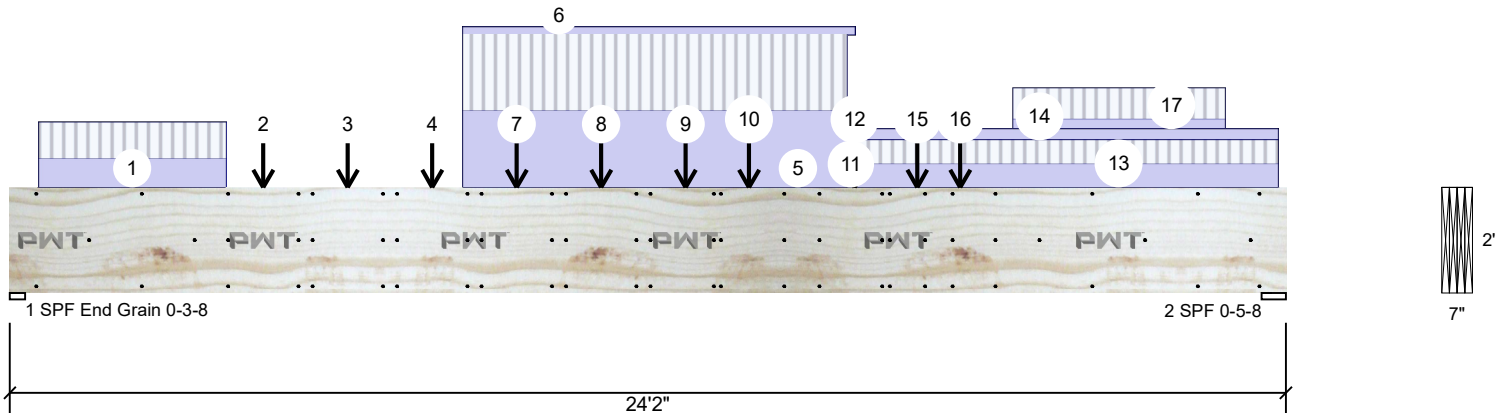
Client:	84 Lumber-Fayetteville #2307	Date:	1/24/2025
Project:	CC2424-GL-505 CS	Input by:	Kyle Militzer
Address:	Lot 505 Creekside Oaks South	Job Name:	CC2424-GL-505 CS
		Project #:	CC2424-GL-505 CS

FB3 2.0E 2900Fb PWT LVL 1.750" X 24.000" 4-Ply - PASSED

Level: 2nd Floor



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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		Top	586 PLF	586 PLF	0 PLF	0 PLF	0 PLF	
6	Part. Uniform	8-7-0 to 16-0-0		Top	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		Top	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		Top	180 PLF	180 PLF	0 PLF	0 PLF	0 PLF	
14	Part. Uniform	16-0-0 to 24-0-0		Top	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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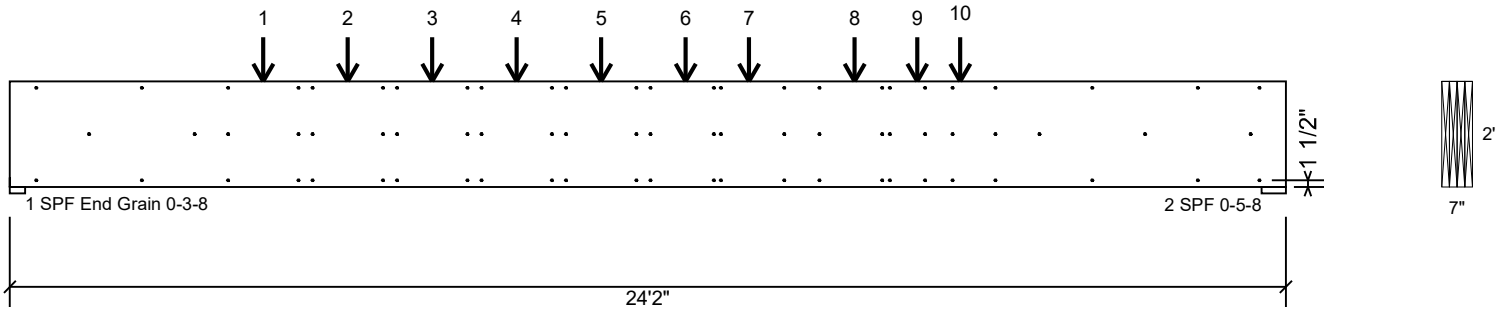
Client:	84 Lumber-Fayetteville #2307	Date:	1/24/2025
Project:	CC2424-GL-505 CS	Input by:	Kyle Militzer
Address:	Lot 505 Creekside Oaks South	Job Name:	CC2424-GL-505 CS
		Project #:	CC2424-GL-505 CS

FB3 2.0E 2900Fb PWT LVL 1.750" X 24.000" 4-Ply - PASSED

Level: 2nd Floor



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".

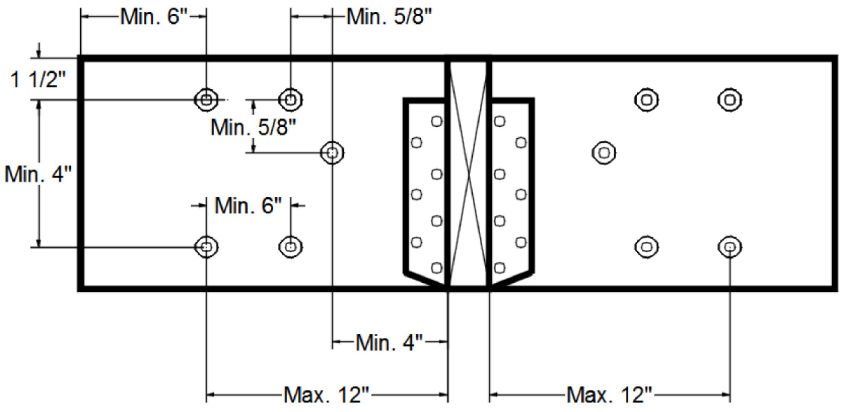
Capacity	83.2 %
Load	374.3 PLF
Yield Limit per Foot	450.0 PLF
Yield Limit per Fastener	300.0 lb.
Cм	1
Yield Mode	Lookup
Edge Distance	1 1/2"
Min. End Distance	6"
Load Combination	D+L
Duration Factor	1.00

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 %
Load	630.8lb.
Total Yield Limit	2400.0 lb.
Cg	1.0000
Cм	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



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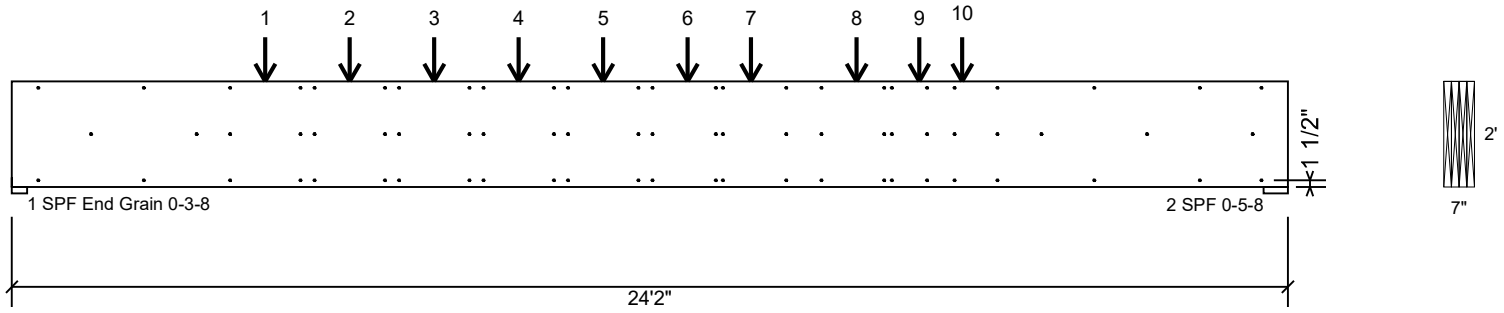
FB3 2.0E 2900Fb PWT LVL 1.750" X 24.000" 4-Ply - PASSED

Level: 2nd Floor



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.

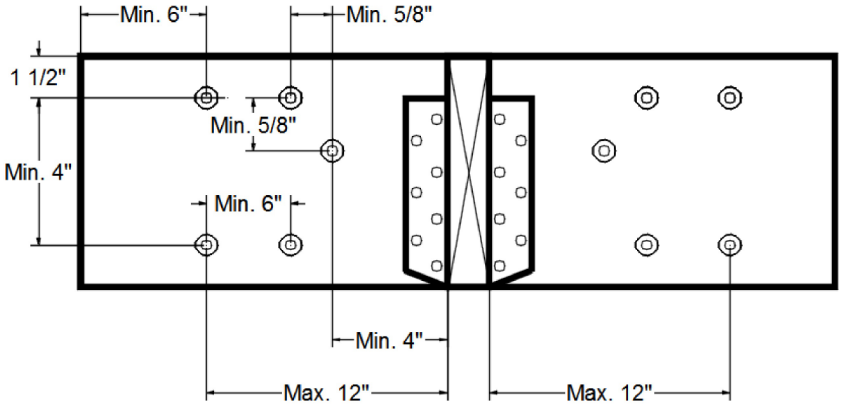
Capacity	26.6 %
Load	638.3lb.
Total Yield Limit	2400.0 lb.
Cg	1.0000
Cм	1
Yield Limit per Fastener	400.0 lb.
Yield Mode	Lookup
Load Combination	D+L
Duration Factor	1.00

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.

Capacity	25.1 %
Load	601.5lb.
Total Yield Limit	2400.0 lb.
Cg	1.0000
Cм	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



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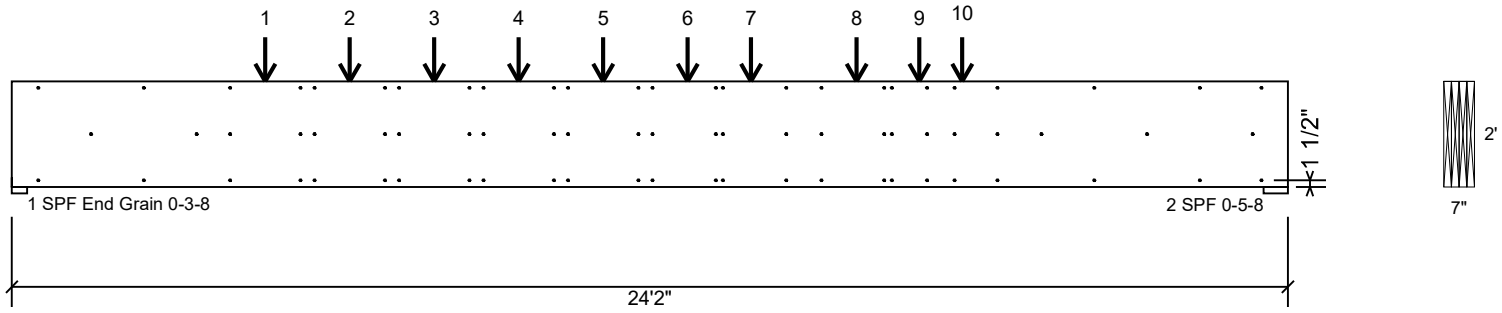
Level: 2nd Floor



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.

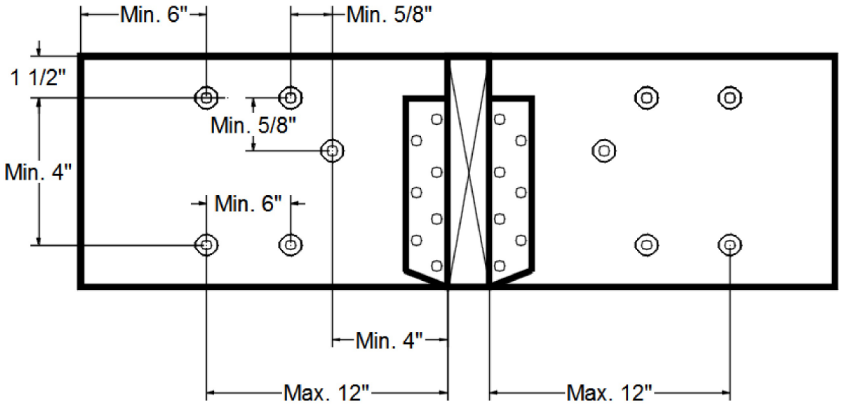
Capacity	24.3 %
Load	584.3lb.
Total Yield Limit	2400.0 lb.
Cg	1.0000
Cм	1
Yield Limit per Fastener	400.0 lb.
Yield Mode	Lookup
Load Combination	D+L
Duration Factor	1.00

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
Cм	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



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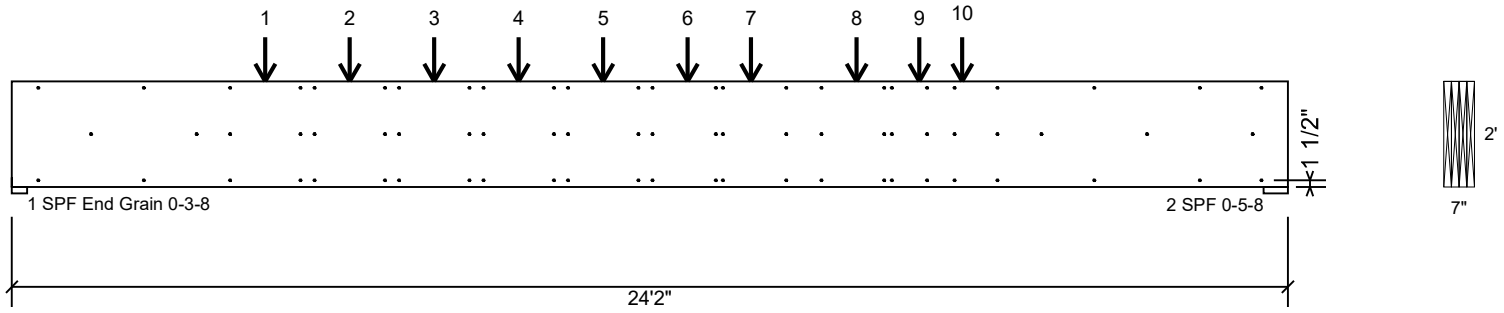
FB3 2.0E 2900Fb PWT LVL 1.750" X 24.000" 4-Ply - PASSED

Level: 2nd Floor



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.

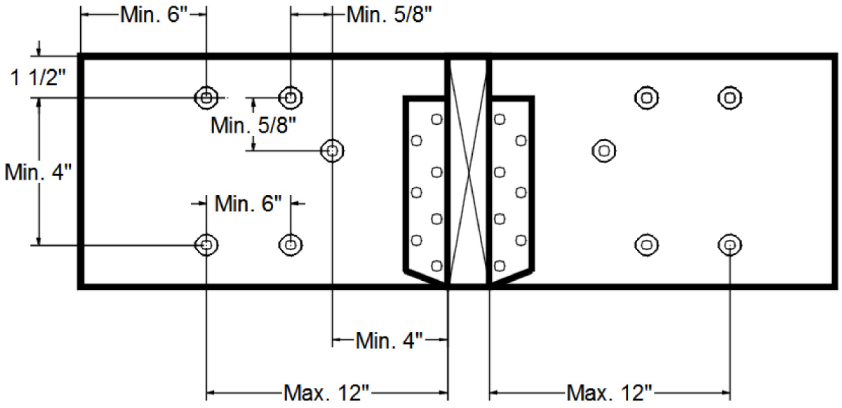
Capacity	23.5 %
Load	564.0lb.
Total Yield Limit	2400.0 lb.
Cg	1.0000
Cм	1
Yield Limit per Fastener	400.0 lb.
Yield Mode	Lookup
Load Combination	D+L
Duration Factor	1.00

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
Cм	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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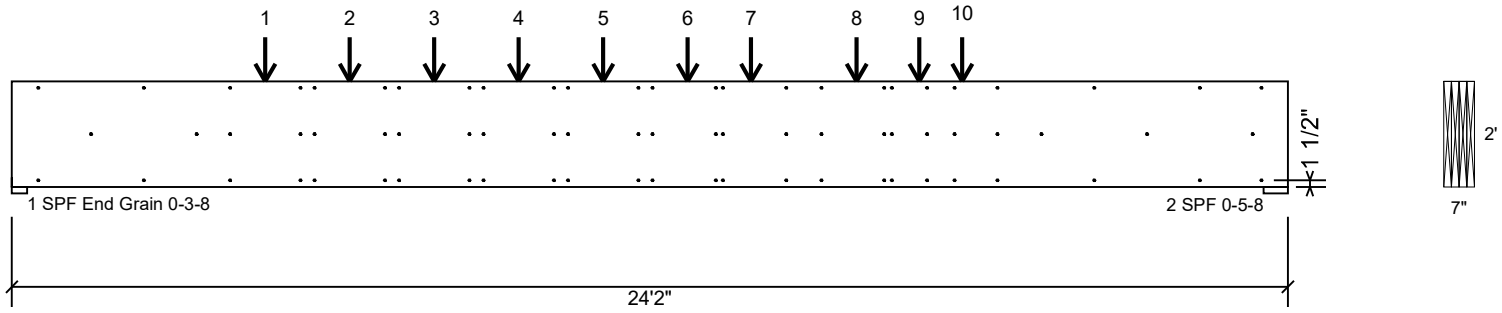
Client:	84 Lumber-Fayetteville #2307	Date:	1/24/2025
Project:	CC2424-GL-505 CS	Input by:	Kyle Militzer
Address:	Lot 505 Creekside Oaks South	Job Name:	CC2424-GL-505 CS
		Project #:	CC2424-GL-505 CS

FB3 2.0E 2900Fb PWT LVL 1.750" X 24.000" 4-Ply - PASSED

Level: 2nd Floor



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.

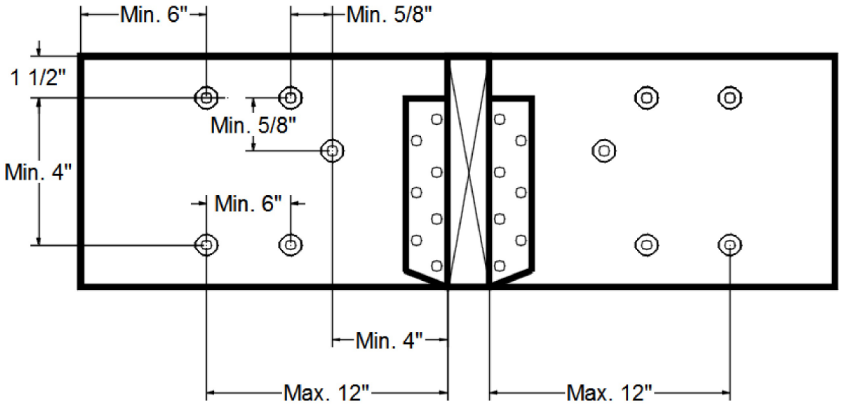
Capacity	27.3 %
Load	655.5lb.
Total Yield Limit	2400.0 lb.
Cg	1.0000
Cм	1
Yield Limit per Fastener	400.0 lb.
Yield Mode	Lookup
Load Combination	D+L
Duration Factor	1.00

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
Cм	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



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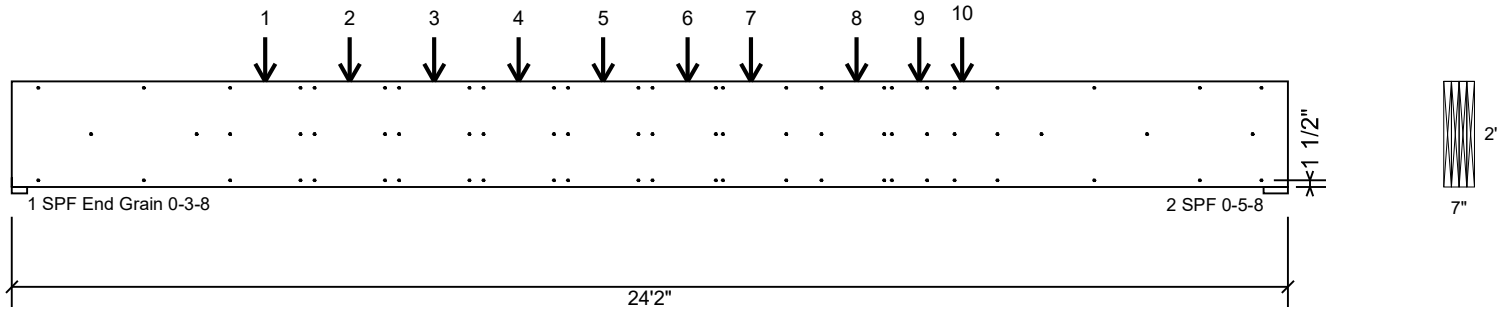


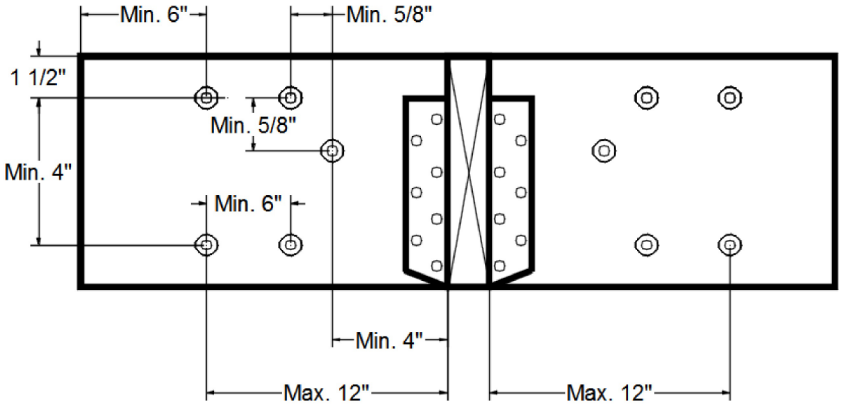
Multi-Ply Analysis

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.

Capacity	13.8 %
Load	332.3lb.
Total Yield Limit	2400.0 lb.
Cg	1.0000
Cм	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



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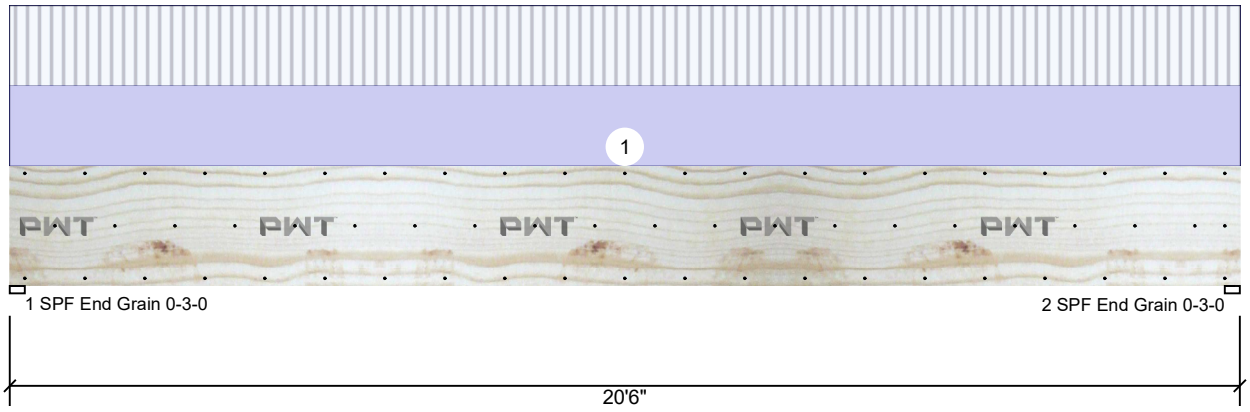
Project:	CC2424-GL-505 CS	Input by:	Kyle Militzer
Address:	Lot 505 Creekside Oaks South	Job Name:	CC2424-GL-505 CS
		Project #:	CC2424-GL-505 CS

HD1 2.0E 2900Fb PWT LVL 1.750" X 24.000" 3-Ply - PASSED

Level: 2nd Floor



Member Information

Type:	Girder	Application:	Floor
Plies:	3	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IRC 2018
Deflection LL:	360	Load Sharing:	Yes
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Reactions PATTERNED lb (Uplift)

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

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	10%	780 / 410	1190	L	D+L
2 - SPF End Grain	3.000"	Vert	10%	780 / 410	1190	L	D+L

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

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.

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	0-0-0 to 20-6-0		Top	40 PLF	40 PLF	0 PLF	0 PLF	0 PLF	
	Self Weight				36 PLF					

Notes

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This design is valid until 9/3/2027

Manufacturer Info

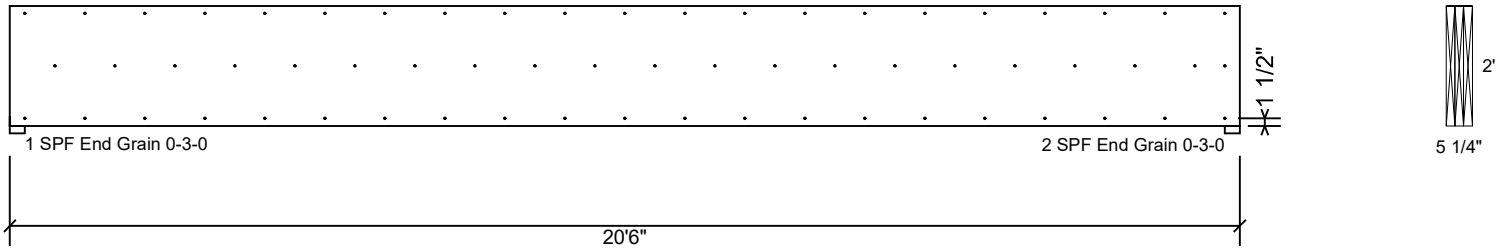
Pacific Woodtech Corp
1850 Park Lane
Burlington, WA 98233
(800) 515-7570
www.pwtewp.com
ICC-ES: ESR-2909 ESR-2403 APA: PR-L233 PR-L280

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

Client:	84 Lumber-Fayetteville #2307	Date:	1/24/2025
Project:	CC2424-GL-505 CS	Input by:	Kyle Militzer
Address:	Lot 505 Creekside Oaks South	Job Name:	CC2424-GL-505 CS
		Project #:	CC2424-GL-505 CS

HD1 2.0E 2900Fb PWT LVL 1.750" X 24.000" 3-Ply - PASSED

Level: 2nd Floor



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.
C_M	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Notes

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