



Customer:  
Street 1:  
City:  
Customer Ph...

Job Name: **Q2301528-29**  
Level: **1st Floor**  
Label: **H4 - i11**  
Type: **Beam**

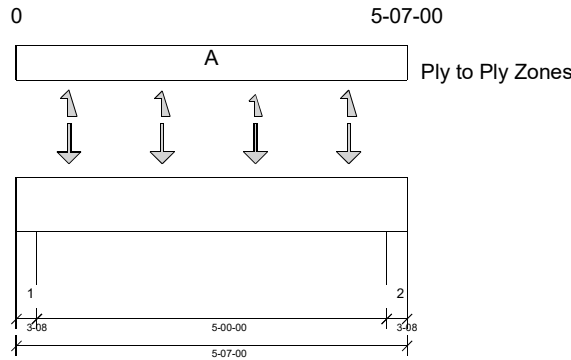
**2 Ply Member**  
**1 3/4" x 9 1/4" 2.0E**  
**Microllam® LVL**

Status:  
**Design Passed**

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.6.2.271.Update3.S.22

Report Version: 2021.03.26 09/27/2023 11:59



### DESIGN INFORMATION

Building Code: IRC2015  
Design Methodology: ASD  
Risk Category: II (General Construction) Residential  
Service Condition: Dry  
LL Deflection Limit: L/360, 0.75" (absolute)  
TL Deflection Limit: L/240, 1.00" (absolute)

#### Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 5'- 7" Bottom: 5'- 7"

#### Bearing Stress of Support Material:

- 1323 psi Wall @ 0'- 2 1/2"
- 1323 psi Wall @ 5'- 4 1/2"

### ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	3'- 5"	D + Lr	1.15	2235 lb ft	12674 lb ft	Passed - 18%
Max Neg. Moment:	2'- 1"	0.6D + 0.6W	1.60	266 lb ft	17468 lb ft	Passed - 2%
Max Shear:	4'- 6 1/4"	D + Lr	1.15	1479 lb	7074 lb	Passed - 21%
Live Load (LL) Pos. Defl.:	2'- 9 1/2"	Lr		0.013"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	2'- 9 1/2"	D + Lr		0.024"	L/240	Passed - L/999

### SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	3-08	D + Lr	1.15	1802 lb		9188 lb	16207 lb	Passed - 20%
1	3-08	0.6D + 0.6W	1.60		-249 lb	-	-	
2	3-08	D + Lr	1.15	1748 lb		9188 lb	16207 lb	Passed - 19%
2	3-08	0.6D + 0.6W	1.60		-214 lb	-	-	

### LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Self Weight	0'	5'- 7"	Self Weight	Top	9 lb/ft	-	-	-	-
Point	0'- 9"	0'- 9"	2K01(c02)	Top	404 lb	23 lb	-	467 lb	102/-555 lb
Point	2'- 1"	2'- 1"	2K01(c02)	Top	407 lb	23 lb	-	470 lb	103/-520 lb
Point	3'- 5"	3'- 5"	2K01(c02)	Top	406 lb	23 lb	-	469 lb	103/-403 lb
Point	4'- 9"	4'- 9"	2K01(c02)	Top	406 lb	23 lb	-	469 lb	103/-545 lb

### UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	0'- 3 1/2"	E2(i4)	850 lb	47 lb	-	952 lb	202 lb/ -1266 lb
2	5'- 3 1/2"	5'- 7"	E7(i10)	825 lb	45 lb	-	923 lb	202 lb/ -1266 lb

### DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 0.97

### PLY TO PLY CONNECTION

- Zone A: Factored load = 0 plf. Use 12d (0.131"x3.25") nails. LDF = 1.00. Qty = 12. Row = 2, Spacing = 12"  
12d (0.131"x3.25") nails properties: D = 0.131" , L = 3.25". Fastener capacity = 96 lbs. X1 = 2" , Y1 = 0.75" , Y2 = 1.5"  
Install fasteners from one face.  
X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.



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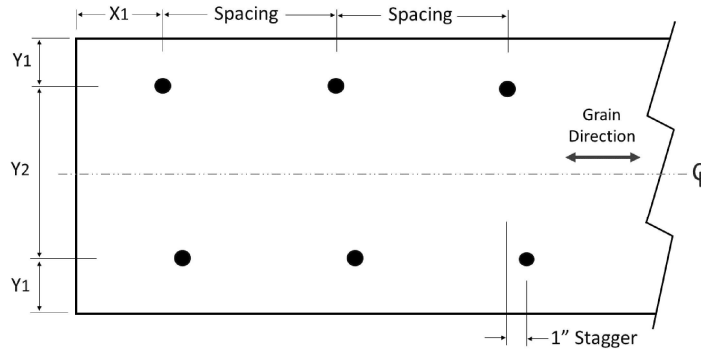
Job Name: **Q2301528-29**  
Level: **1st Floor**  
Label: **H4 - i11**  
Type: **Beam**

**2 Ply Member**  
**1 3/4" x 9 1/4" 2.0E**  
**Microllam® LVL**

Status:  
**Design Passed**

**PLY TO PLY CONNECTION**

**FASTENER INSTALLATION – 2 ROWS (FROM ONE FACE)**





Customer:  
Street 1:  
City:  
Customer Ph...

Job Name: **Q2301528-29**  
Level: **1st Floor**  
Label: **2FB11 - i47**  
Type: **Beam**

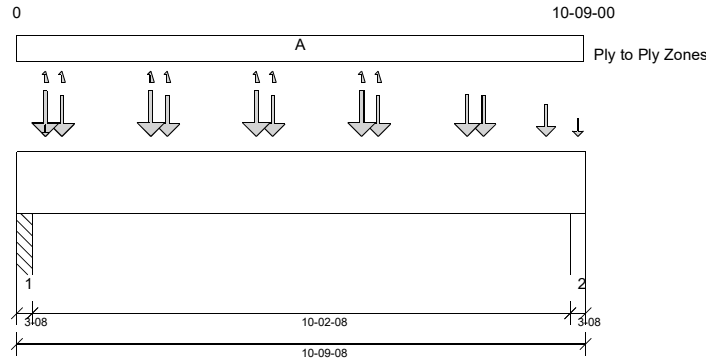
**2 Ply Member**  
**1 3/4" x 14" 2.0E**  
**Microllam® LVL**

Status:  
**Design Passed**

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.6.2.271.Update3.S.22

Report Version: 2021.03.26 09/27/2023 11:59



### DESIGN INFORMATION

Building Code: IRC2015  
Design Methodology: ASD  
Risk Category: II (General Construction) Residential  
Service Condition: Dry  
LL Deflection Limit: L/360, 0.75" (absolute)  
TL Deflection Limit: L/240, 1.00" (absolute)

#### Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 1'- 4 3/4"

#### Bearing Stress of Support Material:

- 725 psi Column @ 0'- 2 1/2"
- 425 psi Wall @ 10'- 7"

### ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	4'- 10 1/4"	D + L	1.00	12545 lb ft	24252 lb ft	Passed - 52%
Max Shear:	1'- 5 1/2"	D + L	1.00	5289 lb	9310 lb	Passed - 57%
Live Load (LL) Pos. Defl.:	5'- 4 5/8"	L		0.112"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	5'- 4 5/8"	D + L		0.156"	L/240	Passed - L/786

### SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	3-08	D + L	1.00	5313 lb		9188 lb	8881 lb	Passed - 60%
2	3-08	D + L	1.00	4595 lb		9188 lb	5206 lb	Passed - 88%

### LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Self Weight	0'	10'- 9 1/2"	Self Weight	Top	14 lb/ft	-	-	-	-
Point	0'- 10 1/4"	0'- 10 1/4"	2F09(c05)	Front	230 lb	620 lb	-	0 lb	0/0 lb
Point	2'- 10 1/4"	2'- 10 1/4"	2F09(c02)	Front	230 lb	620 lb	-	0 lb	0/0 lb
Point	4'- 10 1/4"	4'- 10 1/4"	2F09(c01)	Front	230 lb	620 lb	-	0 lb	0 lb
Point	6'- 10 1/4"	6'- 10 1/4"	2F09(c04)	Front	230 lb	620 lb	-	0 lb	0/-1 lb
Point	8'- 10 1/4"	8'- 10 1/4"	2F09(c03)	Front	227 lb	610 lb	-	-	-
Point	0'- 6 1/2"	0'- 6 1/2"	2F01(c04)	Back	267 lb	719 lb	-	0 lb	0 lb
Point	2'- 6 1/2"	2'- 6 1/2"	2F01(c06)	Back	268 lb	722 lb	-	0 lb	0 lb
Point	4'- 6 1/2"	4'- 6 1/2"	2F01(c01)	Back	268 lb	722 lb	-	0 lb	0 lb
Point	6'- 6 1/2"	6'- 6 1/2"	2F01(c05)	Back	268 lb	722 lb	-	0 lb	0/0 lb
Point	8'- 6 1/2"	8'- 6 1/2"	2F01(c09)	Back	245 lb	631 lb	-	-	-
Point	10'- 1/2"	10'- 1/2"	2F01(c03)	Back	189 lb	406 lb	-	-	-
Point	0'- 6 1/2"	0'- 6 1/2"	FC1 Floor Decking (Plan View Fill)	Top	1 lb	3 lb	-	-	-
Point	10'- 7 3/4"	10'- 7 3/4"	E12(i27)	Top	85 lb	-	-	88 lb	22 lb

### UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	0'- 3 1/2"	PBO6(i46)	1497 lb	3816 lb	-	1 lb	0 lb/-1 lb
2	10'- 6"	10'- 9 1/2"	E7(i10)	1395 lb	3200 lb	-	89 lb	0 lb/-1 lb

### DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 1.00

### PLY TO PLY CONNECTION

- Zone A: Factored load = 640 plf. Use 12d (0.131"x3.25") nails. LDF = 1.00. Qty = 39. Row = 3, Spacing = 10" 12d (0.131"x3.25") nails properties: D = 0.131", L = 3.25". Fastener capacity = 96 lbs. X1 = 2", Y1 = 0.75", Y2 = 1.5" Install fasteners from one face. X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.



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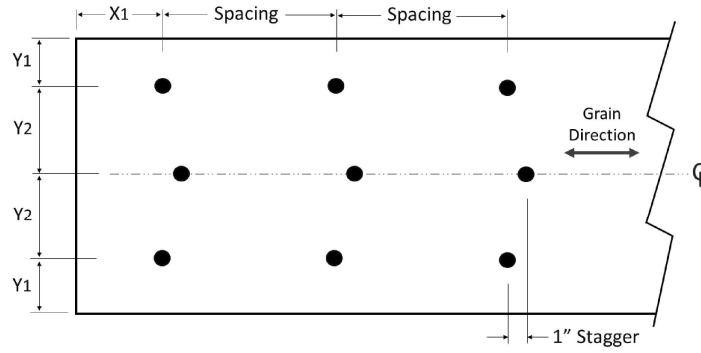
Job Name: **Q2301528-29**  
Level: **1st Floor**  
Label: **2FB11 - i47**  
Type: **Beam**

**2 Ply Member**  
**1 3/4" x 14" 2.0E**  
**Microllam® LVL**

Status:  
**Design**  
**Passed**

**PLY TO PLY CONNECTION**

**FASTENER INSTALLATION – 3 ROWS (FROM ONE FACE)**





Customer:  
Street 1:  
City:  
Customer Ph...

Job Name: **Q2301528-29**  
Level: **1st Floor**  
Label: **2FB6 - i18**  
Type: **Beam**

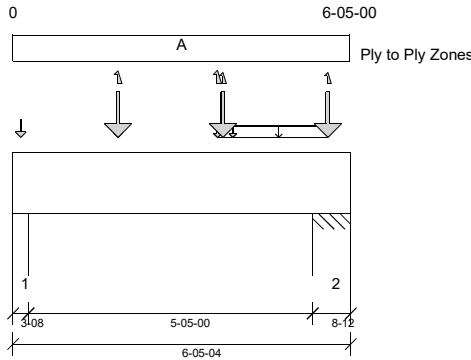
**2 Ply Member**  
**1 3/4" x 14" 2.0E**  
**Microllam® LVL**

Status:  
**Design Passed**

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.6.2.271.Update3.S.22

Report Version: 2021.03.26 09/27/2023 11:59



### DESIGN INFORMATION

Building Code: IRC2015  
Design Methodology: ASD  
Risk Category: II (General Construction)  
Residential  
Service Condition: Dry  
LL Deflection Limit: L/360, 0.75" (absolute)  
TL Deflection Limit: L/240, 1.00" (absolute)

#### Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 1'- 7 1/4"

#### Bearing Stress of Support Material:

- 425 psi Wall @ 0'- 2 1/2"
- 425 psi Wall @ 5'- 9 1/2"

### ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	2'	D + L	1.00	1859 lb ft	24252 lb ft	Passed - 8%
Max Neg. Moment:	5'- 9 1/2"	D + L	1.00	211 lb ft	24252 lb ft	Passed - 1%
Max Shear:	4'- 6 1/2"	D + L	1.00	1102 lb	9310 lb	Passed - 12%

### SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	3-08	D + L	1.00	1142 lb		9187 lb	5206 lb	Passed - 22%
2	8-12	D + L	1.00	2136 lb		22969 lb	13016 lb	Passed - 16%

### LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Self Weight	0'	6'- 5 1/4"	Self Weight	Top	14 lb/ft	-	-	-	-
Uniform	3'- 10 3/4"	6'	FC1 Floor Decking (Plan View Fill)	Top	2 lb/ft	6 lb/ft	-	-	-
Point	2'	2'	2F04(c02)	Front	-51 lb	119 lb	-	-	-
Point	3'- 10 3/4"	3'- 10 3/4"	2F04(c01)	Front	-66 lb	71 lb	-	-1 lb	1/0 lb
Point	4'- 2 1/4"	4'- 2 1/4"	2F05(c01)	Front	21 lb	15 lb	-	-	-
Point	2'	2'	2F01(c07)	Back	268 lb	722 lb	-	-	-
Point	4'	4'	2F01(c08)	Back	268 lb	722 lb	-	0 lb	0/0 lb
Point	6'	6'	2F01(c02)	Back	269 lb	727 lb	-	0 lb	0 lb
Point	0'- 1 3/4"	0'- 1 3/4"	E14(i29)	Top	85 lb	-	-	88 lb	22 lb

### UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	0'- 3 1/2"	E6(i3)	350 lb	833 lb	-	91 lb	23 lb/ 0 lb
2	5'- 8 1/2"	6'- 5 1/4"	3(i16)	539 lb	1556 lb	-	-3 lb	23 lb/ 0 lb

### DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
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- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 1.00

### PLY TO PLY CONNECTION

- Zone A: Factored load = 703 plf. Use 12d (0.131"x3.25") nails. LDF = 1.00. Qty = 27. Row = 3, Spacing = 9" 12d (0.131"x3.25") nails properties: D = 0.131", L = 3.25". Fastener capacity = 96 lbs. X1 = 2", Y1 = 0.75", Y2 = 1.5" Install fasteners from one face. X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.



Customer:  
Street 1:  
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Customer Ph...

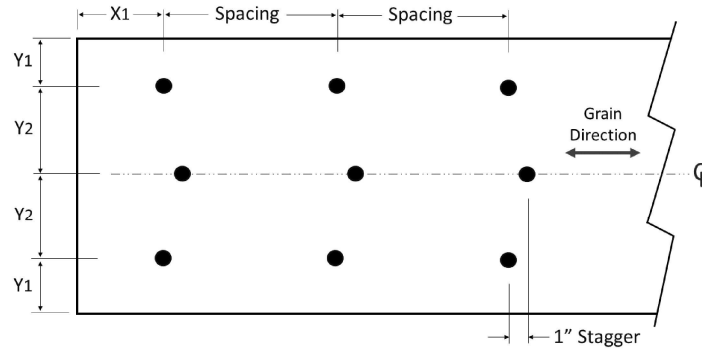
Job Name: **Q2301528-29**  
Level: **1st Floor**  
Label: **2FB6 - i18**  
Type: **Beam**

**2 Ply Member**  
**1 3/4" x 14" 2.0E**  
**Microllam® LVL**

Status:  
**Design**  
**Passed**

**PLY TO PLY CONNECTION**

**FASTENER INSTALLATION – 3 ROWS (FROM ONE FACE)**





Customer:  
Street 1:  
City:  
Customer Ph...

Job Name: **Q2301528-29**  
Level: **1st Floor**  
Label: **2FB12 - i19**  
Type: **Beam**

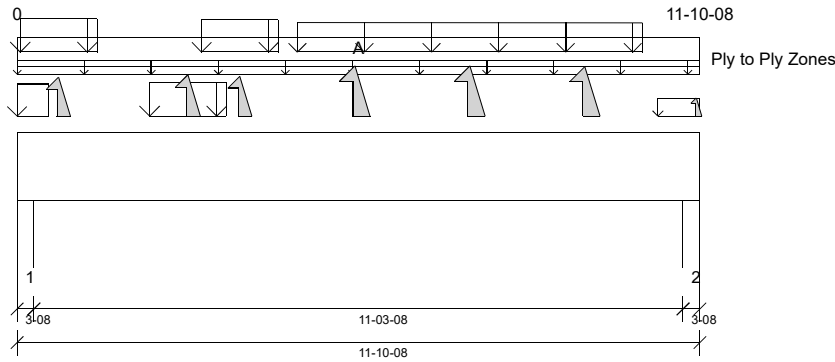
**2 Ply Member**  
**1 3/4" x 14" 2.0E**  
**Microllam® LVL**

Status:  
**Design Passed**

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.6.2.271.Update3.S.22

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**DESIGN INFORMATION**

Building Code: IRC2015  
Design Methodology: ASD  
Risk Category: II (General Construction) Residential  
Service Condition: Dry  
LL Deflection Limit: L/360, 0.75" (absolute)  
TL Deflection Limit: L/240, 1.00" (absolute)

**Lateral Restraint Requirements:**

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 1'- 10 1/2"

**Bearing Stress of Support Material:**

- 425 psi Wall @ 0'- 2 1/2"
- 425 psi Wall @ 11'- 8"

**ANALYSIS RESULTS**

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	5'- 10 7/16"	D + Lr	1.15	10144 lb ft	27890 lb ft	Passed - 36%
Max Neg. Moment:	5'- 10 1/2"	0.6D + 0.6W	1.60	1196 lb ft	38803 lb ft	Passed - 3%
Max Shear:	10'- 5"	D + Lr	1.15	2787 lb	10706 lb	Passed - 26%
Live Load (LL) Pos. Defl.:	5'- 11 3/16"	Lr		0.074"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	5'- 11"	D + Lr		0.154"	L/240	Passed - L/877

**SUPPORT AND REACTION INFORMATION**

ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	3-08	D + Lr	1.15	4015 lb		9188 lb	5206 lb	Passed - 77%
1	3-08	0.6D + 0.6W	1.60		-182 lb	-	-	
2	3-08	D + Lr	1.15	3226 lb		9188 lb	5206 lb	Passed - 62%
2	3-08	0.6D + 0.6W	1.60		-374 lb	-	-	

**LOADING**

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Self Weight	0'	11'- 10 1/2"	Self Weight	Top	14 lb/ft	-	-	-	-
Uniform	-0'	11'- 10 1/2"	FC1 Floor Decking (Plan View Fill)	Top	10 lb/ft	40 lb/ft	-	-	-
Uniform	-0'	0'- 6 1/2"	E14(i29)	Top	371 lb/ft	-	-	322 lb/ft	82 lb/ft
Uniform	0'- 5/8"	1'- 4 5/8"	E14(i29)	Top	384 lb/ft	-	-	350 lb/ft	89 lb/ft
Uniform	2'- 3 5/8"	3'- 7 5/8"	E14(i29)	Top	388 lb/ft	-	-	356 lb/ft	91 lb/ft
Uniform	3'- 2 1/2"	4'- 6 1/2"	E14(i29)	Top	374 lb/ft	-	-	329 lb/ft	83 lb/ft
Uniform	11'- 1 3/4"	11'- 10 1/2"	E14(i29)	Top	92 lb/ft	-	-	95 lb/ft	23 lb/ft
Tapered	4'- 10 1/2"	10'- 10 1/2"	E14(i29)	Top	291 To 288 lb/ft	-	-	304 To 296 lb/ft	77 To 75 lb/ft
Point	0'- 8 5/8"	0'- 8 5/8"	E14(i29)	Top	-	-	-	-	-516 lb
Point	2'- 11 5/8"	2'- 11 5/8"	E14(i29)	Top	-	-	-	-	-564 lb
Point	3'- 10 1/2"	3'- 10 1/2"	E14(i29)	Top	-	-	-	-	-535 lb
Point	5'- 10 1/2"	5'- 10 1/2"	E14(i29)	Top	-	-	-	-	-736 lb
Point	7'- 10 1/2"	7'- 10 1/2"	E14(i29)	Top	-	-	-	-	-736 lb
Point	9'- 10 1/2"	9'- 10 1/2"	E14(i29)	Top	-	-	-	-	-725 lb
Point	11'- 9 3/4"	11'- 9 3/4"	E14(i29)	Top	-	-	-	-	-111 lb

**UNFACTORED REACTIONS**

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	0'- 3 1/2"	E6(i3)	2120 lb	237 lb	-	1871 lb	464 lb / -2454 lb
2	11'- 7"	11'- 10 1/2"	E8(i12)	1699 lb	237 lb	-	1567 lb	464 lb / -2454 lb

**DESIGN NOTES**

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
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- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 1.00

**PLY TO PLY CONNECTION**



Customer:  
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City:  
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Job Name: **Q2301528-29**  
Level: **1st Floor**  
Label: **2FB12 - i19**  
Type: **Beam**

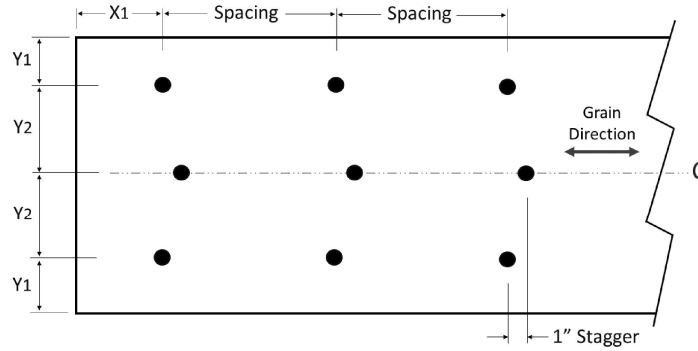
**2 Ply Member**  
**1 3/4" x 14" 2.0E**  
**Microllam® LVL**

Status:  
**Design Passed**

### PLY TO PLY CONNECTION

- Zone A: Factored load = 0 plf. Use 12d (0.131"x3.25") nails. LDF = 1.00. Qty = 36. Row = 3, Spacing = 12"  
12d (0.131"x3.25") nails properties: D = 0.131" , L = 3.25". Fastener capacity = 96 lbs. X1 = 2" , Y1 = 0.75" , Y2 = 1.5"  
Install fasteners from one face.  
X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.

#### FASTENER INSTALLATION – 3 ROWS (FROM ONE FACE)







Customer:  
Street 1:  
City:  
Customer Ph...

Job Name: **Q2301528-29**  
Level: **1st Floor**  
Label: **2FB12A - i24**  
Type: **Beam**

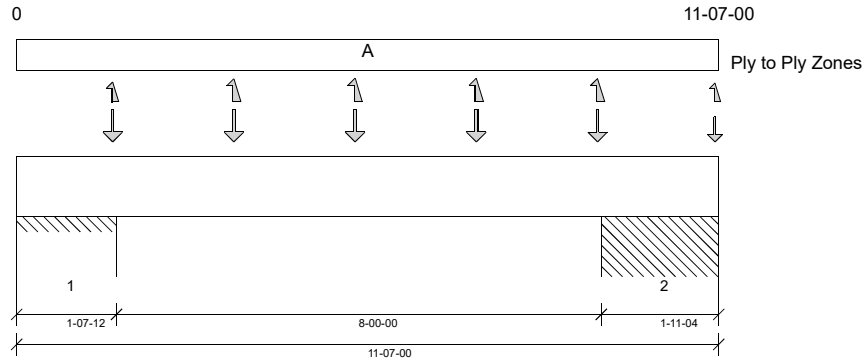
**2 Ply Member**  
**1 3/4" x 11 7/8" 2.0E**  
**Microllam® LVL**

Status:  
**Design Passed**

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.6.2.271.Update3.S.22

Report Version: 2021.03.26 09/27/2023 11:59



### DESIGN INFORMATION

Building Code: IRC2015  
Design Methodology: ASD  
Risk Category: II (General Construction) Residential  
Service Condition: Dry  
LL Deflection Limit: L/360, 0.75" (absolute)  
TL Deflection Limit: L/240, 1.00" (absolute)

#### Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 1'- 10 1/2" Bottom: 11'- 7"

#### Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 1 1/2"
- 725 psi Wall @ 1'- 6 1/4"
- 725 psi Wall @ 9'- 9 1/4"
- 725 psi Wall @ 11'- 5 1/2"

### ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDf	Design	Limit	Result
Max Pos. Moment:	5'- 7"	D + Lr	1.15	535 lb ft	20392 lb ft	Passed - 3%
Max Neg. Moment:	1'- 6 1/4"	D + Lr	1.15	710 lb ft	19179 lb ft	Passed - 4%
Max Shear:	2'- 7 5/8"	D + Lr	1.15	442 lb	9081 lb	Passed - 5%

### SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDf	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	5-12	0.6D + 0.6W	1.60	84 lb		21000 lb	14591 lb	Passed - 1%
1	5-12	D + Lr	1.15		-499 lb	-	-	
1	1-02-00	D + Lr	1.15	1235 lb		36750 lb	35525 lb	Passed - 3%
1	1-02-00	0.6D + 0.6W	1.60		-160 lb	-	-	
2	1-06-00	D + Lr	1.15	1101 lb		47250 lb	45675 lb	Passed - 2%
2	1-06-00	0.6D + 0.6W	1.60		-176 lb	-	-	
2	5-00	D + 0.75(L + Lr + 0.6W)	1.60	43 lb		18261 lb	12688 lb	Passed - 0%
2	5-00	D + Lr	1.15		-302 lb	-	-	

### LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Self Weight	0'	11'- 7"	Self Weight	Top	12 lb/ft	-	-	-	-
Point	1'- 7"	1'- 7"	B02(c01)	Top	119 lb	-	-	143 lb	52/-131 lb
Point	3'- 7"	3'- 7"	B02(c09)	Top	119 lb	-	-	143 lb	52/-179 lb
Point	5'- 7"	5'- 7"	B02(c04)	Top	119 lb	-	-	143 lb	52/-189 lb
Point	7'- 7"	7'- 7"	B02(c08)	Top	119 lb	-	-	143 lb	52/-189 lb
Point	9'- 7"	9'- 7"	B02(c06)	Top	118 lb	-	-	140 lb	51/-183 lb
Point	11'- 6 1/4"	11'- 6 1/4"	B01(c01)	Top	89 lb	-	-	85 lb	31/-118 lb

### UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	1'- 7 3/4"	-	314 lb	-	-	305 lb	-
+++	0'- 1 1/2"	0'- 1 1/2"	E10(i23)	-	-	-	-	-
+++	1'- 6 1/4"	1'- 6 1/4"	PBO4(i25)	314 lb	-	-	305 lb	-
2	9'- 7 3/4"	11'- 7"	-	685/-175 lb	-	-	767/-274 lb	-
+++	9'- 9 1/4"	9'- 9 1/4"	PBO5(i26)	685 lb	-	-	682 lb	-
+++	11'- 5 1/2"	11'- 5 1/2"	E4(i6)	-175 lb	-	-	85/-274 lb	-

### DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 0.99

### PLY TO PLY CONNECTION

- Zone A: Factored load = 0 plf. Use 12d (0.131"x3.25") nails. LDf = 1.00. Qty = 24. Row = 2, Spacing = 12"  
12d (0.131"x3.25") nails properties: D = 0.131" , L = 3.25". Fastener capacity = 96 lbs. X1 = 2" , Y1 = 0.75" , Y2 = 1.5"  
Install fasteners from one face.  
X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.



Customer:  
Street 1:  
City:  
Customer Ph...

Job Name: **Q2301528-29**  
Level: **1st Floor**  
Label: **2FB12A - i24**  
Type: **Beam**

**2 Ply Member**  
**1 3/4" x 11 7/8" 2.0E**  
**Microllam® LVL**

Status:  
**Design**  
**Passed**

**PLY TO PLY CONNECTION**

**FASTENER INSTALLATION – 2 ROWS (FROM ONE FACE)**

