



Customer:
Street 1:
City:
Customer P...

Job Name: **D**
Level: **1st FLOOR**
Label: **GDH - i327**
Type: **Beam**

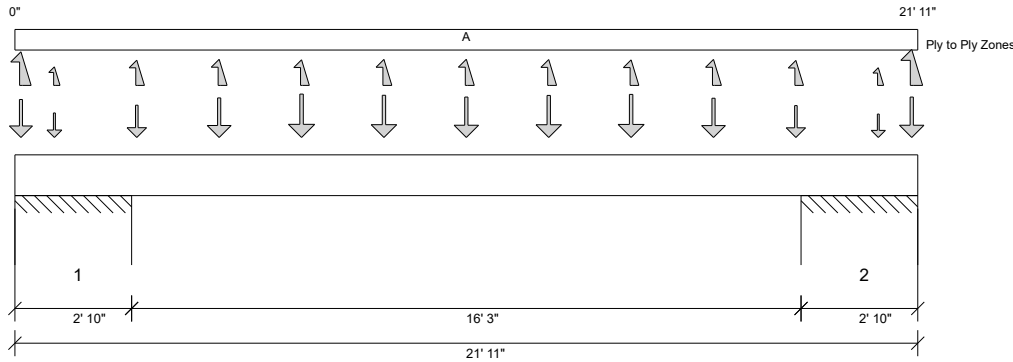
3 Ply Member
2.0 RigidLam DF LVL 1-3/4
x 11-7/8

Status:
Design Passed

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.5.0.207.Update2.15

Report Version: 2020.10.28 04/27/2021 15:09



DESIGN INFORMATION

Building Code: IRC 2018
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: 21'- 11" Bottom: 0'

Bearing Stress of Support Material:

- 725 psi Wall @ 2'- 8 1/2"
- 725 psi Wall @ 19'- 2 1/2"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	10'- 11 1/2"	D + 0.75(L + Lr)	1.15	1824 lb ft	36705 lb ft	Passed - 5%
Max Neg. Moment:	2'- 8 1/2"	D + 0.75(L + Lr)	1.15	2696 lb ft	36705 lb ft	Passed - 7%
Max Shear:	3'- 9 7/8"	D + 0.75(L + Lr)	1.15	940 lb	13861 lb	Passed - 7%
Live Load (LL) Pos. Defl.:	10'- 10 1/2"	0.75(L + Lr + 0.6W)		0.022"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	10'- 11"	D + 0.75(L + Lr + 0.6W)		0.046"	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	10 1/4"	D + 0.75(L + Lr)	1.15		-930 lb	-	-	
1	1' 6"	D + 0.75(L + Lr)	1.15	2170 lb		70875 lb	68513 lb	Passed - 3%
1	1' 6"	0.6D + 0.6W	1.60		-213 lb	-	-	
2	1' 6"	D + 0.75(L + Lr)	1.15	2161 lb		70875 lb	68513 lb	Passed - 3%
2	1' 6"	0.6D + 0.6W	1.60		-207 lb	-	-	
2	10 1/4"	D + 0.75(L + Lr)	1.15		-923 lb	-	-	

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Self Weight	0'	21'- 11"	Self Weight	Top	16 lb/ft	-	-	-	-
Point	0'- 1 3/4"	0'- 1 3/4"	C7(c01)	Top	58 lb	9 lb	70 lb	114 lb	69/-264 lb
Point	0'- 11 1/2"	0'- 11 1/2"	C7(c01)	Top	47 lb	-7 lb	18 lb	70/-20 lb	13/-45 lb
Point	2'- 11 1/2"	2'- 11 1/2"	C7(c01)	Top	71 lb	-4 lb	50 lb	80 lb	46/-153 lb
Point	4'- 11 1/2"	4'- 11 1/2"	C7(c01)	Top	131 lb	21/-3 lb	53 lb	86 lb	49/-165 lb
Point	6'- 11 1/2"	6'- 11 1/2"	C7(c01)	Top	130 lb	75 lb	52 lb	83 lb	49/-162 lb
Point	8'- 11 1/2"	8'- 11 1/2"	C7(c01)	Top	107 lb	82 lb	53 lb	83 lb	49/-167 lb
Point	10'- 11 1/2"	10'- 11 1/2"	C7(c01)	Top	113 lb	76 lb	53 lb	83 lb	26/-169 lb
Point	12'- 11 1/2"	12'- 11 1/2"	C7(c01)	Top	106 lb	82 lb	53 lb	82 lb	49/-165 lb
Point	14'- 11 1/2"	14'- 11 1/2"	C7(c01)	Top	129 lb	75 lb	51 lb	82 lb	48/-161 lb
Point	16'- 11 1/2"	16'- 11 1/2"	C7(c01)	Top	130 lb	21/-3 lb	52 lb	85 lb	48/-164 lb
Point	18'- 11 1/2"	18'- 11 1/2"	C7(c01)	Top	70 lb	-4 lb	49 lb	78 lb	45/-150 lb
Point	20'- 11 1/2"	20'- 11 1/2"	C7(c01)	Top	44 lb	-7 lb	13 lb	68/-26 lb	9/-28 lb
Point	21'- 9 1/4"	21'- 9 1/4"	C7(c01)	Top	64 lb	9 lb	77 lb	125 lb	76/-294 lb

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	2'- 10"	E14(i18)	1255/-475 lb	489/-276 lb	440/-118 lb	880/-329 lb	416 lb/ -1197 lb
==>	0'- 1 1/2"	0'- 1 1/2"	E14(i18)	-475 lb	9/-264 lb	-118 lb	166/-322 lb	-
==>	2'- 8 1/2"	2'- 8 1/2"	E14(i18)	1255 lb	480/-12 lb	440 lb	714/-7 lb	-
2	19'- 1"	21'- 11"	E11(i26)	1253/-473 lb	489/-276 lb	439/-117 lb	884/-330 lb	416 lb/ -1197 lb
==>	19'- 2 1/2"	19'- 2 1/2"	E11(i26)	1253 lb	480/-12 lb	439 lb	714/-9 lb	-
==>	21'- 9 1/2"	21'- 9 1/2"	E11(i26)	-473 lb	9/-264 lb	-117 lb	170/-321 lb	-

DESIGN NOTES

- CAUTION: The maximum net analysis reaction exceeds the user-defined maximum uplift value at one or more supports.
- 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.



Customer:
Street 1:
City:
Customer P...

Job Name: **D**
Level: **1st FLOOR**
Label: **GDH - i327**
Type: **Beam**

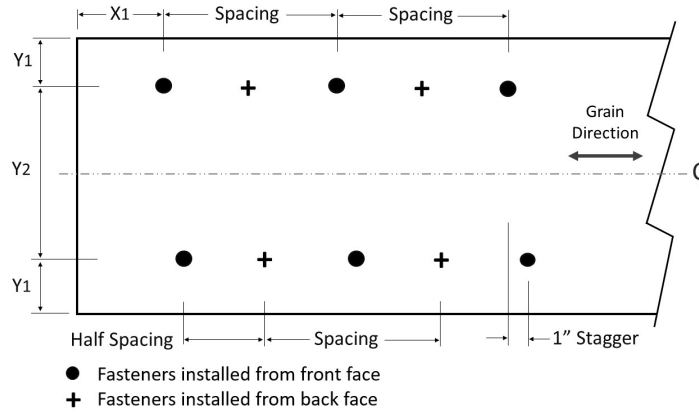
3 Ply Member
2.0 RigidLam DF LVL 1-3/4
x 11-7/8

Status:
Design
Passed

PLY TO PLY CONNECTION

- Zone A: Factored load = 0 plf. Use 12d (0.148"x3.25") nails. LDF = 1.00. Qty = 88. Row = 2, Spacing = 12"
12d (0.148"x3.25") nails properties: D = 0.148", L = 3.25". Fastener capacity = 117 lbs. X1 = 2.25", Y1 = 0.75", Y2 = 1.5"
Install fasteners from both faces.
X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.

FASTENER INSTALLATION – 2 ROWS (FROM BOTH FACES)





Customer:
Street 1:
City:
Customer P...

Job Name: **D**
Level: **1st FLOOR**
Label: **FB4-2 - i331**
Type: **Beam**

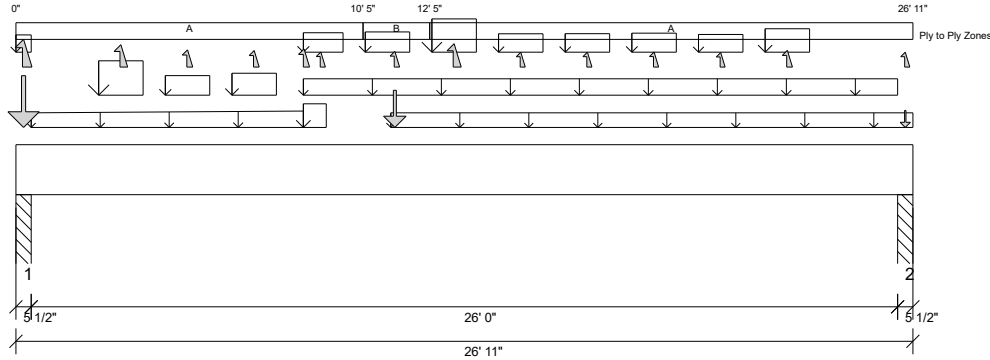
3 Ply Member
2.0 RigidLam DF LVL 1-3/4
x 18

Status:
Design
Passed

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.5.0.207.Update2.15

Report Version: 2020.10.28 04/27/2021 15:09



DESIGN INFORMATION

Building Code: IRC 2018
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: 0'

Bearing Stress of Support Material:

- 725 psi Column @ 0'- 4 1/2"
- 725 psi Column @ 26'- 6 1/2"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	12'- 1 15/16"	D + L	1.00	20339 lb ft	69620 lb ft	Passed - 29%
Max Shear:	24'- 11 1/2"	D + L	1.00	2444 lb	18270 lb	Passed - 13%
Live Load (LL) Pos. Defl.:	13'- 3 7/8"	0.75(L + Lr + 0.6W)		0.176"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	13'- 4 11/16"	D + 0.75(L + Lr + 0.6W)		0.544"	L/240	Passed - L/573

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 1/2"	D + 0.75(L + Lr)	1.15	3835 lb		21656 lb	20934 lb	Passed - 18%
2	5 1/2"	D + L	1.00	2784 lb		21656 lb	20934 lb	Passed - 13%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Self Weight	0'	26'- 11"	Self Weight	Top	25 lb/ft	-	-	-	-
Uniform	0'	0'- 5 1/2"	FC1 Floor Decking (Plan View Fill)	Top	-	101 lb/ft	-	-	-
Uniform	2'- 5 13/16"	3'- 9 13/16"	E28(i178)	Top	159 lb/ft	-	98 lb/ft	155 lb/ft	86 lb/ft
Uniform	4'- 5 13/16"	5'- 9 13/16"	E28(i178)	Top	-	-	-	45 lb/ft	110 lb/ft
Uniform	6'- 5 13/16"	7'- 9 13/16"	E28(i178)	Top	71 lb/ft	-	40 lb/ft	64 lb/ft	35 lb/ft
Uniform	8'- 7 1/2"	26'- 5 1/2"	E27(i52)	Top	81 lb/ft	-	-	-	-
Uniform	8'- 7 1/2"	9'- 9 13/16"	E27(i52)	Top	50 lb/ft	-	29 lb/ft	46 lb/ft	25 lb/ft
Uniform	8'- 7 1/2"	9'- 3 3/4"	E27(i52)	Top	-	-	-	-	249 lb/ft
Uniform	10'- 5 13/16"	11'- 9 13/16"	E27(i52)	Top	58 lb/ft	-	32 lb/ft	53 lb/ft	29 lb/ft
Uniform	11'- 3"	26'- 11"	FC1 Floor Decking (Plan View Fill)	Top	8 lb/ft	32 lb/ft	-	-	-
Uniform	12'- 5 13/16"	13'- 9 13/16"	E27(i52)	Top	134 lb/ft	-	101 lb/ft	160 lb/ft	77 lb/ft
Uniform	14'- 5 13/16"	15'- 9 13/16"	E27(i52)	Top	47 lb/ft	-	25 lb/ft	44 lb/ft	12 lb/ft
Uniform	16'- 5 13/16"	17'- 9 13/16"	E27(i52)	Top	48 lb/ft	-	26 lb/ft	43 lb/ft	13 lb/ft
Uniform	18'- 5 13/16"	19'- 9 13/16"	E27(i52)	Top	53 lb/ft	-	29 lb/ft	47 lb/ft	14 lb/ft
Uniform	20'- 5 13/16"	21'- 9 13/16"	E27(i52)	Top	35 lb/ft	-	20 lb/ft	47 lb/ft	10 lb/ft
Uniform	22'- 5 13/16"	23'- 9 13/16"	E27(i52)	Top	92 lb/ft	-	49 lb/ft	80 lb/ft	23 lb/ft
Tapered Point	0'- 5 1/2"	8'- 7 1/2"	E28(i178)	Top	40 To 81 lb/ft	-	-	-	-
Point	11'- 4 7/16"	11'- 4 7/16"	-	Back	434 lb	568 lb	-	-	-115 lb
Point	0'- 2 3/4"	0'- 2 3/4"	FC1 Floor Decking (Plan View Fill)	Top	581 lb	-	328 lb	503 lb	193/614 lb
Point	3'- 1 13/16"	3'- 1 13/16"	E28(i178)	Top	-	-	-	-	-392 lb
Point	5'- 1 13/16"	5'- 1 13/16"	E28(i178)	Top	-22 lb	-	-37 lb	-88 lb	-32 lb
Point	7'- 1 13/16"	7'- 1 13/16"	E28(i178)	Top	-	-	-	-	-150 lb
Point	8'- 7 3/4"	8'- 7 3/4"	E27(i52)	Top	-46 lb	-	-49 lb	-78 lb	-43 lb
Point	9'- 1 13/16"	9'- 1 13/16"	E27(i52)	Top	-	-	-	-	-90 lb
Point	13'- 1 13/16"	13'- 1 13/16"	E27(i52)	Top	-	-	-	-	-433 lb
Point	15'- 1 13/16"	15'- 1 13/16"	E27(i52)	Top	-	-	-	-	-79 lb
Point	17'- 1 13/16"	17'- 1 13/16"	E27(i52)	Top	-	-	-	-	-83 lb
Point	19'- 1 13/16"	19'- 1 13/16"	E27(i52)	Top	-	-	-	-	-89 lb
Point	21'- 1 13/16"	21'- 1 13/16"	E27(i52)	Top	-	-	-	-	-66 lb
Point	23'- 1 13/16"	23'- 1 13/16"	E27(i52)	Top	-	-	-	-	-157 lb
Point	26'- 8 1/4"	26'- 8 1/4"	E26(i51)	Top	92 lb	-	-	34/-34 lb	44/-48 lb

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	0'- 5 1/2"	PBO8(i325)	2644 lb	522 lb	594 lb	1085/-125 lb	694 lb/-1705 lb
2	26'- 5 1/2"	26'- 11"	PBO9(i326)	2179 lb	594 lb	248 lb	491/-75 lb	694 lb/-1705 lb

DESIGN NOTES



Customer:
Street 1:
City:
Customer P...

Job Name: **D**
Level: **1st FLOOR**
Label: **FB4-2 - i331**
Type: **Beam**

3 Ply Member
2.0 RigidLam DF LVL 1-3/4
x 18

Status:
Design
Passed

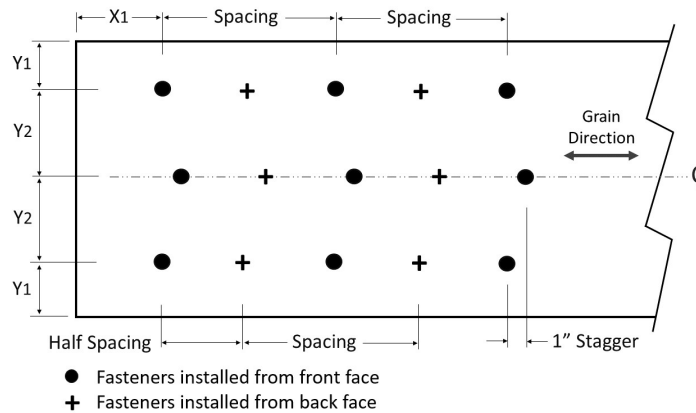
DESIGN NOTES

- 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.

PLY TO PLY CONNECTION

- Zone A: Factored load = 0 plf. Use 12d (0.148"x3.25") nails. LDF = 1.00. Qty = 153. Row = 3, Spacing = 12"
 - Zone B: Factored load = 687 plf. Use 12d (0.148"x3.25") nails. LDF = 1.00. Qty = 18. Row = 3, Spacing = 9"
- 12d (0.148"x3.25") nails properties: D = 0.148" , L = 3.25". Fastener capacity = 117 lbs. X1 = 2.25" , Y1 = 0.75" , Y2 = 1.5"
- Install fasteners from both faces.
- X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.

FASTENER INSTALLATION – 3 ROWS (FROM BOTH FACES)





Customer:
Street 1:
City:
Customer P...

Job Name: **D**
Level: **1st FLOOR**
Label: **FB5-3 - i330**
Type: **Beam**

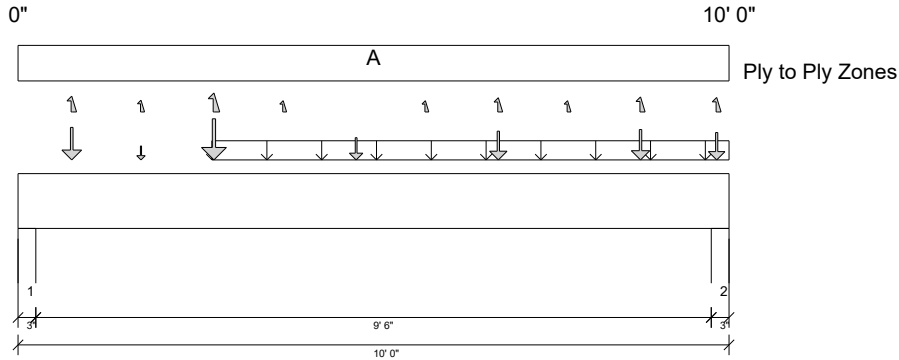
3 Ply Member
2.0 RigidLam DF LVL 1-3/4
x 9-1/4

Status:
Design Passed

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.5.0.207.Update2.15

Report Version: 2020.10.28 04/27/2021 15:09



DESIGN INFORMATION

Building Code: IRC 2018
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'- 9 13/16" Bottom: 0'

Bearing Stress of Support Material:

- 1265 psi Wall @ 0'- 2"
- 1265 psi Wall @ 9'- 10"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	4'- 9 1/16"	D + L	1.00	15801 lb ft	19981 lb ft	Passed - 79%
Max Shear:	1'- 1/4"	D + L	1.00	6370 lb	9389 lb	Passed - 68%
Live Load (LL) Pos. Defl.:	4'- 11 5/16"	0.75(L + Lr + 0.6W)		0.204"	L/360	Passed - L/559
Total Load (TL) Pos. Defl.:	4'- 11 1/4"	D + 0.75(L + Lr + 0.6W)		0.439"	L/240	Passed - L/259

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"	D + L	1.00	7271 lb		11813 lb	19924 lb	Passed - 62%
2	3"	D + L	1.00	8537 lb		11813 lb	19924 lb	Passed - 72%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Self Weight	0'	10'	Self Weight	Top	13 lb/ft	-	-	-	-
Uniform	2'- 8 3/4"	10'	Smoothed Load	Back	81 lb/ft	-	78 lb/ft	78 lb/ft	23 lb/ft
Point	1'- 8 3/4"	1'- 8 3/4"	J08(c06)	Back	181 lb	-	206 lb	206 lb	62/-263 lb
Point	3'- 8 3/4"	3'- 8 3/4"	J08(c04)	Back	-	-	-	-	-179 lb
Point	5'- 8 3/4"	5'- 8 3/4"	J08(c07)	Back	-	-	-	-	-179 lb
Point	7'- 8 3/4"	7'- 8 3/4"	J08(c05)	Back	-	-	-	-	-179 lb
Point	9'- 9 15/16"	9'- 9 15/16"	-	Back	1963 lb	538 lb	182 lb	263 lb	87/-752 lb
Point	0'- 9 1/16"	0'- 9 1/16"	F01(c01)	Top	1499 lb	1077 lb	461 lb	682 lb	223/-988 lb
Point	2'- 9 1/16"	2'- 9 1/16"	F01(c06)	Top	2130 lb	1077 lb	760 lb	1125 lb	370/-1549 lb
Point	4'- 9 1/16"	4'- 9 1/16"	F01(c11)	Top	1043 lb	1077 lb	-	-	-
Point	6'- 9 1/16"	6'- 9 1/16"	F01(c04)	Top	1252 lb	1077 lb	320 lb	470 lb	155/-706 lb
Point	8'- 9 1/16"	8'- 9 1/16"	F01(c05)	Top	1345 lb	829 lb	471 lb	690 lb	227/-849 lb

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	0'- 3"	E3(i25)	4468 lb	2801 lb	1498 lb	2046 lb	736 lb/ -3476 lb
2	9'- 9"	10'	E5(i320)	5665 lb	2874 lb	1470 lb	1960 lb	736 lb/ -3476 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.

PLY TO PLY CONNECTION

- Zone A: Factored load = 490 plf. Use 12d (0.148"x3.25") nails. LDF = 1.00. Qty = 60. Row = 2, Spacing = 8" 12d (0.148"x3.25") nails properties: D = 0.148" , L = 3.25". Fastener capacity = 117 lbs. X1 = 2.25" , Y1 = 0.75" , Y2 = 1.5" Install fasteners from both faces. X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.



Customer:
Street 1:
City:
Customer P...

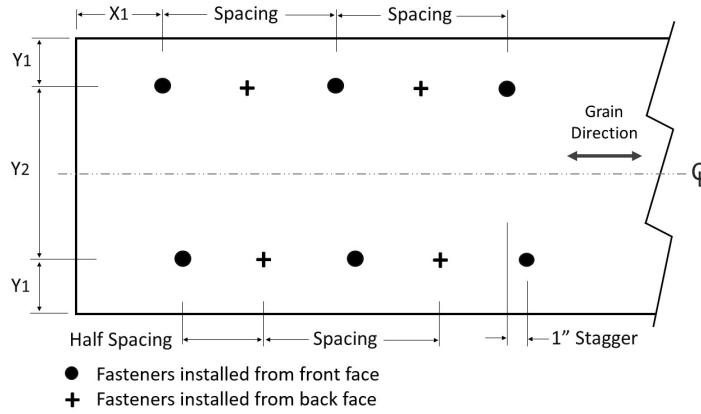
Job Name: **D**
Level: **1st FLOOR**
Label: **FB5-3 - i330**
Type: **Beam**

3 Ply Member
2.0 RigidLam DF LVL 1-3/4
x 9-1/4

Status:
Design
Passed

PLY TO PLY CONNECTION

FASTENER INSTALLATION – 2 ROWS (FROM BOTH FACES)





Customer:
Street 1:
City:
Customer P...

Job Name: **D**
Level: **1st FLOOR**
Label: **FB6-3 - i332**
Type: **Beam**

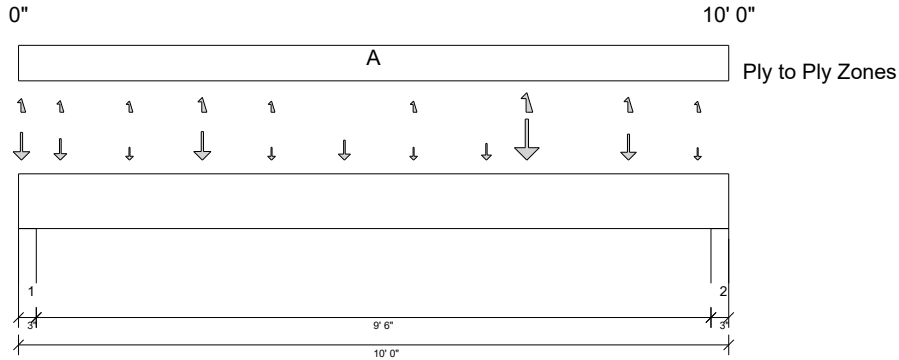
3 Ply Member
2.0 RigidLam DF LVL 1-3/4
x 9-1/4

Status:
Design Passed

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.5.0.207.Update2.15

Report Version: 2020.10.28 04/27/2021 15:09



DESIGN INFORMATION

Building Code: IRC 2018
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'-9 13/16" Bottom: 0'

Bearing Stress of Support Material:

- 1265 psi Wall @ 0'-2"
- 1265 psi Wall @ 9'-10"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	4'- 7 1/16"	D + L	1.00	14523 lb ft	19981 lb ft	Passed - 73%
Max Neg. Moment:	0'- 2"	D + L	1.00	325 lb ft	19981 lb ft	Passed - 2%
Max Shear:	8'- 11 3/4"	D + L	1.00	5954 lb	9389 lb	Passed - 63%
Live Load (LL) Pos. Defl.:	5'- 1 3/16"	0.75(L + Lr + 0.6W)		0.200"	L/360	Passed - L/569
Total Load (TL) Pos. Defl.:	5'- 1 1/2"	D + 0.75(L + Lr + 0.6W)		0.416"	L/240	Passed - L/274

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"	D + L	1.00	8493 lb		11813 lb	19924 lb	Passed - 72%
2	3"	D + L	1.00	6068 lb		11813 lb	19924 lb	Passed - 51%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Self Weight	0'	10'	Self Weight	Top	13 lb/ft	-	-	-	-
Point	1'- 6 3/4"	1'- 6 3/4"	J08(c09)	Back	148 lb	-	141 lb	141 lb	42/-179 lb
Point	3'- 6 3/4"	3'- 6 3/4"	J08(c08)	Back	148 lb	-	141 lb	141 lb	42/-179 lb
Point	5'- 6 3/4"	5'- 6 3/4"	J08(c03)	Back	148 lb	-	141 lb	141 lb	42/-179 lb
Point	7'- 1 7/8"	7'- 1 7/8"	-	Back	2199 lb	710 lb	950 lb	1339 lb	435/-1702 lb
Point	9'- 6 3/4"	9'- 6 3/4"	J08(c11)	Back	134 lb	-	113 lb	113 lb	34/-144 lb
Point	0'- 1/2"	0'- 1/2"	F01B(c13)	Top	2062 lb	538 lb	206 lb	298 lb	98/-640 lb
Point	0'- 7 1/16"	0'- 7 1/16"	F01(c12)	Top	784 lb	686 lb	197 lb	285 lb	94/-258 lb
Point	2'- 7 1/16"	2'- 7 1/16"	F01(c02)	Top	1221 lb	1077 lb	354 lb	516 lb	171/-843 lb
Point	4'- 7 1/16"	4'- 7 1/16"	F01(c03)	Top	699 lb	1077 lb	-	-	-
Point	6'- 7 1/16"	6'- 7 1/16"	F01(c09)	Top	484 lb	689 lb	-	-	-
Point	8'- 7 1/16"	8'- 7 1/16"	F02(c01)	Top	1096 lb	533 lb	424 lb	625 lb	205/-894 lb

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	0'- 3"	E5(i320)	5407 lb	3094 lb	1252 lb	1686 lb	673 lb / -3019 lb
2	9'- 9"	10'	E7(i318)	3844 lb	2216 lb	1415 lb	1913 lb	673 lb / -3019 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.

PLY TO PLY CONNECTION

- Zone A: Factored load = 277 plf. Use 12d (0.148"x3.25") nails. LDF = 1.00. Qty = 40. Row = 2, Spacing = 12"
12d (0.148"x3.25") nails properties: D = 0.148" , L = 3.25". Fastener capacity = 117 lbs. X1 = 2.25" , Y1 = 0.75" , Y2 = 1.5"
Install fasteners from both faces.
X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.



Customer:
Street 1:
City:
Customer P...

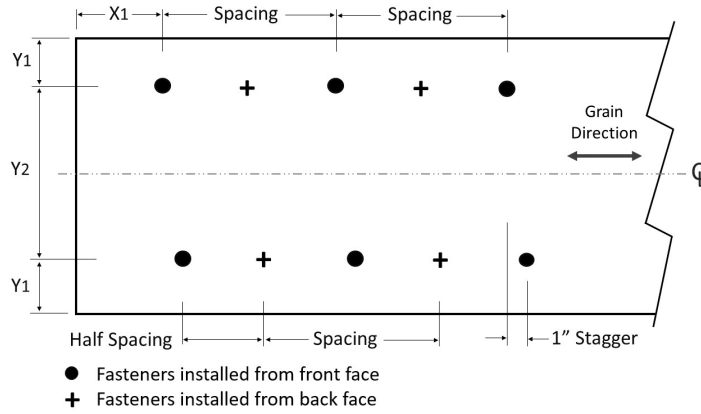
Job Name: **D**
Level: **1st FLOOR**
Label: **FB6-3 - i332**
Type: **Beam**

3 Ply Member
2.0 RigidLam DF LVL 1-3/4
x 9-1/4

Status:
Design
Passed

PLY TO PLY CONNECTION

FASTENER INSTALLATION – 2 ROWS (FROM BOTH FACES)





Customer:
Street 1:
City:
Customer P...

Job Name: **D**
Level: **1st FLOOR**
Label: **FB7-3 - i324**
Type: **Beam**

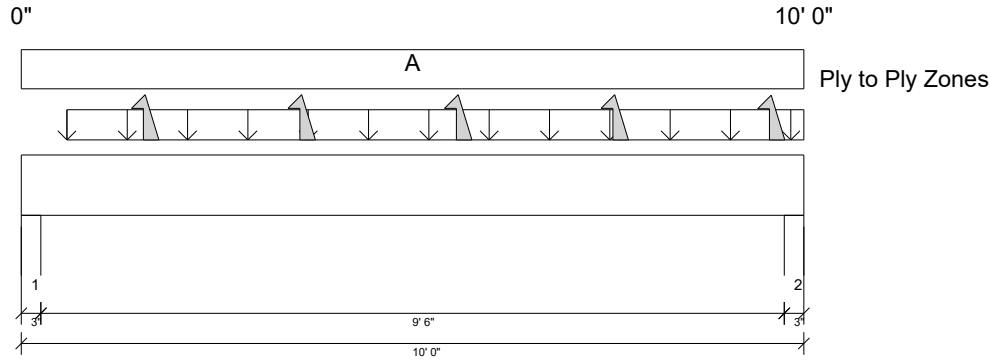
3 Ply Member
2.0 RigidLam DF LVL 1-3/4
x 9-1/4

Status:
Design Passed

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.5.0.207.Update2.15

Report Version: 2020.10.28 04/27/2021 15:09



DESIGN INFORMATION

Building Code: IRC 2018
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: 0'

Bearing Stress of Support Material:

- 1265 psi Wall @ 0'- 2"
- 1265 psi Wall @ 9'- 10"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	5'- 7"	D + Lr	1.15	7600 lb ft	22978 lb ft	Passed - 33%
Max Neg. Moment:	5'- 7"	0.6D + 0.6W	1.60	1212 lb ft	31970 lb ft	Passed - 4%
Max Shear:	1'- 1/4"	D + Lr	1.15	2825 lb	10797 lb	Passed - 26%
Live Load (LL) Pos. Defl.:	5'	0.75(L + Lr + 0.6W)		0.095"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	5'	D + 0.75(L + Lr + 0.6W)		0.196"	L/240	Passed - L/582

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"	D + Lr	1.15	2838 lb		11813 lb	19924 lb	Passed - 24%
1	3"	0.6D + 0.6W	1.60		-445 lb	-	-	
2	3"	D + Lr	1.15	3585 lb		11813 lb	19924 lb	Passed - 30%
2	3"	0.6D + 0.6W	1.60		-573 lb	-	-	

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Self Weight	0'	10'	Self Weight	Top	13 lb/ft	-	-	-	-
Uniform	0'- 7"	10'	Smoothed Load	Top	352 lb/ft	-	203 lb/ft	317 lb/ft	142 lb/ft
Point	1'- 7"	1'- 7"	A1(c03)	Top	-	-	-	-	-845 lb
Point	3'- 7"	3'- 7"	A1(c02)	Top	-	-	-	-	-845 lb
Point	5'- 7"	5'- 7"	A1(c05)	Top	-	-	-	-	-845 lb
Point	7'- 7"	7'- 7"	A1(c01)	Top	-	-	-	-	-845 lb
Point	9'- 7"	9'- 7"	A1(c06)	Top	-	-	-	-	-832 lb

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	0'- 3"	E16(i20)	1504 lb	-	834 lb	1301 lb	984 lb/ -2238 lb
2	9'- 9"	10'	E18(i316)	1934 lb	-	1080 lb	1684 lb	984 lb/ -2238 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.

PLY TO PLY CONNECTION

- Zone A: Factored load = 0 plf. Use 12d (0.148"x3.25") nails. LDF = 1.00. Qty = 40. Row = 2, Spacing = 12"
12d (0.148"x3.25") nails properties: D = 0.148" , L = 3.25". Fastener capacity = 117 lbs. X1 = 2.25" , Y1 = 0.75" , Y2 = 1.5"
Install fasteners from both faces.
X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.



Customer:
Street 1:
City:
Customer P...

Job Name: **D**
Level: **1st FLOOR**
Label: **FB7-3 - i324**
Type: **Beam**

3 Ply Member
2.0 RigidLam DF LVL 1-3/4
x 9-1/4

Status:
Design
Passed

PLY TO PLY CONNECTION

FASTENER INSTALLATION – 2 ROWS (FROM BOTH FACES)

