THE JONES RESIDENCE

LOT B-1 / HEAD RIVER RD
VIRGINIA BEACH, VIRGINIA

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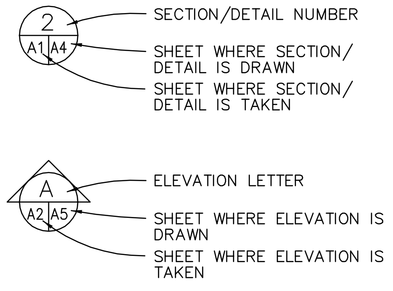
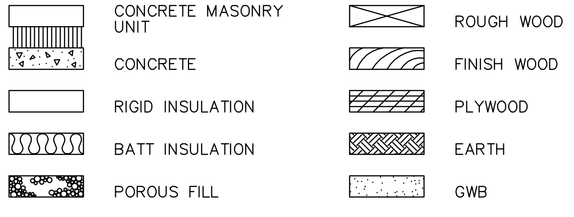
DRAWING SYMBOLS



MATERIAL LEGEND



ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
BLDG	BUILDING
BLKG	BLOCKING
BRG	BEARING
BOTT	BOTTOM
CJ	CONTROL JOINT
CLG	CEILING
CMU	CONCRETE MASONRY UNIT
CONC	CONCRETE
CONT	CONTINUOUS
D	DEEP, DEPTH
DET	DETAIL
DIA	DIAMETER
DN	DOWN
DR	DOOR
DS	DOWNSPOUT
EA	EACH
ELEV	ELEVATION
EQ	EQUAL
EX	EXISTING
EXIST	EXISTING
EXT	EXTERIOR
FF	FINISH FLOOR
FIN	FINISH
FL	FLOOR
FT	FOOT, FEET
FTG	FOOTING
GALV	GALVANIZED
GWB	GYPSUM WALL BOARD
H	HIGH, HEIGHT
HORIZ	HORIZONTAL
INSUL	INSULATION
JST	JOIST
JT	JOINT
MAS	MASONRY
MATL	MATERIAL
MAX	MAXIMUM
MIN	MINIMUM
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
O.C.	ON CENTER
OPNG	OPENING
PLYWD	PLYWOOD
R	RADIUS
REINF	REINFORCING
RESIL	RESILIENT
RM	ROOM
RO	ROUGH OPENING
SCH	SCHEDULE
SF	SQUARE FOOT
SQ	SQUARE
TLT	TOILET
TYP	TYPICAL
VERT	VERTICALLY
W	WIDE, WIDTH
W/	WITH
WD	WOOD
€	PLUS OR MINUS
?	CENTERLINE
?	DIAMETER
@	AT
#	POUND, NUMBER

BUILDING CODE DATA

VIRGINIA RESIDENTIAL CONSTRUCTION CODE 2015
USE GROUP R-5

COMMONWEALTH OF VIRGINIA
SALVATORE R. LEMOLE
Lic No. 011792
04-25-22
ARCHITECT

PROJ MGR	SRL	DESIGNED	SRL	DRAWN	SRL	CHECKED	SRL

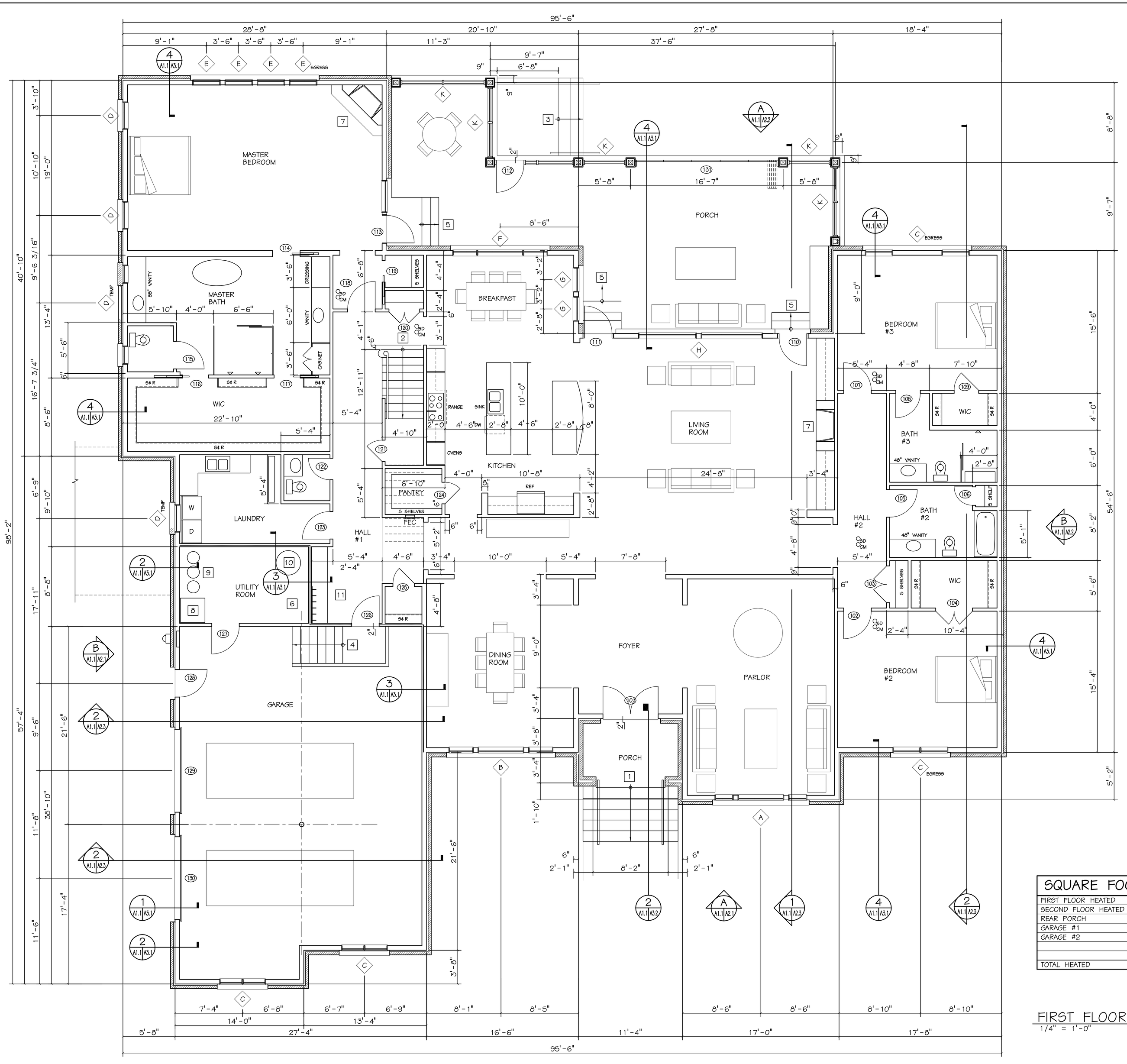
DATE	REVISION	SYMBOL

PROJECT NO 21081
DATE 25 APR 2022

THE JONES RESIDENCE
LOT B-1 / HEAD RIVER RD
VIRGINIA BEACH, VIRGINIA
SHEET TITLE: COVER SHEET

LEMOLE ARCHITECTS
2669 PRODUCTION
SUITE 102
VIRGINIA BEACH, VIRGINIA 23454
757-228-2620
SRLEMOLE@GMAIL.COM

SHEET NUMBER
CS-1
X OF XX



NOTES THIS SHEET

1. DN 6 RISERS AT 7.0", 5 TREADS AT 14" WITH 1" NOSING
2. UP 22 RISERS AT 7.28", 21 TREADS AT 10" WITH 1" NOSING
3. DN 5 RISERS AT 6.4", 4 TREADS AT 14" WITH 1" NOSING
4. DN 7 RISERS AT 7.0", 6 TREADS AT 11" WITH 1" NOSING
5. DN 3 RISERS AT 7.0", 2 TREADS AT 11" WITH 1" NOSING
6. 1 HR RATED PARTITION. 5/8" TYPE "X" GWB EACH SIDE
7. 42" GAS FIREPLACE
8. WELL PUMP
9. WATER SOFTENER SYSTEM
10. WATER HEATER
11. BENCH WITH COAT HOOKS

SQUARE FOOTAGE	
FIRST FLOOR HEATED	5276 SF
SECOND FLOOR HEATED	3070 SF
REAR PORCH	860 SF
GARAGE #1	1006 SF
GARAGE #2	1146 SF
TOTAL HEATED	8346 SF

PLAN LEGEND

- SD — SMOKE DETECTOR, HARDWIRED AND INTERCONNECTED
- CM — CARBON MONOXIDE DETECTOR
- EXHAUST FAN
- FEC — RECESSED FIRE EXTINGUISHER CABINET MOUNTED AT 60" AFF MAX PROVIDE 2-A:10-B:C FIRE EXTINGUISHER

FIRST FLOOR PLAN

1/4" = 1'-0"

GRAPHIC SCALES

1/4"=1'-0" 0 2' 4' 8' 12'

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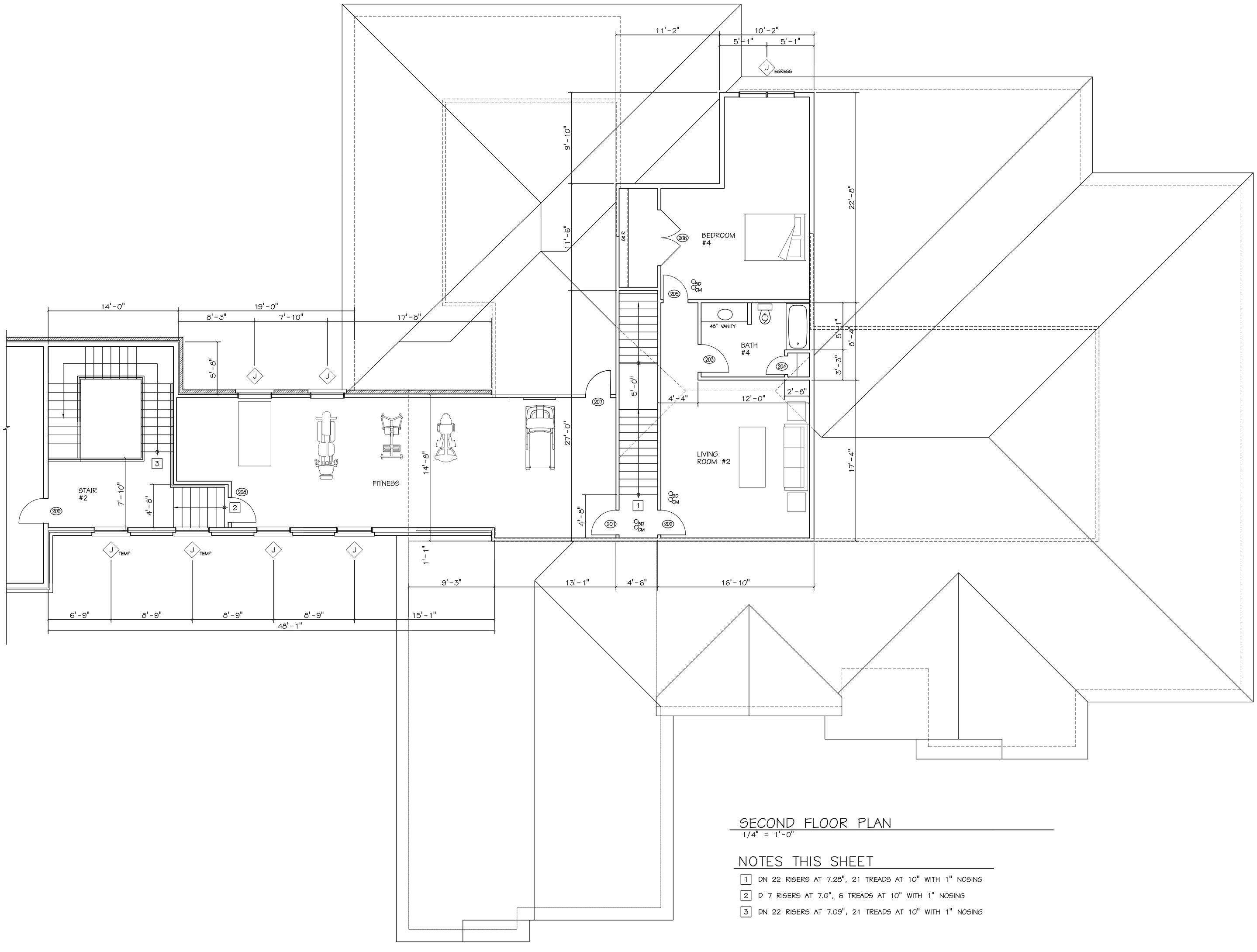
THE JONES RESIDENCE

LOT B-1 / HEAD RIVER RD
VIRGINIA BEACH, VIRGINIA

SHEET TITLE: FIRST FLOOR PLAN

LEMOLE ARCHITECTS
2669 PRODUCTION
SUITE 102
VIRGINIA BEACH, VIRGINIA 23454
757-228-2620
SRLEMOLE@GMAIL.COM

SHEET NUMBER
A-1.1
XX OF XX



SECOND FLOOR PLAN

1/4" = 1'-0"

NOTES THIS SHEET

1. DN 22 RISERS AT 7.28", 21 TREADS AT 10" WITH 1" NOSING
2. D 7 RISERS AT 7.0", 6 TREADS AT 10" WITH 1" NOSING
3. DN 22 RISERS AT 7.09", 21 TREADS AT 10" WITH 1" NOSING

GRAPHIC SCALES

1/4"=1'-0" 0 2' 4' 8' 12'

COMMONWEALTH OF VIRGINIA
SALVATORE R. LEMOLE
Lic No. 011792
04-25-22
ARCHITECT

	PROJ MGR	DESIGNED	DRAWN	CHECKED
	SRL	SRL	SRL	SRL

DATE | SYMBOL | REVISION

PROJECT NO 21081

DATE 25 APR 2022

THE JONES RESIDENCE

LOT B-1 / HEAD RIVER RD

VIRGINIA BEACH, VIRGINIA

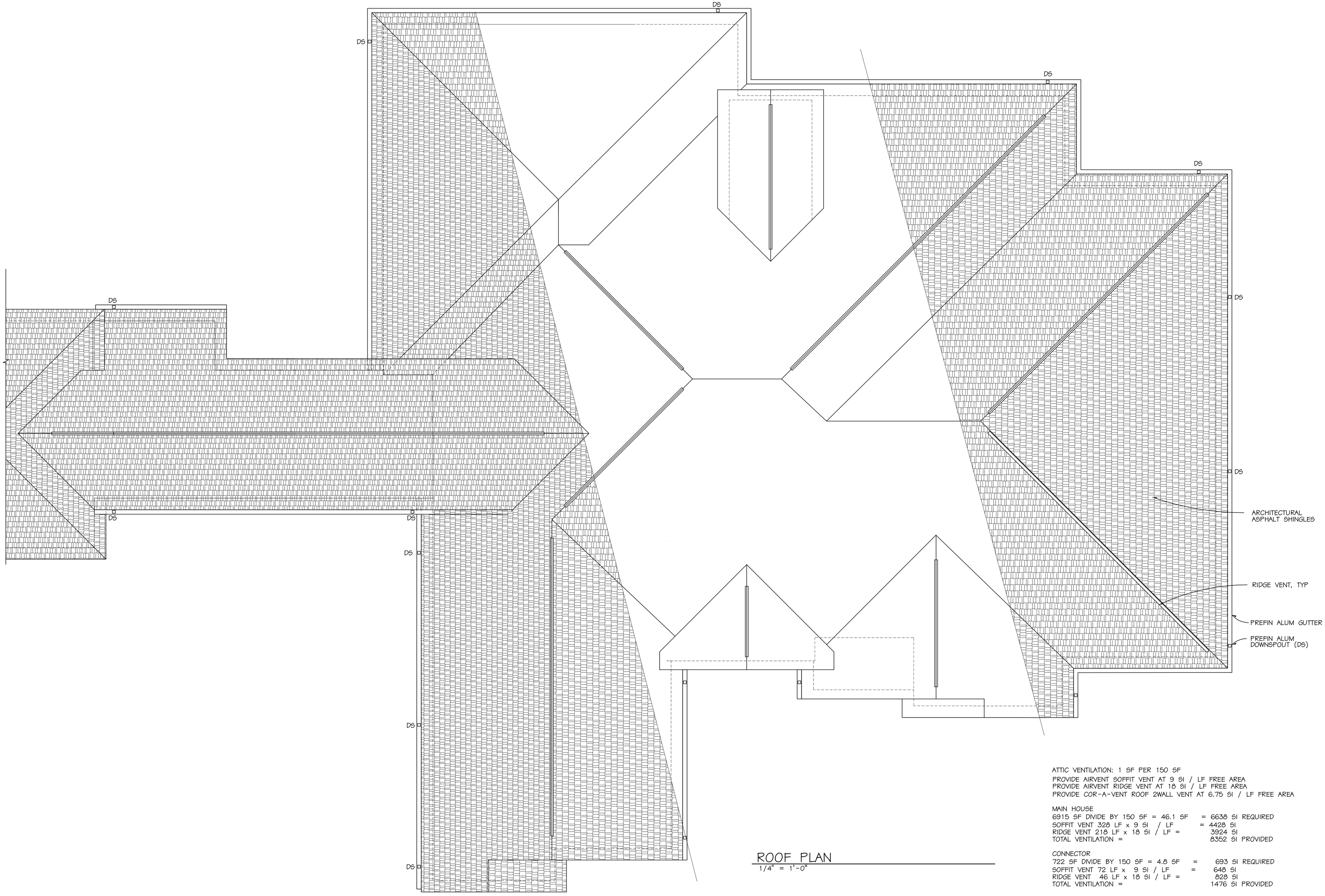
SHEET TITLE: SECOND FLOOR PLAN

LEMOLE ARCHITECTS
2669 PRODUCTION
SUITE 102
VIRGINIA BEACH, VIRGINIA 23454
757-228-2620
SRLEMOLE@GMAIL.COM

SHEET NUMBER

A-1.2

XX OF XX



ROOF PLAN
1/4" = 1'-0"

ATTIC VENTILATION: 1 SF PER 150 SF
PROVIDE AIRVENT SOFFIT VENT AT 9 SI / LF FREE AREA
PROVIDE AIRVENT RIDGE VENT AT 18 SI / LF FREE AREA
PROVIDE COR-A-VENT ROOF 2WALL VENT AT 6.75 SI / LF FREE AREA

MAIN HOUSE
6915 SF DIVIDE BY 150 SF = 46.1 SF = 6638 SI REQUIRED
SOFFIT VENT 328 LF x 9 SI / LF = 4428 SI
RIDGE VENT 218 LF x 18 SI / LF = 3924 SI
TOTAL VENTILATION = 8352 SI PROVIDED

CONNECTOR
722 SF DIVIDE BY 150 SF = 4.8 SF = 693 SI REQUIRED
SOFFIT VENT 72 LF x 9 SI / LF = 648 SI
RIDGE VENT 46 LF x 18 SI / LF = 828 SI
TOTAL VENTILATION = 1476 SI PROVIDED

GRAPHIC SCALES
1/4"=1'-0"
0 2' 4' 8' 12'

COMMONWEALTH OF VIRGINIA
SALVATORE R. LEMOLE
Lic No. 011792
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THE JONES RESIDENCE

VIRGINIA BEACH, VIRGINIA

LOT B-1 / HEAD RIVER RD

SHEET TITLE: ROOF PLAN

LEMOLE ARCHITECTS
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757-228-2620
SRLEMOLE@GMAIL.COM

SHEET NUMBER
A-1.3
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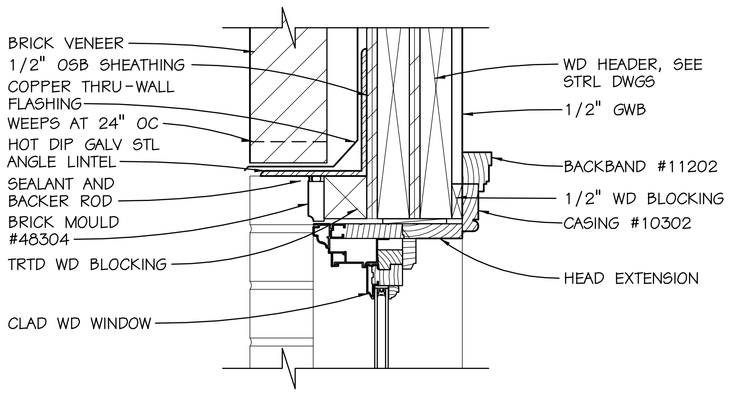

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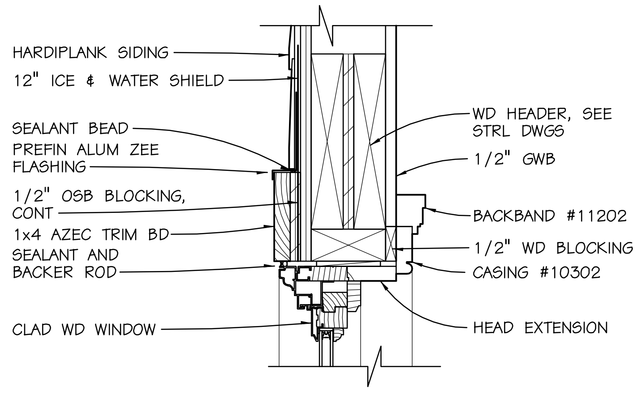

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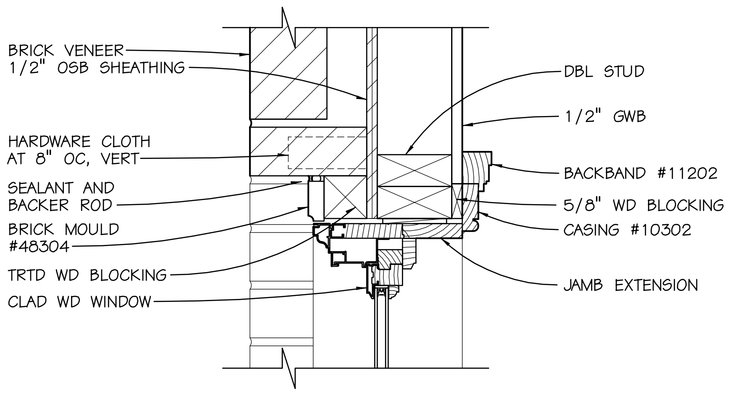
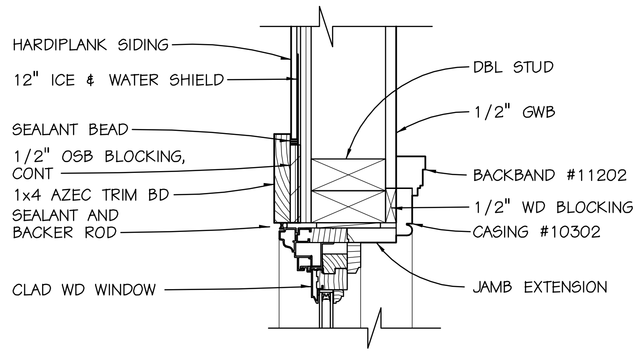


JAMB



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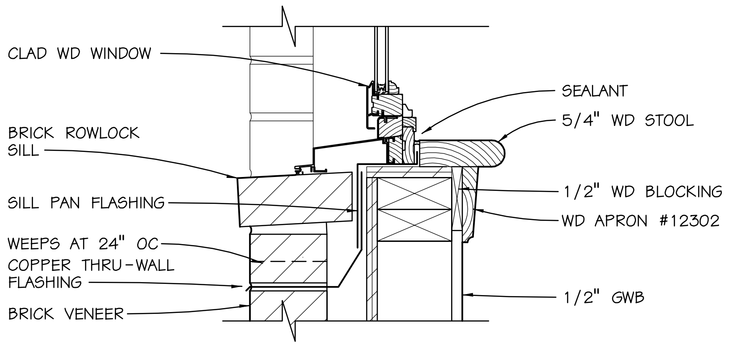
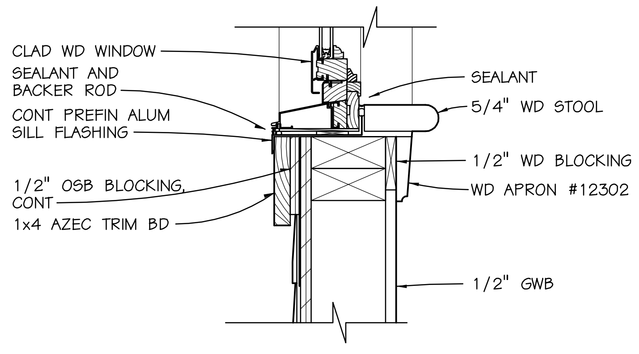


SILL



SILL

FINISH SCHEDULE

ROOM NAME	FLOOR	BASE	WALL	CEILING CLNG	CEILING HEIGHT	NOTE
FOYER	WD	WD	GWB	GWB	12'-0"	1,2
DINING ROOM	WD	WD	GWB	WD	15'-0"	1,2
PARLOR	TILE	WD	GWB	GWB	12'-0"	1,2
LIVING ROOM #1	TILE	WD	GWB	GWB	12'-0"	1,3
KITCHEN #1	TILE	WD	GWB	GWB	12'-0"	
BREAKFAST	WD	WD	GWB	GWB	12'-0"	1,2
REAR PORCH	WD	WD	GWB	GWB	12'-0"	1,2
HALL #1	WD	WD	GWB	GWB	12'-0"	1,2
STAIR #1	WD	WD	GWB	GWB	VARIES	1,2
MASTER BEDROOM	WD	WD	GWB	GWB	12'-0"	1,2
MASTER BATH	WD	WD	GWB	GWB	12'-0"	1,2
WALK IN CLOSET	WD	WD	GWB	GWB	12'-0"	1,2
LAUNDRY	TILE	WD	GWB	GWB	12'-0"	1,2
UTILITY ROOM	TILE	WD	GWB	GWB	12'-0"	1,2
GARAGE #1	TILE	WD	GWB	GWB	12'-0"	1,2
HALL #2	WD	WD	GWB	GWB	12'-0"	1,2
BEDROOM #2	WD	WD	GWB	GWB	12'-0"	1,2
BATH #2	WD	WD	GWB	GWB	12'-0"	1,2
BEDROOM #3	WD	WD	GWB	GWB	12'-0"	1,2
BATH #3	TILE	WD	GWB	GWB	12'-0"	1,2
GARAGE #2	TILE	WD	GWB	GWB	12'-0"	1,2
STAIR #2	WD	WD	GWB	GWB	VARIES	1,2
LIVING ROOM #2	WD	WD	GWB	GWB	10'-0"	1,2
BEDROOM #4	WD	WD	GWB	GWB	10'-0"	1,2
BATH #4	TILE	WD	GWB	GWB	10'-0"	1,3
FITNESS	WD	WD	GWB	GWB	8'-8"	1,2
LIVING ROOM #3	WD	WD	GWB	GWB	10'-0"	1,2
KITCHEN #2	TILE	WD	GWB	GWB	10'-0"	1,2
BEDROOM #2	WD	WD	GWB	GWB	10'-0"	1,2
BATH #5	WD	WD	GWB	GWB	10'-0"	1,2
LAUNDRY #2	TILE	WD	GWB	GWB	10'-0"	1,2

NOTES

1. PROVIDE STANDARD: 6" BASE, 4" DOOR AND WINDOW CASING, 5" WINDOW STOOL WITH 4" APRON
2. PROVIDE SHOE MOLD
3. PROVIDE PORCELAIN TILE TO MIN 4'-0" AFF TYPICAL AND TO 6'-8" AT ALL WALLS OF THE SHOWER OR TUB
4. PROVIDE 5/8" TYPE "X" GWB WALLS AND CEILING THIS SPACE
5. PROVIDE BROOM FINISH CONCRETE SLAB

DOOR SCHEDULE

NO.	SIZE	MATERIAL	FIRE RATING	HARDWARE	NOTE
101	PR 3'-0"x8'-0"	INSUL METAL	---	ENTRY	1,2,5
102	3'-0"x6'-8"	SC WD	---	PRIVACY	1,4
103	PR 2'-0"x8'-0"	SC WD	---	PASSAGE	1
104	PR 2'-0"x8'-0"	SC WD	---	PASSAGE	1
105	2'-8"x6'-8"	SC WD	---	PRIVACY	1,4
106	2'-0"x6'-8"	SC WD	---	PASSAGE	1
107	3'-0"x6'-8"	SC WD	---	PRIVACY	1,4
108	2'-8"x6'-8"	SC WD	---	PRIVACY	1,4
109	2'-0"x6'-8"	SC WD	---	PASSAGE	1
110	2'-8"x6'-8"	WD FULL LITE	---	ENTRY	1,2,4
111	2'-8"x6'-8"	WD FULL LITE	---	ENTRY	1,2,4
112	2'-8"x8'-0"	INSUL METAL	---	ENTRY	1,2
113	2'-8"x6'-8"	INSUL METAL	---	ENTRY	1,2,5,6
114	2'-8"x6'-8"	SC WD	---	PRIVACY	1,4
115	2'-8"x6'-8"	SC WD	---	PRIVACY	1,4
116	2'-8"x6'-8"	SC WD POCKET	---	PASSAGE	1
117	2'-8"x6'-8"	SC WD POCKET	---	PASSAGE	1
118	3'-0"x6'-8"	SC WD	---	PRIVACY	1,4
119	2'-8"x6'-8"	SC WD POCKET	---	PASSAGE	1
120	PR 2'-0"x6'-8"	SC WD		PASSAGE	1
121	2'-8"x6'-8"	SC WD	---	PASSAGE	1
122	2'-8"x6'-8"	SC WD	---	PRIVACY	1,4
123	2'-8"x6'-8"	SC WD	---	PASSAGE	1,4
124	2'-8"x8'-0"	SC WD	---	PASSAGE	1
125	2'-8"x8'-0"	SC WD	---	PASSAGE	1
126	2'-8"x6'-8"	INSUL METAL	20	ENTRY	1,2
127	2'-8"x6'-8"	INSUL METAL	---	PASSAGE	1
128	2'-8"x6'-8"	INSUL METAL	---	ENTRY	1,2
129	9'-0"x9'-0"	OVERHEAD SECTIONAL	---	ENTRY	1,2,5
130	9'-0"x9'-0"	OVERHEAD SECTIONAL	---	ENTRY	1,2,5
131	16'-0"x8'-0"	INSUL PANELFOLD	---	ENTRY	2
132	3'-0"x6'-8"	INSUL METAL	---	ENTRY	1.2.
133	3'-0"x6'-8"	INSUL METAL	20	ENTRY	1,2
134	2'-8"x6'-8"	SC WD	---	PRIVACY	1
135	9'-0"x9''-0"	INSUL METAL	---	ENTRY	1,3,5
136	9'-0"x9''-0"	INSUL METAL	---	ENTRY	1,3,5
137	9'-0"x9''-0"	INSUL METAL	---	ENTRY	1,3,5
138	9'-0"x9''-0"	INSUL METAL	---	ENTRY	1,3
201	2'-8"x6'-8"	SC WD	---	PASSAGE	1
202	2'-8"x6'-8"	SC WD	---	PRIVACY	1
203	2'-8"x6'-8"	SC WD	---	PRIVACY	1
204	2'-0"x6'-8"	SC WD	---	PASSAGE	1
205	2'-8"x6'-8"	SC WD	---	PRIVACY	1
206	PR 2'-8"x6'-8"	SC WD	---	PASSAGE	1
207	2'-8"x6'-8"	INSUL METAL	---	PASSAGE	1,2
208	2'-8"x6'-8"	SC WD	---	PASSAGE	1
209	2'-8"x6'-8"	SC WD	---	PRIVACY	1
210	2'-8"x6'-8"	SC WD	---	PASSAGE	1
211	2'-8"x6'-8"	SC WD	---	PRIVACY	1
212	2'-4"x6'-8"	SC WD POCKET	---	PRIVACY	1
213	2'-4"x6'-8"	SC WD POCKET	---	PASSAGE	1
214	2'-4"x6'-8"	SC WD	---	PRIVACY	1

NOTES

1. ALL DOORS ARE 6 PANEL AS SELECTED BY OWNER
2. DOORS SHALL HAVE A MINIMUM U VALUE OF .35
3. GARAGE DOOR SHALL BE SERIES 180 BY OVERHEAD DOOR COMPANY PROVIDE H52 REINFORCING AND TWO VERTICAL POSTS AND A DESIGN PRESSURE OF +25.2 PSF AND -27.3 PSF
4. PROVIDE 16" TRANSOM
5. PROVIDE ARCHED TOP
6. ATRIUM DOOR

WINDOW SCHEDULE

WDW MARK	MANUF ANDERSEN 400	WDW TYPE	NOTES
A	2888/4088/2888	DOUBLE HUNG	1,2,3,4,5
B	2888/4088/2888	DOUBLE HUNG	1,2,3,4,5
C	TWIN 3088	DOUBLE HUNG	1,2,3,4
D	3048	DOUBLE HUNG	1,2,3,4
E	3088	DOUBLE HUNG	1,2,3,4
F	2888/4088/2888	DH / FIXED / DH	1,2,3,4
G	2888	DOUBLE HUNG	1,2,3,4
H	TWIN 6088	FIXED	1,2,3,4,6
J	3060	DOUBLE HUNG	1,2,3,4
K	TWIN 3060	DOUBLE HUNG	1,2,3,4,6
L	TWIN 3048	DOUBLE HUNG	1,2,3,4
M	3048	DOUBLE HUNG	1,2,3,4

NOTES

1. PROVIDE MIN 12" ICE & WATER SHIELD OVER NAILING FIN AND UNDER 15# FELTS
2. PROVIDE 5/4" BULLNOSE WD STOOL WITH 4" APRON
3. WINDOW HEAD AT 96" AFF, TYP, FIRST FLOOR WINDOW HEAD AT 87" AFF, TYP, SECOND FLOOR
4. WINDOWS SHALL HAVE A MINIMUM U VALUE OF .35 AND A DESIGN PRESSURE OF +25.2 PSF AND -27.3 PSF
5. PROVIDE CUSTOM TRANSOM, SEE EXTERIOR ELEVATIONS SHEET A-2.1
6. MARVIN ULTIMATE PICTURE NARROW FRAME

GRAPHIC SCALES

1/4"=1'-0" 0 2' 4' 8' 12'

COMMONWEALTH OF VIRGINIA
SALVATORE R. LEMOLE
Lic No. 011792
04-25-22
ARCHITECT

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SRL	SRL	SRL	SRL

DATE	REVISION	SYMBOL

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DATE 25 APR 2022

THE JONES RESIDENCE

LOT B-1 / HEAD RIVER RD

VIRGINIA BEACH, VIRGINIA

SHEET TITLE

DOOR, WINDOW AND FINISH SCHEDULE / TYPICAL WINDOW DETAILS

LEMOLE ARCHITECTS
2669 PRODUCTION
SUITE 102
VIRGINIA BEACH, VIRGINIA 23454
757-228-2620
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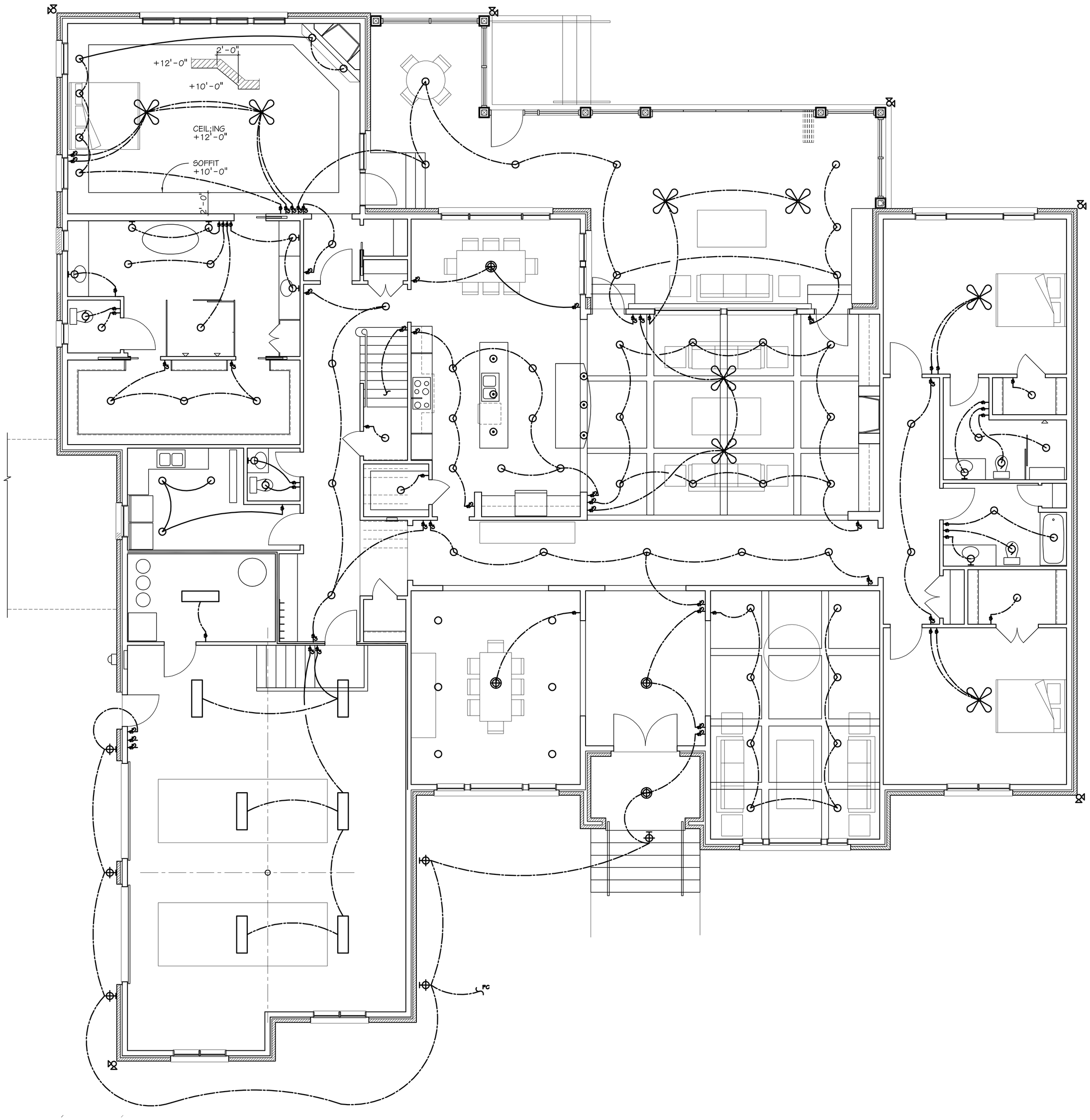
SHEET NUMBER

A-1.4

XX OF XX



CEILING PLAN LEGEND

- WALL SCONCE FIXTURE
- RECESSED FIXTURE
- SURFACE MOUNT FIXTURE
- CHANDELIER
- WALL MOUNT LANTERN
- PENDANT MOUNT FIXTURE
- KEYLESS PORCELAIN FIXTURE SWITCHED
- SWITCH
- THREE WAY SWITCH
- SWITCHED PHOTOCELL
- EXHAUST FAN WITH LIGHT
- PADDLE FAN WITH LIGHT KIT
- FLOOD LIGHT
- RECESSED DIRECTIONAL FIXTURE
- LINEAR LED FIXTURE SURFACE OR PENDANT MOUNT
- WALL MOUNT CAMERA

REFLECTED CEILING PLAN
1/4" = 1'-0"

GRAPHIC SCALES
1/4"=1'-0" 0 2' 4' 8' 12'

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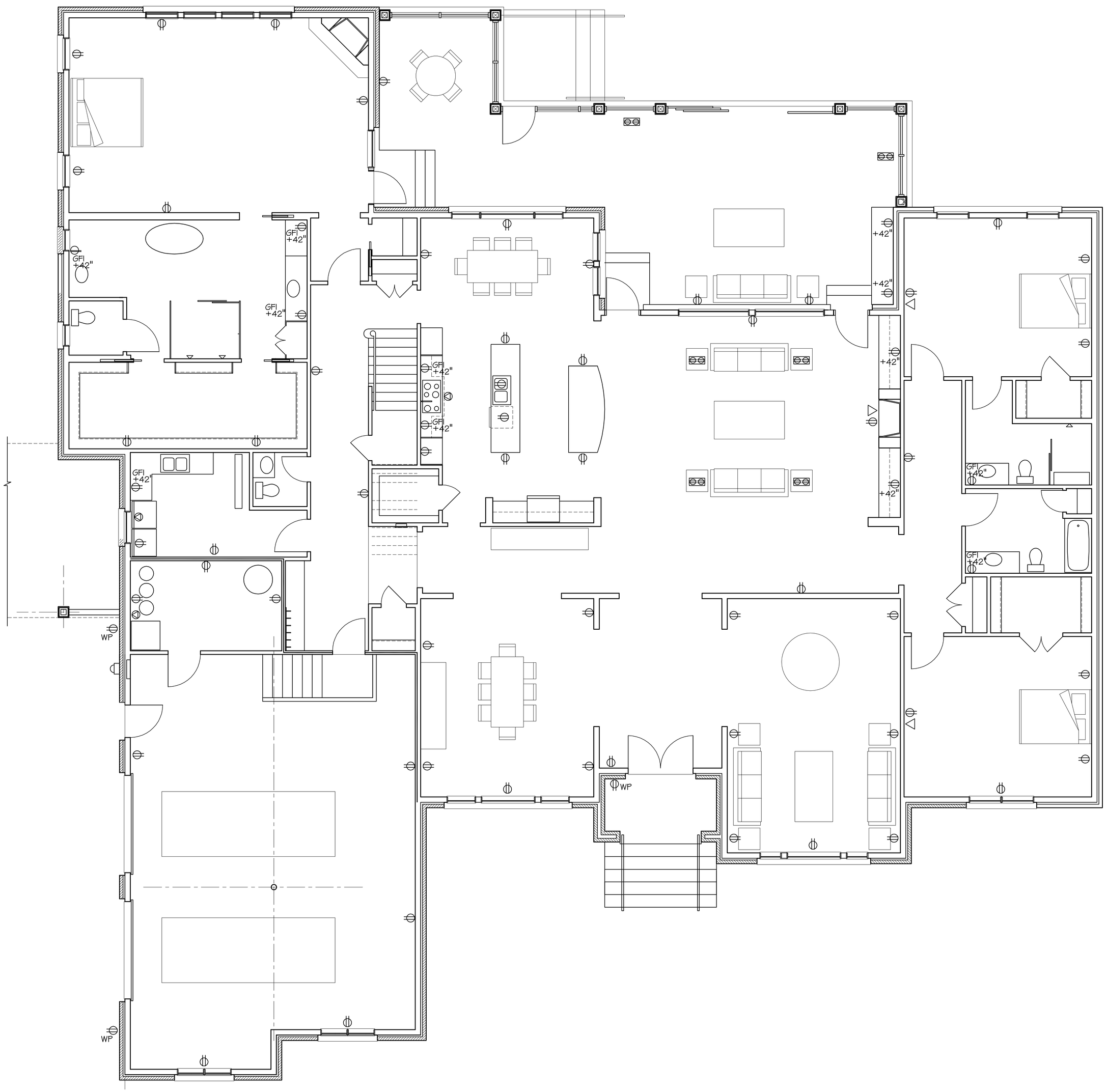
VIRGINIA BEACH, VIRGINIA

SHEET TITLE
FIRST FLOOR LIGHTING PLAN

LEMOLE ARCHITECTS
2669 PRODUCTION
SUITE 102
VIRGINIA BEACH, VIRGINIA 23454
757-228-2620
SRLEMOLE@GMAIL.COM

SHEET NUMBER
A-1.5
XX OF XX



ELECTRICAL LEGEND

- STRUCTURED WIRING TELEPHONE / CABLE EACH LOCATION
- SWITCH
- $_3$ THREE WAY SWITCH
- $_D$ DIMMER SWITCH
- DUPLEX RECEPTACLE
- GFI GROUND FAULT INTERRUPT RECEPTACLE
- WP WEATHER PROOF RECEPTACLE
- SPECIAL POWER OUTLET
- CEILING MOUNT SPEAKER
- DUPLEX RECEPTACLE

ELECTRICAL PLAN
1/4" = 1'-0"

GRAPHIC SCALES
1/4"=1'-0" 0 2' 4' 8' 12'

COMMONWEALTH OF VIRGINIA
SALVATORE R. LEMOLE
Lic No. 011792
04-25-22
ARCHITECT

PROJ MGR	SRL
DESIGNED	SRL
DRAWN	SRL
CHECKED	SRL

DATE
REVISION
SYMBOL

PROJECT NO 21081
DATE 25 APR 2022

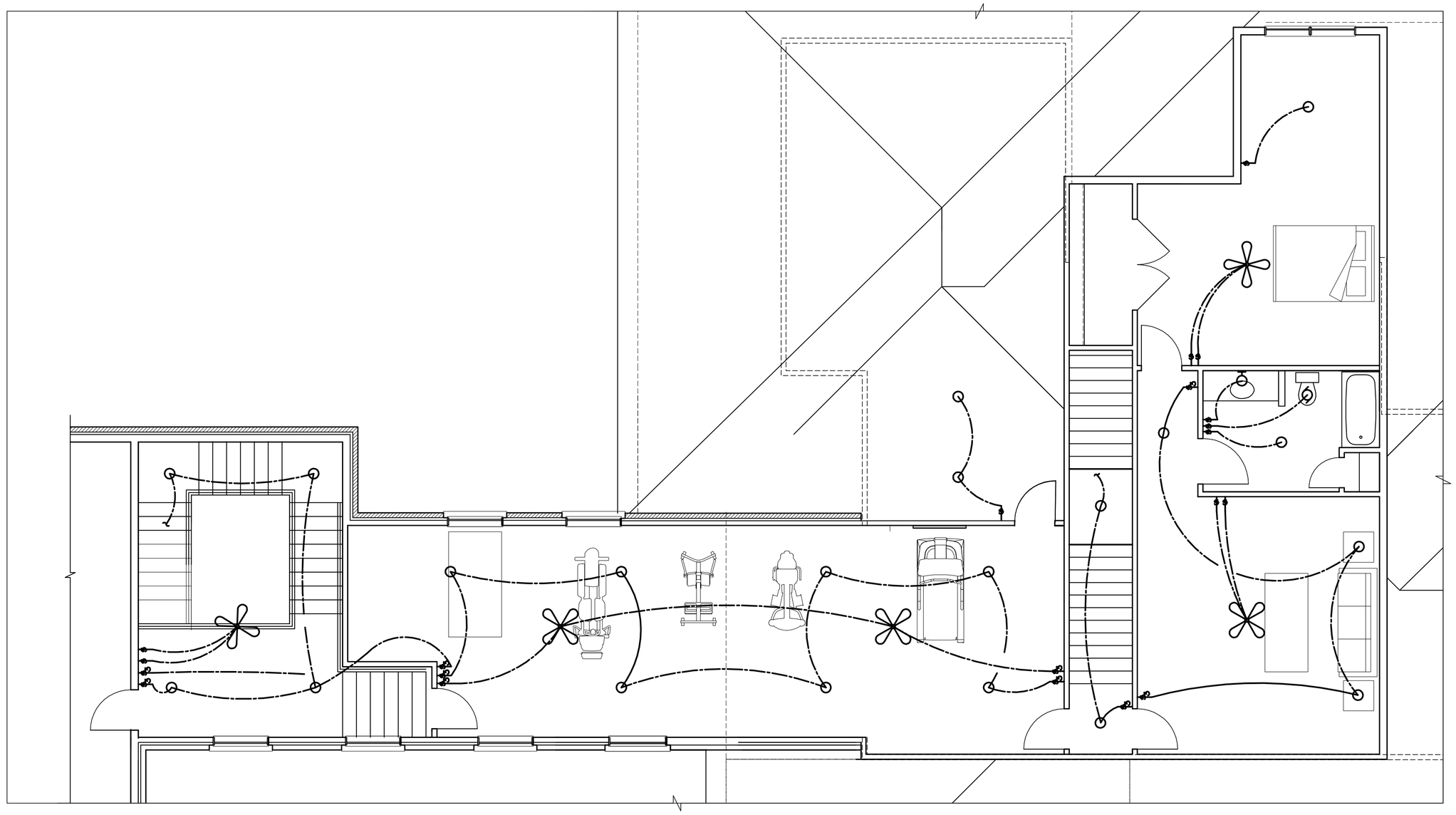
THE JONES RESIDENCE

LOT B-1 / HEAD RIVER RD
VIRGINIA BEACH, VIRGINIA

SHEET TITLE
FIRST FLOOR POWER PLAN

LEMOLE ARCHITECTS
2669 PRODUCTION
SUITE 102
VIRGINIA BEACH, VIRGINIA 23454
757-228-2620
SRLEMOLE@GMAIL.COM

SHEET NUMBER
A-1.6
XX OF XX

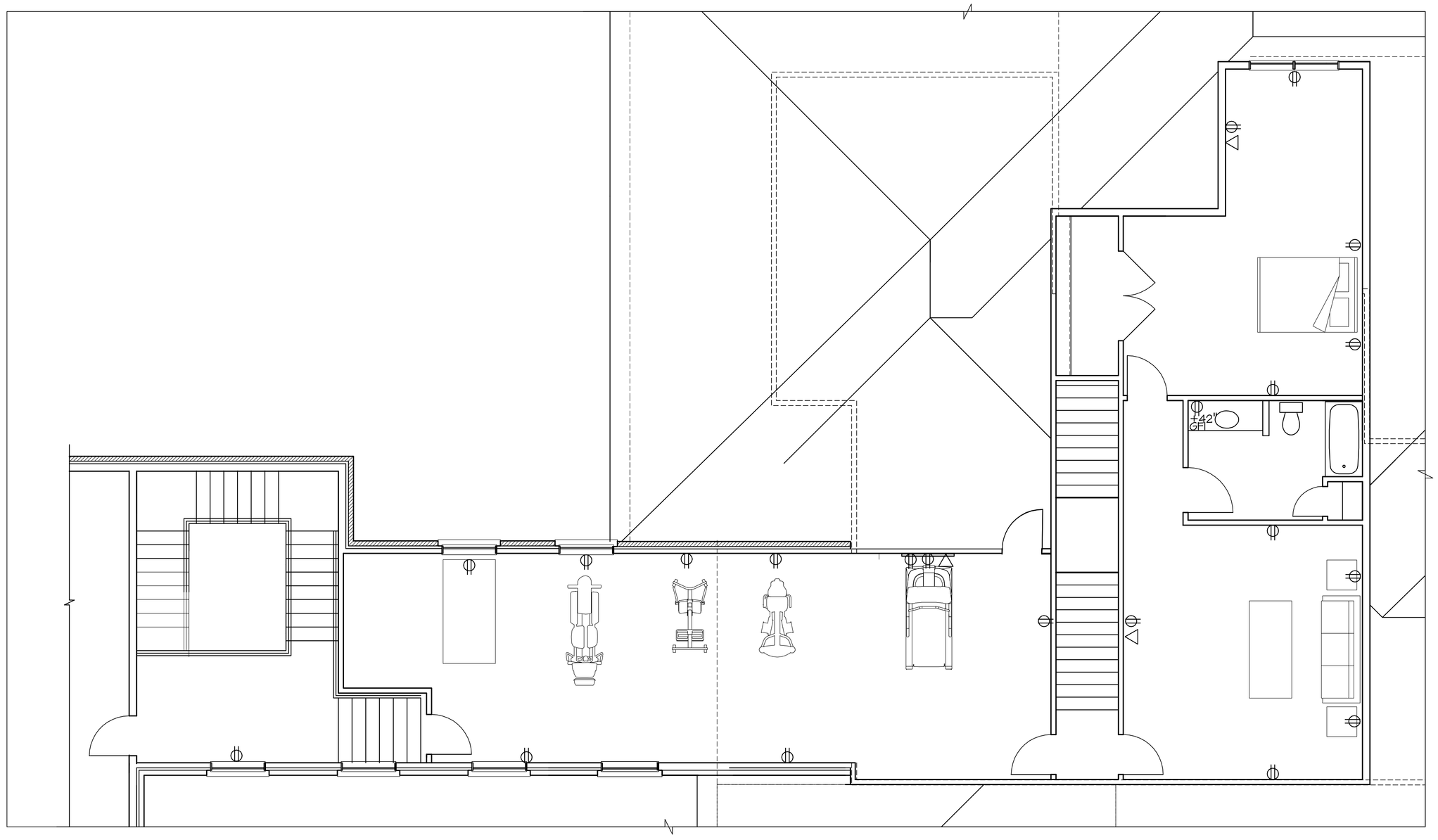


CEILING PLAN LEGEND

- WALL SCONCE FIXTURE
- RECESSED FIXTURE
- SURFACE MOUNT FIXTURE
- CHANDELIER
- WALL MOUNT LANTERN
- PENDANT MOUNT FIXTURE
- KEYLESS PORCELAIN FIXTURE
- SWITCH
- THREE WAY SWITCH
- SWITCHED PHOTOCELL
- EXHAUST FAN WITH LIGHT
- PADDLE FAN WITH LIGHT KIT
- FLOOD LIGHT
- RECESSED DIRECTIONAL FIXTURE
- LINEAR LED FIXTURE SURFACE OR PENDANT MOUNT
- WALL MOUNT CAMERA

SECOND FLOOR REFLECTED CEILING PLAN

1/4" = 1'-0"



ELECTRICAL LEGEND

- STRUCTURED WIRING TELEPHONE / CABLE EACH LOCATION
- SWITCH
- THREE WAY SWITCH
- DIMMER SWITCH
- DUPLEX RECEPTACLE
- GFI GROUND FAULT INTERRUPT RECEPTACLE
- WP WEATHER PROOF RECEPTACLE
- SPECIAL POWER OUTLET
- CEILING MOUNT SPEAKER
- DUPLEX RECEPTACLE

SECOND FLOOR ELECTRICAL PLAN

1/4" = 1'-0"

GRAPHIC SCALES

1/4"=1'-0" 0 2' 4' 8' 12'

COMMONWEALTH OF VIRGINIA
SALVATORE R. LEMOLE
Lic No. 011792
04-25-22
ARCHITECT

PROJ MGR	SRL
DESIGNED	SRL
DRAWN	SRL
CHECKED	SRL

DATE

REVISION

SYMBOL

PROJECT NO 21081

DATE 25 APR 2022

THE JONES RESIDENCE

LOT B-1 / HEAD RIVER RD VIRGINIA BEACH, VIRGINIA

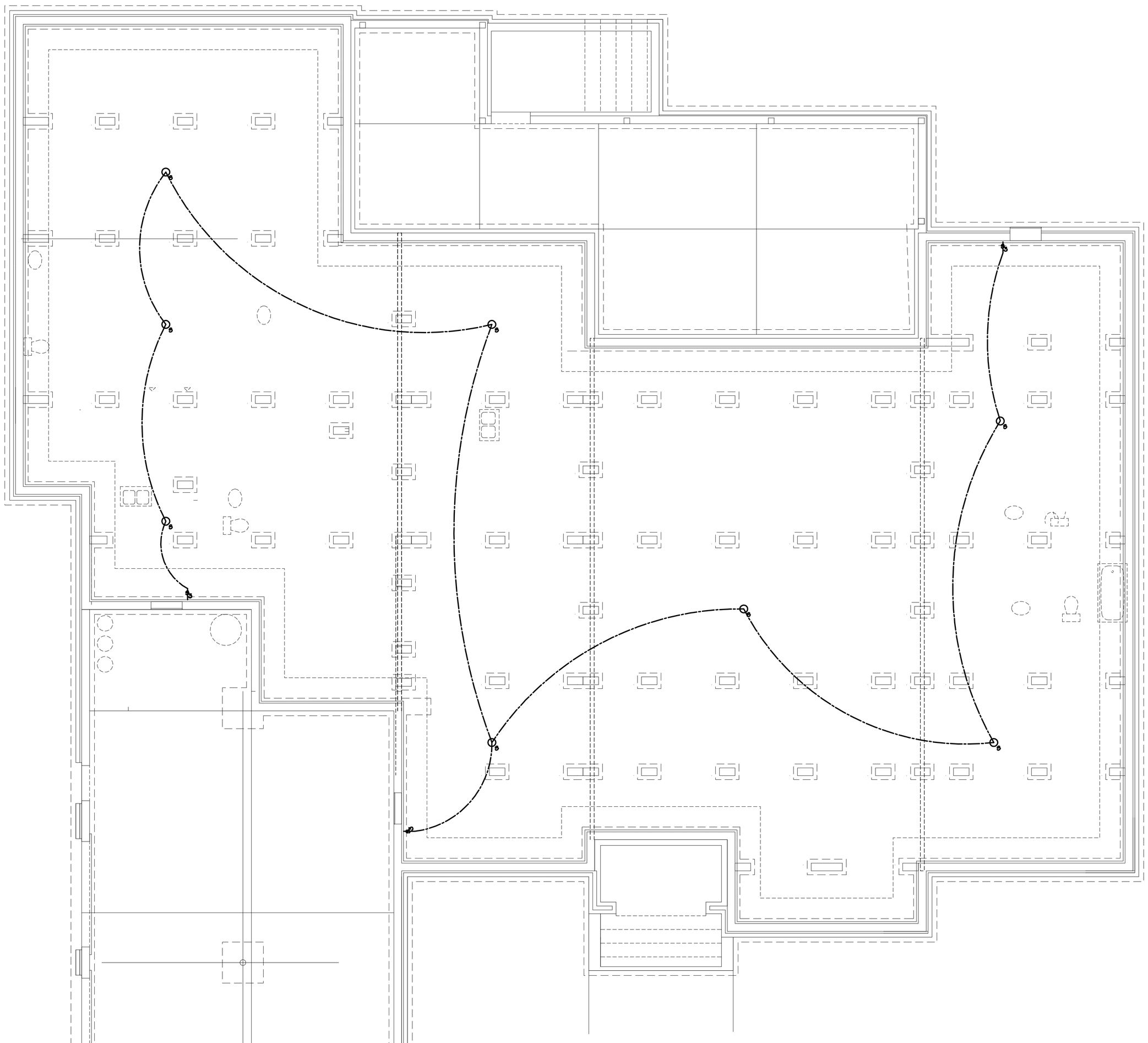
SHEET TITLE: SECOND FLOOR LIGHTING AND POWER PLANS

LEMOLE ARCHITECTS
2669 PRODUCTION
SUITE 102
VIRGINIA BEACH, VIRGINIA 23454
757-228-2620
SRLEMOLE@GMAIL.COM

SHEET NUMBER

A-1.7

XX OF XX



CRAWL SPACE LIGHTING PLAN
1/4" = 1'-0"

CEILING PLAN LEGEND

- WALL SCONCE FIXTURE
- RECESSED FIXTURE
- SURFACE MOUNT FIXTURE
- CHANDELIER
- WALL MOUNT LANTERN
- PENDANT MOUNT FIXTURE
- KEYLESS PORCELAIN FIXTURE SWITCHED
- SWITCH
- THREE WAY SWITCH
- SWITCHED PHOTOCELL
- EXHAUST FAN WITH LIGHT
- PADDLE FAN WITH LIGHT KIT
- FLOOD LIGHT
- RECESSED DIRECTIONAL FIXTURE
- LINEAR LED FIXTURE SURFACE OR PENDANT MOUNT
- WALL MOUNT CAMERA

GRAPHIC SCALES
1/4"=1'-0" 0 2' 4' 8' 12'

COMMONWEALTH OF VIRGINIA
SALVATORE R. LEMOLE
Lic No. 011792
04-25-22
ARCHITECT

PROJ MGR	SRL
DESIGNED	SRL
DRAWN	SRL
CHECKED	SRL

DATE

REVISION

SYMBOL

PROJECT NO 21081

DATE 25 APR 2022

THE JONES RESIDENCE

LOT B-1 / HEAD RIVER RD

VIRGINIA BEACH, VIRGINIA

SHEET TITLE
CRAWL SPACE LIGHTING PLAN

LEMOLE ARCHITECTS
2669 PRODUCTION
SUITE 102
VIRGINIA BEACH, VIRGINIA 23454
757-228-2620
SRLEMOLE@GMAIL.COM

SHEET NUMBER
A-1.8
XX OF XX

A
A1.1|A2.1
EXTERIOR ELEVATION
1/4" = 1'-0"

B
A1.1|A2.1
EXTERIOR ELEVATION
1/4" = 1'-0"

GRAPHIC SCALES
1/4"=1'-0"
0 2' 4' 8' 12'

COMMONWEALTH OF VIRGINIA
SALVATORE R. LEMOLE
Lic No. 011792
04-25-22
ARCHITECT

PROJ MGR	SRL					
DESIGNED	SRL					
DRAWN	SRL					
CHECKED	SRL					
DATE						
REVISION						
SYMBOL						

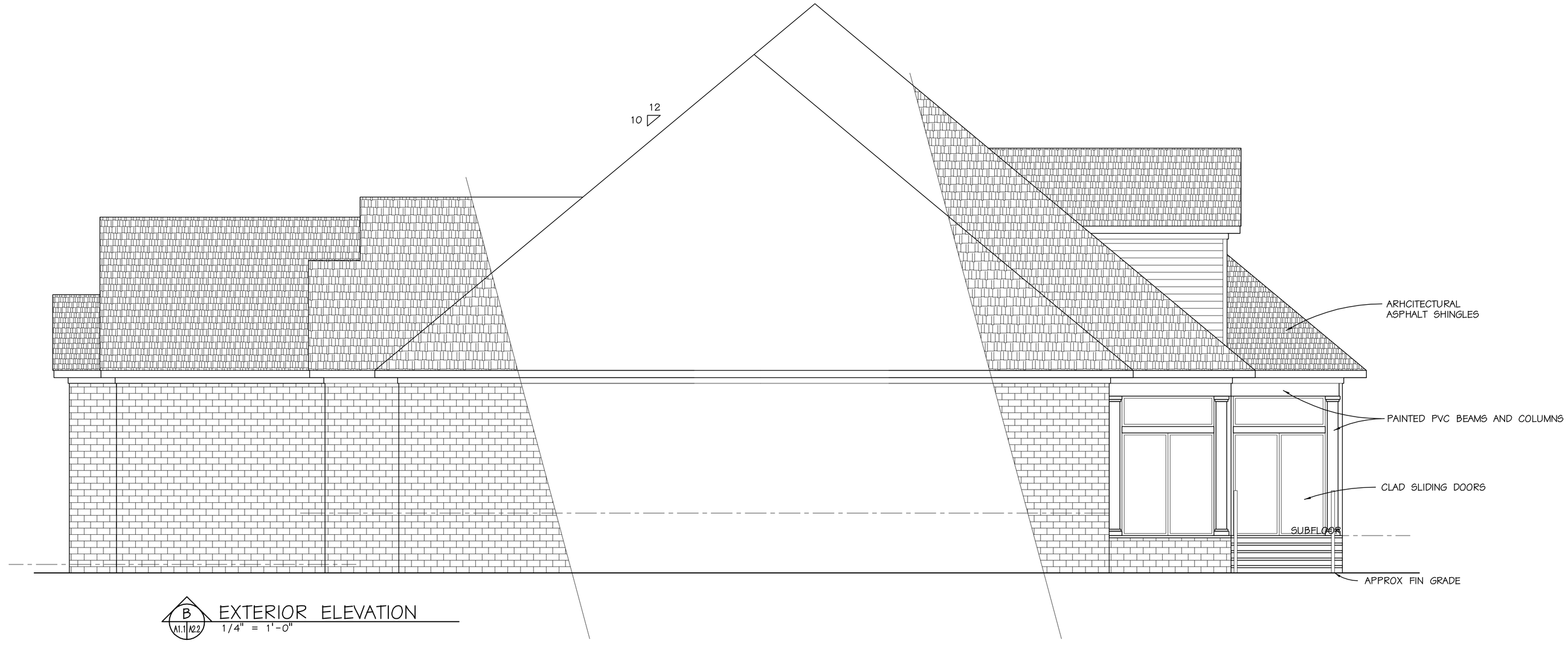
PROJECT NO 21081
DATE 25 APR 2022

THE JONES RESIDENCE
LOT B-1 / HEAD RIVER RD
VIRGINIA BEACH, VIRGINIA
SHEET TITLE
EXTERIOR ELEVATIONS

LEMOLE ARCHITECTS
2669 PRODUCTION
SUITE 102
VIRGINIA BEACH, VIRGINIA 23454
757-228-2620
SRLEMOLE@GMAIL.COM

SHEET NUMBER
A-2.1
XX OF XX

A A1.1 A2.2 EXTERIOR ELEVATION
1/4" = 1'-0"



B A1.1 A2.2 EXTERIOR ELEVATION
1/4" = 1'-0"

GRAPHIC SCALES
1/4"=1'-0" 0 2' 4' 8' 12'

COMMONWEALTH OF VIRGINIA
SALVATORE R. LEMOLE
Lic No. 011792
04-25-22
ARCHITECT

PROJ MGR	SRL				
DESIGNED	SRL				
DRAWN	SRL				
CHECKED	SRL				
DATE					
REVISION					
SYMBOL					

PROJECT NO 21081
DATE 25 APR 2022

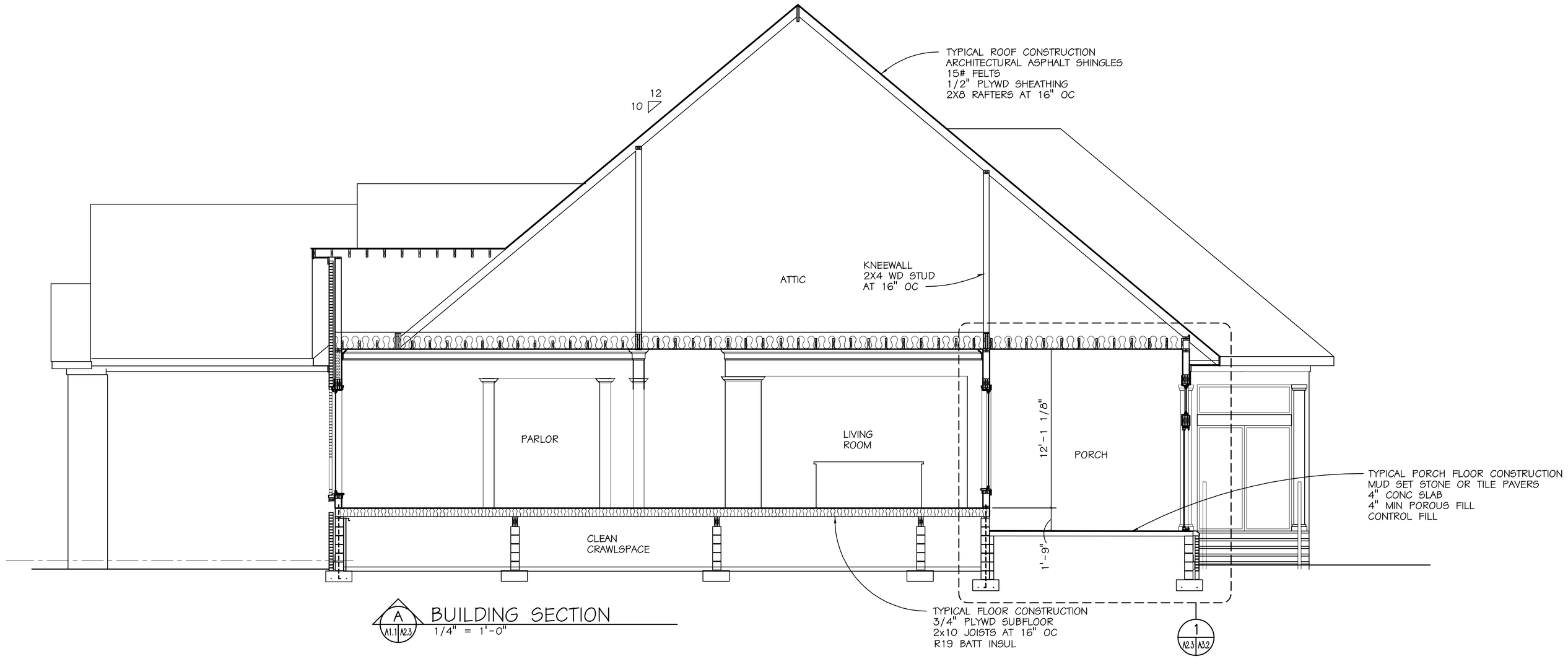
THE JONES RESIDENCE

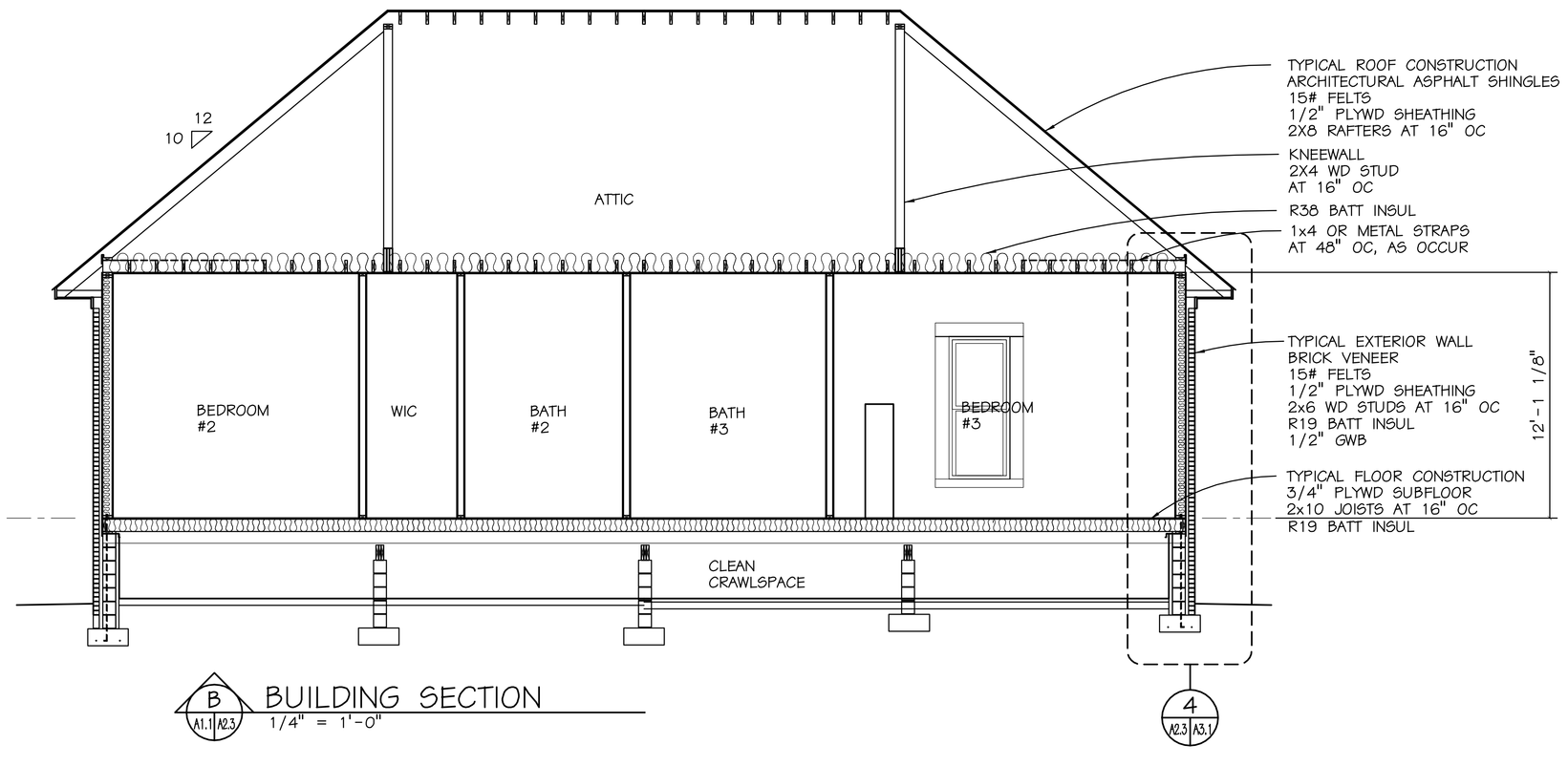
LOT B-1 / HEAD RIVER RD
VIRGINIA BEACH, VIRGINIA

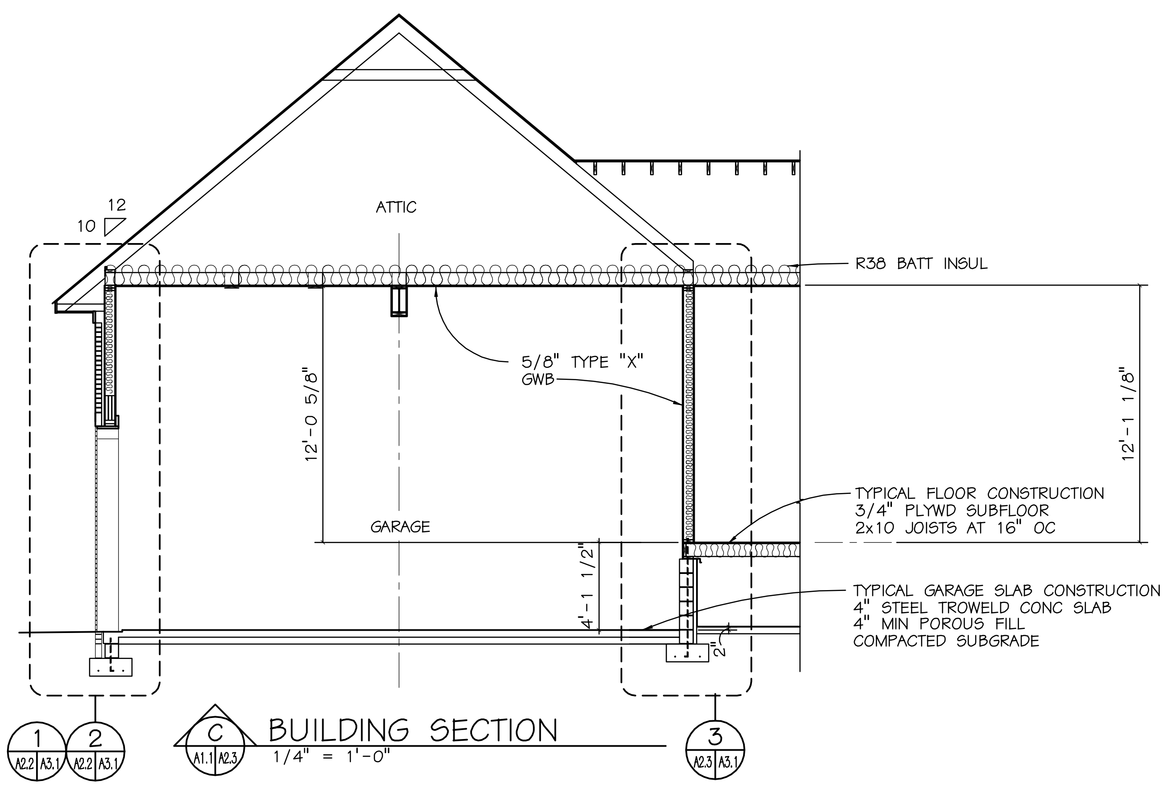
SHEET TITLE
EXTERIOR ELEVATIONS

LEMOLE ARCHITECTS
2669 PRODUCTION
SUITE 102
VIRGINIA BEACH, VIRGINIA 23454
757-228-2620
SRLEMOLE@GMAIL.COM

SHEET NUMBER
A-2.2
XX OF XX







GRAPHIC SCALES

1/4"=1'-0" 0 2' 4' 8' 12'

COMMONWEALTH OF VIRGINIA
SALVATORE R. LEMOLE
Lic No. 011792
04-25-22
ARCHITECT

	PROJ MGR	DESIGNED	DRAWN	CHECKED
	SRL	SRL	SRL	SRL

DATE | REVISION | SYMBOL

PROJECT NO 21081

DATE 25 APR 2022

THE JONES RESIDENCE

LOT B-1 / HEAD RIVER RD — VIRGINIA BEACH, VIRGINIA

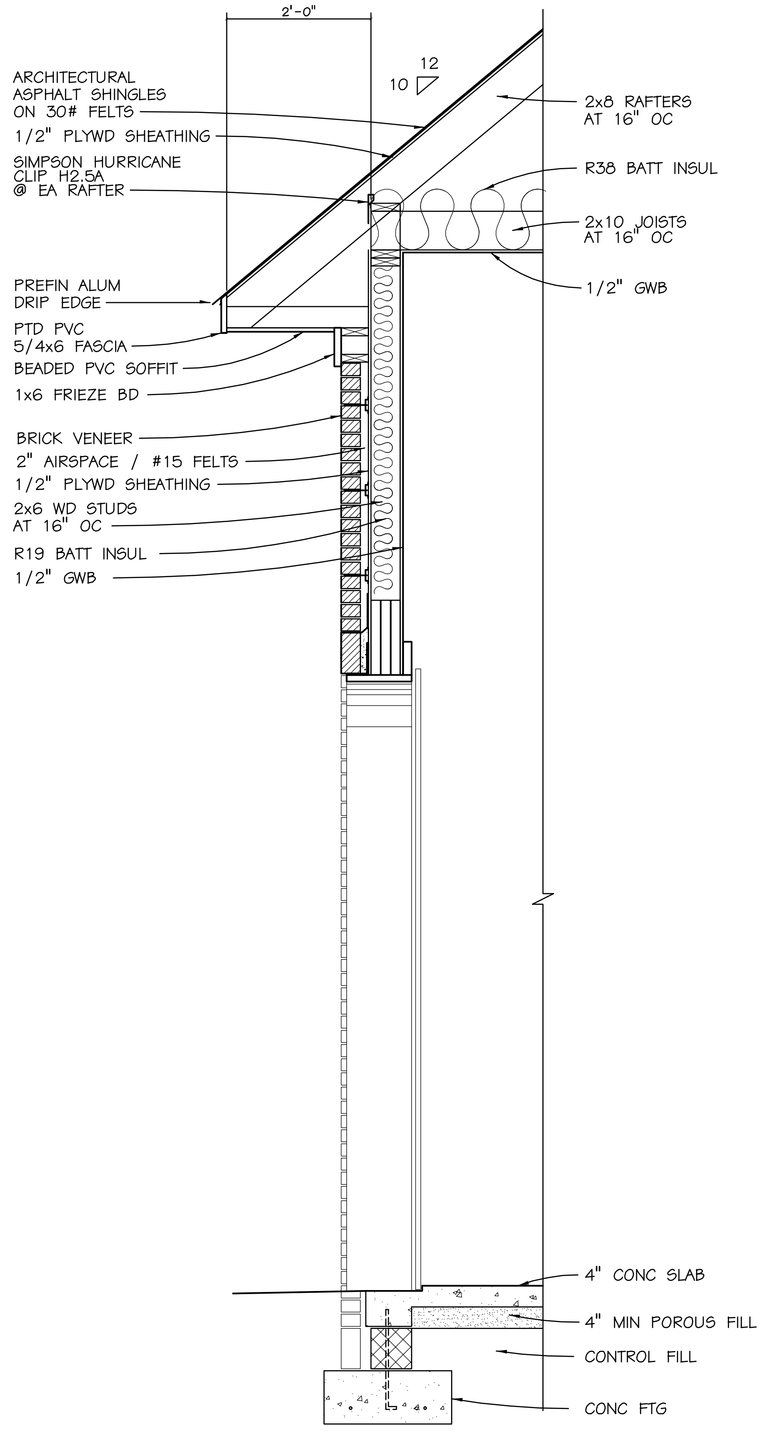
SHEET TITLE: BUILDING SECTIONS

LEMOLE ARCHITECTS
2669 PRODUCTION
SUITE 102
VIRGINIA BEACH, VIRGINIA 23454
757-228-2620
SRLEMOLE@GMAIL.COM

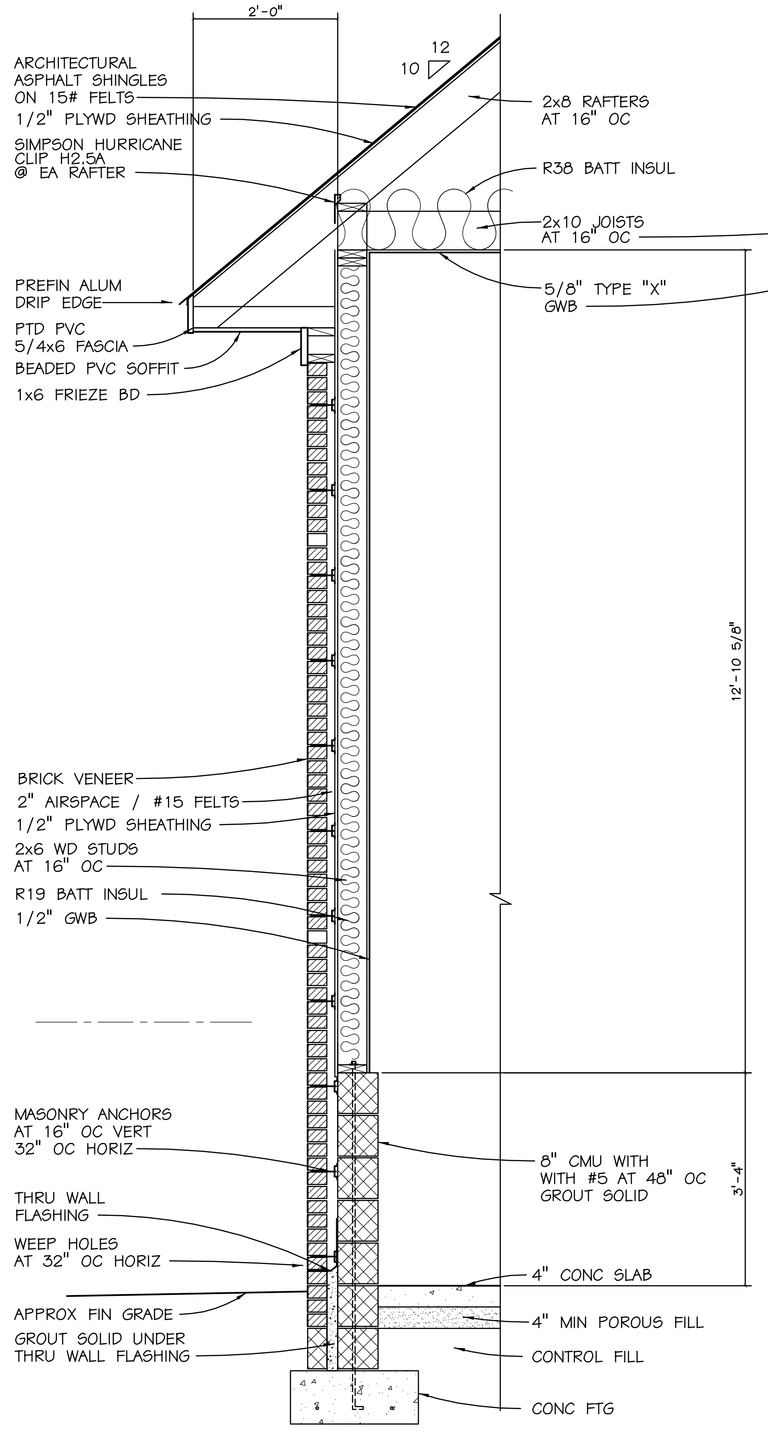
SHEET NUMBER

A-2.3

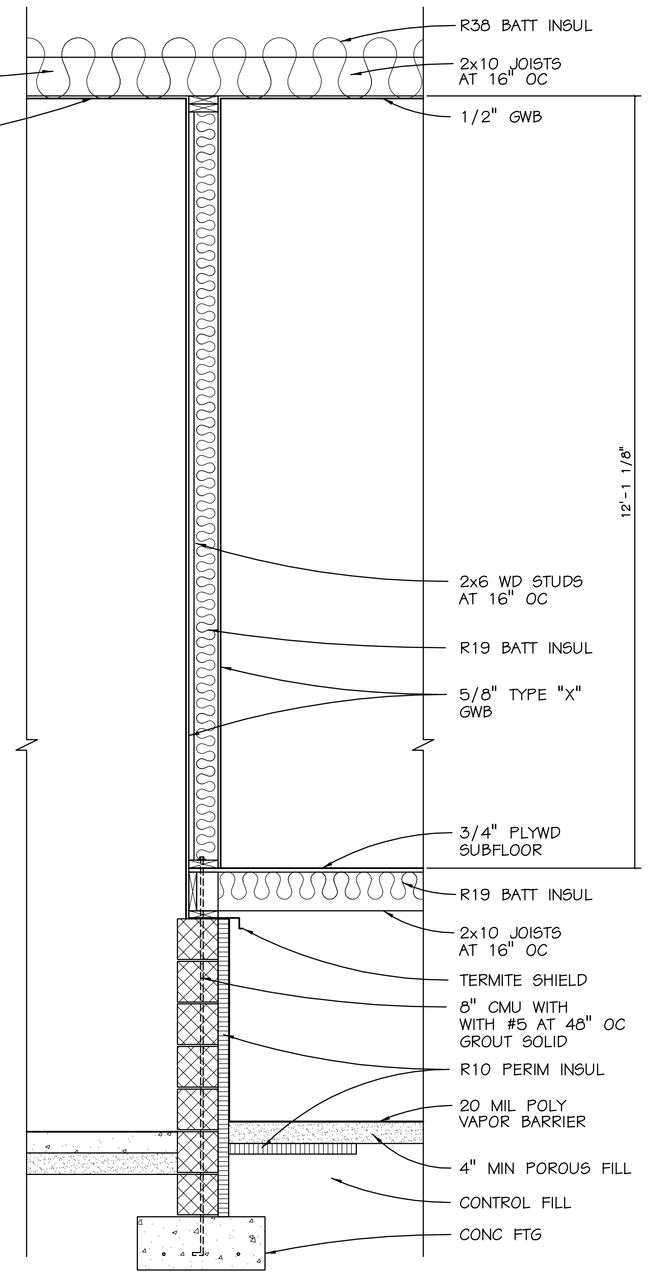
XX OF XX



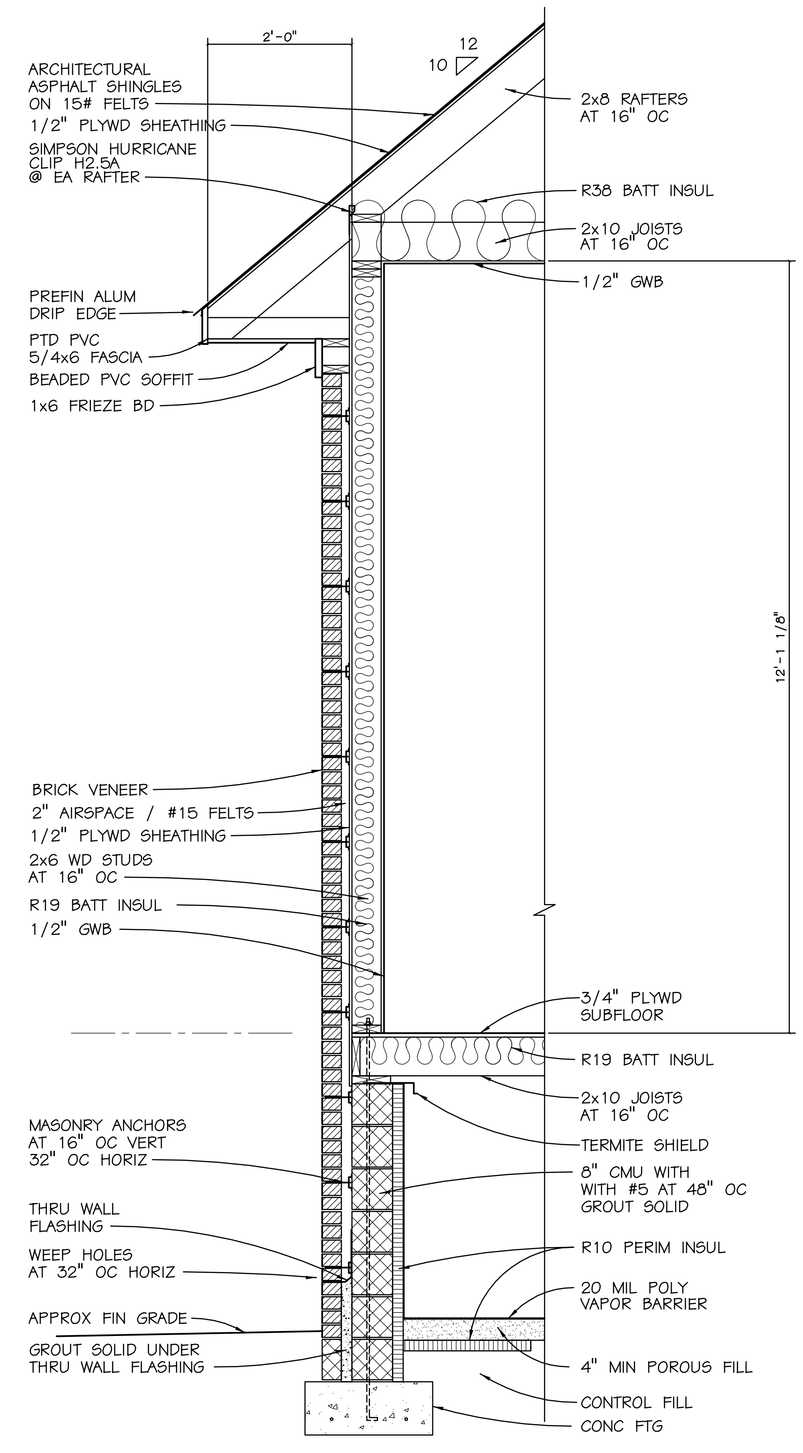
1 WALL SECTION
A1.1 A3.1
3/4" = 1'-0"



2 WALL SECTION
A1.1 A3.1
3/4" = 1'-0"



3 WALL SECTION
A1.1 A3.1
3/4" = 1'-0"



4 WALL SECTION
A1.1 A3.1
3/4" = 1'-0"

GRAPHIC SCALES

3/4"=1'-0" 0 6" 1' 2' 3' 4'

COMMONWEALTH OF VIRGINIA
SALVATORE R. LEMOLE
Lic No. 011792
04-25-22
ARCHITECT

PROJ MGR	SRL					
DESIGNED	SRL					
DRAWN	SRL					
CHECKED	SRL					
DATE						

REVISION

SYMBOL

PROJECT NO 21081

DATE 25 APR 2022

THE JONES RESIDENCE

LOT B-1 / HEAD RIVER RD

VIRGINIA BEACH, VIRGINIA

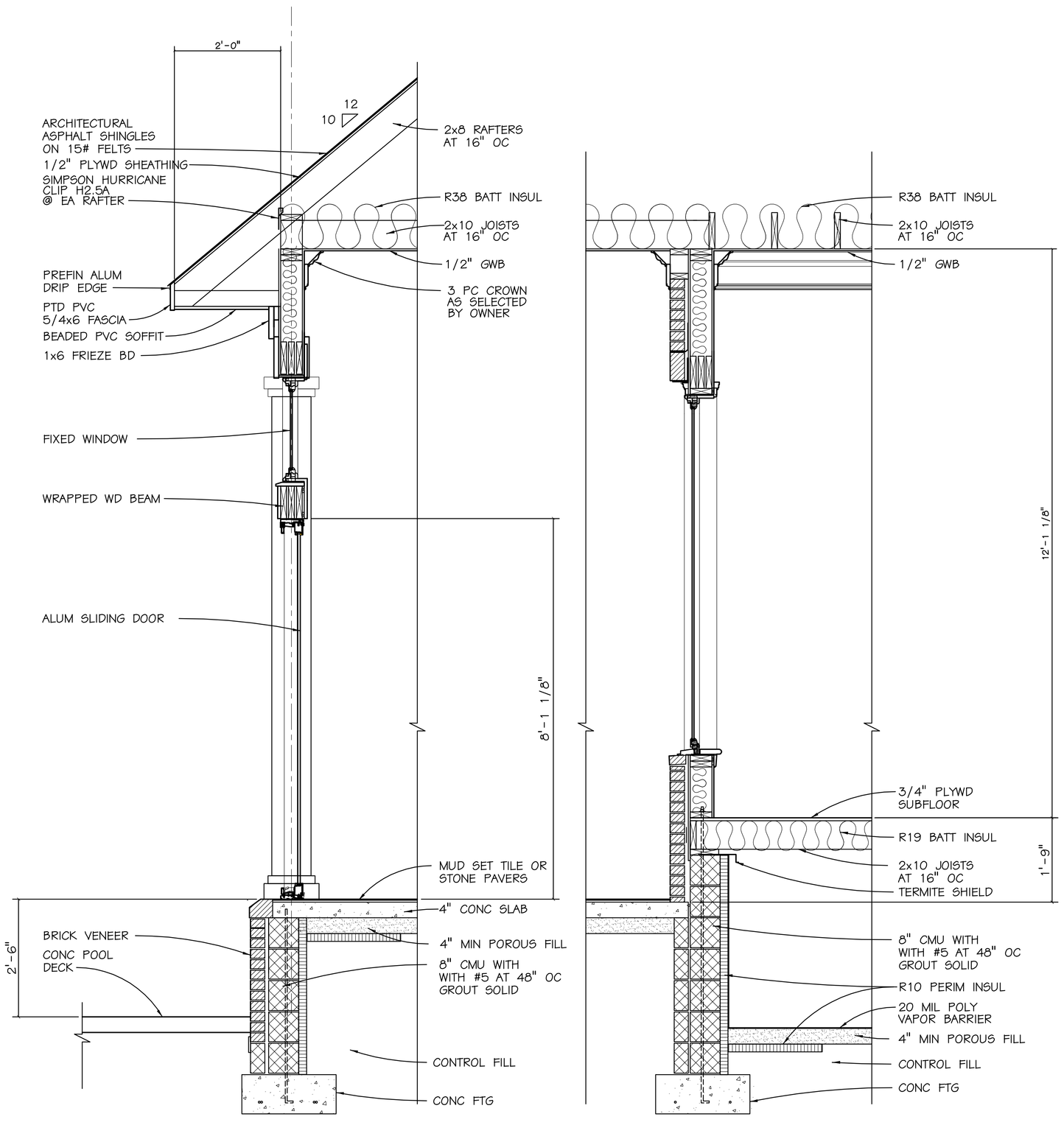
SHEET TITLE: WALL SECTIONS

LEMOLE ARCHITECTS
2669 PRODUCTION
SUITE 102
VIRGINIA BEACH, VIRGINIA 23454
757-228-2620
SRLEMOLE@GMAIL.COM

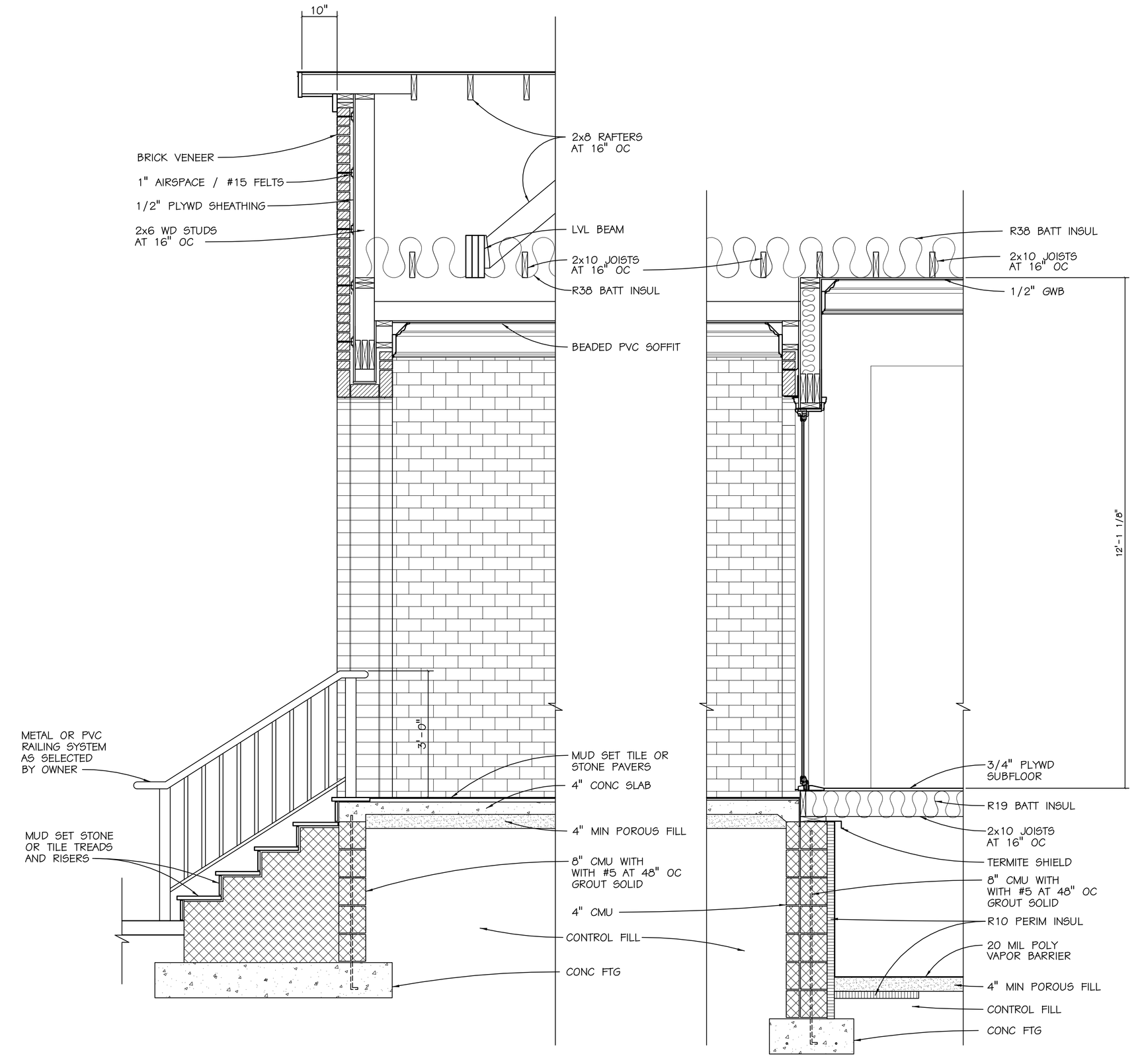
SHEET NUMBER

A-3.1

XX OF XX



1 A1.1 A3.2 WALL SECTION
3/4" = 1'-0"



2 A1.1 A3.2 WALL SECTION
3/4" = 1'-0"

GRAPHIC SCALES
3/4"=1'-0"
0 6" 1' 2' 3' 4'

COMMONWEALTH OF VIRGINIA
SALVATORE R. LEMOLE
Lic No. 011792
04-25-22
ARCHITECT

PROJ MGR	SRL
DESIGNED	SRL
DRAWN	SRL
CHECKED	SRL

DATE

REVISION

SYMBOL

PROJECT NO 21081

DATE 25 APR 2022

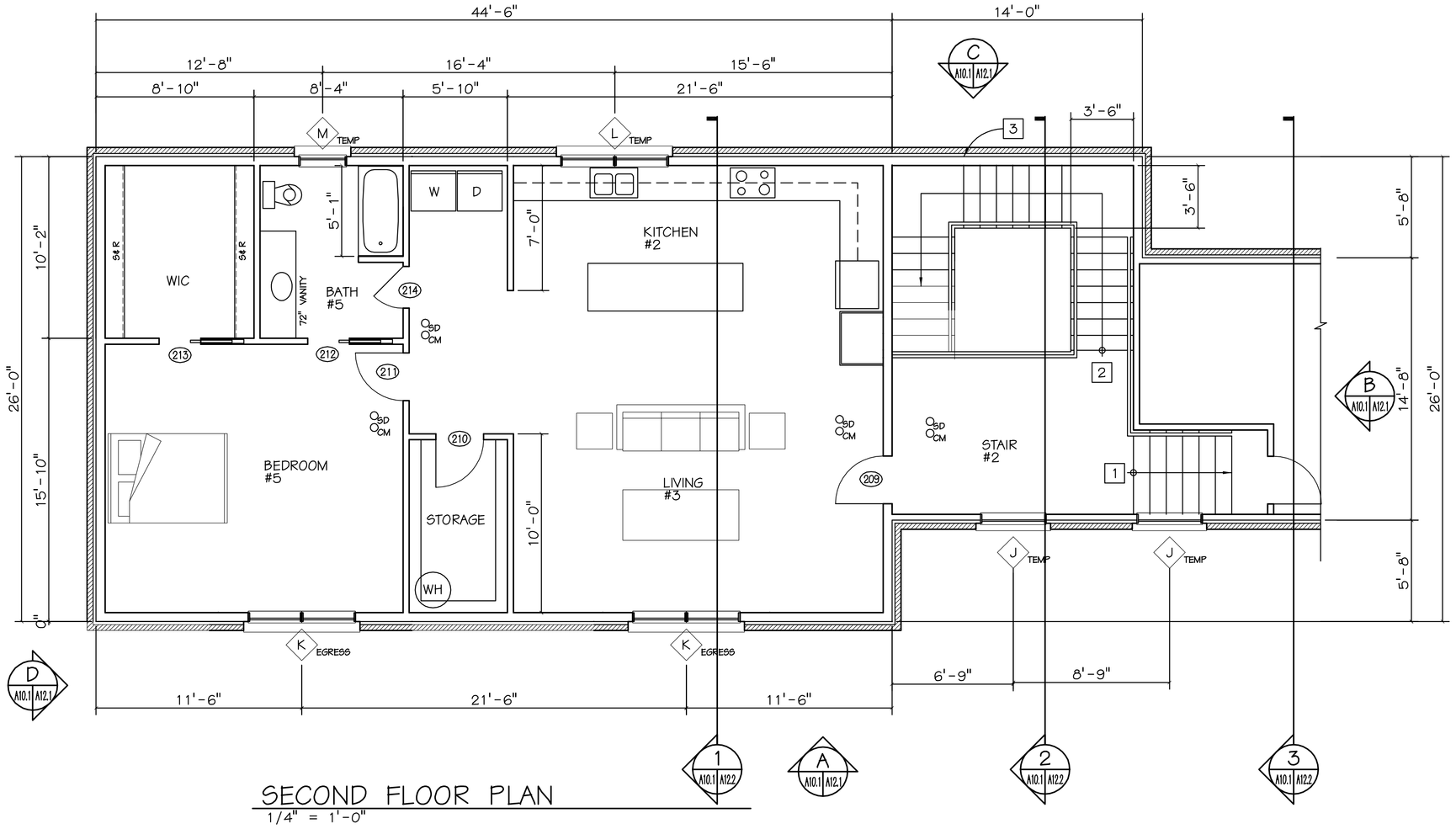
THE JONES RESIDENCE

LOT B-1 / HEAD RIVER RD — VIRGINIA BEACH, VIRGINIA

SHEET TITLE: WALL SECTIONS

LEMOLE ARCHITECTS
2669 PRODUCTION
SUITE 102
VIRGINIA BEACH, VIRGINIA 23454
757-228-2620
SRLEMOLE@GMAIL.COM

SHEET NUMBER
A-3.2
XX OF XX

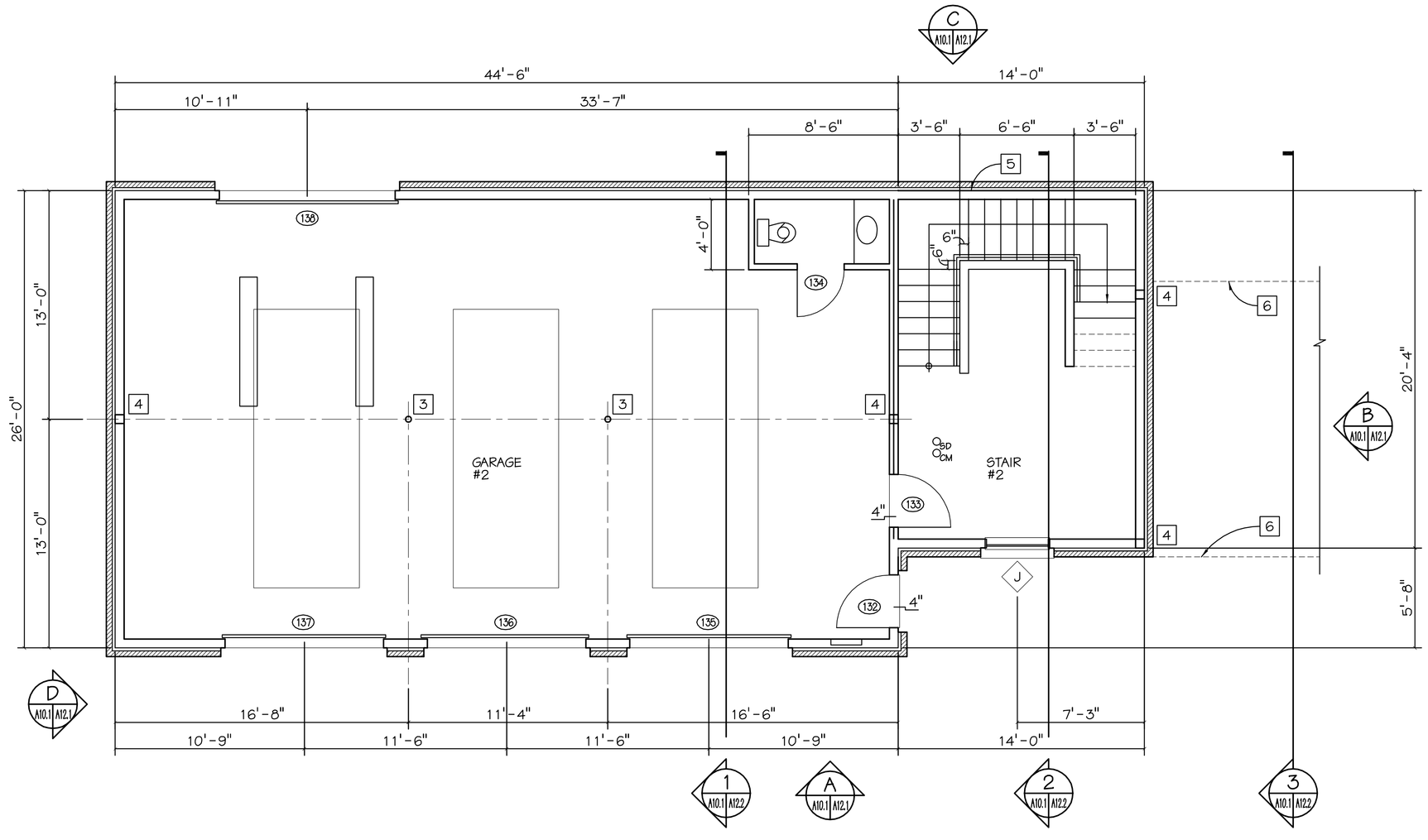


SECOND FLOOR PLAN

1/4" = 1'-0"

SECOND FLOOR PLAN NOTES

1. UP 7 RISERS AT 7.0", 6 TREADS AT 10" WITH 1" NOSING
2. DN 22 RISERS AT 7.09", 21 TREADS AT 10" WITH 1" NOSING
3. FULL HEIGHT STUDS THIS WALL



FIRST FLOOR PLAN

1/4" = 1'-0"

FIRST FLOOR PLAN NOTES

1. UP 22 RISERS AT 7.09", 21 TREADS AT 10" WITH 1" NOSING
2. 1 HR RATED PARTITION. 5/8" TYPE "X" GWB EACH SIDE
3. 6" DIA STL PIPE COLUMN
4. PSL POST
5. FULL HEIGHT STUDS THIS WALL
6. LINE OF WALL ABOVE

PLAN LEGEND

- SD — SMOKE DETECTOR, HARDWIRED AND INTERCONNECTED
- CM — CARBON MONOXISDE DETECTOR
- EF — EXHAUST FAN
- FEC — RECESSED FIRE EXTINGUISHER CABINET MOUNTED AT 60" AFF MAX PROVIDE 2-A:10-B:C FIRE EXTINGUISHER

SQUARE FOOTAGE

STAIR #2 HEATED	294 SF
SECOND FLOOR HEATED	1158 SF
GARAGE	1146 SF
TOTAL HEATED	1452 SF

GRAPHIC SCALES

1/4"=1'-0" 0 2' 4' 8' 12'

COMMONWEALTH OF VIRGINIA
SALVATORE R. LEMOLE
Lic No. 011792
04-25-22
ARCHITECT

PROJ MGR	DESIGNED	DRAWN	CHECKED
SRL	SRL	SRL	SRL

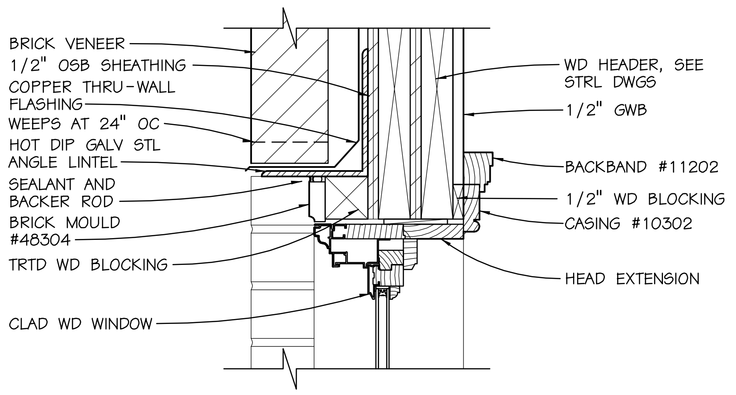
DATE | REVISION | SYMBOL

PROJECT NO 21081
DATE 25 APR 2022

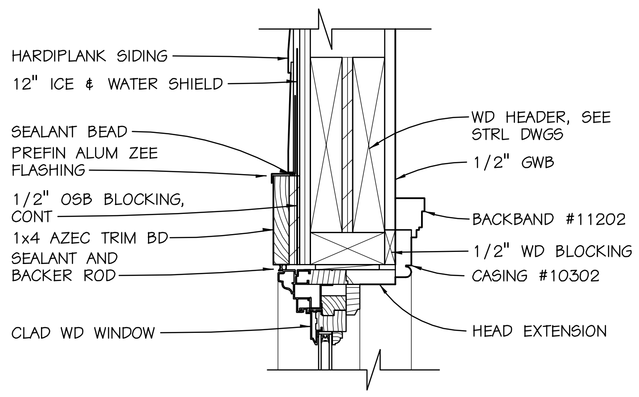
THE JONES RESIDENCE
LOT B-1 / HEAD RIVER RD
VIRGINIA BEACH, VIRGINIA
SHEET TITLE: GARAGE #2 PLANS

LEMOLE ARCHITECTS
2669 PRODUCTION
SUITE 102
VIRGINIA BEACH, VIRGINIA 23454
757-228-2620
SRLEMOLE@GMAIL.COM

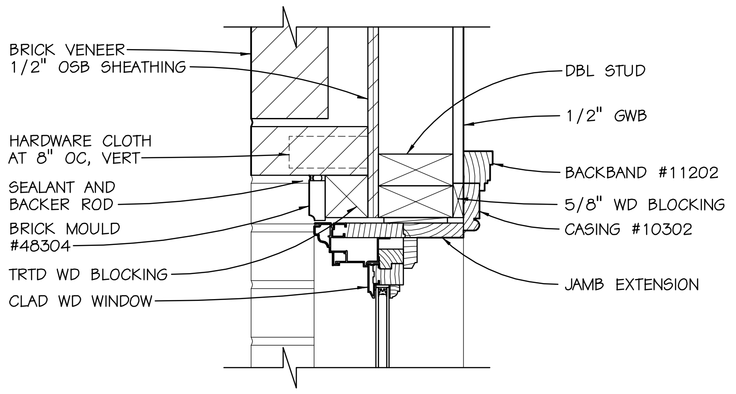
SHEET NUMBER
A-10.1
XX OF XX



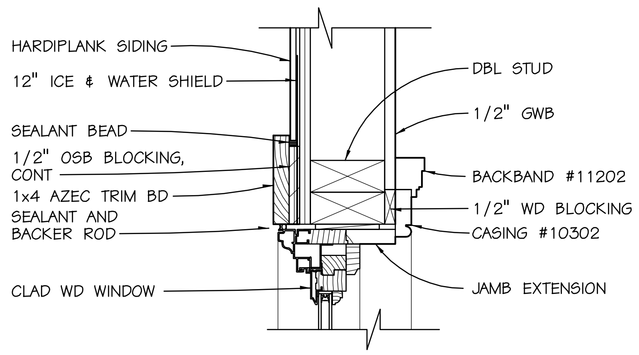
HEAD



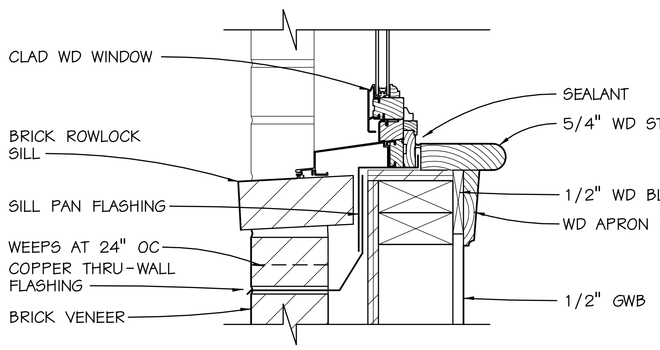
HEAD



JAMB



JAMB



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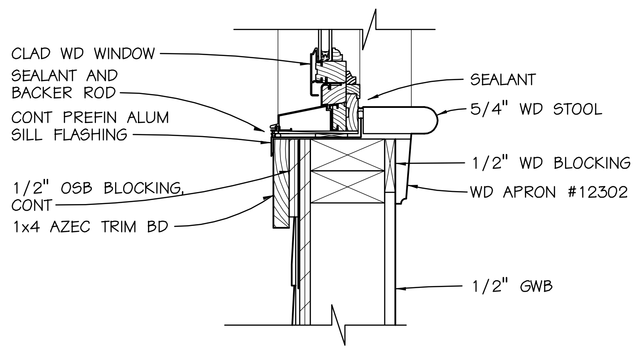

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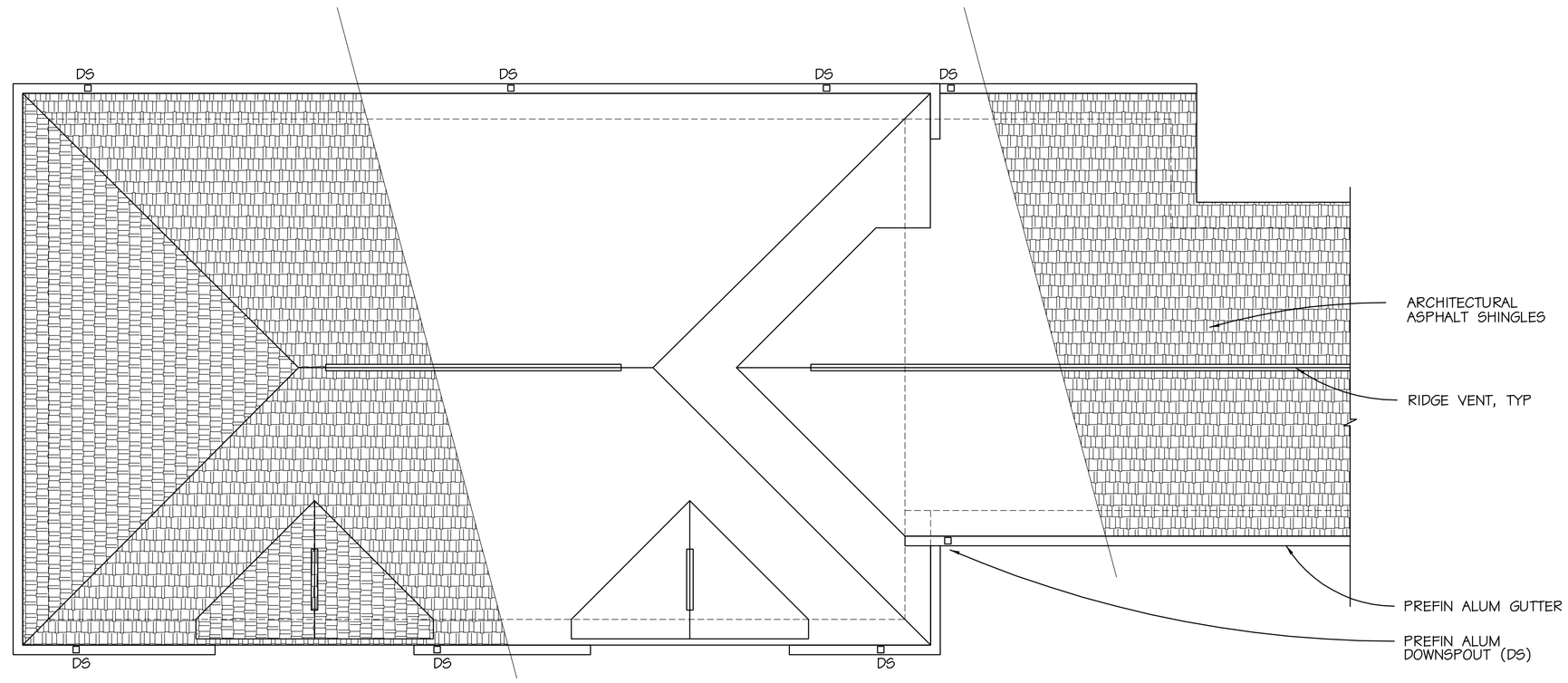


692 SF

SECOND FLOOR PLAN

1/4" = 1'-0"

ATTIC VENTILATION: 1 SF PER 150 SF
PROVIDE AIRVENT SOFFIT VENT AT 9 SI / LF FREE AREA
PROVIDE AIRVENT RIDGE VENT AT 18 SI / LF FREE AREA

GARAGE ROOF
1240 SF DIVIDE BY 150 SF = 8.26 SF = 1190 SI REQUIRED
SOFFIT VENT 94 LF x 9 SI / LF = 846 SI
RIDGE VENT 24 LF x 18 SI / LF = 432 SI
TOTAL VENTILATION = 1278 SI PROVIDED

GRAPHIC SCALES
1/4"=1'-0"
0 2' 4' 8' 12'

COMMONWEALTH OF VIRGINIA
SALVATORE R. LEMOLE
Lic No. 011792
04-25-22
ARCHITECT

PROJ MGR	SRL	DESIGNED	SRL	DRAWN	SRL	CHECKED	SRL

SYMBOL	REVISION	DATE

PROJECT NO 21081
DATE 25 APR 2022

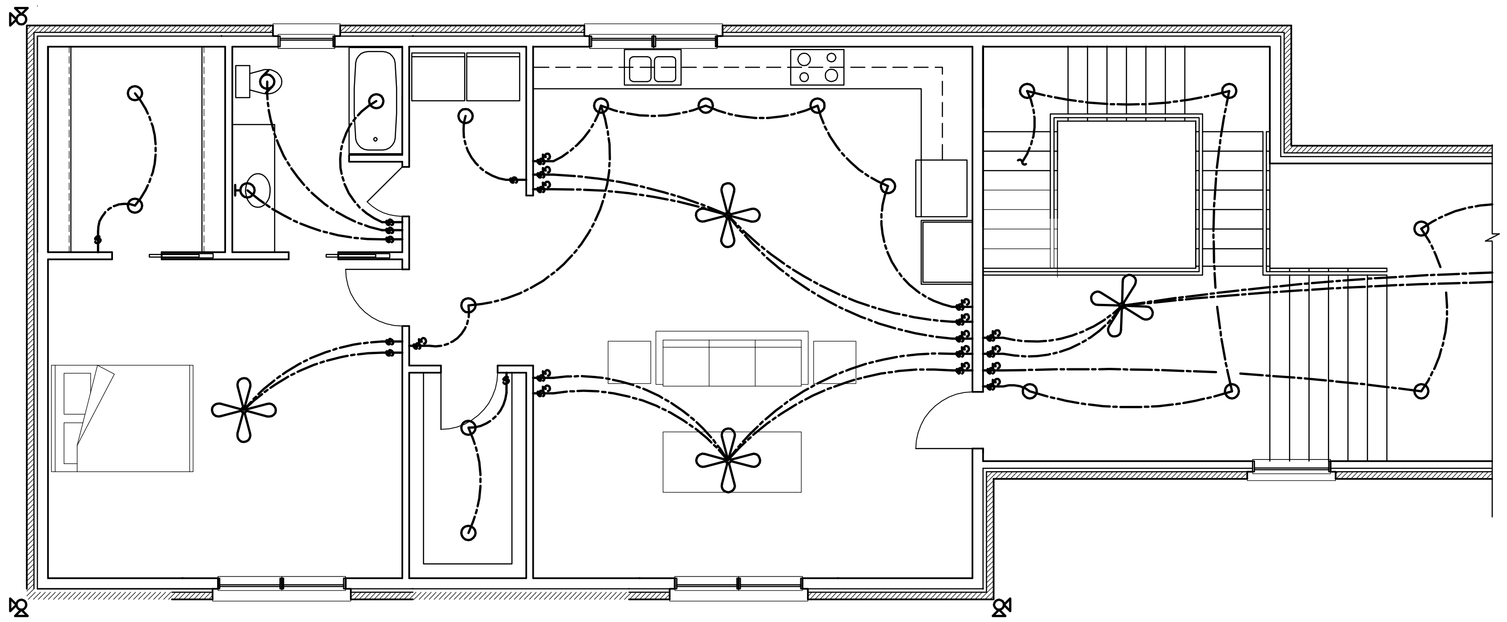
THE JONES RESIDENCE

LOT B-1 / HEAD RIVER RD
VIRGINIA BEACH, VIRGINIA

SHEET TITLE
GARGE #2 ROOF PLAN / TYPICAL WINDOW DETAILS

LEMOLE ARCHITECTS
2669 PRODUCTION
SUITE 102
VIRGINIA BEACH, VIRGINIA 23454
757-228-2620
SRLEMOLE@GMAIL.COM

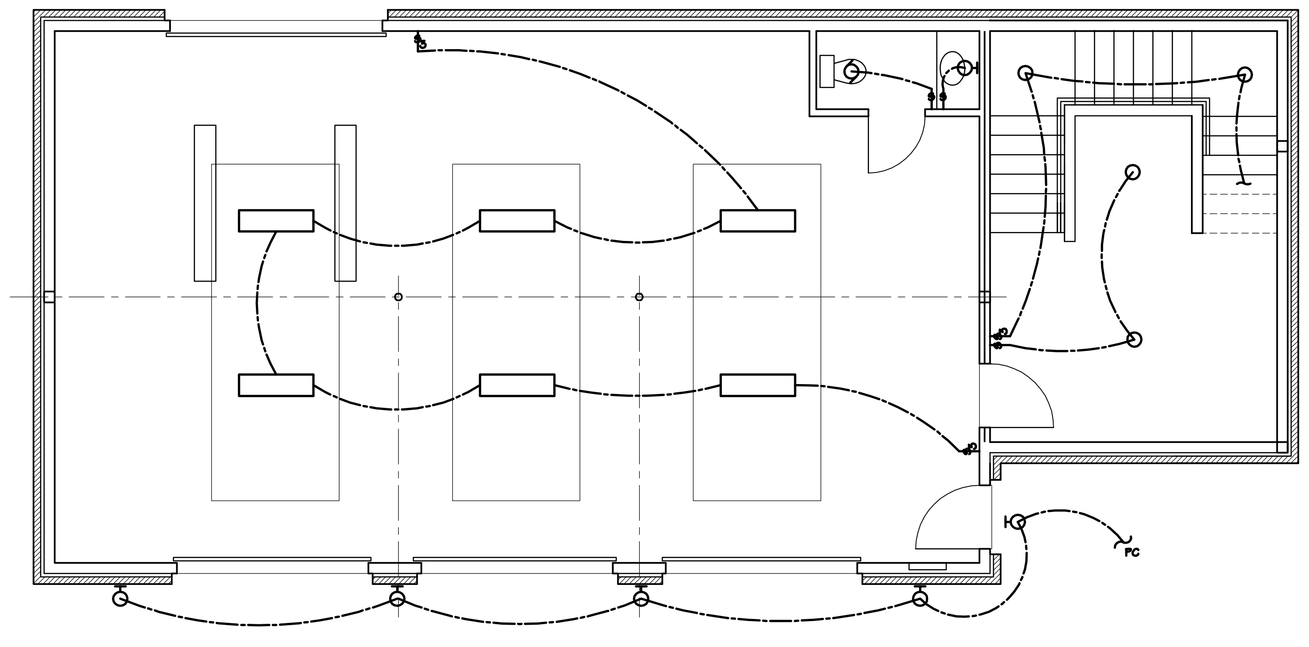
SHEET NUMBER
A-10.2
XX OF XX



SECOND FLOOR REFLECTED CEILING PLAN
1/4" = 1'-0"

CEILING PLAN LEGEND

- WALL SCONCE FIXTURE
- RECESSED FIXTURE
- SURFACE MOUNT FIXTURE
- CHANDELIER
- WALL MOUNT LANTERN
- PENDANT MOUNT FIXTURE
- KEYLESS PORCELAIN FIXTURE
- SWITCH
- THREE WAY SWITCH
- SWITCHED PHOTOCELL
- EXHAUST FAN WITH LIGHT
- PADDLE FAN WITH LIGHT KIT
- FLOOD LIGHT
- RECESSED DIRECTIONAL FIXTURE
- LINEAR LED FIXTURE SURFACE OR PENDANT MOUNT
- WALL MOUNT CAMERA



FIRST FLOOR REFLECTED CEILING PLAN
1/4" = 1'-0"

GRAPHIC SCALES
1/4"=1'-0" 0 2' 4' 8' 12'

COMMONWEALTH OF VIRGINIA
SALVATORE R. LEMOLE
Lic No. 011792
04-25-22
ARCHITECT

	SRL	SRL	SRL	SRL
PROJ MGR	DESIGNED	DRAWN	CHECKED	

DATE

REVISION

SYMBOL

PROJECT NO 21081

DATE 25 APR 2022

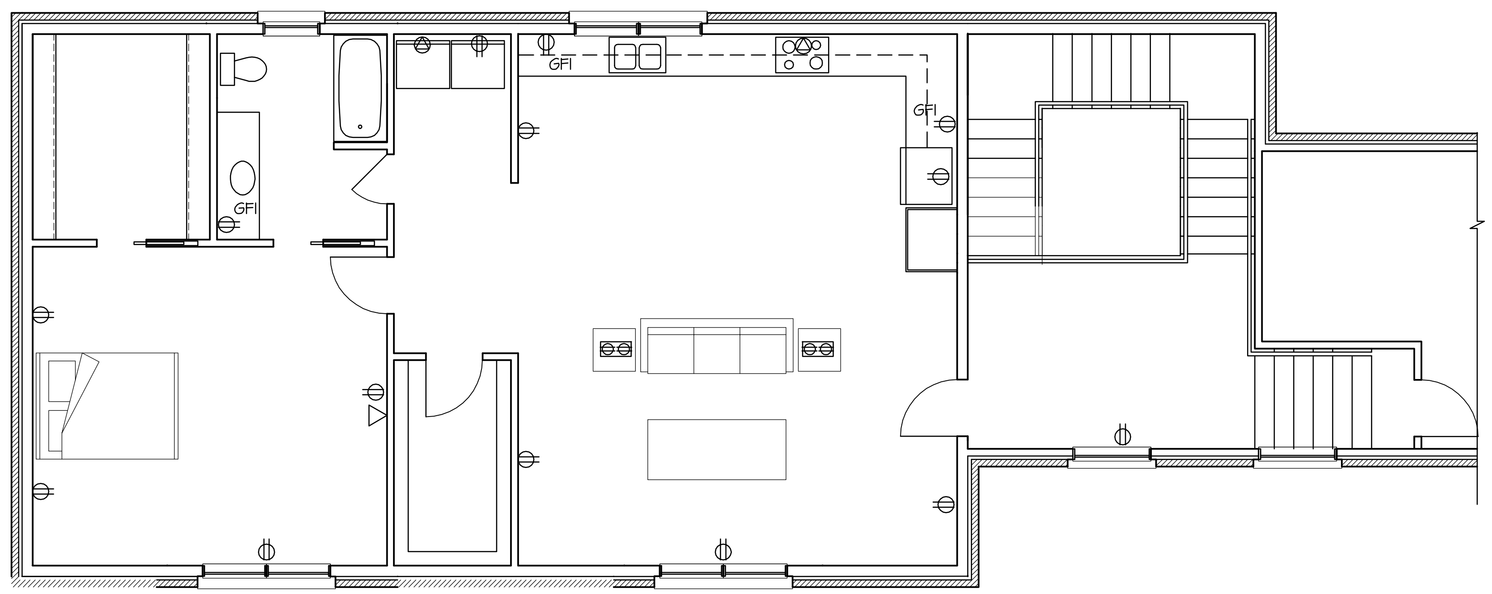
THE JONES RESIDENCE

LOT B-1 / HEAD RIVER RD
VIRGINIA BEACH, VIRGINIA

SHEET TITLE
FIRST AND SECOND FLOOR LIGHTING PLANS

LEMOLE ARCHITECTS
2669 PRODUCTION
SUITE 102
VIRGINIA BEACH, VIRGINIA 23454
757-228-2620
SRLEMOLE@GMAIL.COM

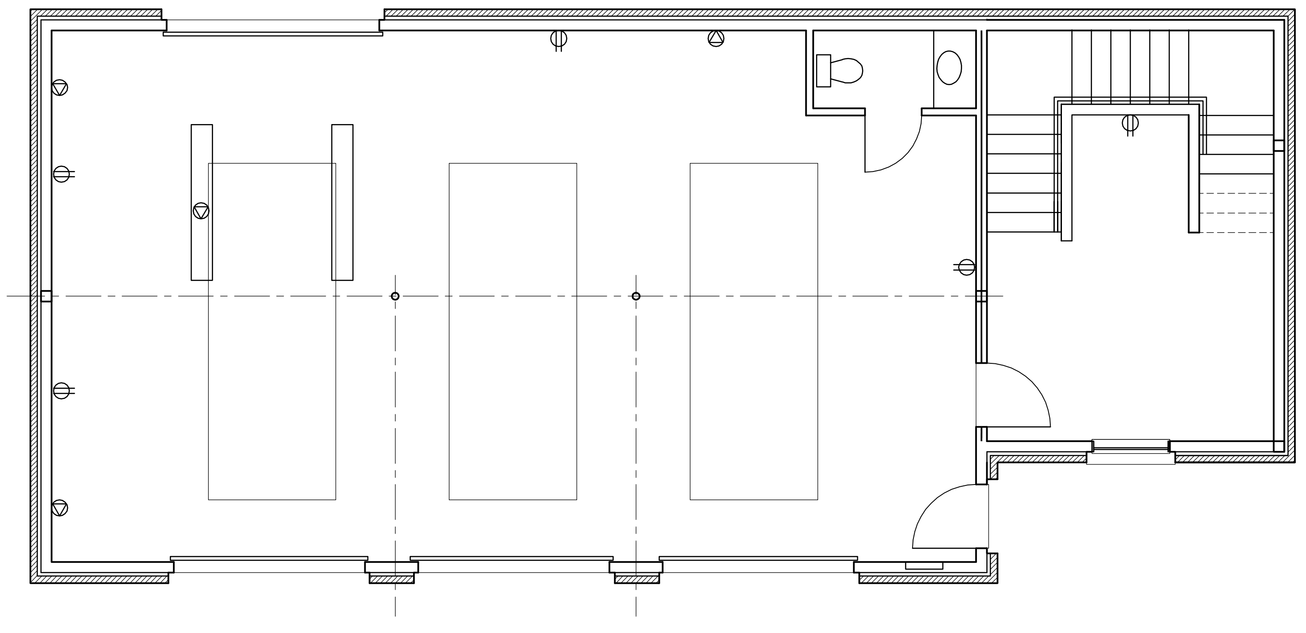
SHEET NUMBER
A-10.3
XX OF XX



SECOND FLOOR ELECTRICAL PLAN
1/4" = 1'-0"

ELECTRICAL LEGEND

	STRUCTURED WIRING TELEPHONE / CABLE EACH LOCATION
S	SWITCH
S3	THREE WAY SWITCH
SD	DIMMER SWITCH
	DUPLEX RECEPTACLE
GFI	GROUND FAULT INTERRUPT RECEPTACLE
WP	WEATHER PROOF RECEPTACLE
	SPECIAL POWER OUTLET
S	CEILING MOUNT SPEAKER
	DUPLEX RECEPTACLE



FIRST FLOOR ELECTRICAL PLAN
1/4" = 1'-0"

GRAPHIC SCALES
1/4"=1'-0" 0 2' 4' 8' 12'

COMMONWEALTH OF VIRGINIA
SALVATORE R. LEMOLE
Lic No. 011792
04-25-22
ARCHITECT

PROJ MGR	SRL
DESIGNED	SRL
DRAWN	SRL
CHECKED	SRL

DATE
REVISION
SYMBOL

PROJECT NO 21081
DATE 25 APR 2022

THE JONES RESIDENCE

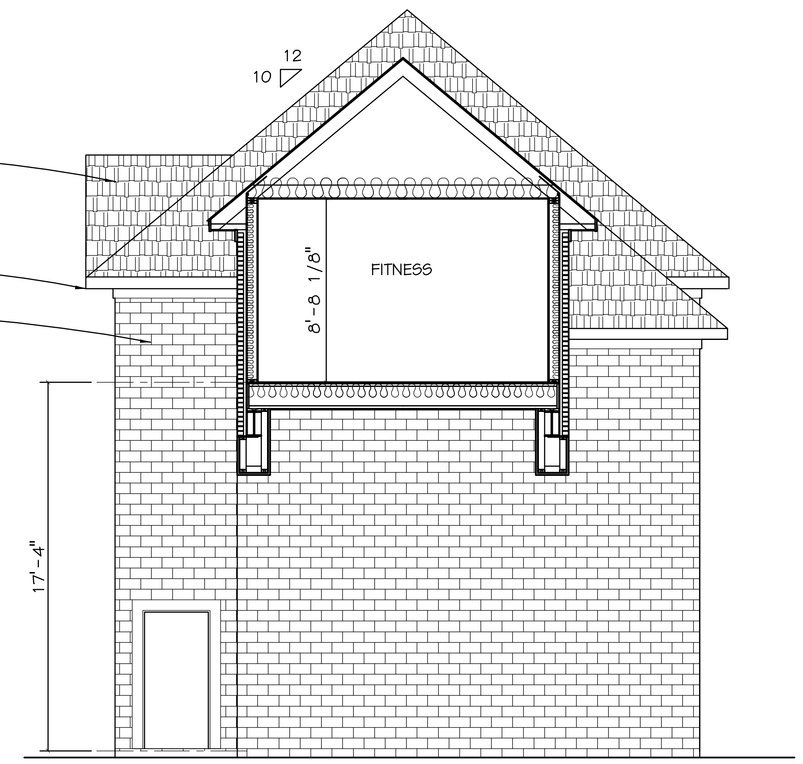
LOT B-1 / HEAD RIVER RD
VIRGINIA BEACH, VIRGINIA

SHEET TITLE
FIRST AND SECOND FLOOR ELECTRICAL PLANS

LEMOLE ARCHITECTS
2669 PRODUCTION
SUITE 102
VIRGINIA BEACH, VIRGINIA 23454
757-228-2620
SRLEMOLE@GMAIL.COM

SHEET NUMBER
A10.4
XX OF XX

A A10.1 A12.1 EXTERIOR ELEVATION
1/4" = 1'-0"



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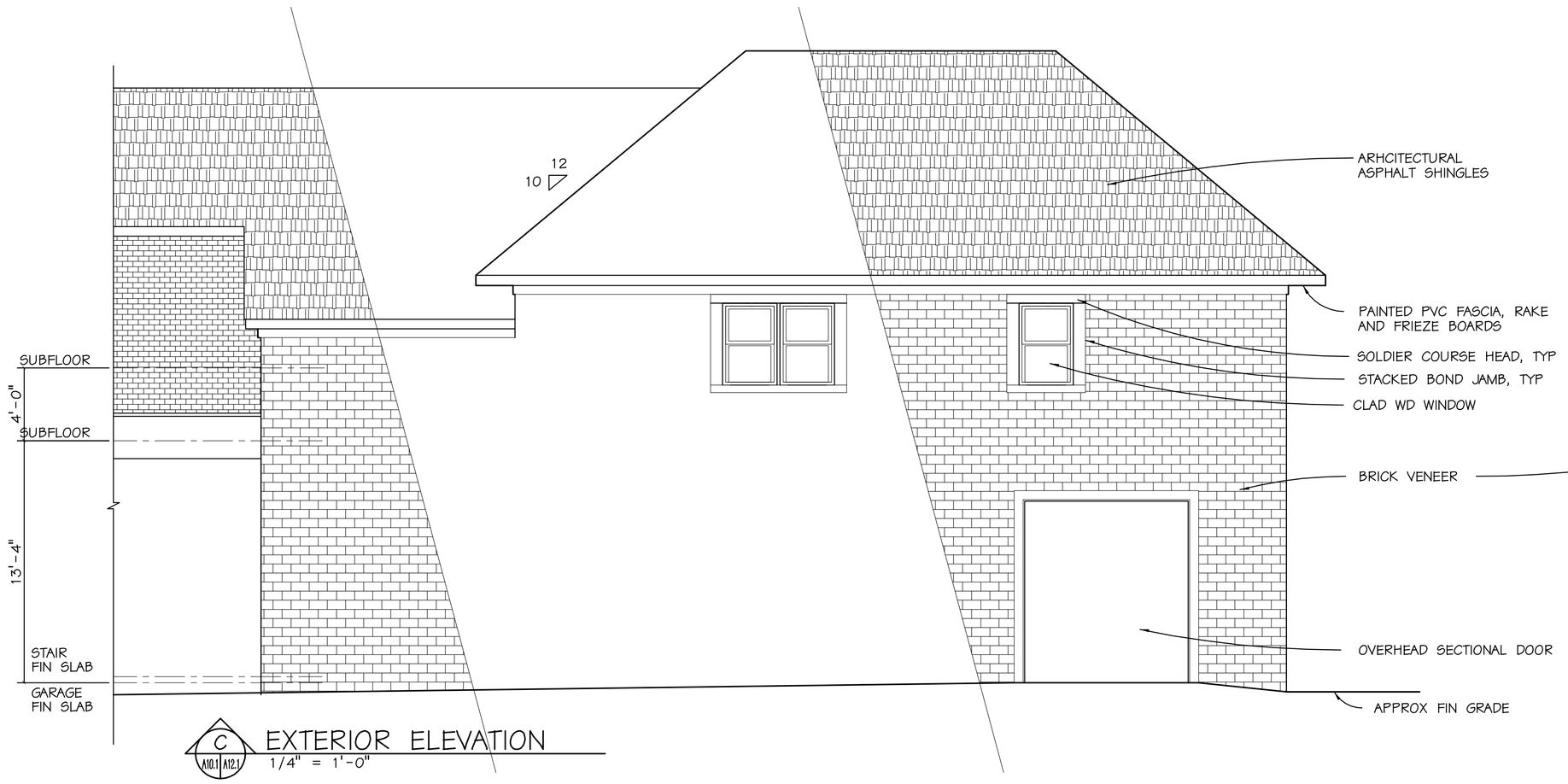
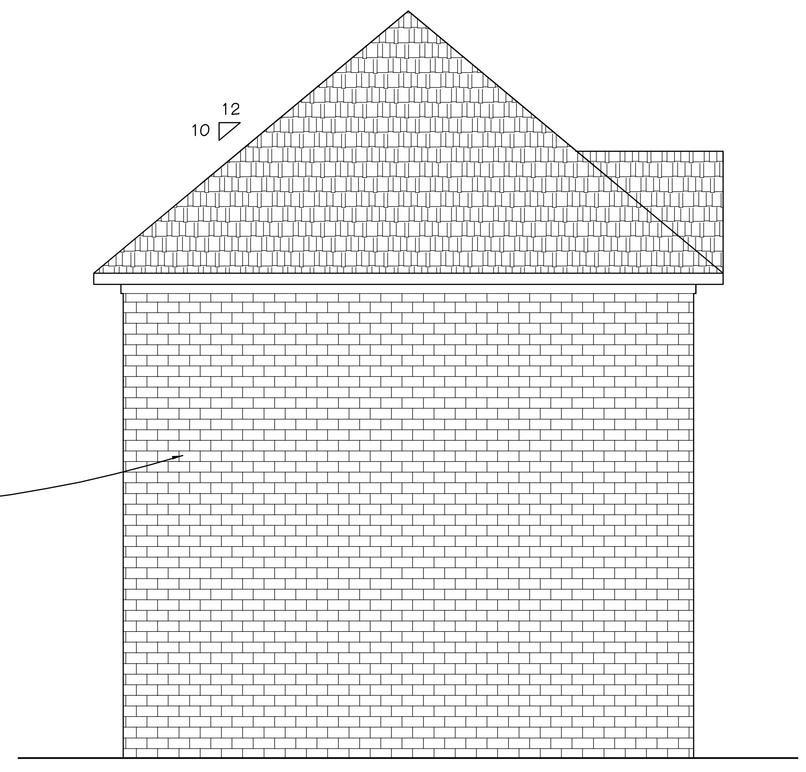
1/4" = 1'-0"



C A10.1 A12.1 EXTERIOR ELEVATION
1/4" = 1'-0"



D A10.1 A12.1 EXTERIOR ELEVATION
1/4" = 1'-0"

GRAPHIC SCALES
1/4"=1'-0" 0 2' 4' 8' 12'

COMMONWEALTH OF VIRGINIA
SALVATORE R. LEMOLE
Lic No. 011792
04-25-22
ARCHITECT

PROJ MGR	SRL			
DESIGNED	SRL			
DRAWN	SRL			
CHECKED	SRL			
DATE				
REVISION				
SYMBOL				

PROJECT NO 21081
DATE 25 APR 2022

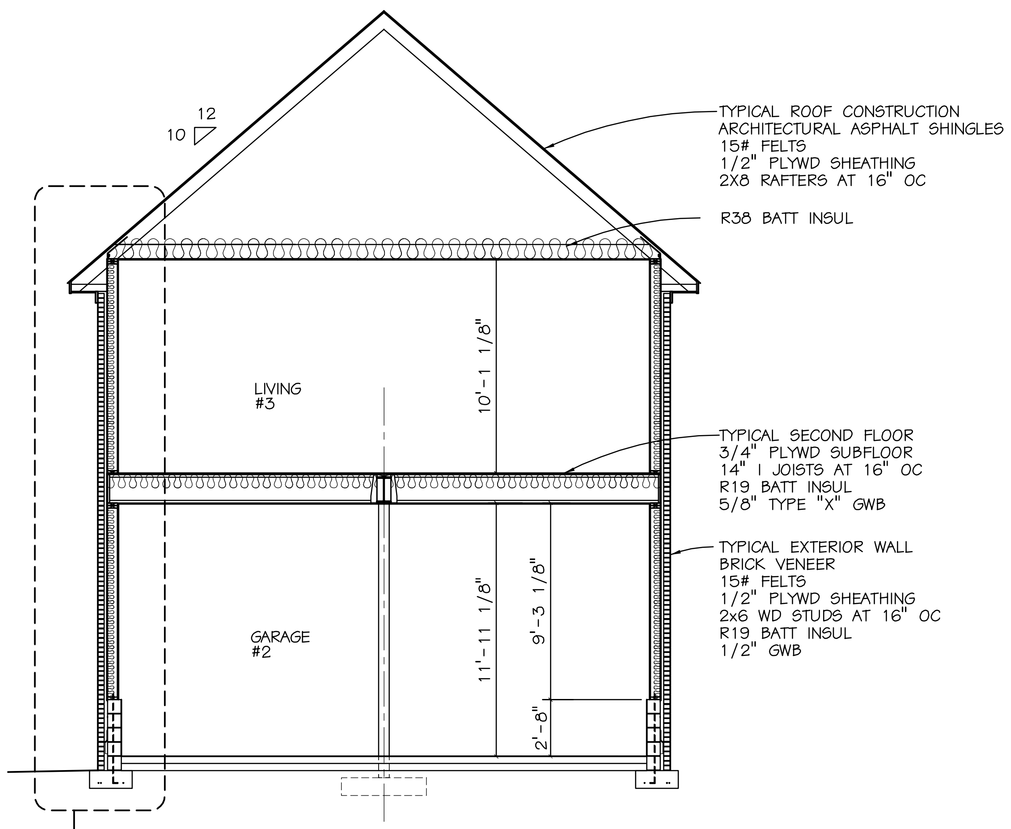
THE JONES RESIDENCE

LOT B-1 / HEAD RIVER RD
VIRGINIA BEACH, VIRGINIA

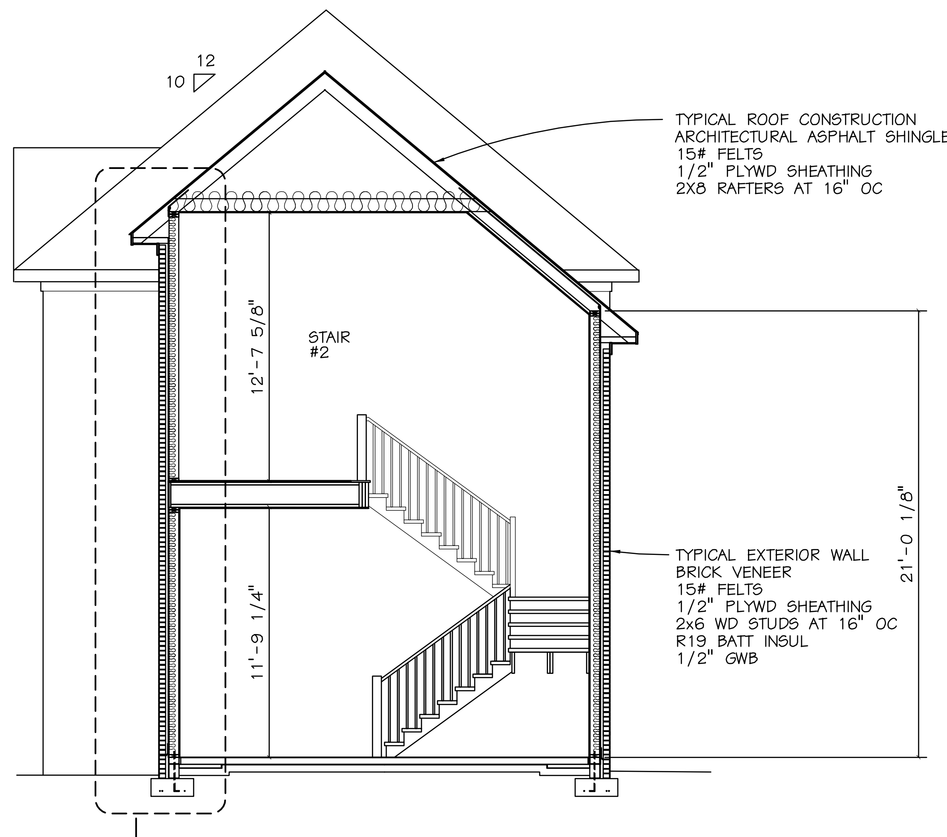
SHEET TITLE
GARAGE #2 EXTERIOR ELEVATIONS / BUILDING SECTION

LEMOLE ARCHITECTS
2669 PRODUCTION
SUITE 102
VIRGINIA BEACH, VIRGINIA 23454
757-228-2620
SRLEMOLE@GMAIL.COM

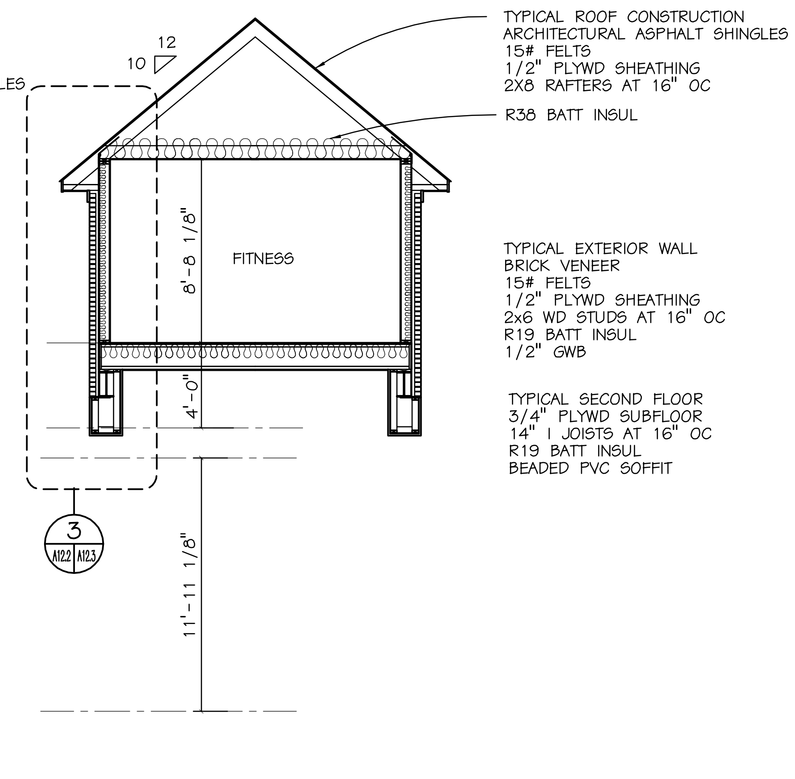
SHEET NUMBER
A-12.1
XX OF XX



1 BUILDING SECTION
1/4" = 1'-0"



2 BUILDING SECTION
1/4" = 1'-0"



3 BUILDING SECTION
1/4" = 1'-0"

GRAPHIC SCALES
1/4"=1'-0"
0 2' 4' 8' 12'

COMMONWEALTH OF VIRGINIA
SALVATORE R. LEMOLE
Lic No. 011792
04-25-22
ARCHITECT

PROJ MGR	DESIGNED	DRAWN	CHECKED
SRL	SRL	SRL	SRL

DATE	REVISION	SYMBOL

PROJECT NO 21081
DATE 25 APR 2022

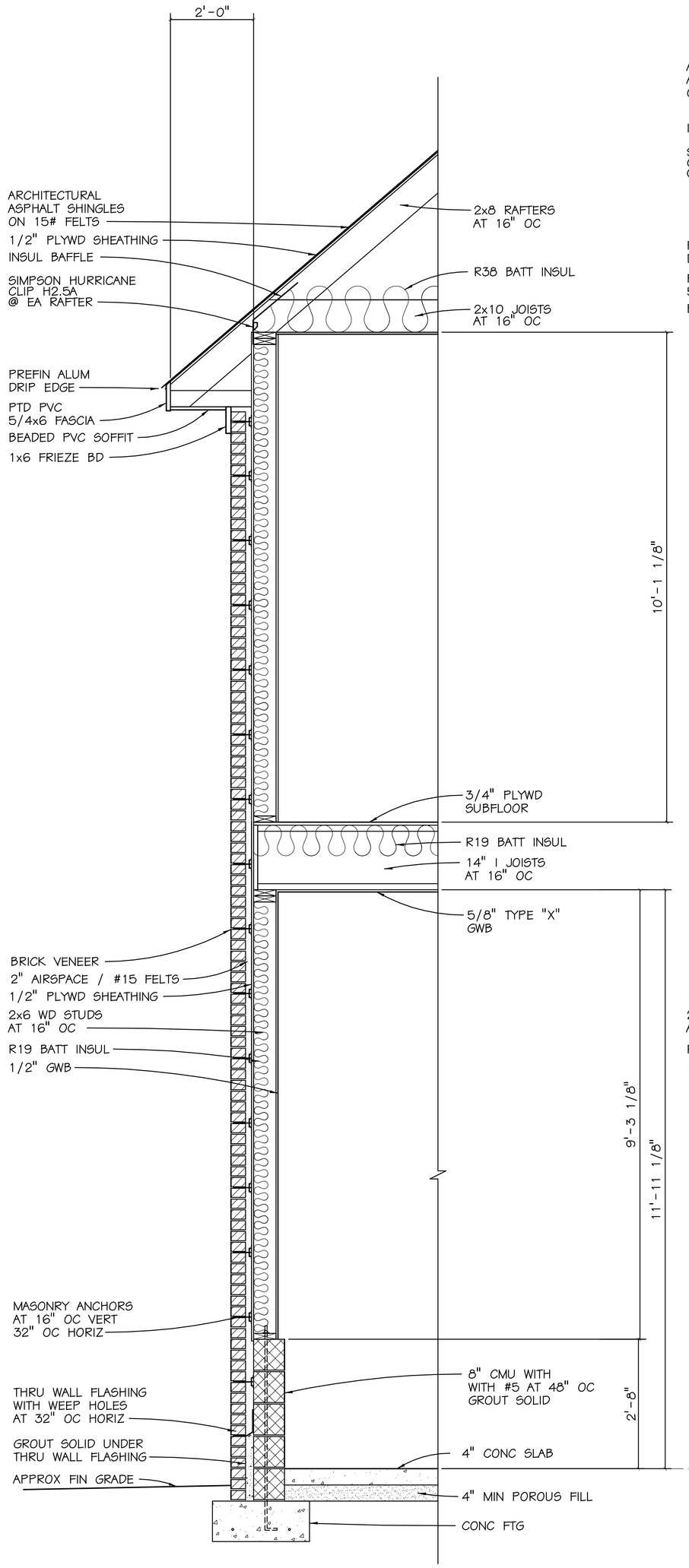
THE JONES RESIDENCE

LOT B-1 / HEAD RIVER RD
VIRGINIA BEACH, VIRGINIA

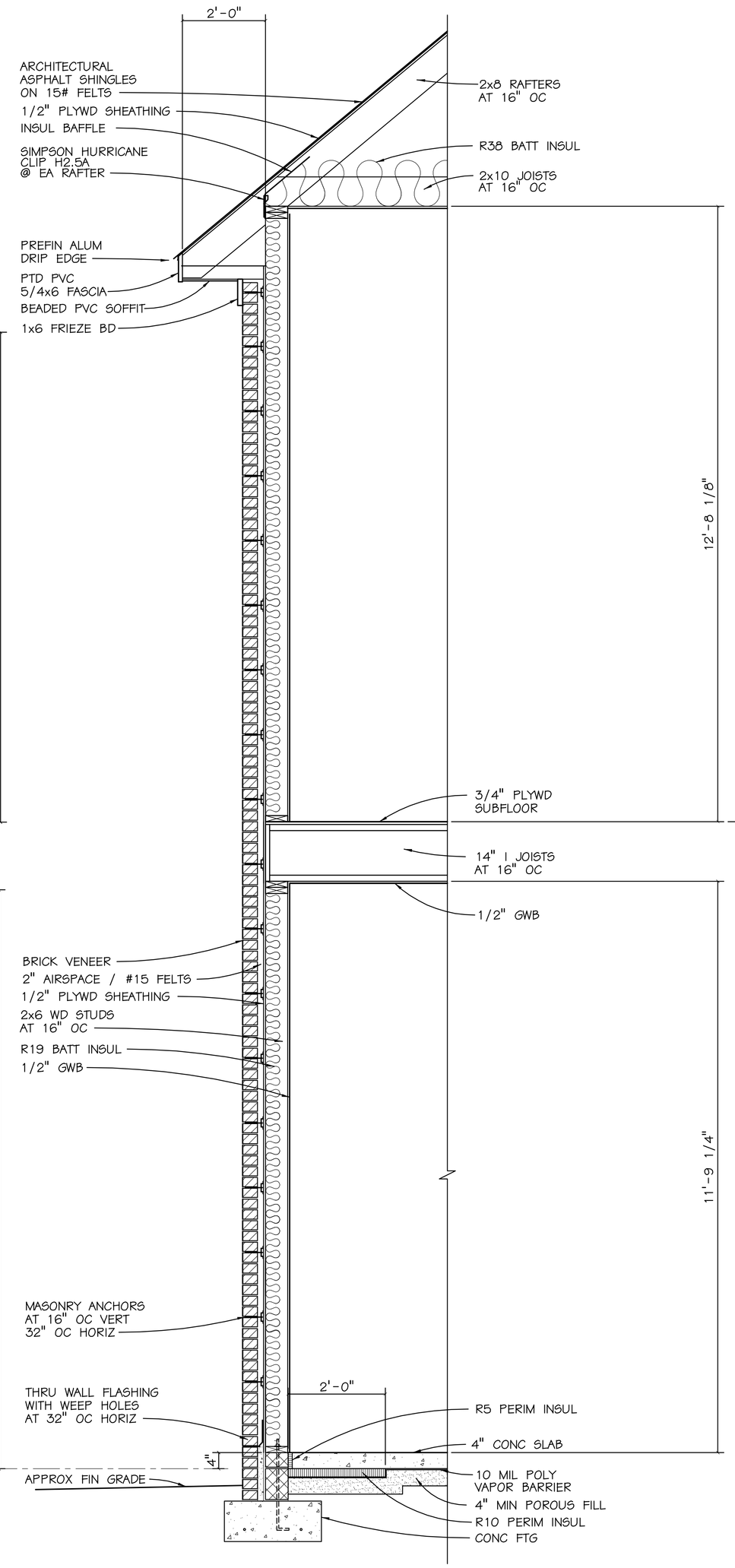
SHEET TITLE
GARAGE #2 BUILDING SECTIONS

LEMOLE ARCHITECTS
2669 PRODUCTION
SUITE 102
VIRGINIA BEACH, VIRGINIA 23454
757-228-2620
SRLEMOLE@GMAIL.COM

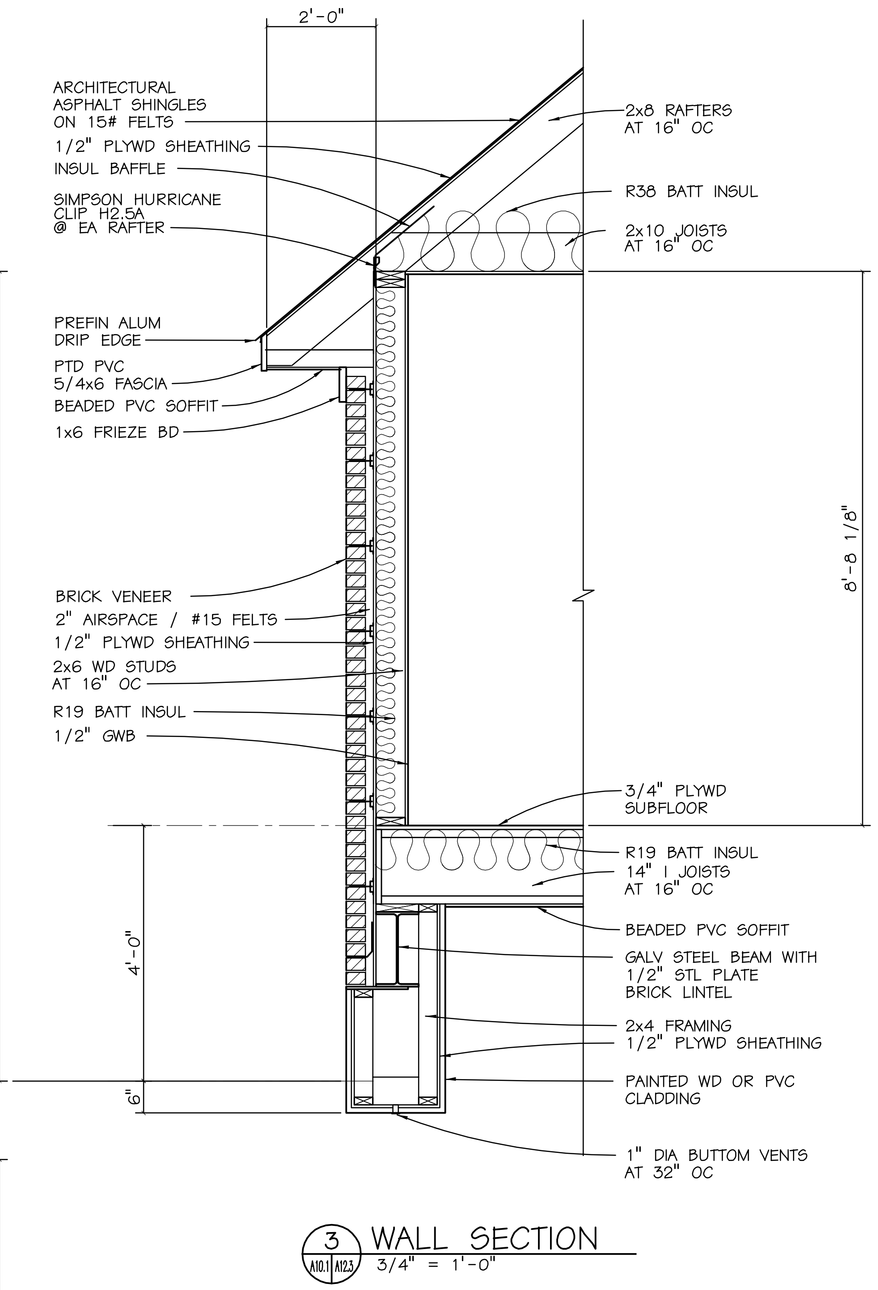
SHEET NUMBER
A-12.2
XX OF XX



1 WALL SECTION
A10.1 A12.3 3/4" = 1'-0"



2 WALL SECTION
A10.1 A12.3 3/4" = 1'-0"



3 WALL SECTION
A10.1 A12.3 3/4" = 1'-0"

GRAPHIC SCALES
3/4"=1'-0" 0 6" 1' 2' 3' 4'

SALVATORE R. LEMOLE
Lic No. 011792
04-25-22
ARCHITECT
COMMONWEALTH OF VIRGINIA

PROJ MGR SRL
DESIGNED SRL
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DATE
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SYMBOL

PROJECT NO 2108I
DATE 25 APR 2022

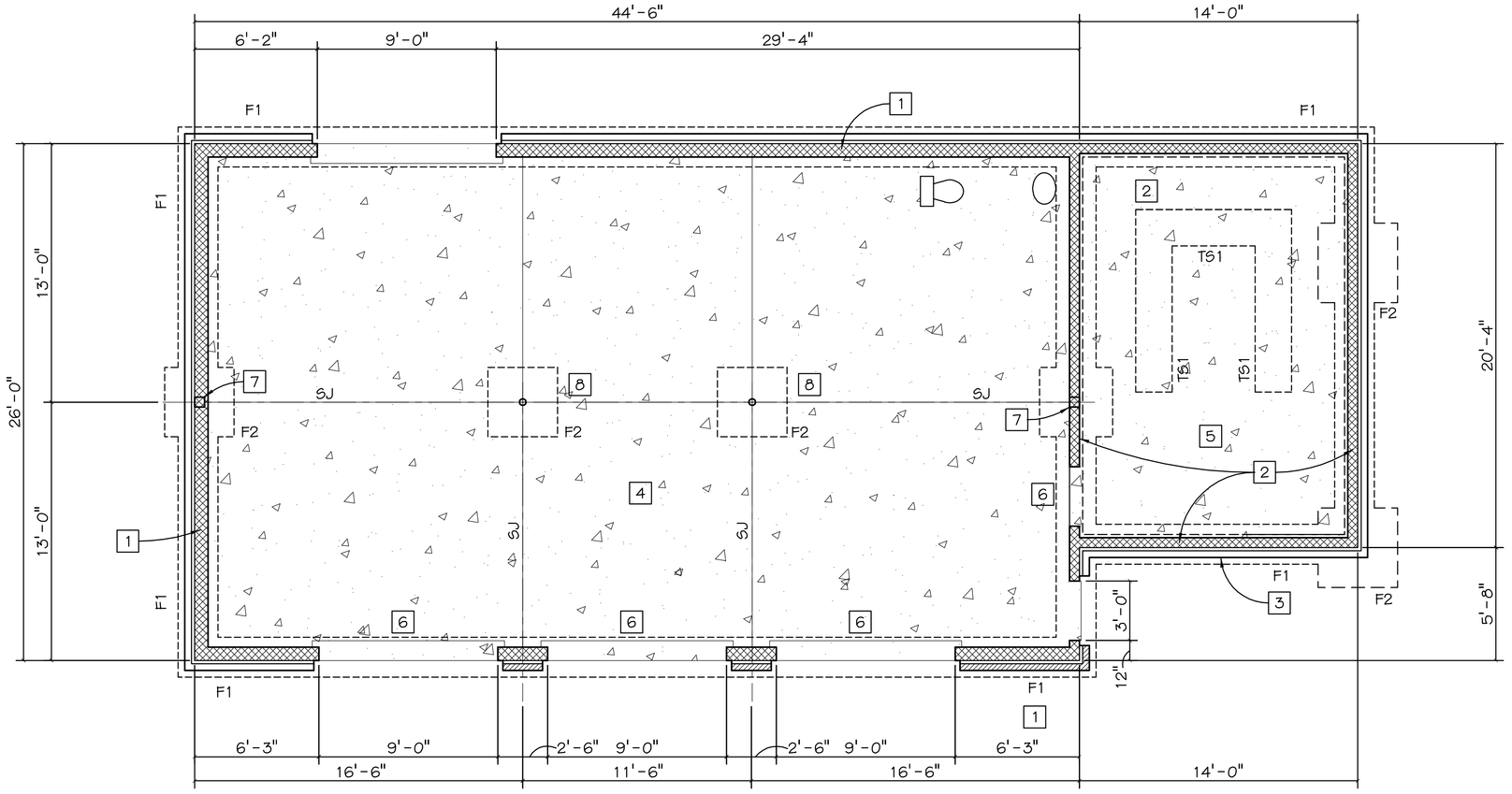
THE JONES RESIDENCE

LOT B-1 / HEAD RIVER RD
VIRGINIA BEACH, VIRGINIA

SHEET TITLE
GARAGE #2 WALL SECTIONS

LEMOLE ARCHITECTS
2669 PRODUCTION SUITE 102
VIRGINIA BEACH, VIRGINIA 23454
757-228-2620
SRLEMOLE@GMAIL.COM

SHEET NUMBER
A-12.3
XX OF XX



FOUNDATION PLAN
1/4" = 1'-0"

NOTES THIS SHEET

1. 8" CMU WITH 1#5 AT 48" OC, GROUT SOLID
2. 6"CMU WITH 1#5 AT 48" OC, GROUT SOLID
3. BRICK VENEER
4. 4" STEEL TROWEL CONC SLAB ON 4" POROUS FILL ON CONTROL FILL
5. 4" STEEEL TROWEL CONC SLAB ON 10 MIL POLY VAPOR BARRIER ON 4" MIN POROUS FILL
6. TURN DN SLAB 8" AT OPENINGS
7. GROUT CMU SOLID UNDER NOTED POINT LOAD
8. 6" DIA STL PIPE COLUMN WTIH 12x12x3/4" STL BASE PLATE WITH (4)5/8"x6" ANCHOR BOLTS

FOOTING SCHEDULE

MARK	SIZE	REINF
F1	20"x10"x CONT	2#5 CONT
F2	48"x48"x10"	
TS1	20"x10"x CONT	

FOUNDATION GENERAL NOTES

1. ALL FOOTINGS SHALL BEAR ON SUITABLE UNDISTURBED SOIL OR COMPACTED FILL WITH A MINIMUM BEARING CAPACITY OF 1,500 PSI
2. FOOTING SHALL EXTEND A MINIMUM OF 12" INTO UNDISTURBED SOIL OR COMPACTED FILL. ALL BOTTOMS OF FOOTING ELEVATIONS SHALL BE A MINIMUM OF 16" BELOW FINISH GRADE
3. ALL EARTH FORMED FOOTINGS SHALL CONFORM TO THE SHAPES, LINES, AND DIMENSIONS OF THE FOOTING DETAILS AS INDICATED ON THE PLANS AND DETAILS.
4. CONCRETE FOR FOOTINGS SHALL OBTAIN A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI AT 28 DAYS.
5. CONCRETE FOR SLABS SHALL OBTAIN A MINIMUM COMPRESSIVE STRENGTH OF 3,500 PSI AT 28 DAYS
6. CONTROLLED FILL PLACED UNDER SLABS AND FOOTINGS SHALL BE PLACED IN MAXIMUM LOOSE 8" LIFTS AND COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D-1557
7. CONCRETE FLOOR SLABS SHALL CONSIST OF A 4" CONCRETE SLAB ON A 10 MIL POLY VAPOR BARRIER WITH JOINTS LAPPED NOT LESS THAN 6" ON MINIMUM 4" COMPACTED POROUS FILL. SLAB SHALL BE REINFORCED WITH 6xx6 W2.0xW2.0 WWF CENTERED IN THE SLAB. LAP SHEETS 6" MIN
8. POROUS FILL MATERIAL SHALL BE SELECT SANDY MATERIAL FREE FROM ALL ORGANIC OR OTHER DELETERIOUS MATERIAL NOT MORE THAN 30% BY WEIGHT PASSING A NO. 2 SIEVE
9. PROVIDE TERMITE TREATMENT UNDER ALL CONCRETE SLABS
10. PROVIDE #5 REENTRANT STEEL @ EACH OPENING

GRAPHIC SCALES
1/4"=1'-0" 0 2' 4' 8' 12'

COMMONWEALTH OF VIRGINIA
SALVATORE R. LEMOLE
Lic No. 011792
04-25-22
ARCHITECT

PROJ MGR SRL
DESIGNED SRL
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PROJECT NO 21081
DATE 25 APR 2022

THE JONES RESIDENCE
LOT B-1 / HEAD RIVER RD
VIRGINIA BEACH, VIRGINIA

SHEET TITLE
GARAGE #2 FOUNDATION PLAN

LEMOLE ARCHITECTS
2669 PRODUCTION
SUITE 102
VIRGINIA BEACH, VIRGINIA 23454
757-228-2620
SRLEMOLE@GMAIL.COM

SHEET NUMBER
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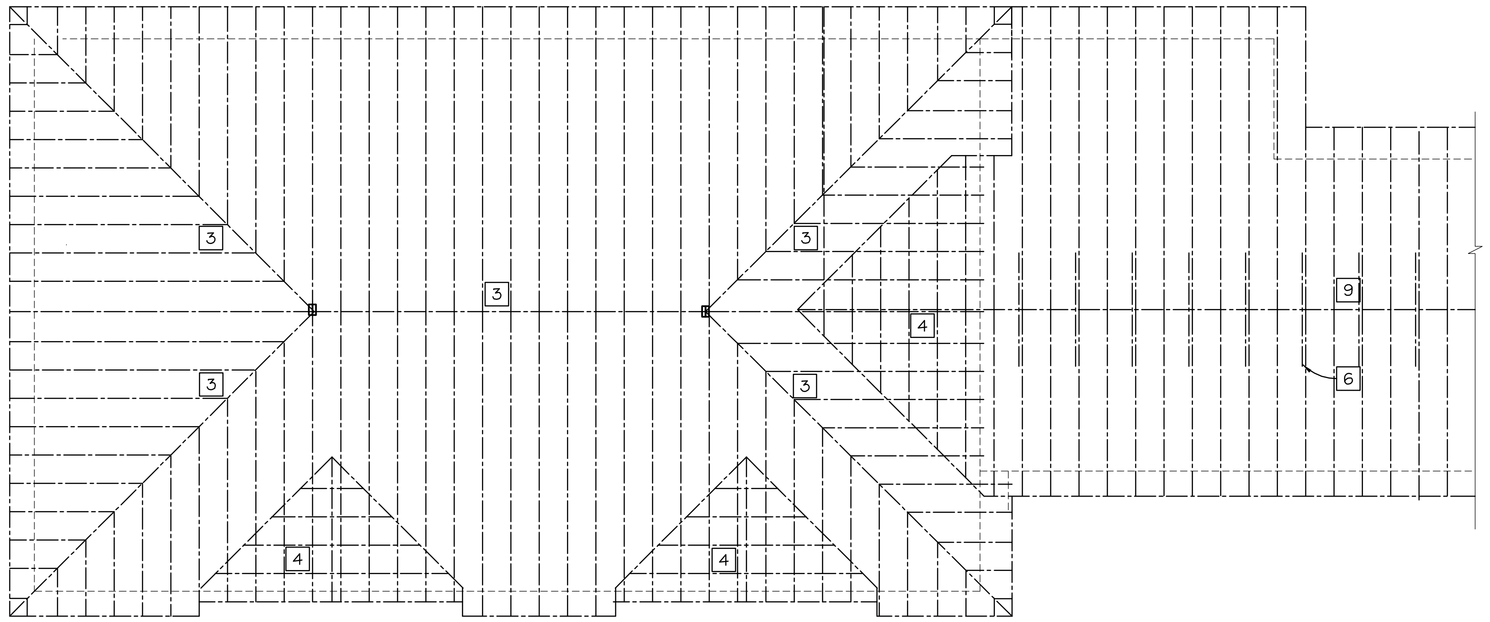
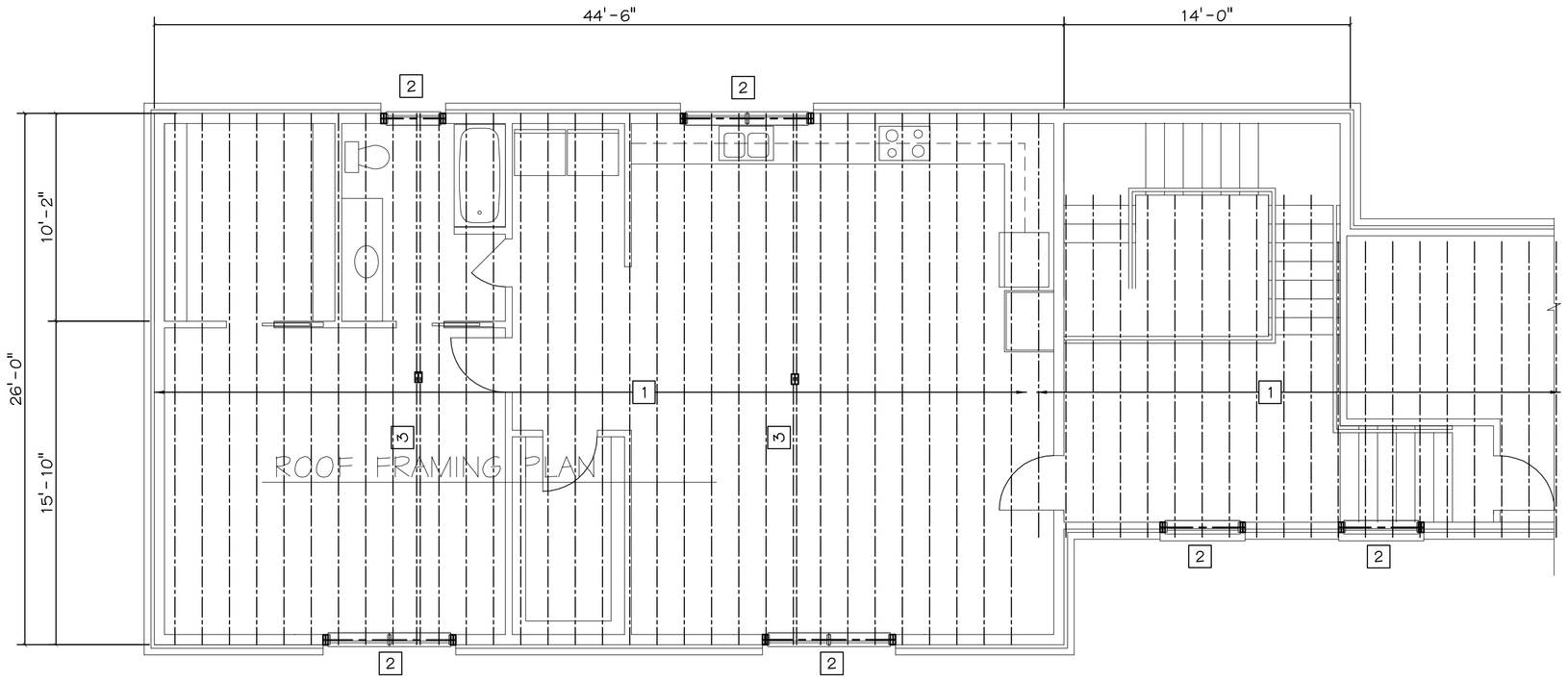


ROOF FRAMING PLAN
1/4" = 1'-0"

ROOF FRAMING NOTES

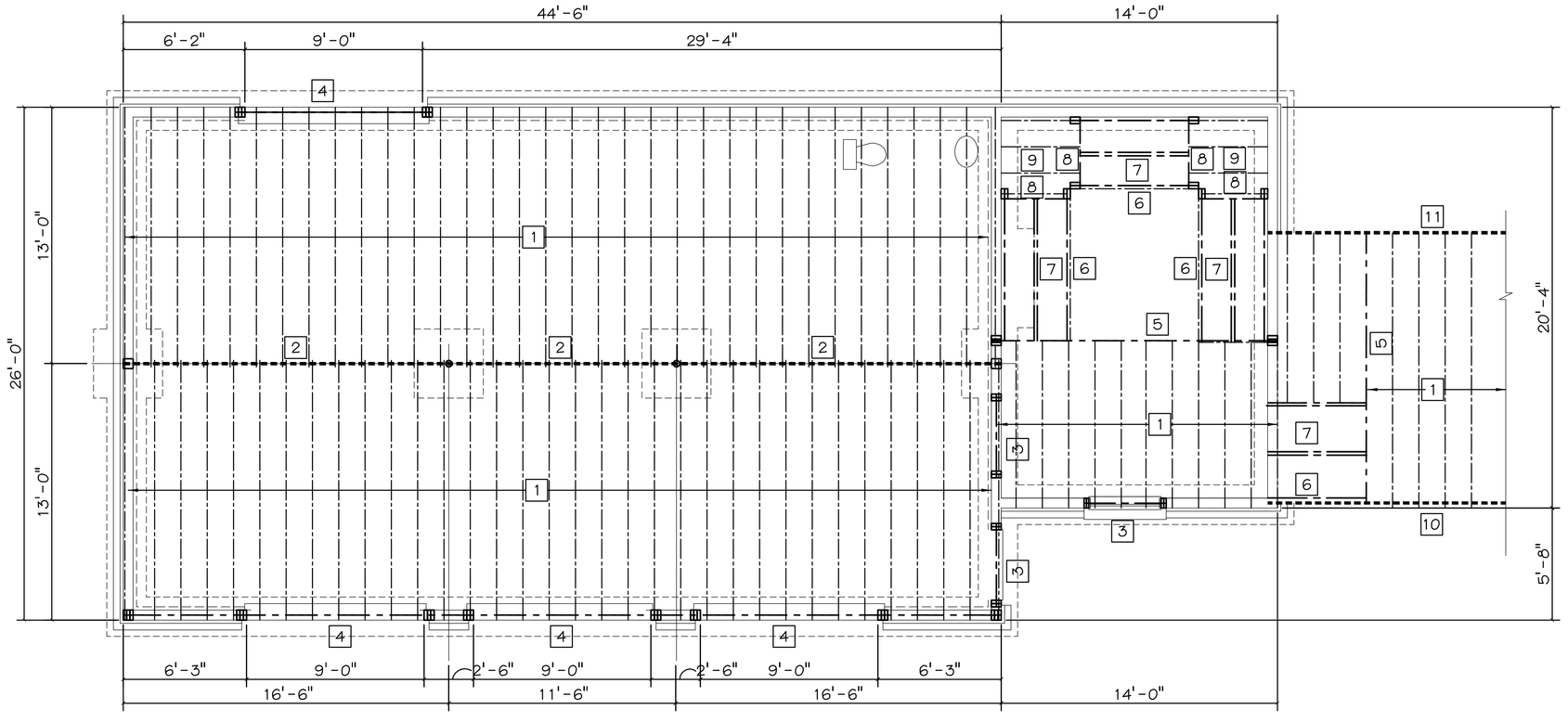
1. 2x8 RAFTERS AT 16" OC
2. 2X12 RIDGE BEAM
3. 1 3/4 x 14 LVL RIDGE BEAM
4. 2x8 OVERFRAMING AT 16" OC
5. (2)2x4 KING POST
6. 2x6 COLLAR TIES AT 32" OC
7. 2x8 OVERFRAMING
8. LINE OF ATTIC KNEEWALL
9. 2X12 SPACER BEAM



SECOND FLOOR CEILING FRAMING PLAN
1/4" = 1'-0"

NOTES THIS SHEET

1. 2x10 CEILING JOISTS AT 16" OC
2. (3)2x12 HEADER WITH 2-2x6 GANG STUD EACH END
3. (3)1 3/4x14 LVL



SECOND FLOOR FRAMING PLAN
1/4" = 1'-0"

FLOOR FRAMING NOTES

1. 14" I JOISTS AT 16" OC
2. BM2: W12 x 40 STEEL BEAM, FLUSH
3. (3)2x12 HEADER WITH 2-2x6 GANG STUD EACH END
4. (3) 1 3/4 X 12 LVL
5. (3) 1 3/4 X 14 LVL
6. 2x12 CARRIAGE
7. (2)2x12 STRINGER
8. (2)2x12 BEAM
9. 2x8 JOISTS AT 16" OC
10. BM3: W16 x 68 STEEL BEAM
11. BM4: W16 x 68 STEEL BEAM

GRAPHIC SCALES
1/4"=1'-0" 0 2' 4' 8' 12'

COMMONWEALTH OF VIRGINIA
SALVATORE R. LEMOLE
Lic No. 011792
04-25-22
ARCHITECT

	PROJ MGR	DESIGNED	DRAWN	CHECKED
	SRL	SRL	SRL	SRL

DATE	REVISION	SYMBOL

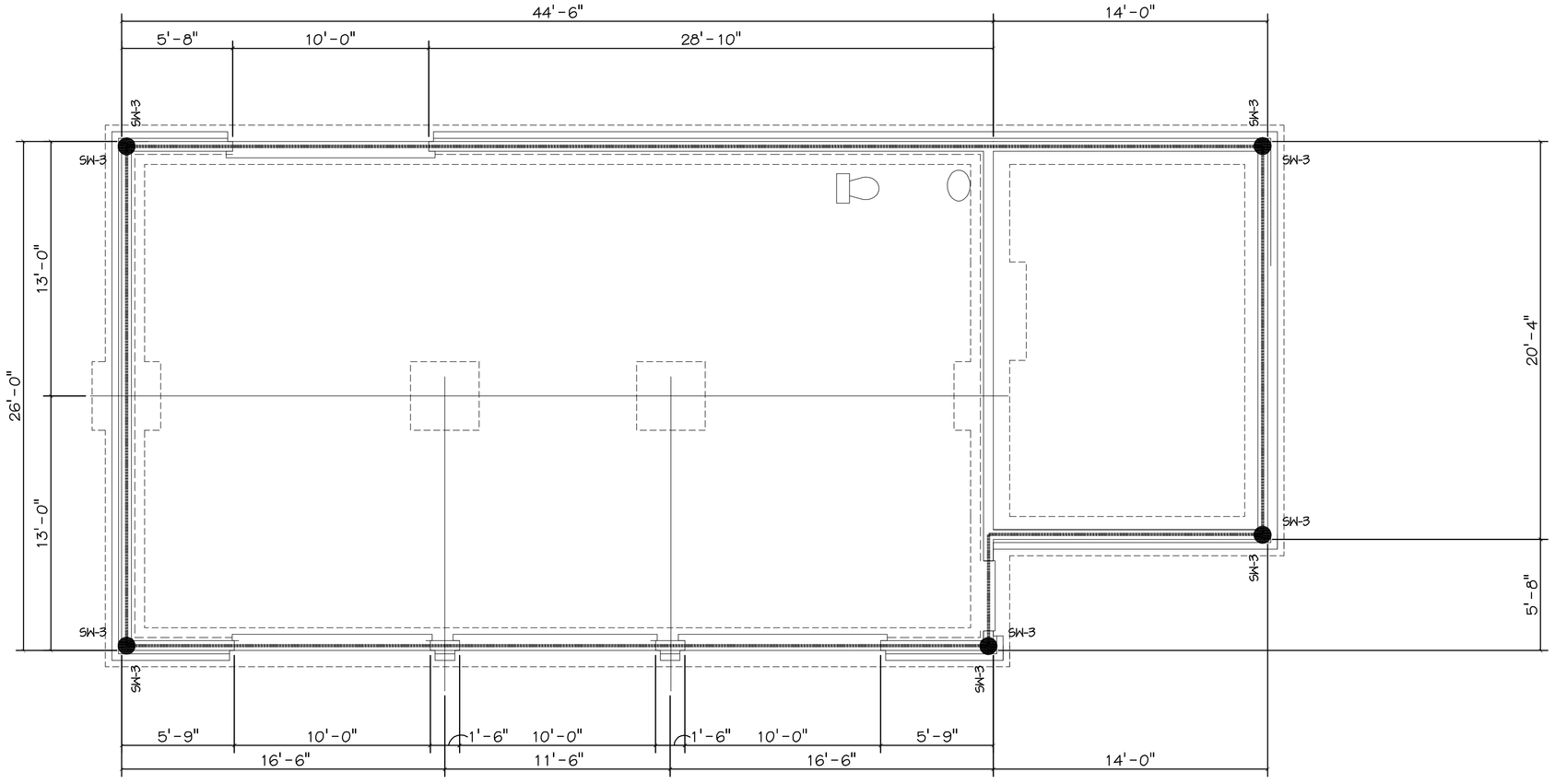
PROJECT NO 21081
DATE 25 APR 2022

THE JONES RESIDENCE
LOT B-1 / HEAD RIVER RD
VIRGINIA BEACH, VIRGINIA

SHEET TITLE
SECOND FLOOR / SECOND FLOOR CEILING AND ROOF PLANS

LEMOLE ARCHITECTS
2669 PRODUCTION
SUITE 102
VIRGINIA BEACH, VIRGINIA 23454
757-228-2620
SRLEMOLE@GMAIL.COM

SHEET NUMBER
F-10.2
XX OF XX



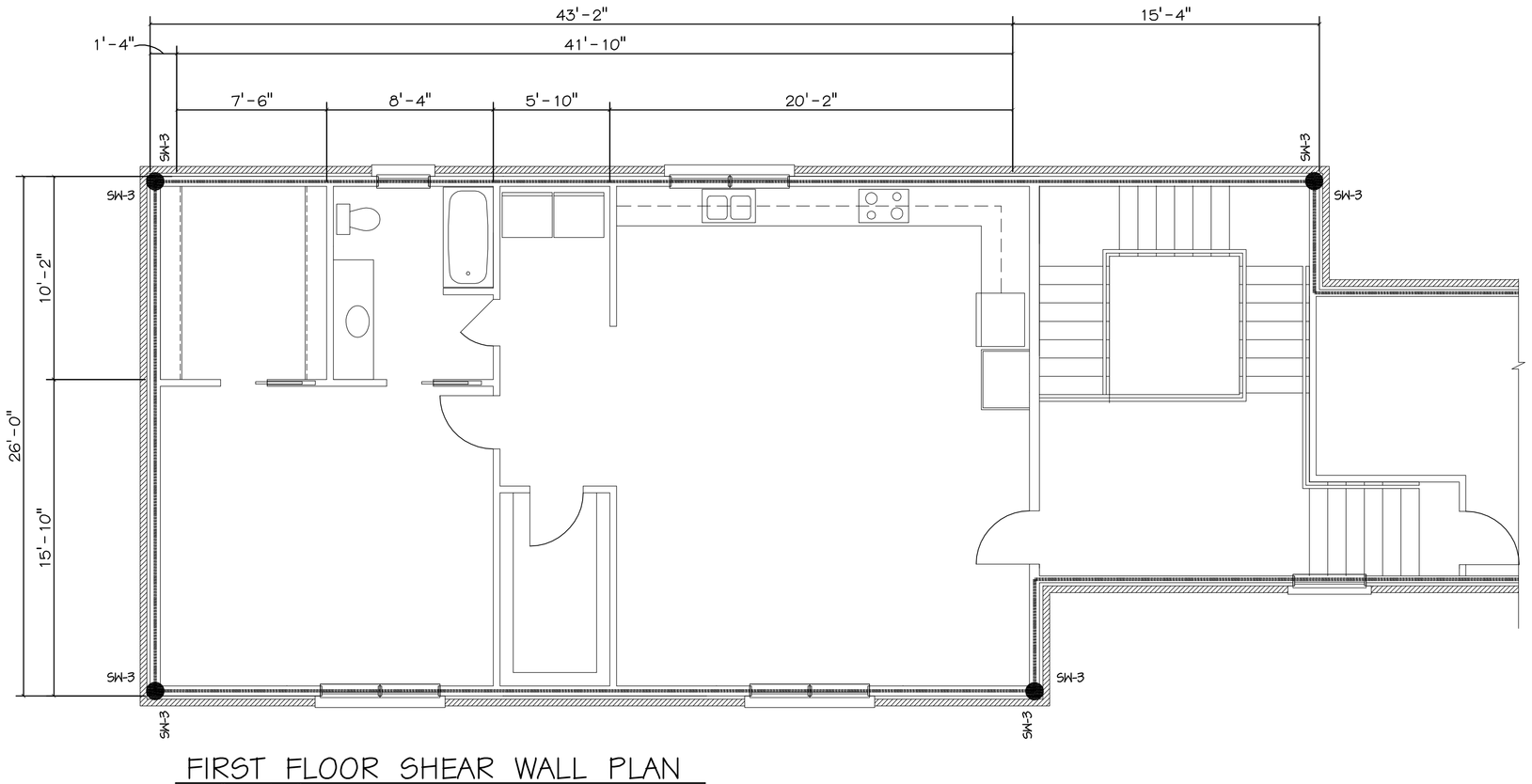
SECOND FLOOR SHEAR WALL PLAN

1/4" = 1'-0"

SHEARWALL SCHEDULE								
MARK	SHEATHING PANEL TYPE(S)	BLOCKED PANEL EDGES	FASTENERS AT PANEL EDGES	CHORD STUDS (MINIMUM NUMBER AND SIZE)	HOLD DOWN (SEE NOTES 4 AND 5)		SHEAR ANCHORS		REMARKS
					TYPE	MIN. ANCHOR ROD EMB.	TYPE	MIN. EMB.	
SW-1	7/16" APA RATED SHEATHING	YES	8d AT 4"O.C.	3 - 2x4	HDU5 OR MSTC66	5/8" DIA (7" EMB.)	16d NAILS AT 4"o.c.	1"	CONT.
	—OR— SIMPSON CMSTC-16 STRAP	YES	8d AT 4"O.C.						
SW-2	7/16" APA RATED SHEATHING DS	YES	8d AT 4"O.C.	4 - 2x4	HDU8 OR CMST12	7/8" DIA (10" EMB.)	16d NAILS AT 2"o.c.	1"	CONT.
	—OR— SIMPSON CMSTC-16 STRAP DS	YES	8d AT 4"O.C.						
SW-3	7/16" APA RATED SHEATHING	YES	8d AT 4"O.C.	3 - 2x4	HDU4 OR MSTC52	5/8" DIA (7" EMB.)	16d NAILS AT 8"o.c.		Perforated
SW-4	5/8" GWB, DS	YES	6d AT 7"O.C. COOLER NAILS	2 - 2x4	HDU2 OR MSTC40	5/8" DIA (7" EMB.)	16d NAILS AT 8"o.c.	1"	CONT.
SW-5	5/8" GWB, SS	YES	6d AT 4"O.C. COOLER NAILS	2 - 2x4	HDU2 OR MSTC40	5/8" DIA (7" EMB.)	16d NAILS AT 6"o.c.	1"	CONT.
SW-6	7/16" APA RATED SHEATHING DS	YES	8d AT 4"O.C.	4 - 2x4	HDU5 OR MSTC66	5/8" DIA (7" EMB.)	16d NAILS AT 2"o.c.	1"	Perforated
SW-7	7/16" APA RATED SHEATHING	YES	PORTAL FRAME						

HOLD DOWN OPTIONS						
MARK	TYP. HOLD DOWN	FLAT STRAP	COIL STRAP (INCH REQ.)	STRAP TO BEAM	THREADED ROD	MASONRY STRAP
SW-1	HDU5	MSTC66	CMSTC16 (66")	MSTC66B3	5/8" DIA.	MSTCM60
SW-2	HDU8	MSTC78	CMSTC14 (78")	HST2 *	7/8" DIA.	N/A
SW-3	HDU4	MSTC52	CMSTC16 (52")	MSTC48B3	5/8" DIA.	MSTCM40
SW-4	HDU2	MSTC40	CS14 (40")	MSTC48B3	5/8" DIA.	MSTCM36
SW-5	HDU5	MSTC66	CMSTC16 (66")	MSTC66B3	5/8" DIA.	MSTCM60

* HST2 IS LIMITED USE, ONLY TO BE USED IF SPECIFIED ON PLANS.
NOTE: ADDITIONAL OPTIONS MAYBE AVAILABLE DEPENDING ON LOAD REQUIREMENTS AND FIELD CONDITIONS.



FIRST FLOOR SHEAR WALL PLAN

1/4" = 1'-0"

GRAPHIC SCALES

1/4"=1'-0" 0 2' 4' 8' 12'

COMMONWEALTH OF VIRGINIA
SALVATORE R. LEMOLE
Lic No. 011792
04-25-22
ARCHITECT

PROJ MGR	DESIGNED	DRAWN	CHECKED
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DATE	REVISION	SYMBOL

PROJECT NO 21081

DATE 25 APR 2022

THE JONES RESIDENCE

LOT B-1 / HEAD RIVER RD

VIRGINIA BEACH, VIRGINIA

SHEET TITLE

GARAGE #2 SHEARWALL PLANS

LEMOLE ARCHITECTS
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SUITE, 102
VIRGINIA BEACH, VIRGINIA 23454
757-228-2620
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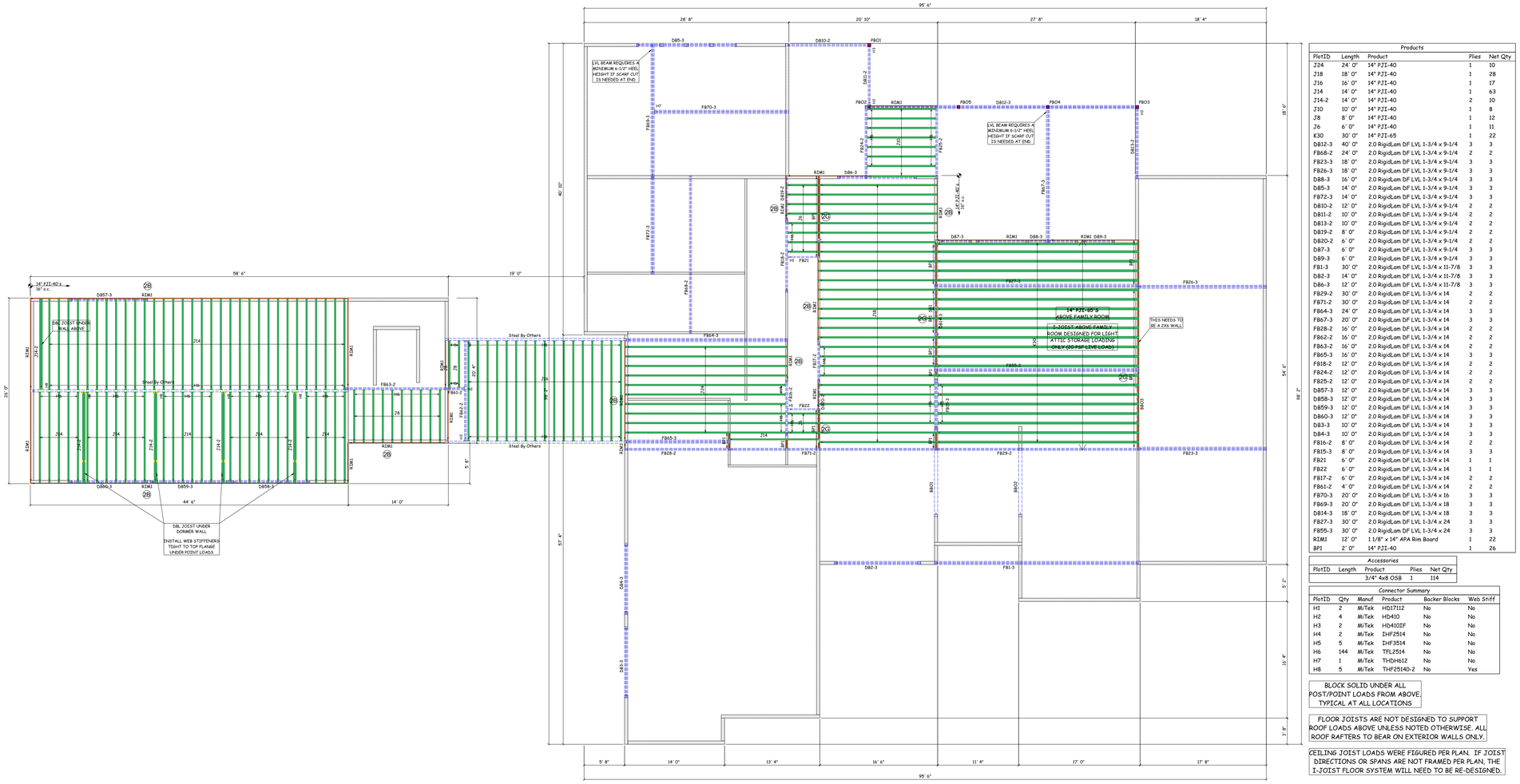
SHEET NUMBER

F-10.3

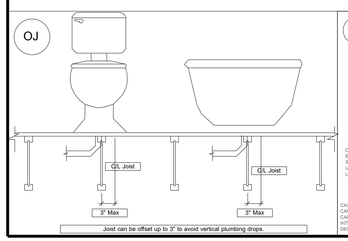
XX OF XX

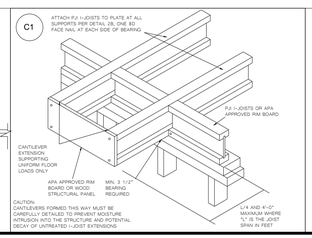


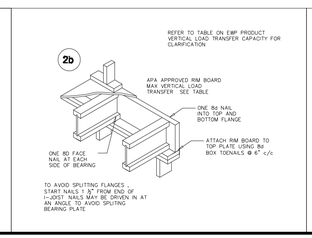
Products				
PlotID	Length	Product	Plies	Net Qty
J24	24' 0"	14" PJI-40	1	10
J18	18' 0"	14" PJI-40	1	28
J16	16' 0"	14" PJI-40	1	17
J14	14' 0"	14" PJI-40	1	63
J14-2	14' 0"	14" PJI-40	2	10
J10	10' 0"	14" PJI-40	1	8
J8	8' 0"	14" PJI-40	1	12
J6	6' 0"	14" PJI-40	1	11
K30	30' 0"	14" PJI-65	1	22
DB12-3	40' 0"	2.0 RigidLam DF LVL 1-3/4 x 9-1/4	3	3
FB68-2	24' 0"	2.0 RigidLam DF LVL 1-3/4 x 9-1/4	2	2
FB23-3	18' 0"	2.0 RigidLam DF LVL 1-3/4 x 9-1/4	3	3
FB26-3	18' 0"	2.0 RigidLam DF LVL 1-3/4 x 9-1/4	3	3
DB8-3	16' 0"	2.0 RigidLam DF LVL 1-3/4 x 9-1/4	3	3
DB5-3	14' 0"	2.0 RigidLam DF LVL 1-3/4 x 9-1/4	3	3
FB72-3	14' 0"	2.0 RigidLam DF LVL 1-3/4 x 9-1/4	3	3
DB10-2	12' 0"	2.0 RigidLam DF LVL 1-3/4 x 9-1/4	2	2
DB11-2	10' 0"	2.0 RigidLam DF LVL 1-3/4 x 9-1/4	2	2
DB13-2	10' 0"	2.0 RigidLam DF LVL 1-3/4 x 9-1/4	2	2
DB19-2	8' 0"	2.0 RigidLam DF LVL 1-3/4 x 9-1/4	2	2
DB20-2	6' 0"	2.0 RigidLam DF LVL 1-3/4 x 9-1/4	2	2
DB7-3	6' 0"	2.0 RigidLam DF LVL 1-3/4 x 9-1/4	3	3
DB9-3	6' 0"	2.0 RigidLam DF LVL 1-3/4 x 9-1/4	3	3
FB1-3	30' 0"	2.0 RigidLam DF LVL 1-3/4 x 11-7/8	3	3
DB2-3	14' 0"	2.0 RigidLam DF LVL 1-3/4 x 11-7/8	3	3
DB6-3	12' 0"	2.0 RigidLam DF LVL 1-3/4 x 11-7/8	3	3
FB29-2	30' 0"	2.0 RigidLam DF LVL 1-3/4 x 14	2	2
FB71-2	30' 0"	2.0 RigidLam DF LVL 1-3/4 x 14	2	2
FB64-3	24' 0"	2.0 RigidLam DF LVL 1-3/4 x 14	3	3
FB67-3	20' 0"	2.0 RigidLam DF LVL 1-3/4 x 14	3	3
FB28-2	16' 0"	2.0 RigidLam DF LVL 1-3/4 x 14	2	2
FB62-2	16' 0"	2.0 RigidLam DF LVL 1-3/4 x 14	2	2
FB63-2	16' 0"	2.0 RigidLam DF LVL 1-3/4 x 14	2	2
FB65-3	16' 0"	2.0 RigidLam DF LVL 1-3/4 x 14	3	3
FB18-2	12' 0"	2.0 RigidLam DF LVL 1-3/4 x 14	2	2
FB24-2	12' 0"	2.0 RigidLam DF LVL 1-3/4 x 14	2	2
FB25-2	12' 0"	2.0 RigidLam DF LVL 1-3/4 x 14	2	2
DB57-3	12' 0"	2.0 RigidLam DF LVL 1-3/4 x 14	3	3
DB58-3	12' 0"	2.0 RigidLam DF LVL 1-3/4 x 14	3	3
DB59-3	12' 0"	2.0 RigidLam DF LVL 1-3/4 x 14	3	3
DB60-3	12' 0"	2.0 RigidLam DF LVL 1-3/4 x 14	3	3
DB3-3	10' 0"	2.0 RigidLam DF LVL 1-3/4 x 14	3	3
DB4-3	10' 0"	2.0 RigidLam DF LVL 1-3/4 x 14	3	3
FB16-2	8' 0"	2.0 RigidLam DF LVL 1-3/4 x 14	2	2
FB15-3	8' 0"	2.0 RigidLam DF LVL 1-3/4 x 14	3	3
FB21	6' 0"	2.0 RigidLam DF LVL 1-3/4 x 14	1	1
FB22	6' 0"	2.0 RigidLam DF LVL 1-3/4 x 14	1	1
FB17-2	6' 0"	2.0 RigidLam DF LVL 1-3/4 x 14	2	2
FB61-2	4' 0"	2.0 RigidLam DF LVL 1-3/4 x 14	2	2
FB70-3	20' 0"	2.0 RigidLam DF LVL 1-3/4 x 16	3	3
FB69-3	20' 0"	2.0 RigidLam DF LVL 1-3/4 x 18	3	3
DB14-3	18' 0"	2.0 RigidLam DF LVL 1-3/4 x 18	3	3
FB27-3	30' 0"	2.0 RigidLam DF LVL 1-3/4 x 24	3	3
FB55-3	30' 0"	2.0 RigidLam DF LVL 1-3/4 x 24	3	3
RIM1	12' 0"	1 1/8" x 14" APA Rim Board	1	22
BP1	2' 0"	14" PJI-40	1	26

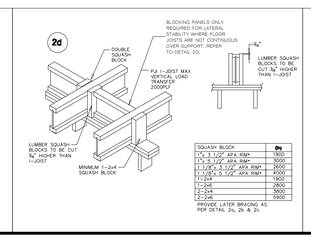
Accessories				
PlotID	Length	Product	Plies	Net Qty
		3/4" 4x8 OSB	1	114

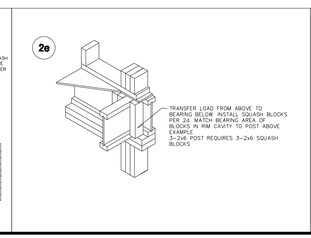
Connector Summary					
PlotID	Qty	Manuf	Product	Backer Blocks	Web Stiff
H1	2	MiTek	HD17112	No	No
H2	4	MiTek	HD410	No	No
H3	2	MiTek	HD410TF	No	No
H4	2	MiTek	IHF2514	No	No
H5	5	MiTek	IHF3514	No	No
H6	144	MiTek	TFL2514	No	No
H7	1	MiTek	THDH612	No	No
H8	5	MiTek	THF25140-2	No	Yes

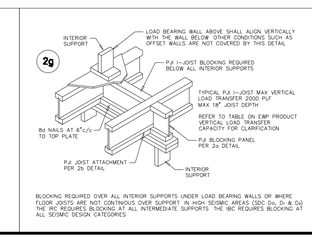


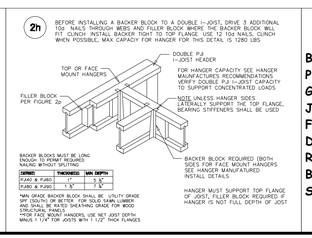












LABEL LEGEND

BBO = Beam by Others
PBO = Post by Others
GBO = Girder by Others
J = I-Joist
FB = Flush Beam
DB = Dropped Beam
RB = Roof Beam
BP = Blocking Panels
SB = Squash Blocks

2ND FLOOR LAYOUT

DRAWING SCALE : 1/8" = 1'-0"

This layout is meant to be used as a placement guide in conjunction with the architectural and/ or structural drawings. The builder is to review and approve this layout prior to ordering material and construction. All engineered wood products are designed for gravitational loads only. The architect and/ or engineer of record should verify all loads prior to construction and verify all beams are appropriately braced for lateral stability. For additional details not shown on this layout, refer to the manufacturer's installation guide.

Kempsville Building Materials
A Division of the Carter Lumber Company

T E JONES

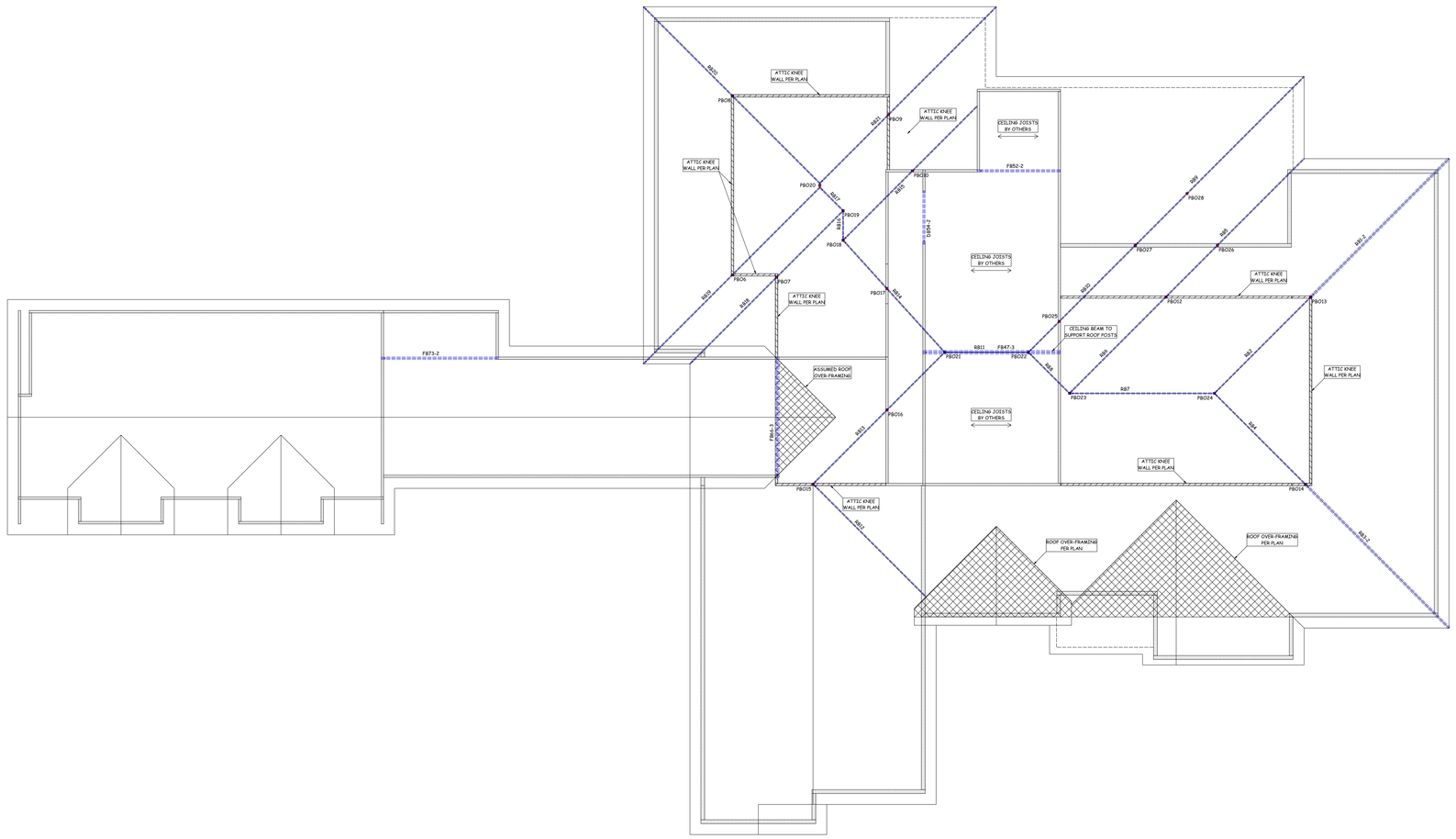
JONES RESIDENCE

FLOOR JOIST LAYOUT

REVISIONS	
DATE	BY
3/15/22	SCB
3/31/22	SCB

PROJECT NUMBER
22030069

SHEET NUMBER
1 / 2



Products				
PlotID	Length	Product	Plies	Net Qty
F866-3	16' 0"	2.0 RigidLam DF LVL 1-3/4 x 9-1/4	3	3
F852-2	12' 0"	2.0 RigidLam DF LVL 1-3/4 x 9-1/4	2	2
D854-2	8' 0"	2.0 RigidLam DF LVL 1-3/4 x 9-1/4	2	2
F873-2	16' 0"	2.0 RigidLam DF LVL 1-3/4 x 11-7/8	2	2
R819	36' 0"	2.0 RigidLam DF LVL 1-3/4 x 14	1	1
R820	36' 0"	2.0 RigidLam DF LVL 1-3/4 x 14	1	1
R821	36' 0"	2.0 RigidLam DF LVL 1-3/4 x 14	1	1
R89	36' 0"	2.0 RigidLam DF LVL 1-3/4 x 14	1	1
R818	32' 0"	2.0 RigidLam DF LVL 1-3/4 x 14	1	1
R85	30' 0"	2.0 RigidLam DF LVL 1-3/4 x 14	1	1
R81-2	30' 0"	2.0 RigidLam DF LVL 1-3/4 x 14	2	2
R83-2	30' 0"	2.0 RigidLam DF LVL 1-3/4 x 14	2	2
R813	28' 0"	2.0 RigidLam DF LVL 1-3/4 x 14	1	1
R815	28' 0"	2.0 RigidLam DF LVL 1-3/4 x 14	1	1
R810	24' 0"	2.0 RigidLam DF LVL 1-3/4 x 14	1	1
R812	24' 0"	2.0 RigidLam DF LVL 1-3/4 x 14	1	1
R814	24' 0"	2.0 RigidLam DF LVL 1-3/4 x 14	1	1
R86	22' 0"	2.0 RigidLam DF LVL 1-3/4 x 14	1	1
R82	20' 0"	2.0 RigidLam DF LVL 1-3/4 x 14	1	1
R84	20' 0"	2.0 RigidLam DF LVL 1-3/4 x 14	1	1
R87	18' 0"	2.0 RigidLam DF LVL 1-3/4 x 14	1	1
F847-3	18' 0"	2.0 RigidLam DF LVL 1-3/4 x 14	3	3
R811	12' 0"	2.0 RigidLam DF LVL 1-3/4 x 14	1	1
R88	10' 0"	2.0 RigidLam DF LVL 1-3/4 x 14	1	1
R817	6' 0"	2.0 RigidLam DF LVL 1-3/4 x 14	1	1
R816	4' 0"	2.0 RigidLam DF LVL 1-3/4 x 14	1	1

FLOOR JOISTS BELOW ARE NOT DESIGNED TO SUPPORT ROOF LOADS ABOVE UNLESS NOTED OTHERWISE. ALL ROOF RAFTERS TO BEAR ON EXTERIOR WALLS ONLY.

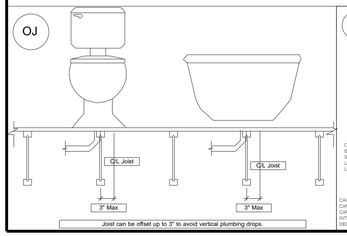
ROOF BEAMS ARE DESIGNED FOR GRAVITATIONAL LOADS ONLY. AN ENGINEER IS RECOMMENDED TO REVIEW ALL UPLIFT AND LATERAL LOADS.

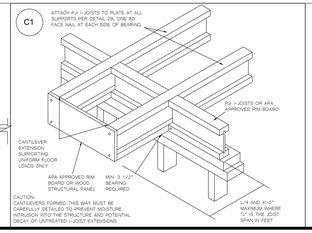
ALL ROOF POINT LOADS SHOULD BE VERIFIED BY THE PLAN DESIGNER OR STRUCTURAL ENGINEER OF RECORD PRIOR TO CONSTRUCTION

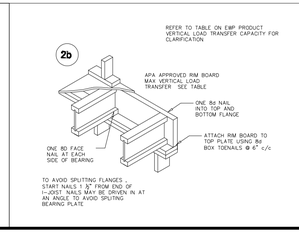
CEILING JOIST LOADS WERE FIGURED PER PLAN. IF JOIST DIRECTIONS OR SPANS ARE NOT FRAMED PER PLAN, THE I-JOIST FLOOR SYSTEM WILL NEED TO BE RE-DESIGNED.

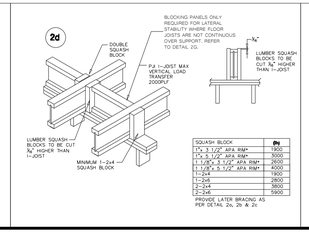
2ND FLR WALLS/ ROOF

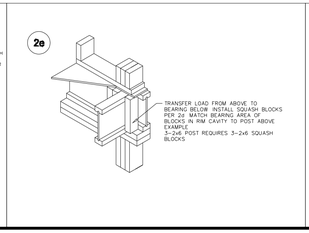
DRAWING SCALE : 1/8" = 1'-0"

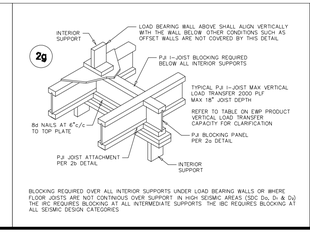


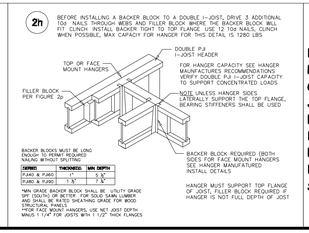












LABEL LEGEND

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PBO = Post by Others
GBO = Girder by Others
J = I-Joist
FB = Flush Beam
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RB = Roof Beam
BP = Blocking Panels
SB = Squash Blocks

This layout is meant to be used as a placement guide in conjunction with the architectural and/ or structural drawings. The builder is to review and approve this layout prior to ordering material and construction. All engineered wood products are designed for gravitational loads only. The architect and/ or engineer of record should verify all loads prior to construction and verify all beams are appropriately braced for lateral stability. For additional details not shown on this layout, refer to the manufacturer's installation guide.

Kempsville Building Materials
A Division of Hite Carter Lumber Company

T E JONES

JONES RESIDENCE

WALL/ ROOF LAYOUT

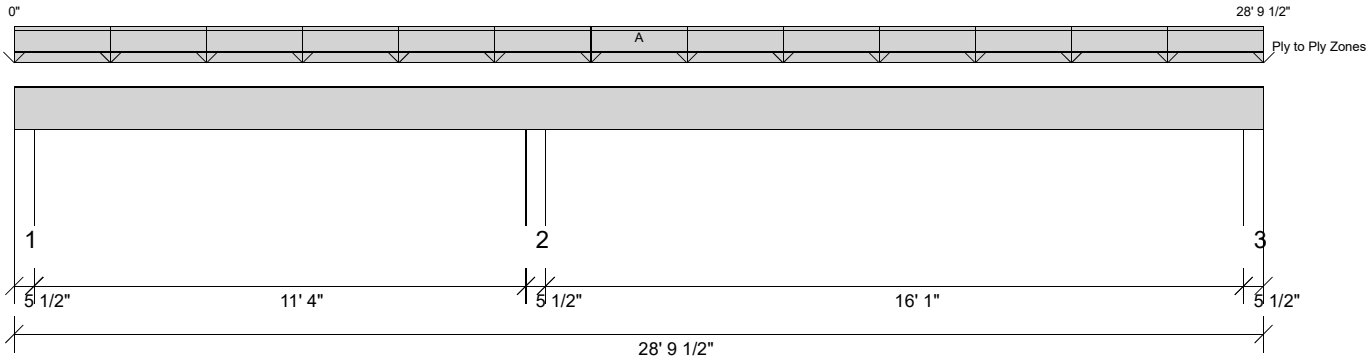
REVISIONS	
DATE	BY
3/15/22	SCB
3/31/22	SCB

PROJECT NUMBER
22030069

SHEET NUMBER
2 / 2

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **FB1-3 - i7787** Type: **Beam**	**3 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 11-7/8**	Status: **Design Passed**

Graphical Illustration Not to Scale. Pitch: 0/12 Designed by: MiTek® Structure Version 8.5.0.207.Update18.7 ReportVersion: 2020.02.21 03/31/2022 19:59



DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 16'- 6 1/2" Bottom: 16'- 6 1/2"

Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 4 1/2"
- 725 psi Wall @ 12'- 1/4"
- 725 psi Wall @ 28'- 5"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	12'- 1/4"	D + S	8168 lb ft	9072 lb ft	Passed - 90%
Max Shear:	13'- 2 7/8"	D + S	2636 lb	13861 lb	Passed - 19%
Live Load (LL) Deflection:	21'- 1 1/16"	S	0.097"	L/480	Passed - L/999
Total Load (TL) Deflection:	21'- 1 1/16"	D + S	0.186"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 4 1/2"	5 1/2"	D + S	1.15	1200 lb		21656 lb	20934 lb	Passed - 6%
12'- 1/4"	5 1/2"	D + S	1.15	5493 lb		23133 lb	20934 lb	Passed - 26%
28'- 5"	5 1/2"	D + S	1.15	2130 lb		21656 lb	20935 lb	Passed - 10%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Self Weight	0'	28'- 9 1/2"	Self Weight	Top	16 lb/ft	-	-	-
Uniform	0'	28'- 9 1/2"	User Load	Top	130 lb/ft	10 lb/ft	160 lb/ft	-

REACTIONS

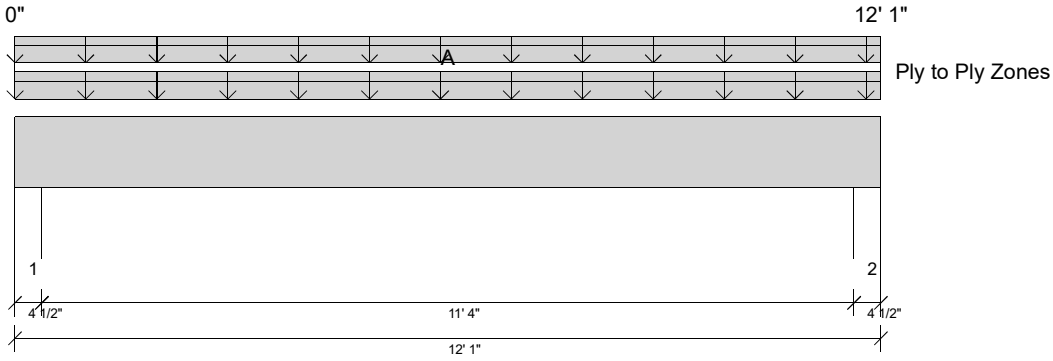
ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 5 1/2"	W30(i7)	573 lb	56/-17 lb	626 lb	-
2	11'- 9 1/2"	12'- 3"	W27(i21)	2625 lb	179 lb	2868 lb	-
3	28'- 4"	28'- 9 1/2"	W24(i14)	1018 lb	74/-4 lb	1112 lb	-

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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
- Zone A: Factored load = 0 plf. Use 16d (0.162"x 3.5") nails. LDF = 1.00. Qty = 116. Row = 2, Spacing = 12"
  16d (0.162"x 3.5") nails properties: D = 0.162" , L = 3.5". Fastener capacity = 140 lbs. X1 = 2.5" , Y1 = 1", Y2 = 1.75"
  Install fasteners from both faces.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.
-

Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **DB2-3 - i7832** Type: **Beam**	**3 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 11-7/8**	Status: **Design Passed**

Graphical Illustration Not to Scale. Pitch: 0/12 Designed by: MiTek® Structure Version 8.5.0.207.Update18.7 ReportVersion: 2020.02.21 03/31/2022 19:59



DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 12'- 1" Bottom: 12'- 1"

Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 3 1/2"
- 725 psi Wall @ 11'- 9 1/2"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	6'- 1/2"	D + S	10330 lb ft	12086 lb ft	Passed - 85%
Max Shear:	10'- 8 5/8"	D + S	2930 lb	13861 lb	Passed - 21%
Live Load (LL) Deflection:	6'- 1/2"	S	0.044"	L/480	Passed - L/999
Total Load (TL) Deflection:	6'- 1/2"	D + S	0.173"	L/240	Passed - L/787

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 3 1/2"	4 1/2"	D + S	1.15	3785 lb		17719 lb	17128 lb	Passed - 22%
11'- 9 1/2"	4 1/2"	D + S	1.15	3785 lb		17719 lb	17128 lb	Passed - 22%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Self Weight	0'	12'- 1"	Self Weight	Top	16 lb/ft	-	-	-
Uniform	0'	12'- 1"	User Load	Top	320 lb/ft	-	-	-
Uniform	0'	12'- 1"	User Load	Top	130 lb/ft	10 lb/ft	160 lb/ft	-

REACTIONS

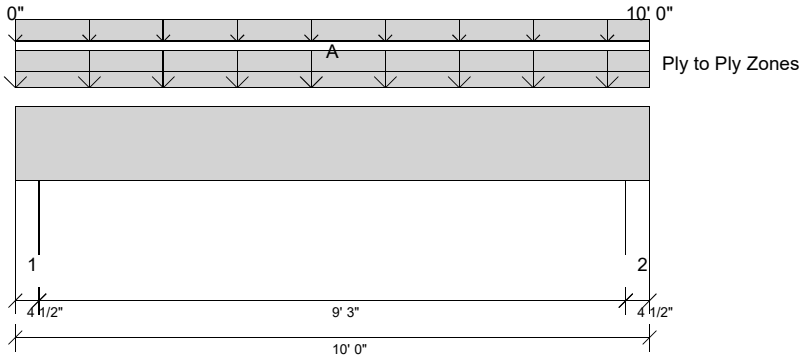
ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 4 1/2"	W31(i26)	2818 lb	60 lb	967 lb	-
2	11'- 8 1/2"	12'- 1"	W30(i7)	2818 lb	60 lb	967 lb	-

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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
- Zone A: Factored load = 0 plf. Use 16d (0.162"x 3.5") nails. LDF = 1.00. Qty = 50. Row = 2, Spacing = 12"
  16d (0.162"x 3.5") nails properties: D = 0.162" , L = 3.5". Fastener capacity = 140 lbs. X1 = 2.5" , Y1 = 1", Y2 = 1.75"
  Install fasteners from both faces.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **DB3-3 - i8258** Type: **Beam**	**3 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 14**	Status: **Design Passed**

Graphical Illustration Not to Scale. Pitch: 0/12 Designed by: MiTek® Structure Version 8.5.0.207.Update18.7 ReportVersion: 2020.02.21 03/31/2022 19:59



DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 10' Bottom: 10'

Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 3 1/2"
- 725 psi Wall @ 9'- 8 1/2"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	5'	D + 0.75(L + S)	11008 lb ft	16305 lb ft	Passed - 68%
Max Shear:	1'- 6 1/2"	D + 0.75(L + S)	3448 lb	16341 lb	Passed - 21%
Live Load (LL) Deflection:	5'	0.75(L + S)	0.029"	L/480	Passed - L/999
Total Load (TL) Deflection:	5'	D + 0.75(L + S)	0.075"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 3 1/2"	4 1/2"	D + 0.75(L + S)	1.15	4985 lb		17719 lb	17128 lb	Passed - 29%
9'- 8 1/2"	4 1/2"	D + 0.75(L + S)	1.15	4985 lb		17719 lb	17128 lb	Passed - 29%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Self Weight	0'	10'	Self Weight	Top	19 lb/ft	-	-	-
Uniform	0'	10'	User Load	Top	295 lb/ft	210 lb/ft	300 lb/ft	-
Uniform	0'	10'	User Load	Top	300 lb/ft	-	-	-

REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 4 1/2"	W1(i2)	3079 lb	1052 lb	1503 lb	-
2	9'- 7 1/2"	10'	W2(i29)	3065 lb	1048 lb	1497 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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
- Zone A: Factored load = 0 plf. Use 16d (0.162"x 3.5") nails. LDF = 1.00. Qty = 63. Row = 3, Spacing = 12"
  16d (0.162"x 3.5") nails properties: D = 0.162" , L = 3.5". Fastener capacity = 140 lbs. X1 = 2.5" , Y1 = 1", Y2 = 1.75"
  Install fasteners from both faces.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **DB4-3 - i8258** Type: **Beam**	**3 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 14**	Status: **Design Passed**

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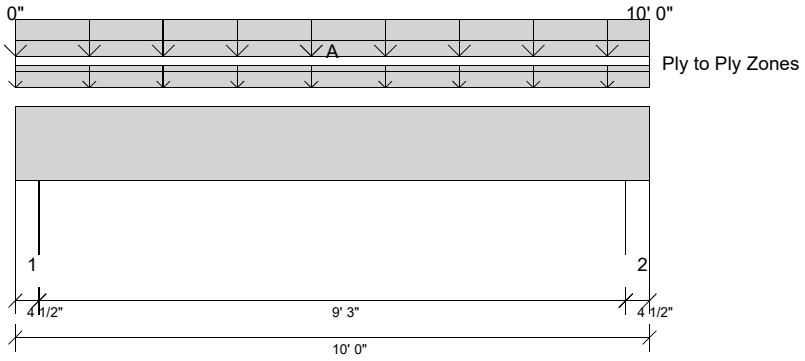

DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 10' Bottom: 10'

Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 3 1/2"
- 725 psi Wall @ 9'- 8 1/2"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	5'	D + 0.75(L + S)	11008 lb ft	16305 lb ft	Passed - 68%
Max Shear:	1'- 6 1/2"	D + 0.75(L + S)	3448 lb	16341 lb	Passed - 21%
Live Load (LL) Deflection:	5'	0.75(L + S)	0.029"	L/480	Passed - L/999
Total Load (TL) Deflection:	5'	D + 0.75(L + S)	0.075"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 3 1/2"	4 1/2"	D + 0.75(L + S)	1.15	4985 lb		17719 lb	17128 lb	Passed - 29%
9'- 8 1/2"	4 1/2"	D + 0.75(L + S)	1.15	4985 lb		17719 lb	17128 lb	Passed - 29%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Self Weight	0'	10'	Self Weight	Top	19 lb/ft	-	-	-
Uniform	0'	10'	User Load	Top	295 lb/ft	210 lb/ft	300 lb/ft	-
Uniform	0'	10'	User Load	Top	300 lb/ft	-	-	-

REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 4 1/2"	W2(i29)	3079 lb	1052 lb	1503 lb	-
2	9'- 7 1/2"	10'	W3(i30)	3065 lb	1048 lb	1497 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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
- Zone A: Factored load = 0 plf. Use 16d (0.162"x 3.5") nails. LDF = 1.00. Qty = 63. Row = 3, Spacing = 12"
  16d (0.162"x 3.5") nails properties: D = 0.162" , L = 3.5". Fastener capacity = 140 lbs. X1 = 2.5" , Y1 = 1", Y2 = 1.75"
  Install fasteners from both faces.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **DB5-3 - i7851** Type: **Beam**	**3 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 9-1/4**	Status: **Design Passed**

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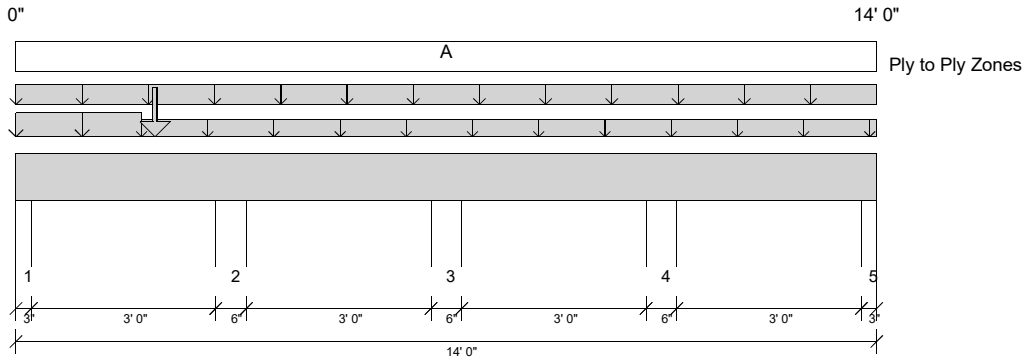

DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 11'- 6 1/4" Bottom: 14'

Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 2"
- 725 psi Wall @ 3'- 6"
- 725 psi Wall @ 7'
- 725 psi Wall @ 10'- 6"
- 725 psi Wall @ 13'- 10"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	2'- 3 1/8"	D + 0.75(L + S)	3221 lb ft	22978 lb ft	Passed - 14%
Max Shear:	2'- 5 3/4"	D + 0.75(L + S)	4191 lb	10797 lb	Passed - 39%
Live Load (LL) Deflection:	1'- 10 3/8"	0.75(L + S)	0.003"	L/480	Passed - L/999
Total Load (TL) Deflection:	1'- 10 7/16"	D + 0.75(L + S)	0.007"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 2"	3"	D + 0.75(L + S)	1.15	2044 lb		11813 lb	11419 lb	Passed - 18%
3'- 6"	6"	D + 0.75(L + S)	1.15	5666 lb		23625 lb	22838 lb	Passed - 25%
7'	6"	D + L	1.00	352 lb		23625 lb	22838 lb	Passed - 2%
7'	6"	D + L	1.00		-59 lb	-	-	
10'- 6"	6"	D + 0.75(L + S)	1.15	1352 lb		23625 lb	22838 lb	Passed - 6%
13'- 10"	3"	D + 0.75(L + S)	1.15	410 lb		11813 lb	11419 lb	Passed - 4%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Self Weight	0'	14'	Self Weight	Top	13 lb/ft	-	-	-
Uniform	0'	14'	User Load	Top	83 lb/ft	-	110 lb/ft	-
Uniform	-0'	2'- 1/2"	User Load	Top	95 lb/ft	190 lb/ft	-	-
Uniform	2'- 1/2"	14'	User Load	Top	45 lb/ft	90 lb/ft	-	-
Point	2'- 3 1/8"	2'- 3 1/8"	FB69-3(i8219)	Top	3072 lb	1016 lb	1878 lb	-

REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 3"	W6(i4)	1312 lb	633/-18 lb	794 lb	-
2	3'- 3"	3'- 9"	W7(i33)	2993 lb	1248 lb	1899 lb	-
3	6'- 9"	7'- 3"	W8(i35)	-12 lb	359/-54 lb	77 lb	-
4	10'- 3"	10'- 9"	W9(i36)	667 lb	418 lb	499 lb	-
5	13'- 9"	14'	W10(i34)	186 lb	150/-26 lb	149 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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
- Zone A: Factored load = 0 plf. Use 16d (0.162"x 3.5") nails. LDF = 1.00. Qty = 58. Row = 2, Spacing = 12"
  16d (0.162"x 3.5") nails properties: D = 0.162" , L = 3.5". Fastener capacity = 140 lbs. X1 = 2.5" , Y1 = 1", Y2 = 1.75"
  Install fasteners from both faces.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.
-

Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **DB6-3 - i8777** Type: **Beam**	**3 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 11-7/8**	Status: **Design Passed**

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **DB7-3 - i8649** Type: **Beam**	**3 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 9-1/4**	Status: **Design Passed**

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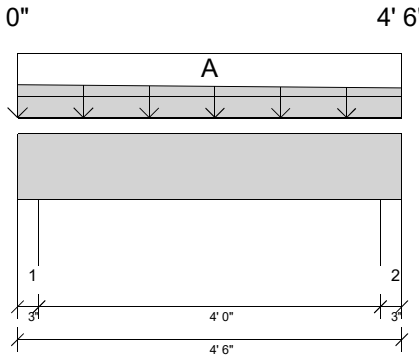


DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 4'- 6" Bottom: 4'- 6"

Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 2"
- 725 psi Wall @ 4'- 4"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	2'- 2 11/16"	D + S	1009 lb ft	22978 lb ft	Passed - 4%
Max Shear:	1'- 1/4"	D + S	576 lb	10797 lb	Passed - 5%
Live Load (LL) Deflection:	2'- 2 15/16"	S	0.003"	L/480	Passed - L/999
Total Load (TL) Deflection:	2'- 2 15/16"	D + S	0.005"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 2"	3"	D + S	1.15	1084 lb		11813 lb	11419 lb	Passed - 9%
4'- 4"	3"	D + S	1.15	1022 lb		11813 lb	11419 lb	Passed - 9%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Self Weight	0'	4'- 6"	Self Weight	Top	13 lb/ft	-	-	-
Tapered	-0'	4'- 6"	RIM1(i8396)	Top	215 To 183 lb/ft	6 lb/ft	278 To 234 lb/ft	-

REACTIONS

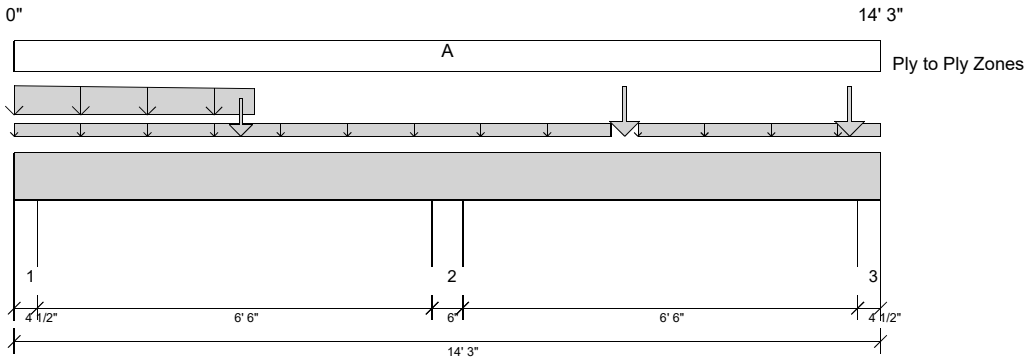
ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 3"	W17(i13)	490 lb	13 lb	593 lb	-
2	4'- 3"	4'- 6"	W18(i41)	464 lb	13 lb	558 lb	-

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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
- Zone A: Factored load = 0 plf. Use 16d (0.162"x 3.5") nails. LDF = 1.00. Qty = 18. Row = 2, Spacing = 12"
  16d (0.162"x 3.5") nails properties: D = 0.162" , L = 3.5". Fastener capacity = 140 lbs. X1 = 2.5" , Y1 = 1", Y2 = 1.75"
  Install fasteners from both faces.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **DB8-3 - i8694** Type: **Beam**	**3 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 9-1/4**	Status: **Design Passed**

Graphical Illustration Not to Scale. Pitch: 0/12 Designed by: MiTek® Structure Version 8.5.0.207.Update18.7 ReportVersion: 2020.02.21 03/31/2022 19:59



DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 9'- 9 7/8" Bottom: 14'- 3"

Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 3 1/2"
- 725 psi Wall @ 7'- 1 1/2"
- 725 psi Wall @ 13'- 11 1/2"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	7'- 1 1/2"	D + S	5768 lb ft	22978 lb ft	Passed - 25%
Max Shear:	8'- 1 3/4"	D + S	3550 lb	10797 lb	Passed - 33%
Live Load (LL) Deflection:	10'- 9 1/2"	S	0.018"	L/480	Passed - L/999
Total Load (TL) Deflection:	10'- 9 1/4"	D + S	0.038"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 3 1/2"	4 1/2"	D + S	1.15	1895 lb		17719 lb	17129 lb	Passed - 11%
7'- 1 1/2"	6"	D + S	1.15	6408 lb		23625 lb	22838 lb	Passed - 28%
13'- 11 1/2"	4 1/2"	D + S	1.15	5535 lb		17719 lb	17128 lb	Passed - 32%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Self Weight	0'	14'- 3"	Self Weight	Top	13 lb/ft	-	-	-
Uniform	-0'	9'- 9 7/8"	RIM1(i8396)	Top	7 lb/ft	6 lb/ft	-	-
Uniform	10'- 3 1/8"	14'- 3"	RIM1(i8645)	Top	-	6 lb/ft	-	-
Tapered	-0'	3'- 11 1/2"	RIM1(i8396)	Top	171 To 143 lb/ft	-	228 To 190 lb/ft	-
Point	3'- 8 3/4"	3'- 8 3/4"	RIM1(i8396)	Top	1555 lb	-	1585 lb	-
Point	10'- 1/2"	10'- 1/2"	FB67-3(i8211)	Top	2285 lb	184 lb	2105 lb	-
Point	13'- 8 15/16"	13'- 8 15/16"	RIM1(i8645)	Top	2250 lb	-	2325 lb	-

REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 4 1/2"	W18(i41)	920 lb	19/-20 lb	1042 lb	-
2	6'- 10 1/2"	7'- 4 1/2"	W41(i40)	3265 lb	196 lb	3040 lb	-
3	13'- 10 1/2"	14'- 3"	W19(i39)	2813 lb	74/-2 lb	2765 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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
- Zone A: Factored load = 0 plf. Use 16d (0.162"x 3.5") nails. LDF = 1.00. Qty = 58. Row = 2, Spacing = 12"
  16d (0.162"x 3.5") nails properties: D = 0.162" , L = 3.5". Fastener capacity = 140 lbs. X1 = 2.5" , Y1 = 1", Y2 = 1.75"
  Install fasteners from both faces.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **DB9-3 - i8362** Type: **Beam**	**3 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 9-1/4**	Status: **Design Passed**

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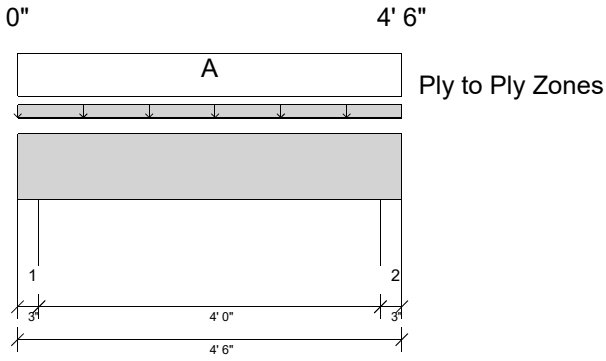

DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 4'- 6" Bottom: 4'- 6"

Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 2"
- 725 psi Wall @ 4'- 4"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	2'- 3"	D + L	56 lb ft	19981 lb ft	Passed - 0%
Max Shear:	1'- 1/4"	D + L	32 lb	9389 lb	Passed - 0%
Live Load (LL) Deflection:	2'- 3"	L	0.000"	L/480	Passed - L/999
Total Load (TL) Deflection:	2'- 3"	D + L	0.000"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 2"	3"	D + L	1.00	58 lb		11813 lb	11419 lb	Passed - 1%
4'- 4"	3"	D + L	1.00	58 lb		11813 lb	11419 lb	Passed - 1%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Self Weight	0'	4'- 6"	Self Weight	Top	13 lb/ft	-	-	-
Uniform	0'	4'- 6"	RIM1(i8645)	Top	7 lb/ft	6 lb/ft	-	-

REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 3"	W19(i39)	45 lb	13 lb	-	-
2	4'- 3"	4'- 6"	W20(i42)	45 lb	13 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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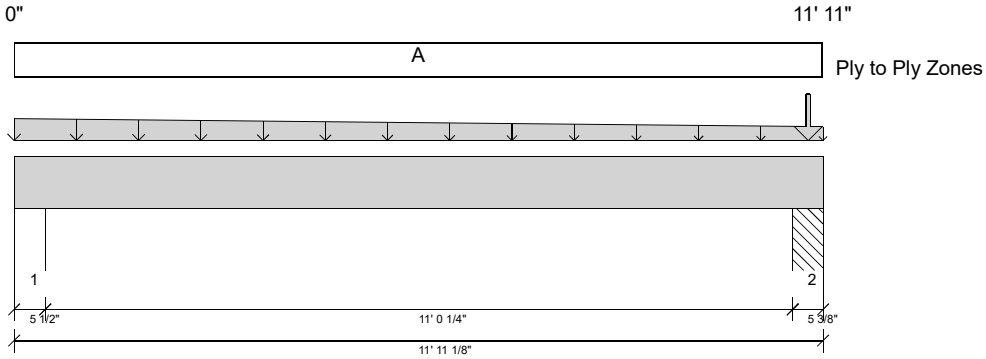
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
- Zone A: Factored load = 0 plf. Use 16d (0.162"x 3.5") nails. LDF = 1.00. Qty = 18. Row = 2, Spacing = 12"
  16d (0.162"x 3.5") nails properties: D = 0.162" , L = 3.5". Fastener capacity = 140 lbs. X1 = 2.5" , Y1 = 1", Y2 = 1.75"
  Install fasteners from both faces.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **DB10-2 - i8087** Type: **Beam**	**2 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 9-1/4**	Status: **Design Passed**

Graphical Illustration Not to Scale. Pitch: 0/12 Designed by: MiTek® Structure Version 8.5.0.207.Update18.7 ReportVersion: 2020.02.21 03/31/2022 19:59



DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 1'- 4" Bottom: 11'- 1/4"

Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 4 1/2"
- 725 psi Column @ 11'- 6 3/4"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	5'- 4 5/16"	D + S	2447 lb ft	15034 lb ft	Passed - 16%
Max Shear:	1'- 2 3/4"	D + S	849 lb	7198 lb	Passed - 12%
Live Load (LL) Deflection:	5'- 9 5/8"	S	0.062"	L/480	Passed - L/999
Total Load (TL) Deflection:	5'- 9 3/4"	D + S	0.121"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 4 1/2"	5 1/2"	D + S	1.15	1160 lb		14438 lb	13957 lb	Passed - 8%
11'- 6 3/4"	5 3/8"	D + 0.75(L + S)	1.15	1524 lb		14110 lb	13639 lb	Passed - 11%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Self Weight	0'	11'- 11 1/8"	Self Weight	Top	9 lb/ft	-	-	-
Tapered	0'	11'- 11 1/8"	User Load	Top	115 To 25 lb/ft	10 lb/ft	140 To 20 lb/ft	-
Point	11'- 8 1/2"	11'- 8 1/2"	DB11-2(i8115)	Front	465 lb	247 lb	244 lb	-

REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 5 1/2"	W11(i8)	564 lb	60 lb	605 lb	-
2	11'- 5 3/4"	11'- 11 1/8"	PBO1(i51)	838 lb	307 lb	593 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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
- The unbraced length used in this design was manually input by the user. Install lateral bracing to satisfy the unbraced lengths specified on this report.
-
- Zone A: Factored load = 690 plf. Use 16d (0.162"x 3.5") nails. LDF = 1.00. Qty = 32. Row = 2, Spacing = 9"
  16d (0.162"x 3.5") nails properties: D = 0.162" , L = 3.5". Fastener capacity = 140 lbs. X1 = 2.5" , Y1 = 1", Y2 = 1.75"
  Install fasteners from one face.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **DB11-2 - i8115** Type: **Beam**	**2 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 9-1/4**	Status: **Design Passed**

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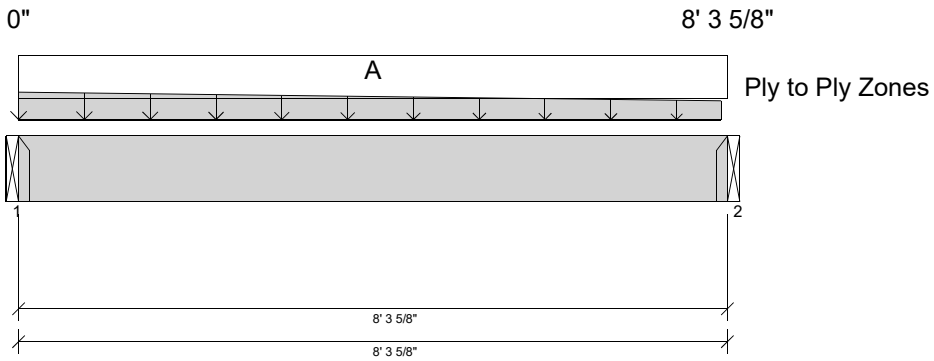

DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 1'- 4" Bottom: 8'- 2 1/2"

Bearing Stress of Support Material:

- 425 psi Beam @ 0'
- 425 psi Beam @ 8'- 3 5/8"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	3'- 10 5/8"	D + 0.75(L + S)	2014 lb ft	15034 lb ft	Passed - 13%
Max Shear:	0'- 9 1/4"	D + 0.75(L + S)	849 lb	7198 lb	Passed - 12%
Live Load (LL) Deflection:	4'- 1"	0.75(L + S)	0.025"	L/480	Passed - L/999
Total Load (TL) Deflection:	4'- 1 1/16"	D + 0.75(L + S)	0.056"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'	1 1/2"	D + 0.75(L + S)	1.15	1092 lb		3937 lb	-	Passed - 28%
8'- 3 5/8"	1 1/2"	D + 0.75(L + S)	1.15	831 lb		3937 lb	-	Passed - 21%

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Other Information or Requirement for Reinforcement Accessories
1	HD410	MiTek	-
2	HD410IF	MiTek	-

* Connectors: Refer to manufacturer's specifications, fasteners requirements and installation instruction.

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Self Weight	0'	8'- 3 5/8"	Self Weight	Top	9 lb/ft	-	-	-
Tapered	0'	8'- 2 3/4"	User Load	Top	165 To 75 lb/ft	60 lb/ft	140 To 20 lb/ft	-

REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'	DB12-3(i8779)	590 lb	247 lb	410 lb	-
2	8'- 3 5/8"	8'- 3 5/8"	DB10-2(i8087)	465 lb	247 lb	244 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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
- The unbraced length used in this design was manually input by the user. Install lateral bracing to satisfy the unbraced lengths specified on this report.
-
- Zone A: Factored load = 0 plf. Use 16d (0.162"x 3.5") nails. LDF = 1.00. Qty = 18. Row = 2, Spacing = 12"
  16d (0.162"x 3.5") nails properties: D = 0.162" , L = 3.5". Fastener capacity = 140 lbs. X1 = 2.5" , Y1 = 1", Y2 = 1.75"
  Install fasteners from one face.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **DB12-3 - i8779** Type: **Beam**	**3 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 9-1/4**	Status: **Design Passed**

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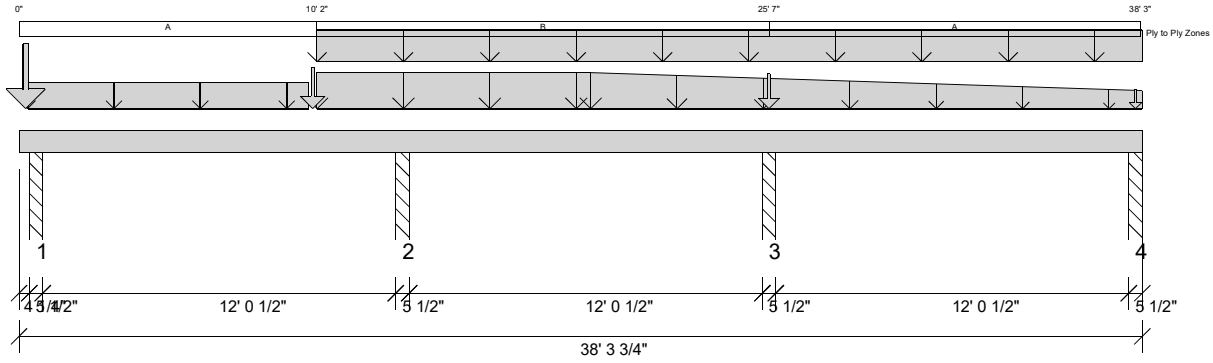

DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 1'- 4" Bottom: 12'- 1/2"

Bearing Stress of Support Material:

- 725 psi Column @ 0'- 7"
- 725 psi Column @ 13'- 1"
- 725 psi Column @ 25'- 7"
- 725 psi Column @ 37'- 11 1/4"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	13'- 1"	D + L	7750 lb ft	19981 lb ft	Passed - 39%
Max Shear:	12'- 1"	D + L	4071 lb	9389 lb	Passed - 43%
Live Load (LL) Deflection:	32'- 1/4"	L	0.112"	L/480	Passed - L/999
Total Load (TL) Deflection:	32'- 2 7/16"	D + L	0.172"	L/240	Passed - L/840

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 7"	5 1/2"	D + 0.75(L + S)	1.15	7382 lb		23133 lb	20935 lb	Passed - 35%
13'- 1"	5 1/2"	D + 0.75(L + S)	1.15	8447 lb		23133 lb	20935 lb	Passed - 40%
25'- 7"	5 1/2"	D + 0.75(L + S)	1.15	8628 lb		23133 lb	20935 lb	Passed - 41%
37'- 11 1/4"	5 1/2"	D + L	1.00	2114 lb		21657 lb	20935 lb	Passed - 10%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Self Weight	0'	38'- 3 3/4"	Self Weight	Top	13 lb/ft	-	-	-
Uniform	0'- 3 1/2"	9'- 10 1/2"	RIM1(i8682)	Top	127 lb/ft	19 lb/ft	40 lb/ft	-
Uniform	10'- 2"	38'- 3 3/4"	User Load	Front	95 lb/ft	190 lb/ft	-	-
Uniform	10'- 2"	19'- 6"	User Load	Top	158 lb/ft	-	210 lb/ft	-
Tapered	19'- 6"	38'- 3 3/4"	User Load	Top	158 To 15 lb/ft	-	210 To 20 lb/ft	-
Point	38'- 1"	38'- 1"	DB13-2(i8094)	Front	214 lb	-	230 lb	-
Point	0'- 2 3/4"	0'- 2 3/4"	-	Back	3050 lb	1765 lb	1854 lb	-
Point	10'- 1/4"	10'- 1/4"	FB25-2(i8627)	Top	1492 lb	1289 lb	625 lb	-
Point	25'- 7"	25'- 7"	FB67-3(i8211)	Top	1283 lb	192 lb	1050 lb	-

REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'- 4 1/4"	0'- 9 3/4"	PBO2(i52)	4080 lb	2226/-119 lb	2175 lb	-
2	12'- 10 1/4"	13'- 3 3/4"	PBO5(i55)	4332 lb	3078 lb	2609 lb	-
3	25'- 4 1/4"	25'- 9 3/4"	PBO4(i54)	4125 lb	3021 lb	3015 lb	-
4	37'- 10 1/4"	38'- 3 3/4"	PBO3(i53)	983 lb	1124/-121 lb	467 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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
- The deflection at the cantilever for either live and/or total loads is less than 3/8" and therefore has been excluded from the deflection ratio considerations.
-
-
- The unbraced length used in this design was manually input by the user. Install lateral bracing to satisfy the unbraced lengths specified on this report.
-
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MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **DB12-3 - i8779** Type: **Beam**	**3 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 9-1/4**	Status: **Design Passed**

- Zone A: Factored load = 684 plf. Use 16d (0.162"x 3.5") nails. LDF = 1.00. Qty = 158. Row = 2, Spacing = 7"
  Zone B: Factored load = 475 plf. Use 16d (0.162"x 3.5") nails. LDF = 1.00. Qty = 76. Row = 2, Spacing = 10"
  16d (0.162"x 3.5") nails properties: D = 0.162" , L = 3.5". Fastener capacity = 140 lbs. X1 = 2.5" , Y1 = 1", Y2 = 1.75"
  Install fasteners from both faces.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.
-
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **DB13-2 - i8094** Type: **Beam**	**2 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 9-1/4**	Status: **Design Passed**

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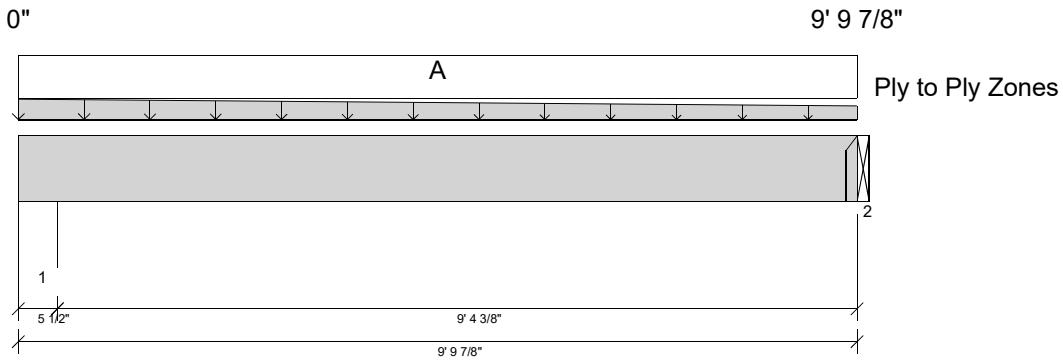


DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 1'- 4" Bottom: 9'- 9 3/4"

Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 4 1/2"
- 425 psi Beam @ 9'- 9 7/8"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	4'- 7 1/2"	D + S	1341 lb ft	15034 lb ft	Passed - 9%
Max Shear:	1'- 2 3/4"	D + S	525 lb	7198 lb	Passed - 7%
Live Load (LL) Deflection:	4'- 11 3/4"	S	0.025"	L/480	Passed - L/999
Total Load (TL) Deflection:	4'- 11 13/16"	D + S	0.048"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 4 1/2"	5 1/2"	D + S	1.15	760 lb		14438 lb	13957 lb	Passed - 5%
9'- 9 7/8"	1 1/2"	D + S	1.15	444 lb		3937 lb	-	Passed - 11%

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Other Information or Requirement for Reinforcement Accessories
2	HD410IF	MiTek	-

* Connectors: Refer to manufacturer's specifications, fasteners requirements and installation instruction.

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Self Weight	0'	9'- 9 7/8"	Self Weight	Top	9 lb/ft	-	-	-
Tapered	0'	9'- 9 7/8"	User Load	Top	83 To 15 lb/ft	-	110 To 20 lb/ft	-

REACTIONS

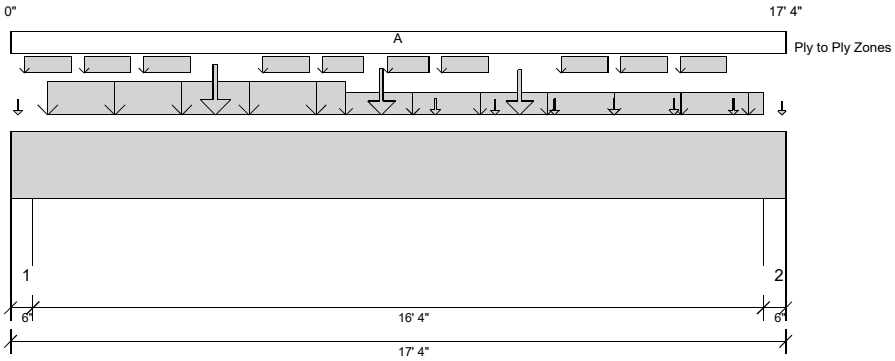
ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 5 1/2"	W22(i5)	352 lb	-	409 lb	-
2	9'- 9 7/8"	9'- 9 7/8"	DB12-3(i8779)	214 lb	-	230 lb	-

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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
- The unbraced length used in this design was manually input by the user. Install lateral bracing to satisfy the unbraced lengths specified on this report.
-
- Zone A: Factored load = 0 plf. Use 16d (0.162"x 3.5") nails. LDF = 1.00. Qty = 20. Row = 2, Spacing = 12"
  16d (0.162"x 3.5") nails properties: D = 0.162" , L = 3.5". Fastener capacity = 140 lbs. X1 = 2.5" , Y1 = 1", Y2 = 1.75"
  Install fasteners from one face.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **DB14-3 - i8783** Type: **Beam**	**3 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 18**	Status: **Design Passed**

Graphical Illustration Not to Scale. Pitch: 0/12 Designed by: MiTek® Structure Version 8.5.0.207.Update18.7 ReportVersion: 2020.02.21 03/31/2022 19:59



DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 1'- 2 3/16" Bottom: 17'- 4"

Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 5"
- 725 psi Wall @ 16'- 11"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	8'- 3 3/4"	D + 0.75(L + S)	70112 lb ft	80063 lb ft	Passed - 88%
Max Shear:	2'	D + L	12328 lb	18270 lb	Passed - 67%
Live Load (LL) Deflection:	8'- 6 7/8"	0.75(L + S)	0.319"	L/480	Passed - L/615
Total Load (TL) Deflection:	8'- 7 3/8"	D + 0.75(L + S)	0.674"	L/240	Passed - L/290

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 5"	6"	D + L	1.00	13635 lb		23625 lb	22837 lb	Passed - 60%
16'- 11"	6"	D + L	1.00	13198 lb		23625 lb	22837 lb	Passed - 58%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Self Weight	0'	17'- 4"	Self Weight	Top	25 lb/ft	-	-	-
Uniform	0'- 3 3/4"	1'- 4 1/4"	BP1(i8480)	Top	166 lb/ft	-	-	-
Uniform	0'- 10"	7'- 6"	Smoothed Load	Top	259 lb/ft	633 lb/ft	-	-
Uniform	1'- 7 3/4"	2'- 8 1/4"	BP1(i8480)	Top	166 lb/ft	-	-	-
Uniform	2'- 11 3/4"	4'- 1/4"	BP1(i8480)	Top	166 lb/ft	-	-	-
Uniform	5'- 7 3/4"	6'- 8 1/4"	BP1(i8480)	Top	166 lb/ft	-	-	-
Uniform	6'- 11 3/4"	7'- 10 3/4"	BP1(i8686)	Top	166 lb/ft	-	-	-
Uniform	7'- 6"	16'- 10"	Smoothed Load	Top	83 lb/ft	329 lb/ft	-	-
Uniform	8'- 5 1/4"	9'- 4 1/4"	BP1(i8686)	Top	166 lb/ft	-	-	-
Uniform	9'- 7 3/4"	10'- 8 1/4"	BP1(i8480)	Top	166 lb/ft	-	-	-
Uniform	12'- 3 3/4"	13'- 4 1/4"	BP1(i8480)	Top	166 lb/ft	-	-	-
Uniform	13'- 7 3/4"	14'- 8 1/4"	BP1(i8480)	Top	166 lb/ft	-	-	-
Uniform	14'- 11 3/4"	16'- 1/4"	BP1(i8746)	Top	166 lb/ft	-	-	-
Point	0'- 2"	0'- 2"	K30(i8618)	Top	202 lb	308 lb	-	-
Point	4'- 7"	4'- 7"	BBO5(i3116)	Top	2801 lb	121 lb	2903 lb	-
Point	8'- 3 9/16"	8'- 3 9/16"	-	Top	2430 lb	382 lb	2365 lb	-
Point	9'- 6"	9'- 6"	K30(i8428)	Top	236 lb	407 lb	-	-
Point	10'- 10"	10'- 10"	K30(i8431)	Top	197 lb	303 lb	-	-
Point	11'- 4 5/8"	11'- 4 5/8"	FB27-3(i8110)	Top	3175 lb	236 lb	1617 lb	-
Point	12'- 2"	12'- 2"	K30(i8629)	Top	197 lb	328 lb	-	-
Point	13'- 6"	13'- 6"	K30(i8428)	Top	236 lb	407 lb	-	-
Point	14'- 10"	14'- 10"	K30(i8428)	Top	236 lb	407 lb	-	-
Point	16'- 2"	16'- 2"	K30(i8624)	Top	218 lb	371 lb	-	-
Point	17'- 3"	17'- 3"	K30(i8426)	Top	-	189 lb	-	-

REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 6"	W16(i61)	7701 lb	5836 lb	3949 lb	-
2	16'- 10"	17'- 4"	W15(i22)	7314 lb	5981 lb	2936 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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **DB14-3 - i8783** Type: **Beam**	**3 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 18**	Status: **Design Passed**

- Zone A: Factored load = 0 plf. Use 16d (0.162"x 3.5") nails. LDF = 1.00. Qty = 105. Row = 3, Spacing = 12"
  16d (0.162"x 3.5") nails properties: D = 0.162" , L = 3.5". Fastener capacity = 140 lbs. X1 = 2.5" , Y1 = 1", Y2 = 1.75"
  Install fasteners from both faces.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **FB15-3 - i8757** Type: **Beam**	**3 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 14**	Status: **Design Passed**

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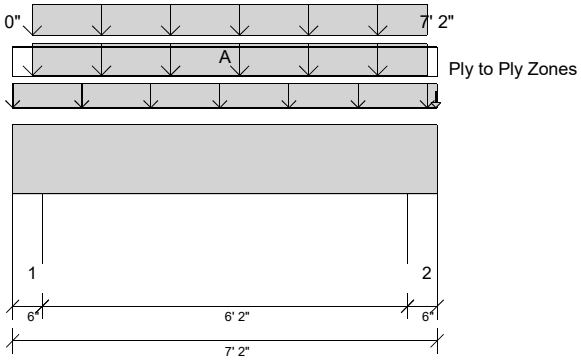

DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

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

Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 5"
- 725 psi Wall @ 6'- 9"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	3'- 8"	D + L	5722 lb ft	43458 lb ft	Passed - 13%
Max Shear:	5'- 6"	D + L	3407 lb	14210 lb	Passed - 24%
Live Load (LL) Deflection:	3'- 7"	L	0.011"	L/480	Passed - L/999
Total Load (TL) Deflection:	3'- 7"	D + L	0.017"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 5"	6"	D + L	1.00	3705 lb		23625 lb	22837 lb	Passed - 16%
6'- 9"	6"	D + L	1.00	3926 lb		23625 lb	22837 lb	Passed - 17%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Self Weight	0'	7'- 2"	Self Weight	Top	19 lb/ft	-	-	-
Uniform	-0'	7'- 2"	W63(i1347)	Top	166 lb/ft	85 lb/ft	-	-
Uniform	0'- 4"	7'	Smoothed Load	Front	142 lb/ft	288 lb/ft	-	-
Uniform	0'- 4"	7'	Smoothed Load	Back	83 lb/ft	332 lb/ft	-	-
Point	7'- 1 3/4"	7'- 1 3/4"	W63(i1347)	Top	45 lb	-	-	-

REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 6"	W47(i66)	1391 lb	2314 lb	-	-
2	6'- 8"	7'- 2"	W16(i61)	1480 lb	2446 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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
- Zone A: Factored load = 860 plf. Use 16d (0.162"x 3.5") nails. LDF = 1.00. Qty = 66. Row = 3, Spacing = 8"
  16d (0.162"x 3.5") nails properties: D = 0.162" , L = 3.5". Fastener capacity = 140 lbs. X1 = 2.5" , Y1 = 1", Y2 = 1.75"
  Install fasteners from both faces.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **FB16-2 - i8737** Type: **Beam**	**2 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 14**	Status: **Design Passed**

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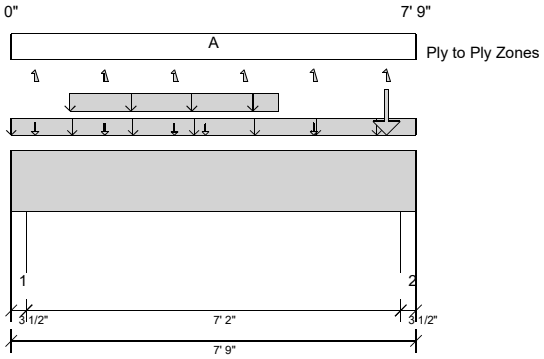

DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

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

Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 2 1/2"
- 725 psi Wall @ 7'- 6 1/2"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	3'- 11 9/16"	D + L	2831 lb ft	28972 lb ft	Passed - 10%
Max Shear:	6'- 3 1/2"	D + 0.75(L + S)	1599 lb	10894 lb	Passed - 15%
Live Load (LL) Deflection:	3'- 11 3/4"	0.75(L + S)	0.009"	L/480	Passed - L/999
Total Load (TL) Deflection:	4'- 1/8"	D + 0.75(L + S)	0.019"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 2 1/2"	3 1/2"	D + L	1.00	1642 lb		9188 lb	8881 lb	Passed - 18%
7'- 6 1/2"	3 1/2"	D + S	1.15	5693 lb		9188 lb	8881 lb	Passed - 64%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Self Weight	0'	7'- 9"	Self Weight	Top	13 lb/ft	-	-	-
Uniform	0'	7'- 9"	W55(i1343)	Top	106 lb/ft	25 lb/ft	-	-
Uniform	1'- 1 1/2"	5'- 1 1/2"	Smoothed Load	Back	17 lb/ft	149 lb/ft	-	-
Point	0'- 5 1/2"	0'- 5 1/2"	-	Front	-	274/-108 lb	-	-
Point	1'- 9 1/2"	1'- 9 1/2"	-	Front	-	122/-111 lb	-	-
Point	3'- 1 1/2"	3'- 1 1/2"	-	Front	-	89/-111 lb	-	-
Point	3'- 8 5/8"	3'- 8 5/8"	FB22(i8784)	Front	-	28 lb	-	-
Point	4'- 5 1/2"	4'- 5 1/2"	J24(i8468)	Back	-	-111 lb	-	-
Point	5'- 9 1/2"	5'- 9 1/2"	J24(i8646)	Back	-23 lb	155/-247 lb	-	-
Point	7'- 2 1/4"	7'- 2 1/4"	-	Back	2620/-23 lb	155/-247 lb	2840 lb	-

REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 3 1/2"	W42(i56)	711 lb	941/-379 lb	137 lb	-
2	7'- 5 1/2"	7'- 9"	W43(i62)	2988 lb	684/-556 lb	2703 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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
- Zone A: Factored load = 209 plf. Use 16d (0.162"x 3.5") nails. LDF = 1.00. Qty = 24. Row = 3, Spacing = 12"
  16d (0.162"x 3.5") nails properties: D = 0.162" , L = 3.5". Fastener capacity = 140 lbs. X1 = 2.5" , Y1 = 1", Y2 = 1.75"
  Install fasteners from one face.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **FB17-2 - i8727** Type: **Beam**	**2 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 14**	Status: **Design Passed**

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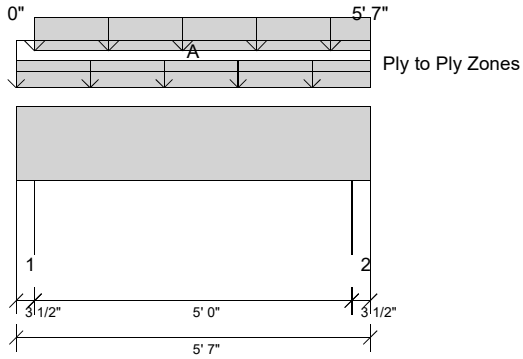


DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

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

Bearing Stress of Support Material:

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

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	2'- 6 3/4"	D + L	2442 lb ft	28972 lb ft	Passed - 8%
Max Shear:	4'- 1 1/2"	D + L	1606 lb	9473 lb	Passed - 17%
Live Load (LL) Deflection:	2'- 9 7/16"	L	0.005"	L/480	Passed - L/999
Total Load (TL) Deflection:	2'- 9 7/16"	D + L	0.008"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 2 1/2"	3 1/2"	D + L	1.00	1919 lb		9188 lb	8881 lb	Passed - 22%
5'- 4 1/2"	3 1/2"	D + L	1.00	2064 lb		9188 lb	8881 lb	Passed - 23%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Self Weight	0'	5'- 7"	Self Weight	Top	13 lb/ft	-	-	-
Uniform	0'	5'- 7"	W98(i1450)	Top	191 lb/ft	110 lb/ft	-	-
Uniform	0'- 3 1/2"	5'- 7"	Smoothed Load	Front	84 lb/ft	337 lb/ft	-	-

REACTIONS

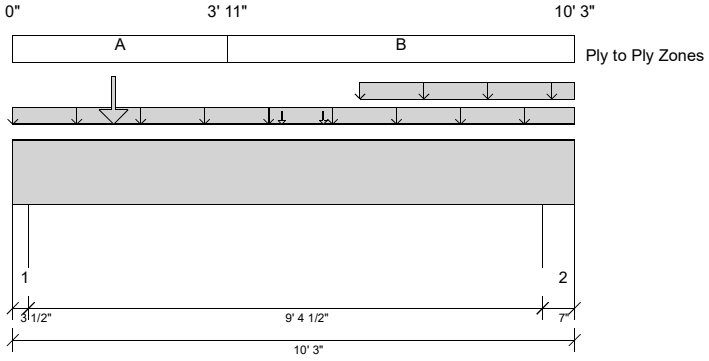
ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 3 1/2"	W32(i20)	777 lb	1141 lb	-	-
2	5'- 3 1/2"	5'- 7"	W45(i57)	807 lb	1257 lb	-	-

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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
- Zone A: Factored load = 432 plf. Use 16d (0.162"x 3.5") nails. LDF = 1.00. Qty = 18. Row = 3, Spacing = 12"
  16d (0.162"x 3.5") nails properties: D = 0.162" , L = 3.5". Fastener capacity = 140 lbs. X1 = 2.5" , Y1 = 1", Y2 = 1.75"
  Install fasteners from one face.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.
-

Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **FB18-2 - i8764** Type: **Beam**	**2 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 14**	Status: **Design Passed**

Graphical Illustration Not to Scale. Pitch: 0/12 Designed by: MiTek® Structure Version 8.5.0.207.Update18.7 ReportVersion: 2020.02.21 03/31/2022 19:59



DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 4'- 10" Bottom: 4'- 10"

Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 2 1/2"
- 725 psi Beam @ 9'- 9"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	1'- 10 1/16"	D + S	7204 lb ft	33318 lb ft	Passed - 22%
Max Shear:	1'- 5 1/2"	D + S	4365 lb	10894 lb	Passed - 40%
Live Load (LL) Deflection:	4'- 6 7/8"	0.75(L + S)	0.025"	L/480	Passed - L/999
Total Load (TL) Deflection:	4'- 7 3/16"	D + 0.75(L + S)	0.064"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 2 1/2"	3 1/2"	D + S	1.15	4539 lb		9188 lb	8881 lb	Passed - 51%
9'- 9"	7"	D + L	1.00	1667 lb		18375 lb	17763 lb	Passed - 9%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Self Weight	0'	10'- 3"	Self Weight	Top	13 lb/ft	-	-	-
Uniform	0'	10'- 3"	-	Top	106 lb/ft	25 lb/ft	-	-
Uniform	6'- 4"	10'- 3"	Smoothed Load	Front	25 lb/ft	99 lb/ft	-	-
Point	4'- 10 7/8"	4'- 10 7/8"	FB21(i8744)	Front	-	40 lb	-	-
Point	5'- 8"	5'- 8"	J6(i8785)	Front	-	105 lb	-	-
Point	1'- 10 1/16"	1'- 10 1/16"	W58(i1397)	Top	2265 lb	-	2450 lb	-

REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 3 1/2"	W43(i62)	2508 lb	246 lb	2031 lb	-
2	9'- 8"	10'- 3"	-	1126 lb	544 lb	420 lb	-
++>	9'- 9 3/4"	9'- 9 3/4"	W44(i63)	563 lb	272 lb	210 lb	-
++>	10'- 1 1/4"	10'- 1 1/4"	DB19-2(i8780)	563 lb	272 lb	210 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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
- Zone A: Factored load = 0 plf. Use 16d (0.162"x 3.5") nails. LDF = 1.00. Qty = 12. Row = 3, Spacing = 12"
  Zone B: Factored load = 130 plf. Use 16d (0.162"x 3.5") nails. LDF = 1.00. Qty = 21. Row = 3, Spacing = 12"
  16d (0.162"x 3.5") nails properties: D = 0.162" , L = 3.5". Fastener capacity = 140 lbs. X1 = 2.5" , Y1 = 1", Y2 = 1.75"
  Install fasteners from one face.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.
-
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **DB19-2 - i8780** Type: **Beam**	**2 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 9-1/4**	Status: **Design Passed**

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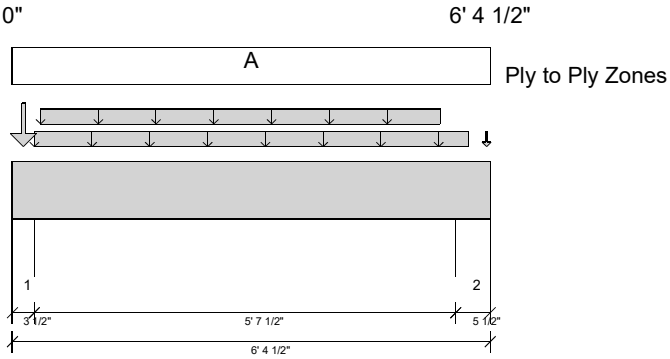


DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 1'- 2 5/16" Bottom: 5'- 11"

Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 2 1/2"
- 725 psi Wall @ 6'

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	3'- 2 3/16"	D + L	1044 lb ft	13321 lb ft	Passed - 8%
Max Shear:	1'- 3/4"	D + L	611 lb	6259 lb	Passed - 10%
Live Load (LL) Deflection:	3'- 1 5/16"	L	0.007"	L/480	Passed - L/999
Total Load (TL) Deflection:	3'- 1 5/16"	D + L	0.014"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 2 1/2"	3 1/2"	D + L	1.00	1561 lb		9188 lb	8881 lb	Passed - 18%
6'	5 1/2"	D + L	1.00	814 lb		14438 lb	13956 lb	Passed - 6%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Self Weight	0'	6'- 4 1/2"	Self Weight	Top	9 lb/ft	-	-	-
Uniform	0'- 3 1/2"	6'- 1"	RIM1(i8759)	Top	106 lb/ft	25 lb/ft	-	-
Uniform	0'- 4 1/2"	5'- 8 1/2"	Smoothed Load	Top	24 lb/ft	96 lb/ft	-	-
Point	0'- 1 3/4"	0'- 1 3/4"	FB18-2(i8764)	Top	563 lb	272 lb	210 lb	-
Point	6'- 3 15/16"	6'- 3 15/16"	-	Top	76 lb	-	65 lb	-

REACTIONS

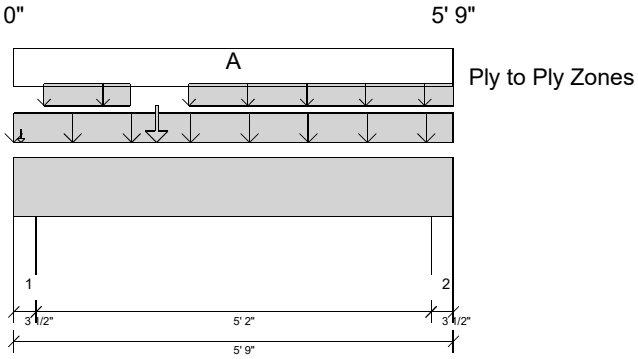
ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 3 1/2"	W44(i63)	971 lb	613 lb	215 lb	-
2	5'- 11"	6'- 4 1/2"	W13(i71)	465 lb	325 lb	60 lb	-

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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
- Zone A: Factored load = 0 plf. Use 16d (0.162"x 3.5") nails. LDF = 1.00. Qty = 14. Row = 2, Spacing = 12"
  16d (0.162"x 3.5") nails properties: D = 0.162" , L = 3.5". Fastener capacity = 140 lbs. X1 = 2.5" , Y1 = 1", Y2 = 1.75"
  Install fasteners from one face.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **DB20-2 - i8772** Type: **Beam**	**2 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 9-1/4**	Status: **Design Passed**

Graphical Illustration Not to Scale. Pitch: 0/12 Designed by: MiTek® Structure Version 8.5.0.207.Update18.7 ReportVersion: 2020.02.21 03/31/2022 19:59



DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 1'- 2 3/4" Bottom: 5'- 9"

Bearing Stress of Support Material:

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

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	2'- 11 1/2"	D + L	2686 lb ft	13321 lb ft	Passed - 20%
Max Shear:	4'- 8 1/4"	D + L	1480 lb	6259 lb	Passed - 24%
Live Load (LL) Deflection:	2'- 10 1/4"	L	0.018"	L/480	Passed - L/999
Total Load (TL) Deflection:	2'- 10 5/16"	D + L	0.030"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 2 1/2"	3 1/2"	D + L	1.00	2469 lb		9188 lb	8881 lb	Passed - 28%
5'- 6 1/2"	3 1/2"	D + L	1.00	2361 lb		9188 lb	8881 lb	Passed - 27%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Self Weight	0'	5'- 9"	Self Weight	Top	9 lb/ft	-	-	-
Uniform	0'	5'- 9"	Smoothed Load	Top	107 lb/ft	405 lb/ft	-	-
Uniform	0'- 4 3/4"	1'- 6 1/4"	BP1(i8773)	Top	191 lb/ft	110 lb/ft	-	-
Uniform	2'- 3 1/2"	5'- 9"	RIM1(i8776)	Top	191 lb/ft	110 lb/ft	-	-
Point	0'- 1 1/8"	0'- 1 1/8"	BP1(i8741)	Top	36 lb	-	-	-
Point	1'- 10 7/16"	1'- 10 7/16"	-	Top	192 lb	200 lb	-	-

REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 3 1/2"	W33(i65)	912 lb	1615 lb	-	-
2	5'- 5 1/2"	5'- 9"	W32(i20)	855 lb	1448 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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
- Zone A: Factored load = 0 plf. Use 16d (0.162"x 3.5") nails. LDF = 1.00. Qty = 12. Row = 2, Spacing = 12"
  16d (0.162"x 3.5") nails properties: D = 0.162" , L = 3.5". Fastener capacity = 140 lbs. X1 = 2.5" , Y1 = 1", Y2 = 1.75"
  Install fasteners from one face.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **FB21 - i8744** Type: **Beam**	**1 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 14**	Status: **Design Passed**

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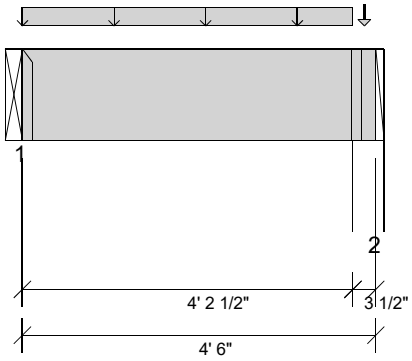

DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 0' Bottom: 4'- 2 1/2"

Bearing Stress of Support Material:

- 425 psi Beam @ 0'
- 725 psi Wall @ 4'- 3 1/2"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	2'- 1 7/16"	D + L	61 lb ft	14486 lb ft	Passed - 0%
Max Shear:	1'- 2"	D + L	26 lb	4737 lb	Passed - 1%
Live Load (LL) Deflection:	2'- 1 11/16"	L	0.000"	L/480	Passed - L/999
Total Load (TL) Deflection:	2'- 1 5/8"	D + L	0.000"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'	1 1/2"	D + L	1.00	64 lb		1969 lb	-	Passed - 3%
4'- 3 1/2"	3 1/2"	D + L	1.00	103 lb		4594 lb	4441 lb	Passed - 2%

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Other Information or Requirement for Reinforcement Accessories
1	HD17112	MiTek	-

* Connectors: Refer to manufacturer's specifications, fasteners requirements and installation instruction.

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Self Weight	0'	4'- 6"	Self Weight	Top	6 lb/ft	-	-	-
Uniform	0'	4'- 2 1/2"	FC1 Floor Decking (Plan View Fill)	Top	4 lb/ft	17 lb/ft	-	-
Point	4'- 4 1/4"	4'- 4 1/4"	W98(i1450)	Top	28 lb	16 lb	-	-

REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'	FB18-2(i8764)	24 lb	40 lb	-	-
2	4'- 2 1/2"	4'- 6"	W45(i57)	52 lb	51 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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **FB22 - i8784** Type: **Beam**	**1 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 14**	Status: **Design Passed**

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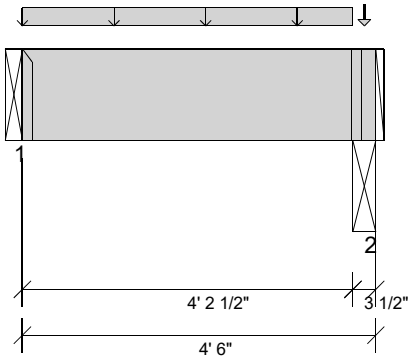

DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 0' Bottom: 4'- 2 1/2"

Bearing Stress of Support Material:

- 425 psi Beam @ 0'
- 750 psi Beam @ 4'- 3 1/2"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	2'- 1 3/8"	D + L	52 lb ft	14486 lb ft	Passed - 0%
Max Shear:	1'- 2"	D + L	22 lb	4737 lb	Passed - 0%
Live Load (LL) Deflection:	2'- 1 11/16"	L	0.000"	L/480	Passed - L/999
Total Load (TL) Deflection:	2'- 1 5/8"	D + L	0.000"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'	1 1/2"	D + L	1.00	49 lb		1969 lb	-	Passed - 2%
4'- 3 1/2"	3 1/2"	D + L	1.00	94 lb		4594 lb	4594 lb	Passed - 2%

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Other Information or Requirement for Reinforcement Accessories
1	HD17112	MiTek	-

* Connectors: Refer to manufacturer's specifications, fasteners requirements and installation instruction.

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Self Weight	0'	4'- 6"	Self Weight	Top	6 lb/ft	-	-	-
Uniform	0'	4'- 2 1/2"	FC1 Floor Decking (Plan View Fill)	Top	3 lb/ft	13 lb/ft	-	-
Point	4'- 4 1/4"	4'- 4 1/4"	W98(i1450)	Top	28 lb	16 lb	-	-

REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'	FB16-2(i8737)	21 lb	28 lb	-	-
2	4'- 2 1/2"	4'- 6"	DB20-2(i8772)	50 lb	44 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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **FB23-3 - i8193** Type: **Beam**	**3 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 9-1/4**	Status: **Design Passed**

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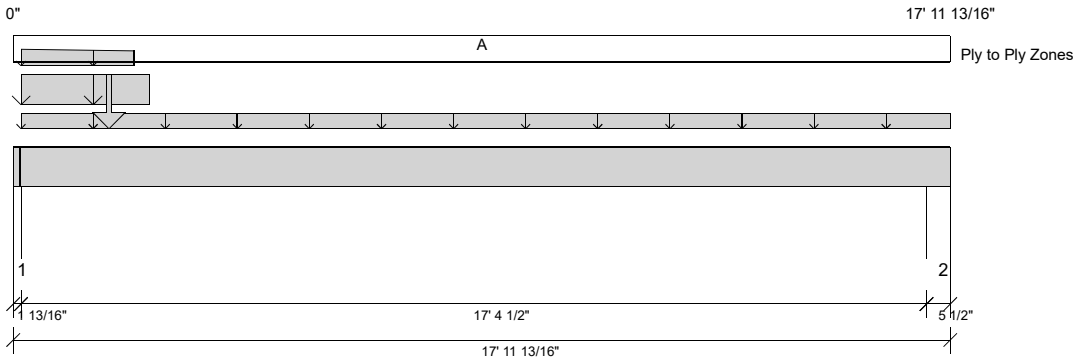


DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 1'- 4" Bottom: 17'- 4 1/2"

Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 13/16"
- 725 psi Wall @ 17'- 7 5/16"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	1'- 10 1/16"	D + S	10939 lb ft	22978 lb ft	Passed - 48%
Max Shear:	0'- 11 1/16"	D + S	6190 lb	10797 lb	Passed - 57%
Live Load (LL) Deflection:	7'- 6 3/8"	S	0.301"	L/480	Passed - L/693
Total Load (TL) Deflection:	7'- 8 3/16"	D + S	0.667"	L/240	Passed - L/312

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 13/16"	1 13/16"	D + S	1.15	6539 lb		7123 lb	6886 lb	Passed - 95%
17'- 7 5/16"	5 1/2"	D + 0.75(L + S)	1.15	941 lb		21657 lb	20935 lb	Passed - 4%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Self Weight	0'	17'- 11 13/16"	Self Weight	Top	13 lb/ft	-	-	-
Uniform	0'- 1 13/16"	17'- 11 13/16"	User Load	Top	10 lb/ft	20 lb/ft	-	-
Uniform	0'- 1 13/16"	2'- 7 5/16"	W93(i1425)	Top	206 lb/ft	-	160 lb/ft	-
Tapered	0'- 1 13/16"	2'- 3 13/16"	W93(i1425)	Top	29 To 15 lb/ft	-	39 To 20 lb/ft	-
Point	1'- 10 1/16"	1'- 10 1/16"	W93(i1425)	Top	2940 lb	-	3070 lb	-

REACTIONS

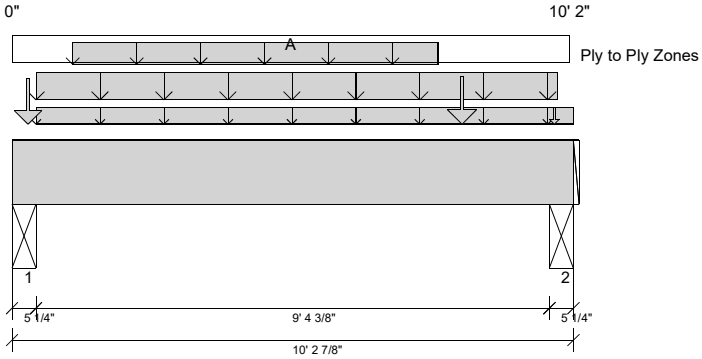
ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 1 13/16"	W50(i60)	3345 lb	173 lb	3173 lb	-
2	17'- 6 5/16"	17'- 11 13/16"	W23(i17)	557 lb	184 lb	354 lb	-

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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
- The unbraced length used in this design was manually input by the user. Install lateral bracing to satisfy the unbraced lengths specified on this report.
-
- Zone A: Factored load = 0 plf. Use 16d (0.162"x 3.5") nails. LDF = 1.00. Qty = 72. Row = 2, Spacing = 12"
  16d (0.162"x 3.5") nails properties: D = 0.162" , L = 3.5". Fastener capacity = 140 lbs. X1 = 2.5" , Y1 = 1", Y2 = 1.75"
  Install fasteners from both faces.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.
-

Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **FB24-2 - i8735** Type: **Beam**	**2 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 14**	Status: **Design Passed**

Graphical Illustration Not to Scale. Pitch: 0/12 Designed by: MiTek® Structure Version 8.5.0.207.Update18.7 ReportVersion: 2020.02.21 03/31/2022 19:59



DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 0' Bottom: 1'- 2 3/4"

Bearing Stress of Support Material:

- 750 psi Beam @ 0'- 4 1/4"
- 750 psi Beam @ 9'- 10 5/8"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	5'- 6 11/16"	D + L	8083 lb ft	28972 lb ft	Passed - 28%
Max Shear:	8'- 7 5/8"	D + 0.75(L + S)	4091 lb	10894 lb	Passed - 38%
Live Load (LL) Deflection:	5'- 2 3/4"	0.75(L + S)	0.046"	L/480	Passed - L/999
Total Load (TL) Deflection:	5'- 2 13/16"	D + 0.75(L + S)	0.095"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 4 1/4"	5 1/4"	D + 0.75(L + S)	1.15	5128 lb		13781 lb	13781 lb	Passed - 37%
9'- 10 5/8"	5 1/4"	D + 0.75(L + S)	1.15	4695 lb		13781 lb	13781 lb	Passed - 34%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Self Weight	0'	10'- 2 7/8"	Self Weight	Top	13 lb/ft	-	-	-
Uniform	0'- 5 1/4"	10'- 2 7/8"	User Load	Back	55 lb/ft	55 lb/ft	-	-
Uniform	0'- 5 1/4"	9'- 11 3/8"	W61(i1342)	Top	221 lb/ft	50 lb/ft	120 lb/ft	-
Uniform	1'- 1 1/4"	7'- 9 1/4"	Smoothed Load	Front	51 lb/ft	204 lb/ft	-	-
Point	8'- 2 1/2"	8'- 2 1/2"	-	Front	978 lb	271 lb	1015 lb	-
Point	9'- 10 11/16"	9'- 10 11/16"	-	Front	62 lb	183 lb	47 lb	-
Point	0'- 3 1/2"	0'- 3 1/2"	W60(i1344)	Top	958 lb	51 lb	1120 lb	-

REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 5 1/4"	DB6-3(i8777)	2699 lb	1376 lb	1879 lb	-
2	9'- 9 5/8"	10'- 2 7/8"	DB12-3(i8779)	2460 lb	1518 lb	1444 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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
- Zone A: Factored load = 254 plf. Use 16d (0.162"x 3.5") nails. LDF = 1.00. Qty = 33. Row = 3, Spacing = 12"
  16d (0.162"x 3.5") nails properties: D = 0.162" , L = 3.5". Fastener capacity = 140 lbs. X1 = 2.5" , Y1 = 1", Y2 = 1.75"
  Install fasteners from one face.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.
-

Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **FB25-2 - i8627** Type: **Beam**	**2 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 14**	Status: **Design Passed**

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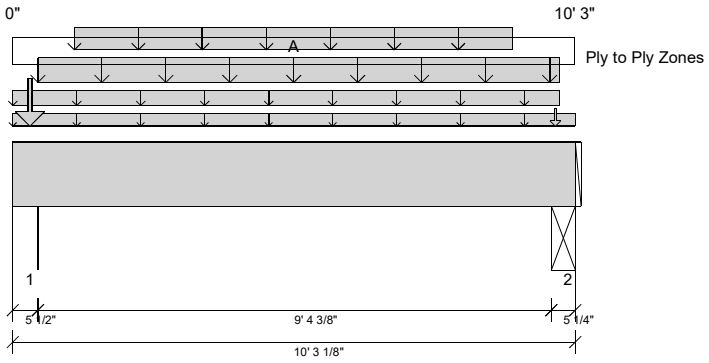

DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 0' Bottom: 1'- 2 3/4"

Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 4 1/2"
- 750 psi Beam @ 9'- 10 7/8"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	5'- 2 1/8"	D + L	6238 lb ft	28972 lb ft	Passed - 22%
Max Shear:	8'- 7 7/8"	D + L	2327 lb	9473 lb	Passed - 25%
Live Load (LL) Deflection:	5'- 1 3/4"	0.75(L + S)	0.034"	L/480	Passed - L/999
Total Load (TL) Deflection:	5'- 1 3/4"	D + 0.75(L + S)	0.068"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 4 1/2"	5 1/2"	D + 0.75(L + S)	1.15	4496 lb		14437 lb	13956 lb	Passed - 32%
9'- 10 7/8"	5 1/4"	D + L	1.00	2777 lb		13781 lb	13781 lb	Passed - 20%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Self Weight	0'	10'- 3 1/8"	Self Weight	Top	13 lb/ft	-	-	-
Uniform	-0'	10'- 3 1/8"	User Load	Front	10 lb/ft	10 lb/ft	-	-
Uniform	0'	9'- 11 5/8"	W63(i1347)	Top	81 lb/ft	-	-	-
Uniform	0'- 5 1/2"	9'- 11 5/8"	W63(i1347)	Top	140 lb/ft	50 lb/ft	120 lb/ft	-
Uniform	1'- 1 1/2"	9'- 1 1/2"	Smoothed Load	Back	51 lb/ft	205 lb/ft	-	-
Point	9'- 10 3/4"	9'- 10 3/4"	-	Back	108 lb	183 lb	47 lb	-
Point	0'- 3 3/4"	0'- 3 3/4"	W63(i1347)	Top	932 lb	51 lb	1117 lb	-

REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 5 1/2"	W14(i38)	2345 lb	1177 lb	1680 lb	-
2	9'- 9 7/8"	10'- 3 1/8"	DB12-3(i8779)	1492 lb	1289 lb	625 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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
- Zone A: Factored load = 254 plf. Use 16d (0.162"x 3.5") nails. LDF = 1.00. Qty = 33. Row = 3, Spacing = 12"
  16d (0.162"x 3.5") nails properties: D = 0.162" , L = 3.5". Fastener capacity = 140 lbs. X1 = 2.5" , Y1 = 1", Y2 = 1.75"
  Install fasteners from one face.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **J24 - i8647** Type: **FloorJoist**	**1 Ply Member** **14" PJI-40**	Status: **Design Passed**

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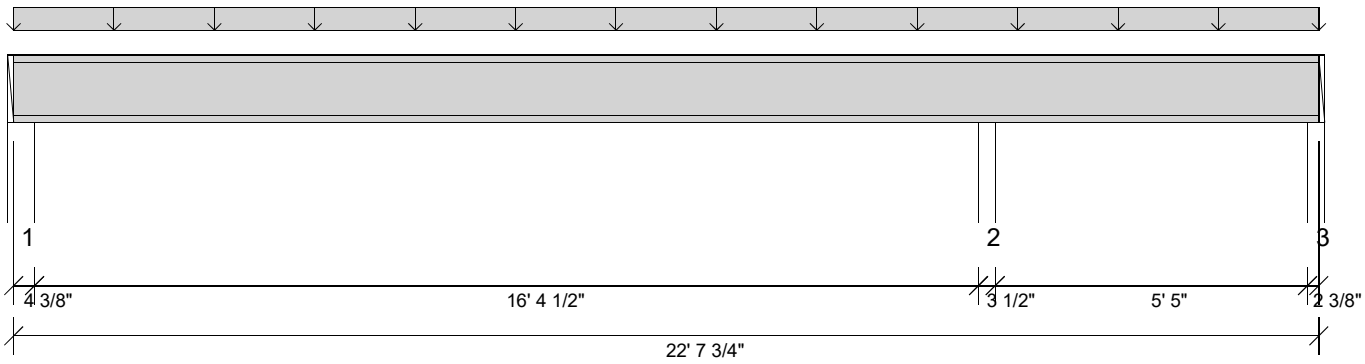

DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Live Load:	20.0 psf
System Dead Load:	10.0 psf
System Spacing:	16" c.c
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Floor Assembly Requirements:

Subfloor:	3/4"OSB Plywood
Connection:	Glued And Nailed
Ceiling:	None

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 0' Bottom: 16'- 4 1/2"

Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 3 3/8"
- 725 psi Wall @ 16'- 10 5/8"
- 725 psi Wall @ 22'- 6 3/8"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	16'- 10 5/8"	D + L	1780 lb ft	4270 lb ft	Passed - 42%
Max Shear:	16'- 8 13/16"	D + L	650 lb	1815 lb	Passed - 36%
Live Load (LL) Deflection:	7'- 9 3/8"	L	0.102"	L/480	Passed - L/999
Total Load (TL) Deflection:	7'- 9 1/4"	D + L	0.127"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 3 3/8"	4 3/8"	D + L	1.00	472 lb		1580 lb	7930 lb	Passed - 30%
16'- 10 5/8"	3 1/2"	D + L	1.00	1164 lb		2755 lb	6344 lb	Passed - 42%
22'- 6 3/8"	2 3/8"	D + L	1.00	130 lb		1306 lb	4305 lb	Passed - 10%
22'- 6 3/8"	2 3/8"	D + L	1.00		-265 lb	-	-	

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Uniform	0'	22'- 7 3/4"	FC1 Floor Decking (Plan View Fill)	Top	13 lb/ft	53 lb/ft	-	-

REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 4 3/8"	W3(i30)	94 lb	378/-3 lb	-	-
2	16'- 8 7/8"	17'- 3/8"	W53(i70)	233 lb	931 lb	-	-
3	22'- 5 3/8"	22'- 7 3/4"	W43(i62)	-23 lb	152/-243 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.
- A load bearing wall is supported by the I-joist at a location where the I-joist is supported by a member below. Please see manufacturer installation guidelines for requirements of blocking/squash blocks.
- 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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **J24 - i8679** Type: **FloorJoist**	**1 Ply Member** **14" PJI-40**	Status: **Design Passed**

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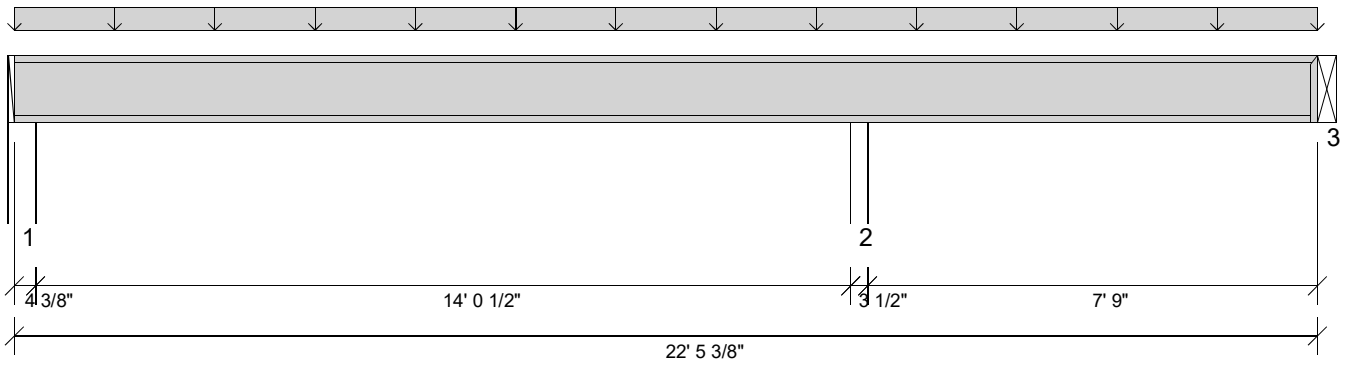

DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Live Load:	20.0 psf
System Dead Load:	10.0 psf
System Spacing:	16" c.c
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Floor Assembly Requirements:

Subfloor:	3/4"OSB Plywood
Connection:	Glued And Nailed
Ceiling:	None

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 0' Bottom: 14'- 1/2"

Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 3 3/8"
- 725 psi Wall @ 14'- 6 5/8"
- 425 psi Beam @ 22'- 5 3/8"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	14'- 6 5/8"	D + L	1277 lb ft	4270 lb ft	Passed - 30%
Max Shear:	14'- 4 13/16"	D + L	555 lb	1815 lb	Passed - 31%
Live Load (LL) Deflection:	6'- 10 3/8"	L	0.064"	L/480	Passed - L/999
Total Load (TL) Deflection:	6'- 10"	D + L	0.079"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 3 3/8"	4 3/8"	D + L	1.00	419 lb		1580 lb	7930 lb	Passed - 27%
14'- 6 5/8"	3 1/2"	D + L	1.00	990 lb		2755 lb	6344 lb	Passed - 36%
22'- 5 3/8"	1 3/4"	D + L	1.00	222 lb		1200 lb	-	Passed - 18%
22'- 5 3/8"	1 3/4"	D + L	1.00		-88 lb	-	-	

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Other Information or Requirement for Reinforcement Accessories
3	TFL2514	MiTek	-

* Connectors: Refer to manufacturer's specifications, fasteners requirements and installation instruction.

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Uniform	0'	22'- 5 3/8"	FC1 Floor Decking (Plan View Fill)	Top	13 lb/ft	53 lb/ft	-	-

REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 4 3/8"	W3(i30)	82 lb	337/-10 lb	-	-
2	14'- 4 7/8"	14'- 8 3/8"	W39(i24)	198 lb	792 lb	-	-
3	22'- 5 3/8"	22'- 5 3/8"	FB16-2(i8737)	22 lb	197/-111 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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **J10 - i8664** Type: **FloorJoist**	**1 Ply Member** **14" PJI-40**	Status: **Design Passed**

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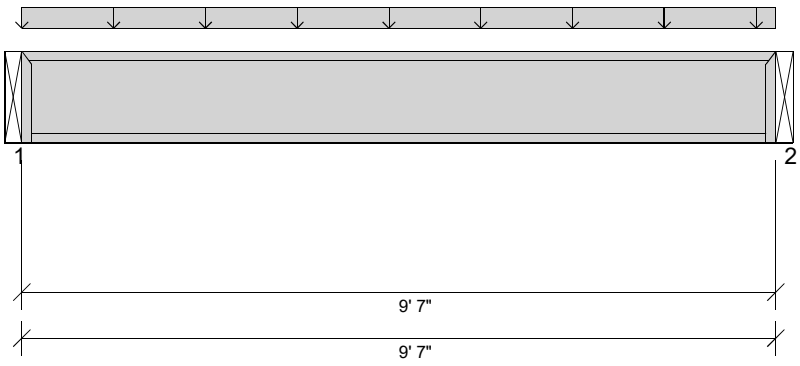

DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Live Load:	20.0 psf
System Dead Load:	10.0 psf
System Spacing:	16" c.c
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Floor Assembly Requirements:

Subfloor:	3/4"OSB Plywood
Connection:	Glued And Nailed
Ceiling:	None

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 0' Bottom: 9'- 7"

Bearing Stress of Support Material:

- 425 psi Beam @ 0'
- 425 psi Beam @ 9'- 7"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	4'- 9 1/2"	D + L	765 lb ft	4270 lb ft	Passed - 18%
Max Shear:	9'- 6 15/16"	D + L	319 lb	1815 lb	Passed - 18%
Live Load (LL) Deflection:	4'- 9 1/2"	L	0.025"	L/480	Passed - L/999
Total Load (TL) Deflection:	4'- 9 1/2"	D + L	0.032"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'	1 3/4"	D + L	1.00	339 lb		1200 lb	-	Passed - 28%
9'- 7"	1 3/4"	D + L	1.00	339 lb		1200 lb	-	Passed - 28%

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Other Information or Requirement for Reinforcement Accessories
1	TFL2514	MiTek	-
2	TFL2514	MiTek	-

* Connectors: Refer to manufacturer's specifications, fasteners requirements and installation instruction.

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Uniform	0'	9'- 7"	FC1 Floor Decking (Plan View Fill)	Top	13 lb/ft	53 lb/ft	-	-

REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'	FB24-2(i8735)	68 lb	271 lb	-	-
2	9'- 7"	9'- 7"	FB25-2(i8627)	68 lb	271 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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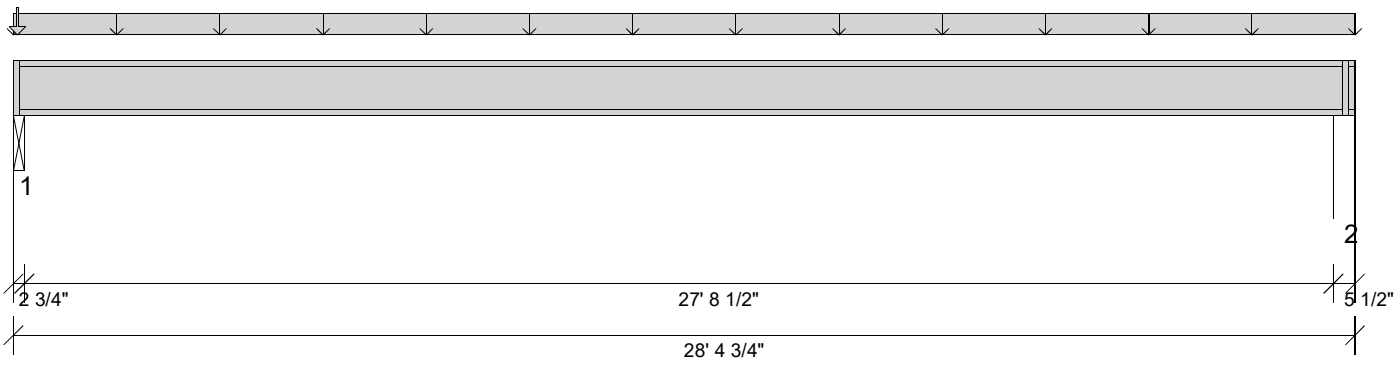
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **K30 - i8428** Type: **FloorJoist**	**1 Ply Member** **14" PJI-65**	Status: **Design Passed**

Graphical Illustration Not to Scale. Pitch: 0/12 Designed by: MiTek® Structure Version 8.5.0.207.Update18.7 ReportVersion: 2020.02.21 03/31/2022 19:59



DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Live Load:	20.0 psf
System Dead Load:	10.0 psf
System Spacing:	16" c.c
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Floor Assembly Requirements:

Subfloor:	3/4"OSB Plywood
Connection:	Glued And Nailed
Ceiling:	None

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 0' Bottom: 27'- 8 1/2"

Bearing Stress of Support Material:

- 750 psi Beam @ 0'- 1 3/4"
- 725 psi Wall @ 28'- 1/4"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	14'- 1"	D + L	3881 lb ft	6125 lb ft	Passed - 63%
Max Shear:	0'- 2 13/16"	D + L	554 lb	1815 lb	Passed - 31%
Live Load (LL) Deflection:	14'- 1"	L	0.499"	L/480	Passed - L/666
Total Load (TL) Deflection:	14'- 1"	D + L	0.748"	L/240	Passed - L/444

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 1 3/4"	2 3/4"	D + L	1.00	643 lb		1369 lb	7219 lb	Passed - 47%
28'- 1/4"	5 1/2"	D + L	1.00	572 lb		1580 lb	13957 lb	Passed - 36%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Uniform	-0'	28'- 4 3/4"	FC1 Floor Decking (Plan View Fill)	Top	13 lb/ft	27 lb/ft	-	-
Point	0'- 1"	0'- 1"	W63(i1347)	Top	48 lb	25 lb	-	-

REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 2 3/4"	DB14-3(i8783)	236 lb	407 lb	-	-
2	27'- 11 1/4"	28'- 4 3/4"	W51(i68)	191 lb	382 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.
- A load bearing wall is supported by the I-joist at a location where the I-joist is supported by a member below. Please see manufacturer installation guidelines for requirements of blocking/squash blocks.
- 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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **J18 - i8736** Type: **FloorJoist**	**1 Ply Member** **14" PJI-40**	Status: **Design Passed**

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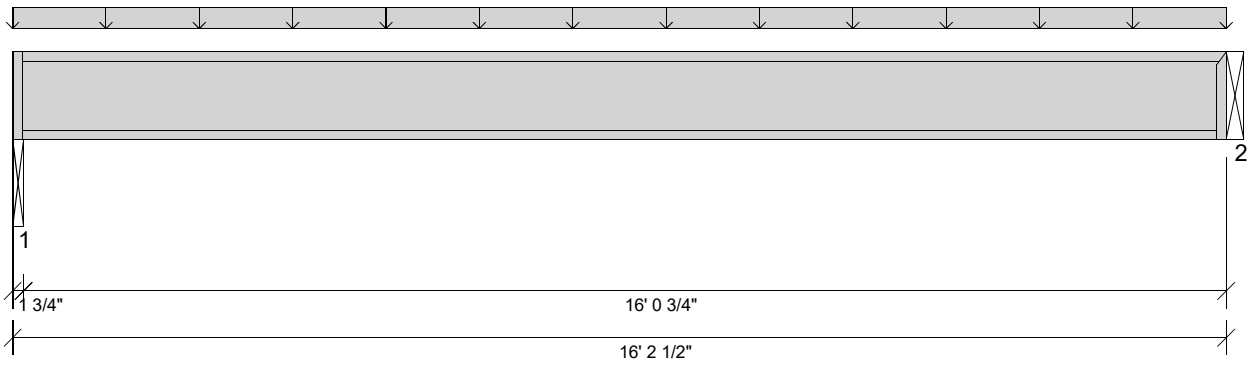

DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Live Load:	20.0 psf
System Dead Load:	10.0 psf
System Spacing:	16" c.c
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Floor Assembly Requirements:

Subfloor:	3/4"OSB Plywood
Connection:	Glued And Nailed
Ceiling:	None

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 0' Bottom: 16'- 3/4"

Bearing Stress of Support Material:

- 750 psi Beam @ 0'- 3/4"
- 425 psi Beam @ 16'- 2 1/2"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	8'- 1 5/8"	D + L	2172 lb ft	4270 lb ft	Passed - 51%
Max Shear:	16'- 2 7/16"	D + L	538 lb	1815 lb	Passed - 30%
Live Load (LL) Deflection:	8'- 1 5/8"	L	0.161"	L/480	Passed - L/999
Total Load (TL) Deflection:	8'- 1 5/8"	D + L	0.201"	L/240	Passed - L/957

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 3/4"	1 3/4"	D + L	1.00	542 lb		1200 lb	3281 lb	Passed - 45%
16'- 2 1/2"	1 3/4"	D + L	1.00	552 lb		1200 lb	-	Passed - 46%

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Other Information or Requirement for Reinforcement Accessories
2	TFL2514	MiTek	-

* Connectors: Refer to manufacturer's specifications, fasteners requirements and installation instruction.

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Uniform	-0'	16'- 2 1/2"	FC1 Floor Decking (Plan View Fill)	Top	13 lb/ft	53 lb/ft	-	-

REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 1 3/4"	DB20-2(i8772)	108 lb	434 lb	-	-
2	16'- 2 1/2"	16'- 2 1/2"	FB15-3(i8757)	110 lb	442 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.
- A load bearing wall is supported by the I-joist at a location where the I-joist is supported by a member below. Please see manufacturer installation guidelines for requirements of blocking/squash blocks.
- 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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MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **J6 - i8747** Type: **FloorJoist**	**1 Ply Member** **14" PJI-40**	Status: **Design Passed**

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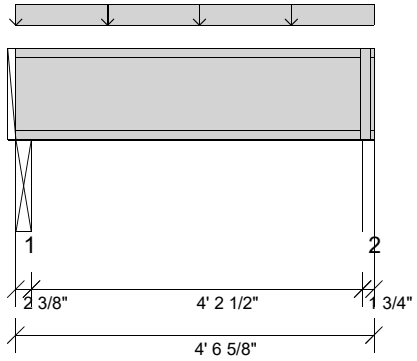

DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Live Load:	20.0 psf
System Dead Load:	10.0 psf
System Spacing:	16" c.c
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Floor Assembly Requirements:

Subfloor:	3/4"OSB Plywood
Connection:	Glued And Nailed
Ceiling:	None

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 0' Bottom: 4'- 2 1/2"

Bearing Stress of Support Material:

- 750 psi Beam @ 0'- 1 3/8"
- 725 psi Wall @ 4'- 5 7/8"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	2'- 3 11/16"	D + L	159 lb ft	4270 lb ft	Passed - 4%
Max Shear:	0'- 2 7/16"	D + L	140 lb	1815 lb	Passed - 8%
Live Load (LL) Deflection:	2'- 3 5/8"	L	0.002"	L/480	Passed - L/999
Total Load (TL) Deflection:	2'- 3 5/8"	D + L	0.003"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 1 3/8"	2 3/8"	D + L	1.00	160 lb		1306 lb	4453 lb	Passed - 12%
4'- 5 7/8"	1 3/4"	D + L	1.00	150 lb		1200 lb	3172 lb	Passed - 12%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Uniform	0'	4'- 6 5/8"	FC1 Floor Decking (Plan View Fill)	Top	13 lb/ft	53 lb/ft	-	-

REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 2 3/8"	DB19-2(i8780)	32 lb	128 lb	-	-
2	4'- 4 7/8"	4'- 6 5/8"	W45(i57)	30 lb	120 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.
- A load bearing wall is supported by the I-joist at a location where the I-joist is supported by a member below. Please see manufacturer installation guidelines for requirements of blocking/squash blocks.
- 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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-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **J18 - i8781** Type: **FloorJoist**	**1 Ply Member** **14" PJI-40**	Status: **Design Passed**

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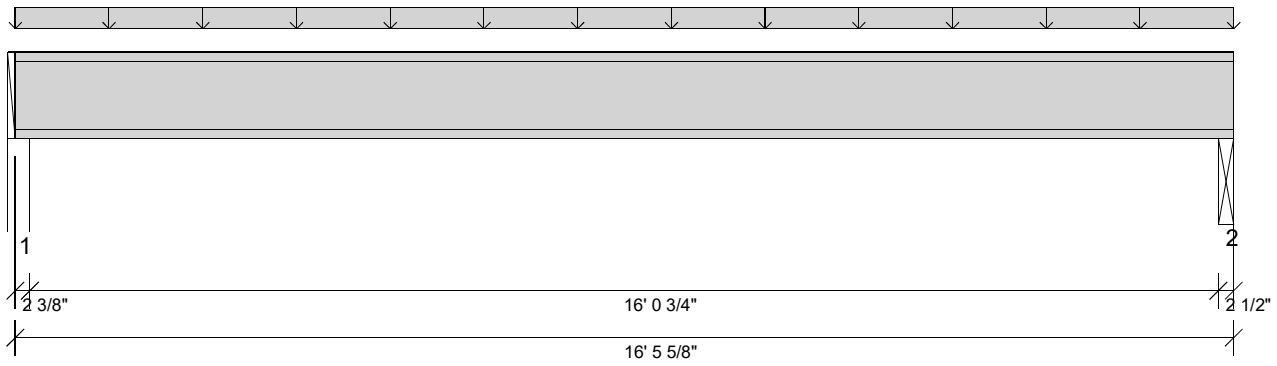

DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Live Load:	20.0 psf
System Dead Load:	10.0 psf
System Spacing:	16" c.c
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Floor Assembly Requirements:

Subfloor:	3/4"OSB Plywood
Connection:	Glued And Nailed
Ceiling:	None

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 0' Bottom: 16'- 3/4"

Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 1 3/8"
- 750 psi Beam @ 16'- 4 1/8"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	8'- 2 3/4"	D + L	2194 lb ft	4270 lb ft	Passed - 51%
Max Shear:	0'- 2 7/16"	D + L	535 lb	1815 lb	Passed - 29%
Live Load (LL) Deflection:	8'- 2 3/4"	L	0.164"	L/480	Passed - L/999
Total Load (TL) Deflection:	8'- 2 3/4"	D + L	0.205"	L/240	Passed - L/939

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 1 3/8"	2 3/8"	D + L	1.00	555 lb		1306 lb	4305 lb	Passed - 43%
16'- 4 1/8"	2 1/2"	D + L	1.00	549 lb		1327 lb	4687 lb	Passed - 41%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Uniform	0'	16'- 5 5/8"	FC1 Floor Decking (Plan View Fill)	Top	13 lb/ft	53 lb/ft	-	-

REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 2 3/8"	W45(i57)	111 lb	444 lb	-	-
2	16'- 3 1/8"	16'- 5 5/8"	DB14-3(i8783)	110 lb	439 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.
- A load bearing wall is supported by the I-joist at a location where the I-joist is supported by a member below. Please see manufacturer installation guidelines for requirements of blocking/squash blocks.
- 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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **J8 - i8667** Type: **FloorJoist**	**1 Ply Member** **14" PJI-40**	Status: **Design Passed**

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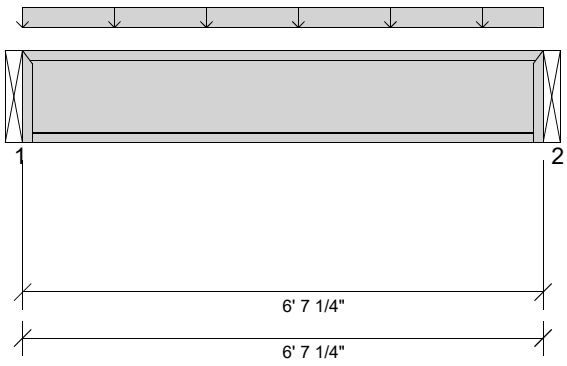

DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Live Load:	20.0 psf
System Dead Load:	10.0 psf
System Spacing:	16" c.c
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Floor Assembly Requirements:

Subfloor:	3/4"OSB Plywood
Connection:	Glued And Nailed
Ceiling:	None

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 0' Bottom: 6'- 7 1/4"

Bearing Stress of Support Material:

- 425 psi Beam @ 0'
- 425 psi Beam @ 6'- 7 1/4"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	3'- 3 5/8"	D + L	304 lb ft	4270 lb ft	Passed - 7%
Max Shear:	0'- 1/16"	D + L	184 lb	1815 lb	Passed - 10%
Live Load (LL) Deflection:	3'- 3 5/8"	L	0.006"	L/480	Passed - L/999
Total Load (TL) Deflection:	3'- 3 5/8"	D + L	0.008"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'	1 3/4"	D + L	1.00	192 lb		1200 lb	-	Passed - 16%
6'- 7 1/4"	1 3/4"	D + L	1.00	200 lb		1200 lb	-	Passed - 17%

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Other Information or Requirement for Reinforcement Accessories
1	TFL2514	MiTek	-
2	TFL2514	MiTek	-

* Connectors: Refer to manufacturer's specifications, fasteners requirements and installation instruction.

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Uniform	0'	6'- 7 1/4"	FC1 Floor Decking (Plan View Fill)	Top	11 lb/ft	45 lb/ft	-	-

REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'	FB61-2(i8653)	38 lb	154 lb	-	-
2	6'- 7 1/4"	6'- 7 1/4"	Steel By Others(i3821)	40 lb	160 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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **J16 - i8496** Type: **FloorJoist**	**1 Ply Member** **14" PJI-40**	Status: **Design Passed**

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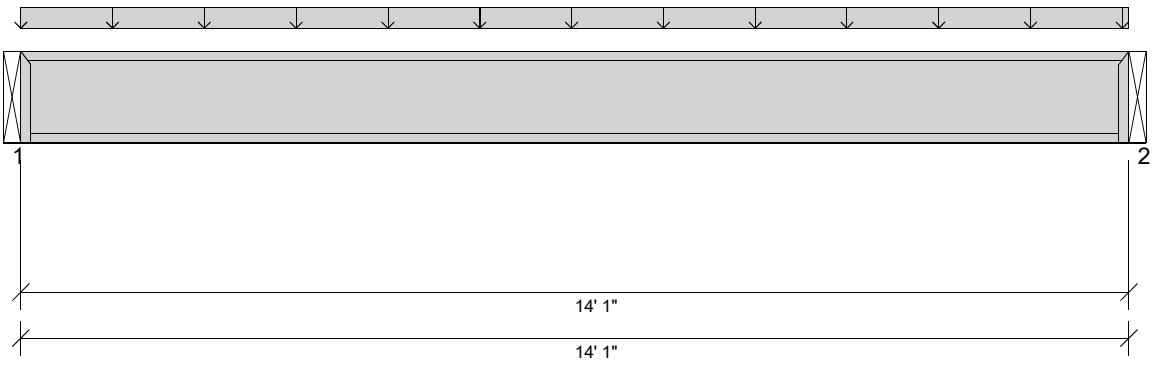

DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Live Load:	20.0 psf
System Dead Load:	10.0 psf
System Spacing:	16" c.c
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Floor Assembly Requirements:

Subfloor:	3/4"OSB Plywood
Connection:	Glued And Nailed
Ceiling:	None

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 0' Bottom: 14'- 1"

Bearing Stress of Support Material:

- 425 psi Beam @ 0'
- 425 psi Beam @ 14'- 1"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	7'- 1/2"	D + L	1653 lb ft	4270 lb ft	Passed - 39%
Max Shear:	0'- 1/16"	D + L	469 lb	1815 lb	Passed - 26%
Live Load (LL) Deflection:	7'- 1/2"	L	0.097"	L/480	Passed - L/999
Total Load (TL) Deflection:	7'- 1/2"	D + L	0.122"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'	1 3/4"	D + L	1.00	489 lb		1200 lb	-	Passed - 41%
14'- 1"	1 3/4"	D + L	1.00	489 lb		1200 lb	-	Passed - 41%

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Other Information or Requirement for Reinforcement Accessories
1	TFL2514	MiTek	-
2	TFL2514	MiTek	-

* Connectors: Refer to manufacturer's specifications, fasteners requirements and installation instruction.

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Uniform	0'	14'- 1"	FC1 Floor Decking (Plan View Fill)	Top	13 lb/ft	53 lb/ft	-	-

REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'	Steel By Others(i3822)	98 lb	391 lb	-	-
2	14'- 1"	14'- 1"	Steel By Others(i3821)	98 lb	391 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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **J14 - i8523** Type: **FloorJoist**	**1 Ply Member** **14" PJI-40**	Status: **Design Passed**

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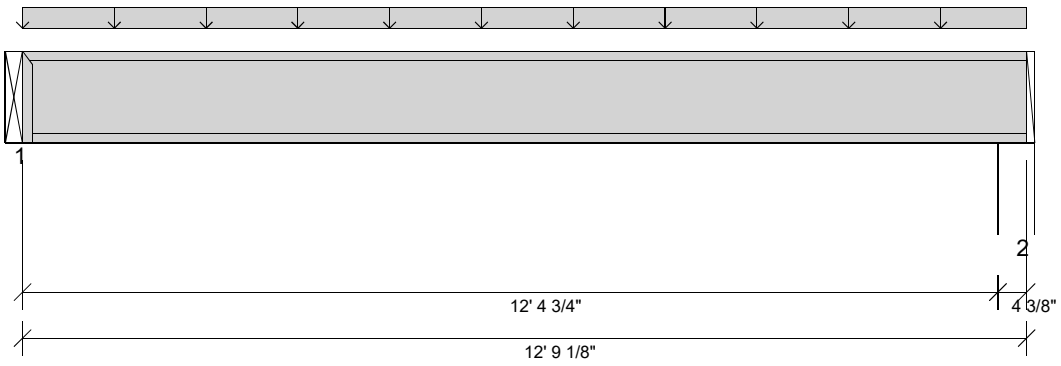

DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Live Load:	20.0 psf
System Dead Load:	10.0 psf
System Spacing:	16" c.c
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Floor Assembly Requirements:

Subfloor:	3/4"OSB Plywood
Connection:	Glued And Nailed
Ceiling:	None

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 0' Bottom: 12'- 4 3/4"

Bearing Stress of Support Material:

- 425 psi Beam @ 0'
- 725 psi Wall @ 12'- 5 3/4"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	6'- 2 13/16"	D + L	1296 lb ft	4270 lb ft	Passed - 30%
Max Shear:	0'- 1/16"	D + L	415 lb	1815 lb	Passed - 23%
Live Load (LL) Deflection:	6'- 2 7/8"	L	0.063"	L/480	Passed - L/999
Total Load (TL) Deflection:	6'- 2 7/8"	D + L	0.079"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'	1 3/4"	D + L	1.00	425 lb		1200 lb	-	Passed - 35%
12'- 5 3/4"	4 3/8"	D + L	1.00	441 lb		1580 lb	7930 lb	Passed - 28%

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Other Information or Requirement for Reinforcement Accessories
1	TFL2514	MiTek	-

* Connectors: Refer to manufacturer's specifications, fasteners requirements and installation instruction.

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Uniform	0'	12'- 9 1/8"	FC1 Floor Decking (Plan View Fill)	Top	13 lb/ft	53 lb/ft	-	-

REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'	Steel By Others(i3869)	85 lb	340 lb	-	-
2	12'- 4 3/4"	12'- 9 1/8"	W110(i3813)	88 lb	353 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.
- A load bearing wall is supported by the I-joist at a location where the I-joist is supported by a member below. Please see manufacturer installation guidelines for requirements of blocking/squash blocks.
- 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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **J8 - i8554** Type: **FloorJoist**	**1 Ply Member** **14" PJI-40**	Status: **Design Passed**

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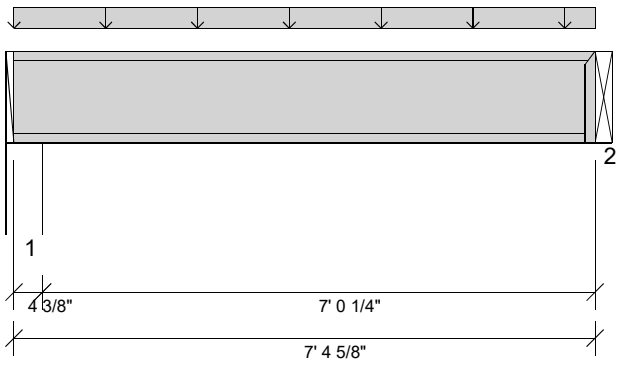

DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Live Load:	20.0 psf
System Dead Load:	10.0 psf
System Spacing:	16" c.c
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Floor Assembly Requirements:

Subfloor:	3/4"OSB Plywood
Connection:	Glued And Nailed
Ceiling:	None

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

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

Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 3 3/8"
- 425 psi Beam @ 7'- 4 5/8"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	3'- 10 1/8"	D + L	418 lb ft	4270 lb ft	Passed - 10%
Max Shear:	7'- 4 9/16"	D + L	236 lb	1815 lb	Passed - 13%
Live Load (LL) Deflection:	3'- 10 1/16"	L	0.010"	L/480	Passed - L/999
Total Load (TL) Deflection:	3'- 10 1/16"	D + L	0.012"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 3 3/8"	4 3/8"	D + L	1.00	262 lb		1580 lb	7929 lb	Passed - 17%
7'- 4 5/8"	1 3/4"	D + L	1.00	256 lb		1200 lb	-	Passed - 21%

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Other Information or Requirement for Reinforcement Accessories
2	TFL2514	MiTek	-

* Connectors: Refer to manufacturer's specifications, fasteners requirements and installation instruction.

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Uniform	0'	7'- 4 5/8"	FC1 Floor Decking (Plan View Fill)	Top	13 lb/ft	53 lb/ft	-	-

REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 4 3/8"	W102(i3808)	52 lb	210 lb	-	-
2	7'- 4 5/8"	7'- 4 5/8"	FB63-2(i8333)	51 lb	205 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.
- A load bearing wall is supported by the I-joist at a location where the I-joist is supported by a member below. Please see manufacturer installation guidelines for requirements of blocking/squash blocks.
- 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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- 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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **J14 - i8648** Type: **FloorJoist**	**1 Ply Member** **14" PJI-40**	Status: **Design Passed**

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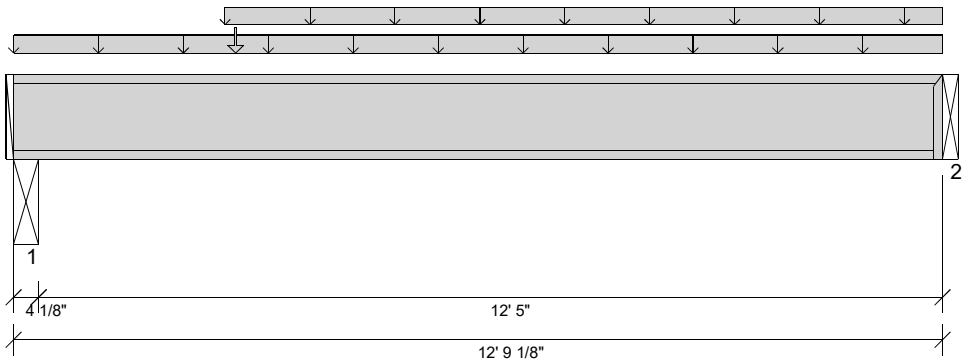

DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Live Load:	20.0 psf
System Dead Load:	10.0 psf
System Spacing:	16" c.c
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Floor Assembly Requirements:

Subfloor:	3/4"OSB Plywood
Connection:	Glued And Nailed
Ceiling:	None

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 0' Bottom: 12'- 5"

Bearing Stress of Support Material:

- 750 psi Beam @ 0'- 3 1/8"
- 425 psi Beam @ 12'- 9 1/8"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	6'- 3 3/16"	D + L	1407 lb ft	4270 lb ft	Passed - 33%
Max Shear:	0'- 4 3/16"	D + L	434 lb	1815 lb	Passed - 24%
Live Load (LL) Deflection:	6'- 6 11/16"	L	0.060"	L/480	Passed - L/999
Total Load (TL) Deflection:	6'- 5 7/16"	D + L	0.086"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 3 1/8"	4 1/8"	D + L	1.00	452 lb		1580 lb	7734 lb	Passed - 29%
12'- 9 1/8"	1 3/4"	D + L	1.00	443 lb		1200 lb	-	Passed - 37%

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Other Information or Requirement for Reinforcement Accessories
2	TFL2514	MiTek	-

* Connectors: Refer to manufacturer's specifications, fasteners requirements and installation instruction.

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Uniform	0'	12'- 9 1/8"	FC1 Floor Decking (Plan View Fill)	Top	13 lb/ft	27 lb/ft	-	-
Uniform	2'- 10 7/8"	12'- 9 1/8"	FC1 Floor Decking (Plan View Fill)	Top	-	27 lb/ft	-	-
Point	3'- 5/8"	3'- 5/8"	W124(i4103)	Top	108 lb	-	-	-

REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 4 1/8"	DB59-3(i8290)	172 lb	278 lb	-	-
2	12'- 9 1/8"	12'- 9 1/8"	Steel By Others(i3869)	109 lb	335 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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **J6 - i8758** Type: **FloorJoist**	**1 Ply Member** **14" PJI-40**	Status: **Design Passed**

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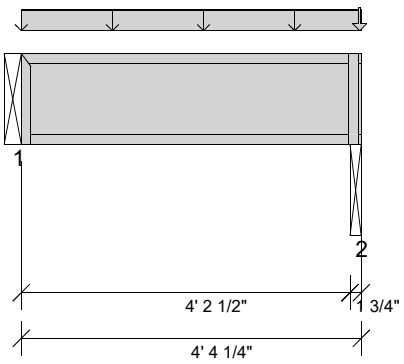

DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Live Load:	20.0 psf
System Dead Load:	10.0 psf
System Spacing:	16" c.c
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Floor Assembly Requirements:

Subfloor:	3/4"OSB Plywood
Connection:	Glued And Nailed
Ceiling:	None

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 0' Bottom: 4'- 2 1/2"

Bearing Stress of Support Material:

- 425 psi Beam @ 0'
- 750 psi Beam @ 4'- 3 1/2"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	2'- 1 5/8"	D + L	152 lb ft	4270 lb ft	Passed - 4%
Max Shear:	0'- 1/16"	D + L	142 lb	1815 lb	Passed - 8%
Live Load (LL) Deflection:	2'- 1 3/4"	L	0.002"	L/480	Passed - L/999
Total Load (TL) Deflection:	2'- 1 11/16"	D + L	0.003"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'	1 3/4"	D + L	1.00	152 lb		1200 lb	-	Passed - 13%
4'- 3 1/2"	1 3/4"	D + L	1.00	211 lb		1200 lb	3281 lb	Passed - 18%

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Other Information or Requirement for Reinforcement Accessories
1	TFL2514	MiTek	-

* Connectors: Refer to manufacturer's specifications, fasteners requirements and installation instruction.

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Uniform	0'	4'- 4 1/4"	FC1 Floor Decking (Plan View Fill)	Top	13 lb/ft	53 lb/ft	-	-
Point	4'- 4"	4'- 4"	W98(i1450)	Top	40 lb	23 lb	-	-

REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'	FB16-2(i8737)	31 lb	122 lb	-	-
2	4'- 2 1/2"	4'- 4 1/4"	DB20-2(i8772)	69 lb	141 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.
- A load bearing wall is supported by the I-joist at a location where the I-joist is supported by a member below. Please see manufacturer installation guidelines for requirements of blocking/squash blocks.
- 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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **J14 - i8765** Type: **FloorJoist**	**1 Ply Member** **14" PJI-40**	Status: **Design Passed**

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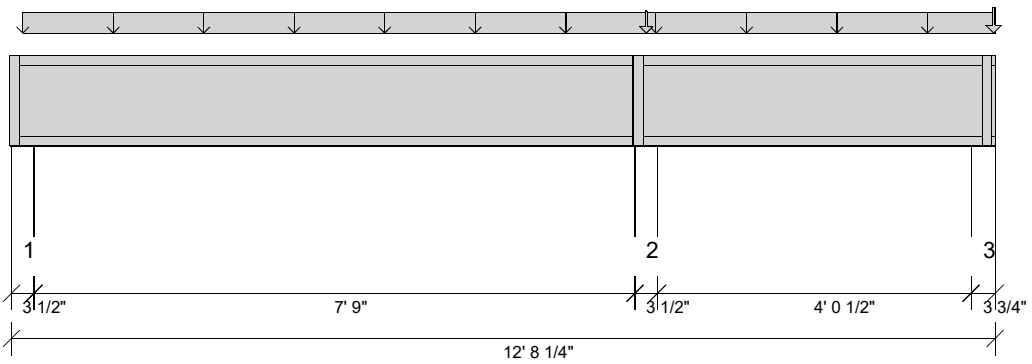

DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Live Load:	20.0 psf
System Dead Load:	10.0 psf
System Spacing:	16" c.c
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Floor Assembly Requirements:

Subfloor:	3/4"OSB Plywood
Connection:	Glued And Nailed
Ceiling:	None

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 0' Bottom: 7'- 9"

Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 2 1/2"
- 725 psi Wall @ 8'- 2 1/4"
- 725 psi Wall @ 12'- 5 1/2"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	8'- 2 1/4"	D + L	370 lb ft	4270 lb ft	Passed - 9%
Max Shear:	8'- 7/16"	D + L	286 lb	1815 lb	Passed - 16%
Live Load (LL) Deflection:	3'- 10 9/16"	L	0.008"	L/480	Passed - L/999
Total Load (TL) Deflection:	3'- 10 7/16"	D + L	0.010"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 2 1/2"	3 1/2"	D + L	1.00	212 lb		1496 lb	6344 lb	Passed - 14%
8'- 2 1/4"	3 1/2"	D + L	1.00	564 lb		2755 lb	6344 lb	Passed - 20%
12'- 5 1/2"	3 3/4"	D + L	1.00	214 lb		1538 lb	6797 lb	Passed - 14%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Uniform	0'- 1 3/4"	12'- 8 1/4"	-	Top	12 lb/ft	50 lb/ft	-	-
Point	8'- 2 1/4"	8'- 2 1/4"	W55(i1343)	Top	43 lb	10 lb	-	-
Point	12'- 8"	12'- 8"	W98(i1450)	Top	56 lb	32 lb	-	-

REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 3 1/2"	W39(i24)	41 lb	167/-5 lb	-	-
2	8'- 1/2"	8'- 4"	W42(i56)	147 lb	427 lb	-	-
3	12'- 4 1/2"	12'- 8 1/4"	W34(i64)	68 lb	141/-61 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.
- A load bearing wall is supported by the I-joist at a location where the I-joist is supported by a member below. Please see manufacturer installation guidelines for requirements of blocking/squash blocks.
- 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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **J14-2 - i8607** Type: **FloorJoist**	**2 Ply Member** **14" PJI-40**	Status: **Design Passed**

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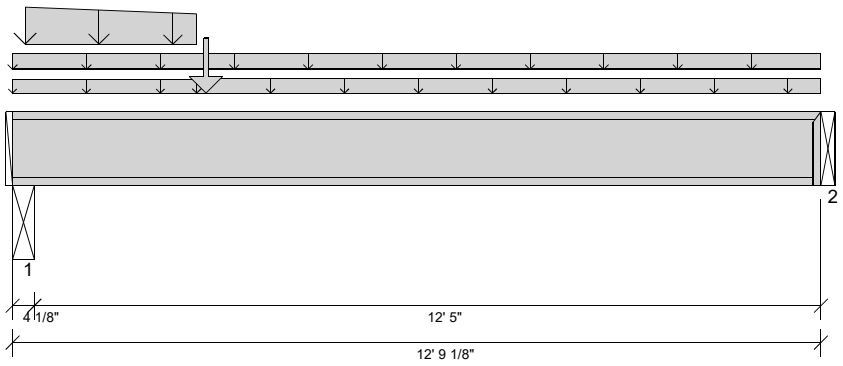

DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Live Load:	20.0 psf
System Dead Load:	10.0 psf
System Spacing:	16" c.c
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Floor Assembly Requirements:

Subfloor:	3/4"OSB Plywood
Connection:	Glued And Nailed
Ceiling:	None

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 0' Bottom: 12'- 5"

Bearing Stress of Support Material:

- 750 psi Beam @ 0'- 3 1/8"
- 425 psi Beam @ 12'- 9 1/8"

Ply to Ply Connection:

Member design assumes proper ply to ply connection by others. Verify connection between plies according to code specification and follow the manufacturer's installation instruction. Loads are assumed to be distributed equally to each ply.

Reinforcement Accessories Required

- Critical Load Web Stiffener @ 3'- 5/8"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	3'- 5/8"	D + S	5764 lb ft	9821 lb ft	Passed - 59%
Max Shear:	0'- 4 3/16"	D + 0.75(L + S)	2701 lb	4175 lb	Passed - 65%
Live Load (LL) Deflection:	6'	0.75(L + S)	0.074"	L/480	Passed - L/999
Total Load (TL) Deflection:	5'- 10 5/8"	D + 0.75(L + S)	0.161"	L/240	Passed - L/926

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 3 1/8"	4 1/8"	D + 0.75(L + S)	1.15	2796 lb		3160 lb	15468 lb	Passed - 88%
12'- 9 1/8"	1 3/4"	D + L	1.00	755 lb		3240 lb	-	Passed - 23%

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Other Information or Requirement for Reinforcement Accessories
2	THF25140-2	MiTek	Web Stiffener required. Refer to manufacturer's installation instruction.

* Connectors: Refer to manufacturer's specifications, fasteners requirements and installation instruction.

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Uniform	0'	12'- 9 1/8"	FC1 Floor Decking (Plan View Fill)	Top	13 lb/ft	37 lb/ft	-	-
Uniform	0'	2'- 10 7/8"	FC1 Floor Decking (Plan View Fill)	Top	-	3 lb/ft	-	-
Uniform	2'- 10 7/8"	12'- 9 1/8"	FC1 Floor Decking (Plan View Fill)	Top	-	17 lb/ft	-	-
Tapered	0'- 2 3/8"	2'- 10 7/8"	W122(i4099)	Top	381 To 221 lb/ft	50 lb/ft	120 lb/ft	-
Point	3'- 5/8"	3'- 5/8"	W121(i4100)	Top	1083 lb	-	1000 lb	-

REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 4 1/8"	DB58-3(i8312)	1647 lb	434 lb	1065 lb	-
2	12'- 9 1/8"	12'- 9 1/8"	Steel By Others(i3869)	408 lb	353 lb	260 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.
- Reinforcement Accessories are required. Refer to current manufacturer's product literature for installation details.
- A load bearing wall is supported by the I-joist at a location where the I-joist is supported by a member below. Please see manufacturer installation guidelines for requirements of blocking/squash blocks.
- A load bearing wall is supported by the I-joist at a location where the I-joist is supported by a member below. Please see manufacturer installation guidelines for requirements of blocking/squash blocks.
- 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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
-

Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **J14-2 - i8676** Type: **FloorJoist**	**2 Ply Member** **14" PJI-40**	Status: **Design Passed**

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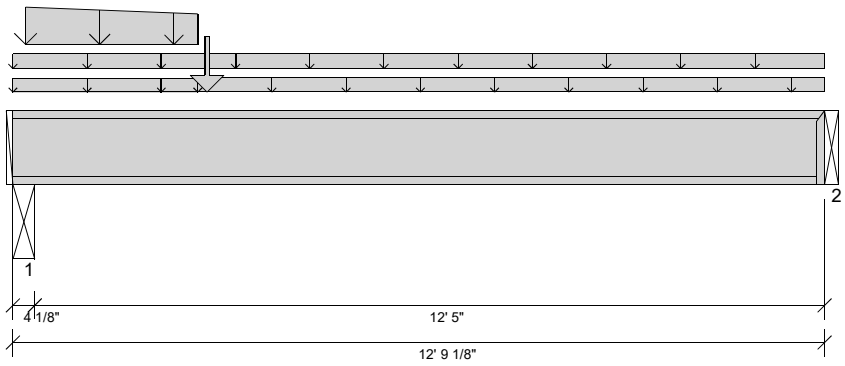

DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Live Load:	20.0 psf
System Dead Load:	10.0 psf
System Spacing:	16" c.c
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Floor Assembly Requirements:

Subfloor:	3/4"OSB Plywood
Connection:	Glued And Nailed
Ceiling:	None

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 0' Bottom: 12'- 5"

Bearing Stress of Support Material:

- 750 psi Beam @ 0'- 3 1/8"
- 425 psi Beam @ 12'- 9 1/8"

Ply to Ply Connection:

Member design assumes proper ply to ply connection by others. Verify connection between plies according to code specification and follow the manufacturer's installation instruction. Loads are assumed to be distributed equally to each ply.

Reinforcement Accessories Required

- Critical Load Web Stiffener @ 3'- 5/8"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	3'- 5/8"	D + S	5600 lb ft	9821 lb ft	Passed - 57%
Max Shear:	0'- 4 3/16"	D + S	2588 lb	4175 lb	Passed - 62%
Live Load (LL) Deflection:	5'- 8 9/16"	S	0.064"	L/480	Passed - L/999
Total Load (TL) Deflection:	5'- 8 3/4"	D + S	0.146"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 3 1/8"	4 1/8"	D + S	1.15	2665 lb		3160 lb	15469 lb	Passed - 84%
12'- 9 1/8"	1 3/4"	D + 0.75(L + S)	1.15	683 lb		3240 lb	-	Passed - 21%

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Other Information or Requirement for Reinforcement Accessories
2	THF25140-2	MiTek	Web Stiffener required. Refer to manufacturer's installation instruction.

* Connectors: Refer to manufacturer's specifications, fasteners requirements and installation instruction.

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Uniform	0'	12'- 9 1/8"	FC1 Floor Decking (Plan View Fill)	Top	7 lb/ft	18 lb/ft	-	-
Uniform	0'	2'- 10 7/8"	FC1 Floor Decking (Plan View Fill)	Top	-	3 lb/ft	-	-
Uniform	2'- 10 7/8"	12'- 9 1/8"	FC1 Floor Decking (Plan View Fill)	Top	-	8 lb/ft	-	-
Tapered	0'- 2 3/8"	2'- 10 7/8"	W127(i4105)	Top	381 To 221 lb/ft	50 lb/ft	120 lb/ft	-
Point	3'- 5/8"	3'- 5/8"	W128(i4106)	Top	1049 lb	-	1000 lb	-

REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 4 1/8"	DB60-3(i8625)	1576 lb	281 lb	1065 lb	-
2	12'- 9 1/8"	12'- 9 1/8"	Steel By Others(i3869)	358 lb	185 lb	260 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.
- Reinforcement Accessories are required. Refer to current manufacturer's product literature for installation details.
- A load bearing wall is supported by the I-joist at a location where the I-joist is supported by a member below. Please see manufacturer installation guidelines for requirements of blocking/squash blocks.
- A load bearing wall is supported by the I-joist at a location where the I-joist is supported by a member below. Please see manufacturer installation guidelines for requirements of blocking/squash blocks.
- 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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **J14-2 - i8610** Type: **FloorJoist**	**2 Ply Member** **14" PJI-40**	Status: **Design Passed**

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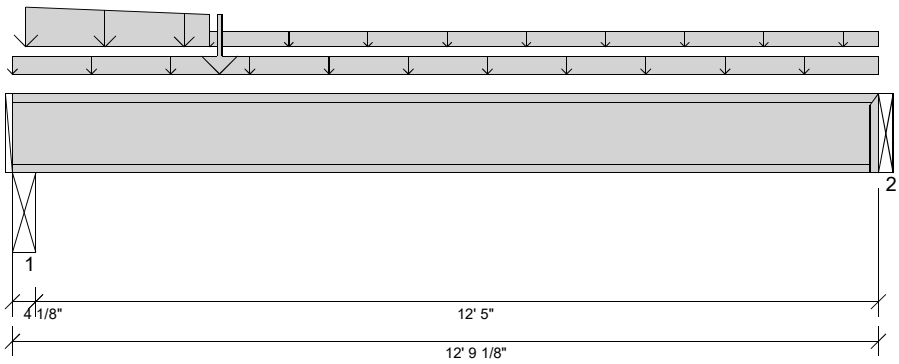

DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Live Load:	20.0 psf
System Dead Load:	10.0 psf
System Spacing:	16" c.c
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Floor Assembly Requirements:

Subfloor:	3/4"OSB Plywood
Connection:	Glued And Nailed
Ceiling:	None

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 0' Bottom: 12'- 5"

Bearing Stress of Support Material:

- 750 psi Beam @ 0'- 3 1/8"
- 425 psi Beam @ 12'- 9 1/8"

Ply to Ply Connection:

Member design assumes proper ply to ply connection by others. Verify connection between plies according to code specification and follow the manufacturer's installation instruction. Loads are assumed to be distributed equally to each ply.

Reinforcement Accessories Required

- Critical Load Web Stiffener @ 3'- 5/8"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	3'- 5/8"	D + 0.75(L + S)	5720 lb ft	9821 lb ft	Passed - 58%
Max Shear:	0'- 4 3/16"	D + 0.75(L + S)	2693 lb	4175 lb	Passed - 65%
Live Load (LL) Deflection:	5'- 11 15/16"	0.75(L + S)	0.074"	L/480	Passed - L/999
Total Load (TL) Deflection:	5'- 10 5/8"	D + 0.75(L + S)	0.160"	L/240	Passed - L/931

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 3 1/8"	4 1/8"	D + 0.75(L + S)	1.15	2790 lb		3160 lb	15469 lb	Passed - 88%
12'- 9 1/8"	1 3/4"	D + L	1.00	751 lb		3240 lb	-	Passed - 23%

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Other Information or Requirement for Reinforcement Accessories
2	THF25140-2	MiTek	Web Stiffener required. Refer to manufacturer's installation instruction.

* Connectors: Refer to manufacturer's specifications, fasteners requirements and installation instruction.

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Uniform	0'	12'- 9 1/8"	FC1 Floor Decking (Plan View Fill)	Top	13 lb/ft	42 lb/ft	-	-
Uniform	2'- 10 7/8"	12'- 9 1/8"	FC1 Floor Decking (Plan View Fill)	Top	-	11 lb/ft	-	-
Tapered	0'- 2 3/8"	2'- 10 7/8"	W125(i4102)	Top	381 To 221 lb/ft	50 lb/ft	120 lb/ft	-
Point	3'- 5/8"	3'- 5/8"	W124(i4103)	Top	1062 lb	-	1000 lb	-

REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 4 1/8"	DB59-3(i8290)	1630 lb	448 lb	1065 lb	-
2	12'- 9 1/8"	12'- 9 1/8"	Steel By Others(i3869)	403 lb	354 lb	260 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.
- Reinforcement Accessories are required. Refer to current manufacturer's product literature for installation details.
- A load bearing wall is supported by the I-joist at a location where the I-joist is supported by a member below. Please see manufacturer installation guidelines for requirements of blocking/squash blocks.
- A load bearing wall is supported by the I-joist at a location where the I-joist is supported by a member below. Please see manufacturer installation guidelines for requirements of blocking/squash blocks.
- 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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **J14-2 - i8611** Type: **FloorJoist**	**2 Ply Member** **14" PJI-40**	Status: **Design Passed**

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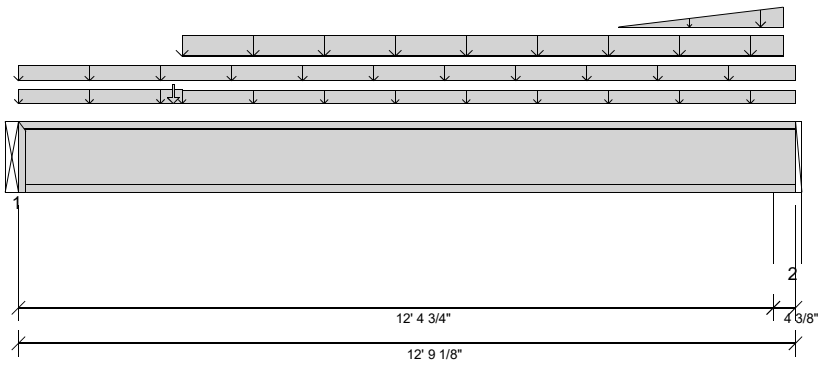


DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Live Load:	20.0 psf
System Dead Load:	10.0 psf
System Spacing:	16" c.c
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Floor Assembly Requirements:

Subfloor:	3/4"OSB Plywood
Connection:	Glued And Nailed
Ceiling:	None

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 0' Bottom: 12'- 4 3/4"

Bearing Stress of Support Material:

- 425 psi Beam @ 0'
- 725 psi Wall @ 12'- 5 3/4"

Ply to Ply Connection:

Member design assumes proper ply to ply connection by others. Verify connection between plies according to code specification and follow the manufacturer's installation instruction. Loads are assumed to be distributed equally to each ply.

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	6'- 4 13/16"	D + L	3398 lb ft	8540 lb ft	Passed - 40%
Max Shear:	12'- 4 11/16"	D + L	1223 lb	3630 lb	Passed - 34%
Live Load (LL) Deflection:	6'- 3 1/4"	0.75(L + S)	0.037"	L/480	Passed - L/999
Total Load (TL) Deflection:	6'- 3 5/8"	D + 0.75(L + S)	0.120"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'	1 3/4"	D + L	1.00	917 lb		3240 lb	-	Passed - 28%
12'- 5 3/4"	4 3/8"	D + L	1.00	1293 lb		3160 lb	15859 lb	Passed - 41%

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Other Information or Requirement for Reinforcement Accessories
1	THF25140-2	MiTek	Web Stiffener required. Refer to manufacturer's installation instruction.

* Connectors: Refer to manufacturer's specifications, fasteners requirements and installation instruction.

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Uniform	0'	12'- 9 1/8"	FC1 Floor Decking (Plan View Fill)	Top	13 lb/ft	38 lb/ft	-	-
Uniform	0'	2'- 8 1/4"	FC1 Floor Decking (Plan View Fill)	Top	-	15 lb/ft	-	-
Uniform	2'- 8 1/4"	12'- 9 1/8"	FC1 Floor Decking (Plan View Fill)	Top	-	3 lb/ft	-	-
Uniform	2'- 8 1/4"	12'- 6 3/4"	W130(i4108)	Top	121 lb/ft	-	40 lb/ft	-
Tapered	9'- 10 1/4"	12'- 6 3/4"	W130(i4108)	Top	0 To 144 lb/ft	-	-	-
Point	2'- 6 1/2"	2'- 6 1/2"	W129(i4107)	Top	76 lb	-	-	-

REACTIONS

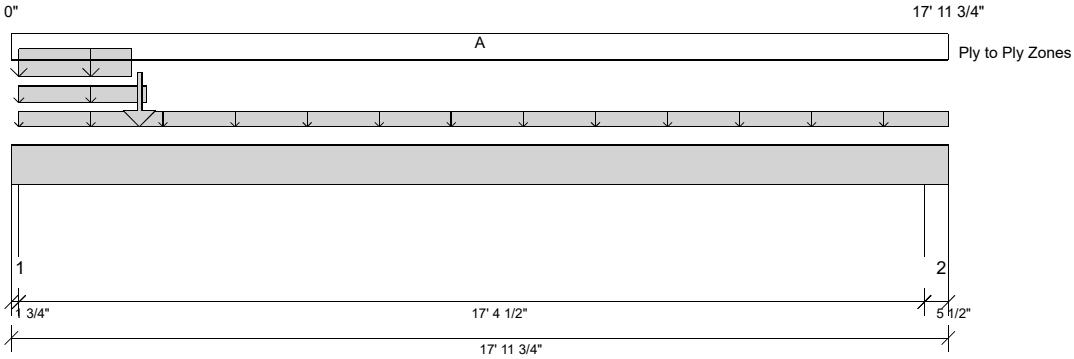
ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'	Steel By Others(i3869)	623 lb	294 lb	154 lb	-
2	12'- 4 3/4"	12'- 9 1/8"	W106(i3807)	1009 lb	277 lb	241 lb	-

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.
- Reinforcement Accessories are required. Refer to current manufacturer's product literature for installation details.
- A load bearing wall is supported by the I-joist at a location where the I-joist is supported by a member below. Please see manufacturer installation guidelines for requirements of blocking/squash blocks.
- A load bearing wall is supported by the I-joist at a location where the I-joist is supported by a member below. Please see manufacturer installation guidelines for requirements of blocking/squash blocks.
- 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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **FB26-3 - i8125** Type: **Beam**	**3 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 9-1/4**	Status: **Design Passed**

Graphical Illustration Not to Scale. Pitch: 0/12 Designed by: MiTek® Structure Version 8.5.0.207.Update18.7 ReportVersion: 2020.02.21 03/31/2022 19:59



DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 1'- 4" Bottom: 17'- 4 1/2"

Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 3/4"
- 725 psi Wall @ 17'- 7 1/4"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	2'- 5 1/2"	D + S	13527 lb ft	22978 lb ft	Passed - 59%
Max Shear:	0'- 11"	D + S	5790 lb	10797 lb	Passed - 54%
Live Load (LL) Deflection:	7'- 6 13/16"	S	0.379"	L/480	Passed - L/550
Total Load (TL) Deflection:	7'- 8 3/16"	D + S	0.820"	L/240	Passed - L/254

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 3/4"	1 3/4"	D + S	1.15	6119 lb		6889 lb	6660 lb	Passed - 92%
17'- 7 1/4"	5 1/2"	D + 0.75(L + S)	1.15	1103 lb		21657 lb	20935 lb	Passed - 5%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Self Weight	0'	17'- 11 3/4"	Self Weight	Top	13 lb/ft	-	-	-
Uniform	0'- 1 3/4"	17'- 11 3/4"	User Load	Top	10 lb/ft	20 lb/ft	-	-
Uniform	0'- 1 3/4"	2'- 7 1/4"	W91(i1448)	Top	86 lb/ft	-	-	-
Uniform	0'- 1 3/4"	2'- 3 3/4"	W91(i1448)	Top	135 lb/ft	-	181 lb/ft	-
Point	2'- 5 1/2"	2'- 5 1/2"	W91(i1448)	Top	2880 lb	-	3010 lb	-

REACTIONS

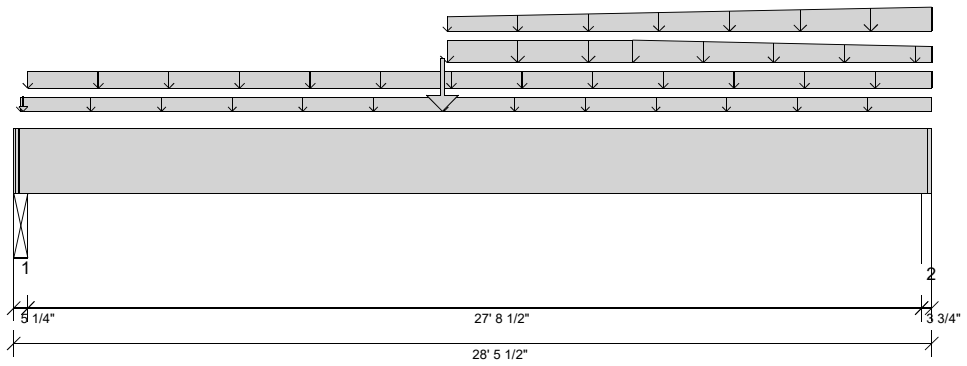
ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 1 3/4"	W51(i68)	3146 lb	173 lb	2954 lb	-
2	17'- 6 1/4"	17'- 11 3/4"	W23(i17)	647 lb	183 lb	448 lb	-

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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
- The unbraced length used in this design was manually input by the user. Install lateral bracing to satisfy the unbraced lengths specified on this report.
-
- Zone A: Factored load = 0 plf. Use 16d (0.162"x 3.5") nails. LDF = 1.00. Qty = 72. Row = 2, Spacing = 12"
  16d (0.162"x 3.5") nails properties: D = 0.162" , L = 3.5". Fastener capacity = 140 lbs. X1 = 2.5" , Y1 = 1", Y2 = 1.75"
  Install fasteners from both faces.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **FB27-3 - i8110** Type: **Beam**	**3 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 24**	Status: **Design Passed**

Graphical Illustration Not to Scale. Pitch: 0/12 Designed by: MiTek® Structure Version 8.5.0.207.Update18.7 ReportVersion: 2020.02.21 03/31/2022 19:59



DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 0' Bottom: 27'- 8 1/2"

Bearing Stress of Support Material:

- 750 psi Beam @ 0'- 4 1/4"
- 725 psi Wall @ 28'- 2 3/4"

Ply to Ply Connection:

Member design assumes proper ply to ply connection by others. Verify connection between plies according to code specification and follow the manufacturer's installation instruction. Loads are assumed to be distributed equally to each ply.

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	13'- 3 1/2"	D + S	50867 lb ft	137303 lb ft	Passed - 37%
Max Shear:	26'- 1 3/4"	D + S	5767 lb	28014 lb	Passed - 21%
Live Load (LL) Deflection:	14'- 7 1/8"	S	0.227"	L/480	Passed - L/999
Total Load (TL) Deflection:	14'- 6"	D + S	0.560"	L/240	Passed - L/593

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 4 1/4"	5 1/4"	D + S	1.15	4808 lb		20672 lb	20672 lb	Passed - 23%
28'- 2 3/4"	3 3/4"	D + S	1.15	6835 lb		14767 lb	14275 lb	Passed - 48%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Self Weight	0'	28'- 5 1/2"	Self Weight	Top	33 lb/ft	-	-	-
Uniform	0'- 2 1/2"	28'- 5 1/2"	FC1 Floor Decking (Plan View Fill)	Top	7 lb/ft	13 lb/ft	-	-
Uniform	0'- 5 1/4"	28'- 5 1/2"	W90(i1422)	Top	81 lb/ft	-	-	-
Uniform	13'- 5 1/4"	19'- 2 1/4"	W90(i1422)	Top	90 lb/ft	-	120 lb/ft	-
Tapered	13'- 5 1/4"	28'- 5 1/2"	W90(i1422)	Top	15 To 106 lb/ft	-	20 To 141 lb/ft	-
Tapered	19'- 2 1/4"	28'- 5 1/2"	W90(i1422)	Top	90 To 30 lb/ft	-	120 To 40 lb/ft	-
Point	0'- 3 1/2"	0'- 3 1/2"	W63(i1347)	Top	88 lb	45 lb	-	-
Point	13'- 3 1/2"	13'- 3 1/2"	W90(i1422)	Top	1685 lb	-	1790 lb	-

REACTIONS

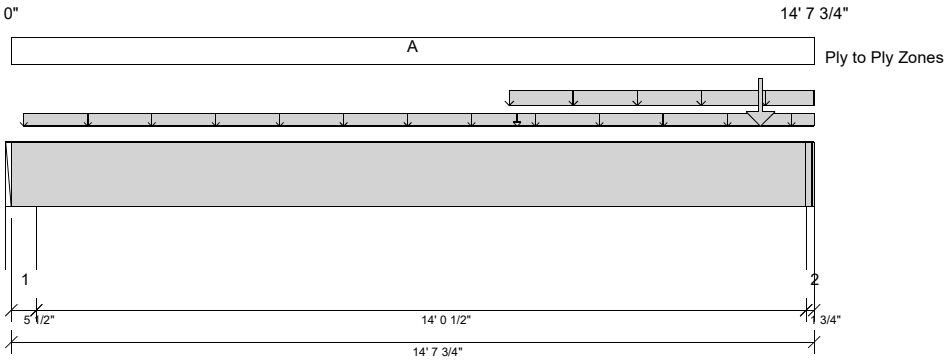
ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 5 1/4"	DB14-3(i8783)	3175 lb	236 lb	1617 lb	-
2	28'- 1 3/4"	28'- 5 1/2"	W51(i68)	4012 lb	191 lb	2839 lb	-

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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **FB28-2 - i8078** Type: **Beam**	**2 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 14**	Status: **Design Passed**

Graphical Illustration Not to Scale. Pitch: 0/12 Designed by: MiTek® Structure Version 8.5.0.207.Update18.7 ReportVersion: 2020.02.21 03/31/2022 19:59



DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 0' Bottom: 14'- 1/2"

Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 4 1/2"
- 725 psi Wall @ 14'- 7"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	11'- 1 1/4"	D + S	3194 lb ft	33318 lb ft	Passed - 10%
Max Shear:	13'- 4"	D + S	2241 lb	10894 lb	Passed - 21%
Live Load (LL) Deflection:	8'- 2 3/4"	0.75(L + S)	0.020"	L/480	Passed - L/999
Total Load (TL) Deflection:	8'- 2 1/4"	D + 0.75(L + S)	0.068"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 4 1/2"	5 1/2"	D + L	1.00	421 lb		14437 lb	13956 lb	Passed - 3%
14'- 7"	1 3/4"	D + S	1.15	3179 lb		4594 lb	4441 lb	Passed - 72%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Self Weight	0'	14'- 7 3/4"	Self Weight	Top	13 lb/ft	-	-	-
Uniform	0'- 2 3/4"	14'- 7 3/4"	FC1 Floor Decking (Plan View Fill)	Top	6 lb/ft	12 lb/ft	-	-
Uniform	9'- 1"	14'- 7 3/4"	W95(i1427)	Top	81 lb/ft	-	-	-
Point	9'- 2 3/4"	9'- 2 3/4"	FC1 Floor Decking (Plan View Fill)	Top	40 lb	-	18 lb	-
Point	13'- 8"	13'- 8"	W95(i1427)	Top	1400 lb	-	1425 lb	-

REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 5 1/2"	W3(i30)	328 lb	88 lb	95 lb	-
2	14'- 6"	14'- 7 3/4"	W39(i24)	1840 lb	88 lb	1348 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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
- Zone A: Factored load = 0 plf. Use 16d (0.162"x 3.5") nails. LDF = 1.00. Qty = 45. Row = 3, Spacing = 12"
  16d (0.162"x 3.5") nails properties: D = 0.162" , L = 3.5". Fastener capacity = 140 lbs. X1 = 2.5" , Y1 = 1", Y2 = 1.75"
  Install fasteners from one face.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **FB29-2 - i7793** Type: **Beam**	**2 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 14**	Status: **Design Passed**

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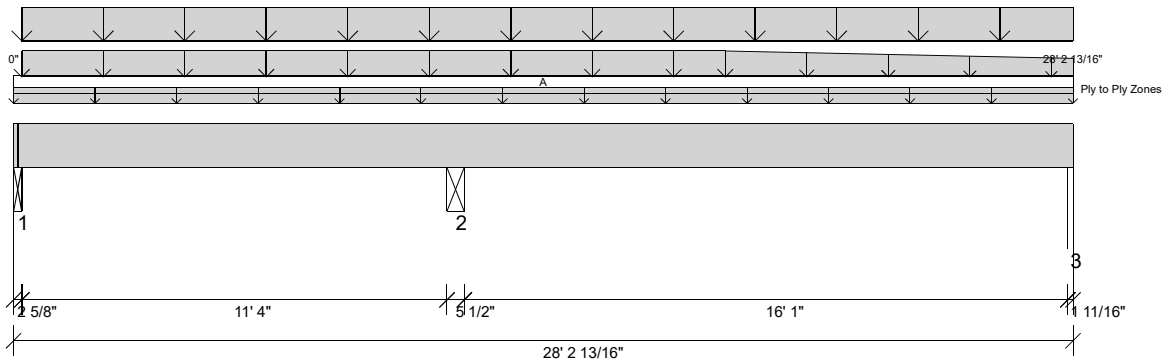


DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 0' Bottom: 16'- 1"

Bearing Stress of Support Material:

- 565 psi Beam @ 0'- 1 5/8"
- 565 psi Beam @ 11'- 9 3/8"
- 725 psi Wall @ 28'- 2 1/8"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	11'- 9 3/8"	D + S	15215 lb ft	33318 lb ft	Passed - 46%
Max Shear:	13'- 2 1/8"	D + S	4819 lb	10894 lb	Passed - 44%
Live Load (LL) Deflection:	20'- 9 5/8"	S	0.143"	L/480	Passed - L/999
Total Load (TL) Deflection:	20'- 9 3/4"	D + S	0.305"	L/240	Passed - L/632

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 1 5/8"	2 5/8"	D + S	1.15	2164 lb		6891 lb	5191 lb	Passed - 42%
11'- 9 3/8"	5 1/2"	D + S	1.15	10382 lb		15422 lb	10876 lb	Passed - 95%
28'- 2 1/8"	1 11/16"	D + S	1.15	3487 lb		4438 lb	4290 lb	Passed - 81%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Self Weight	0'	28'- 2 13/16"	Self Weight	Top	13 lb/ft	-	-	-
Uniform	0'	28'- 2 13/16"	FC1 Floor Decking (Plan View Fill)	Top	6 lb/ft	12 lb/ft	-	-
Uniform	0'- 2 5/8"	28'- 2 13/16"	W94(i1449)	Top	201 lb/ft	-	160 lb/ft	-
Uniform	0'- 2 5/8"	18'- 11 5/8"	W94(i1449)	Top	90 lb/ft	-	120 lb/ft	-
Tapered	18'- 11 5/8"	28'- 2 13/16"	W94(i1449)	Top	90 To 30 lb/ft	-	120 To 40 lb/ft	-

REACTIONS

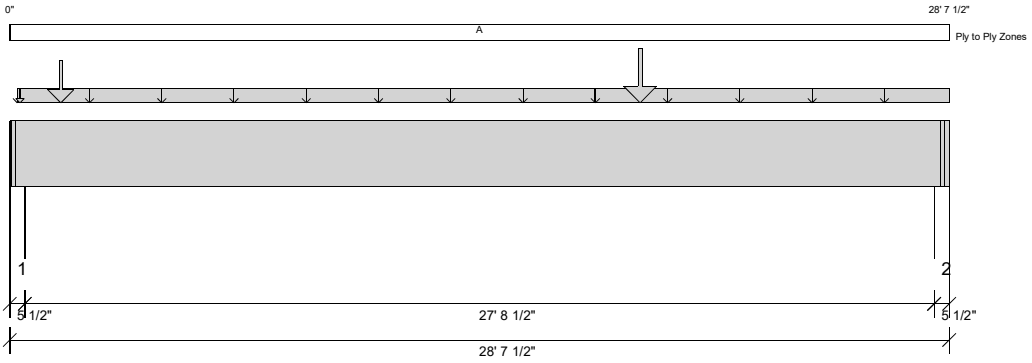
ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 2 5/8"	BBO1(i83)	1153 lb	67/-20 lb	1041 lb	-
2	11'- 6 5/8"	12'- 1/8"	BBO2(i84)	5453 lb	209 lb	4894 lb	-
3	28'- 1 1/8"	28'- 2 13/16"	W50(i60)	1884 lb	84/-5 lb	1612 lb	-

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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
- Zone A: Factored load = 0 plf. Use 16d (0.162"x 3.5") nails. LDF = 1.00. Qty = 87. Row = 3, Spacing = 12"
  16d (0.162"x 3.5") nails properties: D = 0.162" , L = 3.5". Fastener capacity = 140 lbs. X1 = 2.5" , Y1 = 1", Y2 = 1.75"
  Install fasteners from one face.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **FB55-3 - i8171** Type: **Beam**	**3 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 24**	Status: **Design Passed**

Graphical Illustration Not to Scale. Pitch: 0/12 Designed by: MiTek® Structure Version 8.5.0.207.Update18.7 ReportVersion: 2020.02.21 03/31/2022 19:59



DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 0' Bottom: 27'- 8 1/2"

Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 4 1/2"
- 725 psi Wall @ 28'- 3"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	19'- 2 1/2"	D + S	57315 lb ft	137303 lb ft	Passed - 42%
Max Shear:	26'- 2"	D + S	6437 lb	28014 lb	Passed - 23%
Live Load (LL) Deflection:	15'- 3 13/16"	S	0.278"	L/480	Passed - L/999
Total Load (TL) Deflection:	15'- 2 13/16"	D + S	0.569"	L/240	Passed - L/584

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 4 1/2"	5 1/2"	D + S	1.15	9179 lb		21656 lb	20934 lb	Passed - 44%
28'- 3"	5 1/2"	D + S	1.15	6535 lb		21656 lb	20934 lb	Passed - 31%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Self Weight	0'	28'- 7 1/2"	Self Weight	Top	33 lb/ft	-	-	-
Uniform	0'- 2 3/4"	28'- 7 1/2"	FC1 Floor Decking (Plan View Fill)	Top	7 lb/ft	13 lb/ft	-	-
Point	0'- 3 3/4"	0'- 3 3/4"	W63(i1347)	Top	91 lb	46 lb	-	-
Point	1'- 6 11/16"	1'- 6 11/16"	PBO23(i1499)	Top	2868 lb	-	3165 lb	-
Point	19'- 2 1/2"	19'- 2 1/2"	PBO24(i1500)	Top	3958 lb	-	4490 lb	-

REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 5 1/2"	W16(i61)	4691 lb	237 lb	4487 lb	-
2	28'- 2"	28'- 7 1/2"	W51(i68)	3367 lb	191 lb	3168 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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
- Zone A: Factored load = 0 plf. Use 16d (0.162"x 3.5") nails. LDF = 1.00. Qty = 232. Row = 4, Spacing = 12"
  16d (0.162"x 3.5") nails properties: D = 0.162" , L = 3.5". Fastener capacity = 140 lbs. X1 = 2.5" , Y1 = 1", Y2 = 1.75"
  Install fasteners from both faces.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **DB57-3 - i8714** Type: **Beam**	**3 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 14**	Status: **Design Passed**

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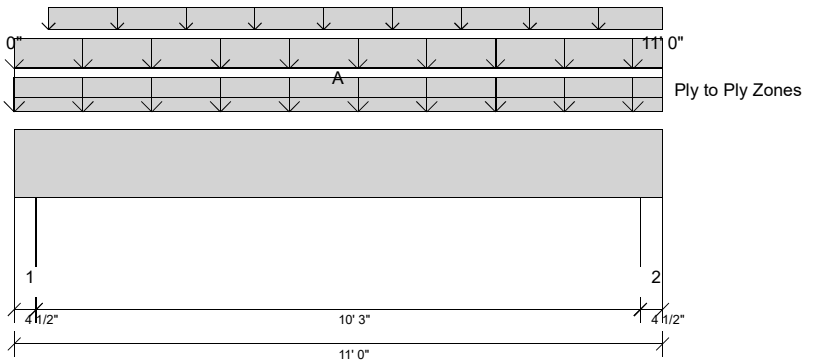

DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 1'- 2 1/16" Bottom: 11'

Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 3 1/2"
- 725 psi Wall @ 10'- 8 1/2"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	5'- 4 1/2"	D + L	20035 lb ft	43305 lb ft	Passed - 46%
Max Shear:	1'- 6 1/2"	D + L	6062 lb	14210 lb	Passed - 43%
Live Load (LL) Deflection:	5'- 6"	0.75(L + S)	0.055"	L/480	Passed - L/999
Total Load (TL) Deflection:	5'- 6"	D + 0.75(L + S)	0.181"	L/240	Passed - L/679

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 3 1/2"	4 1/2"	D + L	1.00	7946 lb		17718 lb	17128 lb	Passed - 46%
10'- 8 1/2"	4 1/2"	D + L	1.00	8221 lb		17719 lb	17128 lb	Passed - 48%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Self Weight	0'	11'	Self Weight	Top	19 lb/ft	-	-	-
Uniform	0'	11'	RIM1(i8514)	Top	391 lb/ft	100 lb/ft	280 lb/ft	-
Uniform	-0'	11'	User Load	Top	640 lb/ft	-	-	-
Uniform	0'- 7"	11'	Smoothed Load	Top	68 lb/ft	270 lb/ft	-	-

REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 4 1/2"	W106(i3807)	6099 lb	1841 lb	1540 lb	-
2	10'- 7 1/2"	11'	W110(i3813)	6157 lb	2069 lb	1540 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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
- Zone A: Factored load = 0 plf. Use 16d (0.162"x 3.5") nails. LDF = 1.00. Qty = 66. Row = 3, Spacing = 12"
  16d (0.162"x 3.5") nails properties: D = 0.162" , L = 3.5". Fastener capacity = 140 lbs. X1 = 2.5" , Y1 = 1", Y2 = 1.75"
  Install fasteners from both faces.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **DB58-3 - i8312** Type: **Beam**	**3 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 14**	Status: **Design Passed**

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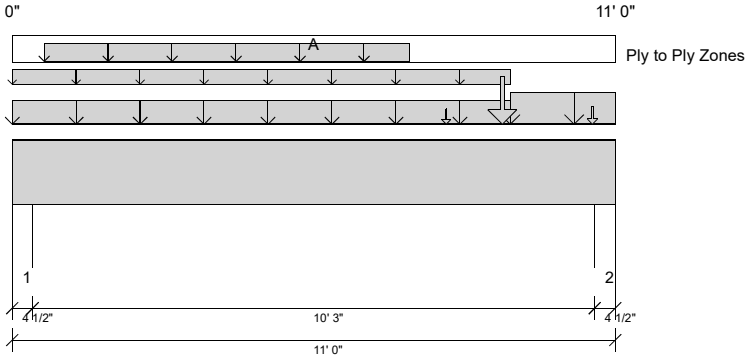

DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 1'- 4 13/16" Bottom: 11'

Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 3 1/2"
- 725 psi Wall @ 10'- 8 1/2"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	5'- 8 3/8"	D + L	16570 lb ft	43011 lb ft	Passed - 39%
Max Shear:	9'- 5 1/2"	D + L	5938 lb	14210 lb	Passed - 42%
Live Load (LL) Deflection:	5'- 8 1/8"	0.75(L + S)	0.035"	L/480	Passed - L/999
Total Load (TL) Deflection:	5'- 7 1/4"	D + 0.75(L + S)	0.144"	L/240	Passed - L/851

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 3 1/2"	4 1/2"	D + L	1.00	6205 lb		17719 lb	17128 lb	Passed - 36%
10'- 8 1/2"	4 1/2"	D + L	1.00	7699 lb		17719 lb	17128 lb	Passed - 45%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Self Weight	0'	11'	Self Weight	Top	19 lb/ft	-	-	-
Uniform	0'	9'- 1"	User Load	Top	640 lb/ft	-	-	-
Uniform	-0'	9'- 1"	RIM1(i8716)	Top	121 lb/ft	-	40 lb/ft	-
Uniform	0'- 7"	7'- 3"	Smoothed Load	Top	66 lb/ft	264 lb/ft	-	-
Uniform	9'- 1"	11'	User Load	Top	710 lb/ft	100 lb/ft	280 lb/ft	-
Point	7'- 11"	7'- 11"	J14(i8688)	Top	-	311 lb	-	-
Point	8'- 11 1/4"	8'- 11 1/4"	-	Top	1647 lb	434 lb	1100 lb	-
Point	10'- 7"	10'- 7"	J14(i8692)	Top	189 lb	311 lb	-	-

REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 4 1/2"	W109(i3812)	4861 lb	1313 lb	420 lb	-
2	10'- 7 1/2"	11'	W104(i3809)	6019 lb	1710 lb	1580 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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
- Zone A: Factored load = 0 plf. Use 16d (0.162"x 3.5") nails. LDF = 1.00. Qty = 66. Row = 3, Spacing = 12"
  16d (0.162"x 3.5") nails properties: D = 0.162" , L = 3.5". Fastener capacity = 140 lbs. X1 = 2.5" , Y1 = 1", Y2 = 1.75"
  Install fasteners from both faces.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.
-

Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **DB59-3 - i8290** Type: **Beam**	**3 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 14**	Status: **Design Passed**

Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **DB60-3 - i8625** Type: **Beam**	**3 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 14**	Status: **Design Passed**

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **FB61-2 - i8653** Type: **Beam**	**2 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 14**	Status: **Design Passed**

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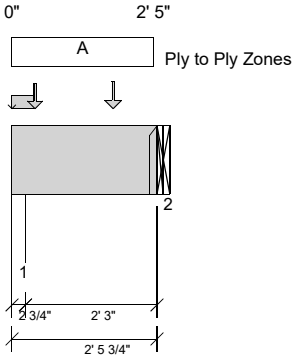

DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

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

Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 1 3/4"
- 425 psi Beam @ 2'- 5 3/4"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	1'- 8 3/4"	D + L	119 lb ft	28972 lb ft	Passed - 0%
Max Shear:	1'- 3 3/4"	D + L	44 lb	9473 lb	Passed - 0%
Live Load (LL) Deflection:	1'- 4 5/16"	L	0.000"	L/480	Passed - L/999
Total Load (TL) Deflection:	1'- 4 1/4"	D + L	0.000"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 1 3/4"	2 3/4"	D + L	1.00	231 lb		7219 lb	6978 lb	Passed - 3%
2'- 5 3/4"	1 1/2"	D + L	1.00	163 lb		3937 lb	-	Passed - 4%

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Other Information or Requirement for Reinforcement Accessories
2	HD410	MiTek	-

* Connectors: Refer to manufacturer's specifications, fasteners requirements and installation instruction.

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Self Weight	0'	2'- 5 3/4"	Self Weight	Top	13 lb/ft	-	-	-
Uniform	0'	0'- 4 3/4"	FC1 Floor Decking (Plan View Fill)	Top	-	9 lb/ft	-	-
Point	0'- 4 3/4"	0'- 4 3/4"	J8(i8643)	Back	33 lb	133 lb	-	-
Point	1'- 8 3/4"	1'- 8 3/4"	J8(i8667)	Back	38 lb	154 lb	-	-

REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 2 3/4"	W101(i3804)	62 lb	186 lb	-	-
2	2'- 5 3/4"	2'- 5 3/4"	FB62-2(i8314)	41 lb	104 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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
- Zone A: Factored load = 156 plf. Use 16d (0.162"x 3.5") nails. LDF = 1.00. Qty = 9. Row = 3, Spacing = 12"
  16d (0.162"x 3.5") nails properties: D = 0.162" , L = 3.5". Fastener capacity = 140 lbs. X1 = 2.5" , Y1 = 1", Y2 = 1.75"
  Install fasteners from one face.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **FB62-2 - i8314** Type: **Beam**	**2 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 14**	Status: **Design Passed**

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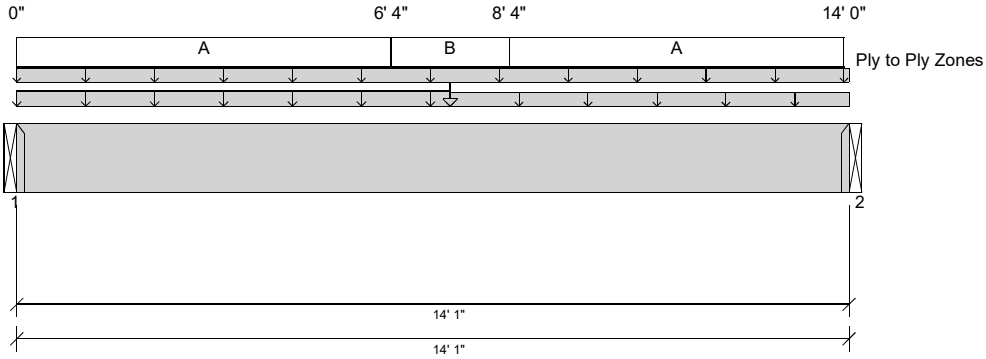

DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 0' Bottom: 7'- 2 1/4"

Bearing Stress of Support Material:

- 425 psi Beam @ 0'
- 425 psi Beam @ 14'- 1"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	7'- 1 1/2"	D + L	2155 lb ft	28972 lb ft	Passed - 7%
Max Shear:	1'- 2"	D + L	506 lb	9473 lb	Passed - 5%
Live Load (LL) Deflection:	6'- 10 7/8"	L	0.031"	L/480	Passed - L/999
Total Load (TL) Deflection:	6'- 11 3/16"	D + L	0.047"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'	1 1/2"	D + L	1.00	626 lb		3937 lb	-	Passed - 16%
14'- 1"	1 1/2"	D + L	1.00	485 lb		3937 lb	-	Passed - 12%

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Other Information or Requirement for Reinforcement Accessories
1	HD410	MiTek	-
2	HD410	MiTek	-

* Connectors: Refer to manufacturer's specifications, fasteners requirements and installation instruction.

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Self Weight	0'	14'- 1"	Self Weight	Top	13 lb/ft	-	-	-
Uniform	0'	14'- 1"	FC1 Floor Decking (Plan View Fill)	Top	2 lb/ft	9 lb/ft	-	-
Uniform	0'	7'- 4"	FC1 Floor Decking (Plan View Fill)	Top	12 lb/ft	49 lb/ft	-	-
Uniform	7'- 4"	14'- 1"	FC1 Floor Decking (Plan View Fill)	Top	5 lb/ft	18 lb/ft	-	-
Point	7'- 4"	7'- 4"	FB61-2(i8653)	Back	41 lb	104 lb	-	-

REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'	Steel By Others(i3822)	204 lb	422 lb	-	-
2	14'- 1"	14'- 1"	Steel By Others(i3821)	176 lb	309 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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
- Zone A: Factored load = 0 plf. Use 16d (0.162"x 3.5") nails. LDF = 1.00. Qty = 39. Row = 3, Spacing = 12"
  Zone B: Factored load = 73 plf. Use 16d (0.162"x 3.5") nails. LDF = 1.00. Qty = 6. Row = 3, Spacing = 12"
  16d (0.162"x 3.5") nails properties: D = 0.162" , L = 3.5". Fastener capacity = 140 lbs. X1 = 2.5" , Y1 = 1", Y2 = 1.75"
  Install fasteners from one face.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.
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MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **FB63-2 - i8333** Type: **Beam**	**2 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 14**	Status: **Design Passed**

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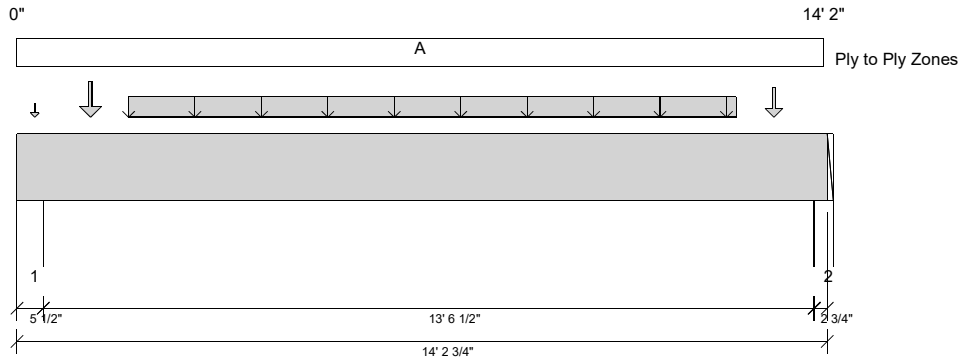


DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

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

Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 4 1/2"
- 725 psi Wall @ 14'- 1"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	6'- 7 1/2"	D + L	4837 lb ft	28972 lb ft	Passed - 17%
Max Shear:	1'- 7 1/2"	D + L	1397 lb	9473 lb	Passed - 15%
Live Load (LL) Deflection:	7'- 2 3/4"	L	0.079"	L/480	Passed - L/999
Total Load (TL) Deflection:	7'- 2 5/8"	D + L	0.106"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 4 1/2"	5 1/2"	D + L	1.00	1465 lb		14437 lb	13956 lb	Passed - 10%
14'- 1"	2 3/4"	D + L	1.00	1368 lb		7219 lb	6978 lb	Passed - 20%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Self Weight	0'	14'- 2 3/4"	Self Weight	Top	13 lb/ft	-	-	-
Uniform	1'- 11 1/2"	12'- 7 1/2"	Smoothed Load	Front	38 lb/ft	154 lb/ft	-	-
Point	1'- 3 1/2"	1'- 3 1/2"	J8(i8562)	Front	122 lb	195 lb	-	-
Point	13'- 3 1/2"	13'- 3 1/2"	J8(i8553)	Front	46 lb	185 lb	-	-
Point	0'- 3 3/4"	0'- 3 3/4"	W115(i4095)	Top	24 lb	-	-	-

REACTIONS

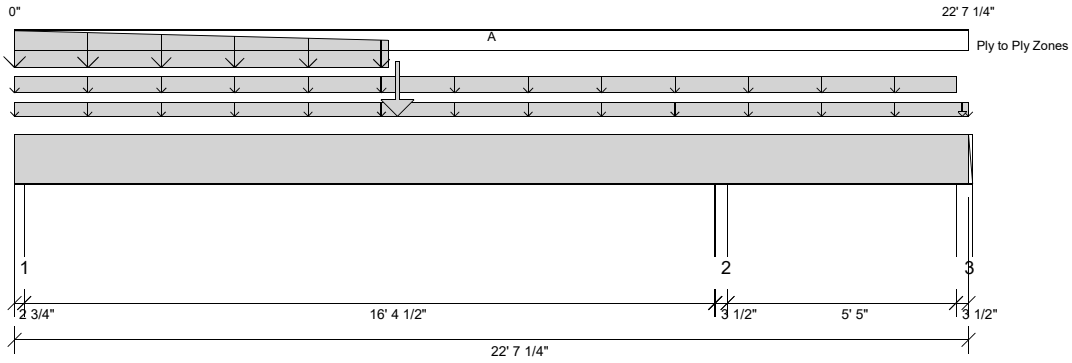
ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 5 1/2"	W103(i3805)	440 lb	1025 lb	-	-
2	14'	14'- 2 3/4"	W101(i3804)	349 lb	1019 lb	-	-

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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
- Zone A: Factored load = 192 plf. Use 16d (0.162"x 3.5") nails. LDF = 1.00. Qty = 45. Row = 3, Spacing = 12"
  16d (0.162"x 3.5") nails properties: D = 0.162" , L = 3.5". Fastener capacity = 140 lbs. X1 = 2.5" , Y1 = 1", Y2 = 1.75"
  Install fasteners from one face.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **FB64-3 - i7825** Type: **Beam**	**3 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 14**	Status: **Design Passed**

Graphical Illustration Not to Scale. Pitch: 0/12 Designed by: MiTek® Structure Version 8.5.0.207.Update18.7 ReportVersion: 2020.02.21 03/31/2022 19:59



DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 0' Bottom: 16'- 4 1/2"

Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 1 3/4"
- 725 psi Wall @ 16'- 9"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	6'- 11 1/4"	D + S	14430 lb ft	49977 lb ft	Passed - 29%
Max Shear:	15'- 5 1/4"	D + S	3773 lb	16341 lb	Passed - 23%
Live Load (LL) Deflection:	7'- 7 1/16"	S	0.086"	L/480	Passed - L/999
Total Load (TL) Deflection:	7'- 5 7/16"	D + S	0.247"	L/240	Passed - L/796

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 1 3/4"	2 3/4"	D + 0.75(L + S)	1.15	4709 lb		10828 lb	10467 lb	Passed - 45%
16'- 9"	3 1/2"	D + S	1.15	6631 lb		15258 lb	13322 lb	Passed - 50%
22'- 4 3/4"	3 1/2"	D + S	1.15		-2075 lb	-	-	

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Self Weight	0'	22'- 7 1/4"	Self Weight	Top	19 lb/ft	-	-	-
Uniform	0'	22'- 7 1/4"	FC1 Floor Decking (Plan View Fill)	Top	6 lb/ft	12 lb/ft	-	-
Uniform	0'	22'- 3 3/4"	W120(i4092)	Top	81 lb/ft	-	-	-
Tapered	0'	8'- 10 1/4"	W120(i4092)	Top	515 To 203 lb/ft	75 lb/ft	170 lb/ft	-
Point	9'- 7/8"	9'- 7/8"	W120(i4092)	Top	992 lb	73 lb	1098 lb	-
Point	22'- 5 1/2"	22'- 5 1/2"	W55(i1343)	Top	-	11 lb	-	-

REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 2 3/4"	W3(i30)	3256 lb	536/-1 lb	1331 lb	-
2	16'- 7 1/4"	16'- 10 3/4"	W53(i70)	4547 lb	680 lb	2106 lb	-
3	22'- 3 3/4"	22'- 7 1/4"	W43(i62)	-1245 lb	44/-249 lb	-834 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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
- Zone A: Factored load = 0 plf. Use 16d (0.162"x 3.5") nails. LDF = 1.00. Qty = 138. Row = 3, Spacing = 12"
  16d (0.162"x 3.5") nails properties: D = 0.162" , L = 3.5". Fastener capacity = 140 lbs. X1 = 2.5" , Y1 = 1", Y2 = 1.75"
  Install fasteners from both faces.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.
-

Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **FB65-3 - i7799** Type: **Beam**	**3 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 14**	Status: **Design Passed**

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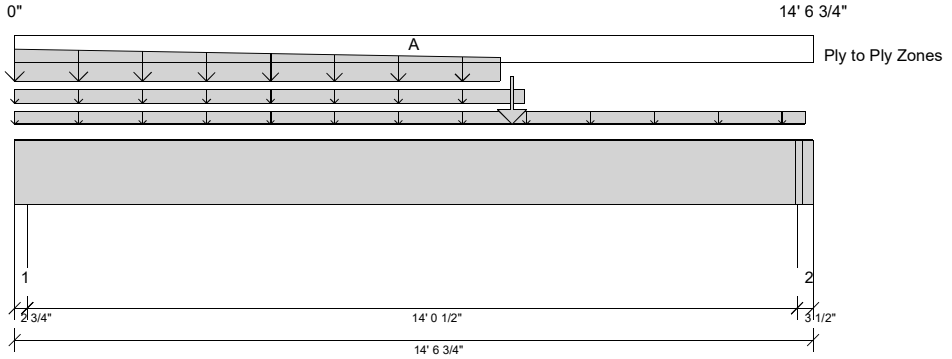


DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 0' Bottom: 14'- 1/2"

Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 1 3/4"
- 725 psi Wall @ 14'- 4 1/4"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	6'- 11 1/4"	D + 0.75(L + S)	15341 lb ft	49977 lb ft	Passed - 31%
Max Shear:	1'- 4 3/4"	D + 0.75(L + S)	3787 lb	16341 lb	Passed - 23%
Live Load (LL) Deflection:	7'- 2 3/8"	0.75(L + S)	0.082"	L/480	Passed - L/999
Total Load (TL) Deflection:	7'- 1 5/16"	D + 0.75(L + S)	0.234"	L/240	Passed - L/719

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 1 3/4"	2 3/4"	D + 0.75(L + S)	1.15	4912 lb		10828 lb	10467 lb	Passed - 47%
14'- 4 1/4"	3 1/2"	D + 0.75(L + S)	1.15	2804 lb		13781 lb	13322 lb	Passed - 21%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Self Weight	0'	14'- 6 3/4"	Self Weight	Top	19 lb/ft	-	-	-
Uniform	0'	14'- 5"	FC1 Floor Decking (Plan View Fill)	Top	12 lb/ft	25 lb/ft	-	-
Uniform	-0'	9'- 3 1/2"	W114(i4093)	Top	81 lb/ft	-	-	-
Tapered	-0'	8'- 10 1/4"	W114(i4093)	Top	515 To 203 lb/ft	75 lb/ft	170 lb/ft	-
Point	9'- 7/8"	9'- 7/8"	W114(i4093)	Top	728 lb	73 lb	744 lb	-

REACTIONS

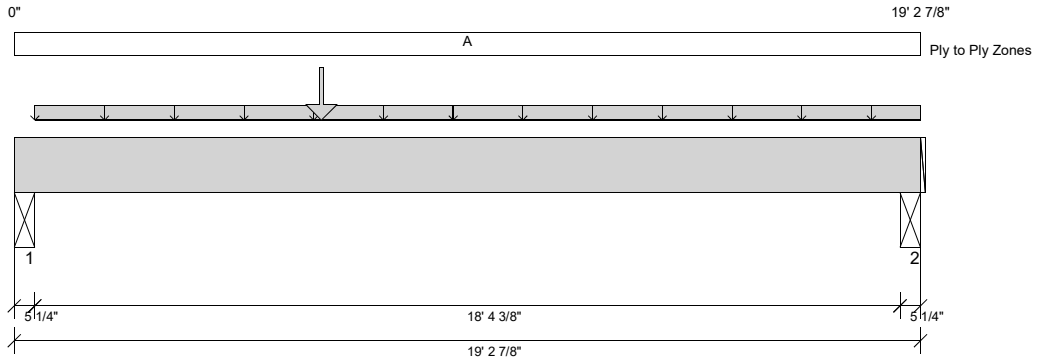
ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 2 3/4"	W3(i30)	3371 lb	668 lb	1324 lb	-
2	14'- 3 1/4"	14'- 6 3/4"	W39(i24)	1785 lb	430 lb	945 lb	-

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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
- Zone A: Factored load = 0 plf. Use 16d (0.162"x 3.5") nails. LDF = 1.00. Qty = 90. Row = 3, Spacing = 12"
  16d (0.162"x 3.5") nails properties: D = 0.162" , L = 3.5". Fastener capacity = 140 lbs. X1 = 2.5" , Y1 = 1", Y2 = 1.75"
  Install fasteners from both faces.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **FB67-3 - i8211** Type: **Beam**	**3 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 14**	Status: **Design Passed**

Graphical Illustration Not to Scale. Pitch: 0/12 Designed by: MiTek® Structure Version 8.5.0.207.Update18.7 ReportVersion: 2020.02.21 03/31/2022 19:59



DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 1'- 4" Bottom: 18'- 4 3/8"

Bearing Stress of Support Material:

- 750 psi Beam @ 0'- 4 1/4"
- 750 psi Beam @ 18'- 10 5/8"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	6'- 6 1/4"	D + S	26474 lb ft	49244 lb ft	Passed - 54%
Max Shear:	1'- 7 1/4"	D + S	4347 lb	16341 lb	Passed - 27%
Live Load (LL) Deflection:	8'- 9 9/16"	S	0.266"	L/480	Passed - L/827
Total Load (TL) Deflection:	8'- 10 1/8"	D + S	0.553"	L/240	Passed - L/398

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 4 1/4"	5 1/4"	D + S	1.15	4390 lb		20672 lb	20672 lb	Passed - 21%
18'- 10 5/8"	5 1/4"	D + S	1.15	2333 lb		20672 lb	20672 lb	Passed - 11%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Self Weight	0'	19'- 2 7/8"	Self Weight	Top	19 lb/ft	-	-	-
Uniform	0'- 5 1/4"	19'- 2 7/8"	User Load	Top	10 lb/ft	20 lb/ft	-	-
Point	6'- 6 1/4"	6'- 6 1/4"	PBO28(i4146)	Top	3007 lb	-	3155 lb	-

REACTIONS

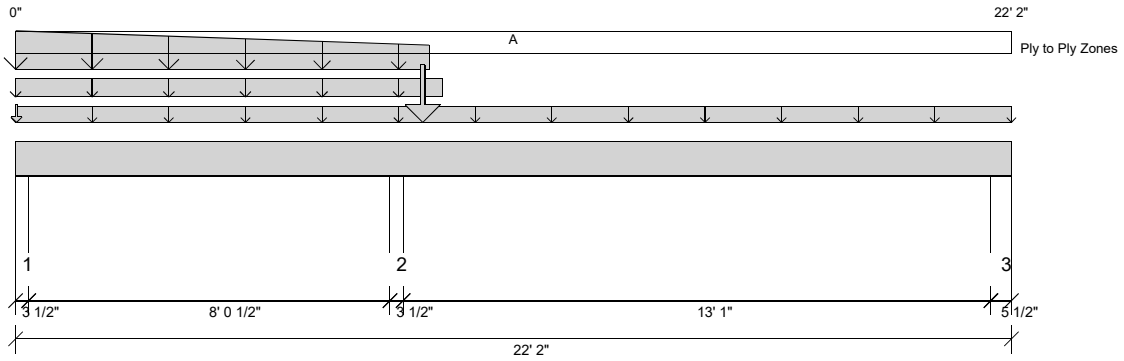
ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 5 1/4"	DB8-3(i8694)	2285 lb	184 lb	2105 lb	-
2	18'- 9 5/8"	19'- 2 7/8"	DB12-3(i8779)	1283 lb	192 lb	1050 lb	-

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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
- The unbraced length used in this design was manually input by the user. Install lateral bracing to satisfy the unbraced lengths specified on this report.
-
- Zone A: Factored load = 0 plf. Use 16d (0.162"x 3.5") nails. LDF = 1.00. Qty = 117. Row = 3, Spacing = 12"
  16d (0.162"x 3.5") nails properties: D = 0.162" , L = 3.5". Fastener capacity = 140 lbs. X1 = 2.5" , Y1 = 1", Y2 = 1.75"
  Install fasteners from both faces.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **FB68-2 - i7790** Type: **Beam**	**2 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 9-1/4**	Status: **Design Passed**

Graphical Illustration Not to Scale. Pitch: 0/12 Designed by: MiTek® Structure Version 8.5.0.207.Update18.7 ReportVersion: 2020.02.21 03/31/2022 19:59



DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 22'- 2" Bottom: 13'- 1"

Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 2 1/2"
- 725 psi Wall @ 8'- 5 3/4"
- 725 psi Wall @ 21'- 9 1/2"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	3'- 5 1/16"	D + S	2715 lb ft	3630 lb ft	Passed - 75%
Max Shear:	9'- 4 3/4"	D + S	2209 lb	7198 lb	Passed - 31%
Live Load (LL) Deflection:	3'- 10 9/16"	S	0.028"	L/480	Passed - L/999
Total Load (TL) Deflection:	3'- 10 9/16"	D + S	0.061"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 2 1/2"	3 1/2"	D + S	1.15	2235 lb		9188 lb	8881 lb	Passed - 25%
8'- 5 3/4"	3 1/2"	D + S	1.15	6146 lb		10172 lb	8881 lb	Passed - 69%
21'- 9 1/2"	5 1/2"	D + L	1.00	203 lb		14438 lb	13956 lb	Passed - 1%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Self Weight	0'	22'- 2"	Self Weight	Top	9 lb/ft	-	-	-
Uniform	0'	22'- 2"	User Load	Top	10 lb/ft	20 lb/ft	-	-
Uniform	0'	9'- 6"	W132(i4111)	Top	86 lb/ft	-	-	-
Tapered	0'	9'- 2 1/2"	W132(i4111)	Top	220 To 90 lb/ft	-	293 To 120 lb/ft	-
Point	0'- 1/4"	0'- 1/4"	W132(i4111)	Top	168 lb	-	148 lb	-
Point	9'- 3/4"	9'- 3/4"	W132(i4111)	Top	1750 lb	-	1830 lb	-

REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 3 1/2"	W52(i69)	1199 lb	79/-33 lb	1038 lb	-
2	8'- 4"	8'- 7 1/2"	W54(i72)	3287 lb	282 lb	2859 lb	-
3	21'- 8 1/2"	22'- 2"	W12(i9)	83 lb	120/-5 lb	-15 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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
- Zone A: Factored load = 0 plf. Use 16d (0.162"x 3.5") nails. LDF = 1.00. Qty = 46. Row = 2, Spacing = 12"
  16d (0.162"x 3.5") nails properties: D = 0.162" , L = 3.5". Fastener capacity = 140 lbs. X1 = 2.5" , Y1 = 1", Y2 = 1.75"
  Install fasteners from one face.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.
-

Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **FB69-3 - i8219** Type: **Beam**	**3 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 18**	Status: **Design Passed**

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **FB70-3 - i8092** Type: **Beam**	**3 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 16**	Status: **Design Passed**

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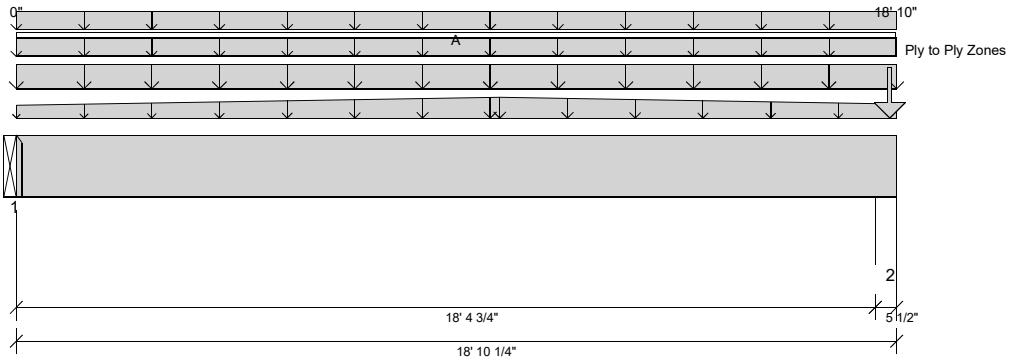


DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 1'- 4" Bottom: 18'- 4 3/4"

Bearing Stress of Support Material:

- 425 psi Beam @ 0'
- 725 psi Wall @ 18'- 5 3/4"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	9'- 3"	D + 0.75(L + S)	24907 lb ft	63787 lb ft	Passed - 39%
Max Shear:	17'- 3/4"	D + 0.75(L + S)	5056 lb	18676 lb	Passed - 27%
Live Load (LL) Deflection:	9'- 2 13/16"	0.75(L + S)	0.195"	L/480	Passed - L/999
Total Load (TL) Deflection:	9'- 2 11/16"	D + 0.75(L + S)	0.435"	L/240	Passed - L/507

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'	1 1/2"	D + L	1.00	4526 lb		5906 lb	-	Passed - 77%
18'- 5 3/4"	5 1/2"	D + 0.75(L + S)	1.15	10666 lb		21657 lb	20935 lb	Passed - 51%

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Other Information or Requirement for Reinforcement Accessories
1	THDH612	MiTek	-

* Connectors: Refer to manufacturer's specifications, fasteners requirements and installation instruction.

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Self Weight	0'	18'- 10 1/4"	Self Weight	Top	22 lb/ft	-	-	-
Uniform	-0'	18'- 10 1/4"	W86(i1419)	Top	161 lb/ft	-	100 lb/ft	-
Uniform	0'	18'- 10 1/4"	User Load	Back	45 lb/ft	90 lb/ft	-	-
Uniform	0'	18'- 10 1/4"	User Load	Front	45 lb/ft	90 lb/ft	-	-
Tapered	-0'	10'- 4 1/4"	W86(i1419)	Top	1 To 83 lb/ft	-	2 To 110 lb/ft	-
Tapered	10'- 4 1/4"	18'- 10 1/4"	W86(i1419)	Top	83 To 15 lb/ft	-	110 To 20 lb/ft	-
Point	18'- 8 1/2"	18'- 8 1/2"	W87(i1421)	Top	3110 lb	-	2555 lb	-

REACTIONS

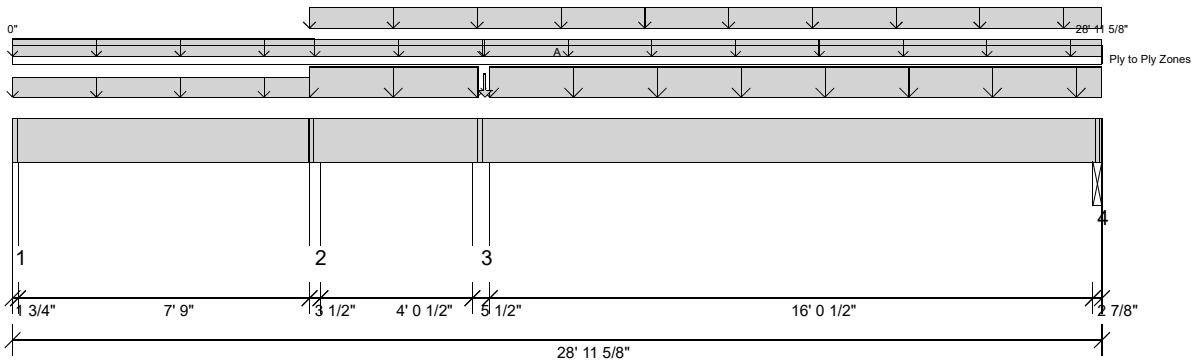
ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'	FB69-3(i8219)	2902 lb	1662 lb	1432 lb	-
2	18'- 4 3/4"	18'- 10 1/4"	W11(i8)	6202 lb	1731 lb	4138 lb	-

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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
- The unbraced length used in this design was manually input by the user. Install lateral bracing to satisfy the unbraced lengths specified on this report.
-
- Zone A: Factored load = 135 plf. Use 16d (0.162"x 3.5") nails. LDF = 1.00. Qty = 114. Row = 3, Spacing = 12"
  16d (0.162"x 3.5") nails properties: D = 0.162" , L = 3.5". Fastener capacity = 140 lbs. X1 = 2.5" , Y1 = 1", Y2 = 1.75"
  Install fasteners from both faces.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **FB71-2 - i8731** Type: **Beam**	**2 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 14**	Status: **Design Passed**

Graphical Illustration Not to Scale. Pitch: 0/12 Designed by: MiTek® Structure Version 8.5.0.207.Update18.7 ReportVersion: 2020.02.21 03/31/2022 19:59



DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 0' Bottom: 16'- 1/2"

Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 3/4"
- 725 psi Wall @ 12'- 5 1/2"
- 565 psi Beam @ 28'- 9 3/4"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	12'- 5 1/2"	D + S	10572 lb ft	33318 lb ft	Passed - 32%
Max Shear:	13'- 10 1/4"	D + S	3288 lb	10894 lb	Passed - 30%
Live Load (LL) Deflection:	21'- 6 9/16"	S	0.086"	L/480	Passed - L/999
Total Load (TL) Deflection:	21'- 6 7/16"	D + S	0.211"	L/240	Passed - L/913

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 3/4"	1 3/4"	D + L	1.00	585 lb		4594 lb	4441 lb	Passed - 13%
8'- 1/2"	3 1/2"	D + S	1.15		-1441 lb	-	-	
12'- 5 1/2"	5 1/2"	D + S	1.15	7377 lb		15422 lb	13956 lb	Passed - 53%
28'- 9 3/4"	2 7/8"	D + S	1.15	2601 lb		7547 lb	5685 lb	Passed - 46%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Self Weight	0'	28'- 11 5/8"	Self Weight	Top	13 lb/ft	-	-	-
Uniform	0'	8'- 1/2"	FC1 Floor Decking (Plan View Fill)	Top	8 lb/ft	31 lb/ft	-	-
Uniform	-0'	7'- 10 3/4"	W95(i1427)	Top	81 lb/ft	-	-	-
Uniform	7'- 10 3/4"	28'- 11 5/8"	W64(i1345)	Top	91 lb/ft	10 lb/ft	-	-
Uniform	7'- 10 3/4"	12'- 4 3/4"	W64(i1345)	Top	120 lb/ft	-	160 lb/ft	-
Uniform	8'- 1/2"	12'- 6 1/2"	FC1 Floor Decking (Plan View Fill)	Top	-	31 lb/ft	-	-
Uniform	12'- 6 1/2"	28'- 11 1/2"	FC1 Floor Decking (Plan View Fill)	Top	6 lb/ft	23 lb/ft	-	-
Uniform	12'- 8 1/4"	28'- 11 5/8"	W64(i1345)	Top	120 lb/ft	-	160 lb/ft	-
Point	12'- 6 3/4"	12'- 6 3/4"	-	Top	57 lb	28 lb	-	-

REACTIONS

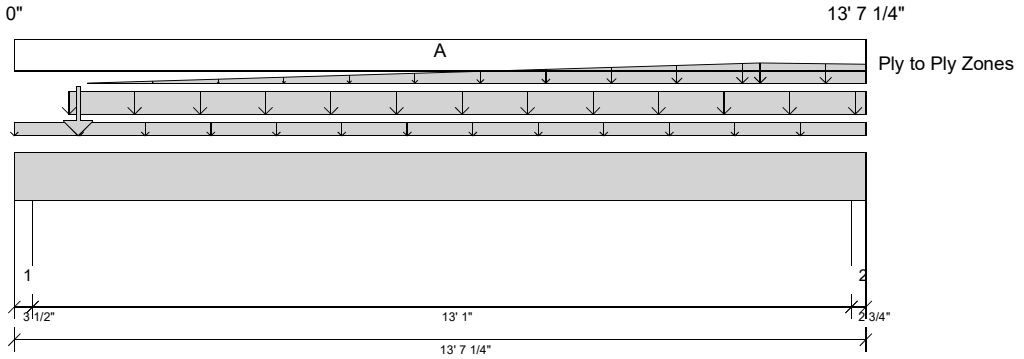
ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 1 3/4"	W39(i24)	452 lb	123/-4 lb	77 lb	-
2	7'- 10 3/4"	8'- 2 1/4"	W42(i56)	-603 lb	283/-158 lb	-833 lb	-
3	12'- 2 3/4"	12'- 8 1/4"	W34(i64)	4334 lb	685 lb	3075 lb	-
4	28'- 8 3/4"	28'- 11 5/8"	BBO1(i83)	1523 lb	223/-1 lb	1052 lb	-

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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
- Zone A: Factored load = 0 plf. Use 16d (0.162"x 3.5") nails. LDF = 1.00. Qty = 87. Row = 3, Spacing = 12"
  16d (0.162"x 3.5") nails properties: D = 0.162" , L = 3.5". Fastener capacity = 140 lbs. X1 = 2.5" , Y1 = 1", Y2 = 1.75"
  Install fasteners from one face.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLOOR** Label: **FB72-3 - i8167** Type: **Beam**	**3 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 9-1/4**	Status: **Design Passed**

Graphical Illustration Not to Scale. Pitch: 0/12 Designed by: MiTek® Structure Version 8.5.0.207.Update18.7 ReportVersion: 2020.02.21 03/31/2022 19:59



DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 13'- 7 1/4" Bottom: 13'- 1"

Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 2 1/2"
- 725 psi Wall @ 13'- 5 1/2"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	6'- 7 3/16"	D + S	9892 lb ft	22978 lb ft	Passed - 43%
Max Shear:	1'- 3/4"	D + S	5264 lb	10797 lb	Passed - 49%
Live Load (LL) Deflection:	6'- 8 3/4"	S	0.204"	L/480	Passed - L/769
Total Load (TL) Deflection:	6'- 8 7/8"	D + S	0.478"	L/240	Passed - L/328

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 2 1/2"	3 1/2"	D + S	1.15	5532 lb		13781 lb	13322 lb	Passed - 42%
13'- 5 1/2"	2 3/4"	D + S	1.15	3056 lb		10828 lb	10467 lb	Passed - 29%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Self Weight	0'	13'- 7 1/4"	Self Weight	Top	13 lb/ft	-	-	-
Uniform	-0'	13'- 7 1/4"	User Load	Top	10 lb/ft	20 lb/ft	-	-
Uniform	0'- 10 1/2"	13'- 7 1/4"	W85(i1420)	Top	161 lb/ft	-	100 lb/ft	-
Tapered	1'- 2"	11'- 11"	W85(i1420)	Top	0 To 83 lb/ft	-	0 To 110 lb/ft	-
Tapered	11'- 11"	13'- 7 1/4"	W85(i1420)	Top	83 To 70 lb/ft	-	110 To 93 lb/ft	-
Point	1'- 1/4"	1'- 1/4"	W85(i1420)	Top	1780 lb	-	1845 lb	-

REACTIONS

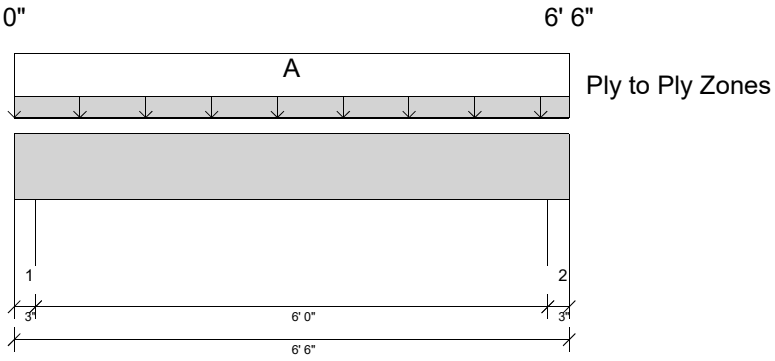
ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 3 1/2"	W54(i72)	2980 lb	137 lb	2581 lb	-
2	13'- 4 1/2"	13'- 7 1/4"	W12(i9)	1717 lb	135 lb	1283 lb	-

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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
- Zone A: Factored load = 0 plf. Use 16d (0.162"x 3.5") nails. LDF = 1.00. Qty = 56. Row = 2, Spacing = 12"
  16d (0.162"x 3.5") nails properties: D = 0.162" , L = 3.5". Fastener capacity = 140 lbs. X1 = 2.5" , Y1 = 1", Y2 = 1.75"
  Install fasteners from both faces.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLR WALLS/ ROOF** Label: **DB54-2 - i8213** Type: **Beam**	**2 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 9-1/4**	Status: **Design Passed**

Graphical Illustration Not to Scale. Pitch: 0/12 Designed by: MiTek® Structure Version 8.5.0.207.Update18.7 ReportVersion: 2020.02.21 03/31/2022 19:59



DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 6'- 6" Bottom: 6'- 6"

Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 2"
- 725 psi Wall @ 6'- 4"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	3'- 3"	D + L	1083 lb ft	13321 lb ft	Passed - 8%
Max Shear:	1'- 1/4"	D + L	509 lb	6259 lb	Passed - 8%
Live Load (LL) Deflection:	3'- 3"	L	0.008"	L/480	Passed - L/999
Total Load (TL) Deflection:	3'- 3"	D + L	0.017"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 2"	3"	D + L	1.00	743 lb		7875 lb	7613 lb	Passed - 10%
6'- 4"	3"	D + L	1.00	743 lb		7875 lb	7613 lb	Passed - 10%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Self Weight	0'	6'- 6"	Self Weight	Top	9 lb/ft	-	-	-
Uniform	0'	6'- 6"	User Load	Top	110 lb/ft	110 lb/ft	-	-

REACTIONS

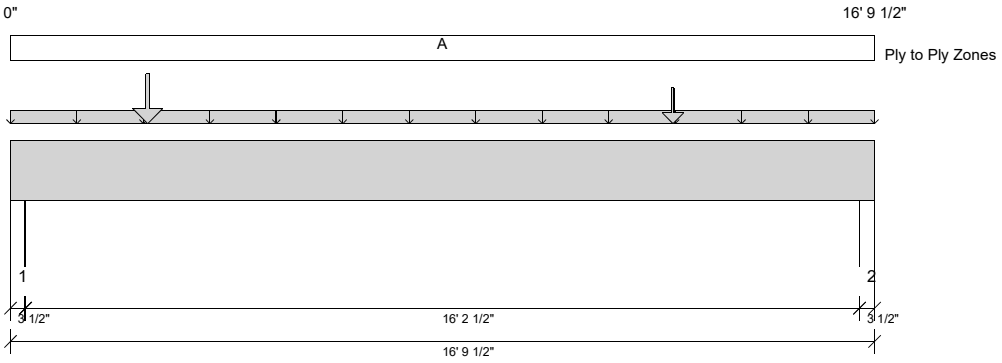
ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 3"	W98(i1450)	386 lb	358 lb	-	-
2	6'- 3"	6'- 6"	W99(i1480)	385 lb	357 lb	-	-

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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
- Zone A: Factored load = 0 plf. Use 16d (0.162"x 3.5") nails. LDF = 1.00. Qty = 14. Row = 2, Spacing = 12"
  16d (0.162"x 3.5") nails properties: D = 0.162" , L = 3.5". Fastener capacity = 140 lbs. X1 = 2.5" , Y1 = 1", Y2 = 1.75"
  Install fasteners from one face.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLR WALLS/ ROOF** Label: **FB47-3 - i8161** Type: **Beam**	**3 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 14**	Status: **Design Passed**

Graphical Illustration Not to Scale. Pitch: 0/12 Designed by: MiTek® Structure Version 8.5.0.207.Update18.7 ReportVersion: 2020.02.21 03/31/2022 19:59



DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 1'- 4" Bottom: 16'- 2 1/2"

Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 2 1/2"
- 725 psi Wall @ 16'- 7"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	5'- 4 1/2"	D + S	21455 lb ft	49244 lb ft	Passed - 44%
Max Shear:	1'- 5 1/2"	D + S	8683 lb	16341 lb	Passed - 53%
Live Load (LL) Deflection:	8'- 3 5/16"	S	0.260"	L/480	Passed - L/749
Total Load (TL) Deflection:	8'- 3 3/8"	D + S	0.501"	L/240	Passed - L/388

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 2 1/2"	3 1/2"	D + S	1.15	8726 lb		13781 lb	13322 lb	Passed - 66%
16'- 7"	3 1/2"	D + S	1.15	5624 lb		13781 lb	13322 lb	Passed - 42%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Self Weight	0'	16'- 9 1/2"	Self Weight	Top	19 lb/ft	-	-	-
Uniform	0'	16'- 9 1/2"	User Load	Top	10 lb/ft	10 lb/ft	-	-
Point	2'- 8"	2'- 8"	PBO21(i1497)	Top	3943 lb	-	4625 lb	-
Point	12'- 10 1/2"	12'- 10 1/2"	PBO22(i1498)	Top	2433 lb	-	2855 lb	-

REACTIONS

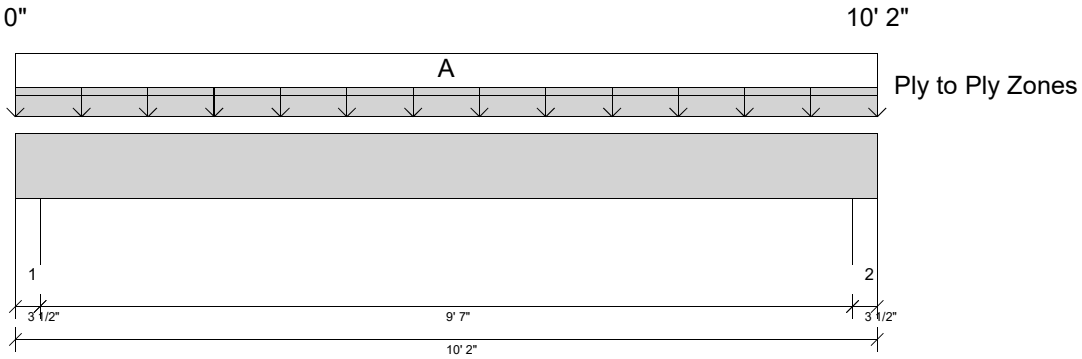
ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 3 1/2"	W98(i1450)	4149 lb	84 lb	4577 lb	-
2	16'- 6"	16'- 9 1/2"	W63(i1347)	2721 lb	84 lb	2903 lb	-

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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
- The unbraced length used in this design was manually input by the user. Install lateral bracing to satisfy the unbraced lengths specified on this report.
-
- Zone A: Factored load = 0 plf. Use 16d (0.162"x 3.5") nails. LDF = 1.00. Qty = 102. Row = 3, Spacing = 12"
  16d (0.162"x 3.5") nails properties: D = 0.162" , L = 3.5". Fastener capacity = 140 lbs. X1 = 2.5" , Y1 = 1", Y2 = 1.75"
  Install fasteners from both faces.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLR WALLS/ ROOF** Label: **FB52-2 - i7817** Type: **Beam**	**2 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 9-1/4**	Status: **Design Passed**

Graphical Illustration Not to Scale. Pitch: 0/12 Designed by: MiTek® Structure Version 8.5.0.207.Update18.7 ReportVersion: 2020.02.21 03/31/2022 19:59



DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 9'- 10 1/2" Bottom: 9'- 10 1/2"

Bearing Stress of Support Material:

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

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	5'- 1"	D + S	4787 lb ft	7769 lb ft	Passed - 62%
Max Shear:	9'- 1 1/4"	D + S	1623 lb	7198 lb	Passed - 23%
Live Load (LL) Deflection:	5'- 1"	S	0.100"	L/480	Passed - L/999
Total Load (TL) Deflection:	5'- 1"	D + S	0.183"	L/240	Passed - L/629

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 2 1/2"	3 1/2"	D + S	1.15	2051 lb		9188 lb	8881 lb	Passed - 23%
9'- 11 1/2"	3 1/2"	D + S	1.15	2051 lb		9188 lb	8881 lb	Passed - 23%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Self Weight	0'	10'- 2"	Self Weight	Top	9 lb/ft	-	-	-
Uniform	0'	10'- 2"	User Load	Top	175 lb/ft	10 lb/ft	220 lb/ft	-

REACTIONS

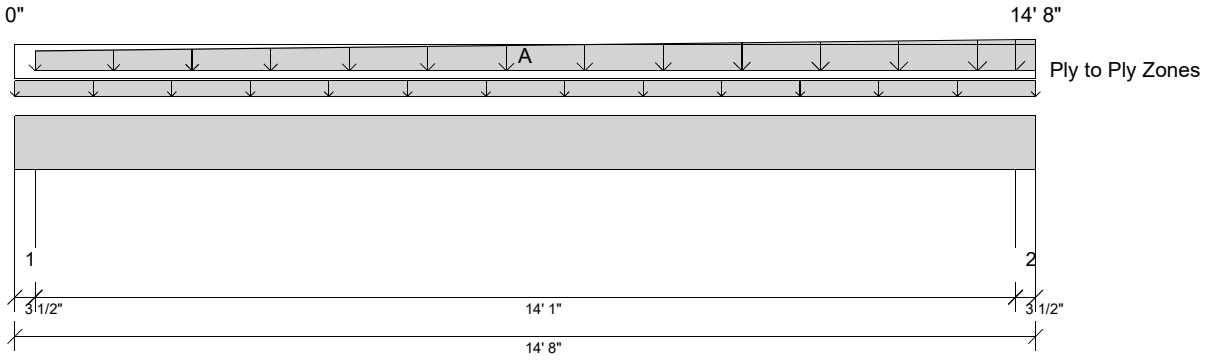
ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 3 1/2"	W60(i1344)	934 lb	51 lb	1120 lb	-
2	9'- 10 1/2"	10'- 2"	W63(i1347)	932 lb	51 lb	1117 lb	-

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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
- Zone A: Factored load = 0 plf. Use 16d (0.162"x 3.5") nails. LDF = 1.00. Qty = 22. Row = 2, Spacing = 12"
  16d (0.162"x 3.5") nails properties: D = 0.162" , L = 3.5". Fastener capacity = 140 lbs. X1 = 2.5" , Y1 = 1", Y2 = 1.75"
  Install fasteners from one face.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.
-

MiTek	Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLR WALLS/ ROOF** Label: **FB66-3 - i8203** Type: **Beam**	**3 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 9-1/4**	Status: **Design Passed**

Graphical Illustration Not to Scale. Pitch: 0/12 Designed by: MiTek® Structure Version 8.5.0.207.Update18.7 ReportVersion: 2020.02.21 03/31/2022 19:59



DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
LL Deflection Limit:	L/480, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Top and bottom edges of member to be fully restrained laterally, or have the following maximum unbraced length:

Top: 14'- 1" Bottom: 14'- 1"

Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 2 1/2"
- 725 psi Wall @ 14'- 5 1/2"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	Design	Limit	Result
Max Moment:	7'- 10 3/4"	D + S	6198 lb ft	22978 lb ft	Passed - 27%
Max Shear:	13'- 7 1/4"	D + S	1707 lb	10797 lb	Passed - 16%
Live Load (LL) Deflection:	7'- 5 3/4"	S	0.173"	L/480	Passed - L/975
Total Load (TL) Deflection:	7'- 5 5/8"	D + S	0.335"	L/240	Passed - L/504

SUPPORT AND REACTION INFORMATION

Support Location	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
0'- 2 1/2"	3 1/2"	D + S	1.15	1478 lb		13781 lb	13322 lb	Passed - 11%
14'- 5 1/2"	3 1/2"	D + S	1.15	2084 lb		13781 lb	13322 lb	Passed - 16%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live
Self Weight	0'	14'- 8"	Self Weight	Top	13 lb/ft	-	-	-
Uniform	-0'	14'- 8"	User Load	Top	10 lb/ft	10 lb/ft	-	-
Uniform	14'- 4 1/2"	14'- 8"	User Load	Top	145 lb/ft	-	193 lb/ft	-
Tapered	0'- 3 1/2"	14'- 4 1/2"	User Load	Top	45 To 144 lb/ft	-	59 To 192 lb/ft	-

REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live
1	0'	0'- 3 1/2"	W114(i4093)	728 lb	73 lb	744 lb	-
2	14'- 4 1/2"	14'- 8"	W120(i4092)	992 lb	73 lb	1098 lb	-

DESIGN NOTES

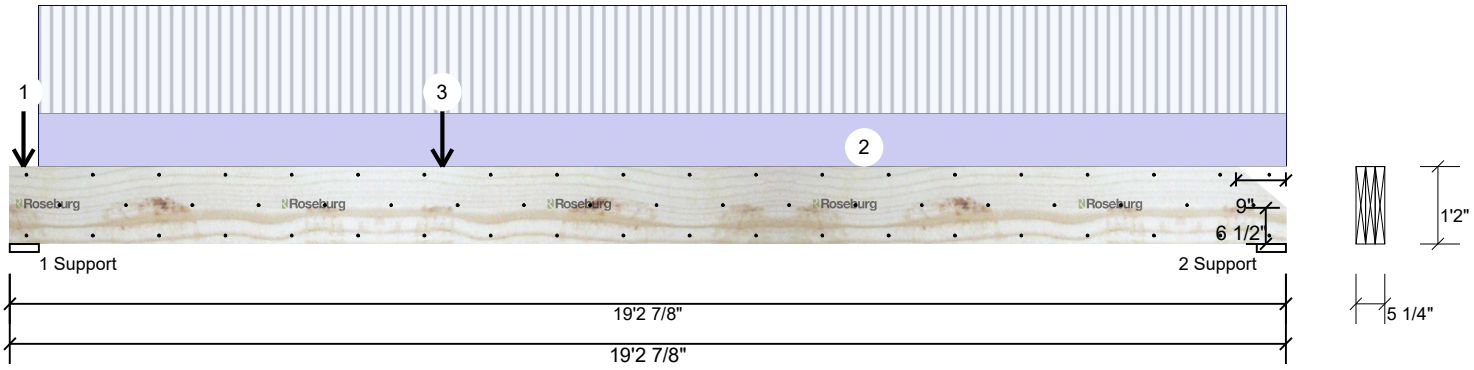
- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based 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. Anchorage for uplift reactions to be specified by others. Installation of member as per manufacturer's instruction.
- Zone A: Factored load = 0 plf. Use 16d (0.162"x 3.5") nails. LDF = 1.00. Qty = 60. Row = 2, Spacing = 12"
  16d (0.162"x 3.5") nails properties: D = 0.162" , L = 3.5". Fastener capacity = 140 lbs. X1 = 2.5" , Y1 = 1", Y2 = 1.75"
  Install fasteners from both faces.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.
-

Customer: **T E Jones** Job Name: **Jones Residence** Address: City/ State:	Job Name: **22030069** Level: **2ND FLR WALLS/ ROOF** Label: **FB73-2 - i8076** Type: **Beam**	**2 Ply Member** **2.0 RigidLam DF LVL** **1-3/4 x 11-7/8**	Status: **Design Passed**

Client:	T E Jones	Date:	3/31/2022
Project:		Input by:	Sean Brown
Address:		Job Name:	Jones Residence
		Project #:	

FB67-3 (i7297) 2.0E Rigidlam LVL 1.750" X 14.000" 3-Ply - PASSED

Level: 2ND FLOOR



Member Information

Type:	Girder	Application:	Floor
Plies:	3	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	Yes
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	184	2286	2106	0	0
2	Vertical	192	1282	1049	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Support	5.250"	Vert	21%	2286 / 2106	4393	L	D+S
2 - Support	5.250"	Vert	11%	1282 / 1049	2331	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	26397 ft-lb	6'6 1/4"	51977 ft-lb	0.508 (51%)	D+S	L
Unbraced	26397 ft-lb	6'6 1/4"	51977 ft-lb	0.508 (51%)	D+S	L
Shear	4372 lb	1'7 1/4"	16342 lb	0.268 (27%)	D+S	L
Rt. Scarf	51 psi, 2320 lb		334 psi	0.154 (15%)	D+S	L
LL Defl inch	0.257 (L/864)	8'9 5/8"	0.462 (L/480)	0.555 (56%)	S	L
TL Defl inch	0.533 (L/416)	8'10 1/8"	0.924 (L/240)	0.577 (58%)	D+S	L

Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2 Fasten all plies using 3 rows of 10d Common nails (.148x3") at 12" o.c. Maximum end distance not to exceed 6".
3 Refer to last page of calculations for fasteners required for specified loads.
4 Notches in LVL are in accordance with APA Form No. EWS G535, Figure 1.
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 continuously laterally braced.
8 Bottom must be laterally braced at a maximum of 18'4 3/8" o.c.
9 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Point	0-2-8		Top	0 lb	0 lb	0 lb	0 lb	0 lb	W68(i1418)
	Bearing Length	0-3-8								
2	Part. Uniform	0-5-4 to 19-2-14		Top	10 PLF	20 PLF	0 PLF	0 PLF	0 PLF	User Load

Continued on page 2...

Notes

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

Lumber

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

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

Manufacturer Info

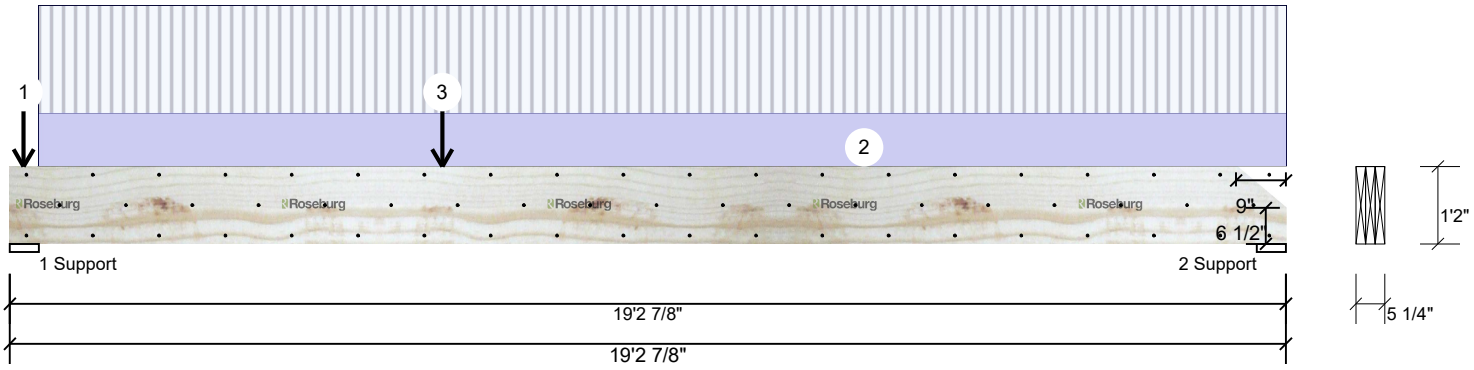
Roseburg Forest Products
4500 Riddle By-pass Rd
Riddle, OR 97469
(541) 784-4005
www.roseburg.com
APA: PR-L289, PR-L270, ICC-ES: ESR-1210

Kempsville Building Materials

Client:	T E Jones	Date:	3/31/2022
Project:		Input by:	Sean Brown
Address:		Job Name:	Jones Residence
		Project #:	

FB67-3 (i7297) 2.0E Rigidlam LVL 1.750" X 14.000" 3-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
3	Point	6-6-4		Top	3007 lb	0 lb	3155 lb	0 lb	0 lb	PBO28(i4146)
	Bearing Length	0-3-8								
	Self Weight				19 PLF					

Notes

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

Lumber

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

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

Manufacturer Info

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4500 Riddle By-pass Rd
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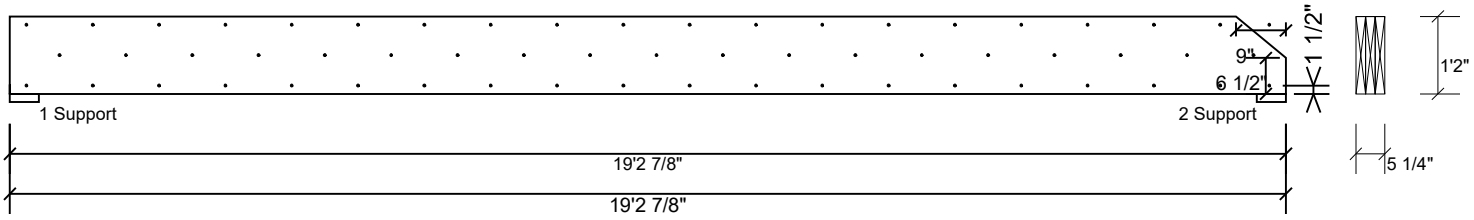
APA: PR-L289, PR-L270, ICC-ES: ESR-1210

Kempsville Building Materials

Client:	T E Jones	Date:	3/31/2022
Project:		Input by:	Sean Brown
Address:		Job Name:	Jones Residence
		Project #:	

FB67-3 (i7297) 2.0E Rigidlam LVL 1.750" X 14.000" 3-Ply - PASSED

Level: 2ND FLOOR



Multi-Ply Analysis

Fasten all plies using 3 rows of 10d Common nails (.148x3") at 12" o.c.. Nail from both sides. Maximum end distance not to exceed 6".

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	298.0 PLF
Yield Limit per Fastener	99.3 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Notes

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

Lumber

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

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

Manufacturer Info

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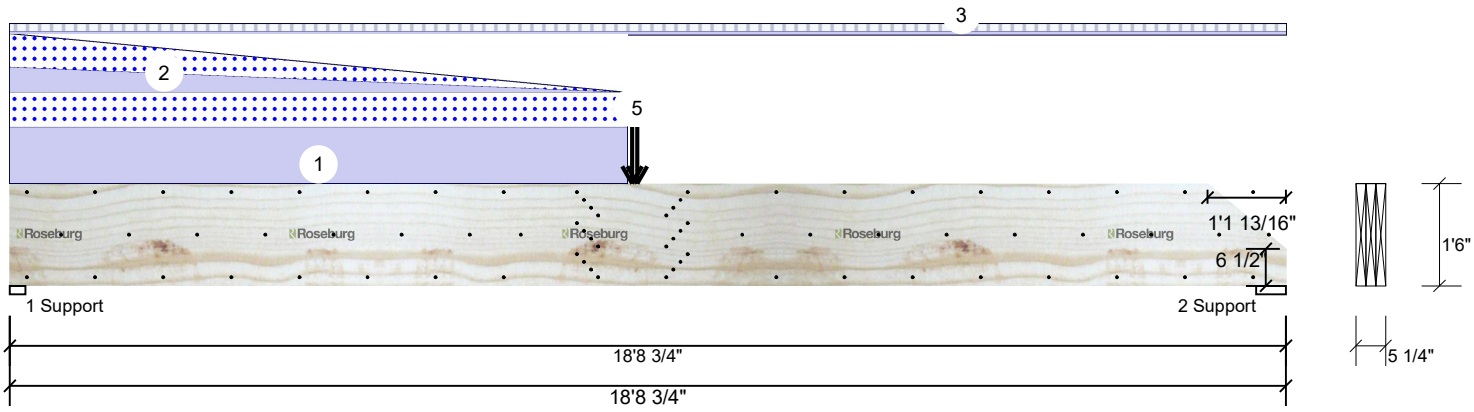
(541) 784-4005
www.roseburg.com
APA: PR-L289, PR-L270, ICC-ES: ESR-1210

Kempsville Building Materials

Client:	T E Jones	Date:	3/31/2022
Project:		Input by:	Sean Brown
Address:		Job Name:	Jones Residence
		Project #:	

FB69-3 (i5073) 2.0E Rigidlam LVL 1.750" X 18.000" 3-Ply - PASSED

Level: 2ND FLOOR



Member Information

Type:	Girder	Application:	Floor
Plies:	3	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	Yes
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	1028	4043	2658	0	0
2	Vertical	1009	3027	1869	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Support	2.750"	Vert	65%	4043 / 2764	6807	L	D+0.75(L+S)
2 - Support	5.250"	Vert	25%	3027 / 2158	5185	L	D+0.75(L+S)

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	45281 ft-lb	9'1 5/8"	83263 ft-lb	0.544 (54%)	D+0.75(L+S)	L
Unbraced	45281 ft-lb	9'1 5/8"	83263 ft-lb	0.544 (54%)	D+0.75(L+S)	L
Shear	6133 lb	1'8 3/4"	21011 lb	0.292 (29%)	D+0.75(L+S)	L
Rt. Scarf	119 psi, 5166 lb		334 psi	0.357 (36%)	D+0.75(L+S)	L
LL Defl inch	0.185 (L/1179)	9'1 11/16"	0.455 (L/480)	0.407 (41%)	0.75(L+S)	L
TL Defl inch	0.442 (L/493)	9'1 9/16"	0.909 (L/240)	0.486 (49%)	D+0.75(L+S)	L

Design Notes

1. Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2. Fasten all plies using 3 rows of 10d Common nails (.148x3") at 12" o.c. Maximum end distance not to exceed 6".
3. Refer to last page of calculations for fasteners required for specified loads.
4. Concentrated load fastener specification is in addition to hanger fasteners if a hanger is present.
5. Notches in LVL are in accordance with APA Form No. EWS G535, Figure 1.
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 continuously laterally braced.
9. Bottom must be laterally braced at a maximum of 18' 3/4" o.c.
10. Lateral slenderness ratio based on single ply width.

Notes

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

Lumber

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

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

Manufacturer Info

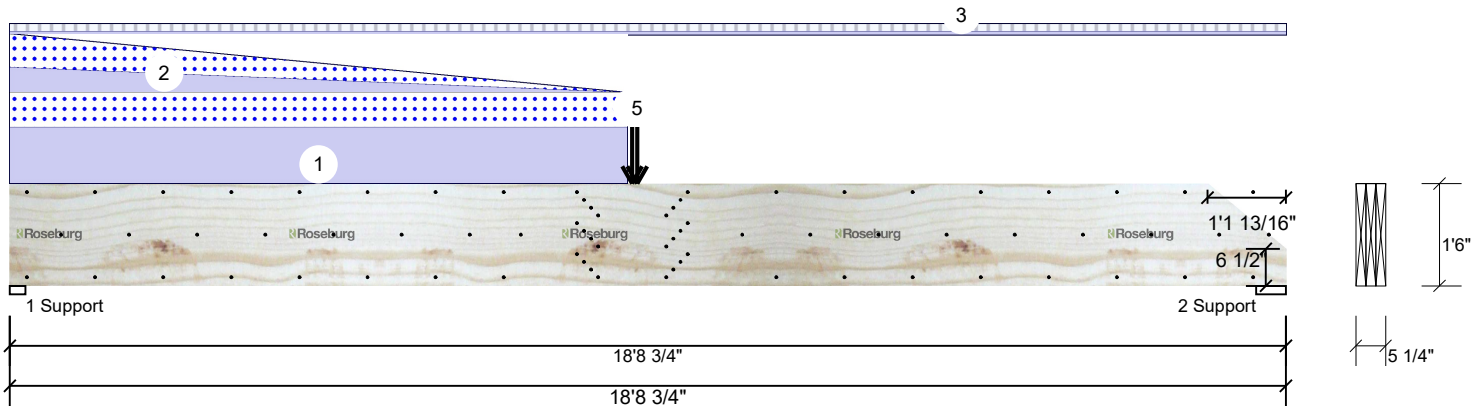
Roseburg Forest Products
4500 Riddle By-pass Rd
Riddle, OR 97469
(541) 784-4005
www.roseburg.com
APA: PR-L289, PR-L270, ICC-ES: ESR-1210

Kempsville Building Materials

Client:	T E Jones	Date:	3/31/2022
Project:		Input by:	Sean Brown
Address:		Job Name:	Jones Residence
		Project #:	

FB69-3 (i5073) 2.0E Rigidlam LVL 1.750" X 18.000" 3-Ply - PASSED

Level: 2ND FLOOR



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 9-0-12		Top	161 PLF	0 PLF	100 PLF	0 PLF	0 PLF	W85(i1420)
2	Tapered Start	0-0-0		Top	70 PLF	0 PLF	93 PLF	0 PLF	0 PLF	W85(i1420)
	End	9-0-12			0 PLF	0 PLF	0 PLF	0 PLF	0 PLF	
3	Part. Uniform	0-0-0 to 18-8-12		Top	10 PLF	20 PLF	0 PLF	0 PLF	0 PLF	User Load
4	Point	9-1-10		Near Face	2902 lb	1662 lb	1432 lb	0 lb	0 lb	FB70-3(i5076)
5	Point	9-2-8		Top	1742 lb	0 lb	1768 lb	0 lb	0 lb	W86(i1419)
	Bearing Length	0-3-8								
	Self Weight				25 PLF					

Notes

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Lumber

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

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
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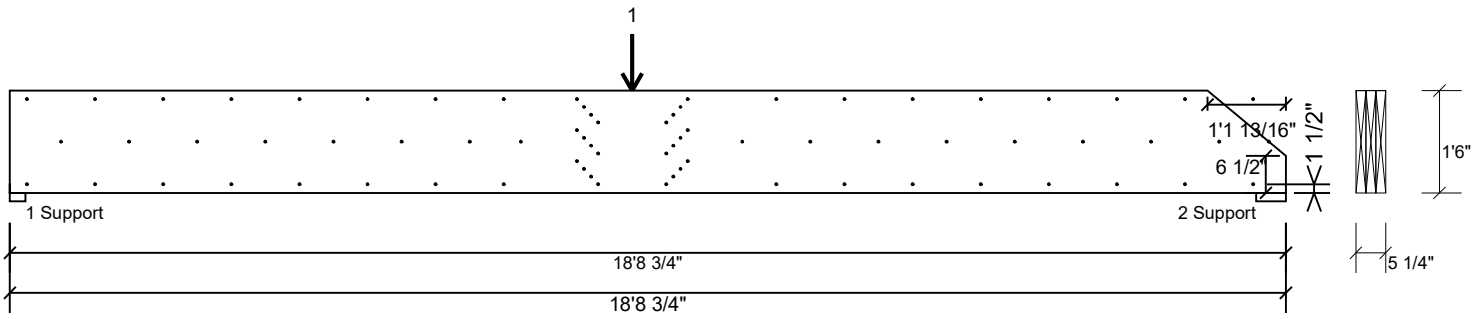
Kempsville Building Materials

Client:	T E Jones	Date:	3/31/2022
Project:		Input by:	Sean Brown
Address:		Job Name:	Jones Residence
		Project #:	

FB69-3 (i5073) 2.0E Rigidlam LVL 1.750" X 18.000" 3-Ply - PASSED

Level: 2ND FLOOR



Multi-Ply Analysis

Fasten all plies using 3 rows of 10d Common nails (.148x3") at 12" o.c.. except for regions covered by concentrated load fastening. Nail from both sides. Maximum end distance not to exceed 6".

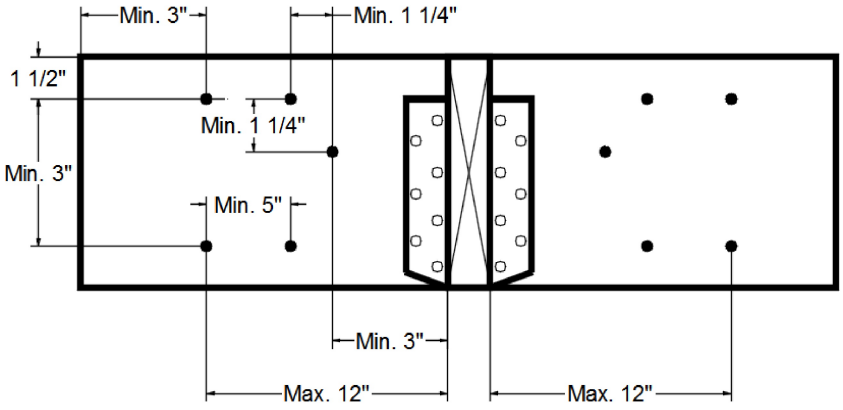
Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	298.0 PLF
Yield Limit per Fastener	99.3 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Concentrated Load

Fasten at concentrated side load at 9-1-10 with a minimum of (24) – 16d Common nails (.162x3.5") in the pattern shown. Repeat fasteners on both sides.

Capacity	90.0 %
Load	3042.7lb.
Total Yield Limit	3380.5 lb.
Cg	0.9997
Yield Limit per Fastener	140.9 lb.
Yield Mode	IV
Load Combination	D+L
Duration Factor	1.00

Min/Max fastener distances for Concentrated Side Loads



Notes

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

Lumber

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

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

Manufacturer Info

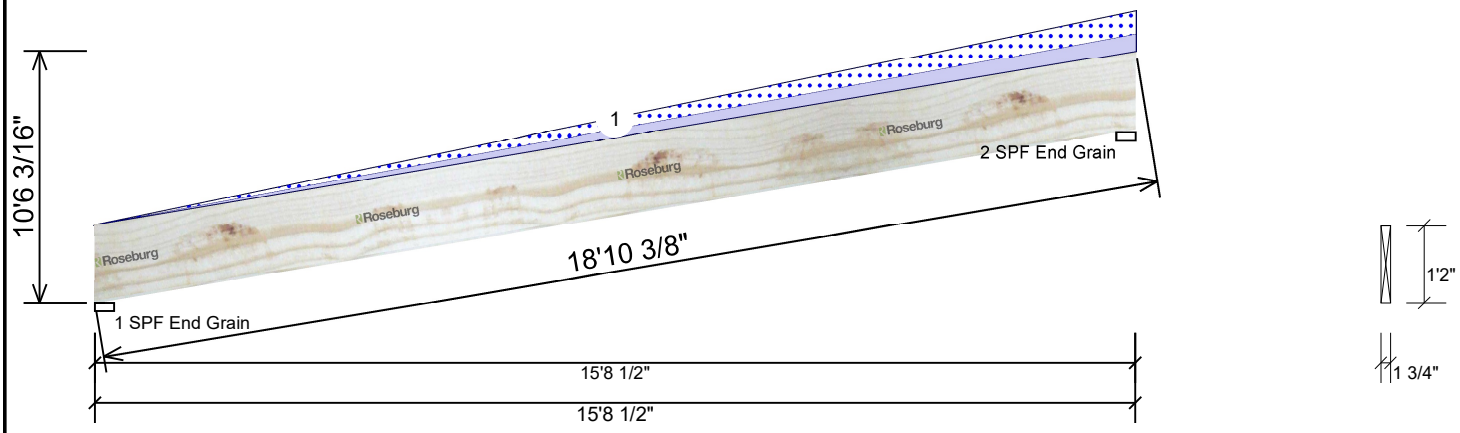
Roseburg Forest Products
4500 Riddle By-pass Rd
Riddle, OR 97469
(541) 784-4005
www.roseburg.com
APA: PR-L289, PR-L270, ICC-ES: ESR-1210

Kempsville Building Materials

Client:	T E Jones	Date:	3/31/2022
Project:		Input by:	Sean Brown
Address:		Job Name:	Jones Residence
		Project #:	

RB4 HIP BEAM 2.0E Rigidlam LVL 1.750" X 14.000" - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Roof
Plies:	1	Slope:	7/12
Moisture Condition:	Dry	Design Method:	ASD
Deflection LL:	240	Building Code:	IBC/IRC 2015
Deflection TL:	180	Load Sharing:	No
Importance:	Normal - II	Deck:	Not Checked
Temperature:	Temp <= 100°F		
General Load			
Floor Live:	40 PSF		
Dead:	10 PSF		
Snow:	20 PSF		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	596	619	0	0
2	Vertical	0	1151	1266	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	26%	596 / 619	1216	L	D+S
2 - SPF End Grain	3.500"	Vert	53%	1151 / 1266	2417	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	6893 ft-lb	8'11 5/8"	16659 ft-lb	0.414 (41%)	D+S	L
Unbraced	6893 ft-lb	8'11 5/8"	6915 ft-lb	0.997 (100%)	D+S	L
Shear	1613 lb	16'7 7/8"	5447 lb	0.296 (30%)	D+S	L
LL Defl inch	0.245 (L/865)	8'1 11/16"	0.883 (L/240)	0.278 (28%)	S	L
TL Defl inch	0.473 (L/448)	8'1 9/16"	1.177 (L/180)	0.402 (40%)	D+S	L

Design Notes

1. Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2. Refer to manufacturer's literature for sloped bearing detail.
3. Attach with enough nails to prevent sliding between the joist and the sloped bearing wedge at each support.
4. Girders are designed to be supported on the bottom edge only.
5. Top must be laterally braced at a maximum of 7'5 11/16" o.c. along the slope.
6. 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	Tapered Start	0-0-0		Top	0 PLF	0 PLF	0 PLF	0 PLF	0 PLF	ROOF LOAD
	End	15-8-8			180 PLF	0 PLF	240 PLF	0 PLF	0 PLF	
	Self Weight				6 PLF					

Notes

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

Lumber

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

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

Manufacturer Info

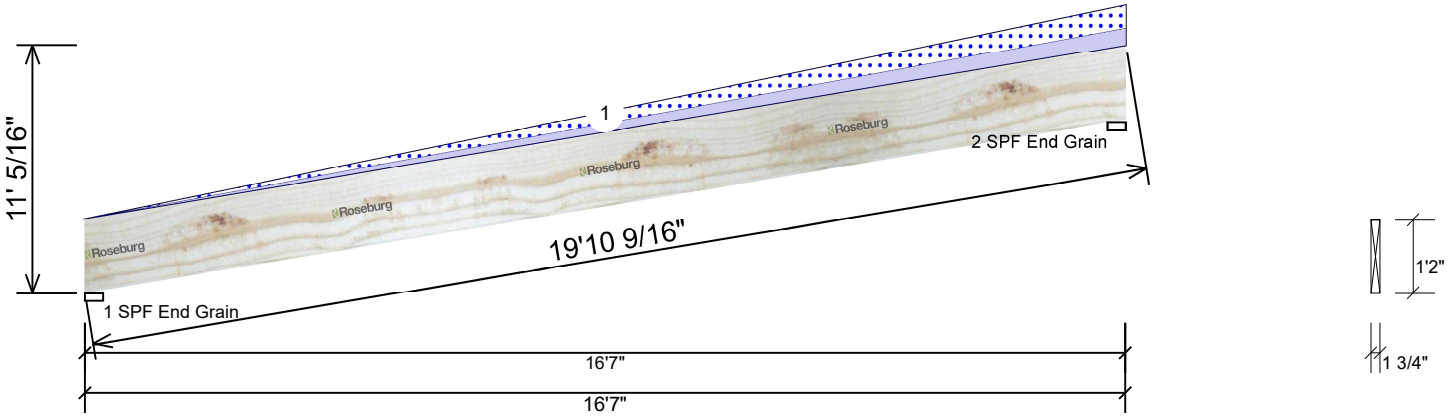
Roseburg Forest Products
4500 Riddle By-pass Rd
Riddle, OR 97469
(541) 784-4005
www.roseburg.com
APA: PR-L289, PR-L270, ICC-ES: ESR-1210

Kempsville Building Materials
3300 BUSINESS CENTER DRIVE, VA 23323
757-335-1309

Client:	T E Jones	Date:	3/31/2022
Project:		Input by:	Sean Brown
Address:		Job Name:	Jones Residence
		Project #:	

RB2 HIP BEAM 2.0E Rigidlam LVL 1.750" X 14.000" - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Roof
Plies:	1	Slope:	7/12
Moisture Condition:	Dry	Design Method:	ASD
Deflection LL:	240	Building Code:	IBC/IRC 2015
Deflection TL:	180	Load Sharing:	No
Importance:	Normal - II	Deck:	Not Checked
Temperature:	Temp <= 100°F		
General Load			
Floor Live:	40 PSF		
Dead:	10 PSF		
Snow:	20 PSF		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	630	654	0	0
2	Vertical	0	1215	1336	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	28%	630 / 654	1284	L	D+S
2 - SPF End Grain	3.500"	Vert	56%	1215 / 1336	2551	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	7707 ft-lb	9'5 11/16"	16659 ft-lb	0.463 (46%)	D+S	L
Unbraced	7707 ft-lb	9'5 11/16"	7724 ft-lb	0.998 (100%)	D+S	L
Shear	1728 lb	17'8"	5447 lb	0.317 (32%)	D+S	L
LL Defl inch	0.306 (L/732)	8'7 3/16"	0.933 (L/240)	0.328 (33%)	S	L
TL Defl inch	0.591 (L/379)	8'7"	1.245 (L/180)	0.475 (47%)	D+S	L

Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2 Refer to manufacturer's literature for sloped bearing detail.
3 Attach with enough nails to prevent sliding between the joist and the sloped bearing wedge at each support.
4 Girders are designed to be supported on the bottom edge only.
5 Top must be laterally braced at a maximum of 6'7 3/4" o.c. along the slope.
6 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	Tapered Start	0-0-0		Top	0 PLF	0 PLF	0 PLF	0 PLF	0 PLF	ROOF LOAD
	End	16-7-0			180 PLF	0 PLF	240 PLF	0 PLF	0 PLF	
	Self Weight				6 PLF					

Notes

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

Lumber

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

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

Manufacturer Info

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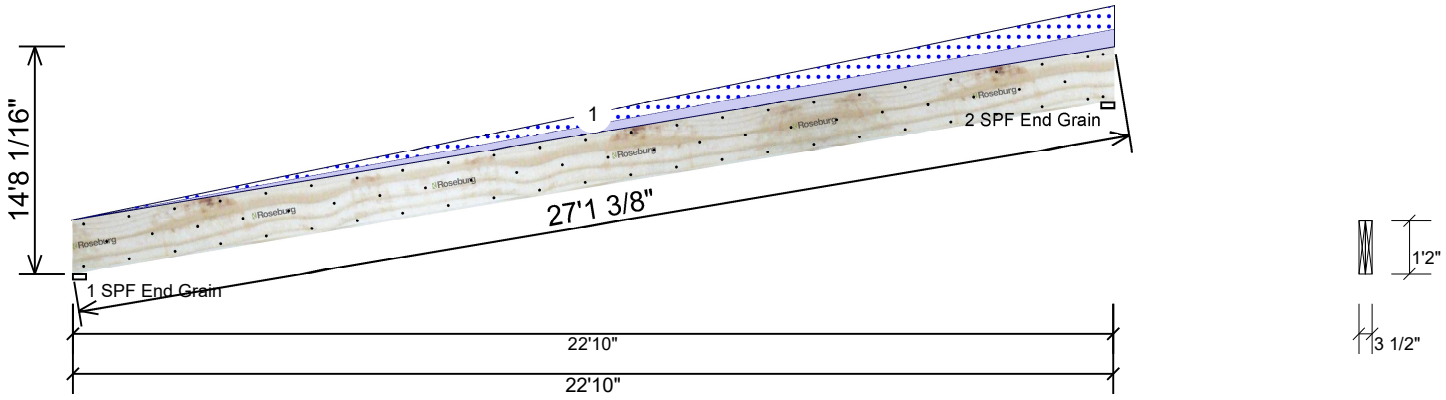
(541) 784-4005
www.roseburg.com
APA: PR-L289, PR-L270, ICC-ES: ESR-1210

Kempsville Building Materials
3300 BUSINESS CENTER DRIVE, VA 23323
757-335-1309

Client:	T E Jones	Date:	3/31/2022
Project:		Input by:	Sean Brown
Address:		Job Name:	Jones Residence
		Project #:	

RB3 HIP BEAM 2.0E Rigidlam LVL 1.750" X 14.000" 2-Ply - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Roof
Plies:	2	Slope:	7/12
Moisture Condition:	Dry	Design Method:	ASD
Deflection LL:	240	Building Code:	IBC/IRC 2015
Deflection TL:	180	Load Sharing:	No
Importance:	Normal - II	Deck:	Not Checked
Temperature:	Temp <= 100°F		
General Load			
Floor Live:	40 PSF		
Dead:	10 PSF		
Snow:	20 PSF		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	1217	1206	0	0
2	Vertical	0	2287	2448	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	26%	1217 / 1206	2423	L	D+S
2 - SPF End Grain	3.500"	Vert	52%	2287 / 2448	4735	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	20098 ft-lb	13' 9/16"	33318 ft-lb	0.603 (60%)	D+S	L
Unbraced	20098 ft-lb	13' 9/16"	20103 ft-lb	1.000 (100%)	D+S	L
Shear	3448 lb	24'10 13/16"	10894 lb	0.317 (32%)	D+S	L
LL Defl inch	0.757 (L/411)	11'10 1/16"	1.295 (L/240)	0.584 (58%)	S	L
TL Defl inch	1.485 (L/209)	11'9 7/8"	1.727 (L/180)	0.860 (86%)	D+S	L

Design Notes

1. Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2. Fasten all plies using 3 rows of 10d Common nails (.148x3") at 12" o.c. Maximum end distance not to exceed 6".
3. Refer to last page of calculations for fasteners required for specified loads.
4. Refer to manufacturer's literature for sloped bearing detail.
5. Attach with enough nails to prevent sliding between the joist and the sloped bearing wedge at each support.
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 4'11 1/2" o.c. along the slope.
9. Bottom must be laterally braced at end bearings.
10. Lateral slenderness ratio based on single ply width.

Notes

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

Lumber

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

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

Manufacturer Info

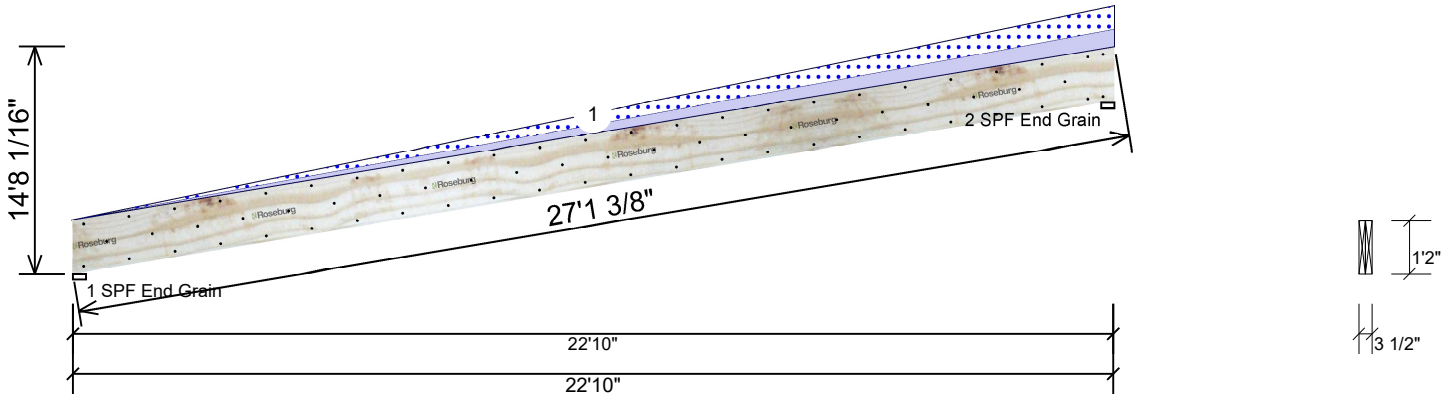
Roseburg Forest Products
4500 Riddle By-pass Rd
Riddle, OR 97469
(541) 784-4005
www.roseburg.com
APA: PR-L289, PR-L270, ICC-ES: ESR-1210

Kempsville Building Materials
3300 BUSINESS CENTER DRIVE, VA 23323
757-335-1309

Client:	T E Jones	Date:	3/31/2022
Project:		Input by:	Sean Brown
Address:		Job Name:	Jones Residence
		Project #:	

RB3 HIP BEAM 2.0E Rigidlam LVL 1.750" X 14.000" 2-Ply - PASSED

Level: Level



ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Tapered Start	0-0-0		Top	0 PLF	0 PLF	0 PLF	0 PLF	0 PLF	ROOF LOAD
	End	22-10-0			240 PLF	0 PLF	320 PLF	0 PLF	0 PLF	
	Self Weight				13 PLF					

Notes

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Lumber

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

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
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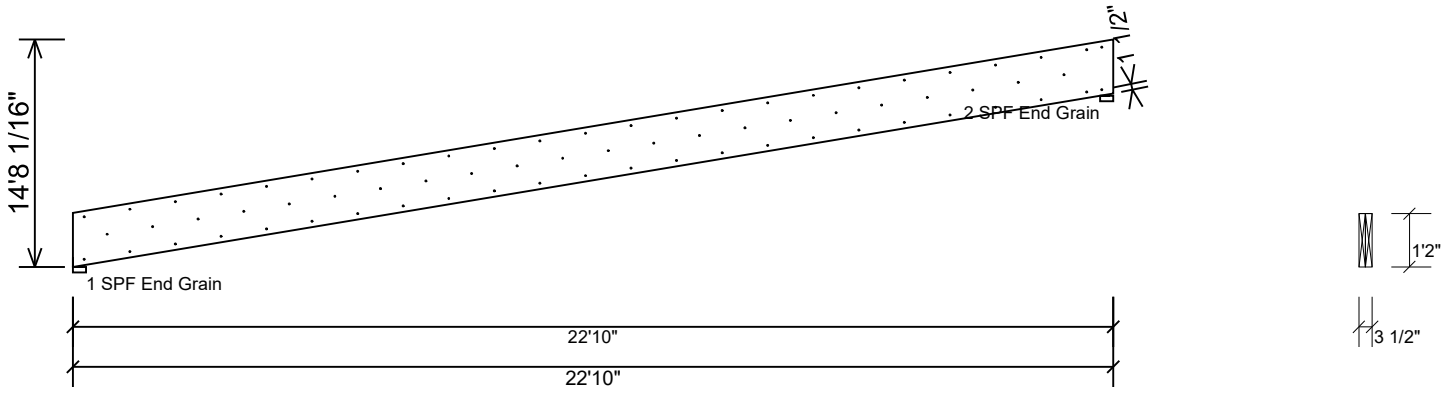
RB3 HIP BEAM 2.0E Rigidlam LVL 1.750" X 14.000" 2-Ply - PASSED

Level: Level



Multi-Ply Analysis

Fasten all plies using 3 rows of 10d Common nails (.148x3") at 12" o.c.. Maximum end distance not to exceed 6".

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	298.0 PLF
Yield Limit per Fastener	99.3 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Notes

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

Lumber

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

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

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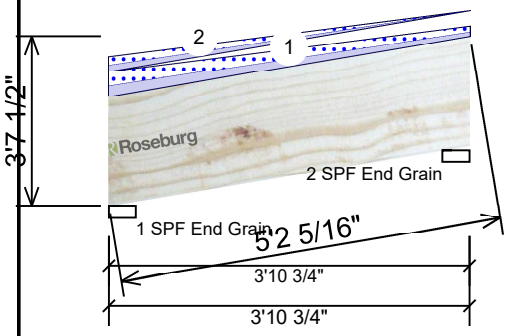
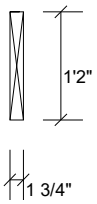
Kempsville Building Materials
3300 BUSINESS CENTER DRIVE, VA 23323
757-335-1309

RB17 HIP BEAM 2.0E Rigidlam LVL 1.750" X 14.000" - PASSED

Level: Level





Member Information

Type:	Girder	Application:	Roof
Plies:	1	Slope:	7/12
Moisture Condition:	Dry	Design Method:	ASD
Deflection LL:	240	Building Code:	IBC/IRC 2015
Deflection TL:	180	Load Sharing:	No
Importance:	Normal - II	Deck:	Not Checked
Temperature:	Temp <= 100°F		
General Load			
Floor Live:	40 PSF		
Dead:	10 PSF		
Snow:	20 PSF		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	217	238	0	0
2	Vertical	0	145	152	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	10%	217 / 238	455	L	D+S
2 - SPF End Grain	3.500"	Vert	6%	145 / 152	296	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	289 ft-lb	1'9 11/16"	16659 ft-lb	0.017 (2%)	D+S	L
Unbraced	289 ft-lb	1'9 11/16"	11994 ft-lb	0.024 (2%)	D+S	L
Shear	310 lb	2'11 3/4"	5447 lb	0.057 (6%)	D+S	L
LL Defl inch	0.001 (L/90724)	1'10 15/16"	0.199 (L/240)	0.003 (0%)	S	L
TL Defl inch	0.001 (L/46692)	1'10 15/16"	0.265 (L/180)	0.004 (0%)	D+S	L

Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2 Refer to manufacturer's literature for sloped bearing detail.
3 Attach with enough nails to prevent sliding between the joist and the sloped bearing wedge at each support.
4 Girders are designed to be supported on the bottom edge only.
5 Top must be laterally braced at end bearings.
6 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	Tapered Start	0-0-0		Far Face	75 PLF	0 PLF	100 PLF	0 PLF	0 PLF	
	End	3-10-12			30 PLF	0 PLF	40 PLF	0 PLF	0 PLF	
2	Tapered Start	0-0-0		Top	45 PLF	0 PLF	60 PLF	0 PLF	0 PLF	
	End	3-10-12			0 PLF	0 PLF	0 PLF	0 PLF	0 PLF	
	Self Weight				6 PLF					

Notes

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Lumber

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

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

Manufacturer Info

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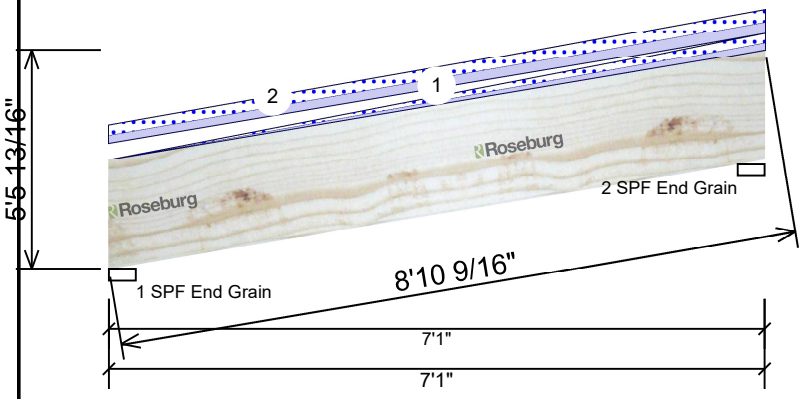
www.roseburg.com
APA: PR-L289, PR-L270, ICC-ES: ESR-1210

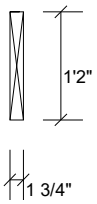
Kempsville Building Materials
3300 BUSINESS CENTER DRIVE, VA 23323
757-335-1309

Client:	T E Jones	Date:	3/31/2022
Project:		Input by:	Sean Brown
Address:		Job Name:	Jones Residence
		Project #:	

RB8 HIP BEAM 2.0E Rigidlam LVL 1.750" X 14.000" - PASSED

Level: Level





Member Information

Type:	Girder	Application:	Roof
Plies:	1	Slope:	7/12
Moisture Condition:	Dry	Design Method:	ASD
Deflection LL:	240	Building Code:	IBC/IRC 2015
Deflection TL:	180	Load Sharing:	No
Importance:	Normal - II	Deck:	Not Checked
Temperature:	Temp <= 100°F		
General Load			
Floor Live:	40 PSF		
Dead:	10 PSF		
Snow:	20 PSF		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	512	527	0	0
2	Vertical	0	671	677	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	23%	512 / 527	1039	L	D+S
2 - SPF End Grain	3.500"	Vert	29%	671 / 677	1348	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1863 ft-lb	3'8 3/4"	16659 ft-lb	0.112 (11%)	D+S	L
Unbraced	1863 ft-lb	3'8 3/4"	6749 ft-lb	0.276 (28%)	D+S	L
Shear	1109 lb	1'5 1/2"	5447 lb	0.204 (20%)	D+S	L
LL Defl inch	0.012 (L/7457)	3'7"	0.383 (L/240)	0.032 (3%)	S	L
TL Defl inch	0.025 (L/3746)	3'7"	0.511 (L/180)	0.048 (5%)	D+S	L

Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2 Refer to manufacturer's literature for sloped bearing detail.
3 Attach with enough nails to prevent sliding between the joist and the sloped bearing wedge at each support.
4 Girders are designed to be supported on the bottom edge only.
5 Top must be laterally braced at end bearings.
6 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	Tapered Start	0-0-0		Far Face	0 PLF	0 PLF	0 PLF	0 PLF	0 PLF	ROOF LOAD
	End	7-1-0			75 PLF	0 PLF	100 PLF	0 PLF	0 PLF	
2	Tapered Start	0-0-0		Near Face	83 PLF	0 PLF	110 PLF	0 PLF	0 PLF	ROOF LOAD
	End	7-1-0			120 PLF	0 PLF	130 PLF	0 PLF	0 PLF	
	Self Weight				6 PLF					

Notes

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

Lumber

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

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

Manufacturer Info

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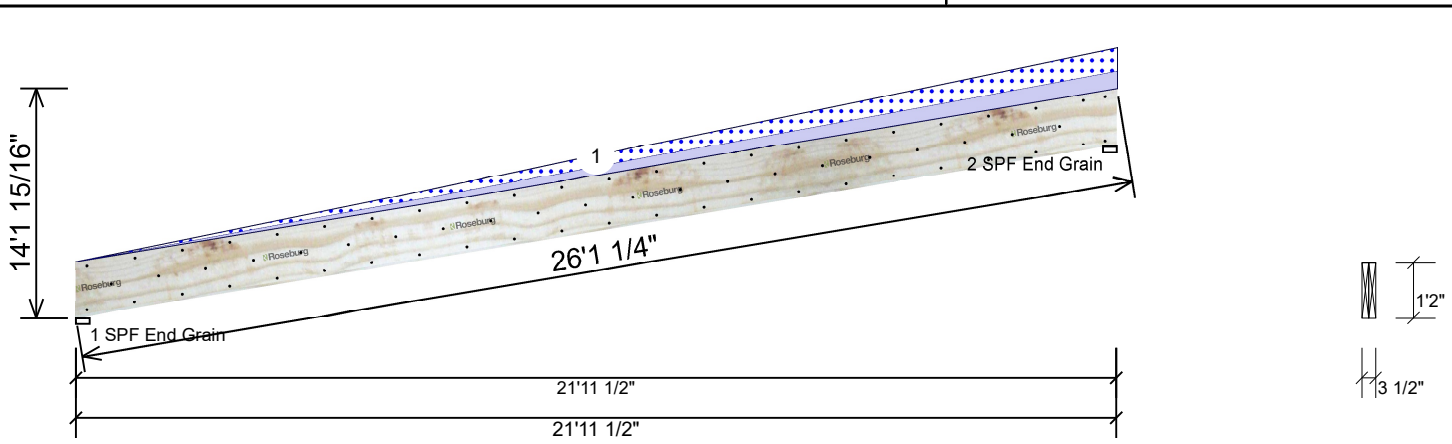
757-335-1309

Client:	T E Jones	Date:	3/31/2022
Project:		Input by:	Sean Brown
Address:		Job Name:	Jones Residence
		Project #:	

RB1 HIP BEAM 2.0E Rigidlam LVL 1.750" X 14.000" 2-Ply - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Roof
Plies:	2	Slope:	7/12
Moisture Condition:	Dry	Design Method:	ASD
Deflection LL:	240	Building Code:	IBC/IRC 2015
Deflection TL:	180	Load Sharing:	No
Importance:	Normal - II	Deck:	Not Checked
Temperature:	Temp <= 100°F		
General Load			
Floor Live:	40 PSF		
Dead:	10 PSF		
Snow:	20 PSF		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	1170	1159	0	0
2	Vertical	0	2199	2354	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	25%	1170 / 1159	2329	L	D+S
2 - SPF End Grain	3.500"	Vert	50%	2199 / 2354	4554	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	18556 ft-lb	12'6 1/2"	33318 ft-lb	0.557 (56%)	D+S	L
Unbraced	18556 ft-lb	12'6 1/2"	18614 ft-lb	0.997 (100%)	D+S	L
Shear	3293 lb	23'10 11/16"	10894 lb	0.302 (30%)	D+S	L
LL Defl inch	0.645 (L/463)	11'4 5/8"	1.245 (L/240)	0.518 (52%)	S	L
TL Defl inch	1.266 (L/236)	11'4 7/16"	1.659 (L/180)	0.763 (76%)	D+S	L

Design Notes

1. Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2. Fasten all plies using 3 rows of 10d Common nails (.148x3") at 12" o.c. Maximum end distance not to exceed 6".
3. Refer to last page of calculations for fasteners required for specified loads.
4. Refer to manufacturer's literature for sloped bearing detail.
5. Attach with enough nails to prevent sliding between the joist and the sloped bearing wedge at each support.
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 5'5" o.c. along the slope.
9. Bottom must be laterally braced at end bearings.
10. Lateral slenderness ratio based on single ply width.

Notes

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Lumber

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2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

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2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
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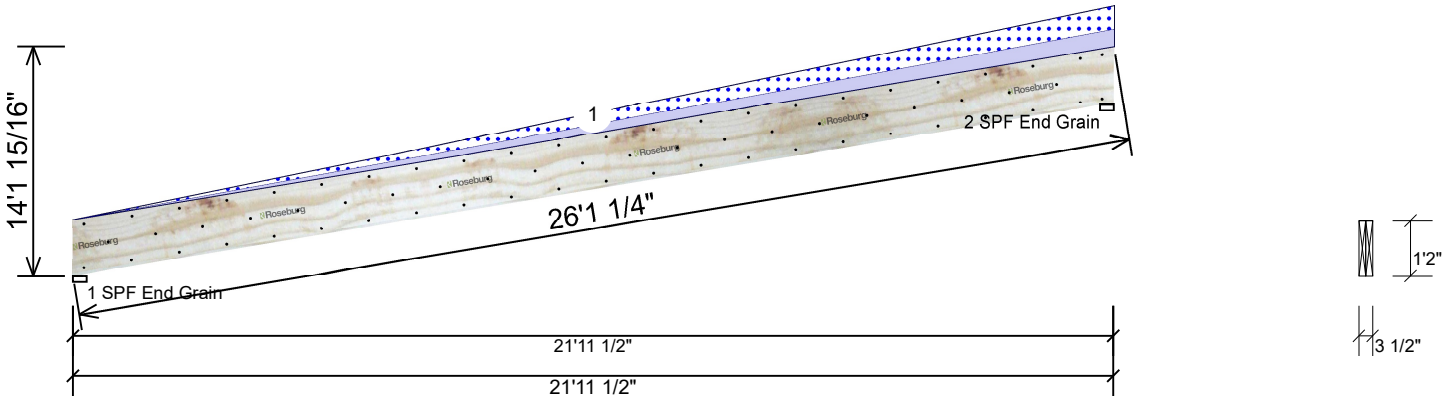
Level: Level



ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Tapered Start	0-0-0		Top	0 PLF	0 PLF	0 PLF	0 PLF	0 PLF	ROOF LOAD
	End	21-11-8			240 PLF	0 PLF	320 PLF	0 PLF	0 PLF	
	Self Weight				13 PLF					

Notes

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Lumber

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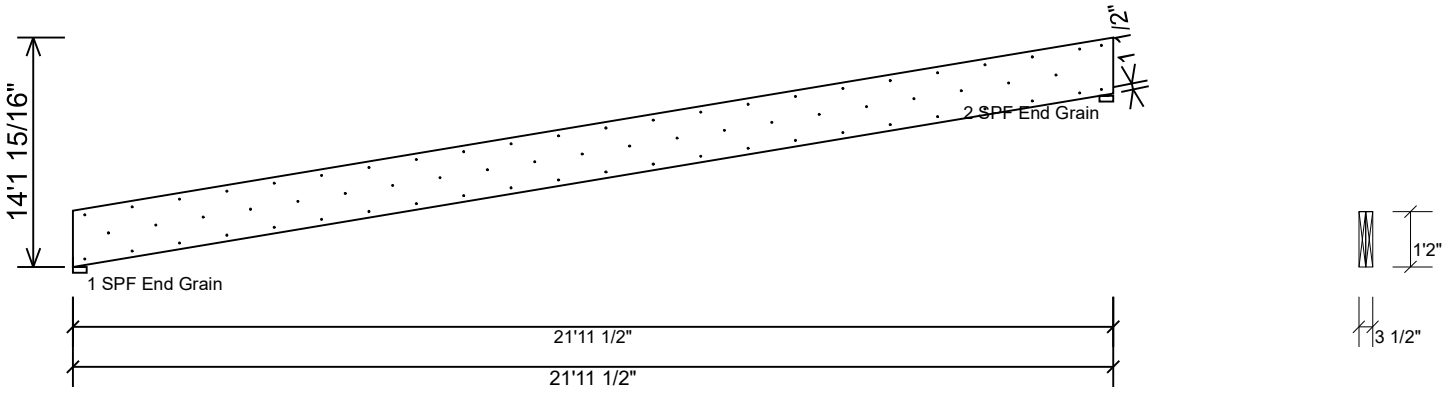
Level: Level



Multi-Ply Analysis

Fasten all plies using 3 rows of 10d Common nails (.148x3") at 12" o.c.. Maximum end distance not to exceed 6".

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	298.0 PLF
Yield Limit per Fastener	99.3 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Notes

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

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Handling & Installation

1. LVL beams must not be cut or drilled
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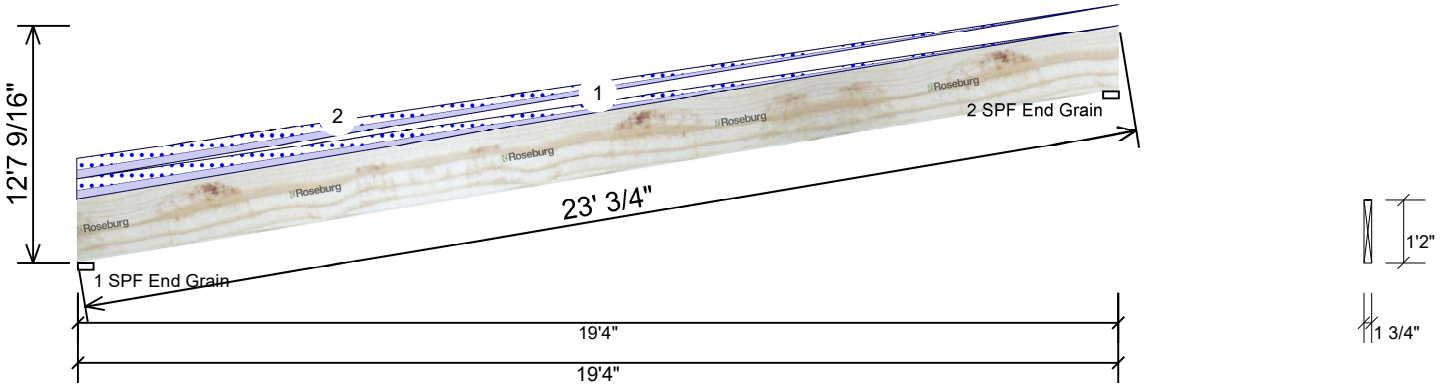
APA: PR-L289, PR-L270, ICC-ES: ESR-1210

Kempsville Building Materials
3300 BUSINESS CENTER DRIVE, VA 23323
757-335-1309

Client:	T E Jones	Date:	3/31/2022
Project:		Input by:	Sean Brown
Address:		Job Name:	Jones Residence
		Project #:	

RB12 VALLEY BEAM 2.0E Rigidlam LVL 1.750" X 14.000" - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Roof
Plies:	1	Slope:	7/12
Moisture Condition:	Dry	Design Method:	ASD
Deflection LL:	240	Building Code:	IBC/IRC 2015
Deflection TL:	180	Load Sharing:	No
Importance:	Normal - II	Deck:	Not Checked
Temperature:	Temp <= 100°F		
General Load			
Floor Live:	40 PSF		
Dead:	10 PSF		
Snow:	20 PSF		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	1641	1815	0	0
2	Vertical	0	846	892	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	75%	1641 / 1815	3456	L	D+S
2 - SPF End Grain	3.500"	Vert	38%	846 / 892	1738	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	12268 ft-lb	8'3 1/4"	16659 ft-lb	0.736 (74%)	D+S	L
Unbraced	12268 ft-lb	8'3 1/4"	12319 ft-lb	0.996 (100%)	D+S	L
Shear	2451 lb	1'5 1/2"	5447 lb	0.450 (45%)	D+S	L
LL Defl inch	0.671 (L/391)	9'3 11/16"	1.093 (L/240)	0.614 (61%)	S	L
TL Defl inch	1.289 (L/203)	9'3 7/8"	1.457 (L/180)	0.885 (88%)	D+S	L

Design Notes

1. Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2. Refer to manufacturer's literature for sloped bearing detail.
3. Attach with enough nails to prevent sliding between the joist and the sloped bearing wedge at each support.
4. Girders are designed to be supported on the bottom edge only.
5. Top must be laterally braced at a maximum of 3'10" o.c. along the slope.
6. 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	Tapered Start	0-0-0		Near Face	105 PLF	0 PLF	140 PLF	0 PLF	0 PLF	ROOF LOAD
	End	19-4-0			0 PLF	0 PLF	0 PLF	0 PLF	0 PLF	
2	Tapered Start	0-0-0		Far Face	105 PLF	0 PLF	140 PLF	0 PLF	0 PLF	ROOF LOAD
	End	19-4-0			0 PLF	0 PLF	0 PLF	0 PLF	0 PLF	
	Self Weight				6 PLF					

Notes

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

Lumber

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

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

Manufacturer Info

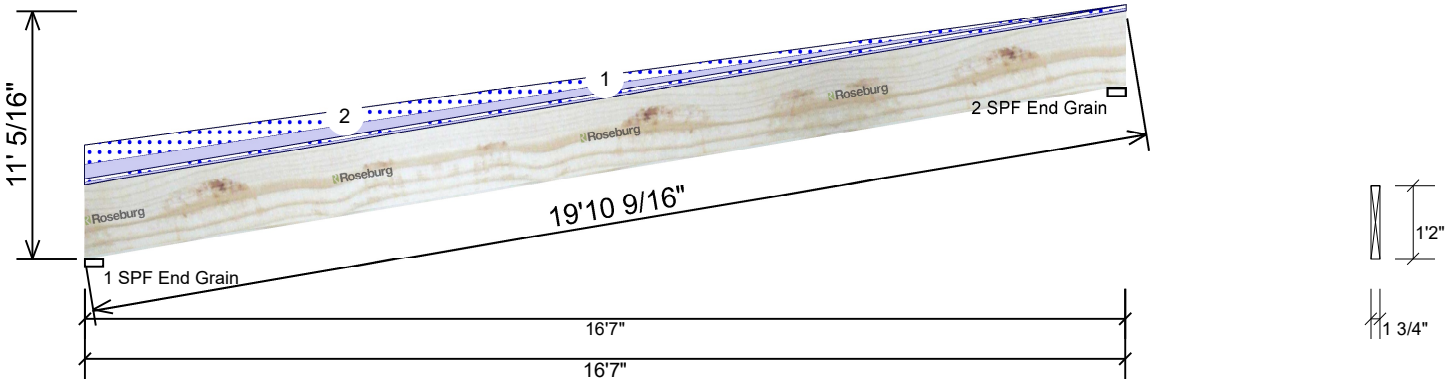
Roseburg Forest Products
4500 Riddle By-pass Rd
Riddle, OR 97469
(541) 784-4005
www.roseburg.com
APA: PR-L289, PR-L270, ICC-ES: ESR-1210

Kempsville Building Materials
3300 BUSINESS CENTER DRIVE, VA 23323
757-335-1309

Client:	T E Jones	Date:	3/31/2022
Project:		Input by:	Sean Brown
Address:		Job Name:	Jones Residence
		Project #:	

RB6 VALLEY BEAM 2.0E Rigidlam LVL 1.750" X 14.000" - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Roof
Plies:	1	Slope:	7/12
Moisture Condition:	Dry	Design Method:	ASD
Deflection LL:	240	Building Code:	IBC/IRC 2015
Deflection TL:	180	Load Sharing:	No
Importance:	Normal - II	Deck:	Not Checked
Temperature:	Temp <= 100°F		
General Load			
Floor Live:	40 PSF		
Dead:	10 PSF		
Snow:	20 PSF		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	1356	1497	0	0
2	Vertical	0	1063	1156	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	62%	1356 / 1497	2853	L	D+S
2 - SPF End Grain	3.500"	Vert	48%	1063 / 1156	2219	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	9994 ft-lb	7'9 13/16"	16659 ft-lb	0.600 (60%)	D+S	L
Unbraced	9994 ft-lb	7'9 13/16"	10024 ft-lb	0.997 (100%)	D+S	L
Shear	2236 lb	1'5 1/2"	5447 lb	0.411 (41%)	D+S	L
LL Defl inch	0.408 (L/549)	8'2 1/8"	0.933 (L/240)	0.437 (44%)	S	L
TL Defl inch	0.781 (L/287)	8'2 3/16"	1.245 (L/180)	0.627 (63%)	D+S	L

Design Notes

1. Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2. Refer to manufacturer's literature for sloped bearing detail.
3. Attach with enough nails to prevent sliding between the joist and the sloped bearing wedge at each support.
4. Girders are designed to be supported on the bottom edge only.
5. Top must be laterally braced at a maximum of 4'11 11/16" o.c. along the slope.
6. 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	Uniform		5-0-0	Far Face	15 PSF	0 PSF	20 PSF	0 PSF	0 PSF	ROOF LOAD
2	Tapered Start	0-0-0		Near Face	90 PLF	0 PLF	120 PLF	0 PLF	0 PLF	ROOF LOAD
	End	16-7-0			0 PLF	0 PLF	0 PLF	0 PLF	0 PLF	
	Self Weight				6 PLF					

Notes

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

Lumber

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

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

Manufacturer Info

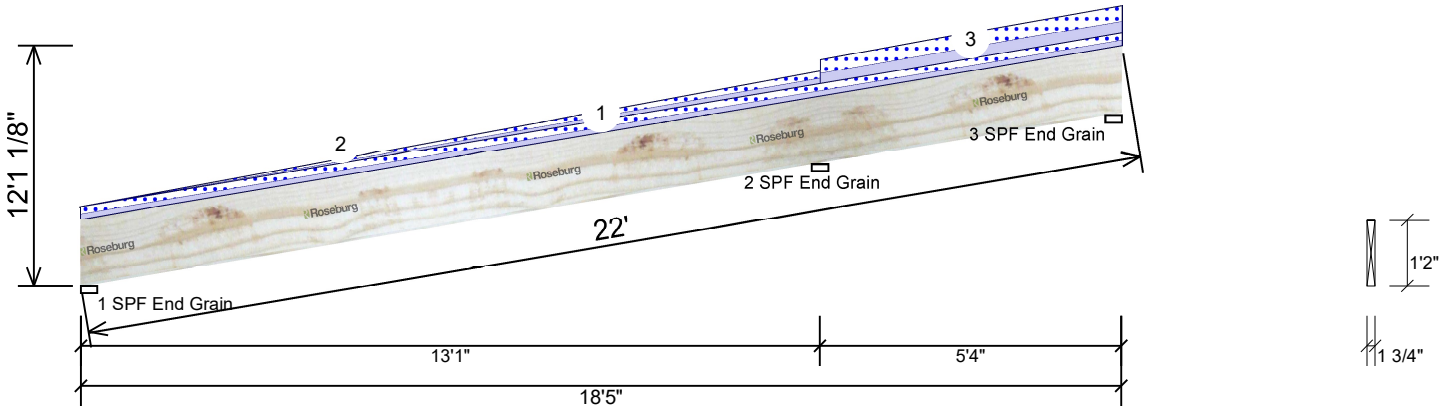
Roseburg Forest Products
4500 Riddle By-pass Rd
Riddle, OR 97469
(541) 784-4005
www.roseburg.com
APA: PR-L289, PR-L270, ICC-ES: ESR-1210

Kempsville Building Materials
3300 BUSINESS CENTER DRIVE, VA 23323
757-335-1309

Client:	T E Jones	Date:	3/31/2022
Project:		Input by:	Sean Brown
Address:		Job Name:	Jones Residence
		Project #:	

RB10 HIP BEAM 2.0E Rigidlam LVL 1.750" X 14.000" - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Roof
Plies:	1	Slope:	7/12
Moisture Condition:	Dry	Design Method:	ASD
Deflection LL:	240	Building Code:	IBC/IRC 2015
Deflection TL:	180	Load Sharing:	No
Importance:	Normal - II	Deck:	Not Checked
Temperature:	Temp <= 100°F		
General Load			
Floor Live:	40 PSF		
Dead:	10 PSF		
Snow:	20 PSF		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	682	739	0	0
2	Vertical	0	2143	2362	0	0
3	Vertical	0	419	488	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	31%	682 / 747	1429	L_	D+S
2 - SPF End Grain	3.500"	Vert	89%	2143 / 2362	4506	LL	D+S
3 - SPF End Grain	3.500"	Vert	23%	419 / 655	1073	_L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-4900 ft-lb	13'1"	16659 ft-lb	0.294 (29%)	D+S	LL
Unbraced	-4900 ft-lb	13'1"	4901 ft-lb	1.000 (100%)	D+S	LL
Pos Moment	3726 ft-lb	5'8 5/16"	16659 ft-lb	0.224 (22%)	D+S	L_
Unbraced	3726 ft-lb	5'8 5/16"	3731 ft-lb	0.999 (100%)	D+S	L_
Shear	2188 lb	14'4 3/4"	5447 lb	0.402 (40%)	D+S	LL
LL Defl inch	0.084 (L/2133)	6'1 3/8"	0.744 (L/240)	0.113 (11%)	S	L_
TL Defl inch	0.157 (L/1136)	6'1 1/8"	0.992 (L/180)	0.158 (16%)	D+S	L_

Design Notes

1. Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2. Refer to manufacturer's literature for sloped bearing detail.
3. Attach with enough nails to prevent sliding between the joist and the sloped bearing wedge at each support.
4. Girders are designed to be supported on the bottom edge only.
5. Top must be laterally braced at a maximum of 15'8 9/16" o.c. along the slope.
6. Bottom must be laterally braced at a maximum of 11'4 3/8" o.c.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Near Face	75 PLF	0 PLF	100 PLF	0 PLF	0 PLF	ROOF LOAD
2	Tapered Start	0-0-0		Far Face	0 PLF	0 PLF	0 PLF	0 PLF	0 PLF	ROOF LOAD
	End	13-1-0			75 PLF	0 PLF	100 PLF	0 PLF	0 PLF	

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Notes

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Lumber

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

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

Manufacturer Info

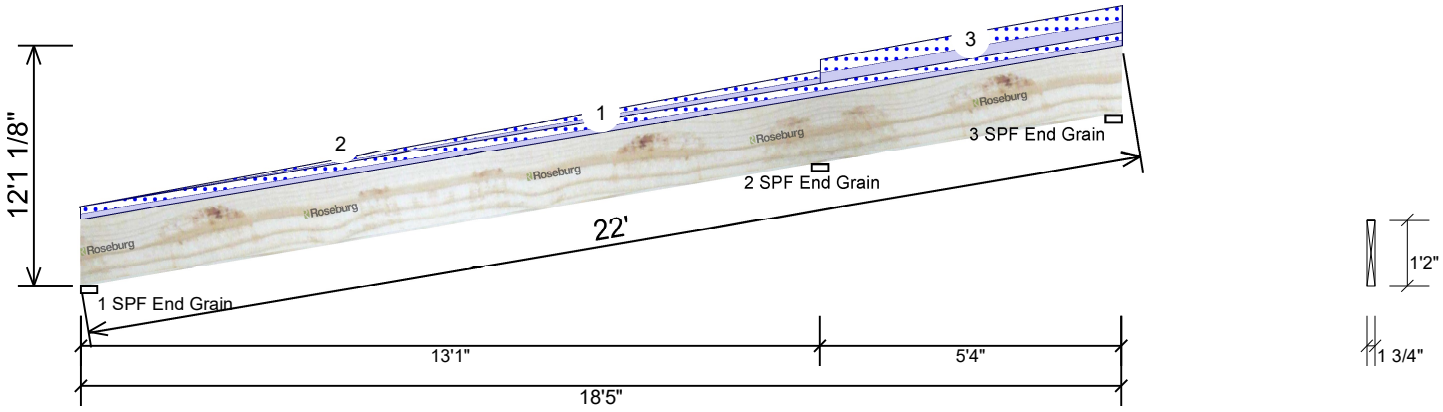
Roseburg Forest Products
4500 Riddle By-pass Rd
Riddle, OR 97469
(541) 784-4005
www.roseburg.com
APA: PR-L289, PR-L270, ICC-ES: ESR-1210

Kempsville Building Materials
3300 BUSINESS CENTER DRIVE, VA 23323
757-335-1309

Client:	T E Jones	Date:	3/31/2022
Project:		Input by:	Sean Brown
Address:		Job Name:	Jones Residence
		Project #:	

RB10 HIP BEAM 2.0E Rigidlam LVL 1.750" X 14.000" - PASSED

Level: Level



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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
3	Tapered Start	13-1-0		Far Face	143 PLF	0 PLF	190 PLF	0 PLF	0 PLF	ROOF LOAD
	End	18-5-0			165 PLF	0 PLF	220 PLF	0 PLF	0 PLF	
	Self Weight				6 PLF					

Notes

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

Lumber

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

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

Manufacturer Info

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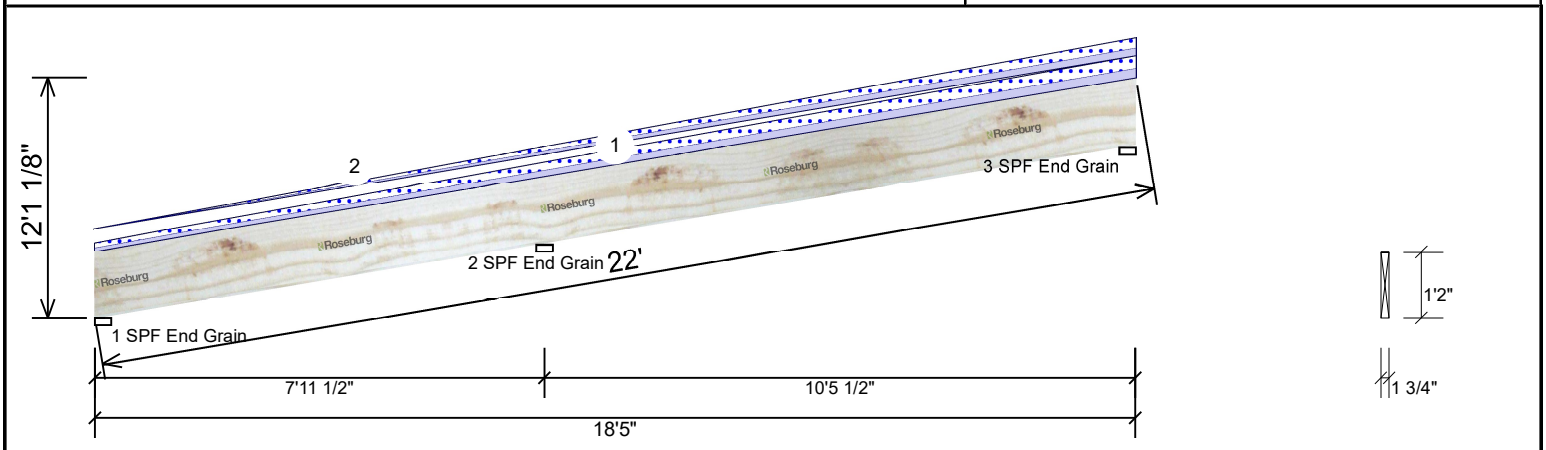
APA: PR-L289, PR-L270, ICC-ES: ESR-1210

Kempsville Building Materials
3300 BUSINESS CENTER DRIVE, VA 23323
757-335-1309

Client:	T E Jones	Date:	3/31/2022
Project:		Input by:	Sean Brown
Address:		Job Name:	Jones Residence
		Project #:	

RB14 HIP BEAM 2.0E Rigidlam LVL 1.750" X 14.000" - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Roof
Plies:	1	Slope:	7/12
Moisture Condition:	Dry	Design Method:	ASD
Deflection LL:	240	Building Code:	IBC/IRC 2015
Deflection TL:	180	Load Sharing:	No
Importance:	Normal - II	Deck:	Not Checked
Temperature:	Temp <= 100°F		
General Load			
Floor Live:	40 PSF		
Dead:	10 PSF		
Snow:	20 PSF		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	238	251	0	0
2	Vertical	0	2214	2449	0	0
3	Vertical	0	1361	1535	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	13%	238 / 354	593	L_	D+S
2 - SPF End Grain	3.500"	Vert	92%	2214 / 2449	4663	LL	D+S
3 - SPF End Grain	3.500"	Vert	63%	1361 / 1553	2915	_L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-4993 ft-lb	7'11 1/2"	16659 ft-lb	0.300 (30%)	D+S	LL
Unbraced	-4993 ft-lb	7'11 1/2"	4994 ft-lb	1.000 (100%)	D+S	LL
Pos Moment	5207 ft-lb	14'1 7/16"	16659 ft-lb	0.313 (31%)	D+S	_L
Unbraced	5207 ft-lb	14'1 7/16"	5218 ft-lb	0.998 (100%)	D+S	_L
Shear	2996 lb	9'3 1/4"	5447 lb	0.550 (55%)	D+S	LL
LL Defl inch	0.077 (L/1856)	13'6 3/8"	0.592 (L/240)	0.129 (13%)	S	_L
TL Defl inch	0.141 (L/1008)	13'6 11/16"	0.789 (L/180)	0.179 (18%)	D+S	_L

Design Notes

1. Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2. Refer to manufacturer's literature for sloped bearing detail.
3. Attach with enough nails to prevent sliding between the joist and the sloped bearing wedge at each support.
4. Girders are designed to be supported on the bottom edge only.
5. Top must be laterally braced at a maximum of 10'6 1/4" o.c. along the slope.
6. Bottom must be laterally braced at a maximum of 11'1 5/16" o.c.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Tapered Start	0-0-0		Far Face	60 PLF	0 PLF	80 PLF	0 PLF	0 PLF	ROOF LOAD
	End	18-5-0			158 PLF	0 PLF	210 PLF	0 PLF	0 PLF	
2	Tapered Start	0-0-0		Near Face	0 PLF	0 PLF	0 PLF	0 PLF	0 PLF	ROOF LOAD

Continued on page 2...

Notes

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

Lumber

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

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

Manufacturer Info

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3300 BUSINESS CENTER DRIVE, VA 23323
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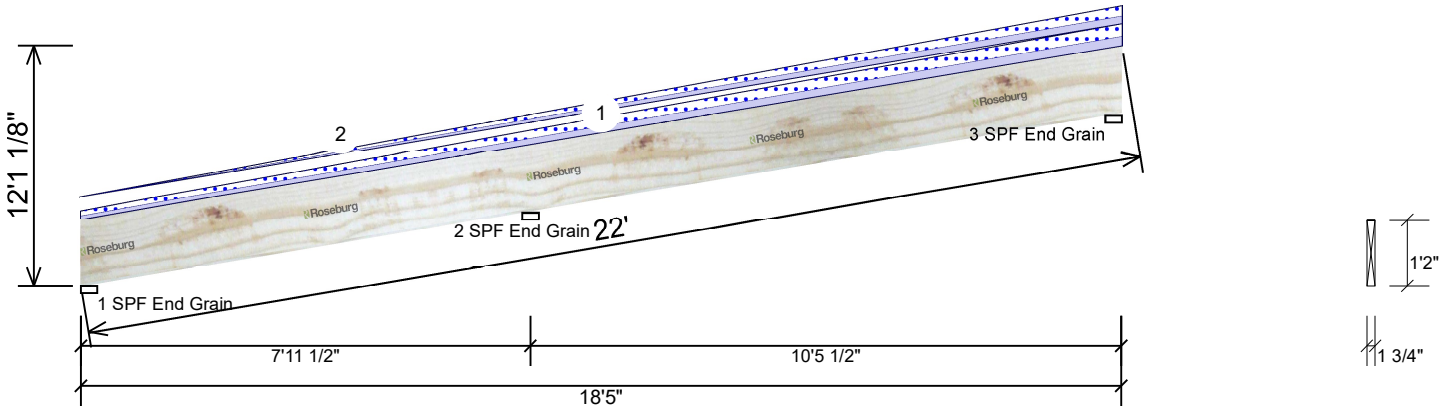
RB14 HIP BEAM 2.0E Rigidlam LVL 1.750" X 14.000" - PASSED

Level: Level



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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
	End	18-5-0			128 PLF	0 PLF	170 PLF	0 PLF	0 PLF	
	Self Weight				6 PLF					

Notes

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

Lumber

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

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

Manufacturer Info

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Kempsville Building Materials
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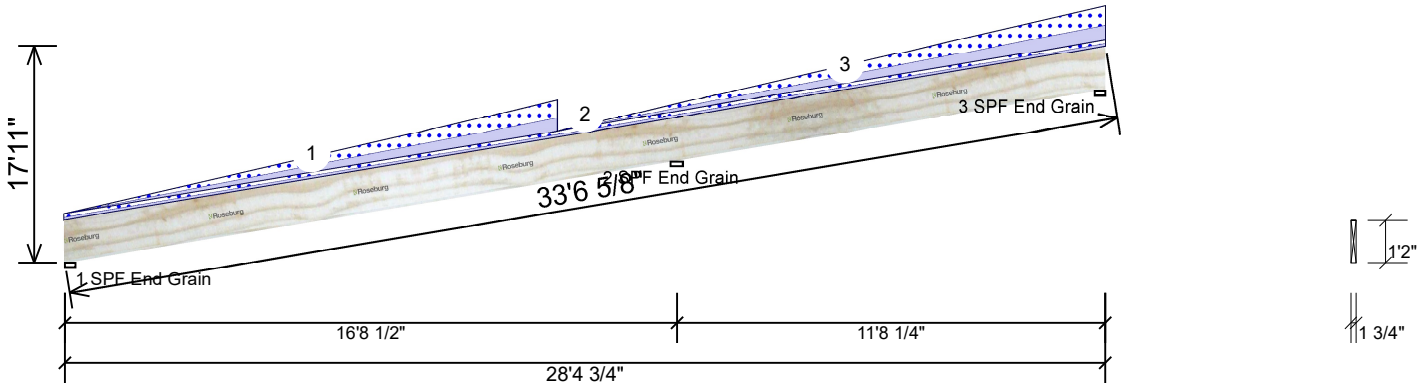
757-335-1309

Client:	T E Jones	Date:	3/31/2022
Project:		Input by:	Sean Brown
Address:		Job Name:	Jones Residence
		Project #:	

RB21 HIP BEAM 2.0E Rigidlam LVL 1.750" X 14.000" - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Roof
Plies:	1	Slope:	7/12
Moisture Condition:	Dry	Design Method:	ASD
Deflection LL:	240	Building Code:	IBC/IRC 2015
Deflection TL:	180	Load Sharing:	No
Importance:	Normal - II	Deck:	Not Checked
Temperature:	Temp <= 100°F		
General Load			
Floor Live:	40 PSF		
Dead:	10 PSF		
Snow:	20 PSF		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	898	976	0	0
2	Vertical	0	2344	2551	0	0
3	Vertical	0	729	807	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	41%	898 / 1001	1899	L_	D+S
2 - SPF End Grain	4.000"	Vert	85%	2344 / 2551	4895	LL	D+S
3 - SPF End Grain	3.500"	Vert	36%	729 / 908	1637	_L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-8031 ft-lb	16'8 1/2"	16659 ft-lb	0.482 (48%)	D+S	LL
Unbraced	-8031 ft-lb	16'8 1/2"	8055 ft-lb	0.997 (100%)	D+S	LL
Pos Moment	6560 ft-lb	7'3 1/2"	16659 ft-lb	0.394 (39%)	D+S	L_
Unbraced	6560 ft-lb	7'3 1/2"	6574 ft-lb	0.998 (100%)	D+S	L_
Shear	2433 lb	17'11 11/16"	5447 lb	0.447 (45%)	D+S	LL
LL Defl inch	0.251 (L/914)	7'10 3/16"	0.954 (L/240)	0.263 (26%)	S	L_
TL Defl inch	0.457 (L/501)	7'9 1/4"	1.272 (L/180)	0.359 (36%)	D+S	L_

Design Notes

1. Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2. Refer to manufacturer's literature for sloped bearing detail.
3. Attach with enough nails to prevent sliding between the joist and the sloped bearing wedge at each support.
4. Girders are designed to be supported on the bottom edge only.
5. Top must be laterally braced at a maximum of 7'10 5/8" o.c. along the slope.
6. Bottom must be laterally braced at a maximum of 6'4 1/4" o.c.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Tapered Start	0-0-0		Far Face	0 PLF	0 PLF	0 PLF	0 PLF	0 PLF	ROOF LOAD
	End	13-5-8			75 PLF	0 PLF	100 PLF	0 PLF	0 PLF	
2	Uniform		5-0-0	Near Face	15 PSF	0 PSF	20 PSF	0 PSF	0 PSF	ROOF LOAD

Continued on page 2...

Notes

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

Lumber

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

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

Manufacturer Info

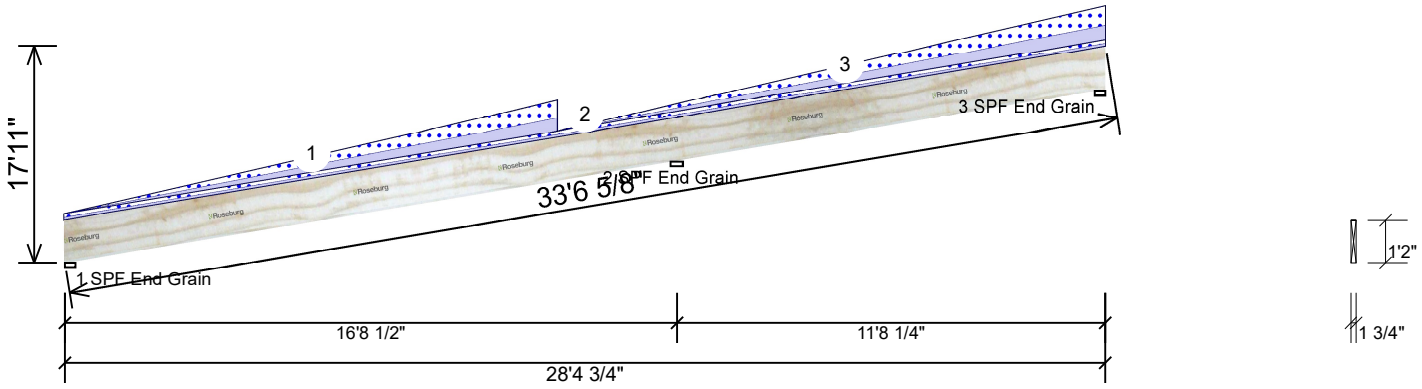
Roseburg Forest Products
4500 Riddle By-pass Rd
Riddle, OR 97469
(541) 784-4005
www.roseburg.com
APA: PR-L289, PR-L270, ICC-ES: ESR-1210

Kempsville Building Materials
3300 BUSINESS CENTER DRIVE, VA 23323
757-335-1309

Client:	T E Jones	Date:	3/31/2022
Project:		Input by:	Sean Brown
Address:		Job Name:	Jones Residence
		Project #:	

RB21 HIP BEAM 2.0E Rigidlam LVL 1.750" X 14.000" - PASSED

Level: Level



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
3	Tapered Start	13-5-8		Far Face	0 PLF	0 PLF	0 PLF	0 PLF	0 PLF	ROOF LOAD
	End	28-4-12			83 PLF	0 PLF	110 PLF	0 PLF	0 PLF	
	Self Weight				6 PLF					

Notes

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

Lumber

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

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

Manufacturer Info

Roseburg Forest Products
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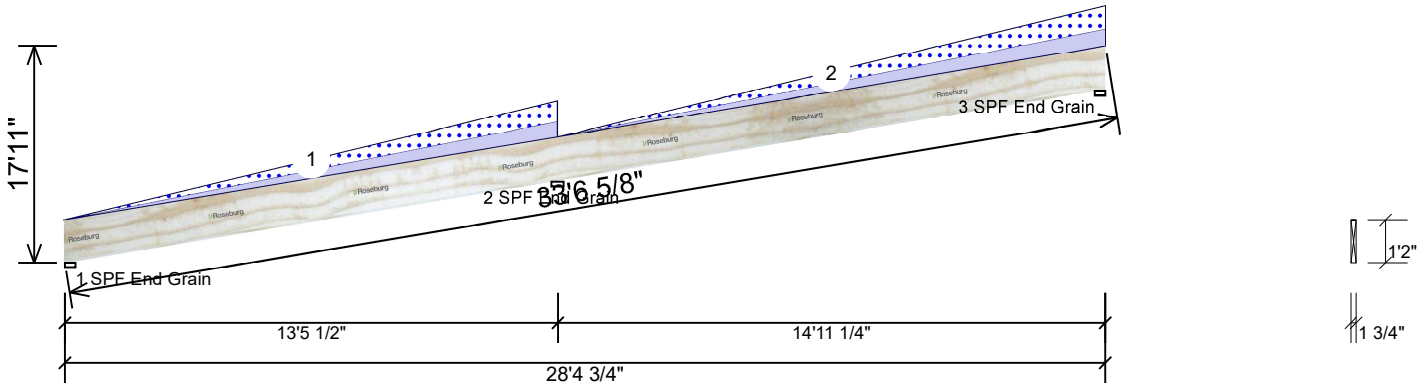
Riddle, OR 97469
(541) 784-4005
www.roseburg.com
APA: PR-L289, PR-L270, ICC-ES: ESR-1210

Kempsville Building Materials
3300 BUSINESS CENTER DRIVE, VA 23323
757-335-1309

Client:	T E Jones	Date:	3/31/2022
Project:		Input by:	Sean Brown
Address:		Job Name:	Jones Residence
		Project #:	

RB20 HIP BEAM 2.0E Rigidlam LVL 1.750" X 14.000" - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Roof
Plies:	1	Slope:	7/12
Moisture Condition:	Dry	Design Method:	ASD
Deflection LL:	240	Building Code:	IBC/IRC 2015
Deflection TL:	180	Load Sharing:	No
Importance:	Normal - II	Deck:	Not Checked
Temperature:	Temp <= 100°F		
General Load			
Floor Live:	40 PSF		
Dead:	10 PSF		
Snow:	20 PSF		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	311	312	0	0
2	Vertical	0	1596	1695	0	0
3	Vertical	0	894	982	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	14%	311 / 353	664	L_	D+S
2 - SPF End Grain	4.000"	Vert	57%	1596 / 1695	3291	LL	D+S
3 - SPF End Grain	3.500"	Vert	41%	894 / 1011	1905	_L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-4968 ft-lb	13'5 1/2"	16659 ft-lb	0.298 (30%)	D+S	LL
Unbraced	-4968 ft-lb	13'5 1/2"	4976 ft-lb	0.998 (100%)	D+S	LL
Pos Moment	4120 ft-lb	23'1"	16659 ft-lb	0.247 (25%)	D+S	_L
Unbraced	4120 ft-lb	23'1"	4120 ft-lb	1.000 (100%)	D+S	_L
Shear	1447 lb	14'2 9/16"	5447 lb	0.266 (27%)	D+S	LL
LL Defl inch	0.116 (L/1764)	21'9 7/8"	0.851 (L/240)	0.136 (14%)	S	_L
TL Defl inch	0.205 (L/998)	21'11 7/16"	1.135 (L/180)	0.180 (18%)	D+S	_L

Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2 Refer to manufacturer's literature for sloped bearing detail.
3 Attach with enough nails to prevent sliding between the joist and the sloped bearing wedge at each support.
4 Girders are designed to be supported on the bottom edge only.
5 Top must be laterally braced at a maximum of 13'11 15/16" o.c. along the slope.
6 Bottom must be laterally braced at a maximum of 11'1 7/8" o.c.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Tapered Start	0-0-0		Top	0 PLF	0 PLF	0 PLF	0 PLF	0 PLF	ROOF LOAD
	End	13-5-8			150 PLF	0 PLF	200 PLF	0 PLF	0 PLF	
2	Tapered Start	13-5-8		Top	0 PLF	0 PLF	0 PLF	0 PLF	0 PLF	ROOF LOAD

Continued on page 2...

Notes

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

Lumber

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

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

Manufacturer Info

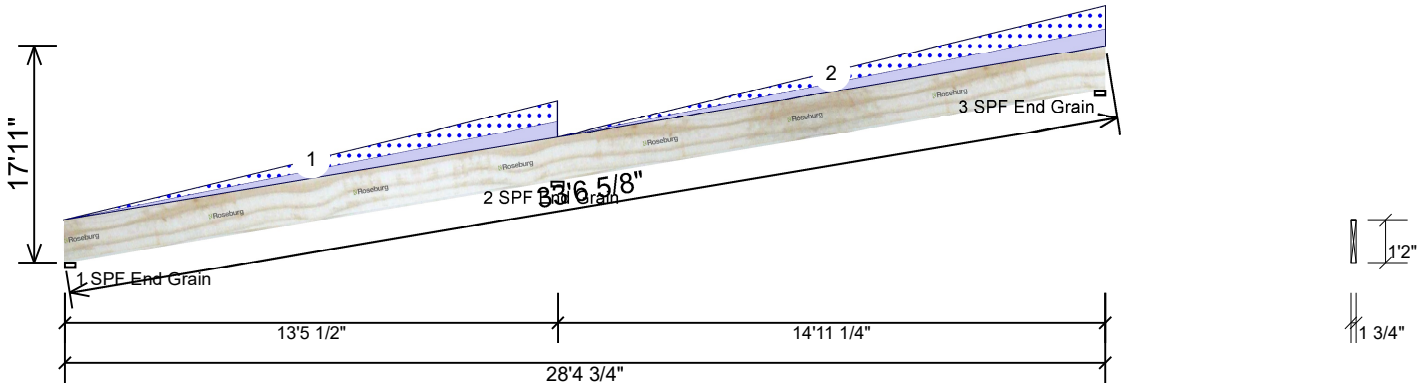
Roseburg Forest Products
4500 Riddle By-pass Rd
Riddle, OR 97469
(541) 784-4005
www.roseburg.com
APA: PR-L289, PR-L270, ICC-ES: ESR-1210

Kempsville Building Materials
3300 BUSINESS CENTER DRIVE, VA 23323
757-335-1309

Client:	T E Jones	Date:	3/31/2022
Project:		Input by:	Sean Brown
Address:		Job Name:	Jones Residence
		Project #:	

RB20 HIP BEAM 2.0E Rigidlam LVL 1.750" X 14.000" - PASSED

Level: Level



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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
	End	28-4-12			165 PLF	0 PLF	220 PLF	0 PLF	0 PLF	
	Self Weight				6 PLF					

Notes

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

Lumber

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

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

Manufacturer Info

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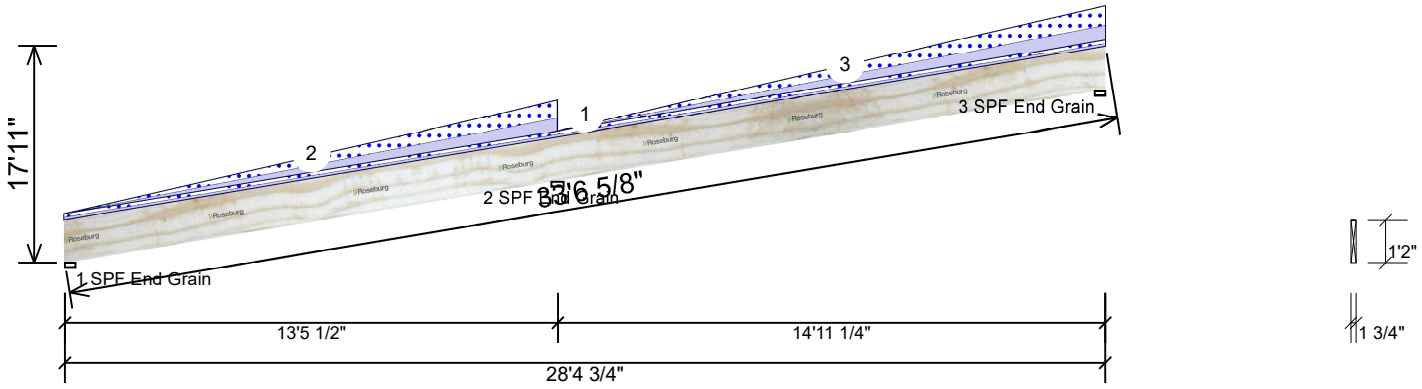
Riddle, OR 97469
(541) 784-4005
www.roseburg.com
APA: PR-L289, PR-L270, ICC-ES: ESR-1210

Kempsville Building Materials
3300 BUSINESS CENTER DRIVE, VA 23323
757-335-1309

Client:	T E Jones	Date:	3/31/2022
Project:		Input by:	Sean Brown
Address:		Job Name:	Jones Residence
		Project #:	

RB19 HIP BEAM 2.0E Rigidlam LVL 1.750" X 14.000" - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Roof
Plies:	1	Slope:	7/12
Moisture Condition:	Dry	Design Method:	ASD
Deflection LL:	240	Building Code:	IBC/IRC 2015
Deflection TL:	180	Load Sharing:	No
Importance:	Normal - II	Deck:	Not Checked
Temperature:	Temp <= 100°F		
General Load			
Floor Live:	40 PSF		
Dead:	10 PSF		
Snow:	20 PSF		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	458	483	0	0
2	Vertical	0	1727	1844	0	0
3	Vertical	0	802	871	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	21%	458 / 528	986	L_	D+S
2 - SPF End Grain	4.000"	Vert	62%	1727 / 1844	3570	LL	D+S
3 - SPF End Grain	3.500"	Vert	37%	802 / 901	1703	_L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-5337 ft-lb	13'5 1/2"	16659 ft-lb	0.320 (32%)	D+S	LL
Unbraced	-5337 ft-lb	13'5 1/2"	5342 ft-lb	0.999 (100%)	D+S	LL
Pos Moment	4039 ft-lb	22'8 11/16"	16659 ft-lb	0.242 (24%)	D+S	_L
Unbraced	4039 ft-lb	22'8 11/16"	4040 ft-lb	1.000 (100%)	D+S	_L
Shear	1719 lb	14'9 1/2"	5447 lb	0.316 (32%)	D+S	LL
LL Defl inch	0.119 (L/1721)	21'7 7/8"	0.851 (L/240)	0.139 (14%)	S	_L
TL Defl inch	0.209 (L/976)	21'9 7/16"	1.135 (L/180)	0.184 (18%)	D+S	_L

Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2 Refer to manufacturer's literature for sloped bearing detail.
3 Attach with enough nails to prevent sliding between the joist and the sloped bearing wedge at each support.
4 Girders are designed to be supported on the bottom edge only.
5 Top must be laterally braced at a maximum of 14'3 7/8" o.c. along the slope.
6 Bottom must be laterally braced at a maximum of 10'2 5/8" o.c.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform		3-0-0	Near Face	15 PSF	0 PSF	20 PSF	0 PSF	0 PSF	ROOF LOAD
2	Tapered Start	0-0-0		Far Face	0 PLF	0 PLF	0 PLF	0 PLF	0 PLF	ROOF LOAD
	End	13-5-8			75 PLF	0 PLF	100 PLF	0 PLF	0 PLF	

Continued on page 2...

Notes

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

Lumber

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

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

Manufacturer Info

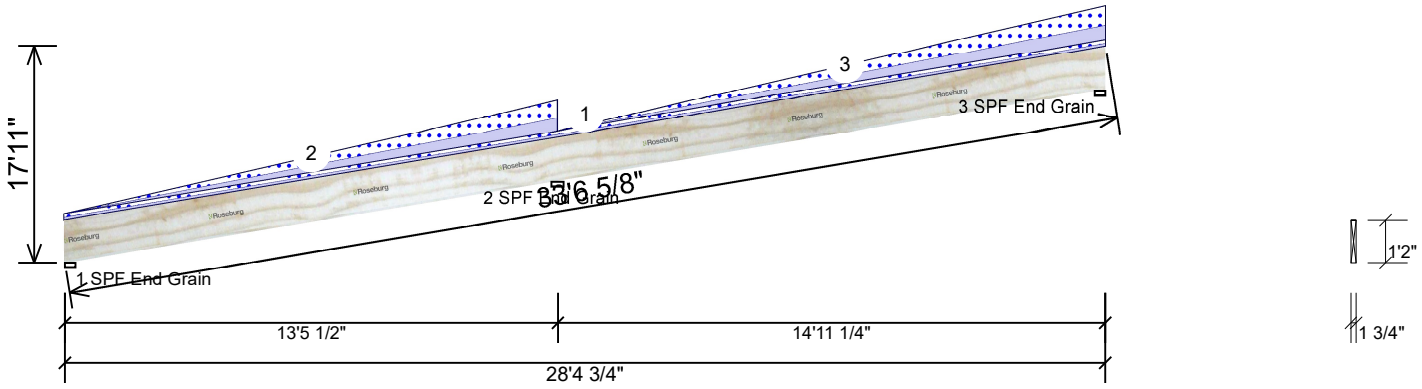
Roseburg Forest Products
4500 Riddle By-pass Rd
Riddle, OR 97469
(541) 784-4005
www.roseburg.com
APA: PR-L289, PR-L270, ICC-ES: ESR-1210

Kempsville Building Materials
3300 BUSINESS CENTER DRIVE, VA 23323
757-335-1309

Client:	T E Jones	Date:	3/31/2022
Project:		Input by:	Sean Brown
Address:		Job Name:	Jones Residence
		Project #:	

RB19 HIP BEAM 2.0E Rigidlam LVL 1.750" X 14.000" - PASSED

Level: Level



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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
3	Tapered Start	13-5-8		Far Face	0 PLF	0 PLF	0 PLF	0 PLF	0 PLF	ROOF LOAD
	End	28-4-12			83 PLF	0 PLF	110 PLF	0 PLF	0 PLF	
	Self Weight				6 PLF					

Notes

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

Lumber

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

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

Manufacturer Info

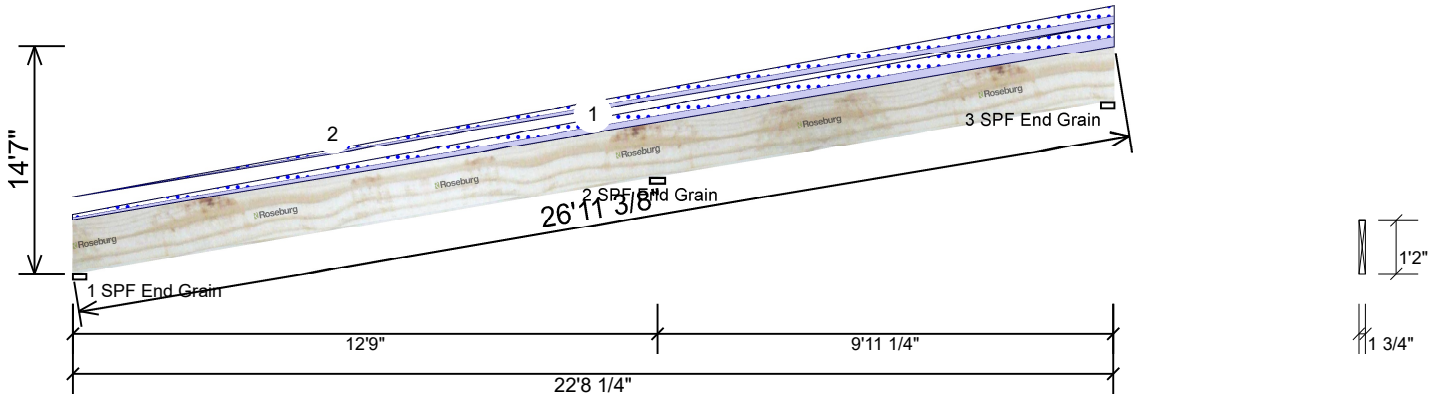
Roseburg Forest Products
4500 Riddle By-pass Rd
Riddle, OR 97469
(541) 784-4005
www.roseburg.com
APA: PR-L289, PR-L270, ICC-ES: ESR-1210

Kempsville Building Materials
3300 BUSINESS CENTER DRIVE, VA 23323
757-335-1309

Client:	T E Jones	Date:	3/31/2022
Project:		Input by:	Sean Brown
Address:		Job Name:	Jones Residence
		Project #:	

RB13 HIP BEAM 2.0E Rigidlam LVL 1.750" X 14.000" - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Roof
Plies:	1	Slope:	7/12
Moisture Condition:	Dry	Design Method:	ASD
Deflection LL:	240	Building Code:	IBC/IRC 2015
Deflection TL:	180	Load Sharing:	No
Importance:	Normal - II	Deck:	Not Checked
Temperature:	Temp <= 100°F		
General Load			
Floor Live:	40 PSF		
Dead:	10 PSF		
Snow:	20 PSF		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	500	527	0	0
2	Vertical	0	2570	2836	0	0
3	Vertical	0	1238	1402	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	23%	500 / 572	1072	L_	D+S
2 - SPF End Grain	4.000"	Vert	94%	2570 / 2836	5405	LL	D+S
3 - SPF End Grain	3.500"	Vert	59%	1238 / 1465	2703	_L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-5994 ft-lb	12'9"	16659 ft-lb	0.360 (36%)	D+S	LL
Unbraced	-5994 ft-lb	12'9"	6002 ft-lb	0.999 (100%)	D+S	LL
Pos Moment	4424 ft-lb	18'8 7/16"	16659 ft-lb	0.266 (27%)	D+S	_L
Unbraced	4424 ft-lb	18'8 7/16"	4428 ft-lb	0.999 (100%)	D+S	_L
Shear	3015 lb	14'1"	5447 lb	0.553 (55%)	D+S	LL
LL Defl inch	0.061 (L/2213)	18' 11/16"	0.562 (L/240)	0.108 (11%)	S	_L
TL Defl inch	0.103 (L/1311)	18'2"	0.749 (L/180)	0.137 (14%)	D+S	_L

Design Notes

1. Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2. Refer to manufacturer's literature for sloped bearing detail.
3. Attach with enough nails to prevent sliding between the joist and the sloped bearing wedge at each support.
4. Girders are designed to be supported on the bottom edge only.
5. Top must be laterally braced at a maximum of 12'10 3/16" o.c. along the slope.
6. Bottom must be laterally braced at a maximum of 8'9 3/4" o.c.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Tapered Start	0-0-0		Far Face	38 PLF	0 PLF	50 PLF	0 PLF	0 PLF	ROOF LOAD
	End	22-8-4			158 PLF	0 PLF	210 PLF	0 PLF	0 PLF	
2	Tapered Start	0-0-0		Near Face	0 PLF	0 PLF	0 PLF	0 PLF	0 PLF	ROOF LOAD

Continued on page 2...

Notes

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

Lumber

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

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

Manufacturer Info

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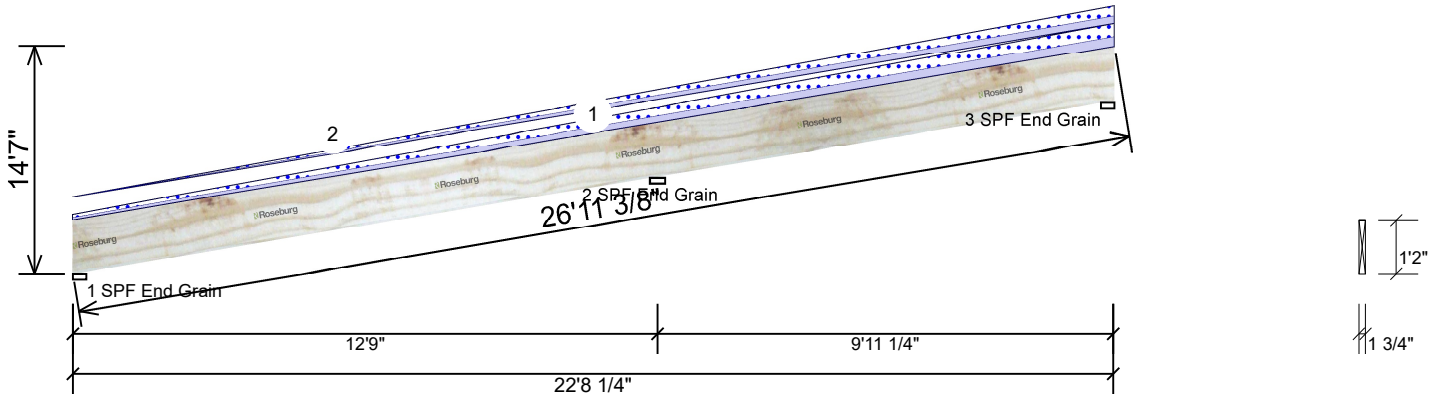
(541) 784-4005
www.roseburg.com
APA: PR-L289, PR-L270, ICC-ES: ESR-1210

Kempsville Building Materials
3300 BUSINESS CENTER DRIVE, VA 23323
757-335-1309

Client:	T E Jones	Date:	3/31/2022
Project:		Input by:	Sean Brown
Address:		Job Name:	Jones Residence
		Project #:	

RB13 HIP BEAM 2.0E Rigidlam LVL 1.750" X 14.000" - PASSED

Level: Level



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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
	End	22-8-4			120 PLF	0 PLF	160 PLF	0 PLF	0 PLF	
	Self Weight				6 PLF					

Notes

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

Lumber

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

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

Manufacturer Info

Roseburg Forest Products
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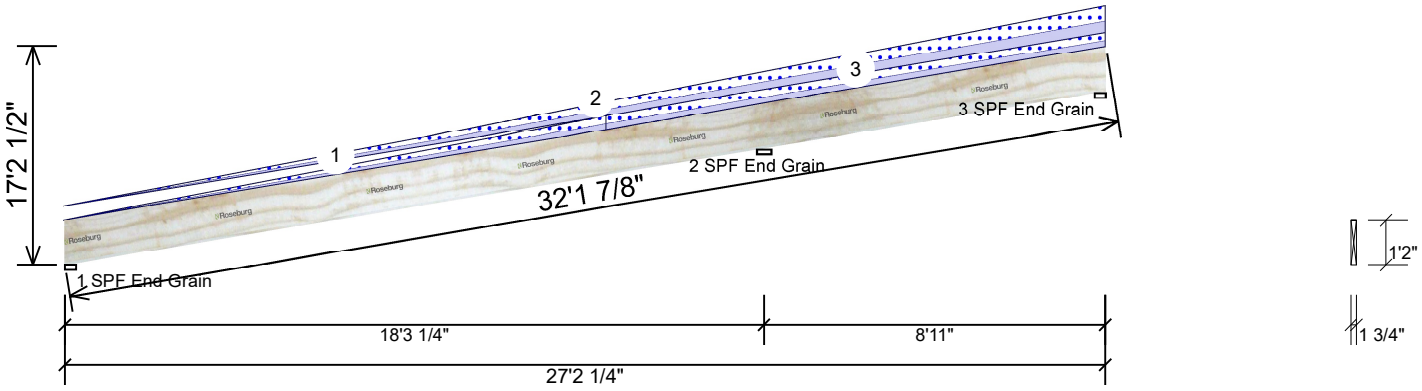
www.roseburg.com
APA: PR-L289, PR-L270, ICC-ES: ESR-1210

Kempsville Building Materials
3300 BUSINESS CENTER DRIVE, VA 23323
757-335-1309

Client:	T E Jones	Date:	3/31/2022
Project:		Input by:	Sean Brown
Address:		Job Name:	Jones Residence
		Project #:	

RB9 HIP BEAM 2.0E Rigidlam LVL 1.750" X 14.000" - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Roof
Plies:	1	Slope:	7/12
Moisture Condition:	Dry	Design Method:	ASD
Deflection LL:	240	Building Code:	IBC/IRC 2015
Deflection TL:	180	Load Sharing:	No
Importance:	Normal - II	Deck:	Not Checked
Temperature:	Temp <= 100°F		
General Load			
Floor Live:	40 PSF		
Dead:	10 PSF		
Snow:	20 PSF		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	581	600	0	0
2	Vertical	0	2873	3154	0	0
3	Vertical	0	739	841	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	26%	581 / 616	1197	L_	D+S
2 - SPF End Grain	4.500"	Vert	94%	2873 / 3154	6026	LL	D+S
3 - SPF End Grain	3.500"	Vert	38%	739 / 1002	1741	_L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-8721 ft-lb	18'3 1/4"	16659 ft-lb	0.523 (52%)	D+S	LL
Unbraced	-8721 ft-lb	18'3 1/4"	8737 ft-lb	0.998 (100%)	D+S	LL
Pos Moment	5982 ft-lb	8'9 7/16"	16659 ft-lb	0.359 (36%)	D+S	L_
Unbraced	5982 ft-lb	8'9 7/16"	5983 ft-lb	1.000 (100%)	D+S	L_
Shear	2778 lb	19'7 1/2"	5447 lb	0.510 (51%)	D+S	LL
LL Defl inch	0.271 (L/925)	8'9 7/8"	1.044 (L/240)	0.259 (26%)	S	L_
TL Defl inch	0.503 (L/498)	8'9 1/16"	1.392 (L/180)	0.362 (36%)	D+S	L_

Design Notes

1. Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2. Refer to manufacturer's literature for sloped bearing detail.
3. Attach with enough nails to prevent sliding between the joist and the sloped bearing wedge at each support.
4. Girders are designed to be supported on the bottom edge only.
5. Top must be laterally braced at a maximum of 8'10 3/16" o.c. along the slope.
6. Bottom must be laterally braced at a maximum of 5'9 3/4" o.c.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Tapered Start	0-0-0		Near Face	0 PLF	0 PLF	0 PLF	0 PLF	0 PLF	ROOF LOAD
	End	14-1-12			75 PLF	0 PLF	100 PLF	0 PLF	0 PLF	
2	Tapered Start	0-0-0		Far Face	0 PLF	0 PLF	0 PLF	0 PLF	0 PLF	ROOF LOAD

Continued on page 2...

Notes

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

Lumber

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

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

Manufacturer Info

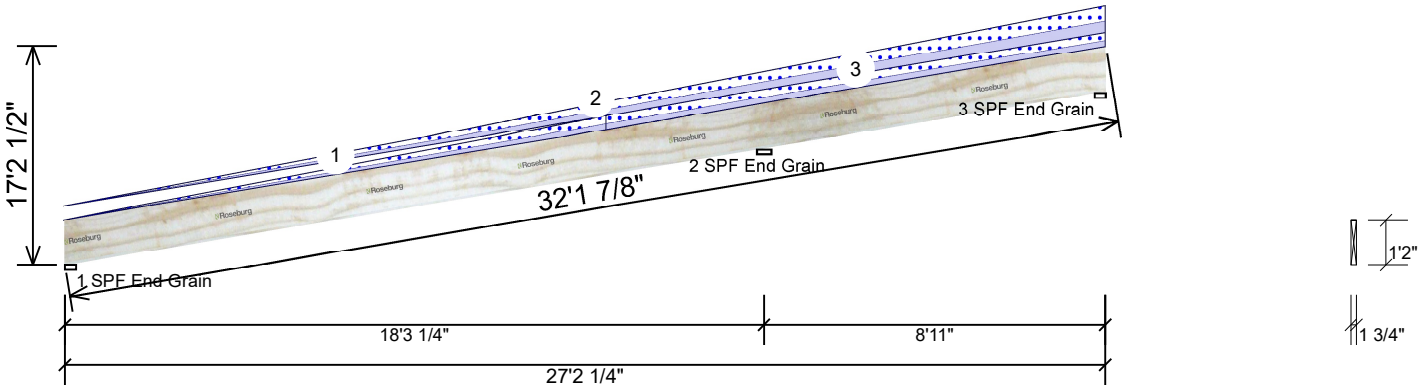
Roseburg Forest Products
4500 Riddle By-pass Rd
Riddle, OR 97469
(541) 784-4005
www.roseburg.com
APA: PR-L289, PR-L270, ICC-ES: ESR-1210

Kempsville Building Materials
3300 BUSINESS CENTER DRIVE, VA 23323
757-335-1309

Client:	T E Jones	Date:	3/31/2022
Project:		Input by:	Sean Brown
Address:		Job Name:	Jones Residence
		Project #:	

RB9 HIP BEAM 2.0E Rigidlam LVL 1.750" X 14.000" - PASSED

Level: Level



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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
	End	27-2-4			143 PLF	0 PLF	190 PLF	0 PLF	0 PLF	
3	Part. Uniform	14-1-12 to 27-2-4		Near Face	75 PLF	0 PLF	100 PLF	0 PLF	0 PLF	ROOF LOAD
	Self Weight				6 PLF					

Notes

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

Lumber

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

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

Manufacturer Info

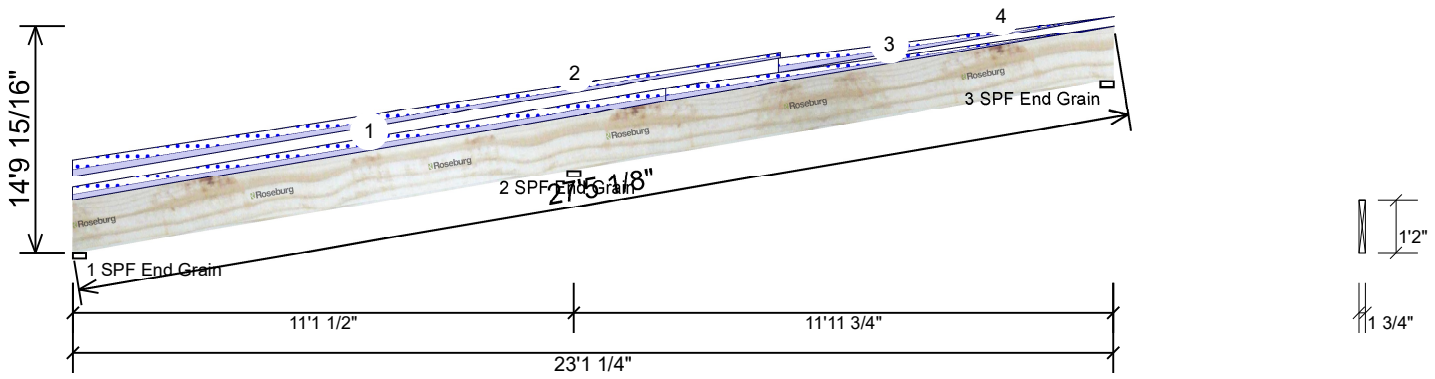
Roseburg Forest Products
4500 Riddle By-pass Rd
Riddle, OR 97469
(541) 784-4005
www.roseburg.com
APA: PR-L289, PR-L270, ICC-ES: ESR-1210

Kempsville Building Materials
3300 BUSINESS CENTER DRIVE, VA 23323
757-335-1309

Client:	T E Jones	Date:	3/31/2022
Project:		Input by:	Sean Brown
Address:		Job Name:	Jones Residence
		Project #:	

RB15 VALLEY BEAM 2.0E Rigidlam LVL 1.750" X 14.000" - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Roof
Plies:	1	Slope:	7/12
Moisture Condition:	Dry	Design Method:	ASD
Deflection LL:	240	Building Code:	IBC/IRC 2015
Deflection TL:	180	Load Sharing:	No
Importance:	Normal - II	Deck:	Not Checked
Temperature:	Temp <= 100°F		
General Load			
Floor Live:	40 PSF		
Dead:	10 PSF		
Snow:	20 PSF		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	908	1011	0	0
2	Vertical	0	1993	2176	0	0
3	Vertical	0	361	371	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	43%	908 / 1050	1958	L_	D+S
2 - SPF End Grain	3.500"	Vert	82%	1993 / 2176	4169	LL	D+S
3 - SPF End Grain	3.500"	Vert	17%	361 / 415	776	_L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-4870 ft-lb	11'1 1/2"	16659 ft-lb	0.292 (29%)	D+S	LL
Unbraced	-4870 ft-lb	11'1 1/2"	4876 ft-lb	0.999 (100%)	D+S	LL
Pos Moment	3706 ft-lb	4'6 1/8"	16659 ft-lb	0.222 (22%)	D+S	L_
Unbraced	3706 ft-lb	4'6 1/8"	3706 ft-lb	1.000 (100%)	D+S	L_
Shear	2218 lb	11'6 3/8"	5447 lb	0.407 (41%)	D+S	LL
LL Defl inch	0.063 (L/2389)	5'2 3/16"	0.631 (L/240)	0.100 (10%)	S	L_
TL Defl inch	0.110 (L/1380)	5' 15/16"	0.841 (L/180)	0.130 (13%)	D+S	L_

Design Notes

1. Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2. Refer to manufacturer's literature for sloped bearing detail.
3. Attach with enough nails to prevent sliding between the joist and the sloped bearing wedge at each support.
4. Girders are designed to be supported on the bottom edge only.
5. Top must be laterally braced at a maximum of 15'10" o.c. along the slope.
6. Bottom must be laterally braced at a maximum of 11'5 1/4" o.c.

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 13-2-0		Far Face	75 PLF	0 PLF	100 PLF	0 PLF	0 PLF	ROOF LOAD
2	Tapered Start	0-0-0		Near Face	98 PLF	0 PLF	130 PLF	0 PLF	0 PLF	ROOF LOAD
	End	15-8-8			30 PLF	0 PLF	40 PLF	0 PLF	0 PLF	

Continued on page 2...

Notes

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

Lumber

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

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

Manufacturer Info

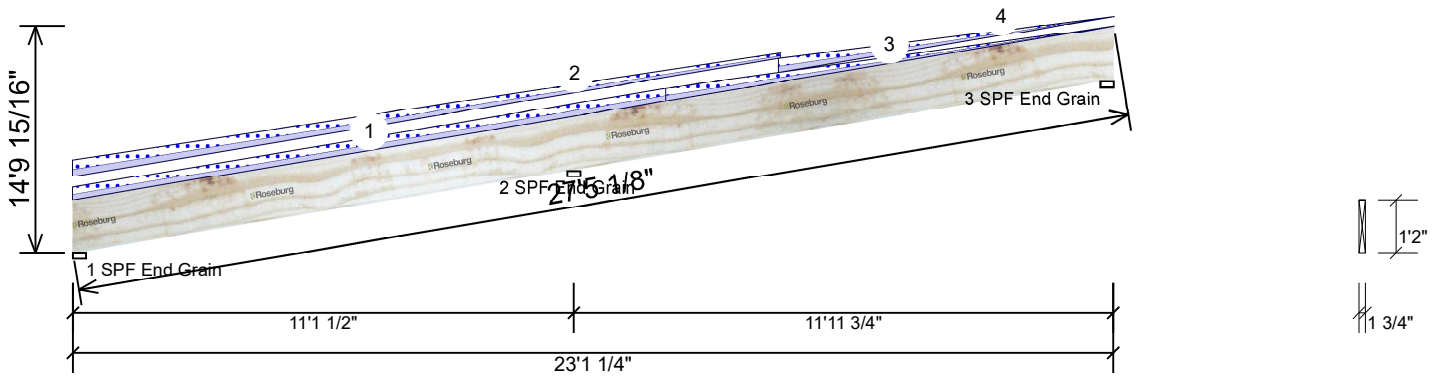
Roseburg Forest Products
4500 Riddle By-pass Rd
Riddle, OR 97469
(541) 784-4005
www.roseburg.com
APA: PR-L289, PR-L270, ICC-ES: ESR-1210

Kempsville Building Materials
3300 BUSINESS CENTER DRIVE, VA 23323
757-335-1309

Client:	T E Jones	Date:	3/31/2022
Project:		Input by:	Sean Brown
Address:		Job Name:	Jones Residence
		Project #:	

RB15 VALLEY BEAM 2.0E Rigidlam LVL 1.750" X 14.000" - PASSED

Level: Level



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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
3	Tapered Start	13-2-0		Far Face	75 PLF	0 PLF	100 PLF	0 PLF	0 PLF	ROOF LOAD
	End	23-1-4			0 PLF	0 PLF	0 PLF	0 PLF	0 PLF	
4	Tapered Start	15-8-0		Near Face	83 PLF	0 PLF	110 PLF	0 PLF	0 PLF	ROOF LOAD
	End	23-1-4			0 PLF	0 PLF	0 PLF	0 PLF	0 PLF	
	Self Weight				6 PLF					

Notes

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

Lumber

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

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

Manufacturer Info

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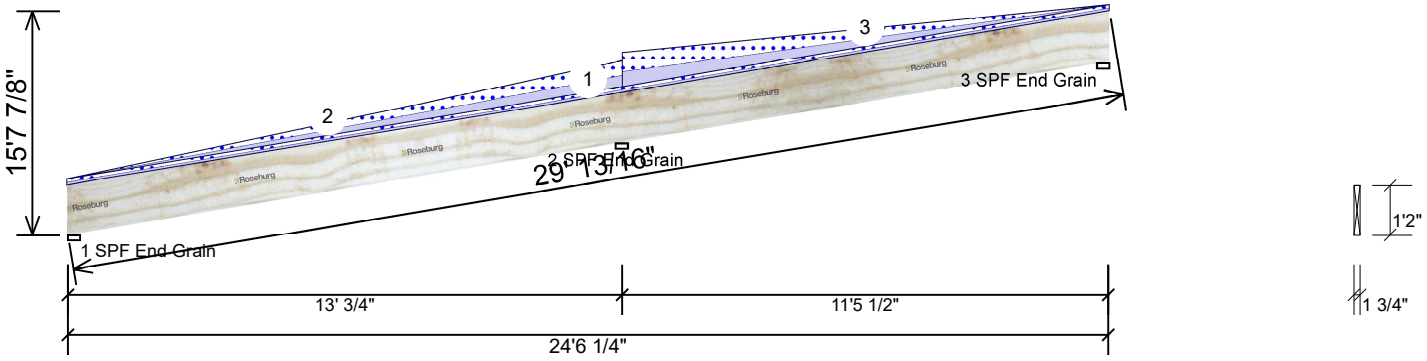
APA: PR-L289, PR-L270, ICC-ES: ESR-1210

Kempsville Building Materials
3300 BUSINESS CENTER DRIVE, VA 23323
757-335-1309

Client:	T E Jones	Date:	3/31/2022
Project:		Input by:	Sean Brown
Address:		Job Name:	Jones Residence
		Project #:	

RB18 VALLEY BEAM 2.0E Rigidlam LVL 1.750" X 14.000" - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Roof
Plies:	1	Slope:	7/12
Moisture Condition:	Dry	Design Method:	ASD
Deflection LL:	240	Building Code:	IBC/IRC 2015
Deflection TL:	180	Load Sharing:	No
Importance:	Normal - II	Deck:	Not Checked
Temperature:	Temp <= 100°F		
General Load			
Floor Live:	40 PSF		
Dead:	10 PSF		
Snow:	20 PSF		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	454	475	0	0
2	Vertical	0	1697	1827	0	0
3	Vertical	0	418	444	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	21%	454 / 502	956	L_	D+S
2 - SPF End Grain	3.500"	Vert	69%	1697 / 1827	3524	LL	D+S
3 - SPF End Grain	3.500"	Vert	20%	418 / 484	902	_L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-4091 ft-lb	13' 3/4"	16659 ft-lb	0.246 (25%)	D+S	LL
Unbraced	-4091 ft-lb	13' 3/4"	4092 ft-lb	1.000 (100%)	D+S	LL
Pos Moment	2508 ft-lb	5'8 1/16"	16659 ft-lb	0.151 (15%)	D+S	L_
Unbraced	2508 ft-lb	5'8 1/16"	2508 ft-lb	1.000 (100%)	D+S	L_
Shear	1448 lb	14'4 1/2"	5447 lb	0.266 (27%)	D+S	LL
LL Defl inch	0.059 (L/3006)	6'2"	0.743 (L/240)	0.080 (8%)	S	L_
TL Defl inch	0.103 (L/1728)	6' 3/8"	0.990 (L/180)	0.104 (10%)	D+S	L_

Design Notes

1. Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2. Refer to manufacturer's literature for sloped bearing detail.
3. Attach with enough nails to prevent sliding between the joist and the sloped bearing wedge at each support.
4. Girders are designed to be supported on the bottom edge only.
5. Top must be laterally braced at a maximum of 23'7 15/16" o.c. along the slope.
6. Bottom must be laterally braced at a maximum of 14'1 5/16" o.c.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform		3-0-0	Far Face	15 PSF	0 PSF	20 PSF	0 PSF	0 PSF	ROOF LOAD
2	Tapered Start	0-0-0		Near Face	0 PLF	0 PLF	0 PLF	0 PLF	0 PLF	ROOF LOAD
	End	13-0-12			68 PLF	0 PLF	90 PLF	0 PLF	0 PLF	

Continued on page 2...

Notes

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

Lumber

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

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

Manufacturer Info

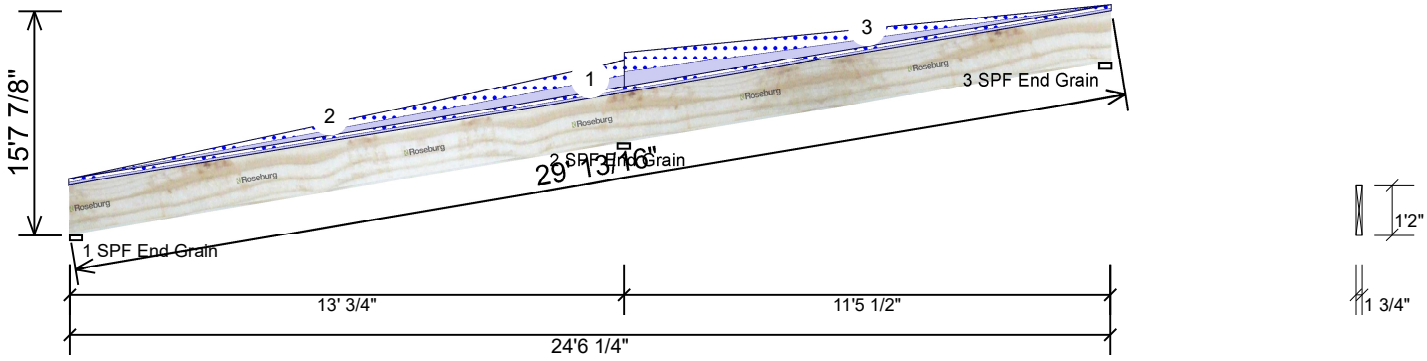
Roseburg Forest Products
4500 Riddle By-pass Rd
Riddle, OR 97469
(541) 784-4005
www.roseburg.com
APA: PR-L289, PR-L270, ICC-ES: ESR-1210

Kempsville Building Materials
3300 BUSINESS CENTER DRIVE, VA 23323
757-335-1309

Client:	T E Jones	Date:	3/31/2022
Project:		Input by:	Sean Brown
Address:		Job Name:	Jones Residence
		Project #:	

RB18 VALLEY BEAM 2.0E Rigidlam LVL 1.750" X 14.000" - PASSED

Level: Level



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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
3	Tapered Start	13-0-12		Near Face	90 PLF	0 PLF	120 PLF	0 PLF	0 PLF	ROOF LOAD
	End	24-6-4			0 PLF	0 PLF	0 PLF	0 PLF	0 PLF	
	Self Weight				6 PLF					

Notes

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

Lumber

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

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

Manufacturer Info

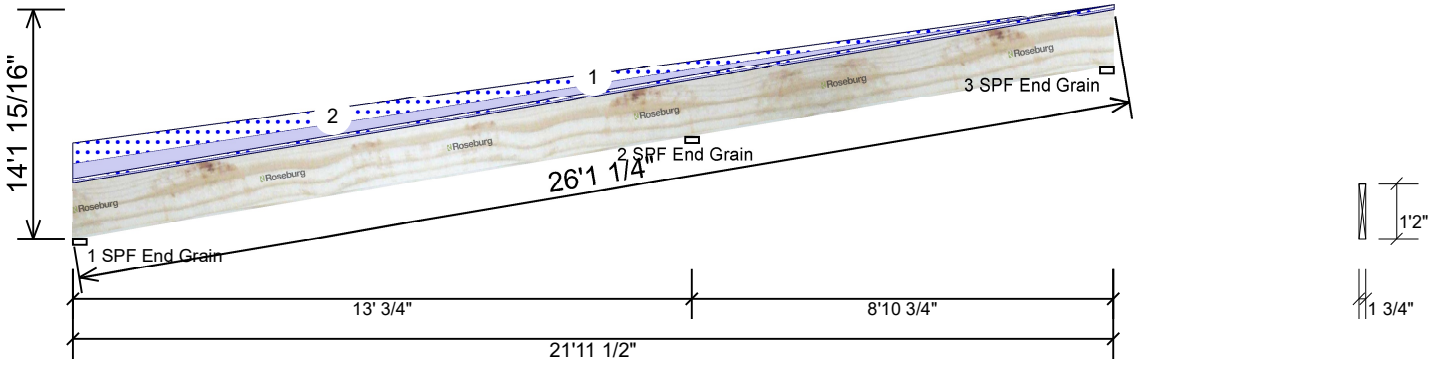
Roseburg Forest Products
4500 Riddle By-pass Rd
Riddle, OR 97469
(541) 784-4005
www.roseburg.com
APA: PR-L289, PR-L270, ICC-ES: ESR-1210

Kempsville Building Materials
3300 BUSINESS CENTER DRIVE, VA 23323
757-335-1309

Client:	T E Jones	Date:	3/31/2022
Project:		Input by:	Sean Brown
Address:		Job Name:	Jones Residence
		Project #:	

RB5 VALLEY BEAM 2.0E Rigidlam LVL 1.750" X 14.000" - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Roof
Plies:	1	Slope:	7/12
Moisture Condition:	Dry	Design Method:	ASD
Deflection LL:	240	Building Code:	IBC/IRC 2015
Deflection TL:	180	Load Sharing:	No
Importance:	Normal - II	Deck:	Not Checked
Temperature:	Temp <= 100°F		
General Load			
Floor Live:	40 PSF		
Dead:	10 PSF		
Snow:	20 PSF		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	1198	1338	0	0
2	Vertical	0	2116	2324	0	0
3	Vertical	0	273	290	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	56%	1198 / 1353	2551	L_	D+S
2 - SPF End Grain	3.500"	Vert	87%	2116 / 2324	4440	LL	D+S
3 - SPF End Grain	3.500"	Vert	15%	273 / 401	673	_L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-5863 ft-lb	13' 3/4"	16659 ft-lb	0.352 (35%)	D+S	LL
Unbraced	-5863 ft-lb	13' 3/4"	5869 ft-lb	0.999 (100%)	D+S	LL
Pos Moment	5832 ft-lb	5'4 5/16"	16659 ft-lb	0.350 (35%)	D+S	L_
Unbraced	5832 ft-lb	5'4 5/16"	5838 ft-lb	0.999 (100%)	D+S	L_
Shear	2675 lb	13'9 5/16"	5447 lb	0.491 (49%)	D+S	LL
LL Defl inch	0.134 (L/1333)	6' 13/16"	0.743 (L/240)	0.180 (18%)	S	L_
TL Defl inch	0.248 (L/720)	6' 3/8"	0.990 (L/180)	0.250 (25%)	D+S	L_

Design Notes

1. Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2. Refer to manufacturer's literature for sloped bearing detail.
3. Attach with enough nails to prevent sliding between the joist and the sloped bearing wedge at each support.
4. Girders are designed to be supported on the bottom edge only.
5. Top must be laterally braced at a maximum of 9'1 5/8" o.c. along the slope.
6. Bottom must be laterally braced at a maximum of 9' 7/8" o.c.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform		5-0-0	Far Face	15 PSF	0 PSF	20 PSF	0 PSF	0 PSF	ROOF LOAD
2	Tapered Start	0-0-0		Near Face	120 PLF	0 PLF	160 PLF	0 PLF	0 PLF	ROOF LOAD
	End	21-11-8			0 PLF	0 PLF	0 PLF	0 PLF	0 PLF	
	Self Weight				6 PLF					

Notes

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

Lumber

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

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

Manufacturer Info

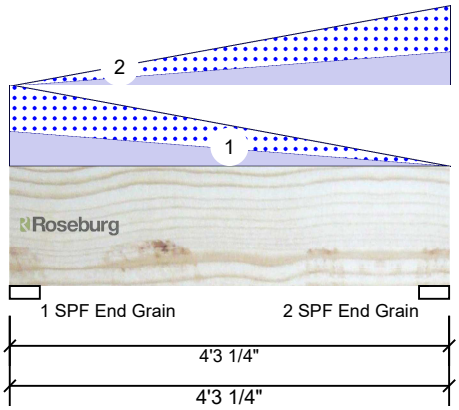
Roseburg Forest Products
4500 Riddle By-pass Rd
Riddle, OR 97469
(541) 784-4005
www.roseburg.com
APA: PR-L289, PR-L270, ICC-ES: ESR-1210

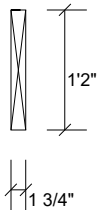
Kempsville Building Materials
3300 BUSINESS CENTER DRIVE, VA 23323
757-335-1309

Client:	T E Jones	Date:	3/31/2022
Project:		Input by:	Sean Brown
Address:		Job Name:	Jones Residence
		Project #:	

RB16 RIDGE BEAM 2.0E Rigidlam LVL 1.750" X 14.000" - PASSED

Level: Level





Member Information

Type:	Girder	Application:	Roof
Plies:	1	Slope:	0/12
Moisture Condition:	Dry	Design Method:	ASD
Deflection LL:	240	Building Code:	IBC/IRC 2015
Deflection TL:	180	Load Sharing:	No
Importance:	Normal - II	Deck:	Not Checked
Temperature:	Temp <= 100°F		
General Load			
Floor Live:	40 PSF		
Dead:	10 PSF		
Snow:	20 PSF		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	78	85	0	0
2	Vertical	0	78	85	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	4%	78 / 85	163	L	D+S
2 - SPF End Grain	3.500"	Vert	4%	78 / 85	163	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	139 ft-lb	2'1 5/8"	16659 ft-lb	0.008 (1%)	D+S	L
Unbraced	139 ft-lb	2'1 5/8"	12368 ft-lb	0.011 (1%)	D+S	L
Shear	141 lb	1'5 1/2"	5447 lb	0.026 (3%)	D+S	L
LL Defl inch	0.000 (L/192567)	2'1 11/16"	0.191 (L/240)	0.001 (0%)	S	L
TL Defl inch	0.000 (L/100734)	2'1 11/16"	0.254 (L/180)	0.002 (0%)	D+S	L

Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2 Girders are designed to be supported on the bottom edge only.
3 Top must be laterally braced at end bearings.
4 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	Tapered Start	0-0-0		Near Face	30 PLF	0 PLF	40 PLF	0 PLF	0 PLF	ROOF LOAD
	End	4-3-4			0 PLF	0 PLF	0 PLF	0 PLF	0 PLF	
2	Tapered Start	0-0-0		Far Face	0 PLF	0 PLF	0 PLF	0 PLF	0 PLF	ROOF LOAD
	End	4-3-4			30 PLF	0 PLF	40 PLF	0 PLF	0 PLF	
	Self Weight				6 PLF					

Notes

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

Lumber

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

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

Manufacturer Info

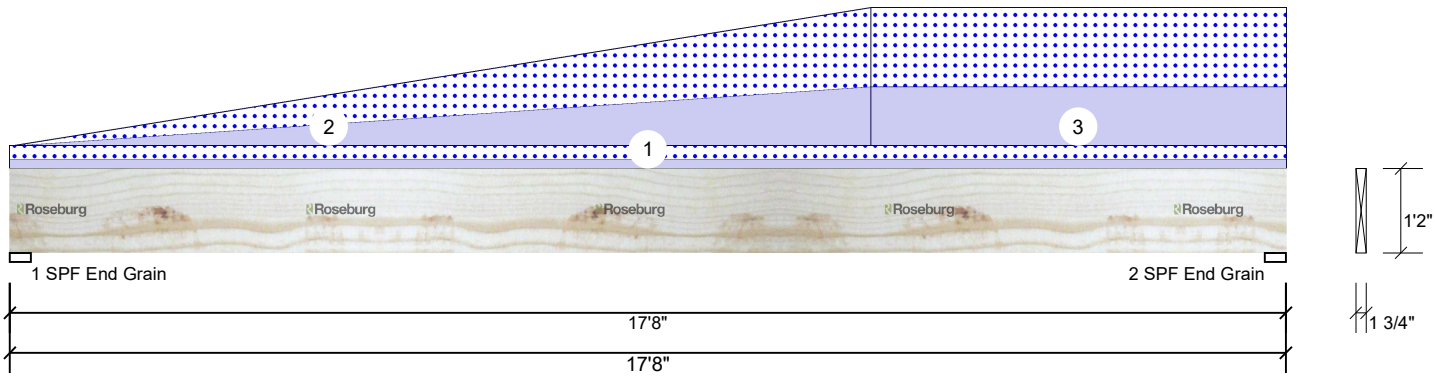
Roseburg Forest Products
4500 Riddle By-pass Rd
Riddle, OR 97469
(541) 784-4005
www.roseburg.com
APA: PR-L289, PR-L270, ICC-ES: ESR-1210

Kempsville Building Materials
3300 BUSINESS CENTER DRIVE, VA 23323
757-335-1309

Client:	T E Jones	Date:	3/31/2022
Project:		Input by:	Sean Brown
Address:		Job Name:	Jones Residence
		Project #:	

RB7 RIDGE BEAM 2.0E Rigidlam LVL 1.750" X 14.000" - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Roof
Plies:	1	Slope:	0/12
Moisture Condition:	Dry	Design Method:	ASD
Deflection LL:	240	Building Code:	IBC/IRC 2015
Deflection TL:	180	Load Sharing:	No
Importance:	Normal - II	Deck:	Not Checked
Temperature:	Temp <= 100°F		
General Load			
Floor Live:	40 PSF		
Dead:	10 PSF		
Snow:	20 PSF		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	1161	1472	0	0
2	Vertical	0	1464	1876	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	57%	1161 / 1472	2634	L	D+S
2 - SPF End Grain	3.500"	Vert	73%	1464 / 1876	3340	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	12930 ft-lb	9'4 5/16"	16659 ft-lb	0.776 (78%)	D+S	L
Unbraced	12930 ft-lb	9'4 5/16"	12939 ft-lb	0.999 (100%)	D+S	L
Shear	2992 lb	16'2 1/2"	5447 lb	0.549 (55%)	D+S	L
LL Defl inch	0.480 (L/430)	8'11 1/2"	0.860 (L/240)	0.558 (56%)	S	L
TL Defl inch	0.856 (L/241)	8'11 1/2"	1.147 (L/180)	0.746 (75%)	D+S	L

Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2 Girders are designed to be supported on the bottom edge only.
3 Top must be laterally braced at a maximum of 3'6 3/4" o.c.
4 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	Uniform		5-6-0	Near Face	15 PSF	0 PSF	20 PSF	0 PSF	0 PSF	ROOF LOAD
2	Tapered Start	0-0-0		Far Face	0 PLF	0 PLF	0 PLF	0 PLF	0 PLF	ROOF LOAD
	End	11-11-0			90 PLF	0 PLF	120 PLF	0 PLF	0 PLF	
3	Part. Uniform	11-11-0 to 17-8-0		Far Face	90 PLF	0 PLF	120 PLF	0 PLF	0 PLF	ROOF LOAD
	Self Weight				6 PLF					

Notes

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

Lumber

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

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

Manufacturer Info

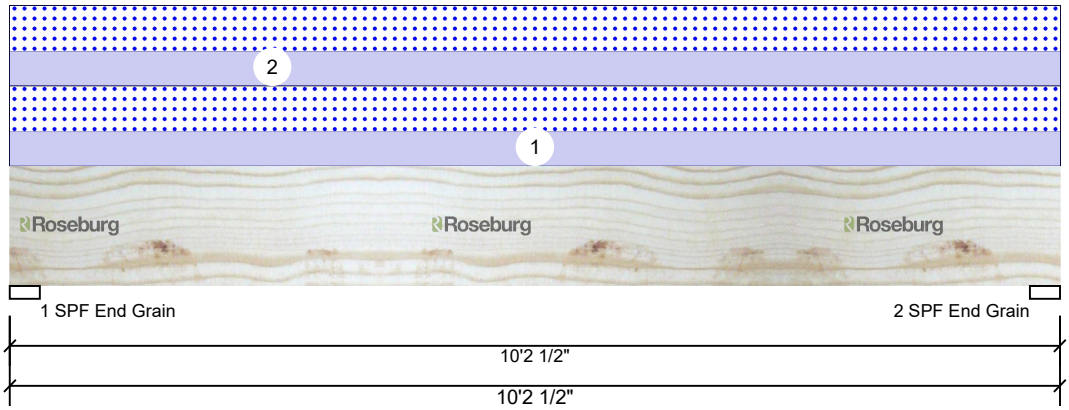
Roseburg Forest Products
4500 Riddle By-pass Rd
Riddle, OR 97469
(541) 784-4005
www.roseburg.com
APA: PR-L289, PR-L270, ICC-ES: ESR-1210

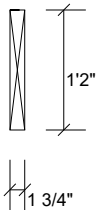
Kempsville Building Materials
3300 BUSINESS CENTER DRIVE, VA 23323
757-335-1309

Client:	T E Jones	Date:	3/31/2022
Project:		Input by:	Sean Brown
Address:		Job Name:	Jones Residence
		Project #:	

RB11 RIDGE BEAM 2.0E Rigidlam LVL 1.750" X 14.000" - PASSED

Level: Level





Member Information

Type:	Girder	Application:	Roof
Plies:	1	Slope:	0/12
Moisture Condition:	Dry	Design Method:	ASD
Deflection LL:	240	Building Code:	IBC/IRC 2015
Deflection TL:	180	Load Sharing:	No
Importance:	Normal - II	Deck:	Not Checked
Temperature:	Temp <= 100°F		
General Load			
Floor Live:	40 PSF		
Dead:	10 PSF		
Snow:	20 PSF		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	1296	1684	0	0
2	Vertical	0	1296	1684	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	65%	1296 / 1684	2981	L	D+S
2 - SPF End Grain	3.500"	Vert	65%	1296 / 1684	2981	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	6939 ft-lb	5'1 1/4"	16659 ft-lb	0.417 (42%)	D+S	L
Unbraced	6939 ft-lb	5'1 1/4"	6958 ft-lb	0.997 (100%)	D+S	L
Shear	2810 lb	1'5 1/2"	5447 lb	0.516 (52%)	D+S	L
LL Defl inch	0.084 (L/1396)	5'1 1/4"	0.488 (L/240)	0.172 (17%)	S	L
TL Defl inch	0.148 (L/789)	5'1 1/4"	0.650 (L/180)	0.228 (23%)	D+S	L

Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2 Girders are designed to be supported on the bottom edge only.
3 Top must be laterally braced at a maximum of 7'5 1/8" o.c.
4 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	Uniform		8-0-0	Near Face	15 PSF	0 PSF	20 PSF	0 PSF	0 PSF	ROOF LOAD
2	Uniform		8-6-0	Far Face	15 PSF	0 PSF	20 PSF	0 PSF	0 PSF	ROOF LOAD
	Self Weight				6 PLF					

Notes

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Lumber

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

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
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This design is valid until 11/3/2024

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Kempsville Building Materials
3300 BUSINESS CENTER DRIVE, VA 23323
757-335-1309

	Project The Jones Residence	Project ref
	Calcs for Beam 1	Date 12 May 2022

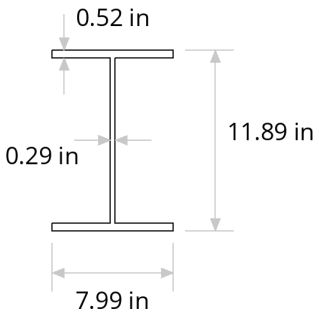
Steel Beam Design

Design summary

	Resistance / Limit	Applied / Actual	Utilization	
Shear resistance (kip)	70.1	5.06	**7 %**	**OK**
Bending resistance (kip-ft)	142	27.8	**20 %**	**OK**
Total deflection (in)	0.73	0.27	**37 %**	**OK**
Live deflection (in)	0.73	0.17	**23 %**	**OK**

Beam details

Beam shape	**W 12 x 40**
Effective span	**22** ft
Minimum yield stress F_y	**50,000** psi
Width	**7.99** in
Depth	**11.89** in
Web	**0.29** in
Flange	**0.52** in
Weight per foot	**40.32** lb/ft
Modulus of elasticity	**29,000** ksi
Second moment of area	**307.52** in^4



Lateral bracing & deflection limits

Beam is laterally braced along its length
Length between lateral bracing at least every **2 ft**

Live load deflection limit: **span / 360.00 = 0.73 in**
Total load deflection limit: **span / 360.00 = 0.73 in**

Loading details

Self weight

Dead load	**40.32** lb/ft

Load 1: UDL - Residential Attic

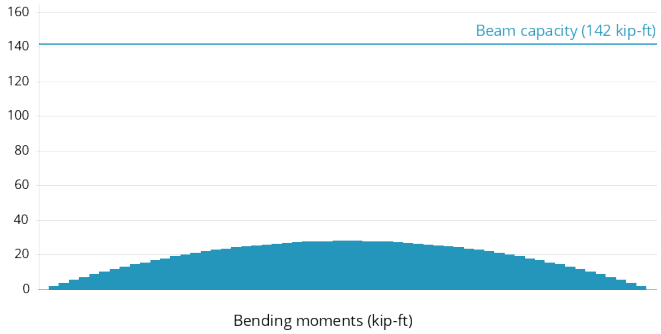
Dead load	**10** psf × **14** ft = **140** lb/ft
Live load	**20** psf × **14** ft = **280** lb/ft

	Project The Jones Residence	Project ref
	Calcs for Beam 1	Date 12 May 2022

Reactions (unfactored)

	Dead	Live	Total
Left reaction	**1.98** kip	**3.08** kip	**5.06** kip
Right reaction	**1.98** kip	**3.08** kip	**5.06** kip

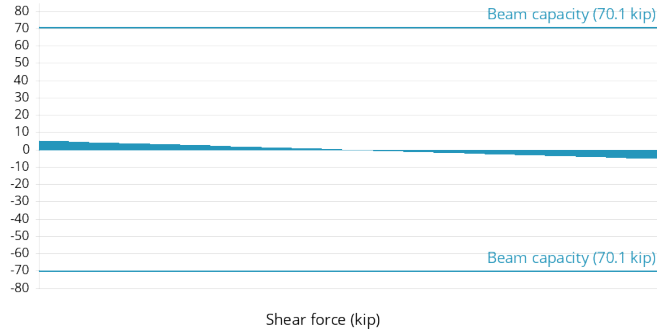
Check bending moments



Beam moment capacity M_R = 142 kip-ft >= 27.8 kip-ft, therefore OK

The top flange of the beam is to be laterally braced along its full length. To ensure adequate lateral bracing, bracing members should be attached with fasteners that provide a positive connection. Lateral bracing members should generally be regularly spaced at least every 2 feet.

Check shear force

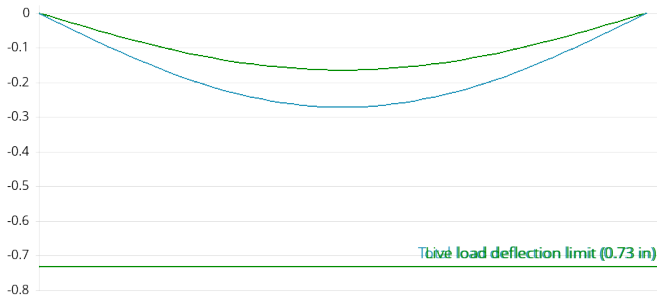


Shear capacity V_c = 70.1 kip >= 5.06 kip, therefore OK

Allowable shear = 0.4 × minimum yield stress × d × t_w

	Project The Jones Residence	Project ref
	Calcs for Beam 1	Date 12 May 2022

Check deflection



Live load deflection (green) and total load deflection (blue) in inches

Live load deflection = 0.17 in <= 0.73 in, therefore OK
Total load deflection = 0.27 in <= 0.73 in, therefore OK

Notes

These calculations are based on the Manual of Steel Construction, Allowable Stress Design, Ninth Edition by the American Institute of Steel Construction.

	Project The Jones Residence	Project ref
	Calcs for Beam 2	Date 12 May 2022

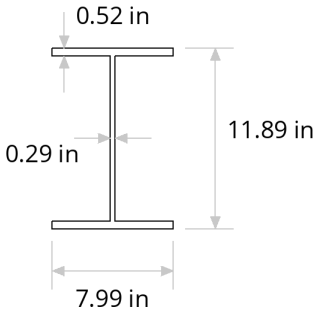
Steel Beam Design

Design summary

	Resistance / Limit	Applied / Actual	Utilization	
Shear resistance (kip)	70.1	6.89	**10 %**	**OK**
Bending resistance (kip-ft)	142	29.3	**21 %**	**OK**
Total deflection (in)	0.57	0.17	**30 %**	**OK**
Live deflection (in)	0.57	0.12	**21 %**	**OK**

Beam details

Beam shape	**W 12 x 40**
Effective span	**17** ft
Minimum yield stress F_y	**50,000** psi
Width	**7.99** in
Depth	**11.89** in
Web	**0.29** in
Flange	**0.52** in
Weight per foot	**40.32** lb/ft
Modulus of elasticity	**29,000** ksi
Second moment of area	**307.52** in^4



Lateral bracing & deflection limits

Beam is laterally braced along its length
Length between lateral bracing at least every **2 ft**

Live load deflection limit: **span / 360.00 = 0.57 in**
Total load deflection limit: **span / 360.00 = 0.57 in**

Loading details

Self weight

Dead load	**40.32** lb/ft

Load 1: UDL - Residential Floor

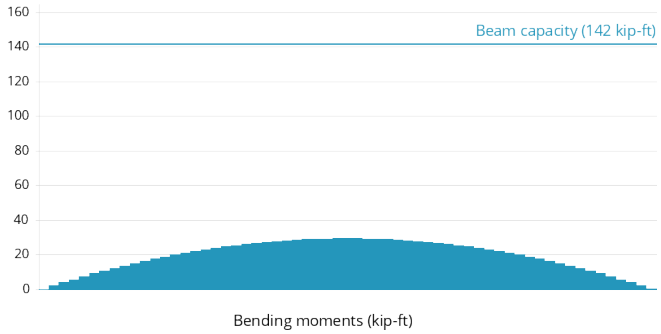
Dead load	**15** psf × **14** ft = **210** lb/ft
Live load	**40** psf × **14** ft = **560** lb/ft

	Project The Jones Residence	Project ref
	Calcs for Beam 2	Date 12 May 2022

Reactions (unfactored)

	Dead	Live	Total
Left reaction	**2.13** kip	**4.76** kip	**6.89** kip
Right reaction	**2.13** kip	**4.76** kip	**6.89** kip

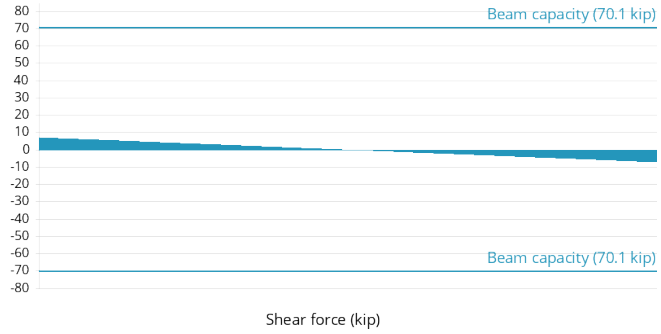
Check bending moments



Beam moment capacity M_R = 142 kip-ft >= 29.3 kip-ft, therefore OK

The top flange of the beam is to be laterally braced along its full length. To ensure adequate lateral bracing, bracing members should be attached with fasteners that provide a positive connection. Lateral bracing members should generally be regularly spaced at least every 2 feet.

Check shear force

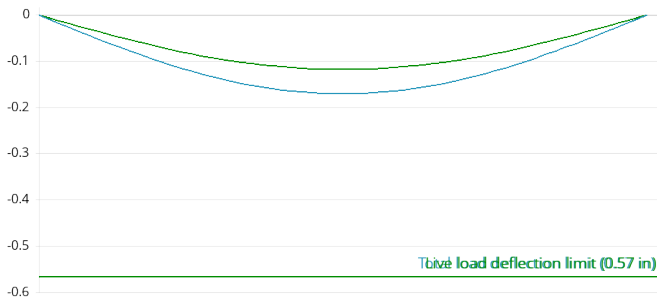


Shear capacity V_c = 70.1 kip >= 6.89 kip, therefore OK

Allowable shear = 0.4 × minimum yield stress × d × t_w

	Project The Jones Residence	Project ref
	Calcs for Beam 2	Date 12 May 2022

Check deflection



Live load deflection (green) and total load deflection (blue) in inches

Live load deflection = 0.12 in <= 0.57 in, therefore OK
Total load deflection = 0.17 in <= 0.57 in, therefore OK

Notes

These calculations are based on the Manual of Steel Construction, Allowable Stress Design, Ninth Edition by the American Institute of Steel Construction.

	Project The Jones Residence	Project ref
	Calcs for Beam 3	Date 12 May 2022

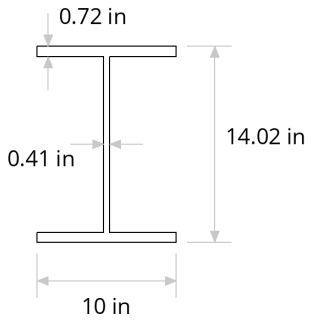
Steel Beam Design

Design summary

	Resistance / Limit	Applied / Actual	Utilization	
Shear resistance (kip)	116	9.35	**8 %**	**OK**
Bending resistance (kip-ft)	284	58.4	**21 %**	**OK**
Total deflection (in)	0.63	0.31	**50 %**	**OK**
Live deflection (in)	0.63	0.18	**30 %**	**OK**

Beam details

Beam shape	**W 14 x 68**
Effective span	**25** ft
Minimum yield stress F_y	**50,000** psi
Width	**10.00** in
Depth	**14.02** in
Web	**0.41** in
Flange	**0.72** in
Weight per foot	**67.88** lb/ft
Modulus of elasticity	**29,000** ksi
Second moment of area	**723.16** in^4



Lateral bracing & deflection limits

Beam is laterally braced along its length
Length between lateral bracing at least every **2 ft**

Live load deflection limit: **span / 480.00 = 0.63 in**
Total load deflection limit: **span / 480.00 = 0.63 in**

Loading details

Self weight

Dead load	**67.88** lb/ft

Load 1: UDL - Residential Floor

Dead load	**15** psf × **8** ft = **120** lb/ft
Live load	**40** psf × **8** ft = **320** lb/ft

	Project The Jones Residence	Project ref
	Calcs for Beam 3	Date 12 May 2022

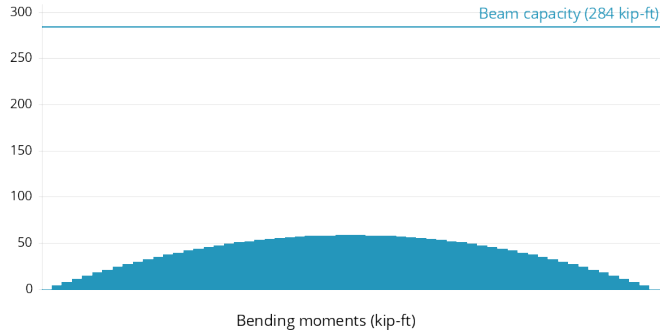
Load 2: UDL - Standard wood roof with asphalt shingle, slope greater than 4:12

Dead load	**15** psf × **8** ft = **120** lb/ft
Live load	**15** psf × **8** ft = **120** lb/ft

Reactions (unfactored)

	Dead	Live	Total
Left reaction	**3.85** kip	**5.50** kip	**9.35** kip
Right reaction	**3.85** kip	**5.50** kip	**9.35** kip

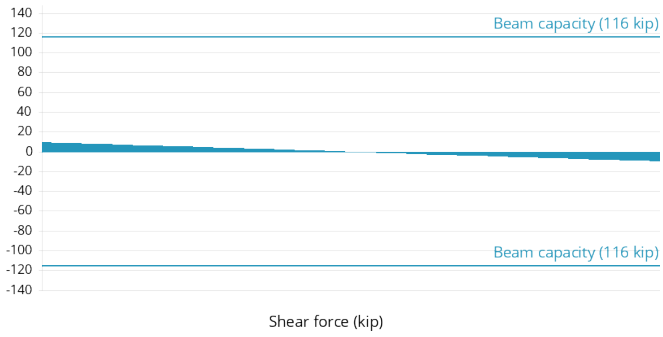
Check bending moments



Beam moment capacity M_R = 284 kip-ft >= 58.4 kip-ft, therefore OK

The top flange of the beam is to be laterally braced along its full length. To ensure adequate lateral bracing, bracing members should be attached with fasteners that provide a positive connection. Lateral bracing members should generally be regularly spaced at least every 2 feet.

Check shear force

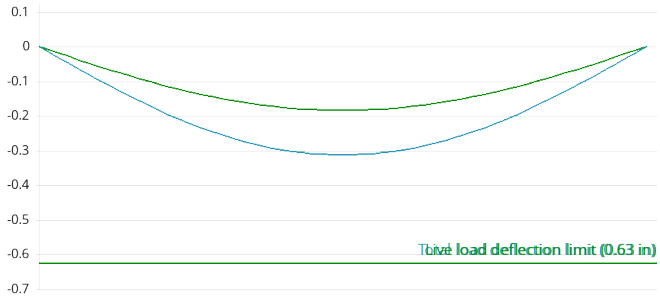


Shear capacity V_c = 116 kip >= 9.35 kip, therefore OK

Allowable shear = 0.4 × minimum yield stress × d × t_w

	Project The Jones Residence	Project ref
	Calcs for Beam 3	Date 12 May 2022

Check deflection



Live load deflection (green) and total load deflection (blue) in inches

Live load deflection = 0.18 in <= 0.63 in, therefore OK
Total load deflection = 0.31 in <= 0.63 in, therefore OK

Notes

These calculations are based on the Manual of Steel Construction, Allowable Stress Design, Ninth Edition by the American Institute of Steel Construction.

	Project The Jones Residence	Project ref
	Calcs for Beam 4	Date 12 May 2022

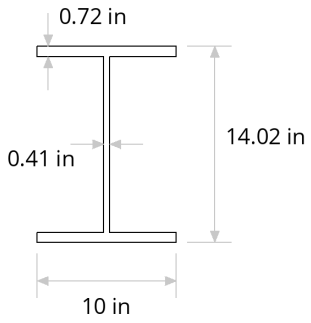
Steel Beam Design

Design summary

	Resistance / Limit	Applied / Actual	Utilization	
Shear resistance (kip)	116	7.48	**6 %**	**OK**
Bending resistance (kip-ft)	284	37.4	**13 %**	**OK**
Total deflection (in)	0.5	0.13	**26 %**	**OK**
Live deflection (in)	0.5	0.08	**15 %**	**OK**

Beam details

Beam shape	**W 14 x 68**
Effective span	**20** ft
Minimum yield stress F_y	**50,000** psi
Width	**10.00** in
Depth	**14.02** in
Web	**0.41** in
Flange	**0.72** in
Weight per foot	**67.88** lb/ft
Modulus of elasticity	**29,000** ksi
Second moment of area	**723.16** in^4



Lateral bracing & deflection limits

Beam is laterally braced along its length
Length between lateral bracing at least every **2 ft**

Live load deflection limit: **span / 480.00 = 0.50 in**
Total load deflection limit: **span / 480.00 = 0.50 in**

Loading details

Self weight

Dead load	**67.88** lb/ft

Load 1: UDL - Residential Floor

Dead load	**15** psf × **8** ft = **120** lb/ft
Live load	**40** psf × **8** ft = **320** lb/ft

	Project The Jones Residence	Project ref
	Calcs for Beam 4	Date 12 May 2022

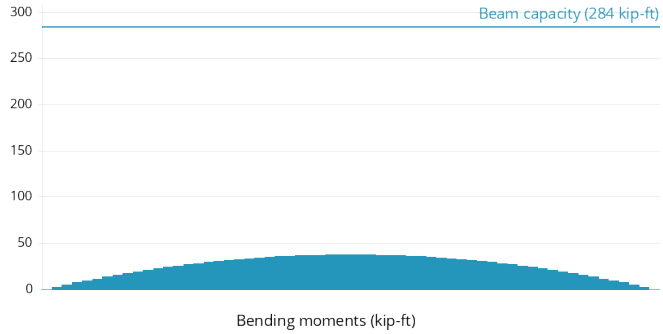
Load 2: UDL - Standard wood roof with asphalt shingle, slope greater than 4:12

Dead load	**15** psf × **8** ft = **120** lb/ft
Live load	**15** psf × **8** ft = **120** lb/ft

Reactions (unfactored)

	Dead	Live	Total
Left reaction	**3.08** kip	**4.40** kip	**7.48** kip
Right reaction	**3.08** kip	**4.40** kip	**7.48** kip

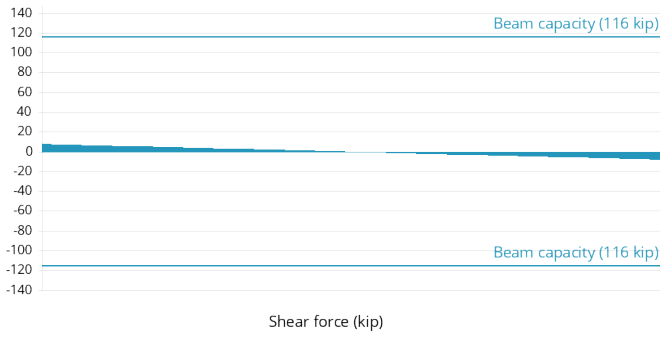
Check bending moments



Beam moment capacity M_R = 284 kip-ft >= 37.4 kip-ft, therefore OK

The top flange of the beam is to be laterally braced along its full length. To ensure adequate lateral bracing, bracing members should be attached with fasteners that provide a positive connection. Lateral bracing members should generally be regularly spaced at least every 2 feet.

Check shear force



Shear capacity V_c = 116 kip >= 7.48 kip, therefore OK

Allowable shear = 0.4 × minimum yield stress × d × t_w

	Project The Jones Residence	Project ref
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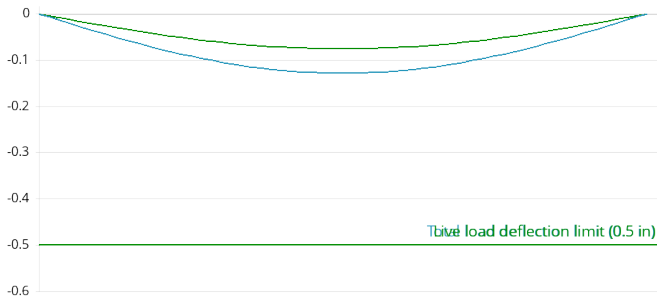
Check deflection



Live load deflection (green) and total load deflection (blue) in inches

Live load deflection = 0.08 in <= 0.5 in, therefore OK
Total load deflection = 0.13 in <= 0.5 in, therefore OK

Notes

These calculations are based on the Manual of Steel Construction, Allowable Stress Design, Ninth Edition by the American Institute of Steel Construction.