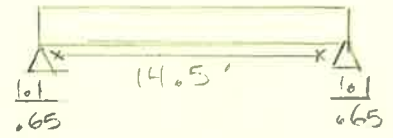


BEAM (9A) (RB1)

$W = (15 \text{ psf} + 25 \text{ psf})(6 \text{ ft}) = 240 \text{ plf}$
 COMPUTER GENERATED 9A9C
 6X10 PT DF #1



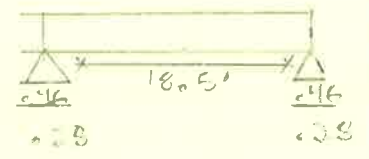
BEAM (9B) (RB2)

$W_1 = (15 \text{ psf} + 25 \text{ psf})(2 \text{ ft})$
 $W_2 = (15 \text{ psf} + 25 \text{ psf})(3.75 \text{ ft}) + (8 \text{ ft} \times 10 \text{ lb})$
 COMPUTER GENERATED
 5.125 X 12 GLULAM 24F-V4



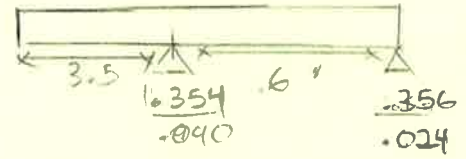
BEAM (9C) (RB3)

$W = (15 \text{ psf} + 25 \text{ psf})(2 \text{ ft}) = 80 \text{ plf}$
 COMPUTER GENERATED 9C
 2X12 PT DF #1



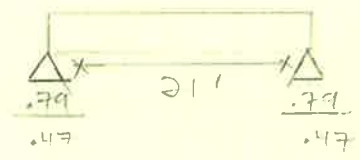
BEAM (9D) (edit) (RB4)

$W = (10 \text{ psf} + 90 \text{ psf})(2 \text{ ft}) = 200 \text{ plf}$
 COMPUTER GENERATED 9D
 2X8 PT HF #1



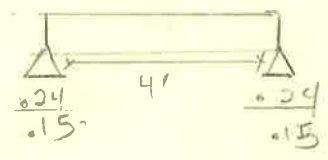
BEAM (9E) (RB7)

$W = (15 \text{ psf} + 25 \text{ psf})(3 \text{ ft}) = 120 \text{ plf}$
 COMPUTER GENERATED 9E
 6X12 DF #1



BEAM (9F) (RB5)

$W = (15 \text{ psf} + 25 \text{ psf})(3.25 \text{ ft}) = 120 \text{ plf}$
 COMPUTER GENERATED 9F
 2-2X12 PT DF #1



BEAM (9G) (RB6)

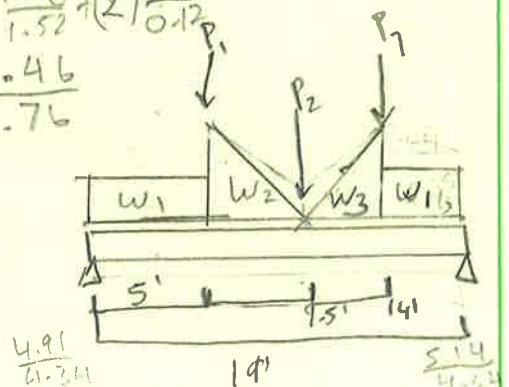
$W_1 = (9 + 10.5)(15 + 25) = 488 \text{ lbs}$
 $P_1 = \frac{1.06}{1.52}$

$W_2 = (2.25 + 10.5)(15 + 25) = 319 \text{ lbs}$
 L to 0 over 4.5'

$W_3 = 0 \rightarrow W_2 \text{ over } 4.5'$

$P_2 = \frac{1.06}{1.52} + (2) \frac{0.2}{0.12}$
 $= \frac{1.46}{1.76}$

COMPUTER GENERATED 9G
 7X16 PARALLAM FSL 2.0E



42-381 50 SHEETS EYEGLASS® 5 SQUARES
 42-382 100 SHEETS EYEGLASS® 5 SQUARES
 42-389 200 SHEETS EYEGLASS® 5 SQUARES
 Rational® Brand

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BEAM 10A (FBI)

2x8 PT HF#1 W/ STAGGEREID
1/4" X 4 1/2" SDS SCREWS
22" O/C

42-381 50 SHEETS EYE-BASE - 5 SQUARES
42-382 100 SHEETS EYE-BASE - 5 SQUARES
42-383 200 SHEETS EYE-BASE - 5 SQUARES
National Brand

BEAM 10B

NOT USED

~~$w = (12\text{psf} + 40\text{psf})(10\text{ft}) = 520\text{plf}$~~

~~COMPUTER GENERATED 10B
2x12 PT HF#1~~

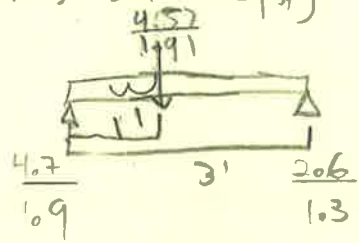


BEAM 10C (FB3)

$w = (110\text{psf} + 90\text{psf})10' + (16\text{ft} \times 10\text{plf}) + 10'(10\text{psf} + 30\text{psf}) + 2'(15 + 25\text{psf})$

$F = \frac{7.250}{0.39} \quad 3' \text{ spar}$

COMPUTER PRINT OUT 10C
USE PARALLAM 3.5x11.25



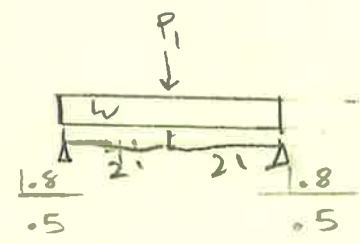
BEAM 10E (FB4)

$w = 7'(10\text{psf} + 90\text{psf})$

$= \frac{0.63}{0.07} \text{ kps}$

$P_1 = \frac{0.998}{0.65}$

USE 4x8 DF#1 PRINT OUT 10E



BEAM IIA (FB2)

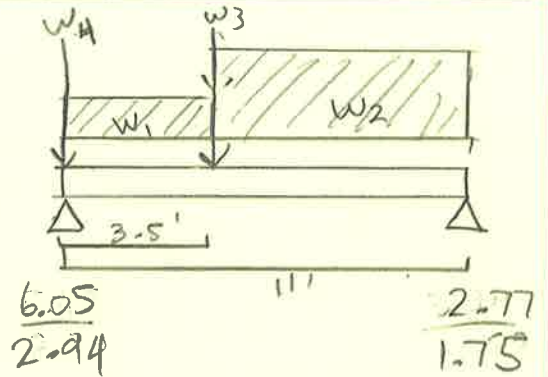
$$W_1 = (12+30)12 + (8 \times 10) = \frac{0.36}{0.304} \text{ kps}$$

$$W_2 = (1.33)(12+30) + (12+40)12 + (16 \times 10) = \frac{0.520}{0.320} \text{ kps}$$

$$W_3 = \frac{1.788}{0.81} \text{ kps (reaction from BEAM 12)}$$

$$W_4 = \frac{1.879}{0.412} \text{ kps (react. from beam 13)}$$

COMPUTER PRINT OUT IIA USE 3.5x11.25 TIMBERSTRAND LSL 1.5 SE



BEAM IIB (FB5)

$$W = (8 \times 9) + (12+30)3.25 = \frac{0.298}{0.135} \text{ kps}$$

COMPUTER PRINT OUT IIB USE 1.75x11.25 TIMBERSTRAND LSL

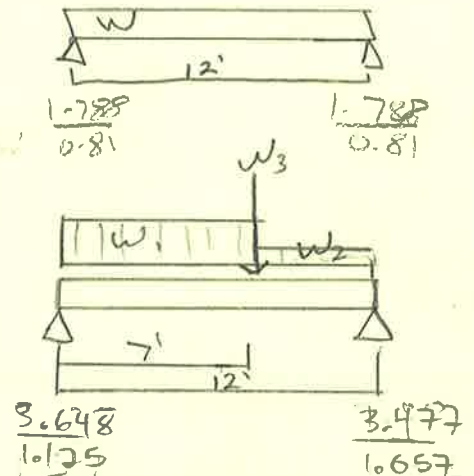
BEAM IIC (FB6)

$$W_1 = (9.25)(12+30) + 2(12+100) = \frac{0.3275}{0.275} \text{ kps}$$

$$W_2 = (1.33)(12+30) + 2(12+100) = \frac{0.24}{0.04} \text{ kps}$$

$$W_3 = \text{RH React of } - \frac{1.788}{0.81}$$

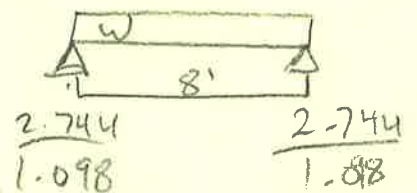
COMPUTER PRINT OUT IIC USE 3.5x11.25 Parallel PSL 2.0E



BEAM IID (FB7)

$$W = (1.33+9.25)(12+30) = \frac{0.686}{0.275} \text{ kps}$$

COMPUTER PRINT OUT IID USE 2-2x12 HF #1

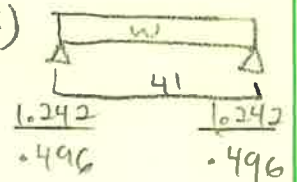


BEAM IIE (FB8)

$$W = (9.25)(12+30) + 3(10+95) + (8 \times 9) + (2.33)(15+25) = \frac{0.62075}{0.24795} \text{ kps}$$

COMPUTER PRINT OUT IIE

USE 4x8 DF #2



42-381 50 SHEETS EYE-BARS - 5 SQUARES
42-382 100 SHEETS EYE-BARS - 5 SQUARES
42-383 200 SHEETS EYE-BARS - 5 SQUARES
Natural Brand

APPLETON

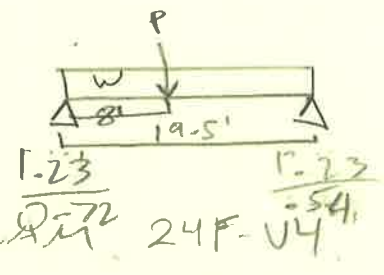
11-JUL-2018

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BEAM 12A (FB9)

$W = 1.33 (10 + 95) = \frac{0.12635}{0.0133} \text{ kps}$

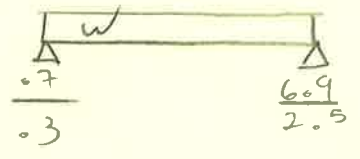
$P = 1000 \text{ lbs}$



COMPUTER PRINT OUT 12Aa & 12Ab
USE 4 x 12 DF#1 or 5.5 x 10.5 (LVL) 24F-V4

BEAM 12B (FB10)

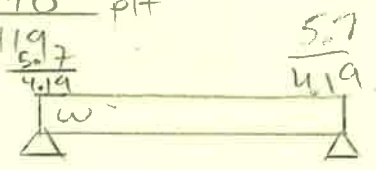
$W = 1.33 (12 + 40) + (8 \times 10) + (10 + 90) = 2.66$
 $= \frac{0.2926}{0.1226} \text{ kps}$



COMPUTER PRINT OUT 12B
USE 6 x 12 HF#1

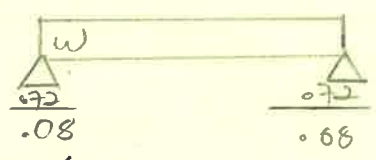
BEAM 12C (FB11)

$W = (15 \text{ psf} + 25 \text{ psf})(11 \text{ ft}) + (10 \text{ lb} \times 8 \text{ ft}) + (10 \text{ psf} + 30 \text{ psf})(5.5 \text{ ft}) + (10 \text{ lb} \times 8 \text{ ft}) + (12 \text{ psf} + 40 \text{ psf})(3.25 \text{ ft}) = \frac{570}{4.19} \text{ plf}$
5.25 x 16 PARALLAM PSL 2.0E
PRINT OUT 12C



BEAM 12D (FB12)

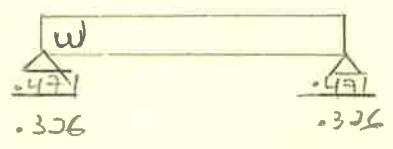
$W = (10 \text{ psf} + 90 \text{ psf})(4) = \frac{360}{40} \text{ plf}$
2 x 10 FT HF#1 PRINT OUT 12D



BEAM 12E (FB13)

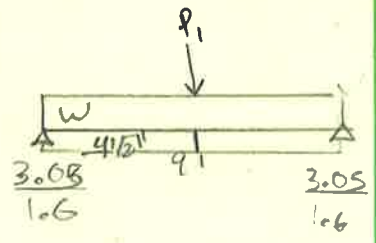
~~$W = (12 \text{ psf} + 55 \text{ psf})(9.5 \text{ ft}) + (10 \text{ psf} + 30 \text{ psf})(4 \text{ ft}) + (10 \text{ lb} \times 4 \text{ ft}) + (15 \text{ psf} + 25 \text{ psf})(3) = \frac{4335}{1.239}$~~
~~2 x 8 HF#2 PRINT OUT 12E~~

~~NOT USED - OK~~



BEAM 12F (FB14)

$W = 3' (12 + 40 \text{ psf}) + (8 \text{ psf} \times 10') + 2' (15 + 25 \text{ psf})$
 $= \frac{0.170}{0.146} \text{ kps}$
 $P_1 = \frac{4.57}{1.91} \text{ kps}$



USE GL 5/8 x 12 (24F-V4) PRINT OUT 12F

National Brand

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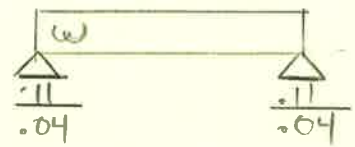
13

BEAM 13A

(RBB)

$$w = (15 \text{ psf} + 25 \text{ psf})(3 \text{ ft}) = \frac{75}{45} \text{ plf}$$

COMPUTER GENERATED 13A
4X8 DF #2



42-391 50 SHEETS EYE-BASE - 5 SQUARES
42-392 100 SHEETS EYE-BASE - 5 SQUARES
42-393 200 SHEETS EYE-BASE - 5 SQUARES
National Brand

BEAM 13B

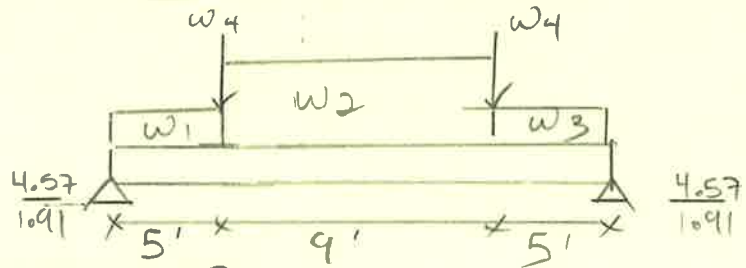
(FB15)

$$w_1 = (15 \text{ psf} + 25 \text{ psf})(12.25 \text{ ft}) = \frac{306.25}{183.75} \text{ plf}$$

$$w_2 = (10 \text{ psf} + 40 \text{ psf})(5 \text{ ft}) + (12 \text{ psf} + 40 \text{ psf})(2 \text{ ft}) + (10 \text{ lb} \times 9 \text{ ft}) + (15 \text{ psf} + 25 \text{ psf})(2 \text{ ft}) = \frac{580}{194} \text{ plf}$$

$$w_3 = (15 \text{ psf} + 25 \text{ psf})(12.25 \text{ ft}) = \frac{306.25}{183.75} \text{ plf}$$

$$w_4 = \frac{.1955}{.0216} \text{ kips}$$



COMPUTER GENERATED 13B
5.5 X 15 DF/DF V-4

↳ COL

COMP. GEN 13.C

APRIFTON

18-JUL-2018

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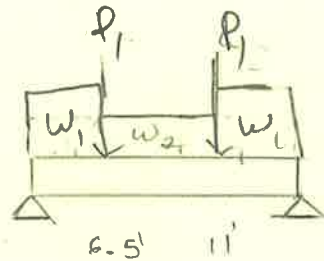
14

BEAM 14A (FB16)

$$w_1 = (15 \text{ psf} + 25 \text{ psf})(11 \text{ ft}) + (10 \text{ lb} \times 8 \text{ ft}) + (10 \text{ psf} + 30 \text{ psf})(2 \text{ ft}) = \frac{335}{265}$$

$$w_2 = (15 \text{ psf} + 25 \text{ psf})(11 \text{ ft}) + (10 \text{ lb} \times 8 \text{ ft}) = \frac{275}{245}$$

$$P_1 = \frac{1.08}{0.36} \text{ kips}$$

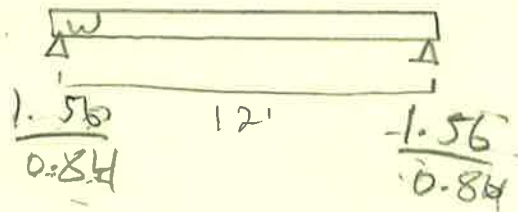


USE GL 5 1/2 x 16 (24F-V4), UPSET WALL ABOVE. FLUSH TO CEILING
COMP PRINTOUT 14A

BEAM 14B (FB17)

$$W = 6 \text{ ft} (10 \text{ psf} + 30 \text{ psf}) + 8 \text{ ft} \times 10 \text{ psf} = \frac{0.26}{0.14} \text{ kips}$$

COMP PRINTOUT 14B
USE 3-2x12 HF #1



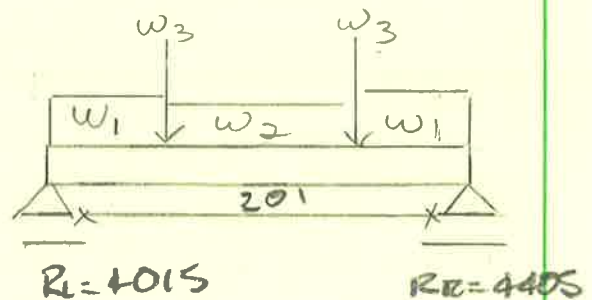
BEAM 14C (FB18)

$$w_1 = \frac{1.20}{0.40} \text{ k}$$

$$w_2 = \frac{0.060}{0.20} \text{ k}$$

$$w_3 = \frac{1.560}{0.60} \text{ k}$$

USE GL 5 1/2 x 13 1/2 (24F-V4)



42-391 50 SHEETS RELEASE - 5 SQUARES
42-392 100 SHEETS RELEASE - 5 SQUARES
42-393 200 SHEETS RELEASE - 5 SQUARES
National Brand

REVISED ROOF DECK

↑ FRONT ROOF DECK BEAM (SUPPORTS SPIRAL STAIR) (FB19)

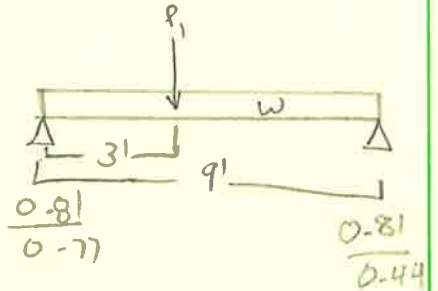
$P_1 = 1000 \text{ lbs}$ (spiral staircase)

$W = 2' (90 + 12 \text{ psf}) = \frac{0.180}{0.024} \text{ KPS}$

PRINTOUT IS A

USE 4X12 HF #2

\bar{W} LUS 410 EA SIDE



↑ LT-RT ROOF DECK BEAMS (CANT. FROM HOUSE) (FB20)

$P_1 =$ React from front beam.

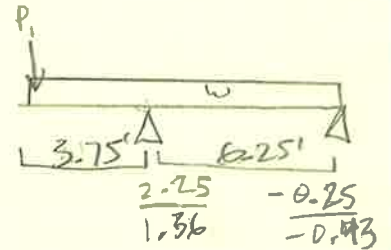
↳ worst case = $\frac{0.81}{0.77}$

$W = 1.33' (90 + 12 \text{ psf}) = \frac{0.1197}{0.01596} \text{ KPS}$

PRINTOUT IS B

USE 4X12 DF #1.

\bar{W} LUS 410 to HOUSE.



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11-6-18

BAGS

R1

POST @ EXIST HDR (PI)

$$L=4.75 \quad w = 3(40) + 8(10) \left(\frac{4.75}{2}\right) = 425 \quad \frac{178}{297}$$

ROOF BEAM (10A) $R = \frac{4437}{3208} + \frac{178}{297} = \frac{4615}{3505}$

COMP. RIB USE 4x6 DF#1 (FLAT)

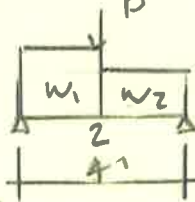
HDR w UPPER DECK $P = 2.254(2) \quad L=4' \quad (FB21)$

$w_1 = 5(40+60) = 500 \text{ PLF}$

$\frac{425}{75} = 5.67$

$w_2 = 2.5(40) = 100 \text{ PLF}$

$\frac{63}{37} = 1.70$



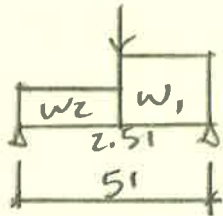
COMP RIB USE 4x10 DF#2

ALT. COMP RIB USE 3 1/2 x 7 PSL

$L=5' \quad w_1 = \frac{425}{75}$

$w_2 = \frac{63}{37}$

$P = 2254 \quad R_L = 2605 \quad R_R = 2205$
 $\frac{1794}{811} \quad \frac{1432}{773}$

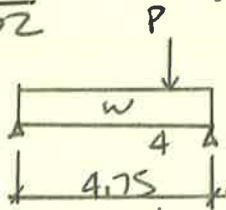


COMP RIB
 USE 4x12 DF#1
 ALT. COMP RIB
 USE 3 1/2 x 7 PSL

$L=4'0'' \quad w = \frac{425}{75}$ COMP RIB
 USE 4x8 DF#1

HDR w/GL 13B REACTION (FB22)

$P = \frac{4423}{1902} \quad w = 3(40) = 120 \quad \frac{75}{45} \quad L=4.75'$



COMP RIB
 USE 4x10 DF#1

$R_L = 1284 \quad \frac{576}{407} \quad R_R = 561 \quad \frac{3903}{1709}$

START BEAM REACTION (FB23)

$L=11' \quad w = 1.33(52) = \frac{53.3}{16} \quad P = 1248 \quad \frac{960}{288} @ 3.5'$

$R_L = \frac{.95}{.28}$

$R_R = \frac{.6}{.18}$

USE 3 1/2 x 7 PSL

INTERIOR FTL

$P = 6046 + 2943 = 8989 \quad \text{AREA} = 5.43 \text{ SF}$
 USE 30

$P = 6003 \quad \text{AREA} = 4.02 \Rightarrow 30$

RIC

Title Block Line 1
You can change this area
using the "Settings" menu item
and then using the "Printing &
Title Block" selection.

Project Title:
Engineer:
Project ID:
Project Descr:

Printed: 6 NOV 2018, 8:36AM

Title Block Line 6

Wood Beam

File = D:\Documents\ENERCALC Data Files\B465.ec6

Software copyright ENERCALC, INC. 1983-2018, Build:10.18.10.10

Lic. # : KW-06011301

Licensee : Covington

Description : UPPER DECK HDR

Vertical Reactions

Support notation : Far left is #1

Values in KIPS

Load Combination	Support 1	Support 2
+D+0.750Lr+0.750L+0.450W+H	1.929	2.316
+D+0.750L+0.750S+0.450W+H	1.929	2.316
+D+0.750L+0.750S+0.5250E+H	1.929	2.316
+0.60D+0.60W+0.60H	0.478	0.506
+0.60D+0.70E+0.60H	0.478	0.506
D Only	0.796	0.844
Lr Only		
L Only	1.511	1.963
S Only		
W Only		
E Only		
H Only		