



Deck Designer Specification Kit For  
**AZEK**

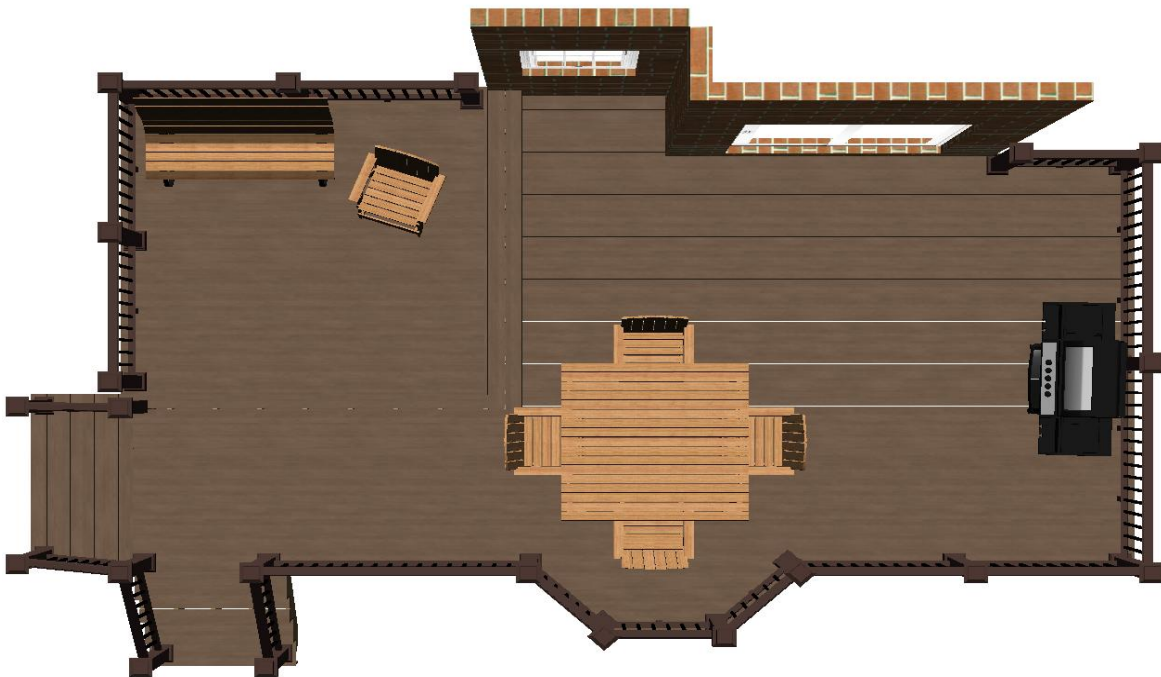
**Deck layout diagram**



Top view without planks

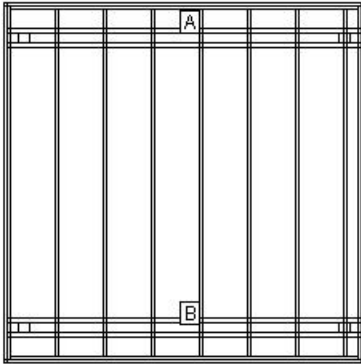


Bottom view with planks



Top view with planks

**Permit Page: Level 1**



**LOAD AND SUPPORT:**

Your deck will support a 63 PSF live load.  
Posts have 36" below ground support.

**DECK AND POST HEIGHT:**

You selected a height of 48" from the top of the decking to the ground level. The top of the deck support posts will therefore be 39" above ground level.

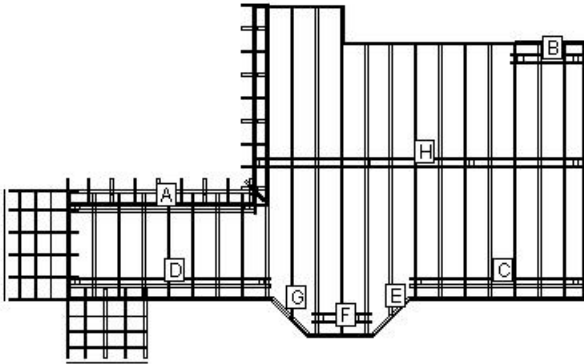
**Joists:**

Set joists on top of beams, 16"; center to center.

**Stress Analysis: Level 1**

Joist Deflection	291
Joist Bending	84
Joist Shear	115
Joist Compression	115
Beam Deflection	216
Beam Bending	75
Beam Shear	73
Post Stability	266

Permit Page: Level 2



**LOAD AND SUPPORT:**

Your deck will support a 63 PSF live load.  
Posts have 36" below ground support.

**DECK AND POST HEIGHT:**

You selected a height of 34" from the top of the decking to the ground level. The top of the deck support posts will therefore be 25" above ground level.

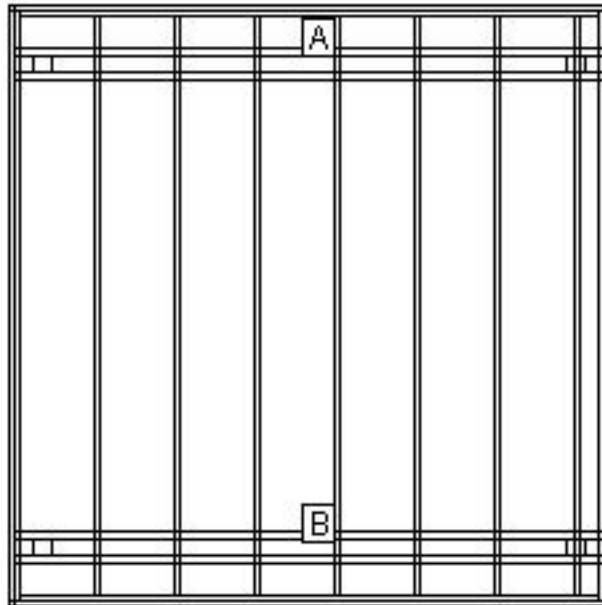
**Joists:**

Set joists on top of beams, 16"; center to center.

**Stress Analysis: Level 2**

Joist Deflection	248
Joist Bending	76
Joist Shear	110
Joist Compression	110
Beam Deflection	169
Beam Bending	73
Beam Shear	78
Post Stability	137

**Beam Layout Level 1**



**BEAM LABEL**

**BEAM LENGTH**

**POST COUNT**

**POST SPACING**

A

9' 10 1/4"

2

8' 10 3/4"

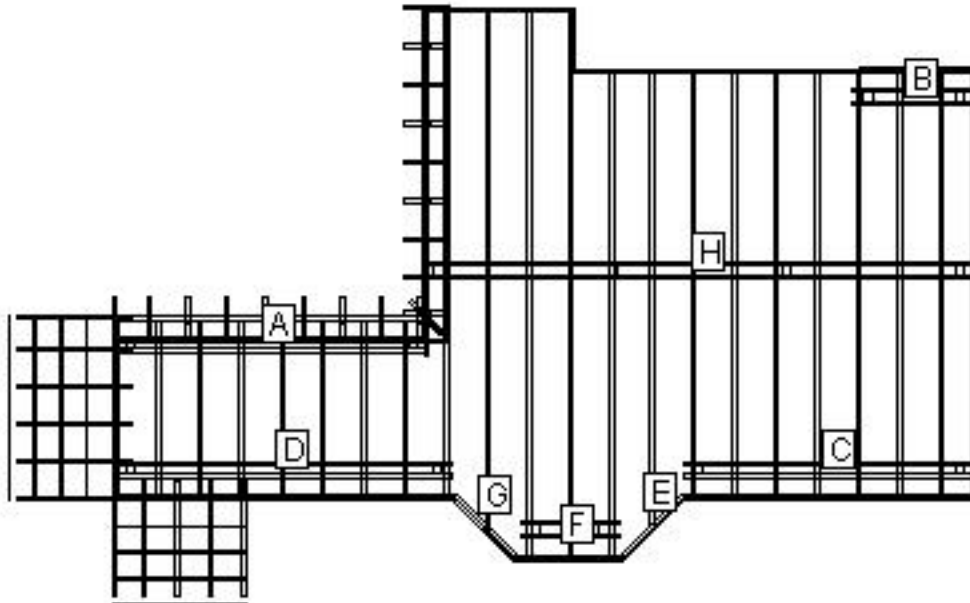
B

9' 10 1/4"

2

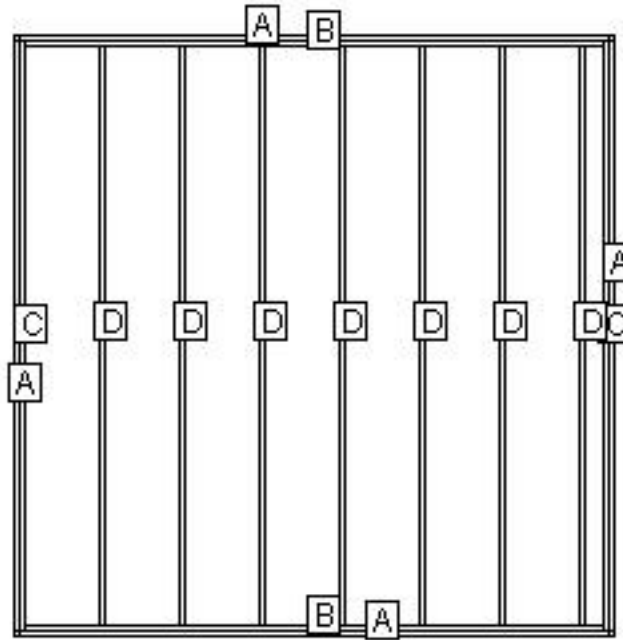
8' 10 3/4"

### Beam Layout Level 2



BEAM LABEL	BEAM LENGTH	POST COUNT	POST SPACING
A	10' 1 1/2"	2	9' 2"
B	3' 11 1/2"	2	3'
C	9' 5 1/4"	2	8' 6"
D	10' 11"	2	9' 11 1/2"
E	3 1/2"	1	0
F	3' 2"	2	2' 2 1/2"
G	3 1/2"	1	0
H	17' 10 1/4"	4	5' 7 1/2"

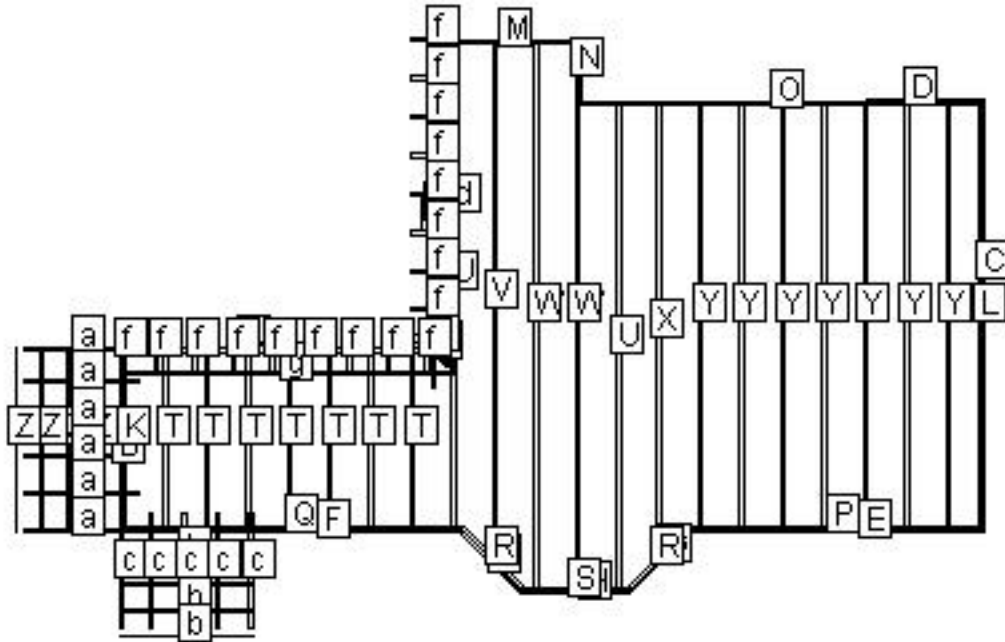
Materials Cut List: Level 1



LABEL	NAME	QTY	LENGTH	BEVELS	LABEL	NAME	QTY	LENGTH	BEVELS
A	Cladding	4	10'	45, 45	C	Rim Joist	2	9' 10 1/4"	0, 0
B	Header	2	9' 7 1/4"	0, 0	D	Internal Joist	7	9' 7 1/4"	0, 0

Cut Angles: L=Left, R=Right, F=Front, S=Side

Materials Cut List: Level 2



LABEL	NAME	QTY	LENGTH	BEVELS	LABEL	NAME	QTY	LENGTH	BEVELS
A	Cladding	2	10' 1"	45, 45	R	Header	2	2' 10"	0, 0
B	Cladding	1	6'	45, 45	S	Header	1	3' 5 1/4"	0, 0
C	Cladding	1	14'	45, 45	T	Internal Joist	7	5' 7 1/4"	0, 0
D	Cladding	1	3' 10"	45, 0	U	Internal Joist	2	15' 7 1/4"	0, 0
E	Cladding	1	9' 6 1/4"	23, 45	V	Internal Joist	1	16' 8 3/4"	0, 45
F	Cladding	1	11' 1/4"	45, 23	W	Internal Joist	2	17' 7 1/4"	0, 0
G	Cladding	2	2' 10 1/4"	23, 23	X	Internal Joist	1	14' 7 1/2"	0, 45
H	Cladding	1	3' 6"	23, 23	Y	Internal Joist	7	13' 7 1/4"	0, 0
I	Rim Joist	1	11' 2 3/4"	0, 0	Z	Riser	4	6'	0, 0
J	Header	1	10'	0, 0	a	Pre Cut Stringer	6	3' 10 1/2"	0, 0
K	Rim Joist	1	5' 10 1/4"	0, 0	b	Riser	4	4' 3 1/4"	0, 0
L	Rim Joist	1	13' 10 1/4"	0, 0	c	Pre Cut Stringer	5	3' 10 1/2"	0, 0

Cut Angles: L=Left, R=Right, F=Front, S=Side



LABEL	NAME	QTY	LENGTH	BEVELS	LABEL	NAME	QTY	LENGTH	BEVELS
M	Header	1	4' 7 1/4"	0, 0	d	Riser	1	10' 11"	45, 0
N	Rim Joist	1	2'	0, 0	e	Pre Cut Stringer	1	1' 5"	0, 0
O	Header	1	13'	0, 0	f	Pre Cut Stringer	18	1' 1 1/4"	0, 0
P	Header	1	9' 4"	0, 0	g	Riser	1	10' 11"	0, 45
Q	Header	1	10' 10"	0, 0					

Cut Angles: L=Left, R=Right, F=Front, S=Side

## Component Descriptions

These recommendations are for railing with a 4" gap from deck surface to the bottom of the bottom rail. Always refer to your local building codes to determine if other requirements must be met. Canadian requirements may vary.

TimberTech RadianceRail and AZEK Black and White rail sections are available in 10 ft. sections. See your local TimberTech or AZEK Dealer for more information.

### Lumber Materials

COMPONENT	QTY	DESCRIPTION	WOOD TYPE
Beam	6	2X10X10 Treated	TREATED
Railing Post	4	4X4X18 Treated	TREATED
Railing Section	6	AZEK 6' Premier Custom Rail Pack - Kona® - 6'	AZEK
Railing Section	10	TT/AZEK 31" Round Aluminum Baluster - Black - 31"	AZEK
Cladding	11	AZEK Terra Collection Rim Joist Covers/Fasica - Sedona® - 12'	AZEK
Decking	38	AZEK Terra Collection Deck Plank, Square Shouldered - Sedona® - 12'	AZEK
Header	12	2X8X10 Treated	TREATED
Post	8	4X4X8 Treated	TREATED
Rim Joist	1	2X8X12 Treated	TREATED
Internal Joist	3	2X8X16 Treated	TREATED
Internal Joist	7	2X8X18 Treated	TREATED
Internal Joist	9	2X8X14 Treated	TREATED
Beam	4	2X10X12 Treated	TREATED
Beam	2	2X10X18 Treated	TREATED
Pre Cut Stringer	11	4-Step Treated Stair Stringer	TREATED
Pre Cut Stringer	19	2-Step Treated Stair Stringer	TREATED
Railing Post	1	4X4X8 Treated	TREATED
Railing Section	7	AZEK 8' Premier Custom Rail Pack - Kona® - 8'	AZEK
Decking	22	AZEK Terra Collection Deck Plank, Square Shouldered - Sedona® - 16'	AZEK
Decking	17	AZEK Terra Collection Deck Plank, Square Shouldered - Sedona® - 20'	AZEK
Rim Joist	2	2X8X8 Treated	TREATED
Beam	1	2X10X16 Treated	TREATED
Riser	6	AZEK Terra Collection Rim Joist Covers/Fasica - Sedona® - 12'	AZEK
Railing Section	4	TT/AZEK 31" Round Aluminum Stair Baluster - Black - 31"	AZEK
Pre Cut Stringer	1	3-Step Treated Stair Stringer	TREATED



To find an AZEK Dealer or Contractor in your area, please go to [www.azek.com](http://www.azek.com)

### Other Materials

Qty	Description
4	1 LB. 10D X1 1/2" Nail
4	1 LB. 10D Hot-Dip Galvanized Nail
52	2x8-10" Triple Zinc Joist Hanger JUS28-TZ
10	7" Triple Zinc Angle Clip AC7-TZ
4	1LB. 8D Galvanized Common Nail
2	1 LB. 1-1/2" Joist Hanger Nail
68	Triple Zinc Rafter Tie RT7-TZ
20	Anchor Bolt AB128
20	4X4 Triple Zinc Deck Post Anchor PA44E-TZ
31	80 L.B. Basic Concrete Mix
1	40 LB. Basic Concrete Mix
15	8" X 48" Concrete Form Tube
320	1/2 Galvanized Flat Washer
7	1/2 Galvanized Hex Nut
160	1/2 X 8" Galvanized Carriage Bolt
44	4X4 Triple Zinc Deck Post Tie SDPT7-TZ
1	1 LB. 8X3" Philips Head Stainless Deck Screws
22	AZEK 5 1/2" Post Skirt - Kona®
88	3/8 Galvanized Hex Nut
176	3/8 Galvanized Flat Washer
88	3/8 X 8" Galvanized Carriage Bolt
22	AZEK 5 1/2" LED Lighted Island Cap - Kona®
22	AZEK 5.5" x 5.5" Post Sleeve - Kona® - 39"
5	AZEK Cortex - 100 LF Terra Collection - Sedona
34	1/2 X 6" Galvanized Lag Screw
1	5 LB. 10D Hot-Dip Galvanized Nail
1	1LB. 16D Galvanized Common Nail
1	2x6-8" Triple Zinc Right Skewed Joist Hanger SKH26R-TZ
1	2x6-8" Triple Zinc Left Skewed Joist Hanger SKH26L-TZ
4	THR128-HDG Threaded Rod
8	DTB-TZ Deck Tie Bracket
1	60 L.B. Basic Concrete Mix
1	10 LB. Basic Concrete Mix
30	7" Triple Zinc Angle Clip AC7-TZ

**Disclaimer:** We want you to have fun using our software and building your deck however, we care about your safety. Carefully read the following **Disclaimer and Disclosure**. You may proceed only if you have read this information and agree to the terms.

The suggested design is a construction guide and is NOT a finished building plan. It is your responsibility to verify its accuracy, completeness, suitability for your particular site conditions, and compliance with local building codes and practices.

**AZEK Building Products, TimberTech and AZEK assumes no responsibility for any damages, including direct or consequential, personal injuries suffered, or property or economic losses incurred as a result of the information published on the DIYonline.com web site, TimberTech web site, AZEK web site or Deck Specification Kit. Before beginning the project, review the instructions carefully. We cannot anticipate all of your working conditions or the characteristics of your materials and tools. For your safety, you should consider your own skill level and use caution, care and good judgment when following the instructions. If you have doubts, concerns or questions, consult local experts, architects, soil engineers or building authorities. Because local zoning and building codes and regulations vary greatly, you should ALWAYS CHECK WITH LOCAL AUTHORITIES TO ENSURE THAT YOUR PROJECT COMPLIES WITH ALL APPLICABLE CODES AND REGULATIONS. Always read and observe the instructions and safety precautions provided by any tool or equipment manufacturer, and follow all accepted safety procedures.**

Be sure to follow the deck construction and guidelines carefully. You are responsible for ensuring that all measurements are correct. Due to size, shape, location or other considerations, your design may require supporting structures, such as knee braces and bridging between joists, that are not included on the materials list and other information provided. **YOU ARE RESPONSIBLE FOR ENSURING THAT YOUR DESIGN IS SAFE AND STRUCTURALLY SOUND FOR ITS SIZE, LOCATION AND ANTICIPATED USE.** You are also responsible for verifying that the design and any substitutions or modifications you make meet all local building codes and regulations.

AZEK Building Products, TimberTech and AZEK or any of its related parties assume no liability or responsibility for your design, construction or use of any product supplied by AZEK Building Products and DIYonline.com.

YOU ASSUME TOTAL RESPONSIBILITY AND RISK FOR YOUR USE OF THE DIYONLINE.COM WEB SITE, THE TIMBERTECH.COM WEB SITE, THE AZEK.COM WEB SITE AND DECK SPECIFICATION KIT. DIYONLINE.COM PROVIDES THE SITE, ALL INFORMATION, PRODUCTS AND SERVICES "AS IS" AND DOES NOT MAKE EXPRESS OR IMPLIED WARRANTIES, REPRESENTATIONS OR ENDORSEMENTS OF ANY KIND WHATSOEVER (INCLUDING WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.)

**You understand that it is your responsibility to check any and all codes associated with deck construction. It is also your responsibility to obtain any deck construction permits as required by city, county, or state agencies.**

**Note:** It is recommended that joist that meet on top of beams should be spliced with gussets.