



Deck Designer Specification Kit For  
**AZEK**

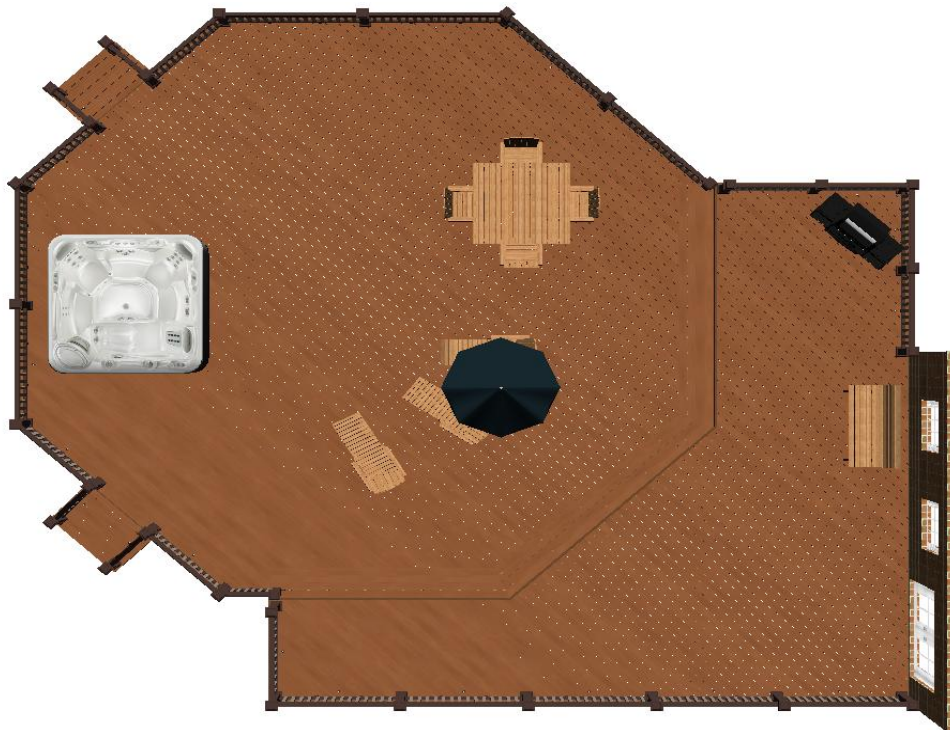
### Deck layout diagram



Top view without planks

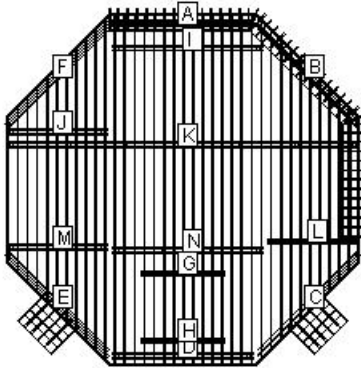


Bottom view with planks



Top view with planks

Permit Page: Level 1



**LOAD AND SUPPORT:**

Your deck will support a 40 PSF live load.  
Posts have 36" below ground support.

**DECK AND POST HEIGHT:**

You selected a height of 36" from the top of the decking to the ground level. The top of the deck support posts will therefore be 27" above ground level.

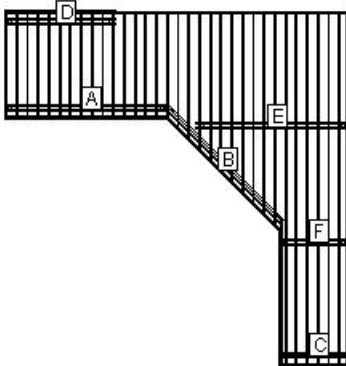
**Joists:**

Set joists on top of beams, 12"; center to center.

**Stress Analysis: Level 1**

Joist Deflection	117
Joist Bending	50
Joist Shear	109
Joist Compression	109
Beam Deflection	95
Beam Bending	56
Beam Shear	57
Post Stability	106

Permit Page: Level 2



**LOAD AND SUPPORT:**

Your deck will support a 40 PSF live load.  
Posts have 36" below ground support.

**DECK AND POST HEIGHT:**

You selected a height of 57" from the top of the decking to the ground level. The top of the deck support posts will therefore be 48" above ground level.

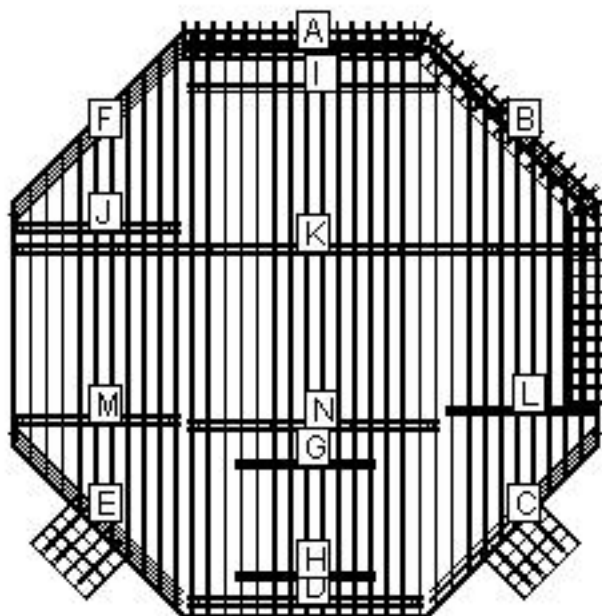
**Joists:**

Set joists on top of beams, 12"; center to center.

**Stress Analysis: Level 2**

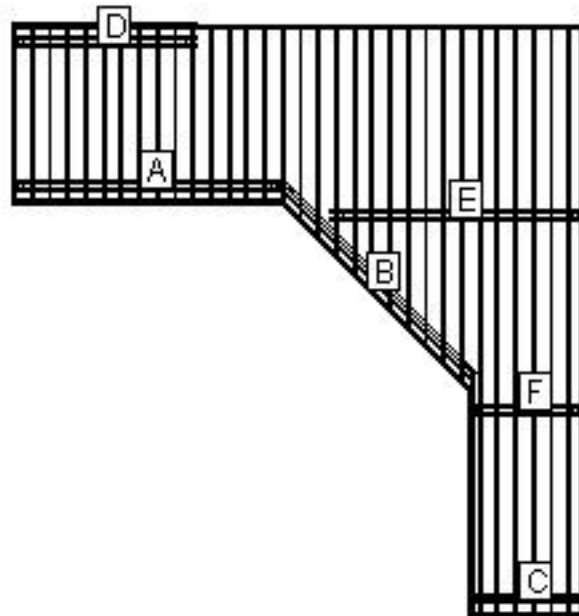
Joist Deflection	119
Joist Bending	50
Joist Shear	109
Joist Compression	109
Beam Deflection	181
Beam Bending	64
Beam Shear	50
Post Stability	92

### Beam Layout Level 1



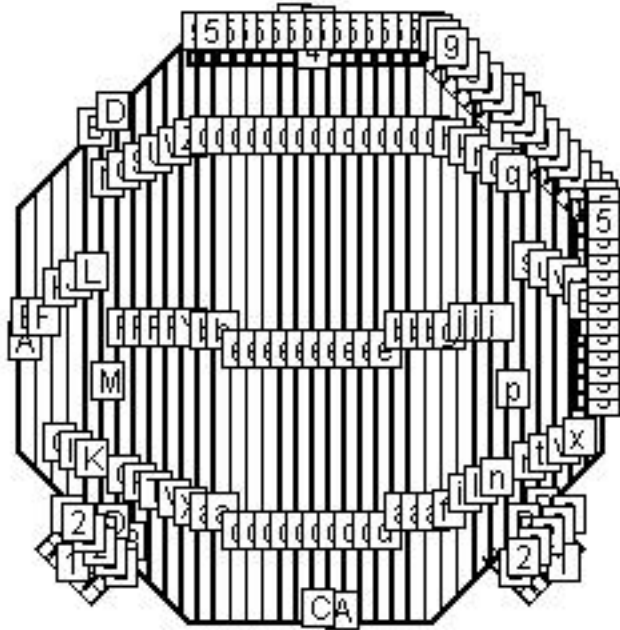
BEAM LABEL	BEAM LENGTH	POST COUNT	POST SPACING
A	14' 6"	2	13' 6 1/2"
B	14' 8 1/2"	3	6' 8 3/4"
C	14' 8 1/2"	3	6' 8 3/4"
D	14' 6"	3	6' 9 1/4"
E	14' 10 1/4"	3	6' 9 1/2"
F	14' 10 1/4"	3	6' 9 1/2"
G	8' 6"	2	7' 6 1/2"
H	8' 6"	2	7' 6 1/2"
I	15' 6"	3	7' 3 1/4"
J	10' 3"	2	9' 3 1/2"
K	36' 1/4"	7	5' 10 1/4"
L	9' 3 1/4"	3	4' 2"
M	10' 3"	3	4' 7 3/4"
N	15' 6"	4	4' 10 1/4"

### Beam Layout Level 2



BEAM LABEL	BEAM LENGTH	POST COUNT	POST SPACING
A	15' 1"	3	7' 3/4"
B	15' 1 3/4"	3	6' 11 1/4"
C	6' 3 1/4"	2	5' 3 3/4"
D	10' 3"	2	9' 3 1/2"
E	14' 1 1/4"	3	6' 7"
F	6' 3 1/4"	2	5' 3 3/4"

Materials Cut List: Level 1



LABEL	NAME	QTY	LENGTH	BEVELS	LABEL	NAME	QTY	LENGTH	BEVELS
A	Cladding	4	15'	23, 23	g	Internal Joist	1	10' 10"	45, 45
B	Cladding	4	14' 11 1/2"	23, 23	h	Internal Joist	1	12' 9"	45, 45
C	Header	2	14' 11 1/4"	0, 0	i	Internal Joist	1	11'	45, 45
D	Header	4	14' 11"	0, 0	j	Internal Joist	3	9' 11"	45, 45
E	Rim Joist	2	14' 11 1/4"	0, 0	k	Internal Joist	1	11' 9"	45, 45
F	Internal Joist	1	16' 10"	45, 45	l	Internal Joist	1	10'	45, 45
G	Internal Joist	1	3' 6"	45, 45	m	Internal Joist	1	10' 9"	45, 45
H	Internal Joist	1	15' 4"	45, 45	n	Internal Joist	1	9'	45, 45
I	Internal Joist	1	4' 6"	45, 45	o	Internal Joist	1	9' 9"	45, 45
J	Internal Joist	1	16' 4"	45, 45	p	Internal Joist	1	17' 11"	45, 45
K	Internal Joist	1	5' 6"	45, 45	q	Internal Joist	1	8' 9"	45, 45
L	Internal Joist	1	17' 4"	45, 45	r	Internal Joist	1	7'	45, 45

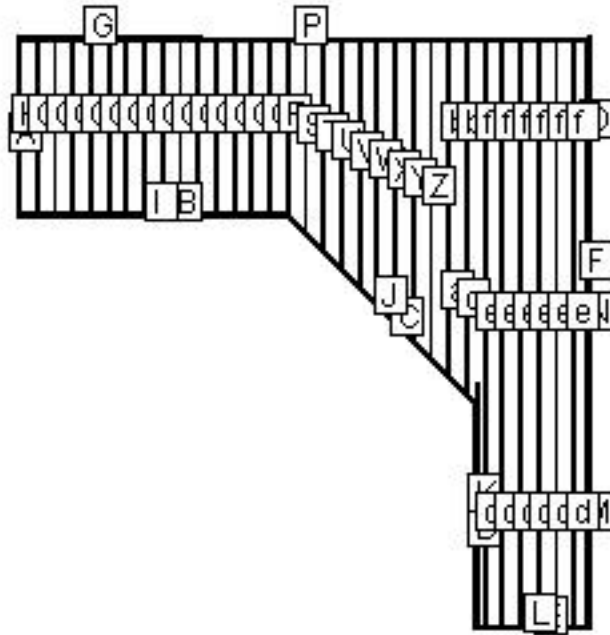
Cut Angles: L=Left, R=Right, F=Front, S=Side

LABEL	NAME	QTY	LENGTH	BEVELS	LABEL	NAME	QTY	LENGTH	BEVELS
M	Internal Joist	1	17'	45, 45	s	Internal Joist	1	17' 8"	45, 45
N	Internal Joist	1	7' 10"	45, 45	t	Internal Joist	1	6'	45, 45
O	Internal Joist	1	7' 6"	45, 45	u	Internal Joist	1	16' 8"	45, 45
P	Internal Joist	4	10' 6"	45, 45	v	Internal Joist	1	5'	45, 45
Q	Internal Joist	1	8' 10"	45, 45	w	Internal Joist	1	15' 8"	45, 45
R	Internal Joist	1	8' 6"	45, 45	x	Internal Joist	1	4'	45, 45
S	Internal Joist	1	9' 10"	45, 45	y	Internal Joist	1	14' 8"	45, 45
T	Internal Joist	1	9' 6"	45, 45	z	Internal Joist	1	16' 7 1/2"	45, 45
U	Internal Joist	1	10' 10"	45, 45	1	Riser	8	4' 10 1/4"	0, 0
V	Internal Joist	1	10' 6"	45, 45	2	Pre Cut Stringer	12	4' 2"	0, 0
W	Internal Joist	1	11' 10"	45, 45	3	Riser	1	14' 8"	0, 23
X	Internal Joist	1	11' 6"	45, 45	4	Riser	1	14' 3 3/4"	0, 23
Y	Internal Joist	1	10' 6"	45, 45	5	Pre Cut Stringer	29	2' 1"	0, 0
Z	Internal Joist	1	12' 10"	45, 45	6	Riser	1	14' 3 1/4"	23, 23
a	Internal Joist	5	11' 7 1/2"	0, 0	7	Riser	1	13' 7"	23, 23
b	Internal Joist	5	10' 10"	0, 0	8	Pre Cut Stringer	2	2' 2 1/4"	0, 0
c	Internal Joist	15	13' 3 3/4"	0, 0	9	Pre Cut Stringer	15	2' 1"	0, 0
d	Internal Joist	10	9' 3 1/2"	0, 0	0	Riser	1	12' 1"	23, 0
e	Internal Joist	10	13' 2"	0, 0	BA	Riser	1	11' 8 3/4"	23, 0
f	Internal Joist	1	11' 1"	45, 45					

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	1	10'	45, 45	Q	Internal Joist	14	9' 7 1/4"	0, 0
B	Cladding	1	15' 1/4"	45, 23	R	Internal Joist	1	9' 8 3/4"	0, 0
C	Cladding	1	15' 1/4"	23, 23	S	Internal Joist	1	10' 8 3/4"	0, 45
D	Cladding	1	12' 5 1/4"	23, 45	T	Internal Joist	1	11' 8 3/4"	0, 45
E	Cladding	1	6' 5"	45, 45	U	Internal Joist	1	12' 8 3/4"	0, 45
F	Cladding	1	33'	45, 45	V	Internal Joist	1	13' 8 3/4"	0, 45
G	Cladding	1	10' 4 1/2"	0, 45	W	Internal Joist	1	14' 8 3/4"	0, 45
H	Rim Joist	1	9' 10 1/4"	0, 0	X	Internal Joist	1	15' 8 3/4"	0, 45
I	Header	1	14' 10"	0, 0	Y	Internal Joist	1	16' 8 3/4"	0, 45
J	Header	1	15' 1/4"	0, 0	Z	Internal Joist	1	17' 8 3/4"	0, 45
K	Rim Joist	1	13' 7 1/4"	0, 0	a	Internal Joist	1	8' 3"	0, 45
L	Header	1	6' 1/4"	0, 0	b	Internal Joist	2	10' 5 1/2"	0, 45

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

LABEL	NAME	QTY	LENGTH	BEVELS	LABEL	NAME	QTY	LENGTH	BEVELS
M	Rim Joist	1	11' 5 1/4"	0, 0	c	Internal Joist	1	9' 3"	0, 45
N	Rim Joist	1	10' 10"	0, 0	d	Internal Joist	6	11' 3 1/2"	0, 0
O	Rim Joist	1	10' 7"	0, 0	e	Internal Joist	6	10' 10"	0, 0
P	Header	1	31' 7 1/4"	0, 0	f	Internal Joist	6	10' 5 3/4"	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
Rim Joist	16	2X8X16 Treated	TREATED
Internal Joist	14	2X8X18 Treated	TREATED
Internal Joist	11	2X8X8 Treated	TREATED
Internal Joist	39	2X8X10 Treated	TREATED
Internal Joist	49	2X8X12 Treated	TREATED
Internal Joist	31	2X8X14 Treated	TREATED
Beam	22	2X10X16 Treated	TREATED
Beam	8	2X10X12 Treated	TREATED
Beam	4	2X10X14 Treated	TREATED
Pre Cut Stringer	14	4-Step Treated Stair Stringer	TREATED
Pre Cut Stringer	46	2-Step Treated Stair Stringer	TREATED
Railing Post	1	4X4X12 Treated	TREATED
Railing Post	5	4X4X18 Treated	TREATED
Railing Section	17	AZEK 6' Premier Rail Pack - Kona® - 6'	AZEK
Railing Section	7	AZEK 8' Premier Rail Pack - Kona® - 8'	AZEK
Railing Section	24	TT/AZEK 31" Square Composite Baluster - Slate Gray - 31"	AZEK
Cladding	20	AZEK Arbor Collection® Rim Joist Covers/Fasica - Morado® - 12'	AZEK
Decking	89	AZEK Vintage Collection® Deck Plank, Square Shouldered - Cypress® - 16'	AZEK
Decking	135	AZEK Vintage Collection® Deck Plank, Square Shouldered - Cypress® - 20'	AZEK
Post	30	4X4X8 Treated	TREATED
Riser	11	AZEK Arbor Collection® Rim Joist Covers/Fasica - Morado® - 12'	AZEK
Beam	4	2X10X8 Treated	TREATED
Railing Post	1	4X4X8 Treated	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
3	5 LB. 10D Hot-Dip Galvanized Nail
2	1 LB. 10D Hot-Dip Galvanized Nail
5	1LB. 16D Galvanized Common Nail
30	2x6-8" Triple Zinc Right Skewed Joist Hanger SKH26R-TZ
20	2x6-8" Triple Zinc Left Skewed Joist Hanger SKH26L-TZ
6	1 LB. 10D X1 1/2" Nail
82	2x8-10" Triple Zinc Joist Hanger JUS28-TZ
5	5" Triple Zinc Angle Clip MP5-TZ
58	Anchor Bolt AB128
58	4X4 Triple Zinc Deck Post Anchor PA44E-TZ
93	80 L.B. Basic Concrete Mix
1	40 LB. Basic Concrete Mix
44	8" X 48" Concrete Form Tube
928	1/2 Galvanized Flat Washer
19	1/2 Galvanized Hex Nut
464	1/2 X 8" Galvanized Carriage Bolt
1	5 LB. 8D Galvanized Nail
6	1LB. 8D Galvanized Common Nail
2	5 LB. 1-1/2" Joist Hanger Nail
5	1 LB. 1-1/2" Joist Hanger Nail
260	Triple Zinc Rafter Tie RT7-TZ
58	7" Triple Zinc Angle Clip AC7-TZ
60	4X4 Triple Zinc Deck Post Tie SDPT7-TZ
1	1 LB. 8X3" Philips Head Stainless Deck Screws
30	AZEK 5 1/2" Post Skirt - Kona®
120	3/8 Galvanized Hex Nut
240	3/8 Galvanized Flat Washer
120	3/8 X 8" Galvanized Carriage Bolt
30	AZEK 5 1/2" LED Lighted Island Cap - Kona®
30	AZEK 5.5" x 5.5" Post Sleeve - Kona® - 39"
24	TT/AZEK LED In Deck Light (8 Packs of 4 per Unit) - Architectural Bronze
1	TT/AZEK Decklites Dimmer
2	TT/AZEK 100' wire 16/2
1	TT/AZEK Transformer - 12 Volt 150 W
73	2 Pieces of Joist Material Nailed to Each Joist Splice
15	AZEK Cortex - 100 LF Vintage Collection® - Cypress
44	1/2 X 6" Galvanized Lag Screw
5	7" Triple Zinc Angle Clip AC7-TZ
2	THR128-HDG Threaded Rod

<b>Qty</b>	<b>Description</b>
4	DTB-TZ Deck Tie Bracket
2	10 LB. Basic Concrete Mix

**LEGAL DISCLAIMER:** 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. Please consult your local building codes for requirements for deck lighting, railing, and stairs.

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**You are responsible for ensuring that all measurements are correct. Due to the size, shape, location or other considerations, your design may require supporting structures, such as knee braces and bridging between joists and posts and 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.**

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