

Deck Designer Specification Kit For  
**AZEK**

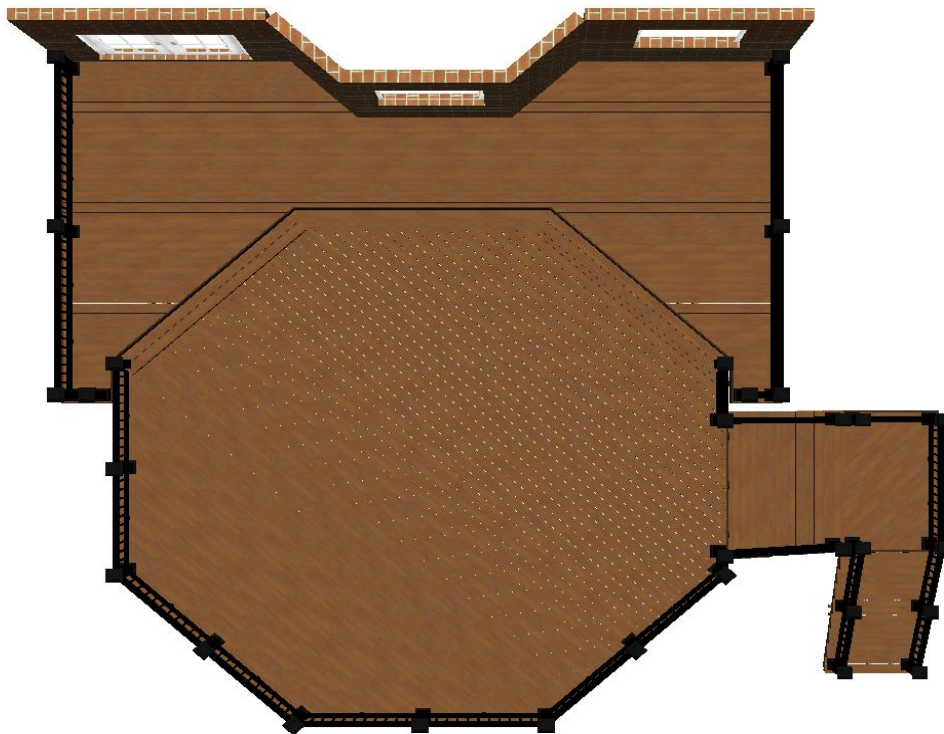
**Deck layout diagram**



Top view without planks

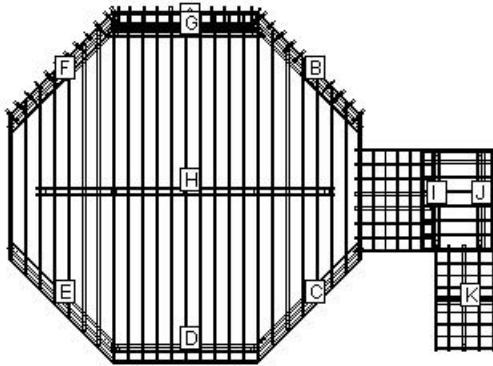


Bottom view with planks



Top view with planks

Permit Page: Level 1



**LOAD AND SUPPORT:**

Your deck will support a 45 PSF live load.  
Posts have 36" below ground support.

**DECK AND POST HEIGHT:**

You selected a height of 120" from the top of the decking to the ground level. The top of the deck support posts will therefore be 111" above ground level.

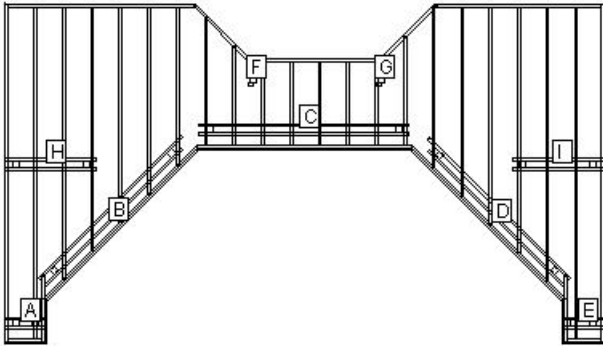
**Joists:**

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

**Stress Analysis: Level 1**

Joist Deflection	18651
Joist Bending	973
Joist Shear	579
Joist Compression	579
Beam Deflection	141
Beam Bending	55
Beam Shear	56
Post Stability	121

Permit Page: Level 2



**LOAD AND SUPPORT:**

Your deck will support a 47 PSF live load.  
Posts have 36" below ground support.

**DECK AND POST HEIGHT:**

You selected a height of 134" from the top of the decking to the ground level. The top of the deck support posts will therefore be 125" above ground level.

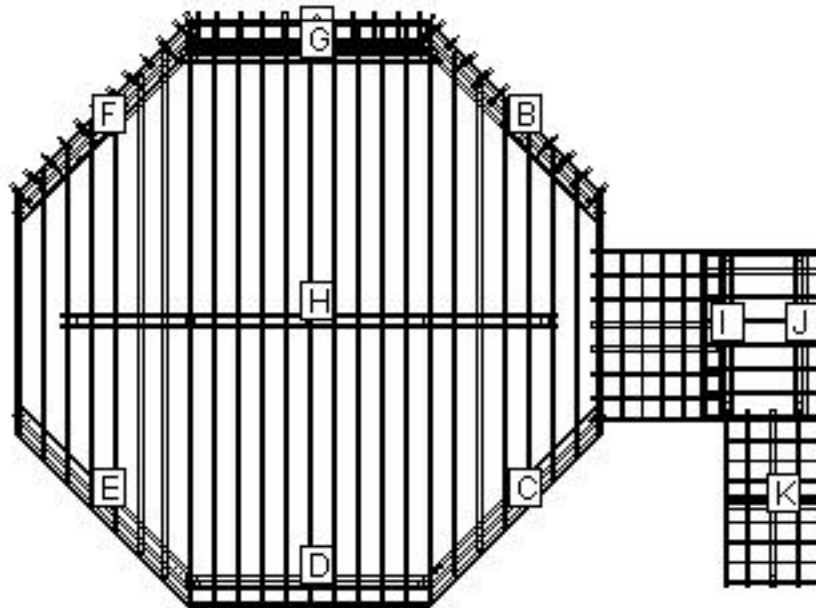
**Joists:**

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

**Stress Analysis: Level 2**

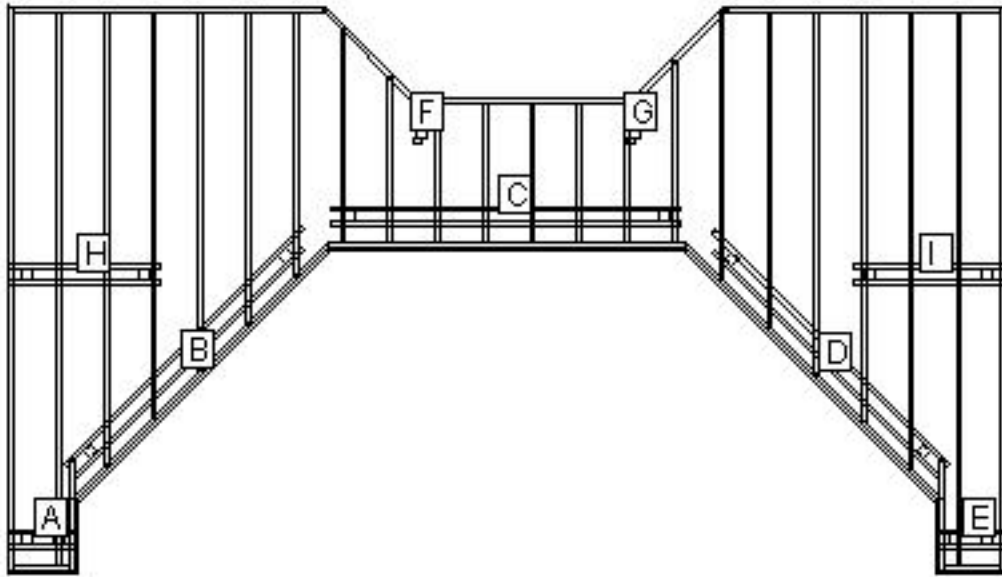
Joist Deflection	163
Joist Bending	57
Joist Shear	97
Joist Compression	97
Beam Deflection	316
Beam Bending	88
Beam Shear	78
Post Stability	261

### Beam Layout Level 1



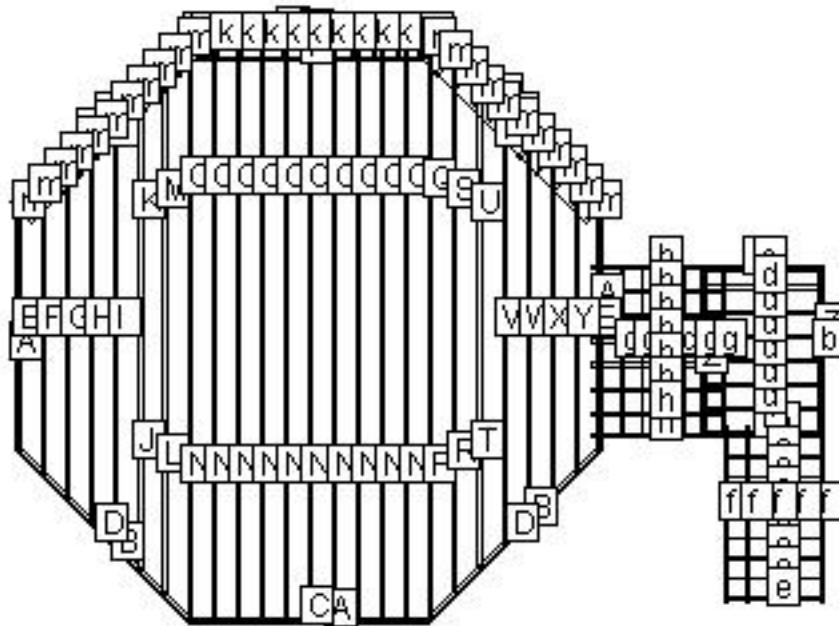
BEAM LABEL	BEAM LENGTH	POST COUNT	POST SPACING
A	10' 2 1/4"	2	9' 3"
B	10' 1 1/2"	2	8' 10 1/2"
C	10' 1 1/2"	2	8' 10 1/2"
D	10' 2 1/4"	2	9' 3"
E	10' 1 1/2"	2	8' 10 1/2"
F	10' 1 1/2"	2	8' 10 1/2"
G	10' 6"	2	9' 6 1/2"
H	20' 6"	5	4' 10 3/4"
I	6' 10 1/4"	2	5' 10 3/4"
J	6' 10 1/4"	2	5' 10 3/4"
K	4' 1/4"	2	3' 3/4"

Beam Layout Level 2



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

Materials Cut List: Level 1



LABEL	NAME	QTY	LENGTH	BEVELS	LABEL	NAME	QTY	LENGTH	BEVELS
A	Cladding	4	10'	23, 23	U	Internal Joist	1	10' 1"	45, 45
B	Cladding	4	10' 1/4"	23, 23	V	Internal Joist	1	17' 7 1/2"	45, 45
C	Header	2	9' 11 1/4"	0, 0	W	Internal Joist	1	15' 7 1/2"	45, 45
D	Header	4	9' 11 1/2"	0, 0	X	Internal Joist	1	13' 7 1/2"	45, 45
E	Rim Joist	2	9' 11 1/4"	0, 0	Y	Internal Joist	1	11' 7 1/2"	45, 45
F	Internal Joist	1	11' 10"	45, 45	Z	Cladding	2	7'	45, 45
G	Internal Joist	1	13' 10"	45, 45	a	Cladding	2	5'	45, 45
H	Internal Joist	1	15' 10"	45, 45	b	Header	2	6' 7 1/4"	0, 0
I	Internal Joist	1	17' 10"	45, 45	c	Rim Joist	2	4' 10 1/4"	0, 0
J	Internal Joist	1	9' 8"	45, 45	d	Internal Joist	6	4' 7 1/4"	0, 0
K	Internal Joist	1	10' 2"	45, 45	e	Riser	8	4' 1/4"	0, 0
L	Internal Joist	1	10' 8"	45, 45	f	Stringer	5	8' 6 1/2"	0, 0

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

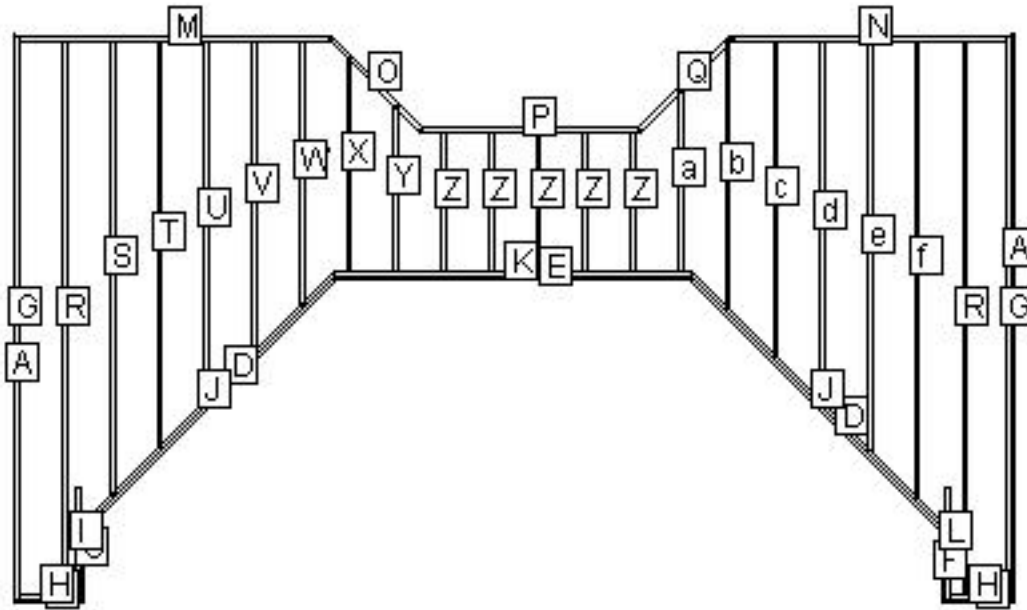


LABEL	NAME	QTY	LENGTH	BEVELS	LABEL	NAME	QTY	LENGTH	BEVELS
M	Internal Joist	1	11' 2"	45, 45	g	Riser	6	7'	0, 0
N	Internal Joist	10	11' 7 1/2"	0, 0	h	Stringer	8	6' 5 1/2"	0, 0
O	Internal Joist	10	12' 1 3/4"	0, 0	i	Riser	1	9' 3 3/4"	23, 23
P	Internal Joist	1	11' 7"	45, 45	j	Stringer	2	1' 2"	0, 0
Q	Internal Joist	1	12' 1"	45, 45	k	Stringer	11	1' 1 1/4"	0, 0
R	Internal Joist	1	10' 7"	45, 45	l	Riser	1	9' 8"	23, 0
S	Internal Joist	1	11' 1"	45, 45	m	Stringer	22	1' 1 1/4"	0, 0
T	Internal Joist	1	9' 7"	45, 45	n	Riser	1	9' 8"	0, 23

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

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

LABEL	NAME	QTY	LENGTH	BEVELS	LABEL	NAME	QTY	LENGTH	BEVELS
M	Header	1	8' 9 1/4"	0, 0	c	Internal Joist	1	8' 10 3/4"	0, 45
N	Header	1	7' 9 1/4"	0, 0	d	Internal Joist	1	10' 2 3/4"	0, 45
O	Header	1	3' 8"	0, 0	e	Internal Joist	1	11' 6 3/4"	0, 45
P	Header	1	6' 3/4"	0, 0	f	Internal Joist	1	12' 10 3/4"	0, 45

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
Internal Joist	17	2X8X14 Treated	TREATED
Internal Joist	10	2X8X16 Treated	TREATED
Internal Joist	17	2X8X18 Treated	TREATED
Internal Joist	11	2X8X10 Treated	TREATED
Internal Joist	20	2X8X12 Treated	TREATED
Beam	18	2X10X12 Treated	TREATED
Beam	5	2X10X8 Treated	TREATED
Railing Post	1	4X4X8 Treated	TREATED
Railing Post	5	4X4X18 Treated	TREATED
Railing Section	7	AZEK 6' Premier Custom Rail Pack - Black - 6'	AZEK
Railing Section	10	AZEK 8' Premier Custom Rail Pack - Black - 8'	AZEK
Railing Section	13	TT/AZEK 31" Round Aluminum Baluster - Black - 31"	AZEK
Cladding	17	AZEK XLM® Tropical Fascia Board - Walnut Grove - 12'	AZEK
Decking	11	AZEK XLM® Deck Plank, Grooved - Harvest Bronze - 12'	AZEK
Decking	74	AZEK XLM® Deck Plank, Grooved - Harvest Bronze - 16'	AZEK
Decking	36	AZEK XLM® Deck Plank, Grooved - Harvest Bronze - 20'	AZEK
Internal Joist	3	2X8X8 Treated	TREATED
Post	1	4X4X8 Treated	TREATED
Post	21	4X4X10 Treated	TREATED
Riser	10	AZEK XLM® Tropical Fascia Board - Walnut Grove - 12'	AZEK
Beam	7	2X10X10 Treated	TREATED
Railing Section	4	TT/AZEK 31" Round Aluminum Stair Baluster - Black - 31"	TIMBERTECH
Railing Post	1	4X4X12 Treated	TREATED
Beam	1	2X10X18 Treated	TREATED
Post	16	4X4X12 Treated	TREATED



To find an AZEK and/or TimberTech 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
4	1LB. 16D Galvanized Common Nail
20	2x6-8" Triple Zinc Right Skewed Joist Hanger SKH26R-TZ
19	2x6-8" Triple Zinc Left Skewed Joist Hanger SKH26L-TZ
5	1 LB. 10D X1 1/2" Nail
59	2x8-10" Triple Zinc Joist Hanger JUS28-TZ
6	5" Triple Zinc Angle Clip MP5-TZ
1	5 LB. 8D Galvanized Nail
1	5 LB. 1-1/2" Joist Hanger Nail
131	Triple Zinc Rafter Tie RT7-TZ
41	Anchor Bolt AB128
41	4X4 Triple Zinc Deck Post Anchor PA44E-TZ
65	80 L.B. Basic Concrete Mix
1	40 LB. Basic Concrete Mix
31	8" X 48" Concrete Form Tube
656	1/2 Galvanized Flat Washer
14	1/2 Galvanized Hex Nut
328	1/2 X 8" Galvanized Carriage Bolt
10	7" Triple Zinc Angle Clip AC7-TZ
48	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 - Black
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 - Black
30	AZEK 5.5" x 5.5" Post Sleeve - Black - 39"
15	2 Pieces of Joist Material Nailed to Each Joist Splice
1	TT/AZEK Transformer - 12 Volt 150 W
1	TT/AZEK Decklites Dimmer
1	TT/AZEK 100' wire 16/2
67	TT/AZEK LED Riser Light - Architectural Bronze
1	AZEK Cortex - 100 LF XLM® Harvest Bronze - Harvest Bronze
8	TimberTech CONCEALoc Hidden Fastener - Unit = 8 retail cartons @ 100 sq.ft. coverage each (175 CONCEALoc fasteners, 184 Screws and drive bit) - Brown
62	1/2 X 6" Galvanized Lag Screw
6	THR128-HDG Threaded Rod
12	DTB-TZ Deck Tie Bracket

<b>Qty</b>	<b>Description</b>
2	1LB. 8D Galvanized Common Nail
1	1 LB. 1-1/2" Joist Hanger Nail
1	60 L.B. Basic Concrete Mix
1	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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