



Deck Designer Specification Kit For  
**AZEK**

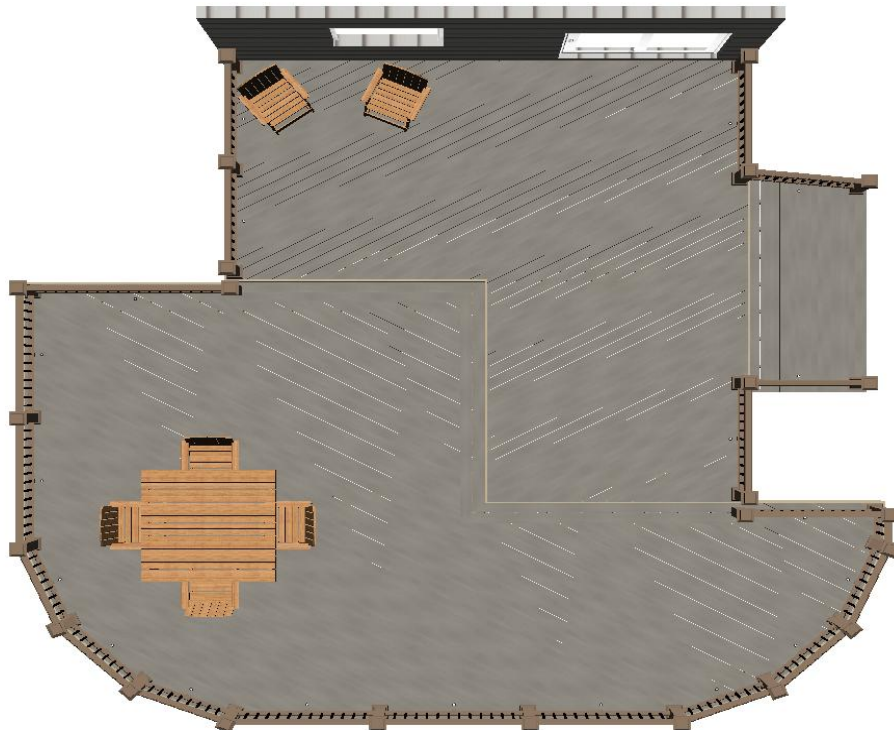
**Deck layout diagram**



Top view without planks

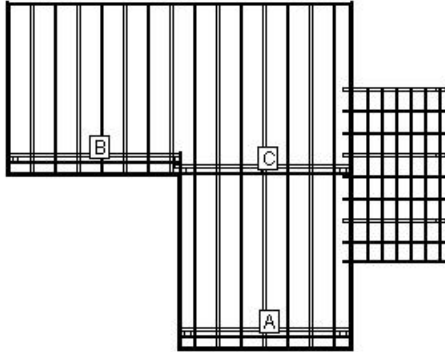


Bottom view with planks



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 54" from the top of the decking to the ground level. The top of the deck support posts will therefore be 45" above ground level.

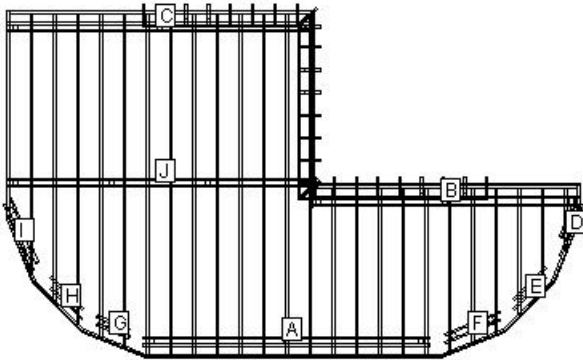
**Joists:**

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

**Stress Analysis: Level 1**

Joist Deflection	155
Joist Bending	55
Joist Shear	96
Joist Compression	96
Beam Deflection	190
Beam Bending	66
Beam Shear	65
Post Stability	150

Permit Page: Level 2



**LOAD AND SUPPORT:**

Your deck will support a 51 PSF live load.  
Posts have 36" below ground support.

**DECK AND POST HEIGHT:**

You selected a height of 40" from the top of the decking to the ground level. The top of the deck support posts will therefore be 31" above ground level.

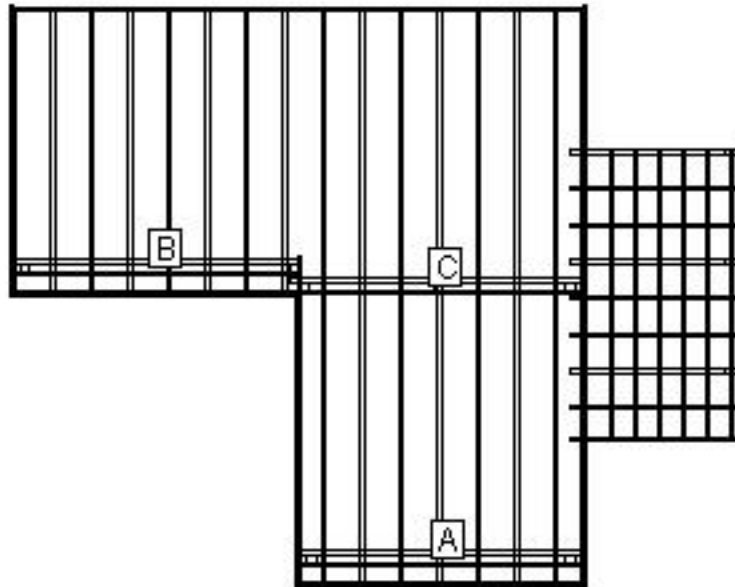
**Joists:**

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

**Stress Analysis: Level 2**

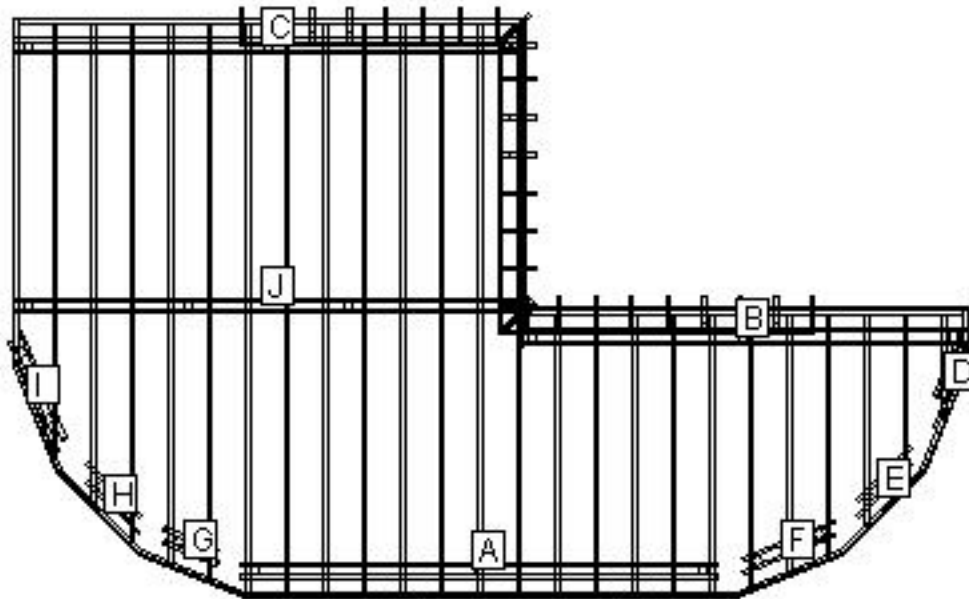
Joist Deflection	178
Joist Bending	61
Joist Shear	100
Joist Compression	100
Beam Deflection	264
Beam Bending	80
Beam Shear	73
Post Stability	129

### Beam Layout Level 1



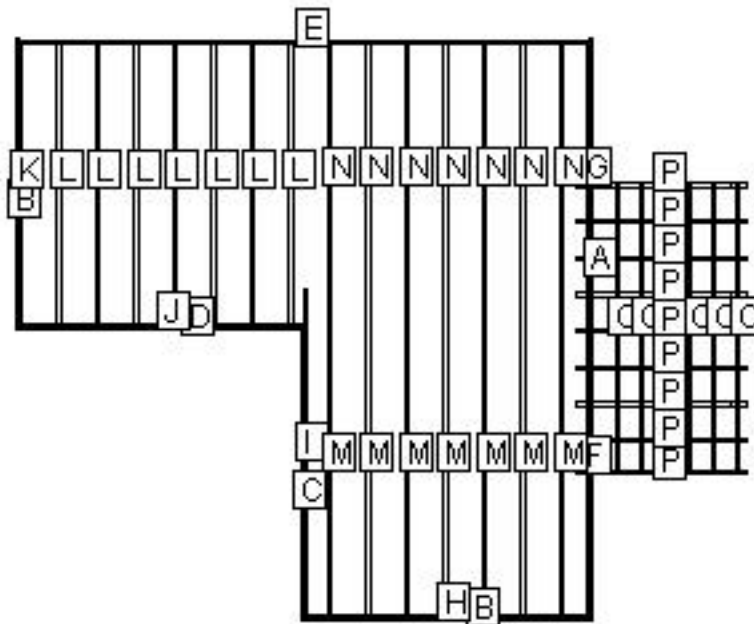
BEAM LABEL	BEAM LENGTH	POST COUNT	POST SPACING
A	9' 10 1/4"	2	8' 10 3/4"
B	9' 11 1/2"	2	9'
C	10' 1 1/4"	3	4' 7"

### Beam Layout Level 2



BEAM LABEL	BEAM LENGTH	POST COUNT	POST SPACING
A	16' 5 1/4"	3	7' 9"
B	15' 5 1/2"	3	7' 3"
C	17' 6 1/4"	3	8' 3 1/2"
D	3' 3"	2	1' 7"
E	2' 7"	2	1' 4"
F	3' 5"	2	2' 4"
G	2'	2	11"
H	2' 6"	2	1' 3"
I	4' 1 3/4"	2	2' 5 1/2"
J	17' 6 1/4"	4	5' 6 1/4"

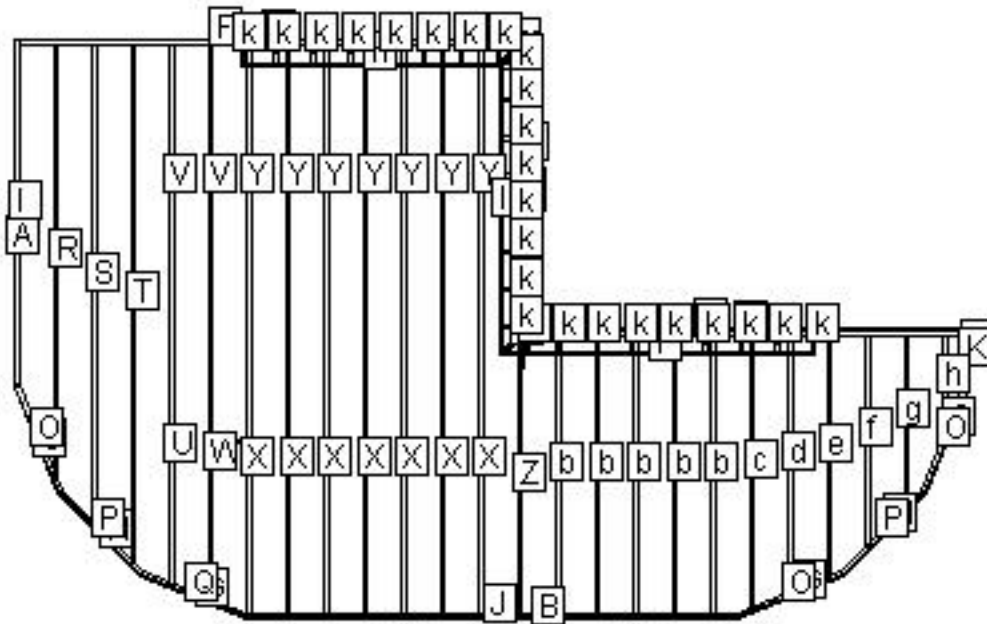
Materials Cut List: Level 1



LABEL	NAME	QTY	LENGTH	BEVELS	LABEL	NAME	QTY	LENGTH	BEVELS
A	Cladding	1	20'	45, 45	I	Rim Joist	1	11' 3 3/4"	0, 0
B	Cladding	2	10'	45, 45	J	Header	1	9' 10"	0, 0
C	Cladding	1	10' 1"	45, 45	K	Rim Joist	1	9' 10 1/4"	0, 0
D	Cladding	1	9' 11"	45, 45	L	Internal Joist	7	9' 7 1/4"	0, 0
E	Header	1	19' 5 1/4"	0, 0	M	Internal Joist	7	10' 2 1/2"	0, 0
F	Rim Joist	1	10' 4 1/4"	0, 0	N	Internal Joist	7	9' 4 3/4"	0, 0
G	Rim Joist	1	9' 6"	0, 0	O	Riser	6	10'	0, 0
H	Header	1	9' 7 1/4"	0, 0	P	Pre Cut Stringer	9	6' 8"	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	1	12'	45, 11	U	Internal Joist	1	8' 10 1/4"	0, 22
B	Cladding	1	17'	11, 11	V	Internal Joist	2	9' 8 3/4"	0, 22
C	Cladding	1	2'	11, 45	W	Internal Joist	1	9' 5"	0, 22
D	Cladding	1	15' 5"	45, 45	X	Internal Joist	7	9' 10 1/2"	0, 0
E	Cladding	1	10' 1"	45, 45	Y	Internal Joist	7	9' 8 3/4"	0, 0
F	Cladding	1	17' 8"	45, 45	Z	Internal Joist	1	8' 10 1/2"	0, 0
G	Cladding	4	3' 11 1/2"	11, 11	a	Internal Joist	1	10' 8 3/4"	0, 0
H	Cladding	2	4'	11, 11	b	Internal Joist	5	9' 7 1/4"	0, 0
I	Rim Joist	1	11' 11"	0, 0	c	Internal Joist	1	9' 5"	0, 22
J	Header	1	16' 11 3/4"	0, 0	d	Internal Joist	1	8' 10 1/2"	0, 22
K	Rim Joist	1	1' 11"	0, 0	e	Internal Joist	1	8' 4"	0, 22
L	Header	1	15' 4"	0, 0	f	Internal Joist	1	7' 3 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' 3 3/4"	0, 0	g	Internal Joist	1	5' 11 1/2"	0, 45
N	Header	1	17' 3 1/4"	0, 0	h	Internal Joist	1	3' 6 1/2"	0, 68
O	Header	3	3' 11 1/4"	0, 0	i	Riser	1	10' 11"	45, 0
P	Header	2	3' 11 3/4"	0, 0	j	Stringer	1	1' 5"	0, 0
Q	Header	1	3' 11 1/4"	0, 0	k	Stringer	25	1' 1 1/4"	0, 0
R	Internal Joist	1	15' 1/4"	0, 68	l	Riser	1	10' 1"	45, 45
S	Internal Joist	1	16' 6 3/4"	0, 45	m	Stringer	1	1' 5"	0, 0
T	Internal Joist	1	17' 10 3/4"	0, 45	n	Riser	1	9'	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
Rim Joist	13	2X8X12 Treated	TREATED
Internal Joist	41	2X8X10 Treated	TREATED
Beam	4	2X10X10 Treated	TREATED
Beam	2	2X10X12 Treated	TREATED
Pre Cut Stringer	18	3-Step Treated Stair Stringer	TREATED
Railing Post	1	4X4X14 Treated	TREATED
Railing Post	4	4X4X18 Treated	TREATED
Railing Section	9	AZEK 6' Premier Custom Rail Pack - Brownstone - 6'	AZEK
Railing Section	7	AZEK 8' Premier Custom Rail Pack - Brownstone - 8'	AZEK
Railing Section	14	TT/AZEK 31" Round Aluminum Baluster - Black - 31"	AZEK
Cladding	15	AZEK Arbor Collection® Rim Joist Covers/Fasica - Hazelwood® - 12'	AZEK
Decking	37	AZEK Harvest Collection® Deck Plank, Square Shouldered - Slate Gray - 12'	AZEK
Decking	22	AZEK Harvest Collection® Deck Plank, Square Shouldered - Slate Gray - 16'	AZEK
Decking	57	AZEK Harvest Collection® Deck Plank, Square Shouldered - Slate Gray - 20'	AZEK
Header	7	2X8X18 Treated	TREATED
Gusset	4	2X8X8 Treated	TREATED
Post	13	4X4X8 Treated	TREATED
Riser	9	AZEK Arbor Collection® Rim Joist Covers/Fasica - Hazelwood® - 12'	AZEK
Railing Section	2	TT/AZEK 31" Round Aluminum Stair Baluster - Black - 31"	TIMBERTECH
Internal Joist	5	2X8X16 Treated	TREATED
Beam	8	2X10X18 Treated	TREATED
Beam	2	2X10X16 Treated	TREATED
Internal Joist	1	2X8X14 Treated	TREATED
Beam	1	2X10X8 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
5	1 LB. 10D X1 1/2" Nail
6	1 LB. 10D Hot-Dip Galvanized Nail
65	2x8-10" Triple Zinc Joist Hanger JUS28-TZ
8	7" Triple Zinc Angle Clip AC7-TZ
2	THR128-HDG Threaded Rod
4	DTB-TZ Deck Tie Bracket
5	1LB. 8D Galvanized Common Nail
5	1 LB. 1-1/2" Joist Hanger Nail
97	Triple Zinc Rafter Tie RT7-TZ
32	Anchor Bolt AB128
32	4X4 Triple Zinc Deck Post Anchor PA44E-TZ
51	80 L.B. Basic Concrete Mix
3	10 LB. Basic Concrete Mix
24	8" X 48" Concrete Form Tube
512	1/2 Galvanized Flat Washer
11	1/2 Galvanized Hex Nut
256	1/2 X 8" Galvanized Carriage Bolt
36	7" Triple Zinc Angle Clip AC7-TZ
48	4X4 Triple Zinc Deck Post Tie SDPT7-TZ
1	1 LB. 8X3" Philips Head Stainless Deck Screws
24	AZEK 5 1/2" Post Skirt - Brownstone
96	3/8 Galvanized Hex Nut
192	3/8 Galvanized Flat Washer
96	3/8 X 8" Galvanized Carriage Bolt
24	AZEK 5 1/2" LED Lighted Island Cap - Brownstone
24	AZEK 5.5" x 5.5" Post Sleeve - Brownstone - 39"
19	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
18	2 Pieces of Joist Material Nailed to Each Joist Splice
8	AZEK Cortex - 100 LF Harvest Collection® - Slate Gray
40	1/2 X 6" Galvanized Lag Screw
1	5 LB. 10D Hot-Dip Galvanized Nail
14	5" Triple Zinc Angle Clip MP5-TZ
1	1LB. 16D Galvanized Common Nail
2	2x6-8" Triple Zinc Right Skewed Joist Hanger SKH26R-TZ
2	2x6-8" Triple Zinc Left Skewed Joist Hanger SKH26L-TZ
2	5" Triple Zinc Angle Clip MP5-TZ

Qty	Description
1	40 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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