



Deck Designer Specification Kit For  
**AZEK**

### Deck layout diagram



Top view without planks

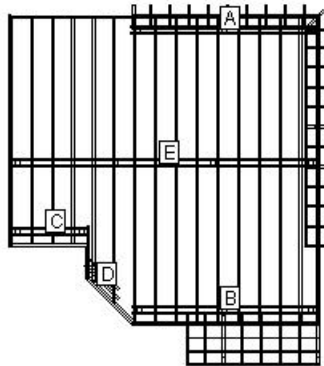


Bottom view with planks



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 30" from the top of the decking to the ground level. The top of the deck support posts will therefore be 21" above ground level.

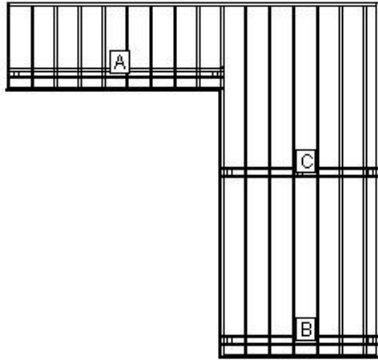
**Joists:**

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

**Stress Analysis: Level 1**

Joist Deflection	154
Joist Bending	55
Joist Shear	96
Joist Compression	96
Beam Deflection	469
Beam Bending	82
Beam Shear	62
Post Stability	113

**Permit Page: Level 2**



**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 44" from the top of the decking to the ground level. The top of the deck support posts will therefore be 35" above ground level.

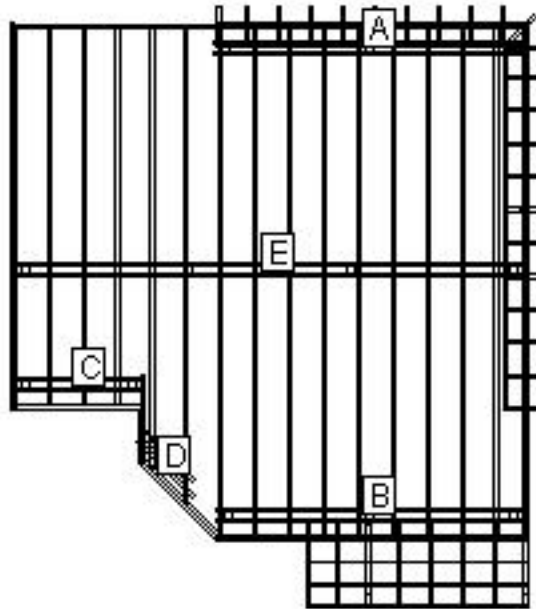
**Joists:**

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

**Stress Analysis: Level 2**

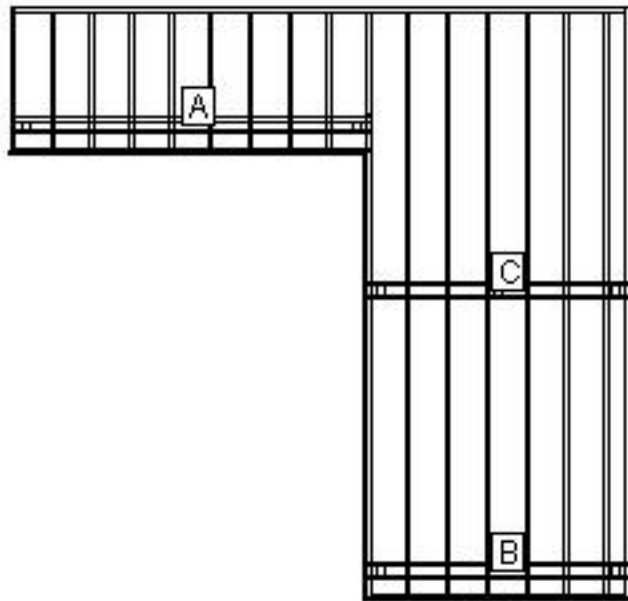
Joist Deflection	154
Joist Bending	55
Joist Shear	96
Joist Compression	96
Beam Deflection	134
Beam Bending	72
Beam Shear	74
Post Stability	174

### Beam Layout Level 1



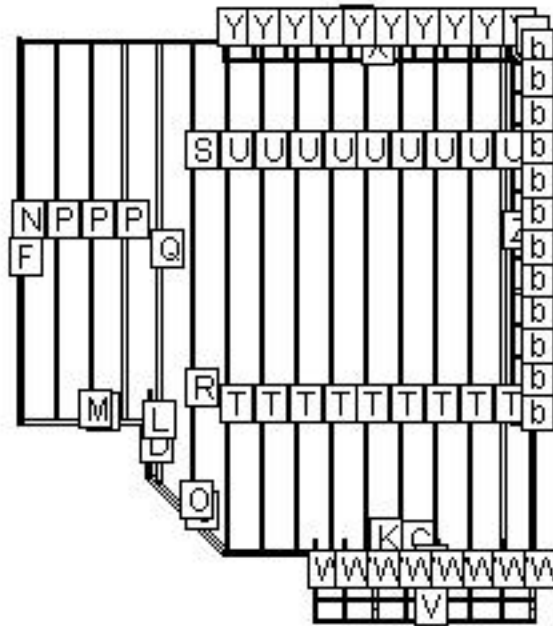
BEAM LABEL	BEAM LENGTH	POST COUNT	POST SPACING
A	12' 3/4"	3	5' 6 1/2"
B	12' 1/4"	3	5' 6 1/2"
C	5' 1 1/2"	2	4' 2"
D	3' 1"	2	1' 10"
E	19' 10 1/4"	4	6' 3 1/2"

### Beam Layout Level 2



BEAM LABEL	BEAM LENGTH	POST COUNT	POST SPACING
A	12' 1 1/2"	2	11' 2"
B	8' 10 1/4"	2	7' 10 3/4"
C	8' 10 1/4"	3	3' 11 1/2"

Materials Cut List: Level 1



LABEL	NAME	QTY	LENGTH	BEVELS	LABEL	NAME	QTY	LENGTH	BEVELS
A	Cladding	1	12'	45, 0	O	Header	1	4' 2 1/4"	0, 0
B	Cladding	1	20'	45, 45	P	Internal Joist	3	14' 7 1/4"	0, 0
C	Cladding	1	12'	23, 45	Q	Internal Joist	1	17' 3/4"	0, 45
D	Cladding	1	2' 1"	45, 23	R	Internal Joist	1	9'	0, 45
E	Cladding	1	5' 1"	45, 45	S	Internal Joist	1	9' 4 1/2"	0, 45
F	Cladding	1	15'	45, 45	T	Internal Joist	9	10' 2 1/2"	0, 0
G	Cladding	1	4' 3"	23, 23	U	Internal Joist	9	9' 4 3/4"	0, 0
H	Header	1	19' 7 1/4"	0, 0	V	Riser	3	8' 6 1/2"	0, 0
I	Rim Joist	1	10' 4 1/4"	0, 0	W	Pre Cut Stringer	8	3' 4"	0, 0
J	Rim Joist	1	9' 6"	0, 0	X	Riser	1	11' 2"	0, 45
K	Header	1	11' 9 1/4"	0, 0	Y	Pre Cut Stringer	10	1' 1 1/4"	0, 0
L	Rim Joist	1	3' 4 1/4"	0, 0	Z	Riser	1	14' 2"	45, 0

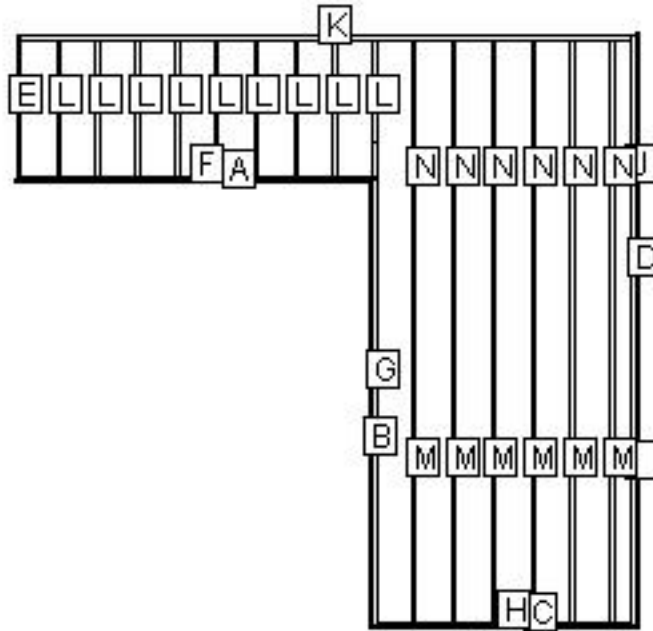
Cut Angles: L=Left, R=Right, F=Front, S=Side

LABEL	NAME	QTY	LENGTH	BEVELS	LABEL	NAME	QTY	LENGTH	BEVELS
M	Header	1	5'	0, 0	a	Pre Cut Stringer	1	1' 5"	0, 0
N	Rim Joist	1	14' 10 1/4"	0, 0	b	Pre Cut Stringer	12	1' 1 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	1	12' 1"	45, 45	H	Header	1	8' 7 1/4"	0, 0
B	Cladding	1	15' 1"	45, 45	I	Rim Joist	1	10' 4 1/4"	0, 0
C	Cladding	1	9'	45, 45	J	Rim Joist	1	9' 6"	0, 0
D	Cladding	1	20'	45, 45	K	Header	1	20' 7 1/4"	0, 0
E	Rim Joist	1	4' 10 1/4"	0, 0	L	Internal Joist	9	4' 7 1/4"	0, 0
F	Header	1	12'	0, 0	M	Internal Joist	6	10' 2 1/2"	0, 0
G	Rim Joist	1	16' 3 3/4"	0, 0	N	Internal Joist	6	9' 4 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
Rim Joist	4	2X8X16 Treated	TREATED
Internal Joist	5	2X8X18 Treated	TREATED
Internal Joist	19	2X8X10 Treated	TREATED
Internal Joist	20	2X8X12 Treated	TREATED
Beam	8	2X10X14 Treated	TREATED
Beam	2	2X10X8 Treated	TREATED
Pre Cut Stringer	9	3-Step Treated Stair Stringer	TREATED
Pre Cut Stringer	23	2-Step Treated Stair Stringer	TREATED
Railing Post	2	4X4X8 Treated	TREATED
Railing Post	2	4X4X18 Treated	TREATED
Railing Section	4	AZEK 8' Premier Custom Rail Pack - Brownstone - 8'	AZEK
Railing Section	7	TT/AZEK 31" Round Aluminum Baluster - Black - 31"	AZEK
Cladding	11	AZEK Terra Collection Rim Joist Covers/Fasica - Tahoe® - 12'	AZEK
Decking	66	AZEK Vintage Collection® Deck Plank, Grooved - Mahogany® - 16'	AZEK
Decking	8	AZEK Vintage Collection® Deck Plank, Grooved - Mahogany® - 20'	AZEK
Header	4	2X8X8 Treated	TREATED
Post	8	4X4X8 Treated	TREATED
Beam	1	2X10X18 Treated	TREATED
Riser	5	AZEK Terra Collection Rim Joist Covers/Fasica - Tahoe® - 12'	AZEK
Stair Step	29	AZEK Vintage Collection® Deck Plank, Grooved - Mahogany® - 12'	AZEK
Railing Section	1	TT/AZEK 31" Round Aluminum Stair Baluster - Black - 31"	TIMBERTECH
Beam	4	2X10X10 Treated	TREATED
Railing Section	3	AZEK 6' Premier Custom Rail Pack - Brownstone - 6'	AZEK
Internal Joist	3	2X8X14 Treated	TREATED



DECK DESIGNER

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



DECK DESIGNER

### Other Materials

Qty	Description
4	1 LB. 10D X1 1/2" Nail
1	5 LB. 10D Hot-Dip Galvanized Nail
3	1 LB. 10D Hot-Dip Galvanized Nail
56	2x8-10" Triple Zinc Joist Hanger JUS28-TZ
1	1LB. 16D Galvanized Common Nail
2	2x6-8" Triple Zinc Right Skewed Joist Hanger SKH26R-TZ
9	7" Triple Zinc Angle Clip AC7-TZ
1	5" Triple Zinc Angle Clip MP5-TZ
4	THR128-HDG Threaded Rod
8	DTB-TZ Deck Tie Bracket
4	1LB. 8D Galvanized Common Nail
4	1 LB. 1-1/2" Joist Hanger Nail
71	Triple Zinc Rafter Tie RT7-TZ
21	Anchor Bolt AB128
21	4X4 Triple Zinc Deck Post Anchor PA44E-TZ
33	80 L.B. Basic Concrete Mix
1	40 LB. Basic Concrete Mix
4	10 LB. Basic Concrete Mix
16	8" X 48" Concrete Form Tube
336	1/2 Galvanized Flat Washer
7	1/2 Galvanized Hex Nut
168	1/2 X 8" Galvanized Carriage Bolt
31	7" Triple Zinc Angle Clip AC7-TZ
24	4X4 Triple Zinc Deck Post Tie SDPT7-TZ
1	1 LB. 8X3" Philips Head Stainless Deck Screws
12	AZEK 5 1/2" Post Skirt - Brownstone
48	3/8 Galvanized Hex Nut
96	3/8 Galvanized Flat Washer
48	3/8 X 8" Galvanized Carriage Bolt
12	AZEK 5 1/2" LED Lighted Island Cap - Brownstone
12	AZEK 5.5" x 5.5" Post Sleeve - Brownstone - 39"
18	2 Pieces of Joist Material Nailed to Each Joist Splice
1	AZEK Cortex - 100 LF Vintage Collection® - Mahogany
7	TimberTech CONCEALoc Hidden Fastener - Unit = 8 retail cartons @ 100 sq.ft. coverage each (175 CONCEALoc fasteners, 184 Screws and drive bit) - Brown
68	1/2 X 6" Galvanized Lag Screw

**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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