



Deck Designer Specification Kit For  
**AZEK**

**Deck layout diagram**



Top view without planks

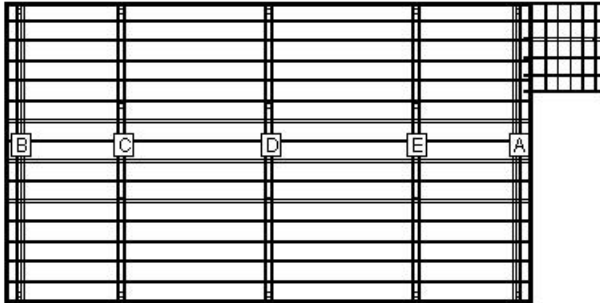


Bottom view with planks



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 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.

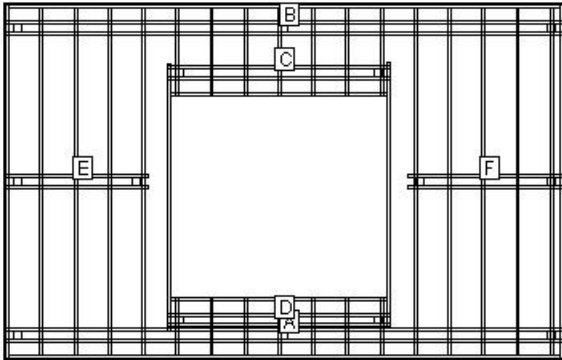
**Joists:**

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

**Stress Analysis: Level 1**

Joist Deflection	136
Joist Bending	50
Joist Shear	92
Joist Compression	92
Beam Deflection	195
Beam Bending	76
Beam Shear	57
Post Stability	105

Permit Page: Level 2



**LOAD AND SUPPORT:**

Your deck will support a 41 PSF live load.  
Posts have 36" below ground support.

**DECK AND POST HEIGHT:**

You selected a height of 41" from the top of the decking to the ground level. The top of the deck support posts will therefore be 32" above ground level.

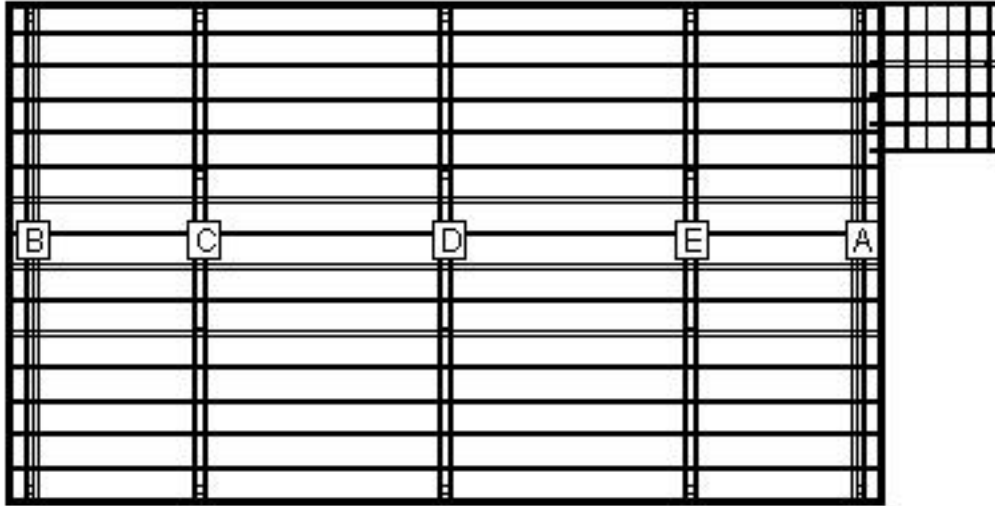
**Joists:**

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

**Stress Analysis: Level 2**

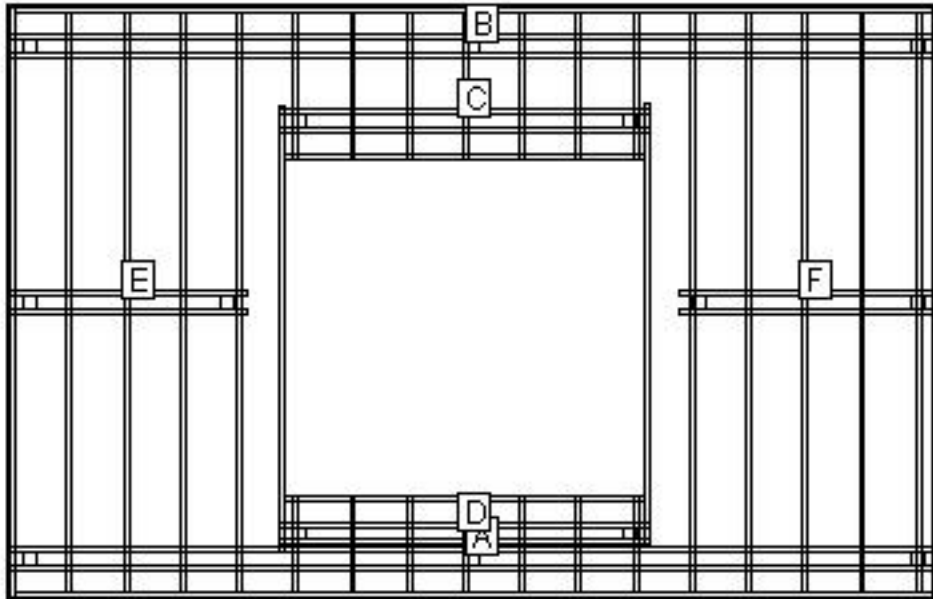
Joist Deflection	138
Joist Bending	51
Joist Shear	93
Joist Compression	93
Beam Deflection	143
Beam Bending	68
Beam Shear	76
Post Stability	158

### Beam Layout Level 1



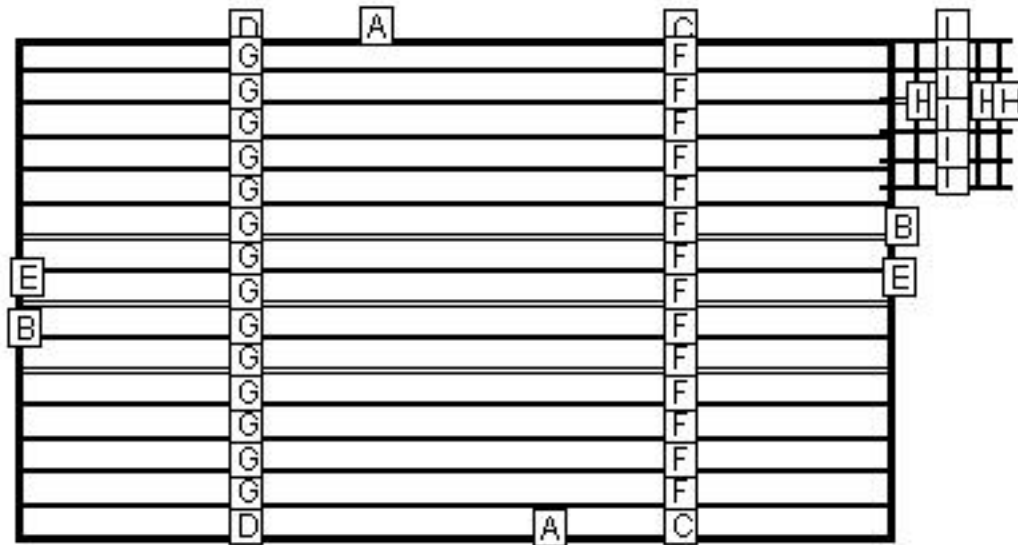
BEAM LABEL	BEAM LENGTH	POST COUNT	POST SPACING
A	19' 10 1/4"	3	9' 5 1/2"
B	19' 10 1/4"	3	9' 5 1/2"
C	19' 10 1/4"	4	6' 3 1/2"
D	19' 10 1/4"	4	6' 3 1/2"
E	19' 10 1/4"	4	6' 3 1/2"

### Beam Layout Level 2



BEAM LABEL	BEAM LENGTH	POST COUNT	POST SPACING
A	21' 10 1/4"	3	10' 5 1/2"
B	21' 10 1/4"	3	10' 5 1/2"
C	8' 9"	2	7' 9 1/2"
D	8' 9"	2	7' 9 1/2"
E	5' 7"	2	4' 7 1/2"
F	6' 1 1/4"	2	5' 1 3/4"

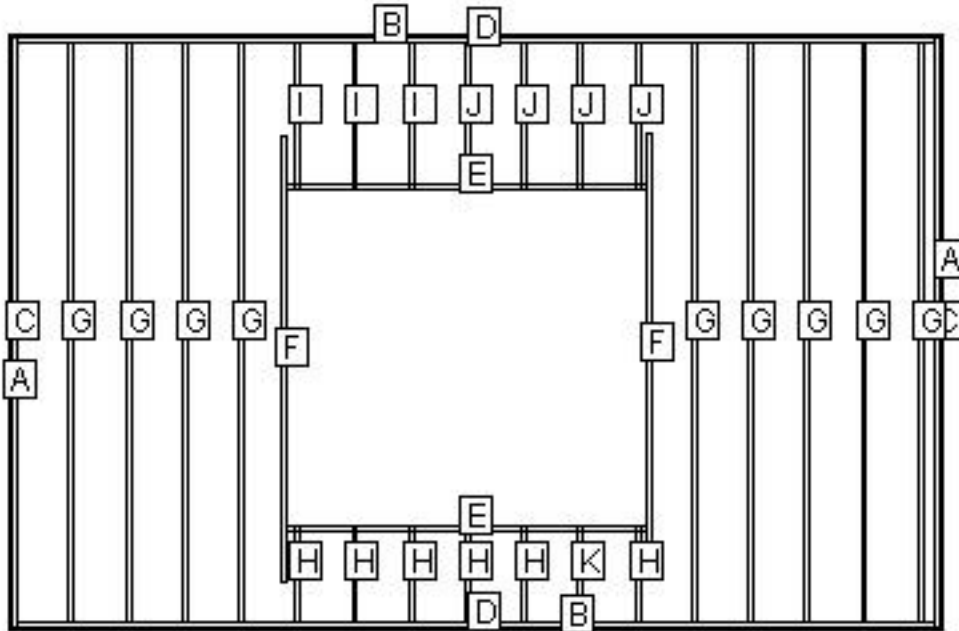
Materials Cut List: Level 1



LABEL	NAME	QTY	LENGTH	BEVELS	LABEL	NAME	QTY	LENGTH	BEVELS
A	Cladding	2	35'	45, 45	F	Internal Joist	14	17' 3 1/2"	0, 0
B	Cladding	2	20'	45, 45	G	Internal Joist	14	17' 3 3/4"	0, 0
C	Rim Joist	2	17' 5 1/4"	0, 0	H	Riser	5	5' 11 3/4"	0, 0
D	Rim Joist	2	17' 5"	0, 0	I	Pre Cut Stringer	6	5' 10"	0, 0
E	Header	2	19' 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	14'	45, 45	G	Internal Joist	9	13' 7 1/4"	0, 0
B	Cladding	2	22'	45, 45	H	Internal Joist	6	2' 3 1/4"	0, 0
C	Rim Joist	2	13' 10 1/4"	0, 0	I	Internal Joist	3	3' 5 1/4"	0, 0
D	Header	2	21' 7 1/4"	0, 0	J	Internal Joist	4	3' 5 1/4"	0, 0
E	Header	2	8' 6"	0, 0	K	Internal Joist	1	2' 3 1/4"	0, 0
F	Rim Joist	2	10' 5 1/2"	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.

<b>Lumber Materials</b>			
<b>COMPONENT</b>	<b>QTY</b>	<b>DESCRIPTION</b>	<b>WOOD TYPE</b>
Rim Joist	38	2X8X18 Treated	TREATED
Beam	8	2X10X8 Treated	TREATED
Beam	6	2X10X14 Treated	TREATED
Beam	12	2X10X10 Treated	TREATED
Pre Cut Stringer	12	3-Step Treated Stair Stringer	TREATED
Railing Post	1	4X4X8 Treated	TREATED
Railing Post	3	4X4X18 Treated	TREATED
Railing Section	5	AZEK 6' Premier Custom Rail Pack - Kona® - 6'	AZEK
Railing Section	9	AZEK 8' Premier Custom Rail Pack - Kona® - 8'	AZEK
Baluster	26	TT/AZEK CableRail 36" Intermediate Baluster [1 9-hole baluster, 1 intermediate base plate, 1 #10x2" pan head screw, 3 #10x1" flat head screws] - Silver	AZEK
Cladding	16	AZEK Arbor Collection® Rim Joist Covers/Fasica - Redland Rose® - 12'	AZEK
Decking	75	AZEK Arbor Collection® Deck Plank, Square Shouldered - Redland Rose® - 20'	AZEK
Header	3	2X8X8 Treated	TREATED
Gusset	2	2X8X16 Treated	TREATED
Post	16	4X4X8 Treated	TREATED
Riser	3	AZEK Arbor Collection® Rim Joist Covers/Fasica - Redland Rose® - 12'	AZEK
Stair Step	12	AZEK Arbor Collection® Deck Plank, Square Shouldered - Redland Rose® - 12'	AZEK
Railing Section	2	TT/AZEK CableRail 36" Stair Intermediate Baluster [1 angled 9-hole baluster, 1 intermediate base plate, 1 #10x2" pan head screw, 3 #10x1 flat head screws] - Silver	TIMBERTECH
Rim Joist	11	2X8X14 Treated	TREATED
Beam	9	2X10X12 Treated	TREATED
Decking	30	AZEK Arbor Collection® Deck Plank, Square Shouldered - Redland Rose® - 16'	AZEK
Rim Joist	2	2X8X12 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
1	TT/AZEK CableRail 500' Stainless Steel Cable - Stainless - 500'
3	TT/AZEK CableRail 100' Stainless Steel Cable - Stainless - 100'
4	1 LB. 10D X1 1/2" Nail
1	5 LB. 10D Hot-Dip Galvanized Nail
74	2x8-10" Triple Zinc Joist Hanger JUS28-TZ
8	7" Triple Zinc Angle Clip AC7-TZ
7	1LB. 8D Galvanized Common Nail
6	1 LB. 1-1/2" Joist Hanger Nail
145	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
2	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
6	7" Triple Zinc Angle Clip AC7-TZ
32	4X4 Triple Zinc Deck Post Tie SDPT7-TZ
1	1 LB. 8X3" Philips Head Stainless Deck Screws
16	AZEK 5 1/2" Post Skirt - Kona®
64	3/8 Galvanized Hex Nut
128	3/8 Galvanized Flat Washer
64	3/8 X 8" Galvanized Carriage Bolt
16	AZEK 5 1/2" Pyramid Cap - Kona®
16	AZEK 5.5" x 5.5" Post Sleeve - Kona® - 39"
1	TT/AZEK CableRail Cable Cutters
1	TT/AZEK CableRail Accessory Kit [Quick-Connect release tool, lacing needle, hanger bolt installation tool] -
8	TT/AZEK CableRail 36" Hardware Kit [9 Quick-Connect fittings, 9 Quick Connect Swivel fittings, 18 hanger bolts, 9 lock nuts] - Stainless
1	TT/AZEK CableRail Protector Sleeves [Pack of 20] - Stainless
16	2 Pieces of Joist Material Nailed to Each Joist Splice
9	AZEK Cortex - 100 LF Arbor Collection® - Redland Rose
4	1 LB. 10D Hot-Dip Galvanized Nail
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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