



Deck Designer Specification Kit For  
**TimberTech**

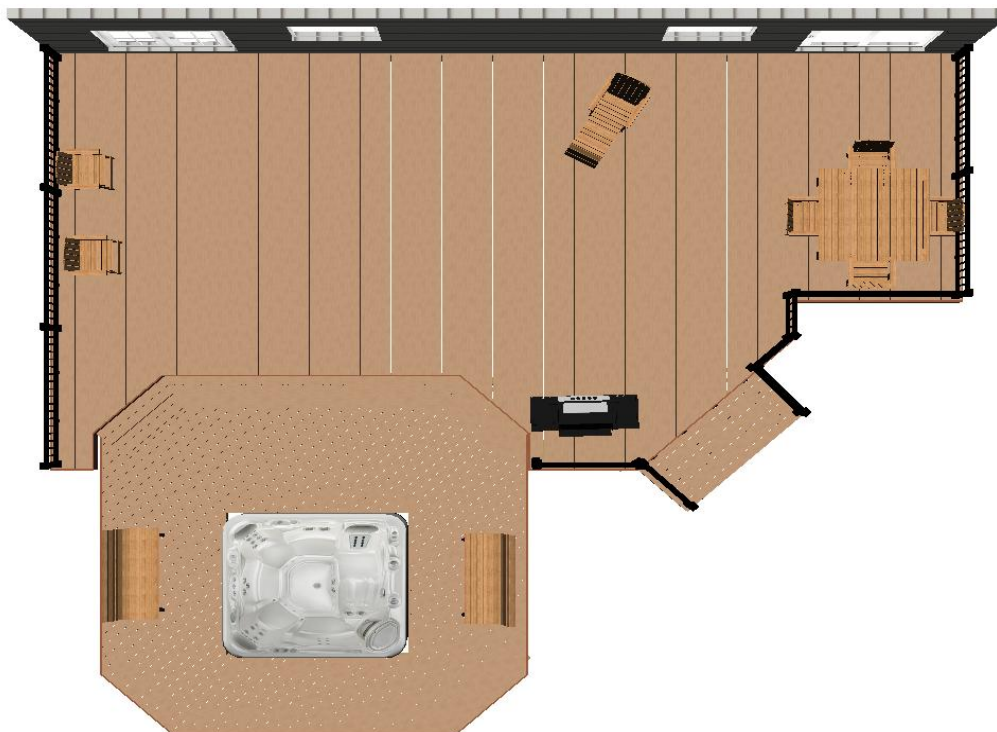
### Deck layout diagram



Top view without planks

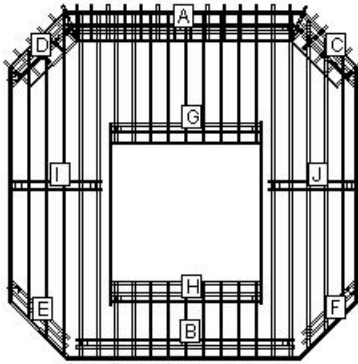


Bottom view with planks



Top view with planks

Permit Page: Level 1



**LOAD AND SUPPORT:**

Your deck will support a 58 PSF live load.  
 Posts have 36" below ground support.

**DECK AND POST HEIGHT:**

You selected a height of 18" from the top of the decking to the ground level. The top of the deck support posts will therefore be 9" above ground level.

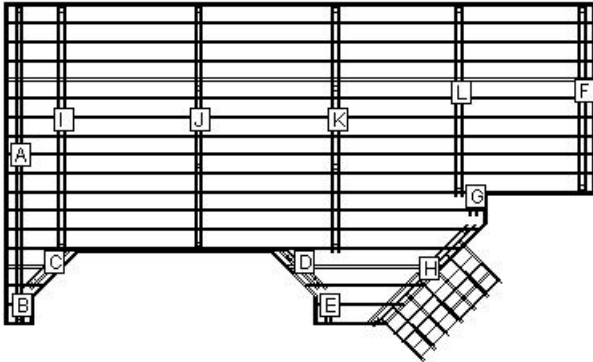
**Joists:**

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

**Stress Analysis: Level 1**

Joist Deflection	184
Joist Bending	68
Joist Shear	124
Joist Compression	124
Beam Deflection	343
Beam Bending	92
Beam Shear	81
Post Stability	198

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

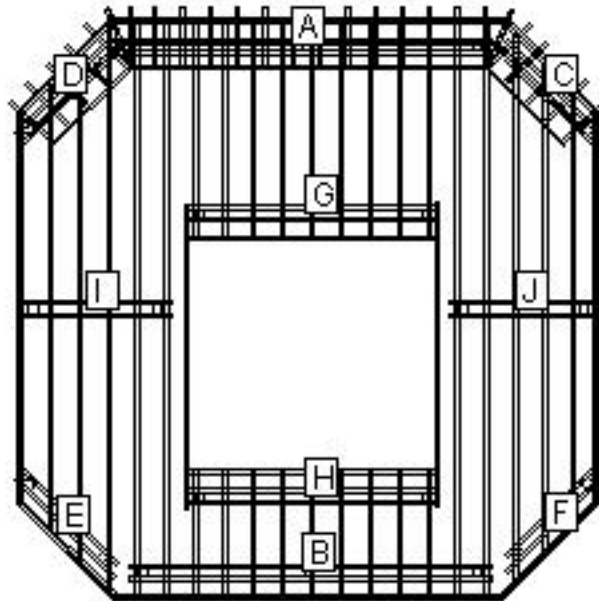
**Joists:**

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

**Stress Analysis: Level 2**

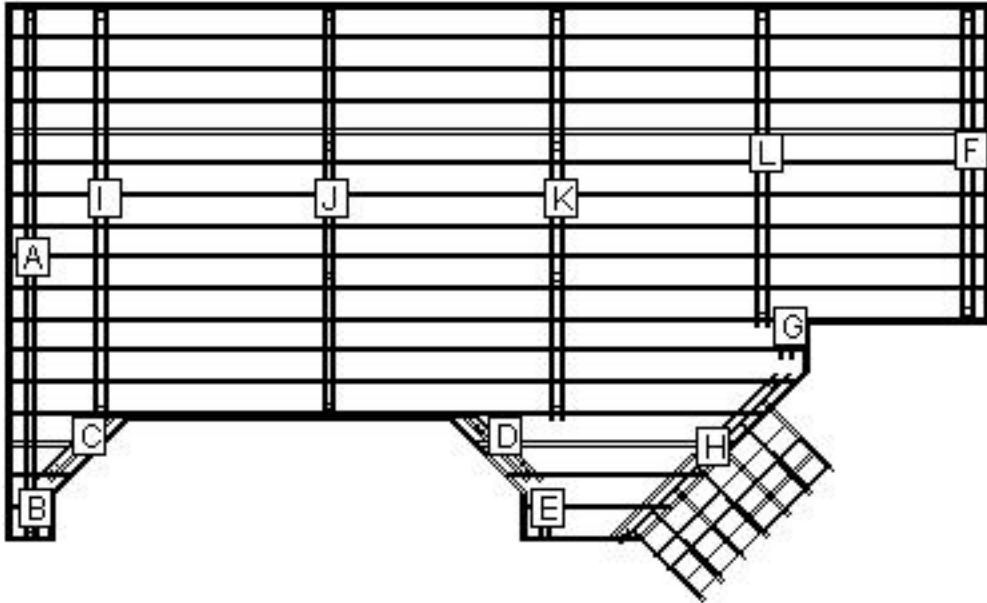
Joist Deflection	134
Joist Bending	50
Joist Shear	92
Joist Compression	92
Beam Deflection	192
Beam Bending	65
Beam Shear	61
Post Stability	115

### Beam Layout Level 1



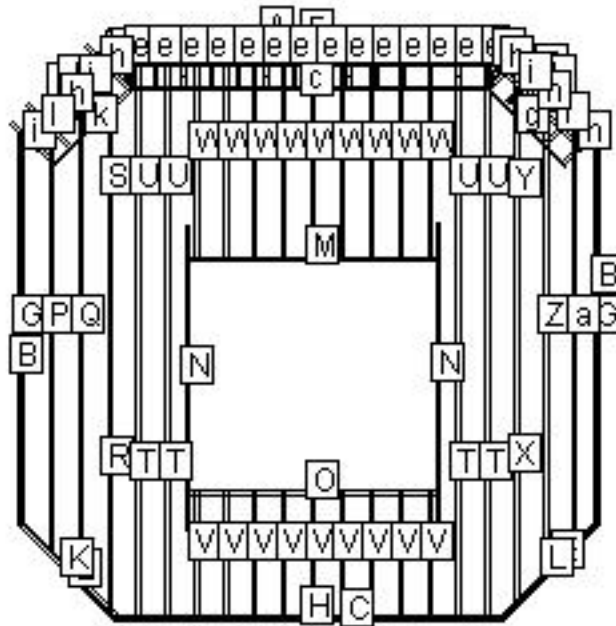
BEAM LABEL	BEAM LENGTH	POST COUNT	POST SPACING
A	13' 3"	3	6' 2"
B	12' 6"	3	5' 9 1/4"
C	4' 7"	2	3' 4"
D	4' 7"	2	3' 4"
E	4' 10"	2	3' 7"
F	4' 7"	2	3' 4"
G	8' 9"	2	7' 9 1/2"
H	8' 9"	2	7' 9 1/2"
I	5' 3"	2	4' 3 1/2"
J	5' 1 1/4"	2	4' 1 3/4"

### Beam Layout Level 2



BEAM LABEL	BEAM LENGTH	POST COUNT	POST SPACING
A	22' 10 1/4"	3	10' 11 1/2"
B	1' 7"	1	0
C	3' 8 1/2"	2	2' 5 1/2"
D	3' 8 1/2"	2	2' 5 1/2"
E	1' 7"	1	0
F	13' 7 1/4"	3	6' 4"
G	1' 7 1/2"	1	0
H	10' 1 1/2"	2	8' 10 1/2"
I	17' 9 1/4"	3	8' 5"
J	17' 8 1/4"	4	5' 7"
K	17' 9 1/4"	4	5' 7 1/4"
L	13' 9 1/4"	3	6' 5"

Materials Cut List: Level 1



LABEL	NAME	QTY	LENGTH	BEVELS	LABEL	NAME	QTY	LENGTH	BEVELS
A	Cladding	1	13' 8"	23, 23	T	Internal Joist	4	9' 9 1/2"	0, 0
B	Cladding	2	13' 6"	23, 23	U	Internal Joist	4	9' 9 3/4"	0, 0
C	Cladding	1	13' 4"	23, 23	V	Internal Joist	9	4' 3 1/4"	0, 0
D	Cladding	2	4' 5 3/4"	23, 23	W	Internal Joist	9	7' 5"	0, 0
E	Cladding	2	4' 8 1/2"	23, 23	X	Internal Joist	1	9' 4"	45, 45
F	Header	1	13' 7 1/4"	0, 0	Y	Internal Joist	1	9' 6"	45, 45
G	Rim Joist	2	13' 5 1/4"	0, 0	Z	Internal Joist	1	16' 9 1/2"	45, 45
H	Header	1	13' 3 1/4"	0, 0	a	Internal Joist	1	14' 9 1/2"	45, 45
I	Header	1	4' 5"	0, 0	b	Riser	1	12' 11 3/4"	23, 23
J	Header	1	4' 5"	0, 0	c	Riser	1	12' 3 1/2"	23, 23
K	Header	1	4' 8"	0, 0	d	Stringer	2	2' 2 1/4"	0, 0
L	Header	1	4' 8"	0, 0	e	Stringer	14	2' 1"	0, 0

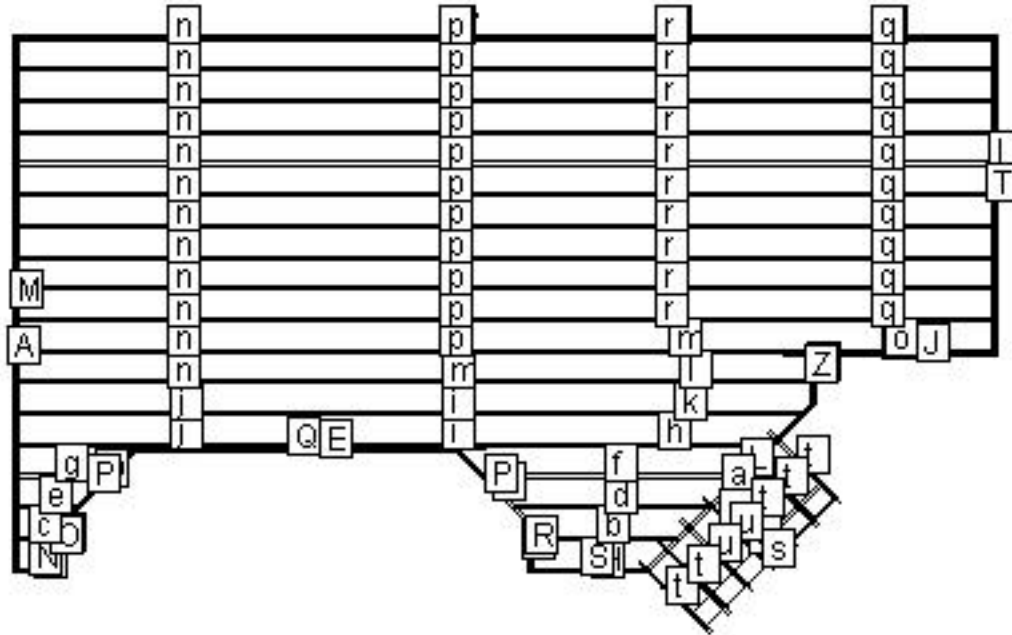
Cut Angles: L=Left, R=Right, F=Front, S=Side

LABEL	NAME	QTY	LENGTH	BEVELS	LABEL	NAME	QTY	LENGTH	BEVELS
M	Header	1	8' 6"	0, 0	f	Riser	1	4' 1 1/2"	23, 0
N	Rim Joist	2	10' 5 1/2"	0, 0	g	Riser	1	3' 9 1/2"	23, 0
O	Header	1	8' 6"	0, 0	h	Stringer	5	2' 1"	0, 0
P	Internal Joist	1	15' 4"	45, 45	i	Stringer	4	2' 1"	0, 0
Q	Internal Joist	1	17' 4"	45, 45	j	Riser	1	4' 1 1/2"	0, 23
R	Internal Joist	1	9' 7"	45, 45	k	Riser	1	3' 9 1/2"	0, 23
S	Internal Joist	1	9' 9"	45, 45	l	Stringer	1	2' 1"	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	23'	45, 45	Y	Rim Joist	1	9' 3/4"	0, 0
B	Cladding	1	2'	45, 45	Z	Header	1	2' 3"	0, 0
C	Cladding	1	2' 1/4"	45, 23	a	Header	1	10' 1"	0, 0
D	Cladding	1	4' 6 1/2"	23, 23	b	Internal Joist	1	6' 1 3/4"	0, 45
E	Cladding	1	13' 8 3/4"	23, 23	c	Internal Joist	1	1' 7 1/4"	0, 0
F	Cladding	1	4' 6 1/2"	23, 23	d	Internal Joist	1	8' 3"	45, 45
G	Cladding	1	2' 1/4"	23, 45	e	Internal Joist	1	2' 4 3/4"	0, 45
H	Cladding	1	5' 1"	45, 23	f	Internal Joist	1	10' 11"	45, 45
I	Cladding	1	13' 9"	45, 45	g	Internal Joist	1	3' 8 3/4"	0, 45
J	Cladding	1	7' 10"	45, 45	h	Internal Joist	1	8' 11"	0, 45
K	Cladding	1	2' 2"	23, 45	i	Internal Joist	2	9' 8"	0, 45
L	Cladding	1	10' 1 1/2"	23, 23	j	Internal Joist	2	13' 6 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	Header	1	22' 7 1/4"	0, 0	k	Internal Joist	1	10' 3"	0, 45
N	Rim Joist	1	1' 10 1/4"	0, 0	l	Internal Joist	1	10' 6 1/2"	0, 0
O	Header	1	1' 10"	0, 0	m	Internal Joist	2	9' 10"	0, 0
P	Header	2	4' 6 1/2"	0, 0	n	Internal Joist	12	13' 5 3/4"	0, 0
Q	Rim Joist	1	16' 2 1/4"	0, 0	o	Internal Joist	1	8' 6 1/2"	0, 0
R	Header	1	1' 10"	0, 0	p	Internal Joist	11	9' 9"	0, 0
S	Rim Joist	1	5'	0, 0	q	Internal Joist	10	9' 7 1/2"	0, 0
T	Header	1	13' 4 1/4"	0, 0	r	Internal Joist	10	8' 9"	0, 0
U	Rim Joist	1	9' 9 1/4"	0, 0	s	Riser	4	7' 11 3/4"	0, 0
V	Rim Joist	1	8' 8"	0, 0	t	Pre Cut Stringer	5	4' 7"	0, 0
W	Rim Joist	1	9' 10"	0, 0	u	Pre Cut Stringer	2	4' 7"	0, 0
X	Rim Joist	1	13' 7"	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	19	2X8X14 Treated	TREATED
Internal Joist	8	2X8X16 Treated	TREATED
Internal Joist	14	2X8X18 Treated	TREATED
Internal Joist	54	2X8X10 Treated	TREATED
Beam	10	2X10X14 Treated	TREATED
Beam	4	2X10X10 Treated	TREATED
Cladding	15	TimberTech Earthwood Evolutions® Tropical Fascia Board - Pacific Rosewood - 12'	TIMBERTECH
Decking	8	TimberTech ReliaBoard® Deck Plank, Square Shouldered - Cedar - 12'	TIMBERTECH
Decking	102	TimberTech ReliaBoard® Deck Plank, Square Shouldered - Cedar - 16'	TIMBERTECH
Decking	50	TimberTech ReliaBoard® Deck Plank, Square Shouldered - Cedar - 20'	TIMBERTECH
Gusset	6	2X8X8 Treated	TREATED
Rim Joist	5	2X8X12 Treated	TREATED
Post	13	4X4X8 Treated	TREATED
Beam	2	2X10X16 Treated	TREATED
Riser	8	TimberTech Earthwood Evolutions® Tropical Riser Board - Pacific Rosewood - 12'	TIMBERTECH
Beam	6	2X10X12 Treated	TREATED
Beam	7	2X10X18 Treated	TREATED
Pre Cut Stringer	7	4-Step Treated Stair Stringer	TREATED
Railing Post	1	4X4X8 Treated	TREATED
Railing Post	3	4X4X18 Treated	TREATED
Railing Section	1	TimberTech 6' RadianceRail Custom Rail Pack - Black - 6'	TIMBERTECH
Railing Section	8	TimberTech 8' RadianceRail Custom Rail Pack - Black - 8'	TIMBERTECH
Railing Section	8	TT/AZEK 31" Round Aluminum Baluster - Black - 31"	TIMBERTECH
Beam	1	2X10X8 Treated	TREATED



**Lumber Materials**

<b>COMPONENT</b>	<b>QTY</b>	<b>DESCRIPTION</b>	<b>WOOD TYPE</b>
Railing Section	2	TT/AZEK 31" Round Aluminum Stair Baluster - Black - 31"	TIMBERTECH

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

### Other Materials

Qty	Description
2	5 LB. 10D Hot-Dip Galvanized Nail
2	1 LB. 10D Hot-Dip Galvanized Nail
2	1LB. 16D Galvanized Common Nail
7	2x6-8" Triple Zinc Left Skewed Joist Hanger SKH26L-TZ
13	2x6-8" Triple Zinc Right Skewed Joist Hanger SKH26R-TZ
5	1 LB. 10D X1 1/2" Nail
76	2x8-10" Triple Zinc Joist Hanger JUS28-TZ
7	5" Triple Zinc Angle Clip MP5-TZ
4	1LB. 8D Galvanized Common Nail
5	1 LB. 1-1/2" Joist Hanger Nail
184	Triple Zinc Rafter Tie RT7-TZ
51	Anchor Bolt AB128
51	4X4 Triple Zinc Deck Post Anchor PA44E-TZ
81	80 L.B. Basic Concrete Mix
1	40 LB. Basic Concrete Mix
2	10 LB. Basic Concrete Mix
39	8" X 48" Concrete Form Tube
816	1/2 Galvanized Flat Washer
17	1/2 Galvanized Hex Nut
408	1/2 X 8" Galvanized Carriage Bolt
33	7" Triple Zinc Angle Clip AC7-TZ
48	2 Pieces of Joist Material Nailed to Each Joist Splice
1	TT/AZEK Transformer - 12 Volt 150 W
1	TT/AZEK Decklites Dimmer
2	TT/AZEK 100' wire 16/2
50	TT/AZEK LED Riser Light - Architectural Bronze
6	TimberTech TOPLoc 100 Sq. Ft. Pack Cedar - Cedar
2	TimberTech TOPLoc Stainless Steel 3" - 85 Sq. Ft. Pack Cedar - Cedar
1	TimberTech TOPLoc Fascia Bit
3	TimberTech TOPLoc Fascia Pack Rosewood - Pacific Rosewood
84	1/2 X 6" Galvanized Lag Screw
6	7" Triple Zinc Angle Clip AC7-TZ
1	5 LB. 8D Galvanized Nail
1	5 LB. 1-1/2" Joist Hanger Nail
1	60 L.B. Basic Concrete Mix
32	4X4 Triple Zinc Deck Post Tie SDPT7-TZ
1	1 LB. 8X3" Philips Head Stainless Deck Screws
16	TimberTech 5" Post Skirt - Black
64	3/8 Galvanized Hex Nut

<b>Qty</b>	<b>Description</b>
128	3/8 Galvanized Flat Washer
64	3/8 X 8" Galvanized Carriage Bolt
16	TimberTech 5" x 5" Post Sleeve - Black - 42"
16	TimberTech 5" LED Post Cap Light
16	TimberTech 5" Post Cap - Black
1	TT/AZEK Wire Guide - 60 Packs of 12 ea.

**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.

**AZEK Building Products and its affiliates assume no responsibility for any damages, including direct or consequential, personal injuries suffered, or property or economic losses incurred as a result of the information published within this Deck Design, AZEK Building Products and its affiliate websites or Deck Design Detail Report. Before beginning any project, review the instructions carefully. We cannot anticipate all of your working conditions or the characteristics of your materials and tools. For your safety, you should consider your own skill level and use caution, care and good judgment when following the instructions. If you have doubts, concerns or questions, consult local experts, architects, soil engineers or building authorities. Because local zoning and building codes and regulations vary greatly, you should ALWAYS CHECK WITH LOCAL AUTHORITIES TO ENSURE THAT YOUR PROJECT COMPLIES WITH ALL APPLICABLE CODES AND REGULATIONS. Always read and observe instructions and safety precautions provided by any tool or equipment manufacturer, and follow all accepted safety procedures.**

**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.**

**AZEK Building Products and its affiliates assume no liability or responsibility for your design, construction or use of any product supplied by AZEK Building Products.**

**YOU ASSUME TOTAL RESPONSIBILITY AND RISK FOR YOUR USE OF THE AZEK BUILDING PRODUCTS DESIGN, THE AZEK BUILDING PRODUCTS WEBSITE AND SUPPLIED DECK DESIGN DETAIL REPORT. AZEK BUILDING PRODUCTS PROVIDES THIS WEB-BASED TOOL, ALL INFORMATION, PRODUCTS, AND SERVICES "AS IS" AND DOES NOT MAKE EXPRESS OR IMPLIED WARRANTIES, REPRESENTATIONS, OR ENDORSEMENTS OF ANY KIND WHATSOEVER (INCLUDING WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE).**