



Deck Designer Specification Kit For  
**TimberTech**

**Deck layout diagram**



Top view without planks

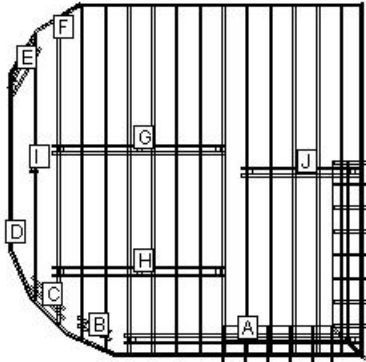


Bottom view with planks



Top view with planks

Permit Page: Level 1



**LOAD AND SUPPORT:**

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

**DECK AND POST HEIGHT:**

You selected a height of 36" from the top of the decking to the ground level. The top of the deck support posts will therefore be 27" above ground level.

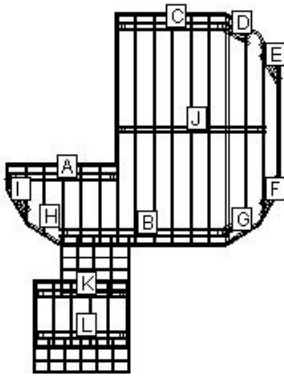
**Joists:**

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	622
Beam Bending	93
Beam Shear	66
Post Stability	184

**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 57" from the top of the decking to the ground level. The top of the deck support posts will therefore be 48" above ground level.

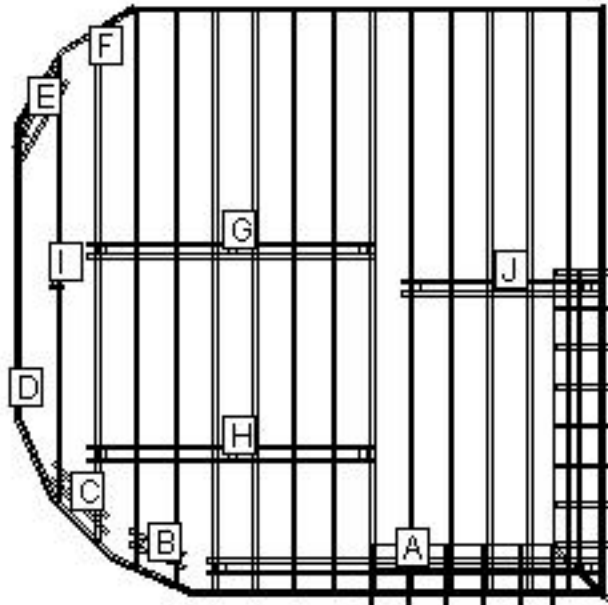
**Joists:**

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

**Stress Analysis: Level 2**

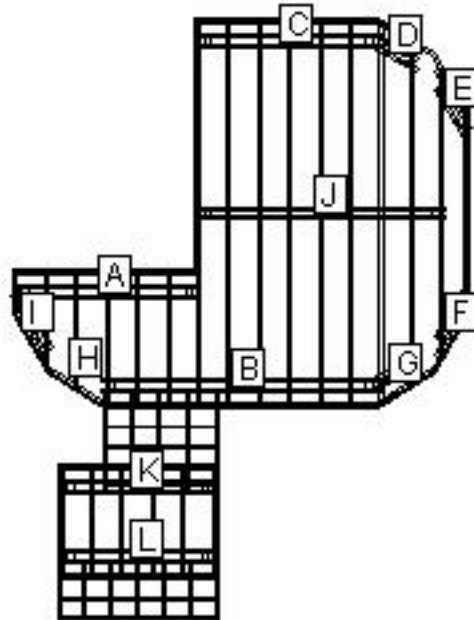
Joist Deflection	13988
Joist Bending	729
Joist Shear	434
Joist Compression	434
Beam Deflection	91
Beam Bending	50
Beam Shear	60
Post Stability	172

### Beam Layout Level 1



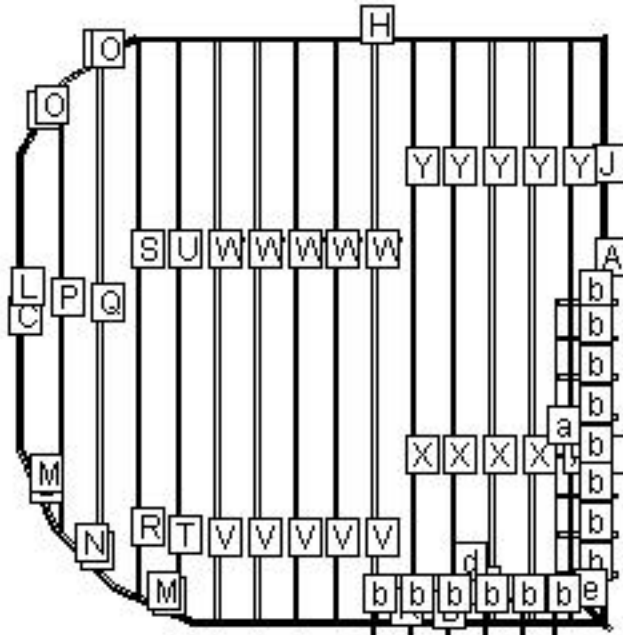
BEAM LABEL	BEAM LENGTH	POST COUNT	POST SPACING
A	13' 5 1/4"	3	6' 3"
B	2'	2	11"
C	2' 7"	2	1' 4"
D	3 1/2"	1	0
E	3' 3/4"	2	1' 7 1/4"
F	3 1/2"	1	0
G	9' 9 1/4"	3	4' 5"
H	9' 9 1/4"	3	4' 5"
I	6"	1	0
J	6' 9 1/4"	2	5' 9 3/4"

### Beam Layout Level 2



BEAM LABEL	BEAM LENGTH	POST COUNT	POST SPACING
A	8' 1 1/2"	2	7' 2"
B	12' 2 1/2"	2	11' 3"
C	8' 1/2"	2	7' 1"
D	2'	2	10 1/2"
E	3' 1/2"	2	1' 7"
F	3' 1/2"	2	1' 7"
G	2'	2	10 1/2"
H	3 1/2"	1	0
I	3' 3/4"	2	1' 7 1/4"
J	10' 11"	3	5'
K	6' 10 1/4"	2	5' 10 3/4"
L	6' 10 1/4"	2	5' 10 3/4"

Materials Cut List: Level 1



LABEL	NAME	QTY	LENGTH	BEVELS	LABEL	NAME	QTY	LENGTH	BEVELS
A	Cladding	1	20'	45, 45	Q	Internal Joist	1	17' 3"	31, 45
B	Cladding	1	14'	11, 45	R	Internal Joist	1	3' 10 1/4"	0, 23
C	Cladding	1	10'	15, 11	S	Internal Joist	1	14' 11 1/2"	0, 23
D	Cladding	2	3'	11, 11	T	Internal Joist	1	4' 5"	0, 23
E	Cladding	1	2' 11 1/4"	11, 11	U	Internal Joist	1	14' 11 3/4"	0, 23
F	Cladding	1	2' 11"	14, 15	V	Internal Joist	5	4' 7 1/2"	0, 0
G	Cladding	1	2' 11"	15, 14	W	Internal Joist	5	14' 11 3/4"	0, 0
H	Header	1	15' 9 1/2"	0, 0	X	Internal Joist	5	10' 3 1/2"	0, 0
I	Rim Joist	1	10' 5 1/4"	0, 0	Y	Internal Joist	5	9' 3 3/4"	0, 0
J	Rim Joist	1	9' 5"	0, 0	Z	Riser	1	10' 2"	0, 45
K	Header	1	13' 9 1/2"	0, 0	a	Riser	1	9' 4"	0, 45
L	Rim Joist	1	9' 11 1/2"	0, 0	b	Stringer	14	2' 1"	0, 0

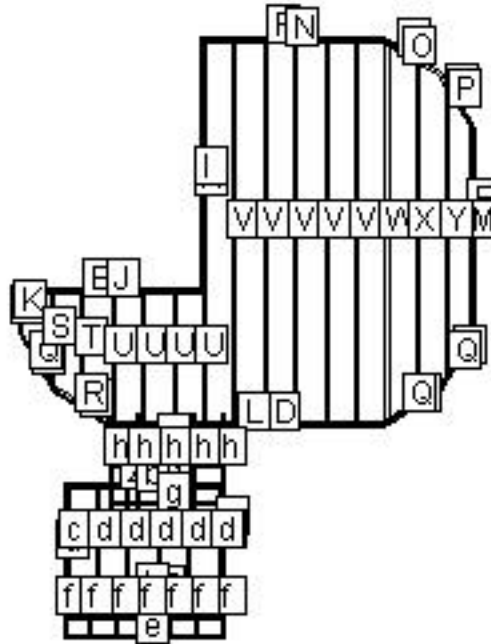
Cut Angles: L=Left, R=Right, F=Front, S=Side

LABEL	NAME	QTY	LENGTH	BEVELS	LABEL	NAME	QTY	LENGTH	BEVELS
M	Header	2	2' 11 1/2"	0, 0	c	Riser	1	7' 2"	45, 0
N	Header	1	2' 11"	0, 0	d	Riser	1	6' 4"	45, 0
O	Header	2	2' 10 1/2"	0, 0	e	Stringer	1	2' 8"	0, 0
P	Internal Joist	1	15'	59, 45					

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	11' 1"	45, 45	R	Header	1	2' 10 1/2"	0, 0
B	Cladding	1	8' 1"	45, 45	S	Internal Joist	1	3' 11 3/4"	0, 59
C	Cladding	1	2'	45, 15	T	Internal Joist	1	4' 10 3/4"	0, 31
D	Cladding	1	12'	15, 15	U	Internal Joist	4	5' 7 1/4"	0, 0
E	Cladding	1	9'	15, 15	V	Internal Joist	5	16' 7 1/4"	0, 0
F	Cladding	1	8'	15, 45	W	Internal Joist	1	16' 5 1/2"	31, 31
G	Cladding	3	2' 11"	14, 15	X	Internal Joist	1	14' 10 1/4"	31, 31
H	Cladding	3	2' 11"	15, 14	Y	Internal Joist	1	12' 5 1/4"	59, 59
I	Rim Joist	1	12' 2 3/4"	0, 0	Z	Cladding	2	7'	45, 45
J	Header	1	8'	0, 0	a	Cladding	2	5'	45, 45
K	Rim Joist	1	1' 11"	0, 0	b	Header	2	6' 7 1/4"	0, 0
L	Header	1	11' 11 1/2"	0, 0	c	Rim Joist	2	4' 10 1/4"	0, 0

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

LABEL	NAME	QTY	LENGTH	BEVELS	LABEL	NAME	QTY	LENGTH	BEVELS
M	Rim Joist	1	8' 11 1/2"	0, 0	d	Internal Joist	5	4' 7 1/4"	0, 0
N	Header	1	7' 9 1/2"	0, 0	e	Riser	2	7'	0, 0
O	Header	1	2' 10 1/2"	0, 0	f	Pre Cut Stringer	7	1' 10 1/2"	0, 0
P	Header	1	2' 10 1/2"	0, 0	g	Riser	4	5'	0, 0
Q	Header	3	2' 10 1/2"	0, 0	h	Pre Cut Stringer	5	4' 4 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.

### Lumber Materials

COMPONENT	QTY	DESCRIPTION	WOOD TYPE
Beam	9	2X10X10 Treated	TREATED
Internal Joist	12	2X8X16 Treated	TREATED
Internal Joist	14	2X8X18 Treated	TREATED
Internal Joist	11	2X8X8 Treated	TREATED
Internal Joist	7	2X8X10 Treated	TREATED
Internal Joist	8	2X8X12 Treated	TREATED
Beam	4	2X10X14 Treated	TREATED
Beam	6	2X10X8 Treated	TREATED
Hand Rail	2	TimberTech Earthwood Evolutions® Tropical Deck Plank, Square Shouldered - Pacific Walnut - 16'	TIMBERTECH
Hand Rail	5	TimberTech Earthwood Evolutions® Tropical Deck Plank, Square Shouldered - Pacific Walnut - 20'	TIMBERTECH
Railing Post	9	4X4X16 Treated	TREATED
Railing Section	3	TimberTech Evolutions BuilderBoard, packaged as 2 - 6' boards - Traditional Walnut - 6'	TIMBERTECH
Railing Section	12	TimberTech Evolutions BuilderBoard, packaged as 2 - 8' boards - Traditional Walnut - 8'	TIMBERTECH
Railing Section	13	TimberTech 36" Metal Baluster Pack - 25" Baluster Height - Black - 6'/8'	TIMBERTECH
Cladding	13	TimberTech Earthwood Evolutions® Legacy Fascia Board - Ashwood - 12'	TIMBERTECH
Decking	16	TimberTech Earthwood Evolutions® Terrain Collection Deck Plank, Grooved - Sandy Birch - 16'	TIMBERTECH
Decking	52	TimberTech Earthwood Evolutions® Terrain Collection Deck Plank, Grooved - Sandy Birch - 20'	TIMBERTECH
Post	27	4X4X8 Treated	TREATED
Gusset	3	2X8X14 Treated	TREATED
Beam	2	2X10X18 Treated	TREATED
Riser	7	TimberTech Earthwood Evolutions® Legacy Riser Board - Ashwood - 12'	TIMBERTECH
Stair Step	27	TimberTech Earthwood Evolutions® Terrain Collection Deck Plank, Grooved - Sandy Birch - 12'	TIMBERTECH
Beam	2	2X10X12 Treated	TREATED

**Lumber Materials**

<b>COMPONENT</b>	<b>QTY</b>	<b>DESCRIPTION</b>	<b>WOOD TYPE</b>
Pre Cut Stringer	7	2-Step Treated Stair Stringer	TREATED
Pre Cut Stringer	5	4-Step Treated Stair Stringer	TREATED
Railing Section	2	TimberTech 36" Metal Baluster Stair Pack - 23.75" Baluster Height - Black - 6/8'	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
1	1LB. 16D Galvanized Common Nail
2	2x6-8" Triple Zinc Right Skewed Joist Hanger SKH26R-TZ
22	5" Triple Zinc Angle Clip MP5-TZ
4	1 LB. 10D X1 1/2" Nail
53	2x8-10" Triple Zinc Joist Hanger JUS28-TZ
8	7" Triple Zinc Angle Clip AC7-TZ
5	5" Triple Zinc Angle Clip MP5-TZ
2	THR128-HDG Threaded Rod
4	DTB-TZ Deck Tie Bracket
44	Anchor Bolt AB128
44	4X4 Triple Zinc Deck Post Anchor PA44E-TZ
70	80 L.B. Basic Concrete Mix
3	10 LB. Basic Concrete Mix
33	8" X 48" Concrete Form Tube
704	1/2 Galvanized Flat Washer
15	1/2 Galvanized Hex Nut
352	1/2 X 8" Galvanized Carriage Bolt
5	1LB. 8D Galvanized Common Nail
4	1 LB. 1-1/2" Joist Hanger Nail
97	Triple Zinc Rafter Tie RT7-TZ
27	7" Triple Zinc Angle Clip AC7-TZ
72	4X4 Triple Zinc Deck Post Tie SDPT7-TZ
1	1 LB. 8X3" Philips Head Stainless Deck Screws
36	TimberTech Evolutions Rail 5"x5" Post Skirt - Traditional Walnut
144	3/8 Galvanized Hex Nut
288	3/8 Galvanized Flat Washer
144	3/8 X 8" Galvanized Carriage Bolt
72	TimberTech Evolutions Rail Hardware Mounting Kit - Traditional Walnut
36	TimberTech Evolutions Rail 5"x5" Post Cover - Traditional Walnut - 42"
16	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
58	TimberTech Evolutions Rail Foot Block - Traditional Walnut
13	2 Pieces of Joist Material Nailed to Each Joist Splice
43	TT/AZEK LED Riser Light - Architectural Bronze
1	TimberTech TOPLoc 100 Sq. Ft. Pack Cedar - Cedar
3	TimberTech TOPLoc Fascia Pack Ashwood - Ashwood

<b>Qty</b>	<b>Description</b>
7	TimberTech CONCEALoc Hidden Fastener - Unit = 8 retail cartons @ 100 sq.ft. coverage each (175 CONCEALoc fasteners, 184 Screws and drive bit) - Brown
32	1/2 X 6" Galvanized Lag Screw
2	1 LB. 10D Hot-Dip Galvanized Nail
1	60 L.B. 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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