Deck Designer Specification Kit For

AZEK

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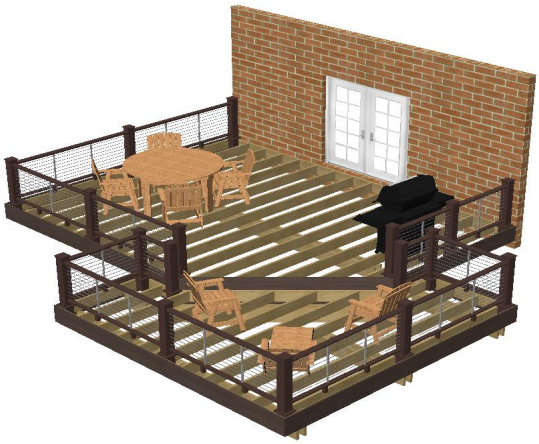
Deck layout diagram

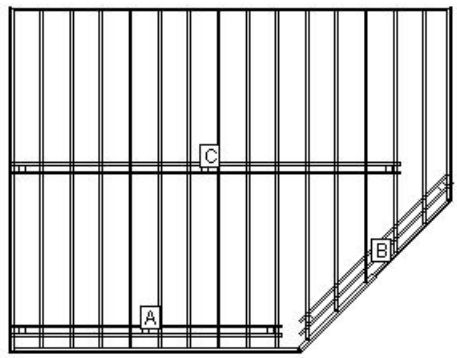


Top view without planks

Bottom view with planks

Top view with planks

Permit Page: Level 1



LOAD AND SUPPORT:

Your deck will support a 44 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.

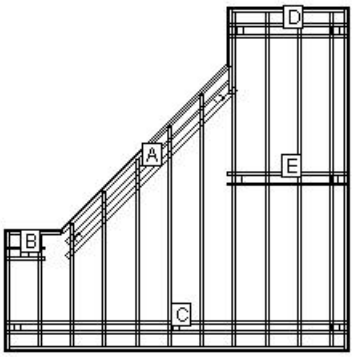
Joists:

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

Stress Anaysis: Level 1

Joist Deflection	214
Joist Bending	69
Joist Shear	105
Joist Compression	105
Beam Deflection	193
Beam Bending	59
Beam Shear	54
Post Stability	107

Permit Page: Level 2



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 11" from the top of the decking to the ground level. The top of the deck support posts will therefore be 2" above ground level.

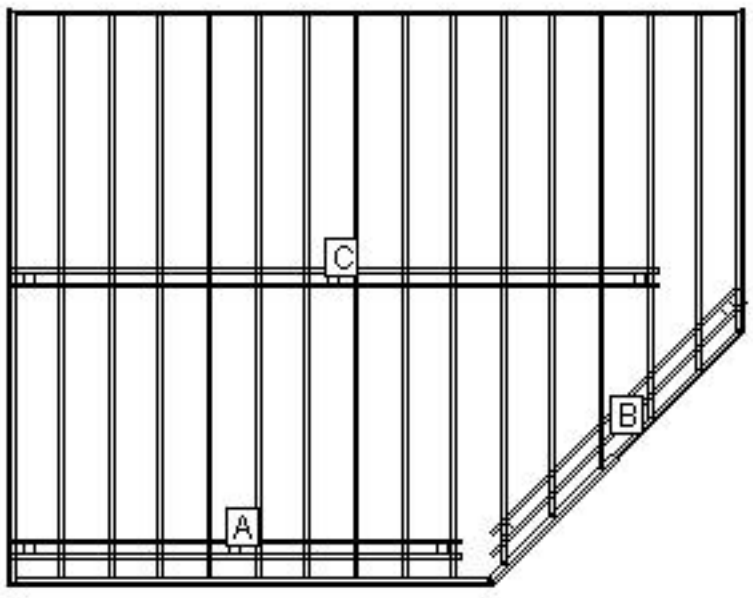
Joists:

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

Stress Anaysis: Level 2

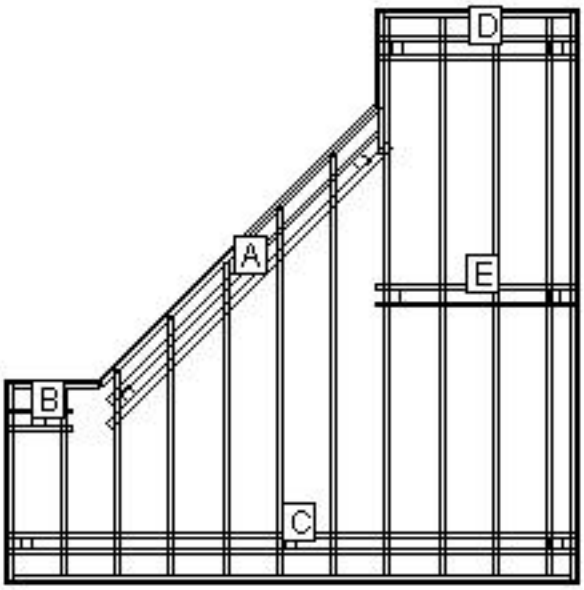
Joist Deflection	210
Joist Bending	68
Joist Shear	105
Joist Compression	105
Beam Deflection	293
Beam Bending	85
Beam Shear	77
Post Stability	192

Beam Layout Level 1



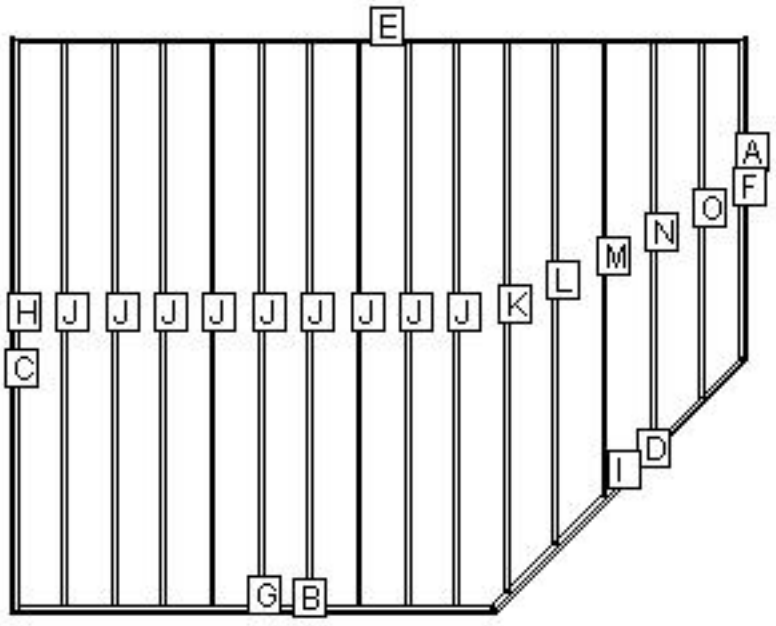
BEAM LABEL	BEAM LENGTH	POST COUNT	POST SPACING
A	12' 3"	3	5' 7 3/4"
B	9' 9"	2	8' 6"
C	17' 7"	3	8' 4"

Beam Layout Level 2



BEAM LABEL	BEAM LENGTH	POST COUNT	POST SPACING
A	9' 4 1/2"	2	8' 1 1/2"
B	1' 7"	1	0
C	14' 1/4"	3	6' 6 1/2"
D	4' 10 1/4"	2	3' 10 3/4"
E	4' 11 1/4"	2	3' 11 3/4"

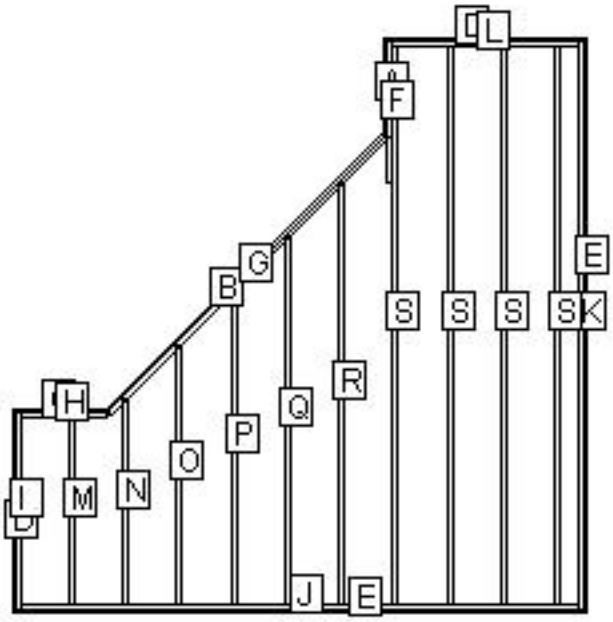
Materials Cut List: Level 1



LABEL	NAME	QTY	LENGTH	BEVELS	LABEL	NAME	QTY	LENGTH	BEVELS
A	Cladding	1	8' 10"	23, 45	I	Header	1	9' 7 1/4"	0, 0
B	Cladding	1	13' 2"	45, 23	J	Internal Joist	9	15' 3 1/4"	0, 0
C	Cladding	1	15' 8"	45, 45	K	Internal Joist	1	14' 11 1/2"	0, 45
D	Cladding	1	9' 8"	23, 23	L	Internal Joist	1	13' 7 1/2"	0, 45
E	Header	1	19' 7 1/4"	0, 0	M	Internal Joist	1	12' 3 1/2"	0, 45
F	Rim Joist	1	8' 9"	0, 0	N	Internal Joist	1	10' 11 1/2"	0, 45
G	Header	1	12' 11 1/4"	0, 0	O	Internal Joist	1	9' 7 1/2"	0, 45
H	Rim Joist	1	15' 6 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	2' 4 1/4"	45, 23	K	Rim Joist	1	14' 1/4"	0, 0
B	Cladding	1	9' 8 3/4"	23, 23	L	Header	1	4' 7 1/4"	0, 0
C	Cladding	1	2' 4 1/4"	23, 45	M	Internal Joist	1	4' 7 1/4"	0, 0
D	Cladding	2	5'	45, 45	N	Internal Joist	1	5' 3/4"	45, 0
E	Cladding	2	14' 2"	45, 45	O	Internal Joist	1	6' 4 3/4"	45, 0
F	Rim Joist	1	3' 6 1/4"	0, 0	P	Internal Joist	1	7' 8 3/4"	45, 0
G	Header	1	9' 8 3/4"	0, 0	Q	Internal Joist	1	9' 3/4"	45, 0
H	Header	1	2' 2"	0, 0	R	Internal Joist	1	10' 4 3/4"	45, 0
I	Rim Joist	1	4' 10 1/4"	0, 0	S	Internal Joist	4	13' 9 1/4"	0, 0
J	Header	1	13' 9 1/4"	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	16	2X8X16 Treated	TREATED
Internal Joist	7	2X8X14 Treated	TREATED
Internal Joist	1	2X8X12 Treated	TREATED
Beam	2	2X10X14 Treated	TREATED
Beam	4	2X10X10 Treated	TREATED
Beam	3	2X10X18 Treated	TREATED
Railing Post	1	4X4X12 Treated	TREATED
Railing Post	2	4X4X18 Treated	TREATED
Railing Section	2	AZEK 6' Premier Custom Rail Pack - Kona® - 6'	AZEK
Railing Section	8	AZEK 8' Premier Custom Rail Pack - Kona® - 8'	AZEK
Baluster	18	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	10	AZEK Vintage Collection® Rim Joist Covers/Fasica - Dark Hickory® - 12'	AZEK
Decking	6	AZEK Terra Collection Deck Plank, Square Shouldered - Sedona® - 12'	AZEK
Decking	39	AZEK Terra Collection Deck Plank, Square Shouldered - Sedona® - 16'	AZEK
Decking	15	AZEK Terra Collection Deck Plank, Square Shouldered - Sedona® - 20'	AZEK
Header	4	2X8X10 Treated	TREATED
Header	2	2X8X18 Treated	TREATED
Post	2	4X4X8 Treated	TREATED
Beam	2	2X10X16 Treated	TREATED
Railing Post	1	4X4X14 Treated	TREATED
Beam	1	2X10X8 Treated	TREATED

To find an AZEK Dealer or Contractor in your area, please go to www.azek.com

Other Materials

Qty	Description
7	TT/AZEK CableRail 100' Stainless Steel Cable - Stainless - 100'
2	1 LB. 10D X1 1/2" Nail
6	1 LB. 10D Hot-Dip Galvanized Nail
38	2x8-10" Triple Zinc Joist Hanger JUS28-TZ
1	1LB. 16D Galvanized Common Nail
10	2x6-8" Triple Zinc Left Skewed Joist Hanger SKH26L-TZ
8	7" Triple Zinc Angle Clip AC7-TZ
2	5" Triple Zinc Angle Clip MP5-TZ
2	THR128-HDG Threaded Rod
4	DTB-TZ Deck Tie Bracket
3	1LB. 8D Galvanized Common Nail
2	1 LB. 1-1/2" Joist Hanger Nail
62	Triple Zinc Rafter Tie RT7-TZ
18	Anchor Bolt AB128
18	4X4 Triple Zinc Deck Post Anchor PA44E-TZ
28	80 L.B. Basic Concrete Mix
1	60 L.B. Basic Concrete Mix
3	10 LB. Basic Concrete Mix
14	8" X 48" Concrete Form Tube
288	1/2 Galvanized Flat Washer
6	1/2 Galvanized Hex Nut
144	1/2 X 8" Galvanized Carriage Bolt
34	4X4 Triple Zinc Deck Post Tie SDPT7-TZ
1	1 LB. 8X3" Philips Head Stainless Deck Screws
17	AZEK 5 1/2" Post Skirt - Kona®
68	3/8 Galvanized Hex Nut
136	3/8 Galvanized Flat Washer
68	3/8 X 8" Galvanized Carriage Bolt
17	AZEK 5 1/2" Pyramid Cap - Kona®
17	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] -
12	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
4	AZEK Cortex - 100 LF Terra Collection - Sedona
40	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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