

Lowe's Deck Design

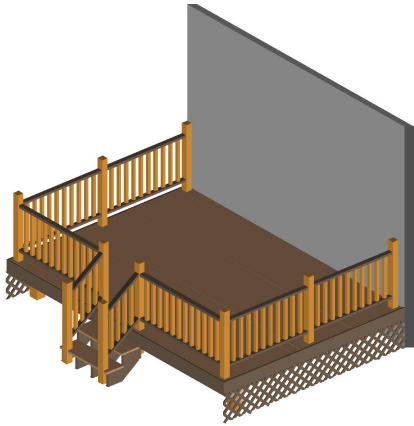
condo deck

Print this document and take it to the Doors and Windows desk or Commercial Sales desk at your local Lowe's store.

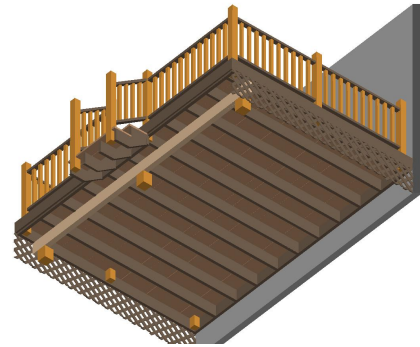
One of our associates will help you find the materials you need.

Your Deck Design's Project ID is:
110570385

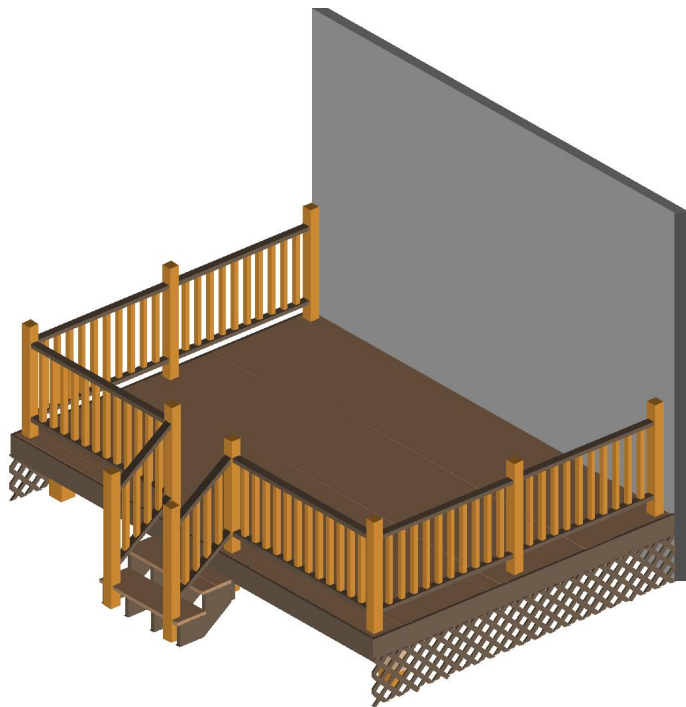
Deck layout diagram



Top view without planks

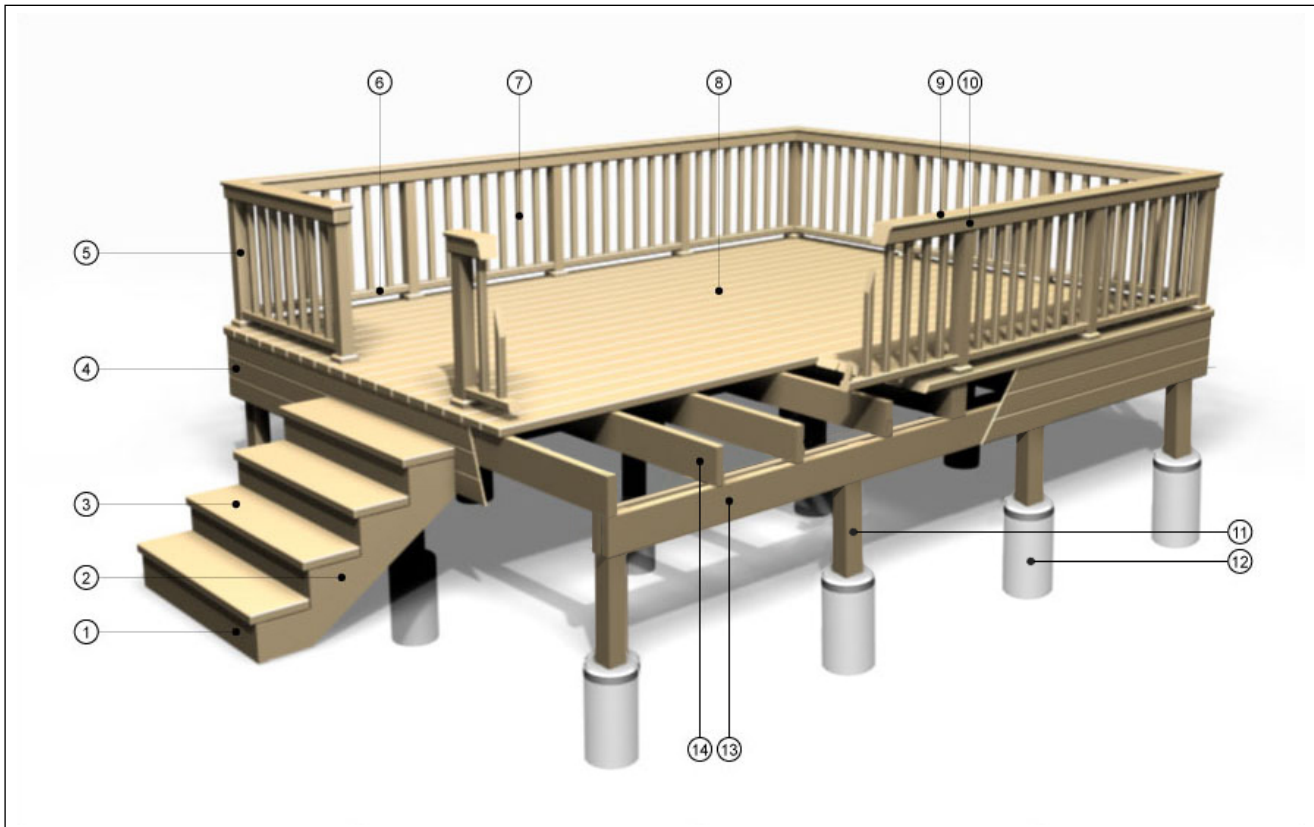


Bottom view with planks



Top view with planks

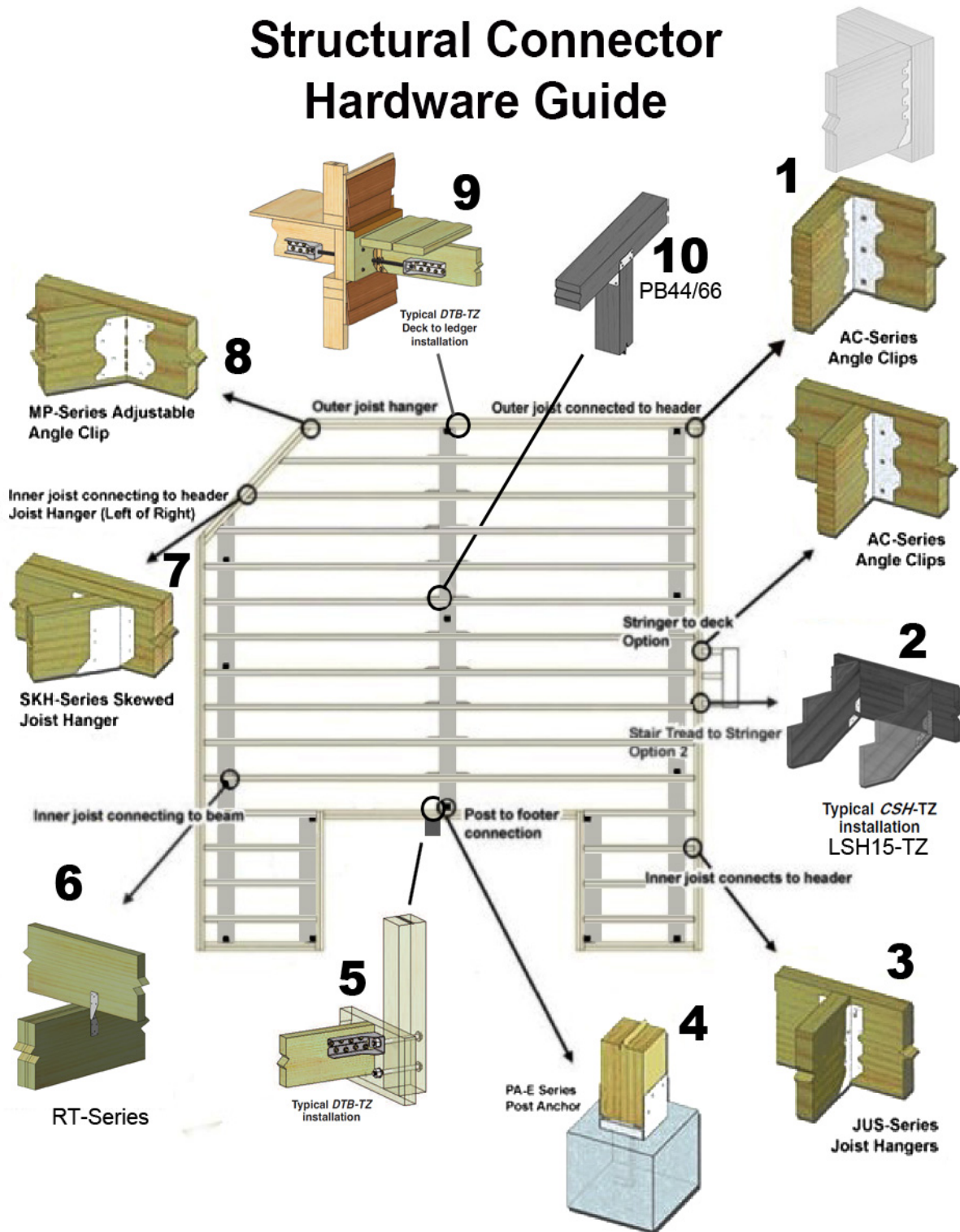
Deck Part Identification



1. Riser	6. Bottom Rail	11. Post	Major Deck Components NOTE: Not to scale ©2016 DIY Technologies
2. Stringer	7. Baluster	12. Post Footer	
3. Tread	8. Decking	13. Beam	
4. Fascia	9. Rail Cap	14. Joist	
5. Rail Post	10. Top Rail		

- Baluster** The vertical pieces of a railing spaced at regular intervals between posts.
- Beam** A horizontal framing piece, which rests on posts and supports joists.
- Decking** The boards used to make the walking surface of the deck.
- Joist** A horizontal frame piece that supports the decking and spreads the weight over the beams.
- Ledger** A horizontal strip that connects the deck to the house.
- Post Footer** Concrete filled hole that the post is attached to.
- Post** A vertical framing piece, used to support a beam or joist.
- Riser** A board attached to the vertical cut surface of a stair stringer.
- Stringer** The diagonal board used to support treads and risers on a stairway.
- Tread** The horizontal surface of a stair.
- Bottom Rail** The lower horizontal piece that connects rail posts and supports balusters.
- Top Rail** The upper horizontal piece that connects rail posts and supports balusters.
- Rail Cap** The top horizontal trim on railing.
- Rail Post** The vertical post connected to the deck framing that supports the railing.

Structural Connector Hardware Guide



INSTALLATION CHECKLIST

General legal requirements

Check title restrictions and easements, building codes and zoning by-laws to make sure your deck design complies.

Obtain any required permits or zoning variances.

Check with local utility companies to make sure deck footings and construction will not disturb or obstruct access to piping or wiring.

Deck function

While planning your deck, determine how it will be used.

Your climate

While planning your deck, consider local weather.

Take advantage of good views.

Install ledger

Install ledger to anchor deck to house.

Ledger placement determines the deck floor level, normally 2-4" below floor line.

If unsure about attaching a ledger board, consult a professional.

Use batterboards and mason's string to mark off deck area and locate footing.

Square with string

Attach string to ledger and/or batterboards.

Batterboards go just outside perimeter corners of the deck.

Use the 3-4-5 method to get a 90 degree angle in one corner.

Footing requirements

Footing/posthole depth and location is dictated by local codes and by-laws.

INSTALLATION CHECKLIST

Attach beams to posts

Determine the desired deck floor height on the posts.

Determine height for securing the top of the beam to the post.

Attach joists

Joists are attached to ledger board with joist hangers or by toenailing. See local building codes for required installation.

Determine where blocking will go and snap a chalk line, but make sure to stagger pieces for ease of nailing.

Lay decking

Attach boards "bark side up" to minimize cupping and warping.

The deck boards can be trimmed after they are installed.

Railings

Railings must be firmly attached to the framing members of the deck.

Check local codes and by-laws for requirements on railings.

Stairs

Check local codes and by-law requirements on stairs.

Measure the rise and run of the stairs.

Multi-level decks

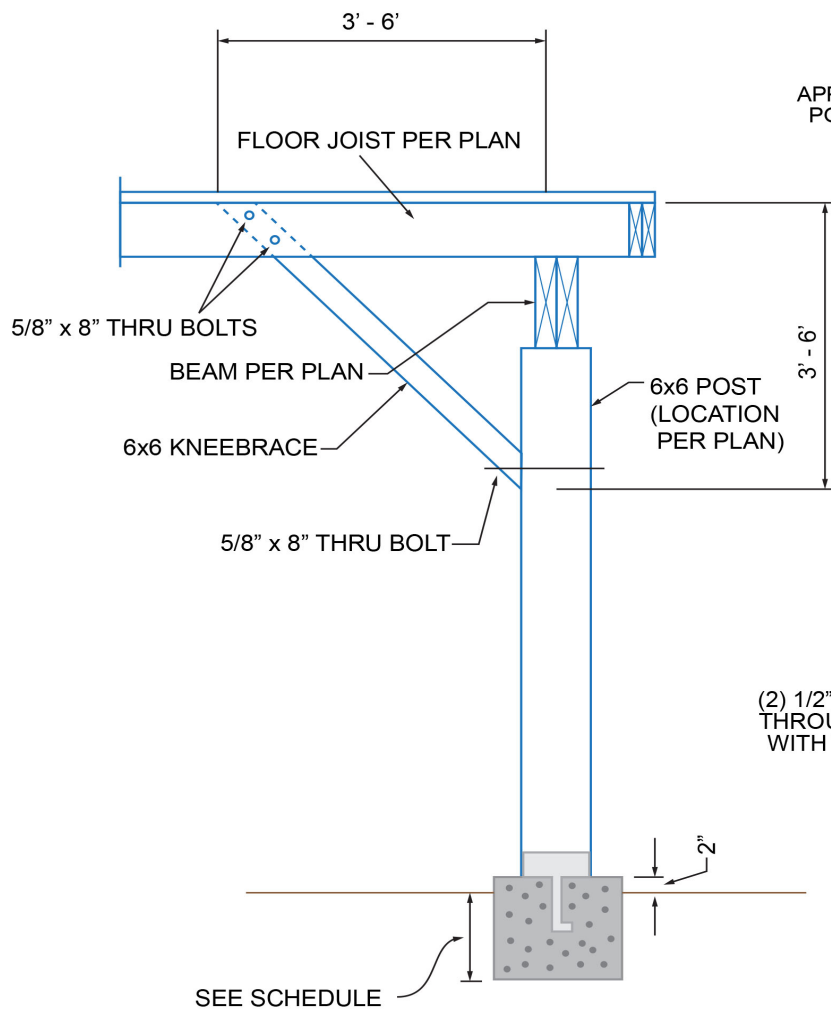
When planning a multi-level deck, for aesthetics make one deck larger than the other.

INSTALLATION CHECKLIST

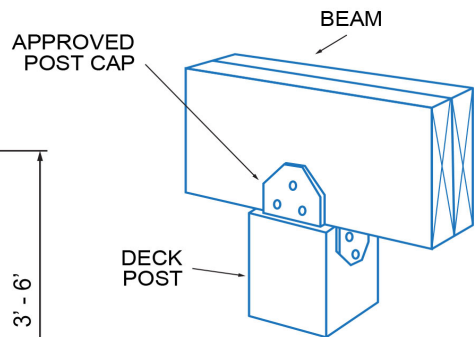
Post bracing

Brace posts as dictated by local codes and by-laws.

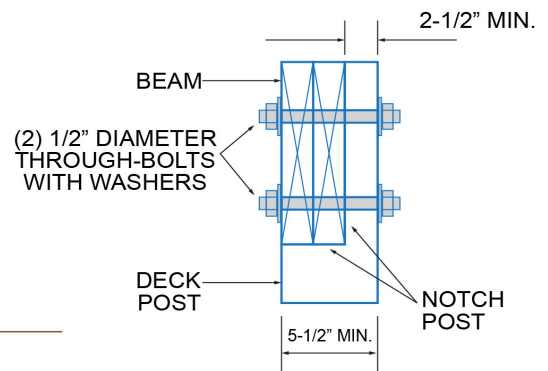
BRACE AT JOIST



POST CAP



NOTCHED POST



8'-0" MAX. GRADE TO TOP OF DECKING

NOT FOR CONSTRUCTION TO BE ENGINEERED TO LOCAL CODES

NOT TO SCALE

Tools Required & Tips for Success

Tools Required:

Carpenter's level	Hearing protection	Ruler
Carpenter's square	Hammer	Safety glasses
Chalk line	Hand saw	Screwdrivers
Chisel	Hoe and hose (to mix concrete)	Shims or spacers
Circular saw	Ladder	Shovel
Claw hammer	Line	Socket wrench
Combination square	Mallet	Stakes or batter boards
Crescent wrench	Nail set	String
Drills and bits	Pencils	Tamper
Dust mask	Pick	Tape measure
Extension cord	Plumb bob	Transit
Framing square	Post hole digger	Tool belt
Gloves	Rafter square	Two foot level

Tips for success:

1. When cutting or drilling wood, always wear eye protection to prevent injury from flying wood particles
2. When cutting lumber, a fabric breathing mask will help to avoid ingestion of the dust. Wear gloves as the surface is rough and can cause splinters.
3. For outdoor projects, nails and other hardware should be hot-dipped zinc-coated or equally well-protected material to keep them from rusting.
4. To help prevent splitting, drill pilot holes in each piece of lumber before nailing or screwing.
5. Make sure to treat your deck to prolong its lifespan.
6. Before you apply a finish on your deck, test for moisture by sprinkling the surface of a small area of the deck with water. If the droplets bead up, the wood is still wet. Wood that is dry enough for treatment will quickly soak up the water.
7. Deck finishes come in both water and oil based. While oil-based finishes penetrate deeper into the wood, water-based products are easier to clean up and are more forgiving in damp conditions.
8. When applying finish or cleaner to your deck, protect surrounding vegetation by wetting with a hose and covering with plastic.
9. Invest in a pair of kneepads if you are doing floor jobs or working on a deck.
10. Dispose of scraps in the regular trash or take to a landfill - never burn.

**Below are the Specifications And Materials
that you have selected for your deck.**

Overview	Number of Levels: 1	Footer Depth: 24"
	Total Square Feet: 140	Live Load: 55 Dead Load: 10

Component	Size	Wood Type
Joists	2x8	Top Choice Treated
Beams	2x8	Top Choice Treated
Posts	6x6	Top Choice Treated
Decking	7/8 x 6	Trex Composite
Railing		Composite
Lattice		plastic

FooterDepth	24"	Live Load	55 psf
		Dead Load	10 psf

Material List

Lumber Materials					
Item#	Qty	Description	Usage	Unit Cost	Cost
339723	2	Barrette Cedar Tone Traditional Vinyl Lattice (Common: 0.2-in x 4-ft x 8-ft; Actual: .15-in x 4-ft x 8-ft)	Lattice	26.97	53.94
468941	4	Top Choice #2 Prime Pressure Treated Lumber (Common: 2 x 8 x 16; Actual: 1.5-in x 7.25-in x 16-ft)	Beam	16.47	65.88
488905	4	Severe Weather 3-Step CA Copper Azole Treated Deck Stair Stringer	Pre Cut Stringer	7.97	31.88
639134	5	Severe Weather #2 Pressure Treated Lumber (Common: 4 x 4 x 8-ft; Actual: 3.5-in x 3.5-in x 8-ft)	Railing Post	7.97	39.85
139392	7	Fiberon White Composite Deck Railing (Common: 3.5-in x 4-in x 6-ft; Actual: 3.5-in x 4-in x 72.5-in)	Railing Section	34.98	244.86
468939	12	Top Choice #2 Prime Pressure Treated Lumber (Common: 2 x 8 x 10; Actual: 1.5-in x 7.25-in x 10-ft)	Rim Joist	10.67	128.04
468960	1	#2 Pressure Treated Lumber (Common: 6 x 6 x 8; Actual: 5.5-in x 5.5-in x 96-in)	Post	21.97	21.97
468938	1	Top Choice #2 Prime Pressure Treated Lumber (Common: 2 x 8 x 8; Actual: 1.5-in x 7.25-in x 96-in)	Stringer Support	7.67	7.67
Other Materials					
Item#	Qty	Description	Usage	Unit Cost	Cost
116239	20	USP 2-in x 8-10-in Triple Zinc Slant Nail Joist Hanger	Joist Framing	1.11	22.20
69139	4	Grip-Rite 1 lb 9-Gauge 3-in Hot-Dipped Galvanized Smooth Nails	Joist Framing	3.87	15.48
37164	4	USP1-5/16-in x 2-3/8-in x 6-15/16-in Triple Zinc Angle Clip	Joist Framing	3.11	12.44
8082	2	USP 4-in x 4-in Triple Zinc Deck Post Tie	PostBmOrLedger	2.81	5.62
193212	5	The Hillman Group 1/2-in x 10-in HDG Anchor Bolt	PostBmOrLedger	1.16	5.80
21993	12	USP 1-1/2-in x 6-1/2-in Triple Zinc Rafter Tie	Joist Framing	0.58	6.96
56928	1	Grip-Rite 5 lbs 9-Gauge 1-1/2-in Hot Dipped Galvanized Smooth Joist Hanger Nails	Joist Framing	16.93	16.93
10385	7	QUIKRETE 80 lbs Setting Post Concrete Mix	Footing to Post	3.04	21.28
222710	1	QUIKRETE 50 lbs Concrete Mix	Footing to Post	2.26	2.26
10150	2	QUIKRETE 12-in Concrete Forming Tube	Footing to Post	9.22	18.44
69141	1	1 lb 8-Gauge 3-1/2-in Hot-Dipped Galvanized Smooth Nails	Footing to Post	3.87	3.87
6472	3	USP 6-in x 6-in Steel G185 Post Base	Footing to Post	19.98	59.94
163411	12	USP 6-in x 6-in Steel G185 Post Cap	Post to Beam	4.43	53.16
29926	4	USP 1-3/4-in x 5-1/16-in Triple Zinc Slope/Skew Hanger	CladRimOrStair	6.98	27.92
43647	1	The Hillman Group 25-Count 1/2-in-13 Zinc Plated Standard (SAE) Hex Nuts	Railing Post	4.74	4.74
135639	8	The Hillman Group 2-Count 1/2-in-13 Zinc Plated Standard (SAE) Hex Nuts	Railing Post	1.09	8.72
160835	10	Fiberon White Composite Deck Post Sleeve (Common: 4.1-in; Actual: 4.1-in x 4-in)	Railing Post	25.98	259.80
67377	41	The Hillman Group 1/2-in- 13 x 8-in Hot-Dipped Galvanized Standard (SAE) Hex Bolt	Railing Post	2.87	117.67
41762	3	Project Pak 25-Count 1/2-in x 1-in Galvanized/Un-Coated Standard (SAE) Flat Washer	Railing Post	8.23	24.69

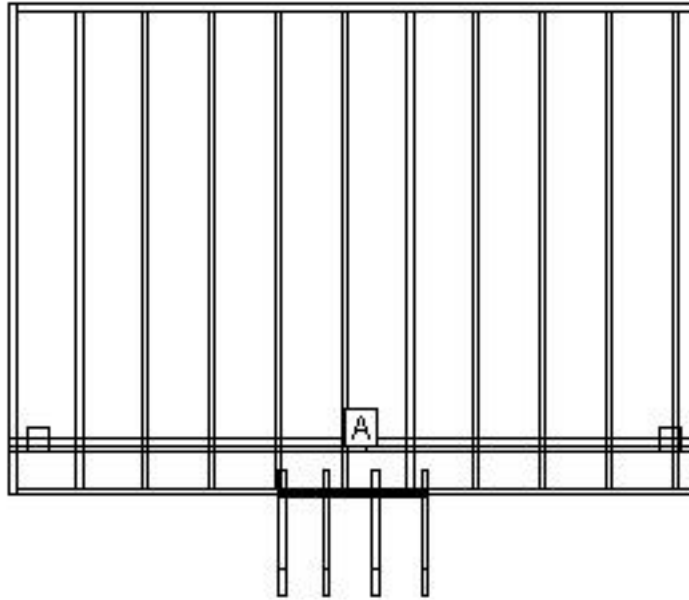
Other Materials					
Item#	Qty	Description	Usage	Unit Cost	Cost
58128	2	The Hillman Group 4-Count 1/2-in x 1-in Zinc Plated Standard (SAE) Flat Washer	Railing Post	1.24	2.48
7067	10	Fiberon White Composite Post Collar (Common: 4-in x 4-in; Actual: 5.6-in x 5.6-in)	Railing Post	3.78	37.80
6921	10	Fiberon White Composite Post Cap (Common: 4-in x 4-in; Actual: 5.8-in x 5.8-in)	Railing Post	4.99	49.90
7228	6	Fiberon 4-Pack Deck Rail Brackets	RailingOrTrim	9.98	59.88
345213	4	Fiberon 2-Pack Deck Rail Brackets	RailingOrTrim	9.98	39.92
471150	3	FastenMaster Versaclip 90-Count Black Self-Drilling Clip Deck Hidden Fasteners (50 Sq Ft Coverage)	Deck Planking	41.48	124.44

Special Order Materials *							
Item#	Qty	Description	Usage	Model#	Vendor#	Unit Cost	Cost
11720	15	Fiberon 5-Pack White Composite Deck Baluster (Common: 38-in; Actual: 38-in)	Baluster	BAL SQ 38 5PK WH	10099	14.00	210.00
109370	3	Trex Pebble Grey Composite Deck Trim Board (Common: 1-in x 8-in x 12-ft; Actual: 0.75-in x 7.25-in x 12-ft)	Cladding	668087	711	57.27	171.81
262667	21	Trex Select Pebble Grey Ultra-Low Maintenance Composite Decking (Common: 1-in x 5.5-in x 16-ft; Actual: 0.875-in x 5.5-in x 16-ft)	Decking	674201	711	45.20	949.20
262667	1	Trex Select Pebble Grey Ultra-Low Maintenance Composite Decking (Common: 1-in x 5.5-in x 12-ft; Actual: 0.875-in x 5.5-in x 12-ft)	Stair Step	664101	711	33.90	33.90
262667	1	Universal Start Clip - 400 Sq. Ft Bags (All Decking) (400 sq ft for 16" O.C.)	Deck Planking	900091	711	32.15	32.15

* Delivery lead times of Special Order Materials will apply. Please contact a store associate for more information.

Total Cost Without Tax:	2,993.49
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Beam Layout Level 1



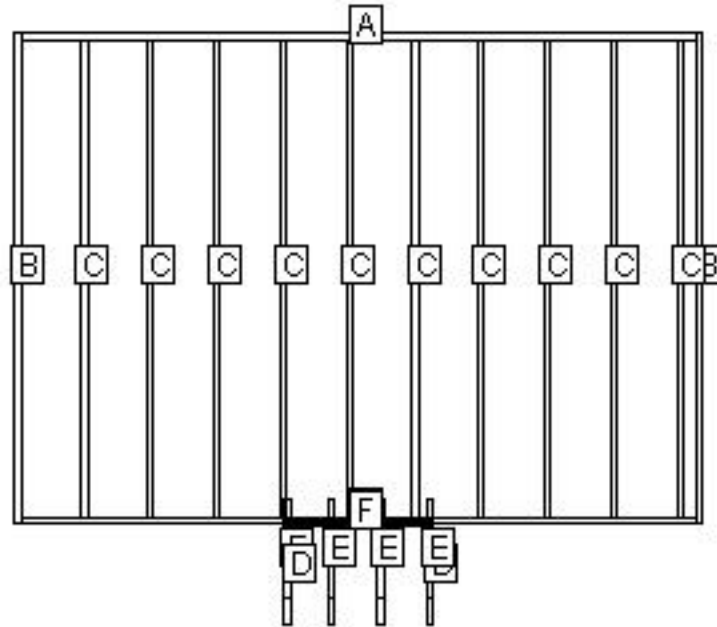
BEAM LABEL
A

BEAM LENGTH
13' 10 1/4"

POST COUNT
3

POST SPACING
6' 4 1/2"

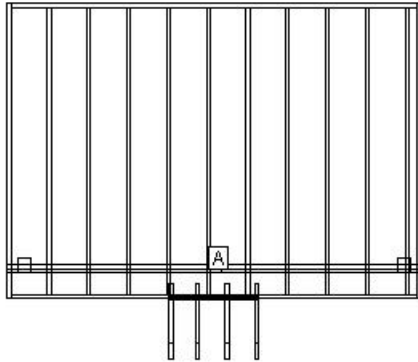
Materials Cut List: Level 1



LABEL	NAME	QTY	LENGTH	BEVELS	LABEL	NAME	QTY	LENGTH	BEVELS
A	Header	2	13' 7 1/4"	0, 0	D	Cladding	2	2' 6"	0, 0
B	Rim Joist	2	9' 10 1/4"	0, 0	E	Pre Cut Stringer	4	2' 6"	0, 0
C	Internal Joist	10	9' 7 1/4"	0, 0	F	Stringer Support	1	3'	0, 0

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

Analysis Page: Level 1



LOAD AND SUPPORT:

Your deck will support a 55 PSF live load.
Posts have 24" below ground support.

DECK AND POST HEIGHT:

You selected a height of 24" from the top of the decking to the ground level. The top of the deck support posts will therefore be 15" above ground level.

Joists:

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

Stress Analysis: Level 1

Joist Deflection	198
Joist Bending	65
Joist Shear	113
Joist Compression	113
Beam Deflection	348
Beam Bending	83
Beam Shear	82
Post Stability	265

Warning: You have prepared a preliminary design of a deck for residential purposes, including the preparation of a preliminary bill of materials and a preliminary materials pricing estimate. Materials pricing estimates do not include labor costs and are subject to change. This preliminary design is NOT intended for use as a final design and may not be sufficient for permit applications. Variations in building codes, specific architectural considerations, and/or site conditions may require changes to the preliminary design. You are responsible for the final structural, code compliance, material usage, and structural safety of this design. Be sure to check and verify the design with your architect, engineer and building inspector.

Lowe's does not assume any responsibility for design, engineering, or construction; for the use of installation of materials; or for compliance with any building code or standard of workmanship. You should consult with professionals (including an architect, engineer, licensed contractor, and/or building inspector or code official) concerning the suitability, safety, and legality of this preliminary design, rather than relying on this tool for those functions. Always refer to information on fastener packaging for use with pressure treated lumber.

Preferences: Certain assumptions have been made in order to provide an accurate material quote for your deck project. Because local codes and bylaw requirements may vary throughout the country (e.g., by municipality and state/province), it is imperative that you check with your architect, engineer, licensed contractor, and/or building inspector or code official for compliance with local requirements and building codes. The following building practice assumptions have been made in planning the materials for your project:

Footer Depth:	24"
Footer Type:	Post On Concrete
Joist Cantilever:	6 inches
Joist Spacing:	16" center to center
Spacing Between Deck Planking:	1/8"
Stair Stringers:	10 inches
Deck Live Load:	40 psf
Deck Dead Load:	10 psf
Stairs Live Load:	40 psf
Stairs Dead Load:	10 psf

Be sure to check and verify the design with your architect, engineer and building inspector.

Note: It is recommended that joist that meet on top of beams should be spliced with gussets. The gussets should be 2- by wood the same width at the joist and overlap by 6 inches on each side. These gussets should be held in place with 12 16d galvanized nails.

Handling Precautions for Pressure-Treated Wood

Disposal: Dispose of treated wood by ordinary trash collection. Treated wood should not be burned in open fires, stoves, fireplaces, or residential bilers because toxic chemicals may be produced as part of the smoke and ashes. Treated wood from commercial or industrial use (e.g construction sites) must be disposed of in accordance with state and Federal regulations, which may include burning only in commercial or industrial incinerators or boilers. Always refer to information on fastener packaging for use with pressure treated lumber.

Operating Conditions: Avoid frequent or prolonged inhalation of sawdust from treated wood. When sawing, sanding and machining treated wood, wear a dust mask. Whenever possible, these operations should be performed outdoors to avoid indoor accumulations of airborne sawdust from treated wood. (Lowe's instore saws are equipped with a vacuum to minimize airborne sawdust).

Protection: When power-sawing and machining, wear goggles to protect eyes from flying particles.

Clean Thoroughly: Wear gloves when working with the wood. After working with the wood, and before eating, drinking, toileting, and use of tobacco products, wash exposed areas thoroughly.

Wash Separately: Because preservatives or sawdust may accumulate on clothes, they should be laundered before reuse. Wash work clothes separately from other household clothing.

For Additional Information: www.epa.gov - www.healthybuilding.net - www.ccasafetyinfo.com
www.treatedwood.com - Call: (800)282-0600 or (800)356-AWPI