



(910) 4283487

**DECK DESIGNER**  
powered by DIY Technologies



## HOWARD 12 X 16 DECK

With your deck design in hand, talk to a Lowe's project specialist to start your build. You can reach us in store, online or over the phone.

### In Store

Take this document or your project ID number to the customer service desk and talk to a project specialist.

### Online

Go to [Lowes.com/deckinstall](https://www.lowes.com/deckinstall) and schedule an in-home consultation.

### Phone

Call 1-800-GO-LOWES and schedule an in-home consultation.

## YOUR DECK DESIGN PROJECT ID: 505020715

This number lets you or your project specialist retrieve your deck design.

Created on Jul-05-2019

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Project ID: 505020715

Product availability based on Store#: 1777

## PLAN OVERVIEW



Estimated materials cost with your  
**custom selections:**

**\$1,863**

### Overview

Number of Levels: 1  
Total Square Feet: 193  
Footer Depth: 30"  
Live Load: 40psf  
Dead Load: 10psf

**Decking Type:** Wood  
**Decking Size:** 5/4 x 6  
**Decking Color:** Treated

**Railing Material:** Wood  
**Railing Style:** Standard  
**Railing Color:** Treated

**Joist Spacing:** 16  
**Joist Wood Type:** Pressure Treated  
**Joist Size:** 2 x 10

**Beam Size:** 2 x 10  
**Post Wood Type:** Pressure Treated  
**Post Size:** 6 x 6

A detailed list can be found starting on page 5.

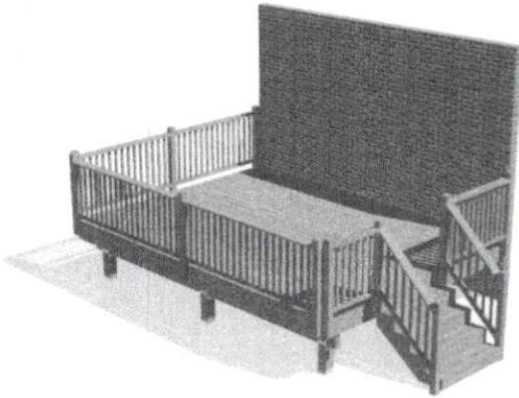
Does not include state and local taxes.

Note: Estimates are based on representative costs of materials in your geographic area. Actual, current material costs may vary.

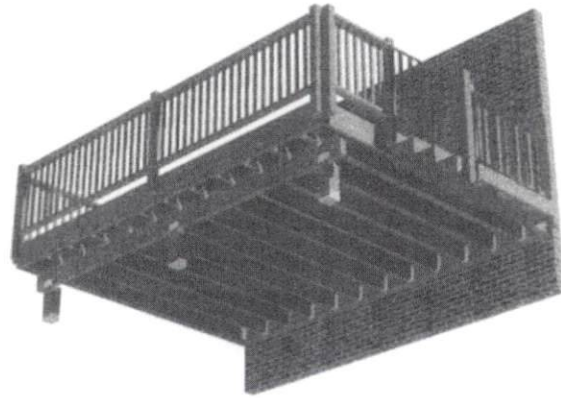
Pricing accurate as of Jul-05-2019

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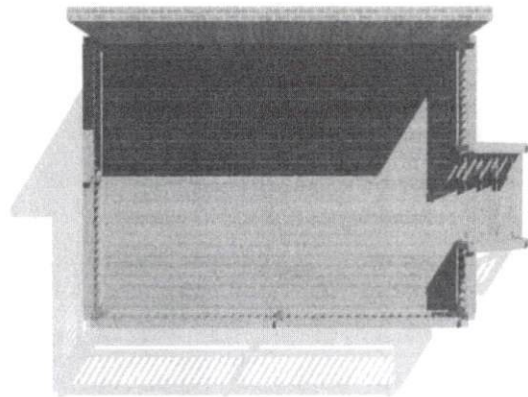
## DECK LAYOUT



Birds Eye View



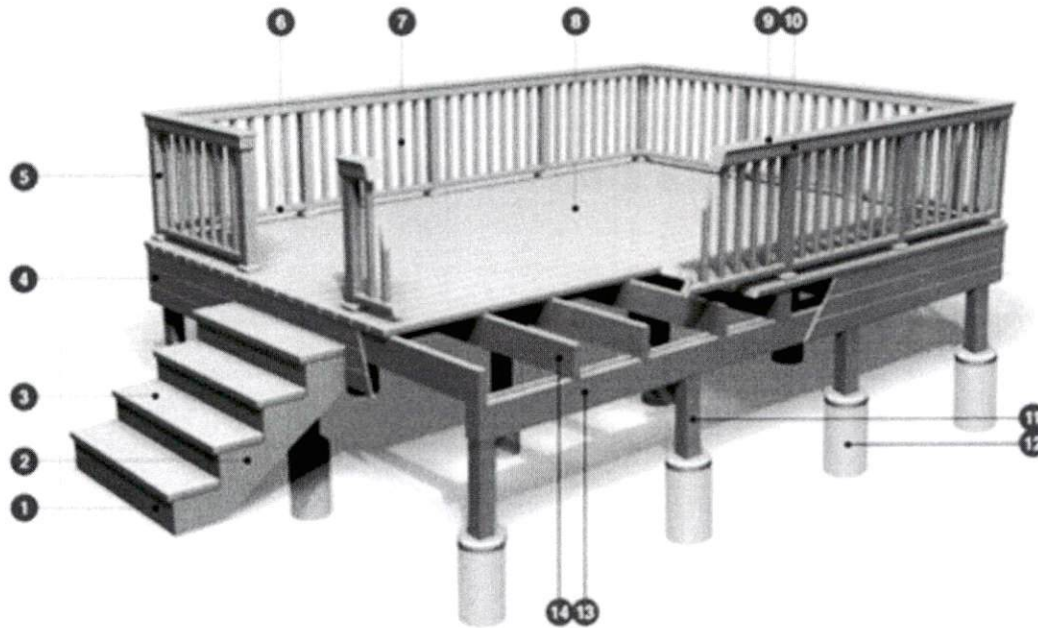
Bottom View



Top View with Planks



## MAJOR DECK COMPONENTS



- 1 **Riser** A board attached to the vertical cut surface of a stair stringer.
- 2 **Stringer** The diagonal board used to support treads and risers on a stairway.
- 3 **Tread** The horizontal surface of a stair.
- 4 **Fascia** Vertical boards that face outwards from the edges of the deck, attached to the rim joists.
- 5 **Rail Post** The vertical post connected to the deck framing that supports the railing.
- 6 **Bottom Rail** The lower horizontal piece that connects rail posts and supports balusters.
- 7 **Baluster** The vertical pieces of a railing spaced at regular intervals between posts.
- 8 **Decking** The boards used to make the walking surface of the deck.
- 9 **Rail Cap** The top horizontal trim on railing.
- 10 **Top Rail** The upper horizontal piece that connects rail posts and supports balusters.
- 12 **Post Footer** Concrete filled hole that the post is attached to.
- 13 **Beam** A horizontal framing piece, which rests on posts and supports joists.
- 14 **Joist** A horizontal frame piece that supports the decking and spreads the weight over the beams.

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**LUMBER MATERIALS**

<b>Usage</b>	<b>Quantity</b>	<b>Description</b>	<b>Item #</b>
RailPost	4	Severe Weather (Common: 4-in x 4-in x 12-Ft; Actual: 3.5-in x 3.5-in x 12 Feet) Pressure Treated Lumber 4412T240C	456208
	1	Top Choice (Common: 2-in x 4-in x 12-Ft; Actual: 1.5-in x 3.5-in x 12 Feet) Pressure Treated Lumber TC2412T225EL	489079
	2	Top Choice (Common: 2-in x 4-in x 16-Ft; Actual: 1.5-in x 3.5-in x 16 Feet) Pressure Treated Lumber TC2416T225EL	489091
	83	Top Choice (Common: 2-in x 2-in x 42-in; Actual: 1.31-in x 1.31-in x 41.75-in) Pressure Treated Brown Pine Deck Baluster P42SE1T15EL	488985
	1	Top Choice (Common: 5/4-in x 6-in x 12-ft; Actual: 1-in x 5.5-in x 12-ft) Radius Edge Pressure Treated Southern Yellow Pine Deck Board	468974
Fascia	2	Top Choice (Common: 5/4-in x 6-in x 16-ft; Actual: 1-in x 5.5-in x 16-ft) Radius Edge Pressure Treated Southern Yellow Pine Deck Board	468991
	2	Top Choice (Common: 2-in x 12-in x 12-Ft; Actual: 1.5-in x 11.25-in x 12 Feet) Pressure Treated Lumber TC21212T225EL	489229
Fascia	2	Top Choice (Common: 2-in x 12-in x 16-Ft; Actual: 1.5-in x 11.25-in x 16 Feet) Pressure Treated Lumber TC21216T225EL	489239
Header	26	Top Choice (Common: 5/4-in x 6-in x 16-ft; Actual: 1-in x 5.5-in x 16-ft) Radius Edge Pressure Treated Southern Yellow Pine Deck Board	468991
	2	Top Choice (Common: 2-in x 10-in x 16-Ft; Actual: 1.5-in x 9.25-in x 16 Feet) Pressure Treated Lumber TC21016T225EL	489215
Beam	2	Top Choice (Common: 2-in x 10-in x 16-Ft; Actual: 1.5-in x 9.25-in x 16 Feet) Pressure Treated Lumber TC21016T225EL	489215

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Usage	Quantity	Description	Item #
Post	1	Severe Weather (Common: 6-in x 6-in x 8-Ft; Actual: 5.5-in x 5.5-in x 8 Feet) Pressure Treated Lumber 668T240C	456216
Outer Joist	2	Top Choice (Common: 2-in x 10-in x 12-Ft; Actual: 1.5-in x 9.25-in x 12 Feet) Pressure Treated Lumber	489210
Internal Joist	11	Top Choice (Common: 2-in x 10-in x 12-Ft; Actual: 1.5-in x 9.25-in x 12 Feet) Pressure Treated Lumber	489210
	1	Top Choice (Common: 2-in x 12-in x 16-Ft; Actual: 1.5-in x 11.25-in x 16 Feet) Pressure Treated Lumber TC21216T225EL	489239
	2	Top Choice (Common: 5/4-in x 6-in x 16-ft; Actual: 1-in x 5.5-in x 16-ft) Radius Edge Pressure Treated Southern Yellow Pine Deck Board	468991
Stringer	1	Top Choice (Common: 2-in x 12-in x 8-Ft; Actual: 1.5-in x 11.25-in x 8 Feet) Pressure Treated Lumber TC2128T225EL	489220
Stringer	1	Top Choice (Common: 2-in x 12-in x 16-Ft; Actual: 1.5-in x 11.25-in x 16 Feet) Pressure Treated Lumber TC21216T225EL	489239
	1	Top Choice (Common: 2-in x 12-in x 12-Ft; Actual: 1.5-in x 11.25-in x 12 Feet) Pressure Treated Lumber TC21212T225EL	489229
	12	Top Choice (Common: 2-in x 2-in x 42-in; Actual: 1.31-in x 1.31-in x 41.75-in) Pressure Treated Brown Pine Deck Baluster P42SE1T15EL	488985

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## HARDWARE MATERIALS

Usage	Quantity	Description	Item #
	12	USP 1-13/16-in x 2-1/4-in 14-Gauge Triple Zinc Deck Tie	76299
	24	The Hillman Group 1/2-in-13 Galvanized Standard (SAE) Hex Nut	67342
	4	USP 1-13/16-in x 2-1/4-in 14-Gauge Triple Zinc Deck Tie	76299
	2	Steelworks 0.5-in x 12-in Standard (SAE) Threaded Rod	44605
	2	QUIKRETE 48-in Concrete Tube Form (Common: 12-in; Actual: 11.5-in) 692203	10150
	10	QUIKRETE 80-lb High Strength Concrete Mix	10385
	4	USP 5-in x 5-in x 1-7/16-in Triple Zinc Concealed Stringer Hanger CSH-TZ	409136
	24	The Hillman Group 1/2-in-13 Hot-Dipped Galvanized Round-Head Standard (SAE) Carriage Bolt, 8-in	67357
	24	1 Count 1/2-in Standard (SAE) Split Lock Washer	61817
	3	1-lb Box 9-Gauge 3.5-in Hot-Dipped Galvanized Wood Deck Nails 16HGRSPD1	69216
	1	5-lb Box 9-Gauge 3.5-in Hot-Dipped Galvanized Wood Deck Nails 16HGRSPD5	69346
	8	5/16-IN X 3-5/8-IN PP LEDGER SCR	952221
	2	FastenMaster LedgerLOK #0 Hex Washer Standard (SAE) Structural Wood Screws	106073
	22	USP 2-in x 12-in Slant Nail Joist Hanger Triple Zinc JUS210-TZ	116209
	2	USP 1-lb 9-Gauge 3-in Hot-Dipped Galvanized Smooth Nails N10C-1	402032
	4	USP 1-5/16-in x 2-3/8-in x 6-15/16-in Triple Zinc Angle Clip AC7-TZ	37164
	13	USP Rafter Tie RT7A-TZ	21993
	4	1-lb Box 11-Gauge 2.5-in Hot-Dipped Galvanized Wood Deck Nails 8HGRSPD1	69215

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Usage	Quantity	Description	Item #
	3	USP Steel G185 Post Base (Common: 6-in; Actual: 5.5-in) PA66E-TZ	6472
	6	USP Steel G185 Post Cap (Common: 6-in; Actual: 1.5-in) PB66-6TZ	163411
	1	Power Pro #10 x 3-in Stainless Steel Deck Screws (25-Count) 42499	755698
	2	Grip Rite PrimeGuard Max Primeguard Max #10 x 3-in Stainless Steel Deck Screws (352-Count) MAXS64533X	52770
	1	USP 1 1/2-in 9-Gauge Hot-Dipped Galvanized Smooth Joist Hanger Nail (453.6g-Pack)	184955

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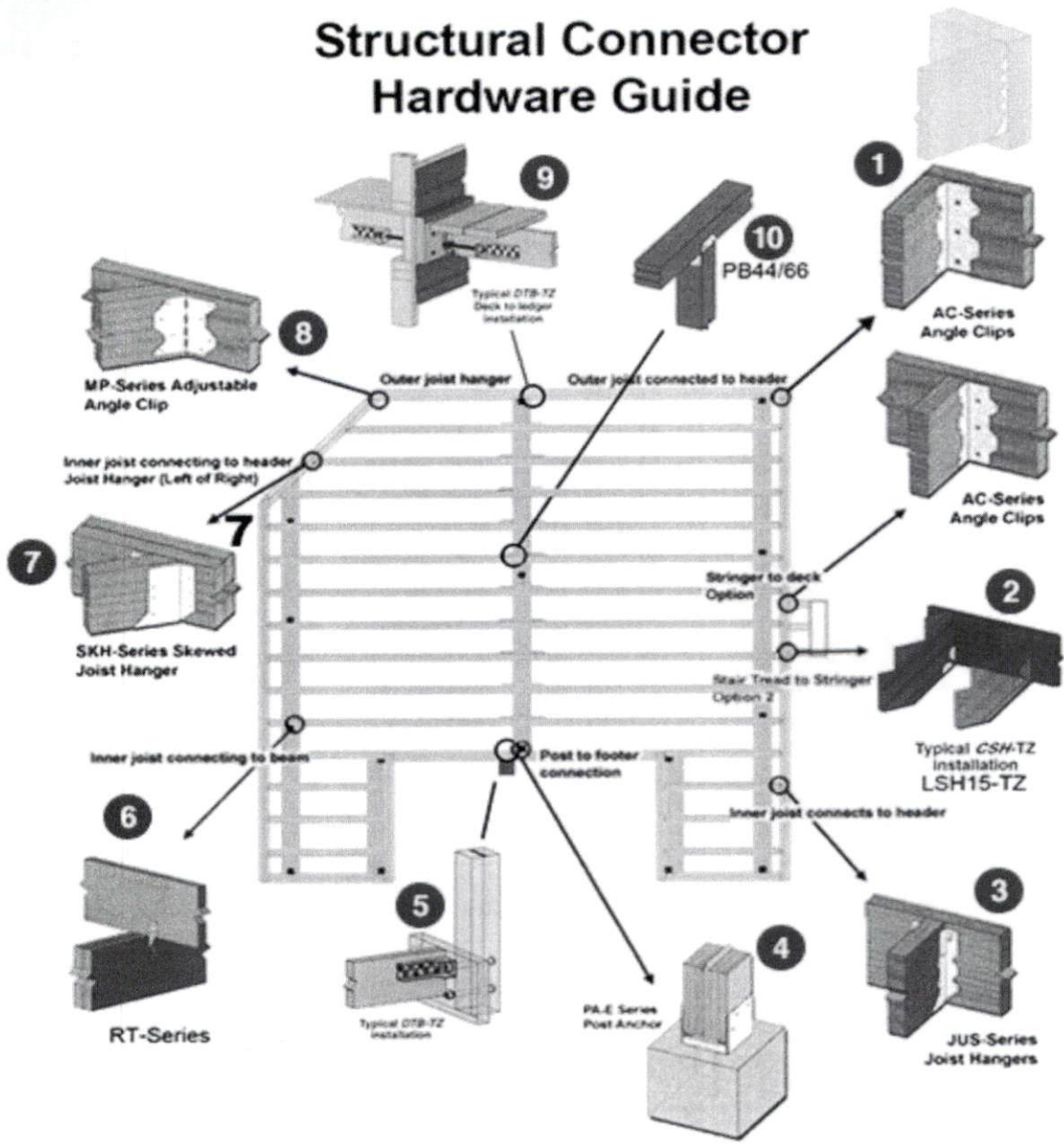
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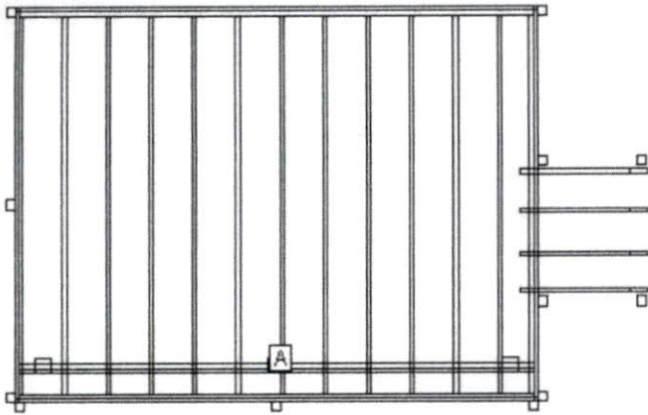
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## Structural Connector Hardware Guide



## ANALYSIS LEVEL 1



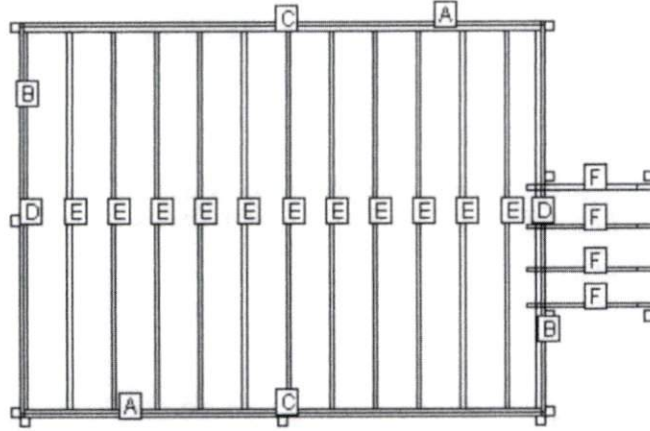
### Deck and Post Height:

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 16" above ground level.

### Joists:

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

**MATERIALS CUT LIST: LEVEL 1**

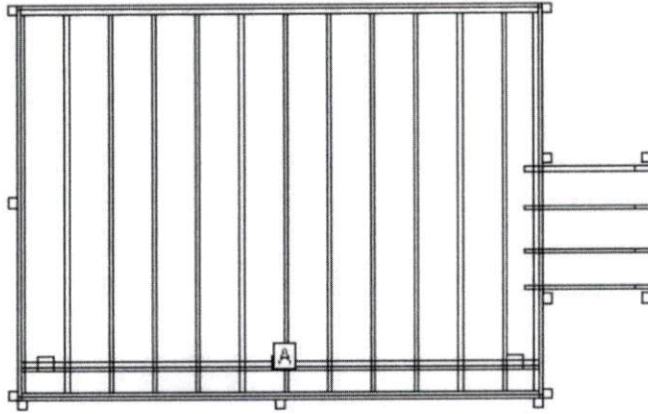


Label	Name	Quantity	Length	Bevels
A	Fascia	2	16' 1/4"	45,45
B	Fascia	2	12' 1/4"	45,45
C	Header	2	15' 9 1/4"	
D	Outer Joist	2	11' 6 1/4"	
E	Internal Joist	11	11' 6 1/4"	
F	Stringer	4	4' 2 1/4"	

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



### BEAM LAYOUT LEVEL 1



Label	Beam Length	Post Count	Post Spacing
A	15' 9 1/4"	3	7' 2"



**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:	30"
Footer Type:	Post On Concrete
Joist Cantilever:	6 inches
Joist Spacing:	16" center to center
Spacing Between Deck Planking:	1/8"
Stair Stringers:	12 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 boilers 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 in-store 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](http://www.epa.gov) - [www.healthybuilding.net](http://www.healthybuilding.net) - [www.ccasafetyinfo.com](http://www.ccasafetyinfo.com)  
[www.treatedwood.com](http://www.treatedwood.com) - Call: (800)282-0600 or (800)356-AWPI

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