

# **BEAR RESISTANT GARBAGE CAN CADDY**

**This bin is heavy-duty and is suitable for areas that will have very frequent and repeated bear visits and raid attempts. It is constructed from pressure-treated lumber for longer-life and lower maintenance; however, it should be cured outdoors at least a month before being stained or painted.**

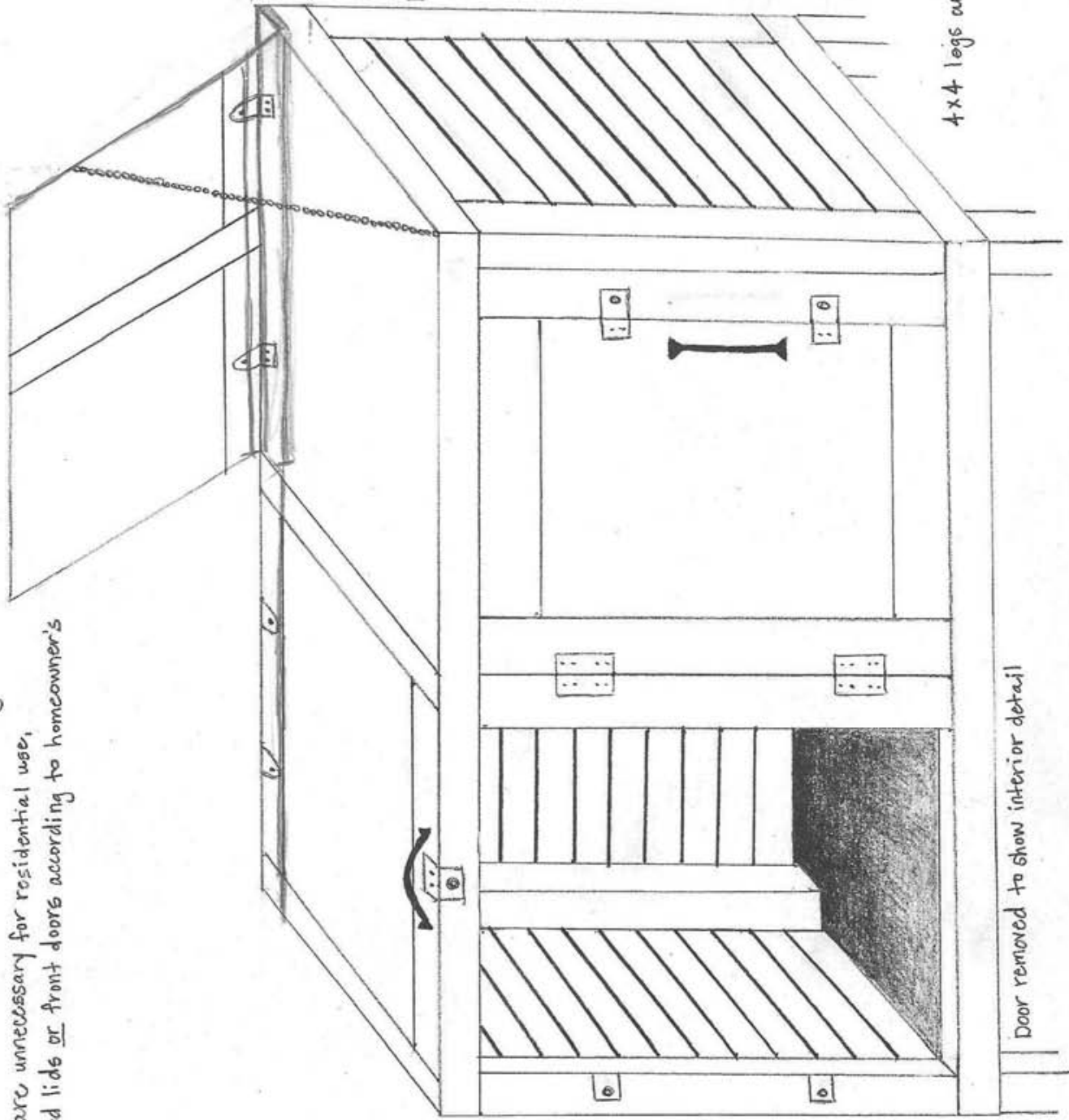
**Labor time: 4-6 hours, depending on ability and assistance**

**Tools required:**

**Circular saw  
Post-hole digger  
Framing square  
Hand drill  
Tape measure**

**Approximate materials cost: \$158.96**

Park model has both lids and front doors, with no legs.  
Both openings are unnecessary for residential use,  
option of hinged lids or front doors according to homeowner's  
preference.

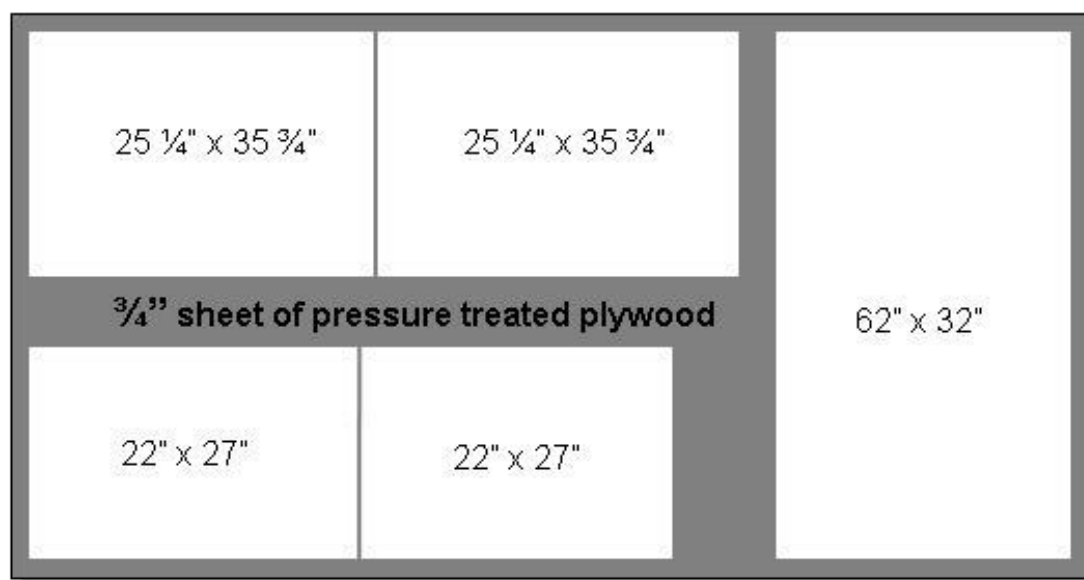


Boards no further than  
 $\frac{1}{4}$ " -  $\frac{1}{2}$ " apart

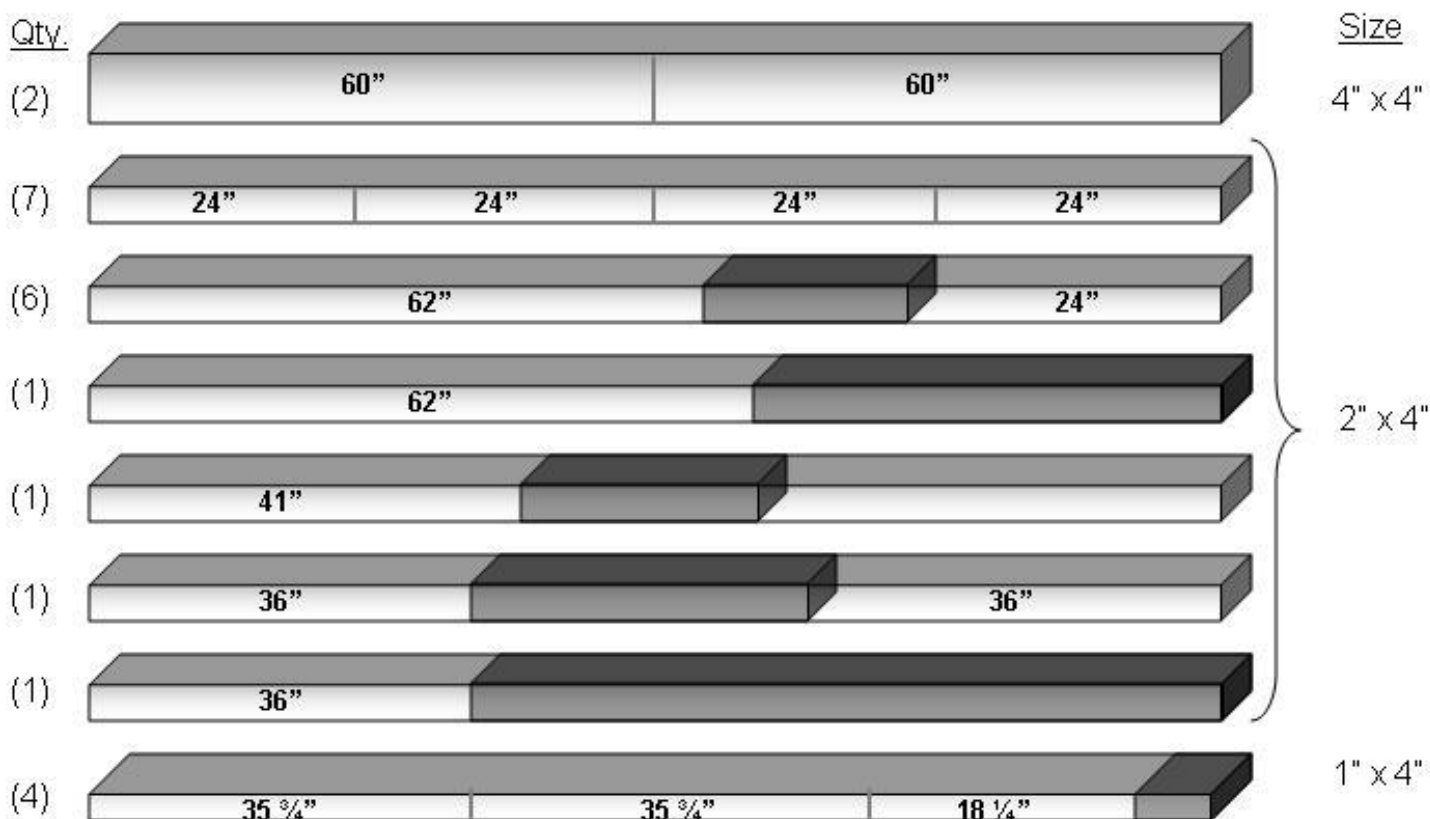
4x4 logs cut off if not sunk into ground

Door removed to show interior detail

# Cutting Chart for Bear Resistant Garbage Can Caddy



Use 1 sheet of 3/4" pressure treated plywood to cut the floor and either the lid or the doors, depending on which style you want (top or front opening)



Plywood	4" x 4"	2" x 4"	1" x 4"
(1) 32" x 62" floor	(4) 60"	(40) 24"	(8) 35 3/4"
(2) 25 1/4" x 35 3/4" lids <u>or</u>		(15) 62"	(4) 18 1/4"
(2) 22" x 27" front doors		(2) 41"	
		(3) 36"	

Scrap=

## **Materials List for Bear Resistant Garbage Bin** **(Prices are approximate and may vary by location)**

### **Pressure-treated lumber**

<b>2 x 4 x 8 ft</b>	<b>23 @ \$2.97</b>	<b>\$68.31</b>
<b>1 x 4 x 8 ft</b>	<b>4 @ \$2.39</b>	<b>\$9.56</b>
<b>4 x 4 x 10 ft</b>	<b>2 @ \$8.98</b>	<b>\$17.96</b>
<b>3/4 in. exterior plywood</b>	<b>1 @ \$26.99</b>	<b>\$26.99</b>
<b>Lumber total</b>		<b>\$122.82</b>

### **Galvanized hardware**

<b>3" hinges</b>	<b>2 pair @ \$3.39</b>	<b>\$6.78</b>
<b>3" latches</b>	<b>4 @ \$2.84</b>	<b>\$11.36</b>
<b>Handles</b>	<b>2 @ \$1.46</b>	<b>\$2.92</b>
<b>3" deck screws</b>	<b>3 boxes @ \$3.77</b>	<b>\$11.31</b>
<b>1.25" deck screws</b>	<b>1 box @ \$3.77</b>	<b>\$3.77</b>
<b>Hardware total</b>		<b>\$36.14</b>

**Total Material Cost** **\$158.96**

# Assembly Instructions for Bear Resistant Garbage Can Caddy

These instructions will assist a person with some woodworking experience to construct the caddy with minimal difficulty. Experienced woodworkers may prefer slightly different methods. We encourage people to try modifications and variations and contact us with their results so we can pass them on - there is always room for improvement. The caddy will accommodate two garbage cans up to 36"x 24"x24" in size.

**Tools required:**      **Saw (circular or table)**  
                                 **Electric drill (w/drill bit and driver bit)**  
                                 **Tape measure**  
                                 **Framing square**

REMEMBER TO FOLLOW PROPER SAFETY PRECAUTIONS AND WEAR PROTECTION FOR EYES, EARS AND HANDS WHEN USING POWER TOOLS.

## CONSTRUCTION AND ASSEMBLY

Caddy construction is best done on a flat, solid surface like a concrete pad or driveway. If assembling inside a workshop, be sure the door is big enough to get unit when constructed. Two people are recommended during the assembly process (one person can assemble it if experienced, but it is very challenging). Depending on ability and experience, it will take about 4-8 hours to assemble the caddy.

The unit will be heavy (150 lbs. or more) and cumbersome when assembled and will take two or three people to move to installation site and install.

## PRE-CUTTING & PRE-DRILLING

Begin by cutting all lumber to lengths specified in cutting chart. Place same-sized pieces together to facilitate finding them later. To prevent splitting of wood and to make driving easier, it is advised that you pre-drill pilot holes (1/16" – 1/8") for deck screws through all 2x4's listed in these instructions.

## CADDY ENDS

*STEP 1:* This step may seem a little tedious, but take your time and make sure everything is square or other pieces will not fit right later. Place 2 of the 52" 4x4 posts parallel to each other 24" apart to outside edges. Place a 24" 2x4 flush with the top of the 52" 4x4s, also make sure it is square with the outside edges of both 4x4 posts. (If the edges are not square the other 2x4s will not fit right and your caddy will be uneven, so this is a crucial step.) After checking and rechecking that the 2x4 is square and flush with both 4x4s,

attach with 4 (2 on each side) 3" deck screws. Now from the bottom of the attached 2x4, measure down 34" on each 4x4 post and draw a line. This will be the alignment of your lowest 2x4. Align the top of a 24" 2x4 with the line that you just drew. Make sure that the 2x4 is flush at the outside edges of the 4x4 post and that it is square along the line on both 4x4 posts. This will ensure that your posts are 24" apart from top to bottom. Now attach the 2x4 to the post in the same manner as you did before.

*STEP 2:* Now that you have a frame for the end of the caddy, take nine more 24" 2x4s and evenly space them between the two attached 2x4s. Using a scrap piece of wood about 1/4" thick as a spacer, try to space the boards about 1/8-1/4" apart. (The spacing does not have to be exact, but do not exceed 1/4" apart or a highly motivated bear can pull apart the boards!) Attach the 2x4s in the same manner as you did the other two, making sure they are flush to the outside edges and are level. Do not attach all the right sides of the 2x4s then go back and attach the left; try to do it one at a time to save from having to go back and reposition the boards.

*STEP 3:* Now go back and repeat steps 1 and 2 to build the other end of the caddy. Make sure all boards are even and flush before attaching them. Take your time and pay attention to make sure each side is flush so that the caddy stands nice and straight. One uneven board will throw the whole caddy off and double your building time.

## **CADDY BACK**

*STEP 4:* Place the two caddy end assemblies on edge. Using the same procedure outlined in Step 1, make sure the two end assemblies are square and parallel to each other and 62" to outside edges of attached 2x4s.

*STEP 5:* Place a 62" 2x4 across the 4x4s to match up and overlap the outermost 2x4s on the top of the end assembly. Check that the 2x4 is square to the 4x4s and attach with 3" deck screws. Place another 62" 2x4 across the 4x4s to match up and overlap the outermost 2x4s on the bottom of the end assembly and check that it is square and attach with deck screws.

*STEP 6:* Attach nine more 62" 2x4s across back of caddy to match the 2x4s on the end, and assemble using the same screw pattern.

## **CADDY FRONT**

*STEP 7:* Carefully roll the caddy onto its back until the attached 62" 2x4s are on the ground. Now place a 62" 2x4 along the top of the caddy front so that it is flush with the top of the 4x4s and is square to top 2x4s on the caddy sides. Attach the 2x4 in the same manner as the others. Place a 36" 2x4 along one of the 4x4s so that it covers the exposed ends of 2x4s on end assembly. Secure to 4x4 and ends of 2x4s with 3" deck screws. Repeat on other end. Now place another 62" 2x4 along the bottom of the front of the caddy. Make sure it is flush with the bottom of the 36" 2x4 and also to the outermost edge of the 4x4 post. Attach in the same manner as you did the others.

## **CADDY BACK BRACE**

*STEP 8:* Place one of the 41” 2x4s on the inside of the 2x4s forming the back of the caddy. It should be centered (about 24 1/4” from each of the side 2x4s). It should be 1 1/2” from the top edge of the top 2x4. Secure with 3” deck screws.

## **CADDY FRONT BRACE**

*STEP 9:* Place the last 36” 2x4 on the floor and then place the last 41” 2x4 directly on top of the 36” piece, extending over the ends by 2” on one end and 3” on the other end. Secure the two pieces together with 3” deck screws through the 41” piece.

*STEP 10:* Carefully roll the caddy until the front is on the floor. Place the front brace assembly (with 36” piece down) between the top and bottom 2x4s with the same spacing as discussed in Step 11 and secure with 3” deck screws.

## **CADDY TOP**

*Step 11:* Carefully roll the caddy onto its back so the front is facing up. Now place a 62” 2x4 flat on top of the rear 4x4 posts. Make sure that it is flush to the rear 62” 2x4s and also with the 24” side 2x4’s. Attach the 2x4 to the rear 4x4 posts. If using the lid access option, this is where the hinges of the caddy lids will attach to the base.

## **CADDY FLOOR**

Bears are capable diggers and adding a bottom to the caddy will help prevent bears from digging under and pulling apart the boards of the walls. Although there are many options for a floor to the caddy; the best two are either a poured concrete floor or a slatted-board floor. If you elect to make a wooden floor, note that if there is any overhang, most bears will be able to pry the caddy open. So make sure that all boards are flush and even along all edges, and take the extra time to trim away any excess wood. Follow the instructions for one of the caddy flooring options, depending on your preference, budget and drainage needs.

### **Option A: CONCRETE FLOOR**

*Step 12a:* This style floor is sturdy but permanent, and will not drain water as well as a slatted floor. After the caddy is built and sunk flush to the ground, roughly level out the ground inside and compact along the interior edges with soil. Pour a cement slab using a quickset concrete, creating a floor about 3” thick. (Don’t add too much water to the concrete- a thicker mix is less likely to seep out from under your caddy.)

### **Option B: SLATTED FLOOR**

*Step 12b:* This style floor drains well, but is more expensive and time consuming to do. With this option, the caddy bottom is made of 2x4’s spaced 1/2” apart. Place 13 of the 24” 2x4s against the outer edge and attach with 2” wood screws along the frame.

## CADDY ACCESS

Depending on your ability, style of trashcan, and waste service handler preference, you make elect to have a top loading or front loading caddy style. Instructions for both types of access are included. Unless it's for a park or public facility that may need both, you will probably only need one of the two options, either the "Lid" style that opens from the top, OR the "Front door" style that opens from the front.

### **Option A: LID ACCESS**

*Step 13a:* Place two 31" and two 24" 1x4s flat on ground to form a rectangle. Place one of the 18x20" pieces of plywood on top of the 1x4s so that edges are flush. Secure 1x4s to plywood with 1 1/4" deck screws screwed through plywood. For extra support now attach a 24" 1x4 directly centered to the under side of the lid. Guide lines drawn 3 1/2" from edge of plywood will help guide screw placement. Now attach the 18 1/4" 2x4 that is angle cut to fill the gap between the bottom of the lid and the top of the caddy using 1 1/4" deck screws. Repeat this step to make the other door.

*Step 14a:* Attach the lids using the heavy duty hinges to the rear 62" 2x4. The lids should be elevated by the extra 2x4 in the back and will have a slight slant to allow for rain runoff. Next, attach the chains to the inside of each front corner, and using eye screws and s-hooks, secure the chain inside to the 4x4 post with enough slack for the lid to stand open at about 90 degrees.

*Step 15a:* Install latches and handles on lids. For additional strength substitute 1 1/4" deck screws for the smaller screws normally provided with hardware whenever possible. Snap hooks or other locking fasteners should be used to secure latches during use.

*Step 16a:* If you have elected to use lids instead of doors, you need to create a front for the caddy. This can be done identically to Steps 4-6 using more 62" 2x4s or you can use a 62"x 24" piece of 3/4" plywood and trim to the exact dimensions of the caddy front. (Be careful to remove any overhanging edges!) From the outside, frame the plywood with 1x4's and secure the center with another 1x4 brace. Attach front to 4x4 posts, floor and top frame with 3" deck screws.

### **Option B: FRONT DOOR ACCESS**

*Step 13b:* Place the two 35 3/4" and two 18 1/4" 1x4s flat on the ground to form a rectangle. Place one of the pieces of plywood on top of the 1x4s so that the edges are flush. Secure 1x4s to plywood with 1 1/4" deck screws, screwed through plywood. Guidelines drawn 3 1/2" from edge of plywood will help guide screw placement. Repeat this step for the other door. For extra support, attach a single 1x4 centered on the back side of each door.

*Step 14b:* Use small wedges of wood or cardboard to center doors in openings and attach hinges and attach the fixed loop portions of latches to caddy using 1 1/4" deck screws whenever possible. There should be no more than a 1/8" gap in top and bottom and no more than a 1/4" gap on sides of doors.



*Step 15b:* Install latches and handles on doors. For additional strength substitute 1¼” deck screws for the smaller screws normally provided with hardware whenever possible. Snap hooks or other locking fasteners should be used to secure latches during use.

*Step 16b:* If you have elected to use doors instead of lids, you need to create a top for the caddy. Use a 70”x 32” piece of plywood and trim to the exact outer edge dimensions of the caddy top. (Remember- there should be NO overhanging lip for bears to grab!) Secure the plywood with a 24” 2x4 in the center as a brace. Screw down to sides and back with 3” deck screws.

## **INSTALLATION, FINISHING & USE**

*Step 17:* In dry areas, it can be installed with the floor of the caddy flush to the ground, and in wetter areas it can be installed with the bottom of the caddy 1 or 2 inches above ground level. Prop the caddy up on the legs and dig holes to the desired depth next to each 4x4 post. With at least two people, lower the caddy legs down into the holes. If bear pressure isn’t excessive, simply repacking the dirt around legs should be sufficient. If there is heavy bear activity, you may want to add a quick setting concrete in holes to prevent tipping.

*Step 18:* Pressure-treated wood should be allowed to cure for at least 30 days before painting. Afterwards, caddy can be painted, stained or allowed to weather naturally.

Regularly wash the caddy and garbage cans with vinegar or bleach to reduce lingering odors and minimize bear attraction.