BUILDING A SAWDUST TOILET

Note: If sawdust is not available, dry leaves or forest ground cover will work. Peat moss is acceptable. Even newspaper cut into confetti will work. Rice hulls, corn husks, ground straw, any high carbon, confetti-like material will work.

Materials list

- ❑ 4 or 5 5-gallon plastic buckets of exactly the same height
- ❑ plywood or 1-inch dimensional lumber
- ❑ nails and/or glue
- ❑ knobs or handles
- ❑ hinges (optional)
- ❑ toilet seat (optional)
- ❑ vent fan (optional)

Tools

- ❑ hammer
- ❑ saw
- ❑ hole saw
- ❑ square
- ❑ pencil or pen
- ❑ tape measure

Sawdust Toilet Plans

Your situation will dictate how you design your sawdust toilet. Here are ideas to consider:

1. To make efficient use of the toilet, store clean sawdust very close to the toilet.

   Note: To load your sawdust bin, use a plastic bag; this won't make a dusty mess.

2. A smooth surface, painted with oil-base paint is easy to clean. Note: Paint will yellow in the presence of the ammonia in urine.

3. The only time odor will be a problem is during and immediately after defecation. A small vent fan can solve this problem.

4. Buckets can spring leaks. I suggest placing the bucket in a larger plastic container for safety. Both are easily washed.

5. A toilet seat is a wonderful luxury. Avoid seats made of pressed sawdust or wood. The moisture from the toilet will ruin anything but a plastic seat.

6. Design a fly-proof cover for the composting toilet. Black flies are not generally a problem, but fruit flies can be a nuisance.

Using the Sawdust Toilet

1. Toilet paper will compost quickly. Avoid colors. Dyes may affect plants.

2. When defecating, turn on your vent fan. It needs to run only a few moments. If you do not have a vent fan, a scented candle can be helpful.

3. Cover feces with about 3 or 4 cups of sawdust. Use the same amount for urine. Contents of bucket shall always be moist, but not wet. If the contents become wet, add more sawdust.

4. My wife and I empty our 5-gallon bucket about once a week. Clean buckets are kept outside, but in the shade, (The sun will ruin buckets in less than a year.) The dirty bucket is washed with laundry soap (no bleach) and water. It is left outside to dry and air out. A clean bucket is placed in the toilet enclosure and lined with about 2 or 3 inches of sawdust.

OUR COMPOSTING TOILET

When people visit our home, they are usually fascinated by the solar panels and the windcharger. They comment favorably about the indoor garden and they enjoy the sunlight. If anything causes our visitors to do a double-take, it is our composting toilet. I have learned that people in most parts of the world are very sensitive about bathroom habits. There can be great resistance to any change in the bathroom. Therefore, much time was spent designing our composting toilet. Here are the criteria we developed for our waste management system:

1. The system shall be safe to operate. It shall not present unreasonable health hazards.

2. The system shall not contaminate soil or water.

3. The system shall be aesthetically pleasing, visually attractive with no objectionable odors.

4. The system shall be easily constructed by anyone with basic carpentry skills.

5. The system shall be inexpensive.

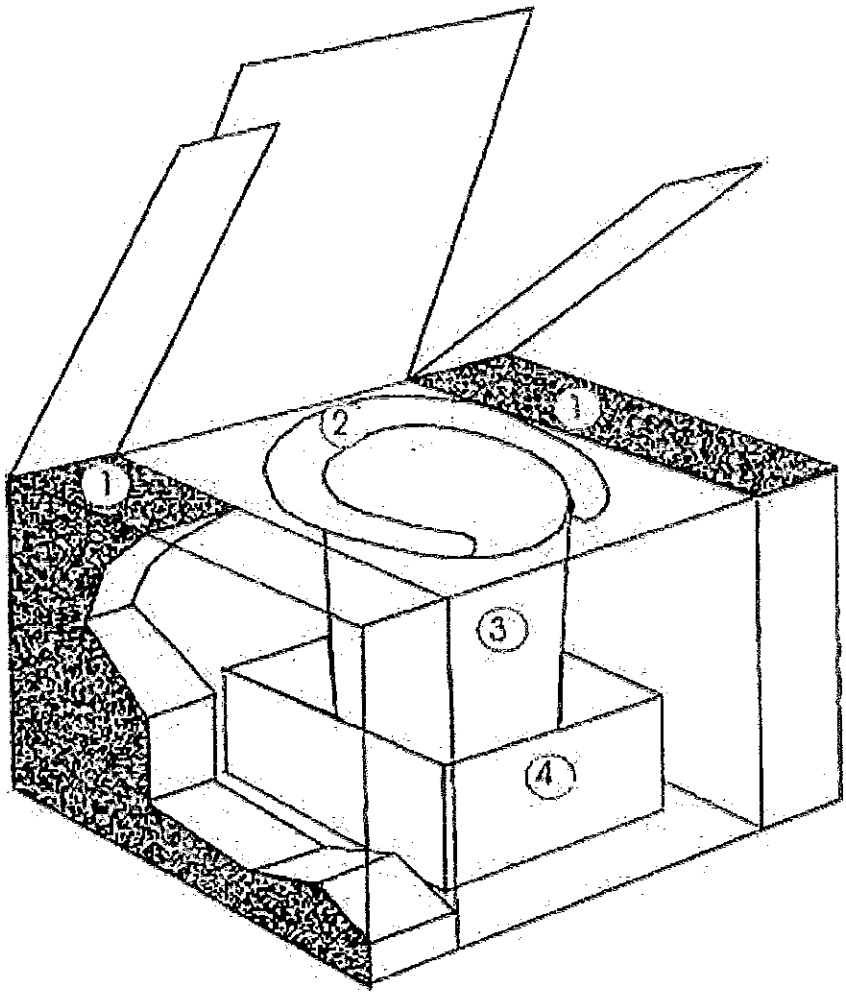
6. The system shall be easily maintained.

7. The system shall conserve water.

8. Excrement shall be rendered odorless and safe for use as fertilizer.

9. The system shall handle waste on-site. Waste shall not be transported to a distant area.

Composting Toilet



1. Covering material
2. Toilet seat.
3. Five gallon bucket
4. Plastic container.

We built our toilet for less than $100. The components of the toilet were only about $35, but I paid a cabinet builder to help me. The toilet consists of a box with three compartments: a center compartment that holds a five-gallon plastic bucket and a storage compartment for sawdust and leaves on each side of the bucket. I put a plastic storage container under the bucket in case it springs a leak.

LARGE CAPACITY SAWDUST COMPOSTING TOILET
SUNNY SIDE ELEVATION

SCALE $\frac{1}{8}$" = 4"

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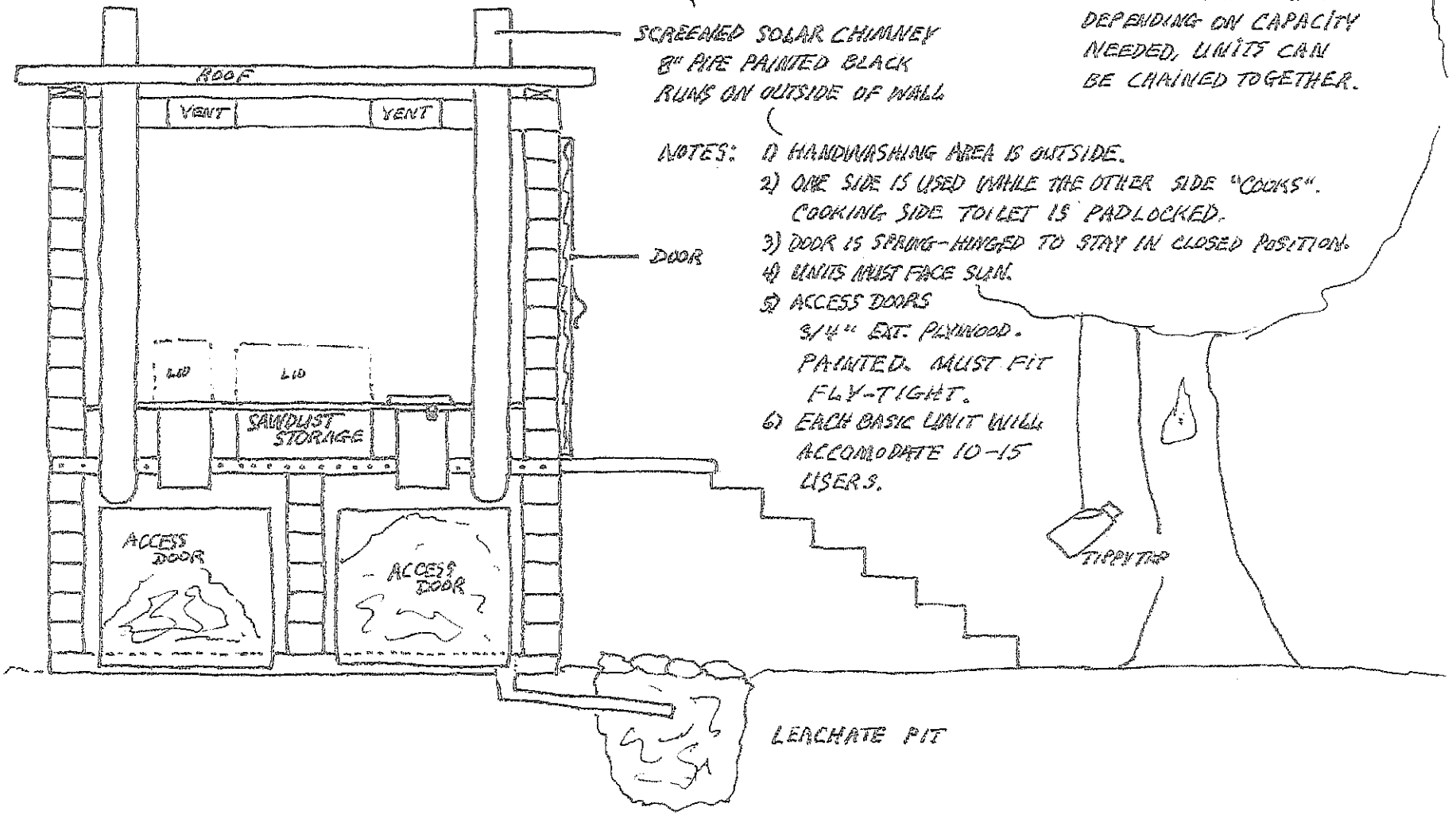

THIS IS A BASIC UNIT. DEPENDING ON CAPACITY NEEDED, UNITS CAN BE CHAINED TOGETHER.

NOTES:
1) HANDWASHING AREA IS OUTSIDE.
2) ONE SIDE IS USED WHILE THE OTHER SIDE "COOKS". COOKING SIDE TOILET IS PADLOCKED.
3) DOOR IS SPRING-HINGED TO STAY IN CLOSED POSITION.
4) UNITS MUST FACE SUN.
5) ACCESS DOORS 3/4" EXT. PLYWOOD. PAINTED. MUST FIT FLY-TIGHT.
6) EACH BASIC UNIT WILL ACCOMODATE 10-15 USERS.

LARGE CAPACITY SAWDUST COMPOSTING TOILET C/S

SCALE $\frac{1}{8}$" = 4"

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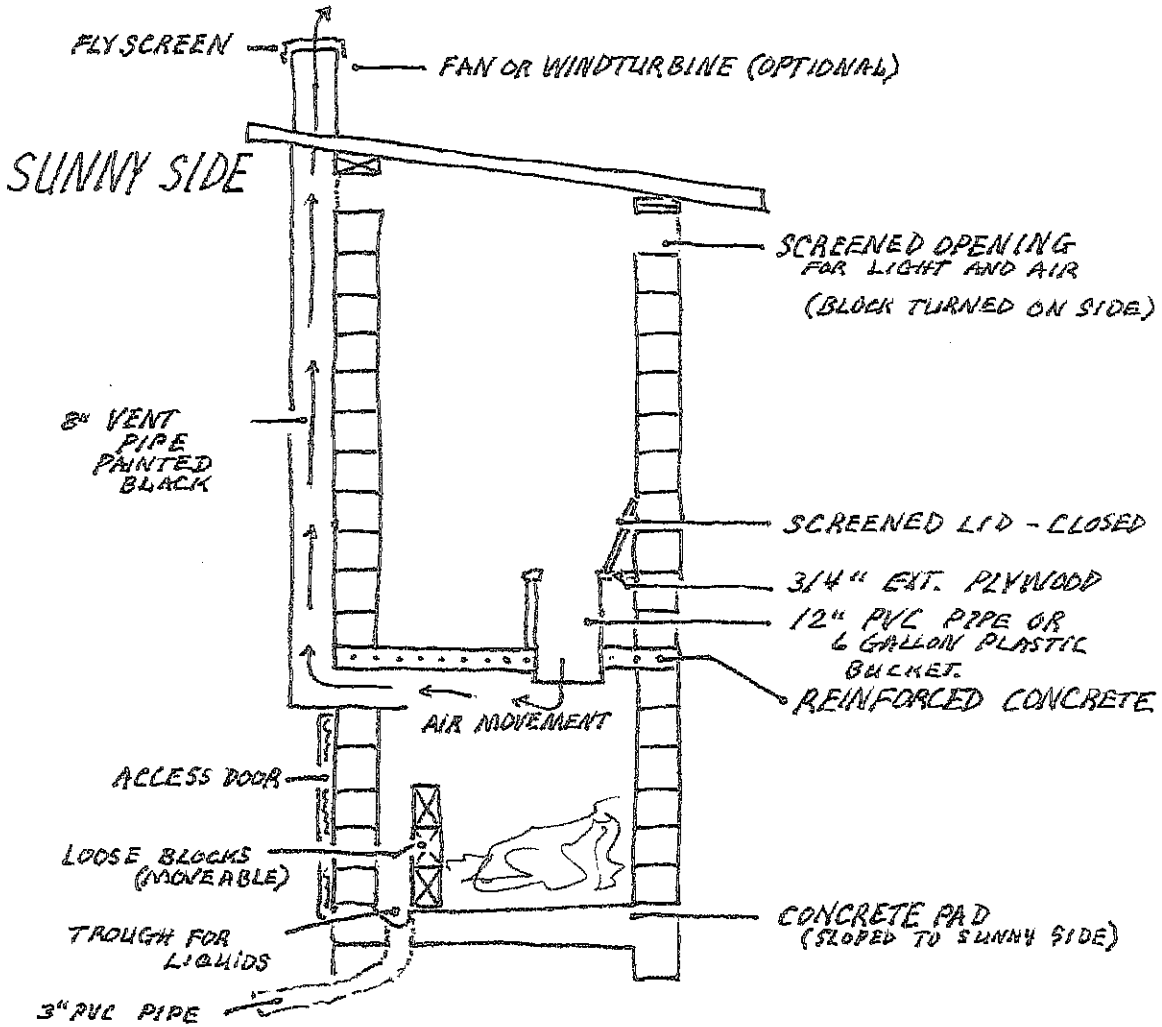
STRUCTURE IS CONCRETE BLOCK OR COMPARABLE



NOTES:

1) LEACHATE LIQUIDS DIVERTED TO A PIT - FIVE FEET DEEP, FILLED WITH WOOD CHIPS.
2) INTERIOR WALLS PAINTED W/EPOXY PAINT TO CREATE WASHABLE SURFACE.
3) ROOF MUST BE INSULATED.
4) VENT PIPE CREATES AIR MOVEMENT TO ELIMINATE ODORS.
5) WHITE TOILET PAPER IS USED.

SAWDUST COMPOSTING TOILET FOR HANDICAPPED AND SMALL CHILDREN

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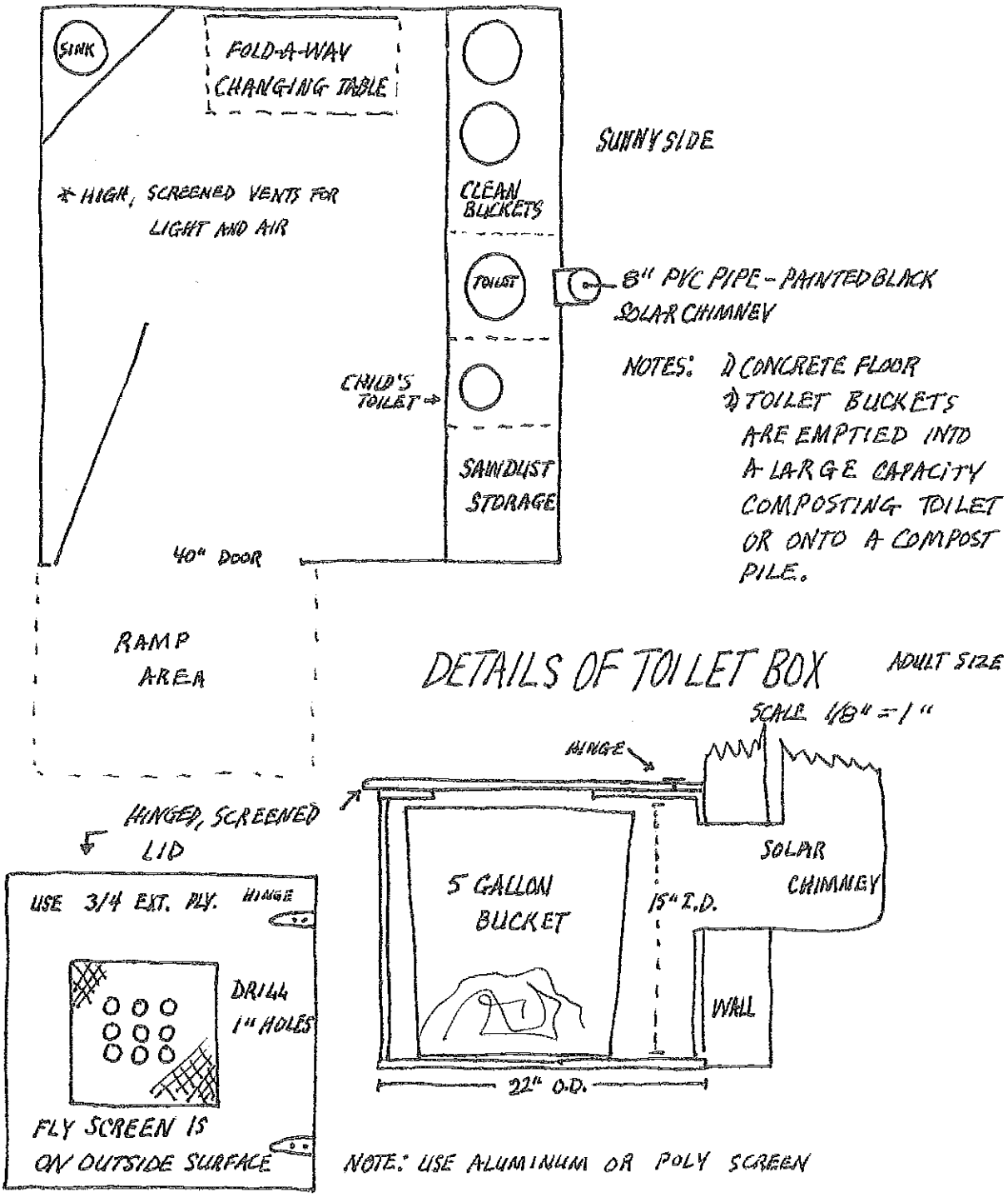
SCALE 1/2" = 1'



DETAILS OF TOILET BOX

ADULT SIZE

SCALE 1/8" = 1"

NOTE: USE ALUMINUM OR POLY SCREEN

LARGE CAPACITY SAWDUST COMPOSTING TOILET ~ DETAILS

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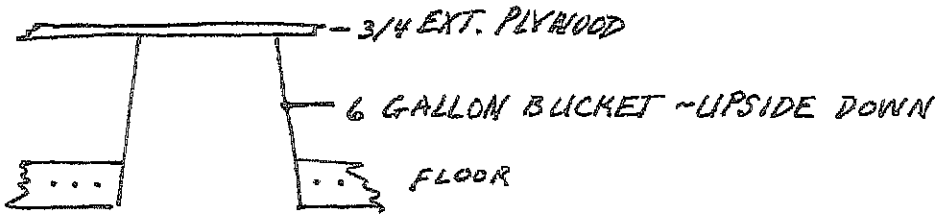
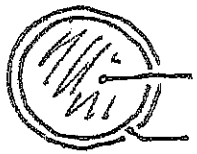


NOTES:
1) TOILET HOLE IS COVERED WITH A SCREENED, HINGED LID. LID IS PADLOCKED WHEN COMPOST BENEATH IS COOKING. OTHER TOILET IS USED AT THAT TIME.



NOTE: HOLE CUT IN PLYWOOD SEATING AREA IS SLIGHTLY SMALLER THAN THE HOLE IN THE BOTTOM OF THE BUCKET. BUCKET IS ATTACHED TO THE UNDERSIDE OF THE SEATING PLYWOOD.