

**We learned the hard way that a messy site equals wasted time.
Here's what we did about it:**

Job-Site Storage Solutions

by Jim Hart

A remodeling job site contains a large assortment of tools and materials that, if not well organized, can become a chaotic mess. I've lost valuable time rummaging around for 2x6 joist hangers, just because the last person who used them (maybe myself) didn't have a definite place to store them.

On our crew we are involved in just about every aspect of construction, from foundation to finish. In any given week, we are likely to be doing demolition, framing, insulation, plumbing, electrical, and finish carpentry. So to keep our joist hangers from being buried under a dozen misplaced electrical boxes, we have learned to dedicate a clearly marked place for each item. In this article I'll share some of the ways we've arranged storage. Storage practices should be tailored to meet the needs of the specific crew and job, but maybe these methods will inspire your own.

A Multitude of Mud Buckets

At the core of our job-site organizational scheme is the lowly five-gallon mud bucket. At one point we used to take on taping jobs just so we could end up with a few of those durable white buckets. Now, we hand over all the mud and taping to a subcontractor and buy the manufactured buckets available at building supply stores.

We probably have over 50 of these buckets filled with everything from tubes of subfloor glue to plumbing test caps (see Figure 1, next page). To categorize the buckets, and to keep from having to peer into every bucket to find what we want, we have painted the rim of each bucket with a color code and labeled the side with a permanent black marker.

We use color codes that are easy to remember. Nail buckets have a green rim, for the green coating that is applied to sinkers. Metal framing connectors (joist hangers, metal clips, straps, nailing plates, etc.) get a silver rim because of the galvanized color of most of this hardware. Copper fittings and short lengths of pipe get red; ABS fittings get black. Electrical supplies are stored in blue rimmed buckets, a color common for plastic electrical boxes. Drywall supplies are kept in plain white buckets. Color coding the buckets has made it much easier for a laborer who is inexperienced with the materials to distribute supplies around the site close to the spot where they'll be used.

One caution: We discovered that cardboard caulk and adhesive tubes can be easily destroyed by sitting in a bucket with an inch or so of water. So for this type of item that might be damaged by moisture, I drill several 1/4-inch drainage holes in the bottom of the bucket.

Machine Bolt Cart

For items that we keep in smaller quantities and that would be cumbersome to transport in five-gallon buckets, we use one-gallon buckets. These buckets are especially useful for remodeling in seismic country, where engineers are specifying more and more metal hardware that requires special nails and threaded connections. We also keep on hand an assortment of machine bolts, nuts and washers of different dimensions, lag bolts, anchor bolts, and

threaded rods, plus a few miscellaneous metal items like rebar tie wire and plywood support clips.

These buckets are also color coded and are stored on a solidly built three-tier cart on wheels (see Figure 2, next page). The cart is built of 3/4-inch plywood. Each tier can be separated and rolled around on the ground independently, which helps with transportation.

This cart has saved us many trips to the local hardware store and has eliminated the usual collection of mysterious brown paper bags holding a few nuts here and a few bolts there.

Telephone Desk

So that the foreman can have an organized space to do office-like tasks at the job site, we built a telephone desk that is portable and that easily mounts to a wall (see photo below). Built of 3/4-inch painted plywood, the desk has a cabinet underneath for storage of small hardware parts that can be easily lost. For example, after roughing in the shower and tub mixer, we are left with the handles and shower head, which aren't installed until after tile. We place these items, along with the composition roof samples or Sawzall blades, inside the desk. We also have a waterproof outlet box inside the desk for plugging in cordless battery chargers. Extending up from the desk is a vertical plywood surface that has a wall-mount telephone, a telephone directory, the job-permit inspection card, and a dry-erase message board. There are also clips for blank paper pads, receipts, workers' labor codes, time sheets, and other information that needs to be saved or transferred from the job site to the contractor.

We slip the inspection card and phone list behind a mounted piece of clear plexiglass. This not only protects the contents from the elements, but inspectors are also impressed that we have a consistent spot where they can find and sign the permit card.

We usually hang our desk under an overhang. The back of the desk has predrilled holes spaced 16 inches on center to pick up the studs for easy mounting. If there is a chance of rain, we drape a tarp over it.

On one side of the desk, we have mounted a first aid kit and on the bottom we have three 3-inch ABS pipes — two with press-on caps and



This portable telephone desk mounts easily to a framed wall, providing a convenient location for plans, telephone directory, inspection card, and messages for the client. The storage area under the desk top holds small parts that can be easily lost during the course of a job. An outlet box inside is for cordless battery chargers.



Figure 1. Five gallon buckets, color-coded and labeled, hold everything from tubes of subfloor glue to plumbing fittings.



Figure 2. This site-built cart organizes a variety of one-gallon buckets that hold the metal hardware frequently needed on remodeling jobs.

a third with a threaded cap. The two cylinders with the press-on lids are for the working copy and subcontractors' copies of the plans; the cylinder with the threaded cap is dedicated for the stamped copy of the plans. We have actually failed on inspection because of a marred "city-stamped copy" of the plans. The threaded cap reminds a carpenter to pause and think before pulling out these sacred plans.

We've also found that the telephone desk serves as a communications center with the client. If the client has a question or concern during the evening, they can easily clip a message to the board. The foreman can take note of it first thing in the morning without having to bother the clients at an early hour.

There are three items we would like to add in the future to make the desk more helpful: a battery-operated clock, a calendar, and a desk lamp.

Tool Storage

Tool storage on a job site needs to be secure, organized, and if possible, mobile. I have found that for small and medium-sized jobs, a trailer satisfies these needs well. I have two trailers. The smaller one of the two is a one-ton-capacity camping trailer that is low in profile and has one large storage compartment in back and a smaller one in front. I call this "my rolling Knack box" because it really isn't too much larger than a large metal job box (see Figure 3). The second trailer is 4 feet high by 6 feet wide — the kind used as a rental cargo trailer. This trailer is more secure and can easily store a large compressor, in addition to my circular saws, roto-hammers, drills, plumbing and electrical tools, and all the needed cords and hoses.

Trailers are ideal for the type of remodeling we do the most: rear additions on deep, level city lots with a detached garage in the backyard. On these jobs, if the homeowner is living in the house during the remodel, I park my trailer at night in the back-

yard. If there is a tree available, I chain the trailer to it for extra security. Leaving the trailer at the job site helps my gas mileage considerably. Plus, I can leave to check up on another job and not worry whether the helper I leave behind has all the tools he needs.

I use the smaller trailer most because it's less of a hassle to drive around with and is easy to detach and hook back up to my pickup truck. When I originally purchased this trailer, I envisioned fitting it out with lift-

out trays, and a series of interlocking, removable boxes like a super-size tackle box. I now think it's more versatile left open inside so that I can rearrange tools and materials as needed.

For larger jobs, we try to make use of the owner's garage. I've found that the more storage that can be done out of the work area the better. Even though a brand-new subfloor can be a tempting surface for storage, it is frustrating to try to work electrical and plumbing around a large pile of tools or building materials.



Figure 3. The author uses this small, one-ton-capacity camping trailer for tool storage.

Storing Lumber on Site

We've found no simple way to organize our lumber. Storing lumber so it stays in good shape and is on hand when you need it requires constant attention.

To save money on delivery charges, we typically receive the lumber for our remodeling projects in one or two deliveries. If we are ready to use the material immediately, we cut the bands off the lumber and have the laborers begin to sort the material in the backyard by type and dimension. In most cases we won't stack two dissimilar materials together unless we are tight on space. If we are, we take the time up front to stack the material in the order it will be used. This is often not the order in which it is delivered, so it takes some time.

We stack the lumber tightly on several wood stickers on a level surface away from potential puddles. This helps keep the lumber from twisting as it continues to dry. We have an experienced laborer mark the crowns on all the 2x and 4x

material, which saves the carpenters time when it comes to framing.

Plywood and exterior siding are two materials that require special storage precautions. Plywood is very responsive to moisture and will warp considerably (especially plywood that's 1/2 inch thick or less). If possible have the lumberyard band the plywood together and keep it that way until it's ready for use.

Exterior siding, if not handled properly, can be severely damaged. We use a lot of kiln-dried redwood, both shiplap and tongue-and-groove. The dry conditions of this material can make it especially fragile, and I've found a poor stacking job can easily ruin 100 linear feet of siding or more. The shiplap or tongue-and-groove portion and the face of the siding are the most susceptible to splitting and gouges. A good truck driver will stack the siding face-to-face with the edges turned so they can't interlock in the stack. We have our laborers do the same.

—J.H.

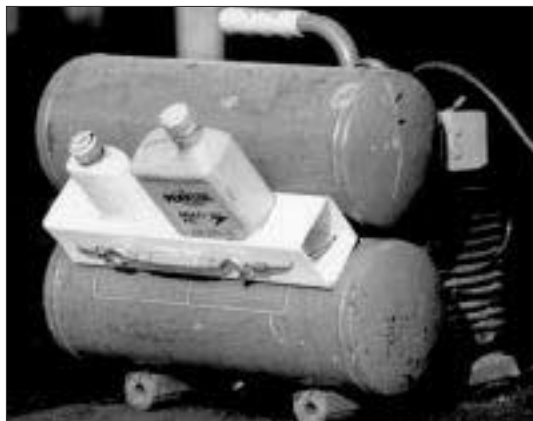


Figure 4. This container, made from a PVC gutter drainpipe, holds the oils used to maintain nail guns and compressor; it mounts to the compressor where it's easy to find and use.

Storing Oil for Compressors And Nail Guns

From the very first week I began leading remodeling jobs, I ran into problems keeping oils available on site for the compressor and pneumatic gun. Either the quart-sized oil containers were lost or the carpenter was just too lazy to look for them. Sometimes the wrong oil would be poured into either of the tools. To make sure that the compressor and gun are properly oiled at the beginning of each use, we placed an oil canister holder right on the compressor. My boss's idea — probably because he pays the tool repair bills — was to make it as easy as possible for the operator to maintain.

The holder is made from a 12-inch section of plastic gutter downspout that is wired to the chassis of the compressor (see Figure 4). The downspout has two jigsawed slots, one that fits the quart-size motor oil container and the other that fits the nail gun manufacturer's oil container.

Coming Up With Solutions

How do you come up with your own storage solutions? If not obvious at first, they will usually occur to you after dealing with the same problem at least ten times. After spending a half hour separating a couple of handfuls of 8d nails from a box of spikes, the thought occurs, "We need clearly marked buckets for each nail type!" For this solution to become a reality, employees need to communicate storage needs and frustrations to the foreman. It is also important for the foreman to give feedback to the contractor about what storage techniques will help make the project run more efficiently. Hopefully, a few jobs later, on a rainy afternoon, the contractor will spend the money to have an employee label all the nail buckets. ■

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