

# Portables Toolkit:

A toolkit for parents and school administrators in the successful use of portable classrooms.

- ▶ **CONSIDER** YOUR RESPONSIBILITY
- ▶ **CHOOSE** WISELY
- ▶ **COORDINATE** FOR SUCCESS
- ▶ **CONTINUE** PROPER MAINTENANCE
- ▶ **COMMUNICATE** BEFORE AND AFTER



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In the past several years, MBI has seen a significant increase in the number of portable classrooms, due to classroom size mandates, funding gaps and a population explosion. In response to this up-surge, MBI has created its own toolkit of materials that are available to any school district purchaser, principal, or facility administrator. In this toolkit, you will learn about the 5 C's for securing an optimal learning environment with a portable classroom that has already been built to code:

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A 2004 study of environmental conditions in public classrooms by the California Air Resource Board and the California Department of Health Services found that both portable and traditional classrooms were found to have some environmental conditions that need improvement. However, the most serious problems occurred only in a small percentage of classrooms. The study concluded that "Design capacity did not appear to be a common problem in this study. Improved operation and maintenance would go a long way to address many of the problems identified."

Learn about proper maintenance on page 4 ...

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# PORTABLES TOOLKIT

## ▶ **CONSIDER** YOUR RESPONSIBILITY

### Considerations for Purchasing a Portable Classroom

More often than not, the portable classroom you receive is a result of a good innovative and an educated approach. As a guide, here are five suggestions to help you maximize your opportunity to obtain a portable classroom that exceeds your expectations.

#### 1. Communicate; Research Your Options

Ask questions, meet with potential suppliers to discuss your program in depth, and if you have not already done so, research your options. Look at all the materials, features and finishes available today that are being incorporated into portable classrooms to create a healthy, comfortable learning environment and consider how they might work for you.

#### 2. Set Your Expectations High!

As the buyer, planner, or specifier, you are in control. You can set the specifications, you can set the standards, and you can drive the results. So set your expectations high! There is no reason to receive “second best” in any learning environment, including portable classrooms. In order to ensure that your classrooms meet or exceed your expectations, communicate your needs clearly to your potential suppliers. There should be no misunderstanding.

#### 3. Outline Your Buying Criteria

This ties in a little with communication. Modular construction offers a multitude of features and benefits. Knowing them and using them to your advantage will assist you in attaining your desired objectives.

Financing options, building features, relocatability, speed of construction, and minimized site disruption are just a few of the motivators that prompt school administrators and planners to look to portable classrooms for accommodation. Letting your suppliers know what particular motivators are driving your purchase will help them prioritize, make recommendations, and respond with your specific needs in mind.

#### 4. Establish Your Base, Then Look for More

You may have specified your classrooms right down to the fasteners, and unquestionably this is the best way of evaluating your package on an “apples to apples” basis. But consider going a step further. Ask for recommendations.

#### 5. Go For the “Valley” Whenever You Can

Understandably there are external environmental forces at work that can prevent a school board from going out for proposals whenever they choose. Funding is usually at the top of the list. However, wherever possible, try to get a jump-start on the process so that you can be assured of securing regular production time.

Modular building companies look favorably on a steady diet of year-round production, as opposed to the peaks and valleys that tend to be more characteristic of the industry. Find out when the industry slows down in your region. It will vary between locations. Make an effort to slot your requirements into those “valley” time frames. It could be a win-win for you and your provider.

#### 6. Match the Product with the Need

If you only need “swing space” for a few years, consider leasing relocatable space. If you have longer term needs, 3-5 years before new construction occurs, consider modular additions or complexes with more permanent features such as foundations. For new construction, permanent modular construction offers schools the same or higher quality classrooms in a much faster timeline—in many cases 50% faster.

# PORTABLES TOOLKIT

## ▶ CHOOSE WISELY

### Choosing the right vendor

The right vendor can make all the difference between the right and wrong experience. So, it is critical to do research and choose wisely. Factors you should consider are:

**Referrals.** Ask colleagues who have been through the process for their recommendations. Visit other schools where potential vendors have provided portables.

**Experience.** How long has the company you are thinking about working with been in business? How knowledgeable are they on local and state codes?

**Reputation.** What is the supplier's reputation? You should not work with anyone that is not considered reliable, trustworthy, knowledgeable and timely. Does the vendor subscribe to the industry code of ethics?

**Turn-Key Solutions.** Is the vendor flexible and able to provide additional services that you may need, like relocation, parts, refurbishment, etc.?

**Proposal.** This is the most critical portion of the process. You must review every single detail of the proposal to ensure that all specific services are clearly outlined before entering the contract.

**References.** It goes without saying that any reputable provider can provide you with a list of past customers. It is critical to take the time to actually call these references to see what other schools' experiences have been.



Things to look at when choosing a portable classroom provider:

Referrals

Experience

Reputation

Turn-Key Solutions

Proposal

References

page 2

# PORTABLES TOOLKIT

## ▶ COORDINATE FOR SUCCESS

### Project Team Coordination:

### The key to a portable classroom purchase success

Coordination of the many interrelated tasks is at the heart of any successful portables purchase. A different independent member of the building team often holds primary responsibility for each phase of the complete project. The team often includes a dealer, a manufacturer, a transporter, and a site installation (set-up) contractor, and may include additional subcontractors who perform site preparation and install utilities.

#### Dynamics of the Project Team:

##### Dealer:

A point position on the team is held by the dealer who holds the contract with the customer.

##### Manufacturer:

From the customer's perspective, the manufacturer is often hidden from view, but the factory-built portable units are the primary component of the overall purchase.

##### Transporter:

The transporter delivers the portable(s) from the factory to the building site.

##### Installer:

The set-up contractor, possibly in conjunction with subcontractors, sets the portables on the foundation and completes finishing work.

**The importance of proper setup cannot be underestimated. MBI recommends that schools contract with professional installers to setup the portable classrooms.**



#### For a Successful Project:

All team members must strive to achieve excellence in performance of their individual role. This, along with close coordination of the activities of every project team member, ensures a satisfactory portables selection and placement experience.

# PORTABLES TOOLKIT

## ▶ CONTINUE PROPER MAINTENANCE

### Making the most of your investment with proper operation and maintenance.

Below are several actionable items that will improve the performance of portables. Although these measures add to the up-front cost of the portable, those extra dollars will quickly provide results in the form of energy savings, increased student and teacher morale, and improved student performance.

**Protect Indoor Air Quality.** First, specify no- and low-emitting building materials and furnishings to reduce airborne contaminants. The "Collaborative for High Performance Schools" (CHPS) has developed a list of low emitting materials for schools which can be found at: [http://www.chps.net/manual/lem\\_table.htm](http://www.chps.net/manual/lem_table.htm). Second, install proper drainage systems and control measures to prevent mold. Some areas to consider are landscaping systems that prohibit water from hitting the actual structure and draining off. Also important is providing the proper grading and drainage systems along with mitigation procedures for water leaks.

The US Environmental Protection Agency provides an Indoor Air Quality Tools for Schools Action Kit that details more indoor air quality maintenance and control procedures. You can order the kit from the Agency at <http://www.epa.gov/iaq/schools/toolkit.html>.

MBI also provides this portables toolkit and its *Issue Brief: Indoor Air Quality in Relocatable Classrooms* from [modular.org](http://modular.org). These resources are free of charge to any teacher, parent or school administrator.

**Support Gains in Energy Efficiency.** Portable classrooms built today are much more energy efficient than ones built a generation ago. The Northwest Portable Classroom Project conducted by Washington State University in 2003 found that portables built to the 1993 code were 44% more energy efficient than models built 25 years prior. Further, portables built to 2000 codes are 20% more energy efficient than the 1993 models. And there are additional measures you can take to improve on this energy efficiency increase.

First, consider installing programmable thermostats in all existing portables and require programmable thermostats for any new portables. Second, choose site placement of portables to maximize the benefits of day lighting. This measure will not only improve the energy efficiency of the portable, but could lead to improved student performance. Finally, for any portables that utilize a "wall-mount" HVAC system, specify an Energy Efficiency Ratio (SEER) of 13. The higher the ratio, the more efficient your unit is and the lower your energy bills.

**Improve Room Acoustics.** It is important to note that acoustics are problematic in traditional classrooms as well as portables. MBI has several suggestions on how to provide the best acoustics (measures equally positive for traditional classrooms):

- assure seating away from highways and busy roads where possible
- when possible, do not locate a classroom where the outdoor noise level exceeds 55dBA
- reduce outside noise levels during instruction periods when possible
- use wireless microphone systems for cost-effective resonance
- consider "acoustical upgrades" to base models. Common upgrades include quieter HVAC systems, windows, doors, acoustical ceiling tiles, and carpeting

Although some teachers turn off the HVAC unit in an attempt to reduce noise, we advise against this practice. Studies have shown that student comfort and indoor air quality contribute more to a positive learning environment than acoustics. When you turn off the HVAC system, you are actually diminishing the learning environment.

**Activate Proper Maintenance and Timely Replacement.** There are two points that go farther than any of those already mentioned to ensure a positive learning environment in portable classrooms. Retire older portables when they become unserviceable or do not provide an adequate learning environment and properly maintain the portables currently in use. Today's portable classrooms are designed to last up to 20 years. But the length of this timeline is completely dependent on the proper maintenance of the portable in every year of its life. It goes without saying that portables should never be used beyond the recommended life of the unit.

# PORTABLES TOOLKIT

## COMMUNICATE BEFORE AND AFTER

### Communicate with the industry before and after for a smooth and successful process

It goes without saying that the better communicated all factors of a portables purchase process are, the better it will be understood by all parties involved. With understanding comes a smooth process, and a positive outcome. At the Modular Building Institute, we strive to inform and educate school administrators, principals, and facility planners before they are faced with the need to purchase portable classrooms. More importantly, we have instituted numerous ways for you to communicate with our industry before, during, and after the purchasing process.

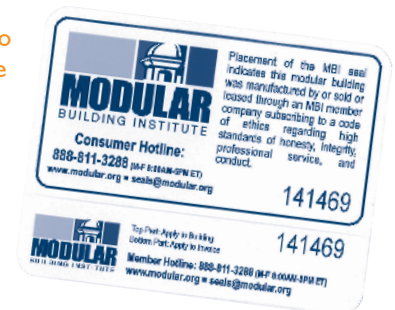
**Call our portables hotline.** We are here to answer your questions. You can reach us at 888.811.3288 M-F 8:00 am - 5:00 pm EST. We can also point you to dealers and manufacturers in your area that are available to answer questions you have about the purchasing process.



Portables Toolkit


**Take Advantage of Additional Articles and Resources.** From [modular.org](http://modular.org) you can click on our Portables Toolkit button. There you will find the same information included in this toolkit, as well as additional articles and resources like space planning documents to maintenance articles. If you have any questions about how to access these online resources, call us at 888.811.3288.

**Look for an MBI Seal.** Only use companies that subscribe to the industry's *Business Code of Ethics and Conduct*. This can be accomplished by specifying that one "MBI Seal" be placed on each floor.



To request hard copies of this toolkit, contact:

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Photo caption from FEMA: *Baton Rouge, LA, January 17, 2006 - This class is being conducted in a new modular building used as a temporary classroom at Audubon Elementary School. FEMA has funded these buildings in several school districts to accommodate students displaced by Hurricane Katrina to alleviate overcrowded conditions in the schools that welcomed the hurricane victims to their community. Robert Kaufmann/FEMA*

Document reference to the *Environmental Health Conditions of California's Portable Classrooms – A joint report submitted by California Air Resource Board and the California Department of Health Services - Nov 2004* can be viewed at <http://www.arb.ca.gov/research/indoor/pcs/pcs-fr/pcs-fr.htm>

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 [Download the toolkit from modular.org](http://www.modular.org)