

## **MOBU ENTERPRISES FREQUENTLY ASKED QUESTIONS**

### **General Questions**

#### **Do you have a showroom where I can see some Container Structure models?**

We do not have a showroom like a car dealership would have. Everything that we build is custom construction and already sold to the structure's owner. We have a model structure that travels across the United States from show to show. When the model is not at a show we do keep it at our facility and it is available from time to time for tours by appointment only. Sorry, but we do not accept walk-ins or non-scheduled visits. Before we schedule a visit we would like to understand if you already own land/lot for a structure and what your budget is for a structure (not including land). Call or Contact Us for pricing information about your specific Container Structure project.

#### **What is the process for buying a structure?**

Start with our consultation form [here](#). Then it's financing if you need it and that way you will know what you qualify for. If you don't need financing then that's a plus. Next is to find land that will allow the structure that you want to put on there. Some cities and counties have zoning and code restrictions and requirements. An experienced Realtor should be able to find land that will accommodate your needs and the MOBU ENT. floor plan that you want to put on it. Next step is to visit our Website and pick the floor plan and Call or Contact Us for pricing information about your specific Container Structure project. We can tweak the floor plan as you desire. After that we would put a contract in place for your review. If the contract is agreed upon, then you would send a 50% deposit. The balance of the payment would be due before delivery. After you get some of the above items completed, then we will be happy to help you get into a beautiful MOBU ENT. Container Structure.

#### **Do you offer financing?**

We do not offer 100% financing currently. We will keep you updated when that should change, as we are currently seeking options for our clients. However, we can offer financing for customers who have 65% or more as a down payment as a 5-year note. We would like to assist you with other finance options, but the industry just has not quite accepted these structures for private residential mortgages. You can also consider personal loans and if it's a commercial structure, there are plenty of options available. These typically require 20% and the rest can be rolled into a construction and development loan. Inquire with us for commercial real estate loans.

#### **How long does it take to build a Container Structures?**

It takes between four to twelve weeks to build a custom container structure, depending on the design and construction materials. Total time between order and delivery is dependent on the number of structures being constructed. We can give you a more exact timeframe when you order your structure.

### **Container Questions**

#### **What sizes do you offer?**

MOBU ENT. uses standard shipping containers, so we offer 20-foot and 40-foot options. Both container lengths are 8-feet wide. The standard 20' and 40' containers are 8-1/2' tall. The 20' and 40' containers are also available as a 'high cube' and this container is 9-1/2' tall (1' taller than the standard 40' container). We are able to raise the ceilings in all of the containers to accommodate one or more lofts. The industry also makes 48' and 53' containers. These are primarily used for domestic purposes and are much more difficult to find. As such, while we can build using these containers, the cost will be significantly higher due to shipping costs.

#### **How much does a Container Structure cost? What is the price?**

This is our most commonly asked question, so we want to give you a realistic idea of what one may cost. There are many uses for container housing, so we offer a variety of floor plans and options. Keep in mind that

although we have specific floor plans, every container structure we build is custom. Our containers with Enviro Smart Steel is \$62/sf and Smart Steel alone is \$20/sf. Please see out the site for additional costs. We start with one of the floor plans included on our Website and allow you to select the colors, stains, window placement, and many more options. We can provide an accurate cost estimate based on the floor plan with which you are interested, with the only variances being based on any customizations you may desire and/or any requirements by your local jurisdictions. Please note that while our container structures are “custom,” this does not mean expensive (and when purchasing, we require 50% down and the remainder due once complete, but before delivery takes place). Call or Contact Us for pricing information about your specific Container Structure project.

### **Are the Container Structures mobile? Can I transport them?**

While shipping containers were made to be easily transported, they are not conducive to placing on a trailer and moving around each weekend as some of the other Tiny Structures offer. Those are made on trailers with the construction that facilitates mobility. A 20' container weighs approximately 4,800 pounds and a 40' container weighs over 8,000 pounds. Fully built out, a 20' container could weigh easily over 10,000 pounds and a 40' container could be well over 20,000 pounds. These structures are made to be transported, set in place, and stay put. We do offer options for mobile units, but these are best for mobile stores, restaurants, or offices, not residential. We can refer you to our in-house specialist if you desire a true “tiny home”.

### **How are the Container Structures heated and cooled?**

We install a 12,000/10,600 BTU air/heat combination unit in our 20' structures. This unit is rated for 115V and operates on a standard 120V plug. In the 40' structures, which normally contain a bedroom, we can install two air/heat units — one in the bedroom and one in the main living area.

### **How are Container Structures insulated?**

We use Enviro-SmartSteel panels in both the walls, ceilings, and floors of our container structures. Enviro-SmartSteel is a sustainable product, which helps us — and you — reduce our carbon footprint. The material is affordable and not only provides the maximum insulation possible (R49), but also reinforces what is already the strongest construction available. As these are containers and not traditional wood construction, they are wind and waterproof from the start. The only holes in the container are those we cut for doors and windows (and raised ceilings if applicable). Because of this, the containers heat and cool very quickly. Get more info about Enviro-SmartSteel [here](#).

### **How thick is a container? How are they constructed?**

Steel shipping container walls are made from 14 gauge, 0.078” corrugated sheet steel panels that are welded to the main structure. The top and bottom side rails and end frames are 7-gauge tubular steel. The steel used to build modern shipping/cargo containers is a corrosive resistant high-strength low-alloy steel. The floors are 1-1/8” thick marine plywood. The bottom of the shipping/cargo container has 3-4mm thick cross members that have recesses along the bottom side rails, which allows them to be lifted with special straddle carriers. The floor of the shipping/cargo container is 1-1/8” thick marine (19 ply treated) plywood screwed into the main structure.

### **What about codes and zoning?**

Codes and zoning will differ depending on the state, city, and county where the Container Structure will be placed, what it will be used for, and how it will be secured. In some cases, it may be considered an outbuilding. In other cases, it may be considered a structure. In many counties and smaller towns, there may not be any zoning at all. The first thing we recommend is to contact your state, city, and county and discuss your plans. As “Shipping Living” is a fairly new concept, more and more localities are having to decide how to classify this type of dwelling when used for a residence. Another option, when looking at residing in the container structure and you do not yet own land, is to contact a local mobile structure park and discuss placing your container structure in the park.

The advantage to this option is that all utility services are already present. If the above options will not work in your state, city, or county then this option is most likely the way we would need to move forward with your custom Container Structure so it will be approved in your jurisdiction. There are many states, cities, and counties that will require the structure to be certified through the state as a manufactured (factory built) structure. We have been approved through many states and continue to add states to our list. There might be a case where your custom Container Structure design does not fit any of the already approved floor plans, in which case we will have to have all the plans and engineering completed. That process will take additional time and add an additional cost to the base price of the structure. If you select one of the floor plans we have completed already there will be minimal cost added to the base price to cover the State's cost, inspections, and anything else that might be required. The additional cost added to the base price varies from state to state and depends on the floor plan selected.

### **Utility Questions**

#### **How are the utilities hooked up?**

The utilities (electric, water, sewer/septic) are connected the same as they would be in a normal house. Of course, we can customize this based on your need. If hooking to a generator, we can make sure you have the right connection for electric. We can also include gas lines for the hot water heater and stove if you plan to run propane. Off-grid is available as well. We discuss all of this with you when designing your container structure.

### **Carbon Footprint Reduction Questions**

#### **Advantages of Solar Energy**

##### **1. Renewable Energy Source**

Among all the benefits of solar panels, the most important thing is that solar energy is a truly renewable energy source. It can be harnessed in all areas of the world and is available every day. We cannot run out of solar energy, unlike some of the other sources of energy. Solar energy will be accessible as long as we have the sun, therefore sunlight will be available to us for at least 5 billion years when according to scientists the sun is going to die.

##### **2. Reduces Electricity Bills**

Since you will be meeting some of your energy needs with the electricity your solar system has generated, your energy bills will drop. How much you save on your bill will be dependent on the size of the solar system and your electricity or heat usage. Moreover, not only will you be saving on the electricity bill, but there is also a possibility to receive payments for the surplus energy that you export back to the grid, if you generate more electricity than you use (considering that your solar panel system is connected to the grid).

##### **3. Diverse Applications**

Solar energy can be used for diverse purposes. You can generate electricity (photovoltaics) or heat (solar thermal). Solar energy can be used to produce electricity in areas without access to the energy grid, to distill water in regions with limited clean water supplies and to power satellites in space. Solar energy can also be integrated into the materials used for buildings. Not long ago Sharp introduced transparent solar energy windows.

##### **4. Solar Energy Benefits**

#### **Low Maintenance Costs**

Solar energy systems generally don't require a lot of maintenance. You only need to keep them relatively clean, so cleaning them a couple of times per year will do the job. If in doubt, you can always rely on specialized cleaning companies, which offer this service from around £25-£35. Most reliable solar panel manufacturers offer 20-25 years warranty. Also, as there are no moving parts, there is no wear and tear. The inverter is usually the only part that needs to change after 5-10 years because it is continuously working to convert solar energy into electricity and heat (solar PV vs. solar thermal). Apart from the inverter, the cables also need maintenance to ensure your solar power system runs at maximum efficiency. So, after covering the initial cost of the solar system, you can expect very little spending on maintenance and repair work.

## 5. Technology Development

Technology in the solar power industry is constantly advancing and improvements will intensify in the future. Innovations in quantum physics and nanotechnology can potentially increase the effectiveness of solar panels and double, or even triple, the electrical input of the solar power systems.

### What is Zero Net Energy?

Zero energy buildings combine energy efficiency and renewable energy generation to consume only as much energy as can be produced onsite through renewable resources over a specified time period. Achieving zero energy is an ambitious yet increasingly achievable goal that is gaining momentum across geographic regions and markets. Private commercial property owners have a growing interest in developing zero energy buildings to meet their corporate goals, and in response to regulatory mandates, federal government agencies and many state and local governments are beginning to move toward zero energy building targets.

### How does MOBU build ZNE structures?

1. Start with Smart Design. ... Shipping Container combined Enviro SmartSteel are two systems that primarily aid in energy efficiency at the onset of building.
2. Use of Energy Modeling. ... Use special software that factors in design and materials to reduce energy output.
3. Super-Seal the Building Envelope. ... Air Sealing the building using as Enviro Smart Steel.
4. Super-Insulate the Building Envelope. ... Enviro SmartSteel has r49 foam, one of the highest in industry and higher than traditional stick-built structures.
5. Heat Water Wisely. ... Choosing the best and most efficient water heating technology.
6. Use Highly Insulated Windows and Doors. ... Choosing the best and most efficient windows and doors
7. Use the Sun for Solar Tempering... Teaching our Customer: Using energy saving techniques such as window tinting in summer and removing to increase sun using on the same sides of the house in winter months.
8. Create an Energy Efficient, Fresh Air Supply... Choosing the best and most efficient
9. Select an Energy-Efficient Heating and Cooling... System Choosing the best and most efficient HVAC systems
10. Install Energy Efficient Lighting... Choosing the best and most efficient
11. Select Energy Efficient Appliances and Electronics... Choosing the best and most efficient energy star compliant appliances and electronics
12. Use the Sun for Renewable Energy... Choosing the best and most efficient solar panels

### What is solar energy?

Solar energy works by capturing the sun's energy and turning it into electricity for your home or business.

### Do you offer solar?

All of our structures can accommodate solar and it is best to work with a local solar provider who understands the solar capability, the best location for solar panel placement and amount of sunlight for your area. You can

work with one of our local solar provider prior to building the structure and incorporate any necessary modifications as needed so that your structure is delivered “solar ready” or you can work with a local solar provider after we deliver the structure and retrofit it with solar. We can also work with them to deliver a full or partial off-grid quote specific to your situation.

### **What are the solar panels call and how are they used?**

When photons hit a solar cell, they knock electrons loose from their atoms. If conductors are attached to the positive and negative sides of a cell, it forms an electrical circuit. When electrons flow through such a circuit, they generate electricity. Multiple cells make up a solar panel, and multiple panels (modules) can be wired together to form a solar array. The more panels you can deploy, the more energy you can expect to generate.

Photovoltaic (PV) also known as solar panels are made up of many solar cells. Solar cells are made of silicon, like semiconductors. They are constructed with a positive layer and a negative layer, which together create an electric field, just like in a battery.

PV solar panels generate direct current (DC) electricity. With DC electricity, electrons flow in one direction around a circuit. This example shows a battery powering a light bulb. The electrons move from the negative side of the battery, through the lamp, and return to the positive side of the battery.

With AC (alternating current) electricity, electrons are pushed and pulled, periodically reversing direction, much like the cylinder of a car’s engine. Generators create AC electricity when a coil of wire is spun next to a magnet. Many different energy sources can “turn the handle” of this generator, such as gas or diesel fuel, hydroelectricity, nuclear, coal, wind, or solar.

AC electricity was chosen for the U.S. electrical power grid, primarily because it is less expensive to transmit over long distances. However, solar panels create DC electricity. How do we get DC electricity into the AC grid? We use an inverter.

### **What Does a Solar Inverter Do?**

A solar inverter takes the DC electricity from the solar array and uses that to create AC electricity. Inverters are like the brains of the system. Along with inverting DC to AC power, they also provide ground fault protection and system stats, including voltage and current on AC and DC circuits, energy production and maximum power point tracking.

Central inverters have dominated the solar industry since the beginning. The introduction of micro-inverters is one of the biggest technology shifts in the PV industry. Micro-inverters optimize for each individual solar panel, not for an entire solar system, as central inverters do. This enables every solar panel to perform at maximum potential. When a central inverter is used, having a problem on one solar panel (maybe it’s in the shade or has gotten dirty) can drag down the performance of the entire solar array. Micro-inverters, such as the ones in SunPower’s Equinox home solar system, make this a non-issue. If one solar panel has an issue, the rest of the solar array still performs efficiently.

### **How Does a Solar Panel System Work?**

Here’s an example of how a home solar energy installation works. First, sunlight hits a solar panel on the roof. The panels convert the energy to DC current, which flows to an inverter. The inverter converts the electricity from DC to AC, which you can then use to power your home. It’s beautifully simple and clean, and it’s getting more efficient and affordable all the time.

However, what happens if you’re not home to use the electricity your solar panels are generating every sunny day? And what happens at night when your solar system is not generating power in real time? Don’t worry, you still benefit through a system called “net metering.”

A typical grid-tied PV system, during peak daylight hours, frequently produces more energy than one customer needs, so that excess energy is fed back into the grid for use elsewhere. The customer gets credit for the excess

energy produced and can use that credit to draw from the conventional grid at night or on cloudy days. A net meter records the energy sent compared to the energy received from the grid.

### **Site Questions**

#### **How are the containers fastened to the ground?**

##### **There are two main options:**

1. Set the container directly on the ground or on blocks to level the unit. You may want to choose this option if you plan on moving the unit in the near future or you do not need a permanent installation. This option is not recommended for a container structure that is intended to be a permanent structure.
2. We will provide steel plates that are 12"x12" with "J" hooks welded to the bottom side to insert into the concrete piers as they set up. The container will be set on the piers and welded to the steel plates. This is the option we strongly recommend for our container structures.

#### **How does delivery work and what is included in a standard delivery?**

We will deliver almost anywhere in the United States at standard delivery rates and anything that doesn't qualify for a standard delivery might have an additional cost associated with the delivery of the container structure. Call or Contact Us for specific delivery information about upcoming Container Structure project.

#### **Do you offer any recommended foundation types?**

##### **We have three different types of foundations that we would recommend when preparing for your container structure:**

1. Digging and pouring concrete piers, then placing crushed gravel around the piers to allow for drainage.
2. Pouring the piers and then a concrete slab on top of the piers to give a good solid surface under your container structure, this helps keep things from digging under the structure. This is our most popular option and the option we would recommend.
3. Adding a partial crawl space to either the concrete piers with crushed gravel or the piers and slab. We strongly recommend this option in areas that have really cold climates to accommodate where all the plumbing connections would be made. In most cases, we see a baseboard type heater mounted in the crawl space to keep it warm in extremely cold weather.

\*\*\* All of these options are recommendations. You should also check with your local jurisdiction to see if they have any requirements.

Refer to Build A Container Structure or Shipping Container Structure Made Easy for additional information.