

# Read This Before You Start Building An Utility Trailer

Even though there are plenty of pre-built new and used utility trailers on the market, they may not meet your exact needs. If you are going to use the trailer for any kind of prepper application, it is best to make sure you have everything you want in the design.

As with so many other things, this means you will more than likely need to design and build the trailer yourself. While this may cost more in terms of time and labor, in the end it may save your life and make living in the post crisis world easier than expected.

If you are looking to expand or upgrade your DIY skills, building a utility trailer will give you plenty of practice.

## Stages of Building Your Trailer

These brutal financial times make it difficult to justify building a utility trailer that may or may not be needed to address some kind of major future crisis. Surprisingly enough, you don't need to build a utility trailer years, or even months in advance of a major social collapse.

By keeping the following points in mind, you can build a suitable trailer in just a few days, or even do so after a major crisis happens.

As you think about how long it will take to build a utility trailer, keep the following points in mind. You can divide the timeline into five main parts:

# 1. Planning and designing the trailer

You can plan and design a trailer at little or no cost. Make your basic plans on paper, and then do your research for free online. Look at other designs on the market, find out what materials are available, and get a good sense of how much all the parts will cost. Once you have the blueprint, parts list, and projected assembly plans, just about everything else can be done in a matter of days.

When of making up a parts list, include as many recycled or salvage parts as you can, and add at least 2 or 3 alternatives that suit your needs. This will make it easier to choose parts later. If you run out of time before acquiring all the building materials, you can use this list during and after a major crisis as a guide to viable materials.

## 2. Obtaining raw materials

Before you buy materials, purchase any tools that you might need. These tools can also be used for many other household and travel needs, so they won't go to waste. The more time you spend using basic power and hand tools, the better off you will be in any situation.

The more time you have for obtaining building materials, the better. Aside from being able to budget more easily, you will see if there are reusable materials in flea markets, junk yards, or estate sales that might be of use.

Individuals that are building and maintaining comprehensive bug out plans should take the salvage and alternative material list along on test excursions. This is an excellent time to take note of what items may be available on the way to your bug out location.

### **3. Building the trailer**

Preparing for an emergency is never easy, especially when you are concerned that all your hard work will be stolen by rioters or others. An utility trailer can be a bit hard to hide, and just about everyone that sees it will know what it is, or remember that you have one. Once a major crisis occurs, these people will be looking for you and ready to take anything of value that you might have.

This is the main reason why I don't recommend building a utility trailer from the top down and having it all ready to go. Rather, it is better to build the trailer in units, test them out, and then be ready to assemble them at a moment's notice. Many systems are small enough to be hidden in your home or garage, and then assembled later on when the need arises. If you make fast assembly and modular system designs part of your plans, this process may be easier than you would expect.

### **4. Testing everything out**

There is a definite trade off between testing out a completed trailer and keeping its existence as secret as possible. Doing your best to test specific modules may not be enough when you actually assemble the trailer.

Your best option will be to try and assemble the trailer in a quiet location where no one will know. Once you know everything works together as a unit, you can always take everything apart and then reassemble it in time of need.

### **5. Maintenance**

As soon as you begin keeping supplies on hand, or materials to build the trailer itself, you will always need to be concerned about maintenance.

For example, if you purchased aluminum for the sides of the trailer or other parts, they may still need painting, lubrication, or other routine care to prevent them from being ruined.

## Where to Get Materials From

Have you ever gone to a local hardware store, home improvement store, or automotive shop only to be disappointed by the inventory? You may find some items in these stores to get you started on a DIY product, while other items may not be available (thicker aluminum, for example).

Be careful how you shop online, and you should be able to keep your building plans secret.

Here are some other places where you might find building materials at a more reasonable price:

- Local auctions and surplus events. Newspapers and websites dedicated to your town or city may list these venues as well as what kinds of materials are available.
- Watch the classified ad listings in supermarkets, department stores, or other areas where estate sales, flea markets, or other private sales might be listed.
- Military surplus outlets may also be of some use.

Check the end of the article for a list of websites that may help to salvage or find construction surplus materials.

## Basic Parts

The absence of a means of propulsion doesn't mean utility trailers are simple, or that you can build them with a lack of care and consideration. A poorly designed or constructed trailer can spell disaster. Do not cut corners or reduce quality if you want to build a reliable trailer!

# Wheels, Axle, Suspension, and Braking Systems

The axle and suspension system must be able to support the entire weight of the trailer and everything in it. These parts must also have the flexibility to absorb shock as the trailer moves without bending excessively or breaking.

Many utility trailers have smaller wheels, but bear in mind that you might take the trailer off road or into areas with deep ruts, mud, or broken pavement. Spend a bit more on larger wheels with deeper and heavier treads so that the trailer passes more easily over these areas.

## Basic Frame

The frame must work in conjunction with the suspension, axle, and braking system to provide a solid foundation for the rest of the trailer. No matter whether you choose an open design or a closed one, the suspension must be sturdy and durable. A frame that is built independent of the suspension will give you more options and also much better performance.

## Coupler and Tongue Jack

If you do not have a good quality coupler and tongue jack on the trailer, it can lead to a number of problems including:

- The trailer may break way from the vehicle pulling it along.
- It may sway from side to side or be very hard to control when the pulling vehicle turns.
- A poorly designed coupler may be difficult to connect and disconnect as needed.

## Wall Frame

The wall frame must still be sturdy enough to keep all of the items in the trailer secure no matter whether you design an open trailer or a closed one. Choose frame material that will not bend or buckle if objects inside the trailer hit it.

It is also best to choose a frame material that is sturdy enough to accommodate the weight of a roof and enclosure if you decide to make these changes later on. Even if you decide on low walls now, make sure that you can bolt on taller pieces later on without sacrificing on frame strength.

## Roof Frame (optional)

Try to make the roof frame sturdy enough to accommodate the roof covering and storage for other items. It never hurts to create a roof top frame that can also be used to house solar panels, small wind turbines, or other devices used to generate electricity, gather water, or carry out other tasks.

## Enclosure

If you are looking for a cheap easy way to enclose the trailer, start off with canvas, and then keep a vinyl covering for times when you need to keep the interior as dry as possible. As time and budget allow, enclose the trailer with aluminum or some other more permanent and durable material. As long as the roof is made from a solid material (polymer or resin might work), you could also generate power and still use canvas for the trailer sides.

## Access Points

Most people that build low walled trailers do not worry about doors or windows. On the other hand, even if you plan to live in a canvas covered trailer, you'll need to enter, exit, add

to, and remove items from the trailer.

Ventilation and adequate air flow are also important so that you don't wind up with moisture, mold, and mildew buildups inside the trailer. Doors and windows on solid side, enclosed trailers can also make it more comfortable to live in.

## **Security System**

When all your worldly possessions are going to be packed in a trailer going a long distance, security systems are crucial.

You can use electronic surveillance systems as well as specialty locks and bolts. Just remember that these systems are only as good as the materials used to build the rest of the trailer. If the sides are made of canvas or vinyl, there will not be much sense in installing locks. Instead, think about what kind of weapons you can use to defend the trailer as well as any devices that can be used to deter people from approaching it.

## **Internal Features**

Shelves, seats, tie down areas, and privacy enclosures are all important for a multi-purpose utility trailer. Keep weight down by using plastic furnishings or ones that can be packed away easily.

For example, beanbag chairs are lightweight and can be put together to make a bed. Alternatively, use plastic tubs to store your items and then put an air mattress on top of them. Just because internal features need to be light weight and simple, that does not mean you have to be uncomfortable or unable to enjoy whatever time you may need to spend in the trailer.

# Electricity

Aside from running computers or other devices that store important data, electricity is important for power tools used to fix the trailer or build parts that were not complete before started using it. There are many devices that can be used to power a utility trailer, like different wind turbine designs that will lend themselves well to sitting on top of a trailer. As long as the trailer is in motion, the turbines will spin.

You can make a series of smaller turbines that are housed in other parts of the front of the trailer and then combine them into a single battery pack. This is especially important if you want your trailer to look as inconspicuous as possible. A few fans hidden behind grills will not be as noticeable as solar panels or a shell design turbine sitting on top of the trailer.

# Water and Sanitation

Many people that don't plan on living in a utility trailer after a major crisis occurs think they can ignore water and sanitation issues.

On the other hand, you are always going to need clean water. As such, you should at least have some tools on hand so that you can purify water or pull it from other resources. Even if you store away plastic and a shovel so that you can retrieve water vapor as it evaporates from the ground, you will be ahead of the game.

Setting aside a small part of the trailer for sanitation and privacy needs is more important than you realize. At the very least, bring a few items along that you can use to meet these needs once they are assembled.



# Tools and Skills You Need for the Project

You will need common tools such as screwdrivers, hammers, pliers, metal cutters, drills, and hand saws for building your trailer, but also other items. These tools require electricity to operate, but it's not impossible to make a sturdy trailer without them.

- Welder – you need a welder to join together steel rods used in the trailer frame. Even though welding is not especially difficult to learn, you need some practice before you weld the rods together. Remember to wear a welding hood, gloves, and an appropriate apron. No matter how fascinating welding and the sparks it makes may be, remember that you are working with very high temperatures and a light source that can blind you in a matter of seconds.
- Circular saw, jig saw, and hand drill – these power tools make cutting boards and other materials much easier and faster. Perhaps I am a bit old fashioned in my preference for corded tools, however I have yet to find battery powered tools that lasted as long or provided as much power when I needed it most.
- Hydraulic Jacks – you need at least 4 to support the frame while you are mounting the axles and wheels.
- Hoists and Pulley Systems – if you start building in modules, hoists and pulleys make it possible to assemble completed parts in a matter of minutes.

## Equipment and Furnishings: Buy or Make Your Own?

When you make your own racks, shelves, and other furnishings, it's easy to create what you need and in the size that you need it. But if you don't have the time or patience to make

furniture, it can be a very tedious task. Unless you upcycle free wood palettes or other materials, you'll find that the cost of making your own furnishings is about the same as buying pre-made models.

Research on camping and RV gear, and you'll find all sorts of things that can be used to make the utility trailer more comfortable and convenient. In many cases, this equipment may not meet all of your needs. You may not be able to repair the items if they break down, or they may not be as durable as you would like.

If you want cutting edge designs or newer technologies, those devices may also be more expensive. For example, if you want to [include a wind turbine](#), it may be impossible to find the best in a pre-fabricated form, so you'd better look at different bladeless turbine designs, and build something that meets your needs.

Newer polymers and other materials on the market can make this task as simple as working with a 3D printer and a few well designed templates. Aside from cost and innovative concerns, when you make your own equipment you can always add room for adaptability. If you need to scavenge parts or build systems that are easy to repair, there is nothing like developing your own designs.

## **DOs and DON'Ts When Building an Utility Trailer**

Building an utility trailer is like many other things in life. There are some basic things you should always do, and others that you should avoid.

Here are some of the most common practices that lead to building a trailer that will be durable and useful or one that will not be worth the effort you put into it.

- Do not cut costs on critical components such as the frame, suspension, axle, and coupler. Everything in the trailer depends on how sturdy and durable these items are. If you don't know how to weld, or don't have enough practice in metal working, make sure that you know what you are doing before you tackle building these parts.
- Do seek training for everything you need to do. From wiring the trailer for electricity to installing windows and shelves, it never hurts to take a few courses on these and other building oriented topics.
- Never work on the trailer when you are tired, angry, or sick. Most of the time, you will be working with power tools, chemicals, or something else that can cause injury or death. Exhaustion, excess emotions, and illness can make you careless and impatient. Even if you are not injured, the mistakes you may make can come back to haunt you when you put the trailer on the road and discover these "hidden features".
- Always observe safety precautions. Goggles, ear protection, gloves, aprons, steel toed boots, dust masks, and respirators are all necessary safety gear that should be used. While many people today recognize the need for goggles, far too many do not wear protective ear plugs and respirators. Never forget that everything you are working with will create some kind of dust, smoke, or gas. None of these fumes or dust are good for your lungs or your health.
- Give yourself plenty of room to work. Over the years, I have seen many accidents caused by a simple lack of working space. Make sure that you have plenty of room to lay all the parts and tools out. Keep your work area neat and clean. No matter whether you are working indoors or outside, it is all too easy to take a step backwards and trip over something you forgot was back there.
- Make sure that others working with you observe safety and good working habits. If you work with a team, it is

all too easy for you, and others to put things where they can pose a risk to others. If everyone makes it a point to put things back where they belong, it will be much easier to avoid accidents.

- Always keep detailed records of everything you did and how each system fits together. Later on, if you need to diagnose problems or make repairs, these notes will give you a valuable point of reference. Include photographs taken during the construction process, these will make it easier to orient and prepare for making any required changes. Do not forget to update your notes and photos once you are done.
- Never use drugs or alcohol while working on the trailer. As soon as you lose any kind of control of yourself, both the tools you are using and the materials can also get out of control. This can lead to cuts, bruises, burns, and other serious injuries. If you must have a drink or take some kind of medication, stop for the day and then go back to it when your thinking and your reflexes are in better condition.

Take the time to design and build a custom utility trailer, and you'll develop a perfect prepper solution!

While this task isn't as difficult as it seems, you will need to put in a considerable amount of time, effort, and money. When a disaster strikes and you are able to move and live comfortably in the trailer, you will see that it is well worth the effort.



## World's Smallest Battery Powers House For 2 Days

[Watch Video >>](#)

*This article has been written by **Carmela Tyrell** for Survivopedia.*

### *References:*

*<http://www.americanbuildersurplus.com/>*

*<http://www.salvex.com/>*

*<http://www.contractoryardsale.com/>*

*<http://www.bmomn.com/>*

*<http://www.govliquidation.com/Scrap-Metal.html>*