

DECK BUILDING MADE EASY

Step by step guide on how to build your deck
for all year round use



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Deck Building Made Easy

*Step By Step Guide on How to Build
Your Deck for All-Year-Round Use*

Introduction

Adding a deck to your house may seem difficult, especially cost-wise, but did you know that you can get value out of building one? Yes, that's true.

Additionally, some of the benefits of adding a deck to your home include having space for parties, family gatherings, close supervision for kids and pets, or simply a place to sit in and enjoy the fresh air or sunshine as you gaze into your surroundings.

According to a [study^{\[1\]}](#), the number of single family houses in the US that have decks has risen to 46,000 between 2010 and 2020. This means that deck building is becoming more popular.

If you are considering adding a deck to your home, you may be wondering:

- *How do I go about it?*
- *How easy or complex is it?*
- *How long will it take?*
- *What deck style will you build?*
- *What are the materials required, and are they readily available and affordable?*
- *Do you need permission from the local authorities?*

If you have these questions, keep reading this book because it will answer these questions and guide you on:

- *How to identify the most suitable style for your home*
- *How to design it*
- *How to plan your budget*

- *The materials and tools needed*
- *The skills to help you complete your project successfully.*
- *And much more*

The fact that you are here means you want an aesthetically pleasing deck that's durable, big enough for your needs, and that you can build yourself. Doing this requires you to plan well from start to finish, keeping in mind all the details for the project.

Some of the topics this book will cover include:

- *How to measure your deck area accurately.*
- *Factors that determine your deck style*
- *The properties of different types of materials*
- *How to plan for your deck before you begin building*
- *How to budget for your deck*
- *And much more!*

Whether this is your first time building a deck or you want to add to the skills you already have, this is the book for you.

PS: I'd like your feedback. If you are happy with this book, please leave a review on Amazon.

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Table of Contents

[Introduction](#)

[Chapter 1: Types Of Decks And Why Build A Deck](#)

[Chapter 2: Materials And Tools For Building Your Deck](#)

[Chapter 3: Factors To Consider When Building A Deck](#)

[Chapter 4: Deck Safety Tips To Consider](#)

[Chapter 5: Laying Out The Deck Area](#)

[Chapter 6: How To Build A Deck Using Concrete Block](#)

[Chapter 7: How To Build A Raised Wooden Deck](#)

[Chapter 8: How To Build A Multi-Level Deck With Led Lights](#)

[Chapter 9: Building A Detached Deck With A Pergola](#)

[Chapter 10: How To Build A Floating Rooftop Deck](#)

[Chapter 11: How To Build A Ground-Level Deck With Led Lights](#)

[Chapter 12: The Dos And Don'ts Of Deck Maintenance](#)

[Conclusion](#)

Chapter 1: Types of Decks and Why Build A Deck

Before we get started, let us understand decks and the benefits of building one:

What is a Deck?

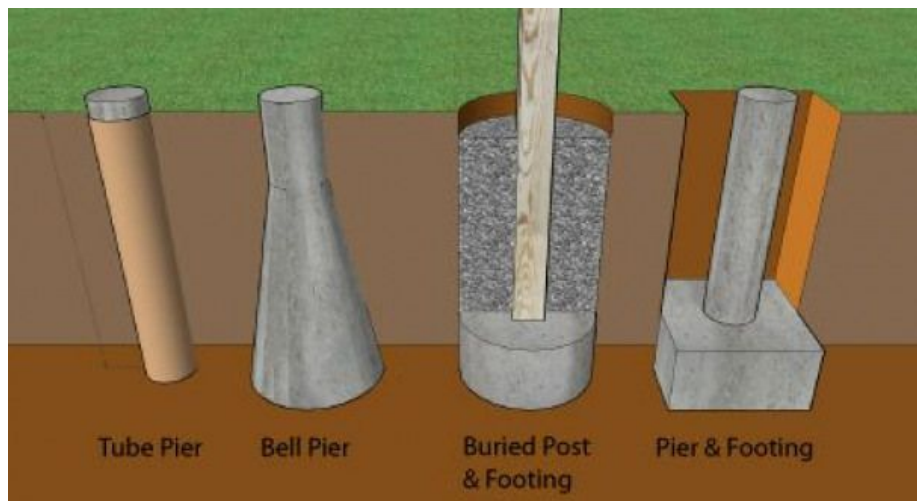
A deck is simply a flat outdoor structure mostly made from wood or timber and usually connected to a building or house. It is built from the ground up and elevated by footings, frames, and posts secured in the ground.

You may wonder, when did decks become an in-thing?

Decks were not that popular until the early 1980s, when homeowners with stylish ideas began to have decks built to their houses as a way of extending their living space. Before then, decks were simple and not thought of as much, with most used for grilling. In fact, they were so small that not much could fit in them. However, decking has evolved over the past two decades, making decks a much sought-after home-buying detail.

Although deck designs may vary depending on the owner, a deck has five key parts which are:

1: The deck foundation



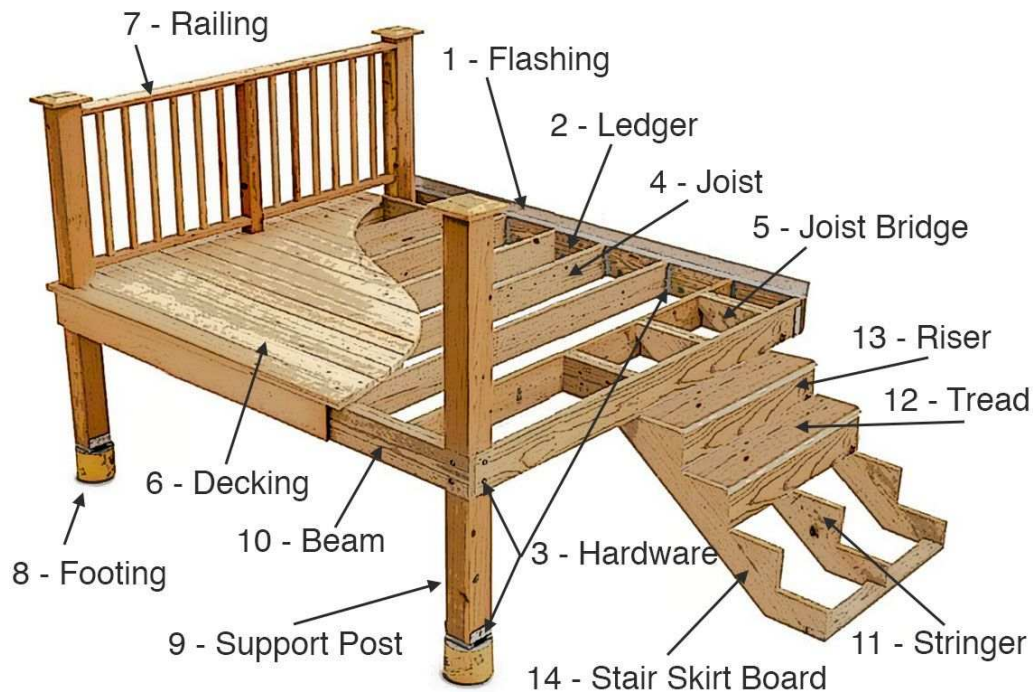
The deck foundation is the area that supports the entire deck. No matter how low or high your deck is, the foundation must be there, which means you must also build it properly. Without a proper foundation, your deck will not survive harsh weather like winter and rainy seasons because of the humidity changes; hence, the deck will be shaky and weak. Most deck foundations have the following two major parts:

- **Footings:** A footing is a hole you dig into the ground extending below the frost line and after that, fill it with concrete to support the deck or posts.
- **Piers:** A deck pier is concrete poured into the footings; it supports the posts.

The depth of your foundation depends on how deep the frost in your area is and on the local building code.

2: Framing of the deck

Basic Parts of a Deck Frame



A deck framing is the part of the deck that supports the surface, railings, and deck stairs. The parts that create the deck framing include:

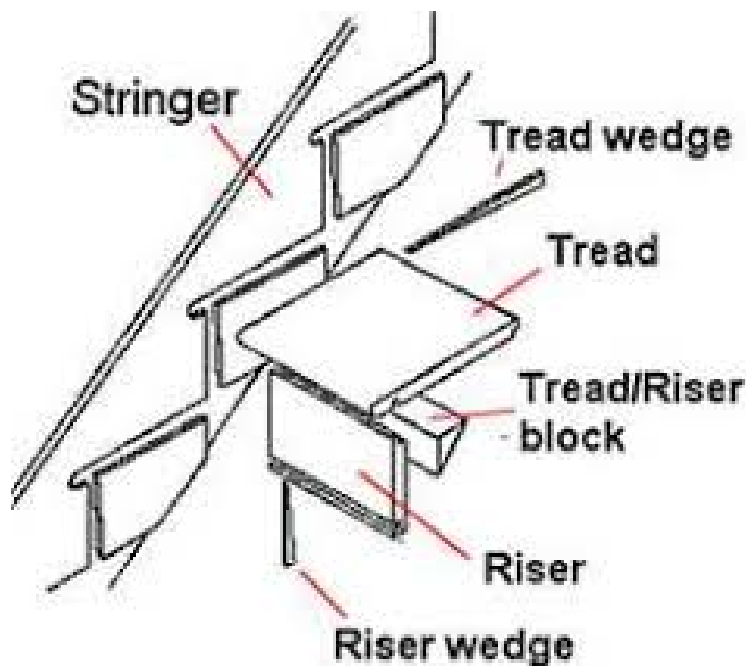
- **Joists:** The joists rest on the posts and run parallel along the deck to support the deck boards.
- **Posts:** Posts are usually attached to the piers and footings where they support the beams and underlying part of the deck. For added support, the posts are attached to metal brackets connected to the footings.
- **Beams:** These comprise the horizontal deck boards and play the role of supporting the joists and the rest of the deck framing.
- **Ledgers:** A ledger is a board that attaches the deck frame to the house.

- **Blocking:** These are small solid blocks attached between joists to support stair stringers or posts.
- **Header joists:** Commonly known as a rim joist, a joist header is attached perpendicular to the joists to support the end of the joists and fasten them to the board.

3: Deck surface

This comprises the deck flooring, the pieces of board attached to the joists to form the deck's surface. Chapter 2 guides you more on decking materials.

4: Stairs



The stairs are usually attached to the concrete foundation of the deck, and just like the standard stairs, deck stairs comprise of the following parts:

- **Treads:** These are the flat surfaces of the stairs you step on while ascending or descending the stairs.

- **Stringers:** These are the sides of the stairs that support the treads and risers.
- **Risers:** Also called the ‘face’ of the stairs, the risers are the vertical parts of the stairs.

5: Railings

Finally, we have the railings, the deck’s guard rails that play the role of keeping people from falling off the deck. However, if your deck is too low or close to the ground, you may not need to add railings, but if you have kids and pets, it may be necessary to add them.

To keep kids and pets from squeezing through the railings, add balusters, the vertical components of the railings.

Why Build A Deck?

Here are some reasons why deck building is important for your house:

Enhances outdoor living

Being indoors can be boring at times, especially since you are already familiar with every detail of your house. On the other hand, you may not be up for the idea of a walk outdoors or may not feel like leaving the area around your house. If that is you, you may well understand the importance of building a deck for your house?

Whether it’s summer, fall, or spring, a deck allows you to breathe in the fresh air, take in vitamin D, and spend quality time outdoors without fully leaving the comfort of your home.

It gives your home an aesthetic appeal

If you understand style, you know well that a deck and style go hand in hand, especially with modern living. Decks have gone from the small and

simple decks that could only fit a barbecue grill in the 1970s to the large, modern, and attractive decks we have today.

As a homeowner, there are many ways you can transform your deck to suit modern living, including incorporating stylish furniture, adding outdoor pillows, adding rugs and carpets, and having potted plants. These and much more add beauty to your yard.

Adds value to your home

It may not surprise you to learn that many homebuyers currently prefer purchasing houses that already have decks. That being the case, if you add a deck to your house, its value increases if and when you decide to sell it out. You can add a coat of fresh paint, hanging planters with flowers or herbs, or an outdoor firepit to help add value to your house.

Acts as an entertaining space

You can enhance your family time with a nice deck too. Instead of playing cards or monopoly indoors, you can build a nice deck where you gather with your family to enjoy quality time together.

Also, if you like having guests and friends over for parties or just simple barbecues, then a deck is a perfect space for people to gather without feeling claustrophobic!

Besides, having people in your house may lead to potential damages that may be costly to repair, unlike a deck where damages are less costly. You can add a barbecue grill to your deck to give it that entertaining space look.

Provides peaceful moments

The mind often wants relaxation, even if only for a minute, and the only place to experience that peace of mind is away from noises. A deck will probably offer you that escape—for example, if you are in the middle of an

important discussion that requires you to think first before responding. You can relax for a moment, gather your thoughts, then go back and inside to tackle the issue at hand.

On the other hand, a deck can act as an office, especially for at-home workers, which is handy after the COVID-19 outbreak where working from home has become common, meaning a deck can double as a place to relax and a peaceful office!

Types Of Decks

Below are the most common types of decks:

Wraparound deck



Figure 1

As the term suggests, a wraparound deck surrounds the entire house or most of your house. The advantage of having a wraparound deck is that it allows you to view your entire property without interruptions. You can also easily shift your position depending on the sun's direction.

It will cost \$9,350-\$39,900 to build a wraparound deck, depending on materials and labor costs.

Detached deck



Figure 2

A detached deck is usually low, and as its name suggests, it is not attached to the house.

Unlike attached decks, you can build a detached deck anywhere, including open spaces or next to your house or pool. Unlike other attached decks connected to the building through a ledger board, a detached deck uses a back beam for support.

Some of the cons of building a detached deck are:

- It is more expensive. The average cost of building a detached deck is around \$10-55 per square foot.

- If installed poorly, it can start to sag or even become unlevel.
- Over time, it can begin moving away from the house.

The advantages of building a detached deck include:

- Chances of rot or damage from water are lower.
- You can build it anywhere.

Multi-level deck



Figure 3

A multi-level deck has multiple layers of different heights, either joined by stairs or inclined pathways. The good thing with this type of deck is that you can extend its space without taking a lot of front or backyard space, especially if you do not have much space in your compound.

The advantages of building a multi-level deck include:

- It creates more functional space for more activities, even with limited space.

- You do not need to level the ground before building a multi-level deck.
- Additional features such as stairs and railings add visual interest to your home.
- Unlike single-level decks where everything is in one place, each layer has a different space purpose with a multi-level deck. For example, you can have the layer close to the house as a dining area extension, while the level below can serve as the grilling area. That way, you do not have to stumble over furniture or other items when moving around.

The average cost of building a multi-level deck is \$23-\$30 per square foot.

Rooftop/over garage deck

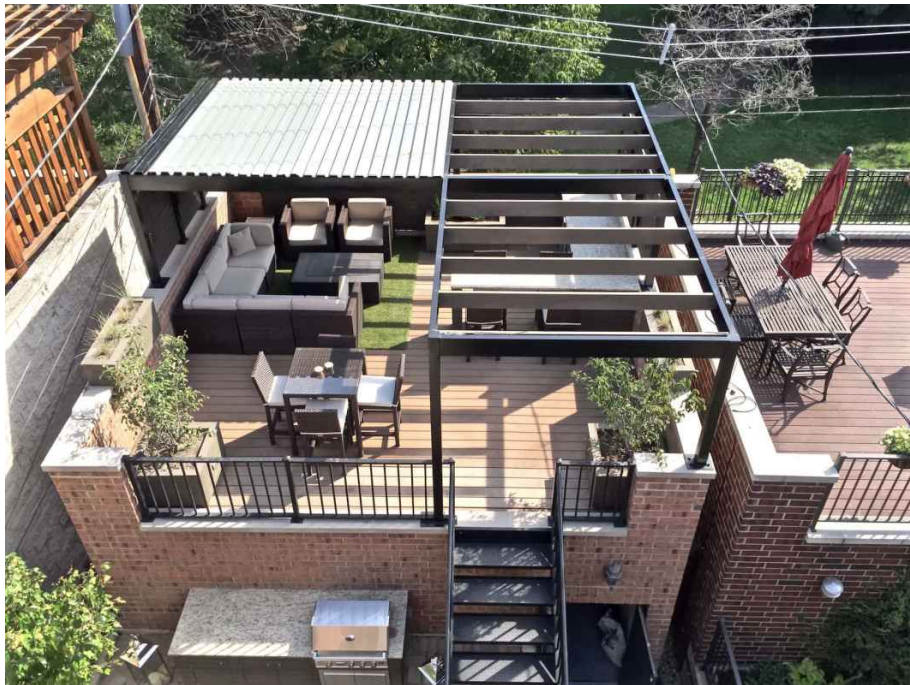


Figure 4

A rooftop deck is usually located on top of the building or connected to a building's rooftop level. Currently, tempered glass and clear acrylic are used

to allow a clearer view of the surroundings and give the roof decks a more spacious look. You can also use wooden or metal railings to fence your rooftop deck.

The benefits of having a rooftop deck include:

- You have awesome views.
- You have a spacious additional living area
- It has more space that you can use for gardening
- It is ideal for entertaining friends or guests, especially because of the view.
- It has drainage pipes that drain all water, keeping the walls and foundation dry.

It costs an average of \$ 25,000-\$50,000 to build a rooftop deck, depending on the size, materials, framing, and finishes.

Chapter 2: Materials and Tools for Building Your Deck

To have a durable and strong deck, you need to use the appropriate materials. These materials include; hardwood, softwood, treated-timber, and other non-wood.

Let us look at each briefly.

Softwood Timber

Many deck builders prefer softwood because it doesn't cost much and it is readily available. However, some softwoods are unsuitable for building a deck because they are not dense enough or absorb moisture easily, leading to rot.

The most popular softwoods that are excellent for deck building include [cedar](#)^[2] and [redwood](#)^[3]. They have a natural resistance to insects, moisture, and rotting. They are also denser than most softwood varieties.

These two types of softwoods are comparable to hardwood because they can withstand outdoor conditions and last longer, even for years.

Pressure Treated Wood

Softwood is treatable to make it more suitable for building a deck. Since most softwoods are less dense and are moisture absorbing, they get damaged more easily; hence, they need chemical treatment to improve their hardness.

You can still use other softwood varieties, but they have to be treated to be used for your woodwork projects. Pine and Fir are the most common pressure-treated softwoods.

They are treated by removing all the air and injecting them with chemical [preservatives](#)^[4]. This protects the wood against insect infestation and water damage, making it last longer. Therefore, it is okay to use softwood for your decking solutions because when it is pressure-treated, it can last for very long.

Treated softwood is way cheaper than untreated softwood, making it a popular deck-building choice for many years.

Treated timber has its downside. The chemicals used are highly toxic to humans and animals. If burnt, such woods release toxic fumes when the chemicals wear off, irritating the skin. Another major concern of treated softwood is that it is prone to splintering and cracking.

Altogether, pressure-treated timber is affordable compared to untreated and hardwood timber. Professionals do not have a problem using the treated softwood as they have experience handling it.

Hardwood

Hardwood will make your deck look as natural as possible, will last for decades, and will not rot. Make an informed choice by looking at the Pros and Cons of hardwood:

Pros of using hardwood

- **Tough:** Hardwood is very strong and can withstand almost anything, including heels, claws, or hail.
- **Durable:** Hardwoods are resistant to insects and do not absorb moisture easily, hence resistant to rotting.
- **Stable:** Hardwoods do not shrink or expand with changes in temperature and weather like softwoods and treated softwoods.

- **Fire-resistant:** When a hardwood catches fire, it does not emit toxic smoke.
- **Luxury look:** Hardwood is the best for a luxury feel and look.

Cons of using hardwood

- **High Cost:** Hardwood is expensive and generally almost twice as costly as softwood.
- **Difficult to work with:** It can be difficult to drill holes, saw, or even hammer nails into it, slowing down your installation.
- **Heat:** Because they are dense and dark, hardwoods can get very hot when the sun is out, meaning your feet may not withstand the heat coming from your deck.
- **Maintenance:** Regular maintenance by oiling it to preserve its color is a must-do to keep your deck from turning gray.

Non-wood Framing

It was not until recently that non-wood decking materials became popular. They are a preference to many because they are inexpensive, durable, low-maintenance, and visually appealing.

Let us look at a few examples of non-wood decking materials:

Composite



Composite is a material manufactured from wood fibers and recycled plastic. It is strong, durable, and resistant to rot. One cannot easily slip and fall on a surface that has a composite. It is also resistant to UV rays and pests.

It is available in many colors, requires low maintenance, and will look good throughout the year.

PVC

PVC is plastic and is suitable for decks because they are affordable, strong, do not splinter, and make very little noise. They are easy to install, making them a good option for DIY projects. PVC does not rot and is resistant to insect infestation.

Aluminum



This material doesn't rot or rust. It is considered the most durable material for decks that can last long. Its durability and strength are unmatched, with a very appealing finish. Because it's lightweight, it is easy to install.

Bamboo



There are two types of bamboo decking, one with woven fibers and one with non-woven fibers. The woven option is stronger than the non-woven.

Bamboo can withstand many climates and provides a long-lasting deck if well looked after. As is the case with any other wood, you will have to stain and seal it with sealant to slow down the fading process.

Bamboo will not do well in marshy areas or regions that experience a lot of rain and flooding because of mildew. Generally, areas with hot climates are the most suitable for bamboo decking.

Rubber Paver Tiles

This is made from high-density rubber that is micro-porous, making it very durable, resistant to wear, and comfortable for your feet. Most come as interlocks; thus, you can install without using adhesive.

The tricky bit with this type of decking is that when laying it out on the wood, you have to be careful to avoid water or moisture from getting trapped between the wood and rubber, as it will lead to wood rot and accelerate damage to your deck.



Deck Building Tools

To build your deck, you will need the following tools:

Measuring tape



Figure 5

You need one to take measurements of your deck. Have a measuring tape that's as long as your deck's longest dimension.

Hammer

You need a hammer for assembling the boards, pounding corner stakes, and striking fasteners. Depending on what purpose you need a hammer for, your seller will advise you on which type to purchase.

Wooden stakes



You can use wooden stakes to measure and mark the exact position of your deck, thus making it easier to build your deck accurately. Have one wooden stake for every corner on the deck.

Mason's line



A mason's line is useful when laying your deck boards, posts, and footings as it makes marking and spacing them easier.

Posthole diggers



These are useful when digging holes to install your deck support posts. Go for heavy postholes diggers because they work easier and cut deeper in the ground than the light ones.

Wheelbarrow



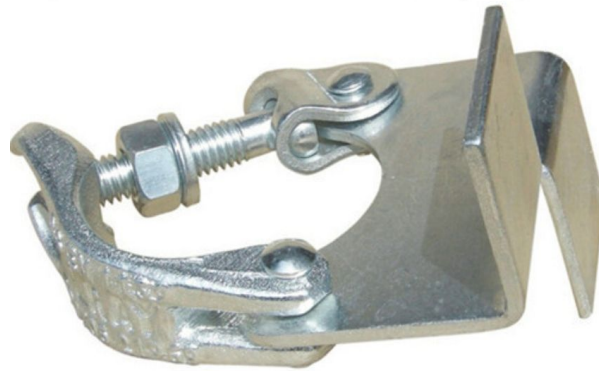
A wheelbarrow comes in handy when mixing concrete for the foundation or moving excess soil.

Framing square



A framing square is important for checking if the corners of your deck and joints on board ends are square.

Board clamps



You need board clamps to hold the joints of the boards in place while fastening them, especially if you are doing it alone.

Chalk line



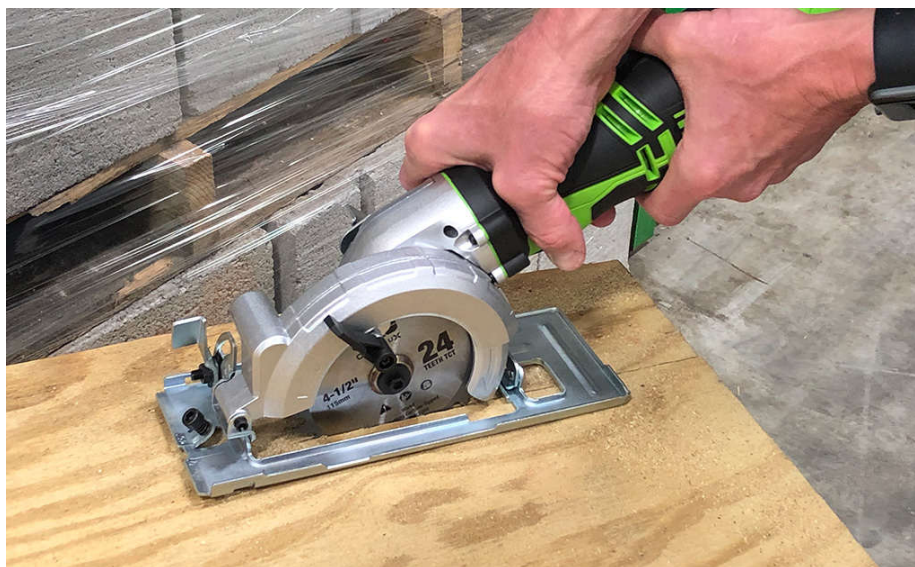
If you are building a wraparound deck, you certainly will tire of using a pencil or chalk to mark the area. That is where a chalk line comes in handy; it helps you mark such long distances with ease.

Miter saw



You can use a miter saw to cut the boards fast and easily. The good thing is that it is also specialized to cut at different angles as its blade can move left or right to produce different angles.

Circular saw



This tool has a round blade edged with sharp metal teeth. You can use it to cut both wood and metal for your deck.

Standard drill



A drill is important when you want to make holes for installing screws or other fasteners on your deck and comes in handy when you want to do fast and accurate fastening.

Deck spacer



The boards need a spacing of at least a 1/8-inch apart to give them room to expand and contract naturally, depending on the humidity changes. That is where a deck spacer comes in handy. That way, you get to prevent damage to the boards when they expand later.

Impact driver



You need an impact driver when installing long deck screws into the wooden boards or when you want to remove the fasteners.

Chapter 3: Factors to Consider When Building a Deck

Before beginning the actual deck building, here are a few things you need to consider:

Visit the relevant authorities

Before anything else, visit the relevant building and zoning authority. When you inform the authority of the type of deck you want to build, you will get advice and tips as per the building code laws within your locality.

Like most other buildings, a deck is a permanent structure, and whether you like it or not, the legislature and community have a say in it. They have put in place systems to guide you on the structure size you can build, the depth of the foundations, dimensions of railings and stairs, distance between the buildings and property lines, and much more.

Furthermore, it will save you money. If your structure does not fit into the area's building code and the authorities find out, you will have to demolish it and build another one according to their regulations.

Thus, you are better off visiting them to receive your permit.

When is the best time to build your deck?

It is important to build when the ground is dry and the weather is fine. Early autumn is a good time because the ground is easy to work on as it is not frozen. The temperatures are cool, and the environment is dry in many areas, meaning your deck may be ready for spring.

You could still begin in late spring; however, you will end up working long hours when the weather is warmer as you try to finish before winter starts.

What purpose does your deck serve?

If you struggle to stay indoors because you live in a mostly hot locality, building a deck may be a great way to extend your outdoor living. Or maybe you simply want to entertain friends, dine outdoors, have a jacuzzi, or even garden. Whatever the purpose of your deck is, it will give you an idea of what design you want for the structure.

Size and Shape

The purpose of your deck will determine its shape and size. It's best not to build one larger than [20%](#) of the square footage of your house so that you do not overwhelm it visually. But, if your house is large, it is fine to build a big one.

There are many shapes to choose from. A rectangular deck is the most basic, but adding angles or curves can be a great way to spruce things up. The deck will be your space for quite a long time; therefore, add a more personal and special feel to it.

Approach the design with a theme and then add variations for an aesthetic appeal.

Allowance For Movement Around Furniture

Think through the space left for movement after placing your furniture, such as coffee tables, chairs, and deck furniture. There needs to be enough room for moving around; for example, you should be able to move your chair when standing up without hitting other items.

Plan well when installing a lounge, kitchen, dining area, etc., to ensure you can move from one point to another unencumbered.

Deck Site and Accessibility

Your deck should be accessible either from the side, front or through the back door. The height of the deck should not be the same as that of your

house. It needs to be lower by at least 3 inches.

The site where you want to build your deck needs to be clear of any obstructions, such as tree roots. Clear the site to fit the intended size of your deck, and add another 6 to 8 feet to provide room for working.

Also, you'll need to know where the utility lines are by calling [811](tel:811)^[5] to avoid interfering with them as you build your deck.

Budget For Your Deck

This is a crucial part of the planning process. Decks are not cheap; thus, you need to find the cost of the materials and tools required. From here, you will make decisions such as using non-wood materials that are cheaper than real wood.

Also, you will understand the different types of woods, their properties, and the best to use according to your budget.

The cost will also depend on the style of deck you settle for; thus, check out different deck styles and settle on the one that suits your needs.

Planters And Overheads



You are likely to use your deck most during summer; hence, you may need a pergola. Since you may not be able to sit in the sun for a long time—and health-wise, it is not recommended—you may need a shade structure.

The pergola is the most popular shade solution. The degree of shade provided depends on the closeness of the rafters to each other. You may also add hanging plants on the pergola or have potted plants placed on the ground to create a welcoming ambiance.

If you can do it yourself

The cost of building a deck is not cheap. For example, building a wraparound deck cost around \$9,350-\$39,900, depending on the finishes and cost of materials. That said, the cost of building one yourself may be lower than having a professional help build one for you, as you will save on some costs like labor. However, this also depends on what you want. Perhaps you don't want a simple deck, which may require a professional or experienced person to help you do it. It is all up to you.

Consider the design of your house

This is also important as a deck should be a complementary addition to your house. For example, keep the color of the railings simple to avoid distraction from the deck and main house. The deck should also be a natural extension of your house. Therefore, mind your house's architecture to ensure the deck does not seem out of place.

Good View

Build a deck with a good view. You do not want a boring view, but one that lights up your world. Thus, place it in the direction you will benefit from it visually.

Safety Considerations

As with any other building project, safety gear will come in handy as it will protect you while working to avoid potential injuries and possible fatalities. The following are the basic safety gear you will need to build your deck:

Gloves

Gloves protect your hands against lacerations and cuts when using your cutting tools that are sometimes sharp.

Face Mask

This protects your respiratory system from dust that forms when sawed or from concrete dust. Face masks can be slightly uncomfortable, but you cannot compare the discomfort to the respiratory problems you suffer by failing to wear one.

Safety Glasses

Can you imagine if sawdust or bits of rock or metal entered your eyes? Safety glasses protect you from such, and since you will be working outside, you may need tinted safety glasses.

Ear Protection

You can use either the earplugs or defenders, though the former is cheaper and more uncomfortable than the latter.

Materials To Use

Today, most people prefer to spend huge amounts of PVC, composites, and other low-maintenance materials to finish rails and decks.

Yet others will prefer wood surfaces that have a natural appearance and are high maintenance as they need to be pressure washed and sealed once every year.

Chapter 4: Deck Safety Tips To Consider

How do you ensure that your deck is safe to use for years to come? Here's how.

Make the foundation firm

A deck needs a good and firm foundation, just like every other building. For your deck to be safe and durable, you must ensure its support posts, frames or footings, are secured in holes dug deep enough below the frost line, especially because of winter. Also, pour in concrete piers to support the posts.

Shallow holes may cause the support posts to move when the soil shifts due to ground moisture freezing during winter. When the moisture freezes, it expands, causing the soil to swell and shift, moving the shallow deck posts in the process.

Check your railings

If you have kids or pets, the last thing you want is them squeezing through the railings and falling over, especially if your deck is high above the ground. Instead, your railings should be a safety feature.

That said, ensure the railings are stable and strong enough to support at least 90kgs from all sides. To confirm they are strong enough, give the railings a hard push and pull to see if it stays secure and check if the railing support posts are not more than 72 inches apart.

Other things to consider when installing your railings are;

- The height of the railings should at least be 36 inches from the deck floor.

- The diameter of the railings should not be more than 2¼ inches when hand-gripped.
- The space between the balusters of the railings should be 4 inches apart or less to prevent kids from squeezing through.

Keep termites away

If you want a deck made from wood, you need to prevent termites at all costs because they eat wood, causing the deck to sag and finally collapse. The best way to prevent these wood-destroying pests is to place treated cedar mulch or sand near the deck or ensure that the material you use is termite-resistant, like composite.

Replace damaged boards

If you notice any cracks in the wood, broken boards, holes caused by termites, or even wood that has become spongy, it means it is time to replace the damaged boards.

To know if your deck is rotten, check for mold, wood that breaks easily in your fingers, or discolored spots on the deck's underside. Also, a good deck should not be wobbly or weak so ensure that you replace any board with the above signs of damage.

Check the stairs

When it comes to decks with stairs at the bottom, you need to be cautious about the guardrails, especially if you have kids around. Also, make sure the stairs do not wobble when you take steps to the deck by ensuring that the risers, treads, or stringers are strong enough and that the area joining the stairs and the deck is attached securely.

To prevent —especially kids— from tripping, remove any trip hazards like potted plants and any décor from the stairs.

Ensure the fasteners are in place

Common fasteners for decks are screws and nails. Constantly check that whatever fastener you use is free of corrosion and secured on the board. If nails have popped up, replace them immediately and if the screws are loose, tighten them right away.

If you care for the fasteners but still notice a wobble or creaking sound, call a professional to check the underlying issue and make the required repairs.

Trim any nearby trees

Trees add visual interest to your home, especially when the flowers blossom, but they can also pose a hazard if the branches hang too low or too close to your deck. If you have trees near your house, ensure you trim the branches regularly as a precautionary measure.

Add lighting

Lighting your deck provides aesthetic beauty and keeps you safe, especially at night. For example, if you build a multi-level deck or a deck with stairs, you must be more cautious. To prevent tripping and accidents when it's dark, add enough lighting to your deck and get rid of anything that blocks the lighting, such as potted shrubs and dirt on the fixtures.

Have a maintenance plan for your deck

Please note that when exposed to humidity and harsh weather such as heavy rains, snow, and heat, even treated wood eventually wobbles. You do not want to wait until your deck is wobbly and weak before repairing it. As the saying goes, 'prevention is better than cure.'

Therefore, to keep your deck strong, clean your boards thoroughly with a mild deck-cleaning product, replace any loose board, and use a water-

repelling sealing product to seal the surface of your board. The sealants also protect the surface from ultra-violet rays.

Use fire-proof mats

If your deck is wooden, fire can be a real hazard, especially if you want to host friends and family during Thanksgiving or Easter holidays, and you may need to use your barbeque grill or fire pit. If this is a must for you, it is wise to use a fire-proof mat for safety.

Chapter 5: Laying Out the Deck Area

Laying out the location of your deck is an important step because any wrong measurement means you will demolish it and start all over again, which is not what you want. This is the point when you double-check until you are certain your measurements are correct.

After ensuring your scale drawing is accurate and approved by the building inspector, measure and clear the area where you will build your deck. For accurate measurements, follow the steps below:

Making Batter Boards

The batter boards are made with two stakes and one piece that runs horizontally—use 2x4-inch or 1x2-inch boards and a cross piece that is 1x4-inches. If the ground is soft, make the stakes between 16 and 36 inches long. If the ground is hard, you can make them shorter

Use single screws at each joint to assemble the pieces.



Mark The House



Mark the wall of your house where you will position the posts—mark outside the framing where the deck will overhang by 1½ inches. Afterward, measure and mark the points at which the posts will be located, not forgetting to identify the center of the post.

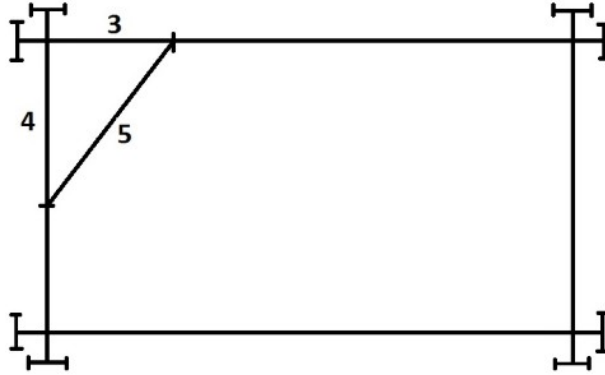
Drive the batter board into the ground near your house, then pound the stakes until the crosspiece is 6 inches above the ground.

Position the batter boards

From your house, measure the position of a post and then hammer down a batter board.

To estimate the location of the remaining posts, place other batter boards 2 to 3 feet beyond your post locations.

For your post locations to be perpendicular to the house, verify the square of your layout. You can use the three-four-five method.



- Using a string, measure 3 feet from one corner, and mark the string.
- Do the same with the other side, and also mark the string at the point it measures 4 feet.
- Measure the diagonal distance between the two marks and adjust until it is 5 feet in distance.
- Repeat the process in all the corners.

Mark The Posts

Clear the rocks, vegetation, and weeds within the dimensions you have measured, and then mark the points at which you will have your posts. You can use a weed killer to prevent recurrent weed growth.

Your post layout will depend on the design of your deck, the size of the beams, and the local building codes. From the house, measure the post lines using extra batter boards and string, and mark the positions on the strings.

Mark the locations you will place your deck blocks or dig if you will be using the concrete footing method. The concrete footing is a method of supporting posts for decking whereby you dig holes below the frost line and place concrete into the holes to support the footings.

Mark on your house, the height of the deck, and the posts. Measure the thickness of your deck and the width of the deck, of the support beams and the joists.

Chapter 6: How to Build a Deck Using Concrete Block

We shall look at how to build a deck using concrete block because it is cheaper and easier.

Now that you have accurately marked out the area where your deck will be, let's go ahead and build a deck.

Tools needed for building a deck:

- Hammer
- Nail gun
- Nails
- Brackets
- Joists
- Support boards
- Concrete blocks
- Level
- Wheelbarrow
- Shovel
- Circular saw

Step 1: Place the Concrete Blocks

Take your blocks and place them in the area you have marked out. Make sure the space between each is equal to ensure even weight distribution.

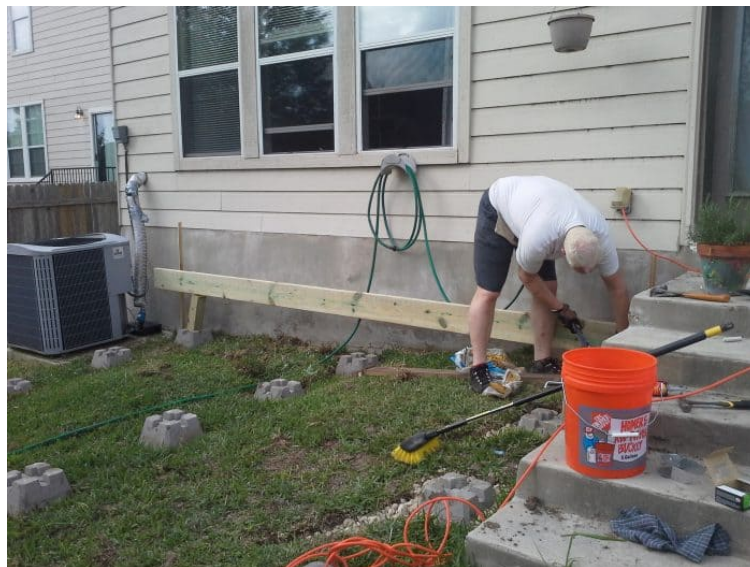
Where your blocks are not level, you may have to do some digging using your shovel. Use a level to check if the level of the blocks is equal. If it is

not, dig out some dirt from under the block that is too high.

These blocks are quite heavy; hence, you may have to carry them with a wheelbarrow as you place each on the ground.



Step 2: Place the Support Posts in Each Block



Cut out the posts that are 4 x 4 to be placed in the center of every block so that they appear standing. Take your 2 x 6-inch boards and run them as support from one end to the other. The length of the boards depends on the

size of your deck. In this case, 16-inch boards were used because there were some stairs to work around.

To even the blocks, take a support joist, which in this case was 2 x 8 inches, and stand it next to each post. Mark the level on each post with a pencil. Make sure all the posts reach that level. After doing this to all the posts, place them in each block.

Before going on, it is good to know the size of the joist you will need for your deck. These are the long boards used as support that run across your deck, on which the deck boards get attached. The boards are normally 16 inches apart, measured from the center of one board to the center of the next.

Before buying the timber, if you cannot determine the correct length based on the load capacity it will carry, do the calculations yourself or ask for help from a professional.

To calculate the correct length, take the length of the joist and multiply by 1.5 to get the actual length of the support board. In this case, the joist is 2 by 8 inches, multiplied by 1.5 to get approximately 12 feet. Therefore, the support board should not be longer than 12 feet.

In essence, you need to purchase the appropriate joists that will fit the size of your deck.

Step 3: Fix the Support Boards



The 2 x 4-inch brackets help attach the support boards to the 4 x 4-inch posts. This is done by using your hammer or nail gun to nail the boards in place and attach them to the support boards.

If you do not want a deck off the ground, leave out the 4 by 4-inch posts and simply place the support boards on the slots in the blocks. There'll be no need to attach anything to the blocks because nailing the wood together will make it secure and stable.

But also, if you will not be using the posts, make sure the blocks are all at the same level. You can verify this by resting a support board between 2 or more blocks, then placing your level on top. If any sides need to go lower, dig a little until they are level.

With the previous deck, after attaching the 4 by 4-inch posts to the support boards, the foundation is complete.

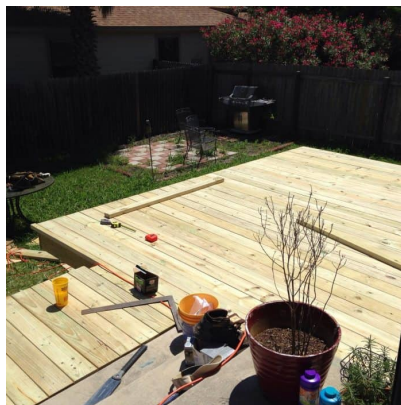
Step 4: Fasten Your Support Boards



Even if you have the support boards attached to the posts, they are not stable, at least not yet. They also need reinforcement by connecting them across. For this, cut more support boards to be in between the long runs.

Measure the distance from one long support board to the other, then cut the additional board to the required size and nail it in place. Do this at every 4 feet. You could also run some of the 2 by 4-inch boards from the center till down for added stability.

Step 5: Connect the Decking Floor Boards



Take your deck boards, line them one by one, and nail them down, starting from the end of the deck that is near the house. In this case, the deck is not touching the house to allow rain to flow along the edges.

If you wish, you could add stairs, depending on how high the deck is off the ground. Even a rail can be a good addition.

If some of the boards on the deck are longer than the deck, mark with a pencil the point at which you will cut, and then use a circular saw to cut off the extra bit.

Step 6: The Finished Deck

After finishing your deck, you can stain it with your color of choice.

Chapter 7: How to Build A Raised Wooden Deck

After checking with your local codes to know how deep or wide you can build your deck, you can start building your raised deck.

Step 1: Measuring and marking the area

The first thing you must do is take your chalk line and measure the area around your house, depending on how you want your deck to look.

Step 2: Digging the footings

In this case, the footings may be approximately 42 inches deep, so dig and space them appropriately. You can then call the local inspector to check if they are deep and wide enough so you can proceed with building your deck without hesitation.

After you dig the footings around the house, fill them with concrete. In this case, add about 8 inches of concrete at the base of the footings, add little water and let it set up.

Step 3: Installing the ledger boards



After completing the footings, have the ledger boards in place. Before attaching the ledger boards, ensure they are level with the wall by marking

the area you want them. You can do so using screws or bolts. Pre-drill the area you want your ledger boards, then fasten your boards by drilling the screws through them, after which you can secure the screws with nuts and bolts.

Alternatively, you can use timber screws, which have the added advantage of not needing pre-drilling or fastening with bolts and nuts to make them secure.

Step 4: Installing the joist hangers



Mark the center of the ledger boards and install the joist hangers, ensuring that you space them 24 inches apart. It is best to use concealed joist hangers to keep the ledger boards from pushing out of the deck.

After installing the ledger board, you can also add a drip edge on top of the ledger board to keep rain and moisture from getting behind the board and instead drip over the front edge of the board.

Step 5: setting the posts



Once done with the ledger boards and joist hangers, you can place the posts into the footings you dug earlier. By now, the concrete has completely dried. I hope you dug all your footings an equal distance from the house. If so, have your posts in place, then use your mason line to check if they are all straight.

To secure the posts properly, place post brackets onto the concrete, secure them with nuts and washers, then set pressure plates on top. After that, you can then secure the posts on the brackets with structural screws ensuring that they level with the house.

To ensure the posts are level with the house, use a laser level to measure and mark with a pencil on all posts, then trim the top using a chainsaw. After trimming the top on all posts, cut the notches for the beams—in this case, you can have a 3 inches by 9¼ inches notch for each post.

Note that the best posts for your deck are the pressure-treated ones.

Step 6: Joining the beam together



In this case, we are using a double beam that is 34 feet long for one side of the house, so place the beams together and fasten them using 3 inches long by 10 inches in diameter strong nails. Make sure you space the nails 6 inches apart and that you have one nail at the top and one at the bottom of the beam for security.

Now, lift the beams and place them on the posts—an extra hand will come in handy as they are heavy. After positioning them, drill holes through the post and the beam, then join them with bolts and secure them with nuts and washers on one side.

Step 7: Installing the deck joist



Place the deck joists 24 inches apart and secure one end of the joist to the ledger board using strong joist hangers and the other end to the beam using hurricane ties. Hurricane ties help make the ends more resistant to strong winds. However, you can still use screws and nails to secure them. After that, tie your mason line to one end of a joist, mark the ends of each joist, and trim them off.

Step 8: Installing the boards between joists



In this case, we have 16-foot deck boards sandwiched between the joists.

Take a deck board and place it between two deck joists to be one inch above the joists. Doing this helps keep the board ends from pulling from the deck. Fasten each deck board with screws by drilling hem through the joists and the deck boards, then secure with nuts.

Step 9: Adding the rim joists



Measure and cut the rim joists to length from the cut-off ends of the joists. Place them on each end of the joists and attach them with wood screws. You can also fasten with bolts and secure with washers.

Step 10: Installing the decking boards



Finally, install the decking boards. If you want your deck boards perpendicular to your house, start by laying the first board next to the house and work away from the house. Place your boards with the bark side facing down to prevent excess moisture on the bottom side, resulting in wood rot.

Install two screws through the decking boards and joists for each board, ensuring that the screws are 1-inch apart. For the spacing of each board, you can use your deck spacers to ensure you have the correct spacing.

Step 11: Installing the railings



After completing the decking, add the railing posts and railings in place. First, measure and mark the area you want to have your railings and then cut the posts to length. A common railing has 4×4 posts that are 36 inches high. Cut off one inch at the top for the top cap. Leave a few inches from the house when installing the posts.

After placing the first post, drill holes, then drive bolts through the posts and the deck. Finally, attach the railings and balusters by driving in screws and bolts through the railings and the posts.

Step 12: Finishing the deck



Your deck and railings are complete, and it is time to add a coating or more of painting so your deck can look more appealing. The best deck paint for your deck is **Behr Premium Advanced Deckover** since it is easy to clean, splinter-proof, and comes in many varieties of colors. Since they hold up well on railings, you can use oil-based or latex primers or paints for your railings.

Chapter 8: How to Build A Multi-Level Deck With LED lights

A multi-level or multi-tiered deck with cool lighting is a great example of a stylish deck. However, building one will take more time and effort as its design is more complicated than a simple deck.

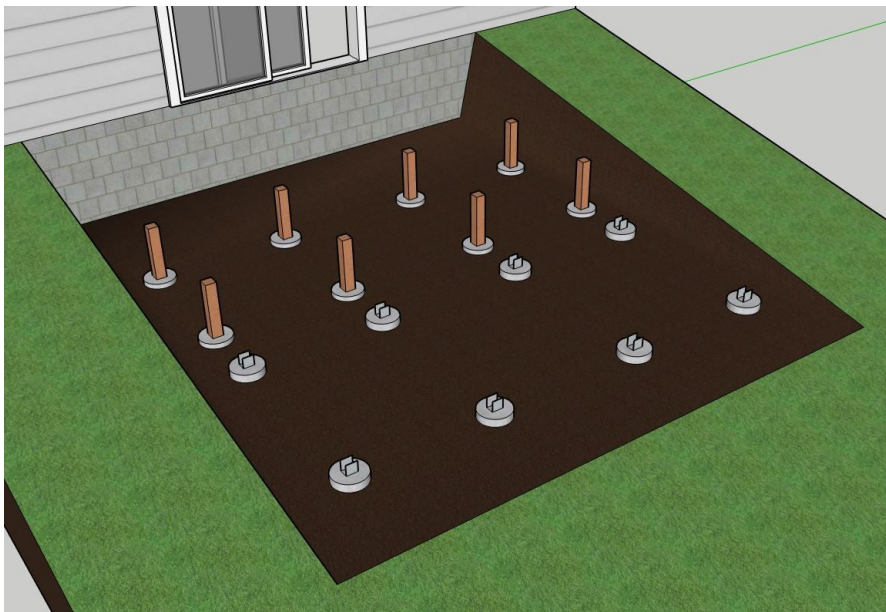
Let us get started with the following steps.

Step 1: Mark the area for the deck

Here, you can use wooden pegs or chalk lines to mark the corners of the deck, depending on your preference.

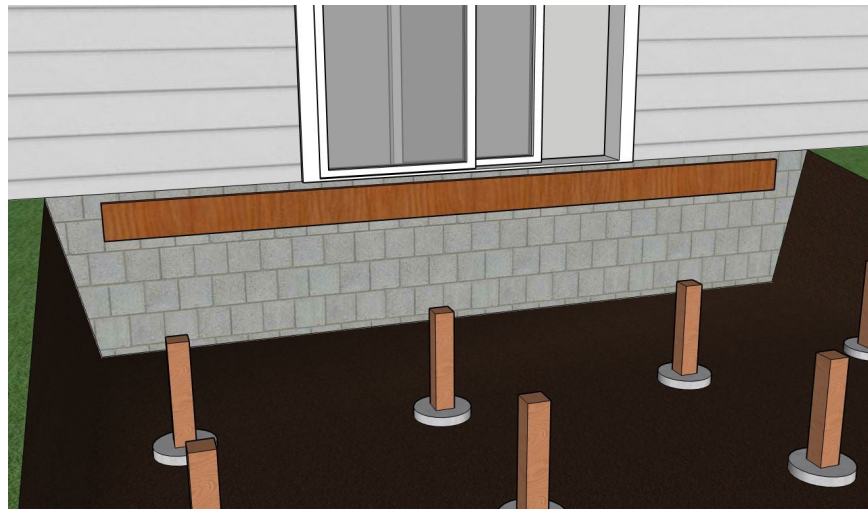
Use your mason's line, tie one end to a peg, and then stretch it to the other peg to form a perimeter that indicates how wide your deck will be. For accuracy, use an angle finder to ensure all the corners are at a 90-degree angle.

Step 2: Dig and fill the footings



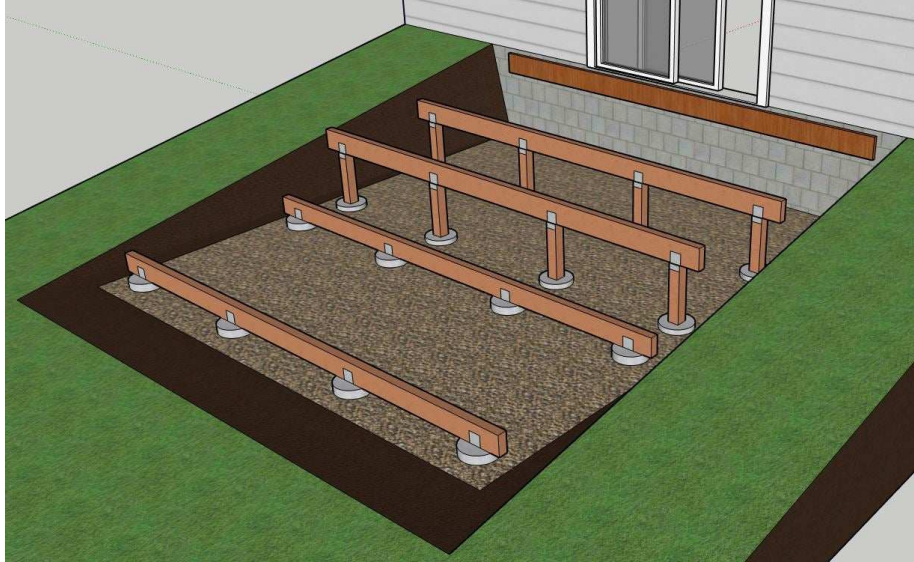
First, mark the areas where the footings will be with a chalk line, then start digging the holes using a post hole digger. Ensure you do not leave loose stones or pebbles in the holes, then cut concrete tubes that go into the holes you have dug. Place the tubes in the holes and ensure that each tube is level. After that, mix the concrete and add it into the footings. For the upper-level footings that support the posts, fill them with concrete, and place them. You do not need posts for the lower-level footings since, according to the design, the level is low to the ground. Instead, you place metal brackets to support the beams. Fill the lower-deck holes with concrete, then push bolts into the concrete with the ends of the bolts sticking out.

Step 3: Install the ledger board



You can start attaching the ledger board for the upper deck to the house before the concrete dries up. Check that the ledger board is level, then fasten it with wood screws. Also, install a drip edge behind the board to prevent rain or moisture from destroying the framing.

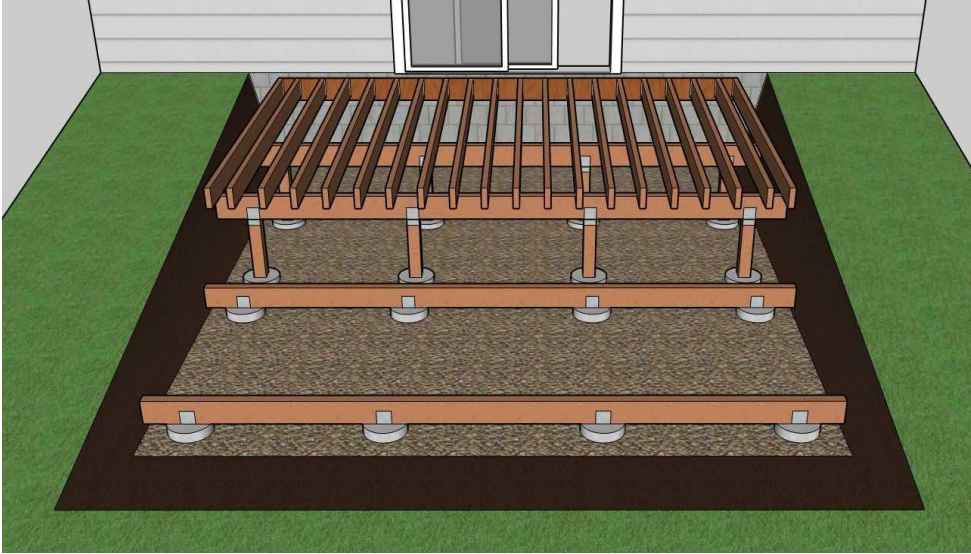
Step 4: Attach the beams



By now, the concrete in the footings has dried up, and you can start installing the beams. First, have the metal brackets in place, that is, the lower-level footings, and secure them on the bolts you had earlier installed. For the upper-level deck, have the posts on the footings, attach deck post brackets to each post and secure them with screws.

After that, start placing the beams on the post brackets, secure them with screws, and then place the beams for the lower-level deck. Also, secure them with screws. Ensure all the beams are level.

Step 5: Install upper-level joists and rim joists



Mark points on the ledger board, then install joist hangers on those marked spots, making sure you space them evenly.

Once you have all the hangers in place, start installing the joists. Ensure you space them properly and secure the ends with hurricane ties to keep them in place when winds are strong. Have double joists at the end and middle.

After attaching the joists, measure and cut the rim joists from the joist ends using your circular saw, then attach to the inner joist using screws. Once done, you can apply waterproof membrane tape on top of your joists and rim joists to preserve your deck framing for a long time.

Step 6: Attach the upper-level decking



First, begin placing the border boards before attaching the inner boards. For your border boards to meet at the corner or form miter edges at the corners, cut one of the ends at a 90-degree angle. After this, fasten them with screws, then begin attaching the inner boards, taking care to ensure you space them correctly using a deck spacer.

Step 7: Build lower-level framing and decking



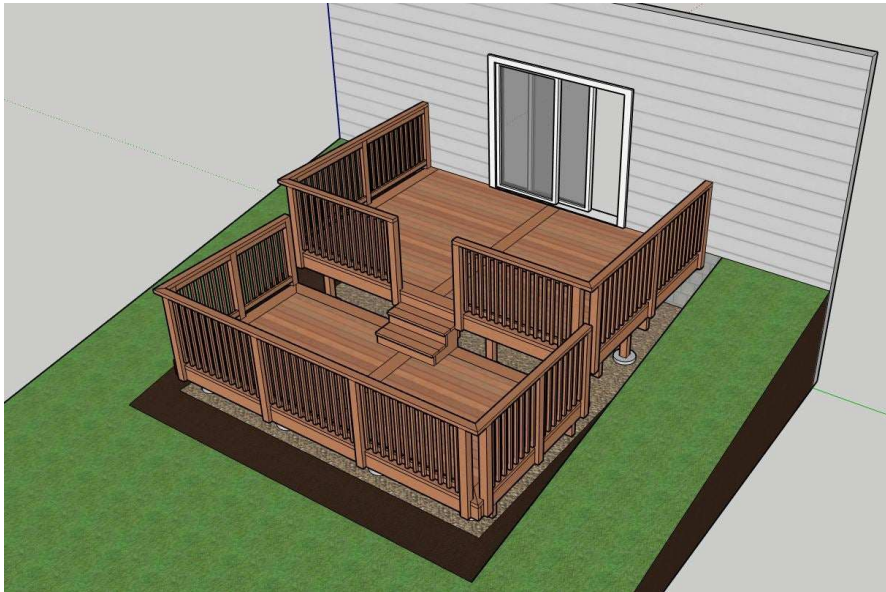
The lower deck framing needs to be done with as well. Measure and mark the areas where you will have the joists on the beam, then have hurricane

ties in place, after which you then secure the joists into them. Also, make sure that the joists are doubled.

After that, install the rim joists on both sides using the same method for the upper-level deck. Make sure you apply the waterproof membrane tape as you did with the upper-level joists and rim joists.

Now that you have the joists in place, you can install the decking boards using the same method for the upper-level decking boards.

Step 8: Install the railings



Your deck is not complete without safety railings. First, you must install the railings posts. Cut notches at the bottom end of each post to ensure they fit over the deck frame and deck surface. Since we will place handrails over the railing's posts, we will subtract one inch from the posts. Also, leave a space between the balustrades for the stairs down to the lower deck.

Once done attaching the posts, start installing the rails for the upper-level deck—they must be the same height as the posts. First, attach the base rail and make sure you use a spacer to ensure the correct height.

After that, attach the spindles, which must not be more than four inches apart, according to most local codes. Secure all the spindles with screws, then attach the handrails to the posts with nails.

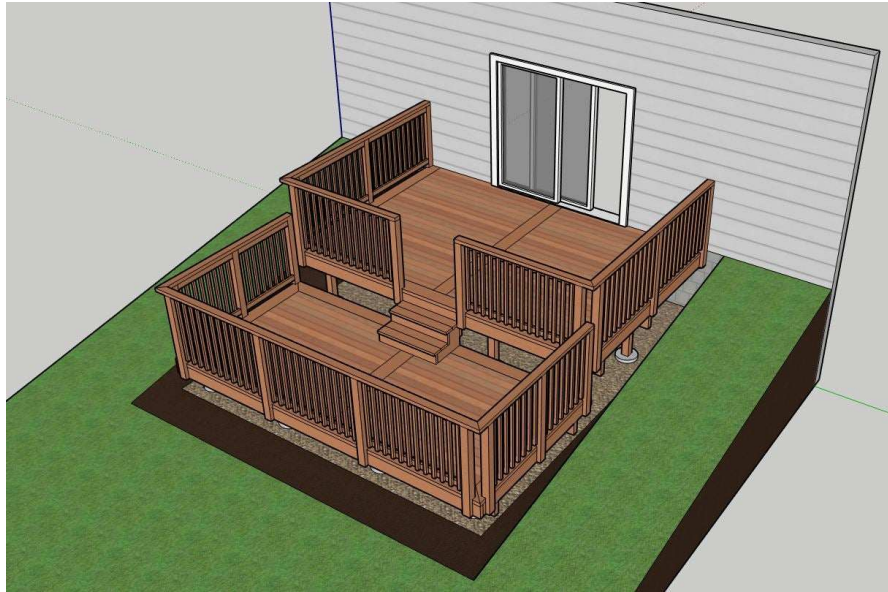
Step 9: Building and attaching the stairs

In this case, the distance between the upper deck and lower deck is three stair steps apart, making stairs necessary. We are also building a stringer board for attaching the stair stringers by first attaching two pieces of wood on its back which should go behind the rim joist.

After that, take your miter saw and a piece of wood to build the stair stringers. The stringers have an L-shape. Also, keep in mind that the top of the stringers should align with the bottom of the rim joist.

You need to also to attach stair cleats to provide the stairs with more security and stability. After installing the cleats between each stringer, screw each cleat to the lower-level deck, then fasten them with screws. Also, attach the treads with screws.

Step 10: Building lower deck railings



For more security, have the lower deck railings too. Simply follow the same process of installing the upper deck railings, and with that, you have yourself a multi-level deck with railings and stairs. You can add a coating of paint to give it that professional finish.

Step 11: Installing deck lighting



Because we want a stylish deck, the project is incomplete without lights that provide just that kind of look. The good thing with the lighting is that it is easy to add to an already existing deck; you don't necessarily have to do it during the construction process.

For this, you need:

- Drill bits 7-inches long
- Fixtures
- Low voltage cable
- Fixtures extension cables
- Mini wedge dark
- Drill
- Spade bit
- Pencil
- Level

- Measuring tape
- Electrical tape
- Rubber mallet
- Wire cutters

Using your tape measure, measure the area on your deck stairs where you would like to install your lights. When measuring, remember that your lights will look best when evenly spaced, then mark the areas with a pencil.

After that, use your drill bit to drill the hole for your fixtures through your risers, making sure you hold the drill bit straight. Feed the fixtures cable through the hole, then place your fixtures in. Ensure you tap them in place using your rubber mallet. If your fixtures do not fit in properly, you have not drilled your holes enough; pre-drill them again to avoid cracking your fixtures during installation. Repeat the process for all fixtures.

Next, install the mini wedge dark on the stairs and deck posts. Measure and mark the areas you want your fixtures so that they are all even. Use your spade bit to drill the hole for the cable to go through, then mount your fixtures in place and secure them with screws for each post.

Add an extension cable to make your connections under the deck and use u-clips to hold the cable in place. Finally, you are done with deck lighting, and your deck is now complete and more stylish!

NOTE: Deck lighting is easier if you have a ground rod at least 6-inches deep in place. This ground rod connects ground electrical systems to the earth and prevents electric shock during a storm.

Chapter 9: Building A Detached Deck With A Pergola

As described in chapter one, a detached deck does not connect to the house, but you can build it near your house or any open space. In this case, we shall look at how to build it on open ground, and it will be about 12 inches above the ground.

Step 1: Measure and mark the area



First, you need to choose an open area that is level measuring not less than 10 by 12 feet. After that, use your tape measure and chalk line to measure and mark out the respective spots where you will have the concrete piers.

Step 2: Dig footing holes



Dig the footings to the required measurements dictated by the area building authorities. The good thing with detached decks is that you do not necessarily have to visit the building department for authority as most of them are built low and not attached to the house.

Once done digging the holes to the required depth, fill them with concrete, smoothen the top of the footing, and then install the anchor bolts at the center of the concrete. These anchor bolts attach to the support posts.

Step 3: Attach the posts



First, make sure your posts are strong enough and are at least 6 by 6 inches in width. Secure post brackets to the footings with the anchor bolts you installed, then attach the posts to the brackets. Make sure the posts are secure and plumb. Also, check that the posts are level using a laser level.

Step 4: Set the beam



In this case, the deck has two beams. Each beam will be placed on the two longest sides of the deck. Calculate the height of your beams, then make notches on the posts where the beams will lay.

You can then build your beam by bolting two pieces of wood together, then set each built beam on the posts. Since your beams are probably heavy, you may need help lifting and placing them on the posts. Ensure they are level before attaching them to the posts. Pre-drill holes through the beam and posts to install the beams, then attach them with bolts. Secure them with nuts and washers.

Step 5: Install the joists

Make sure the joists are straight before installing them to have smooth decking. Fasten each joist end to the beams using screws, and if necessary, you can make pilot holes to avoid cracking of the beam ends when fastening.

Step 6: Attach the deck boards



Before installing the deck boards, attach some waterproof tape to the joists to prevent water from getting through them when it rains. This step is especially important as it prevents the joists from cracking when wet, further resulting in the boards becoming loose.

You can then proceed to install your deck boards. To do it properly, start by installing the border boards before having the inner boards in place. Also, fasten the boards by drilling enough screws through the boards and joists.

Step 7: Install the railings and stairs

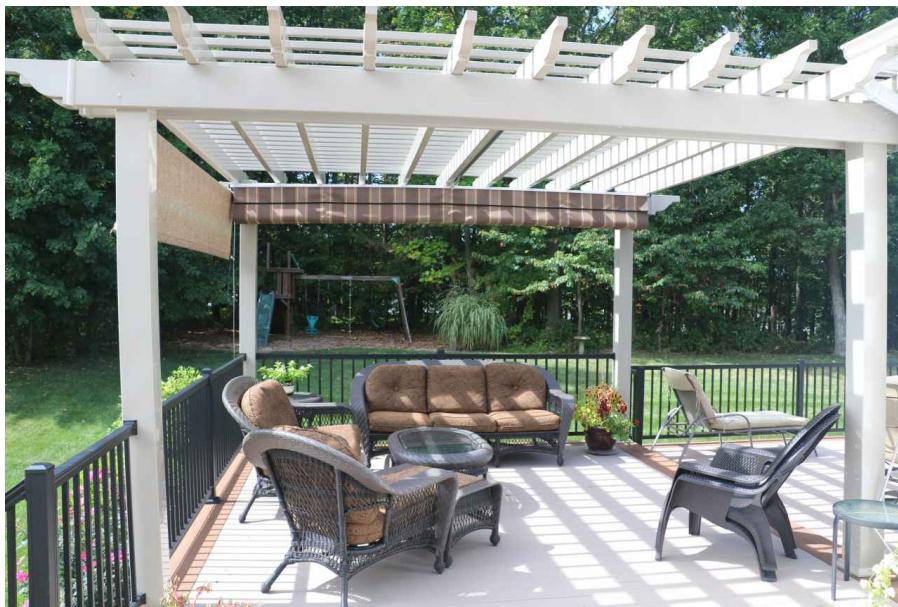
Do the math on how many steps you need before building the stairs. Next, you can cut the stringers for the stairs. To do that, transfer your measurements to a piece of lumber using a framing square. After marking, use a circular saw to cut out the marked areas.

With one stringer ready, there is no need for you to measure the rest. Instead, use the cut stringer as a template to cut out the rest but do not cut to the end. Assemble your stairs on the ground, then install the stringers 16 inches apart for the width of your stairs.

Now you need to attach the stairs to your deck. First, install a stair hanger to the deck, then temporarily attach your stairs to the deck so you can mark the position of the post holes. After marking, dig the holes, fill them with concrete, then install the posts into the holes, ensuring they are level. Finally, you can attach the stairs to the posts. For the treads, use the deck boards and attach them to the stairs using screws, then notch the base tread around the post for a professional finish.

Finally, you can install the railing using the same steps in chapter 8.

Step 8: Building the pergola



Your deck is not complete without a pergola. To start the project, we have four pieces of timber for the column that are 6 by 6 inches wide; the front ones are 10 feet long, and the back ones are 12 feet long. Next, cut the beams to required measurements, then make holes on the columns and beams. Assemble them both with the beam vertically placed on the top of the column at the top end, then secure them with 12-inch screws.

After attaching the beam to the back columns, install the post base to the deck and secure it with post brackets and screws. The next thing you need

to do is lift the attached piece into a standing position and attach each column to the post base with screws. Do the same for the front.

Next, you need to add rafters to the sides to create a square. Add joist hangers to the front and back beams, then cut and add the inner rafters. Secure them with screws through the beams.

To finish the pergola, add plywood to the rafters

Chapter 10: How to Build A Floating Rooftop Deck

A rooftop deck is also a great idea —if your local code allows you to have one— because you get to enjoy a great view of the surroundings and create your own space to relax.

However, you must consider a few things before building a rooftop deck.

- Check with your local building department on whether you can build a rooftop deck in your area. Some local codes may disagree with the idea, which is why it's best to ensure you have your information right to prevent more charges in the future.
- Confirm whether your roof structure is strong enough to hold a rooftop deck with a structural engineer.
- Make sure your roof drains well.

If you acquire your permit, you can build your rooftop deck using the following guidelines. In this case, we are building a floating deck on a flat roof.

Step 1: Gather your materials

Your choice of rooftop deck material is important as rooftop decks experience harsh and prolonged exposure to sun, wind, and rain. The best decking material for your deck is modified wood because it is durable and easy to maintain. For this project, you need:

- Carpenter's pencil chalk
- Levels
- Mason's string or a laser level

- Circular saw
- Hammer mallet
- Tape measure
- Adhesive drill

Step 2: Measure the layout area

Before installing your deck, it is good to ensure a square layout for best results. You can do this by verifying the roof corners on whether the surface for your deck is square. Since the deck sits on the entire roof, there is no need to take other layout measurements.

Step 3: lay the deck framing



Here, we use sleepers for the deck framing since it is a floating deck. Sleepers are framing materials placed between the deck surface and ground or, in this case, the roof. They play the role of supporting the decking and allowing air and moisture to flow.

We will build the framing by laying flat a piece of lumber on its side, then taking the joist and placing it on top, which provides a wide surface for even load distribution.

First, cut your sleepers to length depending on your deck size, then cut the joists three inches shorter than the sleepers for the material placed 1½ inches on either side. After cutting the pieces, attach them with galvanized nails.

Step 4: Attach waterproof membrane



Attach the waterproof membrane to the underside of the sleepers to have some separation between the roof and sleepers. This prevents water from pooling next to the wood and the roof, causing the deck frame to rot. To do this, position your sleepers with the underside facing up, then roll the waterproof membrane on top. Cut the membrane to size.

Step 5: Cut and attach the beam frames



Here. We have four beams cut and attached together using screws or galvanized nails. Unlike other decks where the beam is directly installed on the wall, we build the beams separately by attaching all four to form a square frame. Build as many beam frames as your deck space allows.

Step 6: Cut joist spacers



These joist spacers should run between the joists; use the circular saw to cut them about 14-inches long.

Step 7: Install the sleepers and joists



Now it is time to attach the sleepers and joists to the beam-frames, and we do this by placing spacers between the joists. The first thing is to attach two spacers on both corners of the frame, then install the joists and sleepers by attaching them with screws. Do the same for all joists and sleepers. Also, have spacers in the middle for better joists alignment.

After completing the installation, you can add butyl tape on top of the joists. The tape plays the role of providing protection against water damage on top of the joists where water is likely to settle.

Step 8: Add fascia boards



At this point, we have installed all the joists to the frames and assembled them to form the deck shape. Now we shall add fascia boards to cover the areas with nails so the frame can have a nice finish. So, cut your boards to length, then attach pre-drill holes on both the boards and the outer frames and finally attach them using screws.

Step 9: Installing the deck boards



Cut your decking boards to size, then lay them starting with the border boards before installing the inner ones. For fastening, you can use a

concealed screw jig that inserts the screws so you cannot see them, giving your boards a clean finish.

Step 8: finishing the deck



Finally, you can add a coating of primer to give your floating deck a beautiful finish as well as a pergola.

Chapter 11: How to Build A Ground-Level Deck With Led Lights

Maybe you want a simple but nice deck that you can construct without building the stairs, railings, and pergolas. Well, a ground-level deck is one you can construct with minimal time and energy. Here's how.

Step 1: Dig the footings and add concrete



This is an important step for almost all decking styles. Use your post hole diggers to dig the holes below the frost line and add concrete to the bottom of each hole.

Step 2: Set the posts



First, use your builder's level to check if all the posts are similar in size, then set them into the holes.

Step 3: Attach the ledger board



The ledger board is attached to the house. Mount the timber on the wall a few inches from the ground, then attach it with screws.

Step 4: Cut the beams and attach them to posts



Use your tape measure to take the dimensions of all the beams, then cut them with your circular saw. After that, place them on the posts and fasten them with screws.

Step 5: Set the beams and posts



At this point, we have already attached the beams with the posts. After that, we have to set them in place by placing the posts in the holes with the beams a few inches from the ground. Fasten the ends of each beam together with screws to form a shape, as seen below. Also, cut two beams and join them with 4-inch spacers in the middle to form a double-beam placed at the center of the other beams and parallel to the ledger board.



Step 6: Fill the holes with soil



Fill the holes with the dirt you removed earlier instead of concrete because if you fill them up with concrete, during winter, the frost will move the posts up and down since they are just above the frost line. After filling up the soil, use a spade to level the topsoil.

Step 7: Lay the landscape fabric



The landscape fabric keeps anything from growing under the deck and allows water to filtrate evenly through its perforations. Before you lay the fabric, dig trenches on either side of the deck for draining water from the gutters when it rains.

Step 8: Attach the joists



Measure and cut your joists using a tape measure and circular saw, respectively, then have them in place as shown. Pre-drill holes through the beams and joists and fasten them with galvanized screws, then secure the screws with washers on the outside.

Also, support the ends of the joists and both sides of the center beam with joist hangers.



Step 9: Install drainage pipe



In this case, we slide a 4-inch PVC pipe under the deck through the trench we dug earlier, then fit it into the existing downspout to direct water away from the house.

Step 10: Build and lay the steps



This design has a small step to the deck, so cut the stringers to accept a wider tread and dig five foundation holes for the stairs.

After digging the holes, set posts into them and place pressure-treated boards next to the posts to act as the front riser.



Fasten the board with screws on the pre-drilled holes. Also, fasten the steps with screws using your drill bit or concealed screw jig. Finally, measure and cut the boards for the steps and install them as shown below. When attaching the front riser, make a hole for the drainage pipe to pass through.



Step 11: Installing the decking boards



First, square the border boards using your miter square to ensure they can fit on the ends of the deck framing. Use the deck framing dimensions to cut the boards. Also, the water spout extends to the deck, so make square notches where it will go through.



After installing the border boards, measure and cut the rest of the boards and install them with screws.



Your decking surface is complete, and you can leave it at that or add a coat of paint or primer for a beautiful finish.

Step 12: Installing the LED lights



Our deck is not complete without lighting. You have to do this before you attach all the boards, or if you've already built it, you can remove just one board because of the lighting wiring, which runs under the deck.

First, drill holes on the stairs, ensuring you space them evenly. After that, install the LED lights into the pre-drilled holes, then connect the plug to the socket and switch it on. Your deck lighting is done!

Note that you need an outdoor socket within 5 meters of your deck.

Chapter 12: The Dos and Don'ts Of Deck Maintenance

To have a deck that looks good and lasts long, here are things you need to do and others you must not do.

Dos

You must:

Cleaning

You must clean your deck thoroughly at least once a year using a mild formula and brush to get rid of mold and mildew. However, check with the seller on cleaning composite decking material as it has special cleaners.

On the other hand, cleaning once a year may not be enough. Remember that exposure to elements such as snow and pools of water during a storm may damage your deck. Therefore, do your best to get rid of the snow from your deck and avoid letting pools of water sit on your deck too long.

Also, when doing any grilling on your deck, use a grease catcher as grease stains are hard to remove from the deck surface.

Sealing

Applying sealant on your decking makes it last longer because it prevents damage from the sun or rain; clear sealants work better than tinted ones. Before re-sealing your deck, sweep and remove debris and dust first, then sand it two days after washing and drying. Sanding helps provide a smooth, clean and absorbent surface for sealants to adhere to.

Regular deck inspections

Make sure you check for any loose fasteners and replace them immediately. Also, check the decking surface, railings, and stairs for rotting or loose boards.

Restain the deck when needed

Your deck will start to look dull over the years as the stain begins to fade. When re-sealing your deck, you can also add a coating or two of a stainer. When choosing stains, go for an oil-based deck stain as it lasts longer and requires less maintenance.

Don'ts

Avoid:

Using paints

You may give in to the temptation to use paints as a finishing method because it certainly looks so good when new. However, avoid using paint if you can because as good as it looks when new, it will look old, depressed, or even start peeling after a while, which is not a good appearance. Besides, when you want to re-seal your deck, you have to remove all the paint, which is tasking.

To avoid all that, use a semi-transparent primer or synthetic sealants.

Using chlorine bleaches

You want the cleaning job done fast and with ease. Chlorine bleaches play that role well but using chlorine bleaches with decking is a big NO because it strips away the woods' natural colors, giving it a pale look.

Instead, use appropriate cleaning detergents such as mild formulas to clean your deck.

Using pressure washers

As much as a pressure washer will save you energy and time when cleaning, it is not ideal for washing your deck as it may damage the wood or composite deck surfaces. However, if you prefer using a pressure washer, keep the pressure low to prevent splinting the wood, but never use it on composite or vinyl surfaces.

Conclusion

The purpose of this book is to identify easy and less time-consuming decking styles and help you get started on starting decking projects on your own at home.

Learning that decking can be less challenging for you, especially if you are an amateur or have no previous experience, certainly motivates you to try it. Currently, people are learning to do things they thought were left for professionals, decking being one of them.

Each chapter in this book is a decking mind-opener that helps you know what to expect even before you get to the practical bit. Reading each chapter prepares and guides you before you start any decking project.

I hope you enjoyed this book.

PS: I'd like your feedback. If you are happy with this book, please leave a review on Amazon.

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<https://amzn.to/2VMR5qr>

[1] <https://www.statista.com/statistics/662216/number-of-single-family-homes-built-with-decks-usa/#:~:text=This%20statistic%20shows%20the%20number,family%20houses%20with%20decks%20built.>

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DECK BUILDING MADE EASY

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CHARLES PRINCE