

## How to design and build a community playground

So, you want to build a playground in your community. Congratulations! First and foremost: you CAN do this! Building a community playground takes time and effort, and the input of a team. This step-by-step guide is intended to arm you with the knowledge necessary to take your dream for a new playground to reality. Have fun (be sure to play along the way), work together, and good luck!

### 1. Form your team.

Your team should be small enough so that you have good camaraderie, a strong work ethic, and a system for accountability. Typical team sizes for playground projects are about 6 people; although it can be helpful to have expertise in community organizing, strong communication skills, and fundraising, all your team really needs is people willing to bring their determination and heart to complete a playground. Your team should create a timeline for executing the design and construction of your playground. More detail on each step of completion will be given in the steps below. A typical timeline is included immediately below to give you a sense of the process—explanations of how to complete each step are coming!

- Execute background research. 4 weeks
- Develop playground design concepts. 12 weeks.
- Consolidate the design concepts into one design. 4 weeks.
- Share the design with playground manufacturing companies to get price estimates. 4 weeks.
- Secure funds to build the playground. As long as it takes.
- Order the equipment and prepare for a volunteer build. 4-6 weeks.
- Build the playground! Usually 2-3 days.
- Dedicate the playground. Dedications usually last 1 hour, at least 3 days after you finish building.

### 2. Execute background research.

You'll likely have to expand your knowledge base to design the best playground in your community. You should know something about the importance of play, the critical nature of playground safety, and the answers to some logistical questions. Here are some places to help you get started:

For general knowledge about playgrounds, here are some references:

- *Lima, M. 2013. Building Playgrounds, Engaging Communities: Creating Safe and Happy Places for Children.* LSU Press: Baton Rouge, LA. ISBN 978-0-8071-4980-5. This book describes multiple community playground design-builds that use the process described herein, and offers much more detail on the process, best practices, and lessons learned in designing and building community playgrounds.
- *Carson, R. and M. Lima. 2008. Play On! Playground Learning Activities for Youth Fitness.* AAPAR: Reston, VA. ISBN 978-0-88314-860-0. The beginning section of this book, collectively known as *The Fundamentals of Play On!*, includes information about play,

playgrounds, and safety strategies. The section on playground funding will be extremely helpful when your team secures funding for your community playground (step 6 below).

- KaBOOM!, <http://kaboom.org/>. This national organization is dedicated to ensuring that all children have access to playgrounds. Their website provides a learning library and links to current research on play, as well as a toolkit that is a great complement to this document.
- The National Program for Playground Safety, <http://www.playgroundsafety.org/>. This center disseminates easy to understand information about playground safety.

Your team will need to answer several logistical questions before your playground is completed. You don't need to have these questions answered to move to the next step of the process, but you should have all of them answered before you proceed to the build stage.

- **Who will own the playground?** This question is important because whoever owns the playground is responsible for its upkeep (which requires consistent effort and resources). Also, if someone is hurt on the playground, the owner could be held responsible if the reason for the accident is the owner's "fault." See liability question below for more details.
- **Where will the playground be?** Choosing the location of your playground is an important consideration. You should consult with your team, with your city planners and/or mayor's office, and/or the owners/operators of the place in which you plan to place the playground. Once you have chosen a general location, there are several technical details on playground placement. You can learn about these by consulting section 2.1 of the CPSC<sup>1</sup> Handbook for Public Playground Safety, <http://www.cpsc.gov/PageFiles/122149/325.pdf>. Finally, you need to ensure that there are no underground water, sewer, gas, or electric lines where you will build—contact the mayor's office or Department of Public Works to find out whom you need to call to check the location of lines. In the state of Louisiana, this free service is provided by Louisiana One Call, <http://www.laonecall.com/>.
- **How can I minimize liability?** Playground accidents are the second most common reason that children visit the emergency room every year. You want your playground to be as safe as possible, and you don't want to be liable yourself. The vast majority of playground accidents occur from improper maintenance of playgrounds (40%) and lack of adult supervision of playgrounds (44%). We recommend the following approach to minimize liability:
  - Ensure that a group or organization, such as a school system or parks and recreation department, is responsible for the ownership and operation of your playground/park—this group would also be responsible for the liability that comes with ownership and operation. As long as the playground is in compliance with current safety guidelines and recommendations, liability should not be an issue. Being in compliance is a straightforward process—the playground company representative (see bullet below) will ensure that your playground is in compliance. You can learn more about playground safety by consulting the references mentioned earlier in this section, and the CPSC Public Playground Safety Handbook.

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<sup>1</sup> Consumer Product Safety Commission

- Use a playground manufacturing company that makes commercial grade equipment (not backyard play equipment). These companies are liable for their equipment and have long term (usually 10-year) warranties. To find the playground manufacturing companies that have representatives in your area, go to [http://www.ipema.org/member\\_search.cfm](http://www.ipema.org/member_search.cfm). The representative that you choose will help “walk you through” the process and will ensure that the playground is safe. See step 5 for more information on the process of choosing a representative.
- For volunteer installation, use a certified installer, who will be liable for any accidents caused by improper installation of equipment. IPEMA, the International Playground Equipment Manufacturer’s Association, offers training to certify playground equipment installers. You can require a certified installer to oversee the volunteer construction of the playground (see step 5 for details).
- Make sure that the newly completed playground has a safety audit before it is opened for use and an inspection plan in place to ensure that it stays in compliance with safety recommendations once it is completed. Your playground manufacturing company can help with this portion of the process.

If liability is of great concern, your team can hire a certified playground safety inspector, or CPSI. A CPSI is proficient with all current safety standards and can advise you throughout the playground design-build process to ensure that your playground is maximally safe during its useful life. A national registry of CPSIs is listed at [http://www.nrpa.org/CPSI\\_registry/default.aspx](http://www.nrpa.org/CPSI_registry/default.aspx). If you type in your zip code, all the CPSIs in your region will be listed. Many of the CPSIs listed work for playground manufacturing companies and can assist you if you choose to work with their companies. Hiring a CPSI who is independent of a playground manufacturing company removes any potential conflicts of interest between selling equipment and ensuring safety of your playground.

### 3. Develop playground design concepts.

A design is defined as a plan—this plan can be general or detailed. When completing a playground design, you start by developing a general plan, and then (in step 4) a detailed plan. A general plan is called a design concept. When developing a playground design, you want multiple design ideas (or concepts) to start with, so that all the possibilities can be explored and the best combination chosen.

Ideally, you want the playground to be a reflection of the community itself. Each community is different and unique. Your challenge is to figure out how to best reflect the special, unique character of your community and its people in your playground. The list below includes things to remember developing playground design concepts:

- Kids are the true experts at play. Try to engage them as much as possible in developing ideas about the new playground. Your committee can ask children to provide drawings or writings about their dream playgrounds, their favorite things to do while at play, the best thing about their community, etc. You could ask children to take pictures of themselves at play, and then look at all the photographs to develop ideas and themes. We’ve found that the best information from children comes if you engage with them over time—you will not get all the information if

you visit with children once. Kids are going to come up wonderful ideas—while you may not be able to provide a literal version of the spaceship rides to the moon, the skyscraper tall rollercoaster, the disco treehouse, or the combination playground-dog park, you can use these ideas for creative inspiration and themes for your playground.

- Get input from all constituents. We sometimes tend to think that adults don't need anything more than a bench on a playground—try to think about ways to encourage everyone to play, and to promote play among generations of people.
- Take the time to listen to stories, ideas, and inspirations from all your constituents. Your main goal is to capture the soul of your community and figure out how to translate that into part of the design. For example, if outdoor activities are very important to your community, you might plan a set of gardens that tell the story of your community. See <https://www.youtube.com/watch?v=Jp55qfoM9i0> for more information on finding the soul of the community. Keeping the communication lines open during this process is critical. You might have a website or email list and/or face to face meetings in which you communicate your team's interpretation(s) of the soul of the community and design themes that you are considering based on constituent input. Make it a conversation—remember that you are facilitating the vision of the community.
- Think about how to include kids' art into the playground design. Sparkpark.org has outstanding examples of how to integrate art into playgrounds.

When it comes to the playground itself, here are some helpful hints:

- All play areas should contain green space for running, some play equipment, places for games (soccer, dodgeball, par course, etc.), and places for active (involving movement) and passive play (gardens, places to sit, greenhouse, checker/chess boards, etc.).
- Play equipment is used extensively by younger kids; as they get older, kids start to play increasingly complex games and play less on equipment. If you are choosing playground equipment for a playground, the type of equipment is based on a child's age. There are three general categories: toddlers (6-23 months), preschool age children (2-5) and school age children (5-12).
- Visit some playgrounds so that you can see what you like and what you don't and get a sense of how they're laid out and what items they contain. In terms of equipment, ideally, kids should be able to swing, slide, climb, brachiate<sup>2</sup> (move "rung to rung" with their arms), balance, and spin.
- You can locate the major playground manufacturing companies in your community by searching online at [http://www.ipema.org/member\\_search.cfm](http://www.ipema.org/member_search.cfm). You can engage local sales representatives of these companies (or regional representatives, nearest to your community), get their product catalogs, and talk to them about basic ideas you have for your playground. You can also use the catalogs along with the information about your community to start figuring out what you'd like equipment-wise on the playground.
  - When you start looking at playground catalogs, your tendency is going to be to choose the beautiful playground on page 14. Ignore this urge! Remember that your community's voice is going to create a unique playground, so you can combine parts of different playgrounds you see into a custom design, which should not cost extra. However, if you want the company to build you equipment that does not exist within the catalog, some companies can do so, but these designs will cost significantly more.

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<sup>2</sup> Only school age children

Once you've determined the soul of your community, various themes that you plan to capture in the design, and the myriad of elements you'd like to have on a playground, you're ready to generate multiple design concepts. Your team can create different concepts or you can ask community constituents to create design concepts based on the information that you collected from community conversations. A shared website or dropbox account that contains notes, recordings of conversations, written ideas, children's drawings, photographs, pictures of equipment or playgrounds, etc. would be ideal for this approach. Each constituency will likely focus on a different aspect of the playground, which will enable your community to generate many good design concepts. We usually develop 6-10 design concepts before moving to step 4.

#### 4. Consolidate the design concepts into one design

In this step, your team needs to take all the design concepts created in step 3, present them to the community, and devise a way to create a single, composite design based on the best aspects of the conceptual designs.

For the playgrounds we have co-designed with school communities, we create posters that describe each design concept, and have a "round robin" meeting at the school in which the designs are briefly explained to the children. We then hang the posters at the school and give everyone a chance to think about the presentations and to peruse the designs on the posters. Then, the children vote on which parts of each design they like best. For example, many schools provide each child with 3 sticky dots and each child places their dots on the parts of each design that they like the most. Our team uses this input to create a consolidated design, which we present to the school community for more feedback. We repeat this process until everyone is satisfied with the final design. This back and forth process may take a little extra time, but community buy-in is critical.

#### 5. Share the design with playground manufacturing companies to get price estimates.

Return to your local playground manufacturing representatives with sketches, a list of equipment, ideas, and site information and ask them to create an estimate for building your playground design. They might ask you additional questions to help create the final design.

- This step should be FREE to you. Representatives make their money when you purchase equipment from them.
- Make sure that you ask at least three representatives provide quotes for your playground—sometimes we've had one playground company charge twice as much as another with the exact same set of specifications.
- All equipment manufacturers give discounts, so you should be able to secure discounts from the full price listed in the equipment catalog. We usually receive a 25% discount, but have had discounts as high as 40% (and as low as 15%). Shopping several companies should yield a good discount.
- Your playground must be compliant with the Americans with Disabilities Act (ADA)—all reputable playground manufacturing companies will ensure that your design will be ADA compliant.

See Appendix A for more detailed information on estimating a budget and how to maximize play while minimizing cost.

6. Select the company and secure funds to build the playground.

Once you've gotten all your price estimates, select the playground manufacturing company who will provide the equipment and the certified installer to oversee the volunteer construction. You can ask this company to provide you with three-dimensional renderings of the equipment in the color scheme your community has chosen<sup>3</sup>. These drawings will give your team fantastic graphics to share with prospective funders and donors.

Next, your team needs to raise money to build the playground. This step is the most variable in terms of time--sometimes we raised project funds within 6 weeks—once, it took five years. Luckily, we have learned from experience what works and tends to speed up the process.

The two major ways to obtain funding include fundraising or writing grant proposals. We use both methods and have found that using both tends to result in getting funding faster. Luckily, there are many excellent resources to assist you with fundraising and grant writing.

- See the section entitled “Playground Funding” in the book *Play On!*—this section provides detailed information for fundraising and writing grants to build the playground, and also provides examples of how several communities raised funds for their playground.
- There is also information on how to fund playgrounds and additional examples in the book *Building Playgrounds, Engaging Communities*.
- PlayCore, a national playground manufacturing company, has published a Play & Recreation Funding Guide that is an excellent, up to date, comprehensive list of potential funders. You can order this guide at <http://www.playcore.com/programs/funding-resources.aspx>.
- Playcore also has an online toolkit for building a playground—step 2 is called “Fund It” and this step lays out the funding process in excellent detail. See <http://www.playcore.com/toolkit.html> for details.
- KaBOOM! also has excellent web resources on funding playgrounds, which can be viewed at [http://kaboom.org/build\\_playground/get\\_funding](http://kaboom.org/build_playground/get_funding).

While you are in the process of securing funds for the playground, communicate with your constituents and community so that they know “where you are” in the funding process. This approach encourages people to buy-in to both the process, and sometimes literally, to the playground. Remember that most people and organizations are willing to give once you have a little money “in the bank.”

7. Order the equipment and prepare for a volunteer build.

Once you've raised the necessary funds, the playground manufacturing company you choose will order the equipment for you—equipment usually takes 4-6 weeks to be delivered. You'll need a large, secure site to hold the equipment between the time it is delivered and the time you begin installation.

During that 4-6 week window, you will prepare for the volunteer build.

- Recruit volunteers from your community; you can also contact the mayor's office to advertise for volunteers through city-wide networks. The certified installer will let you know how many

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<sup>3</sup> We do not recommend using red plastic on playgrounds because the color fades quickly. Red metal is fine.

volunteers you'll need and for how many days, as well as any tools and materials you will need to bring to the site. A sample volunteer recruitment email is included in Appendix B. We typically ask each volunteer to commit to a block of 4 hours (minimum) and provide lunch to all volunteers, either those in an 8:00 a.m. to noon shift, or in a 1:00 pm – 5:00 pm shift. Four-hour blocks also enable many volunteers to participate.

- You'll need to provide volunteer support, including orientation information, waiver forms (in next section), drinks, protection from the elements, lunch, etc. Typically, service organizations and local restaurants are happy to provide support, food, and drinks.

#### 8. Build the playground!

Our builds tend to last 2-3 days depending on the size of the playground. Make sure that there's a central location where volunteers can report to sign liability waivers (see Appendix C for an example waiver) and have a site orientation (restrooms, comfort areas, food, etc.). The volunteer supervisor can speak about site safety as well as provide leadership on how volunteers will build the playground. Have fun, and take plenty of pictures and movies to share with your community and to commemorate the event.

#### 9. Dedicate the playground.

Take the time to celebrate the playground's completion—wait at least 72 hours after the build is complete so that the concrete is fully set and the kids can play on the new playground. Briefly thank your committee, the community, your donors, and then make way for play! Our favorite playground dedications involve the children cutting the ribbon (or ripping it open by hand). Congratulations, you did it! Enjoy!

## Appendix A: Estimating a budget and maximizing play while minimizing costs

The major components of a playground budget include:

- Equipment. Playground equipment is expensive! We suggest using coated metal instead of wood—metal is more expensive initially, but cheaper in the long run because it will last much longer than wood.
- Freight: add 10% of your equipment costs for freight charges in getting the equipment delivered to your site.
- Tax. Depending the source of your funds, you may need to pay sales tax on the equipment
- Playground safety surfacing. You need a soft material under and around your equipment to cushion children when they fall. There are many types of surfacing (see CPSC Handbook for details or talk to your playground manufacturing company for more information)—we usually use engineered wood fiber, the least expensive, ADA compliant surfacing material. The price of surfacing is volatile and highly variable due to transportation costs. It can be as much as 25% of a total playground budget.
- Installation: you will have to pay the certified playground installer to oversee volunteers as they install the play equipment. We currently pay \$1500 per day plus expenses (hole drilling at \$80/hour, usually 4 hours, possibly more if you have the installer bring concrete)

An approximate \$40,000 playground budget looks like this:

- Equipment (with 25% discount): \$25,000
- Freight: \$2,500
- Tax (9% in our state): \$2,250
- Surfacing: \$6000
- Installation plus expenses: \$4000 (\$3500 to installer, \$500 for concrete, \$500 for hole drilling)

Money saving tips

- Bid surfacing separate from equipment. We bid separately because it is usually cheaper—if you ask for line item splits among your items for each playground vendor, you can see the different amounts that different vendors charge for various items. If one company is significantly closer to you, you'll probably have lower surfacing costs because less fuel is involved in trucking it to your location. Thus, you might ask one company to provide equipment and volunteer installation, and a second company surfacing
- Try to get donations that would offset budget items above. For example, concrete, hole drilling, or items volunteers might need, such as gloves, tarps, and tools.
- The aforementioned budget includes no funding for volunteers. You can probably get T-shirts, lunch, snacks, and drinks for volunteers donated.
- All equipment manufacturers give discounts—the manufacturing company you choose to work with will likely be the company offering the biggest equipment discount.
- Make sure you understand why all costs are there. Companies like to give you a single cost without breaking it down into components—make them break it down so that you can see where your money is going.
- Remember hidden costs—because we work in schools, ground preparation is already paid for. If you need to prepare the ground for your playground (add drainage, dirt, etc.), those costs could be significant.



- Always look for ways to lower each item of your budget. For example, if fees to fix grounds are high, can you lower them by moving the location? Shade structures (if you choose to purchase them) are very expensive. Can you plant trees instead? Can you purchase concrete and bring it to the site instead of having the vendor do it?

The information below is what we ask vendors to provide when we get budget estimates:

Vendor is responsible for furnishing, equipment, hardware, anchors, fasteners, materials and unloading, at approved location. Bid shall include vendor providing a certified supervisor to oversee volunteer installation of the play equipment. Vendor shall itemize the cost of supervising the volunteer installation process; vendor shall also include a line item for other costs associated with installation, including but not limited to installation materials, hole drilling, and installation equipment rental (Bobcat). Vendor shall provide certified documentation with the bid.

- All concrete and materials needed for installation must be included in bid (if you want to bid concrete separately, you can—but make sure the vendor gives you the total amount of concrete you need).
- Equipment prices should include freight costs
- Playground safety surfacing is **not** to be included in bid ( ).
- Playground manufacturer must be certified by the International Standards Organization (ISO) for 9001:2000.
- All equipment, hardware, and components must be in compliance with current playground safety standards (ASTM F1487-07).
- Color scheme of the proposed composite structure is to be approved before equipment is ordered; Colors of interest are (fill in 2-4 colors). Do not spec any plastic components in red (color does not hold up well over time).
- Equipment, hardware, and components should be galvanized, vinyl coated steel or equivalent
- Supervisor must be a certified installer from the manufacturer of equipment purchased.
- Supervisor must be a qualified playground installer through the National Playground Contractors Association.

If you follow these tips, you should be able to maximize the amount of money you spend on equipment (thereby maximizing fun) while spending as little as you can. Good luck!

## Appendix B: Sample volunteer recruitment letter

Dear playground supporter,

I am writing to request volunteers for a community playground build, which will be held at (location) on (dates). The address is (fill in address). This playground is being completed through the (name of initiative if you have a name) and has involved collaboration among many community groups, including (list major constituents)

We will be installing (list of items).

We ask that if at all possible, volunteers commit a minimum of a half day to the build on (day of the week) or (day of the week) Morning shifts are from 8:00 am to noon, and afternoon shifts are from 1:00 to 5:00 pm). You are also welcome to volunteer for an entire day. (Name of group) is providing snacks, beverages, and lunch for all volunteers. Volunteers should be at least 18 years of age.

If you have a pair of work gloves, please bring them along so that you can avoid getting blisters—also, if you have tarps, wheelbarrows, and/or shovels, please bring those also, as they speed the movement of playground safety surfacing from the pile into the play area. Finally, if you wish to assist by bringing tools to the site, useful tools include: tape measures, utility knives, shovels, sharpshooters, post hole diggers, sledge hammers, wrenches, ratchet, and/or socket sets, especially those ranging from ¼” to 5/8”, screwdrivers, and power drills (NOTE: These details may change depending on what your installer tells you that you need).

RSVP to (name and email) by (time you choose) so that we can compile an accurate head count that is critical for determining team size and tasks, as well as how much food to provide. Please sign up fast, we anticipate slots filling quickly!

Please provide (name of contact) with:

1. Your name and contact information
2. The day and time that you plan to volunteer
3. Your affiliation (community group, etc.)
4. If you plan to eat lunch (and we hope you do, either before or after your shift).

We will gladly take volunteers regardless of experience and tinkering ability; don't worry, we can put you to work with confidence all the way around! If you have any questions, please feel free to contact me at (your email). Thank you for your support!

Sincerely,

(your name)

Appendix C: Sample volunteer waiver

**Waiver of Liability Agreement**

I, \_\_\_\_\_, (print name) acknowledge that I wish to participate in the (name of your playground) volunteer playground build at (fill in address) on (dates).

I understand that certain risks are inherent in travel and the other activities in which I will participate on this project, and I fully accept those risks. These risks include, but are not limited to, injury, disease or other threat of physical harm to myself and others and damage to or theft of personal property. I understand that there may be a great variety of other risks not known or reasonably foreseeable. I acknowledge that (list the owner/operator of the playground, your team, and anyone else significantly involved in the build) are not responsible for any harm that might occur.

I understand and agree that (list the owner/operator of the playground, your team, and anyone else significantly involved in the build) do not provide insurance to cover expenses for damage to my personal property and that (list the owner/operator of the playground, your team, and anyone else significantly involved in the build) strongly recommend that I also carry my own health, medical and property insurance for purposes of potential losses related to this project.

I fully release and discharge (list the owner/operator of the playground, your team, and anyone else significantly involved in the build) and its employees, officers and agents from all liability in connection with my participation in this project.

\_\_\_\_\_  
(sign your name)

Please give us your mailing address so that we can provide you with a letter of thanks for your service:

## Disclaimer

The information provided herein contains general guidelines and information and is for educational purposes only. It should only be considered current as of the date it was written, and it is not intended to be comprehensive or to address all possible scenarios, environments, legal requirements or necessary exceptions. It is not intended to address liability issues. Playground injuries are not only frequent, but can be serious. The utmost care must be taken when contemplating constructing or renovating a playground. Playground equipment should be installed pursuant to manufacturer's instructions, state laws, and national safety guidelines, such as the Consumer Product Safety Commission or ASTM (American Society for Testing and Materials). Neither Louisiana State University Agricultural & Mechanical College or the writer of this document warrant the fitness of the information provided to your particular needs. It is your responsibility to assess the material and determine its relevance. You should consult an appropriately qualified professional regarding your particular needs and safety concerns. Do not rely on this information as an alternative to advice from an appropriately qualified professional.

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