

How to Buy a Pool the Right Way, From the Right Company, at the Right Price

~ By Marcus Sheridan

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To The Reader:

Let me start off by thanking you for your purchase of Jason's video guide. Jason and I, as owners of a swimming pool company as well the fact that I own a pool myself, this topic of swimming pools is one that I'm very passionate about, and I really do care that you are able to find the right pool for you, from the right company, at the right price.

The information found within this eBook is based on my years of experience in the industry. By working with and talking to thousands of pool owners I have been able to formulate many opinions on the different products and companies found within this industry, much of which I have written here in this eBook.

All of the information here is my opinion. Also, because the swimming pool industry is constantly evolving, there may be information found within these pages that is slightly outdated, but this is rare, as I update this eBook often. Again, thank you for your business and good luck with your pool!

Sincerely,

Marcus Sheridan

Chapter One: What type of pool do I choose?

As I've already mentioned, this e-book is focused on those people considering the purchase of an inground fiberglass pool. This being said, I still feel it necessary to point out a few differences in the products. Because most of what you have read up to this point is one-sided, this will give you the hard facts.

Gunite/Concrete:

First let me say that if a salesperson ever tells you that, "you don't have a pool unless it's gunite (concrete)," then that person is a flat-out idiot. Any vessel that holds water can be considered a pool; it really makes no difference the material. But the material will affect such factors as design flexibility, aesthetics, maintenance needs, longevity, etc.

I personally like concrete pools quite a bit, but only in certain applications. They are as follows:

- You want a really, really big pool. (Bigger than 16x44)
- You want a Lagoon style pool, something very natural with lots of rocks, cascades, etc.
- You are obsessed with having a beach entry or some other really unique feature.
- You have the time, or somebody that works for you has the time, to maintain the pool.

Obviously, as far as design flexibility is concerned, concrete pools are the leader of the pack. No other type of pool has such unlimited capability. The only problem here is that when someone wants to create

that “Water Park,” or “naturescape,” or “lifestyles of the rich and famous,” feel to their backyard, they need to be prepared to invest a few hundred thousand dollars. This simply eliminates most consumers.

The Problems:

- Concrete is a LOT of maintenance. There is quite a bit of weekly and yearly maintenance, at least 3 times more than that of fiberglass.
- Concrete will hurt your feet. This is especially true with children. If your kids play for extended periods of time in a concrete pool, be prepared to have a nice pair of swim-shoes. Believe it or not, this is one of the biggest complaints that concrete pool owners have.
- There are significant long term repairs with most concrete pools. A replaster job will usually cost more than \$7k. Sometimes it's much higher.
- Algae grows much easier on concrete.
- Concrete pool surfaces affect water balance (ph, alkalinity, and calcium levels) which causes constant monitoring of the water and chemical additions.
- You will spend much more money on chemicals each year than you would with a fiberglass pool.
- Salt has been shown in certain studies to be hard on concrete pool surfaces, meaning that a replaster job will be needed at a much sooner time period.

To make a long story short, it just doesn't make a whole lot of sense to purchase a concrete pool that would be available in a fiberglass model. Unless you fall under one of the above categories as reasons to go concrete, ignoring fiberglass would be rather illogical.

Again, I'm not here to sell you a pool, I'm here to make sure the one you get makes you happy now and in the long run as well.

Vinyl-Liner Pools

First of all, let me say that there certainly are some nice vinyl pools available in the market today. But these “nice” liner pools make up less than 5% of the market. Very few builders know how to build them in such a way that they don't look cheap. A large portion of vinyl builders are just interested in doing cookie-cut work: basic rectangles, cheap decking, and all the while using low-quality materials. In my opinion, there is rarely a good reason to go vinyl. It really makes little sense. Even for that person that is dead-set on spending \$20k and not a penny more- it's just not a wise decision. This is because that person isn't factoring in the added expenses down the road due to liner replacements, which on average happen every 7-10 years (despite what some vinyl pool builders may tell you).

My company actually used to build liner pools. We did it because we were young and ignorant. We thought that low prices were the key to installing a lot of pools. Looking back on those days, I realize I was doing those good people a disservice. Putting a temporary structure in your backyard that costs thousands of dollars rarely is the best and most logical decision. If you're actually tempted to make this type of mistake just because of price, then I fear you will later have major regrets.

Fiberglass Pools

You've heard probably most of these advantages, but here they are:

- The least amount of maintenance on a pool you can have
- Many customized options (color, tile, inlays, etc.) to give the pool aesthetic appeal
- Work great with salt chlorine generators
- Do not hurt your feet
- Much fewer major repairs down the road

Disadvantages

- Size constraints
- Many builders haven't a clue
- Decking is difficult (we'll talk about this later)
- Certain custom features are not available

Well there you have it. Think logically, not emotionally. By so doing, your decision as to which pool type will be a much better one in the years ahead.

Chapter Two: The Contractor

This may be the most important chapter of this book. Why?

The contractor you entrust your backyard with to install a swimming pool will make or break this whole process.

Many people think that the manufacturer of their pool (i.e.- Leisure, San Juan, Trilogy, Barrier Reef, etc, etc.) is the biggest factor in the longevity of the pool. Although this is partially correct, it's certainly not 100% true.

Most contractors will tell you their pool is **SOOOO** much better than the next guys". They give all these little reasons as to why, but the truth is that most of these pools are very similar in quality. In fact, as an installer myself, I wouldn't hesitate to put in about 75% of the different pool lines available on the market. I will spend more time later talking specifically about the different brands out there. But, suffice it to say right now that your biggest focus should be on **Who** is going to build your pool, and not **What** pool type you're going to choose.

Many of the so called "pool contractors" out there cause me great dismay. They hurt the industry I'm a part of. They give all contractors a bad name. Unfortunately though, most homeowners, for a variety of reasons, make foolish mistakes during their contractor selection. Although there are many solid pool companies in the industry, there are arguably just as many bad as good.

The swimming pool industry is famous for "Garage" companies (This means they're working out of their garage.) Some guy who owns a Bobcat or an excavator one day gets a grand idea.. (note: slang added for silly effect)

“Hey Bill, what do you say that we start us a swimming pool company? I’ve seen them shells on the side of the road. It can’t be that hard. We already got what we need.”

“That sounds like a swell idea Jeff, I’ll go put an ad in the paper and we’ll be ready to rock and roll! Just one thing though, you think we can put us in one of them shell pools?”

“Aw heck Bill, all you do is dig a hole and drop the thing in there. How hard could that be?”

And so another fiberglass pool company is started....

It’s amazing just how many times I’ve seen companies like this pop up. Most are in business one year and out of business the next. This is why my first tip is:

Tip #1: If the pool company’s name is something like:

- **Metropolis Excavating**
- **Bill’s Back-Hoe Service**
- **Doug’s Hauling**
- **The Tree Removal Company**

...you should be very careful when choosing this type of contractor. They are what I call a “Sounds like a swell idea” company. Many such companies have another business and naturally feel that fiberglass pools will be another easy revenue stream. Although this is not the case with all companies that have no mention of swimming pools in their names, it is still something you need to be aware of. This being said, a name is only a name, and the following tips are much more important.

There’s something about the fiberglass pool installation business that most of these fly-by-night companies just don’t understand....

You have to be willing to lose a lot of money at first if you want to install fiberglass pools successfully.

You may be asking yourself why this is so. Well the answer is simple. Although fiberglass pools are easy to install conceptually, they are also really easy to **MESS UP**. Trust me; my company messed up a lot of them during our first year or two in business. The question is: *Is the pool builder willing to lose money to fix a problem?*

Unfortunately, most are not. Personally, I can guarantee that my company has spent hundreds of thousands of dollars in the past to fix mistakes. This is why we have every pool owner we’ve ever worked with as a reference. We’ll talk about this in a minute.

TIP #2: Ask your potential builder if he’s ever made a mistake. (If he says he hasn’t, or can’t recall one, this means he’s a liar.) Ask him how his company rectified the situation. Now here comes the key request: Ask him for the names and numbers of at least 3 pools where there was a problem and his company had to fix it. If he has any problem with this, then his service/quality is a problem.

You see, every builder, no matter the field, has issues that arise during construction. The pool industry is no different. Sometimes it might not even be the fault of the installer, but this doesn't mean they're not the responsible party.

I could give any potential client 20 or more names of "mess ups" we've had during construction projects. In fact, I like giving out these names because that is the true test of the character and integrity of a company: whether or not they turn their back on a homeowner when there is a problem. As I tell all my customers-- *I cannot guarantee there won't be issues during the process of construction. I can only guarantee that when all is said and done, you will be happy and want to recommend us to your friends.*

Remember, if a builder or salesperson says they "never have problems" or that "everything always runs perfectly" then they are simply being dishonest.

Let's talk about reference lists for a minute. I am a stickler when it comes to reference lists. In fact, when I go into a home, I give the potential client a list of over 600 names, addresses, and phone numbers. Yes, I did just say 600. The reason why the number is this high is because the list contains every pool on it my company has *EVER* installed.

It takes a serious commitment to do this. It means we have to make everyone happy. There is no company that I know of that has done so many pools and gives out such an extensive list. A reference list is basically the builder putting his money where his mouth is. It is imperative that you call many of his customers. One or two is not enough. Ask lots of questions. Ask the references what they liked, didn't like, what they'd do differently, what they'd do the same, etc, etc. Also, do everything you can to go out and look at a few of these pools. Most pool references are more than willing to show you their pool, as well as answer your questions. So here's another key.

Tip #3: Ask your potential builder how many pools his company has built. Let's say he says "40". My next question would be, "May I please have your reference list?" If this list only has 20 names on it, it means one of two things. Either he lied and hasn't done 40 pools, or that he has only made 50% of his customers happy. How do those odds sound to you?

One other thing about reference lists. You should never have to ask a builder for such a list. If he does not have it with him during a sale, it probably means he makes too many people unhappy to even start a list. Also, any list under 20 names (unless the builder is very new) is a joke, and shouldn't even be considered.

***Remember, if you go through the buying process and decide not to follow this step, you are playing "pool roulette," and it's a good chance you need to get your head evaluated* ;-)**

Another thing that pool contractors are famous for are "hidden costs." For example, let's say the project has started, the builder is excavating the hole, and then all the sudden he informs you that the hauling of dirt was not included in the price, and unless you want a mound of dirt to be left in your yard it's going to be \$700 extra to take it away... Scenarios like this one are all-too-common in our industry. Hidden costs are simply a product of a poor sales and presentation process on the part of the

builder/salesperson. When done properly, especially with a proper quote sheet, you should seldom be surprised with hidden expenses.

Tip #4: The quote sheet you receive from the sales person should list ALL of your potential costs. Such items that should be listed are:

- 1. Dirt Hauling In/Out Fees**
- 2. Electrical**
- 3. Fencing**
- 4. Landscaping**
- 5. Decking**
- 6. French Drains**

These are just a few topics that should be covered during the sales process. Do not allow for gray areas when it comes to your quote sheet and contract. All potential expenses should be listed.

Let's talk about another issue the swimming pool industry is famous for: **unlicensed contractors**. It is absolutely mind-boggling just how many supposed pool companies work without a license. So what's the harm of using a builder without a license?

If the builder has no license, YOU, the homeowner are 100% responsible for everything that happens on the jobsite. YOU have the burden of all liabilities. If a subcontractor gets hurt, YOU are the one he can sue, and YOU can't sue anyone for anything.

This is why many contractors will try to pull a fast one on a homeowner like yourself when they suggest that YOU pull the permit. They're able to do this because they offer you a really nice discount if you take care of their dirty work. In your mind you are saving hundreds based on their supposed "discount", but in reality YOU ARE GETTING WORKED OVER! In fact, any quote sheet you get from any pool company, as well as any formal contract, should always include their business license number, and **the builder should always pull the permit.**

Tip #5: If you do not verify the builder has an actual license (this can be done through your state contractor board) then you apparently love taking risks with lots of money. (If you do decide to use a builder who has no license, make sure you at least work up a separate disclaimer.)

Notice I have made very little mention in this chapter about how eloquent, articulate, or impressive sounding the builder/salesperson may be. This is because *anyone* can sound impressive. It's not hard to come up with a nice sales presentation that takes a homeowner's breath away. The problem with this though is that sales presentations don't build quality pools.

In fact, many large pool companies have commissioned sales people. This is not necessarily a bad thing, but keep in mind that often times these sales people will never even step foot on your job site. Most

have very little clue as to what type of work their employer really does. Their main goal, in most cases, is to earn a commission. The same is true for the sales person who may not have the most eloquent presentation, but truly cares about your needs and gives you all the information we've talked about in this chapter.

To close this segment of the book, I offer a few more tips:

Experience in the fiberglass pool industry should never be based on how "old" the builder is, but rather how many pools the individual has installed. I'd much rather have a 21 year old that has installed 150 pools in my back yard than a 45 year old that has only installed 10.

Builders that do most of their work in-house versus using subcontractors tend to have better quality control. For example, in my company we do everything in-house except for pool fencing. This principle is especially true for CONCRETE DECKING, which will talk a lot about later.

Don't base your decision on price alone. If you do, you'll get what you pay for. The best contractors are never the cheapest. That would be an oxymoron. That's like expecting Wal-Mart to give the greatest service of any retail store; it will never happen.

Just because a builder is a member of the Better Business Bureau, it is not a reason to be impressed. I know of many companies that have a terrible track record and notwithstanding show a positive report on the BBB. Frankly, I think that using the BBB is almost a waste of time. (By the way, my company is a member with a positive standing, but I only enrolled because most people actually put stock into what the BBB says on their business reports.)

It is a very good idea to find out during your contractor selection process what type of service the pool builder will offer after the installation of the pool. I have talked with many pool owners that have had a good experience during the pool installation process but had a terrible time after the installation when any warranty issues arose. This is very common in the swimming pool industry. It often occurs because many companies are so small they don't have a "service department". When these types of companies get busy installing pools during the spring and summer, they just don't have the time, resources, or sometimes the desire to worry about the "drip that you just noticed coming from your filter system." This is just an example, but a common one.

With my company, we have a full service department. The employees in this department have very little to do with the pool installation department, and therefore are unaffected by the number of installations we are currently involved with. This means that if a customer calls and is having a problem with their pool they are a top priority. Having separate installation and service crews helps eliminate previous customers from being superseded in importance by new/current customers. A good way to find out about a company's after-installation service is to simply ask their current customers about their experience with warranty work since their pool's initial installation.

Chapter Three: Key Questions and Answers

Question #1: What type of shape should I choose for my pool?

This is a question that may be difficult for pool shoppers to answer. Often times, there is not one definitive choice as to which shape. The real question you have to ask yourself is:

Which is more important, curve appeal or play area?

Let me use myself as an example here. I have four younger children, and my sister, who lives next to me, has three teenagers. This being said, I knew I wanted to have the most play area as possible to accommodate a large amount of usage on a daily basis during the summer. Whenever a pool has curves in it, you are going to lose quite a bit of play area. And keep in mind that whenever a manufacturer lists a pool at 16"x40" (or any size for that matter) they are measuring the pool from outside edge to outside edge of the fiberglass lip. This makes the inside of the pool even smaller. Therefore, a rectangular 16"x40" pool is actually a 15"x39". Rectangular pools, as well as Roman-end pools, are ideal sport shapes, especially for games like volleyball. Curved or free form pools work especially well when there is a lot of curve in the landscaping, and if the homeowner wants a more "natural" feel to the pool area

Question #2: What should the depth of the pool be?

The most ideal depth for anyone NOT getting a diving board is roughly 3"-5" or 6". Anything deeper is much, much less functional and will eliminate many activities (eg, volleyball). This depth should have a gradual fall, and not a "hopper," or sharp slope. Such slopes can be dangerous for little ones and are worthless when it comes to play. And when you're floating on a raft, depth makes very little difference. The reason I suggest five or six feet in the deep end is because many people like to do shallow dives off the side, and this really should be done in water that is at least 5" (don't sue me, I'm not condoning any illegal or unwise diving here). My pool goes 3"-5"6" and it's a wonderful play pool for kids of all ages.

Question #3: Should I get a diving board?

The answer here, at least in most cases, is a no-brainer: **NO**...Diving boards often do nothing more than add stress to the lives of parents and eliminate play area in a swimming pool. This is because studies have shown that pool users spend more than 80% of their time in a pool where they **can stand with their head above water**.

When someone has a diving board, 1/3 of the pool is the shallow end or play area, 1/3 is the hard slope, which is completely useless, and the other 1/3 is the diving well, which is only good for diving or treading water, not playing. This means that where you spend most of your time is only 33% of the pool! That doesn't sound very efficient, now does it?

Also, most people don't even realize that diving boards today for residential pools are basically planks, with very little spring at all. In other words, forget about flips, gainers, etc.; they ain't going to happen here- Only basic dives. One can accomplish the same feat by diving off the side in shallower water (again, I am not condoning diving).

Why do you think that so many people who own diving boards eventually take them off? Why is it that so many vinyl liner pool owners that have a deep-end for diving elect to fill the depth in and make the pool shallower when they have a liner replacement?

Forgetting about safety for a minute, diving boards in most cases **make no sense**. I don't care if your kids say they want them. They actually have no idea what they want--- they just think they want a diving board. In all the pool installations I've ever been a part of, I've never had anyone tell me, "Marcus, you were wrong; I should have gotten that diving board." Actually, it is usually the other way around. Customers will often end up telling me, (when they didn't heed my advice), "Marcus, you were right, getting a diving board was a big mistake."

(Note** You may be the exception here to this rule and end up getting a diving board and loving it. I simply state my opinions based on experience with customers.)

There, enough on this question. Let's move on.

Chapter Four: Pool Decking

Let me just start this chapter off by saying that your pool's deck is the most important visual aspect of your swimming pool *and* backyard. It will make or break the whole project!

What you must realize is that this is not just a swimming pool you are getting, but rather something that will add to your entire backyard experience. You will spend more time using the outside of your pool area than you will swim in the pool itself. The pool's decking is also the first thing you will see when walking up to the pool and the last thing you'll remember. Even when the pool is closed for the winter, the decking is still there, staring you square in the face.

No matter how good your pool looks, it will look like #@?!# if the decking looks like #@?!#

It's amazing just how so many people never grasp this fact, and then end up having regrets down the road. Here is a good rule of thumb to follow:

If you want to look at your pool and go WOW, then you should

probably consider something other than regular, broom finished concrete.

I have seen this mistake made many, many times. Inevitably, when a pool owner (who really wanted a decorative patio but ended up with regular concrete decking) sees one of their friends or neighbors with some type of decorative decking, then they end up kicking themselves in the butt. Now this is not to say that decorative decking is a must for all. It is not. I know of many customers who have regular concrete around their pool and are very pleased with it.

There are many types of pool decks available to you, with concrete and pavers the most popular. As far as concrete is concerned, some of your options are: regular broom, colored broom, and stamped concrete. I'll give a quick breakdown on each.

Regular: Looks like a sidewalk, pure and simple. This type of decking will add little aesthetically to your backyard (although by adding curves the design can make a really nice difference), but, having some patio area around your pool is better than having no patio at all. Regular concrete is very low maintenance and typically is not slippery when wet. It is also your most cost effective option.

Colored Broom: This is done by adding a color to the mix in the concrete truck. Once the concrete has cured, this “integral” color, as it’s called, will be rather dull in appearance unless sealed. The problem with sealing it is that decks can get rather slippery when sealed.

The biggest problem I’ve found with colored broom-finished concrete is that the color is very inconsistent. Let’s assume for a second you want a brownish color. Depending on a variety of factors, the concrete can come out dark brown, light brown, sand, or even pink. There really is no guarantee with this integral color and that’s why I don’t typically recommend it. The failure rate is just too high. There are also always going to be variations in color-broomed concrete. Depending on the finishers and other factors, some areas are going to be darker than others. It’s almost impossible to have uniformity throughout the entire deck.

Stamped: The popularity of stamped concrete has really exploded over the past 10 years. It can be a little slippery, but there are some new sealing methods now available that help deter this slip factor (products like SharkGrip can be added). Aesthetically, stamped concrete, when done properly, is incredible. Many new hotels and theme parks you go to nowadays consist of some type of stamped concrete. The key to a properly stamped deck is the experience of the concrete finishers. If they haven’t done many pool decks, especially fiberglass pool decks, then I would stay away.

Also, and this is very, very important to remember, stamped concrete (like all concrete) will eventually crack. When will it crack? Hard to say but it will. Also, because the product looks very dull without the sealer, it needs to be re-sealed every year or two, which costs a few hundred dollars and a few hours for most people to do.

Pavers: Pavers are certainly pretty and do have some benefits, the main one being that if the plumbing ever leaks it’s easier to get to. Also, unlike any type of concrete, pavers will not crack over time. Depending on the installer, they range quite a bit in price. Pavers are easy to add on to at a later time, without the addition looking like an afterthought, which is almost impossible with concrete.

Others:

Overlays: I’ll just mention overlays briefly here. There are different names for overlay applications, a couple being “Spraydeck” and “Cooldeck”. These products look very nice and are also cooler on the feet than regular concrete. Overlays are prominent in warmer climates where there isn’t as much of a freeze thaw cycle, which leads me to the main issue with overlays: longevity. Most overlays I’ve seen have a short life cycle (less than 10 years). Once they wear down, the products starts flaking off, which looks terrible. Much of the product’s success depends on proper deck preparation, but notwithstanding, I’m not a big fan of overlay products because of their inevitable failure rate.

Flagstone: Flagstone is a beautiful product, but compared to concrete or pavers, is very expensive. Depending on your location, the pricing and the number of qualified installers will vary greatly. For example, where I am located in Virginia, flagstone is extremely expensive, and there are only a few installers in the area skilled enough to do a solid job with the product's installation. Considering the fact that stamped concrete can look just as nice and is more cost effective, I'd recommend stamp.

Brick: Like flagstone, true brick decks are very expensive. A proper brick deck has to be under-laid first with a concrete slab, and then the process of mortaring in the bricks one-by-one is rather time consuming and therefore costly. Brick can also get really, really hot on your feet. If you have the money to spend though, brick is absolutely beautiful when installed properly.

Cantilevered Decking:

One of the reasons fiberglass pools were stigmatized with the "bathtub" label in the past is because the concrete contractors did not cantilever the pool's coping edge. This left the six inch lip of fiberglass exposed, which, in most cases, looks terrible and cheap. Unbelievably, there are still contractors that pour the deck up to this lip instead of overlaying it with concrete. Many self-installs are also done this way.

The reason this still occurs is because cantilevered decking is difficult to do. "Concrete Joe" who has done a thousand sidewalks or driveways probably has never dealt with cantilever forms. These Styrofoam forms attach to the fiberglass lip. The concrete is then poured up to the form, allowed to cure, and then peeled off. Once the form is peeled off a rounded edge of concrete is what's left. This process is hard to describe, but trust me when I say that just because someone knows concrete doesn't mean they have a clue as to how to pour a deck around a fiberglass pool the right way.

There have been many occasions when a customer in the past has told me they were going to do the concrete themselves, (this usually happens because they have a friend or relative that knows how to do concrete). My response is always the same: "That's fine, but the deck is the most important part of the project, and if it turns out bad it's your responsibility." Occasionally, I'll still have customers take the risk, and almost every time they come back to me and say they wish we had done the decking. Of course by that point, there is no way to turn back the clock, and they're stuck with looking at an ugly deck for the rest of their pool ownership lives.

Tip: The contractor you choose should do his own concrete decking, and if a subcontractor is involved, he needs to have done at least 10 cantilever decks before yours, otherwise you are just going to be part of his learning curve.

Tip: If you don't get cantilevered concrete, and instead allow the concrete to be poured up to the fiberglass lip, you need to get your head examined, because apparently you like to spend a lot of money on ugly things.

How much decking should I put around my pool?

This is a very good question. Let me start off by saying that any fiberglass pool should have a least 3" of concrete decking around it, no matter what type of actual decking you choose. This initial 3" serves a functional purpose, which many consumers, and builders for that matter, do not understand. Every fiberglass pool is made with an "outer lip," as I have previously mentioned, which allows the concrete deck to wrap around it, locking the pool completely in place, thus forming a bond beam.

Many people, especially pool builders that don't do fiberglass pools, like to say that fiberglass pools will "pop" out of the ground. Well I'm here to tell you that when this concrete bond beam is done properly, this is almost impossible. Because the deck wraps around the pool's lip, for the pool to move it has to take the entire deck with it. Because my business is located in Eastern Virginia/Md. on the Chesapeake Bay, I have installed dozens and dozens of pools that were below sea level. I've even installed 8" deep pools in areas where we hit ground water 4" down, and I've never had a pool pop-up after installation.

If you decide to do pavers for your decking, you still need to pour 3" of concrete around the pool to form this bond-beam. This is done by pouring the concrete flush up to the fiberglass lip. This will then act as the base for the pavers once they are installed.

As far as the actual amount of decking you'll need though, I have a few suggestions:

Put your eggs in one basket- What I mean by this is that some people think they need something like 10" of concrete on one end of their pool and then 6" of concrete the rest of the way around. Because we as humans tend to congregate in one area when we socialize, you want to make sure you put the majority of your decking in one area. For example, instead of getting 10", 6", 6", and 6"; one should get 15", 4", 4", and 4". This is a much more efficient and effective displacement of decking. Keep in mind that 4" of concrete is just enough to walk around, and not enough for the placement of lounge chairs. In order to place any type of furniture around your deck, I suggest at least 8". This is also why getting 5", 6", or 7" in any area is relatively worthless (unless it's being used to make space for a sliding board or diving board). If you are planning to put on your patio a round table with chairs, I'd suggest you allow for at least 13" of decking.

Curved Pools need Curved Decks- If you have a free-form, or curved, swimming pool, it is important that the deck, at least in some areas, follows the pool's contour. Pouring a linear deck up to a curved pool is somewhat of an oxymoron, and should be eliminated if at all possible. Just as Roman End pools look better when the deck has a Romanesque feel to its shape, curved pools should have curved decks.

Borders are Beautiful- Pools with some type of border almost always look better than pools without borders. A border typically looks best when it's 18" or less. When doing a concrete border around a fiberglass pool, I suggest making the border 18", and then tying it in via rebar with the second pour. And, of course, the border and the rest of the deck should not be the same color, so as to add diversity and character to the pool deck. As far the color is concerned, keep in mind that the darker the color the hotter the deck will get during the summer season.

Chapter Five: Pool Options

Buying a pool is no different than buying a house or car in that you have many options to choose from. I'll cover the most common ones in this chapter.

Option 1: Color (0-3k)

In the past, your only color with fiberglass pools was white. Because of this lack of selection, along with the aforementioned decking issue, fiberglass pools were labeled "ugly" and "bathtub" looking. Frankly, based on many of the pictures I've seen, there are still quite a few of these ugly looking pools going in today. Luckily though, many manufacturers and installers are actually realizing the potential of fiberglass, and focus is on installing beautiful pools with "custom" features.

Let me say here that I almost always recommend colored pools. Adding color to the surface of the fiberglass not only adds quite a bit to the pool's appearance, but it also serves a functional purpose. White pools tend to show everything (dirt, debris, leaves, etc.). Also, white pools, just as you would find if you owned a white concrete pool, tend to have discoloration issues over time. Typically the discoloration comes in the form of some type of brown spotting or streaks. The stains can usually be removed, but they are a pain nonetheless. (If you do go with a white pool though, waterline tile is a must.)

There are two disadvantages to colored pools. Some manufacturers charge more for color than they do for plain white. Also, if a colored pool ever develops a crack and has to be repaired, it can be very hard to make the repair match. It is rare that a fiberglass pool will crack and have to be repaired down the road, but you should be aware of this possibility.

Bottom Line: **GET COLOR!**

Option 2: Tile (1-3k)

There are many places to put tile on your fiberglass pool. The most prominent is along the waterline, or perimeter tile. This is actual ceramic tile that is overlaid onto the fiberglass.

The main benefit of tile is its aesthetic appearance. It can accent the waterline very nicely and make the perfect transition between pool and deck. It also helps keep the waterline clean, but I don't feel like this is that big of a factor unlike on a concrete pool, where perimeter tile makes quite a difference on the waterline.

1. The drawback to tile is as follows:
2. It ain't cheap
3. Its grout lines do get a little dirty although I wouldn't say this is very noticeable.
4. Eventually tile will come off. Its lifespan is between 8-14 years on average.

Here are some general rules of thumb:

- If you are leaning towards white or light blue finish on your pool, I always recommend tile.
- If you go with a sand colored pool and are striving for a natural look, I recommend against tile. (Tile does not say “natural”.)
- If you go with a dark finish, something like a charcoal or a dark blue for your pool surface, I recommend against tile.

Inlay Step Tile (variable pricing)

Many companies are now offering inlayed tiles in seats and steps. These tiles are flush with the pool floor, and do not protrude up as to stub a toe. There are two main styles of these tiles. The first is 1”squares that are connected. These tiles delineate the steps nicely and also serve a functional purpose in that they make it easier for pool users to see the placement of the steps as they enter the pool. The other common method of installing inlay step tile is to place 2” diamonds every six inches or so on each step.

My recommendation is that blue and white pools always look better with inlay tiles in the steps. Sand and charcoal colored pools oftentimes look better without. Curved pools tend to look better with the 1” connected tiles and strait wall pools, like rectangles and roman-ends, tend to look better with 2” diamonds in the steps and seats.

Mosaic Tiles (variable pricing)

Mosaic Tile options have exploded over the past five years. It’s not uncommon now to see such animals as fish, dolphins, and turtles inlayed into the floors of swimming pools. Personally, I am a big fan of mosaics and see no drawback to them if you want them, although they can get pretty expensive. One thing you must remember when choosing inlays--make sure the color of the inlay is not the same color of the pool surface; otherwise there is a good chance they won’t show very well.

Pool Lighting

There are different options available to light your swimming pool.

Fiber Optics (\$800-\$2000 per light)

Fiber Optic lighting has become more and more prevalent in the past five years. Because there is absolutely no electricity used underneath the water line with these lights, they are very safe (although most other lights are also safe). Although fiber optic lights are pretty, their biggest problem is that they are very weak. For example, any pool over 25” in length should have two lights on one end (these lights can be connected to the same box). Without two, the lighting will be dull. And if the pool is more than 35” in length, then there needs to be 2 lights on both ends. As you can imagine, this can get very costly.

Low Voltage Lighting (\$400-1000 per light)

Another option is a regular 12volt light. These lights have just recently become very prevalent and are my preferred choice in pool lighting. They are safe because they're low voltage, and they do an excellent job with illumination. Just one light is sufficient for most pools, although I would recommend 2 lights (one on each end) for pools over 34" in length. 12volt lights are also about half the price of fiber optic lights, sometimes even more than half.

As whether to choose colored lighting or white lighting, I'd suggest always getting a colored light if the pool color is white, as the colors show very well against a white surface. With colored pool surfaces, I'd suggest just going with a white light, mainly because colored lights, reflecting off of a colored surface, don't show very well.

Perimeter Fiber Optics (1-3K)

Perimeter Fiber Optics consist of a fiber optic strand that follows the contour of the pool. At night, these lights are dazzling and do a great job in bringing out the shape of the pool. Keep in mind though, perimeter fiber optics are not meant to illuminate the water. They simply highlight the pool; notwithstanding, they do look great, as well they should, considering their price tag.

Cascades and Water Features:

I am a big fan of water features in swimming pools. The problem that some people have with water features is that they try to achieve a masterpiece of beauty and it comes out looking really cheesy.

For example, I get lots of requests for "natural" looking waterfalls. The problem with this is unless your back yard is full of rocks and boulders; there shouldn't be rocks and boulders, with water spewing from them, next to your pool. It will look out of place. To properly install a natural looking waterfall from rocks, you need to be prepared to invest in that same look throughout your backyard.

Remember, you don't want natural waterfalls and rocks to look as if they just fell from the sky and landed on your pool patio.

This is why I often recommend to customers they consider a cascade that *doesn't* look natural. For example, placing a simple 18" cascade in the coping does a wonderful job in providing a tranquil noise and creating a relaxing look. And, when you turn it off, it doesn't stick out like a sore thumb.

There are many types of cascades, most of which look great and make a wonderful addition to your backyard experience, just be careful, if you think it's going to look cheesy, then don't do it.

Inground Hot Tubs (8-20k)

Inground Hot Tubs have one main advantage over above ground hot tubs: They look nice, and that's it.

I talk to many customers that think they want an inground spa. My first question is "Why?" I've listed here the features of each type of spa. You can decide which is best for you.

Above Ground Hot Tubs (3-10k)

- Are in most cases less than half the cost of an inground spa
- Have ergonomic seating to fit people of all heights (husbands *and* wives)
- Typically have 30-70 jets
- Can be placed very close to the house (This factor is very important. Proximity of a hot tub to the house will dictate how much the spa gets used. This is because in colder climates, people don't typically want to walk across a freezing concrete patio in order to get into the hot tub when it's 30 degrees [or less] outside.) (Also, inground units can be placed close to the house, but in most cases, are located next to the pool and therefore are at least 20" away.)
- Cost around 20-30\$ per month to run
- Require less maintenance than an inground unit
- Parts and Labor warranties usually are 3-5 years
- Are always kept on one temperature and do not need to be preheated
- Utilize cover lifters (This is very important because spa covers are very heavy, and when one person wants to use the tub, it can be very hard to take off the cover. Above ground units have an attached bar that uses a lever system, thus allowing anyone (even an elderly lady) to remove the cover. Typically, two people are needed to remove an inground spa cover.)

Inground Hot Tubs

- Very expensive when built properly
- Bench seating (one depth fits all)
- 5-15 Jets
- Are usually placed near the pool, far from the entrance to the house
- Cost more than \$30 per month to run
- High in maintenance
- 1 year warranty parts and labor (normally)
- Typically must be preheated Do not have a cover lift option

You can see there are many reasons to choose an above ground tub over an inground tub, but the main reason is because studies have shown that homeowners tend to use inground units much less. In fact, I've had many customers tell me that if they could go back and do it again, they would choose an above ground unit instead of an inground.

Cleaning Systems

There are multiple ways to vacuum your swimming pool.

Manual Vacuums:

Typically, every standard pool package comes with some type of manual vacuum. A manual vacuum is one that connects to a telescopic pole and the suction line consists of a long vacuum hose attached to the skimmer. Based on my extensive experience in this area, the best type of manual vacuum to own is one that has rollers. This is usually considered a "concrete pool manual vacuum" because its rollers are not meant for vinyl-lined pools, as they could potentially puncture the material. These types of vacuum heads are normally shaped like a rectangle, unlike the vinyl liner vacuum heads which are typically triangle-shaped and have brushes instead of rollers connected to the head.

My swimming pool is a 16"x38" rectangle and it takes 15-20 minutes to vacuum the entire pool, start to finish. I do this once a week. This is average for most fiberglass pool owners.

Automatic Vacuums:

The number of automatic vacuums available on the market has increased exponentially just in the last five years. Where there were once only about 3 or 4 options, now there are about 50. Automatic vacuums range in price from about \$400-\$2500, and vary in their effectiveness as well. The three main types of automatic vacuums are suction-side, pressure-side, and electric.

1. **Suction-side** vacuums are usually the cheapest and least effective of the three options. They are called suction side because they connect to the skimmer. Their typical price range is \$400-\$800, and they do a very average vacuum job, covering about 60-70% of the pool's floor on average. Suction-side vacuums should not be left in the pool for extended periods of time, as they prevent the skimmer from being able to "skim" while the vacuum is in use. Also, one of the biggest problems with suction side vacuums is their propensity to get stuck in different areas of the pool and their inability (with most styles) to clean the pool's walls.

2. **Pressure-side** vacuums are currently the most prominent vacuum style on the market today. They utilize the water pressure from a return in the pool, which allows the skimmer to continue to work during the vacuuming process. Although pressure-side vacuums do a solid job with coverage (walls, steps, and floors), they are not quite as good as a suction vacuum in their ability to vacuum *and* scrub the pool's floor. „Polaris“ is the well known name in the automatic vacuum industry, and they specialize in pressurized cleaners. Most of these vacuums range in the \$500-\$2500 range.

3. **Electric** vacuums have just come out prominently in the last five years. These vacuums are not dependent on any other pump for their movement, and all of their parts are self-contained. They do a better than average job with pool coverage and also scrub the floor as they go. Most of these vacuums are in the \$1000-\$2500 range.

In-Floor Cleaning Systems

In-Floor cleaning systems consist of multiple "heads" that are placed throughout a pool's floor and pop up periodically. These heads have water shooting out of them at a fast rate, causing the debris on the pool's floor to move to the drains in the bottom of the deep end, and then finally get sucked back to the filter system. In-floor systems certainly do lessen the amount of vacuuming a pool owner has to do, but

based on my experiences with these systems, they do have a propensity to have mechanical problems/failure at a quick rate.

Depending on the installer, the systems are available from \$2500-\$8000 on average. Although I am not highly opinionated on in-floor systems, I do have reservations about putting an extra dozen or so holes in any pool floor, as there are always potential problems down the road with such a system.

Chapter Six: Salt Chlorine Generators

I really should just keep this chapter short and say one sentence:

You are nuts if you don't get a salt-chlorine generator!

But you paid for this e-book, and so I'll delve into this wonderful technology a little more thoroughly.

Scientifically speaking, salt chlorine generators convert sodium chloride (salt) into regular chlorine (chlorine) through a process of electrolysis. There are **MANY** advantages to this wonderful technology.

1. You have no need to buy any type of chlorine. (This saves money, trips to the pool store and eliminates the handling, or should I say the mishandling, of man-made chlorine.)
2. You do not need to shock the pool. (Regular chlorine users typically shock their pool once every week or biweekly. When shocking occurs, there can be no swimming for the next 8-12 hours. Shocking is also necessary after storms and harsh weather.)
3. There are no chloramines as a byproduct to salt systems, which helps eliminate watery eye issues as well as strong chlorine odors. (My kids can swim all day without goggles and I never hear a complaint.)
4. You don't have to have a pool-babysitter when you go on vacation.
5. You need not check the chlorine levels every day.
6. It is highly unlikely you'll ever get algae because of the consistency in the chlorine levels.
7. Salt systems are extremely easy to use.
8. The water is soft and smooth. (Because the salt level in a swimming pool is about 3000 ppm, unlike the ocean where it is about 30,000 ppm, it does not leave a flaky residue, have a strong taste, or bother the eyes.)
9. Your chlorine levels will remain extremely consistent.
10. Your pH and alkalinity levels are not affected by salt water systems nearly as much as they are by regular chlorine systems

You can see that there are multiple advantages to using a salt-water system. In the past 2 years, my company has installed over 250 salt water systems for our various customers. Out of ALL of these

customers, I have not had one person say they were disappointed with the product. Also, many of these customers had been using regular chlorine or Baquacil for years. These are the customers that have raved the most about the difference it has made in their swimming pool enjoyment. There are very few negatives to mention about salt water systems, but I'll go ahead and point out what I have found.

1. There have been studies that have shown salt chlorine to be more abrasive (5x more in fact) than regular chlorine on concrete/plaster surfaces. This means that someone with a concrete pool with salt water will likely have to replaster their pool at a sooner date than they would have with the use of regular chlorine. Salt does not affect fiberglass pool surfaces.
2. Pump seals, which are inexpensive and relatively easy to replace, tend to wear down quicker on salt water pools.
3. On extensive waterfalls and water features, salt can crystallize and harden where there is splash out. This crystallization has to be scraped off for removal.
4. Limestone decking around salt water pools is at risk to structural damage. Because certain types of limestone are porous, the salt enters the pores (this occurs when the water splashes out of the pool and dries), crystallizes, and then expands which causes the limestone to flake off and break apart.
5. Somewhere between years 4 and 10 the "cell" of the system will go out and need to be replaced, which will cost around \$500.

As you can see, the advantages of using salt far outweigh the advantages of not using the product. If a pool builder recommends against using salt in your pool it is likely due to one of two reasons.

1. The builder has a retail store and he knows that if you get a salt water system you will practically never have to go to his store to get your water tested. This hurts his residual chemical sales, which is more important to him than you having a low-maintenance pool with crystal clear water.
2. The builder is living in the stone ages and has not yet entered the 21st century. This same builder probably doesn't even have a personal email account.

To close this chapter, I just want to say that I love salt water, my wife loves salt water, my kids love salt water, my customers love salt water, and.....

.....**You will love salt water!**

Chapter Seven: Pool Covers

Most pool packages come with at least a standard cover, although the majority of pool owners will end up with a security or auto-cover for their long term needs. In this chapter I've tried to give you a feel for the good, bad, and ugly aspects of each type of pool cover, therefore allowing you to make an informed decision based on your individual needs. No matter what type of pool you choose, you will likely need a cover for the off-season.

Standard Winter Cover: Price Range \$75-\$225

The Good:

This cover does a nice job of keeping out sunlight as well as other debris.

The Bad:

Standard covers are made of a "tarp" like material and are held down with water bags. This material only lasts 1-3 seasons before it has to be replaced. One of the other main drawbacks of this type of cover is the fact that it holds very little weight. In other words, if a dog, animal, or person attempts to walk on the cover they will get very wet. Standard covers also require a pump, which means that one must be vigilant throughout the off-season as to ensure too much water does not build up on the top, causing the cover to cave in.

The Ugly:

Other than the fact that their longevity is so poor, standard winters cover can be hard to look at for seven months out of the year. Simply put, these covers are just flat out ugly.

Security Cover: Price Range \$1000-\$3000

The Good:

About 90% of my customers utilize a security cover. These covers have somewhat of a trampoline appearance, with spring-loaded straps connected to the cover, and anchored into the concrete, to hold it in place. There are two main types of security covers. The first is made of a mesh material. This cover is very effective in keeping leaves and debris out, and can also support a great amount of weight, including heavy snow loads. Because it is mesh, no pump is required on top (the rain water just passes through), and so once it is on for the off-season, there is typically no additional upkeep to worry about. These covers normally last between 10 and 15 years. The other type of security cover consists of a solid vinyl material. The main benefit of a "solid" security cover is that does not allow any water to pass through, which means the water should still be clear in the spring come opening season. Solid security covers normally last between 6 and 10 years, as their material does not have the same longevity as a mesh cover.

The Bad:

The main drawback that some find with mesh security covers is that they allow water to pass through, which means the pool water can be very dirty when it comes time to open it in the spring. This cloudy/murky water is usually clear within 2-5 days of opening, but it does take some work getting it back to normal. This is especially true in yards with a ton of trees and leaves. Because leaves are so acidic, they cause the pool water to get extremely nasty as they rest on the cover all winter long. In a case like mine where I have very few leaves to worry about in my yard, my pool water is rather clear during spring opening season. On the flip side of this discussion, solid covers, although they allow for a

much prettier opening, require a pump on top (which have to be adjusted periodically throughout the off-season). These cover pumps, because of the wear and tear of the cold months, usually only last 2-4 years before they quit working, and their replacement cost is around \$225. And as I mentioned, solid covers also do not last nearly as long as mesh covers.

The Ugly:

Based on my experience, I really can't classify any of the drawbacks of security covers as "ugly".

Automatic Covers: Price Range \$5000-\$15,000+

The Good:

Automatic covers come in many forms, and this is the reason for their broad price range. Their two biggest benefits are the fact that they are wonderful solar covers and they offer constant protection against unwanted guests/swimmers. They also help keep leaves and debris out of the pool during the season, potentially cutting down on time spent cleaning/maintaining the pool.

The Bad:

Auto covers are made of a vinyl material that typically wears out after five years or so. The cost of replacing this material is quite expensive (2-4k), and considering their initial cost, can be quite frustrating for homeowners. Another problem with these covers that many people don't realize is that because they are such good solar covers, sometimes they can heat the water *too* much. This especially occurs during the months of July and August when most pool owners do not want their pool water to be any warmer. I have seen cases where auto covers will cause the water to get over 95 degrees, which feels like taking a bath at that point and is not very refreshing at all. This at times can lead to the question of, "Do we keep our cover on and melt or do we leave the cover off and not have the benefits we bought it for in the first place?"

I also want to mention here that although auto-covers do keep leaves from entering the pool, the leaves will still fall on the cover. Mixed with rain, these same leaves can stick to the cover and do not come off easily. I've even talked to some pool owners that after having had an auto-cover say that it is just as much work (due to said leaf issues) with an auto-cover than without.

The Ugly:

The biggest problem with auto-covers is their propensity to break down. With so many components (motor, ropes/pulleys, vinyl, aluminum track, etc.), there are many parts that can break down. I have found that after about 3 years, auto covers break down quite often. This can be very frustrating, especially if the cover breaks and cannot be taken off the pool--which means no one swims on that day. I have seen this occur many times and it's never a pleasant experience. The other big problem with auto-covers is the fact that they are not "true" winter covers. Although they are rated to hold about 2,000 lbs, a heavy snow load can cause these covers to cave-in. In some cases, it is necessary for homeowners to

open their cover before a major snow storm as to eliminate the potential of any cave-ins from happening.

One other note about auto covers. There are many different types of auto covers, with diverse methods of installation based on the type of pool. Because these covers utilize a track system, the tracks must go on top of the pool deck with non-rectangle pools. On rectangular pools, they are placed underneath the coping edge and therefore are not visible. With the tracks mounted on top of the deck on free form pools, the result is an ugly mix of curved pool and straight track. This not only ugly and deters from the beauty of the pool's shape, but also can be a tripping hazard, as the track typically protrudes from the deck about 1/3".

Chapter 8: Pool Heaters

There are multiple options you have to heat your swimming pool, and this chapter will discuss each of these methods.

Propane/Natural Gas Heater: (\$1500-\$3000)

The Good:

Propane/NG heaters are very powerful. They've been around for a long time in the swimming pool industry and can certainly extend a swim season. Depending on your geographic location, they can add an additional 2-3 months (and possibly more if you're willing to pay the gas bill) of swimming. Their initial cost is much lower than that of a heat pump.

The Bad:

With the cost of gas and oil going through the roof recently, you can imagine the potential cost of heavy heater usage. For example, where I live in Virginia, if a pool owner uses a propane/NG heater for a solid month, they may have a bill in excess of \$500. OUCH! This is why many people that get a propane/NG heater will only use their heater sparingly after they get their first bill. In my opinion, a pool heater should be used without fear of high gas bills, and this is also why I rarely recommend to customers they go the propane/NG route. The only time I recommend this type of heater is either for an inground hot tub or when someone owns a vacation/weekend home. Propane/NG heaters are good in this type of application when a person, for example, arrives at their weekend home on a Friday night, turns on the heater to have the pool ready by Saturday, and then leaves on Sunday.

Heat Pump: (\$3500-\$7000)

The Good:

Heat Pumps have just become very popular in the pool industry in the last few years. Instead of using gas or propane, they efficiently use electricity. A month's usage with a heat pump will cost most pool owners less than \$100, which makes the actual cost of a heat pump much less than a propane/NG heater over the course of the pool's lifetime. Because of their efficiency, heat pump owners leave their

units on throughout the season, setting a desired pool temperature and just leaving it there. This allows the heat pump to almost act as a true temperature thermostat for your swimming pool.

Maybe one of the best features of heat pumps is their ability to cool the water as well. This option does cost additional but it is well worth it in certain applications. Even in Virginia where I am located, heat pumps with coolers are very beneficial for many pool owners 2-3 weeks out of the years. There is nothing worse than having a wonderful swimming pool that can't be used during the hottest periods of the year. When the ambient temperature outside hovers around 100 degrees for a few straight days, pool water will get in the 90s, which is almost like taking a bath, and not refreshing at all. This is why I'm such a proponent of heat pumps with coolers or "chillers" as they're sometimes called for anyone located in warmer regions.

The Bad:

Heat Pumps don't have nearly the power of a propane/NG heater. This means they take longer to heat the water up initially. They are also very expensive in upfront costs. Not only do they cost about \$2000 more (on average) than a propane/NG heater, but the electrical start up costs are also an additional \$500-\$1000. Another drawback of heat pumps is their inability to work when the ambient temperature is in the 50s or less. This means that in the spring or fall when the temperature drops down (especially at night) into the 50s, the units will shut down because there isn't enough heat to extract from the air.

Solar Heat: (cover \$75-\$200) (reel \$200-\$600)

The most common type of solar heating is with a solar blanket. These blankets have the appearance of bubble wrap and float on the water's surface. On the average pool they will help raise the water's temperature 4-8 degrees. They also work very well in conjunction with natural gas and propane heaters because they do a very good job in retaining the heat that is in the water, therefore cutting down significantly on the amount of gas used.

The main drawback to solar blankets is that they are quite unsightly and bulky. This is why they are almost worthless without a reel. In fact, I won't even sell one to a customer unless they are getting a reel with it. By utilizing a reel, one person can take the solar cover on and off quickly. Reels also help keep the covers free of debris. The other issue with solar covers is the fact that they do not last very long at all. Their typical life span is 1-3 years of usage.

Chapter Nine: More Questions and Answers

What type of filter should I use?

I always recommend a cartridge filter for fiberglass pool owners. The advantages of a cartridge filter are:

- It catches smaller particles than a sand filter.
- Cartridges do not need to be backwashed (unlike a sand filter) which means if you ever have a drought you are not wasting hundreds of gallons of water in your yard.

- It is very easy to clean a cartridge. This is done with a simple high-pressure water hose and is typically necessary every 4-6 weeks during the season
- The cartridge is replaced once every year or two, depending on its use. This replacement is very simple and takes only a few minutes (unlike replacing the sand in a sand filter which is somewhat difficult and time consuming).

D.E. is another type of filter media that is available, and it actually has a better filtration efficiency than does a cartridge unit. The reason why I prefer a cartridge system over a D.E. system is simply because a D.E. system requires more maintenance, has to be backwashed, and involves the handling of D.E. powder, which is somewhat dangerous when handled improperly.

Should the pool be backfilled with sand or gravel?

This question is one of much debate amongst builders in the fiberglass industry, but considering my company did our first 300 pools with sand, and then our last 300 with gravel, I'm pretty opinionated on the subject. Gravel is clearly a superior product for your pool's base because it is already about 99% compacted when it goes down. This fact greatly eliminates any potential settling that can occur once the pool has been filled with water. Even though installers wet and tamp sand when it acts as the base, there are still going to be, at times, air pockets which cause a pool to be out of level. Obviously, this is not a good thing. Also, sand can tend to "wash-out" when it gets too saturated. Again, this can cause voids in the backfill and base areas. Gravel, on the other hand, does not have wash-out issues. The type of gravel that our company recommends is called #68 or 3/4" stone.

Should my pool have a French drain?

A French drain consists of an 8" pipe placed just beyond the deepest point of the pool (this is usually just beyond the pool's deep-end) and is lowered in the ground vertically on a gravel base. Its purpose is to allow for the pumping of water out of the excavated area underneath and around the pool by way of a submersible pump being dropped to the bottom of said pipe. The reason why this is important is because fiberglass pools have the potential to float or pop out of the ground before the concrete deck has been poured (cantilevered). For example, if the pool has been installed (less decking) and a huge rain storm hits, the rain water can cause the pool at this point to float, even if the pool is full of water. Also, if the pool ever has to be repaired, it is necessary for the area on the other side of the repair to remain dry so as to make a proper fix. Although repairs in the structure are uncommon, this is still a good precaution and highly recommended.

All of the pools my company installs come with a French drain system. I would strongly suggest that you require your builder to install one as well if it does not come as part of the standard installation package.

Well, there you have it...and hopefully you've had as much fun as I have! I truly wish you the best of luck and all your backyard dreams become a reality!