

THE COMPLETE GUIDE TO BUILDING YOUR HOME IN COSTA RICA

Part two

Avoid the pitfalls of building a home away from home

SARGO ARCHITECTS COSTA RICA

Apartado 2098-2050
San Jose, Montes de Oca, San Pedro
11501-2050, Costa Rica
Tel. +506.2283.4107
www.sarcoarchitects.com

Welcome.

I prepared this guide after seeing so many people struggle with understanding the process for building your home in Costa Rica. Building a residence abroad can seem like a complex and frightening roadblock for those who haven't been through it before.

You may be wondering: Will my project get approved? What preparation do I need to take in order to not end up as some of the horror stories around? How much time will the house take? What do I need to do to make sure my project gets approved in the shortest amount of time possible? And most importantly: what are the key, critical steps I need to take to ensure that my entire project is a success?

In the following pages, you will discover the answers to these questions – and more.

I have divided this Guide into two parts, for easier reading.

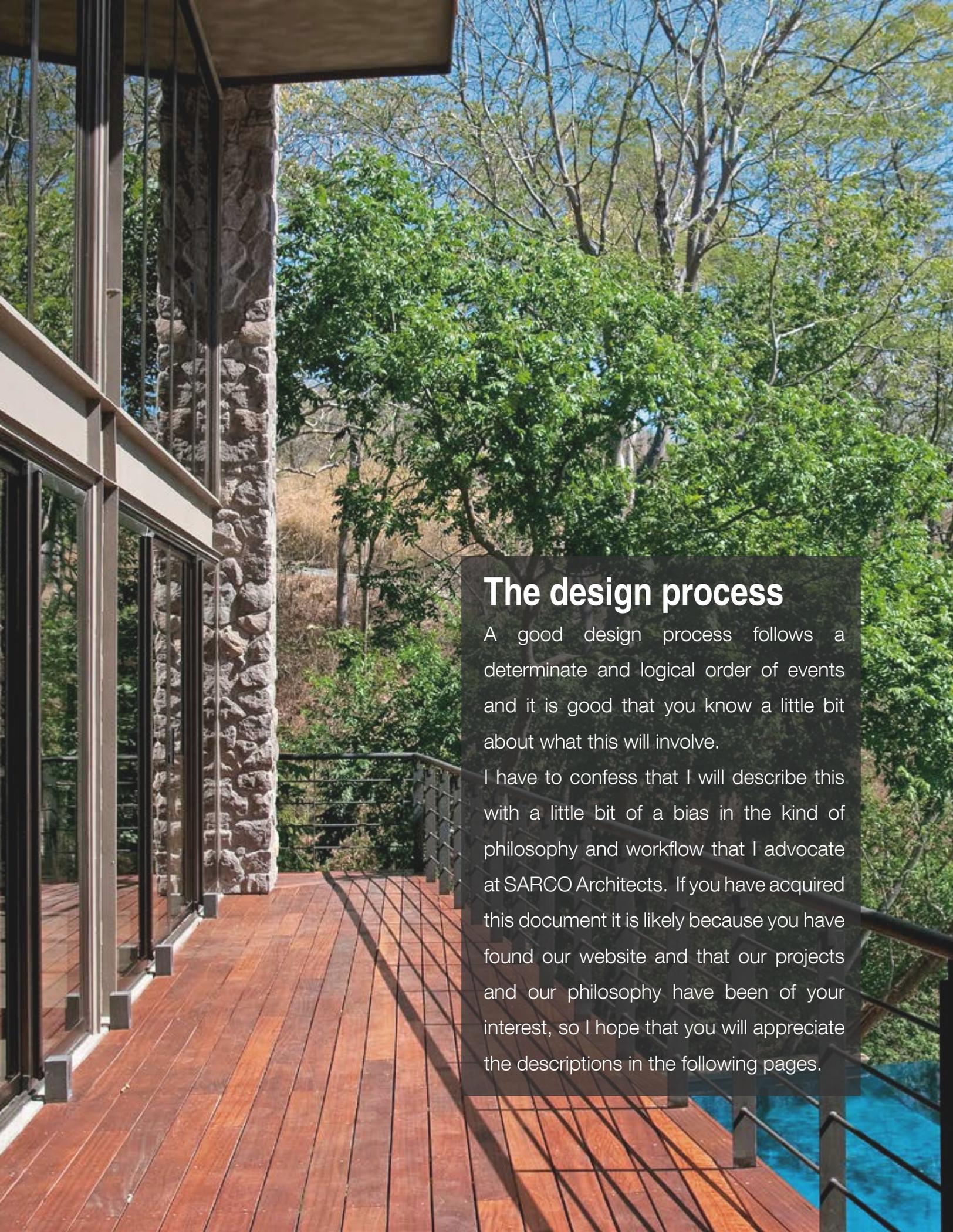
Part One will give you insight on the things you need to take into account about owning property in Costa Rica and about hiring the right architect for your home. **Part Two** will tell you about putting together a design brief, the Design Process, tips for selecting your builder, and about the permits process. I hope you enjoy this guide and look forward to your feedback on the contents.

Sincerely yours,

Roderick Anderson, Intl. Assoc. AIA

Firm Principal

SARCO Architects Costa Rica



The design process

A good design process follows a determinate and logical order of events and it is good that you know a little bit about what this will involve.

I have to confess that I will describe this with a little bit of a bias in the kind of philosophy and workflow that I advocate at SARCO Architects. If you have acquired this document it is likely because you have found our website and that our projects and our philosophy have been of your interest, so I hope that you will appreciate the descriptions in the following pages.

The Design Brief

I recommend that you take the time and write down in black and white what is known as a “design brief”. This is a short document where you, the owner provide the architect with a guiding document for the project. Do not think as the design brief as the list of rooms for the house, since it is entirely the opposite.

The design brief should be the document that provides the answers to a set of key important questions that will determine the project. A good design brief can sometimes be the key to the success of the project.

It is far too common that clients who have made the decision to build a home have so many ideas in their head, so many things they see that they think they like, that they do not realise they may have contradicting information, and channeling this contradicting information may end up simply creating confusion and lack of direction for the project.

A Design Brief should answer questions such as, “Who are we, what is our family makeup, and who will use this home?”; “How will we use the home, is this a permanent residence, a vacation home, etc.?”; “What is our lifestyle, will we have friends (guests) or family to join us at the house?”; “Do we have any particular needs or intentions for the home?”; “Do we have a particular attachment and philosophy towards issues such as environmental responsibility and energy efficiency?”.

What is important here is that the simple process of writing the short document, will provide clarity for you, the owner, and will allow you to prioritise and make some preliminary choices that maybe you did not even realise you needed to make. Once you have this, then you can complement the design brief with a listing of rooms, and features of how you would like these rooms to relate between them, etc. Include information related to your initial budget, since that is an essential part of your goals. That will allow your designer to either work from there, or to tell you that your budget is unrealistic for the type and scope of project that you have described.



Starting with a Good Topographical Survey

This is the first step of allowing your design professional the tools needed to work with the optimal information for a properly developed and fully analysed design. Getting a good topographical map with the correct information and with good accuracy is key for a good final result.

Unfortunately I have seen so many times clients who have hired a survey that, when I get it, I have to go through the uncomfortable situation of telling them that it is useless and we need to get a new one done. More times than not this happens when the client has asked a realtor for a reference of a surveyor. A realtor does not really have the knowledge needed to tell a good topographical map from a bad one, since they don't know what information is needed by an architect. Let the architect recommend the surveyor for you.

Also keep in mind that even if a property may “look flat” it never really is. It is always important to fully understand what the land is doing so that the design team (architect and later engineers) know what should go where. Imagine if you end up putting the wastewater system on a high point of the land, just because you did not know where was the low point ! Now you have sewage backing up !

Personally the scope of information that I expect on a good topographical survey is the following:

- Clearly marked boundary lines and any indication of mismatch with the Plano Catastrado (if any).
- Contour lines at 0.50m intervals, and at 0.25m intervals on properties with low slopes (you need higher level of detail when the land slopes less).
- Location of any hookup points of services into the property. You want to know where your water is, where your sewage goes out (if connecting to a community treatment plant), where your rainwater is supposed to go, etc.
- Location and information of any and all trees on the property. This is one of the tell-tales of a bad survey. Sloppy surveyors will simply put a standard symbol of a tree on the map without any information. A good surveyor will indicate where the trunk of the tree is, the size of the outline of the tree canopy, the tree height and the species. Each tree should be numbered on the map, and also a corresponding numbered tag left on site on the tree, so that when I (the architect) walk the property with this survey map in hand, I can read which tree is which and start visualizing what I can do.



The Architectural Design

This is the stage of the project where your architect will interpret and combine all the information given to him/her, with the conditions of the site and whatever project constraints may exist and create an initial proposal for the design of your home.

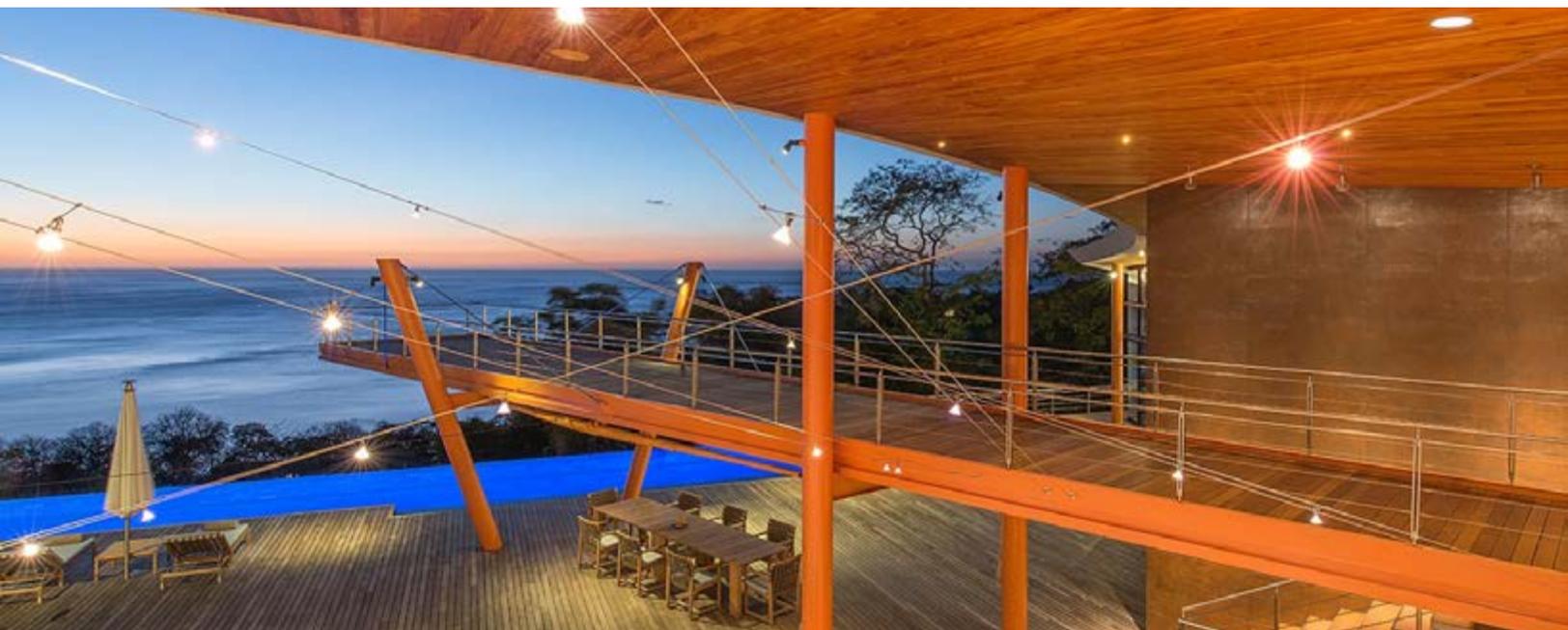
A lot of people may be familiar with the “older style” of workflow that architects used for many years, and then expect the architect to come up with a “quick and easy floor plan” to start the design, and then expect some elevations drawn up and eventually maybe a rendering.

Today, in modern architectural firms the workflow is entirely different, directed not only by the tools that used, but by the parameters and philosophy behind the designs. The workflow is based on the creation of a 3D model of the design, and this 3D model will have a great much more information than a mere floor plan. What you need to realise is that the amount of work and time put into creating this 3D model, is far greater than the amount of time in creating a mere floor plan.

The gains by working on a 3D model are endless, and it is not the intent of this guide to go into

this topic in detail, but simply know to allow your architect the space and time needed to create this design. The first time that you are able to see this 3D model and be able to virtually walk around and explore this design, you will be glad that you did. Today, a design is much more than a floor plan and a rendering. Move away from that, and you will see that a design is a complete and integrated living being!

The model will evolve over time, based on your input and feedback, just as any design does. You need to be aware that the project will follow a defined workflow that takes it from the initial design through the next stage, which goes into the technical, engineering and detailing. At this stage your role is to review and give the feedback needed so that your architect can adjust and tweak this design into a final architectural design that you will approve to take into the next stage.



BIM (Building Information Modeling)

BIM is the new standard worldwide for excellence in software technology for the architecture and engineering industries. There are huge differences between the old-world CAD that everybody seems to know (and that still around 85-90% of the firms use CAD for the production of their construction documents).

For architecture firms, making the switch to BIM is like changing religion ! But once they do, they can offer their clients an experience in the design and construction that is completely different, immersive, and even interactive. The client know can fully experience and understand the design, and the drawings produced will be true to the design, and with a level of precision that was unlikely in CAD.

But still you need to ask the the right questions, to make sure your project will benefit from the technology:

- How many projects has the firm designed and then were built, where the firm used BIM?
- How many years of experience does the firm have using BIM software?
- For what parts of the process does the firm use BIM?
- Does the firm use 2D CAD software for any part of the process, and if so, which part?

How many projects has the firm designed and then were built, where the firm used BIM?

How many years of experience does the firm have using BIM software?

For what parts of the process does the firm use BIM?

Does the firm use 2D CAD software for any part of the process, and if so, which part?

For many firms, they are still under transition, and in a pinch because the older, experienced architects don't know the technology, and the younger architects that may know a little about it have little or no experience in the industry. Look for a firm that has established experience in this regard.

Working with a firm that is well established and experienced in the use of BIM will give you great rewards, especially when managing a project from another country. Having the ability to fully understand and visualise your design without needing to travel for meetings, etc., is not only an advantage but also significant savings for you, the owner !



Construction Documents (Building Plans)

This next stage into the project is where the design gets further detailed and developed into a detailed set of construction drawings which allow the project to be built. In this next stage, your architect should be leader and general coordinator of a team of engineers and designers that will collaborate together on the project.

Give that several teams will be working on sections of a set of documentation for the project, it is very important that this process starts from a consistent first set of issue drawings to the different teams. This will allow the group to do their work efficiently and with an eye for overall quality and consistency.

Therefore it is quite important, that you, the client sign off on the architectural design and then stick to it. If after the construction documents work is started you make large changes to the design, meaning moving rooms around or adding or taking away parts of the design, you will bring in an element of inconsistency into the project and be setting the process back. The architect will need to make these changes and then re-issue updated sets to the engineering teams. By doing so, you will not only inherently be delaying your project, but also cause your design team to have to charge you extra fees for the time put into having to make changes and be going back to square one. Also, this opens the door to having coordination errors between disciplines, caused by the changes requested, and this can be carried over to the construction. Also, know that it is equally troublesome to make few and huge changes, as to make many small changes. Keeping a track of those changes back and forth is not only difficult, but will end up even confusing the best of architects.



New 2103 Electrical Code

You should be aware that in early 2013 there was a new electrical code that was passed, and with it a lot of new requirements and standards that may sound basic but that were previously not part of the local practice.

There are many changes, but for the purposes of building a home, a quick listing of the essential changes are the following:

- Absolutely all electrical material used in construction must now be UL-Certified
- All circuit breakers used must now be GFCI (Ground Fault Circuit Interrupt) type

- All power plugs used must also be GFCI type
- Before, anybody could put wires together without any real verification of training or certification. Now there must be an Electrical Engineer to take legal responsibility on the execution of the installation. This means the job can no longer be in the hands of an electrician, but must be under the guidance
- of a contractor who has an engineer to register himself as legally liable for the installation.

Independently of the previous point, there must be a separate electrical engineer in charge of routine on-site inspections, and this engineer must provide at the end of the project a legally-binding sworn affidavit that the entire project has been executed as per the new Electrical Code and entirely up to the accepted practices of quality in materials and workmanship.



When to bring in the Builder

When the plans are completed by the architect, and you want the project submitted for approvals and to obtain permits, you should have already selected a builder.

The simple reason for this is that on the plans, there are two names that will be registered with the architects and engineers guild (CFIA) which is the first step of approvals: The name and registration number of the professional liable for the DESIGN, and the name and registration number of the professional liable for the CONSTRUCTION (This will be the registered architect or engineer in representation of the builder).

If you want to have a process of bids from builders to select the one you want to work with, then when the plans are completed they can be issued by the architectural firm to the potential builders, and then from their bids select the one that is the best fit for the project.



**Preparing
for the
Construction**

Environmental Permits

Every project in Costa Rica will require to have what is referred to as the “Viabilidad Ambiental”, or Environmental Permit. There are two types of environmental permits, referred to as either a D-2 or a D-1 Environmental Permit. These are determined on several factors, but in the case of homes, a D-2 will be required for homes between 300 and up to 1,000 square meters in construction size, and a D-1 for homes over 1,000 square meters in construction size, or homes of any size if the property is located on the before mentioned 150-meter maritime zone.

The differences between them is that a D-1 report will be a much deeper and more comprehensive report than a D-2 report, and that will require more work done by several different disciplines as part of the submission report.

You will need to hire an environmental consultant in order to handle the report preparation, submission, and subsequent follow-up and approval by the SETENA (Environmental Authority). Upon issue of the “Viabilidad Ambiental”, the SETENA will decide if they request the project to issue an environmental warranty deposit and if they request routine environmental reagency inspections.

There are a multitude of environmental consulting firms, most of the multidisciplinary in nature. I recommend choosing an environmental consultant with a mixture of professionals in the civil engineering, geology, hydrogeology, forestry and soil engineering trades. For the purpose of residences, I find no need for consulting firms with attorneys in the mix of the “environmental consultants”, since they bring no real technical advantages into the mix.

Tree cutting

You are required by law to obtain a tree cutting permit in order to cut any trees on your property as needed to build the home. Trees are those that will have a minimum of 15cm in trunk diameter (or above) at your chest height. It is considered a crime to cut down trees without the proper permits.

The tree cutting permit submission is prepared by a duly registered forestry engineer (I recommend bundling this with the consultants who will handle your environmental application), who will go to the property and prepare a GPS-based tree inventory of the entire property and then indicate on said inventory which exact trees are intended to be cut. You will be able to request permit to cut trees as required to build the home, but not for other purposes such as the opening up of views, etc. You can trim trees but not cut them for this purpose.

The process of getting the tree cutting permit needs to be timed correctly, as this is handled independently of the construction permits. You should not let your tree cutting permit expire after acquiring it, since you cannot re-apply for a new permit until 18 months after the previous permit has expired.



Choosing a builder

Your architect should be fully involved in the selection process of the builder. He can even probably suggest some builders or contractors that they know and already are comfortable with their work and results.

Differences between US and Costa Rican System

This section could easily become a book by itself, but I know you don't want to become bored with the technical intricacies here. The quick and dirty version is the following:

- In the U.S.A., pretty much anybody can become a contractor, and the quality of projects is guaranteed by the known “code inspectors” that come to a project and review and sign off for the project to continue or to halt for corrections before allowing to continue on the next steps. You may have heard this referred to steps such as foundations, framing, sheathing, insulation, electrical, etc., etc.

- In Costa Rica this type of inspector scheme does not exist. Therefore what we have is a system where each construction project needs to be represented by a registered professional, who will have a legal, professional liability on the project.

You will have two different people (or firms) involved in this process: the architectural firm and consulting engineers will be the ones legally liable for the DESIGN, and the builder will be the one legally liable for the CONSTRUCTION.

What Requirements Should Your Builder Meet?

There are several essential and minimum requirements that your builder should meet in order to be considered a reputable and correct builder.

- It should be a registered company with a proper and current registration in the National Registry, and at the Tax Ministry
- The company should also be duly registered at the CFIA (architects and engineers guild), be current in their dues, and have at least one architect or civil engineer registered as the legally liable representative professional for the company.
- The company should have an indefinite Workers' Insurance Policy with the INS (National Insurance Institute) for their direct workers.
- The company should be up-to date with monthly payments to the Social Security (CCSS, or “The Caja”). Deferred payment agreements are possible, but we recommend hiring builders with a proven and long-standing record of good standing.
- The company should prove to have established their administrative processes (in current ongoing or past projects) for the reporting and subcontracting activities in relation to the workers' insurance policy. They should be able to produce INS-issued certifications of workers' policies for each of the subcontractors involved in the projects they do.
- They are required to keep an up-to-date official project “log” that registers proof of periodic inspections to the site by the legally liable professional in representation of the builder.

The Informal Builder..... the “local guy”

There are a large number of “informal builders” out there, especially in beach and somewhat remote areas all around the country, who work outside the scope of many codes and regulations, such as social security, workers laws, workers insurance procedures, etc.

These informal builders typically will offer considerable lower costs than formal builders and carry a considerable level of risk for the people and the projects where they are hired, since then the project and your investment is not protected under blanket provided by regulations and professional liability that is provided in our system.

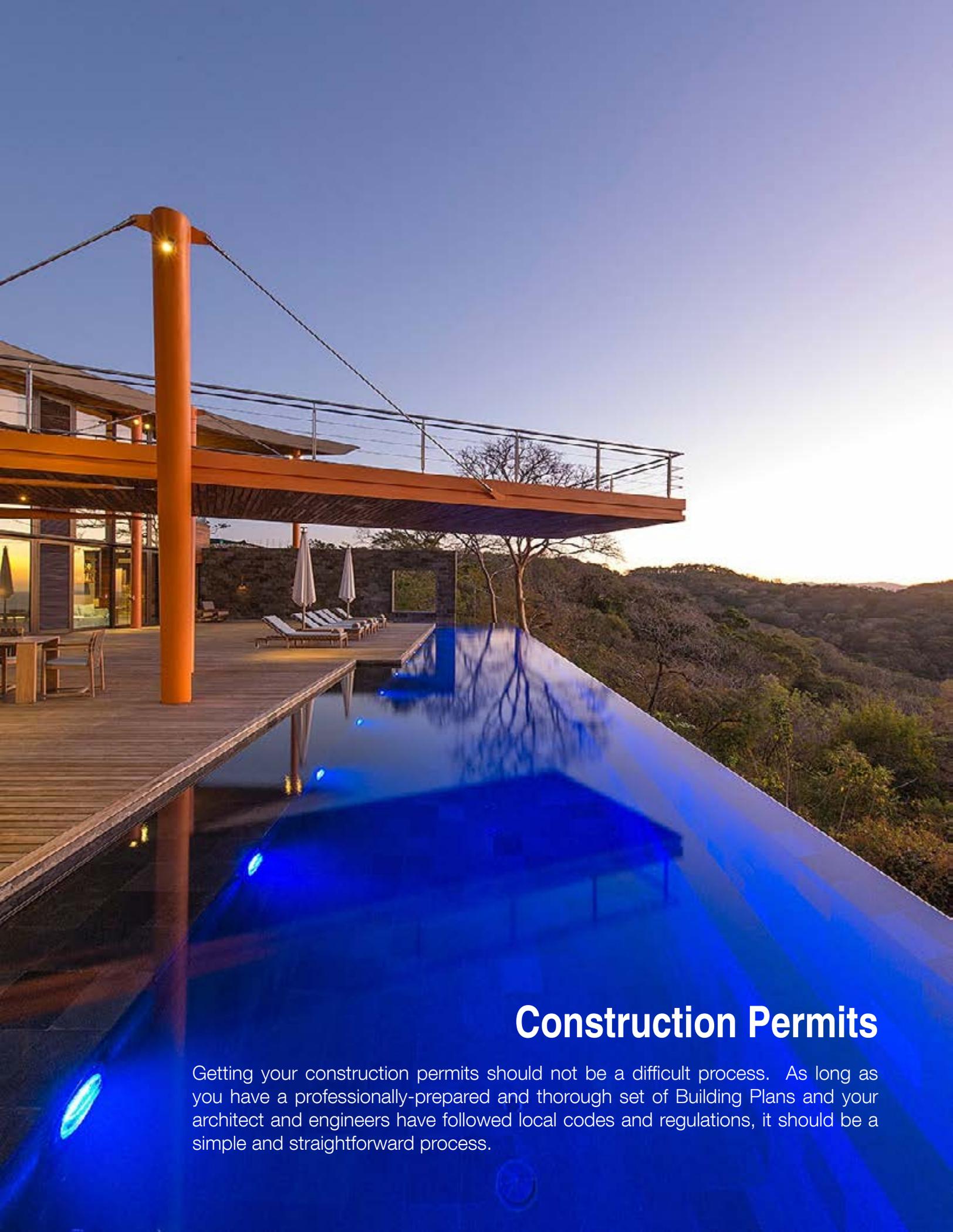
It is fairly simple to identify these informal builders. Typically they will say their costs are so much lower because “they are from the area”. The fact is simple that the only advantage from being local is the reduction in travel costs, but other than that, a local informal builder will have these costs disadvantages:

- They probably buy materials from local distributors, who typically sell at much higher costs than those from bigger distributors in the city.
- Local distributors typically sell lower-grade materials, and therefore the project quality is compromised.
- Many procedures are skipped, especially those related to management of workers insurance and subcontracting procedures, which can lead to considerable fines derived from surprise inspections from official institutions.
- Typically they will not have the required inspection procedures needed from all the required registered architects and engineers and therefore quality can be significantly impaired.

This does not mean that you should not use a local builder. It simply means that doing the proper homework becomes even more important when selecting a local builder. In many cases, and for smaller projects it is best to look for a local source in order to reduce travel expenses, but then.... do your homework and ask for professional help from your designer in order to make the correct choice.

There are some expats that are now “local”, and that are here to live the retired or “easier life” that our country is supposed to offer. They end up building homes as a business, but do your homework. If your builder is surfing in the morning and then working the afternoon, it is typically not a good sign.





Construction Permits

Getting your construction permits should not be a difficult process. As long as you have a professionally-prepared and thorough set of Building Plans and your architect and engineers have followed local codes and regulations, it should be a simple and straightforward process.

The new APC Digital System

There is a new digital platform for the submission of projects for obtaining the approvals and construction permits. All projects now need to be submitted through this system, called the APC and which is operated and managed by the CFIA (architects and engineers' guild). Only registered professionals can have access to the APC.

There are several steps involved in the management through the APC. First the project is submitted through the APC for review and official valuation. If you have any missing requirements or support documentation (technical or legal), the project is not accepted by the system and cannot be submitted. In the initial submission, the different professionals involved in the project are notified through the system and need to log in and accept their professional liability for the design, and also the registered professional for THE CONSTRUCTION will have to accept their professional liability for what is called the "Dirección Técnica" (The Construction).

Once approved the system notifies of the accepted (or modified) project valuation, and informs of the amount of taxes to be paid. Once the tax is paid, then the project is distributed through a digital system to other involved institutions, who shall respond within 30 days. If there are any rejections, the process is handled via the system, where the professional makes the needed amendments and re-submits the project again. The system automatically sends everything electronically to the involved offices and they all respond back in the same way. The final result is a set of the plans with a digital stamp that counts as your approval through the system.

This is a fairly recent system, and unfortunately not all offices or municipalities are part of the system yet. If your property is located in one of these locations, then the approved project will need to be printed out in order to be presented to the local municipality.

The overall process can require the project to go through anywhere from 5 different institutions for review, but the final and OFFICIAL Construction Permit is issued by the local Municipality. All previous approvals are merely requirements to submit to the Municipality.

Construction Permits Taxes and Other Expenses

There will be taxes paid for the permits, and they usually amount to roughly 1.3% of the official value of the project set by the CFIA in the first step. You will also have some associated expenses for legal certifications, printing, copies, etc. for the submission.

The CFIA Tax or Fee

As explained in the item above, the first tax (you could even call that a review fee) is charged by the CFIA. This is typically around a 0.26 to 0.3% of the value of the project as set by the valuation at that same institution.

The Workers Insurance Policy

In order to provide the owner with the Construction Permit, the Municipality will require to be presented with proof of issue of the “Workers Insurance Policy payment” for the project. This is technically part of your construction cost, but will need to be spent up front in full in order to present to the Municipality and get the permit. We recommend that your builder is the one to submit the necessary forms and documentation for the issue of the policy. They should have an open policy and the project is then submitted to be included in their policy.

The Municipality Construction Tax

The final tax is charged by the Municipality and is a 1% of the project valuation as set by the CFIA.

Involvement of design

It is required that the original designers are kept involved during the construction process for periodical supervision inspections on the process of the builder.

- Architect supervises the design-related issues and compliance on design, materials, fit and finish, etc.
- Structural engineer supervises the correct following of the structure designed, and correct application of proper structural construction practices, etc.
- Electrical engineer supervises the correct installation procedures and proper code compliances.
- Mechanical engineer supervises the correct installation procedures for plumbing systems and HVAC installations.

Unless otherwise negotiated, the fees for these inspection visits are typically not included in the design fees, but paid separately during the construction process. Travel expenses are considered reimbursable expenses.

You can either negotiate a set fee for the inspections during the project, or a cost per visit. Consider that your design professional will typically devote a full day (and sometimes more than that) to a project visit and inspection report, depending on project location and travel time to and from the project.



The next step

Congratulations! You now have the key information that will help you lay a successful foundation for building your home in Costa Rica.

Unfortunately, I can't include every important piece of information about building your home successfully in this guide. Actually, that would be impossible because each project is unique and the requirements differ based on a multitude of factors.

To help you wade through the necessary requirements and make sure you aren't overlooking a crucial factor that could doom your project to failure, I offer a custom [Needs, Options & Site Review](#) where I will identify the specific requirements pertaining to your project and your available options.

Typically, the [Needs, Options & Site Review](#) saves my clients thousands of dollars and weeks of lost time, not to mention the stress and headache of getting something wrong.

To read more about the [Needs, Options & Site Review](#), as well as the price for this service and why it is critically important to your project's success [\[click this link\]](#) to visit my website. If you are ready to talk now, give me a call at [+506.2283.4107](tel:+506.2283.4107).

Best wishes for the success of your project,



RODERICK ANDERSON

Firm Principal

SARCO Architects Costa Rica