

**ITT**

Institute for Technology and  
Resources Management in  
the Tropics and Subtropics

**Technology  
Arts Sciences  
TH Köln**

**COLECTIVO TERRA  
VITA S.DE R.L.**

## Business Plan

15/12/2017

Module: *Entrepreneurship*

Coordinator:

*Prof. Dr. Ulrich Daldrup*



DE SOUZA SANTOS, Igor Soriano (11117459)

DESU, Abhilash (11120540)

GARCIA DE LA TORRE, Mariana (11117385)

GARCIA SANCHEZ, Sergio Osvaldo (11117380)

RAMIREZ PAREDES, Socorro Isabel (11117390)

SALVA, Juan Sebastián (11117464)

# Table of Contents

1	Context of ColectivoTerra Vita S. de R.L.....	1
1.1	Urban development in Aguascalientes .....	1
1.2	Current demands in the housing sector.....	1
1.3	Opportunities .....	3
2	Colectivo Terra Vita S. de R.L. ....	5
2.1	Vision.....	5
2.2	Mission .....	5
2.3	Goal .....	5
2.4	Organigram.....	5
2.5	Construction plans for sustainable housing.....	6
2.5.1	Principles .....	6
2.5.2	Description .....	7
2.5.3	Organizational capacities .....	8
3	Market Analysis.....	11
3.1	Customers .....	11
3.2	Competition.....	13
4	Articles of Association .....	14
4.1	Legal Scheme.....	14
4.2	Licenses .....	14
4.3	Employment Agreement.....	15
5	Financial planning.....	15
5.1	Investments.....	15
5.2	Funding and financing .....	15
5.3	Cost Analysis.....	16
5.3.1	Depreciation costs.....	16
5.3.2	Financing costs .....	16
5.3.3	Labor costs .....	17
5.3.4	Consumption costs .....	17
5.3.5	Self-costs .....	18
5.4	Price definition and revenue .....	18
5.5	Cash flow .....	19
5.6	Opening balance.....	20
6	Conclusion .....	20
	References.....	22

Annex 1.....	23
Articles of Association .....	23
Annex 2.....	30
Employment Contract .....	30

## List of Pictures

Figure 1 Intra-Zone U1 .....	2
Figure 2 First-Contour U2.....	2
Figure 3 Second-Contour U3 .....	3
Figure 4 Organigram.....	5
Figure 5 Organizational Chart .....	6
Figure 6 Agenda 2030 – Goals for Sustainable Housing.....	7
Figure 7 Number of houses in Aguascalientes .....	11
Figure 8 Return of Investments.....	20

## List of Tables

Table 1 Flow chart of sales .....	9
Table 2 Flow chart of design process .....	10
Table 3 List of construction companies with licenses in Aguascalientes .....	12
Table 4 List of consulting companies .....	13
Table 5 List of notaries .....	15
Table 6 Depreciation costs .....	16
Table 7 Financing costs .....	16
Table 8 Labor costs.....	17
Table 9 Consumption costs .....	17
Table 10 Self-Costs .....	18
Table 11 Price definition .....	19
Table 12 Revenue.....	19
Table 13 Cash flow .....	19
Table 14 Opening Balance.....	20

# 1 Context of ColectivoTerra Vita S. de R.L.

## 1.1 Urban development in Aguascalientes

Aguascalientes is the capital city of the State of Aguascalientes, which is one of the smallest states in Mexico. However, taking advantage of its characteristics, it is usually a place for prototypes of new federal policies.

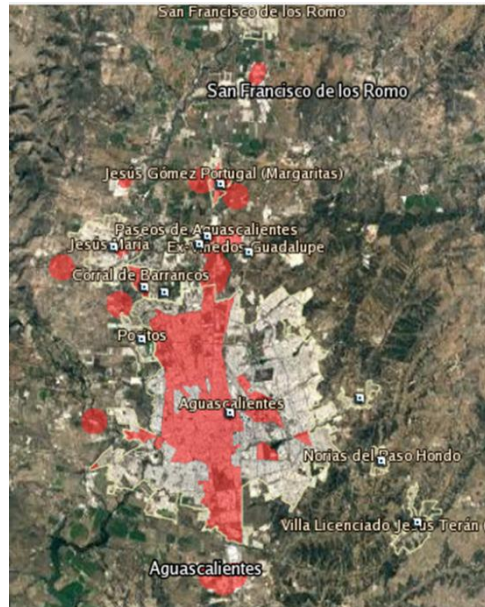
The municipality of Aguascalientes is located between 22°05' and 21°37' North Latitude and 102°03' and 102°36' West Longitude (INEGI, 2009). Being located in a semi-arid climate defines the availability of materials and its environmental conditions. The most important economic relationships, industrial and commercial activities, are with the neighboring municipalities of Jesús María, San Francisco de los Romo and Asientos in the north; Asientos, El Llano and the State of Jalisco in the East; State of Jalisco in the south; State of Jalisco and municipalities of Calvillo and Jesús María in the West (INEGI, 2009).

Aguascalientes has experienced an important demographic growth in the last 45 years (384%) accounting for 181.277 inhabitants in 1970 and 877.190 inhabitants in 2015, mainly due to national and international migration (INEGI, 2016). This situation has been reflected in the construction sector, especially housing sector, which increased 88% between 1995 and 2015.

## 1.2 Current demands in the housing sector

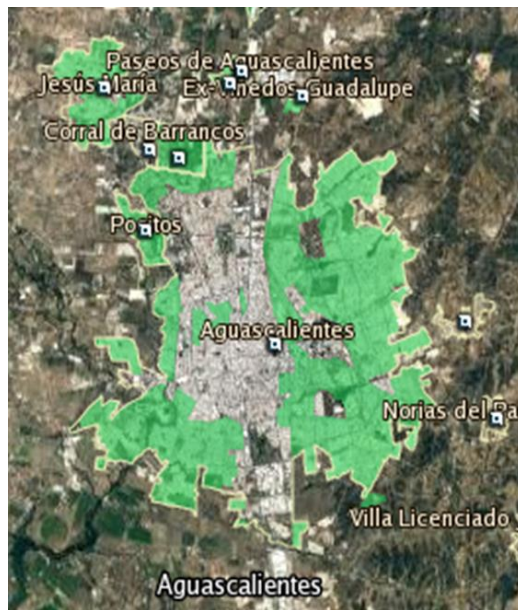
The fast demographic growth has had an effect on the planning of the urban development of Aguascalientes. The city has grown in rings, called contours U1 (intra-urban), U2 (green) and U3 (blue), which are determined by their level of urban consolidation through the access of its inhabitants to sources of employment, infrastructure services, equipment and mobility (CONAVI, 2017). The U1 is a consolidated urban area with access to employment, equipment and urban services; the U2 is an area in consolidation process with infrastructure and urban services of water and drainage (greater than 75%); the U3 are contiguous zones to the urban area, peripheral belt to the urban area defined according to the size of the city.

**Figure 1 Intra-Zone U1**



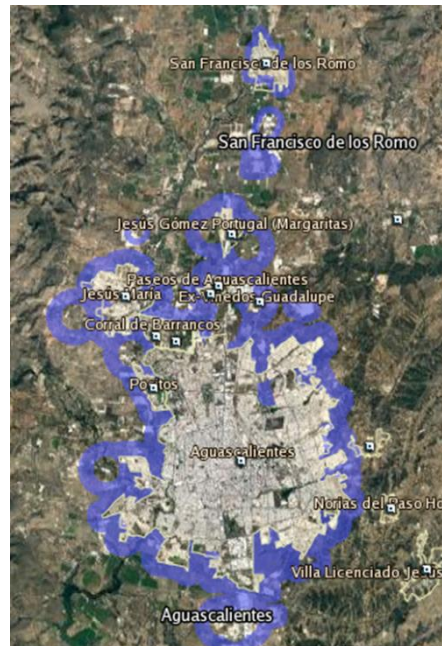
Source: CONAVI (2017)

**Figure 2 First-Contour U2**



Source: CONAVI (2017)

**Figure 3 Second-Contour U3**



Source: CONAVI (2017)

One of the main problems recognized is the need to build new settlements to satisfy the demand in the housing sector. However, efficiency in the use of available areas is rather low, due to the existence of vast empty areas within and surrounding the city. The lack of research on these topics often caused speculation and inefficient use of land, urban infrastructure and services (IMPLAN, 2015). From planning, municipalization to subsequent maintenance stages, it is required to be aware of political, economic and environmental facts.

Another effect of the unplanned urban development is fragmentation of the urban structure with defined zones according to socioeconomic differences, affecting social cohesion and diversity (IMPLAN, 2015).

In general, from a global and environmental perspective, according to the International Agency of Energy (2008), residential CO<sub>2</sub> global emissions represent approximately 17.8 % of total global direct CO<sub>2</sub> emissions (11.3% coming from the electricity use and heating systems, and 6.5% coming from combustion, related to cooking and heating water). These emissions have not only a direct impact on the well-being of the citizens but also on its environmental conditions. Finally, on a national scale, the National Ecology Institute estimated in 2006 that the housing sector in Mexico produces 32% of the greenhouse gas (GHG) emissions.

### 1.3 Opportunities

The need to build new settlements, driven by population growth and high demand on the housing sector, the availability of land and the need to adapt the design to fulfil the principles envisioned by the Institute for Municipal Planning regarding sustainable settlements, opens

an opportunity to our company to bring innovative and integrative solutions. To bring innovative solutions means the promotion of new paradigms and schemes in the housing sector, to adapt old approaches into new requirements by innovation and multidisciplinary co-creation.

This context fosters the possibility to our company to contribute to sustainable economic growth of Aguascalientes, through consultancy and assessment of specific settlement projects. This is possible due to our experienced professional staff, who has already developed housing projects multinational and local contexts.

Specifically, one of our strengths that helps us to fulfil current housing needs, is knowledge on sustainable materials for construction, produced with a low environmental impact during their manufacture process. We have also expertise on how to improve installation and maintenance with a mixture of technology and natural (earth, cork, bamboo, adobe, wood) materials. Finally, environmental aspects as wind, orientation, sources and flows of food, water and energy are also considered in our design.

.

## 2 Colectivo Terra Vita S. de R.L.

### 2.1 Vision

To foster the development of sustainable settlements under integrative designs, considering the reciprocity between production systems and consumption, thus enhancing the nexus between the city of Aguascalientes and Nature through the use of green technologies.

### 2.2 Mission

To become a leader consultancy company in Aguascalientes by offering new approaches to the design of sustainable settlements with focus on reducing construction costs through the concept of bio-construction and increasing energy, materials and water efficiency.

### 2.3 Goal

To design construction plans, integrating waste treatment, water management, green technologies and landscaping design at the scale from residential developments to single houses.

### 2.4 Organigram

The main goal of Colectivo Terra Vita S. de R.L is to make profit through the assessment and design of human settlements.

The functional organization of our company, as shown in figure 4, is structured in two main areas, which are the operative and the managerial.

The profile of the people working in the operative area must contemplate as the fundamental required skills and knowledge: sustainable design, urban planning, traditional and modern building. On the other hand, employee in the managerial area should be people with a profile which include leading, marketing and negotiation skills and knowledge.

Figure 4 Organigram



To fulfill the requirements of human capital we contemplate a staff composed by:

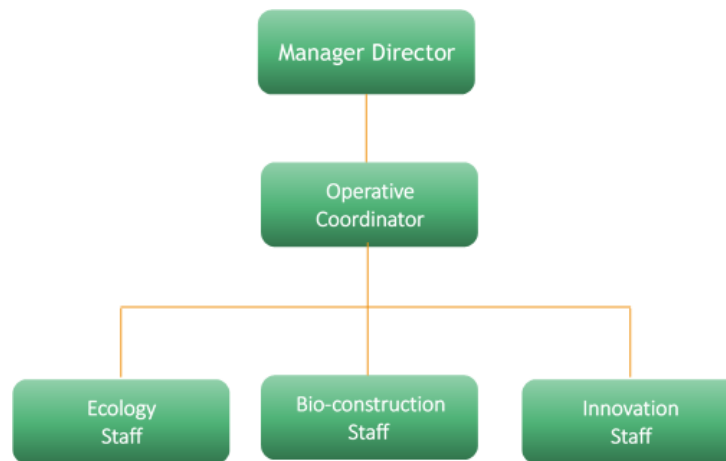
- 1.- Managing Director



- 2.- Operative Coordinator
- 3.- Bio-construction Staff
- 4.- Innovation Staff
- 5.- Ecology Staff

In the beginning we will start hiring two positions: Managing Director and Bio-Construction Staff. The manager director will be involved and responsible for most of the organization's significant decisions (strategy, customers, sales, prices, etc.). The coordinator is the middle management of the company, being the link between the top management and the operations line of the organization and supporting the design, delegation, implementation, monitoring and updating of all staff areas. Regarding staff members, the ecology staff is in charge of the production of the service in the ecological aspect; bio-construction staff are in charge of reflecting the structure and ensuring that it is constantly reviewed; and innovation staff are responsible of implementing bioclimatic characteristics for the design.

**Figure 5 Organizational Chart**



## 2.5 Construction plans for sustainable housing

### 2.5.1 Principles

The design of the construction plans pursues to fulfil the principles of urban development established by IMPLAN and NAMA Project, thus serving to a new sector of implementation in the construction of settlements in Aguascalientes. It involves the combination of engineering and design of sustainable housing through the implementation of the following methods:

- a. Design Improvements ( $V_{up}$  Program & Multidisciplinary Working Teams)

The idea behind this method is that everything could be improved. When bringing together different disciplines and techniques from people coming from different cultures towards the solution of a collective issue, the experience of finding it and the solution itself becomes more holistic and sophisticated.

In order to keep improving, it is also necessary to design mechanisms where creativity is stimulated together with innovation. The Value Up tool is used in the automotive industry for encouraging the employees to speak out their minds with any idea related with improvements or cost reductions; any environment where the feeling of trust and listening is high has the tendency to be more productive and efficient.

b. Optimization and Standardization of the Construction Chain

Higher levels of efficiency are achieved by using the most of every resource (heat, cold, rain, wind, earth, etc.). Once the whole production system for construction is optimized and standardized, it is possible to reach high levels of productivity and then good incomes due to the reduction of time, movements and costs throughout the entire supply chain.

c. Low Cost – Low Impact Housing Schemes (polygonal design, solar heat access & orientation, water treatment – collecting system)

Main aspects of bio-construction are orientation, natural resources and climate in the design of heating and cooling systems, as well as building up houses. Reducing expenses in areas where investments are high, a significant reduction on costs can be achieved, which directly impacts the production costs and the final price. These construction schemes can contribute to the improvement of the economy together with the ecosystem in the region.

### 2.5.2 Description

Our goals and construction plans are aligned with the Agenda 2030 for Sustainable Development (UN).

Figure 6 Agenda 2030 – Goals for Sustainable Housing



Regarding the first goal (costs), green buildings have low energy costs. The use of gas, water and energy is very low. A building can maintain a high sales value if it contains sustainable components/concepts.

Analyzing the efficiency factor, it can be divided into: a) water efficiency: green buildings recycle rain water and grey water and use them for toilet flushing for instance; b) energy efficiency: green buildings save energy because they only depend on renewable energies such as solar, hydro-power and wind power which are used for heat and electricity and help

improve the indoor air quality; c) material efficiency: green buildings are built from natural, non-toxic and recycled materials that are cheaper than traditional materials. In addition, they are eco-friendly such as bamboo, straw, recycled metal or concrete. With the combination of passive and active techniques, the dwelling will guarantee compliance with the requirements of health, lighting and habitability of the house, being able to achieve warm and comfortable interiors.

When it comes to infrastructure, green buildings are efficient in both energy and water supply because they stretch the capacity of local infrastructure greatly.

Finally, regarding high ROI rates, green buildings have huge return on investment rates and properties, saving money on energy and maintenance in the long-term.

### ***2.5.3 Organizational capacities***

There are different stages involved in the design of one construction plan. The two main departments involved are design and sales. Main facts as the activities and legal responsibilities of each employee are described in a chronological order and considering the time required for each of them. The legal responsibilities for the Managing Director are completed by the Articles of Association. To conclude, as a main input of this chart, we can assure the whole design process is no longer than four months, this define our working procedure during a year or determined period.

**Table 1 Flow chart of sales**

ITEM	FLOW PROCESS	ACTIVITIES	RESPONSIBLE	RECORD	TIME/FREQUENCY
1	BEGIN				
2	Prospect potential customers	Verify Prospect Data, Make portfolio of customers	All Staff areas	Data Base of Customers	2 per week
3	CONTACT APPROACHMENT	Calls (6), Mails (5), Networking campaigns (15)	All Staff	Prospetion Calendar	3 per week
4	Potential customer is interested?	To keep close contact with the customer. To schedule an appointment for an interview. To keep inform the Managing Director and Coordinator.	Customer and Innovation Staff	N/A	3 per week
5	Interview	Customer visit Definition and analysis of the customer needs	Director and Coordinator	Executive report	3 per week
6	Design proposal approved?	To keep close contact with the customer. To define a due date for its final reviewing and decision. To keep inform the Managing Director and Coordinator.	Director and Coordinator	Bitácora de Propuestas de Diseño aprobadas y Presupuesto.	15 days
7	Business proposal approved?	To keep close contact with the customer. To define a due date for its final reviewing and decision. To keep inform the Managing Director and Coordinator.	Customer and Innovation Staff	N/A	15 days
	Quotation	To elaborate quotation using company's format. To send to the customer and confirm its reception. To schedule a confirmation or reviewing of the quotation. To notify the Director and Coordinator about the status.	Innovation Staff	Bitácora de Cotizaciones	5 days
8	Quotation approved?	To keep close contact with the customer. To define a due date for its final reviewing and decision. To keep inform the Managing Director and Coordinator.	Customer and Innovation Staff	N/A	10 days
9	Purchase order (PO)	Electronic PO elaboration. Electronic PO release to customer. Following up of the reception from customer.	Operative coordinator and Innovation Staff	Bitácora de Órdenes de Compra	5 days
10	Business contract signature	Signing of the legal document by the Customer and the Managing Director.	Customer and Managing Director	Bitácora de Contratos de Negocio	5 days
11	Execution of Design proposal	To inform all the areas. To organize the Vup teams To define activity chronogram To define areas involved To draft a proposal.	Managing Director, Operative Coordinator and Areas involved	N/A	To be defined by the size of the project.
12	Invoice	Electronic invoice elaboration Electronic invoice release to customer Following up of the transfer or payment	Managing Director and Innovation Staff	Bitácora de Facturas	10 - 15 days
13	END				

**REMARKS:** The activities mentioned above are the main responsibilities, among other daily tasks and activities, for every employee.  
The managerial and legal responsibilities for the Managing Director are mentioned within the Employment Contract and the Articles of Association.  
The timeframe for the whole design process is no longer than four (4) months.

Table 2 Flow chart of design process

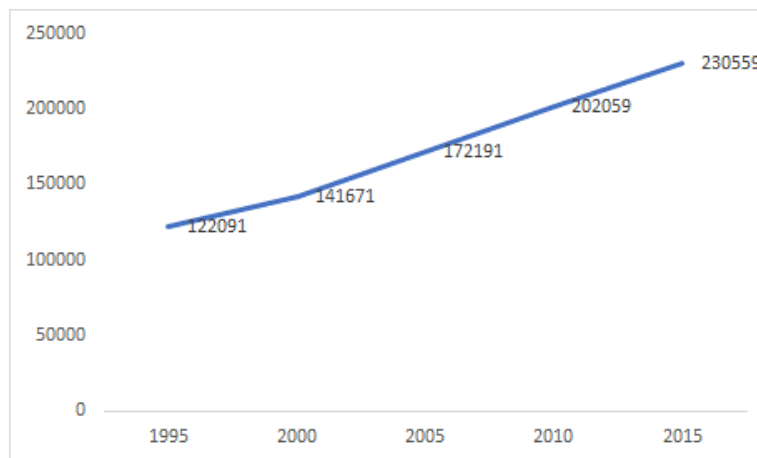
ITEM	FLOW PROCESS	ACTIVITIES	RESPONSIBLE	RECORD	TIME/FREQUENCY
1	BEGIN		N/A		
2	Reception of customer's requirement	To notify the Director and Coordinator about requirement. To elaborate file record. To follow up the process.	Innovation Staff	Bitácora de Requerimientos de Cliente	2 per week
3	Definition of responsible areas	To analyze customer requirements. To draft a proposal. To define and inform the main areas involved.	Managing Director and Operative Coordinator	Bitácora de Propuestas- Diseño.	7 - 10 days
4	Are there two or three areas involved?	To designate wich areas are involved. To inform the areas about the draft proposal. To specify activities according the area. To elaborate a written design proposal.	Operative Coordinator and Areas Involved	Bitácora de Diseños: Ecología, Bio-construcción e Innovación	40 days
5	Ecology area involved?	Studying requirement's project. Elaboration of the sustainable urbanization design for human settlement. Elaboration of the landscaping design for human settlement. Reviewing and approval of proposal design.	Operative Coordinator and Ecology Staff	Bitácora de Diseños: Ecología.	35 days
6	Bio-construction area involved?	To study requirement's project. Elaboration of Low cost-Low Impact design. Eco-technologies and renewal energies proposal/selection. Reviewing and approval of proposal design.	Operative Coordinator and Bio-construction Staff	Bitácora de Diseños: Bio-construcción.	35 days
7	Innovation area involved?	To study requirement's project. Elaboration of the optimization plan for the construction chain. Elaboration of integrative design and selection of sustainable materials. Reviewing and approval of proposal design.	Operative Coordinator and Innovation Staff	Bitácora de Diseños: Innovación.	35 days
8	Reviewing and approval of final Design proposal and Budget	Reviewing of technical, economical and social feasibility. Cost-benefit breakdown analysis. Budget and timing reviewing. Releasing of Design proposal.	Managing Director and Operative Coordinator	Bitácora de Propuestas de Diseño aprobadas y Presupuesto.	15 days
9	Quotation elaboration and following up of customer	To elaborate quotation using company's format. To send to the customer and confirm its reception. To schedule a confirmation or reviewing of the quotation. To notify the Director and Coordinator about the status.	Innovation Staff	Bitácora de Cotizaciones	10 days
10	Approved by customer?	To keep close contact with the customer. To define a due date for its final reviewing and decision. To keep inform the Managing Director and Coordinator.	Customer and Innovation Staff	N/A	15 days
11	Business contract signature	Signing of the legal document by the Customer and the Managing Director.	Customer and Managing Director	Bitácora de Contratos de Negocio	5 days
12	Execution of Design proposal	To inform all the areas. To organize the Vup teams To define activity chronogram To define areas involved To draft a proposal.	Managing Director, Operative Coordinator and Areas Involved	N/A	To be defined by the size of the project.
13	Invoice	Electronic invoice elaboration Electronic invoice release to customer Following up of the transfer or payment.	Managing Director and Innovation Staff	Bitácora de Facturas	10 - 15 days
14	FIN		N/A		

REMARKS: The activities mentioned above are the main responsibilities, among other daily tasks and activities, for every employee.  
The managerial and legal responsibilities for the Managing Director are mentioned within the Employment Contract and the Articles of Association.  
The timeframe for the whole design process is no longer than four (4) months.

### 3 Market Analysis

The municipality of Aguascalientes has experienced an accelerated demographic growth in the last 45 years (384%). The total population has increased in fourfold, accounting for 181.277 inhabitants in 1970 and 877.190 inhabitants in 2015 (INEGI, 2016). Consequently, the city of Aguascalientes has increased its area in sevenfold for the same period (IMPLAN, 2015). This process is reflected in the increase of total number houses that are currently under use for living purposes:

**Figure 7 Number of houses in Aguascalientes**



Source: adapted from INEGI (2015)

As shown in the previous figure, the number of houses in Aguascalientes has increased in 88% between 1995 and 2015. The tendency shows a steady rate of increase of approximately 5500 housing units per year.

The growth of the city of Aguascalientes has been considered by “Instituto Municipal de Planeación (IMPLAN)” (Municipal Planning Institute), who has defined six urban principles in its report “Programa de Desarrollo Urbano de la Ciudad de Aguascalientes 2040” (Urban Development Program for the city of Aguascalientes 2040), namely: a) living city: respect for natural and human environments – sustainability; b) dynamic city: the urban dynamics should promote the economic activity of the city while preserving the natural environment; c) including city: all citizens have access to services, infrastructure, equipment and public spaces (social cohesion); d) creative city: community expressions about their own city that strengthen the city environment for current and future generations; e) secure city: urban zoning, land uses and public places; f) connected city: social, economic and cultural networks to promote local capacities (connectivity) (IMPLAN, 2015).

#### 3.1 Customers

Currently, there are 47 construction companies that are registered in “Secretaría de Desarrollo Urbano del Municipio de Aguascalientes (SDUMA)” (Secretary for Urban

Development of the Municipality of Aguascalientes), which have a license to build new settlements in the city (Ledesma Gallegos, member of SDUMA, pers. comm.). The next table shows the potential customers of our company as well as the projects/settlements that they have built or are currently building:

**Table 3 List of construction companies with licenses in Aguascalientes**

N°	Company	Project/Settlement
1	C. José Gutiérrez López y Gloria Alicia Morales	Fracc. La Rioja
2	C. Fermín de Anda Muñoz y Copropietarios	Fracc. Puesta del Sol
3	Rancho Santa Mónica, S.A. de C.V.	Fracc. Rancho Santa Mónica
4	Canteras de San Javier S. de R.L.	Fracc. Santa Imelda, Vergel de la Cantera
5	Viveica S.A. de C.V.	Cond. Paseos de Santa Monica, Fracc. Paseos de San Antonio
6	Jorge Ignacio Morfin Martinez y Condueños	Cond. San Nicolás
7	L.I. Desarrollos S.A. de C.V.	Fracc. Cerro Alto
8	Promotora e Inmobiliaria Cañada Grande	Fracc. Lomas de Oriente
9	Vivendum S.A. de C.V.	Fracc. Mirador de las Culturas I y II, Fracc. Villasur, Fracc. San Javier
10	G.I.G. Desarrollos Inmobiliarios	Cond. Villas de Bonaterra
11	Davivir Desarrollos Inmobiliarios S. de R.L. de C.V.	Fracc. Balcones de Oriente, Vistas de Oriente, Montebello de la Stanza
12	Residencial de las Plazas S.A. de C.V.	Cond. Residencial de las Plazas
13	Casa Javer S.A. de C.V.	Fracc. El Puertecito, Cond. Bosque Real
14	Abel Martinez Alvarez	Fracc. Valle de Santa Teresa
15	UGASA S.A. de C.V.	Fracc. V.N.S.A. Sector Encino Cuarta Etapa
16	C.P. Jose Luis Charcas	Cond. Barrio de Santiago
17	Desarrolladora Ranman S.A. de C.V.	Cond. San Telmo
18	Inmobiliaria Aljo S.A. de C.V.	Fracc. Colinas de Oriente
19	Grupo Inmobiliario Tu Casa S.A. de C.V.	Fracc. Villas de la Loma, Cond. Fuentes del Pedregal
20	PAVIMAQ S.A. de C.V.	Fracc. Vistas de las Cumbres, Fracc. Paseos del Sol
21	Casas Duero S.A. de C.V.	Fracc. San Angel
22	Ecogranjas S. de R.L. de C.V.	Cond. Bosques de las Lomas
23	Ing. Gustavo Adolfo Martínez Guerra y Cop.	Fracc. Las Cañadas
24	Constructora María Teresa S.A. de C.V.	Fracc. Lomas del Mirador I y II
25	Inmobiliaria y arrendadora Vicarar S.A. de C.V.	Fracc. Lomas de Vista Bella I y II
26	Inmobiliaria Xativa S.A. de C.V.	Fracc. Mision de Santa Lucia
27	Santa Fe Desarrollos Urbanos S.A. de C.V.	Fracc. San Esteban
28	Comebi Nacional S.A. de C.V.	Cond. San Gerardo
29	Allta Homes Centro Sur S. de R.L.	Cond. Hacienda San Marcos
30	Rinconada Santa Monica S.A. de C.V.	Fracc. Rinconada Santa Monica
31	Hunt Mexico II S. de R.L. de S.A.	Cond. Bosque Sereno
32	C. Maria Aurora Sanchez Lorenzo	Cond. Dellaterra
33	Bomar Inmobiliaria S.A. de C.V.	Fracc. Paseos del Sol
34	Habitat Desarrollos S.A. de C.V.	Fracc. Villa de las Palmas I, II y III, Fracc. Olinda
35	Grupo Inmobiliario Manrreff S.A. de C.V.	Fracc. Villas de San Alonso
36	Geo Casas del Bajío S.A. de C.V.	Fracc. Hacienda San Martín
37	Desarrollos Habitacionales de Aguascalientes S.A. de C.V.	Fracc. Lomas de Bellavista
38	Desarrollos y Construcciones del Centro S.A. de C.V.	Cond. La Aurora
39	C. Fernando de Anda Muñoz y Copropietarios	Cond. Loretta
40	C. Heriberto de la Rosa y Condueños	Fracc. Ex Hacienda de la Cantera, Lic. Manuel Gomez Morin, El Quelite
41	Ing. Javier Macias Peña y Sra. María Elena Macias Arellano	Fracc. La Casita
42	Canteras de Santa Fe S.A. de C.V.	Fracc. Mision de Juan Pablo II
43	Carlo Maria Alfieri Casalegno y Copropietarios	Fracc. Villas del Mediterraneo
44	Real State Isla de San Marcos S. de R.L. de C.V.	Fracc. Capital City
45	Inmobiliaria Punta Maya S.A. de C.V.	Fracc. Y Cond. Punta del Cielo
46	Impulsa	Las Moras
47	Grupo Terranza S.A. de C.V.	Cond. Tamarindos

Source: Secretaría de Desarrollo Urbano del Municipio de Aguascalientes

Differences among customers have been identified. The strategy towards our potential customers will differ according to their size, vertical integration, location and type of the projects they develop. In the case of big customers, who normally have integrated the planning stage (engineering department) with construction stage, including some of the principles of sustainable settlements although not from an integrative approach and bio-construction, the strategy will focus on out-sourcing, based on cost-benefit reduction of the planning stage. In the case of smaller companies, who either do not have an engineering

department or do not apply sustainable principles to their projects, the strategy will focus on updating their quality standards to adapt their projects to new requirements of efficiency and sustainability, looking to open new potential markets.

In addition, there are individual potential customers (insured by a federal program), who pursue to build their houses following the principles of NAMA project. The aim of this project is to supplement on-going initiatives for energy-efficient housing. The two objectives are to extend penetration of basic efficiency standards to the entire new housing market in Mexico and upgrade efficiency standards to more ambitious levels. The strategy of our company will be to provide individual customers the construction plan to build any of the unit types of the NAMA project, namely: Eco-Casa1, Eco-Casa 2 and Passive House. These unit types include the concept of “Total Housing Concept”, based on energy efficiency and better emission profiles.

### 3.2 Competition

Looking through the market analysis, especially concerning the competitors to our business, Mexico has a National Chamber of Consulting Enterprises (CNEC) which comprises all of consulting companies that are relevant to our market sector.

On CNEC website there is a list with all the affiliated consulting companies (CNEC, 2017), in this list a refined survey had been carried out using keywords such as civil works, sustainability, and housing/settlements to consulting companies where it was possible to find around 350 companies within the Mexican territory.

So then, it was possible to carry out an even more detailed survey looking for consulting companies which could have a “portfolio” matching with our business scope/purposes.

From the final survey, a number of 6 consulting companies was revealed as a potential competitor (see table 2), this means that they have, at least, one of the consulting services that Colectivo Terra Vita S. de R.L. might offer in Aguascalientes housing/settlements’ market.

**Table 4 List of consulting companies**

Company	Main characteristics
Ingeniería y Desarrollo Sustentable, Estudios y Proyectos, S.A. de C.V. TAEI, S.A. DE C.V.	Urbanism, architecture, projects and studies of infrastructure, ecology and environment, hydrology Housing construction, urban development, regulatory plans, urban housing planning
ARQ. MÓNICA DEL CARMEN HIBERT SÁNCHEZ	Architecture, urbanism, urban planning and development
ING. CRISPÍN SÁNCHEZ HUERTA	Urban drainage and water supply projects
ÁNGEL ARQUITECTOS Y ASOCIADOS, S.A. DE C. V	Management of urban sustainable environment
PROSAMI (Proyectos y Servicios Ambientales e Ingeniería)	Projects of environmental planning for local governments, sanitation and wastewater treatment projects, studies of environmental Impact

Source: CNEC (2017)



Moreover, after concluding and analyzing the current consulting market in Mexico, it was possible to perceive two main characteristics, as follows:

First, there is an increasing real estate market willing to have sustainable solutions for individual houses and settlements and this market is a demanding one which reveals that people are willing to pay more for efficient, smart, integrated and sustainable housing/settlements plans which in the upcoming years will demand real estate construction companies (constructors), there are international consulting companies (KPMG and Veolia) which are already looking to this gap in the market. In this sense, federal and local governments are also implementing policies and promoting sustainable initiatives concerning constructions, housing/settlements and mobility giving priority for Mexican companies.

For this demanding market, 6 companies which do not offer the complete “package” of sustainable housing plans, whether offering individual water supply and wastewater treatment for settlements or urban planning and sole sustainable projects are advantageous to our startup company (Colectivo Terra Vita S. de R.L.) which intends to offer not only a sustainable housing plan but a concept of increasing the standard of living in an efficient, smart, sustainable and integrated way.

Second, from our survey there are around 350 consulting companies in Mexico, and from this group, there are 6 companies located in Aguascalientes which are not offering our services or even has the proper knowledge to fulfill the “sustainability housing gap” in Aguascalientes and, from this perspective they are potential clients.

The current consulting companies in Mexico can demand from Colectivo Terra Vita S. de R.L., which has the know-how and disruptive ideas, the upcoming market needs. Also, as soon as our products are released, it will reveal the real demand for sustainable housing plans.

## 4 Articles of Association

### 4.1 Legal Scheme

The company will be under the legal form of Limited Company (Sociedad de Responsabilidad Limitada “S. de R.L.”) as defined in the Articles of Association (Annex 1).

### 4.2 Licenses

To start the consultancy company, it is mandatory to be registered in “Secretaría de Hacienda y Crédito Público”, which assign the RFC (Federal Taxpayer Registration Number). The RFC does not have a specific cost. However, a requirement to be registered is the Constitutive Act of the company, which is done by a public notary based on Art. 5 and

6 of the “Ley General de Sociedades Mercantiles” (General Law of Commercial Companies).

The requirements to formalize the Constitutive Act of the company by a public notary are: proof of identification of each partner, contributions of capital of each partner, birth certificates of each partners.

Based on the research of three public notaries in Aguascalientes, the cost of this procedures is \$5.000 MXN pesos. On the table below are presented three public notary options, which agree on 5 working days as time lapse.

**Table 5 List of notaries**

Notary Num.	Notary's name	Address	Mail
2	Lic. Jorge Salas	Venustiano Carranza No. 201 Zona Centro.	licjorgesalaslujan@prodigy.net.mx
22	Lic. Alberto Guerrero	Montes Himalaya No. 610, Fracc. Jardines de la Concepción, 2da Secc.	notario_22@prodigy.net.mx
27	Lic. Fernando López	Av. De la Convención Sur No. 1021Fracc. Santa Elena CP 20230	flvp@notaria27ags.com.mx

### 4.3 Employment Agreement

The Employment Agreement can be found in the Annex 2.

## 5 Financial planning

### 5.1 Investments

The initial investment to start the project will be furniture and informatics. The first one includes acquisition of desks, chairs, wardrobes and bookcases. The second one includes purchase of computers equipped with AutoCad, Microsoft Office, ArcGis licenses and other required software. Investments on land or interior or exterior infrastructure will not be included, since the company will rent an office. The total initial investment is \$30.000 MXN pesos (see table 6).

### 5.2 Funding and financing

The total initial capital required to start the project was calculated as the sum of initial investments, labor costs and consumption costs for the first year of the company. The initial capital required is \$709.856 MXN pesos. From this initial capital, 70% will be acquired by both from own capital funds and venture funds. The remaining 30% will be financed by a bank loan totalizing \$212.957 MXN peso over a period of 3 years with an annual interest rate of 23% (see table 7). We assume the interest rate and the annual loan redemption to be constant over the running time of the bank loan.

The revenue will be determined by the number of plans for sustainable settlements sold to construction companies and insured people in Aguascalientes. In order to cover the monthly expenses of the company, 50% of the total amount of the plan will be paid after signing the

contract in the beginning of the design and the remaining 50% of the total amount will be paid upon the final product has been acquired by the customers.

We assume that the productivity of the company could be 3 plans per year at full capacity. However, due to an adaptation period, in the first year, the company will be producing plans at 40% of full capacity, which means 1 plan. After the first year, due to contracting new staff and internal adaptation process, the productivity increases to 60% (2 plans in the second year). Finally, from the third year on, due to a second stage in contracting new personnel, new management structure and market positioning, the company will be running at full capacity (see table 10).

For taxes declaration purposes, the financial statements will be elaborated according to the Mexican fiscal year, which starts the 1<sup>st</sup> of January and ends the 31<sup>st</sup> of December.

## 5.3 Cost Analysis

### 5.3.1 Depreciation costs

The depreciation rates defined by Mexican State for furniture and informatics are 10% and 25% respectively, which means that the furniture will be fully depreciated over a period of 10 years, while informatics over a period of 4 years. We assume the depreciation rates to be constant over the period of analysis.

Table 6 Depreciation costs

Description	Investment	Depreciation rate (%)	Depreciation (years)	Depreciation Costs
Furniture	\$ 5.000,00	10%	10	\$ 500,00
Informatics	\$ 25.000,00	25%	4	\$ 6.250,00
<b>Totals</b>	<b>\$ 30.000,00</b>			<b>\$ 6.750,00</b>

### 5.3.2 Financing costs

The financing costs are represented by the repayment of the bank loan at a constant interest rate of 23% in 3 years. The total financing costs arises to \$97.960,16. The circulating capital was calculated to cover 3 months of utilities and labor costs to run the company. In addition, the unexpected was calculated as 5% of the sum of utilities and circulating capital.

Table 7 Financing costs

Year	Balance of debt	Interest rate	Interest costs	Refunding bank loan
<b>1</b>	\$ 212,956.88	23%	\$ 48,980.08	\$ 70,985.63
<b>2</b>	\$ 141,971.25	23%	\$ 32,653.39	\$ 70,985.63
<b>3</b>	\$ 70,985.63	23%	\$ 16,326.69	\$ 70,985.63
<b>Sum of interest</b>			<b>\$ 97,960.16</b>	
<b>Sum repayment</b>				<b>\$ 212,956.88</b>
<b>Circulating capital</b>	\$ 132,825.00			

<b>Unexpected</b>	\$ 15,731.25	... considered as investments without depreciation cost
<b>Sum</b>	<b>\$ 148,556.25</b>	

### 5.3.3 Labor costs

The labor costs are defined by salaries and taxes of the different members of company previously described in the organizational chart. During the first year, the company will have two employees, one manager director and one staff member mainly specialized in bio-construction. In the second year, a second staff member will be hired to cover innovation area. In the third area, a third staff member will be included to work on ecology area. A coordinator will be hired to execute operative tasks and organize the work between staff members.

The labor taxes in Mexico are defined by the federal institution “Instituto Mexicano de Seguro Social (IMSS)”, which include retirement and health insurances, and “Impuesto sobre la Renta (ISR)”. Both account for 33% of the agreed salary. According to Mexican labor law, 50% of the deductions are covered by the employee and 50% by the company.

**Table 8 Labor costs**

Item	Direct/Manag	Coordinator	Staff
<b>Agreed salary</b>	\$ 15.000,00	\$ 12.000,00	\$ 10.000,00
<b>IMSS+ISR</b>	\$ 2.475,00	\$ 1.980,00	\$ 1.650,00
<b>Paid salary</b>	<b>\$ 17.475,00</b>	<b>\$ 13.980,00</b>	<b>\$ 11.650,00</b>

### 5.3.4 Consumption costs

The consumption costs are mainly represented by utilities and services, totalizing \$181.800,00. These involve monthly rent of the office, marketing analysis, legal representation and consultancy, technical services (topography, plotting/printing; administrative services; accountability/legal services), general services (water, electricity, internet), office expenses and logistics.

**Table 9 Consumption costs**

Utilities and services	Costs
<b>Rent</b>	\$ 54,000.00
<b>Marketing</b>	\$ 12,000.00
<b>Representation and sales</b>	\$ 24,000.00
<b>Technical services</b>	\$ 24,000.00
<b>Legal consultancy</b>	\$ 6,000.00
<b>Accountability</b>	\$ 12,000.00
<b>Electricity</b>	\$ 6,000.00
<b>Water</b>	\$ 1,800.00
<b>Internet</b>	\$ 6,000.00
<b>Office expenses</b>	\$ 12,000.00
<b>Logistics and mobility</b>	\$ 24,000.00

<b>Total</b>	<b>\$ 181,800.00</b>

### 5.3.5 Self-costs

The self-costs were calculated based on the utilization capacity of the company, number of plans produced per year and the total costs. As shown in table 10, the highest self-cost is in the first year, when the company runs at 40% utilization capacity and the financing costs are maximum. Already in the second year, there is a reduction in the self-costs determined by an increase in the utilization capacity together with less financing costs. In the third year, the financing costs come to an end because the bank loan is repaid. However, the labor costs increase considerable due to new staff and the hiring of a coordinator. Finally, the self-costs are minimum from the fourth year on, when the company is running at full capacity and there are no financing costs.

**Table 10 Self-Costs**

Year	1	2	3	4	5	6	7	8	9	10
Utilization capacity (%)	40%	60%	100%	100%	100%	100%	100%	100%	100%	100%
N° plans	1	2	3	3	3	3	3	3	3	3
Cost type	Costs per year									
Depreciation	\$ -6,750.00	\$ -6,750.00	\$ -6,750.00	\$ -6,750.00	\$ -6,750.00	\$ -6,750.00	\$ -6,750.00	\$ -6,750.00	\$ -6,750.00	\$ -6,750.00
Financing	\$ -197,536.33	\$ -181,209.64	\$ -164,882.94	\$ -148,556.25	\$ -148,556.25	\$ -148,556.25	\$ -148,556.25	\$ -148,556.25	\$ -148,556.25	\$ -148,556.25
Labour	\$ -349,500.00	\$ -489,300.00	\$ -796,860.00	\$ -796,860.00	\$ -796,860.00	\$ -796,860.00	\$ -796,860.00	\$ -796,860.00	\$ -796,860.00	\$ -796,860.00
Consumption	\$ -181,800.00	\$ -181,800.00	\$ -181,800.00	\$ -181,800.00	\$ -181,800.00	\$ -181,800.00	\$ -181,800.00	\$ -181,800.00	\$ -181,800.00	\$ -181,800.00
Sum of costs	\$ -735,586.33	\$ -859,059.64	\$ -1,150,292.94	\$ -1,133,966.25	\$ -1,133,966.25	\$ -1,133,966.25	\$ -1,133,966.25	\$ -1,133,966.25	\$ -1,133,966.25	\$ -1,133,966.25
Costs per plan	\$ -612,988.61	\$ -477,255.35	\$ -383,430.98	\$ -377,988.75	\$ -377,988.75	\$ -377,988.75	\$ -377,988.75	\$ -377,988.75	\$ -377,988.75	\$ -377,988.75

## 5.4 Price definition and revenue

The price of the plans will be defined as a percentage of the margin of profitability of construction companies. According to specialists (pers. comm.) working in the construction sector in Aguascalientes, these companies receive an average of 30% margin of profitability. To estimate this value, the total costs of an average settlement project were calculated based on the costs per m<sup>2</sup> and the average area of the settlements built in Aguascalientes in the last decade. As a result, the average profit of these companies is \$34.116.425,92. The price of the plans will be defined as 1,5% of the profits of these companies, which represents \$511.746,39 per plan. We assume a constant average margin of profitability and a constant percentage of these profits to define the price.

**Table 11 Price definition**

Price definition	
Unit costs (\$/m2)	\$ 730,47
Median total area (m2)	155682
Total costs (\$)	\$ 113.721.420
Profit (%)	30%
Profit (\$)	\$ 34.116.426
Price (% of profit)	1,50%
Price (\$)	<b>\$ 511.746,39</b>

The annual revenue of our company will be defined by the number of plans designed and the price defined according to the profit margin of construction companies.

**Table 12 Revenue**

Year	N° plans	Revenue
1	1	\$ 614.095,67
2	2	\$ 921.143,50
3	3	\$ 1.535.239,17
4	3	\$ 1.535.239,17
5	3	\$ 1.535.239,17
6	3	\$ 1.535.239,17
7	3	\$ 1.535.239,17
8	3	\$ 1.535.239,17
9	3	\$ 1.535.239,17
10	3	\$ 1.535.239,17

## 5.5 Cash flow

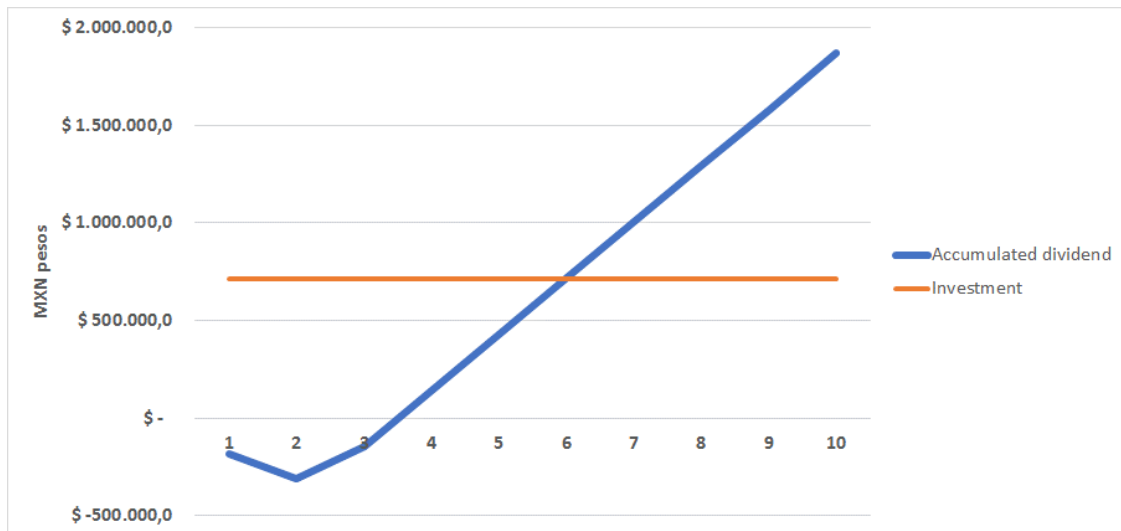
The following table shows the cash flow of the company for a period of 10 years. The taxes in Mexico are defined by federal law in 30% of the profit ([www.tradingeconomics.com](http://www.tradingeconomics.com)).

**Table 13 Cash flow**

Year	1	2	3	4	5	6	7	8	9	10
Revenue	\$ 614,095.7	\$ 921,143.5	\$ 1,535,239.2	\$ 1,535,239.2	\$ 1,535,239.2	\$ 1,535,239.2	\$ 1,535,239.2	\$ 1,535,239.2	\$ 1,535,239.2	\$ 1,535,239.2
Depreciation costs	\$ -6,750.0	\$ -6,750.0	\$ -6,750.0	\$ -6,750.0	\$ -6,750.0	\$ -6,750.0	\$ -6,750.0	\$ -6,750.0	\$ -6,750.0	\$ -6,750.0
Financing costs	\$ -197,536.3	\$ -181,209.6	\$ -164,882.9	\$ -148,556.3	\$ -148,556.3	\$ -148,556.3	\$ -148,556.3	\$ -148,556.3	\$ -148,556.3	\$ -148,556.3
Labour costs	\$ -349,500.0	\$ -489,300.0	\$ -796,860.0	\$ -796,860.0	\$ -796,860.0	\$ -796,860.0	\$ -796,860.0	\$ -796,860.0	\$ -796,860.0	\$ -796,860.0
Utilities	\$ -181,800.0	\$ -181,800.0	\$ -181,800.0	\$ -181,800.0	\$ -181,800.0	\$ -181,800.0	\$ -181,800.0	\$ -181,800.0	\$ -181,800.0	\$ -181,800.0
Loss carried forward	\$ -	\$ -121,490.7	\$ -59,406.8	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Profit before tax	\$ -121,490.7	\$ -59,406.8	\$ 325,539.4	\$ 401,272.9	\$ 401,272.9	\$ 401,272.9	\$ 401,272.9	\$ 401,272.9	\$ 401,272.9	\$ 401,272.9
Taxes	\$ -	\$ -	\$ 97,661.8	\$ 120,381.9	\$ 120,381.9	\$ 120,381.9	\$ 120,381.9	\$ 120,381.9	\$ 120,381.9	\$ 120,381.9
Profit after tax	\$ -121,490.7	\$ -59,406.8	\$ 227,877.6	\$ 280,891.0	\$ 280,891.0	\$ 280,891.0	\$ 280,891.0	\$ 280,891.0	\$ 280,891.0	\$ 280,891.0
Cash-flow (net profit + depreciation)	\$ -114,740.7	\$ -52,656.8	\$ 234,627.6	\$ 287,641.0	\$ 287,641.0	\$ 287,641.0	\$ 287,641.0	\$ 287,641.0	\$ 287,641.0	\$ 287,641.0
Repayment credit	\$ -70,985.6	\$ -70,985.6	\$ -70,985.6	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Re-investing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Dividend	\$ -185,726.3	\$ -123,642.4	\$ 163,642.0	\$ 287,641.0	\$ 287,641.0	\$ 287,641.0	\$ 287,641.0	\$ 287,641.0	\$ 287,641.0	\$ 287,641.0
Accumulated dividend	\$ -185,726.3	\$ -309,368.7	\$ -145,726.7	\$ 141,914.3	\$ 429,555.3	\$ 717,196.4	\$ 1,004,837.4	\$ 1,292,478.5	\$ 1,580,119.5	\$ 1,867,760.5

Based on the cash flow shown in table 13, the initial capital invested in the project will be recovered in the year 6 (Figure 8).

Figure 8 Return of Investments



## 5.6 Opening balance

Table 14 Opening Balance

Terra Vita S. de R. L	
Opening Balance Sheet 2017-18	
Particulars	Amount
<b>Source of Funds</b>	
Owners Funds	\$496.899,00
<b>Liability</b>	
Bank Loan	\$212.957,00
Total	\$709.856,00
<b>Appication of Funds :</b>	
<b>Fixed Assests</b>	
Furniture and Informatics	\$30.000,00
<b>Current Assests</b>	
Cash	\$50.000,00
Bank Balances	\$629.856,00
Total	\$709.856,00

## 6 Conclusion

Considering the huge and increasing requirement of housing in Mexico, as well as in the city of Aguascalientes, our idea of integrative design is based on sustainable principles which is described in the market analysis section.

Our main goal in the long run is to design for the social housing policies like NAMA's housing scheme, which is being seriously targeted by Mexican government, as well as to individual customers, such as construction companies or single persons.

We charge construction companies per plan, regardless the size but based on a flat percentage overall the customer's profit margin. By doing so the company is competitive enough with respect to competitors.

The installed capacity for design process in the initial phase would be around one or two plans in the first two years of the company's consolidation and then increasing profits and revenues from the third year on as it is planned to hire more employees until full capacity is reached.

Considering that housing market is quite competitive and attractive, one of our main moto, is to focus more on quality than quantity. The initial investment may be sufficient enough for starting up and as first step to enter into the sustainable housing market which will have a scope for much larger investments from the government and private construction companies.



## References

IMPLAN (Instituto Municipal de Planeación). (2015). *Programa de Desarrollo Urbano de la Ciudad de Aguas Calientes 2040*. Ciudad de Aguascalientes, México.

INEGI (Instituto Nacional de Estadística y Geografía - Mexico). (2009). *Prontuario de información geográfica municipal de los Estados Unidos Mexicanos - Aguascalinetes, Aguascalientes*.

INEGI (Instituto Nacional de Estadística y Geografía - México). (2016). *Anuario estadístico y geográfico de Aguascalientes 2016*. Aguascalientes.

# Annex 1

## Articles of Association

---

Terra Vita will be registered as “Sociedad de Responsabilidad Limitada” with the acronym SdRL into the Trade Register, therefore, the legal framework for *Colectivo Terravita* are articles 58 to 86 of the General Law of Commercial Companies or “Ley General de Sociedades Mercantiles”.

In accordance to the fact, to our company apply;

**Article I.** As the company will be registered as Sociedad de Responsabilidad Limitada, company’s name will go immediately followed by the words "Sociedad de Responsabilidad Limitada" or its abbreviation "S. by R. L. Therefore, the name of the company will be “Colectivo Terra Vita S. de R. L.”.

**Article II.** The partners are only obliged to pay their contributions, the social parties are not being able to be represented by negotiable instruments, to the order or to the bearer, since they will only be ceded in the cases and with the requirements established by the General Law of Commercial Company on its article 58, chapter IV.

**Article III.** The Company’s registered office will be in city of Aguascalientes, Mexico and it may establish agencies, branches and representative offices in any place in the Mexican Republic.

**Article IV.** The corporate purpose is to offer construction plans, for public (social housing) and private sectors (construction companies), integrating waste treatment, water management, green technologies and landscaping design at the scale of residential developments to private houses.

**Article V.** “Colectivo Terra Vita S. de R. L” will not have more than fifty partners on any of its stages.

**Article VI.** The social capital of “Colectivo Terra Vita S. de R. L” will never be less than 500’000.00 (five hundred thousand mxn pesos); it will be divided into parts which may be of unequal value and category, but which in any case will be of one thousand pesos or a multiple of this amount.

**Article VII.** As the company “Colectivo Terra Vita S. de R. L” is constituted, the capital will be fully subscribed and exhibited, so less, fifty percent of the value of each social part.

**Article VIII.** For the cession of social parts, as well as for the admission of new partners at “Colectivo Terra Vita S. de R. L”, it will be enough the consent of the partners representing the majority of the share capital, except when the statutes have a higher proportion.

**Article IX.** When the transfer referred to in the previous article VI is authorized in favor of a person the company will have the right to the same and will enjoy a period of fifteen days for exercise it, counted from the date of the meeting in which the authorization was granted. If they were several partners that want to use this right, will compete with all of them in proportion to their contributions.

**Article X.** Transmission by inheritance of the social parties, will not require the consent of the partners, except for a pact that foresees the dissolution of the company due to the death of one of them, or that arranges the liquidation of the social part corresponding to the deceased partner, in the event that the company does not continue with the heirs of this one.

**Article XI.** Each partner of “Colectivo Terra Vita S. de R. L”, will not have more than one social part. When a partner makes a new contribution or acquire all or a fraction of the part of a co-partner, shall be increased in the respective amount the value of its social part, unless they are parties that have rights diverse, because then the individuality of the social parts will be conserved.

**Article XII.** The social parts of “Colectivo Terra Vita S. de R. L” are indivisible.

**Article XIII.** Through and under the responsibility of the administrators and in accordance to Article 172 (one hundred seventy two) the company will submit a report annually will include at least:

- I) A report from the administrators on the progress of the company in the year, as well as on the policies followed by the administrators and, where appropriate, on the main existing projects.
- II) A report in which they declare and explain the main accounting and information policies and criteria followed in the preparation of the financial information.
- III) A statement showing the financial situation of the company at the closing date of the year.

- IV) A statement showing duly explained and classified the results of the company during the year.
- V) A statement showing the changes in the financial situation during the year.
- VI) A statement showing the changes in the items that makes up the social assets, which occurred during the year.
- VII) The notes that are necessary to complete or clarify the information provided by the previous statements.

**Article XIV.** The amortization of the social parts will not be allowed except in the measure and form that establish the current social contract at the moment in which the affected parties have been acquired by the partners. The amortization will take effect with the liquid profits of those that according to the Law can be arranged for the payment of dividends.

**Article XV.** The society will keep a special book of the partners of “Colectivo Terra Vita S. de R. L”, in which the name and address of each one, with indication of their contributions, and the transmission of the social parts. This will not be effective for third parties until after registration.

Any person who proves a legitimate interest will have the power to consult this book, which will be in the care of the administrators, who will respond personally and severally to their regular existence and the accuracy of your data.

**Article XVI.** The administration of “Colectivo Terra Vita S. de R. L” will be in charge of the Manager Director as follows,

The Managing Director or the Board of Directors, as applicable, will have all manner of powers of administration, for lawsuits and collections. They will have powers to issue and subscribe to credit instruments in accordance with articles 9 and 85 of the General Law of Credit Instruments and Operations, to file and answer complaints, to challenge judges, to compromise, to submit to arbitration, to make and receive payments, to execute agreements, to represent the company in all manner of civil, commercial or labor proceedings or procedures, to prepare and answer interrogatories, to file penal complaints or grievances and to ratify them, to assist the Office of the Government Attorney, to abandon complaints or grievances filed and to grant pardons, to carry out all manner of actions and steps before

administrative authorities for matters of interest to the company, to file all manner of appeals, including an appeal for relief under the Constitution and to abandon them.

The Managing Director will not require any special authorization to make or implement his decisions:

- I) Represent the company before all manner of judicial, administrative or labor authorities with the above-mentioned powers.
- II) Carry out all pertinent actions and operations to fulfill the corporate purpose.
- III) Decide on expenses that must be incurred with a charge to the Company's budget.
- IV) Execute and sign all manner of public or private contracts, agreements or documents and issue credit instruments according to the terms of articles nine and eighty-five of the General Law of Credit Instruments and Operations, whether issuing, accepting, endorsing, or guaranteeing them or to collect their amount or assume obligations on behalf of the company, to take out loans and open bank accounts or accounts of another nature on behalf of or for the account of the company.

**Article XVII.** The resolutions of the managers will be taken by majority vote, but if the contract requires them to work together, unanimity will be needed, unless the majority considers that the society is in serious danger with the delay, because then it will be able to dictate the corresponding resolution.

**Article XVIII.** Administrators who have not had knowledge of the act/resolution or who have voted in against, they will be free of responsibility. The action of liability in the interest of society against the managers. For the reimbursement of social patrimony, belongs to the assembly and to the partners individually considered; but these do not may exercise it when the assembly, with a favorable vote of three quarters of the share capital, has absolved the managers of their responsibility.

The action of liability against the administrators also belongs to the social creditors; but it can only be exercised by the trustee, after the declaration of bankruptcy of the company.

**Article XIX.** The assembly of the partners is the supreme organ of “Colectivo Terra Vita S. de R. L”, constituted by Manager Director, Operative Coordinator and the Staffs. The resolutions shall be taken by majority vote of the partners representing at least half of the share capital, to not that the social contract requires a higher majority.

**Article XX.** The assembly will have the next faculties:

- I) Discuss, approve, modify or fail the general balance corresponding to the fiscal year closed and take with these reasons, the measures they deem appropriate.
- II) Proceed to the distribution of profits
- III) Appoint and remove managers
- IV) Designate, where appropriate, the Supervisory Board.
- V) To resolve on the division and amortization of the social parts.
- VI) Demand, where appropriate, the supplementary contributions and accessory benefits.
- VII) To try against the social organs or against the partners, the corresponding actions for demand damages.
- VIII) Modify the social contract
- IX) Consent in assignments of social parties and in the admission of new partners.
- X) Decide on increases and reductions in social capital.
- XI) Decide on the dissolution of society, and
- XII) The others that correspond according to the Law or to the social contract.

**Article XXI** Every member will have the right to participate in the decisions of the assemblies, enjoying the one vote for each thousand pesos of their contribution or the multiple of this amount that has been determined, except what the social contract establishes on privileged social parts.

If a proposed decision of the directors is concerned with an actual or proposed transaction or arrangement with the company in which a director is interested, that director is not to be counted as participating in the decision-making process for quorum or voting purposes.

(2) But if paragraph (3) applies, a director who is interested in an actual or proposed transaction or arrangement with the company is to be counted as participating in the decision-making process for quorum and voting purposes.

(3) This paragraph applies when:

a) the company by ordinary resolution misapplies the provision of the articles which would otherwise prevent a director from being counted as participating in the decision-making process;

b) the director's interest cannot reasonably be regarded as likely to give rise to a conflict of interest; or

c) the director's conflict of interest arises from a permitted cause.

(4) For the purposes of this article, the following are permitted causes:

a) a guarantee given, or to be given, by or to a director in respect of an obligation incurred by or on behalf of the company or any of its subsidiaries;

b) subscription, or an agreement to subscribe, for shares or other securities of the company or any of its subsidiaries, or to underwrite, sub-underwrite, or guarantee subscription for any such shares or securities; and

c) arrangements pursuant to which benefits are made available to employees and directors or former employees and directors of the company or any of its subsidiaries which do not provide special benefits for directors or former directors.

(5) For the purposes of this article, references to proposed decisions and decision-making processes include any directors' meeting or part of a directors' meeting.

(6) Subject to paragraph (7), if a question arises at a meeting of directors or of a committee of directors as to the right of a director to participate in the meeting (or part of the meeting) for voting or quorum purposes, the question may, before the conclusion of the meeting, be referred to the chairman whose ruling in relation to any director other than the chairman is to be final and conclusive.

(7) If any question as to the right to participate in the meeting (or part of the meeting) should arise in respect of the chairman, the question is to be decided by a decision of the directors at that meeting, for which purpose the chairman is not to be counted as participating in the meeting (or that part of the meeting) for voting or quorum purposes.

**Article XXII** The assembly will meet at the registered office, at least once a year, at the time set in the contract.

**Article XXIII** The assemblies will be called by the Directors; if they did not do so, the Council of Surveillance, the assembly will be called by partners representing more than a third of the capital Social.

**Article XXIV.** The social contract may record the cases in which the meeting of the assembly is not necessary, and in them the partners will be sent, by registered letter with acknowledgment of receipt, the text of the resolutions or decisions, with the corresponding vote in writing.

**Article XXV.** Unless otherwise agreed, the modification of the social contract will be decided by the majority of the partners that represent, at least, three quarters of the share capital; with the exception of cases of change of object or of the rules that determine an increase in the obligations of the partners, in which unanimity of votes will be required.

**Article XXVI.** As the social contract establishes, a Board of Directors for Surveillance will be constituted formed of partners representing the company.

**Article XXVII.** The members have the right to receive interest of **nine percent** per annum on their contributions, even if there were no benefits; but only for the period of time necessary for the execution of the works that. According to the purpose of the company, they must precede the beginning of their operations, without under any circumstances said period exceeds three years. These interests must be charged to general expenses.

**Article XXVIII.** Any common seal may only be used by the authority of the directors. (2) The directors may decide by what means and in what form any common seal is to be used. (3) Unless otherwise decided by the directors, if the company has a common seal and it is affixed to a document, the document must also be signed by at least one authorised person in the presence of a witness who attests the signature. (4) For the purposes of this article, an authorised person is:

- I) any director of the company;
- II) the company secretary (if any); or
- III) any person authorized by the directors for the purpose of signing documents to which the common seal is applied.

**Article XXIX.** Except as provided by law or authorised by the directors or an ordinary resolution of the company, no person is entitled to inspect any of the company's accounting or other records or documents merely by virtue of being a shareholder.



## Annex 2

# Employment Contract

---

This made as of the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_ , between [name of employer] a corporation incorporated under the laws of Mexico, and having its principal place of business at \_\_\_\_\_ (the "Employer"); and [name of employee], of the Municipality of \_\_\_Aguascalientes, in the State of Aguascalientes(the "Employee").

WHEREAS the Employer desires to obtain the benefit of the services of the Employee, and the Employee desires to render such services on the terms and conditions set forth.

IN CONSIDERATION of the promises and other good and valuable consideration (the sufficiency and receipt of which are hereby acknowledged) the parties agree as follows:

### 1. EMPLOYMENT

The Employee agrees that he will at all times faithfully, industriously, and to the best of employee skill, ability, experience and talents, perform all of the duties required of employee position. In carrying out these duties and responsibilities, the Employee shall comply with all Employer policies, procedures, rules and regulations, both written and oral, as are announced by the Employer from time to time. It is also understood and agreed to by the employee that employee assignment, duties and responsibilities and reporting arrangements may be changed by the Employer in its sole discretion without causing termination of employee agreement.

- (a) The employee is paid an amount of \$15,000 (Mexican pesos) as salary and can be negotiated with employer before signing the agreement.
- (b) The number of working hours per week are 40. The Managing Director might work in weekends and will not paid any overtime pay as it is the sole duty of the Managing Director to manage the Company as he is the 'trusted employee' and also is responsible for the activities of and taken by the company.

### 2. POSITION

As a \_\_\_\_\_ Managing Director \_\_\_\_\_, the Employee is required to perform the following duties and undertake the following responsibilities in a professional manner.

- (a) Represent the company before all manner of judicial, administrative or labor authorities with the powers mentioned in the article of Article of Association of the company.
- (b) Carry out all pertinent actions and operations to fulfill the corporate purpose.
- (c) Decide on expenses that must be incurred with a charge to the Company's budget.

- (d) Execute and sign all manner of public or private contracts, agreements or documents and issue credit instruments according to the terms of articles nine and eighty-five of the General Law of Credit Instruments and Operations, whether issuing, accepting, endorsing, or guaranteeing them or to collect their amount or assume obligations on behalf of the company, to take out loans and open bank accounts or accounts of another nature on behalf of or for the account of the company.
- (e) Other duties as may arise from time to time and as may be assigned to the employee by the employer or the assembly of partners.
- (f) The Managing Director is also part of the assembly of partners, a supreme organ of “Colectivo Terra Vita S. de R. L.” where the resolutions, important decisions and yearly financial statements are discussed. The assembly will meet once a year and the Managing Director is entitled to be present at every assembly meeting that takes place.

### 3. VACATION

- (a) The Managing Director shall be entitled to vacations in the amount of not less than 8 days per annum as paid vacation.
- (b) The Managing Director is free to work from employee place of interest if required as per employee will but is entitled to inform the assembly of partners regarding employee decision.
- (c) If the Managing Director is a working mother then she is entitled to be paid maternity leave for as much as six weeks prior to and six weeks following birth. The employee benefit is paid directly by the IMSS and requires being employed (by the current employer) for 42 days prior becoming pregnant.

### 4. BENEFITS

- (a) The Managing Director is entitled to get a bonus of a month pay on top of the existing monthly pay (13<sup>th</sup> month pay) and also a share of the ten percent of company’s profit as part of employee achievements for the financial year but the right to pay or no rests with the assembly of partners after reviewing the annual results of the company and accepted by the board.
- (b) The Managing Director receives the bonus mentioned above within 3 months but after the annual review of the company and results are accepted by the assembly of partners.

### 5. PROBATION PERIOD

- (a) It is understood and agreed that the first ninety days of employment shall constitute a probationary period during which period the Employer may, in its absolute discretion, terminate the Employee' in accordance to the procedure in clause eight below.

### 6. PERFORMANCE REVIEWS

- (a) The Employee will be provided with a written performance appraisal once per year and said appraisal will be reviewed at which time all aspects of the assessment can be fully discussed.

## 7. TERMINATION

- (a) The employer may rescind the employment relationship at any time for justified 'cause' without incurring any liability therefor.
- (b) The definition of 'cause' corresponds to the one mentioned in Article 47 of Federal Labour Law of Mexico.
- (c) The employee will be informed of the termination ten days before the actual termination date.
- (d) The employee is entitled to return all the assets employees given for the purpose work to the company after termination.
- (e) The employee acknowledges and agree that the company can terminate the employee relation at their will and any time but under the conditions stated in this clause.
- (f) The employee could also leave the company at will but then this will not apply.
- (g) If terminated without cause then employee is entitled to the following lump sum severance:
  - a. Three months of the employee's daily aggregate salary.
  - b. Twenty days of the employee's daily aggregate salary for each year of service.
- (h) Violation of confidentiality and social media policy mentioned in clause nine of this contract will also lead to the termination of employment as per procedures mentioned in this clause.

## 8. NON- COMPETITION

- (a) You covenant and agree that, during the term of your employment with the company and for three (3) months after the termination thereof, regardless of the reason for the employment termination, you will not, directly or indirectly, anywhere in the Mexican Republic, on behalf of any competitive business perform the same or substantially the same job duties.

## 9. CONFIDENTIALITY AND SOCIAL MEDIA POLICY

- (a) The employee convent and agrees that during the term of employment with the company and for 3 (Three) years after the termination thereof, regardless of any reason directly or indirectly divulge or disclose and return (after termination) the confidential information and trade secrets of the Company to anyone outside the company without the written consignment of the assembly of partners.
- (b) Colectivo Terra Vita S. de R. L recognizes that the internet provides unique opportunities to participate in interactive discussions and share information on particular topics using a wide variety of social media, such as Facebook, Twitter, blogs and wikis. However, employees' use of social media can pose risks to Colectivo Terra Vita S. de R. L. confidential and proprietary information, reputation and brands, and can jeopardize the company's compliance with business rules and laws.
- (c) Social media should never be used in a way that violates any other Colectivo Terra Vita S. de R. L. policies or employee obligations. If your post would violate any of Colectivo Terra Vita S. de R. L. policies in another forum and harass other employees of in social media in any way.
- (d) The Managing Director should also never provide references for stakeholders on social or professional networking sites, as such references, positive and negative, can be attributed to Colectivo Terra Vita S. de R. L. and create legal liability for yourself and Colectivo Terra Vita S. de R. L.

## 10. LAWS

- (a) The contract shall be governed by the Federal Labour Law of Mexico.

## 11. INDEPENDENT LEGAL ADVICE

The Employee acknowledges that the Employer has provided the Employee with a reasonable opportunity to obtain independent legal advice with respect to this agreement, and that either:

- (a) The employee has had such independent legal advice prior to executing this, or;
- (b) The employee has willingly chosen not to obtain such advice and to execute this without having obtained such advice.

## 12. ENTIRE AGREEMENT

This contains the entire agreement between the parties, superseding in all respects any and all prior oral or written agreements or understandings pertaining to the employment of the Employee by the Employer and shall be amended or modified only by written instrument signed by both of the parties hereto.

## 13. SEVERABILITY

The parties hereto agree that in the event any article or part thereof of this is held to be unenforceable or invalid then said article or part shall be struck and all remaining provision shall remain in full force and effect.

IN WITNESS WHEREOF the Employer has caused this to be executed by its duly authorized officers and the Employee has set his hand as of the date first above written.

SIGNED, SEALED AND DELIVERED in the presence of:

-----  
[Name of employee]

-----  
[Signature of Employee]

-----  
[Name of Employer Rep]

-----  
[Signature of Employer Rep]  
[Title]