

# A Model for Urban Re-Vitalization and Upgrading

La Reformita, zone 12, Guatemala City



Integrated Urban Planning - IUP  
Sweden - Mozambique  
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Author: Arch. MFA Ana Lucia Ruano Robles

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# A Model for Urban Re-Vitalization and Upgrading - La Reformita, zone 12, Guatemala City

## INTRODUCTION

With 234 years of existence Guatemala City has a lot of history and it has suffered great changes throughout the centuries, not only due to an uncontrolled growth but cultural and social change as well. For the visitor it is a new experience getting to Guatemala City, because the first impression will be that is a chaotic city, cars buses, trucks, running pedestrians, street vendors, etc.; all of them sharing the same space, in a disorderly way. The traffic is intense from early morning to late in the afternoon, being that a lot of people come to work from outside the city limits. You will see every kind of movement, people working, trucks just passing by to get their goods to another part of the country and people with goods to sell in the market.

As far as the city and city limits are concerned, it has become practically impossible to determine where the actual city starts, since the rapid growth of the city has reached what used to be the outer villages and merged into one. In recent years, from 2002 to date, the urban traffic problems to the entrances to the city have increased (within the central district), the cost of fuel has been increasing and the growing inflation has been observed. This is coupled with the lack of necessary and proper infrastructure and has provoked that certain areas of the city gradually lose its population density. Residential areas had become centers for commercial activities during the day and left deserted at night allowing illegal activities during this time, increasing in this way the violence. This also generates among other things urban disorder, insecure areas, uncontrolled urban growth and poor living conditions.

These conditions create the opportunity for the preparation of a “Proposal for upgrading and re-vitalization” of several urban sectors of Guatemala City. In this case we will focus on a determined area of zone 12 and propose a development model of it. The basis for this redesign are the proximity and the access to public transport, the existence of basic services (drainages, drinking water, electricity), ease of providing services to take the concentration of population in the area, a mixture of size solutions for housing and economic segments. It will in the end be a mixed use of commercial, office and housing (a unitary model for the development for the area)

The project is aimed at helping revitalize an area that is actually abandoned at nights. It used to be a housing area, but due the rapid growth of the city it turned into a mixed use area. This would not have been bad if it has if it has done so in an orderly way and following a plan, but it has been rather disorderly leading of the reuse of buildings designed for a specific purpose and turned into something else. This carries along a lot of different issues that can be identified with some research to bring a solution from the core.

It will be a benefit for the community in general, not only will it be good for the few residents that still there, but It will bring work, improved infrastructure, social and educational facilities. The main goal is to generate a sustainable solution that would be not just a pretty architectural solution but an integral plan to improve the quality of life of the residents and the environmental conditions in the surroundings

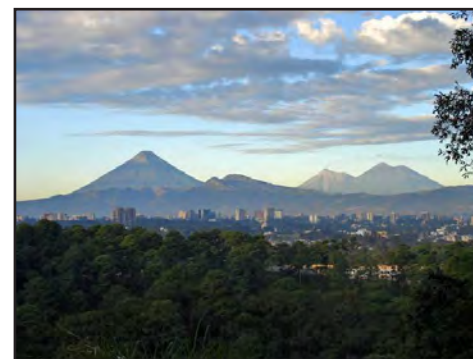


Figure 1:  
Guatemala City Valley

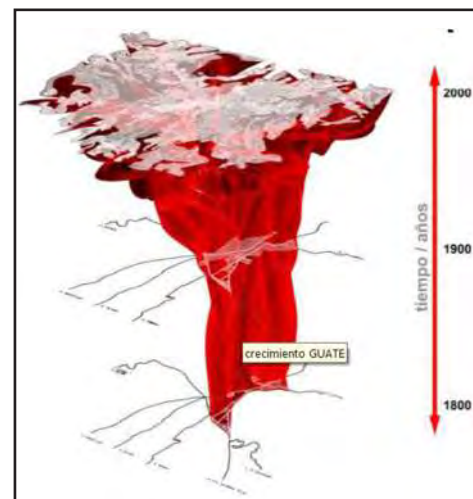


Figure 2:  
Guatemalas City Accelerated Growth  
Source: POT Plan

## Guatemala in figures

### Population

11.23 million (2002)

### Urban/rural population rate (%)

46.1/53.9 (2002)

### Total area

108,889 km<sup>2</sup> (aprox)

### Languages

Spanish (official)

Quiché, Mam, Kekchi and Cakchiquel, together with 60 - 70 other Mayan languages

### Ethnic groups (2002)

Indigenous ~ 41.03%

Non Indigenous ~ 58.97%

### Day average temperature

Guatemala City; 21o C July

17o C January

### Seasons

Dry season (October - May)

Rainy season (June - September)

### Precipitation

Range from 1000 - 1500 mm

### Sun lightning

180 sun/hours, indicates a medium level of solar exposure. In the Guatemalan Region the sun is in the Zenit from April 29<sup>th</sup> to April 30<sup>th</sup> and from August 14<sup>th</sup> to August 15<sup>th</sup>

### Relative Humidity

75%

### Wind

In the country the wind direction is N - E to S - O, during the months of February, March and October Inverse flutuations are registered. Max speed is 50 to 60 Kms/h

### Sources:

Instituto Nacional de Estadística (INE)

INSIVUMEH

## BACKGROUND

### Universal

The Republic of Guatemala is located in the northern part of the Central American isthmus, bordering on the north and west with the Republic of Mexico, on the South with the Pacific Ocean and on the east by the Atlantic Ocean and the Republics of Belize, Honduras and El Salvador.

Its territorial extension is approximately 108,889 square kilometers. The country has two seasons a year, winter and summer, it's climate is varied according to its topography and therefore it can go from warm to mild and very cold. It is divided into 22 departments, which are grouped in 8 regions.

### Social Value and Identity:

The Republic of Guatemala is characterized by its beliefs in supernatural beings, the stories and old habits, which are carried solemnly in various rituals. These are observed mostly in the rural provinces and municipalities.

The main parties and fairs are addressed to: the Saints, All Souls, Lent, and Easter with its traditional processions and carpets, the month of Our Lady of the Rosary, among others. Folk dances also make an appearance in some celebrations. Among them, the Moors, Christians, El Torito, La Conquista, Los Diablos, Costeños, treats, The Fierce, 12 Pairs, and others.



Figure 3: Universe of Investigation  
Source: Google Earth, Atlas Guatemala



Guatemala City has its own unique habits and identity. This is a nucleus of different kind of values in terms of cultural heritage, urban, social and economical values, which have been evolving through the history of the city and its growth.

The people that moved from the last city, “the old city” brought along with them their own values and customs. Thus the new city inherited not only social values but urban and architectural ones as well.

Proof of this is found in still existing oral traditions, legends, gastronomy and buildings with particular characteristics.

The main “fiesta” for the Capital City is from August 8<sup>th</sup> to 16<sup>th</sup>, the main date being the 15<sup>th</sup>, the date on which the Catholic Church celebrates its patron saint, the Virgin of the Assumption.

## Urban History

The foundation of “Guatemala City” has an interesting long history, due to the topography of the country, it was moved 3 times before settling down where is now known as “Guatemala de la Asuncion City” at the end of 1775. At that time the “old city” was destroyed by an earthquake and therefore the urban planning and the urban characteristics evolved with each change of location. The new site was chosen because it had access to water, provided healthful conditions and security from earthquakes, which later proved to not be as secure as first assumed.

The official date for the foundation of the new capital city is January 2<sup>nd</sup> 1776, founded during the last decades of the colonial times, then used the “Spanish model” which was established by the orders of Felipe II in 1573. Like every colonial design it had basic characteristics (See figure 6):

- Landscape divided by a main square in the center
- Streets divided into blocks
- One storey houses with a central yard in them

The original plan for the city included two hundred blocks, organized around Plaza Mayor, the central and ceremonial square. The city grew slowly and the new housing areas were mainly located to the northwest of the city. One of the first neighborhoods that still exists to the date is known as “La Parroquia”. After just a couple of years of settling the new city there was already 11,000 inhabitants (Lagenberg 1981:387/Gaceta de Guatemala). The water shortage was already beginning to be evident and two large aqueducts were built. It remained a colonial city for a century. When the liberal period started the urban structure transformed from colonial to modern. As a result of the expanding economy and investments in infrastructure and social programs; that ranged from schools, public spaces all the way to railroads and electricity, this development period lasted from 1871 through 1918 when a series of earthquakes hit the city.

Reconstruction begun after this and as a result many 19<sup>th</sup> century heritage buildings were replaced



Figure 4:  
“Semana Santa” - Easter carpets



Figure 5:  
Folklore - “Los Moros”

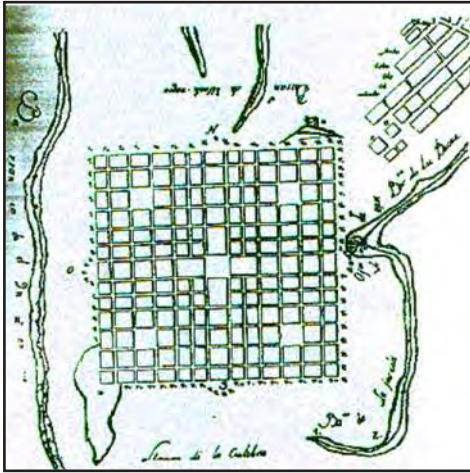


Figure 6:  
Design of "The New City of Guatemala, 1776"  
by Luis Diez de Navarro, 1776:

This Project was based on the square design, which consists in a "Central Square" or park surrounded by Governmental buildings and the Cathedral; on the four cardinal points other four square are developed with their respective churches.

with new ones. By the 1940's there was a modern scene going on, and the city started to grow in an accelerated manner.

The city had now begun to sprawl in all directions. Soon bridges across the ravines were constructed to connect the centre with the rest of the valley and the main roads developed as the axis of the growing city. This also led to segregation and migration as the most prominent families moved from the city centre to the new suburbs, while the people from the departments started to move the city. All of this combined resulted in the deterioration of the centre and the shortage of housing for the new habitants. Another earthquake hit in 1976 which destroyed a lot of buildings and caused a doubling the amount of housing needed. People were forced to form informal settlements. It was realized that social housing projects were needed, which was rare in the country and mostly it was financed with international help.

In the 1980's the economic recession hit the county and the social housing was not enough to satisfy the demand. People started to invade land wherever it could be found, from suitable land to the ravines. The government evicted these people from risk areas and gave them a space in the periphery of the city and outside the metropolitan areas. Then the invasion was uncontrollable and instead of reducing the numbers of invaders, they grew.

Since previously invaded land was invaded again the squatters multiplied. In an attempt to find solutions some invaded areas were consolidated and

legalized, and consequently there are lots of them presently.

## Urban Development

The trend described above has continued and the city is still growing in every direction possible. Development takes place even in ravines and other unsuitable areas through private developer, land invasion and creating new squatter areas. This situation led to the creation of a municipal entity with the task to properly consider urban planning and development. The entity is known as "Metropolis 2010" and it works along with a consulting Dutch firm DHV. There has been a struggle between the municipality and the central government concerning urban planning. Since the government can intervene at administrative levels, it is sometimes difficult to reach common ground and develop urban proposals.

Also there is no common building code and no norms for land use and development applicable to the whole country. Each municipality is responsible for its own urban development and each one puts up its own criteria and regulations for doing so. They are not concerned with proper sustainable development and housing projects, in the absence of central government guidance the common approach is provided and covered mainly by FOGUAVI (autonomous governmental department), the private sector and non-governmental organizations. They play an important role for upgrading and development of low-income housing.



Figure 7:  
Palacio Nacional de la Cultura  
(City Hall)

Metropolis 2010 is the department for planning and development in Guatemala City. They have created a plan called by the same name. Basically this plan intends to improve the city with high-density development in the centre and sub-centers. A road system consisting of new ring roads with bridges over the ravines and existing diagonal roads for connecting new and existing sub-centers forms part of the proposals.

The public transportation system is based on a semi-circular ring road called Anillo Periférico (Spanish for ring road) that surrounds the city centre on the west side. The aim is to develop the other half of the circle to complete the ring road.

Since 2007 a new a bus system called “Transmetro” has been implemented, which has its own lanes in the streets. The principle for this system is to avoid mixing with the ordinary city traffic and give proper transport services to the people. The buses have fixed stops at certain distances and they are located near areas of heavy pedestrian activity. The bus route transits over the main axis of the city. Currently there is only one route, but there are plans to create new routes to provide public transport for all parts of the city.

The latest effort that is being implemented is the new “Plan de Ordenamiento Territorial – POT” (stands for Land Management Plan). The main objective of this plan is to give guidelines for the new urban planning and some guidance for the accommodation of the existing areas, so they can be integrated to

the new scheme. This plan intends to classify the type of areas, buildings and land use within the capital city, so that the rapid growth that is happening can be in some way controlled and well managed.

The vision of the municipality for the POT is that it will help simplify the existing rules, with the aim to give more clarity of information for everyone interested in developing in a certain area (investors, residents, and authorities) and provide quality of life mainly for the residents.

It is based on the categorization of the territory in general areas ranging from rural to urban, taking into account the supply of transport to determine the intensities of construction and reducing it in areas that are environmentally valuable or where high risk is notable. The POT standardizes administrative procedures that will occur as a result of interventions at a certain point in the territory, i.e. fractionalization and project initiatives or change in land use.

### Urban Challenges

Spatial segregation of the population, uncontrolled distribution in land use and urban sprawl has produced several negative effects. It has been observed that there is increasing costs of public services and as a consequence there has been an increasing reliance on the provision of services by the private sector (wells, treatment plants, private means of transport such as cars, etc).

Located on the central plateau, is positioned as the largest city in Central America maintains privilege since its foundation, as it was the center of the General Captaincy of Guatemala, which extended from Chiapas and Soconusco to Costa Rica.

Guatemala City is the largest urban agglomeration and also the political, social, cultural and economic centre of the country. It is the country's node of communication and it handles almost half of the capital invested in it.



Figure 8:  
Guatemalas City Zonification

The actual urban population growth rate according to UNICEF is 3.6% per year, which is very similar to the urban geographic expansion. This has resulted in a horizontal growth, which leads to wrongful use of sensitive areas and risk areas. There is a lack of municipal land to satisfy the increasing housing demand resulting in squatters. Since the space for growth within the city limits is not possible anymore, one of the solutions for resolving this issue is to grow in a vertical manner, providing good quality of housing for the people that are inevitable living in the city. This situation and the persistent development issues provide a good opportunity for implementing a new urban development model to guive guidelines for re – vitalizing urban areas.

In the analysis other priorities that had been identified are as Follows:

- Sprawl
- High cost of living
- Environmental management
- Public transport
- Primary road system, among others

The main problem to be faced in the near future is the increasing population living in this territory and its surroundings. The city limits have been reached in some of its municipalities and this has negative implications from the environmental, economic and social perspective. The social concerns will require that efforts are made to provide quality services and housing options, health education, and equitable access to development.



## DESCRIPTION OF THE PILOT MODEL

### Project Objective

The intention is to provide a model to be used and implemented in Guatemala City and in other urban areas that have similar characteristics and are suitable for re-vitalization, to exemplify this the pilot area is a sector of zone 12 in Guatemala City. The following items should be used as a guideline and be adapted to the area that is going to be re-vitalized.

The bases for the redesign are the proximity and the access of public transport, the existence of basic services such as drainages, water, electricity, and the the existing educational facilities. These existent facilities will permit a planned densification of the area. Resulting in a well planned mixed area, including commerce, office spaces and housing areas, keeping in mind the different economic segments that live in the area, resulting in a unitary model of development.

The population growth in Guatemala City has reflected the political, economical and social events in it. The Guatemalan Municipality has initiated a recovery plan for the city and for some sectors of it. This plan implies considering basic services and infrastructure systems, such as public transport and territorial regulation plan (POT) that has already been approved by the government. The plan will also provide benefits so that a significant share of the population can be returned to the city of Guatemala in the next 15 years, generating self-sustaining urban centers within the city limits and improve access to

basic services for all.

The project is aiming at helping revitalize an area that is actually abandoned at nights. The area used to be a housing area but due the rapid city growth it turned into a mixed use area. This would not be bad if it had been done in an orderly way and following a plan, but it has been rather disorderly leading of the reuse of buildings intended for residential use into something else. This carries along a lot of different issues that can be identified with some research to bring a solution from the core.

### Target Group

According to INE<sup>1</sup> Guatemala's current population is of 11,237,196 inhabitants scattered in its 22 departments. 22.62% of this grand total lives in Guatemala City area, which is about 2,472,184 people (see figure 9).

The specific population that will benefit from the project are the inhabitants of an specific area of zone 12 in Guatemala City called "La Reformita", located on the south side of the city. This particular area presents a great opportunity for developing a model for revitalization of existing urban areas that are being abandoned. This area represents a merely 1.71% of the total Guatemala City's population (see figure 10).

It will be a benefit for the community in general meaning not only will it be good for the few residents

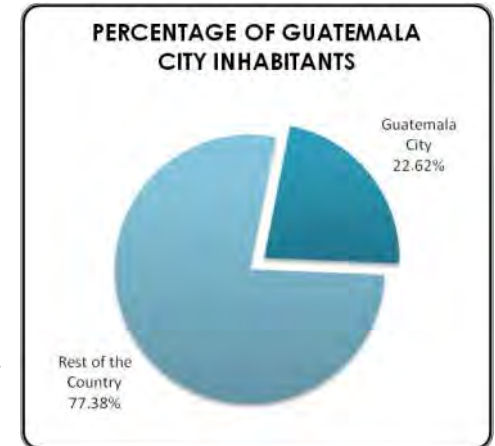
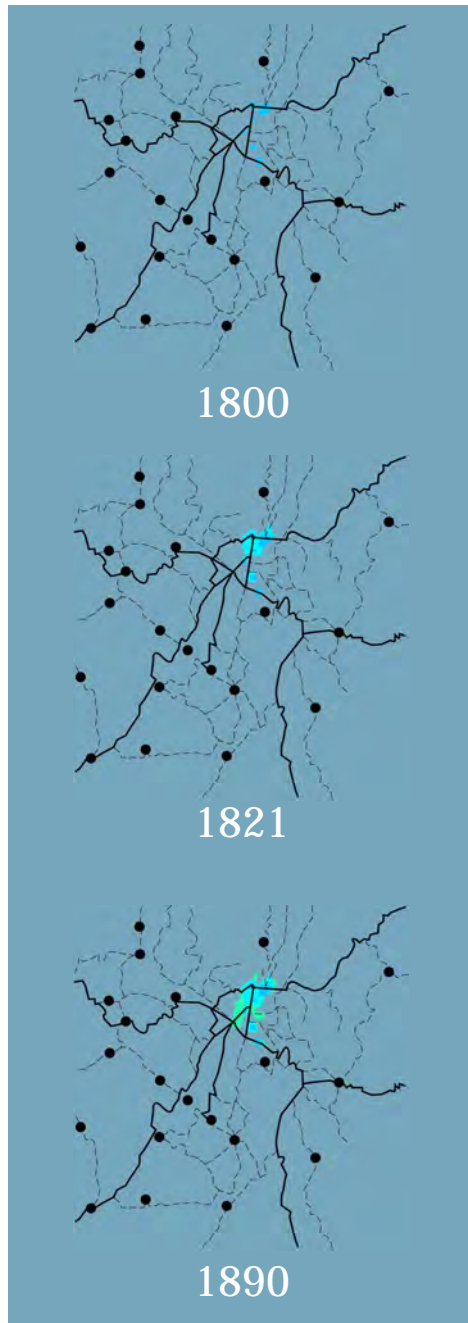


Figure 9:  
Percentage of Guatemala City Inhabitants  
Source: INE 2002



Figure 10:  
Percentage of Zone 12 Inhabitants  
Source: INE 2002

<sup>1</sup> INE (Instituto Nacional de Estadística) - The National Department for Statistics



that still live there, but it will bring work, infrastructure services, social services and educational facilities to the area. The main goal is to generate a sustainable solution that would provide not just pretty architectural solutions but will be an integral plan to improve the quality of life for the residents and also improvements in surrounding areas.

### Stakeholder Analysis

Stakeholders are considered to be as anyone, who is involved and will have a saying during the planning process, this does not mean that they will be involved in every stage of the process.

Since the project is intended to be a Master Plan for a big area, the process needs the collaboration with several stakeholders in order to achieve the targets. The group of stakeholders will include but will not be limited to the municipal authorities, Multiproyectos (the company that is developing the master plan), the community (workers, local population, and traffic of different sources), outside investors (other interested companies) and if possible international donors.

They have been divided according to size or the representation and the type of activities into four groups:

- Authorities and investors: These are the organizations or people who will lead the project in some manner, the ones that will bring the resources and the experience and will be involved

to develop the plan

- Municipal Authorities
- Multiproyectos
- Private Investors
- International Aid and NGO's

- Personal Interest: These are people that actually will benefit from the implementation of the plan. They are the core for the investigation regarding issues, assets and needs of the area

- Community
- Market Inhabitants
- Small home business
- Workers and Passers by

- Commercial Relationship: There are many economic interests at play so these persons and organizations that have a very important role to play in the planning

- Industry Sector
- Business on the main streets
- Bar owners

- Students and University: This is one of the strongest points in the plan, this is an anchor for the revitalization problem, because the inclusion of these groups in the planning and eventually the beneficiaries of the implementation of the plan will make the area alive. The revitalization will also solve the housing issues for students that come from outside the city

- University
- Students who lives in the city

o Students who will come from other parts of the country and need a place to live in while studying

## Planning Process - Organization and Administration

The project is proposed to be carried out as collaboration between the municipal authorities and private investors, being coordinated by Multiproyectos.

The goal is to propose a master plan for the reordering and redesign of the areas in the sector (land use master plan) and a proposed methodology for similar future projects in other settlements. On a much smaller scale, it is the intention to develop a igniting project in the area to get the interest of different private investors to become involved and develop the area according to the proposed plan.

The administration of the planning project should consider the following entities (see figure 11):

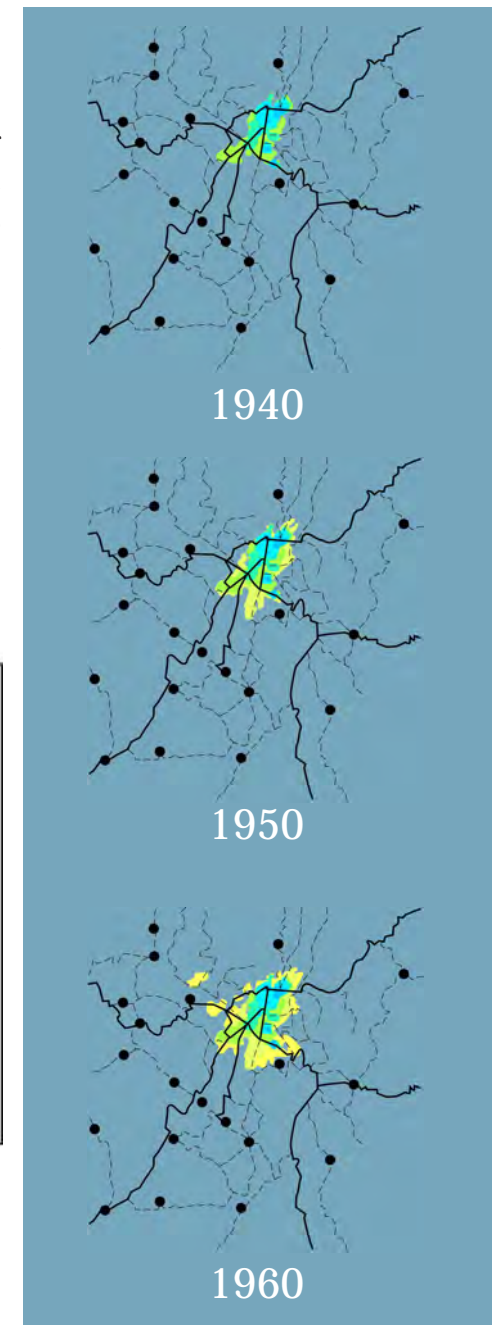
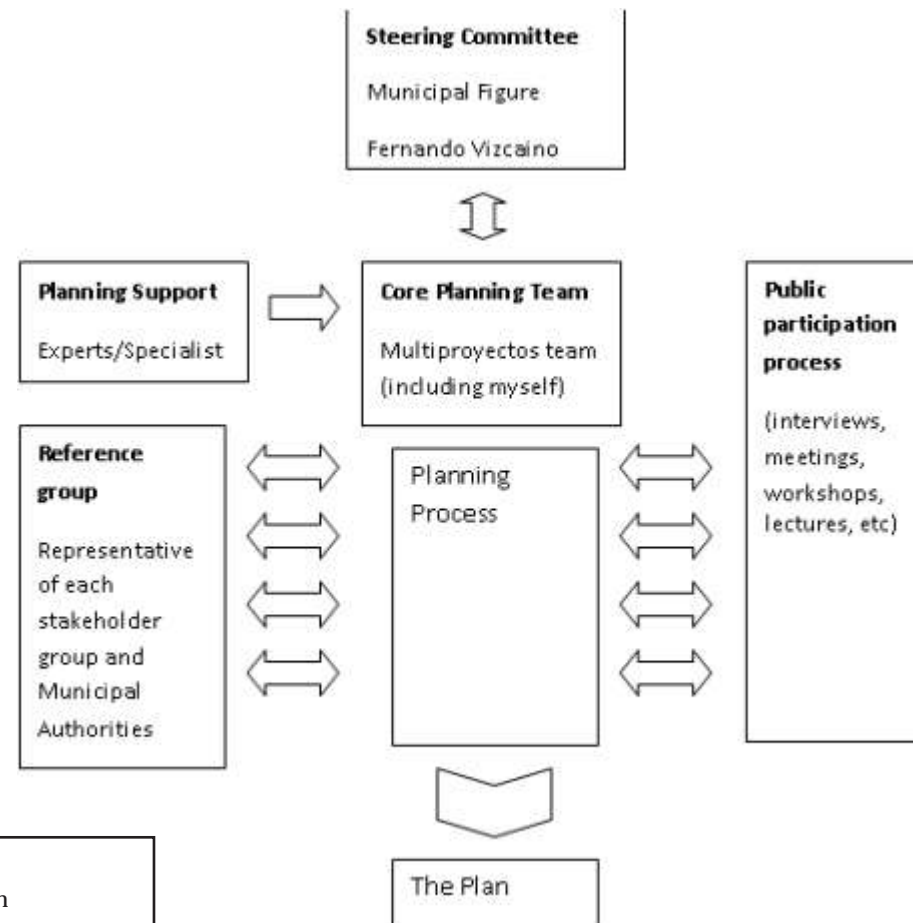
- Steering committee - should function as a sounding board for ideas; provide guide lines and recommendations as required.

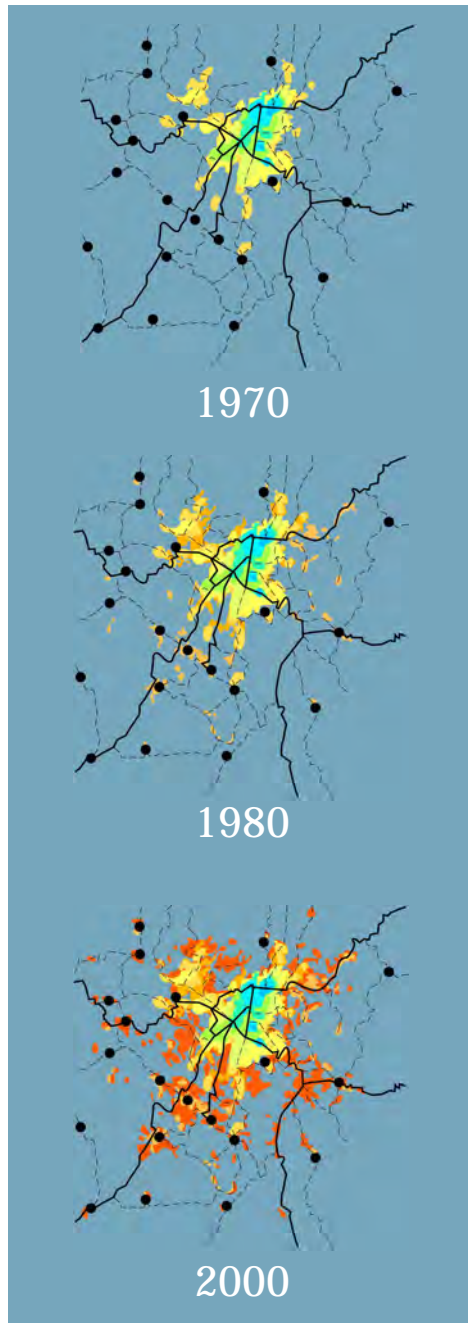
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Figure 11:  
The Planning Organization

should include representatives of the investors and the authorities involved.

- The core planning team - responsible for developing the actual plan for implementation and all the documentation required for this
- Planning support - will bring input from expertise, they will function as advisors and it will have a





temporary participation and set-up.

- Reference Group(s) - consisting of important stakeholder organisations in the area, investors and municipality representatives. They will bring forward the inside vision of the area and their needs, for this purpose there will be a need for group meetings to discuss the issues that are presented.
- Public participation process - This will help to know communicate with and meet the public and local CBOs at regular interval for exchange of ideas, analysis of problems and potentials, and capacity building.

For the planning process to succeed is important to have as a complement a working plan and a time table for each of the phases and for the activities necessary for implementing the proposal. Everyone involved in the process will have to be bounded to the schedules for times, targets and objectives are met. This will be managed by the core team and each stakeholder that is involved will have to commit themselves to it according to their responsibilities.

### Present Situation Analysis

The area that is being analyzed is a mixed use area, that started as a housing project but then rapidly grew with informal business to help the economic situation of each household, this led to the first mixed activities (living/working) permitting with this that everyone started to bring home their work.

The constructions were used for whatever needs and some of the properties have simple fences or some kind of non-formal walls and have poor provisions for services normally required to put up a business such as a mechanic shop or wheel repair shops .

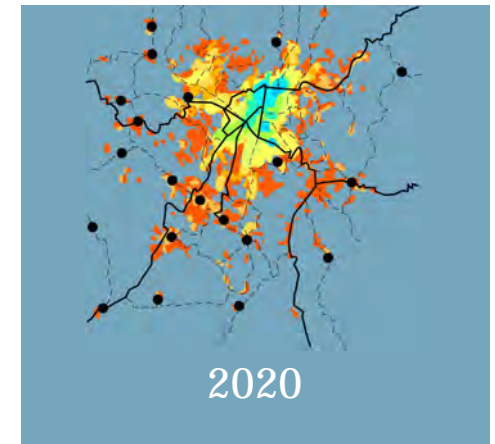


Figure 12:  
Urban Development Guatemala City  
Source: POT Plan



The area is being situated between 2 major circulation arteries and the land along these roads has increased in value not to mention the proliferation of business. Bit by bit people started to move out due the noise and all the unknown people that came into the area, ending up with a really busy area during day but silent almost abandoned at night. This situation was worsened by the levels of delinquency and lack of good lightning along the streets.

The following describes the situation analysis from different perspectives:

- *Regional Setting*

- Guatemala City is divided in 20 zones; zone 12 is located at the south of the city centre. It is formed by various neighborhoods, among them is “La Reformita” which will be the one area chosen for this study
- This is an urban setting project, located in the city, between 2 major streets. It gives the location easy access and connectivity to the rest of the city, and has the advantage to be near the San Carlos University (national university).

- *Architecture and construction*

- It has no defined architectural style, since it has been growing as the years have gone by, there can be found many construction techniques, some formal housing and some rather informal and insecure buildings.
- Materials range from masonry, wooden

constructions and some new ones made out of concrete. The less safe constructions are made out of waste and rubbish materials like used galvanized sheets, wood or even cardboard

- *Demography*

- Percentage of female population is higher than male population
- Most households are overcrowded, considering that they do have formal buildings along the area
- Majority of inhabitants are economically active, situated between the ages of 15 to 64. And men are more likely to have works.
- The area shows that the inhabitants have at least primary school education
- For more details see “Zone 12” in figures frame

- *Land Use and Existing Regulations*

- Land use as has been mentioned is diverse including but not limited to housing, informal commerce, street commerce, bars, schooling, industry, arranged in a disorderly way.
- There is a new regulation for land use being implemented in Guatemala, mainly aiming at new developments or recuperation of certain areas. This will be applied to this project (POT) and based on this new regulation proposals can be developed.

- *Transport*

- The area has access to the only massive

### Zone 12 in figures

Population and Households	
Population	43398
Male/Female (%)	47/53
Households	7508
Persons/household	5.8
Age (%)	
0 - 14	26
15 - 64	67
65 -	7
Education (%)	
None	5
Pre Primary School	1
Primary School	33
Secondary School	32
Higher Studies	18
Housing Types (%)	
Formal Buildings	71
Private Apartmets	4
Rental Room/small apt	24
Imporvised	1
Instalations (%)	
Water	34
Drainage	31
Electricity	35
Labour Force (%)	
Male	25
Female	19

Sources:

Instituto Nacional de Estadística (INE)

means of transport in Guatemala: buses and the new improved Transmetro

- There's no internal transport service, to communicate both of the main streets and the area within

- Economic Activities

- This is a mixed use area, and it is an economic focal point for the city, the variation in types of business includes a wide range, that goes from little house business to private conglomerates.

- Storage facilities are easily found in the area, lately this type of condominiums has been growing along "Calzada Atanasio Tzul" which is a less important street regarding communication within the city, but getting increasing commercial value every day

- At the moment there are clearly some activities identified like informal house commerce (tiendas), the public market, bars, industry area and formal commerce

- Services (social and commercial)

- The area has two public primary schools, a public market, one public health care center, the university and churches. One of the national hospitals is near the area so it can be reached easily.

- Regarding commercial matters it is easy to find practically anything you look for, besides the public market there are also small stores incorporated in the houses (called tiendas), home bakeries, and a big supermarket on the main street

- Infrastructure and urban equipment

- In order to create a better area the existing infrastructure has to be analyzed to determine if it needs improvement and what is missing

- Infrastructure in the area is already there, it has basic services such as water, sewage system and electricity. However there are some tenants that still use old drainages like septic pits or drainage outlets into ditches; instead of connecting their properties to the main sewage line. It also has paved streets and phone line access

- We can find some urban equipment such as:

- § Trashcans

- § Phone booths (prepaid card ones)

- § Advertising fences

- § Street lighting

- § Traffic lights (only along the main streets)

- Land Ownership

- Land ownership in most parts of the area is private and rented to third parties if not used by the owner. Some areas remain as public domain and the municipal authorities are the ones that manage and own such land.

- Open space/greening

- None! Just a little basketball court and a couple of trees on the sidewalks, no proper green area

## SWOT - Opportunities and Development Potential

For a better understanding is just a matter of pros and cons. The SWOT analysis has to be developed between the Steering Committee and the community and this will be best achieved through workshops and interviews. For the model and for getting any process started the developing company will analyze the area and decide if it is suitable for re-vitalization.

### *Strengths and Development Potential*

- Existing infrastructure (meaning less investment)
- Important access streets around the whole area
- National University Campus
- Commerce and economic activity already established
- Great potential for improvement of living/working conditions for the inhabitants
- Great potential for attracting people to move back to the area (since now is just active by days and the inhabitants had moved away)
- Significant potential for new development niche, to offer different accessible housing units
- Implementing IUP

### *Weaknesses*

- Lack of capacitating on IUP
- Traffic reordering (are we capable of covering the demand?)
- Lack of integrity among the construction techniques and materials available (economic issue)
- Abandonment of the buildings during night hours
- Deterioration of the urban environment due to the

lack of maintenance for the buildings, public wiring, transportation and delinquency.

- Poor safety and security

## Formulation of development objectives for the project area

From all that has been observed before the following questions can be put forward: How can an urban and architectural solution to the problem of disintegration between living, working and public spaces be found? How to improve the urban environment of “La Reformita”, through an urban and architectural proposal? How to give a new use to the already existing infrastructure? What characteristics should be considered as valuable to develop and later to be implemented through a master plan for the area?

### *Hypothesis*

To improve the urban environment of “La Reformita”, it is necessary to propose a methodological model for the urban re-vitalization plan. The model will give guidelines and a general view of what is needed to achieve the goal. The outcome of the plan will be restored interest in the area and improved living environment to its inhabitants.

There is the need to re order the activities and restructure the land use in the area, and provide some public spaces for the people. A good integrated urban such improvements to the benefit for the inhabitants. It will merge human needs for living, working, resting and basic services areas.

For the full proposal to be authorized for developing and implementation, first a general proposal has to be given to the municipality, for them to understand what is it that wants to be achieved. And only after approval has been given it can be developed fully (develop in detail each of the phases)

## Objectives

### General

To conduct a comprehensive development area planning, according to a pilot model which will be “La Reformita” area and that can be easily used in other areas, i.e. a plan that can be a reflective mirror anywhere either in the city or in the interior of the republic. This master plan aims to restructure areas that are already established and share similar characteristics.

### *Specific*

Analyze a specific area in Guatemala City (zone 12), its present situation and infrastructure in order to propose a plan for re-vitalization.

Develop an urban master plan to propose land use restructuring based on the actual POT regulations and the needs observed in the working area. This will include the igniting projects needed for both the public and private sector to gain interest in the area.

Develop a document that can be used both as a guideline for future projects and a source of information for students and professionals involved in this area of urban planning and architecture

### *Method*

For this kind of project it is necessary to consult with professionals related in the urban field. It is also required to do a study of the target group (who the plan will serve). Collect graphic material (pictures, blueprints and physical visit) so the area can be analyzed. Based on the analysis of the compiled information and with “La Reformita” as a planning example the urban planning proposal for the

problem will be presented.

It is also important to consider the other stakeholders which will contribute with this model, such as the community involved since they will be the ones that will tell us the reality of where they live. With this important information then the planners can come up with an integrated urban proposal for the improvement of the area.





Figure 14:  
Calzada Roosevelt - Main Street

Figure 15:  
Avenida Petapa - Secondary Street

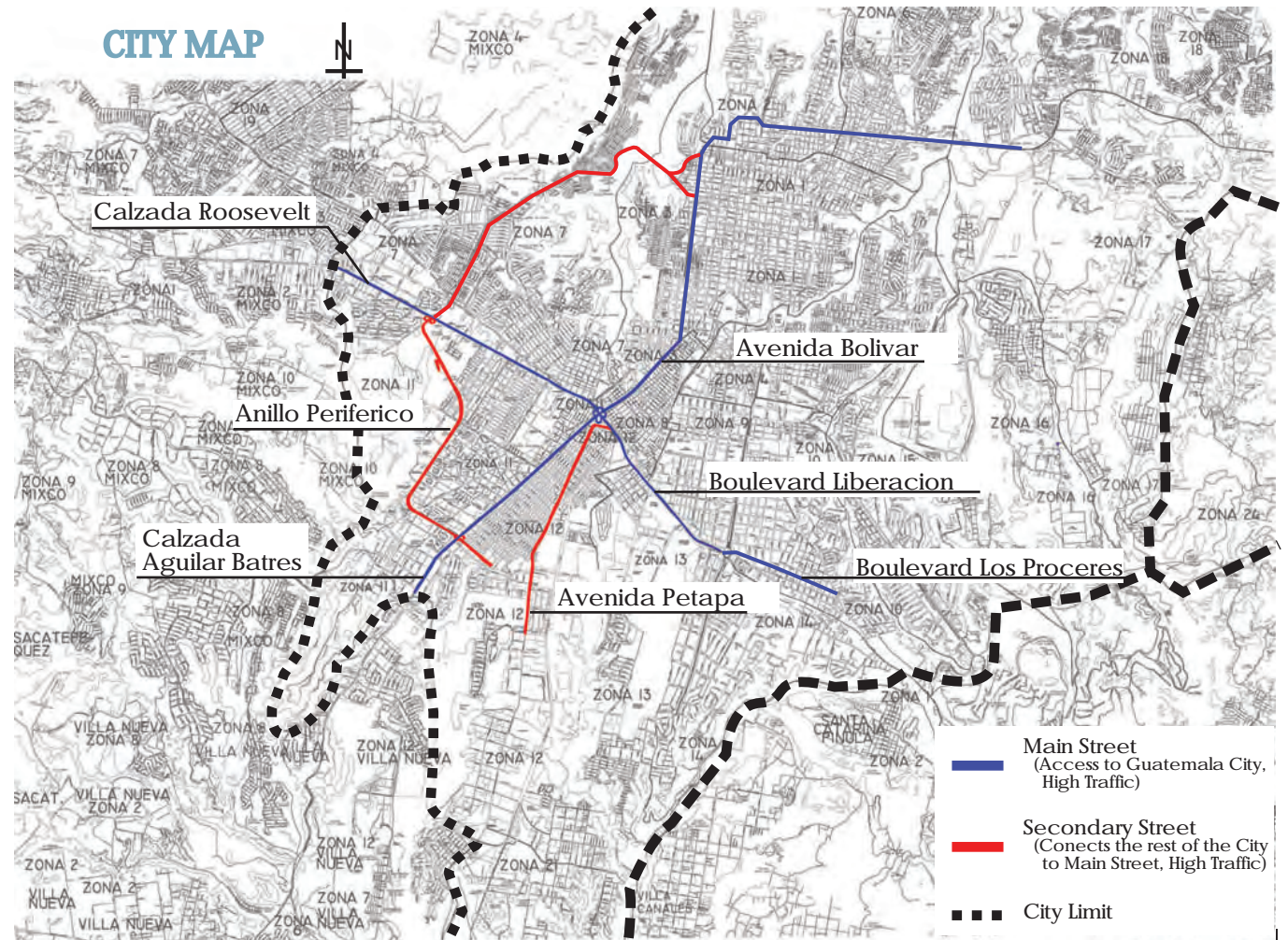
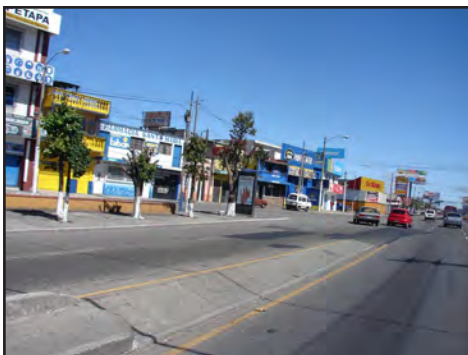


Figure 13:  
Guatemala City Limits

Figure 16:  
Calzada Aguilar Batres - Main Street







Figure 17:  
Aerial View



Figure 18:  
San Carlos University



Figure 19:  
Transmetro

Figure 20:  
Storage Facility







Figure 22:  
Roosevelt Hospital Entrance



Figure 23:  
Architecture & Construction in the area  
(Bar, tienda)



Figure 24:  
Architecture & Construction in the area  
(Mechanic Shop)

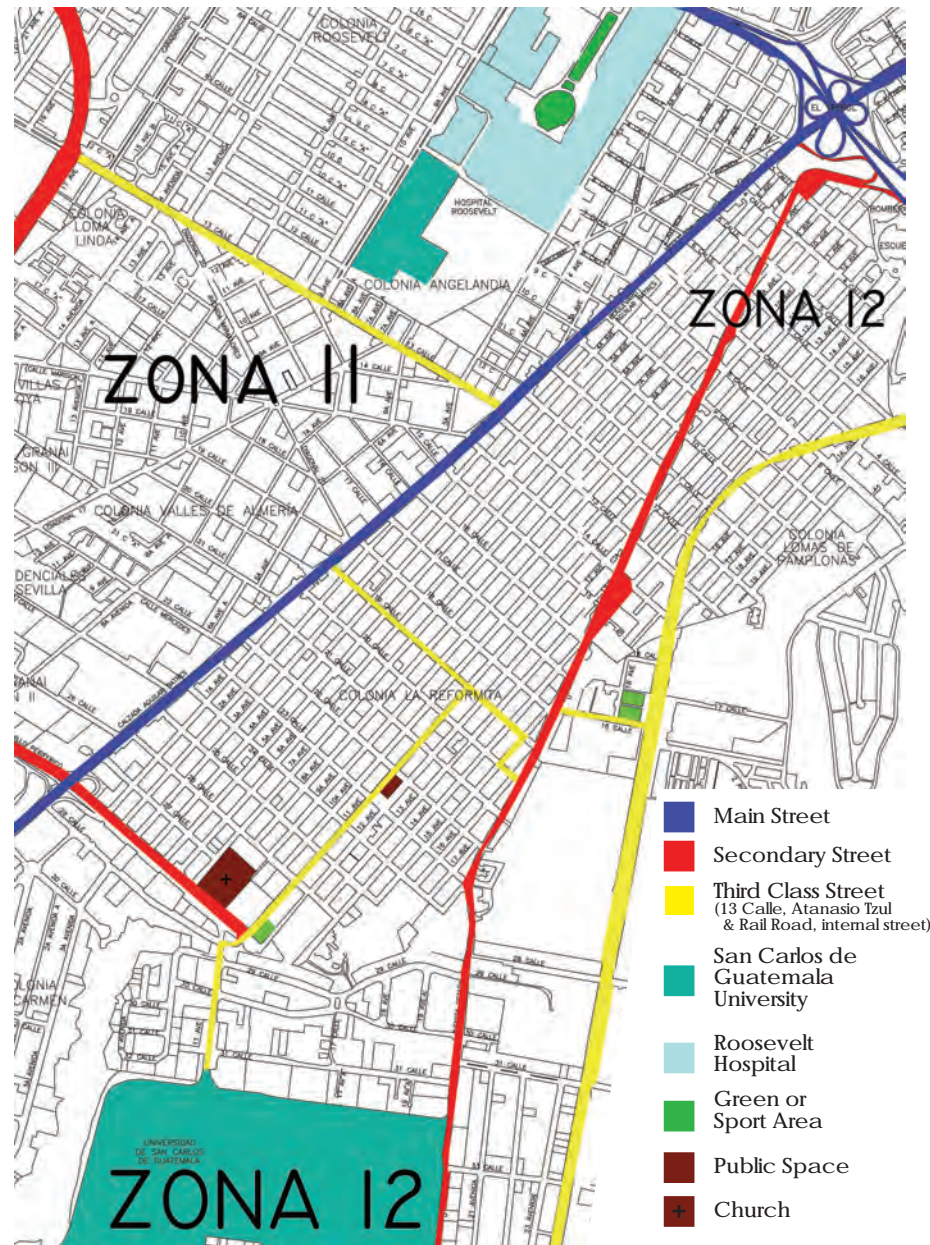


Figure 21:  
Present Situation - Study Analysis Area



Figure 25:  
Public Space - Sports



Figure 26:  
Public Market

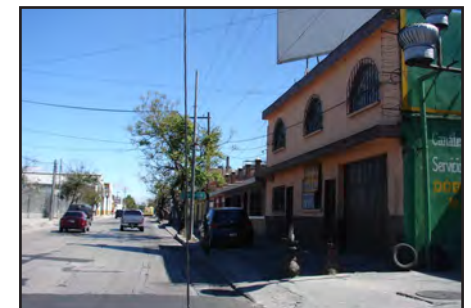


Figure 27:  
Streets within the area (non principal)

## PROPOSAL FOR THE RE-VITALIZATION AND UPGRADING OF “LA REFORMITA”

After establishing the needs and strengths of “La Reformita” an urban development plan can be proposed. The aim for this is to re-vitalize and upgrade the area through the restructuring of the land use, designing public spaces and green areas, implementing an internal transport system, using and modifying if necessary existing infrastructure and transforming it into a well integrated urban planned area.

### Alternative development scenarios

The area was conceived mainly as a housing area. To re-vitalize the area and propose a new master plan the housing component and conditions related to that will be considered as the center point for the planning. For this to be an integrated design it also has to consider the other elements such as economy, education and public areas to mention some. First the analysis will take a look at the present land use in the area and then scenarios are proposed and analyzed (See figure 28).

There has been considered 3 main development scenarios, which will be described as follows (see figure 29):

- Scenario 1: Greening and Public Spaces  
This scenario is an important part of the planning proposals in order to improve the quality of life of the area. There is an imminent

lack of green areas and public spaces for the inhabitants of the area to enjoy and to have some healthy distraction that is not expensive or free of charge in some cases.

The scenario considers not only parks but also squares that are available for some activities such as art expositions and other cultural matters, and finally some paths designed for pedestrians or bicycles. This will contribute not only in the mental well-being of the people but can also create a focus for improving the economy and the cultural interest in the community. The fact that the University is situated in the area can promote cooperation in terms of cultural issues and will help other institutions that are interested in using the spaces.

The provision of green areas and public spaces will have to be government financed, because these are part of the public infrastructure and public equipment. It is a government responsibility to provide this type of spaces for the community and to achieve well-functioning and well planned urban areas.

- Scenario 2: Private Housing (middle income)  
The housing interest is a primary issue in the planning for re-vitalizing the area; the goal is to attract people to move back to the area, and to make them interested in investing or buying property in the area.



Figure 29:  
Proposed Scenarios - Study Analysis Area

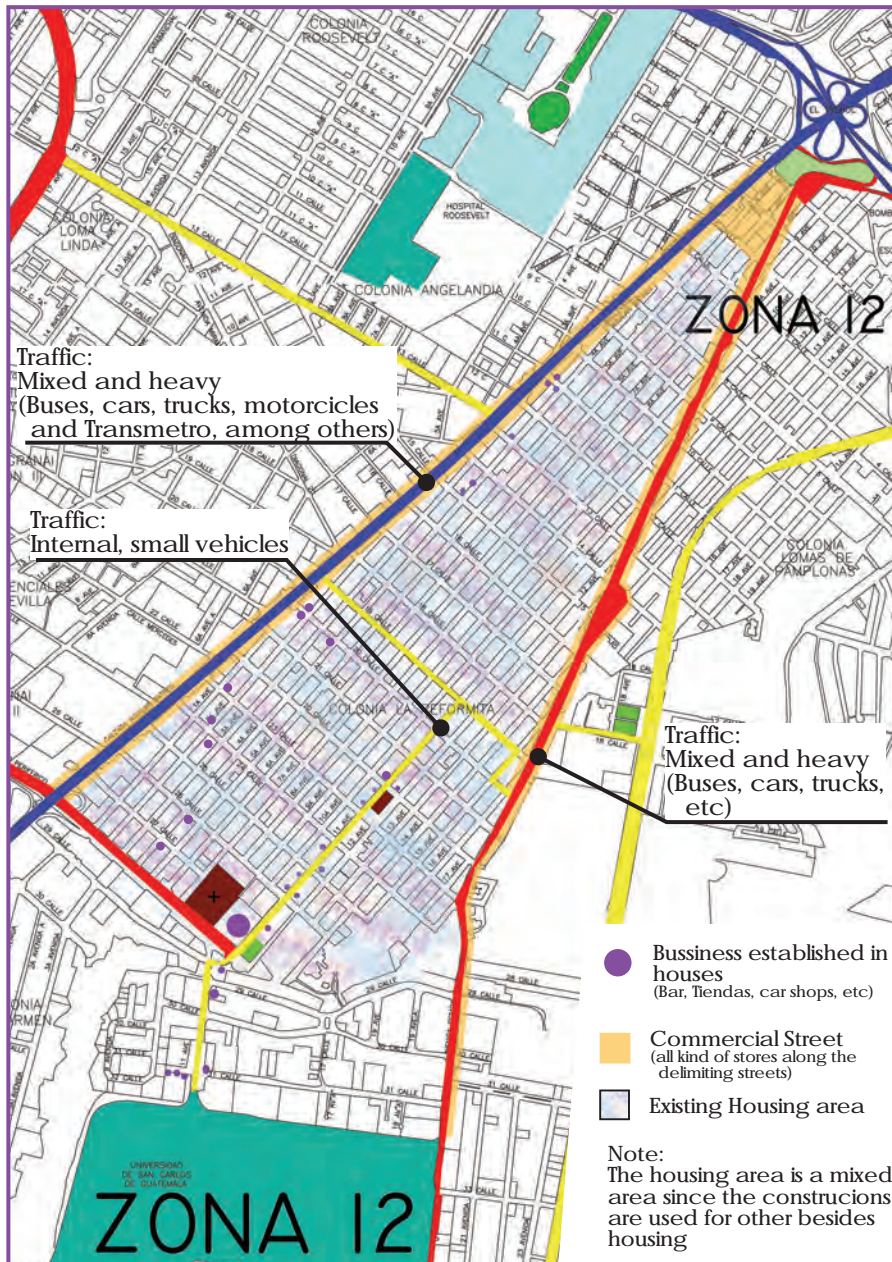
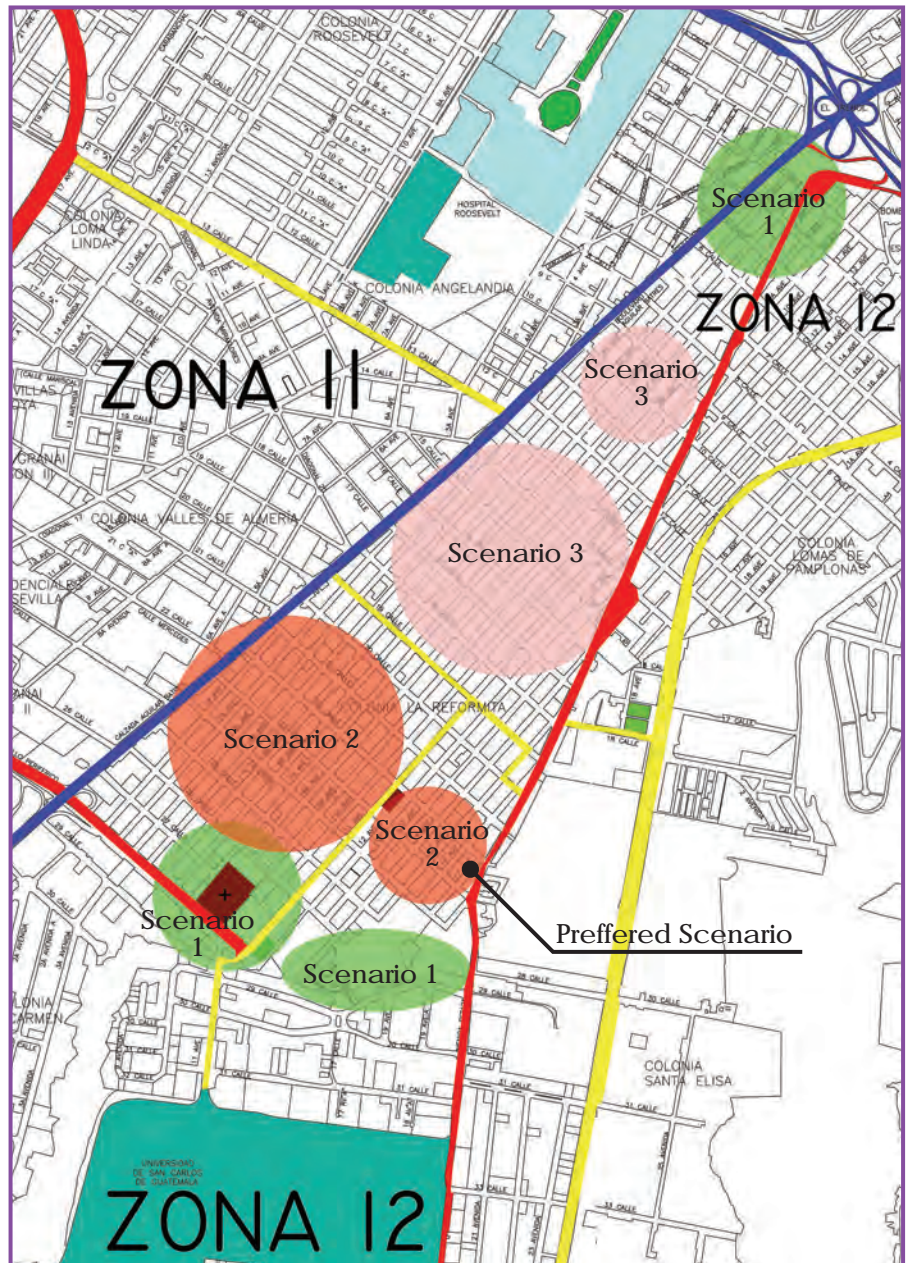


Figure 28:  
Present Land Use - Study Analysis Area



There is a niche for middle income housing, and to satisfy the wider market it can be divided in 2 types of private housing. This will cover the demand for the housing of multi-family buildings or individual houses.

A. Single family households: The individual housing provision would meet the demand raised by families with children and those households that wish to acquire and can afford a formal housing option.

B. Apartment Buildings: This option is specifically thought to provide a solution to the unfulfilled demand for apartments for students that attend to the San Carlos University. This is a huge phenomenon that has been happening over a long time, and is due to the fact that the only public university main campus is situated in the capital city, and for this reason many students are forced to come and live in the city. Since there is no proper housing for them their solutions varies from renting a room in a house to renting a house. Another main issue is the commuting distance between their place of stay and the campus. Housing for students in apartment buildings within the area represents a great opportunity.

- Scenario 3: Private Housing (low income) and Social Housing

Finally there is also space for a more affordable housing. Low income housing and social housing is considered a priority to give an

opportunity for the residents or for the people that will become interested in the area of acquiring a nice house for their family at a reasonable and affordable price. This has to be a government-private development, in order to ensure that the development can help those who have the least and are socially vulnerable.

There has an initiative to a main project which will give more value to the area. This is what we call an “igniting project”, and the purpose of this is to attract private and government investments, and to promote the community interest in the area, so they come back to the area and become active participants in the process. This will ignite the beginning for implementing the revitalization and up-grading proposals.

After analyzing and developing the Scenarios, the recommended scenario for this model is Scenario 2, combining both options. This scenario meets the primary premise of the whole proposal, which is housing (for old and new inhabitants), and which also meets the expectations of the company, to develop a generic model for development.

In this case the need for apartment buildings is in-line with the interest of the market, because it will satisfy a growing demand and will also activate the economy in the sector. It will attract private investment from both national and foreign sources, and finally but very important for the success of the proposal, it will get the inhabitants attention to the area, and will

make them interested in upgrading their own housing.

## Proposed Development Plan for the Revitalizing and Upgrading of the area

The sum of all the investigation and analysis will result in the “Urban Proposal for the Re-vitalization and Upgrading of the area” which will become the guideline for implementing and developing each part of the area.

As has been mentioned before, the guideline for developing any urban proposal in Guatemala City is called POT. It categorizes the municipal Guatemala territory in 6 general areas (zones)<sup>2</sup> according to the characteristics of its natural and rural areas, as well as their urban areas and the undeveloped parts. The general areas define the applicable regulatory parameters of a selected property that affect the construction and the land use and it also provides the procedures to be followed in order to acquire a municipal permit<sup>3</sup>.

According to POT guidelines, the area to be upgraded has the following urban characteristics for development:

- It is considered a PLOT project<sup>4</sup>
- It is located in Municipal region 1
- No area is a pure G Zone, so in this case it is a mix between 3 of them:
  - G3 (Urban): Those areas that because of

their relative proximity to Main Access Roads of the municipality are considered suitable for medium construction intensity edifications, predominating housing projects, both single-family and multifamily (See figure 30)- most of the area object of this study

- G4 (Central): Those areas that because of their proximity to the Main access Roads are considered fit for edification of high intensity construction. It is predominant multifamily housing and land use for non-residential land use and is not consisting with housing (See figure 31) – small area just next to G5

- G5 (Core): Those areas that border on the Main access to the municipality is considered suitable for buildings with very high intensity construction. The prevailing use is multifamily housing and land use of non-residential land is consistent with housing (See figure 32) – Only the area along the Main Street Calzada Aguilar Batres

POT also gives guidelines for the planning of streets according to their importance in the development plan. The streets are identified with the letter T followed by its number according to relevance and how wide it is or will be. In this particular case the area is located between 2 major access roads (Aguilar Batres and Avenida Petapa). Those main roads will remain as they are, as also in the case of the secondary streets that were pointed out at the beginning of the analysis. The guidelines and regulations to be considered in the master plan for

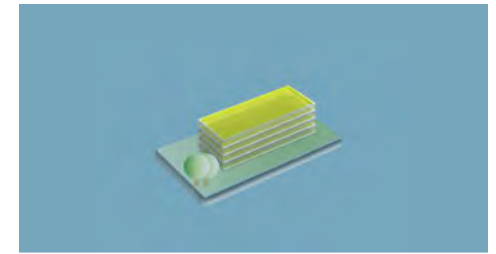


Figure 30:  
G3 Zone - Urban  
Source: POT Plan

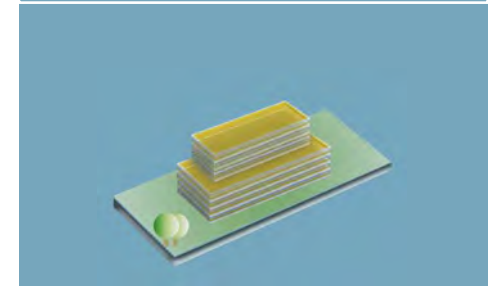


Figure 31:  
G4 Zone - Central  
Source: POT Plan

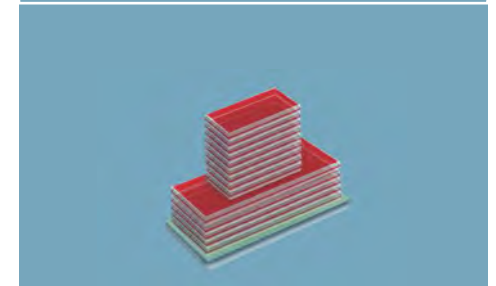


Figure 32:  
G5 - Core  
Source: POT Plan

<sup>3</sup> General areas (zones) are identified with the letter G followed by its classification number, i.e. G3 for General Zone 3

<sup>4</sup> PLOT stands for “Local Land Management Plan” (acronym for Plan Local de Ordenamiento Territorial in spanish)

the Re-vitalizing and upgrading proposals are as follows:

- Main Streets will remain as they are, as they will continue to provide access to the city from all the periphery areas. The lanes are for mixed traffic (motorcycles, cars, and public transport including the “Transmetro”)
- Secondary Streets will remain as they are including the ones that had been marked in figure 22. In addition to this, there are considerations to be made regarding the “Primary Road System and its relation to the POT”
  - For this plan the Road system that applies are T0, T2 and T3

It is also important to consider that POT also regulates the land use, it gives a minimum percentage of land use according to its zoning (G zones), depending on what zone is to be developed and how much construction is permitted for the specific land use. In this case the regulation provides that it is permitted to have mixed land use being that, housing and commercial. This is an advantage for the area, because to be an integrated proposal there should be spaces for every activity such as housing, commerce and leisure. The regulations will thus permit the reactivation of the area.

The guidelines for zones G3 and G4 are as follows:

- G3: will allow 50% housing at minimum

- G4: will allow 35% housing at minimum

The results of all of the considerations presented above are the Urban Proposal that can be described as follows (See figure 33):

- As a whole:
  - It is important that the primary and secondary existing streets are respected and leave them as they are.
  - The existing commerce should be allowed to remain where it is because it has been established by the public. The way to integrate it in the upgrading process is to remodel their facades. The businesses are willing to collaborate with the implementation of the Pilot Project
  - Public transport is available on the 2 streets that work as boundaries to the project area, and Transmetro operates on Calzada Aguilar Batres
  - There should be a proposal for implementing an inner bus service for the inhabitants living and working in the area. The vehicles that would be used as buses should be small
  - There is existing and working infrastructure in the area. This has to be evaluated to determine if it has sufficient capacity to cover the demand generated by the upgrading proposals, if it is not enough some modifications will have to be done to the network in order to supply the demand.



- Pilot Project

- The 3 scenarios described above, are represented in different shades of red, defining the housing areas distributed in groups.
- Greening areas and public spaces and related provision: Will not only consider greening, but also urban equipment, lightning and a pedestrian and cycle path for the inhabitants to be free for to walk or to take a bicycle ride. They are considered also “igniting projects” but they should be sponsored by the municipal authorities and by the education sector as well since the public university is in the surroundings. These areas include space that should be used for promoting cultural activities as well as the community participation and bonding.
- Relocation of Commerce and Education: The commerce that is scattered all over the area at present should be re located into a specific area designed for this purpose. The relocation will bring order to the area and would prevent the mixed use of a housing unit. This will reactivate the commerce and initiate investments in the area. Regarding the public schooling, this also will be integrated into the proposals in the space set aside for them.

## Implementation and Investment alternatives

### *Implementation*

The implementation of the pilot project has to be done in phases, due the size of the area. The

starting point of the study analysis is to define the area that is suitable for revitalization without having to invest as heavy as in a new development project and to get the community interested in improving their quality of life as well as helping the economics in the area.

To support the implementation process guidelines for the process are provided that should be considered in the process of planning and designing for an urban revitalization and/or upgrading project with proposals for areas that share similar characteristics, based on the fact that this is a pilot project.

- *Diagnosis phase:* At this stage all the background information will be collected for a better understanding of the area, its history and the present situation in all aspects regarding integrated urban planning, such as existing urban infrastructure, architecture, human aspects, economics and public services.
- *SWOT and results interpretation:* An initial SWOT is done to corroborate that the area is suitable as an integrated urban planning project in which case the planning initiative has to be taken to the community for information and to allow the community to become an active part of the process. This is a way of finding out the real necessities of the area, seen through the eyes of its inhabitants (stakeholders). Community participation should be done in sequences, be scheduled and through organized workshops with



Figure 33:  
Urban Proposal - Master Plan

some representatives of the community where it will be implemented. This allows the stakeholders to take active part in the process and get them interested in collaborating.

- *Implementation Strategy:* This is where the urban proposal is drafted and defined, the result is a Master Plan that will be implemented, and it covers all the aspects and objectives that came out during the investigation.

Because of the size of the master plan the implementation should be done in phases, starting with igniting projects to attract investors to the area, as well as getting the community interested in participating and allowing the changes. For each scenario there has to be a planning process and each of them represents individual projects that in the end will make the Master Plan work. Each phase should be started with an igniting project to attract investment and gaining money for developing the rest of the phase and also to help start up the next one. A prudent time for the rehabilitation of the whole area should be 10 years.

In the pilot project the igniting project will be a block to develop apartment buildings to satisfy the demand of housing for students and families in the area. This has to be done along with the collaboration of the municipality, so that the greening projects can be developed simultaneously with the different phases of the implementation. This phase includes the acquisition of the land, architectural planning,

relocating agreements for the families that will be relocated (i.e. selling their land or housing them for the construction period in exchange for a housing unit), completion and getting people to move back to the area and thus start to reactivate it.

- *Monitoring* is an important part of the implementation process. It should be done in 2 different levels, firstly at the execution level to ensure that the deadlines are met and to supervise and make sure that the urban proposal is being developed as it was planned. Secondly, at the planning level, to see if there are some changes that can be made to make the proposal better or find new ways of funding or simply changing the phasing of the implementation.

It is recommended that the monitoring is done periodically at each level, i.e. at planning level there can be monthly meetings to evaluate the progress, and then revised every 6 months to make bigger decisions and finally the master plan should be revised every 10 years.

### *Investment Alternatives*

The preparation and development of the plan has to be made in a “step by step” process (phases). This is for practical reasons as conditions will change over time and there is a need to be able to adjust to changing circumstances. It is also necessary to get funding for each subsequent phase, while developing one. Further it is necessary to find strategies that will

allow the development of some parts of the proposals in case of lack of funding occurs and the phase cannot be concluded. This may not be the best scenario but will allow for flexibility and help the process to revitalize and create public spaces in an area where there are none.

There are several funding alternatives that can be considered for the implementation of this plan, because it is a fact that there is no municipal money for them to develop it by themselves, and the inhabitants’ lack of economic resources as well. This is why private investment has to be part of the investment alternatives, as well as international investments. The funding can come from public and private sources.

Here are some alternatives that can be promoted to get funding for the implementation of the urban proposal:

- Public funds that come up from taxes should be set aside for the green areas to be developed along with the different phases of the plan implementation. Tax incentives should be the first stage of public fund management
- For the industrial area located at the south of the university and along Calzada Atanasio Tzul and Calzada and the commerce that are already situated along the principal streets, the municipality should come up with a plan of tax incentives. In that way they can use that savings to repair and maintain the facades, which would be seen as

part of the upgrading and environmental improvement of their surroundings. This will give the area a better image.

- Private Funding can come up from different sources:

- International Investment: Guatemala has excellent relations with European countries that have an interest in helping in the country's development. This can be a way for them to invest directly in improving the quality of the living environment in an existing area without having to do all the initial investments in infrastructure and in new land development. (i.e. Germanys KFW or Spanish Cooperation Funds). Investment of this kind is very feasible because such projects can be replicated in the whole Central America region

- Private Sector: Developing companies that main field of operation of business is architecture; urban planning and construction would be suitable investors to support the project financially as there will be opportunities for profitable returns. This can represent a great project for both sides interested and once it started it will attract more investors

- NGO's: The NGOs that are engaged in the social field, slum upgrading, and similar aspects of community support, are likely to have an interest in getting involved in helping to improve the life of people by promoting and funding projects that will benefit the whole community that has middle or low income.

Once the project is being implemented and the community can see the visible changes and can benefit from them, it will draw little by little more interest in the area, both for living and for investing. The international investments will give reassurance to the national capital and finance.

This is an important area because although it has been neglected, it keeps the old planning parameters with much wider streets than the rest of the city or the new urban development. Despite the intensity of traffic in its surroundings, the traffic flows "without much trouble" compared to other areas of the city.

In terms of the Urban Planning aspects overall it is an area without major topographic problems like bridges, slopes or river gorges, which is found in so many other places in the peripheries of the city area. Furthermore the area is already developed as far as the urban structure is concerned and has existing infrastructure. This means that the investments will benefit as it needs limited investments regarding infrastructure. The drainage system will probably require minor modifications, since it is crossed by the large sewage system built in the 1980's, and apparently despite sustained urban growth, it still meet the design parameters and it has apparently not manifested any problems in terms of waste flows.



## CONCLUSIONS AND RECOMMENDATIONS

### *CONCLUSIONS*

1. In spite of the abandonment of residential inhabitants from the zone it is considered a salvageable area, since it has the entire infrastructure necessary for being upgraded and re-vitalized
2. The revaluation of “La Reformita” implies the necessity of the conjunction of the architects, urban planners, architects, engineers and environmentalists to make it an integrated project
3. The improvement of the urban landscape and the architectural value of La Reformita re the economy in the area and the implementation of urban equipment and green areas will contribute to a better living area attracting the people to move back to the area and increasing the land value
4. The igniting projects will become the main tool for funding and drawing the attention to the upgrading for the area, so that further in time more people become interested in investing in the implementation of this plan
5. The development of a proposal of a model for upgrading and the revitalizing program will help the municipal authorities to implement improvements in different areas of the city that are suitable for change.

### *RECOMMENDATIONS*

1. It is important to prepare proposals for urban upgrading and to provide revitalizing guidelines as a model in order to ensure that the deteriorating areas can be improved and that the city sprawl will be slowed down.
2. It would be desirable that the community receives a copy of their “improvement plan” so that they become more active and can participate on the process
3. It is necessary to involve not only municipal authorities and investors but also the community in the maintenance plan with the purpose of that they become aware of the cultural, economic and social importance of their own neighborhood.
4. Taking into account that the area is mainly a housing area and that it is close to the national university, the planning should encourage cultural and health related activities

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