# Thesis Proposal

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Figure 2  A look at Internment Camp Crystal City, TX 1940's

# Revitalization

A Design Thesis Submitted to the Department
of Architecture and Landscape Architecture of
North Dakota State University.

by

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In Partial Fulfillment of the Requirements for the
Degree of Master of Architect

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Thesis Committee Chair

May 6, 2016

Figure 3 Picture of old theater downtown Crystal City, TX

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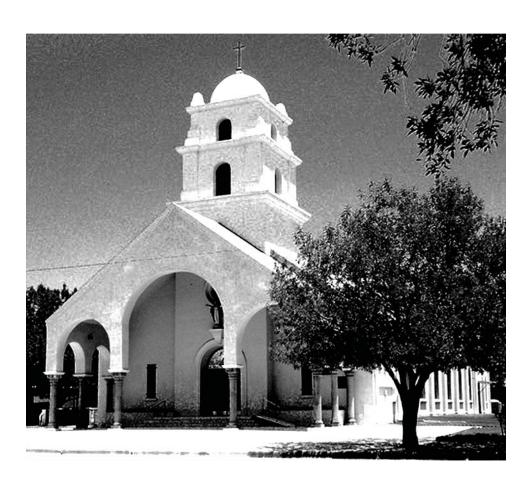
Figure 4 Picture of Catholic Church Crystal City, TX

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# THESIS ABSTRACT

American cities have long experienced economical, natural, and political hardships that have left some cities in need of revitalization. Cities rich in history, culture, and heritage have been transformed from beautiful communities into decaying cities filled with crime and violence.

America has long tried to revitalize cities spending billions of dollars on wasted programs or buildings that do not help solve the problem. The solution should target the root of the problem not just cover it up. This thesis aims at revitalizing American cities through the collaboration of communities and programs that help tie the community to its people in a positive way making cities once again great.

Figure 5 Picture of Crystal City, TX Courthouse

# THE NARRATIVE OF UNDERLYING IDEA OF THE THESIS

*The wistful myth that if we only had enough money to spend, we could wipe out all of our slums in ten years, reverse decay in the great dull, gray belts that were yesterday's and day before yesterday's suburbs, anchor the wandering tax money, and perhaps even solve the traffic problem.*

*-Jane Jacobs- "The Death and Life of Great American Cities"*

## Unifying Idea

Every City has gone through trial and error in rebuilding itself into what it used to be, or what is should be. Steps taken backwards thwart a cities ability to show its true beauty and give its inhabitants an environment that gives back. For many, a city is a representation of who they are and what they have come from, but many cities have gone through hardships that strays people from wanting to be part of something that was once great.

Every city has its own identity and unfortunately poor planning, architecture, natural disasters and government programs, just to name a few, have gone around the root of the problem and thus turning desirable cities into anything but desirable. Revitalizing a city should start with the people, knowing what is truly needs versus assuming what is needed makes a big difference. You cannot expect to cover up the problem by building state of the art buildings and infrastructures that expand the city and turn its once beautiful downtown into slums. Urban sprawl has taken over cities in recent years and a movement to start to rebuilding historic city centers has started to take place across the US.

In order to revitalize a city we need to find ways to get more involvement with the community and have well thought out programs that will help bring life into a cities soul again. My argument is that revitalizing a city has to be more that just rebuilding its infrastructure there needs to be a community rebuild that has its people as the main core. All to often do we see newly built buildings that turn into vacant properties because of a disconnection between the architecture and the community. Programs that have the community as part of the rebuild become more successful and meaningful to the city, giving the city an identity that comes from the soul.

*Figure 6  A look at an old railroad train downtown Crystal City, TX*

# THE SITE

## Location: Crystal City,TX

In 1908 Crystal City had an estimated 530 inhabitants, a bank, three general stores, and a weekly Chronicle. Then in 1928 the railroad reached Crystal and the community quickly turned into a major shipping point for winter vegetables. Crops such as onions, carrots, tomatoes, and peppers were harvested here. However, Crystal City soon grew a reputation as the "Spinach Capital of the World" and adapted Popeye as its mighty mascot.

During the agriculture growth the population quickly rose from 800 in 1920 to 6,609 in 1930. The majority of residents during the 1930's were Mexican and Mexican-American migrant laborers. Most of the laborers and their families lived in slum conditions with poor services and very limited opportunities. Then during World War II an alien internment camp was build on the edge of town that brought Japanese, Germans, and Latin Americans,

In 1945 the California Packing Corporation built a canning plant just north of Crystal City that was later renamed the Del Monte Corporation. During this time the population of Crystal grew due to the opportunities offered by Del Monte. During the 1960's Crystal went through a period of dramatic political change. Even though the city's Mexican American population made up for 80 percent, the Anglo minority had keep a tight hold on the cities government and school administration. Then in 1969 Mexican Americans sought to gain control of key positions during the "Crystal City Revolts". The Raza Unida party in 1970 soon impacted the ethnic composition of Crystal City's government and saw Mexican Americans hold city manager positions, superintendent positions, and secured control of public schools.

By the 1960's the population declined somewhat and continued to remain relatively static throughout the 80's. Crystal City is currently growing due to the oil boom, which has brought more negative than positive to this once beautiful city. Man camps and cheaply built hotels seem to pop up weekly, which raised the question of what will happen after the boom ends. Once again this city will be left with abandoned buildings, a lost identity, and still the problem of leaving people to try to revitalize their city.

*Figure 7   A picture of Guild Theater Crystal City, TX*

# TYPOLOGICAL RESEARCH

## Typology: Revitalization

Crystal City is a more than just a city; it is a community of networks and connections that have a rich history and culture. This city is in a state of abandonment and that reflects negatively on the people that live and work here. Revitalizing this city can make it once again a healthy, aesthetic, educational, economical, and flourishing city that has the people of this city proud to say that they live here. Every action that takes place in revitalizing this city will have a ripple effect that will carry throughout the project. This city is filled with hardworking, proud, and very community oriented people that, with the right vision, would come together to rebuild their city. Bringing life back into the downtown area and connecting various amenities to the downtown area will make this city not only mesh but also seem more of a cohesive community oriented city.

### Research

The life and death of a city is determinate on what amenities and ties does each project has to offer back to the community. Simply tearing down a cities downtown to replace it with modern and aesthetic buildings will not suffice. The revitalization of Crystal City's downtown needs to incorporate usable existing buildings, the use of renewable resources, sustainable designs, programs that tie downtown to its inhabitants, and getting the community involved on all levels. There are many factors that contribute to the decay of American cities that range from economic decline, natural disasters, lack of community involvement, crime, lack of funding, and lack of government assistance. Regardless of the factors, the vision for a revitalization project needs to be clear and should start with community involvement. A revitalization project does not happen in an instance, it happens over a long period of time and there should be a gradual increase in every aspect of revitalization. The biggest factor should be to continue to involve the community on all levels and throughout the entire project to ensure that the revitalization project is something that reflects the people of the city and not the designers or contractors. With all this in mind, it is important to take special precautions when deciding the overall vision and direction of each revitalization project. Being able to measure and quantify whether or not a revitalization project is or is not a success and what measures are used will be the biggest challenge of a project.

Key Priories
1.      Making sure there are stages of revitalization
2.      Looking at revitalization measures
3.      What makes a successful revitalization project

Context:
Revitalization of an American city

Impact:
What measures are used in a revitalization project and how can they be quantified.

*Figure 8  Popeye Statue Downtown Crystal City, TX*

# REVITALIZATION OF DOWNTOWN DETROIT, MICHIGAN

**Typology:** Revitalization of City
**Location:** Downtown Detroit Michigan
**Population(2015):** 713,777
**Parties Involved:**
Dan Gilbert- Chairman and Founder of Rock Ventures and Quicken Loans
PPS (Project for Public Spaces) - Nonprofit Planning, Design, and Educational Organization
Terremark Partners- Specializes in retail niche strategies and provides research, development, and marketing services throughout the US.
Gibbs Planning Group- Specialize in commercial development and sustainable town planning

**Distinguished Characteristics:**
Detroit has gone through many changes throughout its history that have reshaped what this great city looks like. Detroit started out as a fur trading post, that moved the city into a transportation hub, and then there was the rise and fall of industry and commerce, and in 1910 Detroit created an assembly line that forever changed this great city. Detroit has long suffered from hardships that have left this city in a deplorable state. Great American cities such as Detroit have long yearned for a revitalization that would bring life back into its cities scenery.
Detroit now looks to add a new change by revitalizing its great city using a term called "The Power of Ten Framework". According to PPS (2014), *The Power of 10 framework suggests that a great city needs at least ten great districts, each with at least ten great places, which in turn each have at least ten things to do. Great public spaces produce an energy and enthusiasm that spills over into surrounding areas. By being conscious of this and planning for it from the start, Placemakers can speed up the process of revitalization by making sure that the key places within their district complement each other and great a major regional destination.*

**Existing Program Elements:**
- Public: Green Spaces
- Bike Share
- Community Involvement
- Connections
- Transportation
- Streets for People
- Retail, New Businesses
- Recreation
- Culture, Housing
- Health, Safety
- Services
- Environment
- Cost
- Networks
- Education.

**Case Study Takeaways:**
Detroit's revitalization project is a useful structural guideline on how to begin, implement, and apply useful measures that will help revitalize a city. The goals and strategies being used provide a look at what it takes to make a revitalization project on a large scale a success. Implementing plans for the current, five, ten, and twenty years of revitalization creates a master plan that has clear and concise outlook at what exactly Detroit wants to achieve.

Unfortunately, we cannot see the revitalization plans happen in an instance but we have to set parameters and guidelines to help push the project in a positive direction. Revitalization happens over time and this project does a good job laying out important programs that will help Detroit re-establish itself again as a great city that keeps and brings people in.
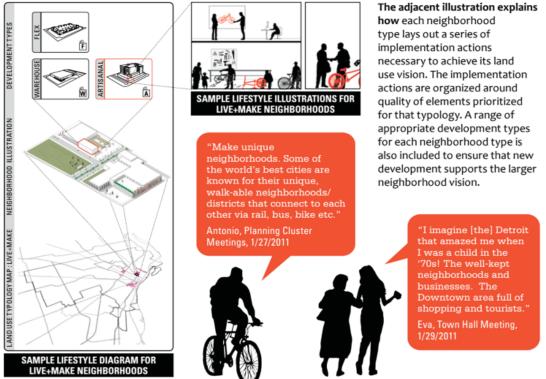
DEVELOPMENT TYPES

FLEX

WAREHOUSE

ARTISANAL

SAMPLE LIFESTYLE ILLUSTRATIONS FOR LIVE+MAKE NEIGHBORHOODS

"Make unique neighborhoods. Some of the world's best cities are known for their unique, walk-able neighborhoods/districts that connect to each other via rail, bus, bike etc."

Antonio, Planning Cluster Meetings, 1/27/2011

"I imagine [the] Detroit that amazed me when I was a child in the '70s! The well-kept neighborhoods and businesses. The Downtown area full of shopping and tourists."

Eva, Town Hall Meeting, 1/29/2011

LAND USE TYPOLOGY MAP : LIVE+MAKE        NEIGHBORHOOD ILLUSTRATION

SAMPLE LIFESTYLE DIAGRAM FOR LIVE+MAKE NEIGHBORHOODS

The adjacent illustration explains **how** each neighborhood type lays out a series of implementation actions necessary to achieve its land use vision. The implementation actions are organized around quality of elements prioritized for that typology. A range of appropriate development types for each neighborhood type is also included to ensure that new development supports the larger neighborhood vision.

*Figure 9*

This illustration shows how Detroit plans to implement neighborhood changes that are specific to each neighborhood and implement ideas that convey the bigger picture. Creating these types of neighborhoods that connect to the city provide a cohesive city that connects the community to its city.
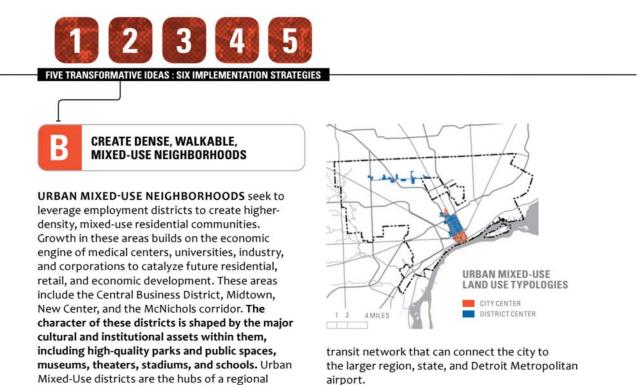


1  2  3  4  5

FIVE TRANSFORMATIVE IDEAS : SIX IMPLEMENTATION STRATEGIES

**B**  CREATE DENSE, WALKABLE, MIXED-USE NEIGHBORHOODS

URBAN MIXED-USE NEIGHBORHOODS seek to leverage employment districts to create higher-density, mixed-use residential communities. Growth in these areas builds on the economic engine of medical centers, universities, industry, and corporations to catalyze future residential, retail, and economic development. These areas include the Central Business District, Midtown, New Center, and the McNichols corridor. **The character of these districts is shaped by the major cultural and institutional assets within them, including high-quality parks and public spaces, museums, theaters, stadiums, and schools.** Urban Mixed-Use districts are the hubs of a regional

URBAN MIXED-USE LAND USE TYPOLOGIES

■ CITY CENTER
■ DISTRICT CENTER

1  2    4 MILES

transit network that can connect the city to the larger region, state, and Detroit Metropolitan airport.

*Figure 10*

This illustration shows how Detroit plans to implement neighborhood changes that are specific to each neighborhood and implement ideas that convey the bigger picture. Creating these types of neighborhoods that connect to the city provide a cohesive city that connects the community to its city.

*17*

Figure 11

This image shows the future open space networks throughout Detroit, Michigan
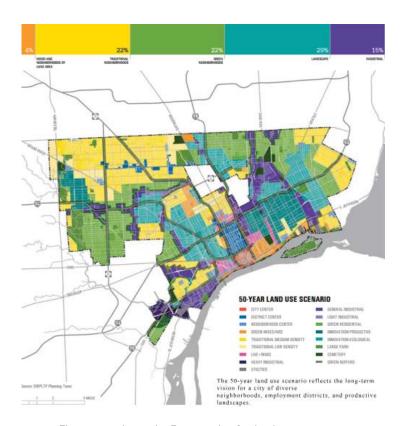


Figure 12

This image shows the 5o year plan for land use

48

# REVITALIZATION OF DOWNTOWN AUBURN, INDIANA

**Typology:** Revitalization of City
**Location:** Auburn, Indiana
**Population:** 12,731
**Size:** 7.10 sq. Miles
**Partners Involved:**
The Downtown Auburn Business Association (DABA), Auburn Downtown Advisory Committee (ADAC)

**Distinguishing Characteristics:**
Known as the "Home of the Classics" Auburn has long been a pioneer in the early American automotive industry. Auburn Indiana's downtown is a historic district encompassing 52 buildings that range from Victorian, Classical Revival, Romanesque, to Colonial style architecture. Auburns downtown focus has always been to bring costumers downtown and to create a destination for businesses, families, and visitors alike.

**Existing Program Elements:**

- Downtown connectivity
- Removal of impediments to development
- Enhancing tourism
- Strengthen downtown business
- Regional growth
- Transportation

- Economic increase
- Education
- New homesteaders
- Revitalizing facades
- Regional connectivity
- Green spaces

**Case Study Takeaways:**
This revitalization project focused on its downtown by building on the strengths and assets this city has to offer which gives this project more of a base to start with. Assessing the current physical and economic conditions that are having an impact on the downtown business district creates an overall census on what this city needs to focus on. A focus on protecting the framework of the existing culture while enhancing the tourism base by creating events, festivals, and downtown events is a positive way to enhance a city's downtown that creates opportunities for all parties.

Auburns priority in keeping the historical presence of their city and enhancing what already exists is another way of looking at revitalizing a city with a rich history. This creates a base that cities can build on that does not consist of destroying and rebuilding.

Figure 13



Trails & Bikeways     Parking     Infill Development

17%    11%    9%

67%    26%    54%

12%    26%    0%

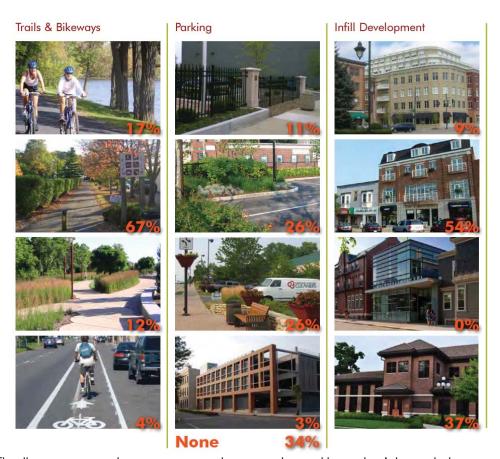4%    3%    37%

**None**    **34%**

Figure 14

This illustration is a analysis on current conditions in order to address what Auburn is lacking.
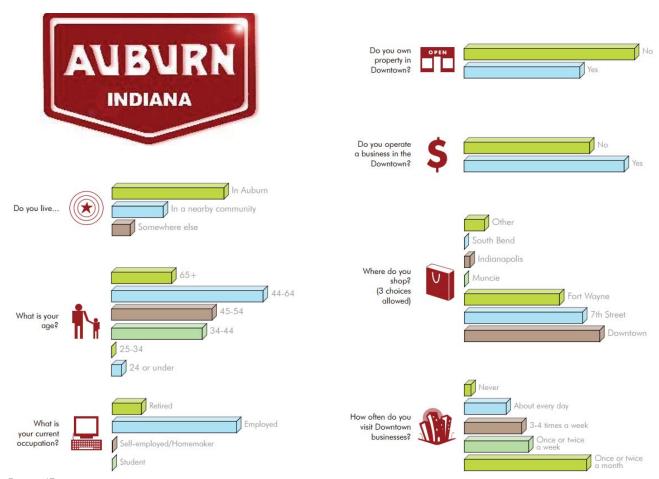
Figure 15

This illustration is of a public meeting by the planning and design team in Auburn that anonymously asked the citizens of Auburn to electronically answer questions that would further help their revitalization project.
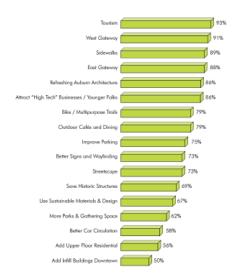


Figure 16

This illustration shows Downtown Priorities from "Very Important" to "Somewhat Important"

# REVITALIZATION OF RIPON WISCONSIN

**Typology:** Downtown Revitalization
**Location:** Ripon, Wisconsin
**Population:** 7,733
**Size:** 5.019 Sq. Miles
**Parties Involved:**
Vandewalle & Associates Inc.
Schreiber/Anderson Associates
R.A. Smith & Associates

**Distinguishing Characteristics:**
Named after the cathedral city of Ripon, Yorkshire, this city is a family-oriented community that offers the convenience of living near a metropolitan area. A revitalization plan was put into action in 1988 to implement plans such as creating a downtown tax increment financing district, business improvement district, and main street organization. This implementation has helped improve the economic vitality, physical condition, and has established a solid retail and service base with the historical core intact.

According to Vandewalle & Associates Inc. (2007) "The purpose of this Plan is to build on the existing foundation and provide strategies and recommendations that will bring Ripon's downtown to a higher level of strength and vitality without compromising its current success or its historic character". At the center of the project is Watson Street which is the "Main Street" style retail area that is filled with shops, restaurants, and historic buildings.

**Existing Program Elements:**
- A place of ideas and entrepreneurship
- A shopping, dining, entertainment, and recreation destination
- Establish a niche housing opportunities
- Enhance downtown getaways
- Create connections between downtown focal points
- Enhance downtown places
- Leverage areas of opportunities to expand and support the downtown
- The Development of a Mixed-Use Project at the North End of the Downtown (Brewery Creek Project)
- Create a local Foods themed visitor center and retail shop

**Case Study Takeaways:**
Through the process of applying these primary strategies to the downtown key areas and connections were identified. These keys hold potential for future enhancement and redevelopment that can make a revitalization project a success. Keeping the historic core of the city is a key element in revitalizing this city and it gives the project more validity.

This project was guided by a vision that articulated the community's aspirations on what the current downtown area is and what it should become. The strategies used to implement the revitalization plans where cohesive and clear from the beginning, which in turn paved the way for a successful project.
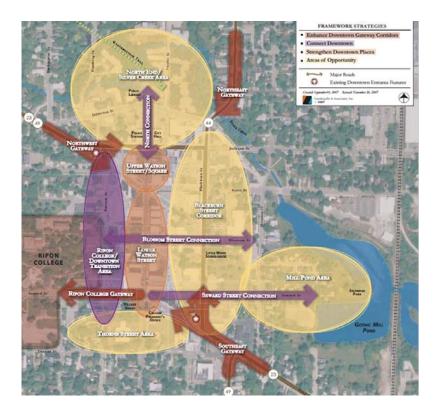
*Figure 17*

This is a map of the design framework of Ripon, WI, which highlight key elements that provide a  vision for the project as a whole.
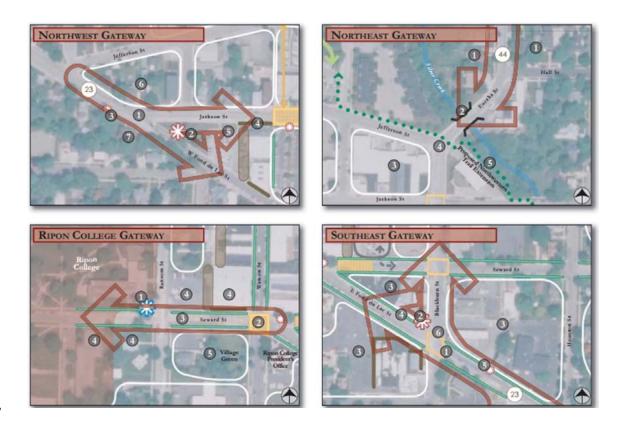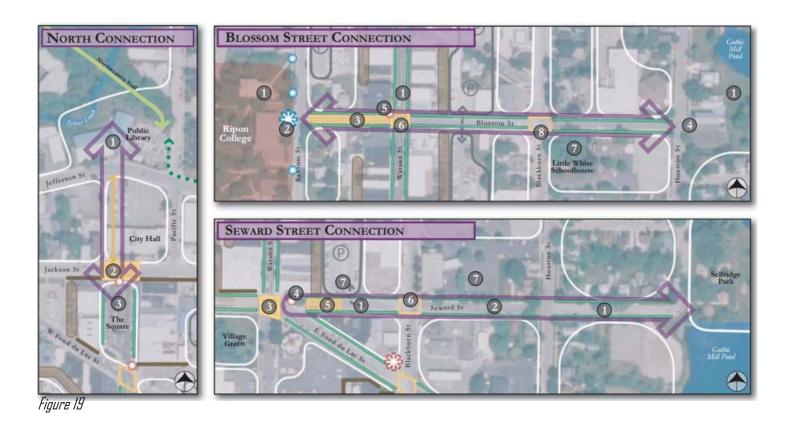


*Figure 18*

This map shows Downtown Ripon's proposal for "gateways" and where key entrances are that clearly identify where downtown is and how to get there.

Figure 19

This map illustrated the key areas within and around the downtown area that create physical and visual connections between downtown and surrounding features.



Figure `20

This map shows where improvements and reconfigurations take place on Watson Street (Main Street) and The Square, which is the historic heart of the Ripon community.

# CASE STUDY AND TOPOLOGICAL RESEARCH STUDY

Revitalization projects differ from typical architecture projects, thus my case study analysis informed and educated me in learning what exactly revitalization is and what measure are used to determine a projects success. The information I found useful in the case studies dealt with different measures used, what types of measures were implied, and what the process of revitalization was.

Revitalization measures was the primary focus of all my case studies: Downtown Detroit, City of Ripon WI, and Auburn IN. Measures differed in all of the case studies, some focused on the community, some on the historical aspects, and some on the city as a whole. All of the case studies had a revitalization plan that was over a long period of time, and measures were used throughout different stages of the projects. I noticed that some case studies used similar revitalization measures but for the most part each project had specific measures that assessed the success of the project.

Throughout the investigation of revitalization I found that one of the main factors that all projects stressed was the involvement of the community. Whether the community was helping build, design, or taking surveys there was a clear understanding that every revitalization project should have the community as its core. This further helped me understand that you cannot revitalize a city that does not have its people as its core, and this is one of the most important attributes in analyzing whether or not a revitalization project is a success or not.

The case study analysis uncovered an array of information that I was not used to examining. The problem with examining a revitalization project is that it all happens over a long period of time and some of the measures are what is hoped to be achieved and not something that can be immediately quantified. The idea is to implement stages of revitalization that will continue to gradually impact a city over a period of time. Each case study presented new measures and ideas that I will carry into my own investigation on what measures truly make a revitalization project a success.

# MAJOR PROJECT ELEMENTS

Analyzing the state of construct-
ed and natural surroundings

Numerous events and cultural
activities that define the social
composition of daily life

Places to facilitate material,
service, and entertainment needs

Quality dwelling options that
provide shelter and safety for all
residents

Develop continuing education
programs to focus job training
around emerging local economies

Create systems to coordinate
community based, institutional
and public safety networks.

Revitalizing the city using effec-
tive recycling methods

Revitalize the city in order to have
a healthy city

Revitalize the city using sustain-
able practices.

The ability to effectively connect
all forms of transportation

Places to accommodate physical
activity and social interaction

Develop programs that prioritize
hiring of Crystal City residents

# USER CLIENT DESCRIPTION

**User Groups: (Gradual rise in users every year)**
*Because revitalization projects happen over a long period of time an exact number of future employees are not provided. There should however be a gradual rise in the number or percentage of user/clients this revitalization project will put out.*

- Office Employees
- Retail Store Employees
- Production Employees
- Government Employees
- Tourist

- Agriculture Employees
- Distribution Employees
- Education Employees
- Recreational Employees

**Most importantly the main user/ client will be the people of Crystal City.**


Figure 21 Moncada Family-Crystal City Resident


Figure 22 Martin Valerio, Crystal City Resident


Figure 23 Nueces River Crystal City,TX

*Figure 24   A look at Zavala County and Crystal City, TX*
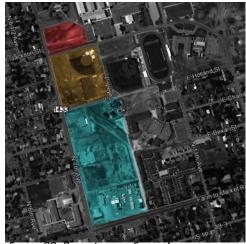
# THE SITE



Figure 25 Crystal City Limits



Figure 26  Revitalization Focus Area



Figure 27 Downtown Crystal City

## Site Selection:

Crystal City, TX was chosen for my thesis revitalization project because it is where my family and I are originally from. This site is dear to my heart and has the potential to once again be a beautiful city that truly shows all it has to offer. Seeing how vacant boarded up store fronts and abandoned buildings make up much of Crystal's downtown leaves the impression that no one cares anymore. There needs to be a change and that will only happen if there is a community collaboration with the city to revitalize this great city.

## Attributes

**Connection to Nature:** *Crystal City's connection with the environment has huge potential with parks, rivers, and outdoor activities that range from fishing, biking, hunting, and general recreation. There is a strong connection between the city and its production of crops which include:*
- *Spinach*
- *Onion*
- *Carrots*
- *Cabbage*

**Downtown Identity:** *Crystal City's downtown, once comprised of a WWII Internment camp, is now the center of the city that houses a variety of mix-use businesses, restaurants, and buildings that are run down and vacant. Some efforts have been made to revitalize downtown but has been on a very small scale.*

**Diversity:** *Crystal City attracts very specific groups of users to the city. This city consists of mainly agricultural harvesters, oil field workers, and tourist that come from all over to experience the Spinach Festival every year in November.*

**The Potential:** *This city has a lot to offer and the passionate people of this community have long yearned for a change that will positively transform their city into a once again prosperous city. There are opportunities for this city to help excel itself in the areas of economy, landscaping, education, workforce, government, recreation, retail, infrastructure and overall connectivity of the city.*

Figure 28   Downtown Crystal City, TX

# Measures

•HISTORIC PRESERVATION

o Definition: Historic Preservation is the practice of protecting and preserving sites, structures, and districts that reflect the history of:

    Political
    Economical
    Social
    Cultural
    Archaeological
    Architectural

o Criteria

    Greater than 75 years in age
    Significant in:
    Local, state or national history
    Architecture
    Archeology
    Engineering
    Culture

o Advantages:

    Strengthen local economy
    Stabilization of property value
    Preserving the community
    Appreciation of local and national history
    Educational
    Safeguards community heritage
    Tax incentives
    Opportunities for public and private grants or loans

o Measures Needed

    What type of material is the building constructed of
    Where to find building material (locally)

o How to apply the National Register Criteria for Evaluation

    http://www.nps.gov/nr/publications/bulletins/pdfs/nrb15.pdf

# • COMMUNITY INVOLVEMENT

o Definition: Community involvement is a way of providing the community the chance to become informed and to act upon decisions that will ultimately impact their community. Community involvement should be present throughout all stages of a revitalization project so that people better understand the process and will be more likely to support a project that they have input on.

o Helpful Measures

        Local Knowledge

           •Community members have useful information about a sites history, past, culture, past land uses, and possible contaminated areas.

o Streamline Efforts

           •Community members may have issues or concerns, which if incorporated into the project at an early stage, may help reduce the likelihood of challenges that might hinder the project.

o Community Acceptance

           •Community members who contribute, in the revitalization planning process, will not only better understand the project but will also be more likely to support a project they were a part of.

o What does community involvement do?

           •Improves information flow

           •Minimizes conflicts

           •Fosters collaboration

           •Allows for community advocacy

           •Improves community understanding of local government

o Community Assessment:

           •Identify community goals

           •Educate residence on the project as a whole

           •Identify community needs

           •Identify community goals for the future of the community

           •Identify specific aspects that will accommodate some of the community goals

           •Communicate technical information in an easy and understandable way

           •Accommodate community interests and needs

           •Planned daily, weekly, and monthly meetings

o Information Needed

      Income distribution

      The poverty rate

      Unemployment rate

      Languages spoken

      Household status

      Voter participation

           •This information will help identify how a revitalization project can best meet the needs and benefit the people who live in the community, neighborhood, and region.

o Tools for measuring

           •Measuring Volunteer Impacts

               •http://www.trueimpact.com/blog

               •Soul of the Community and the Economic Vitality of Downtowns

               •http://fyi.uwex.edu/downtowneconomics/files/2012/07/soul-of-the-community.pdf

# • MATERIAL REUSE/RECYCLING

o Description: Reuse- Reusing a material or object that is used for its original purpose or similar purpose that does not alter the physical forms of that material or object. Reusing material consumes less energy and resources than recycling and prevents materials or objects from becoming waste.

o Description: Recycle- To convert waste into reusable material or to return a material to a previous stage in a cyclic process.

o Measuring Reduce and Reuse

file:///C:/Users/pedro_000/Downloads/Ryan%20McMullan%20Counting%20Whats%20Not%20There%20Measuring%20Reduce%20and%20Reuse.pdf

o How to: Climate Smart Waste Reduction and Materials Reuse

http://www.dec.ny.gov/energy/72962.html

# • Public Safety

o Description: Protecting the public and its interest on a professional level. To ensure that all designs and implementations are in the best interest of the public and the users.

o What does public safety do?

• Creates a safe environment for all users and professional design parties involved in a revitalization project.

o Challenges

• One of the main challenges for public safety is the ability to communicate quickly and effectively in difficult environments where critical infrastructure may be damaged or work unpredictably. One important aspect of communication under such circumstances is the ability to plan for and assess communications interoperability under different scenarios and across organizational and jurisdictional boundaries.

o Measuring Public Safety

http://www.sustainablemeasures.com/indicator-search

# • Vitality

o Description: The capacity to live, grow, or develop

o Why is vitality important

•Gives the city a direction

•Creates a livable atmosphere

•Creates a buzz in the city

•Allows for improvement

o         Tools to measure Vitality

•http://fyi.uwex.edu/downtowneconomics/files/2012/07/soul-of-the-community.pdf

# • Recycled Materials

    o Description: A process to convert waste materials into reusable material to prevent waste of potentially useful materials, reduce the consumption of fresh raw materials, reduce energy usage, reduce air pollution and water pollution by reducing the need for conventional waste disposal and lower greenhouse gas emissions as compared to plastic production. Recycling is a key component of modern waste reduction and is the third component of the Reduce, Reuse and Recycle waste hierarchy.

    o Why Recycle Materials?

        • Recycling saves energy because the manufacturer doesn't have to produce something new from raw natural resources. By using recycled materials we save on energy consumption, which keeps production costs down. Recycling reduces the need for more landfills.

- Creates jobs
- Good for the environment
- Saves energy
- Prevents global warming
- Reduces water pollution
- Protects wildlife
- Creates new demand

    o Information needed:

- What is being recycled
- How much is being recycled
- Sites to recycle
- Where recycled material can be used and purchased

o     Tools for Measuring

        • https://www.fedcenter.gov/Bookmarks/index.cfm?id=13264

http://zerowaste.com/mebcalc/

# •     Downtown Economics

    o Description: The analysis and science that deals with the production, distribution, and consumptions of goods and services, or the material welfare of a city's downtown area.

    o Why are the economics of a city's downtown important?

- Fosters job grow
- Economic opportunity for residents
- Business to grow and prosper
- Improve living standards
- Expands existing markets

    o Information needed

- Gross domestic product
- Productivity vs. Spending
- Consumption expenditures
- Investments
- Government purchases
- Net exports
- Wealth
- Capital
- Depreciation

    o Tools for Measuring

- http://fyi.uwex.edu/downtowneconomics/files/2015/09/DE0915.pdf
- http://www.fool.com/knowledge-center/2015/10/01/how-to-calculate-the-annual-growth-rate-for-real-g.aspx

- # Promotion of Life
    - o Description: To instill a healthy, active, and vibrant city that has the community and its users at its best interest.
    - o Why is promotion of life important
        - •Provides the public with amenities
        - •Creates a sense of place
        - •Creates a healthier living atmosphere
        - •Provides safety
        - •Draws people to a city
        - •Promotes a healthy lifestyle
        - •Creates city cohesion
        - o Examples
            - •Bike paths
            - •Street lighting
            - •Mixed land uses in city neighborhoods
            - •Improve access to transit
            - •Design pedestrian friendly streets with high connectivity
            - •Create opportunities for daily physical activity
            - •Increase stair use
            - •Design building exteriors that contribute to a pedestrian friendly environment
            - •Make pedestrian and bike paths routes to parks and public spaces
    - o Tools to measure promotion of life
        - •http://centerforactivedesign.org/dl/guidelines.pdf

- # Agriculture Productivity
    - o Description: Is measured as the ratio of agricultural outputs to agricultural inputs. While individual products are usually measured by weight, their varying densities make measuring over all agricultural output difficult.
    - o Why is agriculture productivity important
        - •Engine of growth
        - •Employment opportunities
        - •Connection between the farmer and the city
        - •Provides more food
        - •Help alleviate poverty
        - •Decrease in food prices
        - •Stable food supply
        - • Economic growth
    - o Information needed
        - •Technical progress
        - •Productivity growth
        - •Agricultural output and sources
        - •Efficiency
        - •Total factor productivity
        - •Data
    - o Tools to measure agricultural productivity
        - •http://pdf.usaid.gov/pdf_docs/Pnads080.pdf

- # Resilience
  - o Description: the ability to become strong, healthy, or successful again after something bad happens.
  - o Why is resilience important?
    - Makes a city stronger
    - Enables a city to endure hardships
    - Reduce the detrimental impacts of the acute shocks and chronic stresses, such as endemic crime and violence, flooding, and economic inequality.
    - To avoid disaster
    - Decaying infrastructure and unsafe building stocks that could lead to collapsed structures.
    - Economic growth
    - Job creation
    - More livable communities
  - o Implementations
    - Ensure that disaster risk reduction is a national and local priority with a strong institutional basis for implementation.
    - Reduce the underlying risk factors through land-use planning, environmental, social and economic measures.
    - Identify, assess and monitor disaster risks and enhance early warning.
    - Strengthen disaster preparedness for effective response at all levels
    - Put in place organization and coordination to understand and reduce disaster risk
    - Protect ecosystems and natural buffers to mitigate floods, storm surges and other hazards to which your city may be vulnerable
    - Apply and enforce realistic, risk compliant building regulations and land use planning principles
  - o Tools on how to implement resilience to a city
    - http://www.thenatureofcities.com/2015/05/19/taking-resilience-out-of-the-realm-of-metaphor-how-do-you-measure-resilience-in-cities-how-would-you-know-if-your-city-or-your-community-was-resilient/

- # Employment Rate Increase
  - o Description: the percentage of the total labor force that is unemployed but actively seeking employment and willing to work
  - o Why is unemployment rate important?
    - Serves as a measurement of economic health
    - Make better-informed decisions about steering the economy and countering unemployment.
    - Influence on consumer spending
    - Influence on economic growth
  - o Information needed
    - Number of unemployed
    - Number of employed
    - Unemployment rate
  - o Tools for calculating employment rate
    - http://www.amosweb.com/cgi-bin/awb_nav.pl?s=wpd&c=dsp&k=employment-population+ratio

# •Increase in Green Spaces

 o Description: Adding grass, trees, or other vegetation set apart for recreational or aesthetic purposes in an environment.

 o Why are green spaces important?
- Used for recreation
- Cooling in the summer
- Warming in the winter
- Raise property value
- Absorb rainwater runoff
- Aesthetics
- Community connection
- Growing food
- Provides habitat for wildlife
- Reduce heat island effect
- Offset pollution
- Provide refreshing contrast to harsh environments

 o Implementations
- Parks
- Renovating or enhancing under-used recreation areas
- Rehabilitating vacant lots
- Applying green spaces to brownfield sites
- Community gardens
- Plant trees

 o Tool for measuring green spaces
- http://www.palgrave-journals.com/udi/journal/v15/n1/full/udi200927a.html

# •   Retail Development

 o Description: The development of retail in a city by adding stores, shops, restaurants, and other consumer amenities.

 o Why is retail development important?
- Tourist magnet
- Economic boost
- Provide local jobs
- Local accessibility to products
- Provides services
- Local revenue
- Creates a vibrant environment
- Keeps the city busy

 o Strategies
- Demographics and marketing
- Retail recruitment
- Retail Clustering
- Authenticity and place making
- Incentives
- Site specific

o Tools for measuring retail development
- https://www.researchgate.net/publication/223708857_Measuring_retail_productivity_What_really_matters

# Design Process

The design process for revitalizing Crystal City involved looking at existing elements, possible paths, connections, parks, transportation, parks, and major roadways. The idea is to interconnect all the element, not only to the recreation site, but the entire city was to create a city that connects all the city has to offer in a unique way. Making paths connect with parks, downtown, schools, tying the downtown area with other areas of the city through these elements help create a sense of place.



Ratios for Arched Windows and Arches



Using Horizontal and Verticle Elements

Creating Ratios for Windows and Columns
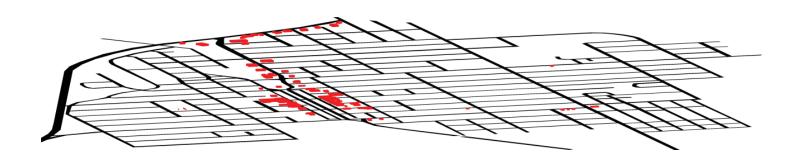


Keeping Building Heights



Enhancing Empty Lots
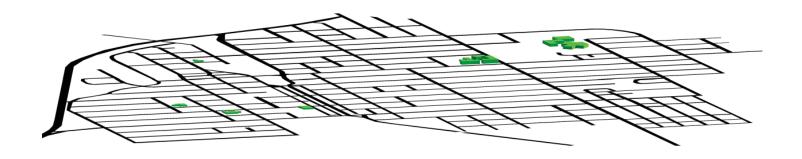
# Design Process Existing Buildings

Residential Buildings
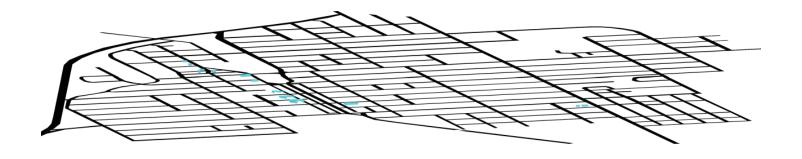


These are 3D maps of Crystal City, TX that show where and what type of buildings are located in the city. This research aspect helped identify where the important nodes, connections, sites, and paths should be placed throughout the city in order to effectively tie the city together.

Educational Buildings
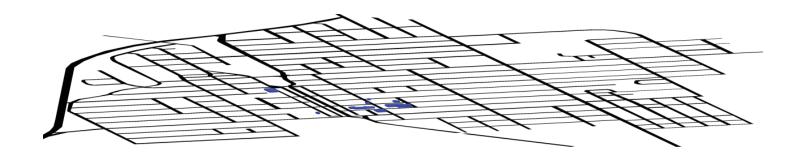
Blighted Buildings
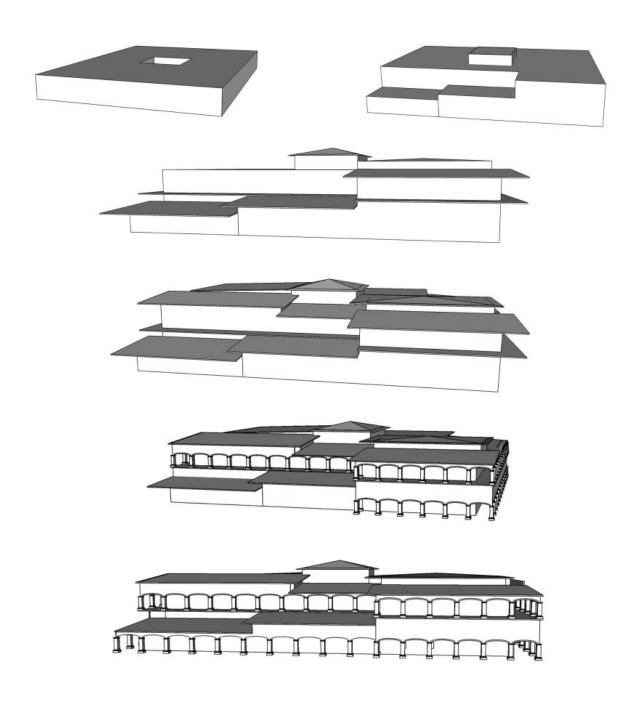
Connecting the different mixed typologies through bike paths, bus routes, and architecturally will help enhance the city's indentity and help stregthen the city's sense of place.

Government Buildings

# Design Process

The design process for my thesis project started with my research of Crystal City's existing architecture. From the research I began to study simple shapes and forms that would fit the city's identity. As the design of the building was being developed a transition begins to take place as architectural elements derived from existing buildings start to shape the building.

Identifying the architectural elements of existing buildings in Crystal City was part of the design process that allowed the Recreation center to mold into a building that incorporates elements throughout the city. This insures that the architectural integrity and history of the city are kept intact.



Courtyard



Workout Room

# Downtown Design Solution

Downtown Store Fronts



Downtown Overhangs

Possible Mixuse Buildings
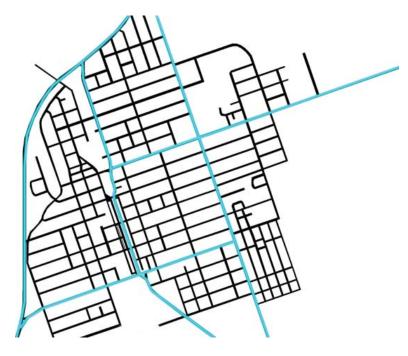


Downtown Enhancement
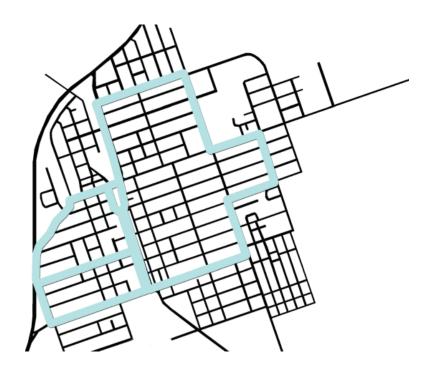


Possible Farmers Market

# Design Solution Maps

Major Roads



Proposed Bus Route

Proposed Bus Stops



Walkability

Parks
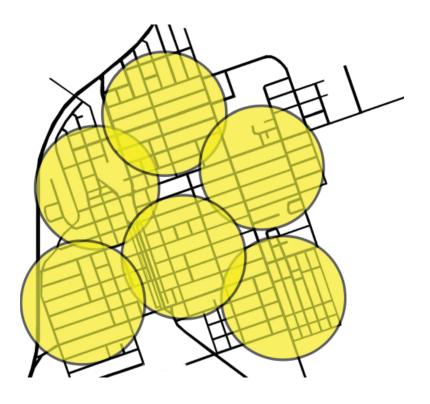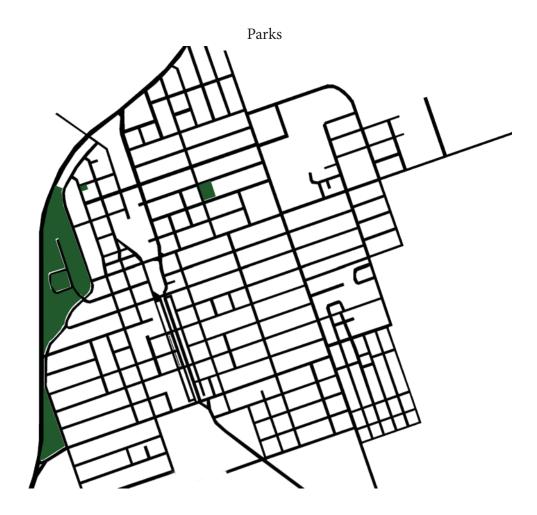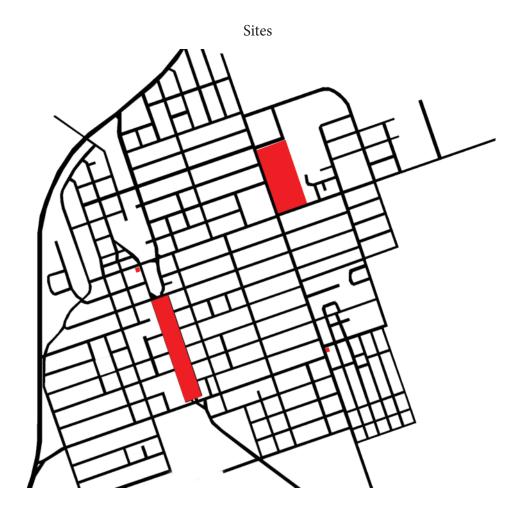


Proposed Bike Path

All of these maps helped create interconnections between elements throughout the city and helped me better understand how the connections should work and how they should be carefully thoughtout. The maps help visualize the potential that this great city has to offer and shows how these implimentations could be applied throughout the city.

# PROJECT EMPHASIS

1. Revitalization of great American cities that have been left to decay.

     As mentioned earlier, my American cities have been revitalizing decaying cities that have fallen on hardships.  Revitalization projects aim to reach different goals and each project has its own specific measures.  However the question still remains on what makes a revitalization project a success.

2. Integrate the collaboration of the city and its inhabitants

     If we expect to revitalize cities one step at a time the foundation which the project is set on has to be the collaboration of the community and its inhabitants.

3. Identify the root of the problem and architecturally solve that problem.

     Every city has its own problems and finding out what the root of the problem should be a focus discussion throughout the entire project.  Using architectural features and amenities to tie the entire project together and give it cohesion will play a major role in revitalizing this great city.

# GOALS FOR THESIS PROJECT

Goals:

Physical: To revitalize an American city that has been through hardships that have left its downtown to decay.

Theoretical: To answer whether or not American cities can be revitalized and undo the faults and failures that have been place by past hardships.

Theoretical: Is it worth saving a dying city or should we just tear down and rebuild?

Social: To tie cities and their inhabitants in a way that positively changes the city's identity and helps the community grow in a positive social, economical, political, and educational way.

# A PLAN FOR PROCEEDING

Theoretical premise/ unifying idea:

1. What types of measures in revitalization projects exist?
2. How is a revitalization project quantified and measured?
3. Identifying the root problem of decaying cities
4. How can sustainable strategies be implemented in a revitalization project?
5. What challenges are presented in a revitalization project

Tools: Case study analysis, historical records, investigation in revitalization measures, locating how to quantify measures

Outcomes: Analysis how to inform and quantify what revitalization measure are, how they can be quantified, and how they can be used to assess a revitalization project.

Typology:  Identifying revitalization measures/ community involvement

Tools: Community member information and opinions, history of Crystal City

Outcomes: Information that speaks to what the community wants and how to address the issues that speak to the community. Asking the question on what can a revitalization project do for a community?

# DESIGN METHODOLOGY

Research conclusion methods
1. Unifying Idea
2. Revitalization research that helped answer questions and helped discover measures and ideas tied to revitalization
3. Investigating measure and their importance
4. Formulation of own ideas and overall conclusion

What:

What is a successful revitalization project?
What measures are there in a revitalization project?
What should a successful revitalization project consist of?

## DATES AND DEADLINES:

September 1st and 3rd................................................................................................Finding the idea behind the thesis
September 8th..........................................................................................................First draft of Thesis Proposal due
September 15th........................................................................................................Definition of research direction
                                                                                              Plan design Methodology
                                                                                              Document design process
October 15th............................................................................................................Thesis Proposal Due
December 14th.........................................................................................................Thesis Program due

[Figures 9-12]Detroit Leads the Way on Place-Centered Revitalization - Project for Public Spaces. (2014, March Retrieved October 16, 2015, from http://www.pps.org/projects/detroit-leads-the-way-on-place-centered-revitalization/

[Figures 13-16]Downtown Revitalization. (2015). Retrieved October 16, 2015, from http://www.ci.auburn.in.us/businesses/economic-development/downtown-revitalization

[Figure 2]Ross, R. (2014, January 14). The Legacy of Crystal City's Internment Camps - The Texas Observer. Retrieved October 16, 2015.

[Figure 28] Google Maps. (N.d.). Retrieved October 16, 2015, from https://www.google.com/maps/@28.6794658,-99.8297769,3a,75y,305.24h,90t/data=!3m7!1e1!3m5!1s0lV6tvedYsn2U74WiHMr3Q!2e0!6s//geo1.ggpht.com/cbk?panoid=0lV6tvedYsn2U74WiHMr3Q&output=thumbnail&cb_client=maps_sv.tactile.gps&thumb=2&w=2

[Figures 3-8, 21-23, Retrieved September 2015 Amanda Armendariz

# PREVIOUS STUDIO EXPERIENCE

**2ND YEAR**
*Fall: Stephen Wischer*
Tea House          Fargo, ND
          A project based on a ARTIFACT that used the senses of the artifact
and applied them to a tea house
Minneapolis Boat House          Minneapolis, MN
          A design of a rowing club boat house that was based on a storyline
and artifact

*Spring: Phil Stahl*
Dance Studio          Moorehead, MN
          A Latin dance studio that mimicked the movement and attributes of
Latin Dances
Dwelling
          The study of Biomimicry and applying it to a shipping container that
would transform and adapt to any surrounding

**3RD YEAR**
Fall: Milt Yergens
Fishing Museum     Angle Inlet, MN
          A fishing museum based on an attribute of fishing[Tackle Box]

Center for Writers Portland, Oregon
          A mix-use project that had writing and reading as its foundation
*Spring: Frank Kratky*
Mix-use Project     Fargo, ND
          This project was creating a mix-use building where Mid-America Steel
is located
Recreation Center Chicago, Illinois
          This design was in a poverty stricken area that made for a design
challenge in creating a new building in an urban setting

**4TH YEAR**
*Fall: David Crutchfeild*
Urban and Sustainable High Rise          San Francisco, California
          This design was a partner collaboration study and design of a high
rise building in SF
*Spring: Don Faulkner*
Marvin Windows Competition          Fargo, ND
          Competition was to showcase Marvin Windows products in a mix-use
building
Urban Design     Uptown, Minneapolis [Midtown Greenway]
          The revitalization and urban design study of the Minneapolis Green-
way
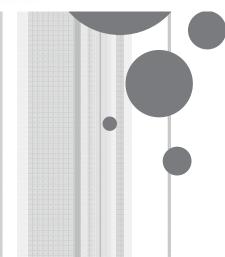
NAME:**PEDRO ARMENDARIZ III**
HOMETOWN: **CRYSTAL CITY, TX**
EMAIL: **PEDRO.ARMENDARIZ@NDSU.EDU**

# REVITALIZATION

Pedro Armendariz III

Professor: Ganapathy Mahalingam, Ph.D.

NDSU Graduate Thesis Presentation | May 5th, 2016

# UNIFYING IDEA

"Cities have the capability of providing something for everybody, only because, and only when, they are created by everybody."

— **Jane Jacobs**, **The Death and Life of Great American Cities**

# REVITALIZATION

- Revitalization is about the people and the city.

- Revitalization is achieved through a process that focuses on the root problem.

- Every city has its own revitalization measures and are specific to each city in order to achieve a level of success.

# REVITALIZATION



Instill programs that will help rebuild the city

Connect and link downtown to other nodes

Improve city systems

Provide stages of planning

Strategic planning

Strong links to each element

Know what is important

Provide what the city is in need of

Keep things simple yet unique to the city

Design for the future with the past in mind

Enhance tourism base

Economic growth

Retail growth

Instill programs that will help rebuild the city

Create gateways and identities

Create a streetscape character

Create a ripple effect

Create 1,5,10, and 20 year plans

Create vibrant neighborhoods

Create a strong sense of place

Key nodes that interconnect

Keep things simple

Community driven

Preserve the community

Create opportunity

Economy

Design

Revitalization

Vision

Community

# SITE

# HISTORY

# SITE

# SITE

EXISTING

EXISTING

# EXISTING

# CREATING A RIPPLE EFFECT

# RECREATION CENTER
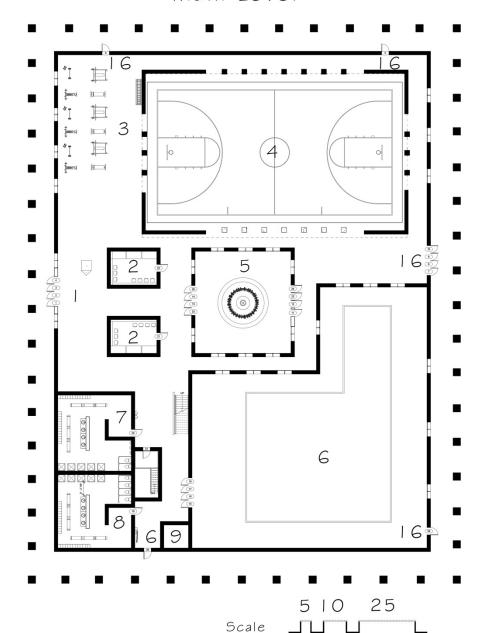
# FLOOR PLANS

Main Level

Key

1-Entrance
2-Front Desk
3-Workout Area
4-Baskeball Court
5-Courtyard
6-Swimming Pool
7-Male Locker Room
8-Female Locker Room
9-Elevator
10- Outdoor Balcony
11-Viewing Area
12-Studio Rooms
13-Offices
14-Workout Area
15-Mechanical Room
16-Exits

Scale    5  10    25
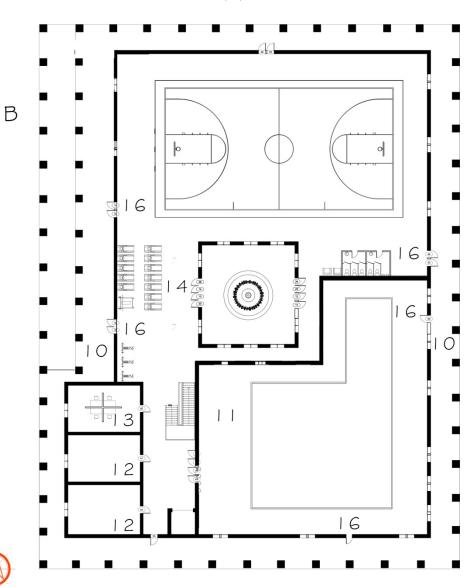
# FLOOR PLANS

Upper Level

Key
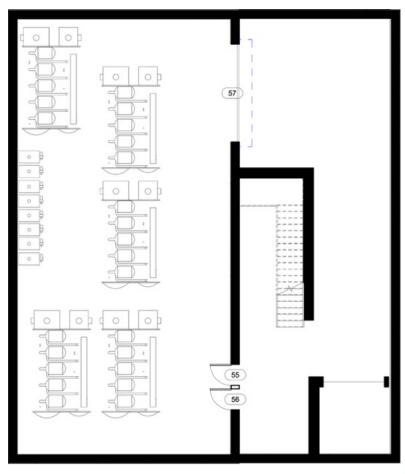
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11-Viewing Area
12-Studio Rooms
13-Offices
14-Workout Area
15-Mechanical Room
16-Exits

# FLOOR PLANS

## Basement Floor Plan
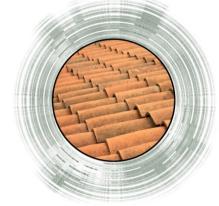
# MATERIALS

D'Hanis Brick & Tile

D'Hanis Spanish Tile

Stucco

# AMENITIES

# IMPLEMENTATIONS

# IMPLEMENTATIONS

# IMPLEMENTATIONS

# MEASURES

Community Involvement

Historic Preservation

Material Reuse/Recycling

Public Safety

# Measures

Downtown Economics

Vitality

Promotion of Life

Agricultural Productivity

# MEASURES

Resilience



Employment Rate Increase
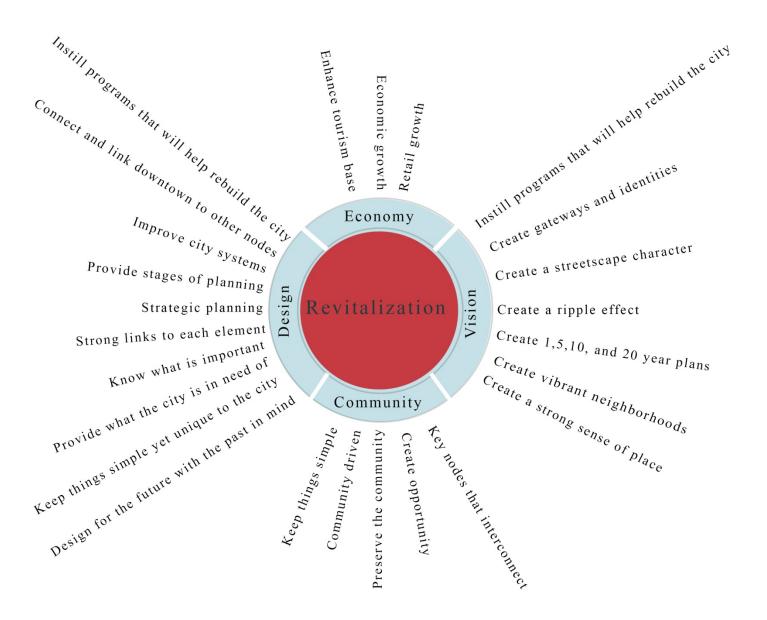


Increase in Green Spaces



Retail Development

# REVITALIZATION
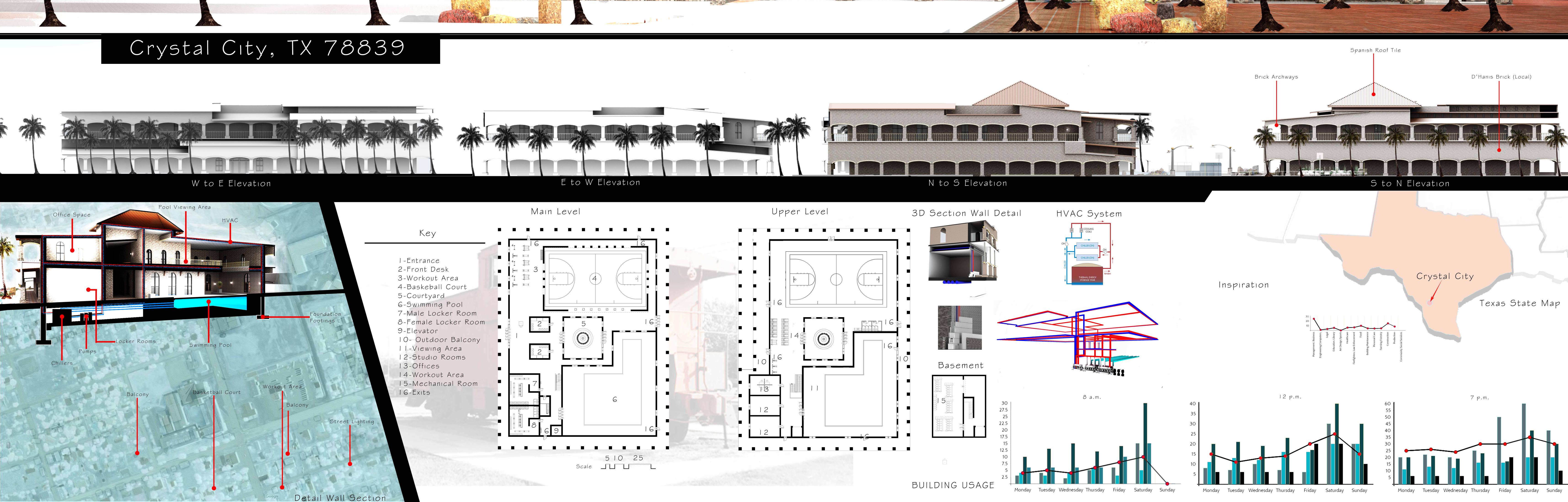
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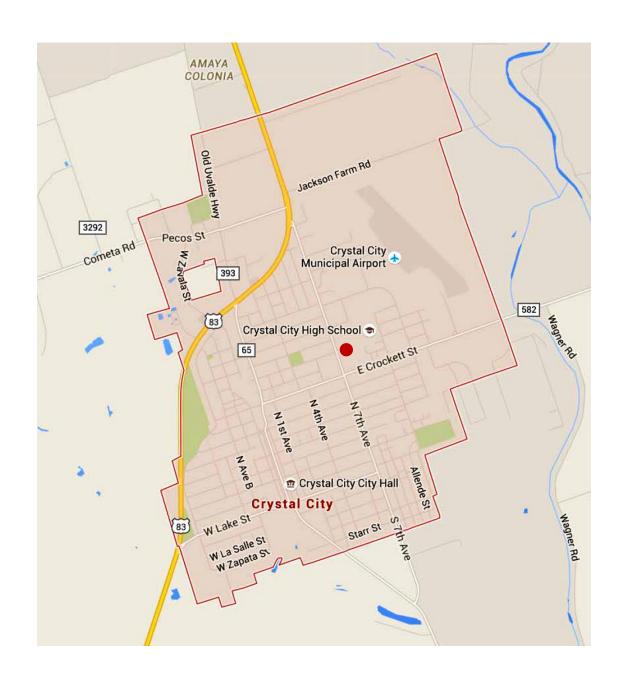
# Revitalization

## Crystal City, TX 78839

W to E Elevation

E to W Elevation

N to S Elevation

S to N Elevation

Spanish Roof Tile

Brick Archways

D'Hanis Brick (Local)

Brick Archways

D'Hanis Brick (Local)

### Detail Wall Section

Office Space

Pool Viewing Area

HVAC

Chillers

Pumps

Locker Rooms

Swimming Pool

Foundation Footings

Balcony

Basketball Court

Workout Area

Balcony

Street Lighting

### Key

1- Entrance
2- Front Desk
3- Workout Area
4- Basketball Court
5- Courtyard
6- Swimming Pool
7- Male Locker Room
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10- Outdoor Balcony
11- Viewing Area
12- Studio Rooms
13- Offices
14- Workout Area
15- Mechanical Room
16- Exits

### Main Level

### Upper Level

Scale    5 10   25

### 3D Section Wall Detail

### HVAC System

### Basement

### Inspiration

### Texas State Map

Crystal City

BUILDING USAGE

8 a.m.

Monday Tuesday Wednesday Thursday Friday Saturday Sunday

12 p.m.

Monday Tuesday Wednesday Thursday Friday Saturday Sunday

7 p.m.

Monday Tuesday Wednesday Thursday Friday Saturday Sunday

## Case Studies

**Downtown Detroit Michigan**

Detroit's revitalization project is a useful structural guideline on how to begin, implement, and apply useful measures that will help revitalize a city. The goals and strategies being used provide a look at what it takes to make a revitalization project on a large scale a success. Implementing plans for the current, five, ten, and twenty years of revitalization creates a master plan that has a clear and concise outlook at what exactly Detroit wants to achieve.

**Auburn, Indiana**

This revitalization project focused on its downtown by building on the strengths and assets this city has to offer which gives this project more of a base to start with. Assessing the current physical and economic conditions that are having an impact on the downtown business district creates an overall census on what this city needs to focus on.

Create systems to coordinate community based, institutional and public safety networks

Develop continuing education programs to focus on training around emerging local economies

Revitalize the city using sustainable practices.

Develop programs that prioritize hiring of Crystal City residents

Places to accommodate physical activity and social interaction

Revitalize the city in order to have a healthy city

Places to facilitate material, service, and entertainment

## Infographics

C Population
- 3,417 Males
- Median Age:29
- 3,721 Females
- Median Age 32

C Employment
- 12.75% Unemployment Rate
- Texas Unemployment Rate 5.5%
- 12.75% (Texas-5.5%)
- Public Admistration 14%

## IMPLIMENTATIONS

Columns and Landscaping Barrier

Storefront Overhang with Spanish Tile

The life and death of a city is determinate on what amenities and ties that teach project has to offer back to the community. Simply tearing down a cities downtown to replace it with modern and aesthetic buildings will not suffice. The revitalization of Crystal City's downtown needs to incorporate useable existing buildings, the use of renewable resources, sustainable designs, programs that tie downtown to its inhabatants, and getting the community involved on all levels.

## City Rating

**A** Weather — Average summer temperature is 83F

**A+** Cost of Living — Cost of living index is 17% lower than Texas

**B+** Crime — Total crimes are 3% lower than Texas

**D** Housing — Average summer temperature is 83F

**F** Employment — Median home value is 67% lower than Texas

**F** Education — High school graduation rate is 29% lower than Texas

Project Emphasis
- Identify the root of the problem
- Keep the History of the City Intact
- Create Master Plan
- Create a Blue Print for Revitalization

Framework
- Community Driven
- Create Vibrant Nodes
- Create City wide Connections
- Clear Vision

C Connections
- 400' From High School
- 500' From Middle School
- 730' From Athletic Feild
- 450' From Social Housing

C Creates
- Healthy Lifestyle
- Educational Connection
- Jobs
- A Vibrant Node

C Amenities
- Full Basketball Court
- 50'x60' Adult Pool
- 35x20' Kid Pool
- 35'x60' Workout Area

C User Avergae
- 24 Courtyard
- 34 Basketball
- 36 Swimming Pool
- 15 Employees

C Connectivity Maps

Heavy Traffic Roads

Bus Routes

Bus Stops

Walkability

Parks

Bike Paths

Sites

The Built Environment