Heritage

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

By Christa Pojanowski

In Partial Fulfillment of the Requirements for the Degree of Bachelors of Landscape Architecture

Primary Thesis Adviser

Secondary Thesis Adviser

Thesis Committee Chair

May 2012
Non-Exclusive Distribution License

By signing and submitting this license, I, Christa Pojanowski, grant to North Dakota State University (NDSU) the non-exclusive right to reproduce, translate, and/or distribute my submission worldwide in print and electronic format and in any medium, including but not limited to audio or video. I agree that NDSU may, without changing the content, translate the submission to any medium or format for the purpose of preservation. I also agree that NDSU may keep more than one copy of this submission for purpose of security, back-up and preservation. I represent that the submission is my original work, and that I have the right to grant the rights contained in this license. I also represent that my submission does not, to the best of my knowledge, infringe upon anyone's copyright. If the submission contains material for which I do not hold copyright, I represent that I have obtained the unrestricted permission of the copyright owner to grant NDSU the rights required by this license, and that such third-party owned material is clearly identified and acknowledged within the text or content of the submission.

IF THE SUBMISSION IS BASED UPON WORK THAT HAS BEEN SPONSORED OR SUPPORTED BY AN AGENCY OR ORGANIZATION OTHER THAN NDSU,
I REPRESENT THAT I HAVE FULFILLED ANY RIGHT OF REVIEW OR OTHER OBLIGATIONS REQUIRED BY SUCH CONTRACT OR AGREEMENT.

NDSU will clearly identify Christa Pojanowski as the author or owner of the submission, and will not make any alteration, other than as allowed by this license, to my submission.

Christa L. Pojanowski

Date

May 2012
Abstract .......................................................... 1  
Problem Statement ............................................. 2  
**Statement of Intent** .......................................... 3-7  
Typology .......................................................... 4  
The Claim ........................................................ 5  
Theoretical Premise ............................................ 6  
Project Justification ........................................... 7  
**Proposal** ...................................................... 8-20  
Narrative .......................................................... 9  
User/Client Description ....................................... 10  
Major Project Elements ...................................... 11  
Site Information ............................................... 12  
Project Emphasis .............................................. 14  
Plan for Proceeding .......................................... 15  
Previous Design Studio Experience ....................... 19  
**Program** .................................................. 21-69  
Research of the Theoretical Premise ....................... 22  
Case Studies .................................................... 29  
Goals of Thesis ............................................... 37  
Historical Context ............................................ 38  
Site Narrative .................................................. 41  
Site Analysis .................................................... 42  
Climate Data ..................................................... 54  
**Design** ..................................................... 56-101  
Programmatic Requirements ................................ 57  
Initial Design Development ................................ 58  
Master Plan ...................................................... 80  
Reconstruction Resolution ................................ 97  
Reference ........................................................ 98  
Images .............................................................. 100  
Personal Identification ...................................... 101
Abstract

This thesis explores small urban city revitalization. When small cities outlast the function of their own infrastructure, city revitalization needs to focus on how the city is functioning overall. City infrastructure is the basis for structure and function of a city. City revitalization plays an important part in reorganizing the forms and patterns of a city to create networks and connections for a successfully functioning community.

Keywords: City design, city revitalization, community, environment, forms, identity, landscape architecture, patterns
How do the physical forms and patterns of a city’s design impact the community?
Heritage
Typology

Small Urban City Revitalization

Downtown Lindstrom
A city’s infrastructure makes up its forms and patterns, and it is the practice of designers and planners to plan successfully functioning cities. This in turn creates strong networks and connections. The infrastructures of many small towns no longer function properly. It is the responsibility of designers and planners to recreate or revitalize these small urban downtown infrastructures.

Parts of the Claim:
- **The Actor(s):** Landscape Architects and Urban Designers/Planners create and initiate the development of city designs.
- **The Action:** Small urban city revitalization is the process of creating communities.
- **The Object (Acted Upon):** The reason for small urban city revitalization is to recreate and work with a city’s downtown infrastructure.
- **Manner of Action (Method):** Revitalization of a small urban infrastructure to create a better functioning community is the start of how it will be accomplished.
Theoretical Premise

City infrastructure is the basis for structure and function of a city. City revitalization needs to occur when the city outlasts the function of its infrastructure. City revitalization plays an important part in reorganizing the forms and patterns of a city to create the networks and connections for a successfully functioning community.

Parts of the Premise:

Actor Relation: Designers create successful functioning cities, using physical forms and patterns that create networks and connections throughout cities’ downtowns.

Action Relation: City design and planning creates infrastructure for strong communities through designs.

Object Acted Upon: Small town infrastructure can be revitalized to enhance the communities through city planning.

Manner of Action (Method Relation): Understanding how cities function with their forms and patterns can support revitalization of an existing community.

Statement of Intent
Project Justification

This thesis explores small city revitalization. Knowledge of how a city functions, as well as the design elements of urban infrastructure, is important to understanding city revitalization. In order to support reorganization and revitalization of small urban downtowns designers explore different design elements and provide increased opportunities for functional networks and connections throughout a city’s downtown.
Heritage
A city’s infrastructure functions as the foundation on which the entire city operates. When a city and the residents outlast the function of their own infrastructure, a city’s alternative is to explore city revitalization, and focus on how the city functions overall. City revitalization plays an important part in reorganizing the forms and patterns of a city to create the networks and connections for a successfully functioning community. When a city is functioning properly, it has complete control of the city and the people within it. This creates opportunities for the residents, business owners, surrounding community, and visitors of the city to grow and flourish. Doing this will create changes, and the residents will have pride in their community. For success in the city’s design, these qualities are used to create strong relations through the community.
Residents: The residents of the city of Lindstrom, interact with the city on a daily basis. The surrounding landscapes and urban spaces impact them. As people live their lives in and around the city of Lindstrom, there are many impacts on many different levels, and these are dependent on the city’s resources. Networks and connections are created so movement helps the city function properly.

Business Owners: Another user group affected is the local businesses around Lindstrom. The design of the town provides local businesses either opportunities or constraints for running their businesses. This also may affect the services that a business can provide to the community.

Surrounding Community: This project will have a great impact on the surrounding community of Lindstrom. The project creates strong networks and connections that the people in the community will have a direct impact on the ways of life of Lindstrom. It gives citizens the chance to reconnect and form a strong community atmosphere.

Visitors: People who come to visit Lindstrom will also be using the landscapes and urban spaces around the city. They will use resources that not only impact themselves, but also the city of Lindstrom. While maintaining a community atmosphere, marketing to visitors from outside the area will draw them in, impacting the community and local businesses.
Major Project Elements

Transportation: A city is developed through the connections made to different places. These connections can be trails, sidewalks, railroad tracks, and roads. Roads provide cities guidelines to build upon. Transportation is a large part of where a city’s forms and patterns begin. Transportation provides services for the users of the city of Lindstrom. This creates strong connections for the community to come together and aids in attracting visitors to the city for local resources.

Local Business Buildings: The local businesses from the city of Lindstrom will have both opportunities and constraints conducting business. The revitalization of the city will alter the existing local businesses and industry. The changing of the streets and the street context will create connections to services the city.

Residential: The city revitalization will create strong connections in the city of Lindstrom. It will also allow the residents living in town the chance to mix and mingle with each other. Rebuilding the city of Lindstrom will enhance movement throughout town. It will help create a hierarchy of traffic pathways of visitors and locals, allowing for everyday interaction between the locals and visitors.

Parks and Open Public Space: Green spaces provide a chance for outdoor activities, and as a place to gather and socialize. These functional spaces allow for connections to other areas. Green spaces create forms and patterns of areas for a successful community.
Site Location

[3] United States


[5] Chisago County

[6] Lindstrom, Minnesota
Lindstrom is a small urban city. It is located close to the border of Minnesota and Wisconsin. The city is bordered by lakes, creating a great amenity for the town. There is a strong Swedish heritage in the town from the founding Swedish immigrants. There are plans to reroute the highway around the city and change the city’s circulation routes through town. While the city is doing this, the community is afraid this might destroy what they have.
This project’s emphasis is on the rebuilding of a community through understanding the way cities are designed and built to function. It is important to create networks and connections within the city’s infrastructure. This allows for more organized movement throughout the city. The research focuses on finding successful city revitalization plans for smaller urban cities. Researching key elements of other cities will provide city designs of more organized city systems.
Plan for Proceeding  
Definition of Research Direction

Research will help me prove a case for city revitalization and how it can have a powerful influence on city organization great effects on the community. It will provide the opportunity to observe work that has been done in the field and to change design elements with positive effects on society as a whole. It is important to utilize examples of other designers’ work to benefit Lindstrom’s city revitalization design. Goals throughout this process will help define a successful outcome. The main focus of the research will examine uses and connections of the city site.

Plan for Design Methodology

A quantitative and qualitative mixed method approach is the methodology that will be used in the research process of this project. This research will be compiled for an inclusive and comprehensive project analysis. The methods will include data collection, data analysis, and interpretation of the data supported in the project analysis. The data will be gathered through site visits and other forms of inventory and analysis.

Plan for Documenting the Design Process

Documenting this project will be done by compiling the information digitally. The project will include journaling, drawing, photographs, and computer graphics. As the project spans a two-semester period, it will go through many changes that will be documented digitally. It will be reviewed as it is collected. When completed, the project itself will be kept in the library's digital database, allowing others to have access. The project will also be presented in a booklet format as a final student project.
# Plan for Proceeding

## Schedule for the Project

<table>
<thead>
<tr>
<th>July</th>
<th>December</th>
</tr>
</thead>
<tbody>
<tr>
<td>Talked with the city administrator-John Olinger</td>
<td>2- Inventory/Analysis Graphics Checked</td>
</tr>
<tr>
<td></td>
<td>Climate Data Diagrams</td>
</tr>
<tr>
<td>August</td>
<td>5- Talked with Minnesota DOT</td>
</tr>
<tr>
<td>23- First Day of Classes</td>
<td>Landscape Architect- Todd Carroll</td>
</tr>
<tr>
<td>September</td>
<td>9- Final Thesis Program Due!!</td>
</tr>
<tr>
<td></td>
<td>Last Day of Classes</td>
</tr>
<tr>
<td>5- Labor Day Holiday</td>
<td>12-16- Final Examinations</td>
</tr>
<tr>
<td>8- First Draft of SOI Due</td>
<td>30- All work done through Site</td>
</tr>
<tr>
<td>21- Revised SOI Due</td>
<td>Inventory and Analysis</td>
</tr>
<tr>
<td>23-25- Site Visit</td>
<td>Ready to Review</td>
</tr>
<tr>
<td>October</td>
<td>January</td>
</tr>
<tr>
<td>6- Proposal with Revised SOI Due</td>
<td>3- Meeting with the Minnesota DOT</td>
</tr>
<tr>
<td></td>
<td>Landscape Architect- Todd Carroll</td>
</tr>
<tr>
<td>9-11- *Site Visit</td>
<td>9- First Day of Classes</td>
</tr>
<tr>
<td></td>
<td>16- Martin Luther King, Jr. Holiday</td>
</tr>
<tr>
<td>17-21- Mid-Terms</td>
<td>16- Martin Luther King, Jr. Holiday</td>
</tr>
<tr>
<td>27- Last Day of LA 563</td>
<td></td>
</tr>
<tr>
<td>November</td>
<td></td>
</tr>
<tr>
<td>4- Literature Review</td>
<td></td>
</tr>
<tr>
<td>Bibliography</td>
<td></td>
</tr>
<tr>
<td>Thesis Schedule</td>
<td></td>
</tr>
<tr>
<td>11- Veteran’s Day Holiday</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>11- Veteran’s Day Holiday</td>
<td></td>
</tr>
<tr>
<td>Case Studies/Historical Context</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>18- Site Analysis</td>
<td></td>
</tr>
<tr>
<td>Space Allocation</td>
<td></td>
</tr>
<tr>
<td>24-27- Thanksgiving Break</td>
<td></td>
</tr>
<tr>
<td>Site Visit</td>
<td></td>
</tr>
<tr>
<td>25- Updates</td>
<td></td>
</tr>
</tbody>
</table>

Proposal 16
Plan for Proceeding
Schedule for the Project

February

6-9- Preliminary Design Development
    Inventory and Analysis
20- President's Day Holiday

March

6-8- Mid-Semester Thesis Reviews
    Concept Design Development
12-16- Spring Break
15-17- LaBash Trip

May

4- Last Day of Classes, Award Ceremony
7- CD of Final Thesis Document Due to
    Thesis Instructors
7-11- Final Examinations
    Thesis awards Finalist Show in
    Main Gallery Downtown
10- Final Thesis Document Due 5:00 p.m. in
    Institutional Repository
12- Commencement at 10:00 a.m. at The Fargo Dome

April

6-9- Easter Holiday
16-20- Thesis Project Final Boards on CD
    to Advisors by 5:00 p.m.
23- All Exhibits for Thesis Project Due by
    5:00 p.m. on 2nd Floor Renaissance Hall
23-25- Annual Thesis Exhibit Opens
26- May 3rd- Final Thesis Presentations
Plan for Proceeding

<table>
<thead>
<tr>
<th>July 2011</th>
<th>November 2011</th>
<th>March 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>August 2011</th>
<th>December 2011</th>
<th>April 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>September 2011</th>
<th>January 2012</th>
<th>May 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>October 2011</th>
<th>February 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Proposal 18
Second Year:

Fall: Introduction to Landscape Architecture Studio  
Kathleen Pepple (2008)  
Tea House and Garden, Fargo, North Dakota  
Halverson Park, Battle Lake, Minnesota

Spring: Open Space Studio  
Mark Lindquist (2009)  
Fargo Corridor, Fargo, North Dakota  
Canora Green, Winnipeg, Canada

Third Year:

Fall: Environmental Art Studio  
Stevie Famulari (2009)  
Defiant Garden, Fargo, North Dakota  
Regent, North Dakota  
Snow Symposium  
Suburbia

Spring: Community Planning and Design Studio  
Kathleen Pepple (2010)  
United Tribes Technical College, Bismarck, North Dakota  
Roosevelt Neighborhood, Fargo, North Dakota
Previous Design Studio Experience

Fourth Year:

Fall: Urban Design Studio
  Jason Kost (2010)
  Duluth, Minnesota

Spring: Phytoremediation Studio
  Stevie Famulari (2011)
  North Branch, Minnesota
  Hesco Baskets

Fifth Year:

Fall: Tourism Planning Studio
  Catherine Wiley (2011)
  Red River Valley Watershed, Fargo, North Dakota
  Seattle, Washington

Spring: Design Thesis
  Stevie Famulari (2012)
  Heritage, Lindstrom, Minnesota
Heritage
The book *Main Street Renewal* focuses on existing communities and how they function. The book also states that the health of a downtown is directly related to the health of the community as a whole. There are incentives to fix existing downtowns, which are called Downtown Enhancement Programs. These programs focus on different areas that make up a downtown. There are many connections when redeveloping a downtown, from private to public. There is a public sector, a business sector, and also civic sector.

Starting with a vision for downtown, goals should be set that direct where the downtown should be going in its development. These goals should be manageable and should involve the business community, local government, and the citizens of the community. After a plan is put into place, the downtown should pursue the vision by creating a market-driven business plan, using the customers, the potential customers, what they want, and how affect the streetscape to improve the uses. City downtowns all have their own special niches to draw the public and tourists to it. The public should be a main focus, but attracting business to the downtown area to create variety is also important. When adding to the downtown business district, another element is to counsel the businesses, to keep the businesses there that have set up shop. The downtown community should come together to form groups and committees to better the life of the downtown. The uses of downtown should be intermixed to get a variety of people downtown, which may start with the building structures and their uses. Mixed-use buildings are an easy way to incorporate the commercial on the, lower levels and housing on the upper levels. The style of downtown give away the appearance, the feel of downtown, and away to pull this out of a city is campaigns and marketing for a specific audience. Many successful downtowns relate themselves back to mall using techniques to revitalize downtowns.
Main Street Renewal looks at many existing issues of downtowns, and found that safety is the predominant issue in many downtown developments. While looking at safety there are a number of things to change that will fix the issues to attract customers and businesses alike. These are divided into three categories: physical and environmental, social, and image related. To address the issue of safety, a main component would be adding community policing, which makes the downtown more “user friendly.” The shift from patrolling from the roadway in cars to the sidewalks on bikes helps the users of the downtown. Communications and networking around the area, education and training, physical improvements such as maintenance, clean-up, beautification programs, and focusing on social issues will help change the safety issues in a small urban downtown.
“First we shape our buildings, then we shape us.”  -Winston Churchill


*SafeScapes* is a book that focuses on the safety of spaces, whether these spaces are downtown or in neighborhoods. It looks at what affects the safety of a place. If a place does not look safe, it will not reach its potential. The book listed specific things not to do when designing spaces. For example, it is important split up land uses, because there will be more chances for human interaction without separate areas of land uses. Lining sidewalks downtown with windowless walls shut off the buildings to passersby, not welcoming them. When developing parking lots it is important to hide them from public spaces. Design for the pedestrian over the automobile. Automobiles are no longer king; vehicles are bad for people and the environment. They also take away from the sense of community.

In the 1990s there were New Movements in city design. The movement was about the smart growth of cities, and created more livable communities, sustainable developments, New Urbanism, Neotraditional Planning, used the infill sites in communities for compact projects, started city revitalization of historic cities, and added housing to urban cores. Designing to allow and encourage certain behaviors is called “social engineering,” or social control. Everything we build, whether downtown buildings or a shopping mall, can influence the behavior of the people who occupy the space. Results of our actions, take responsibility—means applying what we know about human behavior and environmental design for the betterment of society.

This book will provide readers with the information and the tools they need to apply our accumulated knowledge about crime-free urban design, which is important to the future livability of our cities and neighborhoods.
This book also focuses on public safety in the context of the built environment and how we can work toward a safer urban landscape, through planning and the use of design. The built environment has a far greater impact on public safety then recognized. Many of the same planning and design considerations that affect quality of life also influence crime and fear. The goal is to respect human needs through the urban built environment.

The purpose of the book is to offer creative, realistic planning and design approaches for dealing with today’s public safety issues. We have adapted to a pattern of living that does not truly support a sense of community and a sustainable quality of life. The definition of SafeScape, according to the book, is “a holistic approach to addressing those issues through modification of the physical environment” (Zelinka, 2001).

Quality of life and crime are major topics of national concern regarding urban spaces. In new communities there is often a feeling of “placelessness” and a lack of connection between neighbors and citizens, both of which ultimately impair the quality of life and public safety in the community. Creating of places that do not adequately consider the behavior attributes and tendencies of people often become under utilized, unused, or home to undesirable activities that serve as the impetus in the cycle of deterioration. Places that are designed to truly serve people stand the test of time, facilitate positive human interaction, and have an identity. There are opportunities to use SafeScaping. Designing with safety in mind provides an opportunity for the public to engage in community activities. It allows people to take ownership and pride in their towns and communities as a whole. It brings people together instead of splitting them up or segregating them.
The book *Sense of Community* discusses whether an existing or a new community, there is a need for people who live in a neighborhood and/or use a district to feel comfortable and have a feeling of belonging. This feeling of belonging, when shared with others, evolves into a sense of community. We can sustain a sense of community and become more open to differences and less fearful of our fellow citizens through planned opportunities for community gatherings, and facilitation of informal interaction and socialization. Auto-orientated or curvilinear streets are not conductive to getting to know who is a neighbor and who is not. Accommodating the automobile and separating different land uses are inherent in urban forms. Newer suburban neighborhoods are all but vacant during weekdays, because children are at school and parents are at work.

The book also provides ways to optimize the use of SafeScapes in the design of spaces. One way is by providing spaces for different kinds of activities for the needs of residents, which will contribute to constructive, rather than destructive, behavior. In communities there should be places that bring people together and offer activities. Maintenance is a major way to optimize the use of a space; if a space is not clean no one will use it, and many look at the spaces as unkept and unsafe. Street environments must attract people to the area. The built environment should focus on the people by the way it is designed and maintained. It should be designed for interaction between people.

Downtown main streets provide opportunities to engage in citizenship, ongoing activities, design compatibility with adjacent uses, and linkages and transitions which create an inviting environment for people. Neighborhoods include single family, duplexes, apartment complexes, senior housing, schools, religious institutions, and other neighborhood-serving uses. Downtowns include convenience stores, corner gas stations and stores, main streets, auto-oriented shopping areas (commercial strip malls and shopping centers), and mixed use.
The book *The Social Life of Small Urban Spaces* is about how small urban spaces work, don’t work, and why. It also includes important elements that play big roles in urban spaces. Elements like the sun, trees, water, and food, and most of all seating, are key roles in an urban environment. The amount of small spaces impacts a city; a large amount of small spaces has a major impact on a city’s quality of life. If urban spaces are unattractive, people are not going to want to use them, so they will not, and may even leave the city and move to the suburbs or country.

The important thing to take away from the book is that designers need to learn to take advantage of small urban spaces. By designing new ones, and fixing up the old ones, we will keep the streets alive. We may even encourage more people to use them, and to smile about it (Whyte, 1980).
The book the *Street Life Project* is the basis for research. The project was started in 1971. The main thing that the book explored was human behavior and the behavior of people on the city and their rituals. They watched for many things, such as people meetings, gestures made by the public, and rhythms created by peoples movements. This study of spaces breaks down spaces that work, don’t work, and the reasons why. For instance, they looked at spaces with a lack of crowding to spaces that were choke points; these places are like subway stations where there are many people at once. Incentives for builders have been authorized for buildings that also provide plazas for the public. There are certain times when plazas are the most used, which was mostly at lunch time. Numerous activities take place at these plaza, including sitting, sunbathing, gossiping, and talking. Some of the plazas mentioned in the book had the most traffic with people just walking through the plaza, not stopping to enjoy the space like it was designed for. For these reasons older plazas are being rejuvenated as others are being designed to meet the public’s needs.
Corridors and Streetscapes

Champaign and Urbana University Avenue-
When designing a college campus there are certain elements that need to be considered. The movement around campus is essential to how successful the campus is.
At the University of Illinois, Urbana Champaign in Urbana, Illinois this is a focus of the campus plan. There is a 1.4 mile mixed-use corridor that runs through the middle of the campus.
The project was to redevelop, to increase the mixed-use of the corridor, and to enhance the visual character.
Landstory was the firm that was in charge of revitalizing the corridor. Some major issues were the narrow width of the corridor, the development along the corridor, and allowing for the many uses of the corridor.
Establishing a cohesive plan focuses on the signage such as kiosks, use of color, site furnishings like seating and lighting, and decorative pavements, as well as structures, such as bus shelters to give the corridor a feeling that is unique to the area.

The corridor was then divided into four different districts. This connected Urbana, Illinois to the city of Champaign. Connections included the unique but similar elements listed above.

Intersections along the corridor were enhanced to include crosswalks, pedestrian islands, and landscaped areas. A key to the design was the priority of the pedestrian for the pedestrian’s safety.
Indianapolis Green Infrastructure Plan—
Some elements that make cities green are the entrapment of rainwater, sewer treatment, and an all time green business makes for exciting solutions for all kinds of green characteristics. It is what Landstory, as well as the city of Indianapolis, has done in their master plan. Bio-swales, rain gardens, rain collection systems, permeable pavement, and green roofs were incorporated to mitigate surface stormwater. These elements were used in various scaled projects, from small residential structures like rain barrels, to large regional projects like entire areas dedicated to the retention of stormwater runoff.
Another key citywide matter with this project was to inform and educate the public of what all the projects were doing to benefit not only the city but the communities within the city. To do this, before and after pictures paired with facts and figures showed the beneficial outcomes of the city’s green projects to the public, educating them about our most valuable resource as human beings: water.

Another element in the master plan of Indianapolis is green infrastructure. Drainage systems that reduce and filter water runoff, rain gardens, bio-retention, constructed wetlands, pervious pavements, and green roofs all help in stormwater management plans. The city became green, which was certified by the United States Environmental Protection Agency’s standards.
Case Studies
Creating An Urban Oasis

Chestnut and Market Street-
When revitalizing a downtown to bringing back the residents. When people leave downtown, it often becomes deserted streets and the buildings become rundown. A new hybrid urban landscape gives fresh momentum to a city’s renewal. St. Louis has lost residents in its downtown and needs to revitalize it to attract more people. There is a 1.2 mile-long city block that was mall, The Gateway Mall. Along with the mall there is a two block, 2.9-acre site that is an empty plaza, which is a great place for development. A new master plan for the mall was proposed with a theme “Meet Me {Again} in St. Louis, Louis,” which established the identity of St. Louis.
In the revitalization of the downtown the designer wanted to incorporate a botanic garden and a traditional City Park.
Nelson Byrd Woltz Landscape Architects from Charlottesville, Virginia was the park’s designer. The design has two walls that span the site. The first is made of limestone and is 550-feet-long, and the second is a granite “meandering wall” that is 1,100-feet-long. These walls and design run through the site and intercept Ninth Street. When the park is at peak time the street is closed to vehicular traffic and open to pedestrians.

The park is called an “urban garden,” with a mixture of open spaces for activities, shady spaces for resting, and a series of water features that are a primary attraction for many. The park provides something for everyone.

On one side of the park there are spraying jets that shoot vertically into the air, paired with small pools of water. These are successful features, especially on hot days, to cool children, and the public can sit and rest on the interactive plaza.
Case Studies
Creating An Urban Oasis

Along the limestone wall has a 40-foot break in the wall, and there is a waterfall cascading down from the top level to the bottom of the split-level water basin. These features imitate the surrounding landscape of St. Louis from the two great rivers, the Mississippi and the Missouri, and the materials that are unique and important to the landscape, such as the stones, the floodplains, and the river terraces. Stonework, native planting diversity, and water features also add to the identity of the downtown park.

Sculptures in the park add to the culture a place may have. In this park, sculptures are used to separate the upper “river bluffs” and the “floodplain” areas. There are 24 sculptures installed on the park grounds, and they are large enough to interact with. Igor Mitoraj’s decapitated head sculpture, Eros Bendato or Bound, greets visitors arriving at Citygarden’s southeast corner of the park. Bernar Venet is a very large sculpture that children can climb on with a waterfall in the background for prime photo opportunities.
It is important that the lighting of park features is incorporated to enhance visits in the late evening hours. The Citygarden is open year-round, with no limiting features like fences or entrance fees. There are elements that will draw visitors even in the late winter months, such as fun colored lights and interactive elements. The Citygarden has many uses, including local festivals, fund raisers, concerts, and other civic events, as well as retail and new residential development, which are ways to bring in people. The park also frames views of important landmarks around the city like the Gateway Arch and the Old Courthouse dome. After the park had taken its form, residents started to return to the downtown, and the park has visitors all day long from early morning to late dusk. Ultimately the downtown celebrates local sports, culture, and civic activities.
Research Results and Goals
Goals for the Thesis Project

**Academic Goal:**
Academically I want to push myself as far as I can to demonstrate the scope of my skills and capabilities. I want to use all the education and knowledge I have gained while studying at North Dakota State University and compile it to create a project that I am proud of. While researching for my thesis design interventions I am using all the resources that are available to me while in school. I want to apply myself artistically, mentally, and physically. The solution to my design intervention needs to be aesthetically pleasing along with being functional. Ultimately I want to identify the issues, and come up with significant solutions to overcome the issues.

**Professional Goal:**
Professionally I will be putting myself out there to receive assistance from professionals in the field. By contacting city administration and the Minnesota Department of Transportation to gain information to complete my project is one way I will use my resources. I hope to gain some experience while working on my thesis project. I want to create a project that I will be proud to stand behind and share with professionals to show what I can do. Working with the existing project elements I want to help protect and preserve the landscapes, build structures, and ultimately the community.

**Personal Goal:**
Personally I want to do a project that I will have interest in. The typology of my choice will help keep my interest throughout the project phases. I want to challenge myself to use as many skills as possible to express my design to the public. I want to push myself creatively to generate something that has never been done before. I want to create something that my parents and family will be proud to stand behind, to teach and show them what all the money and student loans were for.
American planning started to really develop during the 19th and 20th centuries. The practice of planning has been around since the very first city was developed, but it was not until the late 19th century it was used to design how cities would function. The population in urban areas is truly the driving force for the development. Where there are gathering people there is a need for organization to establish cohesive movements. Throughout time the United States has moved from rural to suburban development, and now to a post-suburban lifestyle. People are going to live where there are other people, where there are places and be active, and places to work.

The book, *Two Centuries of American Planning*, states, “In the process they had helped to reshape the contours of the American landscape, placing them more in line with traditional American values” (Schaffer, 1988, p. 1). This expresses how planners use American needs to form cities to best suit their lifestyles. Planning was introduced at a federal and state level in the 1920s, around the Roosevelt Administration in the Great Depression. In the 1930s planning professionals started to look for the definition of their own purpose. Post-World War II seemed to stunt community interactions, making connections impersonal and inadequate with the living arrangements of the times. For the same reasons, planning at the time was an important part of urban design, even though most of the public did not see it at the time. Farmlands were starting to become an important part of livelihood, which seemed to help the issues of urban sprawl and focused on farmland preservation.

Still in the 1970s professionals planners had a hardship for the profession as a whole, with finding jobs while the government had the rained over all, and yet with the purpose for the profession. The professional occupation of urban planning is to develop a method to organize urban areas, interactions between groups, and is also a way to achieve a single overall cohesive urban structure. It is stated in *Two Centuries of American Planning* that, “Downtown redevelopment, inspired in part by professional planners, has brought life and vitality back to some centre cities” (Schaffer, 1988, p. 3).
During the Reagan Administration in the 1980s, responsibilities of planners became less and less valued by the public as well as the government. The work done by planners was not considered important or long-term. Comprehensive designs did not have a major role in urban development.

As time went on, community planners focused on the designs of the urban areas rather than the community, which ended in forgetting about the good of the community. Organizations were established to fight for the importance of community structure. These organizations included the Planning History Group and Antebellum American Suburb, which were established post-Civil War and continued to grow.

At this time Frederick Law Olmsted, the Beautiful Movement, and preplanning the growth of the city happened, and was called the romantic suburb or the age of the metropolis. Olmsted was considered a great landscape architect, and one of the first fathers of modern city planning in America (Schaffer, 1988). There were other important figures that had a major impact and helped pave the ways of planning throughout history, including Thomas Adams, Lewis Mumford, and Charles-Edouard Le Corbusier.

With time, the field of planning has shown that people were catching on to urban planning and the issues that came with the growth of cities. The planning field soon began to grow to include more professional fields. Landscape architects, housers, city administrators, and real estate lawyers were all identified under the profession of city planners. Planning has taken on basic and traditional values of society.

“The 1811 Plan for New York City…adheres to the… gridiron pattern laid the ground work for the expansion of New York City during the nineteenth century” (Schaffer, 1988, p. 6). New York City was one of the first cities that was planned to work with the increase in population. In 1921 Thomas Adams researched the plan and decided to focus on a new plan, The Regional Plan of New York City, which looked at how New York could change to please the local residents of the city and plan for future expansion. Lewis Mumford was influential with planning low cost housing and population growth. His focus was economically and socially beneficial to the plan of New York City.
In the Depression there was a rare moment when planners were considered highly influential nationally. Organizations like New Deal programs, the National Resources Planning Board, and the Resettlement Administration had the potential to reshape the national landscape but were underfunded (Schaffer, 1988).

“The evolution of the American city and suburb—and those conscious attempts to shape their growth—are not just bound by their geographical and historical setting” (Schaffer, 1988, p. 9). Studies about the history of American planning allow for further development of the planning field. It helps the growth of the field as well as urban planning of cities.

According to Schaffer, an episodic history of urban and regional planning in the United States illustrates not just the roots and inner workings of a particular profession; it shows, as well, the outer workings of the nation’s economic and political system—and with that, the fundamental values under which the nation operates. (Schaffer, 1988, p. 10)

American planners chose to deal with American society directly, and that is why there is a successful evolution of the professional practice today.
A small urban city’s downtown is an important feature. This is where daily activities take place. Bakeries make fresh doughnuts everyday, business people hurry off to work, but make a quick stop at the bakery to say their hellos and grab a coffee and doughnuts. It is a small system in a large picture. To maintain this ongoing cycle, the city must change with the times. The number one thing is to keep it convenient, because if the resources are convenient, the more they will be used. When incorporating greenery it is not just the trees and vegetation, but also the thought of nurturing the tree saplings as the now aging town needs nurturing to enhance the different essentials.
The city’s layout is derived from the grid road system of Lindstrom. The roads run north to south and east to west. The major road that runs through Lindstrom’s downtown is Highway 8.
This area of Minnesota has numerous lakes, which gives the land very rich topography. The topographic map above shows one foot contours. The highest points are between the lakes, and the uniform slope to the lakes’ edge is very gradual, allowing for much lake development.
The two cities in the area of the Highway 8 corridor are Lindstrom and Center City. The view that can be seen from downtown Lindstrom is shown in green on the left of the image. Center City views can be seen on the right in yellow. The two cities overlap in some areas, shown in an orange color. These are seen on the bottom middle of the image.
This map shows shade and shadow on the terrain of the landscape. The south and east facing slopes have the darkest tone and the north and west are the lighter tones on the slopes. The surrounding lands are monotone because shadows do not come from them. This shows the height and character of the surrounding landforms.
The zoning of the city has a very traditional layout, a small downtown area that disperses you move away from the highway corridor. The downtown district along Highway 8 is a business district, and on the outskirts of the downtown business district there is a residential district. There are numerous city parks and open spaces that are walking distance form each other.
Land uses around Lindstrom’s city boundaries are very similar because it is a downtown district. In the downtown there are commercial buildings, medium to high density residential expanding from downtown, and then development becomes sparse.
Land uses around Lindstrom’s city boundaries have been similar for years because it has been a downtown district. Since 1992 it has had a downtown corridor with a commercial district, and residential district. The rural area begins not far from downtown with decrease in the developed areas.
The lighting along Highway 8 is placed at an appropriate distance apart. The fixtures are generic looking, but also have unique flags attached to them with Lindstrom’s symbology and heritage logos.
Vegetative land cover thrives in natural areas that are left untouched. There is a lot of vegetation around the lakes but not in the downtown, this is due to the areas that are left untouched around the lakes. The darker green colors show heavier vegetative covering on the land.
The impervious surfaces around Lindstrom are really specific to the downtown area. There are also hardscape materials along most of the roadways in and around Lindstrom. A deep red shows more impervious surfaces than the faded red color.
Swedish immigrants came to Lindstrom, and it is known as a sister city in Sweden, which is celebrated throughout the town. This is not the only character the town, it is the one most of the town is proud to be known by. Nearly everyone in Lindstrom is friendly and would drop everything to help a stranger, whether for directions or a place to stay.
The soil in Lindstrom is a rich loamy soil. There are some sandy areas and swampy mucky areas. The area seems to be well draining. The more stabilized soils are located upland of the lake, equally between the lakes, where there are some issues of distress along the lakeshores. Erosion is one issue, especially with all of the development around the lake and not preserving the edges of the lake.
Site Analysis
2011 Climate Data

Average Temperature

Precipitation

Humidity

Wind Speed

Weather and Climate Data

[10]
Site Analysis
2011 Climate Data
Heritage
Programmatic Requirements

The programmatic requirements include a small urban downtown corridor that is in need of revitalization. Connections are broken and are concerning to the public. The infrastructure of downtown is not feasible for the existing site, and with the potential rise in population, and the decreasing use of downtown. The streets are not as used as they could be, and creating safe, interesting greenery along the corridor will increase the use of the streets, and give the right-of-way to the pedestrian.

The focused area is a two-mile corridor to allow for the design of the connections in and out of the city and the downtown area. The interaction and relationships to the neighboring towns is essential because they share the majority of their resources with one another.

While revitalizing a small urban downtown corridor, concentrating on the streetscape is promising for renewing the downtown area. Adding green infrastructure along the street creates a healthier downtown, and attracts people to use the streets. Greenery on the street will also attract the walking pedestrian. It helps make the building structures less intimidating. With the green buffer on the street there is an added protection for pedestrians as well.
My thesis explores small urban city revitalization. When small cities outlast the function of their own infrastructure, city revitalization needs to refocus on how the city is functioning overall. City infrastructure is the basis for structure and function of a city. City revitalization plays an important part in reorganizing the forms and patterns of a city to create the networks and connections for a successfully functioning community.

How do the physical forms and patterns of a city’s design impact the community?
Lindstrom has a strong Scandinavian heritage that has an important impact on the culture of the community.

The town was established in 1894, and was founded by a group of Swedish immigrants; Daniel Lindstrom, Erik Norelius, and Vilhelm Moberg.

The similar topography and climate of Sweden has drawn Scandinavian homesteaders to this area.

Today the population of Lindstrom is 4,442 people, and is continuing to grow.
Lindstrom is currently looking to rejuvenate its downtown.

City Revitalization Practices | Techniques | Types:

Main Street Renewal
Central-City Revitalization
Space Focused Design
Green Design
Economic Revitalization
The framed area on the map below shows Lindstrom's existing downtown, the built structures and vehicular movement along the corridor.
Lindstrom’s existing built environment and spatial relationships of its downtown are dispersed along the main corridor of State Highway 8.

The streetscapes are not consistent with the built and urban forms, which includes the sizes, scaling, styles, and the setbacks.

Highway 8 is a strong corridor for the city of Lindstrom which allows for urban development.
Highway 8 is one of the most dangerous highways in Minnesota. The main concern with the collector streets is that there are many access points that are not controlled by any form of signals. Local streets are frequently used by the locals trying to beat the traffic on Highway 8.

The existing network of roads in the Lindstrom area have a disconnected feeling, and the system of roads is not very organized.

The movement around the city's downtown has levels of hierarchy consistent with the levels of traffic flow.

**arterial streets**: State Highway 8

**collector streets**: County Road 14, County Road 3

**local streets**: Lincoln Road, Andrews Avenue

Currently the traffic is more oriented to the vehicle, but the community would benefit from a more pedestrian-friendly streetscape.

Creating a walkable downtown will make Lindstrom more accessible with better connectivity.
The fabric that makes up the surfaces of Lindstrom spaces are **gray** and **green** fabrics.

**Gray** fabrics are the urban impervious uses of downtown spaces, whereas **green** fabric are spaces with vegetative covers that are pervious.

The arrangement of these fabrics downtown is widely dispersed.

The fabrics are interconnected with the **gray** networks such as the streets. Lindstrom would benefit from a more compact and higher density of spaces and different networks and connections. The fabrics of downtown develop patterns within the downtown.

Classifying spaces and corridors gives diversity to the uses of the spaces. There are also benefits to the fabrics such as adding aesthetics, giving spaces and places identity, controlling the temperature and climate, and providing wildlife habitats.

The majority of the gray fabrics scattered about Lindstrom's downtown are paved parking lots for the local businesses. There are over 15 nearby open green spaces, parks, and wildlife trails in Lindstrom.
The city of Lindstrom has a wide assortment of built structures with different styles.

The photos are of building facade types along the Highway 8 corridor.

The downtown has a lack of identity and weak presence of a downtown space.

Figure A.- shows the older and more traditional built structures with more of a Swedish impression on the downtown.

Figure B.- in this image the economic industry needs these businesses, but the facilities are unoriginal. They are very separated from each other and are dispersed throughout town.
### Positives:

- Strong Scandinavian heritage
- Growing population
- Currently looking to rejuvenate downtown
- Successful case study
- Hierarchy of circulations
- Diversity of space uses
- Amount of existing green spaces
- Traditional building structures

### Negatives:

- Main Street weaknesses, Lack of Identity
- Existing spaces are utilized poorly
- Lacking green in the downtown
- Built and spatial relationships
- Disconnected networks
- Dangerous, vehicular-oriented
- Uncontrolled access points
- Fabric arrangement dispersed

### Goals:

- Overall goal is to improve the safety of downtown Lindstrom
- To create ‘Heart of the Downtown’
- Make more pedestrian friendly, more accessible
- Improve circulation, movement, and connectivity around the site
- To establish an identity for the community
- To strengthen the business district
- And finally rejuvenate the downtown, attract, and repopulate Lindstrom
Goals | Direction of the Project
Focused Area
Highway 8 is redesigned to go around the downtown. This involves two lane, one-way streets. On the downtown local business block the through streets are blocked, closed down from vehicular traffic. There is parallel parking allowed on the highway. Other access streets on to the highway are controlled with traffic signals. The concept has crossing controls for the pedestrian.
Design Concept
The downtown businesses are faced to Highway 8. The colors and texture are unique to Lindstrom's Swedish heritage. Along with the traditional old downtown feel.

Traffic Structure

The traffic on Highway 8 flows smoothly without obstruction. It also makes passing through with no encouragement to stop at the local businesses downtown.

Downtown Businesses

The downtown businesses are faced to Highway 8. The colors and texture are unique to Lindstrom’s Swedish heritage. Along with the traditional old downtown feel.
Parking
Parking is allowed on the street in parallel method allowing for immediate access to the downtown businesses. Businesses may be passed by unseen, or parking may not be available. Parking alternatives would be needed to be addressed.

Green Corridor
The green infrastructure creates a densely, enclosed feeling that helps slow down traffic through the downtown. The green infrastructure may obstruct views of the local businesses.

Pedestrian Circulation
The pedestrian friendly downtown is strengthened and reinforced with the large central block created by the blocked through streets. A controlled crossing for the pedestrian will have to be addressed.
Highway 8 flows East and West and it is used as a main through fare for traffic traveling between Minnesota and Wisconsin. Currently the is a project that the department of transportation is working on. The purpose for the reconstruction is foremost safety, and secondly for traffic flow. Highway is one of the most dangerous highways in the Midwest and for this reason, something needs to be done.
Highway 8 is redesigned to go around the downtown. This involves two lane, one way streets. On the downtown local business block the through streets are blocked, closed down from vehicular traffic. There is parallel parking allowed on the highway. Other access streets on to the highway are controlled with traffic signals. The concept has crossing controls for the pedestrian.
Goals | Direction of the Project

Overall goal is to improve the safety of the downtown Lindstrom.

To create ‘Heart of the Downtown’

Make more pedestrian friendly, more accessible.

Improve circulation, movement, and connectivity around the site.

To establish an identity for the community.

To strengthen the business district.

And finally rejuvenate the downtown, to attract, and repopulate Lindstrom.
Elements of Design

Traffic Structure
Downtown Businesses
Pedestrian Circulation
Green Corridor
Parking
Master Plan

- Buildings Structures (both residential and commercial)
- Green Spaces and Connections
- Water
- Seating and Planters
- Parking
- Stamped Concrete

Hot Button Crosswalk along the Lindstrom’s Greenway

Downtown Business Parking

Karl and Kristina Oskar Monument

Library Park

Maple Street

Park Street

Vine Street

Bronson Avenue

Linden Street

West Park

Lindstrom’s Memorial Park

Town Square Plaza
Master Plan

- North Lakes Rail
- State Hwy 8
- Elm Street
- St. Croix Avenue
- Olinda Rail
- Broadway Street North

- 0 ft.
- 150 ft.
- 300 ft.

- Hot Button Crosswalk along the Lindstrom's Greenway
- Little Sweden's Theater
- Renowned Swedish Teapot Water Tower
- St. Bridget's of Sweden Commons
- Downtown Vendor Parking
- Long-Established Swedish Businesses

Design 81
To create a smooth flowing traffic and allow for stopping in the downtown business district. Highway 8 is a two, one-ways the Northern route flowing to the West, and the Southern route to the East. There are also bumpouts and a Hot Button traffic signal for the crosswalks on both ends of the one-way corridor. The crosswalks standout well with the stamped concrete patterns. The local roads North Lake Trail to the North, and Olinda Trail to the South have a strong connection to the circulation pattern in the networks.
Traffic Structure
The downtown character is enhanced with the businesses located in the downtown. The Scandinavian and Swedish culture is expressed with the colors brought into the built structures or downtown. These were derived from Swedish facades from buildings in Sweden. Buildings added to the infill were added to enhance the downtown giving variety and diversity to the downtown businesses. This also allows for different events and activities to be hosted in the downtown.

In the section above the building facades were an important part of the overall design. Lindstrom was derived for a Swedish heritage this stands out in some of the current downtown building structure, continuing this for the current and new development strengthens the culture of the community.
Downtown Businesses
Streetscape
Pedestrian Circulation

Pedestrian oriented street is an important element to the design of the Lindstrom Corridor. Focusing on the safety for the pedestrian with the use of the wide sidewalks and the protected tree canopy. There is a bike lane on the outside of the corridor that allows for a separation from walkers and motorized vehicles. Hot Buttons are located on either end of the corridor, these allow for marked safe crossing areas. There is stamped concrete pattern on the sidewalk this is used to direct the public around the downtown. Planters are used as seating to give character to the downtown. Local businesses use the space for a more flexible boundary to their stores.
Pedestrian Circulation

These planters run along the corridor creating a connection to the streetscape and acts like a barrier for a safer level. The trees along the Highway 8 corridor are planted as a sheltered canopy for pedestrian using the downtown spaces. The boulevard trees give the downtown character a unique feel.
Green Corridor

The green corridor creates a unifying element to the downtown with the interconnected, overhead canopy. The connections are made throughout the downtown with the park system. This includes the two green spaces on either end of the corridor. On the West end of the corridor is an open green space with a water amenity. Also in relation to the built structures there is a chiropractic clinic that is in close proximity which has a green roof above to support the green corridor.
Continuing down the corridor is a mid block plaza for a gathering area under the Swedish teapot water tower, that are many uses for this space such as for local business venders to sell their products. On the East end there is an amphitheater, intended for multiple entertainment events, this space also has a large lawn for other outdoors activities which is enclosed by a grove of tree separating the space from traffic.
West Park
Little Sweden’s Theater

- Greenway Crossing with Hot Button
- St. Bridget’s of Sweden Commons
- Tree Grove
- Open Green by Swedish Shops
- Open Lawn with Larger Stones
- Vender Parking
- Amphitheater Seating

a. Little Sweden’s Theater
b. Sidewalk
   - Two-Way Driving Lanes
   - Vender Parking
   - Swedish Amphitheater
   - Greenway
   - Amphitheater Lawn

b. Sidewalk
   - Two-Way Traffic on Hwy 8

Design 92
Downtown Lindstrom’s parking is created for an amenity to the city. With the Lindstrom corridor design there are two parking lots formed from through roads. The two parking amenities are created to help out the local businesses in the downtown. One is located centrally on Maple Street by the downtown businesses. And the other is an amenity for the amphitheater on the East end on Elm Street. Also with on street parking this encourages direct access to the downtown businesses. Seasonally the parking lots can be used for excess snow storage. Parking is an aesthetic amenity to the downtown of Lindstrom.
Parking
Parking
Parking

The section above is showing seasonal impact of the streetscape design. In the downtown, the sidewalks are improved with the extra room to deal with Minnesota's heavy snow fall.
The outcome to the design is a revitalized small town in the Midwest. It was a town that had out lasted the function of its infrastructure. In the reconstruction of the highway and major transportation system of Lindstrom the town is able to strengthen its community, culture, and identity. Major elements of the design that make for a successful community are the safe traffic structure that flows easy, economic downtown businesses, walkable pedestrian circulation, unified green corridor, and parking as an aesthetic amenity. Lindstrom’s innovative downtown corridor creates a successful community that the residents are proud to continue to take part in.


[1] Christa Pojanowski

Lindstrom:

Site Information:
United States:

Minnesota:

Chisago County:

Lindstrom:

Case Studies:


Climate Data:

*all [1] are image I have taken myself
Personal Information

Christa L. Pojanowski

14278 259th Street,
Lindstrom, Minnesota
Phone: 651.270.8204
Christa.Pojanowski@my.ndsu.edu

“the world is your drawing board.”

Lindstrom, Minnesota
Heritage