

**CREATING AN URBAN IDENTITY:
FROGTOWN FINDS ITSELF**

ARCHITECTURAL THESIS SUBMITTED BY
MICHAEL RODEN



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

By:

Michael Roden

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

Primary Thesis Advisor

Thesis Committee Chair



NON-EXCLUSIVE DISTRIBUTION LICENSE

By signing and submitting this license, you (the author(s) or copyright owner) grants to North Dakota State University (NDSU) the non-exclusive rights to reproduce, translate (as described below), and/or distribute your submission (including the abstract) worldwide in print and electronic format and in any medium, including but not limited to audio or video.

You agree that NDSU may, without changing the content, translate the submission to any medium or format for the purpose of preservation.

You also agree that NDSU may keep more than one copy of this submission for purposes of security, back-up and preservation.

You represent that the submission is your original work, and that you have the right to grant the rights contained in this license. You also represent that your submission does not, to the best of your knowledge, infringe upon anyone's copyright.

If the submission contains material for which you do not hold copyright, you represent that you have obtained the unrestricted permission of the copyright owner and to grant NDSU the rights 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, YOU REPRESENT THAT YOU HAVE FULFILLED ANY RIGHT OF REVIEW OR OTHER OBLIGATIONS REQUIRED BY SUCH CONTRACT OR AGREEMENT.

NDSU will clearly identify your name(s) as the author(s) or owner(s) of the submission, and will not make any alteration, other than as allowed by this license, to your submission.

Name: _____ Date: _____



TABLE OF CONTENTS

SIGNATURE PAGE	2	PROGRAM	36
PERMISSION RIGHTS	4	RESEARCH OF THEORETICAL PREMISE	37
TABLE OF CONTENTS	6	RESEARCH SUMMARY	46
STATEMENT OF INTENT	8	CASE STUDIES	49
ABSTRACT	9	CASE STUDY: Donald Appleyard's Livable Streets	50
PROBLEM STATEMENT	10	CASE STUDY: PlaNYC + Greenstreets	54
TYPOLOGY	11	CASE STUDY: Mary DeLaittre's Groundwork	58
THEORETICAL PREMISE / UNIFYING IDEA	12	TYPOLOGICAL CASE STUDY SUMMARY	60
JUSTIFICATION	13	HISTORICAL CONTEXT	63
PROPOSAL	14	THESIS GOALS	66
NARRATIVE	15	SITE ANALYSIS	69
USER/CLIENT DESCRIPTION	21	PROGRAMMATIC REQUIREMENTS	88
MAJOR PROJECT ELEMENTS	25	APPENDIX	91
REGION INFORMATION	27	REFERENCES	158
CITY INFORMATION	29	IMAGE CREDITS	164
SITE INFORMATION	31	PERSONAL IDENTIFICATION	166
PROJECT EMPHASIS	32		
PLAN FOR PROCEEDING	33		
PREVIOUS STUDIO EXPERIENCE	34		



STATEMENT OF INTENT

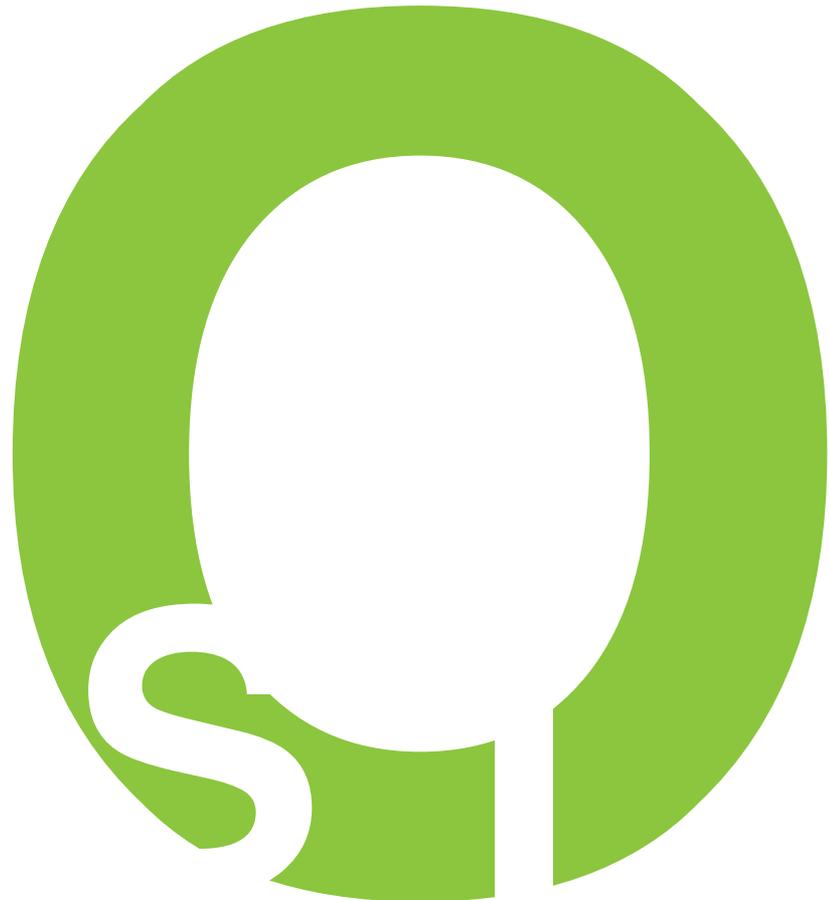
ABSTRACT

PROBLEM STATEMENT

TYOLOGY

THEORETICAL PREMISE /
UNIFYING IDEA

JUSTIFICATION



ABSTRACT

Our cities are too often disconnected. They are disconnected in the sense of a failure to relate neighborhoods and districts to each other. This is especially true for cities which lack effective public transportation. Isolation is almost always the result of these disconnects. In turn, physical, cultural and economic barriers are created between different neighborhoods and districts of a city. These barriers negatively affect both the advantaged and the disadvantaged alike. This thesis will examine the economic and social consequences of city planning and urban design with an emphasis on change over time. The city of St. Paul, Minnesota is to be used as a study. More specifically, the relationship between the highly residential Frogtown neighborhood and the city's highly commercial Downtown area is to be explored. Solutions to this specific disconnect will be discovered and designed in order to benefit both areas. Sustainable strategies will be emphasized for cultural, economic, and environmental reasons.

Key Words:

Urbanism, Sustainability, Planning, Culture



PROBLEM STATEMENT

How can urban design be implemented in a way that benefits two or more disconnected areas of a large city by mediating cultural and economic exchange?

TYOLOGY

Urban Design
Public Transportation
Light Rail Station
Farmer's Market
International Market
Community Center



THEORETICAL PREMISE

UNIFYING IDEA

CLAIM:

The most important factor in the social and economic success of an urban neighborhood is its ability to cooperatively relate to and exchange assets with proximate neighborhoods.

ACTOR: an urban neighborhood

ACTION: relate to and exchange with

OBJECT: proximate neighborhoods

MANNER OF ACTION: cooperatively

PREMISES:

The ability of an individual neighborhood to flourish in an urban setting depends greatly on the quality of its infrastructure and assets that facilitate trade of social and economic capital. The greatest strength of a city is that it is able to support a high level of diversification and specialization. The large amount of consumers populating a city can support several niche markets if access is sufficient. If a niche market is difficult for an interested consumer to access or to discover it will struggle and eventually disappear. If this happens too many times a city will become very dull and subsequently face myriad more problems such as crime, blight and economic decline.

Cities are unique from suburban and rural areas in that they are able to support several micro and niche markets in a small area. While each neighborhood or district of a city should provide essential services such as fire protection and public education to its residents, a greater exchange of goods should be created across the entire city. The success of an individual neighborhood in exporting its unique cultural and economic wares in order to create wealth and stability depends on its ability to attract and welcome outsiders.

Special attention should be paid to a neighborhood's immediate neighbors. Although occasional outsider visitors are important and can be lucrative in high numbers, the most consistent visitors will be visitors that reside in close proximity. Neighborhood permeability should be simple and pleasant.

An urban neighborhood can not exist in a vacuum. Just as outsider visitation is desirable to a neighborhood, taking advantage of outside markets is also beneficial. If proximate neighborhoods are able to utilize each other's assets, both will benefit.

JUSTIFICATION

Design professionals concerned with the urban environment bear responsibility to their clients and the inhabitants of their designs to provide safe, engaging and life-enhancing cities. It is also morally pertinent to constantly question what makes a city successful and to modify practices accordingly.



PROPOSAL

NARRATIVE

USER/CLIENT DESCRIPTION

MAJOR PROJECT ELEMENTS

REGION INFORMATION

CITY INFORMATION

SITE INFORMATION

PROJECT EMPHASIS

PLAN FOR PROCEEDING

PREVIOUS STUDIO EXPERIENCE



NARRATIVE

A city can be an intoxicating thing. It has an entire ecosystem of its own. It can encompass a dizzying amount of diversity, excitement and life. It can work beautifully and resemble an intricate ballet as described by Jane Jacobs or it can be an incredibly destructive force that destroys lives and families. The greatest benefit of living in a city is the consolidation of resources and services that is provided. The same force that provides this, however, is capable of grave and monumental mistakes. The residents of a city are much more affected by collective social decisions than that of rural areas. An urban neighborhood can be destroyed from the inside and the outside alike.

The city has existed nearly as long as humans have gathered together for company and safety. One could even go as far as to say cities are civilization. (LeGates, Stout 2003) Many ideas of what the form of the city should be have been experimented with. Classical Romans pioneered the 'castra', a planned military city and also the decumanus and cardo serving as the perpendicular main streets in most of their cities. Ancient China also pioneered the grid very early. Despite this precedent, many cities worldwide grew in a sprawling fashion, especially in Europe. Even early American cities such as Boston began in an unplanned way. As the country moved west grids became



much more commonplace. The vast majority of the United States is now gridded in some fashion.

With the emergence of the Modernist Movement in the early 20th century came even further gridding. Not only should our cities be gridded, the Modernists believed, but our homes and our workplaces and our lives as well. The French Architect Le Corbusier went as far as to say that “geometry is the language of man”. (Corbusier 1931) In the wake of the First and Second World War the Modernists in Europe sought to redefine what it means to dwell and what defines our dwellings. Facing a destroyed continent they intended to rebuild it in their own vision.

What started as a necessary effort at reconstruction and restoring human dignity in Europe was quickly imported and exploited in America. (Wolfe 1981) The victorious United States had no need for efficient worker housing but the simple and elegant forms proved too intoxicating for most to resist. Perhaps no American was more vitriolic in his resistance, however, than the self-proclaimed Greatest Architect, Frank Lloyd Wright. Modernism reached the shores of the relatively new and highly prosperous country just as the young architect was pioneering his own architectural style, one that he intended to become the uniquely American style. His ideas are still influential and Wright is highly revered, perhaps he is the most well known

architect in the world. Even so, it seems as if even his enormous ego and personality could not stop the steamroller that was Modernism in America.

The city is an ever changing object. (Lynch 1960) Both the Modernists and Frank Lloyd Wright had equally bad ideas of what to do about it. Corbusier’s Radiant City was countered by Wright’s Broadacre City. They were directly antithetical to each other. The only true similarity between the two is that they both entirely rejected traditional city design as it was known at the time. Corbusier proposed leveling old Paris in favor of enormous cross shaped high rises placed on a false ground one level above the actual ground. Wright, on the other hand, proposed that each American family be given one acre of land from which they must commute by automobile to the city center. Both approaches toward city design were of course rooted in good intentions. Evidence of both approaches can be found inside (and outside) American cities today.

The impersonal high-rises of the Modernists are still used for both work and living. The most tragic of them are inhabited by those with no other choice such as Fort Greene, Brooklyn in the 1960’s (Salisbury 1958) while the most successful of them, such as Marina City in Chicago, are inhabited by proud and affluent residents to this day.

The American embrace of the automobile as encouraged by Frank Lloyd Wright is ar-

guably wreaking even more damage on our cities and our landscape. In pursuing more space and sterility, the American people have in many instances left the city to wither. There are literally rings of increasing urban decay like a bullseye centering in on some American cities.



While Wright included at least a train station in Broadacre City, the American oil companies would have none of it as automobiles began consuming more and more oil in the middle of the century. The increasingly wealthy and influential companies bought up street cars and train lines to be destroyed under the guise of not being economically sustainable. (Paine 2006) In many cities the only remaining evidence of meaningful public transportation is the occasional street car rail that can be found hidden along alleys and seldom-used streets, such as this one in the old cobble streets of the Georgetown neighborhood of Washington D.C.

Urban renewal in the 1960's was convenient for cars too. Too many holes in the urban fabric created by demolition are still inhabited by cars and parking lots. It is much easier for blight to take hold of a city when there are so many gaps and empty spaces. What makes a city successful is vibrancy through diversity of people, uses and scenes. (Jacobs 1961) When every car needs a space of its own this is not possible. The space required by cars is overwhelming when compared to bicycles, pedestrians or public transportation. (Beatley 2000)

There have been noble efforts at restoring public transportation in America in recent years, such as Seattle's Link Light Rail. (Street Films 2010) There are also surviving successful systems such as Washington, D.C.'s Metro. These are un-



fortunately the exception and not the rule in America's cities. It is my firm belief that effective public transportation will always cultivate far more in social and economic benefits than the costs of construction and maintenance. This is especially true regarding exchange between urban neighborhoods.

When New Urbanism is mentioned the image of the self-contained neighborhood of 7000 residents is conjured. While I am in favor of a neighborhood in which every necessity is easily accessible, I believe that real or imagined boundaries between them are extremely harmful. A city of a certain size is able to maintain a plethora of unique and sometimes bizarre niche markets. This is an advantage of city living that the suburbs will never be able to maintain. However, a city of a certain size also presents a challenge to individual neighborhoods in identification and differentiation.

A strong neighborhood social fabric and Neighborhood Association is key to this effort. Many of these old roots were unfortunately destroyed during urban renewal. Poorly planned efforts at alleviating the conditions of old slums would often create even worse results. Displacement during demolition and new construction would cause an irreversible fissure in the old urban fabric. Well-established and slowly developed networks of advocacy and leadership were lost to the

bulldozer. (Salisbury 1959)

The old Rondo neighborhood of St. Paul, which was located directly south of Frogtown, was literally destroyed and replaced by the construction of Interstate 94 in the 1960's. (Henehan 1991) The neighborhood was nothing close to what could have been called a slum, but its strong roots were nonetheless torn apart by resident displacement. The people who lived there were forced to move and the majority of them made the move to either the Selby-Dale neighborhood, the Midway Neighborhood or the Frogtown neighborhood of St. Paul.

Before the 1970's the residents of Frogtown were mostly middle-class and white. Attracted by aging but affordable housing, many minorities began moving to the neighborhood, some of whom were very poor. In the 1980's and 1990's came a large influx of southeastern Asian immigrants and refugees. At about the same time a smaller influx of East African immigrants and refugees came to the neighborhood. Today the area is an almost even mixture of white, black and Asian residents. University Avenue, the neighborhood's main commercial strip, is lined with many small independent ethnic restaurants and storefronts. The neighborhood has experienced its fair share of crime and violence, but has consistently been portrayed poorly in the media. While crime is undoubtedly higher than other parts of St. Paul, it is not a dangerous or

inhospitable neighborhood. (Wing 1996)

The downtown commercial center of St. Paul, just across the the capitol complex from Frogtown, leaves a lot to be desired. It shares many similarities with the downtown tip of Manhattan as described by Jane Jacobs in *The Death and Life of Great American Cities*. The districts suffer from what she calls 'time unbalance'. There are a great number of people that populate downtown St. Paul during the day but leave after their work is over. Any privately owned amenities have an incredibly difficult time remaining open. The district is very clean and relatively safe, with many city parks. Even so, an outside visitor has a hard time finding anything worthwhile to do with leisure time, outside of the Science Museum of Minnesota. There just aren't many places to relax in the urban environment. The streets are designed for cars and not even very well for that purpose. A pedestrian does not feel comfortable outside of the parks. The district is in severe need of vibrancy, the sort that is created by both smart intervention and the encouragement of private enterprise.

Neighborhood isolation, as described earlier, is manifested in a physical form in downtown St. Paul. The Mississippi River runs along the south of it, and I-94 and 35-E squeeze it in a triangle form on the east and west. There is a sort of barrier that prohibits exchange in to or out of the district. Al-

though there are plenty of roadway connections, it seems as if downtown is much further than it actually is from the other neighborhoods of the city. This may be one reason that St. Paul has been called the city of 'fifteen small towns with one mayor'.

St. Paul needs to make an inventory of all of its resources and assets and find a way to create mutually beneficial exchanges. There are certainly all of the economic and human factors present inside the city limits that are needed for a vibrant city, but in order for St. Paul to become a true world class city it needs to become legible in the way that Kevin Lynch advocates. (Lynch 1960) St. Paul should not strive to be a city of so many distinct yet separate neighborhoods. It should strive to be a city of distinct and unified neighborhoods. It should create neighborhoods that each have their own identities yet are permeable enough to allow travel from one to another with comfort and ease.

I intend to explore in depth the relationship between Downtown St. Paul and the Frogtown Neighborhood. I believe that there are enough cultural and entrepreneurial assets in Frogtown to benefit the users of Downtown greatly, and enough consumers and interested parties residing in the Downtown Neighborhood to advance the Frogtown neighborhood far beyond what could be done by itself in isolation.



There are certain amenities that need to be provided by the state or federal government in order to foster this interaction. Moshe Safdie, after completing his first Habitat project in Montreal, made the claim that public transportation is vital to any city and it should be free. (Safdie 1970) I agree with him, although it was a time of extreme optimism for the young architect. I understand that the world we live in is a practical one. No matter how adamantly I believe that free public transportation is a far greater asset than expense, it is very rarely politically feasible. Even so, I plan to implement a small transportation system between Frogtown and Downtown as the cornerstone of my urban design efforts.

This will be the engine that propels further growth. The purpose of this thoroughfare between neighborhoods is to allow financial and cultural exchange. Frogtown is already home to numerous farmer's and cultural markets, none of which are as successful or gentrified as the Minneapolis Farmer's Market. A new and unified home for the business people of Frogtown could benefit greatly by increased interest, visibility and access. I am planning to explore methods of creating an architecture that will most successful facilitate exchange and encourage further independent growth.

Since my focus is on Frogtown and Downtown they will receive the majority of my attention.

However, an important aspect of this undertaking is a framework for the continuation of my efforts. Good urban design is the structure upon which good urban architecture can be created. Without it, the economic opportunities for architecture do not exist. For this reason my thesis will include suggestions and partis for other parts of St. Paul as well. This is also due to the fact that no matter how disjointed St. Paul seems to be, it is all one city. It must be always thought of as a whole. This approach is in the best interest of the city and all of its residents.

USER / CLIENT DESCRIPTION

The users of this urban and architectural design will be numerous and diverse. They will include the residents of Frogtown and Downtown, although admittedly not all of them. The lawmakers and employees of the state capital complex could certainly take advantage of the new amenities nearby. As this undertaking is intended to be an attraction, users will also come from the surrounding neighborhoods of St. Paul, the city of Minneapolis and the extensive rings of suburbs surrounding the Twin Cities.

The client is a more detailed question. As is common with large urban design undertakings, there are many interested parties. The neighborhood association of Frogtown will have a large interest in what happens. The St. Paul Chamber of Commerce will want to have its say, in addition to the numerous large public and private corporations with offices in the district. Minnesota Public Radio and Twin Cities Public Television also call Downtown home. As this will need to be funded partly by tax dollars, lawmakers and taxpayers will want to have a say as well. In order to realize a project as complicated as this one, a large and organized effort is required to make it a reality. Urban design does not have clients as much as it has funders. It is a large public effort that will have far-reaching and sometimes immeasurable effects.





FUNDING CONSIDERATIONS

No one party involved will reap enough benefits to justify fully funding the project. For this reason it is important to always keep in mind the best interest of all the different interested parties. Fortunately it is usually true that what is best for one party, such as a private corporation, is beneficial to other parties as well. If a company headquartered in St. Paul, like EcoLab, contributes a small amount toward the improvement of the city it calls home, this could increase the desirability of the city. This is to the benefit of the residents of St. Paul, but also to EcoLab. The company will now have an easier time attracting top talent to its headquarters. Further, if EcoLab owns its building it will be investing to increase the value of its assets. To continue this example, lawmakers and taxpayers of St. Paul stand to benefit from increased tax revenue from a more desirable and valuable Downtown. The effects of successful urban design are great and far-reaching.

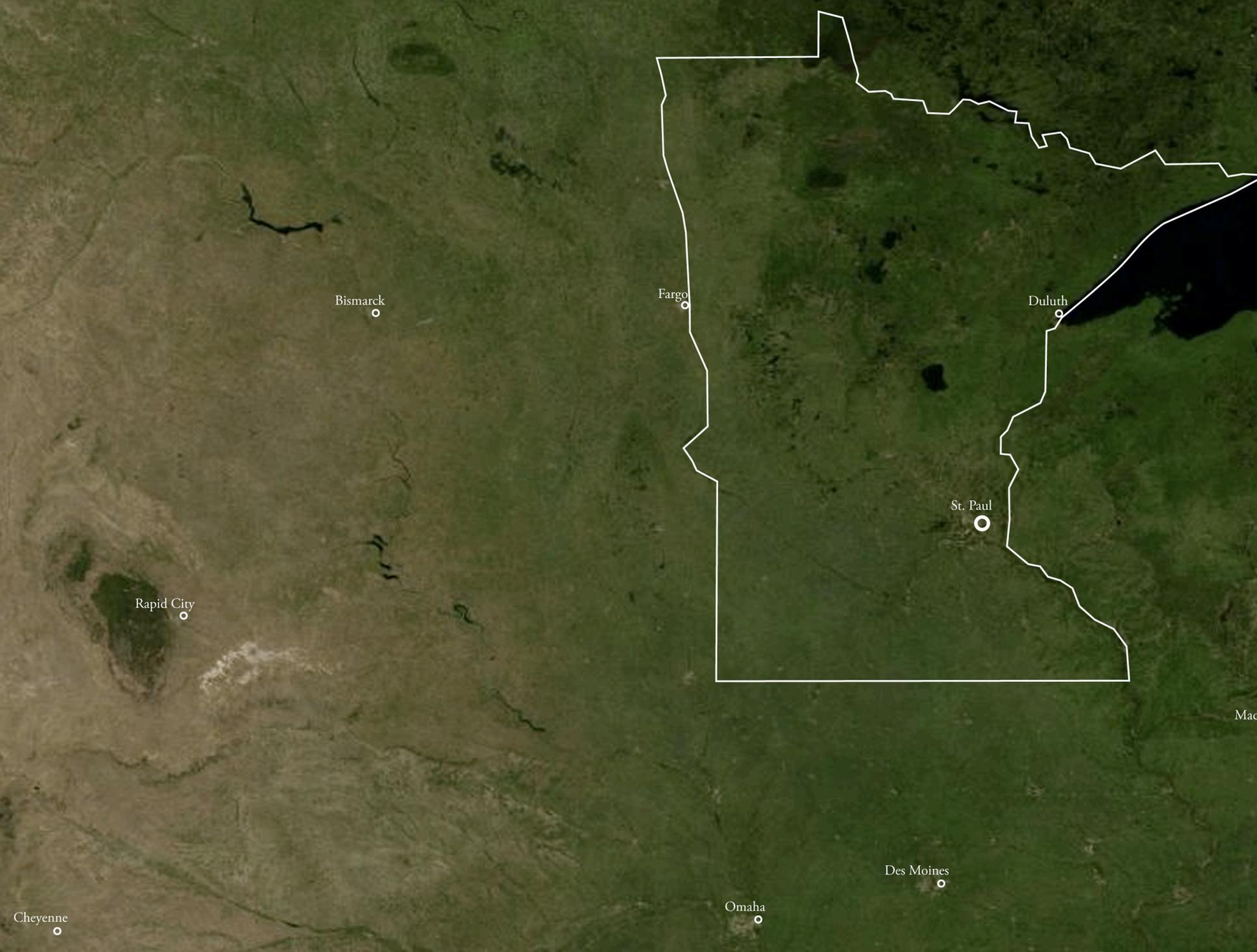
The potential benefits of urban design make the project manager's job both easier and harder. It is easier to spread out and collect investments from interested parties, but once the funds are collected there are myriad different concerns to assuage. The clients that need to be answered to for a project of this type are numerous; they are individuals, corporations and governments. This reality needs to be considered throughout the entire design process.



MAJOR PROJECT ELEMENTS

Urban Design Plan	Before any specific architectural installations can be created or envisioned, a strong and intelligent master plan must be designed for the urban environment. This includes a city-wide vision of how and where social and economic exchanges can take place.
Light Rail Transportation	A small dedicated line traveling between Frogtown and Downtown will be installed to raise awareness of the cultural attractions being created and also to facilitate ease of travel between Frogtown and Downtown.
Transportation Stations	At least two significant stations will need to be designed in order to create a sense of importance and identity of place. They should also be included in the city master plan to connect with existing systems of transportation such as buses.
Cultural Center and Market	A large building which will serve as a landmark of the Frogtown neighborhood will be located at that end of the rail line. It will encompass a plethora of goods and services that can attract and satisfy the needs of both visitors and residents alike. This will be the main hub of cultural and economic exchange between Frogtown and its neighbors.





Bismarck

Fargo

Duluth

St. Paul

Rapid City

Des Moines

Omaha

Cheyenne



REGION INFORMATION

The Twin Cities, including Minneapolis and St. Paul, are an important part of the American Midwest. Situated on top of extremely fertile soil, the region has long been the country's primary agriculture center. The Great Lakes have also played an important role in the economy and growth of the country. After the Great Fire of 1871 Chicago grew at an incredible rate to become one of the most important cities in the country. Detroit was the center of the American automobile industry, and still is, but is a shadow of its former self. Rapid City, in South Dakota, is the home of a national landmark, Mount Rushmore.

Minnesota is known for its thousands of glacial lakes and harsh weather. The state is home to large but declining mining and logging industries in the north. Settled by mostly Germans and Scandinavians, the state has seen an explosion of diversity in the past few decades. Somalian refugees in particular have been moving to Minnesota in large numbers and have begun in recent years to move beyond the Twin Cities and in to smaller urban centers like Mankato in the south of the state.

A distinctly Minnesotan culture has been created through the state's history which is often lovingly parodied nationally on Garrison Keillor's *A Prairie Home Companion* radio show. The residents of the state are a hardy, resilient and proud people.







CITY INFORMATION

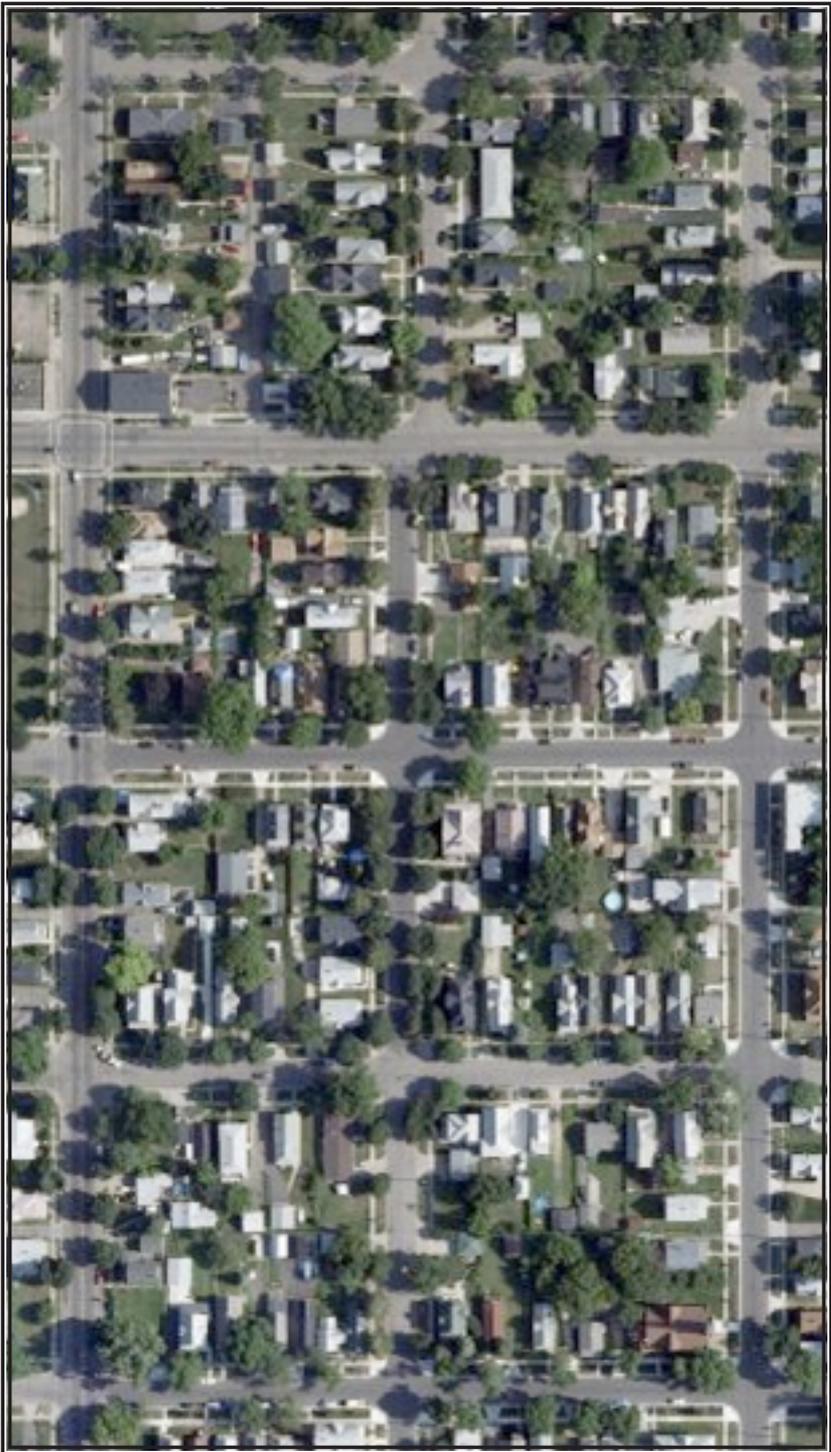
St. Paul is the capital city of Minnesota. In July 2009 the city had a population of just over 281,000. Minneapolis, St. Paul's neighbor to the west, has a population of nearly 400,000. The Twin Cities are surrounded by a relatively large suburban landscape. This could be partly due to the high quantity of lakes nearby.

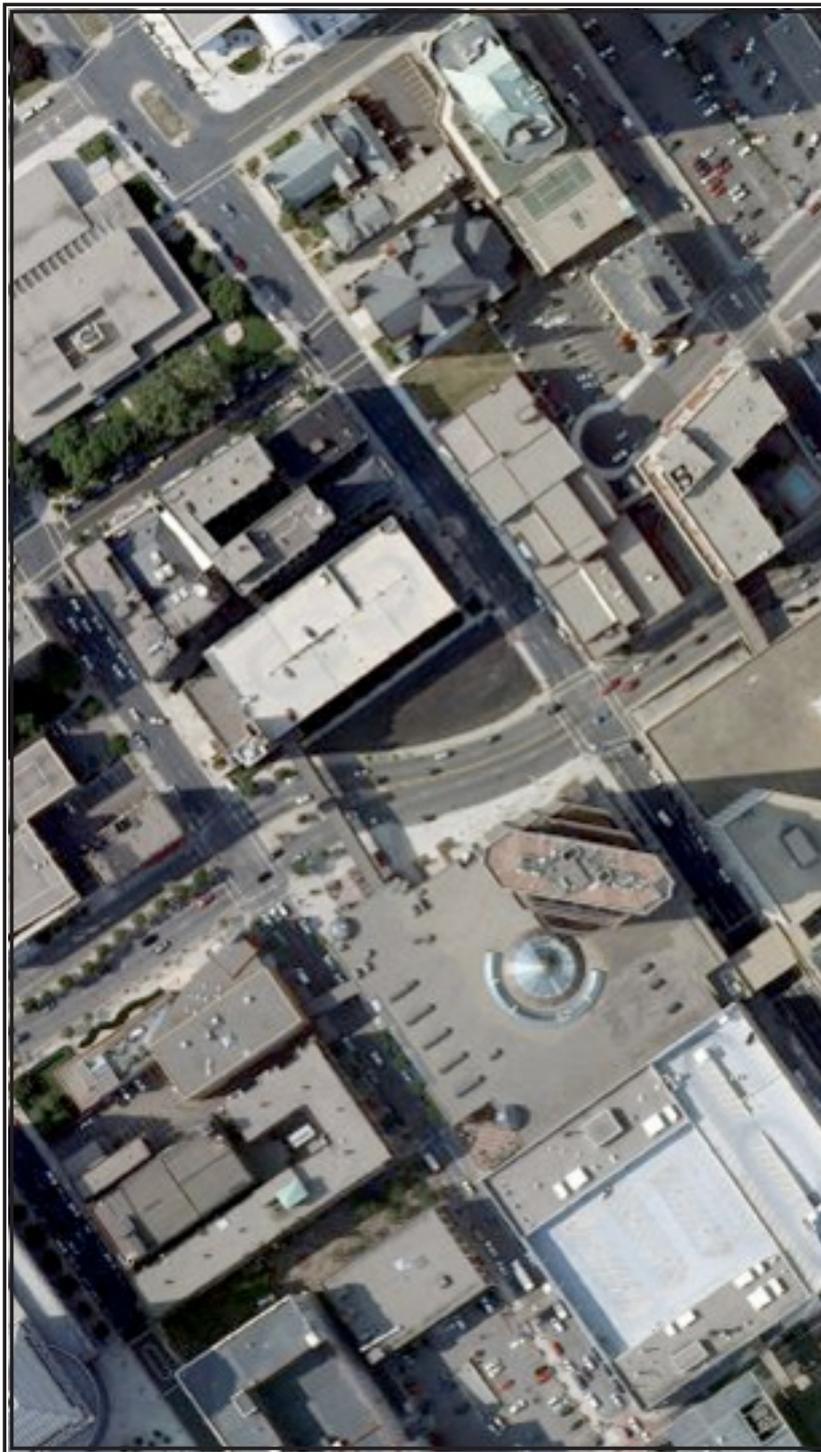
The Mississippi River runs through the south of St. Paul and similar to Minneapolis the city grew up around river industry. Today the city specializes in services, trade, manufacturing and government. (city-data.com) Nineteen Fortune 500 companies are headquartered in the Twin Cities area, but very few are headquartered in St. Paul. (Minneapolis Chamber)

Tired of living under the shadow of Minneapolis, St. Paul has set out under the guidance of Mayor Randy Kelly to become the intellectual capital of the Midwest. In addition to the Science Museum of Minnesota and the Minnesota History Museum, the city has 10 colleges and universities within city limits. (USAToday)

The demographics of St. Paul are changing rapidly. Between 1990 and 2000 the Caucasian population decreased from 81% to 64% while every minority population increased substantially. St. Paul is home to one of the largest urban Hmong populations in the country. (StPaul.gov)







SITE INFORMATION

The main focus of this project is on three very different areas within a short distance from each other: the highly residential Frogtown neighborhood, the highly commercial Downtown neighborhood and the poorly utilized space between the two. The challenge presented by the three is how to unify them as part of a cohesive whole.

St. Paul is a city on top of many bluffs and hills. Its topographical features could have very easily played a role in the disunification of the city's neighborhoods. Man-made elements like the immense freeway systems which cuts through the city increase this isolation.

The Downtown neighborhood of St. Paul is very built-up and not friendly to pedestrians. It is home to mostly offices. A few new loft-style residences have been put on the market but they are a relatively new phenomenon. The district is full of one-way traffic and sight-lines are limited.

The point where University Avenue meets the state capital is poorly designed and a lost opportunity. There is a parking lot which is larger than the entire capital campus directly to its west. This does nothing to create a sense of place for such a landmark. Frogtown is north of University Avenue. The neighborhood has a rich history and is doing much better today than in its recent past. Even so, a high poverty level persists despite many efforts at alleviation.



PROJECT EMPHASIS

The vehicle of this study will be additions to the Downtown and Frogtown neighborhoods. The goal of these additions is to increase social and economic exchange between the two neighborhoods in order to benefit both. The findings and innovated methods are intended to be able to inform other urban neighborhoods. The focus will be on public transportation, commerce, and social interaction to increase prosperity and quality of life.

DEFINITION OF RESEARCH DIRECTION

Research in to this idea will involve further investigation in to the meaning of the theoretical premise/unifying idea. A large amount of qualitative and quantitative data will be needed on the subject in order to further my understanding. To realize a successful design phase of the project it is important to collect and analyze historical, social and environmental information on my site. Finally, a more detailed program needs to be outlined.

DESIGN METHODOLOGY

A convergence of sociological, architectural and urban theory is needed to best understand the complexities of the goals being pursued. Case studies of neighborhood revitalization efforts and innovative public transportation solutions will be evaluated in order to be informed of realized successes. Research of failed efforts is also needed in order to avoid past mistakes.

Three-dimensional digital modeling, graphic design, physical modeling and written word will be used to communicate the ideas put forth by this study.

PLAN FOR PROCEEDING

DOCUMENTATION OF DESIGN PROCESS

In order to remain consistent in my progress and evolution of thinking it is important to keep a log of my own thoughts. I will keep a personal thesis journal that will be updated at least 4 times a week. At the end of the design process I will compile the most relevant writings to be published if I see fit.

Each week all of my progress will be backed up on both an external hard drive and individual compact discs. These will be stored seperately; one at studio and one in my own apartment. At the end of the process I will have produced a physical model of my design, a graphic display consisting of boards and a projected presentation. A final book will be published that will include all of my design and research work.



PREVIOUS STUDIO EXPERIENCE

2nd Year:

Fall 2007 . Mike Christenson

- Tea House Project . Fargo, ND
- Boathouse Project . Minneapolis, MN
- Narrow Multi-Use Project . Fargo, ND

Spring 2008 . Malini Shrivastava

- Casa Gaspar Group Study . Spain
- Two Family Residence . Fargo, ND

3rd Year:

Fall 2008 . Cindy Urness

- Center For Excellence . Fargo, ND
- Library Project . Moorhead, MN
- Sustainability Proposal . Fargo, ND

Spring 2009 . Ron Ramsay

- Adaptive Reuse Project . New Lebanon, NY
- Mid-Rise Consulate Building . Chicago, IL

4th Year:

Fall 2009 . Bakr M. Aly

- High Rise Project . San Francisco, CA
- Musical Instrument Project . Fargo, ND
- Research Book . San Francisco, CA

Spring 2010 . Christenson/Crutchfield

- City Research Project . Jaipur, India
- Urban Design Project . Jaipur, India

5th Year:

Fall 2010 . Ganapathy Mahalingam

- Green Roof Decision Making . Fargo, ND
- Research Journal Article . Fargo, ND



PROGRAM

RESEARCH OF THEORETICAL PREMISE

SUMMARY OF RESEARCH

CASE STUDY 1

CASE STUDY 2

CASE STUDY 3

HISTORICAL CONTEXT

GOALS OF THE DESIGN THESIS

SITE ANALYSIS

PROGRAMMATIC REQUIREMENTS

PROGRAM APPENDIX

SCHEDULE



RESEARCH OF THEORETICAL PREMISE

For an urban neighborhood to be successful it must identify a method of diagnosing its own vitality. Just as urban planners must always question the current theory being practiced, a strong neighborhood must have strategies in place to judge its performance in an unbiased and consistent way. This of course will include traditional barometers such as crime and home value data, but should also include consideration of less quantitative measures of neighborhood health. By 'health' I mean the robustness and vitality of a neighborhood.

A niche or unique identity must be established in order for a neighborhood to stand out as unique and noteworthy in a large city. The health and standing of a neighborhood's unique identity must be assessed often. The effort to determine neighborhood vitality will prove invaluable when attempting to persuade proximate neighbors and outsiders to do business with and within a given community.

THE IMPORTANCE OF ACTIVISM

Attempts at meaningful change are much more likely to succeed if it is an effort that is carried out and "owned" by the community. A study, conducted in 2010, of the Puerto Rican community in Humboldt Park, Chicago found that the 21 percent were diabetic. This finding was contrasted to the 4 percent of Mexicans in Humboldt Park and 11 per-



cent of Puerto Ricans in New York City that were diabetic in the same study. The Sinai Urban Health Institute coordinated the study but enlisted community leaders to help conduct the 500-question surveys. The results compelled the community to take action. Over 700 people showed up at a meeting to discuss the results. Humboldt Park is now participating in a program it calls Block By Block that aims to reduce diabetes by offering cooking classes, support groups and exercise classes. The neighborhood is now unified in its fight against unhealthy lifestyles. (Reaves 2010) This is the sort of change that an outside organization such as the Sinai Institute is capable of instigating through careful and thoughtful intervention.

St. Paul is currently in the planning phase of a light-rail corridor which will run along University Avenue by 2014. An advocacy network called ISAIAH is undertaking a study called *Healthy Corridor For All* to analyze the impact of zoning changes on the health of the affected neighborhoods. ISAIAH is using what it calls a Health Impact Assessment (HIA) to assess the changes made to affordable housing access which might not consider the health needs of the current residents. Factors like proximity to healthy food, housing costs and health care are to be assessed. Once completed, the HIA will be used to make practical recommendations to the Planning Committee of St. Paul. (Ste-

ger 2010) This sort of activist intervention is what planners, architects and designers need to listen to and engage with in order to create meaningful and successful design.

Activism can also come from the top. An example of this type is the document *Active Design Guidelines: Promoting Physical Activity and Health in Design* that was prepared by the city of New York in 2010. Again, this is a public-health related effort. What sets it apart from The Sinai Institute and ISAIAH is that it was created to provide designers with a set of proactive guidelines for fighting obesity and obesity-related illnesses. It is a more open-ended set of solutions to an abstract problem. Rather than organizing a specific and reactive program such as Block By Block, Active Design Guidelines lays out possible design solutions for both urban design and building design that can be used to prevent obesity. This includes design suggestions for land use, transit and parking, parks and open spaces, children's play areas, public plazas, grocery stores and fresh produce areas, street connectivity, traffic, pedestrian pathways, streetscapes and bicycle networks. Suggestions for building design center around making stair use more accessible and appealing. For the exterior of buildings it is suggested that appealing facades and multiple entries help to enliven the pedestrian environment. (Burney 2010)

Although my Theoretical Premise is not

focused on health issues, these examples of activism are informative to two issues: the importance of creating awareness and the fact that all things are connected. An undertaking such as the one I am doing is complicated by this fact. The reason that public health initiatives can be so easily applied to my theoretical research is because they are undeniably linked to any effort to increase quality of life standards for any neighborhood or demographic. The three methods used to raise awareness of an issue in these examples are also important. Forms of activism that are shown here are the reaction to a problem as seen in Humboldt Park, the anticipation of a problem as on University Avenue, or theoretical solutions to a problem as proposed by the city of New York.

A good walking environment is critical to public health, as outlined in a study conducted by the Robert Wood Johnson Foundation. (Ewing 2005) It is also essential to a vibrant economy and streetscape in any neighborhood. The five design qualities found to be essential to a highly walkable streetscape are:

Imageability: *the quality of a place that makes it distinct, recognizable and memorable. A place has high imageability when specific physical elements and their arrangement capture attention, evoke feelings and create a lasting impression.*

Enclosure: *refers to the degree to which streets and other public spaces are visually defined by buildings, walls, trees, and other vertical elements.*

Human Scale: *refers to a size, texture and articulation of physical elements that match the size and proportion of humans and, equally important, correspond to the speed at which humans walk.*

Transparency: *refers to the degree to which people can see or perceive objects and activity - especially human activity - beyond the edge of a street.*

Complexity: *refers to the visual richness of a place. The complexity of a place depends on the variety of the physical environment.*

As mentioned earlier, all things are connected in a city, and this example is no exception. A good walking environment will lead to better public health and better economic health. When a neighborhood is walkable it is more desirable. An infusion of outside money will come if enough people gather because of a pleasant sense of place. This is where designers begin to play a very important role in the improvement or revitalization of a neighborhood. It is the specific expertise that designers bring to an urban environment that is needed in order to fulfill these five requirements for a vibrant



streetscape. Too many examples of the opposite approach can be witnessed at the most blighted areas of America's largest cities. Where there is a lack of vibrancy and people there is a surplus of crime and despair.

THE IMPORTANCE OF SIDEWALKS

Sidewalks are an essential element of successful urban design and neighborhood walkability. They are not mentioned specifically in the Robert Wood Johnson Foundation's five essential design qualities for walkable cities, but are quite possibly the most important element to be done correctly. They serve many functions to keep order in a city. Jane Jacobs makes the assertion that sidewalks and their complementary streets are a city's most vital organs. (Jacobs 1961) She goes on to say that it is the task of a city's streets and sidewalks to keep the city safe. A city by definition is full of strangers and it is the sidewalk's duty to ensure that a resident of the neighborhood does not automatically feel fear of these strangers.

The police are not the most effective peacekeepers in a city. Order is most efficiently kept by the watchful eyes of the neighborhood. The police have their work cut out for them in a neighborhood where watchful eyes do not exist. It is a logical yet rarely considered fact that a busy street is a safe street.

The street, and more specifically the sidewalk that pedestrians travel on, must be hospitable and appealing to pedestrians in order for it to become heavily trafficked. There are many factors involved in the psychological perception of a sidewalk. The most important factor is arguably as simple as the total width. Not only does a narrow



sidewalk disallow any uses other than foot traffic, but it is imposing, unwelcoming and even frightening to a human's psyche. This situation is made especially perilous if the sidewalk is adjacent to a street with high speed vehicles such as the sidewalk to the left along University Avenue in St. Paul. Some people might avoid it entirely because of the few possible escape or rescue options available if an ill-intentioned stranger were to approach them. The fast paced nature of the vehicular traffic further reduces the chances of an intervention. Safety concerns alone are enough to keep most reasonable people off of sidewalks such as this one.

The vast majority of people innately enjoy the presence of other people. The presence of strangers is very enjoyable in an appropriate setting. Jacobs makes the claim that "if interesting, useful and significant contacts among the people of cities are confined to acquaintanceships suitable for private life, the city becomes stultified." (Jacobs 1961) The vibrancy of a city is due in large part to strangers since no one person can possibly have enough acquaintances to fill a city plaza or enliven a busy shopping district. It is the sidewalk's responsibility to facilitate a congenial atmosphere among strangers. Only once all of the strangers are able to comfortably get along will the businesses residing along a sidewalk benefit from their collective benevolent mood. A well-designed sidewalk is one of

the rare urban building blocks that can be created independent of the catch-22 situation that usually complicates most urban revitalization efforts. A good streetscape can manifest and encourage a healthy sidewalk life that breathes life and vibrancy in to a struggling district.

THE IMPORTANCE OF VIBRANCY

In her landmark book *The Death and Life of Great American Cities*, Jane Jacobs cites an example of what happens when there is no imageability in a city or a neighborhood. She tells the story of a neighborhood in Harlem where a large portion of the residents had never been to the community center. Most didn't even know it existed. This is not because it was too far away, but that most of them had just assumed that nothing was over there. The landscape was too dull, it gave no reason to believe anything different was beyond the small territory which the residents knew. (Jacobs 1961) Even if amenities are made available, poor urban design and planning will render them unused and useless.

This example leads in to the problem of what Jacobs calls 'turfs' and is one of the detrimental aspects of urban living that I am attempting to destroy in my thesis. If every neighborhood is too dull or disjointed from the others there is a high level of isolation and distrust. Not to say that Frog-town or Downtown or any neighborhood of St.



Paul exhibits the level of paranoia and violence that was created in the housing projects of New York in the 1960's, but that there is always more that can be done to increase neighborhood cohesion in a large city. It is a paradox of creating identity of place while avoiding the creation of animosity toward others that designers encounter in this endeavor.

It is essential to keep a high level of complexity as defined by the Robert Wood Johnson Foundation in order to maintain a unique, vibrant and safe street life. This complexity is also an important contributor to the sense of place. Without complexity and safety a pedestrian is made to feel very uncomfortable and will not stay in a certain place for a very long time at all. People seek to be around other people as a form of entertainment. The complexity of a place can be increased by both objects and people. Interesting people increase the staying power and attention span of a crowd. Happy people can increase the happiness of other people. Without a vibrancy of people it will prove difficult for a district to remain relevant, valuable or desirable enough to attract outside visitors.

It is a well-documented but counterintuitive phenomenon that people congregate and stay the longest where they are the most in the way of other people. William H. Whyte performed an experiment of observation in New York City to study

just that. What he found is that people most often stop to make conversation in the most crowded part of the sidewalk. He attributes this to his conclusion that "what attracts people most is other people." He also found that passerbys are generally very tolerant of the conversationalists that are blocking the pedestrian flow. What is most vital to conversation making is the density and movement of people. Whyte hypothesizes that this phenomenon can be explained with the analogy of a crowded cocktail party. With a crowd comes the most possible choices. (Whyte 1980) It is much easier to end a conversation in the thicket of a moving crowd than in a desolate side street. People instinctively seek out crowds for comfort and safety.

This reality is usually contradicted when pedestrians are asked what they prefer in their environment. According to Whyte, people usually use words like "oasis", "retreat" and "escape" to describe their ideal conditions. Time and again, however, people's actions refute their expressed desire. People in a city gather and stay where there are other people. Jane Jacobs attributes this behavior to her observation that "people's love of activity and watching other people is constantly evident in cities everywhere." (Jacobs 1961) This is a primordial instinct that can be observed throughout the cities of the world and throughout recorded history.

THE IMPORTANCE OF DENSITY

Despite a deeply-engrained human tendency to live and gather in a certain way, our methods of living have changed dramatically in the past century. New York is an exceptional city in America and Whyte acknowledges this in his writing. People in other, smaller cities behave in a similar fashion as the congregators in New York when in a traditional built-up city environment. However, many American cities and the districts within them do not provide a New York-style venue for socialization. Most American cities have been the victims of ill-conceived 'renewal' and 'revitalization'. There are no crowded corners or stoops or watchful eyes present anymore in far too many of our cities. They have been replaced by supposed 'serenity'.

Everything from how we interact to how we dress to how we live and eat has changed in the most unimaginable ways in the past 50 years. A massive infusion of new ideas and the way they are communicated and received have been both a boon and a burden for modern quality of life. Americans enjoy the highest living standards of any society in human history by our own methods of measurement. We also seem to live the most unlike our ancestors both in America and from around the world before them.

We have forged a uniquely American approach to city design, much like everything else

America has undertaken. The acclaimed architectural critic Witold Rybczynski made the observation that if European cities seemed like "beautiful architectural museums, our cities were more like unfinished building sites where each generation was free to try its hand." Unfortunately, this eagerness to reinvent ourselves led to an undistinguished record in the past 50 years due to a "willful ignorance of our urban past." (Rybczynski 1995)

It is important for a neighborhood to make sure that it has the urban environments in place that can facilitate the sort of interaction and activity that people are attracted to. The difficulty lies in a popular belief that encourages creation of the opposite sort of streetscape. This can be attributed to the fact that urban renewal in the middle of the twentieth century prematurely destroyed much of what could have been pointed to as a more traditional solution to urban design problems. Fear of the unknown is a strong influence and unfortunately what seems to be most well known today in America is the interstate and strip malls. It is a designer's responsibility to fight the public's corporatized modern instinct to demand impersonal shopping malls in favor of personal and human scale city centers that have been proven again and again to be the most lasting and successful.



In order for this goal of human-focused design to be realized it must be a constant intention of an urban designer to increase the desirability of urban areas for living and working. This will increase density and reduce demand for and plausibility of the parking-in-front sort of development that is so prevalent in America today.

New York is by far the densest and most populated city in America. It ranks first in public transit use and last in per capita greenhouse-gas production of any American city. David Owen makes the argument in his book *Green Metropolis* that cities should emulate New York rather than investing in sustainable technologies as a primary method of combatting climate change. (Owen 2009) Just as a 10,000 square foot house with a vegetated roof is a laughable attempt at sustainable design, a sprawling and sparse city can not call itself sustainable no matter how many Priuses populate its highways. Housing, employment, and culture must all be available, plentiful and near each other for modern Americans to live a truly sustainable lifestyle.

THE IMPORTANCE OF SAFETY

The desire to be safe from physical harm is a strong and unavoidable human instinct. This is no less true in a city. Many institutions are in place to protect people, but all are less effective than good design can be. A sense of safety is vitally important

in order for a neighborhood or district to thrive. Outsiders can not be expected to feel comfortable enough to explore an area in which the residents themselves do not even feel safe. Luckily, most structural failings of a society can be remedied by thoughtful design. Likewise, most structural failings can be traced back to thoughtless design.

Danger can take many forms. Whether it is danger posed by another human or a speeding object, too much danger will deter even the most foolhardy traveler. It is essential for a city or a neighborhood to confront the problem of danger before it becomes a problem too multi-faceted to easily solve.

Although it may seem counter-intuitive to some, a busy, crowded streetscape is the most safe, even at night. No matter how cynical one might be, the undeniable truth is that the vast majority of people are genuinely good. Only if every single person on a street has a legitimate life-preserving safety concern is a crowded streetscape less hospitable and safe from danger than an empty (or nearly empty) one.

It is the first priority of a neighborhood or a district to gauge the sense of safety that it creates. If the sense of safety is very low the area has a severe problem. Without safety there are very few people. Only the people that are causing the danger or have no other option will be present. Home values and

property values will drop. A strong neighborhood association can be very influential in this matter, but if the problem has become too large it may not have the ability to make much change. The most effective strategy in a scared neighborhood is to change the minds of the residents first. If the residents at least feel safe enough to wander outside of their homes or their own territories the outsiders will come eventually. A good public relations effort by the neighborhood could speed this process.



RESEARCH SUMMARY

I have touched upon five essential elements that an urban neighborhood must pursue correctly in order to thrive. They are activism, sidewalks, vibrancy, density, and safety. Without these five things, or even one of these five things, it is extremely difficult for a neighborhood to function properly. Luckily, the propagation of one makes the others easier to achieve. Only once these issues have been addressed properly will a neighborhood be able to attract outside attention and money. A city is a collection of many different neighborhoods but only the hospitable neighborhoods are included in the city's network of trade and commerce. The isolated neighborhoods are those that are too dull or dangerous even for their own residents.

Neighborhood revitalization is a complicated process full of pitfalls and catch-22s. It takes a dedicated group of residents to stand up for their neighborhood and advocate for what they know is right. If this is not done within a reasonable timeline the problem could become too large to remain unnoticed by the city government.

Intervention from above is sometimes very important but can be extremely harmful to the fabric of a neighborhood as has been proven time and time again in our urban history. Outside intervention is often brutal and quick. A strong network of neighborhood advocates is especially important in this scenario. A city and its neighborhoods are not

unlike a natural eco-system. The smallest change can have drastic and disastrous effects on seemingly unrelated elements. Slash and burn strategies have very similar meanings in both natural and urban settings. Both can permanently destroy a treasure we didn't even realize we had.

The life force of a city and its neighborhoods is the streets and sidewalks found in it. This is the first building block of a city. It is something that can be created without tending to myriad unrelated elements. It is the soil, water and sun to a city's seeds. It is not a guaranteed fix to a troubled area, but it is the best place to begin. Just as relevant, it is the first place to look for the manifestation of problems. Wide, bright, vibrant and complex sidewalks and streetscapes are very rarely dangerous and blighted. They are the backbone on which a thriving neighborhood can rest. The sidewalk is the first thing people think of when they recall a pleasant neighborhood, yet time and again it is the first thing to be reduced. There is a disconnect in city design. A sidewalk should never be reduced in the name of budget cutting.

Vibrancy and density are often one in the same. Yet, they elicit very different responses in the typical American psyche. It is very difficult for a neighborhood to be vibrant without being dense. The reverse, unfortunately, is not always true. This is one of the notorious paradoxes of urban design.

How does a neighborhood foster vibrancy while growing denser? Vibrancy without density is very difficult, yet growing dense offers many challenges that need to be addressed alongside cultivating vibrancy.

New York is a wonderful American example of vibrancy and density. The city has always had a place in the American consciousness but not always for its positive traits. It has seen a great turnaround in the past few decades. Mayor Giuliani reduced the crime-rate, even if some would argue it was done in the crassest way. Mayor Michael Bloomberg after him may share a place with Richard Daley, the Mayor of Chicago, in the pantheon of great American Mayors who invested in their city with great foresight and ambition. This is the sort of vision that every city needs. As mentioned right away in the Narrative of my Proposal, a city offers benefits and amenities that a suburb could never offer. It is the responsibility of the leaders and residents of a city to ensure that the collective investment stays strong and reliable. If the wellspring of investment is cut off it is very hard to turn it back on and catch up to where it should be.

A neighborhood's decline in to danger is very rarely the sole fault of the neighborhood. A reduction, stoppage, or imbalance of its rightful share of public investment is often to blame. After this happens the neighborhood can become a vir-



tual black hole of public investment. Sometimes no amount of investment can return the neighborhood to its rightful state. The neighborhood is unfortunately stuck to pull itself out of the rut or face even greater follies committed by the city. Intricate and deliberate mediation must take place.

The end goal of a thriving and relevant neighborhood economy must always be pursued. Just as economic protectionism hurts a national economy, a withdrawn neighborhood can not prosper in the way that a connected and relevant neighborhood will. A strong relationship between neighborhoods will create a stronger economy than either could foster if they were turned inward.

CASE STUDIES

DONALD APPLEYARD'S LIVABLE STREETS

PLANYC + GREENSTREETS

GROUNDWORK + MARY DELAITTRE

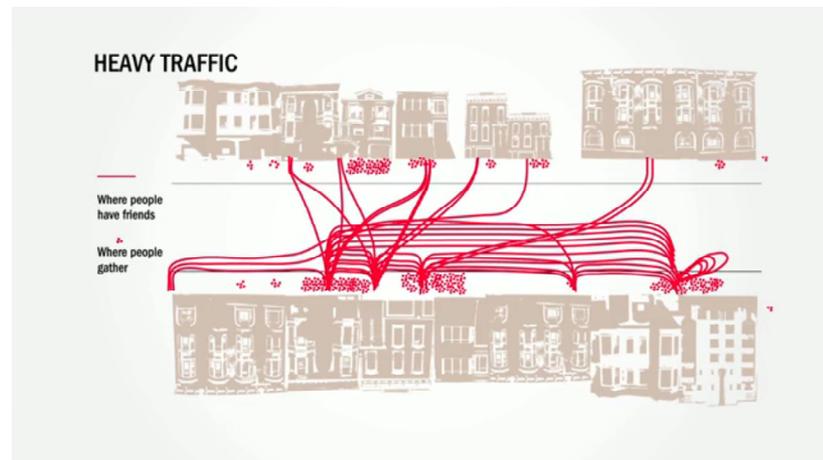
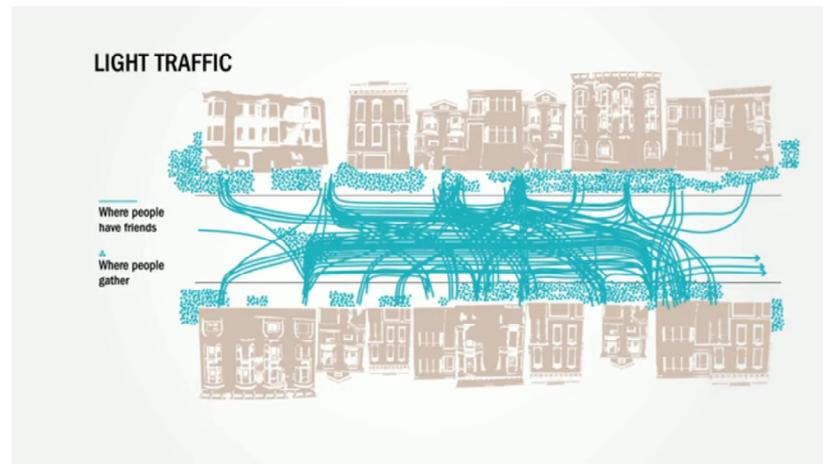


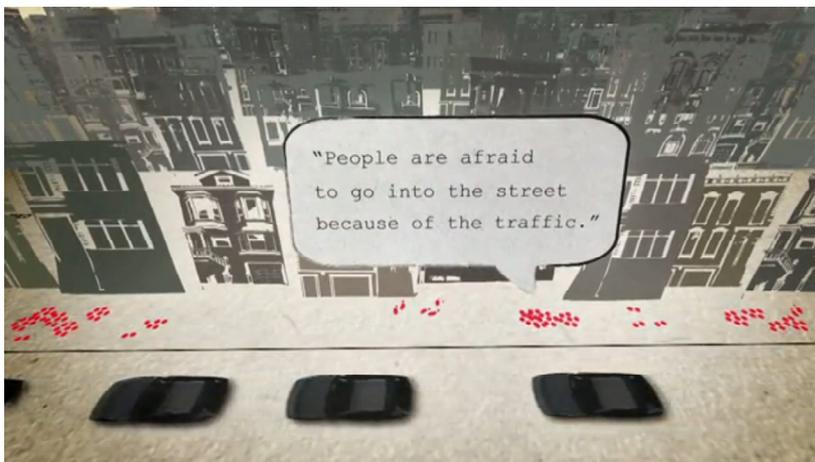
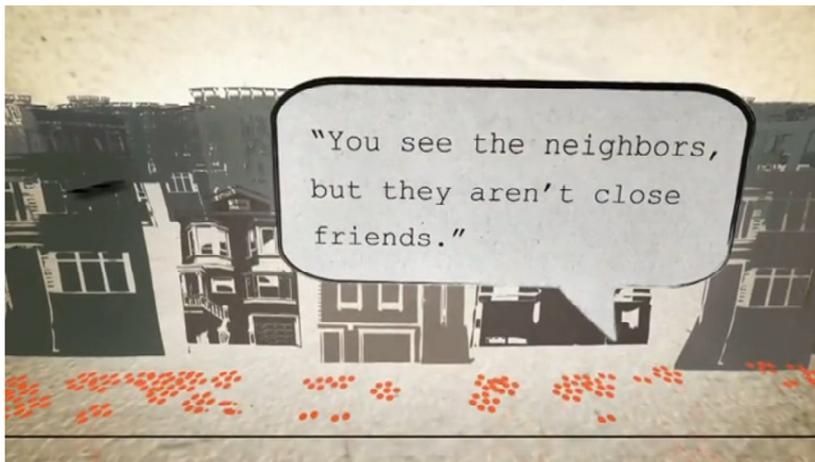
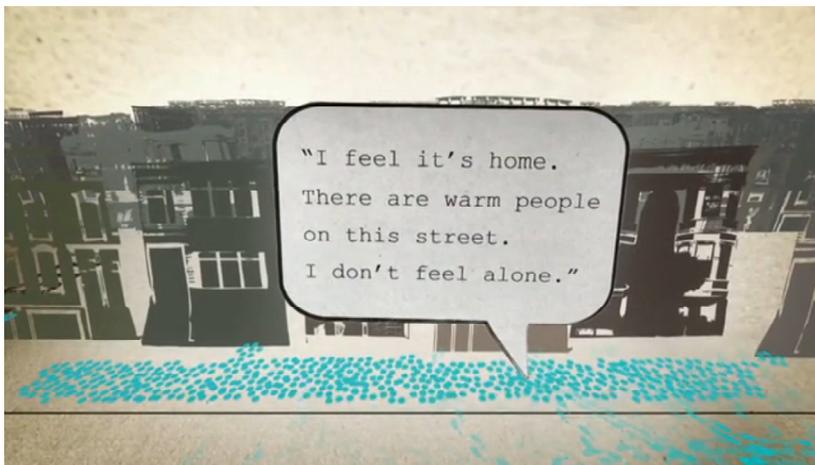
LIVABLE STREETS

In 1981 Donald Appleyard studied three different streets in San Francisco that were nearly identical in every way except for the amount of vehicular traffic. He chose a street with a low amount of traffic, a street with a medium amount of traffic and a street with a high amount of traffic to study. His findings were published in his book *Livable Streets* that presented the first evidence-based argument for traffic calming measures on neighborhood streets. (Appleyard 1982)

In an easily understandable way he was able to graphically illustrate much more information than just statistics such as traffic or pedestrian deaths. Appleyard proved that a neighborhood with light traffic is much more unified and pleasant to live in than a street with heavy traffic. Social ties between neighbors were found to be much more common in a lightly trafficked street. People had more friends on a lightly trafficked street. They enjoyed living there more and were more aware of the intricacies in their home environment. The quality of life was found to be much better on a lightly trafficked street than on a heavily trafficked street with all other factors equal.

A short film was produced in 2010 by Elizabeth Press of StreetFilms.org called *Revisiting Donald Appleyard's Livable Streets* in which his son, Bruce, makes commentary. The graphics shown are taken from this film. (Press 2010)





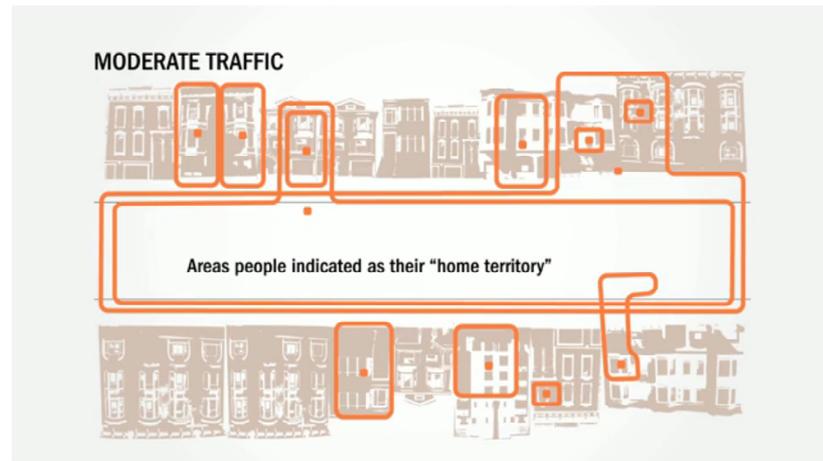
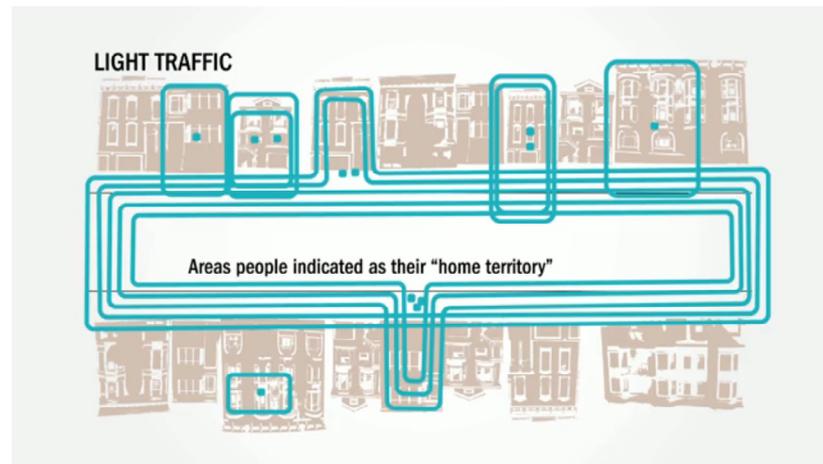
The graphics on the left show two things; where people gather and where people have friends. A dot is placed for each conversation made during a study period and a line connecting two buildings is used to show where people claim a friend of their lives in relation to themselves. Since the streets studied were small it was possible to interview every tenant for the study. It is made obvious by this comparison that the social life of streets with less traffic is much more vibrant than the social life of streets with heavy traffic. The presence of cars is a strong deterrent for people to go out in to the streets. The noise and pollution caused by cars also made living conditions less pleasant even inside of tenants' homes.

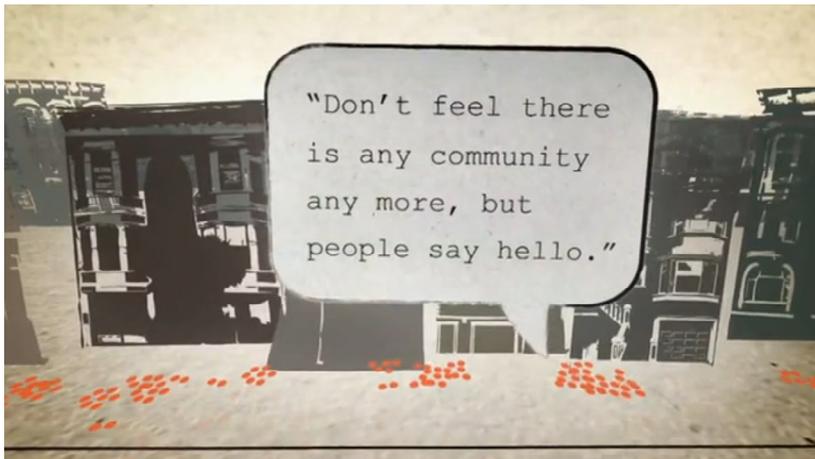
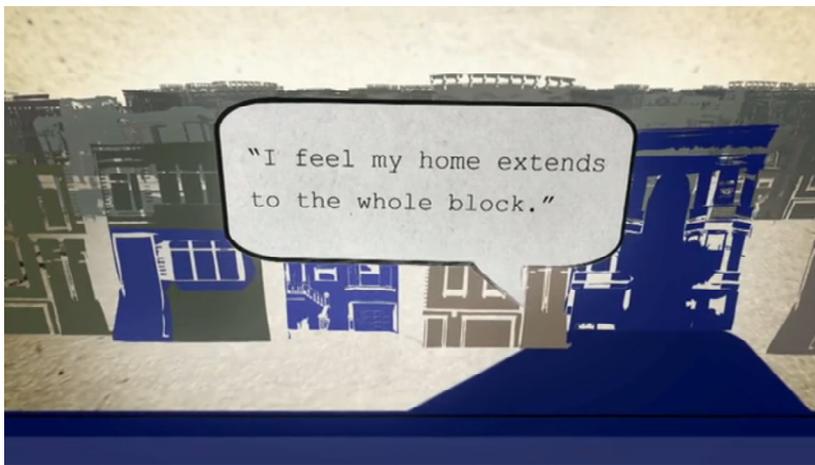
Many people were also interviewed on the streets and sidewalks. Their testimonials exhibit a stark contrast of attitudes between streets. Their comments illustrate the fact that the design of a streetscape is the one of the most essential elements needed to create a vibrant and warm neighborhood. Without a safe and welcoming environment outside of the residential buildings there is little to no chance of a jovial spirit developing between neighbors and passerbys. This could easily lead to more serious structural problems in the social fabric of the neighborhood.



Residents of the three streets were asked to draw on a map of the street what they consider to be their home territory. There are 12 examples of the typical responses in each street shown here. What the maps reveal is that people in a lightly trafficked street feel much more comfortable to wander outside of their own homes and even feel familiar enough with their outside environment to consider it their own territory. A few of the residents on the moderately trafficked street call the entire area theirs, but far fewer. Not a single person living on the street with heavy traffic claim anything outside of their own apartment or building to be their territory. Some people didn't even feel as if they could call their own apartment theirs. The noise and congestion from outside was constantly intruding.

Another indicator of street life was gauged by asking residents of the three streets to draw details of the street by memory on a prepared line map. Very little was able to be recalled by anyone on the busy street, they produced essentially nothing other than the entirety of the street. Environmental awareness was very low. The residents of the moderately trafficked street were able to recall certain details about specific buildings but not much more. The drawings produced on the calm street were drastically more detailed than the others. A high number of residents were able to recall details such as stoops, building features, and plantings.





The ability to recall so many details of one's own street signifies a high level of familiarity with it. Only by casually and repeatedly occupying a space can one begin to form a detailed mental image of a streetscape. The streets can not be safe and thriving in a social way if people do not feel safe even from external forces such as cars. Two more contradicting quotes addressing the issue of vibrancy were taken from the high traffic street and the low traffic street: "Variety of people, all ages. People sit on front steps and chat, visit each other. It's a comforting block, very cheerful" vs. "I find the street monotonous. I am a street watcher, but there are no people to watch". The difference is obvious.

The amount and intensity of traffic is important to monitor in an urban setting. Vehicular congestion can choke a neighborhood or a district that would otherwise thrive. Traffic calming measures are an important consideration to make for a neighborhood that is struggling with social or economic blight along with heavy traffic.



PLANYC

+ GREENSTREETS

In 1996 the city of New York launched an initiative called Greenstreets to convert paved and unused traffic islands and medians into vegetated green spaces. This program was conceived with the intention to improve health by providing a better walking environment. Research used by the Department of Transportation and the Department of Parks & Recreation showed that landscape elements and visual attractions increased walking and physical activity. (Burney 2010)

Mayor Michael Bloomberg adopted and expanded the Greenstreets program in 2007 as part of his PlaNYC initiative. His objective is to create a blueprint for the city of New York to grow sustainably and successfully in the face of increasing population projections and global climate change. 800 new greenstreets are included in the \$391 million dollar plan. (NYC Parks & Recreation)

PlaNYC aims to confront three main challenges facing New York City: growth, an aging infrastructure and an increasingly precarious environment. An effective plan to address these issues is essential to maintaining or improving quality of life in the city.

A holistic approach was taken in creating the PlaNYC program. It was recognized that all things are connected in a city as large and intricate as New York and every decision had far-reaching impacts elsewhere.





Although New York is already the densest city in America it is putting plans in place to become more dense. Even so, PlaNYC is remaining conscious to not let housing development overshadow or choke out other neighborhood needs. The official PlaNYC Report states that:

“With competing needs and limited land, we must unlock unrealized housing capacity, complete unfinished parks, and direct growth toward transit centers. By being smarter about our land-use strategies, we can realize the promise of an expanding population, while avoiding the pitfalls of unplanned and unbalanced growth.”

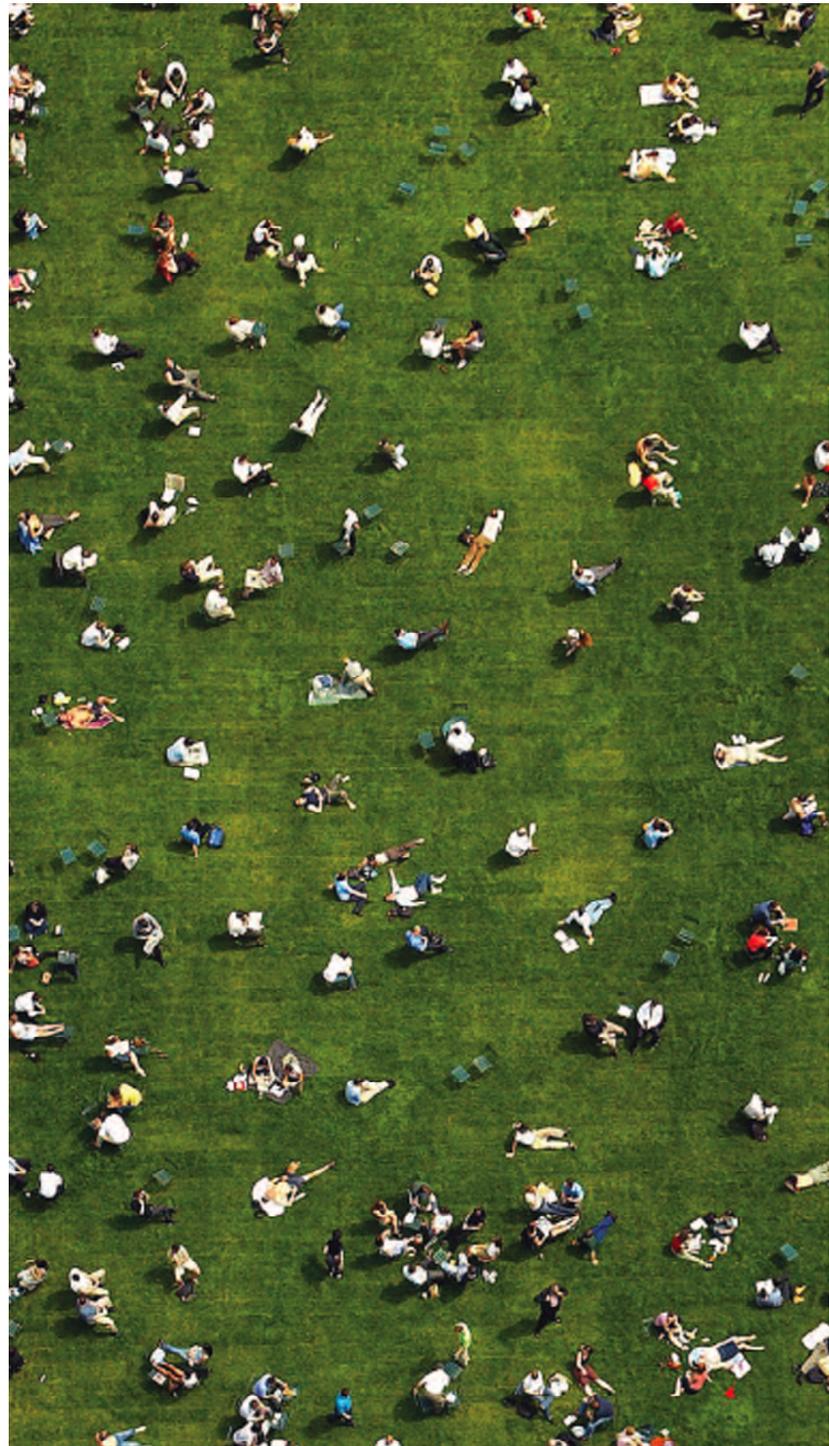
The plan is based upon the premise that a neighborhood and a city is a complex eco-system of cause and effect. It has also recognized that public transportation spurs economic growth in the city. New York, unfortunately, is an exceptional city in America regarding public transportation use. Even so, more than 2.5 million New Yorkers live more than a half-mile from a subway stop. A decrease in infrastructure investment in recent decades has caused a drastic increase in drivers in certain neighborhoods causing congestion, pollution and other problems associated with traffic. Massive expansion of the subway and bus systems is planned for the next 20 years.



Green space is a surprisingly high priority for the city of New York. Central Park is the most prominent and famous green space that comes to mind when one is asked of New York. The city currently has many green spaces and many others that have unfortunately fallen in to disrepair. PlaNYC has a plan in place to make a park available within a ten-minute walk, or half a mile, for the vast majority of the city. In addition, it has identified many asphalt sites that will be repurposed in to multi-use turf fields. Improved lighting will be installed in existing turf fields in order to maximize utilization.

PlaNYC also urges New Yorkers to “reimagine the public realm”. Taking a cue from Greenstreets, it advocates turning unused public space in to public plazas such as the plaza shown here on Willoughby Street in Fort Greene, Brooklyn. It also encourages and has plans in place to fill the landscape with trees and vegetation in order to encourage an active and vibrant public realm.

The manual used pictures of Remington Street, top, and 111th Avenue, middle, of Queens to illustrate the difference between a street with a healthy tree canopy and a street without. The PlaNYC goal is to fill 100% of the available space for street trees in the city by 2030. Currently on 74% of the opportunities for street trees are fulfilled.





Using the strategies discussed along with many others addressing water quality, congestion, energy, air quality and climate change, PlaNYC should do a sufficient job at controlling the growth of New York and even improving current conditions in the future. Many of the stated goals will serve multiple purposes and help to improve much more of the urban landscape than their intended purpose. New York is leading by example in many ways and other large American cities would benefit by learning from it.



GROUNDWORK + MARY DELAITTRE

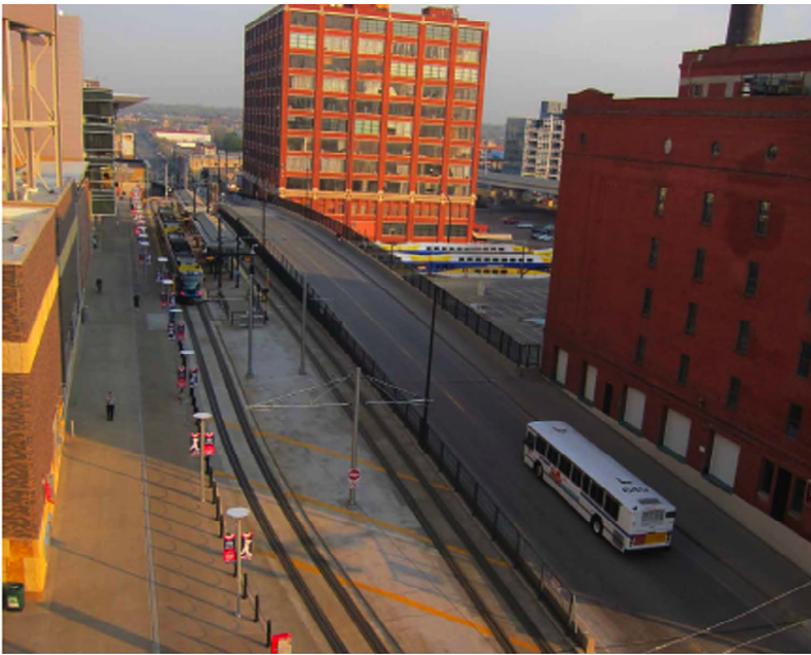
Groundwork is a non-profit organization founded by Mary DeLaittre in Minneapolis, Minnesota. She has practiced both urban design and architecture. When she heard of a new baseball park being planned for the Downtown area of Minneapolis she alerted a city politician of the need to plan accordingly for the neighborhood to prepare for the changes. A few weeks later she received a call from the same politician saying that he has set aside the funds for an extensive study and planning effort that he wanted her to lead.

Since then she has built an urban consulting office that has been highly involved in the revitalization and infrastructure-building efforts in the neighborhood of Minneapolis surrounding the new Twins ballpark.

DeLaittre and her organization have also been instrumental in advocating for the proper implementation of the light-rail lines that are planned for the city of Minneapolis and the region. She argues that the proper, human-oriented design is essential for the success of any large civic undertaking.

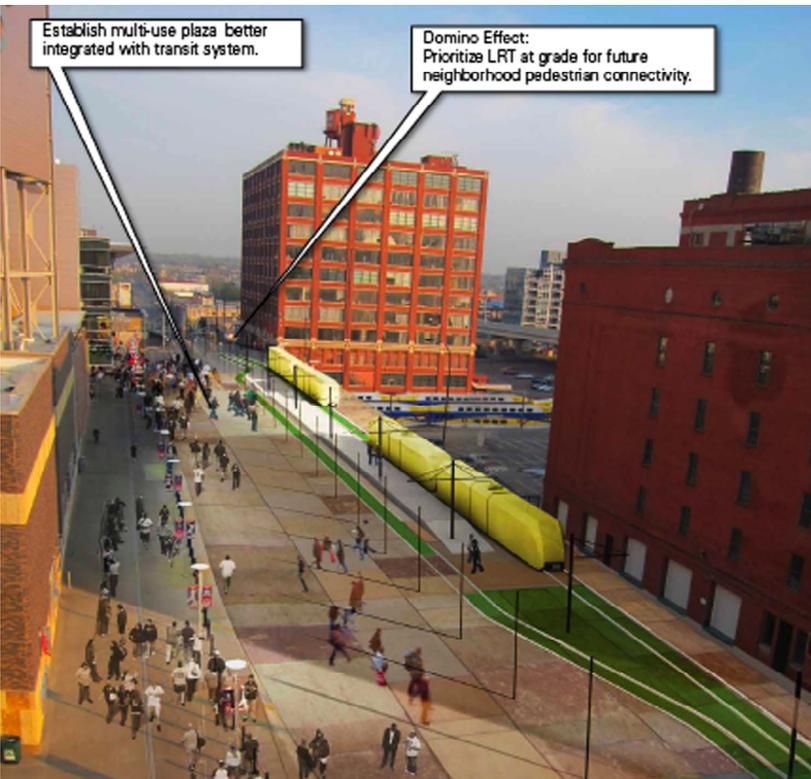
Shown here is a rendering done with the help of VJAA Architects that envisions what the planned light rail line could become. The top photo is the existing condition of 6th Avenue in which the light-rail line is planned to be. The middle graphic is the current plan for the line and the bottom graphic is Groundwork's proposal for it.





Mary argues that the expansive scale of the 6th Avenue and the planned addition to it alienates pedestrians and contributes to a sense of “placelessness”. This conviction can be found in most of her work and proposals.

Another aspect of Groundwork’s proposal for the light rail system is an improved and more human-oriented area for loading and unloading of the planned light rail stop at the Twins Stadium. Mary argues that this will greatly improve the environment and efficiency as stadium-goers unload the light rail and enter the (now non-existent) plaza.



TYPOLOGICAL CASE STUDY SUMMARY

The acts of assessing neighborhoods and planning for change are just as essential as the design effort that eventually becomes of them. *Livable Streets*, *Greenstreets* and *PlaNYC*, and *Groundworks* are all very effective and influential undertakings in the understanding and improvement of American city design. It is important to learn from them.

A holistic approach needs to be taken in any effort at city design. Nothing exists in a vacuum. This can be learned from *PlaNYC*'s approach to its mounting challenges in the densest city in America. Design needs to be in alliance with planning and budgeting. For a city to function properly, its politicians need to be informed of the indispensable value of design.

Activism can take many forms, from the scholarly to the neighborly, and all are important. It is also important that the design profession does not simply wait to be called. Activists such as Mary DeLaittre are vitally important to a city as it grows. Policy makers outside of the design profession usually mean well but do not have the vision that most in the design profession do. It is essential to provide politicians with visual documents and images that clearly illustrate what is possible.

Studies that are scientifically and analytical in nature are also vital to the understanding of a

city. Donald Appleyard did the urban design profession a great service when he quantified in no uncertain terms what heavy traffic can do to an urban street. Although it had been preached by the likes of Jane Jacobs for decades before him, Appleyard produced undeniable evidence of the relationship between cars and street life.

I plan to take what I have learned from the study of these programs and research and apply it to my design effort in St. Paul, Minnesota. The city is far different from both San Francisco and New York but the nature of people remains the same. The essential make up of human beings can not change in a short amount of time and neither can our needs and desires of a city.





HISTORICAL CONTEXT

St. Paul first came into existence because of its proximity to Fort Snelling in 1819. At this time Minnesota was a frontier territory. The proximity to the Mississippi and Minnesota River caused St. Paul and its twin city, Minneapolis, to rise to prominence in the fur-trading and milling industries very quickly. In the 1850's over 1000 steamboats were unloading cargo and passengers in the city of St. Paul.

Minnesota's first capital building was built in 1854 and the territory became a state in 1858. It grew quickly as Minneapolis became a world-class powerhouse in the milling industry and St. Paul continued to specialize in finance and commerce. Railroad development reached the Twin Cities in 1861 and the metropolis became a regional leader after James J. Hill bought the city's railroad in 1879 and went on to build the Great Northern Railway.

The city and its surrounding towns were connected by a very efficient network of electric streetcars that moved thousands of people as far out of the city as 40 miles to the resort town of Excelsior on Lake Minnetonka. Every weekend in the summers, tens of thousands of people would ride the electric street cars through the pristine natural prairie at 50 miles per hour until they reached their destination, the Excelsior Amusement Park on Big Island. The rise of the automobile signaled the end of these quick and efficient street cars.



The city of St. Paul has been the home to many waves of first-generation immigrants. Through its history it has welcomed French, German, Swedish, Irish, Czech, Hungarian, Polish, Mexican, Hmong and Somalian immigrants. The immigrants brought with them their own infusion of culture, music, food, language and religion. Though not without conflict, St. Paul has remained relatively peaceful in its absorption of newcomers.

St. Paul has been the home of many institutions of higher education through most of its history. Hamline University was founded in 1854 and was followed by St. Catherine, Macalester, St. Thomas and William Mitchell College of Law. It has been ranked among the most literate cities in the country many times.

Urban renewal in the middle of the 20th century left its mark on St. Paul. Many historic buildings were destroyed in the name of revitalization. The entire Rondo neighborhood was evicted and flattened to make way for the construction of Interstate 94. The city is still recovering from the destruction of many old roots.



GOALS OF THE DESIGN THESIS

My goals for my architecture Design Thesis are academic, professional and most of all, personal. In my time at North Dakota State University I have learned many things in studio and so many more outside of studio. This is the last opportunity of my academic career to create something to be truly proud of. I have done so many times before but this time promises to be different. I have had the chance to take the better part of a year in my mid 20's to imagine and produce a piece of work that represents the culmination of what I stand for as a student and as a person.

My life during college has been a time of great happiness, soul-crushing sadness, and many, many unforgettable experiences. My personal ideologies have simultaneously evolved and solidified during this time. I was given the opportunity to travel to India for a semester. My time there familiarized me with a culture entirely different than my own. I could not help but to be changed by it. There are lessons to be learned everywhere and in everything. I hope to use my thesis to communicate my personal convictions in a persuasive way. It should represent everything I stand for.

I want to combine architecture, urban design, sociology and politics in my professional life. A career that will be personally fulfilling is one in which I can point to a safe and thriving urban area

and say "I did that." I want to relentlessly crusade against backwards ideas and crooked motivations. I believe that design is a right, not a privilege. My Design Thesis will serve as a bridge between my academic and professional careers.

Although it is mentioned very little in my Proposal and Program, I am an environmentalist above all else. I am also an optimistic realist. I approach the crisis pragmatically. I believe just as David Owen asserts in *Green Metropolis*, that the most effective way to combat climate change is to change the way we live, not the things we live with. This does not mean I have any illusions of becoming a social engineer. In order to densify our country we must change the public perception of cities through action. The suburbs will be relevant for as long as people are afraid to gather in cities. The city must defeat the suburb by improving itself and becoming greater than the suburbs could ever be.

I intend to use my Thesis to assert myself as a designer and an instigator. I want to develop my theoretical strategies and solutions for the problems I have identified. I will take this opportunity to use the analytical, design, graphic, and logical skills I have acquired and honed here at North Dakota State University to make something great. Firstly, I want to create a document that implies and plans for great social and economic improvement. Sec-

ondly, I want that document to be expressive in a way that is influential far beyond what a simple paper with words can be. It is meant to be a vision. I intend to set a course for the world so that my children and my children's children will live in a world even greater than mine.

My specific goals for this project are to produce a proposal for the city of St. Paul that will change the way people think of neighborhoods, cities, and the relationship between them. I want to create a persuasive and beautiful vision for the Frogtown and Downtown areas of St. Paul, one that will move the city to action. Not only that, but a framework and theoretical premise that can be learned from and applied in other cities and neighborhoods.





SITE ANALYSIS

NEIGHBORHOOD INFORMATION

AREA CODE STATISTICS

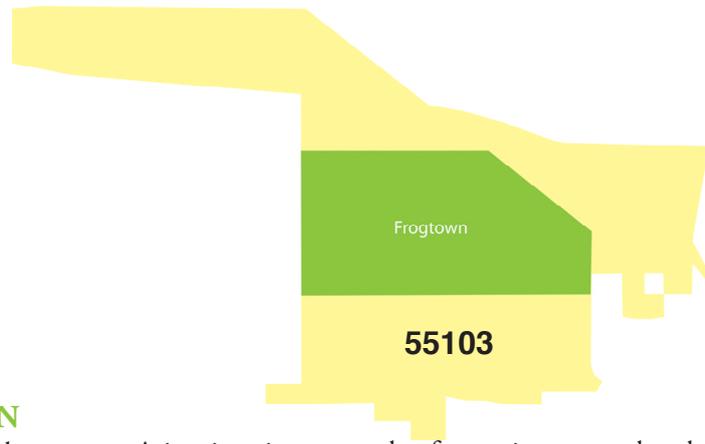
CURRENT INFORMATION ON THE CITY

A STUDY OF WESTERN AVENUE

A STUDY OF CHARLES AVENUE

CLIMATE DATA ANALYSIS





NEIGHBORHOOD INFORMATION

The Frogtown neighborhood is at the center of the 55103 area code. It is within the seventh district and Ward 1 of St. Paul. A common belief is that the area acquired the nickname “Frogtown” as a racial slur against French settlers. The Frogtown Neighborhood Association disputes this claim though, stating that the German-Bohemians who settled the town referred to it as Froschburg, or “Town of Frogs” due to the abundance of frogs in the nearby swamps.

It is difficult to find definitively agreed-upon boundaries of the neighborhood. For my purposes I have designated the area east of Dale Street in the seventh district as the bounding. “Frogtown”, however, can be used ambiguously to mean the large area along University Avenue in St. Paul. A person whom is more familiar with the area could make more distinctions than a casual outsider.

The median household income of the 55103 area code is \$29,558. The area code’s average household income is \$35,943. This indicates that the income curve is bottom-heavy. In 2008 the population of 55103 was estimated at 14,359. This is just a slight decrease from the year 2000 census statistics. The average house value in this highly residential area is \$81,900. (city-data.com)

The racial demographics are diverse. Nearly 40% of population is white which is also the largest demographic. An enormous influx of southeastern

Asian immigrants and refugees in recent decades has brought this population up to nearly 30% of 55103. The destruction of the historically black Rondo neighborhood by the construction of I-94 in the 1960’s sent that community to the Frogtown neighborhood, among others. Today nearly one-quarter of 55103 is African-American.

Frogtown is a short distance from downtown St. Paul. However, the State Capital complex and two freeways separate them. University Avenue on the southern border of the neighborhood serves as the primary commercial destination for residents. An unscientific survey of the storefronts yields the impression of a very high percentage of independent shops. The nearest Wal-Mart or Target both are far west of Lexington Avenue which serves as the western border of the seventh district.

The neighborhoods north of I-94 were dealt a series of structural difficulties during urban renewal in the 1960’s. A small victory was won during the planning phase of I-94 when activist pressure caused the planned elevated freeway system to be placed in to a large trench instead. This outcome was not ideal but did much less to destroy the urban fabric than an elevated freeway would have. Certainly if I-94 had been elevated there would not be much prosperity near the freeway today, especially as it exists on the south of I-94 in west St. Paul.

AREA CODE STATISTICS

Estimated Population

55103: 14,359
Minnesota: 5,266,214

Land Area:

55103: 2.2 square miles
Minnesota: 84,068 square miles

Population Density:

55103: 6578 per square mile
Minnesota: 62 per square mile

Median Home Value:

55103: \$164,937
Minnesota: \$213,800

Median Resident Age:

55103: 27.4 years
Minnesota: 35.4 years

Average Household Size:

55103: 2.9 people
Minnesota: 2.5 people

Average Income:

55103: \$28,534
Minnesota: \$46,177

Median Household Income:

55103: \$34,938
Minnesota: \$57,288

Percentage of Family Households:

55103: 56.9%
Minnesota: 66.2%

Percentage of Unmarried Family Households:

55103: 6.7%
Minnesota: 5.3%

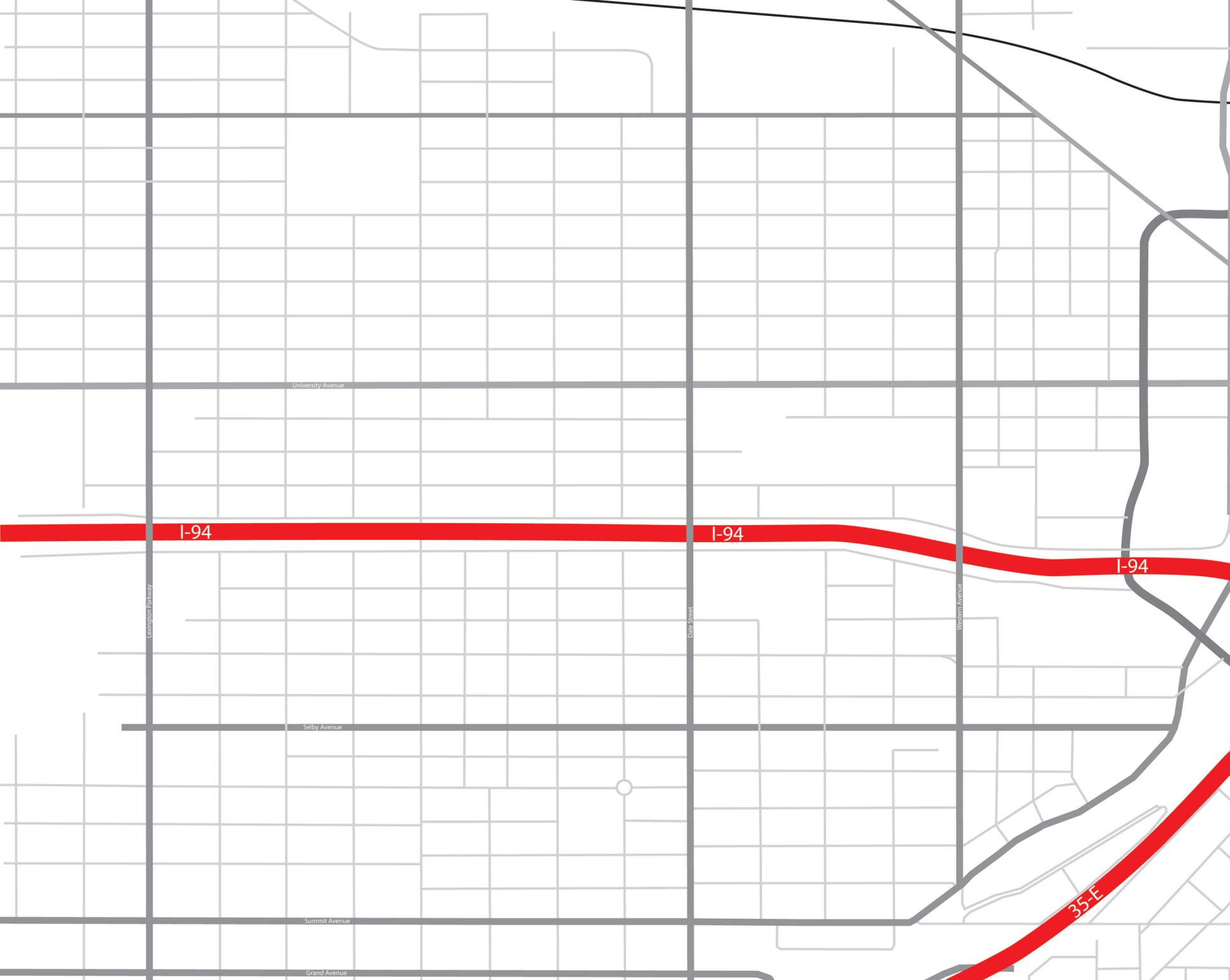
Residents With Income Below Poverty Line:

55103: 31.1%
Minnesota: 9.6%

Residents With Income 50% Below Poverty Line:

55103: 15.9%
Minnesota: 4.1%





I-94

I-94

I-94

35-E

University Avenue

Selby Avenue

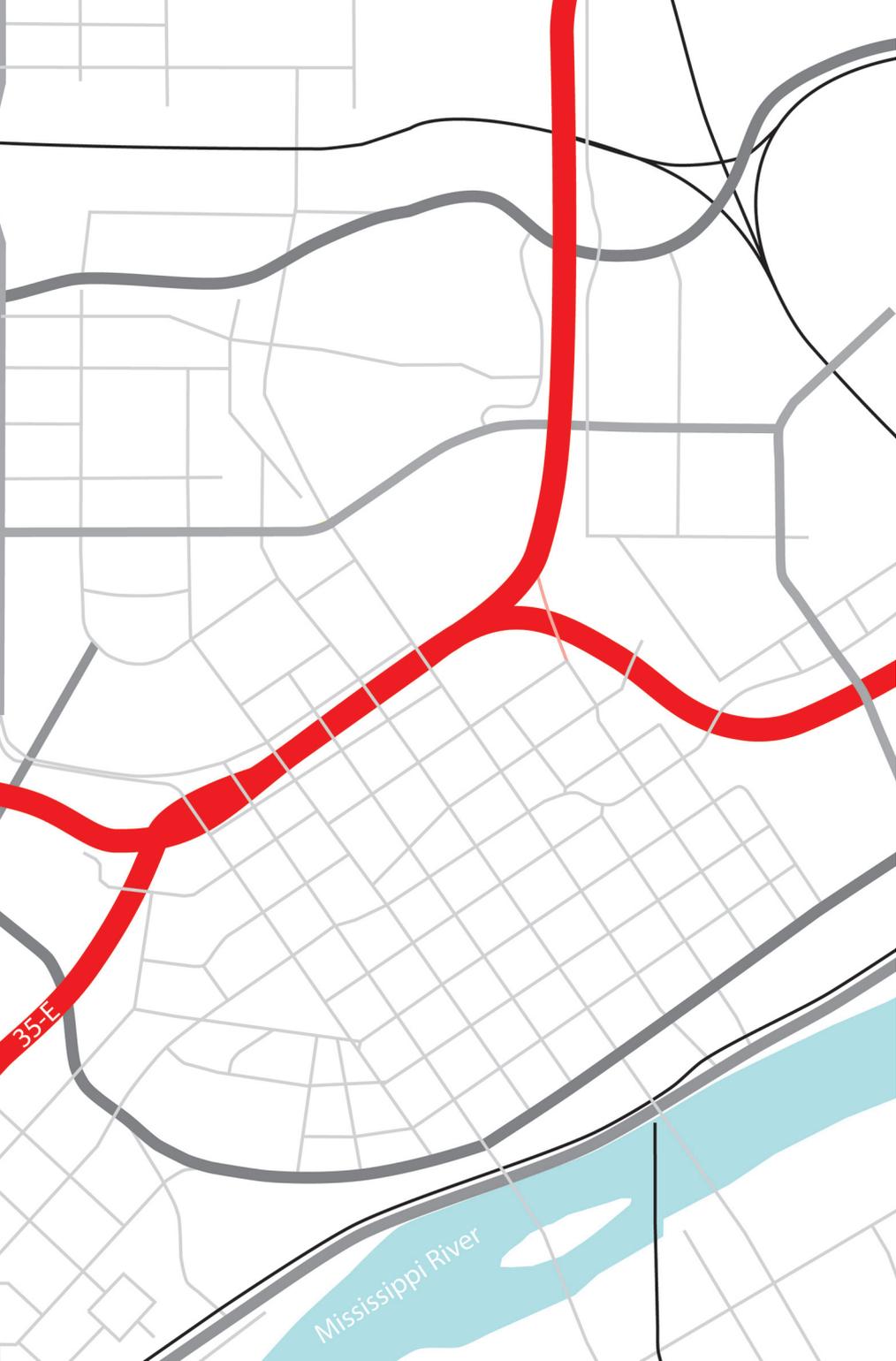
Summit Avenue

Grand Avenue

Leanington Parkway

Dale Street

Western Avenue



CURRENT INFORMATION ON THE CITY

St. Paul is a city of many well defined neighborhoods. It is well-respected in a very stoic mid-western style. It elicits a reaction neither as positive nor as negative as its neighbor to the west, Minneapolis, might receive. St. Paul has existed always as Minneapolis' quiet and well-behaved younger brother. Even so, there are many interesting and vibrant neighborhoods. Sadly, they function very separately with nearly no interaction or relation between them. An area that is only a mile away might seem completely inaccessible or even foreign to a person without a vehicle.

An effort is underway to connect Downtown St. Paul and Downtown Minneapolis with the proposed Metro Transit Light Rail Corridor. It will run along University Avenue and Washington Avenue. This presents both opportunities and challenges for the neighborhoods along the light rail line. It will become much easier for a large number of people to access the area once completed, but planning and construction must be done carefully.

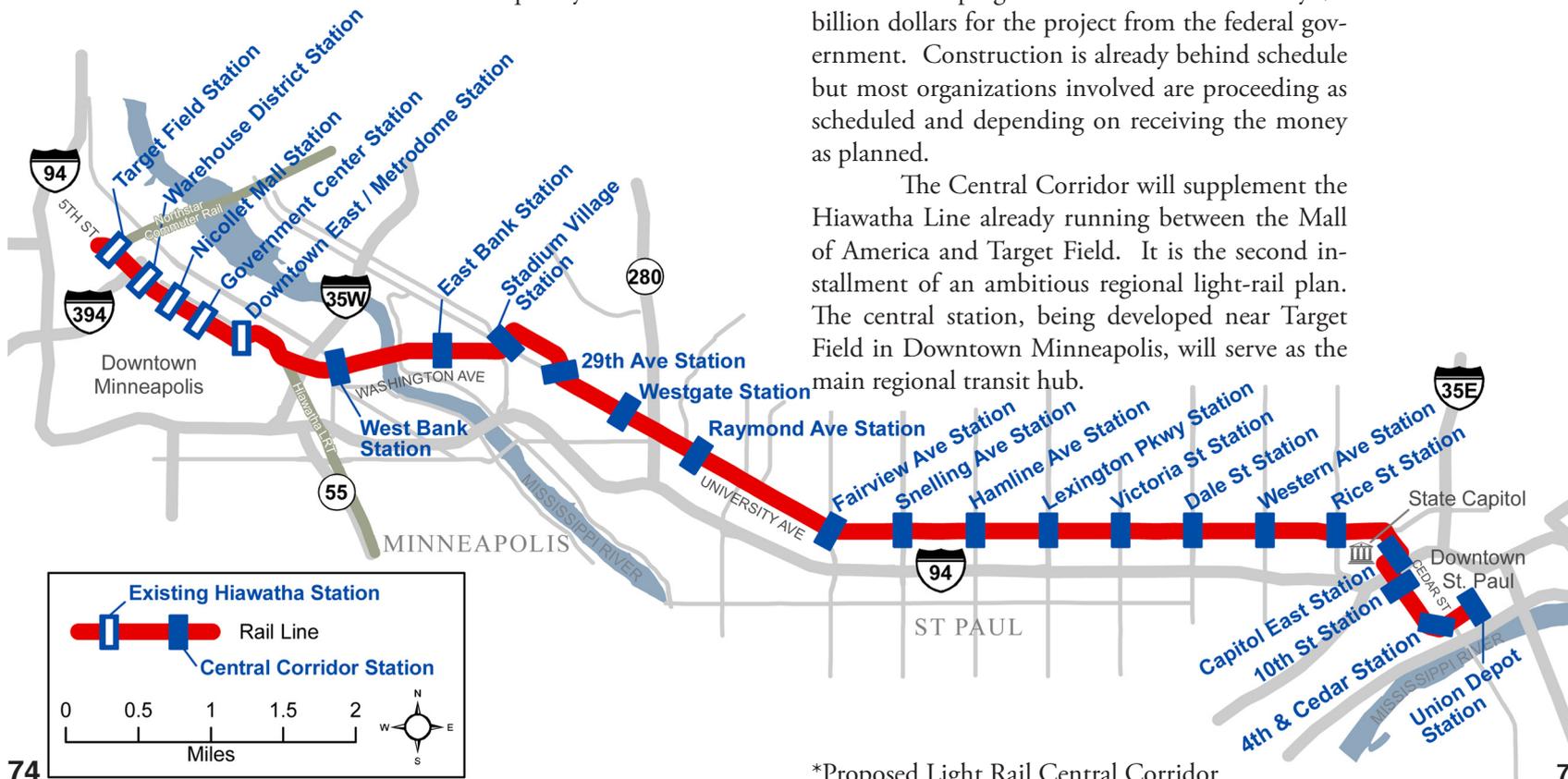
If the current residents are not considered and advocated for, re-zoning could lead to disastrous results for individuals and the neighborhood as a whole. The opposite result could be true with a proper amount of foresight, consideration and planning. An influx of visitors and money could be properly anticipated for and become a boon to local businesses and increase the overall standard of



living and desirability in the area. It is important to make sure that the Frogtown and Midway neighborhoods provide riders with attractions between the two downtowns. If the area became a no-man's land the conditions could quickly decline.

This public transportation line will be very helpful in my goal of connecting the Frogtown and Downtown neighborhoods for mutual benefit. The fate of the project is still unsure as the Metropolitan Council is hoping to receive half of the nearly \$1 billion dollars for the project from the federal government. Construction is already behind schedule but most organizations involved are proceeding as scheduled and depending on receiving the money as planned.

The Central Corridor will supplement the Hiawatha Line already running between the Mall of America and Target Field. It is the second installment of an ambitious regional light-rail plan. The central station, being developed near Target Field in Downtown Minneapolis, will serve as the main regional transit hub.



*Proposed Light Rail Central Corridor

Western Avenue runs north-south and is terminated at its crossing with Summit Avenue in the south and at Maryland Avenue in the north. It runs vertically through the middle of Frogtown. Western Avenue continues running north for one more mile before terminating at a large plot of land in the Como neighborhood.

One of two St. Paul landmarks are visible at nearly every intersection along the path; the St. Paul Cathedral on Summit Avenue and the State Capitol on University Avenue. Both buildings serve as external reference points as described by Kevin Lynch. (Lynch 1960) They are both designed in such a way that they seem enormous and imposing when traveling along a roadway but somehow minimize their appearance when observed from the sidewalk. This trait gives the landmarks an almost mystical presence in the neighborhoods they overlook.

An interesting contrast can be witnessed by traveling the 1.5 miles from Minnehaha Avenue which bounds Frogtown on the north to Summit Avenue overlooking Downtown St. Paul. Summit Avenue is the city's original gathering place of wealth. It acquired its name for obvious reasons as it overlooks the city from a bluff rising out of the the Mississippi River. It still is the home to

A STUDY OF WESTERN AVENUE
mansions and millionaires, its most famous being the home of the rail magnate James J. Hill, built in 1891.

Minnehaha Avenue is the last cross-street before Western Avenue travels over the BNSF railroad. A large rail yard is located in the area. It serves as a classic example of a border as defined by Jane Jacobs. She asserts that areas on one side or the other of a track may fare better than other

Frogtown has always been a middle to lower class neighborhood. A majority of the existing houses were built around the turn of century. The houses are old and are extremely varied in square footage and property size.

The north end of Frogtown that Minnehaha Avenue bounds is the least dense area of the residential neighborhood with many empty lots. Even so, most of them seem to be at least moderately kept by neighbors or adjacent property owners. The least amount of activity is noticeable in this area. Como Avenue near Minnehaha is a moderately large roadway that runs diagonally from Lake Como in the north and terminates at Rice Street near the Capitol complex. The street forms a bounding edge of Frogtown. A large and thriving Hmong market is located in old warehouses across Como Avenue. A few businesses are zoned in the





area as well.

Charles Avenue is just a few blocks from University Avenue which serves as the main commercial district of the neighborhood. Much more activity is present here. The houses are smaller on average and closer together. The area is blessed with many more old-growth trees which form a charm-

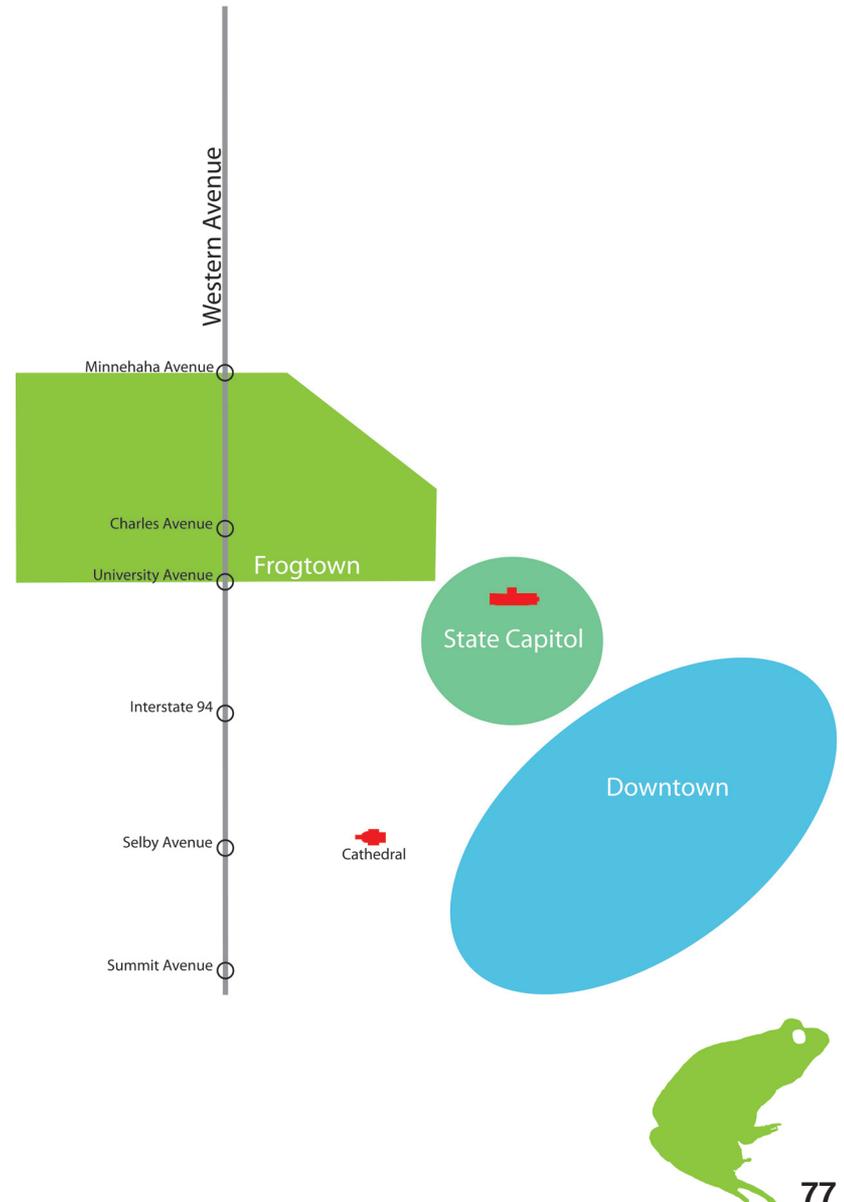
ing canopy in the summer and fall seasons. A high percentage of the yards are surrounded by chain-link fencing, especially the larger ones. Empty lots are still present but are less common and typically smaller.

University Avenue is a very wide 4-lane roadway. Its western end begins at Broadway





Street near the east bank of the Minnehaha River in Minneapolis. It runs through the heart of the University of Minnesota campus and then through the Midway neighborhood and Frogtown before finally terminating at the Minnesota State Capital. Its eastern end has typically been associated with crime and undesirable conditions. The dome of the





Capital building is large and highly visible from the street. Many independent and ethnic businesses can be found along the St. Paul portion of University Avenue. This fact is complimented by very few big box stores, most of which are concentrated west of Frogtown. They include Target, Wal-Mart, Rainbow Foods and others in a large conglomeration of

pavement near a high-rise affordable-housing complex. The roadway is too wide and traffic moves too fast to be hospitable to pedestrians. The sidewalks are conversely too small for safety and are close to heavy traffic. The shop owners along University Avenue undoubtedly suffer economically from this failure of urban design. The area should be much





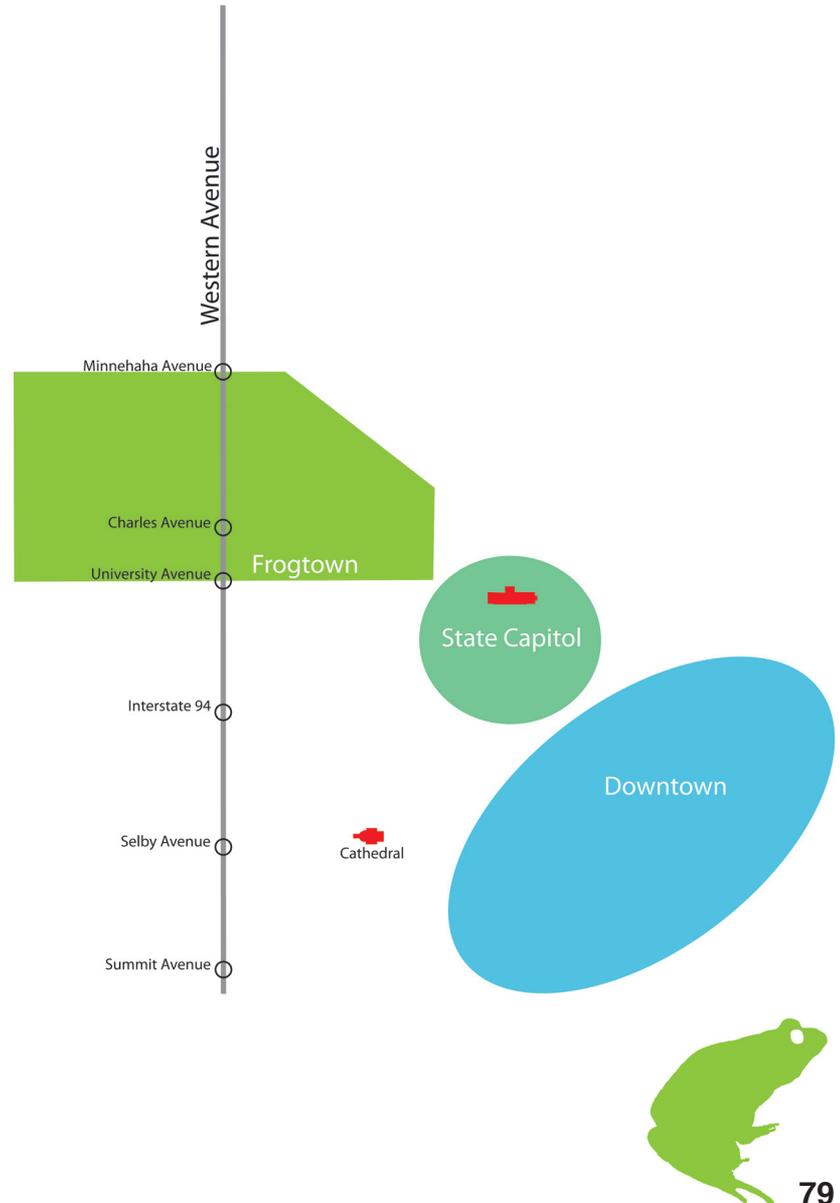
Western Avenue

more vibrant with such a large residential neighborhood so close by.

Interstate 94 cuts through St. Paul like a canyon. This is actually an improvement over the original plans to erect an elevated highway over what used to be the Rondo neighborhood. Even so, there is very little development near the freeway



Western Avenue





beside frontage roads and the bare facades of big box stores. It is a very literal barrier in the city.

Once one reaches the Selby Avenue intersection of Western Avenue the setting becomes very pleasant. Selby Avenue has had problems of its own in the past but they seem to have been mostly resolved or placated. A few historic buildings, store-

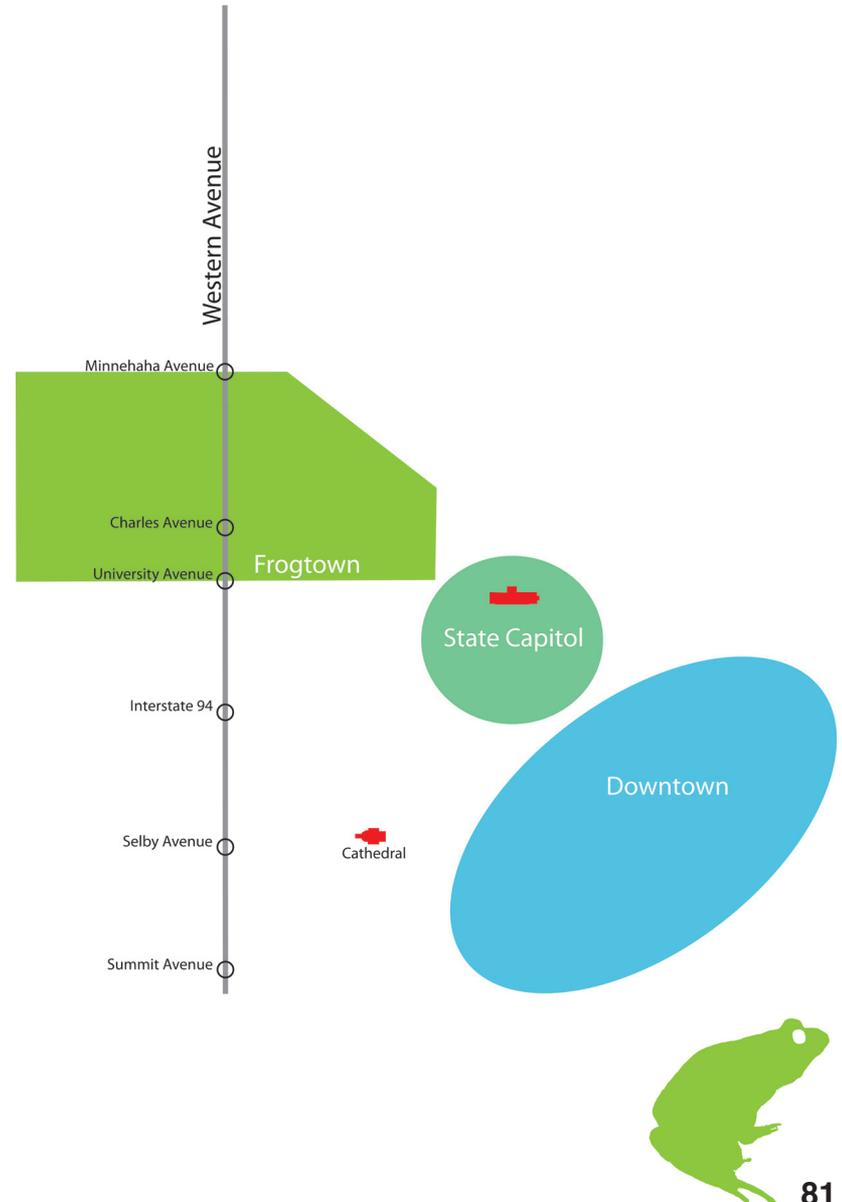
fronts and facades have been maintained in the area but still woefully too little considering the neighborhood's rich and privileged history. Selby Avenue terminates very near here at the steps of the St. Paul Cathedral. The street can sometimes become crowded with traffic but is generally very placid. Cars are aware of pedestrians and the streetscape





encourages slow driving. There are many colleges in the area and the population is mostly well-off.

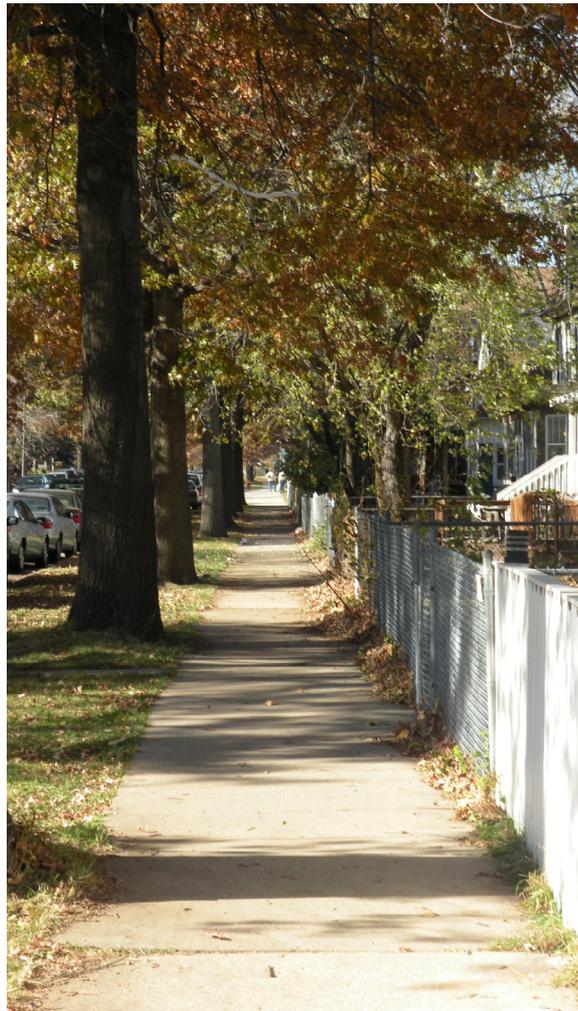
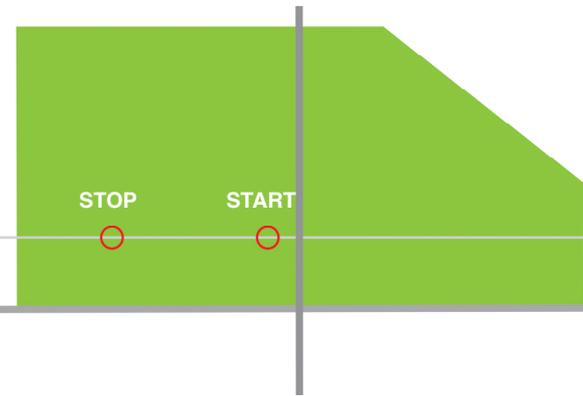
Western Avenue reaches a dead end overlooking the bluff of Summit Avenue. Once again Western Avenue has reached a residential neighborhood but a starkly different one. This is the culmination of the haves and the have-nots in St. Paul.



Many of the houses evoke the feeling of disbelief that only a single family resides inside of it.

Western Avenue illustrates two clashing opinions of what sort of lifestyle is desirable in America. The potential for vibrancy is undeniable on its north end. The pampered life is realized on its south end. What sort of life is sustainable and attainable for the majority of Americans? Certainly Summit Avenue can not be how we all live. Yet, it seems to have permeated itself in the American psyche as the lifestyle to be desired and attained.

This yearning for wealth and comfort has happened at the expense of a more sustainable (and I believe more fulfilling) lifestyle of social interaction and community building. No matter how low the traffic is, I do not believe that a street of mansions can elicit the sort of enthusiastic remarks of the happy residents in Donald Appleyard's low-traffic street in San Francisco. Responsible city building requires that we cultivate thriving urban neighborhoods rather than encourage the suburban lifestyle within our largest cities' borders.



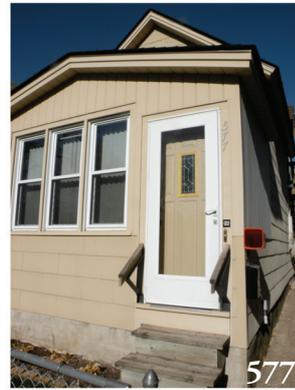
A STUDY OF CHARLES AVENUE

Charles Avenue runs east-west near the center of the Frogtown neighborhood. I documented it on a pleasant afternoon in early November. I started just west of Western Avenue and headed west. There were many people out walking around as well as yard sales and barbeques. I recorded my walk by snapping a quick photograph of each house as I passed by.

Analysis of the photographs provided me with interesting insights that I would have otherwise missed. Taken as a whole in a quick glance, the neighborhood seemed almost ideal. It was only once I looked more critically at each house as I passed that I began to notice flaws. Some of the houses seemed impossibly small. Others were so close to each other that there is no possibility that any sunlight could come in. I noticed condemned signs hanging in many doorways.

On my walk I passed one church and one small apartment building, but the vast majority of the structures were single family residences, some much larger than others, and I wondered how many families actually call each one home. A study of this type will not reveal every detail about the dwellings and structures documented, but offers an interesting and informative visual representation of typical homes in the heart of the Frogtown neighborhood.







467



471



475



477



481



551



553



555



557-565



567



579



583

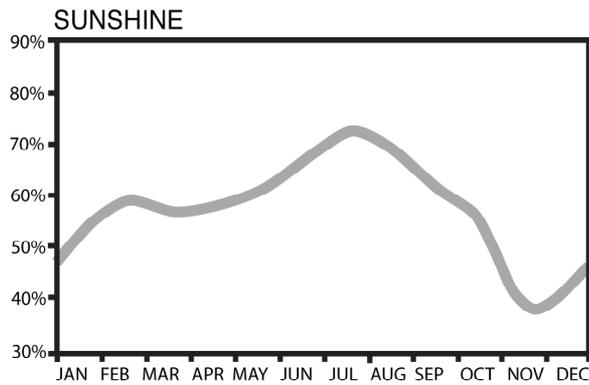


585

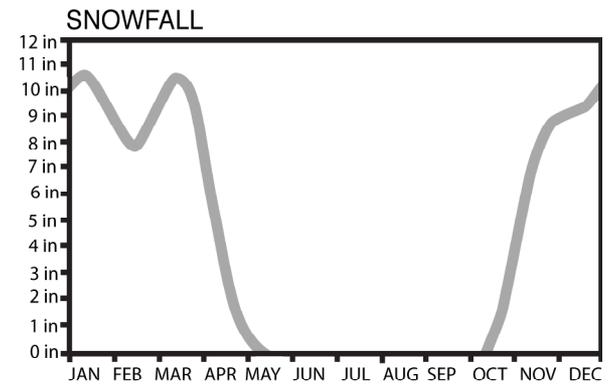


587

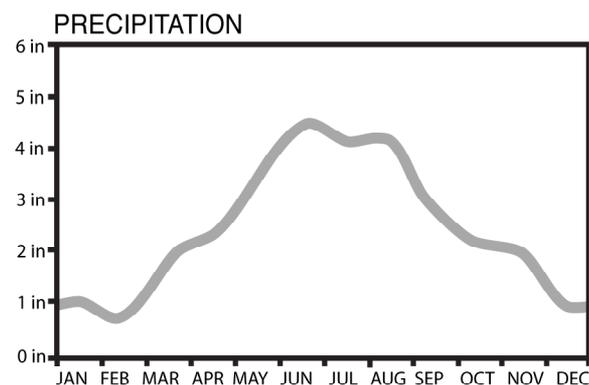




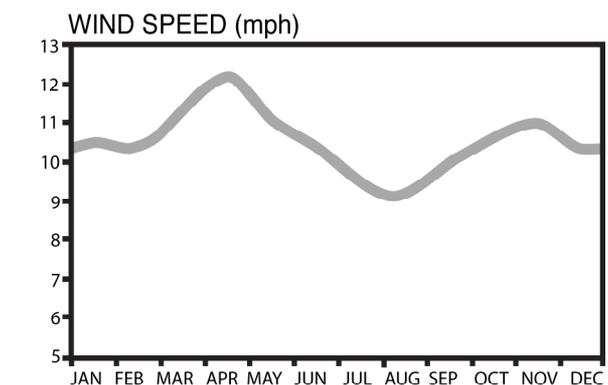
■ St. Paul Average



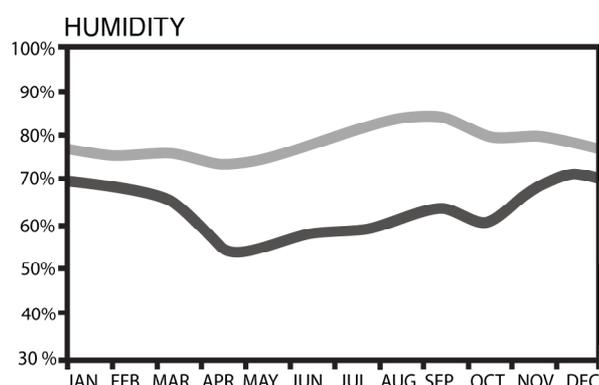
■ St. Paul Average



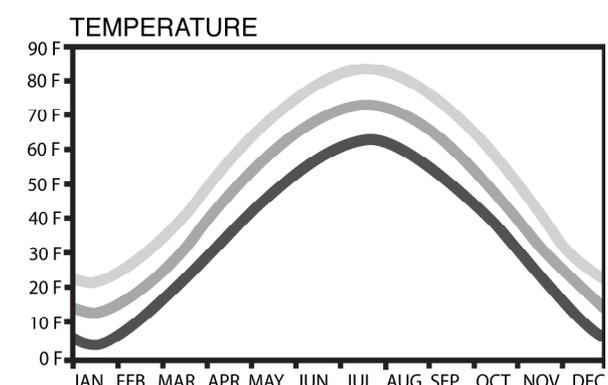
■ St. Paul Average



■ St. Paul Average



■ Morning Average
■ Afternoon Average



■ Daily High
■ Average
■ Daily Low

CLIMATE DATA ANALYSIS

Minnesota has a climate of extremes. The complexity of this fact is often misunderstood by designers and laypersons from other parts of the country. The weather during the summer is mostly very pleasant but can become uncomfortably hot and humid. The winters are harsh and very cold.

The Twin Cities are situated among hundreds of small glacial lakes. The humidity is relatively high because of this. The summer months can be host to intense thunderstorms and occasional tornados. Winter in St. Paul drops plenty of snow that makes daily activities more difficult. Residents of Minnesota typically take great pleasure in their idyllic summers and take great pride in braving the harsh winters. The Twin Cities consistently ranks among the most active metropolitan areas in the country and the residents remain active year-round despite the difficult winters.

It would be a mistake for a designer or an owner to forfeit outdoor space as a design element for fear of disuse during the winter months. Minnesotans make great use of outdoor space for as long as possible every year. The best solution is to design outdoor space that can be utilized year-round with facilities available to accommodate winter activities. The extreme yearly weather differences are not a good reason to forgo the creation of excellent outdoor spaces in Minnesota.



PROGRAMMATIC REQUIREMENTS

- A multi-phase urban design plan incorporating the future Central Corridor
- A study of the most effective way for Frogtown to assess its own success and vitality
- Large architectural proposals for currently under utilized urban space in the Downtown and Frogtown neighborhoods



APPENDIX

THEORY WRITINGS

PROCESS

FINAL PRODUCTION



THE THEORY OF PLACE

Place has had an indispensable role in human design since even before the first permanent human settlements. Lisa Heschong wrote elegantly of the many ways in which humans have adapted their building techniques to their climates in her book *Thermal Delight in Architecture*. The role of Place in human adaptation is not limited only to permanent settlements. She mentions the Piute Indians of California who migrated on a yearly basis within the Owens Valley. Here is an account cited by her as described by Robert Knowles:

“From permanent settlements, generally located in the most favorable microclimate, including a good water supply, the Piutes made seasonal migrations as village groups. Each summer, as the days began to lengthen and the temperature began to climb, the group moved west in to the higher meadows of the Sierras. Here they enjoyed the coolness of an increased elevation. As the fall approached and passed in to early winter, they migrated ten to fifteen miles to the east, where they gathered pine nuts at the base of the White Mountains. Here they had a lower elevation and had a west and somewhat south exposure adding to their comfort as the winter days approached. The seasonal cycle was finally completed when they returned to their permanent campsite at the base of the Sierras to live out the winter in the relative comfort of huts that could be heated fairly well.” (Heschong 1979)

It is made clear by this story that humans have always been considering environmental aspects of Place when designing both their structures and their lifestyles. It could even be argued that the civilizations in ancient times that rose to prominence and power were the ones that understood their climate and their Place the best. The powerful ancient civilizations in Mesopotamia and Egypt come to mind. They understood the significance of their geographical proximity to the Tigris and Euphrates and the Nile River respectively. In addition to utilizing their natural assets, they also knew how to address the sometimes-harsh Middle Eastern climate. Many thermal massing and sun shading techniques pioneered in ancient times are still used today. Also, somewhat like the Piute Indians, they moved their daily activities according to the most favorable microclimate, albeit in a much smaller area, such as a courtyard.

Humans have fared relatively well in this close relationship to Place and climate for the first tens of thousands of years of existence. Only in the relatively recent past have we begun to believe that we can outsmart nature or engineer a better system that takes nature out of the equation. This has had obvious and significant consequences. Not only have we thrown an intricate natural system out of alignment, we have forgotten our intimate relationship with the natural world and its cycles.



THE THEORY OF PURPOSE

The purpose of architecture is to serve its inhabitants. When asked what is the most important quality and architect must possess, Ralph Erskine answered that “above all, you must love people.” People are the purpose. The architect must always have the health, safety, and welfare of those affected by the building in mind. Reason and purpose are two different things. There is a quantifiable reason for every building that is built and it can fall in myriad categories. There are far less purposes for a building. Commerce, dwelling and governance are three primary categories of purpose. The best interest of people must not be lost during the design, implementation or occupation phases of a building.

Purpose should have a long-term timeline. A building that is meant to be permanent or that is not designed to be disassembled should be built with the highest quality that is feasible at the time. A building that is shoddily built has not lived up to its purpose. At the level of theory it is a moral shortcoming of an architect to design a building that will not last the test of time.



THE THEORY OF ETHOS

How can the idea of ethos be understood in an architectural or design-based way? It is one of those words that can elude a simple definition, a word that is understood but hard to explain. The ethos of a project can be understood in a way that is different from the ethos of an inhabitant or the ethos of a design firm. Sometimes it is best to try to align ethos and sometimes it is best to let individual ethos manifest separately.

The most difficult struggles I have encountered in my Thesis ponderings have had to do with ethos. I have asked myself if my own ethos should take precedent in my design or if the existing ethos of the community should. Is there a way to align the two? It has been a constant mental balancing act. I just finished reading *The Spirit Catches You and You Fall Down*. (Fadiman, 1997) It is a book about a Hmong family in California with a severely epileptic daughter, Lia, and the struggles between the family's traditional beliefs about medicine and her American doctors. It is a very insightful book and it made me wonder about how to approach not only the Hmong population of Frogtown but also every other unique ethnic group that calls the neighborhood home. As the book showed and as smart urban design proves, it is vitally important to understand the ethos of the population for which any project is being done.

I can't help but make parallels between the

misunderstandings of Lia's family and her American doctors and American urban design in the past century. Just as the book's author, Anne Fadiman, goes to great lengths to avoid creating villains in telling the story of Lia, I do not believe that a vast majority of architects and designers whom have committed the most heinous of injustices to our urban environments had malevolent intentions. In fact, I truly believe that most meant well. (I have yet to attempt to understand or exonerate Robert Moses)

Having read Le Corbusier (not American, but highly influential) over the summer, including *Towards A New Architecture*, I am convinced that he held deeply humanitarian beliefs. (Corbusier 1931) However, having personally visited his Chandigarh complex in India, I can attest that the inner halls of the Secretariat are especially *inhumane*. It may be an example of disconnect between ethos and reality. The city may be clean and it may be organized, but the only emotion I could feel during my visit was boredom and despair. Corbusier failed to recognize the Indian ethos. The city lacked a vibrancy that the rest of the country and culture relentlessly exuded.

Toward the end of *The Spirit Catches You* Lia is critically and terminally ill by American standards, she is beyond repair and completely brain-dead according to her doctors. They decide that nothing else can be done and that she be sent home to die. Although she never improves or shows any

meaningful brain function, her Hmong family continues to love her and take immaculate care of her with the traditional methods that they know. In fact, the conclusion after hindsight is that the western medicine may have been what made her so sick after all. The lesson learned by the medical community was to take a more holistic approach to traditions other than our own. A meaningful quote in an attempt to understand Hmong culture is that it is not Cartesian. It is not a culture of direct cause and effect. Everything is the cause and everything is the effect. Language and music are indistinguishable. There is not separation between physical, mental and spiritual health. The same thing can be understood in the ethos of urbanism. To try to separate cause and effect in a Cartesian way is to drive yourself insane.



THE THEORY OF SPACE AND FORM

It may be a mistake to admit the architectural transgression I have committed in not giving much thought to Space and Form in my thesis project until just recently. In writing my program I had come upon the conclusion that design is an essential element of effective urban planning, but architectural space and form had taken a back seat to understanding the neighborhood that I am working in. I have given thought to the space and form of streetscapes, and I have certainly formed a lot of questions - most of which are yet unanswered.

Recently though, inspired by a discussion of Palladio in seminar, I began really thinking about space, form and dimension in the re-building of the structures along University Avenue. I came to the conclusion that it is not enough to just offer a plan for densification in the form of suggested space-filling requirements, but that I need to offer suggestions and guidelines for ideal building redevelopment. I have asked myself the question 'how can new buildings be made to act like old buildings?' It is tiring to keep going back to the maxim that 'they don't build them like they used to', but that is what I keep find myself thinking. At least in regards to buildings on underappreciated urban streets like the one I am studying. I have done in-depth analysis of all the buildings along University Avenue and it is undeniable that the few remaining old buildings embody an immeasurably higher amount of

character, charm and warmth. I believe part of the reason is their dimensions. They are typically bigger which, despite what may seem logical, makes them more human scale. Dave Hickey, the author of an article about Palladio in Harper's Magazine, spoke of Palladio's ability to enlarge a space and in turn make a person inhabiting it feel larger, but to not push it too far. Enlarging a space or a building can make us feel bigger, until it doesn't. (Hickey 2003)

I have struggled with what sort of forms to place on University Avenue. Would it be un-ambitious or un-audacious to suggest traditional brick buildings similar to the surviving charmers? The more I think of it, I believe yes. Those buildings really worked. They had something right. But I am designing for present times. I can make something even better. I can embody warmth, character and charm using all of the modern materials, forms and building methods available to me, and the buildings will be of their time which is what all buildings want to be.



THE THEORY OF ETHICS

The reason I chose to do an urban design study for my thesis is that I think urban design is the most consequential design profession. The consequences of urban design can be very good or very, very bad. I have always had aspirations for the more people-oriented side of design and I have long said that if I hadn't gone in to architecture I would have become a sociologist or an anthropologist. If I tend to over think things too often (an extremely annoying habit) it is because I am constantly aware of or trying to realize every potential consequence of my design decisions. I think it is within the ethical responsibility of all design professionals but especially of urban designers to be acutely aware of the ramifications of their decisions. This involves becoming familiar with the community they are working in and also extensive research and deep thought.

The hardest part of community intervention is that no matter how good the outcome is, no matter how much the means justify the ends, it is nearly unavoidable that some people will be irrevocably negatively affected. This is the hardest ethical dilemma to wrestle with. This truth only becomes harder to stomach if a designer has completed his due diligence by familiarizing himself with the existing community. I read an article while doing my research of interviews of small-business owners along the University Avenue corridor. They are

dreading the creation of the light-rail line because they do not believe they will be able to weather the downturn in business during construction. For some people this could mean a permanent decrease in quality of life. This is the hard ethical dilemma. If I turn the section of University Avenue between Dale Ave and Rice St into a thriving, vibrant and desirable area, will that console Mr. Lee who has lost his grocery store forever? It probably won't. He will probably be bitter about it for the rest of his life. This is the ethical question that urban designers should be concerned with. Very bad decisions are made when Mr. Lee doesn't concern them.

A point that has stuck with me during this entire process is something I read in *The Shook-Up Generation* by Harrison E. Salisbury. He described the consequences of the new projects in New York City in the 1950's that replaced the squalid old-world slums. The buildings were new, and the architects were proud of them, and affluent commuters on the new freeways could point to them and say; "see, we are doing what we can to uplift the wretched masses." The truth, however, is that the projects very quickly deteriorated in a nightmare much worse than the slums before them. The old roots of the neighborhoods were destroyed. The old folks that knew the ways of the neighborhood and held all of the social connections together were gone forever. They had been displaced during con-

struction and had either passed away or had been forced to move on. The new residents of the high-rise projects were rootless and social connections were few. Paranoia and distrust quickly took hold of the residents and for good reasons. Youth were no longer held in check by a complicated social order. Community assistance was no longer available through word of mouth and from well-known affective individuals. In a matter of just a few years the new projects deteriorated into broken, wretched and dangerous places much worse than the rat-infested tenements they were built to replace. This is what can happen if urban design is not carefully considered throughout the entire process.

The problem I am facing is not as severe as this scenario; in fact Frogtown is doing quite well right now. Even so, much can be done to improve it and to improve the lives of the residents and visitors of Frogtown. During all of this I am acutely aware of the potential consequences of bad design and poorly executed implementation. I know I need to tread lightly and think big. Optimism is extremely important but so is realism.



THE THEORY OF REGENERATION

In considering regenerative principles in urban design we need to create a catalogue of what assets urban design can produce. Just as Bill McDonough writes of a cherry tree being beneficial to its surroundings, an urban area should act in the same way. The most obvious product that comes to mind with regenerative architecture is energy. Energy production is the cherry seed that takes root. It is the most obvious and measureable product of a regenerative building. In addition to energy, what aspects of urban design provide the varied fecundity that the felled blossoms and fruit create?

Can a neighborhood also generate and export an excess of less-obviously measureable assets such as culture and happiness? What are the macro versions of McDonough's assets – sun, light, air, nature and food – that are produced by a building? Certainly many of the same things can be manifested by a neighborhood. Could this act be considered regenerative? What are the more obvious measurements of productivity such as job creation?

What are Frogtown's cherry blossoms? If I saw an old Laotian man playing his qeej on the corner of University and Western I would recognize him as a cherry blossom. Further, if I saw qeej hanging on display for sale to a diverse customer base I would see a big huge cherry blossom. If I saw Asian or African art manifesting itself on the

streetscape I would see cherry blossoms. If I saw an urban farmyard tended by modified ancient techniques I would see a cherry blossom. Urban gardens and produce would be a cherry blossom. High-quality and affordable housing that is well lit and well ventilated would be a cherry blossom. A diverse spectrum of uses within every walkable distance is a cherry blossom. What role or ability does architecture have in encouraging these blossoms to exist and then in propagating them once they do?

Designing on a neighborhood scale has many advantages when regeneration is the goal. To take a single building site and aim for regenerative behavior is hard. In many cases it is done on an expansive rural site in which the ecosystem can be reclaimed and used as a cog in the regenerative building system. (this is not meant to be implied as a bad thing) However, my argument has always been that truly sustainable and regenerative living has to be done in a dense urban way. It is both possible and highly desirable to take the lessons learned on rural campuses and apply them to urban master plans. Effective and natural eco-systems can be integrated in to urban settings that work on social and economic levels as well. This is what needs to be done moving forward if our policy makers and design professionals are truly committed to a regenerative future.



PROCESS

THE STREET

STREET SECTIONS

DENSITY STUDIES

INSPIRATION





STREET STUDY

The first method I explored as a starting point is to study and further familiarize myself with the scale and layout of the entirety of University Avenue as it exists in Frogtown. This undertaking involves a mile-long length of the street as well as roughly a quarter-mile extension east of the neighborhood limits that is of interest and relevance.

I had already familiarized myself with the street-level aspects of University Avenue before beginning this specific study and now I felt it was necessary to take a more objective approach. I began by simply stitching together high-resolution screenshots of University Avenue taken from Google Earth. From this I was then able to plot and mount a full, large-scale copy of the street. This 80-inch prop proved very useful in imagining, mapping and planning effective design interventions.

After this study I referenced the Met Council website for civil and site plans of the proposed Central Corridor Light Rail line as prepared by Kimley-Horn and Associates. Again I stitched them together to produce a large and complete copy at the same scale as my satellite photos. This was useful in two ways: I could layer it over the satellite map to glean information and insight, and I could examine the civil plans for both appropriate and inappropriate ideas that I could use or improve.





DALE STREET



T O O



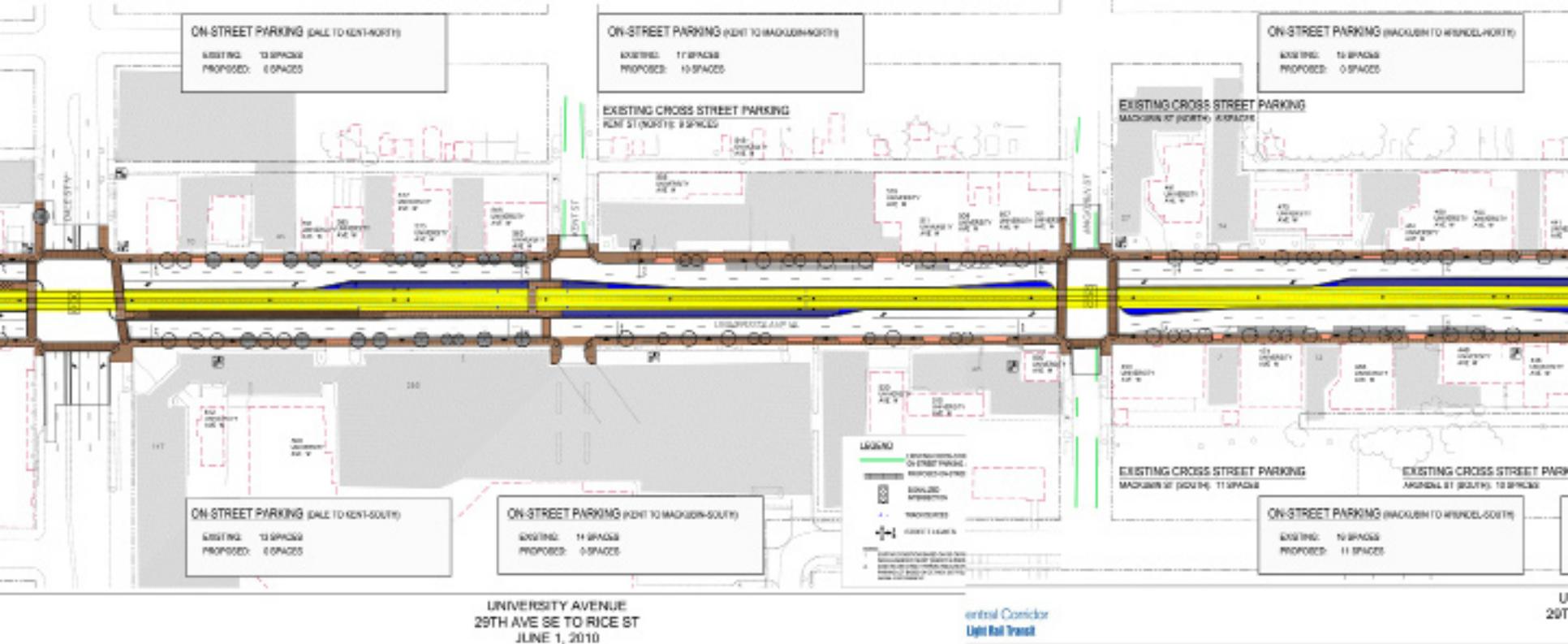


RICE STREET



The primary interest in this study is the length of University Avenue between Dale Street and Rice Street. However, the extreme proximity of the Minnesota State Capitol building demanded to be acknowledged in this study. It is important because of both civic and nodal significance. For this reason its site was included in the boards in order to better visualize its relevance.

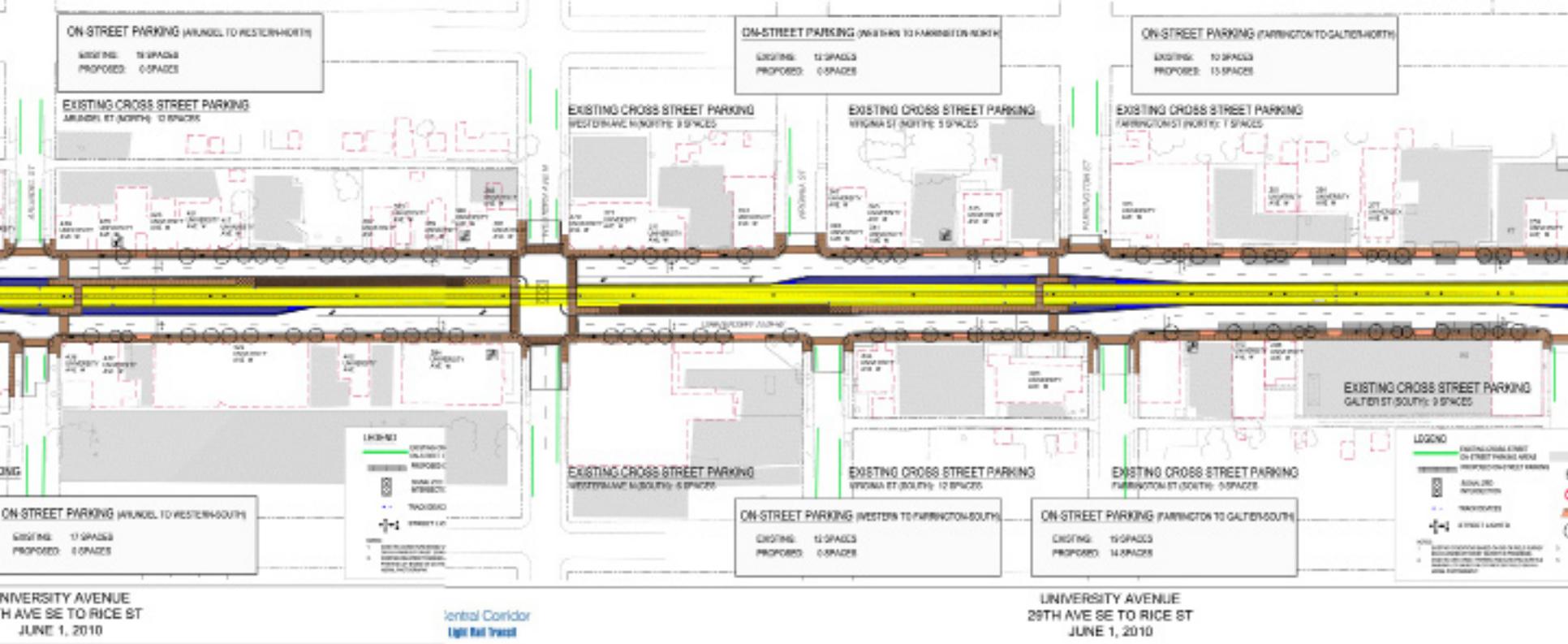


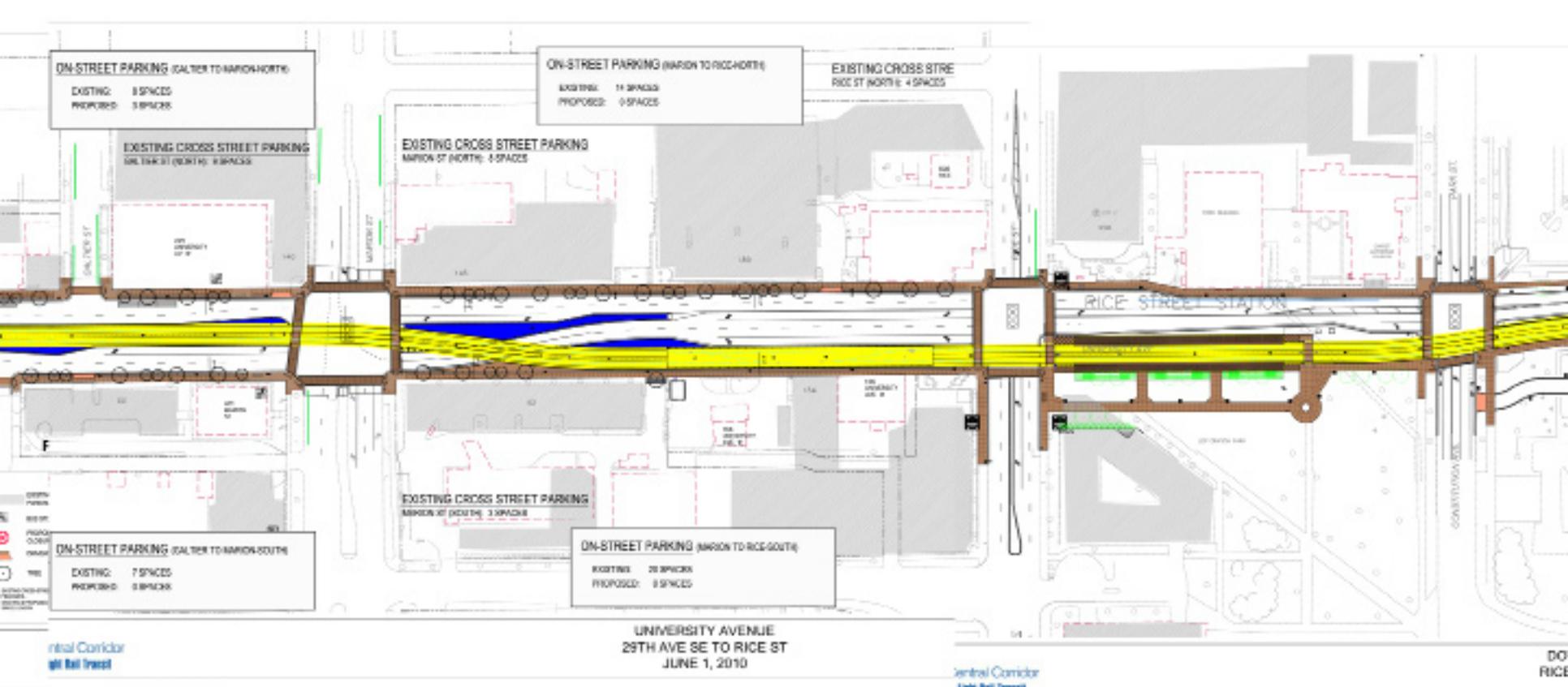


These are the plans as presented by Kimley-Horn and Associates to the Met Council. They are important because they offer a somewhat feasible plan for the corridor and they have previously been approved as they exist here. While there are some commendable offerings here such as tree colonnades and reduced street parking, it is obviously a bottom-line driven plan with low ambitions.

The primary downfall of the plans is the effort to maintain every vehicular amenity as they currently exist after inserting an extremely significant element down the middle. Two lanes of traffic in each direction, turning lanes in each direction, two lanes of light rail tracks, loading stations and curbside parking simply can not fit amicably in between the facing store fronts of University Avenue. In order for the Frogtown portion of the future

Central Corridor Light Rail to thrive it must be designed in a way that ceases to prioritize vehicular traffic. Pedestrians, the neighborhood and small-business owners should be placed at the top of the priority list when design decisions are being made.







DOWNTOWN ST PAUL
RICE ST TO BROADWAY
JUNE 1, 2010

DOWNTOWN ST PAUL
RICE ST TO BROADWAY
JUNE 1, 2010

Central Corridor
Light Rail Transit



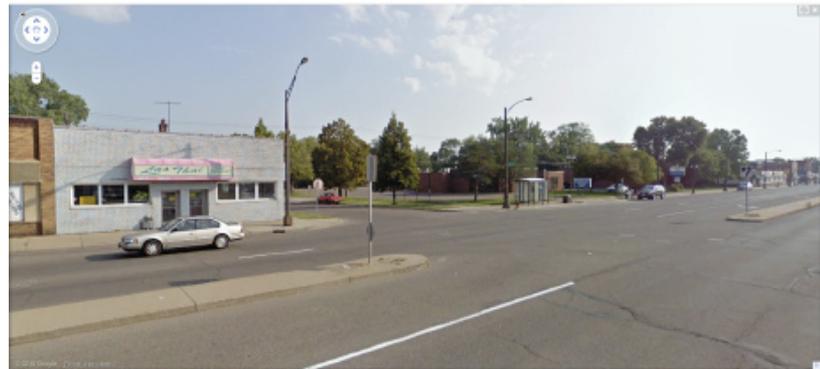
FACADE STUDY

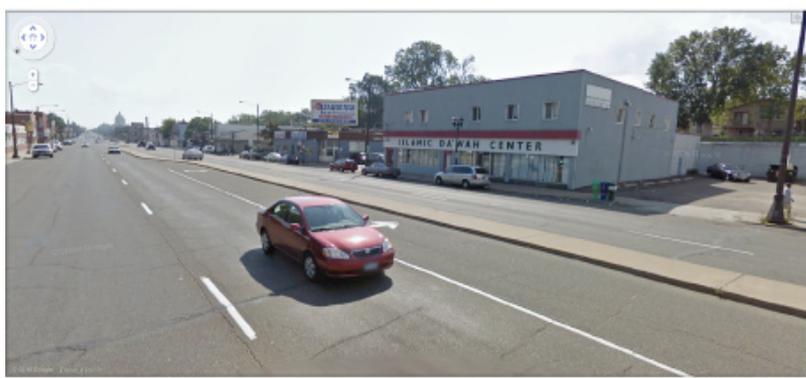
The next step in my search for a better diagnosis of the health of University Avenue as it relates to the entirety of the Frogtown neighborhood led me to solicit Google Earth again. I used Google Streetview as a means of producing objective and empirical data and analysis of the strengths and shortcomings of the built environment of University Avenue.

To begin, I traveled from Dale Street in the west to Rice Street in the east and captured a clear screen shot of every structure that exists along both the north and south sides of the mile-long stretch through Frogtown. Once all of the buildings had been recorded individually I arranged them in order in a vertical InDesign document with the north end on the left and the south end on the right, descending from the east at the top to the west at the bottom.

With this document printed out, again about 7 feet long, I was able to better analyze and catalogue the existing environment and then visualize potential potent design solutions. Further, I was able to take notes on individual buildings and recognize strengths and weaknesses. The objective information gleaned from this study were further analyzed in a massing and density study that I will elaborate on in subsequent pages.

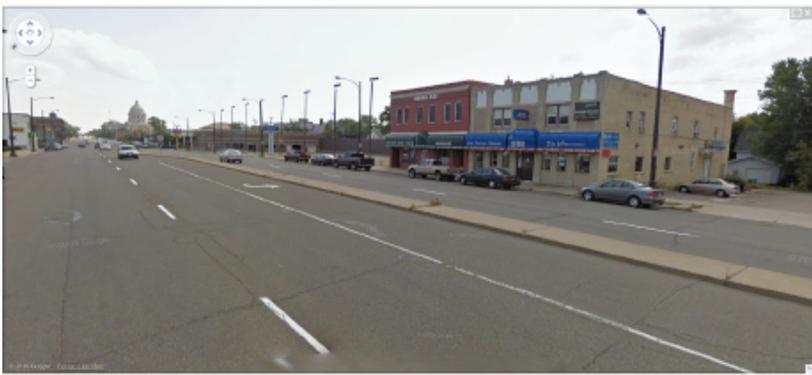












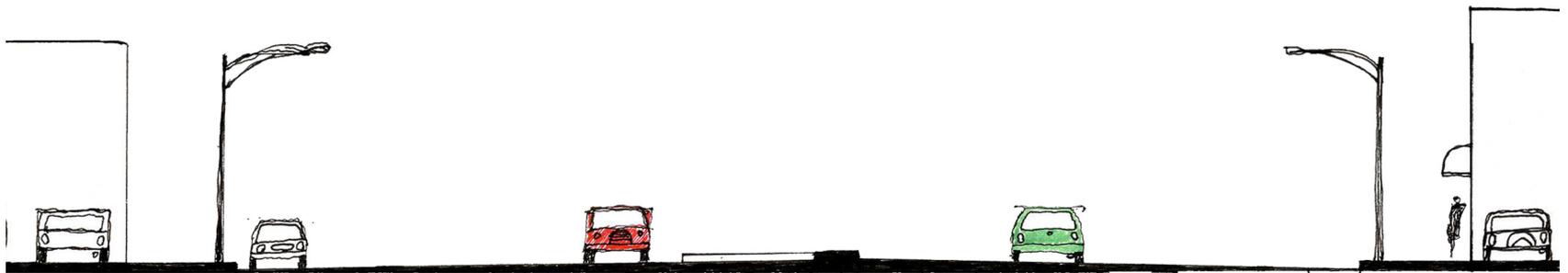


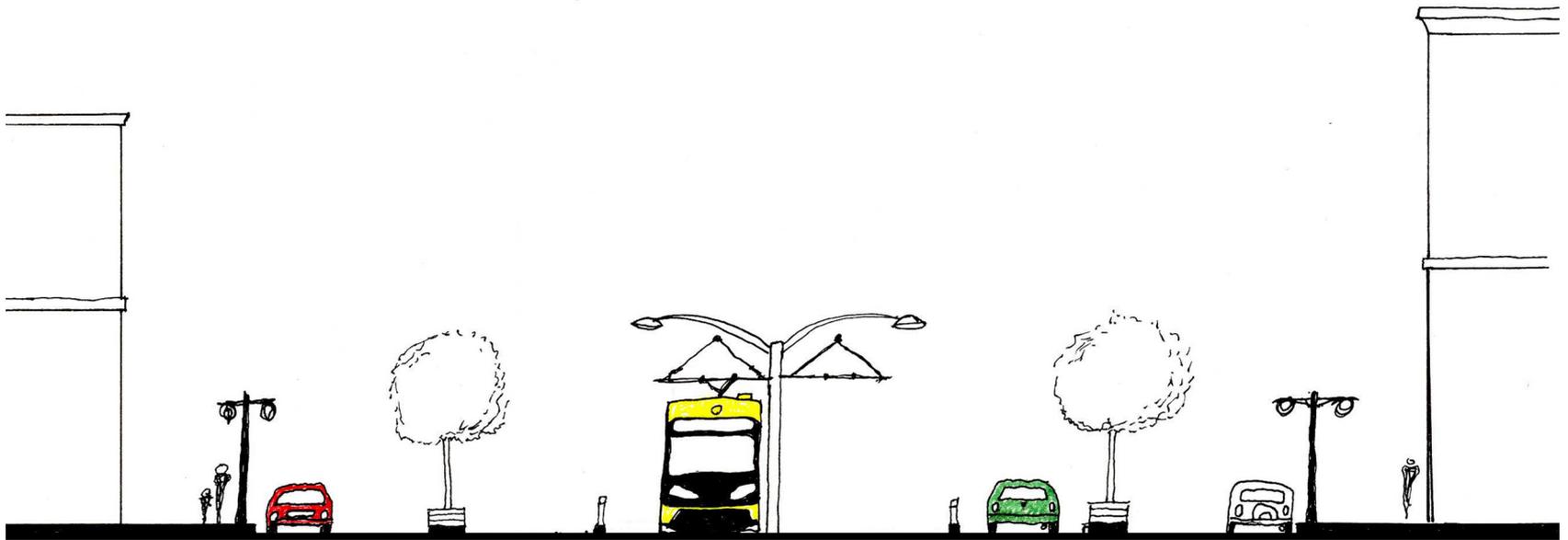
SECTION STUDY

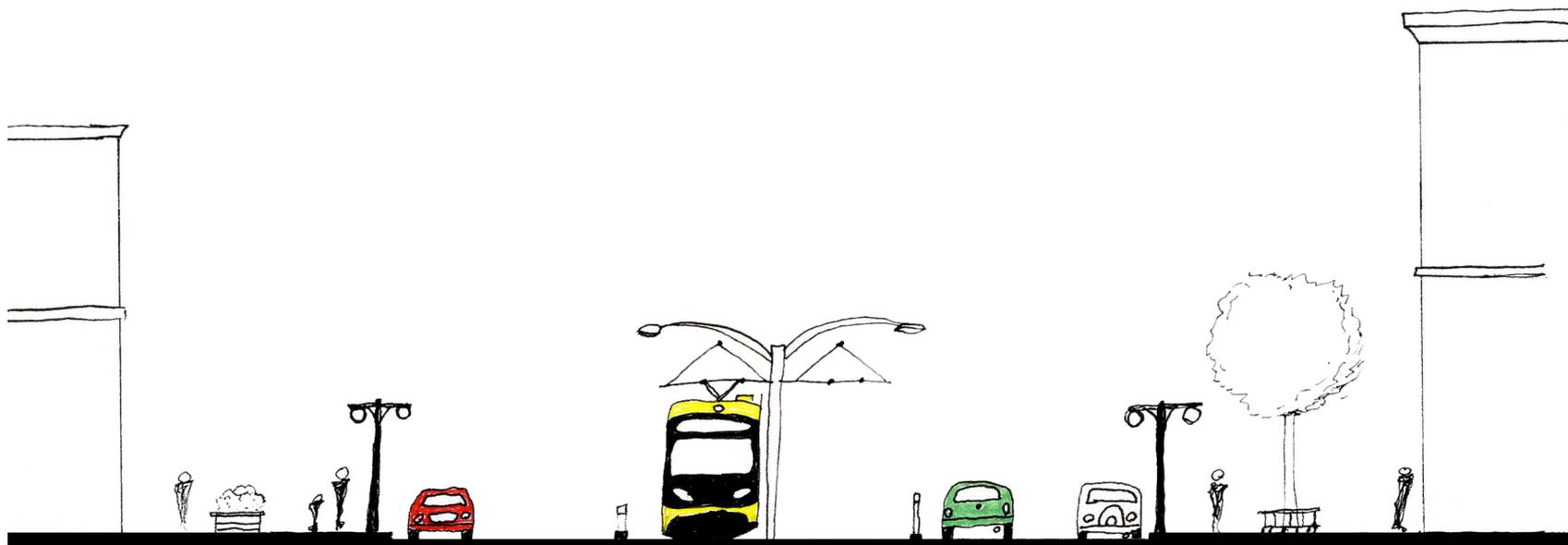
The first deliberate and structured design undertaking apart from large-scale scheming and rough sketches was sectional street partis. From my objective analysis and subjective musings on the strengths and weaknesses of the built environment along University Avenue I concluded that the street is the first place to start looking for an eventual design solution.

To begin the study, I sketched a sectional drawing of the street as it exists. This truly put in to perspective the bleak condition of this environment. I then created an illustration of my favored design strategy while incorporating the future light rail tracks. It includes what I call parking bays, a means for reducing vehicular intensity while still accomodating a medium level of vehicular flow. My next exploration still included vehicular traffic and street partking, but favors an extremely wide sidewalk. The reduction in street width can defuse traffic intensity and pedestrian anxiety. The wide sidewalks further increase pedestrian comfort. My third proposal eliminates vehicular traffic entirely from pedestrian territory. This strategy could do wonderful things if implented correctly but also could quickly fall in to blight if it is not designed to be a highly-trafficked area, preferably a node, destination or landmark of the city.







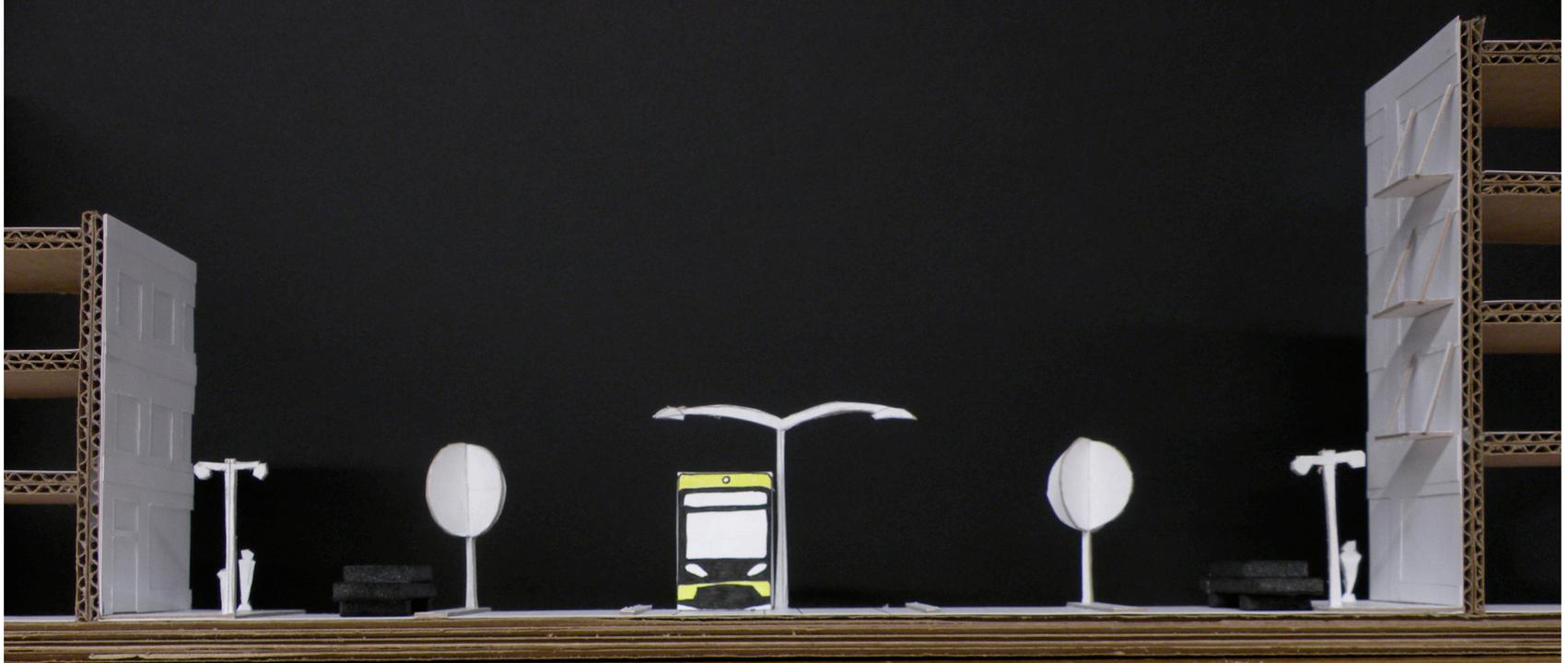
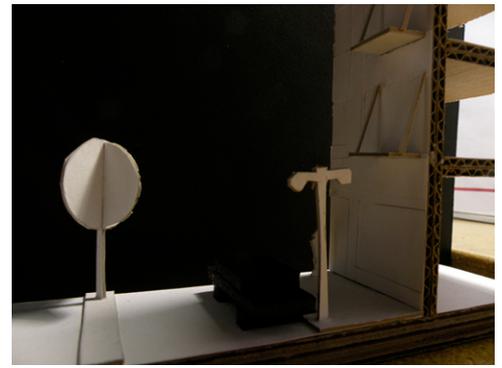
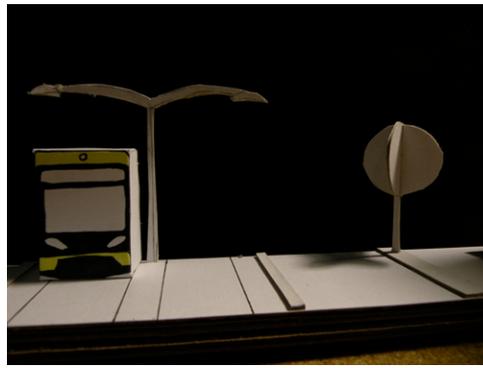
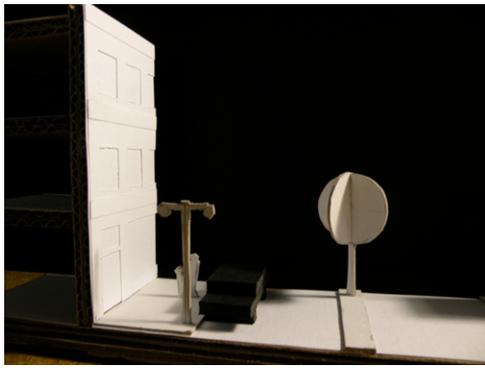




STREET SECTION MODEL

Once a few streetscape solutions had been produced on paper I chose the most promising one, involving parking bays, to carefully craft as a study model. I created a massing section out of cardboard and high-quality white paper at 1" = 1/8" scale. The future light rail was included as well as street lamps and pedestrians for context.

The parking bays work by removing from the main flow of traffic slower moving cars that are intending to parallel park. By pulling out of traffic and in to a colonnaded parking area the cars provide a slower and more comfortable relationship with vehicles for pedestrians. Further, this strategy works by also literally removing pedestrians by distance and perceptual awareness of through traffic in the primary travel lane. The existence of the light rail lanes and trains will add additional stimuli that further reduce the perception of traffic's presence.



DENSITY MASSING STUDY

The data that I collected from the facade study was analyzed and turned in to a spread sheet in order to better understand both the objective and subjective character of University Avenue, as shown on the right. It is designed to include information on each building's amount of stories, construction type, proximity to other buildings, relationship with the sidewalk and architectural and historical character.

Neutral ratings are given to story amount and construction technique, although multi-level and brick buildings are preferred. Negative indicators, in red, are given to free-standing buildings and to buildings that don't meet the sidewalk. Positive indicators, in green, are given to buildings possessing one or more party walls, buildings that meet the sidewalk and buildings with exceptional architectural or historical character.

This spreadsheet method is another way to objectively understand the current condition of University Avenue. However, it becomes extremely useful in bridging the gap between objective analysis and subjective design intervention. By graphically presenting the condition as it exists, it is easy to recognize where solutions such as increased density and increased architectural character are most needed.

After reading an essay penned by Donald Appleyard and Allan Jacobs I underwent a short massing study in order to create an example of the minimum development necessary to fulfill their stated requirements of urban density levels. Any level of residential density below 10-15 dwelling units per acre were deemed insufficient to sustain a healthy urban environment.

I chose a few acres along the eastern end of Frogtown to study in this way. In these two adjacent superblocks there were only three buildings, two of which shared a party wall. There was also a very minimal Greyhound bus station set far back on the south side and I made the decision that this should be demolished and redesigned to be better integrated in to the proposed urban fabric.

Simple building masses were created out of cardboard to represent traditional multi-level and multi-purpose structures including residential, commercial and office spaces.

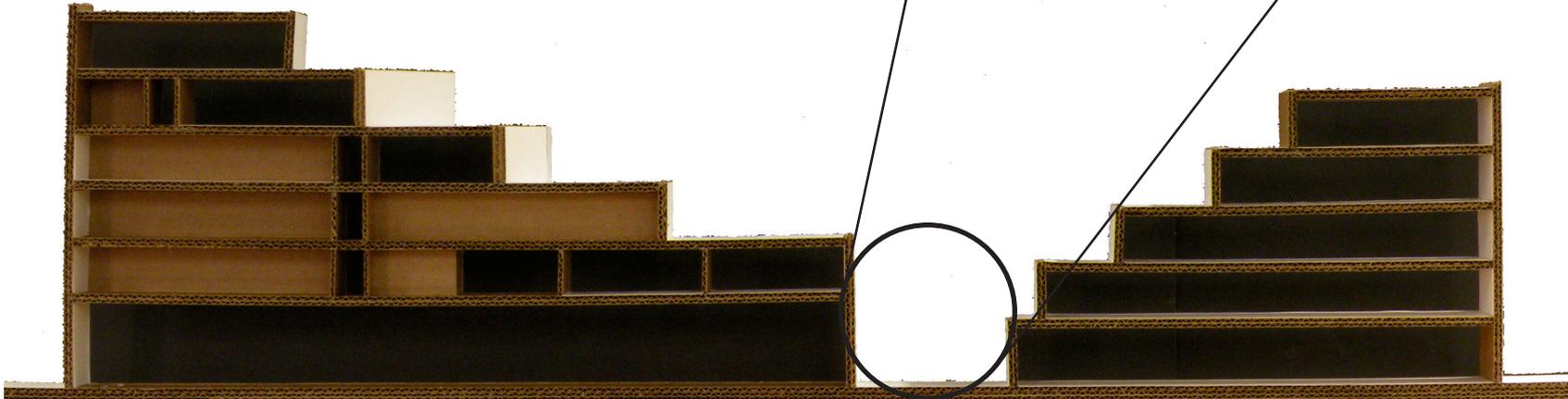
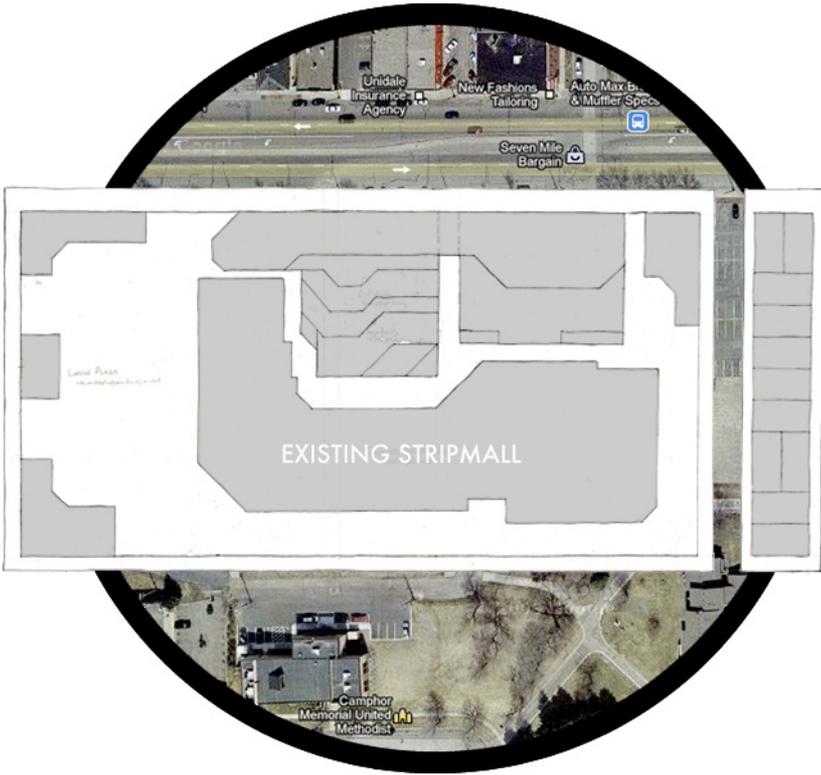
Although this study did not develop any further beyond this point, it proved very useful in shaping my approach toward density and structural relationships. I developed strategies that I implemented later and I recognized unsuccessful strategies that I learned to avoid.

INSPIRATION

In scouring University Avenue for useful buildings and density I came upon an alarmingly high rate of vacant lots and parking lots. For this reason I was especially frustrated when I suspected that a very large strip mall residing on the superblock that forms a western corner of Frogtown possessed too many harmful traits and was of too low architectural quality to be salvaged.

Shortly before making the reluctant decision that it should be removed in favor of new construction, I was struck by its form. By imagining a large structure placed in front of the building that closely complements its shape I conjured up fanciful memories of exploring narrow, winding, and overwhelming bazaars in India.

I decided that this emotion is what Frogtown needs to propagate. Very quickly I imagined what it could be. I envisioned a thriving and narrow marketplace sheltered by a verdant valley encased in an impenetrable shell. It would be designed to draw outsiders in while convincing them that they discovered it on their own. Through a few select slits in the hard casing of the large building's exterior, they will wander in to a sudden explosion of sensory delights. The building will do its part to contribute to order on the outside while containing an uncontrollable amount of humanity of the inside.



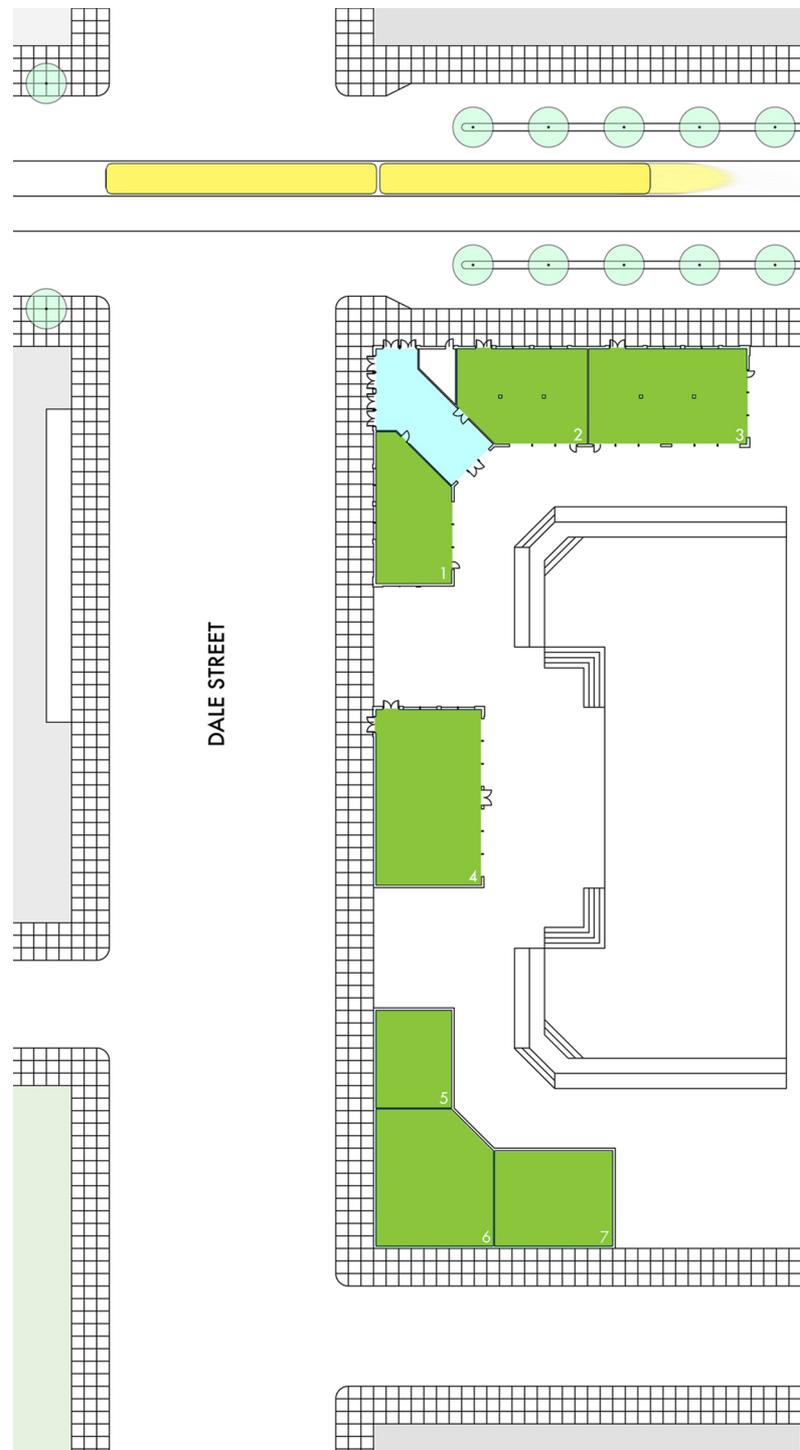
DEVELOPMENT

After creating another sectional model of a typical portion of the building that I envisioned, I began to sketch out schematic and spacial relationships.

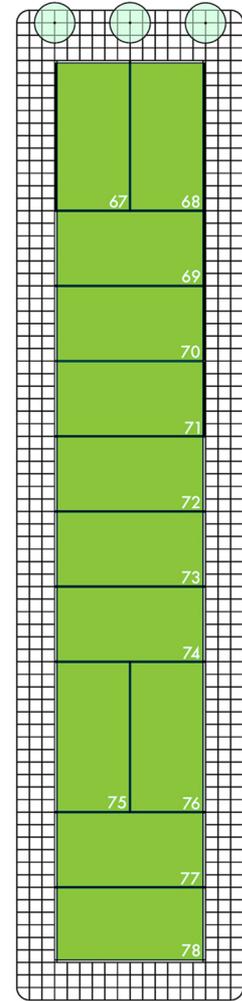
The first problem I came upon was the seemingly unavoidable continuation of the super-block. I strongly oppose such a large area that is impenetrable. I satisfied my concern by creating three points in which pedestrians can enter in to and travel through the block. I believe this is enough diversity of paths to encourage and maintain vibrancy.

Next, I wanted to ensure that there are many shops and a diversity of merchandise. I was able to incorporate 78 spaces of varying sizes, each of which will become home to any variety of stores or restaurants. It was also important that every retail space is accessible from the outside and from indoors. This is important in such a setting during the harsh Minnesota winters.

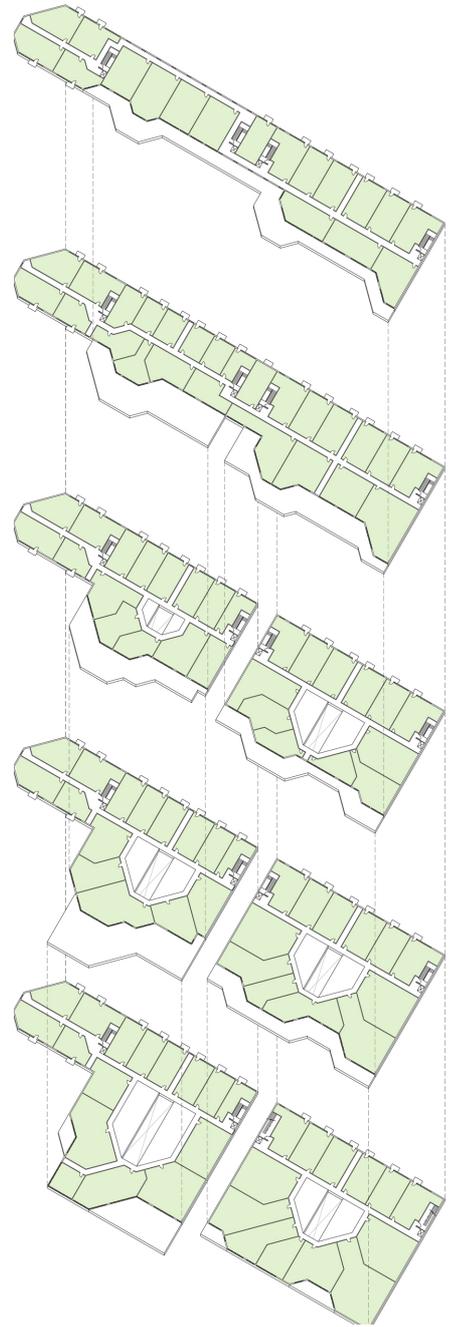
Finally, I wanted to incorporate a large public plaza for any variety of uses from political gatherings to outdoor events and farmer's markets. This space is maintained on the western side of the block but is still encompassed and sheltered by buildings to allow a sense of containment.



UNIVERSITY AVENUE



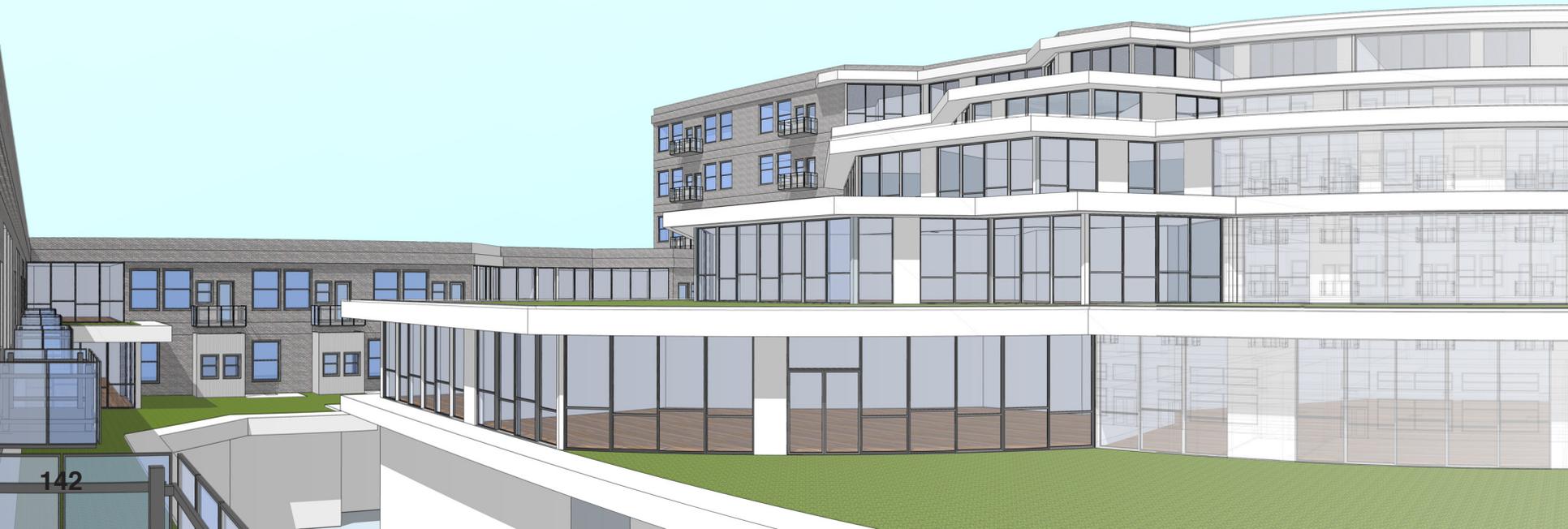
FLOOR PLANS

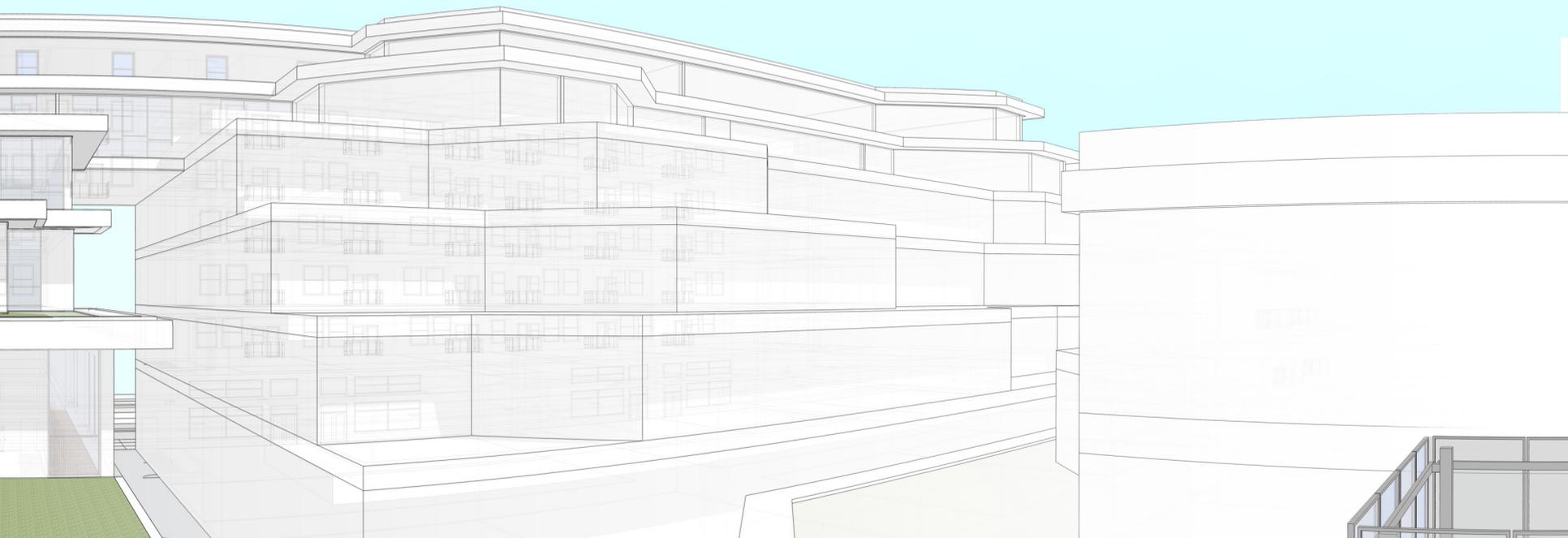


RENDERINGS



Panorama view of the dwelling valley facing north.

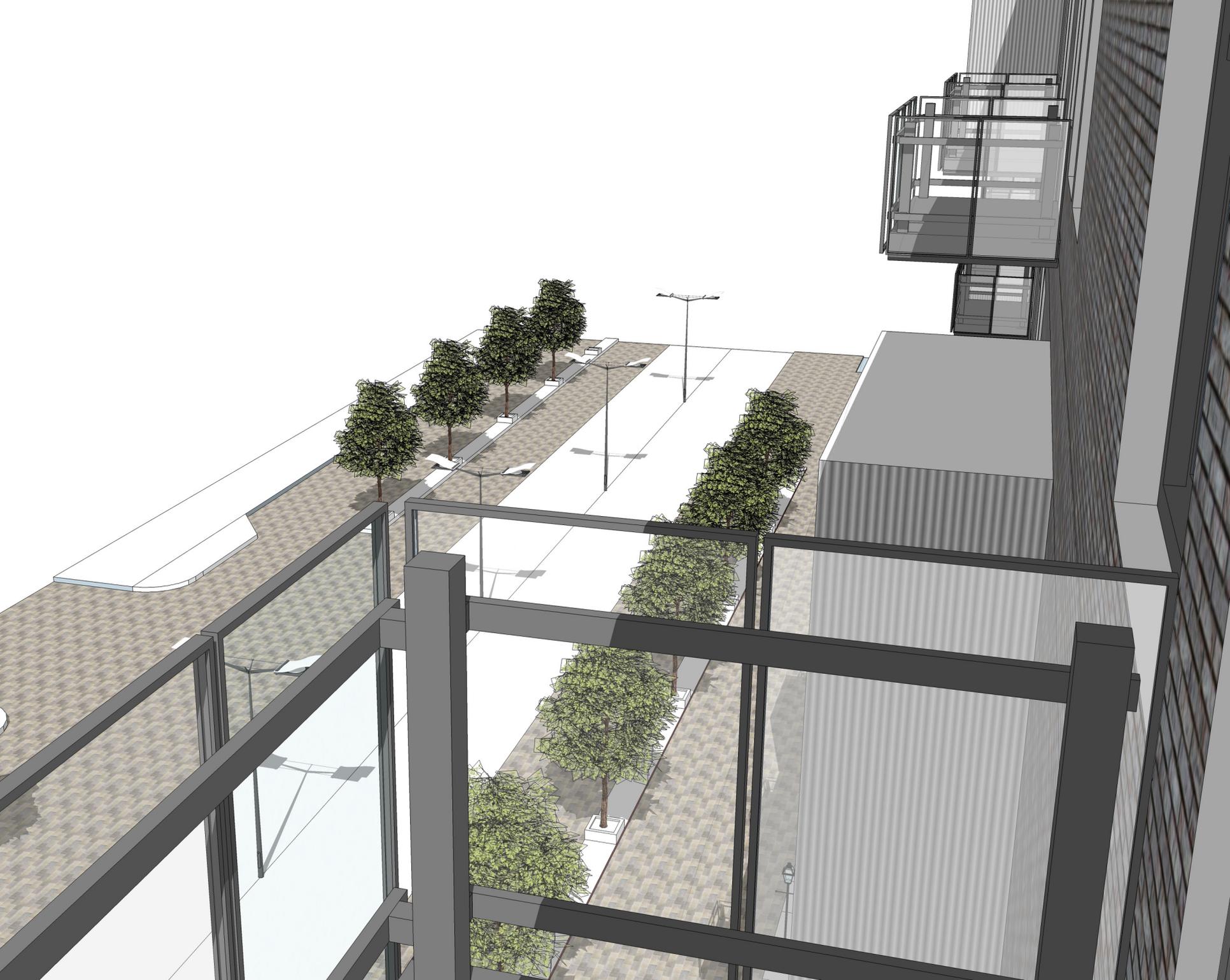




North facade as seen from an east bound train.



Looking east on University Avenue from a balcony.



Street level scene while driving east in a parking bay.



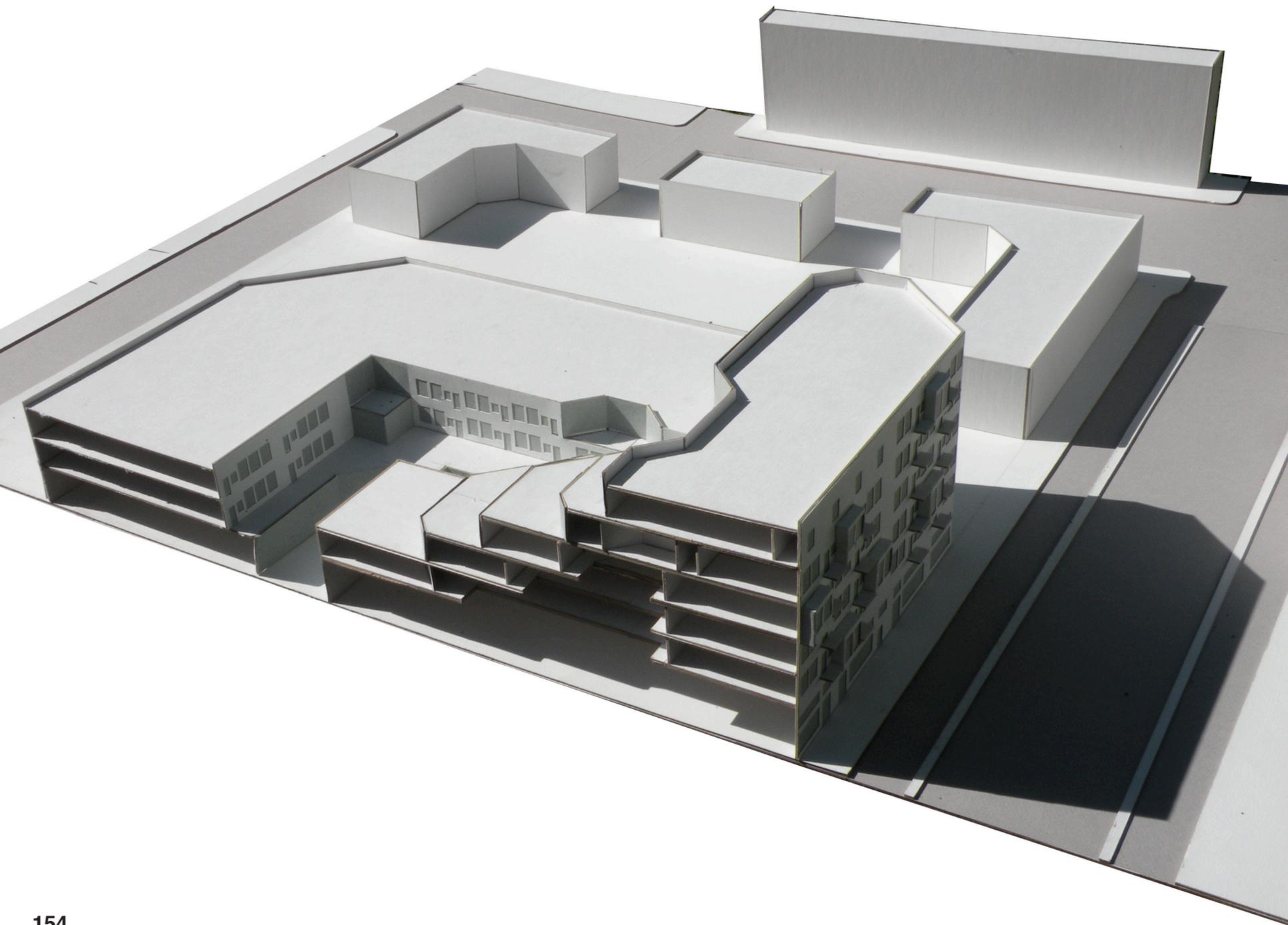
Building exterior seen from north side with train passing.



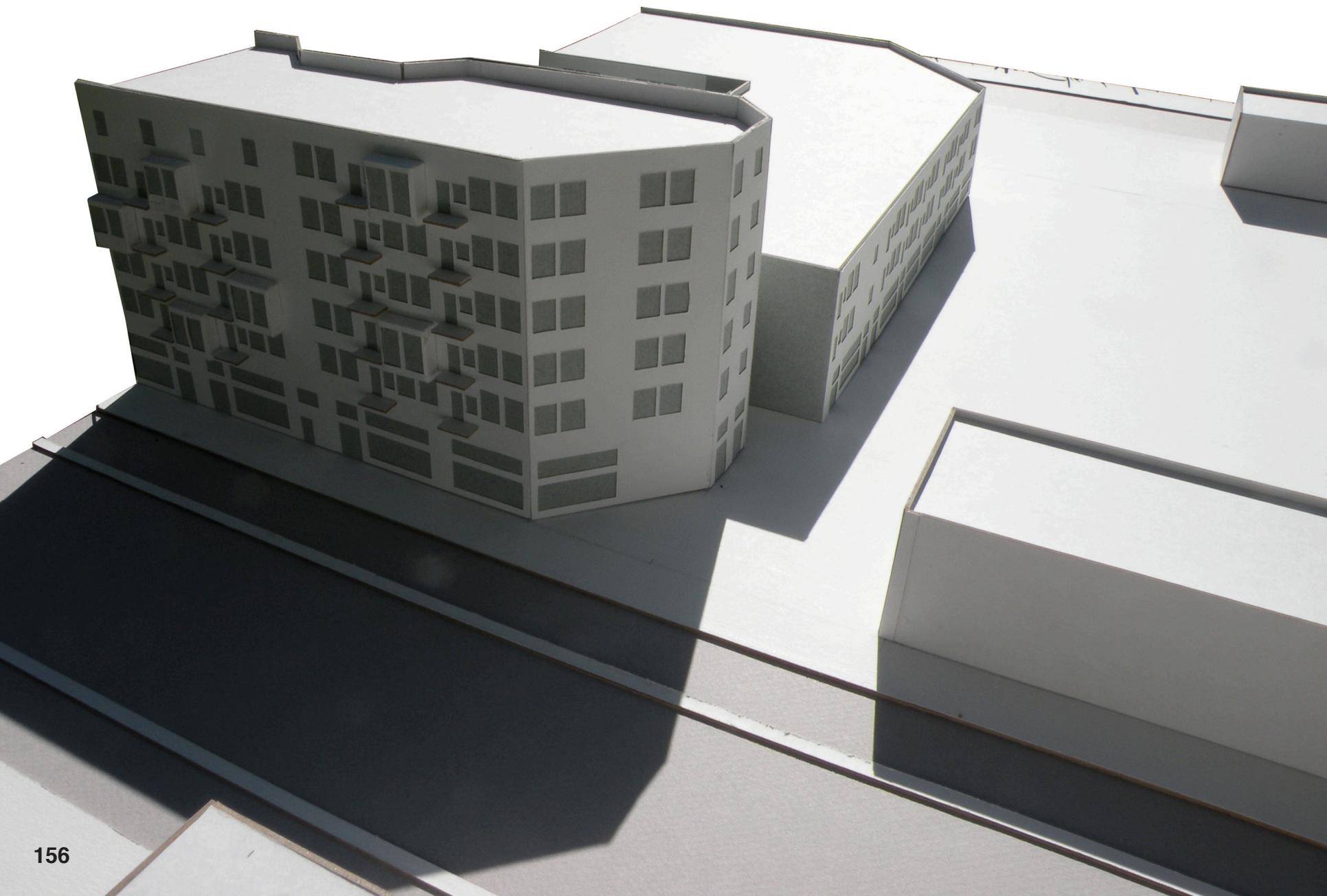


MODEL











REFERENCES

(2010). *Seattle's Link Light Rail: The Start of Something Big*. Retrieved November 9 2010 from the Street Films website: www.streetfilms.org/seattles-link-light-rail-the-start-of-something-big/#more-27671

(2010). *Frogtown Minnesota: A State Destination*. Retrieved November 13 2010 from the Frogtown Neighborhood Association website: <http://www.frogtownmn.org/>

(2010) *Most Livable? Depends on your Definition*. Retrieved November 13 2010 from the USA Today website: http://www.usatoday.com/news/nation/2004-04-11-most-livable_x.htm

(2010) *Fortune 500 Companies in Minnesota*. Retrieved November 15 2010 from the Minneapolis Chamber of Commerce website: <http://www.minneapolischamber.org/fortune500co.php>

(2010). *St. Paul Yearly Crime Maps*. Retrieved November 2 2010 from the St. Paul Document Center: <http://www.stpaul.gov/DocumentCenterii.aspx?FID=499>

(2010) *55103 Zip Code Detailed Profile*. Retrieved December 1 2010 from city-data.com: <http://www.city-data.com/zips/55103.html>

(2010) *Trees and Greenstreets*. Retrieved December 8 2010 from The New York City Department of Parks and Recreation website: http://www.nycgovparks.org/sub_your_park/trees_greenstreets.html

Appleyard, D. (1982) *Livable Streets*. San Francisco, CA: University of California Press.

Beatley, T. (2000) *Green Urbanism: Learning From European Cities*. Washington, D.C.: Island Press.



- Burney, D. (2010) *Active Design Guidelines: Promoting Physical Activity and Health in Design*. New York, NY: City of New York.
- Corbusier, L. (1931) *Towards A New Architecture*. Mineola, NY: Dover Publications.
- Downs, Anthony. (1981) *Neighborhoods and Urban Development*. Washington, D.C.: The Brookings Institution.
- Ewing, R. et. al. (2005) *Identifying and Measuring Urban Design Qualities Related to Walkability - Final Report*. Princeton, NJ: Robert Wood Johnson Foundation.
- Fadiman, A. (1997) *The Spirit Catches You and You Fall Down*. New York, NY: Farrar, Straus and Giroux.
- Haskins, R. & Sawhill I. (2009) *Creating An Opportunity Society*. Washington, D.C.: The Brookings Institute.
- Henehan, B. (1991) *St. Paul's Past: Rivers, Railroads and Rondo*. St. Paul, MN: Twin Cities Public Television.
- Heschong, L. (1979) *Thermal Delight in Architecture*. Cambridge, MA: MIT Press.
- Hickey, D. (2003) *A House Undivided: Andrea Palladio and the science of happiness*. New York, NY: Harper's Magazine.
- Jacobs, J. (1961) *The Death and Life of Great American Cities*. New York, NY: Random House.

- LeGates, R. T., Stout, F. *The City Reader: Third Edition*. New York, NY: Routledge.
- Lynch, K. (1960) *The Image of The City*. Cambridge, MA: MIT Press.
- Kunstler, James H. (1993) *The Geography of Nowhere: The Rise and Decline of America's Man-Made Landscape*. New York, NY: Simon & Schuster.
- Owen, D. (2009) *Green Metropolis*. New York, NY: Riverhead Books.
- Paine, C. (2006) *Who Killed The Electric Car?* Sony Picture Classics.
- Press, E. (2010) *Revisiting Donald Appleyard's Livable Streets*. Street Films.
- Reaves, J. (2010, Nov. 4) After a Study, Healthy Changes Block by Block. *The New York Times*. New York, NY.
- Rybczynski, W. (1995) *City Life: Urban Expectations in a New World*. Toronto, ON: Harper Collins Publishers.
- Safdie, M. (1970) *Beyond Habitat*. Cambridge, MA: MIT Press.
- Salisbury, H. (1958) *The Shook-Up Generation*. New York, NY: Fawcett World Library.
- Steger, P. (2010) *Healthy Corridor for All: Evaluating Health Impacts of New Land Use Development Along the Central Corridor*. St. Paul, MN: ISAIAH
- Whyte, W. (1980) *The Social Life of Small Urban Spaces*. New York, NY: Project For Public Spaces



Wing, H. (1996) *Frogtown: Photographs and Conversations in an Urban Neighborhood*. St. Paul, MN: Minnesota Historical Society Press.

Wolfe, T. (1981) *From Bauhaus To Our House*. New York, NY: Bantam Books.



IMAGES

- 1 Frogtown Neighborhood Association: <http://www.frogtownmn.org/>
- 2 Bing Maps
- 3 Bing Maps
- 4 Bing Maps
- 5 Wikipedia: http://en.wikipedia.org/wiki/File:Saint_paul_mn.jpg
- 6 dugoutbasementegresswindowsinc.com
- 7 Metropolitan Council: <http://www.metrocouncil.org/transportation/ccorridor/CCimages/Maps/CurrentCCLRTRouteMap.pdf>
- 8-13 Press, E. (2010) *Revisiting Donald Appleyard's Livable Streets*. Street Films.
- 14 Burney, D. (2010) *Active Design Guidelines: Promoting Physical Activity and Health in Design*. New York, NY: City of New York.
- 15 -19 PlaNYC: A Greener, Greater New York.
- 20-24 A Forum to Inform: The Fundamentals of City Building. Groundworks.





PERSONAL IDENTIFICATION

Name: Michael Roden

Address: 26 Roberts St. Apt. 408
Fargo, ND
58102

Phone Number: 952.215.5728

Email: MichaelRRoden@gmail.com

Hometown: Excelsior, MN



