the|THIRD|

SPACE of PLACE in
TRANSIT-ORIENTATED DEVELOPMENT

Alex Johnson

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SPACE of PLACE in TRANSIT-ORIENTATED DEVELOPMENT

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

By

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Bachelor of Landscape Architecture

Primary Thesis Advisor

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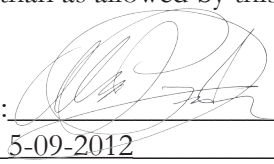

Name: Alex Johnson
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thesis abstract

This thesis project introduces an urban design concept into the residential suburb of New Hope, Minnesota, connecting social interaction and movement to the hub of the city center. It will illustrate the notion that suburban sprawl is an unsustainable reaction to population growth, and cities need to adapt to these changes by creating smaller habitable spaces that recentralize the urban fabric with mass transit connections. This project is intended to change a suburban neighborhood that has medium to low density into a less suburban setting with mass public transportation integrating accessible ways for the community to connect while remaining in the suburbs.

key words:
| social interaction
| hub of the city center
| mass public transportation
| habitable spaces
| accessible ways

thesis problem statement

Can a Minneapolis suburb be retrofitted through transit-oriented development with a focus on third spaces to recentralize its suburban center?

statement of intent

statement of intent

"...educate the public with successful ways that change the public's opinion..."

The Claim | Urban subdivisions in metropolitan areas were once the answer to population growth. Urban sprawl can be argued as a response to population growth, and cities should be responsible for creating more dense environments. As landscape architects and urban planners, implementing retrofitted suburbia strategies into these subdivisions can better educate the public with successful ways that change the public's opinion about higher densitylinked by public transportation. Using the public transit system to connect different parts of the Minneapolis suburban area, cities can evolve neighborhoods into valuable areas within a connected subdivision.

statement of intent

Theoretical Premise | By creating a metropolitan downtown environment small enough to interest people in urban design and to slow the process of urban sprawl, residential zones will expand their amenities, rather than just housing and recreation. Establishing retrofitted suburbia throughout the suburbs will change the character of New Hope, Minnesota. Connection with direction can and should encourage pedestrians to use public transportation. In Patrick M. Condon's (2010) book, *Seven Rules for Sustainable Communities*,"The streetcar city principle is not about the streetcar itself; it is about the system of which that the streetcar is part of" (20). Action before adaption is key toward retrofitting suburbia.

Project Justification | Establishing creative urban spaces will encourage families to stay inside the metropolitan city limits. In order to influence people to start moving back into the city, we must start educating our youth and young adults about the spaces that an urban city can provide. Some of these spaces allow for walkability, retail development, and mixed-use amenities. A city must be able to provide for its residents spiritually, emotionally, economically, and physically. By addressing these challenges, we as designers can start to change the appearance of urban hardscape and draw people toward the center city, rather than from it.


proposal

the narrative

"Urban mircoclimates can be created within suburban areas"

Urban cities and spaces have unique qualities that draw people from surrounding areas into the city. Within the city, easy walkable access to jobs, commercial needs, and recreation are qualities that keep people living in the city limits. Residents of the suburbs choose to live outside the city in order to avoid the amount of people an urban city has. Urban sprawl was a response to the public's need for personal space. If we continue to sprawl into our much needed, and now rarer farmland, we will cease to exist as a society. A successful urban space, with qualities to draw people to and restore the value of urban living, can influence one's thinking about urban value and availability. The first step is retrofitting the current suburban look. Urban microclimates can be created within suburban areas, with the goal to educate pedestrians about the accessible, better linked urban spaces in which they can live.

client description

Due to the proximity of residential development, this site is primarily aimed toward the 20,339 residents of New Hope, Minnesota, as well as the residents who live in the surrounding cities. With nearby schools and parks, youth and young adults are projected to be the future primary age range of users. This site is owned by the City of New Hope, and will remain in its governing control. Future clients of this site may include outside residents, pending the development and overall acknowledgement of the community and its future connection to the Minneapolis Light Rail Transit (LRT) system.

User #1 - *youth and young adults*

The parks that surround the site are small and have no distinct feature to them. Creating a space that has many unique spaces and microclimates in it, the children and young adults in the area will have a space to interact. The goal is to teach this user that urban spaces are interesting and have the viability to live in. To teach is a primary goal as a landscape architect.

User #2 - *City of New Hope employees*

This site will be designed to have space for large gatherings. The site has access to public works and has great potential as an outdoor gathering area. The employees in the area can have a space to take a break during and after their work shifts. This will also increase the number of jobs the city will have for employees, because specialized positions will be needed to maintain this retrofitted urban area.

User #3 - *future clients*

As word spreads about the site, the land value and usage of the site will increase. The space will be unique enough that residents outside of the city will choose to visit the space and will experience the site in their own way. With the accessibility to the light rail, the visiting public will have easy access to the site, allowing them to experience it.

This site is intended for all users. The initial users are projected to be residents of the surrounding areas. The secondary users are projected to be people who use the space as a connection corridor, from the outermost suburbs, as they move towards the inner city.

major project elements

There are several key project elements that will be a factor in the overall experience one may have at the site. When addressing the future of these factors, a preliminary conclusion is that they will, for the most part, remain in place:

Roads | The most direct element is a major county road that is located on the northern edge of the site. Bass Lake Road, a four-lane road, is completely exposed to the entire north edge of the site. Bass Lake Road is a very-high traffic route, and is the busiest road on the site. Winnetka Avenue to the east and Boone Avenue to the west are the secondary roads that border two edges of the site. Tertiary roads run throughout the site and are set in a grid pattern. The maximum speed limit in the site is 35 miles per hour.

Parks and Schools | Within a block to the north and south sides of the site is a park that is used as a greenway. Pedestrians use these parks for walking, and when they approach the site, they must revert to the roadway for access to continue. There are two schools also within two blocks of the site, and children will be actively present most months of the year.

Business | The City of New Hope can improve its corridor with additional commercial infrastructures. With dense housing surrounding the site, commercial property on a portion of the site will increase the amount of users interacting with it. Currently there are rough 6 commercial buildings located on the north and east sides of the site.

Golf Course | The City of New Hope Village Golf Course lies on the north side of the proposed site. This course is located on the north side of Bass Lake Road, and has consistent use. The city owns the course and some parts of the site can rely on seasonal maintenance, as well as use mechanical systems which supply the golf course. Because of the golf course however, noise will be considered a priority when creating a master plan for the site.

The master plan will provide stronger connections from the inner city to the newly developed urban design by adding more mixed-use and commercial buildings. This will help draw people to the retrofitted suburban city by using urban space techniques that will create an urban micro-climate within a suburban development.

site information

This project site is located in New Hope, Minnesota. New Hope is a suburb of the Minneapolis area. Its population in 2010 was 20,339, and it has a current area of 5.2 square miles.

Figure 1 *State of Minnesota*

The site locations for this project can been seen in the orange area of the map.

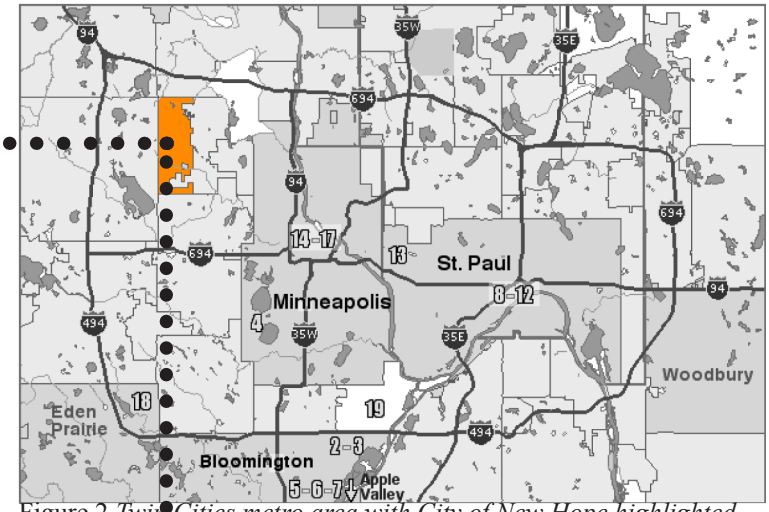


Figure 2 *Twin Cities metro area with City of New Hope highlighted*

This site was chosen because of the years of knowledge and personal experience I have had with the site. This site has a connection to a heavily used roadway, which can be used in a corridor throughout the design. This site is zoned for high residential, but over the years, it has lost value in housing, and it has a negative appearance to the surrounding public. There are many underutilized areas on the site that can be turned into successful mixed-use buildings. This site is also located in-between a major mass transit hub and a proposed Light Rail Transit system. Connection with direction can help better the community and strengthen the site as a whole.

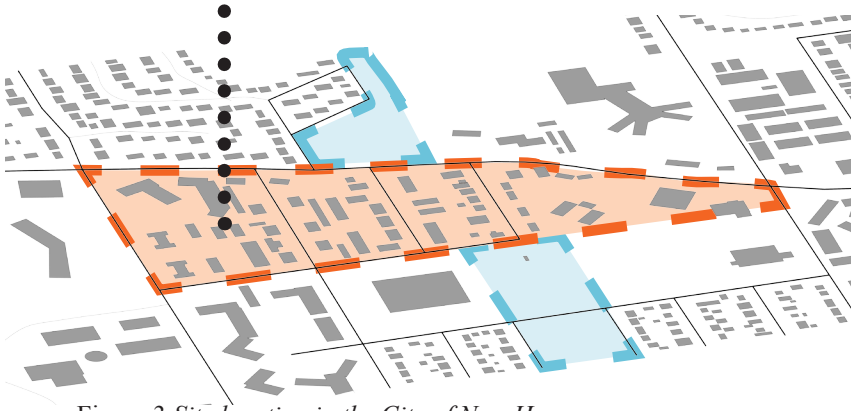


Figure 3 *Site location in the City of New Hope*

project emphasis

"Create an urban space that appeals to the surrounding suburban areas"

The primary emphasis for this project site is to create an urban space that appeals to the residents in surrounding suburban areas. This site will have urban characteristics that will make visitors feel as if they are in the heart of a major metropolitan area. By creating an urban space, the main goals of the project will be to connect the surrounding parks to the schools and to the newly developed area, and to create a commercial corridor throughout the City of New Hope. This project will create a unique space that will draw people to the area, and will give the space value within a suburban setting. Connecting to the Light Rail Transit system, as well as establishing a better, more inviting mass transit hub, will create a new and distinct feature in the retrofitted suburban development.

plan for proceeding

Research Direction

theoretical premise | Cities that have succeeded in mass transit, as well as cities with strategies that have created and defined themselves will be the direction for the theoretical premise. Understanding streets and building orientation will help explore possible ways to create a place of being.

project typology | Finding case studies that have creative place, and finding cities that have succeeded in developmentand have had success with a location in proximity to large cities.

historical context | Historical context research will be based on the suburban development patterns of time of how cities were laid out. Understanding the different types of city layouts, and the successes and failures of these strategies will play a role in the historical context research. Researching history about the City of New Hope, such as when it was established and how the population has changed over time, will also be done. Being able to define and understand how suburbia has changed around major cities will also help draw conclusions to guide a successful approach in design.

site analysis | Having worked directly with the City of New Hope and having worked at the site for seven years, I will focus the site analysis on factual information. Visual analysis has been done for years and I have access to the city directors and mayor.

Design Methodology

The research method will be a mixed method approach, including quantitative, qualitative, and single person interviews. Quantitative research will be collected through statistical data, such as GIS information, as well as city data research. Researching vehicular traffic patterns and pedestrian traffic patterns will also be key quantitative data sets used for this thesis. Qualitative data will focus on the building structures and views of the site. Topography will also be a key primary data set in qualitative data research, in that the site changes in topography primarily from east to west.

Analysis will be conducted through research and development, as well as personal interviews. Both quantitative and qualitative data will be addressed when needed. These data sets will be based on the project justification. Priority methods will be used to distinguish primary, secondary, and tertiary data sets, as well as qualitative data that can be implemented.

Documentation display will be based on system maps, and will be done through digital media and conventional three dimensional modeling of the site.

plan for proceeding

Design Process

Compiling the project in a thesis manual will help organize the process of analysis, as well as display the design when completed.

The document will be completed for both digital presentation and a printed graphical presentation. Modeling may be used to emphasize the project justification.

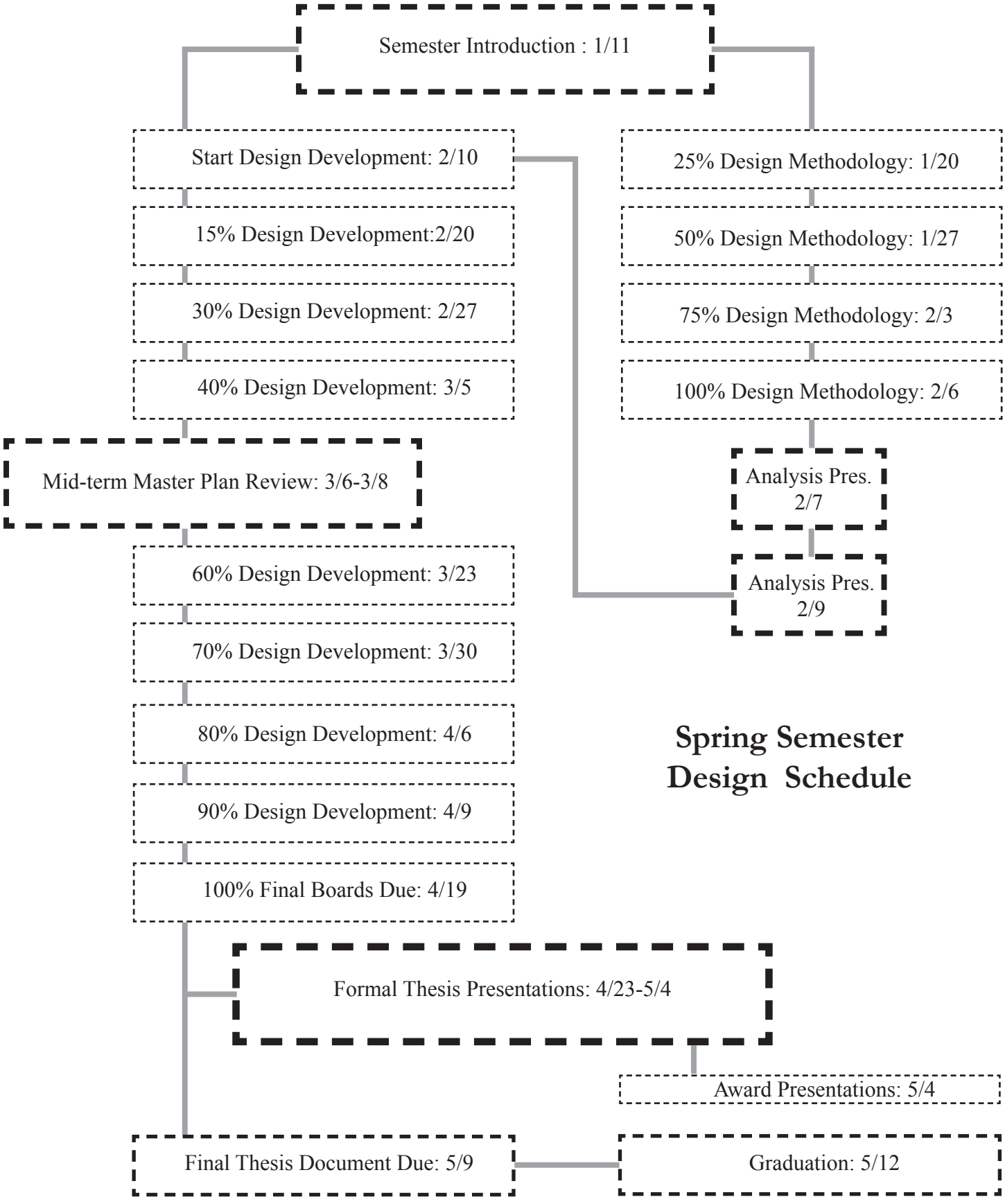
Upon completion, the project will be entered into the digital repository drop box in the NDSU library system.

Future students and others can view the project online, or they may contact me directly for a hard copy.

The process of the analysis and design will be organized by a due date system, in which completion of one area of the project will result in the start of a new portion of the design. Project sections will not overlap.

The spring semester will be organized in a series of chapters. Using roughly one month for each chapter, specific elements will be completed and edited. Completion of the project will be two weeks prior to the presentation. This is to allow for final editing and proofing.

plan for proceeding



Spring Semester Design Schedule

studio experience

2nd Second Year	2008 Fall (Pepple) The Tea House Halverson Park	2009 Spring (Lindquist) Fargo Smoking Shelter Aubrey Street/Winnipeg Fargo Corridor Design **Winnipeg Trip
3rd Third Year	2009 Fall (Famulari) Defiant Gardens Regent Revitalization Snow Symposium Fargo Analysis	2010 Spring (Pepple) Neighborhood Definition Roosevelt Neighborhood UTTC Design **Chicago Trip
4th Fourth Year	2010 Fall (Kost) Urban Mapping Urban Definition Form-Base Codes Duluth Design	2011 Spring (Famulari) Phytoremediation Project Jello Model **Denver Trip
5th Fifth Year	2011 Fall (Fischer) Water Analysis Red River Basin Analysis Red River Basin Design **Seattle Trip	2012 Spring (Fischer) Design Thesis

Professors

Kathleen Pepple
Jay Kost
Stevie Famulari
Mark Lindquist
Dominic Fischer
*** Semester Class Trip*

program

theoretical premise/ unifying idea research

Design strategies that reflect retrofitted suburban techniques will benefit the overall experience and design of a transit oriented suburban setting:

The Streetcar City

Public Transportation Intervals

Angles within the borders

Orientation with purpose

The loss of oil

theoretical premise/ unifying idea research

"...the streetcar city essentially vanished from existence..."

Did you know:

The San Fransico cable cars are the country's only moving national monument.

The Streetcar City

United States cities built between 1880 and 1945 were considered streetcar cities. As World War II ended, the streetcar city essentially vanished from existence, because of the economic cost it took to install, and with the war and Great Depression ending, the country was struggling. The loss of the streetcar city was also due to the heavy production of the personal automobile. In the 1990s, walking and transit use nearly disappeared (Condon, 2010).

Condon (2010) noted "the streetcar city principle is not about the streetcar itself; it is about the system of which that the streetcar is a part. It is about the sustainable relationship between land use, walking, and transportation that streetcar cities embody" (pg20).

All in all, the reflection is seen in the creation of the automobile. The loss of characteristic and recognizable cities was due to the large number of people who moved to the suburbs and chose to use an automobile to get from point A to point B. In order to create a sense of place with distinct characteristics, which will draw people to the area, we must have one unifying object that everyone can interact and associate themselves with. Using the uniqueness of a streetcar drew people's attention in the early 1900s; sadly, community involvement was lost due to personal gratification.

theoretical premise/ unifying idea research

...the streetcar city

Condon (2010) concluded that metropolitan regions as diverse as Minneapolis, Houston, and Denver have fallen into this hub-and-spoke trap. They have spent billions of dollars on a new up grade and grade-separated "light" rail system that only get users to traditional downtowns and cannot conventionally move them in any other direction.

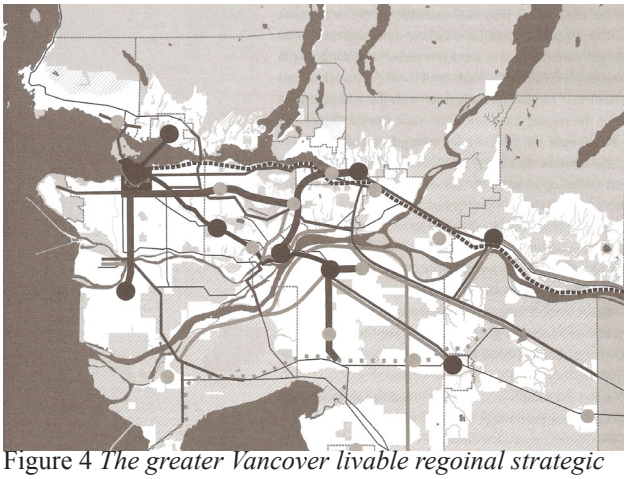


Figure 4 *The greater Vancover livable regoinal strategic Plan (Condon pg17)*

A form of mass transit will create higher interest in land development. The difference is on the input of a transit system. When a streetcar line is put in, the interest will skyrocket. Development within one block of a streetcar line accounted for 55 percent of all new development. However, prior to construction of the streetcar line, land located within one block of the proposed line only accounted for 19 percent of all new development (Condon, 2010). This concept reverts back to the premise, which states that action before adaption is key toward the retrofitting of suburbia. In order to succeed in an urban setting, the interest of place is fundamental; more important is the ability to get from place to place. The streetcar cities are a great example of how re-establishing the connection from place to place will increase a sense of place, as well as create more opportunities for residents, the people of the workforce within the city and visitors.

theoretical premise/ unifying idea research

"...people do not use public transportation because they do not want to wait..."

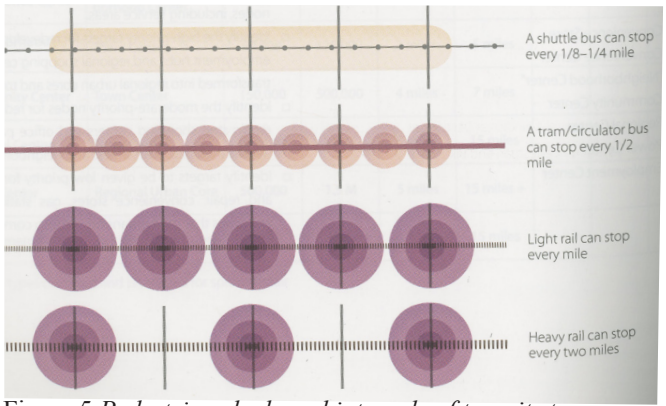


Figure 5 *Pedestrian sheds and intervals of transit stops (Tachieva pg40)*

Public Transportation Intervals

One of the biggest issues with public transportation is the ability to connect quickly and easily using a preferred mode of transportation. In my opinion, people do not use public transportation because they do not want to wait in a rundown bus stop, or have to wait 15 minutes for transportation to arrive.

Located to the east of the New Hope is a proposed Light Rail Transit station, linking the area to downtown Minneapolis. Being able to connect to this Light Rail Transit (LRT) will increase the value of the land and allow for growth via connection to the inner city. If the option to link the LRT through New Hope is an option, that will strengthen the quality of site and provide more viable opportunities for high density urban development. Tachieva (2010) noted in her book *Sprawl Repair Manual*, that "before rail is chosen, bus transit should be analyzed as a cheaper alternative, especially in the transitional period of urban intensification while the mixed-use nodes are being built. Rail may be considered a better environmental choice however" (pg40).

As seen in the diagram to the left, the link between pedestrian sheds and the interval stops for each transit form change based on the intensity of the transit. A shuttle bus may be the best option directly within city, but for a retrofitted urban design of an existing suburb, LRT may be the best option, especially for New Hope.

theoretical premise/ unifying idea research

...public transportation intervals

Figure 6 *Image looking as congested traffic (Jager pg 130)*

While the goal is to create space for a transit system to work, we must not sacrifice land for parking. Understanding that parking is important for a suburban area, the ability to hide parking through street layout will better associate the area with public transportation. Condon (2010) wrote that "plans focus most often on an indentified (downtown) or key transportation locus while the thousands of miles of early-twentieth-century streetcar arterials are either allowed to languish or blithely sacrifice for parking lots" (pg25).

As landscape architects and urban planners, understanding the history of the land and using historical corridors, or green space, can re-institutionalize the community's knowledge of the success that an area was built upon.

Currently in New Hope there are areas were grey fabric is underutilized, and creates a negative appearance for pedestrians traveling through, as well as the residents of the city. Urban retrofitting of New Hope will establish better opinions by users.

The question of why a mass transit system should be introduced can be illustrated in the photo to the left. With traffic causing backup, an LRT system, or a better transit routine, congestion issues will not be such an extreme problem.

theoretical premise/ unifying idea research

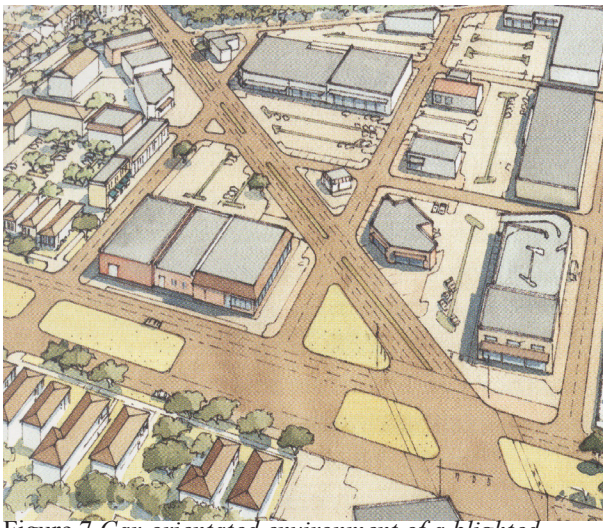


Figure 7 *Car-orientated environment of a blighted shopping center (Tachieva pg 124)*

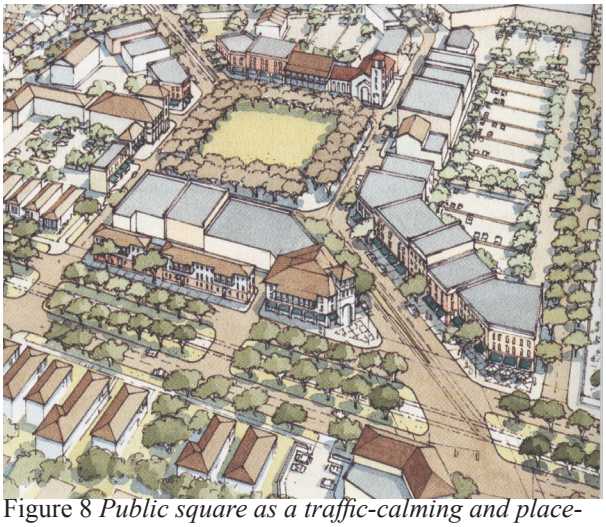


Figure 8 *Public square as a traffic-calming and place-making device (Tachieva pg 124)*

"...pedestrians need to get to the place first..."

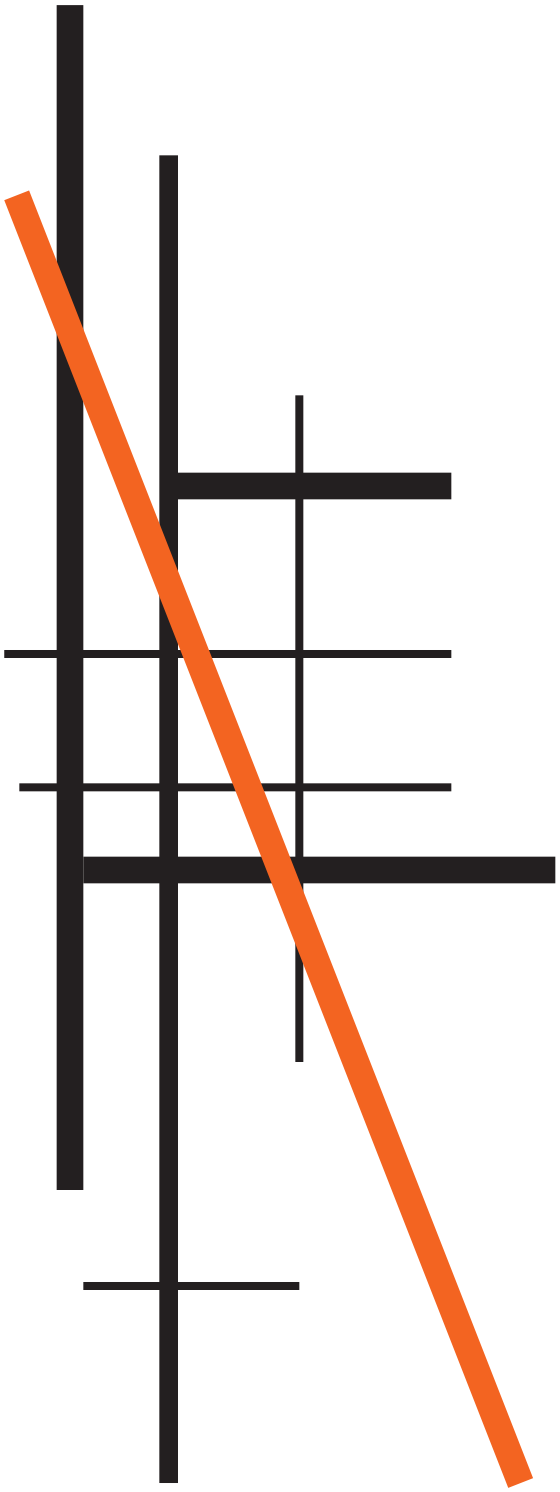
Angles within the borders

Streets that are irregular and are distinctly different in the area attract interest. How to create that difference is a response to the needs of the community. One challenge in the creation of odd angles of the streets is to make sure not to create dangerous intersections. The images to the left show the development of diagonal urban space. What proves to be successful is the use of buildings to create more space out of hardscape.

How does the city change by implementing more buildings and creating a better urban environment? The city space changes from a primarily vehicular space, with vehicles controlling the speed, to a very pedestrian friendly area, a space that creates a feeling of pedestrian control when it comes to the pace.

What should an urban space feel like when a choice of building types are available? An urban space should have a repetitively changing style of buildings with various building heights. In the ideal urban space, there needs to be one building that stands out. As far as a landscape and urban design is concerned, the street plays a prominent role and needs to stand out. Pedestrians need to get to the place first, before they can experience it, so the space needs to be designed to both visually and physically accommodate any user.

theoretical premise/ unifying idea research



...angles within the borders

We as designers need to be reminded about the total use of our spaces. Condon (2010) commented that "local users do not experience every mile of the corridor, but just the transition from their residential block to the more active arterial" (pg70). This is similar to what was said on the previous page, that space needs to be designed to both visually and physically accommodate any user. Just like the abstract of any thesis project, the provided space needs to be strong and comprehensive enough to allow the user to understand the space. Allowing the opportunity for people to explore spaces, on their own personal time, reflects the ability to design. Because of this, Condon (2010) says, "their sense of place is determined by their walk to the arterial and their eventual familiarity with the blocks immediately in either direction" (pg70).

Each space needs to provide worth. As designers, we need to remind ourselves that space cannot repeat in character or appearance. The same principles can be introduced in different areas and in different ways. Why should I experience a space more than once? Personal recollection of a space will always bring people back to the space. For me, standing at the corner of Nicollet Avenue and Eleventh Street in Minneapolis draws a constant number of people. This is the corner of Orchestra Hall, and the view from this space brings me positive memories and a sense of joy. One cannot have joy without character.

theoretical premise/ unifying idea research

Figure 9 *Existing single-family subdivision enclave (Tachieva pg 80)*

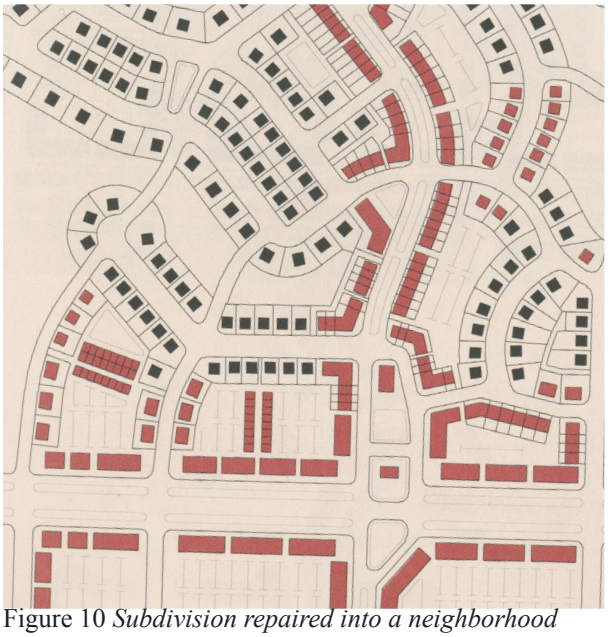


Figure 10 *Subdivision repaired into a neighborhood center (Tachieva pg 80)*

Orientation with purpose

If an urban space is considered high density and building dominant, then the implementation of denser building types is a must. Increasing the number and types of building will not only increase housing for the poppulation, but will also create amenities while developing a center for the surrounding developments (Tachieva, 2010). The City of New Hope has designated specific zoning requirements for the northern part of the city, and the high residential areas do not provide many of the "pleasure" amenities we take for granted, such as clothing stores, shopping centers, and specialized accessories. By creating a space for people in the neighborhood to visit, without leaving the city limits, will not only increase the city's value among the faster growing outer suburbs, but it will create a movement that will start drawing people back into the city to do their shopping and other personal errands.

Orientation of buildings towards the streets is important because it draws people directly to the fronts of the, typically in and urban setting, a mix-use building. Placement of the most valued buildings is important, in that designers plan to have the more important structures on the corners, where there is a better exposure to the pedestrians in the area. The space a building creates is not just important to the building, but it in turn creates secondary and tertiary spaces that surround the buildings. These spaces are the ones that landscape architects thrive on, and that allow our artistic nature to shine.

theoretical premise/ unifying idea research

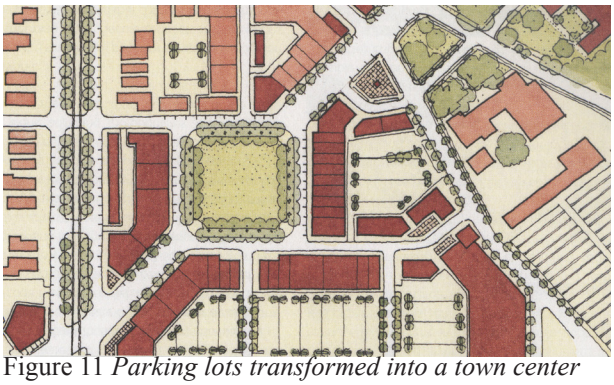


Figure 11 *Parking lots transformed into a town center (Tachieva pg 124)*

"...the Grand Manner...does not account for an urban retrofit..."

...orientation with purpose

Tachieva (2010) says, "Increasing density significantly, combined with other actions at the larger regional context, is required to make transit viable for the area" (pg80). This only works when in that the usage of the transit system can almost be a guarantee, rather than the hopes that single family homes will respond to the, very urbane, mass transit concept.

Regarding the orientation of the transit hub to housing development, the transit hub should be the focal point in the design. Having a strong hierarchy reverts back to the historical context of the Grand Manner. The Grand Manner, seen on the next page, is the concept that an urban space has an important element, which holds the city together, both physically and socially. An example of the Grand Manner in the United States would be in the historic mall district in Washington, DC.

While the Grand Manner is a way to give a place a sense of distinction and social response, it does not account for an urban retrofit within the context of New Hope, Minnesota. The Grand Manner would be better suited toward a landscape element within the site, but not as a primary building used to tie the surrounding community together as one. However, a distinct place of direction can be taken from this premise and used in an urban city with a focus on transit orientation.

theoretical premise/ unifying idea research

Figure 12

Paris, France. *The Grand Manner*

theoretical premise/ unifying idea research

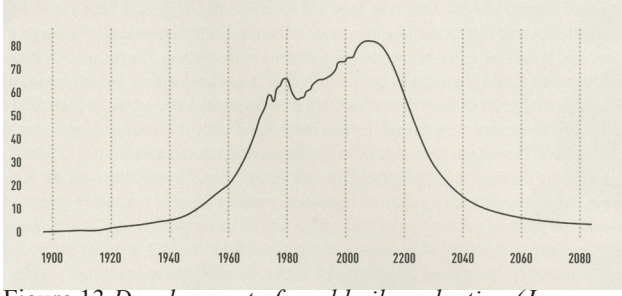


Figure 13 *Development of world oil production (Jager pg 35)*

World Oil production

The diagram to the left, courtesy of Jager & Gaines (2009), shows the influx of oil production in history, and the projected drop in production in the next 100 years. How should a city be defined? It seems that the western world has been behind the times for decades. Why does something have to happen now, and a stance be taken immediately, instead of adapting to what the best solution maybe in the next 20 years? The success of New York City is because of its establishment quickly, early, and creatively. The City of New Hope has a comprehensive plan set in place until the year 2030. However, the chart it shows a steady decrease in oil after the 2060s. If a city plans to retrofit itself, why should they consider the actual *long* term affects, instead of the current problems?

It seems that cities wait for another city to make the first new move in retrofitting, and do not want to risk doing something off the grid. Cities should respond to what other cities are doing, but in a competitive nature. Trying to better itself to increase the economic flow of money coming in. The City of New Hope is in a tough place in the metro,because the City of Maple Grove has shown the greatest improvements over the past 15 years. It is almost as if cities are just allowing the imporvements to continue in Maple Grove, rather than taking a stance on sprawl. The City of New Hope is in a good location to develop itself as the newest, inner-outer suburb in the Twin Cities area. It has the geographic capabilities to do so.

theoretical premise/ unifying idea research

Conclusion

Urban designs should revert back to the streetcar city concept. The streetcar city not only brought a very unique characteristic to the city, but was also a successful way to provide mass transit to the people who needed to get from their home to work. However, the streetcar city succeeded not just based off of the ways of the rails. Condon (2010) wrote, "The streetcar city principle is thus about more than just the vehicle, more than just the track. It is about a balance among density, land use, connectivity, transit vehicles, and the public realm" (pg37). Condon is saying that the streetcar city idea is not a quick fix. It is a concept that needs extensive planning, and future development considerations need to be addressed before undertaking such a large overhaul. Retrofitted suburbia in New Hope can create better connectivity and social interaction with the use of angled streets and building-oriented strategies.

With the research developed, a conclusion has been drawn from the various articles and chapters in urban design books, that retrofitting a suburban area is a task that has been done before, and has worked. The ability to plan for the future can be the difference in the success of an area. Using the orientation of buildings to triple the amount of area allows for development in other areas of a site, elements that interest people and establish personal niches.

theoretical premise/ unifying idea research

…conclusion

There are two types of sprawl scenarios that can take place in a city. The first is to spend money to increase roads and connection corridors, thus conntinuing the current trend in sprawl today. The second is to create a transit city scenario, linking the city together via transit rail and other improved modes of transportation. The easy choice is to pick the current sprawl trend and remain constant in the status quo. The transit rail system goes against the norm. Why would we, as a society, revert back to historical ways of moving, and not drive toward an future with the increase of better roadways?

Let's take a different angle to this question. What if we could predict that the future growth of New Hope, Minnesota, would increase 75 percent over the next 20 years because of urban development? Now, what if we give that 75 percent an incentive to locate itself around a transit-oriented development? Not only will likely 50 percent of that 75 percent take the offer, primarily because the incentive would be a tax benefit, but those new residents would also now have at-their-doorstep access to public transportation that has been proven a clean mode of transportation, and also provides a definition of uniqueness. Looking at the population of New Hope now and converting these proposed numbers, 7500 people will now be living around a transit oriented city scenario. A population of 7500 is nearly a small town in parts of Minnesota. So, though an increase in population, as a development, the commercial and residential areas will strive with use and popularity.

case studies

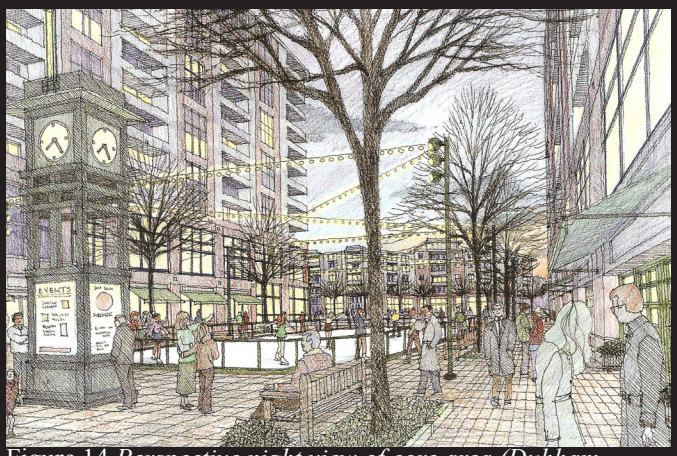


Figure 14 *Perspective night view of core area (Duhham-Jones)*

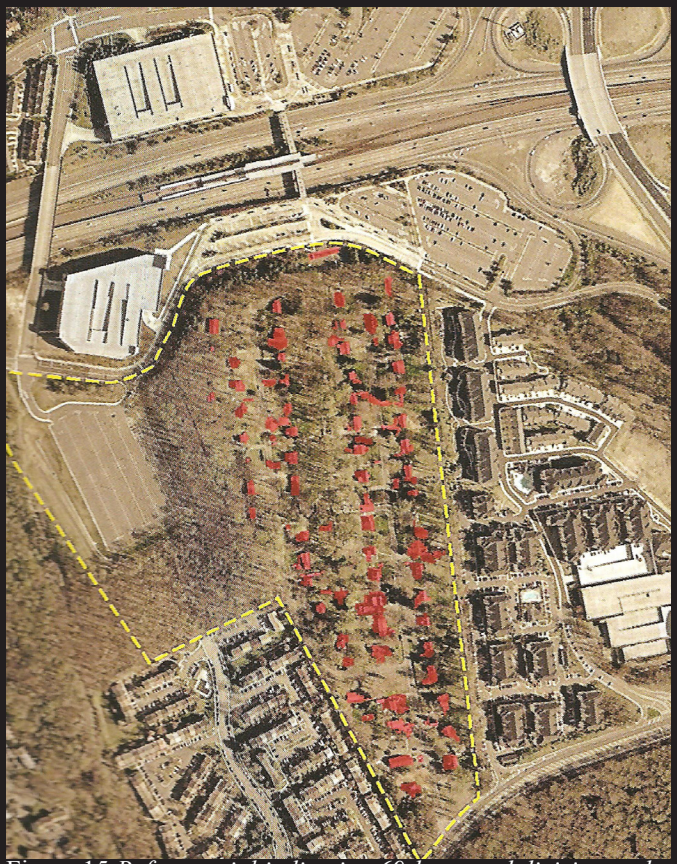


Figure 15 *Before aerial indicating 69-house subdivision and metro station (Dunham-Jones*)

METROWEST: From 69 houses to 2,250 Transit-Oriented Residences

Location: Vienna, Virginia
Size: 60-acre site
Start Date: 2002

Pulte Homes contracted with each homeowner in the subdivision immediately south of Vienne Metrorail station for transit-oriented redevelopment to accommodate a dense mix of urban housing and offices. Sandwiched between two apartment complexes and an interstate and a local highway, Metrowest has better regional than local interconnectivity." (Dunham-Jones & Williamson, 2011)

The project has almost not undertaken due to a land acquirement debate. Metrowest's key argument was that Transit-adjacent development was nowhere near the same as transit-oriented development. This meaning that development would not succeed if people still felt as if they needed to *go* to the transit station, rather than having it feel like it is already a part of their community.

This case will be applied and referred to throughout the thesis design process as an example of how high density can be oriented to accommodate a mass transit station located at the end of a site's area. Understanding the perceived perception of a place will allow for action upon the response, rather than adaptation afterwards.

METROWEST

METROWEST: masterplan

Figure 16 *Masterplan of the newly retroffitted Metrowest division (Dunham-Jones)*

case studies

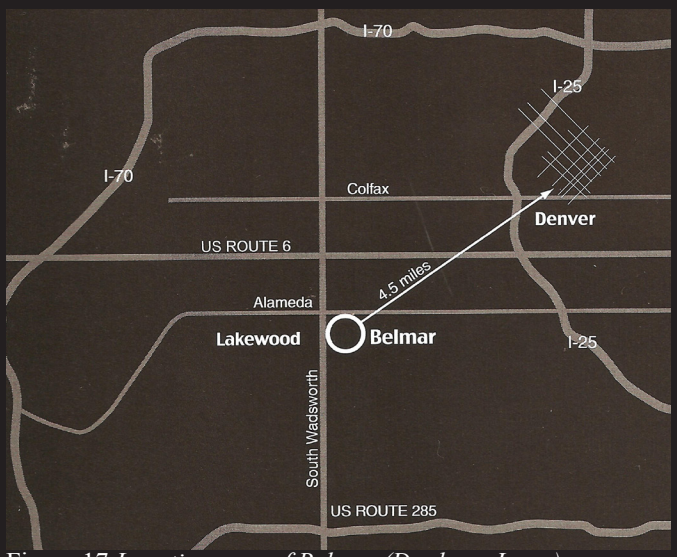


Figure 17 *Location map of Belmar (Dunham-Jones)*

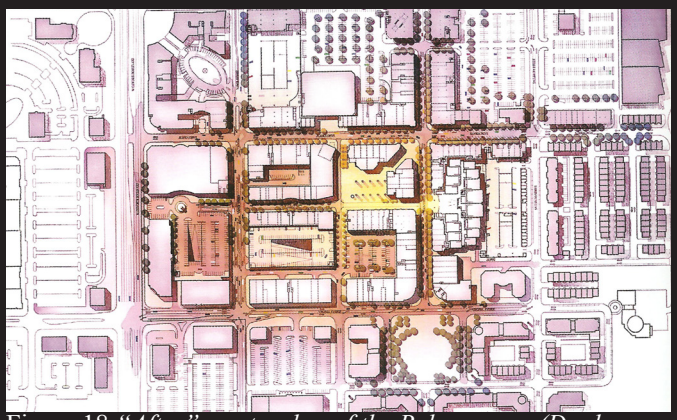


Figure 18 *"After" masterplan of the Belmar area (Dunham-Jones)*


Figure 19 *"Before: area of Belmar (Dunham-Jones)*

BELMAR: From dead mall to green downtown

Location: Lakewood, Colorado
Size: 104-acre site
Start Date: 2001

Belmar replaces an auto-dependent, private mall with an urban, walkable, and bus-served mix of uses and public spaces. It provides a range of housing types, diverse architectural styles, and a variety of cultural activities, including but not limited to shopping, with the intention that it function as a downtown (Dunham-Jones & Williamson, 2011).

Upon completion, the re-design will ultimately triple the amount of square footage within the same area. Not only did the square footage increase, but the property values of the surrounding neighborhoods increase with the added value to the area. Belmar also hosts annual festivals, which draw huge crowds to the streets.

The value taken from this case study, which I will apply toward my thesis design, is the ability to have an urban design with successful places for people to go and interact with, all in close proximity to the City of Denver (4.5 miles). For Belmar to succeed, when people could easily head into the City of Denver, proves that if given the option, people will choose not to travel away from their homes. Adding space to accommodate for large crowds also adds to the versatility of the area.

BELMAR

case studies

Figure 20 *A mews in residentail area at Belmar (Dunham-Jones)*

BELMAR: View between residential development, as well as an image showing the use of space in the winter, not just the summer. Understanding the seasons of my thesis site will help improve the overall design of the area.

Figure 21 *An ice rink animaters a plaza in winter (Dunham-Jones)*

case studies

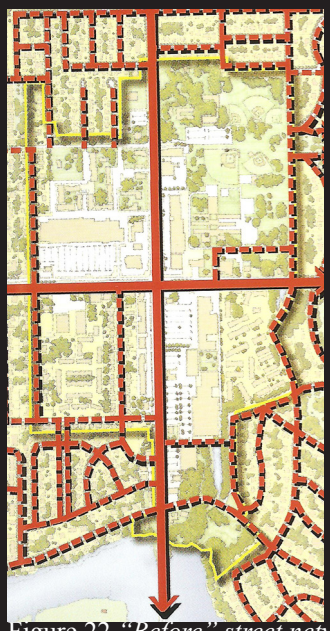


Figure 22 *"Before" street network (Dunham-Jones)*

Figure 23 *"After" street network (Dunham-Jones)*

Temple Terrace: From strip shopping centers to new downtown/town center

Location: Temple Terrace, Florida
Size: 50-acre site
Start Date: 2005

"While developers often seek out "underperforming asphalt" on greyfield sites to identify development opportunities, municipalities also often initiate retrofits as a way to stem declining property values, increasing housing options, in some cases, to create a downtown where none exist. This is the case in Temple Terrace where the designers propose retrofitting four quadrants around a major intersection. New streets break up the superblocks of two aging shopping centers allowing for a more walkable network with mix-use buildings, parking at the center of blocks, and a new Main Street connecting civic buildings." (Dunham-Jones & Williamson, 2011)

How Temple Terrace responds to the problem of high traffic streets passing through its design is what will be taken into consideration for New Hope. Its response in creating secondary streets as links allows for the development of a new town commercial center with a positive impact toward the improvement of the third place. The third place refers to a space other than home or work.

TEMPLE TERRACE: masterplan

Figure 24 *Masterplan of retroffitted Temple Terrace (Dunham-Jones)*

Figure 25 *Transit station (Vranckx pg 14)*


Figure 26 *Transit station (Vranckx pg 14)*

Figure 27 *Transit station (Vranckx pg 15)*

Figure 28 *Transit station (Vranckx pg 15)*

Train Stations: D-Line

Location: Hannover, Germany
Size: Spanning the City of Hannover
Start Date: Design competition in 2000

In order to deal with the influx of people in the year 2000, the city of Hannover planned to expand its light rail system, the D-Line. A design competition was held to create unique and individualized train station structures throughout the entire city. The design team of Despang Architekten was declared winner of the design competition, and 12 new, and completely different transit stations were placed along the extended transit line (Vranckx, 2006).

The ability to create a desired set of uniformed stations along the transit line establishes value in the area. An issue that pedestrians have with mass transit is the cleanliness of the stations. Having clean stations, with unique characteristics, will enhance the perceived safety of each station; thus increasing the use, and eventually turning the tide and adapting mass transit as a primary mobile way.

A more extensive outline of special issues and guidelines for transit stations can be found in the John Wiley & Sons, Inc., *Site furnishings* by Main, B., & Hannah, G.

TRAIN STATIONS: D-LINE: masterplan

Figure 29 *Site context of the transit stations (Vranckx pg 12)*

Fayetteville 2030: Transit City

Location: Fayetteville, Arkansas
Size: Roughly 60 million square feet of area
2011 WAN Award for Urban Design: Finalist

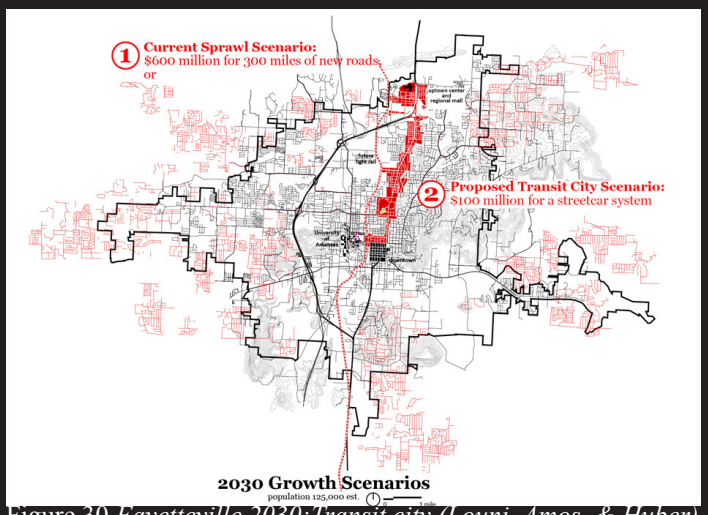


Figure 30 *Fayetteville 2030:Transit city (Louni, Amos, & Huber)*


Figure 31 *Transit sation (Louni, Amos, & Huber)*

This project was a scenario role play, in the event of an expansion of the City of Fayetteville, Arkansas. Fayetteville would create a five mile stretch of land with a transit boulevard, while also creating better developed buildings which are turned into mix-use amenities. Residents of the city lack the connection of transit, and have expressed their need for rail transit. The City of Fayetteville has addressed a variety of issues, but seems to always revert to the need to sprawl outward, which only seems to accommodate the drivers of the growth. This resulted in lack of change and cheap resolutions to their problems. The conclusion is that a demand shift for public transit is evident for the well being of the community (Luoni, Amos & Huber, 2011).


Figure 32 *Activity in the tranist station (Louni, Amos, & Huber)*

"...Residents of the city lack the connection of transit..."

Fayetteville: An arerial masterplan shows the connection throughout the city. Development does not just have to be within one area; by using a transit system to connect, spatial links can be used to create characteristic places without losing the overall premise of urban retrofit.

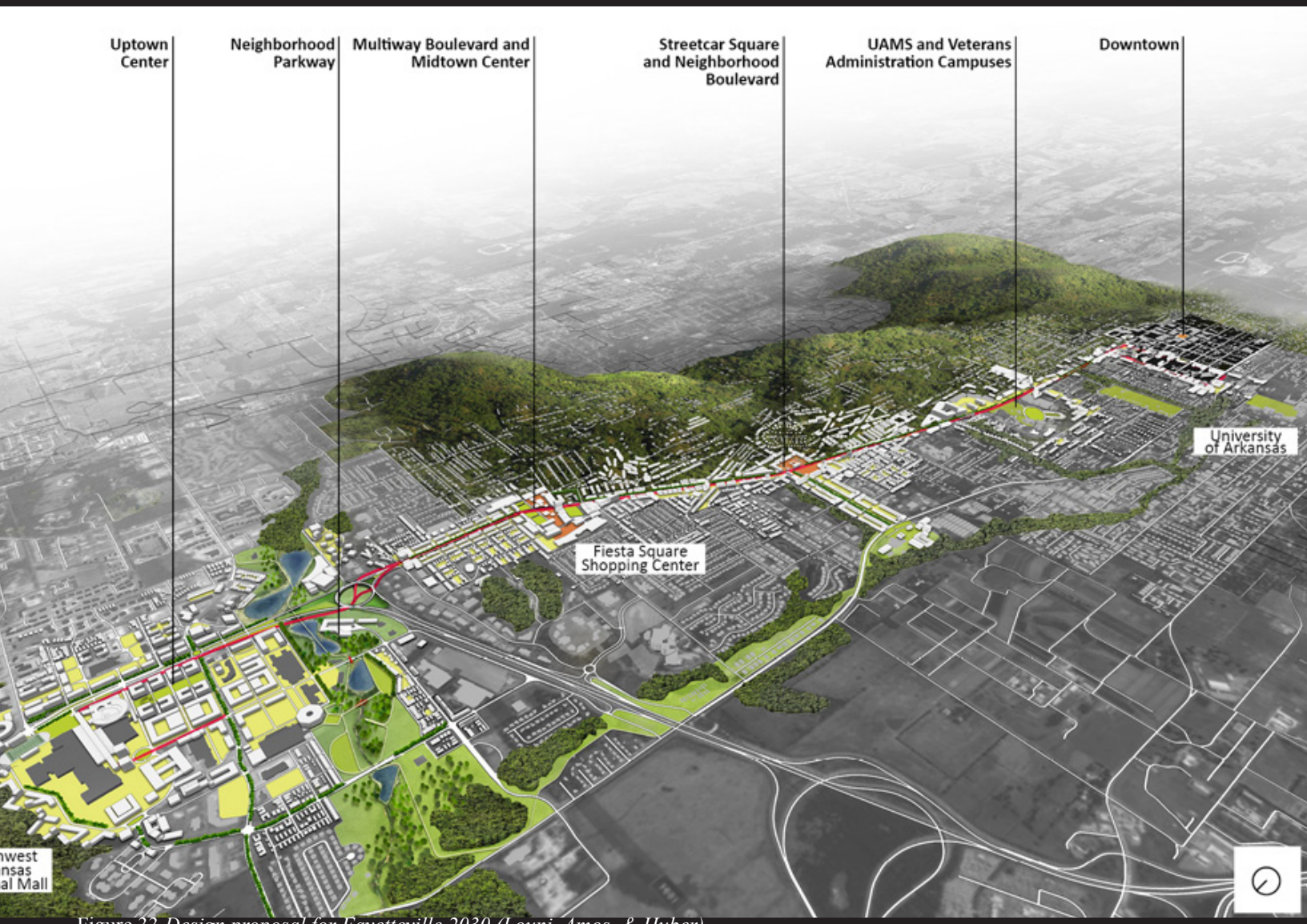


Figure 33 *Design proposal for Fayetteville 2030 (Louni, Amos, & Huber)*

Figure 34 *Metrowest masterplan (Dunham-Jones)*

"...understanding the perceived perception of a place..."

Conclusion:

These case studies all showed what it takes to create positive urban spaces, and the solutions to problems that every city deals with, whether its an influx of people causes the need to increase transit, or the desire to eliminate the grey fabrics of a place because of the mixed-uses that there is creating the community. Either way, viable solutions are available with restraints to make sure that the standard should not be considered impossible.

The strongest of the four case studies is the METROWEST study, along with the incorporation of new transit stations in Hannover, Germany. The case study summary of METROWEST is an example of how high density can be oriented to accommodate a mass transit station located at the end of a site's area. Understanding the perception of a place will allow for action upon the response, rather than adaptation afterwards. As designers, we need to put ourselves in the clients' shoes, and try to understand what they, the long term residents to the solution, want to see. It is easy enough to choose solutions that we designers like and think would work in the area, but realistically, understanding that a 40 story building should not go into the site should help us develop the total desires, hopes, and dreams of the residents.

case studies

"...establish a new dynamic element of the city..."

Figure 35 *Transit station (Vranckx pg 15)*

Figure 36 *Transit station (Vranckx pg 14)*

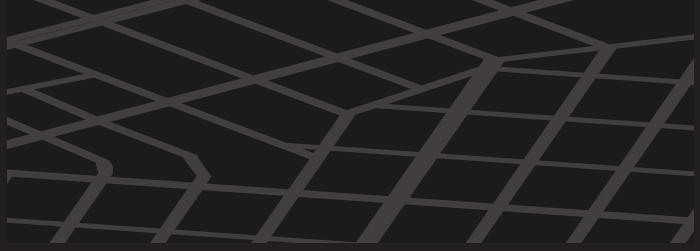
Figure 37 *Transit station (Vranckx pg 15)*

…conclusion

Although the transit stations are interesting, and the goals of retrofitting for the thesis are to incorporate mass urban transit somehow as a link to more places, the real point to be taken from the Hannover project is the ability to create unique objects that not only stand out, but have recognizable features to them. New Hope needs to build an identity. Currently, it has no real point of interest, and nothing to relate itself to. Maple Grove has the Shops at Arbor Lakes. Minneapolis has the Walker Art Center and other various recognizable places. The most outstanding part of New Hope, which people not from New Hope could associate themselves to is the summer farmers market. The growth that the farmers market has had in the past couple years has brought an increaseing number of people which attend.

Hannover, Germany built these transit station to account for the large increase in population, while in reality, establisheing a new dynamic element of the city which now has promise for the future.

Taking these few newly-found concepts and introducing their strategies into New Hope, and a retrofitted community can turn the table in the city's place among cities. A major project element in these case studies is the development of more square footage while using no expansion of land. Being able to develop and design spaces to increase the size of a place, while creating better social connection, will help in the race against neighboring cities; a race for "first" in future design.



case studies

"the other space;
created from buildings"

Figure 38 *Space of place inside a city (Johnson)*

historical context

J. Mordaunt Crook of *The New York Times Book Review* asked, "What exactly is a city? A geographical accident? A glorified trading post? A communicational node? A cultural focus? A focus of power? A multiple art form? or simply a state of mind? A city in fact is all of these things, and more." The thesis presented will develop and reflect some of the past's techniques in how a city was formed. The exploration of the more successful city shapes will be uncovered, and an educated decision toward the design concept and foundation point of a retrofitted suburban strategy will be developed.

The book *The City Shaped*, discusses the basic historical patterns in which cities have been formed, and successes and failures as the cities changed throughout time. The belief that one city layout is better than others will be debated and a conclusion of what would be the best functional city layout, for this thesis design will be considered.

Historical development and sprawl techniques that will be interpolated will be: organic patterns in planned cities and unplanned cities, how the grid has evolved over time and the basic layout in which it takes form, the city as diagram, and understanding the political aspects of cities and the ideal cities in terms of circles and polygons, defining the European cities in the Renaissance, and finally the oil reserves and the problematic solutions.

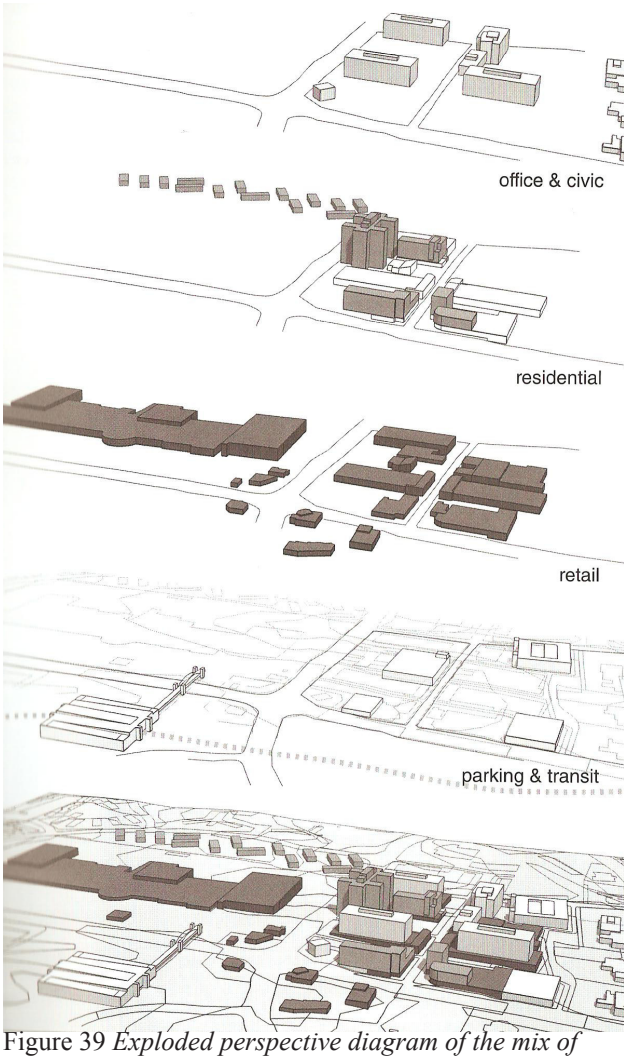


Figure 39 *Exploded perspective diagram of the mix of uses at University Town Center and neighboring site (Dunham-Jones pg 223)*

Organic Patterns

Should a city be a planned city, or should historical aspects of the land determine the shape that a city takes? The answer to this question is, depends on whether one wants to follow rules or not. In my opinion, a city should be a planned city. Planned cities regulate aspects of the city that need to be regulated, such as setbacks and size of city blocks.

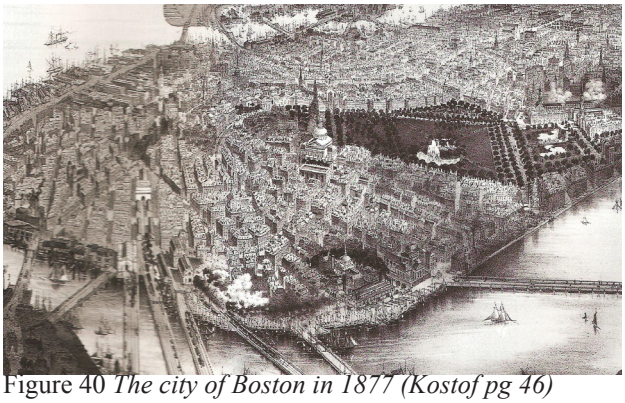


Figure 40 *The city of Boston in 1877 (Kostof pg 46)*

Sprio Kostof, author of the book The City Shaped, highlights urban patterns over time and their meaning throughout history. Kostof (1991) says, "If hundreds of historic cities were to be scanned, we would find that the two primary versions of urban arrangements, the planned and the organic, often exist side by side" (pg46). Old town Boston consists of meandering streets that seem to be in an organic pattern. However, understanding where those street lead, shows that the focus around the citys statehouse proves that cities are, not organic, but planned. So, is organic really its own unplanned pattern, or is there a sense of shape behind it after all?

Charles Buls, in the opening lines of his *Esthetique des villes* (The Design of Cities), in 1893 says: "Old cities and old streets have a peculiar charm for all who are not insensible to artistic impressions. They may not be called beautiful, but they are attractive; they please by that beautiful disorder that here results not from art but from chance…" Why have we seen suburban sprawl consist of a planned, grid like approach, rather than an organic approach?

historical context

Figure 41 *The city of Vezelay, France (Kostof pg 43)*

...organic patterns

There must be more to the city and how it is shaped, however. What role does topography play in the organic vs. planned argument in history? Kostof (1991) notes that, "Landscape shape is believed to be the truest answer because it is visually the easiest to grasp" (pg53). This is not just the landscape shape itself, but also the natural features that surround the city: rivers and lakes that border or even slice through a city. Organic is not a choice, but rather a solution to these challenges.

If a city is planned, what approach is taken? History has shown that the organic vs. planned argument has developed some of the greatest cities in the world. Urban Historian F. Castagnoli makes the distinction that "the irregular city is the result of development left entirely to individuals who actually live on the land. If a governing body divides the land and disposs of it before it is handed over to the users, a uniformly patterned city will emerge" (Kostof, 1991) This means that a city can establish itself in an organic pattern only prior to governing control. Once the city is formed and has a leader, the ability to freely express the city's appearance is removed, and the city is then subject to a higher power, thus removing any value towards personal reflection of its citizens. In design, expression is what sets apart the apples from the oranges and creates a unique space of place.

Figure 42 *Miletus as refounded after the persian sack of 479 BC. (Kostof pg 106)*

The grid

The Grid is the crème de la crème of urban and suburban, planning. Also considered the gridiron or checkerboard, it is by far the most common pattern for planned cities in history (Kostof, 1991). How did the grid system start? History dates back to the ancient world, when in the early 7th century the Greeks used the grid system to plan their cities and establish themselves among the greats of the architectural world.

Toward the end of the classical age and the beginning of the new ages, however, the grid system seemed to vanish from the city form, making way for the organic pattern, which was discuss earlier in this document. However, at the turn of the Renaissance, the expansion of new towns was at a standstill and new cities were not a focus for nearly two centuries (Kostof, 1991). Cities simply added city and thus the grid's appearance once again returned to the cities' domain. The introduction of the grid to the United States can be most famously seen in Washington, D.C. Jefferson's famous grid may not have succeeded in Washington as much as he had hoped, but the concept of the grid system stuck in the new world, and America to this day uses Jefferson's grid as the foremost structural support system for the layouts of its cities. What is it about the grid that people seem to replicate throughout America?

...the grid

Figure 43 Chicago, detail by Currier & Ives, 1892

historical context

...the grid

How true is the grid system?

The grid system is not all it's hyped to be. The grid system sounds like a mathematical phenomenon, but the truth challanges that concept: the grid system could be considered just arbitrary sets of blocks, that have the same ratios.

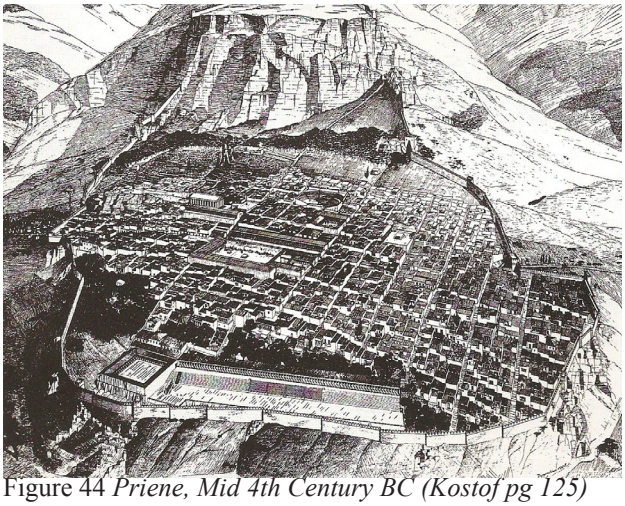


Figure 44 *Priene, Mid 4th Century BC (Kostof pg 125)*

The benefit of the grid system is its ability to be a geographical, as well as a chronological, set of patterns in which a city can be developed. The grid pattern is an ideal pattern when dealing with flat land, almost as if it's a blank piece of paper for a designer (Kostof, 1991). Land does not always have to be flat for a grid to succeed. Prience, Turkey, in the mid-4th century developed a grid pattern along an improbable topographic site (Kostof, 1991).

At the turn of the 20th century, the grid lost its value as a placeholder for the development of the city. Cities turned their focus to the construction of place through circulation and traffic patterns. Developing cities based on the places people wanted to go essentially led to the superblock of the suburbs. The grid is now used as a frame for separate communities. The mini-grid is now defining neighborhoods (Kostof, 1991).

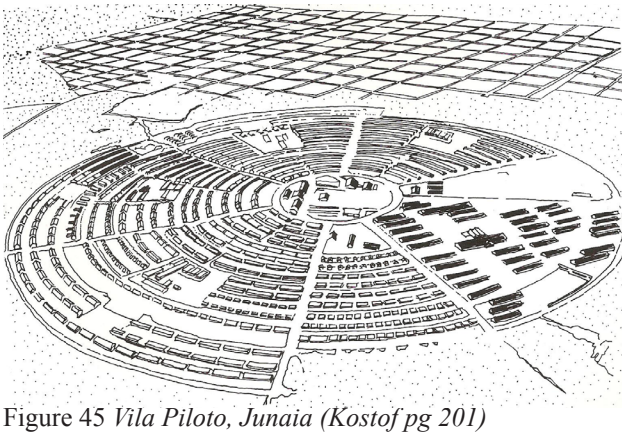


Figure 45 *Vila Piloto, Junaia (Kostof pg 201)*

The City as Diagram

When developing a city, the reflection of a centralized point of interest is important. This focus may be an iconic place, significant to the site, or newly developed in the area. The area may be a religious site with value not just to the immediate group of residents, but a region as a whole.

Kostof (1991) says the city as a diagram refers to the radial design concept of a city, with its most important feature in the middle of the city. This theory of the radial city, something about the round form, un-walled and ringed by green, suggested a unified pioneering community, the will to endure, a defense against unchecked sprawl, and the encroachment of cities It is almost as if a community within a city is developed through this concept. Establishing the boundaries in the beginning and not letting the city limit spread are what hold this radial concept together.

Kostof (1991) continued, stating "the more segregated urban functions and urban groups, the less we are actually creating an urban community" (pg207). The city as diagram is essentially all the good people want from a city, with the dealing of negative actions. What effects does this have on the generations that are brought up throughout the city? The contrast between the radial city and the previous two concepts is extreme.

historical context

"Urbinization entered Europe as a consequence of industrialization..."

Renaissance of the European City

Jager and Gaines (2009) point out that European cities have set a standard on how to build and rebuild their cities over time. A comparison of maps of Europe in 1800, 1900, and 2000 quickly shows how cities have come and gone, grown and shrunk. Urbanization entered Europe as a consequence of industrialization, and at its end left cities that had to be reengineered to fit a new type of life as financial or service cities.

With the end of the industrialization period in Europe, the emergence of new cities developed to meet the needs of the future. If Europe had not changed, it may have never been considered a great architectural continent, nor would it have influenced western countries like the United States. Europe establishing itself for a second time provides examples to the rest of the world about the current trend of urban design and urban success.

The City of New Hope was established toward the end of the 1960s and really boomed in the 1970s. What is the next step for this suburb? Change is soon to come in the western part of the world. It has already affected large cities such as New York and San Francisco. With the emergence of "clean" technology, urban retrofits should be focused on clean modes of transportation and adapting to the walkable city concept.

historical context

...renaissance of the european city

Jager and Gaines (2009) supported their first point, saying a second factor that triggered a series of incisive changes in the face of European cities was less specific: the fact that the continent suffered the impact of two world wars within a space of 30 years, with the development of long-range weapons, significantly changed the face of many cities. The destruction of the cities almost changed the Europe for the better. Because industrialization had come and gone, and with the loss of shape during the wars, the cities were able to reestablish themselves as better suited places to inhabit.

Crime and its impacts on cities have been key in the social aspect of communities. We know of the "tough" cities that are around the United States, so is there a way that positive intervention can improve a crime driven city? Crime has to go somewhere. The chance of reducing crime as a whole are probably worse than winning the lottery. Crime is an issue that needs to be acted upon, and not responsible for. Simple solutions such as light and open spaces can reduce crime significantly. Using the city as a crime stopper by building up and increasing the population is a strategy that can be viable a suburban area.

Figure 46 *Outline of the City of New Hope*

The City of New Hope

By the early 1950s, the rapidly developing township of New Hope chose the fate it had eluded just over 15 years earlier. In 1953, New Hope incorporated as a city to prevent losing more of its land and residents to Crystal via annexation. This move was opposed by the farming community of New Hope, but housing developments between 1936 and 1953 had made farmers a minority in New Hope.

When the township was incorporated, it had 600 residents. The city grew rapidly and was home to more than 2,500 people by 1958. This rapid population growth continued through the 1960s, and by 1971, there were 24,000 residents in New Hope. The population of the community has declined slightly since 1971 (City of New Hope, Minnesota Official Website, 2012).

The city is primarily laid out in a grid pattern. Parts of the city have streets that are not directly east to west or north to south.

thesis goals

In Academia

The main goal that I want to set for myself is to stay on track and on pace for the upcoming semester. I understand that time management is the key to success as a student during the thesis semester. I want to set weekly goals for myself, and try my best to achieve those weekly goals.

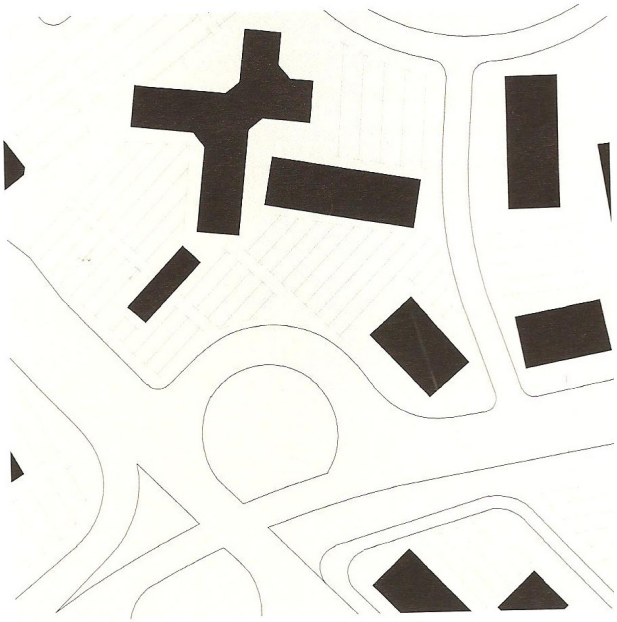
I also want to create a successful schedule to meet with Dominic Fischer, my primary thesis advisor. Understanding that the knowledge and help from a professional who has strong knowledge in the focus area of my thesis topic will not only better my understanding for my project, but also give me more knowledge in the focus area in which I would someday like to work.

Finally, I want to make sure that I do not let the worry of grades stand in the way of designing a plan the way I want to. Understanding that grades will come, will allow me to focus fully on my thesis and not worry about adapting to the thesis commitee's preferences. I have sometimes changed the approach that I have had in school to better the outcome of the grade. I now know that grades are no more important than completing a strong and interesting thesis project.

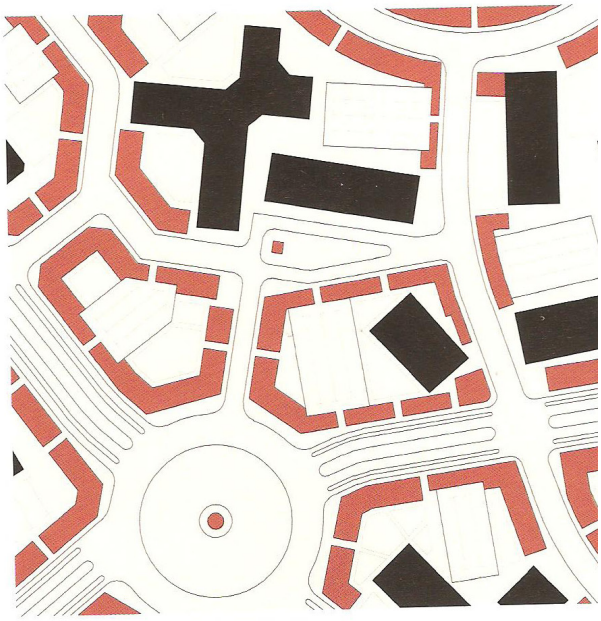
I also want to pass the thesis and graduate!

Figure 47

thesis goals



4-163. Existing edge city



4-164. Repaired regional urban core

Figure 48 *Urban Core Transformation (Tachieva pg 182*)

As a professional

My interest in urban design has carried me through this semester and will help me achieve a powerful thesis. This thesis, if it is a successful study and undertaking, will possibly be presented to the City of New Hope in hopes of future consideration and possible incorporation into the future development of the city, as new-age sububia start to sprawl throughout the metro area.

This thesis will also prepare me for the reality of the professional practice. Understanding how projects take shape from a design aspect will help me as an entry-level landscape architect. The skills that I also aquire throughout the semester will be in computer animation as well as understanding the value of presentation skills.

My goal in the professional practice, taken from this thesis, is to establish contact with people in the community, as well as city engineers and other people currently in the professional practice. This will help me not only in my thesis, but better prepare me for the real world contacts which I will someday need to make, both on a personal level as well as as a professional level.

thesis goals

"Design is a creative response to knowledge"
-Alex Johnson

Personal Aspirations

Originality consists of thought and persistence. Creating a concept that provides distinct features and personality allows for unique response and constructive feedback. Design is a creative response to knowledge.

To be competetive means that one desires the success of achieving the highest achievement or winning. As a competitive person, I find myself always trying to achieve more than my peers, and collegues. I have a firm belief that if you want something done, and done right, you better do it yourself with full pride and responsibility. My personal goal that I have set for myself since I have entered into the Landscape Architecture program at North Dakota State University is to win the Best Thesis Award. Why would I not want that award, and my name to be associated with that prestigous award? As landscape students, we do not have many awards dedicated to our program. For me to earn this award would validate my being in the program.

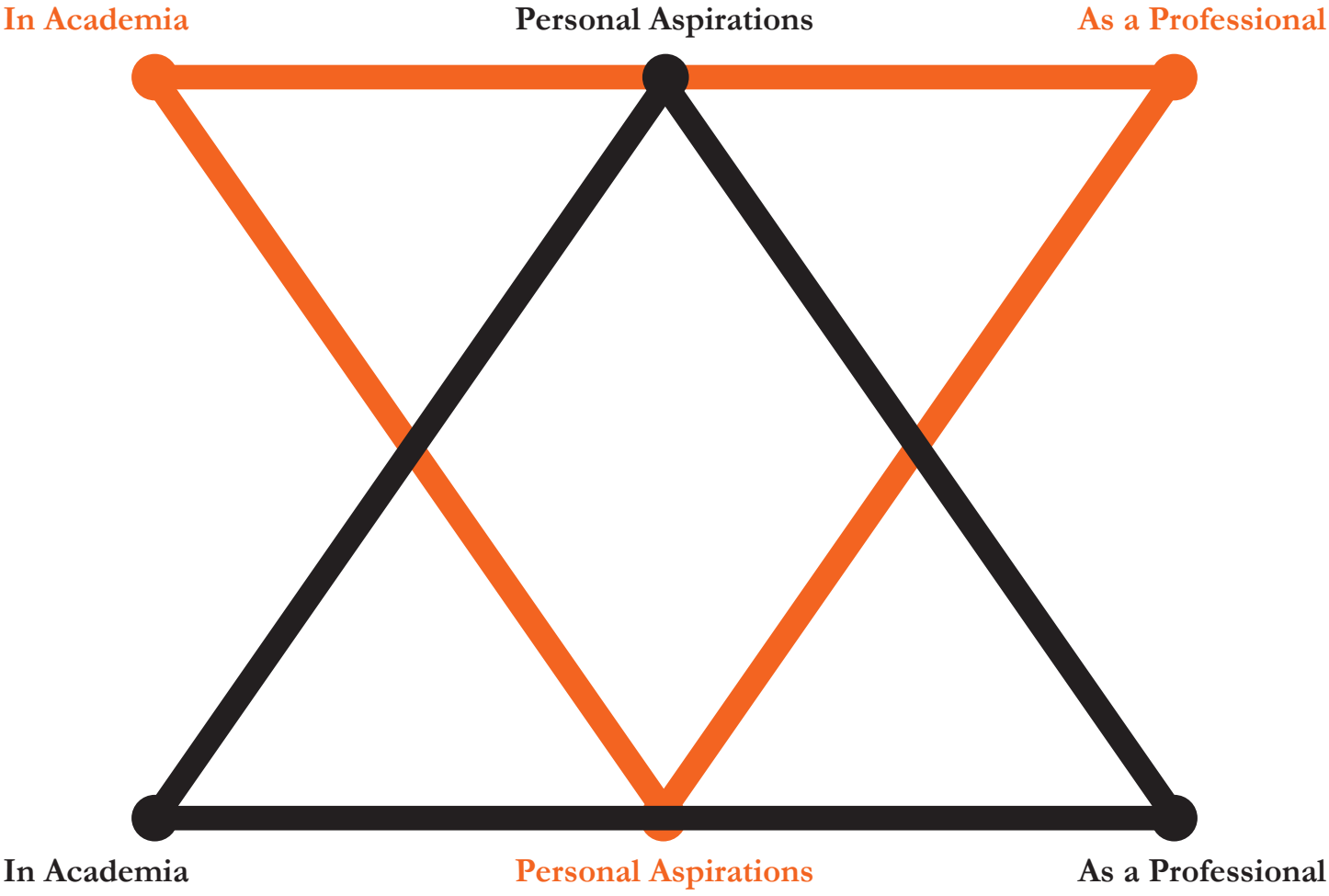
I also would like to stand behind my beliefs as a student and not change my opinion on suburban sprawl. I take both positive and negative criticism with thought, and want to develop my thoughts toward my thesis without losing my stance.

thesis goals

Success
Failure

Summary

By achieving my goals in acadiemia and as a professional, I can achieve my personal goals. Knowing the importance of creating a solid base in knowledge and professional practice, I can better my skills and achieve my final goal as a landscape architect, which is in golf course design. My thesis will finalize my career as a student, and allow me to start my professional practice.



site analysis

Narrative

My site is located in the northern part of the City of New Hope, and high residential housing is the focus throughout the site. Approaching the site from the east, Bass Lake Road moves through the northern border of the site. Commercial buildings are the first buildings that I experience, and they are mostly run down and in a condition that is not friendly. I continue on Bass Lake Road and experience the first set of older apartment complexes to the south. On the northern part of the road, a very well-maintained nursing home rests. A big issue with the nursing home is overflow parking problems; visitors constantly need to park across this very busy road, in an abandoned parking lot to the south. Halfway through the site, I can start to understand how the topography plays a role in the development. There is enough of a slope difference to have water management problems. Located on the right is the City of New Hope Golf Course, which is one primary element in which extensive planning would need to be considered if development requires its removal. The site is proposed to end as I continue on Bass Lake Road and intersect Boone Avenue Single home residential is on the right, with more senior living centers on your left. Take a left on Boone, and I head downhill about half a block, then take another left heading back uphill. This change in elevation can be seen in the topographical map shown later in the thesis program.

site analysis

The characteristics of the site are not appealing to residents in the area. There are a lot of run down and visually unappealing areas within the site, such as parking lots that are not being used correctly and that are not maintained. A redistribution of owned land needs to be assessed. A reallocation of area to accommodate needs of different commercial areas can better improve parking. There are many apartments that have no character to them at all. They are basic square- looking housing complexes. The bigger issue with these apartments is that their required garages have to be seen. They take a lot of space that could be used for better allocations. There are two large open lots within the site that are not being used. The biggest issue with this is the maintenance costs needed to maintain these sites. There is a constant appearance of pedestrians walking within the area, but the places that they walk to are either hard to access, or pedestrians are required to cross over the very busy roads of Bass Lake Road or Boone Avenue. Even Winnetka Avenue acts as a barrier, which disconnects some newly added apartments in the focus area. The overall grade that I would give this site, in terms of quality and distress, would be a 4 out of 10. The site has no "stopping" characteristic that would make people want to stop at the site. Even adding a couple commercial buildings would not be enough to make someone want to stop. The idea, however, of a light rail system would force people to stop throughout the site, thus creating more opportunity for someone to walk around a newly developed site.

Site Location: Positive and Negatives

The City of New Hope is located inside the interstate ring, which surrounds the greater metro area of Minneapolis. The primary thesis site is located inside the black circle on the diagram. One positive is that the density of the area is at its greatest. Also, New Hope has a close proximity to the City of Minneapolis and its urban core. One negative about the location, however, is that the city is in a "dead" zone. By being completely landlocked by other cities, the ability to expand must stay within, and the city must grow up rather than out. Another negative is a result of the success of the City of Maple Grove, located in the red circle. This has by far been the most developed and successful metro city in the past 15 years. The challenge is to create a space that can compete with the success of Maple Grove.

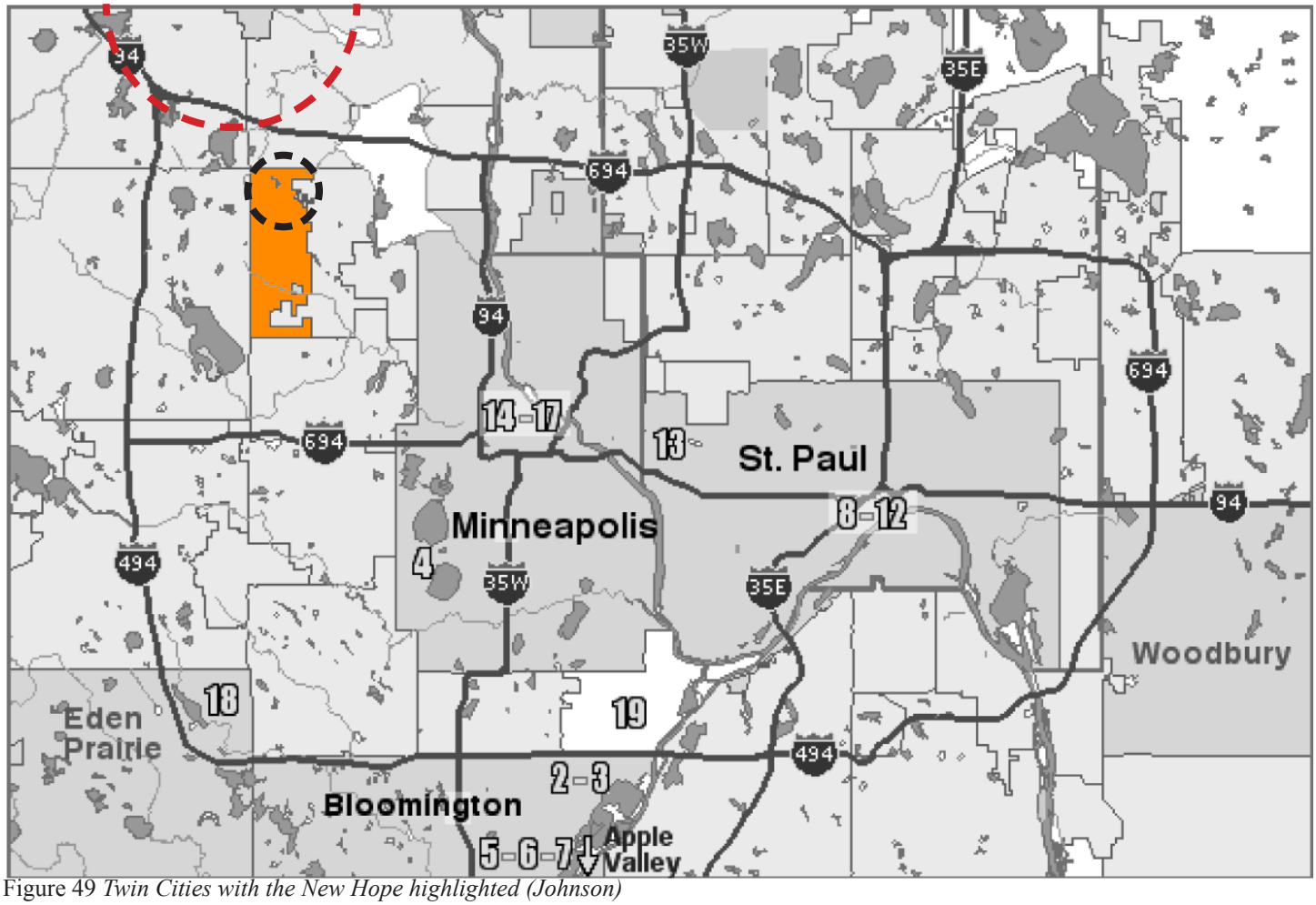
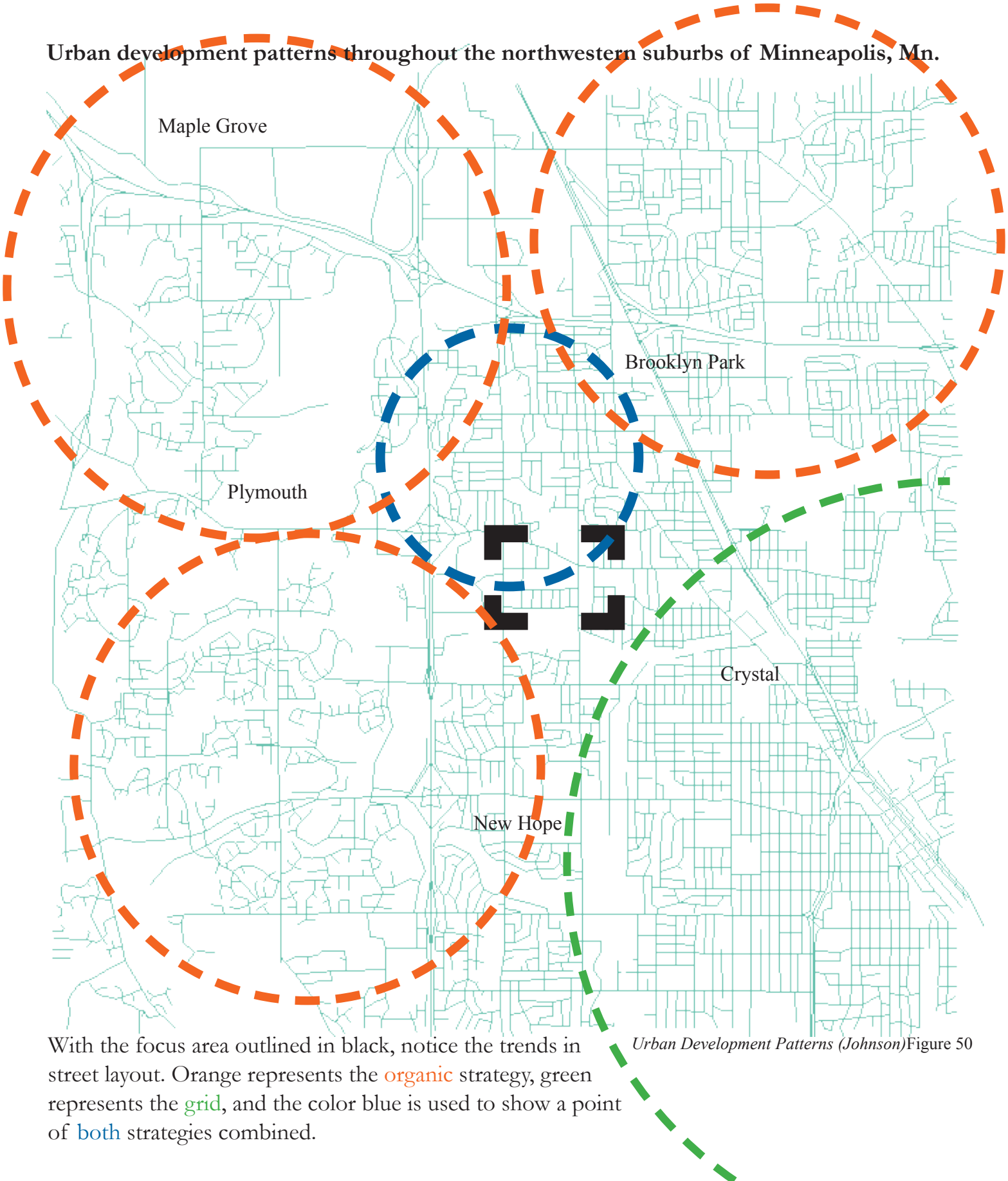


Figure 49 *Twin Cities with the New Hope highlighted (Johnson)*

site analysis

Urban development patterns throughout the northwestern suburbs of Minneapolis, Mn.



With the focus area outlined in black, notice the trends in street layout. Orange represents the organic strategy, green represents the grid, and the color blue is used to show a point of both strategies combined.

*Urban Development Patterns (Johnson)*Figure 50

Impervious land throughout the area; the darker red indicates more impervious surface.

Indicated by the highlighted yellow circles, this map shows the areas that have a higher impervious structure. One interesting point is that the black area is the thesis location. Heavy in impervious space, it is surrounded by less impervious spaces. Those spaces represent residential areas. The thesis site is populated by more hardscape than other areas. It also has many apartment complexes. It is not the buildings that take up the valuable space, but their garages that populate and create a lot of underappreciated space.

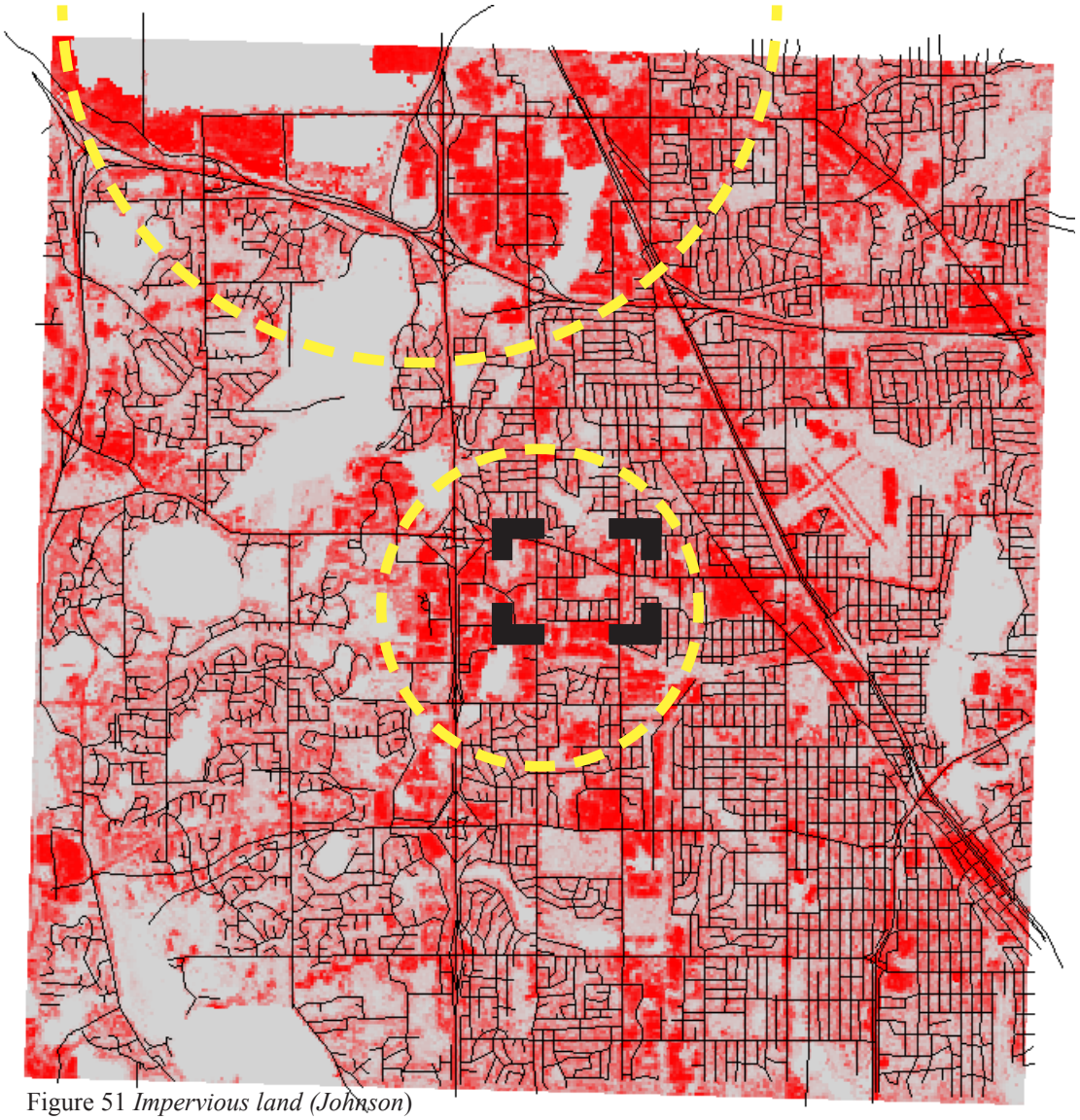


Figure 51 *Impervious land (Johnson)*

Mass Void/Building Types

Below are two maps that illustrate the mass void and building types of the proposed thesis site. In the top image, single family homes are clearly organized and located in a different part of the site than high-end residential. There is a large amount of void space throughout the site; space that should be developed as better organized to create higher density.

Located in the orange box is the projected thesis site, a site that has high-density residential. Along with residential, it has most of the commercial aspects in the site.

Located in the blue box is an area of possible re-development. This area is currently an open softscape used for recreation.

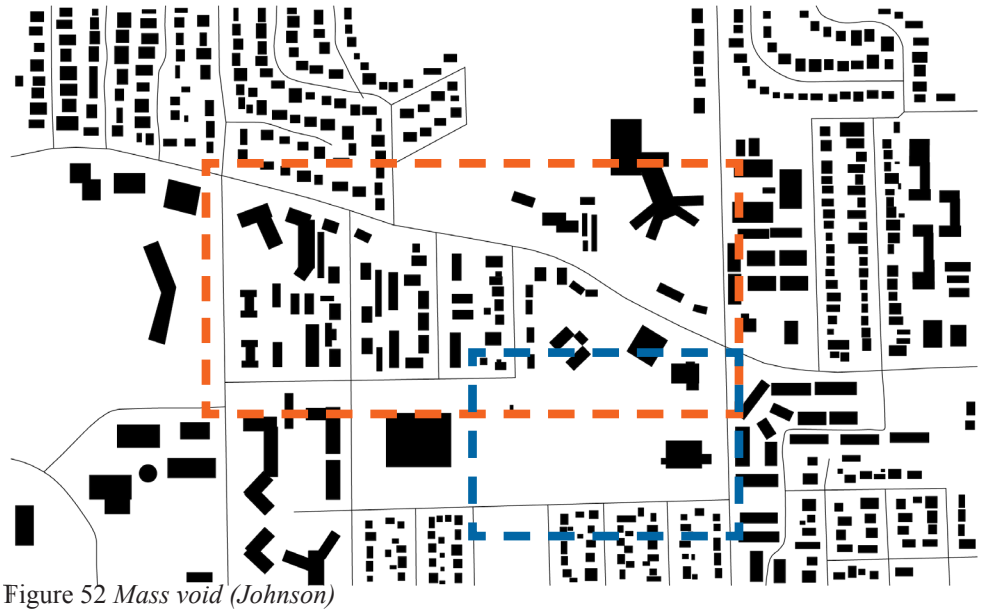


Figure 52 *Mass void (Johnson)*

Important buildings in the site are classified by the blue color. These buildings are successful senior assisted living facilities. Moving the location of these buildings would required intensive planning.

Yellow = commercial
Green = schools
Red = high density
Black = single family

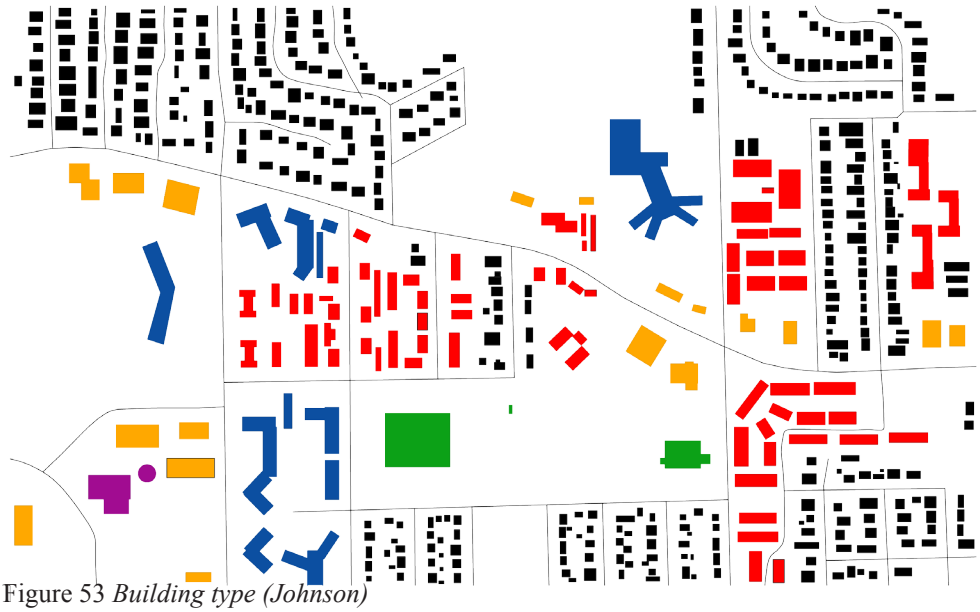


Figure 53 *Building type (Johnson)*

Green Corridors

The orange circles represent the greenway connections that pass through the site. The ability to develop these areas is a strong possibility. The two larger orange circles are areas of open space. Unique characteristics can be placed in these areas, such as commercial centers or other amenities.

Blue areas, as indicated on the previous page, are areas that would need strong planning strategies if redevelopment is considered. These areas consist of a new school, golf course, and senior assisted living centers.

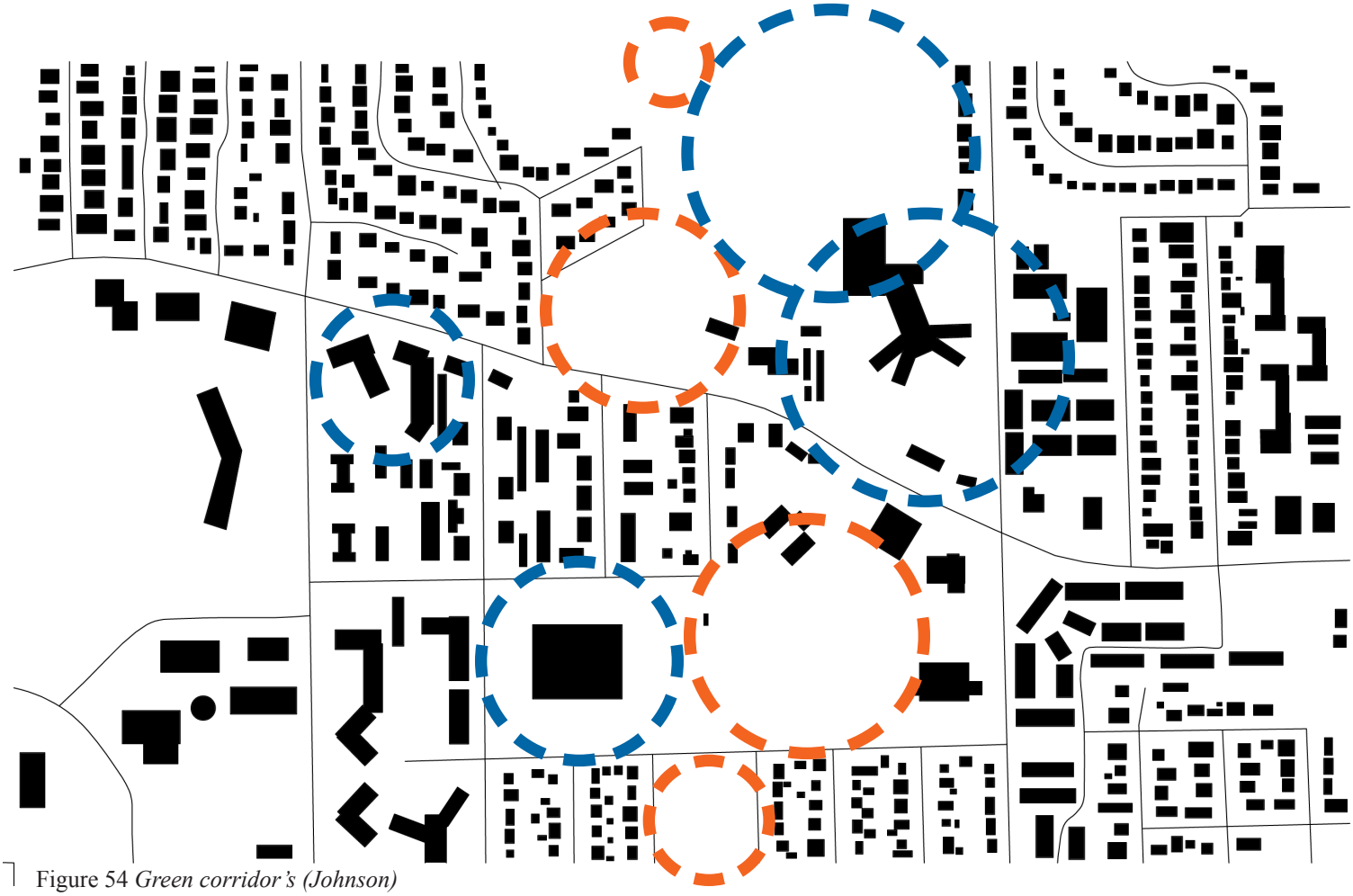


Figure 54 *Green corridor's (Johnson)*

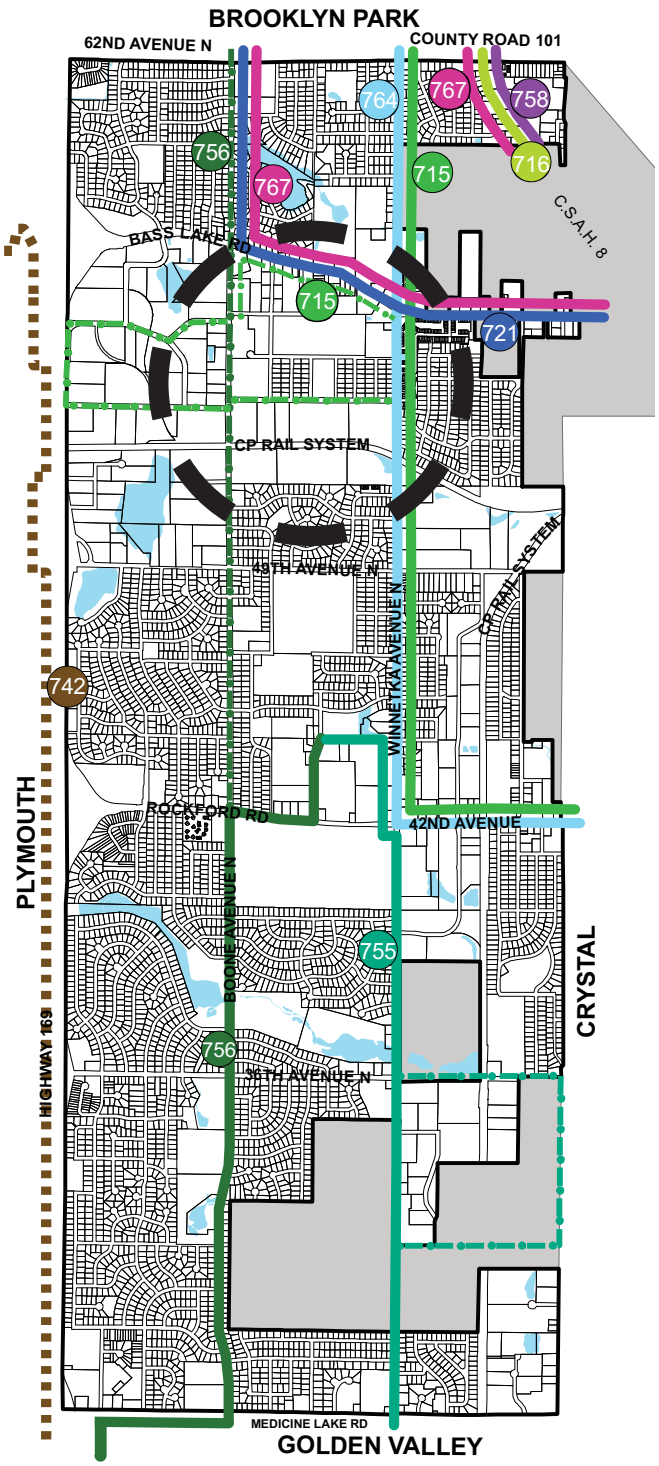


Figure 55 *Existing transportation routes (City of New Hope)*

Transportation Routes

The image to the left indicates current transit routes. Heavy transit is orientated near the proposed thesis site. Whether re-routing or creating new transit patterns is considered, understanding the pedestrians' need is important. Residents in the area are familiar with the locations of pick-up and drop-off stations. Using these places in the new design will help incorporate old habits that the public has.

Looking at the map, one can also better understand where the single famly residential areas are, in relation to the thesis design area. The connection between two current transit areas and the future development will best be suited for the northernmost part of the site. This allows for less change in the transportation routes, thus allowing people to still have knowledge of where pick-up and drop-off spots are.

The image below shows how routes can be slightly altered, but still remain in the general location.

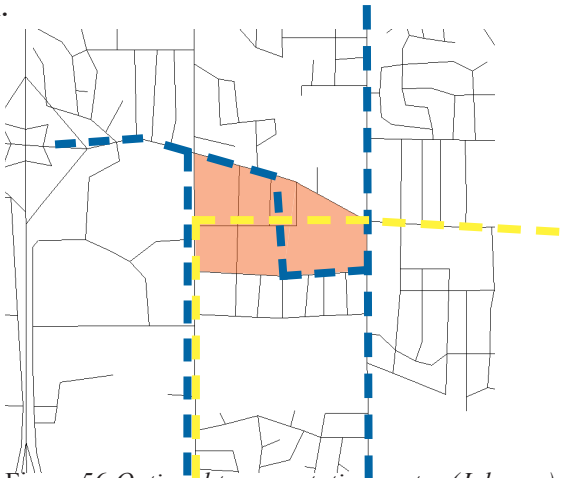


Figure 56 *Optional transportation routes (Johnson)*

Twin Cities Transitways

This map shows the current and proposed light rail transit routes by the City of Minneapolis. The site, in black, shows how connectivity is available. Routes can also be altered to run through New Hope and then to Maple Grove. Having the option to connect will better the site, in terms of transit connection to the inner city.

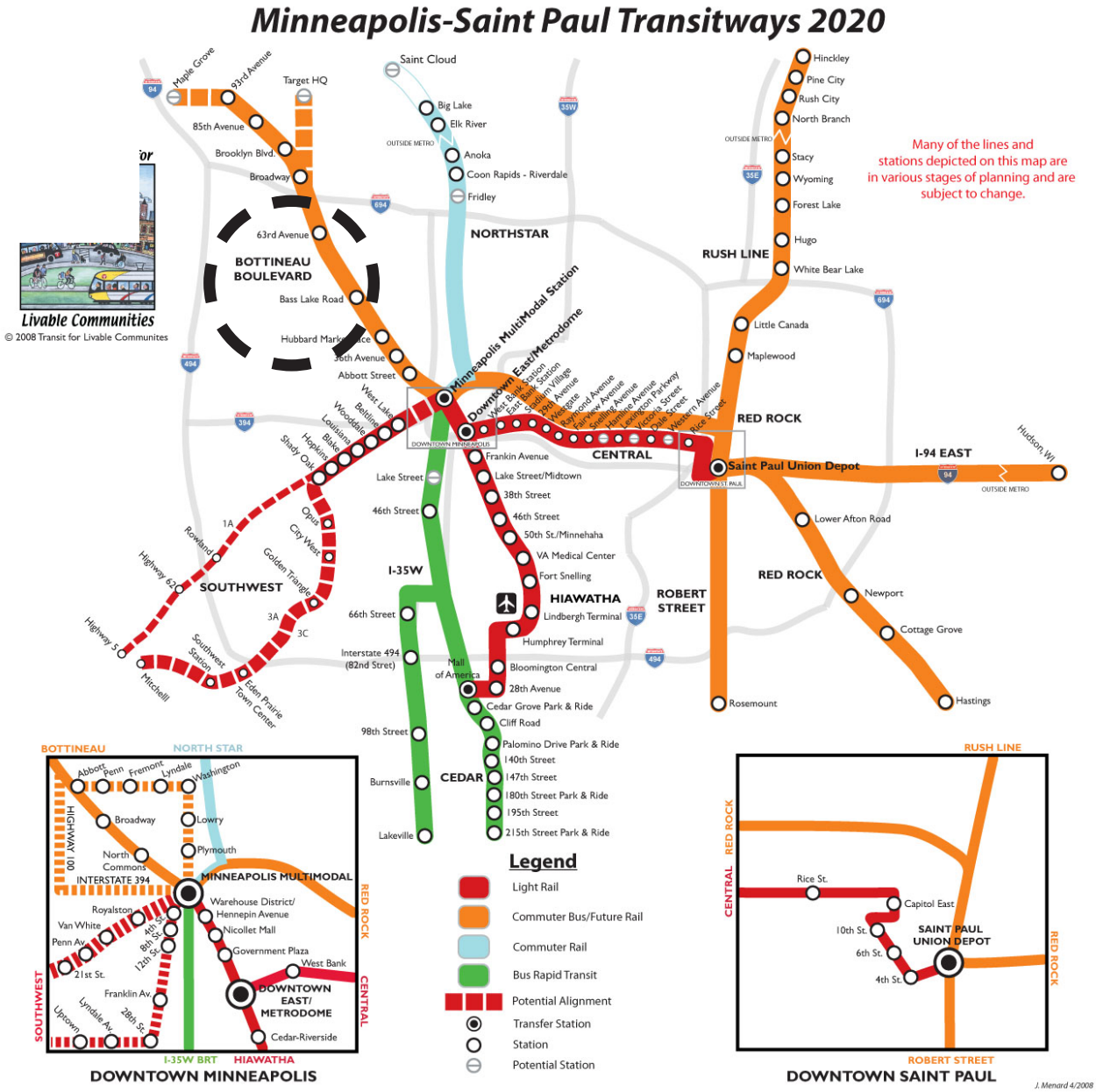


Figure 57 *Minneapolis-Saint Paul transitways 2020 (Menard)*

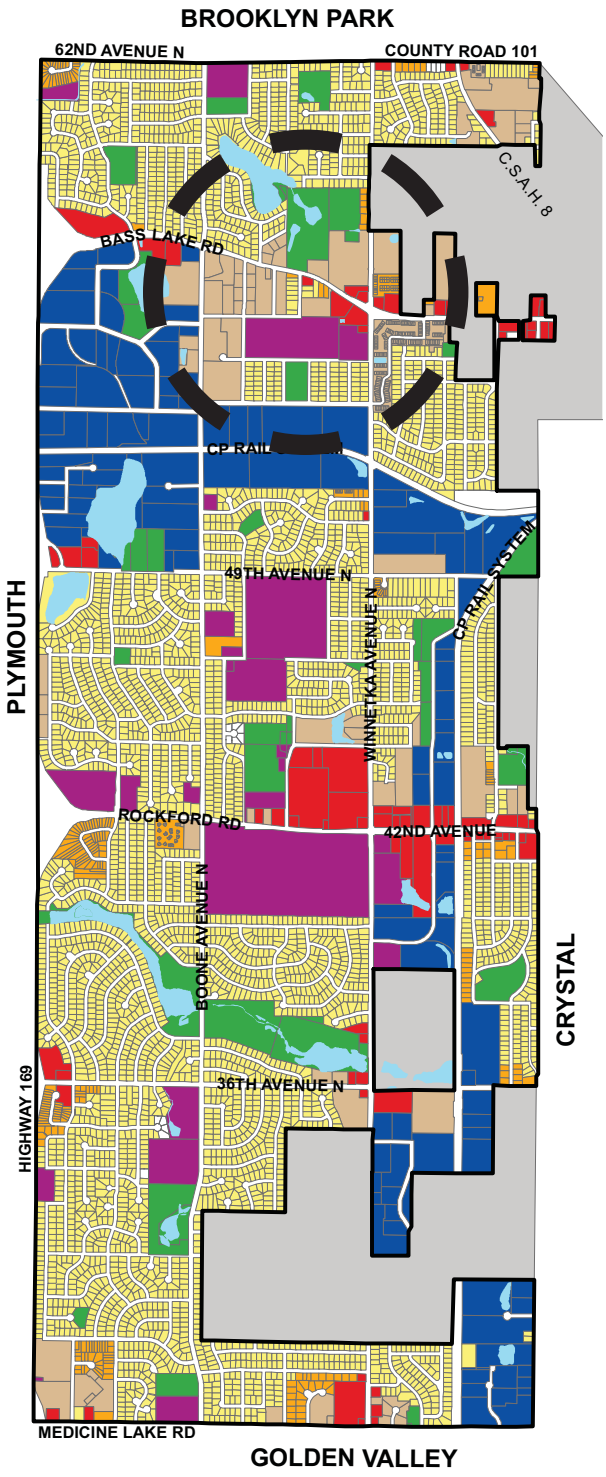


Figure 58 *Existing land use (City of New Hope)*

Located in the black circle, most of the high density residential for New Hope is currently is located primarily in the thesis focus site. This image shows what the City of New Hope has designated as its zoning. The light tan color is currently zoned as high residential. Notice that most of the high residential for the City of New Hope is located in the area of focus.

Another primary color that is very dominant within the focus area is zoned as industial. This zoning is indicated by the blue color. The best way to link this to the focus area would be on the west side of the city.

Connecting this zoning map to the case study of Fayetteville, being able to link a series of urban zones throughout the northern part of the city is an option that can be accomplished with strategic planning.

The smaller image to the right indicates the drainage patterns based on the topography of the site. These three zones indicate that there are a series of water systems that control the runoff of water within the focus area.

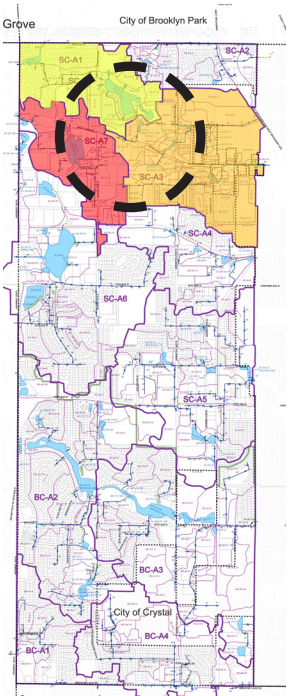


Figure 59 *Drainage patterns (Johnson)*

Major Roads

Bass Lake Road would be the primary road within the focus area. Other strong connection routes would be Boone Avenue and Winnetka Avenue. These two north-south roads connect the City of New Hope to the southern cities, and Bass Lake Road leads to the furthest outermost cities in the metro area.

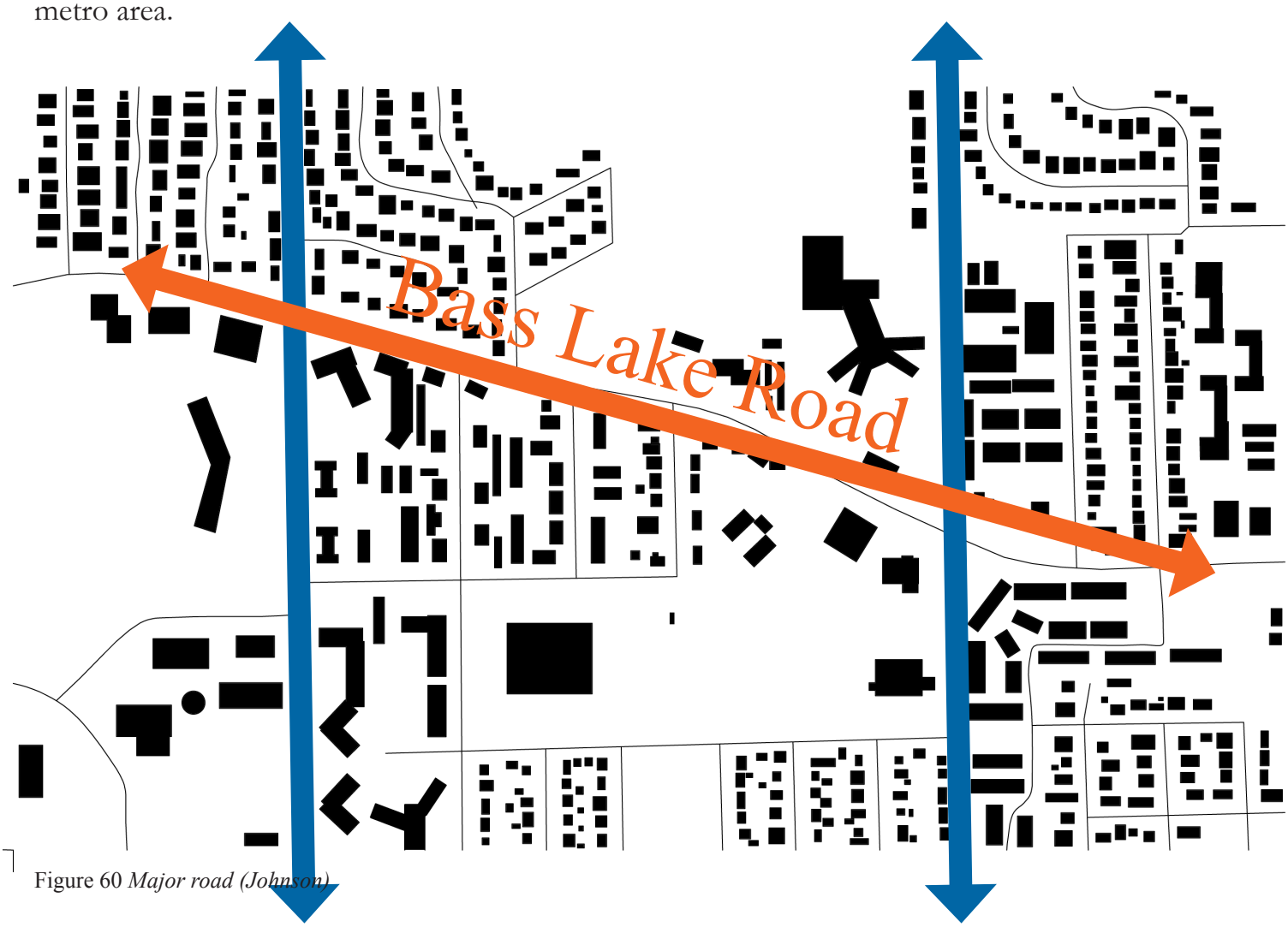


Figure 60 *Major road (Johnson)*

Entances into the site

There are two sets of stoplights at the northern corners of the focus area. Any type of retrofit near these lights will have to be planned heavily because of the amount of traffic that passes through at a daily constant rate. These are important connection points for the three main sets of roads, so they will most likely not be touched. A redevelopment of the area around the intersections should be a priority because of the need to attract people to the site. The third key entrance point is located in the yellow area. This is the strongest access point to the inside of the focus area. More entrances into the focus area are needed.

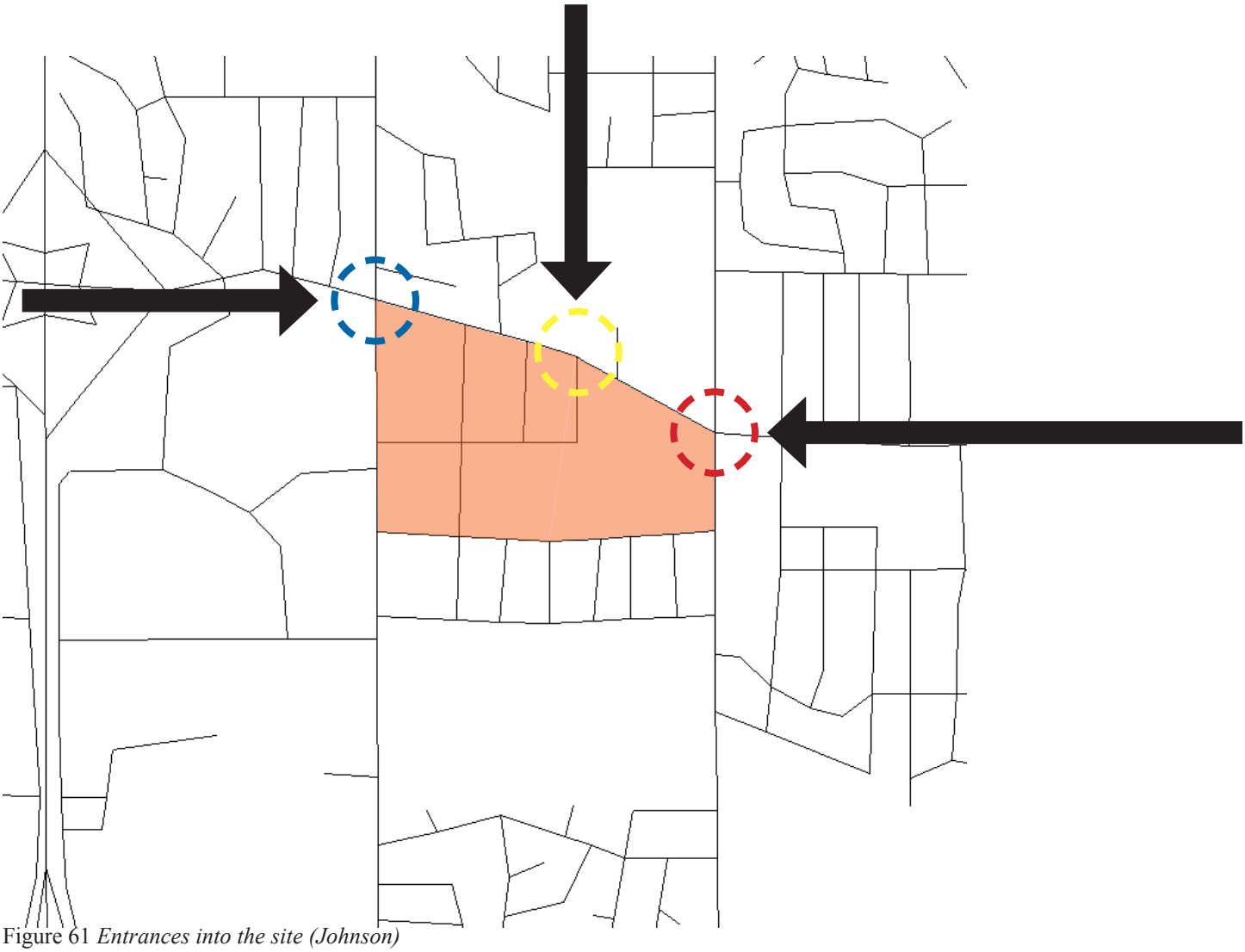


Figure 61 *Entrances into the site (Johnson)*

Traffic study for the future

The City of New Hope has established some studies stating that the traffic volumes increase in the next couple of years through 2030. Knowing that the projected traffic patterns will increase, we can conclude that the amount of sprawl westward is drawing more and more people to the outer suburbs. Being able to either take advantage of the traffic amounts, or by proposing light rail instead of heavy traffic, are areas of interest.

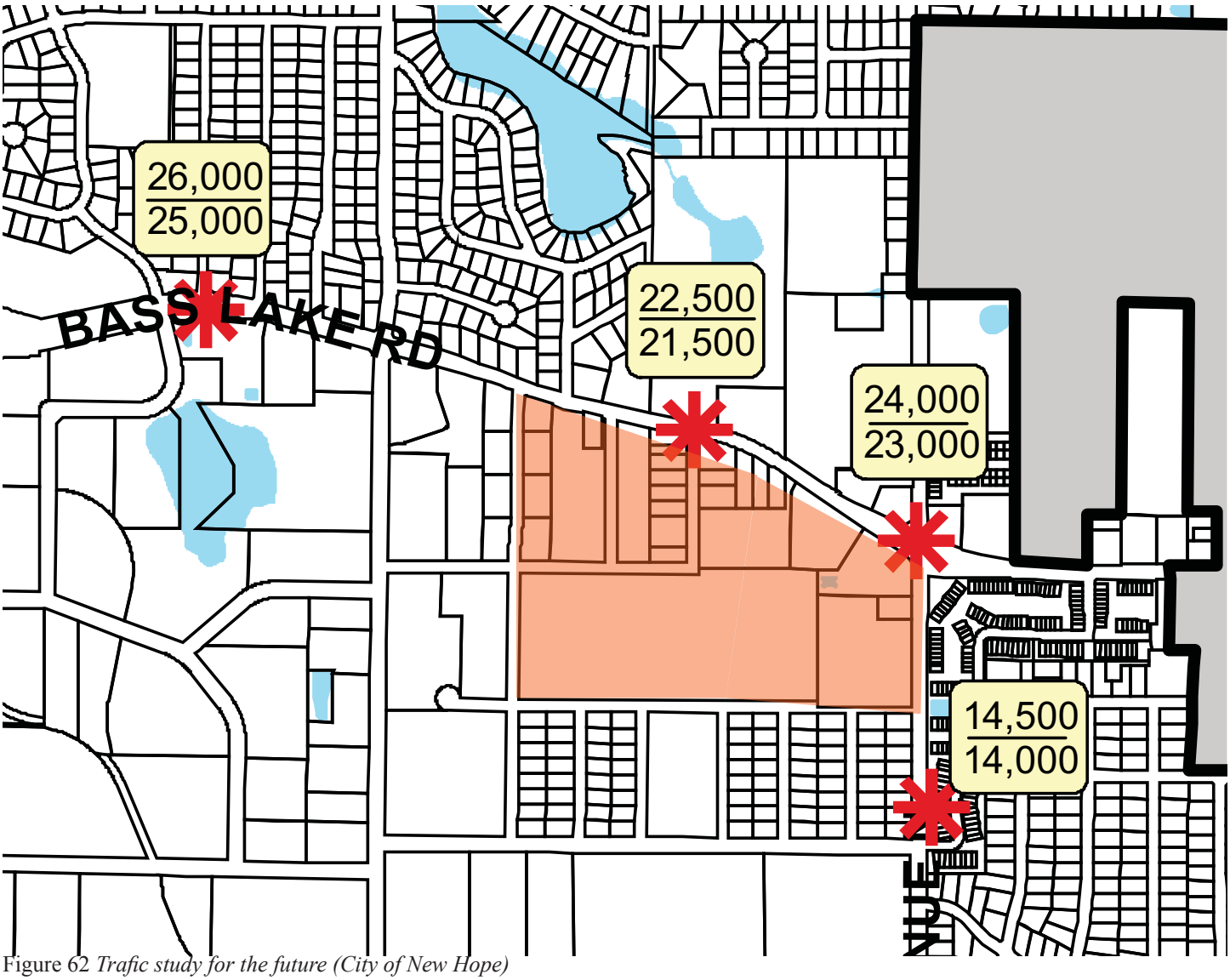


Figure 62 *Trafic study for the future (City of New Hope)*

Topography

This map show the topography on the site and in the surrounding context of the site. The black ring shows the high point on the site; the blue ring indicates the lowest point on the site. Topography can be a great advantage to designing an urban place in that is allows for an increase viewpoint for people within the site. Creating spaces at different levels will not just create different vantage points, but also create more unique niches, as well as establish a hierarchy in buildings, without having to change the planning or the new retrofiited community.

The city has an 18% slope maximum in development

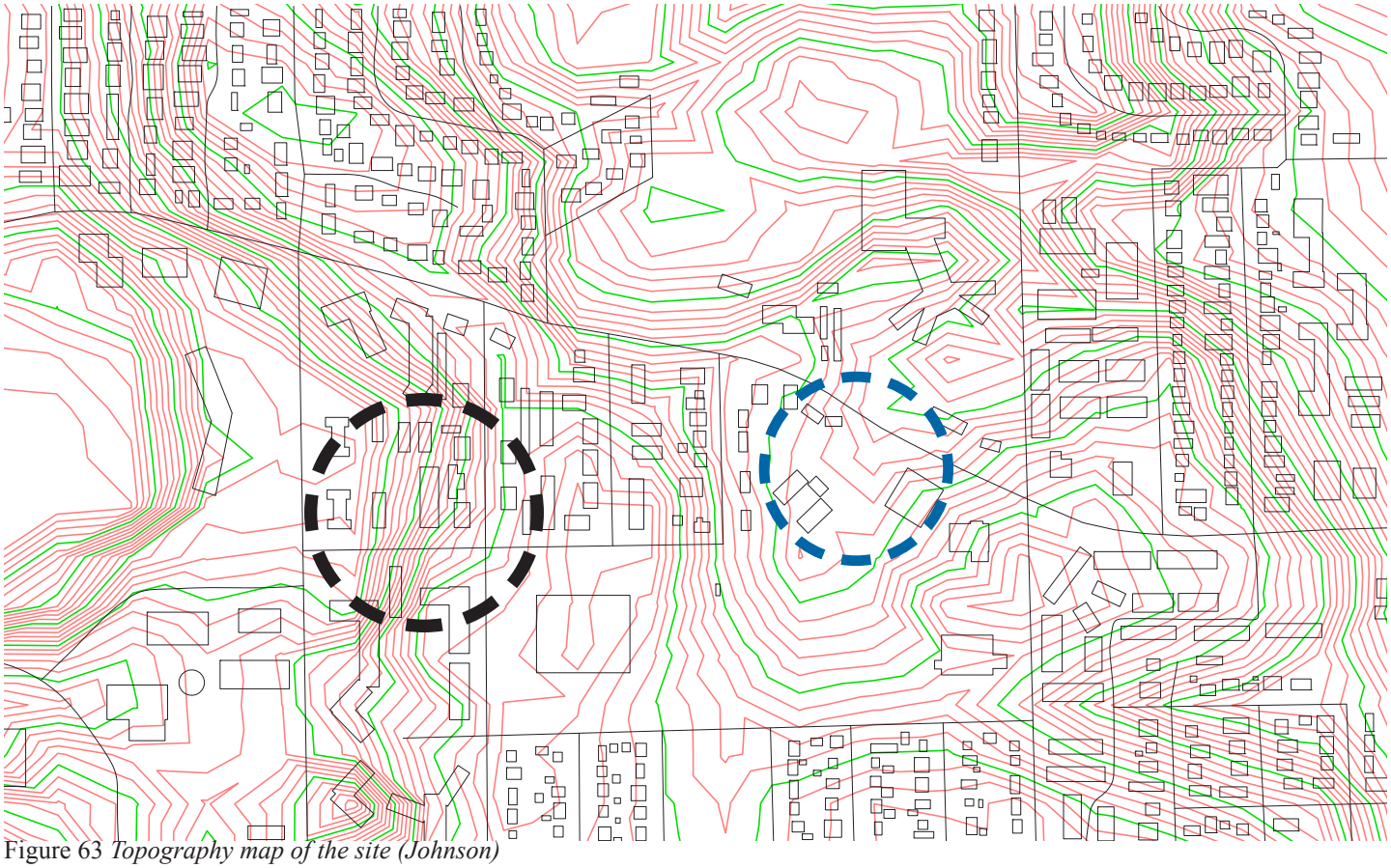
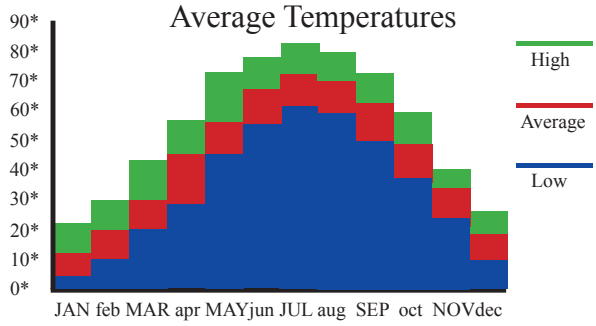
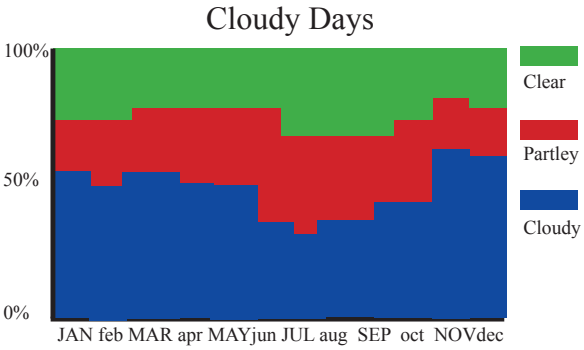
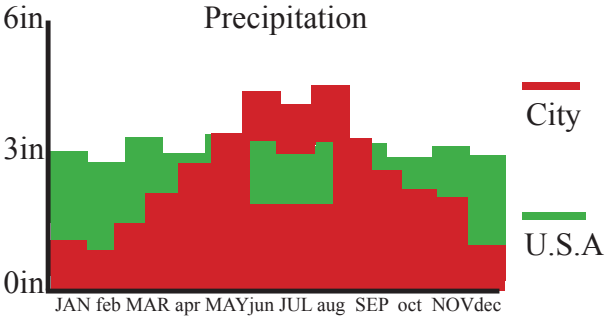


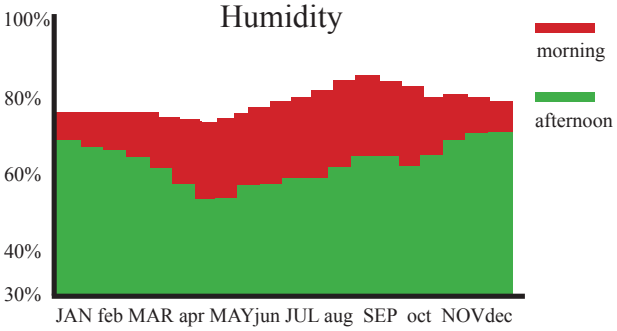
Figure 63 *Topography map of the site (Johnson)*

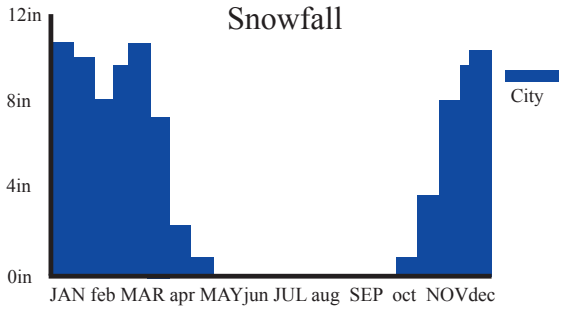
Weather and climate date for the City of New Hope.

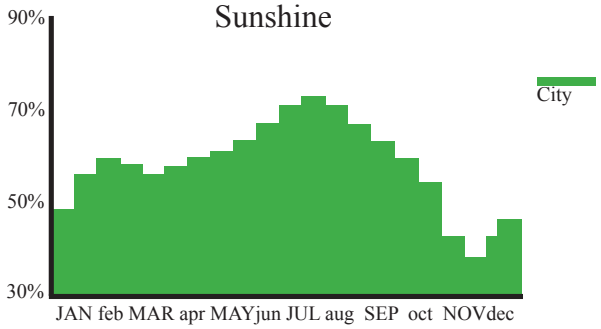


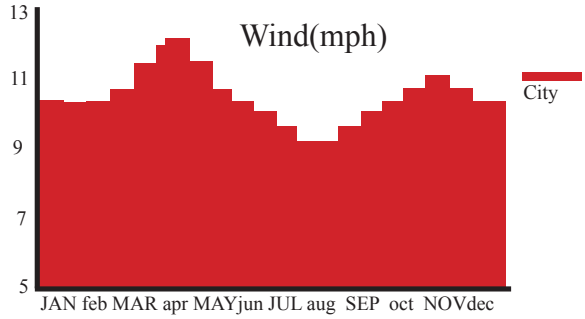












Figure's 64-70 *Climate data maps of the site (Johnson)*

Site Zoning and Section

The site has a high density ratio that is covered with multi-family housing units. To the east of the site, commercial space creates an entrance to the site that is unpleasant. The section below illustrates the amount of topography change that occurs on the site. This can be useful information when developing a better area with a third space. Public and semi-public space is owned by the school board and has strong limitations to it when design plans develop. High density zoning will play a role in creating more dense living environments and creating a better developed area for pedestrians and transportation.

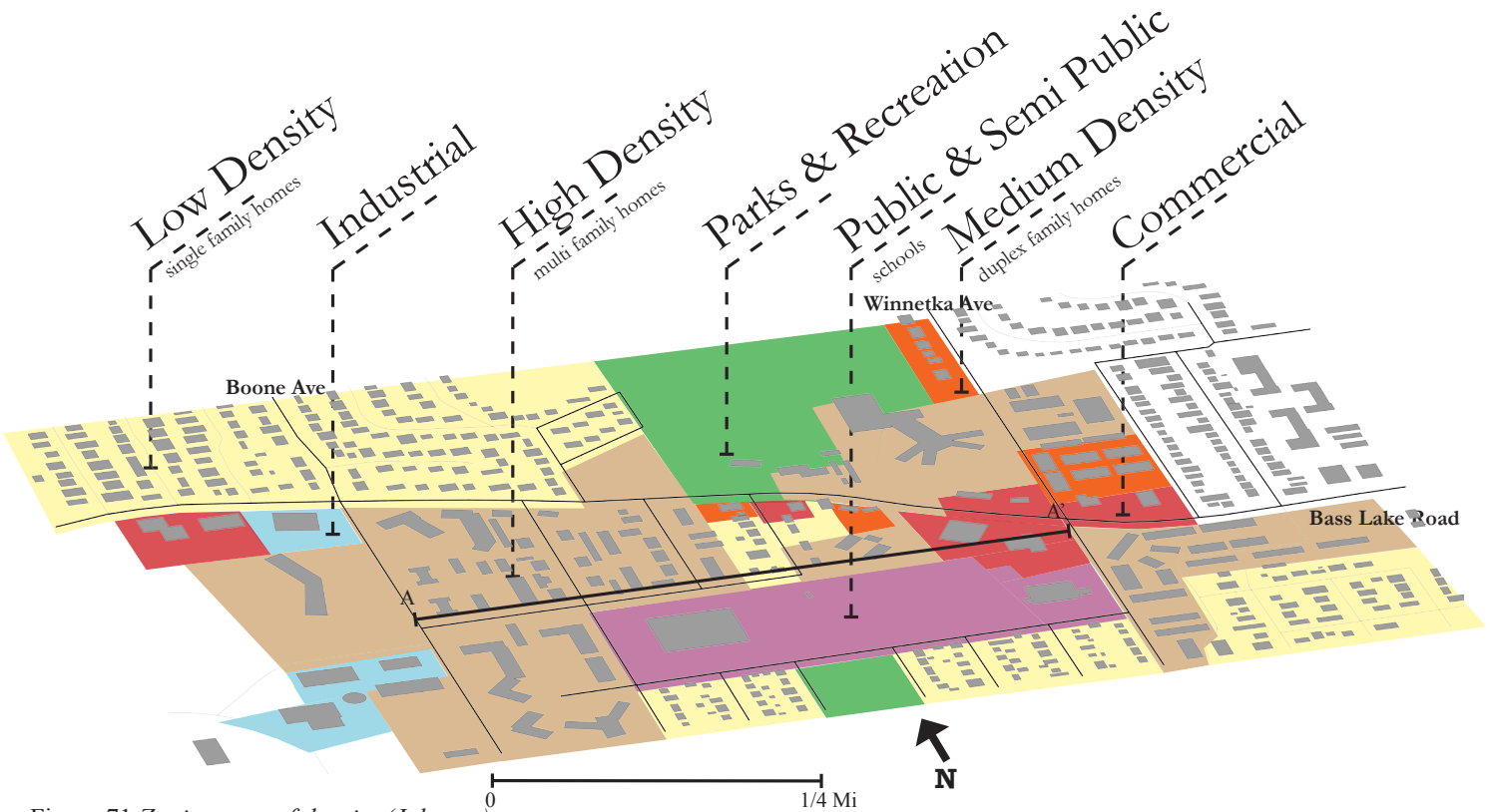


Figure 71 *Zoning map of the site (Johnson)*

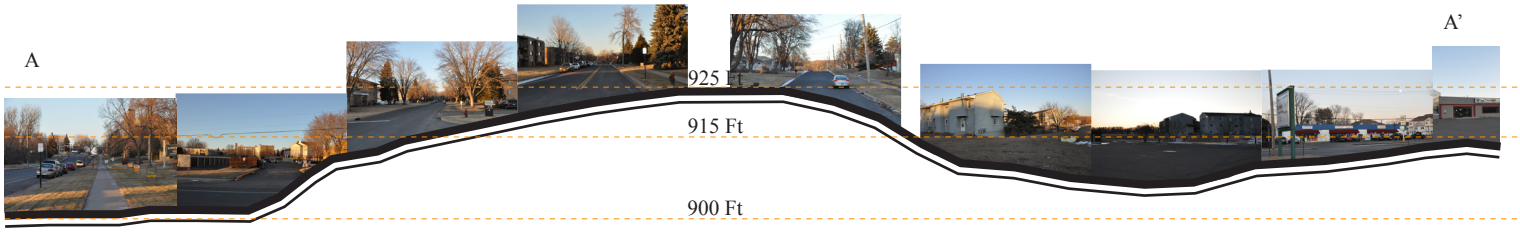


Figure 72 *Section that cuts through the site (Johnson)*

Basic amenities in surrounding area

The basic weekly needs of poepleare illustrated in the diagram below. Grocery stores, park-and-rides, shoe stores and, target are all located within the area of the site, but not in the prefered parameters of the site location.

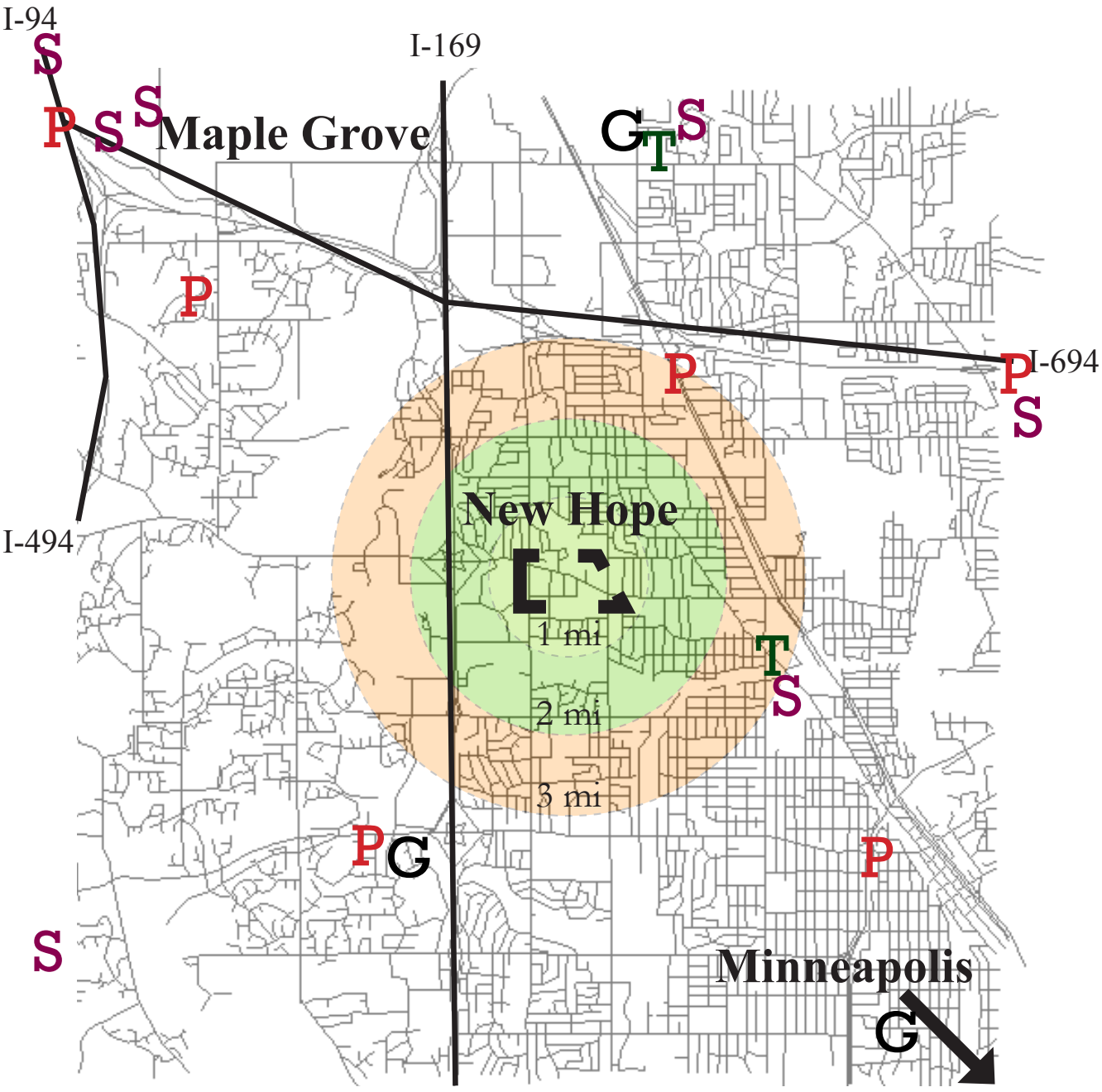


Figure 73 *Basic amenitities that surround the site (Johnson)*

Bus routes directly in the site

There are five major bus routes that are in the site itself. These routes determine that connectivity is an option. The travels modes currently found in the site are by car, foot and fixed bus route. There needs to be an increase in the types of travel modes to and from the site.

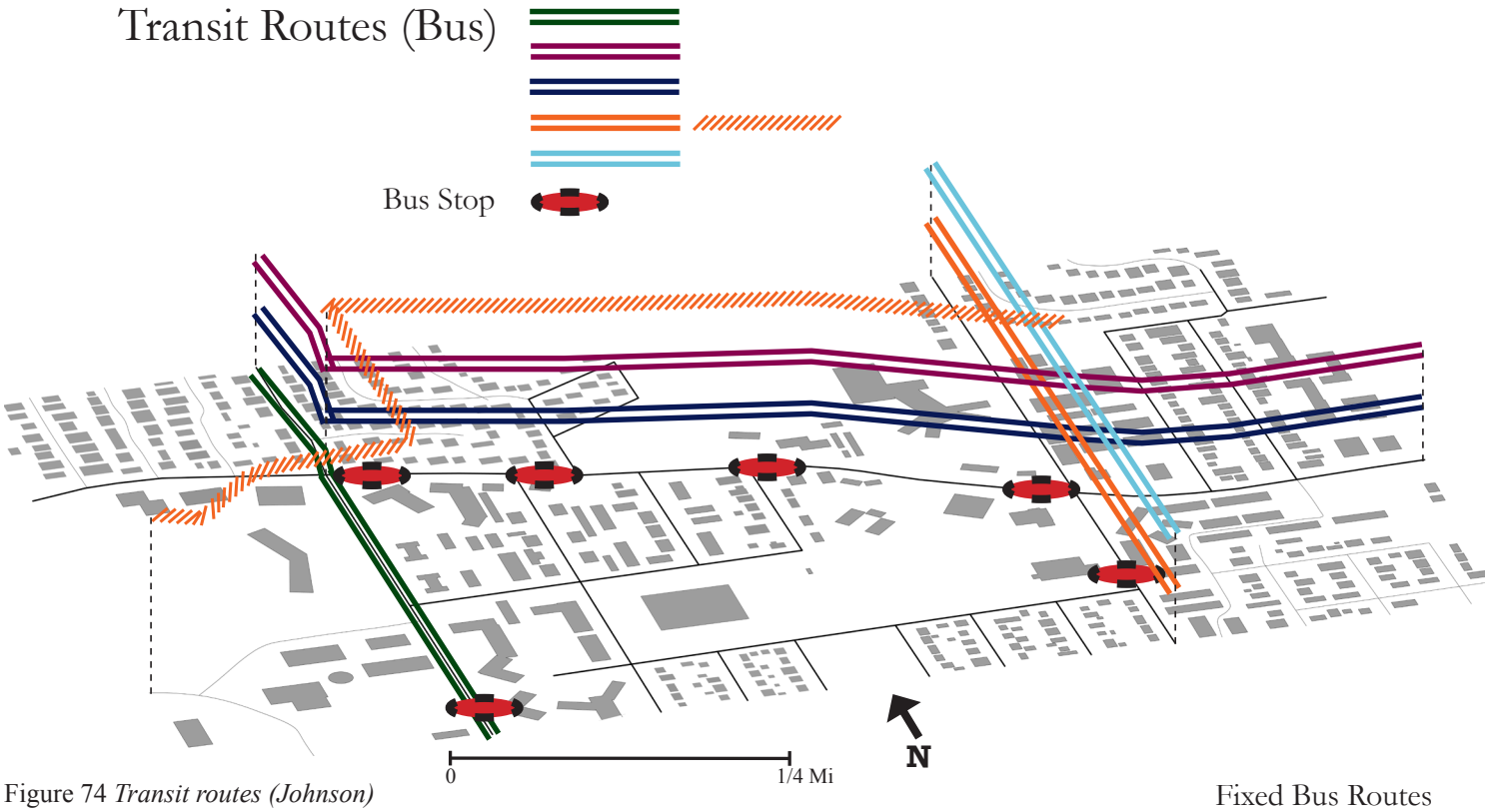
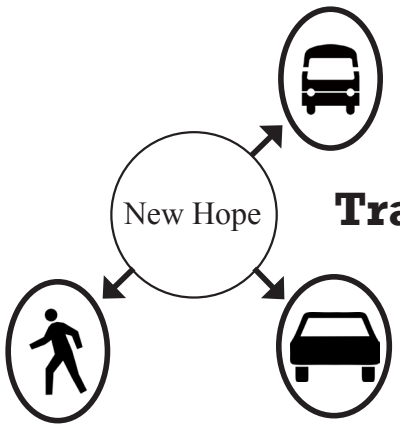


Figure 74 *Transit routes (Johnson)*

Fixed Bus Routes
Inner-City Buses

Speed Limit 30-35mph
tendency to speed



Travel Modes

Pedestrians
Walkers/Joggers

Figure 75 *Travel modes (Johnson)*

Automobiles
Freight Movement

Improvements to connectivity

Creating a central core will allow for better access to mass transit. People living in the assisted living complexes will have a better means of travel that will be safer and easier to use.

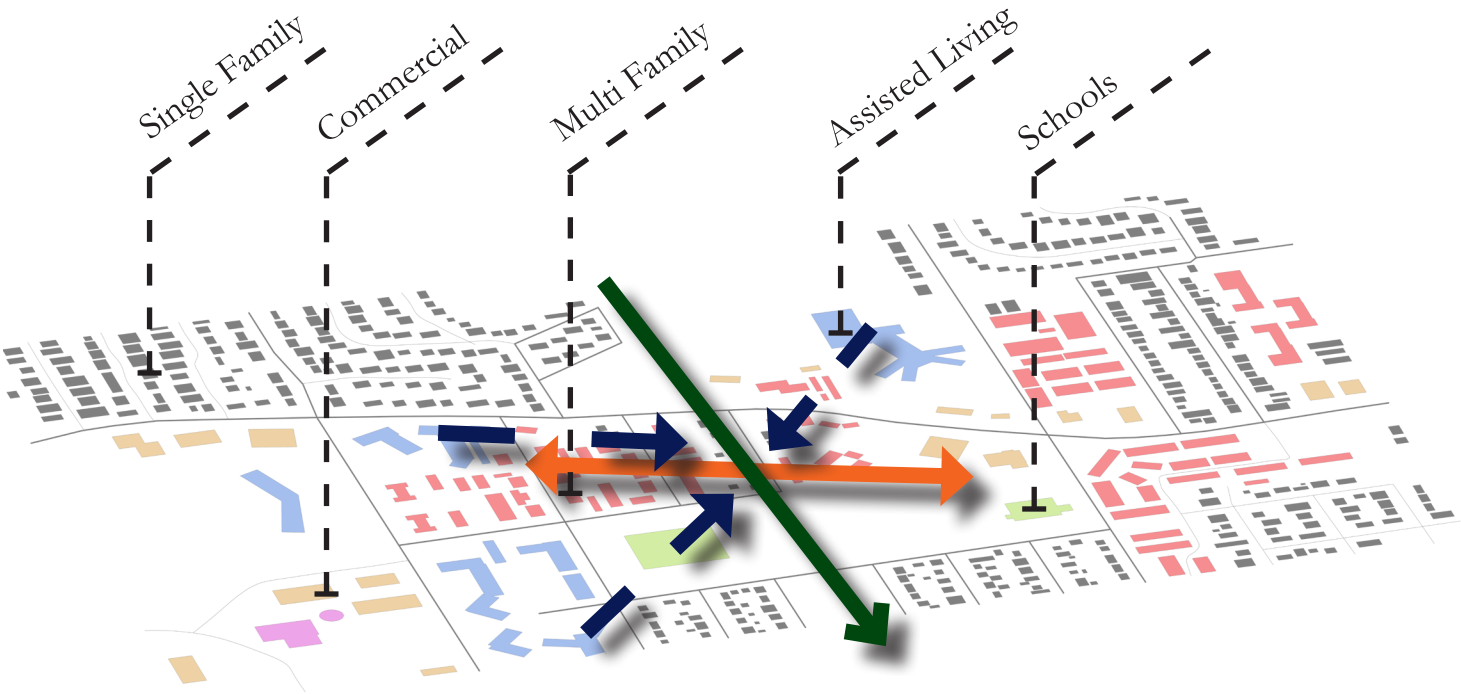


Figure 76 *Imporvements to connectivity (Johnson)*

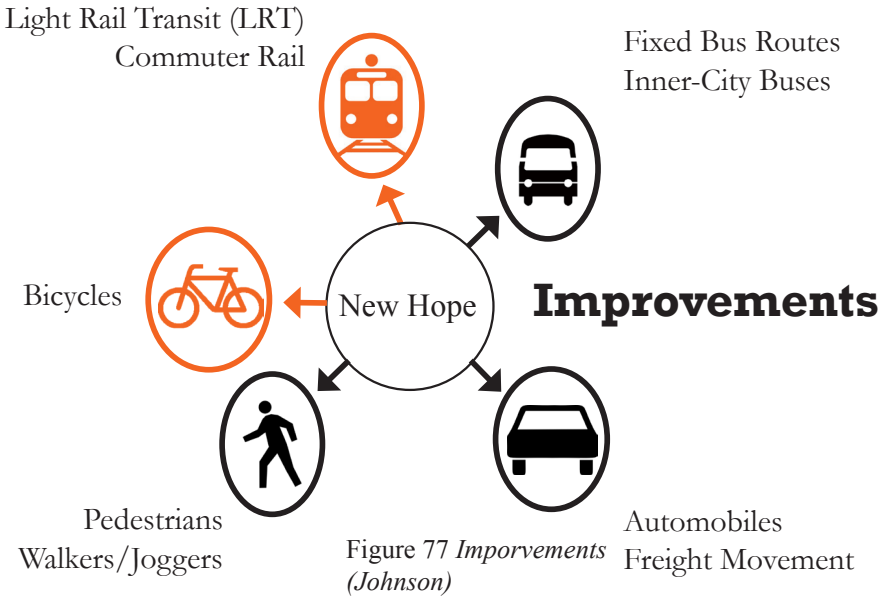


Figure 77 *Imporvements (Johnson)*

Results

After doing a complete analysis of the site and surrounding areas, the results that have been drawn will help in the direction of proceeding for the final design.

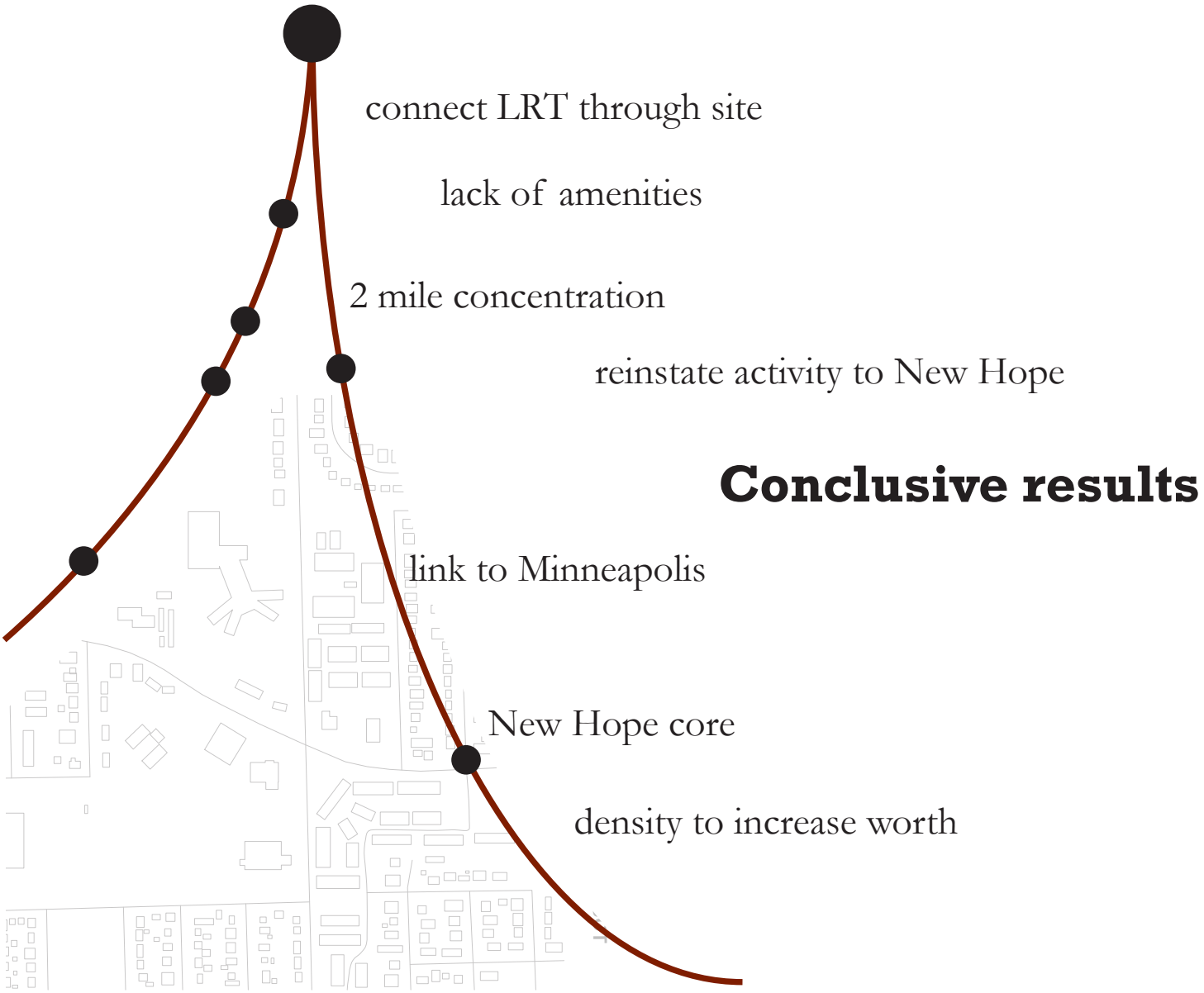


Figure 78 *Conclusive results (Johnson)*

Connectivity

Knowing what needs to be achieved for the future to better the site, this diagram will help one understand the direction this thesis will go. With heavy density in Minneapolis, the need to connect to Maple Grove can be drawn through the site. This connective link will create a third space and improve the surrounding areas.

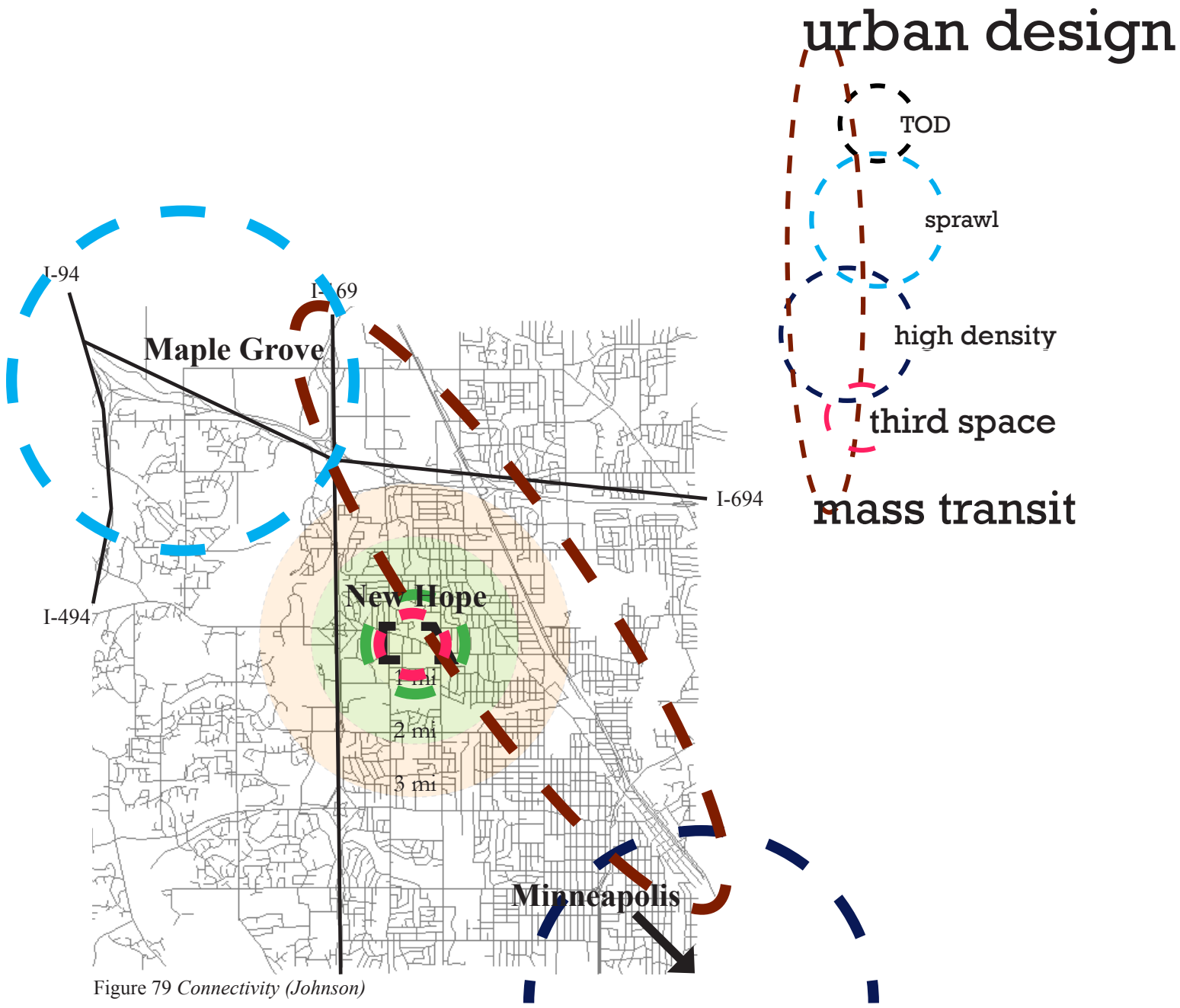


Figure 79 *Connectivity (Johnson)*

Goals for the future

Analysis has proven that this site location will be a good place to introduce transit development. This will create a third space that has the ability to improve the area and the neighborhood in which it is located.

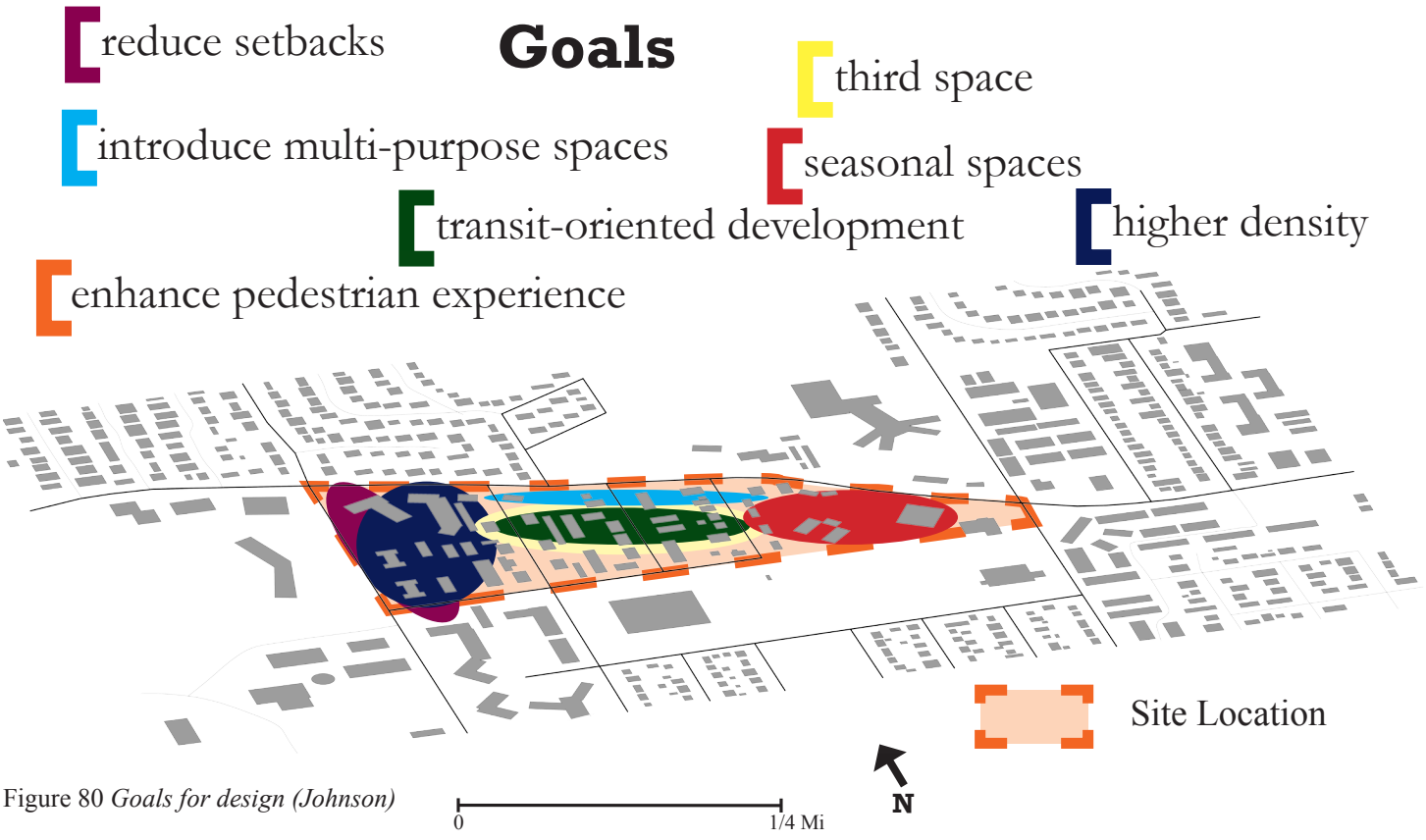


Figure 80 *Goals for design (Johnson)*

programmatic requirements

"...successful street design, which allows for pedestrian interaction..."

Throughout the northernmost part of New Hope, create an urban retrofitted development that sparks interest in urban living.

Connect the pedestrian to space through commercial accommodations.

Establish a connection to Minneapolis via a light rail transit system, which has a station located within the proposed site location.

Increase higher density throughout the site using better residential housing, and more mixed-use buildings that create unique space.

Engineer a successful street design, which allows for the pedestrian to interact with and have a sense of being while on the streetfront.

Introduce ornamental vegetation that is appealing in all seasons.

Have pocket parks and smaller niches throughout the site that allow for personal exploration.

Create one specific place of hierarchy, which draws people from surrounding areas, and keeps people in the area for a period of time.

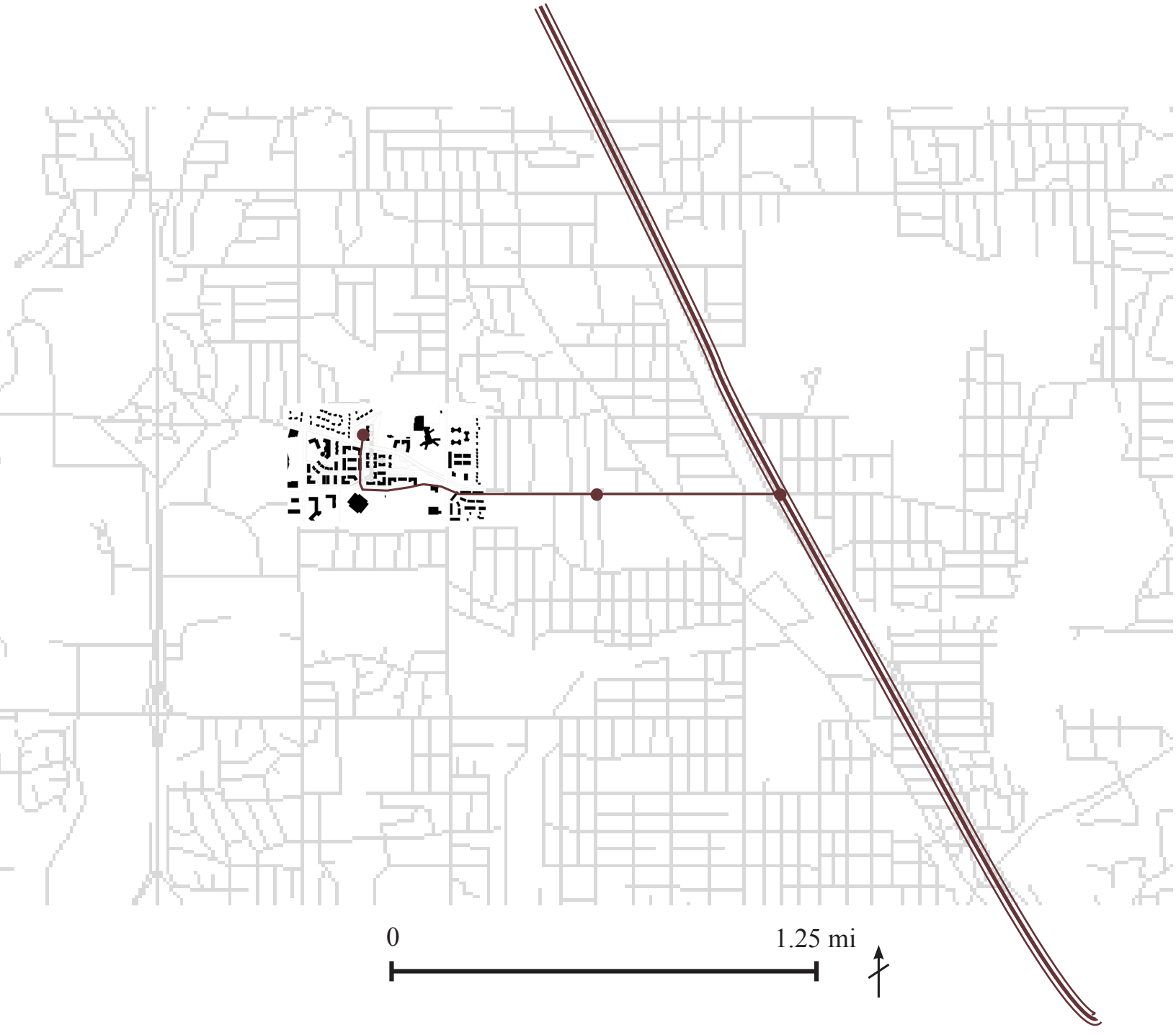
Use concrete to create patterns and artistic hardscape.

Create better parking strategies, and creative ways to "hide" cars.

Increase corridors, both pedestrian and vehicular.

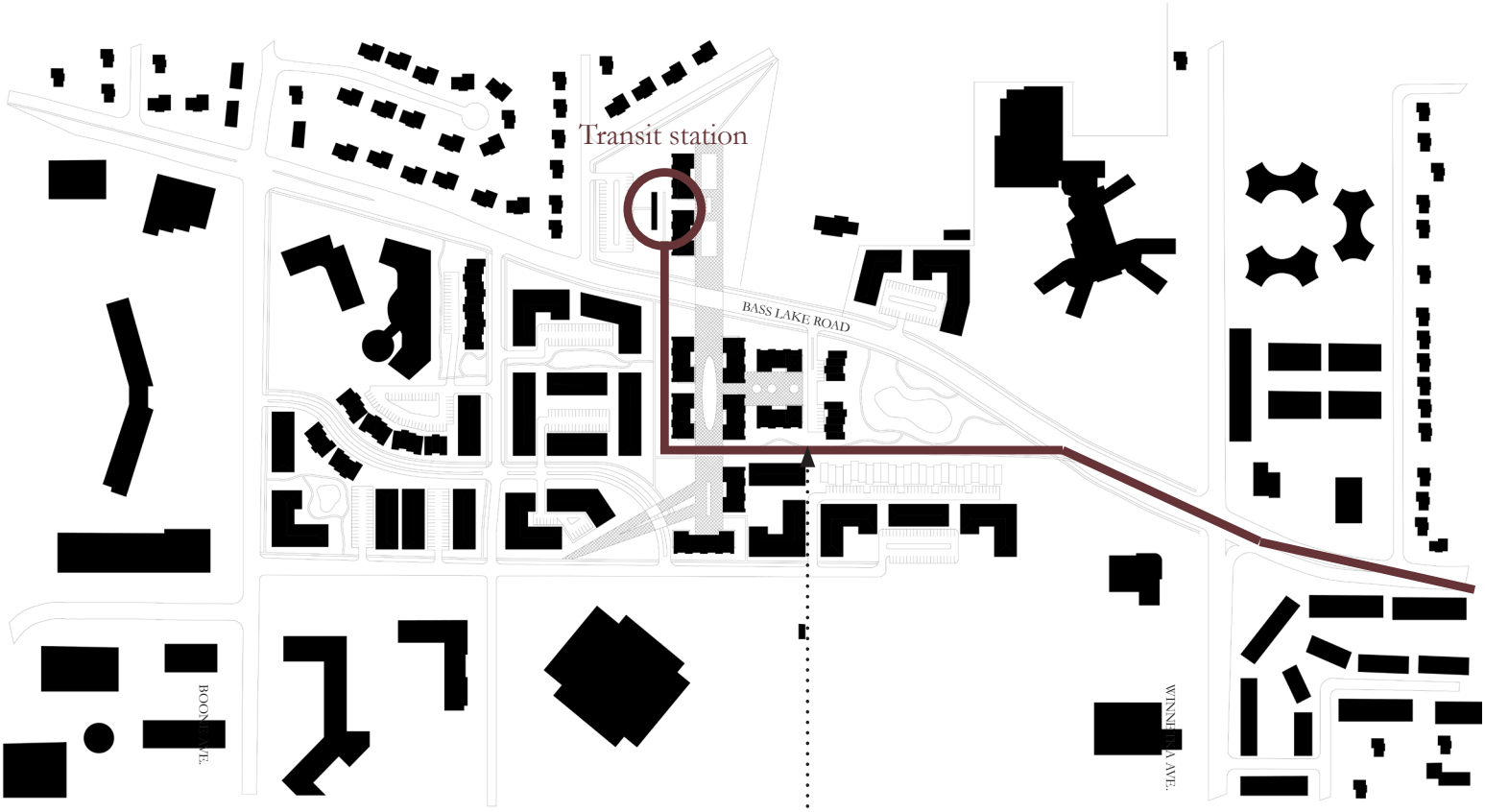
schematic design

The connection to the LRT system will be the leading force in the design concept. The site is located 1.25 miles from the transit line, and that distance can be challanging for elderly and pedestrians with small children. A link from the site to the LRT will increase efficieny as well as establish a safe connection from the suburbs to downtown Minneapolis.



schematic design

The concpet design lead to two different and disconnected core areas. The tranist core was to be in the northern part of the site, while the pedestrian and social core would be located in the middle of the site. This caused a difficult connection to the two core areas, forcing pedestrians to cross the roadway. One successful outcome of this concept was the link of the streetcar line through the center of the site. The concept also removed buildings to accommodate newer structures. Being able to keep existing structures will better the area by leaving some historical sapects to the site.



Deficiency: Connection to proposed LRT

Remedial Techniques: Introduce street-car spoke to connect to main route

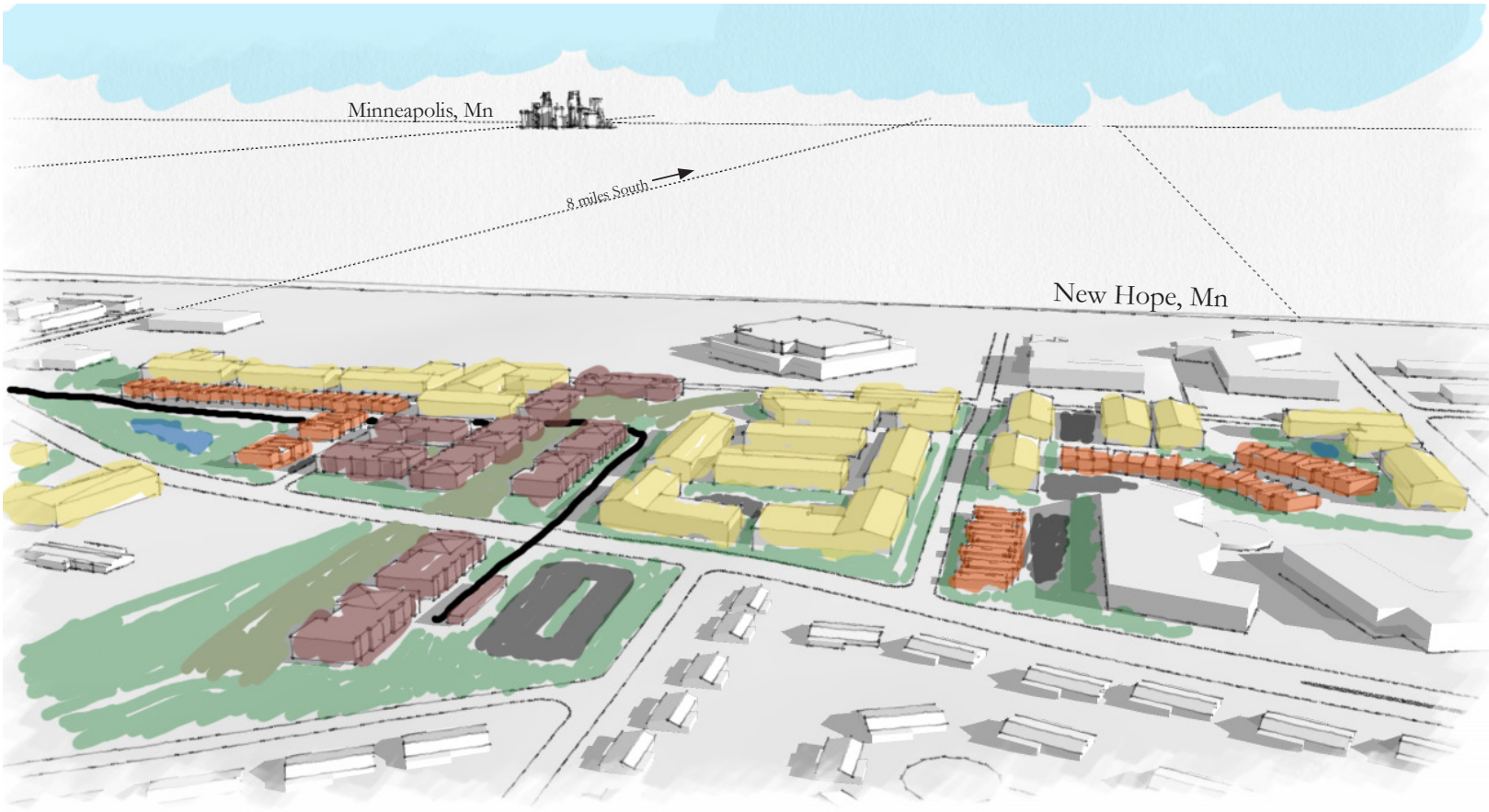
Outcome: Transit station which creates pedestrian space and connection

Transit connection

schematic design

This image shows the relationship of the site to Minneapolis. The different colors represent the different building types in the conceptual design. The redish color illustrates new mixed-use building types which are located in the south core area. The yellow color is new multi-family housing units, which are a retroffit of the existing buildings. Townhomes seen in orange are clustered around the parks and open spaces. This design removed all existing buildings, and established an unsuccessful core structure to the site.

Conceptual view looking towards Minneapolis



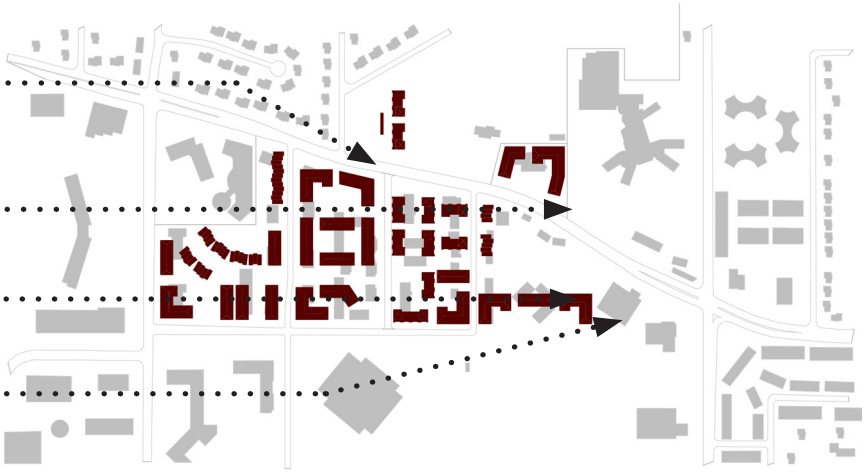
Analysis conclusion

Preserve some buildings

Add mixed-use interior buildings

Remove some buildings

Add multi-family perimeter-block buildings

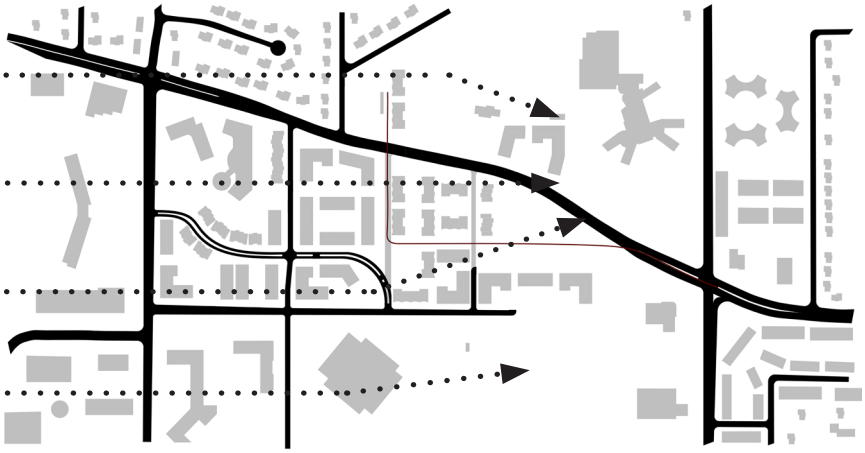


Add street-car route through core area

Remove interior street

Introduce pedestrian corridor

Connection to school

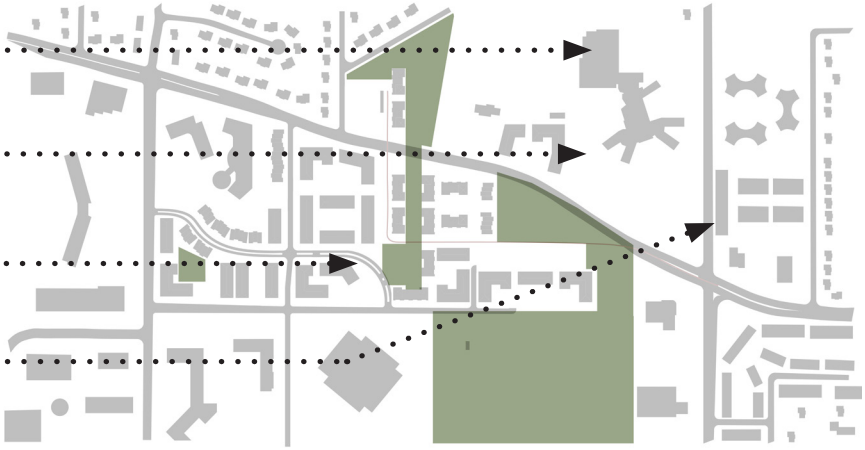


Use open space to connect pedestrians

Safe pedestrian crossing

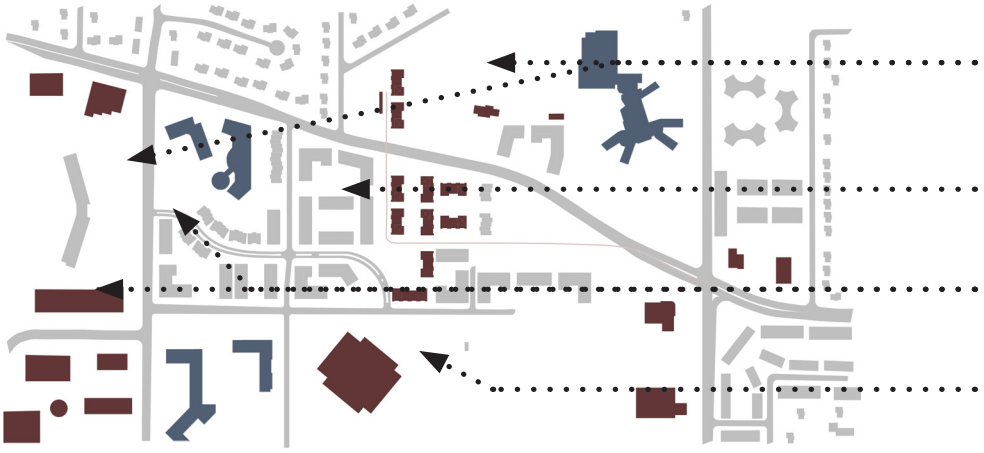
Micro-spaces

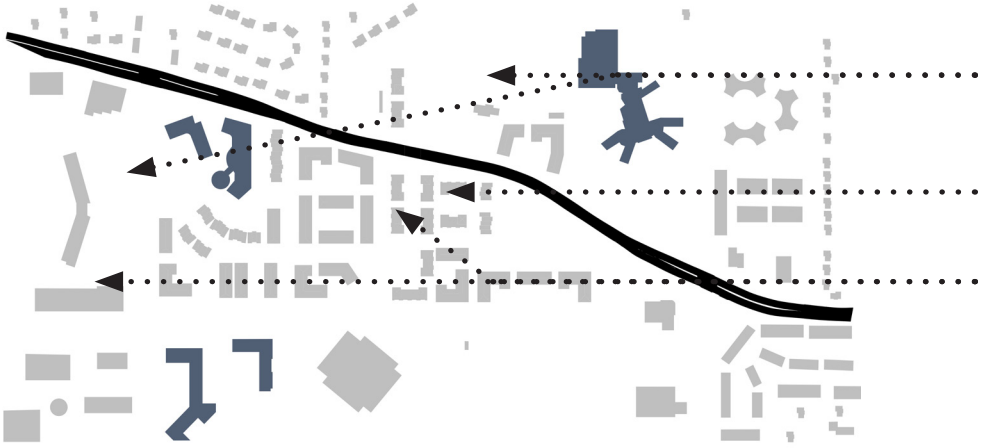
Create an entry square



schematic design

These maps and images are the conclusion of the analysis and have shown, for the conceptual design, where building changes should take place, as well as where landscape interventions should happen.

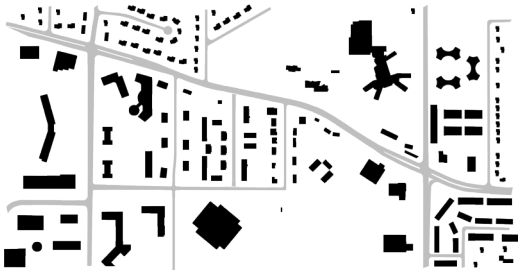




Analysis conclusion

schematic design

These conceptual designs illustrate the design process wichi was taken to genreate the transition areas with the newly introduced transit stations.

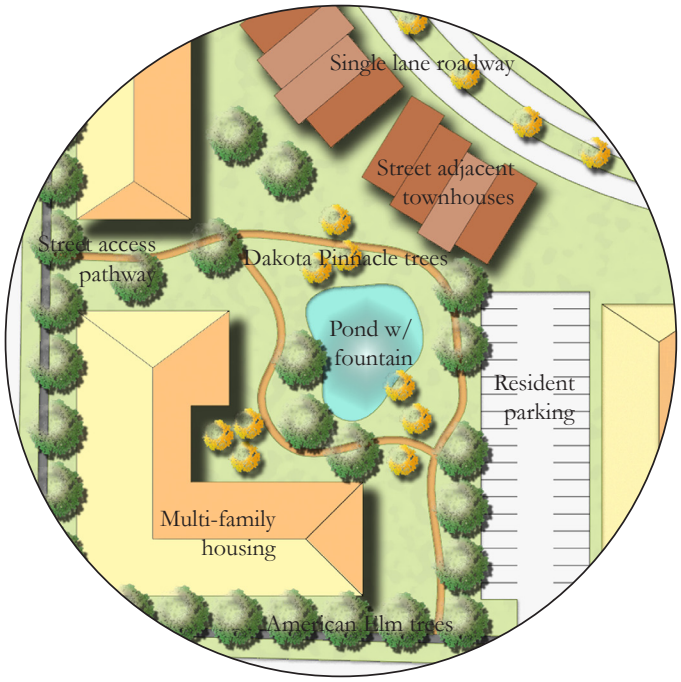


Existing

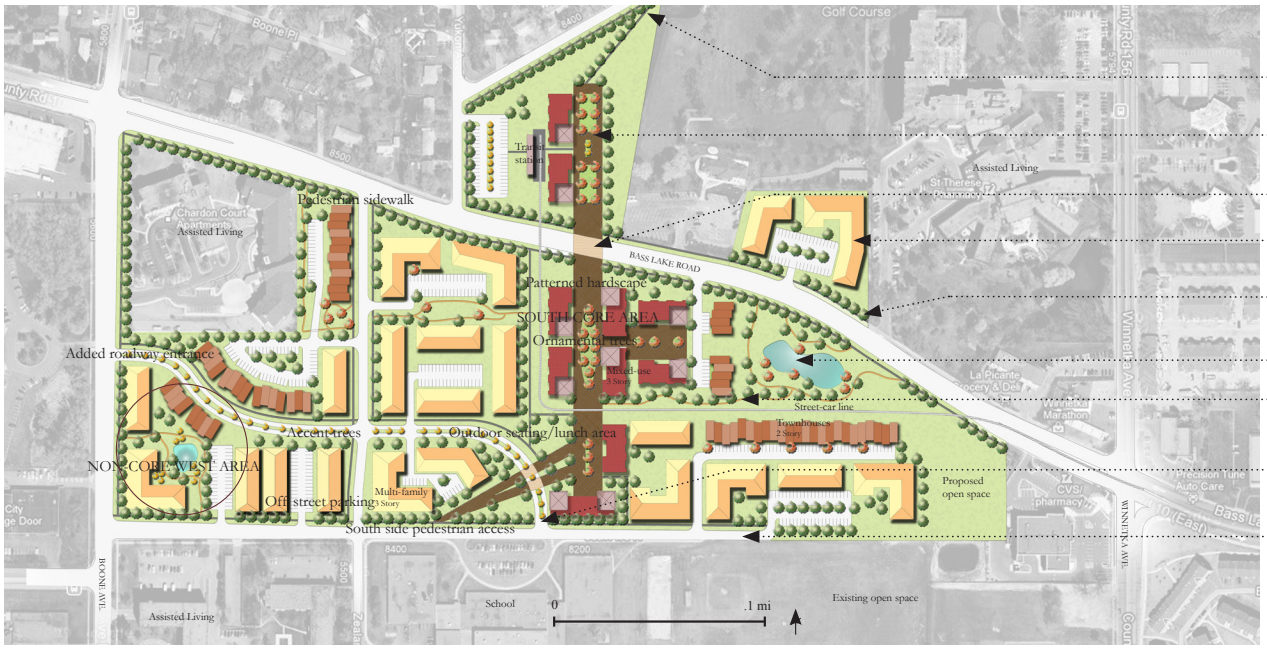
Proposed

Design Process

Non-core West area detail



The masterplan seen below was a result of concepts generated at the beginning of the semester. The relationship of the buildings can be seen to the new transit station. A problem that was found with this design concept is that the north core area will cause troubles for pedestrians to access. It is disconnected to the rest of the site, and the transit station seems to be away from the central focus of the design. The premise to the design is to create a transit-oriented hub that connects the pedestrian.

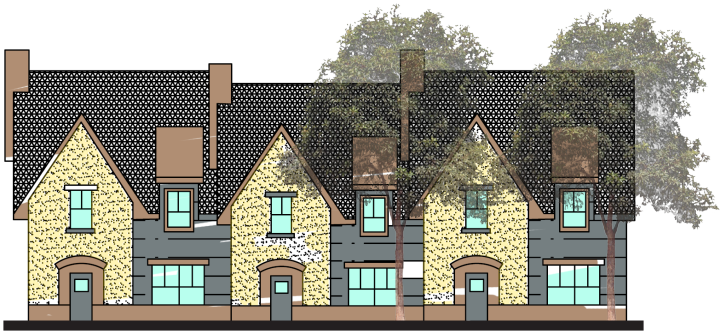


Building detail

In the conceptual design, a section illustrates the building relationships to the streetscape and the pathways used by the pedestrians.

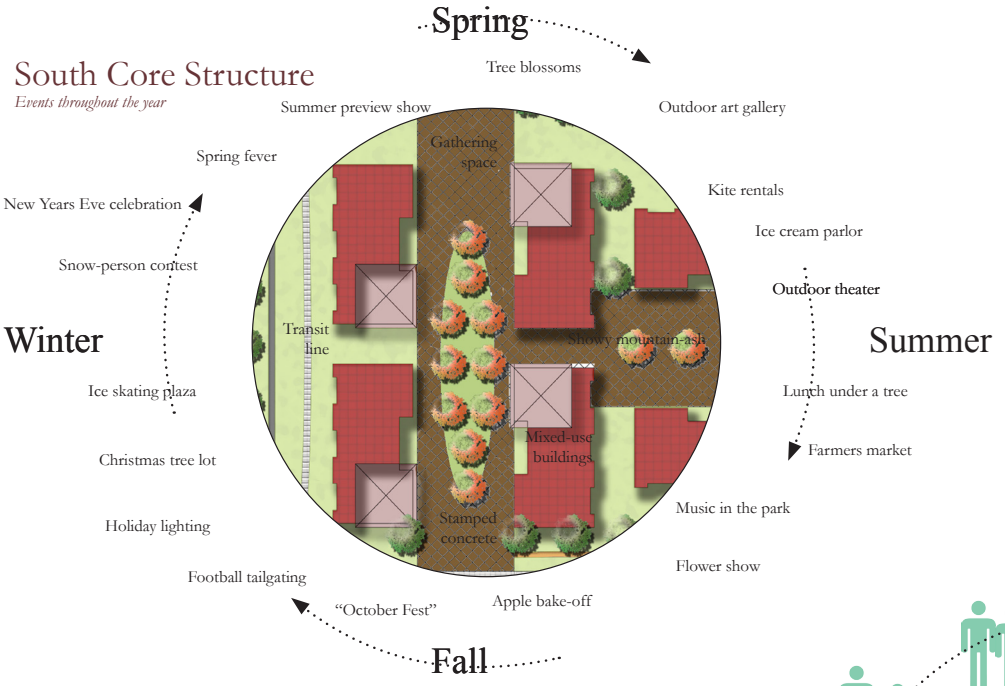
Multi-family unit - 3 Stories

Mixed-use - 3 Stories

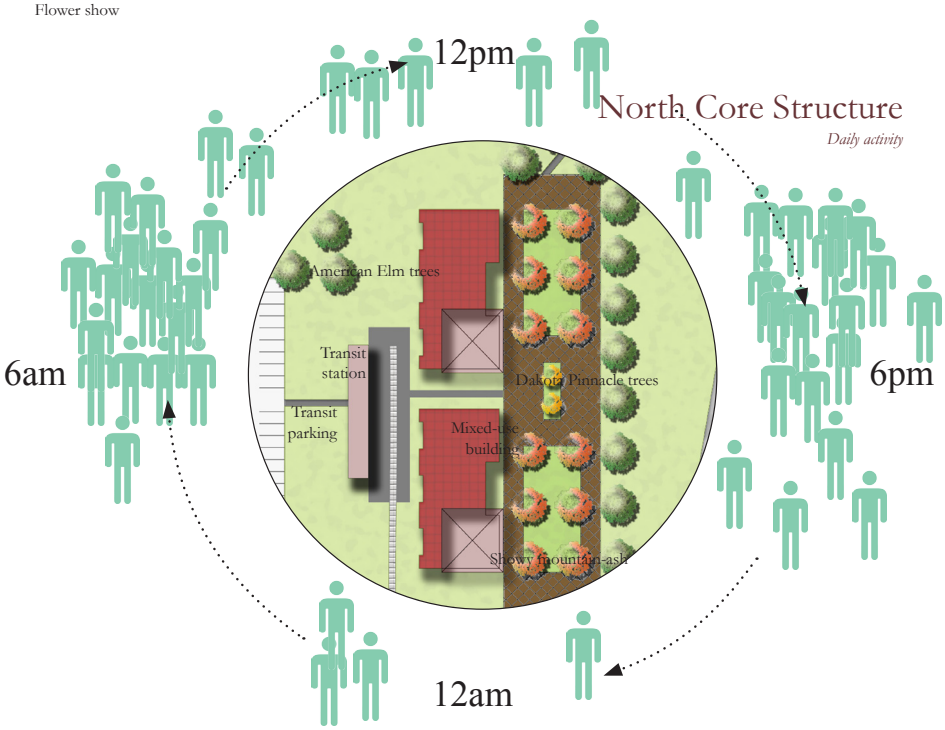


Townhouse - 2 Stories

South and north core zones were intended to have specific structures to them, with intentions based on the time of day, or the time of year. Seasonal effects will be seen in the south core zone, basing events on seasons. While the north core zone, due to the transit station, would have events and standards drawn based upon daily activity.



Activity response



final design

The THIRD, can better educate the public by implementing higher density, linked by public transportation. A connection to the Minneapolis Light Rail Transit system, within a suburban transit hub, will create a new and distinct sense of place in retrofitted New Hope, Minnesota

final design

The use of a streetcar to connect the suburb of New Hope, Mn to the proposed Light Rail System , will allow for efficient connectivity to the core of Minneapolis, as well as other parts of the Northwest metro area. A streetcar is more sustainable than a city bus, in that it runs on electricity, has a direct route which reduces travel time, and provides easy access for neighboring assisted living centers.

New Hope, Mn

final design

The final masterplan is based on the changes made from the conceptual design phase of the thesis. These changes were a direct response to the 4 key programatic elements seen on the right side of the page. These elements set up the core structure to the design. Instead of having 2 core zones, 1 primary focus area was developed to accommodate the new transit hub.

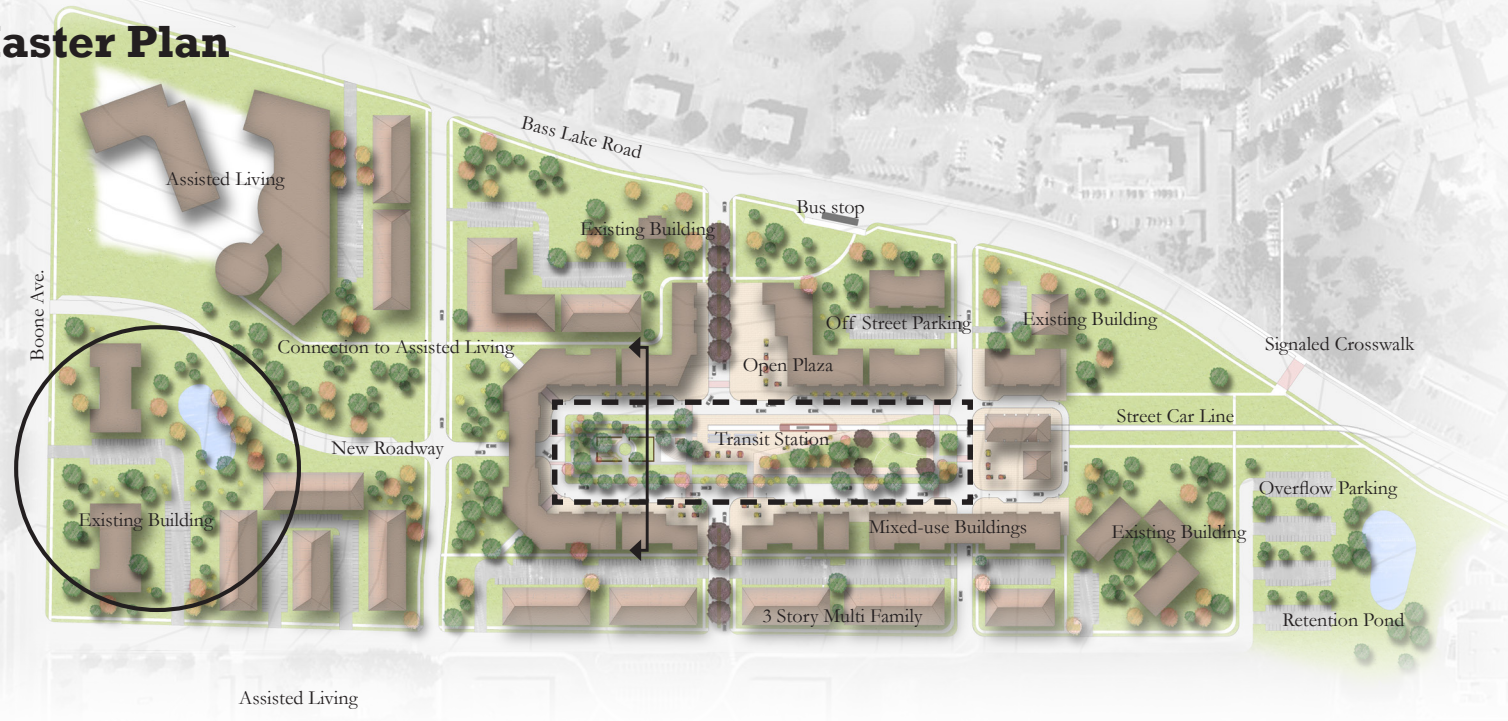
Access
Amenities to accommodate New Hope residents

Public Realm
Allow for civic spaces

Density
Introduce mixed-use building types

Walkability
Reduces vehicular miles traveled

Master Plan

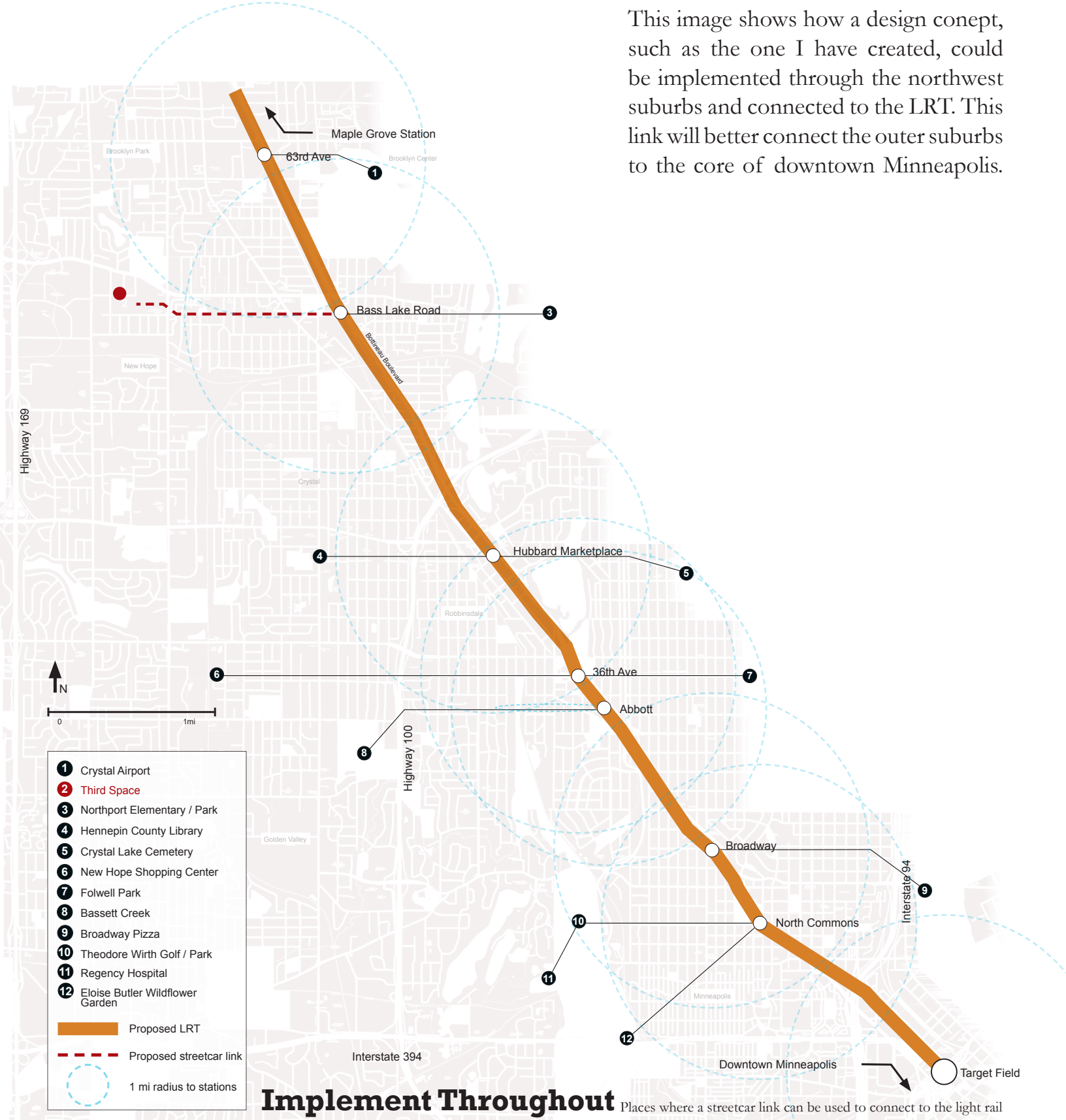


final design

Existing site photos with their relationship to the 4 elements as seen on the previous page.

final design

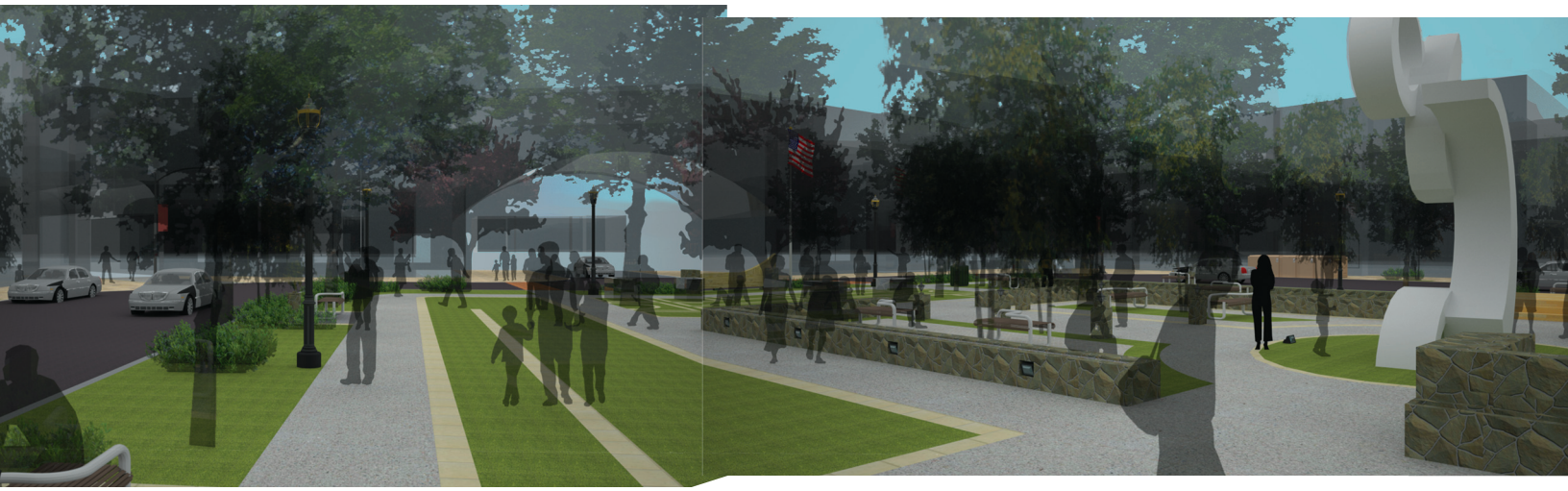
This image shows how a design conept, such as the one I have created, could be implemented through the northwest suburbs and connected to the LRT. This link will better connect the outer suburbs to the core of downtown Minneapolis.

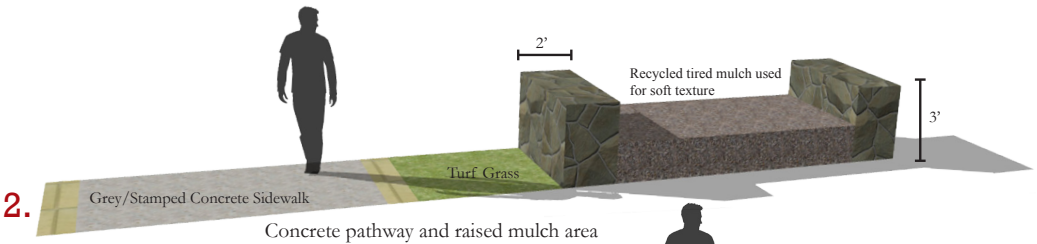


Implement Throughout Places where a streetcar link can be used to connect to the light rail

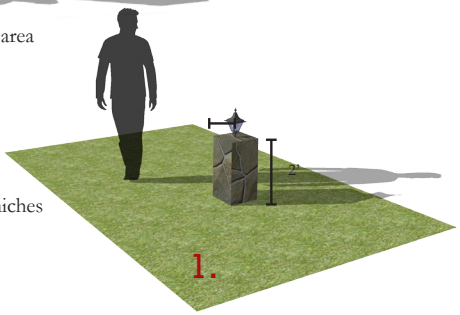
final design

The THIRD is a representation of a persons space in place. A place other than a persons workplace or home, a space that creates unique experiences and allows for personal expression. Th images below show a perspective of the THIRD, structural elements inside the THIRD and a detailed masterplan of the THIRD which illustrates the different elements that create the space and make it a one of a kind space.



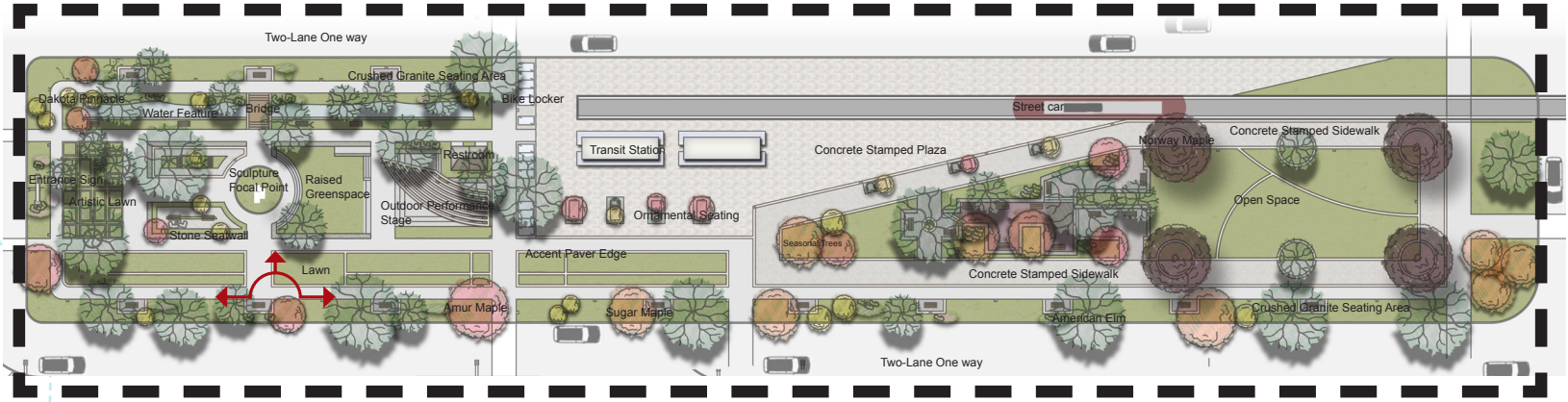


2. Concrete pathway and raised mulch area



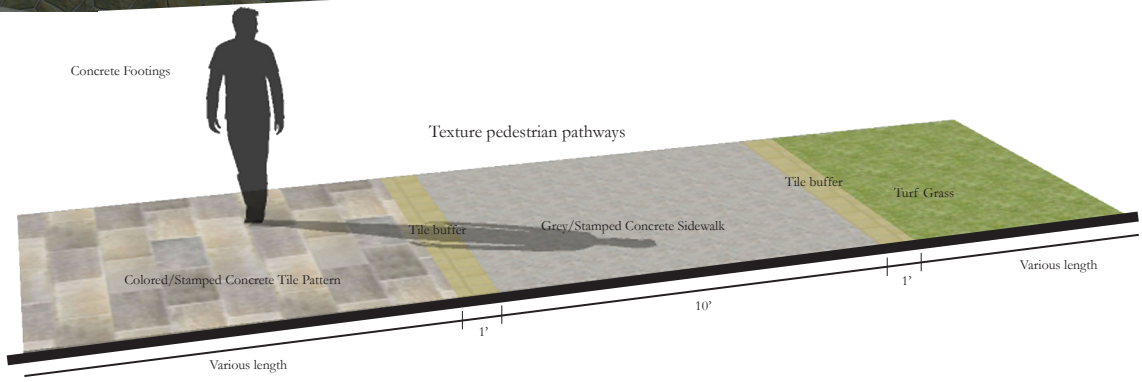
Lighting feature in seating niches

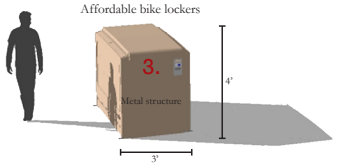
1.



final design

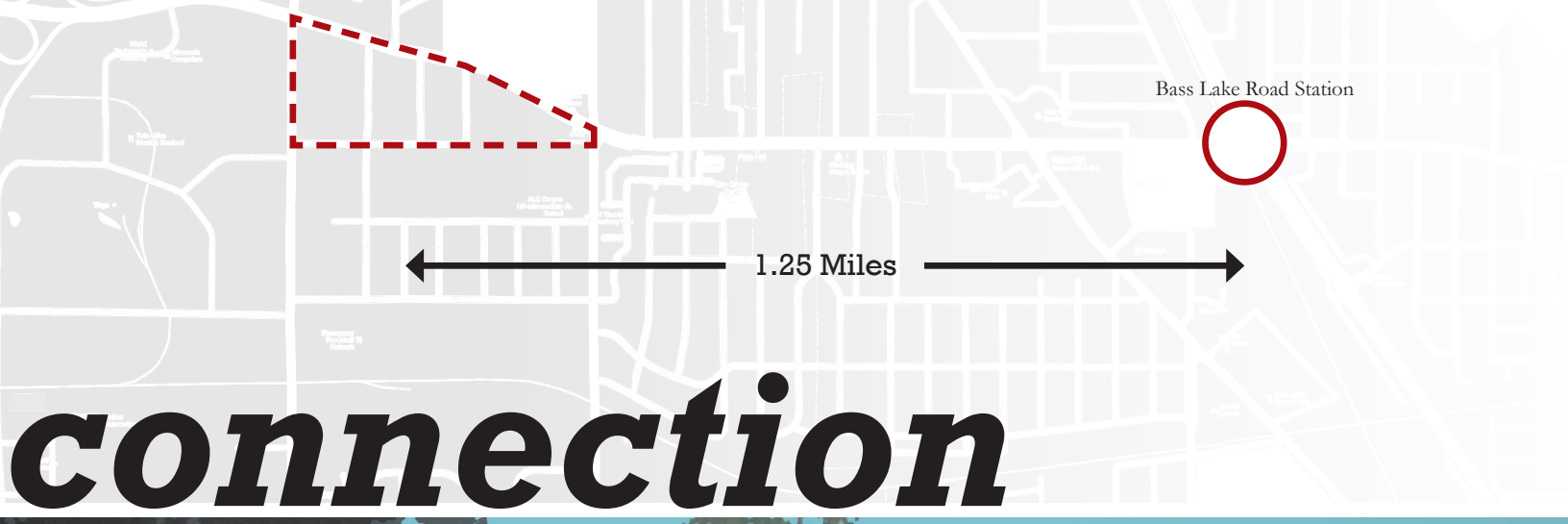
Activities are the drving force inside the THIRD. Listed below are some of the important elements that happen inside the THIRD. The perspective directly below shows how the relationship of the music shelter is to the sculpture focal point and other seating elements in the site. Concrete patterns are important in understanding how spaces are devided, and the image in the middle of the page show this.



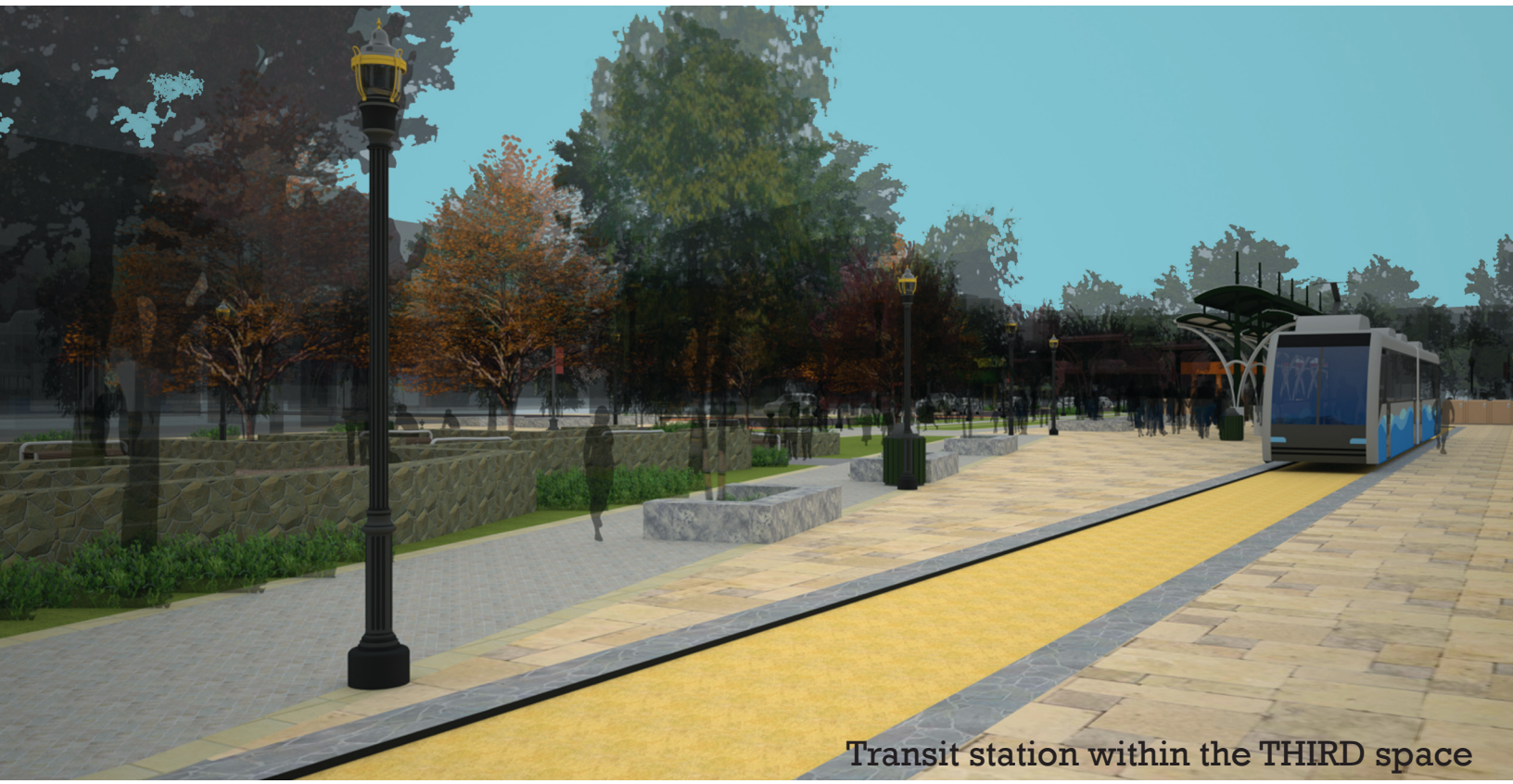


final design

The use of a streetcar to connect the suburb of New Hope, Mn to the proposed Light Rail System , will allow for efficient connectivity to the core of Minneapolis, as well as other parts of the Northwest metro area. A streetcar is more sustainable than a city bus, in that it runs on electricity, has a direct route which reduces travel time, and provides easy access for neighboring assisted living centers.



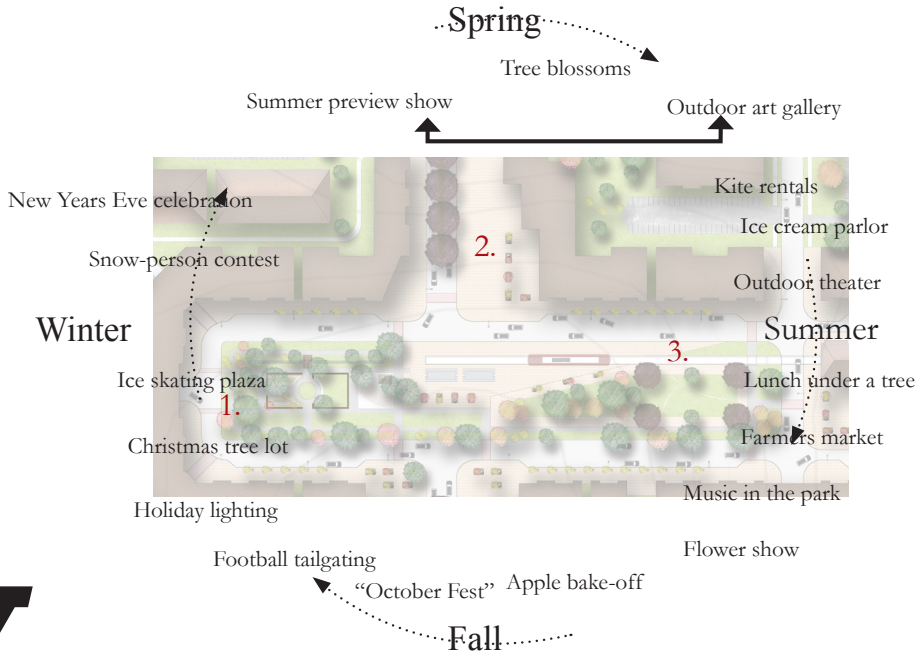
connection



Transit station within the THIRD space

final design

Actions of people are a response to the spaces created in THIRD. With seasonal events, activities can be seen throughout the year. What people choose to do in the space is what makes the THIRD. Permanent structure leaves the visitor to experience the site on their own terms, with little guidance to exploration. The image to the left illustrates the seasonal event that can be held at the open plaza space located just North of the transit station.

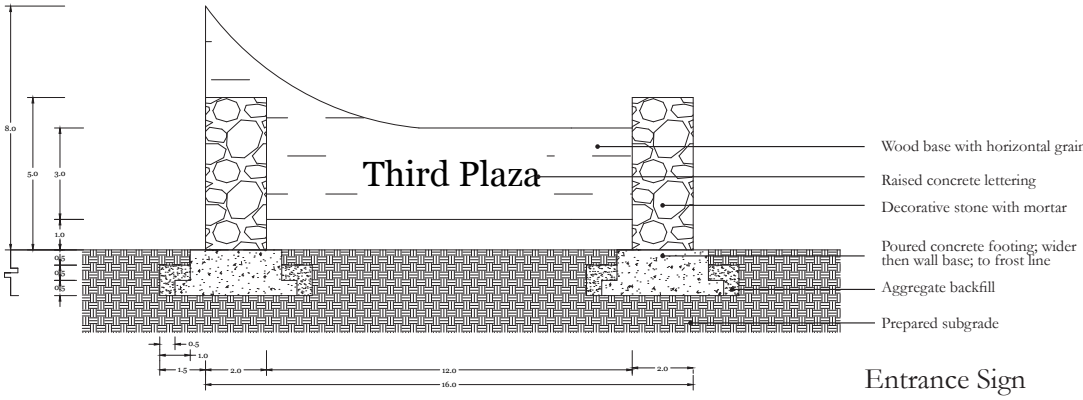


activity

Seasonal Farmers Market on the open plaza

final design

Spaces make up the much needed characteristics of a place. The THIRD has been transformed into spaces which both function for the residents and non-residents of New Hope. Accountability for the persons needs and basic amenities, the Third creates that other space, besides your home and work.



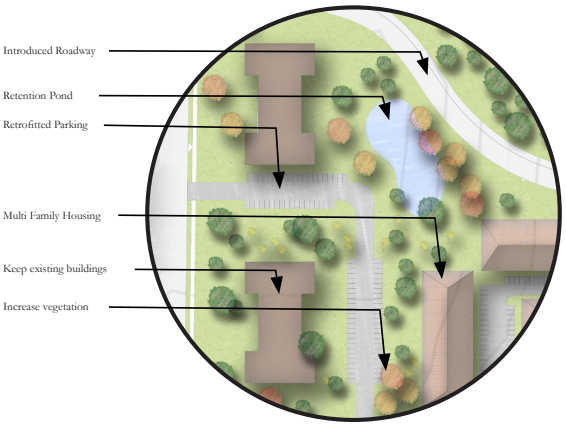
Entrance Sign

space

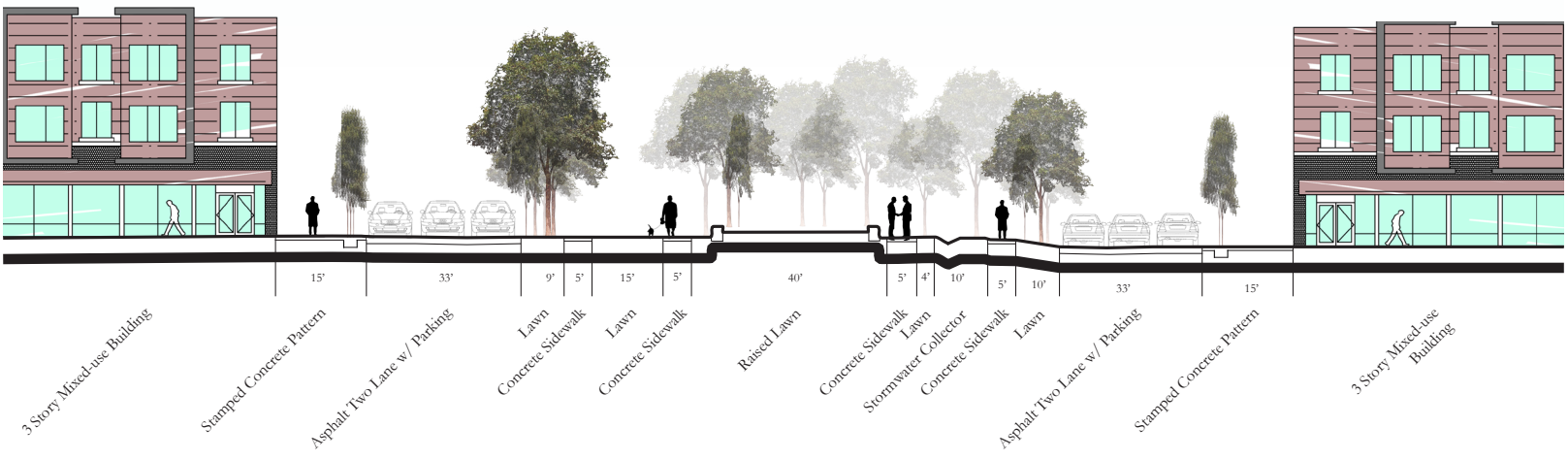
Entrance sign into the THIRD space

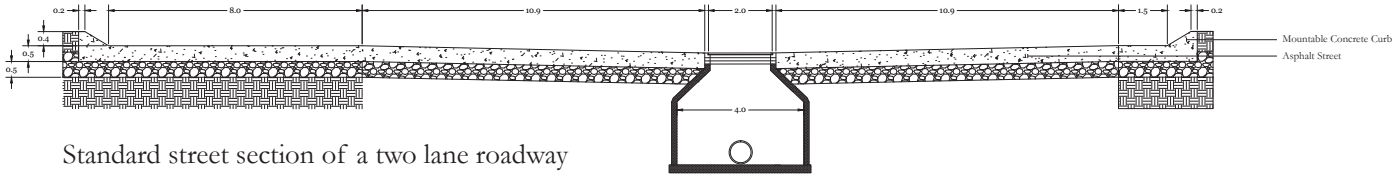
Details of the THIRD are shown here, with a detailed section of the newly developed site. As the section shows, the importance on 1 primary space creates a better relationship to the buildings and the pedestrian scale. The phase 2 plan shows how other areas in the master plan have been developed and how they function as completely different spaces on themselves.

Phase 2 Plan

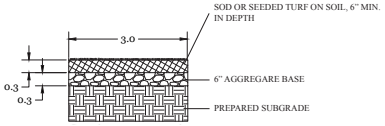


THIRD Section

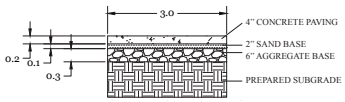




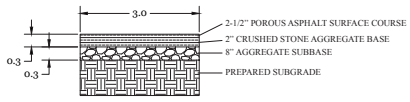
Standard street section of a two lane roadway with parking



Standard construction for grass surfaces

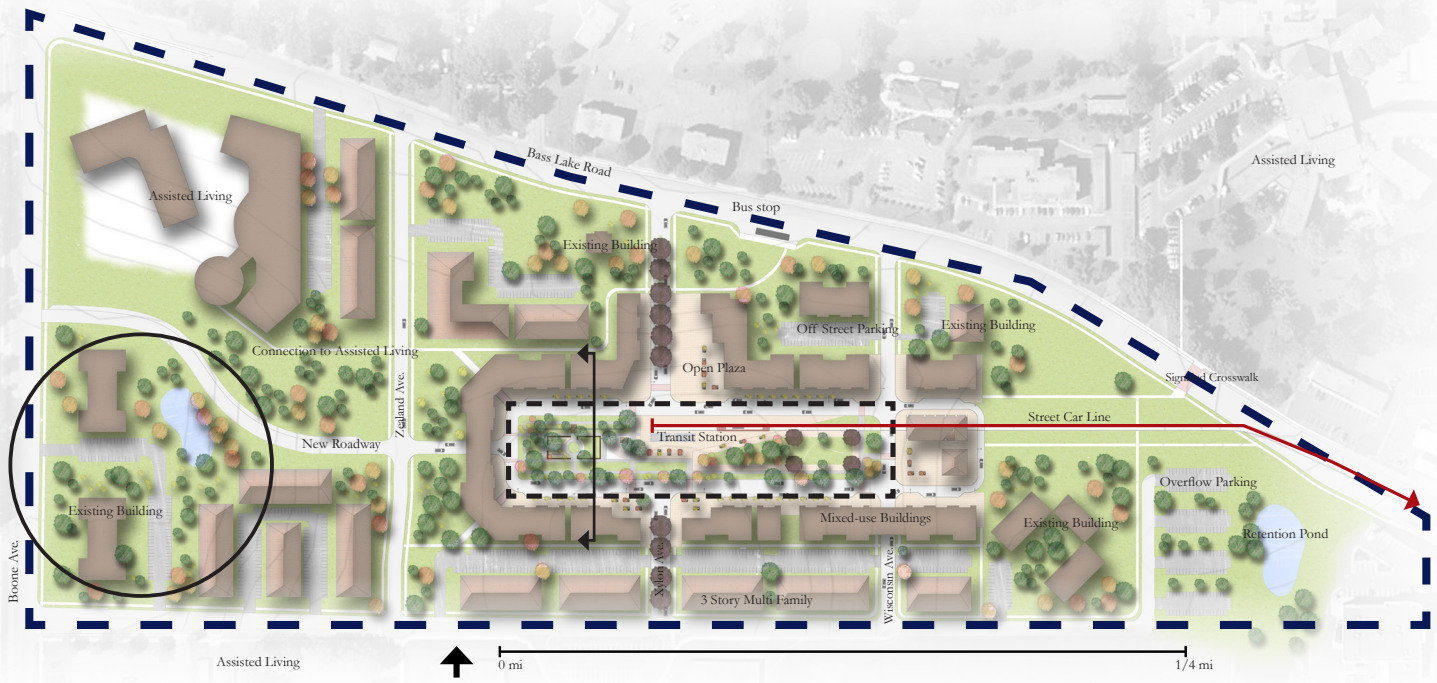


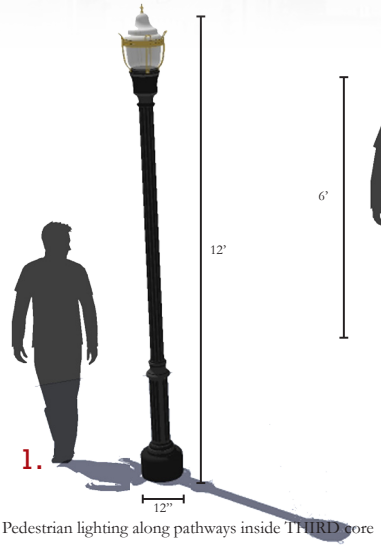
Standard concrete paving on aggregate base



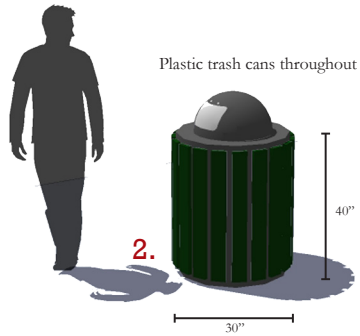
Asphalt paving on aggregate base

final design

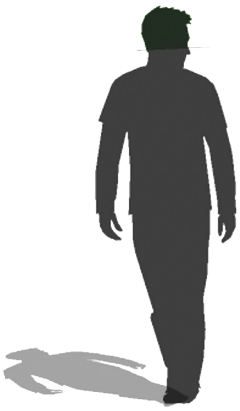


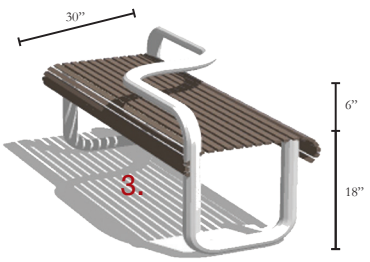


Pedestrian lighting along pathways inside THIRD core

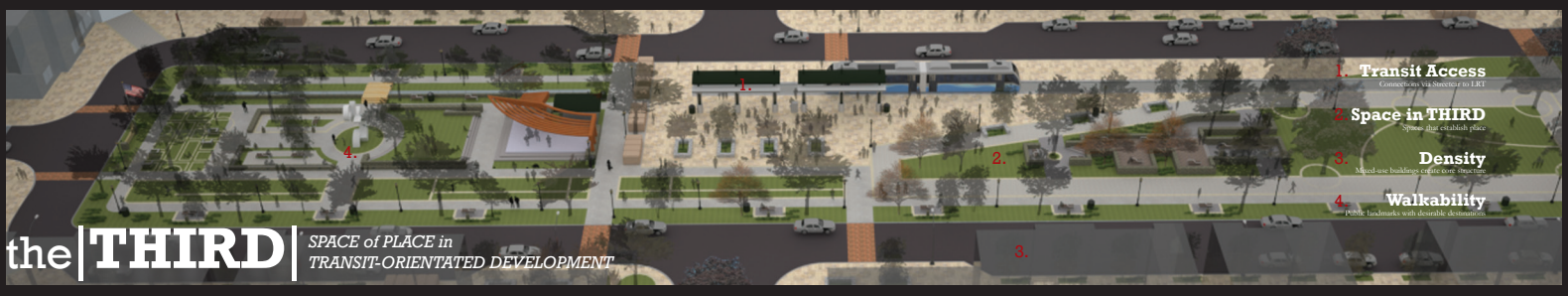


Plastic trash cans throughout THIRD





Metal seating elements with direction seating



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"Design is a creative response to knowledge."