

# on the fringe

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Community Development + Expansion

STEVEN EGGERT

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The cities will be part of the country; I shall live 30 miles away from my office in one direction, under a pine tree; my secretary will live 30 miles away from it too, in the other direction, under another pine tree. We shall both have our own car.

We shall use up tires, wear out road surfaces and gears, consume oil and gasoline. All of which will necessitate a great deal of work. . . enough for all.

- *Le Corbusier, The Radiant City (1967)*

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# ON THE FRINGE: COMMUNITY DEVELOPMENT & EXPANSION

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

By

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



Primary Thesis Advisor

Thesis Committee Chair

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Fargo, North Dakota



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# abstract

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When communities fail to plan, there is no institutional framework where development can progress. This leaves little opportunity for expansion or modification based on changing needs.

The establishment of a common vision is vital to the future development of Fargo's fringe. It provides a synthesis of enhancements from an economic perspective to happiness and well being. This project seeks to define that spirit of place using practices of preservation and restoration of Fargo's community.

## KEYWORDS

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fringe, vision, grow, synthesis, spirit, preservation, restoration

# problem statement

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How can sustainable design of fringe development contribute to the placemaking of Fargo and reframe the community's tastes and preferences?

# statement of intent

## THE PROJECT TYPOLOGY

Mixed use residential and commercial area located on the edge of Fargo's community (South Fargo near Urban Plains Center).

## THE CLAIM

Fringe development is an important addition that, for better or worse, contributes to the overall feel of a community. Without a common vision for expansion, a community loses the potential to improve its quality of life. Planning, design, and management of these areas will determine the long range livability of cities.

## PREMISES

According to the U.S. Census Bureau, the extent of urbanized areas has doubled over the last 40 years from 25.5 million acres in 1960 to 55.9 million acres in 1990. One can only imagine what that number could reach in 2020 (Heimlich, 2001).

The urban fringe is part of metropolitan counties that has not developed densely enough to be called urban (Heimlich, 2001). The people of Fargo and future dwellers of the area need to find a common vision within Fargo's urban fringe and establish a spirit of place that promotes health, happiness and well being. These important areas of future development lack the recreational and residential density that bring people together.

## THEORETICAL PREMISE

The current trend of expansion of urbanized areas anticipates over 122.5 million acres by the year 2020. As Fargo's urban area increases over the next nine years, how can one create a model of development that can pay for itself while contributing to the spirit of place? The solution must create a high demand for the area as form supports function.

## PROJECT JUSTIFICATION

Fargo holds a strong economic base as one of the best places for businesses and careers ("Best Small Places," 2009). Through the enhancement of these existing businesses and new development on the urban fringe, it can further define and promote quality of life. It is through this investment of planning in our community that we can formulate advancement and prosperity towards a better future.

# the proposal

narrative  
user/client description  
major project elements  
site information  
project emphasis  
a plan for proceeding  
studio experience

# narrative

A small desire of preservation and restoration guides the growth of our urban development. This vision slowly fades as the leaders of our communities irrationally consult their self-interest and forget to address the long term effects of economic growth and environmental protection. This concern is not new, but has become a prioritized topic of discussion during most of the last century.

As our communities begin to expand, a formless web unfolds into failing efforts that translate into sprawl. These low density developments at the fringe of urban areas lead to a variety of problems including traffic congestion, lost sense of place, loss of agricultural land, and adverse impacts to the natural environment. These forgotten links of unplanned developments require higher capital and operating costs rather than a compact, dense environment.

What communities do not realize is that they are failing to anticipate the results of new development because they often lack information on potential proposals for their city. By creating a vision as a team, Fargo will understand how spaces function by experimentation and overcoming obstacles. These elements can explain the form of design and create a sense of place unlike anywhere else in the world.

# user/client description

This project will be designed for the people of Fargo and future dwellers of the site while focusing on the surrounding residential and commercial buildings. The site will be operated by the City of Fargo with the main responsibility given to the department of planning and development. Groups included in the design process are engineering firms, architectural/landscape firms and environmental consultants. Primary users of the site include the Osgood neighborhood and its surrounding neighbors. The site will not be limited to adjacent areas but encouraged to attract all of Fargo together. Residents, shoppers and tourists will also be included as users of the site as they fulfill their daily needs and activities.

Requirements of the design process start with monthly community workshops. Discussions will focus on listening, observing, and asking questions of the people who live, work, and play in the area. Discovering the spirit of place will attract interest from other people in Fargo and bring insight from a variety of opinions. The increase in this popular issue will affect usage of the site producing a peak range of 300 to 500 users at any given time. In order to accommodate this many users, there will be a requirement of specific commercial buildings with amenities like popular food restaurants, retail, and recreational activity. Parking should accommodate up to 800 spaces.

Design intentions will explore opportunities beyond policy and expect to reach a common vision and understanding for the usage of this fringe. It is expected that the site will create a vibrant and constant flow of a clean, smooth, and interesting quality for visitors to see as they pass through the area. The quality of this space is inviting, walkable and stimulating as it accommodates a variety of users from customers to athletes to people watchers.

Physical restrictions will only limit the use of the site and ADA requirements will be considered in the design. This ease of access will create a boundless use for anyone and everyone. The cultural and socioeconomic issues at hand must entice the elements of responsible design toward its users. Users of the site with medical conditions such as high blood pressure, obesity, heart disease and other chronic conditions will be considered with an effective design that is non-discriminatory.

# major project elements

## CONNECTIVITY

Creating a connection to the fringe of Fargo is a key component to the design. Not only should the specific site connect visibly with other adjacent areas, but each place shall be integrated into a sequence of destinations for the user. If a typical visitor arrives at an early sunrise for a morning run, they should be able to navigate the entire site over the course of their experience. One might stop for a water break or sit down with other runners. The site will predict the needs and accessibility for a typical visit of any person such as food, shopping, social activity and people watching. This will be achieved through paths focusing on the order of walkability throughout a site involving a wide range of active users.

## WATER

Water will be use primarily to create the spirit of place while integrating the users of the site in terms of view sheds, rejuvenation, and responsible design. Surrounding buildings, both existing and created on site, will use water and also contribute water using grey water systems. This can be established by combining with the use of irrigation systems, rainwater catchment, xeriscaping and bioswales. The use of these systems should be apparent to the public showing the importance it serves within the sites form and function.

## INTERACTION

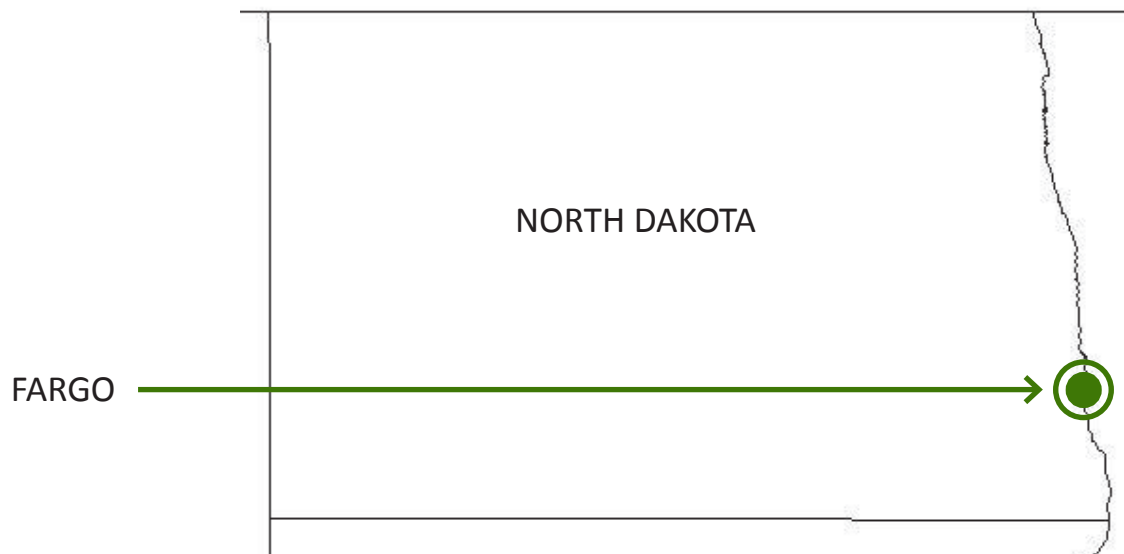
The exclusiveness of this project will touch base with the placemaking of Fargo and highlight the sense of energy in connection with main “nodes” like Broadway in downtown Fargo. Users can interact with familiar features like stamped concrete and smaller versions of landmarks relative to main areas of Fargo. At the same time, a unique feel will allow this site to remain a diverse experience that results in repeat visits for different activities throughout a visitor’s stay.



# site information

Located on the fringe of Fargo, this site holds a significant role in the city's expansion. It is a potential first stop for visitors and a helpful aid to connecting residential and commercial buildings that are outside the fringe and within the heart of the city.

This site has a primary purpose of recreational activity at the Scheels Sports Arena. As the city continues to increase efforts towards athletic programs and amenities, the opportunity to attract more people to the site for other activities cannot be ignored.



# project emphasis

The emphasis of this project is to develop a thoughtful approach to guiding the expansion of Fargo at its fringe while minimizing impacts to natural resources and effectively using its existing infrastructure. The project will contribute positively and significantly utilizing the surrounding offerings of Fargo to connect private and public spaces that promote health, happiness and well being. The analytical process of a community begins within their needs and aspirations which shall be exploited to its fullest extent. This destination is not just a happy ending, but a new beginning for the future of Fargo.



# a plan for proceeding

The research behind the theoretical premise is to define placemaking and its unique vision of Fargo. Finding the relationship to other successful communities can be found through case studies around the world. It will be important to analyze costs and phasing stages for the implementation process. The answers can be found by interviews, studies and policy requirements within the city. Short term goals will be created and long term goals shall be adjusted with new information regarding neighborhood planning activities. Project typology and historical context can be found from the City of Fargo seeking the development over the past 50 years (from 1960). Site analysis and programmatic requirements can be detailed after an inventory visit with locals and surrounding neighborhoods of the site.

Design methodology will include graphic representations of pedestrian traffic, vehicular traffic, green spaces and water flow throughout the area. A mixed method approach will focus on a concurrent transformative strategy with emphasis on the theoretical premise. Qualitative data can be gathered and organized in a priority based relevance to the design process. This data accumulated over time will be represented by photographs, recorded interviews, surveys, graphics and text either physically or digitally. Interpretation of this information shall be reviewed on a weekly basis to ensure new information has not misguided the project. Quantitative data will be analyzed by archives/documents and supported locally thereafter. Scientific data will be gathered directly from the City of Fargo and other sources (i.e. US Census, GIS) depending on relevance to the site.

Documentation for the design process will be kept in a binded folder and reported either physically and/or digitally on a weekly basis. Hand sketches and computer renderings will be recorded into the binded folder with a separate copy either scanned or placed into an external hard drive. Presentation at any time will be displayed on a digital file which is updated weekly and preserved in NDSU's library when complete. The schedule for the spring semester's design project will be proposed with the final submittal of this preparation project at the end of the 2011 fall semester.

# previous studio experience



## SECOND YEAR STUDIO

Fall Semester : 2007

Kathleen Pepple

“Klai Hall”- Fargo, North Dakota

A student space for outdoor classroom activity

Spring Semester : 2008

Mark Lindquist

“Main Street Way”- Winnepeg, Canada

A public urban park



## THIRD YEAR STUDIO

Fall Semester : 2008

Stevie Famulari

“Symphonic Alley”- Fargo, North Dakota

Temporary environmental art using sound

Spring Semester : 2009

Kathleen Pepple

“Lions Park” - Battle Lake, Minnesota

A recreational park



## FOURTH YEAR STUDIO

Fall Semester : 2009

Mark Lindquist

“McCormick and Baxter”- Portland, Oregon

An urban rivershore development

Spring Semester : 2011

Stevie Famulari

“Metallic Reflections” - Perham, Minnesota

Phytoremediation design of an Arsenic Site



## FIFTH YEAR STUDIO

Fall Semester : 2011

Catherine Wiley

“Red River Valley Watershed Project”- Fargo, North Dakota

Watershed analysis

# the program

theoretical research

case studies

historical context

project goals

site inventory

programmatic requirements

references list

# theoretical research

The research required for the theoretical premise is focused on four areas of interest on the primary intention of urban design in South Fargo. Each of these issues strives to find the meaning of a common vision to improve quality of life. The range of livability for Fargo's fringe can be anticipated through the following examples and practices of this chapter.

As the city of Fargo dwells on the overwhelming predictions of expansion, it is imperative to create a model of development that leads by example for a functional design that creates a sense of place different from anywhere else in the world.

According to the Bureau of Census, the concept of an "urbanized area," includes a densely settled area within and adjacent to cities with 50,000 people or more (Fargo population of 2000: 90599 people). It is also known that "urbanized places" include populations of 2,500 people or more that are outside those urbanized areas. Low-density development and new installments of houses, roads and commercial buildings at the fringe of Fargo are causing greater traffic congestion, loss of open space and impacts on the natural environment. The City of Fargo needs to ensure that new construction on the urban fringe is as environmentally sound, economically efficient and socially responsible.

# environmental issues

## REGIONAL LANDSCAPE

The most important design criteria of any new development and most often overlooked is regional context. Ideally, parcels under consideration for growth should be rationally located within a comprehensive regional plan that seeks to limit automobile dependence and preserve open space (Duany, Plater-Zyberk, Speck, 2000). In the best regional plans, existing and future transit stops serve as a basis for locating new neighborhoods and town centers.

A new neighborhood near the Scheels Sports Arena could be a great addition in reducing sprawl with mixed-use buildings. One thing that isn't available in walking distance is a corner store to provide its residents with their daily needs, from aspirin to milk. Even a subtle store like this one could limit automobile trips out of the development and create a social club to build the bonds of community. In a regional perspective, a small neighborhood like this relates perfectly to the connections of downtown Fargo. It serves its own purpose with small stores to provide for the area's ten minute walking vicinity.

# environmental issues

## STREET DESIGN

On well traveled streets within the new development, there is no justification for travel lanes wider than ten feet and parking lanes wider than seven feet. When street lanes are built wider, the cars speed. With slower traffic, cars will yield to each other before passing which leads to more of a pedestrian friendly environment. Even though skinny streets may be unsuitable for heavy volume, yield streets cause few delays when used for minor residential streets in low-density neighborhoods (Duany et al., 2000).

## ENVIRONMENTAL COSTS

The global environment is slowly becoming overtaken by exhaust fumes from vehicular traffic on a daily basis. These decompose the natural systems humans are dependent on for life support. Our natural environment is taken for granted as more roads and highways are being built on a depleting resource which will become a huge regret for our future generations. The constant traffic before and after work has actually lowered our quality of life which promotes high stress, unhealthy toxins from exhaust fumes, and deadly car accidents over all seasons.



# environmental issues

## FLOOD PROTECTION

Fargo will create permanent flood protection and ensure the quality and supply of this precious resource through water conservation. We will celebrate water by embracing the Red River of the North and the Sheyenne River and integrating sustainable rainwater management techniques into the fabric of the city. We will protect our natural resources and preserve the health and beauty of the our environment (2030 Go Fargo Vision pg. 13)

## BENEFITS OF LOW-DENSITY DEVELOPMENT

Although this thesis intends to explore the problems with low-density development, it strives to explore some benefits as well. Living beyond the edge of the city is a lifestyle that has very high interest by the American people. While 55 percent of Americans living in medium to large cities preferred that location, 45 percent wanted to live in a rural or small town setting 30 or more miles from the city. Of those living in rural or small towns more than 30 miles from large cities, 35 percent wanted to live closer to the city (Heimlich, 2001). With these facts in mind, the urban fringe takes pressure from both directions. The most apparent benefit is that growth in rural areas like Fargo has allowed many people, to buy single-family homes because land costs are cheaper on the fringe than in the core of the city.

# social issues

## ISOLATION

Many people spend too much time isolated in cars and suburban homes that there is no opportunity for social contact, and the normal meetings that take place during every day walking activities. Friendly streets and public spaces provide an area to actually live before work, after work, and also let us enjoy the outdoors with a healthy exercise in between. Gated communities and leapfrog neighborhoods have shut themselves out of the livable space as the automobile has provided them with a safe place to enclose oneself.

Because of this isolation, higher stress and rage increases alcoholism and drug abuse, rising divorce rates, rising rates of cancer and other environmental diseases. This can be summed up as a general dissatisfaction with our lives.

# economic issues

## COSTS IMPOSED BY GROWTH

There is a general consensus in the planning literature that low-density development costs more than compact development (Duany et al., 2000). For example, compared with more compact forms of development, low-density “sprawl” can result in:

- o Greater capital costs associated with building new infrastructure.
- o Greater vehicle miles traveled and, consequently, higher levels of automobile emissions.
- o More adverse fiscal impacts when annual tax revenues from residential uses are inadequate to cover the annual costs of providing public services.
- o Higher rates of conversion of prime agricultural lands and lands with fragile environments.

## WORKFORCE

Fargo will build on its agricultural and manufacturing heritage by expanding business development and shall be expanded upon as a cutting-edge creative economy for its future. Education and retaining the best workforce in the nation will create an innovative entrepreneurial environment.

# economic issues

## TECHNOLOGY

Technologies like the internet and wireless age have changed the economics of location decisions for consumers and businesses. They are moving the existing trend toward a more dispersed economy. Because these technologies reduce the problems of space and time, businesses and people are free to choose where they locate, whether it's the urbanized core or the urban fringe. Just how sprawled these businesses become depends on which business functions are transformed into electronic flows, how much activity still requires face-to-face interaction among suppliers, customers, and competitors, and the path of future technological change. Although the new technologies will allow firms and residents to disperse to rural areas, they are more likely to relocate to lower cost metropolitan areas and suburban locations within metros (Heimlich, 2001).

This executes the process of expansion for Fargo, and the need to properly mitigate this moving population. Business service facilities have consolidated into fewer, larger service centers. Taken together, the decreasing need for physical proximity and the consolidation of activity into larger operations both favor suburban locations on the edge of fast-growing metro areas like Fargo, North Dakota.

# economic issues

## TECHNOLOGY

The small pool of highly skilled New Economy employees can perform their jobs nearly anywhere, providing an unprecedented choice about where to live and work. More traditional criteria, such as salary and cost of housing now appear to be less important than quality of the environment (Heimlich, 2001). If new development can create a valued sense of place, the search for quality-of-life characteristics will benefit Fargo's economy.

## TRANSPORTATION

According to NewUrbanism.org, we are now spending almost 30% of our income on car payments, gas, maintenance, and insurance. The complaints of tax dollars are costing residents top dollar towards the never ending road and highway system. Why should the funding disappear for our education, civic buildings, and quality public spaces for the people of Fargo?

# economic issues

## TRANSPORTATION

Traffic congestion has proven to be a nightmare for low-density outskirts along Fargo's urban fringe. A perfect example can be explained by an event at the Scheels Sports Arena. Just like any important event during any time of the year, a hockey game can overwhelm the surrounding streets and Interstate 29 as most of the visitors are coming from the north side of Fargo. This problem has attempted to be resolved with shuttle buses from Hornbacher's south of about two miles. Unfortunately, those buses get caught up in the congestion. In more populated areas like Minneapolis, MN, there are multiple shuttle buses running from restaurants, parking garages and big lots for car space. However, what if the Scheels Sports Arena was the central focus in the general area with a five to ten minute walk for the majority of its visitors? Even if the two mile walk was provided with entertainment, restaurants and mixed-use buildings, it would make for a more enjoyable walk. If Fargo could create a transportation system to encourage walking, biking and transit, the city would then become a more coordinated infrastructure with land use policies that support the environment in a synergistic way (2030 Go Fargo Vision pg. 13).

# political issues

## NEW DEVELOPMENT

Fargo will promote attractive and welcoming neighborhoods by promoting a diverse and affordable housing stock. Fargo will create neighborhoods where residents can age in place, children can walk to school, and essential services are only a short walk away (2030 Go Fargo Vision pg. 13). The new development will promote infill development, planned growth, and increasing density and vitality in its established neighborhoods.

# case studies

“Middleton Hills” - Middleton Hills, Wisconsin

“CityPlace” - West Palm Beach, Florida

“Big Woods Play Area” - Lake Rebecca Park Reserve, Minneapolis, Minnesota

“Playtopia” - Tumbleweek Park, Chandler, Arizona



# case studies

## MIDDLETON HILLS, WISCONSIN

**Location:**

Middleton Hills, Wisconsin

**Project Type:**

Traditional Neighborhood  
Design

**Size:**

160 Acres

**Designer:**

DPZ Architects

**Distinguishing Characteristics:**

Safer Streets

Community Green Space

Short Setbacks, Front Porches

Center Retail/Community Space



[http://www.ci.middleton.wi.us/city/Departments/Planning/PlanCmsn/Mid\\_Hills/plans/MH\\_master\\_plan.png](http://www.ci.middleton.wi.us/city/Departments/Planning/PlanCmsn/Mid_Hills/plans/MH_master_plan.png)



(Duany et al., 2000)

# case studies

## DESCRIPTION | RELATION TO PROJECT



Essential places like grocery stores, dry cleaners and a café are within walking distance from anywhere in the neighborhood. Most of the existing green spaces were preserved for the community to participate in hiking, bird watching and recreation.

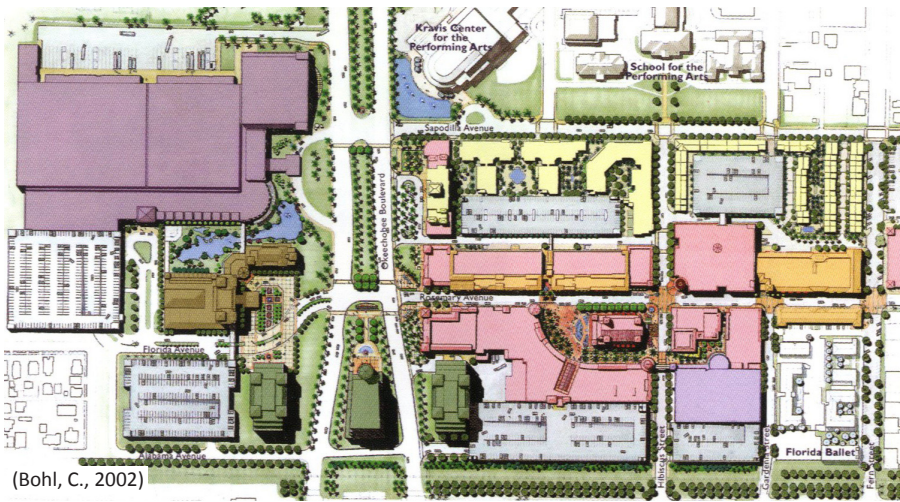
Marshall Erdman (founder), was a visionary in the design process as he wanted to bring back the communities that valued quality of life in their neighborhood. The people of Middleton are the focus, and the practice of separating developments of residential, commercial and offices was avoided in the design.

### FINAL CONCLUSIONS

Middleton Hills is a complex site in which every major decision was directed from the site's topography and watersheds. The ability to commute in a pedestrian friendly environment is important in this case study and should be further studied in the design for Fargo's new development.



# case studies



## CityPlace

**Location:**

West Palm Beach, Florida

**Project Type:**

Mixed-Use Town Center

**Size:**

73 Acres

**Designer:**

Bradshaw Gill & Associates

**Distinguishing Characteristics:**

Restored 1920s church adapted to serve as a multipurpose cultural center

Muvico 20-screen cinema complex fashioned after the Paris Opera House

A \$3.5 million “show” fountain in the center of a grand, Italian-style plaza.

CityPlace is one of the most successful transformations of a failed attempt to develop a downtown/uptown area in the late 1980s. The mayor partnered up with a development team and turned that vision into a thriving mixed-use large scale project.





# case studies

## DESCRIPTION | RELATION TO PROJECT



A Mediterranean theme is carried out throughout the area with architecture, plazas, fountains, and tile mosaics. The development is a gateway to downtown West Palm Beach with unique retailers and restaurants that aren't your typical commercial chains. The project includes plans for three office towers and around 600 housing units. Diverse housing in the area is meant to provide a "24-hour street life" to the project which has played an important role in its success.



The streets provide multiple connections to adjacent downtown neighborhoods and sidewalks range from six to ten feet for a friendly pedestrian environment. Parking is concealed towards the backs of buildings or alleyways to keep an attractive passageway for pedestrians. The church plaza is the main attraction which provides a grand public room and holds a strong sense of enclosure.



## FINAL CONCLUSIONS

The preservation and adaptive use of the historical church remains a unique identity of the project to establish a connection with its community. The plaza is a powerful focal point that provides a center of gravity for pedestrians. It is not just a place to shop, but holds purpose to live, work, dine, and attend cultural and entertainment events.

# case studies

## Big Woods Play Area

### Location:

Lake Rebecca Park Reserve  
Minneapolis, Minnesota

### Project Type:

Forest Ecosystem Park

### Size:

2 Acres

### Designer:

Stephen Shurson

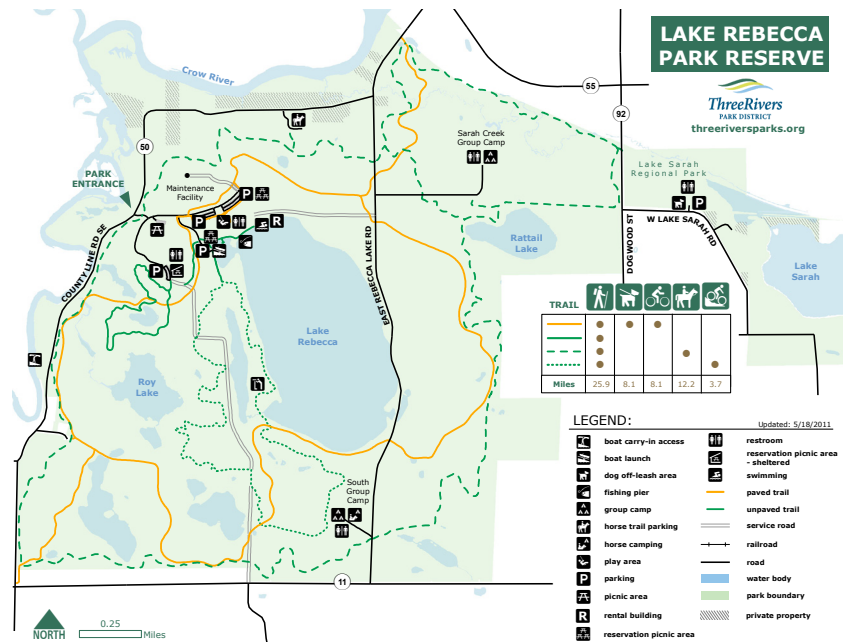
### Distinguishing Characteristics:

Fabricated tree house, cabin and cave

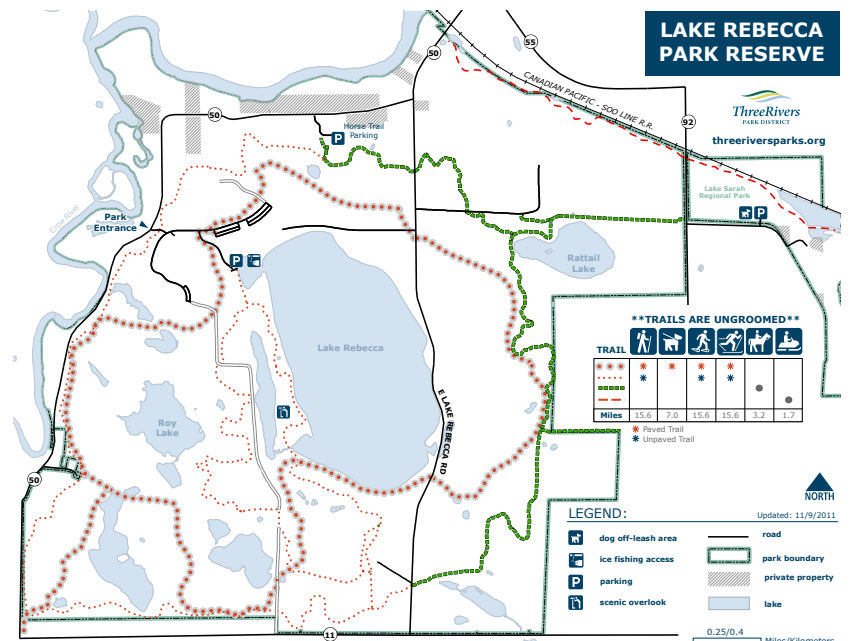
Environmental education  
Three Rivers Park District

Trumpeter Swan restoration  
program

Preservation of natural beauty of  
the park



<http://www.threeriversparks.org/parks/lake-rebecca-park.aspx>



<http://www.threeriversparks.org/parks/lake-rebecca-park.aspx>

# case studies

## DESCRIPTION | RELATION TO PROJECT



The Lake Rebecca Park Reserve focuses on one mission: To preserve and promote natural resources in its environment. The central area of the “big woods” forest hosts one of the most famous designs in creating a unique play environment that educates children and allows them to relate to the natural forest ecosystem.

The “Big Woods” forest is mostly occupied with sugar maple, basswood and oak trees which hold a conceptual design to portray the historical significance of the upper Midwest. The play area becomes a story through a scavenger hunt of small, concrete animals located in caves, tree houses and cabins.



This portion of the park reserve provides a vital role in keeping children active but also holds activities for adults in both summer and winter seasons. In the summer, the park is used for biking, boating, fishing, horse riding, picnic areas, and swimming. The winter season reveals paved trails for cross country skiing, snowmobiling, and snowshoeing.

### FINAL CONCLUSIONS

This study creates a unique play environment that educates and allows children to relate to the native forest ecosystem. It isn't the typical playground with mundane characteristics, because it emulates a historical background that pertains to the importance of forest preservation.



# case studies

## PLAYTOPIA

**Location:**

Chandler, Arizona

**Project Type:**

Themed Community Park

**Size:**

3 Acres

**Designer:**

Jeff Velasquez, J2 Designs

**Distinguishing Characteristics:**

Three Historical Eras of the region's development

- Fossil discover and the ancient past
- Farming and the recent past
- City growth of modern-day Chandler, Arizona



**TUMBLEWEED PARK PHASE 5 PAVILLION NAMES**

- |  |   |
|--|---|
| A – McDowell Mountain Corporate Pavilion (capacity: 320) | H – Red Barn Pavilion (capacity: 20-30)     |
| B – South Mountain Pavilion (capacity: 80)               | I – Green Barn Pavilion (capacity: 20-30)   |
| C – San Tan Mountain Pavilion (capacity: 80)             | J – City Land Pavilion (capacity: 15-25)    |
| D – Gila Monster Pavilion (capacity: 20-30)              | K – Critter Land Pavilion (capacity: 15-25) |
| E – Coyote Pavilion (capacity: 20-30)                    | L – Honey Locust Pavilion (capacity: 15-25) |
| F – Roadrunner Pavilion (capacity: 20-30)                | M – Cork Oak Pavilion (capacity: 15-25)     |
| G – Blue Barn Pavilion (capacity: 20-30)                 | N – Sugar Beet Pavilion (capacity: 15-25)   |



# case studies

## DESCRIPTION | RELATION TO PROJECT



The main goals of this project were to create a destination to draw a connection to the environment for the community, interpret Chandler's history, and educate children about the area's past. The experience would affect both parents and children and draw them away from the dangers of vehicular traffic near its busy roads. Visitors were encouraged to bring out their creative playfulness and imagine the possibilities of unlimited fantasy. Surrounding the "playtopia," are plenty of green areas for festivals, picnics, recreational activities, and a reclaimed water system to provide water to the landscape.

### FINAL CONCLUSIONS

This study explores the concept of placemaking in areas with a need of a sense of place in their community. Important aspects of this design are the ability to bring an environment together and to utilize some areas during all seasons of the year. The site encourages conversation with other members in the area, enjoy creative play and fantasy, and create awareness of ecology and history.



# case studies

## CASE STUDY SERIES & TYPOLOGICAL SUMMARY

The preceding studies explain the relationship of a community in celebrating significant features like wetlands, historical buildings, mixed-use development, and trending themes from the past and present. The project goals were carefully thought out and are well executed in each design. It is important to understand each particular case study, and use these as a whole in producing a sense of place for Fargo that isn't like any other place.



# historical context

Suburban sprawl is the direct result of a number of policies that encouraged urban dispersion.

One of the first systems of “transit-oriented development” was the introduction of railroads and streetcars in the industrial revolution. This transportation technology at the time played a vital role in the creation of towns like Fargo, North Dakota. 1871 was the founding date of Fargo, as the first settlers claimed their place along the first railroad crossing the Red River. Railroads played a major role in the development of Fargo as it was named after William G. Fargo, a director of the Northern Pacific Railroad. By 1892, Fargo had grown to a city of more than 8,000 inhabitants; the tents and shanties of earlier days had been replaced by mainly wood-frame buildings. (City of FARGO HISTORY)

It was the streetcar suburbs in the early 1900s that became a contemporary concept towards transit-oriented development. In 1904, The Fargo Street Railway accepted its first passenger after 2-1/2 years in the making. The idea expanded a sense of convenience for Fargo and operated continuously until 1937, just before the Second World War.

# historical context

One of the most influencing policies encouraging urban dispersion was the Federal Housing Administration and Veterans Administration loan programs. In the years following the Second World War, they provided mortgages for over eleven million homes. These programs steered away from the renovation of existing housing stock and provoked the construction of row houses, mixed-use buildings, and other urban housing types.

In 1956, The Interstate Highway act provided 41,000 miles of roadway in which 90% was federal and local subsidies for road improvement. This created negligence for mass transit and ultimately helped make automotive commuting affordable and convenient for the average citizen.

Housing gradually migrated from historic city neighborhoods to the distant land further away. The local shops stayed in the city long enough to realize that their customers had disappeared and followed after them to the outskirts of the city.

By the 1970s, many of these corporations were moving their offices closer to their own homes realizing their distance traveled was finally taking a toll on their very important cash flow.

# historical context

The new interstates of I-29 and I-94 expanded Fargo to the boundaries it has to this present day and it continues to grow in the south west direction. In 1972, the arrival of the West Acres Shopping Center became the roots of retail growth on 13th avenue. Shopping was changed forever with the new birth of the strip mall center. It was placed strategically along the massive highway construction which began to “zone” out areas with huge lots, wide setback distances and vast parking lots.

## TYPICAL CONTEMPORARY ZONING CODE

Has several land-use designations;

- o Housing is separated from industry
- o Low density housing is separated from medium density and high density
- o Medical offices are separated from general offices
- o Both of these are separated from restaurants and shopping

This dispersion created an obsession with sprawl as government pushed zoning codes and separated the different aspects of daily life. Unfortunately, the mid-nineteenth century had considered itself virtually unfit for human habitation. Cities like London, Paris, and Barcelona were transformed into national treasures over the course of many years.

# historical context

The local government generally does not develop adequate capacity to plan for and manage growth until it is too late to channel appropriate development. The sprawl of Fargo has experienced a “Leap Frog” development leaving areas of land within untouched. An original growth plan was started in 2001, but has resulted into a problem as the growth of the city based its policies, zoning laws, and subdivision laws that simply contradict their initial intentions.

The zoning laws of Fargo have based their planning on its past history that it was good enough to separate one thing; therefore, it should be an even better idea to separate everything. This comprehensive mix of diverse land uses was thought to be just as reasonable as it was in the preindustrial age. However, Fargo has substantial amounts of land available for growth that has not been touched.

The average number of people per acre in Fargo is 10 people per developable acre. This is the average residential density throughout the city. The density of people ranges from 4 people per net developable acre to about 15 people per net developable acre. A developable acre is the land that can be developed after all of the streets, utilities, park land, etc. are removed from the total. The average density of 10 people per acre in Fargo equates to approximately 6 dwelling units per acre. (City of Fargo, Chapter 4 Growth in the Next 20 Years)

# historical context

In order to support a more sustainable future, we need to plan for growth while keeping development compact and efficient at the same time. The approach in the growth plan should have a higher density goal of 12-14 people per developable acre which equals about seven dwelling units per acre. One policy states that the city should ensure a fair, equitable, and rational distribution of housing to meet the needs of several population groups (City of Fargo, Chapter 4 Growth in the Next 20 Years). This policy recognizes that the concentration of any given population group in one area can invite future problems and isolate certain age and income groups.

Another policy relating to mixing housing types states the city should achieve a higher degree of interaction of various housing types in residential areas through mixed use design standards. To some extent, the Land Development Code has already established a hierarchy of residential zoning designations that include a variety of housing styles. Buffering and other landscaping requirements ease the transition between low, medium, and high density residential developments (City of Fargo, Chapter 4 Growth in the Next 20 Years).

# historical context

## SUMMARY

Up until the 1930s, town planning was based upon history, aesthetics, and culture. From then on, it became a technical profession based on quantity and not quality. As Fargo continues to spread, it constructs an equal amount of sprawl from other expanding areas, but nothing becomes of this excess matter and it begins to lose its value. The result doesn't portray anything, it feels like nothing, and contradicts everything aside from our human existence. Pedestrian lifestyles became non-friendly environments and developed into a network of traffic lines and stressful homecomings.

In conclusion, the historic main streets of Fargo should be more than just a place to live, work, and play. They should be places of organization for gatherings, protesting, speeches and the public life of the community.

# project goals

This thesis project will strive to be well thought out and satisfactory to the outside world with the proper knowledge of Landscape Architecture and Urban Planning. It will be the first step into a new career and the final closure of a successful academic career. The findings of this research document and design interventions will explore new ideas and possible opportunities for employers, city officials, and community members in my future career.

The conclusion of this project will push the limits of sustainability into all phases of development, and potentially be used in community planning, master planning and final construction of a real project. It will be able to portray information through text and visual imaging to solve a common problem and bridge the gap between Urban Planning and Landscape Architecture.



# project goals

## ACADEMIC

Academic goals for this thesis project are to learn as much as possible in the Urban Planning profession. It should be a work in progress each day to recall the past year's information and utilize that knowledge to produce a successful final project. Working hard and reaching past my comfort zones will only reflect the possibilities of acquiring new concepts for my professional goals.

## PROFESSIONAL

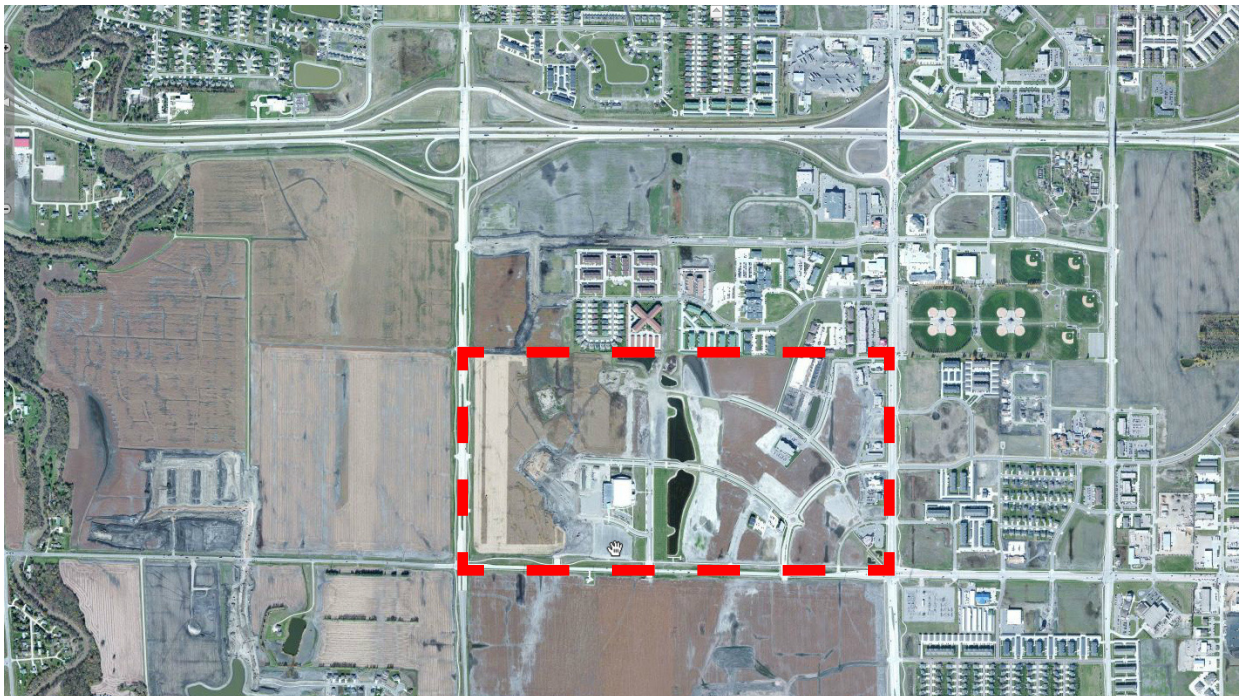
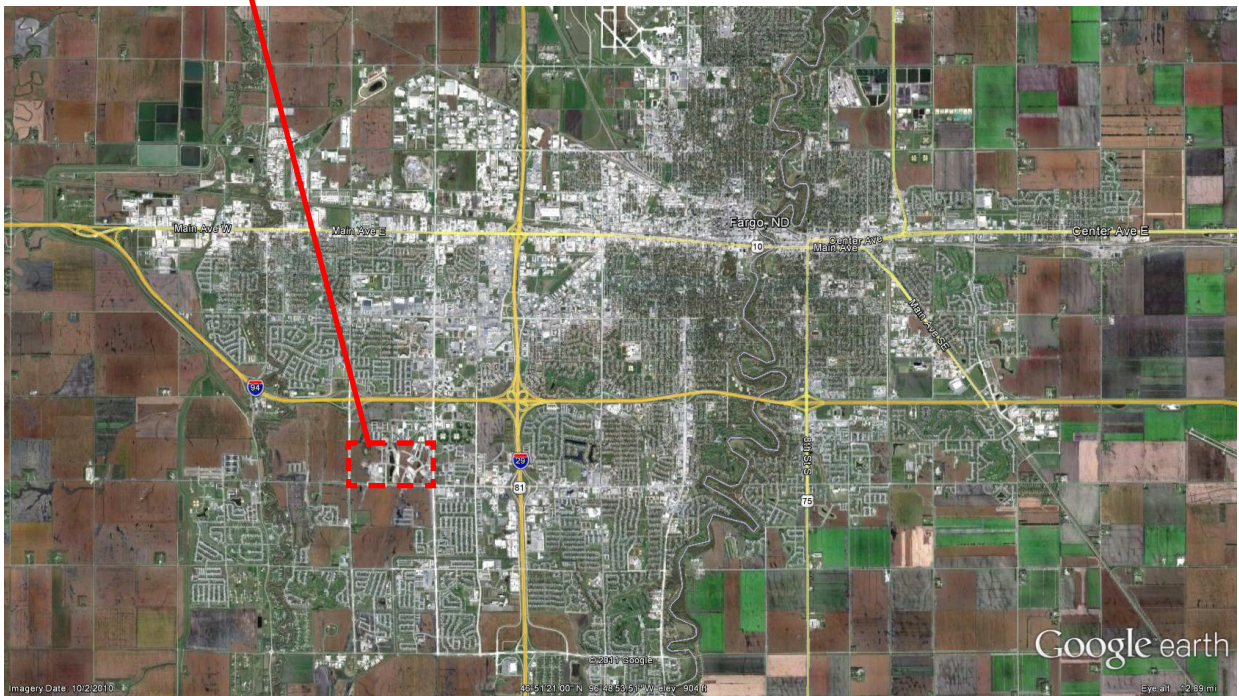
The professional world soon approaches as I plan to gain experience through this project as if I were a master planner in the City of Fargo. The focus of this project is to gain the interest of future employers by presenting my project to as many professionals as possible and seize their opinions and advice for success in my career. I will strive to work as a city planner or developer that keeps a sustainable vision ahead of the greed for money.

## PERSONAL

On a personal level, I would like to take this opportunity to create a network of contacts for my future endeavors. I will respect all of my contacts throughout this project as if I were to work with them in the professional capacity. By keeping my priorities in line, I will be able to mature and move into a positive lifestyle that fits my needs. Finally, I hope to find the solution to the problems in pursuit of this project. The satisfaction of achieving this goal can only strengthen my confidence as a problem solver and lead me to a path with great triumph.

# site inventory

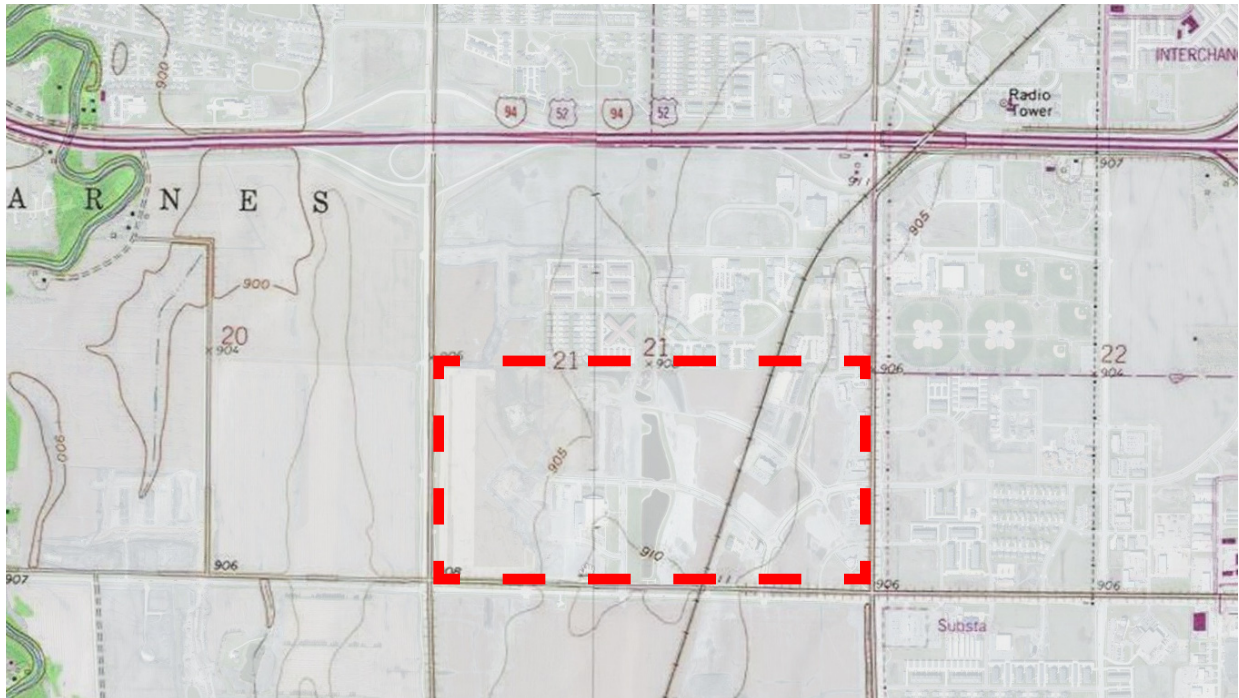
## SITE LOCATION





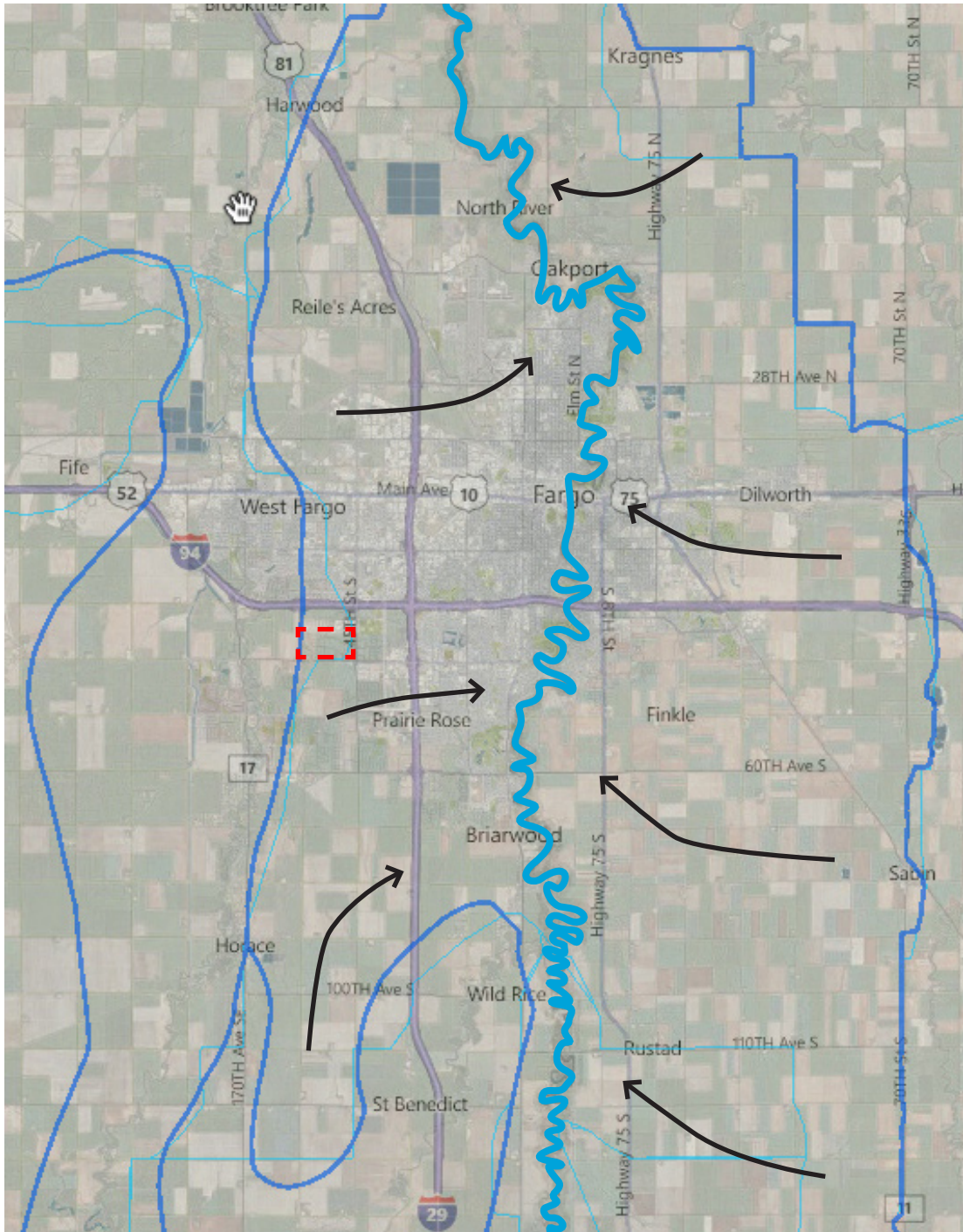
# site inventory

## TOPOGRAPHY



# site inventory

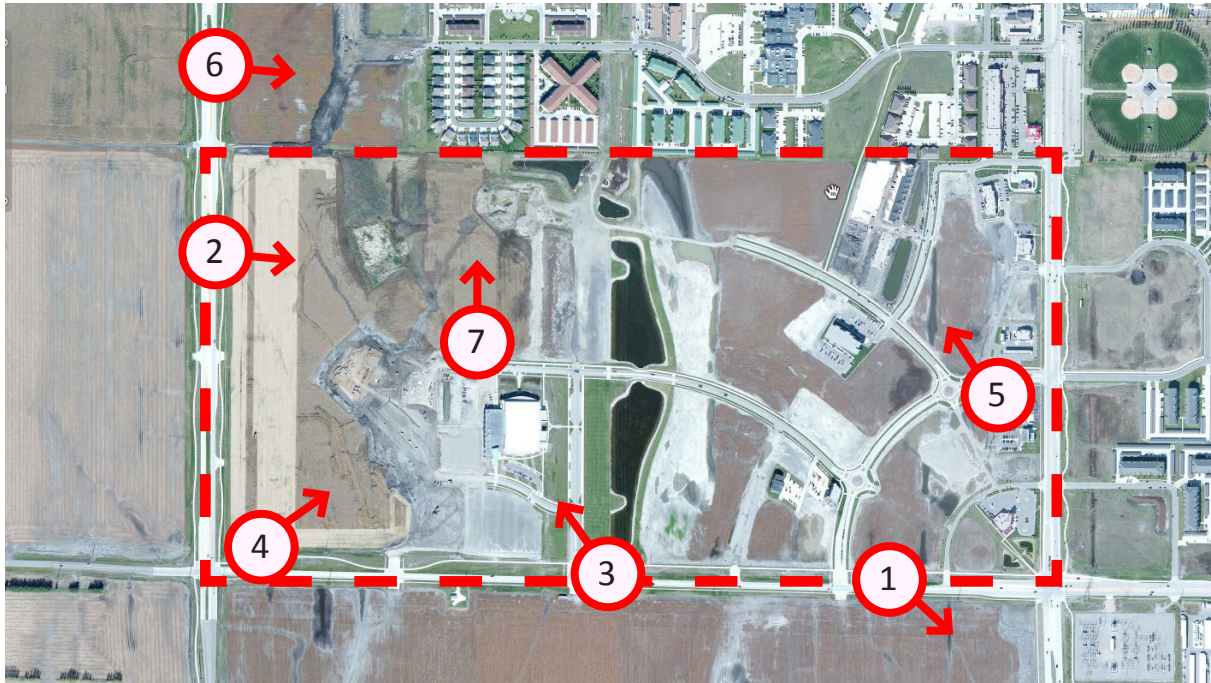
## WATERSHEDS





# site inventory

## VIEWSHEDS





# site inventory



# climate data

## AVERAGE TEMPERATURES

Spring: 34 Degrees Fahrenheit  
Summer: 66 Degrees Fahrenheit  
Fall: 50 Degrees Fahrenheit  
Winter: 15 Degrees Fahrenheit

## AVERAGE WIND SPEED

Spring: 14 mph  
Summer: 13 mph  
Fall: 13.5 mph  
Winter: 13.5 mph

## AVERAGE PRECIPITATION

Spring: 4.2"  
Summer: 7.9"  
Fall: 6.1"  
Winter: 2.6"

## AVERAGE PERCENTAGE OF SUN

Spring: 59%  
Summer: 66%  
Fall: 56%  
Winter: 48%

Spring: February - May  
Summer: May- August  
Fall: August - November  
Winter: November - February

# programmatic requirements

The programmatic requirements of this project include a central focus of interest to create a sense of place. This public/open space will be the main attraction with a historical feature that attracts visitors. Another feature of the focal point may be a neighborhood-scale shopping center for the larger population of Fargo. It can include but is not limited to: groceries, dry cleaner, video rental, or other daily needs.

The buildings on site will be high density live-work atmosphere. It shall be a place where residents can share the costs of a secretary, office equipment and meeting rooms. There should be an equal balance of residents and jobs.

The new development must have a relationship to its neighbors such as the apartment complex to the south, the Scheels Sports Arena, and anything within a 10 minute radius in walking distance. All compatible land uses should be connected, especially between residential areas whenever practical. Skinny streets and grid lines should be apparent throughout the development for a pedestrian friendly environment.



# final presentation

Project Goals

Design Development

Conceptual Plans

Master Plan

Street Network

Stormwater Detail

Streetscape Detail

Community Garden Detail

# project goals

**Create Destination Points** – This project will include a multiple points of interest to create a sense of place. These will be the main attraction towards the site.

**Placemaking - The Power of 10** - Any great place itself needs to offer at least ten things to do or ten reasons to be there. Ideally, some of these activities are unique to that particular spot and are interesting enough to keep people coming back.

**Community Hierarchy** – The general feeling when approaching Urban Plains community is a sense of hierarchy in the building height. As the visitor approaches the center of the site, the heights of the buildings increase.

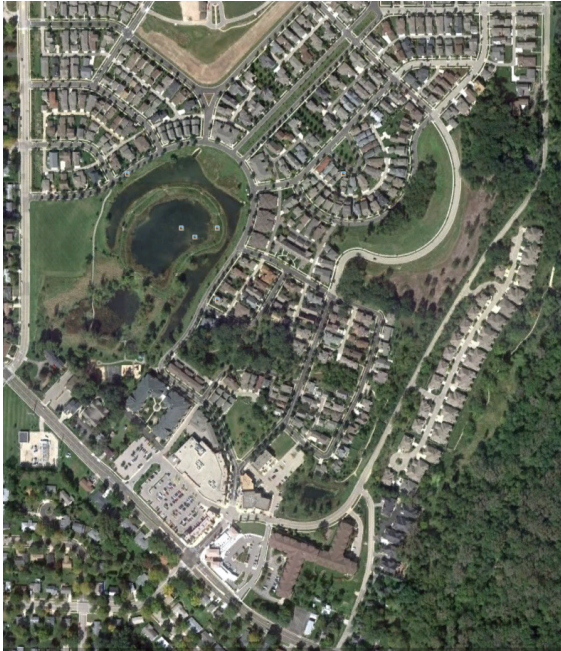
**Connectivity/Triangulation** – The new development must have a relationship to its neighbors within the community (The Power of Ten). All compatible land uses should be connected, especially between residential areas whenever practical. Street design will be a pedestrian friendly environment.

**Sustainable Environment** – Mixed-Use buildings where residents share the costs of a secretary, office equipment, and meeting rooms. Stormwater management will be apparent to the user and provide awareness to reduce energy consumption, pollution and save time.

**Walkable Storyline** - A typical visitor should be able to navigate the majority of the site over the course of their experience. The site will predict the needs and accessibility for a typical visit of any person with activities such as food, shopping, recreation, social activity, people watching and experiencing nature.

# design development

## SUCCESSFUL STREET DESIGN

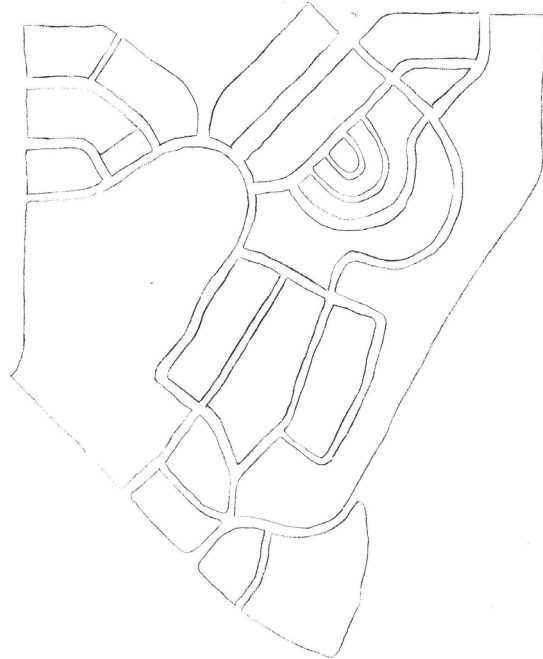


Middleton Hills, WI

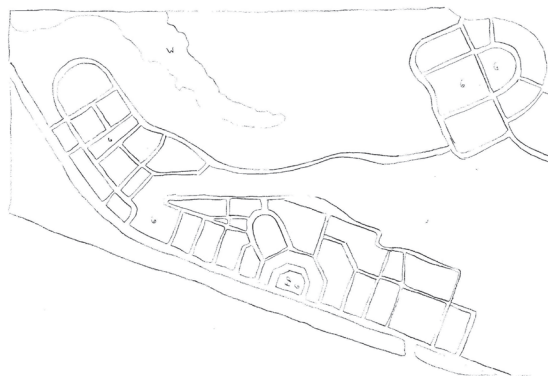


Seaside, FL

## STREET LAYOUT TYPE



Modified Grid Pattern



Modified Grid Pattern

# design development

## SUCCESSFUL STREET DESIGN



City Place, FL

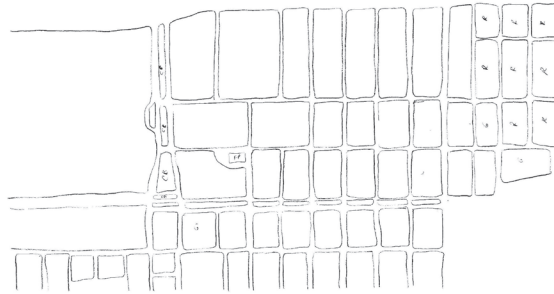


Paris, France



Val'D Europe

## STREET LAYOUT TYPE



Grid Pattern



Abstract Pattern

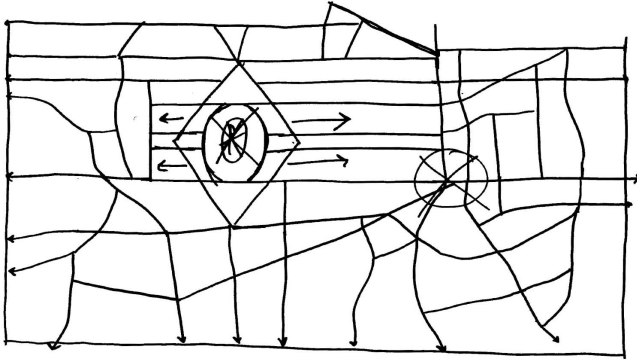


Spatial Abstract Pattern

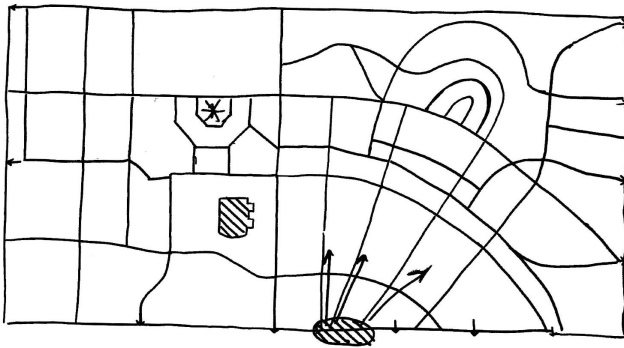


# conceptual plans

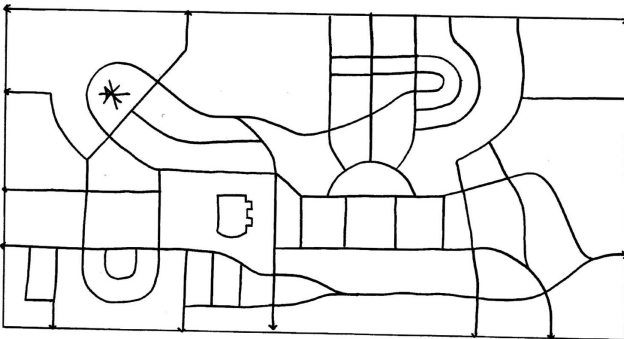
European Concept



Middleton Hills/Seaside Concept

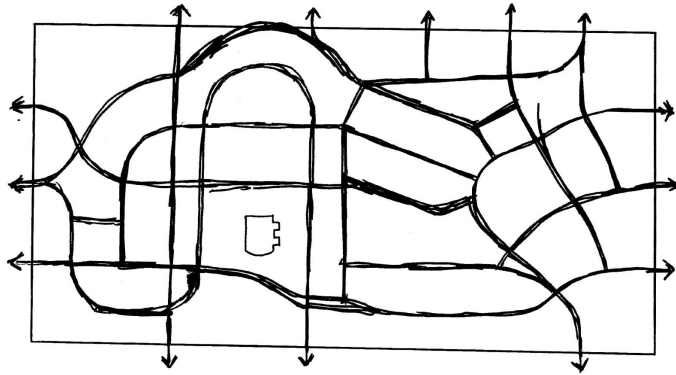


Combination Concept

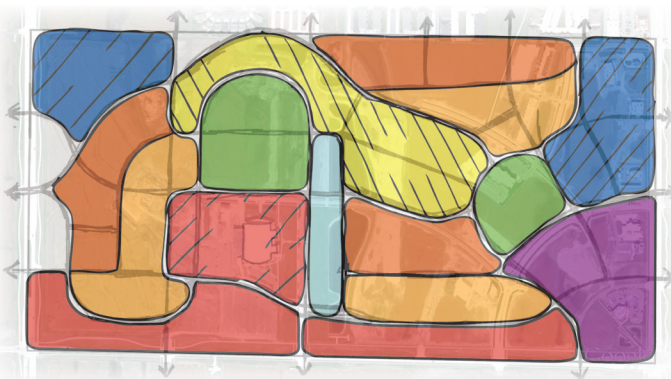


# conceptual plans

Street Concept



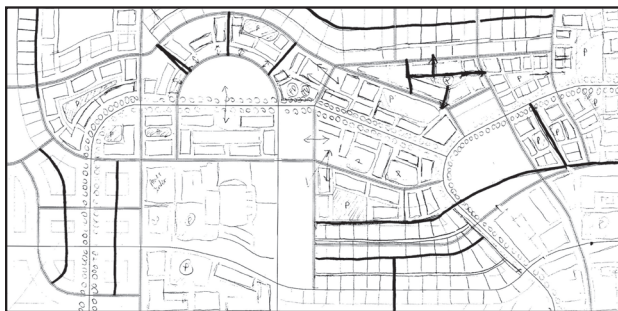
Land Use Concept



**LEGEND**

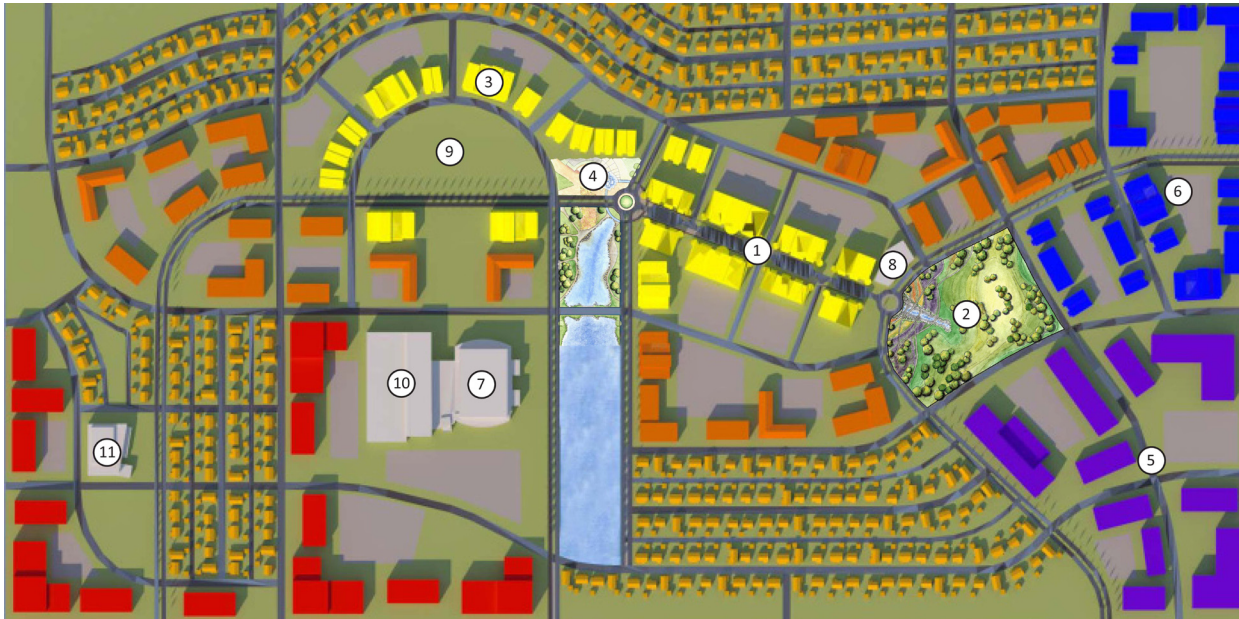
- Corporate Buildings
- Multi-Family Homes
- Single-Family Homes
- Shopping Center
- Green Space
- Stormwater Management
- Mixed-Use Retail
- Sanford Medical Campus

Final Concept



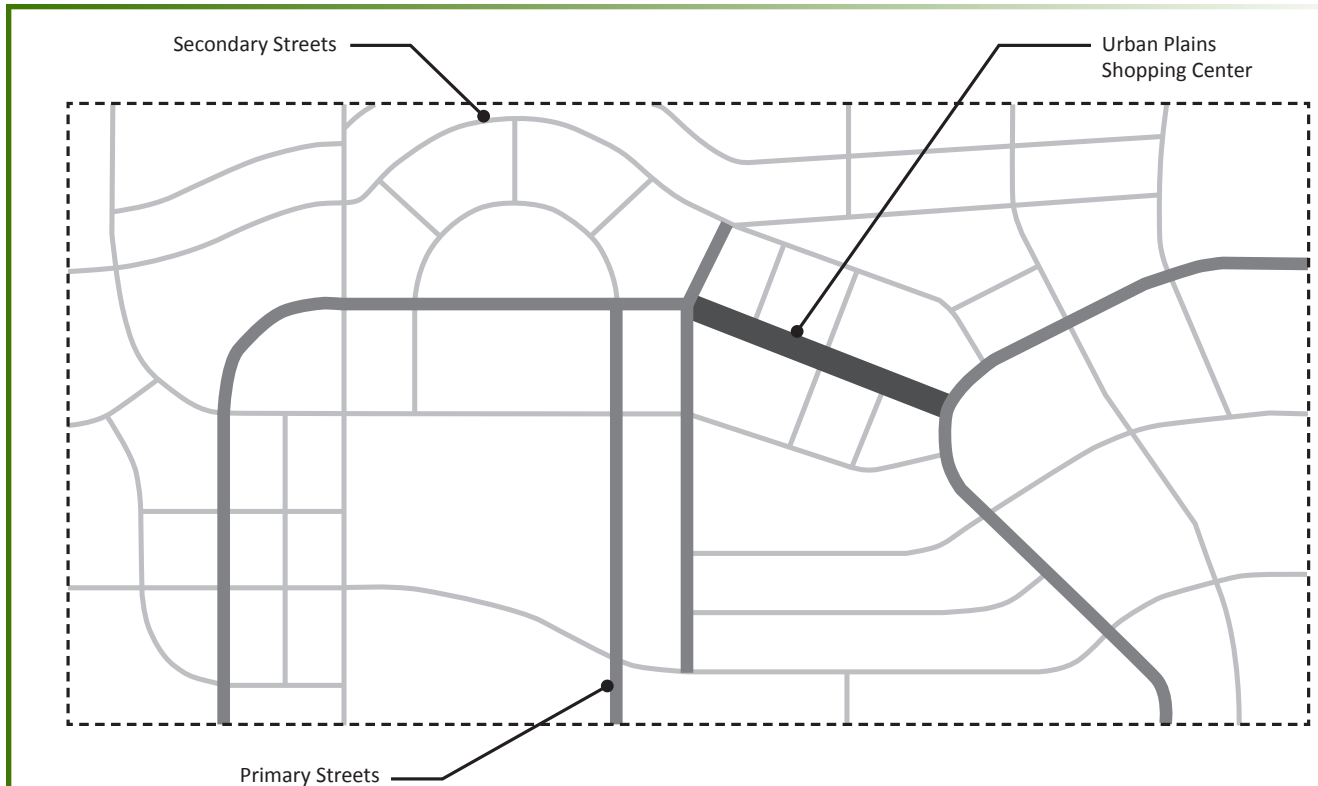
# master plan

## URBAN PLAINS MASTER PLAN



- ① Urban Plains Shopping Center**
  - Self-sustainable strip of retail and office space
  - a. Nike Town
  - b. Love Sac
  - c. H & M
  - d. DSW
  - e. Golf Galaxy
  - f. Movie Theater
  - g. Apple Store
  - h. Charming Charlie
- ② Urban Plains Community Garden**
  - Interactive water flow, public gathering, trail park
- ③ Urban Plains Dining Strip**
  - Surrounding the athletic fields, this strip of restaurants is a convenient place to grab a bite while watching sporting events from Youth Associations to Adult Tournaments
- ④ Urban Plains Plaza**
  - Rest area with view sheds in connection to shopping center, restaurant gallery, stormwater management, and Fields of Glory
- ⑤ Sanford Medical Center**
  - a. Emergency Hospital
  - b. Family Doctor
  - c. Ear and Eye Care
  - d. X-Ray Facility
- ⑥ Urban Plains Retail Block**
  - Essential needs for grocery, clothing, pharmacy
  - a. Hornbacher's
  - b. Walgreens
  - c. Nordstrom Department Store
- ⑦ Urban Plains Recreation Center**
  - Event Hub, Fargo Force Hockey
- ⑧ Sustainability Research Center**
  - Community building with information on sustainable planning
- ⑨ Urban Plains Fields of Glory**
  - Softball/soccer fields/ice rink
- ⑩ The Power Center**
  - Athletic training, rehabilitation, and workout facility
- ⑪ The Family Wellness Center**
  - Community pool, workout facility

# street network



A pedestrian friendly environment should have at least three different types of street design.

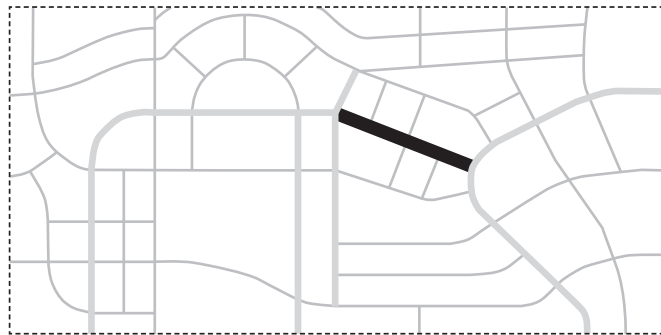
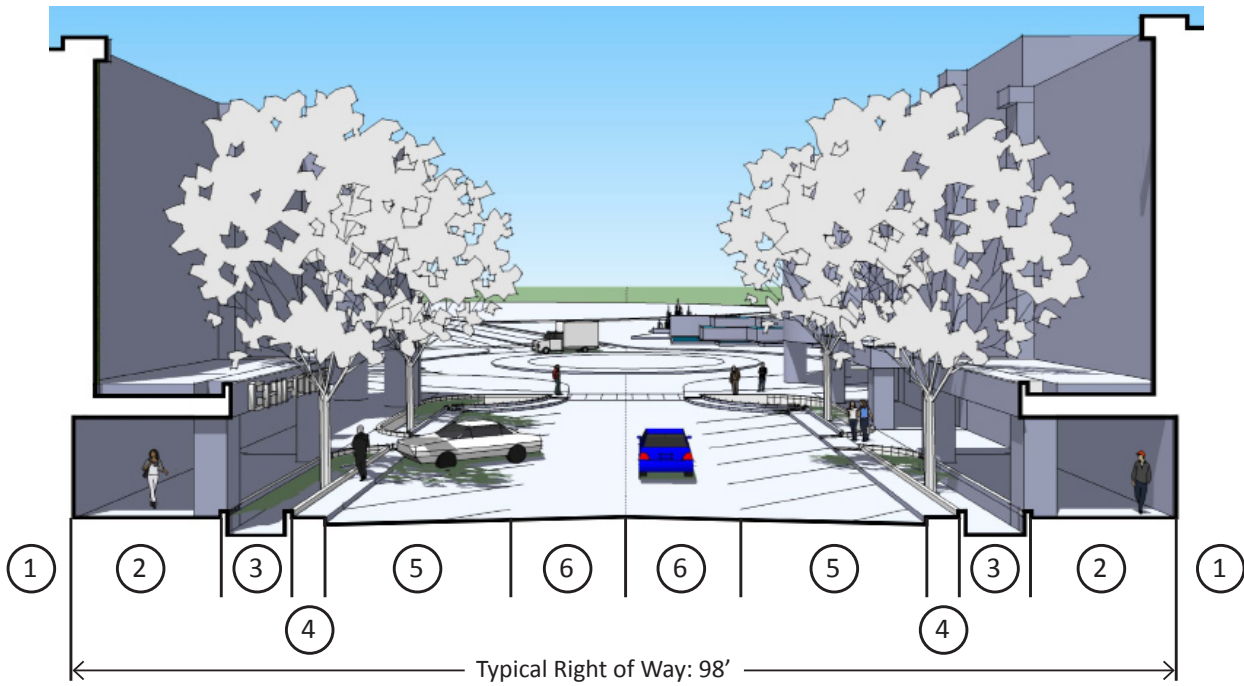
**Shopping Center Street Design** – This section is designed for high volume in both pedestrian and vehicular traffic throughout the street. Angled parking provides safety and distance for pedestrians to feel comfortable in their paths while slowing traffic down in the travel lanes.

**Primary Street Design** - These streets are faster roads with a 35 mph speed limit. Although there is less pedestrian traffic, the design slows vehicle speeds and creates awareness with a seven foot parking space between pedestrians and travel lanes.

**Secondary Street Design** – The most walkable street design is provided for high pedestrian volume and slow vehicle speeds up to 25 mph. Parking lanes on the sides of the road provide safety and distance between pedestrians on the sidewalks while slowing traffic down when other vehicles pull out of their parking spots.



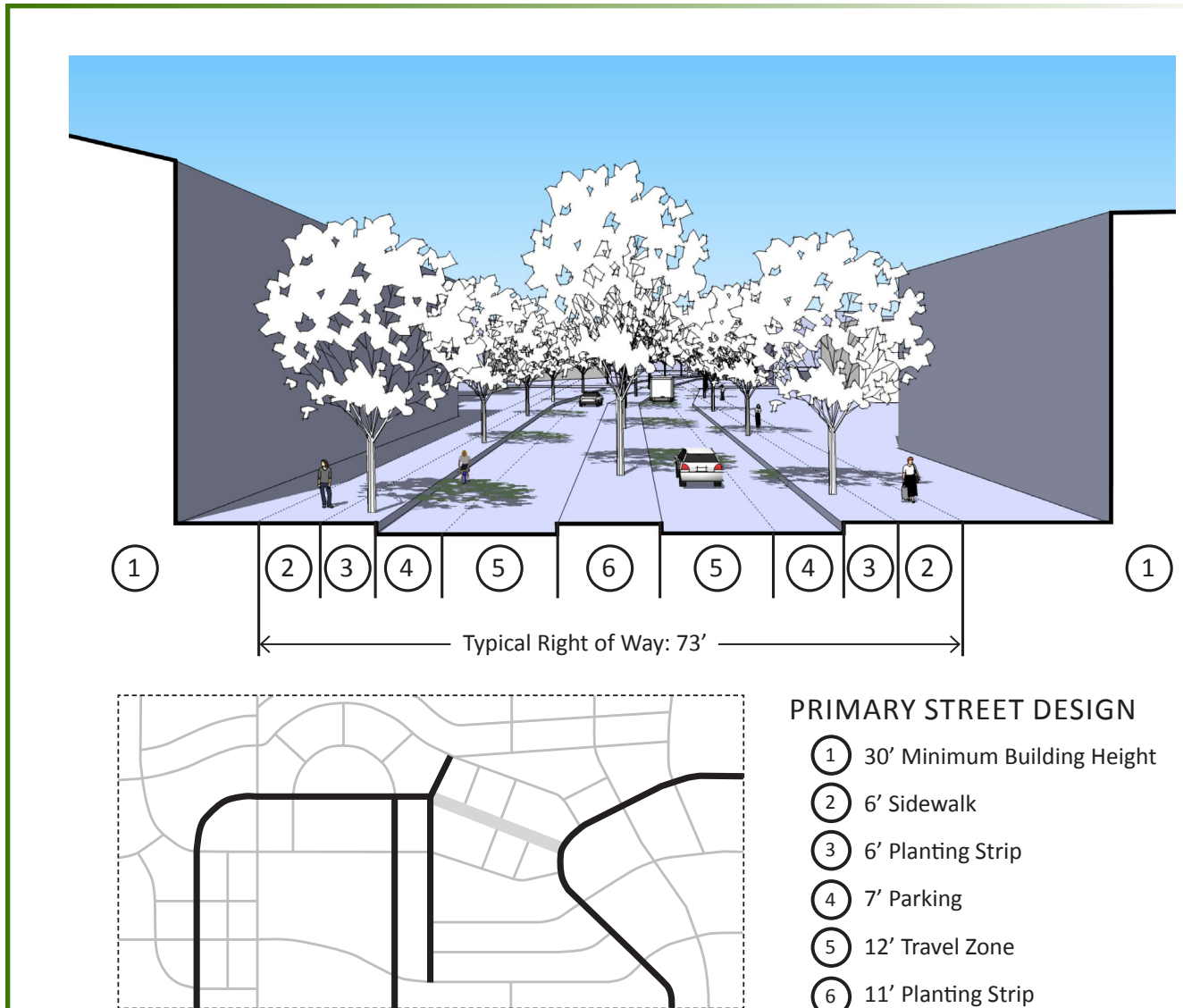
# shopping center street design



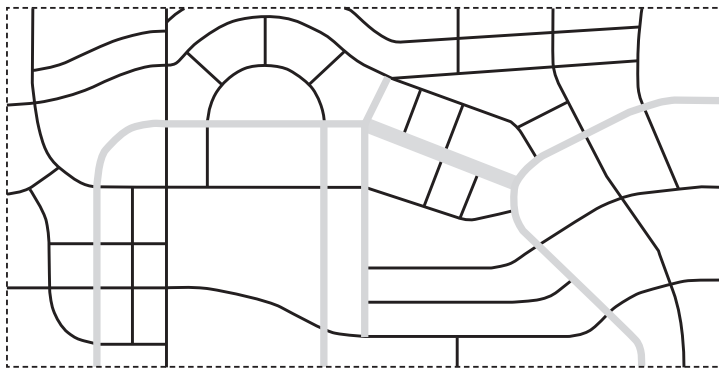
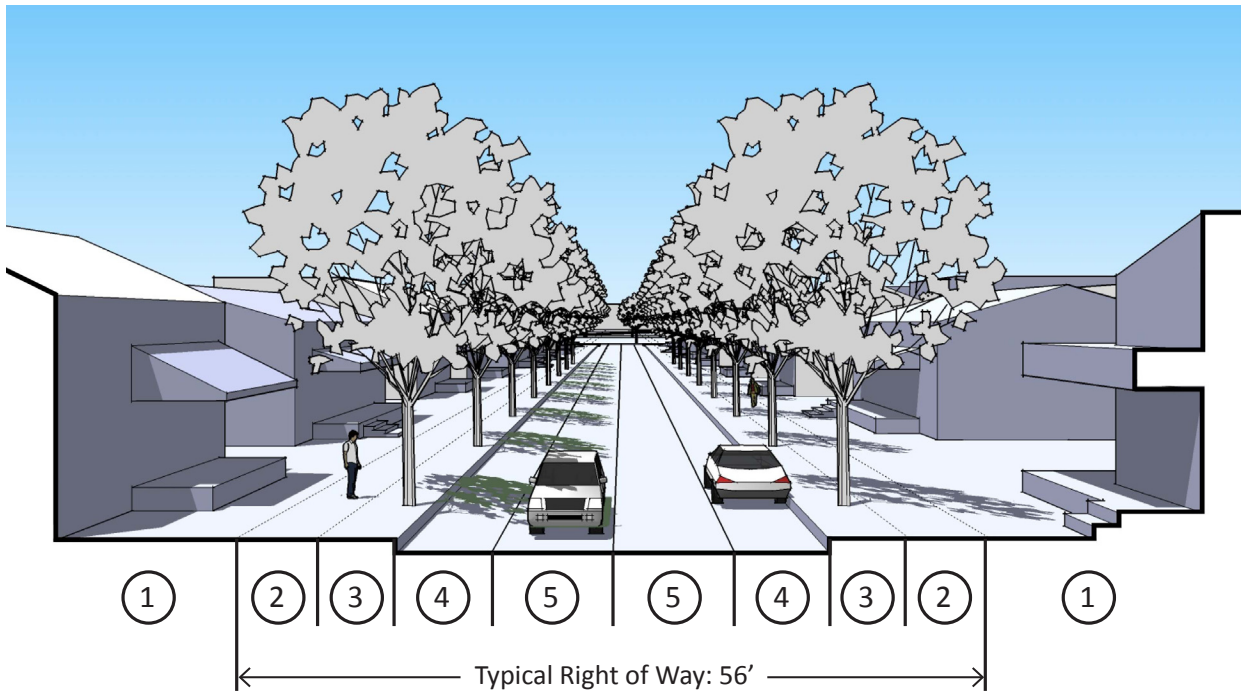
## URBAN PLAINS SHOPPING CENTER

- ① 35' Minimum Building Height
- ② 13' Sidewalk
- ③ 5' Lowered Planter (1.5')
- ④ 3' Curb Extension
- ⑤ 16' - 45° Angled Parking (2% Grade)
- ⑥ 12' Travel Zone (2% Grade)

# primary street design



# secondary street design



## SECONDARY STREET DESIGN

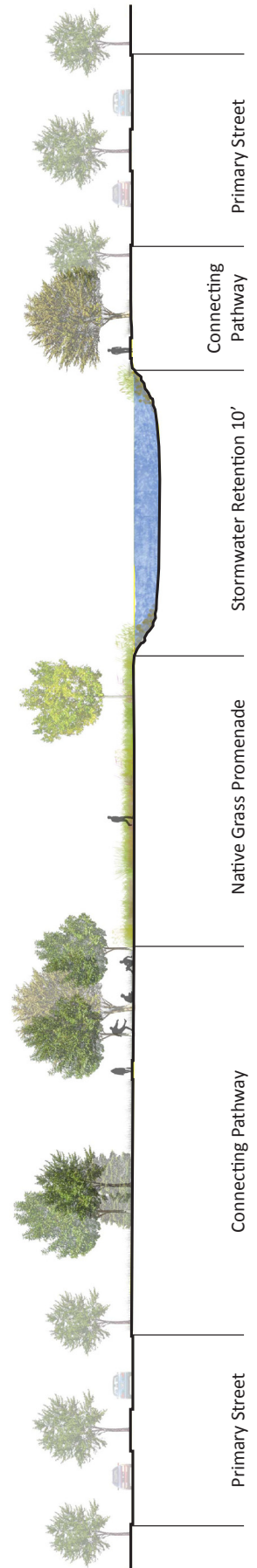
- ① 22' Minimum Building Height
- ② 6' Sidewalk
- ③ 6' Planting Strip
- ④ 7' Parking
- ⑤ 9' Travel Zone



# stormwater detail



- Grass Seating Area
- Filtration Fountain
- Interactive Fountain
- Native Grass Promenade
- Seating Area
- Stormwater Retention
- Connecting Pathways
- Stormwater Overflow

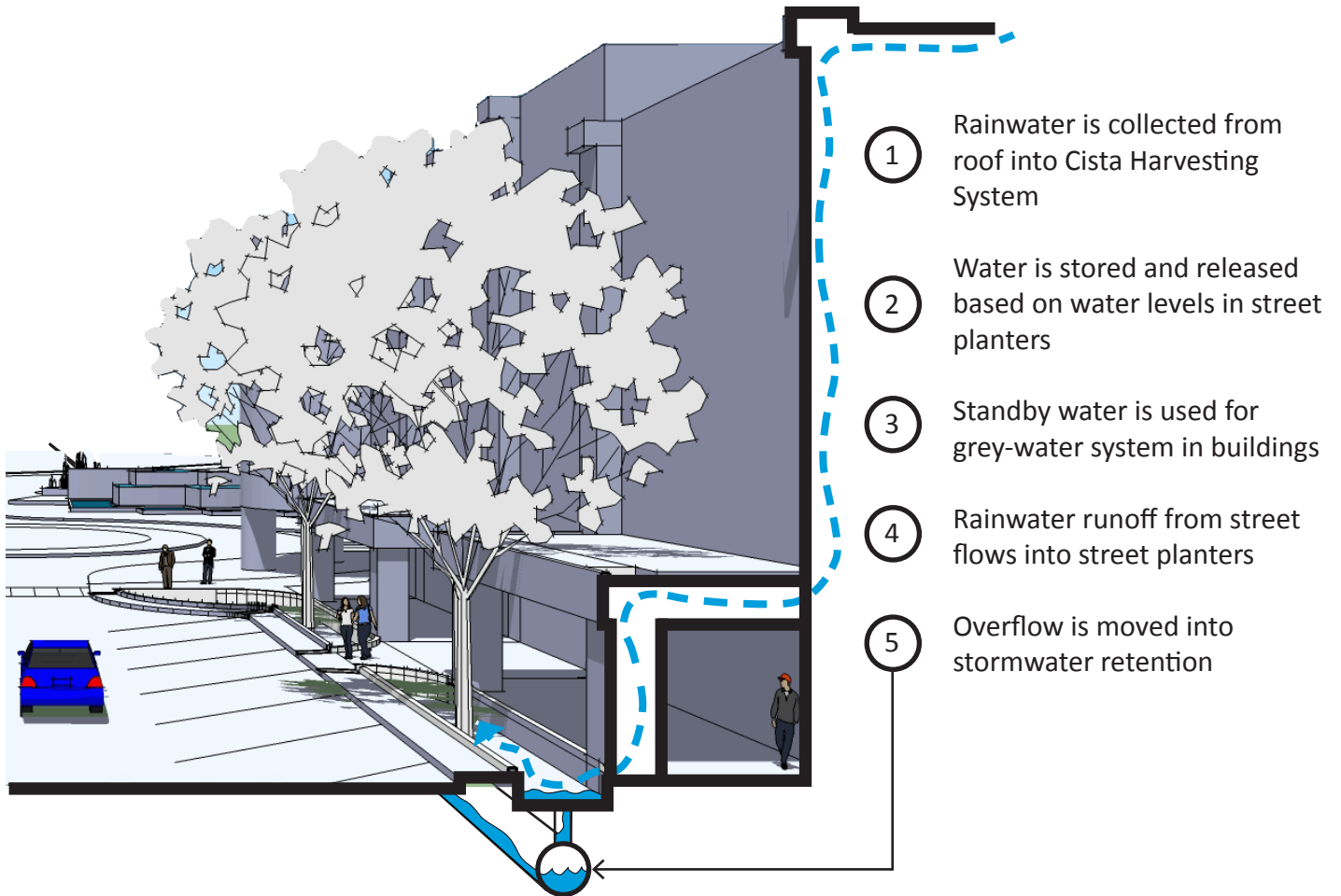




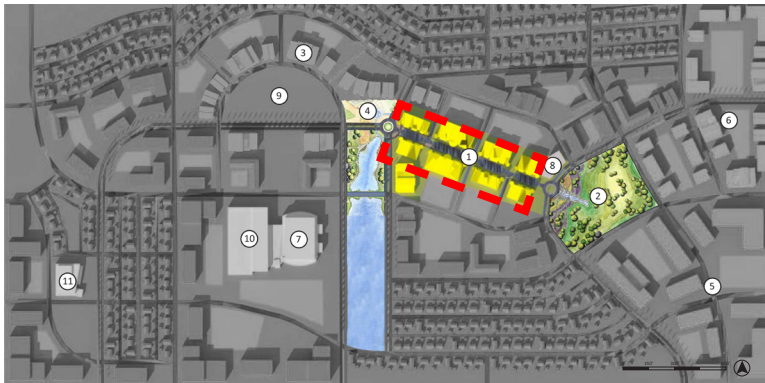
# perspective renderings



# streetscape detail



Water will be used primarily to create the spirit of place while integrating the users of the site in terms of view sheds, rejuvenation, and responsible design. Surrounding buildings, both existing and created on site, will utilize and redistribute water by integrating grey water systems. This can be established by combining the use of irrigation systems, rainwater catchment, xeriscaping, and bioswales. These systems are apparent to the public, showing the importance they serve within the site's form and function.

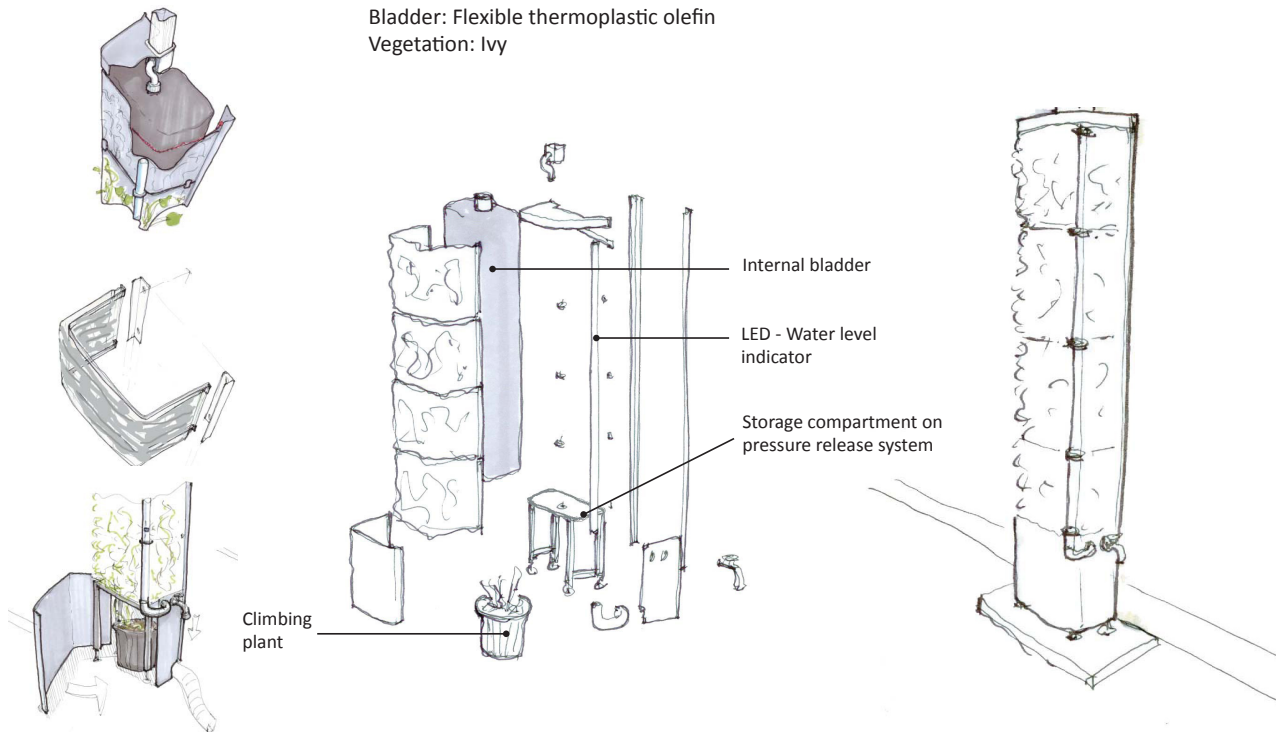




# streetscape detail

## CISTA RAINWATER HARVESTING SYSTEM

Structure: Stainless Steel  
Bladder: Flexible thermoplastic olefin  
Vegetation: Ivy



<http://mosssund.typepad.com/files/cista-info-package.pdf>

The most sustainable environment includes street design, building design, and creates awareness to the visitors of the site.

The Cista Rainwater Harvesting System is a perfect installment designed specifically for the Urban Plains sustainable environment. This is only part of an awakening story in explaining the conservation of water and re-use for a self sustainable system. This design brings an aesthetically pleasing attribute to the shopping center's building facade, while also increasing green space and awareness to the public. This project will save energy and water, ease the process of watershed collection, and will help keep the landscape looking clean and healthy.

# streetscape renderings





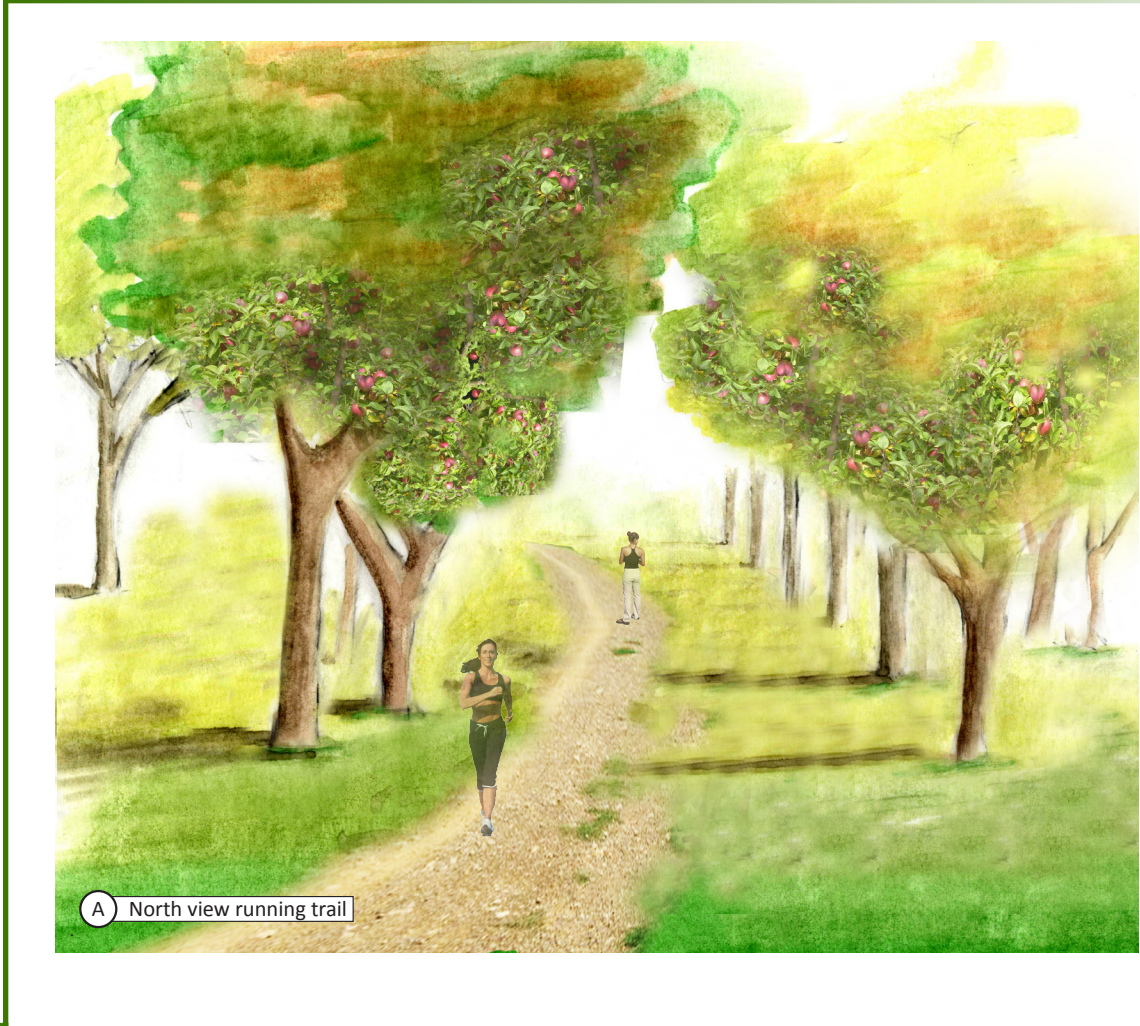
# community garden detail



Successful places have four key qualities: they are accessible; people are engaged in activities there; the space is comfortable and has a good image; and finally, it is a sociable place: one where people meet each other and take people when they come to visit.



# community garden detail



A North view running trail



# the solution

So to answer the question: How can sustainable design of fringe development contribute to the placemaking of Fargo and reframe the community's tastes and preferences?

By utilizing the Power of 10 to create destinations that give people plenty of reasons to be here and makes them want to return over and over again. A sustainable environment that provides awareness to reduce energy consumption, pollution, and save time. A walkable environment that supports community, proximity and access to daily needs. A constructed human habitat, not a car habitat. This defines place and opens more connections with new people.

The cumulative effect of all this careful planning is sustainability. A fancy word for lasting value. Some may call it Traditional Neighborhood Development or New Urbanism. But Urban Plains is really in a category all its own. Its a refreshing alternative to the suburban model that continues to grow today (known as urban sprawl). The end result is improved quality of life and advancement and prosperity towards a better future.





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# personal identification



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## INSPIRATIONAL QUOTE

“Always chasing excellence. Perfecting myself for the job I want, not the job I have.” - Steven Eggert