



---

# FORD SITE

A 21<sup>st</sup> Century Community

---

## Ford Site Zoning and Public Realm Master Plan

**DRAFT (7/21/2017)**

**For review by the  
Saint Paul Planning Commission**

Adoption Date:



# ACKNOWLEDGEMENTS

---

## City of Saint Paul

Mayor Christopher B. Coleman  
Deputy Mayor Kristin Beckmann  
Councilmember Chris Tolbert, Ward 3

Tia Anderson, Senior City Planner  
Kathleen Anglo, Senior Landscape Architect  
Merritt Clapp-Smith, Principal City Planner  
Reuben Collins, Transportation Planner  
Bill Dermody, Senior City Planner  
Donna Drummond, Director of Planning  
Bruce Elder, Sewer Utility Manager  
Mark Finken, City Engineer  
Dan Haak, Assistant City Engineer  
Anne Hunt, Environmental Policy Director  
Libby Kantner, Ward 3 Legislative Aide  
Paul Kurtz, City Engineer  
Wendy Lane, Zoning Administrator  
John Maczko, Assistant City Engineer  
Jody Martinez, Design & Construction Manager

John McCarthy, Budget Director  
Ellen Muller, Economic Development Manager  
Dan Niziolek, Deputy Director of Safety and Inspections  
Jamie Radel, Senior City Planner  
Mike Richardson, City Planner  
Jonathan Sage-Martinson,  
Director of Planning and Economic Development  
Wes Saunders-Pearce, Water Resource Coordinator  
Mollie Scozzari, Marketing and Public Relations Manager  
Mike Solomon, Treasurer  
Allan Torstenson, Principal City Planner  
Steve Ubl, Building Inspector  
Peter Warner, Assistant City Attorney  
Anne Weber, Civil Engineer IV  
Jenny Wolfe, Debt Administrator



## Ford Site Planning Task Force

### Members serving through 2017:

William Klein, Co-Chair  
Kyle Makarios, Co-Chair  
Tony Schertler, Co-Chair  
Peter Armstrong  
James Bricher  
Ronnie Brooks  
Rob Cory  
David Drach  
Charles Hathaway  
Deborah Karasov  
Angela Kline  
Gary Marx  
Jim Reinitz  
Morgan Tamsky  
Bruce Valen  
Stephanie Warne

Ellen Watters  
Pamela Wheelock

### Former Task Force members:

Shawn Bartsh  
Richard Broderick  
Anthony Desnick  
Terri Dooher Fleming  
Carol Faricy  
Jay Gardner  
Lance Neckar  
Scott Malcolm  
Dennis Rosemark  
Matthew Schuerger  
Dave Selligren  
Stuart Simek

## Community and Partners

- Ford Motor Company -- particularly project leads from Ford Land and from the Ford Environmental Quality Office
- All members of the public that attended meetings, provided input and shared ideas
- The Highland District Council for hosting, supporting and facilitating numerous meetings and conversations with the Highland community
- Dozens of consultants that assisted us on over a dozen studies regarding aspects of the Ford Site redevelopment
- Dozens of organizations, agencies and foundations that provided staff, expertise and funding to support the Ford site planning work across a wide range of topics and issues

# TABLE OF CONTENTS

---

## 2 ACKNOWLEDGEMENTS

City of Saint Paul	2
Ford Site Planning Task Force	3
Community and Partners	3

## 4 TABLE OF CONTENTS

## 6 CHAPTER 1: PREFACE

Introduction	7
1.1 Opportunity	8
1.2 Site History	10
1.3 Moving to Redevelopment	11
1.4 Genesis of the Plan	12

## 16 CHAPTER 2: VISION AND GUIDING PRINCIPLES

Vision Statement	17
Guiding Principles	18

## 20 CHAPTER 3: EXISTING CONDITIONS

3.1 Community Context	21
3.2 Current Zoning	22
3.3 Land Use	23
3.4 Airport Zones	24
3.5 Critical Area	25

## 26 CHAPTER 4: ZONING - DISTRICTS & GENERAL STANDARDS

4.1 Zoning Overview	27
4.2 Character & Site Organization	28
4.3 Where Regulations Apply	29
4.4 Zoning Districts	30
F1 River Residential District	34
F2 Residential Mixed Low District	35
F3 Residential Mixed Mid District	36
F4 Residential Mixed High District	37
F5 Business Mixed District	38
F6 Gateway District	39
4.5 Required Mix of Uses	40
4.6 District Uses	42
4.7 General Standards	46



---

## 64 CHAPTER 5: ZONING - BUILDING TYPES

- 5.1 Overview 65
- 5.2 Building Types by Zoning District 68
- 5.3 Building Type Standards 69

## 80 CHAPTER 6: INFRASTRUCTURE

- 6.1 Introduction 81
- 6.2 Transportation Network 82
- 6.3 Street Network System 83
  - Street Sections 84
- 6.4 Stormwater Plan and Standards 104

## 108 CHAPTER 7: PARKS AND OPEN SPACE

- Introduction 109

## 118 CHAPTER 8: PUBLIC ART

- 8.1 Introduction 119
- 8.2 Vision 120
- 8.3 Public Art Processes and Possibilities 121
- 8.4 Public Art Approaches 124

## 126 CHAPTER 9: SUSTAINABILITY

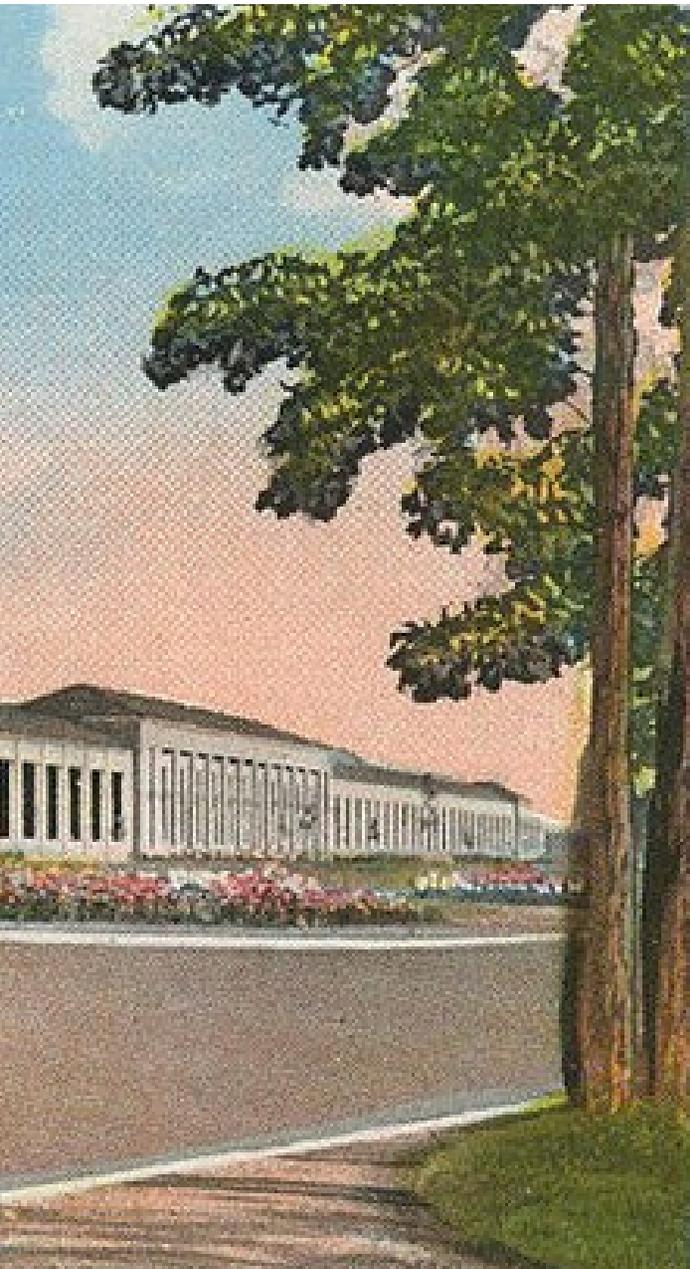
- 9.1 Vision 127
- 9.2 Roadmap to Sustainability 128
- 9.3 Sitewide Energy System 131
- 9.4 Affordable Housing 132
- 9.5 Saint Paul Sustainable Building Policy 133

Click this anywhere in the document  
to return to the Table of Contents





**DRAFT (7/21/2017)**  
**For review by the**  
**Saint Paul Planning Commission**



## Introduction

The Ford Site Zoning and Master Plan provides a framework to guide mixed-use redevelopment of the former Ford Motor Company assembly plant and the adjacent Canadian Pacific railyard. This plan is the culmination of a decade of planning for the site. The City of Saint Paul has been in active dialogue with Ford Motor Company and Canadian Pacific Railway representatives during those years, to examine all ideas for property reuse. There has been extensive dialogue with members of the public, with partner agencies at the regional, state and federal level, with interested organizations, and with real estate and development professionals. The City has collaborated with foundation and professional consultants to undertake a series of studies examining site reuse priorities and their technical and financial feasibility. The decade of research and dialogue has led to the firm conclusion that the site is best repositioned as a mixed-use urban neighborhood that advances economic, environmental and social sustainability.

This document – The Ford Site Zoning and Public Realm Master Plan – plays a large role in guiding the future of the site. It provides the regulatory zoning standards for future uses, building form, and public realm design, as well as the layout and general design for future public right-of-ways, parks and open space, and stormwater management. This document complements the City of Saint Paul Zoning Code by providing site-specific standards in six new zoning districts for the Ford site, while relying on the existing City zoning for more general requirements not referenced herein.

It is anticipated that this document may be updated over the course of the site’s final planning and expected decade plus build out, in order to accurately reflect evolving conditions, opportunities and priorities for site redevelopment. Updates to this document must be reviewed and adopted as a plan amendment by the Saint Paul Planning Commission and the Saint Paul City Council.

## 1.1 Opportunity

The Ford site offers an unparalleled opportunity for the future of Saint Paul and for the entire region. Rarely does a city have the chance to redevelop 135 acres of land on the banks of one of the world's major rivers and in the heart of a thriving neighborhood and commercial area. It is a unique opportunity and one that requires the utmost care and commitment to ensure that a framework is in place for future development to take place as envisioned.

The Ford site should reemerge as a connected, livable and sustainable site that will serve as a world-wide model for a 21st Century Community. It will look to the future with clean technologies and high quality design for energy, buildings and infrastructure. The redeveloped site will support walking, biking and transit, and provide services, jobs and activities that every generation can enjoy. The site can be redeveloped in a way that respects the history and context of the neighborhood, while designing a thriving community that significantly lowers its impact on the environment. A redeveloped Ford site can demonstrate that residents, employers, workers, and visitors can enjoy all the amenities and comforts of modern living while using much less energy, producing clean energy on site, reducing waste, reducing and treating storm-water runoff, restoring a natural ecosystem, and providing an infrastructure system that reduces vehicle trips and encourages walking, biking and transit.

The Ford Site is five to seven miles from MSP's International Airport, the downtowns of Saint Paul and Minneapolis and the Mall of America. It is in the heart of a thriving business community along the Mississippi River, is near dozens of educational and research institutions, and has transit and nearby rail corridor access. Employers can draw from a pool of more than 280,500 employees within a 7-mile and 22-minute commute. This active, amenity-rich area will attract high-quality employers and employees, in addition to residents and visitors. [Returning a strong base of employment to the site is a priority for the City.](#)

Housing on the site will expand the range of living options available in the neighborhood and the city, with a focus on a range of townhomes, carriage houses, multi-family buildings in different sizes and styles, senior living, and residential above retail and services. The housing will vary in size and price, meeting the needs of many people in different stages in their lives.



Open space, vegetation and public places will form the backbone of the community, bringing people together through nature, for recreation and at community events. A network of parks, trails, and attractive public streets will provide the fabric of places and spaces for people.

Transportation will focus on all modes of travel – walking, biking, public transit and personal vehicles. The site will be designed to balance movement with safety and encourage trips to be made to, from and around the site without a car. Vehicles will be accommodated with streets and parking, but not given primacy over other forms of travel, safety and livability. All elements together provide a site that is environmentally, socially and economically sustainable. A bold vision for redevelopment of the Ford site can and will be realized, making it a model of urban living that people from around the world can emulate.



## 1.2 Site History

Long before an auto assembly plant came to the banks of the Mississippi River in Saint Paul, Minnesota, the land was oak savanna wilderness, visited by transitory settlements of the Santee Dakota, who lived in the wider area. In the early 1800s, European and American fur traders arrived in the region, followed by Western settlers and the United States government, displacing the native inhabitants. The property now known as the “Ford site” became farm land for the new settlers, while early city plans identified it for platting into a new residential and commercial area of Saint Paul. However, before that development could occur, Henry Ford purchased the land.

Ford Motor Company’s long history in Minnesota began in 1912 in a small, converted warehouse in Minneapolis where 100 employees assembled Ford Model Ts with hand tools. As technology evolved, Henry Ford became interested in a much grander vision for production in the Twin Cities.

Working with industrial architect Albert Kahn, Henry Ford began plans for a new, single-level assembly plant, hydropower facility and a steam plant on farm land in Saint Paul. In 1925, Ford Motor Company opened the Twin Cities Assembly Plant (originally for Model T automobiles) in Highland Park.

Over the years, the plant manufactured a series of products, including the Model T, armored cars and light tanks during WWII, the Sportsman convertible, the Galaxie, the LTD, and the Ford Ranger pickup truck. The plant employed up to 2,100 at its peak, providing well-paid jobs to tens of thousands of people over its lifetime. After 84 years in operation, Ford Motor Company closed the plant in 2011 as part of its national restructuring plan.





### 1.3 Moving to Redevelopment

Ford has worked diligently since 2012 to prepare its 122-acre former assembly plant parcel the site for redevelopment. All buildings and foundations were removed, a full environmental investigation was conducted, and Ford is remediating the property for the envisioned range of uses under close observation by the Minnesota Pollution Control Agency. Ford Motor Company's 13-acre parcel adjacent to the river is also being evaluated by Ford for possible sale and reuse, but due its unique circumstances and strictly limited reuse potential under the Critical Area overlay rules, it was not included by the City in the larger site planning and zoning study. Review of potential plans for the river parcel will occur independently.

When clean-up is near completion, likely in 2018 or early 2019, Ford will put the site on the market for sale to a Master Developer. It is anticipated that a Master Developer will buy the property and do detailed planning for the site, based on the framework provided by the City zoning and the Ford Site Master Plan. It is expected that the master developer may identify new opportunities or considerations for site redevelopment and apply for amendments to the Ford Site Zoning and Public Realm Master Plan. The Planning Commission and City Council will consider and decide whether to adopt such amendments.

The final developer master plan is likely to have new ideas not envisioned in the City adopted zoning and site master plan, in which case, the City Council may approve amendments to the City plans following community review of the proposed changes.

Given the scale of the site, environmental review such as an Alternative Urban Areawide Review and detailed traffic study, will be required on the Master Developer's detailed plan. Once environmental review is complete and possible refinements made to the City zoning and Master Plan, the City Council can adopt the detailed development plan and plat for the property. Construction of streets, sewer, and other infrastructure can then begin, with 2020 or 2021 as the very soonest opportunity.

Development of buildings on the site will follow the start of infrastructure and proceed in phases across the site, with total site build out expected to take 12-20 years.

## 1.4 Genesis of the Plan

### *Community Engagement*

The City began an extensive engagement effort in 2007, seeking people's vision and priorities for the site. Planning for the Ford site has involved an extensive public process.

Since 2007 there have been...

- Over 40 public meetings
- Over 1,300 different people have attended meetings
- Over 50 articles in print, radio and television media
- Over 50 presentations to business, civic, and non-profit groups
- Student group input and participation from Horace Mann Elementary, Highland Catholic School, St. Paul Academy, and the Humphrey School of Public Affairs

The City received thousands of ideas and suggestions over the past ten years and these shaped the backbone of the proposed redevelopment framework for the Saint Paul Ford site. In 2015, the City hosted eight large public meetings to review the key principles and to receive input on how to advance them.

The big messages heard were:

- Weave the site into the neighborhood with good connections and amenities
- Make it a safe and welcoming place for all ages and incomes to live, work and visit
- Provide a wide range of housing options to expand choices in the neighborhood and the city
- Minimize traffic impacts and do not overburden surrounding streets
- Provide connections to the river and networks for walking and biking
- Create a great water feature through the site and down to Hidden Falls
- Provide civic space and parks for special events, markets, art, recreation, and leisure





This input was used to further refine priorities for the site and shaped the concept zoning and public realm plan released publicly in November 2016.

Since November 2016, there have been...

- Seven community and 12 stakeholder meetings on the concept plan
- Over 400 people attended a Ford meeting for the first time

The City has received hundreds of comments on the concept plans since November. The comments reflect a wide range of opinions and sentiment regarding the site's future. In general, people were supportive of the concept plan layout for streets, trails, water features and parks. Responses to the zoning concept have been more varied. Some people embrace the type and scale of redevelopment presented, some people want to see a more intense level of development, and some people want to site to look like Highland does today. For this latter group, concerns have focused on the scale of buildings, the number of people that will live and work there, traffic, and the amount of open space.



Determining the nature of future development at the site and the mix of uses is critical and is dependent on many important considerations that involve both community sentiment and broader trends and issues related to housing needs, urban growth, real estate economics and vibrant and livable neighborhoods for people of all ages and backgrounds.

### Partnerships

The City of Saint Paul had invaluable assistance from key partners at the local, regional, state and Federal level, as well as businesses, civic groups and non-profits. These partners offered technical advice, identified policy considerations, provided study funding, and pushed us to think more broadly. A number of key funders were instrumental in supporting the professional studies and expert input.



## Studies

Since 2006, when Ford Motor Company announced its intent to close the plant, the City of Saint Paul has been working actively to plan for the site's future. A variety of studies by the City have looked at a wide range of topics, such as industrial reuse potential, geotechnical analysis of the tunnels under the site, open space priorities, sustainable design, stormwater management and traffic impacts.

The studies were essential to understand opportunities for and limitations on site redevelopment -- economically, environmentally, socially, and within the context of the community. The studies identified infrastructure efficiencies, cost-effectiveness, opportunities for environment design and conservation, and how to strike a balance between development and the creation of great public spaces and places.

1. Ford Site Transportation Study (2016)
2. Aquifer Thermal Energy Storage (ATES) Feasibility Study (2016)
3. Integration of Rooftop Photovoltaic Systems in St. Paul Ford Site's Redevelopment Plans (2016)
4. Sustainable Stormwater Management Study (2016)
5. Jobs Strategy Report (2016)
6. Sustainable Ford Site Redevelopment – A LEED-ND Evaluation (2016)
7. Saint Paul Ford Site Energy Study Report (2015)
8. Market Analysis for the Ford Site (2015)
9. Ford Site Zoning Framework Study (2013)
10. The Roadmap to Sustainability for the Saint Paul Ford Site (2011)
11. Ford Site Open Space Guidelines (2010)
12. Sustainable Stormwater Feasibility Report (2009)
13. Green Manufacturing Potential for the Ford Site (2009)
14. Vision, Goals and Five Redevelopment Scenarios (2007)



**DRAFT (7/21/2017)**  
**For review by the**  
**Saint Paul Planning Commission**



## Vision Statement

The redeveloped Ford site will balance economic, social and environmental sustainability in a way that conserves and improves the qualities and characteristics of the unique Highland Park neighborhood and Mississippi River valley in which it sits while advancing the City's economic wealth and community goals, resulting in a forward-thinking 21st Century development.

-Ford Site Planning Task Force, 2007

## Guiding Principles



### *Mix of Uses and Activities*

- Vibrant place to live, work, and recreate for all people.
- Services and amenities that meet local needs to reduce auto dependency.
- Well-designed urban neighborhood that complements and integrates into the Highland Park area and broader community.
- Mix of traditional and modern building forms, styles and materials.



### *Housing Variety*

- Range of housing types and affordability that expand choices in the area and in the city.



### *Jobs and Tax Base*

- Significant increase in the tax base over time that strengthens surrounding property values.
- Increased regional significance and economic value.
- Range of business and employment opportunities with an emphasis on family supporting jobs.



### *Energy and Sustainability*

- Regional, national, and global model for sustainable planning, design, and day-to-day living that protects our air, water and natural resources for future generations.
- Locally generated power from an integrated, renewable, site-based energy system.
- Best technologies in infrastructure and buildings to save money, increase efficiency, and reduce impacts on the environment.



### *Transportation Choice*

- Mix and density of activities to support transit through and around the site.
- Interconnected system of streets, bikeways, and walkways that is safe and accessible for people of various ages and abilities.
- Urban design and site layout to reduce auto trips and manage traffic impacts.



### *Parks and Amenities*

- Natural spaces and active places for people to play, relax, and interact, including the Ford Little League fields.
- Greenery, public art, and cultural activities to create an attractive and vibrant community.
- Reflect the heritage of the Ford plant and its employees through design and amenities.
- Strong connections to the Mississippi River, within the site and to the neighborhood.

**DRAFT (7/21/2017)**  
**For review by the**  
**Saint Paul Planning Commission**





### 3.1 Community Context

Naturally bordered by the scenic and winding Mississippi River, Highland Park is centrally located in the Twin Cities. The Village, a shopping district with numerous shops, restaurants, and a movie theater, is in the heart of the Highland Park neighborhood. Households in the area enjoy the variety of schools, services, tree-lined streets, a community center and library, recreational opportunities like golf, ball fields and playgrounds, and the proximity of the Mississippi River valley, lined with trails and natural parks.

Highland Park was farm land on the western edge of Saint Paul until the 1920s, when the construction of the Intercity bridge between Saint Paul and Minneapolis and the arrival of the Ford Plant in 1924 sparked development. The first major residential projects were the Highland Manor and the Highland Village apartments which opened in October of 1939 at the intersection of Cleveland and Ford Parkway. Businesses grew up around the intersection and spread down Ford Parkway and Cleveland Avenue. With the growth of the business community came the housing boom for most of Highland Park.

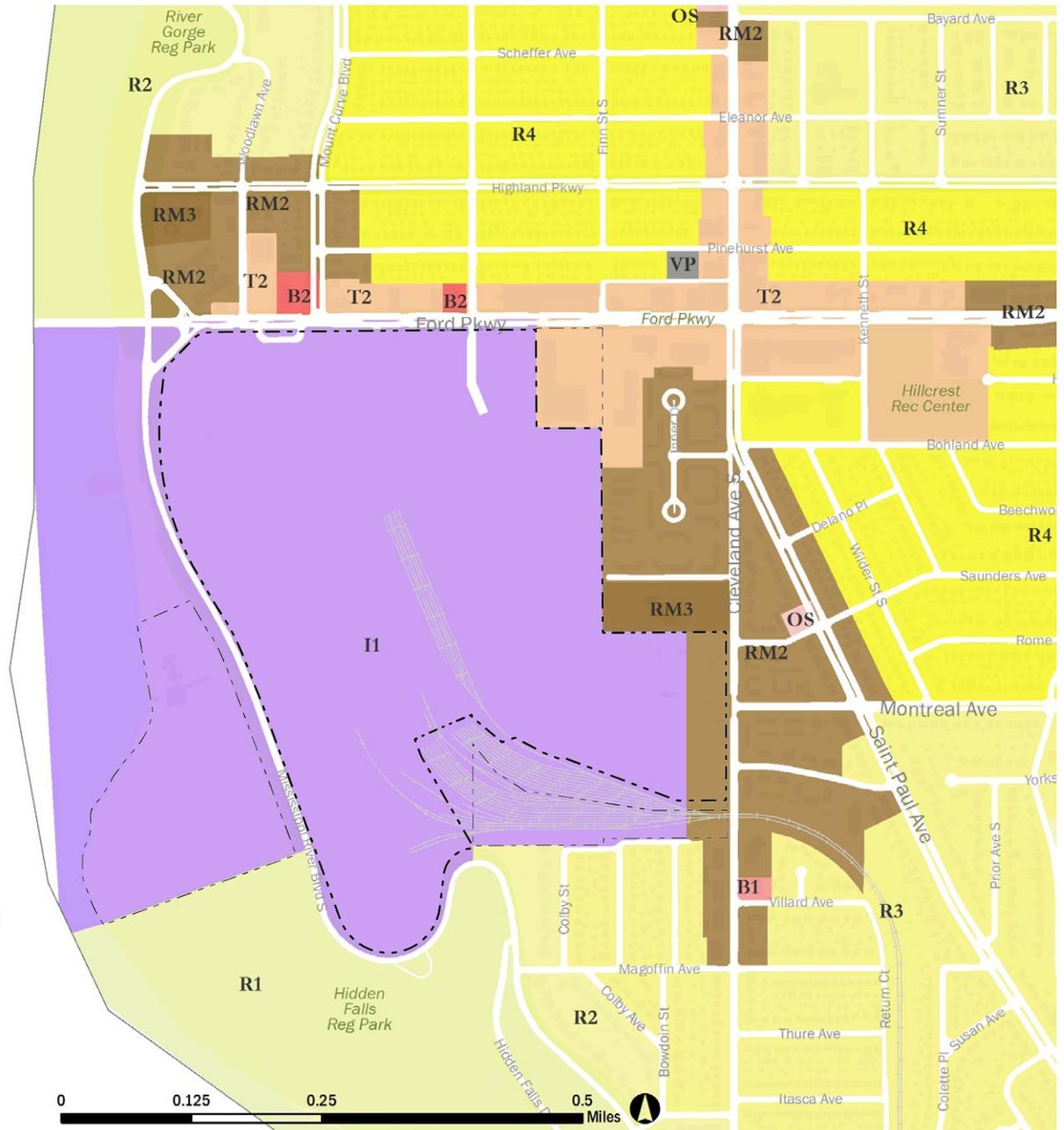
Highland Park consists of many single-family houses dating from the 1920s and 1930s in many period-revival styles as well as many homes from the 1950s and later in ranch, split-level, and rambler styles. Apartments and condominiums are primarily sprinkled around the Village area and in the West 7th Street-Shepard Road area.

Highland Park today is one of the City's wealthier neighborhoods, with a population demographic that tends to be better educated, less racially diverse, and somewhat older than the population of Saint Paul as a whole.

### 3.2 Current Zoning

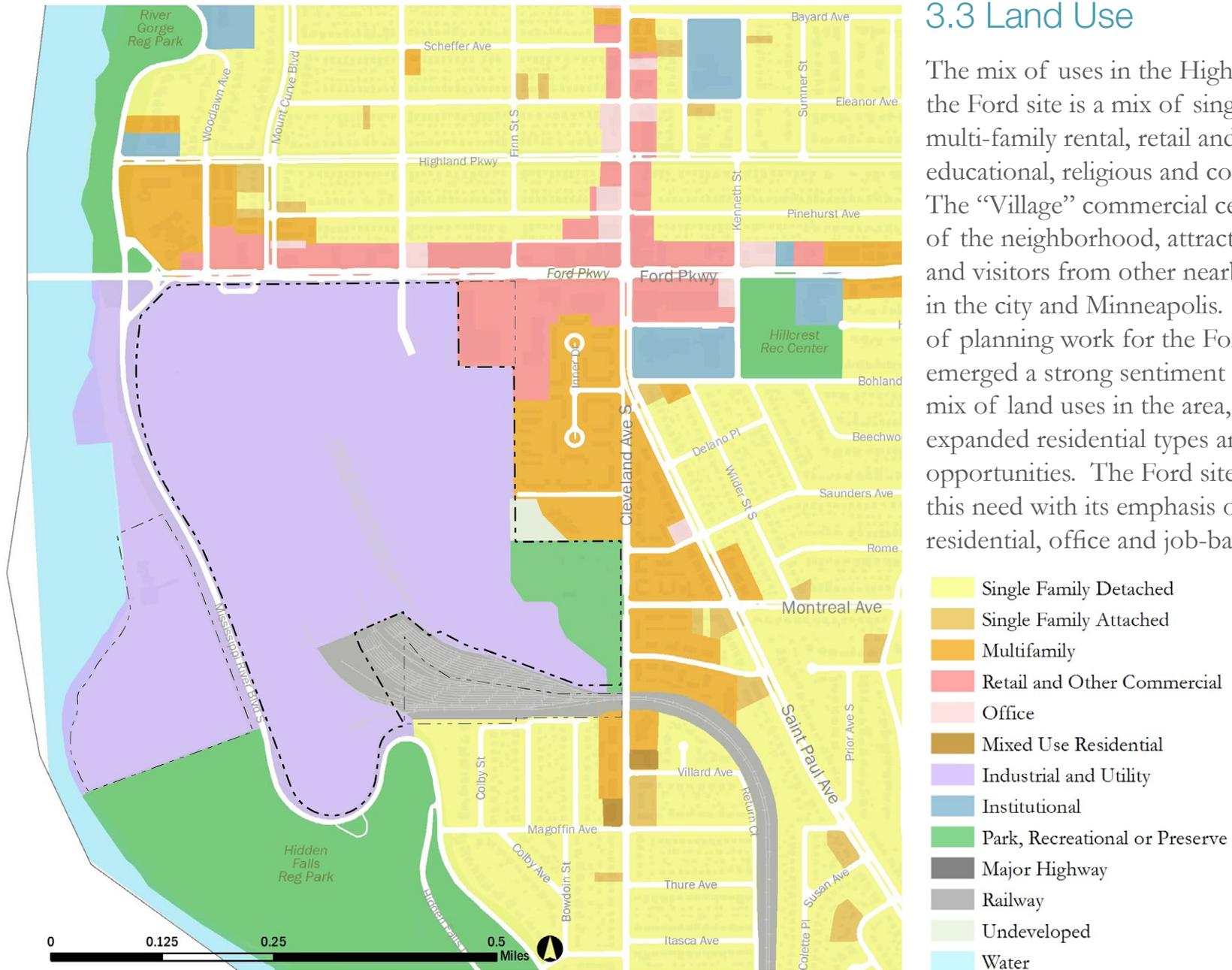
Existing zoning around the Ford site is a mix of single-family residential, multi-family residential, business, and traditional neighborhood mixed-use. The zoning for the Ford site properties is I1 Light Industrial, which allows a wide range of industrial uses and warehousing, most retail, commercial, office and educational uses, as well as some types of congregate living and multi-family housing above commercial. While expansive, I1 zoning is inconsistent with the future of the site, which has a very limited industrial market, a soft retail market, and an expansive residential market.

- R1 One-Family
- R2 One-Family
- R3 One-Family
- R4 One-Family
- RT1 Two-Family
- RM2 Multiple-Family
- RM3 Multiple-Family
- T2 Traditional Neighborhood
- OS Office-Service
- B1 Local Business
- B2 Community Business
- I1 Light Industrial
- VP Vehicular Parking



### 3.3 Land Use

The mix of uses in the Highland Park area around the Ford site is a mix of single-family residential, multi-family rental, retail and services, parks, and educational, religious and community institutions. The “Village” commercial center is the focal point of the neighborhood, attracting local residents and visitors from other nearby neighborhoods in the city and Minneapolis. Over the decade of planning work for the Ford site, there has emerged a strong sentiment for diversifying the mix of land uses in the area, particularly with expanded residential types and employment opportunities. The Ford site plan seeks to meet this need with its emphasis on multi-family residential, office and job-based uses.



### 3.4 Airport Zones

The proximity of the Ford site to the Minneapolis St. Paul International Airport means that portions of the site fall within airport restriction zones for land use and height, as described below.

#### Horizontal Surface Zone

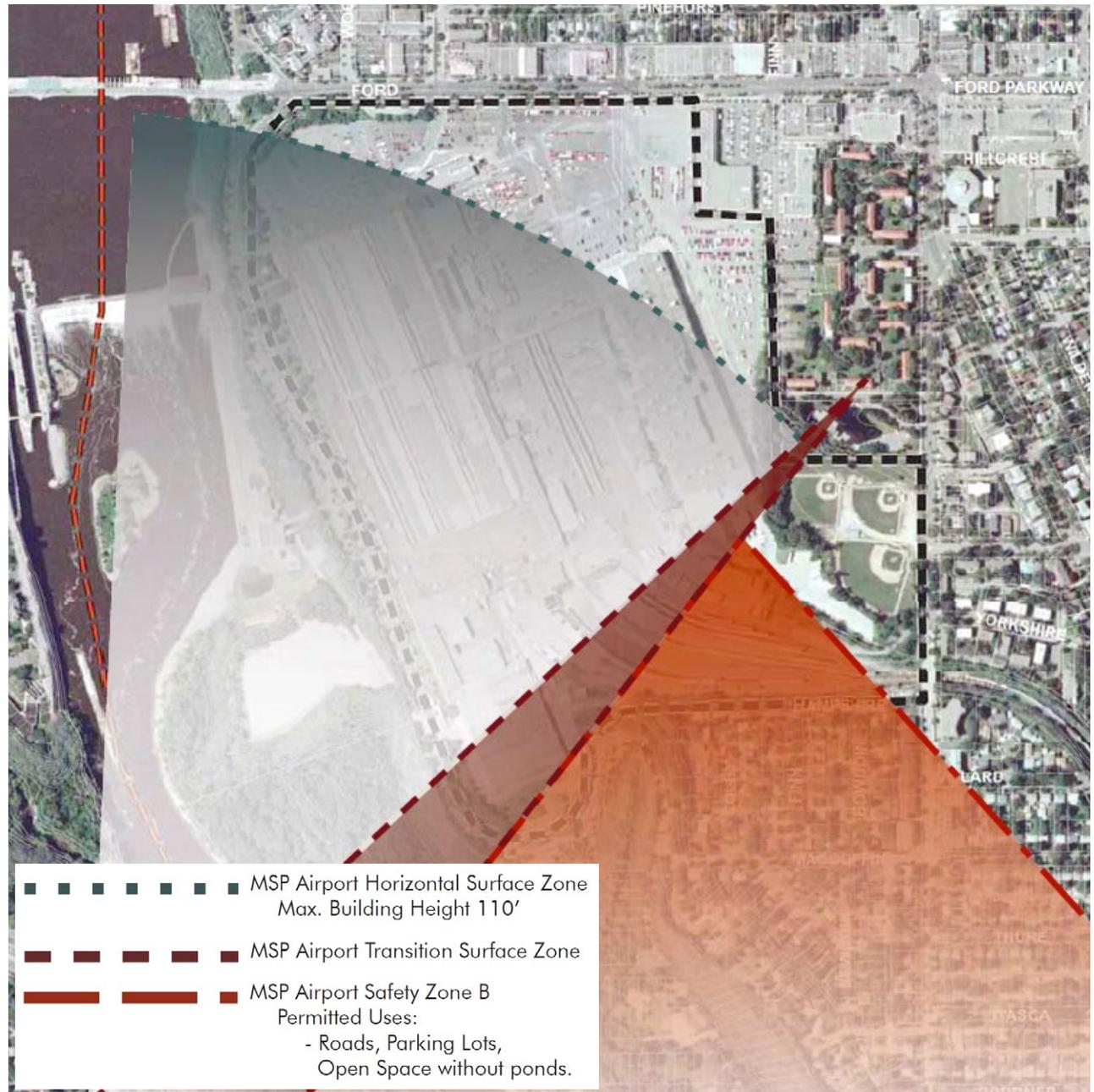
Within the boundaries of the gray cone on the map, there is a maximum building height of 110'.\*

#### Safety Zoning B

Within the boundaries of Safety Zone B, the area indicated by the large red triangle on the southern edge of the site, the following land uses are NOT allowed\*:

Churches, hospitals, schools, theaters, stadiums, hotels, motels, trailer courts, campgrounds, and other places of frequent public or semi-public assembly, and ponds.

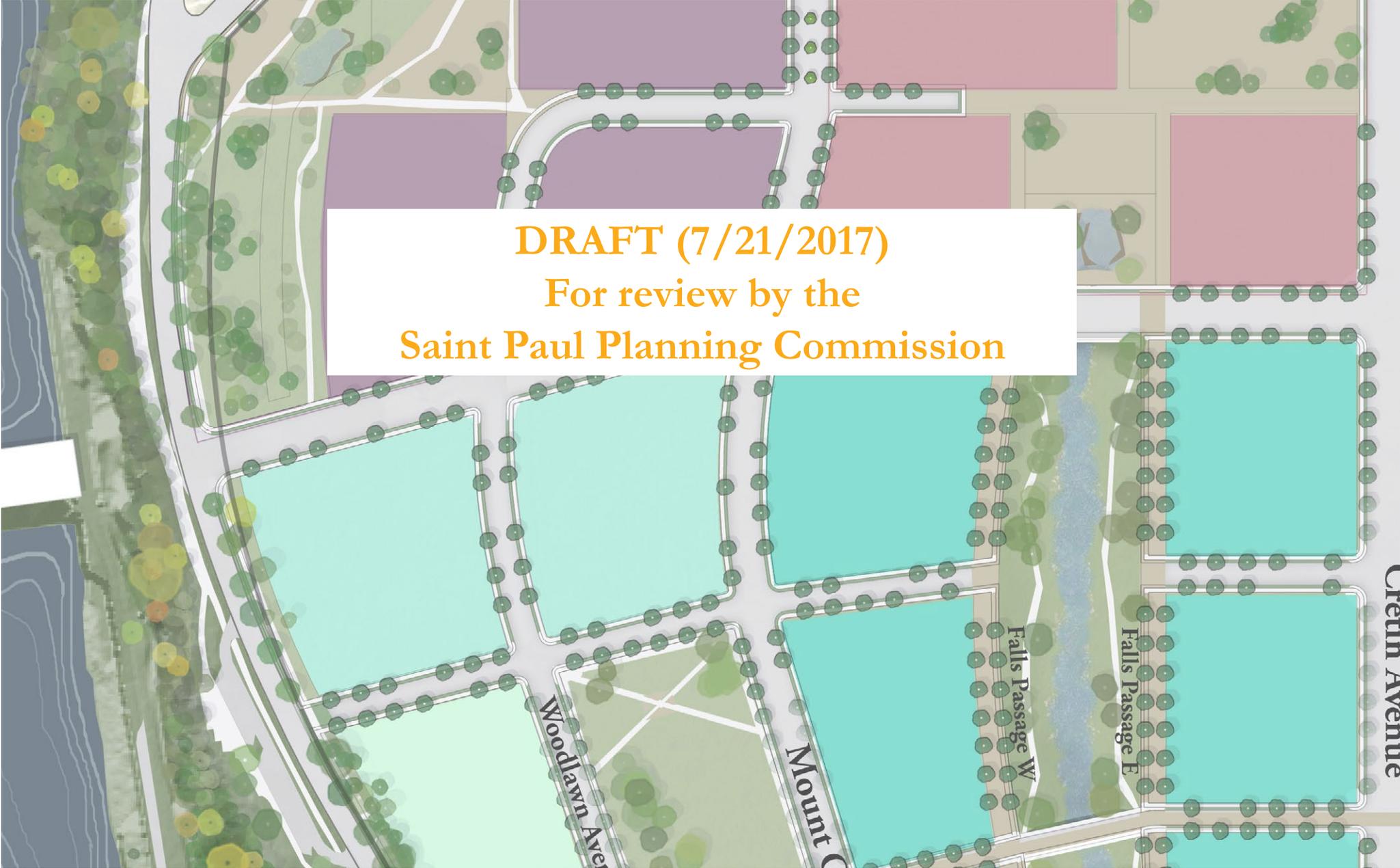
\*Source: MSP Long Term Comprehensive Plan Update  
Metropolitan Airports Commission, CHAPTER 6:  
LAND USE COMPATIBILITY 6.3.3

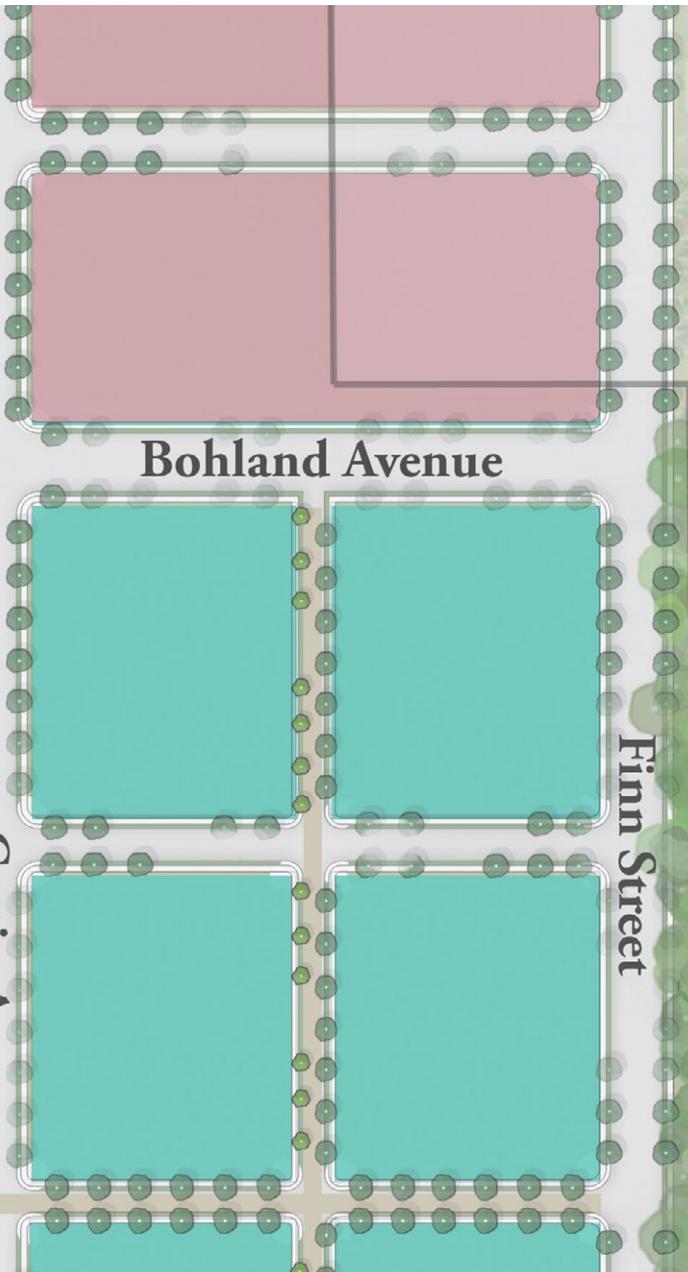




### 3.5 Critical Area

The Mississippi River Corridor Critical Area (MRCCA) is a land corridor along the Mississippi River in the Twin Cities Metropolitan Area governed by special land development regulations that protect and preserve the unique natural, recreational, transportation, and cultural features of this section of the Mississippi River. It comprises 72 miles of river and 54,000 acres of surrounding land in 30 local jurisdictions. The MRCCA protects these resources through local governments' land use plans and zoning ordinances that regulate structure placement, height, vegetation clearing, land alteration, and subdivision of land, in a manner consistent with the administrative provisions, districts, and standards contained in [State of Minnesota] Executive Order 79-19. The map and general standards below act as overlay zoning for development at the Ford site. Additional detail and guidance on Critical Area regulations are available from the Minnesota Department of Natural Resources.





## 4.1 Zoning Overview

Six zoning districts will guide the type and scale of redevelopment at the Ford site. The zoning districts, labeled F1-F6, were designed for the Ford site and modeled closely on the Traditional Neighborhood zoning districts used in other mixed-use areas of the city. The unique characteristics of the Ford districts are context sensitive to the Highland area and Mississippi River valley, provide a desired mix of uses across the site, incorporate design elements that balance larger building scales with open space to maintain a neighborhood feel throughout the site, and feature standards that address sustainability objectives for lighting, roofing, and energy.

This chapter outlines the basic standards for the six zoning districts, including:

- location of the districts
- allowed land uses
- floor area ratios
- building heights
- lighting
- roofing and solar
- vegetation and open space
- parking for vehicles and bicycles

The next chapter on Building Types and Form Standards provides greater zoning detail, based on the building type. The two chapters are to be used in concert to identify key requirements for lots and buildings on the Ford site. The requirements identified are defining elements of the site zoning, but not exhaustive. The Saint Paul Zoning Code acts as the backdrop of zoning regulations for all elements not specifically referenced within this document and is to be used in tandem throughout the design and review process.

## 4.2 Character & Site Organization

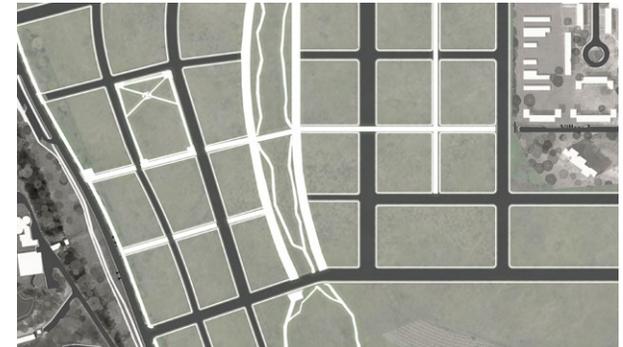
### *General Character*

The Ford site will be developed over time to become a vibrant, mixed-use, urban neighborhood with interwoven green space. Development may consist of a wide range of attached two-family, townhouse, and multi-family buildings, neighborhood retail and services focused in mixed-use nodes and along transit corridors, and office and light-industrial hubs blended into mixed-use areas.



### *Streets, Blocks & Movement*

The site will be organized on a general grid network of east-west and north-south connections serving vehicles, bicycles and pedestrians. Distinctive to the site will be a network of non-vehicular trails and paths connecting within and through the site, providing convenient and attractive movement options for pedestrians and bicyclists. Block sizes will be similar to those found in other parts of the city, with some variation in shape for transitions to adjacent, curved properties, streets and natural features.



### *Public Realm*

The public realm is intended to serve as the connective tissue within the site and to the neighborhood beyond. It is made up of the space between buildings - the right-of-way for streets and trails, the central stormwater spine, and the park spaces. The private space between the right-of-way and buildings will be further defined by design standards to be added to the Ford site zoning districts.



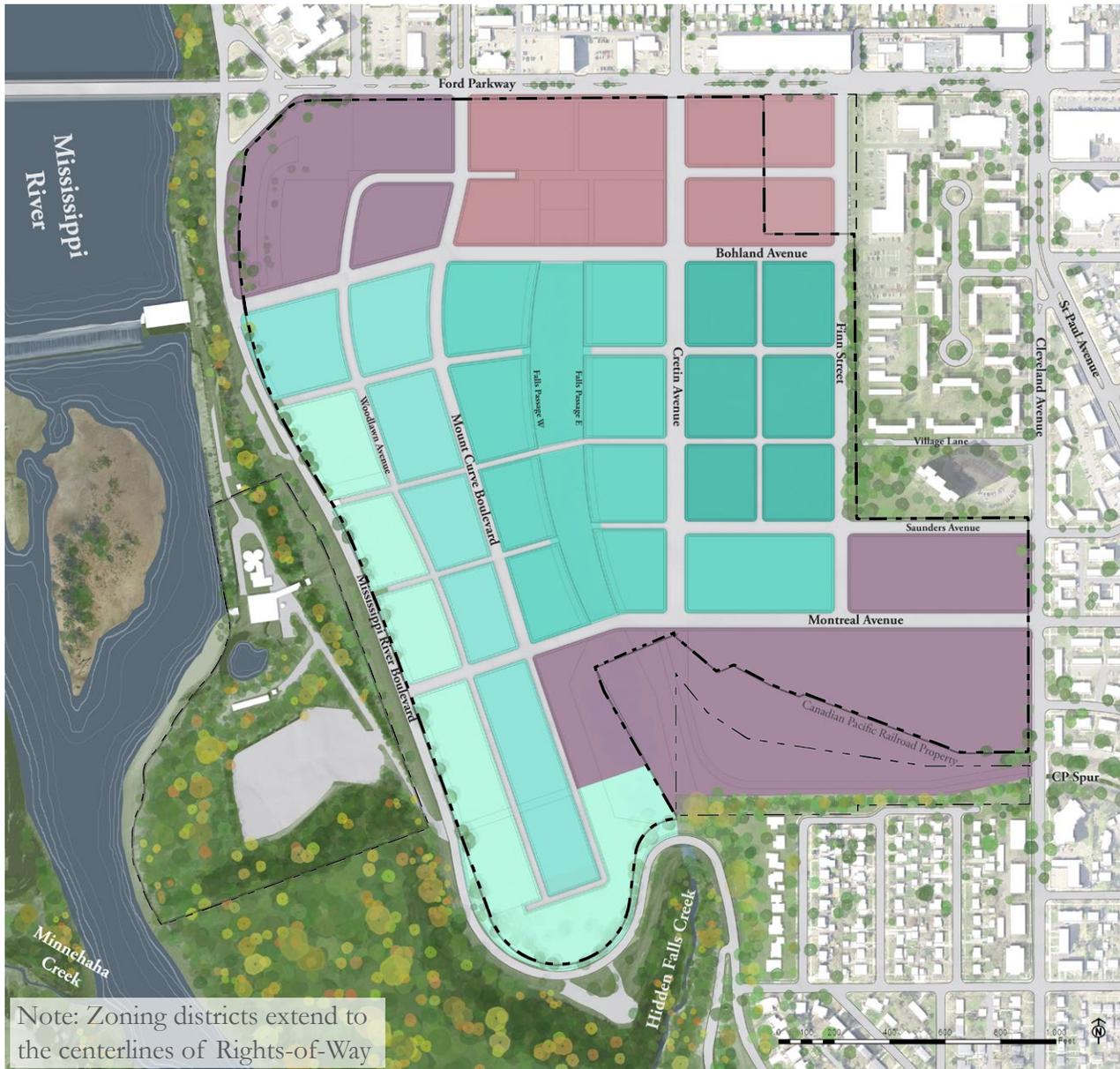
### 4.3 Where Regulations Apply

The regulations in this document apply to different elements of the built environment. The graphic below describes which section applies to which part and generally indicates what is addressed in each section.

Regulation	Zoning District	Building Type	Street Type	Frontage Type*
				
Location				
Addresses	Building Height Floor Area Ratio (FAR) Uses	Setback Lot Coverage Dwelling Units per Building	Right of Way Width Travel Modes	Entries Landscaping Architectural Elements

\* Frontage Types to be addressed in forthcoming design standards (2018)

## 4.4 Zoning Districts



The range of land use and development across the districts aims to achieve four overarching goals for the site:

- (a) A mix of uses, including residential, commercial, civic and open space uses in close proximity to one another;
- (b) A mix of housing styles, types and sizes to accommodate households of varying sizes, ages and incomes;
- (c) A system of interconnected streets and paths that offer multiple routes for motorists, pedestrians and bicyclists, and are connected to existing and future streets;
- (d) A system of open space resources and amenities; and incorporation of environmental features into the design of the neighborhood.

### ZONING DISTRICTS

- River Residential (48' Max)
- Residential Mixed Low (55' Max)
- Residential Mixed Mid (75' Max)
- Residential Mixed High (110' Max)
- Business Mixed (75' Max)
- Gateway (65' Max)

The site shall be developed in a moderately dense, urban manner that reflects the historic pattern of mixed-use urban neighborhoods. Buildings are to be located toward the front of the lot, ranging in height from two (2) to ten (10) stories, and occupying much of the available lot area, with remaining space used efficiently for landscaping, small yard or common areas, parking access, and storage or waste facilities.

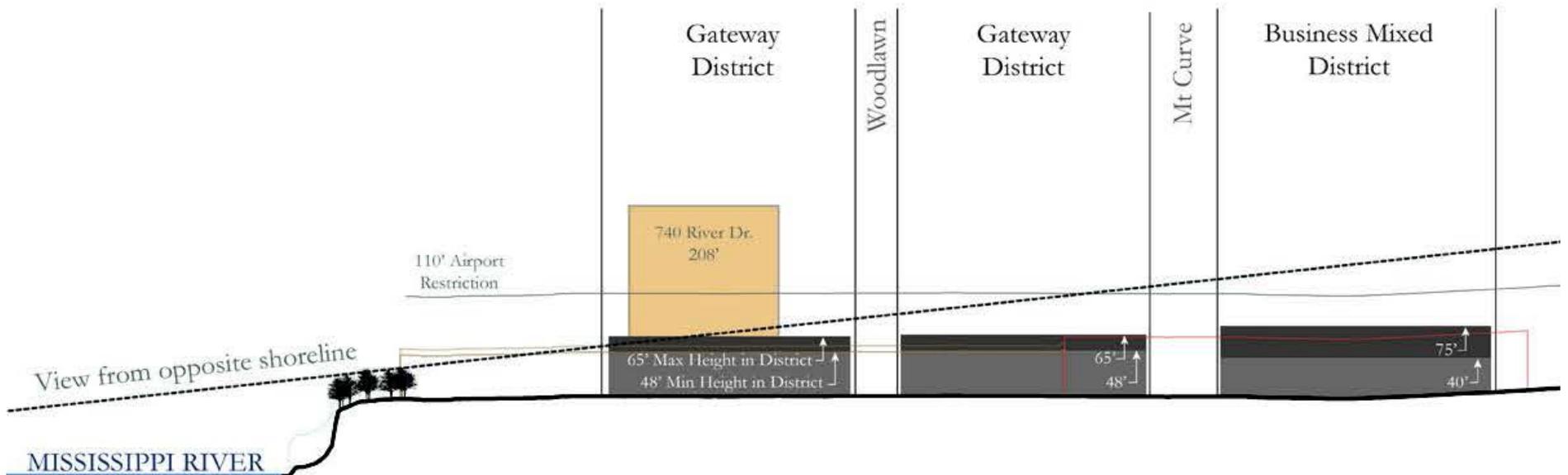
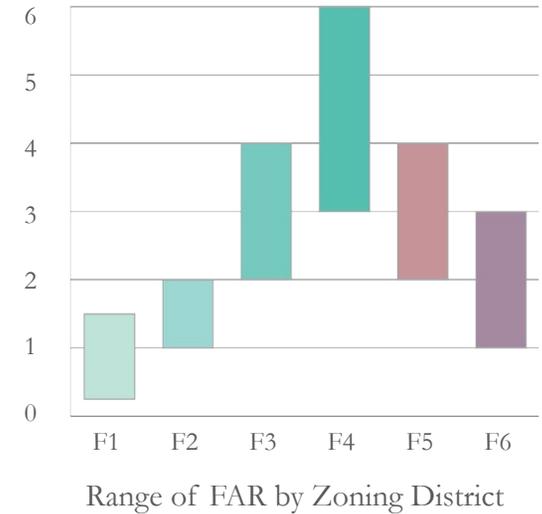
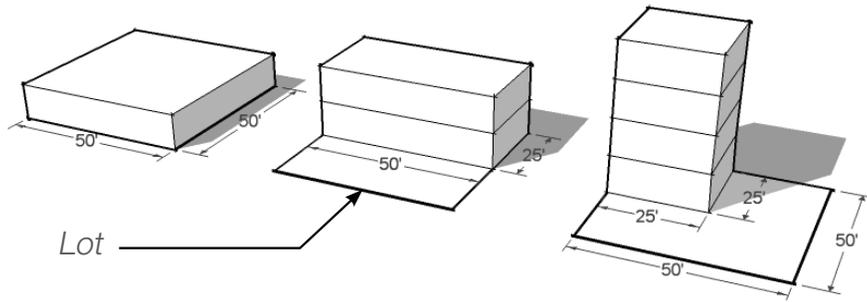
Table 4.1 Zoning District Summary

Zoning District	Description	Land Uses	Building Heights	Floor Area Ratio
F1 River Residential	High quality design and residential form that mirrors look of Mississippi River Boulevard	Residential mix of multi-unit homes and carriage houses	20 feet - Minimum 48 feet - Maximum	0.25 - 1.5
F2 Residential Mixed Low	Primarily residential with few business uses; lower density	Residential mix of primarily townhouses with some small multi-family	30 feet - Minimum 55 feet - Maximum	1.0 - 2.0
F3 Residential Mixed Mid	Primarily residential with some business uses; medium density	Predominantly multi-family residential, with limited retail, service and office	40 feet - Minimum 75 feet - Maximum	2.0 - 4.0
F4 Residential Mixed High	Mix of residential and business uses; high density	Predominantly multi-family residential, with limited retail, service and office	48 feet - Minimum 110 feet - Maximum	3.0 - 6.0
F5 Business Mixed	Primarily retail, office and service with some multi-family residential	Primarily retail, service & office with some multi-family	40 feet - Minimum 75 feet - Maximum	2.0 - 4.0
F6 Gateway	Attractive gateways into site, focused on employment with some retail and service	Office, institutional, retail & service	30 feet - Minimum 65 feet - Maximum	1.0 - 3.0

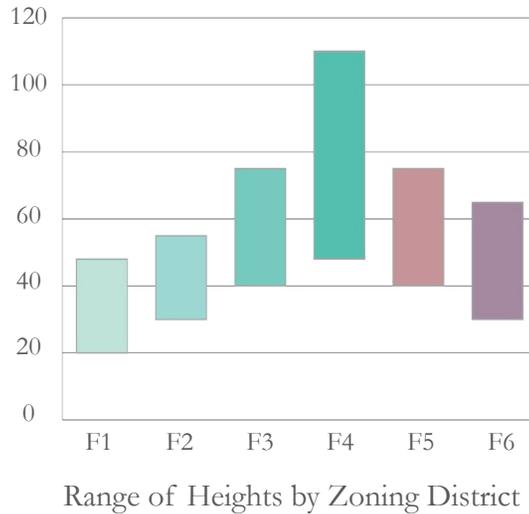
*Floor Area Ratio (FAR)*

Floor Area Ratio, or FAR, is a measurement of the total floor area of all buildings and structures on a zoning lot divided by the area of said lot. FAR establishes the overall mass of buildings on a property and is used to complement to or in place of other lot and building standards such as height, lot coverage and setbacks.

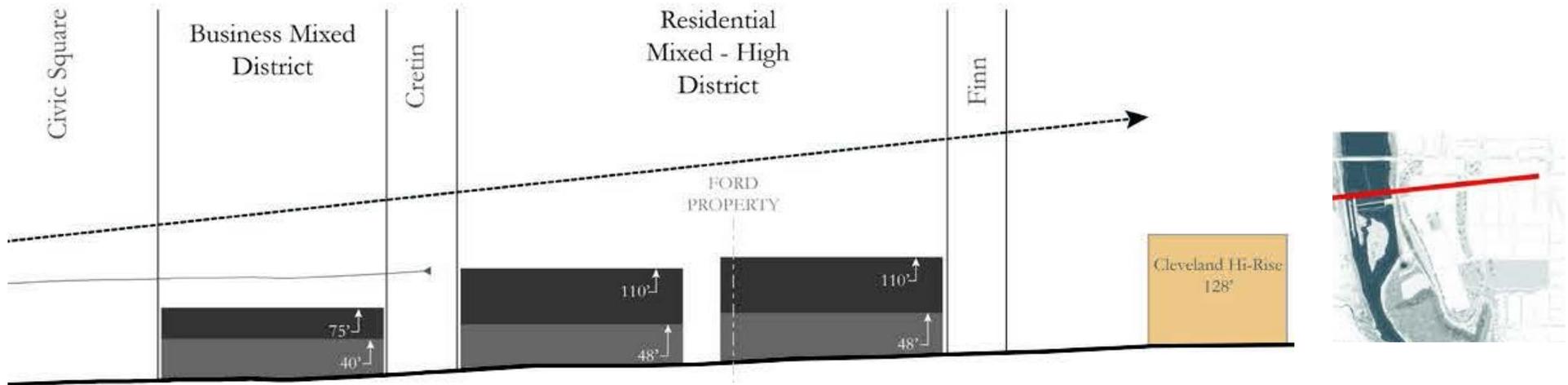
*All examples have a Floor Area Ratio of 1.0*



### Building Heights



The location of the site along the bluffs of the Mississippi River and within a mixed-use neighborhood lends itself to a range of building heights. In keeping with the general intent for the site to become a vibrant, moderate-density neighborhood, one-story buildings for primary structures are not permitted. Heights on the site are to will allow a range from two-story to ten-story buildings, tiered across the site starting with lower buildings on the west and moving steadily upward in height to the east. Heights on any single street or block may have some limited variation, within an allowed range as identified by the sitewide height standards. Limited shifts in adjacent building heights will enable each building to preserve rooftop solar access, and utilize the natural grade of the area to provide views opportunities to the west for buildings across the site. Maximum allowed heights on blocks zoned F2 and F6 that lay within the Critical Area overlay may require Conditional Use Permit review to determine if heights above Critical Area standards will be allowed.

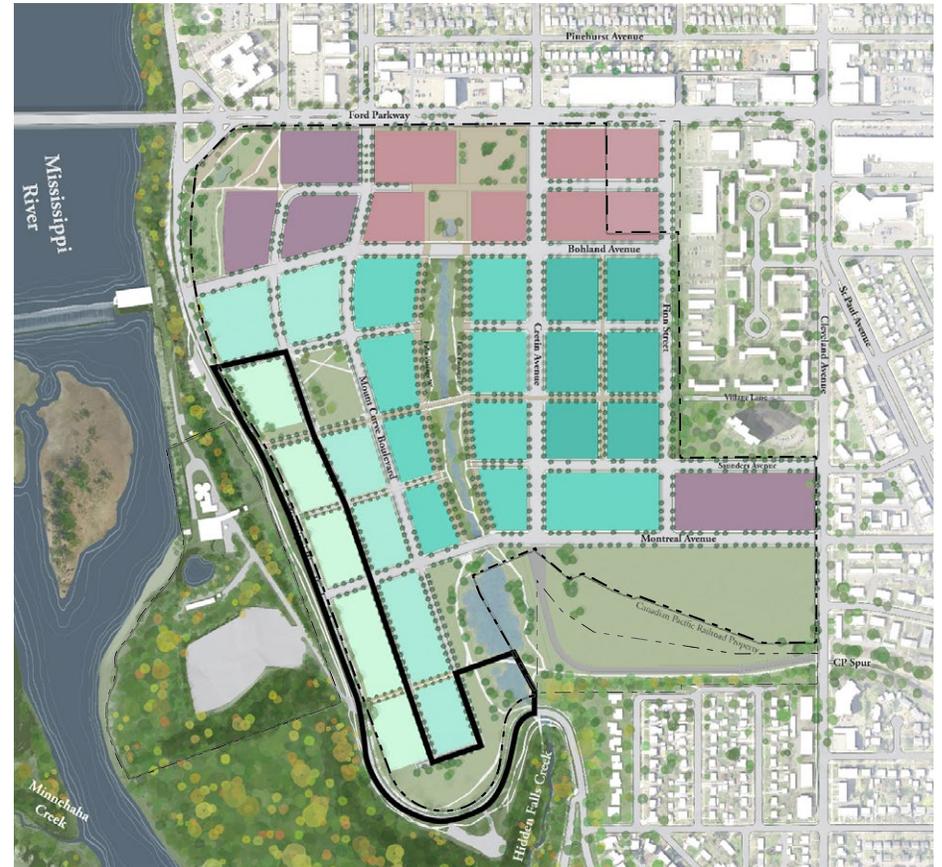


This diagram shows the visibility of allowed height ranges if standing on the opposite shoreline and looking towards the site. This analysis assumes a condition of full foliage, per DNR definition of “treeline.”

## F1 River Residential District

The River Residential District provides for high quality, large home structures with two to six dwelling units each and rear carriage units with an additional one to two housing units in a combined garage structure. The district is characterized by deep setbacks from Mississippi River Boulevard, consistent with the historic form of residential homes along the corridor.

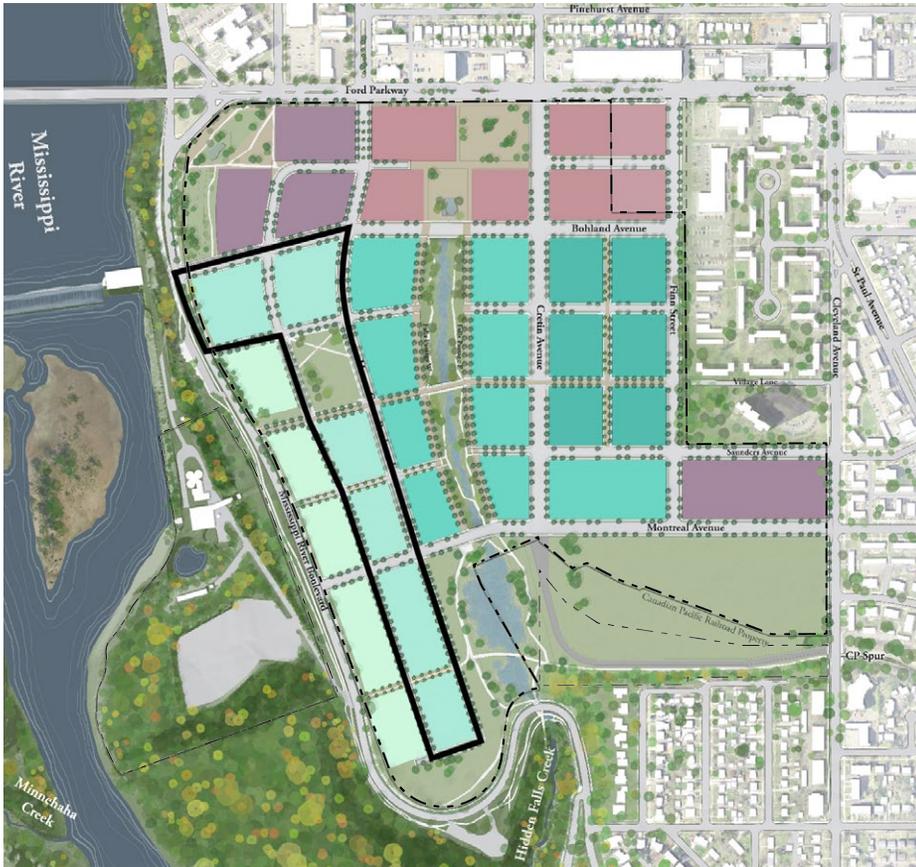
General Character	High quality design and residential form that mirrors look of Mississippi River Boulevard
Land Uses	Residential mix of multi-unit homes and carriage houses
Heights	
Minimum	20 feet
Maximum	48 feet
FAR	0.25 - 1.5



## F2 Residential Mixed Low District

The Residential Mixed Low District is intended to provide for compact, pedestrian-oriented residential focused on townhouse blocks with some low-scale multi-family structures and live-work units. Very limited neighborhood serving retail, office, civic or institutional may be tucked into the district. At least 70% of the development acres in the Residential Mixed Low District shall be dedicated for townhouses. The F2-zoned block on Mississippi River Boulevard is located to serve as a transition in use and scale between the River Residential blocks to the south and the Gateway block to the north.

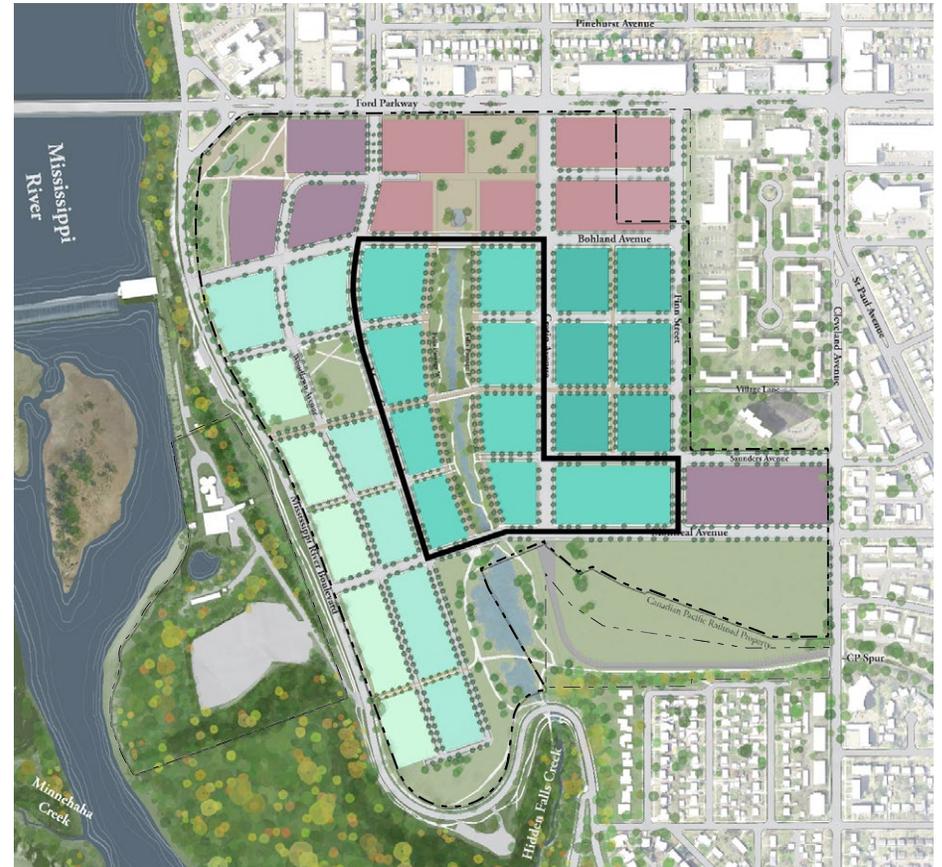
General Character	Primarily residential with few business uses; lower density
Land Uses	Predominantly residential; very limited retail, office & service
Heights	
Minimum	30 feet
Maximum	55 feet
FAR	1.0 - 2.0



### F3 Residential Mixed Mid District

The Residential Mixed Mid District is intended to provide for more extensive range of multi-family residential types and a variety of congregate living arrangements, as well as transit-orientated mixed-use development with retail, office, civic and institutional uses. Variety of housing and land uses within each block is encouraged to provide visual interest and convenient pedestrian access to amenities and services.

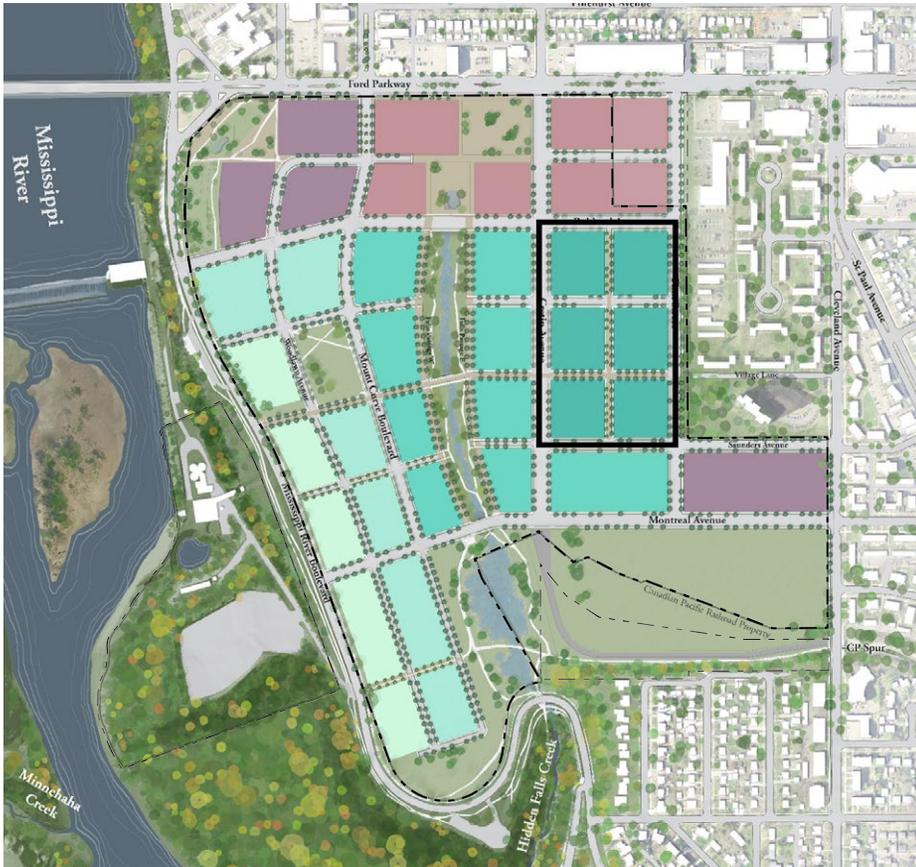
General Character	Primarily residential with some business uses; medium density
Land Uses	Predominantly residential; some retail, service and employment
Heights	
Minimum	40 feet
Maximum	75 feet
FAR	2.0 - 4.0



## F4 Residential Mixed High District

The Residential Mixed High District provides for high-density, transit-supportive, pedestrian-friendly multi-family residential and congregate living arrangements with integrated retail, office, civic and institutional uses. The scale and mass of buildings shall be moderated with the use of vegetative buffers, step backs on upper floors, courtyards, and architectural features that add variety to the appearance of the facades.

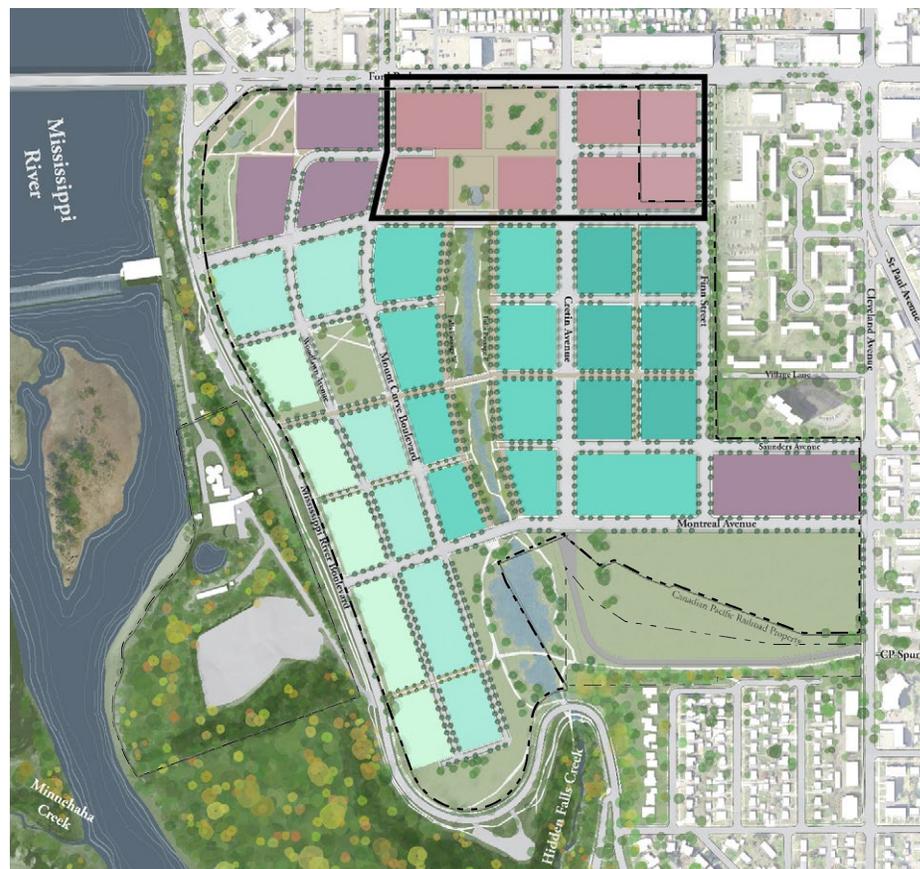
General Character	Mix of residential and business uses, high density
Land Uses	Predominantly residential; some retail, service and employment
Heights	
Minimum	48 feet
Maximum	110 feet
FAR	3.0 - 6.0



## F5 Business Mixed District

The Business Mixed District provides for a variety of retail stores, dining, office buildings and service establishments. Buildings will orient to public right-of-ways and provide dynamic, ground floor activity that transitions between the outdoor public spaces and the building uses. Exterior edges will provide attractive vegetation, patios, amenities and public art that enlivens the public realm. Multi-family dwellings may be incorporated on upper floors.

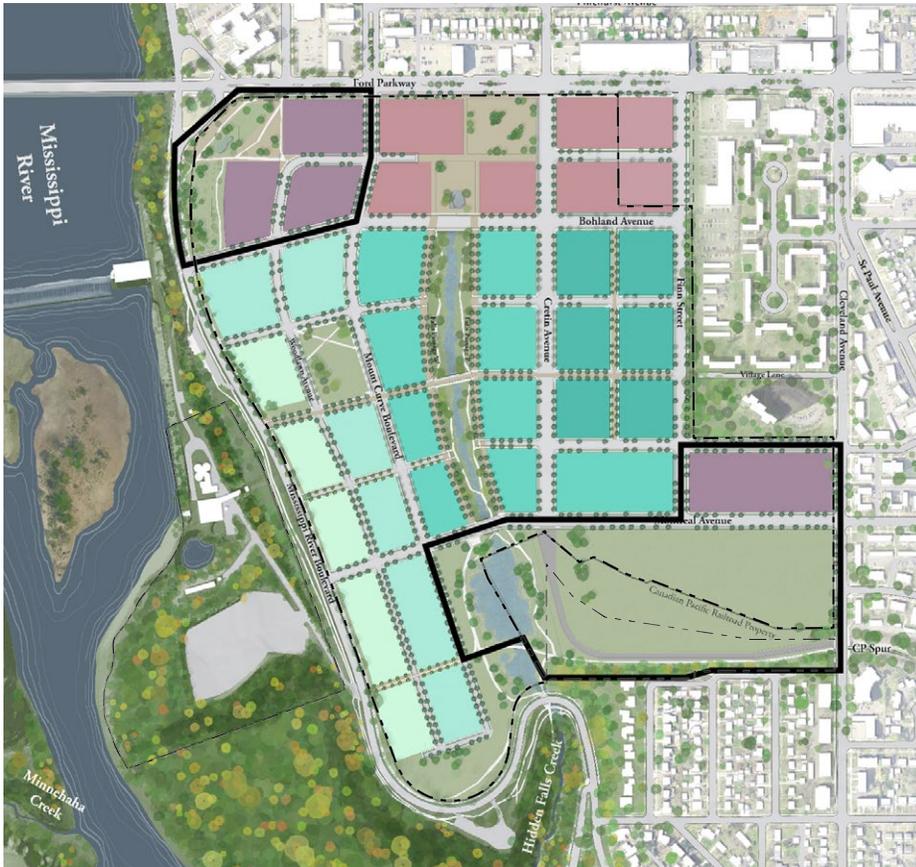
General Character	Primarily retail, office and service with some multi-family residential
Land Uses	Retail, service & employment; some multi-family
Heights	
Minimum	40 feet
Maximum	75 feet
FAR	2.0 - 4.0



## F6 Gateway District

Sites within the Gateway District will serve as the main entrance to and the economic heart of the Ford redevelopment site. The District provides for a variety of business and office uses independently or in combination with retail and service establishments. Educational or civic uses may also be present. The district is focused on employment activity and complementary work force services.

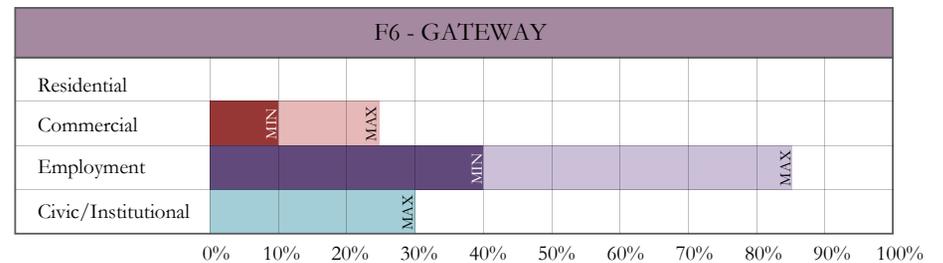
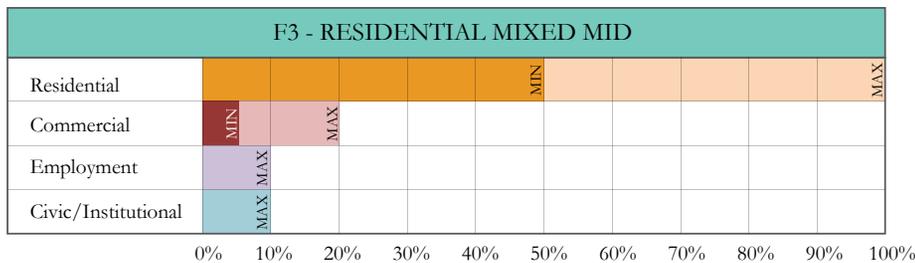
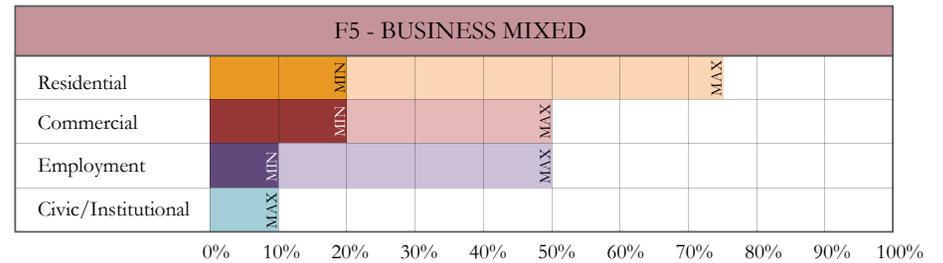
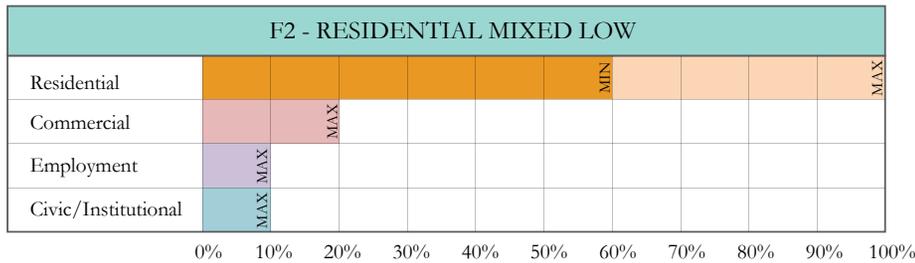
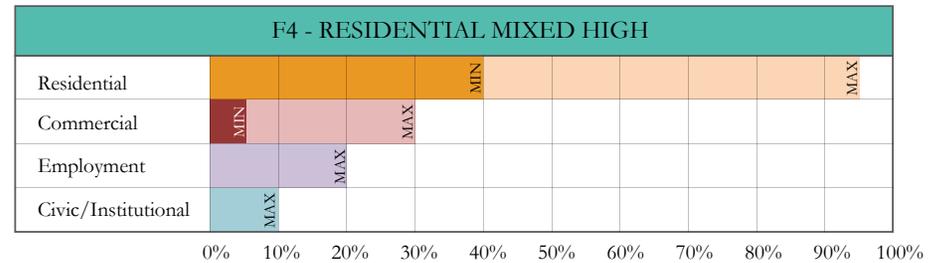
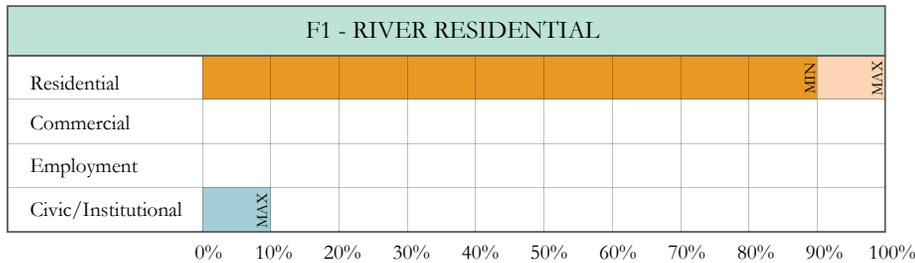
General Character	Attractive gateways into site, focused on employment with some retail and service
Land Uses	Office; institution; retail & service; employment
Heights	
Minimum	30 feet
Maximum	65 feet
FAR	1.0 - 3.0



## 4.5 Required Mix of Uses

There is a difference between allowing a mix of uses within a district and requiring a mix. Requiring a minimum and maximum mix of uses ensures visual, functional, and economic diversity within proximity. Each district on the Ford site shall include a mix of uses as identified below. The required range of land uses by type may range from no requirement, to a base minimum, and up to a maximum percentage of floor area constructed within the entire zoning district, including all current and planned construction for that district. The requirements should be used by the site master developer throughout site build-out, to guide the selection of sub-developers and projects for each block.

Table 4.2 Required Mix of Uses



The following table sets the overall range of development for the master plan by land use. In addition to the zoning district-based tool, it is intended to ensure a balance of land uses throughout the site, while allowing flexibility to allow for the market to make fine-grained decisions about the location of uses. Setting upper and lower limits provides the foundation for a financially feasible development, while controlling the maximum buildout, and provides clear expectations for the community and the private sector.

Development Range for Master Plan		
Land Uses	Minimum	Maximum
Housing	2,400 Dwelling Units	4,000 Dwelling Units
Retail & Service	150,000 Sq. Ft. GFA	300,000 Sq. Ft. GFA
Office & Employment	200,000 Sq. Ft. GFA	450,000 Sq. Ft. GFA
Civic & Institutional	50,000 Sq. Ft. GFA	150,000 Sq. Ft. GFA

GFA: Gross Floor Area

## 4.6 District Uses

Use	F1	F2	F3	F4	F5	F6	Definition (d) Standards (s)
<b>Residential Uses</b>							
<i>Dwellings</i>							
Two-family dwelling	P						(d)
Multiple-family dwelling	P	P	P	P	P		(d)
Carriage house dwelling	P	P					(d)
<i>Mixed Commercial-Residential Uses</i>							
Home occupation	P	P	P	P	P	P	(d), (s)
Live-work unit		P	P	P	P	P	(d), (s)
Mixed residential and commercial use		P	P	P	P	P	(d)
<i>Congregate Living</i>							
Adult care home		P	P	P	P	P	(d)
Community residential facility, licensed correctional		C	C	C			(d), (s)
Dormitory				P	P		(d), (s)
Emergency housing facility		C	C	C			(d), (s)
Foster home	P	P	P	P			(d)
Shareable housing		P	P	P	P		(d)
Shelter for battered persons	P/C	P/C	P/C	P/C	P/C		(d), (s)
Sober house	P/C	P/C	P/C	P/C	P/C		(d), (s)
Supportive housing facility	P/C	P	P	P	P		(d), (s)
<b>Civic and Institutional Uses</b>							
Club, fraternal organization, lodge hall		P	P	P	P		(d)
College, university, specialty school		P	P	P	P	P	(d), (s)
Day care, primary and secondary school		P	P	P	P	P	(d), (s)
Public library, museum	P	P	P	P	P	P	
Public and private park, playground	P	P	P	P	P	P	
Recreation, noncommercial		P	P	P	P	P	(d)
Religious institution, place of worship		P	P	P	P	P	(d)

Table 4.3 District Uses

Uses allowed in the Ford site Zoning Districts are identified in this table. Most of the uses identified are in the citywide zoning code, Chapter 65 Land Use Definitions and Standards.

Uses unique to the Ford zoning districts are noted as such in the rightmost column, Definitions and Standards, and are defined in this plan, Chapter 10: Definitions.



## 4.6 District Uses (Cont.)

Use	F1	F2	F3	F4	F5	F6	Definition (d) Standards (s)
<b>Public Services and Utilities</b>							
Antenna, cellular telephone	P/C	P/C	P/C	P/C	P/C	P/C	(d), (s)
Electric transformer or gas regulator substation			P	P	P	P	(s)
Municipal building or use		P	P	P	P	P	(s)
Public utility heating or cooling plant		P	P	P	P	P	
Utility or public service building	P	P	P	P	P	P	(d), (s)
<b>Commercial Uses</b>							
<i>Office, Retail and Service Uses</i>							
General office, studio		P	P	P	P	P	(d)
General retail		P	P	P	P	P	(d)
Service business, general		P	P	P	P	P	(d)
Service business with showroom or workshop		P	P	P	P	P	(d)
<u>Animal day care</u>					<u>P</u>	<u>P</u>	<u>(d), (s)</u>
Business sales and services					P	P	(d)
Dry cleaning, commercial laundry			P	P	P		
Farmers market		P/C	P/C	P/C	P/C	P/C	(d), (s)
Garden center, outdoor			P	P	P	P	(d)
Greenhouse				P	P	P	(d), (s)
Hospital				P	P	P	(d)
Mortuary, funeral home				P	P	P	
Outdoor commercial use			P/C	P/C	P/C	P/C	(d), (s)
Package delivery service					P	P	(d)
Small engine repair, automotive bench work					P	P	
Veterinary clinic		P	P	P	P	P	(d), (s)

## 4.6 District Uses (Cont.)

Use	F1	F2	F3	F4	F5	F6	Definition (d) Standards (s)
<i>Food and Beverages</i>							
Bar				P/C	P/C	P/C	(d), (s)
Brew on premises store			P	P	P	P	(d), (s)
Coffee shop, tea house		P	P	P	P	P	(d)
Restaurant		P	P	P	P	P	(d)
Restaurant, fast-food					P/C	P/C	(d), (s)
<i>Commercial Recreation, Entertainment and Lodging</i>							
Bed and breakfast residence	P						(d), (s)
Health/sports club			P	P	P	P	(d)
Hotel, inn			P	P	P	P	
Indoor recreation			C	C	C	C	(d), (s)
Reception hall/rental hall			C	C	P	P	
Short-term rental dwelling unit	P/C	P/C	P/C	P/C	P/C	P/C	(d), (s)
Theater, assembly hall, concert hall			C	C	C	C	
<i>Automobile Services</i>							
Auto convenience market					C		(d), (s)
Auto service station, auto specialty store					C		(d), (s)
Auto repair station					C		(d), (s)
Auto sales, indoor					C		
Car wash, <u>detailing</u>					C		(s)
<i>Parking Facilities</i>							
Parking facility, commercial		C	C	C	C	C	(d)
<i>Transportation</i>							
Bus or rail passenger station				C	C	C	
Railroad right-of-way	C	C	C	C	P	P	(s)



## 4.6 District Uses (Cont.)

Use	F1	F2	F3	F4	F5	F6	Definition (d) Standards (s)
<i>Limited Production, Processing and Storage</i>							
Agriculture	P	P	P	P	P	P	(d), (s)
Brewery, craft		P	P	P	P	P	(d)
Distillery, craft			P	P	P	P	(d)
Finishing shop					P	P	(d), (s)
Limited production and processing			P	P	P	P	(d), (s)
Mail order house			P	P	P	P	
Printing and publishing			P	P	P	P	
Recycling drop-off station					C	C	(d), (s)
Research, development and testing laboratory					P	P	
Wholesale establishment					P		(d)
Winery, craft		P	P	P	P	P	(d)
<b>Accessory Uses</b>							
Accessory use	P	P	P	P	P	P	(d), (s)

P - Permitted use      C - Conditional use requiring a conditional use permit

Notes to table 66.921, Ford district uses:

- (d) Definition for the use in Chapter 65, Land Use Definitions and Development Standards.
- (s) Standards and conditions for the use in Chapter 65, Land Use Definitions and Development Standards.

## 4.7 General Standards

### *Introduction*

All zoning districts in the City of Saint Paul have general standards to guide the design and form of buildings, public amenities and rights-of-way. Most of the regulations are identified in Saint Paul Zoning Code Chapter 63. Regulations of General Applicability. In addition to the Citywide standards are standards unique to the Ford zoning districts.

Standards specific to the Ford zoning districts focus on design to achieve higher levels of sustainability performance, related to energy conservation and efficiency, reduced auto dependence and vehicle emissions, reduced water runoff, reduced localized heating effects, and enhanced vegetation.

The general standards specific to the Ford site, as described in the following pages, relate to:

- Vegetation and Landscaping
- Lighting
- Solar
- Roofing
- Parking

## Design Standards

Design standards for buildings and public spaces on the Ford site redevelopment will be prepared for and added to this Ford Site Zoning and Master Plan in 2018. Until such time, the Traditional Neighborhood design standards for the T3 district shall apply, City Zoning Code Section 66.343.





**Purpose:** To maximize ecosystem restoration, preservation and stability to the greatest extent practical is critical to economic, social, biological, and aesthetic value and sustainability of the site. The flora and fauna on the site will provide aesthetic and health benefits for all inhabitants and visitors to the site.



The previous state of the site was largely developed with little vegetative and habitat layer. Reintroducing a strong system of plants will increase the site’s value economically, socially and environmentally. Planting and vegetation across the site and in smaller areas should focus on visual interest through all seasons and be attractive to wildlife, especially birds and pollinators. The intent of these standards is to:

- Maximize biodiversity of the site and provide maximum possible contribution to local landscape ecology
- Reduce removal of significant existing vegetation
- Re-establish habitat and extensive vegetation on site with new plantings
- Create visual interest
- Provide wildlife habitat
- Maximize ecological services

**The following standards are to be used in place of standards in Saint Paul Zoning Code Section 63.115. Landscaping and plant materials.**

*Open Space Coverage*

Required open space coverage for lots is addressed in Chapter 5 Building Types. Open space is defined as areas covered by landscape materials, gardens, walkways, patios, recreation facilities, or play areas.

### *Landscaping Requirements*

1. Areas between a building façade and a public right-of-way shall be landscaped, except for public patios or seating areas and pathways between the right-of-way and building entrances and exits.
2. Street trees are required if the front setback is greater than six (6) feet.
  - One deciduous tree with 3” minimum caliper is required to be planted within the front setback for every 30 feet of frontage if the front setback is greater than six (6) feet.
  - Trees in paved areas shall have a minimum 25 square feet of permeable area for growth.
  - Trees in islands shall have a minimum of 50 square feet of permeable area for growth.
3. At least fifty percent (50%) of landscaped areas shall be combination of indigenous grasses, trees and shrubs commonly found in Minnesota. Alternatives to turf grass are strongly encouraged on public and private properties. Up to one hundred (100) percent of boulevards and private yards may be planted with a xeriscape mixture of live plants and ground cover.
4. All landscaped areas shall be continuously maintained and irrigated. Plant materials shall be organically maintained to the maximum extent possible.
5. Visibility – No plantings shall obscure site entrance and exit drives and road intersections.

### *Tree and Vegetative Habitat Preservation*

Trees over 10 inch diameter shall be preserved and protected from construction within their tree canopy diameter. Exceptions shall be made for ash, box elder, or invasive species. Exceptions may also be made with administrative approval if removal of the tree is necessary for the installation of public infrastructure, such as roads, sewer or stormwater.

Do not disturb vegetative habitat determined significant by Minnesota DNR Natural Heritage Program; maintain or install appropriate buffer width around significant habitats that comprise part of a development

### *Vegetative Types*

Design Standards for the site to be adopted in 2018 will provide an appendix of plant types, areas for use (boulevard, lawns, etc), and ideal planting conditions (sun/shade; wet/dry; etc.).



Table 4.4 Vegetative and Soil Requirements

	Unit	F1 River Residential	F2 Residential Mixed Low	F3 Residential Mixed Mid	F4 Residential Mixed High	F5 Business Mixed	F6 Gateway
<b>Planting Size</b>							
Trees - minimum planted size	(Caliper; Ht)	2.4 in; 6 feet					
Shrubs	Diameter	18 inches					
<b>Vegetative Variety</b> (minimum mix of species)							
Native overall	Minimum	85%	85%	75%	75%	75%	75%
Trees	Min Species Mix	6 per acre; 4 per block					
Shrubs	Min Species Mix	5 per acre					
Perennials	Min Species Mix	10 per acre					
<b>Tree Canopy</b> (measured as the % of the area)							
Tree canopy cover		50%	50%	30%	20%	20%	20%
<i>Public Canopy Cover</i>							
Civic space minimum	Area Covered	50% of non-built lot area			25% of non-built lot area		
Street tree requirements	Spacing	clustered		30' on center			
<i>Private Canopy Cover</i>							
Private lot minimum	Area Covered	1 per 7500 sf of lot or 12%			none		
Parking lot minimum	Area Covered	30%					
<i>Healthy Tree Standards</i>							
Minimum permeable surface per tree	Area	270 sf	270 sf	25 sf	25 sf	25 sf	25 sf
Structural soil per tree	Area	180 sf	180 sf	250 sf	250 sf	250 sf	250 sf
<b>Soil Volume Standards for Tree Planting</b>							
Soil volume		Minimum 2 cuft of soil per 1 sq ft of canopy, based on average mature tree size; or 400 cu ft for small trees, 800 cu ft for medium trees, or 1,200 cu ft for large trees.					
Soil volume type and location		Soil volume goals may be achieved through connected or combined soil beds or grouped tree planting. Use of structural soil under hardscapes, planting soil in open planting beds. Volume of structural soil/engineered soil structures to be determined by percentage of soil volume available.					

**Lighting**



**Purpose** - To reduce unnecessary lighting and light pollution, to minimize lighting impacts on surrounding properties and to minimize energy consumption for lighting purposes.

The following standards are to be used in place of standards in Saint Paul Zoning Code Section 63.116. Exterior lighting.

Table 4.5 Lighting Requirements by Zoning District

	<b>F1 - River Residential</b>	<b>F2 - Residential Mixed Low</b>	<b>F3 - Residential Mixed Medium</b>	<b>F4 - Residential Mixed High</b>	<b>F5 - Business Mixed</b>	<b>F6 - Gateway</b>
Ambient Light Level Goal	medium	low	low	medium	medium-high	medium-high
Lighting Standards, Maximum	Full cutoff lighting, controlled with dimmer, time switch or motion sensors	Full cutoff lighting, controlled with dimmer, time switch or motion sensors	Full cutoff lighting, some low wattage, non-full cutoff lighting, controlled with dimmers, time switch or motion sensors	Full cutoff lighting, some low wattage, non-full cutoff lighting, controlled with dimmers, time switch or motion sensors	Full cutoff lighting, some low wattage, non-full cutoff lighting, controlled with dimmers, time switch or motion sensors	Full cutoff lighting, some low wattage, non-full cutoff lighting, controlled with dimmers, time switch or motion sensors
Allowed Initial Lamp Lumens per square foot, Maximum	2.5 - 3.2 lumens per square foot	3.3 - 4.2 lumens per square foot	7.6 - 9.7 lumens per square foot	7.6 - 9.7 lumens per square foot	7.6 - 9.7 lumens per square foot	7.6 - 9.7 lumens per square foot
Lamp Allowance (Lumens), Maximum	17,000 lumens	24,000 lumens	44,000 lumens	44,000 lumens	44,000 lumens	44,000 lumens
Foot Candles at Property Line, Maximum	0.1 horizontal and vertical	0.1 horizontal and vertical	0.2 horizontal and vertical	0.2 horizontal and vertical	0.2 horizontal and vertical	0.2 horizontal and vertical
Required Shielding	Fully shielded luminaire with no uplight or better	Shielded luminaire with no uplight or better	Shielded luminaire with no uplight or better	Shielded luminaire with no uplight or better	Partially shielded luminaire with no uplight or better	Partially shielded luminaire with no uplight or better
Lighting Curfew for Non-Residential	10 pm or close of business, whichever is later	10 pm or close of business, whichever is later	10 pm or close of business, whichever is later	10 pm or close of business, whichever is later	10 pm or close of business, whichever is later	10 pm or close of business, whichever is later
Height of Light Fixture, Maximum	20 feet for freestanding fixture; height of building for attached fixture	20 feet for freestanding fixture; height of building for attached fixture	20 feet for freestanding fixture; height of building for attached fixture	20 feet for freestanding fixture; height of building for attached fixture	20 feet for freestanding fixture; height of building for attached fixture	20 feet for freestanding fixture; height of building for attached fixture



### *Light Source Types*

All exterior lights shall be LED “warm-white” or LED filtered light to minimize blue emission (CCT < 3,000 K; S/P ratio < 1.2).

### *Uplighting and Aimed Lighting*

Direct upward lighting and lighting aimed at structures is prohibited except as follows:

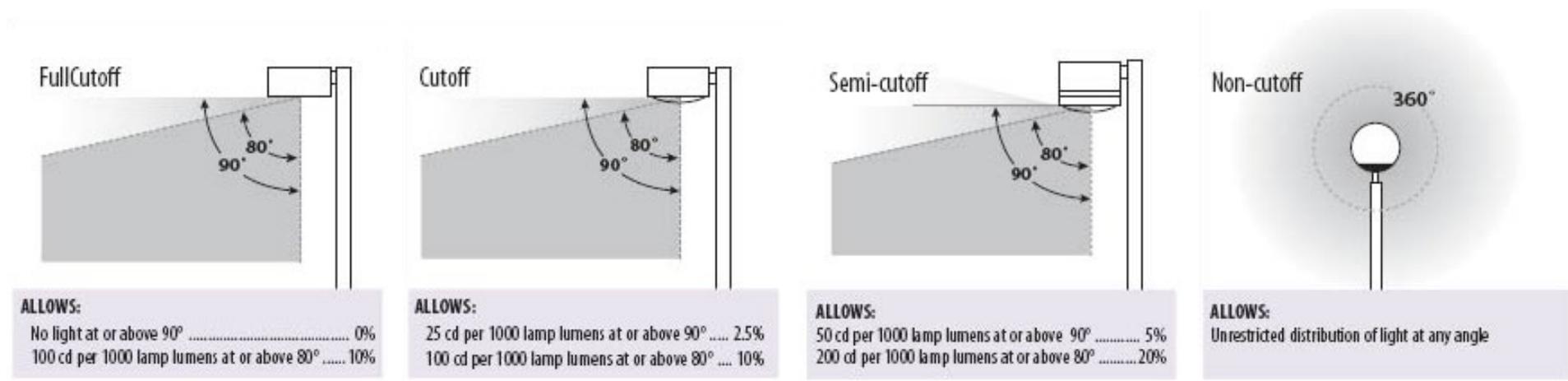
- Accent lighting of architectural features: provided that no glare or off-site light spillover is produced. Lamps for this type of accent lighting must be low intensity and utilize less than 100 watts and emit less than 1,600 lumens
- Accent lighting of other features, such as statues, public art, or other objects of interest that cannot be illuminated with down lighting, may use narrow-cone spotlights that use less than 100 watts and emit less than 1,600 lumens. A narrow-cone spotlight image is located in Section 19.81.040 F.1.
- All other lighting aimed against structures can be aimed against structures if (1) the light is contained by the structure, (2) no glare is visible off site and (3) the fixture is fully shielded so none of the light emitted above the horizontal plan crosses over the property line.
- Low voltage landscape light (such as lighting used to illuminate fountains, shrubbery, trees, and walkways etc.) shall be permitted provided that the lighting is not mounted on a pole or building, it is shielded to eliminate glare and light spillover and each fixture uses only a maximum of 60 watts or emits a maximum of 750 lumens (whichever is less).

### Outdoor Performance, Sport, and Recreation Facilities

- Playing fields or other special activity areas illuminated by floodlights should be mounted and shielded so their beams fall within the primary play area and its immediate surroundings. It should avoid spillover onto residentially zoned property.
- Recreational facilities should be illuminated only during use of the facility. Non-security lights should be turned off by 9 PM or 30 minutes after the event, whichever is later.

### Maintenance

Outdoor light fixtures must be kept in good order and maintained to serve the original design intent of the lighting system and ensure compliance with this chapter.



Lighting Cutoff Designations



**Purpose:** to promote the safe, effective and efficient use of active solar energy systems installed to reduce the on-site consumption of fossil fuels or utility-supplied electric energy. The following solar energy standards support the installation of solar systems or the design of buildings to be solar ready for future installations.

The following standards are to be used in place of standards in Saint Paul Zoning Code Section 65.921. Solar energy system.

### *Solar Access*

Solar access for adjacent buildings must be preserved such that at least 50% of the roof area of any building shall not be shaded at noon on December 22 of the year.

### *Permitted Accessory Use*

Active solar energy systems shall be allowed as an accessory use in all zoning classifications where structures of any sort are allowed, subject to certain requirements as set forth in Table 4.5 Solar Standards.

### *Solar Administration*

**Approved Solar Components:** Electric solar energy system components must have a UL listing and solar hot water systems must have an SRCC rating.

**Plan Approval Required:** All solar energy systems shall require administrative plan approval by the City of Saint Paul zoning administrator.



*Solar Administration (Continued)*

**Plan Applications:** Plan applications for solar energy systems shall be accompanied by to-scale horizontal and vertical (elevation) drawings. The drawings must show the location of the system on the building or on the property for a ground-mount system, including the property lines.

- *Pitched Roof Mounted Solar Energy Systems:* For all roof-mounted systems other than a flat roof, the elevation must show the highest finished slope of the solar collector and the slope of the finished roof surface on which it is mounted.
- *Flat Roof Mounted Solar Energy Systems:* For flat roof applications a drawing shall be submitted showing the distance to the roof edge and any parapets on the building and shall identify the height of the building on the street frontage side, the shortest distance of the system from the street frontage edge of the building, and the highest finished height of the solar collector above the finished surface of the roof.

**Plan Approvals:** Applications that meet the design requirements of this ordinance, and do not require an administrative variance, shall be granted administrative approval by the zoning official and shall not require Planning Commission review. Plan approval does not indicate compliance with Building Code or Electric Code.

**Compliance with Codes**

- All active solar energy systems shall meet approval of local building code officials, consistent with the State of Minnesota Building Code, and solar thermal systems shall comply with HVAC-related requirements of the Energy Code.
- All photovoltaic systems shall comply with the Minnesota State Electric Code.
- Solar thermal systems shall comply with applicable Minnesota State Plumbing Code requirements.

**Utility Notification:** All grid-intertie solar energy systems shall comply with the interconnection requirements of the electric utility. Off-grid systems are exempt from this requirement.

**Restrictions on Solar Energy Systems Limited:** No homeowners' agreement, covenant, common interest community, or other contract between multiple property owners within a subdivision shall restrict or limit solar energy systems to a greater extent than these solar energy standards.



Table 4.6 Solar Standards

	Roof-Mounted	Ground or Pole Mounted	Building Integrated
Height	Height shall not exceed the maximum allowed building height in any zoning district, except for height exceptions as allowed for building mounted mechanical devices or equipment.	Height shall not exceed twenty (20) feet when oriented at maximum tilt.	The building component in which the system is integrated shall meet all required setback, land use or performance standards for the district in which the building is located.
Setback	Setback shall not extend beyond the exterior perimeter of the building on which the system is mounted or built, unless the collector and mounting system has been explicitly engineered to safely extend beyond the edge, and setback standards are not violated. Exterior piping for solar hot water systems shall be allowed to extend beyond the perimeter of the building on a side yard exposure.	Setback from property line must be at least one (1) foot and may not extend into the side-yard or rear setback when oriented at minimum design tilt.	
Coverage	Coverage of the building, excluding building-integrated systems, shall allow for adequate roof access to the south-facing or flat roof upon which the panels are mounted.	The surface area of pole or ground mount systems shall not exceed half the building footprint of the principal structure.	
Visibility	Roof-mount systems that are visible from the nearest edge of the street frontage right-of-way shall not have a highest finished pitch steeper than the roof pitch on which the system is mounted, and shall be no higher than twelve (12) inches above the roof.	Ground-mount solar energy systems shall not be restricted if the system is not visible from the closest edge of any public right-of-way other than an alley.	May be visible from the public right-of-way, provided the building component in which the system is integrated meets all required setback, land use or performance standards for the district in which the building is located.
Aesthetics	Active solar energy shall be designed to blend into the architecture of the building while still allowing the system to be mounted for efficient performance. The color of the solar collector is not required to be consistent with other roofing materials.		



**Purpose:** To meet multiple objectives for sustainable design in roofing, including:

- Reduce localized heat pockets generated by heat absorbent surfaces
- Reduce building cooling loads by reducing heat absorption on roofs
- Enable rooftop solar systems on buildings
- Reduce stormwater run-off from rooftops

### *Pitch, Orientation, Materials and Reflectivity*

Design buildings for, or in anticipation of, solar system installations, following solar ready building design guidelines and recommendations.

Flat roofs should be single ply membrane type with a minimum pitch of 1/4 inch per foot.

Pitched roofs must be surfaced with materials designed to last at least 25 years, and provide at least one primary roof face at a south or southwest-facing pitch between 25-45 degrees.

Roofing materials shall have a Solar Reflective Index (SRI) of minimum 29 where the pitch is greater than 2:12, or an SRI of minimum 78 where the pitch is less than or equal to a 2:12 pitch.

If building size allows, provide a minimum of 200 square feet of contiguous roof area for solar systems.

### *Equipment and Structures*

Locate rooftop structures and equipment, such as plumbing, exhaust vents, chimneys, or gables, are away from south facing roofs and as far from potential solar system locations as possible while still meeting other design requirements.

The visual impact of rooftop equipment shall be reduced through such means as location, screening, or integration into the roof design. Screening shall be of durable, permanent materials that are compatible with the primary building materials.



### *Green Roofs*

**Functional Green Roof Area** shall be defined as area atop a roof surface on a building, open to the sky and air, which is surfaced with soil and living plant materials for the purpose of retaining rainwater and absorbing heat from sunlight. The depth of soil and planted material shall be at least two (2) inches to be considered Functional Green Roof Area.

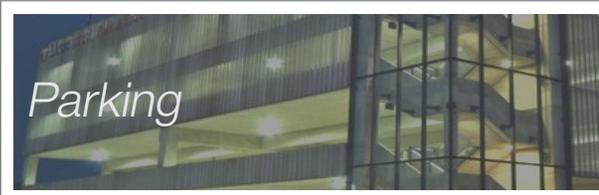
### **Roof Design Exemptions for Functional Green Roof Area**

Functional Green Roof Areas shall be exempt from the rooftop design standards identified in “Pitch, Orientation, Materials and Reflectivity”.

### **Green Roof Areas as Open Space**

Where a rooftop surface above the third floor includes Functional Green Roof Area, adjacent open-air outdoor space intended for use by building occupants or other persons that does not meet the definition of Functional Green Roof Area, such as a patio or deck, is eligible to meet up to 50% of the open space requirements of the property/site, as measured in gross square feet of the usable adjacent space. All such usable outdoor space shall be set back at least ten (10) feet from all outer roof edges, and shall be located and oriented in relation to adjacent properties to minimize potential visual, noise and privacy impacts to abutting uses.





**Purpose:** to provide vehicular parking that meets the basic demand created by uses on the site, through the predominant use of structured parking. To provide convenient, plentiful and secure bicycle parking at places of residence, employment, shopping or service, and recreation.

**Parking Standards are Pursuant to Saint Paul Zoning Code Section 63.300, except as noted herein (obviates Saint Paul Zoning Code subsections 63.303-07)**

Table 4.7 Vehicle Parking Requirements by Use

Land Uses	Required Parking	
	Minimum	Maximum
Non-residential	1 space per 600 square feet GFA	1 space per 400 square feet GFA
Residential, dwellings	0.75 space per dwelling	2.0 spaces per dwelling
Residential, congregate living	0.25 space per bedroom	1.0 space per bedroom

Note: There are no special provisions to reduce minimum required parking or to exceed maximum required parking.

Surface parking shall not exceed 20 spaces per development block.

Structured parking is permitted provided, at a minimum, that the entire ground floor of the structure contains active uses with entrances on all street frontages. Underground parking is permitted in any structure. Structured parking must be designed with level parking floors and adequate floor to ceiling clearance height to allow the space to be converted to finished floor area if parking is no longer needed in the future.

**Shared parking** facilities are allowed and encouraged, but uses sharing facilities are not eligible for reductions to minimum parking requirements as a result of sharing, per 63.206(d), since off-street parking requirements already anticipate lower parking space demand due to sharing.

**Residential Parking for 1-6 unit buildings:** Parking garages for residential structures of one to six-units shall be placed at the rear of the building with access to a lane or alley or as a tuck under placed at least ten (10) feet behind the building facade. Tuck under parking on the main frontage of a residential structure is only permitted if there is no rear access to the lot from an alley or lane. Surface parking spaces or semi-covered spaces are allowed in lieu of garages, if placed at the rear of the building with access to a lane or alley. Driveways shall only provide access to the alley or lane at the rear of the lot, unless no such right-of-way exists.

**For residential buildings on lots less than 50 feet wide and for all Sideyard, Rearyard, and Courtyard residential buildings,** garages or off-street parking shall be accessed from an alley or via a shared driveway only.

### *Fee-in-Lieu of Parking*

For non-residential uses, properties may satisfy parking requirements by paying a fee in-lieu of parking for each required space. Fees collected shall become part of a site wide parking fund and shall be used solely for the repayment, development or maintenance of parking that satisfies the demand requirements of new development projects within the parking in-lieu fee area. A sitewide parking district will establish the terms, conditions and use for fee-in-lieu payments.

The number of parking spaces required by the change in occupancy shall be the difference between the number required by the new use and the number required by the previous occupancy.

The per-space fee for new construction, additions or changes in occupancy must be paid by the following method: In a lump sum, prior to the issuance of construction permits for the structure or occupancy for which the parking is required or prior to the issuance of a city business license for the activity for which the parking is required, if no construction permit is required. (Ord. 1411 § 1, 2002; Ord. 1101 § 3 (part), 1987)

Once a property is subject to an obligation for parking, provided either with onsite parking spaces or by in-lieu parking fees, the following shall apply if the use is changed or discontinued:

If a structure is enlarged or a use is replaced with a use for which more parking is required according to the zoning regulations, the additional parking requirement may be met with additional onsite parking spaces or by paying additional in-lieu fees.

If a structure is reduced in area, or wholly or partially becomes vacant, or a use is replaced with a use for which less parking is required according to the zoning regulations, onsite parking spaces shall be reduced to meet the new requirement. If in-lieu fees were paid to meet the original parking requirement, there shall be no refund of lump-sum payment or abatement of installment payments.

If a structure is destroyed and in-lieu payments for parking are in place, then upon the property owner's request the city shall cancel the obligation for following installment payments. Any future structure or use at the same location would be required to meet the parking requirement as provided in the zoning regulations for new development.

A change of ownership or the dividing or merging of properties shall not affect an obligation for parking in-lieu fees or a determination that parking requirements have been met according to fees paid for a particular use.



### Bike Parking

Bicycle parking is an area and facility used for the securing of bicycles. It includes enclosed bicycle storage, covered bicycle racks or fixed bicycle racks which permit the locking of the bicycle frame and one (1) wheel to the rack and support the bicycle in a stable position, anchored to prevent easy removal.

Table 4.8 Required Bicycle Spaces, by Use

Residential, dwellings	1 space per dwelling
Residential, congregate living	1 space per bedroom
Educational	1 space per 3 students
Recreational	1 space per 300 square feet of surface area
Commercial, Office, Civic	1 space per 5,000 square feet GFA
Production and Processing	1 space per 15,000 square feet GFA



**Location and design** - The following standards shall apply to bicycle parking facilities provided per the requirements of this code:

- a) Each bicycle parking space shall provide 6 feet by 2 feet in area per bicycle plus the area needed for access.
- b) Bicycle parking shall be located no closer than 3 feet from any wall or 3 feet from face of curb to provide adequate space for access and maneuvering.
- c) Outdoor bicycle facilities or facilities within interior spaces shall be lit for ease of use and safety.
- d) Bicycle parking facilities shall be maintained in accordance with City of Saint Paul Zoning Code Section 63.315, and kept free from rust and corrosion.





*Bicycle Parking Location and Design (cont.)*

- e) The location of bicycle parking facilities shall be located to be convenient to the main entrance of the primary use. If required bicycle parking is not visible from the street or main building entrance, a sign shall be posted at the main entrance indicating the location of the parking.
- f) Outdoor bicycle parking shall be visible from the public right-of-way or from inside the building. With a use of right-of-way permit from the city engineer, bicycle parking may be located in the public right-of-way.
- g) Bicycle racks installed on sidewalks shall provide for a clear, unobstructed width of at least 5 feet for pedestrians.
- h) Bicycle racks and bicycle storage facilities shall be secured to the ground or the building structure to prevent them from being removed from the location.
- i) Bicycle parking provided within a building shall be signed for bicycles.
- j) Bicycle parking spaces located in attended parking lots or garages shall be located adjacent to the attendant's booth or in an area under constant surveillance.
- k) Indoor bicycle parking for commercial uses shall be accessible during regular hours of operation. Indoor bicycle parking for multi-family dwellings shall be accessible to residents at all times.
- l) Where motor vehicle parking spaces are monitored, covered or weather protected, required bicycle parking spaces shall be provided on the same basis.
- m) Office and production/processing uses shall provide 1 shower per 50 employees.

## *Special Parking Facilities*

### **Car Share Parking**

One (1) designated space for car share vehicles shall be provided for every 20 spaces of individual parking.

### **Electric Vehicle Infrastructure**

The intent of this section is to support the use of electric vehicles and to expedite the establishment of convenient, cost-effective electric vehicle infrastructure.

#### A. Parking

1. All new and expanded parking areas shall provide the electrical capacity necessary to accommodate the future hardwire installation of Level-2 electric vehicle charging stations. A minimum of one (1) parking space or two percent (2%) of the total parking spaces, whichever is greater, shall be prepared for such stations.
2. An electric vehicle charging station space may be included in the calculation for minimum required parking spaces required in accordance with Section 1804.
3. Electric vehicle charging stations in public parking facilities or available for public use shall be reserved for use of electric vehicles for charging purposes only. Electric vehicles may not park in the designated electric vehicle charging space if the vehicle is not charging.

B. Accessible Spaces: A minimum of one (1) accessible electric vehicle charging station shall be provided in parking facilities with five (5) or more charging spaces. Accessible electric vehicle charging stations should be located in close proximity to the building or facility entrance and connected to a barrier-free accessible route of travel.





C. Lighting: Site lighting shall be provided where an electric vehicle charging station is installed, unless charging is for daytime purposes only.

D. Equipment Standards and Protection

1. Battery charging station outlets and connector devices shall be no less than 36 inches and no higher than 48 inches from the surface where mounted. Equipment mounted on pedestals, lighting posts, bollards, or other devices shall be designed and located as to not impede pedestrian travel or create trip hazards on sidewalks.
2. Adequate battery charging station protection, such as concrete-filled steel bollards, shall be used. Curbing may be used in lieu of bollards, if the battery charging station is setback a minimum of 24 inches from the face of the curb.

E. Usage Fees: The property owner is not restricted from collecting a service fee for the use of an electric vehicle charging station made available to visitors of the property.

F. Signage for Special Parking

1. Information shall be posted identifying voltage and amperage levels and any time of use, fees, or safety information related to the electric vehicle charging station.
2. Each electric vehicle charging station space shall be posted with signage indicating the space is only for electric vehicle charging purposes. For purposes of this subsection, “charging” means that an electric vehicle is parked at an electric vehicle charging station and is connected to the battery charging station equipment.

G. Maintenance: Electric vehicle charging stations shall be maintained in all respects, including the functioning of the equipment. A phone number or other contact information shall be provided on the equipment for reporting when it is not functioning or other problems are encountered.

# CHAPTER 5: ZONING - BUILDING TYPES



**DRAFT (7/21/2017)**  
**For review by the**  
**Saint Paul Planning Commission**





## 5.1 Overview

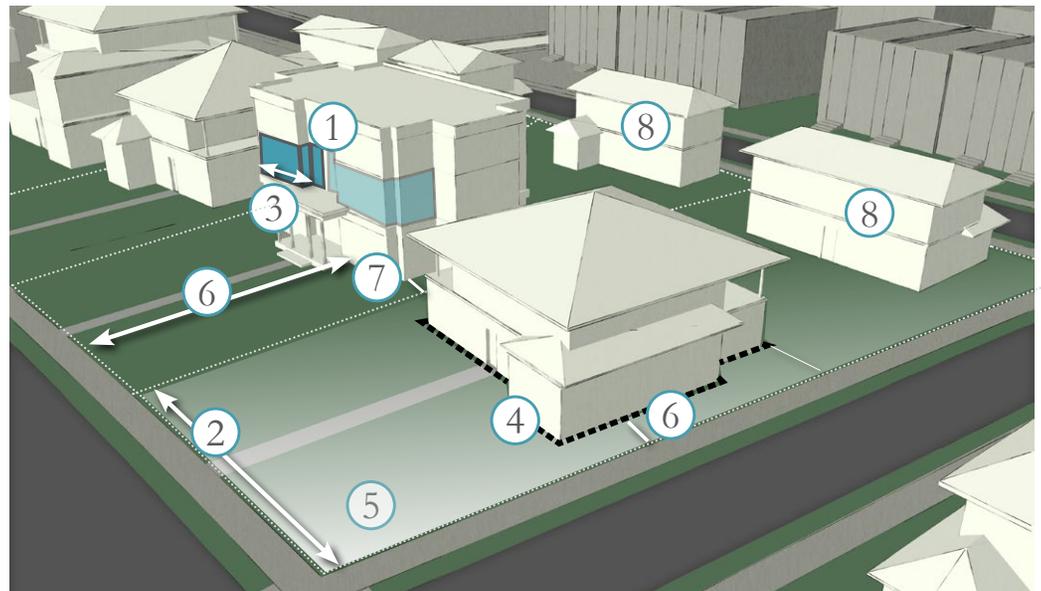
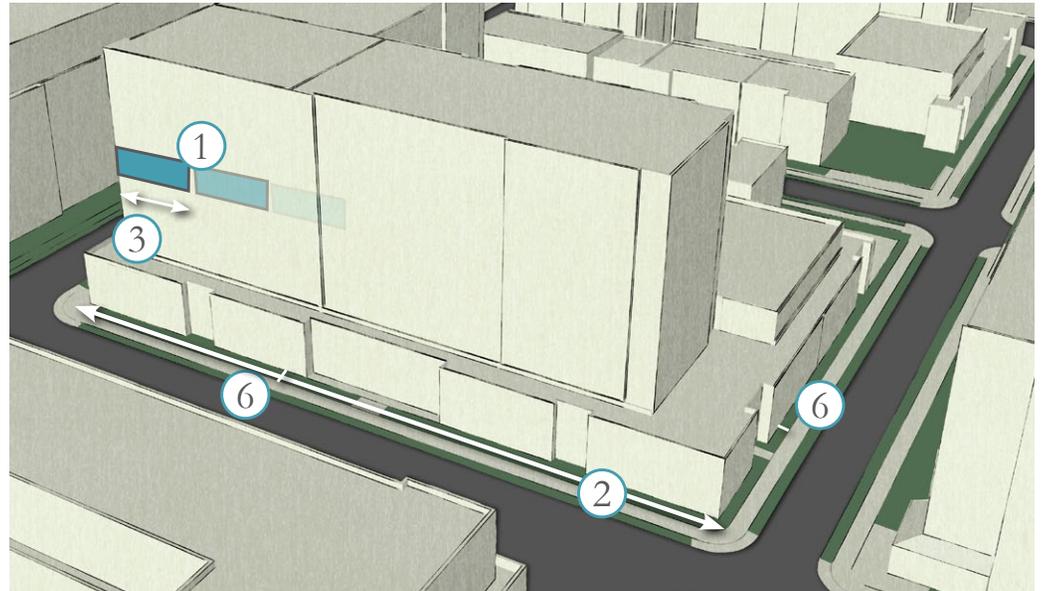
The Ford site zoning districts establish basic standards to guide development, while allowing a wide range of uses. Given the variability of building types within each district, the Ford site zoning uses building type as the basis for most of the standards. This provides for consistency in built form related to use as opposed to geography. The following standards based on building type relate to the following elements:

- Units per Building
- Lot Width
- Lot Coverage
- Setbacks
- Parking
- Accessory Structures

*Building and Lot Terminology*

The same zoning concepts and regulations can apply to multiple building and lot types. The concepts as they apply to two example situations are shown here.

- ① Dwelling Unit Counts
- ② Lot Width
- ③ Dwelling Unit Width
- ④ ÷ ⑤ Lot Coverage
- ⑥ Right-of-Way Setback
- ⑦ Interior Lot Line Setback
- ⑧ Accessory Structures



*Building Placement, Scale & Design*

**Building Placement and Location** - On major, mixed-use corridors, buildings shall be located at the front of the lot along the primary pedestrian-way, with shallow setbacks designed for public use and enjoyment. On predominantly residential blocks, buildings shall be oriented to the primary pedestrian-way, with shallow to medium setbacks landscaped for private use. Office, research and industrial buildings on any corridor shall be oriented to the main pedestrian-way, with shallow to medium setbacks designed for public or private use.

**Building Scale** - Buildings shall be scaled to utilize the developable opportunities of the lot, within the minimum and maximum Floor Area Ratio standards for the district. It is expected that as the proportion of lot space used for landscaping, parking, services, or amenities goes up, the height of the building will increase to create an overall sense of massing consistent with the urban, neighborhood context.

**Building Design** - High quality design, materials, and construction standards are expected for all buildings, while providing a range of architectural styles within proximity to create interest and reduce repetitiveness. A mix of traditional and modern buildings forms are encouraged, while providing some compatibility with surrounding buildings through the use of common cornice lines, roofs treatments, or other design features.

Design standards will be developed in 2018 that address buildings exteriors and the space around them.



## 5.2 Building Types by Zoning District

The zoning districts for the Ford site allow a range of land uses and building types. Some of the zoning standards for the site are specific to the underlying zoning district, as described in Chapter 4, and some are specific to the building type, as described in this chapter. The following table shows the building types that are allowed within each zoning district. Four of the six zoning districts allow a mix of residential and commercial uses. The two more restrictive districts are River Residential, which allows a limited residential form, and Gateway, which does not allow any residential. Civic and Institutional Uses are allowed in all districts.



Table 5.1 Building Types Allowed by Zoning District

ZONING DISTRICT	BUILDING TYPE										
	Carriage House	Multi-Unit Home	Townhouse	Multi-Family Low	Multi-Family Medium	Multi-Family High	Live / Work	Mixed Residential & Commercial	Commercial & Employment	Parking Structure	Civic & Institutional
F1 - River Residential	Allowed	Allowed	Not Allowed	Not Allowed	Not Allowed	Not Allowed	Not Allowed	Not Allowed	Not Allowed	Not Allowed	Not Allowed
F2 - Residential Mixed Low	Allowed	Not Allowed	Allowed	Allowed	Not Allowed	Not Allowed	Allowed	Allowed	Allowed	Not Allowed	Allowed
F3 - Residential Mixed Mid	Not Allowed	Not Allowed	Allowed	Allowed	Allowed	Not Allowed	Allowed	Allowed	Allowed	Not Allowed	Allowed
F4 - Residential Mixed High	Not Allowed	Not Allowed	Allowed	Not Allowed	Allowed	Allowed	Allowed	Allowed	Allowed	Allowed	Allowed
F5 - Business Mixed	Not Allowed	Not Allowed	Not Allowed	Not Allowed	Not Allowed	Not Allowed	Not Allowed	Allowed	Allowed	Allowed	Allowed
F6 - Gateway	Not Allowed	Not Allowed	Not Allowed	Not Allowed	Not Allowed	Not Allowed	Not Allowed	Not Allowed	Allowed	Not Allowed	Allowed

### 5.3 Building Type Standards

Zoning standards related to each building type are summarized in the table below. These standards are in addition to those related to the underlying zoning district. Subsequent pages address each building type individually, identifying their specific zoning standards and characteristics.

Table 5.2 Building Type Standards Summary Table

STANDARD	BUILDING TYPE									
	Multi-Unit Home	Carriage House	Townhouse / Rowhouse	Multi-Family, Low	Multi-Family, Medium	Live/Work	Mixed Residential & Commercial	Civic & Institutional	Commercial & Employment	Parking Structure
Units per Bldg	2-6	1-2	3-16	6 - 40	40 and over	2-8	n/a			
Building Width, maximum	60'		150'	200'	60' min, no max	150'	n/a <del>500'</del>			
Lot Width, minimum	80'		30'	60'	n/a	30'	n/a			
Lot Coverage by Bldgs, maximum	30%		50%	70%			<del>80%</del> 70%			
Lot Coverage for Open Space, minimum	50%		25%				<del>20%</del> 25%			
Building Height	Determined by Zoning District	30' maximum		Determined by Zoning District						
Public Right-of-Way Setback (a),(b)	Min. = 10' Max. = 40'	Min. = 10' Max. = 20'				Min. = 5' Max. = 20'	Min. = 5' Max. = 15'			
Interior Lot Line Setback (c)	Min. = 10' Max. = n/a					Min. = 6' Max. = n/a				
Parking	Min. = 0.75 space per dwelling unit and Max. = 2.0 spaces per dwelling unit; Min. = 0.25 space per bedroom and Max. = 1.0 space per bedroom for congregate living.				Use combined standards for residential and non-residential uses			Min. = 1.0 space per 600 square feet gross floor area Max. = 1.0 space per 400 square feet gross floor area		
Accessory Structures	Up to 3 per lot		Up to 1 per dwelling unit	Up to 2 per structure	Up to 2 per structure	Up to 1 per dwelling unit	Up to 2 per structure	Up to 2 per structure	Up to 2 per structure	Up to 2 per structure

(a) Maximum building setback limit shall apply to at least 60% of the building façade along the right-of-way.

(b) Buildings shall be setback a minimum of thirty (30) feet from a lot line separating a lot from Mississippi River Boulevard.

(c) No setback is required for building walls containing no windows or other openings when the wall meets the fire resistance standards of the Minnesota State Building Code and there is a Common Interest Community (CIC) or recorded maintenance easement that covers the affected properties.



## Multi-Unit Home

Dwelling units	2-6 units per building
Lot width, minimum	80 feet
Building width, maximum	60 feet
Lot coverage by buildings, maximum	30% (includes coverage by secondary building - Carriage House, and by other accessory buildings)
Lot coverage by open space, minimum	50%
Building height	Minimum 20 feet; maximum 48 feet
Setbacks	
Public Right-of-Way	Minimum 30 feet minimum from Mississippi River Boulevard and minimum 10 feet from other rights-of-way; maximum 40 feet
Interior Lot Line	10 feet minimum
Parking requirements	Minimum 0.75 spaces per dwelling unit; maximum 2.0 spaces per dwelling unit; except as noted in Chapter 4, Parking.
Accessory buildings allowed	Up to 3 including the Carriage House building

**Definition:** The Multi-Unit Home building type is a small- to medium-sized building that consists of side-by-side or stacked dwelling units.

**Access:** Each unit will have a private interior entrance, but may share front and rear ingress/egress with other units. Building exteriors shall be accessed from the front street.





## Carriage House

Dwelling units	1-2 units per building
Lot width, minimum	80 feet (per requirement for primary structure - Multi-unit home)
Building width, maximum	60 feet
Lot coverage by buildings, maximum	30% (includes coverage by primary building and other <b>accessory secondary</b> buildings)
Lot coverage by open space, minimum	50%
Building height	Maximum 30 feet
Setbacks	
Public Right-of-Way	Minimum 10 feet; maximum 20 feet
Interior Lot Line	Minimum 6 feet
Parking requirements	Minimum 0.75 spaces per dwelling unit; maximum 2.0 spaces per dwelling unit; except as noted in Chapter 4, Parking.
Accessory buildings allowed	Up to 3 including the Carriage House building

**Definition:** A combined residential and garage building, with small **accessory secondary** dwelling unit(s) located above and/or adjacent to the garage.

**Access:** Vehicles shall access this building type from alley or service streets. Pedestrians may access carriage houses from alleys, directly from the primary structure or from front streets.

## Live/Work

Dwelling units	2-8 units per building
Lot width, minimum	30 feet
Building width, maximum	150 feet
Lot coverage by buildings, maximum	70%
Lot coverage by open space, minimum	25%
Building height	Determined by zoning district
Setbacks	
Public Right-of-Way	Minimum 5 feet; maximum 20 feet
Interior Lot Line	At least 6 feet, except as noted in Table 5.2, Building Type standards Summary Table, footnote (b).
Parking requirements	Minimum 0.75 spaces per dwelling unit; maximum 2.0 spaces per dwelling unit; except as noted in Chapter 4, Parking.
Accessory buildings allowed	Up to 1 per dwelling unit

**Use:** A building that consists of two to eight dwelling units above and/or behind a flexible ground floor space that can be used for residential, offices, small service establishments, homecrafts which are typically considered accessory to a dwelling unit, or limited retailing associated with fine arts, crafts, or personal services or retail uses. The non-residential component of the unit shall not exceed 50% of the total gross floor area of the unit. Both the ground-floor flex space and the unit(s) directly above it are owned by one entity. This building type is especially appropriate for incubating neighborhood-serving retail and service uses and allowing neighborhood main streets to expand as the market demands.

**Access:** Upper floor units, both residential and office, share common exterior entries. Ground floor units will have individual store fronts and exterior access. Vehicular access shall be confined to side and rear streets.



## Townhouse / Rowhouse



Dwelling units	3-16 units per building
Lot width, minimum	30 feet
Building width, maximum	150 feet
Lot coverage by buildings, maximum	50%
Lot coverage by open space, minimum	25%
Building height	Determined by zoning district
Setbacks	
Front	Minimum 10 feet; maximum 20 feet
Interior Lot Line	Minimum 6 feet, except as noted in Table 5.2 Building Type standards Summary Table, footnote (b).
Parking requirements	Minimum 0.75 spaces per dwelling unit; maximum 2.0 spaces per dwelling unit; except as noted in Chapter 4, Parking.
Accessory buildings allowed	Up to 1 per dwelling unit

**Definition:** A residential building consisting of three or more dwelling units attached horizontally in a linear arrangement, with each unit having a private entrance and having totally exposed front and rear walls to be used for access, light, and ventilation.

**Access:** Each unit has independent front and rear egress, and may have private space in the front and/or rear of the unit. If stairs are needed, they will directly connect the sidewalk to the front door.

## Multi-Family, Low

Dwelling units	6-40 units per building
Lot width, minimum	60 feet
Building width, maximum	200 feet
Lot coverage by buildings, maximum	70%
Lot coverage by open space, minimum	25%
Building height	Determined by zoning district
Setbacks	
Public Right-of-Way	Minimum 10 feet; maximum 20 feet
Interior Lot line	Minimum 6 feet, except as noted in Table 5.2, Building Type standards Summary Table, footnote (b).
Parking requirements	Minimum .75 spaces per dwelling unit, maximum 2.0 spaces per dwelling unit; except as noted in Chapter 4, Parking.
Accessory buildings allowed	Up to 2 per main (principal) building

**Definition:** A small to medium sized building with multiple dwelling units, occupying a portion, but not all of, a city block. The dwelling units may be of mixed sizes (number of bedrooms) and styles to encourage mixed-income development and to meet the needs of families of all sizes. This building type allows for different types of housing arrangements besides single family, such as senior housing or congregate living. The building may include other uses, such as local office and commercial.

**Access:** Entry to individual units on the ground floor may be shared through one exterior entry, or units may have individual entries along the front facades. Upper floor units shall be accessed through common exterior entries. Vehicular access shall be confined to side and rear streets.





## Multi-Family, Medium

Dwelling units	40 or more
Lot width, minimum	n/a
Building width, maximum	n/a
Lot coverage by buildings, maximum	70%
Lot coverage by open space, minimum	25%
Building height	Determined by zoning district
Setbacks	
Public Right-of-Way	Minimum 10 feet; maximum 20 feet
Interior Lot Line	Minimum 6 feet, except as noted in Table 5.2, Building Type standards Summary Table, footnote (b).
Parking requirements	Minimum 0.75 spaces per dwelling unit; maximum 2.0 spaces per dwelling unit; except as noted in Chapter 4, Parking.
Accessory buildings allowed	Up to 2 per main (principal) building



**Definition:** A medium to large building with multiple dwelling units, which may occupy a portion of a city block or a full city block. The building may include other uses, such as local office and commercial. The dwelling units may be of mixed sizes (number of bedrooms) and styles to encourage mixed-income development and to meet the needs of families of all sizes. This building type allows for different types of housing arrangements besides single family, such as senior housing or congregate living.

**Access:** Units typically share exterior access with one shared entry along the front facade. Ground level non-residential units may have individual access on front facades. Vehicular access shall be confined to side and rear streets.



## Mixed Residential & Commercial

Dwelling units	n/a
Lot width, minimum	n/a
Building width, maximum	<del>n/a</del> 500'
Lot coverage by buildings, maximum	<del>80%</del> 70%
Lot coverage for open space, minimum	<del>20%</del> 25%
Building height	Determined by zoning district
Setbacks	
Public Right-of-Way	Minimum 5 feet; maximum 15 feet
Interior Lot Line	Minimum 6 feet, except as noted in Table 5.2, Building Type standards Summary Table, footnote (b).
Parking requirements	Residential: minimum .75 spaces per unit; maximum 2 spaces per unit, except as noted in Chapter 4, Parking. Commercial: minimum 1 space per 600 square feet gross floor area; maximum 1 space per 400 square feet gross floor area
Accessory buildings allowed	Up to 2 per main (principal) building

**Use:** A building type intended to provide a vertical mix of uses with ground-floor retail, office or service uses; and upper-floor office or residential uses. The commercial uses should include a range of business sizes, from small neighborhood services to large office spaces.

**Access:** Upper floor units, both residential and office, share common exterior entries. Ground floor units will have individual store fronts and exterior access. Vehicular access shall be confined to side and rear streets.



## Commercial & Employment



Dwelling units	n/a
Lot width, minimum	n/a
Building width, maximum	<del>n/a</del> 500'
Lot coverage by buildings, maximum	<del>80%</del> 70%
Lot coverage for open space, minimum	<del>20%</del> 25%
Building height	Determined by zoning district
Setbacks	
Public Right-of-Way	Minimum 5 feet; maximum 15 feet
Interior Lot Line	Minimum 6 feet, except as noted in Table 5.2, Building Type standards Summary Table, footnote (b).
Parking requirements	1 space per 600 square feet gross floor area, minimum; 1 space per 400 square feet gross floor area, maximum
Accessory buildings allowed	Up to 2 per main (principal) building

**Use:** A building that contains primarily commercial uses. The ground floor shall primarily contain retail, restaurants, professional services and offices; the upper floors shall contain primarily offices and support spaces for the ground floor businesses. These commercial uses should include a range of business and retail sizes, from small neighborhood services to large office spaces, to serve a variety of local, neighborhood, and city needs.

**Access:** Upper floor units will share common exterior entries. Ground floor units will have individual exterior store fronts. Vehicular access shall be confined to side and rear streets.

## Civic & Institutional

Units per building	n/a
Lot width, minimum	n/a
Building width, maximum	n/a 500'
Lot coverage by buildings, maximum	80% 70%
Lot coverage for open space, minimum	20% 25%
Building height	Determined by zoning district
Setbacks	
Public Right-of-Way	Minimum 30 feet from Mississippi River Boulevard and minimum 5 feet from other rights-of-way; maximum 15 feet
Interior Lot Line	Minimum 6 feet, except as noted in Table 5.2, Building Type standards Summary Table, footnote (b).
Parking requirements	1 space per 600 square feet gross floor area, minimum; 1 space per 400 square feet gross floor area, maximum
Accessory buildings allowed	Up to 2 per main (principal) building

**Use:** Civic Buildings should be provided as locations that reinforce community identity and support self-government.

**Access:** Building design should reinforce accessibility for all members of the community, and entrances should be clearly discernable from the public realm. Vehicular access shall be confined to side and rear streets.





## Parking Structures

Units per building	n/a
Lot width, minimum	n/a
Building width, maximum	<del>n/a</del> <u>500'</u>
Lot coverage by buildings, maximum	<del>80%</del> <u>70%</u>
Lot coverage for open space, minimum	<del>20%</del> <u>25%</u>
Building height	Determined by zoning district
Setbacks	
Public Right-of-Way	Minimum 5 feet, maximum 15 feet
Interior Lot Line	Minimum 6 feet, except as noted in Table 5.2, Building Type standards Summary Table, footnote (b).
Parking requirements	n/a
Accessory buildings allowed	Up to 2 per main (principal) building

**Use:** Parking structures provide off-street parking in a spatially efficient manner and minimize the need for surface-level parking lots. This type may be accessory to a main (principal) building use or may be the main (principal) building on a lot.

**Access:** Pedestrians shall access parking structures from the front facade. Vehicular access shall be confined to side and rear streets and be subject to zoning district-specific entrance widths.



**DRAFT (7/21/2017)**  
**For review by the**  
**Saint Paul Planning Commission**



## 6.1 Introduction

The Ford Site will require extensive new infrastructure to support any development that happens there, including water service, sewer, stormwater, streets and utilities. Through its operation as an assembly plant, the Ford Motor Company installed services to support its independent operation and to fit its specialized needs. Much of that infrastructure was removed with site decommissioning. Most of the new services will connect into infrastructure networks that currently run along the periphery of the site to serve the Highland neighborhood.

Modern communication infrastructure on-site is essential to attract and retain strong employers, entrepreneurs, creative industries and residents. Broadband capability will be an essential element of this infrastructure and therefore conduit should be installed during construction of new public streets to ensure the Ford site is ready for installation of fiber optic cable.

## 6.2 Transportation Network

The Ford site as a large-scale industrial site acted as a barrier within the Highland neighborhood, elongating trips in order to move around it and contributing to congestion at its periphery. The redeveloped property will remove this barrier and reweave the site into the area transportation network, ensuring access for all modes of transportation. The site will provide multiple connections to the surrounding Highland neighborhood and to the Mississippi River, enabling live, work, and play opportunities in a compact, mixed-use neighborhood.

These connections will build on the robust options already available in the Highland neighborhood. The A Line provides high quality Bus Rapid Transit service on Ford Parkway, with ridership well exceeding expectations. Growing pedestrian and bicycle amenities in the region are serving the already walkable, diverse neighborhood.

Meanwhile, there are openings for transformative changes, such as making direct connections to Mississippi River Boulevard and the regional trail system along it, and the city's aspiration to convert the Canadian Pacific Railway [Ford Spur](#) into a regional facility for bicyclists and pedestrians, possibly co-located with transit.

After full redevelopment and with the recommended improvements, conditions for pedestrians and cyclists in and around the Ford site improve dramatically, with manageable vehicle travel.

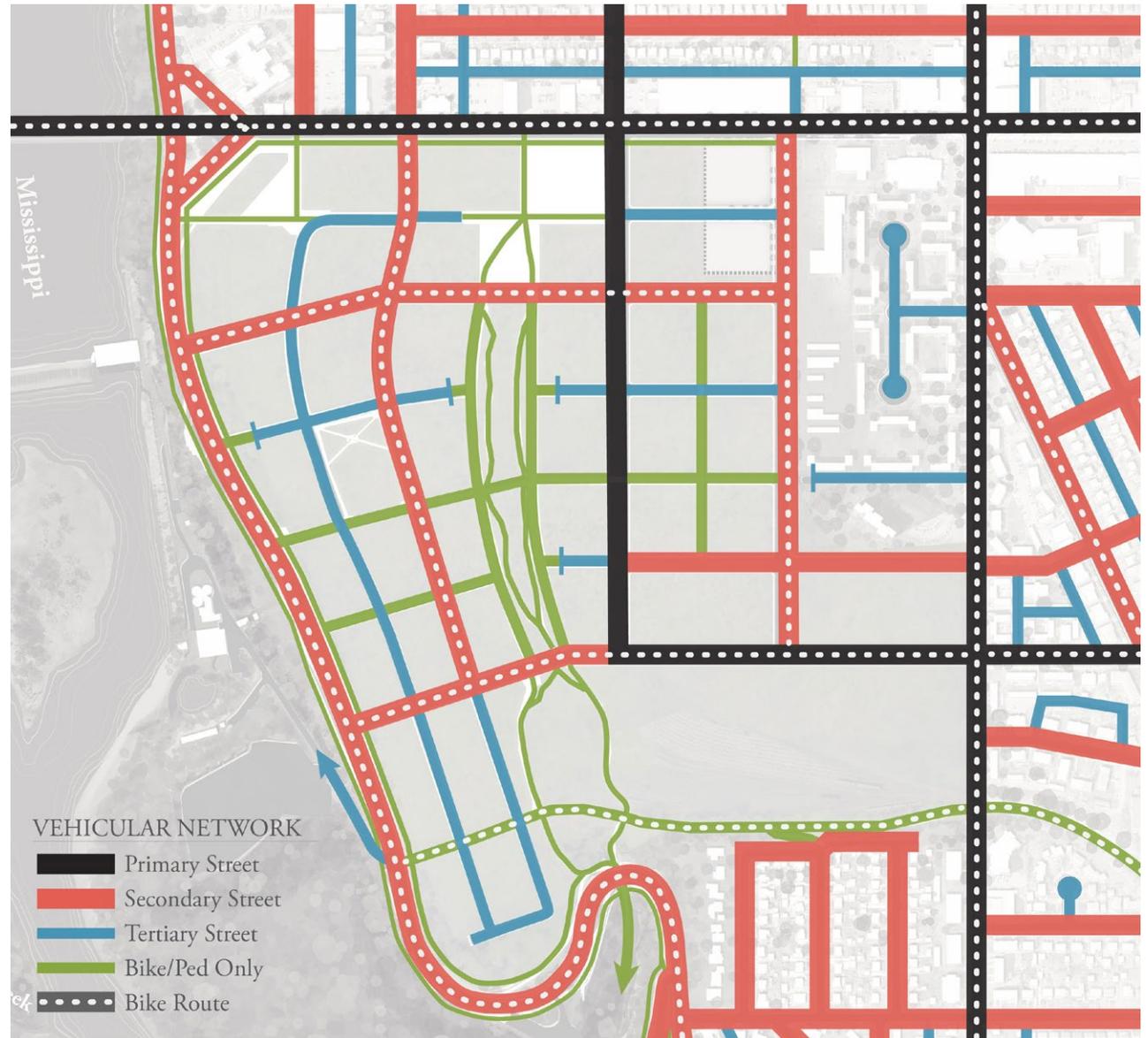
The street sections shown in this document reflect general design and function. Future design and engineering will use the Saint Paul Street Design Manual for additional guidance, particularly when adding pedestrian-friendly elements such as bump-outs and crosswalks.



### 6.3 Street Network System

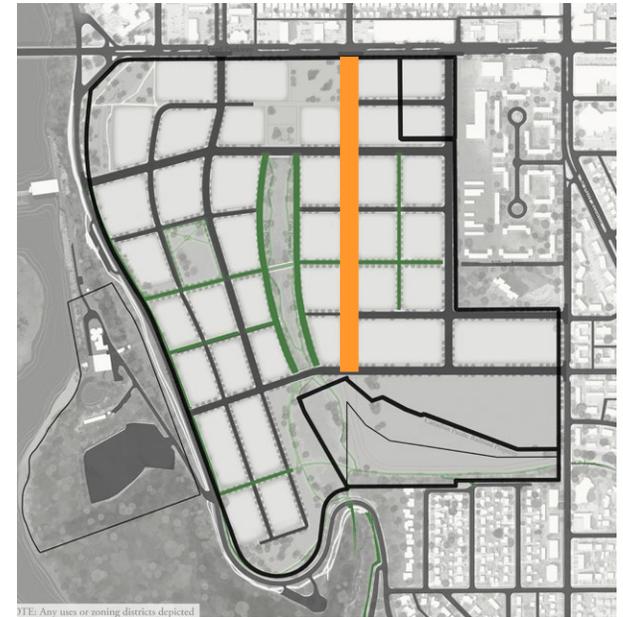


The street network consists of non-vehicular routes (green) through the site to augment the vehicular street grid (gray) and better connect to the neighborhood and Mississippi River.

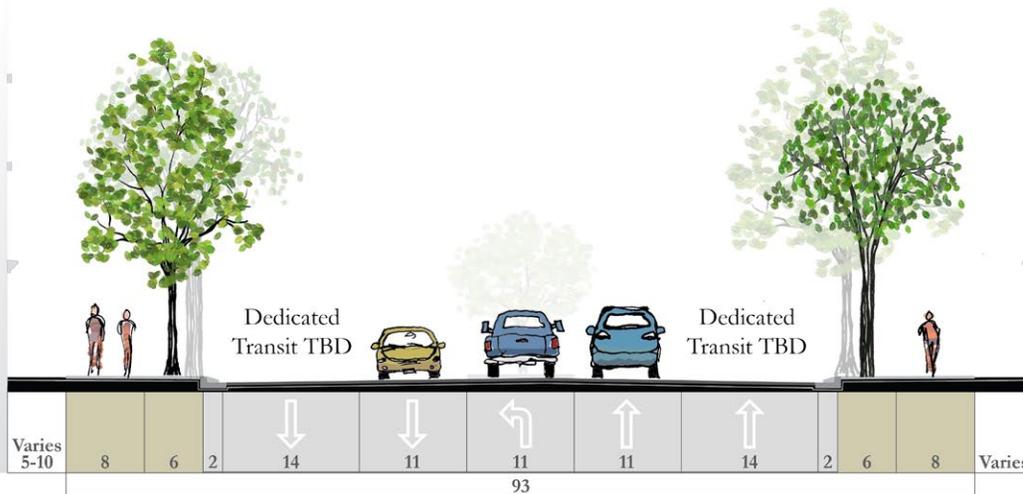


## Cretin Avenue with Transit

Cretin Avenue is one of the main north-south roadways on the site. It extends the Avenue south to connect to Montreal. Space has been allocated for future enhanced transit service. Commercial activity on Cretin would be stronger than on other streets on the site.



ME: Any uses or zoning districts depicted

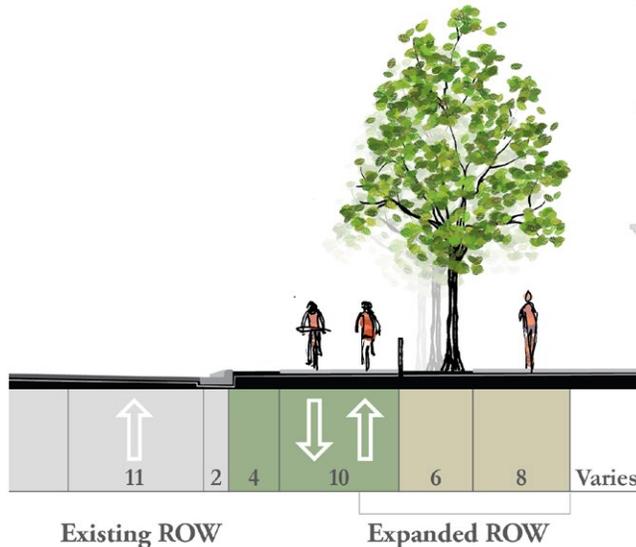
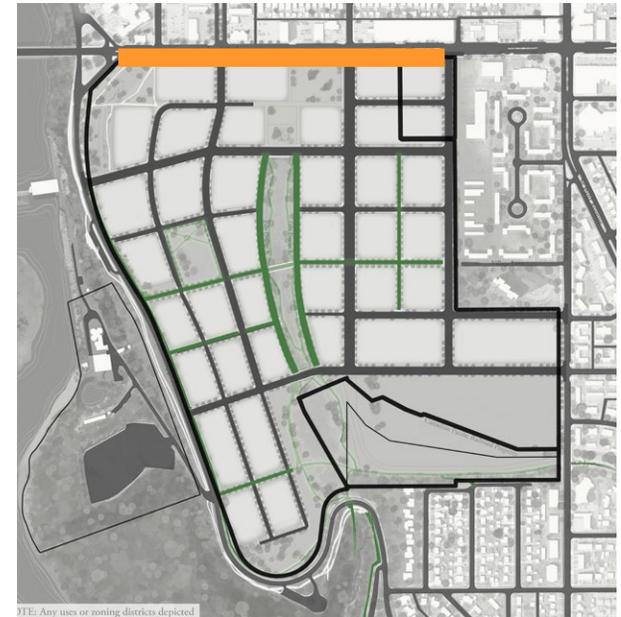


TOTAL RIGHT-OF WAY		93
CURB TO CURB DISTANCE		65
VEHICULAR	2-way (feet/lane)	11
	Median/turn lane (feet)	11
	Curb reaction distance per side (feet)	2
	<i>Total Vehicular ROW</i>	37
PEDESTRIAN	Sidewalks (feet/side) *	8
	Boulevard (feet/side)	6
	<i>Total Pedestrian ROW per side</i>	14

\*Sidewalks south of Village Lane would decrease to 6'

## Ford Parkway

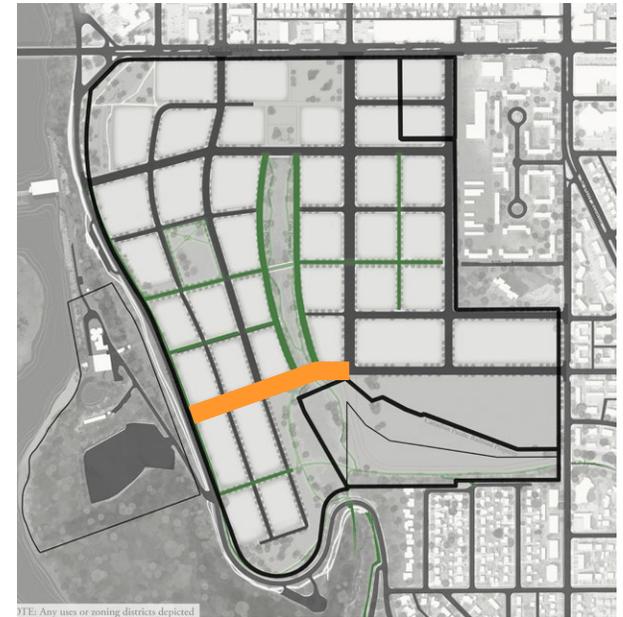
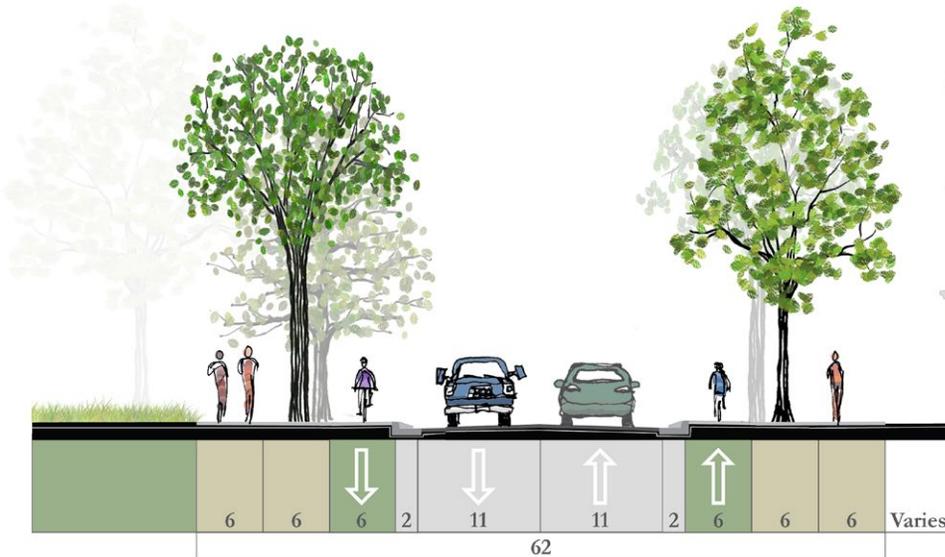
The existing Ford Parkway right-of-way will be extended eighteen (18) feet to the south between the Ford Parkway bridge on the west and the Finn Street alignment on the East. The added right-of-way will include a dedicated, bi-directional bike lane, a planted boulevard and an eight foot sidewalk. The wider boulevard and sidewalk are intended to provide more space for landscaping, public seating, and decorative paving and public art to serve as an attractive and comfortable pedestrian way connecting the site and Highland Village. Due to the important connections that exist beyond the boundary of the Ford Property, additional study is warranted for the design and functionality of Ford Parkway between Ford bridge and Cleveland Avenue.



EXPANDED RIGHT-OF WAY		18
BIKE	2-Way Path	10
	<i>Total Bike ROW</i>	<i>10</i>
PEDESTRIAN	Sidewalk	8
	Boulevard	6
	<i>Total Pedestrian ROW</i>	<i>14</i>

## Montreal Avenue - West of Cretin

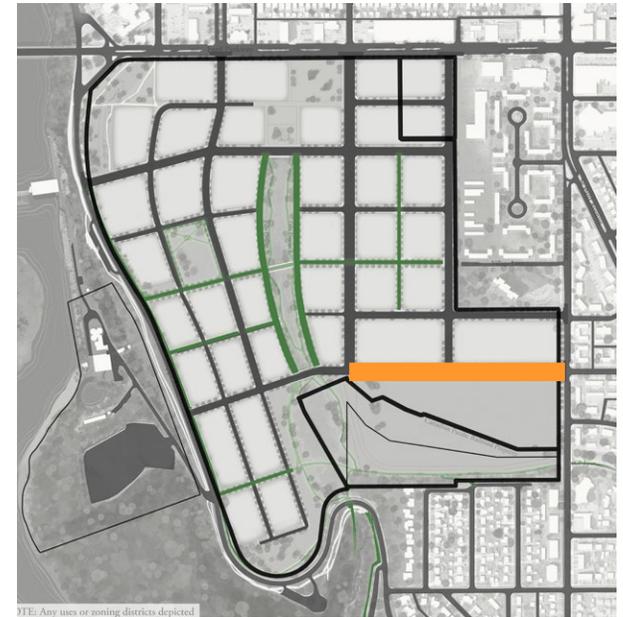
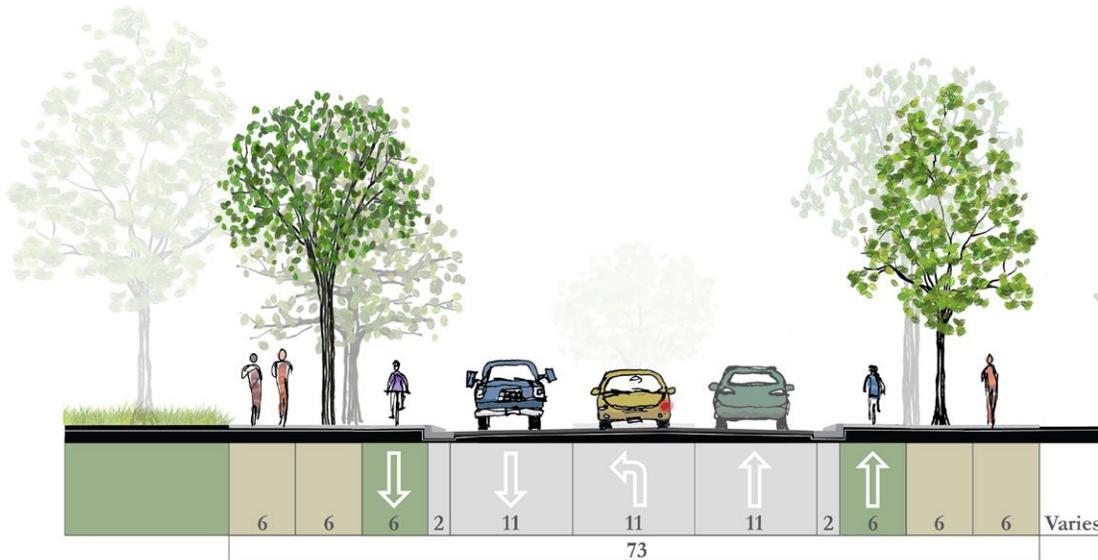
Montreal Avenue between Mississippi River Boulevard and Cretin Avenue is a two lane roadway with single direction, dedicated bicycle lanes next to the traffic lanes. There are no on-street parking lanes. A six foot tree-line boulevard and six-foot sidewalk line the edges.



TOTAL RIGHT-OF WAY		62
CURB TO CURB DISTANCE		42
VEHICULAR	2-way (feet/lane)	11
	Curb reaction distance per side (feet)	2
	<i>Total Vehicular ROW</i>	26
BIKE	Separated - 1 per side (feet/lane)	6
	<i>Total Bike ROW</i>	12
PEDESTRIAN	Sidewalk (feet/side)	6
	Boulevard (feet/side)	6
	<i>Total Pedestrian ROW per side</i>	12

## Montreal Avenue - East of Cretin

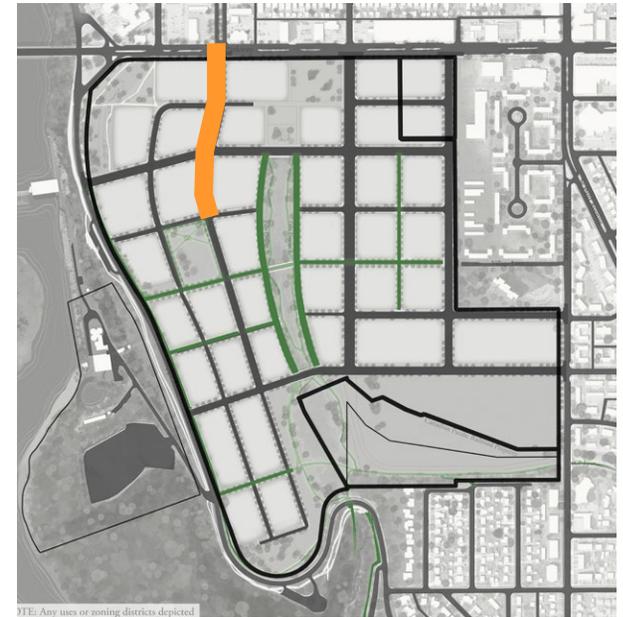
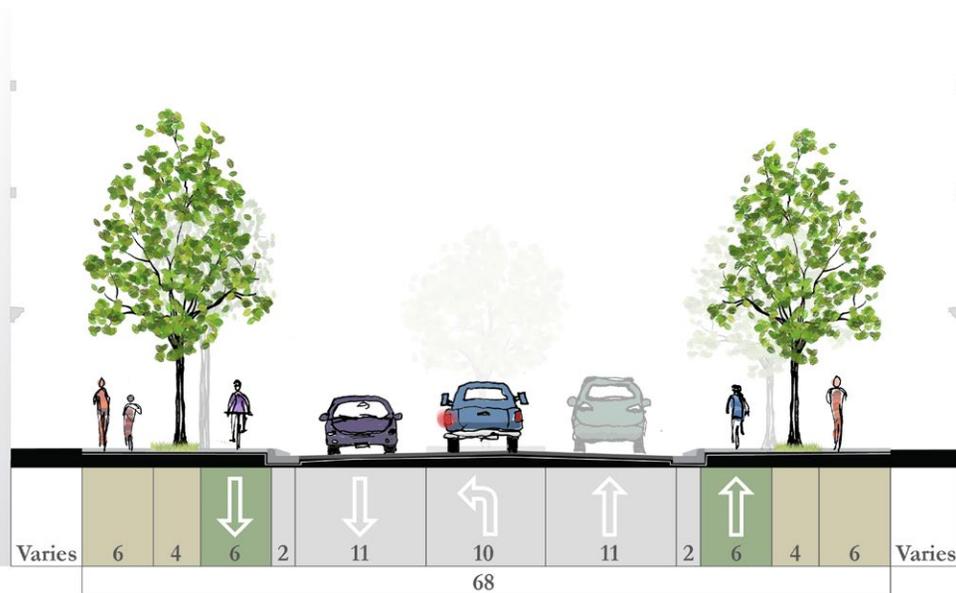
Montreal Avenue between Cretin Avenue and Cleveland Avenue serves as the main street accessing the site from the east. It is designed as a through street with two lanes of travel and a center turn lane, dedicated bicycle lanes next to the traffic lanes, and no on-street parking. A six foot tree-lined boulevard and six-foot sidewalk line the edges.



TOTAL RIGHT-OF WAY		73
CURB TO CURB DISTANCE		53
VEHICULAR	2-way (feet/lane)	11
	Median/turn lane (feet)	11
	Curb reaction distance per side (feet)	2
	<i>Total Vehicular ROW</i>	37
BIKE	Separated - 1 per side (feet/lane)	6
	<i>Total Bike ROW</i>	12
PEDESTRIAN	Sidewalk (feet/side)	6
	Boulevard (feet/side)	6
	<i>Total Pedestrian ROW per side</i>	12

## Mount Curve Boulevard (North)

Mount Curve Boulevard between Ford Parkway and Beechwood Avenue is an access road into and out of the site. It has two lanes of travel and a center turn lane, dedicated bicycle lanes next to the traffic lanes, and no on-street parking. A four foot tree-lined boulevard and six-foot sidewalk line the edges. The center median could be planted when not needed for vehicular movements to continue the pattern from the north.

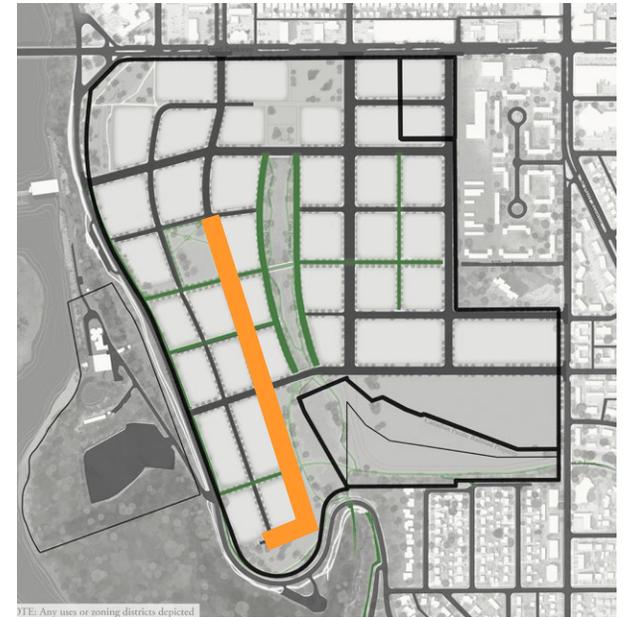
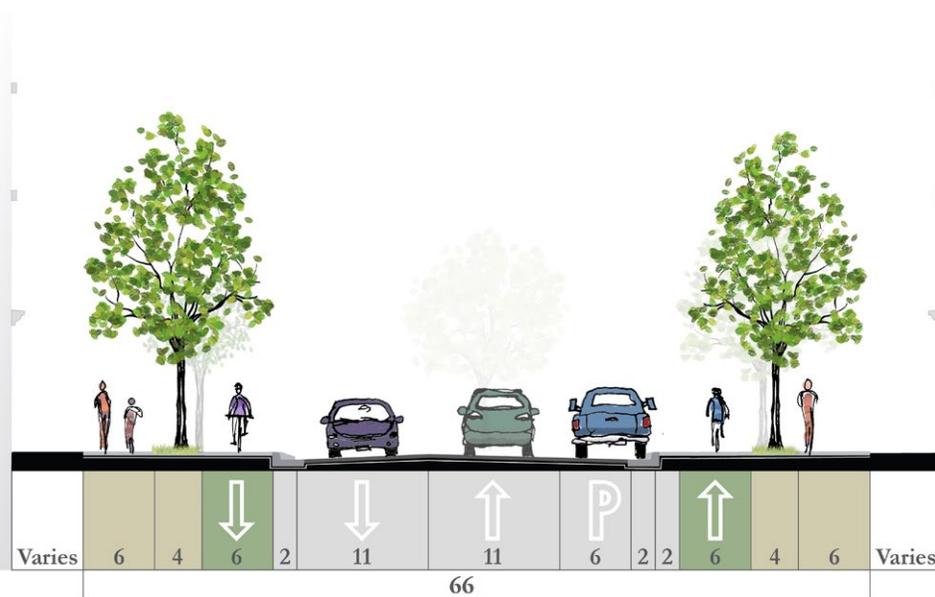


ME: Any uses or zoning districts depicted

TOTAL RIGHT-OF WAY		68
CURB TO CURB DISTANCE		52
VEHICULAR	2-way (feet/lane)	11
	Median/turn lane (feet)	10
	Curb reaction distance per side (feet)	2
	<i>Total Vehicular ROW</i>	36
BIKE	Separated - 1 per side (feet/lane)	6
	<i>Total Bike ROW</i>	12
PEDESTRIAN	Sidewalk (feet/side)	6
	Boulevard (feet/side)	4
	<i>Total Pedestrian ROW per side</i>	10

## Mount Curve Boulevard (South)

Mount Curve Boulevard south of Beechwood Avenue is a local street with two lanes of travel, one side of on-street parking, and dedicated bicycle lanes in each direction. The bicycle lane on the east is buffered from traffic by the parking lane. A four foot tree-lined boulevard and six-foot sidewalk line the edges.

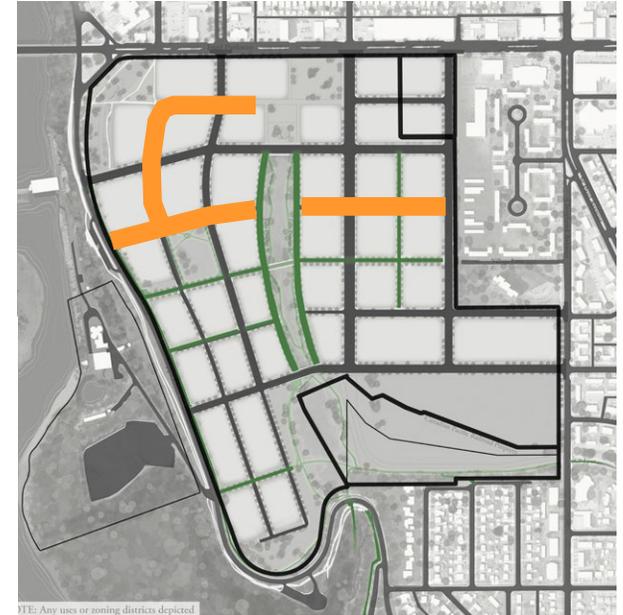
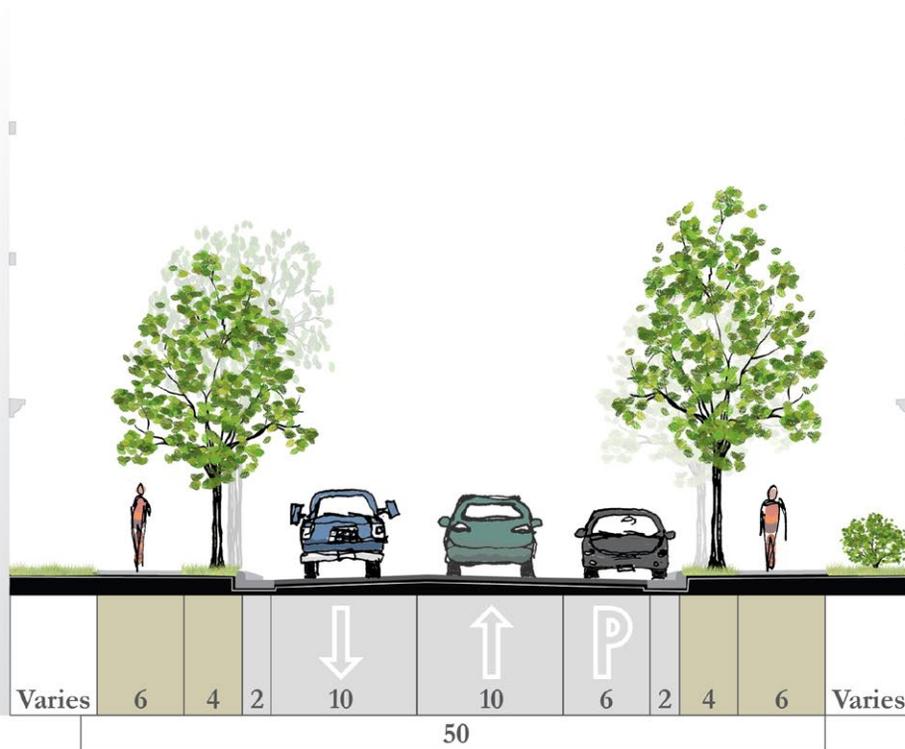


ME: Any uses or zoning districts depicted

TOTAL RIGHT-OF WAY		66
CURB TO CURB DISTANCE		32
VEHICULAR	2-way (feet/lane)	11
	Curb reaction distance per side (feet)	2
	<i>Total Vehicular ROW</i>	26
PARKING	1-sided parking (feet/lane)	6
	<i>Total Parking ROW</i>	6
BIKE	Separated - 1 per side (feet/lane)	6
	Door zone	2
	<i>Total Bike ROW</i>	12
PEDESTRIAN	Sidewalk (feet/side)	6
	Boulevard (feet/side)	4
	<i>Total Pedestrian ROW per side</i>	10

## Woodlawn (North) and Beechwood

These are narrow, local streets with two lanes of travel and one side of on-street parking. A four foot tree-line boulevard and six-foot sidewalk line the edges.

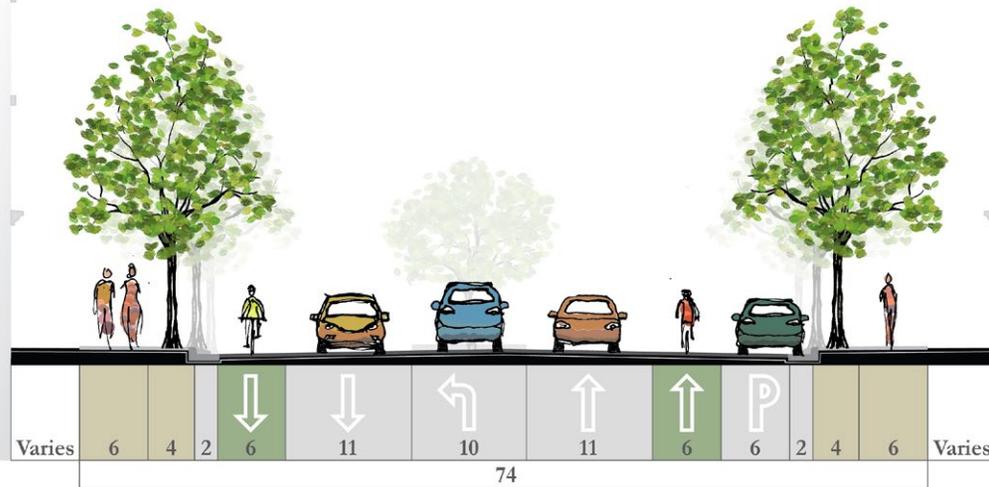


ME: Any uses or zoning districts depicted

TOTAL RIGHT-OF WAY		50
CURB TO CURB DISTANCE		30
VEHICULAR	2-way (feet/lane)	10
	Curb reaction distance per side (feet)	2
	<i>Total Vehicular ROW</i>	24
PARKING	1-sided parking (feet/lane)	6
	<i>Total Parking ROW</i>	6
PEDESTRIAN	Sidewalk (feet/side)	6
	Boulevard (feet/side)	4
	<i>Total Pedestrian ROW per side</i>	10

## Bohland Avenue

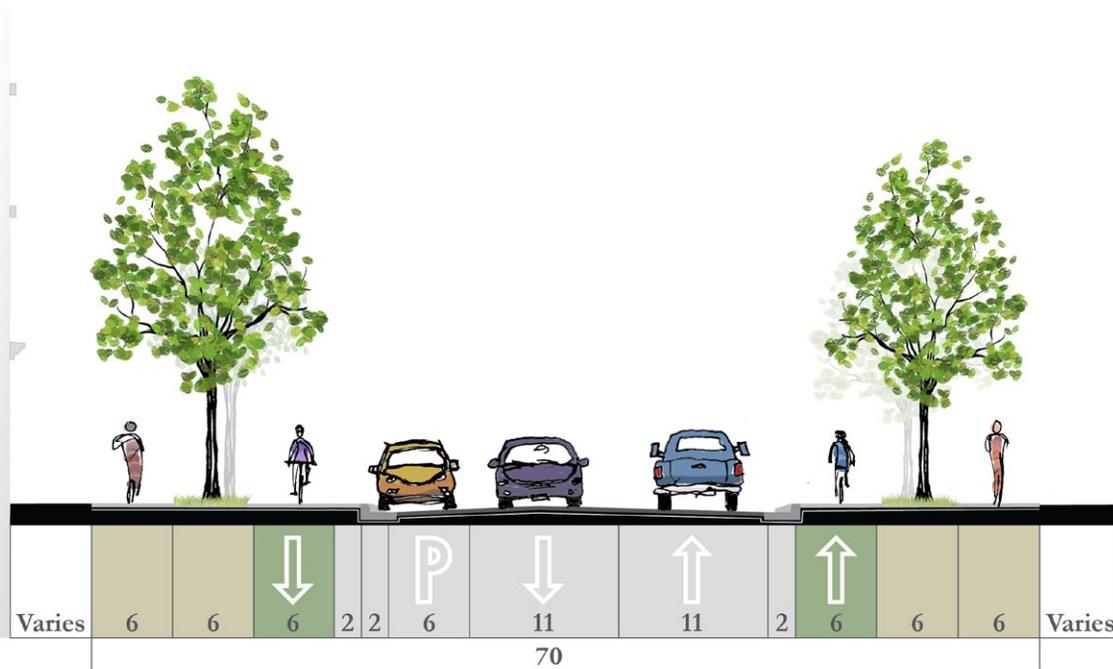
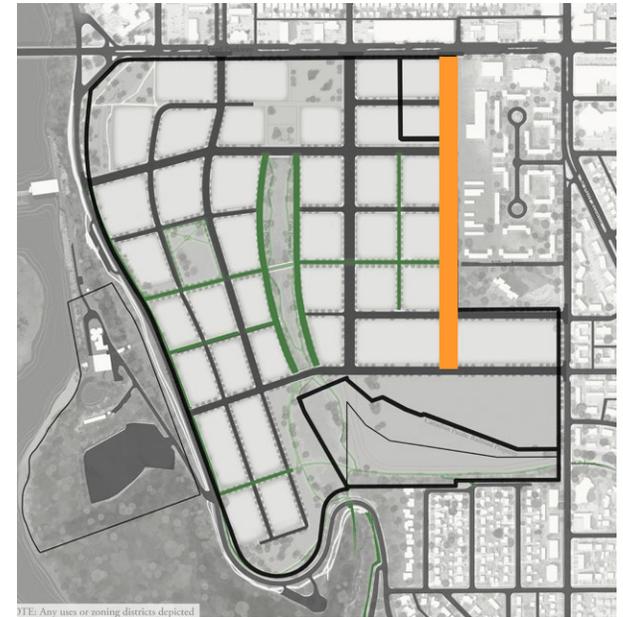
Bohland Avenue is one of the main east-west roadways on the site. It connects Mississippi River Boulevard in the west to Finn Street in the east. Street parking is allowed on one side of the street for access to the square, retail district, and stormwater feature. There are dedicated bike lanes in each direction. A turn lane allows access to parking. A four foot tree-lined boulevard and six-foot sidewalk line the edges.



TOTAL RIGHT-OF WAY		74
CURB TO CURB DISTANCE		58
VEHICULAR	2-way (feet/lane)	11
	Median/turn lane (feet)	10
	Curb reaction distance per side (feet)	2
	<i>Total Vehicular ROW</i>	36
PARKING	1-sided parking (feet/lane)	6
	<i>Total Parking ROW</i>	6
BIKE	Separated - 1 per side (feet/lane)	6
	<i>Total Bike ROW</i>	12
PEDESTRIAN	Sidewalk (feet/side)	6
	Boulevard (feet/side)	4
	<i>Total Pedestrian ROW per side</i>	10

## Finn Street

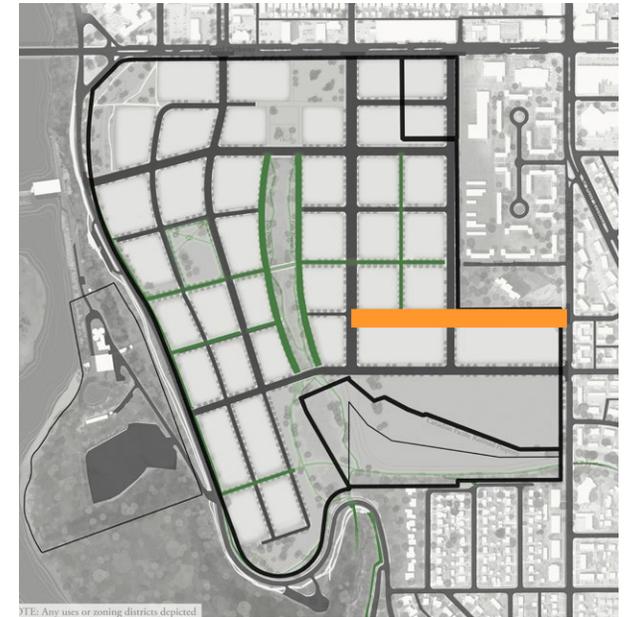
Finn Street connects between Ford Parkway and Montreal Avenue, offering an alternative route for north-south travel on and through the site. It has two lanes of travel, a parking lane on the west side, and dedicated bicycle lanes in each direction. The bicycle lane on the west is buffered from traffic by the parking lane. A six foot tree-lined boulevard and six-foot sidewalk line the edges.



TOTAL RIGHT-OF WAY		70
CURB TO CURB DISTANCE		32
VEHICULAR	2-way (feet/lane)	11
	Curb reaction distance per side (feet)	2
	<i>Total Vehicular ROW</i>	26
PARKING	1-sided parking (feet/lane)	6
	<i>Total Parking ROW</i>	6
BIKE	Separated - 1 per side (feet/lane)	6
	Door zone	2
	<i>Total Bike ROW</i>	12
PEDESTRIAN	Sidewalk (feet/side)	6
	Boulevard (feet/side)	6
	<i>Total Pedestrian ROW per side</i>	12

## Saunders Avenue (East)

Saunders Avenue is the only road, other than Montreal, offering an east connection to the site. It runs two blocks between Cleveland and Cretin Avenues. It has two lanes of travel, a center turn lane, and a parking lane on the north side. A four foot tree-lined boulevard and six-foot sidewalk line the edges.

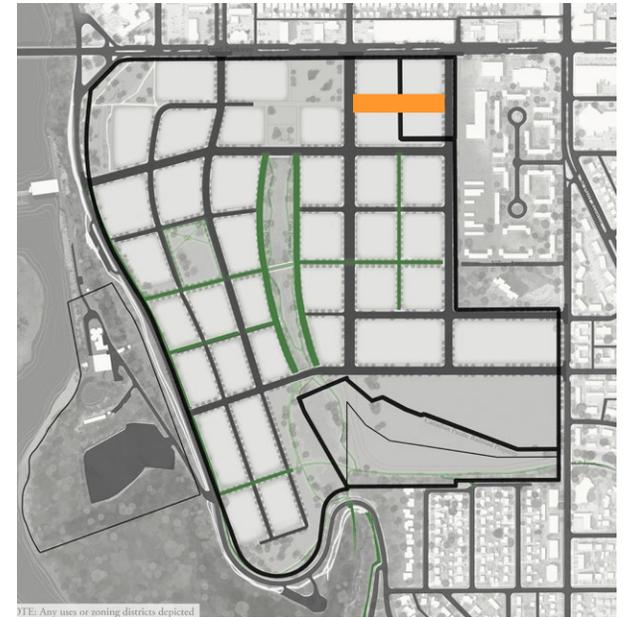
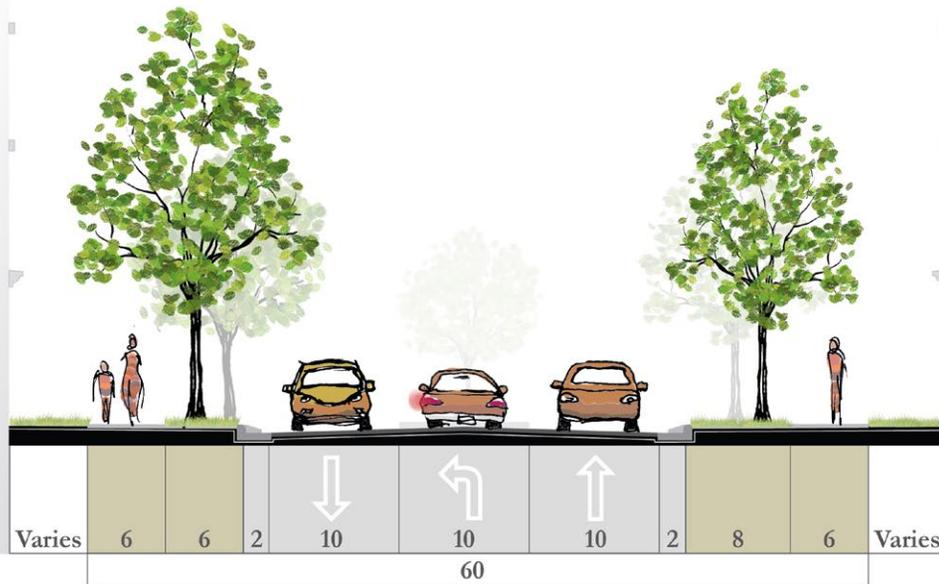


ME: Any uses or zoning districts depicted

TOTAL RIGHT-OF WAY		60
CURB TO CURB DISTANCE		44
VEHICULAR	2-way (feet/lane)	10
	Median/turn lane (feet)	10
	Curb reaction distance per side (feet)	2
	<i>Total Vehicular ROW</i>	34
PARKING	1-sided parking (feet/lane)	6
	<i>Total Parking ROW</i>	6
PEDESTRIAN	Sidewalk (feet/side)	6
	Boulevard (feet/side)	4
	<i>Total Pedestrian ROW per side</i>	10

## Hillcrest

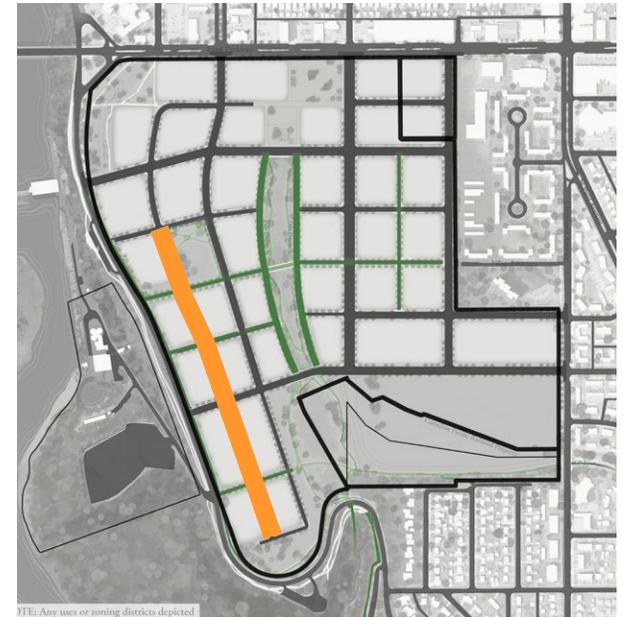
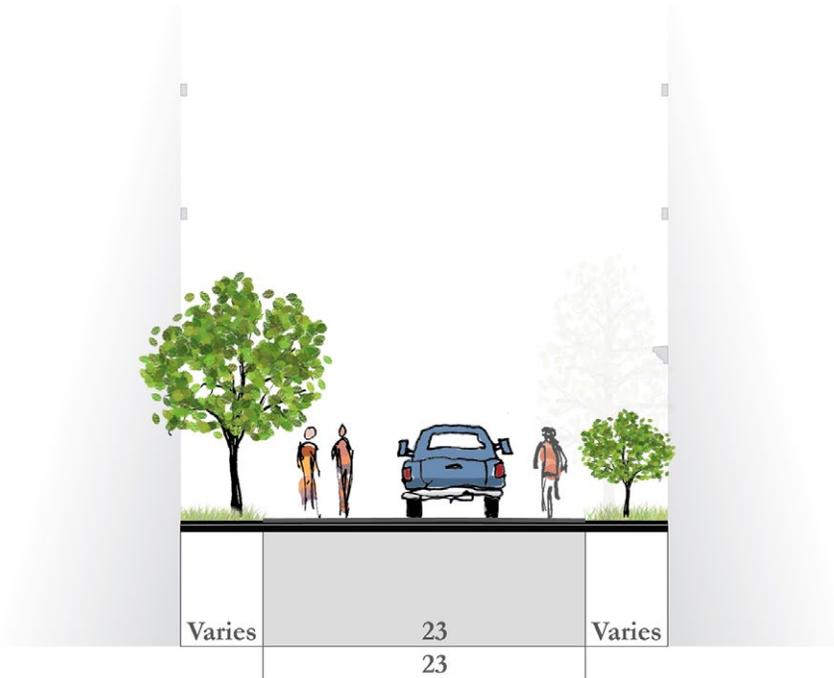
Hillcrest Avenue is a short connector street linking Finn Street and Cretin Avenue. It is intended for local circulation and to provide access to interior parking and building services. It has two lanes of travel and a center turn lane. A six foot tree-lined boulevard runs along the south side and an eight foot tree-lined boulevard along the north, to provide more access to sunlight. A six foot sidewalk runs along each side.



TOTAL RIGHT-OF WAY		60
CURB TO CURB DISTANCE		34
VEHICULAR	2-way (feet/lane)	10
	Median/turn lane (feet)	10
	Curb reaction distance per side (feet)	2
	<i>Total Vehicular ROW</i>	34
PEDESTRIAN	Sidewalk (feet/side)	6
	Boulevard (feet/side)	6,8
	<i>Total Pedestrian ROW per side</i>	12,14

## Woodlawn Lane (South)

Woodlawn Lane is a shared lane for local travel only to the adjacent blocks and residences. There is no demarcation within the 23 foot wide right-of-way to separate cars, pedestrians and bicycles. All users will share the lane and travel speeds will be very low. Since pedestrians and bicyclists are intended to use the lane for travel, there is no adjacent boulevard or sidewalk space. A private setback for vegetation and driveways will separate buildings from the roadway.



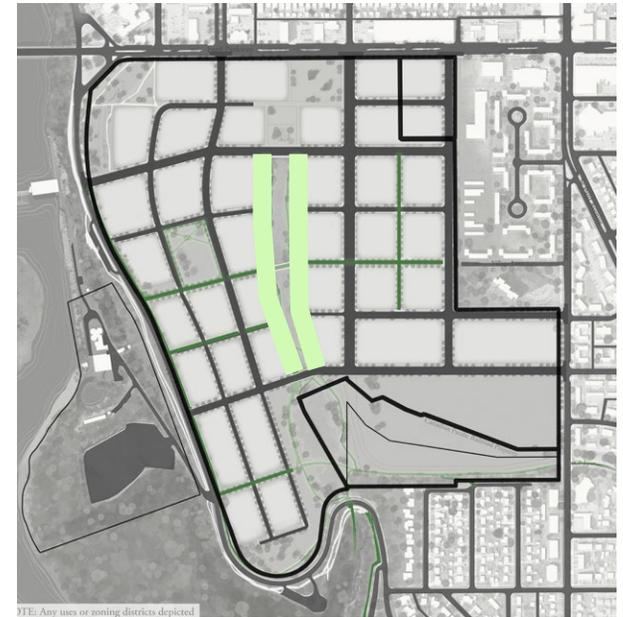
TOTAL RIGHT-OF WAY	23
CURB TO CURB DISTANCE	23
VEHICULAR	Shared
BIKE	
PEDESTRIAN	

## Falls Passage (East and West)

Falls Passage is the main north-south pedestrian and bicycle connection through the site, connecting the civic square and Highland Village in the north to Hidden Falls and the Mississippi River beyond. The rights-of-way line the stormwater feature, which will be designed and engineered in the future. The paved area would allow emergency vehicle access and the boulevard space would allow for amenities to support the pathway and stormwater feature.



For illustration only. Design and engineering to be completed at a future date.

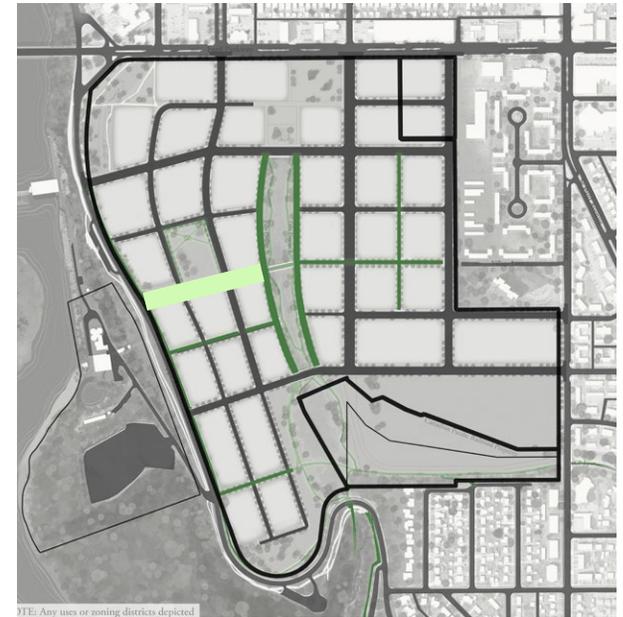
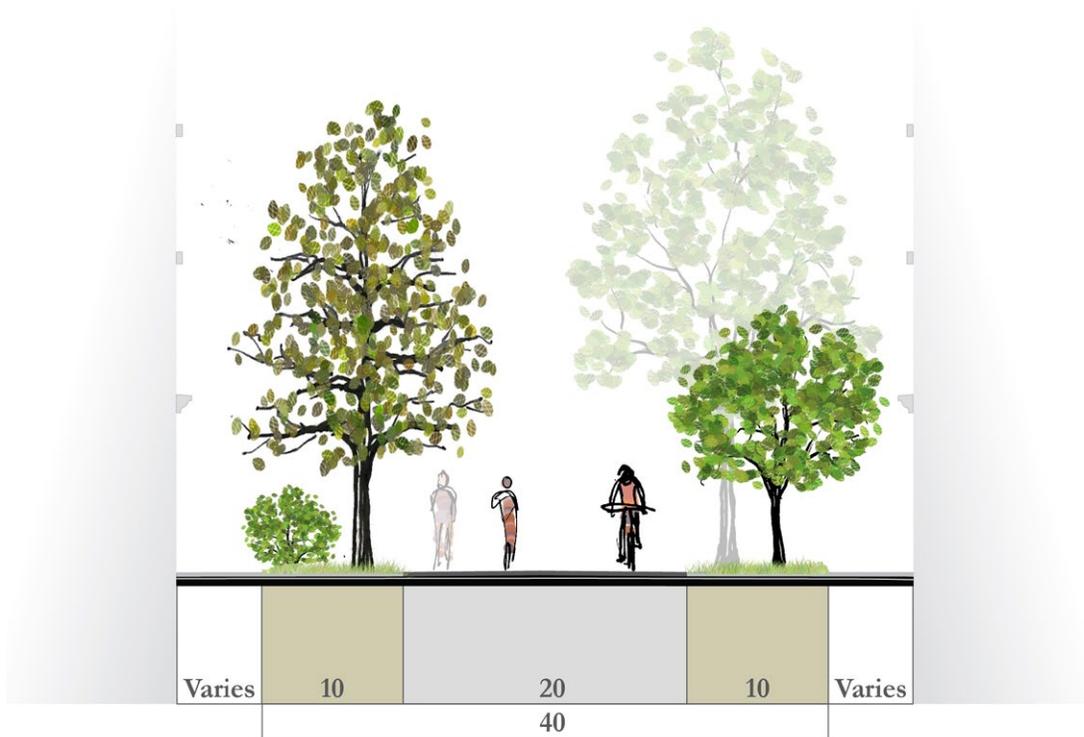


NOTE: Any uses or zoning districts depicted

TOTAL RIGHT-OF WAY (Each)		34
PEDESTRIAN	Sidewalk (feet/side)	20
	Boulevard (feet/side)	14
	<i>Total Pedestrian ROW per side</i>	34

## Village Way (West)

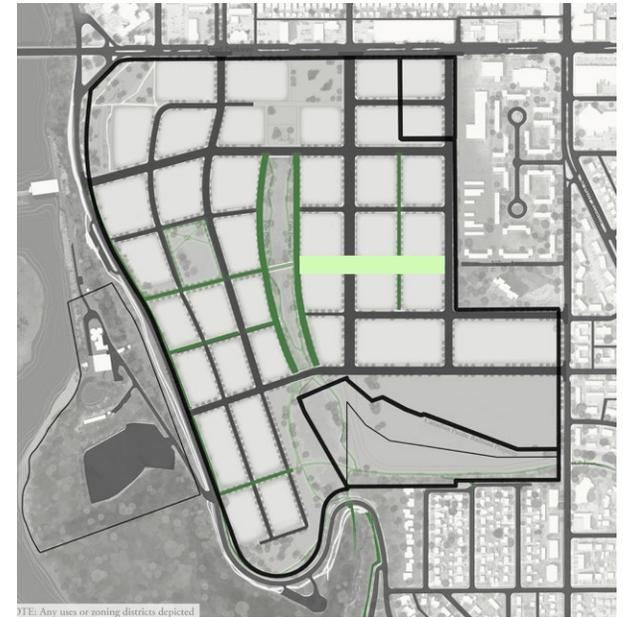
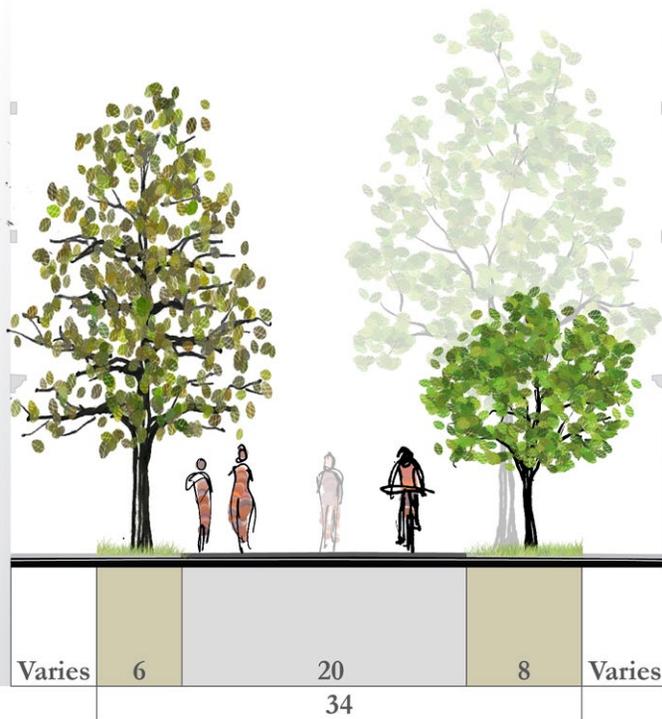
Village Way serves as the main east-west pedestrian and bicycle way through the site. It connects the existing neighborhood and development in the site to the Mississippi River. The landscaped areas are wide to enhance the park-like experience of connecting important pieces of the public realm. The paved section is wide enough to allow emergency vehicle access.



TOTAL RIGHT-OF WAY		40
BIKE	Shared	20
PEDESTRIAN		
BOULEVARD	Feet per side	10

## Village Way (East)

Village Way to the east of the stormwater feature has the same function as the west. The spacing on the boulevard is offset to increase the area receiving greater solar access since the allowed heights in this area are greater.

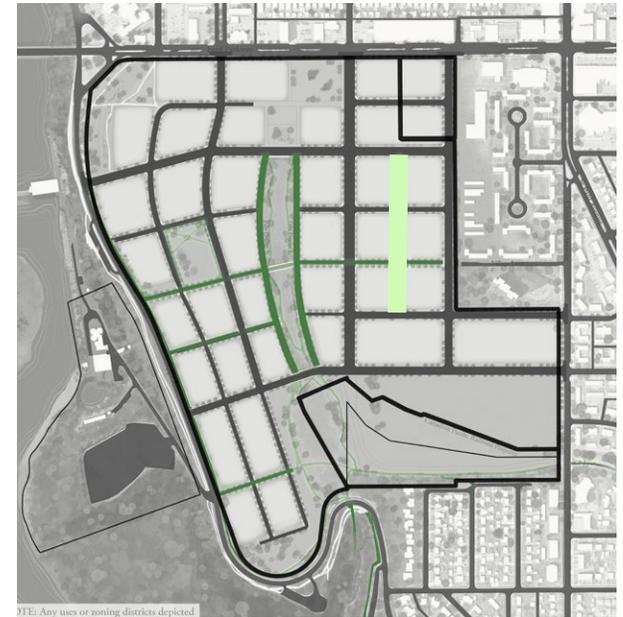
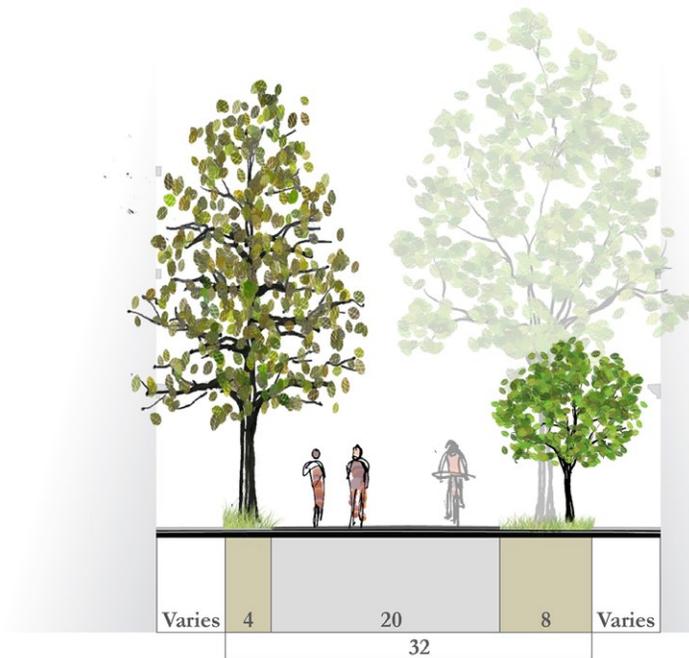


ME: Any uses or zoning districts depicted

TOTAL RIGHT-OF WAY		34
BIKE	Shared	20
PEDESTRIAN		
BOULEVARD	Feet per side	6,8

## Ranger Way

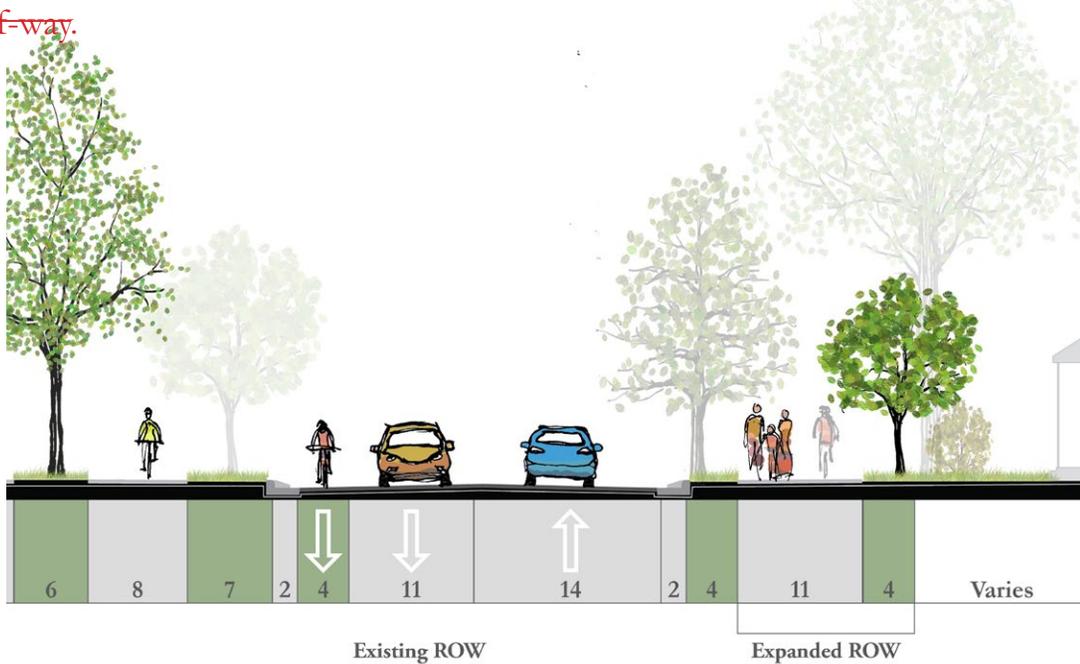
Ranger Way serves as a linear courtyard and connection within the area of greatest density on the site. A shared pedestrian and bicycle way is wide enough for emergency vehicular access.



TOTAL RIGHT-OF WAY		32
BIKE	Shared	20
PEDESTRIAN		
BOULEVARD	Feet per side	4,8

## Mississippi River Boulevard Trail

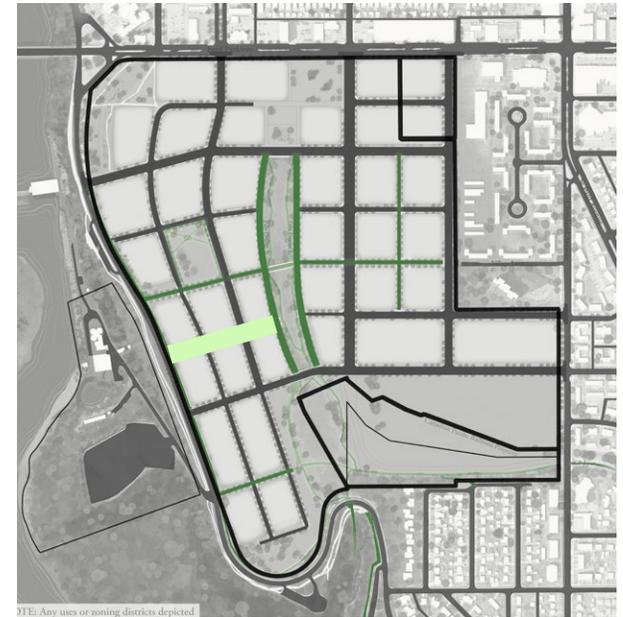
A multi-use trail on the east side of Mississippi River Boulevard would allow safer and more enjoyable use of the Boulevard by giving people the option to move on that side. This plan does not propose extending the trail further south than a Hidden Falls connection. This plan shows the current alignment of Mississippi River Boulevard remaining as-is. However, in the event that a possibility to expand Hidden Falls Regional Park at the blufftop emerges, realignment of Mississippi River Boulevard at the southern end of the site should be considered to accommodate the park boundary change, nor does it make recommendations for altering the existing Mississippi River Boulevard right-of-way.



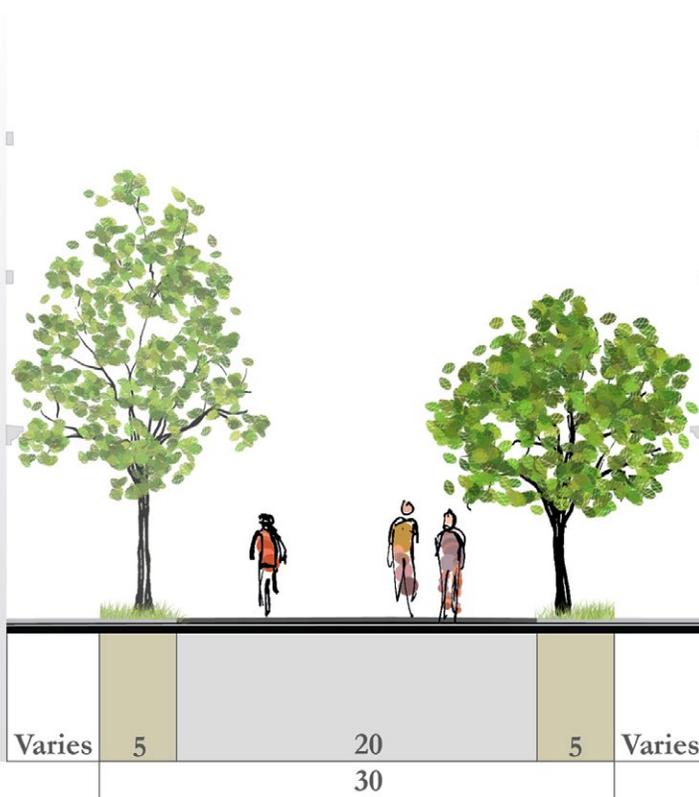
EXPANDED RIGHT-OF WAY		15
BIKE	Combined Path	11
PEDESTRIAN		
BOULEVARD		4

## Galaxie Way (West of Stormwater)

Galaxie Way west of the stormwater corridor breaks up a potentially long block and allows more access options between the Mississippi River and the stormwater feature.



ME: Any uses or zoning districts depicted



TOTAL RIGHT-OF WAY		30
BIKE	Shared	20
PEDESTRIAN		
BOULEVARD	Feet per side	5

This page left intentionally blank.

## 6.4 Stormwater Management System Plan and Standards

### *Vision*

**Re-create the historic Hidden Falls Headwaters feature, naturalize the existing downstream creek, reconnect the future neighborhood to the river by means of an open-water flow path, and create a model for sustainable and resilient infrastructure development.**

### *Stormwater Goals*

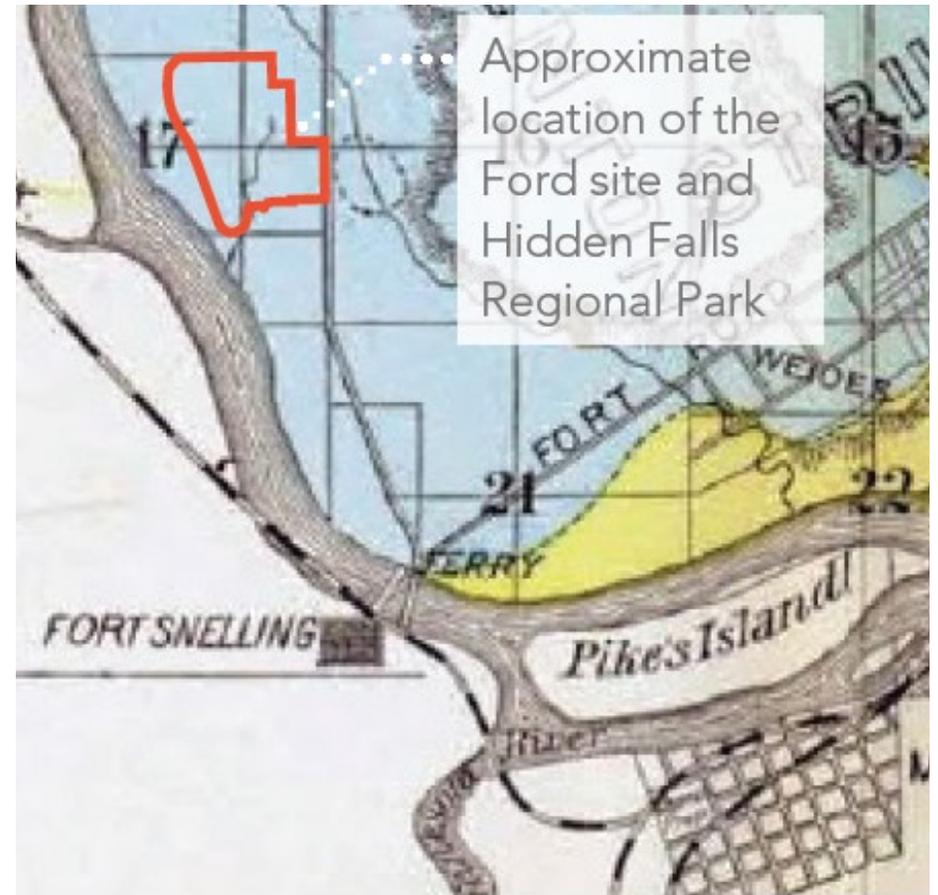
-  Incorporate a naturalized Hidden Falls and restored Hidden Falls Creek into the Ford Site
-  Treat stormwater as a resource, and not a waste stream
-  Move toward fulfilling the City's stated sustainability and public realm goals for the project
-  Increase community benefits while reducing big-picture impacts and conserving energy, water, and resources
-  Generate a higher sustainable return on investment by providing more big-picture community benefits per dollar invested



### *Historical Perspective*

The current condition of Hidden Falls Regional Park and Hidden Falls Creek represents the geological history along the Mississippi River, as well as recent activity associated with the Ford site. Prior to the development of the Ford Motor Company complex, a stream originated near what is now Cleveland Avenue and Ford Parkway—flowing southwest across the Ford site to Hidden Falls. That stream was buried during subsequent development, flowing through a culvert beneath Mississippi River Boulevard and daylighting at Hidden Falls.

The hydrology of Hidden Falls Creek is primarily generated as stormwater runoff from the surrounding watershed. The urbanization of the watershed, in conjunction with the nearly 100-foot elevation change from the falls to the river, has created a high-energy stream system.



Map of Ramsey County, 1867 (Winchell)

### The Centralized Stormwater Concept

Runoff from the entire site will be directed to and managed in a primarily above-grade centralized green infrastructure corridor. The corridor would re-create the original headwaters feature. Downstream, Hidden Falls Creek would be restored and associated natural areas linked to the development. The community would benefit from green space and developers would not be required to manage stormwater on individual parcels.

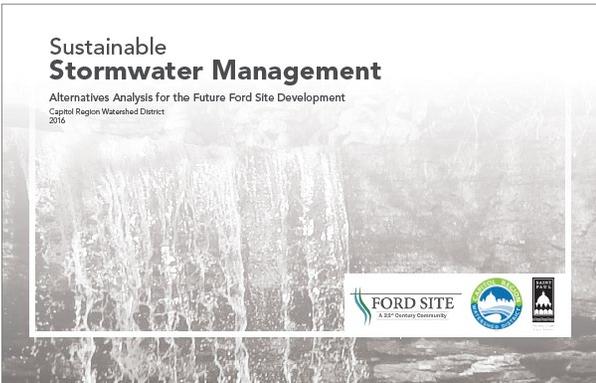




### *Restoration Potential*

Redevelopment of the Ford site also offers the opportunity to protect and restore some of the area’s natural resources: Hidden Falls Creek and Hidden Falls. The creek, which once meandered across the Ford site to Hidden Falls, was buried prior to the plant’s construction and operation (1925). As a result, high stormwater runoff rates and volumes have eroded the area below the falls. A Ford Site stormwater management system shall emphasize strategies for collection, treatment, and release to achieve the following:

- **Restoration of Hidden Falls Creek** with a more naturalized flow regime.
- **Reduction of stormwater runoff rates to their pre-settlement levels-** subsequently reducing erosion, returning the surface water-groundwater connection, and improving resiliency.
- **Development of a natural corridor amenity,** linking the redeveloped area to Hidden Falls Creek and Hidden Falls.



More information about stormwater design and performance can be found in the report, Sustainable Stormwater Management: Alternatives Analysis for the Future Ford Site Development.

### **Design Recommendations:**

- Provide visual and material consistency between the site and Hidden Falls Regional Park. Design should be consistent with renovation plans for Hidden Falls Regional Park.
- Use natural features and materials, such as limestone boulders and native vegetation, to improve aesthetics, reduce erosion mitigation, and allow for ease of maintenance.
- Support educational opportunities to discuss the historical and ecological significance of Hidden Falls Regional Park.

Stormwater management is just one part of the City’s vision. A balanced blend of grey and green infrastructure will optimize use of developable land and ensure that residents and businesses benefit from a livable community, while impacts to the area’s ecosystem are reduced.

# CHAPTER 7: PARKS AND OPEN SPACE



**DRAFT (7/21/2017)**  
**For review by the**  
**Saint Paul Planning Commission**





## Introduction

Parks and open spaces at the Ford site are an essential element of a healthy, attractive and vibrant community. They improve the experience of people at the site and enhance value for adjacent and nearby users. Parks and open spaces expected at the site are categorized as one of six (6) major types:

- Gateway Park
- Civic Square
- Neighborhood Park
- Pocket Parks
- Hidden Falls Headwater Park
- Recreational Fields

Each type is outlined below with a general description, location map, example images, and identifies key elements for the space. Design and performance standards for specific elements are provided in the Ford Site Open Space Guidelines Report, found on the City's Ford web pages.

Open Space System



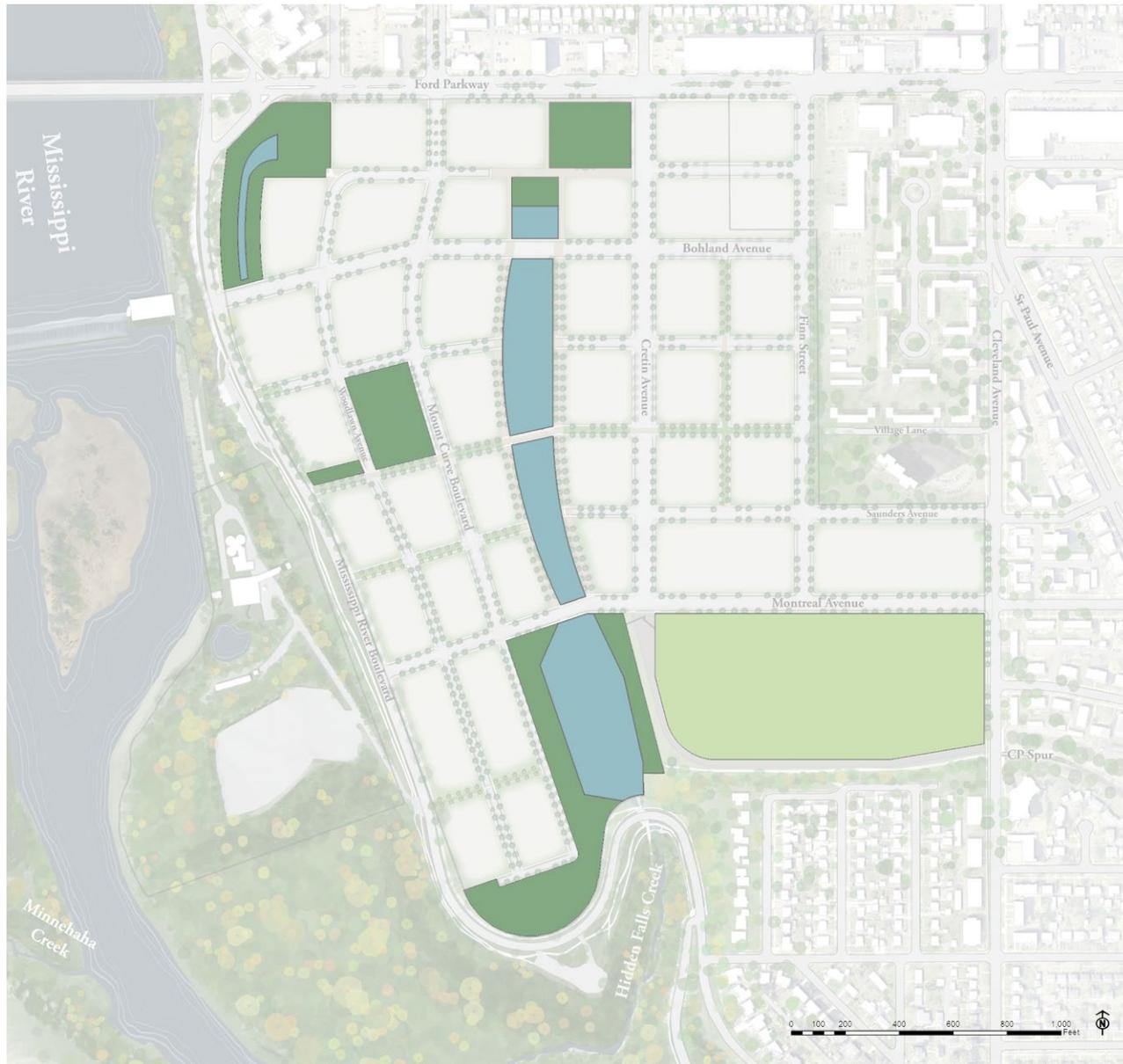
PUBLIC OPEN SPACE

- ① Gateway Park
- ② Civic Square
- ③ Neighborhood Park
- ④ Pocket Park
- ⑤ Hidden Falls Headwaters Feature
- ⑥ Walking and Biking Paths

NON-PUBLIC OPEN SPACE

- ⑦ Recreational Fields

Open Space Types



The open space system is intended to feel continuous in everyday experience. There are three distinct categories of open space types. The first is the traditional city park, which is acquired through parkland dedication and would become part of the city’s park system. The second is the stormwater spine, which may feel like a park, but technically serves a utility function. A third category is a non-public recreation space, which is neither owned nor operated by the city, but is an allowed use in all zoning districts. It is included here to reflect the vision of the community to see a continuation of recreational fields on the site.

OPEN SPACE TYPES

- City Park
- Stormwater Infrastructure
- Non-Public Recreation

## Gateway Park

A gateway park at the northwest corner of the site will provide one of the first impressions of Saint Paul as people come over the Ford Parkway Bridge from Minneapolis, and will serve as a key visual entry into the site. The gateway park will be at the juncture of Mississippi River Boulevard and Ford Parkway, at the intersection of commerce and nature. Design of the park can serve as a transition between these two worlds, incorporating a mix of attractive hardscape and vegetation. The park should serve as a vibrant gathering place for the community and visitors to the area. Public art, design and amenities can provide a distinctive and unique character to the place, fitting to its role as a “gateway.”

### Potential Elements:

- Public art
- Water feature
- Public/private seating and tables for eating, games, other
- Picnic area
- Playground
- Dog park
- Community garden





### *Civic Square*

A civic square will serve as the focal point for community gathering throughout the day and year, for employees, residents, visitors and the Highland Community. The square will be located on the north end of the site near Ford Parkway, providing a link between the commerce and activity of Highland Village and the newly developed Ford site.

The public square will be lined with retail, service, residential and office uses, providing a critical mass of activity and people around the space. The square will be a pedestrian-only space, with vehicular access only for deliveries, cleaning, and emergency during restricted hours and from designated access points. Tenants choosing the office, residential and business frontages on the civic square, will be those that thrive in active, pedestrian environments, and seek a unique, place-based location that is rare to find in the region. All buildings lining the square will have vehicular access at the rear or in structured parking.



Potential elements for considered inclusion in the civic square are identified below. Particular emphasis will be placed on creating a flexible space that allows for a range of activities and community events throughout the year. The square is envisioned to be well lined with active commerce, particularly seasonal outdoor dining.



### **Potential Elements:**

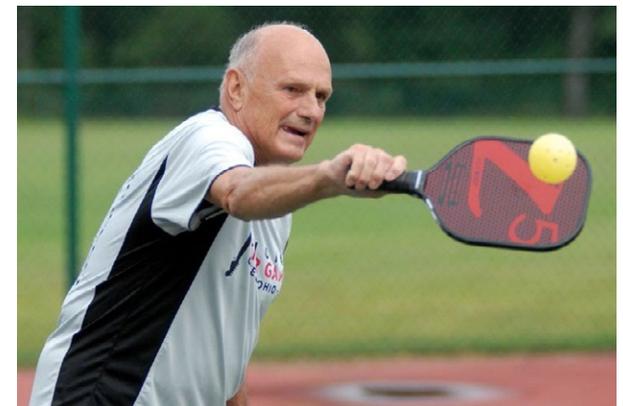
- Public art
- Water feature
- Flex stage and gathering area for performances, markets, etc.
- Public/private seating and tables for eating, games, other

### *Neighborhood Park*

A neighborhood park towards the southern end of the site will provide a new community location for outdoor play and recreation for all ages. Key elements of the park will include a picnic area, a playground, and an open field for pick-up games and community gatherings. The park will be designed for all ages, providing a place to actively enjoy the outdoors for a variety of ability levels. The park will have a natural character and landscape design, with perhaps some formal garden or planting areas. If space and design allows, other desired elements to include in and near the neighborhood park are a designated off-leash dog area, a community garden, a flex athletic field, and an ice skating area. The neighborhood park will be closely linked to other recreation and parks both on and off the site with a series of walking and biking paths.

#### **Potential Elements:**

- Picnic area
- Playground
- Open field
- Community garden
- Dog park
- Ice skating
- Small sport facilities





### *Pocket Parks*

Pocket parks are small, public open spaces, typically less than 1-acre, where people can relax, play or gather outdoors. They are tucked into and scattered throughout a neighborhood to serve a variety of needs. Functions can include small event space, play areas for children, spaces for relaxing or meeting friends, taking lunch breaks, and enjoying the outdoors. They can be a refuge from the bustle of surrounding urban life and offer opportunities for rest and relaxation. Pocket parks may be owned and maintained publicly or privately, as long as they are open for use to all members of the public. Pocket Parks are a useful tool to activate the public realm and utilize small undeveloped areas of land.



### **Potential Elements:**

- Places to sit
- Play activity for kids, adults and/or seniors
- Attractive landscaping
- Small space for public gathering or events
- Small formal gardens or community garden plots
- Dog suitable area for on-leash visitors



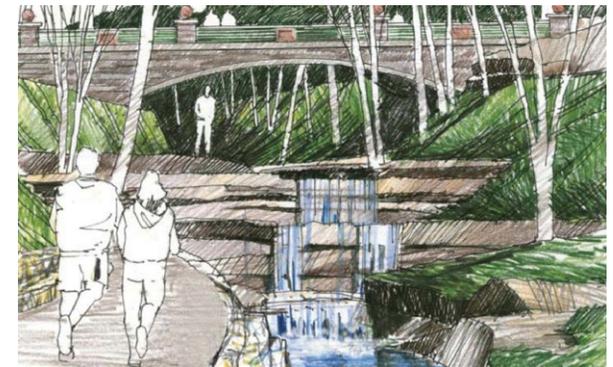
### *Hidden Falls Headwater Feature*

The Hidden Falls Headwater Feature at the southern end of the site will act as a smooth transition between the open space network of the Ford site and Hidden Falls Regional Park. The area will use natural landscaping and support passive uses by park goers. It will serve as a major access point for both human users and wildlife to move between the park and new development, and should be designed for the safety and accessibility of users.

Hidden Falls Regional Park is vulnerable to flash floods from heavy rainfall and water runoff from existing and future upstream development. The headwater feature should be engineered to channel water from a stormwater management system on the Ford Site and through Hidden Falls Park in such a way as to reduce erosion and flooding downstream.

#### **Potential Elements:**

- Bike and pedestrian trails
- Small picnic and rest areas, with vistas to Hidden Falls Park and the Mississippi River
- Safe access points between new Ford development and Hidden Falls Regional Park





### *Recreational Fields*

New recreational fields for private, non-profit recreational groups, can continue to serve the needs of youth and neighborhood sports organizations, ~~such as Highland Little League~~. The fields would be best located ~~in the southeast corner of the site~~ to minimize any negative impacts of activity and lights on residential properties. The fields could be connected to the wider public park network through bike and pedestrian trails. In addition to the recreational fields, support facilities will be built on site to serve the athletes and visitors.

### **Potential Elements:**

- Recreational fields
- Restrooms
- Concession building
- Storage building
- Play and picnic area with seating, tables, and shelter
- Some on-site surface parking and drop-off / pick-up area
- Bike racks





**DRAFT (7/21/2017)**  
**For review by the**  
**Saint Paul Planning Commission**



## 8.1 Introduction

In keeping with the visionary aspirations for the Ford Site Redevelopment established by the City of Saint Paul, by the public in planning meetings, and by the Ford Site Task Force, the public art for this new mixed-use area will be equally visionary and will advance the overall goals for this new urban village. This redevelopment presents a once-in-a-century opportunity to build from the ground up (and even from the underground up) a 122-acre development within an already developed urban context. For public art, this presents a rare opportunity to integrate public art into an entire neighborhood from the outset of its design, not only into one site or one building. It also offers the opportunity for public art approaches to underpin the public art planning process. Public art will be a critical element to make this new neighborhood a global model of progressive urban design.

A public art plan will employ the leading ideas and processes in the field of public art and urban design today. “Tactical urbanism,” an approach that tests design ideas with the public before committing to projects and resources, will be adopted, as will ongoing community discussions set in neighborhood gathering spaces over at least a year-long period. This dynamic, durational approach will ensure that the public art plan will be relevant, utilized, and impactful. In addition to a written, illustrated public art plan, we will also include public presentations of the final plan to share its recommendations with developers, community organizations, residents, artists, and arts organizations.

## 8.2 Vision

Public art will be integrated systematically into this large site to advance good design of urban infrastructure, public places, green spaces, relationships to the Mississippi River and Hidden Falls, and to link new development into the Highland Park context. Public art will help to foster vibrant social life of the community, inviting people of all ages and backgrounds to share public spaces and enjoy time together.

Artists will play leading roles in shaping an overall plan for public art for this redevelopment, viewing the site in a systems-based, networked way for elements of place, infrastructure, mobility, mixed-use spaces, play spaces, food spaces, and more to work together. Some artists will design community engagement opportunities to involve the public in imagining what could be created. Some artists will be commissioned to create temporary public art prototypes that can be tested and experienced by the public before plans are refined for permanent features. Some artists will serve as consultants to advise those leading the public art plan, spurring new ideas and approaches.



Fish Stairs, Seoul, South Korea

## 8.3 Public Art Processes and Possibilities

Drawing from the City’s goals for the Ford Site redevelopment and the public hopes expressed at public meetings and Pop Up meetings, this plan identifies 5 themes to guide approaches to the public art at the site:



The Clear Orb (proposed), Land Art Generator Initiative

### 1. *Futuristic/Future Imaginary*

Underpinning the redevelopment of the Ford Site is the importance of manifesting advanced design ideas and aspirational values about how our neighborhoods are planned and designed, fostering new modes of everyday living. Futuristic design, materials, technologies, and imagery in public art will express and embody hopeful visions of the future, while also serving as models of new design approaches to other neighborhoods.



Beckoning Cistern, Vine Street, Seattle

### 2. *Sustainability*

To support low impact development, public art in this development will be integrated into green infrastructure; reduce use of carbon-based energy sources; promote less reliance on car transportation; and promote everyday practices that use or reduce waste and use of chemicals. All will promote a more sustainable relationship with the extraordinary natural setting within which this development is sited.

### 3. Health

Public art that promotes physical activity, meditative experiences, access to healthy foods, and enjoyment of outdoor green spaces, will promote greater human health. Public art located in engaging gathering spaces will bring neighbors together to see, interact with, and enjoy each other, promoting greater social health and cohesion.

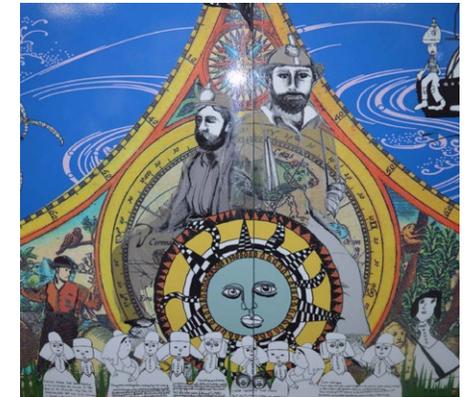


Left: Inmotion: Memories of Invented Play, Boston

Right: Vessel, Sculpture to be Climbed (proposed), New York

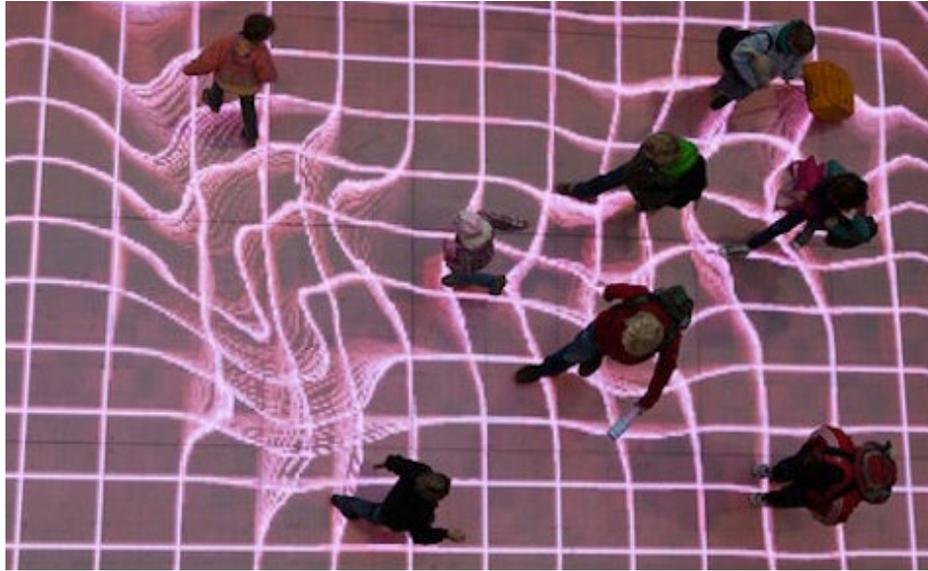
### 4. Heritage

Public art will make visible the layered histories of the Ford Site neighborhood, from Native American stories about important places to the Ford Motor Company manufacturing plant history. The cultures of diverse populations that have settled the area in the past and in more recent times will inspire art approaches and projects.



Left: Heritage Park, Lake Union, Seattle

Right: Mural of Cornish Mining Heritage, Devon, England



Onskebronn Interactive Plaza, Berlin

### 5. Playful Interactivity

To invite participation and enjoyment by residents and visitors, public art will take playful approaches and use interactivity rather than presenting only static sculptures to contemplate. Interactivity can be integrated into artworks, using old and new technologies, to involve people as co-creators in experiences. Playfulness promotes happiness and health and brings people together across generations and cultures.



Interactive musical swings, Montreal, Canada

## 8.4 Public Art Approaches

Myriad innovative ideas and approaches can grow out of this unique public art planning process. Rather than proscribe in advance the kinds of public art that could emerge at this early point, the process will build on ideas already generated in public meetings and then expand the voices and visions of the new urban village's future.

Here are some ideas that could inspire exciting directions:

### *Rotating Outside Exhibit*

Temporary Contemporary Curator and Programmer to activate space through outdoor exhibition/art work that is rotated annually and kept alive. Keep things fresh and invite artists to test ideas on an ongoing basis.



Lawrence Weiner Mural (Fourth on this wall), Boston

### *Integrated System-Based Public Art*

Public art that works within infrastructure to transform everyday city design and everyday city experiences. Projects that have already been tested and loved in the City of Saint Paul are Sidewalk Poetry and Artful Stop Sign Posts. What other systems could public art shift to make a whole new feel for this part of the city?



Sidewalk Poetry, Saint Paul



Northern Clay Center, Minneapolis, MN

### *Residency/Studio/Gallery*

A permanent art space for community workshops, shows, and residencies. Create a permanent space for continual engagement, a space that could host artists from across the world, show work all year round, and host community conversations.



Arco, Madrid

### *Gateway Piece*

Use public art to mark that people are entering a space of the future. Commission a major work of public art that could be Saint Paul's "Spoonbridge and Cherry" (by Claus Oldenburg and Cooyse Von Bruggen in Minneapolis Sculpture Garden) and represent not only the Ford Site but also the whole city. It could be an artwork that lets people know they are entering a truly different place, a new urban village.



**DRAFT (7/21/2017)**  
**For review by the**  
**Saint Paul Planning Commission**



## 9.1 Vision

The redeveloped Ford site will advance the key elements of sustainability -- economic, environmental and social. It will be a livable, mixed-use neighborhood that looks to the future with clean technologies and high quality design for energy, buildings and infrastructure. The site will support walking, biking and transit, and provide jobs, services, housing and activities that every generation can enjoy.

The Ford site should be a...

- Global model of sustainable, urban infill and carbon neutral design
- Neighborhood of regional significance and economic value
- Vibrant, fun place to live, work and play along the Mississippi valley
- Center of family-sustaining jobs
- Diverse blend of housing types and affordability levels
- Walkable, bikeable and transit oriented community
- Place for recreation, active lifestyles and leisure in a series of connected and distinctive parks, trails and open spaces
- Extension of the high quality shopping and services of Highland Village
- Demonstration site for the best technologies in infrastructure and buildings -- saving money, increasing efficiency, and reducing impacts on the environment

## 9.2 Roadmap to Sustainability for the Ford Site

### *Background*

The Roadmap to Sustainability for the Saint Paul Ford Site report completed in 2011, provided goals, performance standards and strategies to achieve a broad agenda of sustainability at the redeveloped Ford site. Many of the goals identified are advanced through the Zoning and Master Plan for the site, while others remain to be pursued through policy or other mechanisms. The goals, organized in eleven categories, should be advanced to the extent possible throughout site redevelopment. Environmental sustainability goals are:

#### *1. Building Energy*

- To maximize the use of renewable energy for buildings and infrastructure.
- To reduce operating energy use in all buildings and infrastructure.
- To maximize energy self-sufficiency.

#### *2. Transportation and Public Realm Network*

- To create a transportation infrastructure that balances modal choice between walking, biking, and vehicular movement.
- To reduce average vehicle miles driven by persons living, working and visiting the site.
- To increase average walking and biking miles per year for persons living or working on the site.
- To reduce energy use and Green House Gas (GHG) emissions related to high vehicle miles driven (VMD).
- To reduce adverse human health affects (such as asthma) related to air pollution.
- To maximize the diverse human benefits (such as childhood obesity reduction and lower family transportation costs) of safe and pleasurable pedestrian and multi-modal access to and from (on-site & off-site) transit stops, daily services, institutions, parks and public spaces.

#### *3. Materials*

- To reduce embodied energy use, GHG emissions and other environmental impacts associated with building, infrastructure, and landscape materials.



#### 4. Water and Wastewater

- To reduce potable water consumption in all buildings and landscapes.
- To reduce wastewater leaving the site to treatment plants from all buildings and landscapes by increasing onsite wastewater reuse.

#### 5. Solid Waste

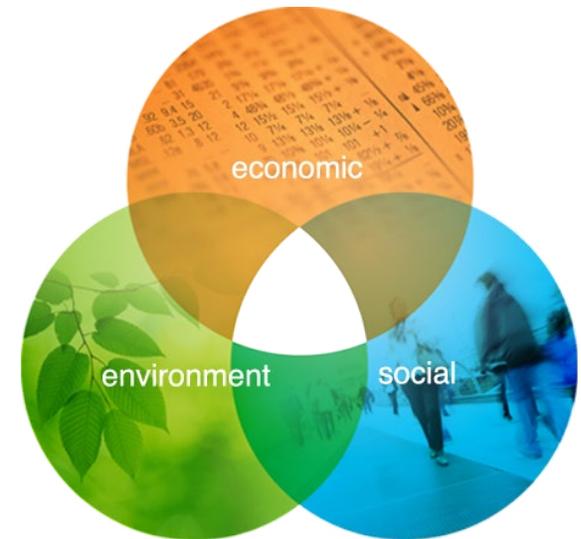
- To reduce solid waste from construction in all buildings and landscapes.
- To reduce solid waste from operation of all buildings and landscapes.

#### 6. Stormwater and Groundwater

- To minimize surface and ground water pollution.
- To minimize negative impacts of development on the hydrological cycle by treating stormwater as a resource and recharging groundwater through infiltration as local soils and subsurface conditions allow.
- To not exceed natural erosion and sedimentation levels in streams and lakes.
- To protect plant, invertebrate, and animal life in lakes and streams.
- To utilize stormwater runoff as a resource rather than as a waste product.
- To pre-treat all water flowing to Hidden Falls and maintain a more constant flow volume.

#### 7. Soil

- To protect and restore soil structure, stability, and biological health to optimize plant health and species richness and optimize water infiltration and filtration.
- To reduce soil loss and minimize disturbance of existing quality soil.
- To maximize on-site reuse of existing soils.
- To address impacted soil conditions on site.



### 8. *Vegetation and Habitat*

- To maximize biodiversity of the site and provide maximum possible contribution to local landscape ecology.
- To reduce destruction and removal of existing vegetation.
- To increase vegetation on site with new plantings.
- To provide wildlife habitat.
- To maximize ecological services on site and for the surrounding area.

### 9. *Recreation and Public Space*

- To improve personal health through increased physical activity, by providing on site facilities for a variety of active and passive exercise and recreational choices such as recreational walking and biking, informal play, or participation in organized sport activities.
- To encourage the development of (and connections to) biking and walking trails within, to, from and through the site.
- To encourage provision of and/or access to a comprehensive set of public gathering spaces for a full range of civic and community events.
- To provide space for community gardens, local agriculture, and the sale of locally-grown food.

### 10. *Night Sky Radiation*

- To reduce light emitted from site to the sky at night.
- To protect the environments of predator and prey.

### 11. *Urban Heat Island*

- To reduce urban heat island effects on site by reducing the heat absorption of materials used in buildings, landscaping and infrastructure.
- To increase vegetative cover to help keep the site and buildings cool in the summer.
- To reduce the need for air conditioning and irrigation in the summer.



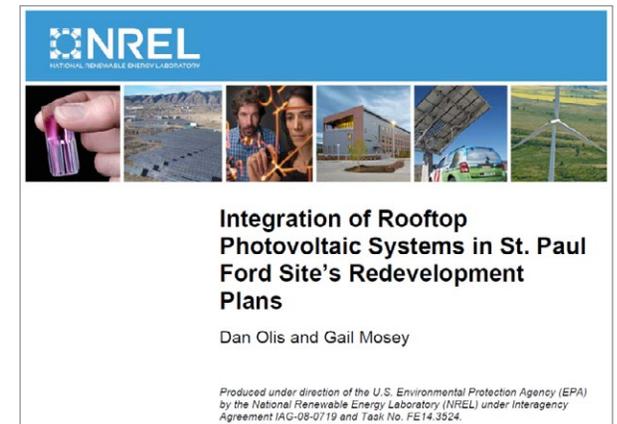
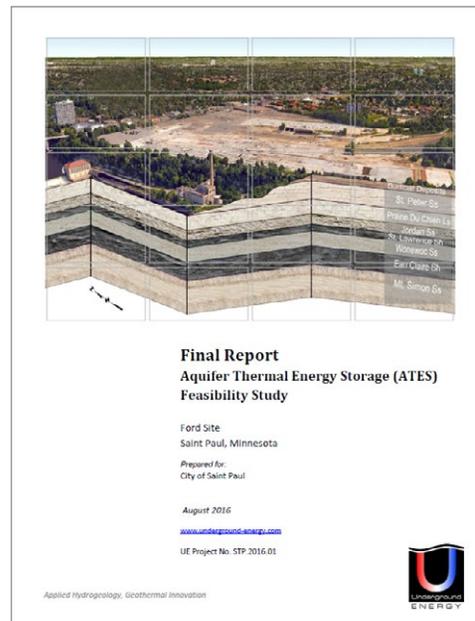
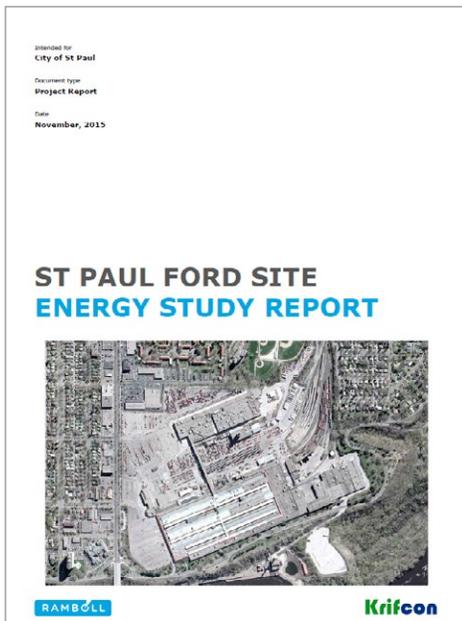
### 9.3 Sitewide Energy System

This project will build on Saint Paul’s demonstrated success of initiatives to improve energy efficiency, reduce fossil fuel use and expand renewable energy generation, but will take it to the next level by striving for a net-zero community.

The foundation of a sustainable Ford site redevelopment is a site-wide, integrated energy system that incorporates renewable energy sources and design efficiencies to reduce demand, reduce carbon emissions, and reuse energy.

The site will be redeveloped from scratch starting with installation of new utilities, streets, sewers and water. This provides an unprecedented opportunity to design and install a comprehensive and integrated energy system using the best, cutting edge technologies and systems appropriate to site conditions.

A series of site-specific energy studies are examining these options and identifying a path to implementation. Local utilities, in partnership with the city, are leading this effort and will provide a recommended energy system plan to the future site developer(s).



## 9.4 Affordable Housing

### *Overview and Intent*

Housing affordability is an important need across the region, the city, and within the Highland Park neighborhood. The Ford site provides a vital opportunity to provide affordable housing for the community and the city. Public and private entities will pursue implementation of affordable housing goals for the redeveloped site through policy making, funding strategies, and developer selection.

### Housing Affordability Goals for the Ford site:

- 10% of housing units should be affordable to households earning 60% of Average Median Income
- 10% of housing units should be affordable to households earning 50% of Average Median Income
- Affordable units should be a mix of housing types, including townhomes, rental, ownership and senior
- Provide some affordable units within mixed-income buildings -- a blend of market-rate and affordable units
- Locate affordable units throughout the site; do not cluster or concentrate them in one area



Sibley Court, Saint Paul



Frogtown Square, Saint Paul



East Lake Rowhouses, Seattle

## 9.5 City of Saint Paul Sustainable Building Policy

### *Overview and Intent*

The City of Saint Paul and the Saint Paul Housing and Redevelopment Authority have sustainable development policies for public and privately developed project receiving more than \$200,000 in public financing.

Saint Paul's Sustainable Building Policy is intended to help reduce environmental degradation and improve healthy living. Buildings use one-third of our total energy, two-thirds of our electricity, one-eighth of our water, and transform land that provides valuable ecological services. Improving the environmental effects and healthy living requires that buildings be constructed, renovated and operated in a sustainable manner. The policy works hand in hand with both national and local sustainable building rating systems, with an emphasis on environmental concerns expressed by Saint Paul citizens and businesses.



### SAINT PAUL MINNESOTA SUSTAINABLE BUILDING POLICY

Information about Saint Paul's Sustainable Building Policy can be found on the City of Saint Paul website at [www.stpaul.gov](http://www.stpaul.gov).

The Penfield mixed-used project was built in accordance with Saint Paul's Sustainable Building Policy.

