

# 6th Avenue East Corridor Redevelopment Strategy

Duluth, Minnesota



**Prepared for:**  
One Roof Community Housing

**Prepared by:**  
Cunningham Group Architecture, Inc.

## Acknowledgements

### Steering Committee

Chris Eng	<i>Duluth Economic Development Authority</i>
Cliff Knettel	<i>One Roof Community Housing</i>
David Peterson	<i>Housing and Redevelopment Authority of Duluth</i>
James Gittemeier	<i>Arrowhead Regional Development Commission</i>
Jeff Corey	<i>One Roof Community Housing</i>
Jenn Moses	<i>City of Duluth, Planning Division</i>
Josh Gorham	<i>Statewide Health Improvement Program (MN Dept. of Health), St. Louis County Public Health</i>
Keith Hamre	<i>City of Duluth, Planning Division</i>
Lars Kuehn	<i>Entrepreneur Fund</i>
Lisa Luokoala	<i>Healthy Duluth Area Coalition</i>
Mona Cheslak	<i>Resident/East Hillside Community Club</i>
Pam Kramer	<i>Local Initiatives Support Corporation (LISC) Duluth</i>
Rick Ball	<i>Housing and Redevelopment Authority of Duluth</i>
Rick Klun	<i>City Center Housing</i>
Sandy Robinson	<i>Resident</i>
Sarah Kilgore	<i>One Roof Community Housing</i>

### Consultant

Cunningham Group Architecture, Inc.

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# Sixth Avenue East Corridor Redevelopment Strategy

## *Executive Summary*

Sixth Avenue East is an underutilized corridor perfectly poised to fulfill the City of Duluth's need for more housing, a variety of housing types, higher density, mixed-use development, and walkable neighborhoods. As a significant gateway to city, it occupies a prime location near two hospitals, downtown urban amenities, the Lake Superior lakefront, and a growing network of regional recreational trails. Introducing dense new development and public open space in the corridor will create a vibrant urban neighborhood with attractive places to live and work.

Sixth Avenue East's high-speed traffic and wide lanes currently act as a barrier, separating two neighborhoods and making walking and biking difficult and dangerous. Recent neighborhood and agency plans have redefined a vision for the corridor as a walkable, mixed-use commercial node. Local neighborhoods recognise blighted properties, empty lots, and the large surface parking lots as opportunities to introduce a variety of housing types and new neighborhood retail.

This plan builds on and supports the insights and goals of these earlier reports by making recommendations for redevelopment in the larger 6th Avenue corridor and laying out a vision that will meet the greater needs of local stakeholders, the surrounding neighborhoods, and the city. New open space will support adjacent development and serve as an amenity that will attract more residents and customers to the neighborhood. Surface parking lots that currently line the edges of hospital buildings will transition to tax-paying commercial and residential developments, attracting hospital employees to relocate closer to work. The resulting increase in people on the street will improve the perception of safety in the area.

The 6th Avenue East neighborhoods are ready for change. Now is the time to build on the existing momentum and make the corridor a vibrant, livable gem in the City of Duluth.

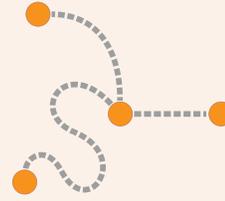
# Corridor Redevelopment Strategy Goals



A street that connects - not divides - neighborhoods.



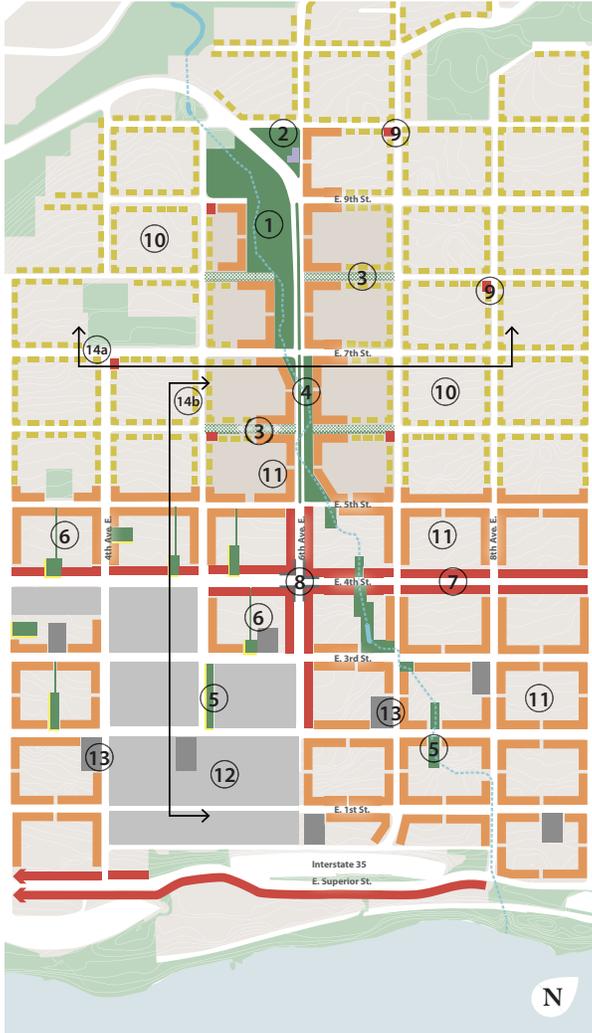
A place more people call home.



Things to do, places to go.



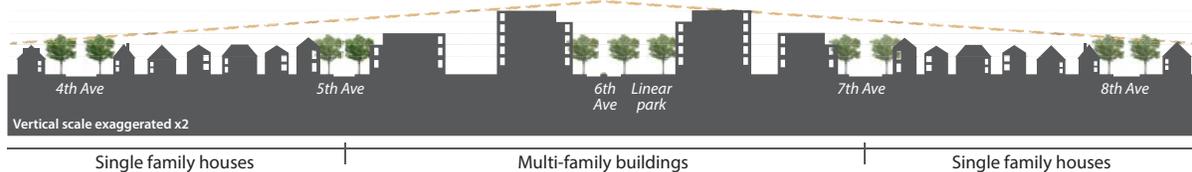
A safe place to live and work.



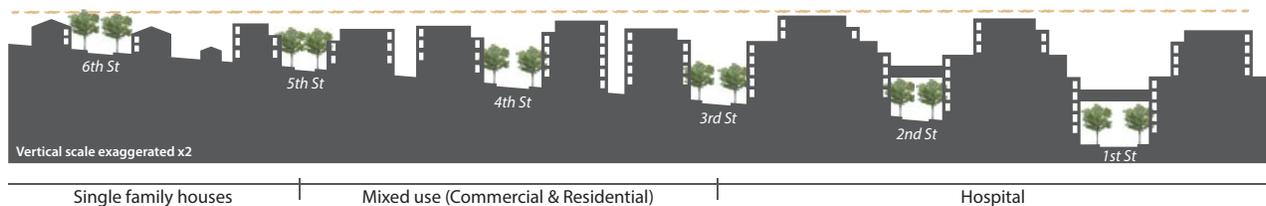
## Recommendations

This plan makes recommendations for the 6th Avenue E corridor that simplify land uses, manage scale transitions, and identify redevelopment opportunities. Recommendations are sort term and others are anticipated to occur over time as land use changes and funding sources become available.

- Neighborhood Park:** Introduce a new neighborhood park at the top of 6th Ave. where new development is limited by the underground creek.
- Signature Building:** Place a distinctive – preferably civic – building at the visible end point at the top of 6th Ave to create a focal point or gateway for the area.
- Woonerfs:** Reimagine cross streets (such as 8th St and 6th St) as woonerfs or “green streets,” where pedestrians and cyclists have priority over vehicles.
- Linear Park:** Create a pleasant space for walking and a front yard for new development along 6th Avenue with a linear park that follows the route of the underground creek.
- Pocket Parks:** Insert small parks and plazas in areas of higher density development, such as along 4th St. or on hospital property.
- Walkways:** Promote accessibility and walkability by connecting public spaces, such as pocket parks, to the street via narrow mid-block stairways and walkways.
- 4th Street Commercial Corridor:** Establish 4th St as a walkable neighborhood commercial corridor by encouraging a mix of businesses and mixed-use developments.
- 100% Corner:** Promote the corner of 6th Ave and 4th St as the neighborhood’s 100%, or highest valued, intersection in the 4th St commercial district.
- Neighborhood Shops:** Allow small neighborhood shops at appropriate locations within existing low-scale residential neighborhoods.
- Low-Scale Development:** Continue the development of single-family houses, duplexes, and two- and three-story townhouses in the area above 5th Street.
- Medium-Scale Development:** Introduce three- to five-story multi-family or mixed-use buildings below 5th St and along 6th Ave.
- Consolidated Hospital Property:** Work with Essentia to consolidate hospital property, allowing for the redevelopment of surface parking lots along 5th St.
- Towers:** Ensure that the towers of taller developments are staggered along the hillside and perpendicular to the lakefront, so as to maintain views out to the lake.
- Manage Transitions:** a) Line 6th Ave with denser multi-family development above 5th St., transitioning in density down to the single-family neighborhoods on either side. b) Along the 5th St. “seam”, manage development scales across the street to transition to the single-family neighborhood above (see sections below).



Section 14a) Through 6th Ave



Section 14b) Through Hospital



Mid-rise housing faces the existing houses across the street

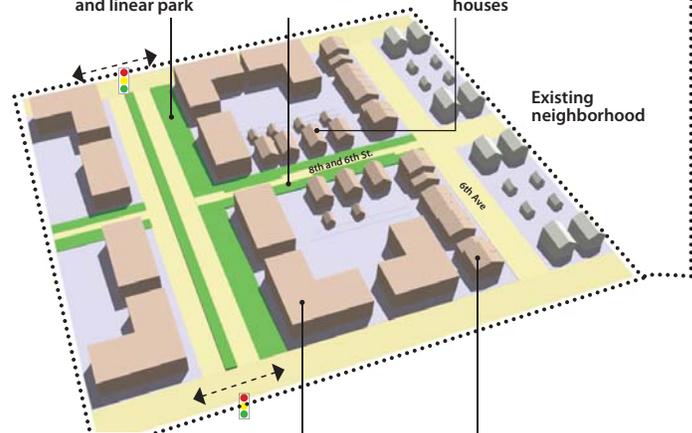
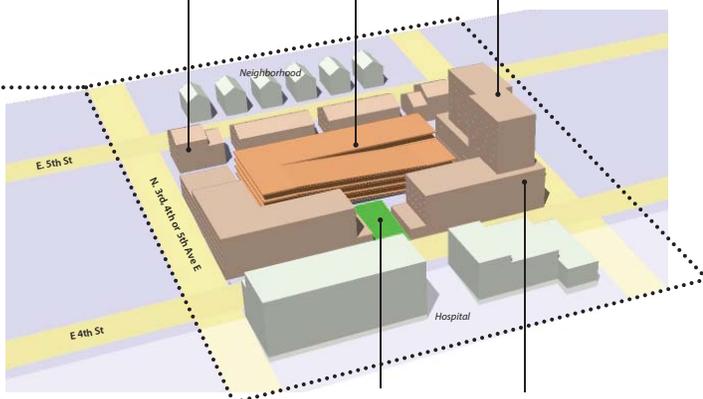
Mid-block shared parking ramp

Towers frame views

Enhanced setbacks and linear park

Woonerf

Existing houses



### 5th Street "Seam" Blocks

### 6th Avenue Blocks



Woonerf

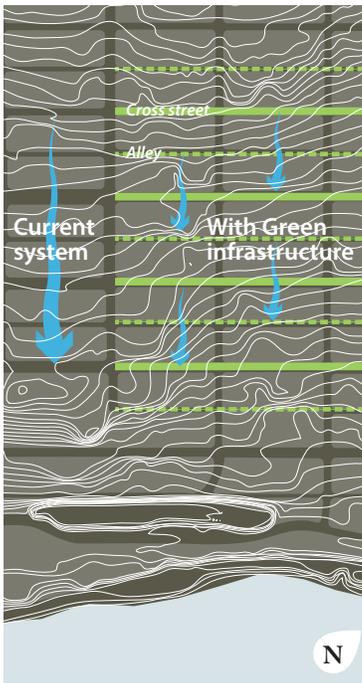


Linear Park

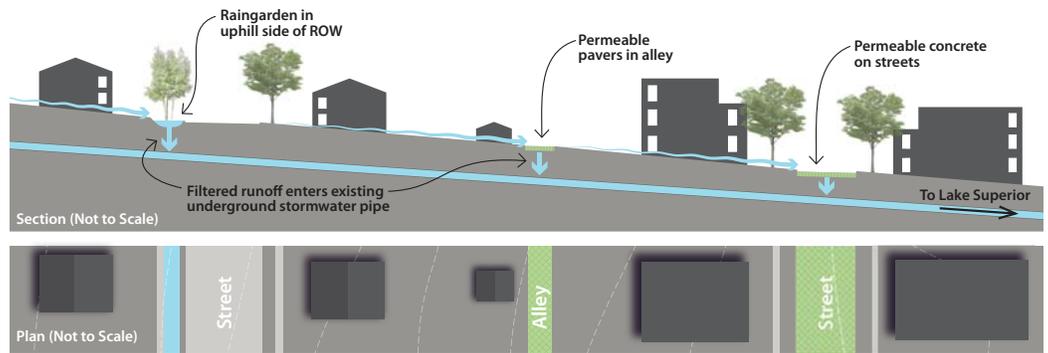


Commercial/Mixed-Use Corridor (4th Street)

## Stormwater Strategies



Stormwater Management Concept:  
Runoff Capture and Filtration on  
Hillside Cross Streets & Alleys



### BMP Options on Hillside Cross Streets and Alleys

Recent severe flooding in Duluth has spurred new interest in implementing green infrastructure, stormwater management systems that use natural processes to slow and treat stormwater runoff. Best Management Practices (BMPs) focus on reducing impervious surfaces, infiltrating runoff back into the ground, slowing the movement of runoff, and cleaning runoff before it enters rivers and lakes. Recommendations for stormwater management in the 6th Ave corridor include:

- Because Duluth's steep slopes, poor soils, and cold climate limit infiltration capacity, focus on implementing BMPs that slow and filter runoff water before it reaches the lake.
- Incorporate BMPs in the public right-of-ways by redesigning alleys and cross streets to intercept runoff as it moves downhill.

## Implementation Strategies



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## 2. Project Background

## Regional Context

Duluth, Minnesota's second-largest metropolitan area, stretches itself along the westernmost point of Lake Superior. A giant in shipping and outdoor recreation, it is gateway to both the Iron Range and the North Shore. Sixth Avenue East, the focus of this study, sits in center of the city. It is one of the many streets that plunges down the steep hillside that makes up of much of the city topography.



City of Duluth, as seen from Lake Superior



Regional Context

## Local Context

Sixth Ave E is located just northeast (or “east,” in local terms) of downtown Duluth, Canal Park, and the harbor. The street makes up the boundary between two of the densest and most diverse neighborhoods in Duluth, and is perpendicular to the lakefront but does not meet up with it.

Sixth Ave E is a four-lane, undivided arterial approximately one-half mile long. At the top of the bluff, the street becomes Central Entrance Drive, one of the city’s major roads and shopping corridors. Once a state highway, 6th Ave E. was given to the city in the late 1980s, after Interstate 35 was built to handle regional traffic. For this reason, the street is entirely

overbuilt for its current use, with four lanes of traffic cutting through dense urban neighborhoods.

As one of the main routes up and down the hillside, 6th Ave East serves not only neighborhood and city residents, but also regional visitors, such as patients visiting the hospitals and clinics at the foot of the hill. The frequent bus service, with connections to the University of Minnesota Duluth, as well as many other regional destinations, attracts both students and those reliant on transit to live in the neighborhood. Sixth Ave East is fronted by mostly single-family housing on the uphill half and a mix of commercial and hospital land uses on the downhill half.



Local Context

## 6th Avenue East Corridor Site Issues



Study Area



### 6th Ave Streetscape

- Wide roadway not welcoming or safe for pedestrians, transit users, or bikers.
- No sidewalk buffers for snow storage.
- No safe crossings for school children.



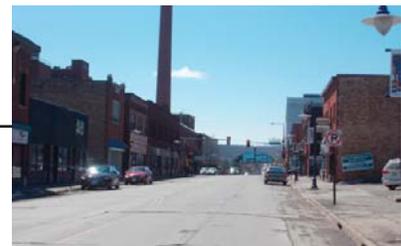
### Housing

- Lack of housing options in area.
- Loud, fast traffic on 6th not conducive to single family housing.



### Land use

- Large parking lots on perimeter of hospital property not highest use of land.

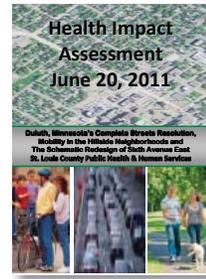
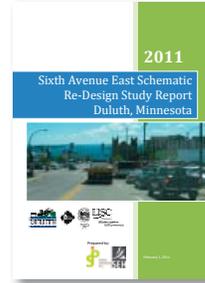
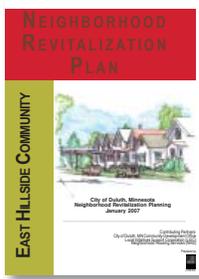


### Commercial

- Many empty lots and vacant properties in commercial district along 4th St.
- Few neighborhood gathering/shopping places, such as cafes or shops.

## Project Process & Goals

### Area Plans to Date

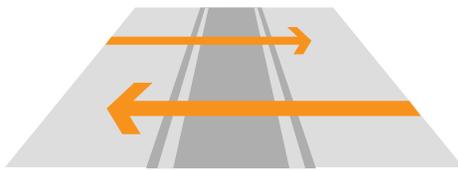


A number of the issues around the 6th Avenue corridor have been explored in recent reports. The Duluth Higher Education Small Area Plan identified 4th Ave and 6th St E as important components to neighborhood stabilization and defined the area as an “investment zone”. The East Hillside Community Neighborhood Revitalization Plan (2007), as well as the update done in 2012, identifies shared goals for job creation, housing, and community development within the neighborhoods surrounding 6th Ave E. The Sixth Ave East Schematic Re-Design (2011) evaluates issues around the 6th Ave E streetscape and identifies a preferred conceptual design alternative. A traffic study is currently underway to further assess these recommendations.

Building off concerns about pedestrian and biker safety expressed in the Re-Design study, St. Louis County Public Health conducted a Health Impact Assessment in 2012, a process which uses a variety of health indicators to make recommendations for improving health, safety, and livability in specific study areas. The HIA offers solutions for balancing transportation modes and promotes the health benefits of a well-designed corridor.

This plan builds on and supports the insights and goals of these earlier reports by making recommendations for redevelopment in the larger 6th Avenue corridor. In this report we will analyze more closely the issues in the study area, define general redevelopment frameworks, and explore in-depth several block redevelopment prototypes. The goal of this plan is to create an urban vision for the 6th Avenue corridor that will guide future redevelopment to meet the greater needs of local stakeholders, the surrounding neighborhoods, and the city.

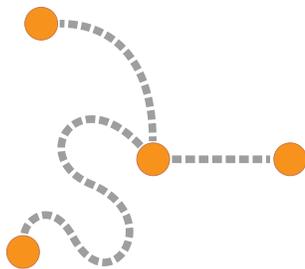
### 6th Avenue East Corridor Redevelopment Strategy Goals



**A street that connects - not divides - neighborhoods.**



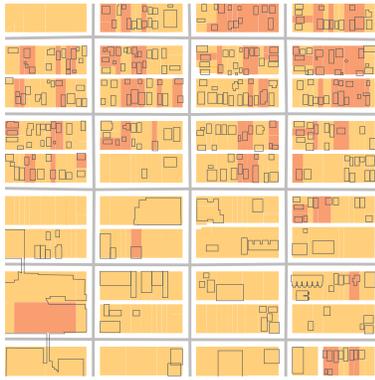
**A place more people call home.**



**Things to do, places to go.**



**A safe place to live and work.**



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## 3. Site Analysis

## Public Engagement

### Stakeholder Input

Local stakeholders were an important part of the planning process. The first open house asked local residents and business owners to identify strengths, weaknesses, and opportunities within the 6th Avenue East corridor. For strengths, they identified a few key community assets and well-cared-for properties on either ends of the street. Weaknesses were more scattered along the corridor, focusing on neglected properties, speeding traffic, and the prolific parking lots on the perimeter of Essentia Health's property. Attendees identified many opportunities in the corridor, including the hospital parking lots and empty lots on 6th Ave East.



Public Stakeholder Open House



Strengths

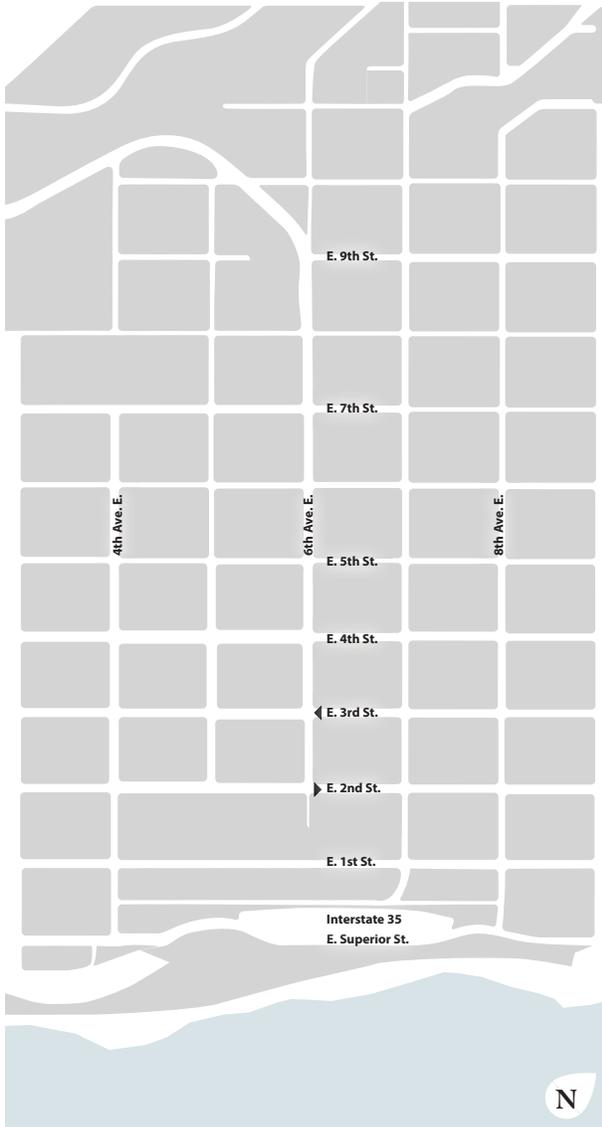


Weaknesses



Opportunities

## Analysis Maps



**Blocks/Street Hierarchy**

Most of the 6th Avenue corridor is a typical gridded street pattern, however the blocks become irregular at the top of the hill and longer at the bottom due to rock outcroppings or steep topography limiting access. The main streets are 6th Avenue East and East 4th Street, the neighborhood's commercial corridor. One-ways on 2nd and 3rd Streets handle most of the local traffic travelling east and west (parallel to the lake).



**Figure/Ground**

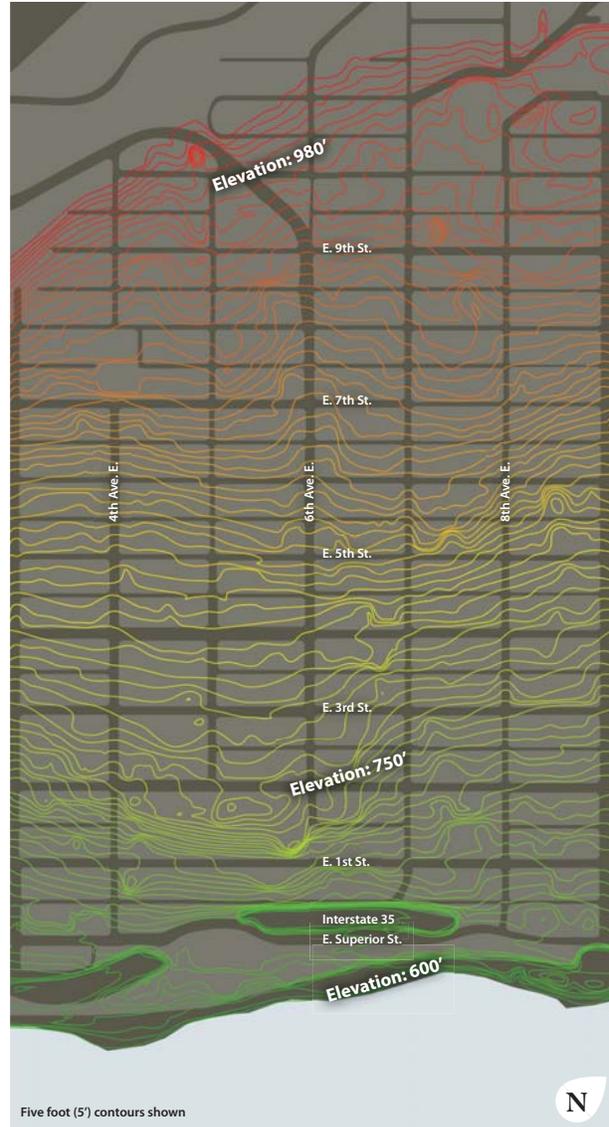
The uphill half of the corridor is dominated by the small footprints of single-family houses, while the downhill half contains the large footprints of commercial and institutional buildings. In the center portion of the hill, mostly along 5th and 3rd Streets, we find many holes in the urban fabric, currently filled with surface parking lots for the hospital and empty commercial lots. The hospital buildings' large footprints require megablocks at the foot of the hill.

## Analysis Maps



### Parks & Open Space

Parks in the 6th Avenue East corridor occur mainly at the top and the bottom of the hillside, with a couple small neighborhood parks tucked into the residential blocks on the upper hillside. There is very little green space in the central portion of the corridor, especially in the commercial, institutional, and higher density residential blocks. The Duluth Parks and Recreation Master Plan (2010) indicates that the Hillside neighborhoods have a “low mobility” population that needs more convenient access to parks.



### Topography

The 6th Ave corridor experiences 230 feet of grade change from 10th St. to 2nd St. with an overall slope of 7.6%. The steep hillside features occasional rock outcroppings, such as at the foot of 6th Ave E., which blocks access from the street to the lakefront.



Section Through Hillside

## Analysis Maps

### Creeks

Duluth has over forty creeks within its boundaries, all of which eventually make their way to Lake Superior. As the hillsides were developed, portions of many of the creeks were placed into tunnels and buried. Some currently double as stormwater tunnels, carrying runoff from the top of the bluff to the lake.

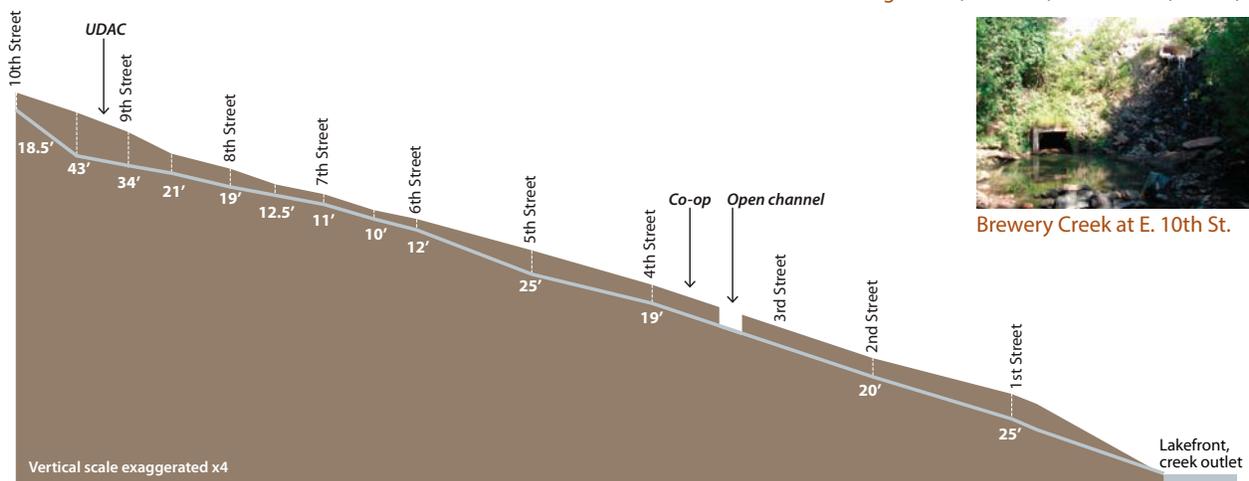
Brewery Creek follows the 6th Avenue corridor. While mostly buried at varying depths, it occasionally surfaces as an open channel. In the past, buildings have been constructed over the buried creek, but this practice has been stopped, due to the potential for structural problems. Recently interest has shown in day-lighting (un-burying) the creek. While this could be an attractive feature for the community, the deep depths of the creek in certain areas would create steep ravines that may be difficult or expensive to construct and maintain. Daylighting the creek would not significantly contribute to the larger stormwater management strategy.



1885 Drawing Showing Brewery Creek Before Burial



Creek Locations: Above-ground (solid line) and Buried (dotted)

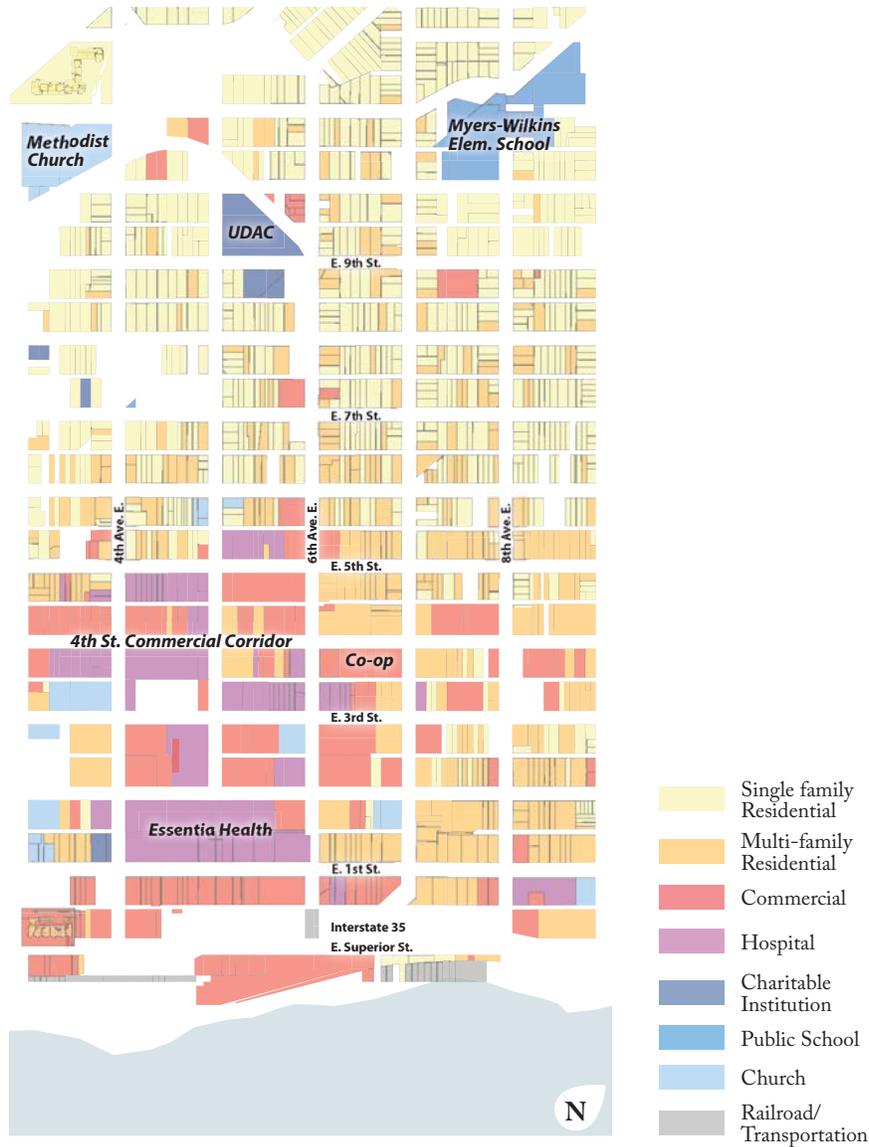


Conceptual Section Through Creek Showing Depth of Creek from Surface



Brewery Creek at E. 10th St.

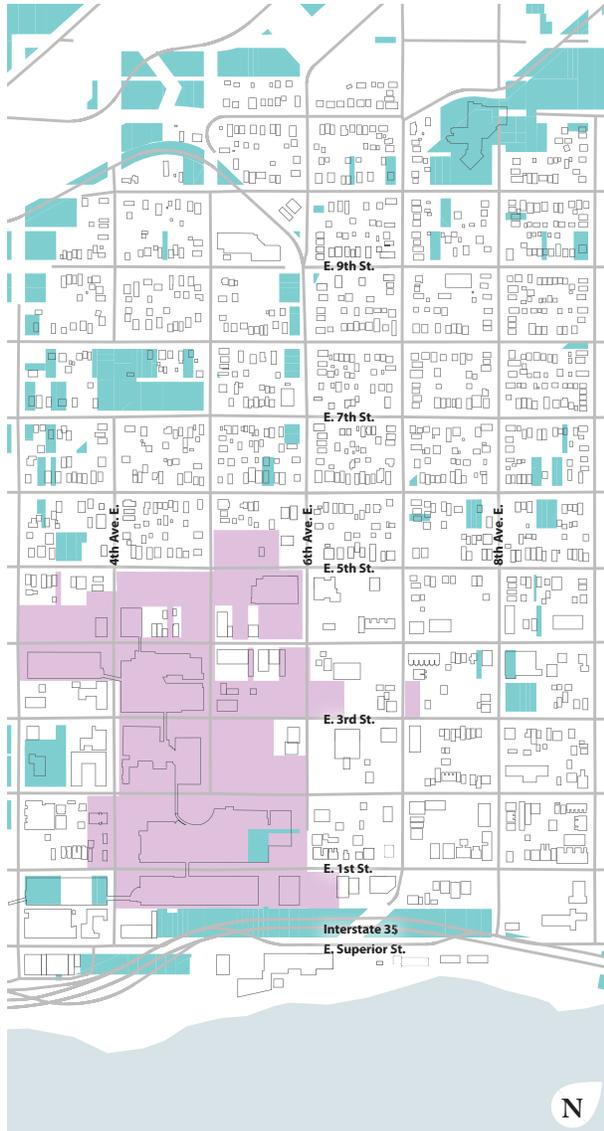
## Analysis Maps



### Existing Land Use

Uphill of 6th St., the corridor is primarily single-family residential, while downhill of 6th St. is a mix of commercial, hospital, and multi-family residential. The parcels lining 6th Avenue East are a random assortment of almost every land use type, creating an incohesive character for the corridor.

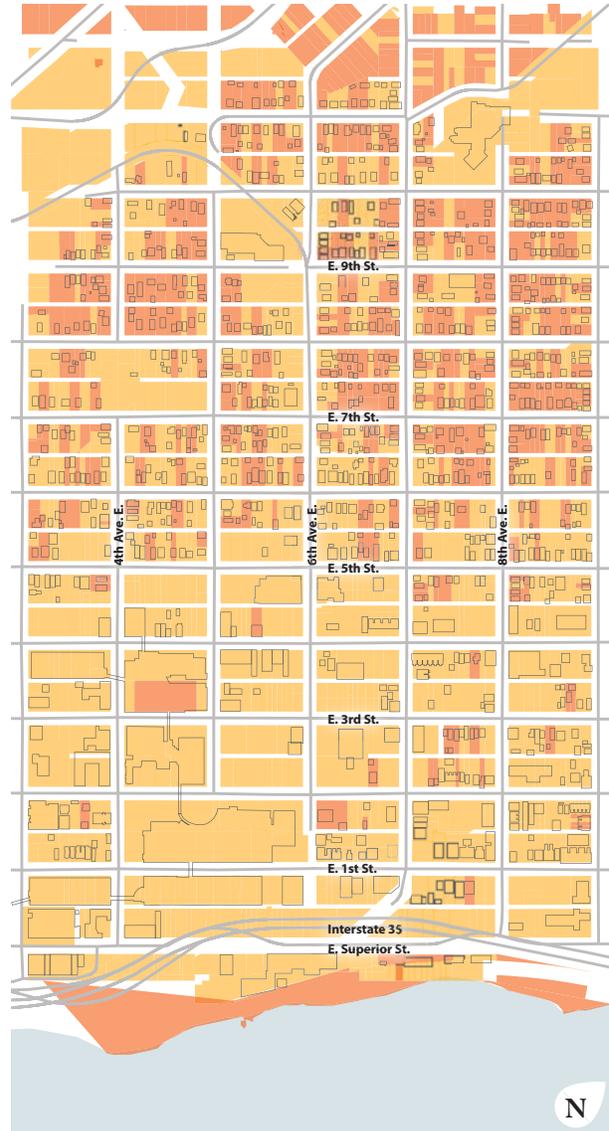
## Analysis Maps



### Significant Land Ownership

Essentia Health owns a significant portion of the parcels on the western downhill half of the corridor. These parcels house St. Mary's Hospital, clinics, administration offices, and parking lots and ramps. There are also a number of parcels in the area that are publicly-owned, either by the city, county, or state. These include a number of vacant lots along 6th Avenue East.

- Hospital-owned land
- Publicly-owned (city, state) land

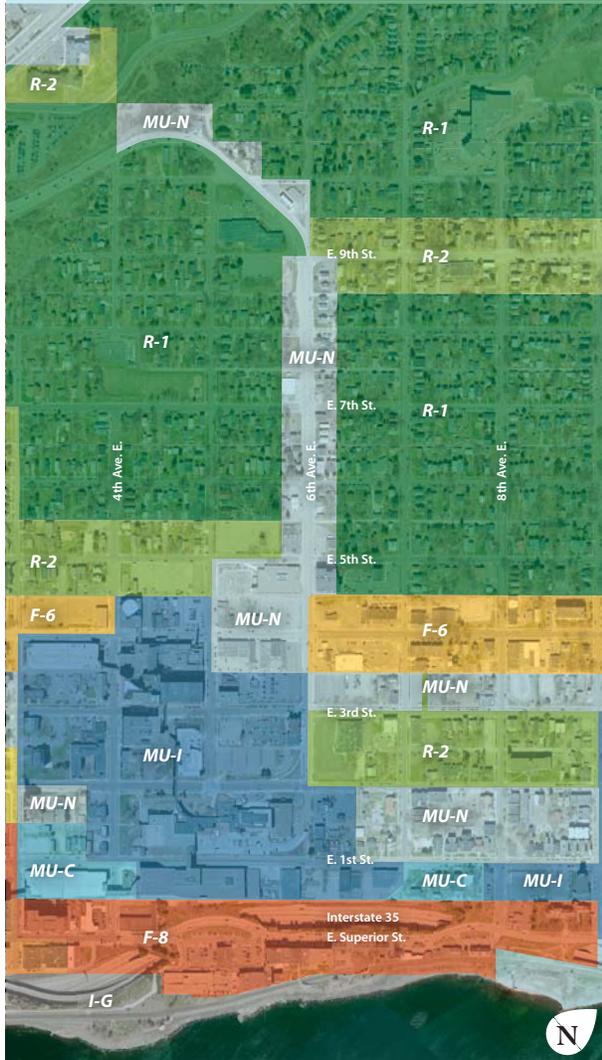


### Owner-Occupied Properties

Most of the residential half of the corridor are owner-occupied properties, except for most of the properties that line 6th Avenue East. The majority of the parcels on the lower half of the hill are rental or non-owner occupied.

- Owner-occupied property
- Non-owner-occupied property (rental)

## Analysis Maps



Zoning

### Form Based



**F-6 Mid-Rise Neighborhood Shopping**  
 Allowed land uses: Most residential types (one-family, two-family, multi-family, and live-work), some types of commercial and office. Buildings must follow certain design standards (see Zoning Code for more details).



**F-8 Downtown Mix**  
 Allowed land uses: Some residential types (multi-family and live-work), some types of commercial and office. Buildings must follow certain design standards (see Zoning Code for more details).

### Special Purpose



**I-G Industrial General**  
 Provides for general to heavy impact industrial, processing, assembly, fabrication and manufacturing uses. Intended primarily for locations close to major transportation corridors and active commercial centers.

### Mixed Use



**MU-C Mixed Use Commercial**  
 For community and regional commercial development along commercial corridors and nodal centers. Intended non-residential uses include retail, lodging, service, and recreational facilities needed to support the community and region.



**MU-I Mixed Use Institutional**  
 Provides for the unique development needs and impacts of major medical, educational and research institutional development. Intent is to give institutional landowners the flexibility to plan and develop their facilities while ensuring that surrounding neighborhoods are protected from adverse impacts, such as traffic, overshadowing buildings, noise, and unexpected expansion of institutional uses into residential areas.



**MU-N Mixed Use Neighborhood**  
 Accommodates a mix of neighborhood-scale, neighborhood serving non-residential uses and a range of residential uses located in close proximity. Non-residential uses may include small-scale retail, service and professional offices that provide goods and services to the residents of the surrounding neighborhood.

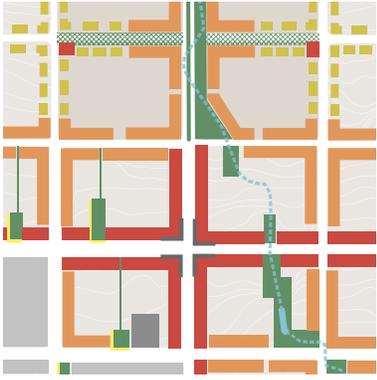
### Residential



**R-1 Residential Traditional**  
 Single-family detached residences, duplexes and townhouses on moderately sized lots. Intended to be used primarily in established neighborhoods.



**R-2 Residential Urban**  
 Multi-family apartments and townhouses, in an urban setting. Also allows for single-family detached dwellings, duplexes and group living. Intended primarily for locations closer to commercial and mixed use activity centers, and may serve as a transition between lower-density residential areas and more intense commercial and mixed use neighborhoods.



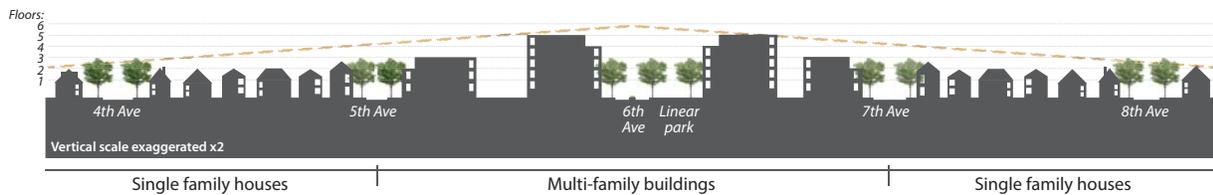
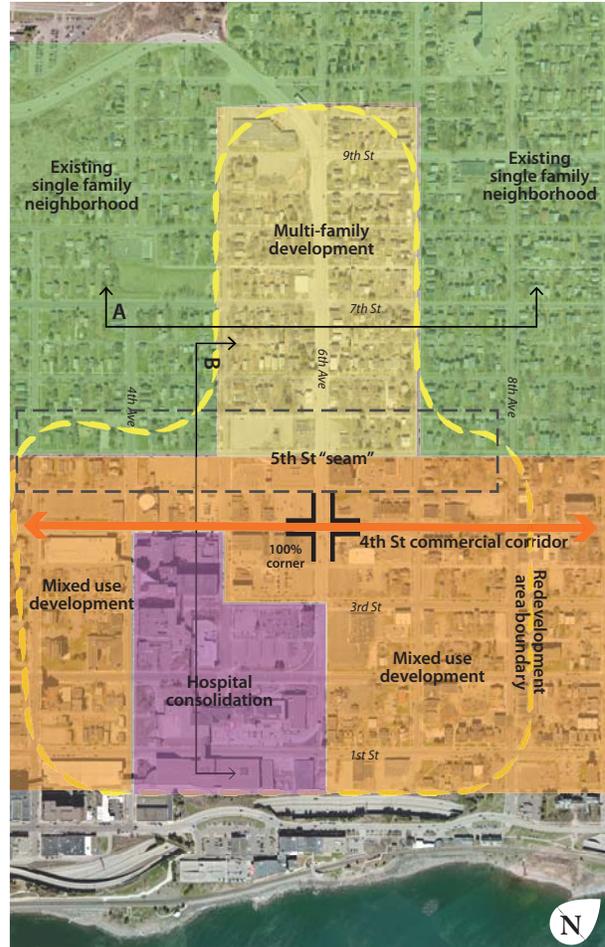
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## 4. Redevelopment Frameworks

## Overall Redevelopment Strategies

This plan makes a number of recommendations for the study area that simplify land uses, manage scale transitions, and define corridors. Overall redevelopment strategies for the 6th Ave corridor include:

- Focus redevelopment efforts within the redevelopment area boundary (shown on right).
- Keep much of the single family neighborhood on the top of the hill the same.
- Line 6th Ave with denser multi-family development above 5th St., transitioning in density down to the single-family development to the east and west (see Section A, below).
- Consolidate hospital land to area shown by relinquishing many of the surface parking lots along 3rd, 4th, and 5th St.
- Develop the former parking lots in this area with mixed-use (residential and commercial).
- Within the 5th St. “seam,” manage development scales across the street to transition into the single-family neighborhood uphill (see Section B, below).
- Continue to build up 4th St. as the main neighborhood commercial corridor.
- Develop the corner of 6th Ave and 4th St as a 100% corner, or the commercial heart of the community.



Section A: Through 6th Ave



Section B: Through Hospital

## Redevelopment Vision



Aerial Photograph of the study area



Aerial Perspective illustration of the study area and potential future redevelopments and public improvements

## Primary Recommendations

### **Focus redevelopment efforts within defined areas along 6th Ave and 4th Street; focus on transitions to the existing single family neighborhoods.**

The single family and duplex neighborhoods to the north and south of 6th Ave are in the midst of an revitalization effort. This Plan recognizes this ongoing effort by focusing redevelopment efforts along the blocks astride 6th Ave and the blocks between 4th and 5th Street.

Focusing redevelopment efforts in these locations will help preserve views from the hillside while concentrating density in areas that are best served by transit and other urban amenities such as retail and small parks.

### **Consolidate hospital land to area east of 4th Street allowing 4th Street to develop as a mixed-use retail corridor serving a wide variety of users.**

A clear delineation of the hospital campus is as important for the functioning of the hospital as it is for the health of the surrounding neighborhoods. In the past, the hospital has acquired surrounding neighborhood residential properties for landbanking, surface parking, and hospital growth. This has led to neighborhood disinvestment and uncertainty. A commitment to boundaries and a publicly communicated plan for growth will give predictability and certainty to the market.

This Plan recommends developing a seam between the Hospital and the neighborhood of shared uses such as retail, restaurants, services, and apartment/condominium housing. This seam would be highlighted by a commercial / mixed use street on 4th Street and a medium density housing on 5th Street.

### **Redevelop 6th Ave E with new housing that responds to improvements to the street and a new open space system that responds to the Creek.**

6th Ave E is a heavily travelled street that is not a healthy environment for single family homes. Overtime the street will improve, however it will always be a main arterial to downtown. This Plan recommends redeveloping edges of 6th Ave E with mid rise apartments or condominiums up to 5 stories along 6th Ave East.

These apartments should face 6th Ave East and would step up the hill gradually, thereby allowing redevelopment of the perpendicular streets to transition in height from 5 stories on 6th Ave to the prevailing 2-2.5 story scale of the surrounding neighborhoods.

As access to select perpendicular streets is reduced, this offers the opportunity to modify those streets to become quiet park streets or “woonerfs” - streets that are shared equally between pedestrians and cars.

Due to its depth, it is not feasible to daylight Brewery Creek - however it is also not prudent to build atop it. Therefore, over time, by respecting the alignment of Brewery Creek, a linear park can be created up the hillside.

New housing along 6th Ave East and the adjacent blocks should face onto this linear park allowing the park to be a positive setting or address for new development.

## Redevelopment Frameworks

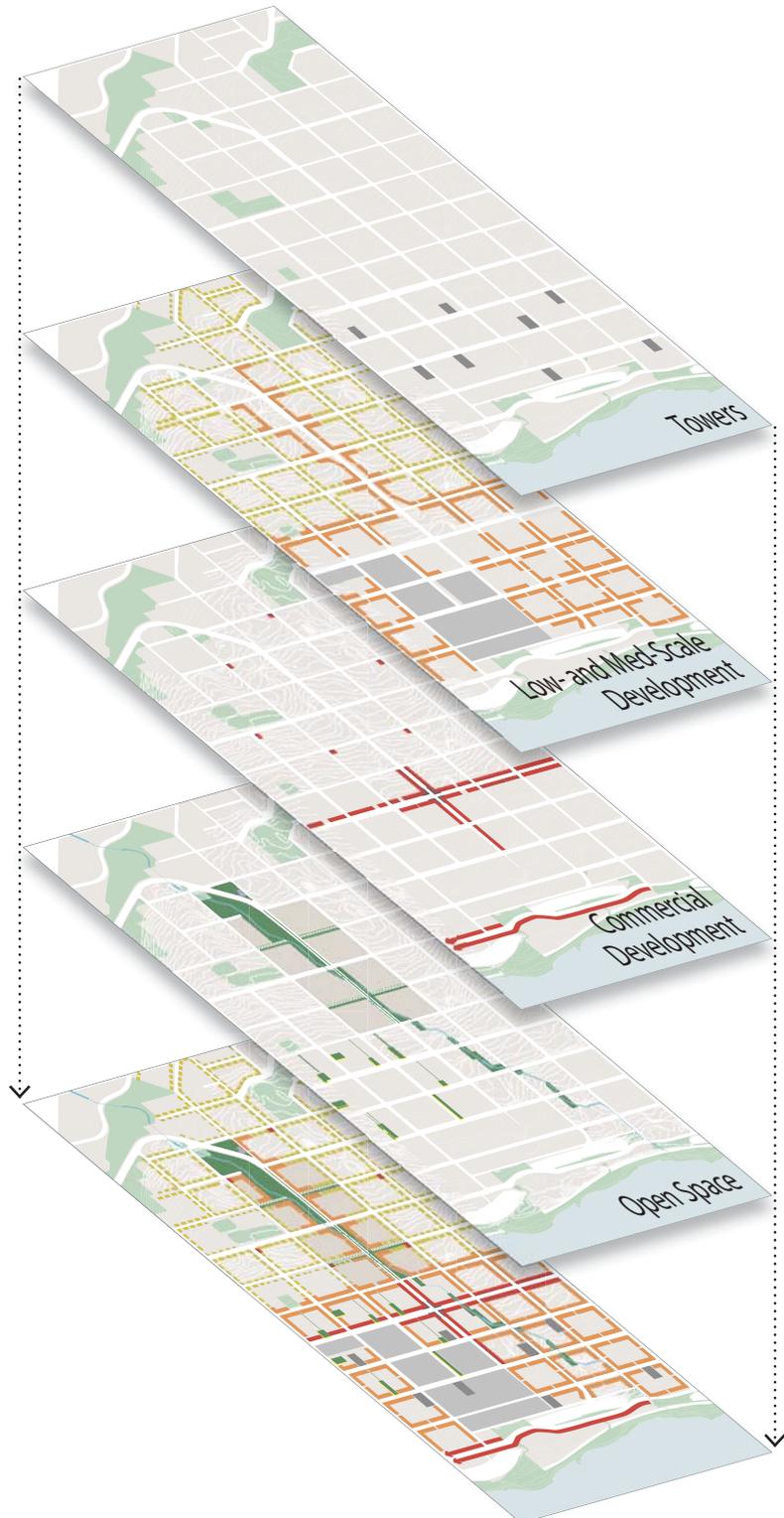
### How Frameworks Function

To further flesh out these recommendations, we can describe and illustrate the concepts within different frameworks. Frameworks organize recommendations within defined categories of the physical environment. Open Space, Commercial Development, Low- and Medium-Scale Development, and Towers are the four frameworks that describe the recommendations for redevelopment in the 6th Avenue Corridor.

### Open Space

This plan proposes a variety of types of open space for the 6th Avenue corridor. Open space is an extremely important amenity for urban neighborhoods because it can increase the viability of dense development and add value to nearby properties.

Because new buildings will likely not be built above the buried creek, open space is proposed for properties located over the path of it. At the top of the hill, parks follow not only the creek path, but also incorporate a number of publicly-owned parcels lining 6th Ave E. As the creek path moves downhill, open space could be developed on parcels that would otherwise be undevelopable.



## Redevelopment Frameworks

Around the hospital, small open spaces could be carved out of new developments, as a way to bring green space into a dense urban area. Essentia should specify public open spaces as a part of their Master Plan. These open spaces not only bring value for adjacent residential developments, but also provide much-needed outdoor space for hospital patients and employees, as well as customers from nearby stores and restaurants.

### Neighborhood Park

While UDAC, located at the top of 6th Avenue E, is a highly valued community institution, its current building and property are undergoing repairs related to its location directly over the buried creek. If UDAC decides in the future to relocate, the current site – or at least a portion of it – could be repurposed as a sizable neighborhood park. Given the depth of the creek at this location (+/- 40 feet), day-lighting the creek does not seem to be a feasible option within this park. This park could be woven in with the well-loved community orchard that currently exists at the eastern end of the site.

### Signature Building

Across from UDAC, where the street curves up the bluff, a gas station currently resides. The visual significance of this site at the very top of 6th Ave E. suggests it is better suited for a signature building that could serve as a gateway to the hillside neighborhoods. As well as a fitting termination to a view up the hill, this structure could also slow vehicles as they make their way down the hill.



## Redevelopment Frameworks



Neighborhood Park (North End Parks, Boston, MA)



Signature Building (Charleston, SC)



Linear Park (Atlantic Station, Atlanta, GA)



Woonerf (Home Zone at Pepys Estate, Deptford, London, UK)



Pocket Park (University of Washington, Seattle, WA)



Mid-block Walkway (Bernal Heights Stairs, San Francisco, CA)

### Linear Park

Connected to the neighborhood park at the UDAC site, this plan proposes a linear park approximately 40' wide along three blocks of 6th Avenue E above the path of the underground creek. A linear park becomes an attractive pedestrian corridor with wide paths and seating areas, but can also function as a front yard and noise buffer for the development behind it. Between 6th and 7th Streets, the creek tunnel is at its shallowest, so there may be an opportunity for day-lighting the creek in this block. Extensive engineering studies would need to be conducted to explore this feasibility.

### Woonerfs

The improvements for 6th Avenue E call for medians between 5th and 7th Streets and 7th and 9th Streets. This means that vehicular

accessibility to 6th and 8th Streets would possibly be limited, offering an opportunity to create a unique open space on the streets themselves. Woonerfs are “living streets” where pedestrians and cyclists have priority over vehicles. While not traditional parks, these open spaces provide some of the same benefits, particularly to adjacent residences.

### Pocket Parks

Pocket Parks, small urban parks or plazas that are open to the public but could be privately owned or maintained, are proposed in higher density areas, specifically for the lower half of the 6th Avenue Ecorridor. Their specific locations will not be determined here, but some general guidelines can guide where they may happen. On the eastern side of 6th Avenue, the parks can be sited over the

underground creek, where new buildings cannot be constructed. On the western side, the parks can be sited simultaneously with new mixed-use, residential, or new hospital development. These small open spaces should be located where they can receive the most sun, such as on the southeast and southwest sides of the blocks and not hidden behind tall buildings.

### Mid-block Walkways

Given the insulated location of the pocket parks within a block, an access system should be constructed to better connect them to the public realm. Narrow corridors or stairways could be constructed mid-block between private parcels to allow access to the streets above.

## Redevelopment Frameworks

### Commercial Development

This Plan recommends that commercial land use, including stores, restaurants, and other community businesses, be primarily focused along the 4th Street corridor and on 6th Avenue below 5th Street. Development in these areas should strive to be mixed-use, with commercial on the first floor and residential or office on the floors above. This location is logical for commercial development and mixed-use because there is high quality transit service, it is adjacent to the hospital and apartments and it is along a highly trafficked street.

The corner of 4th Street and 6th Avenue can become the heart of the community; also known as a “100% corner,” it is the highest valued intersection in a commercial district with the most visibility. It has the potential to become the place where people

Above 5th Street, the Plan recommends permitting small (<2000 sf) neighborhood shops interspersed at appropriate corners within the residential neighborhoods. This is currently not permitted in the zoning code and would require a adjustment.



100% Corner (Uptown, Minneapolis, MN)



## Redevelopment Frameworks

### Low- and Medium-Scale Development

This plan recommends both low-scale and medium-scale development in the 6th Avenue corridor. Low-scale development includes single-family houses, duplexes, and two- to three-story townhouses. Medium-scale development here is defined as three- to five-story multi-family or mixed-use buildings. Along the entire length of 6th Avenue, on the properties immediately adjacent to the street, medium-scale development is recommended. However the rest of the existing residential blocks above 5th Street should remain low-scale development.

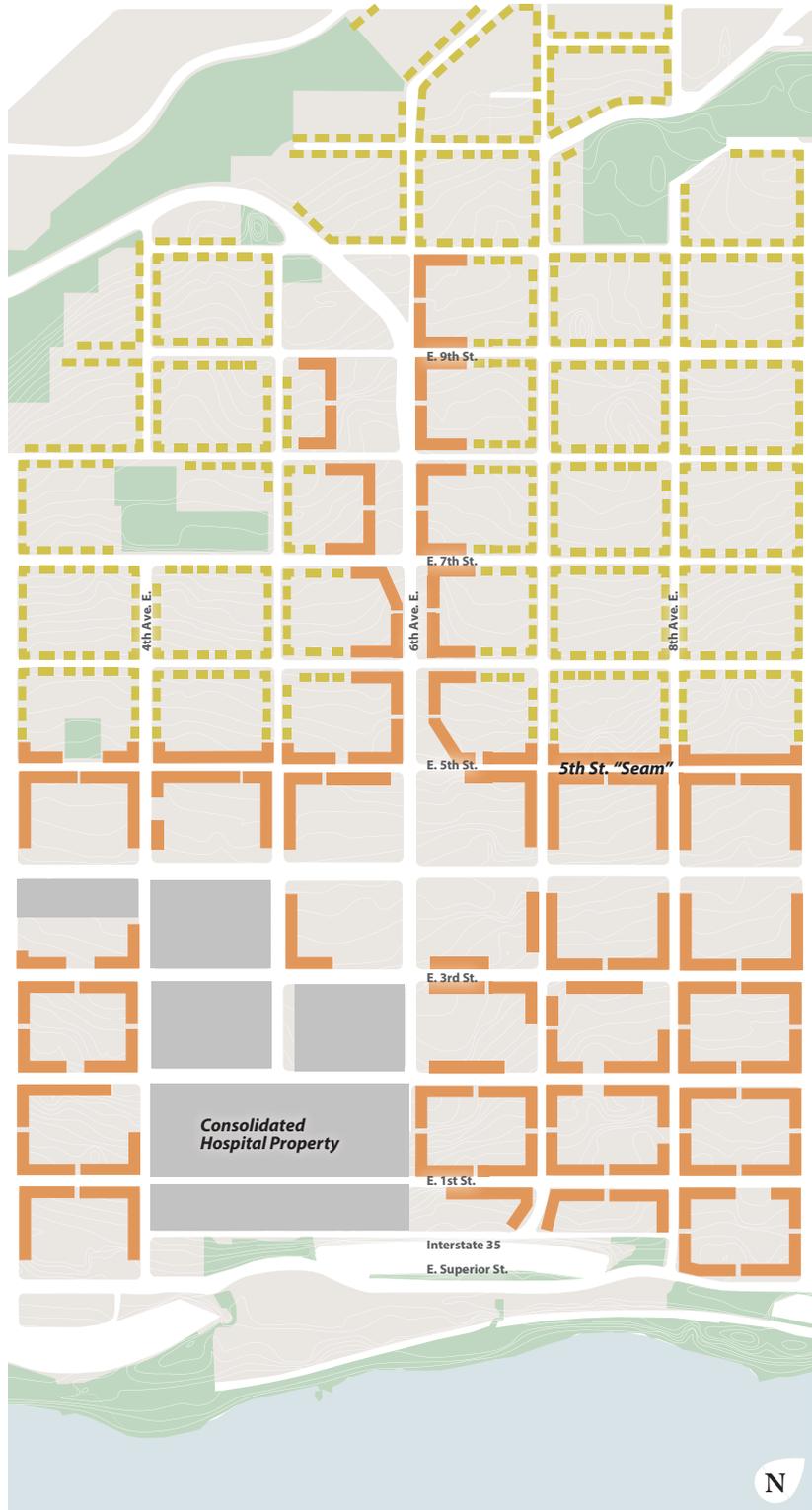
Below 5th Street, this plan recommends that the hospital property be consolidated to the area shown. This allows the hospital room to expand, while opening up several blocks of former surface



Low-Scale Development



Medium-Scale Development



## Redevelopment Frameworks

parking lots to be developed as medium-scale. The density that this brings will increase the population of the neighborhood, which will in turn support a more complete 4th Street commercial corridor and improve the perception of safety in the area.

### The 5th St. "Seam"

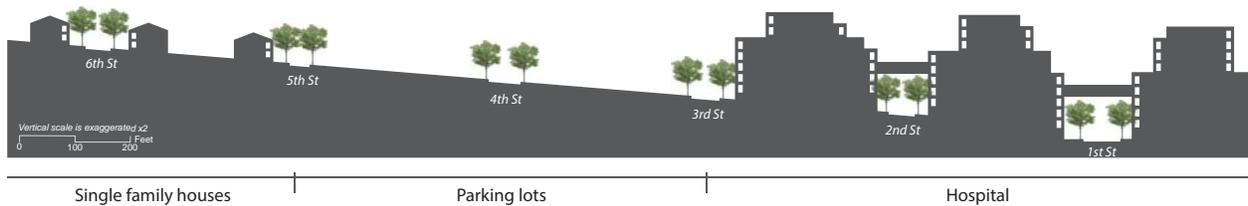
The block between 5th Street and 6th Street acts as the seam between the low-scale development above and the medium-scale development below. Medium-scale development should line both sides of 5th Street, while the transition down to low-scale development above should take place in the center of the block, at the back of property lines. This allows a more comfortable feel for both types of development.



The 5th St. "Seam"



Transition Between Different Scales of Development on One Block



The 5th St. "Seam": Existing



The 5th St. "Seam": Proposed

## Redevelopment Frameworks

### Towers

If high-rise buildings are desired in the study area, this plan makes a number of suggestions to their locations and siting. First, they should be located below 4th Street. Next, they should be staggered along the hillside and designed to be perpendicular to the lakeshore, so as to preserve views out to the Lake. The locations of the towers shown to the right are for illustrating these concepts; actual locations would depend on individual site developments.



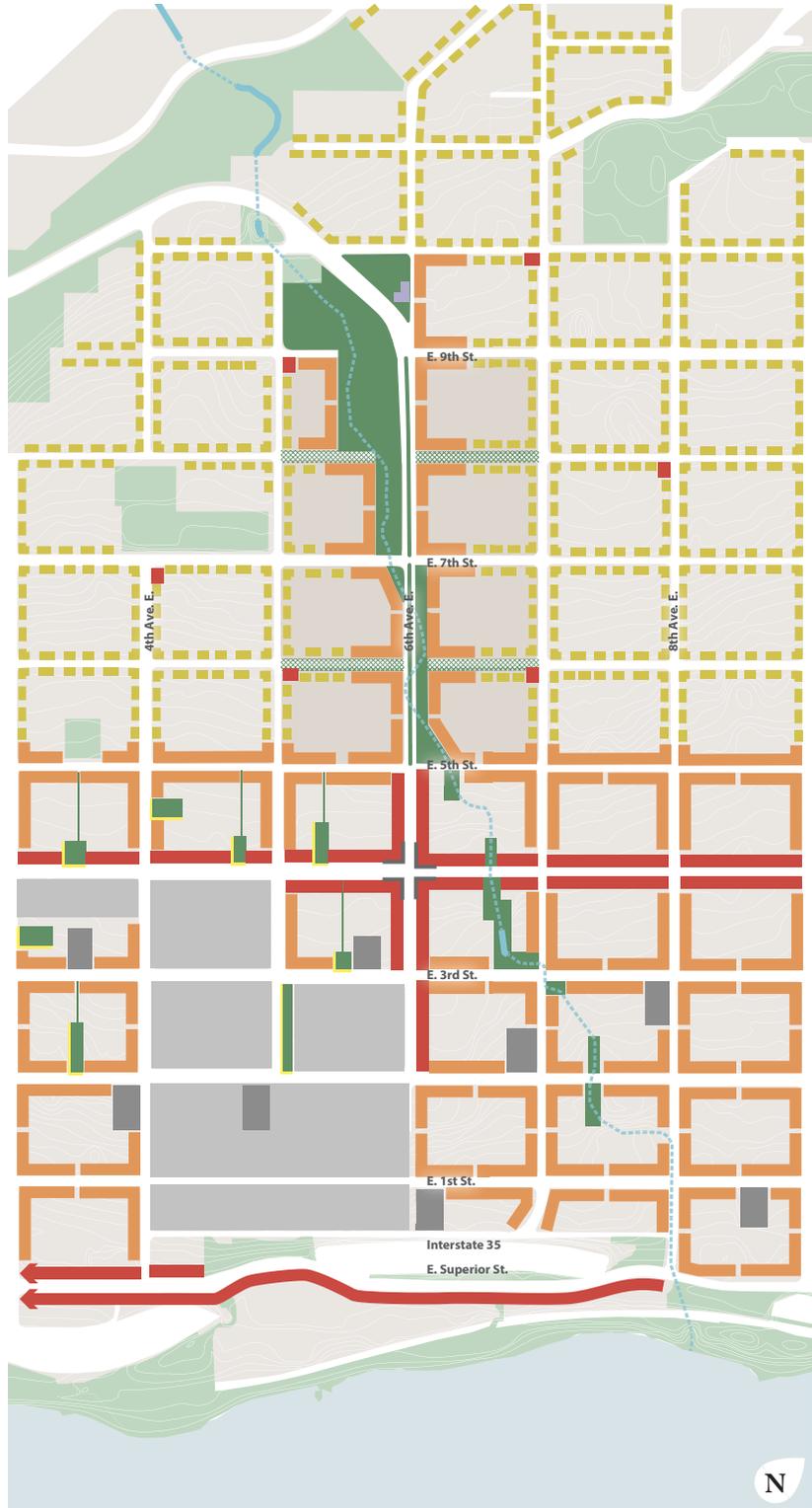
Staggered towers (Madison, WI)



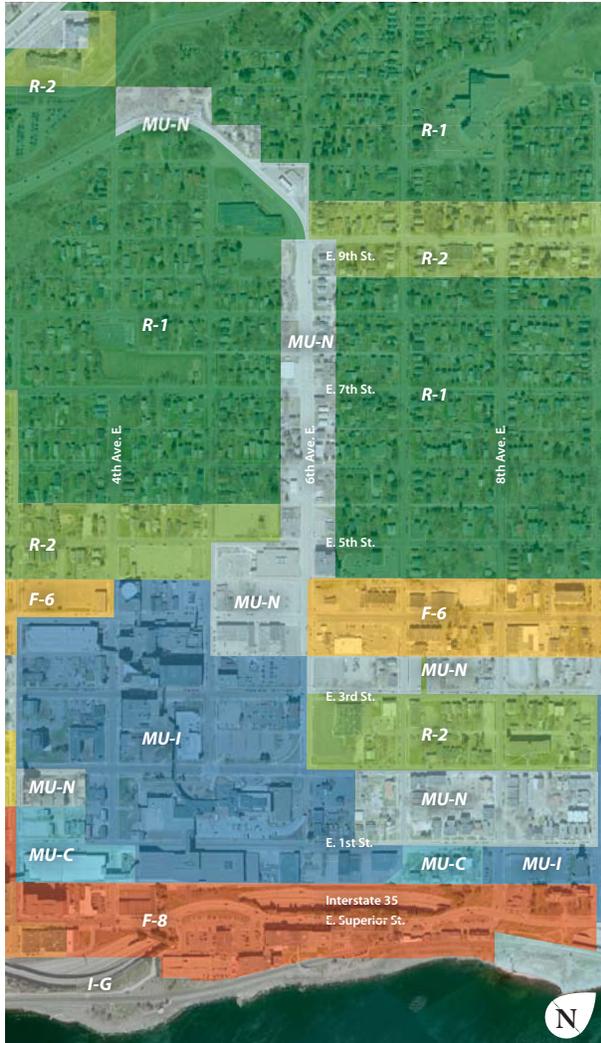
## Redevelopment Frameworks

### Framework Overlay

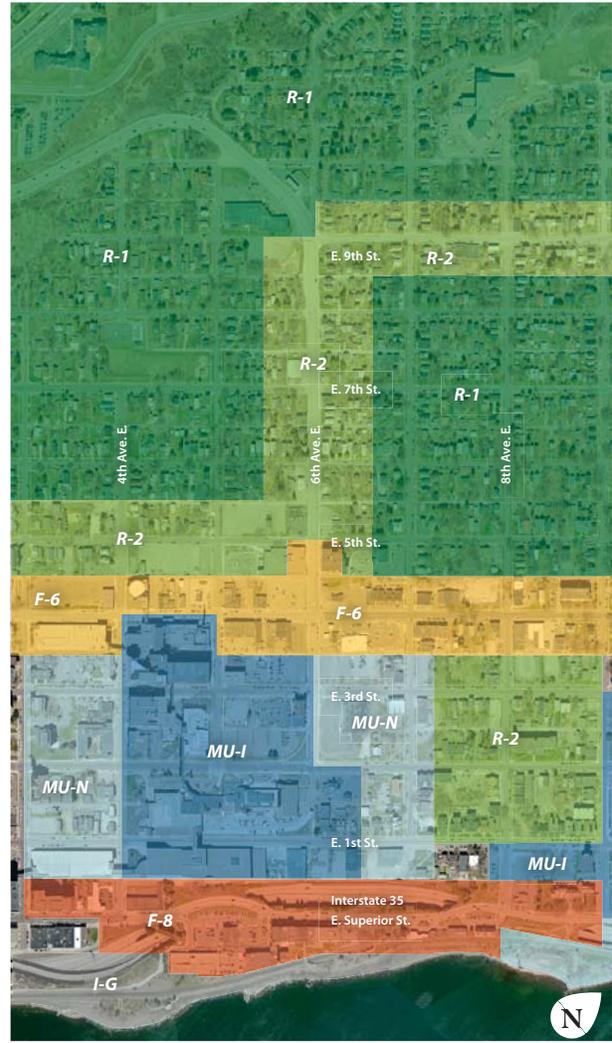
Layering these frameworks together, we see how they work together and support each other to provide an overall vision for redevelopment in the 6th Avenue corridor. Open space is interspersed throughout neighborhood, supporting adjacent development and serving as amenities that will attract more residents and customers to the neighborhood. The corridor will be easier to understand and navigate with more cohesive land uses. The middle of hill, rather than being dominated by surface parking lots, instead introduces new tax-paying commercial and residential developments. The increase in people on the street improves the perception of safety in the area and puts more eyes on the street. Dense new and in-fill development brings vibrancy to the neighborhood and better defines the area's urban form.



## Land Use Plan and Zoning Recommendations



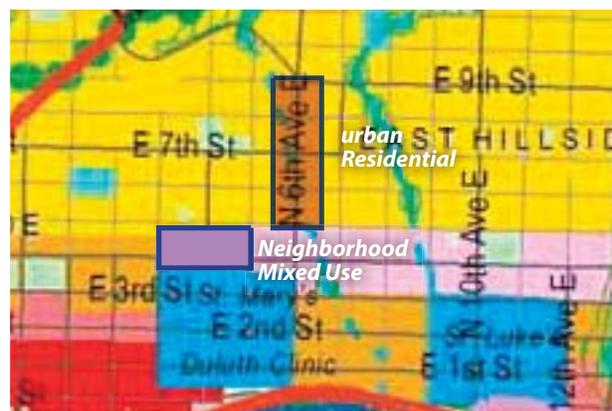
Existing Zoning



Recommended Zoning



Existing Land Use Plan



Proposed Land Use Changes

## Stormwater Recommendations

### Stormwater Management Practices on Duluth Hillside

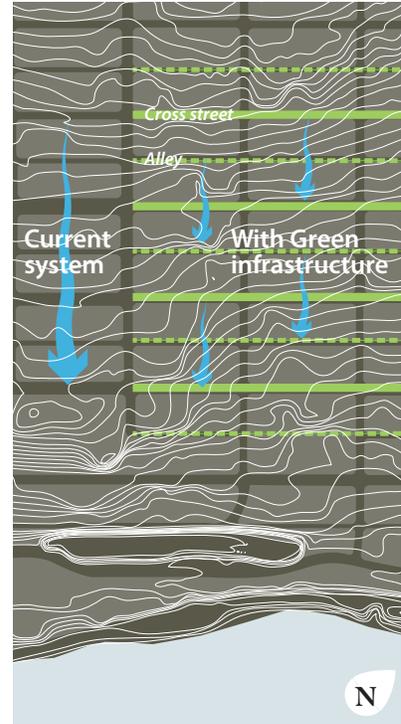
Recent severe flooding in Duluth has spurred new interest in implementing green infrastructure, stormwater management systems that use natural processes to slow and treat stormwater runoff. Increased impervious surfaces commonly found in urban areas cause increased runoff, as rainwater, rather than being absorbed back into the ground, runs quickly downstream, carrying with it pollutants such as oil and road salt.

Traditional stormwater management systems (concrete curbs, gutters, and pipes) were designed to transport runoff downstream as quickly as possible, leading to flooding and erosion. New methods of stormwater management, called Best Management Practices (BMPs), focus on reducing impervious surfaces, infiltrating runoff back into the ground, slowing the movement of runoff,

and cleaning runoff before it enters rivers and lakes.

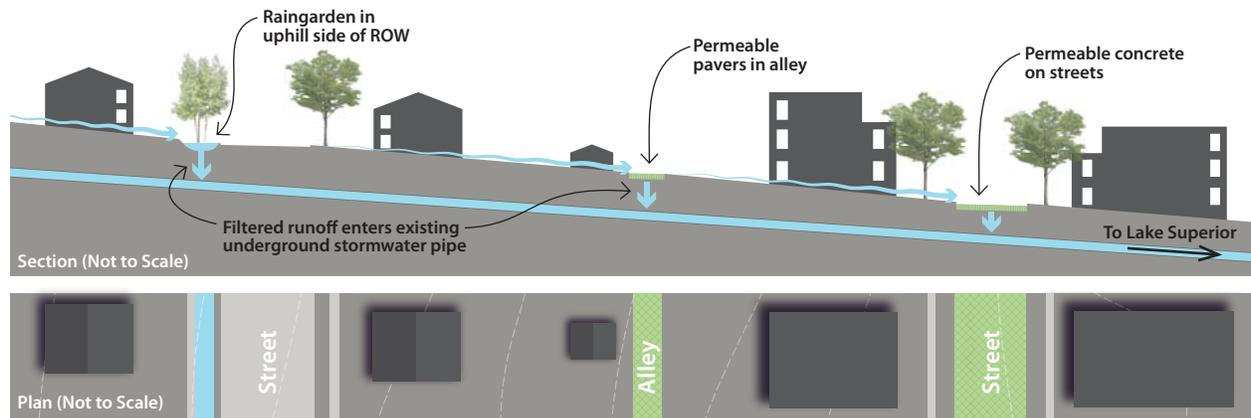
Duluth's steep slopes, poor soils (clay over bedrock), and cold climate limit infiltration capacity. Thus BMPs in the hillside area should focus on slowing runoff and cleaning the water before it reaches the lake (filtration). BMPs can be fitted to both private and public properties. Due to the variety of types of maintenance required for these systems, city stormwater engineers prefer that they are constructed in conjunction with private development.

However BMPs can also be integrated in the public right-of-way. These systems not only manage stormwater but can also provide much-needed aesthetic improvements to dense urban areas. In the hillside neighborhoods, alleys and crossstreets can intercept runoff as it moves downhill and filter it before it reaches the lake.



Stormwater Management Concept: Runoff Capture and Filtration on Hillside Cross Streets & Alleys

+ images of BMPs?

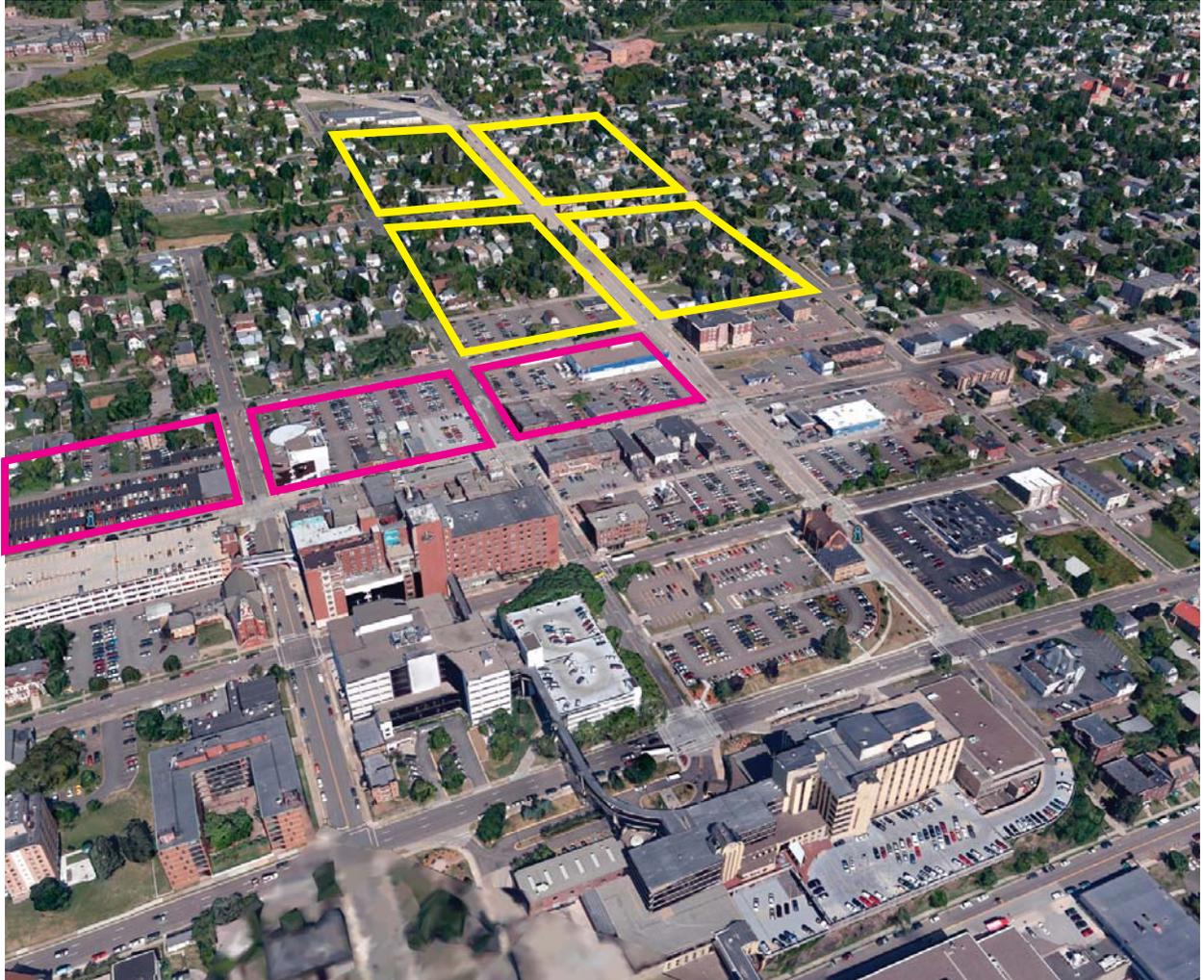


BMP Options on Hillside Cross Streets and Alleys

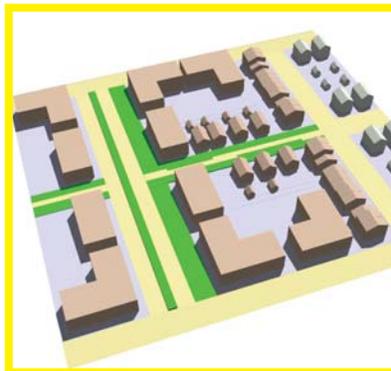
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## 5. Block Prototypes

## Redevelopment Block Types



5th Street Seam blocks



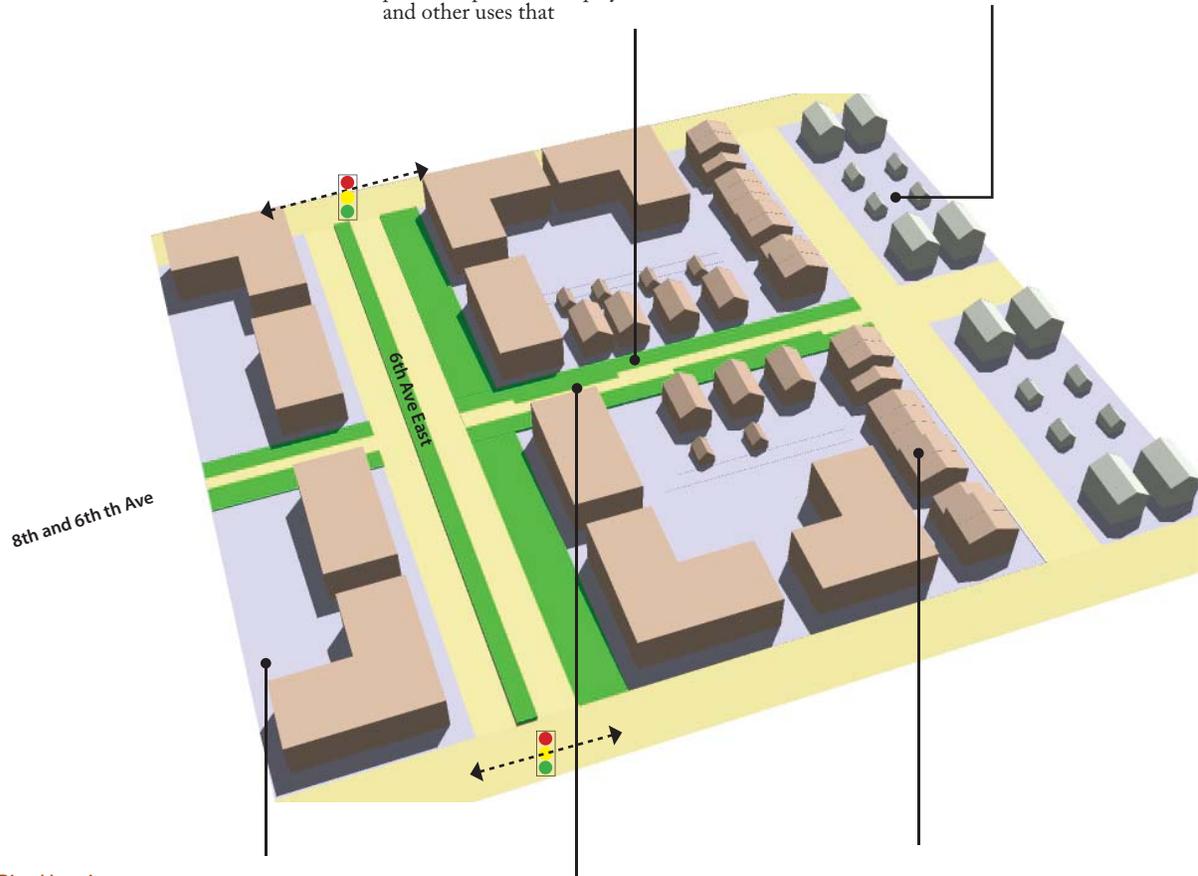
6th Avenue Residential Blocks

## 6th Avenue E Blocks

**Enhanced Setbacks and Linear Park Where Creek is Underground:** New development should avoid areas where creek is underground. The space above the creek should be used for a linear park or an enhanced setback.

**Green Street or Woonerf:** 6th and 8th streets will likely have restricted access (no left turns into or out of). This offers the opportunity to transform these streets into park-like streets where cars are permitted, but the full right of way is designed to prioritize pedestrians, play, stormwater, and other uses that

**Existing Houses**  
This block prototype is flexible depending on the quality of existing buildings it can absorb and integrate existing houses. They can either be retained on site or be moved to fill in empty lots.



**Mid Rise Housing:**  
With the higher traffic volumes on 6th Avenue E it is better suited for midrise housing that relies less on a quiet front street and more on transit access.

**Townhouses**  
Townhouses located on 4th and 7th Avenue E can match the scale of the existing housing on adjacent blocks while providing a new housing type that is lacking in the neighborhood.

**Potential Development Yield:**

Midrise housing: 240 units  
 townhouses: 30 units  
 Housing on Green street: 8- 30 units

## 5th Street Seam Blocks

### Housing facing the neighborhood

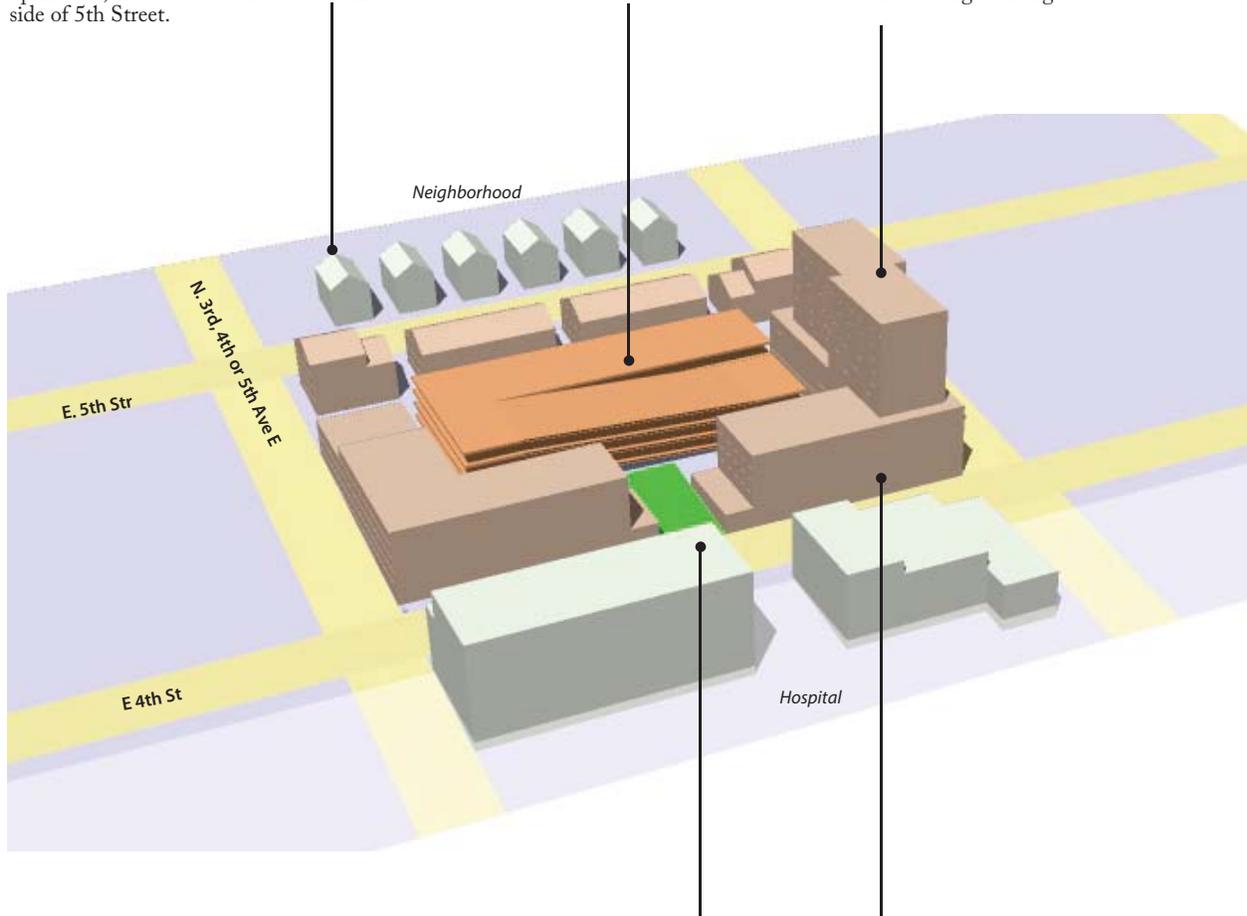
East 5th Street should be lined with townhouses or small apartments that face the neighborhood. The new buildings should be similar in height to the neighborhood houses 2-4 stories on the uphill side, 4-6 stories on the downhill side of 5th Street.

### Midblock shared parking ramp:

Shared parking structures should be located mid-block. Parking spaces should serve housing and retail developments on the block as well as general hospital users and employees on adjacent blocks.

### Towers that Frame Views:

Taller buildings should be oriented perpendicular to Lake Superior where they can frame and create views of the lake. Towers should be slender and have a base podium that matches the scale of surrounding buildings.



### Surrounding Context

The blocks between 5th Street and 6th Street are the transition between the hospital and the neighborhood. Redevelopment of this block should absorb that transition by locating taller buildings on 5th Street and shorter buildings facing the neighborhood.

### Small Pocket Parks and Plazas

Small plazas and parks for gathering and relaxing should be located along 5th Avenue. They should be designed to be well lit, accessible and programmed by property owners or a Business Improvement District.

### Vertical Mixed-Use on 5th Avenue

In order to create an active lively and safe street, 5th Street should have mid rise buildings with active uses on the ground floor and either apartments or offices above.

### Potential Development Yield:

Midrise and tower housing: 250-300 units  
 townhouses: 30 units  
 Parking spaces: 400-600 spaces

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## 6. Implementation

## Implementation

### Governance:

#### Near Term

- Expand the Membership, Capacity, and Charge of the Steering Committee

The charge of the Committee should evolve to provide the necessary leadership and operational capacity to coordinate activities, raise funds, attract investments, and overcome hurdles.

The Committee should be charged with unifying public policy around the common vision for the area and mobilizing public and private investments to implement the vision.

- Expand membership of the Committee to include St. Lukes Hospital, UMD, and Saint Scholastica, and other large downtown employers.
- Establish a formal MOU amongst Committee Members regarding roles and responsibilities. Consideration should be given to creating an Executive Committee consisting of “seed partners” and an Advisory Committee consisting of additional community partners.

#### Medium Term

- Consider the creation of a Neighborhood or Business Improvement District.

A Neighborhood or Business Improvement District will enable the area to implement certain public use improvements that are paid for by special tax assessments to property owners in the area. Public improvements are not detailed in this Plan but could include parklets, stormwater improvements or pedestrian amenities.

## Title

### Policy:

#### Near Term

- Work with City Planning to adopt this document as an amendment to the City's Comprehensive Plan.
- Initiate adjustments to Land Use Plan per figure \_\_\_\_
- Initiate zoning map changes per figure \_\_\_\_

#### Medium Term

- Consider changes to zoning code to allow neighborhood shops.
- Work with City Planning to define an official Redevelopment Area. An official Redevelopment Area enables the acquisition of blighted areas and other real property for the purpose of removing, preventing or reducing blight, blighting factors or causes of blight.

## Infrastructure and Open Space

#### Near Term

- Re-stripe 6th Avenue to replicate a three lane road with a continuous turning lane. If possible, install pylons on corners to resemble curb bump outs and prevent left turns in and out of select cross streets.
- Advance discussions on the Green Street / Woonerf Concept for 6th and 8th Street. Work with City Planning and Engineering Fire and Public Works and all utility providers to develop a mutually beneficial approach to creating Green Streets / Woonerfs as described in this Plan.
- Advance discussions on reconstruction of 6th Avenue. Work with the County and Region to complete designs for 6th Avenue and expedite funding.
- Apply for funds available through the Transportation Economic Development Program, a joint MnDOT / DEED Program intended to fund construction, reconstruction, and improvement to the State's state and local infrastructure.

## Development and Finance

#### Near Term

- Expand the pool for the existing Hillside Homeownership Program by including employees of UMD, Saint Lukes Hospital and other large downtown employers.
- Work with DEED to build a "Mid Sized Cities Development Program" for cities with population between 50,000 and 100,000. This program would help fund housing programs in cities experiencing fast job growth, but slow housing construction.
- Apply for Redevelopment Grant funding through DEED to pay for land acquisition, demolition, infrastructure improvements, and soil stabilization

## Title

### Medium Term

- Work with UDAC to relocate within the Hill District. Consider a joint development or public private partnership that relocates UDAC on a site with excellent transit access.
- Develop an Option to Buy Program to homeowners who in the upcoming five years may be looking to sell their houses. The Option to Buy program is a “right of first refusal” purchased from the homeowner, by the Partnership, or other entity. It can be used as a means of acquiring and assembling property or as a means of ensuring properties are not purchased by absentee investors.
- Create an Investment Fund. Recruit corporate and institutional investors to help seed initial projects (acquisition, gap financing) to be paid back through tax increment.
- Work with Property owners to begin redeveloping the surface parking lots between 4th and 5th Street. Projects in the 5th Street Seam should provide workforce housing on 5th Street, shared parking in the middle of the block, and retail or commercial uses on 4th Street. Establish a MOU between hospital, City and potential developer that allows predevelopment activities to commence.
- Begin discussion with property owners north of 6th Street between 5th and 7th Avenues to develop a detailed strategy for redevelopment. Engage Parks, and other stewards of open space to develop a specific plan for open space opportunities along 6th Ave.