



IRVING AND FAIRMOUNT BROWNFIELDS REVITALIZATION PLAN

October 2017



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EXECUTIVE SUMMARY

Overview

The Irving and Fairmount Brownfields Revitalization Plan (previously named the Western Port Area Neighborhood Plan) is an area-wide planning effort focusing on the Fairmount and Irving neighborhoods in western Duluth.

These neighborhoods have many amenities that include residential areas, commercial districts, parks, trails and access to the St. Louis River. The area also has unique opportunities for better connection to the Spirit Valley commercial area, increased walkability, redevelopment of post-industrial sites, and infrastructure improvements.

The U.S. Environmental Protection Agency's Brownfields Area-Wide Planning program funded this work. The Area-Wide Planning (AWP) program is designed to help communities confront local environmental and public health challenges related to brownfields and benefit underserved or economically disadvantaged communities.

The Brownfields AWP program employs a place-based planning strategy that is inclusive of surrounding conditions, the

local community, and assets and barriers to brownfield redevelopment. The program encourages community-based involvement in site assessment, cleanup, and reuse planning, as well as overall neighborhood revitalization. T

through a brownfields area-wide planning approach, the community identifies a specific project area that is affected by one or multiple brownfields, then works with residents and other stakeholders to develop reuse plans for catalyst, high priority brownfield sites and their surroundings.

Planning Process

The planning process began in earnest during summer 2016. Day-to-day project activities were guided by a collaboration between City of Duluth departmental staff and a consultant team led by the firm Perkins+Will. A project advisory team consisting of several Duluth area agencies provided technical input and oversight throughout the planning process.

A stakeholders group consisting of businesses, neighborhood advocates, and a broader group of local, regional, and state agencies, was convened at strategic

intervals to review draft plans and assist with community engagement. In addition, numerous outreach efforts were targeted to community groups that are often difficult to reach through traditional engagement activities.



Recognizing the importance of integrating health equity and resiliency into the plan, an innovative health assessment tool developed by MN Brownfields and the Minnesota Department of Health was incorporated into and throughout the planning process to ensure how well each plan recommendation contributes to the health, safety, and economic conditions of

neighborhood residents, workers, and visitors.

Goals and Objectives

Extensive community engagement resulted in the identification of key goals and objectives that guided the creation of the plan, which are as follows:

- **Increase economic activity (e.g., more employment, more businesses, etc.)**
- **Increase housing choices**
- **Improve health outcomes of residents, workers, and visitors (e.g., safer conditions, cleaned-up polluted sites, more physical activity, healthier foods, etc.)**
- **Improve multi-modal connections (e.g., safer truck route to Grand Avenue, better sidewalk access to Spirit Valley stores, more connections to parks and trails)**
- **Make Grand Avenue more inviting**
- **Provide opportunities for community gardens and other community gathering spaces**

Coordination with Other Planning Activities

Recognizing the importance and significance of other parallel planning processes, the Irving and Fairmount Brownfields Revitalization Plan was

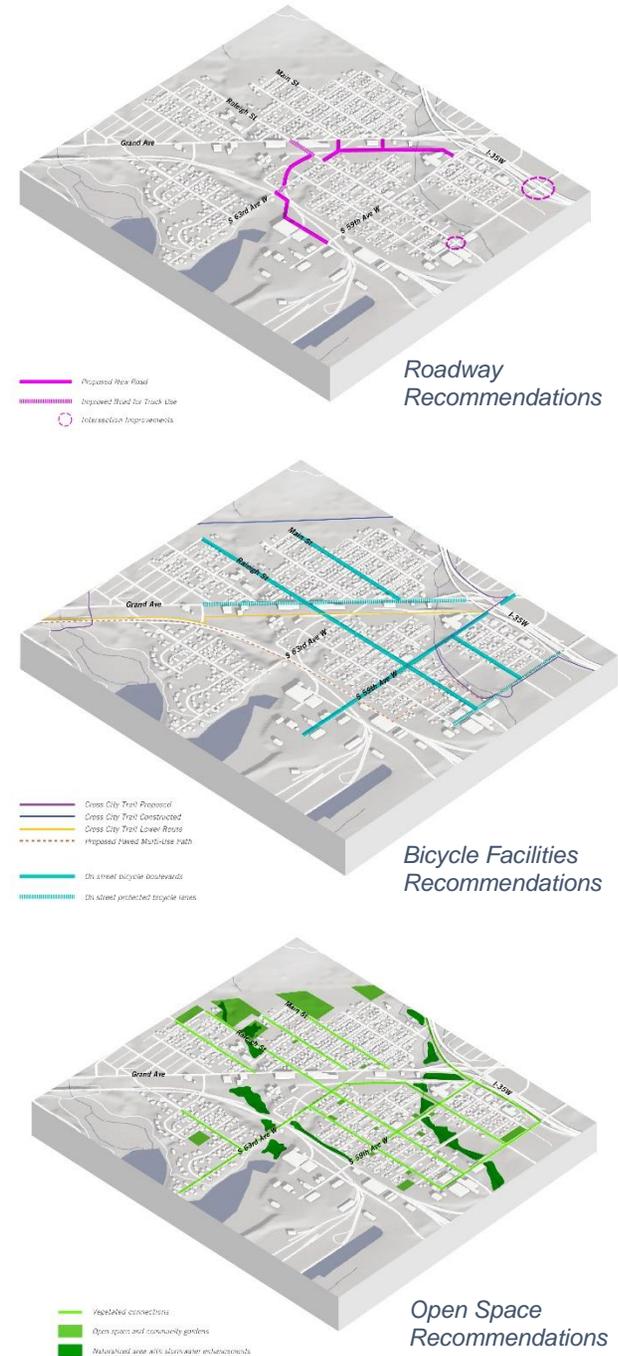
coordinated with activities associated with Imagine Duluth 2035 (the City’s comprehensive plan update), the St. Louis River/Interlake/Duluth Tar (SLRIDT) superfund redevelopment initiative, and the Kingsbury Bay Habitat Restoration Health Impact Assessment.

Background Studies

In addition to building on the work of previous plans for the Irving and Fairmount neighborhoods, several new studies were conducted in order to understand current conditions and establish a starting point from which to identify needed change. These studies included a market and economic analysis, a transportation analysis, an infrastructure analysis, an environmental review, an urban design and connectivity analysis, and a health indicators analysis.

Master Plan Recommendations

The cornerstone of the plan is a vision for revitalizing and/or redeveloping brownfields in the Irving and Fairmount neighborhoods. However, brownfields are a byproduct not only of their former use but also their context within the community. Therefore, as an area-wide plan, it was also important to assess these broader systems, such as roads, trails, and green spaces, to determine a more holistic vision that is resilient and sustainable.



The result was 27 recommendations that touch on all aspects of the study area, such as the addition of new housing, the development of new roads that would both stimulate economic development and increase safety, and the preservation of important ecological areas that would assist in stormwater management while at the same time creating amenity for residents, workers, and visitors.

Implementation

Implementation is a significant part of the Irving and Fairmount Brownfields Revitalization Plan. Astute observers will note that many of the recommendations and ideas presented in this plan have been around for many years. Therefore, it was important to elevate the role of implementation in moving the plan forward from ideas and concepts to reality.

Emphasis was placed on strategies that can overcome common implementation barriers. A detailed matrix including every recommendation was created to help identify project specific barriers and resources needed to overcome barriers. Moreover, an implementation workshop was held with key city and regional leaders who are in a position to lead many types of implementation efforts to help them identify the steps necessary to overcome such barriers.

Map Key	Action Item
1	Redevelop DW&P site into a variety of new housing styles with open space
2	Develop vacant lands north of Main St and west of 67th Ave into a variety new housing styles
3	Develop vacant lands east of 71st Ave on the north and south sides of Redruth St into a variety of new housing styles
4	Redevelop parcels along east side of Grand Ave between 63rd Ave and Keene Creek into 1-2 story commercial structures with surface parking
5	Redevelop MN Steel Fabricators site into new multifamily housing and community space
6	Develop vacant land bounded by Keene Creek on the south, Grand Ave on the west, I-35 on the north, and the Irving rail spur on the east into new senior housing
7	Redevelop aging business park into a new district with a mixture of commercial and light industrial businesses and potentially multifamily housing
8	Redevelop property at northeast corner of Grand Ave and Raleigh St into a mixture of commercial and potentially residential uses
9	Develop vacant properties along east side of Grand Avenue at Redruth St and 67th Ave W into a mixture of commercial and potentially residential uses
10	Promote industrial development south of BNSF tracks and east of Stryker Bay
11	Redevelop the lands underneath MN Power's transmission lines when they go fully off-line
N/A	Preservation of housing affordability
12	Create a vegetative buffer on the north side of the main line BNSF tracks between 63rd Ave and 57th Ave
13	Improve stormwater enhancements in naturalized areas along Keene Creek and the 68th/62nd Aves Creek (Stryker Bay)
N/A	Activate small vacant brownfield sites throughout the study area with green infrastructure or natural vegetation
N/A	Enhance streetlighting throughout the Irving and Fairmount neighborhoods
14	Improve the 57th Ave underpass below I-35
N/A	As streets are reconstructed, design them to include green infrastructure to handle more sustainably treat stormwater runoff and serve as vegetated connections to other open spaces
15	Where Cross City Trail is not implemented add on-street bike boulevards along Main St, 59th Ave, and Raleigh St
16	Convert Grand Avenue to a safer, 3-lane roadway with a center turn lane
17	Grand Avenue conversion to 3-lane (restriping) with protected bikeway
18	Grand Avenue conversion to 3-lane with intersection improvements and protected bikeway
19	Add a protected bikeway to Central Avenue south of I-35
20	Extend Waseca Industrial Rd to Grand Avenue via a vacated BNSF spur
21	Improve 63rd Ave to handle regular truck traffic from new Waseca Industrial Rd to BNSF spur
22	Improve Raleigh St to handle regular truck traffic from 63rd Ave to Grand Ave
23	Construct a new "backage" road parallel to east side of Grand Avenue from Polk St to Nicollet St (separate Cross City Trail project would run parallel to the new "backage" road)
24	Improve 63rd Ave from Raleigh St to new "backage" road parallel to Grand Ave
25	Construct new truck route along BNSF spur from 63rd Ave to Raleigh St
26	Add truck safety improvements to Raleigh St and Central Ave
27	Conduct a traffic study at Central Ave and I-35 intersection to determine necessary improvements to make safer for pedestrians, bicyclists, trucks, and motorists

Irving and Fairmount Brownfields Revitalization Plan Action Items

EXECUTIVE SUMMARY



Irving and Fairmount Brownfields Revitalization Plan Master Plan Recommendations

INTRODUCTION

Supported by an EPA Area-Wide Planning grant, the Irving and Fairmount Brownfields Revitalization Plan is a community-based plan that identifies short- and long-term strategies for redeveloping key catalytic sites and critical infrastructure that are designed to improve the health, safety, and economic conditions of Irving and Fairmount residents, workers, and visitors.

Background

Located in West Duluth, the Irving and Fairmount neighborhoods were established over 100 years ago and grew up around a number of rail-based ports along the St. Louis River near the mouths of the Keene and Kingsbury Creeks. The ports were the economic backbone of the Irving and Fairmount neighborhoods until global competition and automation began to severely erode the employment base in the mid and late 20th Century.

Rebounding from such economic upheaval has not been easy for a number of reasons. First, the historic legacy of numerous rail lines serving the ports has meant that the Irving and Fairmount neighborhoods have been carved into a variety of small, isolated areas with poor or



Figure 1: Irving and Fairmount Study Area Context Map

unsafe connections to one another and the remainder of Duluth. This was exacerbated with the completion of I-35 in the 1960s, which further cut off the Irving and Fairmount neighborhoods from West Duluth's main commercial district at the

intersection of Grand and Central. Furthermore, given the strong industrial character of the Irving and Fairmount neighborhoods, many of its blocks often consist of incompatible uses adjacent to one another that deter new investment.

INTRODUCTION

Second, the port activity itself, which was dominated by the transferring of heavy natural resources, such as coal, iron ore, and taconite, has left large swaths of shore land contaminated and in need of

EVOLUTION OF THE PROJECT NAME

During the early phases of the project, the study area was known as the Western Port Area Neighborhoods or WPAN. However, during the course of the planning process, it became apparent that this name did not capture the essence of the project nor was it widely understood to represent the Irving and Fairmount neighborhoods. Therefore, the name was changed to the Irving and Fairmount Brownfields Revitalization Plan (IFBRP). Although not as functional as an acronym, it was much more representative of the nature of the plan and its area of focus.

Therefore, some of the graphics and especially maps produced early in the planning process will include the WPAN acronym of the Western Port Area Neighborhood name. These are the same as the Irving and Fairmount Brownfields Revitalization Plan.

expensive and lengthy cleanup programs, which is not only a blight but has also limited the ability to repurpose the riverfront as an amenity and potentially attract new investment.

Third, much of the housing stock of the Irving and Fairmount neighborhoods, built originally to serve workers in the rail and port industries, is now old, modest by modern standards, and mostly situated on smaller lots. Therefore, the housing stock does not easily compete with newer and larger homes located closer to the region's faster growing employment centers. As a result, incomes of Irving and Fairmount households have generally been unable to keep up with the remainder of the region in recent years and now are well below the area median. With declining household incomes, this places further challenges on the ability of the Irving and Fairmount neighborhoods to reinvest in itself through home rehabilitations and local business entrepreneurship.

Given these challenges, an area-wide plan for the Irving and Fairmount neighborhoods informed by extensive community and stakeholder input and guided by a feasible set of short and long term implementation strategies focused on brownfield redevelopment is critical for achieving neighborhood revitalization.

Moreover, recognizing the importance of integrating health equity and resiliency into the plan, an innovative health assessment tool developed by the Minnesota Department of Health and the non-profit Minnesota Brownfields was incorporated throughout the planning process to evaluate how well each redevelopment concept contributes to the health, safety,

and economic conditions of neighborhood residents, workers, and visitors.

US EPA Brownfields Planning Framework

The U.S. Environmental Protection Agency's Brownfields Area-Wide Planning program funded this work. The Area-Wide Planning (AWP) program is designed to help communities confront local environmental and public health challenges related to brownfields and benefit underserved or economically disadvantaged communities. The Brownfields AWP program employs a place-based planning strategy that is inclusive of surrounding conditions, the local community, and assets and barriers

WHAT IS A BROWNFIELD?

According to the Environmental Protection Agency, with certain legal exclusions and additions, the term "brownfield site" means real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.

Cleaning up and reinvesting in these properties protects the environment, reduces blight, and takes development pressures off greenspaces and working lands.

to brownfield redevelopment. The program encourages community-based involvement in site assessment, cleanup, and reuse planning, as well as overall neighborhood revitalization. Through a brownfields area-wide planning approach, the community identifies a specific project area that is affected by one or multiple brownfields, then works with residents and other stakeholders to develop reuse plans for catalyst, high priority brownfield sites and their surroundings.

The framework diagram in Figure 2 illustrates the core concepts of the Brownfields AWP program and outlines the essential process for brownfields area-wide planning. The initial steps require an evaluation of area conditions, market potential, and the state of existing infrastructure; engaging local citizens, stakeholders, and organizations; and prioritizing brownfield sites within the project area for future investment. Initial findings inform strategies for the project area that will guide future implementation.

As plans are implemented by communities and brownfield properties within the planning areas are cleaned up and reused, the EPA expects positive environmental outcomes related to public health, air and water quality such as reduced exposure to contaminants, reduced greenhouse gas emissions and other air pollutants, reduced stormwater runoff, and substantial reductions in pollutant loadings in local waterways.

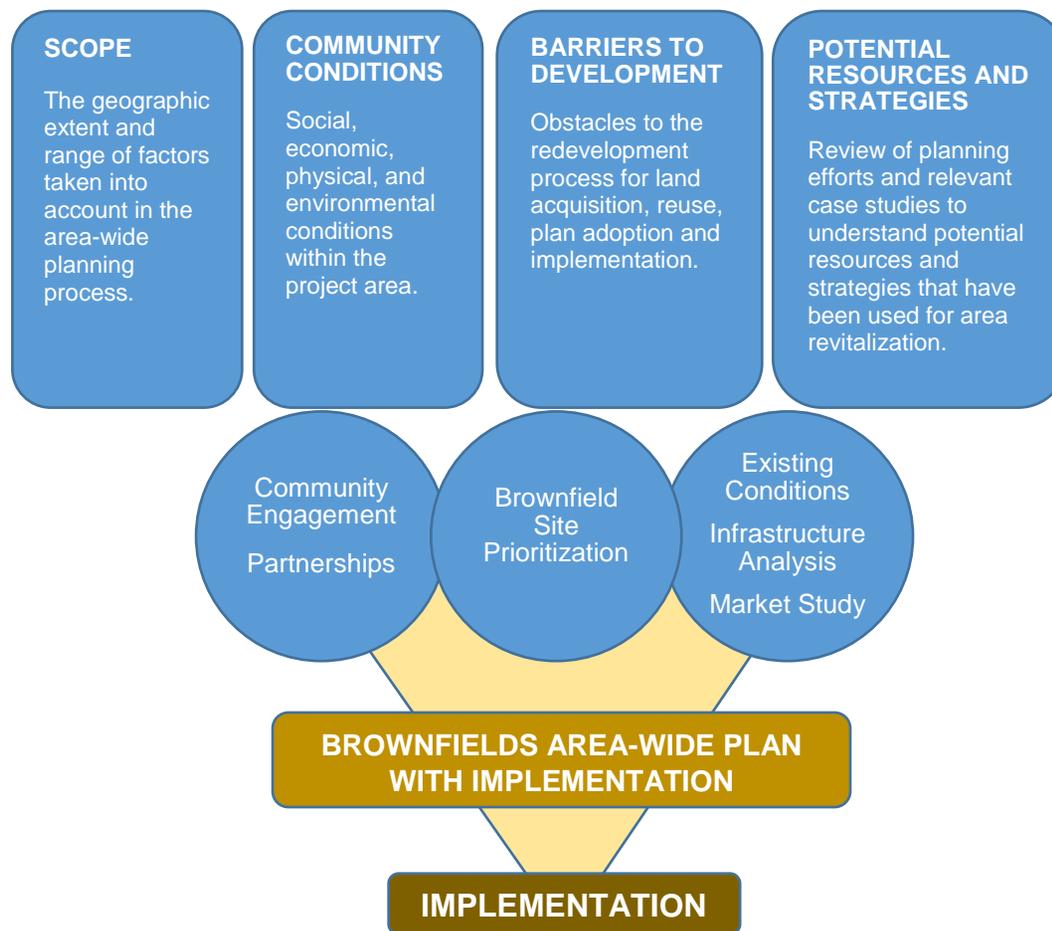


Figure 2: EPA Brownfields AWP Planning Framework

For the Irving and Fairmount neighborhoods, it is anticipated that the development of this plan will encourage existing property owners to assess and remediate their properties (with other funding assistance provided as applicable)

to allow for their subsequent redevelopment for new and/or updated industrial, commercial or residential uses. The reuse of the area will foster in-fill development that might have otherwise occurred on nearby greenfields and

encourage sustainable development practices incorporating multimodal transportation options, on-site stormwater treatment, green building techniques and site-sensitive landscaping.

Plan Purpose

Building on the needs of the Irving and Fairmount neighborhoods and the planning framework set out by the EPA for area wide plans, the following are some of the major purposes of the Irving and Fairmount Brownfields Revitalization Plan:

- **Leverage redevelopment of brownfields into catalytic game changers for Irving and Fairmount neighborhoods**
- **Guide the design and location of future planned investments (e.g., road construction, new trails, new development, etc.)**
- **Capitalize/build on other planning initiatives**
- **Explore new ideas and concepts for improving the Irving and Fairmount neighborhoods**
- **Help secure funds to implement recommended projects**
- **Strengthen community**

Related Planning

During the planning process there were several other important planning efforts that were related to the Irving and Fairmount Brownfields Revitalization Plan. Therefore, it was necessary at times to coordinate activities with these other planning efforts in order to avoid duplication and to leverage the value of these other efforts as efficiently as possible. Below is a brief summary of these other planning efforts and their relationship to the Irving and Fairmount Brownfields Revitalization Plan.

Imagine Duluth 2035 – Forward Together

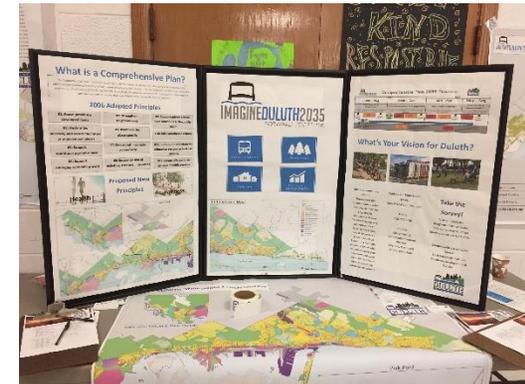
The City of Duluth is working with the Planning Commission and the Administration to update the 2006 Comprehensive Plan to reflect the changes in the City's demographic, economic, and cultural profiles. Major plan elements that are being considered as part of the update include:

- Housing (workforce housing, housing options for individuals at all income levels, choices in housing options for all ages)
- Transportation/public infrastructure (complete streets, multi-modal systems, phasing of future public infrastructure)

- Economic health (workforce development, improving the economic base, promoting redevelopment)
- Open space (incorporating the park planning that's been completed over the past decade, working toward a shared vision for tax-forfeit parcels)
- Energy and Conservation

Many of the major plan elements in Imagine Duluth 2035 are reflected in the Irving and Fairmount plan. At several points during the Irving and Fairmount plan, public meetings occurring in the study area were also used to engage stakeholders on broader city-wide planning issues.

The Irving and Fairmount plan is expected to become an appendix to the Imagine Duluth 2035 Plan that focuses on one of the City's many neighborhoods.



Imagine Duluth 2035 Display at IFBRP Public Meeting #1 (Sep 2016)

Stryker Bay ERI Reuse Assessment (SLRIDT Site)

EPA Superfund Redevelopment Initiative (SRI) and EPA Region 5 sponsored a reuse assessment in 2016 for the St. Louis River/Interlake/Duluth Tar site (SLRIDT site), a sub-area of the St. Louis River Superfund site. The SLRIDT site offers strategic opportunities to connect nearby neighborhoods to the river, leveraging reuse and redevelopment opportunities across Duluth's 54th and 59th Avenue Peninsulas and Waseca Industrial Park. Reuse opportunities identified from the assessment include -

- New Development - 56 acres zoned for industrial and waterfront industrial with few limitations are available for new development.
- Open Space and Conservation - An area of restored habitat on the 54th Avenue peninsula will remain a long-term conservation area. Potential public access and long-term ownership options will need to be determined as MPCA works with current owner XIK Corp. to develop a conservation easement management plan for the property.
- Development process - The combined resources available through the City, EPA and MPCA establish a clear process for redevelopment in the area.

The Irving and Fairmount study area completely surrounds this site and new development in either area will have a profound effect on the other. Therefore, both planning efforts have coordinated some of their engagement activities and shared outcomes.

Kingsbury Bay – Grassy Point Health Impact Assessment (HIA)

Due to a history of contamination from multiple sources including Superfund sites, the St. Louis River and Bay are declared an Area of Concern (AOC) under the Great Lakes Water Quality Agreement of 1987. The planning and remediation work in the St. Louis River is ongoing with the goal to delist the AOC by 2025. There are a number of Remediation to Restoration (R2R) Projects in the area that involve remediation (of sediment contamination) and restoration (of habitat in the area).

The Kingsbury Bay and Grassy Point are two of these restoration projects which include environmental changes to the river at Kingsbury Bay and Grassy Point and the potential park amenities adjacent to the projects. The Kingsbury Bay restoration project will restore the wetland complex at the Mouth of Kingsbury Creek to pre-1961 conditions by dredging. The Grassy Point project will remove non-native material and restore optimum habitat and water depths, utilizing sediments removed from

Kingsbury Bay. Following the restoration work by the Minnesota Department of Natural Resources (MNDNR), the City of Duluth will undertake future park improvement projects at these sites.

The U.S. EPA is conducting an HIA in western Duluth to consider the public health implications of these projects to help inform the MNDNR and City of Duluth's decisions regarding the design of habitat restoration and subsequent park improvement projects. The HIA will evaluate each of the potential decision scenarios using science-based methods and citizen input to provide recommendations intended to maximize benefits and mitigate or avoid harmful impacts to human health.

Given the proximity of these projects to the Irving and Fairmount study area and the overlap related to potential health impacts of the implementation strategies, coordination of community feedback and engagement strategies has been a priority.

Smart Growth Implementation Assistance

Funded through the EPA's Office of Sustainable Communities, the City is currently using the principles developed as part of the Irving and Fairmount Brownfields Revitalization Plan to create a set of smart growth principles that can be applied to other small areas/neighborhoods in the City or be scaled up to the entire

INTRODUCTION

City. This process will involve close coordination with other planning efforts occurring in or near the Irving and Fairmount study area as well as the comprehensive plan update.

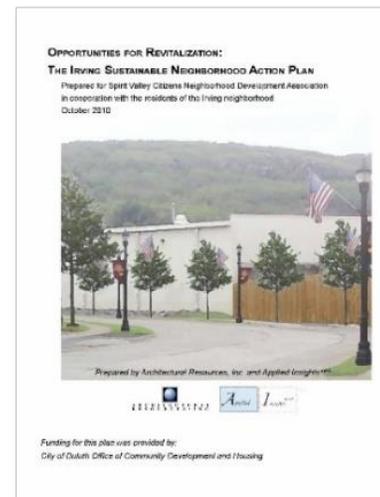
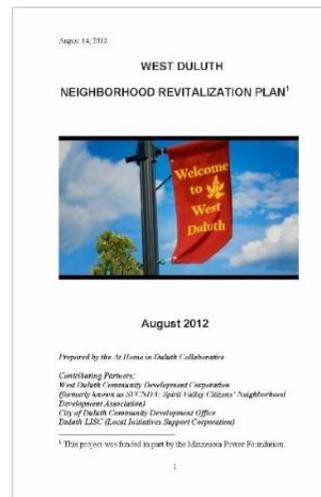
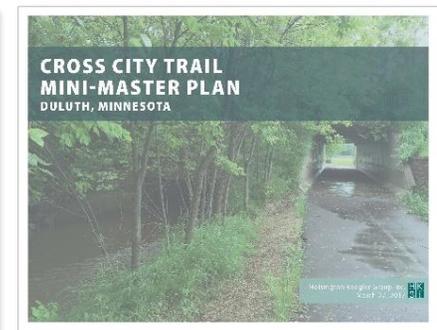
Previous Planning

There has been a rich history of previous planning efforts that were used as a resource for the Irving and Fairmount Brownfields Revitalization Plan. These previous planning efforts not only provided a better understanding of the history and context of the Irving and Fairmount neighborhoods, but in many cases were also sources of critical ideas and recommendations presented in this plan.

The following are a list of recent plans and studies that were reviewed and consulted:

- Cross City Mini-Master Plan (2017)
- Keene Creek Park Plan (2016)
- Irving Park Mini Master Plan (2015)
- Duluth Retail Study (2014)
- Lake Superior Zoo and Fairmount Park Planning Report (2014)
- Duluth Workforce Housing Study (2014)
- Connections 2040: Duluth Superior Long Range Transportation Plan (2014)

- Highway 23/Grand Avenue Corridor Study (2013)
- West Duluth Neighborhood Revitalization Plan Update (2012)
- Duluth Sidewalk Study (2012)
- Irving Sustainable Neighborhood Action Plan (2010)
- West Duluth Neighborhood Revitalization Plan (2008)
- Munger Trail to Lakewalk Connector (2007)
- City of Duluth Comprehensive Plan (2006)



VISION

It is typical that plans focused on redevelopment will take many years to implement. Therefore, to help stakeholders persevere over long periods of time it is useful to have an overarching vision that is a clear, actionable statement to serve as a reminder of the plan's goals and objectives.

The following vision statement is a synthesis of comments received from stakeholders throughout the planning process.

Goals and Objectives

Among the wide range of comments received during the planning process, several key themes emerged regarding the future of the Irving and Fairmount neighborhoods. These themes were then synthesized into a set of goals and objectives that informed the overall master plan as well as specific recommendations.

- **Increase economic activity (e.g., more employment, more businesses, etc.)**
- **Increase housing choices**
- **Improve health outcomes of residents, workers, and visitors**

IRVING AND FAIRMOUNT BROWNFIELDS REVITALIZATION PLAN VISION STATEMENT

The Irving and Fairmount Brownfields Revitalization Plan will promote a healthy community by incorporating design ideas to create socially, economically, and ecologically resilient neighborhoods that support its residents, businesses, their employees, and visitors. The redevelopment of underutilized brownfield properties will be key to achieving this.

The plan will provide a decision-making framework to ensure that the Irving and Fairmount neighborhoods will have: a) a range of housing stock; b) a diverse network of roads, trails, and sidewalks that safely and efficiently connect people to places of employment, goods and services, residences, institutions, and nature; and c) opportunities for the sustainable expansion of commerce, recreation, and social interaction.

- **(e.g., safer conditions, cleaned-up polluted sites, more physical activity, healthier foods, etc.)**
- **Improve multi-modal connections (e.g., safer truck route to Grand Avenue, better sidewalk access to Spirit Valley stores, more connections to parks and trails)**
- **Make Grand Avenue more inviting**
- **Provide opportunities for community gardens and other community gathering spaces**

COMMUNITY ENGAGEMENT / PLANNING PROCESS

The Irving and Fairmount Brownfields Revitalization Plan was prepared over an 18 month period from May 2016 to October 2017. This time frame allowed for the planning process to include background studies, concept development and refinement, implementation planning, and, most importantly, multiple opportunities for community engagement.

Figure 3 outlines the planning process and the major project phases.

Project Management Team

A Project Management Team (PMT), consisting of key staff from several City of Duluth departments, actively managed the day-to-day activities of the planning process in conjunction with a hired team of consultants to guide the study and facilitate coordination among partnering agencies.

The PMT was responsible for oversight of all technical work and the project schedule. For the duration of the study, the PMT met on a weekly basis. The City of Duluth departments represented on the PMT were as follows:

- Business and Economic Development
- Community Planning
- Parks and Recreation
- Public Works and Utilities

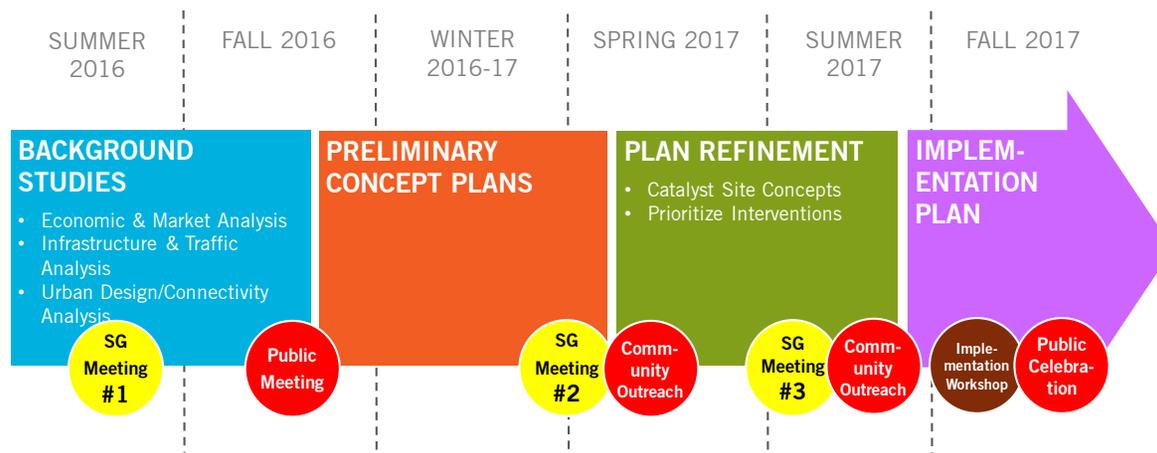


Figure 3: Irving and Fairmount Brownfields Revitalization Plan Process and Key Phases

Project Advisory Team

A Project Advisory Team (PAT) consisting of agencies that either have jurisdiction over some part of the Irving and Fairmount study area, through implementation and/or regulatory authority, or have a direct role in one or more elements of the planning process, was formed to review progress, advise on key decisions, and coordinate activities on which they may be directly involved. The PAT met monthly with the PMT and the consultant team throughout

the duration of the planning process. Members of the PAT included the following:

- EPA
- Minnesota Brownfields
- St. Louis County Health Department
- Duluth Superior Port Authority
- Duluth LISC
- St. Louis River Alliance

Stakeholders Group

A Stakeholders Group of Irving and Fairmount residents, businesses, non-profit organizations with a stake in the neighborhoods, and representatives of other regional, state, and federal agencies was established to evaluate planning concepts and alternatives at key milestones in the planning process and to provide the PMT and consultants with advice and assistance with outreach to the broader community. The Stakeholders Group met on three occasions during plan development and participated in an on-line survey. Over 20 organizations were represented on the Stakeholders Group.



Stakeholders Group Meeting #1



Stakeholders Group Meeting #2

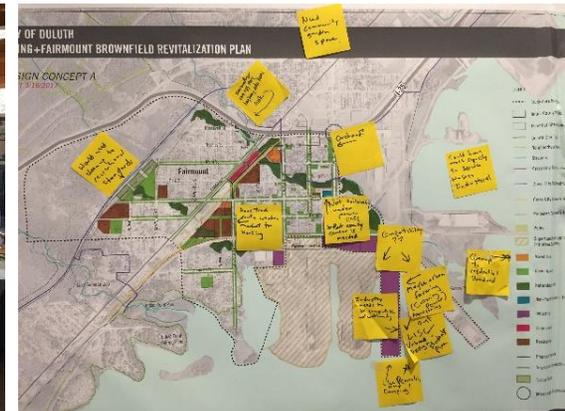


Figure 4: Stakeholders Group Meeting #2 – Post-It Comments for Concept A

Public Meeting #2

The second public meeting was held at the City Center West Community Center in June 2017. The format was an open house in which a series of boards presented a draft master plan for the study area and development concepts for many of identified catalyst sites. Attendees were encouraged to visit each board and engage with staff and consultants regarding any questions or concerns.



Public Meeting #2



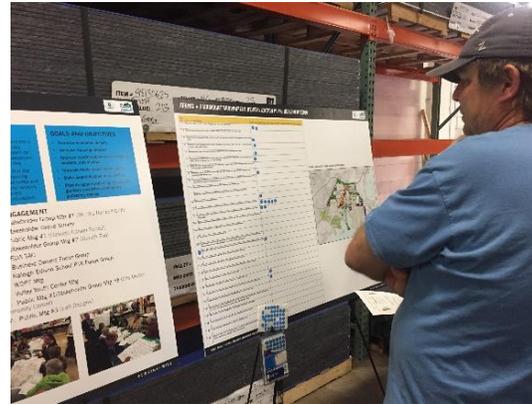
Public Meeting #2



Public Meeting #2

Public Meeting #3

The third public meeting was held at Loll Designs in October 2017. This meeting presented the final plan to the community and provided opportunities for attendees to weigh in on which plan recommendations they would personally like to become involved in during plan implementation. Mayor Emily Larson spoke at the meeting and acknowledged the numerous groups and individuals who contributed their time and effort in the development of the plan.



Public Meeting #3



Public Meeting #3



Public Meeting #3



Public Meeting #3



Public Meeting #3



Public Meeting #3

Targeted Outreach

In addition to organized groups and periodic public meetings, there were multiple meetings directed at specific constituents and stakeholders who normally are unable to attend traditional public meetings. These targeted meetings were organized and facilitated by Duluth city staff at locations convenient to each group. City staff gathered comments of most concern to the targeted groups and incorporated their feedback into the plan concepts. Below is a list of the targeted outreach meetings:

- Duluth EDA Technical Advisory Committee Meeting (Apr 2017)
- Irving and Fairmount Business Owners Focus Group (Apr 2017)
- Raleigh Edison Charter School PAC Focus Group (Apr 2017)
- Friends of West Duluth Parks and Trails Meeting (Apr 2017)
- Valley Youth Center Meeting (Apr 2017)

CONDITIONS ANALYSIS

Every plan needs a starting point from which to identify what can or should be changed versus what can or should be preserved. This section presents information on a variety of existing physical and economic conditions within the study area in order to better understand what it would require to get from today to a shared vision of the future.

Neighborhood Context

Study Area

The Irving and Fairmount study area is approximately 630 acres located in West Duluth (See Figure 1). The study area is bounded on the north by Interstate 35, on the east by Central Avenue and Waseca Industrial Road and the south by Lake Superior, as illustrated in Figure 6.

The neighborhoods are fully developed with a long history that dates back many decades. The dominant land use in the study area is residential. Although there are many examples of newer infill housing (both single-family and multifamily), the overwhelming majority of the housing stock

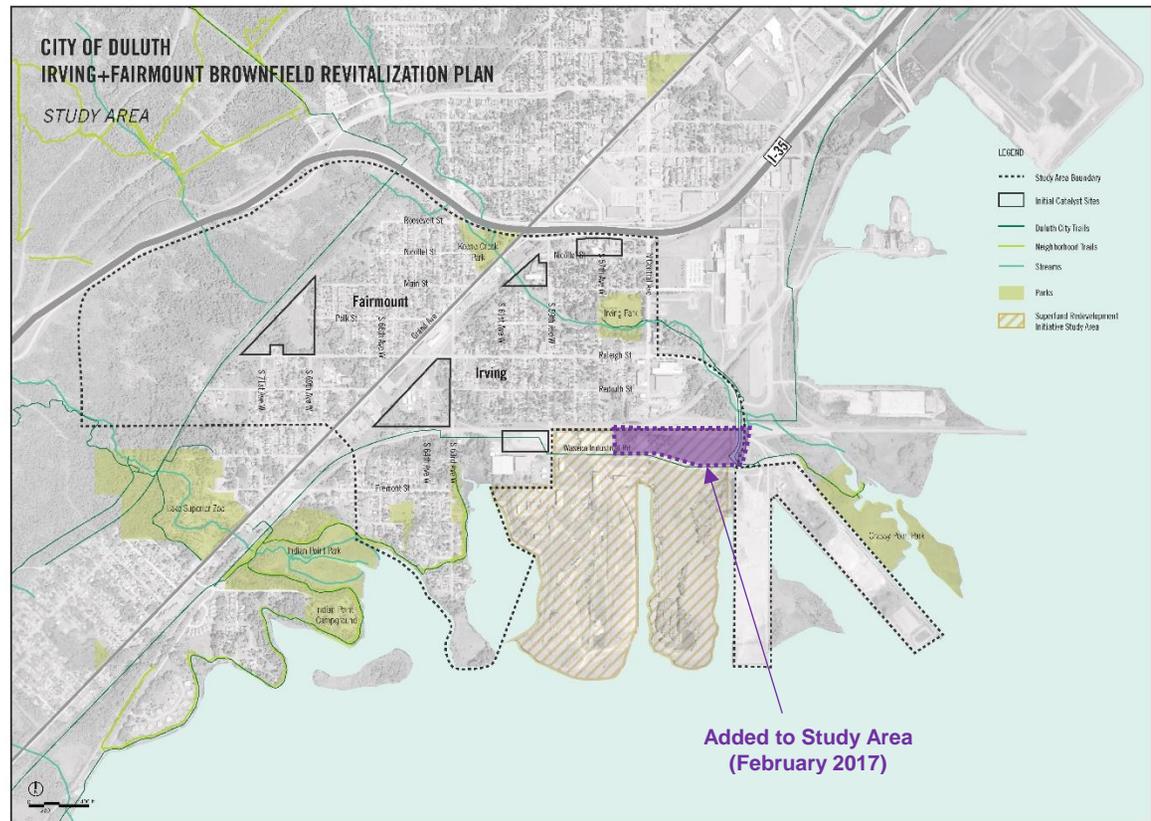


Figure 6: Irving and Fairmount Brownfields Revitalization Plan Study Area Map

consists of older, modest single-family homes that date back to the neighborhoods' initial development.

According to the 2010 Census, over 75% of the housing stock in the WPAN was built before 1950. Across Duluth, the proportion

is 53%. Furthermore, according data from the Duluth Area Association of Realtors and Zillow the median price of a home sold in the WPAN in the last 12 months has been \$113,000, which is well below the Duluth median sales price of \$157,000.

As one would expect in a neighborhood of older, smaller homes, there are examples of homes with deferred maintenance, but this does not impact the neighborhoods' overall character as the majority of homes are well maintained with many examples of significant additions and other major enhancements, due in large part to active neighborhood efforts and the role of the City of Duluth's Community Development Committee (CDC), which allocates and administers HUD housing improvement funds via programs such as CDBG, HOME, and ESP.



Industrial land uses make up the other most important land use type in the study area. These uses tend to be clustered in three areas: 1) along a former spur of the BNSF rail line that runs parallel to the

eastern side of Grand Avenue; 2) immediately west of the intersection of Waseca Industrial Road and 59th Avenue; and 3) along Central Avenue between Raleigh and Redruth Streets. Further contributing to the industrial character of the area are uses adjacent to the study area but located within it, such as the Verso paper plant and Hallett Dock 6.

In addition to land use, transportation infrastructure also influence the WPAN's character. Although not as dominant as it once was, there are several active freight rail lines that still cross through the study area. Many of the rail lines date back to the development of the Irving and Fairmount neighborhoods and contribute to the industrial character previously noted. As a result, this separates many smaller clusters of homes from one another creating a barrier to both movement and community building.



The other major transportation feature that impacts the character of the Irving and Fairmount neighborhoods are the highways of Interstate 35 and Minnesota 23 (Grand Avenue). At one time, the Irving and Fairmount neighborhoods were more connected to other neighborhoods in West Duluth to the north. However, construction of I-35 in the 1960s, though an important asset for the region, physically and psychologically separated Irving and Fairmount from the remainder of West Duluth, especially since nearby Spirit Valley is the commercial hub for the broader West Duluth area.



Grand Avenue, through multiple improvements, has become an important truck route connecting neighborhoods in the far west of Duluth to the remainder of the City and other destinations to the south. As a truck route, Grand Avenue has evolved to become a substantial barrier as well that separates the Irving and Fairmount neighborhoods from one another.

Regional Accessibility

Accessibility at the regional level is an important indicator of a neighborhood's ability to be connected to other parts of the region and, thus, benefit from economic activity in those areas as well. At a local or site level, accessibility is important to evaluate because sites with limited access will preclude a variety of potential uses.

The Irving and Fairmount study area is approximately five miles from downtown Duluth. It has excellent highway access to downtown Duluth and the broader region via Interstate 35, Highway 2, and Grand Avenue. Moreover, Irving and Fairmount's location along Interstate 35 means it is between downtown Duluth/East Duluth and the Twin Cities Metro Area. Therefore, travelers coming from the Twin Cities to destinations in and near the downtown, must pass through the Irving and Fairmount.

As previously mentioned, freight rail remains an important characteristic of Irving and Fairmount. BNSF operates a main line through the Irving neighborhood as well as several spurs. The BSNF line connects Duluth to the Twin Cities via northwestern Wisconsin via six daily trains. Mike's Yard is a critical BNSF switching area that allows trains to connect to docks further north in Duluth via the Grassy Point Bridge. One of the spurs serves Hallett Dock 6, which is a multimodal bulk transfer

facility located adjacent to the Irving and Fairmount study area.

In addition to freight rail, planning is underway for the Northern Lights Express, which would be a return of passenger rail service to Duluth. Although a definite route has yet to be determined, it would likely travel through the Irving neighborhood to downtown Duluth. There are no current plans for a station stop in the study area. Therefore, opportunities for transit-oriented development (TOD) related to the Northern Lights Express would be limited in the study area.

Nevertheless, passenger rail service that goes through the Irving neighborhood and

stops in downtown Duluth could certainly have a positive impact on both Irving and Fairmount because it would increase visibility of the area to visitors and result in increased tourism at recreational destinations in and near the study area.

The Irving and Fairmount neighborhoods also have direct access to the St. Louis River and the Port of Duluth-Superior via the C. Reiss Terminal. Ranked by cargo tonnage among the top 20 ports in the U.S., the Port of Duluth-Superior is a full-service, multimodal hub for domestic and international trade.



The presence of transit and trails is another important indicator of regional accessibility. The Irving and Fairmount neighborhoods are currently well served by frequent bus transit along Grand Avenue with service about every 15 minutes during peak times and every 20 minutes during off-peak times. A variety of off-road and on-street bicycle trails exist that connect Irving and Fairmount residents and workers to other parts of the City. Furthermore, there are several other trail

NORTHERN LIGHTS EXPRESS

NLX is a proposed passenger rail service that would connect Duluth to the Minneapolis-St. Paul Metropolitan Area. Although still early in the planning process, MnDOT is exploring the feasibility of the service. If plans come to fruition, passengers would travel through the study area, exposing them to the Irving and Fairmount neighborhoods and potentially attract visitors.



and bike projects that are currently under development or in the planning process that will significantly enhance the current network and make alternative modes of transportation a truly viable option for those that want access to many parts of the City and region.

Important Points of Interest/Amenities

Prominent points of interest in or near the Irving and Fairmount study area help draw visitors to the area, which helps build awareness and generates interest in the Irving and Fairmount neighborhoods. Although not an exhaustive list of points of interest, prominent destinations include Spirit Mountain Recreation Area, Lake Superior Zoo, Indian Point Park and Campground, Keene Creek Park Dog Run (one of two in the City), Spirit Valley Mall and adjacent retail district, Lake Superior Hiking Trail, Willard Munger State Trail, Heritage Sports Center and Wade Stadium, Denfeld High School, and Public Schools Stadium.

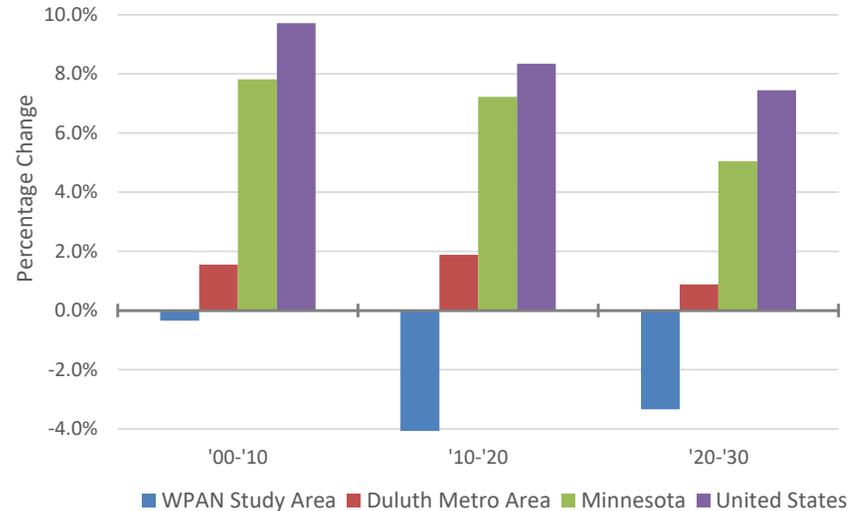
Market and Economy

A market study for the Irving and Fairmount neighborhoods was conducted to determine the potential to support new real estate investment in both the short and long term. Specific elements of the study looked at the study area’s geographic location within the region, socio-economic trends for the study area and region, review of recent housing and retail studies, and interviews with developers familiar with West Duluth and the Irving and Fairmount neighborhoods.

Although many of the market findings pertained to the broader Irving and Fairmount area, special emphasis was given to the five potential catalyst sites identified at the outset of the planning study due to their size, prominent location, and potential for being a brownfield. The full market study report is included as an appendix to this document.

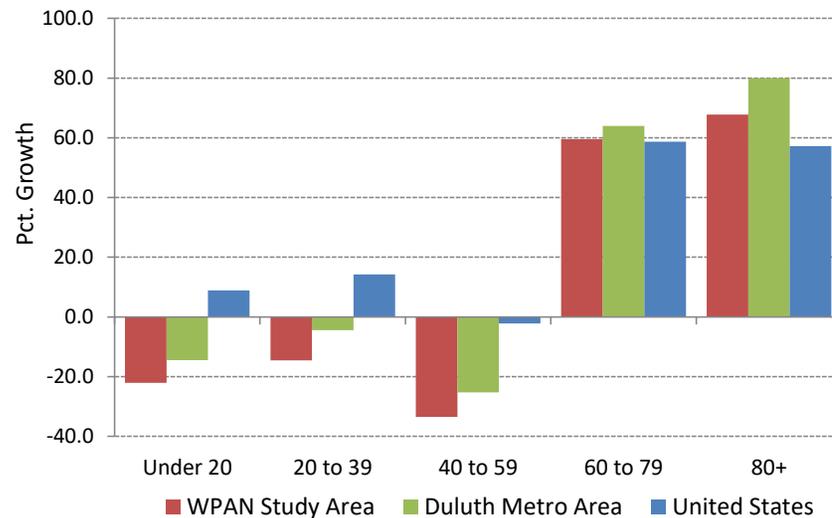
Key conclusions from the market study were as follows:

- Based on existing conditions, demographic and economic growth in the Duluth region will be the primary engine that will drive change in the Irving and Fairmount neighborhoods (Figure 7).
- Employment growth in Duluth and West Duluth in particular has been strong since 2010. Employment has grown between 3.5% and 4.0%,



Data Sources: US Census; Minnesota State Demographer; Perkins+Will

Figure 7: Population Growth Rates 2010-2030



Source: US Census; Perkins+Will

Figure 8: Population Growth Rate by Age 2010-2030

which will fuel demand for new housing, goods and services, opportunities for recreation and education, and other amenities that contribute to a high quality of life.

- All of the real sectors are experiencing very low vacancies. So low, that that it is likely that economic growth is being inhibited due to a lack of sufficient space and/or rising rents suppressing investment.
- Although Downtown Duluth has been the epicenter of new investment related to a growing economy, local real estate experts observe that neighborhoods with strengthening connections to the downtown will be

WHAT ARE DEVELOPERS SAYING

HOUSING: *New housing of all types is needed everywhere, but modest incomes mean new construction will require either development assistance or rental subsidies or both. DW&P (Catalyst Site #5) would be great location for housing.*

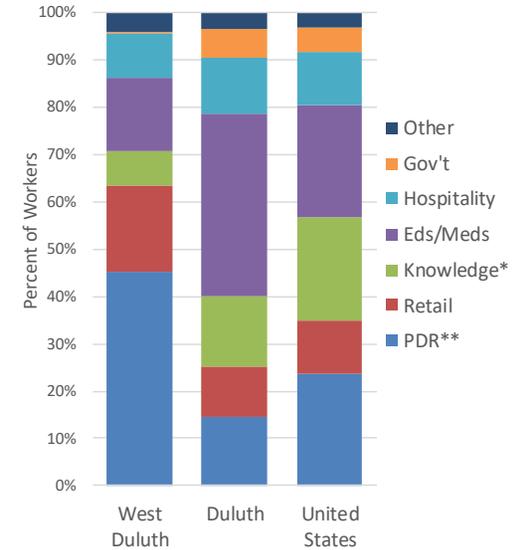
RETAIL: *Spirit Valley is a strong anchor; more retail in the study area will depend on household growth.*

OFFICE: *Minimal demand in study area because office development is primarily focused on the downtown.*

INDUSTRIAL: *Study area is a really good location for distribution facilities; access to I-35, Grand Ave, and rail. Market is especially strong right now with limited high-quality sites available.*

in a position to capture spin-off growth.

- The Irving and Fairmount neighborhoods have excellent access to the regional transportation system. This favorably positions the neighborhoods to capture economic growth related to warehousing, distribution, and other logistics activities.
- Cost of construction is a real barrier to growth, especially within the housing sector. High construction costs due to materials and labor are not in-line with prevailing wages, which limits the ability to rely on market rate pricing to cover the cost of new construction. Therefore, housing in many locations throughout Duluth, the Irving and Fairmount neighborhoods included, will likely require some level of gap financing in order to make housing development feasible for most developers.
- Incomes among Irving and Fairmount households are low in comparison to the Duluth Metro Area (Figure 10). Lower incomes further increase the likelihood that additional gap financing will be needed to make housing development feasible.
- Property values on a per square foot basis are low for many of the potential catalyst sites and other strategic locations, which contributes to their attractiveness as potential redevelopment sites (Figure 11).



* Knowledge = Consists of "knowledge-based" industry sectors, such as Information, Finance, and Professional Services/Management
 ** PDR = Production, Distribution, and Repair industry sectors (i.e., Manufacturing, Construction, Transportation, Utilities, etc.)
 Source: US Census Bureau's LEHD Origin-Destination Employment Statistics program

Figure 9: Employment Profile by Industry

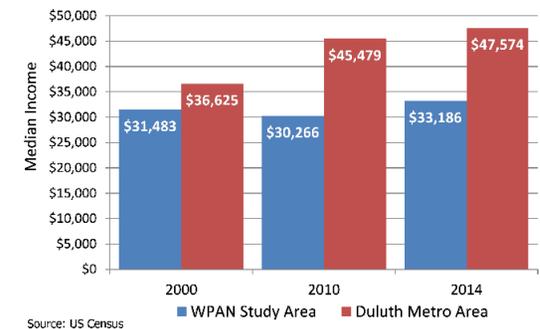


Figure 10: Household Income

CONDITIONS ANALYSIS

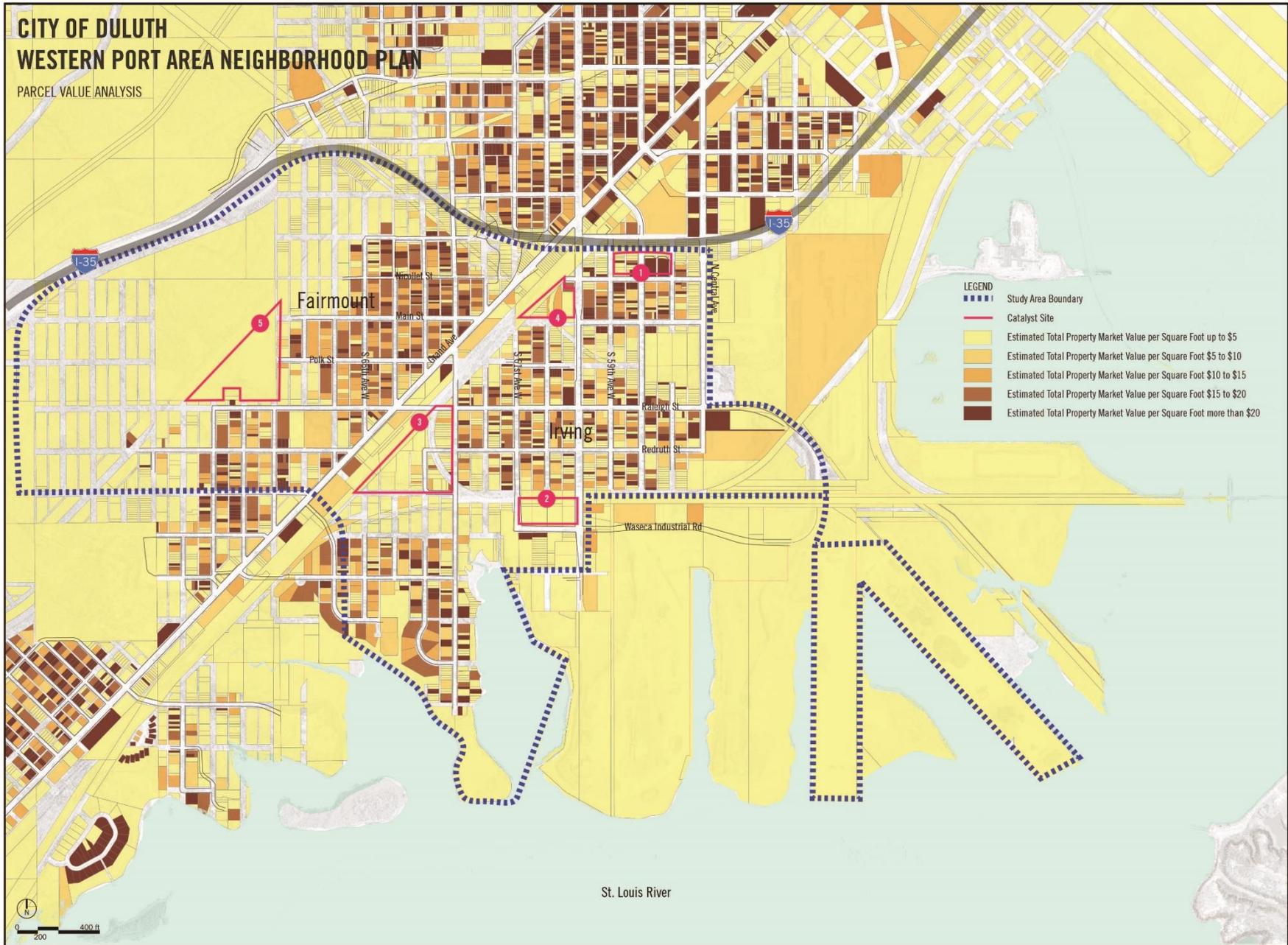


Figure 11: Parcel Value Analysis of Properties in the Irving and Fairmount Study Area

Infrastructure and Environmental Review

In the event significant redevelopment were to occur on any of the catalyst sites (or other sites identified during the planning process), it will be important to understand what, if any, potential infrastructure issues may be a barrier to redevelopment. Therefore, each catalyst site was analyzed for the availability and condition of the existing utility infrastructure in support of potential future development. Also analyzed were any previous environmental reviews that have been completed on the five catalyst sites along with recommendations for additional reviews that may be necessary.

Specific infrastructure analyzed include sanitary sewer, water main, gas main, and storm water. The full report is included as an appendix to the document. The following are key findings from the analysis.

Infrastructure Analysis

Sanitary Sewer: by and large all the sites analyzed are served by existing sewer mains that do not have a history of leaks or blockages and would be able to accommodate future redevelopment.

Water Main: all of the sites are served by existing water mains that would be able to accommodate most types of future development. The only exception would be catalyst site #3 where high water demand driven by future development would likely require a main upgrade or a loop connection underneath the railroad tracks that bisect the site.

Gas Main: all of the sites have access to existing gas mains with good pressure and would accommodate future redevelopment.

Storm Sewer: although capacity in the system was not modeled for any of the sites, preliminary review concludes that the storm sewers serving each of the sites would be adequate to handle any redevelopment and would not require extension of the storm water system. The only exception may be with catalyst site #2, which is flat and may need to be built in order for run off to access any nearby storm sewers. However, this site is not a likely candidate for redevelopment given its size and existing uses.

Environmental Review

Catalyst Site #1 (I-35 Underpass): fuel tank removed in early 1990s. Updated analysis recommended if construction were to occur. However, site is not envisioned for redevelopment, but improved transportation enhancements. Therefore, likelihood of remediation is low.

Catalyst Site #2 (Waseca Industrial Road): site has been used for rail for many decades. Several documented issues are associated with the site with varying levels of remediation. Additional analysis would be required of any future redevelopment. However, this is unlikely since the site is not a candidate for redevelopment due to its size and existing use.

Catalyst Site #3 (Redruth Industrial Park): the site has been in continual use as an industrial site since the 1930s. Therefore, environmental data is limited. Any redevelopment would require at a minimum Phase I and Phase II analyses.

Catalyst Site #4 (Wallinder Legacy Site – MN Steel Fabricators): the site has been in continual use as an industrial site since the 1890s. Therefore, environmental data is limited. Any redevelopment would require at a minimum Phase I and Phase II analyses.

Catalyst Site #5 (Former DW&P Railway): this site is a former rail yard. Significant issues with the site have been documented with the MPCA and response actions were conducted in 2007, 2009, and 2010.

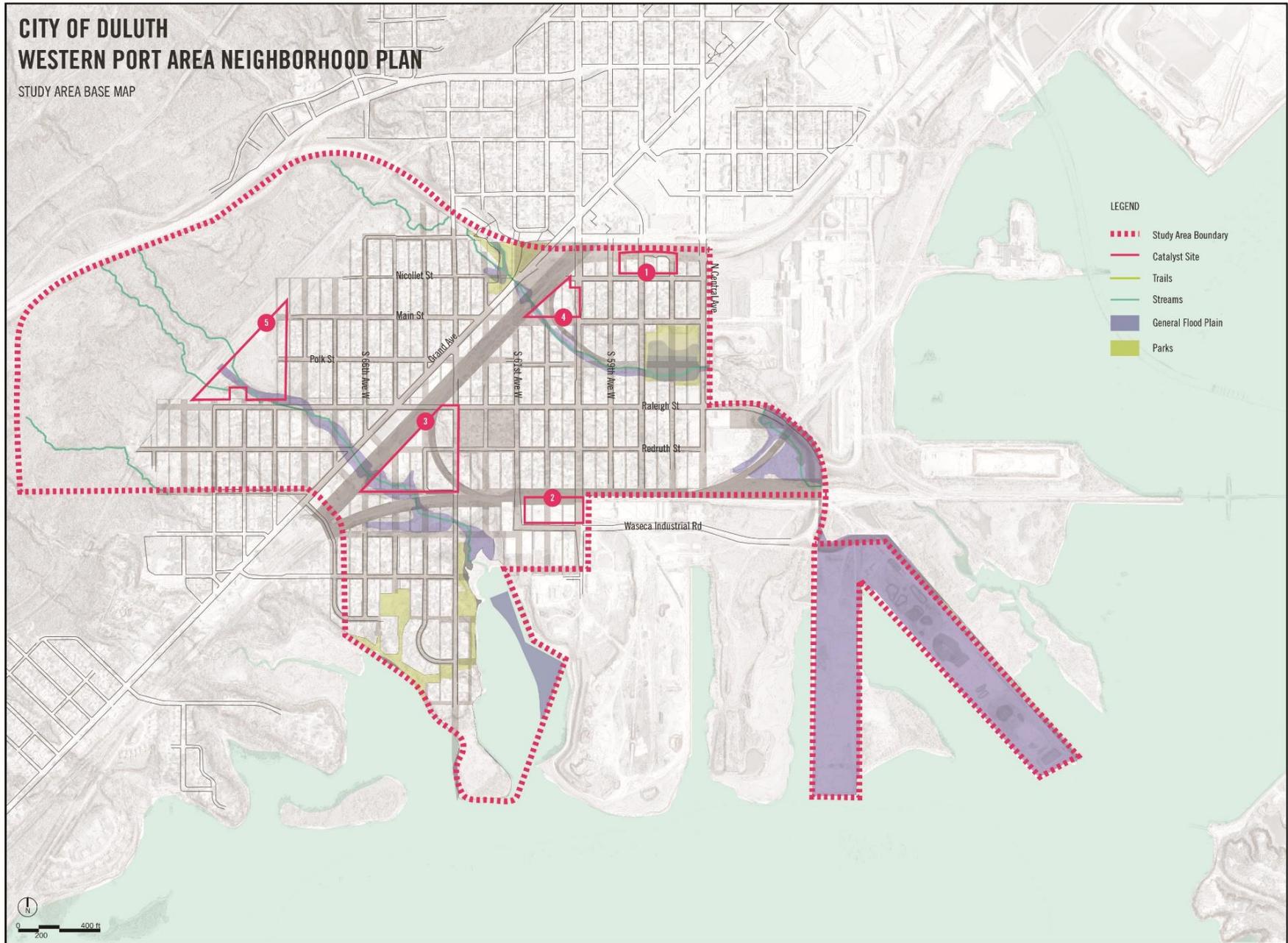


Figure 12: Potential catalyst sites analyzed as part of the infrastructure and environmental review

Transportation Networks

Roads, sidewalks, and trails allow for transportation of people and goods to and from the area to allow neighborhoods to thrive. These facilities, however, must be planned for and designed carefully and maintained appropriately to serve the function for which they are needed.

As part of the planning process, an analysis of transportation networks and systems was conducted. Included in the assessment were traffic volumes along important roadways, availability of transit, quality of non-motorized accommodations, and freight capabilities. The full analysis is included as two appendices; an initial study was conducted July-August 2016, and a follow-up study to gather more traffic data was conducted January-February 2017.

The following are key findings from the transportation study that were used to inform the broader planning effort for the Irving and Fairmount neighborhoods.

Traffic Analysis

All of the roadways and major intersections analyzed in the study area have adequate capacity to handle forecasted growth in traffic volumes. Crash data was analyzed for the study area, and, as expected, Grand Avenue, given its traffic volumes and speeds, accounts for the largest

Grand Avenue Peak Traffic Flows – South of Raleigh Street



- 13,000 total vehicles/day south of Raleigh Street
- 15% of ADT is truck traffic
- AM peak: 334 trucks (37%), mostly northbound
- PM peak: 277 trucks (27%), mostly northbound

Grand Avenue Peak Traffic Flows – North of Raleigh Street



- 11,000 total vehicles/day north of Raleigh Street
- 31% of ADT is truck traffic
- AM peak: 82 trucks (14%), mostly northbound
- PM peak: 151 trucks (12%), mostly southbound

Raleigh Street Peak Traffic Flows – East of Grand Avenue



- 1,800 total vehicles/day east of Grand Avenue
- 15% of ADT is truck traffic
- AM peak: 21 trucks (23%), mostly eastbound
- PM peak: 29 trucks (18%), slightly more westbound

proportion of crashes. Nevertheless, there was no discernable pattern either in numbers of crashes, types of crashes, or location of crashes that was not to be expected based on the types of roadways and traffic volumes in the study area. Moreover, the study noted that MnDOT's 2016 improvements to Grand Avenue were intended to reduce the number of crashes.

Within the study area Grand Avenue serves as a principal arterial route into Duluth, carrying over 15,000 vehicles per

day. It provides access to land uses along the St. Louis River and links neighborhoods in West Duluth to the rest of the city. Highway 23 also connects the City of Duluth and other rural population centers in Carlton and Pine Counties to the southwest.

63rd Avenue, 59th Avenue and Central Avenue serve as north-south collector routes, carrying local traffic north to

CONDITIONS ANALYSIS

commercial destinations, Grand Avenue and I-35.

Raleigh Street is the only east-west collector roadway in the study area. Several other east-west roadways are severed by the BNSF railroad line that parallels Grand Avenue, and as a result commercial truck traffic that is headed from the study area south along Grand Avenue is forced through the neighborhood along Raleigh Street.

Truck Volumes

Truck traffic through residential areas of the study area has been a concern for many years. Traffic counts specific to heavy vehicles not including buses (i.e., trucks) was collected and analyzed. Along Raleigh Street east of Grand Avenue, heavy vehicles account for 15% of daily traffic, which is very high for an urban collector street, such as Raleigh. The typical proportion of heavy vehicles on similar streets is between 2-5%. The study concluded that although Raleigh Street's overall traffic volumes are not high (1,800 vehicles per day), the proportion of vehicles that are trucks is very high. An extension of Waseca Industrial Road designed to bypass the residential areas of the study area could divert more than 250 trucks per day.

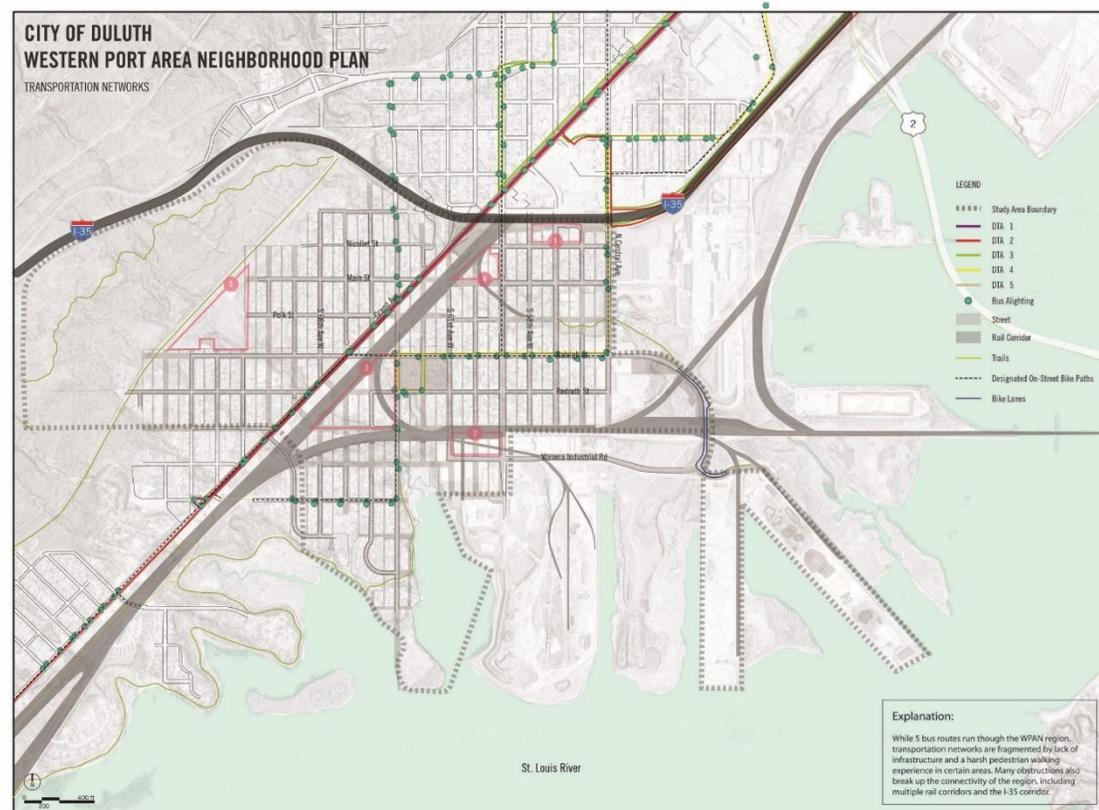


Figure 13: Existing Transportation Networks serving the Irving and Fairmount Neighborhoods

Transit Analysis

The Irving neighborhood is served by the Duluth Transit Authority (DTA), which includes a route (Route 4) that follows Raleigh and Central Avenue that stops hourly during weekdays (refer to Figure 14). Route 4 serves the Super One grocery store and the Spirit Valley shopping center, and provides connectivity to the larger

transit network in Duluth via a transfer at the Duluth Transportation Center. The bus stops in the area are noted with a sign, but are not always located adjacent to sidewalks, nor do they typically include shelters or benches.

Non-Motorized Accommodations

One of the goals of the Irving and Fairmount Brownfields Revitalization Plan is to improve the health of the residents and workers of the area. Non-motorized accommodations for bicycles and pedestrians are an important component of any transportation network. They improve local connectivity and provide an alternative transportation model for those without access to a personal automobile or who are looking to get exercise.

Sidewalk condition varies substantially throughout the study area. In some places, the condition of the sidewalk is so poor that it is effectively impassible for potential users in wheelchairs. Most intersections feature pedestrian curb ramps, however they generally do not meet current ADA standards and warrant reconstruction to meet standards and improve functionality. Previous studies indicate that the Spirit Valley commercial destinations north of I-35 are a pedestrian priority area. Access to this area from the study area involves travel under I-35, which is currently not a very pedestrian friendly area. While 57th Street, 58th Street, and 59th Street all have connectivity under the freeway, the area is not well maintained. Tall grass and low bridges create a dark and confined feel making the I-35 crossing a significant barrier to pedestrian travel.

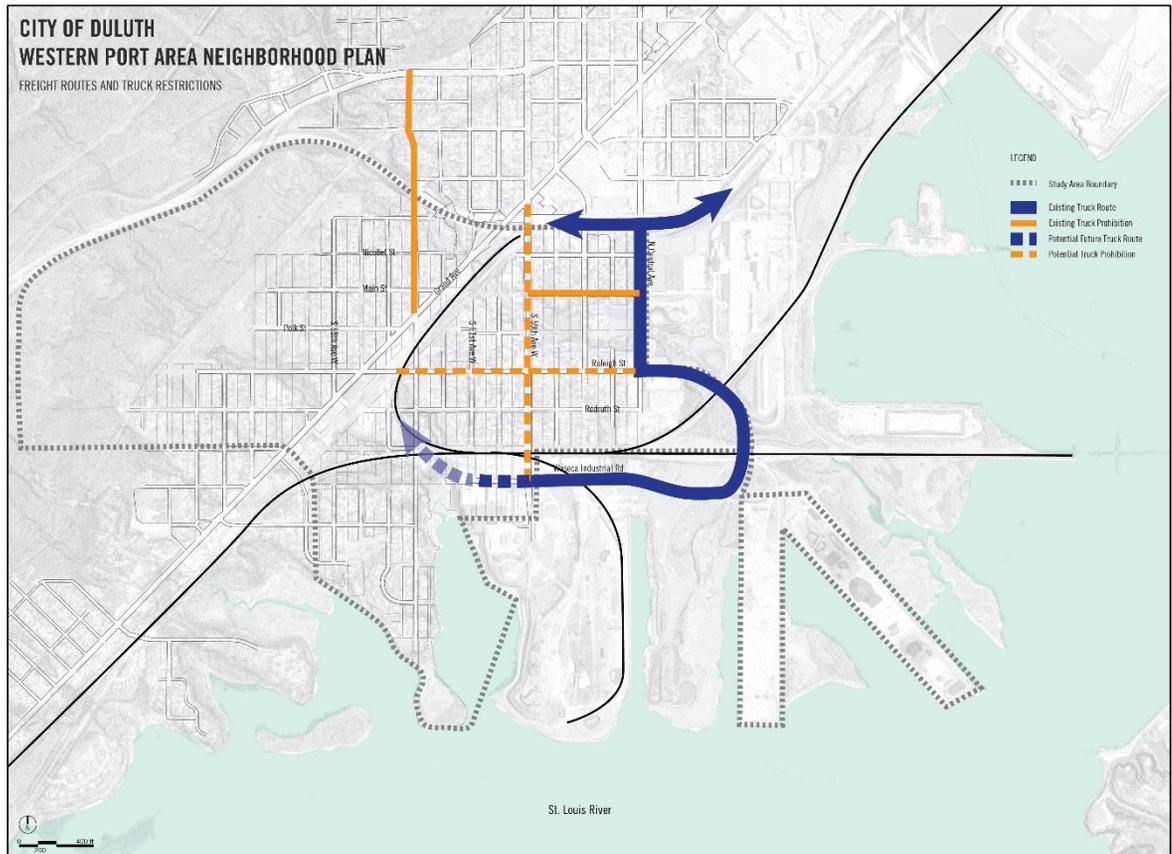


Figure 14: Existing Freight Routes and Truck Restrictions in the Irving and Fairmount Neighborhoods

Although several streets are officially designated as on-street bicycle routes, the only route with pavement markings and signage for a designated bike lane is along Waseca Industrial Road where it is coterminous with a portion of the Grassy Point Trail.

The only school in the study area, Raleigh Academy Charter School, currently does not have a Safe Routes to School Program. It is recommended that a program be developed for the school as it will help increase opportunities for children to walk and bicycle safely to school.

Freight

Several industries in the study area were contacted as part of the transportation analysis to see if there were any obstacles to current freight movements in the study area. In general, businesses felt the existing routes were adequate for their purposes, although several businesses commented on the poor pavement condition in the area.

Follow-up outreach later in the planning process with a business focus group yielded additional insight regarding freight movement in the study area. It was noted that the intersection of Raleigh Street and Central Avenue can be problematic for larger trucks due to a tight turning radius, which has resulted in more than one incident of a toppled load.

BNSF operates a rail line through the study area that connects the Duluth region to BNSF's rail network that serves the western United States. The rail line sees about 7 trains per day and traffic consists primarily of coal, limestone, and taconite.

Within the study area BNSF railroad maintains Mike's Yard, a switching yard that is used to park and sort rail traffic destined for local industries. Mike's Yard also connects to the spur tracks that service local industries.

Connectivity

A community that is highly connected, both physically and socially, is much more resilient and able to withstand major shocks regardless of whether it is due to a weather event, such as a major storm or drought, an economic event, such as a recession, or a social event, such as a baby boom or political instability.

Social media and other digital technologies are broadening opportunities for social connections. Nevertheless, physical connections will continue to play a central role in facilitating social and economic connections as well as being critical to strengthening our ecological health.

An analysis of existing barriers was conducted to see where opportunities for new or enhanced connections may exist. For example, there are numerous opportunities to puncture existing barriers created by I-35 and Grand Avenue and to establish new land uses that would allow access to the waterfront. These links could connect residents to essential goods and services, employment opportunities, housing opportunities, and recreational opportunities.

Moreover, enhancing existing streets and roads to serve multiple purposes beyond human transportation could convert many of these right-of-ways from physical and ecological barriers to connectors that

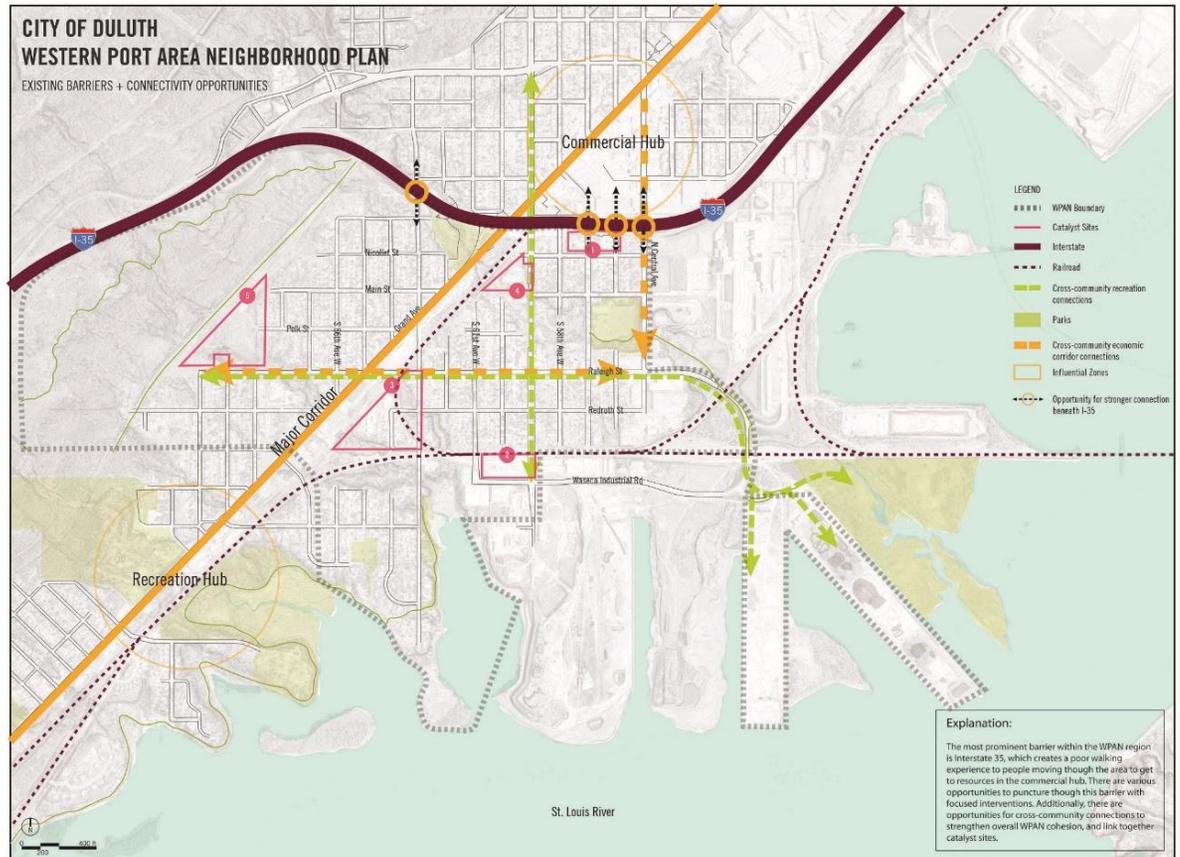


Figure 15: Existing Barriers and Connectivity Opportunities in the Irving and Fairmount Neighborhoods

facilitate both movement and ecological health.

Walkability

A specific component of connectivity is walkability. The benefits of a highly walkable community is that it allows population groups unable to use a car (e.g., children, disabled persons, older adults, low-income households) to have access to destinations within a comfortable walking distance that are safe and, if possible, enjoyable. A highly walkable community also means residents and workers have opportunities for physical activity that can be incorporated as part of regular day-to-day activities.

From a distance and area perspective, much of the Irving and Fairmount neighborhoods would be considered walkable as they lie within a 20-minute walk to important destinations within and just beyond the study area, especially the commercial hub in Spirit Valley. However, as noted in the connectivity analysis, there are some important barriers, both psychological and physical, that impact the perception of walkability. Furthermore, as noted in the separate transportation study, the condition of sidewalks can also have an impact on connectivity as some areas lack key sidewalk connections or their condition makes them unpassable.

Nevertheless, the Irving and Fairmount neighborhoods are well positioned to enhance their walkability with a small number of strategic interventions. Examples of recommended interventions

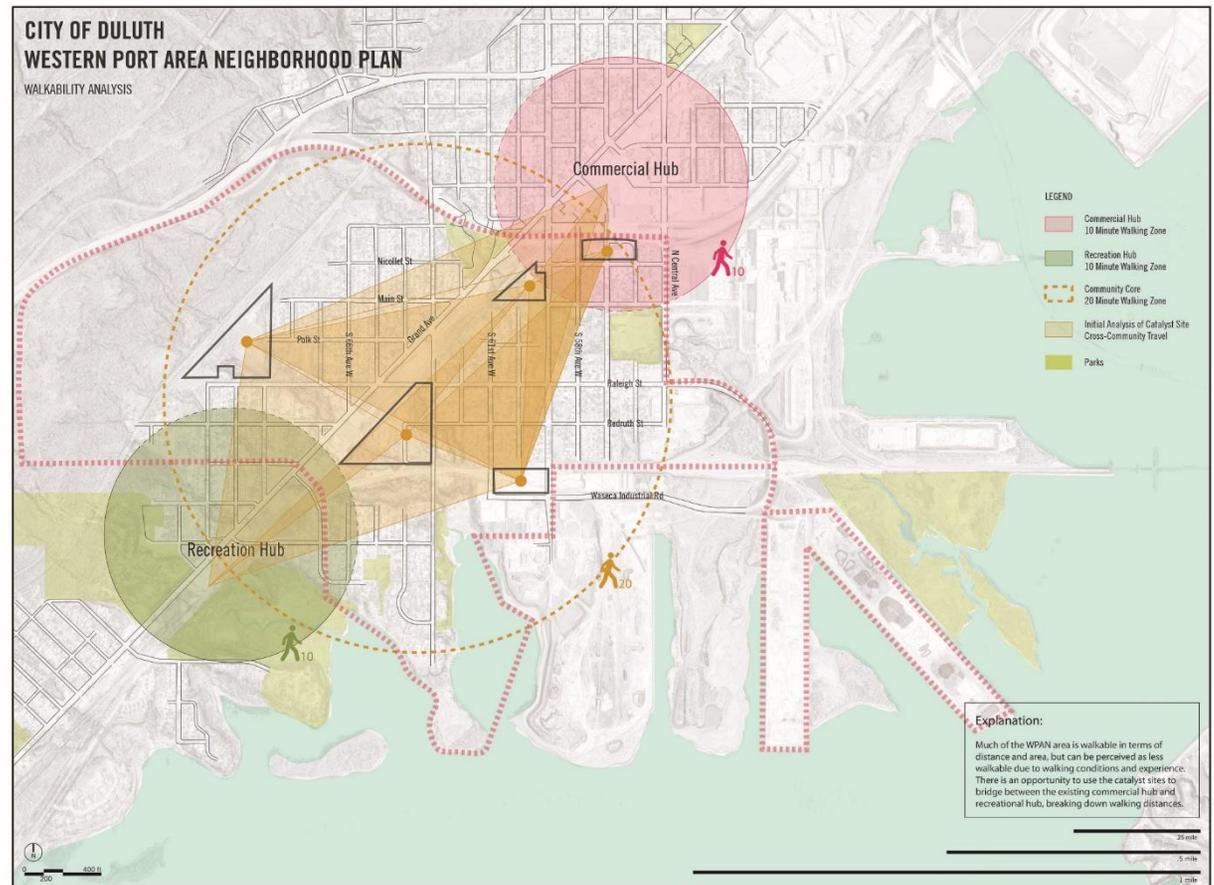


Figure 16: Walkability Analysis of the Irving and Fairmount Neighborhoods

included in the plan are described on page 37 under Grand Avenue Road Diet and pages 46-48 under Interstate 35 Underpass improvements.

Natural Systems and Open Space

An analysis of natural systems and open space was conducted to determine which areas within the Irving and Fairmount neighborhoods are affected by natural resources and systems. This provides some insight as to where flooding might occur during a storm event as well as areas that might be prone to storm related damage.

These areas also represent opportunities to enhance ecological conditions by promoting or preserving natural vegetation and to identify locations where people can connect with the area's natural systems.

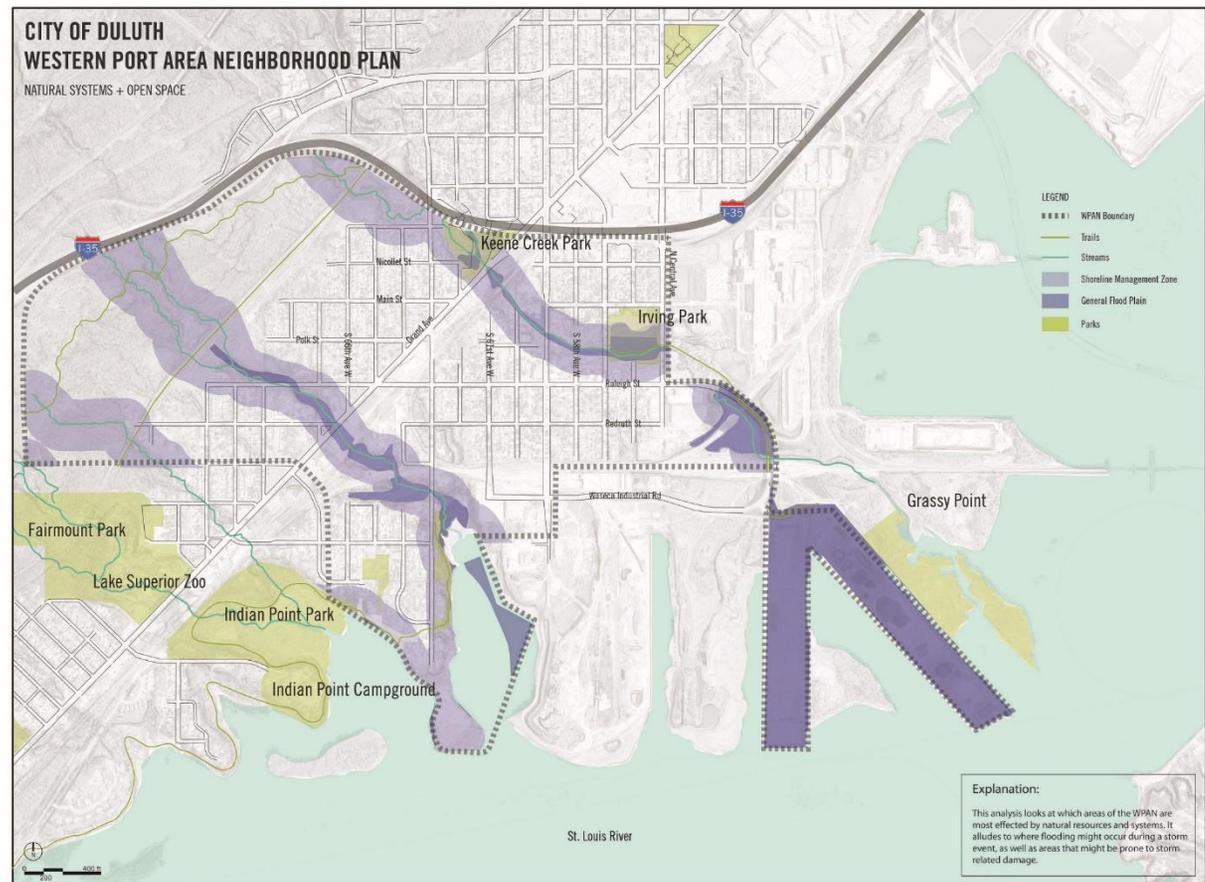


Figure 17: Natural Systems and Open Space within the Irving and Fairmount Neighborhoods

Health Indicators

One of the key goals of the Irving and Fairmount Brownfields Revitalization Plan is to improve health outcomes for study area residents, workers, and visitors. Although a full health impact assessment was not included as part of the planning process, a customized analysis of key health indicators was developed for the IFBRP to determine the unique assets and opportunities that exist in the study area that could lead to improved overall health equity of the Irving and Fairmount residents, workers, and visitors.

Borrowing from the Brownfield Indicator Database developed by the Minnesota Department of Health and Minnesota Brownfields, six categories were used as an analytical framework to understand where and how health concerns may inform the planning process and guide recommendations. The six categories are defined below.

 **Community + Context:** This category focuses the analysis on broader connectivity within the study area and emphasizes access to goods and services, incompatible land uses, proximity to mixed land uses and dense areas of the community, access to parks/ open spaces and transportation (safety, active transportation, mode of travel and traffic volumes).

 **Community Institutions:** This category identifies key community institutions and amenities, services (libraries, public art and other civic services), education (resources and facilities), and housing (location, quality, density and affordability).

 **Economic Stability:** This category identifies opportunities for development/ redevelopment in the study area and opportunities for increased access to jobs/living wages and employment benefits.

 **Environmental Resilience:** This category focuses the analysis on opportunities for enhanced environmental quality within the study area. The key indicators that were identified in this analysis include opportunities for brownfield remediation and redevelopment, improved air quality, opportunities for enhanced environmental quality (conservation of natural resources, preservation of habitats, and water quality), and sustainable building design.

 **Health + Safety:** This category focuses the analysis on opportunities to improve overall health and well-being within the study area. The key indicators that

were identified in this analysis include the promotion of opportunities for recreation and active living, enhanced safety (and reduction of perceived crime), and enhanced emotional well-being and access to improved food systems (retail services, restaurants, and community agriculture).

 **Social Cohesion + Engagement:** This category focuses on identifying opportunities to improve social cohesion and engagement opportunities within the study area. The key indicators that were identified in this analysis include improved social equity (equitable treatment of disadvantaged populations and equitable processes that influence displacement of residents) and improved social capital (strengthening relationships in the community, reducing inequality, integration, and community empowerment).

Figure 18 on the following page is a composite map showing the location of existing community strengths and opportunities for improvement for each of the six health indicator types. It helps reveal where existing strengths and opportunities may be concentrated. Individual maps of each health indicator are included as an appendix to this document.

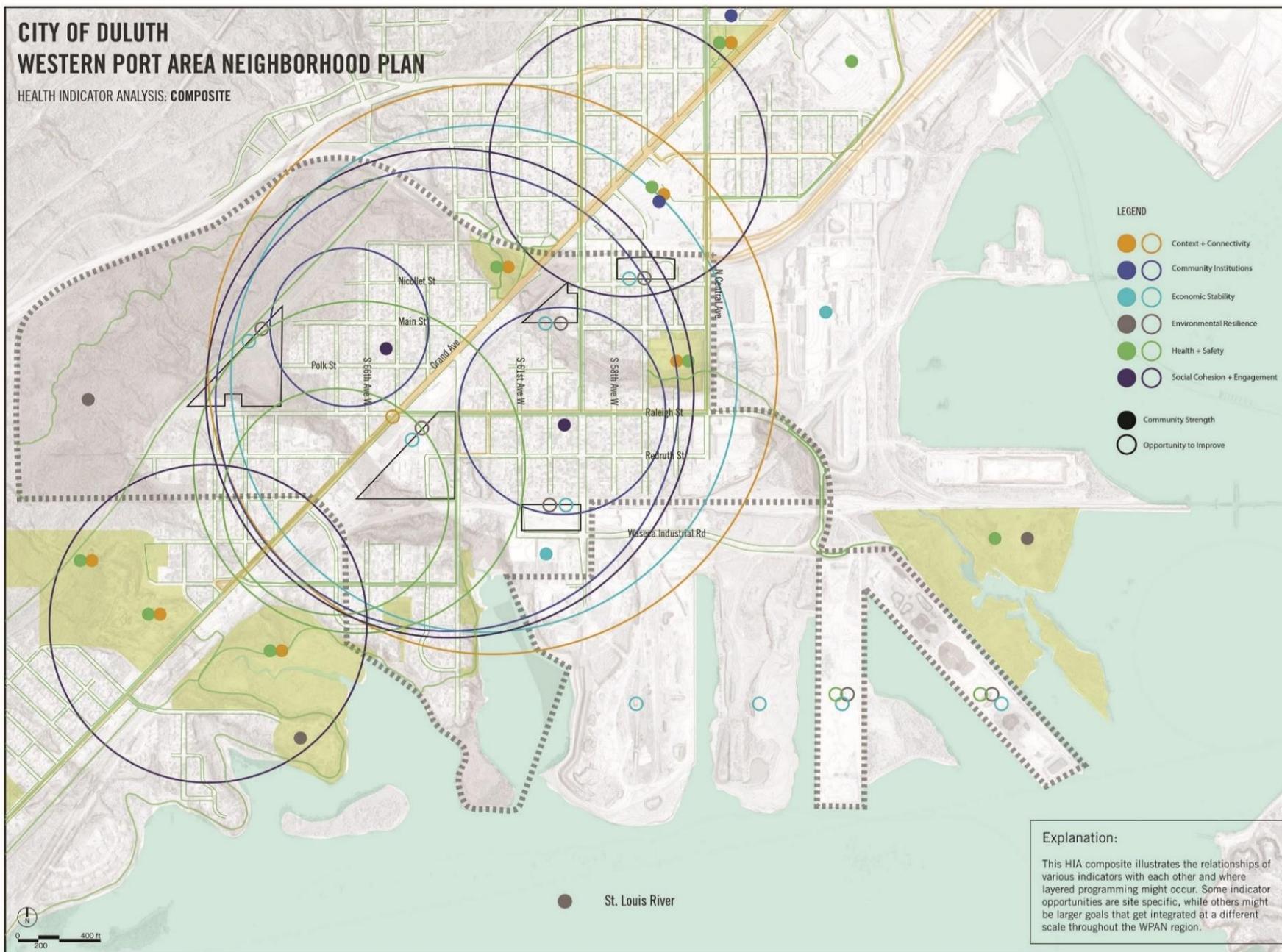


Figure 18: Health Indicators Analysis – Composite of Strengths and Opportunities by Type of Indicator

MASTER PLAN RECOMMENDATIONS

Based on a review of previous plans, analysis of existing conditions, and extensive community engagement that yielded overarching objectives and principles for the Irving and Fairmount neighborhoods, a master plan emerged that focuses on a set of strategic yet actionable recommendations. This chapter describes these recommendations and how they will benefit the overall well-being of Irving and Fairmount residents, workers, and visitors.

Figure 19 presents an overview of the recommended changes that comprise the Irving and Fairmount Brownfields Revitalization Plan. Recommendations can be grouped into three main categories: future development or redevelopment opportunities, transportation improvements, and open space preservation/enhancements.

Analytical Framework

Although the EPA’s planning framework for brownfields was a clear and useful guide during this process, the goals and objectives developed for the IFBRP stimulated the need for additional analytical tools and approaches to identify, organize, and prioritize recommendations. The

following are brief descriptions of these additional approaches that augmented the framework used to assess each recommendation in terms of the plan’s goals and objectives.

Resiliency

Recognizing the impact of storm related damage that occurred in the Irving and Fairmount neighborhoods in recent years, it is important that the IFRBP include recommendations that promote resiliency. As a result, this plan integrated Resilient Design into the planning process, which is the pursuit of Buildings + Communities that are shock resistant, healthy, adaptable and regenerative through a combination of diversity, foresight and the capacity for self-organization and learning. The result of Resilient Design is a greater understanding of potential design recommendations and improvements that can be made to improve overall project resiliency.

Health Equity

Building on the health indicators analysis described previously, each master plan recommendation was evaluated to determine which of the six health

categories it would address. This allowed the project management and project advisory teams to see which recommendations satisfied multiple health equity issues, which could assist in prioritizing projects and maximizing benefits from limited resources. Examples of health equity issues identified and addressed through the plan recommendations include:

- New truck route that will improve traffic and pedestrian safety, create job opportunities, and reduce vehicle emissions in residential areas
- Redevelopment of brownfield will create needed affordable housing, clean-up a potentially hazardous site, enhance system of stormwater treatments, and provide access to essential goods and services
- Improved highway underpass will enhance connections to essential goods and services, promote active multi-modal transportation, and promote community cohesion through opportunities for public art

Hierarchy of Systems

The foundation of the master plan recommendations is the redevelopment of



Figure 19: Master Plan Recommendations for the Irving and Fairmount Brownfields Revitalization Plan

catalytic brownfield sites. However, being an area-wide plan, the recommendations must also factor in the interconnected systems (e.g., streets, trails, water resources, open space, utilities, etc.) that give any individual site its value and potential for change. If these connective systems are not addressed in a master plan then catalytic brownfield redevelopment is much less likely to be attained.

The following provide detail on the recommendations that comprise each of the primary systems that contribute to the overall master plan: 1) New Streets and Roads; 2) New Bicycle Facilities; and 3) Open Spaces.

Streets and Roads

Streets and roads are the backbone of urban places. They are the primary rights-of-way that connect people to one another and to essential needs. The IFBRP recommends two new strategic roadways and improvements to two key intersections.

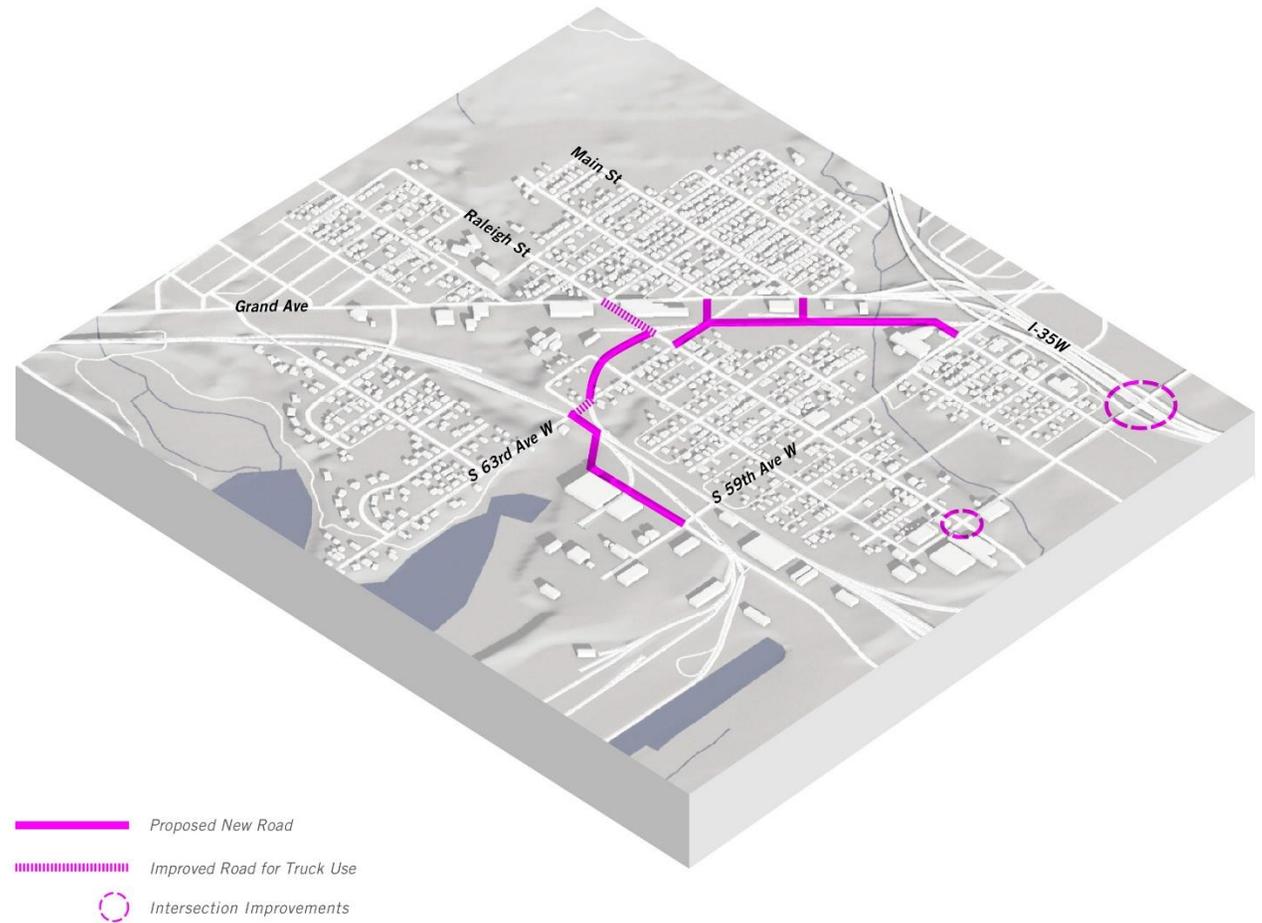


Figure 20: Proposed New or Improved Roadways in the Irving and Fairmount Neighborhoods

Waseca Industrial Road Extension

The Waseca Industrial Road Extension would extend westward from its current terminus near 59th Street to 63rd Street. It would then turn northward and follow 63rd Street and cross the existing BNSF rail line at which point it would veer off of 63rd Street and follow an unused spur of the BNSF rail line to Raleigh Street. At Raleigh Street, the new truck route would turn westward along Raleigh Street to the intersection with Grand Avenue (MN Highway 23). Preliminary concepts showing a possible alignment are shown in Figure 21.

Extending Waseca Industrial Road along this general alignment has been proposed in previous plans. The benefits of this recommendation would be to provide an alternative ingress and egress for trucks accessing the industrial district along the Waseca Industrial Road. This alternative route would reduce truck traffic traveling through the residential areas of the Irving neighborhood. It would also provide an alternative neighborhood route for trucks that would prefer to avoid the Central Avenue and I-35 interchange. By providing another viable truck route serving the Waseca Industrial Road district this would potentially incentivize existing businesses to expand within the study area or attract new businesses to the study area.

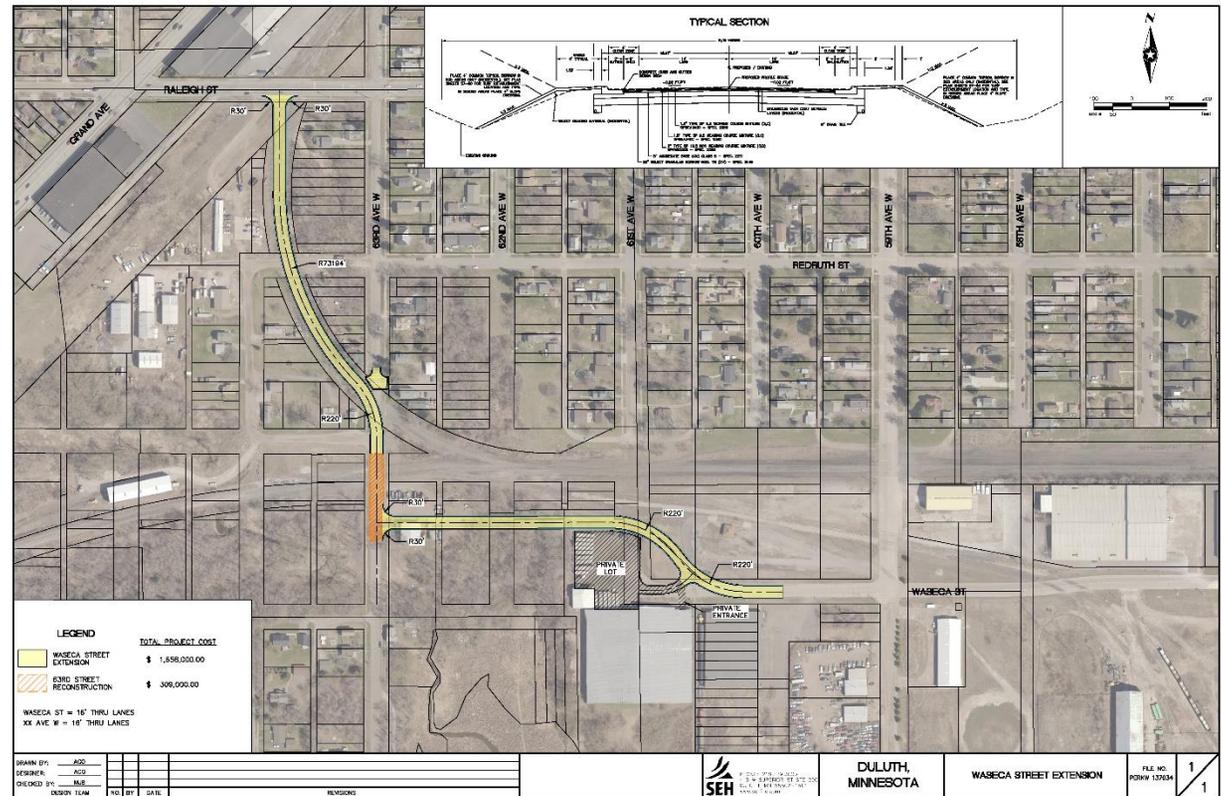


Figure 21: Preliminary Conceptual Design for Alignment of Waseca Industrial Road Extension

Intersection Improvements

Meetings with businesses revealed that the Central Avenue and Raleigh Street intersection is problematic and should be improved. The current designated route for trucks originating in the Waseca Industrial Road business district is to follow Waseca Industrial Road to the intersection of Raleigh Street and Central Avenue. At this intersection, trucks are to turn right or northbound onto Central Avenue where they can access I-35. In order for trucks to avoid turning into the oncoming southbound lane of Central Avenue, they must make a tight right turn. This has led to several trucks tipping their load in recent years due to the severity of the turn.

Although a costly reconstruction of the northeastern corner of the intersection would undoubtedly solve the problem, the recommendation would be to move the stop bar, stop sign, and cross walk approximately 30 feet to the north of their current location. Also recommended would be to add signage at the intersection alerting motorists, pedestrians, and bicyclists to watch for traffic as a wider berth would be needed to accommodate turning trucks.

Figure 22 provides a conceptual design of how these changes could be implemented.



Figure 22: Conceptual Design for Central Avenue and Raleigh Street Intersection Improvement

Grand Avenue Road Diet

Grand Avenue is a major barrier separating the Irving and Fairmount neighborhoods. The transportation study conducted during an early phase of the planning process concluded that Grand Avenue traffic volumes would warrant reducing the number of motor vehicle lanes from four to three. The type of lane reduction being proposed is also known as a “road diet.” The recommended changes would likely reduce the number of crashes, reduce the severity of any crashes, allow room to more safely accommodate other modes of transportation (e.g., protected bikeway), incentivize properties to redevelop along Grand Avenue due to a more pedestrian friendly environment.

Because MnDOT recently completed a partial reconstruction of Grand Avenue in the study area (which resulted in significant improvements to safety over prior road conditions), it is unlikely that a full reconstruction of the roadway will occur anytime in the near future. Nevertheless, some recommended changes could occur at any time at minimal cost while more costly improvements could be implemented long term as roadway maintenance or improvement are warranted.

The following diagrams illustrate some of the recommended changes and their benefits.

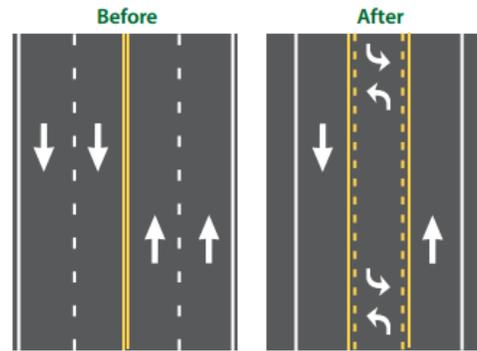


Figure 23: Typical Road Design

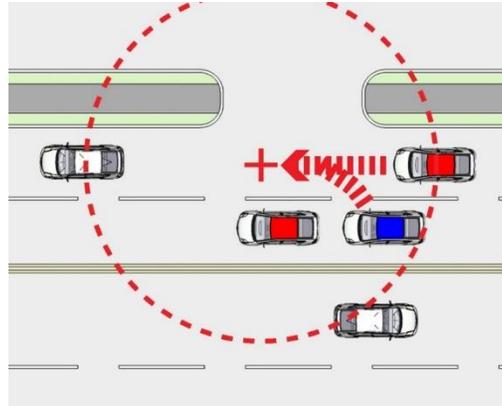


Figure 24: 4-3 Lane Reduction Reduces Rear-End, Sideswipe, and Head-On Crashes

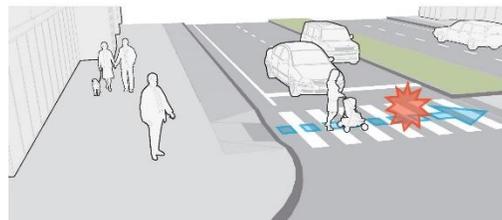


Figure 26: 4-3 Lane Reduction Reduces Risk of Multiple Threat Crashes to Pedestrians

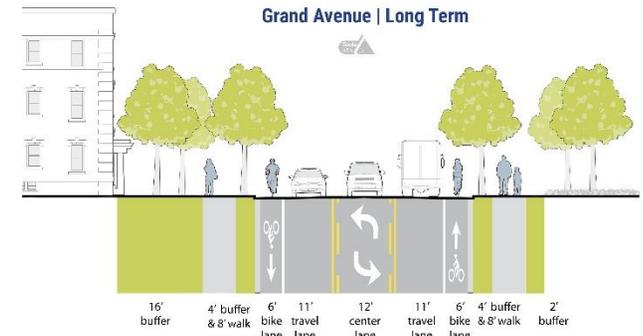
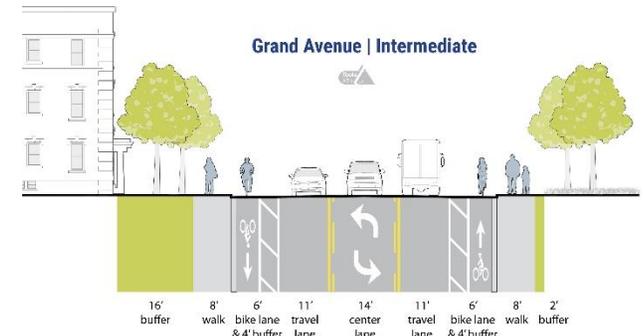
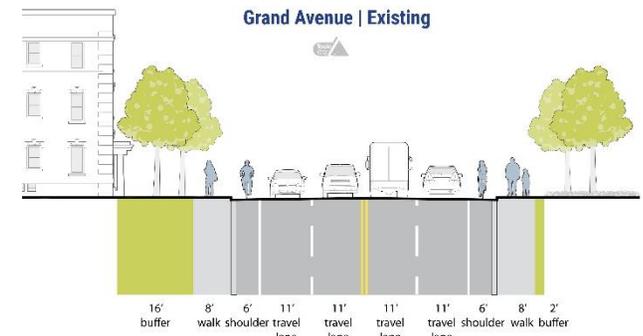


Figure 25: Grand Avenue Transition from Existing Condition to Intermediate Condition to Long Term Condition

Other Study Area Road Improvements

The master plan also identifies roadways throughout the study area that when reconstruction is warranted can be improved to include additional non-motorized facilities, traffic calming features, and green infrastructure. Figure 27 shows diagrams that describe current and future considerations for Raleigh Street once truck traffic is re-routed via an extension of the Waseca Industrial Road. Figure 28 shows how a typical residential street in the study, when it is slated for reconstruction, can be designed with features that help capture and filter stormwater.

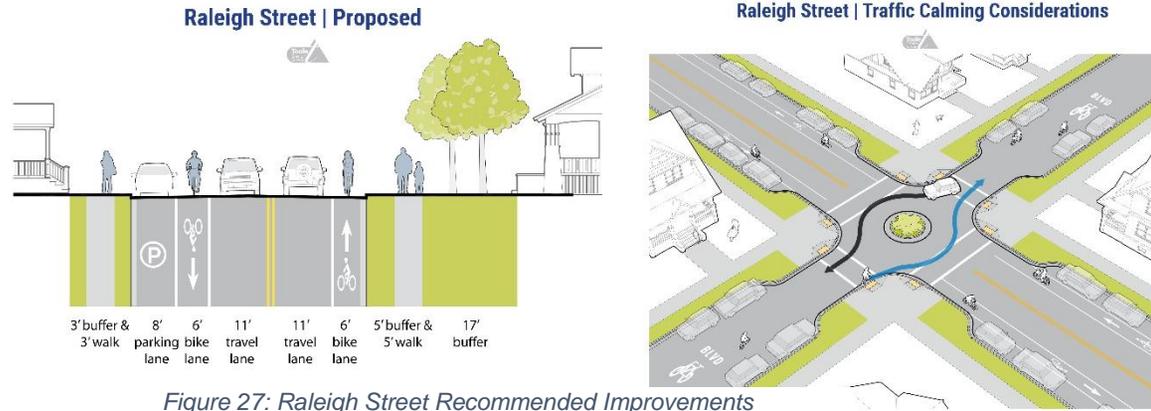


Figure 27: Raleigh Street Recommended Improvements

Minor Residential Street (typical)

Existing:



Minor Residential Street (typical)

Low-Impact Development Option:



Figure 28: Typical Residential Study Area Street Improvements

Trails and On-Street Bike Facilities

Bicycle facilities are an important system that not only provides recreational opportunities but also connects destinations within the study area to one another as well as to areas outside of the study area. Figure 29 isolates the planned and proposed off-street and on-street bicycle facilities for the Irving and Fairmount neighborhoods. The off-street facilities (i.e., trails) were identified as part of the Cross-City Trail Mini-Master Plan process. The on-street facilities (i.e., bike boulevards and protected bicycle lanes) were identified during the IFBRP process.

Not all bike facilities are intended for the same purpose. Some facilities are meant to connect people to local destinations and function similar to local roadways by providing maximum accessibility. Others are intended to connect destinations that are further apart and thus would benefit from fewer stops and more direct routes.

Despite the need for a variety of bike facilities to meet different needs, not all roadways require a specially designed bike facility. In many cases, roadways have low enough traffic volumes and vehicle speeds that it is appropriate for bikes and vehicles to share the same right of way. The following are examples of different on-street bike facilities.



Figure 29: Planned and Proposed Bicycle Facilities for the Irving and Fairmount Neighborhoods

MASTER PLAN RECOMMENDATIONS



Example Protected Bikeway (with planters)



Example Bike Boulevard



Example Protected Bikeway



Example Bike Boulevard



Bike Boulevard Signage

Parks, Open Space, and Gardens

Open spaces are opportunities to create a connected system of green areas that improve the health and well-being of Irving and Fairmount residents, workers, and visitors, strengthen the resiliency of the community, and create an amenity that adds value to surrounding and adjacent properties.

Figure 30 identifies a number of examples of how a connected system of green spaces could be implemented. This would consist of a variety of space types, which would include repurposing small, hard to develop vacant lots that may require remediation, private park spaces integrated into redevelopment sites, enhancement/preservation of naturalized areas, or roadways improved with green infrastructure.

These areas would not only connect to one another but also to existing parks and other open space types as well in order to broaden and strengthen the network of green connections as much as possible. Figure 31 on the following page is a detailed view of how these connected spaces can relate to a system. This is followed by numerous images of example typologies.

It is important to note that any sites under private ownership would only be enhanced



Figure 30: Opportunities for Open Space, Community Gardens, and Vegetated Connections in the Irving and Fairmount Neighborhoods

should the property owner agree to such a change.

MASTER PLAN RECOMMENDATIONS

- 1

SOLAR ARRAY

Solar array provides neighborhood power for street lighting and community institutions.
- 2

COMMUNITY GARDEN

Community garden provides fresh food to residents in the area.
- 3

PHYTOREMEDIATION

Phases of phytoremediation gradually clean up vacant parcels while providing lush vegetation in the neighborhood.
- 4

GREEN BLVD

Restored and enhanced tree canopy and potential stormwater treatment along main boulevards and street arteries.
- 5

NATIVE PRAIRIE

Native plant palette installed in vacant parcels provides pollinator and wildlife habitat, as well as flowers and visual displays in the neighborhood.



Figure 31: Possible Uses for Small, Scattered Site Open Spaces Located throughout the Irving and Fairmount Neighborhoods

Green Street Typologies



Example Green Street



Example Green Street



Example Green Street



Example Green Street



Example Green Street

Community Garden Typologies



Example Community Garden



Example Community Garden



Example Community Garden



Example Community Garden

Open Space Typologies



Example Phytoremediation – Native Grasses



Example Phytoremediation - Sunflower



Example Phytoremediation - Mustard



Example Tree Farm



Example Riparian Landscape



Example Phytoremediation – Poplar (also Willow)

Catalyst Sites

Previous planning in the Irving and Fairmount neighborhoods identified a number of possible areas targeted for redevelopment. Based on the background studies and community engagement, some of these sites have become a low priority while others have shown more promise.

This section highlights three catalyst sites that represent varying degrees of intervention, from very low to very high.

Interstate 35 Underpasses (Catalyst Site #1)

There are three underpasses below Interstate 35 along 57th, 58th, and 59th Avenues that connect the Irving neighborhood to the commercial district in the adjacent Spirit Valley neighborhood. These are important connectors for Irving residents because they provide access to essential goods and services, such as fresh, affordable food, and to important community services, such as the City Center West Community Center, which includes a branch library, fire station 8, and police substation. .

Although the underpasses are passable, the experience, especially as a pedestrian, is less than desirable. Portions of the sidewalks are in disrepair or overgrown with weeds. Lighting is limited. The highway generates significant noise and



58th Avenue Underpass below Interstate 35

pollution. And, use of the space mostly consists of a hodge podge of stored vehicles and building materials or nothing at all.

Improvement of the underpasses with basic treatments would significantly enhance the pedestrian experience and strengthen the connection between the Irving and Spirit Valley neighborhoods. An enhanced connection would promote more walking, increase access to goods and services, and improve safety. Moreover, with the possible redevelopment of commercial properties in the Spirit Valley area, the enhancement of the underpasses could have a positive influence on how any redevelopment could be better connected and/or oriented to the Irving neighborhood.

Figure 32 provides some conceptual designs for how the 57th Avenue underpass could be enhanced with painted surfaces, additional lighting, improved streetscape, and programmed activities in the vacant spaces. Following these concepts are examples of other highway underpasses that have been enhanced to improve the pedestrian experience.

1

ENHANCED CONNECTION

Improved connection underneath the I-35W bridge provides safer, enhanced pedestrian experience as well as additional community space for programming.

2

VISUAL IMPROVEMENTS

Relatively inexpensive treatments to existing conditions such as paint and lighting provide a safer and enhanced experience.

3

STREETScape

New paving on the roadway and modular paving in pedestrian realm provide areas for community programming.

4

PROGRAMMING

Novel types of open spaces such as underpass parks provide new opportunities for community events and programming.



Figure 32: Conceptual Design for 57th Avenue Highway Underpass

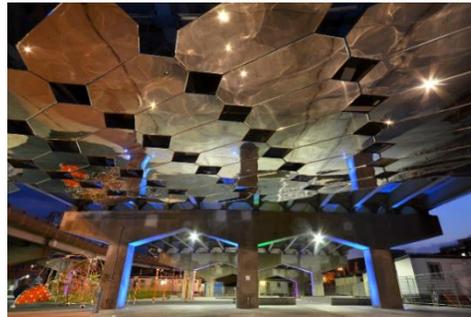
Highway Underpass Treatments



Example Highway Underpass Treatment (daytime)



Example Highway Underpass Treatment (nighttime)



Example Highway Underpass Treatment



Example Highway Underpass Treatment



Example Highway Underpass Treatment



Example Highway Underpass Treatment

Keene Creek/Grand Avenue Gateway and Wallinder Legacy Site (Catalyst Site #4)

Grand Avenue is an important connector for the Irving and Fairmount neighborhoods. Grand Avenue also functions as an important gateway to the community because it is the first area visitors see when they arrive. However, many of the most visible properties along or near Grand Avenue in this area are underutilized and do not contribute to the type of character associated with a gateway district.

The planning process identified several properties in this gateway area along with the adjacent Wallinder Legacy Site (Catalyst Site #4 or MN Steel Fabricators



MN Steel Fabricators Site (Catalyst Site #4)

Site) as opportunities for redevelopment. This new development would be contingent on the conversion of an unused rail spur on the east side of Grand Avenue into a new “backage” road that would open up sites for development and also connect users of the proposed Cross City Trail to the northern portions of the Irving neighborhood.



Grand Avenue Looking North toward I-35

New uses on these opportunity sites could introduce additional housing to the neighborhood as well as new commercial businesses that could provide more opportunities for residents and workers to access essential goods and services that are currently not available in the neighborhood. Moreover, these new businesses could also serve the growing number of recreational tourists who pass through the area, which could also provide informal community gathering areas.

Figure 33 presents a conceptual site plan for this area that envisions new housing along 59th Avenue and on excess Mn DOT property that would be accessed from the new “backage” road. New commercial buildings would be located along the east side of Grand Avenue on properties currently used for automobile sales and storage.

New development along this section of Grand Avenue could be very transformational as it would have the potential to change the character of the corridor, spur additional investment, and be an important gateway not only to the Irving and Fairmount neighborhoods but also as a transition point from Spirit Valley to the western Grand Avenue Corridor and the St. Louis River Corridor.

MASTER PLAN RECOMMENDATIONS

1

COMMERCIAL DEVELOPMENT

New commercial development will provide opportunity for neighborhood services and to support emerging recreational opportunities in the St. Louis River Corridor, and establish a gateway for both Irving and Fairmount neighborhoods.



2

SENIOR HOUSING

New senior housing will help long time residents stay in the neighborhood and provide jobs.



3

COMMUNITY SPACE

Potential for public/private community space in multifamily building along Cross City Trail.



4

LIGHTING

Potential for enhanced solar-based street lighting.



5

REDEVELOPMENT

Redevelopment of potential brownfield will allow for more housing and productive green spaces while cleaning blighted areas.



Figure 33: Conceptual Site Plan for Keene Creek/Grand Avenue Gateway and Wallinder Legacy Sites (Catalyst Site #4)

DW&P Site (Catalyst Site #5)

Catalyst site #5 is the former Duluth, Winnipeg, and Pacific railyard. It is owned by the City of Duluth and is located near the western edge of the study area. It is the only catalyst site in the Fairmount neighborhood. The site is just under 12 acres in size and would be large enough to accommodate a variety of different housing styles and types as well as affordability levels.

Feedback received during community engagement revealed a high level of interest for new housing in the Irving and Fairmount neighborhoods and this site was consistently identified as an excellent location for housing. It abuts existing residential areas to the east. Located at the base of a hill, housing located on portions of the site could take advantage of desirable views.

Figure 34 shows a conceptual site plan that was prepared to illustrate how several types of housing could be laid out on the site. The site plan took into consideration the economic need to achieve a certain density of development; likely physical constraints due to flood plain issues and potential “hot spots” from the site’s history as a railyard; and the potential to include open space on the site. Where appropriate, housing styles are intended to transition from lower density uses along the edges of the property adjacent to existing single-family and townhome areas to higher density three- to five-story buildings set back from the property’s periphery.

MASTER PLAN RECOMMENDATIONS

<p>1</p> <p>NEW HOUSING</p> <p>Higher density residential with mix of affordability.</p>	<p>2</p> <p>GREEN SPACE</p> <p>Vegetated green space that mitigates creek runoff and maintains residential buffers, as well as provides extended habitat.</p>	<p>3</p> <p>REDEVELOPMENT</p> <p>Redevelopment of potential brownfield will allow for more housing and productive green spaces while cleaning blighted areas.</p>	<p>4</p> <p>NEW HOUSING</p> <p>Medium density housing provides transition to adjacent low density housing stock and allows for types of housing not readily available in area.</p>	<p>5</p> <p>CCT</p> <p>Connections to Cross City Trail.</p>
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Figure 34: Conceptual Site Plan or DW&P Site (Catalyst Site #5)

IMPLEMENTATION PLAN

A vision for the Irving and Fairmount neighborhoods has been described and illustrated in the preceding pages. This chapter outlines a robust set of concrete actions that can be taken to achieve the plan's vision and objectives. It also offers recommended approaches and strategies for implementing the actions, and to advance the overarching goals of the Irving and Fairmount Brownfields Revitalization Plan.

Because the recommendations include public and private forms of investment, implementing them will require a variety of champions, from city officials to community residents to even outside investors who see the obvious opportunities in Irving and Fairmount. Therefore, building on the community engagement established during the planning process, the City of Duluth will reconvene a cross section of stakeholders/businesses/organizations periodically to reassess how the progress of implementing the IFBRP.

Table of Actions

Table 1 offers a broad menu of potential actions that can be taken in support of the neighborhood vision. Pursuing a set of

these actions, in concert and over time, can generate new neighborhood investment and momentum to the benefit of existing and new residents as well as business owners.

The actions are categorized as:

- **Development/Brownfield Redevelopment.** These are projects that would result in new or rehabilitated housing, or new commercial development. Most of the projects are site-specific. They encompass redevelopment on several of the five identified Catalyst Sites, as well as a set of other properties where new development or redevelopment would be particularly impactful or have strong viability. One project in this category—called Preservation of Housing Affordability—is more general, and could apply to housing throughout the neighborhoods.
- **Transportation.** A broad range of potential transportation improvements are identified in the Table of Actions. They include the conversion of Grand Avenue from a four-lane to a three-lane configuration, and the westward extension of Waseca Industrial Road

to protect the interior of the neighborhood from truck traffic. They also include intersection improvements, bicycle network enhancements, streetscaping, stormwater/greening projects, and recommendations for follow-up studies.

- **Open space.** These actions encompass two initiatives—the encouragement of property owners to utilize vacant properties or parts of properties in greening efforts that contribute to stormwater retention, brownfield remediation, etc.; and planning for landscaping improvements that would help the Keene Creek and 68th/62nd Aves Creek corridors accommodate stormwater events.

The Map of Actions identifies the location of the actions in the Table of Actions when they are geographically specific. A few actions, however, are more programmatic, and could be undertaken at a range of locations. Those strategies are not referenced on the Map of Actions.

IMPLEMENTATION PLAN

Map Key	Action Item
1	Redevelop DW&P site into a variety of new housing styles with open space
2	Develop vacant lands north of Main St and west of 67th Ave into a variety new housing styles
3	Develop vacant lands east of 71st Ave on the north and south sides of Redruth St into a variety of new housing styles
4	Redevelop parcels along east side of Grand Ave between 63rd Ave and Keene Creek into 1-2 story commercial structures with surface parking
5	Redevelop MN Steel Fabricators site into new multifamily housing and community space
6	Develop vacant land bounded by Keene Creek on the south, Grand Ave on the west, I-35 on the north, and the Irving rail spur on the east into new senior housing
7	Redevelop aging business park into a new district with a mixture of commercial and light industrial businesses and potentially multifamily housing
8	Redevelop property at northeast corner of Grand Ave and Raleigh St into a mixture of commercial and potentially residential uses
9	Develop vacant properties along east side of Grand Avenue at Redruth St and 67th Ave W into a mixture of commercial and potentially residential uses
10	Promote industrial development south of BNSF tracks and east of Stryker Bay
11	Redevelop the lands underneath MN Power's transmission lines when they go fully off-line
N/A	Preservation of housing affordability
12	Create a vegetative buffer on the north side of the main line BNSF tracks between 63rd Ave and 57th Ave
13	Improve stormwater enhancements in naturalized areas along Keene Creek and the 68th/62nd Aves Creek (Stryker Bay)
N/A	Activate small vacant brownfield sites throughout the study area with green infrastructure or natural vegetation
N/A	Enhance streetlighting throughout the Irving and Fairmount neighborhoods
14	Improve the 57th Ave underpass below I-35
N/A	As streets are reconstructed, design them to include green infrastructure to handle more sustainably treat stormwater runoff and serve as vegetated connections to other open spaces
15	Where Cross City Trail is not implemented add on-street bike boulevards along Main St, 59th Ave, and Raleigh St
16	Convert Grand Avenue to a safer, 3-lane roadway with a center turn lane
17	Grand Avenue conversion to 3-lane (restriping) with protected bikeway
18	Grand Avenue conversion to 3-lane with intersection improvements and protected bikeway
19	Add a protected bikeway to Central Avenue south of I-35
20	Extend Waseca Industrial Rd to Grand Avenue via a vacated BNSF spur
21	Improve 63rd Ave to handle regular truck traffic from new Waseca Industrial Rd to BNSF spur
22	Improve Raleigh St to handle regular truck traffic from 63rd Ave to Grand Ave
23	Construct a new "backage" road parallel to east side of Grand Avenue from Polk St to Nicollet St (separate Cross City Trail project would run parallel to the new "backage" road)
24	Improve 63rd Ave from Raleigh St to new "backage" road parallel to Grand Ave
25	Construct new truck route along BNSF spur from 63rd Ave to Raleigh St
26	Add truck safety improvements to Raleigh St and Central Ave
27	Conduct a traffic study at Central Ave and I-35 intersection to determine necessary improvements to make safer for pedestrians, bicyclists, trucks, and motorists

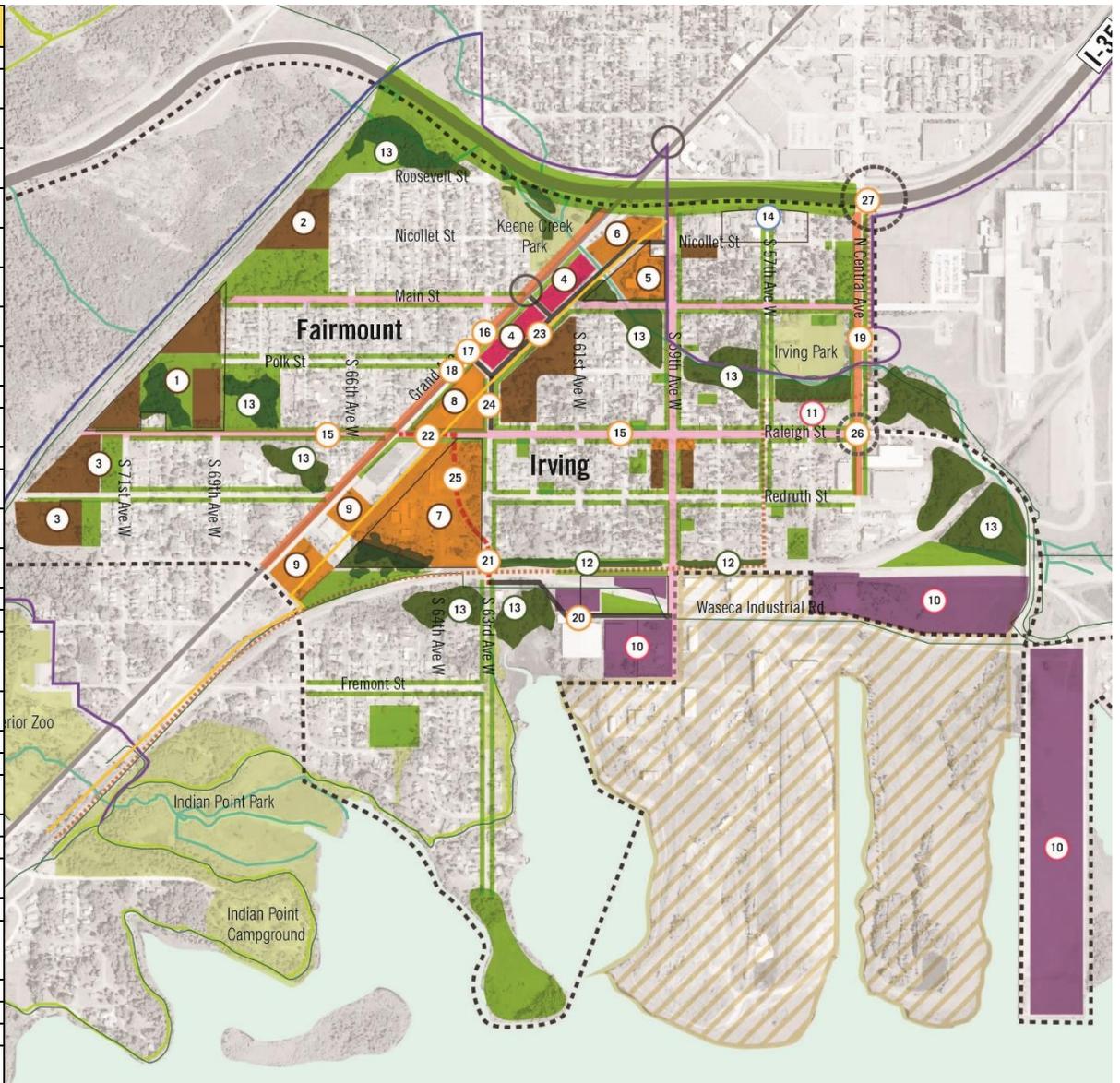


Table 1: Irving and Fairmount Brownfields Revitalization Plan Action Items

Strategic Considerations

Strategic Impact

The immediate benefit of most of the actions is readily apparent. Beyond that, the actions are strategic, to varying degrees, in setting the stage for further improvements. The following are two mechanisms that increase the impact of some of the actions.

- **Market building.** Physical interventions that contribute visibly to a sense of place can change market perceptions of an area, inviting new interest from developers, residents and prospective business owners. New housing or commercial developments also attract additional developer interest by reducing risk because they offer a clearer sense of the rents that subsequent developments may be able to achieve.
- **Identity building.** Many of the recommended actions build the identity of the Irving and Fairmount neighborhoods. The neighborhoods are already appreciated as historic working class neighborhoods. With trail connections and new housing options, the neighborhoods can add new cachet as a place for active living, one that is building on its broad range of open space

environments, and one that is well suited for younger couples and families. Embracing the strategic value of identity-building would create many additional avenues for potential action in terms of neighborhood branding, promotion, and events.

Strategic Prioritization

All of the projects in the Table of Actions are thought to be feasible, given what is known about land conditions, the market context, and the resources that can be brought to bear on the various projects. Ideas and projects that do not pass a basic feasibility threshold have not been included in the Table of Actions. Most of the projects, however, will require concerted effort and the marshalling of public sector and community energy and resources—which are limited resources. For that reason, prioritization is important.

The Project Advisory Team was invited to prioritize the actions in the Action Table through a prioritization exercise. The exercise entailed identifying up to five actions in each of three categories.

- **High Impact.** Actions felt to be most impactful, in terms of opening the door to subsequent neighborhood investments and improvements. Survey respondents scored three projects highest—Actions 4 and 5, two development projects at the northern gateway of the neighborhoods on Grand Avenue;

and Action 14, adding creative and pedestrian-friendly enhancements to the under-freeway environment on 57th Avenue, which would improve Irving neighborhood connections to the Spirit Valley commercial area.

- **Low-hanging Fruit.** Actions felt to be most easily accomplished. Survey respondents scored two projects highest—Action 14, described in the preceding bullet, and Action 13, landscaping enhancements to the two creek corridors that run through the neighborhoods.
- **Personal Interest.** Actions that engaged or energized respondents personally. Survey respondents scored two projects highest—Action 1, redevelopment of the large DW&P site at the west end of the Fairmount neighborhood, and the unnumbered open space action that introduced greening enhancements on scattered, small, privately-owned properties throughout the two neighborhoods.

Presented in Table 2, these six actions are each appropriate priorities by one or more of the prioritization criteria. They would introduce visual impacts that can change the market perception of the neighborhood, and contribute to a neighborhood brand that would be inviting to new neighborhood residents. And taking quick action on the “Low Hanging Fruit” projects would generate a sense of momentum, signaling that change is coming to the neighborhood.

Map Key	Action Item	High Impact	Quick Win	Personal Interest	Highlighted Actions
1	Redevelop catalyst Site #5 - DW&P			X	X
4	Redevelop parcels along east side of Grand Ave between 63rd Ave and Keene Creek into 1-2 story commercial structures with commensurate surface parking	X			
5	Redevelop catalyst Site #4 - MN Steel Fabricators	X			X
13	Stormwater enhancements in naturalized areas along Keene Creek and the 68th/62nd Aves Creek (Stryker Bay)		X		
N/A	Activate small vacant brownfield sites throughout the study area with green infrastructure or natural vegetation			X	
14	Catalyst Site #1 - 57th Ave I-35 underpass improvements	X	X		X

Table 2: IFBRP Project Advisory Team - Strategic Prioritization of Action Items

The six projects that emerged from this exercise are not the only ones that can be considered strategic and impactful. Further decisions will be made collaboratively and by individual stakeholder organizations about project priorities over time.

Three of the actions which received the highest combined scores are called Highlighted Actions. They are given additional consideration below.

Implementation

Because the recommended actions are a broad assortment, the approach to

implementation also varies broadly. There is a role for public sector leadership, grassroots energy, and the support and leadership of other organizations. Many of the actions will require a partnership approach, with multiple entities playing a role. Many actions will require financial support, but the likely sources of funds will vary as widely as the actions themselves.

Implementation Challenges

Implementation often requires surmounting challenges—which is a big reason plans such as this often result in less change than is desired.

- *Challenge:* Implementation requires doing new things. That can push an organization out of its comfort zone. It may require expanding the already-accepted toolkit, even rethinking the role of local government or other organization.

Surmounting the challenge: Structure conversations about the need for a broader toolkit. Expose political and organizational leadership to best practices and outcomes in other locations.

- *Challenge:* Implementation requires allocation of real time and energy of staff; yet, the staff of effective organizations generally already have a full plate of project priorities.

Surmounting the challenge: Build the collaboration. Use partnership resources creatively. Use project-based (consultant, intern, grant-funded) hiring as needed.

- *Challenge:* Implementation requires maintaining a vision over time. Few of the recommended actions can be accomplished quickly. Therefore, in order to make the desired neighborhood-level impact, successive rounds of actions will be needed over an extended period of time. Meanwhile, attention can wane, and other needs can arise.

Surmounting the challenge: Establish a coalition that champions

and supports the effort over time. Schedule an annual status check and goal setting process.

These challenges are common to implementation efforts everywhere. However, it's also important to note the strengths of the local context. The organizations that are engaged in the Irving and Fairmount neighborhoods—including the City of Duluth, Duluth LISC, and the US Environmental Protection Agency—are highly creative and competent, and have tackled significant challenges in the past. Their leadership and staff are well positioned to take methodical and creative steps to advance this plan and to build the partnership of organizations that will contribute to these Irving and Fairmount neighborhood initiatives.

Development Finance Challenges

Development finance challenges are deserving of particular focus in this plan. Ten of the recommended actions are development projects. Three of them are on the Catalyst Sites that prompted this study. All of the development projects are likely to require an active public sector role, including some public financial support. The amount of financial support that is needed will vary by project, depending on a range of factors such as site conditions,

the cost of site acquisition, the development format, and the rents that can be charged. In all cases, addressing the need for financial support will be a key step in achieving development outcomes.

There are a broad range of development finance resources that can be utilized in supporting a development project. They may be targeted to a particular stage of the development process, or be flexibly utilized for project support. The following table is a partial list of development finance resources that may be applicable to development projects in this plan. It includes many of the sources of development finance that have come into play in other recent Duluth development projects.

In addition to knowledge of potential development finance resources, the following are tools and strategies that are worth considering in addressing the challenge of financing new development in the Irving and Fairmount neighborhoods.

- **Expand the use of tax increment financing (TIF) or other value capture mechanisms.** The recommended development projects will add significant value to the tax base. Capitalizing that value through TIF, or a similar mechanism, is unlike other project funding sources in its capacity for bringing significant funds to a project without putting an additional tax burden on taxpayers. The stigma that TIF has in some

arenas is an impediment to the use of this important resource. Consideration should be given to addressing that in an intentional way through illuminating the progress that is possible with and without the resource; and exposing political leadership to case studies of its constructive use in peer cities.

- **Partner with local, community-minded developers.** Some communities benefit from the presence of developers who, because of their own values and wherewithal, can and do build new developments for reduced cost because they simply require less financial return in their development deals. These relationships should be cultivated and celebrated. Since developer return also compensates the developer for the risk of a development, consideration could

	Federal	State	Local	Other
Affordable Housing	Low Income Housing Tax Credits (9%)	MHFA First Mortgage	HRA Levy	Federal Home Loan Bank Affordable Housing Program
	Low Income Housing Tax Credits (4%)	Greater Minnesota Housing Fund Loans		LISC predevelopment loans
	HOME Funds	Rental Housing Bonds, Housing Infrastructure Bonds		
Environmental	EPA Assessment Grants	MN DEED Assessment Grants		
	EPA Cleanup Grants	MN DEED Cleanup Grants		
General or Other	New Markets Tax Credits	Workforce Housing Development Program	Tax Increment Financing	AFL-CIO Funding
	Community Development Block Grants		Surplus TIF	Energy rebates (from utilities)
			Tax abatement	Employer assisted housing
			Sales tax exemption	
			EDA Levy (doesn't currently exist)	

Table 3: Development Funding Sources

materials, architectural and site design.

Implementation Matrix

Tables 4 and 5 on the following pages comprise an implementation matrix that offers a systematic summary of the parties, challenges, and strategies that might come into play in implementing the recommended actions.

also be given to mechanisms for helping to share or mitigate the risk of new development in order to reduce the developer return required by a developer.

- **Use less costly development formats.** Changing market perceptions requires building new developments that are high quality and attractive. For housing projects, the optimal design from an urban design and development density perspective may be residential apartments with underground

parking—which is also a relatively expensive development format. However, where land is less expensive and/or development sites are less visible, cost savings can result from including other development formats in the mix. These may include walk-up buildings, and buildings with first floor or garage parking. When less costly development formats are used, there should be an effort to maintain the same high-quality standards in terms of quality of

IMPLEMENTATION PLAN

Map Key	Neighborhood	Action Item	Type	Implementation Strategy	Project Partners	Timeline	Priority	Scale of Public Investment	Possible Funding Sources	Likely Project Challenges/ Complexities
1	Fairmount	Redevelop catalyst Site #5 - DW&P	Brownfield Development	SEE REDEVELOPMENT MATRIX	City: PLN, ED, PR, PW	1-5 Years	Potential priority action from a "Personal Interest" standpoint, per Prioritization Exercise	Medium to High	- Developer Equity - Gap Financing See table "Development Funding Sources" for additional options	<ul style="list-style-type: none"> Identify and obtain developer partner Site design Gap financing
2	Fairmount	Develop vacant lands north of Main St and west of 67th Ave	Brownfield Development	SEE REDEVELOPMENT MATRIX	City: PLN Others: Property owners	10+ years		Medium to High	- Developer Equity - Gap Financing See table "Development Funding Sources" for additional options	<ul style="list-style-type: none"> Scope of remediation Potential ownership issues/site acquisition Identify and obtain developer partner Site design Gap financing
3	Fairmount	Develop vacant lands east of 71st Ave on the north and south sides of Redruth St	Brownfield Development	SEE REDEVELOPMENT MATRIX	City: PLN Others: Property owners	10+ years		Medium to High	- Developer Equity - Gap Financing See table "Development Funding Sources" for additional options	<ul style="list-style-type: none"> Scope of remediation Potential ownership issues/site acquisition Identify and obtain developer partner Site design Gap financing
4	Irving	Redevelop parcels along east side of Grand Ave between 63rd Ave and Keene Creek into 1-2 story commercial structures with commensurate surface parking	Brownfield Development	SEE REDEVELOPMENT MATRIX	City: PLN, ED, PW Others: property owners	Contingent on acquiring Irving rail spur	Potential priority action from a "High Impact" standpoint, per Prioritization Exercise	Medium to High	- Developer Equity - Gap Financing See table "Development Funding Sources" for additional options	<ul style="list-style-type: none"> Dependent on acquisition of rail spur Scope of remediation Potential ownership issues/site acquisition Market timing in light of Spirit Valley Mall plans Identify and obtain developer partner Site design Gap financing
5	Irving	Redevelop catalyst Site #4 - MN Steel Fabricators	Brownfield Development	SEE REDEVELOPMENT MATRIX	City: PLN, ED Others: property owners	Contingent on acquiring Irving rail spur	Potential priority action from a "High Impact" standpoint, per Prioritization Exercise	Medium to High	- Developer Equity - Gap Financing See table "Development Funding Sources" for additional options	<ul style="list-style-type: none"> Dependent on acquisition of rail spur Scope of remediation Potential ownership issues/site acquisition Identify and obtain developer partner Site design Gap financing
6	Irving	Develop vacant land bounded by Keene Creek on the south, Grand Ave on the west, I-35 on the north, and the Irving rail spur on the east	Brownfield Development	SEE REDEVELOPMENT MATRIX	City: PLN, ED Others: MNDOT	Contingent on acquiring Irving rail spur		Medium to High	- Developer Equity - Gap Financing See table "Development Funding Sources" for additional options	<ul style="list-style-type: none"> Dependent on acquisition of rail spur Scope of remediation Potential ownership issues/site acquisition (MNDOT) Identify and obtain developer partner Site design Gap financing

Table 4: Irving and Fairmount Brownfields Revitalization Plan Implementation Matrix (1 of 5)

IMPLEMENTATION PLAN

Map Key	Neighborhood	Action Item	Type	Implementation Strategy	Project Partners	Timeline	Priority	Scale of Public Investment	Possible Funding Sources	Likely Project Challenges/ Complexities
7	Irving	Redevelop catalyst site #3 - Redruth business park	Brownfield Development	SEE REDEVELOPMENT MATRIX	City: PLN, ED Others: property owners	Contingent on acquiring Irving rail spur		Medium to High	- Developer Equity - Gap Financing See table "Development Funding Sources" for additional options	<ul style="list-style-type: none"> • Dependent on acquisition of rail spur • Scope of remediation • Potential ownership issues/site acquisition • Identify and obtain developer partner • Site design • Gap financing • Phasing - larger site may limit pool of developers
8	Irving	Redevelop property at northeast corner of Grand Ave and Raleigh St	Brownfield Development	As Grand Ave evolves over time into a more viable mixed-use corridor, properties further south of the gateway area should be considered for more intensive development that could include a mixture of housing and/or commercial uses that are connected to the adjacent neighborhoods.	City: PLN, ED Others: property owners	Long-term		Low	- Developer Equity - Gap Financing See table "Development Funding Sources" for additional options	<ul style="list-style-type: none"> • Scope of remediation • Potential ownership issues/site acquisition • Identify and obtain developer partner • Site design • Gap financing
9	Irving	Develop vacant properties along east side of Grand Avenue at Redruth St and 67th Ave W	Brownfield Development	As Grand Ave evolves over time into a more viable mixed-use corridor, properties further south of the gateway area should be considered for more intensive development that could include a mixture of housing and/or commercial uses that are connected to the adjacent neighborhoods.	City: PLN, ED Others: property owners	Long-term		Low	- Developer Equity - Gap Financing See table "Development Funding Sources" for additional options	<ul style="list-style-type: none"> • Scope of remediation • Potential ownership issues/site acquisition • Identify and obtain developer partner • Site design • Gap financing
10	Irving	Promote industrial development south of BNSF tracks and east of Stryker Bay	Development	There are several vacant areas in the study area that are adjacent to the SLRIDT superfund site that would be appropriate for industrial development in the short- and mid-term. These areas should be explored for uses that could support employment without significant infrastructure investments, such as new water lines, new sanitary sewer mains, and other new utilities. These areas may be appropriate to accommodate the expansion of nearby existing operations or even the attraction of new users given their rail, highway, and waterway accessibility.	City: ED Others: property owners	Immediate		Low to Medium	- Developer Equity - Gap Financing See table "Development Funding Sources" for additional options	<ul style="list-style-type: none"> • Scope of remediation • Potential ownership issues/site acquisition • Identify and obtain developer partner • Site design • Gap financing
11	Irving+ Fairmount	Redevelop the lands underneath MN Power's transmission lines	Development	When MN Power fully decommissions the high-tension power lines that run through the study area, redevelop the vacated easements into more productive land uses	City: PLN, ED Others: MN Power	Long-term		High	- Developer Equity - Gap Financing See table "Development Funding Sources" for additional options	<ul style="list-style-type: none"> • Long-term timeline • Potential remediation • Ownership issues/site acquisition (MN Power) • Site design
N/A	Irving+ Fairmount	Preservation of housing affordability	Development	Establish public-private partnerships with both non-profit community organizations, community development corporations (CDCs), and for-profit development companies to preserve housing affordability in the area.	City: PLN, ED Others: property owners	Immediate		Low	CDBG, LISC, Excess TIF, Philanthropic	<ul style="list-style-type: none"> • Program funding • Program administration
12	Irving	Vegetative buffer on the north side of the main line BNSF tracks between 63rd Ave and 57th Ave	Transportation	As industrial uses are concentrated south of the BNSF tracks it will be important to further strengthen the boundary with the residential areas to the north.	City: PW Others: BNSF			Low to Medium	Federal: CSBG Foundation: NAR Placemaking and Smart Growth Grants, Rockerfeller Foundation Grants	<ul style="list-style-type: none"> • Coordination with BNSF • Funding

Table 4: Irving and Fairmount Brownfields Revitalization Plan Implementation Matrix (2 of 5)

Map Key	Neighborhood	Action Item	Type	Implementation Strategy	Project Partners	Timeline	Priority	Scale of Public Investment	Possible Funding Sources	Likely Project Challenges/ Complexities
13	Irving+Fairmount	Stormwater enhancements in naturalized areas along Keene Creek and the 68th/62nd Aves Creek (Stryker Bay)	Open Space	Study the two primary watersheds in the study area to determine where within their flood plains it may be impactful to preserve, restore, and introduce vegetation (preferably indigenous) that would help mitigate stormwater runoff, treat stormwater, and provide additional green connections to other types of open space (e.g., along roadways and trails, shoreline areas, parks, or remediated brownfield sites).	City: PR, PW Others: property owners	1-3 years	Potential priority action from a "Quick Win" standpoint, per Prioritization Exercise	Low to High -- depending on project		<ul style="list-style-type: none"> Program funding Program administration Coordination with property owners
N/A	Irving+Fairmount	Activate small vacant brownfield sites throughout the study area with green infrastructure or natural vegetation	Open Space	Work with property owners that own small vacant brownfield sites to consider open space enhancements that would make the lots more productive. Examples include community gardens, restoration through phytoremediation techniques, coordinated urban agriculture programs, solar arrays, or introduction of prairie grasses.	City: PLN, ED Others: property owners	Immediate	Potential priority action from a "Personal Interest" standpoint, per Prioritization Exercise	Low to Medium		<ul style="list-style-type: none"> Program funding Program administration Coordination with property owners
N/A	Irving+Fairmount	Enhance streetlighting	Transportation	Study where street lights are in greatest need, such as along heavily traveled pedestrian or bicycle routes, in order to determine the types of appropriate design (e.g., downcast lights). Consider energy efficient models, including solar-powered street lights.	City: PW	Immediate		Medium to High	Study: Duluth-Superior MIC UPWP Implementation: Federal: STEP Foundation: Knight Foundation (via Duluth Superior Area Community Foundation)	<ul style="list-style-type: none"> Program funding Determining appropriate streetlight design
14	Irving	Catalyst Site #1 - 57th Ave I-35 underpass improvements	Transportation	Repaint and add new lighting to the underside of the I-35 viaduct. Improve the sidewalk along 57th Ave under the I-35 viaduct. Resurface the areas on either side of 57th Ave under the I-35 viaduct. Work with MNDOT to learn what types of uses could occur under the viaduct that would add activity to the area and or benefit the nearby activity centers, such as the Spirit Valley Mall, the Center City West Community Center (including the police, fire, library, and senior center).	City: PLN, ED, PR, PW Others: MNDOT	Immediate	Potential priority action from "High Impact" and "Quick Win" standpoints, per Prioritization Exercise	Low to Medium	Federal: STEP, CSBG, NEA Our Town Program County: NE MN SHIP Foundation: ArtPlace National Creative Placemaking Fund, Knight Foundation (via Duluth Superior Area Community Foundation)	<ul style="list-style-type: none"> Coordination with MNDOT Project funding
N/A	Irving+Fairmount	Vegetated connections	Transportation	As local streets are reconstructed according to normal CIP cycles, ROWs will be evaluated for adding green infrastructure, such as rain gardens, bio swales, tree trenches, etc.	City: PW	On-going		Low to High -- depending on project	Federal: CSBG Foundation: Rockefeller Foundation Grants City: Planting budget	<ul style="list-style-type: none"> Codifying program as part of regular street construction schedule
15	Irving+Fairmount	Where Cross City Trail is not implemented add on-street bike boulevards along Main St, 59th Ave, and Raleigh St	Transportation	Add appropriate road markings and signage to streets	City: PW Others: MNDOT	1-3 years		Low	Federal: SRTS, RTP State: DNR Local Trail Connection Program County: NE MN SHIP Foundation: People for Bikes Grant	<ul style="list-style-type: none"> Including projects as part of department program
16	Irving+Fairmount	Grand Avenue conversion to 3-lane (restriping only)	Transportation	Coordinate with MNDOT restriping of the roadway	City: PW Others: MNDOT	1-3 years		Low	Federal: CMAQ, TA, SRTS, HSIP, State: MnDOT Cooperative Agreement	<ul style="list-style-type: none"> Coordination with MNDOT Project funding

Table 4: Irving and Fairmount Brownfields Revitalization Plan Implementation Matrix (3 of 5)

IMPLEMENTATION PLAN

Map Key	Neighborhood	Action Item	Type	Implementation Strategy	Project Partners	Timeline	Priority	Scale of Public Investment	Possible Funding Sources	Likely Project Challenges/ Complexities
17	Irving+ Fairmount	Grand Avenue conversion to 3-lane (restriping) with protected bikeway	Transportation	Coordinate with MNDOT restriping of the roadway and design of bikeway	City: PR, PW Others: MNDOT	3-5 years		Medium	Federal: CMAQ, TA, SRTS, HSIP State: MnDOT Cooperative Agreement	<ul style="list-style-type: none"> • Coordination with MNDOT • Project funding
18	Irving+ Fairmount	Grand Avenue conversion to 3-lane with intersection improvements and protected bikeway	Transportation	Coordinate with MNDOT design of new roadway to accommodate enhanced facilities	City: PR, PW Others: MNDOT	20+ years		High	Federal: CMAQ, TA, SRTS, HSIP, TIGER (\$10M minimum) State: MnDOT Cooperative Agreement	<ul style="list-style-type: none"> • Coordination with MNDOT • Project funding
19	Irving	Central Avenue protected bikeway	Transportation	Restriping of the roadway and design of bikeway	City: PW	3-5 years		Medium	Federal: TIGER (\$10M minimum), CMAQ, TA, SRTS City: Transportation Budget	<ul style="list-style-type: none"> • Coordination with MNDOT • Project funding
20	Irving	Waseca Industrial Rd extension	Transportation	Extend Waseca Industrial Rd from its current terminus just west of 59th Ave to 63rd Ave. This will likely require working with BNSF to potentially use part of their ROW. It may also require mitigating the impact of crossing a wetland area.	City: PW	1-3 years		High	Federal: TIGER (\$10M minimum), TIFIA (\$50M minimum), CMAQ, TA	<ul style="list-style-type: none"> • Coordination with property owners • Project funding • Project design
21	Irving	Improve 63rd Ave to handle regular truck traffic from new Waseca Industrial Rd to Raleigh St	Transportation	Reconstruct 63rd Avenue by widening the ROW and improving the road bed. Ensure adjoining properties are adequately buffered with vegetation and other sound and dust mitigation techniques.	City: PW	1-3 years		High	Federal: TIGER (bundled with Waseca Extension) City: Transportation Budget	<ul style="list-style-type: none"> • Project funding • Project design
22	Irving	Improve Raleigh St to handle regular truck traffic from 63rd Ave to Grand Ave	Transportation	Assess the level of needed reconstruction given forecasted truck traffic	City: PW	1-3 years		Medium to High	State: State Aid Funding City: Transportation Budget	<ul style="list-style-type: none"> • Project funding • Project design
23	Irving	New "backage" road parallel to east side of Grand Avenue from Polk St to Nicollet St (separate Cross City Trail project would run parallel to the new "backage" road)	Transportation	Design new roadway taking into consideration need to access adjacent commercial properties, accommodate new bike facilities, and the use of the former rail line as a ROW	City: PLN, PR, PW Others: Property owners	Contingent on acquiring Irving rail spur		High	Foundation: NAR Placemaking and Smart Growth Grants (if related to Catalyst Site #3) City: Transportation Budget	<ul style="list-style-type: none"> • Potential property owner issues • Contingent on securing Irving rail spur • Project funding • Project design
24	Irving	Improve 63rd Ave from Raleigh St to new "backage" road parallel to Grand Ave	Transportation	Assess the level of needed reconstruction given forecasted traffic	City: PW	Contingent on acquiring Irving rail spur		Medium to High	Foundation: NAR Placemaking and Smart Growth Grants (if related to Catalyst Site #3) City: Transportation Budget	<ul style="list-style-type: none"> • Project funding • Project design
25	Irving	Extend 64th Ave from Raleigh St to Redruth St	Transportation	As catalyst site #3 is redeveloped ensure that internal circulation of the site facilitates optimal connections to local roadways and contributes to the creation of developable sites.	City: PW	Contingent on acquiring Irving rail spur		Medium to High	Foundation: NAR Placemaking and Smart Growth Grants (if related to Catalyst Site #3) City: Transportation Budget	<ul style="list-style-type: none"> • Contingent on plans to redevelop catalyst site #3 • Redruth business park

Table 4: Irving and Fairmount Brownfields Revitalization Plan Implementation Matrix (4 of 5)

Map Key	Neighborhood	Action Item	Type	Implementation Strategy	Project Partners	Timeline	Priority	Scale of Public Investment	Possible Funding Sources	Likely Project Challenges/ Complexities
26	Irving	Raleigh St and Central Ave intersection improvements	Transportation	In order to allow safer truck movement from westbound Raleigh St/Waseca Industrial Rd to northbound Central Ave, move the southbound Central Ave stop sign, painted stop bar, painted crosswalk, and bus stop sign back from the intersection approximately 30 feet. Also, a sign alerting motorists of large trucks might be turning at the intersection should be added to southbound Central Ave. Additional analysis will be needed to verify these recommended changes are feasible. If this is not feasible, consideration should be given to further altering the northeast corner of the intersection to allow more area for turning vehicles. This intervention, however, would likely require movement of two utility poles.	City: PW	1-3 years		Low to Medium	Federal: HSIP	<ul style="list-style-type: none"> Project funding Project design
27	Irving	Traffic study at Central Ave and I-35 intersection	Transportation	The traffic study at the intersection of Central Ave and I-35 should determine opportunities for improving the safety and movement of vehicles traveling from southbound I-35 to southbound Central Ave	City: PW Others: MNDOT	1-3 years		Low	Local: Duluth-Superior MIC Unified Planning Work Program (UPWP) Federal: HSIP	<ul style="list-style-type: none"> Project funding

Definitions of common abbreviations used in Master Matrix:

- ED Economic Development Department, City of Duluth
- PLN Planning Department, City of Duluth
- PW Public Works Department, City of Duluth
- PR Parks and Recreation Department, City of Duluth
- MNDOT Minnesota Department of Transportation
- BNSF Burlington Northern Sante Fe Railroad
- STEP Safe Transportation for Every Pedestrian
- TIGER Transportation Investment Generating Economic Recovery
- CMAQ Congestion Mitigation and Air Quality Improvement Program
- Duluth-Superior MIC UPWP Duluth-Superior Metropolitan Interstate Council - Unified Planning Work Program
- TA Transportation Alternatives, also known as TAP and STBG (surface transportation block grant)
- SRTS Safe Routes to School
- TIFIA Transportation Infrastructure Finance and Innovation Act
- CSBG Community Service Block Grants (Dept of Health & Human Services)
- HSIP Highway Safety Improvement Program
- NEA National Endowment for the Arts
- RTP Recreational Trails Program
- NAR National Association of Realtors
- NE MN SHIP Northeast Minnesota Statewide Health Improvement Program
- DNR Department of Natural Resources

Table 4: Irving and Fairmount Brownfields Revitalization Plan Implementation Matrix (5 of 5)

IMPLEMENTATION PLAN

Map Key	Neighborhood	Recommendation	Project Concept	Site Assembly	Site Preparation	Development Objectives	Developer Partnership	Development Support
1	Fairmount	Catalyst Site #5-DW&P	This is part of a cluster of project areas on the western edge of the Fairmont Neighborhood that introduces a new dimension to the Neighborhood. It introduces a higher density housing community that, in addition to serving as a westward expansion of the neighborhood, has an important orientation to the scenic hillside and regional trail network. It would be appealing to active households, and would contribute to Duluth's brand as an	Consolidate public sector ownership. Ensure clear title to land.	Set the stage for development. Gather known conditions in project file. Rezone property to support new medium-density (townhomes) and high-density (3-5 story multifamily) housing. Conduct appropriate level of environmental investigation. Site preparation could also include environmental remediation to residential standards. Or remediation could occur in partnership with selected developer.	Define clear development objectives. Make a final determination relative to the portion of the site to be used for park development. Establish objectives related to expected density and affordability mix, internal site circulation, connections to trails and local streets, site and building design standards.	Utilize an RFP or RFQ process to solicit a developer partner who will pursue a master-planned approach to development of the site.	Collaborate in pursuit of environmental remediation resources. Partner in provision of street, utility infrastructure. Provide gap financing.
2	Fairmount	North of Main Street, West of 67 th Avenue	This is part of a cluster of project areas on the western edge of the Fairmont Neighborhood that introduces a new dimension to the Neighborhood. It introduces a higher density housing community that, in addition to serving as a westward expansion of the neighborhood, has an important orientation to the scenic hillside and regional trail network. It would be appealing to active households, and would contribute to Duluth's brand as an City defined by active outdoor recreation.	Consolidate public sector ownership. Ensure clear title to land.	Set the stage for development. Gather known conditions in project file. Rezone property to support new medium-density (townhomes) and high-density (3-5 story multifamily) housing. Conduct appropriate level of environmental investigation. Site preparation could also include environmental remediation to residential standards. Or remediation could occur in partnership with selected developer.	Define clear development objectives, including such things as expected density and affordability mix, land to be set aside for natural area and stormwater runoff mitigation, internal site circulation, connections to trails and local streets, site and building design standards.	Utilize an RFP or RFQ process to solicit a developer partner who will pursue a master-planned approach to development of the site.	Collaborate in pursuit of environmental remediation resources. Partner in provision of street, utility infrastructure. Provide gap financing.
3	Fairmount	North and South of Redruth Street, West of 67 th Avenue	This is part of a cluster of project areas on the western edge of the Fairmont Neighborhood that introduces a new dimension to the Neighborhood. It introduces a higher density housing community that, in addition to serving as a westward expansion of the neighborhood, has an important orientation to the scenic hillside and regional trail network. It would be appealing to active households, and would contribute to Duluth's brand as an City defined by active outdoor recreation.	Consolidate public sector ownership. Ensure clear title to land	Set the stage for development. Gather known conditions in project file. Rezone property to support new medium-density (townhomes) and high-density (3-5 story multifamily) housing. Conduct appropriate level of environmental investigation. Site preparation could also include environmental remediation to residential standards. Or remediation could occur in partnership with selected developer.	Define clear development objectives, including such things as expected density and affordability mix, land to be set aside for natural area and stormwater runoff mitigation, internal site circulation, connections to trails and local streets, site and building design standards.	Utilize an RFP or RFQ process to solicit a developer partner who will pursue a master-planned approach to development of the site.	Collaborate in pursuit of environmental remediation resources. Partner in provision of street, utility infrastructure. Provide gap financing.
5	Irving	MN Steel Fabricators Site (Catalyst Site #4)	This site is part of an important cluster of Irving neighborhood projects at the northern end of Grand Avenue, which offer a new gateway to the neighborhood along Grand Avenue, new commercial businesses along Grand Avenue, and new housing choices along Keene Creek and in walking distance of the commercial district to the north.	This is a high priority for public acquisition. Acquisition of this site not only makes it possible to pursue development of the site itself. It also opens the door to negotiating with the railroad the abandonment of the spur line that terminates on this property. Abandonment of the rail spur opens up other development opportunities to the south along the spur line. Abandonment of the rail spur also makes it possible to develop property to the west along Grand Avenue, supporting development in that location—because access to those sites depends on a road or private drive that would cross the rail spur.	Set the stage for development. Gather known conditions in project file. Rezone property to support new medium-density (townhomes) and high-density (3-5 story multifamily) housing. Conduct appropriate level of environmental investigation. Site preparation could also include environmental remediation to residential standards. Or remediation could occur in partnership with selected developer.	Define clear development objectives. Identify area to be reserved for stormwater flood capacity. Define expected density and affordability mix. Lay out objectives related to internal site circulation, connections to trails and local streets, site and building design standards. Objectives may include provision of a community gathering space.	Utilize an RFP or RFQ process to solicit a developer partner.	Collaborate in pursuit of environmental remediation resources. Provide gap financing.

Table 5: Irving and Fairmount Brownfields Revitalization Plan Redevelopment Matrix (1 of 2)

Map Key	Neighborhood	Recommendation	Project Concept	Site Assembly	Site Preparation	Development Objectives	Developer Partnership	Development Support
6	Irving	Land bounded by Keene Creek, Grand Ave, I-35, and the Irving rail spur	This site is part of an important cluster of Irving neighborhood projects at the northern end of Grand Avenue, which offer a new gateway to the neighborhood along Grand Avenue, new commercial businesses along Grand Avenue, and new housing choices along Keene Creek and in walking distance of the commercial district to the north. Development of this site should follow acquisition of the MN Steel Fabricators site, and abandonment of the Irving rail spur.	Negotiate acquisition of Irving rail spur property from BNSF Railroad. Open a dialog with MNDOT concerning acquisition of excess right of way. Define the extent of the land that could potentially be developed. Development of this site should follow acquisition of the MN Steel Fabricators site, and abandonment of the Irving rail spur.	Set the stage for development. Gather known conditions in project file. Rezone property to support new medium-density (townhomes) and high-density (3-5 story multifamily) housing. Conduct appropriate level of environmental investigation. Site preparation could also include environmental remediation to residential standards. Or remediation could occur in partnership with selected developer.	Identify area to be reserved for stormwater flood capacity. Define expected density and affordability mix. Lay out objectives related to internal site circulation, connections to trails and local streets, site and building design standards. Objectives may include provision of a community gathering space.	Utilize an RFP or RFQ process to solicit a developer partner.	Collaborate in pursuit of environmental remediation resources, as needed. Partner in provision of street, utility infrastructure. Provide gap financing.
4	Irving	Land bounded by Keene Creek, Grand Ave, 63 rd Avenue, and the Irving rail spur	This site is part of an important cluster of Irving neighborhood projects at the northern end of Grand Avenue, which offer a new gateway to the neighborhood along Grand Avenue, new commercial businesses along Grand Avenue, and new housing choices along Keene Creek and in walking distance of the commercial district to the north.	Negotiate acquisition of Irving rail spur property from BNSF Railroad. Negotiate acquisition of property from two property owners along Grand Avenue. Development can be phased as property becomes available. Development of this site should follow acquisition of the MN Steel Fabricators site, and abandonment of the Irving rail spur.	Set the stage for development. Gather known conditions in project file. Rezone property to support new mixed use development. Conduct appropriate level of environmental investigation.	Given the desire for mixed use development on this site, and the rapidly changing market environment for retail development, development objectives should be created based on a site specific planning process at such time as site control is secured. Development objectives should define desired mix and density of residential and commercial development, affordability mix of the residential component, site layout and building design standards.	Utilize an RFP or RFQ process to solicit a developer partner.	Collaborate in pursuit of environmental remediation resources, as needed. Provide gap financing.
7	Irving	Redevelop catalyst site #3 - Redruth business park	This is a large site that would be conducive to a mix of housing types. It depends on abandonment of the Irving rail spur.	Pursue public acquisition of properties. Ensure clear title to land. Development can be phased as property is acquired.	Set the stage for development. Gather known conditions in project file. Rezone property to support new medium-density (townhomes) and high-density (3-5 story multifamily) housing. Conduct appropriate level of environmental investigation. Site preparation could also include environmental remediation to residential standards. Or remediation could occur in partnership with selected developer.	Define clear development objectives, including such things as expected density and affordability mix, internal site circulation, connections to trails and local streets, site and building design standards.	Utilize an RFP or RFQ process to solicit a developer partner who will offer a master plan concept for the entire site, with a more detailed plan for the initial project phase.	Collaborate in pursuit of environmental remediation resources. Partner in provision of street, utility infrastructure. Provide gap financing.
10	Irving	Promote industrial development south of BNSF tracks and east of Stryker Bay	Build on the high quality industrial campus in the area by fostering redevelopment of this site for a complementary purpose.	Establish communication with the property owner, and pursue acquisition when he or she is prepared to sell at a reasonable price.	Set the stage for development. Gather known conditions in project file. Conduct appropriate level of environmental investigation.	Define clear development objectives relative to type and size of industrial reuse desired, and minimal standards for building and site appearance	Solicit business interest in the site	Collaborate in pursuit of environmental remediation resources. Provide other public support as warranted.

Table 5: Irving and Fairmount Brownfields Revitalization Plan Redevelopment Matrix (2 of 2)

Highlighted Actions

Three of the recommended actions have been the subject of additional research, process, and consideration. They are given individual attention here. Consideration of these sites benefited from:

- **Implementation Workshop.** All three sites were the subject of conversation at an Implementation Workshop on October 10, 2017. The Workshop engaged public sector and other organizational leadership in a conversation about implementation of the Irving and Fairmount Brownfields Revitalization Plan. It invited discussion about implementation roles and initial steps that could be taken. It also encouraged participants to identify potential challenges to implementation and how to surmount them.
- **Development Concept Financial Assessment.** Two of the highlighted actions are development projects. Each of them were the subject of a development concept financial assessment. This is a high level, but site specific, analysis of the development costs and returns associated with a prospective development project. Although not a full-fledged pro forma analysis, the assessment provides a clearer sense of the level of public financial support that a project may require in

order to attract a developer to the project.

The assessment involved developing a financial model for development concepts on two subject sites. The models were informed by research conducted as part of the market analysis and interviews with developers who recently constructed similar housing types in West Duluth (Ramsey Townhomes and the Grand Avenue Estates).

Redevelopment – DW&P Site (Catalyst Site #5)

Proposed use. The proposed use is a mix of housing and open space.

Site characteristics. The site is the southeastern triangular section of a large square-shaped parcel of land owned by the City of Duluth and divided by the Cross City Trail. The entire parcel is around 34 acres in area, and has an assessed value of \$157,000. The development site is a right triangle of around 8 acres in size.

Market context. The site has good market characteristics for residential development. Housing on the site would have beautiful views up the hillside to the northwest. It would have direct access to the Cross City Trail. The Superior Hiking Trail is also up the hillside, as well as a network of mountain bike trails. It's no exaggeration to say there is a playground of outdoor amenities on the doorstep of the property,



DW&P Site (Catalyst Site #5)

giving the site an opportunity to tap into Duluth’s brand as one of our country’s great outdoor cities. The size of the site is also an asset, allowing a campus setting to be created, which can include a range of amenities. It will include ample open space or parkland on site.

The site also faces market challenges. It is not visible from Grand Avenue, the neighborhood’s main arterial. And there are properties and buildings in the surrounding single-family neighborhood that show significant wear and tear.

Given the recreational opportunities associated with the site, new housing might be targeted to a younger demographic, or people of all ages who seek an active lifestyle.

Public value. New multifamily housing offers choices to Duluth residents. New households would support nearby businesses along Grand Avenue and in the Spirit Valley commercial area. New housing would demonstrate a sense of positive momentum for the neighborhood and build a neighborhood brand as a place for active living, one that is becoming more connected and developing new open space environments, and one that is well suited for younger and more active demographics.

Implementation Strategy. The development of the site benefits from public ownership of the site. That eliminates the need for site acquisition. It

puts the City in a position to ensure the quality of the development and to make sure that project phases contribute to an integrated overall design.

The market context, and conversations with local developers, suggest that this is a site that will be attractive to the development community under the right circumstances. In broad terms, that means having a clear vision for the site and demonstrating that the public sector will be an active and committed development partner.

The financial assessment suggests that market rate housing on the site may be achievable if it is a mix of development types with different cost structures (as illustrated in the development concept) and if it is supported by tax increment financing or a similar level of public financial resources.

Implementation challenges include:

- The cost or difficulty of extending utilities to the site
- Site contamination
- The need for public financial support

The following recommended actions would clarify the uncertainties that can be identified in the short run, and establish a clear vision for the site. They would demonstrate public commitment to the project. Moreover, they are building blocks for the follow-up step, which is to solicit developer interest in the site. These near-

term actions can be supported with outside expertise, to the extent that is helpful or needed.

1. **Site analysis.** Gather existing information about the site relative to environmental contamination, soil conditions, utility infrastructure, flood characteristics, and property features such as trail easements. Summarize the constraints that these known conditions place on development to the extent that can be determined.
2. **Refine the vision.** Create a refined vision for the site that includes determining important development objectives such as:
 - a. The part of the site to be retained in public ownership in support of multiple trail systems
 - b. The overall proposed density or number of housing units
 - c. Any suggested mix of housing types or affordability levels
3. **Development finance.** At a concept level, build a critical mass of support for one or more options for bringing sufficient development gap financing to the project based on its estimated need.
4. **Park development.** Determine how the development of the park can be achieved in coordination with new development.

These proactive steps put the City in an excellent position to publicize the site to

the developer community through a Request for Proposals or Request for Qualifications.

Redevelopment – Wallinder Legacy/MN Steel Fabricators Site (Catalyst Site #4)

Proposed use. The proposed use is a set of medium density apartment buildings with underground parking. The existing railroad spur would be removed. Access to the site would be from 59th Avenue on the east

side of the site. Some of the land near Keene Creek would serve as a landscaped edge to the creek and accommodate stormwater and floodwater.

Site characteristics. The site is roughly triangular. It encompasses property south of Interstate 35, from Grand Avenue on the west to 59th Avenue on the East. Keene Creek runs along the southern edge of the site. A rail spur parallel to Grand Avenue currently bisects the property into land that fronts on Grand Avenue and land that fronts on 59th Avenue.

The rail spur corridor is owned by BNSF Railroad and cuts a broad 180’ swath through the site. Property between the rail corridor and Grand Avenue is excess right of way owned by the state of Minnesota. Property between the rail corridor and 59th Avenue is in multiple ownership—the largest parcels in use as a metal fabricator facility owned by MN Steel Fabricators. Two smaller parcels are single family homes.

The combined development site is around 4.5 acres and has an aggregate assessed value of \$1.2 million, or around \$6 per square foot.

Market context. The site has good market characteristics for residential development. It is adjacent to Keene Creek, along which a multi-use walking-biking trail will be developed as a section of the Cross-City Trail. It is a short walk from the Spirit Valley commercial district. The visibility from Grand Avenue and Interstate 35 can help market the site to prospective tenants, particularly in the case of a senior housing development.

The site also faces market challenges. The proximity to the freeway would be a deterrent for some prospective renters. Furthermore, West Duluth tends to have a lower profile compared to other neighborhoods in the City and educating prospective renters on the benefits of the location would likely be necessary in the first phase of any development.



This might be a particularly suitable site for senior housing because of its proximity to the nearby Evergreen Seniors Center and the Spirit Valley commercial district, and its freeway visibility.

Public value. New multifamily housing offers choices to Duluth residents. New households would support nearby businesses along Grand Avenue, and in the Spirit Valley commercial area. A high-quality housing development in this location would establish a new gateway to the Irving and Fairmount neighborhoods as you enter from the north along Grand Avenue. It would also demonstrate a sense of positive momentum for the neighborhood.

Implementation Strategy. The market context, and conversations with local developers, affirm that this is a site that will be attractive to the development community under the right circumstances. That means providing a clear vision for the site and taking steps to set the stage for development. It also means surmounting challenges related to site assembly and development finance.

Site assembly. Public-sector site assembly is probably necessary for this project to occur, given the range of properties that are involved. However, it may not be necessary to purchase every single property. For example, if there is public sector acquisition of the railroad easement, the State of Minnesota properties, and the two single family

homes, a developer might be willing to pursue and negotiate acquisition of the MN Steel Fabricator site, and the other properties could be subsequently sold to the developer. That minimizes the cost burden to the public sector in the event that those properties need to be held for a time before the development occurs.

Development finance. The financial assessment suggests that the proposed housing type, apartments with underground parking, may not be financially feasible on a strictly market basis. Developers of nearby properties, Ramsey Townhomes and Grand Avenue Estates, felt that achievable rents are unlikely to support the additional cost of the structured parking. A range of approaches could be taken to meet the gap financing need. Value capture approaches such as tax increment financing are particularly worth considering since they don't compete with other projects for scarce development resources.

The recommended critical path for project implementation is as follows. These actions can be supported with outside expertise, to the extent that is helpful or needed

1. **Preparation for site assembly program.** Take steps that set the stage for, and facilitate decisions about, site assembly. This may include: a) building agreement around the need for public site assembly, b) deciding which

properties should be pursued, c) determining who will play leadership and support roles, d) ensuring that a realistic level of staff time and resources are available for the activity, e) identifying the source of funding.

2. **Site assembly.** Undertake a patient site assembly program, with relocation component as needed.
3. **Site preparation.** Refresh the development vision. Consider undertaking additional site preparation such as re-platting, clearing title, environmental investigation, and demolition.
4. **Attract a development partner.** Market the site to the development community.

In the short term, this critical path should be focused on preparation for site assembly activities.

I-35 Underpass Improvements at 57th Avenue (Catalyst Site #1)

Proposed use. The site is currently used as a public right-of-way, which is proposed to be enhanced with improved sidewalks, lighting, painted surfaces, and streetscape features such as benches, trash bins, and appropriate signage. Underutilized areas of the underpass that are not right-of-way are envisioned to be activated with any number of potential uses that would enhance the



DAYTIME

57th Avenue Underpass (Catalyst Site #1)

pedestrian experience and strengthen the connection between the Spirit Valley commercial area and the Irving neighborhood.

Site characteristics. The site is the street and sidewalks of 57th Avenue as it passes under three stretches of freeway. It is bordered by wooden fencing on the west side and is open to an extended under-bridge environment to the east.

The site is publicly owned with both local street infrastructure at the ground level and State of Minnesota highway infrastructure above.

Public value. There are multiple public benefits to creative underpass

improvements. They improve pedestrian safety, reduce a barrier to walking to the Spirit Valley commercial district, contribute to a positive neighborhood identity, and create a neighborhood asset. Depending on how it is done, they may also establish a venue for neighborhood gathering and events.

Implementation Strategy. Implementing underpass improvements means taking steps to develop a community based vision, and surmounting some important challenges.

Community energy and enthusiasm are the drivers of a project of this kind. A next stage of project visioning should go to great lengths to engage as deep and

diverse a group of stakeholders and participants in the neighborhood and business and artistic communities as possible. If the idea catches on with key individuals and constituents, they will propel the project forward.

Important challenges were identified in the Implementation Workshop. They included:

- a. Finding a way to prevent snow from being plowed into the area from above
- b. Identifying funding for both installation and maintenance of the desired improvements
- c. Ensuring the safety of the area

A recommended next step is to convene a set of stakeholders to oversee a design process that will include robust and creative community and stakeholder engagement.