IMAGINE DULUTH 2035

FORWARD TOGETHER



AN UPDATE TO THE 2006 COMPREHENSIVE LAND USE PLAN

ADOPTED DATE: JUNE 25, 2018

THE CITY OF DULUTH MINNESOTA

IMAGINEDULUTH2035 FORWARD TOGETHER

City of Duluth

411 West First Street
Duluth, Minnesota
55802

Certified Copy

Resolution: 18-0240R

File Number: 18-0240R

RESOLUTION ADOPTING THE IMAGINE DULUTH 2035 UPDATE TO THE COMPREHENSIVE PLAN OF THE CITY OF DULUTH.

CITY PROPOSAL:

The city council hereby finds as follows:

a. It is in the best interest of the city to adopt a comprehensive plan as set out in Minnesota Laws, Chapter 462;
b. The current comprehensive plan was adopted in 2006 by Resolution 06-0491R and remains in effect, as amended since adoption;
c. The community planning division and the city planning commission have developed, reviewed, and recommended adoption of plan document dated June 2018, of an update to the comprehensive plan known as imagine Duluth 2035;
d. The update to the comprehensive plan addresses and incorporates the governing principles adopted in 2017 by Resolution 17-301R, including governing principles 13 and 14 related to issues of health and fairness;
e. The community planning division and planning agency have, after due public notice, conducted one or more public hearings about this comprehensive plan, and over 100 general meetings with the public, agency partners, and community members.

NOW, THEREFORE, BE IT RESOLVED, that the imagine Duluth 2035 update to the 2006 comprehensive plan, as attached to this resolution, is adopted as an update to the comprehensive plan for the city of Duluth.

BE IT FURTHER RESOLVED, that the city offers thanks to the imagine Duluth vision committee, focus group members, planning commission, health in all policies group, staff, and citizens who worked since June, 2016 to develop this comprehensive plan update.

This Resolution was adopted.

I, Chelsea Helmer, City Clerk of the City of Duluth, Minnesota, do hereby certify that I have compared the foregoing passed by the city council on 6/25/2018, with the original approved and that the same is a true and correct transcript therefrom.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the corporate seal of said city of Duluth.

City Clerk _____
Chelsea Helmer

7/6/2018
Date Certified

ACKNOWLEDGEMENTS

Mayor
Emily Larson

City Council
Gary Anderson
Joel Sipress
Em Westerlund
Renee Van Nett
Howie Hanson
Jay Fosle
Zack Filipovich
Elissa Hansen
Noah Hobbs
Barb Russ

Planning Commission
Jason Crawford
Margie Nelson
Janet Kennedy
Tim Meyer
Heather Wright Wendel
Luke Sydow
Michael Schraepfer
Sarah Wisdorf
Zandra Zwiebel
Garner Moffatt
Terry Guggenbuehl

Planning Staff
Keith Hamre
Adam Fulton
Kyle Deming
John Judd
John Kelley
Suzanne Kelley
Chris Lee
Jenn Moses
Karen Olesen
Steven Robertson
Kate Van Daele
Ben VanTassel
Emilie Voight
Kathy Wilson

VISION COMMITTEE MEMBERS

Alicia Cyr
Amy Burke
Angie Miller
Ashley Grimm
Barb Russ
Bill Gronseth
Carl Crawford
Charles Obije
Christina Woods
Chuck Walt
Cruz Mendoza
Dan Hartman
David Ross
David Sarvela
Drew Digby
Ed Hall
Elissa Hansen
Erik Torch
Gaelynn Lea Tressler
Garner Moffat
Gary Eckenberg
Henry Banks
Janet Kennedy
Jen Julsrud
Jenny Peterson
Jill Keppers
John Doberstein
John Schmidt
John Scott
Kayla Keigley
Kevin Skwira-Brown
Kristi Stokes
Laura Mullen
Lee Stuart
Luke Sydow
Lynne Williams
Pam Kramer
Russ Salgy
Sharon Witherspoon
Stephan Witherspoon
Sue Coen
Susana Pelayo Woodward
Terry Guggenbuehl
Tom Hansen
Tony Cuneo
Zack Filipovich

… and thank you to the people of Duluth!






TABLE OF CONTENTS



EXECUTIVE SUMMARY Pages ES-1 to ES-7



BACKGROUND Pages B-1 to B-12



COMMUNITY ENGAGEMENT Pages CE-1 to CE-12



GOVERNING PRINCIPLES Pages G-1 to G-6



ECONOMIC DEVELOPMENT Pages ED-1 to ED-20



ENERGY & CONSERVATION Pages EC-1 to EC-14



HOUSING Pages H-1 to H-23



OPEN SPACE Pages OS-1 to OS-28



TRANSPORTATION Pages T-1 to T-36



LAND USE Pages LU-1 to LU-21



GENERAL DEVELOPMENT Pages GD-1 to GD-14



TRANSFORMATIVE OPPORTUNITIES Pages TO-1 to TO-20



METRICS & MEASUREMENTS Pages MM-1 to MM-4

Appendices

A. Community Survey Results
B. Health in All Policies Survey Results
C. Youth Engagement Results
D. Irving Fairmount Brownfields Revitalization Plan
E. Imagine Canal Park Summary

IMAGINEDULUTH2035
FORWARD TOGETHER

EXECUTIVE SUMMARY

Imagine a city of vibrant, people-centered neighborhoods – connected by good streets, convenient bus routes, and safe bike lanes – from Fond-du-Lac to the Lester River, up and down the hillside.

Imagine neighborhood places where people can gather to build community. Local places you can go to shop, garden, play with the kids in a park, or simply enjoy time with friends.

Imagine walking to a local coffee shop, a pub, or playground, biking across town to the lakeshore, or taking a bus to work or to a local trail to enjoy a ski, take a walk, or run.

Imagine hundreds of new college graduates connected to local jobs, able to make Duluth their home and raise their families.

Imagine Duluth as a city where housing is affordable, safe, and available to people of all incomes across all neighborhoods.

Imagine a thriving economy with products produced by local businesses, connected to the rest of the country and the world through modern, efficient air, water, and rail transportation.

Imagine Duluth known throughout the state and across the country as a sustainable, prosperous, innovative, and green city, recognized for its thriving urban gardens and locally grown food.

Imagine Duluth's brand as the go-to destination place to enjoy a weekend or week, exploring well-maintained parks and trails, or simply relaxing in the ambience of its history and locally grown culture and talent.

Imagine a city that balances economic growth with its ecology, history, and culture – whose starting values are that no neighborhood is disposable, cities should serve people, and green space has intrinsic value.

Imagine a more connected, more resilient, more accessible, more sustainable, fairer, and healthier Duluth.

Imagine Duluth 2035.

DULUTH TODAY – AT A GLANCE

Population and Demographics

86,164 residents
88.6% white
Life expectancy – Chester Park/Congdon = 84.7 years; Lincoln Park = 73.4 years

Economy and Jobs

Median household income: $45,900
Poverty rate: 21%
45,086 people work in the city – top three industries: Healthcare, Retail Trade, and Education Services
6.7 million tourists annually
47% of land and buildings within city limits is non-taxable

Public Infrastructure

42 streams and 128 parks
178 miles of trails
450 miles of roads
403 miles of sidewalks

Housing

38,146 housing units – 40% rental/60% home owners
Half of Duluth's homes are older than 75 years
Median property value: $148,900

Education

5,300 university degrees granted each year – UMD, St. Scholastica, and Lake Superior College

Transportation

12% of residents have no car
2.8 million annual bus ridership
255,000 air passengers
1,100 lake-carrier and oceangoing ship visits with 38 million metric tons of cargo annually
$1,000 per lineal foot to build or reconstruct a standard 24 foot-wide, curb and gutter city street

Big, transformational visions have shaped Duluth throughout its history. In 1889 William Rodgers first imagined Duluth's many streams connected by a boulevard winding along the city's bluff. Mayor Snively championed Skyline Parkway and envisioned parks centering residential neighborhoods. Modern streetcars gave birth to Duluth's suburban neighborhoods strung across 26 miles of hillside. Canal Park and the Lakewalk transformed century-old industrial scrapyards and decaying buildings into Duluth's tourist center and one of the city's most used and prized public attractions.

Imagine Duluth 2035 is no less transformational. But unlike previous big ideas, this one didn't come from a singular visionary leader or city planner, but from the collective dreams and ideas of thousands of Duluth residents gathered through an intensive, year-and-a-half long community engagement process. Imagine Duluth 2035 puts people and natural places at its center and shifts away from the auto- and industry-centric development of the past.

Imagine Duluth 2035 balances livability with what it takes to live. It starts with what people love about Duluth – the beauty of Lake Superior, abundant parks, trails and outdoor opportunities, clean air and water, and a deep attachment to place. It connects these with what people need to stay and thrive in Duluth – good paying jobs, affordable housing, good streets as well as diverse transportations options. It deepens a commitment to protect the quiet places that make Duluth unique and emphasizes and focuses more residential, commercial, and craft industrial activities in core investment areas.

Imagine Duluth 2035 connects where people live, work, and play in a vision of vibrant, walkable, neighborhood centers and a thriving downtown, all with diverse housing options and served by modern streets, good sidewalks, efficient utilities, and transit. It positions Duluth to thrive in a future of energy and climate transformation. It

balances preservation and stewardship with growth and development, and it reflects a resilient, forward-looking city that both builds on tradition and welcomes innovation and new approaches. It is grounded in collaborative community partnerships.

Imagine Duluth 2035 addresses our hardest challenges and barriers:

- Persistent inequality
- Significant amount of non-taxable land and buildings
- Challenging geography, geology, and weather
- Aging infrastructure – housing, sewer and water, streets, and public buildings
- Lack of density for efficient transportation and utilities
- A big hill

Imagine Duluth 2035 is more than a land use plan or simple road map for future development. It envisions a wholistic, engaged, inclusive community with all its complexity and diversity. It builds on the hard work and planning from the past 15 years – 2001 and Beyond, the 2006 Comprehensive Land Use Plan, and numerous Small Area and Neighborhood Strategic Plans. Imagine Duluth 2035 unites, amplifies, focuses, and builds on these previous efforts. It connects big ideas like year-round indoor public spaces, aerial gondolas, tree-lined pedestrian friendly boulevards, and a city flag update, with the prosaic details of good city planning: street width and maintenance schedules, building codes, efficient infrastructure, clear signage, water flow and retention, and energy efficiency incentives, to name but a few. All of these issues are viewed through the lenses of health, fairness, sustainability, and accessibility for everyone – for Duluth will only move forward if we move forward together.

Imagine Duluth 2035 puts people and natural places at its center, and shifts away from the auto- and industry-centric development of the past.



The bulk of Imagine Duluth 2035 is structured around five topics – Economic Development, Energy and Conservation, Housing, Open Space, and Transportation. Each topic's chapter lays out a mission, and the key policies and strategies for achieving that mission. In addition to these five areas, Imagine Duluth 2035 lays out a vision for land use and includes chapters identifying both General Opportunities (ideas that cut across multiple content areas) and Transformational Opportunities (big ideas that represent stand-alone actions, even if their unifying elements may cross issue areas). These five issue areas and transformational opportunities are summarized below.

Economic Development

Mission: Duluth's economic environment will advance the success and health of our community by promoting growth through an expanded tax base and the creation of new jobs and innovative ideas.



KEY POLICIES:

Policy #1— Invest in people to increase employees' skills, ensure workforce availability for employers, and promote income self-sufficiency

Policy #2—Foster growth of existing employers and strategically recruit new employers to Duluth

Policy #3—Build on existing economic strengths and competitive advantages

Policy #4— Embrace the outdoors as an economic engine and source of community wealth

Policy #5— Effectively coordinate marketing, communication, and the city's image

Energy and Conservation

Mission: Duluth will invest in a healthier, more resilient community by using energy more efficiently and reducing greenhouse gas emissions.

KEY POLICIES:

Policy #1 – Increase community involvement in decisions about energy and infrastructure investments

Policy #2 – Provide incentives for developers to encourage green buildings and renewable energy use in new residential and commercial buildings

Policy #3 – Incentivize commercial, anchor institution, and large residential building/ facility owners to reduce energy use and increase energy efficiency in existing buildings/facilities and community gathering spaces

Policy #4 – Incentivize households and landlords to reduce energy use and increase residential energy efficiency

Policy #5 – Encourage community-wide investment in appropriate local renewable energy sources, including solar, wind, and biomass

Policy #6 – Adopt energy efficiency and energy saving targets for City owned facilities and City operations

Policy #7 – Increase efficiency of utilities and services



Housing

Mission: Housing in Duluth will promote the essential character of its neighborhoods while providing desired, safe, clean, and equitable living space for all members of the community.

KEY POLICIES:

Policy #1 – Increase density in and around the designated Core Investment Areas

Policy #2 – Provide affordable, attainable housing opportunities

Policy #3 – Prioritize inclusive housing policies to reflect the city's social, cultural, economic, and historic diversity and development patterns

Policy #4 – Improve the quality of the city's housing stock and neighborhoods

Policy #5 – Expand the cohesiveness of "One Duluth" by expanding a variety of housing opportunities throughout the city while maintaining unique community characteristics within distinct individual neighborhoods

Open Space

Mission: Duluth will strive for a sustainable open space system that enriches the lives of all Duluthians. These open spaces will reflect the community's ecological, historic, cultural, and recreational values, and will contribute to the community's resilience to natural disasters.

KEY POLICIES:

Policy #1 – Improve Duluth's resiliency to flooding and natural disasters

Policy #2 – Examine the value and need for all of Duluth's publicly owned open space

Policy #3 – Remove barriers to accessing parks and open space

Policy #4 – Improve the delivery of parks and open space services to the community

Policy #5 – Encourage urban food growth

Transportation

Mission: Duluth's transportation system will connect all users in a way that promotes safety, health, and quality of life.

KEY POLICIES:

Policy #1 – Improve street conditions to function better for everyone

Policy #2 – Reduce infrastructure costs through innovation and wholesale design change

Policy #3 – Add to the transportation network by systematically enhancing multi-modal options

Policy #4 – Improve system condition and connections in and between downtown and Canal Park

Policy #5 – Base decisions about transportation infrastructure primarily in the context of improving city and neighborhood vitality, and not solely on automobile through-put

Policy #6 – Protect and enhance regional transportation networks, especially for purposes of expanding opportunities for movement of freight

Transformational Opportunities

Not all of these transformational opportunities can be pursued, but the Imagine Duluth 2035 process captured these big ideas as a way of sparking continuing discussion, imagining, and planning.

- Identify and invest in 12 Core Investment Areas (CIAs)
- Carry out previously identified downtown plans and investments
- Develop a year-round indoor public space
- Increase uphill connectivity through a n aerial gondola or incline railway
- Identify redevelopment opportunity to create a public market and indoor space
- Limit development in Tier 3 Greenbelt Areas and create an Urban Services Boundary
- Update and modernize Duluth's city flag
- Prioritize key viewsheds – Views of the lake, the estuary, the hill, or landmarks
- Preserve and expand economic opportunities within Duluth's industrial waterfront



BACKGROUND



Changes since the 2006 Comprehensive Land Use Plan affect where we live, where we work, where we play, how we get from place to place, and even how we preserve our natural resources.

IMAGINE DULUTH 2035 sets forth the vision, principles, policies, and strategies to shape the future of Duluth. An update to the 2006 Comprehensive Land Use Plan, this document recognizes and builds upon the successes and momentum of the last decade and updates the community's vision and goals for the future. Duluth is a markedly different city than it was in 2006—demographically, economically, and culturally—-so it is natural that the vision for the future would change as well.

This plan also includes major elements that were not fully addressed in the 2006 Comprehensive Land Use Plan:

- Economic Development
- Energy and Conservation
- Housing
- Open Space
- Transportation

Legal Basis for Comprehensive Planning

The power for Minnesota municipalities to create and implement a comprehensive plan is established in state law. In the 1925 Minnesota Supreme Court case *Berry v. Houghton*, the Court sanctioned the use of comprehensive planning and zoning as legitimate tools for promoting the general welfare of the public. In 1939, the Minnesota State Legislature established the legislative foundation for land use planning with the Township Planning and Zoning Act. In 1965, the legislature passed the existing state law that grants specific comprehensive planning and land use regulatory powers to Minnesota cities. Minnesota Statutes, Sections 462.351 to

462.365, identify the planning powers granted to Minnesota cities. Specifically, Section 462.353, Subd. 1 authorizes cities to conduct comprehensive planning activities for the purpose of guiding development, to create comprehensive planning activities for the purpose of guiding development, to create a comprehensive plan, to adopt the plan as official policy, and to implement the plan by ordinance or other measure.

The role of comprehensive planning in local and regional decisionmaking has expanded over the last four decades. One example of the comprehensive plan's importance/strength it that it is recognized as the primary local land use authority in determining whether a specific development project passes Minnesota's environmental review process. Minnesota case law has emphasized the critical role that comprehensive plans play in justifying regulatory decisions, and that local governments have an obligation to be consistent with their comprehensive plan when enacting regulations or granting approvals.

This plan is the foundation upon which Duluth's regulatory tools (zoning, subdivision, shoreland, floodplain, and other ordinances) and Duluth's capital improvement programs rest. The plan's content, including the principles, policies, future land use map, and strategies, define how development, redevelopment, and preservation decisions are made.



Previous Comprehensive Plans

Duluth has engaged in four previous comprehensive planning processes over its history, two of which resulted in formally adopted plans. One of those was the 1927 plan, which pre-dated formal legislative recognition of comprehensive planning, and was focused primarily on directing the City's public investment in streets and transit systems.

In 1958, the City completed a new comprehensive plan. While not formally adopted, the plan did become the foundation for a new zoning ordinance. This plan relied on the concept of segregating distinct land uses, such as separating residential from commercial or industrial uses, in order to avoid nuisances.

In the 1990s, the City recognized that the long range plan was out-of-date and completed a city-wide visioning process, called "2001 and beyond." This vision was carried into a series of ten neighborhood District Plans, which were not formally adopted.

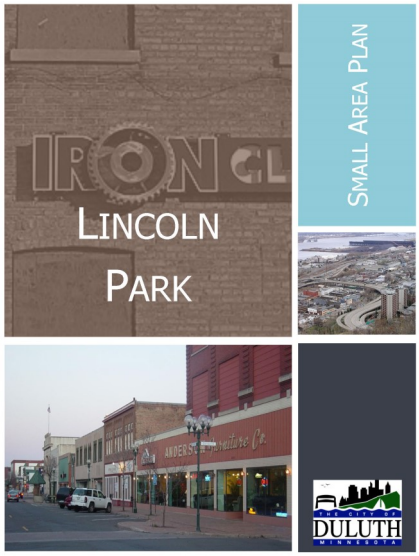
In 2004, the City restarted the comprehensive planning process, resulting in 12 Governing Principles, the Future Land Use Map, policies, and implementation steps. The Comprehensive Land Use Plan was adopted in 2006.

This plan, Imagine Duluth 2035, is an update to the 2006 plan, and carries forward its guiding principles and many of its policies.

The 2006 Comprehensive Land Use Plan … Then & Now

In the 12 years since the 2006 comprehensive plan, Duluth shared in the nation's recession in 2008 and experienced a catastrophic 100-year flood in 2012. Trends in housing and transportation have changed, new parks and trails have been built, and many Small Area Plans have been adopted. This section provides a summary of changes seen in the community and trends that identify future focus areas.

Small Area & Neighborhood Plans



The 2006 Comprehensive Land Use plan called for additional planning work in the form of ten Small Area Plans, a process of diving into more complex issues contained in a neighborhood portion of the City. The City has completed eight Small Area Plans that have been adopted as appendices to the 2006 Comprehensive Plan. These plans led to future land use map and zoning map amendments. The 2006 Plan also called for two Master Area Plans, the former U.S. Steel site and the Western Port Area Neighborhood (Irving and Fairmont) Plan. The City recently completed the Western Port Area Neighborhood plan with resource support from the U.S. Environmental Pollution Agency.

Another useful tool for focusing on neighborhoods is the Neighborhood Strategic Plan initiative supported by the Duluth Local Initiative Support Corporation, a national intermediary supporting neighborhood revitalization. These grassroot plans provide analysis and strategies for implementation with city initiatives and for use by other local collaborative partners. The focus of these plans has primarily been the Morgan Park, West Duluth, Lincoln Park, and Hillside neighborhoods.

HOUSING

Where We Live

In 2006 the housing market for residential development was robust with over 4,000 resales annually. Like the rest of the country, however, Duluth experienced the recession of 2008 and the burst of the housing bubble. Since the recession, a number of factors have tightened the residential market. Due to restrictions in funding and reduction of construction demand, contractors and skilled labor left the Duluth market. The lack of supply reduced competition and, among other factors such as poor soil condition, led to construction costs increasing; these costs have continued to increase, reducing the ability to replace housing units affordably. Finally, the cost of extending infrastructure has often proven prohibitive for residential developments at the current residential densities.

At a 2014 Duluth Housing Summit, a Maxfield Research study noted that the city needed an additional 4,400 units by 2020 to meet employment and economic development demands. To date, 1,200 new market rate housing units have been built or will be completed by September 2018. These include Bluestone Lofts and Flats, Kenwood Village, and Endi, all of which respond to the needs of specific markets. At present, there is still a need to create additional affordable units.

Future residential development needs to be more intense, with more units per acre. Meeting the City's housing goals, primarily affordable housing, means providing units in a fashion that is cost-effective and utilizes existing infrastructure. To meet the community's needs, new developments should increase access to recreational opportunities and connect people with efficient transit and bike options. They should build a sense of place that connects people with desired services and cultural opportunities. Existing housing stock will need reinvestment to preserve neighborhoods and maintain quality housing.

The community will need to embrace new housing models to welcome the concept of housing choice for all people in every neighborhood. Increasingly, residents look for housing options within walkable distances from locally owned retail and service-oriented businesses.

TRANSPORTATION

How We Get From Place to Place

The previous strategies in the 2006 Comprehensive Land Use Plan were mostly auto-centric; the focus on transit was secondary to the movement of personal vehicles. While in the past the City invested significant resources in road reconstruction, the primary funding source for that activity was dramatically reduced shortly after adoption of the plan. The concept of "complete streets" was new to the community in 2006 and resulted in untested challenges for neighborhoods, particularly in how to plan for bicycles and pedestrians. Investment in pedestrian infrastructure has been limited, with major factors for pedestrians being lack of snow clearance from sidewalks in winter and accessibility of sidewalk surfaces. Since 2006, demographic changes have shown growth in the age 20-35 age cohort, which relies more on bikes and walking for transportation.

As a long, linear community, Duluth has a number of challenges and opportunities. The dispersed street pattern, construction of streets on bedrock and poor soils, and elevation changes create higher street costs, increased maintenance, and challenges for transit; however, the city currently has many modes of transportation — air, water, auto, bicycle, pedestrian, and bus — to capitalize on. Existing transportation infrastructure needs to be improved, and its use maximized, to meet transportation needs while remaining financially sustainable.

New technologies have emerged for transportation; electric vehicles are only the forefront of a new era that may include driverless cars and buses, or other modes such as an aerial gondola.

Commerce and business depend upon transportation, and freight logistics is a growing sector in the national economy. Duluth is a nexus of rail, ship, and air infrastructure, which highlights the potential for Duluth to serve as an international hub. Capitalizing on this competitive advantage is a major component for both transportation and economic development and will continue to position the city for growth.

The relatively poor condition of city streets is also an opportunity: as aging infrastructure is replaced, the paradigm can be updated to reflect a comprehensive complete streets policy while strategically shrinking the network in targeted places to reduce costs.

ECONOMIC DEVELOPMENT

Where We Work

In 2006, the Comprehensive Land Use Plan lacked specific direction on how certain commercial sectors should develop or redevelop. For this reason, the plan recommended developing 10 Small Area Plans and 2 master area plans. The City's Economic Development Authority was engaged in developing certain sectors of the local economy, including aviation, technology, and medical.

A number of Small Area Plans included market area analyses, such as the examination of the mall area and Central Entrance for growth potential. The City also completed an in-depth retail market analysis for the entire city, which recommended focusing on existing commercial areas and intensifying the development of synergistic uses.

The economic recession of 2008 proved to be a turning point for the city from a predominantly resource-based economy to a more diversified job base. While this event was felt most directly in the housing sector, there was also a short slowdown in business development. After 2010, the community saw new opportunities with the construction of schools, housing, and commercial buildings. A concentrated effort was made by the City in 2012 to develop a positive brand and publicize it both locally and across the state. This effort has resulted in new local investment and has attracted developers from the Twin Cities.

The Duluth International Airport was redeveloped to accommodate more air traffic and bolster the supporting aviation sectors. This led to the redevelopment of the Maintenance Recovery Operation facility to attract AAR Corporation. The community also supported the

continued growth of Cirrus, a plane manufacturer, to become the largest company in this industry. This success has led to a concentration of good paying jobs in the airport area.

For the city to continue positive economic development momentum, the focus of job growth and investment in the sectors of aviation, manufacturing, medical, and education are key. Creating an environment that fosters the growth of new technologies will be vital to becoming an economic leader within the region. Cargo and freight logistics provide a competitive advantage that partners like the Duluth Superior Port Authority and Airport Authority prioritize and require for future success. Revitalization of underutilized sites would provide opportunities for addressing blighted property and clean up issues, and provide employment.

Crowdsourcing and internet shopping are national trends that have challenged the traditional storefronts of neighborhood centers. The future success of those neighborhood centers will depend on providing higher density of quick service retail (restaurants, stores, and personal service items) in walkable, easy-to-navigate facilities that will provide more opportunities for buying local and living a healthier lifestyle. The introduction of "Core Investment Areas" to Duluth, as discussed in the Transformative Opportunities chapter, is a means to concentrate efforts and maximize infrastructure to meet future demands.

OPEN SPACE

Where We Play

In the 2006 plan, the city recognized that unlike most built-up communities, there is a lot of open space within its corporate boundaries, much of it privately owned. In Duluth, 47% of the city's land area is tax exempt: publicly owned (parks, schools, trails, etc.), non-profit (churches and non-governmental organizations), or tax forfeit (state owned due failure to pay property taxes). Growing a community's tax base is important to provide public services such as public safety, libraries, and utilities. Financially sustainable communities generally have limited amounts of tax exempt land area,

which balances out growth. Most tax forfeit land lacks public infrastructure, such as roads, water, and sewer, and would be fairly costly or difficult to develop.

Some of Duluth's tax forfeit land contains public trails (biking, skiing, hiking, etc.), and the community uses these resources quite extensively. To protect this investment, ownership of these resources needs to be fully delineated. The tax base limitations of these public facilities cause tension with the State (via the county). An important factor to preserving the taxable resources will be clearly defining the ownership necessary to meet ongoing investments while still incentivizing reinvestment of tax base growth.

In 2012, a major flood profoundly changed the landscape of many neighborhoods, impacting homes and businesses near streams. From that event arose a focus on resiliency in many forms, including right sizing infrastructure, removing homes near streams, and other methods to promote stormwater retention. Development pressures in and near the Miller Hill Mall area continue to drive questions regarding how development aspects should be reviewed. The Sensitive Lands Overlay from the 2006 comprehensive plan provided geographic guidance, but lacked standards for development.

Despite the city's high number of parks and vast open space, the tax base challenges result in few resources for maintaining or creating facilities. Because of this, the City now partners with non-governmental organizations to help with everything from new trails to volunteer maintenance of facilities. To remove additional barriers to recreation, neighborhood access needs to be improved and opportunities for low-cost ways to use facilities identified.



ENERGY & CONSERVATION

How We Preserve Resources

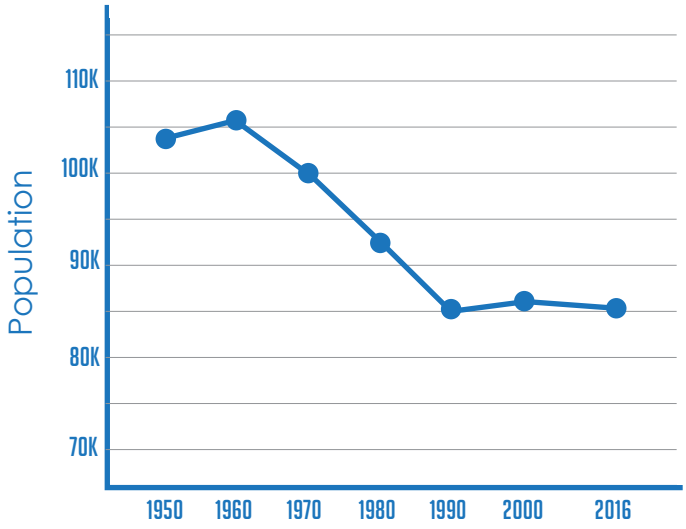
The City has long participated in energy and conservation programs, starting in 1998 with the adoption of a resolution for climate change and a few different plans to reduce energy usage within public buildings. The City supported working in collaboration with Ecolibrium3 to assist homeowners to reduce energy consumption through efficiency rehabilitation work through the Duluth Energy Efficiency Program (DEEP); this was funded through the State of Minnesota.

Since 2006, the science of climate change and the impact of carbon fuels on emissions have been detailed. Mayor Larson in her 2017 State of the City address called for recognition of the science underpinning climate change and for the City to reduce its carbon footprint. This led to inclusion of this topic in Imagine Duluth 2035. Addressing energy and conservation could have the most significant financial impact upon the community out of all the focus areas.

Technological advancement allows strategies from reduced energy usage to power generation to daily in-home heating systems. The challenge will be encouraging private businesses and residences to be more energy efficient; this will require a fairly quick return on investment to justify the expense. As the city continues to use electricity for electronic message boards and public lighting, community dialogue will help balance goals of public safety and aesthetics with the need for reduced energy use.



A Look at the Numbers



One of the most telling narratives describing Duluth's development patterns, transportation, housing, and services is its historic population booms and steady decline since 1960.



Age Cohorts

Duluth has a high percentage of college-age students, reflecting the higher education institutions' presence in the city. There is a relatively consistent spread of population amongst age groups. Each generation can exhibit slightly differing preferences regarding housing, work, and entertainment.

17 years & younger	15,341	
18-24	17,261	→ Some Millennials/Gen Y
25-34	11,330	→ Most Millennials/Gen Y
35-44	9,061	] Gen X
45-54	9,986	
55-64	10,500	] Baby Boomers
65-74	6,497	
75 and over	5,989	

Source: ACS 2012-2016

NUMBER OF HOUSEHOLDS

35,000

Number has remained consistent at around 35,000 between 1980 and today.

HOUSEHOLD SIZE

2.51 persons per household in 1980, compared with **2.22** in 2016

MEDIAN HOUSEHOLD INCOME IN 2016

$49,347

5% of population does not have health insurance coverage

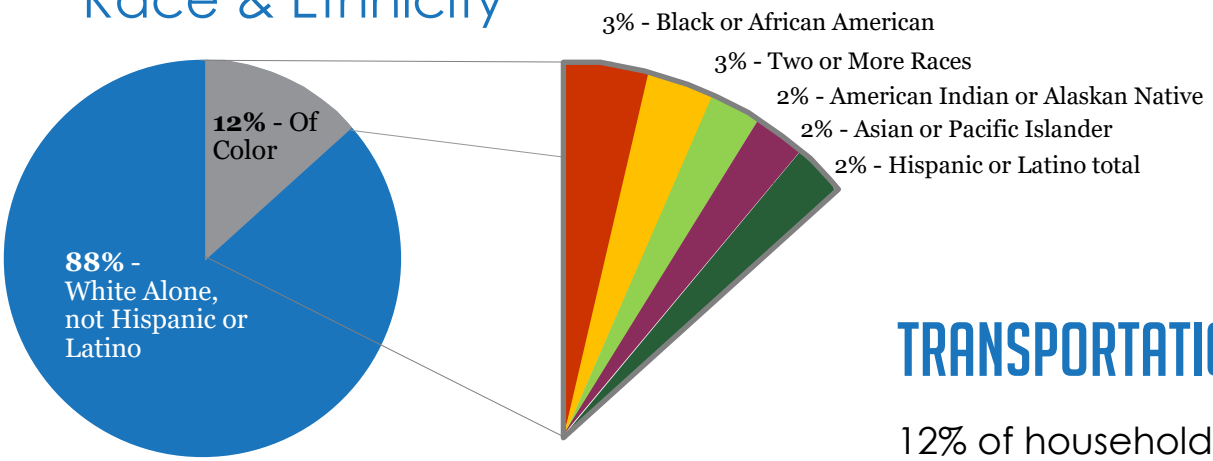
POVERTY

Poverty levels have been increasing since 1980, but stabilized between 2010-2016.

	1980	1990	2000	2010	2016
Number of Persons Living Below Poverty Level	10,767	13,578	12,627	19,151	16,728
Percentage of Population Living Below Poverty Level	12%	16%	16%	22%	20%

Source: 2012 and 2016 ACS

Race & Ethnicity



TRANSPORTATION

12% of households have no vehicle

16% use transit, walk or bike to work, or work from home

Children

- 8,874 households have one or more children under 18 years.
- 4,954 households with children under 18 years are married-couple family households.
- 3,814 households with children under 18 years are single-person family households.

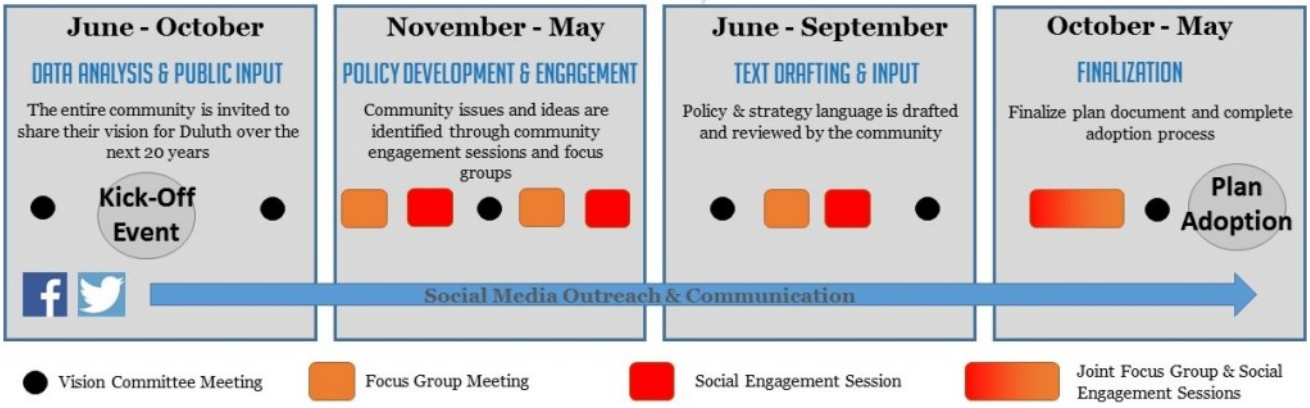
COMMUNITY ENGAGEMENT



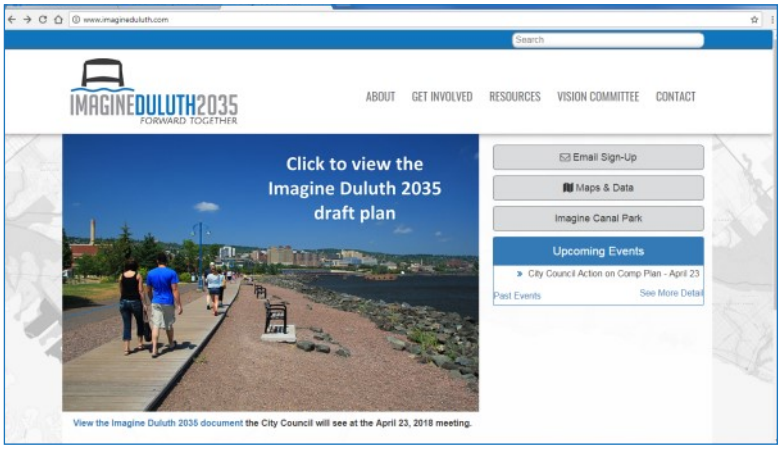
Community engagement spanned over two years, reaching thousands of Duluthians and visitors in a variety of formats and venues.

TIMELINE

2016 2017 2018



www.imagineduluth.com



EMAIL LIST: 236 PEOPLE

33,000 PAGE VIEWS

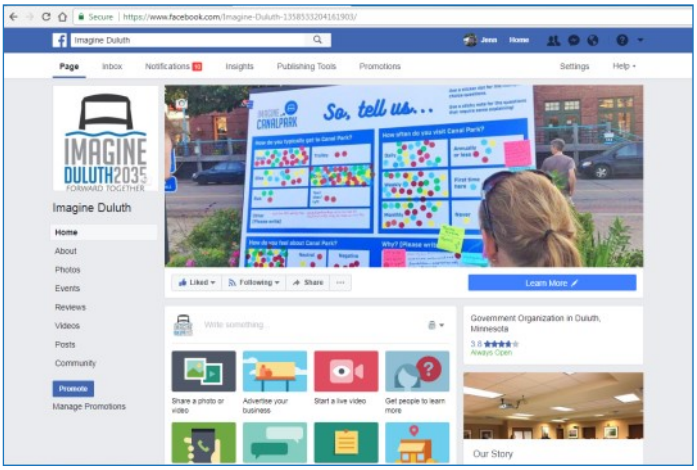
A website was created at the start of the process in 2016 and listed all meetings, special events, research, data, and drafts. Visitors could sign up on the email list and submit comments via the website.

Facebook

1,000 page followers

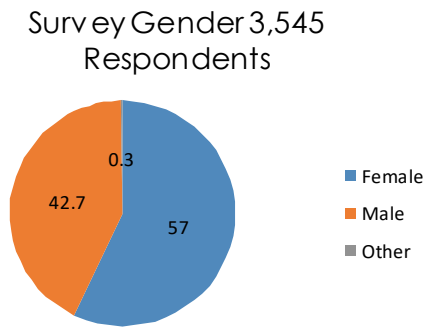
Top post reach: **20,000**

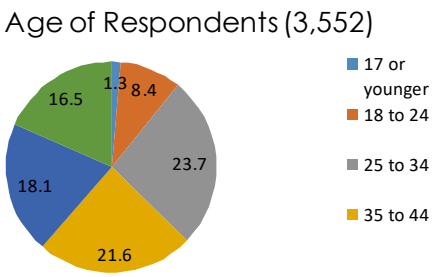
54 Facebook live videos



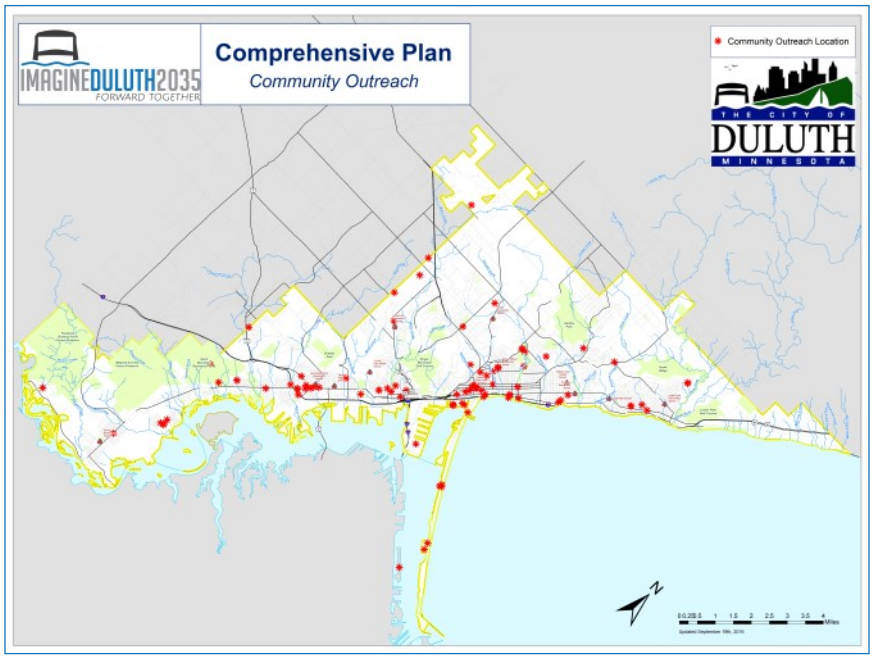
Community Survey

In June 2016, the Community Planning Division launched a survey to collect public input related to community assets and areas for improvement. The survey was short and easily understandable, with images illustrating the survey choices. The survey was online from June 3 to October 10 and promoted via websites and social media. City staff attended over 50 public and community events during the summer of 2016 to discuss the comprehensive plan and distribute the survey. People filled out the survey either on paper or using an electronic tablet. Staff also met with stakeholders from the nonprofit, business, and education communities and emailed surveys to Duluth community clubs and over 70 local businesses and nonprofits.





When the City updated the comprehensive plan in 2006, a similar survey was done for which 600 responses received. Imagine Duluth received a total of 4,175 surveys.



WHO WE TALKED TO

- AICHO
- Affordable Housing Coalition
- Beaner's Central
- Bent Paddle
- Canal Park Business Association
- Center for Economic Development
- CHUM
- Cirrus Design
- Colder by the Lake Comedy Theatre
- Community Action Duluth
- Duluth Area Realtors Association
- Duluth Bikes
- Duluth Chamber of Commerce
- Duluth Churches
- Duluth Community Clubs
- Duluth Hockey Association
- Duluth Landlord Association
- Duluth Maker Space
- Duluth Playhouse
- Duluth Superior Symphony
- Elks Lodge
- Generations Health Initiative
- Greater Downtown Council
- Hartley Nature Center
- Head of the Lakes United Way
- Healthy Duluth
- Iron Mining Association of Minnesota
- Junior League of Duluth
- League of Women Voters
- Learning Institute for Excellence
- Life House
- Lincoln Park Business Group
- Lyric Opera of the North
- Matinee Musicale
- Minnesota Bar Association
- Minnesota Ballet
- Rotary Club of Duluth
- St. Luke's Hospital
- St. Scholastica
- Temple Israel
- The Observation Fund
- UMD Athletics
- UMD Director of Alumni Affairs
- UMD Social Work
- UMD Student Association
- Visit Duluth
- Zeitgeist Center for Arts and Community

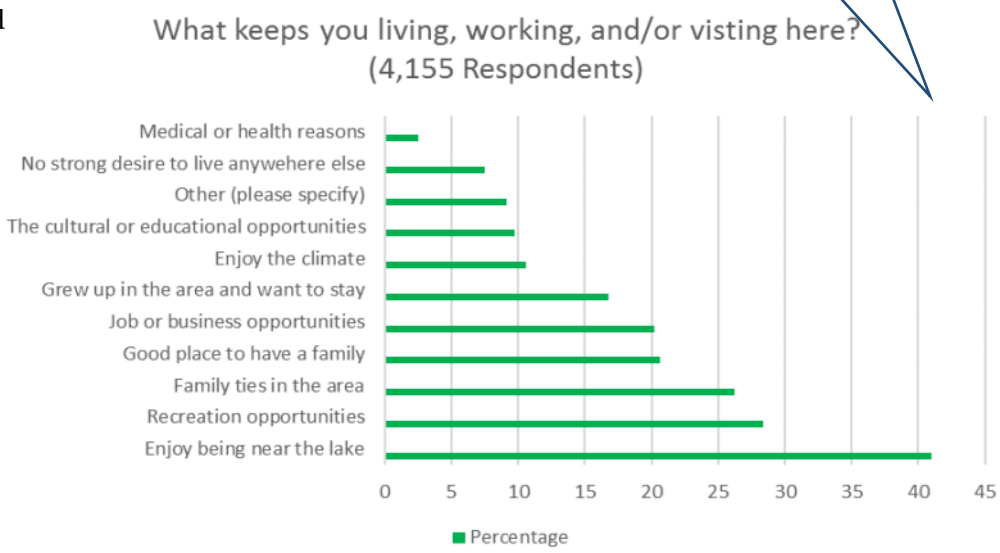
What We Heard

COMMUNITY ASSETS

Respondents were directed to identify the best community assets in Duluth, from a list of 15 possible choices.

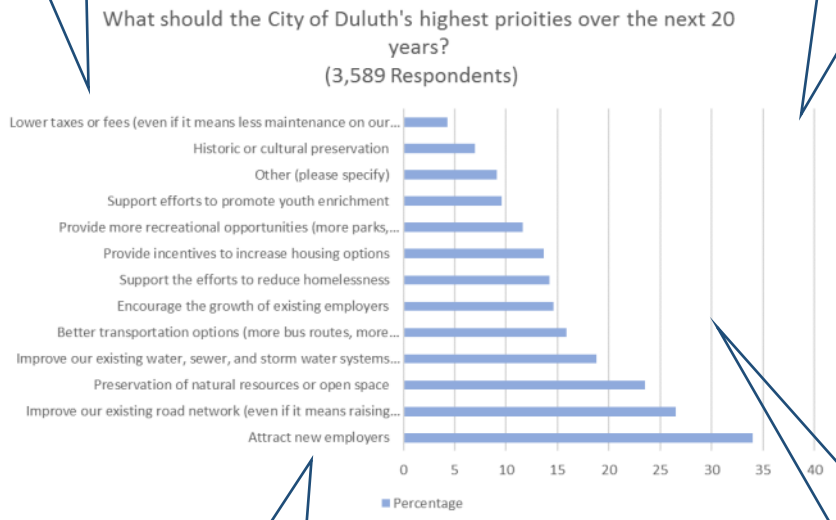
The four most common responses related to Duluth's environment: 1) Proximity to Lake Superior, 2) Natural scenery or Great views, 3) Parks and open space, and 4) Trails.

The spirit of Duluthians is Minnesota nice!



Create a thriving downtown

Renewable energy resources



Encourage local, small businesses

Entrepreneurial possibilities for young people

COMMUNITY PRIORITIES

Survey respondents were directed to choose the highest priorities for Duluth, from a list of 13 possible choices.

The three most common responses were to 1) Attract new employers, followed by 2) Improving the existing road network, and 3) Preservation of natural resources or open space.

SURVEY QUESTION # 3: When you visit other communities, have you found something that makes you say, "we need to do that in Duluth!" If so, what was it?



SURVEY QUESTION # 9: What would you like Duluth to look like in 20 years?



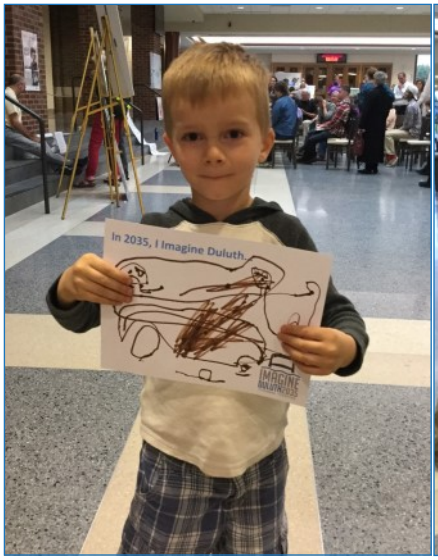
More community survey results are found in the Appendix, and findings from the survey were incorporated into the policies and strategies of the plan.

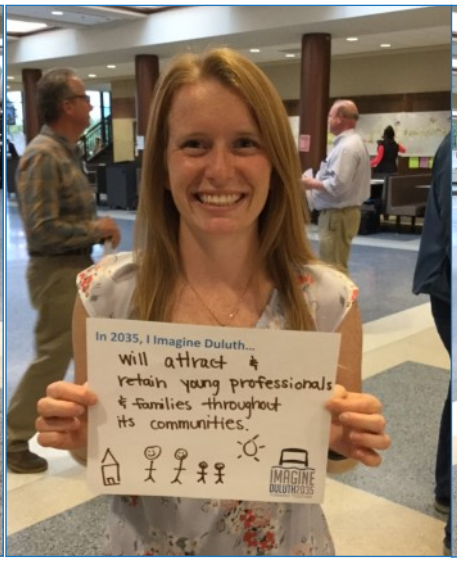
OVERALL SURVEY TAKEAWAYS

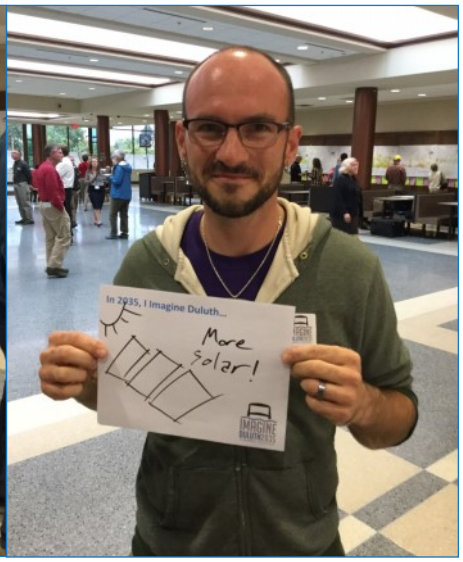
1. Support for preservation of existing **open spaces** and undeveloped areas, and public **parks and trails**.
2. Support for maintaining and improving the **transportation and utility** network (roads, water, sewer).
3. Support for better **transportation options** and connections (bus, bike, pedestrians).
4. Support for attracting **new employers** and expanding **existing employers**, while focusing new development in existing neighborhood **commercial centers** and the **downtown**.
5. Support for **more housing choices**, primarily single-family and mixed-use commercial and residential.

Kick-off Event

After the initial community engagement, a kick-off event was held on September 21, 2016, at Denfeld High School. About 275 people attended to share ideas and talk with each other. The City provided dinner, child care and child activities, a chance to meet the police horses and see fire demonstrations — and dream big about the future of the city.





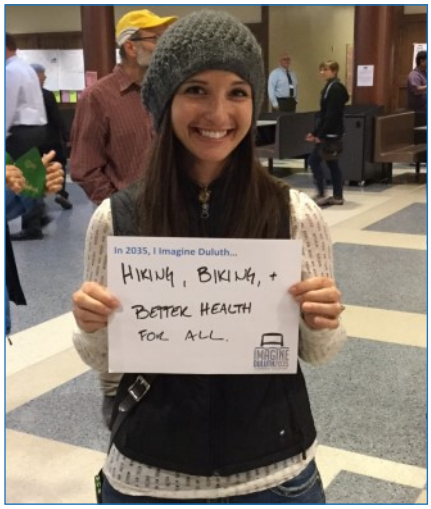


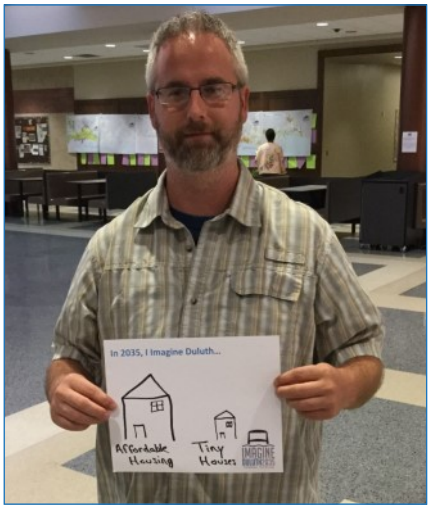














SAMPLE "BIG IDEAS"

- Indoor Arboretum
- Food Hub
- Decentralized power sources
- Redesigned city flag
- Ore dock high line park development
- Water travel
- Rail connections with Twin Cities
- Open up trout streams
- Guthrie-esque venue
- Incline/gondola
- Technology innovation center
- Cruise ship destination
- Promote composting citywide
- Citywide road diet
- BIG ART
- Brand new DECC
- Year-round farmer's market
- Pedestrian mall
- Green schools
- Tiny house neighborhoods
- Transportation commission
- Bike sharing
- Reclaimed Indigenous history

VISION COMMITTEE MEMBERS

Alicia Cyr
Amy Burke
Angie Miller
Ashley Grimm
Barb Russ
Bill Gronseth
Carl Crawford
Charles Obije
Christina Woods
Chuck Walt
Cruz Mendoza
Dan Hartman
David Ross
David Sarvela
Drew Digby
Ed Hall
Elissa Hansen
Erik Torch
Gaelynn Lea Tressler
Garner Moffat
Gary Eckenberg
Henry Banks
Janet Kennedy
Jen Julsrud
Jenny Peterson
Jill Keppers
John Doberstein
John Schmidt
John Scott
Kayla Keigley
Kevin Skwira-Brown
Kristi Stokes
Laura Mullen
Lee Stuart
Luke Sydow
Lynne Williams
Pam Kramer
Russ Salgy
Sharon Witherspoon
Stephan Witherspoon
Sue Coen
Susana Pelayo Woodward
Terry Guggenbuehl
Tom Hansen
Tony Cuneo
Zack Filipovich

Vision Committee

The Vision Committee acted as the advisory body steering the comprehensive plan update process. Committee members were ambassadors for the plan and advised staff on ways to conduct outreach to include all voices in the community. This committee met throughout the process, reviewing input and research and providing direction on governing principles, focus areas, and transformative opportunities.



430 FOCUS GROUP ATTENDEES

Focus Groups

Following the kick-off event, focus groups were convened for the in-depth research areas of Imagine Duluth 2035:

- Economic Development
- Energy and Conservation
- Housing
- Open Space
- Transportation

Focus groups included a targeted list of key stakeholders in each area and invited the public through social media and the website. There were a total of fifteen focus groups with about 430 people in attendance. Over nine months, each focus group met three times, generally following a process designed to effectively synthesize research in the topic areas with public input:

MEETING 1: Review and refine research questions for each focus area.

MEETING 2: Discuss preliminary results from research and identify overall policy areas.

MEETING 3: Summarize findings, finalize policy wording, select strategies for each policy.

Health in All Policies

Duluth's Health in All Policies Speak Up, Speak Out campaign collected 603 surveys in 2016, focusing on voices of people of color and low-income residents. Their work greatly benefitted the community process for the plan. Key findings communicated to the City of Duluth for inclusion into Imagine Duluth 2035 include:

- Poor housing rental conditions
- High rent costs
- Lack of affordable housing options
- Lack of reliable and affordable transportation options during nights and weekends for non-car owners
- Hiring discrimination felt by both people of color and people with criminal backgrounds
- Lack of living wage jobs
- Lack of green space in the Hillside
- Lack of perceived safety in many parks especially due to drug use

HEALTH IN ALL POLICIES SURVEY

- 38% of respondents identified as People of Color
- 41% stated they made less than $10,000 per year
- 44% identified as renters
- 48% used the DTA as their main form of transportation

Youth Engagement

People 24 and under make up a third of Duluth's population and are an important part of Duluth's future. In March 2017, Imagine Duluth 2035 held nine focus groups at Neighborhood Youth Services and Life House with participants ranging in age from 13 to 24. Three to seven youth participated in each focus group. In April 2017, Marshall School students were surveyed, with 108 responses.

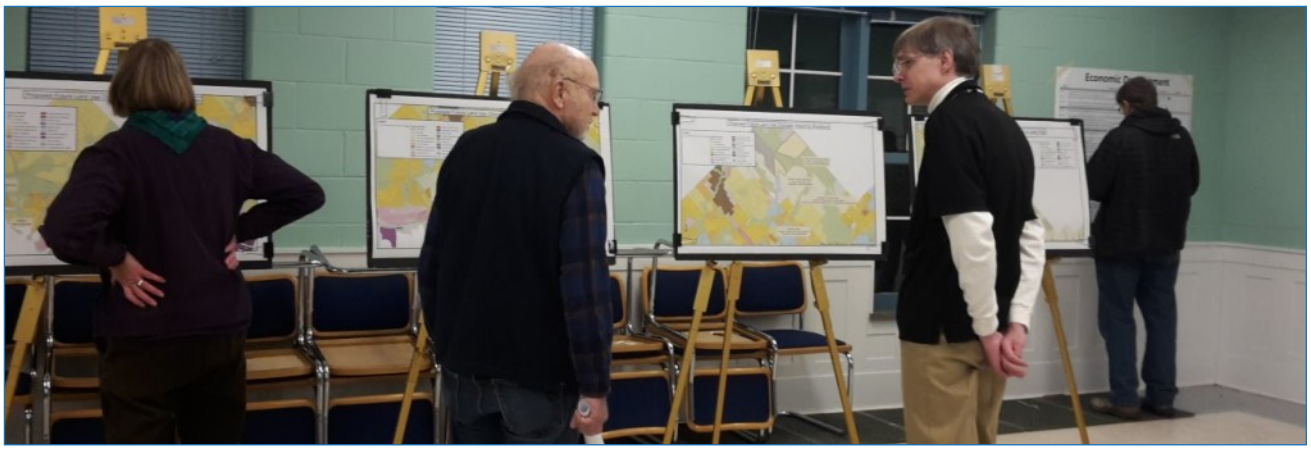


Key findings:

- Young people want improvements in transportation, including roads and active transportation. Teens and young adults need reliable transportation to access school and employment.
- Education and job opportunities are high priorities; Duluth needs to offer opportunities for education and jobs in a variety of fields.
- Lake Superior and access to nature in general are important. Outdoor recreation, especially water-based recreation and trails, could be increased.
- Young people appreciate the sense of community they feel in Duluth, and want to see an increase in opportunities for socialization and group recreation.
- Affordable, quality housing should be near community gathering places.

145

TOTAL EVENTS 2016-2018

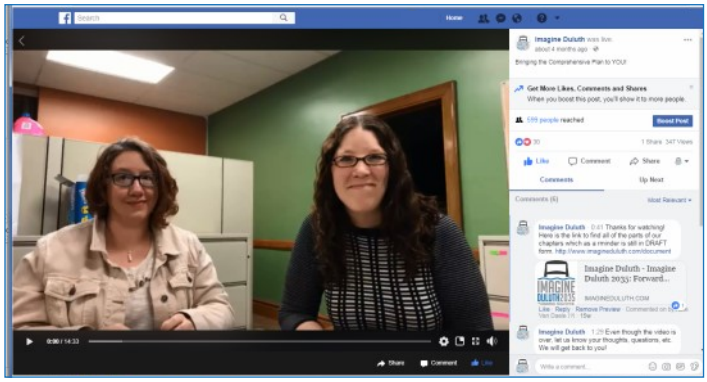


Social Engagement Sessions

In November 2016, the Community Planning Division worked with city councilors to host public meetings in each district of the city. Participants looked at these geographic areas holistically, identifying areas for new housing and employment, which resulted in a map of opportunities for each district.

As focus groups wrapped up in late 2017-early 2018, additional social engagement sessions were held across the city. These sessions brought together all policies from the focus areas and started the conversation about implementation actions, with participants weighing in on their implementation priorities.



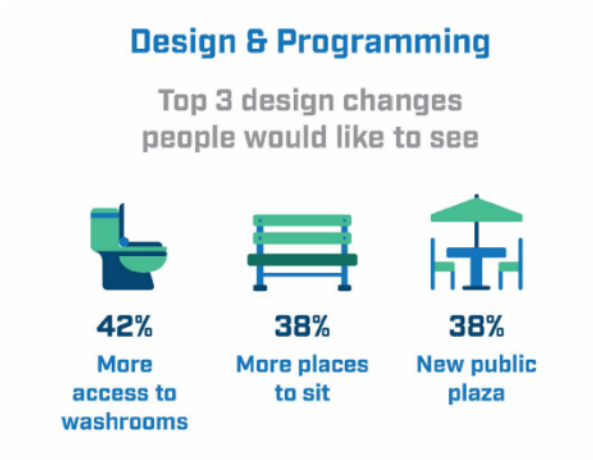


Social Engagement … Online!

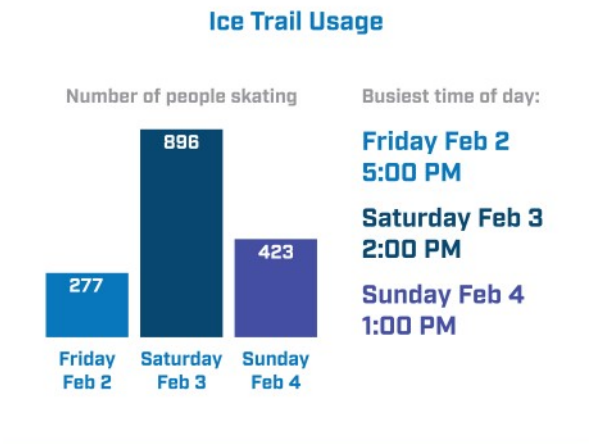
Two of the social engagement sessions used an online format for people to join in from the comfort of home. People could watch the live video online, post comments and ask questions during the half-hour sessions.

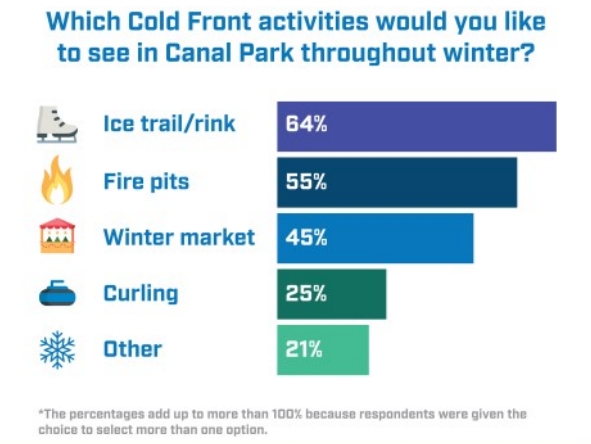
Imagine Canal Park

In 2017-18, Duluth engaged in a collaborative project to chart a future for Canal Park. Through stakeholder workshops, online comments, surveys, and pop-up events, two priority areas emerged: 1.) mobility and access, and 2.) public space and programming. Based on the results, a series of pilot projects are planned starting in summer 2018. Detailed findings and recommended strategies are included in the Imagine Canal Park document in the Appendices.









Irving Fairmount Brownfields Revitalization Plan

This plan was developed simultaneously with Imagine Duluth 2035 and focused on the Fairmount and Irving neighborhoods in western Duluth through funding provided by the US EPA. The vision for revitalizing and redeveloping brownfields focuses on increasing economic activity and housing choices, improving health outcomes and multi-modal connections, and providing better access and public spaces. The full plan is available in the Appendices.



Adoption

The City of Duluth Planning Commission and City Council were involved throughout Imagine Duluth 2035, both as attendees at public meetings and representatives to the Vision Committee and Focus Groups. Updates were given periodically at Planning Commission and City Council Committee of the Whole (COW) meetings.

The final plan was recommended for approval by Planning Commission on March 6, 2018, and approved by City Council on June 25, 2018.

GOVERNING PRINCIPLES



Governing Principles serve as the foundation for the comprehensive plan. The 12 Principles from the 2006 Comprehensive Land Use Plan were carried forward, and 2 new Principles were added.

PRINCIPLE #1

Reuse previously developed lands.

Previously developed lands include a range of sizes and locations, with and without structures: large brownfield sites such as U.S. Steel; smaller industrial sites in a neighborhood context such as Clyde Iron; vacant infill sites; commercial buildings no longer in viable service; and residential structures suitable for rehabilitation.

Reuse of previously developed lands, including adaptive reuse of existing building stock and historic resources, directs new investment to sites which have the potential to perform at a higher level than their current state. This strengthens neighborhoods and is preferred to a dispersed development pattern with associated alteration of natural landscapes and extensions of public services. Site preparation or building modification costs are offset by savings in existing public infrastructure such as streets and utilities, and transit, fire, and police services.

PRINCIPLE #2

Declare the necessity and secure the future of undeveloped places.

Much of Duluth's open areas were private lands, now tax forfeit. Areas often presumed to be public parks are tax forfeit lands subject to possible auction and sale. Other parcels are privately owned. Securing the future for key parcels of open space is critical to Duluth's identity and economic base.

Undeveloped areas are an essential part of Duluth's municipal fabric—urban plazas, neighborhood parks, large tracts of public ownership, and private lands zoned for minimal development. These minimally developed or undeveloped areas collectively create an open space system. These areas contribute to Duluth's cultural, health, recreational, and economic value and community identity. This open space system provides vistas, encourages active recreation, supplies natural infrastructure such as storm water retention, plant and animal habitat, and water quality, and is the strongest visual element defining Duluth's sense of place.

PRINCIPLE #3

Support existing economic base.

The traditional economic base includes port operations, transportation services, manufacturing, bulk commodity handling, and related support services. Locational considerations include docks, shipping channels, railroad rights-of-way, Interstate highways, and airports.

Supporting Duluth's existing economic foundation maintains jobs, tax base, and opportunity. Economic activity with specific location requirements may be subject to displacement or site competition with changes in real estate values. This traditional economic activity faces change as a result of global economic patterns, changing markets, new regulation, and aging of extensive infrastructure. Nevertheless, fundamentals remain and the economic contribution, sometimes taken for granted, is significant.

PRINCIPLE #4

Support economic growth sectors.

Emerging and growing economic sectors add economic, cultural, and social diversity. These include higher education, medical, value-added manufacturing, commercial outdoor recreation, historic resources interpretation, arts and music, information technology and visitor services. Encourage and foster locally owned and entrepreneurial ventures to enhance the economic base.

Growth sectors can be as small as a sole proprietorship or as large as a medical complex. What they have in common is a contribution to Duluth's economic diversity which did not exist thirty years ago. Linkages between these emerging sectors and the traditional economic base will strengthen both.

PRINCIPLE #5

Promote reinvestment in neighborhoods.

Duluth is strongly defined by its neighborhoods. This system should be supported through land use and transportation that foster neighborhood reinvestment. New development or redevelopment should maximize public investment that strengthens neighborhood commercial centers or diversifies residential opportunities that fit the neighborhood's character.

Support neighborhood scale commercial areas, neighborhood parks with links to larger parks and trails systems, a variety of housing, and a street pattern that contributes to the neighborhood identity. Avoid large scale, non-neighborhood based activity within the core of a neighborhood.

PRINCIPLE #6

Reinforce the place-specific.

Public and private actions should reinforce cultural, physical, and economic features which have traditionally defined Duluth, its open space, and its neighborhoods. This includes commercial areas providing neighborhood goods and services, ravine parks and other natural features that define neighborhood edges, and view corridors to the lake or river which serve to provide location and context.

Defining elements that reinforce the place-specific include climate-specific materials and design; repair and use of historic walls, bridges, and buildings; Lake Superior, St. Louis River, and streams; neighborhood commercial districts, parks, and residential areas; cultural references; and traditional events.



PRINCIPLE #7

Create and maintain connectivity.

This includes the system of streets, roads, and highways; historic parkway and trail systems; regional trails; pedestrian sidewalks, stairs, and ramps; and the transit system.

Connectivity is established through our network of streets and highways, transit system, sidewalks, greenways, bikeways, and trails (local and regional). Non-vehicular transportation should be considered an important component of the overall transportation network. Winter maintenance of sidewalks and other public ways is critical to the creation of usable pedestrian systems.

PRINCIPLE #8

Encourage mix of activities, uses, and densities.

Examples of mixed development include integration of housing, commercial, entertainment, and recreational uses. Business and light industrial can blend with residential in larger complexes. Mix also refers to residential building types and income ranges.

Cities have evolved as a mix of land uses, building types, housing types, and activities. Accommodating choice while protecting investment is a balance to strike in land use regulation. Mixed uses provide opportunities for a diversity of activity that segregated, uniform uses do not provide.

PRINCIPLE #9

Support private actions that contribute to the public realm.

Blank walls, undirected lighting, parking areas right at the sidewalk, and loading areas in a public way are all examples of features which detract from public areas. Standards are appropriate to apply in areas where private actions abut public areas so that these actions not only do not detract from, but also enhance the public areas.

Private building construction and site design influence activity in adjacent public areas. Building form, height, setbacks, and detailing affect the adjacent areas. The uses and activities contained in the buildings directly impact the surroundings. Public areas should benefit from adjacent private investment.



PRINCIPLE #10

Take actions that enhance the environment, economic, and social well-being of the community.

Initiate land use, site design, transportation, building design, and materials policies which reduce consumption of finite resources, generation of solid waste, and introduction of toxic materials to land, air, or waters. Also implement resiliency in design and operation with City systems and infrastructure that serve both public and private land uses.

Support building types and materials that reduce resource consumption and load on the waste stream, and fuel for transportation and buildings that is more local and renewable. Becoming more sustainable improves our overall resiliency.

PRINCIPLE #11

Consider education systems in land use actions.

There is a connection between land use patterns and all level of educational facilities. School locations and housing opportunities for students and families require consideration of impacts on transportation and infrastructure systems, housing densities, parking, and non-student uses.

Neighborhood-based schools promote walkable, safe communities and reduce transportation expenses. Where students live should influence location of schools. For higher education, housing opportunities that integrate students into the larger community are generally desirable; however, impacts of badly integrated student housing can be destructive to neighborhoods.

PRINCIPLE #12

Create efficiencies in delivery of public services.

The costs of public service must be considered in land use decisions. Street construction and maintenance, utilities, libraries, fire, police, snow removal, and recreation facilities are services directly related to the physical location of development. Infrastructure should help direct development location rather than react to it. The integration of public services to maximize efficiencies with all related use decisions should be evaluated.

Utilize existing water, wastewater, and stormwater system capacity before expanding the system, and when new development occurs, consider the cost of extending emergency service to undeveloped areas. Tax base alone does not off-set the cost of these services, so the pattern of development and resultant public service costs are important considerations.



While access to medical care is important, social and economic factors, along with the physical environment, have a greater impact on health. Priorities identified in Duluth also include mental health, reduction of chronic diseases such as diabetes, and tobacco and alcohol use.

PRINCIPLE #13

Develop a healthy community.

Supporting health and well-being is a priority. The City will actively promote access for all to health resources, quality food, recreation, social and economic opportunities, and a clean and secure environment. Investments and polices will advance and maximize health and healthy equity in the city.

PRINCIPLE #14

Integrate fairness into the fabric of the community.

Barriers identified during Imagine Duluth 2035 include housing discrimination and availability, access to government, lack of transportation, economic barriers, park and trail disparity, and health outcome disparities.

All people will have equitable access to resources and opportunities that stabilize and enhance their lives. The City recognizes historical and current disparities and will actively promote inclusive and participatory decision-making that addresses systemic barriers to success. Investments and policies will advance and maximize equity in the City.

CURRENTLY, ONE'S ZIP CODE IS MORE IMPORTANT THAN ONE'S GENETICS AS A PREDICTOR OF HEALTH AND LIFE EXPECTANCY.

ECONOMIC DEVELOPMENT



Economic Development Mission

Duluth's economic environment will advance the success and health of our community by promoting growth through an expanded tax base and the creation of new jobs and innovative ideas.

GOVERNING PRINCIPLES FOR ECONOMIC DEVELOPMENT

1 Reuse previously developed lands

3 Support traditional economic base

4 Support economic growth sectors

5 Strengthen neighborhoods

8 Encourage mix of activities, uses, and densities

9 Support private actions that contribute to the public realm

10 Take actions that enhance the environment, economic, and social well-being of the community

13 Develop a healthy community

14 Integrate fairness into the fabric of the community

Jobs Industry

Economic development can be defined as the process in which an economy grows or changes and becomes more advanced, especially when both economic and social conditions are improved. In simple terms, economic development means better jobs and better quality of life. Historically, Duluth's economy has been driven by the extraction of natural resources (mining, timber, etc.) and the transportation of those goods. In recent decades, Duluth;s economy has seen diversification through the expansion of health care, education, aviation, tourism/ hospitality, and arts and entertainment. This type of diversification contributes to a stronger and more stable economic base, particularly as manufacturing and industry evolve in the U.S. While many strides have been made, there is still room for growth and the City continues to work to strategically position itself for success over the next 20 years.

Industry Clusters

Industry clusters are groups of similar or related businesses that share common markets, technologies, and worker skill needs,

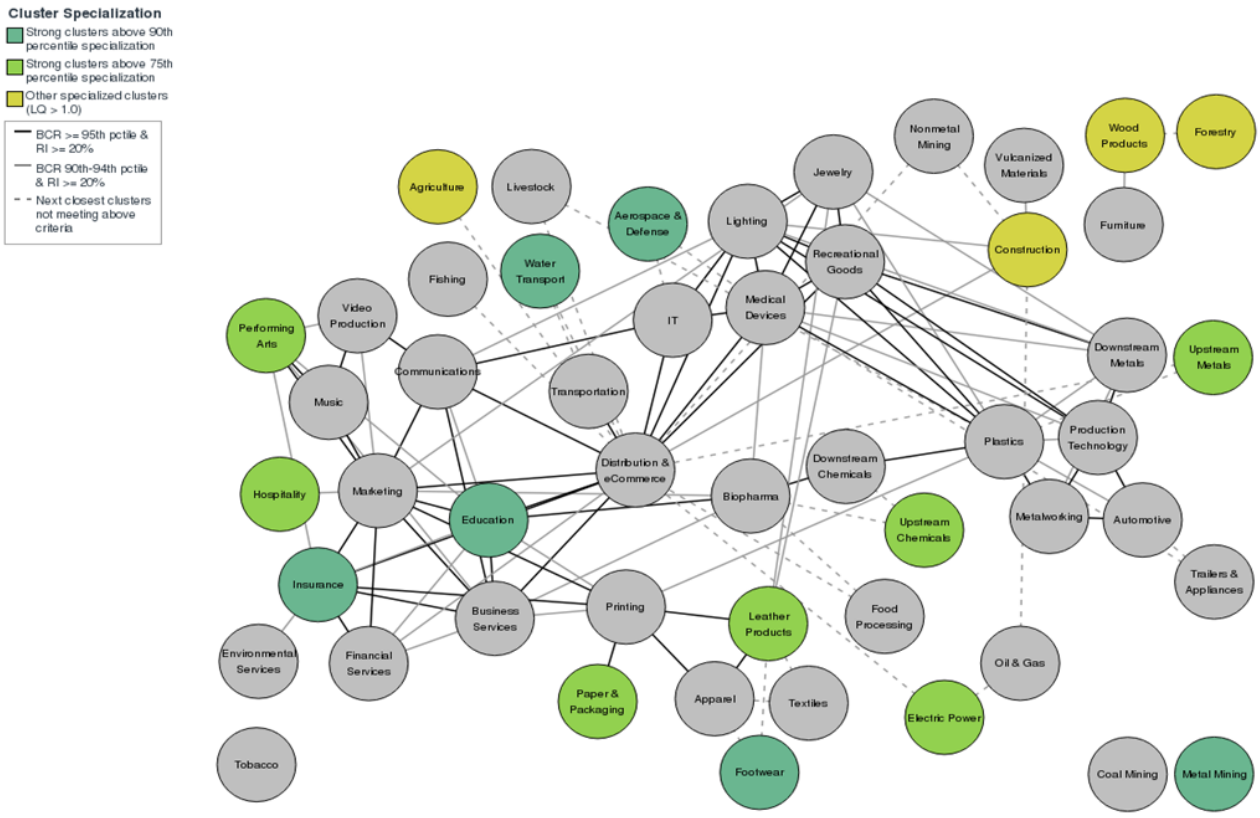
The region has many strong clusters, many of which are tied to either the mining and natural resources industries or the oil and gas production/transportation industries. These industries may have even more direct jobs located outside of the Duluth's borders; the regional impact is tremendous. The ferrous and non-ferrous mining operations alone have, respectively, a $3.1 billion/4,150 job impact and $4.4 billion/9,302 job impact on the Arrowhead region's economy. Similarly, the aviation/aerospace industry has a great impact on the Duluth area; according to a study from the University of Minnesota Extension, the aerospace industry contributed directly to $894 million/2,450 jobs with a total impact of $1.2 billion/4,630 jobs. Other strong clusters above the 90th percentile in specialization are education, insurance, water transport, and footwear.

Duluth and the surrounding region can ensure continued growth and support of its industry clusters through focusing on workforce development, educational resources, transportation/logistics, road infrastructure, water transportation, and supporting business services. As the largest city of the Arrowhead region, Duluth is positioned to attract new people and potential workforce to both work and live in the region. With 6.7 million tourist visits per year, there are many opportunities to attract new residents and expand on the workforce supply for the coming years.

Strongest Industry Clusters:

- Aerospace & Defense
- Water Transport
- Education
- Insurance
- Footwear
- Metal Mining

CLUSTER LINKAGES & ECONOMIC DIVERSIFICATION

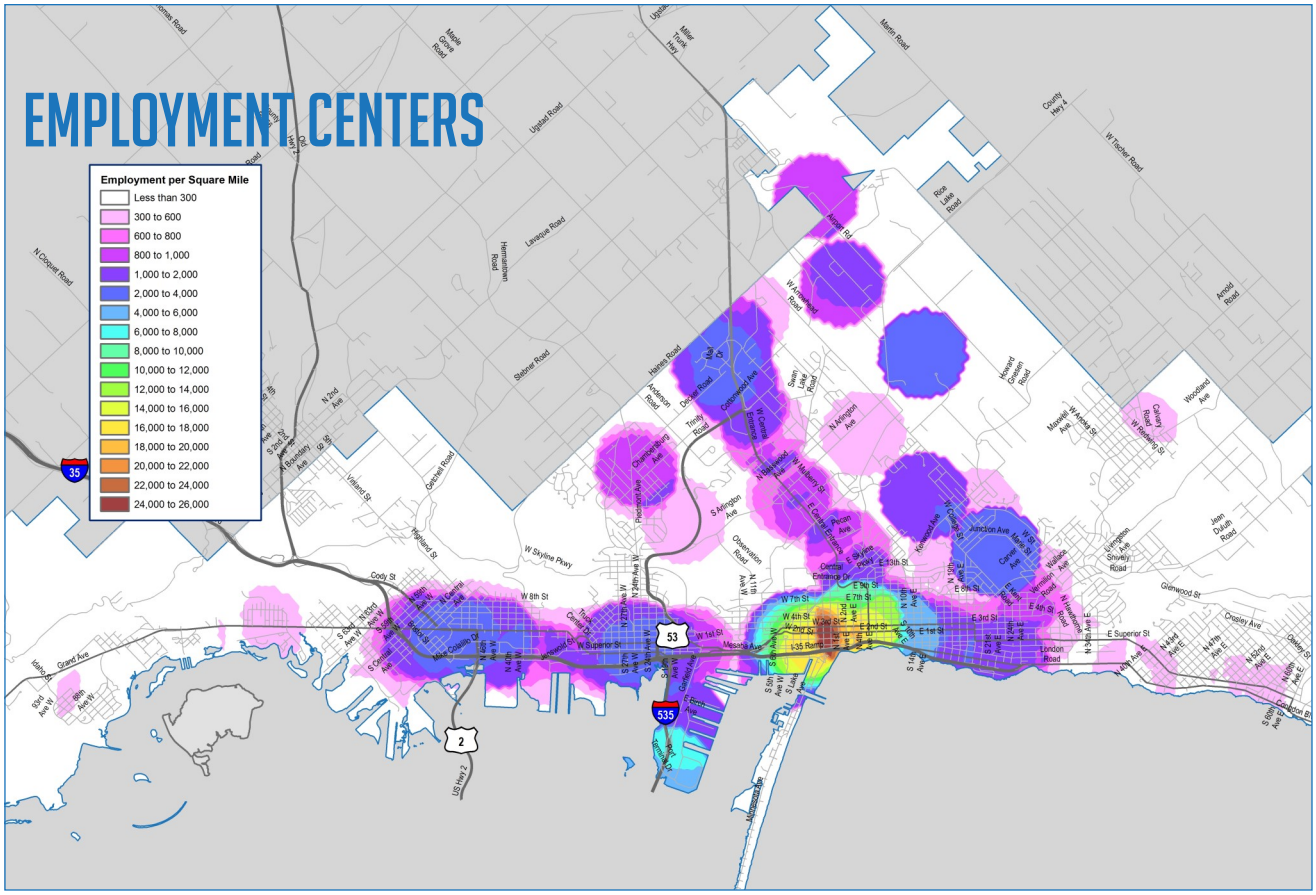


Source: St. Louis County, MN, 2014

Employment Centers

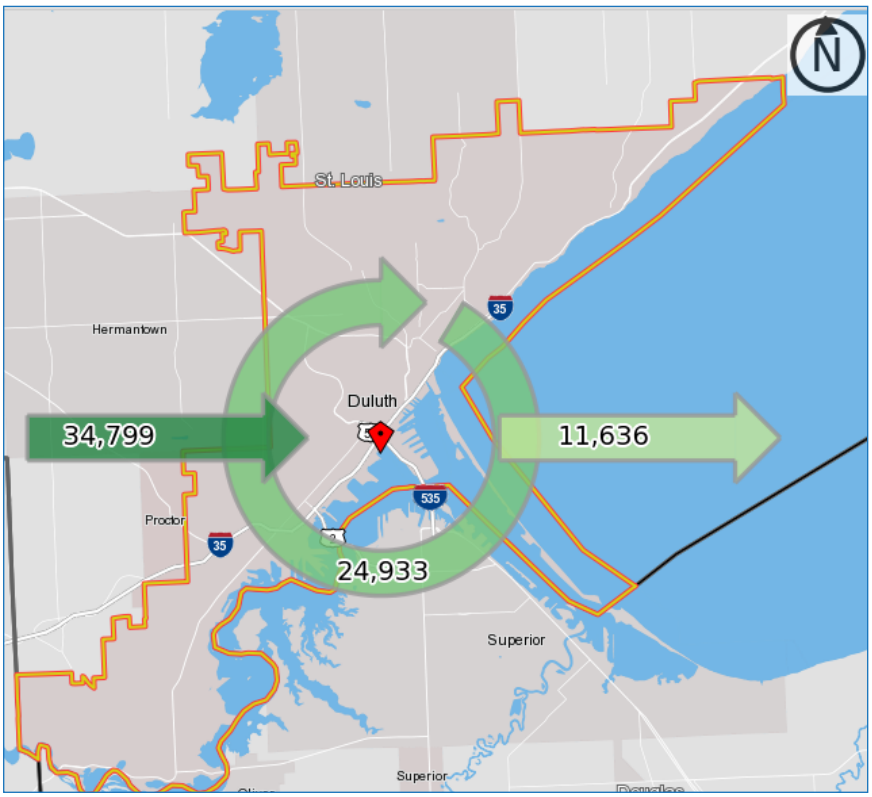
According to 2014 employment data, Duluth's major employment centers are: 1) Downtown and Canal Park, 2) Rice's Point, 3) Lincoln Park, 4) Spirit Valley, 5) UMD and St Scholastica College, 6) Miller Hill Mall area, 7) airport and Airpark business park. These areas are reflected in the map on page ED-4, which shows employment density being the highest in the central part of the city.

To meet the city's transportation, sustainability, and equity goals, it is important to connect employment centers to the places people live. Several of the job centers (Downtown, Lincoln Park, Spirit Valley, UMD and St. Scholastica), have residential areas nearby. Rice's Point, Miller Hill Mall, and the Airpark, however, are not near residential areas. This is not surprising because until relatively recently, most industrial uses (which were historically the larger employers) had significant negative impacts such as noise, dust, traffic, and pollution. Traditional zoning attempted to separate residential uses from commercial and industrial uses. With newer industrial employers, negative impacts on adjacent neighborhoods are much lower than they have been in the past.



Source: City of Duluth

Transit is another way places people work can be connected to where they live. This is especially true for employees without their own private sources of transportation; they are not able to connect with businesses seeking to add to their workforce. The inconvenience and infrequency of trips is a challenge to workforce participation and economic development. Transit needs are discussed further in the Transportation chapter.



Duluth experiences a net of 25,000 people traveling into the city each day for jobs.
Source: U.S. Census Bureau OnTheMap! Web Tool, https://onthemap.ces.census.gov/

Land uses that are dependent upon specific locational assets (such as the port/harbor, railroad lines, and airport facilities) are important to the community's economic vitality. These uses cannot expand or develop unless they continue to have access to those specific assets. Areas adjacent to and surrounding these assets must be used in ways that make the best use of these limited resources. Economic development that does not necessarily need access to the port/harbor, rail lines, or airport facilities should be encouraged in other areas of the community.

Location



Workforce

3 OUT OF 10 SITE SELECTION CRITERIA RELATE TO WORKFORCE

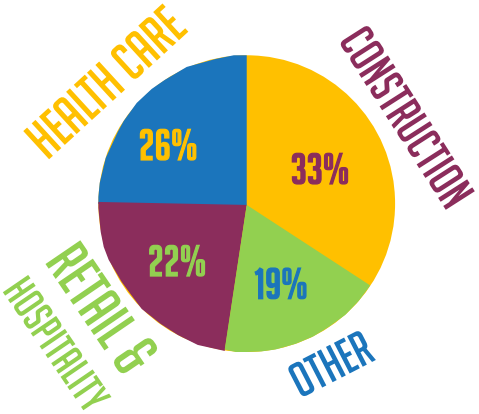
TOP 10 CRITERIA FOR SITE SELECTION

- Workforce Skills
- Incentives
- State and Local Tax Schemes
- Transportation Infrastructure
- Land/Building Prices and Supply
- Workforce Development
- Utilities (Cost, Reliability)
- Higher Education Resources
- Ease of Permitting and Regulatory Procedures
- Quality of Life

Source: *Site Selection Magazine*

Of the top 10 factors businesses consider when locating a new business, five are related to development and operation costs and three directly relate to the availability of a qualified workforce.

The need to access skilled workers has become increasingly important across the U.S. as Baby Boomers continue to scale back their involvement in the workforce. Along with the rest of the nation, Minnesota is projected to struggle to fill increasingly vacant "Boomer" positions. Minnesota DEED projects that the Northeast region will see approximately 41,400 job openings over the ten years between 2014 and 2024. Of those, 92% are projected to be replacement jobs, while only 8% will be newly created jobs. Over that same timeframe, the population of the region is only projected to grow by 1%.



Regional employment projections are shown in the table on page ED-7. There were 8,055 job vacancies in the region in Q2 of 2016: 33% were construction jobs, 26% were in healthcare and social assistance, and 22% were in retail and hospitality. Looking ahead, more than 31% of the total new jobs created from 2014 to 2024 in Duluth are anticipated to be in the healthcare industry. Essentia Health and St. Luke's report that it is a challenge to find skilled workers to fill currently vacant positions; without a coordinated strategy, the creation of additional positions in the future will only exacerbate the issue. Similarly, the personal services and hospitality industries are expected to create nearly 25% of new jobs by 2024 while simultaneously filling almost 7,000 vacancies. Construction sector jobs are expected to experience a slight increase, resulting in roughly 1,500 total openings by 2024. Developers from the Twin Cities metro area have suggested that as a result of this workforce shortage, a project's labor costs can be up to 10% higher in Duluth, negatively impacting a decision to undertake development in Duluth.

PEOPLE

One of the challenges for individuals interested in moving to Duluth for employment is finding options for adequate and affordable housing. Three areas need to be addressed: 1) new owner-occupied housing to support new employment growth in the community, now and in the future, 2) renewal of the existing housing stock through renovation and rehabilitation of existing units, and 3) new rental housing to encourage existing renters to move-up to new units, thereby freeing up lower-priced units for households with moderate incomes. These needs are further addressed in the Housing chapter.

As a result of future workforce projections and its current population, Duluth should focus on two key initiatives: ensuring sufficient housing options, and creating a strategic plan to attract the workforce the region will need in the coming decade. Active partnerships and support of the community's housing providers and educational facilities should be prioritized.

41,400

Job Openings

Projected 2014-2024

Regional Employment Projections, 2014-2024						
	Northeast Planning Region					
Occupational Group	2014 Estimate	2024 Projection	2014-2024 Percent Change	2014-2024 New Jobs	Replace-ment Openings	2014-2024 Total Openings
Total, All Occupations	**159,860**	**163,078**	*2.0%*	*3,218*	*38,200*	*44,660*
Management	8,879	8,984	*1.2%*	*105*	*1,970*	*2,240*
Business & Financial Operations	5,638	5,774	*2.4%*	*136*	*1,160*	*1,370*
Computer & Mathematical	2,392	2,762	*15.5%*	*370*	*340*	*710*
Architecture & Engineering	2,361	2,441	*3.4%*	*80*	*590*	*710*
Life, Physical, & Social Science	1,853	1,901	*2.6%*	*48*	*570*	*650*
Community & Social Service	4,754	5,170	*8.8%*	*416*	*1,000*	*1,420*
Legal	720	699	*-2.9%*	*-21*	*120*	*120*
Education, Training, & Library	9,167	8,942	*-2.5%*	*-225*	*1,970*	*2,090*
Arts, Design, Entertainment, & Media	2,356	2,334	*-0.9%*	*-22*	*600*	*660*
Healthcare Practitioners & Technical	10,671	11,208	*5.0%*	*537*	*2,360*	*2,940*
Healthcare Support	6,130	7,085	*15.6%*	*955*	*1,360*	*2,320*
Protective Service	3,017	3,028	*0.4%*	*11*	*780*	*810*
Food Preparation & Serving Related	14,394	14,530	*0.9%*	*136*	*5,300*	*5,700*
Building, Grounds Cleaning & Maint.	6,679	7,059	*5.7%*	*380*	*1,380*	*1,770*
Personal Care & Service	8,938	9,948	*11.3%*	*1,010*	*1,680*	*2,730*
Sales & Related	14,871	15,066	*1.3%*	*195*	*4,710*	*4,930*
Office & Administrative Support	22,348	21,636	*-3.2%*	*-712*	*4,680*	*5,040*
Farming, Fishing, & Forestry	1,150	1,004	*-12.7%*	*-146*	*270*	*270*
Construction & Extraction	8,114	8,252	*1.7%*	*138*	*1,310*	*1,480*
Installation, Maintenance, & Repair	7,842	8,063	*2.8%*	*221*	*1,900*	*2,240*
Production	8,167	7,907	*-3.2%*	*-260*	*1,900*	*2,120*
Transportation & Material Moving	9,419	9,285	*-1.4%*	*-134*	*2,150*	*2,260*

Source: DEED 2014-2024 Employment Outlook

Future Development

As a general rule, businesses want to be located in areas where there is similar existing business activity. They need access to sufficient utilities and infrastructure and, depending on the nature of the business, sometimes access to other businesses that offer complimentary services or products (e.g., a welding shop located next to a provider of metals, or a bar located next to other retail activity). Existing large industrial/ heavy manufacturers such as Verso, ME Global, and Tate & Lyle chose to locate near the water in the western part of Duluth since they need large sites, water for manufacturing processes, and rail/interstate connectivity. Other businesses that do not need large-scale infrastructure often locate in areas where there is greater population density and existing like-business activity; in Duluth, this is predominately in the Downtown, Canal Park and Miller Hill areas, where Essentia Health, Maurices corporate headquarters, and many consulting, financial, and professional business related services are located.

There may be localized issues with specific sites in Duluth due to limitations with under-sized water or sewer lines, but generally speaking, water pressure is sufficient throughout the city for most new commercial and industrial uses. Park Point is not a good location for a new water-intensive industry due to potential limitations on water access. Sanitary sewer is generally good throughout the city, although for certain industries with high flows of nutrient rich effluent (such as a cheese processing facility or vegetable cannery), additional research would be necessary to ensure adequate infrastructure capacity.

ZONING CLASSIFICATION	ACRES	% OF CITY LAND AREA
Form District	494	1%
Industrial	6,588	13%
Mixed Use	4,943	10%
Planned	461	1%
Park	1.840	4%
Residential	17,139	34%
Rural Conservation	3,059	6%
Rural Residential	15,481	31%
Total	**50,007**	**100%**

Industry Employment Statistics, 2015								
WDB 4 - City of Duluth	2015 Annual Data				2010-2015		2014-2015	
NAICS Industry Title	Number of Firms	Number of Jobs	Total Payroll ($1,000s)	Avg. Annual Wage	Change in Jobs	Percent Change	Change in Jobs	Percent Change
Total, All Industries	2,580	60,344	$2,771,553	$45,916	2,111	3.6%	658	1.1%
Health Care & Social Assistance	335	18,066	$975,417	$53,976	589	3.4%	404	2.3%
Retail Trade	427	6,505	$154,863	$23,816	124	1.9%	88	1.4%
Accommodation & Food Services	240	6,002	$95,242	$15,808	247	4.3%	-31	-0.5%
Educational Services	84	5,252	$252,072	$47,996	7	0.1%	38	0.7%
Public Administration	62	3,698	$223,958	$60,580	-49	-1.3%	31	0.8%
Manufacturing	97	2,769	$154,612	$55,796	82	3.1%	182	7.0%
Professional & Technical Services	235	2,761	$186,589	$67,704	653	31.0%	89	3.3%
Construction	174	2,506	$155,415	$61,880	606	31.9%	271	12.1%
Other Services	263	2,099	$47,241	$22,464	214	11.4%	56	2.7%
Finance & Insurance	151	1,917	$113,231	$59,072	-259	-11.9%	-290	-13.1%
Admin. Support & Waste Mgmt. Svcs.	90	1,826	$49,139	$26,884	-319	-14.9%	-158	-8.0%
Transportation & Warehousing	68	1,429	$81,786	$57,200	226	18.8%	40	2.9%
Wholesale Trade	92	1,216	$65,356	$53,716	80	7.0%	-18	-1.5%
Arts, Entertainment, & Recreation	69	1,159	$21,239	$18,304	-39	-3.3%	-33	-2.8%
Information	41	957	$47,090	$49,192	#N/A	#N/A	-21	-2.1%
Real Estate & Rental & Leasing	117	800	$23,892	$29,848	115	16.8%	47	6.2%
Utilities	7	768	$74,112	$96,408	72	10.3%	-9	-1.2%
Management of Companies	21	580	$48,880	$84,344	-71	-10.9%	-27	-4.4%
Source: DEED Quarterly Census of Employment & Wages (QCEW) program								

Approximately 13% of the city is zoned for industrial use, 9% for mixed use, and 1% for form districts, as shown in the table on the previous page.

The geography and topography of Duluth are two of its greatest assets, but also pose a development challenge. New construction on the hillside is often cost-prohibitive for developers unless the project receives some form of subsidization or incentive. Flat, easy-to-develop greenfield sites within city limits (particularly those closer to the city-center) are unusual and command premium prices. Additionally, much of the existing greenfield space on or below Duluth's hillside is reserved for park/green space and is used for public purposes.

Most available space for development over the hill is on the northern end of the city, north of West Arrowhead Road and east of Haines Road. Much of this land is tax-forfeit property, owned by the City of Duluth, or zoned for residential use. Located away from Interstate 35, new development in this area can encounter access problems when trying to connect to the rest of the city.

In 1960, Duluth's population was approximately 107,000 people. Today the population is approximately 86,500 people. Duluth, including its businesses, housing, services, and amenities, has previously accommodated 21,000 more people than it does today. The decline in population in the 1970s and 1980s left many homes and businesses vacant and, due to deferred maintenance and minimal investment from absent landlords, reinvestment is needed. Additionally, since 1960 a substantial amount of the manufacturing along the St. Louis River has ceased operations. Companies like U.S. Steel, Universal Atlas Cement,



and Westinghouse Electric, which supported hundreds of jobs, have closed their doors, leaving hundreds of acres of contaminated land in their wake. Today, the buildings from most of these historic factory sites have been removed, but the contaminated nature of the remaining property often makes development financially restrictive and infeasible. For example, a 67-unit housing development built in 2016-2017 in Morgan Park had to cease construction after excavation revealed undocumented and excessive amounts of contamination. The approximately 18-acre site will require nearly $1 million in remediation in order to bring the property back to MPCA and EPA standards. Further south on Highway 23 and east toward the river, there are over 800 acres of relatively flat, industrially zoned, vacant land. Most of this is owned by U.S. Steel and railroads, but much of it is considered a brownfield; 500 acres are enrolled in the EPA's national Superfund program.



Along with contamination challenges, many such brownfield properties are located on the edges of city limits, far from Duluth's downtown, making them less appealing to companies looking for high visibility and easy access to other businesses. New businesses in these locations would be further from amenities (including housing) for their employees, less accessible to other supporting services, less visible to customers, and likely to have higher construction costs due to the need for new infrastructure, than new developments closer to the center of the city.

Duluth also has an inventory of existing buildings from industrial, commercial, and residential uses, many in need of redevelopment. In particular, many older buildings downtown and in Lincoln Park are outdated and in need of reinvestment. Redeveloping these buildings is often infeasible without incentives or subsidies.

While Duluth has land and buildings available, many are not primed for development and may not meet the needs of future businesses. Given the changing nature of the U.S. and Minnesota's economy, it is difficult to anticipate exactly what future economic development will look like in Duluth. The shift from a manufacturing to a service-driven economy is projected to continue, including in the northeast region of Minnesota. According to the State of Minnesota's Department of Employment and Economic Development, manufacturing employment is projected to decrease by 7.5% by 2024, while healthcare and professional services are expected to grow by 11.7% and 14.8% respectively. However, manufacturing continues to increase in efficiency and productivity per employee, so while the number of jobs decrease it is projected that actual economic output (dollars created) will increase.

If the service/hospitality and healthcare sectors continue to grow as projected, Duluth will need more space/buildings to support these industries. Most of these businesses are located Downtown, and in Canal Park and Hillside areas. As these areas are almost completely developed, Duluth should work to increase the efficiency of future development via higher-density construction. In developed areas, there are opportunities in encouraging vertical construction and the redevelopment of currently blighted and underutilized properties.

Projected Growth Sectors

HEALTHCARE Currently responsible for approximately 30% of the total jobs in Duluth with 404 healthcare jobs added from 2014 to 2015 (60% of growth that year).

AVIATION Cirrus Aircraft, Duluth's largest manufacturing employer, has 780 Full Time Equivalent employees. Cirrus and other aviation manufacturers expect to grow. Duluth's airport and surrounding business park have ample room for growth.

TRANSPORTATION & WAREHOUSING This sector grew in employment by 18.8% from 2010-2015 and saw 2.9% growth from 2014-2015.

MANUFACTURING Grew 7.0% from 2014-2015 with a strong and growing base of heavy and light manufacturing. Because of the current tight market for industrial space, more buildings/sites would be needed to accommodate growth, specifically light and specialty manufacturing.

PROFESSIONAL & TECHNICAL With an impressive 31.0% growth in jobs from 2010 – 2015, this sector has high average annual wages of $67,704. With a tight office market, more quality office space would be needed to accommodate additional growth in this sector.

CONSTRUCTION The construction sector was the highest growing sector by percentage with a growth rate of 31.9% between 2010 – 2015. These jobs will be contingent upon the rest of the overall economy's growth and the number of construction projects in the Duluth area.

Development Tools

Tools that can incentivize the creation of jobs include:

TAX INCREMENT FINANCING (TIF) – Net increases in property taxes (up to 25 years) are captured to provide gap financing for projects that would not have happened without the TIF dollars.

TAX ABATEMENT – A specific amount of the City's portion of property taxes can be waived over a fixed time period to incentivize and assist a development.

BROWNFIELD REVOLVING LOAN FUND – An EPA grant that provides lower interest loans to assist with the development of brownfield (contaminated) sites.

BONDS – Issued by the City, money is used upfront for the development project and paid back to the City with lower interest.

UTILITY ABATEMENTS – Waiving the costs of new utilities over a fixed amount of time.

LAND – City land can be conveyed or sold at a low cost to attract development/job creation.

6.7 million

TOURISTS ANNUALLY

New operating models are emerging in Duluth. Companies like Airbnb and Uber are well-known examples; less known are the variety of new businesses that have emerged through the creative economy: folk schools, hostels, beverage manufacturers, artists, and craft-food producers. These types of businesses are often well-suited to reuse old buildings or to locate in parts of the city that more "traditional" businesses do not. However, many of these more creative businesses have been restricted by current zoning and use regulations, forcing them to locate in only a few areas of the city. Reassessing what fits in a given neighborhood to create a more business-friendly and flexible environment will encourage continued growth and investment in these sectors and allow neighborhoods across our community to benefit from the variety and diversity they can create.

In summary, three things Duluth can do to provide adequate space for future economic development are 1) secure resources and establish incentives for brownfield redevelopment, 2) create incentives/a program to redevelop existing blighted or outdated building stock, and 3) create zoning that is more open and flexible to accommodate new types of business and the changing nature of manufacturing.

Outdoor Recreation & Tourism

Much of the City's recent investment in public outdoor recreation has been via the creation of new trail systems and the improvement of existing trails, particularly along the St. Louis River corridor. Duluth has become renowned in the Midwest as a recreation hub; approximately 20% of Duluth's total land is green space and city park-land. The sheer variety of opportunities and accessibility of land and water based amenities are some of Duluth's greatest assets and can help encourage future economic development. Public access to the waterfront and development of water trails, as well as recreational use of the harbor and estuary, should be encouraged where such access does not conflict with existing waterfront use and maritime transport.

In 2015, tourism accounted for approximately 10% of the entire world's GDP. One in 11 jobs caters to the tourism industry. Tourism is also a vital component of Duluth's economy, bringing over 6.7 million visitors in 2015 alone. These tourists spent $319 million and created an estimated $957 million economic impact. Of these, 21% reported that they came to backpack/hike, 18% came to visit parks, 18% came to visit a beach, 11% came to go swimming, 7.5% came to fish, 7% came to go boating/sailing, 4% came to bike, and 4% came to ski. While there is certainly some overlap in responses (e.g. someone came to both visit a park and to camp), these data suggest tremendous opportunity. For example, the 1.4 million people visiting to hike and backpack likely know only some of the area's trails. Is there room to improve their experiences and better capitalize on their visits (supportive amenities, trail access, etc.)? Are there complementary activities, such as fishing, boating and swimming, that tourists don't know about and that may attract them to Duluth more frequently? There is potential for stronger collaboration among entities like DEDA, Visit Duluth, City of Duluth Parks and Recreation, and various community partners to collectively capitalize on existing tourism and bolster the number of future visits.

According to Longwoods International's 2016 report on Duluth's tourism sector, 52% of overnight visits and 57% of day-trip visitors come from the Twin Cities metro area (roughly 3.3 million visits each year). Promoting Duluth in that metro area could attract new visitors and remind repeat visitors why they should come back. Although *Outside* magazine named Duluth "Best Outdoor Town" in

Creating Quality Economic Development

Other factors that strongly contribute to encouraging quality economic development are those that create an environment where it is attractive and competitive for businesses to locate. These include:

QUALITY OF LIFE – Providing citizens and businesses a vibrant and healthy community in which to locate.

COST OF LIVING – Providing affordable homes and access to common goods at an overall competitive cost.

INFRASTRUCTURE – Providing roads, utilities, broadband, housing, public transit, etc. for businesses to thrive and grow.

EDUCATION – Providing an environment that encourages learning and growth through higher education and professional training opportunities, leading to a skilled and qualified workforce.

WORKFORCE – Providing a local supply of potential employees with the requisite skills and training to meet businesses' needs.

2014, the benefits of that accolade are not endless. Continued improvement to outdoor recreation and consistent branding will improve Duluth's image as a Midwest recreational mecca.

Though some residents have indicated concerns about focusing on tourism and visitor experiences, such a focus can provide significant direct and indirect benefits. Promoting and supporting outdoor recreation results in more traffic, which results in more retail opportunities and general economic development. Furthermore, investing in tourism can help attract a much-needed workforce, a concern that is projected to intensify as Baby Boomers retire. In a 2016 Atlas Advertising survey of 2,500 site selectors and business decision-makers, 71% agreed that tourism has an influence on attracting and retaining a qualified workforce. Before people choose to relocate, they will consider quality of life. Fortunately, Duluth has much to offer, particularly regarding outdoor recreation. Parks, trails, and other outdoor experiences should be leveraged as much as possible.



Once people get to Duluth, they need to be guided to tourism opportunities. Wayfinding is an area ripe for improvement in Duluth. Whether pointing out where local shops are located, directing visitors to landmarks, improved signage on trails, or better direction for public parking opportunities, the City has been encouraged by a variety of reports to improve wayfinding citywide. Wayfinding, while not always simple, is a relatively inexpensive way to immediately improve the visitor experience. It will also better serve residents who may not be aware of the variety of amenities and opportunities that exist in the community. The City Parks and Recreation division has produced a map displaying all recreation opportunities; while useful in its paper form, it can be difficult to navigate online and might be overwhelming to someone new to Duluth's geography and recreation. The online map could be revised to more clearly communicate destinations. For example, an interactive map tool or app that features specific pictures of the available opportunities at each location; this could be an excellent way to make parks more visible and accessible. Promoting and widely distributing the app would be critical to its success.

Tracking the Community's Development

In 2010, the City created the "prosperity index," a tool to measure prosperity and success in the community. The five key elements of the index were:

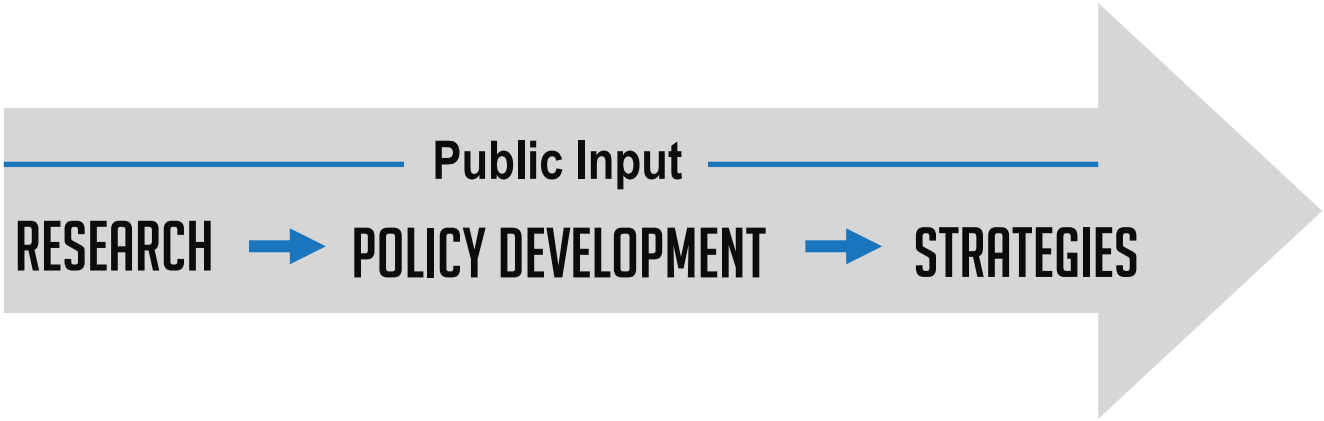
1. Housing—How much of the population is considered "cost-burdened," meaning spending more than 30% of their household income on housing? What percentage of single-family homes are owner-occupied?
2. Income and poverty—What percentage of the population has an income less than 200% of the federal standard for poverty? How close is Duluth's median household income to the state's median household income?
3. Workforce and jobs—What is the average weekly wage that workers in Duluth earn and how close is it to the state's average weekly wage? What is the percentage of adults in Duluth that are in the workforce?
4. Education—What is the total education level of everyone over 25 in Duluth?
5. Business climate—How many jobs are there in Duluth?

While the prosperity index is no longer updated, it was useful as a tool to track the city's progress. Tracking a community's progress should continue even if negative results are found; it takes a while to make an impact, and it is important to identify not only a community's strengths, but also areas that need improvement. It should be understood, however, that there are a many external factors impacting a community's success, which the community does not control (such as federal spending or federal regulation).

Tracking should consider both economic and social factors, should be easily measurable, or obtainable on a quarterly or annual basis, and should be shared with the public in a consistent format. Actively sharing clear information (including goals, benchmarks, and progress reports) with all community members can be an asset to civic participation and economic development in future years.

Policies & Strategies

The research and input throughout Imagine Duluth 2035 led to the development of five broad policies that also reflect the Governing Principles. Each policy was further expanded into specific strategies to be carried forward to implementation.



Policy #1— Invest in people to increase employees' skills, ensure workforce availability for employers, and promote income self-sufficiency

S1. Enhance programs to provide job training for historically disadvantaged residents, while continuing to identify and understand employment barriers and new opportunities for collaboration.

S2. Coordinate resources and partnerships to develop new employment pathways in existing and emerging employment sectors; seek opportunities for new business incubators.

S3. Collaborate with K-12, higher education, business, and other partners to develop an improved understanding of career paths to maximize opportunities for young people in the city.

S4. Establish new mentorship programs more closely aligned with high school and higher education; foster opportunities for apprenticeships and entry-level job training.

S5. Encourage entrepreneurship by high school and college graduates seeking to remain in Duluth after graduation; aggressively market local job opportunities through partnerships with schools. Consider incentives to help young people strengthen ties to the community.

S6. Create new housing to meet the needs of the city's workforce, in locations to minimize the complexity and length of commute and maximize access to amenities and services. Promote the value of the high quality of life provided to employees by living in Duluth.

S7. Coordinate priorities with the Duluth Workforce Development Board to implement strategies that strengthen the workforce development system.

Policy #2—Foster growth of existing employers and strategically recruit new employers to Duluth

S1. Prioritize redevelopment efforts in the Core Investment Areas. Encourage collaboration between existing businesses in individual Core Investment Areas to support increased business activity overall and to improve their aesthetic and social environments. Recognize Core Investment Areas as hubs of the sharing and remote-work economy.

Read more about Core Investment Areas in the Transformative Opportunities chapter.

S2. Develop a strategic list of infrastructure investments anticipated to maximize opportunities and spur new private sector investment within Industry and Commerce Priority Areas.

S3. Evaluate standards for micro-enterprise around new and emerging technology, including businesses that start in homes and garages; collaborate to expand financial tools to assist such businesses seeking growth opportunities.

S4. Conduct site assembly strategically, whether advancing specific City policy goals or assisting businesses with expansion or relocation.

S5. Seek further funding for cleanup of contaminated sites to enhance brownfield redevelopment in the city; prioritize brownfield sites close to or in Core Investment Areas or adjacent to significant infrastructure.

S6. Ensure high-speed broadband availability citywide to foster growth of existing and new employers, with initial priority in Core Investment Areas.

S7. Promote opportunities for easing travel for employees to and from Duluth, especially via initiatives such as the Northern Lights Express and through air service to key Great Lakes regional destinations like Chicago or Toronto.

Policy #3—Build on Existing Economic Strengths & Competitive Advantages

S1. Promote employer expansions that include job growth, as well as new commercial and industrial development, to support and enhance the level of activity in the Industry and Commerce Priority Areas.

S2. Coordinate with major institutions, including hospital and university campuses, to plan for their growth, minimize development impacts, and provide for stability and livability for the campuses, their employees, and surrounding neighborhoods.

S3. Support the work of the Duluth Seaway Port Authority and the Duluth Airport Authority to maximize opportunities for economic growth on and around port and airport properties, consistent with their respective priorities.

S4. Create a menu of options and next steps to encourage redevelopment of short-term priority sites.

S5. Collaborate with partners to publicize and regularly update inventory of available land, sites, and buildings.

S6. Support re-emerging economic opportunities for Duluth, including craft-related industry, in appropriate locations.

S7. Analyze commercial market demand and best practices to determine options for expansion of neighborhood serving uses in nodes accessible by transit, as well as in the city center where skyways create two levels of potential commercial activity.

S8. Plan for access between key transportation corridors and Industry and Commerce Priority Areas, including through preservation or use of currently vacant or underutilized rights-of-way.

S9. Encourage expansion of the city's tourism economy through efforts to expand areas of current activity, such as Canal Park, but also through marketing and investment in destination neighborhoods and iconic tourism experiences unique to Duluth.

Policy #4— Embrace the Outdoors as an Economic Engine and Source of Community Wealth

S1. Promote and develop access to parks and open space by employers and employees.

S2. Clearly delineate and publicize the federal navigation channel; encourage recreational use of Lake Superior and the estuary when appropriate in coordination with partners.

S3. Identify growth sectors of the tourism economy, such as bird watching, fall colors tourism, and cold-season outdoor community events. Preserve and promote the economic benefits of both passive and active recreational tourism opportunities.

S4. When considering sale of public lands for economic development purposes, first consider economic value of such lands as an outdoor asset.

S5. Give consideration and support to new tourism and recreation related industries and businesses.

Policy #5— Effectively Coordinate Marketing, Communication, and the City's Image

S1. Publicize city business retention practices and outcomes, including through annual reporting to the community. Continue collaborations with local and regional partners to prioritize and publicize such efforts.

S2. Promote businesses in the City's overall wayfinding effort to encourage commerce, especially to neighborhood business nodes within Core Investment Areas.

S3. Expand partnerships to promote the arts and additional cultural offerings.

S4. In coordination with the Duluth Indigenous Commission, encourage multi-lingual signage, particularly in the Ojibwe language, at local businesses interested in participating.

S5. Evaluate neighborhood centers with a unique cultural heritage, such as Duluth's "Little Italy," for greater historical recognition and as places of economic opportunity.

S6. Publicize the attributes of Duluth's redevelopment and opportunities for business growth. Provide emphasis on the city's competitive advantages, such as its access to regional transportation, climate-resilient location, well-educated workforce, and high levels of amenities.

S7. Catalogue condition and classification of commercial and industrial buildings in the city. Craft partnerships with development organizations to promote the value of energized buildings in industrial areas. Work with property owners and businesses to consider overall community aesthetics. Incentivize blight removal, even in industrial areas, and building/site maintenance.

S8. Consider opportunities to develop neighborhood-oriented Business Improvement Districts (also called Special Service Districts) in Core Investment Areas, with leadership provided by neighborhood business leaders.

HOUSING



Housing Mission

Housing in Duluth will promote the essential character of its neighborhoods while providing safe, clean, and equitable living space for all members of the community.

GOVERNING PRINCIPLES FOR HOUSING

1 Reuse previously developed lands

5 Promote reinvestment in neighborhoods

6 Reinforce the place-specific

8 Encourage mix of activities, uses, & densities

11 Consider education systems in land use actions

13 Develop a healthy community

14 Integrate fairness into the fabric of the community

Context

Population & Demographics

Within the city of Duluth, there are approximately 38,000 housing units. These units are distributed in a variety of configurations, such as apartment buildings, duplexes, or detached single-family houses, among others. The number of housing units has remained steady as the city's population has fluctuated, as typical household size has changed, and as the locations of jobs in the city have moved over time.

According to the United States Census Bureau, approximately 38% of Duluth's population is under the age of 25, while 23% is aged 25 to 44, 24% is aged 45 to 64, and 15% is aged 65 and older. Typically, the 25 to 44 cohort is described as the "family formation" bracket, because this age group provides the highest demand for single-family housing units. Those cohorts outside the 25 to 44 age group, both older and younger, typically show a need for smaller housing units. Across the United States, median age is expected to increase over the next years as the baby boomer generation continues to age.

As Duluth's population has remained stable, so, too, has its number of households, levelling out at approximately 35,500. Average household size, however, has slowly decreased over time. The average household size was 2.51 in 1980 and had decreased to 2.24 by 2013, a reduction on par with national trends. Duluth's population peaked in the 1950s and 60s, with over 100,000 residents calling the city home. During the following decades, the city's population gradually decreased, and for the past 25 years has hovered around 86,000 people.

Demographics and the housing market are directly related. Data can both help clarify whether the existing market corresponds to the needs of the population and help identify possible gaps. Change in household size, for example, can be useful for evaluating what types of unit are needed: an increase in smaller households creates an increase in the need for smaller units such as apartments, condominiums, or townhomes. Residents living in the city for short periods of time, whether on short-term assignment or as part of the seasonal workforce, require housing that may not be effectively served by current housing options. Evaluating age breakdown in the city is also a means of assessing the suitability of the mix of housing unit types. Currently, more than 60% of Duluth's housing units are concentrated in single-family homes, while only 23% of the population is in the "family formation" group that expresses the highest need for units of this style. Fluctuations in the proportions of demographic groups in the city's population can have a pronounced effect on housing needs.

Housing Stock

Housing may be rented or owned and a mix of both types is essential in any one market. In 1980, Duluth had 12,547 rental units and 22,816 owner-occupied units; by 2014, the number of rentals had increased to 14,293, while the number of owner-occupied units had decreased to 21,255. Regional housing options outside Duluth increased through new construction of single-family and apartment units in nearby cities, such as Hermantown, Proctor, Esko, and South Range.



Since 2012, the total number of housing units in Duluth has remained relatively constant at approximately 38,000 units. Over time, however, the average age of housing units has steadily increased. Nearly three-quarters of Duluth's housing units is at least 46 years old and a full 44% (approximately 16,500 units) is 76 years old or older. These numbers raise a significant concern: how to address an aging housing stock. A considerable part of the city's existing housing stock does not respond to current housing needs and would need substantial renovations in order to do so.

U.S. Department of Housing and Urban Development (HUD) guidelines indicate that the average lifespan of a house – without significant annual maintenance – is approximately 40 to 50 years. When older housing stock lacks routine maintenance, quality decreases and units become substandard. Repair and rehabilitation issues left unaddressed can lead to an increase in the number of units which are condemned as unsafe for habitation. According to City records, as of January 2017, 2,120 housing units aged 20 to 50 had been rehabbed and 2,307 housing units older than 50 years of age had been rehabbed at some point. Because of the age of Duluth's housing stock, rehabilitation is an important policy area; although it is expensive, rehabilitation is typically less costly than new construction, depending on the type of housing and extent of renovation. Duluth has adopted a rental licensing ordinance to address minimum quality standards of rental properties, but has not proceeded with adoption of tools such as a point-of-sale inspection process for owner-occupied housing.

The City has the authority to condemn buildings as unfit for human habitation or to require their demolition, but also to promote





renovation and rehabilitation through permitting, enforcement, and incentive programs. Promoting the use of high-quality materials in new construction and acting promptly when issues occur can help prevent problems from becoming hazards, thereby reducing the number of buildings that degrade beyond repair.

As the owner-occupied housing market is aging, so too is Duluth's rental market: a majority of rental units are located in aging buildings which are expensive to maintain, renovate, and repair. The high maintenance costs associated with older housing stock directly affect the price of rent.

Unit type or style also affects the overall assessment of the city's housing stock. As they age, housing units may become insufficient or inappropriate, no longer responding to the community's needs. Older units may be inadequately equipped for modern technology or fail to provide the kind of living space that corresponds to modern preferences. Duluth's housing market currently consists of 23,610 single -family homes, 3,899 duplex units, 3,105 townhouse units, and 963 mobile home units. Units in multifamily structures (those incorporating ten or more units) account for the remainder, with more than 6,570 units located in structures of this type.

Alternative housing types such as tiny homes and accessory dwelling units have become increasingly popular in markets across the United States but not been widely implemented or understood by the real estate community in the city. These types of units could respond to the needs of members of the community that might otherwise have difficulty finding appropriate housing, and should be considered

opportunities for creative design and land use. Duluth's housing stock has a number of "missing markets," or housing types that are under-represented and for which the demand outweighs the supply. Notably, there are few modern townhomes in the city, particularly those that might serve the entry-level or senior housing markets. Creative and innovative designs – as well as more traditional but still under-utilized options such as row houses and townhomes – can provide solutions for small or nonconforming lots while filling in these market gaps and further providing a means of increasing density through infill development.

Housing design also has a direct impact on residents' sense of safety. Collaboration with neighborhood groups and the Duluth Police Department using the community policing model can enhance safety within the community, while careful housing and neighborhood design can encourage interaction between neighbors and reduce social isolation.

Variety in the housing market, including a range of unit styles, unit sizes, and ownership or rental opportunities, is key for the market's ability to meet the various needs people have at all stages of life. As people age, lifestyles change, incomes fluctuate, and housing needs also evolve. Housing design is not simply a matter of visual appeal, but also of safe and healthy communities.

Market Conditions

At the time the 2006 Comprehensive Land Use Plan was written and adopted, Duluth's residential housing market was robust, with more than 4,000 resales annually. In 2008, however, the national recession hit Duluth and the housing bubble burst, leading to a decline in property values, development, and sales.

Since the recession, a number of additional factors have contributed to the continuing tightening of the residential market. First, the combination of restrictions in funding and reduction of construction demand resulted in contractors and skilled labor leaving the market area. The cost of construction rapidly increased and continues to increase to this day, negatively affecting the capacity of stakeholders to replace housing units in an affordable manner. In addition to the reduction in numbers of contractors and skilled labor, Duluth's terrain – including steep topography, challenging soil conditions, shallow

bedrock, and abundant wetlands – further increases the cost of new construction. Because of the comparatively small size of Duluth's housing market, there are no production home builders operating within the city. As such, existing home builders are predominately focused on new construction of custom homes, generally at the higher-priced end of the housing market. Finally, given current residential density patterns, the substantial cost of extending infrastructure often discourages infill or new development adjacent to built-up areas. These diverse factors and others compound to create a housing shortage in Duluth, much like the shortages found across the state of Minnesota.

In 2013, the City of Duluth and the Duluth Economic Development Authority (DEDA) contracted with Maxfield Research to determine what types of housing should be developed in Duluth to meet current and future housing needs. The study estimated total housing demand – including both owner-occupied and rental units – to amount to approximately 4,470 units from 2014 to 2020. Of this total, over 1,300 new units were identified as needed in order to serve entry-level and low-income residents.

The Housing Units Chart is a snapshot of Duluth's housing market in 2017. It classifies by income level those units that have been added to the market since the Maxfield study and details what remains to be accomplished. Since 2013, just over 1,400 new units have been built in Duluth: 1,257 rental units and 145 owner-occupied units.

Much of the Duluth's recent housing development has targeted the production of market rate rentals (675 units) and single-family homes with values over $250,000 (110 new homes). Recent rental developments include Bluestone Lofts & Flats, Miller Hill Flats, Kenwood Village, Capstone Apartments, Grand Avenue Estates, and Endi. The market is in need of a variety of styles of housing, however, including subsidized rentals – a category which incorporates supportive housing – (290 units needed), entry-level opportunities for households earning up to 50% of the area median income (772 rentals and 165 owner-occupied units needed), and low-to-moderate workforce or "move-up" housing for those earning up to 80% of the area median income (835 rentals and 450 owner-occupied units needed).

Currently, although new single-family and multi-family units are being constructed, there are more blighted single-family units being demolished than new units being built. From 2010-2016, there was a net loss of 46 single-family units, while during the same time period the net gain of multi-family units was 659.

Since 2010, Duluth's market rate rental vacancy rate has remained consistently low. The rate currently hovers around 3.6%, which is much lower than the national average of approximately 7% (U.S. Census data). Typically, higher vacancy rates mean more competition among unit owners, leading to slightly lower rents and more options for renters; a vacancy rate of 5 to 6% is considered healthy. Such a low rate as that currently found in Duluth indicates that the local demand for rental units exceeds the supply.

Opportunities for new construction can be found in neighborhoods throughout Duluth. In many developed locations, infill construction is appropriate. Many existing vacant lots, however, are privately held or owned by the State due to tax delinquency. New construction in these locations is hindered by lack of comparable new development and the complexities related to land ownership and transfer.

In some areas, vacant or dilapidated buildings present opportunities for redevelopment. The city's Life Safety and Construction Services divisions collaborate with other divisions, including Community Planning, in the identification of areas—and buildings—where blight is detrimental to neighborhood success.

Research & Community Process

Affordability & Accessibility

Census data indicates that the percentage of renters and homeowners experiencing housing difficulties correlates closely with household income.

The U.S. Department of Housing and Urban Development (HUD) considers housing affordability to be when a household contributes 30% or less of its gross income toward housing. In 2017, the average annual wage for a family in Duluth was $67,200. Using HUD's definition of affordability, a family making this wage could afford housing costs of $1,680 a month. HUD's calculations do not take into account factors such as debt, property taxes, credit score, or interest rates.

The median wage is also sometimes described as the "moderate/move-up" income level. This category includes professionals such as teachers,

healthcare practitioners, skilled laborers, police, and businesspeople, as depicted in the table below. Although the average sales price of a single-family home in Duluth in 2016 was $191,562, the average housing unit also needed repairs and renovation due to its age and condition. According to a preliminary study by the Duluth Area Association of REALTORS, the additional renovation costs on top of purchase price can range from $38,503 to $96,451, significantly impacting the financial accessibility of homeownership. Some programs in Duluth, such as the community land trust program operated by One Roof Community Housing, provide a level of very long-term (99-year) affordability paired with homeownership, which improves the accessibility of homeownership to low- and moderate-income households.

Identified Housing Needs: 4,471
Units Built: 1,400
Units Remaining: 3,000 approx.

			Rental				Homeowner		
Income Levels	Area Median Income	Monthly Rent	Rental Units	Units Built	Need to Build	Home Price	Units	Units Built	Need to Build
Subsidized/Low-Income	Below 30% AMI	$0 to $486	500	210	290	NA	0	0	0
Entry Level	30%-50% AMI	$300 to $700	772	0	772	up to $150,000	180	15	165
Moderate/Move-Up	50%-80% AMI	$700 to $1300	1207	372	835	up to $250,000	470	20	450
Market Rate/Executive	80% + AMI	$1,300 and above	1092	675	417	over $250,000	250	110	140
				3,571				**900**	

Income Levels	Income Examples	Job Types
Subsidized/Low-Income	**$13,000 or below**	Food Service, Janitor, Part-time Employment
Entry Level	**$22,350 to $31,900**	Office/Admin, Food Service, Sales, Beautician, Health care support, Construction, Hospitality, Dental Assistant, Bank Clerk
Moderate/Move-Up	**$35,750 to $51,050**	Teacher, Healthcare Pracitioners/Technician, Skilled laborer, Management,Business person, Government worker, Police, Carpenter
Market Rate/Executive	**$70,000 and above**	Engineer, Lawyer, Architect

Maxfield Research, Inc.: February 2014

The gap between homeowners' and renters' median household incomes has increased by about $10,000 over the past decade. The median household income for renters in Duluth in 2016 was $22,067 and the average market rate rent was $920. Using HUD's 30% affordability formula, an affordable monthly rent for one of these median income households would be approximately $551, a number significantly lower than the average market rate rent. These numbers indicate that more than half of all of Duluth's renter households in 2016 were unable to afford average market rate rental housing. In 2016, 20% of Duluthians were living in poverty and approximately 34% were cost-burdened, or paying more than 30% of their gross income for housing.

Approximately 13% of Duluth's residents are disabled. A variety of styles of accessible housing should be available in both the rental and owner-occupied markets, and should be affordable for a range of income brackets. Accessible housing units should provide the same convenience and opportunities for residents as non-accessible units, including proximity to commercial areas, public transportation, and job centers.

Supportive housing assists people who need temporary assistance for housing, such as victims of domestic abuse, or who need permanent housing support, such as individuals with disabilities.

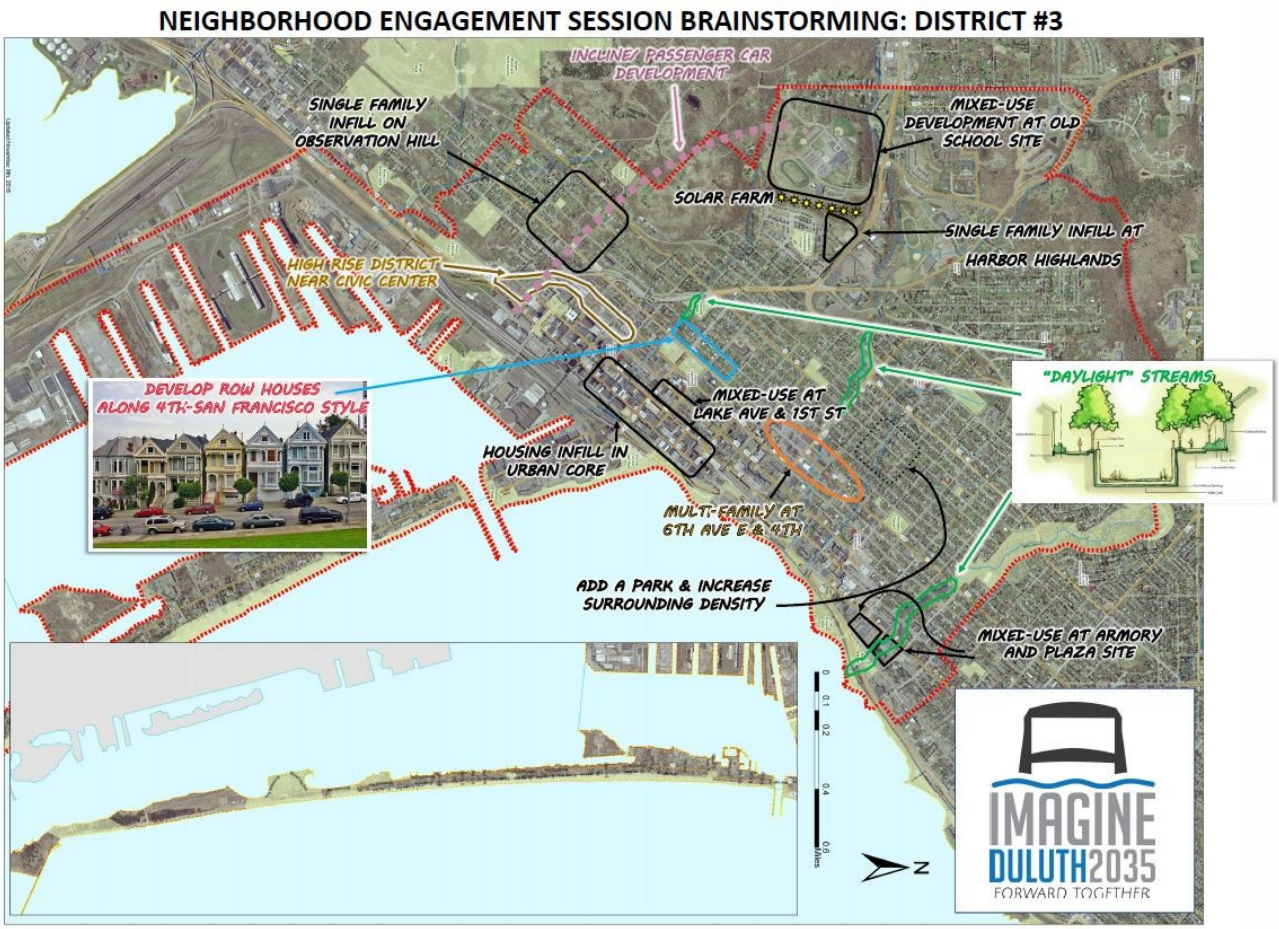
Affordability and accessibility are linked concerns. In 2017, approximately 2,159 people in Duluth were living in shelters or supportive housing units. These types of housing are more expensive to provide and maintain than standard owner-occupied and rental units due to stringent regulatory codes and the cost of providing services. In order to meet the needs of all residents and prevent the concentration of poverty or populations, units of this type are needed throughout the city; future planning efforts will include evaluations of their distribution within Duluth.

There is a distinct wealth gap between Duluth's western and eastern neighborhoods. Just over half (56%) of Duluth's total population of color lives in the western neighborhoods. The wealth gap and the segregation of people of color into lower-income neighborhoods are direct results of government policies. Future housing development must take these historic inequities into account in order to provide opportunities for all of Duluth's residents. The City must work to promote fair housing practices for all Duluthians, both in its policy development and in the enforcement of anti-discrimination laws.

Community Input

Community input has been a cornerstone of the Imagine Duluth 2035 process, particularly on the subject of housing policy. This type of interaction not only encourages residents to give feedback on the City's proposed policies, but also to take an active role in shaping the creation and redevelopment of their neighborhoods and the city as a whole. The Imagine Duluth 2035 team has endeavored to provide a variety of opportunities for input, ranging from in-person focus groups, to tables at community celebrations, to online surveys.

Over 300 community members attended the Imagine Duluth 2035 kick-off celebration, where 40% of participating residents stated they liked where they live and wanted to continue living in the same area. Many indicated that one of their primary concerns about housing was the cost associated with rehabilitating existing units. A majority of respondents also indicated that when choosing where to live, "proximity to services" was more important than type of housing.



At the November 2016 social engagement sessions, residents were asked where they would recommend development of 600 units of new housing and 1,000 new jobs. Community meetings were held in Duluth's five Council districts. Residents provided creative ideas for their Council districts, as shown in the sample map above.

Stakeholder Input

Representatives from stakeholder groups, including major affordable housing and homeless service organizations in Duluth, gathered in a series of invitational housing meetings in late 2016. Participants included the Duluth Housing & Redevelopment Authority, Duluth LISC, One Roof Community Housing, the Center City Housing Corporation, CHUM, Loaves & Fishes, the American Indian Community Housing Organization (AICHO), St. Louis County, and Community Action Duluth.

In March 2017, the group reconvened in a strategy session to map out the best locations for rental and owner-occupied housing development and those neighborhoods in which rehabilitation and infill should be used as primary strategies. Taking into account the extensive input

provided by the community and varied stakeholders during the Imagine Duluth 2035 process, the resulting map and strategies were formed into the Housing Action Framework.

The Imagine Duluth 2035 Vision Committee, the advisory body charged with guiding the comprehensive plan update process, also weighed in on housing issues on multiple occasions throughout the two-year process. The committee set a priority for infill development near available infrastructure, rather than housing development that requires major infrastructure investments. Beyond simply providing recommendations on policies and strategies for housing investment in the city, the committee deliberated specific best practices and whether regulatory or incentive based approaches would achieve the greatest results. Time was dedicated to the challenge of housing quality, including brainstorming solutions to challenges posed by the city's rental housing stock.

Interim & Proposed Actions

In addition to the policies and strategies laid out at the end of this chapter, a series of interim actions was developed to direct housing policy and provide guidelines for immediate action. To accommodate the need for interim planning guidance, the Housing Action Framework was adopted ahead of the Imagine Duluth plan. Its recommendations are incorporated into and expanded within this chapter.

Housing Action Framework

The Housing Action Framework delineates two different primary approaches to housing development: reinvestment and new investment. Its intended audience was local housing developers and advocates, who were able to use the framework to make decisions that aligned with its policies. The framework's intent is to provide guidance about:

- Reinvestment focused on older neighborhoods to improve livability, address historic inequities, promote private reinvestment, and guide the development of new larger-scale buildings, such as apartment complexes.
- New investment to address the existing mismatch between jobs and housing. This line of investment includes both the development of new and affordable workforce housing for community members presently facing lengthy commutes and development aimed at creating opportunities for economic integration and neighborhood revitalization.

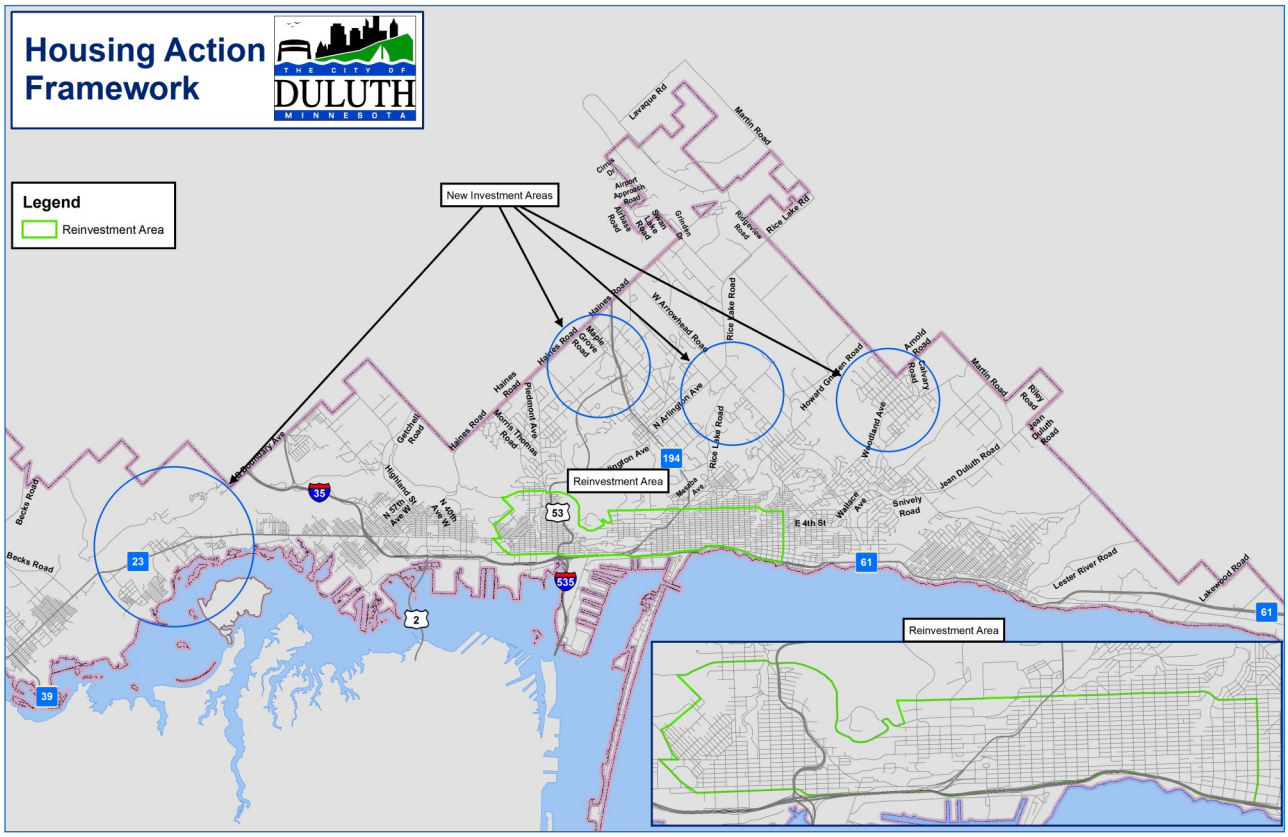
Reinvestment

Reinvestment is the primary approach for the Lincoln Park, Central Hillside, and East Hillside neighborhoods. As the geographic areas that saw the first significant density in Duluth, these neighborhoods contain the city's oldest housing stock and opportunities for infill. Some of the most affordable housing options in Duluth are also located in these areas, but many of these units are in need of repair and modernization.

Input received during Imagine Duluth 2035's public engagement phase found that many young families would like to move into these neighborhoods, with the new Lincoln Park Middle School a particular draw. The need for renovation of the existing housing stock in these areas, however, is often perceived as a barrier.

The zone outlined in green on the map has been designated as Duluth's reinvestment area. The specific housing strategies for this area are:

- Concentrate current income-eligible rental and homeowner housing rehabilitation programs in this area.
- Encourage private developers and contractors to renovate houses that have been vacant or that become tax forfeit through the use of profit-sharing incentives.



- Generate additional funds to promote owner-occupied stabilization for reinvestment in those units with no income guidelines.
- Stimulate mixed-income and market-rate housing development on infill sites.
- Reinvest in neighborhood amenities that create visible impact, such as improvements to sidewalks and streets, parks, lighting, etc.
- Encourage mixed-use housing options in the commercial district in Lincoln Park, in Downtown Duluth, and in East Hillside's 4th Street and Plaza business districts.
- Support continuing efforts to acquire and rehabilitate tax forfeit and abandoned single-family properties, bringing them back into the housing market.
- Locate new supportive housing in areas that provide access to healthcare, social services, other goods and services, public transportation, and employment opportunities.

Redevelopment of key sites within the reinvestment area would result in positive impacts consistent with many years of City planning and policy decisions. These sites include the Esmond Building in Lincoln Park, the Harbor Highlands area of the Hillside, and the currently vacant Central High School site.

The City of Duluth and St. Louis County work together continuously to evaluate and address tax forfeit parcels throughout the city, a process more fully addressed in the Open Space chapter of this plan. In 2016, approximately 13% of Duluth's total land area was in some state of tax forfeiture. Efficient collaboration can turn tax forfeit land into opportunities for redevelopment, particularly for infill housing.

The Housing Action Framework also sets forth guidelines for defining and naming two areas as Specialized Improvement Areas (SIAs) in order to focus strategic and targeted investment. SIAs are selected based on their concentrations of vacant land, tax forfeit parcels, and condemned houses. Areas in Lincoln Park and the Hillside were chosen as the first SIAs. Targeted SIA investment over a two- to three-year period includes the identification of specific housing strategies tailored to each SIA, based on the specific challenges faced in that location. This level of customization is intended to allow community partners to organically choose the best strategies for each unique location and to include neighborhood input, rather than having their strategy dictated by adopted policy.

New Investment



Affordable housing opportunities have historically been concentrated in the core areas of the city. This housing is often geographically distant from employment; for example, those job opportunities located in the Duluth Heights neighborhood at the top of the hill. Producing a variety of new housing developments in Duluth Heights and other key neighborhoods would increase options for low- and moderate-income families and individuals. Throughout the Imagine Duluth 2035 process, residents frequently expressed their desire for "live/work" communities, or places which would allow them to live within walking distance of neighborhood business districts, near job centers, and in close proximity to transit lines. The neighborhood centers that could provide these desired amenities are indicated in the Transformative Opportunities chapter. Deliberately concentrating new housing in these areas would both provide housing options in proximity to amenity centers and, more generally, add to the variety of housing options across Duluth.

Increasing housing is not synonymous with encouraging sprawl. One of Imagine Duluth 2035's main goals is to better use existing underutilized infrastructure by strategically increasing density. Infrastructure is currently under capacity in all of the new investment areas designated on the map. New housing development in these areas would simultaneously serve to increase Duluth's resiliency and to assist in funding long-term infrastructure maintenance by improving efficiency.

The City can also proactively act to avoid sprawl by creating a base catalogue of available lots for infill or new development and allowing the establishment of additional sites only as existing lots are used. Intentional development phasing can promote density and strategic land use. Working together with partners such as St. Louis County and adjacent cities and townships to create an urban growth boundary, as further explained in the Transformative Opportunities chapter, would provide cohesive and straightforward direction for future development

Strategies to promote housing development in the new investment areas include:

- Use City resources such as tax increment financing and tax abatement in ways consistent with City policies for housing subsidies, to assist only those housing developments that align with Imagine Duluth 2035 principles and regulations and that contribute to the creation of affordable units.

- Promote inclusive neighborhoods with diverse populations by providing additional affordable housing options across Duluth.
- Implement policies for new housing development that limit the extension of City utilities and infrastructure.
- Prioritize new supportive housing options in areas that will provide easy, efficient access to healthcare, social services, other goods and services, public transportation, and employment opportunities.

The community land trust model for new home ownership by low- and moderate-income individuals is a priority for the City. New or rehabbed CLT homes can be constructed or rehabbed citywide, as they meet the goals for priority neighborhoods and also for those areas which lack adequate homeownership opportunity for all income levels.

Core Investment Areas

Core Investment Areas (CIAs), explained further in the Transformative Opportunities chapter, are predominately geared toward the development of neighborhood nodes. Improvements in the CIAs would include updates to the built environment such as new trail connections or improved public streetscape amenities. Evaluation of the appropriateness of new housing opportunities would also take place, with consideration of whether investment in senior housing, a greater mix of affordable housing in certain locations, or new higher density housing to support retail areas would best fit each individual area.

In those CIAs where demographic conditions mean that existing housing and new construction at a market rate results in a limited supply of affordable units within a concentrated area, construction of new affordable housing will be a high priority.

Small Area Plans

Previous research developed into plans such as the Riverside, Lincoln Park, Park Point, or Gary/New Duluth Small Area Plans, to name a few, provides additional focus for housing development in specific neighborhoods. These plans have influenced the formulation of Imagine Duluth 2035's policies and strategies and will continue to serve as references during implementation.

Funding & Resource Needs

Construction costs and resource availability repeatedly surfaced as dominant themes throughout the Imagine Duluth 2035 process. These concerns further break down into the following categories:

- Additional public resources to support housing development
- Operational support for supportive housing
- Construction costs for multi-family new construction
- Construction costs for single-family new construction

The City has collaborated with the Duluth Area Association of REALTORS to evaluate factors leading to high costs of single-family construction. This collaboration has provided an opportunity to analyze how housing construction costs in Duluth compare to those found in other cities across the Upper Midwest; the results of the study will serve to inform Imagine Duluth 2035 implementation.

Stakeholder input via the Housing Action Framework and its definition of new investment and reinvestment areas sets forth priorities for where limited resources should be allocated.

The table on the right outlines local government support for housing investment and reinvestment. The City receives funding on an annual basis from The US Department of Housing and Urban Development (HUD). These funds are provided based on Duluth's status as an Entitlement Community – as defined by HUD – and are intended to help support decent housing, suitable living environments, and economic opportunities for low- and moderate-income individuals. Annual funding sources include Community Development Block Grants (CDBG), the Emergency Solutions Grants Program (ESG), and the HOME Investment Partnerships Program. Each year, the City's Community Development Committee develops priorities, reviews applications, and makes recommendations for the disbursement of these funds.

Year	Community Development Funding CDBG/HOME	Housing & Redevelopment Authority (HRA) General Fund Levy
2017	$1,450,099	$1,008,855
2016	$1,485,679	$974,879
2015	$1,147,806	$933,342

Other federal resources designated for housing include U.S. Environmental Protection Agency grants supporting site redevelopment and Department of Housing and Urban Development programs targeted for redevelopment. Occasionally, resources such as Historic or New Market tax credit programs are applicable to certain redevelopment or

development contexts. Exploration of HUD's Section 108 Loan Guarantee Program, which can be used to leverage other resources, may also at times be appropriate to encourage development of new affordable housing.

State and federal resources include the low-income housing tax credit process, often paired with other programs administered by the Minnesota Housing Finance Agency (MHFA).

Local assistance for development can include tax increment financing (TIF), tax abatement financing (TAF), and contributions from private foundations and nonprofits. Partners such as the local chapter of the Local Initiatives Support Corporation have been influential both for identifying resources and building capacity in local nonprofit organizations.

Duluth's Housing and Redevelopment Authority (HRA) receives local funding through a general tax levy. These funds are allocated as follows:

- 25% to support the HRA's federal programs, such as Section 8 housing and Public Housing;
- 25% to provide public benefits, such as police support in HRA buildings and the operation of community facilities such as the Rainbow Center;
- 50% to support development and redevelopment services to the community.

Aside from the HRA's levy authority and the City's contributions through its CDBG and HOME Investment Partnership programs, resources dedicated to the construction of new housing are generally allocated on a site-by-site basis and rely on tax abatement or tax-increment financing.





Supportive housing needs additional long-term funding sources. Currently, the resources used to provide assistance such as counseling services related to mental health, housing, and employment come primarily from non-local sources. Additional supportive housing units are needed in Duluth, both for transitional situations and for individuals in need of permanent supportive housing. State and federal resources that can be applied, however, have either stagnated or declined over the past several years.

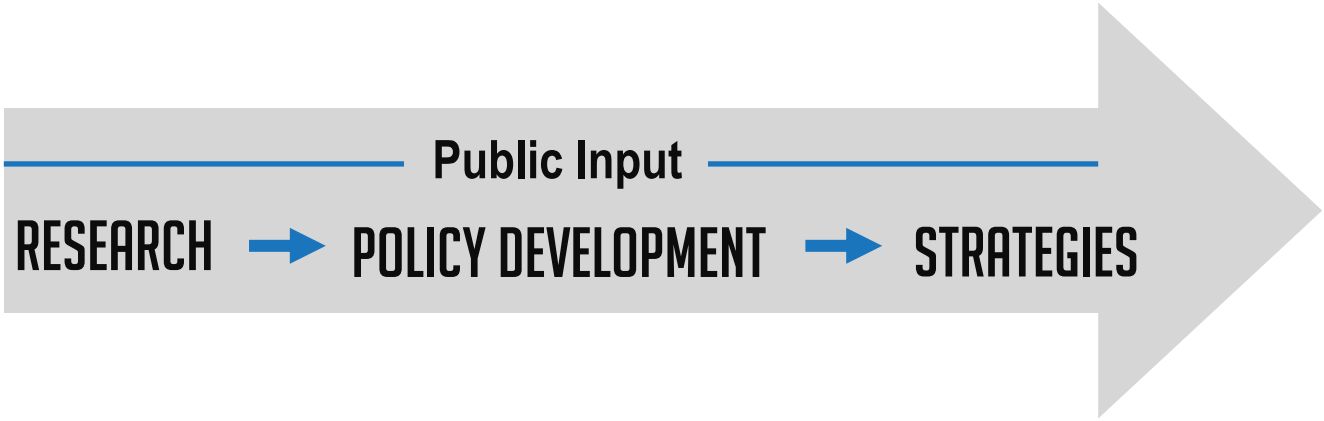
Preservation and new construction of multi-family housing, whether affordable or market rate, has also been faced with flat or declining resources. Over the past decade, gap financing from local support has provided important contributions to new market rate developments in Duluth. New market rate multi-family construction has proceeded through partnerships with local and national financial institutions. The innovations of local developers, including collaborations across a wide range of local financial groups, have been important in allowing new development to proceed. In the case of affordable multi-family development, local and regional markets have relied extensively on the Low-Income Housing Tax Credit program administered by the MHFA. Gap financing has been provided through the use of TAF and TIF.

In addition to the development of additional financial sources, cost reduction measures are also critical. Site costs are frequently elevated in Duluth due to heavy clay soils and exposed bedrock throughout the city. Innovative design may reduce a portion of site costs and be encouraged through City policy, while growth in the number of contractors in the region would allow for the overall development rate to increase.

Further permanent financing sources have yet to be identified, but are vital for future housing development. The evaluation and development of potential sources will take place as the implementation of Imagine Duluth 2035 proceeds.

Policies & Strategies

The research and input throughout Imagine Duluth 2035 led to development of five broad policies that also reflect the Governing Principles. Each policy was then further expanded into specific strategies to be carried forward to implementation.



Policy #1 – Increase density in and around the designated Core Investment Areas

S1. Promote infill development with a mix of densities appropriate to the context of the surrounding neighborhood.

S2. Encourage and incentivize live/work opportunities.

S3. Explore opportunities to increase amenities to create livable and walkable neighborhoods.

S4. Focus on creative housing options of a non-traditional neighborhood design, such as homeownership through dense attached or detached single-family housing development fronting a pedestrianized street.

S5. Create walk-to-work incentives for employers to support housing near employment centers.

Policy #2 – Provide affordable, attainable housing opportunities

S1. Establish new parameters and a framework for communication and collaboration for financing new rental housing and additional homeownership in the community.

S2. Align funding, resources, and zoning to implement reinvestment area goals.

S3. Develop a cost-effective strategy for housing replacement and reinvestment that includes a variety of housing types and encourages homeownership.

S4. Catalog available lots and develop a schedule for development phasing. Bring new development sites online only after existing lots are developed.

S5. Foster opportunities for creative housing types and concepts, including tiny houses, townhomes, housing for individuals in Duluth on a temporary basis, and passive energy homes.

S6. Continue to adjust applicable UDC criteria for housing development to encourage innovation and to simplify and accelerate the development process.

Policy #3 – Prioritize inclusive housing policies to reflect the city's social, cultural, economic, and historic diversity and development patterns

S1. Plan for a mix of housing types in all neighborhoods, available to a variety of income levels, including a prioritization for housing with ADA accessible design.

S2. Actively enforce anti-discrimination laws and act to promote fair housing practices in coordination with the Human Rights Officer.

S3. Promote housing and neighborhood design that encourages safety, supports interaction between neighbors, fosters a sense of community, and reduces social isolation.

S4. Prioritize opportunities for permanent affordability, including affordable ownership programs, in neighborhoods throughout the city.

Policy #4 – Improve the quality of the city's housing stock and neighborhoods

S1. Reduce slum and blight conditions by promptly addressing vacant structures, strategically razing blighted buildings, and promoting the use of high quality materials in new construction.

S2. Promote curb appeal of neighborhoods, with consideration of elements such as lighting, trees and boulevards, streets and sidewalks, and well-maintained structures

S3. Seek new sources of funding to increase resources dedicated to construction of new housing and renovation of existing housing throughout the city.

S4. Continue to expand enforcement of the adopted housing and property maintenance codes, with a focus on rental housing. Evaluate measures to expand penalties for non-compliant properties.

S5. Encourage healthy and safe housing that provides high indoor air quality, noise protection, and that is free of hazardous materials and conditions.

S6. Consider programs to support contractors, including contractor capacity-building programs to encourage business growth that will be supportive of new housing options.

Policy #5 – Expand the cohesiveness of "One Duluth" by expanding a variety of housing opportunities throughout the city while maintaining unique community characteristics within distinct individual neighborhoods

S1. Proceed with implementation of neighborhood plans and other neighborhood initiatives previously adopted.

S2. Continue collaboration between neighborhoods and the Duluth Police Department using the community policing model to enhance safety within the community.

S3. Support platforms, whether physical or electronic, public or private, institutional or informal, that encourage neighborhood events, activities, and communication.

S4. Expand opportunities for temporary and permanent installations of art of all types in neighborhoods.

S5. Expand partnerships with St. Louis County to evaluate and develop tax forfeit parcels in appropriate locations for housing.



Open Space



Open Space Mission

Duluth will strive for a sustainable open space system that enriches the lives of all Duluthians. These open spaces will reflect the community's ecological, historical, cultural, and recreational values, and will contribute to its resilience to natural disasters.

Trees
Water
Recreation

GOVERNING PRINCIPLES FOR OPEN SPACE

1 Reuse previously developed lands

2 Declare the necessity and secure the future of undeveloped places

6 Reinforce the place-specific

10 Take sustainable actions

13 Develop a healthy community

14 Integrate fairness into the fabric of the community

Introduction

Open spaces are more than undeveloped land. They provide places for people and wildlife to breathe, literally and figuratively. They are part of the character of the city, including the green hillside of western Duluth, wetland areas of Duluth Heights and Piedmont Heights, sheltered bays of the Saint Louis River, the ribbons of Skyline Parkway and the creek corridors that weave open space areas together. They are formal parks such as Bayfront, Lester, Enger, and Chambers Grove, the plazas of Downtown, the Lakewalk, and the neighborhood parks found throughout the city. Some of these open space areas were deliberately created, while others are the "left behind" areas of yesteryear.

It was William K. Rogers in 1889, the first president of Duluth's Board of Park Commissioners, who conceived the idea of linking the many stream corridors flowing through Duluth to a parkway spanning the city's bluff. Mayor Samuel F. Snively built upon Rogers' work and extended the boulevard and park system in the 1920s and 1930s, spanning from Kitchi Gammi Park to Fond du Lac Park. Millions of dollars were spent on facilities in Duluth's parks as part of the Works Progress Administration (WPA) programs to alleviate poverty after the Great Depression.

The Great Depression also brought waves of tax forfeited lands into government ownership. The Minnesota Legislature allows cities to request that lands needed for parks and other public purposes be transferred to the City; Duluth has obtained many park and trail areas through this program.

Throughout its history, Duluth has struggled to afford its vast holdings of park and open space land. In 1943, the park superintendent estimated the valuation of the park system at $6.7 million, but only had a $90,000 budget to maintain it. Today, Duluth's parks and open space system is still struggling, though less so since the establishment of a $2.6 million parks levy by City Council in 2011. Recently, funding has been dedicated to

parks construction from the "half and half" tax and the many grants obtained to fund park construction in the Saint Louis River corridor.

Where will Duluth's parks and open space go in the future? Imagine Duluth 2035 open space policies are based on the principles of providing for the current needs of the community while preserving the ability of future generations to meet their needs for jobs, housing, food, health, safety, recreation, and inspiration. Land is a limited resource that should be preserved in its natural state until needed for efficient public or private development. Some land should be permanently preserved to meet community goals.

Open space areas play an important role in the city's resilience to natural disasters. These areas are the sponge that absorbs rain water above the bluff and retains it in wetland areas until it can be slowly released through Duluth's 42 streams. Without these open spaces, the more populated areas through which the streams flow on their way to the Saint Louis River and Lake Superior would be in danger of flooding and erosion. Unfortunately, many acres of this water-storing open space have been altered and flooding is a significant issue; noteworthy floods occurred in 1972 and 2012. This plan recommends additional means to improve Duluth's resilience to flooding through preservation of wetland areas.

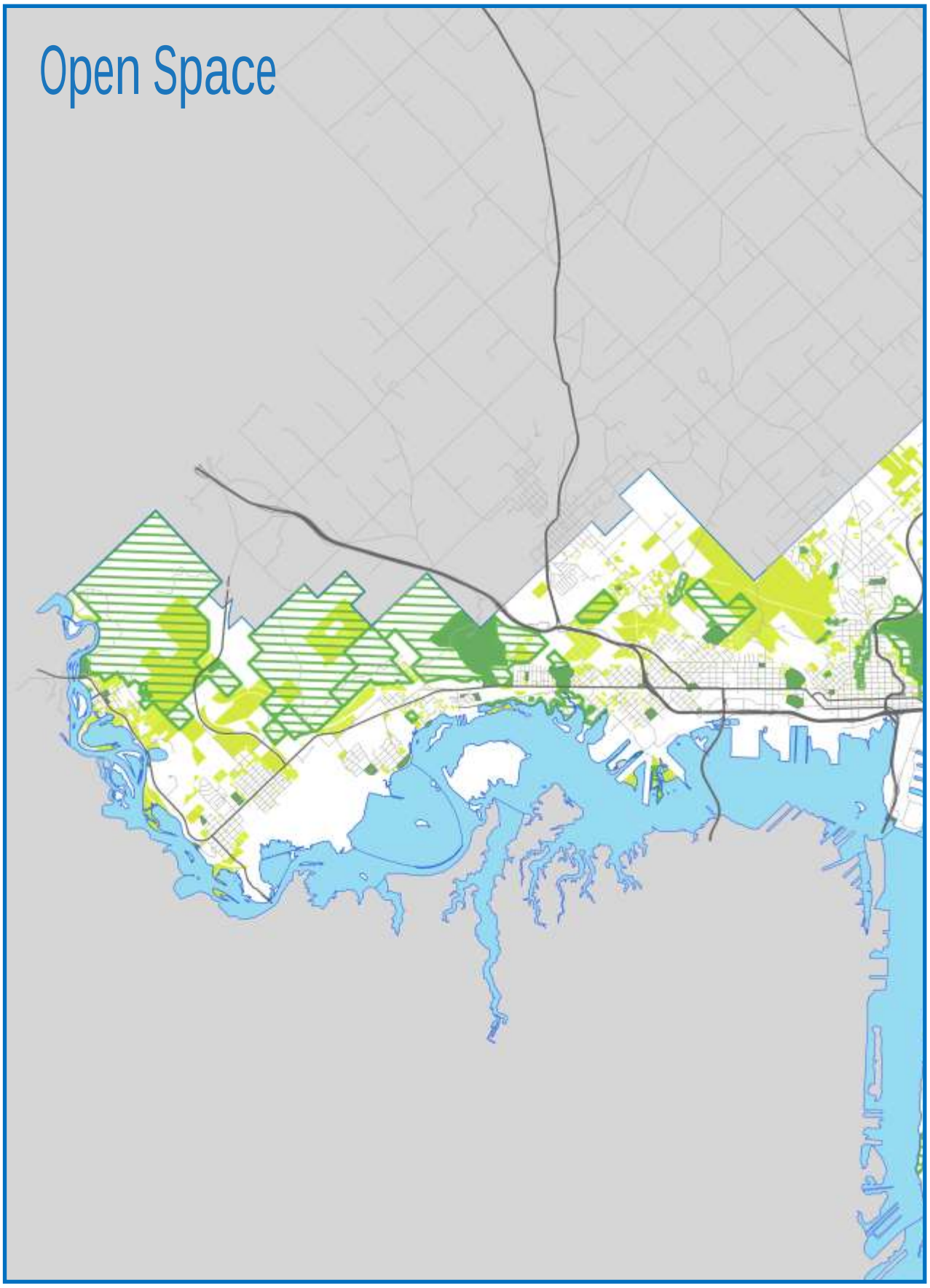
Duluth's parks and open spaces exist for the benefit of all its people, and access should be open to all. While physical barriers (including busy roads, topography, and water bodies) are the most evident, other barriers can be financial (such as lacking resources to purchase equipment or pay fees for programs) or cultural (where a resident doesn't see themselves or their values reflected in the facilities or activities programmed within the parks).

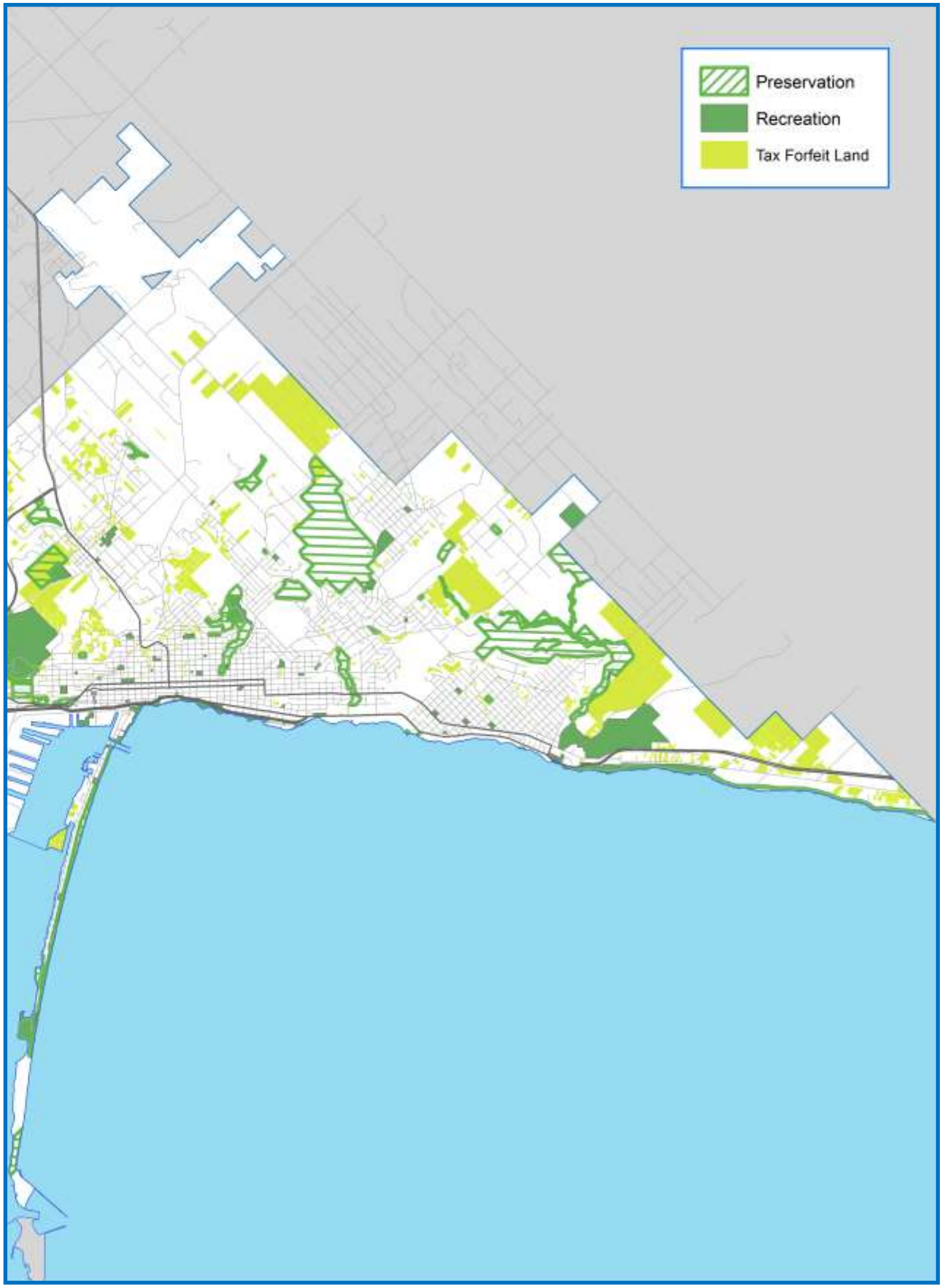


When surveyed about **"best community assets in Duluth," the top four** answers were related to open space:

1. Proximity to Lake Superior
2. Natural scenery/great views
3. Parks and open space
4. Trails

Open Space




Preservation
Recreation
Tax Forfeit Land

Where We Play

the Lake

Parks

Duluth has substantial undeveloped lands within its boundaries. Some of this undeveloped land — 47% of the city — is tax exempt: publicly owned (parks, schools, trails, etc.), non-profit (churches and non-governmental organizations), or tax forfeit (state owned due failure to pay property taxes). Some of Duluth's tax forfeit land contains public trails (biking, skiing, hiking, etc.), and the community uses these resources quite extensively. To protect this investment, ownership of these resources needs to be fully delineated.





As manager of tax forfeit lands, St. Louis County is mandated by the state to maximize their value through sale or timber harvesting. This creates a continuous challenge, intensified by the existence of vast areas outside of Duluth within St. Louis County that are in public ownership. These paired issues limit tax base growth, creating a unique political situation. Financially sustainable communities generally have much less tax exempt land area in order to balance out growth and good planning. A key factor to preserving the taxable resources will be clearly defining the ownership that is necessary to meet ongoing investment and ownership needs, while still incentivizing reinvestment of tax base growth.

Trails

Being "land rich" and challenged on a tax base side means the city has a high number of parks and open space for enjoyment by its residents. It also means the city is challenged for resources to complete ongoing maintenance or improvements that would enhance user experiences. In recent years, the City has developed collaborative partnerships with non-governmental organizations to meet recreation use needs and to create places for people to enjoy a healthy lifestyle.

Many residents relocate to Duluth for recreational and open space opportunities. Capitalizing upon this desire from an access and user experience is key for continued success in the future. Defining future use of resources will be a focus point in protecting critical sensitive areas.

Resilience

Adaptable

In 2012, Duluth experienced a flood that profoundly changed the landscapes of a number of neighborhoods. Homes and businesses near streams were impacted by rapid water release downstream to Lake Superior. A key takeaway from that event was to focus on resiliency in many forms, including right-sizing infrastructure to accommodate increased flooding events, removing homes near streams to reduce future damage costs, and other methods to promote stormwater retention. Development pressures in and near the Duluth International Airport and Miller Hill Mall area, as well as other areas on top of the hill, continue to drive questions regarding how development should be reviewed. A key outcome of the 2006 Comprehensive Land Use Plan was development of a Sensitive Lands Overlay that provided some geographic guidance for preservation. However, the guidance did not establish adequate development standards to ensure permanent preservation in all necessary locations. Focusing on these landscapes is important and challenging.

Duluth's location in the center of North America and its setting on a slope along Lake Superior has advantages and disadvantages. The city is far from oceans and their associated hurricane, tidal, and sea-level rise risks. It is located in a seismically inactive region free from earthquakes, and being in a northern latitude generally spares the city from extended extreme heat events. However, being sited on a steeply sloping bluff with shallow, poor soils presents risks to the community from flash flooding. Additionally, the vast forests in the region present a risk of wildfire. These trees can also disrupt the provision of electricity following windstorms or ice storms.



Duluth's open space policies have a large effect on the community's ability to endure natural hazards. According to the St. Louis County Hazard Mitigation Plan (2013),Duluth is rated at a moderate risk of wildfire, winter storms, summer storms, and flooding. These hazards are summarized below.

Wildfire

Fire is ranked as one of the greatest hazard threats in St. Louis County, an especially high concern in the Wildland– Urban Interface (WUI) where insect outbreaks and aging forest conditions contribute to heavy fuel load. Duluth's vast open spaces make it prone to wildfire, like the Cloquet-Duluth fire of 1918 that destroyed much of Cloquet and part of Duluth's Woodland neighborhood.

Access roads in wooded areas are critical for emergency response vehicles. To help reduce risks, the national Fire Wise Program educates residents about wildfire risk areas and how to make their structures safer from wildfire. Funding is available for local fire departments and other governmental units to inspect properties and advise residents. The program provides landscape design tips which include measures that can be taken in different "zones" around a structure to provide more protection from spreading fires.

Seasonal Storms

In winter storms, heavy accumulations of ice can knock down trees, electrical wires, telephone poles and lines, and communication towers. Communications and power can be disrupted for days while utility companies work to repair damage. Duluth can reduce risks from winter storms by maintaining access corridors for utilities and locating utilities underground, where feasible.

Windstorms occur in all months of the year; however, the most severe windstorms usually occur in severe thunderstorms during warm months. The most common type of windstorm to affect St. Louis County are straight-line winds and downbursts associated with strong thunderstorms. Most of the Arrowhead Region , including St. Louis County, is located in Wind Zone II: a high wind speed area. Buildings in Wind Zone II should be constructed to withstand wind speeds of up to 160 M.P.H.



Windstorm damage in Hartley Park in 2016
Source: Duluth News Tribune

Flooding

Heavy rainfall is not an uncommon event throughout St. Louis County and can be hazardous due to local geography, shallow soils, and related weather effects. According to the Minnesota Pollution Control Agency, climate change increases likelihood of frequent incidents of this kind. The City can reduce the damage potential and risks to lives by limiting construction in flood-prone areas, protecting the flood storage capacity of wetlands and stream corridors above the bluff, and implementing appropriate water detention systems, including green infrastructure, where appropriate.

According to a National Oceanic and Atmospheric Administration (NOAA) study conducted after Duluth's 2012 flood, traditional "gray" infrastructure includes culverts, catch basins, and storm water pipes that discharge to streams without reducing the volume of runoff. In contrast, "green infrastructure can be broadly defined to include a variety of methods to manage water resources while providing benefits such as improved water quality" (Economic Assessment of Green Infrastructure Strategies for Climate Change Adaptation: Pilot Studies in the Great Lakes Region, May 2014, National Oceanic and Atmospheric Administration). The NOAA study went on to state that "green infrastructure includes engineered systems (e.g., bioswales, green roofs, or permeable pavement) as well as preservation or enhancement of existing natural flood storage provided by wetlands, floodplains, and open space." As this pertains to open space in Duluth, the study further states that "green infrastructure provides economic co -benefits, including aesthetics and a range of ecosystem benefits beyond





2012 Flood
Source: MPR News

flood protection such as water quality and wildlife habitat." Another co-benefit of green infrastructure is its value for regular and accessible human nature experience.

In addition to the green infrastructure tools listed in the table on page OS-11 the NOAA study suggested land use policy options that can have a positive impact on storm water detention, flood control, and open space, including "updating stormwater ordinances, using land-use tools such as zoning and Transfer of Development Rights (TDR) to shift development away from flood-prone areas to areas more suitable for development, and land preservation and restoration."

The NOAA study's purpose was to assess the economic benefits of green infrastructure as a method of reducing the negative effects of flooding. The Chester Creek watershed was used as a test case in this study, along with a watershed in Toledo, Ohio. The study found that "if green infrastructure was implemented to reduce the peak discharge in Chester Creek by 20 percent (which corresponds to 76 acre-feet of flood storage under current conditions and 86 acre-feet of storage under future conditions), . . . economic losses from flooding associated with a 100-year storm would decrease by 27 percent under current precipitation conditions and 16 percent under future precipitation conditions." Translated into dollars, the study found that "over a 20-year planning horizon, damage reductions (and hence economic benefits) equate to a total present value of approximately $1.63 million, or roughly $89,000 annually with green infrastructure implementation." This comes primarily from reduced damage to private property valued at an estimated $50,300 annually. However, there is also significant value (estimated at $21,000 annually) in not needing to restore damage to land near the stream, and reduced storm sewer maintenance and replacement costs, all which are directly borne by the City of Duluth. Additionally, there is benefit to the public in each

Type of Green Infrastructure	Benefits
Permeable/Porous Pavement	
Permeable pavers, porous asphalt, pervious concrete, porous concrete	Reduce runoff quantity during storm events. Can potentially reduce the need for road salt use. Improve water quality from underground media filtration.
Rainwater Harvesting/Storage	
Rain barrels, cisterns, underground tanks, added flow-control valves	Require minimal space and thus suited for urban residential, commercial, and/or industrial areas. Reduce water demand. Reduce runoff volume to conventional stormwater facilities, especially with flow-control valves.
Roof Systems	
Blue roofs, extensive green roofs, intensive green roofs	Green and blue rooftops reduce stormwater peak flow and runoff volume. Green roofs provide additional pollutant removal through uptake and filtering. Both can be used on many types of buildings. Green roofs can be designed for public access.
Infiltration Systems	
Infiltration trenches/basins, grass strips, biofilters/ sand filters	Improve stormwater quality. Provide temporary storage and help to reduce flooding during small storms. Promote infiltration and groundwater recharge.
Bioretention Systems	
Bioretention cells, tree filters, stormwater planters, rain gardens, bioswales, stormwater tree trenches	Maintain water balance and provide groundwater recharge. Promote pollutant uptake through vegetation. Utilize existing green space to serve a functional purpose while keeping aesthetic appeal.
Constructed Wetlands	
Shallow marsh wetlands, extended detention wetlands, and gravel wetlands	Improve water quality through pollutant removal. Reduce peak discharges. Provide flood control for higher magnitude storms. Subsurface gravel wetlands provide year-round stormwater treatment in colder climates.
Wet and Dry Ponds	
Wet ponds are similar to constructed wetlands but often don't include the wetland vegetation and differ in depth. Dry ponds offer temporary storage after storm events and drain almost completely after a specified period of time.	Provide flood control by including additional flood detention storage. Reduce peak discharges.

day Chester Park remains open for use simply because it hasn't been damaged by flooding (estimated to be worth $17,700 annually).

The study also estimated the costs of constructing and maintaining green infrastructure tools that could work in Duluth (see table below). If the least costly option (extended detention wetlands) were selected, the present value of the cost to construct this would be $4.17 million. Summing the benefits of this flood reduction for a 20-year planning horizon only yields $1.63 million, and therefore constructing these wetlands doesn't make economic sense. If the planning horizon is extended to 50 years, the costs remain constant at $4.17 million; however, the benefits grow to $4.68 million, and the project makes sense. The authors of the NOAA study pointed out that not all flood reduction benefits were able to be modeled, including damage to roads and bridges and that the cost to construct some green infrastructure may be offset by federal and/or state grants.

Invasive Species

Duluth's natural landscape has been substantially altered since pre-European settlement. Starting with removal of timber, the mix of native species has changed over the years. Some of the new species have natural limitations to their spread and can fit in with native species. Other species

Green Infrastructure Practice	Capital Costs		Operations and Maintenance Costs	
	Capital Cost per Square Foot of Surface Area[1,2] Installed ($/SF)	Capital Cost per Cubic Foot of Flood Storage[1,2] Provided ($/CF)	Annual O&M Cost per Square Foot of Surface Area Installed ($/SF/year)[1,2]	Annual O&M Cost per Cubic Foot of Flood Storage Provided [1,2] ($/CF/year)
Bioretention/Bioswale	26.0	21.2	0.9	1.3
Blue Roofs	4.0	6.0	0.2	N/A[3]
Permeable Pavement (Sidewalk)	7.6	16.8	0.02	N/A
Underground Storage[4]	N/A	41.3	N/A	1.3
Stormwater Tree Trench[5]	7500	N/A	N/A	N/A
Retention Pond	1.0	2.9	0.1	0.0
Extended Detention Wetland	2.6	1.3	0.03	N/A

Table Notes: All costs are in 2012 dollars. N/A indicates that costs were not available. The cost per cubic foot of storage is anticipated to be lower. One case study used to find average costs had a significantly higher $/CF values, which greatly increased the overall average. The median cost for underground storage in 2012 dollars was $17.2/CF. Tree trench cost is per unit rather than per SF.

spread more rapidly due to various characteristics that allow the non-native species to thrive more than the natives.

Eventually, the natural landscape is altered by replacement of native species with non-native and invasive species. In recent decades, the spread of invasive species has accelerated; this spread is currently expected to expand even further. Management practices can limit the spread and facilitate removal of invasive species. Collaboration with regional partners can increase the impact of these efforts.


Invasive Species: Japanese Knotweed

Intrinsic Value

Duluth has an asset many other cities would love to have: abundant open space. Many cities spend millions of dollars to buy land for parks and open space. Duluth benefits from thousands of acres including City land, tax forfeit land, and privately-owned, undeveloped land with wetlands, stream corridors, large forest tracts, and other important ecological features. While this land may be undeveloped now, some of it may not be permanently protected from development or environmental degradation.

On the other hand, some undeveloped land is located near infrastructure that could be used to meet the community's housing, economic development, and transportation needs. It will take a balanced approach of weighing the current and future needs of Duluth to prioritize if land should be marked for preservation or future development.

The community should consider the role open space plays in defining Duluth's urban form. This form includes a green belt along the bluff with green corridors flanking many of the streams flowing to the St. Louis River and Lake Superior.

Duluth is known as a scenic city with views from the hillside to the harbor and lake, views from the waterfront to the hillside, and views of important structures like the Lift Bridge, Civic Center, and Old Central High School, to name a few. The community should identify these important views and cultural sites and take steps to preserve the views to them.

In 2011, a Mayor's Task Force on Reuse and Protection of Public Lands addressed the idea that the city's extensive catalogue of publicly owned land should be reviewed for preservation and reuse. This resulted in creation of the following implementation steps for addressing public lands:

Amenities Potential



1. Create a holistic vision for a citywide network of “greenspace”
2. Institutionalize a formal program to implement and market this vision
3. Simultaneously develop a proactive plan for the strategic reuse of public land
4. Implement a process using publicly-vetted criteria for shaping this vision
5. Revise the City’s procedure for selling lands to increase public awareness

A formalized review structure has not yet been established. The report did create a framework for deriving public benefit from public lands, as well as determining the potential value from the sale of public land. All different forms of value should be considered when determining the future of open space, including ecological, recreational, and cultural. The same methodology used in this previous effort should be carried forward to evaluate future needs for open space. Public benefits derived from open space include:

- Important natural habitats
- Water resources, including stormwater management, water purification, and aquatic habitat
- Outdoor recreation
- Scenic and cultural benefits

Similarly, there are public benefits from the strategic sale/transfer of those public lands deemed not essential:

- Contribute to short-term financial resources of the City
- Contribute to longer-term resources by adding additional land to the property tax rolls
- Add development in important growth areas for the city

- Eliminate confusion over the ownership and management of certain public lands
- Use as a funding mechanism for additional acquisition, protection, or management of existing assets

When establishing a review structure for the potential reuse (or sale) of land, consideration should also be made of the historical and cultural significance of the land. Existing commissions, committees, and community groups should be consulted to understand the key cultural areas in Duluth. An important existing resource is *An Ethnographic Study of Indigenous Contributions to the City of Duluth* (2015), which identifies many important areas of indigenous significance to Duluth.

Barriers

Equally important as the amount of open space is the accessibility of these amenities for all people. While physical barriers, including busy roads, topography, and water bodies, are often the most evident, there are several other types of barriers to consider, including social, economic, and cultural barriers.

The National Recreation and Park Association identifies the following factors as limiting walkability to parks: proximity, lack of infrastructure, and crime and traffic safety. For example, the Munger Trail is separated from the Morgan Park neighborhood by dozens of feet of elevation change and busy Highway 23. Cascade Park, one of Duluth's oldest parks in the heart of the Central Hillside, is cut off from neighborhoods to the north and west by Mesaba Avenue, a four-lane trunk highway that carries 17,300 vehicles daily. The Lakewalk from 26th Avenue East to Downtown is a well-maintained trail along the scenic lakeshore connecting many neighborhoods, but there are access issues that include steep grades, perception of crime at access points, parking problems, and limited access to restrooms.

Duluth is known for its connected network of mountain biking trails and is actively working to connect more neighborhoods to this city-wide trail network. Once a trail is located near a neighborhood, there is still much work to be done to connect to the people in that neighborhood; this might include wayfinding to trailheads, access to equipment that can be expensive, providing mountain bike safety information, and increasing education on trail use.

Accessibility
Fairness

The Parks and Recreation Master Plan (2010) addressed access to parks in Duluth which relates to the need for access to all open space in Duluth:

The large range in the quality and condition of parks across the system equates to inequitable access to premier facilities. In general, the higher quality signature parks (Chester Bowl, Hartley, Lester/Amity, Kitchi Gammi and Lakewalk, etc.) are located east of downtown. The western portion of Duluth has large areas of natural parkland (Fond du Lac, Magney-Snively and parts of Spirit Mountain Recreation Area), but lacks convenient access to signature community parks. Chambers Grove and Lincoln Park are the two quality community parks in the west part of the city.

There is also a lack of access to quality parks and recreation facilities in the central part of the city. This is a particular concern due to the lower mobility of some residents in this area. Areas of lower mobility have higher concentrations of seniors, youth under 16, and households without cars. Not all people can drive to parks or recreation facilities located across town.

There is a need for more access to gymnasiums for recreation. New and remodeled Duluth schools can help fill the indoor recreation gap by providing additional public access to schools and school gyms. Middle schools and elementary schools offer the best opportunities for community use. Community use of schools is a fundamental element of the school district's Long Range Facility Plan. The City and school district should continue to work together to assure the best community use of schools and parks.

There is a large need for handicapped accessibility (ADA) improvements within the parks and at recreation center buildings. Prioritize accessibility improvements and seek MnDNR grants for accessibility improvements to outdoor recreation facilities such as docks, trails and play areas. Use universal design principles in renovations and new construction.

Program Delivery

Duluth has received national recognition for being a city with tremendous outdoor and recreational opportunities. However, Duluth's park system is vast (128 parks with a total of 6,834 acres) and requires tremendous resources to maintain. Recent years have seen a dramatic increase in the provision of trails (now totaling 178 miles) for various user groups while existing recreation facilities continue to show their age and recreation services desired by many are left unfulfilled.

Duluth's 2010 Parks and Recreation Master Plan focused on three areas:





Cascade Park was originally very accessible and visible along Mesaba Avenue, but development of that roadway into a multi-lane highway removed both the access and visibility of this city park.

- park maintenance and stewardship
- trail and bikeway connections
- recreation facilities and programs

The master plan considered recreational, demographic, environmental, and economic trends at the time of writing. Some recreational trends still hold true eight years later, such as Duluthians being a mobile, health-conscious, dog-centric community that enjoys non-traditional sports. However, new forms of recreation that need to be considered have also evolved, such as E-bikes (motorized bicycles). Additionally, community members have recently been interested in the historic nature of park facilities, which is an issue not considered in the 2010 Parks Master Plan. An updated parks master plan could address which historic elements to prioritize.

Demographic trends: Trends of smaller and more diverse households appear to be continuing. The largest age cohort (people age 40-60) has moved further down the demographic curve and is now the largest is age 50-70. The Parks Master Plan was based on a 2003 demographic analysis and a more extensive review of current demographic data may identify additional trends, for example that millennials who came to Duluth for higher education may find reasons to stay after graduating. Additionally, the accessibility of parks to people of all means needs to be incorporated into the master plan, and parks that should be prioritized for accessibility should be identified.

Environmental trends: Trends in our parks, such as people seeking four-season recreation and an increased interest in nature, are continuing, but staff have noted the disconnect between the recreation that people want (ice skating, cross-country skiing, etc.) and what the current climate will allow. Additionally, with more frequent and severe summer storms, the city's parks are more at risk to damage by flowing water. The 2012 flood caused $4.56 million in damage to parks and park facilities and the community has spent $6.6 million on stream restoration. The 2016 windstorm caused $1.5 million in damage to parks, including more than 1,400 trees that had to be cleared from trails in Hartley Park. Such environmental trends point to the need to improve the resiliency of Duluth's parks in light of the changing climate.



"Recreation is dynamic and evolves rapidly. *A high performing recreation system regularly assesses community needs, measures satisfaction and responds to meet those needs. Inherently this means flexible and adaptive facilities and programs.* ***Recreation ten, even five years from now, will be different from today.***

(Duluth Parks and Recreation Master Plan – 2010)

Economic trends: Trends pointed out in the 2010 Parks Master Plan have continued, including people seeking quality experiences outdoors and the health challenges linked to sedentary lifestyles. Tourism has grown dramatically over the years from 1.3 million visitors to Duluth in 1991, doubling by 2000, and increasing to 6.7 million in 2015.

Fiscal trends: The fiscal picture for Duluth's parks has changed dramatically since 2010. In 2010, the City established the Parks Fund with $2.6 million dedicated annually to parks and recreation, and the St. Louis River Corridor Initiative, which has been investing up to $18 million in parks and trail capital projects through the "half and half" tourism tax approved by the Minnesota Legislature in 2014. The City's 2017 budget includes $2.9 million in parks capital spending, which will leverage another $2.6 million in state and federal grants.

Parks facilities trends: The 2010 Parks Master Plan laid out a system of recreation center hubs, primary and secondary recreation centers to prioritize resources spent on facilities. Several recent changes to the community are not consistent with the plan. Examples include the sale of Morgan Park Middle School and its upcoming redevelopment as housing, the Central Hillside Community Recreation Center no longer serving as a facility with City offices, and significant investments made in the Gary-New Duluth Community Recreation Center allowed it to remain open rather than being closed as the master plan suggested. These developments have changed the park system to the point where there may need to be a shift in focus for where resources should be allocated. An asset management plan is needed to understand the complete maintenance (including energy efficiency) and replacement costs for park facilities.

Integration of mini-master plans: Parks staff have completed more than 20 mini-master plans for parks since 2010. The plans have varying levels of support for and deviation from the 2010 Parks

Year	Parks and Recreation Division Budget	Parks Capital Improvements Budget
2010	$765,000	$342,000
2017	$2,700,000	$5,500,000

Master Plan. Additionally, the 2012 trails and bikeways plan was partially updated in 2017 for the west half of the city and an update of the east side is needed. It would be prudent to revisit the overall vision to assure the plans can form a cohesive parks system.

As mentioned above, the financial picture for Duluth's parks has improved since completion of the 2010 Parks Master Plan. With inflation, however, $2.19 million of parks improvements in 2011 will only buy $1.45 million. This erosion of value needs to be reversed if the community is to receive the full value they intended when voting for parks in 2011.

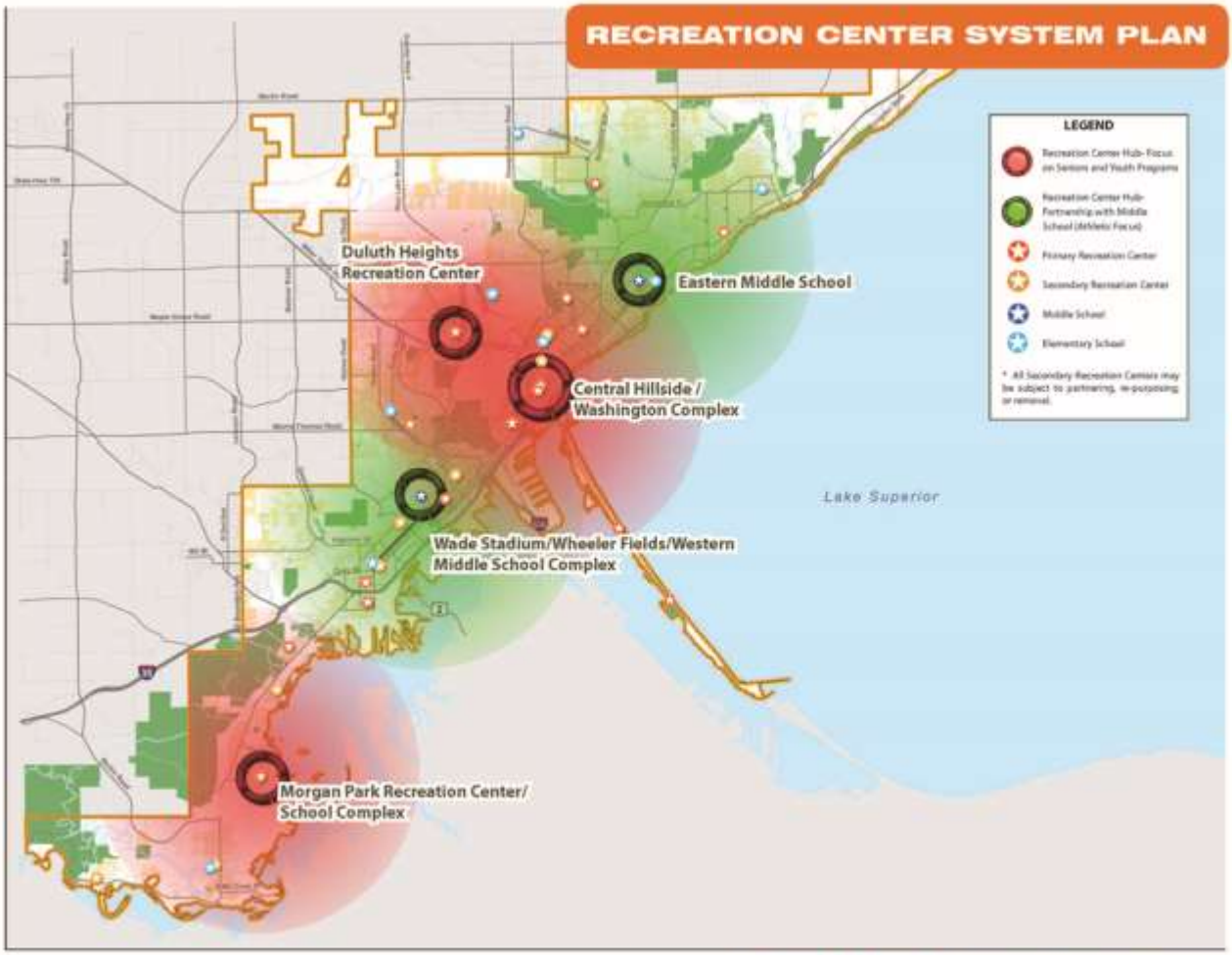
Duluth's parks and open spaces provide benefits to residents and non-residents alike. Surrounding communities have within their borders significant park and recreational resources that could be considered metro-wide assets. Duluth should consider the possibility of forming a regional parks district for larger parks and recreation facilities such as Canal Park, Lester-Amity, Hawk Ridge, Hartley, Enger, Wade-Wheeler, Magney-Snively, Fond du Lac Park, Egerdahl Park in Proctor, and Keene Creek Park in Hermantown.

Minnesota Statute 398 governs the creation and management of regional parks districts. The current statute would not permit creation of a district that includes the city of Duluth because it is a "city of the first class" and because there are not 350,000 people residing in the area proposed for the regional parks district. However, if appropriate, an amendment to the statute could be proposed.

Benefits of such a regional parks district may include coordination of facility planning and recreation service provision over a larger area, creation of a regional trail network, shared maintenance provision, and the ability to spread the cost (through tax levy) of managing these large parks over the area served by the parks. Concerns include loss of municipal authority over large park and open space areas in the community and the need to coordinate with a new level of government.

Preserving and maintaining trees is critical to many City policies, including beautification of neighborhoods and business districts, stormwater management, parks facility management, resident education, invasive species spread prevention, and reduction of tree loss from development projects. Trees are more under threat of disease and stress now than in the past. The City needs to dedicate appropriate resources to plan for and manage trees in street rights of way, parks, and public open space areas.

Year	Parks Fund Level (in 2011 dollars)
2011	$2,600,000
2016	$2,190,000
2025	$1,450,000
2035	$630,000



Some forest resources could be managed for timber value as part of managing a sustainable forest. Forests transition over time and need to be managed to remain healthy. Professional forest management would establish appropriate plans for each forest area in the city, in addition to creating plans and policies for trees in street rights of way and parks. Such plans and policies should address species selection and succession, appropriate regular forestry management policies, and emergency procedures for events such as wildfire, disease/insect infestation, and windstorms.

Health

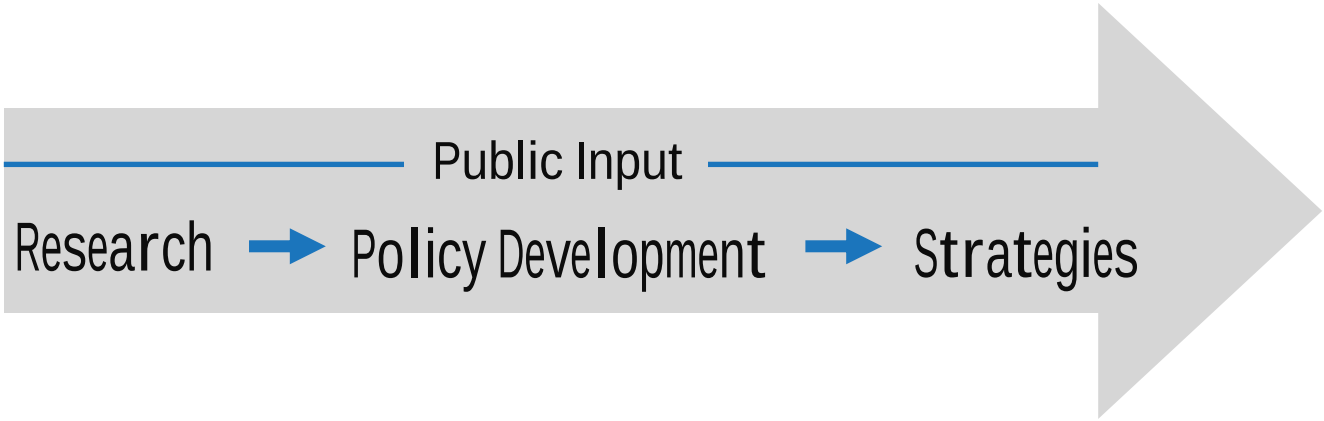
Fresh food

Growing and distributing food locally strengthens communities in a variety of ways including eliminating food insecurity, providing places for neighbors to meet, positively influencing health, and creating economic opportunities. Not all Duluthians have access to food, particularly quality, affordable food. Over the years, grocery stores have gravitated to larger sites away from some of Duluth's core neighborhoods leaving a "food desert" behind. Producing food locally reduces energy inputs needed to transport food to consumers. Questions arise, such as where do animals fit into urban and rural food production in Duluth? Can downtown plazas be utilized for farmers' markets, community gardens, and edible landscapes? In addition, healthy lifestyles should be enabled through the prioritization of active transportation modes (walking/biking) in the built environment.



Policies & Strategies

The research and input throughout Imagine Duluth 2035 led to development of five broad policies that also reflect the Governing Principles. Each policy was then further expanded into specific strategies to be carried forward to implementation.



Policy #1 – **Improve Duluth's** resiliency to flooding and natural disasters

Duluth, like any community, is susceptible to natural disasters. Developing a resilient community will help keep the city safe during a disaster and assist with rapid recovery.

S1. Continue to support coordinated planning efforts for surface water management across jurisdictions through participation with the multi-jurisdictional Duluth Urban Watersheds Advisory Committee and the Regional Storm Water Protection Team.

S2. Once Federal Emergency Management Agency (FEMA) flood plain maps are updated in 2019 the City should conduct a storm water infrastructure assessment to determine where improvements are needed to reduce flood risks and where additional resources should be sought to purchase flood-prone properties.

S3. Retain in City/State ownership or preserve through conservation easement those tax forfeit lands needed for stormwater

management purposes including important wetlands, flood plains, and stream corridors.

S4. Promote retention of stormwater above the bluff line to reduce flooding risks through land development controls and establishment of watershed-based storm water detention measures.

S5. Assess Duluth's wildfire risks and encourage existing rural residents and businesses to implement National Fire Protection Association (NFPA) Firewise principles to make their properties more resilient to wildfire. *(The following graphic is an example of implementing Firewise principles related to reducing vegetation near structures for protection from wildfire.)*

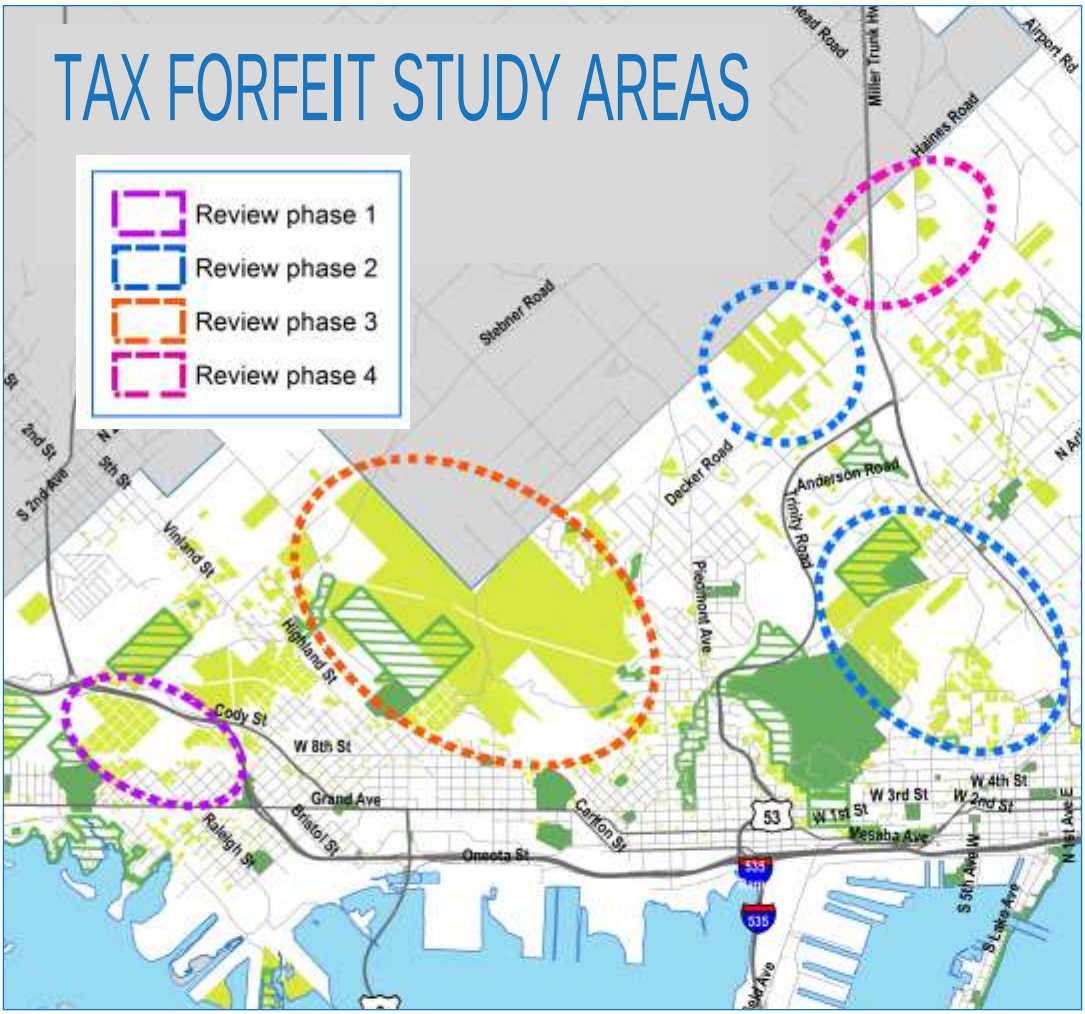


Source: www.dnr.state.mn.us

S6. The City should employ property and right of way management practices that limit the spread of and promote the removal of invasive species.

Policy #2 – Examine the value and **need for all of Duluth's publicly** owned open space

Open space land in Duluth is valuable in many ways. The strategies related to examining the value of land fall into two general categories; lands to preserve and lands to relinquish for other purposes.



S1. Review all government-owned land in the city and prioritize lands according to ecological importance and other public uses (i.e. recreation, transportation, infrastructure) for more permanent protection. Areas to be protected include forested areas, wetlands, stream courses, and bluff areas as well as lands important in forming the green belt as part of Duluth's urban form. *(See map for identified review areas.)*

S2. Identify a means to hold and maintain those ecologically important lands that are not needed for active park purposes and lands that are needed for natural disaster resiliency (i.e. flood plains and wetlands). Options to consider include a private nonprofit entity or a City land classification system.

S3. Encourage the use of the Duluth Natural Areas Program to more permanently protect high-quality self-sustaining ecosystems where resource protection is prioritized over human use of the land, similar to the State's Scientific and Natural Areas Program.

S4. Increase efforts to streamline management of public lands within the City's borders.



S5. Work with tribal leadership, archaeologists, the State Historic Preservation Office and other partners to identify open space sites, districts, and structures of historic and cultural significance and utilize the Duluth Heritage Preservation Commission and Duluth Indigenous Commission to designate these structures and areas as landmarks.

S6. Partner with groups, public and private, with a mission of preservation and restoration of the Saint Louis River and Lake Superior.

S7. Amend the Unified Development Chapter (UDC) to require more permanent protection of ecologically significant lands (including wetlands, important forested areas, streams, etc.) during the development process.

S8. Review studies that have analyzed City-owned and tax forfeit land and prioritize lands according to ecological/recreational/cultural/historic importance and infrastructure availability. Lands not needed for protection should be made available for development after further ecological research, including on-the-ground analysis.

S9. Utilize City authorities such as the Duluth Economic Development Authority (DEDA) and the Housing and Redevelopment Authority (HRA) to package lands for sale or strategic development to implement housing, economic development, and transportation policies in the comprehensive plan.

Policy #3 – Remove barriers to accessing parks and open space

The open space and park amenities in Duluth should be easily and fairly accessible to all residents and visitors.

S1. Implement the City's *Gate, Wayfinding, and Signage Final Design Plan* to better identify parks and the resources within parks and potentially expand its principles to general wayfinding throughout the entire city.

S2. Create a wayfinding system directing residents and visitors to regional, community, and special use parks from within neighborhoods and business districts as well as outside the community. This should include roadway and pedestrian-scale signage, as well as internet resources.

S3. Enhance the physical connections from neighborhoods and business districts to nearby parks, including wayfinding signage, improved pedestrian connections, larger trail systems, and enhanced street crossings.

S4. Provide access to recreation equipment and instruction at community recreation centers. Include activities and playgrounds for all ages (including adults – see Copenhagen trampoline plaza example)

S5. Utilize public/private partnerships (YMCA at Woodland Community Center model) to expand programming in parks.

S6. Work with community partners to develop a parks ambassador program for outreach to people of all neighborhoods, encouraging the use of parks and recreation facilities and programs. Partnerships should promote the safe and appropriate use of parks to ensure new users understand potential dangers, but also help improve recreational experience.

S7. Ensure existing connections to Lake Superior and the Saint Louis River are protected and new connections are established to the waterfront, that avoid user conflicts.

Policy #4 – Improve the delivery of parks and open space services to the community

S1. Update the 2010 Parks & Recreation Master Plan to reflect environmental, economic, demographic, and recreation trends, to incorporate completed parks and trails projects, and shifts in recreation center hub status.

S2. Return Parks funding in the City budget to the level approved by the voters in 2011 ($2.6 million), when adjusted for inflation, and continue the inflation-adjusted funding level in the future while implementing planned facility reductions.

S3. Investigate the costs and benefits of regional coordination for delivery of parks and open space services through a regional parks district.

S4. Provide resources for the urban forestry management function within the City's organizational structure, to implement and enhance forest resources throughout the City according to the urban forest management plan.



Policy #5 – Encourage urban food growth

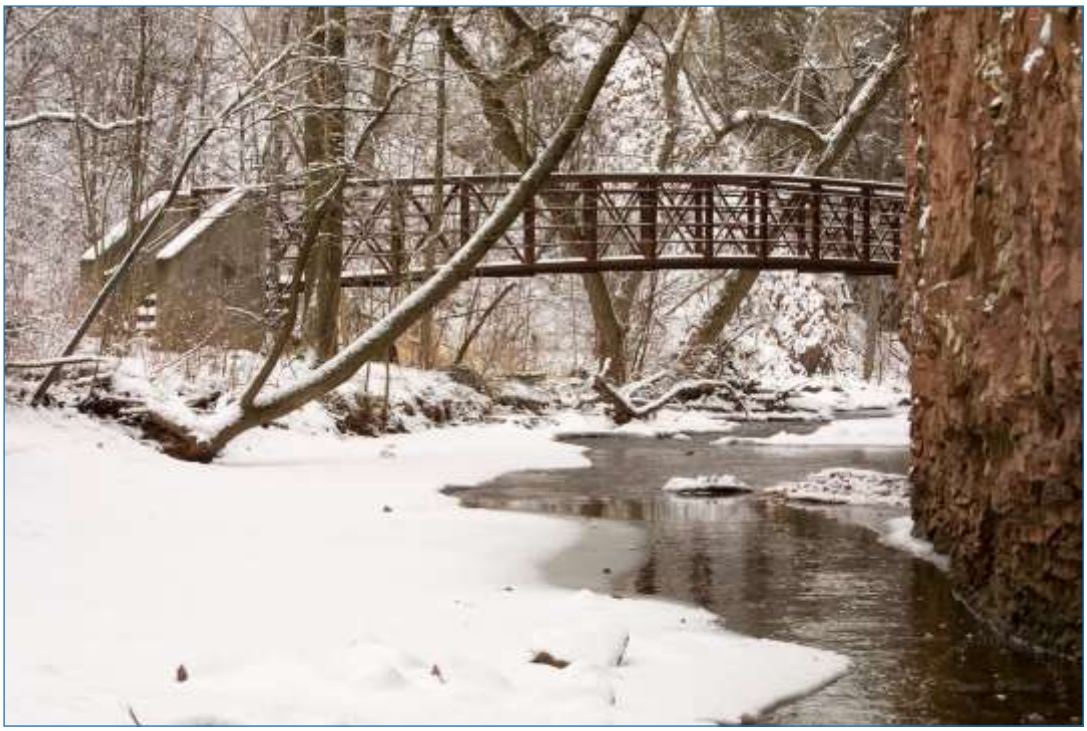
While acknowledging the costs to manage open space and parks and recreation services, the city will look to improve opportunities for all.

S1. Study the demand for community garden lots throughout the city and utilize existing public land where additional space is needed.

S2. Investigate the need for a coordinating body that maximizes efficiencies and assists in the development of community gardens, urban agriculture, and small-scale value-added food production.

S3. Study where the keeping of animals for food production fits into urban agriculture as well as rural areas and amend the Unified Development Chapter (UDC) accordingly.

S4. Work with the Parks and Recreation Division and community partners to incorporate edible landscapes in parks where appropriate.



TRANSPORTATION





Transportation Mission

Duluth's transportation system will connect all users in a way that promotes safety, health, and quality of life.

Sidewalks + Streets + Trails

Walking

GOVERNING PRINCIPLES FOR TRANSPORTATION

7 Create and maintain connectivity

10 Take actions that enhance the environment, economic, and social well-being of the community

12 Create efficiencies in the delivery of public services

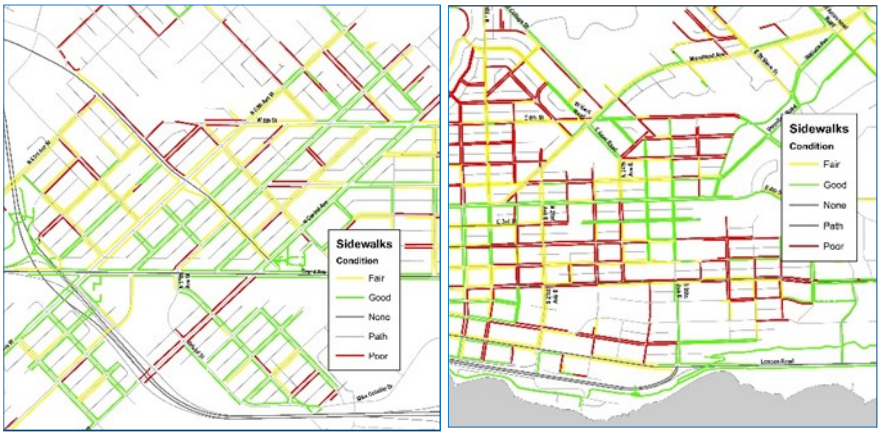
13 Develop a healthy community

14 Integrate fairness into the fabric of the community

Whether as a primary mode of transportation or a means to get from a parking space into a store, walking is a prevalent form of transportation in the city. Walking is affordable and accessible to a broad range of people, and supports active lifestyles.

The city's walking infrastructure consists of sidewalks, streets, trails, and skywalks. There are 403 miles of sidewalk in the city; about half of the city's streets were developed with adjacent sidewalks. The condition of those sidewalks varies, but every neighborhood is impacted by areas of poor condition. Because sidewalks have historically been built or reconstructed only when streets are rebuilt, they suffer from the general disinvestment Duluth has seen in its street infrastructure in recent decades. (For a discussion of street costs, see page T-16.) Some neighborhoods were developed without sidewalks on every street, such as Park Point, Duluth Heights, and Piedmont. Despite the lack of sidewalks, neighborhood streets in these locations are relatively safe for most pedestrians due to low traffic speed and volume.

Walking as a transportation mode is not only dependent on the existence of sidewalks or the traffic conditions of the neighborhood. If walking is to be a viable transportation alternative, residents need to safely and efficiently reach destinations regularly used for work, school,



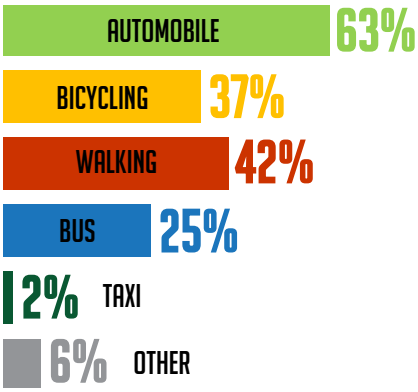
Maps showing sidewalk conditions in Spirit Valley and East Hillside/Congdon. All neighborhoods have areas of poor sidewalk condition.

shopping, socializing, and recreational activities. "Walkable" refers to areas where destinations are within a short distance, where conditions are safe, and where the walking environment is enjoyable for users. The most pedestrian-friendly areas have relatively high density, mixed uses, low traffic speeds, and a combination of trees, lighting, landscaping, and other amenities to make walking enjoyable. Walkable neighborhoods often have shorter block sizes, such as areas of Duluth developed with a grid pattern, and networks of sidewalks and trails to allow route flexibility. Using these as guideposts, neighborhoods close to commercial/mixed use destinations with pedestrian accommodations are most conducive to walking as a transportation mode. Examples include areas adjacent to the Lakeside business district, Central and East Hillside, and Downtown. Areas where walking is unlikely as a transportation mode include the North Shore, and rural areas on the north end of neighborhoods such as Kenwood, Woodland, and Morley Heights. Areas where residents are further from likely destinations but could walk to a bus line, school, or other neighborhood destination include Duluth Heights, Piedmont, Bayview Heights, Smithville, Riverside, and Fond du Lac. Improvements to walking infrastructure will thus need to consider the context of the neighborhood and connections to other modes of transportation.

Walking is also affected by Duluth's hilly topography and northerly climate. Generally, people are willing to walk short distances uphill (a few blocks to ¼ mile), so topography only becomes a challenge for longer up-and-down hill commutes. Snow and ice present a greater challenge. Even twenty feet of uncleared sidewalk can force people to other routes or modes – or to walk in the street. Delayed sidewalk clearing leads to ice build-up that can last the entire winter. The lowest-hanging fruit to meet the City's transportation goals is simply: get sidewalks cleared.

An important component of pedestrian infrastructure is facilities that provide accessibility for all. This plan also supports the ADA Transition Plan, completed by the City in 2017.

Ideally, what would be your preferred method of transportation for everyday travel?



Source: Imagine Duluth 2035 Survey. Participants could select up to two options.

Biking

Like walking, bicycling is affordable and promotes active transportation. In order for cycling to be considered a transportation option, bicycle infrastructure needs to 1) be open year-round (i.e. plowed or cleared of snow) and 2) connect destinations, rather than exist just within one area (so, the Lakewalk is included, but trails within Hartley Park are not). Bicycle infrastructure suitable for transportation needs is shown on page 5. The Lakewalk, Cross City Trail, and Campus Connector are separated multi-use trails. London Road, Anderson Road, and Pecan Avenue are on-road bike lanes that utilize paint to

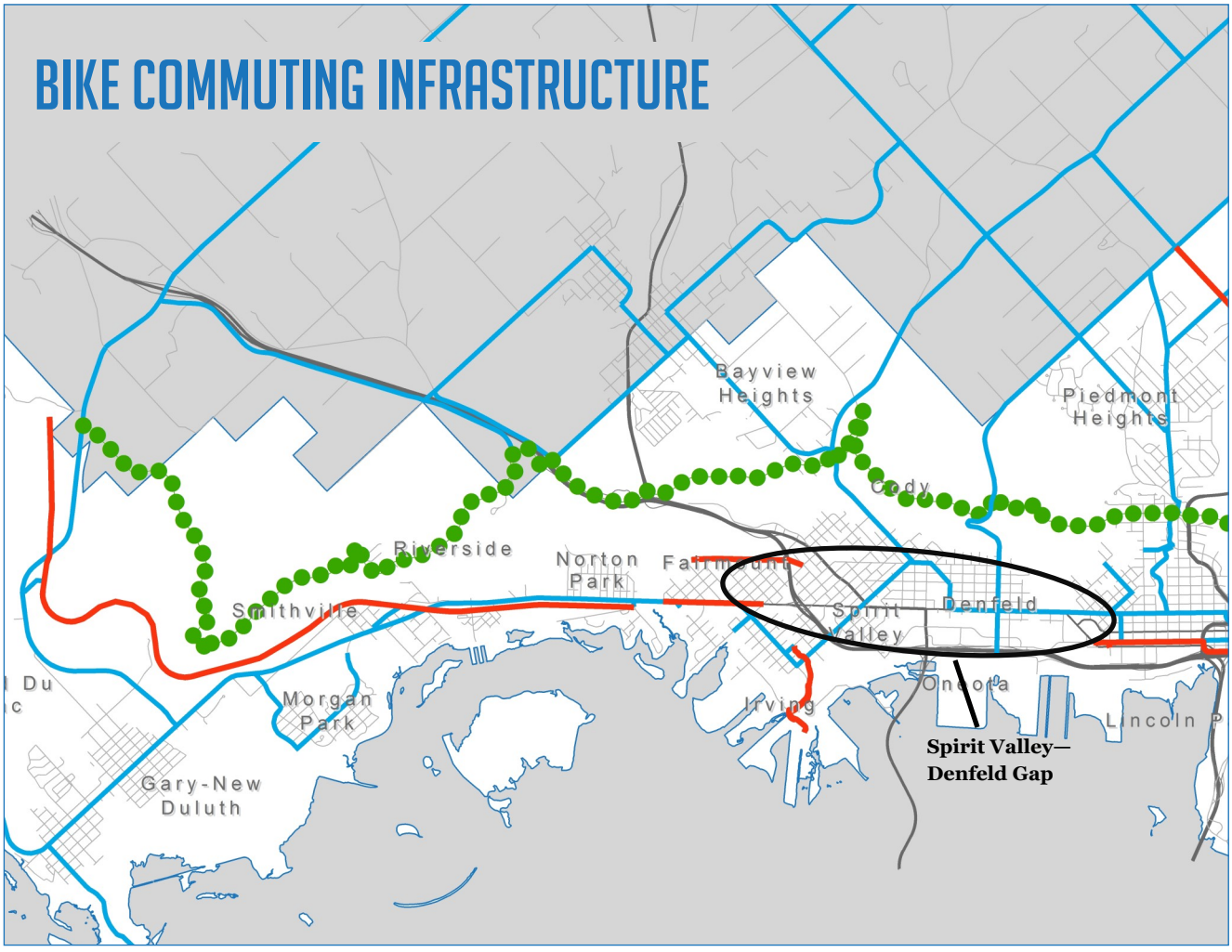
Streets + Trails

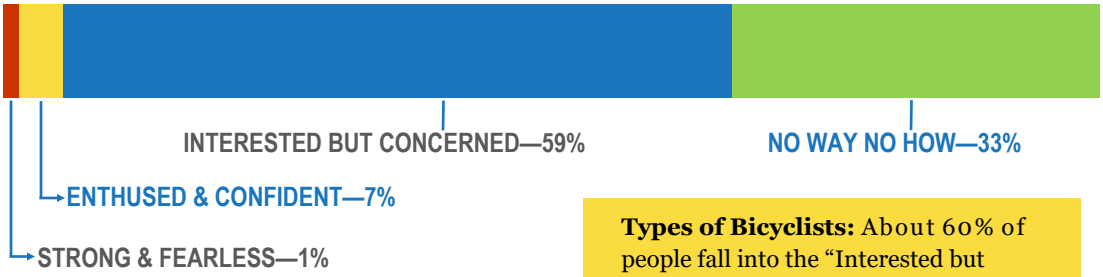
separate bikes from traffic lanes. The remaining bike infrastructure shown is designated bike routes, where bikes are encouraged to use road shoulders or otherwise share the road with vehicles but do not have their own space. The Duluth Superior Metropolitan Interstate Council (MIC) generally conducts bike counts twice a year, with the highest bike counts in the UMD area.

A frequent and useful way of describing bicycle users, originally developed by the City of Portland and supported by transportation research, is using the categories of: Strong and Fearless (about 1% of bicyclists), Enthused and Confident (about 7% of bicyclists), Interested and Concerned (about 59% of bicyclists), and No Way No How (33% of bicyclists).

In the last several decades, as private vehicles have dominated the street landscape, most other modes – including bicycling – have been eclipsed because high vehicle speeds and the size of personal vehicles present safety hazards. Duluth's network, like those in many other cities,

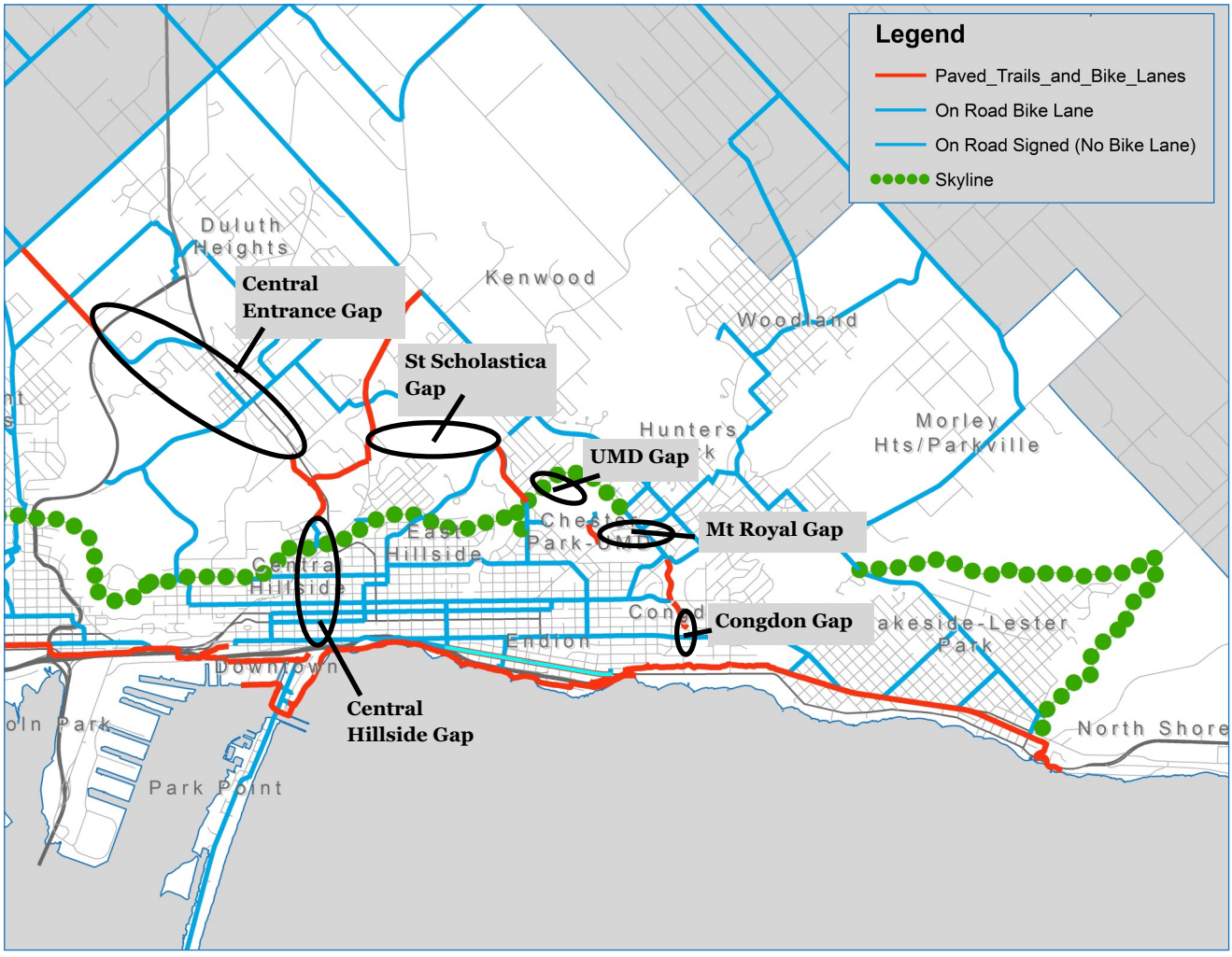
Bike Commuting Infrastructure: ***Red lines*** show paved multi-use trails and dedicated on-street bike lanes. ***Blue lines*** delineate signed bike routes, and the ***green dotted line*** is Skyline Parkway.



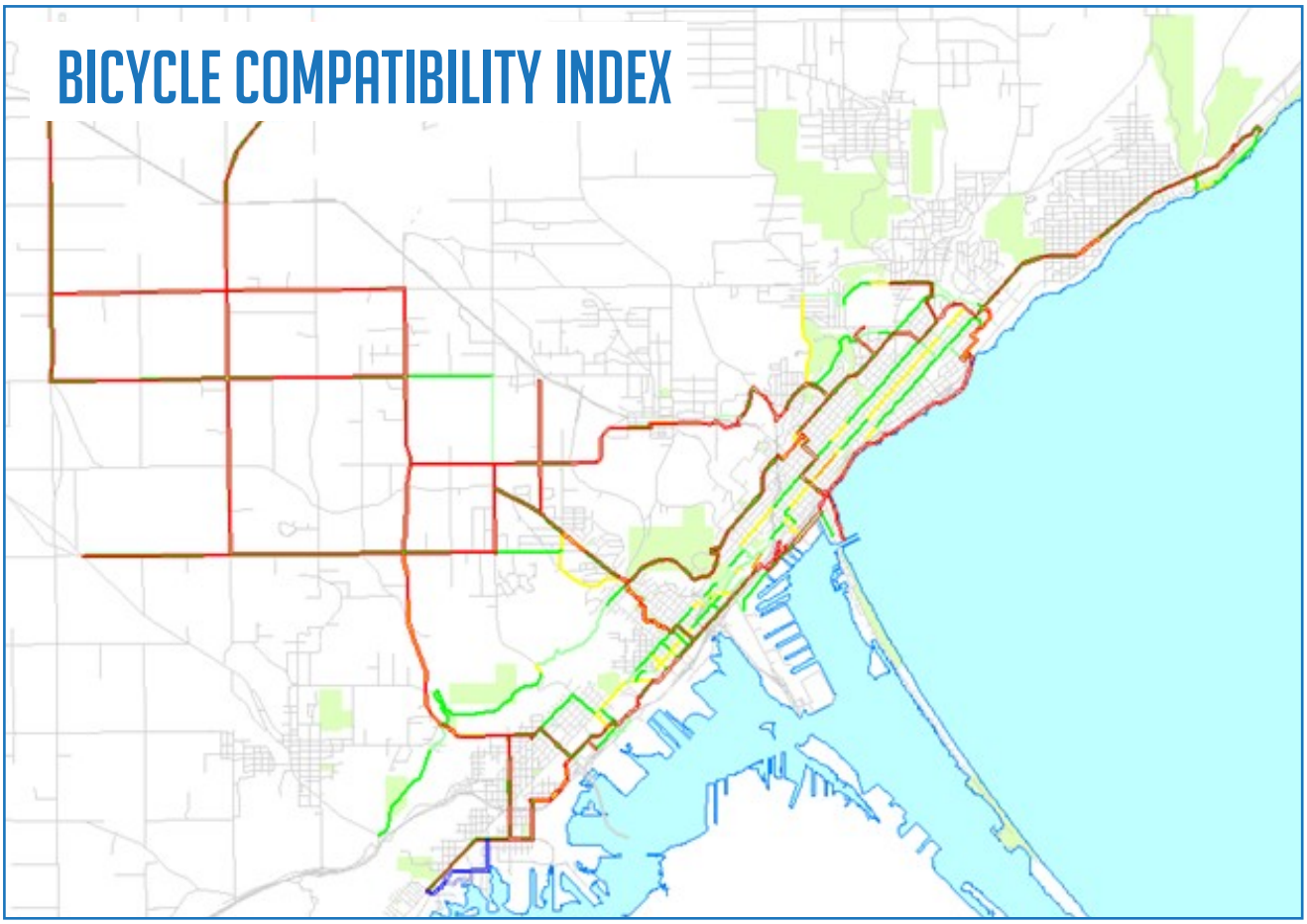


Types of Bicyclists: About 60% of people fall into the "Interested but Concerned category," and would bike more if better infrastructure existed.

requires skill and comfort in bicycling with vehicles, and appeals to the Strong and Fearless category mentioned above, as well as to some of the Enthused and Confident – depending on their location and route. This leaves out a majority of the potential bicycle population, suggesting a latent demand; many more people could consider bicycling as a form of transportation, even if only for some of their daily travels, if the infrastructure was convenient and safe.



BICYCLE COMPATIBILITY INDEX



The Bicycle Compatibility Index was developed in 2002; green shows streets more compatible with bicyclists and red shows streets less compatible with bicyclists.

The need to develop a level of service analysis for bicycle route planning led the MIC in 2002 to create the Bicycle Compatibility Index (BCI), developed out of a research project funded by the Federal Highway Administration (FHWA) (see map above). This index shows low levels of service (particularly on rural roads due to high vehicle speeds), areas of the Lakewalk that are congested, and city streets with high traffic volumes, such as Superior Street. The BCI does not evaluate intersections and does not consider grade (elevation change) of routes. A better metric, called Level of Stress, has since been developed, but bike infrastructure in Duluth has not been evaluated using this metric.

A best practice in transportation planning is to enhance safety of everyone on a street by using protected bike lanes – where bicycles are separated from vehicles by a physical barrier, such as tube delineators, a curb, or parked cars. At present, Duluth has no protected bike lanes.

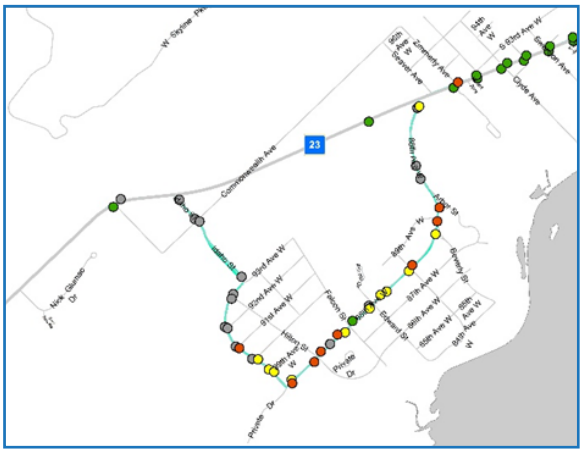
Transit

Aside from walking, transit is the longest-running mode of transportation in the city, first using street cars and switching to buses in the 1930s. Today, the Duluth Transit Authority has an average yearly ridership of over 2.8 million. Transit reduces congestion on streets, reduces land needed for parking, and has fewer negative environmental impacts than travel in private vehicles. Because it does not require a large capital investment from users, it is a financially feasible transportation mode that supports equity for all citizens.

A map of the transit system can be seen on pages T-8 and T-9. Most neighborhoods in Duluth are connected by transit, with the exception of the North Shore. However, the frequency of buses varies. While the three most frequent routes have 15 minute frequencies during peak hours, most routes only operate at 30-60 minute frequencies during the peak. For off-peak hours, most operate at 60-minute frequencies.

The transit routes correlate with where people live. The relative population density of neighborhoods in Duluth, along with their transit access, is shown on page T-10. The highest density neighborhoods – Central Hillside, East Hillside, and Endion – are served by several transit lines. Transit routes also correlate with where people are likely to work. Job concentrations, as also shown on page T-10, are highest in the Downtown/Hillside neighborhoods, UMD and St. Scholastica campuses, Rice's Point/Port area, Miller Hill Mall area, United Health Care, and Oneota Business Park.

Aside from walking, transit is the longest-running mode of transportation in the city



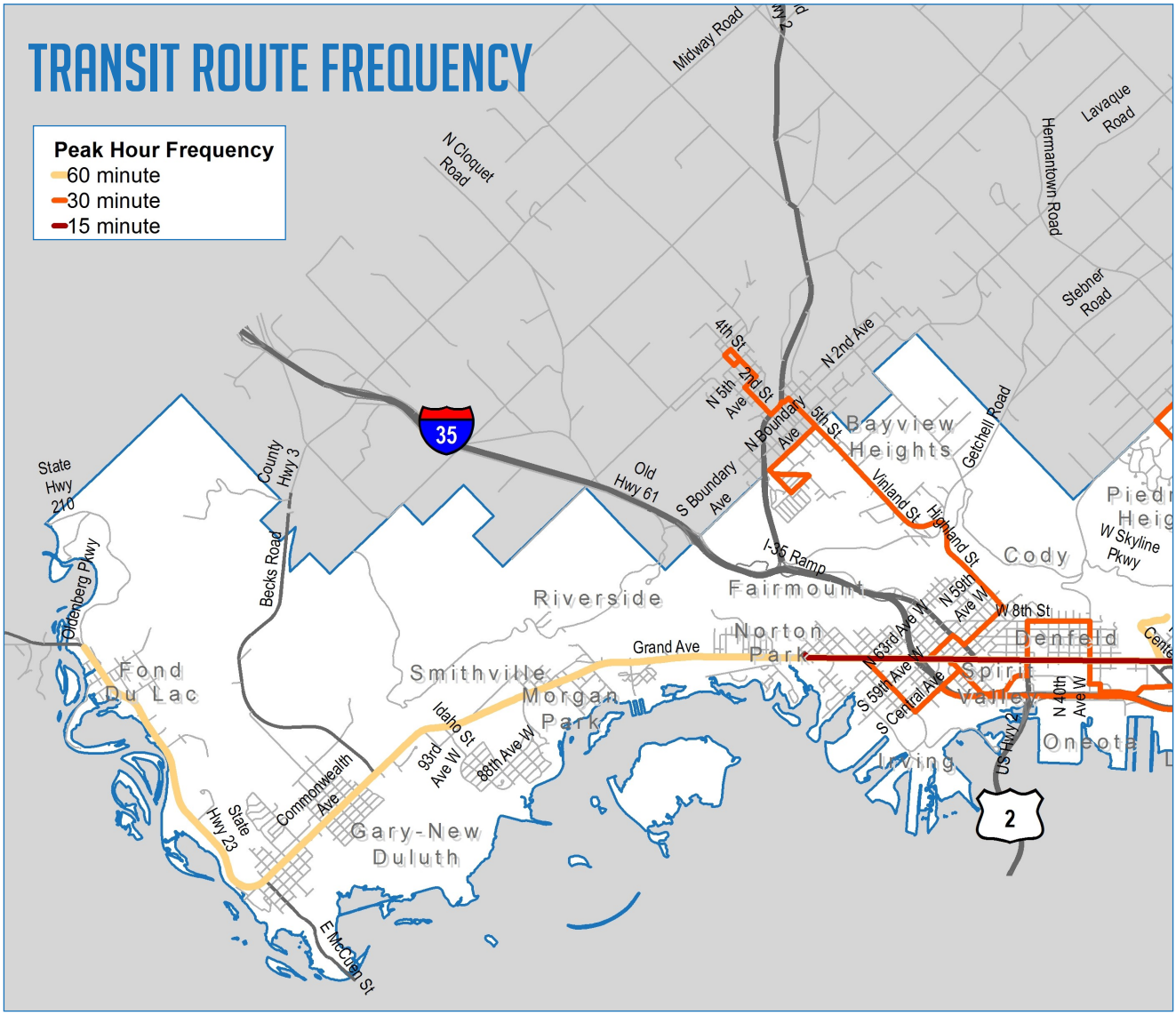


These insets show the Morgan Park (left) and Lakeside (right) neighborhoods. All transit routes have varying levels of sidewalk condition connecting to stops. A green dot indicates good sidewalk condition, a yellow dot medium sidewalk condition, a red dot poor sidewalk condition, and a gray dot indicates no sidewalks adjacent to the stop.



While the DTA maintains park and ride lots in Piedmont and Woodland, most transit users walk to the nearest bus stop. Lack of safe walking accommodations discourages people from accessing bus stops. In addition, areas with sprawling land use patterns separated by large parking lots require people to walk further at the beginning/end of their trip. Duluth's relatively low population density results in lower trip frequency, making transit a less convenient option. Many transit stops lack shelter from wind and rain, or even a sidewalk or landing pad. To meet transit users' needs and ensure an effective transit system, other cities have used Transit Oriented Development (TOD), which refers to development of compact, walkable, mixed-use areas. Transportation planning thus needs to be closely linked to land use and economic development planning.

The DTA monitors system performance and uses tools that allow dispatchers to monitor vehicles in real time. The system currently lacks

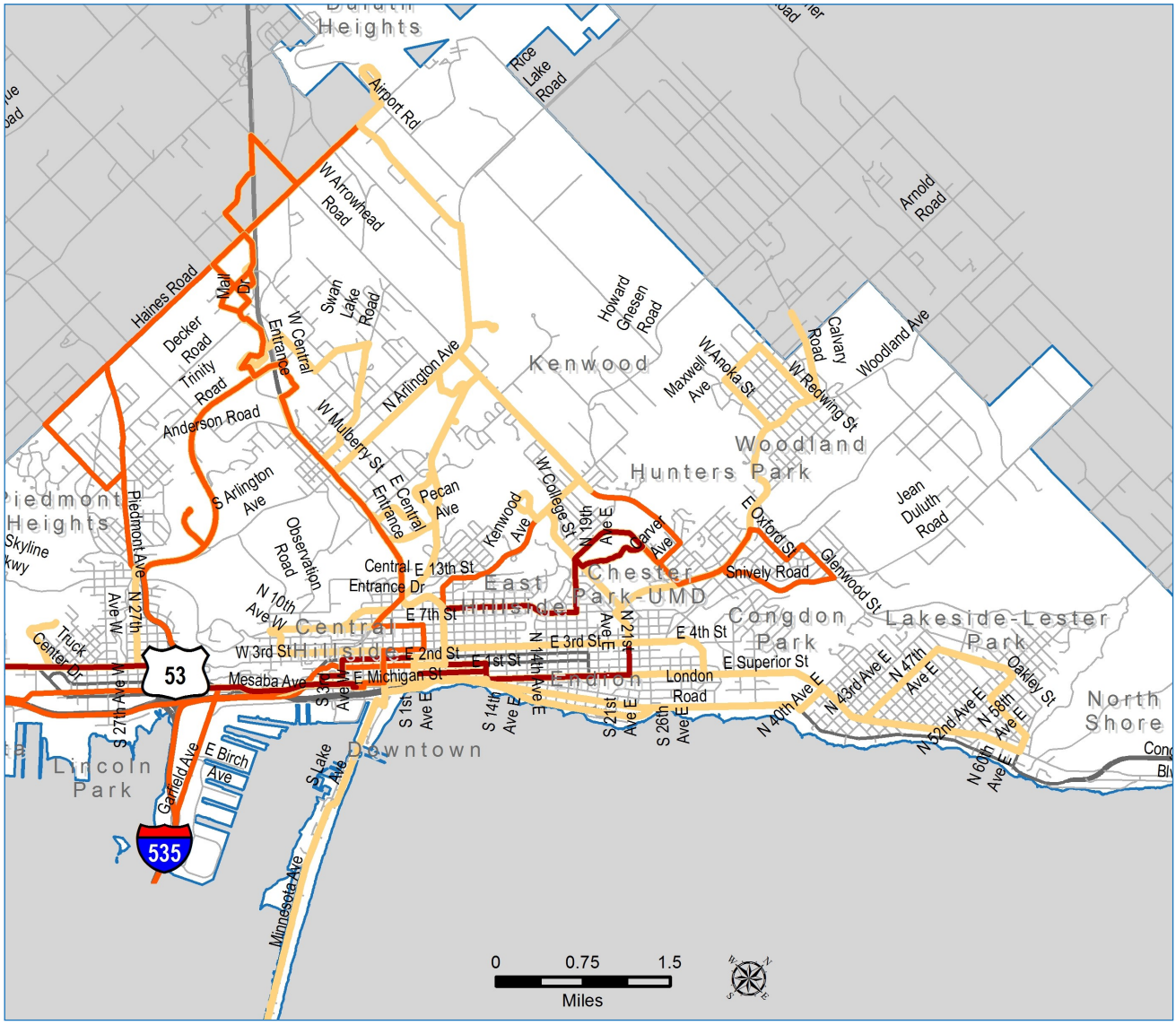


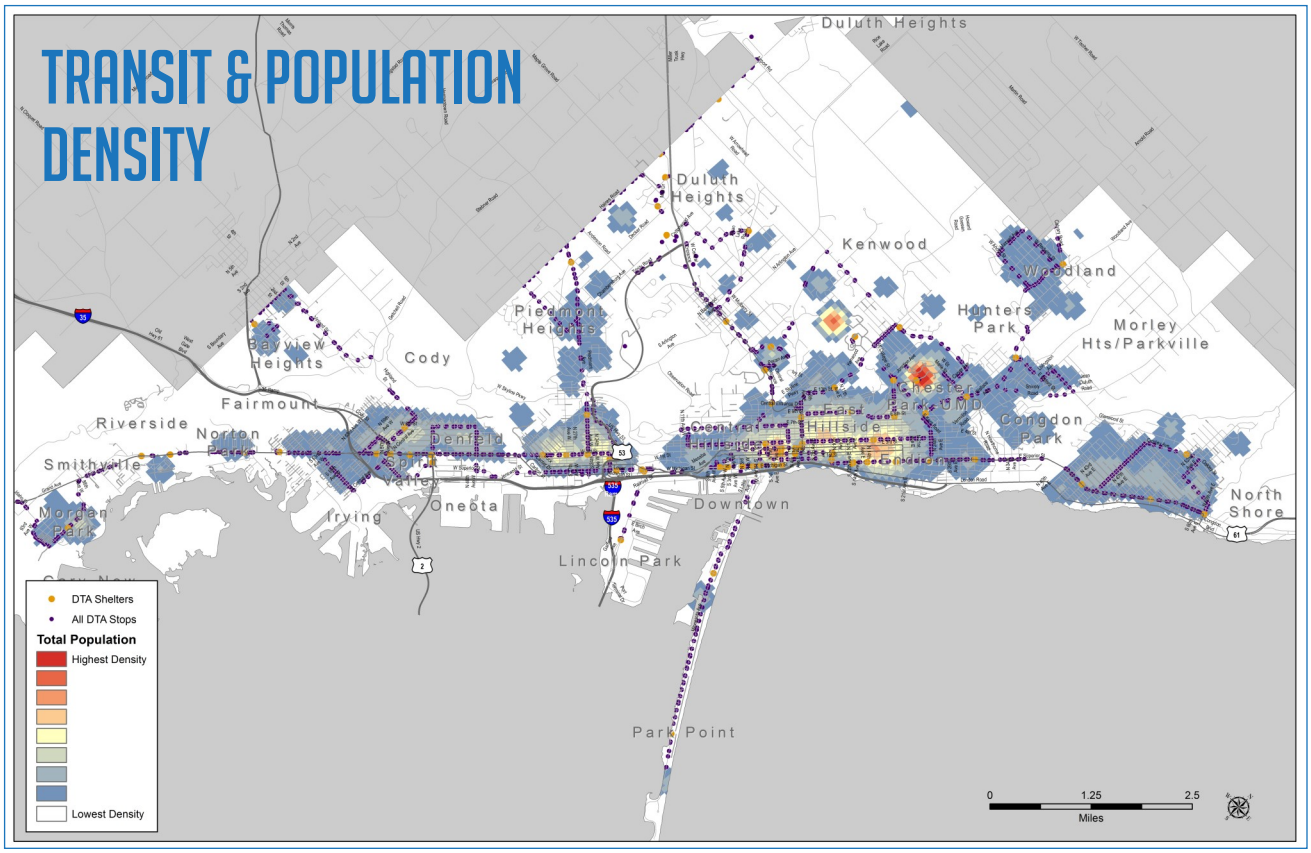
informational tools that effectively convey this real-time data to customers, which leads to requests such as a smart phone app with map, or increased real-time signage at stops.

Private Vehicles

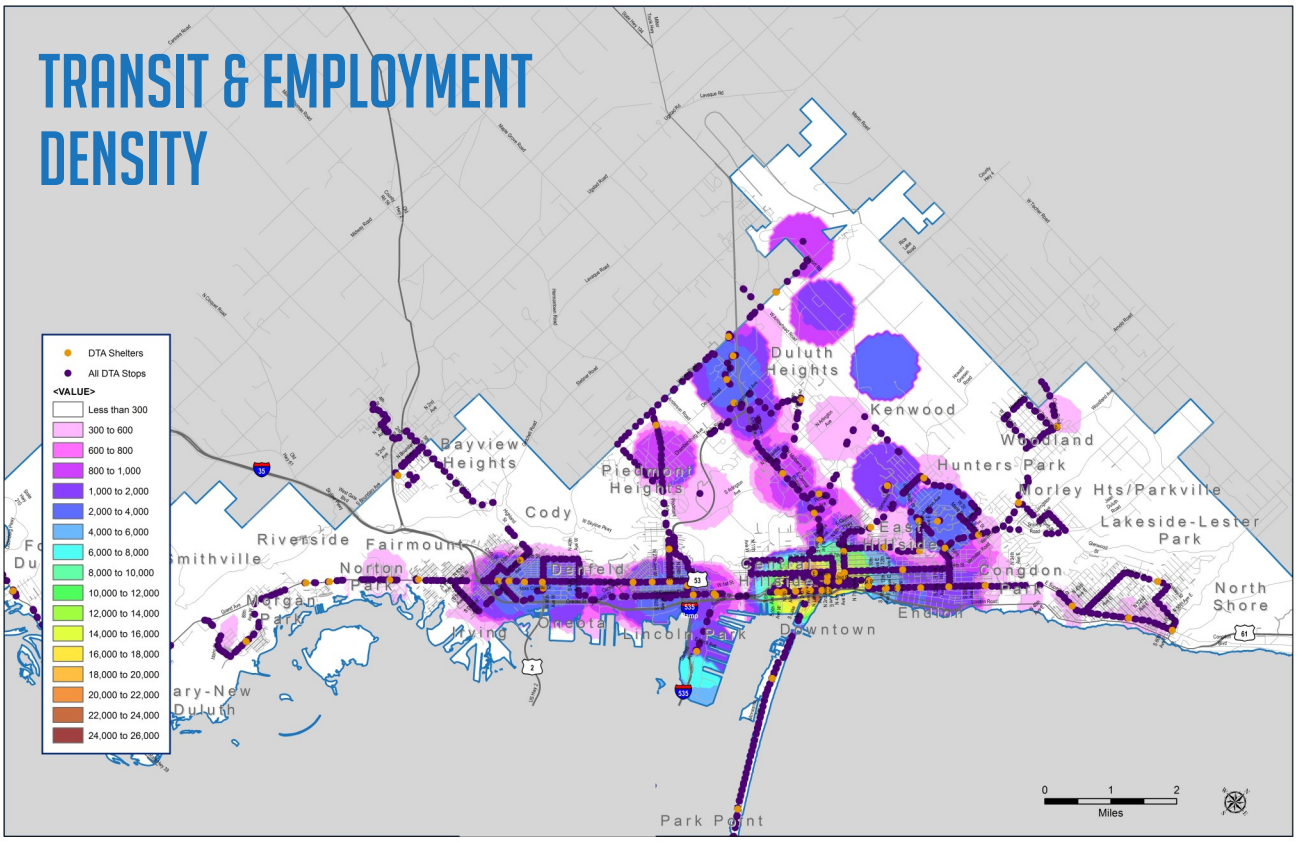
Streets

Duluth developed as a series of small towns along Lake Superior, often with long distances between these population centers. As such, lengthy road infrastructure was built to support and connect these neighborhoods. This road infrastructure was also built to support a population of 120,000 (at one point predicted to reach 300,000) traveling among those neighborhoods versus Duluth's current population of 86,000. Together, the City of Duluth, St. Louis County, and MnDOT oversee 450 miles of roads within city limits, resulting in the network shown on pages T-10—T-11.

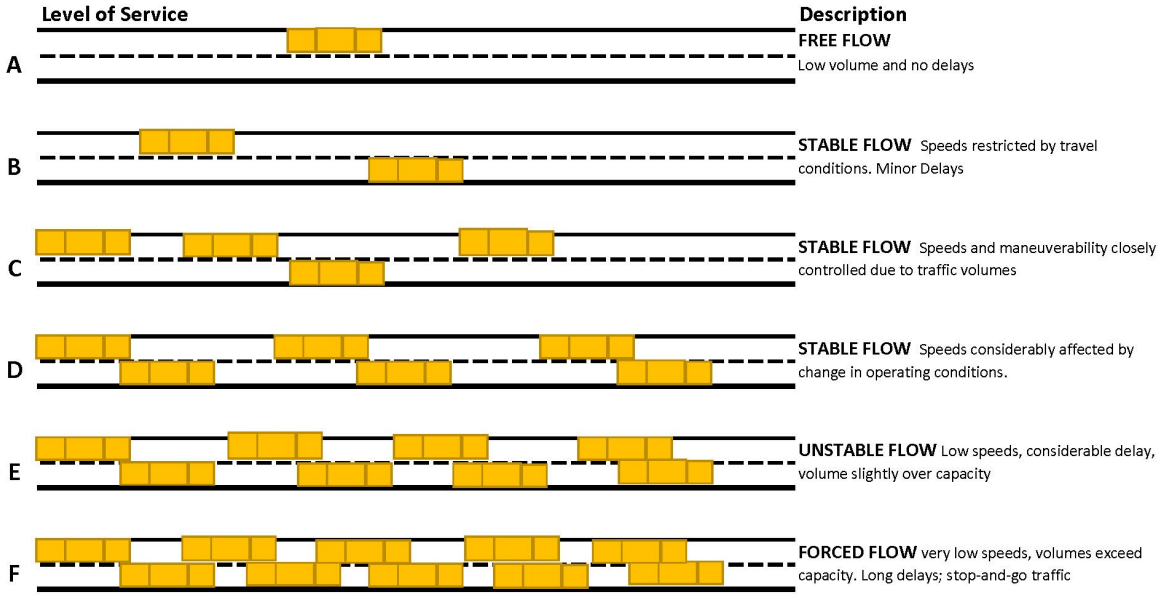




This map shows where people live, with colors of the clusters corresponding to density. Purple dots represent DTA bus stops. The existing bus system corresponds well to these population centers.



This map shows employment centers, with the purple dots representing DTA bus stops. With an exception of areas in Duluth Heights and Kenwood, the bus system serves all major employment hubs.



Overall, Duluth's road network experiences very little congestion. The capacity of a road network is measured with Level of Service (LOS), a vehicles-to-capacity ratio. Roads and intersections can be assigned LOS A-F, as shown in the graphic above.

LOS E and F are considered to be congested. Forecasts for 2040 show a small percentage of Duluth roads are expected to experience congestion, based on existing projections, as shown in the map below.

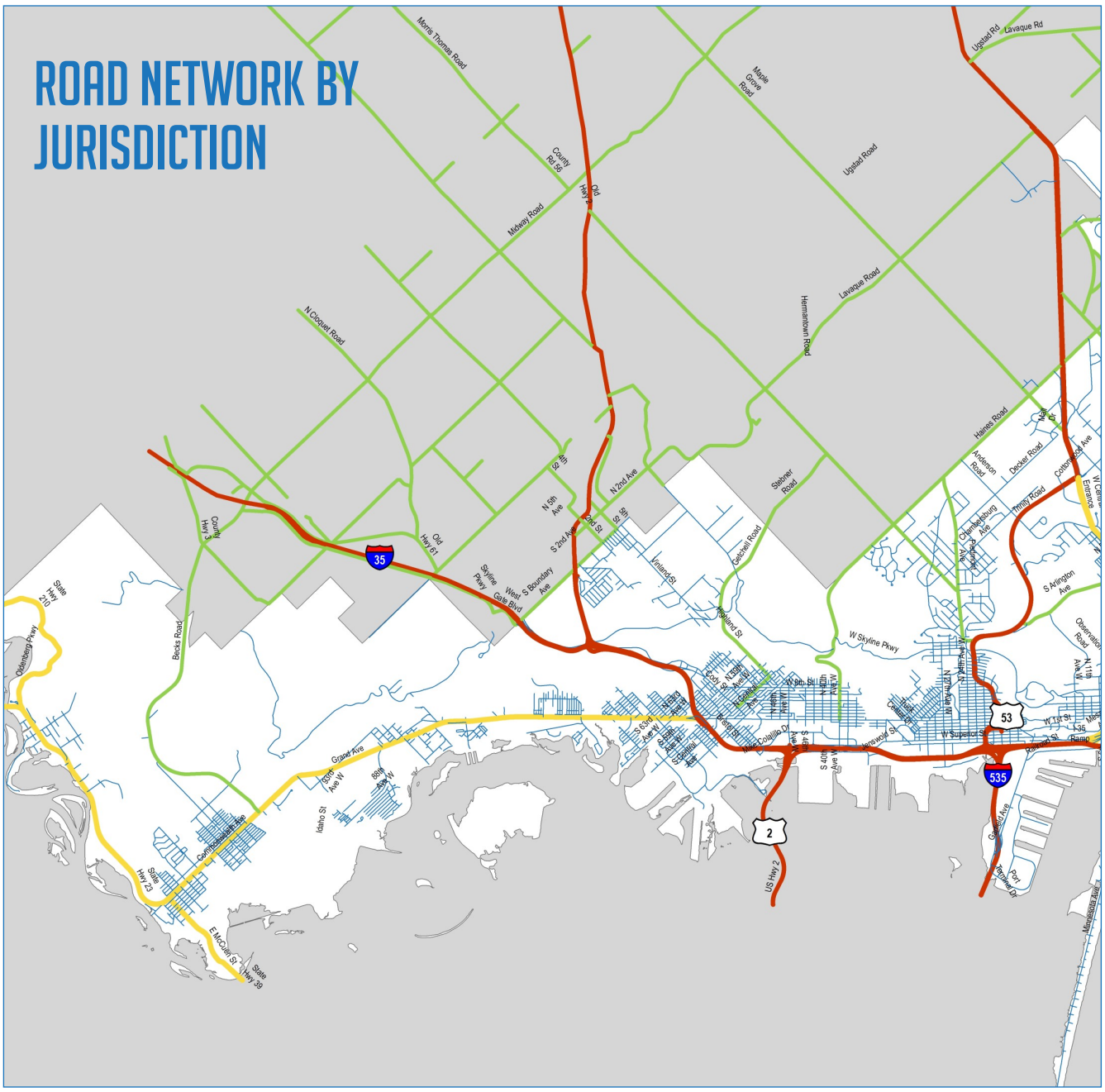
Note that this congestion is for peak hour only (the busiest time of day), and these streets will likely operate acceptably for most hours of



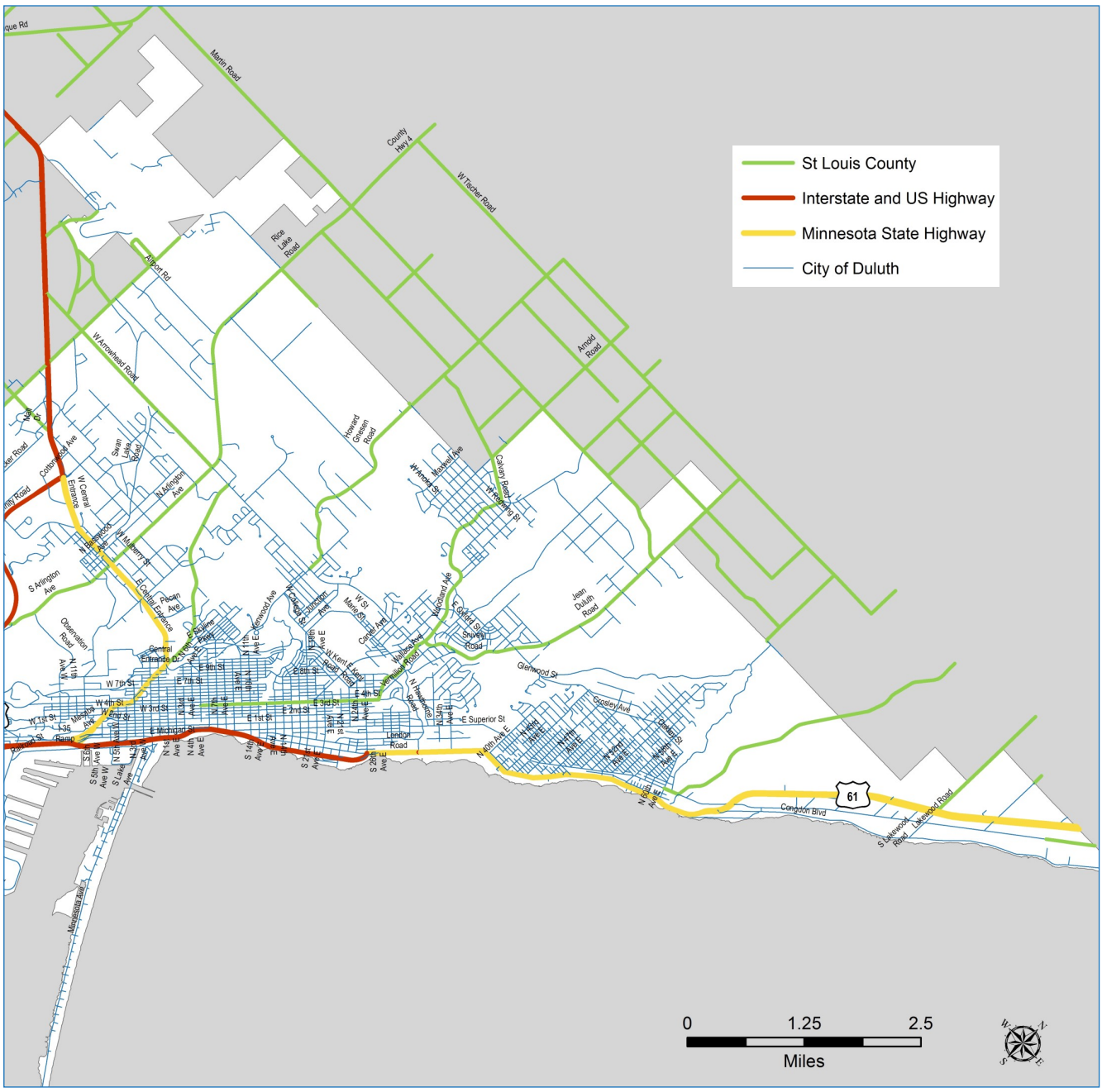
Forecast congestion for 2040: orange represents LOS E and red represents LOS F. *Source: Connections 2040 by Duluth-Superior Metropolitan Interstate Council.*

the day. The forecast suggests that strategies should be considered for these segments to accommodate the potential future demand. Such strategies may include upgrading parallel facilities, managing demand through access control and other measures, increasing transit services, or even expanding the existing lane capacity, if necessary.

Although LOS is an important factor to consider, especially for arterial roads, it is not feasible or desirable to have a road network that always operates at free flowing conditions. In an urban area, driver behavior is influenced by supply and demand. As more lane miles of road become



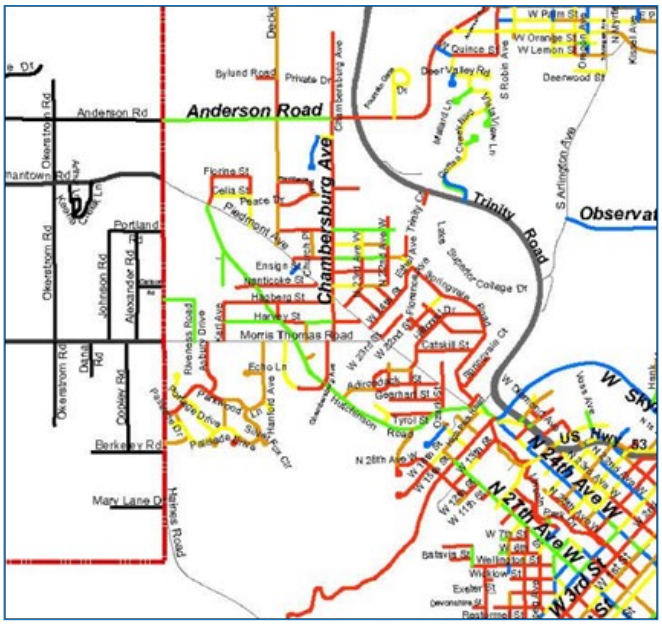
available, more drivers either choose to take the new route or drive more frequently, thereby increasing congestion even as new lane miles are added. In addition, the space needed to build new roads creates a more sprawling development pattern, causing people to have to drive further to reach destinations. In some cases, adding new roads or new lanes actually worsens congestion. Moreover, requiring streets to have LOS A often results in wide, expensive streets that negatively impact the surrounding neighborhoods. Every street has a surrounding context, and to best fit into the city's network, congestion should be only one of the factors considered.

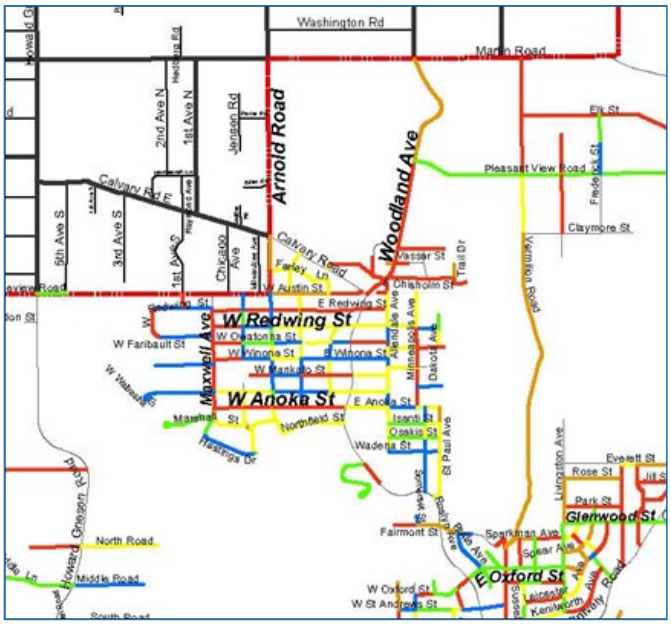


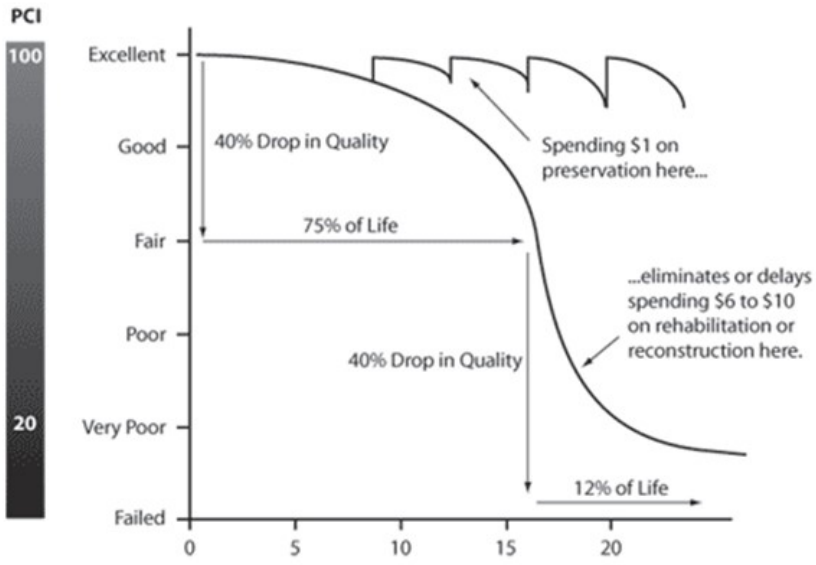


While road capacity is not a problem, road condition is another matter. Inadequate funding has led to disrepair, which can cause myriad problems ranging from increased vehicle wear and tear to businesses choosing not to locate to a neighborhood. Street conditions need improvement, not just for private vehicles but also for other modes; transit, bikes, and freight all rely on city streets as well. Even those pavement areas in better condition require investment in maintenance and preservation to ensure those roads do not deteriorate past a point where they can be maintained. An example of pavement condition over its life cycle can be seen in the figure on the next page, along with an expanded life cycle if maintenance such as crack sealing, sealcoating, and overlays are used.

Sample street conditions in two Duluth neighborhoods. Piedmont is on the left, and Woodland is on the right. Red shows streets in the worst condition; green shows streets in the best condition.







Spending money on basic street maintenance is more cost efficient than waiting until the street needs major rehabilitation.

Safety on roadways is regularly evaluated, including the severity of crashes and accident frequency. The Duluth Police Department and Engineering Traffic Division also periodically review crashes and investigate speeds and pedestrian crossings. Duluth is relatively safe, compared to other cities, and overall low traffic speeds on local streets contribute to fewer severe accidents. However, crashes still occur, including occasional fatalities.

Car parking is a necessary component of vehicle-based transportation systems. Off-street parking is typically provided as accessory to another use and often required by zoning regulations, while on-street parking is shared by neighboring land uses. On-street parking can also be used to buffer sidewalks and bike facilities. However, too much parking can indirectly incentivize increased driving, contributing to congestion. Devoting too much land to parking detracts from other modes by separating destinations further, and devoting too much right of way to parking uses up space that could be used for other modes. Parking is costly to build and maintain.

The use of private vehicles is expected to change drastically in the coming decades, with the increase in car share (such as ZipCar), ride share (such as Uber and Lyft), and self-driving cars. Particular trends anticipated with new technology include: less area needed for parking lots and structures; increased demand for “curbside” space used for pick-up and drop-off; less roadway space devoted to account for driver error; and pedestrian crossings located where needed instead of only at intersections.

Local Street Costs

Local streets are the backbone of the city's transportation system, providing facilities for private vehicles, transit, bikes, walking, and freight. The cost of each square foot of this paved asset to the City and its citizens can be quantified. As an example, a standard 24' wide street, with curb and gutter for stormwater but no sidewalk or amenities, costs approximately $1,000 per linear foot to build or reconstruct, in estimated 2017 dollars, including underground utilities. Streets have a typical life span of 60 years, with major repairs needed about every 20 years, and minor maintenance, such as pothole filling and crack sealing, as needed each year. This means that every linear foot of street, maintained according to this ideal standard (and after adding maintenance expenses) costs the community approximately $23.30 a year (again, 2017 dollars). This estimate does not include snow plowing costs, or additional street elements such as lighting or sidewalks, but still adds up to $50 million a year. The city does not meet this ideal scenario; many local streets are in disrepair. Many stretches of Duluth's utility lines are over their expected life span, some over 100 years old.

Example Local Street Cost

50'x130' urban single family lot

50 linear feet of street frontage;

cost divided with 50' lot across the street:

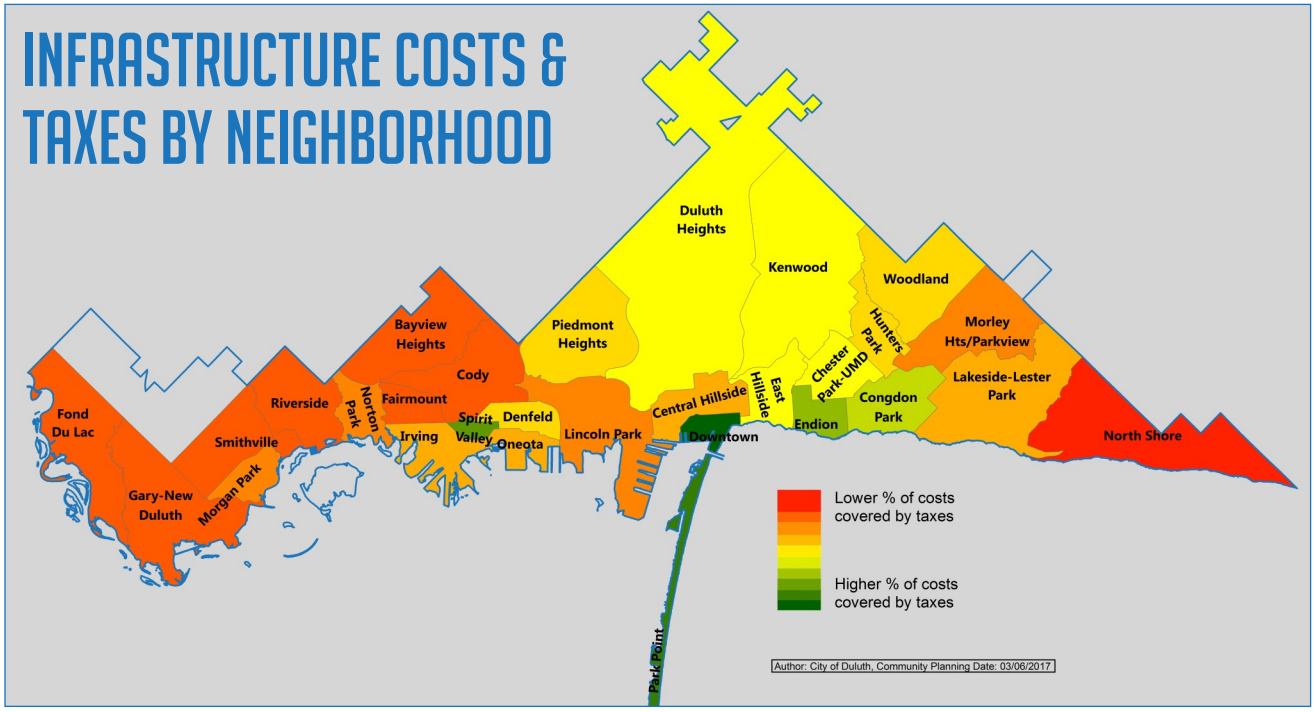
50 LF x $11.65 per year =

$583 per year

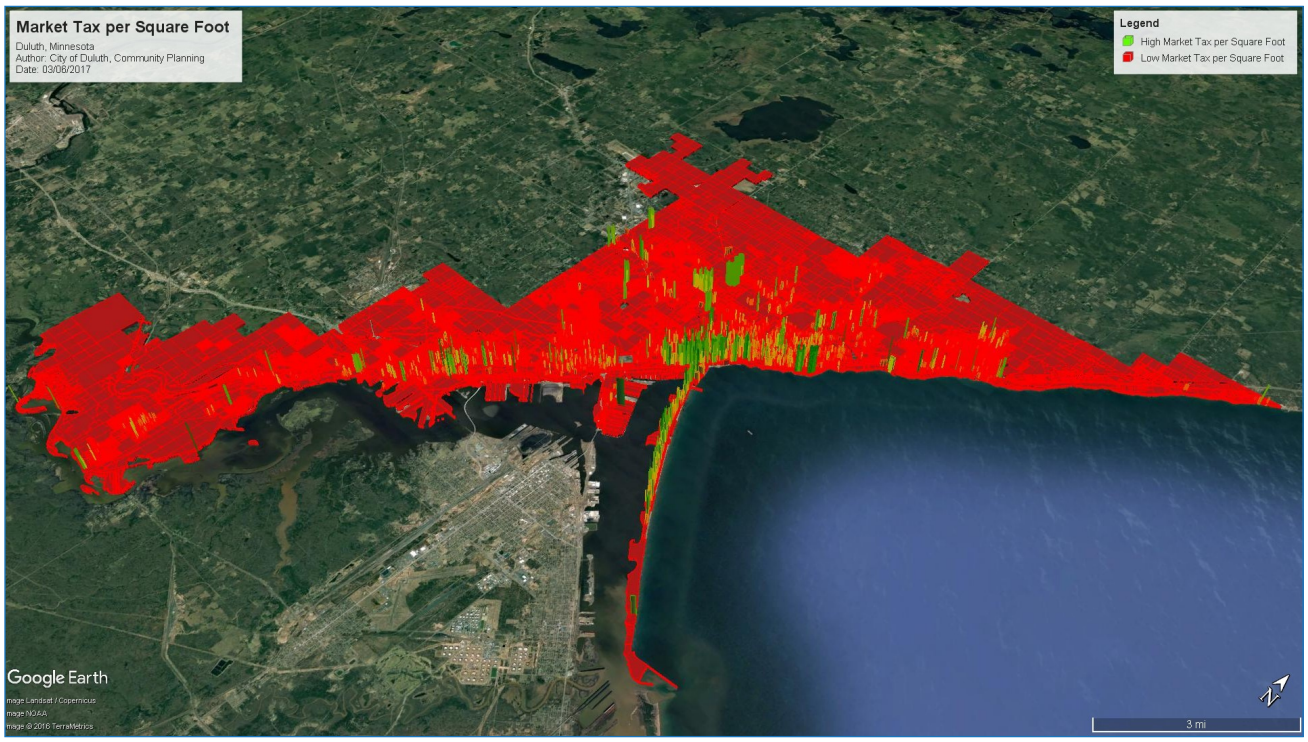
Duluth's low-density areas result in fewer properties to share the costs among, so everyone pays more. The "ideal" maintenance described above would require a homeowner on a 100-foot wide lot to pay $1,165 a year just for street costs.

Properties that contribute higher property taxes per linear foot of frontage better support the infrastructure serving those properties. Maps of relative infrastructure costs as compared to the tax base of neighborhoods, and of properties contributing higher tax per linear foot of street, are shown on page T-17. The top tier for cost recovery includes Downtown, Park Point, Spirit Valley, and Endion – some of the most densely developed areas with some mixed-used properties. Congdon is also among the top; this neighborhood contains larger and more expensive homes, but also includes multi-family residential and commercial development close to the waterfront. Strategies to bring in more revenue and reduce the infrastructure burden could include increasing density in the other neighborhoods and incrementally increasing property values, particularly in neighborhoods that are already more densely developed, such as Lincoln Park.

INFRASTRUCTURE COSTS & TAXES BY NEIGHBORHOOD



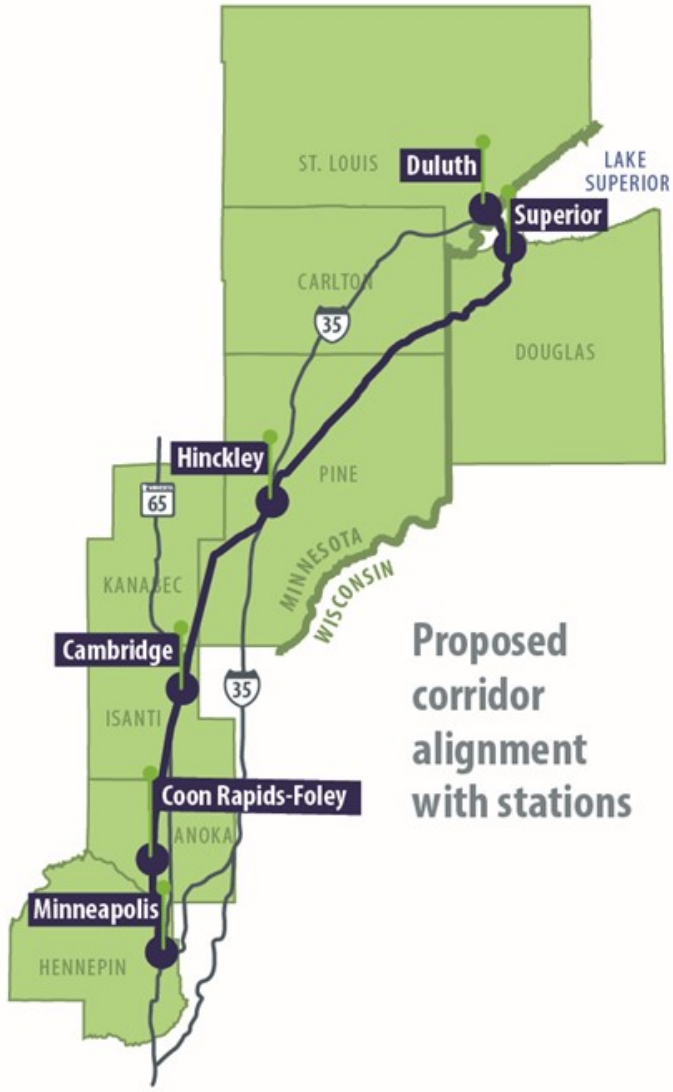
INFRASTRUCTURE COSTS & TAXES BY PARCEL



Passenger Rail

Rail

Passenger rail disappeared from Duluth in 1985, when Amtrak discontinued service to Duluth and the Twin Cities. Fifteen years later, the St. Louis and Lake Counties Regional Railroad Authority commissioned a study to examine the feasibility of returning passenger rail to the Twin Cities-Duluth corridor. Since then, detailed technical feasibility and ridership studies, a Tier II Environmental Assessment, and engineering designs have been completed for the proposed Northern Lights Express (NLX). Now in final design, NLX would introduce intercity passenger rail between Minneapolis and Duluth. Trains would make four round trips per day on an existing rail line. Planned facilities in Duluth include a station adjacent to the Depot (at Michigan Street and 5th Avenue W) and a potential maintenance facility that, if built in Duluth, would be located between I-35 and Railroad Street. Passenger rail supports environmental and economic development goals; it provides much more fuel-efficient travel between Duluth and the Twin Cities than single-occupancy vehicles; and it provides convenience, safety, and comfort for travelers. It also provides another transportation option for people without cars, and those with accessibility challenges.



Source: MnDOT

Once arriving in Duluth, passengers could use multiple modes to get around the city – something transportation planners refer to as "last mile" planning. The station area planning should include a multimodal emphasis, considering wayfinding and looking at connections to various modes. NLX and station area planning should be closely coordinated with other Downtown-area analyses, and include a wide range of applicable stakeholders.

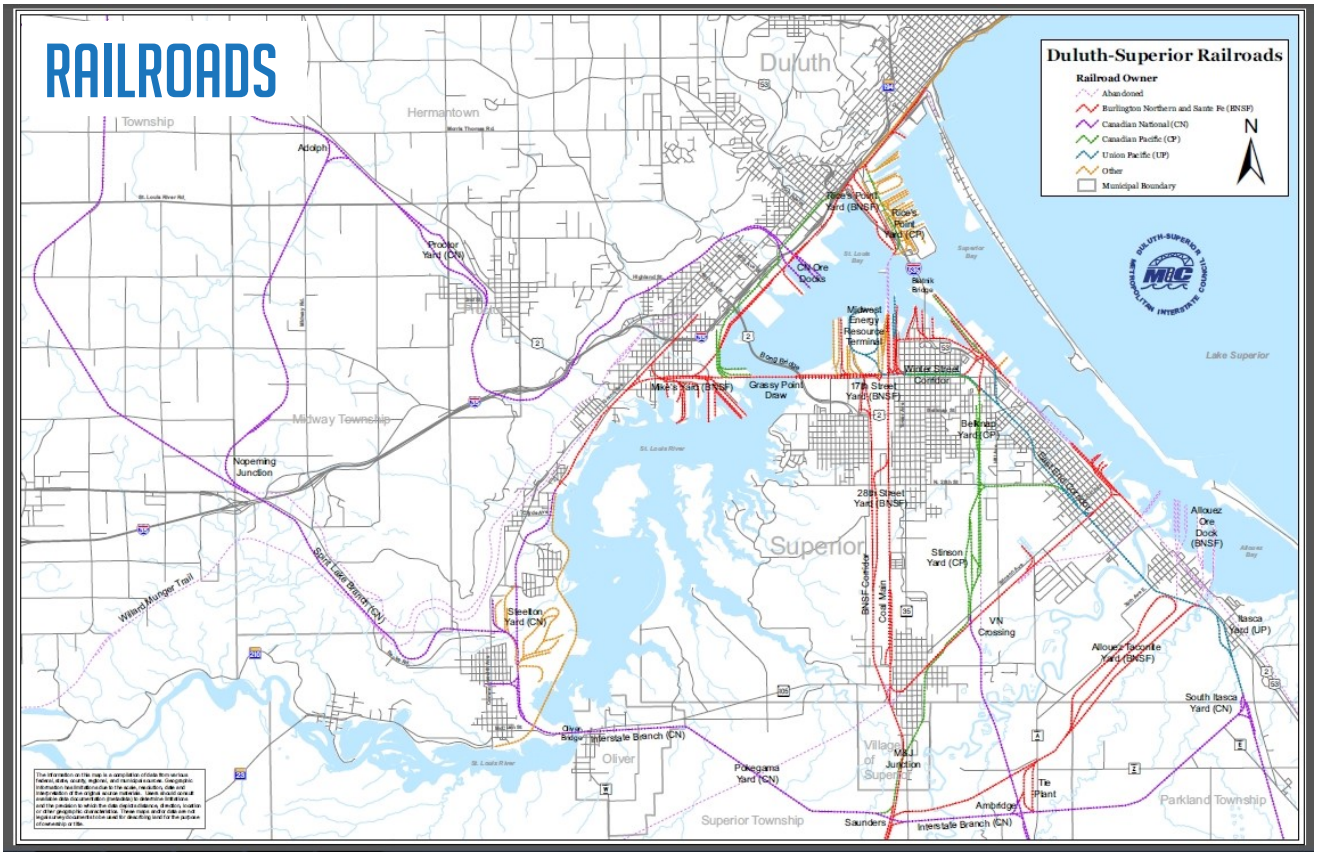
Freight

Duluth has become a major regional, national and international freight center for the port, rail, trucking and airport facilities that support Duluth's economic base.

Rail
+Air
+Streets
+ Water

Rail Freight

The Twin Ports have a history of rail freight dating back to the mid-1800s; because of this long history, they are served by more railroads than many communities, including four Class I railroads: Burlington Northern Santa Fe (BNSF), Canadian National (CN), Canadian Pacific (CP), and Union Pacific (UP). The rail network is important for moving a variety of commodities, especially heavy bulk goods. BNSF dominates many markets in the state including bulk freight, crude oil, agricultural products, and intermodal traffic. UP primarily transports agricultural products, ethanol, and coal. CN (formerly DMIR) transports most of the taconite produced in Minnesota, along with a mix of bulk and intermodal goods. CP's primary commodities include grain, coal, crude oil, and intermodal freight. Railroads collectively operate 10 rail yards in the Twin Ports. Railroads don't exist in a vacuum, but instead are part of an integrated system coordinated with trucks, barges, and pipelines.



Because one train can carry as much freight as several hundred trucks, railroads are cost-effective and produce key public benefits, including reduced highway congestion (particularly on major corridors like Interstate 35), lower emissions, and reduced need for costly highway repair and maintenance. Unlike trucks, barges, and airlines, freight railroads operate almost exclusively on infrastructure they own, which they have built and continue to maintain and fund themselves.

The City does not anticipate significant investment in additional new rail corridors; however, private development of rail lines such as scenic railroads may occur. Utilization of the existing rail lines is expected to increase based on current trends in rail car traffic in the Duluth Seaway Port, which could lead to capital investments in current rights-of-way. It is important to protect and preserve existing rail corridors even if their current utilization is low, as a means of attracting business and future developments.

Air Freight

The Duluth International Airport (DLH) facility provides air cargo services for high-value and/or time-sensitive goods. Scheduled express air cargo operations are conducted by FedEx and UPS, operating daily service.

FedEx typically operates about 520 operations per year. UPS operates daily aircraft service at Duluth, contracted under Bemidji Airlines, totaling approximately 730 operations per year. US Postal Service mail is transported under contract by an air carrier as belly cargo. Other non -scheduled air cargo and freight is normally processed through the Fixed Base Operator (FBO) facilities.

At this time, regional air cargo is sufficient for the area. However, larger scale efforts for air cargo with ground delivery (multimodal) service could be developed at DLH, as the airport has sufficient runway capacity for big planes. Consideration of air freight capacity expansion should be given for future business and economic interests in the area. Additionally, an evaluation of the roadways within the airport zone and vicinity should be completed to be able to support an increase in truck traffic for additional air cargo.

Truck Freight

Trucking is an essential transportation mode for moving high-value goods throughout the region. The roadway system is comprised of interstate, state, county, city, and township roads that allow freight to be transferred effectively. According to the American Trucking Association's national forecast, the amount of goods hauled by trucks will grow by more than 3 percent annually over the next five years.

To determine the most efficient, safest, least disruptive truck routes to and through the Duluth area , the roadway system should be evaluated for future growth of truck freight movement. The Duluth-Superior Metropolitan Interstate Council (MIC) will be completing an update to the 2001 Duluth-Superior Truck Route Study in 2018. The update is due primarily to changes in the roadway network, traffic patterns, and locations of freight-generating businesses, as well as federal and state laws and plans regarding truck routing that have influenced truck movements. This study will examine current truck routes and the factors that influence truck movements in the Duluth-Superior area, and update the 2001 recommendations.



Source for photos on this page: Duluth Seaway Port Authority

One known freight improvement being planned by MnDOT is the reconstruction of the I-35/I-535/Hwy 53 interchange. Known as the "Can of Worms," the interchange currently has merge conflicts and weaving problems, as well as 33 bridges that are structurally deficient and at the end of their lifespans. The reconstruction will relocate all exits and entrances to the right side of the freeway and provide lane continuity for through I-35 traffic. This project will provide direct access for overweight permitted loads, particularly large bulk cargo items such as wind turbine components. The interchange currently has an AADT (Average Annual Daily Traffic) of 72,200, with 3,450 of those being heavy commercial traffic.

Water Freight

The Duluth-Superior Port consists of 19 square miles of land and water with 17 miles of dredged shipping channels. The harbor is the largest freshwater port in the world, averaging 38 million metric tons of cargo annually. The port hosts up to 1,100 lake-carrier and oceangoing ship visits each year. The port offers



connections with four Class I railroads, on-dock rail for direct transfers, and a rail-truck-marine intermodal terminal.



In 2016, the MIC completed the Duluth-Superior Port Land Use Plan. A priority of the Port Plan is to ensure the protection of industrial land from encroaching non-compatible uses, which can restrict operations and discourage investment in business and infrastructure. Once land in the port area is developed for commercial and/or residential use, it will be difficult to convert back to port-related industry use. Among port-related businesses, 60% state that their business is directly dependent on access to a deep draft channel, 80% say there are opportunities for creative mixed land uses, 62% agree specific areas could be designated for non-maritime activities, and 83% have recently or are planning to make major investments.

The port area is developed with docks (for coal, iron ore, grain, salt, and other commodities), cargo terminals, fueling depots, and a shipyard. Many of the currently operated docks have the potential for increased efficiencies to move more cargo.

Passenger Air

Air

The Duluth International Airport (DLH) provides services for commercial, general aviation, and military use. Duluth is the second busiest commercial service airport in Minnesota. Total passengers for 2016 was 255,296, which includes both enplanement and deplanement. Total annual passengers could reach 350,000 by 2027, an increase of 38% over current totals.

In the past 10 years, airport activity trends have generally been increasing, with aircraft traffic remaining proportionally consistent amongst the commercial (15%), general aviation (70%), and military (15%) users.

The airport has a $3.1 billion annual impact to the local economy (2010), including the Minnesota Air National Guard Base. Three large regional employers located on site include AAR Corporation, the Duluth Air National Guard base, and Cirrus Aircraft.

State Highway 53 is the principal arterial roadway providing access to the airport, with a network of surrounding city and county roads connecting terminal facilities. Ground transportation includes taxi service, rental cars, public bus service provided by the Duluth Transit Authority, and scheduled shuttle bus service provided by Jefferson Lines.



The airport has been aggressive in efforts to increase and improve air service to the region. These efforts have included submitting applications to increase air service under the Small Community Air Service Development Program and working with other airports and the state to improve regional air service. Further, the airport recently built a new terminal and parking structure which provide better vehicle access and passenger facilities to improve travelers' experience. The airport could accommodate at least one more commercial carrier.



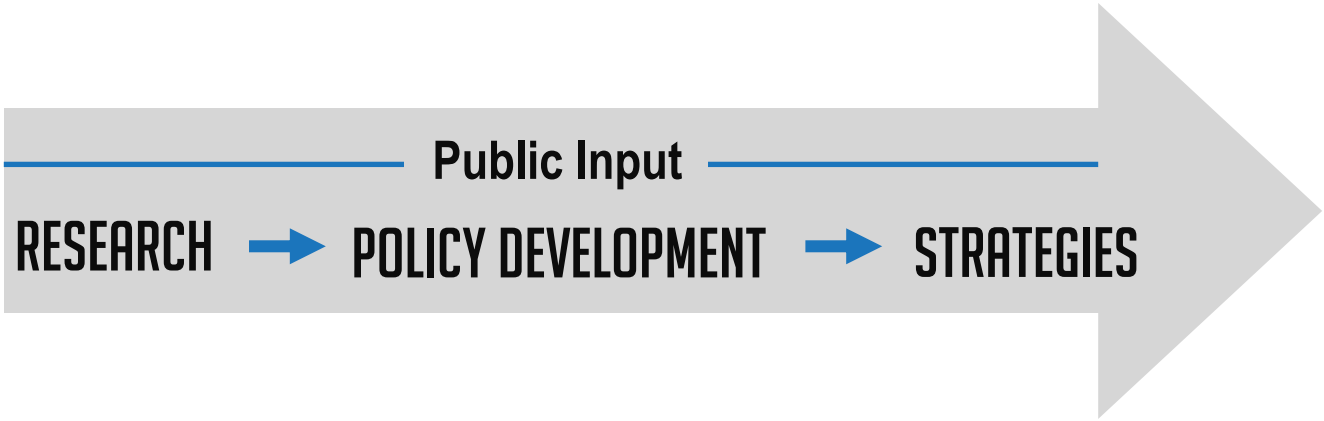
Source: Duluth Airport Authority

A second airport, Sky Harbor, provides services for business and recreational users and is located at the end of Park Point, just 5 miles from Downtown. Sky Harbor has a land runway approximately 3,050 feet long, two sea runways, and a ramp and dock for sea plane access.

Sky Harbor will be realigning its runway over the next 3 years. The plan includes rotating the runway 5 degrees into Superior Bay where 7.5 acres of additional bayside shoreline will be created by filling in shallow waters. That slight shift toward the bay would be enough to avoid the old-growth red and white pines, some 200 years old and 100 feet tall, that are part of a protected scientific natural area. The current runway would be removed and a new 2,600-foot runway built.

Policies & Strategies

The research and input throughout Imagine Duluth 2035 led to development of six broad policies that also reflect the Governing Principles. Each policy was then further expanded into specific strategies to be carried forward to implementation.



Policy #1 – Improve street conditions to function better for everyone

Asset management is a system of planning for street maintenance and reconstruction in order to make the best use of resources. Activities can range from simple maintenance such as chip sealing and crack sealing, to targeted reconstruction.

Streets are used for almost all modes of transportation in the city. Deferred maintenance and lack of investment impact automobiles, transit, pedestrians, and bicyclists. This policy focuses on maintenance, reconstruction, and incremental improvements of the street network.

S1. Continue the City's asset management plan to extend the life of pavement.

S2. Seek to maintain a minimum Pavement Quality Index of 70 for streets, particularly along transit lines, high-traffic areas, and bike routes.

S3. Prioritize implementation of the ADA Transition Plan, with a focus on ADA Priority Areas, Core Investment Areas, and pedestrian connections in the mall area.

S4. Develop a funding source dedicated to installation and maintenance of sidewalk networks.

S5. Whenever conducting resurfacing or reconstruction activities on city streets, identify opportunities for installing pedestrian and bike facilities, including on-road bike lanes, for all locations identified in the City's adopted bikeway system plan.

S6. Ensure that sidewalks and crosswalks are rapidly cleared of snow (and continuously cleared, in Core Investment Areas), to ensure ease of system use by all residents.

S7. Continue to develop, improve, and implement recommendations from Safe Routes to Schools plans to enhance safety for children around schools and throughout the community.

S8. Ensure that when utility repairs are conducted, roadway surface is restored to a preferred condition, and when possible seek to locate new or improved utilities outside the driving lanes.

S9. Adopt measures to reduce vehicular travel speed and improve intersection safety, especially in busy areas, to improve overall safety conditions, reduce injuries, and eliminate deaths.

S10. Monitor and adopt best practices for self-driving vehicles.

S11. Because use of electric vehicles is increasing, plan for necessary infrastructure to support their use.

Policy #2 – Reduce infrastructure costs through innovation and wholesale design change

The existing infrastructure needs far exceed reasonably foreseeable funding. This policy aims to reduce costs in the long term through strategic reductions in width and linear miles of city streets.

S1. Evaluate city street design standards to reduce replacement costs and ongoing maintenance and plowing needs by allowing or requiring narrower street widths whenever possible and appropriate.

S2. To reduce speeds, increase safety, and lower costs, ensure the use of appropriate urban or rural design metrics for new or reconstructed streets (depending on the applicable area of the city). When possible, use updated engineering standards such as NACTO Urban Street Design Guide.

COMPARISONS OF CITY ROAD WIDTHS

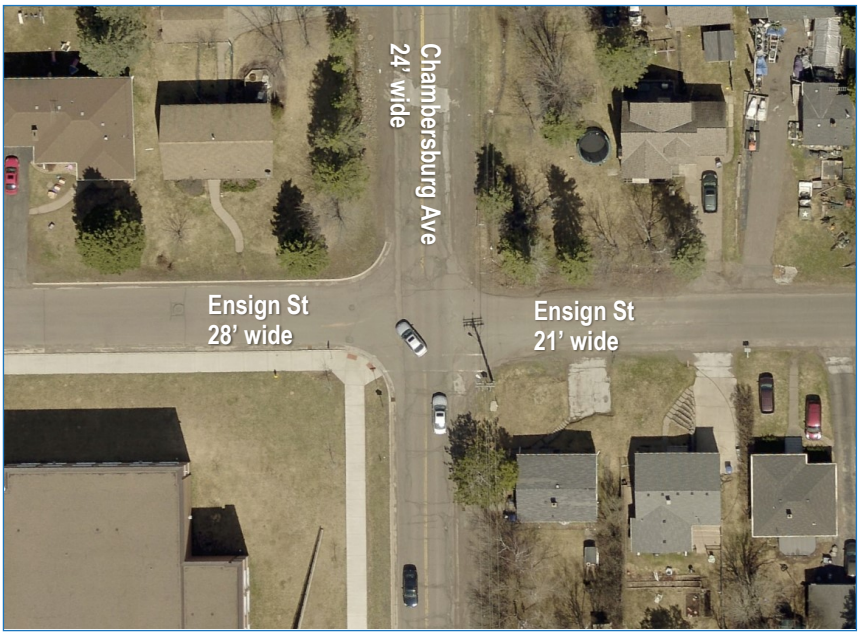
N 47th Avenue E & Otsego Street. *N 47th Avenue E is 48' wide, far beyond what is needed for two driving lanes; no parking is allowed on this street. Otsego is 28' wide and allows parking. Reducing the width of 47th would have minimized maintenance costs and would slow traffic.*



N 24th Avenue W and W 6th Street. *N 24th Avenue W is 32' wide, far beyond what is needed for two driving lanes; no parking is allowed on this street. W 6th Street is 28' wide and allows parking. This is another example of a street where unnecessary width increases maintenance and reconstruction costs.*



Chambersburg Avenue and Ensign Street. *Ensign Street is 28' on the west side of Chambersburg and 21' on the east side of Chambersburg. Both allow parking. Because Ensign is a low-volume residential street, less street width would reduce maintenance and construction costs.*



S3. Develop options for eliminating alternate-side parking requirements, such as through the use of "snow emergencies," to allow for a reduction in street width in those locations where on-street parking is only allowed on one side of the street.

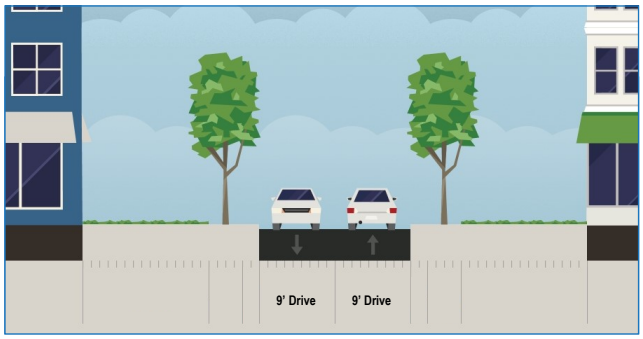
S4. Evaluate streets in low density areas that could be replaced, reduced, removed, or made private to more effectively utilize maintenance budgets and long-term capital replacement funds.

S5. Consider maintenance burdens resulting from street use by trucks and waste haulers, and options to reduce such street use through citywide policy changes.

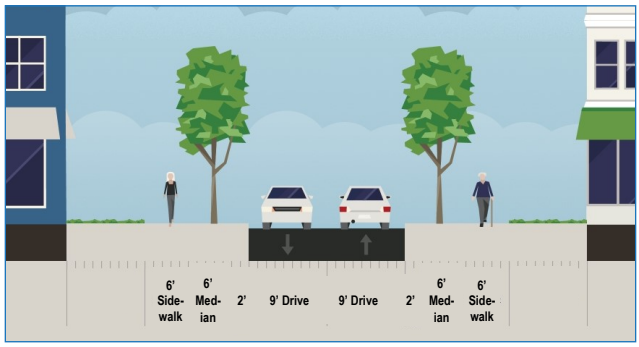
S6. Improve long-term infrastructure effectiveness through strategic use of green infrastructure, especially to support urban boulevard trees, transportation-adjacent wetlands, streams, and Lake Superior.

EXAMPLES OF NARROWER WIDTHS

Residential Streets Without Parking

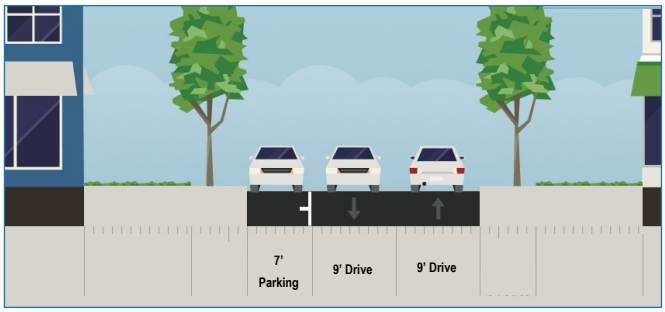


No sidewalks

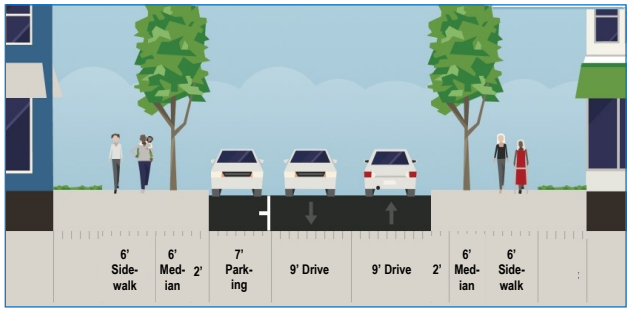


Sidewalks

Residential Streets With Parking



No sidewalks



Sidewalks

Policy #3 – Add to the transportation network by systematically enhancing multimodal options

Multimodal options allow for efficient, equitable, healthy transportation. This policy identifies improvements needed to effectively extend these options to a wide range of Duluthians.

Multi-modal transportation covers transit, bicycle, and pedestrian travel, as well as automobile travel – including car sharing, carpooling, and rideshare. Important enhancements in multi-modal transportation include wayfinding, sidewalks connecting to destinations, space dedicated for bike racks, and connections between modes.

S1. Recognize that people are pedestrians at some point in their daily travels—even if walking is used in conjunction with other modes—and prioritize pedestrian safety and comfort in transportation improvements.

S2. Update development policies to ensure new development includes appropriate supporting infrastructure; options in Core Investment Areas, ensure this includes the full suite of transportation options.

S3. Update the UDC to include best practices for vehicle parking, bicycle parking, pedestrian connections, and transit stop requirements. Such requirements should be standardized for all modes.

S4. Minimize or eliminate use of angled or perpendicular parking to improve safety conditions for bicyclists, except where perpendicular parking is necessary or required due to steep topography.

S5. Consider options for expending parking meter revenue near where it is collected, and manage pricing to increase on-street cost, making it more comparable to ramp pricing.

S6. Develop programmatic actions to promote rideshare, carshare, and bikeshare programs. Incentivize employer support for biking and transit use.

S7. Conduct analysis of options for improving uphill/downhill connections in areas of high housing, job, and tourist density, especially between key destinations and areas where people seek to travel without use of a personal vehicle. The analysis should include an evaluation of a mode's capital and operational investments and requirements.

S8. Maintain existing public stairways and add new stairways where appropriate. Add bike rails where appropriate. Consider naming stairways using unique identifiers, and install signage to add to the level of public awareness and enjoyment.

S9. Identify study area and multi-modal needs for the future Northern Lights Express station.

S10. Standardize regulatory requirements for installation of bike racks to ensure ease of maintenance and security of bikes against theft.

S11. Complete planned trails and bike lanes to connect gaps in the bicycle route network. Prioritize protected bike lanes over unprotected bike lanes. Increase bicycle parking, both public and private, in coordination with partners.



Sample ideas from the focus group of how to improve a streetscape for all modes.

S12. Prioritize transit route service and expansion between areas of the greatest population and employment densities, in coordination with the Duluth Transit Authority. Seek to establish a network of specific routes with rapid frequencies, such as between Downtown and Lincoln Park.

S13. Improve transit amenities and transit stop conditions, creating a prioritized strategy for capital investment to reflect continuous incremental improvements in partnership with the DTA. Focus initially on investments in and around Core Investment Areas.

S14. Increase bike capacity on buses and identify ways for non-traditional bikes to travel by bus.

S15. Minimize transit system route changes that negatively impact service to transit-dependent people in the city.

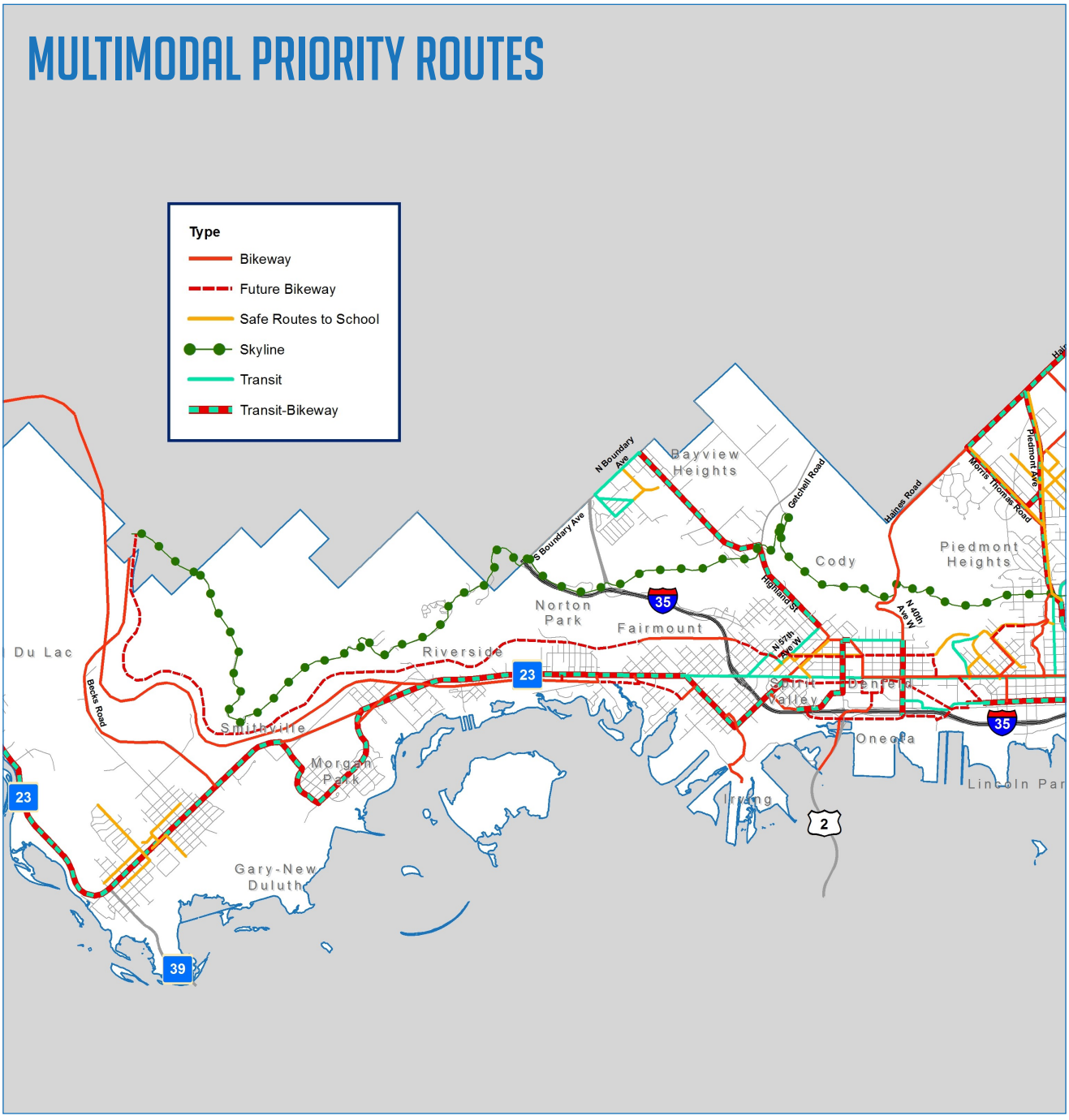
S16. Develop implementation actions to prioritize snow removal at transit shelters and along sidewalks serving transit stops.

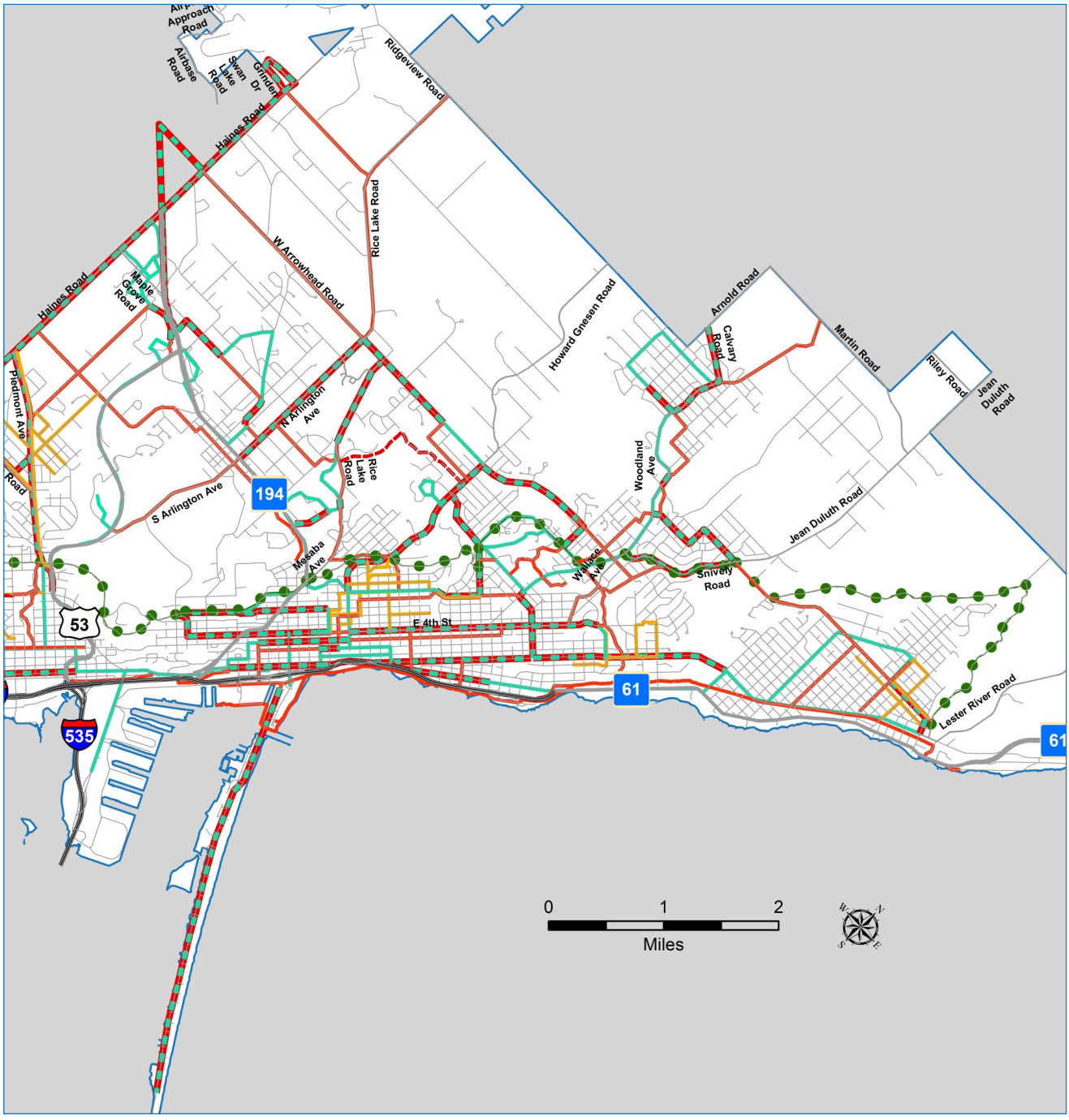
S17. Collaborate with the DTA to improve transit branding and marketing, including user-friendly tools such as smartphones, and updates to bus stop signage and design.

S18. Improve 'park and ride' design and marketing.

S19. Work with the DTA to consider system improvements such as creation of a Bus Rapid Transit corridor (or similar); alignment of route schedules with schools, airport, and businesses; and access to grocery stores.

MULTIMODAL PRIORITY ROUTES




Airport Approach Road
Airbase Road
Swan Lake Road
Grinden Dr
Haines Road
Ridgeview Road
Rice Lake Road
W Arrowhead Road
Haines Road
Maple Grove Road
Piedmont Ave
Road
N Arlington Ave
S Arlington Ave
194
Rice Lake Road
Mesaba Ave
53
E 4th St
535
61
Howard Gnesen Road
Arnold Road
Calvary Road
Martin Road
Riley Road
Jean Duluth Road
Woodland Ave
Jean Duluth Road
Wallace Ave
Snively Road
Lester River Road
61
0
1
2
Miles

Policy #4 – Improve system condition and connections in and between Downtown and Canal Park

This area of Duluth was consistently identified as having unique transportation needs compared to the remainder of the city, due to congestion and volume of commuters and visitors. Access to and within this area requires creative strategies for events and peak times as well as consistent and easy-to-understand wayfinding.

S1. Develop a dynamic parking information system to direct commuters and visitors from regional infrastructure to the most effective available parking opportunity in either downtown or Canal Park.

S2. Conduct an evaluation of parking demand and potential use in downtown and Canal Park, taking into account the unique walksheds arising due to obstacles and topography.

S3. Enhance partnerships with MnDOT, the DTA, and the DECC to improve sidewalk, bike, and road conditions for all users between Downtown and Canal Park.

S4. Expand opportunities for transit circulation and stops in Downtown and Canal Park. Consider expansion of the 'downtown fare zone' to locations further east and west, and improve residents' and tourists' awareness of such transit ridership opportunities.

S5. Improve pedestrian crossings in high-traffic areas through the use of mid-block crossings, bumpouts, and signal phasing.

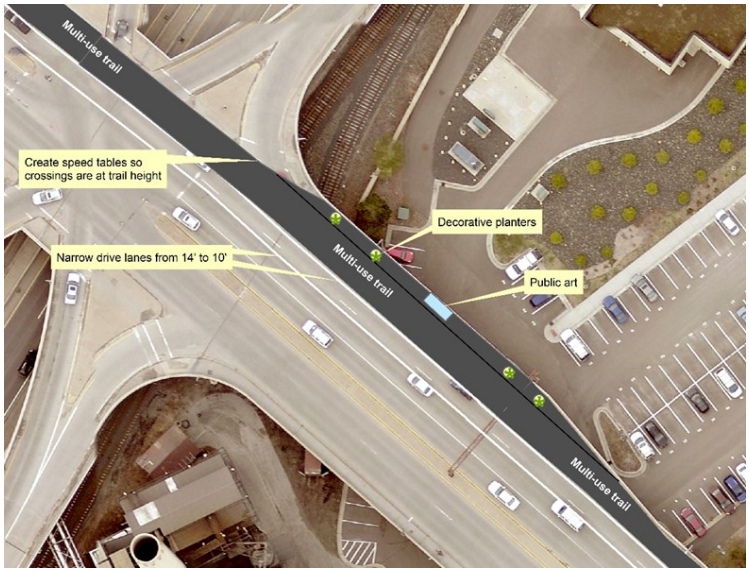
S6. Improve alleys Downtown and in Canal Park to create new commercial opportunities. Focus first on the alley between S. Lake Avenue and Canal Park Drive, where existing conditions function as a woonerf (shared pedestrian/street area). Consider eliminating one-way alley conditions and creating unique named identifiers for Downtown alleys.

S7. Evaluate and update Downtown's streets plan to guide future improvements, including the eventual likelihood of conversion of one-way streets to two-way streets.

S8. Improve options for walking in Canal Park through evaluation of changes to Buchanan Street, the Baywalk, and other areas.

S9. Identify options for downtown plazas to serve pedestrians and increase the livelihood and level of activity downtown.

S10. Complete the skywalk system and enhance wayfinding both within and between skywalks and street-level access points and destinations.



Policy #5 – Base decisions about transportation infrastructure primarily on improving city and neighborhood vitality, and not solely on automobile through-put

Transportation systems impact neighborhoods where people live, work, and play. These networks can either negatively impact the city through excess noise, speeds, or creating sprawl, or positively impact neighborhoods by helping to create identifiable destinations.

S1. Implement use of traditional elements of the transportation landscape as public art opportunities. Use existing models where cities allow art on utility cabinets, on pavement at intersections, and on bike racks and fire hydrants.

S2. Establish a high standard for transportation infrastructure within all Core Investment Areas, including ample pedestrian infrastructure, well-designed parking areas, a legal structure for shared parking, and an adequate level of bike parking.

S3. Expand and retain urban trees during street construction and other improvements when appropriate..

S4. Installation of green infrastructure should emphasize both environmental and aesthetic amenities. Maintenance plans for green infrastructure should be included for any installations.

S5. Incorporate creative placemaking and art into street, transit, and trail projects.

S6. Use appropriate lighting to promote safety for all modes.

S7. Strengthen connectivity standards to require more pedestrian and bicycle paths through parking lots to increase local access to businesses and services.

Policy #6 – Protect and enhance regional transportation networks, especially for purposes of expanding opportunities for movement of freight

Freight movement is vital for Duluth's economy and its identity as a port city. Freight has become increasingly intermodal and interconnected; this policy supports truck, air, water, and rail needs.

S1. Support the work of the HTAC, DSPA, USACE, USCG, and other stakeholders to ensure continued maintenance of Duluth's shipping channels and port facilities.

S2. Promote the use of appropriate regional freight corridors and intermodal facilities for the success of water-borne commerce and shipping by truck and rail.

S3. Seek to ensure that reconstruction of the Twin Ports Interchange at US Hwy 53 and Interstate 35 meets the competing needs of freight transportation, safety, and neighborhood connectivity and improvements, particularly in Lincoln Park.

S4. Support infrastructure improvements at the Duluth International Airport, including through development of the 3-21 crosswind runway. Structure economic development policies and opportunities for growth in such a way as to support increased activity at the airport.

S5. Collaborate with the MIC, DIA, and DSPA to develop a plan for coordinated transportation investments to support the export and mobility of freight by truck, air, and rail.

S6. Expand public-private partnerships with rail freight companies to maintain, improve, and expand rail infrastructure.

Funding & Projects

The above policies and strategies introduce an ambitious suite of transportation improvements throughout the city, many of which require the City to procure funding from various sources. Specific projects include:

- Yearly crack sealing and chip sealing where needed to preserve the life of existing streets.
- Reconditioning and reconstruction of streets used for transit lines, bike routes, or with high traffic volumes that have a Pavement Quality Index lower than 70.
- Implementation of a snow emergency plowing system.
- Improvements to Skyline Parkway for all modes.
- Reestablishment of the Snow Angels program to aid with sidewalk clearing, and staffing for enforcement of snow violations.
- Sidewalk improvements to bring all sidewalks within ¼ mile of a transit stop to "fair" or "good" condition.
- Implementation of the ADA Transition Plan, including pedestrian improvements in the mall area.
- Install bumpouts, crosswalks, and other pedestrian crossing improvements where called for in Safe Routes to School plans and Core Investment Areas.
- Upgrades in technology to implement dynamic pricing strategies in parking ramps and on-street parking.
- Creation of a bike sharing feasibility study.
- Transportation infrastructure that facilitates up/downhill mobility (i.e. aerial gondola).
- Completion of the Campus Connector.
- Creation of a bike facility connecting the Cross City Trail to London Road, through Downtown.
- Completion of the Cross City Trail.
- Widening and/or reconstruction of the Lakewalk from Canal Park to 21st Avenue E.
- Planning and implementation of bicycle parking in rights-of-way.

- Pedestrian and bike improvements on the Lake Avenue and 5th Avenue West bridges, to include either widening the bridge structures or narrowing drive lanes to gain space for multiple modes.
- Plan for Downtown streets and streetscape.
- Improvements to the alley between S Lake Avenue and Canal Park Drive.
- Reconstruction of the Baywalk behind the DECC.
- A parking plan for Downtown and Canal Park.
- Twin Ports Interchange funding that connects Lincoln Park to Courtland Street.
- Transportation funding can be complex. The City will work to seek funding from sources including:
    - Federal state aid road funds;
    - Federal and state funds for MnDOT roads;
    - Safe Routes to School grant opportunities;
    - Public health funding;
    - Local tax revenue;
    - Green infrastructure grants;
    - Transit funding, such as the Small Starts program.

As projects are implemented, they will be subject to further review and consideration by appropriate City departments and commissions, as well as other agencies. Updates to this section (Funding & Projects) shall be incorporated as comprehensive plan implementation proceeds.

LAND USE



Applying Imagine Duluth 2035's Governing Principles and policies to land uses will set the stage for development and redevelopment over the next 20 years.

Existing Land Use

Duluth's development pattern is based on the historical nature of small towns created in the late 1800s that eventually merged together to form the city of Duluth. The first of these villages developed along the St. Louis River and Lake Superior, with later neighborhoods taking shape over the hill. Because of this, the oldest neighborhoods lie in a linear path along the waterfront, stretching 23 miles from west to east.

Land uses reflect a development pattern based on access to transportation. Neighborhoods from Gary-New Duluth to Lakeside-Lester Park generally center on core commercial areas surrounded by single-family residential neighborhoods. Neighborhoods west of downtown originally provided housing and services for employees of the industries along the river and harbor; many industrial land uses remain in these locations today, particularly in Riverside, Irving, Oneota, and Lincoln Park. Additional industrial land uses are located in the business park near the airport.

Together, Downtown and Canal Park serve as the cultural and tourist epicenter of the city, with entertainment and shopping clustered within Canal Park and along Superior Street. Other major commercial areas include the Miller Hill area along Highway 53, Spirit Valley along I-35, Mt. Royal near UMD, and the Kenwood shopping area at Kenwood Avenue and Arrowhead Road. In the last ten years, Lincoln Park has seen an influx of small, local craft businesses, including artists, small manufacturers, and breweries.

The developed areas of the city comprise the areas that, topographically, were easiest to build on: relatively gentle slopes, close to the waterfront and infrastructure, with land that was generally easy to fill or drain. Many of the undeveloped spaces are those that present development challenges: extremely steep slopes, stream corridors—sometimes with steep ravines—and wetlands. Undeveloped areas provide environmental benefits, wildlife habitat, and aesthetic and recreational amenities that are highly valued in Duluth. For these reasons, most development focus has been, and will continue to be, in previously developed areas of the city, in a manner that will most efficiently use existing infrastructure.

Annexations since the 2006 Comprehensive Land Use Plan include a portion of Midway Township and a portion of Rice Lake Township, both in 2014. These annexed areas are largely undeveloped and contain significant park, recreation, and natural areas, as well as some commercial uses in Midway.

A visual representation of Duluth's general land use pattern is provided in the form of an Existing Land Use map, on pages LU-4—LU-5.

Future Land Use

A future land use map, once adopted, becomes an official map guiding future development for the city. The map serves as a guide, to be used in tandem with the Governing Principles and policies in this plan, for the preferred development scenario over a 20-year horizon. Land use areas are fairly general, not getting any more detailed than a city block; map users should think of the map as showing the land uses from a perspective of 30,000 feet over the city.

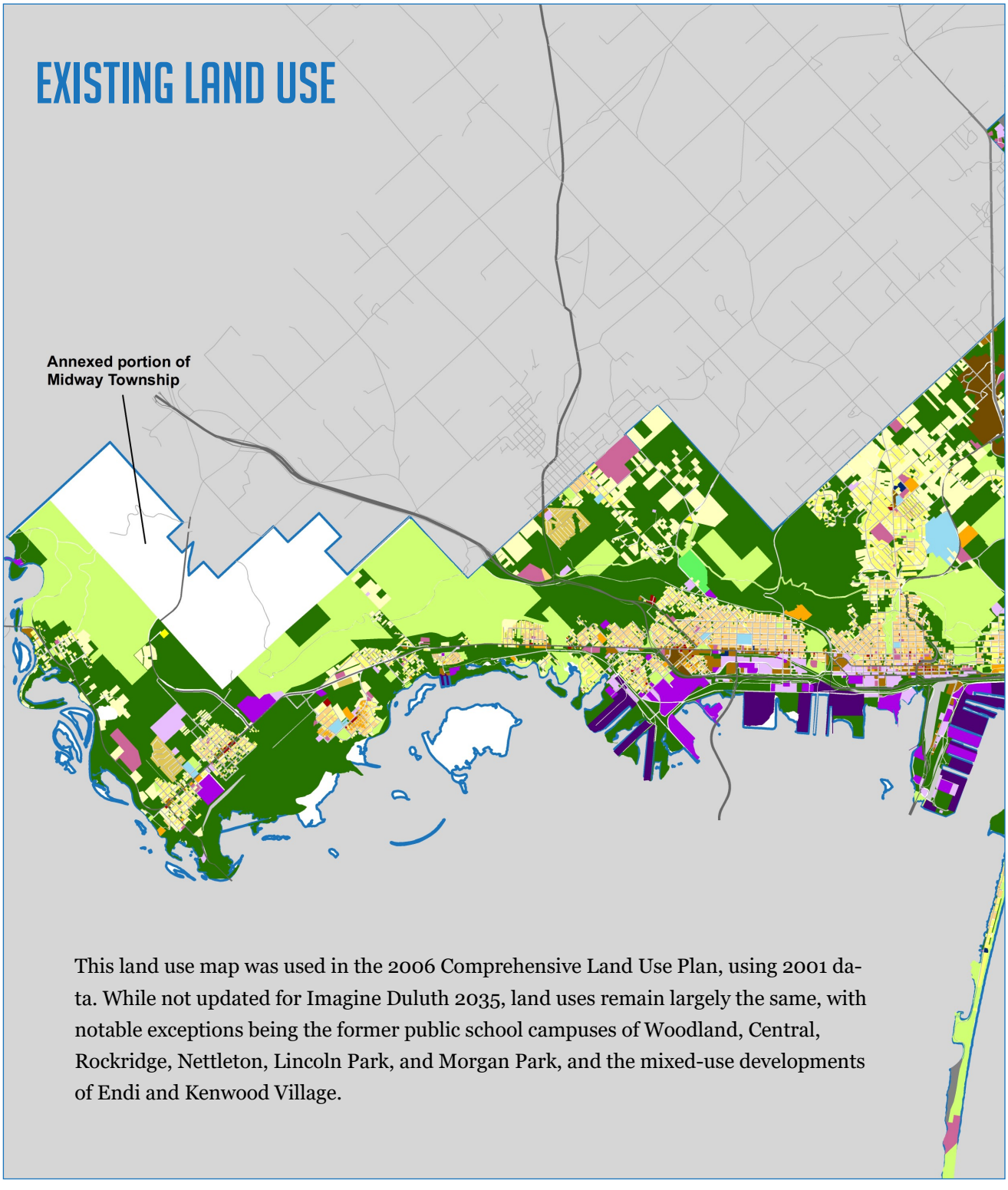
The 2006 Comprehensive Land Use Plan included a Future Land Use Map for all property within the city, identifying 22 future land use categories and 3 overlay categories. These categories were reviewed as part of Imagine Duluth 2035 and, for the most part, remain valid categories for a future land use map. Ten future land use categories are discussed below in more detail.

Category Changes

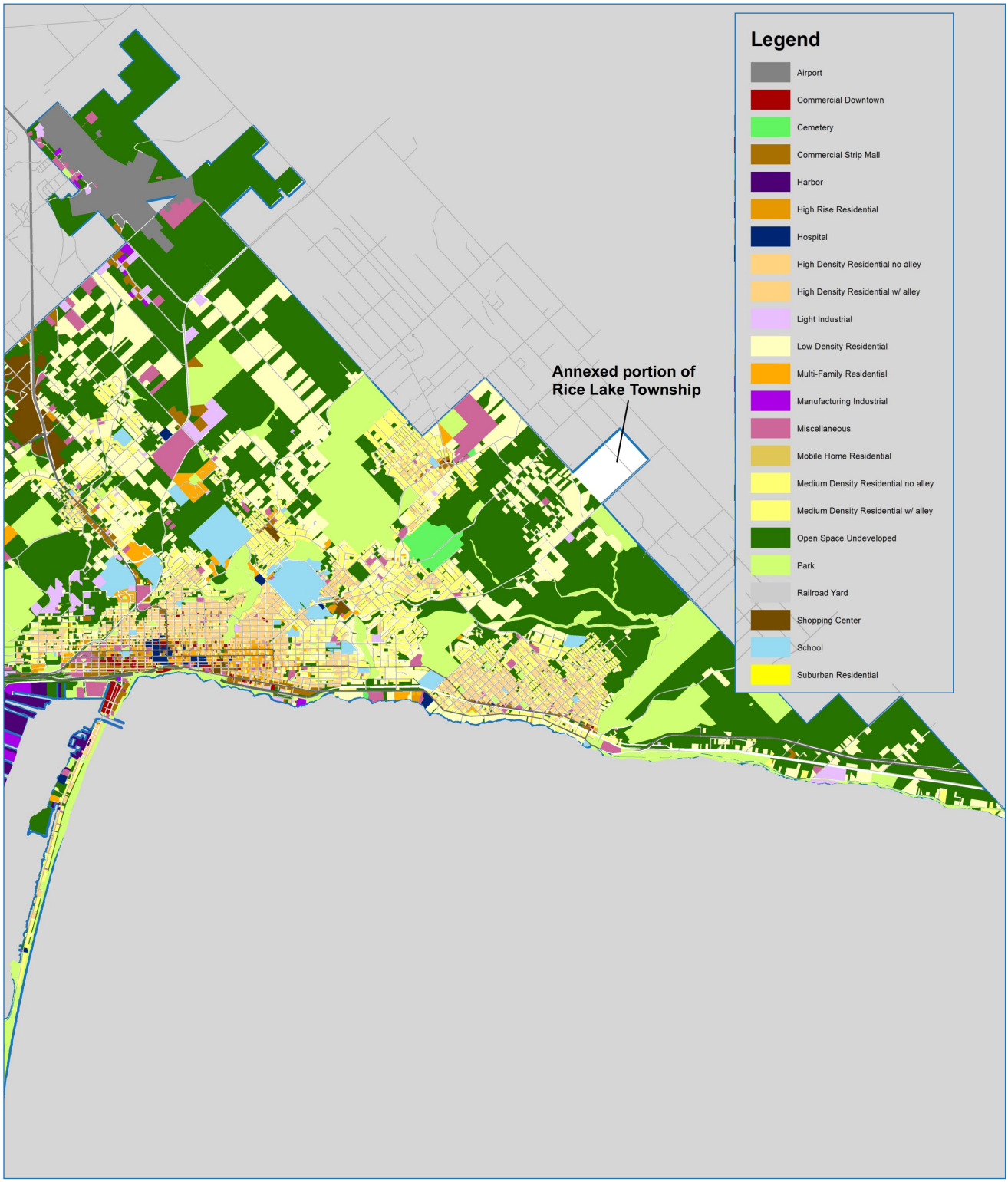
Auto-Oriented Commercial—This land use was identified in the 2006 comprehensive plan as being "focused primarily on needs and convenience of the motorist." In recent planning activities—the City's new zoning code in 2010, this update to the comprehensive plan, and new best practices in urban planning—the focus has switched away from auto-oriented land uses, toward multi-modal transportation and mixed land uses. Areas classified as Auto-Oriented Commercial in the 2006 comprehensive plan have now been designated predominately as Neighborhood Mixed Use, Neighborhood Commercial, and Central Business-Secondary.

Medical District and Institutional—In 2006, the Medical District land use category was assigned to large hospital campuses. Medical campuses can have significant impacts on surrounding neighborhoods and can require special zoning considerations to meet their needs. A separate category, Institutional, was applied to university and college campuses, as well as public school campuses. Since then, Duluth has

EXISTING LAND USE



This land use map was used in the 2006 Comprehensive Land Use Plan, using 2001 data. While not updated for Imagine Duluth 2035, land uses remain largely the same, with notable exceptions being the former public school campuses of Woodland, Central, Rockridge, Nettleton, Lincoln Park, and Morgan Park, and the mixed-use developments of Endi and Kenwood Village.


Legend
Airport
Commercial Downtown
Cemetery
Commercial Strip Mall
Harbor
High Rise Residential
Hospital
High Density Residential no alley
High Density Residential w/ alley
Light Industrial
Low Density Residential
Multi-Family Residential
Manufacturing Industrial
Miscellaneous
Mobile Home Residential
Medium Density Residential no alley
Medium Density Residential w/ alley
Open Space Undeveloped
Park
Railroad Yard
Shopping Center
School
Suburban Residential
Annexed portion of
Rice Lake Township

worked with medical and educational institutions alike on campus master plans, carefully considering surrounding development. These planning processes have shown extensive overlap between the needs and impacts of medical institutions and educational institutions, leading to a merger of these two categories.

Preservation and Recreation—Traditional recreational land uses often focused on a single use and destination: people would visit a playground in the neighborhood, play soccer at a local field, or go to the beach. Trends in outdoor recreation have led to increases in experiences that require linear corridors (hiking and biking) or large passive spaces for nature-based recreation. These land uses meet the definition of Recreation, but also have high natural resource and scenic values that meet the definition of Preservation. Because of this overlap, the Preservation and Recreation land uses have been merged to form a new category, Open Space.

Further Study

Rural Residential and Low Density Residential—The 2006 Future Land Use Map included areas of Rural Residential, with a density of 1 unit per 5 acres, and Low Density Residential, with a density of 3-4 units per acre. These densities reflect sprawling suburban development patterns that dominated the late 20th century. Imagine Duluth 2035 reverses this trend, recognizing that sprawling infrastructure is unsustainable (see "Local Street Costs" on page T-16), and that core neighborhoods and commercial areas provide return on investment – financially, culturally, and environmentally.

To achieve these goals, the City aims to increase density in existing residential areas and maintain a rural character in undeveloped areas—eliminating the suburban density of 3-4 units per acre. Future study should recommend Rural Residential with a density of 1 unit per 10 acres (1 unit per 5 acres only under certain conditions). Low Density Residential (or a new name for this category) should decrease density to 1 unit per 2 acres, and be used in areas with existing lots that already meet this guideline, such as the North Shore. Areas currently shown as Low Density Residential on the Future Land Use Map should be evaluated for either Traditional Neighborhood (areas already developed with buildings and streets), Low Density Residential, or Rural Residential.

Commercial Waterfront and Industrial Waterfront—Commercial Waterfront includes commercial uses, sometimes mixed with residential, and can be adjacent to Industrial Waterfront. Industrial Waterfront also may co-exist in proximity to other

waterfront-related uses. Given these similarities, in the future these categories should be evaluated to determine if combining them is desirable. The boom in craft manufacturing and artisan spaces further supports a blending of industrial and commercial areas. The resulting land use category should encourage a variety of water dependent uses, preserve necessary industrial areas, and promote public water access.

Form Districts—The 2006 Comprehensive Land Use Plan called for form-based guidelines in the Central Business Primary and Central Business Secondary areas, as well as in some Urban Residential and Traditional Neighborhood areas. The study done as part of the UDC creation in 2009-2010 further defined and mapped form district areas, including some (but not all) of the Central Business Primary and Central Business Secondary areas, and Neighborhood Commercial and Mixed Use Neighborhood. The Future Land Use categories and map should be amended to clarify those areas designated for form districts and to better align with the UDC. In addition, it should include an analysis of streetscape and form type that is being identified for the area.

Map Amendments

In addition to changes to the categories as mentioned above, Imagine Duluth 2035 amends the Future Land Use Map as follows:

Midway Annexation (Site 1)

The areas subject to this change were brought into the city from Midway Township as part of the City and Township's orderly annexation agreement. The majority of the lands are in public ownership and are designated Open Space. Lands along Becks Road, which provides a strong connection to Interstate 35, are designated General Industrial. This reflects existing heavy industrial land uses, including gravel mining and cement and asphalt production.

Becks Road (Site 2)

The area along Becks Road is changed from Preservation to Business Park. Much of this area is currently owned by the State of Minnesota due to tax forfeiture. It is in close proximity to the demolition landfill and has good access to Becks Road, as well as water and sewer infrastructure.

Becks Road & Commonwealth Ave Intersection (Site 3)

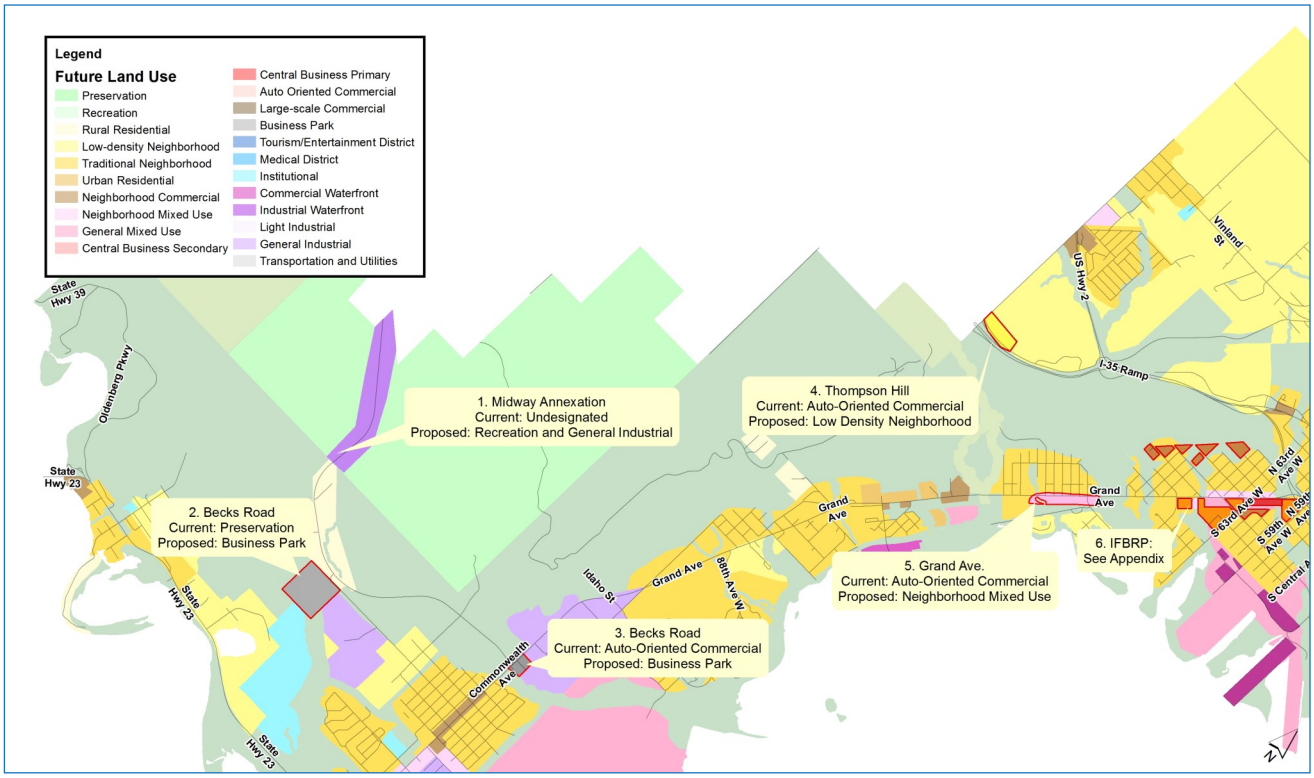
In this location, lands were previously designated for Auto-Oriented Commercial uses. This area is now designated for Business Park development, which is intended for job-intensive uses.

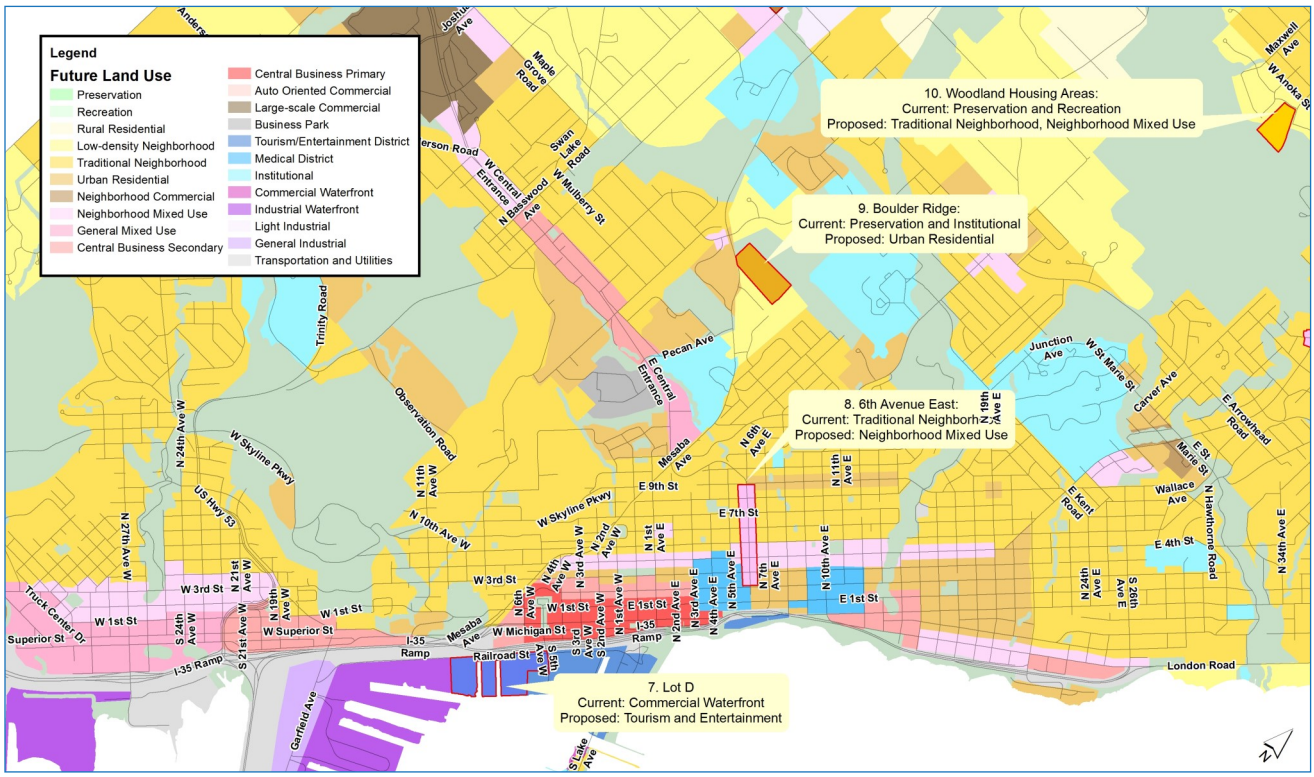
Thompson Hill (Site 4)

This site changes from Auto-Oriented Commercial to Low Density Neighborhood. The change is based on the availability of utilities and consistency between this area and other lands immediately to the north. This area of the city is part of the Kingsbury Creek and Knowlton Creek watersheds; low intensity uses are appropriate.

Grand Avenue (Site 5)

This changes from Auto-Oriented Commercial to Neighborhood Mixed Use. Change to neighborhood oriented commercial activities will allow for redevelopment of sites serving the residential area on the uphill side of Grand Avenue. Neighborhood oriented uses are most appropriate, allowing higher intensity commercial activities to be located in the Core Investment Areas to the east and west of this area of the city.





Irving/Fairmont Brownfield Remediation Plan (IFBRP) (Site 6)

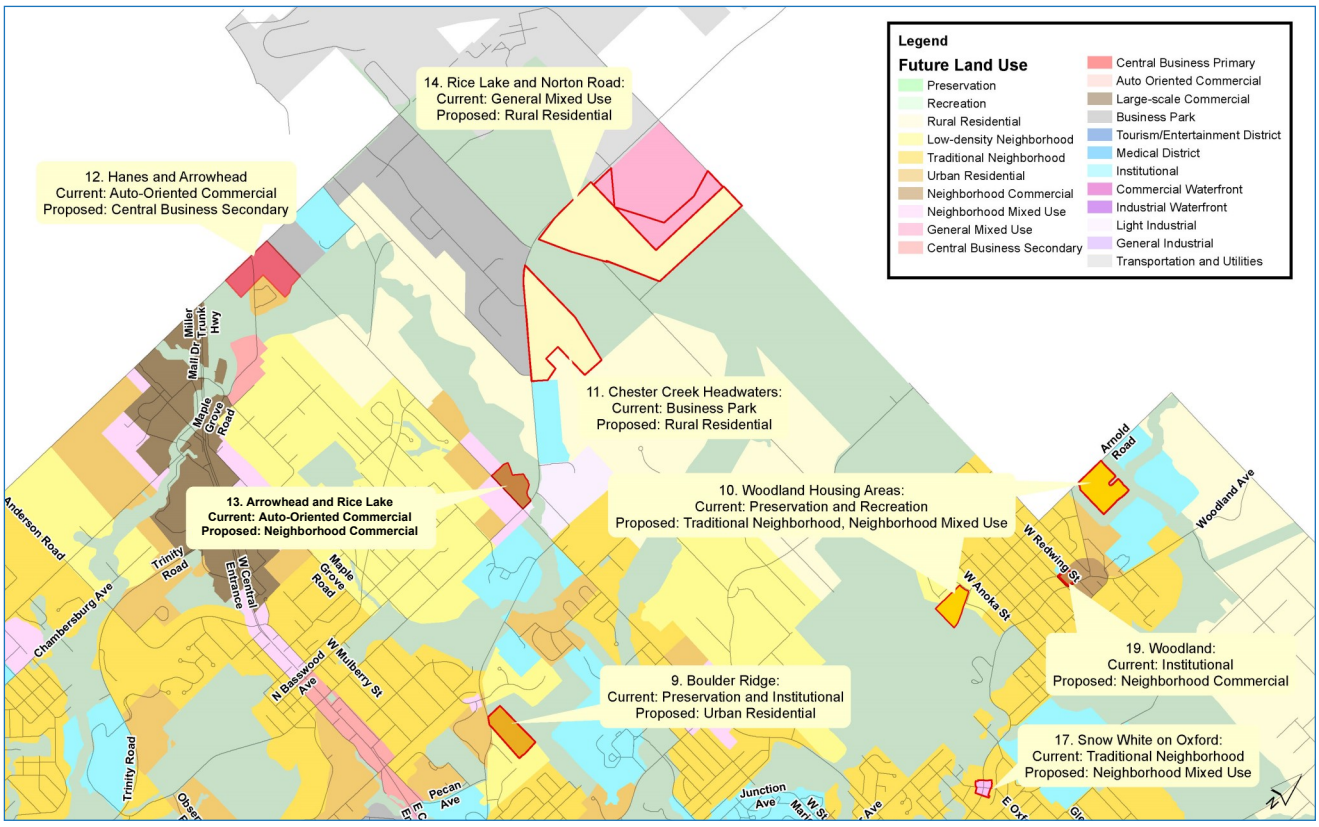
The map changes include opportunities for new residential and commercial development, including mixed-use redevelopment. The complete analysis and documentation of these changes is included in the IFBRP study, an appendix to the plan.

Lot D (Site 7)

Map change from Commercial/Industrial Waterfront to Tourism and Entertainment. This alteration is consistent with the Bayfront Small Area Plan and delineates the furthest present extent of the Tourism and Entertainment land use category.

6th Avenue East (Site 8)

6th Avenue East below East 9th Street has historically had a mixed-neighborhood character. This area is part of the city's medical district. There are several vacant and unused properties along this corridor. Transportation analysis of the function of 6th Avenue East, an undivided four-lane road, is anticipated. The land use change from Traditional Neighborhood to Neighborhood Mixed Use will better allow for redevelopment of this corridor.



Boulder Ridge (Site 9)

This area is presently designated consistent with past uses, which included a shooting range. Redevelopment of this brownfield site will allow for environmental cleanup. The land use is changed from a mix of uses to Urban Residential, anticipating development consistent with the character of existing development to the west side of Rice Lake Road.

Woodland Housing Areas (Site 10)

The area adjacent to Arnold Road changes from recreation to traditional neighborhood; these areas will promote more housing opportunities for the workforce near the airport and adjacent employment areas. The Hartley Park area adjacent to Northfield Street changes from Preservation to Traditional Neighborhood; this land use change will facilitate preservation actions by the City and enable the school district to divest itself of excess property. In addition, development on these sites will increase demand for services in the Woodland Core Investment Area.

Chester Creek Headwaters (Site 11)

The Chester Creek headwaters are changed from Business Park to Rural Residential. The lack of available utilities and transportation infrastructure makes this area best preserved for low density residential activities.

Haines and Arrowhead (Site 12)

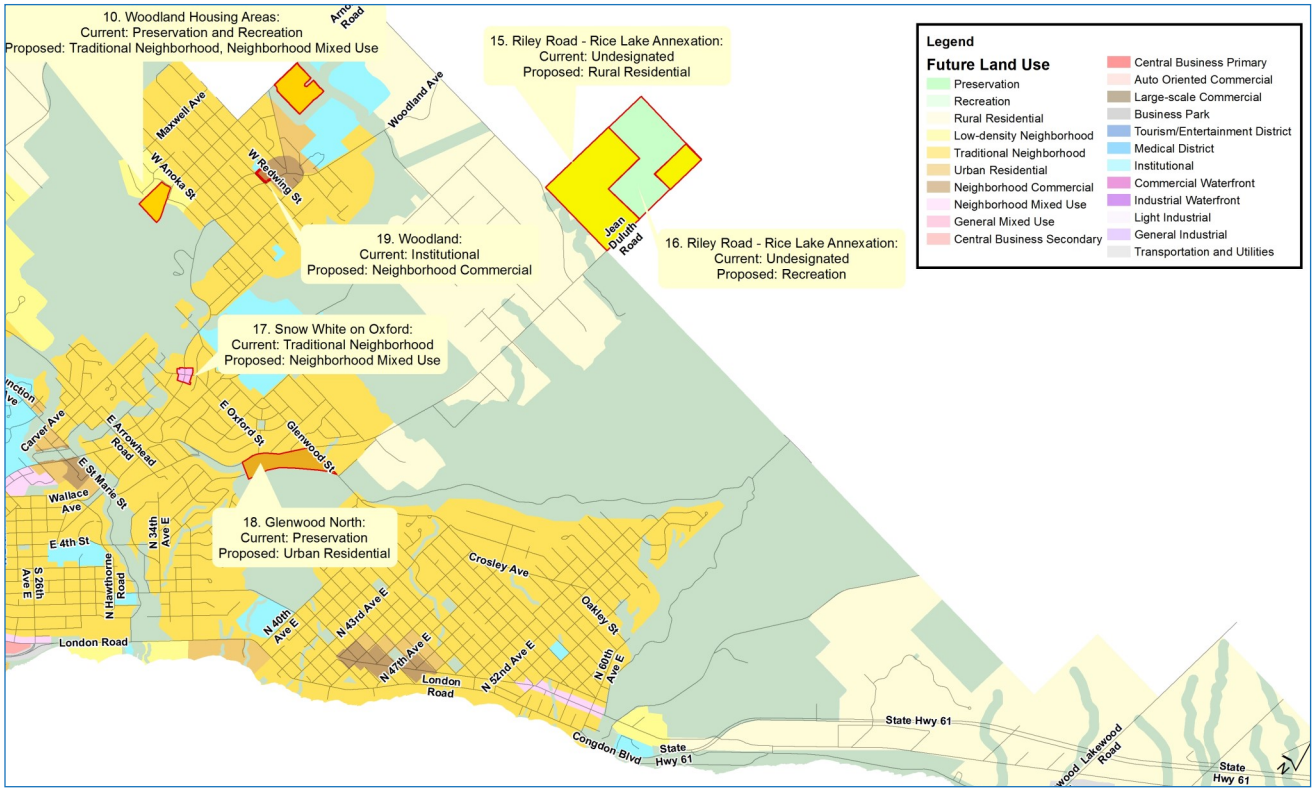
This area had been designated Auto-Oriented Commercial. It is changed to Central Business Secondary to continue to accommodate commercial activities which are complementary to surrounding uses in both Duluth and Hermantown.

Arrowhead & Rice Lake (Site 13)

This study area was originally designated for Auto-Oriented Commercial. Based on surrounding uses and evaluation of opportunities for development, including analysis of surrounding infrastructure, this area is designated Neighborhood Commercial.

Rice Lake and Norton Road (Site 14)

Evaluation of the Rice Lake and Norton area indicates a lack of access to utilities. A portion of the area remains General Mixed Use, but other areas of the analysis area are changed to Rural Residential. Proximity to the airport and changes within the recently created City of Rice Lake may result in some development pressure; however, this area is in the headwaters of Chester Creek and preservation of the low intensity character is appropriate.



Riley Road – Rice Lake Annexation (Site 15)

This action designates land use categories for lands annexed since adoption of the 2006 comprehensive plan. These lands are designated for Rural Residential. There are no utilities available in the area, which has a rural character associated with very low density areas of the city.

Riley Road – Rice Lake Annexation (Site 16)

This action designates land use categories for lands annexed since adoption of the 2006 comprehensive plan. The designation of Open Space is due to the presence of a large sports complex and dog park.

Former Snow White on Oxford Ave (Site 17)

This area was historically a small commercial node. The change will enable additional revitalization in this location to allow for a small area of mixed use types of development.

Glenwood North (Site 18)

For this site adjacent to Glenwood Street and Snively Road, the land use map is changed from Recreation/Preservation to Neighborhood Mixed Use. This change takes advantage of adjacent utilities to provide additional residential opportunities and services. The Skyline Parkway Overlay District will restrict viewshed obstructions.

Woodland, Near Former Cobb School (Site 19)

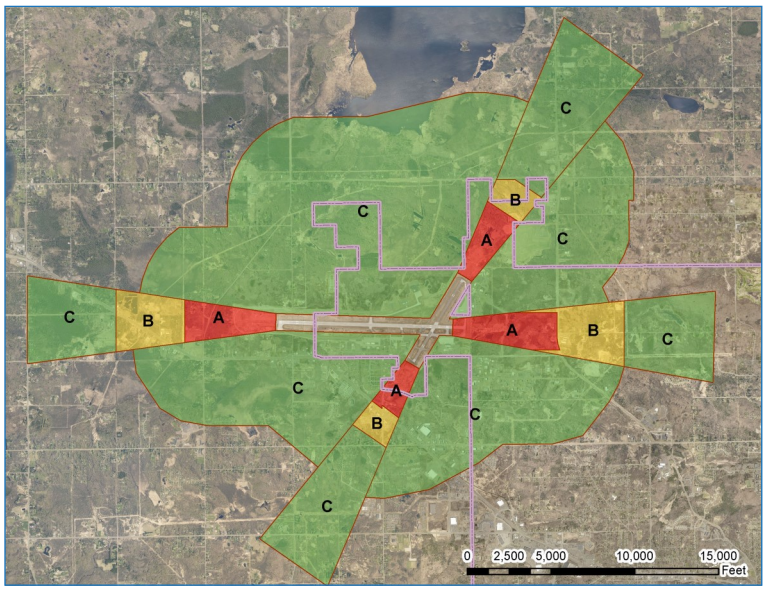
This change from Recreation to Neighborhood Commercial is consistent with the goal of increasing density, provides new opportunities for housing, and allows a mixture of uses within a Core Investment Area.

Areas for Future Study

During the evaluation process, two areas were designated for future study:

US Steel Site in the Morgan Park Neighborhood

This area is broadly designated General Mixed Use. As continued remediation takes place, additional study may help to clarify the City's preference for continued redevelopment of this site in relationship to surrounding land uses.



The area around the Duluth International Airport requires additional measures related to height, land use, and other safety considerations.

The Airport, Safety Zones

Areas east of the airport may be subject to changes arising from action by the Minnesota Legislature, Mn/DOT, the Duluth Airport Authority, and the Joint Airport Zoning Board. Such action may change the airport safety zones. Should this occur, study will be needed to evaluate impacts to development opportunities in this area.

Future Land Use Map

The Future Land Use Map, as adopted in 2006 and amended with subsequent Small Area Plans, is shown on pages LU-8—LU-9. The categories are described in detail on pages LU-10—LU-15, with changes to the Future Land Use Map from the Imagine Duluth 2035 described on pages LU-16—LU-21.

The land use map, in conjunction with the Governing Principles, policies, and strategies of the comprehensive plan, provides direction to land owners, developers, government staff, and elected officials as they make land use decisions.

The **2006 Comprehensive Land Use Plan** identified areas of Duluth for future study. The following areas were identified as candidates for small area plans that were not completed:

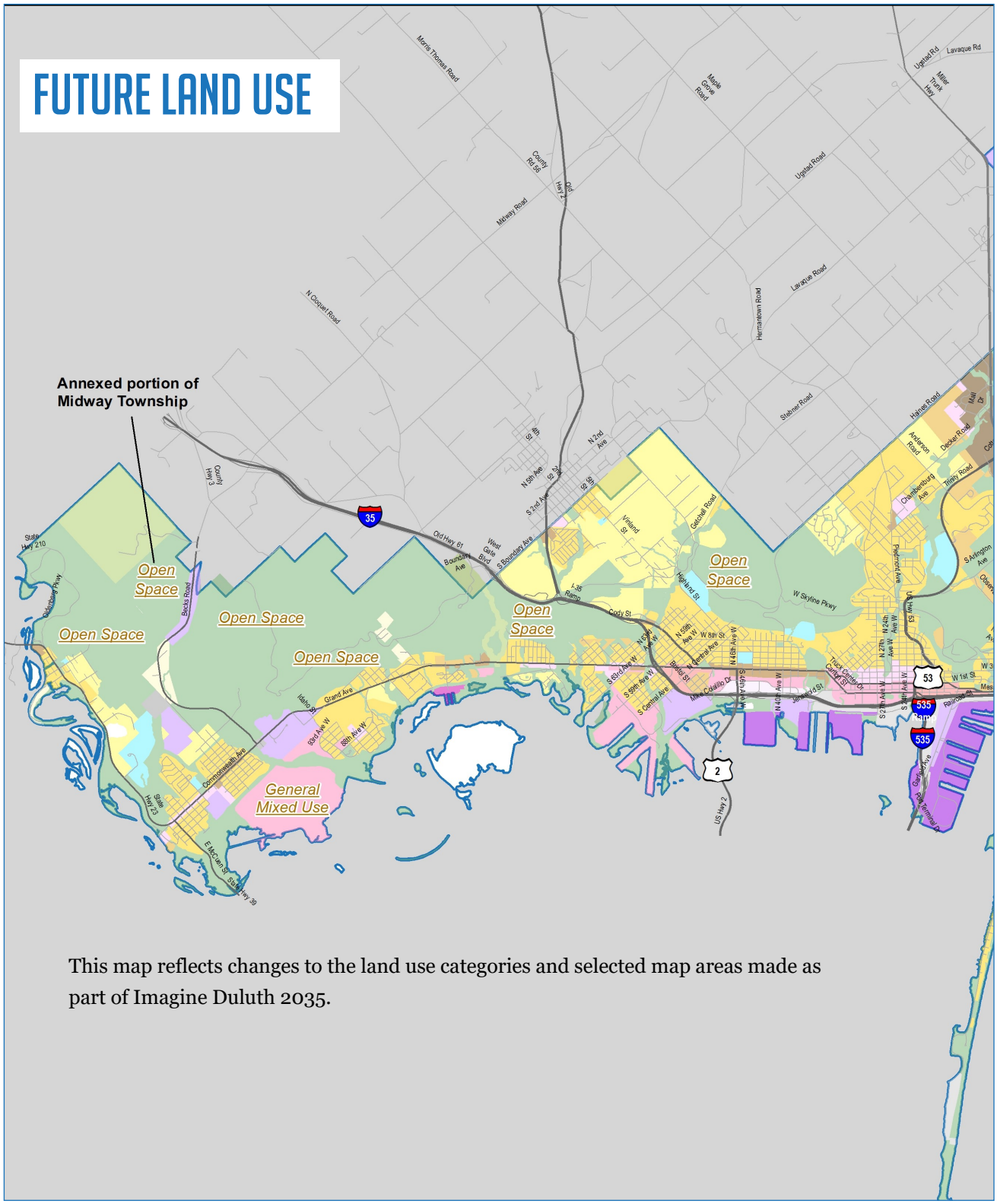
- Spirit Valley: Grand Avenue Corridor
- Tower Farm: Near Central High School and Enger Tower
- London Road Corridor: Between 10th and 26th Avenues E
- Lakeside: Superior Street Corridor, Between 43nd and 50the Avenue
- Airpark and Rice Lake Road Corridor: North of Arrowhead Road

NOT A ZONING MAP ...

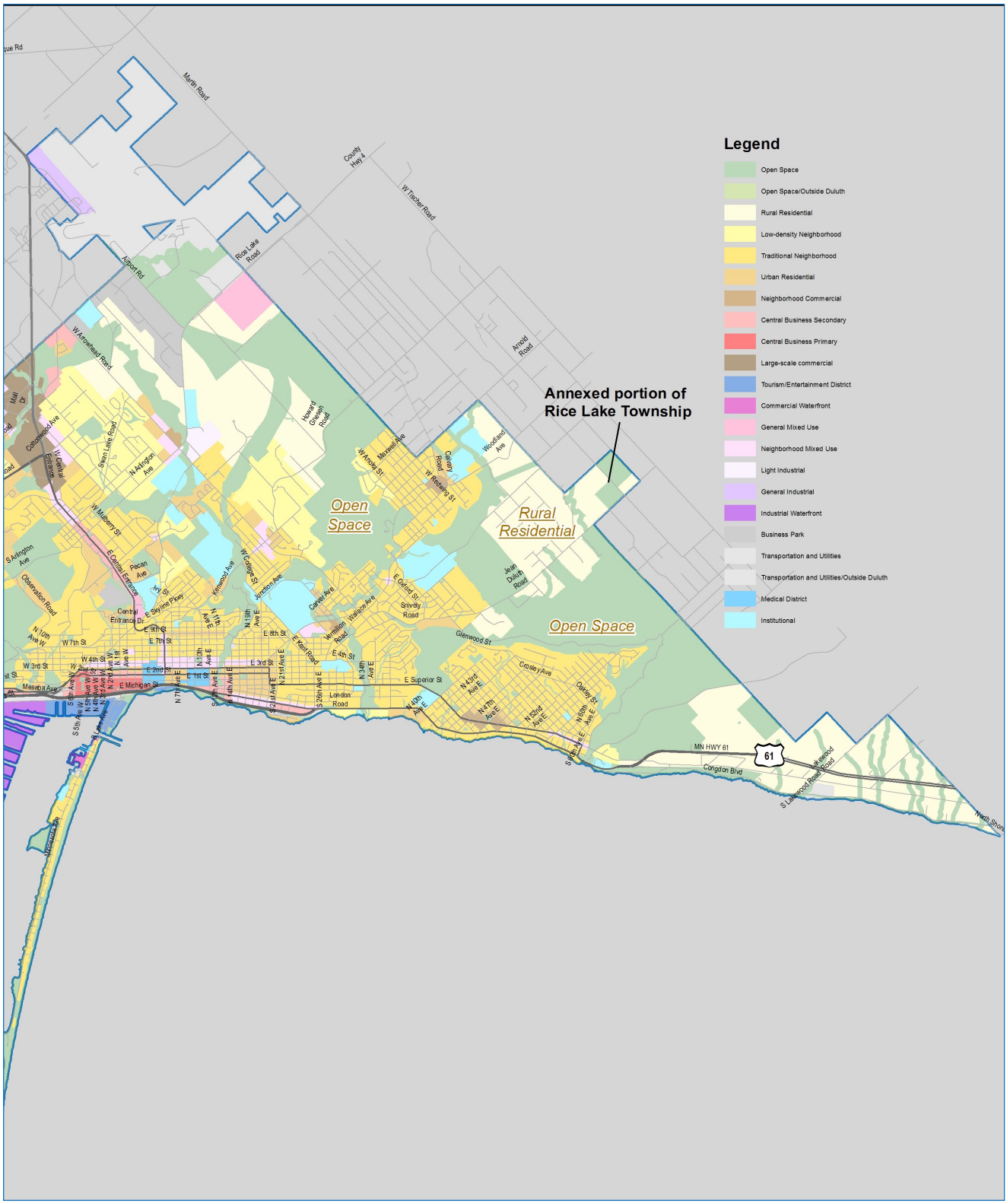
Future Land Use Map – a 20-year distant snapshot of the community's preferred future mix of land uses. The map shows what the community ***prefers*** – the map guides land use decisions for the next 20 years.

Zoning Map – a regulatory map for the immediate future. The map shows what the community has already decided to ***allow*** today.

FUTURE LAND USE



This map reflects changes to the land use categories and selected map areas made as part of Imagine Duluth 2035.


Legend
Open Space
Open Space/Outside Duluth
Rural Residential
Low-density Neighborhood
Traditional Neighborhood
Urban Residential
Neighborhood Commercial
Central Business Secondary
Central Business Primary
Large-scale commercial
Tourism/Entertainment District
Commercial Waterfront
General Mixed Use
Neighborhood Mixed Use
Light Industrial
General Industrial
Industrial Waterfront
Business Park
Transportation and Utilities
Transportation and Utilities/Outside Duluth
Medical District
Institutional
Annexed portion of Rice Lake Township
Open Space
Rural Residential
Open Space
Martin Road
County Hwy 4
W Tischer Road
Rice Lake Road
Airport Rd
W Arrowhead Road
Arnold Road
Howard Gnesen Road
W Arnold St
Cawley Road
W Redwing St
Woodland Ave
Swan Lake Road
N Arlington Ave
W Mulberry St
E Central Entrance
Pecan Ave
Ivy St
E Skyline Pkwy
Central Entrance Dr
Observation Road
W 7th St
E 9th St
E 8th St
E 7th St
W 4th St
W 3rd St
E 2nd St
E 1st St
E Michigan St
Mesaba Ave
W Cotterell St
Kenwood Ave
W Colgate St
Jordan Ave
Center Ave
E Oxford St
Snively Road
Vermilion Road
Wallace Ave
E Kent Road
E 4th St
E 3rd St
E Superior St
London Road
Glenwood St
Crosley Ave
Oakley St
Jean Duluth Road
MN HWY 61
Congdon Blvd
S Lakewood Road
Lakewood
North Shore
61

CBD Land Use Categories	Description	Density/Intensity/ Design
Central Business Primary (CBP) 	Encompasses a broad range of uses and intensities: • Governmental campus • Significant retail • Entertainment and lodging • Opportunities for high-density housing • Central plaza, public/ open space • Public parking facilities	• High height and density limits • Protection of historic buildings or building groups • Form-based guidelines • Pedestrian-oriented design • No off-street parking required, but loading required • Avenue lake views are protected
Central Business Secondary (CBS) 	An area adjacent to and supporting the central business primary area or a stand-alone area providing a similar mix of destination land uses but at a lower intensity than the primary CB area. Includes mixed regional and neighborhood retail, employment centers, public spaces, medium density residential, and public parking facilities.	• Medium densities; multi-story and mixed -use buildings are encouraged. • Form-based guidelines • Pedestrian-oriented design • Limited off-street parking required, loading facilities required
Institutional (INST) 	Applicable to medical, university/college, public school, religious, or governmental campuses. Can include adjacent areas that support them, with related commercial and/or office uses, and residential uses in the fringe areas of the district.	• Relationship to institutional master plans, which should guide expansions and ancillary land uses in adjacent areas • Density increasing from fringe to taller buildings in core • Pedestrian-oriented design, transit facilities, and parking
Tourism/ Entertainment (TE) 	Retail, entertainment, and lodging facilities, meeting facilities, waterfront-related uses, open space uses.	• Medium densities and building heights • Design standards and design review

Commercial Land Use Categories	Description	Density/Intensity/ Design
Neighborhood Commercial (NC) 	Small- to moderate-scale commercial, serving primarily the adjacent neighborhood(s). May include specialty retail; community-gathering businesses such as coffee shops or lower intensity entertainment; offices; studios or housing above retail (storefront retail with vertical mixed use). Typically situated in or adjacent to residential neighborhoods. May transition to neighborhood mixed use.	• FAR: 0.3 to 0.5 • Building footprints generally less than 20,000 sq. ft., individual storefronts as small as 3,000 sq. ft. • Larger stores with liner buildings • Parking is less prominent than pedestrian or bicycle features • Generally a "mode" rather than strictly a corridor • Edge or buffer standards along residential areas
Large-Scale Commercial (LSC) 	Mall, shopping center, and big box retail development, with associated surrounding retail and service uses, but only ancillary office uses. Oriented primarily to the motorist, with planned internal circulation patterns while still accommodating pedestrian movement. Requires access to regional transportation routes. May include regional green infrastructure for watershed protection.	• FAR: 0.2 to 0.3 • Building footprints exceed 50,000 sq. ft. • Site design includes generous landscaping of parking areas • Buffering of adjacent residential, improved pedestrian connections to and through sites.
Mixed Use Land Use Categories	**Description**	**Density/Intensity/ Design**
General Mixed Use (GMU) 	The broadest mix of uses, including light industrial, office, commercial, and residential use, with performance standards to ensure compatibility. Includes areas that are in transition from industrial uses and large redevelopments that require master plans and phased development. General or heavy industrial can be included when a large site is master planned to allow appropriate separation of uses.	• FAR: 0.3 to 0 • Pedestrian circulation and open space amenities should be provided for larger sites • Master planning for large sites

Neighborhood Mixed Use (NMU)	A transitional use between more intensive commercial uses and purely residential neighborhoods. Includes conversions of houses to office or live-work spaces. May include limited commercial-only space oriented to neighborhood or specialty retail markets.	• Site design should maintain a largely residential building character • Commercial-only uses should be adjacent to non-residential or other mixed-use areas
Commercial Waterfront (CW)	Waterfront-dependent commercial uses, sometimes mixed with residential or adjacent to higher density residential. Includes tourist- or recreation-oriented uses. Commercial areas can be adjacent to industrial waterfront. Abuts other commercial uses and recreation areas, preservation areas. Access to regional arterial traffic and water access.	• Variable densities • Performance standards, including buffer between residential and non-residential uses • Design standards protect water quality, shoreland areas, adjacent preservation areas
Residential Land Use Categories	**Description**	**Density/Intensity/ Design**
Rural Residential (RR)	Areas of single-family lots of at least five acres. Limits the extension of municipal utilities for new development. Includes existing rural density areas with lots as small as an acre now served by municipal utilities but not planned for further subdivision.	• 1 unit/5 or more acres (may vary depending on soils) *(future study)* • Conservation development encouraged or required • Undeveloped areas of large lots are used to complement open space patterns (viewsheds, buffers)
Low-density Neighborhood (LDN)	Single-family housing with urban services. Typified by curvilinear streets, houses with longer dimension parallel to street, and attached garages. Includes a range of house sizes and lot sizes. Non-residential uses are mainly uses such as schools and churches. Parks and open space are located within or adjacent	• 3-4 units/acre *(future study)* • Conservation development an option, required with SLO • Limited number of secondary/granny flats

Traditional Neighborhood (TN) 	Characterized by grid or connected street pattern, houses oriented with shorter dimension to the street and detached garages, some with alleys. Limited commercial, schools, churches, and home businesses. Parks and open space areas are scattered through or adjacent to the neighborhood. Includes many of Duluth's older neighborhoods, infill projects, neighborhood extensions, and new traditional neighborhood areas.	• 4-8 units/acre • Conservation development an option • Mix of housing types (i.e. town homes and 4 -plexes) at corners • Limited commercial uses (i.e. 'corner store') serving neighborhood market
Urban Residential (UR) 	Greatest variety of residential building types, medium to high densities. Applicable to larger infill areas close to downtown, entertainment or activity centers, and waterfront residential areas. May include student housing areas, live/work units, and limited neighborhood retail. Connected or adjacent to parks and open space.	• 8 units/acre and up • Design standards ensure pedestrian orientation and mix of housing • Commercial uses that serve neighborhood • Waterfront areas with access to docks or landings
Industrial Land Use Categories	**Description**	**Density/Intensity/ Design**
General Industrial (IG) 	Areas for manufacturing, processing, and other activities that may have off-site impacts and are generally isolated or buffered from other uses. Sites should have direct access to major regional transportation facilities and other infrastructure.	• Larger parcels • Variable densities • Performance standards for environmental effects and nuisance mitigation
Light Industrial (LI) 	Areas for manufacturing, warehousing, and distribution; uses that have few outside impacts, and can be located in relative proximity to non-industrial uses.	• Variable densities • Performance standards

Business Park (BP)	Primarily office and light industrial areas developed in a unified manner, with standards for site design and circulation patterns, signage, landscaping, and building design.	• Variable densities • Performance standards
Industrial Waterfront (IW)	Waterfront- or port-dependent industrial uses. May co-exist in proximity to other waterfront-related uses. Should have access to regional roads or rail.	• Variable densities • Performance standards for environmental effects and nuisance mitigation
Infrastructure Land Use Categories	**Description**	**Density/Intensity/ Design**
Transportation and Utilities (TU)	Applicable to airports, the port terminals, large highway rights-of-way, and similar uses.	• Applies primarily to existing facilities • Low densities
Open Space Land Use Categories	**Description**	**Density/Intensity/ Design**
Open Space (OS)	High natural resource or scenic value, with substantial restrictions and development limitations. Primarily public lands but limited private use is anticipated subject to use and design controls. Examples include: city parks and recreation areas, primary viewsheds, shorelands of the lake and streams, wetlands and floodplains, and high-value habitat.	• Low intensity uses such as trails and recreation • Viewshed protection and access • Water access, with some parking and support facilities

Overlay Land Uses

The 2006 Comprehensive Land Use Plan identified 3 overlay categories: Sensitive Lands Overlay, Higher Education Overlay, and Historic Resources Overlay. An overlay modifies the underlying land uses to emphasize characteristics of resources inherent in the land, built environment, or character of the geographic area. Policies specific to the overlay area should guide implementation decisions.

Overlay Categories	Description	Density/Intensity/ Design
Central Business Primary (CBP)	High resource value lands or natural resources that may be developed under conservation design standards, transfer of development rights program designs, or low-impact performance standards.	• Varying densities and land uses • Intensity is concentrated where natural carrying capacity is sufficient, or moved to other parcels via TDR-type program • Conservation subdivision and design • Natural resource performance standards
Higher Education Overlay (HEO)	Areas where institutional expansion and related development should be balanced with neighboring land uses. This area was studied in detail in 2010 and resulted in the HE-O zone district in the UDC.	• Varying densities and land uses • Higher intensity commercial and residential uses are regulated to buffer owner-occupied areas • Related to institutional master plans
Historic Resources Overlay (HISTO)	High resource value cultural/historic areas and buildings. Redevelopment focuses primarily on adaptive reuse. New development is based on design standards.	• Adaptive reuse standards • Design review

GENERAL DEVELOPMENT



Policy Areas

- Urban Design
- Development Process
- General Government
- Zoning Updates
- Food Access
- Wayfinding and Public Signage
- Green Infrastructure
- Creativity and Innovation
- Heritage Preservation



General development policies and strategies are either new policies that overlap between the focus areas, or existing policies carried forward from the Urban Design and Development Process sections of the 2006 Comprehensive Land Use Plan. During the Imagine Duluth development process, the five focus areas (Economic Development, Energy and Conservation, Housing, Open Space, and Transportation) were thoroughly researched, and the community contemplated potential outcomes. Many of the new general development policies come from these focus areas; zoning updates, for example, frequently overlapped across the groups, especially those relating to sustainability.

In each general development subject area, a brief introduction precedes a list of policies. This format differs from the in-depth research analysis summaries found in the five individual focus areas. Because the policies in this chapter may still lack specific implementation actions, further analysis of these issues will be necessary subsequent to plan adoption. Prioritization of general development strategies may in some instances be intuitive: adjustments to the Unified Development Chapter (UDC) based on these policies can follow a standardized process through the Planning Commission. For other issues, such as those related to wayfinding or creativity and innovation, further analysis and collaboration between City departments, boards and commissions, and external partners may be necessary.

GOVERNING PRINCIPLES FOR URBAN DESIGN

6 Reinforce the place-specific

8 Encourage mix of activities, uses, and densities

9 Support private actions that contribute to the public realm

Urban Design

Urban design touches almost every aspect of the built and natural forms of the city, including land use, housing, transportation, parks, and open space. Natural landforms — Lake Superior, St. Louis River, creek ravines, the hillside — create opportunities and challenges in construction. Historical development patterns supported mixed-use areas. Successful place-making and mixed-use developments require high standards for site planning and design, including building and parking placement, pedestrian connections, signage, and landscaping.

S1. To ensure that different land uses "mix well," compatible building scale and sensitivity to neighborhood context is essential. The City will develop form-based standards and design guidelines which:

a. Allow a variety of uses to coexist within buildings when the building is of appropriate size and character.

b. Recognize and reflect unique or traditional neighborhood building patterns and street and block layouts, keeping in mind possible modifications to improve accessibility.
c. Provide adequate transitions to lower-density neighborhoods and districts.
d. Maintain sufficient separation between clearly incompatible uses, such as between residential neighborhoods and intensive industrial or commercial areas.



S2. Large mixed-use development sites, such as the U.S. Steel site, the group of antennas at the top of Observation Hill, and other sites identified as master-planned areas on the future land use map, will require master planning as market forces start to define possible new uses in these areas. Master plans should:

a. Be developed in close collaboration with affected neighborhoods and other stakeholders.
b. Protect critical natural functions.
c. Consider and enhance off-site natural systems through an evaluation of the surrounding ecosystem and the site's relationship to its surroundings.
d. Include internal open space and trail corridors and connections to external trail corridors.
e. Protect cultural resources and viewsheds.
f. Provide for neighborhood recreation or open space areas in residential or commercial areas.
g. Provide transitions from more intensive to less intensive land uses within neighborhoods through stepping-down of building heights, reduction in building bulk, and similar techniques.



S3. Strengthen pedestrian movement between compatible land uses with accessible sidewalks in street rights of way, sidewalks and paths independent of streets, and attractive connections to parking areas and building entrances. Institutional land owners should be encouraged to create connections with pedestrian systems on the perimeters of their properties.

S4. Encourage site design which includes cohesive elements such as pedestrian access, parking, coordinated landscaping, linked open space, and green infrastructure for stormwater management and water quality improvement.

S5. Protect natural features and systems, including protection or enhancement of public realm natural systems such as the urban forest (street trees) *(see Chapter 10, Open Space)*.

S6. Avoid surface parking between buildings and the street to reduce the visual impact of parking lots and provide landscape screening from public areas for all surface parking areas.

S7. Create pedestrian-oriented environments by placing buildings and building entrances close to the street, providing windows along street frontages, and enlivening building facades with the creative use of architectural details or materials.

S8. Encourage transit and bicycle use by providing facilities such as transit stops, comfortable shelters, and bicycle access and parking in convenient, accessible, and visible locations.

S9. ***(new)*** Buildings and other structural elements along major streets or corridors should be designed in such a way as to emphasize streets as identifiable gateways and neighborhood centers.



Development Process

Development and redevelopment is an element of long-term sustainability, and the development process must have clear guidelines. Development standards and approval processes should balance the need for research and due diligence with providing customer service to land owners and developers. While land use regulation is needed to protect important natural and community assets, areas where development is supported should be clearly identified and communicated to avoid unnecessary delays.

GOVERNING PRINCIPLES FOR DEVELOPMENT PROCESS

12 Create efficiencies in delivery of public services

S1. Ensure that land use regulation sets clear expectations for development, redevelopment, and protection of Duluth's natural, cultural, economic, and social assets.

S2. In order to keep the regulatory burden reasonable and equitable, the City will implement the Comprehensive Plan through cooperation, incentives, and education, in addition to regulation.

S3. Explicitly base land use decisions, including development and environmental review, Planning Commission and Board of Adjustment administrative decisions, and public realm investment, on Comprehensive Plan principles and policies.

S4. Provide for public review and comment on development, preservation, and investment proposals, and meaningfully address public responses.

S5. ***(new)*** Continue to streamline City development review, permitting, and licensing to facilitate property development. Provide more options for submitting electronic applications and more clarity in the estimated time needed to review projects, as well as consistency in City licensing and fees.

General Government

Certain elements from updated chapters have been grouped together under the category of "general government." Each topic in this category will necessitate collaboration across many parts of the City's organization, but specific individuals, departments, or groups will need to be identified and associated with individual policies in order to develop implementation actions.

GOVERNING PRINCIPLES FOR GENERAL GOVERNMENT

5 Promote reinvestment in neighborhoods

10 Take actions that enhance the environment, economic, and social well-being of the community

12 Create efficiencies in delivery of public services

S1. Promote efforts to restore the "garden city" concept of Duluth with recreational corridors of parks, trails, and open space located along streams.

S2. Consider developing a central City office or division responsible for receiving, tracking, and responding to all complaints which are not related to public safety.

S3. Improve citywide communication about the risks and limitations of development in floodplains and shoreland areas.

S4. Evaluate whether consolidated waste management contracts for service within the city, whether citywide or on a district-specific basis, would result in improved outcomes for residents.

S5. Expand efforts to reduce blight and graffiti. Consider best practices for graffiti removal.

S6. Expand resources and prioritize blight removal and vacant property nuisances, including a focus on absentee property owners.

S7. Continue the work of existing neighborhood plans and, when appropriate, implement those of their strategies that align with ongoing neighborhood priorities and the Imagine Duluth plan.

S8. Continue partnerships with local institutions and transportation providers to plan for weather-related community emergencies and to increase community awareness of emergency protocols.

S9. Enhance delivery of the Comprehensive Plan through expanded communication and public education and outreach efforts.

S10. Promote awareness of accessibility measures in City Hall and City proceedings.

Zoning Code Updates

Zoning regulations for the City are included in the Unified Development Chapter (UDC) of the Legislative Code. Zoning stipulates not only uses allowed in various districts, but development standards such as parking, landscaping, pedestrian connections, and stormwater management. Targeted changes to zoning regulations are needed to guide future development towards the Imagine Duluth 2035 vision.

S1. Reevaluate housing regulations in the UDC to expand opportunities for compact development, including new housing types such as the current trend for "tiny houses."

S2. Revise UDC lot size and dimensional standards to determine appropriateness of using small lots, including 25-foot lots, for new development. Consider educational measures about how to execute small-lot development while maintaining consistency with neighborhood form and creating modern, desirable housing.

S3. Ensure all new development provides bicycle parking and transit stop amenities as needed.

S4. Along transit lines, support development and redevelopment of mixed-use nodes and corridors that increase residential density and commercial square footage. Identify incentives for creation of this development.

S5. Except on very steep slopes where perpendicular parking is appropriate, eliminate angled or perpendicular on-street parking. In very steep areas, specifically call for perpendicular parking that is consistent with parking best practices for vehicle and pedestrian safety.

S6. Review and update the UDC sustainability point system, considering the following:

a. How to encourage more resource protection through the site development process.
b. The creation of minimum point levels for existing structures undergoing remodeling or rehabilitation.
c. The possibility of offering exemptions, such as reductions in parking requirements, for new buildings attaining high numbers of points.
d. Whether points should be required in a broader range of scenarios.
e. The awarding of points for residential development in areas with good food access, or non-residential development that improves food access in underserved areas.

S7. Work with new developments and sites undergoing redevelopment to install power lines underground to reduce risks of power outages during storms. Consider appropriateness of including this as a mandatory requirement for new development.

GOVERNING PRINCIPLES FOR ZONING CODE UPDATES

9 Support private actions that contribute to the public realm

10 Take actions that enhance the environment, economic, and social well-being of the community

S8. Promote additional options for short-term housing, such as RV parks or camping facilities, as appropriate.

S9. Increase the maximum bedroom number allowed by residential rental licenses in order to provide options for large families and multi-generational family groups.

Food Access

Food access is such an important need that it crosses all five of Imagine Duluth 2035's focus areas — economic development, energy and conservation, housing, open space, and transportation. The Lincoln Park neighborhood is identified as a USDA food desert. For more on Food Access, see the Open Space chapter.

GOVERNING PRINCIPLES FOR FOOD ACCESS

10 Take actions that enhance the environment, economic, and social well-being of the community

13 Develop a healthy community

14 Integrate fairness into the fabric of the community



S1. Continue to ensure transit connections to grocery stores and farmers markets, with on-board use-appropriate design elements (grocery bins, etc.).

S2. Support the growth of a local food system. Clarify City standards and regulations for urban gardens and urban farms. Allow agricultural uses that have no land use or health-related conflicts with residential properties (such as orchards, gardens, etc.) as a permitted use in all residential zones. Lessen restrictions on where farmers markets can exist throughout the city *(see Open Space Chapter)*.

S3. Consider public or community gardens on underused public lands. Support efforts to create a farm business incubator on City open space.

S4. Include small-scale agriculture and local food distribution in economic development investments.

S5. Incentivize the development of grocery retail spaces within currently-designated food deserts. Consider adopting a Staple Food Ordinance which ensures improved food access in areas without adequate grocery options.

S6. Determine where public market space is needed for the sale of fresh food (including space for value-added food products) and other local products and identify the resources needed for creating that space.

S7. Increase the community's access to food-growing resources. Work with Western Lake Superior Sanitary District (WLSSD) and other partners to ensure all community members have access to compost and other food-growing resources.

Wayfinding & Public Signage

Improving the city's wayfinding systems rose to the top of the priority list for each of the focus areas evaluated during the Imagine Duluth 2035 process. The community emphasized that in many areas of the city, it is neither intuitive nor even possible to obtain information about how to get from place to place. Individual wayfinding priorities from the focus areas have been combined into the general development section of the plan. With the exception of street signage, wayfinding systems within the city are generally not coordinated, neither across geographic areas of the city nor similar neighborhood amenities.

Technological changes are occurring quickly and access to mobile devices such as smartphones has changed how people navigate cities. These devices, however, do not eliminate the need for place-specific signage, such as signs stating "You Have Arrived *Here.*" Place-based wayfinding remains important. It supports commercial vitality, reduces risks associated with becoming lost or injured, and promotes opportunities for healthy activities like walking and biking. Expansion of wayfinding systems in the city will allow for easier access and visibility for visitors who may not understand how to move through the city, as well as for residents.

GOVERNING PRINCIPLES FOR WAYFINDING

5 Promote reinvestment in neighborhoods

6 Reinforce the place-specific

7 Create and maintain connectivity

S1. Create a uniform citywide wayfinding program with consistent and clear signage.

S2. Consider sign density when planning for and evaluating wayfinding systems, because sign density sometimes contributes to transportation system confusion. Include evaluation of visual indicators, simplicity in transportation system design, use of color and tactile treatments, and distinctive art and buildings in development of the city's wayfinding systems.

S3. Implement the City's *Gate, Wayfinding, and Signage Final Design Plan* to better identify parks, trails, and resources and make using recreation systems more intuitive and equitable.

S4. Improve all neighborhoods' sense of place and desirability as destinations through improved citywide wayfinding systems:

a. To increase the sense of place, add recognizable location-specific art and statues in neighborhoods. Promote cultural diversity and landmarks using art.

b. Evaluate street names and park and trail names and, when appropriate, consider renaming to emphasize the city's current and past cultural diversity. Use consistent signage for such measures.

c. the prioritization of neighborhood safety, so that moving through any given neighborhood is intuitive, memorable, and safe, especially after dusk. Collaborate with neighborhood protection and watch groups in the development of a wayfinding template to be used citywide.

S5. Support planning for a higher amenity level and more detailed wayfinding system in the densely utilized and populated areas of the city, especially in areas around existing and future tourism and transportation nodes, including the station area for the Northern Lights Express, downtown, in Core Investment Areas, and in Canal Park.

S6. In coordination with the Duluth Indigenous Commission, encourage multi-lingual wayfinding signage, particularly in the Ojibwe language, and in coordination with local businesses interested in participating.

S7. Wayfinding systems must be developed in close coordination with transportation systems, especially in areas related to ADA accessibility, continuity of sidewalk networks, and visibility during low-light hours of the day (particularly summer evenings and throughout the winter).

S8. Long term maintenance of wayfinding systems should be included in the up-front planning efforts to ensure the viability and continuity of the system.

Green Infrastructure

In Duluth, water is everywhere; water is an important part of the city's identity. Green infrastructure is a cost-effective, resilient approach to improving water quality and addressing weather impacts on the city while also increasing safety, enhancing the pedestrian experience, and providing other community benefits. Single-purpose stormwater infrastructure, such as conventional piped drainage and water treatment systems, is designed to move urban stormwater away from the built environment. In contrast, green infrastructure reduces and treats stormwater at its source while delivering environmental, social, and economic benefits. It may be possible to pair green infrastructure with a low-impact development approach in neighborhoods to enhance environmental outcomes and respond to residents' desire for access to natural resources.

Stormwater runoff is a major cause of water pollution in urban areas. In Duluth, this mostly manifests itself through sediment making its way into streams and Lake Superior, but also through increased water temperatures. When rain falls on roofs, streets, and parking lots in cities, the water cannot soak into the ground as it would under natural conditions. Stormwater drains through gutters, storm sewers, and other engineered collection systems and is discharged into nearby water bodies. This stormwater runoff sometimes carries trash, bacteria, heavy metals, and other pollutants from the urban landscape. Higher flows resulting from heavy rains can also cause erosion and flooding in urban streams, damaging habitat, property, and infrastructure. When rain falls in natural, undeveloped areas, the water is absorbed and filtered by soil and plants; it runs off the landscape at a slow rate. Green infrastructure uses vegetation, soils, and other elements and practices to restore some of the natural processes required to manage water and create healthier urban environments. Green infrastructure ultimately comprises a system of manmade and natural areas that provide habitat, flood protection, cleaner air, and cleaner water; essentially, stormwater management systems that mimic nature by soaking up and storing water.

GOVERNING PRINCIPLES FOR GREEN INFRASTRUCTURE

9 Support private actions that contribute to the public realm

10 Take actions that enhance the environment, economic, and social well-being of the community

12 Create efficiencies in delivery of public services



S1. Incorporate green infrastructure into UDC requirements for development and redevelopment projects. In coordination with the City's Municipal Separate Storm Sewer System (MS4), create a mechanism to provide resources to ensure that green infrastructure on privately-owned sites is maintained over time.

S2. Implement green infrastructure at City facilities and in roadway design, where feasible, and provide resources to maintain this infrastructure.

S3. Require green stormwater infrastructure in publicly funded projects to enhance surface water runoff rates and to benefit other social, environmental, and economic goals of those projects.

S4. Consider opportunities to incentivize green roofs, particularly in downtown and institutional/campus settings.

S5. Evaluate standards for green alleys in order to simultaneously enhance the public experience and provide for water treatment.

S6. Quantify costs related to weather events and environmental effects in order to better explain the importance of pragmatically addressing water issues through tools such as green infrastructure.

S7. Consider the importance of climate resiliency and carbon sequestration and their relationship to water management.

Creativity & Innovation

Just twenty years ago, cell phones and the internet were in their infancy. Facebook and social media were non-existent, and many people did not trust computers for paying bills or shopping. Big box stores such as Target, Walmart, and Best Buy became the next phase of retail, changing the societal role of 1980s-era shopping malls. At that time, housing trends focused on "bigger is better," exemplifying the materialistic elements of US cultural norms.

The pace of change accelerated in the early and mid-2000s, at the time when Duluth was adopting its 2006 Comprehensive Plan. Technological advancements including smartphones, internet commerce, and social media now dominate society. Retail continues to evolve: new shopping trends are shifting to on-demand service and large shopping centers' dominance of the market is diminishing. New homebuyers prefer access to amenities over large houses. Individuals

are more aware of how their lifestyles can affect the environment. What trends will dominate by 2035? Duluth will surely change and progress; creativity and innovation will likely grow in importance for the city.

S1. Expand partnerships with area universities and colleges to learn about new and evolving trends in technology. Use these partnerships to promote opportunities that will benefit the community.

S2. Expand opportunities for incubators, maker spaces, and craft sales; provide accessible places to make, invent, build, grow, and/or sell goods.

S3. Provide increased opportunities for students to engage with local government and for them to share and grow their ideas.

S4. Promote Duluth's Historic Arts and Theater (HART) District, thereby providing employment opportunities, venues for people to showcase their talents, and social gathering spaces. Foster the social connectivity created in these centers.

S5. Encourage investment in public art across the city.

S6. Continue to promote neighborhood attractiveness, including through permanent and temporary artistic endeavors in neighborhoods and Core Investment Areas.

S7. Work with local institutional partners to expand and promote events and exhibits, particularly accessible events in public space.

S8. Share culture: invest in means to make Indigenous culture and its impact on the city more visible, as well the contributions and impact of other past and present groups.

S9. Promote programs and partnerships that embrace science and nature, such as the Great Lakes Aquarium, UMD's greenhouses, Hartley Nature Center, local parks, and UMD's Marshall W. Alworth planetarium.

GOVERNING PRINCIPLES FOR CREATIVITY & INNOVATION

4 Support economic growth sectors

5 Promote reinvestment in neighborhoods

6 Reinforce the place-specific

10 Take actions that enhance the environment, economic, and social well-being of the community

Heritage Preservation

Cultural resources define Duluth's sense of place and create both economic and social value. The potential for adaptive reuse of existing building stock enhances historic areas of the city and often supports creative businesses and new entrepreneurships.

GOVERNING PRINCIPLES FOR HERITAGE PRESERVATION

1 Reuse previously developed lands

6 Reinforce the place - specific

9 Support private actions that contribute to the public realm

S1. Where the City has named parks, roads, or neighborhoods in honor of a person or event of significance to the community, develop cultural interpretation to educate the community about this significance.

S2. Increase cultural tourism opportunities in the areas of the city where heritage interpretation has been completed, or where it can be developed.

S3. Consider updates to regulations for the city's unique historic districts, where modifications to the UDC may allow for a greater level of reinvestment and the preservation or enhancement of specific buildings or the character of the district.

S4. Leverage the historic appeal of Duluth to promote tourism throughout the city. To do so, promote heritage preservation efforts through financial and non-financial assistance.

S5. Promote the history of neighborhoods. Continue to make these places identifiable, especially based on historical development patterns and commerce.

S6. Prioritize partnerships with sovereign tribes to protect and preserve sites of important cultural heritage to Indigenous cultures *(see Chapter 10, Open Space)*.

TRANSFORMATIVE OPPORTUNITIES



From the Lakewalk in Canal Park to Skyline Parkway along the bluff, transformative ideas and visions have helped make Duluth unique and beloved. This chapter explores new ideas that could continue to transform Duluth.

This chapter considers potentially transformative opportunities for the city. Concepts presented in this chapter differ from the policies and strategies elsewhere in the Imagine Duluth 2035 plan either because of their unifying elements across issue areas, or because they represent stand-alone actions which would require dissimilar amounts of resources.

Consideration of any one transformative element addressed in this chapter does not necessarily depend on other prospective ideas. Implementation actions are included below each element; because of the diversity of the collected ideas, each idea must be assessed independently, on its own merits. Following individual evaluation, perhaps some may be prioritized and implemented quickly, while others may be deferred until a later time.

We know that more ideas will make themselves known between now and 2035, through the city's evolution and the work of passionate citizens. For this reason – because this list is only the beginning – the end of this chapter outlines a process for identifying additional opportunities and amending the plan accordingly.

WHY CONSIDER TRANSFORMATIVE OPPORTUNITIES?

Duluth has a history of identifying and acting upon opportunities, however complex, in order to achieve outcomes that will directly benefit its residents, its commerce, and the livability of the city. Such projects result in transformative, long-term change, but they cannot be completed overnight: coordinated and durable commitments are needed to generate public awareness, to ensure thoughtful analysis of financial components, and to develop partnerships.



The ideas collected in this chapter are primarily opportunities to build or change *things* that will influence how our city grows and develops. The decision to focus on built and natural environments does not mean that social matters are not equally transformational or of any of lesser importance, however—simply that such subjects are beyond the scope of the Imagine Duluth 2035 process.

CORE INVESTMENT AREAS

Since the beginning of Imagine Duluth 2035, residents have expressed a desire for enhanced connections to vibrant, walkable neighborhood centers. Most of Duluth's neighborhoods were established during the pre-World War II streetcar era; as a result, the historic fabric of many neighborhoods reflects a period-typical mixed-use design with a modest or high level of density and opportunities for commercial activities. Over time, a reduction in population density – owing in large part to decreasing household size – paired with changes in spending habits resulted in vacancies in these zones. This vacancy rate has been decreasing over the past few years, but opportunities remain for increasing deliberate, planned action in these areas.

Throughout the planning process, themes emerged about what a Core Investment Area should include: functional, modern utility infrastructure to allow for new construction and business expansion; quality streets and sidewalks; bicycle access and parking; a reduction in illegal uses and dilapidated properties; transit service with appropriate, accessible pedestrian connections; and opportunities for higher density multi-story housing with retail, services, and offices facing the street.

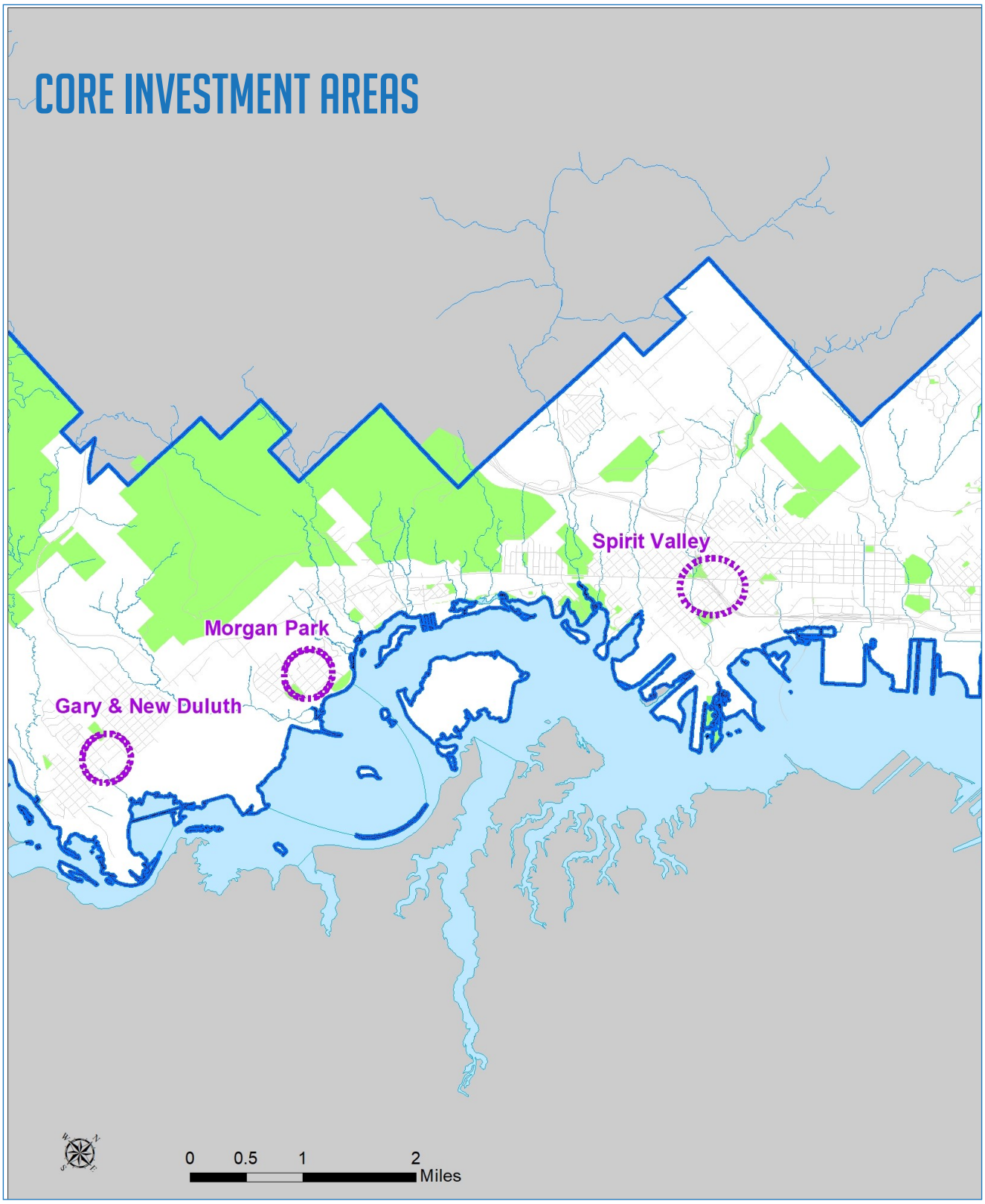


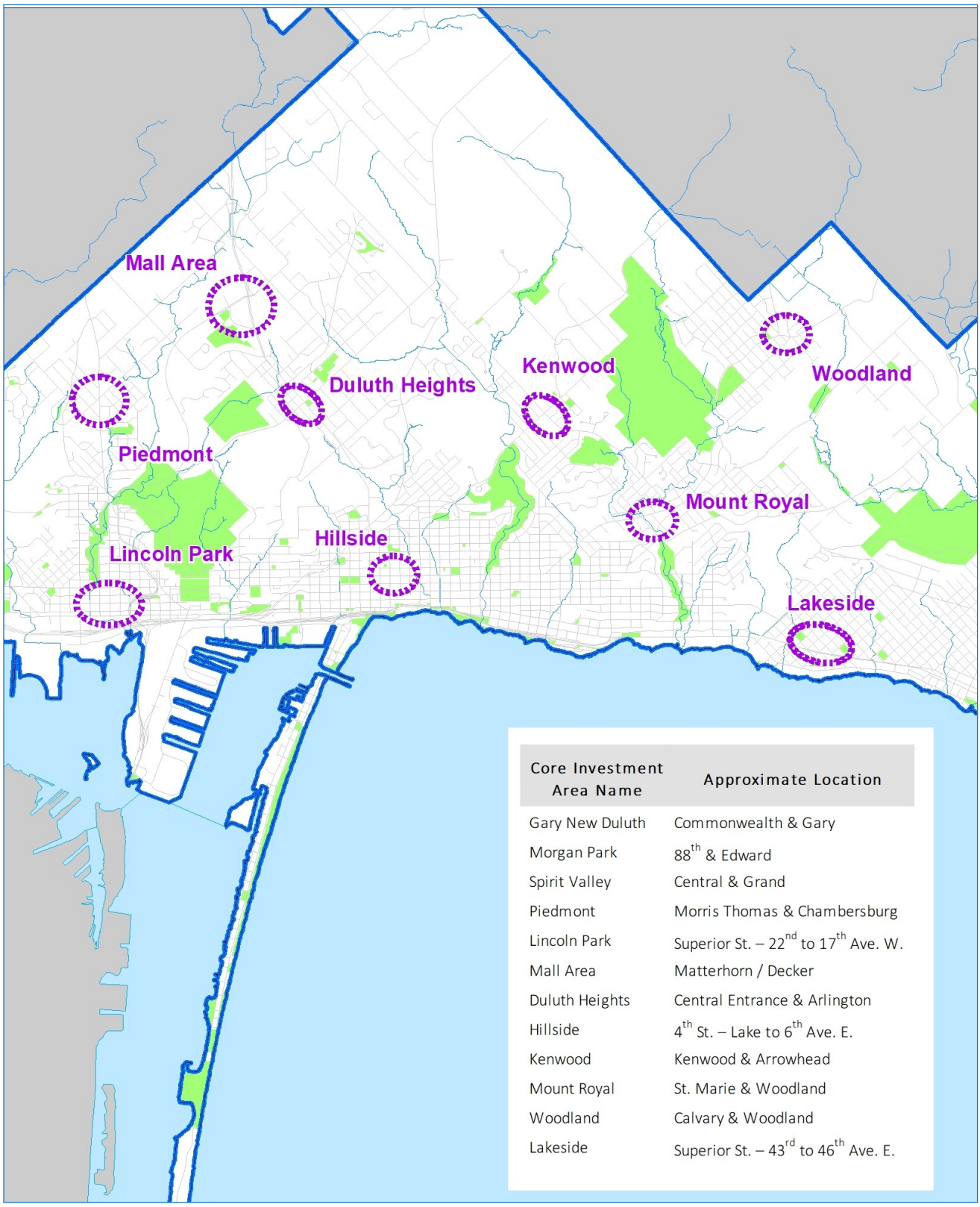
The Woodland neighborhood is one of the Core Investment Areas.

Historic Transformations

Skyline Parkway was first envisioned in 1889 by Duluth's first Park Board President, William Rogers. Constructed in segments between 1891 and 1940, and championed most vocally by Mayor Samuel Snively, the parkway spans nearly the entire length of the city and is a defining element of Duluth—culturally, historically, and even from a practical standpoint. The parkway is not only a means for accessing parks and the vistas of Duluth along its twelve scenic overlooks, but also a useful street serving neighborhoods and providing passage across the city's many streams at higher elevations .

CORE INVESTMENT AREAS





Core Investment Area Name	Approximate Location
Gary New Duluth	Commonwealth & Gary
Morgan Park	88th & Edward
Spirit Valley	Central & Grand
Piedmont	Morris Thomas & Chambersburg
Lincoln Park	Superior St. – 22nd to 17th Ave. W.
Mall Area	Matterhorn / Decker
Duluth Heights	Central Entrance & Arlington
Hillside	4th St. – Lake to 6th Ave. E.
Kenwood	Kenwood & Arrowhead
Mount Royal	St. Marie & Woodland
Woodland	Calvary & Woodland
Lakeside	Superior St. – 43rd to 46th Ave. E.

Core Investment Area Name	Approximate Location (streets / avenues)
Gary New Duluth	Commonwealth & Gary
Morgan Park	88th & Edward
Spirit Valley	Central & Grand
Piedmont	Morris Thomas & Chambersburg
Lincoln Park	Superior St. – 22nd to 17th Ave. W.
Mall Area	Matterhorn / Decker
Duluth Heights	Central Entrance & Arlington
Hillside	4th St. – Lake to 6th Ave. E.
Kenwood	Kenwood & Arrowhead
Mount Royal	St. Marie & Woodland
Woodland	Calvary & Woodland
Lakeside	Superior St. – 43rd to 46th Ave. E.

Twelve initial Core Investment Areas ("CIAs") were identified based on the existing character and redevelopment potential of individual neighborhood nodes. The final boundaries of these areas have not yet been defined. First steps for the CIAs will incorporate opportunities for community engagement, notably in the process of identifying the boundaries of each area. New CIAs can also be added to this list through a process initiated either by a neighborhood group or by the City; the identification process will include the evaluation of potential for growth as a small neighborhood center meeting pre-defined characteristics.

Following the adoption of the 2006 Comprehensive Land Use Plan, many Small Area Plans were completed that included land use analysis for some of these CIAs. In certain neighborhoods, major zoning updates were adopted, including the establishment of form-based zoning districts to streamline opportunities for new development. In other areas, Duluth LISC completed neighborhood plans. The work resulting from these plans remains valid and, in most cases, should be carried forward and incorporated into the next steps for CIAs. Capital improvement needs should also be evaluated on a case-by-case basis. Analyses should assess whether utility services are of adequate quality and to what extent transportation networks serve all street users,

regardless of age or level of mobility. In locations where existing street networks hinder development or redevelopment, changes to street design, potentially including major changes to parcel or right of way design, should be considered.

Duluth's downtown is not considered a Core Investment Area. The CIAs are intended to serve as neighborhood focal points and though downtown Duluth functions as its own distinct neighborhood, it is first and foremost the historic and current core of the entire city, of statewide and regional importance in its own right. For this reason, individual transformative actions identified specifically for the downtown are included in a separate section of this chapter.

While many of the CIAs listed have aspects similar to those found in the downtown of a small city, these neighborhood nodes originated most frequently as streetcar suburbs. As such, although job density within the CIAs should be adequate to serve each individual neighborhood, the CIAs are not intended to displace more typical job densities and characteristics of the traditional urban downtown.

CORE INVESTMENT AREA AMENITIES

The City will seek to create an environment in each Core Investment Area which will enable it to achieve the following:

- Upgraded or functional utility infrastructure adequate for redevelopment;
- Modern street networks, serving all users, walkable for nearby residents;
- Well evaluated and designed street and parcel layouts, suitable for modern development;
- Opportunities for gathering spaces, such as:
    - Coffee shops
    - Hardware stores
    - Small restaurants or taverns
    - Post office or shipping/receiving company
    - Churches or schools
    - Community clubs
- Access to healthy food (grocery store / bodega);
- Shared parking possibilities, where appropriate;
- Medical facilities / clinic.

ADDING NEW CIAS

The initial CIAs were selected based on characteristics associated with Duluth's traditional neighborhood centers. As our city grows and evolves over time, it may become desirable to identify new CIAs. Amendments should be evaluated based on community feedback at such time as deemed appropriate through consultation with the Planning Commission. The addition of other CIAs would represent an update to the Comprehensive Plan and must therefore be processed accordingly.

PRIORITY ACTIONS FOR CORE INVESTMENT AREAS

1. Identify specific boundaries and priorities for each individual CIA through a neighborhood process.
2. Prioritize funding for street improvements in CIAs to encourage accessibility and multi-modal connections, focused in the first five years of the new street improvement program.
3. Evaluate the potential of modifying the Unified Development Chapter (UDC) to develop master planned sites or mixed-use planned zoning districts within CIAs.
4. Adopt architectural guidelines for the CIAs to ensure new proposals adhere to neighborhood design, or consider minimum building material standards.
5. Support "by-right" development within the CIAs for the following businesses and amenities:
    a. Multi-story housing, including mixed-use;
    b. Post offices;
    c. Clinics;
    d. Daycare services;
    e. Churches and schools;
    f. Fitness centers or other fitness-related activities;
    g. Neighborhood-supporting elements such as grocers, liquor stores, small professional offices, and restaurants.
6. Support development and redevelopment that increase residential density and commercial square footage along transit lines. Evaluate possibilities for incentives to support this action.
7. Promote commercial development within the CIAs and limit the expansion or rezoning of strip development in surrounding areas. Expansion of strip zoning should be limited until developable land in the CIA is saturated.
8. Enhance the gateway characteristics of the CIAs. Design access points which emphasize the defining character of any given area. Specific aesthetic elements, identification signage, and visual cues

should provide a coordinated message to individuals entering a CIA. Examples may include a street design plan, building design plan, or establishment of a neighborhood square.

9. Encourage or provide incentives for new housing developments that are within 1/4 mile of existing public parks, within 1/8 of a mile of a bus stop, and adjacent to public sidewalks.
10. Implement higher frequency transit service to improve connections between employment centers and CIAs.

DOWNTOWN PLANS & INVESTMENTS

Rationale

New investments in downtown Duluth continue to support growth and change in the city. Initial dialogues concerning the downtown's boundaries and an inventory of parking availability and other systems were begun during the Imagine Duluth process; however, resources did not allow for expansion upon past plans or extensive analysis of the downtown at this time. The implementation of downtown actions remains a high priority for the future.

Long-range planning efforts in the downtown will evaluate changing market demand, opportunities at vacant or prime redevelopment sites, and implications of new technologies. As housing demand and needs shift and the definition of office employment continues to change, construction patterns for new development in downtowns will continue also change. Expectations for transportation systems are already evolving, with technology and the sharing economy influencing how people commute, shop, and seek entertainment; in addition, the reestablishment of intercity rail with the Northern Lights Express is expected to be transformative in its own right. A high concentration of amenities downtown, at one time considered an added bonus when possible, is now frequently considered a minimum threshold for viability.



Future downtown plans will seek to create opportunities for new private investments. Such investments will not only contribute to the built environment of the city through new office or residential spaces, but will also add to the public amenities serving downtown and Canal Park. Where new public spaces are

considered or reevaluated, such spaces should be "active" spaces in which people can interact and enjoy the city. New opportunities should, where possible, enhance access to and views of the waterfront. Downtown planning should also provide recommendations for the downtown skywalk system.

Within the downtown area, many public entities and non-profit providers offer critical services for individuals and families in (or at risk of being in) poverty, or facing homelessness or challenges related to mental health. Continued coordination between all parties in the downtown should seek to improve services to all people in the city, recognizing the complexities of varying difficult circumstances.

Public services play a major role in the downtown, from the public library, to City Hall, to the federal building. Changes in how services are provided, including through technological advancement, may simultaneously facilitate improvements while creating new opportunities for redevelopment. The appraisal of any potential changes should engage a broad range of stakeholders and thoroughly evaluate how new public facilities might maximize benefits for all Duluthians.



The Imagine Duluth process included a detailed look at new opportunities in Canal Park, a neighborhood frequently—but not always—considered part of the downtown. Imagine Canal Park, a grant-funded effort conducted through the Knight Cities Challenge, the Duluth Superior Area Community Foundation, and 8 80 Cities, set forth opportunities for temporary "urban interventions" to improve the quality of the district's built environment. Among other considerations, Imagine Canal Park has focused on transportation connections between the city's traditional "central business district" and Canal Park; over time, continued partnerships between the City and the Minnesota Department of Transportation will further improve these connections. The initial Imagine Canal Park community engagement summary report is included as an Appendix to this plan.

Duluth's downtown has, since its inception, been somewhat disconnected from points west of approximately 7th-8th Avenues West to the Lincoln Park neighborhood (formerly the West End) because of the Point of Rocks, a major geologic feature in the city. Updated planning efforts in the downtown should seek to further advance work that has been done to improve those connections.

Partners

Partners in planning for the downtown vary in size and focus; the Greater Downtown Council is a key partner, as is St. Louis County, which remains a major downtown landowner. Future planning efforts in the downtown will necessitate the involvement of many stakeholders, including residents, property owners, representatives from across the city, and partners in the tourist economy. Priority will be given to ensure inclusive processes that focus on advancing the governing principles for health and fairness.

Implementation Actions

1. Prioritize the redevelopment of vacant and underutilized sites.
2. Analyze transportation modes, including consideration of changes to the system of downtown one-way routes.

See the Economic Development chapter for additional details on these implementation actions.

Prior to the implementation of any planning efforts in the downtown, attention must be given to the scope of development and adequate budget and staffing. Given existing resource constraints, a multi-year work plan may be necessary to establish realistic parameters for the scope of work and to ensure that expectations remain aligned with market-driven possibilities.

Duluth's medical district, which encompasses both the Essentia and St. Luke's campuses, comprises an integral part of the downtown. Steps in downtown planning processes should seek to enhance connectivity between the medical district and points west, as well as between the medical district and Lake Superior.

Ultimately, implementation of actions in the downtown may establish priorities for the total number of downtown jobs or residents, or may focus on opportunities such as creating new public connections to Canal Park, redeveloped plazas, or additional commercial activities along newly named alleyways.

YEAR-ROUND INDOOR PUBLIC SPACE

Rationale

Activity space in Duluth is at a premium year-round, but especially during the November to April months when there are fewer hours of daylight and the temperatures don't always lend themselves to outdoor activities. Imagine Duluth 2035 led to ideas for indoor public space in two forms: an indoor arboretum or winter garden, and an indoor play area for adults, children, and people of all ages.

Duluth has a variety of spaces available for year-round activities, but few of those existing spaces are informal in nature and accessible for all residents. Nearly all such spaces charge a substantial fee for their use or enjoyment. The convention center, while publicly owned, is often unavailable because of its year-round programming (as part of the skyway system, however, it is open to the public for indoor activities such as walking during business hours).

Potential sites for active space could be established along the waterfront area. Through longer-term redevelopment planning at the DECC, the bayside could include such space along Harbor Drive, or closer to Duluth's Great Lakes Aquarium.

Partners

Maintaining indoor public space is expensive, especially during the winter. Partnerships with existing groups could help analyze the potential of a given idea's financial viability. Nonprofit organizations such as the Duluth Children's Museum, the Great Lakes Aquarium, the Duluth Depot, the Duluth Entertainment and Convention Center, local horticultural groups, and private parties such as Adventure Zone should all be considered.

Implementation Actions

1. Identify a governmental entity, nonprofit, or developer to guide and coordinate activity related to this topic.
2. Conduct a facilitated discussion with potential stakeholders, including the partners listed above and others such as the Duluth Kids Club.
3. Develop a process document to direct analysis of a potential project's overall purpose and scope, viability, and location.

UPHILL CONNECTIONS

Rationale

The community raised the issue of uphill connectivity extensively during the Imagine Duluth 2035 outreach process. Questions of health and fairness were evoked, particularly regarding the safety of residents who use walking as their primary mode of transportation.

While the concept of an incline railway is of historic interest (Duluth's original incline railway closed in 1939), new uphill transportation options must account for changing travel patterns and population densities. In order to justify the initial capital investment and ongoing operation of an uphill connection, any such transportation venture should be paired with redevelopment sites at key destinations. Connectivity throughout the hillside is of critical importance, notably at 4th and 8th Streets where multi-modal transit connections can be made using existing transit lines. The location of Duluth's historic incline railway was 7th Avenue West; a new route evaluation process should consider the most cost-effective location that would also serve the most people.

Tourism has always played a role in uphill access in Duluth. Even at the time of its initial construction in 1891, the original incline railway was used as a tourist attraction. While tourism should be considered an opportunity to supplement the rationale for a new uphill transportation option, however, it is not certain that the novelty of any such proposal should be a primary factor in its evaluation. Factors like the creation of additional tourism opportunities and the accessing of hard-to-reach tourist destinations, however, should be fully considered in the appraisal of any uphill connection proposals.

Partners

Potential partnerships should be established to consider the concept of an uphill connection. A Citizen Advisory Group could be developed informally to advise staff on potential partners, sites, and routes.

Implementation Actions

1. Begin a dialogue with stakeholders about the need and purpose for improvements to uphill transportation options.
2. Review viability of uphill transportation modes in similar cities (topography, climate, etc.).
3. Conduct an informal alternatives analysis, reviewing route choice and modes, in order to provide a recommendation to City administration about potential next steps.

PUBLIC MARKET

Rationale

Creation of a public market could serve as a redevelopment catalyst for the Lincoln Park, West Duluth, or Hillside areas, among others. Such a market would likely be developed as a year-round indoor space with sufficient access, including parking, to serve the entire community. It could provide some of the indoor public space mentioned above, or be located adjacent to an indoor public space. Its potential contribution to the tourism economy, at least initially, would be secondary to three primary goals: 1) serving the commercial needs of the neighborhood and community; 2) acting as a catalyst for redevelopment in particular areas; and 3) creating opportunities for small-scale economic development by providing affordable space and broad visibility to vendors.

Partners

Key partners for the initiative include the City's Business Development and Community Planning divisions. Potential partners include those groups in charge of the various farmers markets throughout the city, economic development agencies such as SOAR Career Solutions, and the Entrepreneur Fund.

Implementation Actions

1. Consider possible benefits from and opportunities for partnership with private development.

2. Create a list of potential sites in neighborhood locations. Site criteria should include consideration of which locations would best serve the community while minimizing possible negative side effects from a heightened level of activity. Current 2017-2018 opportunity sites should be evaluated for appropriateness, such as the Lot D site, the Duluth Armory, or the Spirit Valley Core Investment Area.

TIER 3 GREENBELT AREAS / URBAN SERVICES BOUNDARY

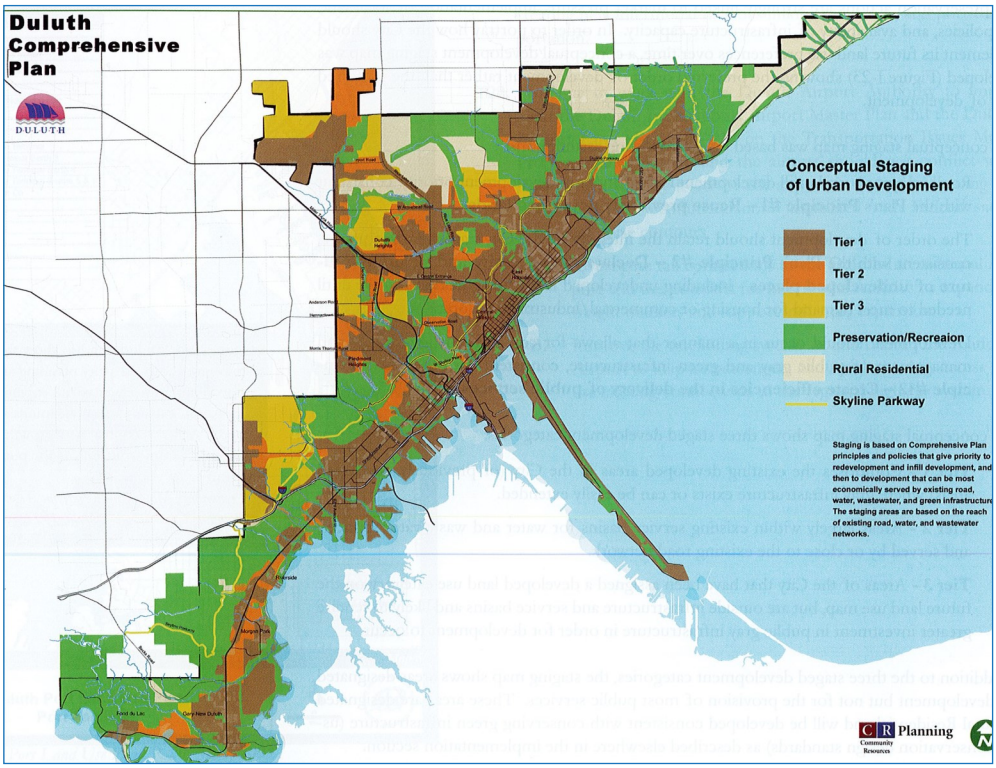
Rationale

The 2006 Comprehensive Land Use Plan called for actions to minimize development in Tier 3 development zone areas, outside the core developed areas of the city. Taking steps to actively minimize development in these areas would discontinue further infrastructure

expansions and may include the removal or privatization of some streets or utilities.

Partners

The Community Planning division would work with other governmental agencies, including adjacent cities and townships, as well as St. Louis County and the Duluth International Airport.



Conceptual staging of urban development. *Source: Comprehensive Land Use Plan (2006).*

Implementation Actions

1. Give priority to development and redevelopment where utility services can be provided at an average or lower than average cost, particularly in locations where existing utilities are under capacity.
2. Discourage development where utility installation would be more expensive will be discouraged.
3. Formalize the Tier 3 development areas within the context of the official Comprehensive Plan Future Land Use Map.
4. Conduct a public process to inform residents and landowners of the intent to minimize development in these areas.
5. Audit and adopt maps that specifically depict precise boundary lines for the tiered areas.
6. Develop a process to provide for the transfer for development rights.
7. In both development and redevelopment, prioritize sites that would increase the utilization of Duluth's existing infrastructure and favor the maintenance and reconstruction of older infrastructure, as opposed to infrastructure expansions. Discourage development in locations where the initial installation and provision of utility services would require lengthy extensions without intermediate connections.

8. Encourage appropriate investment on previously-developed lands: incentivize infill development over greenfield development when staging development, rezoning for development, or providing public support.

9. Support new development that incorporates multi-story buildings and parking ramps on reduced footprints.

10. Engage in discussions with Western Lake Superior Sanitary District (WLSSD) to evaluate and potentially amend their Urban Services Boundary.

11. Consider a City Urban Services Boundary defining minimum densities or levels of economic growth which must be attained in order to obtain City support for the extension of new urban services in areas with tracts of ecologically significant lands.

12. Amend the Unified Development Chapter (UDC) to increase the minimum lot area required for development in those areas planned to remain rural, in order to maximize water storage capacity and to reduce the amount of lives and property at risk to wildfire.



CITY FLAG UPDATE

Rationale

Duluth has flown its current city flag since 1979; with a bold green background and cross pattern flanked by two fleurs-de-lis, the current flag is a symbol of the city. The Imagine Duluth 2035 process included dialogue about vexillology, the study of flags, during which it was noted that the current flag does not meet key principles for flag design: among other critiques, the existing design includes the city seal at its center. In its current iteration, the flag does not maximize the level of opportunity for recognition of the city.

Partners

Local nonprofits, funding agencies, marketing groups, and arts-related institutional partners should be involved in considering how to review the flag's current design and, if determined appropriate, develop a process for an update.

Implementation Actions

1. Create an ad hoc group to provide structure and oversight to a review process for the existing flag and consideration of a process for its replacement.

2. Conduct the agreed-upon process for replacement of the flag.

3. Collaborate with community groups to ensure that the flag serves the purpose of establishing a strong identity and brand for the city. Endeavor to use the flag to bolster civic pride and regional and statewide recognition of Duluth.

VIEWSHEDS

Rationale

A viewshed planning process was described in the 2006 Comprehensive Land Use Plan, but only partially completed. An updated process evaluating important views would support the establishment of parameters regulating development types and heights across Duluth.

Topography has played an important role throughout the Imagine Duluth process and creates a unique opportunity for the city. Through the prioritization of viewsheds, a variety of metrics could be created. For example, a future policy action could call for a scenic view (the lake, the estuary, the hillside, or a landmark) from an overlook to be maintained within 1000 feet of all housing units in the city. Duluth has substantial and well-appreciated natural beauty, and it is crucial that all residents of the city are able to access and enjoy it.

Views from Skyline Parkway remain equally important; continued implementation of the Skyline Parkway plans as described in the Transportation chapter will help to maintain this resource.

Partners

Partners for evaluation of viewsheds will include local groups associated with landmarks in the city, including the city's Heritage Preservation Commission.



Implementation Actions

1. Recognizing that the identification of viewshed areas for evaluation will require substantial resources, specific landmarks should be identified and potential viewshed areas delineated in order to establish manageable parameters for evaluation. Example: the Goat Hill neighborhood has specific views to the estuary and to Lake Superior. Appropriate areas of the neighborhood should be included, with a focus on shared neighborhood or public spaces with important views.

2. Prioritize locations for evaluation.

3. Conduct viewshed evaluation, to include the possibility for adoption of specific zoning regulations to address preservation of views.

4. Prior to consideration of zoning regulations, an evaluation of economic impacts related to preserving views should be conducted. The evaluation should be based on the premise that new regulations to preserve specific views may result in a reduction of economic potential for certain sites while maintaining economic potential for sites maintaining their views.

INDUSTRIAL WATERFRONT

Rationale

Preserving and expanding opportunities within the city's waterfront and fostering a vibrant industrial economy in Duluth is an important component of the city's economic activity and an area where international coordination is commonplace. As economic conditions continue to evolve on the national and global scales, so too does the role of the industrial waterfront. Due to the quickening pace of economic change, opportunities to consider uses on an interim basis or changes to zoning districts (such as better coordination between Industrial General and Industrial Waterfront) may arise. In such instances, land uses should be evaluated in coordination between the City, DEDA, and Duluth Seaway Port Authority (DSPA); collaboration between partners is fundamental for redevelopment. In 2018, evaluations to help better understand the industrial economy will take place through partnerships with the DSPA. If necessary as a further step, additional work should be completed to ensure adequate coordination between actors and across plans.

Partners

Partners in industrial waterfront area activities should include, at a minimum, City departments, the DSPA, the Harbor Technical Advisory Committee (HTAC), and others.

Implementation Actions

1. Implementation of this transformative action will involve coordination of planning efforts between the City, DEDA, the DSPA and HTAC. Steps may include development of employment targets, improved connectivity for redeveloping sites, and analysis of service and utility provision in industrial areas.

MOVING FORWARD

Regular economic, demographic, and technological change, both nationally and globally, make the ideas presented in this chapter subject mostly to current realities of time and circumstance. During the two-year Imagine Duluth 2035 planning process, many compelling transformative actions were proposed and considered that were not ultimately included in details. For these reasons, this chapter recommends a process for amending new ideas and includes a brief summary of some of the other ideas that were considered.

The initiative to develop a new idea, whether fated to success or failure, might happen at any time and from any direction. Amendments to this chapter are expected; the only certainty is that any new idea could be totally unexpected and might proceed at an unpredictable pace. The following is a general outline of expectations for evaluation of new ideas as future amendments to this chapter:

1. Amendments must be initiated by the Planning Commission or City staff, at the direction of the administration. Citizen initiative will be supported and evaluated by one or the other of these two groups, until such time that an amendment is initiated.

2. New ideas should be evaluated by a group of technical experts and community stakeholders before consideration of a formal amendment. A community meeting to learn more about the idea or concept would be appropriate, in addition to the required public hearing for the formal amendment to the Comprehensive Plan.

3. A proposal for a formal amendment to this chapter should include the presumptive benefit of the idea, details regarding the timeline and cost for its study, and specific action steps to consider for the new transformative action.

Potential transformative actions were considered by staff, citizens, the Vision Committee, and the Planning Commission throughout the Imagine Duluth 2035 planning process. Those included in the chapter were evaluated for potential impact and feasibility, but not necessarily timing or cost. Many other opportunities were brought forward that could not be fully evaluated. Some of those included:

Unused Canadian National Ore Dock

The unused CN ore dock, located approximately at 35th Avenue West and extending out from the hillside to the St. Louis Bay, has not been used for many years. Historically, it played an important role in shipping iron ore out of Duluth; at present, it stands towering over the estuary, vacant. Several citizens identified the possibility of using the dock as a park-style public amenity similar to New York City's High Line or Kinzua Bridge State Park in Pennsylvania. Others suggested economic development opportunities to be constructed immediately adjacent to the site.

Water Shuttle

Ferry service has not been commonplace in Duluth, but many proposals have been developed for the possibility for smaller-scale "water taxi" service, particularly between specific high-traffic destinations in Duluth and Superior. Such an idea has merit given the breadth of Duluth's waterfront.

Canal Systems

Duluth was built on the waterfront, but the historic timing of the city's industrialization did not lend itself to creation of a system of locks, dams, and canals. Recognizing the value of waterfront real estate, an enhancement involving construction of canals connecting the city, from downtown to the west, has appeal and a built-in rationale.

Freeway Caps

When Interstate 35 was completed through Duluth to 26th Avenue East, Duluth was recognized nationally for the public spaces and lake access created as part of the freeway project. Notably, these spaces are all to the east of Lake Avenue, the last segments of freeway built in Duluth. The possibility of a cap over the freeway west of downtown – using air rights unused and unneeded for the freeway – would serve to build upon the city's legacy of working closely with state and federal partners to accommodate vehicle traffic through its environs.

METRICS & MEASUREMENTS



Throughout the development of the Imagine Duluth 2035 process, metrics were created to set points of reference for future analysis.

An important aspect of a comprehensive planning process like Imagine Duluth 2035, which aims to transform the community, is identifying how the city will measure change. Throughout the development of the Imagine Duluth 2035 plan, metrics for critical indicators in the community were identified. These metrics provide points of reference for future analysis, as well as for evaluation of the effectiveness of the strategies and implementation methods laid out in the plan.

Subsequent to Imagine Duluth 2035's adoption, the Community Planning Division will report back annually to the community regarding progress on the identified indicators and implementation actions.

In addition to the specific indicators included below, data will also be provided at varying intervals on topics such as population and age-related demographics, density (particularly in Core Investment Areas), development (housing units, commercial areas, etc.) in floodplains, and public transit.

SEE POLICIES:

Housing 1 & 2

Economic Dev. 1

Housing Cost Burden

To further the City's goals to provide affordable and attainable housing opportunities, it is crucial to look at indicators related to housing tenure and housing cost burden. Households that pay more than 30 percent of their income towards housing costs are considered to be housing cost burdened. Severe rent burden is generally defined as when a household contributes more than 50 percent of household income towards rent. Indicators to be considered include:

- Rented vs. owner-occupied
- Housing burden by income level
- Number and percentage of households severely cost burdened by census tract

SEE POLICIES:

Housing 3 & 4

General Housing

The housing polices and strategies call for improvement of the city's housing stock and prioritization of inclusivity and fairness in housing across Duluth. Indicators to be considered include:

- Rent/own by racial demographic of householder
- Race, homeownership, and median income by census tract

- Neighborhood housing value: benchmark current assessed total housing value by neighborhood, calculate yearly using appreciation and new construction, calculate average citywide rate of value increase, compare rates in different neighborhoods

Employment

Generally, a critical factor for community health and sustainability is the number and percentage of unemployed people. In addition to this, and to ensure the economic development goals of fostering growth of existing and employers, regularly evaluating job creation statistics is important. Indicators to be considered include:

- Employment rate; including by race, gender and disability status
- Job creation statistics

SEE POLICIES:
Economic Dev. 1 & 2

Poverty & Homelessness

In alignment with the new guiding principles related to health and fairness that were identified in Imagine Duluth 2035, metrics will also be used to track poverty and homelessness. Indicators to be considered include:

- Homelessness rates
- Child poverty rates
- Poverty rates by race, gender, and disability status

SEE POLICIES:
Housing 2 & 4

Health, Healthcare, & Food Access

Many of the policies and strategies in Imagine Duluth 2035 relate to improving health and addressing social determinants of health in Duluth. The Open Space and General Development chapters both promote access to healthy food. Indicators to be considered include:

- Number of residents with health care coverage
- Age-adjusted mortality rates
- Life expectancy by census tract/zip code
- Low-income status and grocery store access

SEE POLICIES:
Open Space 5

General Development: Food Access

SEE POLICIES:

Open Space 1 & 2

Transportation 3 & 5

Economic Dev. 2

Resilient Community

Resiliency is woven throughout Imagine Duluth 2035 by means of policies and strategies which include encouraging improved resilience to natural disasters, examining the costs and benefits of open space, supporting a multi-modal transportation network, and fostering growth of existing employers. Indicators to be considered include:

- Weather-related property damage, citywide and by neighborhood
- Tax forfeitures or bankruptcies: averages, numbers, percent of land across city and by neighborhood
- Miles of bike lane citywide and by neighborhood
- Brownfield sites and remediation/redevelopment efforts