



GO
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FARGO COMPREHENSIVE PLAN

Fargo

COMPREHENSIVE PLAN

May 24, 2012

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the 1990s, the number of people in the UK who are aged 65 and over has increased from 10.5 million to 13.5 million, and the number of people aged 75 and over has increased from 4.5 million to 6.5 million (Office for National Statistics 2000). The number of people aged 65 and over is projected to increase to 16.5 million by 2020, and the number of people aged 75 and over to 8.5 million (Office for National Statistics 2000).

There is a growing awareness of the need to address the needs of older people in the UK. The Department of Health (2000) has published a strategy for older people, which sets out the government's commitment to improve the lives of older people. The strategy is based on three main principles: (1) to ensure that older people have the opportunity to live independently and actively; (2) to ensure that older people have access to the services and support they need; and (3) to ensure that older people are treated with respect and dignity.

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CHAPTER 1

Introduction

INTRODUCTION

Fargo is a city with a lot going for it. Fargo weathered the current economic recession with remarkable resilience and still maintains a low unemployment rate along with a diverse and productive economy. Fargo's education system, from kindergarten through college, is among the nation's finest. Fargo has a welcoming community and is growing in population and national influence.

With all its strengths, Fargo is well positioned to flourish over the coming decades. The Fargo Comprehensive Plan is an investment in the idea that smart decision-making and careful planning will position Fargo to leverage its strengths and become an even better city. The comprehensive plan builds on hundreds of ideas from thousands of residents who gave their time to help imagine how Fargo could advance into the year 2030. The comprehensive plan represents the community's vision for the future of Fargo.

HOW TO USE THIS PLAN

The comprehensive plan is the City of Fargo's official policy for the future growth and development of the city. The plan was created through a public process that brought together residents, business owners, and policy makers to reach consensus on a vision for the future of Fargo. The Fargo Comprehensive Plan is a democratic and optimistic document that represents a common vision for Fargo's citizens. This plan will be a decision making guide for city staff on a day-to-day basis and direct Fargo's long term policies. It is also a guide for the entire community, including individuals and families, churches, businesses, and non-profit organizations.

VISION, GUIDING PRINCIPLES, INITIATIVES, AND CATALYSTS

This document has a hierarchical organization. The vision is the plan's broadest level. All other elements in the plan are designed to advance the vision. The guiding principles elaborate on the vision and represent the community's priorities for different topics. The initiatives define in more detail the recommendations of the comprehensive plan within each topic. The catalysts section stands somewhat apart from this hierarchy. The catalysts are a collection of ideas to accelerate Fargo's growth and development while improving quality of life. Each catalyst is accomplished by a set of initiatives from different chapters. The catalysts section shows how initiatives from different topics are connected and work together to advance the vision.

IMPLEMENTATION WORKBOOK

The implementation workbook is a fundamental compliment to the plan that will continue to evolve over time. This will not be adopted as part of the plan so that it can remain a living document capable of changing as Fargo moves forward with plan recommendations. The implementation workbook will contain the comprehensive list of strategies, resources, and indicators that will allow the City to prioritize efforts and make sure they are on a path toward accomplishing the goals and recommendations in the comprehensive plan. It might be helpful to think of the comprehensive plan as the description of "where you are going" and the implementation workbook as a list of the "routes you could take."

WHY PLAN?

VIEW THE “BIG PICTURE”

A community is like an organism and all the parts must work together in order to sustain the city’s future. A plan works to align City programs, projects, and government in a synergistic relationship.

BUILD AN INFORMED CONSTITUENCY

The public has a primary role in creating this plan, and they will be a strong constituency in seeing it implemented.

COORDINATE LOCAL DECISION MAKING

Specific community goals in a plan allow local decision makers to align around a citywide vision and ensure that all projects are supported by the greater community.

ESTABLISH A SOUND BASIS IN FACT FOR DECISIONS

The data and analysis incorporated into the plan allow decision makers to base programmatic, policy, and development decisions in fact.

GIVE GUIDANCE TO LANDOWNERS AND DEVELOPERS

No one wants to build next to a lot with an unknown future. Effective planning will give individual, commercial, and corporate investors the confidence to build in Fargo.

INVOLVE A BROAD ARRAY OF INTERESTS IN DISCUSSION ABOUT THE FUTURE

This plan incorporates many different voices and a variety of interests, ensuring recommendations are well-rounded and inclusive. This allows the community to advance in a way that is appealing to everyone.

KEYS TO A SUCCESSFUL PLAN

TRUE COMMUNITY VISION

To successfully direct long-term growth and development in Fargo, the vision must come from the community. The hundreds of residents who participated in meetings and the thousands who participated online are the source for the ideas that direct the Fargo Comprehensive Plan.

INTEGRATED DECISION MAKING

The future of Fargo depends on thousands of overlapping decisions from local government, civic organizations, the private sector, and others. By integrating these decisions, opportunities will emerge to coordinate efforts in support of a common vision. Thinking about the long-term and potential partners when designing policies and projects maximizes the impact of these decisions.

A STRATEGY FOR THE FUTURE

The comprehensive plan includes a strategic set of recommendations. These recommendations are visionary, yet realistic, far-reaching, yet implementable. By taking into account the community's vision, stakeholder priorities, and the capacity of local government, the Fargo Comprehensive Plan will proactively advance Fargo to the year 2030.

THE PROCESS

The Fargo Comprehensive Plan planning process followed the following five phases:

During the first phase, **discovery**, the planning team listened to the public, interviewed key stakeholders, and gathered the existing planning data. The community shared their vision for the future of Fargo and submitted ideas for accomplishing that future. This vision was the guiding force for the following planning phases.

In the **analysis** phase, the planning team determined the biggest opportunities for Fargo's future. The team analyzed all the ideas and determined how to accomplish them with policy tools, potential projects, and partnerships.

In the **planning** phase, the community prioritized the ideas, policies, and projects based on the planning team's analysis work. The planning team developed the initiatives and explored how ideas build on each other to advance the vision.

During the **align** phase, the planning team sought further consensus and momentum behind the plan. The team determined responsible organizations, costs, and a timeline for implementing the plan.

The City will formally **adopt** Go 2030: The Fargo Comprehensive Plan during the adopt and implement phase. This means the plan will be the official City policy and will be a decision making guide for the City Commission. It will form a basis for funding and building projects by both the City and the private sector.

IMPROVING COMMUNICATION

Communicating progress is critical for the success of the plan and the future of Fargo. The Fargo Comprehensive Plan gives the City a framework for communicating its activities and successes to the public and organizations in the community. The City of Fargo will improve its communication and outreach efforts as a result of this plan. From initiatives focused on improving communication between city hall and neighborhood groups to a recommendation to establish a municipal arts commission, improving communication is a focus throughout this plan. The plan is also a common ground for discussing next moves for both the City and the private sector and provides a shared vocabulary.

COMMUNITY PROFILE

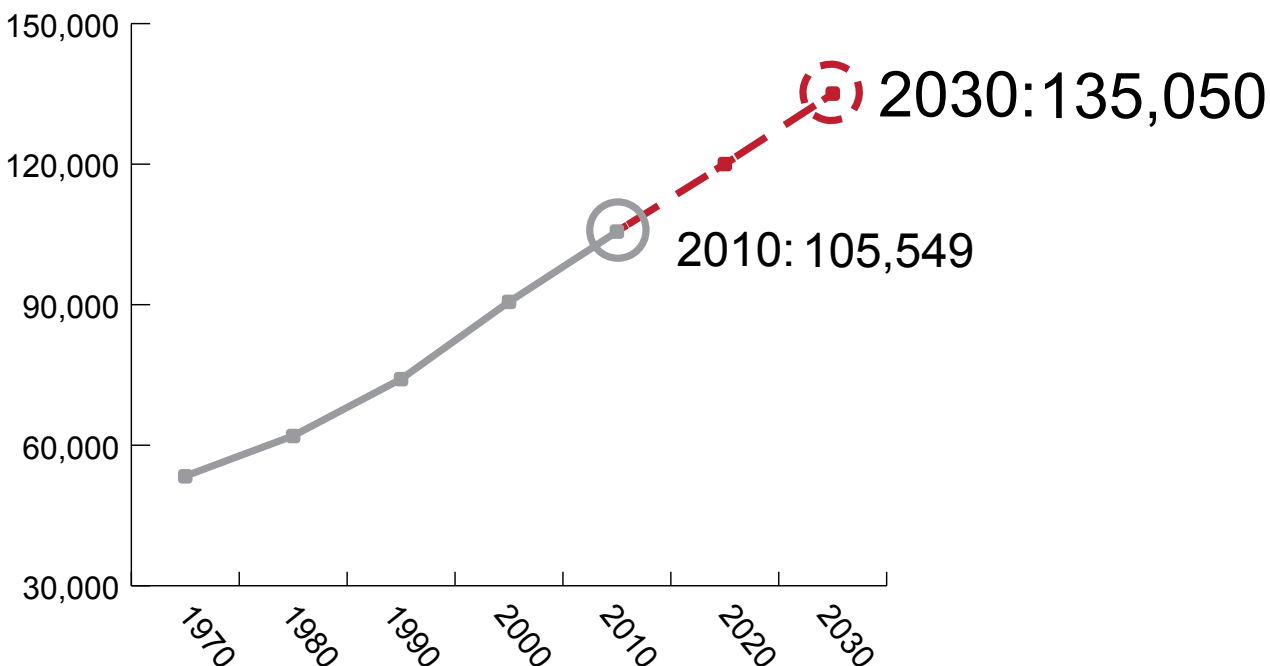
Fargo is a growing, dynamic city. The recommendations of this plan are based on an understanding of the following trends.

POPULATION GROWTH

Fargo is growing quickly. In the past 2 decades Fargo has grown from 74,111 people in 1990 to 105,549 in 2010. Fargo will continue to grow and is projected to reach 135,050 people by 2030. Adding nearly 30,000 people to Fargo while increasing the quality of life for existing and future residents will require careful planning and visionary leadership.

AGING POPULATION, INCREASING DIVERSITY

As Fargo grows, its demographics are changing. Fargo's population is becoming older and more diverse. These demographic changes will impact areas such as preferred housing types, transportation options, and the role of education in the community.



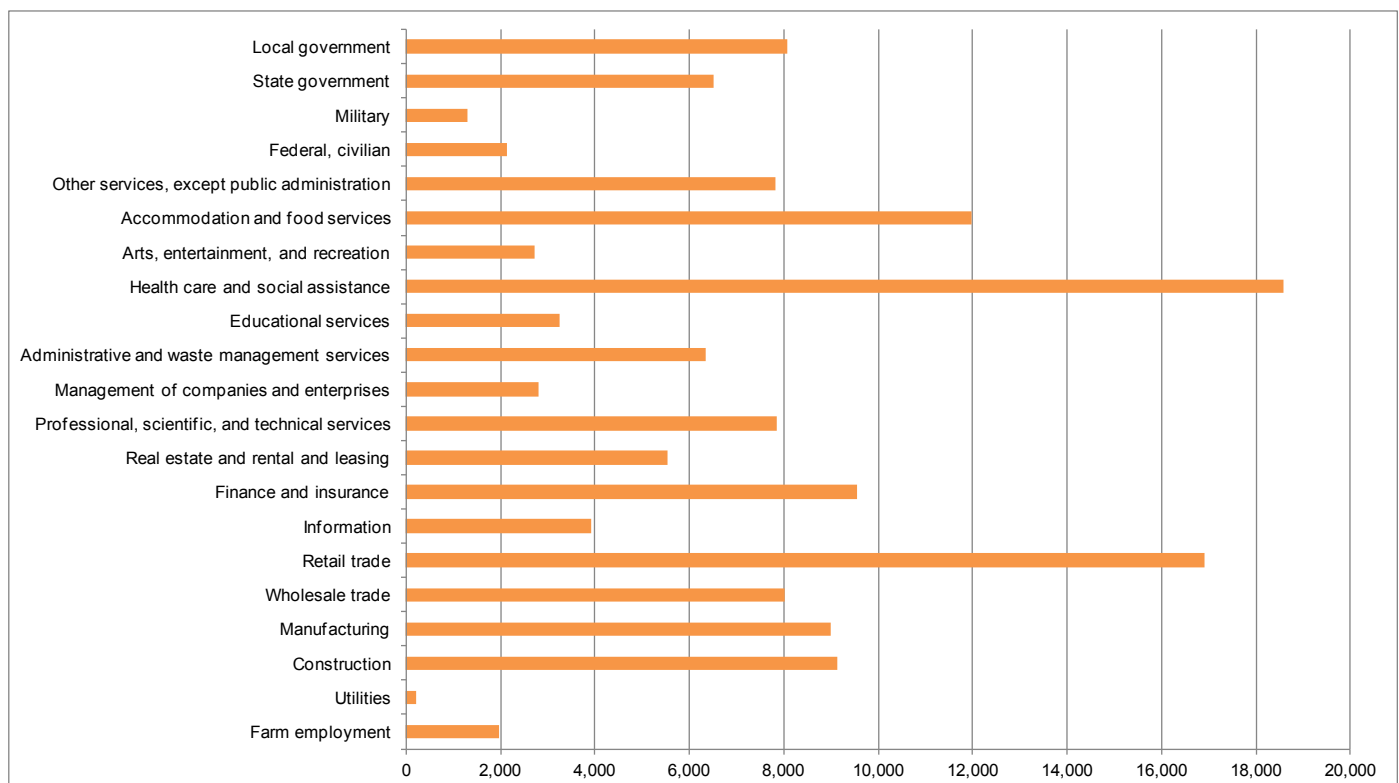
DIVERSE ECONOMY

Fargo has a diverse economy that has been remarkably resilient during the economic downturn. The city's unemployment rate never rose above 5%. As of November 2011, the unemployment rate in the City of Fargo was 2.9%, compared with 8.7% nationally. The economic strength of Fargo and this region contributes to its rapid growth.

3.4%

Fargo's average
unemployment rate in 2011.

EMPLOYMENT BY INDUSTRY (FARGO METROPOLITAN AREA, 2009)



* Excludes, forestry, fishing, and related activities, Mining, and Transportation and warehousing due to confidential information.

CHAPTER 2

Vision and Guiding Principles

WHAT WE HEARD

Many residents were involved in crafting the plan and making the recommendations as impactful as possible. Each of the following groups played an important role in the formulation of the comprehensive plan and will be vital in championing the completed plan.

THE GO2030TOWNHALL.COM COMMUNITY FORUM

The participation on this innovative crowd-sourcing site was tremendous and directly impacted the items in the plan. During the planning process, 8,640 visitors generated 61,159 pageviews, 467 original ideas, and 2,110 comments to be considered in the plan. Quotes from the site appear throughout this document and many of the initiatives came directly from ideas submitted through this site. This website served as a 24 hour a day public forum and allowed for massive community participation and meaningful conversation in a short time.

COMMUNITY MEETINGS AND PUBLIC OUTREACH

At the community meetings, hundreds of residents worked to establish a common vision for Fargo and specific guidance for plan initiatives. Working in teams, community members defined the vision and goals for the future of Fargo, helped create the catalysts, and prioritized the initiatives.

The planning team kept the community informed between meeting through a website, email list, and Facebook page.



BUSINESS COMMUNITY SURVEY

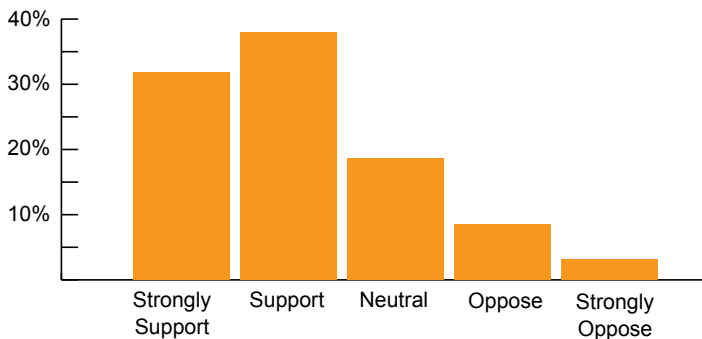
The planning team surveyed the business community to understand their needs and their position on plan recommendations. Over 130 people responded to the survey; respondents included the Fargo-Moorhead Chamber of Commerce, the Home Builders Association of Fargo-Moorhead, Service Clubs such as the Rotary and Kiwanis, the Downtown Community Partnership, and

other business organizations. Respondents represented a diverse range of economic sectors. The largest groups of respondents came from construction, finance and real estate, professional/management/administration, health, retail, and manufacturing. For the complete survey results please visit:

<http://go2030.net/2011/12/go2030-survey-results/>

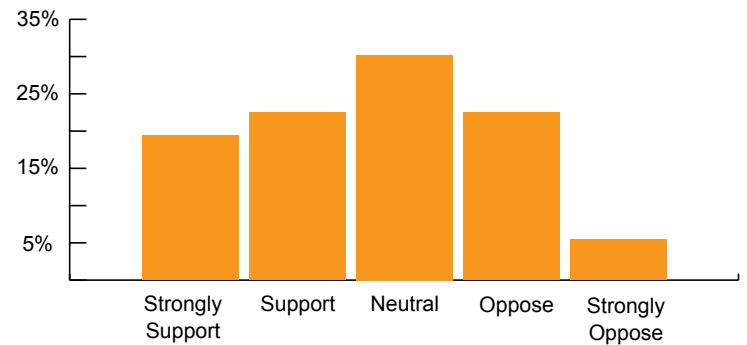
BICYCLE AND PEDESTRIAN INFRASTRUCTURE

Beyond standard sidewalks, would you support pedestrian and bicycle infrastructure in Fargo?



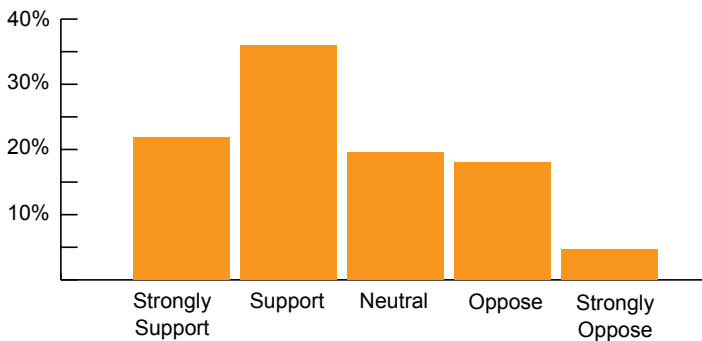
PUBLIC ART

Would you support a program that set aside public funds for public art?



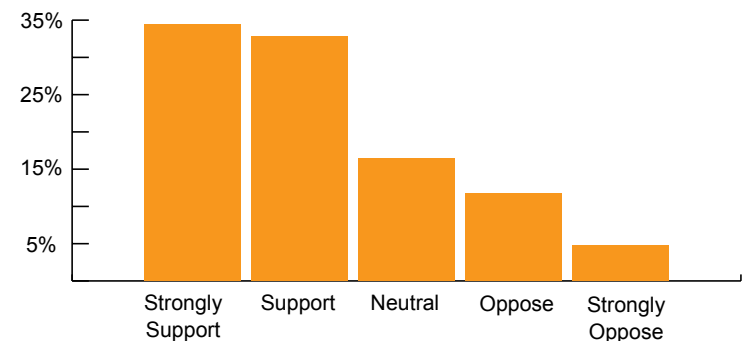
ENERGY EFFICIENCY

Would you support policies and programs that would require more efficient homes and commercial buildings?



DESIGN GUIDELINES

Would you support design guidelines that increase walkability and the visual appearance of developments?



THE STEERING COMMITTEE

Over the course of the plan the steering committee provided a sounding board for many items and were charged with providing rigorous feedback to guide the plan recommendations. The steering committee is made up of diverse leaders from within and outside City government.

THE TECHNICAL COMMITTEE

The technical committee was composed of members of City staff that are intimately aware of the infrastructure, design, and policy that currently supports City operations. This group provided the on-the-ground knowledge necessary to ensure recommendations are feasible and integrated across City departments.

GO 2030 SPEAKER SERIES

The City of Fargo hosted a series of speakers throughout the planning process to give talks on urban issues ranging from sustainable development to public art. These talks were televised and are available online at go2030.net/category/speaker-series.

Taken collectively, the guidance of online participants, meeting attendees, and members of the steering committee and technical committee provided the content for the plan. The continued participation of these groups will ultimately lead to successful implementation of the plan recommendations.



The GO2030 Speaker Series brought experts from around the region to Fargo to talk about planning issues. The talks were televised and are available online at: <http://go2030.net/category/speaker-series/>

From Go2030townhall.com

I want to brag that Fargo is a creative city with lots of creative people who are making this a dynamic, liveable, healthy, beautiful city.

Coco S

From Go2030townhall.com

Beautiful and socially functional environments attract both investment and in migration of talent. If we want to attract both, we will need to beautify our main corridors...

Cat

From Go2030townhall.com

A smart grid would provide Fargoans with an incentive to create local, clean, renewable power, and keep the money here.

Drew FM

From Go2030townhall.com

I would like to see a more aggressive approach to making Fargo a "bicycle-friendly" city.

Kay S

From Go2030townhall.com

Fargo is what it is today, because numerous individuals had the guts and dexterity to take a chance and it paid off. That spirit is alive and well in this community. Embrace it.

fmmetroplex

From Go2030townhall.com

When many Fargoans think of sand, we think of sandbags. That needs to change.

gofargo

From Go2030townhall.com

Make Fargo into a walking and public transport friendly community so we can be healthy and do our errands at the same time we are exercising (walking) with our families or to and from work.

Jerseygirl

From Go2030townhall.com

Fargo rightfully takes great pride in its social capital--how everyone joins together for the greater good of all--during the flood seasons. But wouldn't it be great to show that pride and joy in living here when it wasn't during a crisis?

B P

From Go2030townhall.com

I'd love to be able to eat more foods grown, produced, and processed locally, and support our local economy as well as eat healthy.

gardener

From Go2030townhall.com

. . the idea that art is a pride of the city, and is required for new construction . . . could open up innovative opportunities to define and celebrate the arts.

Stevie F

From Go2030townhall.com

Let's embrace winter and get more people outside to enjoy the beauty it brings.

Laura S

From Go2030townhall.com

I would like to see Fargo become a place where people live closer together, more density, less sprawl. I want to see a thriving downtown with full spaces, lots of independently owned businesses and restaurants.

Stevie F

From Go2030townhall.com

I think we can improve ALL of Fargo if we think big and leverage every sector of the city.

Drew FM



Over the last year, hundreds of ideas were shared by the community. The vision statement and guiding principles represent the community's feedback about priorities for Fargo, and they are the lens through which all the projects, policies, and recommendations of the plan are evaluated.

VISION

**IN 2030 FARGO
WILL BE A VIBRANT
AND SUSTAINABLE
CITY WITH A HIGH
QUALITY OF LIFE,
ROBUST ECONOMY,
AND WELCOMING
COMMUNITY
ATMOSPHERE.**

VISION



GUIDING PRINCIPLES



KEY INITIATIVES & CATALYSTS



RECOMMENDATIONS



IMPLEMENTATION STEPS

To interpret and implement the vision requires a firm understanding of its intentions. The guiding principles lay out a more specific level of direction based on the community-vetted vision. The vision informs the guiding principles which in turn provide direction for specific initiatives.

GUIDING PRINCIPLES



WATER AND ENVIRONMENT

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



ENERGY

Fargo will aggressively seek innovative strategies to support national energy independence. The community will find energy savings through efficiency measures and invest in renewable sources for the future.



ARTS AND CULTURE

Fargo will flourish with a stronger arts and culture movement. We will nurture and increase the presence of both the performing arts and the visual arts, and we will increase access to cultural events and arts-related educational opportunities.



HEALTH

Fargo will encourage healthy choices and improve the health of residents by enhancing awareness, increasing year-round recreational opportunities, increasing access to healthy food, and ensuring access to quality healthcare.



TRANSPORTATION

Fargo will transform its transportation system to encourage walking, biking, and transit. The City will coordinate infrastructure investments and land use policy in a supportive and synergistic way.



ECONOMY

Fargo will build on its agricultural and manufacturing heritage and will be known as a cutting-edge creative economy. We will educate and retain the best workforce in the nation and foster an innovative and entrepreneurial environment.



NEIGHBORHOODS, INFILL, AND NEW DEVELOPMENT

Fargo will promote attractive and welcoming neighborhoods by promoting a diverse and affordable housing stock. Fargo will support neighborhoods where residents can age in place, children can walk to school, and essential services are only a short walk away. Fargo will promote infill development, planned growth, and increasing density and vitality in its established neighborhoods.



EDUCATION

Fargo will uphold and improve its world class K-12 education system. Fargo will continue to embrace the universities and post secondary education institutions and acknowledge their positive influence on the economy, workforce, and culture of Fargo.



SAFETY

Fargo will ensure safety through excellent police and fire service. The design of neighborhoods, districts, and public spaces will work to promote safety by increasing visibility and eyes on the street.

KEY INITIATIVES

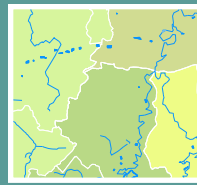


WATER AND ENVIRONMENT



Permanent Flood Risk Reduction

Develop internal flood protection systems to a river stage of 42.5 feet using permanent levees and flood walls. Use the internal flood protection systems along with construction of a diversion channel to create 500 year flood risk reduction.



Watershed Management

Develop a strategy for regional watershed flood management simultaneously with the diversion project.



Tree Canopy

Increase the amount of trees in Fargo by preserving and planting new trees in new developments, planting trees in parks, and increasing the number of street trees along Fargo's main corridors.



Drinking Water Quality & Supply

Ensure safe drinking water quality and supply by studying water quality impacts of Devil's Lake overflow on the Sheyenne River, ensuring the health of the Red River, and preparing for long-term emergency water supplies in times of drought.



Parks, Open Space, and Habitat

Ensure all neighborhoods have access to safe and well-maintained neighborhood parks. Enhance parks with more trees and amenities. Protect open space habitat areas and create nature centers and living laboratories to educate residents about nature.



Light Pollution

Develop strategies to reduce light pollution and maintain the beauty of the night sky. Examples could include energy efficient full cut off light fixtures on city streets.



Waste and Recycling

Develop policies to reduce waste and increase recycling programs. Explore food waste composting systems.



Water Conservation

Develop policies and programs to reduce water usage in the City of Fargo. For example, the City could expand its wastewater reclamation and reuse system for drinking, irrigation, and industrial users. The City could use native/xeric plants to reduce need for irrigation.



Green Stormwater Infrastructure

Incorporate natural stormwater management and flood control areas that provide recreational opportunities into the City. Examples include on-street rain gardens that soak up and clean stormwater runoff before it enters the storm sewers and retention areas.



Air Quality

Create strategies to ensure the quality and healthfulness of our air. Promote reduced emissions from transportation, energy production, industry, and all sectors of our city.



ENERGY



Community-Wide Energy Efficiency and Renewable Energy Production

Create strategies to incentivize energy efficiency and renewable energy production by working with City, State, and Federal governments.



Smart Grid

Develop strategies to promote a smart grid and work with local utilities to educate residents on the value of smart grid technology and renewable energy generation.



City Led Energy Efficiency and Reduced Emissions

Develop policies and strategies that allow the city to lead the way with energy efficiency standards and reduction of emissions from city facilities and schools.



ARTS AND CULTURE



Public Art

Incorporate public art into the public realm of the city.



Art Classes, Cultural Programs, and Arts Organizations

Develop strategies to increase access to and support for art classes and cultural programs.



Public Gathering Spaces

Develop dedicated public gathering spaces and public spaces in neighborhood centers. Promote programming of public spaces with festivals and other cultural events.



Establish an Arts Commission

Establish an Arts Commission to support integration of art into the public process and to increase aesthetic consideration within the public realm.



Festivals and Cultural Events

Develop space and programming for festivals and events.



HEALTH



City-Wide Trail Loop

Connect the city with a greenway that is made up of primarily off street trails.



Year-round Recreational Opportunities

Increase year-round recreational opportunities within the city.



Healthy Food

Ensure all neighborhoods have access to healthy food. Promote more farmers' markets and community gardens in Fargo.



Access to Healthcare

Fargo will ensure all residents have access to quality healthcare.



Regional Recreational Amenity

Develop a regional recreational destination, such as a water park, indoor athletic center, conservatory, or an expanded zoo.



TRANSPORTATION



Bicycle/Pedestrian Infrastructure

Improve bicycle and pedestrian connectivity by identification of gaps in the local and to the regional system.



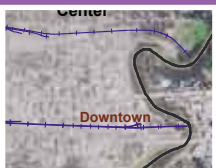
Complete Streets

Transform Fargo's roadways with a connected network of complete streets. Implement study recommendations to convert one way streets in downtown Fargo to two way streets.



Transit Improvements

Expand and improve the existing transit service in terms of frequency, mode, and other options, including an effort to revise both the existing MAT bus schedule and frequency of bus service throughout the city and the region (Moorhead and West Fargo). Study the possibility of new local and regional travel venues, such as bus rapid transit and rideshare programs.



Clear and Attractive Access to Downtown

Improve wayfinding signage for all modes of transportation. Enhance vehicular downtown connectivity from the north, south, and west, and simplify access from I-29 and I-94.



Transportation Linkages Across the Red River

Improve mobility in a manner that will accommodate growth and secure availability of emergency routes by developing an additional crossing of the Red River south of 52nd Ave, and improve availability of and access to river crossings for bicycles and pedestrians.



Intelligent Transportation System

Increase the use of Intelligent Transportation System (ITS) technology to improve efficiency and safety throughout the transportation system



Parking

Pursue creative parking strategies to fund and activate parking structures, explore reducing minimum parking standards, and share parking between daytime and nighttime uses.



ECONOMY



Amenities and Beautification as an Economic Development Tool

Invest in amenities and beautification as an economic development tool to attract creative individuals. For example, improve the streetscape and walkability of Fargo's main corridors.



Entrepreneurship

Create an environment of entrepreneurship through business support and public awareness campaigns.



Promote Connections and Infill within Strip Commercial Developments

Promote redevelopment of strip commercial areas to increase the amount of retail space, density, and promote walkability to increase competitiveness of these shopping destinations.



Workforce Training

Promote workforce training at the local universities and colleges.



Technology Infrastructure

Create strategies to increase the quality of Fargo's communication infrastructure. This infrastructure will give Fargo a competitive advantage for technology related businesses to locate in Fargo.



Attract and Retain Businesses and Qualified Workforce

Provide incentives for developing specialized space where both the demand and public benefit are substantially demonstrated. For example, there may be a need for more "wet" laboratory space to strengthen the bioscience industry and provide more jobs.

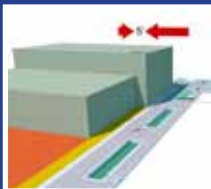


NEIGHBORHOODS, INFILL, AND NEW DEVELOPMENT



Promote Infill

Develop policies to promote infill and density within areas that are already developed and are protected by a flood resiliency strategy. Control sprawl and focus on areas outside of the floodplain.



Design Standards

Develop a Commercial Design Zone District and continue to follow the Design Guidelines for Growth Areas of the City of Fargo (May 2003) for infill and new residential development. Improve quality of new housing by fostering strong relationships with the development and building community to promote dense, walkable communities with neighborhood centers.



Quality New Development

Support homebuilders and developers that construct high quality, energy efficient buildings, and require new development to meet site design standards that result in well-designed new neighborhoods.



Historical Preservation

Strengthen historical preservation incentives.



High Quality Affordable Housing near NDSU

Develop higher quality affordable housing near the North Dakota State University campus.



Housing for workforce and low income residents

Pursue strategies to increase access to housing for workforce and low income residents.



Neighborhood Support and Communication

Improve communication between the City and established neighborhoods. Encourage neighborhoods to establish a vision and create neighborhood plans.



EDUCATION



Safe Routes to School

Fargo will work with local school officials, neighborhood leaders, parents, and children to develop policies and programs that advocate for the safe walking and bicycling to and from schools, and in daily life, to promote a healthy lifestyle of children and their families.



Retention of Neighborhood Schools

A serious issue facing our core neighborhoods is declining enrollment at its local schools. Once the doors are shuttered, the neighborhood not only loses a school but it loses its sense of community. Fargo will focus on retaining these important neighborhood assets.



Growth of NDSU Campus

Fargo will continue to foster the strong relationship with NDSU and their commitment to expansion in Downtown Fargo.



Improved Continuity Between NDSU Main and Downtown Campuses

Fargo will work with NDSU to improve continuity between NDSU main and downtown campuses in terms of urban design and services, such as improved transit.



Support the Research and Technical Park

NDSU is a top research institution with annual research expenditures exceeding \$110 million. The university has several programs ranked in the Top 100 by the National Science Foundation. Recently, the Carnegie Commission on Higher Education named NDSU to the elite "Research University/Very High Research category, a designation that represents the 108 most successful private and public universities in the country. .



SAFETY



Crime Prevention and Fire Safety

Maintaining public safety is incredibly important to assessing the status of a community's "quality of life". Fargo is committed to ensuring public safety by continuing to provide its residents with excellent police and fire services and by fostering strong partnerships between the public, nonprofit organizations, businesses, and other agencies.



Disaster and Emergency Preparedness

Fargo will update its disaster and emergency response procedures as needed to ensure that the city is as prepared as practical to protect its citizens, property and critical assets against natural and other disasters or catastrophes thus ensuring continuity of the services, facilities, and programs.

PRIORITIZATION

The public and steering committee prioritized the key initiatives at a public meeting, steering committee meeting, and online on the MindMixer Go2030 townhall website. At the public meeting, attendees received beans and invested their limited resources in the initiative jars of their choice. The steering committee prioritized the initiatives using the same exercise. The table on the following page reports the results of this prioritization exercise for the public and steering committee and the MindMixer voting results. The initiatives are sorted according to their weighted rank, which gives equal weight to the public meeting results, MindMixer results, and steering committee results.



INITIATIVE	GUIDING PRINCIPLE	PUBLIC MEETING RANK	STEER. COMM. RANK	MIND MIXER RANK	WEIGHTED RANK
Permanent Flood Protection	Water and Environment	2	1	20	1
Promote Infill	Neighborhoods, Infill, and New Development	9	2	6	2
Public Art	Arts and Culture	7	9	1	3
Bicycle/Pedestrian Infrastructure	Transportation	8	4	4	4
Design Standards	Neighborhoods, Infill, and New Development	6	6	7	5
City-Wide Trail Loop	Health	4	10	8	6
Public Gathering Spaces	Arts and Culture	10	5	10	7
Community-Wide Energy Efficiency and Renewable Energy Production	Energy	5	8	15	8
Quality New Development	Neighborhoods, Infill, and New Development		3	23	9
Year-Round Recreational Opportunities	Health	12	7	11	10
Tree Canopy	Water and Environment	1	16	16	11
Parks, Open Space, and Habitat	Water and Environment	3	14	22	12
Healthy Food	Health	19	13	2	13
Amenities and Beautification as an Economic Development Tool	Economy	15	20	3	14
Festivals and Cultural Events	Arts and Culture	13	35	5	15
Waste and Recycling	Water and Environment	22	17	9	16
Historical Preservation	Neighborhoods, Infill, and New Development	14	29	12	17
Complete Streets	Transportation		11	21	18
Transit Improvements	Transportation	24	24	13	19
Entrepreneurship	Economy	18	12	32	20
Art Classes, Cultural Programs and Arts Organizations	Arts and Culture	25	25	14	21
Clear and Attractive Access to Downtown	Transportation	11	19	33	22
Smart Grid	Energy	28	15	17	23
High Quality Affordable Housing near NDSU	Neighborhoods, Infill, and New Development	17	21	24	24
City Led Energy Efficiency and Reduced Emissions	Energy	20	22	25	25
Promote Connections and Infill within Strip Commercial Developments	Economy	21	23	26	26
Transportation Linkages Across the Red River	Transportation	16	30	35	27
Green Stormwater Infrastructure	Water and Environment	26	37	18	28
Watershed Management	Water and Environment	30	33	28	29
Regional Recreational Amenity	Health	23	31	38	30
Access to Healthcare	Health	31	34	29	31
Drinking Water Quality and Supply	Water and Environment	27	32	31	32
Workforce Training	Economy	29	26	37	33
Housing for Workforce and Low Income Residents	Neighborhoods, Infill, and New Development	34	28	27	34
Technology Infrastructure	Economy		18	36	35
Light Pollution	Water and Environment	33	27	34	36
Water Conservation	Water and Environment	32	38	19	37
Air Quality	Water and Environment	35	36	30	38
Attract and Retain Businesses and Qualified Workforce	Economy	36	39	39	39

the 1990s, the incidence of *S. flexneri* has increased in the United Kingdom [10]. In the United States, *S. flexneri* has been reported as the most common serotype in children with acute bacterial dysentery [11]. In the United Kingdom, *S. flexneri* has been reported as the most common serotype in children with acute bacterial dysentery [12].

There is a need to develop a vaccine against *S. flexneri* to protect children in the United Kingdom and other countries where the incidence of *S. flexneri* is high. The purpose of this study was to determine the serotypes of *S. flexneri* isolated from children with acute bacterial dysentery in the United Kingdom, and to determine the serotypes of *S. flexneri* isolated from children with acute bacterial dysentery in the United States.

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CHAPTER 3

Catalysts

This chapter is a snapshot of the most emblematic recommendations of this plan for the future of Fargo. It illustrates how big ideas influence the shape of the city and the amenities available to its citizens. These ideas have the potential to catalyze growth and improve quality of life in Fargo.

Catalysts

Catalysts are ideas that have the potential to accelerate development and enhance quality of life. The following list of catalysts was created in a public process with input from the steering committee and the technical committee. These ideas have the biggest potential to impact Fargo as it continues to grow and develop. Catalysts support and advance all of the guiding principles.

Walkable Mixed Use Centers

Walkable mixed use centers will be catalysts for well-designed, high density development that increases walkability, access to amenities, and provides other sustainable benefits of density.

Signature Streets

Signature streets will be destination public spaces in Fargo. They will include streetscape enhancements including wide sidewalks, landscaping, benches, pedestrian scaled streetlights, and other amenities.

Active Living Streets

Active living streets will have infrastructure to support pedestrians, experienced cyclists, recreational cyclists, transit, and automobiles. A network of active living streets will enable Fargo residents to walk or bike to their destinations safely and comfortably.

All-Season City-Wide Trail Loop

The city-wide trail loop will connect existing off-street trails and encourage recreation and active transportation throughout the city. The trail loop should be designed to function in the winter and include cross country ski paths.

Regional Recreation Destination

A regional recreation destination, such as a water park, indoor athletic facility, or a conservatory, will provide a community gathering space, promote good health, and will create an attraction for the region.

Celebrate the River

Flooding from the river has been a threat in years past, but there is potential to create great public spaces next to the river. These locations would give access to the river and can potentially be combined with flood protection and development projects.

Permanent Flood Protection

Permanent flood protection is necessary for the continued advancement of Fargo. Permanent flood protection would give businesses confidence to invest in Fargo and ensure the city is protected from future flooding threats.

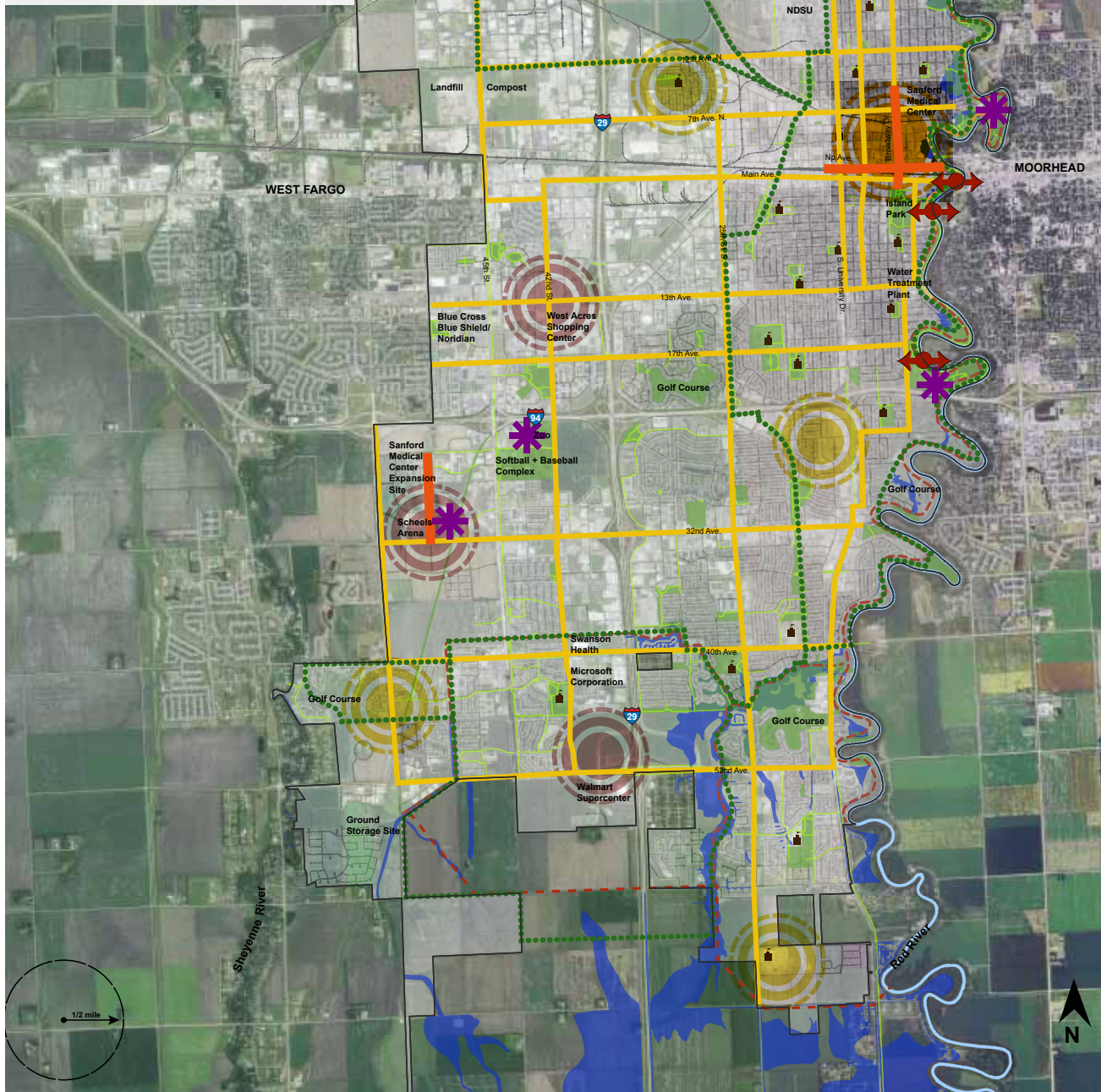
Energy Efficiency and Renewable Generation

Energy efficiency and renewable generation initiatives have the potential to give Fargo a competitive advantage with low energy costs, a high tech smart grid, and reliable power in the uncertain energy future. These initiatives also improve the health of the environment.

Catalysts Map

Legend

- Walkable Mixed Use Centers:
 - Downtown Neighborhood
 - Sustainable Retail Mixed Use Center
 - Neighborhood Center
- Signature Complete Street
- Active Living Streets
- Regional Recreation Destination
- Celebrate the River
- All-Season City-Wide Trail Loop
- Permanent Levees/Flood Walls
- Permanent Downtown Flood Protection
- Improved Protection for City Facilities Park
- Future or Existing Recreation Path
- 100 Year Floodplain
- School
- Railroad
- City of Fargo Boundary



WALKABLE MIXED USE CENTERS

Walkable mixed use centers will be unique, dense, and amenity-rich areas. These areas are strategic because they build on existing strengths, such as urban grid-pattern streets, access to commercial services, and existing infrastructure. This kind of development will conserve energy and support sustainable transit.



DOWNTOWN NEIGHBORHOOD

The downtown neighborhood has the potential to become more dense with infill development and incorporate a broader mix of uses including residential, neighborhood services, retail, and offices. This area will have high quality infrastructure that supports pedestrians, cyclists, cars, and transit and will feature public art and landscaping.



SUSTAINABLE RETAIL MIXED USE AREA

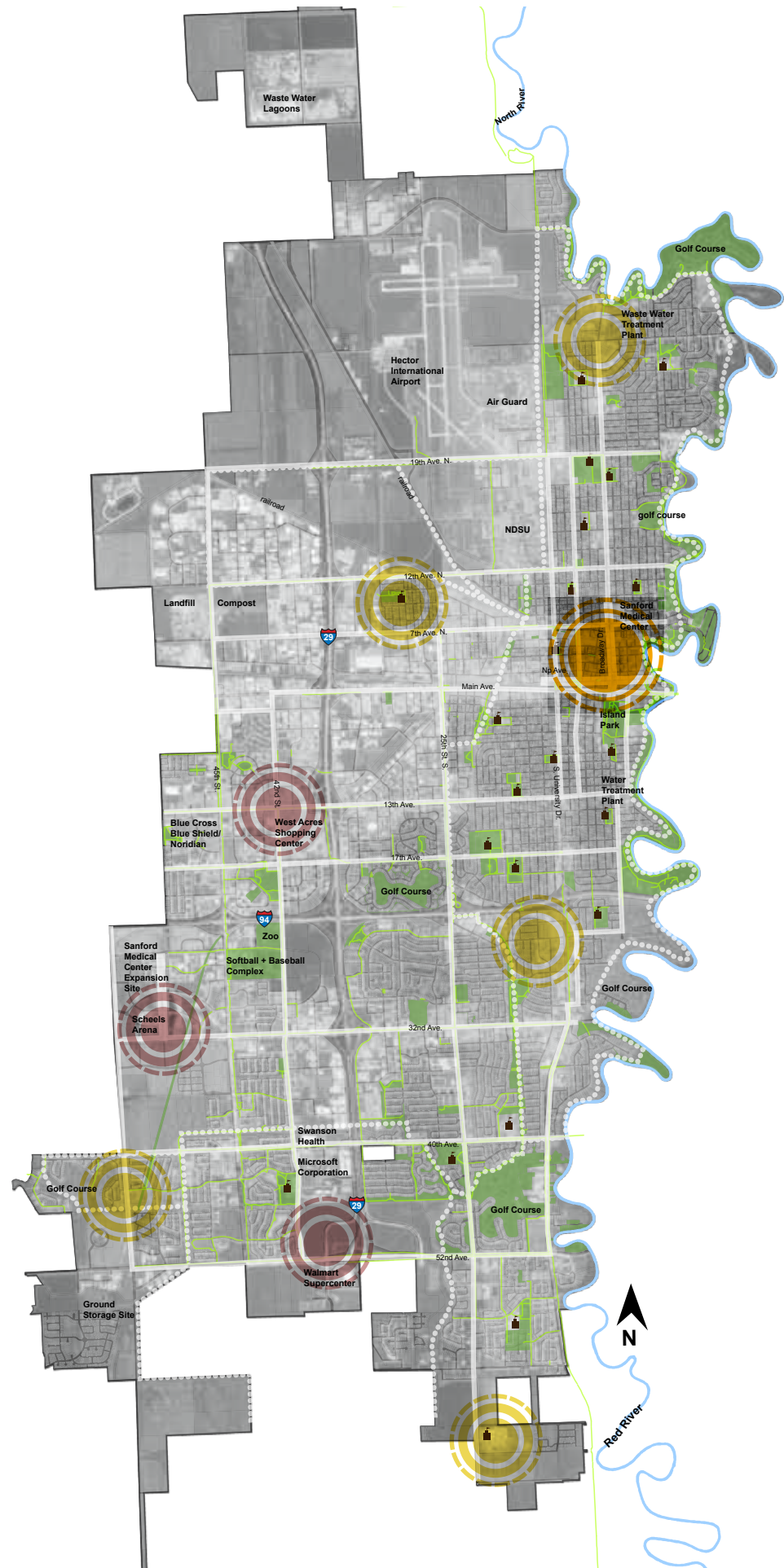
These areas have the potential to become denser and incorporate more retail space. These areas can incorporate more dense residential uses, walkability improvements, and public art to become true mixed use centers and a destination for shopping and entertainment.



NEIGHBORHOOD CENTER

These areas are more residential in character and will be less dense than other density areas with a mix of single family detached houses, town homes, rowhouses, and apartments. These areas will incorporate more neighborhood services, schools, parks, and walkability enhancements.





WALKABLE MIXED USE CENTER

This example of a walkable mixed use center illustrates how infill development, changing patterns of development, and amenities can transform areas in Fargo to support growth and quality of life improvements. This example demonstrates how a density node could develop around South University Drive. The principles of development can apply to any density node.

- 1 Pedestrian oriented, mixed use streetscape
- 2 Strong pedestrian access point across busy automobile corridor
- 3 Walkable block sizes (250' - 450')
- 4 Building and parking development patterns that create people oriented spaces and street frontage which encourages a walkable environment
- 5 Connection to greenway
- 6 Neighborhood park or other prominent neighborhood feature
- 7 High quality construction





BENEFITS OF WALKABLE MIXED USE CENTERS

Fargo is a growing city with a strong outlook for the future. As the city continues to expand, it is important to pay attention to the quality of the built environment. How we build impacts the way we live including how we get around, our health, the social capital of the community, the availability of affordable housing, and how we feel about the places we inhabit. The design of a community can even boost the local economy. Walkable Mixed Use Centers have the following benefits:

Lower infrastructure costs

Dense development lowers infrastructure costs because each mile of road or sewer line serves more development. Mixing uses also creates infrastructure efficiencies because it eliminates the need to provide parallel infrastructure systems to residential and nonresidential areas.

Positive fiscal impact on city budget

In addition to lower infrastructure costs, dense, mixed-use development generates more revenue and fewer costs for the city budget. Multifamily housing produces more tax revenue and requires less infrastructure and service costs per unit. Denser retail and office developments also produce more property and sales tax revenue.

Saves agricultural land and habitat

Dense development consumes less land and saves open space for agriculture and habitat. Studies from around the country have found that dense development alternatives consume between 10-40 percent less land.

More aesthetically pleasing

Higher density, mixed use areas are more aesthetically pleasing than homogenous, low density areas. Walkable mixed use centers support promoting and cherishing places with distinct identities, character, and appearance. Regardless of the pattern of development, it is important that future growth in Fargo incorporate signage, landscaping, and other elements that enhance the visual appearance of the city.

Greater economic development potential

It has been well documented that a community viewed as having a high quality of life will attract and retain individuals. Additionally, walkable mixed use centers provide a greater range of local services and amenities and encourage people to walk, shop, and grab dinner on the town.

Stronger sense of community and greater cultural opportunities

Denser development leads to more interaction between neighbors as they pass each other on the sidewalk and meet up at neighborhood shops, restaurants, and cafes. Denser areas are better able to support museums and other cultural institutions. Savings on infrastructure and development costs leave more resources to invest in public art and cultural amenities.

Greater safety

Dense, mixed use areas have more eyes on the street, which reduces opportunities for crime. People who live in walkable, mixed use centers spend less time in the car and are less likely to have an automobile accident.

More energy efficient

Dense mixed use development wastes less energy, especially gasoline through fewer vehicle trips. Multifamily homes are cheaper to heat and cool.

Less time in the car

A study of Florida county found “that households living in the most accessible areas spend about 40 minutes less per day traveling by vehicle than do household living in the least accessible locations.”

Less stressful

Because people spend more time driving, they have less free time and more stress. According to another study greater “travel impedance, as measured by commuting distance and time” has a “statistically significant negative effect on job satisfaction, work absences due to illness, overall incidence of colds or flu, mood at home in the evening, and chest pain.” Other studies have linked travel impedance to high blood pressure, negative mood, and overall life satisfaction.

Greater historic preservation

Greater density means that older areas are not abandoned, and therefore have higher property values. Higher property values make it much more financially feasible to preserve historic structures.

See Key Initiatives:**Neighborhoods, Infill, and New Development**

- Promote Infill
- Design Standards
- Quality New Development

**Arts and Culture**

- Public Gathering Spaces

**Economy**

- Amenities and Beautification as an Economic Development Tool
- Promote Connections and Infill Within Strip Commercial Developments

**Education**

- Retention of Neighborhood Schools
- Growth of NDSU Campus

SIGNATURE STREETS

Signature complete streets are destinations in Fargo. They have wide sidewalks and emphasize street activity over mobility. These streets will support pedestrians, bicyclists, transit, and automobile traffic and may incorporate public improvements, such as streetscape enhancements, public art, and landscaping to create an inviting urban environment. Green stormwater infrastructure will handle stormwater runoff and will bring more vegetation into the urban landscape. Improvements along these corridors will support businesses and drive economic development.

Benefits:

- Creates celebrated signature streets that enhance the identity of Fargo.
- Improves streetscape and enhances the quality and visual appearance of the city.
- Encourages pedestrian and bicycle activity.
- Public investment in infrastructure catalyzes development in walkable mixed use centers.

See Key Initiatives:**Water and Environment**

- Green Stormwater Infrastructure
- Tree Canopy
- Air Quality

**Transportation**

- Bicycle and Pedestrian Infrastructure
- Transit Improvements
- Complete Streets

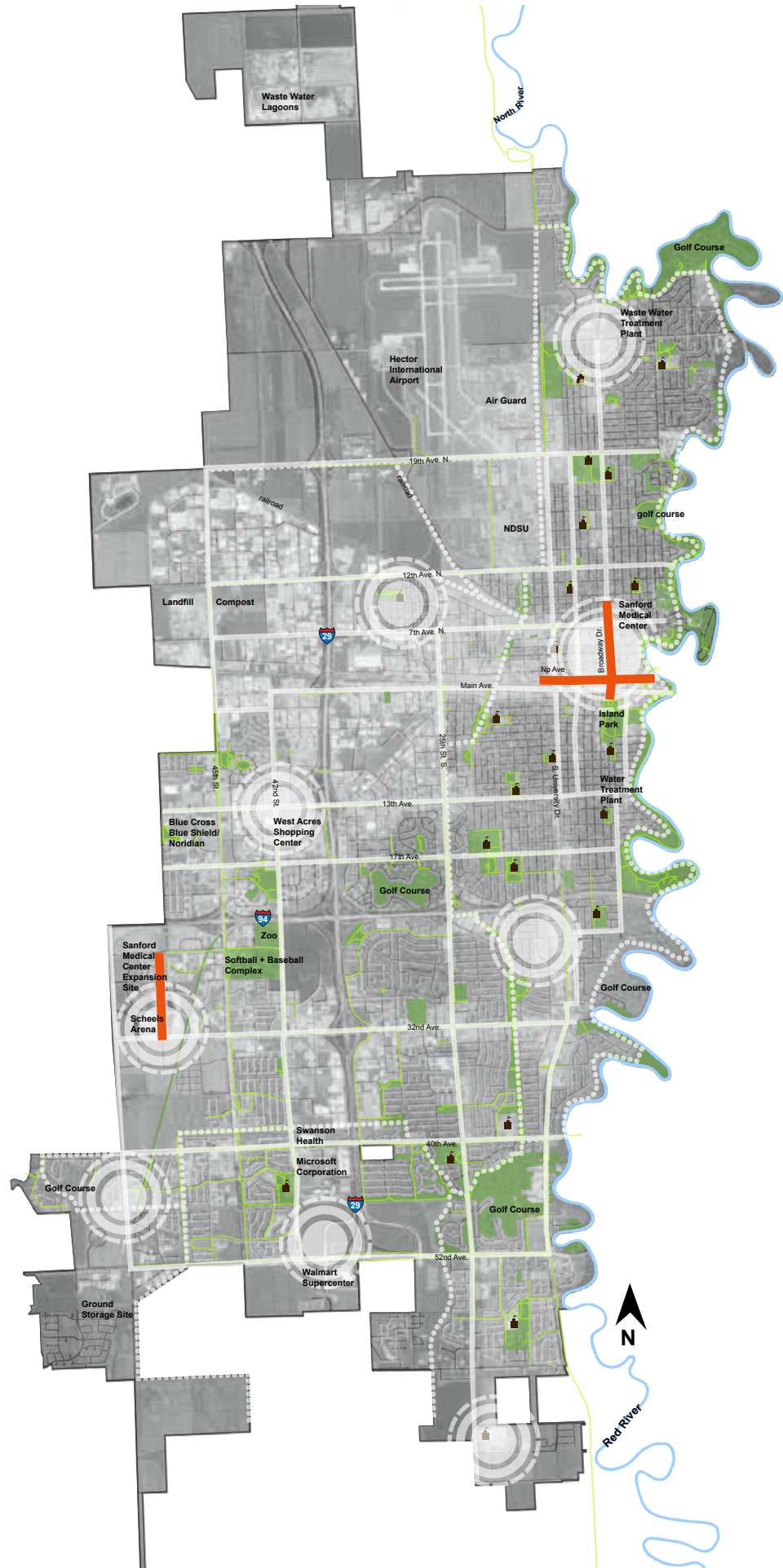
**Arts and Culture**

- Public Art

**Economy**

- Amenities and Beautification as an Economic Development Tool





ACTIVE LIVING STREETS

Active living streets are key corridors in Fargo and have the potential to support multiple modes of transportation, incorporate green stormwater infrastructure, and become great public spaces with attractive streetscapes. These streets can support pedestrians, novice and advanced cyclists, transit, and vehicles. They connect major employment centers in Fargo, providing sustainable transportation options for Fargoans going to work. Whereas signature complete streets are destinations, active living streets prioritize mobility for all modes of travel.

Benefits:

- Connects many neighborhoods, activity centers, employment areas, and districts in Fargo.
- Opportunity for additional viable transportation options along roadways including improved sidewalks, bicycle lanes, separated bike corridors, and transit.
- Improved streetscape that enhances the quality and visual appearance of neighborhoods.

See Key Initiatives:



Water and Environment

- Green Stormwater Infrastructure
- Tree Canopy
- Air Quality



Transportation

- Bicycle and Pedestrian Infrastructure
- Transit Improvement
- Complete Streets



Arts and Culture

- Public Art



Economy

- Amenities and Beautification as an Economic Development Tool



Health

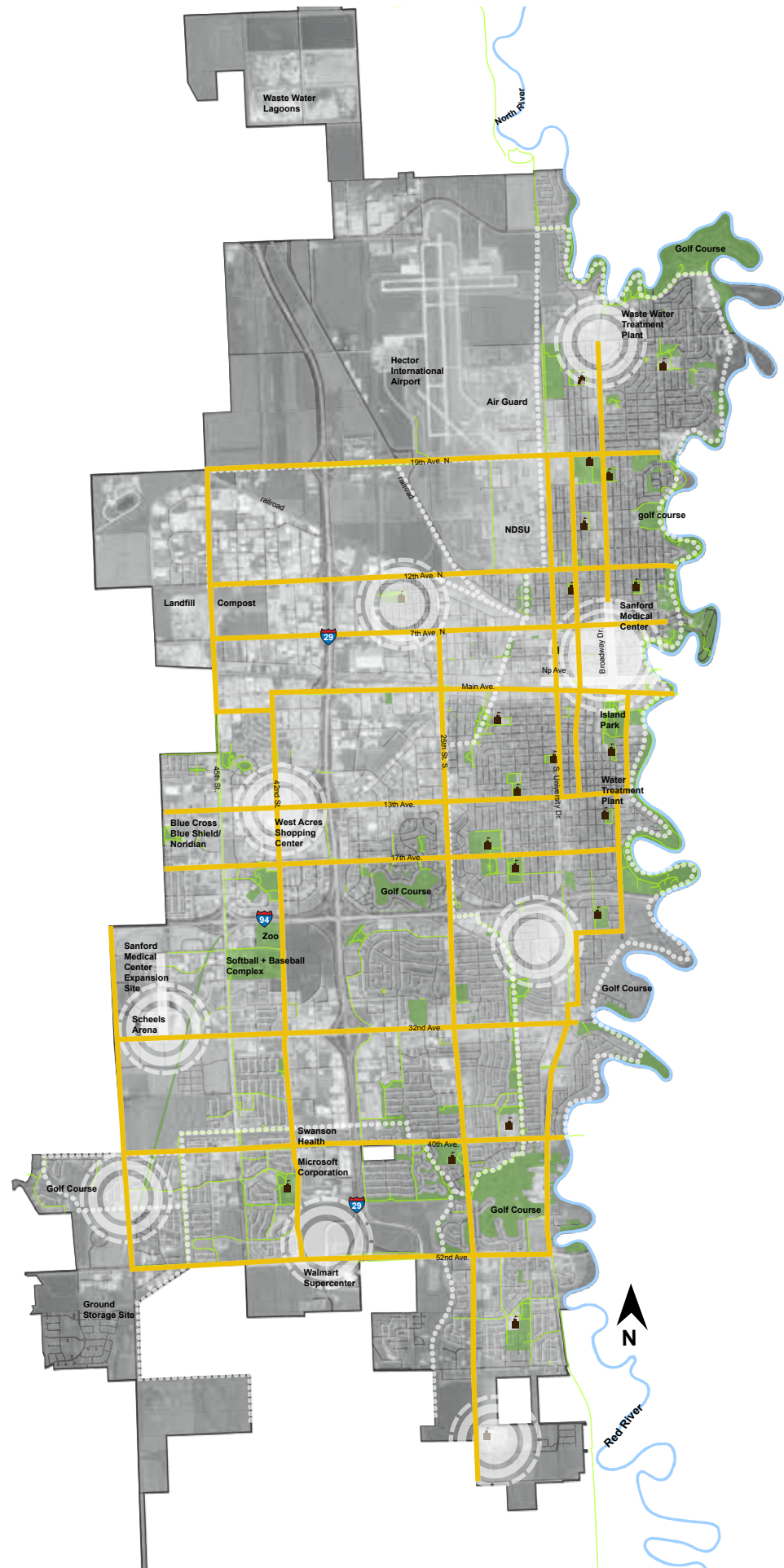
- City-Wide Trail Loop



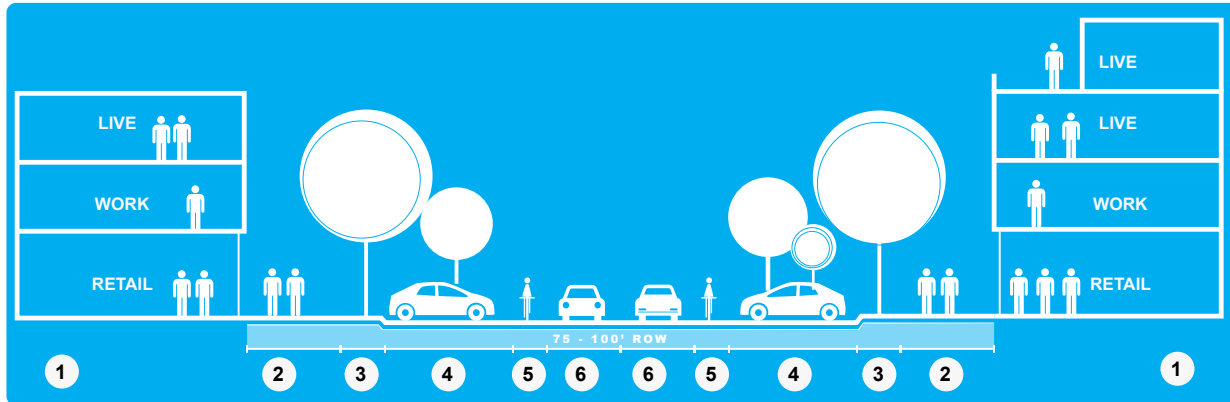
Education

- Safe Routes To School
- Improved Continuity Between NDSU Main and Downtown Campuses





Typical Signature Street Section



1 Land Use

Density of activity and a mix of retail, office, and residential uses make signature streets livable destinations. The uses along signature streets bring life to the streets and allow citizens to run day to day errands by walking and biking.

2 Sidewalks

Signature streets have wide sidewalks allowing for pedestrian activity and the occasional sidewalk café.

3 Amenity Zone

Bike racks, benches, trash cans, lights, art, infiltration basins (natural rainwater management solutions), and shade trees are all part of the amenity zone. The amenity zone enhances quality and visual appearance while providing opportunity for smart rainwater management solutions.

4 Parking and Curb Bump Outs

Parking for both automobiles and bicycles provides easy access and invites people to stay awhile. Integrated curb bump outs calm traffic, provide safe and comfortable pedestrian crossings, and space for smart rainwater management solutions.

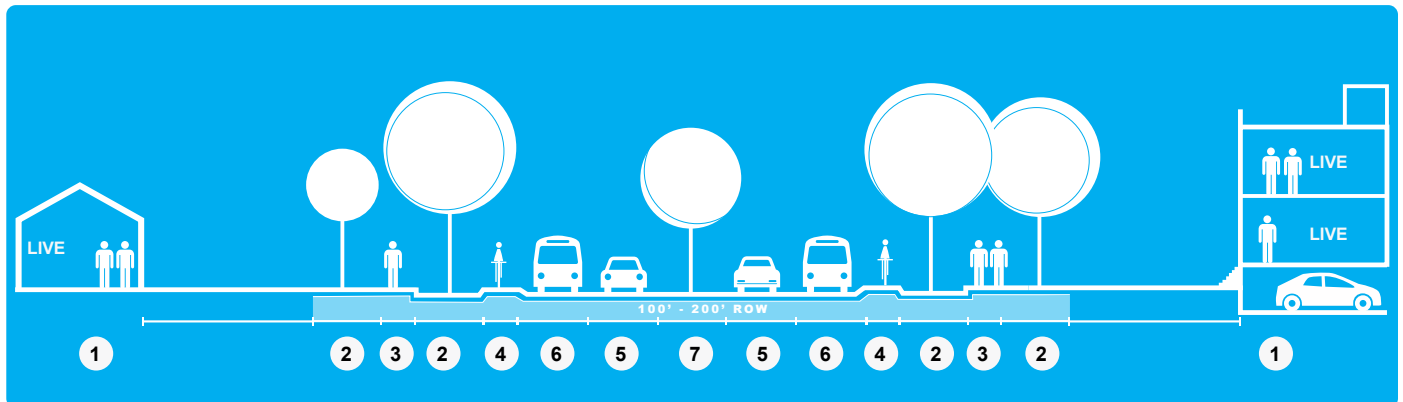
5 Bike Lanes

Dedicated bicycle lanes invite the majority of the population to consider biking as a safe and convenient mode of transportation. In most cities, about seven percent of people are enthused and confident enough to ride their bike in traffic. Dedicated bicycle infrastructure appeals to the percent of people who are capable but cautious.

6 Drive Lanes

Signature complete streets give priority to making walking and biking a comfortable mode of transportation. Minimizing the number of traffic lanes can create some automobile friction which slows down traffic (often without reducing capacity) and in turn encourages walking and biking as more convenient modes of transportation. Narrow drive lanes improve safety for bicyclists and pedestrians by encouraging slow automobile traffic and have been shown to provide an economic benefit for neighboring shops.

Typical Active Living Street Section



1 Land Use

The uses and densities along active living streets vary. The key for new development and infill should be to support walking and biking through proper building orientation that defines a public realm and parking strategies that do not isolate or add hazards to non-motorized users.

2 Amenity Zone

With more right of way to work with there is space to provide quality amenities and integrated natural stormwater solutions within the amenity zone. Bike racks, benches, trash cans, lights, art, infiltration basins (natural rainwater management solutions), and shade trees are part of the amenity zone but will likely be less frequent than on signature streets.

3 Sidewalks

Sidewalks on active living streets need to be wide enough to encourage walking.

4 Bike Lanes

Active living streets need to be just that: active. With Fargo's renewed focus on health and encouraging bicycle transportation, dedicated bike lanes are an integral part of the design. Because of the extra street widths, bidirectional lanes are also a possibility.

5 Drive Lanes

On active living streets drive lanes can be wider and travel speeds slightly higher than on signature streets, but lane widths should not be excessive. The street must still remain conducive to all modes of transportation.

6 Transit Lanes

All modes of transportation are important on active living streets. Encouraging transit ridership (buses and future modes) improves citizen health, reduces transportation costs and maximizes efficiency. Active living streets should nurture Fargo's transit system.

7 Turning Lane or Median

The inclusion of a turning lane allows traffic to move more steadily and in the right instances can replace two lanes of traffic (one in each direction) without reducing street capacity.

ALL-SEASON CITY-WIDE TRAIL LOOP

Health, recreation, and transportation are popular topics in Fargo. There is an opportunity to build a city-wide trail loop that will connect neighborhoods and walkable mixed use centers. It can be used for walking, biking, and potentially cross-country skiing in the winter. This catalyst incorporates the findings of the Metropolitan Bicycle and Pedestrian Plan and adds momentum to this idea.

Benefits:

- Provides a year-round recreational amenity for neighborhoods in Fargo.
- Connects walkable mixed use centers and employment centers, creating an alternative transportation option.
- Enhances important centers and corridors in Fargo.
- Builds on existing plans and studies.
- Integrates with levee and drainage systems.

See Key Initiatives:**Health**

- City-Wide Trail Loop
- Year-round Recreational Amenities

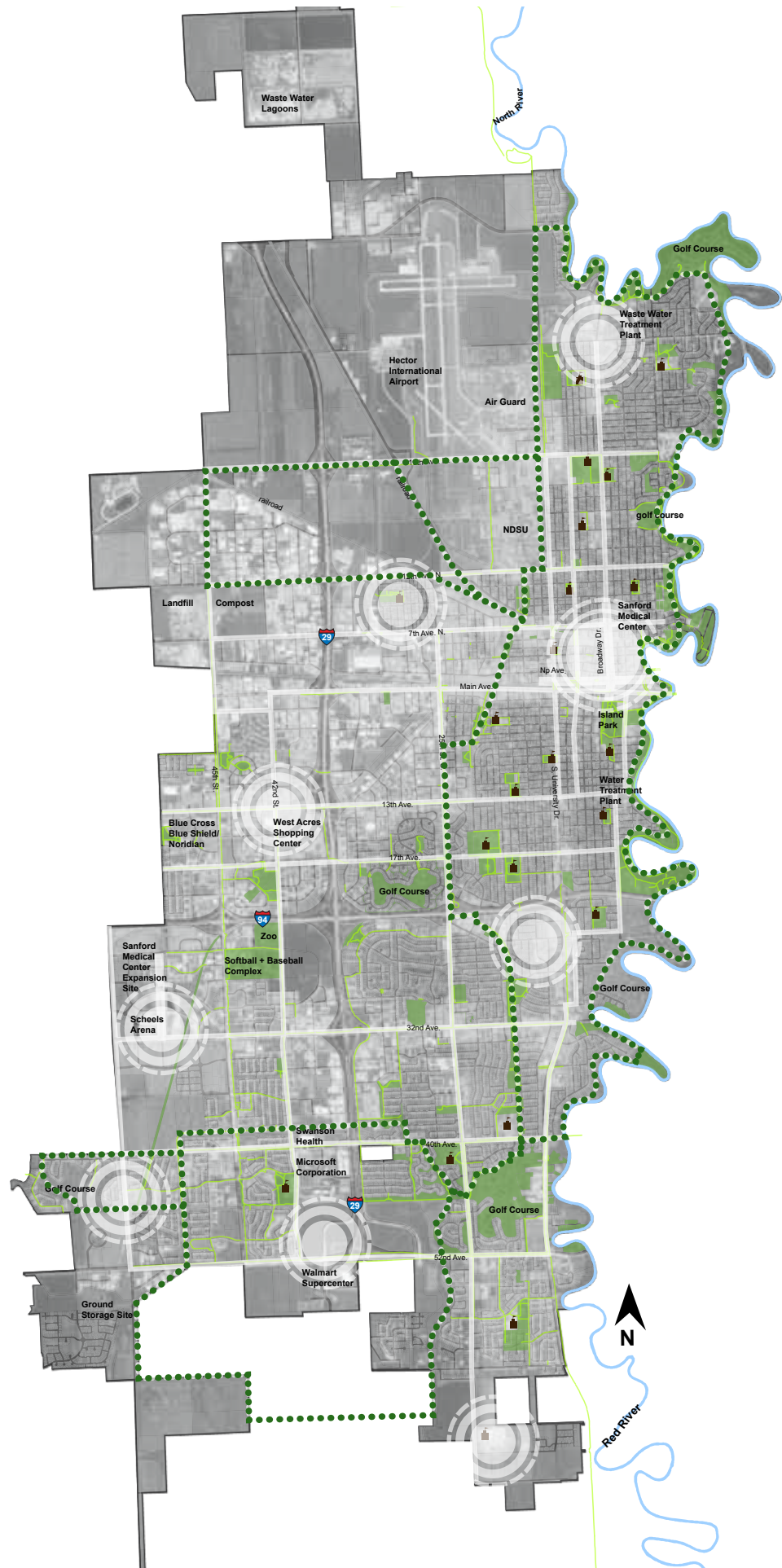
**Economy**

- Amenities and Beautification as an Economic Development Tool

**Transportation**

- Bicycle and Pedestrian Infrastructure





REGIONAL RECREATION DESTINATION

These sites have the potential to support a regional recreational amenity, such as a water park, indoor athletic facility, or a conservatory. This amenity should provide year-round recreation in Fargo and attract regional visitors. These sites support the goal of infill development because they are within the built out area of Fargo and will add to the urban vitality of these neighborhoods.

Benefits:

- Provides a year-round recreational amenity.
- Draws people from the region to Fargo and supports economic development goals.
- Supports guiding principle of infill development because potential areas catalyze development within the built out areas of Fargo.

See Key Initiatives:



Health

- Regional Recreational Amenity
- Year-round Recreational Amenities



Economy

- Amenities and Beautification as an Economic Development Tool





CELEBRATE THE RIVER

These areas can become a public gathering area and recreation venue on the Red River. The idea is to make improvements around these river crossings to provide better pedestrian access to the River and space for community events, such as an arts festival. There is potential to combine this idea with improvements to City Hall and enhanced flood protection.

Benefits:

- Provides a connection to the Red River.
- Creates a unique space for gatherings and festivals.
- Potential to combine with improvement to City Hall and flood protection.

See Key Initiatives:



Water and Environment

- Permanent Flood Risk Reduction
- Watershed Management
- Green Stormwater Infrastructure
- Parks, Open Space, and Habitat



Arts and Culture

- Public Art
- Public Gathering Places
- Festivals and Cultural Events





PERMANENT FLOOD PROTECTION

Flooding is the biggest threat facing Fargo. Flooding impacts homeowners and businesses and can be a deterrent for new investment in Fargo. Permanent flood protection via a diversion of the Red River and levee/floodwalls along the Red River will advance the community vision.

Benefits:

- Protects existing homeowners and businesses from property damage, insurance expenses, and time consuming sandbagging.
- Protects Fargo's existing infrastructure and public investments, and can be integrated with other improvements, such as trails and recreation facilities.
- Encourages future investment in Fargo.

See Key Initiatives:**Water and Environment**

- Permanent Flood Risk Reduction

ENERGY EFFICIENCY AND RENEWABLE GENERATION



This plan aims to transform Fargo with smart growth initiatives, sustainable transportation, and initiatives directly related to energy efficiency and renewable generation. Energy efficiency and renewable generation initiatives will give Fargo a competitive edge as energy prices continue to be volatile in the future. Pursuing energy efficiency and renewable energy generation will protect Fargo citizens and businesses from rising energy costs and support national goals of energy independence and green house gas reductions.

Benefits:

- Gives Fargo a competitive edge against an uncertain energy future.
- Encourages development in an emerging economic sector, supporting the economic guiding principle.
- Supports national goals of energy independence and green house gas reductions.

See Key Initiatives:



Water and Environment

- Tree Canopy
- Green Stormwater Infrastructure
- Water Conservation
- Light Pollution



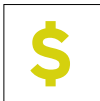
Transportation

- Bicycle and Pedestrian Infrastructure
- Transit Improvements
- Complete Streets



Energy

- City Led Energy Efficiency, Reduced Carbon Footprint
- Community-wide Energy Efficiency and Renewable Energy Production
- Smart Grid



Economy

- Workforce Training (Green Jobs)



Neighborhoods, Infill, and New Development

- Promote Infill
- Design Standards
- Quality New Development

the 1990s, the number of people in the world who are under 15 years of age is expected to increase from 1.1 billion to 1.5 billion.

As the world's population grows, the demand for food and other resources will increase. This will put pressure on the environment and on the world's food supply. It is important that we find ways to meet this demand without harming the environment or the world's food supply.

One way to do this is to use sustainable agriculture. Sustainable agriculture is a way of farming that uses natural resources in a way that will not harm them. It uses techniques that will not deplete the soil or the water, and it uses resources that are renewable.

Another way to do this is to use sustainable forestry. Sustainable forestry is a way of managing forests that will not harm the forest. It uses techniques that will not deplete the forest or the soil, and it uses resources that are renewable.

There are many other ways to do this, and it is important that we find ways to meet the world's growing demand for food and other resources without harming the environment or the world's food supply. We need to work together to find these ways, and we need to make sure that we are using resources in a way that will not harm them.

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CHAPTER 4

Water and Environment

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



WATER AND ENVIRONMENT

Water is a vital resource for life on the northern plains, but it is also an unpredictable and fragile system. This plan emphasizes understanding water as a key to living in a mutually beneficial relationship with the environment and creating more resiliency in Fargo.

Fargo's location along the Red River of the North was no accident. The juncture of the river and multiple railroad lines made this a logical location for a city. If the wet cycle currently being experienced had been the case 125-150 years ago, this community may have never grown to the extent that it has. But, it wasn't the case, and the community has grown to a vibrant city of over 100,000 people – both because of and in spite of the Red River. The Red River has experienced major spring flooding during seven of the past 14 years, with two out of four of the highest recorded river levels occurring in the past three years (2009 and 2011).

While water and flooding is on everyone's mind, this plan also protects and enhances all natural systems. Throughout the public process, Fargo residents expressed deep interest in maintaining the health of the natural environment. This includes ensuring that Fargo is served by a robust tree canopy and a great system of parks and open space. The built environment can help improve the health of the environment through green stormwater infrastructure and smart policies regarding watershed management, water conservation, and waste systems. Maintaining a dark sky at night and a healthy air quality are also important priorities for Fargoans.

“

FROM MINDMIXER

Lets encourage our children to unplug from their Wii by turning some of our turfed school grounds into living laboratories for elementary education and exploration. - Cat

”

Initiatives:

01: PERMANENT FLOOD RISK REDUCTION

Develop internal flood protection systems to a river stage of 42.5 feet using permanent levees and flood walls and create long-term, 500 year flood protection through construction of a diversion channel.

02: TREE CANOPY

Increase the amount of trees in Fargo by preserving trees in new development, planting trees in parks, and increasing the number of street trees along Fargo's main corridors.

03: PARKS, HABITAT, AND OPEN SPACE

Ensure all neighborhoods have access to safe and well-maintained neighborhood parks. Enhance parks with more trees and amenities. Protect open space habitat areas and create nature centers and living laboratories to educate residents about nature.

04: WASTE AND RECYCLING

Develop policies to reduce waste and increase recycling programs. Explore food waste composting systems.

05: GREEN STORMWATER INFRASTRUCTURE

Incorporate natural stormwater management and flood control areas that provide recreational opportunities into the city. Examples include on-street rain gardens that soak up and clean stormwater runoff before it enters the storm sewers and retention areas.

06: WATERSHED MANAGEMENT

Develop a strategy for regional watershed flood management simultaneously with the diversion project.

07: DRINKING WATER QUALITY AND SUPPLY

Ensure safe drinking water quality and supply by studying water quality impacts of Devil's Lake overflow on the Sheyenne River, ensuring the health of the Red River, and preparing for long-term emergency water supplies in times of drought.

08: LIGHT POLLUTION

Develop strategies to reduce light pollution and maintain the beauty of the night sky. Examples could include energy efficient full cut off light fixtures on city streets.

09: WATER CONSERVATION

Develop policies and programs to reduce water usage in the City of Fargo. For example, the City could expand its wastewater reclamation and reuse system for drinking, irrigation, and industrial users. The city could use native/xeric plants to reduce need for irrigation.

10: AIR QUALITY

Create strategies to ensure the quality and healthfulness of the air. Promote reduced emissions from transportation, energy production, industry, and all sectors of our city.

**BEFORE: TYPICAL STORMWATER MANAGEMENT**

This chapter focuses on the connections between the health of Fargo's natural environment and the quality of its parks and public spaces. The above photograph captures the typical stormwater infrastructure in Fargo.



AFTER: STORMWATER MANAGEMENT FOR ENVIRONMENTAL STEWARDSHIP AND COMMUNITY SPACES

This rendering reimagines the same infrastructure using green stormwater management techniques. The water in this example follows a curving pattern through native vegetation which slows the water and filters out pollutants. A trail system and interpretive signage transforms this area into a great community space.



INITIATIVE 01

PERMANENT FLOOD RISK REDUCTION

Catalyst | This initiative supports the following catalyst(s):



*Celebrate
the River*



*Permanent Flood
Protection*



RECOMMENDATIONS

- Ensure all City policies are consistent with the FM Metro Flood Diversion Project.
- Apply City's three-prong approach to flood protection:
 - Real protection.
 - Certified protection.
 - Diversion.
- Encourage upstream retention.
- Support the Flood Diversion Authority and subcommittees.
- Assist diversion authority to select a program management consultant to design the FM Metro Flood Diversion Project.
- Collaborate with Legal Group, Finance Committee, Public Outreach Committee, and Mitigation Committee.

DESCRIPTION

Flooding in the Red River Valley has become increasingly severe and frequent. It threatens the viability and quality of life of the entire region. The flood of record occurred in 2009 with a crest of 40.82 feet. The potential damages to the Fargo-Moorhead area of a 500 year flood event total over \$10 billion.

The City is using a three pronged approach to flood protection in Fargo. The first prong is to provide real protection, even if the city is not able to certify the protection. This involves building levees to eliminate the need

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FROM MINDMIXER

I believe it's vital to also protect our revitalized downtown that is ripe for more mixed use development. We can leverage this downtown flood protection as a catalyst for development and fun and it can serve as a way to recruit and retain people and businesses by making Fargo not only safe, but much more fun! - gofargo

FROM MINDMIXER

Officials should implement policies which build community resiliency - develop resources to better predict and understand flood events, move people out of harms way, and ensure future generations don't repeat past mistakes. – will

”

for sandbagging, maintaining a strategy for emergency protection, and requiring all new construction to elevate to meet the protection standards of the new 100 year floodplain. The strategy for emergency protection includes emergency clay levees, quick deploy methods, and sandbag operations.

The second prong of Fargo's flood protection strategy is to build certified protection. The city will build levees to a certified standard. If it is not feasible to achieve 100% certification, the City will compartmentalize to remove as many properties as practical from the floodplain.

The diversion is the third prong of Fargo's flood protection strategy. The diversion project alone will provide 100 year flood event level of protection for the city of Fargo, and it will also provide Fargo the opportunity to successfully fight a 500 year flood with the use of emergency measures. Combined with the internal flood protection systems of permanent levees and flood walls, the diversion will significantly reduce Fargo's flood risk.

The spring flood events and the resulting increase in the base flood elevation after several years of study by FEMA have necessitated the shift to permanent flood protection. Over 200 properties have been purchased by the City of Fargo since the previous record crest in 1997. Multiple policies, programs, and initiatives have resulted in a higher level of flood resiliency. Fargo's main flood protection efforts are focused on the authorization and appropriation of funds for a river diversion around the metropolitan area.

Fargo representatives are currently serving on the Flood Diversion Authority, which was formed by a joint powers agreement between Fargo, Moorhead, Cass County, Clay County, the Cass County Joint Water Resources District, and the Buffalo-Red River Water Resources District. The purpose of the Flood Diversion Authority is to build and operate a flood diversion channel along

the Red River of the North to reduce the flood risk of the stakeholder communities and counties. The Flood Diversion Authority and its members worked with the United States Army Corps of Engineers on the FM Metro Flood Risk Management Feasibility Study to develop the flood diversion channel project.

BENEFITS

Flood protection protects property and saves money that would be spent on flood insurance. The City's internal plan to construct floodwalls and levees to 42.5 feet will provide near-term flood protection to 100-year flood levels and will provide 500-year flood level protection when combined with the finished flood diversion project. Additionally, certified flood protection efforts will reduce the need for expensive flood risk insurance, which could cost city residents nearly \$20 million per year without further protection measures.

The construction of these levees and the diversion will result in direct employment which will stimulate the local economy. Businesses will have the certainty to expand and invest in Fargo.

Flood protection has social benefits as well. Levees and the diversion can be combined with trails and recreation projects. Protection from spring flooding will give Fargo residents greater peace of mind.

A three-year study by the Corps of Engineers and local engineering firms looked at many options including levees, floodwalls, and retention and concluded that the current diversion plan is the only viable concept that would significantly reduce flood risk in the Fargo-Moorhead area from flood events larger than the flood of 2009.

CASE STUDIES



Magdeburg Water Bridge

Magdeburg, Germany

The Magdeburg Water Bridge is a navigable aqueduct in Germany, opened in October 2003. It connects the Elbe-Havel Canal to the Mittellandkanal, crossing over the Elbe River. Similar structures would be built for the Fargo-Moorhead area diversion project.

Source: http://en.wikipedia.org/wiki/Magdeburg_Water_Bridge

Original uploader was WhiteDragon (<http://en.wikipedia.org/wiki/User:WhiteDragon>) at en.wikipedia



Red River Floodway Expansion Project

Manitoba, Canada

The Red River Floodway protects Manitobans from the same river which runs through the Fargo-Moorhead area, and shares similarities with the proposed Fargo Moorhead area diversion itself. The expansion of the Red River Floodway will increase flood security and improve the quality of life for many Manitobans. In addition to improving flood protection and preparedness, the project will also create thousands of direct and indirect jobs, protect the environment and give residents an opportunity to help shape the future of their communities.

Source: <http://www.floodwayauthority.mb.ca/home.html>
Original uploader was JPark99 at en.wikipedia.org

INITIATIVE 02

TREE CANOPY

Catalyst | This initiative supports the following catalyst(s):



*Signature
Streets*



*Active Living
Streets*



*Energy Efficiency
and Renewable
Generation*



RECOMMENDATIONS

- Strengthen and enforce landscaping requirements.
- Continue to work with developers, the Fargo Park District, and other agencies to plant more trees in city parks, along streets, and in parking lots.
- Explore creative programs to provide trees to governments, organizations, and individuals.
- Raise awareness about benefits of trees.

DESCRIPTION

Fargo is known for its beautiful canopy of towering Elm trees. The image of green leafy branches doming over the road is a Fargo icon. Fargo's established parks, such as Island Park, have a rich tree canopy and provide an oasis from the urban environment. However, due to the rapid expansion of south Fargo, trees in newer developments have not had the opportunity to mature and develop into the same lush tree canopies as older parts of town. It will take time to establish a tree canopy over new areas of town, but now is the time to start planning for trees and bringing a robust tree canopy to all areas in Fargo.

Fargo will increase the quantity of trees by preserving trees in developed parts of town, planting trees in parks, increasing the number of street trees along Fargo's main corridors, and ensuring new development includes plentiful trees and other landscaping. Bolstering landscaping requirements within parking lots is another strategy to bring more trees to newer areas of town.



“

FROM MINDMIXER

More Trees! - Everywhere I turn in the city, when driving through new developments, it shocks me at the utter lack of vegetation and trees.

-- fmmetroplex

FROM MINDMIXER

And require trees in parking lots! – Durdon

”

BENEFITS

Trees benefit the public by improving the appearance of the community. Trees make it more desirable to walk, because they protect pedestrians against the sun and weather and provide separation between sidewalks and the street. Trees also have an environmental benefit; they reduce stormwater runoff and the resulting water pollution, and they clean the air. Trees have an economic impact too. According to the report *22 benefits of urban street trees*, for the price of \$250-600 per tree (including first 3 years of maintenance) a tree can return over \$90,000 in direct benefits.¹ These benefits result from the fact that people spend 20% more money in stores that have trees in front of them. Trees increase property values of homes and businesses and can reduce the cost of cooling in the summer. The shade from trees also increases the lifespan of asphalt and other paving materials.

1. Burden, Dan. 22 Benefits of Urban Street Trees. November 2008. <http://www.walkable.org/assets/downloads/22%20Benefits%20of%20Urban%20Street%20Trees.pdf>

CASE STUDY



Tree-mendous Maryland Program

A program at Maryland Department of Natural Resources provides low-cost trees to organizations for planting on public lands and community open spaces. The program provides a list of available trees and shrubs and free delivery of trees for community orders of 10 or more trees. Using the Community Reforestation Program, development projects in Baltimore County pay for required reforestation. Developers are also permitted to pay a fee in-lieu of mitigation for required reforestation. These fees are used to reforest open lands.

“

FROM MINDMIXER

Line Roads with Trees - Trees prevent glare ice, provide a wind break during blizzards, and make summers more bearable. The city of Fargo should take the lead in creating tree lines on highways and major roads. -- Drew FM

”

INITIATIVE 03

PARKS, HABITAT, AND OPEN SPACE

Catalyst | This initiative supports the following catalyst(s):



*Celebrate
the River*



RECOMMENDATIONS

- Work with property owners, developers, and the Fargo Park District to establish neighborhood parks.
- Ensure that all neighborhoods have safe, well-maintained, and walkable access to neighborhood parks.
- Continue to work with development community and the Fargo Park District to secure parkland dedication, park amenities, and programming as part of the subdivision process.
- Enhance parks with more trees, habitat areas, and visitor amenities.
- Protect open space habitat areas and create nature centers and living laboratories to educate residents about nature.
- Consider a regional open space system and its connectivity as an important amenity with recreational, natural habitat, and flood prevention capabilities.



DESCRIPTION

Without question, Fargo's robust park network is a valuable amenity for residents. Throughout the planning process, the community demonstrated unwavering support for parks and recreation, a strong interest in building on this asset, and a recognition that natural areas should be included in Fargo's long-term open space strategy. Fargo residents greatly value both programmed and unprogrammed open spaces and realize that the Red River represents a challenge but also an important natural amenity.

“

FROM MINDMIXER

“All the property along the river that was bought out to the south of town: Plant thousands of trees and make a nature area for hiking and picnicking, and put in a fishing pier.” – Charlie M

”

This initiative focuses on improving park space by adding more trees and amenities and improving access to parks. Improved access to parks can include pedestrian connections between residential areas and parks and creating more neighborhood scale parks distributed throughout the city.

Fargo is unique when it comes to the acquisition of park land. While most communities across the country have adopted minimum park land dedication standards or fees in lieu of park land dedication, the City of Fargo Planning Department works with land developers to secure park land and funding sources for park improvements. Early in the development process, the City and the developer contact the Fargo Park District to determine the park needs for the development and the surrounding area. The City has no set minimum park land dedication standard, but typically secures between 6 and 8 percent of the land within the development

for parks, trails, and open space. Once the size of the land dedication is determined, the developer works with the Park District to develop a park improvement plan and a development improvement agreement. The agreement defines what park amenities are included, estimated cost, method of financing, and a time frame for completion. The most common way to finance parks is to create a special assessment district over the parcels of the new development. The agreement is first approved by the Fargo Parks District. It then becomes part of the subdivision amenities plan that is approved by the Planning Commission and then the Fargo City Commission.

Fargo's process of securing park land dedication and improvements prior to subdivision plat approval has proven very successful, as it allows the Park District an opportunity to construct the park and recreation trails ahead of the actual development, and developers have





found that having the park amenities completed greatly aids in the sale of their lots. The agreement requires the property owner to deed the land to the Park District via warranty deed and with no special assessments. The Fargo Park District will manage the park construction process and perpetually maintain the new park at the same standard as other Park District parks.

The Park District is an autonomous political body who has powers extended by the state legislatures, including the power to levy property taxes. Currently, the Park District takes care of over 2,100 acres of park land, maintains 90 miles of recreation trails, operates 110 facilities, plants approximately 110,000 annual flowers, and cares for thousands of trees located on park property. The 110 facilities include five golf courses, three pools, the Pepsi Soccer Complex, Anderson Softball Complex, Tharaldson Baseball complex, the Southwest Youth Ice Arena, Courts Plus Fitness Center, the South Arena, the Coliseum, and Lindenwood Campground.

The Park District offers approximately 61 free admission special events each year, hosts 60 art classes and approximately 730 sessions of recreational leagues and lessons. Over 215,000 people participated in at least one Park District program or event in 2010.

BENEFITS

The benefits of enhanced open space are well documented. Easy neighborhood access to parks increases healthy activity, encourages heavier park use, and fosters a sense of community among visitors. Ensuring neighborhood parks are fully programmed and of a high quality promotes regular use. Integrating natural habitat areas into parks helps to bring nature into the community and provides interpretive learning opportunities and places for unprogrammed exploration. Finally, thinking about the region's open spaces as an integrated system provides benefits that dramatically improve the potential of the network to boost recreational and ecological performance.

“

FROM MINDMIXER

It's a darn shame that the area closest to the river in downtown Fargo is a city parking lot. Convert that area into an underground parking ramp and put a lush, beautiful public plaza/park in that spot. Think of quality on par with Central Park in New York. You can have the road go under the park as well to connect up with the underground parking ramp and also allow a full street connection for 2nd Ave N to connect up with 2nd, 3rd and 4th St. N. -- fmmetroplex

”

CASE STUDY



Buffalo Bayou Promenade

Houston, TX

Buffalo Bayou Promenade is a public park in Houston, TX that follows the Buffalo Bayou, the main river through downtown Houston. The park connects neighborhoods with downtown, creating a viable active transportation connection and providing much needed recreation space for downtown residents and office workers. The City of Houston transformed this neglected patch of River by creating trails, regrading slopes to allow views into the park from surrounding development, and art-driven lighting of dark corners.

Source: <http://www.asla.org/2009awards/104.html>

The Natural Areas Program

Denver CO

The Natural Areas Program's mission is to establish and maintain sustainable and healthy ecosystems including natural areas, mountain parks, and waterways, to generate well-informed and satisfied residents, and to construct broad collaborations that make it all happen.

Unlike traditional developed parks, the natural area sites are guided, developed, and sustained more by natural processes rather than human horticultural activities.

The Natural Areas Program is a component of Denver Parks and Recreation Natural Resources Division and manages over 3,000 acres of natural open space within Denver's urban boundaries.

Source: <http://www.denvergov.org/parksandrecreation/Parks/NaturalAreas/tabid/431064/Default.aspx>

INITIATIVE 04

WASTE AND RECYCLING



RECOMMENDATIONS

- Monitor recycling rates to determine where to target increased awareness and expansion of existing programs.
- Partner with local organizations, neighborhood associations, and property managers to increase awareness and recycling and compost efforts in areas with low recycling rates.
- Evaluate and restructure solid waste processing fees to encourage full citizen participation in the recycling programs.
- Invest in infrastructure to accommodate recycling of additional materials, including larger bin size, curbside recycling service, expanded composting programs, and drop sites to better accommodate larger apartment complexes and commercial areas.
- Encourage reuse and recycling in the building industry.

DESCRIPTION

Fargo is nationally recognized for its efforts to protect the environment, and it has made great strides to reduce the municipal solid waste stream. Fargo will continue its progress by striving to further reduce the amount of solid waste reaching the landfill through increased recycling efforts. The city currently provides curbside recycling to 22,000 residential households who pay for residential garbage collection, and 27 drop-off sites are available for those who cannot get curbside. Back yard composting bins and drop off sites encourage the composting of yard waste. On-site energy production through methane, solar, and wind production provide the energy for landfill facilities. The cost savings and sale of excess energy to a local power cooperative is projected to generate \$370,000 in revenue for the city.

Fargo will monitor and evaluate current recycling efforts to identify opportunities to enhance programs. Collaboration with community organizations and property managers will increase citizen awareness

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FROM MINDMIXER

“...something needs to be done to make it easier for apartment dwellers to recycle.” – Jen K

FROM MINDMIXER

“Fargo should collect food scraps for composting. Many progressive cities around the country are hopping on board with this endeavor. Why should food scraps go into the landfill where they take forever to decompose. Let’s close the circle.”-- Goldie

”

and participation in existing programs and provide revenue for expanded programs. Particular focus on apartments and multi-family housing units and other areas with low recycling rates can significantly enhance the city's overall recycling rate. The city will evaluate and restructure the existing variable rate system to provide stronger incentives that encourage citizen recycling efforts, and will invest in infrastructure that will equip the expansion of future programs.

“

FROM MINDMIXER

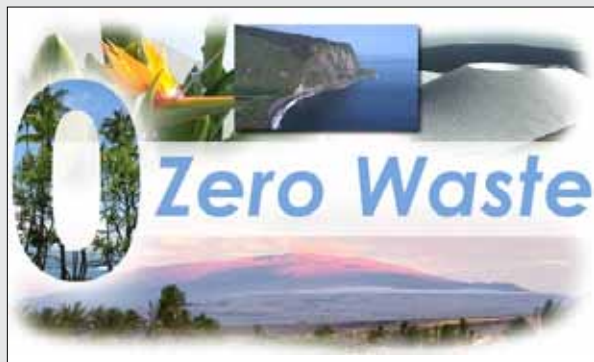
“There is too much disposal of construction waste and material handling supplies such as pallets. It all should be recycled. Other cities grind it and use for landscaping wood chips Plastic/paper/can recycling is great but we should be way beyond that concept of the last century.” – RedWayne

”

BENEFITS

The accommodation of additional materials including 3-7 plastics and non-corrugated cardboard drastically reduces the volume of waste that enters landfills. Single-stream recycling programs provide convenient opportunities for citizens to use recycling, since no separation is required. Education programs targeted at low-rate areas can identify and help overcome barriers to citizen participation in recycling programs. No cost recycling programs combined with pay-as-you-throw garbage collection rates provide strong incentives and fair distribution of the costs for the processing of solid waste. Decreased solid waste input in the Fargo landfill will delay the closure of the existing site as well social, economic, and environmental impacts associated with siting additional landfills. Investment in infrastructure to support recycling efforts can provide economic benefit to the community. The 2001 EPA Recycling Economic Information Study showed that the recycling industry provides more economic benefit than waste management because it adds value to materials. Municipal recycling and reuse programs spurs private sector investment in recycling manufacturing investment and encourages economic growth.

CASE STUDY



Zero Waste Implementation Plan for the County of Hawai'i, HI (2009)

As an island county, Hawai'i county is especially aware of the impact of waste. Waste is often hauled far distances across the ocean at great cost. This is a plan for implementing recycling, composting, and reuse of materials to benefit the agritourism and construction industries and create jobs.

Source: <http://hawaiiizerowaste.org/>



INITIATIVE 05

GREEN STORMWATER INFRASTRUCTURE

Catalyst | This initiative supports the following catalyst(s):



*Signature
Streets*



*Active Living
Streets*



*Celebrate
the River*



*Energy Efficiency
and Renewable
Generation*



RECOMMENDATIONS

- Use natural storm water management and flood control techniques instead of traditional underground grey techniques (pipe into the river) wherever possible and appropriate.
- Monitor and meter implemented green infrastructure projects to determine which design types and plant species are the most effective and resilient in Fargo's soil and climate.
- Integrate green stormwater projects into open space, streetscape, and neighborhoods in a way that improves appearance and functionality.
- Explore the benefits of permeable surface parking lots and the reduction of the off-street parking standards as a method to reduce runoff and parking lot surface heat.

DESCRIPTION

Across the country, communities are awakening to the importance and value of rethinking how stormwater should be handled. While the common practice over the last 60 years was to pipe runoff from streets, lawns, and parking lots directly into the river, more recently a deeper look at the impacts of that practice and a growing body of good pilot project examples has given way to a shift toward solutions that naturally clean stormwater while potentially increasing recreational opportunities and beautifying a neighborhood. In Fargo, bio swales (a linear depression

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FROM MINDMIXER

(I would like) Rain Gardens in the boulevards to stop dirty water from entering the Red.

- Goldie

FROM MINDMIXER

Love it. Clean the environment AND beautify Fargo

- Drew FM

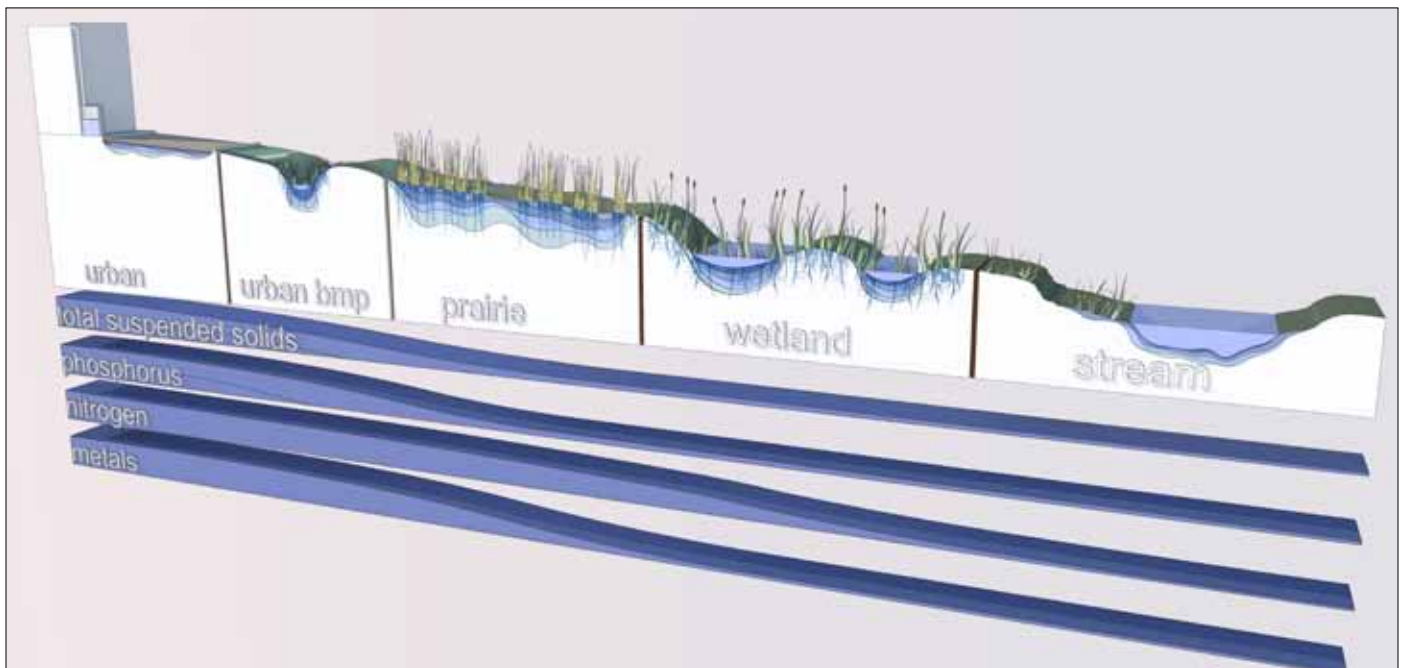
”

in the ground with specific plant species chosen to help infiltrate water) could prevent pollution from entering the Red River, add a green/natural amenity, and in the winter could become part of a cross country skiing trail network.

Moving stormwater in Fargo is particularly challenging because of the lack of change in elevation and the current stormwater system is extensive, with over 350 miles of pipe. This system is not connected to a treatment facility, so whatever washes down the storm drain goes untreated into the Red River. Natural stormwater management will improve the appearance of the community, improve stormwater runoff quality, and simultaneously decrease the amount of water that overwhelms the current system

in large storms. Examples of these techniques include neighborhood scale rain gardens, swales, and retention areas planted with species that handle water and road runoff well. All of these examples use natural plants and landscaping to infiltrate water into the soil or slow down stormwater runoff.

BENEFITS



This green stormwater treatment train demonstrates how natural features can filter out pollutants while reducing erosion and providing habitat.



The benefits of natural or green stormwater infrastructure improvements are twofold: While not maintenance free, natural systems require more regular and less invasive maintenance that is often far cheaper than upgrading existing traditional stormwater systems. Additionally, natural systems improve water quality by filtering out the harmful pollutants from streets, parking lots, and other impervious areas before they make their way into groundwater or the Red River. Cleaner water means rivers that are better for recreation and improved habitat for Fargo's diverse species.

CASE STUDY



The Fargo Project, Fargo ND

The City of Fargo is currently working on a pilot project to transform a neighborhood drainage basin into a community commons that will reflect the internal life and cultural vibrancy of the Fargo community. Meanwhile, the basin will maintain its function as a storm water collection site. The “Fargo Project” is made possible thanks to a partnership with ecological artist Jackie Brookner and by a \$100,000 National Endowment for the Arts (NEA) grant. This grant will be matched by the City of Fargo.

Source: <http://www.cityoffargo.com/CityInfo/Departments/PlanningandDevelopment/TheFargoProjectNEAOurTown/>

CASE STUDY



Stormwater: From KC to the Sea, Kansas City MO

The City of Kansas City, MO is planning to improve their Swope Campus (comprised of the Parks and Recreation Headquarters and the Water Services Department) as an education lab for Best Management Practices (BMPs). In addition to the transformation of the campus into series of outdoor learning labs, the Departments had the vision to integrate the campus with an elementary school curriculum that meets state educational requirements and showcases how each member of society has a role in protecting the health of the watershed and enhancing the quality of life for those living downstream.

Source: http://issuu.com/bnim/docs/100416_draft

Northern Kentucky Sanitation District 1

SD1 is responsible for the collection and treatment of Northern Kentucky's wastewater, as well as regional storm water management. SD1 is the second largest public sewer utility in Kentucky with a service area that covers approximately 220 square miles, encompassing more than 30 municipalities and unincorporated portions of Boone, Campbell, and Kenton counties.

For years, SD1 has partnered with other utilities and the United States Conference of Mayors to advocate for a more comprehensive storm and sewer water approach that is based on regional improvements and local data. Their progressive and proactive approach has become a national model for how to integrate natural system stormwater improvements and regional solutions for flooding and water quality issues. In particular their Public Service Park demonstrates a wide variety of natural stormwater techniques and provides education about how they work and why they are important.

Source: <http://www.sd1.org/default.aspx>



INITIATIVE 06

WATERSHED MANAGEMENT

Catalyst | This initiative supports the following catalyst(s):



*Celebrate
the River*



RECOMMENDATIONS

- Adopt river and drain setback standards.
- Promote the implementation of watershed best management practices to reduce sediments, nitrogen, phosphorus, and other pollutants from being washed into the rivers.
- Increase public awareness about ways to improve the water quality in the rivers.
- Continue to update and support City stormwater management programs and ordinances.

DESCRIPTION

The Fargo/Moorhead Metro area flood diversion project currently passing from feasibility phase to design phase will provide permanent flood protection for the City. The diversion project will help alleviate the flooding conditions but will not address other watershed management issues such as water quality of the rivers and streams within the watershed.

Good water quality is essential to the viability of the water ecosystem. Pollutants, sediments, and erosion affect the water ecosystem negatively. Sources of pollutants in urban areas include fertilizers, household cleaning products, highway de-icing agents, grass clipping and leaves, sediments from impervious surfaces, and construction projects that easily find their way into the region's rivers and streams.

“

FROM MINDMIXER

I believe it's vital to also protect our revitalized downtown that is ripe for more mixed use development. We can leverage this downtown flood protection as a catalyst for development and fun and it can serve as a way to recruit and retain people and businesses by making Fargo not only safe, but much more fun! - gofargo

FROM MINDMIXER

Officials should implement policies which build community resiliency - develop resources to better predict and understand flood events, move people out of harms way, and ensure future generations don't repeat past mistakes.” – will

”

Urban areas have a higher percentage of impervious areas (streets, sidewalks, roofs and driveways) and the increased percentage of impervious surfaces creates water quality challenges due to the quantity and quality of runoff to the river and the rate at which the runoff occurs. Pervious surfaces, such as lawns and gravel, allow for water to infiltrate into the ground resulting in a much lower rate of overland flow. One strategy that would improve the health of the watershed is river setback standards. River setback standards ensure that homes are not being built too close to the river, making them easier to protect from flooding while providing better natural runoff filtration, a better environment for natural and animal habitat, and opening up the long term possibility of a trail system along the river.

The City has a system of stormwater inlets and piping throughout the city that discharges directly to the river. The runoff contains higher concentrations of contaminants, sediments, and has a higher water temperature, all of which can have a negative effect on the natural river habitat. In the rural growth areas, sources of pollutants include fertilizers, septic system runoff, and sediment, all of which have similar detrimental impacts on Fargo's waterways.

The City developed and implemented a watershed management ordinance to address water quality and runoff. The City also has stormwater management protocols to address erosion and sediment control for construction projects. These measures are important steps toward improving water quality and should be closely monitored and augmented.

BENEFITS

Development of watershed management practices will provide another way in which the City can decrease runoff to the river and maintain favorable water quality. Managing runoff will help the City protect the river from contaminants, decrease sediments, reduce lawn fertilizers, clipping and leaves, and improve habitat for aquatic species and the quality of recreational riverfront venues. The established Best Management Practices (BMP) provided by the Environmental Protection Agency (EPA) and other watershed management resources can be adopted by the City to help reduce the effects of unmanaged stormwater runoff.

The diversion project looks to reduce the water levels through the City during flooding events whereas the watershed management plan will also include ways to decrease erosion of the river banks and maintain water quality. The City already has some stormwater management tools in place including erosion and sediment control measures for construction projects. There are several retention basins throughout the City to aid in reducing flow to the river during rain events. These retention basins allow pollutants and sediments to be retained in the basin and not discharged to the river. The City should continue this progress and work with other agencies to help educate residents about ways they can help in reducing the negative effects urban and rural areas can have on the river.



CASE STUDIES

Stormwater Best Management Practices Manual**Minnesota, MN**

The Minnesota Pollution Control Agency provides a manual to protect water quality in urban areas by providing information on preventing storm water-related pollution.

Source: <http://www.pca.state.mn.us/index.php/water/water-types-and-programs/stormwater/stormwater-management/stormwater-best-management-practices-manual.html>

Stormwater Best Management Practices

The National Pollutant Discharge Elimination System (NPDES) provides several tools for public education, construction practices, and examples of stormwater case studies conducted throughout the United States.

Source: <http://cfpub.epa.gov/npdes/stormwater/menuofbmps/>

Stormwater Treatment: Assessment and Maintenance**Minnesota, MN**

The University of Minnesota provides a manual outlining the methodology for the assessment and maintenance of storm water treatment. They provide guidelines on sampling, monitoring, analysis, and recommendations.

Source: <http://stormwaterbook.safl.umn.edu/>

City of Fargo Ordinance

The City of Fargo Ordinance Chapter 37 addresses stormwater management.

Source: <http://www.ci.fargo.nd.us/CityInfo/Departments/Auditor/Ordinances/>

City of Fargo Guide to Erosion and Sediment Control Practices

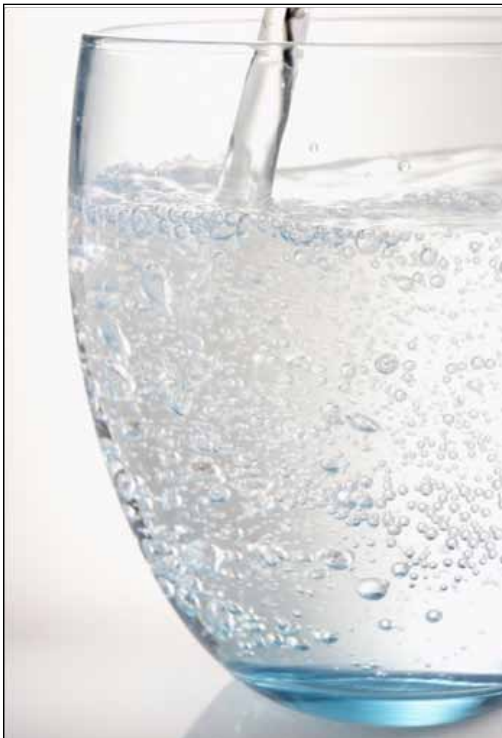
The City of Fargo provides a guide to erosion and sediment control practices. The guide is used for construction projects and provides best management practices and pollution prevention.

Source: <http://www.cityoffargo.com/attachments/7dfe27fd-67fd-4173-8440-76e0c0433e3a/2007%20guide.pdf>



INITIATIVE 07

DRINKING WATER QUALITY AND SUPPLY



RECOMMENDATIONS

- Pursue new treatment technologies and operational strategies to prepare for future challenges and to ensure quality drinking water.
- Monitor drinking water quality and supply.
- Continue to comply with U.S. Environmental Protection Agency, World Health Organization, and North Dakota Department of Health regulations.
- Continue to support the Lake Agassiz Water authority.

DESCRIPTION

Fargo will ensure drinking water quality and supply by studying the impacts of Devil's Lake overflow on the Sheyenne River, ensuring the health of the Red River, and preparing for long-term emergency water supplies in times of drought. Other municipalities and the Cass Rural Water District also rely on the City of Fargo for drinking water.

Since 1912, the City of Fargo, North Dakota has operated a water treatment plant (WTP), utilizing source water from the Red River. Past droughts prompted the City to pursue the Sheyenne River and Lake Ashtabula as additional water supplies.

Since 1993, the region has been in a wet-cycle that has elevated Devil's Lake to record levels, which has resulted in major flooding. In 2004, to reduce flooding in the Devils Lake Basin, the State constructed an emergency outlet to allow controlled releases of water from the lake into the Sheyenne River. Due to the shallow nature, elevated natural discharge, surrounding soil conditions, and minimal outflow, Devil's Lake exhibits poor water quality that poses treatment problems.

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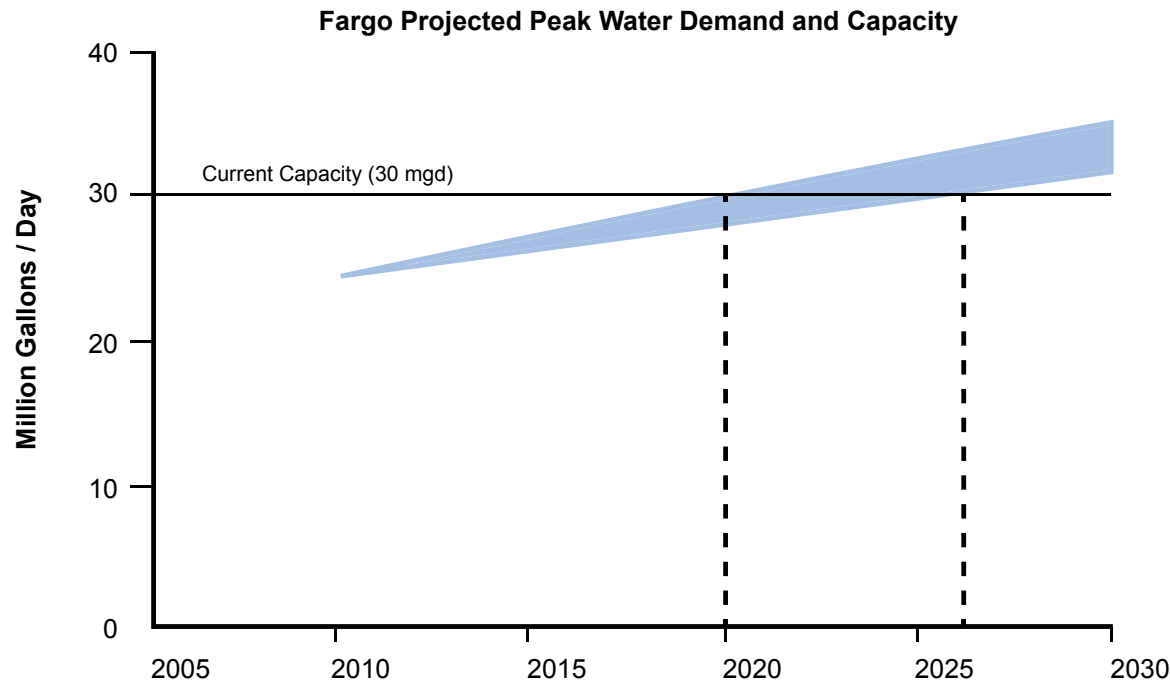
FROM MINDMIXER

The pressing issue is supply, especially with the demand projections 20-50 years down the road. The metropolitan area will be in quite a pickle if there's ever another bad drought... -fmmetroplex

”

While currently in a wet-cycle, the region has a history of severe drought. The use of multiple water sources is Fargo’s first line of defense against drought conditions. To mitigate potential impacts from a severe drought in the future, Fargo is committed to the Red River Valley Water Supply Project to provide long-term emergency water supply for the entire region. The Red River Valley Water Supply Project is an effort by the Bureau of Reclamation within the Department of the Interior and

the Garrison Diversion Conservancy District to identify reliable sources of water for the next five decades and beyond. The Dakota Water Resources Act of 2000 authorized the project to increase resiliency in case of a drought. According to the Red River Valley Water Supply Project’s comprehensive report, if a drought of the scale that occurred in 1934 were to happen today, it would take 1,200 truckloads of water each day to meet Fargo’s basic indoor household water needs. The project



Fargo’s water demand is projected to exceed the current capacity to provide water between the years 2020 and 2026.



identified a preferred alternative for increasing the water supply in the region which involves importing water from the Missouri River through a pipeline from the McClusky Canal in central North Dakota to the Fargo and Grand Forks metropolitan areas.

Fargo currently provides water service to 22,079 single family houses, 1,280 multi-family buildings, 2,531 commercial users, 3 wholesale users, and 309 irrigation users.

Given the drought and treatment challenges to Fargo's water supplies, Fargo has made a commitment to its water consumers to continue to provide water of the upmost quality by implementing proactive treatment technologies and operations.

BENEFITS

Drinking water quality and supply directly affect the health of a region. In addition to meeting all primary drinking water regulatory requirements, Fargo has established some specific treatment goals that include meeting all the secondary drinking water standards (with the exception of pH). By establishing these goals and providing the means to achieve them, the City of Fargo is ensuring that drinking water quality is maintained in the future to protect the health of all of Fargo's water consumers.

CASE STUDY

Fargo Water Treatment Plant Facility Plan, Fargo ND

The Facility Plan for the City of Fargo will be finalized in 2012 and will include long term water quality and supply projections along with treatment objectives and recommendations to meet the current and future treatment and supply goals for the area. The recommendations provided from the Facility Plan will ensure Fargo is prepared for water quality impacts associated with Devils Lake, prepared for future regulations, and position Fargo for drought mitigation strategies.

INITIATIVE 08

LIGHT POLLUTION

Catalyst | This initiative supports the following catalyst(s):



*Energy Efficiency
and Renewable
Generation*



RECOMMENDATIONS

- Continue to look for ways to reduce excessive light while maintaining safety.
- Continue the recent utilization of full-cutoff, LED streetlight fixtures.
- Encourage minimal up-lighting.

DESCRIPTION

Light pollution is excessive and ineffective light that hinders views of the night sky. Negative effects of light pollution include disruption of ecosystems and animal behavior, such as migration, energy waste, and disruption of human circadian rhythms. Having access to nature and protecting views of the night sky and of the aurora borealis are important values for the community. As Fargo continues to grow, light pollution will be an emerging issue. New innovations in street lighting can control light pollution when retrofitted into neighborhoods or employed in new developments. For example, full cut-off light fixtures reduce the amount of light that is directed at the sky without reducing visibility at the street level. New lighting technologies, such as LED can improve light quality, direct light with more precision, and reduce energy demand of streetlights. These new lighting fixtures can improve the aesthetic appearance of Fargo and strike a balance between security and light pollution. Additionally, good urban design can eliminate secluded and dark areas, reducing the need for security lighting. Fargo will decrease light pollution and increase energy efficiency by exploring LED lighting in full cutoff fixtures and reducing security lighting needs through good urban design.

BENEFITS

Installing full-cutoff, LED streetlights not only reduces light pollution, but increases energy efficiency and improves the aesthetic appearance of Fargo. The City can increase safety and reduce the need for outdoor lighting through good urban design that does not create dark, secluded areas.



CASE STUDY



Los Angeles, CA

The City of Los Angeles is currently involved in a \$57 million capital program that will span from 2009-2013. The program focuses on replacing cobrahead fixtures on residential streets with full cutoff, Dark Sky Friendly LED fixtures. Streetlights consume approximately 29% of the City's total operating budget, and the program is projected to save \$35 million in energy savings and \$13 million in maintenance savings.

image source: <http://commons.wikimedia.org/wiki/File:LosAngeles06.jpg>



LED Street Light Research Project, Remaking Cities Institute, Pittsburgh, PA

The City of Pittsburgh intends to replace its entire inventory of 40,000 streetlights with LED fixtures over the next 5-10 years. The finished project is expected to save annually an estimated \$1.7 million in energy in maintenance costs per year.

<http://www.cmu.edu/rci/projects/current-projects/Pittsburgh-LED.html>

Energy

The City of Fargo Street Lighting Department currently has about 11,275 street lights in operation. All of the existing residential street lighting in the City is provided by 100W or 150W High Pressure Sodium (HPS) decorative fixtures. The existing business and commercial areas have 250W or 400W HPS decorative, cobra head, and tilt head fixtures. With the advancements in technology and the costs of these new products continuing to drop, the City will continue to move in the direction of Solid State Lighting Systems saving the City between 35% and 50% in energy and maintenance costs.

60%

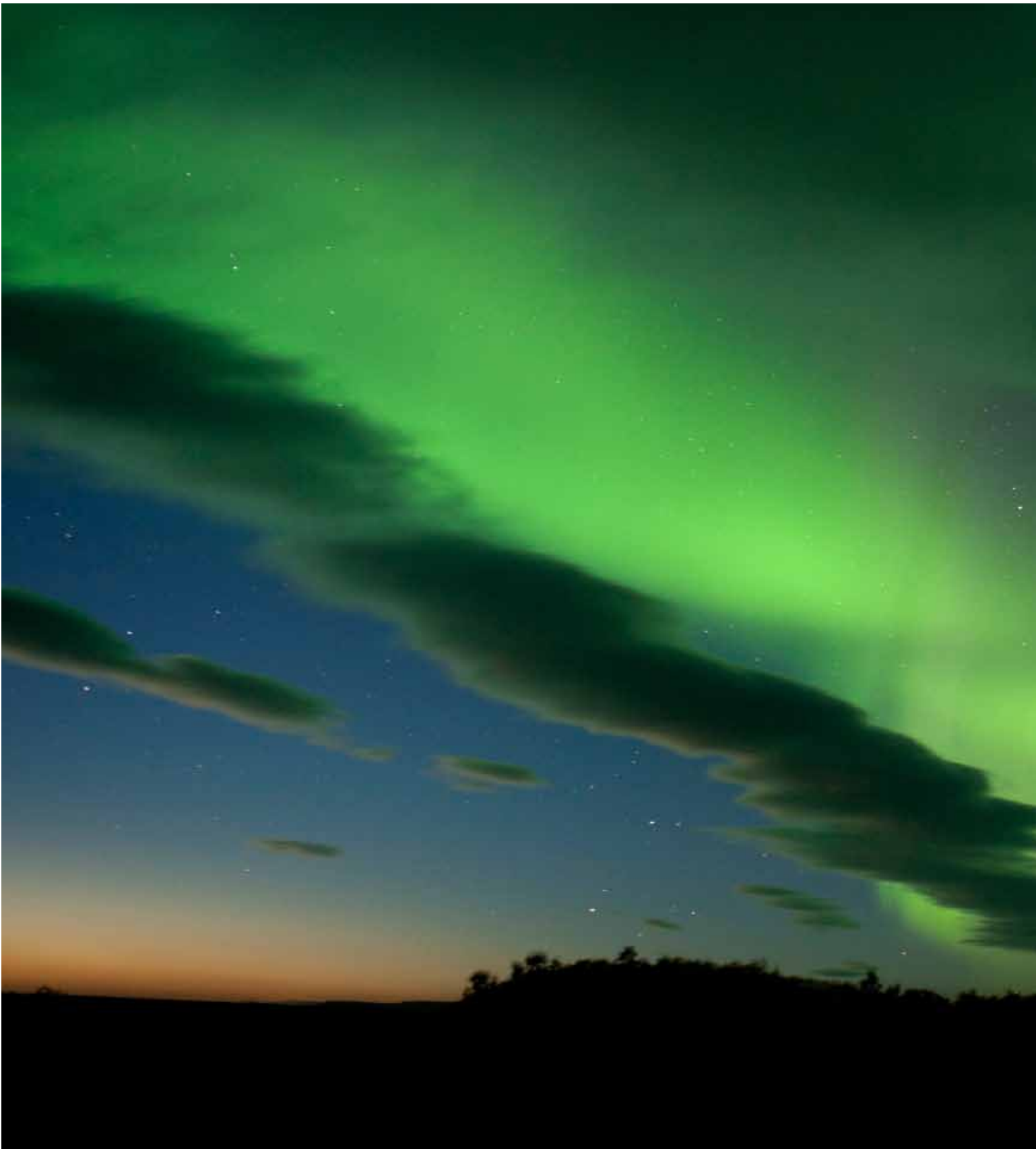
Streetlights can account for as much as sixty percent of a municipal government's total electricity use.

Source: <http://www.cmu.edu/rci/projects/current-projects/Pittsburgh-LED.html>

70%

LED streetlights saved the City of Greensburg, Kansas seventy percent in energy and maintenance compared to the traditional lamps they replaced.

<http://www.betalead.com/us-en/LEDApplications/street-lighting/City-of-Greensburg-Kansas.aspx>







INITIATIVE 09

WATER CONSERVATION

Catalyst | This initiative supports the following catalyst(s):



*Energy Efficiency
and Renewable
Generation*



RECOMMENDATIONS

- Craft a water efficiency plan (reference: <http://www.epa.gov/watersense/pubs/community.html>).
- Improve and update the distribution system to maximize efficiency and stop leaks.
- Provide information about and access to water efficient appliances and fixtures utilizing the resources of the EPA WaterSense program.
- Provide education and investigate incentives for using landscaping which requires minimal water.
- Explore additional wastewater reclamation and reuse systems for drinking, irrigation, and industrial use.
- Educate consumers about water conservation.
- Optimize lawn watering schedules to reduce water loss due to evaporation and runoff.
- Evaluate water utility rate increases that discourage excessive use and promote water conservation.
- Set a good example by using water efficient equipment in City facilities.

DESCRIPTION

Water conservation is likely to emerge as a defining issue of the next century. Whether dealing with excess water in flood events or the challenges of drought, Fargo as a community is well versed in the importance of stewarding water resources. Water conservation also goes hand in hand with energy conservation. Cleaning water to drinking quality, pumping it to your home, and treating wastewater requires

“

FROM MINDMIXER

The encouraged use of rain barrels and xeric landscaping could be very beneficial. - Christina H

FROM MINDMIXER

Captured rain can be used to water gardens, plants, lawns, and even wash cars. And it helps keep the river clean. - producertroy

”

vast amounts of energy. If Fargo can capitalize on its understanding of water issues and focus on improving water conservation efforts, the community could emerge as a national leader in the field. Not only could this knowledge be utilized as a regional resource, but it should also be carefully considered for its money saving potential.

There are opportunities for Water Conservation at every step of the water collection process.

Fargo is already doing a lot of things right. Over the last 30 years, the average amount of water used per person in the Fargo area has decreased approximately 20 percent. This decrease in water usage is attributed to the current regional wet-cycle, water utility rate increases, and consumer education and awareness related to outdoor water use and general water conservation practices.

The average U.S. household could save more than 11,000 gallons of water and about \$170 on its water bill every year by making a few simple changes, such as installing WaterSense labeled toilets and faucets in the bathroom. By conserving water, the demand on the water

source and distribution system is also reduced, therefore extending the life of the water treatment facility and distribution system.

In order to promote water conservation the City of Fargo has used native and xeric plants to reduce the need for landscape irrigation. To promote additional water conservation the City could also expand its wastewater reclamation and reuse system for drinking, irrigation, and industrial users. Some of the steps individual households and water users can take to assist with water conservation include fixing leaking fixtures, using more efficient shower heads, dual flush toilets, optimizing the yard watering schedule, and using native plants in landscaping which require less or no additional watering.

CASE STUDY

Greywater Reuse as Industrial Water Supply

Fargo, ND

Fargo provides treated wastewater effluent from its Wastewater Treatment Plant as a water supply to an industrial ethanol plant. This solution allowed the ethanol plant to meet its water requirements without exceeding the capacity of the region's water systems. On average the Wastewater Treatment Plant treats 12,000,000 gallons of wastewater per day to meet the EPA Clean Water Act Standards. The water supply requirements for the ethanol plant range from 790,000 gallons per day in the winter to 1,400,000 gallons per day in the summer.



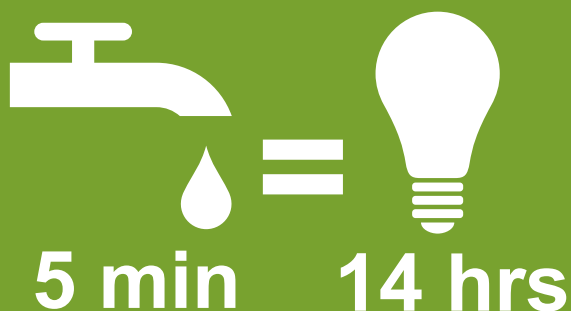
BENEFITS

The water supply to the City of Fargo is susceptible to times of drought, therefore, water conservation efforts are key to maintaining the available water supply. Conserving the City's available water also protects the water resource, minimizes water pollution and health risks, reduces the need for costly water supply and new water and wastewater treatment facilities, and saves energy used to pump and treat water.

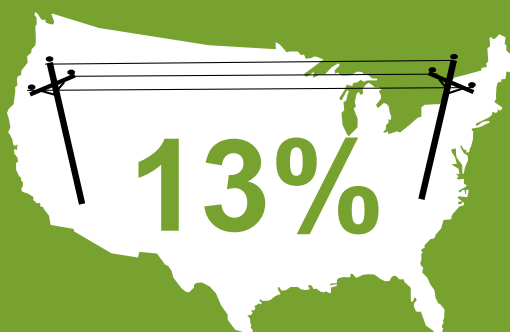
The benefits of water conservation also apply to the individual users by reducing the costs of water used, saving energy on heating water, warding off water rate increases due to costly treatment facility expansions, and maintaining the health of the aquatic environment.

Energy

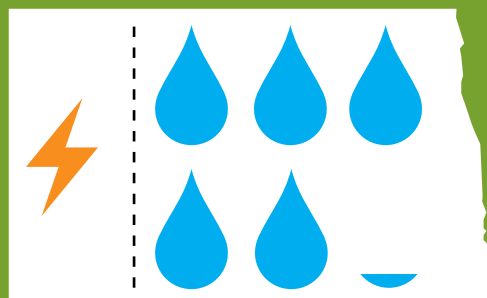
Water and energy use are intertwined. Treating and transporting water and waste water is an energy intensive activity. Thirteen percent of the electricity consumed in the United States is related to water. Additionally, producing electricity consumes a large amount of water. In North Dakota each Kilowatt Hour of power consumes 5.13 Gallons of water. Letting a faucet run for five minutes uses about as much energy as letting a 60-watt light bulb run for 14 hours. That same 60-watt bulb can consume up to 6,000 gallons of water a year. Reducing water use and energy use are mutually reinforcing, less energy wasted means less water consumed. Less water consumed means less energy demand.



Source: http://www.epa.gov/watersense/our_water/why_water_efficiency.html



13 % of the electricity consumption in the United States is related to water.



5.13 Gallons/Kwh

In North Dakota, every kilowatt hour of energy produced consumes 5.13 Gallons of water.

CASE STUDIES



EPA Cases in Water Conservation

The EPA compiled a number of water conservation case studies in 2002 involving multiple states and water use areas. The case studies outline the problem associated with each area, the approach taken to mitigate the water conservation issue, and the results obtained from the implemented approach.

Source: http://www.epa.gov/WaterSense/docs/utilityconservation_508.pdf



U.S. Department of Energy, Federal Energy Management Program (FEMP)

The Federal Energy Management Program requires agencies to implement water efficiency efforts. FEMP's mission is to assist agencies in water efficiency and meeting Federal mandates.

Source: <http://www1.eere.energy.gov/femp/program/waterefficiency.html>



City of Fargo North Dakota

The City of Fargo has provided a list of tips for water conservation on the City's website. The list includes tips for both indoor and outdoor water conservation practices as well as a plan to respond to drought conditions that may impact the city.

Source: <http://www.cityoffargo.com/CityInfo/Departments/WaterTreatment/ConservingWaterIndoors/>

INITIATIVE 10

AIR QUALITY

Catalyst | This initiative supports the following catalyst(s):



*Signature
Streets*



*Active Living
Streets*



RECOMMENDATIONS

- Complete an emissions inventory of City operations and community wide emissions and explore reduction targets.
- Promote walkable, mixed use developments to reduce driving.
- Promote transit, cycling, and other alternative forms of transportation.
- Encourage consumers to buy local goods to reduce transportation related pollution.
- Promote high efficiency buildings and infrastructure.
- Explore the use of alternative energy, such as wind, solar, and geothermal.



DESCRIPTION

Air pollution is both a local and global problem. In urbanized areas, impurities in the air from automobiles and industry are responsible for an increase in rates of respiratory diseases, particularly among children. Indoor air quality is also a significant health risk. The City of Fargo currently provides consultation and resources targeting indoor air quality. Services address mold, lead, radon, asbestos, and carbon monoxide. Fargo will explore strategies to ensure healthy indoor and outdoor air quality.

Globally, greenhouse gases are impacting our planet, and global climate change is jeopardizing the potential quality of life of future generations. Fargo will be a leader in creating strategies to ensure the quality and healthfulness of the air. Fargo will promote reduced emissions from transportation, energy production, industry, and all sectors of the city.

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FROM MINDMIXER

If you truly want to get serious about it, adapt the same emissions standards [as] the rest of the Pacific Northwest. – [fmmetroplex](#)

”

BENEFITS

Reducing air pollution improves the health of local residents, improves the local environment, saves energy, and decreases greenhouse gas emissions and climate change. Air quality initiatives support the development of bicycle and public transportation infrastructure and provides a healthy environment for increased physical activity.

CASE STUDY



City of Eugene Inventory of Greenhouse Gas Emissions from Internal Operations and community-wide activities 2000 and 2005

Eugene, OR (2009)

Eugene tracked and compared greenhouse gas emissions in 2000 and 2005 for internal operations. In 2005 Eugene also began tracking community-wide emissions.

CHAPTER 5

Energy

Fargo will aggressively seek innovative strategies to support national energy independence. The community will find energy savings through efficiency measures and invest in renewable sources for the future.



ENERGY

Fargo is a national leader in energy efficiency and renewable energy and will continue to aggressively seek innovative strategies for increasing efficiency and the use of renewable and domestic energy sources. To-date, most of the energy efforts have been initiated through the City's Renewable Energy and Conservation Committee (RECC) which was founded in April, 2005 with a mission "to pursue, plan and implement policies and/or programs that will foster conservation, utilize and develop renewable resources, and protect the environment." The RECC is a recommending body that studies and implements ways the City can best use and conserve natural resources and improve energy efficiency in municipal buildings. In 2007, Fargo's Mayor signed the US Conference of Mayors Climate Protection Agreement. Under the Agreement, participating cities have committed to dramatically reduce emissions and to work with other communities to advocate for CO2 emissions reductions.

Currently, Fargo derives most of its energy from coal, natural gas, and gasoline. North Dakota is a big coal, gas, and oil producing state, and domestic sources of energy are preferable to foreign sources. However fossil fuels are a limited resource with negative impacts for health and the environment. While planning for growth, it is important to consider ways of reducing the waste of energy through energy efficiency and make wise choices about how to produce energy.

Fargo's two main energy providers, Cass County Electric and Xcel Energy have made big strides in moving toward renewable sources and mitigating the negative impacts of coal. Cass County Electric is currently supplying about 58 percent of its power from coal and about 30 percent from wind energy. Wind power makes up about 9 percent of Xcel's energy portfolio. Cass County Electric and Xcel Energy have made significant investments in controls to reduce emissions from their power plants. Both utilities are challenged to provide reliable power at an affordable price while meeting regulatory requirements. Cass County Electric's power supplier, Minnkota Power, has invested over \$425 million in just the past few years in controls to reduce emissions. Minnkota Power and Xcel Energy work with the EPA and the State Health Department to remain in compliance with all environmental regulations.

While relying on Cass County Electric and Xcel Energy for providing power to the community, the City of Fargo has initiated several of its own renewable energy and resource recovery projects that utilize available municipal resources to produce renewable energy and reuse wastewater to benefit the community. The initiatives in this comprehensive plan are an opportunity to improve the efficiency of both the public and private sector and pursue strategies to bolster renewable energy generation. Working together to make the very best use of energy as a precious resource will protect the air, water, and land we all use.

Initiatives:

01: COMMUNITY-WIDE ENERGY EFFICIENCY AND RENEWABLE ENERGY PRODUCTION

Create strategies and programs to incentivize energy efficiency and renewable energy production by working with City, State, and Federal governments.

02: CITY LED ENERGY EFFICIENCY AND REDUCED EMISSIONS

Develop policies and strategies that allow the city to lead the way with energy efficiency standards and reduced emissions related to city facilities and schools.

03: SMART GRID

Develop strategies to promote a smart grid and work with local utilities to educate residents on the value of smart grid technology and renewable energy generation.

INITIATIVE 01

PROMOTE COMMUNITY-WIDE ENERGY EFFICIENCY AND RENEWABLE ENERGY PRODUCTION

Catalyst | This initiative supports the following catalyst(s):



*Energy Efficiency
and Renewable
Generation*



RECOMMENDATIONS

- Continue to promote education, incentives, and innovative financing for energy efficiency retrofits.
- Continue to support programs, such as the Neighborhood Revitalization Initiative (NRI), that focus on improving energy efficiency of older homes.
- Encourage building codes and other regulations to be as consistent as practical with energy efficiency goals and encourage green development through incentives and innovative strategies.
- Encourage sustainable transportation options.
- Encourage renewable energy production.
- Explore the viability of using compressed natural gas and other alternative energy sources for fleet vehicles and buses.
- Encourage friendly competition between home owners, businesses, organizations, and governmental entities to conserve energy by using the Energy Star Profile.

DESCRIPTION

This initiative aims at increasing energy efficiency and renewable energy production for the city as a whole. The following strategies are examples of programs and policies that could be used to accomplish community goals through incentives, education, and competition. The scope of community-wide energy efficiency and renewable energy production includes residential single family and multifamily buildings, commercial and industrial buildings, and public buildings and utilities.



“

FROM MINDMIXER

Fargo should strive to power itself completely with sustainable energy (wind, solar, etc.). It is the responsible thing to do. Not only would we be making a positive impact on the future, but we could also serve as a national example to other communities in the nation. – Todd H

”

Fargo's strategy for reducing energy waste throughout the community while encouraging renewable production includes four main components: energy retrofits, increased efficiency of new buildings, sustainable transit options, and renewable energy production.

ENERGY RETROFITS

The first strategy for improving energy efficiency in Fargo is to reduce energy waste from existing buildings. The City should form partnerships with energy providers and state and federal governments and explore the following programs:

- Establish a green retrofit program for homes and other private buildings.
- Establish a rebate system for efficient lighting, refrigerators, and HVAC systems.
- Work with State legislature to pass property assessed clean energy (PACE) financing. PACE programs allow municipalities to issue bonds to pay for energy retrofits of individual energy users in the city. The bonds are paid back with the energy savings.
- Set up monitoring and displays at commercial and industrial buildings to encourage competition for energy efficiency.

INCREASED EFFICIENCY OF NEW BUILDINGS

New construction should meet high energy efficiency standards. Fargo is a leader in energy efficient building codes. North Dakota is one of a minority of states that adopted the latest version of the international energy conservation building codes (IECC) and are in the process of adopting the 2012 codes. Fargo can require certain energy standards through the building code and incentivize green development by providing subsidies to green developments and/or requiring all development receiving public funding to meet certain energy standards. The city should explore the following energy strategies:

- Evaluate energy efficiency standards in existing building code.
- Connect public subsidies for development projects to green building standards, such as the LEED rating system.
- Work with developers to orient new buildings and houses with optimum solar orientation and southern roof exposures for solar panels.
- Provide fast track permitting for green buildings.
- Provide a one stop, green resource center free to developers, builders, and homeowners.

“

FROM MINDMIXER

We have the Red River Valley Research Corridor here. Why can't WE design and build affordable solar panels/shingles for residents in our state and the surrounding states? – Kay S

”



Energy

SUSTAINABLE TRANSPORTATION AND LAND USE DECISIONS

Transportation consumes 28% of the nation's energy. 86% of this energy comes from gasoline and diesel sources. Encouraging sustainable transportation options such as walking, biking, and taking transit can reduce the amount of energy spent in Fargo on transportation. Leading the transition to electric vehicles and other alternative fuels can also have a major impact on the amount of energy and negative environmental, health, and political consequences of gasoline reliance.

Land use patterns have a major impact on how people chose to get around. Dense, well-designed, mixed use development encourages walking, biking, and using transit. This pattern of development reduces the daily car trips people take and saves energy and gasoline.

- Encourage walking, biking, and transit use through infrastructure investment and land use and development policies.
- Encourage electric vehicles use by installing recharging stations around the city.

RENEWABLE ENERGY PRODUCTION

The final component of Fargo's community-wide energy strategy is encouraging renewable energy production. Fargo will work with the energy providers, Xcel and Cass County Cooperative, to increase renewable sources and encourage individuals and businesses to invest in renewable sources. Fargo will explore providing incentives for renewable energy generation technologies.

BENEFITS

The City of Fargo's support for energy efficiency and renewable energy production benefits the environment, the health of residents by reducing pollution, and businesses by reducing costs from wasted energy. As the city government leads efforts to reduce energy use, successful strategies can be expanded to the private sector. This city-wide initiative has the potential to have significant impact on these issues, far exceeding the potential of the city acting alone.

CASE STUDY

**The Rural Energy Savings Program**

The Rural Energy Savings Program is a federal program that allows rural electric coops to finance energy efficiency retrofits and for the user to pay off the loan automatically from the energy savings realized from the energy retrofit.

**Property Assessed Clean Energy (PACE) financing**

PACE financing allows municipalities to offer bonds to investors and then loan the money to consumers for energy retrofits. The loans are paid back via an assessment on the loan recipient's property tax bill. Usually the property owners have a net gain with the energy savings even with the increased property tax. North Dakota does not currently have PACE legislation.

INITIATIVE 02

CITY LED ENERGY EFFICIENCY AND REDUCED EMISSIONS

Catalyst | This initiative supports the following catalyst(s):



*Energy Efficiency
and Renewable
Generation*



RECOMMENDATIONS

- Conduct energy and emissions inventory of city-wide operations.
- Renovate existing city buildings to improve energy efficiency.
- Create energy standards for new government buildings.
- Explore alternative fuels and electric vehicles for Municipal vehicles.
- Expand use of Hybrid MAT buses in Fargo.
- Explore renewable energy generation opportunities, such as using public open space areas as possible locations for wind and solar energy generation sites.
- Explore financing options including a revolving fund that is financed by energy savings.
- Utilize best management practices in all city operations to increase energy efficiency and reduce emissions.

DESCRIPTION

The City of Fargo will lead the way in increasing energy efficiency and reducing emissions related to its activities. The strategy to provide this leadership can be divided into four areas: efficiency of existing buildings, efficiency of new building, transportation, and renewable generation. The City should select specific actions based on return on investment and cost of savings. The City should also explore creating a revolving fund financed by energy efficiency savings.

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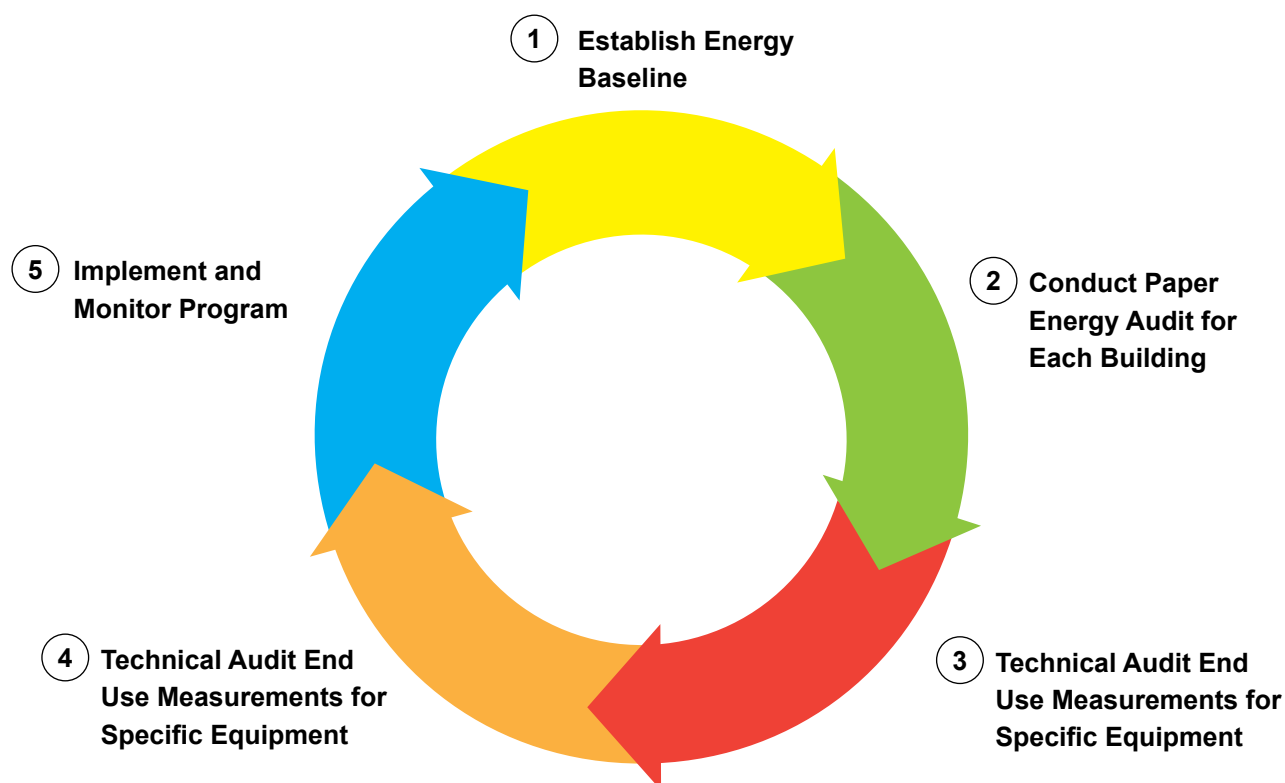
FROM MINDMIXER

Fargo has so many older buildings that are literally throwing money out the window due to the lack of efficiency. Efforts so far have focused too much on new regulation instead of retrofitting to solve the problem. –Sam N

”

EXISTING BUILDINGS

The first element of Fargo's energy strategy is to increase energy efficiency of existing buildings. It is much less expensive to save energy than it is to generate energy. The following diagram illustrates the process for improving the energy efficiency of existing City buildings.



1 Establish Energy Baseline

This step in the process defines the starting condition of a building or complex's total energy consumption. Using utility bills, meter readings, or other records, a picture of existing energy use is created with indices such as Btu per person/ year or Btu/ square foot/ year. Tracking these indices will show progress toward goals.

2 Conduct Paper Energy Audit for Each Building

The next step involves creating more detail about energy use for each building by month including meter reading data such as time period of use, peak usage, and cost. This can be made easier with utility bill tracking software such as Energy CAP software used by the US Energy Star program for buildings. <http://www.energyCap.com/>

3 Technical Audit End Use Measurements

After determining how much energy the building uses, the next level of detail required is how this energy used. Isolating energy use by "end use" involves measuring each major equipment or system. For a home that would breakdown energy use by lights, refrigerator, furnace, air-conditioning etc. This information will indicate the largest sources of savings opportunities. Typical indices for this effort are Watts/ square foot or Btu/square foot

and kW/ton (a/c) for each system. This will show the efficiency of each system and reveal opportunities for improvement. killawattplus.com www.theenergydetective.com

4 Evaluate Energy Saving Measures

This step involves putting cost information into the decision making process. Knowing how efficient a system is (such as lighting) enables effective decisions regarding efficient lamp selections, motion detectors, timers and other energy saving equipment. Comparing the cost of upgrade to the potential energy saved can determine the cost of savings. This indice will provide a means to prioritize the energy saving measures by "least cost" savings.

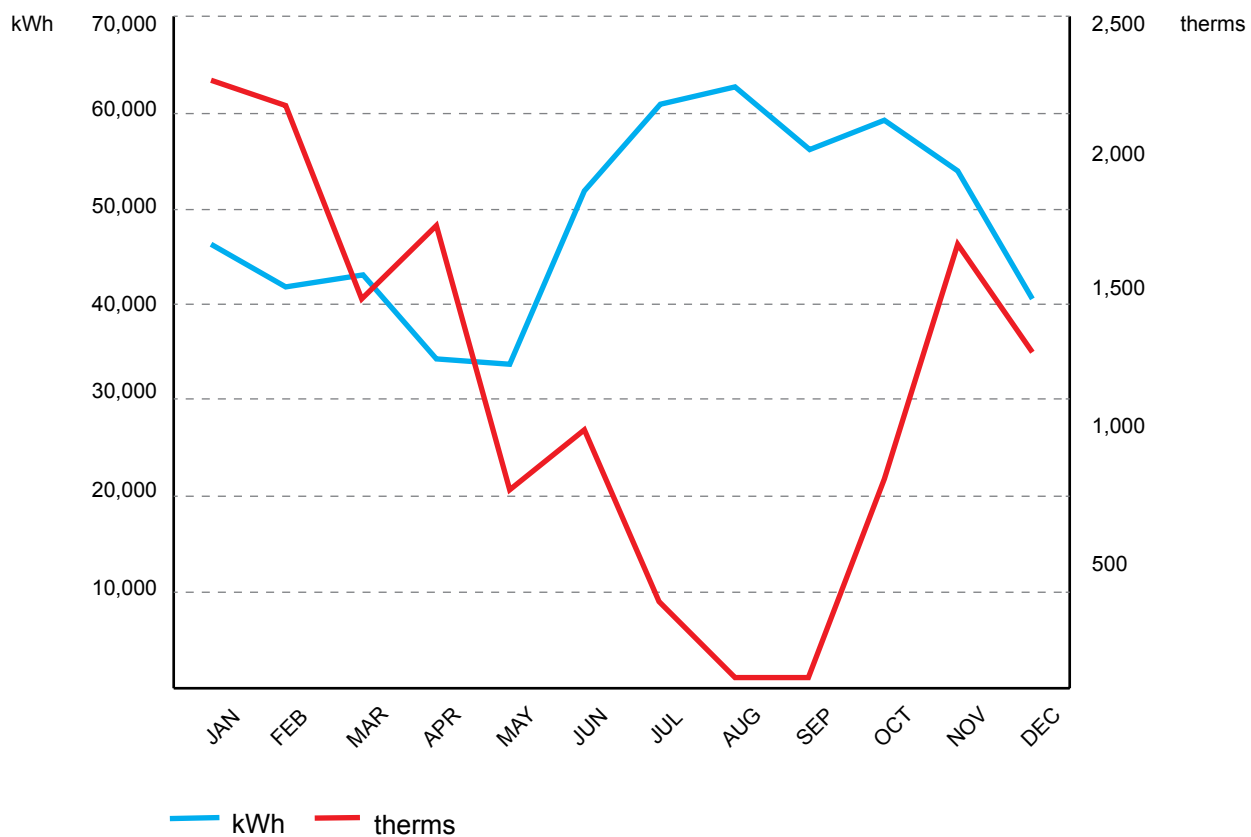
5 Implement and Monitor Program

Monitoring the actual savings provides confidence and information for further savings opportunities. "You get what you measure" is a wise observation by quality control experts and is very true in the case of energy efficiency improvement programs. Knowing where we started, we can monitor our savings each month and see and celebrate our successes and minimize our failures. Publishing and benchmarking this data will inform and encourage others to under take their own programs. <http://www.energystar.gov/>.

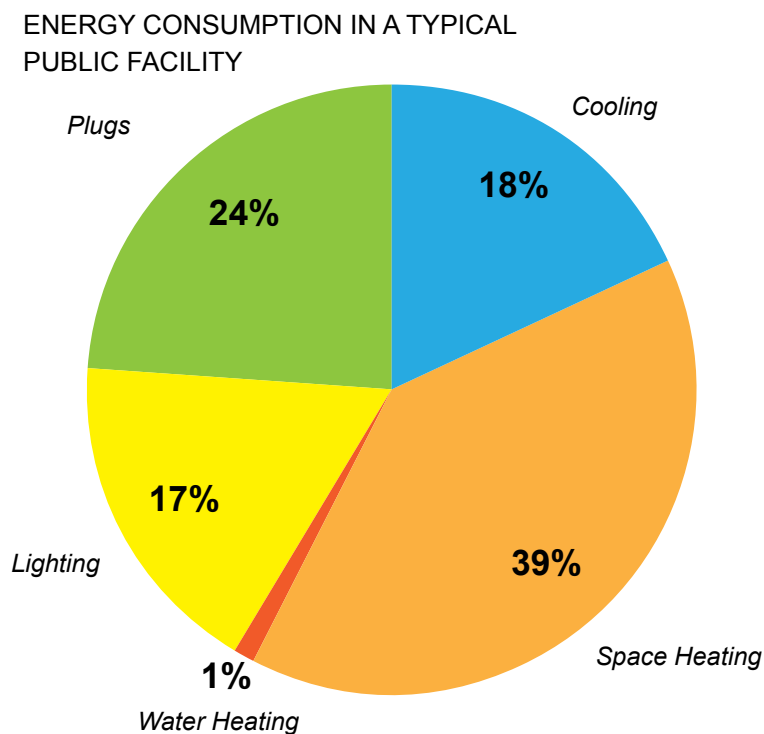


The planning team established an energy baseline and conducted a paper energy audit for a Police station in Fargo to understand the best strategies to increase energy efficiency in Fargo's climate. This is a good estimate of how all public buildings in Fargo use energy. The following graph shows the energy use for the year 2011. The total energy use was 69,000 Btu/sqft/yr in natural gas and electrical energy. The chart below indicates that all the gas energy is used for heating (space & water).

ENERGY BASELINE IN A TYPICAL PUBLIC FACILITY



The following graph shows the energy use of the typical public facility by use category. The planning team assumed that all energy not used for heating or cooling was used for lights and plugs. Lights were assumed to use 1.2W/sqft for 8 hours a day. Plugs were assumed to use 1.65 W/sqft.



Based on this analysis, the City of Fargo should explore the following smart load reduction measures to save energy and demonstrate green technology for existing buildings:

- Improve the tightness and insulation of building envelopes.
- Improve heating and cooling equipment efficiency.
- Add efficient lighting and equipment.
- Set up monitoring and information displays.

The next step will be to perform a technical audit and end use measurements.

USE	KBTU/SQFT/YEAR
Cooling	12.6
Space Heating	27.2
Water Heating	0.8
Lighting	12.0
Plugs	16.4
Total	69.0



NEW BUILDINGS

The City should take advantage of the latest in green building technology when constructing new buildings. One of the most effective strategies is to set energy standards for all new public buildings. For example, the City could consider requiring all new public buildings to increase efficiency by 30% over standard buildings, be LEED Platinum certifiable, or use some other green building rating system.

TRANSPORTATION

The City of Fargo should transition to hybrid, electric and other alternative fuel vehicles. In addition to reducing Fargo's carbon footprint, these vehicles improve air quality, have lower costs of operations, and have lower maintenance. The City government can lead the transition to electric vehicles by installing recharging stations around the city that are also available for general use. The City can also make the bus system greener by expanding the use of Hybrid MAT buses.

RENEWABLE GENERATION

Fargo relies on two energy companies, Xcel Energy and Cass County Cooperative, for the bulk of energy used in the city. However, the city government has recently implemented a few innovative renewable energy production projects. These include using methane gas from the landfill and wastewater treatment plant, geothermal heating and cooling in a few public facilities, and the construction of a 1.5-2.0 megawatt wind turbine near Oriska, ND. The City should continue to take advantage of innovative energy production opportunities and encourage its providers to do the same.

BENEFITS

Most of the energy for electricity, heating, and transportation in North Dakota comes from coal, natural gas, and gasoline. Burning fossil fuels releases emissions into the air, which increases health problems, such as asthma. The nation's reliance on gasoline for transportation is particularly unsustainable because it weakens our national security. Fortunately, North Dakota is blessed with excellent solar and wind resources. The City of Fargo's support for reducing energy use through efficiency measures and renewable generation improves the environment, health, and national security now while positioning Fargo's economy to excel in the future.

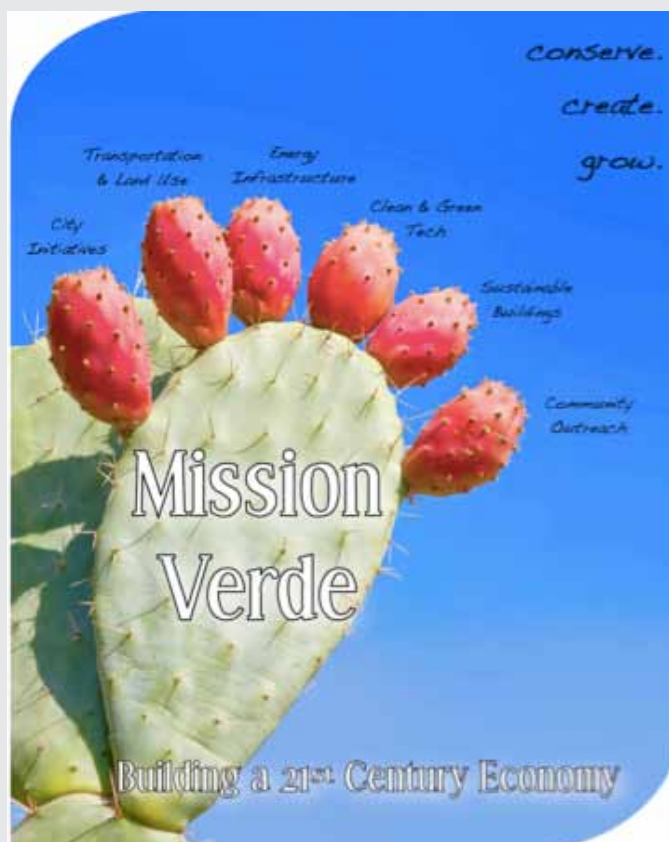
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FROM MINDMIXER

“Geothermal heat is far less expensive on new construction than as a retrofit and district-wide geothermal now out-competes the cost of fossil fuel generated heat. To green our grid, let's require geothermal heat for all new neighborhoods. This will also encourage development of local expertise related to geothermal construction in our city which would support a local green economy.” –Cat

”

CASE STUDY



Mission Verde Sustainability Plan

San Antonio, TX

The Mission Verde Sustainability plan is based on the principle that meeting today's needs cannot compromise the ability of future generations to meet their needs. The plan includes sections on energy infrastructure, clean and green technology development, sustainable buildings, transportation and land use, community outreach, and a chapter about San Antonio leading by example and improving city internal operations.

The San Antonio City Council formally adopted the Mission Verde Sustainability Plan on February 4, 2010.

INITIATIVE 03

SMART GRID

Catalyst | This initiative supports the following catalyst(s):



*Energy Efficiency
and Renewable
Generation*



RECOMMENDATIONS

- Collaborate with utility providers, federal, and state governments to expand smart grid technology and net metering.
- Explore using public open space areas as possible locations for wind, geo-thermal, and solar energy generation sites.

DESCRIPTION

The third element of Fargo's energy strategy, beyond increasing efficiency and renewable generation of the municipal government's operations and the activities of individual households and businesses in Fargo, is upgrading Fargo's energy infrastructure. Fargo will work with local utilities to enhance the smart grid to benefit the residents of Fargo. "Smart grid" generally refers to a class of technology that uses computer-based remote control and automation. These systems are made possible by two-way communication technology and computer processing that has been used for decades in other industries. They are beginning to be used on electricity networks, from the power plants and wind farms all the way to the consumers of electricity in homes and businesses.

Smart grid technology has many benefits including energy efficiency, enhancing reliability, dynamic pricing, shifting of large energy uses to off-peak hours, actively managing solar, wind, and other renewable sources, and actively managing a network of electric vehicle charging stations. This infrastructure system could allow individuals to generate renewable energy and sell energy back to the grid.

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FROM MINDMIXER

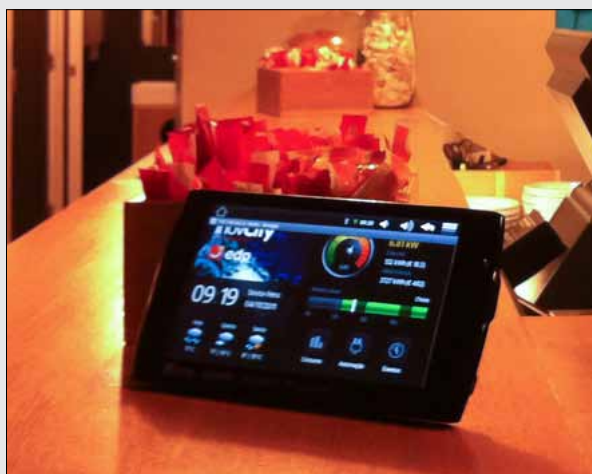
“A smart grid would provide Fargoans with incentive to create local, clean, renewable power, and keep the money here.” – Drew FM

”

BENEFITS

Smart Grid technology increases energy efficiency and reliability, results in savings for energy consumers, and provides better support for renewable energy sources and electric vehicles. A smart grid would improve the environment by reducing wasted energy and associated pollution and make Fargo more attractive for industry.

CASE STUDY



Municipalities across the nation are realizing the potential of smart grid technology. The following case studies represent a handful of cities that are investing in smart grids.

Austin, TX

Austin began implementing smart grid technology in 2003. In 2009 the local utility managed 500,000 smart meters, smart thermostats and other sensors serving 1 million consumers and 43,000 businesses. The Pecan street project in Austin's Mueller neighborhood received 10.4 million in stimulus funding.

FortZED (Zero Energy District)

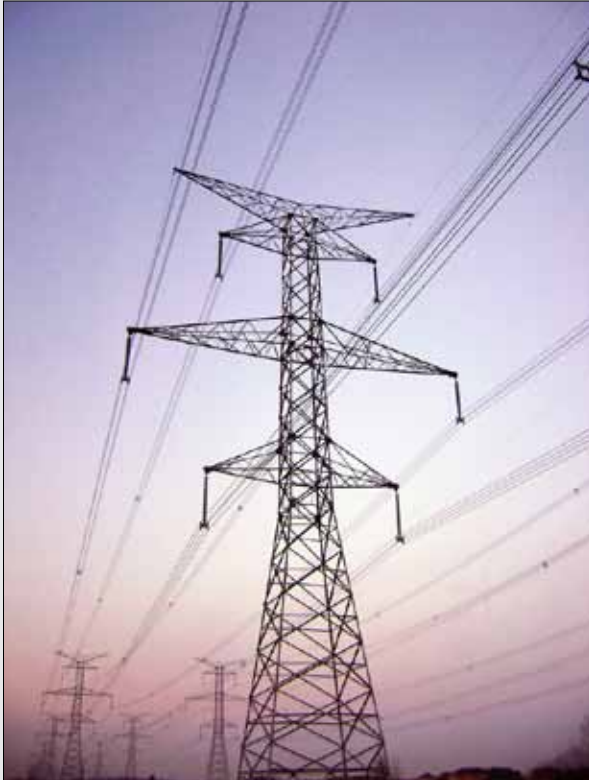
Fort Collins, CO

Fort Collins is investing in smart grid technology in a targeted district. The goal of the district is to turn the downtown into a net zero energy district that generates as much thermal and electric power as it uses. The smart grid makes this goal possible by actively managing diverse sources of energy.

Sacramento, CA

The Municipal Utility District in Sacramento has smart Grid technology and 600,000 homes and businesses use smart meters. The work is projected to serve all homes and businesses by smart grid by mid-2011.

CASE STUDY

**PowerCentsDC, Washington, D.C.**

This smart meter pilot project served 900 customers. It became so popular that more than \$45 million will go toward building it out.

Worcester, MA

In Worcester, Massachusetts, a \$57 million Smart Grid pilot project involves 15,000 customers around New England using smart meters, programmable thermostats, and E-billion for power bills.

Tempe, AZ

Salt River Project is the third largest public power utility in the world and includes more than 330,000 smart meters.

San Diego, CA

San Diego Gas and Electric partnered with Google for SmartMeter Initiative.

CHAPTER 6

Arts and Culture

Fargo will flourish with a stronger arts and culture movement. We will nurture and increase the presence of both the performing arts and the visual arts, and we will increase access to cultural events and arts-related educational opportunities.



ARTS AND CULTURE

Fargo has a strong arts and culture constituency and movement. As the city grows in size and diversity and as the economy continues to expand, there are increasing opportunities to add beauty to daily life by incorporating public art into the city and for pursuing cultural activities and art classes. Throughout the public process the arts has emerged as an important priority.

Initiatives:

01: PUBLIC ART

Incorporate public art into the public realm of the city.

02: PUBLIC GATHERING SPACES

Develop dedicated public gathering spaces in neighborhood centers.

03: FESTIVALS AND CULTURAL EVENTS

Promote programming of public spaces with festivals and other cultural events.

04: ART CLASSES, CULTURAL PROGRAMS, AND ARTS ORGANIZATIONS

Develop strategies to increase access to and support for art classes and cultural programs.

05: ESTABLISH AN ARTS COMMISSION

Establish an Arts Commission to support integration of art into the public process and to increase aesthetic consideration within the public realm.



INITIATIVE 01

PUBLIC ART

Catalyst | This initiative supports the following catalyst(s):



*Signature
Streets*



*Active Living
Streets*



*Celebrate
the River*



RECOMMENDATIONS

- Incorporate public art into the public realm through infrastructure and other public projects.
- Work with developers to maximize development ideas that incorporate public art opportunities.
- Establish partnerships to investigate and raise funding for public art.
- Integrate the influence of local artists into the public realm.
- Consider a public art ordinance.
- City accepts responsibility for an expanded public art experience.

DESCRIPTION

Public art is art that is displayed in the city's public realm. Public art is an asset that can transform public spaces in Fargo, encourage personal growth and creativity, and increase public gathering and interaction. In Fargo, public art is also about a starting conversation about beauty, culture, relevance, and community in visual and theatrical forms. Public art should reflect Fargo's unique identity and enhance the image of the city.



As Fargo grows and develops, it will continue to seek ways to effectively promote public art in the city. The city will explore a range of options for funding public art and will implement the combination of programs and policies that best accomplish this goal. Currently, the City negotiates with developers to provide public amenities such as art and open space. As public art becomes a higher priority, the City can connect the provision of public art with incentives to developers. A public art ordinance is another strategy that could increase the amount of public art in Fargo.

“

FROM MINDMIXER

Public art must also become a part of public policy, and not simply a one-time event. It can have a tremendous impact on long-term economic development and investment in the community.

– Carolyn W

”

BENEFITS

Public art encourages thought and creativity. It enhances public spaces and improves the image of the city. Public art can draw people to destination areas and increase economic development in those areas. Public art attracts talent and can give Fargo a competitive edge in creative sectors of the economy.

“

FROM MINDMIXER

To help us create a progressive and attractive city, a public art commission housed under the city government would be a great idea and serve many functions. Many cities the size of Fargo and smaller have public art commissions that can help with historic preservation, economic development and other functions. A percent for arts program can help fund the program which in the end is a solid investment and pays great dividends for the cities in terms of tourism and related dollars. – BB

”



CASE STUDY



Redevelopment Authority of the City of Philadelphia's Percent for Fine Arts Program

Philadelphia, PA

The Redevelopment Authority of the City of Philadelphia created the nation's first Percent for the Arts program in 1959. The program requires developers to commission art as part of the development process. This policy has led to the creation of nearly 400 public art projects

Source: <http://www.phila.gov/rda/percentForArt.html>

CASE STUDY

**Seattle, Washington: Public Art Ordinance (1% for the Arts)**

Seattle's 1% for the Arts program states that, "The City accepts a responsibility for expanding public experience with visual art. Such art has enabled people in all societies better to understand their communities and individual lives. Artists capable of creating art for public places must be encouraged and Seattle's standing as a regional leader in public art enhanced. A policy is therefore established to direct the inclusion of works of art in public works of the City."

The ordinance requires that all requests for appropriations for construction projects include an amount equal to one percent of the estimated cost of such project for works of art. The ordinance also created a special 'Municipal Arts Fund' for the appropriated funds. This program was enacted in 1973.



INITIATIVE 02

PUBLIC GATHERING SPACES

Catalyst | This initiative supports the following catalyst(s):



*Walkable Mixed
Use Centers*



*Celebrate
the River*



RECOMMENDATIONS

- Develop dedicated public gathering spaces in Fargo's neighborhoods.
- Foster programming for public spaces.
- Use design standards and development review to increase public gathering spaces.
- Incorporate green stormwater management in public gathering spaces.

DESCRIPTION

Throughout Fargo, there is a need for more public gathering spaces. Public gathering spaces include both neighborhood scale spaces and larger, community scale places for people from all parts of the city to gather. Dedicated public gathering spaces in neighborhood centers will become a defining characteristic of walkable mixed use centers. Public gathering spaces in neighborhood centers such as corner parks, courtyards, and plazas can accommodate informal or organized neighborhood gatherings. Programming in neighborhood centers can connect to city-wide festivals and cultural events.

Neighborhood center spaces will provide attractive and safe places where children can play and teenagers and adults can socialize. The design of these spaces will be grounded in a neighborhood vision and will meet the open space needs of area residents. Design standards and the development proposal review process will ensure that public spaces meet the city's criteria for sustainability, functionality, and aesthetic appeal. Effectively designed spaces will include places to sit in sun and shade, gathering points, inviting entryways, ambient lighting, and convenient access. A network of neighborhood spaces can be connected by bike trails, greenways, and public transit. Green stormwater infrastructure can function as public gathering spaces as well.

Parks and plazas, including neighborhood gathering spaces, can play a big role in fostering public activity twelve months a year. Well-managed, winter-long programming can keep these spaces active throughout the season. Neighborhood gathering places can be tied to winter and summer festivals.

BENEFITS

The design of gathering spaces can be tailored to enhance the character of individual neighborhoods, from downtown areas to residential areas of varying density. Neighborhood gathering spaces provide open space, an area for recreation within walking distance, and can serve as entry points to an interconnected trail network throughout the city. Well-designed, well-managed public spaces increase property value and enhance the curb appeal of a neighborhood. A gathering space can encourage the development of a sense of community and collective efficacy; neighbors can get to know one another and watch out for each other. Houses and apartments that front the public space enhance safety with “eyes on the park”. Public space designs grounded in a neighborhood vision encourage a sense of ownership of the public space. Neighborhood organizations can involve residents in maintenance and programming for the public space, further enhancing the aesthetic appeal and building community.

“

FROM MINDMIXER

I think the crucial component in this idea and many others people have suggested is the idea of a common space for public gathering. We are so isolated from each other outside of a commercial/private space ... that I feel many of the ideas people have proposed revolve around bringing people together in a central public space. Hence the idea of for a public square! It would be a low-cost, high-impact space for social, cultural, and civic activities. Such a place would anchor our sense of civic pride in a geographic place and enhance urban vitality through a space that is truly democratic,” -- Durdon

”



CASE STUDY

**Citygarden****St. Louis, MO**

Citygarden in downtown St. Louis is a public park and sculpture garden that features the art of 23 sculpture artists and a giant video wall. The City formed a partnership with the Gateway Foundation to develop the park. The park's mission is to provide recreation space for downtown residents and office workers and catalyze the development of more commercial and residential space.

Source: www.citygardenstl.org



CASE STUDY

Plan review**Tacoma, WA**

The plan review process in Tacoma, Washington has built in requirements that ensure neighborhoods have safe, walkable connections to schools, parks, and play grounds. The policy states that, “A plat key map for residential development shall indicate distances from any point thereof to the nearest existing schools, parks, and playgrounds, and shall show in what way children may safely reach the same.”

Philadelphia Green**Neighborhood Parks Initiative****Philadelphia, PA**

Since 1993 PHS has been working with volunteer “Friends Of” park groups throughout the city and with Parks and Recreation to keep parks safe, clean, and green. The network has grown to encompass almost 100 park groups, all helping to make Philadelphia’s parks vibrant and active spaces.

Each neighborhood park group has its own vision. Some hold monthly clean-up days; some host weekly concerts, movie nights, or farmers’ markets; others create workshops on everything from food-tasting to decoration-making! All are run by neighbors dedicated to their community and to making their local park great.



INITIATIVE 03

FESTIVALS AND CULTURAL EVENTS

Catalyst | This initiative supports the following catalyst(s):



*Celebrate
the River*



RECOMMENDATIONS

- Evaluate successes, challenges, and programming gaps of existing cultural events and festivals.
- Identify organizations and individuals to champion a festival, develop funding mechanisms, and craft festival activities.
- Encourage the use of central locations to feature festivals, particularly along the river and at key parks.

DESCRIPTION

This initiative emerged as a priority through the town hall website as a way to increase community interaction and to embrace the elements of Fargo that make it unique. Festivals and cultural events draw people together to celebrate the unique features and assets of the community. Festivals can help to shift the way a community is perceived by both citizens and visitors. Some potential ideas for Fargo include: a winter festival to bring people outdoors to celebrate the recreational opportunities of cold weather and snow, or a river festival to celebrate the renewal of post-flood Fargo, and draw attention to the river as an asset to celebrate rather than as a threat to community security. Fargo also possesses a strong arts and cultural tradition. Celebrating the heritage and customs of the community and showing off the talents of local and regional artisans will provide programming that is unique and authentic.



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FROM MINDMIXER

Imagine a week or weekend in which every music venue hosted local musicians, every gallery hosted a local artist, every theatre had a production with local talent, and every restaurant and small business put their best foot forward to celebrate the arts and our own distinct culture...Such an event could be an incredible regional draw for tourism, it would give locals something to celebrate and have fun with, and returning alums can see the vibrant community that they're missing out on. – kriskerzman

”

BENEFITS

Festivals can build on Fargo's unique identity and provide residents with year-round activities. Successful festivals provide an economic development and community development boost. They can draw visitors from outside Fargo, and build community among the citizens of Fargo and Moorhead. Activities within and around festivals can provide economic benefits to local vendors, artisans, restaurants, and hotels. A festival centered on the Red River could host both summer and winter events that connect venues along the river with community recreation and arts.



“

FROM MINDMIXER

Let's celebrate winter by turning Broadway into an avenue of snow sculptures! ... our CVB could run a treasure hunt with clues to find all the sculptures....The potential for community involvement is tremendous in our active town, which unfettered by chill, will offer its sculptors, painters and creators; inspired young and old, amateur and professional, resident artists and children to celebrate our winter before it melts into spring. -- Cat

”



CASE STUDY

**Madison Winter Festival****Madison, WI**

Every year, the Madison Winter Festival attracts more than 20,000 spectators, winter enthusiasts and athletes. Over ninety truckloads of snow transform the inside street lanes of Capitol Square into a race and recreational venue. Streets adjacent to the square are closed off for family oriented activities such as snow and ice sculpting, sled hill rides, snow shoeing and other events. Two full days of festival activities are sponsored and supported by local businesses and organized by volunteers.

**Winter Games****Des Moines, IA**

Hosted the first weekend in February, the Des Moines Winter Games takes place at parks and recreation facilities across the city. The festival includes a broomball tournament, a coed "sno-ball" slo-pitch softball tournament, an ice-fishing derby, a pond hockey tournament, downhill kayaking and numerous other creative winter activities for residents and visitors to enjoy. More than 10,000 people participated in the event during its first three years; 2012 will mark the 5th annual event. Local sponsors fund the costs of this cultural event which brings people together for an off the wall sports event and a celebration of winter.

CASE STUDY



Cherry Creek Arts Festival

Denver, CO

The Cherry Creek festival takes place during Independence Day weekend, serving as Colorado's signature cultural celebration of the visual, culinary and performing arts. The annual civic event draws more than 350,000 visitors. The festival takes place in Denver's Cherry Creek North Shopping District, drawing economic activity to the area surrounding the festival. The festival is organized through a 501c3 organization bearing the festival's name, which conducts art education and outreach throughout the year.

Third Coast Bicycle Festival

Traverse City, MI

Traverse City, Michigan hosts this week-long festival in the late summer of every year. Activities are geared toward bicycle enthusiasts of all levels. Activities include races, bicycle art, trackstand and polo competitions, a bicycle film night, and lots of great local organized rides.



Long Beach Bikefest

Long Beach, CA

The Long Beach Bikefest is a fundraising event for the pediatric cancer research at Miller Children's Hospital of Long Beach. The event also supports the community's effort to be "The most bicycle friendly city in the United States." Activities include a family bicycle tour of Long Beach, offering 31 and 62 mile courses which end at the festival location. The festival offers a full day of live entertainment, bicycle focused activities and a vendor fair.



INITIATIVE 04

ART CLASSES, CULTURAL PROGRAMS, AND ARTS ORGANIZATIONS



RECOMMENDATIONS

- Support existing initiatives that embrace local performing and visual arts organizations.
- Broaden municipal support for the development of community programs that teach art, music, dance, and theater to all ages.
- Establish partnerships with local colleges and universities to increase the public's access to arts and cultural programs.
- Design a community arts program for at-risk youth in Fargo, or support existing programs.

DESCRIPTION

Fargo will support increasing access to and support for art classes and cultural programs for all residents. There are many exciting developments towards providing access to cultural and arts programs, such as the Katherine Kilbourne Burgum Center for Creativity at the Plains Art Museum, Trollwood Performing Arts School, and the Fargo Youth Symphony. These are programs that broaden community interaction with the arts through children, their parents, and adults. This initiative focuses on expanding the capacity of these programs, pursuing strategies for financial sustainability, and broadening programming. Additionally, Fargo should encourage new arts organizations and expand the field in a way that benefits all organizations.

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FROM MINDMIXER

Visible involvement in arts and cultural activities by city officials and business leaders would help to support the notion that the arts are not a novelty but integral to a healthy community. Policy decisions that encourage volunteerism, charitable giving and active participation in arts and cultural offerings will also have a significant impact on community cohesion and well-being. – Carolyn W

”

Additionally, Fargo should expand access to art and cultural programs to at-risk or underserved youth. Fargo will collaborate with community organizations to develop arts programs directed toward at-risk youth. These programs will provide a safe, engaging, and constructive environment for young people who lack adult supervision during nonschool hours.

BENEFITS

Arts classes and cultural programs teach creative thinking skills, collaboration, and problem solving to youth. Creative thinking can make children and adults of all ages better students, employees, and citizens. Visible involvement in arts and cultural activities by city officials and business leaders supports the arts as an integral part of a healthy community. Volunteerism, charitable giving, and active participation in arts and cultural offerings will also have a significant impact on community cohesion and well-being. Arts programs help at-risk youth reduce truancy, improve academic performance, build critical self-discipline, communication, and job skills.

“

FROM MINDMIXER

How would we use creative thinking, creative processes and problem solving to address our places, parks, streets, alleys, building design, gardens, riverfront? I would like to work to make these more prominent values that are infused into city planning and city budgets. I want to brag that Fargo is a creative city with lots of creative people who are making this a dynamic, liveable, healthy, beautiful city. – Coco S

”



CASE STUDY

**YouthARTS Toolkit:**

This tool kit is the result of a collaborative research effort conducted by Americans for the Arts in partnership with the Regional Arts & Culture Council in Portland, Oregon; Fulton County Arts Council in Atlanta; the City of San Antonio Department of Arts and Cultural Affairs. Research affirmed that art programs for at-risk youth decrease involvement in delinquent behavior, increase academic achievement and improve youth's attitudes about themselves and their future. The toolkit provides arts agencies, juvenile justice agencies, social service organizations, and other community-based organizations with detailed information about how to plan, run, provide training, and evaluate arts programs for at-risk youth.

Source: <http://www.americansforthearts.org/youtharts/>

**University of Missouri-Kansas City's Communiversity:**

For 41 years, Communiversity has been offering a diverse array of classes taught by local, volunteer experts. Class topics range from cooking classes to financial planning seminars, from belly dancing to holistic health. A variety of arts classes and cultural programs are offered on a regular basis.

Source: <http://www.umkc.edu/commu/>



INITIATIVE 05

ESTABLISH AN ARTS COMMISSION



RECOMMENDATIONS

- Establish a municipal arts commission.
- Enable the arts commission to advise decision makers on all art related issues in which the City plays a role.
- Evaluate the granting of authority to the arts commission to approve municipal art and other publicly funded artistic forms of expression.

DESCRIPTION

A municipal arts commission is one strategy that could advance the arts and culture movement in Fargo. An arts commission's responsibilities could include the approval of works of art on city property and the design of building, bridges, and other structures built by the City. The art commission would represent the interests of the arts and the arts community within City Hall and would advocate for increasing art in Fargo and coordinating art and culture initiatives with city departments. This body would give advice and recommendations to decision makers for all art related issues in which the City plays a role and support the integration of art into the public process.

The Arts Commission should be comprised of artists, leaders of cultural organizations, and laypersons. Special care should be taken to ensure the commission represents all geographic areas in Fargo, is racially and ethnically diverse, and comprehensively represents the interests of the arts community.

“

FROM MINDMIXER

“To help us create a progressive and attractive city, a public art commission housed under the city government would be a great idea and serve many functions. Many cities the size of Fargo and smaller have public art commissions that can help with historic preservation, economic development and other functions.” - BB

”

BENEFITS

The Arts Commission will promote public art in the City of Fargo and enhance coordination between the city government and the various arts and culture organizations in Fargo. In addition to the social benefit of increasing art in the city, an Arts Commission can have an economic benefit by creating an environment that attracts and retains highly skilled, educated workers.

CASE STUDY



Minneapolis Arts Commission Minneapolis, MN

The Minneapolis Arts Commission was chartered in December of 1974 with a mission “to strengthen the arts and enrich cultural life in Minneapolis.” Its responsibilities, according to its code, are “to foster development of the arts; to stimulate participation in and appreciation of the arts by all city residents; to encourage cooperation and coordination between artists and the various arts; to seek financial support for the arts; and to represent the arts whenever possible.” The arts commission has 17 members that represent artists, cultural organizations, and laypersons from diverse geographic areas within the city and ethnic backgrounds.

Source: http://www.minneapolismn.gov/dca/mac/dca_art_commission_history

CHAPTER 7

Health

Fargo will encourage and support healthy choices and improve the health of residents by enhancing awareness, increasing year-round recreational opportunities, increasing access to healthy food, and ensuring access to quality healthcare.



Health

HEALTH

Residents in Fargo generally rank higher and rate their physical health better than most of North Dakota and the nation. Like the rest of the nation, however, Fargo faces public health challenges including chronic diseases such as diabetes and obesity. In Cass County 62.4% of adults are either overweight or obese. Health behaviors contributing to disease are of concern, with only half of adult residents meeting physical activity requirements and less than one fourth consuming recommended amounts of fruits and vegetables. Having access to healthy food and recreational opportunities within the community can improve these behaviors, and a well designed community can improve health outcomes.

Initiatives:

01: CITY-WIDE TRAIL LOOP

Connect the city with a greenway that is made up of primarily off street trails.

02: YEAR-ROUND RECREATIONAL OPPORTUNITIES

Develop a year-round regional amenity within the city.

03: HEALTHY FOOD

Ensure all neighborhoods have access to healthy food. Promote farmers' markets and community gardens in Fargo and work to strengthen the local food system.

04: ACCESS TO HEALTHCARE

Ensure all residents have access to quality healthcare.

05: REGIONAL RECREATIONAL AMENITY

Develop a regional recreational destination, such as a water park, indoor athletic center, or zoo.



BEFORE: UNDERUTILIZED SPACE

This chapter focuses on ways to increase the health of Fargo residents through physical enhancements in the city that encourage walking and programs, such as farmers' markets, that increase access to healthy food and healthcare. These before and after photo simulations demonstrate how underutilized land could be used to support a farmers' market or other community health event.



AFTER: FARMERS' MARKET

This photo simulation illustrates how bicycle and pedestrian infrastructure encourage walking and biking and increase the viability of underutilized space to host farmers' markets.

INITIATIVE 01

CITY-WIDE TRAIL LOOP

Catalyst | This initiative supports the following catalyst(s):



Active Living
Streets



All-Season
City-Wide
Trail Loop



RECOMMENDATIONS

- Complete a feasibility study for a city-wide trail loop which incorporates existing local and regional plans and prioritizes gaps.
- Continue to work with MetroCOG regarding the update of the regional bicycle/pedestrian transportation plan.
- Continue to pursue a recreational plan that includes trails for the proposed Red River Diversion.
- Continue to pursue trail connections with each new subdivision of land through the dedication of right of way and easements.
- Continue and encourage connectivity by constructing off-street trails, side paths, and on-street bike lanes whenever new roadway construction, county drains, or street reconstruction projects present the opportunity.
- Leverage levy construction projects to secure land and funding for new trail connections along the Red River.

DESCRIPTION

Fargo will continue to plan and construct a trail system that provides access and connectivity throughout the city and connects with trails in Moorhead and West Fargo. The city will work towards a system that can be easily interpreted by the public as a trail loop, with multiple connections to the local street system. The existing trail system along the Red River and along arterial and collector roadways will become the starting point for the development of this system.

“

FROM MINDMIXER

If you make these accessible and connected, I can see a huge increase in bicycle, walking, x-country ski commuting. –Drew FM

FROM MINDMIXER

“It would be great to link the cross-country ski trails at Lindenwood, Gooseberry, Dike West, Hjemkomst, and Edgewood. Each one is nice, but a bit short.” –Kelly Sassi

”

Fargo has successfully installed 10-foot trails along most of the arterials in the newly developed areas of the community as well as along drainage channels, under power transmission lines, and on former railroad right of way. In addition, the city has stepped up its implementation of on-street bike lanes and share-the-road designations. These facilities will feed into and potentially become part of a city-wide trail loop.

The transformation of the existing system and the addition of new trail facilities to create a city-wide trail loop involves overcoming barriers such as railroad tracks, I-29 and I-94, and working with the plans for levies along the river to relocate trails to higher elevations that are not as affected by nuisance floods. Alternative routes to the river trails, such as parallel roadways, need to be designated for times when river trails are not accessible due to flooding. Trail loop plans will include connections to the adjacent cities of Moorhead and West Fargo, and planned trails along the Red River Diversion. A full feasibility study will identify existing conditions, constraints, and opportunities, and will inform the coordinated development of a complete city-wide trail loop.

BENEFITS

There is a direct link between health and exercise. A city-wide trail loop offers recreational riders another option for both exercise and transportation. Populations that have access to safe and comfortable trail systems are far more likely to use such a system as either part of their exercise routine, or for special outings. A looped route with multiple “jumping off” points at eating, resting, and shopping destinations ensures that the route will be attractive to all ages and levels. Connections to trails and bike lanes along the city street system will provide users with the assurance they need that they can cut their route short if they choose not to complete the entire trail loop. The citizens of Fargo have expressed a very strong desire for a city-wide trail loop and for an increased ability to safely bike and walk throughout the community.

“

FROM MINDMIXER

A recreation trail that circumnavigates the city would give users a safe trail that can be utilized for exercise and provide a means for getting about the city without cars. Ideally, the river would have a complete trail running along it that would also connect with a trail that goes through the central/western part of the city that would complete a loop. —Laura S

”

CASE STUDIES



Sioux Falls, South Dakota

Sioux Falls is home to over 70 public parks, many of which are connected by bike trails. The city has implemented bicycle infrastructure that provides connectivity throughout the core of the city, encircles the city, and expands into outer regions. The system includes off-street paved bike trails and side paths, as well as on-street bike routes for the advanced and basic rider.

Accompanying the City's bike map are Sioux Falls bicycle laws and safety information for pedestrians and bicyclists. A Bike Trail Status Map is available on the City's website that allows users to view available routes year round.

Source: <http://www.siouxfallsparks.org/Bike/trail>



Lincoln, Nebraska

The city of Lincoln, Nebraska has over 128 miles of trail infrastructure with connections to regional trail networks. 82 miles are classified as commuter trails (71 miles are paved, while the other 11 are crushed limestone). Many routes radiate from Downtown Lincoln and connect to other parts of the city.

Source: <http://www.gptn.org/> and <http://lincoln.ne.gov/city/parks/parksfacilities/trails/distances.htm>

CASE STUDIES



Allen, Texas

The city of Allen, Texas is working to implement a trail system that would allow citizens to travel throughout town without the use of a motorized vehicle. There are currently 40 miles of trails in the city of Allen utilized for biking and hiking. The city wide system is comprised of four trail systems; Allen Parkway Loop, Rowlett Creek Loop, Watters Branch Loop, and Cottonwood Loop. While focusing on the implementation of a loop around the city, regional connections are also being made to allow for intercity connections. Many existing trails and planned future trails utilize areas located within the 100 year flood plain of the three creeks running through the city, which also connect to many of the city's 62 parks. The implementation plan for the city of Allen trail system includes three phases:

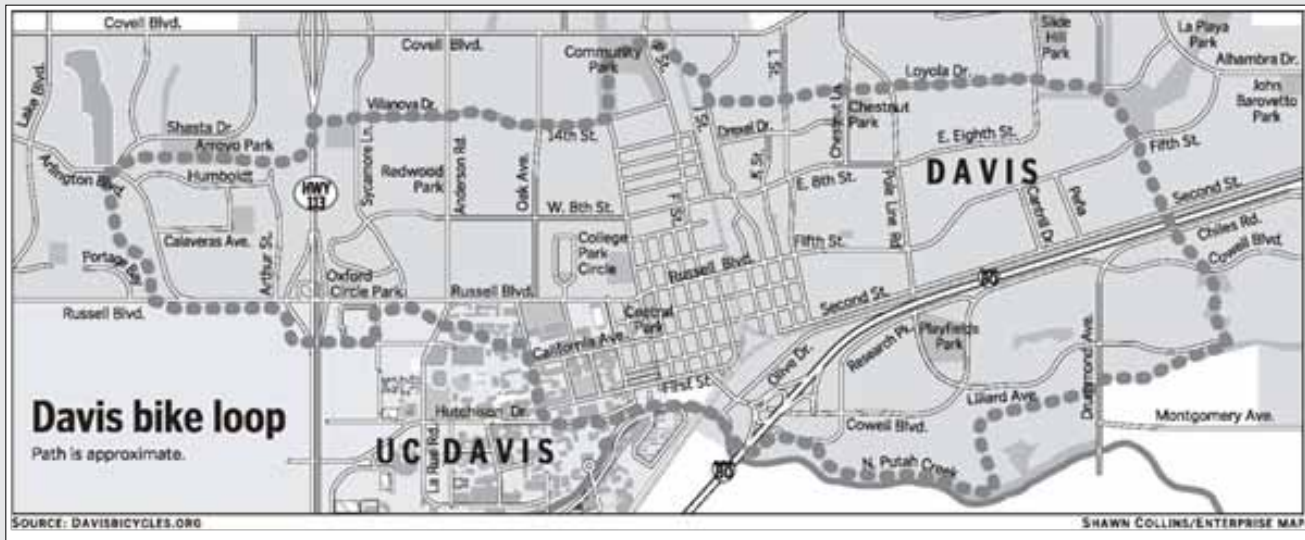
Phase 1 – Complete two trail loops and continue work on a third.

Phase 2 – Complete the trail loop work continued from phase one and construct branching segments from existing loops.

Phase 3 – Complete smaller neighborhood loops so they can be connected to the larger trail loop.

Source: http://www.cityofallen.org/departments/parks_recreation/parks_trails/trails.htm

CASE STUDIES



Davis, California

The City of Davis has a goal to create and maintain an integrated system of bikeways. The city provides miles of on-street facilities, both stripped and signed, and unmarked connector routes. As part of this bicycle network, the city has developed the Davis Bike Loop which utilizes designated routes to create a loop around the core of the city and through UC Davis's campus. This loop varies between bike lanes and bike paths, which allows for the successful implementation of the loop into the existing system. The City of Davis Bicycle Advisory Committee is committed to the continued achievement of the comprehensive bicycle plan goals and recommendations to improve safety for cyclists.

INITIATIVE 02

YEAR-ROUND RECREATIONAL OPPORTUNITIES

Catalyst | This initiative supports the following catalyst(s):



*All-Season
City-Wide
Trail Loop*



*Regional
Recreation
Destination*



RECOMMENDATIONS

- Continue to work with the Fargo Parks District to identify and implement both indoor and outdoor year-round recreational opportunities.
- Collaborate with schools, senior citizen organizations, and other community groups to identify barriers to participation in existing indoor and outdoor recreational opportunities and investigate potential solutions.
- Partner with the Fargo Park District for ideas about activities and venues that could be included in a winter festival or a series of winter recreational events.
- Provide support to neighborhood organizations in their efforts to hold recreational events and year-round programs.
- Support local organizations and nonprofits in their efforts to provide year-round events aimed at improving the health and quality of life of the city's residents.



DESCRIPTION

The City will seek opportunities to partner with and support the Fargo Park District and other organizations in their efforts to provide year-round recreational facilities and events. Citizens cherish facilities such as trails, sidewalks, parks, and outdoor dining establishments that allow them to fully appreciate and embrace late spring, summer, and early fall. In addition, events such as Trollwood Performing Arts, the

“

FROM MINDMIXER

Let's embrace winter and get more people outside to enjoy the beauty it brings. - Laura S

FROM MINDMIXER

Adding cross-country ski trails, snowshoe trails, and skijoring trails (for a person on skis and 1-3 dogs in a sled dog harness) would really expand our winter recreational opportunities. – Kelly Sassi

”

Street Fair, the Fargo Marathon, Redhawks baseball, the Studio Crawl, and Streets Alive offer spring and summer events that bring people together and add a sense of anticipation, excitement, and culture to the community. However, for many Fargo citizens, wintertime brings an unhealthy reduction in their level of exercise and opportunities for recreation and social interaction. Residents crave facilities and events that will help them stay active and socially involved during the winter.

Partnerships between the Fargo Park District, Fargo Cass Public Health, and local fitness centers to sponsor fitness programs throughout the winter and efforts to inform the public about their availability will help increase access to healthy recreational programs that offer exercise and socialization. Recreational events that celebrate winter, such as a winter festival with ice sculptures and organized outdoor activities would offer a recreational highlight that does not currently exist. (see Arts and Culture - Festivals and Cultural Events.) Increased focus on winter recreational facilities such as a natural ice skating course, a more extensive network of cross country ski trails, and sponsored nighttime walks on trails along the Red River will help encourage residents to venture outdoors with friends and family.

BENEFITS

Recreational opportunities improve physical and mental health year-round. A general population that stays more physically active and socially engaged throughout the year is less prone to depression and diseases that are at least partially the result of isolation and inactivity. Recreational opportunities that focus on health, physical fitness, and culture also help to discourage the abuse of alcohol and other drugs.

Recreational opportunities often become a catalyst for residents and visitors to piggyback other social get-togethers and recreational events between families, friends, church groups, and neighborhoods.

Health benefits translate into economic benefits, as a community that is healthier overall can focus more on preventative care and less on treating diseases. This reduces overall healthcare costs and results in a higher level of disposable income for citizens. Communities become known for their year-round recreational opportunities, spurring tourism and heightened interest in the community by businesses and prospective residents.

“

FROM MINDMIXER

Indoor playgrounds would be a welcome addition for those who want to keep their kids active during inclement weather. – Chris F

FROM MINDMIXER

I thought the idea of a small skating rink downtown was really cool. Would be a fun way to get more people downtown and would be fun for people watching when downtown shopping or eating. - MikeFGO

”

CASE STUDY



The Depot Rink

Minneapolis, MN

The Depot Rink was named one of the top ten best places in the United States to ice skate. This historic Downtown Minneapolis train shed has been transformed to an indoor ice skating rink with floor to ceiling windows showcasing the Minneapolis Skyline. The rink is open for public skating at a fee, but can also be reserved for private parties. The Depot Rink is associated with the Depot Hotel, which is also the home to the Waterpark at the Depot.

Source: <http://www.thedepotminneapolis.com/ice-rink.php>



The Forks

Winnipeg, Manitoba

The Forks is located in the heart of downtown Winnipeg at the junction of the Assiniboine and Red Rivers. Ownership, management, and continuing renewal of the site is the responsibility of the Forks North Portage Partnership. In addition to the variety of shopping opportunities available to visitors, The Forks has a variety of year round recreational events for all ages including; The Children's Museum, Riverwalk, Bee2gether Bikes, and the Oodena Celebration Circle. Along with the year-round activities at The Forks, a variety of signature events are planned each year which include; the Arctic Glacier Winter Park, Summer on the Scotiabank Stage, Skating Trails, and the Scotiabank Festival of Fools.

Source: <http://www.theforks.com/events/signature-events>

INITIATIVE 03

HEALTHY FOOD



RECOMMENDATIONS

- Create a Food Policy Council appointed by city leaders to guide the city on food system policy development.
- Continue working with MetroCOG to develop a regional food system plan.
- Complete a community wide food system assessment. Use assessment findings to develop recommendations and a community wide plan to strengthen the local food system.
- Establish transportation infrastructure which increases equitable access to healthy food.
- Identify and establish permanent farmers' market and community garden locations distributed throughout neighborhoods in Fargo.
- Support local food production and distribution by establishing zoning codes that encourage urban agricultural, land use policies, and incentives to strengthen food entrepreneurship.

DESCRIPTION

Fargo will develop policies which increase access to healthy food, encourage healthy choices, and improve the health of residents. Policies and programs will build on the agricultural heritage of Fargo and the assets and resources within and surrounding the city. Food-related economic development will foster an innovative entrepreneurial environment. The vitality of Fargo neighborhoods will be increased by the presence of healthy food sources and markets within walking distance of residential areas. Transportation infrastructure will increase equitable access to healthy food.

Fargo will explore developing a food policy council appointed by city leaders to guide the city on food system policy development. The food policy council will collaborate with region-wide stakeholders from organizations, agencies, and residents representing a broad base of

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FROM MINDMIXER

We have convenience stores all over the city. Sadly they do not provide the best quality food. Have each neighborhood start working with these stores to provide an outlet for citizens in their area to sell excess produce. In addition have the convenience stores start buying better food not available from the local neighborhood growers by having the convenience store buy from the local food co-op movement –lloydh

”

perspectives within private, non-profit, and public sectors. Potential partners include: Cass Clay Food Systems Initiative, Fargo Cass Public Health, Cass Clay Healthy People Initiative, Great Plains Food Bank (with 70 partner agencies), CHARISM, Worksite Wellness Initiative, Back Pack Program, Fill the Dome, Hunger Free Garden initiative, Cass Clay Hunger Coalition, Fargo-Moorhead Metropolitan Council of Governments, Dakota Medical Foundation, local school systems, North Dakota State University (NDSU), and NDSU Extension Service.

A community-wide food system assessment will build on existing assessments, including the 2009 Nutrition Environment Measures Survey and the 2010 North Dakota Department of Agriculture Local Food Assessment Survey. A systems based assessment will identify both the assets and needs of the Fargo food system as it is embedded within its region and the larger food system context. Assessment findings will guide partners in developing a community wide plan to strengthen the local food system.

Right now, 8 of 10 grocery stores/ super centers in Fargo are on a transit line. The Dike East Farmers Market is located on two transit routes. Transportation infrastructure development will expand transit service, increase walkable and bikable routes to healthy food markets, and support the development of an efficient food distribution system for local food producers.

The development of permanent farmers markets throughout Fargo will provide a reliable market outlet for local producers and consumers. In addition, having land available for residents to garden offers a means for healthy food access. Currently 8,472 acres (33 percent) of land in Fargo is zoned agriculture/vacant/no code. This

land represents a resource and with the proper land use policies and educational infrastructure could support the development of local production within and surrounding Fargo and increase the presence of healthy food markets within a walkable distance of residential areas.

BENEFITS

A food policy council legitimizes and lends structure to the process of food system planning and can codify, coordinate, and stabilize local food projects by placing their efforts in the framework of municipal policies that meet the city's vision for the future of Fargo's food system. A food policy council can stimulate public participation in a more democratic food system, and can encourage inter-jurisdictional cooperation on regional food system issues.

A collaborative process involved in food policy council and regional partnership efforts allows interdependent stakeholders to create integrative, multi-sector solutions that ensure consideration of a broad base of perspectives, constructively deal with differences among stakeholders, and align common interests and goals. Collaboration leads to joint ownership of decisions and empowers participants to take collective responsibility for the implementation of strategies to strengthen the local food system.

A thorough food system assessment designed to identify existing conditions, challenges, and opportunities would lead to greater community capacity through the relationships and strategic alliances that emerge from the process, and provides a fact base for practical outcomes such as recommendations, policies, and programs.



CASE STUDY

**Dane County Food Council****Dane County, WI**

The food council works through collaborative program and policy initiatives to create a healthy, accessible, and sustainable food system in Dane County, Wisconsin.

<http://www.countyofdane.com/foodcouncil/default.aspx>

Greater Philadelphia Food System Study**Philadelphia, PA**

The Greater Philadelphia Food System Study evaluated the agricultural resource, distribution infrastructure, regional economy, and stakeholders acting within a 100-mile regional “foodshed”

<http://www.dvrpc.org/food/FoodSystemStudy.htm>

Urban Agriculture Ordinance**Kansas City, MO**

The city of Kansas City, Missouri, adopted an ordinance in June 2010 which amends the Zoning and Development Codes as they address agriculture and horticultural activities in residential neighborhoods. The codes were reviewed six months and 18 months after passage to evaluate their efficacy.

“

FROM MINDMIXER

Recognize that community gardening is a vehicle for providing access to healthy food, and physical activity..be intentional about setting aside space for neighbors to come together near their homes to share garden space. Encourage faith communities, business and public owned land such as the land along the green ways next to the river or bike/walking trails to be opened up to community members as garden spaces. –Nola S

”

CASE STUDY



Common Grounds Program

Lawrence, KS

The City of Lawrence and Douglas County, Kansas have implemented an urban agriculture/ community garden land use program that provides rolling 3-year leases to farm 12 designated municipal sites to individuals, businesses, and non-profits. A nominal lease fee of \$1 per acre is offered in exchange for the implementation of a community benefit plan.

http://lawrenceks.org/common_ground



Cultivate Kansas City

Kansas City, KS

Cultivate Kansas City is a non-profit organization in Kansas City, Kansas that works to catalyze the production and consumption of locally grown food in Kansas City neighborhoods. The Farm Business Development program at Juniper Gardens, the Get Growing program, and Gibbs Road Farm educate apprentices, farmers and back yard growers in every aspect of farming from production through consumption.

<http://www.cultivatekc.org/>

“

FROM MINDMIXER

We need a food policy council to help decision makers develop and support policy that enhances our local food system. –Goldie

FROM MINDMIXER

[The] City needs to help promote the Farmers' markets we already have. Build a structure that can hold them all year round, butchers, bakers, crafts. –Sam N

”

INITIATIVE 04

ACCESS TO HEALTHCARE



RECOMMENDATIONS

- Identify and address shortages of healthcare access, healthcare programs, primary care, and specialty services that are required to fill the needs of the community.
- Encourage emergency health care services to be located close to population centers.
- Ensure that underinsured and uninsured residents have access to needed health services.
- Collaborate with transportation services offered by public, quasi-public, and private organizations to provide transportation for residents who have no other means of getting to a healthcare provider.

DESCRIPTION

Fargo is a regional health care provider and the health care sector is a fundamental part of the local economy. Fargo will continue to improve the public's access to healthcare. This will be accomplished through regular monitoring of public health trends by Fargo Cass Public Health in cooperation with the state of North Dakota and private healthcare providers, as well as others who work with the public in a manner that allows them to be aware of emerging health trends and healthcare needs.

“

FROM MINDMIXER

What Fargo should do is continue to promote health care developments in the city that give residents more options and more access to the latest in healthcare technology. - fmmetroplex

”

This initiative can also be accomplished by ensuring that Fargo Cass Public Health has the resources to quickly and effectively respond to societal and disease-related trends that require health-related public education or access to healthcare services. Working with private healthcare providers such as Sanford Health and Essentia, as well as independent healthcare providers, to address a variety of issues such as the supply and demand of primary care healthcare services, location of emergency facilities, prevention programs, nutritional services, and specialty services will also increase health care opportunities.

The importance of health care to the community, the growing demand for quality care, and the potential collaborations between private and public providers creates an opportunity for Fargo to emerge as a national leader in integrated health care that improves health, leads to better community development, and powers economic growth.

BENEFITS

A community with access to primary care and specialty healthcare services translates into a community with a higher quality of life. When citizens have straightforward access to healthcare, they are more likely to seek preventative care and spend less time being unwell before seeking healthcare services. Earlier care prevents continued deterioration of health and lowers healthcare costs.

From an economic standpoint, access to healthcare can be expected to result in less time away from work, and more disposable income to spend on other goods and services. Healthcare services attract visitors from other communities, helping to stimulate the local economy.

Finally, access to healthcare is typically one of the factors that attracts people to live in a community. The reputation of a community with high healthcare accessibility attracts both users and providers of healthcare.



CASE STUDY

**Mayo Clinic****Rochester, MN**

The Mayo Clinic began as St. Mary's Hospital in 1889 to provide medical care after a devastating tornado. The Mayo Clinic is now noted as one of the largest and most respected medical facilities in the world. Over 30,000 people work for the Clinic which welcomes over 750,000 patients and families to Rochester every year. The City of Rochester has embraced the presence of the Mayo Clinic through its years of development, providing a variety of services to supplement employees and visitors. Downtown Rochester houses many of the clinic's primary buildings.

Sources: <http://www.mayoclinic.com/>, <http://www.rochestermn.gov/default.aspx>, <http://www.city-data.com/us-cities/The-Midwest/Rochester-Economy.html>, <http://socialmedia.mayoclinic.org/2011/03/31/save-the-dates-october-social-media-summit-in-rochester/>, <http://weezyschannel.hubpages.com/hub/mayoclinic>

CASE STUDY

**Public Health Departments of Gwinnett, Newton, and Rockdale Counties, Georgia**

The three counties of Gwinnett, Newton, and Rockdale, located on the east side of Atlanta, work together to provide a range of public health services to the residents of Georgia. Services provided include clinical services, epidemiology services, environmental health services, Women's, Child & Adolescent Health Services, and Emergency Preparedness. The department works out of thirteen different offices to service the large geographic region. There are also a variety of clinics available throughout the three counties, to provide the best access to affordable health care for each resident. The department provides a variety of information for residents on their website, including topics such as emergency preparedness for your vehicle.

Source: <http://www.gnrhealth.com/>

INITIATIVE 05

REGIONAL RECREATIONAL AMENITY

Catalyst | This initiative supports the following catalyst(s):



*Regional
Recreation
Destination*



RECOMMENDATIONS

- Study suitability of potential sites for a regional recreational amenity.
- Create partnerships between local governments, nonprofits, and philanthropic organizations to explore funding options.

DESCRIPTION

A regional recreation amenity, such as a water park, indoor athletic center, conservatory, or expanded zoo would build community and increase the health of residents by bringing people from across the region together to participate in healthy, fun activities. This facility is also an economic development tool and can be used to attract people from the Metropolitan area and beyond to Fargo. If strategically located, the regional recreation destination can encourage visitors to stay and shop or eat in Fargo. Additionally, this kind of facility could be recognized nationally and attract creative workers to Fargo.

BENEFITS

A year round regional recreation amenity can increase the health of residents and build community. It can attract visitors from surrounding areas and spending both at the recreational facilities and in restaurants and shops in Fargo. Recreation amenities contribute to the livability of an area, and can attract creative workers and firms.



CASE STUDY

**Garfield Park Conservatory,
Chicago, IL**

The Garfield Park Conservatory, constructed in 1906-7 and updated in 1994, is one of the largest conservatories in the United States. Exhibits such as the Palm Room and 300 year old ferns give visitors a respite from the cold Chicago winters.

**Wilderness Territory Resort,
Wisconsin Dells, WI**

Owned by a private company, this 600 acre indoor water park is America's largest water park. Wisconsin Dell's economy benefits significantly from water parks. Tourism creates employment and generates revenue for the municipality.

CHAPTER 8

Transportation

Fargo will transform its transportation system to encourage walking, biking, and transit. The City will coordinate infrastructure investments and land use policy in a supportive and synergistic way.



TRANSPORTATION

Fargo has a diverse transportation system to serve its residents and others traveling through the community, including an established grid network of north-south and east-west arterial roadways and newer developments with curvilinear streets and cul de sacs. In addition to the City's street network, Fargo has a comprehensive transit system that serves a significant portion of the Fargo-Moorhead metropolitan area. Highlights of this system include connections to North Dakota State University, downtown Fargo, the West Acres Mall and commercial area, and many other local attractions.

Bicycle and pedestrian use has seen a considerable increase in Fargo over the past several years. The City has an extensive shared use path network along the Red River and other waterways such as the Rose Coulee and the Cook Coulees in the south and southwestern part of the city. Pedestrians are well-served by a robust sidewalk policy that requires all streets to have sidewalks on both sides with ADA compliant ramps at the block corners. An actively expanding on-street bicycle lane network is providing enhanced connectivity to bicycle users throughout the city. The City will also be adopting a complete streets policy as part of the next Metro COG Long Range Transportation Plan. Other transportation advancements in which the City has invested include a safe routes to school program, an active train whistle quiet zone, and advanced deployment of intelligent transportation systems devices.

Fargo will continue to improve its transportation system while exploring the connections between transportation and health, the economy, and the environment.

Initiatives:

01: BICYCLE AND PEDESTRIAN INFRASTRUCTURE

Improve bicycle and pedestrian connectivity by identification of gaps in the local and to the regional system.

02: COMPLETE STREETS

Transform Fargo's roadways with a connected network of complete streets. Implement study recommendations to convert one way streets in downtown Fargo to two way streets.

03: TRANSIT IMPROVEMENTS

Expand and improve the existing transit service in terms of frequency, mode, and other options, including an effort to revise both the existing MAT bus schedule and frequency of bus service throughout the city and the region (Moorhead and West Fargo). Study the possibility of new local and regional travel venues, such as bus rapid transit and rideshare programs.

04: CLEAR AND ATTRACTIVE ACCESS TO DOWNTOWN

Enhance connectivity to downtown with clear and attractive signage and simplify access from I-29 and I-94.

05: TRANSPORTATION LINKAGES ACROSS THE RED RIVER

Improve mobility in a manner that will accommodate growth and secure availability of emergency routes by developing an additional crossing of the Red River south of 52nd Ave and improve availability of, and access to, river crossings for bicycles and pedestrians.

06: INTELLIGENT TRANSPORTATION SYSTEM

Increase the use of Intelligent Transportation System (ITS) technology to improve efficiency and safety throughout the transportation system.

07: PARKING

Pursue creative parking strategies to fund and activate parking structures, explore reducing minimum parking standards, and share parking between daytime and nighttime uses.



INITIATIVE 01

BICYCLE AND PEDESTRIAN INFRASTRUCTURE

Catalyst | This initiative supports the following catalyst(s):



*Signature
Streets*



*Active Living
Streets*



*All-Season
City-Wide
Trail Loop*



*Energy Efficiency
and Renewable
Generation*



RECOMMENDATIONS

- Continue to identify existing and future roadways for the placement of on-street bicycle lanes and share-the-road designations.
- Require bicycle and pedestrian infrastructure along new and reconstructed arterial and collector streets.
- Continue to review site plans for opportunities to provide on-site connections to sidewalks and bicycle paths.
- Continue to encourage the establishment of destinations within neighborhoods for cyclists and pedestrians.
- Continue to seek funding sources that are aimed at bicycle and pedestrian infrastructure, such as Transportation Enhancement Funds and Transportation, Community, and System Preservation (TCSP) Funds.
- Explore bike sharing programs.
- Continue to encourage the public about the benefits of bicycling.
- Create safety education programs for all transportation users: bicyclists, motorists, and pedestrians.
- Create and offer incentives to businesses to provide facilities that complete the bicycle and pedestrian infrastructure in the form of secure bicycle parking facilities and shower/locker facilities.



DESCRIPTION

Fargo will continue to invest in comprehensive, connected bicycle and pedestrian infrastructure that makes bicycling and walking a priority and sets the city apart from others in its accommodations for walkers and cyclists. Comprehensive bicycle and pedestrian infrastructure will



FROM MINDMIXER

Have bike-oriented businesses and amenities located along the recreational and transportation trails. - Erin K

FROM MINDMIXER

“Instead of widening roads and building more barriers, we should find a way to support biking and walking to school...We need more safe pathways to school, so parents don’t feel that they have to deliver their kids to school, which causes congestion.” – Connie N



consist of complete streets designed with all aspects of accepted bicycle and pedestrian facilities, ranging from sidewalks and multi-purpose trails to on-street bike lanes and off-street side paths. In addition, the City will focus on the overall transportation system from the viewpoint of traffic control and system features that facilitate walking and bicycling.

The City will seek creative connections where accommodations along and on roadways are difficult. These connections may occur along railroad right of way, drainage channel right of way, power transmission line easements, and within easements on private property. Bike path surface materials will be carefully considered in areas where paved trails are difficult to maintain or harmful to the environment.

Businesses that provide facilities for securely parking bicycles and for showering and changing clothes allow employees to overcome common barriers to walking and biking to work.

BENEFITS

The benefits of a comprehensive and connected bicycle and pedestrian network include economic, environmental, energy efficiency, and public health improvements. Economic benefits include reduced transportation costs to citizens as they lessen their use of and dependence upon auto travel. In areas where the magnitude of pedestrian and bicycle trips is high enough, the pedestrian and bicycle infrastructure can eliminate or delay the need to widen roadways. On congested roadways where widening is not feasible, bicycle and pedestrian infrastructure offer an alternative mode of transportation, ultimately helping to reduce congestion and delay.

Environmental benefits of strong pedestrian and bicycle use include reduced auto emissions, and potentially reduced overall need for travel lanes and parking spaces along with a corresponding reduction in the amount of run-off from paved parking lots. Vehicle traffic results in noise for adjacent development, while walking and bicycling contribute very little to traffic noise.

From an energy efficiency standpoint, walking and bicycling help reduce the use of non-renewable resources, reducing the overall emissions and conserving fossil fuel.

Finally, from a public health standpoint, cities with a complete walking and bicycling infrastructure are notably healthier than cities with minimal facilities for bicycles and pedestrians. Walking and bicycling are known as two of the healthiest forms of exercise, helping people to achieve better fitness and reduced rates of obesity. There is also evidence that walking to school helps children feel more settled in the classroom, allowing them to focus in class.



CASE STUDY

**Boulder, Colorado**

The City of Boulder has a bike network comprised of a variety of route types. The network primarily utilizes designated on-street bike routes, multi-use paths, and on-street bike lanes. Cyclists have more than 150 centerline miles dedicated for their use, which is nearly half of the 305 centerline miles dedicated for motorists. Extra strides have been made by the city to ensure accessibility and improved functionality for cyclists, including facilities for bike parking and regional bike tours. Safety features, such as raised crossings of streets and free right turn lanes combined with very noticeable signs and pavement markings communicate the “shared” aspect of the transportation system and contribute to the overall comfort level of bicycling and walking in Boulder.

Source: http://www.bouldercolorado.gov/index.php?option=com_content&task=view&id=8839&Itemid=3278

Ann Arbor, Michigan

Ann Arbor was designated as a Silver-level Friendly City in 2005 by the League of American Bicyclists. The City has a total of 36.2 miles of on-street bike lanes, over 10 of which were added in the last year. Bike hoops and lockers are provided by the city along with on-street bike parking. The City’s bike map provides a variety of routes into different parts of the city. The map includes designations of on-street facilities that may be congested with vehicular traffic during peak periods.

Source: http://www.a2gov.org/government/publicservices/systems_planning/Transportation/Pages/Bike.aspx

CASE STUDY

**Minneapolis, Minnesota**

In recent years, Minneapolis, Minnesota has been placed at or near the top of many nationwide rankings of bicycle friendly cities. The city has taken strides in the last ten years to construct infrastructure and improve safety for both bicyclists and motorists. There are 46 miles of dedicated on-street bicycle lanes and 84 miles of off-street bicycle paths throughout the city. Over 20 bicycling programs and initiatives are currently active in the Minneapolis area, contributing to the City's success.

Nice Ride MN is a non-profit organization with bike stations scattered around the city. Users can pick up a bike at any location and return it wherever they like. With a subscription, the first 30 minutes of use are free.

Source: <http://www.minneapolismn.gov/bicycles/index.htm> and https://www.niceridemn.org/how_it_works/



INITIATIVE 02

COMPLETE STREETS

Catalyst | This initiative supports the following catalyst(s):



*Signature
Streets*



*Active Living
Streets*



*Energy Efficiency
and Renewable
Generation*



RECOMMENDATIONS

- Creatively apply engineering, planning, and urban design principles to transform Fargo's roadway network with a continuous and connected network of complete streets.
- Implement study recommendations to convert NP Avenue and 1st Avenue North in downtown Fargo from one way streets to two way streets.
- Conduct an assessment of the NP and 1st Avenue North conversion from one way streets to two way streets to determine the extent of anticipated outcomes pertaining to economic activity, corridor investment (redevelopment), vehicular traffic, transit use, bicycle use, and pedestrian use.
- Encourage the construction of signature streets and active living streets.
- Establish benchmarks and review measures to determine benefits in terms of property values, jobs, and safety of complete streets.



DESCRIPTION

Complete streets comfortably support pedestrians, cyclists, transit, and automobiles. By transforming Fargo's roadways with a continuous network of complete streets, Fargo can enable people to walk, bike, or take transit to their destinations as well as drive. Complete streets give Fargoans more choice about how to move around the city and are especially important as the population ages and more elderly need access to safe, dependable, and convenient transit. Combining street design with land use decisions that increase density can lead to a city that works better for both elderly and younger populations while providing more choice for everyone.

One way street conversions are another strategy to make streets more "complete." Fargo has studied one way streets for conversion to two way streets. Two way streets reduce confusion and vehicle miles traveled by eliminating indirect routes. They also reduce vehicle travel speeds, which increases pedestrian safety. Two way streets enhance the visibility of retail establishments and create a more vibrant, active street.

In a downtown district or other destination location, two way streets are often more appropriate, especially where an urban street grid provides multiple redundant parallel routes.

Fargo, in cooperation with Metro COG, continues to make a concerted effort to incorporate the characteristics of the Complete Streets philosophy and design into the development of new and extended corridors and reconstruction of or improvements to existing corridors. A primary example of this commitment is the recently adopted NP Avenue and 1st Avenue North one way pair study, which recommended conversion of these two roadways to two way streets with a significant improvement in complete streets characteristics.

Corridor planning studies often establish the early direction for new and reconstructed arterials, while the characteristics of collector streets are identified through a combination of traffic projection data and planning that occurs at the time of subdivision review. These two phases of roadway planning and preliminary design are critical for the design and implementation of Complete Streets.

BENEFITS

The benefits of complete streets stretch beyond transportation to the arenas of health, energy, economy, and neighborhoods. Complete streets work in combination with higher development densities to yield higher levels of per-acre property value. By accommodating walking and bicycling, complete streets lead to health and energy benefits.

Measuring the anticipated outcomes of complete streets projects such as NP and 1st Avenues North will provide valuable information about corridor characteristics that work well, and those that need refinement. Meeting of certain benchmarks may serve as catalysts for other Complete Streets projects.

CASE STUDY



Complete Streets: Madison, Wisconsin

This street near the capitol in Madison accommodates pedestrians, bicyclists, buses, and automobiles. The National Complete Streets Coalition has identified key elements of comprehensive complete streets policy: <http://www.completestreets.org/changing-policy>



INITIATIVE 03

TRANSIT IMPROVEMENTS

Catalyst | This initiative supports the following catalyst(s):



*Signature
Streets*



*Active Living
Streets*



*Energy Efficiency
and Renewable
Generation*



RECOMMENDATIONS

- Improve the transit system as recommended and outlined within the 5-year Transit Development Plan (TDP) to conceptually identify options for improving efficiency of the transit system.
- Ensure that walkable mixed use centers are easily served by transit, that the physical form accommodates buses, and that pedestrian and bicycle routes lead to transit stops. Transit improvements are an integral part of redevelopment plans for walkable mixed use centers.
- Encourage density and reduce minimum parking requirements along arterials and collectors that are designated as transit corridors.
- Encourage people to use public transit to and from density nodes.
- Continue to work with Moorhead to evaluate high frequency transit service.
- Improve overall on-time performance of the metro area transit system.
- Explore and implement opportunities to advance the technology and intelligent transportation systems available to transit systems and transit users to provide more information about bus locations and estimated arrival times.

DESCRIPTION

Fargo will seek a robust transit system that provides a more efficient system of routes and transfers, reducing overall travel time for riders. The current transit system requires each bus to return to the transit center located in downtown Fargo. Virtually all routes “pulse” to this location, where bus transfers can be made by passengers. For many riders, this results in traveling several miles out of their way to board a bus that then backtracks through the core of the city. While some routes

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FROM MINDMIXER

Instead of a sprawl, the city needs to infill and increase density. A spread out city will only cost more time and energy to get around. Public transit is almost impossible if the city is too spread out. -Anthony L

”

will always benefit from the hub system, public input by riders or “would-be riders” has focused on changing the form of the transit system to allow transfers in closer proximity to their destination, eliminating the need to spend time traveling several miles out of their way.

Improving transit is also related to increasing density along designated corridors and in strategic areas in a manner that will increase ridership and justify more frequent transit service. Fargo has experienced this with the routes between the main NDSU campus and the downtown campus. The density of potential riders, inconvenience and/or cost of parking, convenience of transit stops, and frequency of these routes has resulted in a dramatic increase in student ridership.

BENEFITS

There are economic, environmental, energy, and health benefits to improving the transit system. Increasing the use of transit also helps to reduce the costs of owning, maintaining, and operating a personal vehicle. This results in an increase in disposable income for other purposes. Increased ridership also benefits the operator of the transit system by increasing fare box revenues. Increased ridership also helps justify funding for new and improved facilities and expanded operations.

Environmental benefits of an improved transit system include reduced mileage of personal vehicles resulting in a reduction in overall traffic noise and vehicle miles traveled. In addition, a reduction in driving personal vehicles reduces the demand for paved parking spaces. In turn, a reduction in paved parking areas results in less urban heat absorption and less stormwater runoff.

The energy benefits of an improved transit system include reduced use and dependence on gasoline. Also, increased ridership yields a greater return on the fuel used to operate transit vehicles.

Health benefits of using transit include more exercise walking or biking to and from the transit route, and a reduction in asthma inducing emissions.

“

FROM MINDMIXER

Identify the areas of town that should/could support higher population densities and then develop the bus routes around these. That's how the larger cities do it... main stopping points for commuter rails and bus stops are typical high density pockets within the city itself. -fmmetroplex

”



CASE STUDY

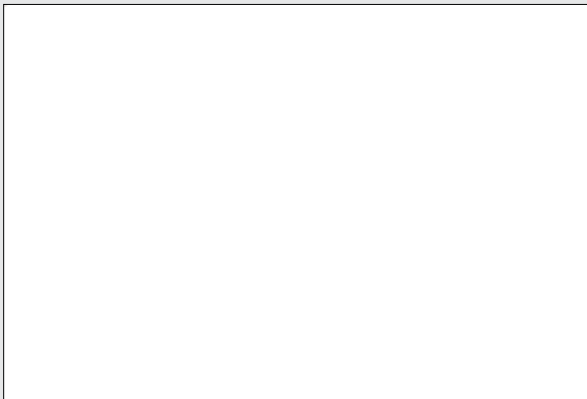


Des Moines Area Regional Transit (DART)

Des Moines, Iowa

The Des Moines Area Regional Transit (DART) bus routes cover eight communities in the Des Moines metropolitan area. A fleet of over 90 buses travel over 15,000 miles a day providing public transit for residents and visitors. Two route varieties are offered by DART. The local routes offer service that operates throughout the day with stops along the route where riders can board/leave the bus. The express routes run during the morning and afternoon commute times, with stops in the community, but no stops in the downtown area. DART also offers on call services allowing users to call for a ride, similar to the services of a taxi. This service is available in twelve cities.

Source: <http://www.ridedart.com/index.cfm>



Tri Met

Portland, Oregon

The Tri Met System of Portland combines bus and rail service to create a system that is considered both radial and hub-and-spoke. The bus system has a number of routes that radiate from the Portland City Center into the greater metropolitan area. Once routes are out of the City Center, a hub and spoke network is used to reach a variety of areas in the fringe. The light rail system utilizes a radial network originating in the Portland City Center. The combinations of these systems allow for the City Center to remain a vital destination while providing flexibility to populations in the fringe areas.

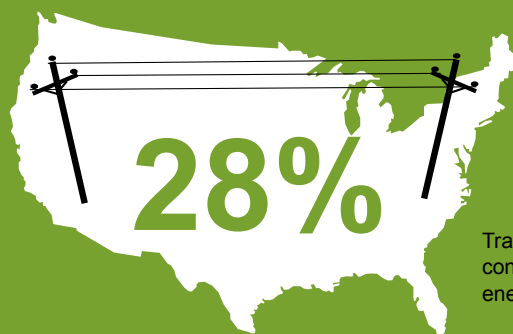
Source: <http://trimet.org/index.htm>

Energy

The United States uses 28% of its energy to move people and goods from one place to another. The transportation sector includes all modes of transportation—from personal vehicles (cars, light trucks) to public transportation (buses, trains) to airplanes, freight trains, barges, and pipelines. One might think that airplanes, trains, and buses would consume most of the energy used in this sector but, in fact, their percentages are relatively small—about 9% for aircraft and about 3% for trains and buses. Personal vehicles, on the other hand, consume more than 60% of the energy used for transportation.

86% of all the energy used in this sector comes from gasoline and diesel fuels. Combustion of gasoline and diesel fuel emits carbon dioxide, as well as particulate matter, oxides of nitrogen (a prime component of “smog”), carbon monoxide, and unburned hydrocarbons. Indeed, whenever any fossil fuels are burned, carbon dioxide is released into the atmosphere, where it functions as a heat-trapping greenhouse gas. Also of concern is that we are dependent on foreign sources for two-thirds of our oil supplies.

Source: <http://needtoknow.nas.edu/energy/energy-use/transportation.php>



Transportation consumes 28% of all energy in the US.



60%

Personal vehicles consume 60% of all energy spent on transportation.



86%

Gasoline and diesel fuels provide 86% of the energy in the transportation sector.



67%

The U.S. is dependent on foreign sources for two-thirds of all oil supplies.



INITIATIVE 04

CLEAR AND ATTRACTIVE ACCESS TO DOWNTOWN



RECOMMENDATIONS

- Use the Main Avenue corridor study to examine corridor land use patterns, redevelopment, corridor identity, signature street characteristics, and way-finding opportunities that would significantly improve this corridor as a gateway to downtown.
- Place way-finding and downtown identity features along streets, such as University Drive and 10th Street, that approach the downtown area. Assist drivers with selecting the east/west street which offers them the most direct and least congested route to their destination.
- Incorporate Intelligent Transportation System features into roadway improvement projects leading to/from downtown to ensure that traffic flow along these corridors can be monitored and maximized.

DESCRIPTION

Fargo will improve the quality of pedestrian and vehicular access to downtown. This initiative involves improving existing routes to and from downtown while improving the character and fabric of the neighborhoods in the surrounding area. Access to downtown from outlying areas or major transportation facilities such as I-94, I-29, Hector International Airport and outlying neighborhoods can take place via several different routes on Fargo's grid street system. However, some of the routes to downtown are not well-known, straightforward, informative, or aesthetically engaging. For example, Main Avenue is an efficient route to downtown from I-29, but could be improved upon relative to corridor identity, aesthetic appeal, and way-finding features.

University Drive is another opportunity for improvement. University Drive splits to a one-way pair between 13th Avenue South and 19th Avenue North. Improvements to this corridor could include aesthetic

“

FROM MINDMIXER

access from the interstate can also encourage more business to open around downtown instead of on the outskirts of the city. -Anthony L

FROM MINDMIXER

The city needs to look into developing high volume and higher speed connections into the downtown area and they should connect up with both interstates. -fmmetroplex

”

improvements and way-finding features, particularly at and along 13th Avenue North between University Drive and 10th Street South, where dilapidated houses dominate a small, but visible portion of the route. Once near the downtown area, corridor identity and way-finding could greatly enhance and facilitate access to downtown.

The city recently approved the future conversion of the NP Avenue and 1st Avenue North one-way pairs to two way streets. This change will eliminate one of the public's main negative perceptions about downtown, which is the confusing nature of the east/west one-way pair system. A heightened corridor identity through streetscaping will improve vehicular access. Finally, the 7th Avenue North corridor was described as a great way to access downtown and the Sanford Health clinic and hospital located on Broadway at the north end of downtown. This corridor can be accessed from West Fargo, and from streets and frontage roads along I-29 from either Main Avenue or 12th Avenue North. The route is very convenient for those who know about it, and could be enhanced through improved connections in the vicinity of I-29, improved aesthetic appeal, corridor identity, and way-finding features.

Intelligent transportation systems (ITS) combined with a Metropolitan Traffic Operations Center (TOC) that identify points of congestion and delay could be another way of improving vehicular access to downtown, particularly during major events such as the Street Fair and concerts at the Civic Center. As downtown continues to redevelop and attract higher levels of density, a TOC that has excellent coverage of the downtown area and surrounding roadway network will help the system handle higher volumes of traffic with less congestion, reducing the amount of roadway widening necessary to handle higher volumes of traffic.

Ultimately, access to downtown must be accommodated in the form of adequate parking. As downtown development reaches benchmarks in the form of residential, retail, or office development, monitoring of the parking supply and demand will be necessary. Advance planning for new parking facilities will be necessary several years in advance of project completion due to the cost of acquiring property and working out public private parking arrangements for financing and leasing parking spaces. As the value of land increases in the downtown area, surface parking will become less feasible, and parking structures will be needed to accommodate parking demand, particularly in the most densely developed portions of downtown. Since parking structures have the potential to create a "dead space" along downtown street frontages, their street level facades, at a minimum, should include leasable space for retail sales and service types of uses.

BENEFITS

The benefits of improved access to downtown include a heightened comfort level of both Fargo residents and out-of-town visitors who have an interest in going downtown. Features that give a roadway a "downtown signature" or identity are comforting to the public, as they are assured by the visual evidence that they are indeed on a road that takes them to downtown, even if the surrounding area is an industrial area or a residential neighborhood. Attention to small details such as lighting styles, plantings, signs, and way-finding features can contribute to the public's desire to come downtown for entertainment, dining, medical care, shopping, and professional services. Keeping downtown, the heart of Fargo, strong is vital to the long-term strength and identity of the region. Improving access and the experience of coming downtown supports downtown's viability.



CASE STUDY



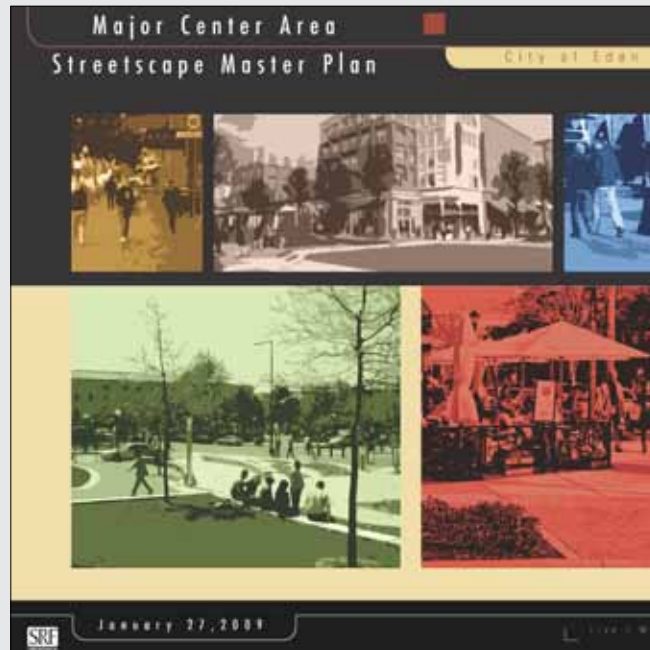
Downtown Baton Rouge Wayfinding Signage Project – Baton Rouge, Louisiana

The Downtown Baton Rouge Wayfinding Signage Project began its first phase in 2004, and has resulted in 81 new or updated wayfinding elements in Downtown Baton Rouge. The process involved input from 35 different organizations. Forms of wayfinding include; vehicular signage, pedestrian signage, trolley stop signs, neighborhood identity signage, parking signage, and trail blazing signage. Nontraditional elements were included in the signage to provide ownership to Baton Rouge. For example, pedestrian signage includes highlights of attractions and historic events in the area. Local artists were also given the opportunity to work on elements of the signs. A community involvement process was used to choose which artists were involved and what items were highlighted in the pedestrian signs. The city has found that this project has done more than allow guests to find their way to and around Downtown Baton Rouge, but it has provided a sense of identity.

Source: <http://www.downtownbatonrouge.org/aroundWayfinding.asp>

Image Source: http://www.downtownbatonrouge.org/downloads/pdf/2008_IDA_wayfinding_pres.pdf

CASE STUDY



Major Center Area Streetscape Master Plan - City of Eden Prairie, MN

The City of Eden Prairie's Major Center Area (MCA)'s most commonly noted challenges were wayfinding and navigating. A number of issues caused these challenges including; a lack of local street hierarchy, unclear access from regional roads, and a variety of complex roadway systems within the area. To overcome this challenge, a wayfinding hierarchy created a variety of sign types at varying distances from the center of the MCA.

The Major Center Area Streetscape Master Plan was also created to provide a design framework for streetscape improvements for Eden Prairie. The Design Framework includes elements that would serve as primary identifiers for the area and employ a prairie style aesthetic through the use of elements including: street lights, information kiosks, street furniture, and bollards.



INITIATIVE 05

TRANSPORTATION LINKAGES ACROSS THE RED RIVER



RECOMMENDATIONS

- Designate corridors for future river crossings (vehicular and/or bicycle/pedestrian bridges) and begin the process of acquiring right of way.
- Design vehicular river crossings to safely and comfortably accommodate pedestrians and bicyclists.
- Utilize the North Dakota Century Code section 40-48-28 to designate and preserve future river crossing corridors through master street planning and official mapping.
- Work with Cass and Clay Counties and the City of Moorhead to continue designating section line roads as future arterial roadways with limited access. As soon as decisions have been made, ensure the public is aware of future linkages.
- Use the Red River Greenway Study, Long Range Transportation Plan, and the travel demand model for the metropolitan area or a separately commissioned traffic study to evaluate the river crossing needs of the transportation system as the metropolitan area grows.

DESCRIPTION

The Red River is the border between Fargo and Moorhead, Minnesota. Residents take pride in the fact that most people consider the Fargo-Moorhead metropolitan area as one community, despite the fact that Fargo and West Fargo are two distinct municipalities in North Dakota, and Moorhead and Dilworth are two distinct municipalities in Minnesota. From the standpoint of day-to-day life, residents live in one city and work, shop, socialize, and attend school in any of the four cities. As Fargo and the adjacent cities grow in population and geographic size, the need to cross the river will also increase.

Fargo will designate and secure corridors for additional transportation linkages across the Red River and will pursue funding mechanisms for corridor acquisition and bridge construction so funds are available at such time as the need justifies the cost.

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FROM MINDMIXER

If there was a way to more easily raise and lower bridges, it would be wonderful to have ski bridges over the Red River. That way, we could more easily connect cross-country ski trails in town.

– Drew FM

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Therefore, the planning and securing of corridors for bridges over the river is important. The ability to disperse traffic evenly over a number of bridges helps to reduce the burden of concentrated traffic volumes on adjacent development. Lengthy trips on north/south corridors to get to bridge corridors creates trips that are longer, more time consuming, and less energy efficient.

As Fargo grows in size, it is important to designate river crossing corridors and plan surrounding development, transportation facilities, and recreational features accordingly.

BENEFITS

There are several benefits of having adequate transportation linkages across the Red River. One of the primary benefits is the dispersal of traffic across the transportation system. Any time bridges are not evenly dispersed throughout the system, routes to and from river crossings become congested, resulting in the need for intersection improvements and roadway widening. This places an excessive burden of more traffic and wider transportation facilities on corridors closest to the river crossing.

Movement of traffic during emergencies is another benefit to having an adequate dispersal of river crossings throughout the community. Fargo has experienced

major floods with limited availability of bridges over the Red River, and the resulting traffic congestion and travel delay placed severe stress on law enforcement, emergency services, public works staff, healthcare workers, transit providers, and citizens.

The presence of evenly dispersed river crossings also benefits pedestrians and bicyclists, and increases the likelihood that residents will choose walking and bicycling as their mode of travel. Well-placed and adequately dispersed river crossings reduces trip lengths, thereby making walking and bicycling trips more feasible and less time consuming. Furthermore, the fact that river crossings allow traffic to be more dispersed and less concentrated results in traffic situations and transportation facilities that are more conducive to the inclusion of walking and biking facilities.

In the absence of adequately spaced vehicular bridges, pedestrian and bicycle bridges over the river are also excellent for facilitating pedestrian and bicycle travel.

Finally, an adequate geographic dispersal of linkages over the Red River translates into a more connected community, where more options are easily available to more people.

“

FROM MINDMIXER

Before adding additional bridges lets make the three we have year around and then add more.
- RedWayne

”



CASE STUDY

**Tower Road Bridge – Fergus Falls, Minnesota**

The City of Fergus Falls is segmented by the Otter Tail River. The City currently has five crossings of the Otter Tail River in its downtown, with another crossing on the west side of town via Interstate 94. However, there are nearly two miles of city growth and development on both sides of the river with no additional river crossings. During a 2006 transportation study, it was documented that another river crossing inside city limits between the I-94 and downtown area would decrease the use of the interstate by local travelers that need to cross the river. An additional bridge was also warranted by eliminating or delaying the need to widen West Lincoln Avenue through a historic residential area. The project is currently under construction.

Source: http://www.ci.fergus-falls.mn.us/index.asp?Type=B_BASIC&SEC=%7B001EA21B-02D2-48C4-A9C2-37DA553184DA%7D&DE=%7B340E0BE5-1C60-4303-A793-FD0CA73D7973%7D



INITIATIVE 06

INTELLIGENT TRANSPORTATION SYSTEM



RECOMMENDATIONS

- Incorporate intelligent transportation system (ITS) features into roadway improvement projects throughout the city in collaboration with Metro COG, NDDOT, Cass County, and neighboring jurisdictions to create a seamless system of monitoring and improving safety and efficiency throughout the transportation system.
- Fully participate in the formation and operation of a metropolitan Traffic Operations Center (TOC).
- Seek out and implement applications of ITS to resolve safety and congestion issues.
- Use benchmarks to monitor energy and time savings that result from the implementation of ITS features.

DESCRIPTION

Intelligent transportation systems (ITS) are computerized networks of sensors that are embedded in the transportation network to improve efficiency. ITS components of an overall transportation system have the potential to improve the safety and efficiency of the transportation system in many ways. These non-capacity expansions to the system provide the intelligence needed by the traveling public and transportation managers to maximize the efficiency of the roadway system. Fargo has an excellent network of fiber optic cable needed to expand its network of cameras, detection equipment, and dynamic message signs. Other ITS components can be incorporated to improve safety at specific locations, such as pedestrian detection systems. This system allows the signals to respond to traffic levels and reduce travel time for everyone on the streets. ITS technology is not only convenient for drivers, it can alert transit riders of when the next bus is arriving and advise riders on the best route to their destination. Advanced ITS technology can even monitor parking spaces and allow drivers to find a spot, reducing the need to build additional parking because the existing parking is used more efficiently. These systems also increase disaster resiliency because they can direct large amounts of traffic during an evacuation.

BENEFITS

Roadway expansion is costly in the form of funding and land consumption. It can have negative impacts to surrounding development and create barriers for pedestrians and bicyclists. Any time the efficiency of a roadway can be improved upon through ITS, it has the potential to improve safety, reduce delay, save energy, and improve efficiency without widening or adding more roadways. Other benefits of ITS technology include less time spent in the car, fuel savings, more reliable transit system, better parking systems, and greater resilience to disasters.

CASE STUDY

Greater Buffalo, NY - Niagara Region Intelligent Transportation System

The Buffalo - Niagara region installed an intelligent transportation system that gives drivers real-time updates on the “greenest” routes to take to their destination. The system uses sensors and traffic modeling to deliver a route to each individual user that directs the best route to take to reduce their carbon footprint. A study on Buffalo’s system estimates that if 40% of travelers use the system, it would result in a 25% reduction in CO emissions.

Source: http://www.its.dot.gov/presentations/pdf/Evaluation_Environmental_Benefits.pdf



INITIATIVE 07

PARKING



RECOMMENDATIONS

- Explore the use of maximum parking thresholds instead of minimum parking requirements in certain areas of the city or for certain types of development.
- Include mixed use space on the street level facades of parking structures to increase attractiveness and street level activity.
- Explore technologies to inform drivers about parking availability in key areas of parking demand.
- Explore creative parking strategies such as shared parking between daytime and nighttime uses.
- Explore partnerships with private sector to finance parking structures.

DESCRIPTION

Parking is an important consideration, especially as Fargo increases the density of its downtown and other walkable mixed-use areas. However, parking can also have a negative effect on the vibrancy and walkability of areas because it is an inactive use. Creative parking strategies can reduce the need for off street parking and reduce the burden on developers to build in dense areas. For example, shared parking between daytime and nighttime uses, such as offices and entertainment venues, can reduce the need to provide parking. Financing strategies that combine private and public development can reduce the financial burden of providing parking structures. Intelligent transportation systems can monitor open parking spots and direct drivers to the best available spot. Better transit and increased support for biking and walking can reduce the overall need for parking. By using these strategies, it may be possible to reduce the minimum parking requirements or to use maximum parking requirements.

Additionally, urban design techniques can reduce the negative impact of parking on an urban district. Landscaping in parking lots can create a more pleasant pedestrian experience while reducing runoff and heat island effect. Dedicating an area on the street façade of the first level of a parking lot to retail can activate that part of the street. Public art can add beauty to parking lots and structures and transform them into a public amenity.

BENEFITS

Creative parking strategies can ensure plentiful and convenient parking while reducing the negative effects of unpleasant pedestrian experience, storm water runoff, and heat island effect.

CASE STUDY



Parking Structure Activation Strategies

Kansas City, MO

The City of Kansas City, Missouri features several recent, innovative approaches toward parking garages. One recent successful parking garage project incorporates bold architectural design, street trees, and an active first floor with retail use. This transforms the block from a car dominated area to an area that sparks pedestrian interest and encourages walking.



The Kansas City Public Library created another innovative approach to parking during a recent library renovation. The parking garage takes the form of a giant bookcase featuring titles chosen by the community. It is not uncommon to see visitors to the city standing in front of the library's parking garage to have their photo taken.

CHAPTER 9

Economy

Fargo will build on its agricultural and manufacturing heritage and will be known as a cutting-edge creative economy. We will educate and retain the best workforce in the nation and foster an innovative entrepreneurial environment.



Economy

ECONOMY

Fargo withstood the global economic downturn with impressive strength. This was due in large part to the city's economic diversity. Fargo is a regional hub for goods and services such as education, healthcare, retail, and financial services. In addition, Fargo has an impressive base of primary sector, wealth-creating industries such as manufacturing, back office operations, and agricultural processing. Fargo's unemployment rate is impressively low; in 2011, the average unemployment rate was 3.4%. This plan represents an opportunity to improve on these strengths and pursue strategies to make Fargo even more competitive in the future.

Initiatives:

01: AMENITIES AND BEAUTIFICATION AS AN ECONOMIC DEVELOPMENT TOOL

Invest in amenities and beautification as an economic development tool to attract creative individuals. For example, improve the streetscape and walkability of Fargo's main corridors.

02: ENTREPRENEURSHIP

Create an environment of entrepreneurship through business support and public awareness campaigns.

03: PROMOTE CONNECTIONS AND INFILL WITHIN STRIP COMMERCIAL DEVELOPMENTS

Direct future development around strip commercial areas to increase the amount of retail space, density, and promote walkability to increase the competitiveness of these shopping destinations.

04: WORKFORCE TRAINING

Promote workforce Training at the local universities and colleges.

05: TECHNOLOGY INFRASTRUCTURE

Create strategies to increase the quality of Fargo's communication infrastructure. This infrastructure will give Fargo a competitive advantage for technology related businesses to locate in Fargo.

06: INCENTIVES FOR SPECIALIZED SPACE

Provide incentives for developing specialized space where both the demand and public benefit are substantially demonstrated. For example, there may be a need for more "wet" laboratory space to strengthen the bioscience industry and provide more jobs.



BEFORE: SPARSE PUBLIC REALM INFRASTRUCTURE

Several forces work together to drive economic development in cities. The power of urban amenities is emerging as a driving force in city development. More and more people are choosing where to live and then looking for a job. This before and after photo simulation illustrates the idea that public realm improvements can catalyze private development.



AFTER: PUBLIC REALM IMPROVEMENTS CATALYZE PRIVATE DEVELOPMENT

Urban amenities, such as public art, transit, pedestrian and bicycle infrastructure, and landscaping can catalyze private development.

INITIATIVE 01

AMENITIES AND BEAUTIFICATION AS AN ECONOMIC DEVELOPMENT TOOL

Catalyst | This initiative supports the following catalyst(s):



*Walkable Mixed
Use Centers*



*Signature
Streets*



*Active Living
Streets*



*All-Season
City-Wide
Trail Loop*



*Regional
Recreation
Destination*



RECOMMENDATIONS

- Prioritize pedestrian and bicycle streetscape improvements when upgrading infrastructure.
- Continue to work with developers to establish well-designed neighborhoods and urban districts.
- Continue to work with the development community to establish a commercial design zone district.
- Consider the establishment of incentives as a tool to encourage developers to include public realm improvements.
- Invest in trails, parks, and other public spaces.
- Encourage the inclusion of design characteristics in the built environment that are unique to this region and which avoid monotony.



DESCRIPTION

Creativity is emerging as one of the driving forces in the development of cities. As creative industries continue to grow, attracting skilled individuals and businesses that engage the creativity of their workers is becoming one of the most important tools for economic development. Improving urban amenities, such as trails, transit, schools, parks, and well designed neighborhoods and urban districts is an effective strategy for attracting and retaining skilled residents.

Fargo will invest in amenities and beautification as an economic development tool to attract creative individuals. For example, the City will explore improving the streetscape and walkability of Fargo's main corridors.



FROM MINDMIXER

Beautify Fargo with art--create more murals and do creative things in the alleys. This will create a buzz and enhance tourism. – sababa

FROM MINDMIXER

Beautiful and socially functional environments attract both investment and in migration of talent. If we want to attract both, we will need to beautify our main corridors.” -Cat



BENEFITS

Investing in amenities, such as streetscape improvements, trails, and parks can attract and retain creative individuals. This group creates a pool for firms to draw from and can attract more creative firms to Fargo. Additionally, streetscape improvements, trails, and parks have benefits far beyond economic development; they increase quality of life for all members of the community.

CASE STUDY



Chicago –Millennium Park

Chicago reinvented its downtown with the completion of Millennium Park in 2004. The park replaced old rail lines and parking lots and created a prominent civic center near the Lake Michigan shoreline. This iconic public amenity is responsible for reshaping perceptions of downtown Chicago and drawing creatives to the city to participate in a vibrant rebirth of Chicago's creative economy.

INITIATIVE 02

ENTREPRENEURSHIP



RECOMMENDATIONS

- Continue to support the NDSU Research Foundation, which works to protect and commercialize discoveries and inventions by NDSU faculty, staff, and students.
- Continue to support NDSU Research and Technology Park.
- Develop a toolkit of assistance and financing resources to help entrepreneurs launch new businesses.
- Explore additional business incubators to provide space for startups in the downtown area and other walkable, mixed use centers.
- Explore the creation of a community driven venture capital fund.

DESCRIPTION

Fargo residents are full of great ideas. Startups and small businesses are a key reason why Fargo continues to have such low unemployment in the face of a national recession. Many of the big employers in town, including Microsoft (formerly Great Plains Software), Essentia Health (formerly Innovis Health), and Phoenix International began as startups in Fargo. Creating an environment of entrepreneurship will ensure that Fargo will continue to lead in innovation and job growth.

This initiative focuses on ensuring that entrepreneurs have access to financing, startup space, and assistance - all the raw materials to launch a business. Strategies to accomplish this include creating an entrepreneurship toolkit that collects information about financing programs and technical assistance in one place. A business incubator could further support entrepreneurs by providing low cost start up space and access to mentors. The NDSU Research and Technology Park, Inc. is an example of a business incubator. This technology incubator park has 19 tenants and has created 893 jobs through direct employment



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FROM MINDMIXER

Locally owned business money stays in the community and more importantly these business owners have a stake in the community...our locally owned business owner's live here, their kids go to school here, and they care more about Fargo...Let's start a Buy Local program like Austin Texas. Let's do a study to calculate the benefits of locally owned businesses. – MikeFGO

”

with an average salary of \$57,000. The spending of these new employees in the community created an estimated 551 indirect, off-site jobs. The technology park has been good for the City fiscally, creating 3.6 million for local governments from taxes and fees. Fargo will explore replicating this model in other industries to create even more employment and keep Fargo's economy on the forefront of innovation.

BENEFITS

Supporting entrepreneurship creates a launching pad for generating new jobs and businesses in Fargo. All companies begin as startups, and the payoff for the community of launching a successful business is large in terms of direct benefits to the businesses employees and multiplier effects as those employees spend money throughout the community.

“

FROM MINDMIXER

Identify a number of empty storefronts in both downtown and 13th Avenue areas and create 2-3 small business incubators. There could be an agricultural products incubator...a small manufacturing incubator, etc. This would create new businesses in places near established businesses, and locate services near fledgling businesses. – Drew FM

”

CASE STUDY

**Nashville Entrepreneur Center**

“The Entrepreneur Center fosters innovation and entrepreneurship by Turning Ideas Into Reality, helping to start businesses and create jobs. As a non-profit 501(c)3 organization, the Center is funded through sponsorships, partnerships, donations and grants. The EC relies on support from leading corporations, successful entrepreneurs and those who have a vested interest in the Center’s success.”

Source: entrepreneurcenter.com

CASE STUDY



CoCo - Coworking and Collaborative Space

Minneapolis and St. Paul, MN

CoCo is a coworking and collaborative space for entrepreneurs, freelancers, and other solo and remote workers. This open office space is located in the historic Minneapolis Grain Exchange building. CoCo provides office amenities and a chance to collaborate for those who do not have offices.

Source: <http://cocomsp.com/locations/minneapolis/>

INITIATIVE 03

PROMOTE CONNECTIONS AND INFILL WITHIN STRIP COMMERCIAL DEVELOPMENTS

Catalyst | This initiative supports the following catalyst(s):



*Walkable Mixed
Use Centers*



RECOMMENDATIONS

- Create a Master Plan that identifies infill opportunities and creates a new pattern of development for regional commercial areas; such as the 13th Avenue corridor.
- Explore incentive packages, such as infrastructure investments and tax increment financing to encourage mixed use and infill development.
- Encourage walkable connections between commercial areas and multifamily residential areas.

DESCRIPTION

Fargo has many auto-oriented strip style commercial developments, both successful and in need of revitalization. There is an opportunity to enhance these commercial areas by promoting infill and strengthening pedestrian connections within shopping districts and to the surrounding areas. Fargo will explore strategies to promote connections and infill in strip commercial areas to increase the amount of retail space, density, and promote walkability. This will increase the competitiveness of these shopping centers and achieve goals of health and aesthetics by making a more walkable and attractive city.

BENEFITS

Promoting infill and pedestrian connections in the strip commercial areas benefits the appearance of the community, health of residents, environment, and strength of the local economy.



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FROM MINDMIXER

Redeveloping is an excellent idea, especially if done with a redesign of the mall parking areas to increase safe pedestrian access. – Marta

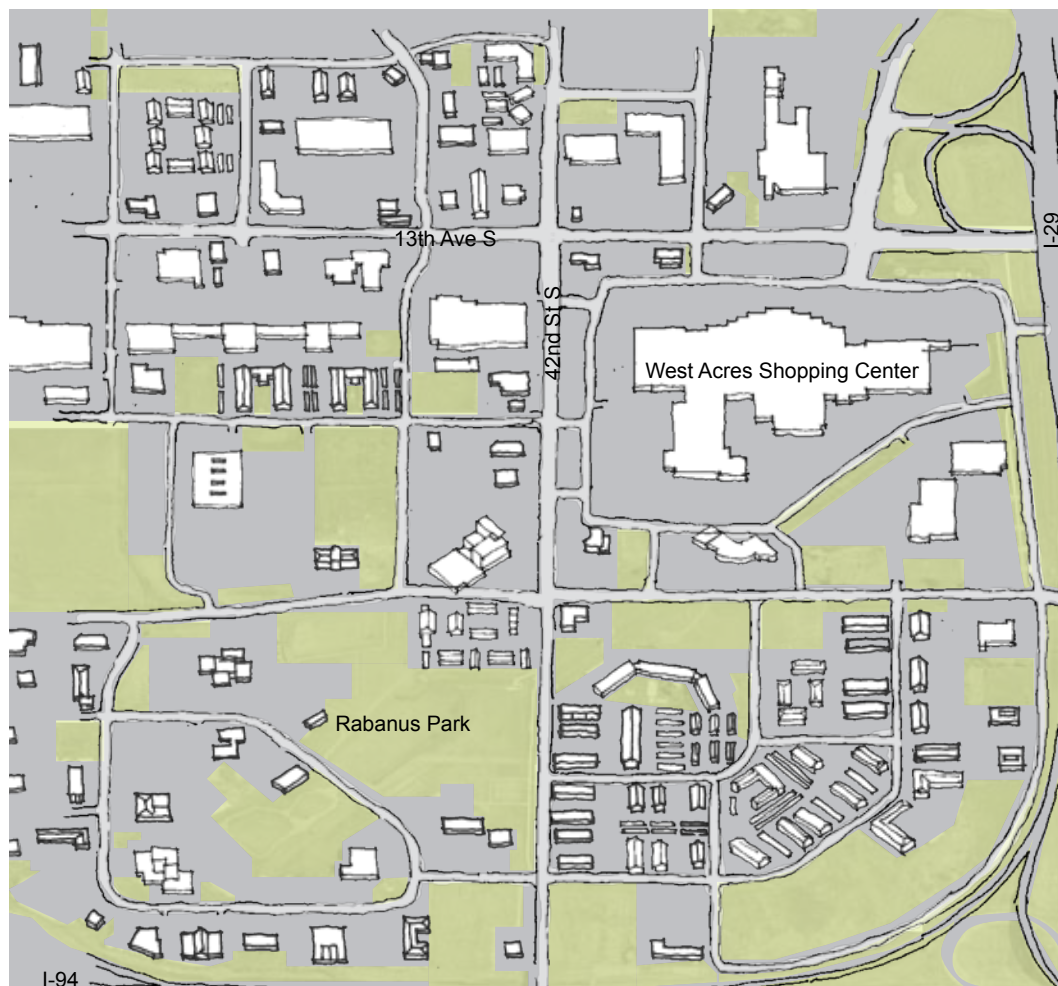
FROM MINDMIXER

“The area is already a major attraction to out-of-towners; think of what it could be with updating, reinvestment, and a greater sense of place, where people want to spend more time and more money.” – 15-year resident

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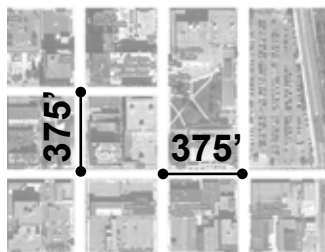
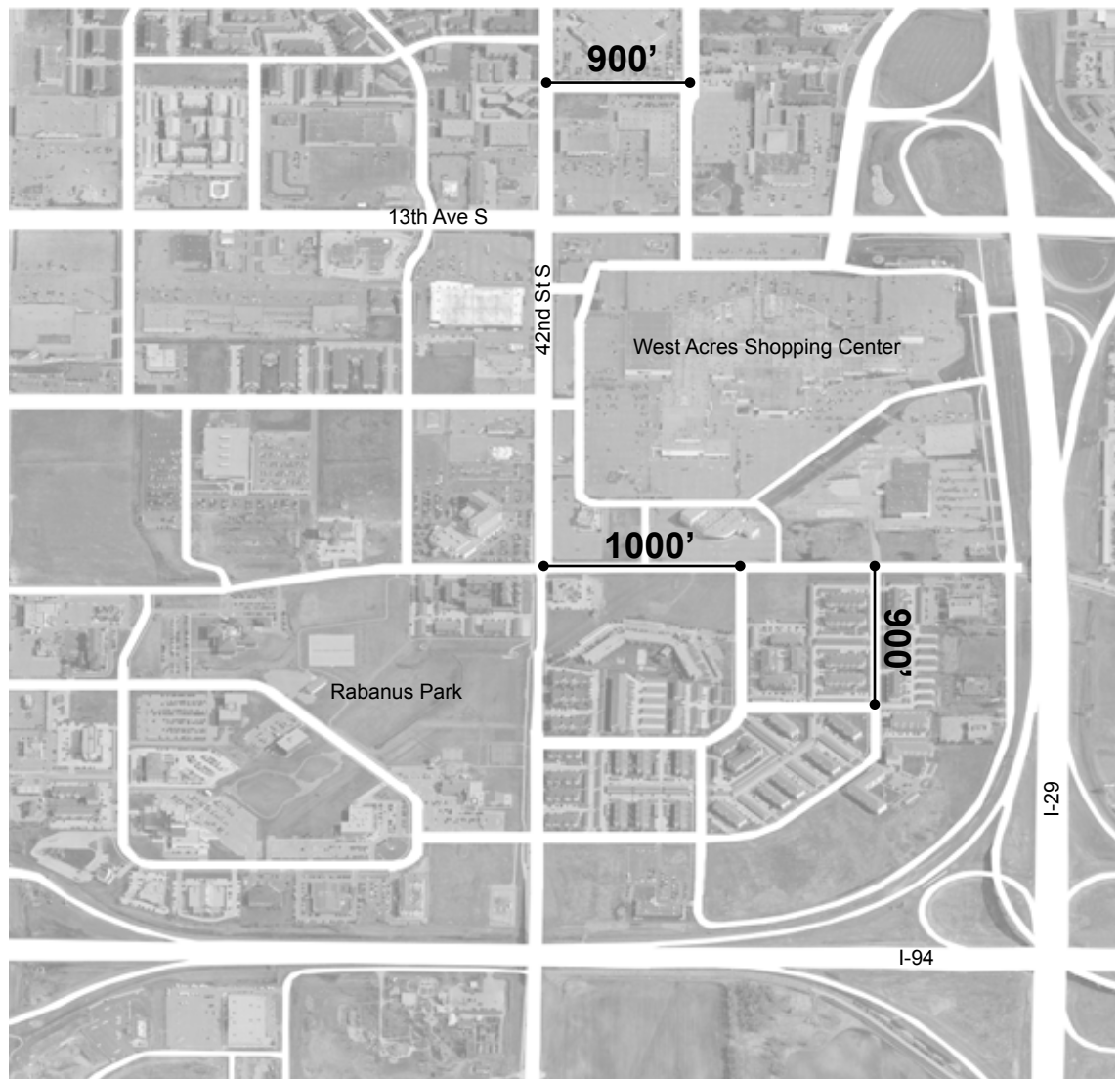
Large surface parking lots surround destinations

Vast amount of pavement surrounding destinations is not an environment that promotes walking and biking. Strategies to promote walkable and bikable connections amidst large surface parking lots include creating infill development that fronts the street, bolstering existing streetscapes with pedestrian amenities, parking reduction strategies, and considering approaches that arrange parking in a central lot, tucked under buildings, in an internal structure, or underground.

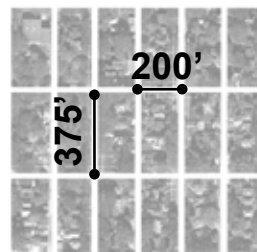


Large block sizes concentrate street traffic and increase distances between destinations

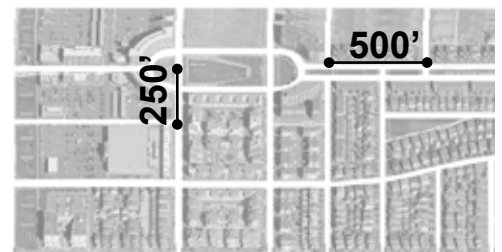
These maps compare street grids at the same scale. For example, the average block at West Acres is twice the size when compared to more walkable examples such as downtown Fargo, Fargo's Hawthorne neighborhood, and Denver's Stapleton neighborhood. New connections that help create smaller block sizes is a strategy to promote walking and biking. A fine-grained street grid ensures trips are as short as possible, provides numerous routes that disperse street traffic, fosters development that engages and activates public streets, and precludes large development sites with monolithic architecture.



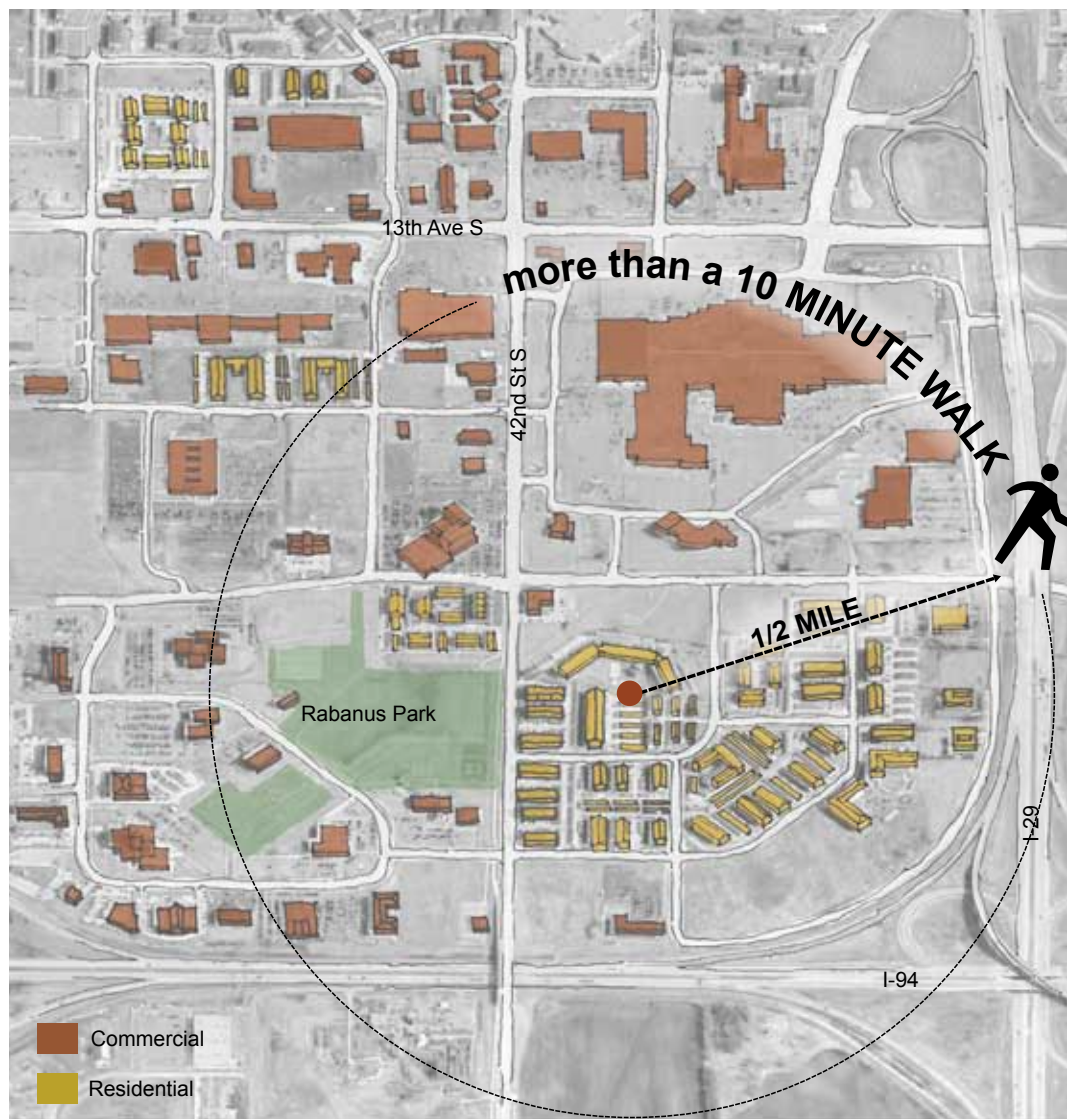
Downtown Fargo



Fargo's Hawthorne Neighborhood



Stapleton, Denver



Few amenities within a ten minute walk can be reached by neighboring residents

Strip commercial centers separate residential and commercial uses and create building patterns that make distances too far for most people to conveniently walk or bike. Strategies to improve connections between people's homes and commercial amenities include creating mixed-use development and allowing for density. Density increases employment, retail, and other options for urban residents. The key is to mix housing with a variety of uses and to arrange it in a pattern that is suitable for walking. Residential density should occur in a pattern that is diverse and interconnected. Density should be complemented by green infrastructure in the form of parks, greenways, or tree-lined streets.

Potential Improvements



INITIATIVE 04

WORKFORCE TRAINING

Catalyst | This initiative supports the following catalyst(s):



*Energy Efficiency
and Renewable
Generation*



RECOMMENDATIONS

- Partner with universities and colleges to create workforce training programs.
- Continue to support programs offered by the Greater Fargo Moorhead Economic Development Corporation and the Fargo/Moorhead Chamber of Commerce to determine successful strategies that may be applied in North Dakota to increase workforce training efforts.
- Monitor changes in the Fargo economy and workforce needs to ensure the development of workforce training programs which meet those needs.
- Continue to guide new residents and immigrants to Fargo to workforce training programs.
- Develop cross-sector partnerships that address language, math, and job skills along with cultural acclimation and on-the-job social skills.

DESCRIPTION

Fargo is a regional hub for goods and services such as education, healthcare, retail, and financial services. In addition, Fargo has a base of primary sector, wealth-creating industries such as manufacturing, back office operations and agricultural processing. Workforce training will be customized to meet the employment needs of these sectors, and changes in the economy will be monitored to ensure that workforce training also meets the needs of emerging industries in the community.

The Fargo-Moorhead metropolitan area is also a regional hub for higher education. In addition to three four-year degree universities,

“

FROM MINDMIXER

“Work with high school counselors and teachers, and help them understand the needs of businesses in the community. This will help guide high school students in their selection of majors and help get them thinking about the right path for post-secondary education.”

– 15-year resident

”

Associates degrees and workforce training are available at Rasmussen, North Dakota State College of Science, Minnesota State Community and Technical College and the Minnesota School of Business. Workforce training programs at these educational institutions are well-matched to the industries which are strongholds for the Fargo economy. Customized training is offered to support the specific needs of industry employers, with flexible locations and a wide variety of skills. To continue the strength and progress of Fargo's economy, increased workforce training efforts should be customized and encouraged to match primary sector and emerging wealth-creating industries.

Workforce demographics in the city of Fargo are shifting as new American citizens migrate to the community. A significant change in ethnic diversity presents different training needs to prepare an able workforce for the Fargo economy. Workforce programs which provide language, math and cultural acclimation skills will improve job placement and retention of New Americans.

Energy

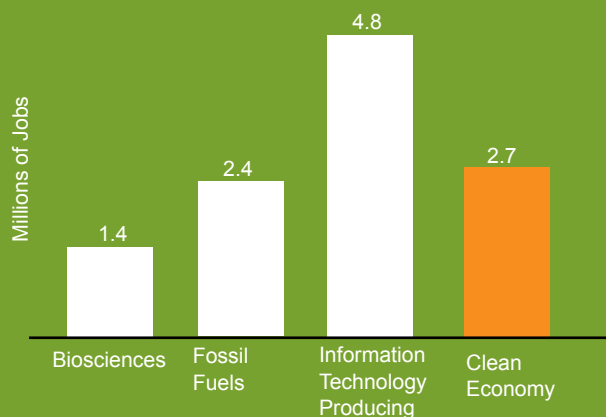
Workforce training initiatives can prepare workers for the emerging "green" or "clean" sector of the economy. Federal and state resources dedicated toward the development of green jobs began with the federal Green Jobs Act in 2007, which authorized \$125 million per year to create an Energy Efficiency and Renewable Energy Worker Training Program as an amendment to the Workforce Investment Act. Green jobs target energy efficiency retrofits, construction, and renewable energy production.

The Minnesota Green Jobs Act, adopted in 2008, includes five policy mechanisms to assist the statewide emerging green economy and provides a regional case study for green jobs development. As of November 2011, growth in hiring demand for green jobs averaged 30 percent, virtually identical to growth of the overall economy. 54 percent of positions were new, rather than caused by employees' leaving. Green jobs hiring represented 2.5 percent of overall hiring demand, mostly represented by small firms.

Most green jobs are middle skill jobs which require education levels between high school diplomas and four year degrees, though some do require bachelor degrees. Workforce training that prepares green job employees should build on existing educational infrastructure and programming. Fargo can work with other jurisdictions, institutions and the State of North Dakota to target workforce training partnerships for key green industries. Existing green jobs training includes geothermal energy workshops through the International Ground Source Heat Pump Association, wind power training through Interstate Renewable Energy Council

and the North American Board of Certified Energy Practitioners. Energy auditor training is available through the Association of Energy Engineers and Everblue. The US Green Building Council offers LEED certification.

THE CLEAN ECONOMY COMPARED WITH OTHER SECTORS OF THE U.S. ECONOMY



Source: Sizing the Clean Economy. A national and Regional Green Jobs Assessment Biosciences: Metropolitan Policy Program at Brookings. 2011

BENEFITS

Partnerships between employers and educational institutions in the Fargo area will allow for customized training that fully equips a workforce to meet the employment needs of the Fargo community. Monitoring of changes in the economy and emerging industries will allow workforce training efforts to optimize the fulfillment of area employment needs. Integrated training for immigrating citizens can yield significant increases in earnings, job quality, and stability for this growing workforce. Adapting workforce training to the needs of a diverse community will equip and retain a strong employment base.

CASE STUDY**Minnesota Job Skills partnership program**

This program was created to join Minnesota businesses and schools in developing a competitive workforce. It provides grants to educational institutions to supply new-job training or retraining. Funds are allocated to training costs or educational infrastructure improvements. Partner business must match grant amount with in-kind contributions.

Minnesota Hire Education Loan Program

This program provides short term, no interest loans directly to businesses that contract with training institutions for customized workforce training.

CASE STUDY



Wisconsin Department of Children and Families Road to Work Program

Federally funded Road to Work (RtW) funds are used to provide an employment and training program with a Vocational English as a Second Language (VESL) component, designed to meet the employment needs of Hmong, African, Meskhetian Turks, and other refugees with limited education, including women with little or no English or transferable job skills and work experience; and older youth (18-25) who are not in school. RtW focuses on partnerships with employers to develop on-the-job training (OJT) with VESL in subsidized employment (primary focus), and, where the situation is appropriate, a customized, short-term, bilingual skill training with VESL may be conducted.



Instituto del Progreso Latino, Chicago, IL

This community organization partnered with Humboldt Park Vocational Education center to connect Hispanic immigrants to jobs and skills. Programs provide ESL classes, vocation specific classes, and job placement in area firms. By administering the largest Latina/o serving Workforce Development Department in Illinois, Instituto responds to the respective industry and community demands of higher-skilled, bi-lingual workers and the need for higher wages. Career pathway programs such as Carreras en Salud: A Chicago Bi-lingual Healthcare Initiative, sector training centers such as ManufacturingWorks, and financial and employment services offered through the Center for Working Families provide a holistic approach to asset development of the Latina/o community.

INITIATIVE 05

TECHNOLOGY INFRASTRUCTURE



RECOMMENDATIONS

- Coordinate planning efforts and maximize options for the construction of broadband networks throughout the city with affordable access for individual residents and businesses.
- Employ creative solutions that provide information to residents in different forms.
- Maintain relationships with the universities and corporations to enhance infrastructure and information availability to all parties.
- Develop outreach programs and services which provide availability and assistance to residents with limited knowledge of technology services.

DESCRIPTION

Fargo will create strategies to increase the quality of its communication infrastructure to provide the community with a competitive advantage in the region. This initiative involves employing strategies to enhance citizens' access to communication and technology. Access to information increases Fargo's desirability to potential students, homeowners, and businesses. The City will work towards providing a robust technical framework throughout the city, in an effort to attract businesses and a skilled workforce.

Strategies to be employed by the City aren't limited to infrastructure underground, but the quality of information available to Fargo citizens by city services including the library and the City's website. The use of MindMixer for idea generation throughout this comprehensive plan process has shown current residents' desire for information and input in a new way. Fargo has the opportunity to continue this movement by employing new and enhancing existing efforts to provide the most up-to-date and accessible information. Continued enhancement of the online GIS software available to residents is an example of this effort.

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FROM MINDMIXER

“....businesses need the infrastructure to succeed,. Work with other providers that can give Fargo better service. That includes high speed internet [and] better connection speeds. -- fmmetroplex

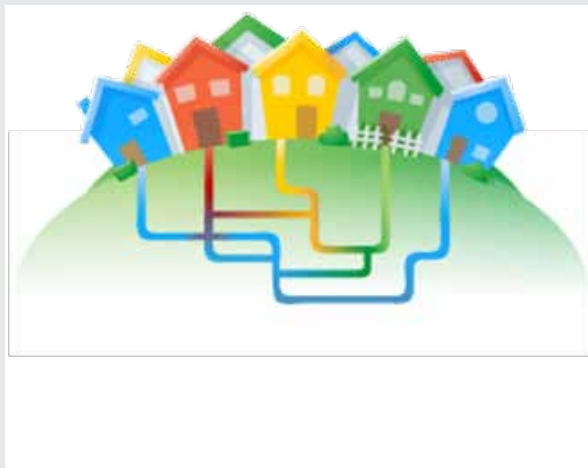
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Coordination with North Dakota State University's Information Technology Services will be paramount to the future success of Fargo's technology infrastructure. As the university expands its campus geographically and the research within, both entities can work to ensure quality services for the community. This outreach extends to large companies in the area whose presence and work warrants focus in this area.

BENEFITS

Fargo's competitive advantage for technology related businesses to locate to the region is the main benefit of increased communication infrastructure. Business growth serves as an economic generator for the city as well as the addition of a highly skilled workforce into the area. Increased access to information is a magnet for students and families to move to the region. Increasing and enhancing the availability of information regarding public services can decrease the number of inquiries into staff and can also increase participation and awareness in programs.

CASE STUDY



Google Fiber – Kansas City, Kansas and Kansas City, Missouri

Google announced in the spring of 2011 that they would be bringing Google Fiber to Kansas City, KS and Kansas City, MO. The goal of the project is to build an experimental, ultra-high speed broadband network, and test it in these communities. As installation of the fiber line continues, citizens are encouraged to gear up for its launch, such as encouraging small businesses currently without a website, to create one. This included the presence of OfficePort in Kansas City, MO for a few days to assist in website creation. The completion of the fiber lines through these two communities will allow Google to study the effects of this ultra-high speed connection.

Source: <http://googlefiberblog.blogspot.com/>

INITIATIVE 06

ATTRACT AND RETAIN BUSINESSES AND QUALIFIED WORKFORCE



RECOMMENDATIONS

- Provide incentives for specialized spaces, such as wet labs, that the private sector is unable to construct alone.
- Create incentives for businesses to invest in high-tech spaces in Fargo.
- Perform cost benefit analyses for all public/private partnerships.
- Retain and attract educated work force and provide a quality of life attractive to relocated families.

DESCRIPTION

Fargo's diverse economy includes highly technical and specialized industries. It is in the public interest to ensure these industries are competitive in Fargo and continue to provide employment for a highly educated workforce. Fargo can maintain competitiveness in these areas by providing incentives for developing specialized space where both the demand and public benefit are substantially demonstrated. For example, there may be a need for more "wet" laboratory space to strengthen the bioscience industry and provide more jobs. The private sector may have difficulty financing the large initial investment this kind of development requires. The city could provide a low interest loan or grant if the additional tax revenue, employment, and stimulus to the local economy exceeds the cost to the city. The City should evaluate each development proposal individually and determine if the benefits outweigh the costs. These public/private partnerships have the opportunity to expand Fargo's economy and make the economic pie bigger for everyone.

“

FROM MINDMIXER

Red River Research Corridor....Create ways to connect Fargo with Winnipeg, Grand Forks and Sioux Falls, so that we can truly see this as a "River of Research." -Drew FM

”

BENEFITS

Public/Private Partnerships can benefit the community by catalyzing businesses and development that otherwise would not happen. Public dollars can leverage large private investments and are an effective way for the public sector to stimulate private employment and business development.

CASE STUDY

Kansas Bioscience Authority

Kansas Bioscience Authority awarded \$500,000 to Evogen, Inc., a Kansas City, MO-based device and diagnostics company, to support the relocation of its facility to Olathe, KS. Evogen's move will result in the immediate creation of 16 net new jobs, and yield 35 jobs over three years. The company also plans to invest approximately \$1.8 million in its new facility over three years.

EDA Grant, St. Louis, MO

EDA awarded \$1 million to the BioGenerator, the Donald Danforth Plant Science Center, the Economic Council of St. Louis County, the St. Louis Development Corporation, St. Louis University, the University of Missouri, and Washington University-St. Louis, Missouri, to advance bioscience technology commercialization in the St. Louis region by building an entrepreneurial infrastructure that is market-based around the needs of existing bioscience firms and investors. This project will strengthen the biosciences as a key regional economic engine for the future, growing new companies and fostering innovation and job creation. This investment, funded through the i6 Challenge, which is administered by EDA, in partnership with the National Institutes of Health and the National Science Foundation, is part of a \$2 million project.

the 1990s, the incidence of *S. flexneri* infections in the United Kingdom has increased, and the incidence of *S. flexneri* infection in the United States has increased in the 1980s and 1990s [10, 11]. In the United Kingdom, *S. flexneri* is the most common serotype of *Shigella* isolated from patients with shigellosis, and in the United States, *S. flexneri* is the second most common serotype of *Shigella* isolated from patients with shigellosis.

There is a paucity of data on the incidence of *S. flexneri* infection in the United Kingdom and the United States. In the United Kingdom, the incidence of *S. flexneri* infection has been reported to be 1.5 cases per 100 000 per year [12]. In the United States, the incidence of *S. flexneri* infection has been reported to be 1.5 cases per 100 000 per year [13].

The purpose of this study was to determine the incidence of *S. flexneri* infection in the United Kingdom and the United States. The study was conducted in two phases. In the first phase, the incidence of *S. flexneri* infection was determined in the United Kingdom. In the second phase, the incidence of *S. flexneri* infection was determined in the United States.

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CHAPTER 10

Neighborhoods, Infill, and New Development

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

NEIGHBORHOODS, INFILL, AND NEW DEVELOPMENT

Fargo is a Home Rule city and therefore has the ability to self-regulate for the protection of the public health, safety, and welfare, including the establishment of zoning and subdivision regulations. The determination of land use, including neighborhoods, infill and new development, ultimately lies with the Fargo City Commission via enabling powers granted them by the State of North Dakota. State regulations also provide that an official master plan may be established by an ordinance of the governing body, provided that “[s]uch plan shall be the final and conclusive with respect to the location and width of streets, ways, plazas, open spaces, and public easements, and the location of parks playgrounds, and the establishment of public rights in lands shown thereon.”¹

This chapter explores ways to improve the built environment in Fargo to create stronger neighborhoods, increase walkability and health, and provide a better quality of life. Whether development occurs as infill or new development, there are certain patterns and characters of development that have these desired benefits.

The Planning Department is responsible for providing the expertise needed to guide land use development and growth within the City of Fargo. Planners engage the public and often work as facilitators to gather input from a broad spectrum of community members. Through collaboration with citizens, property owners, and stakeholders, staff is able to formulate long range plans (i.e. GO2030 Comprehensive Plan, 2007 Growth Plan, and various Area Plans) that shape development within the city. These plans identify issues important to citizens

and define the types of land uses that are appropriate throughout the city. In turn, these plans are then used by city officials, when making land use decisions, to ensure that the city is a desirable place to live, work, and play.

Like many areas across the country, Fargo experienced strong and sustained housing growth throughout the 1990's and most of the past decade. During this period, the total number of housing permits and value of construction seemed to outpace the prior year. And even after the collapse of the housing bubble in 2007, housing development continues to be relatively strong when compared to most areas of the United States.

Fargo's strong growth in households over the last few decades and strong economy have helped the area maintain quality neighborhoods. Relatively speaking, housing in Fargo is affordable. Rents in Fargo have not increased, in real dollars, since 1970 and incomes appear to be rising faster than housing costs. However, certain segments of the population do face significant affordability issues. Data show that extremely low income households face the most extreme cost burdens and overall life challenges.

Initiatives:

01: PROMOTE INFILL

Develop policies to promote infill and density within areas that are already developed and are protected by a flood resiliency strategy. Control sprawl and focus on areas outside of the floodplain.

02: DESIGN STANDARDS

Develop a Commercial Design Zone District and continue to follow the *Design Guidelines for Growth Areas of the City of Fargo* (May 2003) for infill and new residential development. Improve quality of new housing by fostering strong relationships with the development and building community to promote dense, walkable communities with neighborhood centers.

03: QUALITY NEW DEVELOPMENT

Support homebuilders and developers that construct high quality, energy efficient buildings, and require new development to meet site design standards that result in well-designed new neighborhoods.

04: HISTORIAL PRESERVATION

Strengthen historical preservation incentives.

05: HIGH QUALITY AFFORDABLE HOUSING NEAR NDSU

Develop higher quality affordable housing near North Dakota State University campus.

06: HOUSING FOR WORKFORCE AND LOW INCOME RESIDENTS

Pursue strategies to increase access to housing for workforce and low income residents.

07: NEIGHBORHOOD SUPPORT AND COMMUNICATION

Improve communication between the City and established neighborhoods. Encourage neighborhoods to establish a vision and create neighborhood plans.

STRATEGIES FOR A NEW PATTERN OF DEVELOPMENT

Much of the existing development is designed primarily for the convenience of the automobile. The existing density diagram of South University shows large block sizes and perimeter parking lots surrounding destinations. These patterns result in low density that is not walkable. The short term and long term density diagrams show how development could occur incrementally in the South University Walkable Mixed Use Center. The major development strategies could be used in any neighborhood or Mixed Use Center.

Major strategies:

- Create fine-grain blocks that ensure trips are as short as possible for pedestrians and bicyclists.
- Implement density at a human scale, with diversity of form, a mix of uses, and in a pattern that creates street frontage.
- Develop parking strategies that don't hinder walking and biking such as central lots, tucked under, and internal structures.

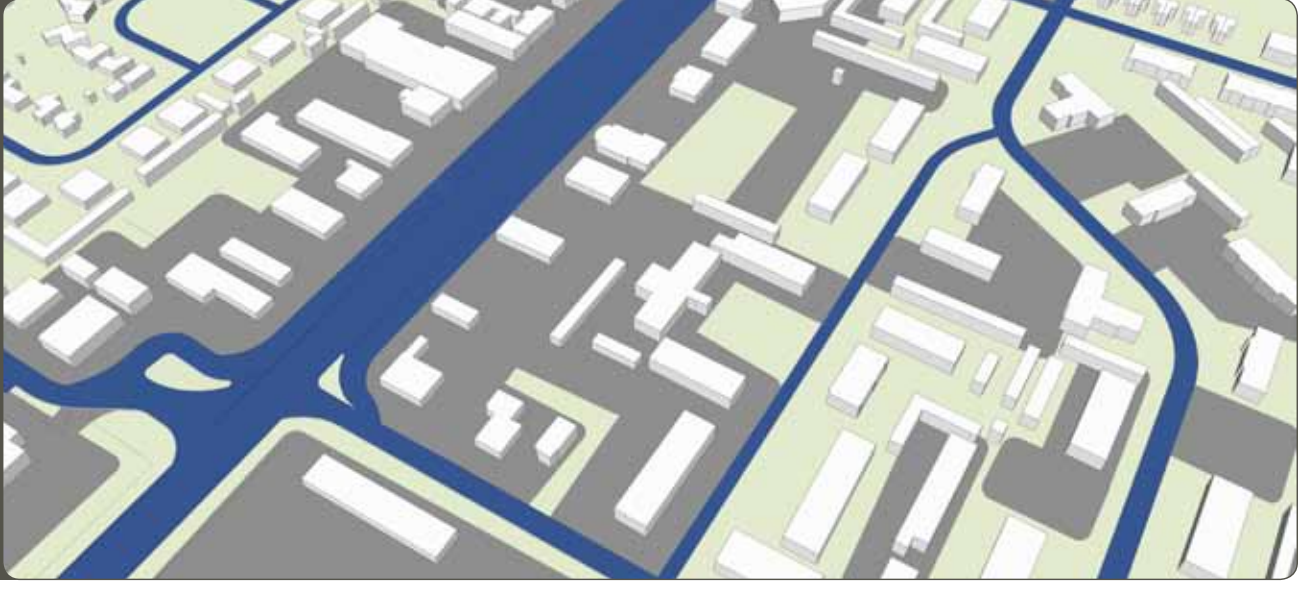
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FROM MINDMIXER

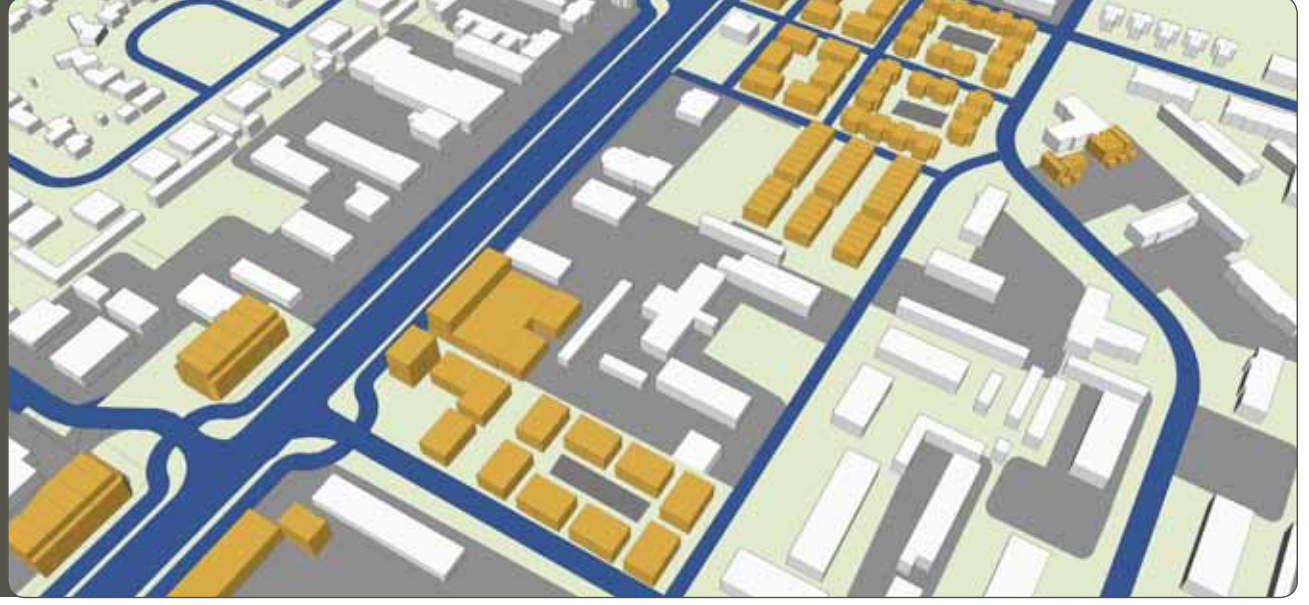
“Plan development so that people can easily and safely take advantage of current public transportation, provide opportunities for neighborhood businesses, and encourage housing and lot designs that foster a sense of community.” – Marta

”

EXISTING DENSITY



SHORT TERM DENSITY



LONG TERM DENSITY



IMPACTS OF MIXED USE, WALKABLE DEVELOPMENT

Research has found that in the most centrally located, well-designed neighborhoods, **residents drive as little as half as much as residents of outlying areas.**

Studies have also shown that mixed-use development, especially in concert with other smart growth strategies, provides **significantly higher returns to local governments through property and sales taxes while requiring lower per unit infrastructure and public-service costs.**

Growing Cooler, a study published in 2008 by the Urban Land Institute and partially funded by EPA, examined the research on compact development, vehicle miles traveled, and carbon dioxide emissions to determine how more efficient development patterns could help reduce our impact on the climate. The study concluded that **compact development can reduce vehicle miles traveled by**

20-40%

compared to conventional development patterns. Based on the amount of development that will take place and the percentage of that development that could reasonably be expected to be compact infill, the study estimated that **compact development could reduce CO2 emissions by**

7-10%

in 2050. A subsequent study, Moving Cooler, found that a combination of more compact development and investments in transit and other transportation options could **reduce greenhouse gas emissions from transportation by 9 to 15 percent by 2050.**

Sources:

1. Land Use Impacts on Transport: How Land Use Factors Affect Travel Behavior (PDF) (73 pp, 667 K). Todd Litman and Rowan Steele. 2011.
2. Why Transit-Oriented Development and Why Now? Reconnecting America and the Center for Transit-Oriented Development. 2007.
3. Sprawl Costs: Economic Impacts of Unchecked Development. Robert Burchell et al. Island Press. 2005. <http://www.epa.gov/smartgrowth/climatechange.htm>

IMPACTS OF WALKABLE MIXED USE CENTERS IN FARGO

Walkable Mixed Use Centers have quantitative as well as the qualitative benefits of being walkable, well-designed places to live. This pattern of development saves energy through a more efficient built environment and fuel from fewer trips in the automobile. The planning team analyzed a typical walkable mixed use center, and determined that the long range build out scenario saved 3.6 million miles of driving and 43 billion btu of energy in the built environment per year, compared to traditional low density residential and strip commercial development. This is equivalent to \$ 1.5 million that will be saved on gasoline and electricity and will be reinvested into the economy, for this one center. The combined impact of an efficient built environment and saved automobile trips will prevent about 6,100 tons of CO₂ from entering the atmosphere each year. In addition to energy and fuel, the density area saves about 575 acres of open space from development.

In each typical walkable mixed use center:

3.6

million fewer miles driven

575

acres of open space saved

\$1.5

million in energy savings/year

\$27.9

million in Infrastructure costs saved.*

6,100

tons of CO₂ saved

compared to typical low density suburban development.

*Based on average cost of \$48,600 per acre to expand infrastructure in Fargo. Assumes that new development is 10% more efficient and reduces vehicle trips by 30% in walkable mixed use centers than typical low density development.

INITIATIVE 01

PROMOTE INFILL

Catalyst | This initiative supports the following catalyst(s):



*Walkable Mixed
Use Centers*



*Energy Efficiency
and Renewable
Generation*



RECOMMENDATIONS

- Form a taskforce, consisting of individuals and organizations actively involved in development, to establish an infill strategy. (e.g., comparative analysis, incentives, and design standards).
- Provide incentives for infill development.
- Explore ways to encourage reinvestment in closed and boarded businesses to prevent blight.
- Ensure development regulations are compatible with infill development.
- Create design guidelines for infill development.
- Continue to support development of downtown and surrounding downtown neighborhoods, including connectivity between NDSU Main and Downtown campuses.



DESCRIPTION

Fargo will develop policies to promote infill and density within areas that are already developed with supporting infrastructure and are protected by a flood resiliency strategy. Infill development should increase the mix of uses and amenities in an area. The design of infill development should improve the aesthetics of the area and increase walkability.

Fargo has successfully encouraged infill development in the downtown area. The Renaissance Zone and investments by North Dakota State University have been effective in encouraging private development. This initiative encourages infill development in other parts of the city in addition to downtown. For example, The West Acres Shopping area has

“

FROM MINDMIXER

**Diversion as a Growth Boundary.
Identify for Fargo? I think so.
-downtowner**

FROM MINDMIXER

**Quit building on the richest farmland in the world.
Create a better planning and zoning base and
work within our current limits to create better use
of the land. Planning should be looking long term
and creating a better structure and infrastructure.
-carrie m**

”

many opportunities for infill. There is plenty of vacant land and surface parking lots that can support mixed use infill development. As development occurs, there is an opportunity to improve infrastructure to create pedestrian connections between commercial areas and nearby apartments. (See Chapter 9 - Economy, Promote Infill and Connections in Strip Commercial Areas.) See the walkable mixed use areas (Chapter 3 - Catalysts) for the highest priority infill areas.

Other infill opportunities could range from individual houses in existing neighborhoods around downtown to large mixed use developments along transit corridors. As public policy, the City of Fargo encourages housing revitalization in its older neighborhoods because strong neighborhoods make for a strong community. The City uses a variety of programs, incentives, partnerships and funding sources to help stabilize its older housing stock. Since 2000, programs like the Neighborhood Revitalization Initiative (NRI), Renaissance Zone, HUD housing rehab and homebuyer assistance projects have partnered in the development of 488 infill projects/new housing units in Fargo's downtown and surrounding neighborhoods. The total amount invested is \$45M. The total value of the properties in 2010 is \$48M; in 2000 the combined value was \$8.6M.

BENEFITS

Infill development leads to a higher quality of life. Infill increases the number of shops, services, and other amenities within walking distance of residents. This density of amenities enables healthy lifestyles such as biking to work or walking to the grocery. Residential infill increases the number of people in the area, which brings more vitality to the streets and increases safety through more "eyes on the street."

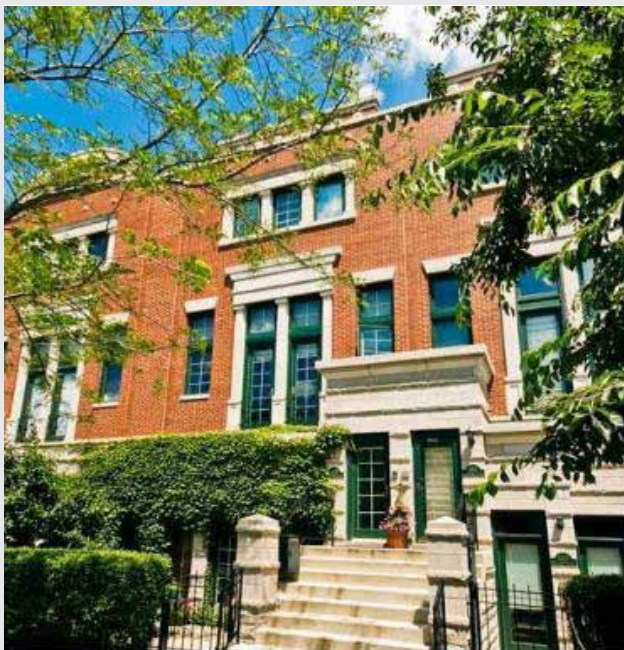
Infill development uses infrastructure more efficiently. Infill development occurs where infrastructure is already in place and does not require the funding and construction of new infrastructure. In some cases, upgrades to the existing infrastructure are required, but infill development requires significantly less infrastructure investment than new "greenfield" development.

CASE STUDY

**The Veltex Building****Boise Idaho**

This new commercial building was constructed in 2002 on the site of a former gas station. It is located just two blocks from the heart of the downtown business district. The design pays homage to its past by incorporating elements of the historic gas station.

Source: boisearchitecture.org/structuredetail.php?id=67

**The Pointe at Lincoln Park, Chicago**

The Pointe at Lincoln Park is a 154 unit infill housing development in Chicago's Lincoln Park neighborhood. Demand was so strong that the building sold out within six months of coming on the market in June of 1997. The Pointe's units range in size and price and appeal to a range of buyers from first time homebuyers to families with children. The floorplans are competitive with suburban homes.

The design of the Pointe improves the appearance and walkability of the neighborhood. The limestone and brick facades fit in with the surrounding 19th century rowhouses. The buildings front onto the street, giving the area an urban feel.

Source: ULI Urban Infill Housing, Myth and Fact

CASE STUDIES

**Spokane, Washington – Infill Housing Task Force and Infill Housing Zoning Code Update**

Spokane Washington is a city of 209,000 in eastern Washington. Spokane adopted a comprehensive plan update in 2001 that included goals and policies supporting infill. The plan led to several changes in the development code to encourage infill such as smaller lot sizes, zero lot line development, and cottage housing. In 2008 the City created a task force to encourage additional infill. The task force is currently updating the zoning code again to encourage infill housing.

INITIATIVE 02

DESIGN STANDARDS

Catalyst | This initiative supports the following catalyst(s):



*Walkable Mixed
Use Centers*



*Energy Efficiency
and Renewable
Generation*



RECOMMENDATIONS

- Evaluate, review, improve, and implement design standards to enhance the character of the public realm.
- Evaluate, review, and improve regulations to create more walkable neighborhoods and commercial districts.

DESCRIPTION

Design standards influence both the character of the public realm (e.g., streetlights, street furniture, placement of trees, placement of windows on buildings, materials, and awnings) and the pattern of development (e.g., building setbacks and street grid patterns). Together, these elements influence how people feel and behave in an urban space. For example, a retail shopping street with buildings built to the sidewalk, street trees, benches, and large picture windows encourages people to walk. A street with blank facades or large setbacks discourages walking. Design standards go beyond improving the appearance of the city; they can improve the health of residents by encouraging walking and even safety by improving visibility.

The city of Fargo will advance design standards by developing a Commercial Design Zone District and continuing to follow the Design Guidelines for the Growth of the City of Fargo (May 2003). The concept of establishing a Commercial Design Zone District is the result of many years of discussion and review by the Planning Commission, staff, and

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FROM MINDMIXER

Lovable building architecture unavoidably slips away when a community is not walkable. Walkability inevitably delivers human-scaled design, which town designers have long recommended as a recipe for place-making. For convenient, sustainable town design. -Ziggy

”

developers to address concerns related to commercial development along key corridors within the city of Fargo. At the beginning of the last decade, efforts were made to establish a set of design standards that would apply to all commercial development. The regulation was never adopted. However, the city did adopt a set of design guidelines entitled the Design Guidelines for the Growth Areas of the City of Fargo May 2003. As part of the implementation of the guidelines, staff worked with developers to find ways to enhance the aesthetic character of their individual commercial developments. As a result, many conditional overlays have been established on commercially zoned property in southwest Fargo. The overlays primarily include language that require the use of higher quality building materials, more articulation and fenestration in building design, increased landscaping, and limitations on overall signage. Unfortunately, tracking and implementation of each individual overlay is a significant challenge for staff as each overlay tends to be slightly different. The primary purpose of the proposed Commercial Design zone district is to unify applied design standards on existing and future commercial development along key corridors and, to the extent practical, go back and replace existing overlays.

BENEFITS

The benefit of design standards include improving the appearance of the city, increasing walking, cycling, and transit by designing urban areas that are conducive to this activity, and improving safety by incorporating the principles of Crime Prevention Through Environmental Design (CPTED). Research has found that potential offenders base their decisions on whether or not to commit a crime on the perceived risk of getting caught. One of the biggest strategies is natural surveillance, or increasing “eyes on the street.”

Design standards that lead to dense, walkable neighborhoods that support bikes, pedestrians, and autos increase the amount of traffic going by local businesses. This type of urban environment support smaller, entrepreneurial businesses and cater to the type of creative firms that are the driving force behind economic growth in cities.

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FROM MINDMIXER

Sprawl does not create a memorable city or place to live. when traveling through some parts of Fargo, I can't tell where I am because it all starts to look the same. Density encourages walking and biking, which in the long run will help us keep our clean air reputation while encouraging new businesses. When housing all starts to look the same and every building blends in with the next, we're heading towards a mindless, destination-less land that is easily forgotten. Let's not turn Fargo into the a large 'suburbia'. - Casey S

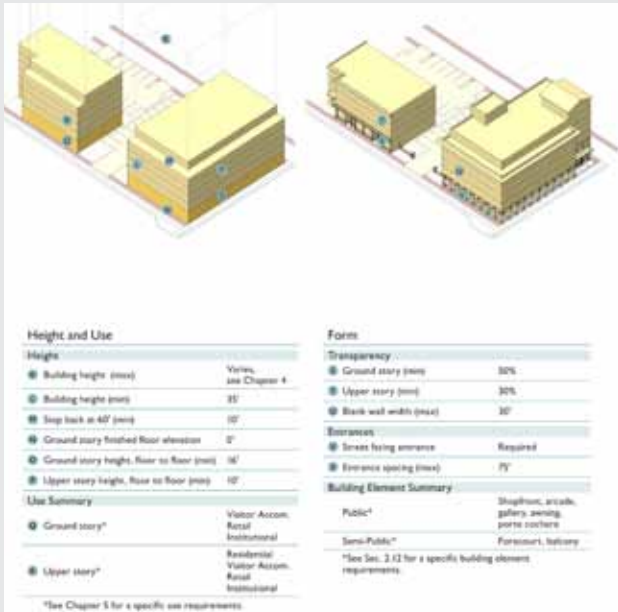
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CASE STUDIES



Greensburg, Kansas Design Guidelines

Greensburg, Kansas had a classic small town Main Street before the 2007 tornado that destroyed more than 90% of the town. After the storm, the community adopted design guidelines to direct the rebuilding of the town's Main Street. The design guidelines led to a downtown Main Street that recreated much of the function and form of the classic Main Street while allowing modern sustainable building techniques such as green stormwater management, energy efficient buildings, and more.



Tuscaloosa, Alabama Zoning Code Update

After a 2010 tornado left a path of destruction through Tuscaloosa, Alabama, the community realized it had an opportunity to rebuild better than before. The vision plan called for turning what was previously strip malls and disconnected housing developments into an interconnected network of vibrant commercial corridors and village centers. The zoning code update incorporated many elements of form based codes in order to give architects, planners, and developers a blueprint for rebuilding. The development community was very receptive to the process and final product, and this code is now guiding the implementation phase of the rebuilding process.

CASE STUDY

Simsbury, CT

Simsbury, CT was incorporated in 1670, making it one of Connecticut's oldest communities. Currently, Simsbury is experiencing development pressure, particularly on greenfield sites located on the fringes of the city. The residents were dissatisfied with the quality of new development. The city updated the zoning ordinance to include form based zoning tools.



INITIATIVE 03

QUALITY NEW DEVELOPMENT

Catalyst | This initiative supports the following catalyst(s):



*Walkable Mixed
Use Centers*



*Energy Efficiency
and Renewable
Generation*



RECOMMENDATIONS

- Support homebuilders and developers that construct high quality, energy efficient buildings.
- Evaluate, review, and improve site design standards that result in well-designed, livable new neighborhoods.
- Encourage adoption of the latest international building, fire, and energy codes that support best management practices.
- Where appropriate, continue to establish regulations that ensure connected and attractive neighborhoods.
- Accommodate for a range of neighborhood types to include low-density residential neighborhoods, sustainable mixed-use neighborhoods, and neighborhood centers.
- Accommodate for a range of affordable housing choices within all neighborhood types.



DESCRIPTION

While most of the new development in Fargo is something residents can be proud of, a common complaint is that some of the new (particularly residential) development is of a quality that is unattractive, disconnected, inefficient, and short-lived. Furthermore, the development pattern hinders community interactions and the creation of walkable neighborhoods. These developments may sell in the short-term, but the long-term prognosis is uncertain at best and a potential liability for the community. To create the Fargo desired by the community in 2030, new development will have to contribute to a building stock that is efficient, durable, connected, and attractive.



FROM MINDMIXER

Carefully balance neighborhood covenants and size requirements of new homes to actual demand for homes. -FargoBuilder

FROM MINDMIXER

In new housing developments in Fargo, it seems that many areas are treeless. I feel that planting trees are one of the best and easiest ways to beautify a neighborhood. -Mattfrem



While some developers voiced concern about the cost implications of higher quality development, most were supportive of the idea, as long as it was universally applied. There is a real opportunity to build on the conversations started through the comprehensive planning process to craft the framework within which future developments all support the vision for Fargo in 2030.

BENEFITS

Quality new development is an investment in the community for decades or even centuries to come. It is critical that every project be thought about over the course of its entire lifecycle. Fargo is well positioned to promote and build quality new development that connects neighbors, saves money through energy efficiency, is attractive and sustainable, and stands the test of time.

Ensuring quality development is particularly important as city funds are employed to help new development get off the ground or cover infrastructure costs. Even in the short-term, it is critical that the larger community get lasting value out of the project. When done well new development is a critical economic and social boon, ensuring its success is a necessary focus of the City Government and of every long-term resident.

A 2009 study by CEOs for Cities found that houses with above-average levels of walkability command a premium of

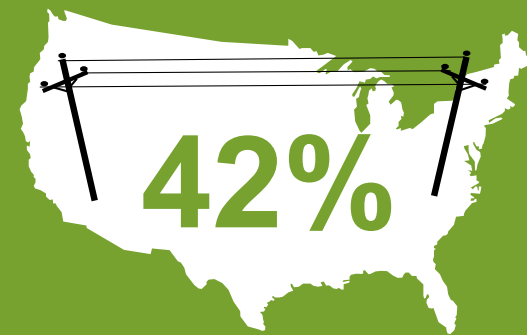
\$4,000 - \$34,000

over houses with average levels of walkability.

source: <http://www.ceosforcities.org/work/walkingthewalk>

Energy

Increasing the energy efficiency of the built environment is an important pillar of meeting Fargo's future energy needs. Fargo is a leader in promoting energy efficiency in the built environment through their early adoption of the International Energy Conservation Codes (IECC). Following green building standards, such as the U.S. Green Building Council's LEED rating system can also have a significant impact on the energy consumption of the built environment. Additionally, compact development can reduce energy use both in the building sector by reducing heating and cooling costs and in the transportation sector by reducing the amount of driving trips residents take.



Buildings consume 42% of all energy in the US.



Compared with conventional buildings, LEED buildings reduce:

Energy use by 24-50%
CO2 emissions by 33-39%
Water use by 40%
Waste by 70%

CASE STUDY

Stapleton

Denver, CO

Stapleton's inspiration comes from Denver's historic neighborhoods. It extends Denver's historic street pattern as well as its celebrated parks and open spaces. The result is a continuation of Denver's rich urban fabric with trails and greenways linking homes, shops, schools, and businesses in one diverse, walkable experience. This is a community that's people-focused rather than car-focused, much like what you find in small towns and urban boroughs throughout the world. Stapleton has become a refreshing alternative to the suburban model ... a place where all kinds of homes and all kinds of people exist synergistically, together. Here, you'll find homes with welcoming front porches. Garages tucked away into alleys. Plus grand parkways, authentic architecture, public art, summer concerts, markets, and other things designed to please the eye and nourish the spirit.

Source: <http://www.stapletondenver.com/>



CASE STUDY



Oak Haven Apartments, Waveland, MS

This newly constructed community for seniors ages 52 and over is in Waveland, Mississippi. Oak Haven includes affordable, cottage-style rental homes, a community center and host of amenities, and a full program of on-site resident services. The development includes 80 one and two bedroom, single-story duplex and quad-plex homes that range in size from 583 to 836 square feet, surrounded by a pedestrian friendly development near retail, public transportation, and community resources. Oak Haven is located on the north side of Waveland's Spanish Trail, which connects to the area's main economic artery.

The property was built using foam insulated concrete forms which are highly energy efficient, and incredibly wind and water resistant.

source: <http://blog.rewardwalls.com/wavelandhousingdevelopment/>

INITIATIVE 04

HISTORICAL PRESERVATION



RECOMMENDATIONS

- Continue to support and engage neighborhood organizations to ensure vibrancy of downtown and surrounding neighborhoods.
- Promote the use of Federal Historic Tax Credits.
- Continue to support the Renaissance Zone, Neighborhood Revitalization Initiative, and similar policies that encourage preservation and quality redevelopment in historic areas.
- Establish historic overlay zoning districts where appropriate.

DESCRIPTION

Historical preservation programs enhance a community's historic building stock. There are several incentive programs existing in Fargo. This initiative is about strengthening these programs and continuing to support the preservation of historical buildings in Fargo.

The following are existing programs that the City and developers can use to preserve historical buildings and districts:

- Federal Historic Tax Credits: The Federal government began the historic tax credit program in 1976. Private investment that rehabilitates a historic property is eligible for a 20% tax credit.
- Fargo Renaissance Zone: The Renaissance Zone incentive was created by North Dakota's Legislature in 1999 as a way to spur development and increase investor confidence in communities around the State. It is an economic development program designed to revitalize communities by encouraging private sector investment in underdeveloped areas with tax incentives to projects that make a significant and comprehensive investment in real property. Fargo's Renaissance Zone has 187 projects with improvements valued at \$91,966,196 since 1999. Property and state income tax exemptions are available to property and business owners. State income tax

“

FROM MINDMIXER

“The historic street light style installed in some Fargo neighborhoods does much to lend a sense of human scale and design quality to those areas of the city. I suggest the City expand this program to more residential areas, especially the older neighborhoods.” – Paul G

”

“

FROM MINDMIXER

“Fargo has some beautiful historic neighborhoods, with an architectural character of the houses, beautiful woodwork, and mature vegetation that cannot be duplicated today. I would like to suggest that Fargo consider establishing a historic preservation program that would provide incentives for homeowners to list their homes and neighborhoods on the National Register of Historic Places, and provide further incentives to restore their older homes in ways that maintain their historic character.” – Paul G

”

exemptions are available to residential owners (if unit is primary residence).

- **Residential Remodeling program:** Residential properties and apartment buildings at least 25 years old are eligible for an exemption for up to five years of any value added due to certain remodeling projects. The exemption is limited to the value added by the City of Fargo Assessor for improvements made to the property.
- **Historic Overlay Zoning District:** The purpose of a historic overlay is to encourage additional effort in the preservation of historic structures. Any construction work that affects the exterior of a structure and requires a building permit must obtain a Certificate of Appropriateness before a building permit will be issued. Overlays are zoning tools that work with the underlying zoning—they don't replace it.

BENEFITS

These programs not only preserve the built heritage of Fargo, but can also direct resources toward revitalizing older areas of town. The existing historic preservation programs help a range of projects, from homeowners remodeling their historic properties, to large developers making investments in historic downtown buildings.

CASE STUDY



Historic Districts, Fort Collins, CO

Fort Collins has a number of historic districts including the Old Fort Collins Historic district in the center of downtown and a mid century modern residential landmark district. Historic landmarks in Fort Collins include the set of well preserved buildings constructed in 1897 called the Avery Block, a World War I era streetcar, and the Northern Hotel, which was recently rehabilitated into senior housing. Fort Collins makes many incentives available in the historic district and elsewhere in the city including tax credits, design assistance, and zero interest loan program for historic rehabilitation.

INITIATIVE 05

HIGH QUALITY AFFORDABLE HOUSING NEAR NDSU



RECOMMENDATIONS

- Proactively investigate and support public/private partnership development projects in the area that support the vision of GO2030.
- Investigate ordinances that promote upkeep, limit neglect from absentee landlords, and minimize overloading single family homes.
- Work with student populations to identify ways they can participate in the upkeep of the neighborhood.
- As part of the effort to connect the NDSU Main and Downtown campuses, encourage the integration of quality affordable student housing.

DESCRIPTION

A common request from students was for more affordable housing options near the university. Providing and maintaining these high-quality affordable housing options presents a unique challenge. Absentee landlords, transient student populations, and the overcrowding of single family homes can all lead to neglected properties and parking problems. It is crucial to understand that universities are also tremendous community resources and vital to both day to day energy in the community and to long-term development. The challenges that arise around housing students can largely be dealt with through policy intervention. To be effective, it is equally important to put into place the legal mechanisms to promote community investment among student populations. Model regulations that require upkeep (plus the enforcement necessary) in combination with smart consideration of parking challenges is helpful, but there is real potential in Fargo to also be working more closely with a conscientious student population to teach community investment and build pride in Fargo's neighborhoods.

“

FROM MINDMIXER

“Fargo needs to do something about the numerous landlord owned homes. These are falling into disrepair, are not safe and are ugly for otherwise very nice neighborhoods. Eventually these homes will no longer provide cash flow for the landlords and will fall into blighted conditions.” – Sam N

”

In addition to maintaining existing stock, some of the best new developments in the country are happening around universities. Consider some of the great new construction and remodeling that have been brought about by the University (the student housing downtown on 1st Ave. and the new mixed use project on University Dr.). As the university continues to grow they are a logical partner and the engine behind a need for a development pattern and quality that benefits Fargo.

BENEFITS

The integration of high quality but affordable projects that support the University into the fabric of the community strengthens both entities. The student population contributes significantly to the vibrancy and success of Fargo. By proactively enforcing upkeep while simultaneously working with the University and students to build community investment, neighborhoods will benefit and students will also become more invested in Fargo, potentially for the long-term. The engagement of public and private investors in new projects that provide alternative housing while complementing growing momentum near the university and its downtown facilities will greatly augment Fargo's rededication to the core.

CASE STUDY



Jackson, MS

This mixed-income student and workforce project was built as an affordable, communal, and convenient option for students near campus and has become an important affordable housing option for both students and Jackson's workforce.

“

FROM MINDMIXER

Partner with NDSU and extension to create a series of urban gardens and heritage landscaping. We could create a series of online maps for visitors to explore these islands and disseminate information for people who want to join this effort to create a distributed greenway. – Drew FM

”

INITIATIVE 06

HOUSING FOR WORKFORCE AND LOW INCOME RESIDENTS



RECOMMENDATIONS

- Continue to support existing affordable housing programs.
- Monitor and evaluate housing affordability in Fargo.
- Accommodate for a range of affordable housing choices within all neighborhood types throughout the city.

DESCRIPTION

Increasing equity in Fargo and helping workforce and low income residents find adequate housing is a key element of this plan. Fargo has great services, such as a high quality education system that give families opportunity to succeed. However, finding stable housing with access to services is a challenge for some Fargo residents.



Fortunately, Fargo has a good stock of affordable houses. Rents in Fargo have not increased, in real dollars since 1970 and incomes appear to be rising faster than housing costs. However, certain segments of the population do face significant affordability issues. Most rental households earning less than 30 percent of area median income face a severe cost burden. For homeownership to remain within reach for households earning less than 120 percent of area median income, additional new construction of affordable owner occupied housing is needed.

There are many municipal, state, and federal programs that are helping to address this issue in Fargo. This initiative emphasizes continuing the wise use of existing programs, the monitoring, evaluation and improvement of these programs, and innovation in designing new programs to increase access to affordable housing.

“

FROM MINDMIXER

**Well-integrated communities
(on all levels) are healthier
communities. – Marta**

FROM MINDMIXER

**Promote diversity and strengthen programs
between the city of Fargo/Moorhead, LSS, and
FHA. –fmmetroplex**

”

BENEFITS

Ensuring access to affordable housing increases equity in Fargo. It ensures everyone has the opportunity to live and work. It lowers the burden on social services by promoting self sufficiency, boosts the economy by attracting a steady workforce, and contributes to Fargo's future by ensuring families have access to education and services that will help them prosper.

EXISTING PROGRAMS

- Neighborhood Revitalization Initiative. In 2001, The City of Fargo designed a housing program, the Neighborhood Revitalization Initiative (NRI), to encourage the revitalization of targeted neighborhoods by investing in the existing housing stock.
- HUD Revitalization Area. The City of Fargo submitted an application to HUD to designate a Revitalization Area in the heart of the City, within the Neighborhood Revitalization Initiative area. The following programs are part of the HUD revitalization area initiative:
 - Teacher Next Door and Officer Next Door – Teachers and police officers are able to purchase HUD homes in the Revitalization Area at 50% of fair market value
 - Non Profit Purchase – Qualified non-profit organizations can purchase HUD homes in the Revitalization Area at a 30% discount
 - Dollar Homes – Allows the city or non-profits to buy, for one dollar, any HUD-foreclosed property that has been in the inventory for at least six months
- Low Income Housing Tax Credits. Low Income Housing Tax Credits are targeted to households that earn a maximum of 60% of area median income but are frequently targeted to even lower income households. They can be used in mixed income developments but credits are only earned on costs associated with development of affordable units.
- HOME Partnership and Community Development Block Grant (CDBG). The City of Fargo receives approximately \$600,000 annually in Community Development Block Grant funds and \$500,000 in HOME Partnership funds for projects benefiting housing needs for low and moderate income households.
- Neighborhood Stabilization Program (NSP). The City of Fargo was approved to receive \$5.3 million in Neighborhood Stabilization Program (NSP) grant funds from the 2008 Housing and Economic Recovery Act NSP Projects and Partners:
 - 10 Single-family Homes – Purchase/Rehab (4 units), Fargo Public School's Construction Technology Classes (4 units - Infill/New Construction) and Lake Agassiz Habitat for Humanity (2 units - Infill/New Construction)
 - 2 Townhouse Developments – Beyond Shelter, Inc. (4 units - Infill/New Construction) and Lake Agassiz Habitat for Humanity (4 units - Infill/New Construction)
 - Senior Rental Housing Developments – Beyond Shelter, Inc. (80 units at Crossroads and 80 units and Urban Plains - Infill/New Construction)
 - Total Number of New and Affordable Housing Units: 178

**EXISTING PROGRAMS (CONT.)**

- **Fannie Mae – Community Express.** From 2003 to 2010, Fannie Mae offered Community Express to support public entities with development of single-family, multi-family, and mixed-use housing. The low interest, short term financing (24 months) Fannie Mae line of credit is backed by the City's general obligation authority, and was used for construction and bridge financing. Since the 2003 introduction of the product, Fargo closed more than \$17 million in Community Express loans, totaling more than \$37 million in assets on 315 new (246) or renovated (69) affordable housing units.
- **Scattered Site Tax Increment Financing (TIF).** The Purpose of Fargo's Scattered Site TIF is to address the need to eliminate and transform blighted residential properties in Fargo's NRI area. TIF pays for some of the costs of acquisition and clearance associated with the redevelopment of properties in the NRI area. State law gives communities the authority to establish Tax Increment Finance Districts.
- **Renaissance Zone.** The Renaissance Zone incentive was created by North Dakota's Legislature in 1999 as a way to spur development and increase investor confidence in communities around the State. It is an economic development program designed to revitalize communities by encouraging private sector investment in underdeveloped areas with tax incentives to projects that make a significant and comprehensive investment in real property. Fargo's Renaissance Zone has 187 projects with improvements valued at \$91,966,196 since 1999. Property and state income tax exemptions are available to property and business owners. State income tax exemptions are available to residential owners (if unit is primary residence).
- **Other Property Tax Exemptions.** The City of Fargo has a number of property tax exemptions that may be available for qualifying residential properties. Some of the incentives are relief for disabled or elderly individuals on fixed incomes, others are for incentives to construct or preserve residential homes.
 - **New Residences –** The first owner who resides in a newly constructed single family, duplex, townhome, or condominium property may be eligible for an exemption on part of their valuation for up to 2 tax years following the year construction began. Eligible properties receive an exemption on the building value up to \$150,000.
 - **Elderly & Disabled –** The homestead credit exemption is available for eligible senior citizens or disabled homeowners on a limited income. The amount of exemption is dependent on the annual income amount.
 - **Individuals who are blind –** Individuals who are blind and own a home are eligible for an exemption of up to \$160,000 of the building value.
 - **People in Wheelchairs and Disabled Veterans –** Individuals permanently confined to a wheelchair are eligible for an exemption of up to \$100,000 on the building portion of their property taxes and. The exemption is \$120,000 if the individual is a paraplegic disabled veteran.
- **Homeless Programs.** Fargo's 10 year plan to end long-term homelessness "Going Home" implies that people have a place where they belong, where they feel safe and secure, and hopefully can find respite from the stresses of the day. For the health of our community and for the people living in it, the City believes that everyone should be able to say that they are "Going Home". There are 38 specific actions identified in Fargo's 10 Year Plan as necessary to end long term homelessness in our community. In the first 5 years, a number of items have been initiated to make the plan a reality.

CASE STUDY



First Ward Place, Charlotte, NC

Bank of America Community Development Corporation and the Charlotte Housing Authority redeveloped a former public housing complex in Charlotte North Carolina. The project used new urbanist design principles to help the development regain a neighborhood feel and blend with its surroundings. The development contains a combination of public housing, low income housing, and market rate units. It was financed partially through a HOPE VI grant and low income housing tax credits.

Sources: http://www.uli.org/ResearchAndPublications/Reports/~media/Documents/ResearchAndPublications/Reports/Affordable%20Housing/Catalyst_AffordableHousing.ashx

<http://www.cha-nc.org/documents/First%20Ward%20Place%20-%20web.jpg>



Valley Square Commons, Golden Valley, MN

Valley Square Commons in Golden Valley Minnesota was developed by the affordable housing development CommonBond Communities. The development includes market rate and affordable housing and is built at a scale that matches the surrounding communities. CommonBond understood the market for affordable and rental housing units and built a development that was quickly rented.

Sources: http://www.uli.org/ResearchAndPublications/Reports/~media/Documents/ResearchAndPublications/Reports/Affordable%20Housing/Catalyst_AffordableHousing.ashx

http://commonbond2.pegasus.webaloo.com/property_images/39/1.jpg

INITIATIVE 07

NEIGHBORHOOD SUPPORT AND COMMUNICATION



RECOMMENDATIONS

- Create policies that improve communication between the City and established neighborhoods.
- Encourage neighborhood plans and establish each neighborhood's own vision for the future of the neighborhood.
- Consult neighborhood residents and organizations when considering policies that impact neighborhoods.
- Integrate parks, trails, and other land uses that support neighborhood development at the initial stages of neighborhood design.

DESCRIPTION

Fargo's neighborhoods and city government need to work together to create a better city. Neighborhoods should take an active role in defining their vision for the future of their neighborhood. With support from the city, neighborhoods can create plans and rally around a common vision. The city should support each neighborhood's vision for its future and consult neighborhood organizations and individuals when considering policies that impact neighborhoods. This will lead to policies support both the vitality of neighborhoods and the overall progress of the city.

BENEFITS

The benefits of better support and communication between Fargo's neighborhoods and City Hall include more coordinated action that benefits both neighborhoods and the city as a whole.

100%

CHAPTER 11

Education

Fargo will uphold and improve its world class K-12 education system. Fargo will continue to embrace the universities and post secondary education institutions and acknowledge their positive influence on the economy, workforce, and culture of Fargo.



EDUCATION

Fargo has an excellent education system ranging from preschool, K-12, undergraduate, and post-graduate. Long-time residents are very proud of their schools and routinely rank them as second to none in the nation. Not to be left out, new-comers to the community readily list the quality of local schools as one of the biggest reasons they moved to the community. Unique to Fargo, local residents are actually served by two separate public school districts - Fargo School District and the West Fargo School District. District boundaries are generally separated east/west by 45th Street, but do run as far east as Interstate 29. Residents living in southwest Fargo are generally located within the West Fargo School District; whereas, the balance and majority of Fargo residents are located within the Fargo School District.

Enrollment in the West Fargo School District is projected to increase from 7200 students in 2011 to over 9000 students by 2015. The majority of the increase is coming from incoming Kindergarten classes due in large part to the new residential developments within the district. Elementary enrollment is projected to increase by 28% to 4,473 students, middle school enrollment is projected to increase by 26% to 2,000 students, and high school enrollment is projected to increase by 26 % to 2,516 students, all by 2015.

On May 24, 2011, the voters in the West Fargo School District approved an \$82.5 million bond referendum to build two new elementary schools, a middle school on the north end of the Sheyenne 9th Grade Center, turn Sheyenne into a high school, and renovate the current high school. Two previous referendums (2009 and 2010) had failed, but this final vote garnered over 70% approval. Construction of one of the 550-student

elementary buildings is planned to begin this summer. This facility will be located west of Veterans Boulevard, between 32nd Avenue South and I-94. The second 550-student elementary school is predicted to be needed in the 2014-2015 school year. An exact location has not been determined, but the possibilities include the district property located south of 52nd Avenue South, and/or an addition to the Horace elementary school. Construction of the 1200-student middle school is scheduled to begin immediately. The school will be located at the north end of the Sheyenne site (northwest corner of Veterans Boulevard and 40th Avenue South). And finally, a 900-student addition to the Sheyenne facility, including an academic wing, a gymnasium and fine arts wing is slated to begin this spring.

The Fargo Public School District consists of thirteen elementary schools, three middle schools and three high schools, including Davies High School, a brand new facility that opened this past fall, just in time for the 2011-2012 academic school year. The district also has one alternative high school – Woodrow Wilson High School. Unlike the West Fargo School District, the Fargo School District is not dealing with overcrowding issues, but rather a shift in demographics that is resulting in overcrowding of certain schools and long term viability questions of others. The core residential neighborhoods are maturing. Parents of school aged children are choosing to move into newer neighborhoods in south Fargo. A bigger issue is maintaining the viability of the older elementary schools. In many of the core residential neighborhoods, the number of school aged children has declined, forcing the school district to consolidate the neighborhood elementary schools.

Fargo is also served by several religion-based private schools, including: Fargo Catholic Schools Network, Oak Grove Lutheran School, and Park Christian School that provide education from K-12, while Grace Lutheran educates students from Kindergarten through eighth grade. Finally, Fargo is served by two universities, North Dakota State University and Minnesota State University – Moorhead (MSUM), as well as a number of other colleges and vocational schools, including: Concordia College, Minnesota State Community and Technical College, Rasmussen College, and the Minnesota School of Business – Moorhead. In the spirit of cooperation, NDSU, MSUM, and Concordia College have formed a consortium known as the Tri-College University (TCU) system that enables students enrolled at any of the TCU institutions to take classes at either of the other two schools and apply the credits to their home institution at no extra cost.

Initiatives:

01: SAFE ROUTES TO SCHOOL

Fargo will work with local school officials, neighborhood leaders, parents, and children to develop policies and programs that advocate for the safe walking and bicycling to and from schools, and in daily life, to promote a healthy lifestyle of children and their families.

02: RETENTION OF NEIGHBORHOOD SCHOOLS

A serious issue facing our core neighborhoods is declining enrollment at its local schools. Once the doors are shuttered, the neighborhood not only loses a school but it loses its sense of community. Fargo will focus on retaining these important neighborhood assets.

03: GROWTH OF NDSU CAMPUS

Fargo will continue to foster the strong relationship with NDSU and their commitment to expansion in Downtown Fargo.

04: IMPROVED CONTINUITY BETWEEN NDSU MAIN AND DOWNTOWN CAMPUSES

Fargo will work with NDSU to improve continuity between NDSU main and downtown campuses in terms of urban design and services, such as improved transit.

05: SUPPORT OF RESEARCH AND TECH PARK

NDSU is a top research institution with annual research expenditures exceeding \$110 million. The university has several programs ranked in the Top 100 by the National Science Foundation. Recently, the Carnegie Commission on Higher Education named NDSU to the elite “Research University/Very High Research category, a designation that represents the 108 most successful private and public universities in the country.



INITIATIVE 01

SAFE ROUTES TO SCHOOL

Catalyst | This initiative supports the following catalyst(s):

*Active Living
Streets*



RECOMMENDATIONS

- Continue to partner and strengthen relationships with parents, neighborhoods, and school districts to develop education materials and programs.
- Coordinate with neighborhood schools to promote walking and biking through fun competitions, special activities, and shared information.
- Coordinate with neighborhood schools and police department to enforce safe route to school principals such as the proper use of crosswalks, obeying traffic signals, and speed limits.

DESCRIPTION

Not that long ago, walking to school was considered to be a time honored tradition; even a right-of-passage. When older adults tell stories of their childhood, these tales often include great feats of strength and endurance as they talk about being forced to walk through and fight back against gale force winds, driving rains, waist deep snow, and of course a route that was up hill both going and coming from school. For all of these horror stories, most of us have fond memories of walking back and forth to school with friends. It was a time to prepare for the day's events, quiz each other on an upcoming test, or to simply unwind and share a laugh on the way back home. But due to a whole host of reasons, young people today are more likely to be driven to school by their parents or guardians.

One of the reasons given today by parents and guardians as to why their children don't walk or ride bike to school is that the route is simply

not safe. Many feel that the physical environment their kids must navigate through to get to and from school is too dangerous. It's partly because the traffic is too heavy and/or fast; that the sidewalks and bike lanes are not separated enough from traffic; that the physical environment is sterile and more trees and vegetation are needed to soften the environment. It's also partly because of the decaying neighborhoods and crime. Many parents and guardians fear that their children may be abducted or harmed by a sex offender; that they may be caught up in the cross fire of gang members; or simply witness criminal activity on the street corner.

BENEFITS

Walking and biking are simple and low-impact ways to improve overall health and combat obesity. Walking and biking to school allows children to develop an understanding that physical activity is part of a healthy lifestyle; which, if they develop at an early age, will likely continue throughout their life time. Walking and biking to school also saves money by reducing the number of automobile trips a family takes thus reducing the amount of monthly income spent on fuel, and wear and tear on the family car. If children are routinely walking and biking to school it may even reduce the need to have multiple family cars. Walking and biking more and driving less also reduces emissions and pollution from cars, congestion on the street, and the stress caused from traffic jams and the daily rush to drop off kids and make it to work on time.



INITIATIVE 02

RETENTION OF NEIGHBORHOOD SCHOOLS

Catalyst | This initiative supports the following catalyst(s):



*Walkable Mixed
Use Centers*



RECOMMENDATIONS

- Support policies to ensure diversity of neighborhood housing stock that is both affordable and attractive to families of school age children.
- Support the establishment and vibrancy of neighborhood associations and neighborhood participation in school activities.
- Establish safe routes to school and other methods to encourage kids to walk and bike to local schools.
- Explore ways to reduce regulatory burdens that discourage creative infill development. For example, carefully evaluate the necessity of regulations that disallow garage lofts or “granny-flats”.

DESCRIPTION

What makes a great neighborhood? A great neighborhood is more than just a bunch of houses lined up and down a street. A great neighborhood almost always has a prominent feature or central node that binds or “glues” the neighborhood together. Sometimes this feature is a local park, a church or other religious institution, a coffee shop or local barbershop/beauty salon; but more times than not, it’s the neighborhood school. In Fargo, almost all of our core neighborhoods derive their names and identity from the local elementary school. Just stating a few of these names: Horace Mann, Roosevelt, Clara Barton, Hawthorne, Jefferson, Madison; likely conjures up great memories and images of the neighborhood and the local school. These neighborhoods and schools, and countless more like them across the county, are the cornerstone of every community and ours should be persevered and promoted.

Unfortunately, enrollment in many of our core neighborhood schools is in decline. There are a number of likely reasons for the decline, but a major reason is simply that the average household size is much smaller than it was years ago. Additionally, as a neighborhood naturally matures, homes once occupied by mom, dad, and several kids are now occupied by single persons, retirees, and empty nesters. When young families look for a home, they often seek out the more modern amenities offered in newer developments and homes – open floor plans, master bathrooms, useable finished basements, and 3-stall garages, which are difficult to find in the older neighborhoods. Ultimately, if this trend is not turned around, neighborhood schools will be forced to consolidate or close, parents will be forced to drive their children to and from school, families will be spending more time and money driving, there will be more pollution, more congestion, and our children will have one less opportunity to get some exercise.

Fargo is engaged in a number of efforts in an attempt to address this issue, including; the establishment of historic overlays, property tax exemptions; down payment assistance; the Neighborhood Revitalization Initiative (NRI) program, which is a series of programs designed to work together to improve neighborhood quality of life and encourage investment in the city's existing housing stock; and weatherization programs. Fargo's housing rehab programs offer incentives for residents to renovate their owner-occupied houses. Private and public financing makes the housing rehab programs possible.

BENEFITS

A neighborhood school is more than just a place of learning. Neighborhood schools allow families to spend less time and money commuting; and once out of their cars, families of different ethnic and socially economic backgrounds are more likely to connect with one another as the local elementary school often becomes the focal point of civic pride. It's the place where community members can come together to discuss important issues of the day. We've all been invited to and probably attended one or more neighborhood meetings held at our local elementary schools. This civic interaction brings people together that may not otherwise meet or socially interact. Neighborhood schools help to create a more vibrant and energetic community, which in turns increases the neighborhood's value. In short, a neighborhood school is central to the long vitality of the community in which it is located and should not be undervalued.



INITIATIVE 03

GROWTH OF NDSU CAMPUS

Catalyst | This initiative supports the following catalyst(s):



*Walkable Mixed
Use Centers*



RECOMMENDATIONS

- Continue to foster a strong relationship with NDSU and their commitment to expansion in Downtown Fargo.
- Develop strategies to expand entrepreneurship and research facilities to downtown.

DESCRIPTION

North Dakota State University, a land-grant university, was established in March of 1890 just a few months after North Dakota statehood. From its humble beginnings of as small agricultural college located on the outskirts of the north end of Fargo, NDSU has grown to become one of the largest universities in North Dakota and a fundamental asset of our community. The 2011 fall semester enrollment numbers exceeded 14,000 total students, with representation from 47 states and 81 countries. NDSU employs over 6,200 people, including all academic staff and more than 2,600 temporary and student workers. NDSU actively recruits students from all over the United States and the world. NDSU consists of over 18,000-acres of land. The bulk of it chiefly occupied by the eight different research centers located through-out the state, including the Agricultural Experiment Station here in Fargo. The main campus sits on 258-acres and includes 119 buildings.

Beginning with NDSU Downtown Renaissance Hall, NDSU has made a strong commitment to being a part of the resurgence of downtown Fargo. In 2000, Doug Burgum, founder of the Killbourn Group, purchased the old Northern School Supply building and literally saved

the structure from the wrecking ball. He donated the building, along with \$1.5 million toward its restoration, to the NDSU Development Foundation. Renaissance Hall, which now houses NDSU's visual arts department, parts of the architecture and landscape architecture department and the Tri-College University office, is a modern jewel in downtown Fargo and a proud example of what can be achieved with visionary leadership. From there, the NDSU Downtown Campus has expanded to include the NDSU College of Business, Agribusiness and Applied Economics (Barry Hall) and NDSU Department of Architecture and Landscape Architecture (Klai Hall). As a result of NDSU's commitment to its downtown campus, downtown Fargo has emerged as a vibrant, culturally diverse, student-oriented environment that will help to fuel the continued growth and excitement our community has for downtown Fargo.

The city's commitment to the downtown growth of NDSU is evident in the Fargo – Moorhead Downtown Framework Plan Update, June 2007 (final edits March 2008) that promotes the Town and Gown Development concept in downtown Fargo. The plan calls for the development of new multi-family residential development on available sites near the college of business and other NDSU facilities. The city will also continue to work with NDSU to develop strategies to expand entrepreneurship and research facilities into downtown Fargo.

BENEFITS

The benefits of NDSU's presence in downtown Fargo is enormous. In addition to the revitalization of a number of existing downtown buildings, the daily presence of thousands of NDSU students, faculty, and administrative support staff have added greatly to the economic success of downtown. To meet demand, many new businesses and new housing options have been added to the downtown. Young people also bring a renewed level of excitement and energy to downtown. As a result, downtown has a very vibrant and urban streetscape with cool bars and eateries, occasional street performers & vendors, eclectic shops, upscale-restaurants, coffee shops, and housing choices. And to be a part of the excitement, many young professionals and empty nesters are choosing to live, work, and play in the downtown area. Downtown provides a unique opportunity for young and old, student and professional, entrepreneur or business executive to bump into one another at a coffee shop or pub. And who knows, from this interaction the next great idea may be born.



INITIATIVE 04

IMPROVED CONTINUITY BETWEEN NDSU MAIN AND DOWNTOWN CAMPUSES

Catalyst | This initiative supports the following catalyst(s):

*Active Living
Streets*



RECOMMENDATIONS

- Provide for a strong visual connection between NDSU's main and downtown campuses.
- Partner with NDSU, students, and neighborhoods to develop a land use plan for the area between the campuses.
- Encourage mixed-use development with a strong focus toward student housing and student oriented facilities and programs.

DESCRIPTION

Fargo will develop policies to promote a strong visual connection and continuity between the NDSU Downtown Campus and the NDSU Main Campus. As detailed in the Fargo-Moorhead Downtown Framework Plan, visual cues such as flags, banners and other amenities should be added along 10th Street and University Drive. Fargo will also encourage redevelopment of these corridors with a strong focus on mixed-use development, student oriented facilities and programs, but in a manner that is sensitive to the needs and expectations of the citizens living along these corridors in the Roosevelt neighborhood.

BENEFITS

Improved continuity between NDSU's main and downtown campuses will lead to better awareness of the tie between the two facilities and the importance of NDSU to downtown Fargo. Student oriented redevelopment that is sensitive to the existing neighborhood will make better use of the existing infrastructure and promote a healthy and vibrant lifestyle by increasing area amenities like pedestrian and bike facilities, shops, and services that are in close proximity to the surrounding residential areas. Due to its location, transit service will continue to be a strong transportation alternative to driving.

INITIATIVE 05

SUPPORT THE RESEARCH AND TECHNICAL PARK



RECOMMENDATIONS

- Seek out and support public/private partnerships.
- Maintain strong relationships with the University and businesses to enhance infrastructure such as broadband.
- Develop strategies to expand entrepreneurship and research facilities to downtown.

DESCRIPTION

NDSU is a top research institution with annual research expenditures exceeding \$110 million. The university has several programs ranked in the Top 100 by the National Science Foundation. Recently, the Carnegie Commission on Higher Education named NDSU to the elite “Research University/Very High Research” category, a designation that represents the 108 most successful private and public universities in the country. To ensure the continued growth and success of the research at NDSU, Fargo will seek to develop strategies that help to bring this creativity to realization. Fargo will also seek to expand opportunities for entrepreneurship in the downtown by working with private entities to establish cooperatives and other innovative spaces for collaboration and networking.

BENEFITS

Supporting research and the technical park will give entrepreneurs the opportunity to create innovative products and ideas that create new jobs and businesses in Fargo. This type of support may be just the spark that a small startup company needs to get its great ideas from concept to the production line, which in turn benefits the whole community. Supporting the development of downtown space for entrepreneurs and start-ups ensures that young graduates have an opportunity to develop their dreams in a dynamic and creative environment.

CHAPTER 12

Safety

Fargo will ensure safety through excellent police and fire service. The design of neighborhoods, districts, and public spaces will work to promote safety by increasing visibility and eyes on the street.



Safety

SAFETY

Fargo, like all municipalities, enacts regulations under its legislative powers to provide for the health, safety, and general welfare of the public. We want to feel safe and secure in our homes, the places we work and shop, the places we go to relax, and we especially want our schools and playgrounds to be safe. Public safety is necessary to ensure our health and normalcy of life. Comparatively, Fargo has always been a safe community. It is place where many people still leave their doors unlocked and simply do not worry about crime. But public safety is more than just good policing of our streets, fast response times by our local fire fighters or having a plan in place to address natural disasters like our recent flooding events, drought, or severe winter storms and spring/summer tornados. Real public safety is the peace of mind citizens gain from years of hard work by all community members to implement a broad array of proven methods like the strong emphasis on family, education, vibrant neighborhoods, parks and recreational opportunities, and quality jobs.

Initiatives:

01: CRIME PREVENTION AND FIRE SAFETY

Maintaining public safety is incredibly important to assessing the status of a community's "quality of life". Fargo is committed to ensuring public safety by continuing to provide its residents with excellent police and fire services and by fostering strong partnerships between the public, nonprofit organizations, businesses, and other agencies.

02: DISASTER AND EMERGENCY PREPAREDNESS

Fargo will update its disaster and emergency response procedures as needed to ensure that the city is as prepared as practical to protect its citizens, property and critical assets against natural and other disasters or catastrophes thus ensuring continuity of the services, facilities, and programs.

INITIATIVE 01

CRIME PREVENTION AND FIRE SAFETY



RECOMMENDATIONS

- Promote crime prevention through environmental design and community policing.
- Maintain existing ratio levels of police/fire staffing.
- Continue to support programs and education to reduce domestic violence/child abuse, promote fire safety and crime prevention.

DESCRIPTION

Fargo has always been a safe community, but it is not immune to crime. On average, the Fargo Police Department receives and responds to approximately 48,000 calls for service annually. Although violent crime remains relatively non-existent, property crimes such as burglary and theft continue to be the predominant crime issues impacting the city. With an authorized staff of 145 sworn officers and 19 civilian personnel, the department is capable of providing the residents of Fargo with quality police services. The number of offenses per capita is at or below those of other comparable communities in the immediate region, which suggests the police department is effective in how it is addressing the city's crime concerns.

However, in order to maintain (if not improve upon) this level of public safety, a commitment must be made to provide the police department with the personnel and other resources necessary to keep pace with the ever-growing community. Ideally, the department would be staffed at a ratio of 1.5 police officers for every 1,000 residents. Assuming the city's rate of population growth and physical expansion remains at 1% to 2% annually, and considering the expense associated with obtaining this ratio makes accomplishing this feat in one or two years "cost prohibitive", it is recommended that two police officer positions be added to the police department each year until the 1.5 officer to 1,000 resident ratio is reached.

Significant capital improvement considerations must also be addressed relative to the police department in the foreseeable future. The department has surpassed the workspace capacity that the current police headquarters facility provides. One option may be to locate a second fully-functional police facility somewhere on the city's south-side that is capable of providing the same services the headquarters facility provides. This would include having police officers and support staff reporting for duty and staging at the new facility.

A second option may be to relocate all of the City's police operations to a more geographically centralized location, so as to be far more strategically located and provide better access to the community. A further consideration may be to entertain the concept of establishing a combined law enforcement facility that provides for shared workspace with other area law enforcement agencies in an attempt to eliminate redundancy and reduce the expenses associated with having multiple facilities for each law enforcement entity.

From a strategic planning point-of-view, the police department should be included in the City's planning process relative to its physical expansion. The designs associated with new neighborhoods, parks, and other public and private spaces should be (at least in part) viewed from the perspective of mitigating public safety concerns. Personnel from the police department can contribute to any such planning through the concepts found within a strategy known as Crime Prevention through Environmental Design (CPTED). By utilizing CPTED concepts, the City may have to implement new building permit and code requirements intended to better

promote safety and foster an approach that emphasizes crime prevention as opposed to crime resolution. In the past several years, the city of Fargo has embraced the ever-growing characteristic of diversity, which enhances the community as a whole but also presents some challenges. In an attempt to work more closely with the city's Native and ever expanding New American populations, the police department has one police officer dedicated to working full-time with these segments of the community to address their public safety concerns. The Cultural Liaison Officer facilitates the department's interaction with these members of the community, to include addressing any communication barriers that may impede the department's ability to provide these residents with police services. As these segments of the community continue to expand, so too will the need to add additional police resources to this function.

BENEFITS

Public safety is essential to our quality of life. It enables everyone to go about their daily lives without worry or fear. It gives us the freedom to live, work, and play as we see fit without having to worry if the food we eat or the water we drink is safe for consumption. It gives us confidence and peace of mind that our children are safe at our public schools, that our streets, homes and businesses are protected from criminal activity, that help to fight a house fire is just a few minutes away, and that everything is being done to ensure that we are prepared for any natural or man made disasters. In short, public safety allows citizens to focus on more important issues, like: family, career, hobbies or whatever makes their individual lives more fulfilling.

INITIATIVE 02

DISASTER AND EMERGENCY PREPAREDNESS



RECOMMENDATIONS

- Continue to update disaster and emergency preparedness procedures.
- Continue to coordinate with local, state, and federal agencies to ensure continuity of support services.

DESCRIPTION

Natural and man made disasters are unfortunately a fact of life. We are inundated almost daily with news stories from across the globe of traumatic events unfolding in front of our eyes. And while most of these tragedies do not directly impact our daily lives, we are not immune. In Fargo, we can experience heavy wind and rain storms, hail, tornadoes, blizzards, extreme cold and heat, flooding and drought. We also face the threat of chemical spills and accidents on our major transportation corridors that run through our community as well as incidents and accidents at the Hector International Airport. Following the events of 9-11, Fargo continues to be on alert for bomb threats and terrorism in general.

Fargo has established an Emergency Operations Plan to be put into place should disaster occur. Depending on the type of event, the Emergency Response Task Force, made up of the Mayor, the City Administrator and Department Heads, is called together to assess conditions and create a plan of action. This plan, which is intended to immediately establish a line of authority given the situation, is built around the incident and unified command system. During emergency situation, and as the incident and unified command center is being set up, all city staff and elected officials are activated and asked to carrying out emergency operations in their areas of functional responsibility.

Fargo has also established a registry system of vulnerable and at risk populations. These populations typically include: the elderly that may not have family or friends to aid them; people with disabilities or health issues; social or behavioral challenged individuals; and the homeless. The registry enables public health and other emergency workers to identify at risk individuals who will likely be in need of special assistance during a disaster. The registry also enables the city to be better prepared to meet the transportation and emergency housing needs of at risk populations should a situation arise that calls for their evacuation.

One of the most important elements of any successful emergency plan; especially prior to if practical, but also during, and following a disaster, is communication. The city has established an outdoor siren warning system that may sound during severe storms, tornados, and other life threatening events. The system is designed to: warn citizens of an eminent threat, alert citizens to seek immediate shelter, and advise citizens to tune into a radio or television for further information and instructions. Depending on the type of event, the city will hold news conferences to inform the public of city actions. Finally, an Incident Manager is responsible for all information provided to the public and press releases.

BENEFITS

Disaster and Emergency Preparedness protects lives and property. Early warning systems; advance plans and procedures; at the ready tools and equipment; trained and knowledgeable emergency responders ; and a committed staff and elected officials enables our city to act quickly and decisively to any given natural or man made disaster. Disasters are almost always uncertain and stressful events, but having an up-to-date emergency plan, a systematic approach, and proven surety of emergency support services enables the citizens of Fargo to have the confidence to go about their daily lives knowing that systems are in place to address any issues at a moments' notice.

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- Buffalo Bayou
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- Tree planting
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- Buffalo Bayou
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- Newspaper bin
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Pg. 192

- Street with planters
 - Source: <http://www.flickr.com/photos/10990983@N07/1023952474/>
 - License: <http://creativecommons.org/licenses/by/2.0/deed.en>
 - Uploaded by: The Ken Cook

Pg. 194

- Light bulb graffiti
 - Source: <http://www.flickr.com/photos/34938397@N08/4062542454/>
 - License: <http://creativecommons.org/licenses/by-sa/2.0/deed.en>
 - Uploaded by: Linas V

Pg. 202

- People at computers
 - Source: <http://www.flickr.com/photos/39161050@N03/6353454245/>
 - License: <http://creativecommons.org/licenses/by-nd/2.0/deed.en>
 - Uploaded by: bisgovuk

Pg. 204

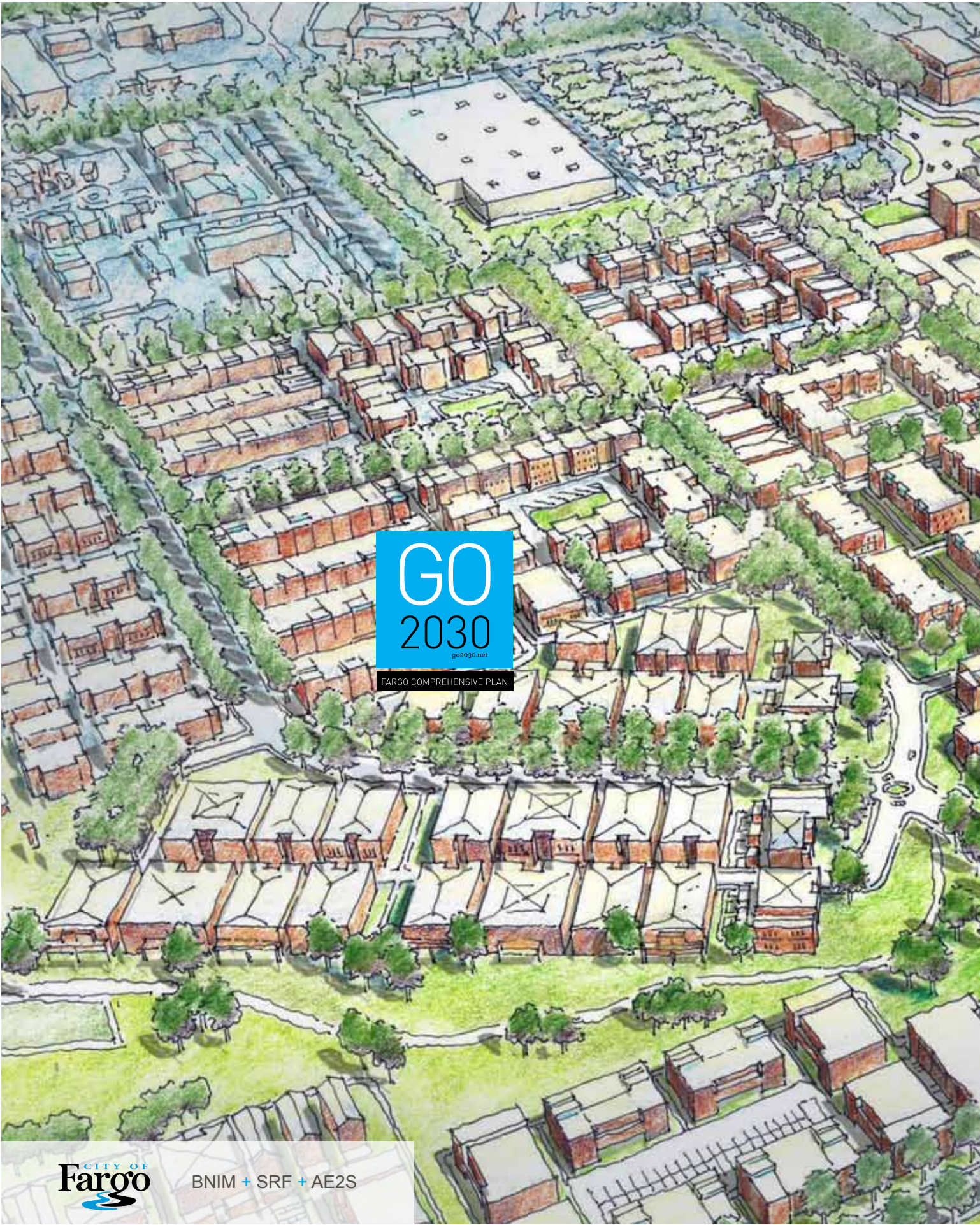
- Office workers
 - Source: <http://www.flickr.com/photos/21787159@N00/1412917482/>
 - License: <http://creativecommons.org/licenses/by-sa/2.0/deed.en>
 - Uploaded by: Señor Codo

Pg. 205

- Group of students
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 - Uploaded by: Kaplan International Colleges
- Pharmacist
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Pg. 220

- Veltex
 - Source: <http://www.flickr.com/photos/42560612@N04/3926693417/>
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