Comprehensive Plan Addendum

City of Moorhead

November 9, 2009

MOORHEAD MINNESOTA

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Table of Contents

List of Figures

List of Tables

Acknowledgements

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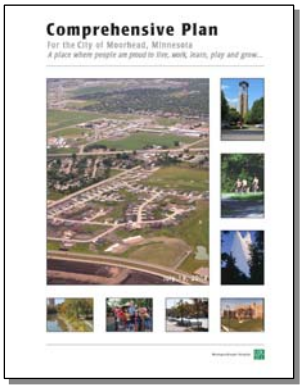
Chapter 1: Setting the Stage

Introduction

This addendum to the 2004 Comprehensive and South and East Growth Area plans will focus on planning for the next 25 years. This planning process will rely on the information gathered and policies set forth by the 2004 Comprehensive Plan, Growth Area Plans and other planning initiatives outlined in the introduction, while updating relevant sections and revisiting policies and plans. A key purpose of this process is to assess the amount of household growth that Moorhead may see in the next 25 years, plan what pattern and density that development may take and also encourage an active lifestyle using tools available to the city.

City of Moorhead Comprehensive Plan (2004)



The city's 2004 Comprehensive Plan provides the legal framework for planning and zoning in Moorhead. The plan was developed beginning with a series of visioning sessions to incorporate citizen input led by a fifteen-member Steering Committee. A number of alternative land use plans were developed and reviewed by the public at open houses, the Steering Committee, the Planning Commission and the City Council before a final alternative was selected. The final planning document includes:

- Background – Community Context
- A Vision for the Community
- A Land Use Plan
- Detailed descriptions of Activity Centers
  - Downtown
  - Camtown
  - EasTen
  - Midtown
  - Holiday
  - Fields
- Strategic Initiatives/Implementation methods

As a growing community, the City of Moorhead has seen many changes over the past several years. Since the completion of the 2004 Comprehensive Plan, the city has also completed two Growth Area Plans (for North Moorhead and for South and East Moorhead). These plans were completed after the Comprehensive Plan to provide detailed land use plans for growing areas within and on the developing edge of the city.

Fargo-Moorhead Downtown Framework Plan Update (2007)

In August 2007, the Fargo-Moorhead Metropolitan Council of Governments prepared this plan to update the 1999/2000 Fargo-Moorhead Downtown Framework Plan. The three primary planning principles outlined in the plan were as follows:

1. Collaborate on a mutually beneficial plan that improves the physical ties between both cities, maximizes the potential for complimentary growth, reinforces connections between both cities, and reestablishes the Red River as a valuable asset and an amenity.
2. Build upon the strength's of both Fargo and Moorhead's history, relation to the Red River, and urban form to foster a genuine identity and sense of place.
3. Focus improvements in strategic areas to foster market synergy, compact growth and urban vitality.

Moorhead Neighborhood Planning Study (2007)

In November 2007, the Moorhead Neighborhood Planning Study, a collaborative effort of the City of Moorhead, Minnesota State University Moorhead (MSUM) and Concordia College, along with significant neighborhood involvement addressed issues in the area from the Red River to 20th Street South and between Main Avenue and 20th Avenue South. This study identified an increasing number of owner occupied housing being converted to rental units and an expansion of the student population into these neighborhoods. The purpose of the planning effort was to measure the impacts and identify issues associated with change in the study area and to develop potential solutions that balanced the interest of all residents, including students, the city and the two schools.

Red River Greenway Study (2008)

In July 2008, this study was prepared by the Fargo-Moorhead Metropolitan Council of Governments (Metro COG) to examine the publicly owned spaces, uses and facilities that are in close proximity to the Red River to provide a defined Greenway System. This Greenway System was then analyzed further to identify conceptual alignments for northerly and southerly extensions of the Greenway System.

1st Avenue North: A Review of the Corridor from the Red River to 21st Street (2008)

In November 2008, the City of Moorhead and SRF Consulting Group Inc. prepared this study to examine the 1st Avenue North corridor in order to build on some of the revitalization underway in downtown. The study examined ways to improve the public infrastructure system, including streets, bicycle facilities, transit and aesthetic improvements. The study also examined strategies for areas outside of the right-of-way including public/private partnership opportunities to address issues such as the large

number of legal, non-conforming uses (often commonly known as “grandfathered” uses).

Fargo-Moorhead Metropolitan Transportation Plan (Draft September 2009)

A draft of the Fargo-Moorhead Metropolitan Transportation Plan was issued in September 2009. This plan provides a comprehensive assessment of short term and long term transportation needs, recommendations for future projects, goals and objectives to guide the physical development of the region, estimated future revenue, and a comprehensive list of short term and long term projects for each jurisdiction, including the City of Moorhead.

Since the 2009 Comprehensive Plan Addendum was being prepared concurrently with the MTP, both planning processes relied on the growth forecasts prepared by McKibben in 2006. Due to the City of Moorhead's significant infrastructure expansion in recent years, combined with the fact that the McKibben growth forecasts only projects 6,500 new households and 4,900 new jobs by the year 2035, the socio-economic data needed to be reallocated to the Traffic Analysis Zones (TAZs) to balance transportation needs with planned land use. This resulted in more growth being projected within the existing city limits and less growth being projected on the fringe of the city. The result of the analysis is documented in the list of short-range and long range projects for the City of Moorhead.

Planning Process

Active in Moorhead (AIM)

The City of Moorhead and its partners, Clay County Public Health and Fargo-Moorhead Metro COG, entered into a contract with Blue Cross Blue Shield in 2008 to plan for and implement a comprehensive approach to support quality of life that is often labeled “Active Living”. The guiding principle of this effort to *create and promote environments that are safe and convenient for people to integrate physical activity into their daily routines, and to promote health and well-being.* Elements include trail and sidewalk connections to shopping and employment areas, safe bicycle and pedestrian routes to schools, alternative modes of transportation, and pedestrian-oriented developments.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Because these efforts focus on the physical environment, the comprehensive plan update provided an opportunity to incorporate these principles into its planning efforts. As part of the planning process, the Planning Commission

summarized what active living as part of comprehensive planning meant. The responses are summarized below:

- Incorporating active living into Comprehensive Plan goals and policies.
- Designing communities to accommodate diverse needs and lifestyles.
- Connecting key destinations (work, school, recreation) with alternative transportation modes (bike, walk, transit).
- Enhancing safe routes for kids to walk/bike to school.
- Improving access to transit.
- Providing a safer and more pleasant pedestrian environment.
- Encouraging use of recreational opportunities by locating parks and trails throughout the community and ensuring convenient access, and by providing indoor facilities for winter use.
- Planning and zoning to encourage developments to include a variety of features that encourage residents to be more active – parks and trails, transit access and mixed-use developments.

The items identified by the city provide a foundation for the Comprehensive Plan and impact Comprehensive Plan elements such as the following:

- **Park and Recreational Facilities:** Parks provide locations for people of all ages to engage in recreational activities, such as ball fields, hockey rinks, playground areas, basketball or tennis courts, or even community gardens. A well connected park system, linked through trails, is essential to providing opportunities for active living.

  The Comprehensive Plan will support park and recreational facility improvements that are well connected to encourage recreational activities.

- **Trails:** Trails serve both commuting and recreational purposes. Trails encourage commuters to walk, bike or take transit to work, rather than drive. Trails serve those who walk or bike for exercise or provide pedestrian connections to their neighborhood park.

  The Comprehensive Plan supports a trail network to connect key destinations in the city, such as parks, schools, shopping centers, and residential neighborhoods.

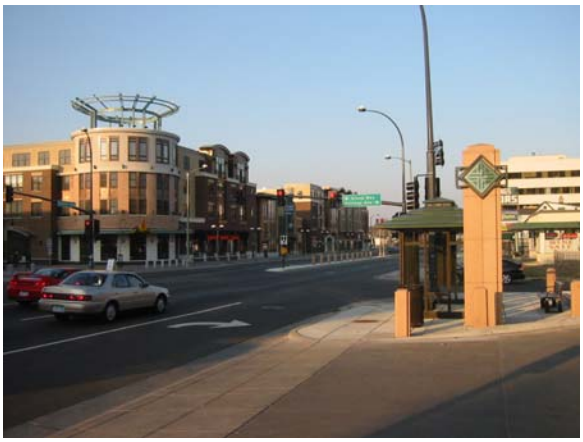
- **Transit:** Transit users typically walk or bike from their home or work place to the nearest transit stop, rather than drive from door to door.

  The Comprehensive Plan will support transit by identifying future transit needs, service areas and opportunities for more compact transit-oriented development.

- **Vehicular Transportation:** Roadways are needed for people to travel easily and safely to work and other destinations, to develop property, and to move goods. On the other hand, roadways can pose significant obstacles to bicyclists and pedestrians by creating barriers between destinations, and creating an unsafe environment of high traffic speeds and volumes.

  The Comprehensive Plan will work to identify transportation improvements, such as additional and improved bike lanes or pedestrian crossings that will create a safer transportation system for motor vehicles, pedestrians and bicyclists. One of the key elements of this effort will be the addition of "Complete Streets" principles.

- **Land Use and Development:** Land use and development can be designed to provide a safe, convenient, and accessible environment for pedestrians and bicyclists. Mixed use development can incorporate a vertical or horizontal mix of retail, office, and residential uses, providing multiple destinations within walking distance. Additionally, mixed use development is typically more compact and oriented to the pedestrian rather than the automobile, creating a safe and attractive environment. Sites can be designed so that large parking lots and setbacks from the street do not discourage pedestrians by forcing them to walk longer distances. Higher density can also be served more efficiently by transit, as additional destinations and users are closer together.



  The Comprehensive Plan will identify areas for mixed use and higher density development, and implementation measures that will create more compact and safe pedestrian environments.

- **Community Facilities:** Community facilities typically include both public facilities, such as city-owned recreational complexes, libraries, police and fire departments, and other government-owned buildings, as well as semi-public facilities such as schools or medical facilities. Conveniently located community facilities can make

them easily accessible to pedestrians and bicyclists. Safe pedestrian access is particularly important around school sites, given that students of all ages are more likely to travel on foot or bicycle than by car.

The Comprehensive Plan can support these efforts by identifying locations for additional community facilities that will be easily accessible and by identifying necessary pedestrian and bicycle improvements around these facilities.

Development of the Comprehensive Plan Addendum

Background Research

The first phase of the planning process included a detailed examination of the city's 2004 Comprehensive Plan and subsequent planning endeavors, as well as an update of underlying demographic data. This information was summarized in a document entitled *Background Report: Comprehensive Plan & South and East Growth Area Plan Updates* (January 2009). The "Background Report" is a companion document to this Comprehensive Plan Addendum that contains additional information regarding existing conditions in the city and its growth areas.

Community Outreach and Input

The second phase of the planning process was focused on an extensive effort to gather input on the desires and goals of city residents, land owners, businesspeople and other interested parties. This effort included a variety of venues from small, neighborhood meetings, targeted developer forums, and a large public forum that included keynote speaker, Mark Fenton. Mark Fenton is a walking advocate and recognized expert on public health issues and the need for community, environmental, and public-policy initiatives to encourage more walking and bicycling. A variety of tools was used to facilitate the collection of feedback including issue identification exercises, online forms, a walkability assessment, a scientific survey and a visual preference survey.

Neighborhood Meetings

A series of neighborhood meetings were held with Moorhead residents and college students to share information, ideas and concerns. Meeting participants were able to weigh in on issues using hand held electronic "clickers" connected to a computer that instantaneously displayed the group's responses.

The meetings were held in the following locations:

- January 29, 2009 – Moorhead Library
- January 31, 2009 – Hjemkomst Center
- February 2, 2009 – Horizon Middle School
- February 5, 2009 – SG Reinertsen Elementary School
- February 26, 2009 – Comstock Memorial Union (MSUM)
- March 12, 2009 – Concordia College

The AIM partnership published the results of the neighborhood meetings in a document entitled, *2009 Neighborhood and College Meeting Results: Perceptions among community members regarding active living in their neighborhoods* (May 2009). The results of the meetings were used to help incorporate active living principles supported by the community into the Comprehensive Plan Addendum.

Landowner and Developer Forums

Two forums were held on February 25, 2009 targeted to landowners and developers. The purpose of the forums was to learn about their vision for the study area and to identify issues and opportunities. The forums were formatted as open, roundtable discussions to encourage the greatest participation from attendees. Also, the city offered to sit down one-on-one with landowners and developers to discuss their issues.

Agency Forum

An agency forum targeted at agencies and other local units of government was held on February 25, 2009 for the purposes of identifying issues and opportunities. The forum will be formatted as open, roundtable discussions to encourage the greatest participation from attendees.

Town Hall Meeting

A town hall meeting was held on March 5, 2009 to engage participants, encourage directed discussion and gather feedback to drive the plan update.

The meeting included a discussion led by Mark Fenton, a national racewalker, TV talk show host and recognized expert on active living.

Complete Streets Workshop

An all day workshop on Complete Streets was held on March 11, 2009 at the Courtyard by Marriott.

Community Meeting

An AIM Community Meeting was held on June 15, 2009 at the MSU Wellness Center Aerobics Room.

Active in Moorhead (AIM) Partnership Resident Survey

The survey was conducted by the North Dakota State Data Center and mailed to a random sample of Moorhead, Minnesota, residents in June 2009. The goal of the survey was to explore a) what encourages residents to be physically active – personally and in their community, b) how they get around in the community, and c) the value they place on community services and facilities that can impact their activities.

The results of the survey were documented in a report entitled *Active in Moorhead (AIM) Partnership: 2009 Resident Survey Results*. The survey is posted on the Data Center's website www.ndsu.edu/sdc/publications/AIM/2009ActiveInMoorheadReport.pdf. The purpose of the report is to increase the understanding of Moorhead residents' behaviors, attitudes, and perceptions associated with active living in the city. The results of the survey were used to help incorporate active living principles supported by the community into the Comprehensive Plan Addendum.

Public Forum

A public forum was held on July 21, 2009 at the Hjemkomst Center Auditorium where preliminary results of the scientific survey were released, a survey of visual preferences was obtained through the use of electronic "clickers", and attendees participating in a visioning exercise.

Draft Comprehensive Plan Addendum

The third phase of the project was to build on the input collected through community outreach and the previous Comprehensive Plan and subsequent growth area plans to update the community's vision statement, and translate it into development concepts that illustrate detailed plans for future growth in the city and to define strategic initiatives that identify how the Plan is to be implemented by posing recommendations for public and private actions to achieve the community vision.

This "Discussion Draft" of the Comprehensive Plan Addendum was prepared to summarize the concepts, all collected input and information in a preferred land use alternative and supporting documentation.

After the Planning Commission discusses the Draft Comprehensive Plan Addendum and on October 20, 2009, further details regarding the implementation of the preferred development option will be prepared and brought back to the Planning Commission in November/December 2009.

Community Context

Location

The City of Moorhead is located along the Red River of the North on Minnesota's western border (Figure 1). Moorhead is the largest city in Clay County and the second largest in the Fargo-Moorhead Metropolitan area. Interstate 94, Highway 10, and Highway 75 connect Moorhead to other areas of the region. The Twin Cities Metropolitan Area is 250 miles to the southeast; Winnipeg, Canada is approximately 220 miles to the north.

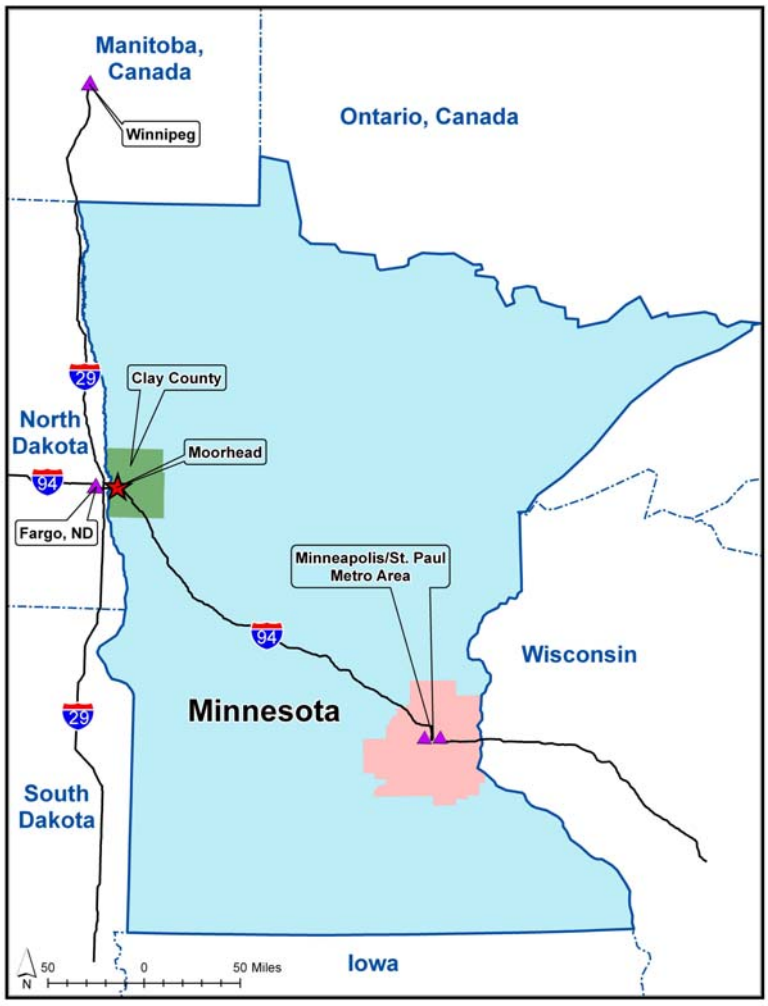


FIGURE 1 - REGIONAL CONTEXT

The location of the South and East Growth Areas of Moorhead are split into three separate areas stretching from the Red River in the west to the airport and Highway 10 corridor in the east (Figure 2). The boundaries of the original growth area plan (2005) are identified in yellow and the boundaries for the current planning effort are outlined in red. The additional areas being addressed in this planning effort are shaded in pink. The entire planning area encompasses approximately 24,000 acres. The existing Moorhead city limits comprise approximately 12,000 acres, or 50% of the study area.

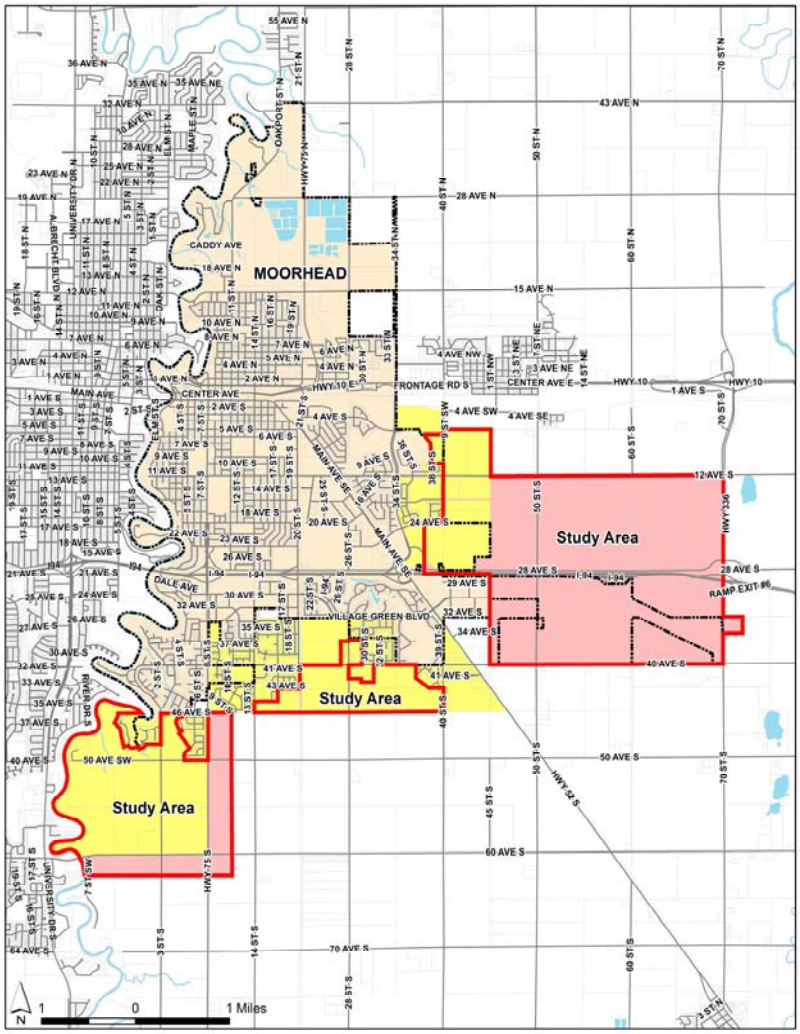


FIGURE 2 - SOUTH AND EAST GROWTH AREA PLAN BOUNDARIES

Note: The original growth area plan (2005) is shaded in yellow and the boundaries for the current planning effort are outlined in red. The additional areas being studied in this planning effort are shaded in pink. It should be noted that although the pink areas were studied, the majority of areas east of 50th Street S are not anticipated to develop within the current 2035 planning horizon due to infrastructure constraints.

Existing Land Use

The City of Moorhead includes a variety of land uses. Existing land use is displayed in Figure 3 and existing land use categories are discussed in detail below. These descriptions are taken from the 2004 Comprehensive Plan:

- **Single Family Residential:** Single family residential is the largest proportion of all residential land uses. Densities range from 1 to 4 units per acre. In addition to traditional single family detached homes, it includes attached products like twinhomes and duplexes.
- **Medium Density Residential:** Medium density residential has a density of 4 to 10 units per acre. Some examples are duplexes, triplexes, quadraplexes and attached townhomes. It also includes manufactured home parks. Medium density residential can be found in the greatest concentrations in the southern portion of Moorhead, but occurring throughout the city.
- **High Density Residential:** High density residential describes housing that consists of more than 10 units per acre. This usually occurs with apartment buildings of two or more stories. Most housing of this nature is located in or near downtown Moorhead or the college and university.
- **Industrial:** Industrial business describes facilities which manufacture or process food, goods or equipment. It also includes warehouses, repacking facilities and self-storage buildings. These businesses typically have little space devoted to displays and often do not sell directly to the general public.
- **Commercial:** Commercial includes a wide range of businesses. The most recognized are businesses which sell food, merchandise, entertainment or professional services. These businesses typically devote a significant portion of their space for product display or customer services. Some examples would include retail stores, restaurants, hotels, meeting facilities, movie theaters, gas stations, and professional agencies like insurance, real estate and funeral homes. Commercial can also include office businesses which provide professional services but have limited interaction with customers.
- **Parks and Open Space:** Parks describe municipal and county owned facilities such as playgrounds, ball fields and recreational trails. It also includes land which does not serve a recreational purpose but provides undisturbed natural areas for the community. Private recreational facilities, like the Moorhead Country Club, are also included.
- **Public/Semi-public:** Public refers to land owned by municipalities or counties. Facilities include libraries, fire stations, community pools, ice arenas and public power facilities. Semi-public refers to land owned by institutions such as schools, churches, hospitals and nursing homes.
- **Railroad:** Railroad includes the tracks and right-of-way owned by the railroads in Moorhead.
- **Agricultural:** Agricultural refers to land being cultivated for crops.

- **Vacant:** Vacant land is available for development and not being used for agricultural purposes.

Table 1 displays the existing 2008 land use acreages and inventory. Agricultural is the dominant land use in the planning area, accounting for a significant percent of total land use, at 52 percent. Low density residential is the most dominant "built" land use accounting for 14 percent of the total acreage, whereas medium and high density residential account for one half of one percent and nearly 1% respectively. The location of currently vacant and agricultural land represents areas where a significant amount of growth is planned to occur in the future.

TABLE 1 - 2008 EXISTING LAND USE

Existing Land Use	Gross Acres	Percent of Total
Agricultural	12,065	50.8%
Low Density Residential	3,418	14.4%
Right-of-Way	2,605	11.0%
Parks/Open Space	901	3.8%
Vacant	867	3.7%
Public	620	2.6%
Industrial	717	3.0%
Semi-Public	632	2.7%
Commercial	613	2.6%
Vacant-Res Platted	511	2.2%
Water	272	1.1%
High Density Residential	203	0.9%
Railroad	196	0.8%
Med Density Residential	116	0.5%
Total City and Growth Areas	**23,739**	**100%**

Existing Land Use

2009 Comprehensive Plan Addendum

City of Moorhead, Minnesota

Figure 3

N

2,000 0 2,000 4,000 Feet

- Moorhead City Boundary
- Growth Area Boundaries
- Other Municipal Boundary
- Agricultural
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Commercial
- Industrial
- Parks/Open Space
- Public/Semi-Public/Institutional
- Vacant Platted Residential
- Vacant
- Open Water

October 12, 2009

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Demographic Information

Demographic information was collected from a variety of sources including the US Census, Minnesota State Demographer and the study "Demographic Forecast for the Fargo-Moorhead Metropolitan Statistical Area" by McKibben in 2006. Demographic information helps to understand the history of the city and the region, as well as setting the framework for future planning. Population and household forecasts inform the planning process by establishing a common understanding of the amount of growth Moorhead should expect in the next 25 years.

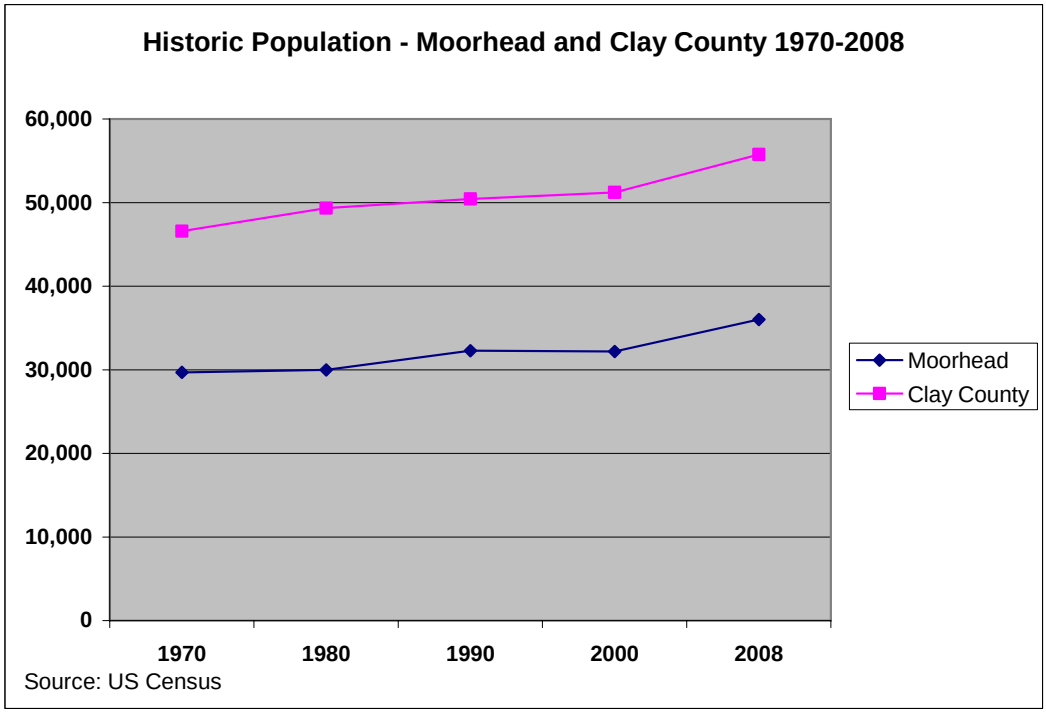
Table 2 shows historical Census population counts for Moorhead and Clay County. Figure 4 shows the same data in chart form.

TABLE 2 - POPULATION HISTORY - MOORHEAD AND CLAY COUNTY

Jurisdiction	1970	1980	1990	2000	2008
Moorhead	29,687	29,998	32,295	32,177	36,012
increase	x	1.04%	7.66%	-0.37%	11.92%
Clay Co.	46,585	49,327	50,422	51,229	55,767
increase	x	5.89%	2.22%	1.60%	8.86%

Source: U.S. Census

FIGURE 4 - POPULATION HISTORY - MOORHEAD AND CLAY COUNTY



Moorhead experienced steady population growth since 1970, with Clay County mirroring that growth. From 1980 to 1990 the city captured more growth than the remainder of the county, whereas from 1990 to 2000 the county continued to grow while the city experienced a slight population decrease. From 2000 to 2007 both the city and county accommodated a significant amount of growth compared to previous decades.

Population and Household Forecasts

In 2001, the Metro COG projected growth for the Fargo-Moorhead metropolitan area and the actual growth rates turned out to be greater than anticipated for some communities and traffic volumes on some key roadways were substantially above anticipated levels. In 2006, a report was prepared for the Fargo-Moorhead Metro COG by Ulteig Engineers and McKibben Demographic Research entitled "Demographic Forecast for the Fargo-Moorhead Metropolitan Statistical Area". This report forecasted population, household and employment trends for the Metropolitan Statistical Area (MSA) through 2035 in 5-year increments.

The McKibben Report developed two scenarios for growth potential in the metropolitan area. The first, the "Most Likely" scenario represents the most probable outcomes of the existing demographic characteristics and assumptions. According to the report, they do not adequately reflect the potential growth of local jurisdictions given other assumptions; therefore, Metro COG requested the project consultants develop an additional set of models which reflect this potential growth. An important note about the "High Growth" scenario is identified in the report:

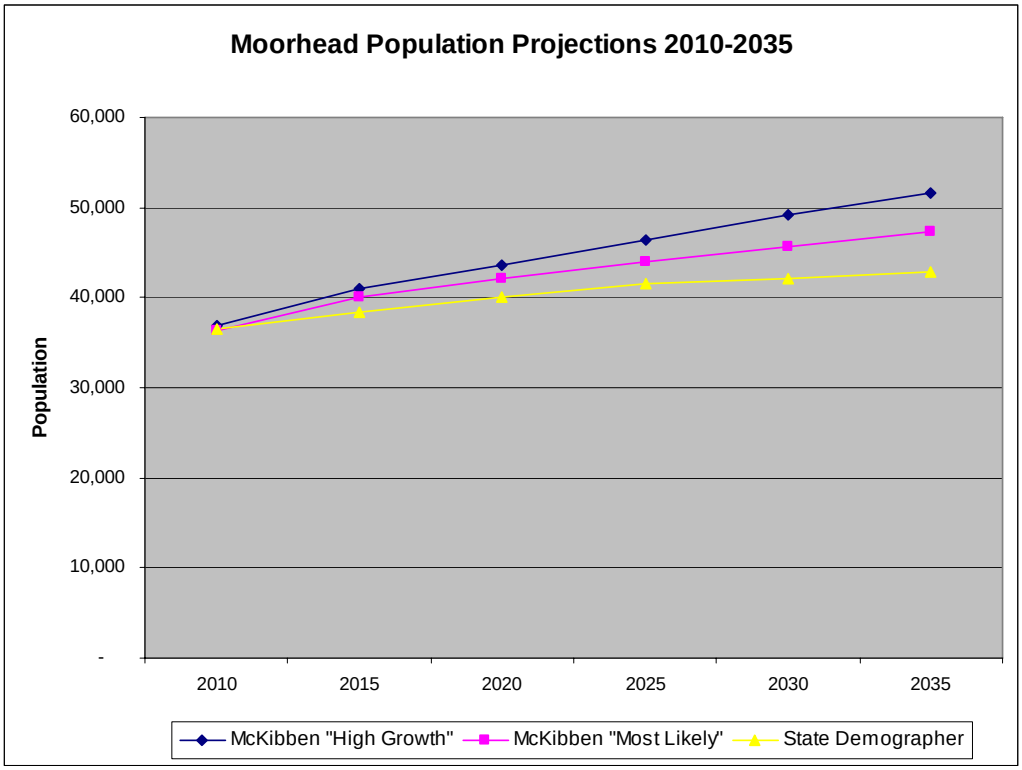
> *"It must be emphasized that this high-growth scenario requires changes in the current growth patterns starting in the near future. For example, without increases in the rate of foreign immigration in the near future, the impact of their childbearing capacity will be lost. Similarly, if there is not a short term increase in the proportion of college graduates who stay in the metro area after graduation, their ability to influence the growth rate of the metropolitan area will be lost. This high growth scenario infers structural and governmental actions in order to initiate and prepare for the additional growth. These actions may include:*
>
> - *Providing more affordable housing,*
> - *A concentrated economic development effort to expand geriatric services,*
> - *Increased options for elderly housing,*
> - *Business and industry coordination to train and retain college students, and*
> - *Develop a magnet that will increase college attendance by students from across the nation."*

Some or all of these changes to growth patterns using these specific actions were incorporated into the comprehensive plan through this process. Planning for a realistic "High Growth" scenario is prudent for infrastructure planning as issues with undersized roads, pipes, pumps, lift stations, and other infrastructure are expensive and timely to remedy if actual growth far exceeds the amount planned for.

In October 2007 the Minnesota State Demographer completed projections of population for cities and townships outside the Twin Cities region out to 2035. According to the State Demographer's website, these projections are made based on simple mathematical formulas, and may not represent the same level of accuracy as the projections in the McKibben Report. The McKibben data included annexation of a portion of Oakport Township (the area commonly referred to as "Tract 2") in 2015 and it is unlikely that the State Demographer's projections included this area.

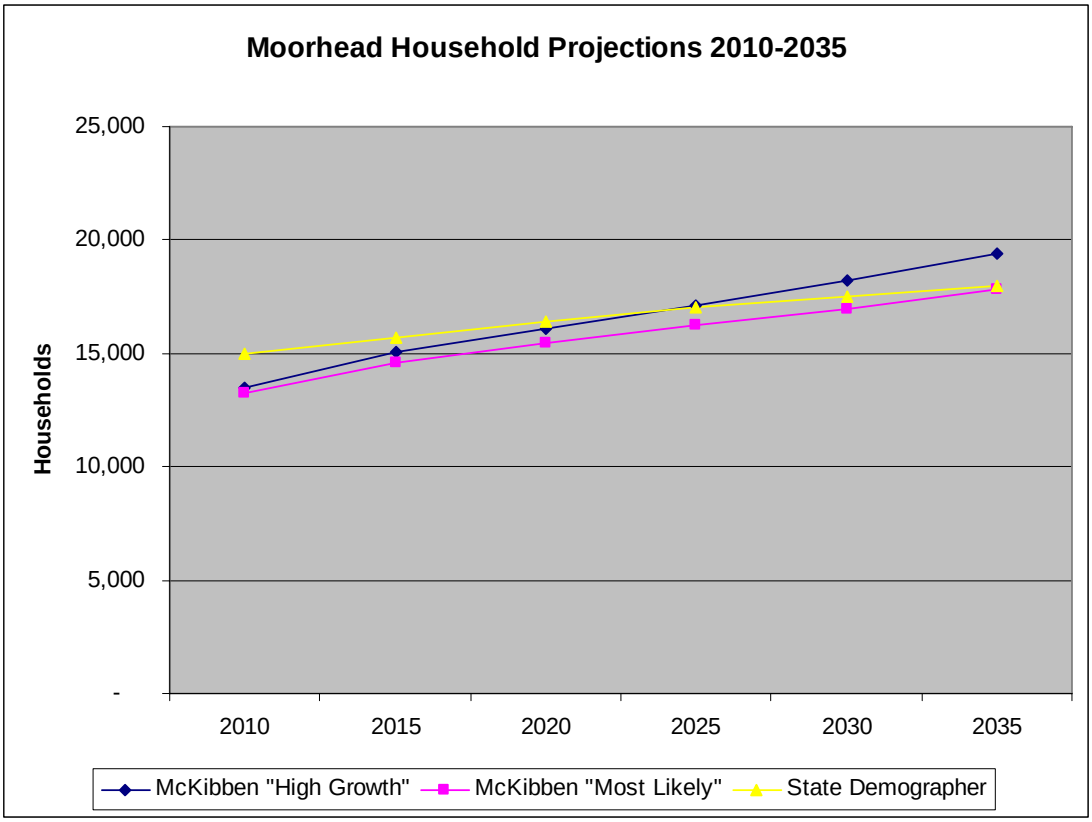
Figure 5 shows a comparison of the three projections of Moorhead's population through 2035 based on the data from the McKibben report and State Demographer.

FIGURE 5 - MOORHEAD POPULATION PROJECTIONS 2010-2035



The projection of household growth is also important for planning purposes. The alternatives developed during the planning process will be based on an understanding of the amount of household growth Moorhead is likely to experience in the next 25 years. Figure 6 shows a comparison of the household projections made for Moorhead between 2010 and 2035. To arrive at an estimate of households based on data from the State Demographer, the household size (persons per household) figure developed by the McKibben report was used and applied to the population estimates done by the State Demographer.

FIGURE 6 - MOORHEAD HOUSEHOLD PROJECTIONS 2010-2035



The “High Growth” scenario says Moorhead will have 19,381 total households in 2035. Given the current estimated number of households this equates to approximately 6,500 new households between 2009 and 2035.

McKibben notes that by about 2020 the total number of deaths will begin to surpass the total number of live births resulting in a net loss in natural population increase. When this occurs, the only thing that will prevent a decrease in the overall population will be an increase in net in-migration. McKibben reported that strong rural county in-migration cannot continue because rural counties are decreasing in population to the extent that there are not many people available to migrate to the metropolitan area.

There are two related factors reducing these rural county populations. The first factor is the past out-migration of the child-bearing age population. The result is that there are fewer young people being born to provide potential out-migrants. The second factor is the aging of the remaining population. As these older people die the population bases of these counties are further reduced.

McKibben suggested that one of the underlying issues which will have to be resolved in order for the metropolitan area to continue growing at the current high growth rate is how to get more immigrants to move to the area. Immigration from other countries has always been a significant part of the United States' population growth patterns. As the current population base of the United States continues to age, there will be a gap between the United States' employment demand and available workforce.

Population and household projections are not independent of planning efforts. As the McKibben report points out, Moorhead (or the metropolitan area as a whole) can attempt to capture more growth through policy decisions, such as providing more affordable housing or increased options for elderly housing.

Economic Overview

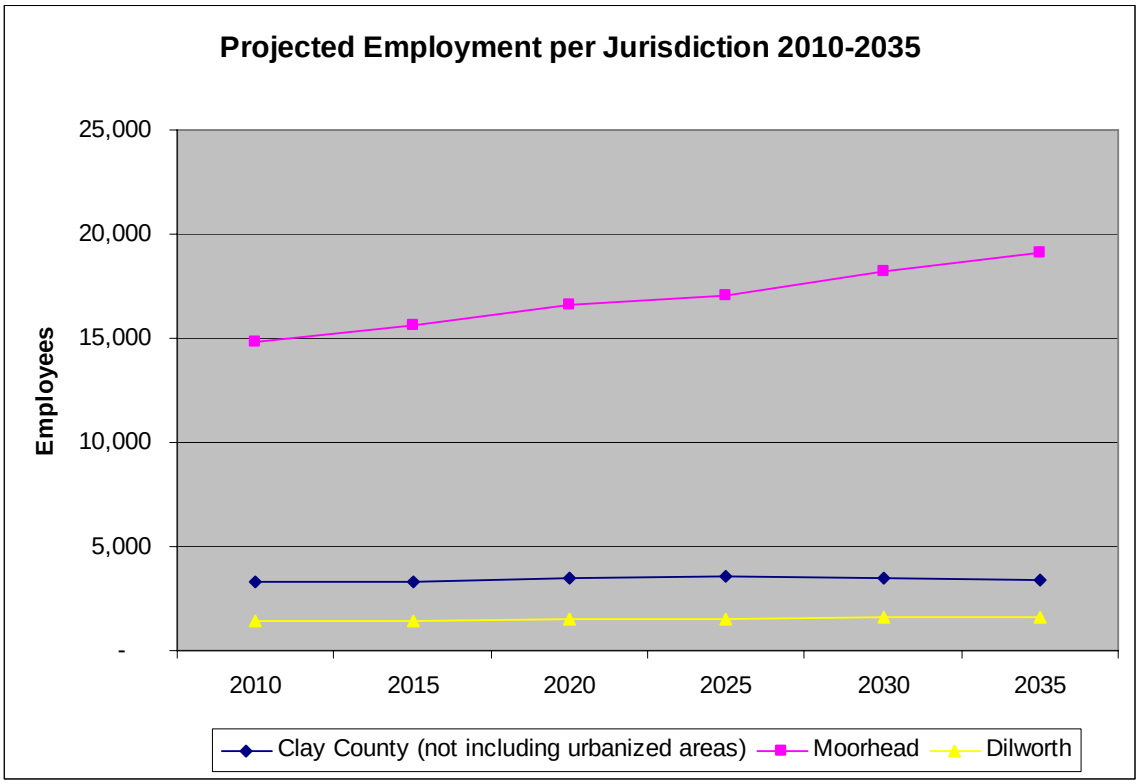
The economic health of a community plays a critical role in encouraging and maintaining a high standard of living and a desirable place to live for existing residents, but even more importantly, for attracting new residents. Moorhead has a strong economy and can be considered a "full-service" community with a relatively high percentage of local employment opportunities. In addition, the large higher education presence serves as an important regional draw and stable source of economic activity with benefits that extend beyond the city's boundaries.

The following information and tables identify current employment trends and other pertinent factors. Data used is from the 2000 Census and the 2006 McKibben Report.

Employees

The McKibben report projected employment growth in the metropolitan area. The report calculated internal MSA employment based on its ratio to population and then added external MSA workers separately to develop the total employment forecasts. Census characteristics of the large commuter population from outside the MSA were used to project the future impact of non-MSA commuters on the overall future employment. The employment calculations (when analyzed by age cohort), show that once out of college, the labor force participation rate is higher. Figure 7 shows projected employment by jurisdiction between 2010 and 2035.

FIGURE 7 - PROJECTED EMPLOYMENT PER JURISDICTION 2010-2035



As shown, Moorhead is expected to see a steady increase in employment, with growth at nearly 30 percent over 25 years. Dilworth and Clay County will add far less employment (17 percent and 2 percent respectively). Overall, Moorhead is projected to accommodate approximately 4,900 new jobs between 2008 and 2035.

Table 3 identifies the mode of transportation that employees over 16 years of age use to access their jobs. A majority of workers drive alone to work. However, Moorhead appears to have a large percentage of commuters who travel by foot to work (10 percent), especially compared with national and state statistics (2.9 percent and 3.3 percent). This can be partially attributed to the large number of students residing and working in the city. Other means besides the automobile are more in line with state and national trends (public transportation and bicycling).

TABLE 3 - METHODS OF COMMUTING

Means of Transportation	Commuters	Percentage
Total:	16,352	100%
Car, truck, or van:	14,007	86%
Drove alone	12,459	76%
Carpooled	1,548	9%
Public transportation:	160	1%
Bus or trolley bus	153	1%
Taxicab	7	0%
Motorcycle	6	0%
Bicycle	99	1%
Walked	1,600	10%
Other means	56	0%
Worked at home	424	3%

Source: 2000 Census

The AIM Partnership 2009 Resident Survey[1] included questions regarding methods of community. A summary of the results and a comparison with the 2000 Census follows:

- In an average week, 63.9 percent of Moorhead residents do not commute by foot and 35.6% commute by foot one or more times a week. This may indicate that more people are walking to work in 2009 than in 2000. However, only 8.7 percent of Moorhead residents walked to work 4 or more times a week. This may indicate a slight decrease in the percentage of residents solely commuting to work by foot (compared to 10 percent in the 2000 Census).
- In an average week, 72.8 percent of Moorhead residents do not commute by bicycle and 26.3 percent commute by bicycle one or more times a week. Of those that commute by bike, 5.5 percent biked to work 4 or more times a week. This may indicate a five fold increase in the percentage of residents solely commuting to work by bike (compared to 1 percent in the 2000 Census).
- In the last year, 87.1 percent of Moorhead residents have not commuted by Metropolitan Area Transit (MAT) and 12.7 percent have used MAT more than once. However, only 5.5 percent have used MAT “several” or “many” times. This may represent an increase in the percentage of residents solely commuting to work by MAT (compared to 1 percent in the 2000 Census).

[1] The AIM Partnership Survey was conducted by the North Dakota State Data Center and mailed to a random sample of Moorhead, Minnesota, residents in June 2009. The results of the survey were documented in a report, entitled *Active in Moorhead (AIM) Partnership: 2009 Resident Survey Results*. The survey is posted on the Data Center’s website www.ndsu.edu/sdc/publications/AIM/2009ActiveInMoorheadReport.pdf.

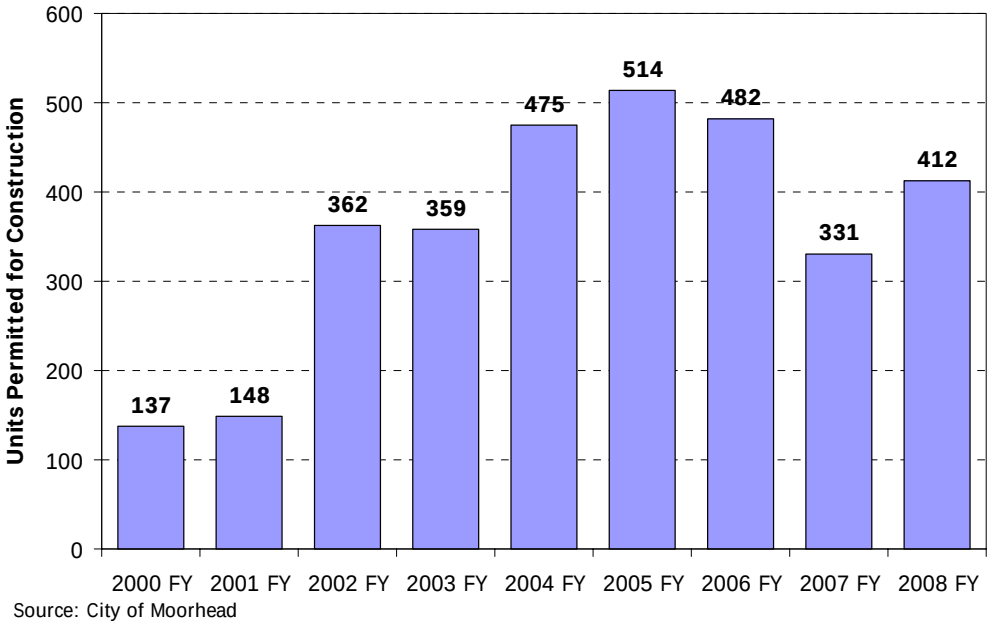
Housing

The decision to live in a particular community is influenced by a number of factors. One of the most important is the availability of housing units that affordably meet the needs of a household throughout their life. To encourage continued growth and provide for life-cycle housing needs, communities must strive to achieve a balanced mix of housing types and price points. The city issues an Annual Housing Report to review the housing market for the previous year and compares progress to prior years' statistics. The city also provides quarterly housing updates to the Mayor, Council, and general public. The following section highlights some of the housing trends and the current status of the city's housing.

Construction Trends

Moorhead experienced a housing boom in the 2000s (Figure 8). From 2000 to 2008, more than 3,100 new housing units were permitted for construction, which is more than double the number from the two previous decades. The peak year during the boom was 2005 when 514 housing units were constructed. The current economic downturn has tempered the rate of home construction. In 2008, 412 new housing units were permitted for construction. Although this rate of construction is still well above the first years of the decade, economic trends indicate that home construction may decline in the foreseeable future. Despite this, increased housing production during the 2000s has greatly diversified the range of housing choices for Moorhead households.

FIGURE 8 - HOUSING STARTS 2000-2008

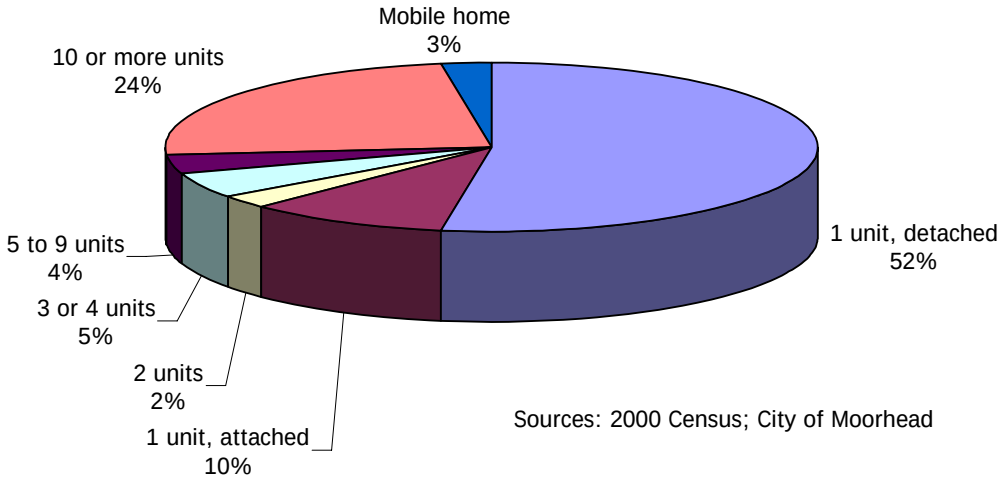


Source: City of Moorhead

Housing Types

As of 2008, 52 percent of Moorhead's roughly 15,300 housing units were single family detached (Figure 9). In accordance with national and local demographic trends, the types of housing units being built in Moorhead likely will change in the coming decades to meet the needs of smaller and older households. Of the roughly 3,100 units built from 2000 to 2008, almost 1,900 (60 percent) were types other than single family detached.

FIGURE 9 - HOUSING TYPES IN 2008



Sources: 2000 Census; City of Moorhead

Age of Housing

The age of the housing stock can be a general indicator as to when there may be a need for increased maintenance or renovation in order to maintain housing condition and functionality. According to the 2000 Census, over 60 percent of the housing units in Moorhead are 25 years old or older. This is an age where conditions can begin to decline significantly due to issues such as failure to maintain the roof and siding, site drainage issues, and the need to update mechanical systems. Over 30 percent of the homes were built before 1960 indicating that if not properly maintained, they could need substantial investments to protect the structure, upgrade mechanical systems and improve modern functionality. The dramatic increase in housing construction since 2000 has resulted in a more equal distribution in the age of housing.

Tenure

Rentals comprised 36 percent of all occupied housing units in 2000. Although higher than the state average of 25 percent, this is to be expected given the large student population. The figure is significantly lower than neighboring Fargo's 52 percent. The majority of renters occupy buildings with 10 or more units.

According to the Moorhead Housing Study, completed in 2004, most of Moorhead's rental units are contained in mid-rise buildings with 20 to 50 units. Little apartment development occurred in Moorhead in the 1990s but that trend seems to be changing. From 2000 and 2006, the City of Moorhead issued building permits for well over 200 new rental housing units and registrations for rental units increased by more than 800 (this includes both existing and new registered units). Even so, the Moorhead Housing Study concluded that there is still an unmet need for rental housing in Moorhead.

Community members continue to be concerned about the number of single family homes that have been converted into rental property. Anecdotal evidence has suggested that single family housing conversions are the result of a lack of affordable rental housing near MSUM and Concordia College. Since rental property is often not maintained as well as owner-occupied properties, single family conversion will need to be monitored to determine if it is having any detrimental impacts to the long-term sustainability of the neighborhoods surrounding the college/university campuses.

Transportation

Roadways

The city's roadway functional classification system are presented in Figure 10. Roadways are classified based on the role they serve on the transportation system. Roadways with highest mobility (speed) and limited access are classified as principal arterials. These roadways carry high volumes of traffic at high speeds. They are very efficient at moving vehicles; however, they pose obstacles for pedestrians. Because access is limited on these roadways, so are potential crossings for pedestrians. These roadways are typically very wide, making crossing even more difficult or impossible. Certain characteristics of roadways (i.e., high traffic speeds and volumes) makes on-road use uninviting for pedestrians and bicyclists. Principal arterials in Moorhead include Interstate 94, Highway 10, Highway 75/8th Street north of I-94, Center Avenue east of 8th Street and Main Avenue west of 8th Street S. Currently, the I-94/34th Street interchange is being upgraded.

Minor arterials provide more access and slightly decreased speeds than principal arterials. These roadways connect smaller centers of activity within and between neighborhoods, and connect principal arterials. Some minor arterials within Moorhead include Main Avenue S.E., 1st Avenue N, 11th St N, 15th Avenue N, 34 Street , 20th Street S, 12th Avenue S, 30th Avenue S, Village Green Boulevard, and 40th Avenue S. High traffic speeds and volumes on minor arterials may pose obstacles and safety risks for pedestrians and bicyclists. Many communities provide off-road bikeways and sidewalks for safety reasons along these roadways. However, off-road bikeways are not always safer than on-road bikeways due to the removal of the bicyclist from the line of sight and peripheral view of motorists when motorists are making right turns. One of the most common crash types for bicyclists operating on off-road bikeways is where the motorist is turning right and the bicyclist expects the motorist to stop while they cross the intersection. The motorist does not see the bicyclist until the right turn is initiated.

On-road bikeways ultimately reduce the risk of this type of crash by increasing the visibility of the bicyclist.

Collectors provide relatively equal amounts of access and mobility. Traffic volumes and speed are generally lower than arterial roadways. Collectors provide more mobility within residential neighborhoods, serving to gather traffic from residential (local) streets and channel it onto the arterial system. Some examples of Moorhead collector roadways are 4th Street S, 5th Street S, 20th Avenue S, 24th Avenue S, 28th Avenue S, 28th Street N, 4th Avenue S, and 14th and 17th Street N north of 1st Avenue N. Providing opportunities for pedestrians and bicyclists along collector roadways is critical to supporting active living in Moorhead, as these roadways connect residential areas with commercial and employment centers within the city, enabling neighborhood residents to access jobs and shopping opportunities on foot or bike.

Local streets provide many points of direct access and limited mobility. Speeds and volumes are relatively low and through traffic is discouraged. Particularly in neighborhoods without sidewalks, these streets typically carry higher volumes of bicyclists and pedestrians, because of their perceived safety.

Railroads

As an important regional transportation hub, the city contains a number of railroad lines. Although rail lines are a valuable economic asset, they can also pose a significant physical barrier for other transportation modes including automobiles, transit, bicycles and pedestrians since they can be difficult or unsafe to cross. These impacts can complicate access between residential areas and destination areas such as areas for employment, shopping, education and recreation. Pedestrian and bike safety is an issue and there have been a number of train-person crashes as people try to avoid waiting for trains. Establishment of a whistle-free zone that includes new pedestrian walks, gates and fencing has increased safety.

The city has undertaken efforts to improve the safety of railroads. The city completed the 11th Street Railroad Grade Separation Feasibility in 2008 that included recommendations for improving safety in this area for pedestrians and vehicles. The proposed SE Main Avenue/20th Street/21st Street Railroad Grade Separation Project is ready for construction, but the project is not currently funded. Once completed, pedestrian and vehicle safety in this area will be improved.

Although active railroad lines can pose challenges, inactive lines can provide significant opportunities when they are converted to trails. Similarly, old railroad bridges may be converted to pedestrian crossings. The north-most track is a candidate for consolidation and was subject to a recent study, but is not currently being pursued because of its expense.

Transit

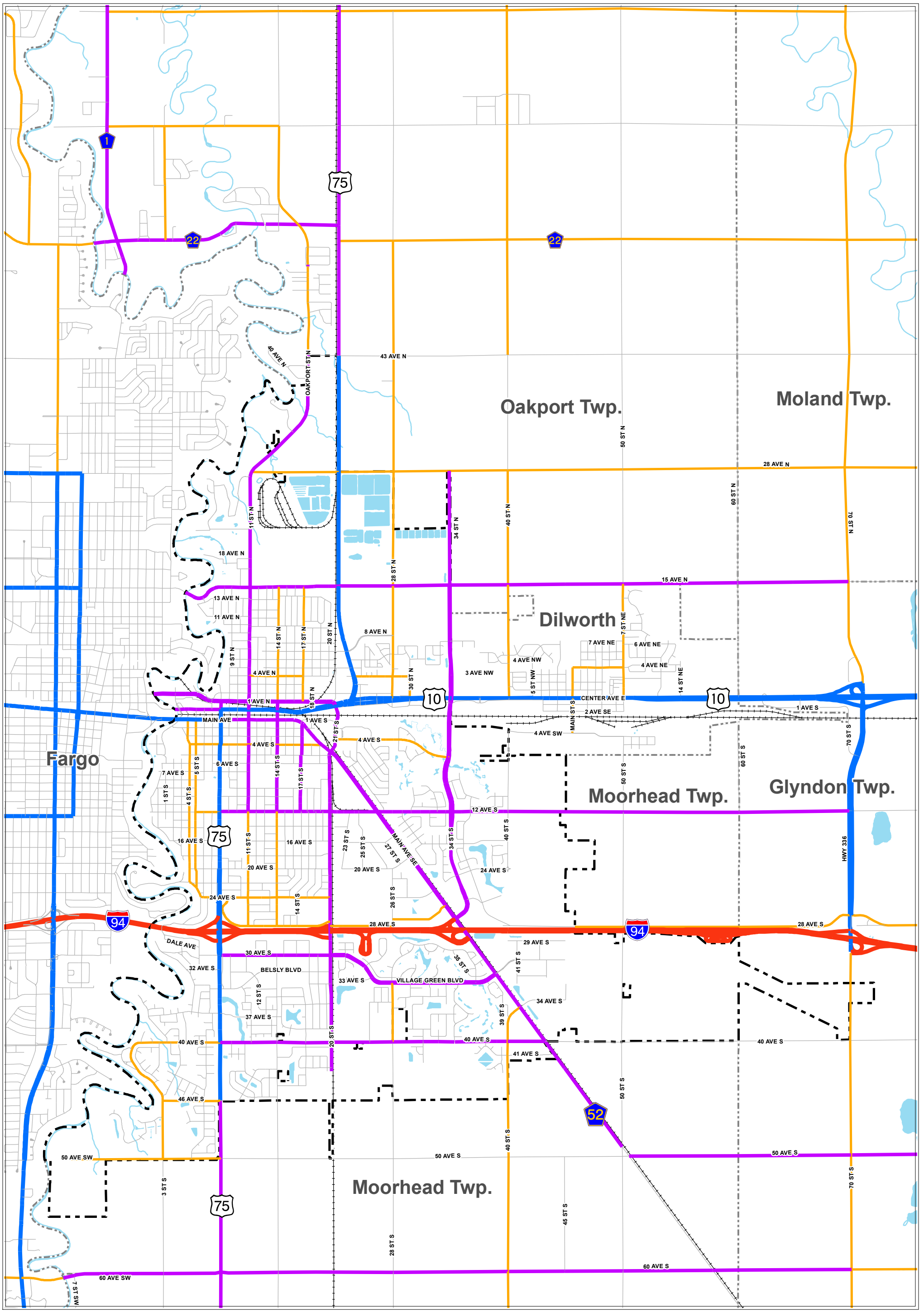
Transit in Moorhead is provided by the Moorhead Metropolitan Area Transit (MAT) which provides six daytime and two evening fixed routes. The location of current bus routes is shown on Figure 11. Information regarding specific bus routes and schedules can be found on MAT's website at www.matbus.com. Riders may transfer to the Fargo Metropolitan Area Transit System at the Ground Transportation Center in downtown Fargo. Key transit destinations in Moorhead include the East Highway 10 shopping area, Center Mall, Hornbachers Foods, MSUM, MSCTC, Concordia College, and the Courtyard by Marriott transfer point. Demand response paratransit services for persons with disabilities and Metro Senior Ride service are also available.

The 2004 Comprehensive Plan identified a number of transit improvements intended to increase mobility and provide alternative transportation. These improvements are listed below:

- Streets with transit services should be well lit and designed to accommodate bus traffic.
- Transit stops need to be accommodated within the right-of-way and consideration should be given to long term improvements that incorporate transit facilities into roadway construction.

- Transit services should be extended to future growth areas, particularly high density residential and employment nodes. The Moorhead Expansion/Re-Alignment Study (2007) recommended the addition of a college campus circulator in 2010 and expansion of bus routes to the eastern limits of Moorhead and into the City of Dilworth between 2009 and 2010 to better serve the needs of Moorhead residents, students and employees.
- Alternative servicing options should be evaluated for areas of the community where densities may not support a fixed route system, but may benefit from availability of transit (Oakport Township or the Industrial Parks).

Land use decisions should account for transit. Low density sprawling design patterns are not conducive to efficient transit service. Examples of planned land uses that will support transit include the mixed-use corridor along Highway 75/8th Street and 7th Avenue, and areas of mixed-residential along major roadway corridors, such as 34th Street north of I-94.



Existing Transportation Classification

Figure 10

2009 Comprehensive Plan Addendum

City of Moorhead, Minnesota

N

2,000 0 2,000 4,000 Feet

Moorhead City Boundary
Other Municipal Boundary
Open Water
Interstate Highway
Principal Arterial
Minor Arterial
Collector
Local Street
Railroad

October 12, 2009

Bonestroo

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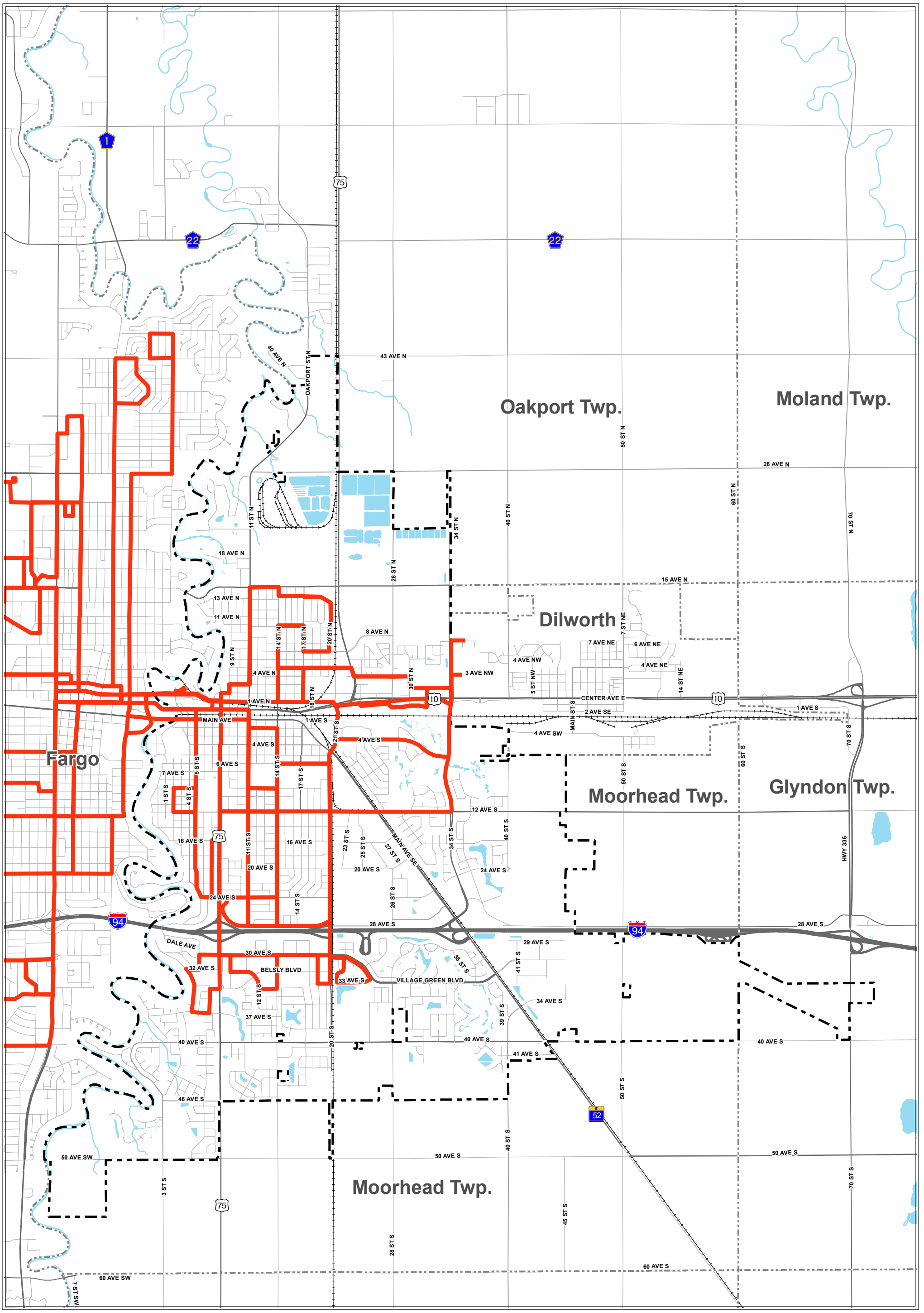

Current Bus Routes

2009 Comprehensive Plan Addendum

City of Moorhead, Minnesota

Figure 11

N

2,000 0 2,000 4,000 Feet

Bus Routes

Moorhead City Boundary

Other Municipal Boundary

Open Water

October 12, 2009

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Chapter 2: Planning for the Future

Vision

The city's 2004 Vision statements were revised and edited based on neighborhood meeting discussions, landowner and agency forums, and visioning exercises completed by the public, Planning Commission, and Steering Committee. The vision statements are arranged into the five themes as follows:

- *Flood Risk Reduction*
- *Transportation*
- *Growth Management*
- *Redevelopment and Reinvestment*
- *Community Identity*

The vision statements provide the foundation for the Comprehensive Plan Addendum. These elements will guide planning efforts and result in comprehensive plan implementation strategies.

City Vision

Located in the heart of the Red River Valley, Moorhead is a community rich in history, tradition, diversity and community pride. Building upon its past and looking toward its future, Moorhead is a caring community where residents lead healthy, active lives, work, learn, play and grow. As part of a growing metropolitan region, Moorhead is defined by its colleges, educational excellence at all levels, plentiful parks and natural amenities, and distinct and diverse neighborhoods.

Vision Elements

Flood Risk Reduction

- ***Enhanced Environment***

  Moorhead preserves, maintains and enhances its natural areas for the benefit of the community. Our community celebrates, learns from and respects its most visible environmental element, the powerful Red River. Beyond the river, Moorhead has enhanced the built environment using natural features and native landscaping to serve as both infrastructure and amenities.

- ***River as an Amenity***

  Moorhead works with neighboring communities and affected agencies to provide effective and equitable long-term flooding risk reduction solutions in the region. Public greenspace along the river provides for flood risk reduction and is a valuable community amenity. Open space, trails, and entertainment opportunities along the river attract many visitors. The river is connected to the rest of the community through urban design strategies and a network of pedestrian and bicycle facilities, serving as a key community and regional asset.

Transportation

- ***Multi-Modal Connections***

  Moorhead's roads, transit, trails and sidewalks provide easily recognizable linkages among neighborhoods and to surrounding communities. Bicycle and pedestrian facilities provide recreational opportunities and transportation options for residents of all ages and abilities, and are part of a multi-modal transportation system. Attention to street design of major corridors and the surrounding built environment helps strengthen Moorhead's identity and contributes to unified, stable and sustainable neighborhoods.

- ***Complete Streets***

  Moorhead embraces a "complete streets" philosophy that ensure that all users of the transportation system, including pedestrians, bicyclists, and transit users as well as children, older individuals, and individuals with disabilities, are able to travel safely and conveniently on streets and highways.

Redevelopment and Reinvestment

- ***Distinct, Diverse, and Active Neighborhoods***

  Neighborhoods in Moorhead provide a strong sense of identity based on distinctive design and combinations of housing densities, retail, business and recreation. Pedestrian and bicycle facilities provide convenient access to neighborhood retail and recreation opportunities. Neighborhoods enjoy diversity of ages, incomes and ethnicities. Residents know one another, work cooperatively to address concern and are active in neighborhood organizations. Cohesive neighborhoods are distinct yet connected to the greater community.

- ***Housing Variety and Adequacy***

  Moorhead has maintained its existing housing stock and increased the diversity with new housing opportunities, enabling residents to live comfortably in the community over their entire life-cycle. By promoting contiguous new residential neighborhoods on the edge, increasing density at the core and preserving existing neighborhoods, Moorhead provides a range of housing types, styles and affordability.

- ***Vibrant Downtown***

  Downtown is a gathering place for the community. Its interesting architecture, inviting landscape, connections to the Red River, mixture of uses and pedestrian experience make it a great place to live, work, shop, dine or just gather. Downtown Moorhead's identity draws people from the community and the region just for the experience or to satisfy a retail, economic, recreational or entertainment needs.

- ***Retail Variety and Abundance***

  Retail continues to expand and diversify to meet community needs and preferences. Our emergence as a unique community has fostered local entrepreneurs as well as drawn new regional retail services. The successful integration of retail into select neighborhoods provides convenient shopping, dining, and entertainment.

Growth Management

- ***Quality Public Facilities, Services and Infrastructure***

  Careful planning and broad community involvement, including landowners and developers, ensures that public infrastructure, facilities, and services meet current and future needs to support the desired lifestyle of the community efficiently and attractively. Public lands and buildings are a reflection of the value the residents place on their community. Governmental and community organizations provide quality and friendly customer service responsive to the concerns of all community members.

- ***Park and Recreation Opportunities***

  Moorhead's diverse park and recreational facilities provide year-round opportunities for people of all ages and abilities to engage in recreation and fitness. With locations and connections throughout the community, individuals and families have convenient access to facilities and opportunities.

Community Identity

- ***Educational Excellence***

  Moorhead's tradition of educational excellence offers a life long experience. Moorhead's educational institutions collaborate to enhance learning at all levels and foster partnerships in the greater community. Public support of education remains strong with continued investment in quality instruction and school facilities. The integration of school facilities into surrounding neighborhoods ensures their continued viability and maximum use to taxpayers.

- ***Plentiful Arts and Culture***

  Arts and cultural activities abound in Moorhead. The university, colleges, schools and community organizations offer residents and visitors the opportunity to be both spectators and participants. Cultural activities showcase the diversity in the community and assist in building positive relationships. Moorhead's arts and cultural venues give residents and businesses a sense of community identity.

- ***College Atmosphere***

  The neighborhoods around Moorhead's university and colleges serve as a gathering place and identity builder for the entire community. Faculty, staff, students and alumni living on or close to the campuses add vitality to the neighborhood and community. The mix of housing, dining, shopping and entertainment along 8th Street provides places for students and residents alike to interact in a common intellectual environment.

- ***Economic Opportunities***

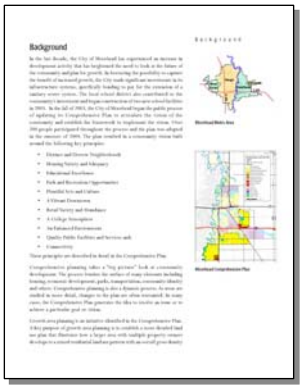
  Moorhead's businesses offer a variety of quality job opportunities that pay livable wages. Students are able to find employment close to their homes and schools, and graduates are able to find job opportunities that keep them in Moorhead. Local entrepreneurs are successful because of an educated and skilled workforce in combination with a supportive business and investment climate. Strong relationships between the civic community and the business community foster new economic development opportunities, job growth and business retention. As the digital age evolves, Moorhead's technological infrastructure connects the community to the world, keeping the community connected and informed. Moorhead is viewed as a progressive leader and steward among area communities, a partner to other Minnesota cities, and an active participant in the national and global economy.

Land Use Plan

The landscape of Moorhead will need to change as new development occurs. The city's future land use plan reflects the city's vision for how these future changes should occur. The Land use plan concepts and policies presented in the 2004 Comprehensive Plan were reviewed as part of the 2009 update and only minor revisions to the future land use map were required to incorporate the area planning efforts that have been completed more recently--particularly the updated South and East Growth Area Plan and North Moorhead/Oakport Township Growth Area Plan (see below).

In addition to focusing on accommodating development within the growth areas at the developing edge of the community, the city can accommodate a portion of its projected growth through infill and redevelopment of underutilized and vacant land within the city. This update also revisited redevelopment options for Downtown and infill/redevelopment concepts for the 1st Avenue Corridor, SE Main Corridor, and Center Avenue Corridor.

South and East Growth Area Plan (2005)


Background

In 2005, the City of Moorhead completed the South and East Growth Area Plan in the face of increased development activity that required a more detailed plan for growth. The South and East Growth Area Plan looked at areas inside and outside the city to achieve four key objectives:

1. To establish a more detailed land use plan that achieves the vision elements of the Comprehensive Plan and serves as a guide to developers.
2. To identify a logical system of major roadways connecting growth areas of the community.
3. To establish a network of parks and open spaces that link neighborhoods, provide a landscape amenity, and offer passive and active recreation areas.
4. To identify a system for storm water management facilities that serves as an amenity and an asset to the neighborhood.

The development concepts presented in the 2005 plan were updated to reflect land use changes occurring since the previous plan was completed including plats and master development plans approved by the city. Also considered in the land use changes were infrastructure related improvements, infrastructure planning studies, and metro wide transportation studies. The roadway and open space circulation systems have also been reconnected and modified to work with the new land use patterns. The changes are shown in four enlarged areas that are classified into Districts based on their location in the overall plan (see Figures 12 thru 16). In order to achieve a cohesive, integrated design, the overall context and the revised areas have been reviewed as a whole and the growth area plan graphic has been updated with the new District information.

Additional analysis was conducted to examine the amount of new development that could be accommodated in each of the growth areas. All of the areas that were identified as currently being either vacant or agricultural uses were examined since these areas represent the sites that can be more easily developed since they do not require significant redevelopment efforts. These vacant and agricultural lands were then separated further to determine the amount of land that is available within each residential or job producing land use category. Finally, the applicable density for households and jobs were applied to determine the total capacity for new growth that could potentially be accommodated within the south and east growth areas.

It should be noted that, at this time, the East Growth Area is limited in its ability to extend east of 50th Street South due to water distribution and sanitary sewer limitations.

TABLE 4 – SOUTH AND EAST GROWTH AREA PLAN CAPACITY FOR NEW HOUSING AND EMPLOYMENT

Future Land Use	South Growth Area	South Central Growth Area	Southeast Growth Area	East Growth Area	Total Acres	Housing Density (units/acre)	Potential Units	Employment Density (employees /acre)	Potential Employment
Residential									
High Density Residential	85	20	31	136	271	30	8,132		
Low Density Residential	655	40	161	542	1,398	4	5,591		
Medium Density Mixed Reside	299	189	232	46	767	12	9,200		
Medium Density Residential	99	13	49	51	212	5	1,060		
Non-Residential									
Community Commercial	50	22	1	2	76			11	840
Public/Institutional	69	4	28	7	108			5	555
Parks/Open Space	251	3	53	75	381			0	0
Light Industrial	0	0	0	9	9			5	50
Regional Commercial	0	0	0	155	155			11	1,711
Total							23,983		3,157

As Table 4 indicates, approximately 24,000 new households and 3,150 jobs can be accommodated in just the planned vacant and agricultural lands within the south and east growth areas. To compare this land supply to anticipated housing demand, McKibben's "high growth" scenario projected that the demand for new housing in the city would be approximately 6,500 new housing units and 4,900 new jobs by 2035. Therefore, it needs to be recognized that the planned land use for the growth areas represent a very long-range plan.

Figure 12: Growth Area Plan Update Location Map

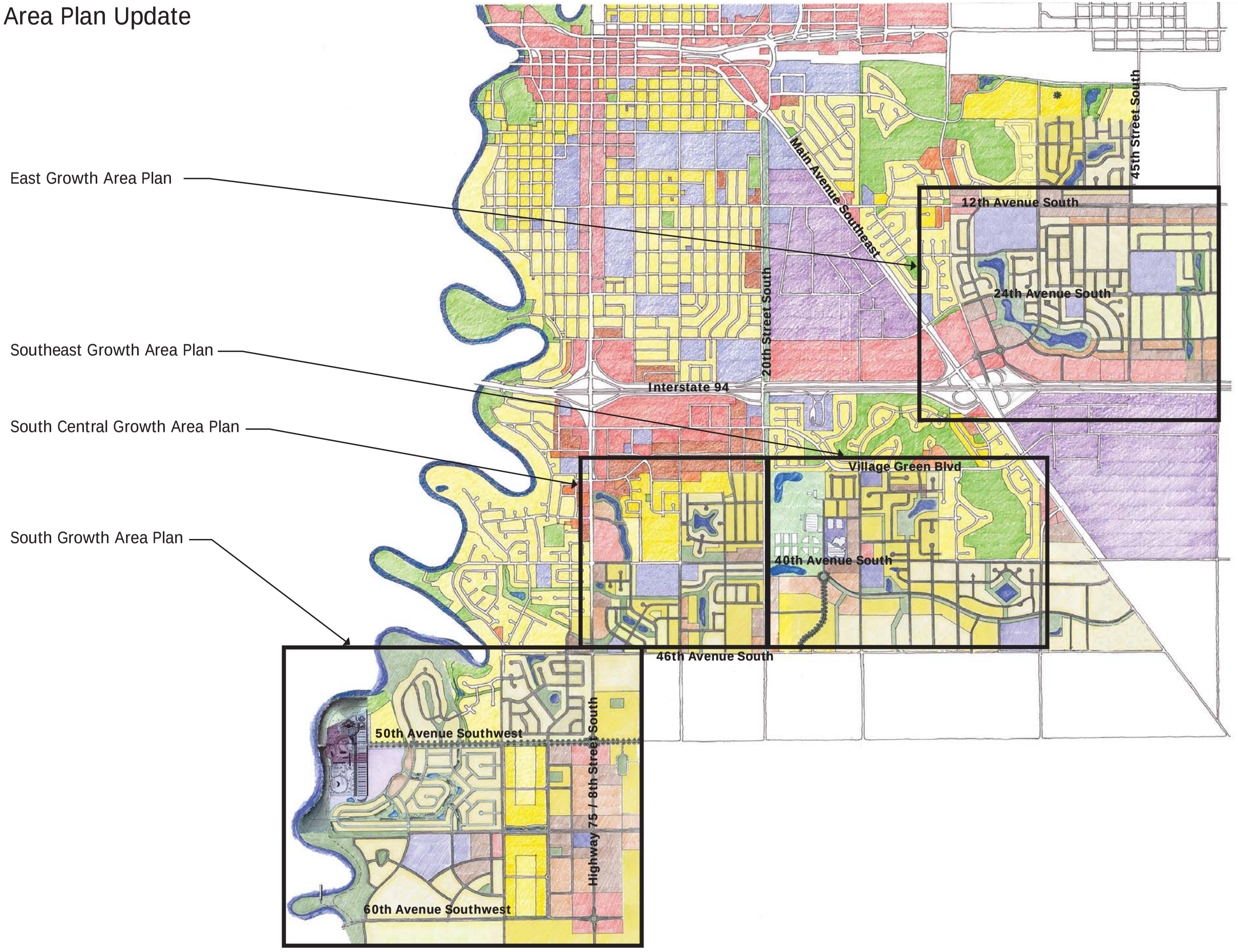


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Figure 13: East Growth Area Plan

Legend

- Park and Open Space
- Public Land
- 0-4 Dwelling Units per Acre
- 3-5 Dwelling Units per Acre
- 6-12 Dwelling Units per Acre
- 12+ Dwelling Units per Acre
- Commercial
- Industrial
- Storm Ponds

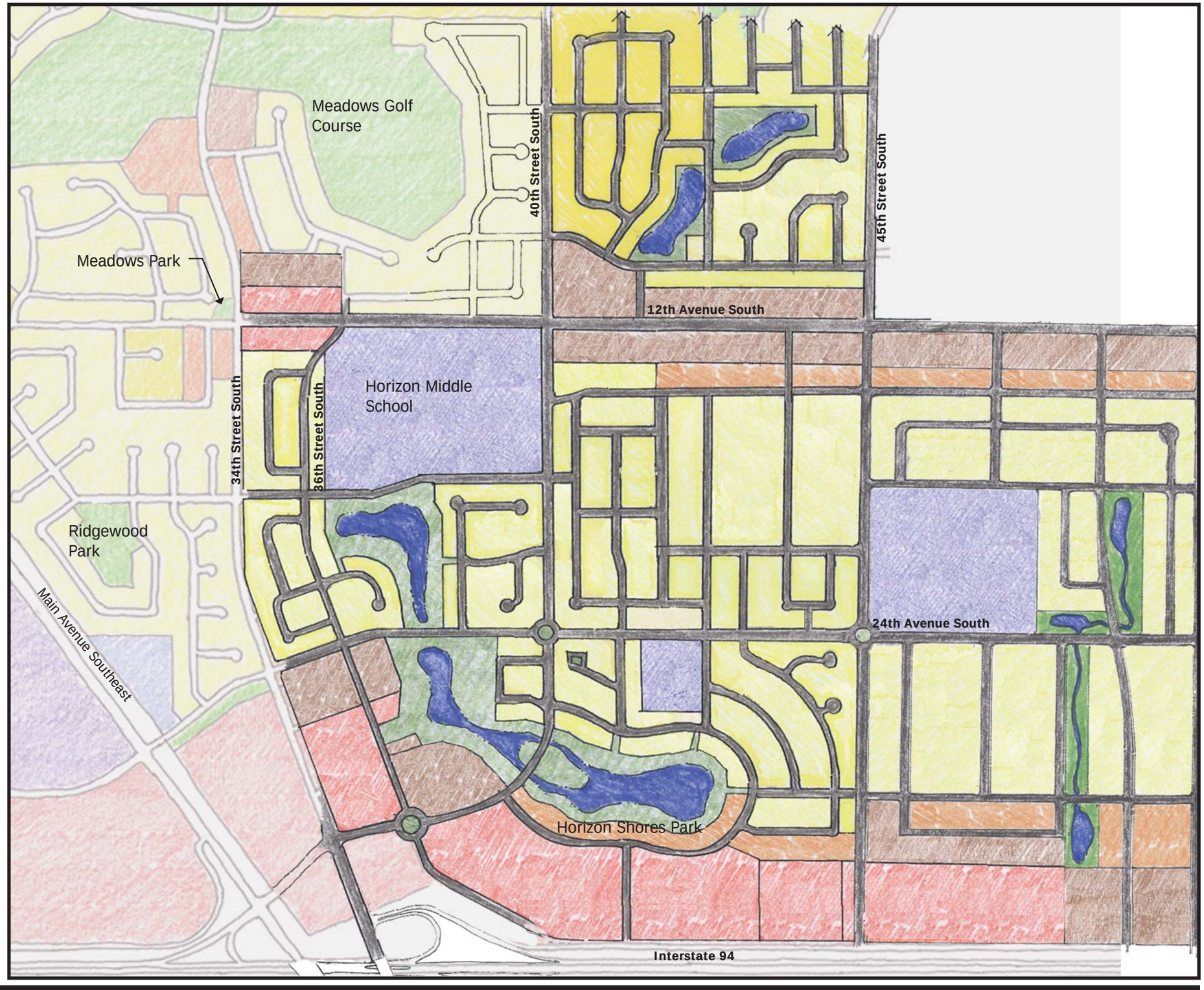

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Figure 14:Southeast Growth Area Plan

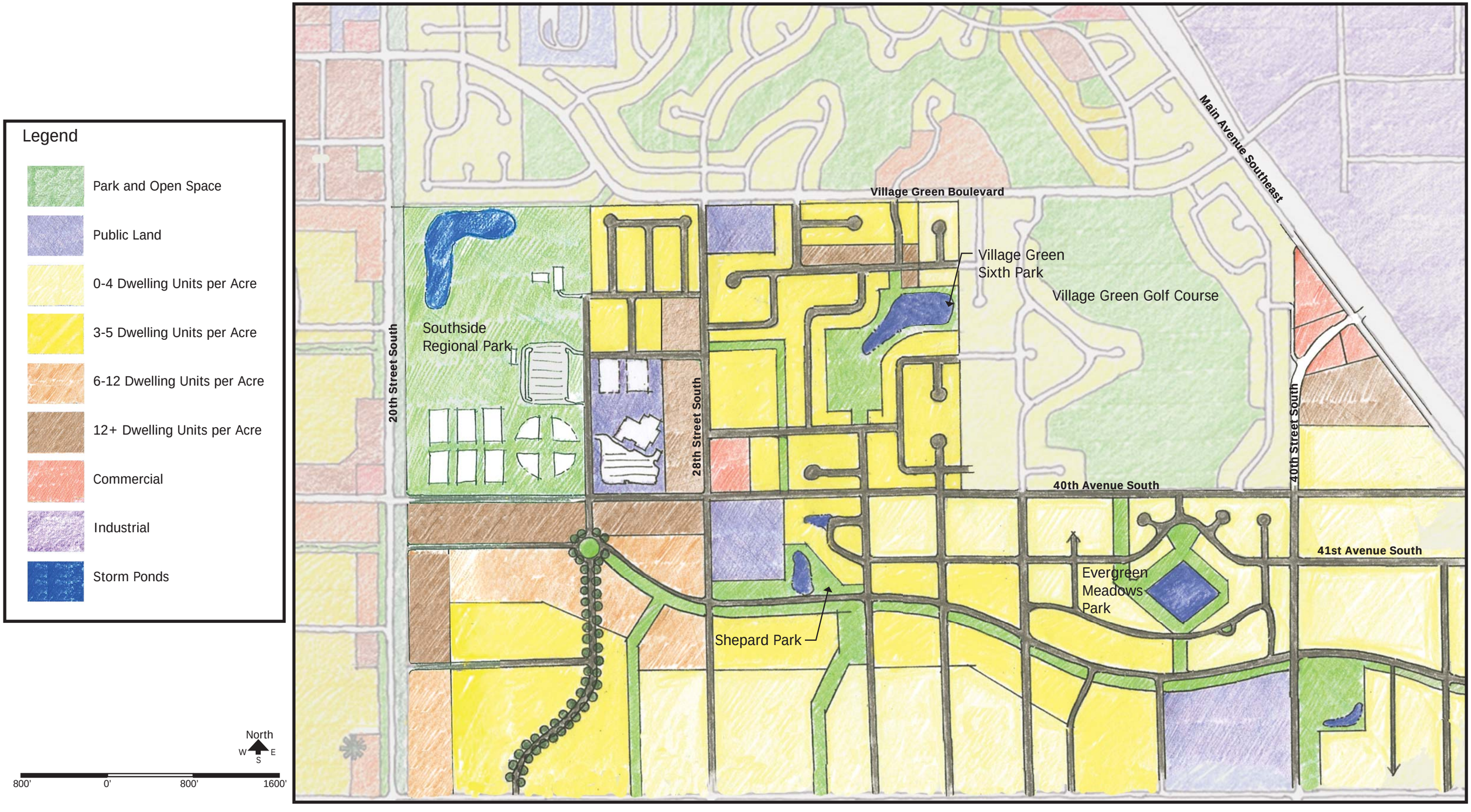

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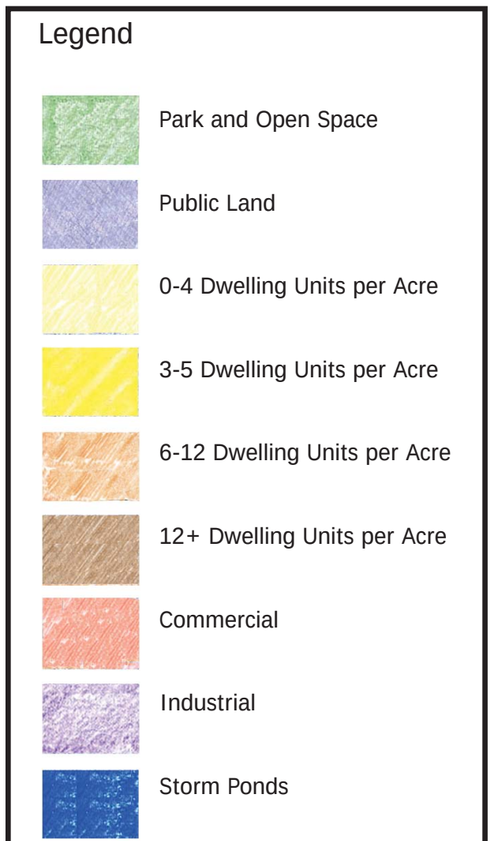
Figure 15: South Central Growth Area Plan



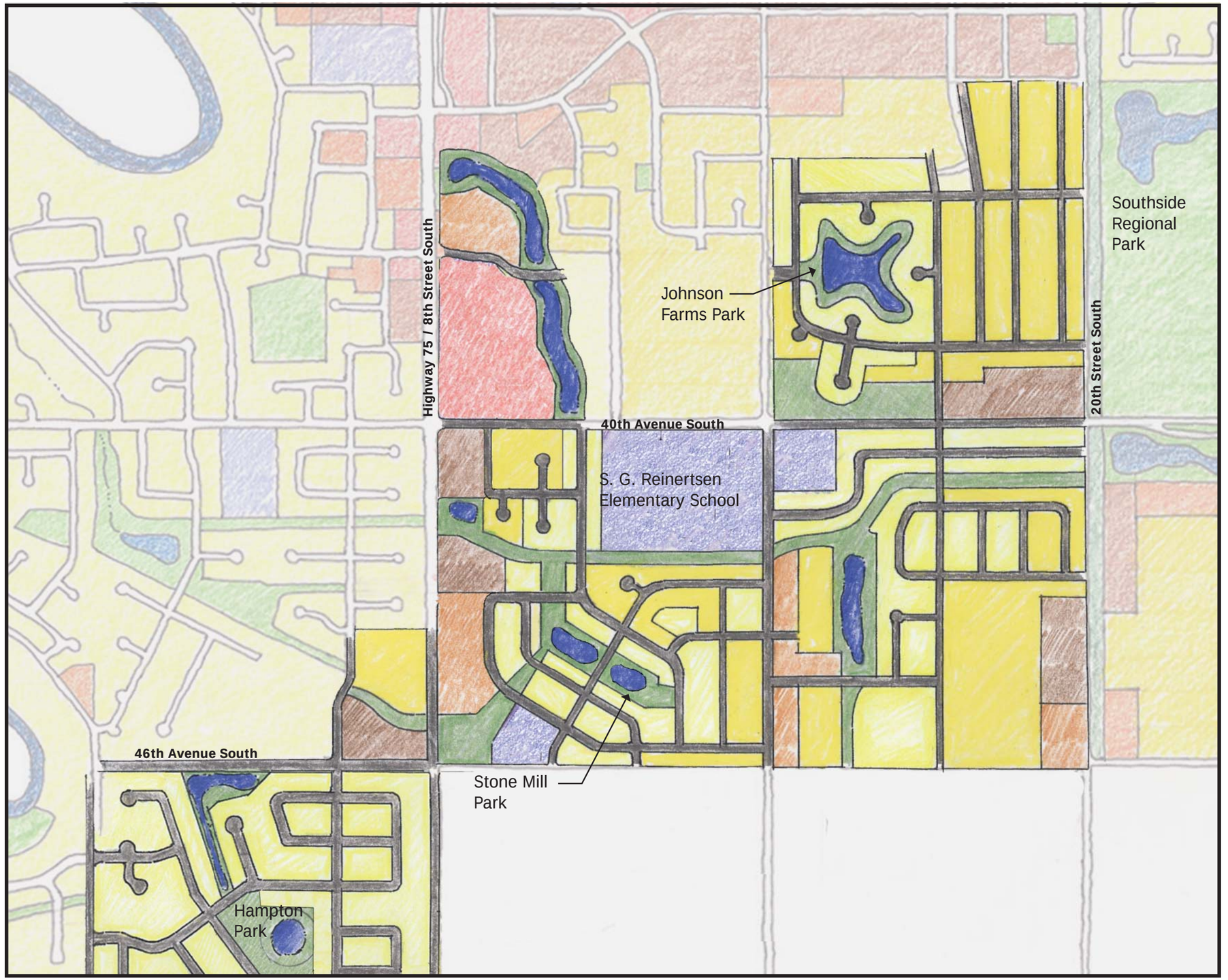


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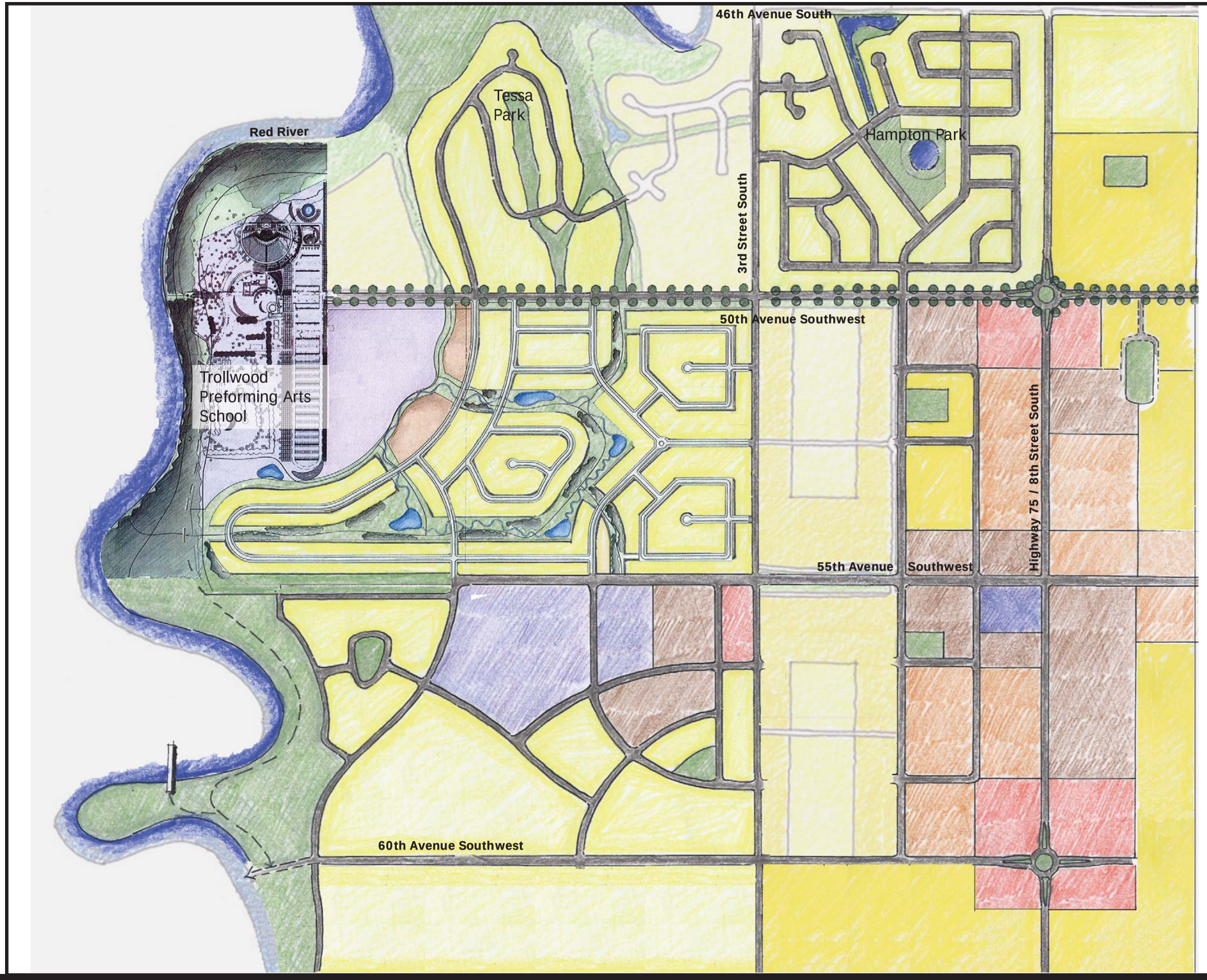
Figure 16: South Growth Area Plan

Legend

- Park and Open Space
- Public Land
- 0-4 Dwelling Units per Acre
- 3-5 Dwelling Units per Acre
- 6-12 Dwelling Units per Acre
- 12+ Dwelling Units per Acre
- Commercial
- Industrial
- Storm Ponds



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900’ 0’ 900’ 1800’

Moorhead Growth Area Plans
Moorhead, Minnesota

November 4, 2009

Bonestroo

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North Moorhead/Oakport Township Growth Area Plan (2008)

In 1989 the City of Moorhead and Oakport Township entered into a Joint Resolution designating an area for orderly annexation and establishing the provisions for a Joint Powers Agreement that was adopted in 1990. These agreements designated two tracts of land for cooperative planning and land use authority. The tracts required municipal sewer services to address failed septic systems that were threatening the public health, safety and welfare. The area identified as Tract 1 was annexed immediately to the city.

The Joint Powers Agreement extended Moorhead's zoning regulations, subdivision and building regulations, as well as established street and drainage design standards. The Joint Powers Board exercises planning and land use authority over these areas. It is comprised of two members from the Moorhead City Council, Oakport Township Board and Clay County Board.

The area identified as Tract 2, encompassing 1,770 acres is located in the western portion of Oakport Township near the Red River. This tract is scheduled for annexation to Moorhead in 2015.

The area identified as Tract 3, located mostly east of Highway 75, includes 1,030 acres and has not been scheduled for annexation. Any annexations that take place must be through mutual agreement among the City of Moorhead, Oakport Township and Clay County. The initial Joint Powers Agreement stated that no development is to occur in Tract 3 unless the Joint Powers Agreement is amended. Various amendments to this agreement have been made since 1989.

In 2008, the City of Moorhead completed the North Moorhead/Oakport Township Growth Area Plan that addressed all three tracts of land and additional areas located north and east of the three tracts. The growth area plan addressed approximately 10,000 acres.

The purpose of this growth area plan was to provide city officials and staff with a guide for reviewing proposed development and planning for the public infrastructure required to support future growth. It also provides property owners and potential developers with a guide for developing their property.

The growth area plan resulted in a development plan that would accommodate over 35,000 jobs and 27,000 housing units. For a comparison, McKibben projected that the city could accommodate 6,500 new housing units and 4,900 jobs by 2035. This is a very long-range plan, and it states that only Phase 1 is likely to develop by 2035. Phase 1 is generally located within the areas referred to as "Tract 1" and "Tract 2" in the orderly annexation agreement between the City of Moorhead and Oakport Township (see Figure 23 Growth Areas).

The growth area plan provides details on future land use patterns and also accomplished the following:

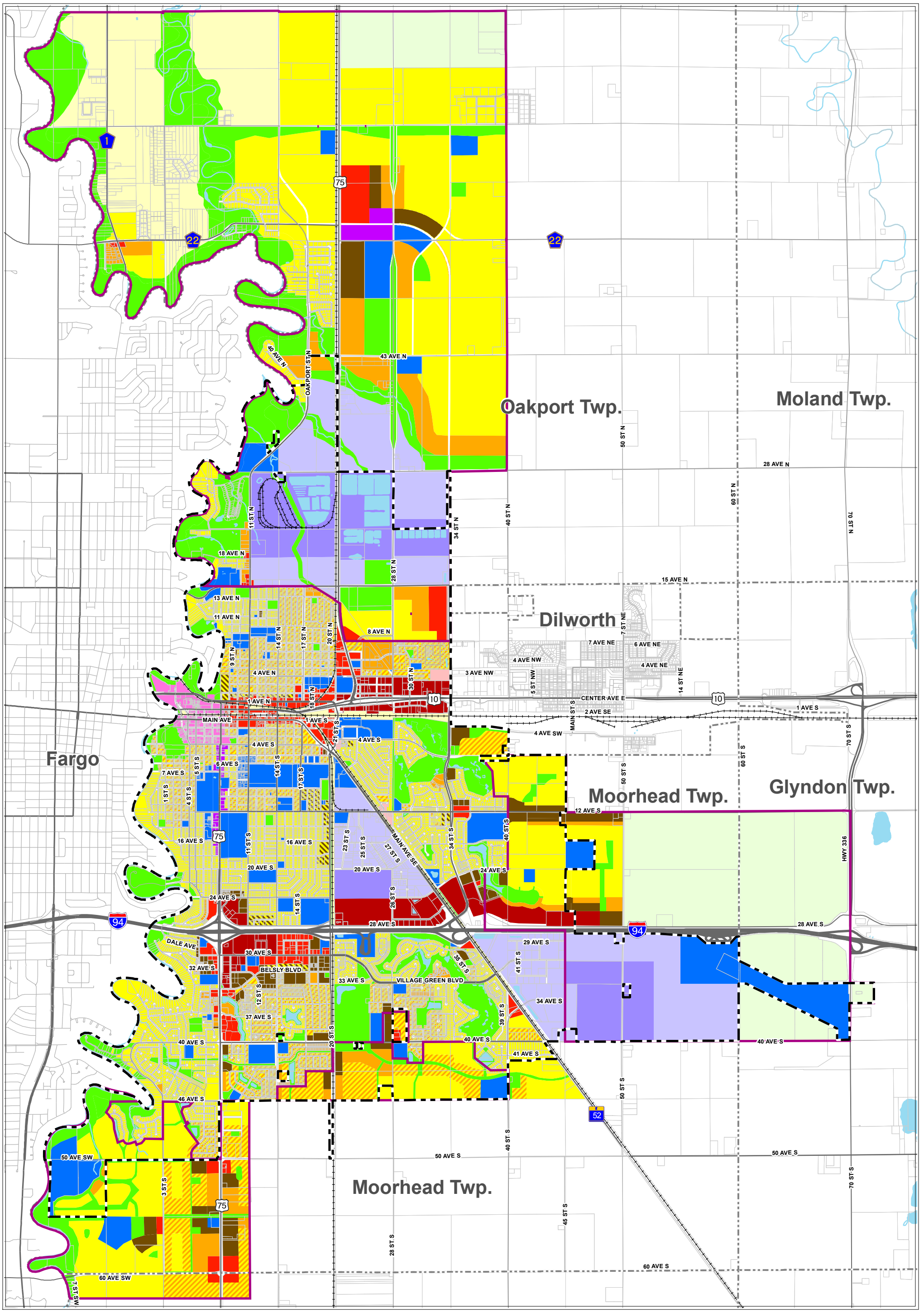
1. Identified an efficient and logical system of major roadways to connect growing areas with community destinations;
2. Established a comprehensive network of parks and open spaces to serve future residents by providing active and passive recreation areas, community amenities, and trails to connect neighborhoods;
3. Identified a system and strategies for storm water management that will serve as an asset and amenity for future neighborhoods while performing the needs of managing increased storm water run off due to new development.

Summary of the City Future Land Use Map Update

The city's future land use map update, presented in Figure 17 reflects the city's vision for how these future changes should occur. This map is based on the land use plan presented in the 2004 Comprehensive Plan but has been updated to incorporate the planning efforts that have been completed more recently--particularly the updated South and East Growth Area Plan and North Moorhead/Oakport Township Growth Area Plan. This future land use plan map provides a complete picture of the city's most recent planning efforts. The summary of the future land use map can be found in Table 5.

TABLE 5 - FUTURE LAND USE

Future Land Use	Gross Acres	Percent of Total
Low Density Residential	5,975	25.2%
Parks/Open Space	3,233	13.6%
Right-of-Way	2,961	12.5%
Agricultural	1,811	7.6%
Light Industrial	1,635	6.9%
Rural Residential	1,369	5.8%
Medium Density Mixed Residential	1,503	6.3%
Public/Institutional	1,366	5.8%
Heavy Industrial	887	3.7%
Medium Density Residential	806	3.4%
High Density Residential	528	2.2%
Community Commercial	451	1.9%
Regional Commercial	476	2.0%
Water	272	1.1%
Railroad	196	0.8%
Mixed Use	77	0.3%
Downtown	93	0.4%
High Density Mixed Residential	81	0.3%
Neighborhood Commercial	19	0.1%
Total City and Growth Areas	**23,739**	**100.0%**



Future Land Use Map

2009 Comprehensive Plan Addendum

City of Moorhead, Minnesota

Figure 17

- Moorhead City Boundary
- Other Municipal Boundary
- Growth Area Boundaries
- Agricultural
- Rural Residential
- Low Density Residential
- Medium Density Residential
- Medium Density Mixed Residential
- High Density Residential
- High Density Mixed Residential
- Neighborhood Commercial
- Community Commercial
- Regional Commercial
- Downtown
- Mixed Use
- Light Industrial
- Heavy Industrial
- Public/Institutional
- Parks/Open Space
- Open Water

November 5, 2009

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Vacant and Agricultural Lands

Additional analysis was conducted to examine all of the areas within the city and the growth areas that were identified as currently being either vacant or agricultural uses since these represent the sites that can be more easily developed since they do not require significant redevelopment efforts. These vacant and agricultural lands were then separated further to determine the amount of vacant and agricultural land that is available within each residential land use category. Finally, the applicable density rates for each land use category were applied to determine the total capacity for new housing units that can be satisfied with vacant and agricultural land (Table 6).

TABLE 6 - LAND USE PLAN CAPACITY FOR NEW HOUSING UNITS

Future Land Use	Density	Gross Acres	Potential Units
Low Density Residential	4	4,010	16,042
Medium Density Mixed Residential	5	791	3,955
Medium Density Residential	12	651	7,811
High Density Mixed Residential	12	13	150
High Density Residential	30	397	11,905
Mixed Use	30	54	1,618
Rural Residential	0.2	977	195
Total		**6,893**	**41,676**

As Table 6 indicates, approximately 41,500 new households can be accommodated within the vacant and agricultural lands with 2/3 of growth being medium/high density residential and 1/3 of the growth being low density residential. Using McKibben's estimate of 2.41 persons per household in 2035, this vacant and agricultural land supply would allow for over 100,000 new residents.

To compare this vacant and agricultural land supply to anticipated housing demand, McKibben's "high growth" scenario projected that the demand for new housing in the city would be approximately 6,500 new housing units by 2035 (or 15,665 new residents) or about 1/6th of the amount of land available. Therefore, it needs to be recognized that the future land use map represent a very long-range plan.

Infill and Redevelopment

The city can accommodate a portion of its projected growth through infill and redevelopment of underutilized and vacant land within the city. Infill and redevelopment pose unique challenges for developers and communities, as issues such as site contamination, land assembly, infrastructure capacity and permitting can create additional delays and expenses relative to development on vacant land at the edge of the city.

Redevelopment opportunities are limited by recent changes in State Law that limit a city's powers of eminent domain and restrict a city's ability to initiate redevelopment for economic development purposes. This change has a dramatic effect on communities seeking new housing opportunities and job growth through redevelopment.

When infill and redevelopment occur, scale and design guidelines are critical to ensure that the projects enhance existing neighborhoods. Infill and redevelopment is also an opportunity to provide new amenities such as parks, open space or trails that benefit surrounding neighborhoods.

Areas that have been identified as candidates for redevelopment include the following:

- Downtown Moorhead, particularly from the high-rise on 2nd Avenue North south to the power plant
- Power Plant Site
- 1st Avenue Corridor
- SE Main
- Center Avenue

Input was gathered from residents, students and Planning Commission Visioning exercises that provided additional principles and recommendations for future redevelopment in the city, as follows:

- Provide additional retail and dining opportunities in downtown.
- Develop new rental housing and mixed use development around, or in proximity to the college campuses that is compatible with the existing neighborhoods.
- Seek opportunities in the redevelopment process for involvement of students as well as property owners.
- Create a unique and vibrant space that provides shopping, entertainment, housing and recreational opportunities to residents and students from both sides of the river. High quality building materials should be used to achieve attractive developments that reflect Moorhead's character.
- Identify opportunities for higher density senior housing.
- Priority should be given for Moorhead to fill in rather than expand.

Redevelopment guidelines include elements such as:

- Vibrant sidewalks and public spaces, characterized by farmer's markets, public art, gathering spaces, and community plazas.
- Attractive landscaping and boulevards to create a pedestrian-friendly environment to support healthy lifestyles.
- More compact development.

- Increased transit and pedestrian connections between downtown Moorhead and downtown Fargo and college campuses.
- Pedestrian oriented downtowns that attract tourists and other visitors.

Because Moorhead's existing neighborhoods are an important asset to the community, small-scale redevelopment efforts on specific sites (e.g. vacant lots) are recommended along with improved maintenance, rather than larger-scale redevelopment efforts that would disrupt stable areas. Principles and recommendations for reinvestment in these areas, based on resident and student comments and Planning Commission visioning exercises and discussion, include the following:

- Continue to address property maintenance issues, particularly for rental properties.
- Encourage owners/private investors to improve Moorhead Center Mall to create a community gathering space.
- Foster input and collaboration among all stakeholders to create strong neighborhoods and promote community pride.
- Provide small retail opportunities within neighborhoods that are within walking distance of residential areas.
- Increase recreational opportunities, such as a community center, dog parks, easily accessible neighborhood parks and community gardens.

Mixed use typically supports active living by providing destinations and activities in a compact pedestrian environment. The city's existing downtown area provides opportunity for compact, mixed use environment. In addition to businesses and civic uses, recent redevelopment mixed use projects include commercial space and high density housing.

In addition to the infill and redevelopment studies that were identified in the introduction to this addendum, the city has been proactively examining several potential redevelopment areas throughout the city. The planning activities are located in areas that have some or all of the traits that would imply a need for redevelopment. However, it should be noted that part of the exercise of these small area studies is to determine whether or not redevelopment is the preferred option and therefore, the initiation of planning efforts, in and of itself, does not indicate a policy commitment to initiate redevelopment activities. Policy changes and action steps may be enacted at the end of the planning process for certain areas that the Planning Commission and City Council determine are most critical or feasible.

Some of the areas where small area planning has been initiated as part of the Comprehensive Update Addendum include three redevelopment options for Downtown and infill/redevelopment concepts for the 1st Avenue Corridor, SE Main Corridor, and Center Avenue Corridor. Infill and redevelopment concepts for these areas are presented and described on Figures 18 and 19.

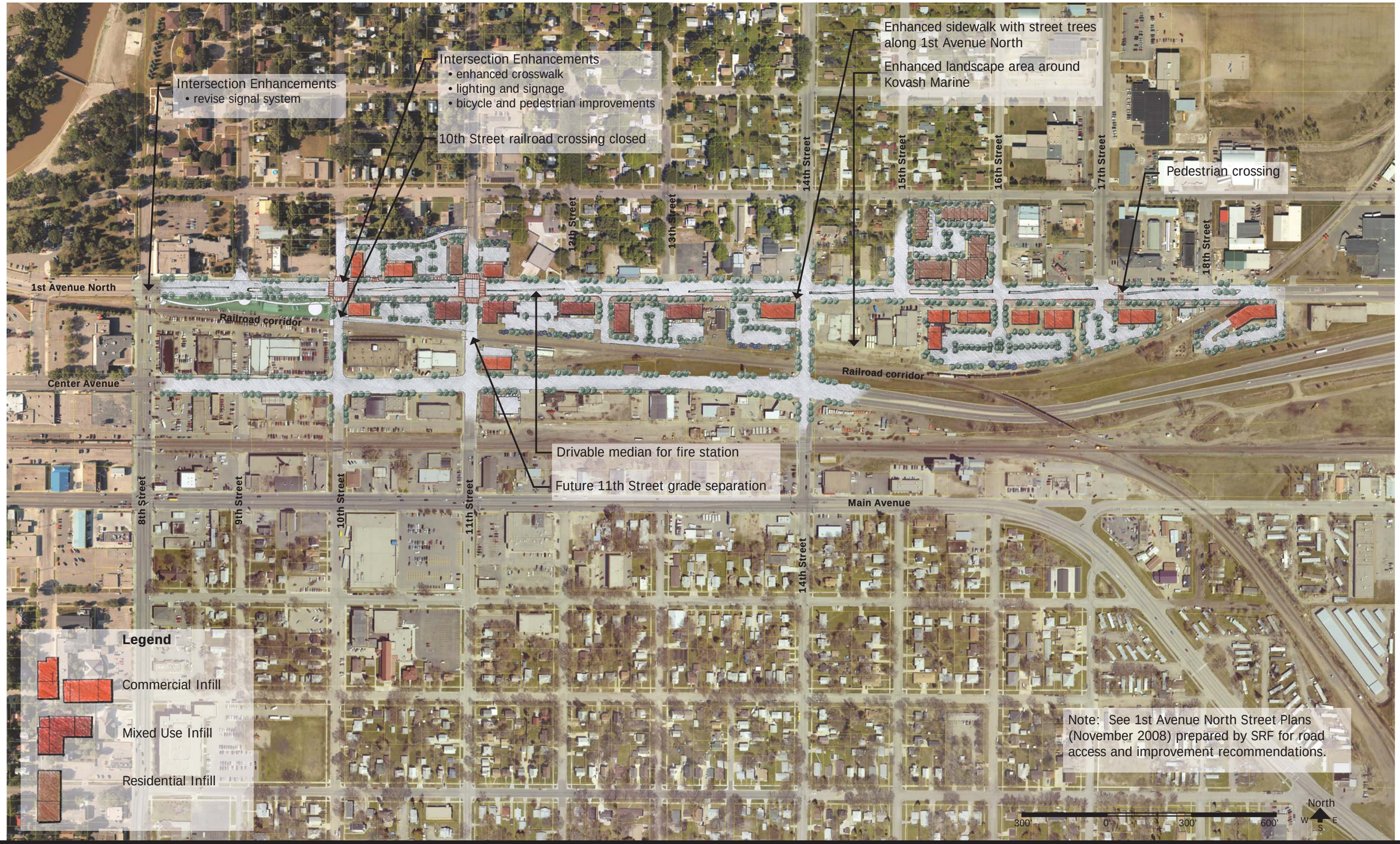
1st Avenue Corridor

The redevelopment framework for the 1st Avenue North corridor has been designed based on the recommended corridor improvements identified in the study 'A Review of the Corridor from the Red River to 21st Street' prepared by SRF Consulting Group, Inc. in November, 2008. The plan identifies a variety of transportation and pedestrian realm related improvements to balance the functional needs to move traffic with the aesthetic and safety needs of the pedestrian and bicyclists. Some of the recommended improvements include; enhanced pedestrian crosswalks, widened landscaped boulevards and sidewalks, consolidated driveways, shared parking opportunities for redevelopment sites and roadway medians. The plan also identifies key redevelopment parcels along the corridor and related transportation improvements associated with the parcels. The redevelopment framework plan applies urban design principles such as reduced building setbacks, parking located behind or beside the buildings, shared parking opportunities, and adequate sidewalks and streetscaping to allow for an inviting, pedestrian scaled street realm. The mix of commercial, office and residential uses are intended to maximize the development potential of each site, while contributing to a diverse economic base. This plan is intended to be a flexible guide on which to base reviews of future plans for general compliance with the city's goals for the character of the corridor.

Main Avenue Corridor

The redevelopment framework for the Main Avenue and 2nd Avenue corridors builds on the previous downtown plans completed by DSU Inc., the 2007 Fargo-Moorhead Downtown Framework Plan Update and the 2004 Comprehensive Plan prepared by Hoisington Koegler Group Inc. The focus of the plan is to enhance the overall character of Main Avenue as a commercial gateway into Downtown Moorhead. The plan also emphasizes the importance of the intersection of 8th and Main Avenues as a key downtown intersection and as a major gateway from the south along 8th Avenue. The plan identifies the opportunity to enhance this intersection with a mix of commercial and residential uses to strengthen the connection from Moorhead State University and Concordia University to the Downtown. The design also takes into account factors such as the impact of new student housing in the area, development proposals targeted to the downtown area, and the need for pedestrian realm improvements to enhance the connection between the Downtown core and adjacent areas. The framework plan identifies parcels with high redevelopment potential and highlights certain areas along Main and 2nd Avenues where application of high site and building design standards will be instrumental in order to create a unified, consistent corridor.

Figure 18: 1st Avenue North Redevelopment Framework Plan



Moorhead Redevelopment Framework Plans
Moorhead, Minnesota

October 29, 2009

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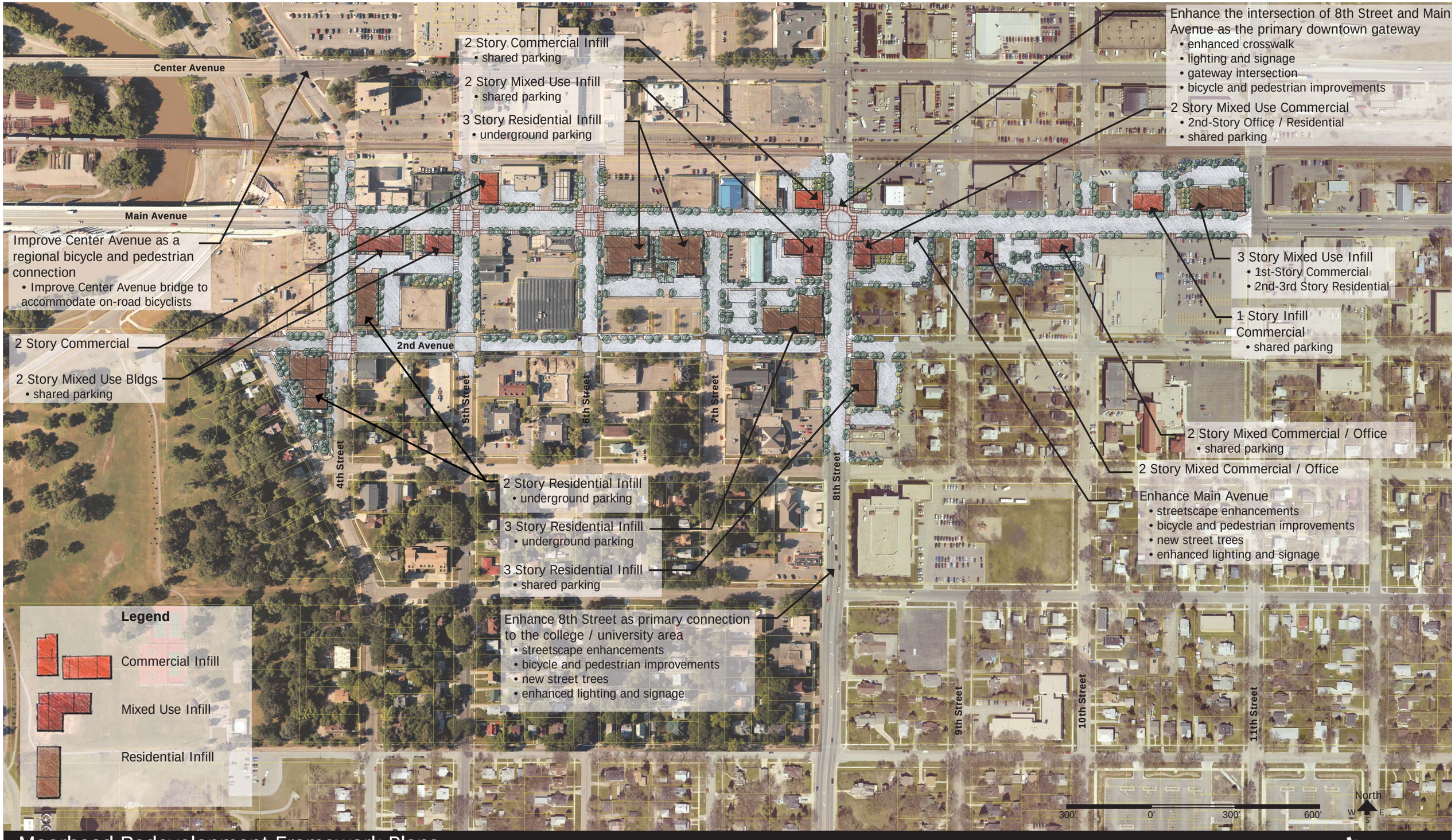
Figure 19: Main / 2nd Avenue Redevelopment Framework Plan



Moorhead Redevelopment Framework Plans
Moorhead, Minnesota

October 29, 2009

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Downtown Core

Three redevelopment concepts for the Downtown core were prepared to explore redevelopment opportunities associated with the Moorhead Center Mall. These concepts are located in the Appendix and are for illustrative purposes only. If the City of Moorhead considers redevelopment projects of this magnitude in the downtown core the city will simultaneously consider existing mass transit operation issues. Redevelopment or infill projects could provide the opportunity to accommodate a transfer site, which could increase efficiency and reliability (and possibly expand service areas) of mass transit in Moorhead and increase pedestrian activity in downtown.

Growth Management

Growth is shaped and managed in a variety of ways and takes many forms. The vast floodplain of the Red River has and will continue to have a significant effect on the city's development pattern. Redevelopment within floodplain areas will be managed to ensure protection of the water resources and the property adjacent to the water resources. Areas located within the existing delineated floodplain areas are shown on Figure 20. A proposed new 100-year and 500-year floodplain map for the city has been prepared but has not been formally adopted by the city (see Figures 21 and 22).

The city's growth will also be shaped by the man-made features, such as the availability of infrastructure. Urban-scale development is not feasible without municipal sewer and water service. Extensions of transportation facilities can also impact the rate of growth in an area and how that growth occurs.

Growth management also occurs with the city's collaborate efforts with surrounding Townships, Metro COG, Clay County, and the adjacent City of Dilworth to plan for future land use, infrastructure systems, parks and open space, and jurisdictional boundary adjustments and agreements. For instance, the city has established a Joint Resolution and Joint Powers Agreement with Oakport Township for orderly annexation of three tracts of land and a Joint Powers Board to exercise planning and land use authority for specific areas in Oakport Township (Figure 23). The Cities of Dilworth and Moorhead have agreed to a north/south border between the two communities, which generally follows 12th Avenue S.

Staging Plans

One method for managing growth is the creation of staging plans to identify the approximate timing and phasing for municipal service to growth areas. Staging areas ensure that growth does not move into areas that do not have the public infrastructure to support it. Growth can be managed to ensure that appropriate infrastructure and transportation improvements are completed to accommodate new development in the most efficient and cost-effective manner.

When growth is not staged, there can be a number of negative impacts including excessive public infrastructure expenditures since sewers, water systems and transportation facilities may need to expand in many directions at the same time. Infrastructure is also often oversized because there is no way to know with great certainty what proportion of the city's anticipated growth will occur in each growth area, so all areas are designed with extra margins of error.

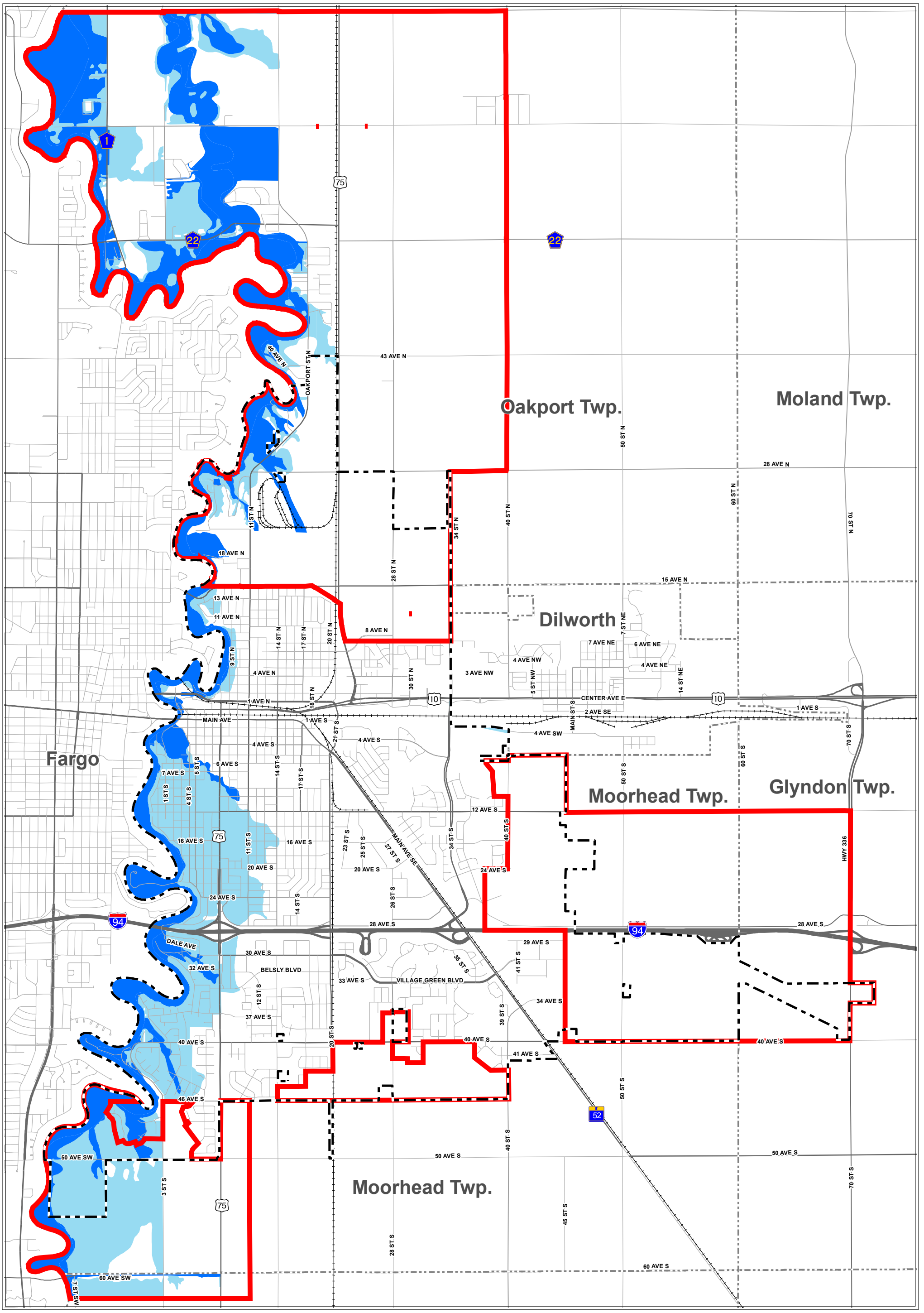
Unstaged growth also leads to a drop in raw land values because it expands the potential land supply so that it greatly exceeds the short term land demand. This can distort the real estate market and encourage urban sprawl into agricultural areas rather than development on vacant land in areas already in the city.

As mentioned earlier, the City of Moorhead has completed several plans to identify areas that will accommodate anticipated growth and the areas that have been identified greatly exceed the area that will be needed to accommodate growth during the life of this plan. Staging areas will provide critical guidance to the market place so that residents, landowners, developers and municipal authorities can plan for issues that will occur in the next 25 years and not spend a lot of scarce resources on the issues that may happen for another 50 or 75 years into the future.

Moorhead has the authority to stage growth. Minnesota Statutes 462 provides that a city's zoning and subdivision authority can extend two miles beyond its municipal boundaries into unincorporated territories unless that area falls within another jurisdiction (county, town, or township) that has adopted regulations. Since Clay County has established zoning regulations within Oakport and Moorhead Townships, Moorhead does not have zoning authority within two miles. Moorhead, however, does have extra-territorial powers for the application of subdivision regulations and requires city approval of subdivisions. The entire planning area falls within Moorhead's two-mile extra-territorial review area.

One of the primary determinants for growth staging areas should be to determine which areas are the most efficient and cost-effective for extension of infrastructure. Other issues may also be considered such as whether a stage is more critical to the city for a non-infrastructure reason. This can occur, for instance, if a growth stage has a proposed use that is not available in other locations (such as a key employment destination), creates a key linkage, or the preservation of sensitive areas such as floodplains.

City engineers have examined the cost efficiency of extending infrastructure to various growth areas and have determined that although some growth to the east can be accommodated reasonably, extending water and sewer service east of 50th Street would be very costly and difficult within the 2035 planning timeframe. For instance, continued growth to the east would require significant transportation improvements along 12th Avenue, including a potential interchange at TH 336 and the region is not ready to prioritize that expenditure over the many competing regional transportation needs.



Floodplains

2009 Comprehensive Plan Addendum

City of Moorhead, Minnesota

Figure 20

N

2,000 0 2,000 4,000 Feet

- Moorhead City Boundary
- Growth Area Boundaries
- Other Municipal Boundary
- 100-Year Floodplain
- 500-Year Floodplain

October 12, 2009

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CITY OF MOORHEAD MINNESOTA

FEMA Preliminary 100 Year Floodplain Map for the City of Moorhead, MN

Legend

- Red River
- FEMA's Preliminary 100 Year Floodplain
- Moorhead City Limits
- Moorhead Properties
- Properties outside the City of Moorhead

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Scale:

0 0.5 1 2 Miles

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CITY OF MOORHEAD MINNESOTA

FEMA Preliminary 500 Year Floodplain Map for the City of Moorhead, MN

Legend

- Red River
- FEMA's Preliminary 500 Year Floodplain
- Moorhead City Limits
- Moorhead Properties
- Properties outside the City of Moorhead

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Scale:

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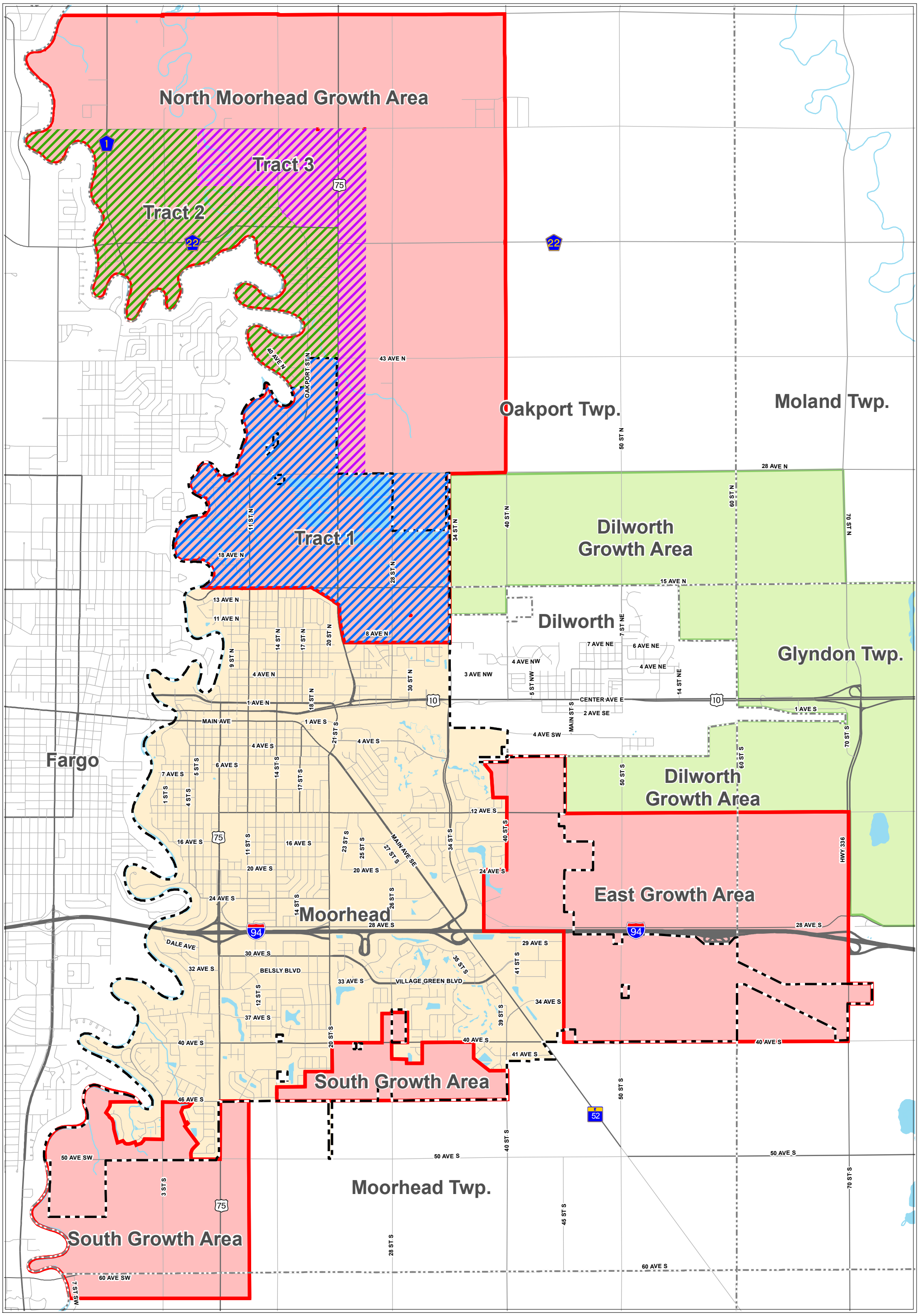

Growth Areas

2009 Comprehensive Plan Addendum

City of Moorhead, Minnesota

Figure 23

N

2,000 0 2,000 4,000 Feet

- Moorhead Growth Areas
- Oakport Orderly Annexation Area Tract 1
- Oakport Orderly Annexation Area Tract 2
- Oakport Orderly Annexation Area Tract 3
- Dilworth Growth Areas
- Moorhead City
- Other Municipal Boundary
- Open Water

October 12, 2009

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The most cost efficiency for future growth staging appears to be concentrated in the southern areas since the city already has made several infrastructure investments to serve this area. The north and east growth area also will be studied further to determine the feasibility of providing infrastructure to accommodate projected growth in this area.

Parks and Trails

The city's 2004 Comprehensive Plan included a park plan that classifies parks into four different categories:

- **Neighborhood parks** are the basic unit of the park system and serve as the recreational focus of the neighborhood. They are intended to serve populations residing in a ¼ to ½ mile radius uninterrupted by non-residential roads or other physical barriers. They are generally 3 to 5 acre sites.
- **Regional parks** are designed to serve a broader need within the community. In addition to active recreation, they often also preserve open space. They are generally 30 to 50 acre sites.
- **School parks** fulfill the needs of the surrounding neighborhood by the co-location of school and park facilities.
- Some park facilities are designed to meet the need of a specific recreational activity, such as soccer, baseball, swimming or golf. These facilities range in size and location based on the particular needs of the activity.

Several policies were developed in response to the public input to guide development of the city's Park System. These policies provide guidance for planning for the future park system in Moorhead:

- Encourage placement of neighborhood parks (generally a 3 to 5 acre site) so that all residential housing units are within ½ mile (average 10 minute walk) without having to cross a major highway or railroad.
- Ensure there is a balance of active and passive park areas to serve the community's life-cycle recreational uses on a year-round basis.
- Create a system of trails to link parks and major activity areas of the community.

Trail policies in the 2004 Comprehensive Plan include the following:

- Require sidewalks on both sides of all streets.
- Sidewalks and trails should be developed to connect to neighborhood attractions such as schools, churches, parks, or neighborhood retail centers.
- Require sidewalk or trail connections to public transit facilities.

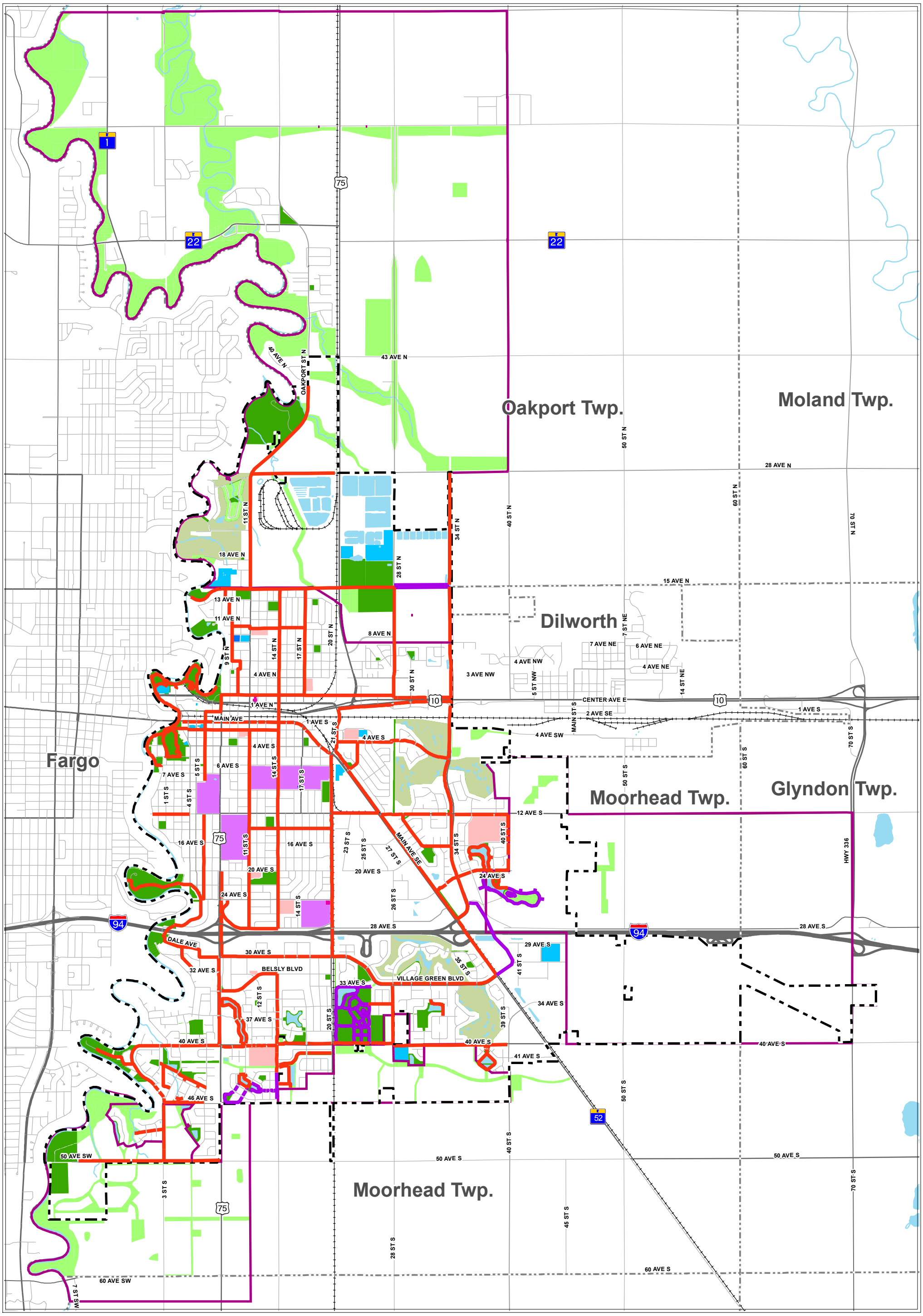
- Trails should be designed to accommodate multiple recreational activities including walking, jogging, biking, in-line skating or cross-country skiing. Physical separation of walking and jogging with biking or in-line skating should be encouraged, where feasible.

Existing and planned park and open space facilities are shown on Figure 24.

In addition to parks, the 2004 Comprehensive Plan discusses sidewalks and trails in the community. The plan calls for a broad network of trails and sidewalks that should connect neighborhoods to places like Downtown, Concordia College and MSUM, larger park facilities, a network of open spaces, public school facilities, transit stops, arts and cultural centers, and neighborhood retail areas.

In 2006, the Metro COG refined trail and bikeway plans when it completed a Metropolitan Area Bikeway Plan. The plan identifies the existing and future bike facility network in the Fargo-Moorhead Metropolitan Area, which includes the communities of Fargo, Moorhead, Dilworth, and West Fargo. The planned trail network is also shown on Figure 22. The plan classifies facilities as shared use paths, bicycle lanes, and shared roadways. Existing and future bridge and tunnel location are shown. The Bikeway Plan incorporates connections to existing parks and schools to support active living. Metro COG will be updating the Metropolitan Area Bikeway Plan in 2010.

During public workshops held for 2004 Comprehensive Plan, participants agreed that every home should be within walking distance of a park. This desire was confirmed at the neighborhood meetings and the community survey conducted in 2009. Participants also expressed the desire for a linear park system that would connect the Moorhead park system, neighborhoods, and major activity centers. Participants identified the need for parks that serve a greater age range, from children through adults and seniors. The city is committed to meeting the goal of locating park and trail facilities within a desirable walking distance of every home.



Parks, Trails and Points of Interest

2009 Comprehensive Plan & SE Growth Area Plan

City of Moorhead, Minnesota

Figure 24

N

2,000 0 2,000 4,000 Feet

- Schools
- Colleges
- Fire Stations
- Police Stations
- Public Facilites
- Parks
- Golf Courses
- Existing Bikeway
- Future Bikeway
- Moorhead City Boundary
- Other Municipal Boundary
- Parks/Open Space
- Open Water

October 30, 2009

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Infrastructure

Streets

Over the past several decades, street system design in the United States has focused, at times almost exclusively, on improving the experience for the automobile. When a street is too focused on automobiles, it can become unusable or unsafe for other modes of transportation, including pedestrians and bicyclists. Some examples of the types of problems that can occur include the following:

- Lack of sidewalks, pavement markings and trails can force pedestrians and bicycles into the same pavement areas which can lead to serious safety issues.
- Automotive traffic can be delayed and disrupted when transit shares the roadway without suitable locations for loading and unloading of passengers.
- People requiring mobility aids may not be able to easily cross the roadway as designed.

To combat this problem, communities are increasingly turning to the "Complete Streets" concept as transportation systems are designed. Complete Streets are streets that are safe, comfortable, and convenient for travel via automobile, foot, bicycle and transit. It is a design concept that sets a vision to include all forms of travel in the design process and emphasizes flexible, context sensitive design standards.

Integrating the needs of all users – pedestrians, bicyclists, public transportation riders, motorists, senior citizens, children and people with disabilities early in the design process minimizes costs, disruptions and tragedies that can occur with traditional transportation design. Over the past several decades, transportation design often ignores the needs of these other users. It can be extremely expensive and disruptive to retrofit these existing facilities in the future when safety issues or other multi-modal needs arise.

The City of Moorhead has been involved in multi-modal transportation design prior to the Complete Streets concept becoming popular around the nation. For instance, the 2004 Comprehensive Plan recommended the redesign/reconstruction of key streets in Moorhead as boulevards to improve the image of the community. This recommendation will also improve the pedestrian and bicycle environment along these roadways and providing additional pedestrian and bicycle connections between key destinations. Key boulevards in Moorhead, as noted below, may be characterized by the following features: enhanced landscaping and tree canopy, unique lighting, banners, and pedestrian and bicycle paths. Although some of the following roadways have limited right-of-way, the candidates for boulevard redesign identified in the 2004 Comprehensive Plan include the following:

- 8th Street/Highway 75: The entire corridor may be a good candidate for a boulevard design; however the type of design will need to vary between the edges of the

community and the mixed-use corridor leading into downtown from the south depending on available space.

- 34th Street: This street has or will become a major north-south corridor connecting two important activity nodes at I-94 and East Highway 10.
- Main Avenue SE: This diagonal street represents an entrance to Moorhead and eventually an entrance into the Downtown District. Some of it is already designed with a concrete median that could be replaced by plantings.
- Highway 10: This street, vital to Moorhead's Vision, is a major corridor that is cluttered with business signage and commercial activity. It is another entrance into Moorhead and the Downtown District. A boulevard character along Highway 10 may focus more on low level plantings to preserve sight lines to commercial establishments.

The city completed a corridor study for 20th Street and Highway 75 (8th Street) in 2008. The implementation of the study recommended corridor improvements include the construction of pedestrian facilities.

In 2008 the Metro Intelligent Transportation System (ITS) Plan was completed for the Fargo-Moorhead area. The plan was created with the following vision:

> ITS will be deployed to allow for the optimum utilization of existing and future transportation infrastructure in the region. The deployment of ITS is viewed as a tool to achieve higher levels of regional coordination in the areas of traffic management, operations, incidents response, security and the dispersion of real time information related to traffic movements.

The purpose of this plan was to outline the technical and administrative requirements to implement a coordinated information-sharing and traffic management solution. The plan recommended numerous signal system upgrades for both vehicular and pedestrian movements, signal interconnections, and the creation of a regional Traffic Operations Center (TOC) to improve operational efficiency of the signal system. To date, none of these improvements have been implemented. However, Fargo, Moorhead, MnDOT, NDDOT, and NDSU have submitted a joint application for TIGER funds (Transportation Improvements Generating Economic Recovery) that is part of the federal stimulus package. If approved, the improvements could begin within the next couple of years.

Several participants in the neighborhood meetings cited that high traffic speeds and high volume roadways as barriers to pedestrian activity. Traffic calming measures should be considered to reduce traffic volumes and speeds in residential neighborhoods and to promote a safer pedestrian and bicycle environment. Reasonable alternatives to automobile travel and retail, entertainment, employment, and recreational opportunities at accessible locations, may reduce traffic volumes and delay or reduce need for street expansions.

Adding 5,000 to 6,500 new households by 2035 will also impact the city's existing roadways. During visioning exercises and discussion, the Planning Commission identified several improvements that should be considered to ensure an efficient roadway system that meets future travel demand:

- Additional bridge crossings of the Red River. The 80th Avenue South (CSAH 67) corridor is preferred by Clay County and is included in the 2009 Metropolitan Transportation Plan (MTP) as an illustrative project for Clay County and a long-range (2021-2035) project for the City of Fargo. It is anticipated that cost participation would be assumed by Clay County, Cass County and the City of Fargo.
- Additional lanes on I-94 from 34th Street to 8th Street.
- Improvements to the 12th Avenue S/MN TH 336 corridors. However, for the 2035 planning horizon development is not anticipated to occur east of 50th Street due to constraints with the waters supply system. The Clay County project list in the 2009 MTP includes right-of-way preservation, road construction and interchange construction (illustrative).

Identification of efficient and cost-effective improvements can help the city plan and budget wisely. Strategies to encourage greater right-of-way dedication should be considered to preserve right-of-way for future roadway corridors or interchanges. Street design standards and parking requirements will be reviewed to identify ways to reduce costs of construction for the city, developer and property owner while still providing enhanced function.

Multi-Modal Transportation

Both residents and city leaders expressed the desire for more frequent and extensive transit service. Most participants in the neighborhood meetings do not currently use transit. However, several expressed a desire to commute by transit, but stated that it took too much time. The 2009 Community Survey confirmed this desire; however, on average, those surveyed were not willing to pay for more convenient and frequent MAT. To compete with the private auto, transit must be convenient and accessible. Increasing residential density and employment concentrations at key nodes and centers in the city could generate additional ridership and revenues to help justify and support expanded service.

Potential routes discussed included a shuttle connecting both Moorhead and Fargo downtowns and a connection between downtown Moorhead and the college campuses. Commuter bus services between major employers in Moorhead and the surrounding areas may be increased, using the successful commuter bus between Detroit Lakes and the Fargo-Moorhead area as an example.

The City of Moorhead, as part of a larger metropolitan region, benefits from cooperation with other jurisdictions. The city could work with Fargo to create a transit taxing authority. By combining resources and providing a dedicated funding source, this could be beneficial for both cities and provide opportunities for increased transit service in the region as a whole. However, surveyed residents were not willing to pay for more convenient and frequent MAT. The city also could cooperate with nearby cities and Metro COG to implement commuter services similar to the Detroit Lakes route.

Although sidewalks and trails are often considered part of the park and recreational activity systems, they are also key pieces in the multi-modal transportation system and have the potential to absorb some of the many short trips that residents make on a daily basis.

Moorhead already has implemented a number of changes to the physical environment that provide residents with alternative transportation options including the following:

- Supporting a system of trails and sidewalks for bicyclists and pedestrians that connect users to key destinations, including recreational facilities, employers, and shopping opportunities.
- Creating a pleasant and safe environment for pedestrians and bicyclists, with landscaping, street furniture, bike storage facilities, lighting, and traffic calming measures.
- Supporting transit service through pedestrian and bicycle connections to transit stops, and through higher density, mixed use development, which provides a concentration of activity more efficiently served by transit.
- Offering a mix of land uses that provide destinations within walking distance of residences.
- Increasing density of persons within walking distance of destinations and transit stops.

In meetings and discussions during the planning process, participants discussed how Moorhead can improve upon its existing efforts and provide additional opportunities. Throughout the public input process and visioning exercises, residents, students, Planning Commission and Steering Committee members expressed a desire for improved opportunities for walking, biking, and transit options in the city, as well as improved access to recreational and commercial opportunities, including:

- Additional sidewalks and shared use paths to increase connections in and among neighborhoods.
- Shared use paths to provide connections between cul-de-sacs.
- Safer pedestrian/bicycle connections to schools and implementation of the Safe Routes to School program.
- Increased safety at several intersections and at the railroad tracks.
- Bike/pedestrian bridges over the river to improve connectivity between Fargo and Moorhead.
- Landscaping, such as street furniture, planters along designated bike/pedestrian ways to improve the pedestrian environment.
- Bike shoulder lanes.

A system of well-connected sidewalks, bicycle lanes, and shared use paths should provide connections to key transit stops, the city's neighborhood nodes and centers identified in the 2004 Comprehensive Plan, and community facilities that provide recreational opportunities for residents of all ages, such as parks and open space, community gardens, or athletic complexes. Following completion of the Comprehensive Plan Addendum, city codes and ordinances will need to be reviewed and revised to incorporate connectivity and complete street concept strategies. This review process should examine elements such as existing sidewalk requirements for new developments, the potential for bike lanes on city streets, park dedication requirements, zoning for higher density mixed-use development, landscaping regulations to improve the pedestrian environment, review of street design standards and other elements. Draft standards and revisions will need to be analyzed and discussed with the development community. This review shall include an analysis of municipal improvement costs and financing options for the city, developer and property owners. Further analysis may include current municipal improvement costs compared with costs of those elements and standards being reviewed.

A number of challenges and/or barriers to multi-modal transportation were identified during this process, based on resident and student comments and Planning Commission Visioning exercises and discussion. Challenges for the city to address in cooperation with its partners include:

- **Providing complete system of sidewalks/trails.** Several areas of Moorhead do not contain sidewalks, have limited sidewalk access, or gaps in the sidewalk. This results in cut-through traffic through yards, walking on streets or grass boulevards, or discourages pedestrian trips completely.
- **Maintaining sidewalks/trails.** Several residents at the neighborhood meetings mentioned that sidewalks in their neighborhoods are poorly maintained, with uneven surface areas that pose safety hazards. The winter poses additional hazards, as some sidewalks are not shoveled in a timely manner or are covered in ice. Owners of

lots with multi-frontage lots have two or three times the normal maintenance responsibilities.

- **Adequately lighting public spaces.** Residents at the neighborhood meetings expressed the need for additional lighting to increase safety for pedestrians and bicyclists.
- **Negotiating railroad crossings.** The railroad tracks pose barriers to bicyclists and pedestrians. Participants expressed a need for additional safe crossings, such as underpasses.
- **Creating safer and more attractive pedestrian environments.** City leaders expressed a desire for landscaped boulevards and attractive parks to promote pedestrian activity. Residents specifically stated that the sidewalks downtown are too narrow and close to fast-moving vehicles on the street. Additionally, high traffic speeds through neighborhoods discourage safe pedestrian and bicycle travel. Additional right-of-way is needed in many areas to create safer and more attractive pedestrian environments.
- **Increasing viability of transit as alternative transportation.** Very few participants used transit, because congestion and sprawl in Moorhead are fairly limited and vehicle trips are relatively short. Many residents expressed a desire to use transit more frequently, if it were convenient.

In addition to the improvements identified by the Planning Commission and other participants in the planning process, the 2009 MTP provided a comprehensive assessment of short term and long term transportation needs, recommendations for future projects, goals and objectives to guide the physical development of the region, estimated future revenue, and a comprehensive list of short term and long term projects for each jurisdiction, including the City of Moorhead. The city should work with its transportation partners to implement the projects identified in the MTP to ensure that the transportation system meets the short term and long term needs of the city and region.

Railroads

As mentioned previously in the Community Context section, the City of Moorhead contains a number of railroad lines that create challenges for both vehicles and pedestrians. The city has established a whistle-free quiet zone that includes new pedestrian walks, gates and fencing to increase safety for pedestrians and bicyclists around the tracks. The city completed the 11th Street Railroad Grade Separation Feasibility Study in 2008 that includes recommendations for improving safety in this area for pedestrians and vehicles. The proposed SE Main Avenue/20th Street/21st Street Railroad Grade Separation Project is ready for construction, awaiting funding. Once completed, these projects will improve pedestrian and vehicle safety at railroad crossings.

During visioning exercises, several Planning Commission members identified measures to improve mobility and safety along the railroad tracks including the following:

- Strategically place underpasses to allow better traffic flow across railroad tracks.
- Pedestrian overpasses over railroad tracks can provide for safe crossings.
- Quiet Zones increase safety and reduce noise impacts on neighborhoods.

Because these items can be very costly or difficult to implement due to clearance requirements, consideration of railroad crossing solutions will continue for some time.

Airport

The city is planning to accommodate growth in east Moorhead in the vicinity of the city's airport, although a majority of this growth likely will occur after 2035. To prevent land use conflicts when development occurs, an airport overlay zoning district should be established long before development pressures reach the airport's influence area so that residents, landowners and developers can make informed decisions about development and investment decisions. An airport overlay zoning district will allow reasonable development opportunities in this area and still provide for safe and efficient airport service.

Water

Moorhead Public Service (MPS) is Moorhead's water utility and has been in existence since 1896. Moorhead's Water Treatment Plant was first built in 1960 and expanded in 1995. Eighty-five percent of Moorhead's water comes from the Red River. In addition, the community has seven wells, five located on the Buffalo Aquifer and two on the Moorhead Aquifer. The wells serve as a back-up for the community in times of drought or in case of contamination.

The total current system capacity is 16 million gallons a day and current usage is 4.4 million gallons a day.

The water distribution system is comprised of 204 miles of pipe, which extends into Oakport Township. MPS supplies the City of Dilworth with eighty-two percent of its water supply under an agreement established in 2000. Figure 25 shows the location of the current MPS municipal water service area and future service area identified in the 2006 Water Distribution System Modeling and Capital Improvements Study.

Future water supply is a large issue on the regional scale (North Dakota) due to the draw down of aquifers and drought conditions. The Moorhead Public Service Commission stays attuned to these regional issues; however, Moorhead is comfortably equipped with its primary source of water from the Red River and a backup source from its seven wells.

During 2009, MPS is conducting a master plan study of its water treatment facility and pumping facilities. This study will look into any future improvements that may be needed to ensure the delivery of clean and safe drinking water and also provide adequate water

pressure to serve fire protection needs to the citizens of Moorhead. A key to this objective is the protection of the city's water sources, the Red River and nearby aquifers. In 2003, MPS completed a wellhead protection plan that ensures a coordinated protective regulation within the Buffalo Aquifer. In the near feature, MPS is seeking to start the process of establishing an Aquifer Management Plan for the Buffalo Aquifer that takes the protection one step further.

The city's overall growth management strategies also contribute to protection of the aquifers because when development is focused on areas that are served by municipal water, sanitary sewer and storm water systems, the chance of groundwater contamination is reduced when compared to private, individual well, septic and storm water conveyance systems.

Sanitary Sewer

Moorhead's sanitary sewer system includes 176 miles of collector systems, 43 lift stations and a wastewater treatment facility built in 1983. The treatment facility has been upgraded several times since its initial construction. The plant is designed for a maximum capacity of 6 million gallons a day and existing flows are at 4 million gallons a day.

A long-range sewer plan and capital improvement plan is in place for the wastewater treatment facility and indicates that the city should have adequate capacity for growth through 2030 assuming that current growth rates continue. This assumption could change if a major new industry locates within the city.

A sanitary sewer interceptor project was completed in 2005 because the existing east side system was at or near capacity. Without the expansion, the growth since 2005 could not have been accommodated. The expansion of the sanitary sewer system provides capacity for approximately 3,150 acres, which was planned to accommodate 40 to 50 years of growth. It was assumed that annual growth would average about 50 acres or 150 lots of single family residential growth and 5 acres per year for commercial and industrial growth.

The actual rate of growth since the expansion was completed has significantly exceeded the original projections if this growth rate is sustained and not just a short term "boom". At recent growth rates, full build-out of the expansion area could occur within 25 to 35 years based on a growth rate of 200-250 residential units per year. This situation will need to be monitored every year, but should not pose any problems for the city in the short term.

The location of the current sanitary sewer service area is shown on Figure 26.

Municipal Water Service Areas

2009 Comprehensive Plan Addendum

City of Moorhead, Minnesota

Figure 25

N

2,000 0 2,000 4,000 Feet

Moorhead City Boundary
Growth Area Boundaries
Other Municipal Boundary
Open Water
Current MPS ServiceTerritory
Future MPS ServiceTerritory
Water Main

October 12, 2009

Bonestroo

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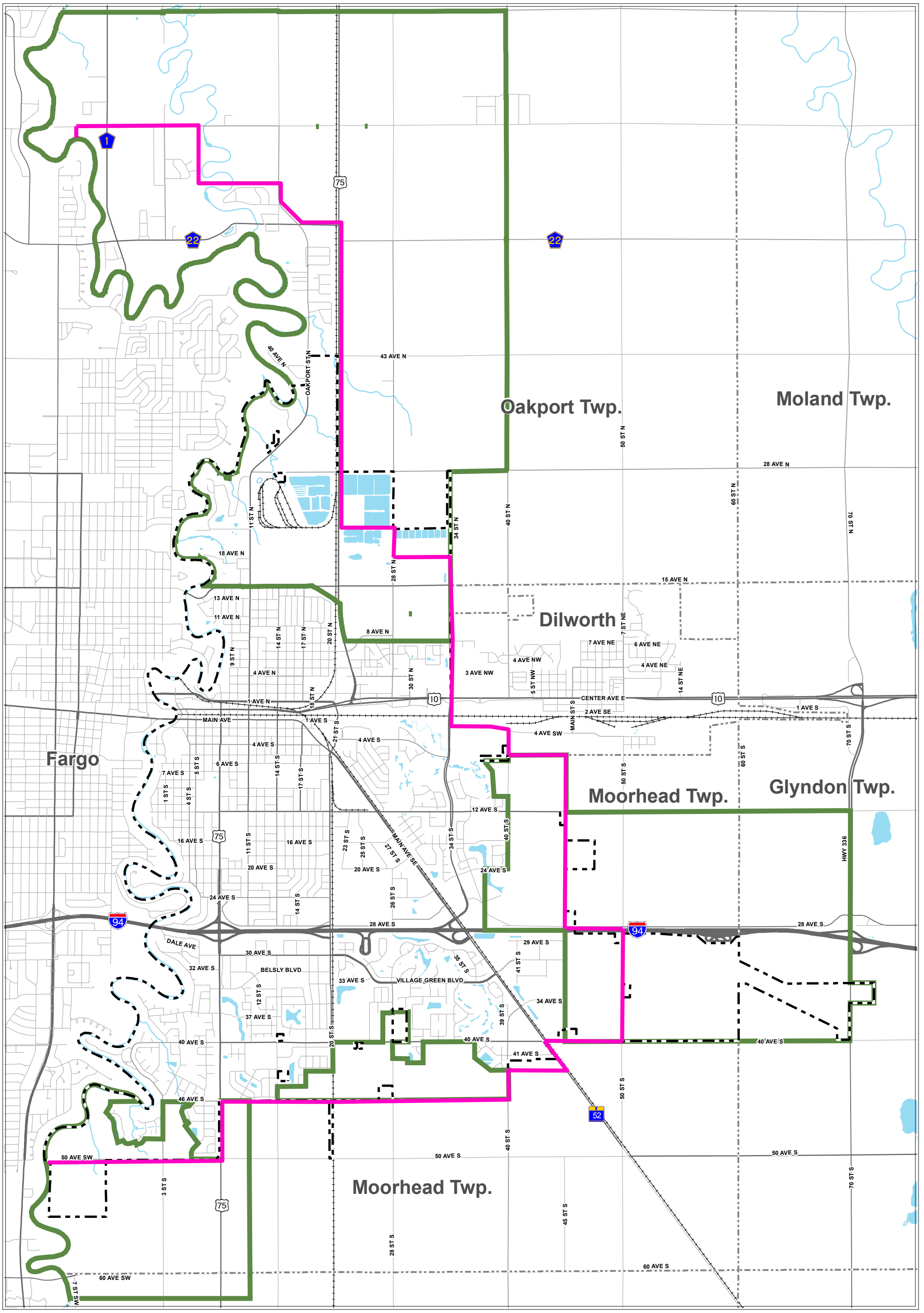

Sanitary Sewer Service Areas

2009 Comprehensive Plan Addendum

City of Moorhead, Minnesota

Figure 26

N

2,000 0 2,000 4,000 Feet

Moorhead City Boundary

Growth Area Boundaries

Other Municipal Boundary

Open Water

Current Sanitary ServiceTerritory

October 12, 2009

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Storm/Surface Water Management

Moorhead is located in the Buffalo-Red River Watershed District, a sub-watershed of the Red River of the North. Moorhead partners with the Clay County Soil and Water Conservation District and the Buffalo-Red River Watershed District in planning for the management of water resources. Storm water management is a challenge in the valley because of flat topography and the lack of natural wetlands that could serve as catch basins to help filter storm water before it reaches the Red River.

The Minnesota Pollution Control Agency (MPCA) has identified the reach of the Red River that runs through Moorhead as an "impaired water" because of turbidity and fecal coliform levels. This designation could result in stricter standards imposed on storm water treatment within the City of Moorhead. It is important that this issue be viewed regionally since the sources of contamination are likely not limited to the city. If requirements are limited to Moorhead they will not be as effective and could create a competitive disadvantage for the city should they not apply equally to cities in North Dakota, or other rural cities in the valley. Total Maximum Daily Load (TMDL) studies are currently being prepared jointly by the States of Minnesota and North Dakota to address water quality impairment.

The natural topography of the Moorhead area makes construction of storm water systems a costly endeavor. The lack of geographic relief means pumping stations and larger pipe sizes are required to convey the runoff and more excavation is necessary to construct detention ponds. The city has 15 storm sewer lift stations and 8 flood control lift stations for handling storm water.

These detention ponds serve to provide buffers to the conveyance system and slow down the rate that the storm water reaches the river. The ponds also serve a valuable treatment role as impurities, such as road salt, sediment and fertilizers, are treated or reduced in water ponds and this reduces the amount of these impurities that reach the river. Generally, storm water ponds require about six percent of the gross development area. In addition to planning for regional ponds, strategies that manage storm water volume are the reduction of impervious surface through the use of narrower street widths, permeable parking areas, and increased density through height. Green building techniques that reduce, reuse, or recycle water should also be encouraged, when practical.

Storm water conveyance systems can be significant neighborhood amenities. Recent planning initiatives have included the city partnering with the development community to help build storm water features as amenities and ensuring they are integrated into neighborhood planning. Integrating storm water features was a key planning principle established by both the Southeast Growth Area and North Moorhead/Oakport Township Growth Area Plans.

Flooding

Public involvement in the comprehensive planning process was interrupted in March 2009 by a record flood event in the Fargo-Moorhead metropolitan area and the greater Red River Valley region. Although the City of Moorhead had experienced flooding before, including the major event in 1997, the 2009 event was particularly problematic due to the record river level, the rate of rising flood waters, the early crest date, and poor weather conditions.

Leaders, residents, and students from the cities of Fargo and Moorhead and surrounding townships and communities, combined with state and federal agencies, worked together successfully to battle the rising waters. In addition to establishing a standard for working cooperatively, this event also highlighted the need for an area-wide comprehensive and long-term flood mitigation strategy. 50,000 tons of sandbag levees were constructed (2,500,000 sandbags), 7,150 truck loads of soil was hauled in for clay levees, 62 manholes were outfitted with temporary plugs and 61 emergency pumps were utilitized.

The 2009 flood event peaked at 40.8 feet but had been projected to exceed 43 feet. For comparison purposes, the 1997 peak was 39.6 feet. The river has exceeded flood stage every year since 1993.

Watershed modeling projects the severity of the flooding risk to the community. At 41 feet, 1,150 buildings ($225 million in value) are at risk from direct flooding and 8,385 buildings ($1.8 billion in value) are at risk from indirect flooding. At 43 feet, $928 million worth of buildings are at risk from direct flooding and $2.3 billion worth of buildings are at risk from indirect flooding.

In 2010, the city will adopt updated 100 and 500 year floodplain maps prepared by FEMA that encompass a much greater land area than previous boundaries. It is anticipated that the number of parcels within the 100 year floodplain will expand from approximately 745 today to 1,104.

A number of mitigation strategies are currently being studied, including a permanent system of levees and dikes along the river or a diversion. The city will work with FEMA and the State to acquire flooded properties with grant funding for public open space.

Chapter 3: Strategic Initiatives

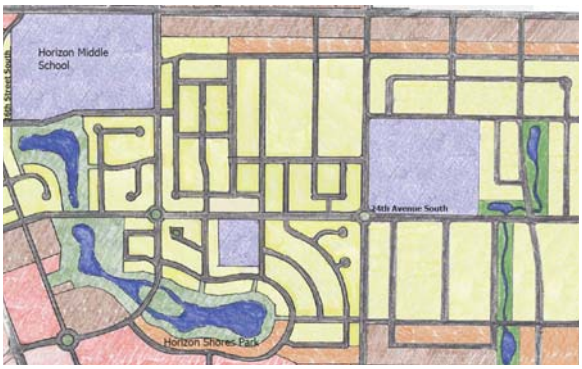
Introduction

Strategic initiatives identify how the Plan is to be implemented by posing recommendations for public and private actions to achieve the communities' Vision. The community dedicated a great deal of time and energy to the assembly of the 2004 Comprehensive Plan policies and strategies that are collectively intended to help the community attain the Vision elements. The city should continue to undertake the strategic initiatives presented in the 2004 Comprehensive Plan, as applicable, which include the following:

1. Use the Comprehensive Plan for Day-to-Day Uses
2. Update Official Tools and Regulations
3. Update Orderly Annexation Agreements
4. Redesign/Reconstruct Key Streets as Boulevards
5. Create a Redevelopment Plan for the Mixed-Use Area along Highway 75/8th Street and 7th Avenue
6. Conduct Growth Area Plans for Emerging Areas
7. Conduct Neighborhood Plans for Mature Neighborhoods
8. Park and Open Space Master Plan
9. Update Infrastructure Master Plans
10. Advocate for Creative Community Design
11. Conduct Annual Reviews of the Comprehensive Plan
12. Economic Development Initiatives
13. Housing Initiatives
14. Capital Improvement Program

The strategic initiatives presented in this 2009 Comprehensive Plan Addendum focus on new strategic initiatives that emerged during the planning process in 2008-2009.

Strategic Initiative #1
Use the Growth Area Plan to Guide Development Decisions



The revisions to the South and East Growth Area Plans reflect land use changes occurring since the previous plan was completed including plats and master plans approved by the city since 2005. The roadway and open space circulation has been reconnected and modified to work with the new land use patterns. The city should use the updated land use plans to guide future development decisions. The city should continue to follow the design principles identified in the 2005 South and East Growth Area Plan. The design principles focus on the five major components of future development anticipated within the growth areas – mixed-use centers, residential areas, parks and open space, streets and trails, and storm water drainage systems.

Strategic Initiative #2
Downtown/Infill Redevelopment Area Framework Plans

Implementation of the framework plans involves the application of the existing zoning code to the sites as they develop, and public improvements along the corridors to support the desired street character. As the general site designs for the building and parking layout currently comply with the zoning code, there is not a need for a comprehensive plan or zoning change at this point.

The framework plans provide the opportunity to accommodate large-scale student and high density housing at the edge of Downtown. This provides the opportunity for a policy shift from accommodating large-scale student and high density housing adjacent to campus within existing low density residential neighborhoods (i.e., the Camtown concept presented in the 2004 Comprehensive Plan) to accommodating this type of housing at the edge of Downtown. This type of housing can help create a more vibrant Downtown, while still providing housing within close proximity to campus.

Proposed development plans should be reviewed for their contribution to the built form of the corridor as whole, in particular to how the building and site design affect the street. Positive urban design principles such as architecture that is appropriate to the pedestrian scale, and designed to address the public realm and parking that is separated and buffered from the street are important ways that each site can reinforce the objectives set for each corridor.

Streetscaping improvements along the public realm are critical for building a comfortable and attractive environment for all users, including bicyclists, pedestrians and transit users as well as motorists. Both 1st Avenue North and Main Avenue need to be reviewed in detail for how complete street standards apply to the unique character and needs of the corridor. The framework plans identify certain crosswalks and access points that will be important for pedestrian safety and circulation. In addition, it is essential to examine traffic lane widths, bicycle lanes, median design and driveway access points for how the design accommodates multimodal transportation.

Hardscape and softscape enhancements are also critical components in fostering a positive environment. Appropriate lighting, street trees, seating, special paving, accent plantings and other improvements contribute to an appealing district as well as offering safety and ecological benefits. A high level of streetscape design and amenities in the public realm would encourage investment by private developers and help to create market synergy between the mix of users and the public and private investors.

Strategic Initiative #3
Flood Risk Reduction

The comprehensive planning process was interrupted in March 2009 by a record flood event in the Fargo-Moorhead metropolitan area and the greater Red River Valley region. Leaders, residents, and students from the cities of Fargo and Moorhead and surrounding townships, combined with state and federal agencies, worked together successfully to battle the rising waters. The city's flood risk reduction strategies include, but are not limited to, the following components:

1. Work collaboratively with Fargo, Clay County, surrounding townships, state and federal agencies to establish an area-wide comprehensive and long-term flood risk reduction strategy. A cooperative region-wide effort will result in more equitable and cost-effective solutions. A number of flood risk reduction strategies are currently being studied, including a permanent system of levees and dikes along the river or a diversion.

2. Work with FEMA and the State to acquire flooded properties with grant funding for public open space.

3. Preserve undeveloped areas along the river corridor as open space to:

    - Reduce potential flood losses.
    - Facilitate protection efforts during future flood events.
    - Expand a recreational amenity for the city, which could be used as a bike trail, pedestrian path, wildlife sanctuary, park or other community gathering space.

4. Adopt the proposed 100 and 500 year floodplain maps prepared by FEMA that encompass a much greater land area than previous boundaries.

5. The proposed floodplain maps encompass a significant amount of developed land and areas where growth has been planned. New regulations for development along the river corridor will be necessary to limit future damages and ensure that flood risk reduction strategies are not hindered by development. Guidelines for development along the river should:

    - Adopt a standard setback to the river in the forthcoming update to the Floodplain Ordinance. The City of Moorhead currently does not have regulations establishing setbacks from the river. The City of Fargo requires a 100 foot setback, and Cass County has adopted a 450-foot setback. Metro-wide setbacks would be beneficial to ensure equity. Communities along the river are working with Metro COG to determine what they should be.
    - Identify strategic areas of neighborhoods that are hardest to protect for buy-out.
    - Develop site layouts that facilitate both permanent and temporary flood protection. For example, homes with backyards that connect to the river corridor are difficult to protect; homes facing the river from the opposite side of a street are easier to protect.
    - Ensure that utilities are protected from flood waters.
    - Cluster development to provide common open space adjacent to the river and locate homes on higher ground or other areas easier to protect.

6. Educate landowners about private flood risk reduction measures, such as levees/dikes, floodwalls, removing walkouts, and setbacks. The city has a role in permitting activities within the floodplain, but the city has no additional authority to design or regulate these improvements on private property.

Due to uncertainty regarding flood mitigation efforts and potential buyouts, the Comprehensive Plan Addendum has to be flexible enough to accommodate any of the policies that are directed at protecting the community from future major flooding events.

Strategic Initiative #4
Support the Active in Moorhead (AIM) Partnership

The AIM partnership is between the City of Moorhead, Clay County Public Health and Metro COG. AIM supports an approach to quality of life that is often labeled "Active Living". The guiding principle of this effort is to *create and promote environments that are safe and convenient for people to integrate physical activity into their daily routines, and to promote health and well-being.*

Because these efforts focus on the physical environment, the city has an opportunity to incorporate these principles into its planning efforts. Strategic initiatives that support the AIM partnership and a physical environment that promotes "Active Living" include the following:

1. Continue to actively participate in the AIM Partnership by being a member of the core leadership team responsible for planning, implementation and evaluation of AIM's goals and work plan.
2. Participate in Active Living Minnesota activities such as workshops and conferences.
3. Assist in implementing Safe Routes to School projects in conjunction with the school district and other applicable partners.
4. Continue to accommodate and maintain trails and sidewalks in new developments. Sidewalks and trails should be developed to connect to neighborhood attractions such as schools, churches, parks, or neighborhood retail centers. *Surveyed residents[2] indicated they would walk or ride a bike to destinations within 15 minutes*.
5. Trails should be designed to accommodate multiple recreational activities including walking, jogging, biking, in-line skating or cross-country skiing. Consistent signage and single path design that accommodates walking and jogging with biking or in-line skating should be encouraged.
6. Work to retrofit and maintain trails and sidewalks in existing developed areas through redevelopment activities initiated by the private or public sector. *On average, surveyed residents indicated that sidewalk maintenance (e.g., no crumbling, cracks, unevenness), continuous sidewalks, and sidewalk winter care (e.g., snow or ice removal) are very important items in order for them to live actively.*

[2] The AIM Partnership Survey was conducted by the North Dakota State Data Center and mailed to a random sample of Moorhead, Minnesota, residents in June 2009. The results of the survey were documented in a report, entitled *Active in Moorhead (AIM) Partnership: 2009 Resident Survey Results*. The survey is posted on the Data Center's website www.ndsu.edu/sdc/publications/AIM/2009ActiveInMoorheadReport.pdf.

7. Maintain and promote attractions and recreational opportunities that encourage residents to be active. *Over half of surveyed residents indicate parks; indoor walking facilities; concerts, festivals, celebrations, or parades; and park amenities (e.g., picnic tables, gazebos, drinking fountains, restrooms) are attractions and recreation opportunities that do or would encourage them to be active. On average, surveyed residents indicated that they want and would be most willing to pay for recreational facilities (e.g., indoor public pool, community or recreation center, athletic courts or fields, ice skating rink). They also indicated they are willing to pay for some public green space, parks, and plazas.*

8. Work with MAT to improve access to transit and to identify future transit needs and service areas.

9. Identify transportation improvements, such as additional and improved bike lanes or pedestrian crossings that will create a safer transportation system for motor vehicles, pedestrians and bicyclists. One of the key elements of this effort will be the adoption of a "Complete Streets" design philosophy.

10. Accommodate mixed use and higher density development that are designed to create more compact and safe pedestrian environments.

11. Provide a safer and more pleasant pedestrian environment through good lighting and police presence. *On average, surveyed residents supported paying for additional police presence through taxes, special assessments, subsidies, or user fees.*

Strategic Initiative #5
Adopt a "Complete Streets" Design Philosophy

Over the past several decades the design of streets in the United States has been focused primarily on the traffic capacity of the roadway. This has often resulted in streets that function well for motor vehicles but can interfere with or even create more dangerous situations for other modes of transportation including, pedestrians, bicyclists and transit riders. *Complete Streets* is a policy concept that attempts to move away from that singular focus and views streets as an important land use that have a profound influence on shaping neighborhoods. *Complete Streets* are designed and operated to provide safe access to all users. This includes pedestrians, transit riders, and bicyclists of all ages and abilities.

There is not a "one size fits all" design solution for *Complete Streets*. Typical elements can include the following:

- Sidewalks
- Bicycle lanes or trails
- "Bike boxes"
- Pedestrian and bicycle signal buttons
- Pedestrian refuges
- Striping
- Transit stops or special lanes
- Landscaped separation between sidewalks/trails and the roadway
- Traffic calming

The actual elements chosen for each design are dependent on the multi-modal needs of the surrounding neighborhood and the city as a whole. For instance, transit facilities might be critical in some areas, but completely unnecessary on local, residential streets. Narrow sidewalks might be acceptable in one part of the city, but inadequate in commercial areas. Trails may make sense in one situation and sidewalks in another.

None of these elements are new and many have been used in Moorhead for years. The difference with *Complete Streets* is the change in the focus of street design and operation so that it considers the needs of all users and not just motorized vehicle capacity.

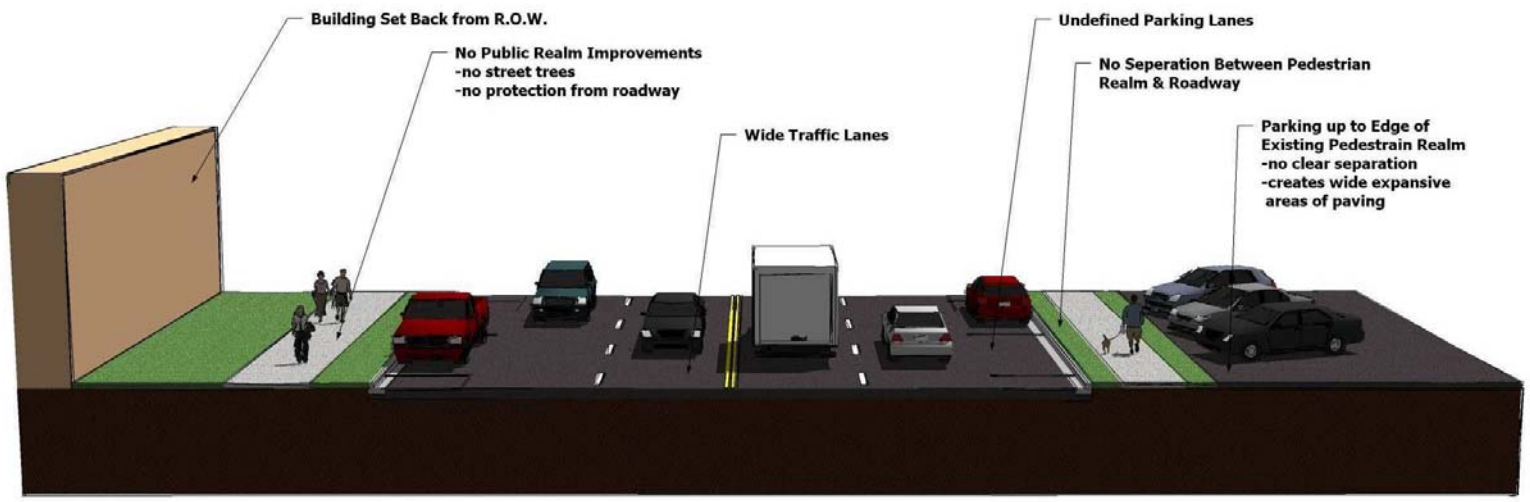
Some of the problems that an effective *Complete Streets* policy can address include the following:

- Dangerous head on and T-Bone collisions between vehicles.
- Collisions between vehicles and pedestrians/bicycles.
- Missing segments of sidewalks, bicycle lanes and trails that force pedestrians and bicyclists into unsafe or confrontational situations with vehicles.
- Narrow sidewalks located adjacent to the curb that do not provide a perception of safety to pedestrians from car doors, vehicle splashing, snow storage, etc.
- Transit corridors that are inefficient due to lack of transit design elements (stops, "bump outs", dedicated lanes, etc.).
- Lack of pedestrian refuges and signal timing that makes it difficult or impossible for children and the elderly to cross safely.
- Local streets that are designed to primarily provide access to abutting properties being constructed with too wide for their needs, encouraging excessive speeds and pass-through traffic.
- Network connectivity.

Implementing a “Complete Streets” policy includes the following initiatives:

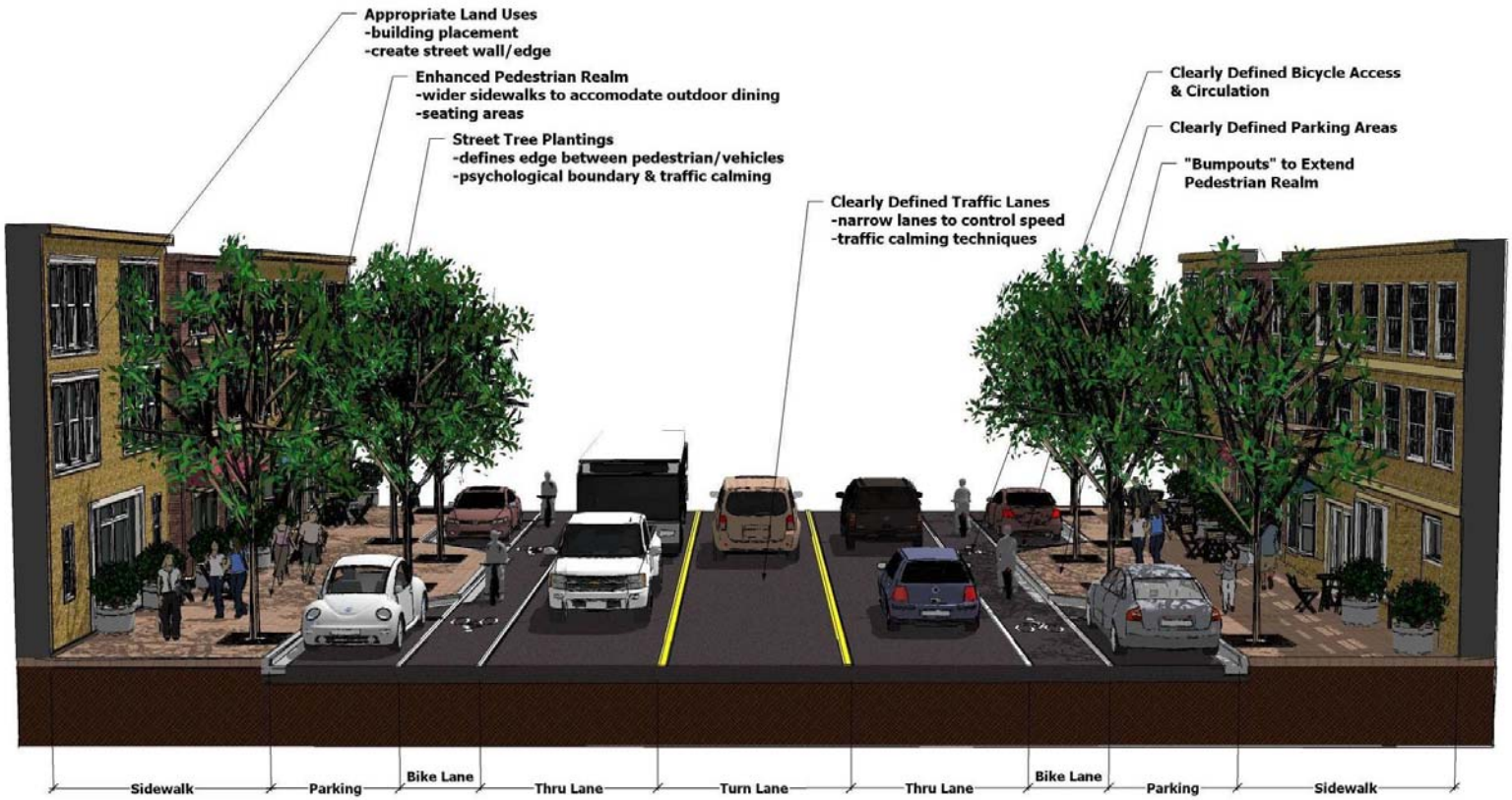
1. Develop a *Complete Streets* policy for street design and operation that is consistently applied throughout the community. To achieve maximum community benefit, it would be preferable if this were a regional system to ensure multi-modal transportation is integrated across communities.
2. Identify key multi-modal corridors that should be the priority areas for implementation of *Complete Streets* policies.
3. Examine existing four “general purpose” lane roadways for opportunities to use relatively inexpensive “road diet” strategies to jump start the process. “Road diet” cross sections allow the conversion of these roadways to a three lane cross section with bike lanes, on-street parking and improved pedestrian amenities.
4. Identify standards to prioritize streets for pedestrian facilities (sidewalks/trails) including access to transit corridors, schools, recreation facilities, shopping, higher education and employment.
5. Evaluate existing design standards to ensure they provide equal emphasis and safety for all modes of transportation. This analysis should include a review of elements beyond the curb such as street trees, sidewalks, trails, transit stops, etc.
6. Adopt decision criteria for determining when bike lanes, sidewalks, trails etc. should be built as arterials and collectors are initially constructed or undergoing major reconstruction.
7. Identify the role that “green standards” such as the use of rain gardens, permeable pavements, and other techniques should have in street design, if any.
8. Include emergency service providers and public works departments in the policy development process to ensure that no significant obstacles are created for safe and efficient emergency service.

FIGURE 27 - TYPICAL URBAN CORRIDOR SECTION



Typcal Urban Corridor Section

FIGURE 28 - COMPLETE STREETS SECTION



Urban Corridor Section - Complete Streets Improvements

Strategic Initiative #6
Planning in a time of Economic Distress

The current national economic downturn creates many additional challenges for planning a community. Public revenue streams may be under additional strain due to the lack of fee income, business failures and a decline in property valuation. At the same time, the demands on public services may increase as the public has to address problems with vacant property, property foreclosures and private sector default on development agreements. These problems are serious and often urgent and therefore demand a community's attention.

What often goes unnoticed is that there are also opportunities created in times of economic downturn. Planning Commissions typically have a list of planning efforts and code changes that have community support but get pushed aside during economic boom periods since so much effort is required just to keep up with development activity. Periods of economic downturn create brief pauses where a city can have the time to focus on refining the policies, standards and regulations that will be beneficial for future development.

Economic downturns also create implementation opportunities since properties can often be acquired at a discount and construction bids are extremely competitive. Care should be taken if the public project includes an assessment element. Assessed properties may not have the capacity to bear assessments that they can in better economic times. Risks rise to the city that appealed assessments might not be able to show benefit in a market of declining property values.

Since private sector conditions can deteriorate rapidly in severe economic downturns and those declines usually impact some areas more than others, it is important to evaluate and enhance the city's neighborhood monitoring efforts to identify any signs of distress.

- Many cities are tracking the properties in various stages of foreclosure and aggressively working with owners and lenders to promote public interests.

- Identify and track key indicators of residential neighborhood distress over time such as ownership patterns, vacancy rates, valuation factors, infrastructure condition, nuisances and public safety. If neighborhood problems are identified prepare neighborhood action plan.
- Create opportunities to engage the business community so that any distress can be identified early and businesses can be directed to potential sources of assistance that they may not know.

The following are strategic initiatives the city can undertake to address the current economic downturn:

1. Review the Planning Commission's work program over the past few years to identify planning needs that have been delayed due to lack of time to determine if any should be initiated.

2. Consider establishing or enhancing the program for monitoring neighborhood health.
3. Review existing housing programs to ensure they will be adequate and effective in the current economic environment. For example, public improvement loan programs may be increasingly important to homeowners who may have needs that normally would have been handled with commercial home equity loans that may no longer be affordable or even available.
4. Track foreclosures to identify problems and opportunities. This could result in solutions such as public acquisition, creation of buyer incentive programs, neighborhood stabilization efforts, and at times, serving as a facilitator.
5. If pockets of residential code enforcement problems are identified, consider sponsoring neighborhood cleanups in these areas.
6. Review business incentive programs to ensure they are effective in the current economic conditions.
7. Create opportunities to engage the business community so that any distress can be identified early and businesses can be directed to potential sources of assistance that they may not know.
8. Aggressively seek out grants and other non-local funding sources to support public and private endeavors. In economic downturns, there are typically new funding sources created but the needs are also increased so the competition for funding sources is often far more intense than in boom times.

Strategic Initiative #7
Growth Management

Municipalities have a wide range of growth management philosophies. On one end of the spectrum are reactive communities that allow development and infrastructure extension priorities to be guided largely by private landowners and developers. On the other end of the spectrum are activist communities that have extensive growth control mechanisms in place including restrictive borders, public ownership of greenbelts, complex fee mechanisms, etc.

Over the past few decades, communities are increasingly moving away from the reactive philosophy as they have realized the significant burden this can cause on public expenditures. Unmanaged growth can result in the premature extension of municipal systems to service areas that will not be able to generate fee or assessment revenues to support the extensions until far into the future. Unmanaged growth can also create problems for existing infrastructure when development occurs in areas that were not anticipated. This can create additional burden on existing street, sewer, water, drainage, school and park systems that may not have been originally designed to handle the additional development. Finally, unmanaged growth can hinder redevelopment and infill development efforts increasing the costs of city redevelopment subsidies.

Communities that have moved too far to the activist end of the spectrum have also experienced a different set of consequences. Excessive growth control can result in a lack of choice for potential development, particularly for non-residential uses, such as industrial, that might have very specific site needs including the size of parcel, access to rail/highways and utility capacities.

To avoid the problems mentioned above that occur at both ends of the spectrum, communities tend to focus on growth management techniques that are rooted in the efficient use of public infrastructure funds. This typically involves providing long range, preliminary engineering of the major infrastructure systems and is often referred to by names such as “ultimate” system design. Once all the potential growth areas are divided into future municipal service districts, conceptual cost estimates are prepared for bringing trunk level systems in to serve the new service district. These trunk costs are then divided by the net usable acres to be served to determine which municipal service areas are the most cost-effective for future development from a public expenditure point of view. It should be noted that this analysis should include only projected new infrastructure costs, since municipal service districts that already have infrastructure in place are obviously the most efficient since they require no additional public expenditures.

One of the policy decisions for a community is to decide whether the cost effectiveness analysis should consider only municipal trunk infrastructure systems (sanitary, water, streets, drainage) or whether it should also include other public costs such as parks, trails, schools, transit etc. It is quite common for cities to only consider the infrastructure systems since the data is often existing “in-house” and costs for parks and schools can be difficult to project with the same level of precision.

Following the initial cost analysis, municipalities generally make policy decisions as to whether additional factors need to be considered in the prioritization of growth areas. One common factor includes whether a particular growth strategy will ensure there is an adequate supply and variety of planned land use types to allow the full range of development options that the community desires. If growth areas are restricted too tightly, market valuations can be distorted. Cities that maintain at least a 10 year supply of residential land supply within growth areas tend to avoid severe market valuation distortions since this leaves developers with adequate land choices to ensure competition among landowners. Other policy initiatives that can change prioritization may include desires to protect or support existing developed areas and natural resource protection.

In the end, the goal of most growth management strategies is to focus development where it makes the most sense to the community with the least amount of unwanted market distortions.

The following are strategic initiatives the city can undertake to manage growth:

1. Maintain a database of vacant land supply that is served by municipal services. This database should be subdivided by use category and updated annually.
2. Monitor the amount of vacant land supply to ensure that each use category maintains a 5-15 year land supply to ensure adequate choice is available to the market.
3. Identify critical areas, including open space and natural resource areas, so they are known long before growth pressures reach them and suitable preservation strategies can be employed.
4. Review the non-residential land supply to ensure it provides adequate variety including the ability to respond to significant but infrequent projects such as a major retail or employment center. Periodic market analysis can assist in this review.
5. Map growth or staging areas and publish the policy decisions underlying the prioritization strategy so that it is well known and easily understood by the community.
6. Maintain rural development standards in areas not served by municipal utilities that will ensure the land remains available for future development with municipal utilities.
7. Establish policies for determining when a new municipal service area should be opened up for development so that the process is open and understood by the community.
8. Periodically evaluate infrastructure funding mechanisms and policies to ensure that greenfield development is funding the public costs of that growth.
9. Coordinate the Capital Improvement Plan with the growth staging plan.
10. Identify and prioritize the phased extensions of sanitary sewer services in 2010.

Appendix

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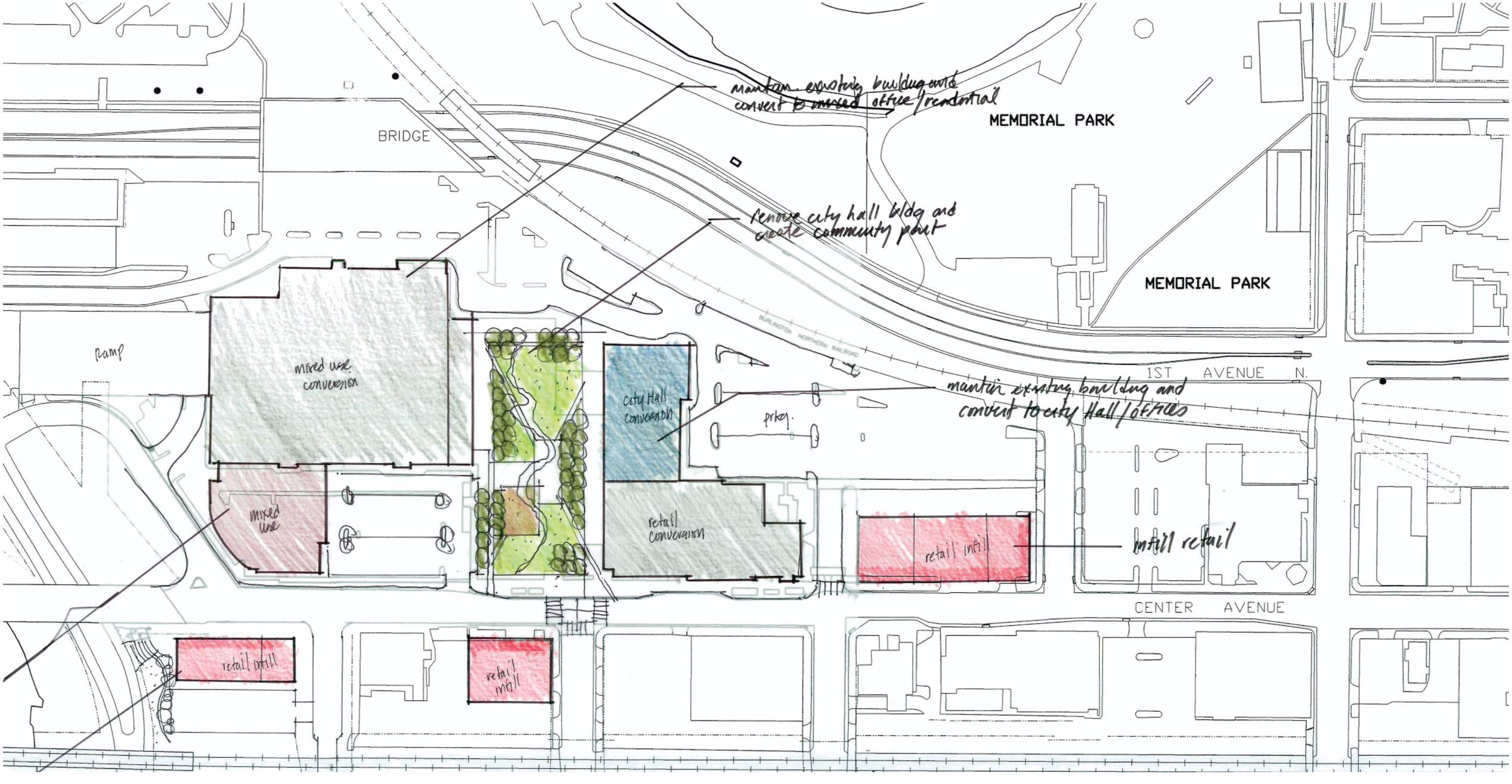
Downtown Redevelopment Option A



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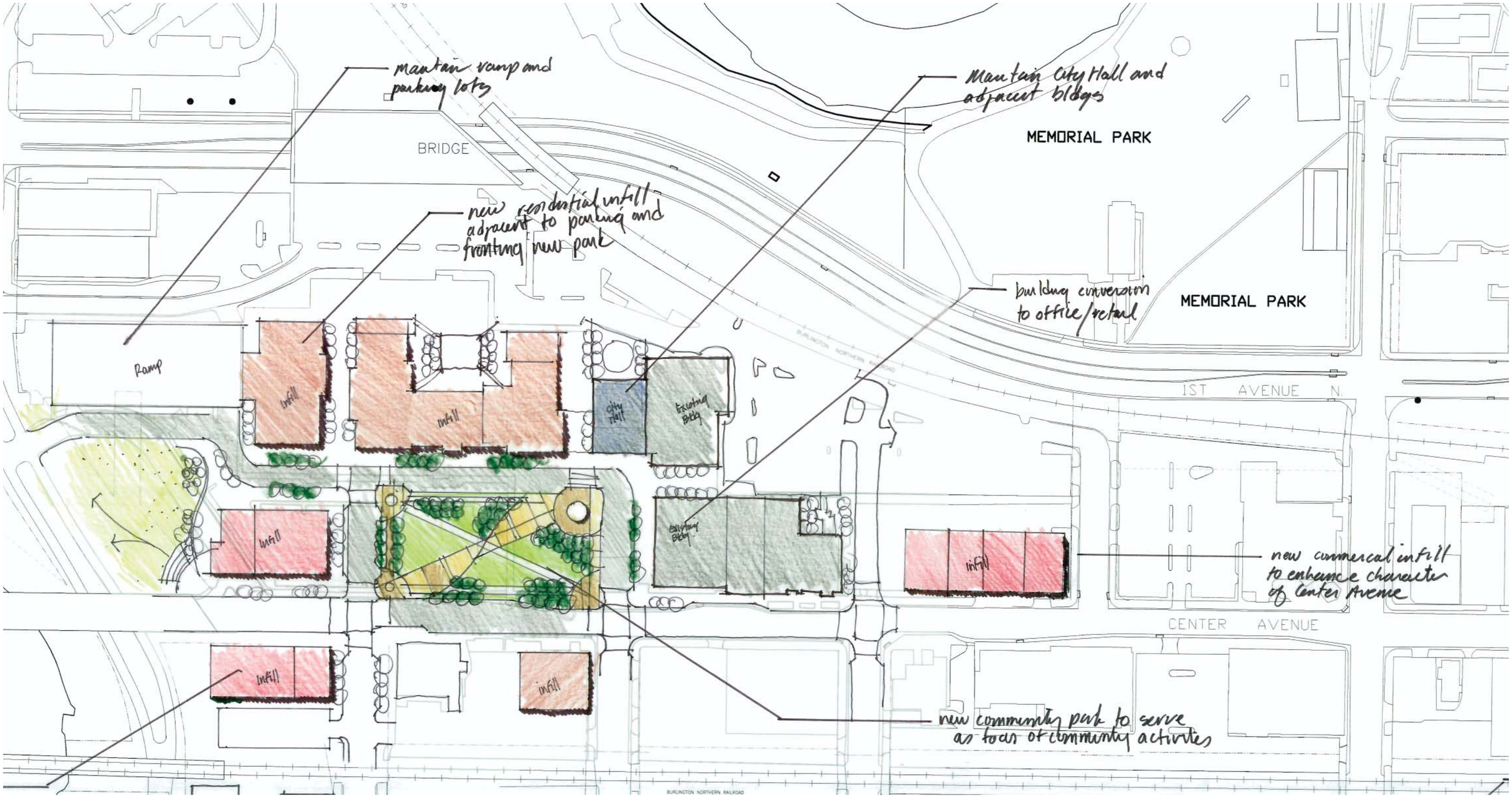
Downtown Redevelopment Option B



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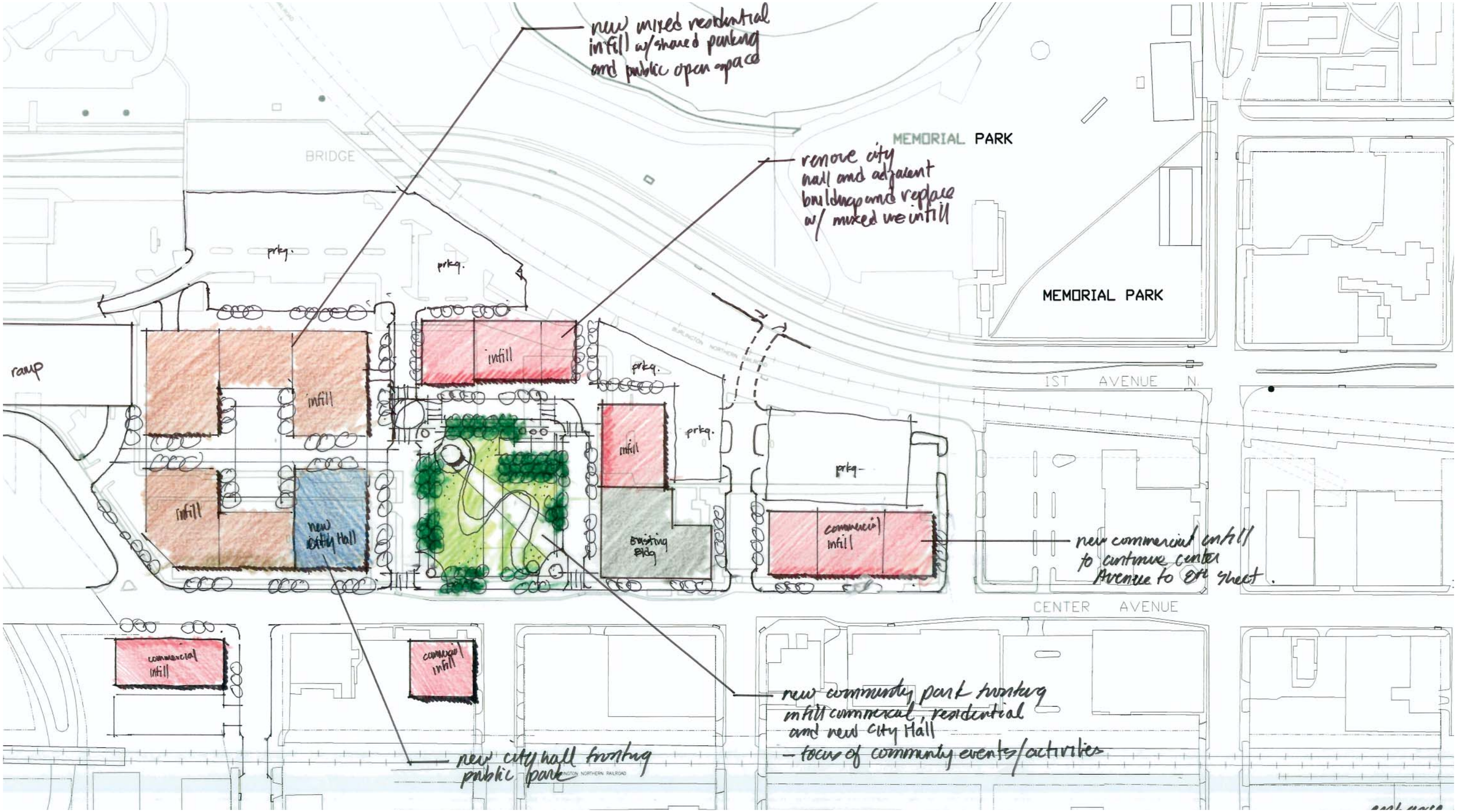
Downtown Redevelopment Option C



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