

Northeast Area Plan Amendment



CITY OF BLAINE

RESOLUTION NO. 02-149

**GRANTING APPROVAL OF THE NORTHEAST AREA
COMPREHENSIVE PLAN AMENDMENT
CITY OF BLAINE**

WHEREAS, the Metropolitan Land Planning Act requires that local units of government prepare, adopt and update each community's Comprehensive Plan, and

WHEREAS, the City of Blaine desired and has worked with the Design Center for Urban American Landscape from the University of Minnesota, Metropolitan Council and Northeast Area residents to prepare a Comprehensive Plan Amendment for the neighborhoods located in the northeast section of the community to provide a guide directing how future urban development might be achieved, and

WHEREAS, a public hearing has been held by the Blaine Planning Commission on July 30, 2002, and August 13, 2002; and

WHEREAS, the Blaine Planning Commission recommends said plan amendment be approved; and

WHEREAS, the Blaine City Council has reviewed said case on September 5, 2002.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Blaine that the City of Blaine adopts the Northeast Area Comprehensive Plan Amendment establishing a new Land Use Plan for the area as well as inclusion of the West Meadows and Lochness Planning Areas into the 2002 MUSA (Metropolitan Urban Service Area).

PASSED by the City Council of the City of Blaine this 5th day of September, 2002.

Tom Ryan, Mayor

ATTEST:

Jane M. Hall, CMC, City Clerk

CITY OF BLAINE

RESOLUTION NO. 02-172

**GRANTING APPROVAL OF THE WEST MEADOWS NEIGHBORHOOD
COMPREHENSIVE PLAN AMENDMENT
CITY OF BLAINE**

WHEREAS, the Metropolitan Land Planning Act requires that local units of government prepare, adopt and update each community's Comprehensive Plan, and

WHEREAS, the City of Blaine desired and has worked with the Design Center for Urban American Landscape from the University of Minnesota, Metropolitan Council and Northeast Area residents to prepare a Comprehensive Plan Amendment for the neighborhoods located in the northeast section of the community to provide a guide directing how future urban development might be achieved, and

WHEREAS, a public hearing has been held by the Blaine Planning Commission on October 8, 2002; and

WHEREAS, the Blaine Planning Commission recommends said plan amendment be approved for the West Meadows Neighborhood; and

WHEREAS, the Blaine City Council has reviewed said case on October 17, 2002.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Blaine that the City of Blaine adopts the Comprehensive Plan Amendment establishing a new Land Use Plan for the West Meadows Planning Areas.

PASSED by the City Council of the City of Blaine this 17th day of October 2002.

Tom Ryan, Mayor

ATTEST:

Jane M. Hall, CMC, City Clerk

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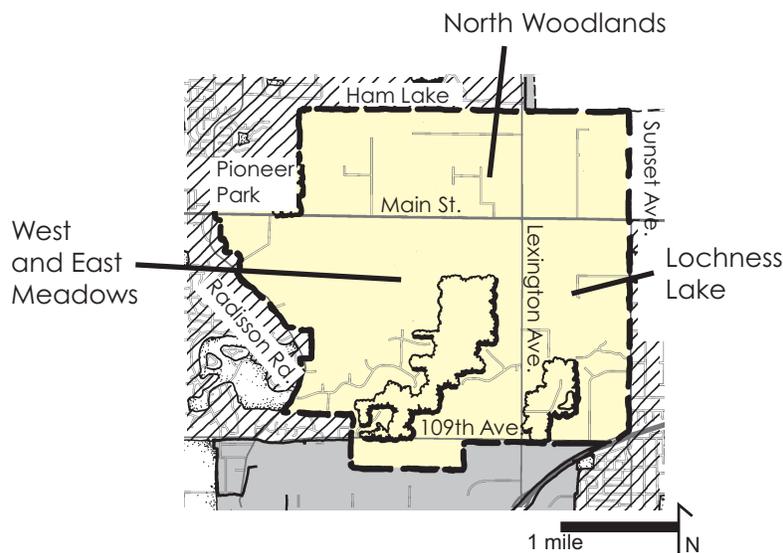
INTRODUCTION

This plan is the result of a study that was an extension of City of Blaine’s comprehensive planning process, begun in 1998. The Metropolitan Council approved the city’s comprehensive plan, contingent on further study of the northeast area, facilitated by the University of Minnesota’s Design Center for American Urban Landscape, with the continued involvement of the Metropolitan Council staff as well as city staff and residents of the study area. The purpose of the study was to develop a comprehensive plan amendment that:

- is based upon a state-of-the-art planning information base;
- achieves better alignment of the City and Metropolitan Council objectives; developing a plan that utilizes smart growth and livable community planning principles—a mix of housing options, transit supportive development, and preservation of prime open space;
- involves the community, particularly residents of the study area.

Starting in fall of 2000, a series of monthly meetings and workshops was interspersed with city council work sessions, joint sessions with the City Council, and the city’s Planning Commission, Transportation Committee and Natural Resources Conservation Boards, as well as sessions with Metropolitan Council staff. Key materials from these sessions are reproduced in the appendix. Based upon natural resource and cultural patterns, the area was grouped into four neighborhoods:

- Lochness Lake (southeast of Lexington Avenue and Main Street)
- East Meadows (southwest of Lexington Avenue and Main Street)
- West Meadows (southeast of Radisson Road and Main Street)
- North Woodlands (east of Pioneer Park and north of Main Street)



The Overall Plan

This process yielded seven over-arching design principles that guide that plan:

- Plan for urban services throughout
- Development pays infrastructure costs
- Protect natural resources
- Provide a diversity of residential types
- Designate areas for commercial/industrial uses
- Situate land uses in ways that support transit
- Create an interconnected roadway network

Plan for urban service throughout.

This principle conveys the City Council's decision to plan for urban services throughout the entire planning area, bringing the entire planning area in to the Metropolitan Urban Service Area through a phased schedule.

Development pays infrastructure costs.

This statement summarizes the essence of the *Draft Assessment Policy*, located in the Appendix and created as a result of the citizen participation process. The assessment policy says that those who want to develop must pay the associated infrastructure costs. "Other non-petitioning property owners within the improvement the district, if the project is initiated through the public improvement process, shall not be assessed any of the improvement costs," *Draft Assessment Policy*. In the future, when property owners within the improvement district chose to develop, then they would contribute, through connection charges, to a special fund. The goal of this policy was to avoid assessment charges on those who did not wish to develop their property at the time of improvements.

Protect natural resources.

Aside from the required water resources management planning, the city has actively sought information about its other natural resources. The city commissioned a natural resource inventory in 2000 that identified areas with rare plants and animals or high quality native plant communities. Through purchase of willing sellers, and through sensitive development of adjacent lands, the city seeks in this plan to sustain these natural features into the future. The GIS maps generated from the natural resource inventory were the base maps for all of the planning studies that led to this plan amendment and are visible on the movement and natural resource map shown in this document. The natural resource inventory can be accessed at city hall.

Provide a diversity of residential types.

This principle expresses the desire of the city to provide a variety of housing options throughout the city, similar in scope to recently developed projects in the area, including apartments, town homes and single family homes with a range of lot sizes.

Designate areas for commercial/industrial areas.

Because the planning area comprises approximately one quarter of the city's land area, this principle addresses the importance of designating appropriate locations for businesses and job growth within the nine-square mile area.

Situate land uses in ways that support transit.

Recognizing the growing traffic issues that face this area as well as the entire metropolitan area, this plan seeks to locate more intense development in places that would facilitate future transit services. The plan amendment projections were guided by the Metropolitan Council's publication *Planning More Livable Communities with Transit-Oriented Development*. For the areas that were specifically considered transit-oriented development locations, the plan used the Outer Suburban guidelines as a reference. In other areas, a connected street and trail network was the primary expression of this principle.

Create an interconnected roadway network.

This principle expresses the desire to avoid a predominance of cul-de-sacs. The goal of this principle is to limit the future costs of maintaining dead-end streets and to facilitate internal neighborhood movement.

Illustrations

For the entire area, an illustrative land use and movement pattern was developed. The purpose of these illustrations is to show where residential, commercial and open spaces might be as well as how they might be accessed. These diagrams also were used to project how many households could be accommodated, given the pattern of clustered development along transit corridors. A phasing plan was also generated, to show when different areas could be brought into the urban service area over the next twenty years. These three diagrams, and a description of the land use, road and pathway, are shown after the introduction. It is anticipated that details such as the alignments of local streets and residential types may shift in the future, however, the principles that guided their placement will be used by the city in future reviews of development applications.

In areas that will develop sooner, based upon the phasing diagram and the desires of the landowners, more detail is shown about the location of open space patterns. These areas show more intense land uses shifted off high quality natural resource areas and corridors and onto land that is currently cropped or in sod fields. Where the development horizon is more distant, locations for parks and open spaces are generically shown, with the assumption that the city will be working with willing landowners to acquire high quality natural areas or corridors, as well as neighborhood parks that would be developed as residential areas area built.

Neighborhood-Specific Plans and Design Principles

Following the overall illustrations, individual neighborhoods are addressed, with numerical break-downs on different land uses. Because each neighborhood has a unique set of natural resource and land ownership patterns, a set of design principles for each has been established. These principles are organized under three themes: natural features and open space, movement system and land use mix. Each principle is illustrated by a pictorial diagram.

These principles represent the city's expectations for new development. The guidance allows flexibility, but will yield the overall pattern and balance of land uses that city is seeking.

Implementation Steps

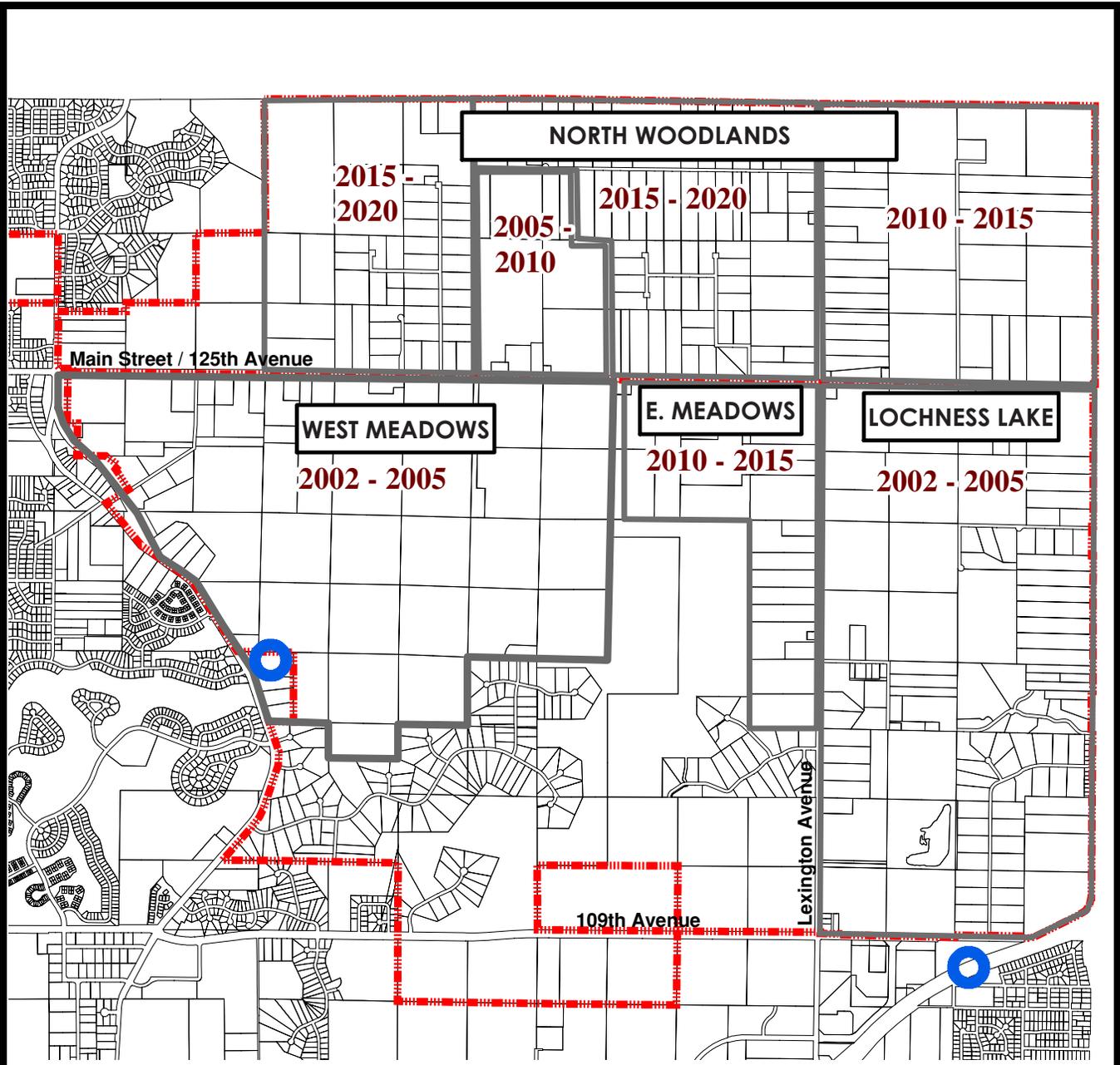
Following City Council adoption of the plan amendments and approval by the Metropolitan Council the City will begin the implementation actions that are necessary. The implementation steps include but are not limited to:

- Code amendments to the FR (Farm Residential) zoning text to establish rural clustering standards and criteria that would allow clustering opportunities at an overall density up to 1 dwelling per every 2 acres. These changes are proposed to be put in place for those areas of the Northeast area that are not located in the first phase of MUSA (2002-2005). (January-April 2003)
- Processing of the AUAR (Alternative Urban Areawide Review) for the West Meadows development proposal to be called The Lakes. This is a required environmental review which will examine all of the environmental impacts and mitigation strategies identified for the development of approximately 1000 acres. (November 2002-February 2003)
- Formal adoption, by the City Council of the Northeast Area Assessment Policy which states in summary that developer related projects and extensions of required City improvements will be paid for by the developing properties and shall not result in assessments of costs to non-developing properties until such time as those adjacent property owners subdivide and develop their land. (September-October 2002)
- Examination of existing residential zoning codes to identify appropriate changes to accommodate new development and product types that might be desired in the Northeast Area. (October 2002- May 2003)
- Review of development proposals and rezoning of those developing parcels from FR (Farm Residential) to appropriate zoning standards to allow urbanization. This will apply to those developing parcels that are located within the first phase MUSA. This will be an ongoing process extending over the next 5-10 years.
- Review next phase MUSA expansion sometime in 2004-2005.

Summary

In summary the Northeast Area plan includes the following:

- Inclusion of approximately 2,500 acres of land into the 2002-2005 MUSA for future urban development. The MUSA schedule also would add additional acreage in 2005, 2010, and 2015.
- Established preliminary household estimates at full development build out of up to 11,220 households. Using 2.75 persons per household the plan envisions up to 30,855 persons added to the City.
- Creation of a future land use plan that recognizes and establishes general land uses that would accommodate future urbanization of the Northeast Area.
- Modifications to the transportation and pedestrian access plans.
- Updated population, household, traffic and utility system information.
- Northeast plan design principles dealing with issues such as financing infrastructure costs, protecting natural resources, providing diversity of housing types, designating commercial/industrial areas, supporting transit opportunities and interconnected neighborhood design.
- Rural development density policy which indicated a proposed change to the FR (Farm Residential) zoning text for areas not in the MUSA that would allow the opportunity for rural density clustering up to a density of 1 unit per 2 acres with provisions for shared septic and water systems and design criteria enabling and accommodating future urban development.

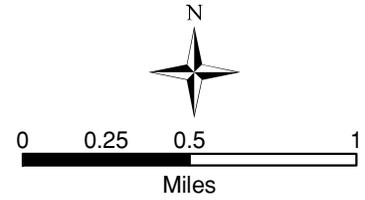


7/16/02: MUSA Phasing Map

 Connection Point for Each Sanitary Sewer Line

 Current MUSA

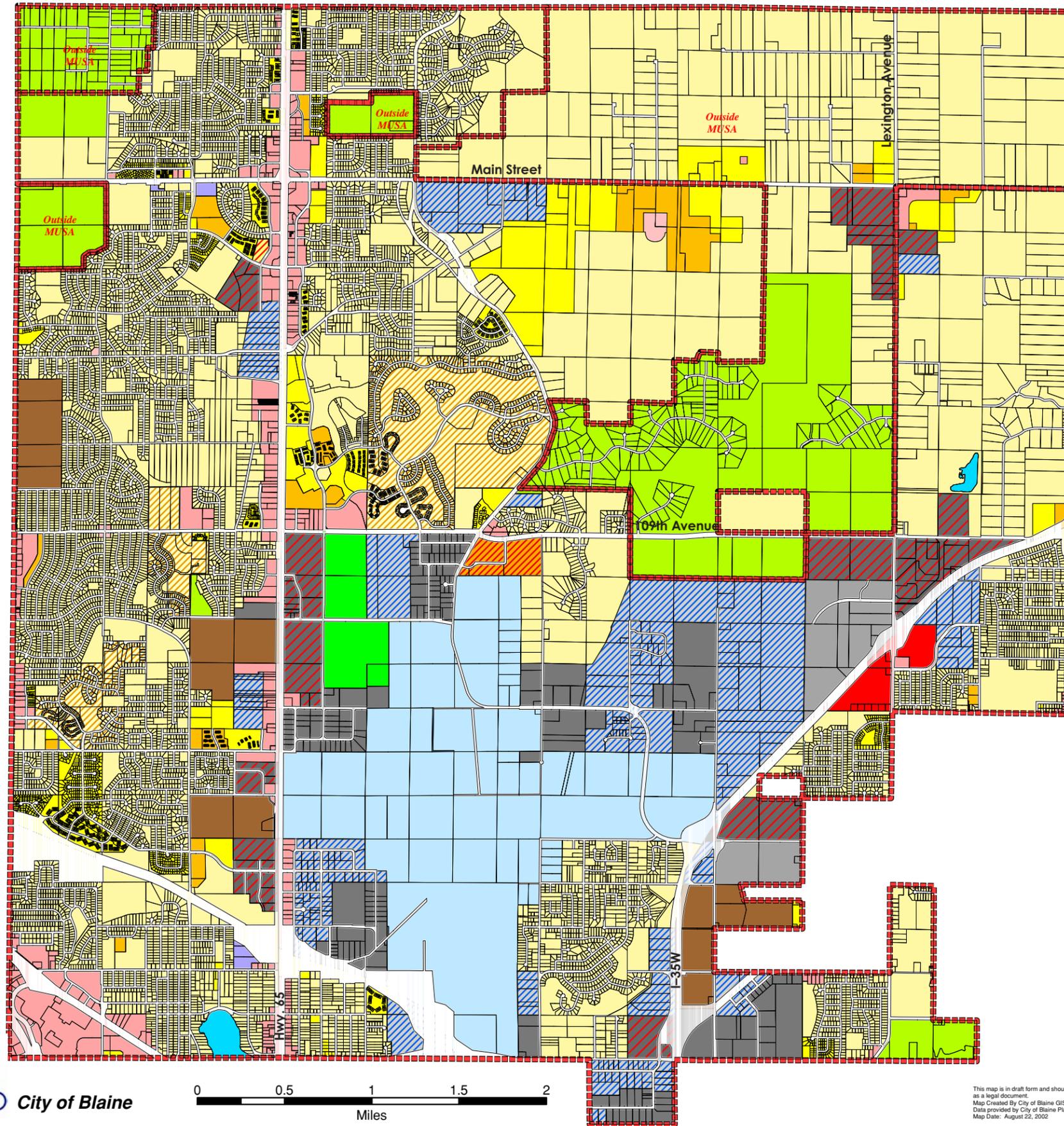
Phase I	2002 - 2005	2,400 Acres
Phase II	2005 - 2010	220 Acres
Phase III	2010 - 2015	1,000 Acres
Phase IV	2015 - 2020	1,060 Acres



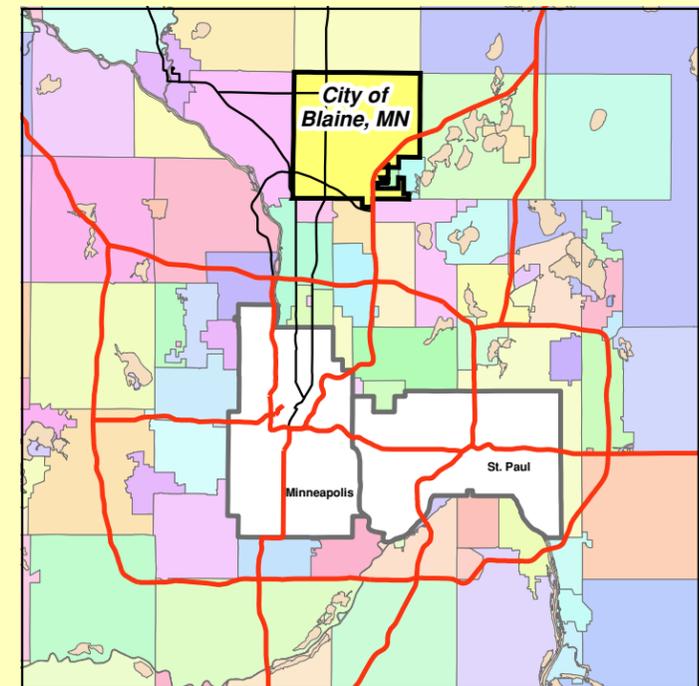
Comprehensive Land Use Plan 2002

City of Blaine, MN

**** Approved by City Council on October 17th, 2002. Contingent upon Metropolitan Council review and approval.****



- | | |
|--|---------------------------------------|
| MUSA Boundary | HDR/PC |
| R - Rural Residential | LI - Light Industrial |
| LDR - Low Density Residential | HI - Heavy Industrial |
| MDR - Medium Density Residential | PI - Planned Industrial |
| L-MDR - Low Density/Medium Density Residential | O - Office |
| HDR - High Density Residential | PI/PC - Planned Industrial/Commercial |
| MHR - Mobile Home Residential | OS - Open Space |
| NC - Neighborhood Commercial | RR - Regional Recreation |
| CC - Community Commercial | AP - Airport |
| PC - Planned Commercial | Water Features |
| MDR/PC | ROW - Right-of-Way |



City of Blaine



This map is in draft form and should not be looked upon as a legal document.
Map Created by City of Blaine GIS
Data provided by City of Blaine Planning Department
Map Date: August 22, 2002



Movement and Environment Systems Components

The alignments of road and trail networks shown on the following map are illustrative, to show the system working together. The actual location of roads and trails will be determined as development proposals are submitted and evaluated, or as park land is acquired and developed.

Collector Streets

These roads access arterials such as Lexington, Main Street and Radisson. They will carry more traffic than local streets and have limited driveway access. The right-of-way should be wide enough to allow a trail on at least one side of the street and shade trees on both sides of the street as well as in the median if present.

Parkways

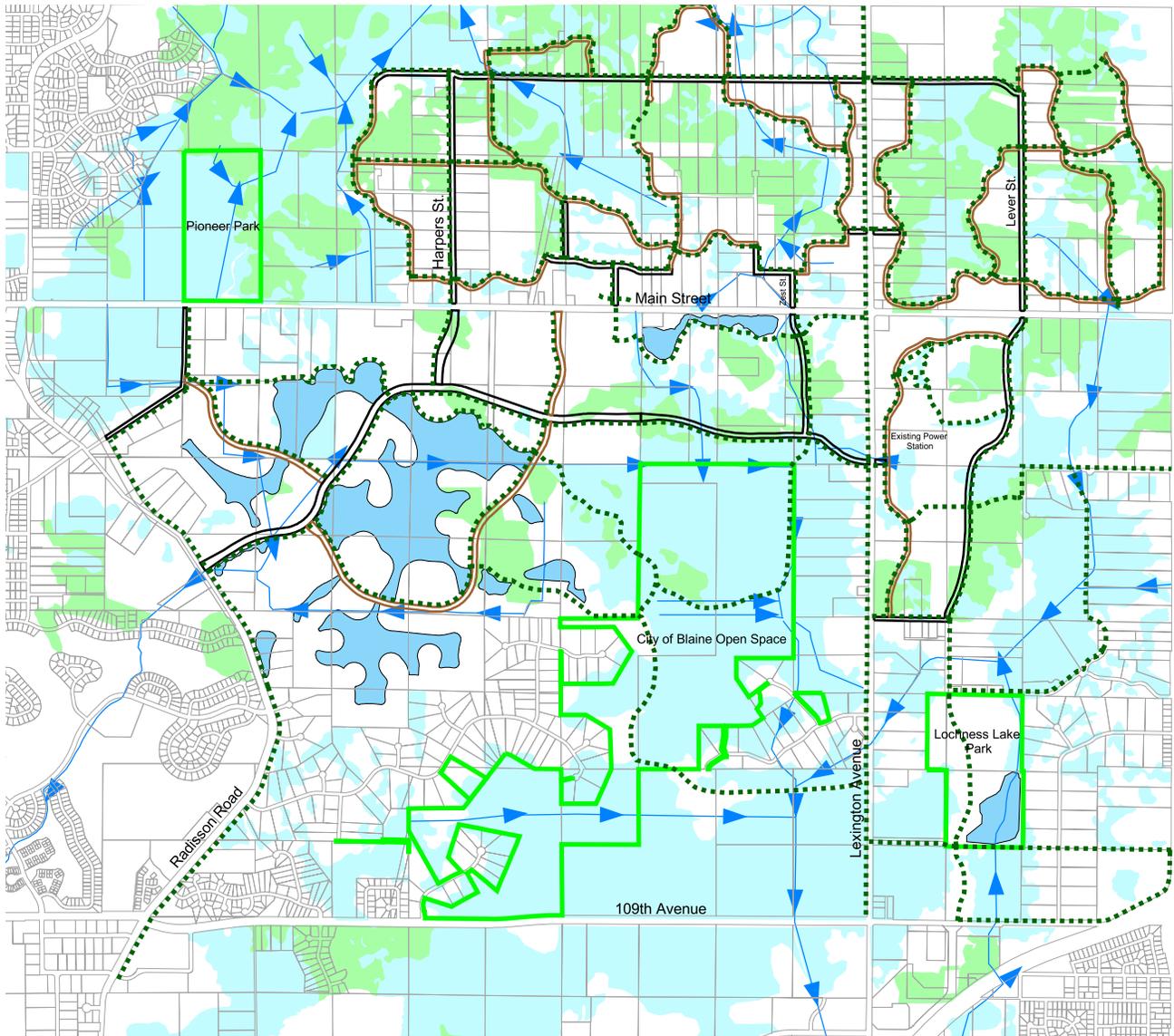
These are local streets that connect parks and run along the edges of natural corridors of woodlands and wetlands. They also serve as part of the trail network. Right-of-way should be wide enough to accommodate parking bays and clusters of informal tree plantings that shade the paths and complement adjacent natural areas. Driveway access should be limited as much as possible on the trail side of the parkway.

Local Streets

These roads provide access to individual homes and businesses. They should connect as much as possible, ending in cul-de-sacs only when avoiding natural areas. Sidewalks on both sides of the streets are preferred.

Trails

Trails shown on the maps are assumed to be multi-use bituminous (or boardwalk) trails that vary in width from six to eight feet. The actual number, design and alignment are illustrative, intending to demonstrate the concept of interconnected loops that provide a variety of recreational and transportation options. Some trails follow the road network, as described above, or traverse through parks and open space. Paved trails should avoid disturbing the highest quality natural areas. Not shown on the map are footpaths, which may be unpaved trails or boardwalks that can provide access to more fragile environments for walking and wildlife observation.



Movement and Environment Systems Illustration

October 2002



Sources:
 Upland and wetland communities:
 Blaine Natural Resources Inventory 2000
 Peterson Environmental Consulting, Inc.
 City Parks and Open Space:
 Design Center for American Urban Landscape
 Public Ditches, Roads:
 North Metro I-35W Coalition
 City of Blaine Community Development Dept.
 Anoka County GIS
 PlanSight, LLC
 McComb Frank Roos Associates, Inc.

Legend

- Road and Trail Network
- Collector Streets
 - Parkway
 - Neighborhood Streets
 - Trails
- Environmental Systems
- Parks and Open Space
 - Parcel Boundaries
 - County Ditches
 - Wooded Uplands
 - Wetland

Design Center for American Urban Landscape:
 Land use and road network plans for East Meadows, Lochness Lake, and North Woodlands Neighborhoods.

McCombs Frank Roos Associates, Inc.:
 Land use and road network plans for West Meadows Neighborhood.

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Land Use Components

The land uses and numbers of acres proposed in this plan are illustrative, to give general guidance as to the city's vision for the area. The map is one illustration of how the area could look, following the descriptions and neighborhood design book describe the design principles and goals. Changes will likely occur as individual development proposals are brought forward to the city.

Land Use Category Descriptions

Condominiums and apartments

This category corresponds to the city's High Density Residential classification of greater than 10 units per acre. The plan proposes high quality design and construction, built for a wide variety of potential markets, such as seniors, empty nesters, and starter homes. Rather than one building type, this category encourages a mix of garden apartments and low rise buildings, with other types of multifamily units, such as townhouses and duplexes. Buildings that orient at least some, if not all, doorways and addresses toward public streets are preferred. Structured parking below or attached to the building, is also encouraged. In this plan amendment a gross density of 20 units/acre was assigned to the condominiums and apartment classification.

Townhomes

This category corresponds to the city's Medium Density Residential classification of between five to ten units per acre. These uses are shown in areas that are clustered near potential transit service, similar to the condominium and apartment category described above. In this plan amendment a gross density of 10 units/acre was assigned to the townhome classification.

Single Family Residential, 1/5 to 1/4 acre lots

This category falls within the city's single family residential designation, with lots sizes smaller than the current minimums of 10,000 square feet and potentially narrower than the current lot width minimum of 80 feet. Lots are assumed to be front loaded, but could also be designed for rear alley access, to accommodate larger garages and allow front doors on parkways and collectors without interfering with trail networks. These areas are shown primarily near potential transit, and in areas with few existing natural areas that could be disturbed by more intensive development. In this plan amendment a gross density of 4 units/acre was assigned to this classification.

Single Family Residential, 1/4 to 1/2 acre lots

This category falls within the city's single family residential designation. These homes are envisioned in places with natural areas that may benefit

from less intense development, to maintain surface water recharge and preserve stands of trees or buffer wetlands. They are also located in areas near existing larger lot residential. In this plan amendment a gross density of 2.5 units/acre was assigned to this classification.

Retail

All retail in this area is assumed to be local, service oriented businesses such as day cares, coffee shops, cafes and convenience stores. These retail areas could have residential as part of the mix.

Mix of office, commercial and light industrial

These areas would include commercial services, planned to complement adjacent residential areas. They are sited to be close to a variety of transit options.

Mix of office and light industrial

These areas are located primarily where they exist today.

Parks, open space and potential open space

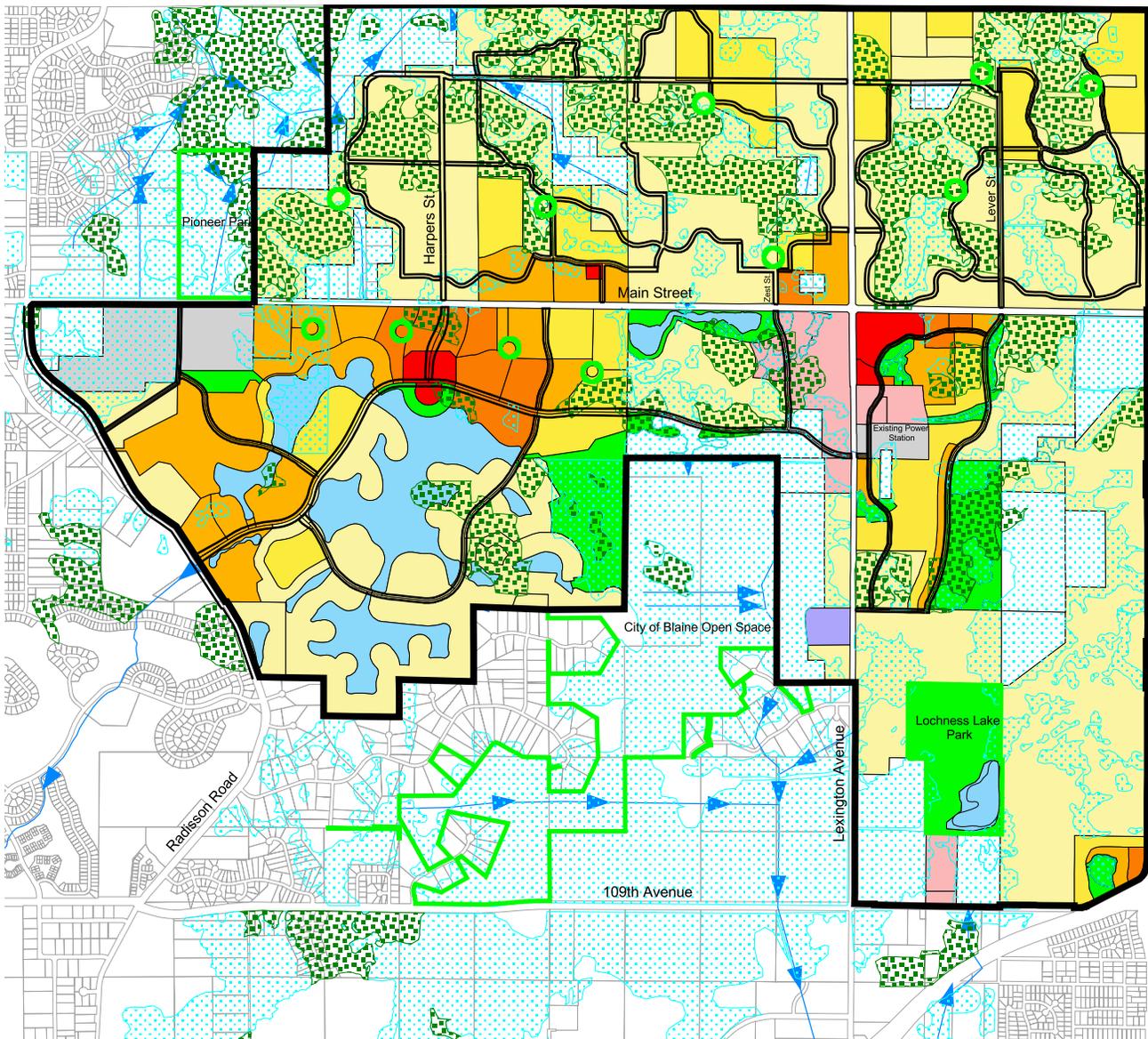
This category shows where publicly owned open space can be strategically located to protect environmental features and create neighborhood amenities.

Potential neighborhood park

These circles indicate some of the locations where a neighborhood park could be located to serve that area, as development occurs. The preferred location is along a corridor of natural areas, to provide a buffer.

Wooded Uplands and Wetlands

These are areas identified by the city's natural resource inventory and they show the overall pattern of surface natural resources in the area. More definitive delineation and evaluation of these areas would take place as development proposals come forward.



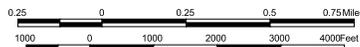
Land Use Illustration

October 2002

Composite of Northeast Blaine Study Area
 Total Acres: 4,627
 69% Residential (11,220 units)
 5% Retail/Office/Commercial/Light Industrial
 <1% Civic/Institutional
 8% Open Space
 13% Wetlands (Does not include wetlands counted in other land uses)
 5% Open Water

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McCombs Frank Roos Associates, Inc.:
 Land use and road network plans for West Meadows Neighborhood.



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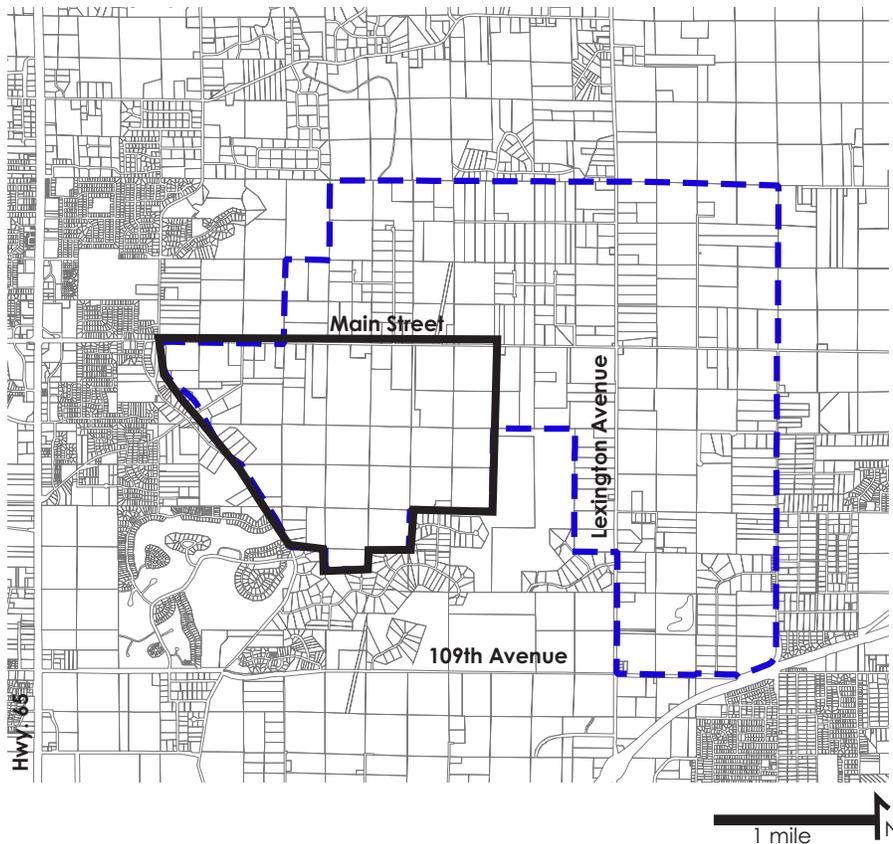
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Legend

- Land Uses**
- Condominiums and apartments (HDR)
 - Townhomes (MDR)
 - Single Family Residential (LDR) (1/5 to 1/4 acre lots)
 - Single Family Residential (LDR) (1/4 to 1/2 acre lots)
 - Retail
 - Mix of office, commercial and light industrial
 - Mix of office and light industrial
 - Civic/Institutional
 - Parks, open space and potential open space
 - Potential neighborhood park
 - Lakes and Ponds
- Environmental Systems**
- Parcel Boundaries
 - County Ditches
 - Wooded Uplands
 - Wetlands

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West Meadows Neighborhood



Design Issues:

The area is dominated by an 1100 acre tract owned by a development group.

Relatively little remains of natural areas, with the exception of a woodland at the east edge of the parcel.

Low-lying areas that have been drained and cultivated predominate. In these areas, creating sufficiently high building pads will require re-grading, much as similarly situated developments in Blaine, with approximately 20% of land in created water bodies.

Based upon Anoka County plans, access from Radisson and Main Street will be more limited in the future, with full intersections at approximately half mile spacing.

Transit is most easily accommodated along Lexington and Radisson.

Soil conditions and other issues may suggest an arrangement of water features different than shown.

Design Assumptions:

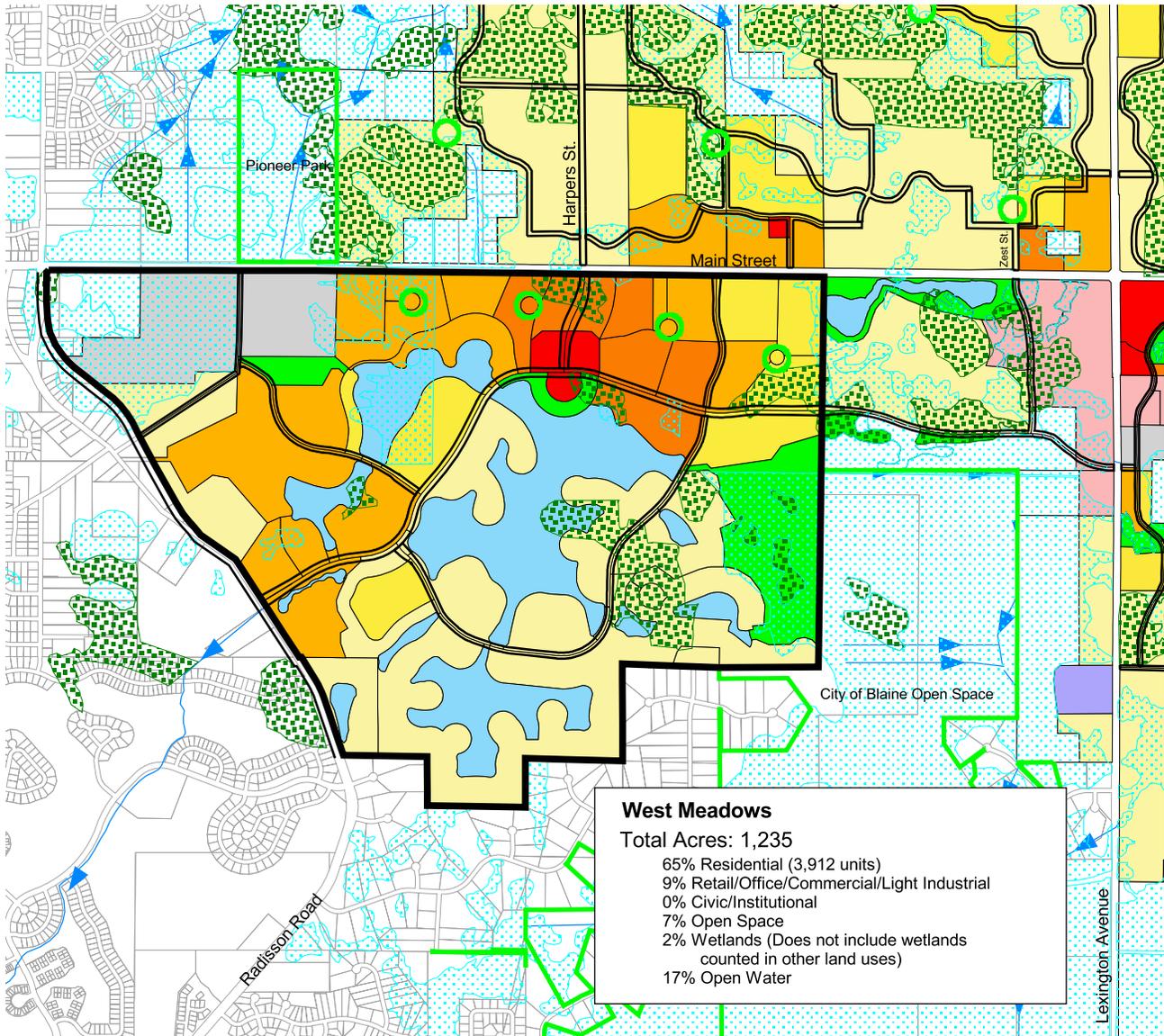
Urban service will be extended to the area.

Urban services will be assessed only to property owners who choose to develop.

The existing ditch system would be altered, following the water quantity and water quality guidelines of the Coon Creek and Rice Creek Watershed Districts.

The area will be mixed-use in character, with a variety of housing types and commercial/light industrial uses.

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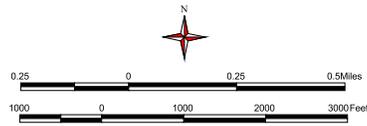


West Meadows Neighborhood Illustration

October 2002

Design Center for American Urban Landscape:
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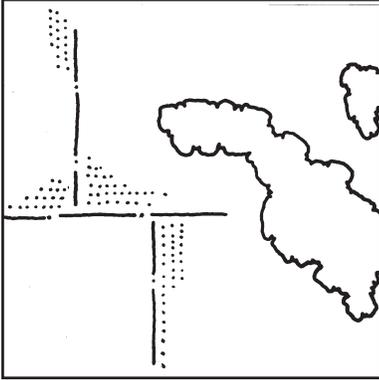
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West Meadows Natural Features and Open Space

Goal: Design a connected system of preserved and created natural areas and parks throughout all land uses on the site that are accessible by trails linking to other existing open spaces.

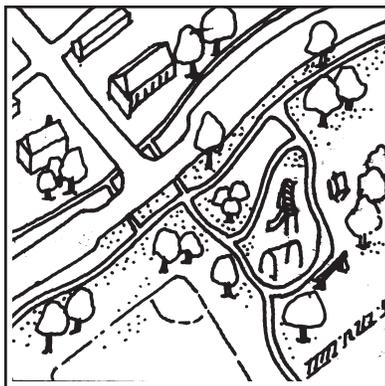
Design Principles:



Preservation of woodlands can occur on both public and private lands and includes the understory as well as the tree canopy.



Linear water features create more shoreline and a variety of views to experience.



Sidewalks, trails, and a public edge along a parkway create an accessible neighborhood park.

- **Preserve woodlands where possible.**
Preservation of not only wetlands but also uplands provides a variety of habitat types for plants and animals and a mix of recreational opportunities for residents. For example, much of the West Meadows neighborhood is currently sod fields, a large block of wooded uplands exists north of Meadow Lane. Its proximity to large wetland complexes make it a noteworthy candidate for preservation as part of an open space system.
- **Create a system of linear lakes and larger ponds that are connected.**
- **Design a primary park as a central community amenity.**
- **Allow public access to the water along most edges.**
Due to the local soil and water conditions, prominent water features will be an integral component of any large-scale development in the West Meadows neighborhood. A connected network of ponds and open space create a linear habitat corridor for plants and animals and a recreation system for residents. Public access to this system of connected ponds and trails creates an amenity the entire community can share.
- **Locate new neighborhood parks along the parkway system; include dry areas for play.**
Locating neighborhood parks along parkways that frame natural features creates a network of neighborhood amenities, where the sum is greater than the individual parts. In addition, where parkways skirt along preserved uplands and wetlands, neighborhood parks can buffer these natural areas from the activities of the neighborhood.



Native landscape requirements along stormwater pond edges could be included in development covenants or landscape guidelines.



A buffer of trees and shrubs provides a green thoroughfare rather than one of rear house facades and back yards.

- **Design trails around the ponds, lake and some wetlands as well as along parkways.**
- **Plant native species at the water's edge along a majority of shoreline.**

A looping trail system, with an unfolding series of views, are typically preferred by recreational trail users. Native shoreline plants cleanse stormwater runoff, limit erosion and provide a variety of colorful flowers and foliage textures. And in contrast to mown turf, tall native plants at the water's edge deter geese.

- **Create a buffer of green space along Main Street.**
Views of green from the road provide a pleasing route for travelers as well. A dense thicket of trees and shrubs along Main Street would also screen arterial traffic from neighborhoods. Openings at major intersections would allow views of retail, commercial and industrial properties.

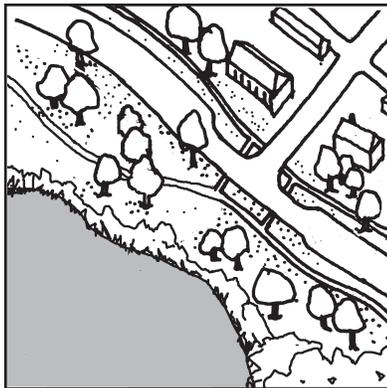
West Meadows Movement System

Goal: Create a hierarchy of circulation that interconnects neighborhood trails, parkways and collectors that support local traffic, provides access to parcels in a phased manner and creates amenable experiences while walking, cycling or driving.

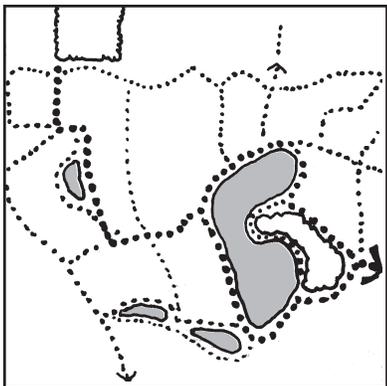
Design Principles:



Multiple connections provide a variety of trip options and easy connections.



Single loaded parkways along open spaces provide views of the neighborhood's special features.



Local loops connect to cross-community and regional routes.

- **Provide a variety of internal connections to the arterials and E/W connections rather than focusing all traffic on a single collector.**
- **Create a connected road network of neighborhood streets and collectors. Minimize cul-de-sacs.**
Highly connected residential streets combined with multiple collectors disperse traffic, limit circuitous routes, and the need for travel on arterial streets for inter-neighborhood trips. Dispersing traffic allows for more livable collector streets, especially if they are designed as parkways with housing fronting onto them.
- **Make the collectors parkway-like in character with shaded pathways that skirt the city's existing open space as well as new water amenities.**
Parkways along green features—lakes, ponds, wetlands, and uplands—ensure that the neighborhood's amenities are not hidden behind private property. Collectors designed as parkways provide a more enjoyable experience for neighborhood residents.
- **Build a network of trails along parkways and open space that creates loops and links to Pioneer Park and the city's open space, through to Lexington Avenue.**
Outdoor recreation, such as walking for health, is an important activity for many; numerous, convenient and highly connected trails are valuable community assets. Providing a variety of these routes is particularly appreciated by people. Longer trips are afforded by trail links to regional trails.

West Meadows Land Use Mix

Goal: Build a mixture of home types and business locations that are seamlessly connected to each other, sharing a rich diversity of open space amenities.

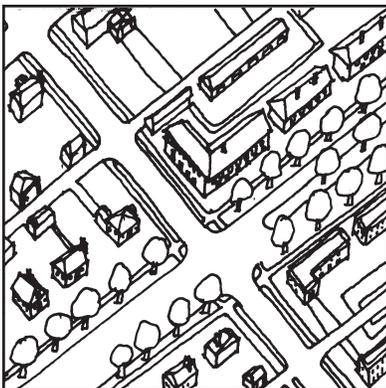
Design Principles:



A mix of uses, higher densities, and natural feature connections as part of TOD development strategies.



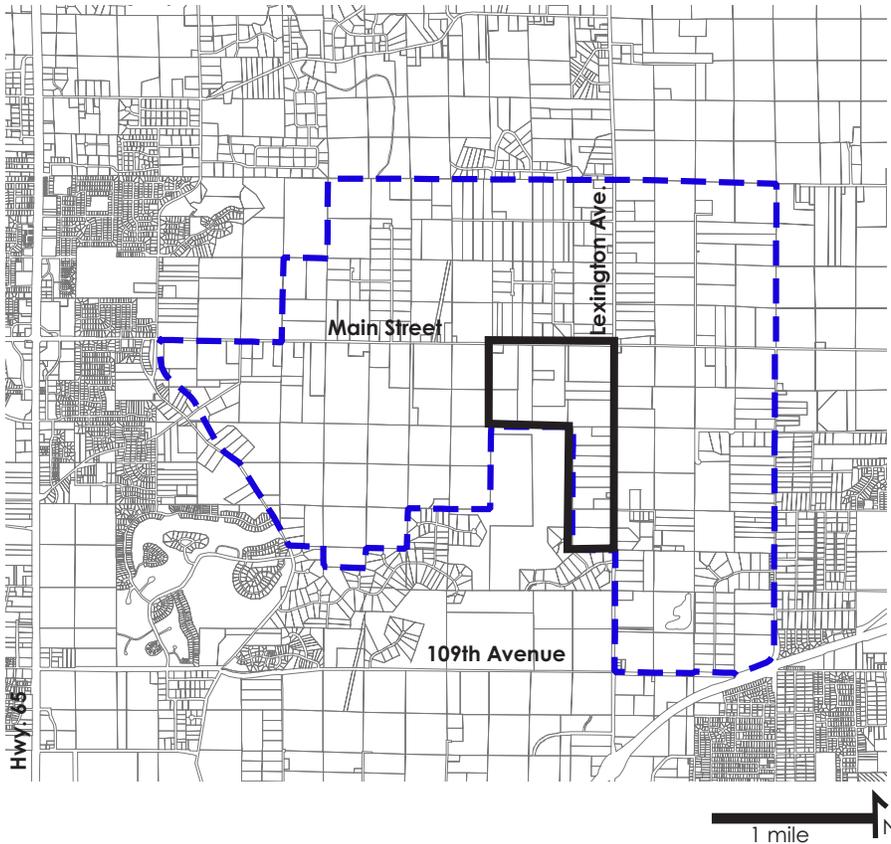
Careful placement of structures maximizes the number of parcels with views of water and other open space amenities.



Parkways can be enhanced when entries and windows front on to them and garages and parking areas are accessed from behind the lot.

- **Locate an intensity of homes and service businesses within a quarter mile of Radisson Road and Main Street, to facilitate access to and provision of future transit services.** Locating transit oriented development (TOD) along Radisson Road or Main Street takes advantage of potential transit for this area that will likely connect to the park and ride facility located at 95th Avenue and I-35W. The Metropolitan Council's transit oriented development guidelines call for pedestrian-friendly streets, mixed use development and densities between 12-20 units per acre within a 1/4 mile radius of a proposed transit stop.
- **At least some of all housing types should be situated with views of or adjacent to the system of water or open space amenities.** A diverse housing supply allows people, as they go through life's stages, to remain in the same neighborhood near family and friends. Providing similar amenities within that diversity, such as views of and access to open features, provides options to residents. Variety also better prepares a neighborhood and city for future demographic changes.
- **Encourage the fronts of buildings, homes or businesses to face the parkways and entry drives, by allowing the use of rear-alley access to parking and garages.** Businesses and homes that present a front door to the street provide interesting settings and encourage pedestrian activity. On the other hand, parking lots and garages that front parkways are less appealing and require curb cuts that interrupt sidewalks and paths along the parkway.

East Meadows Neighborhood



Design Issues:

Buildable land is concentrated on the north end of the area, which is interspersed with small wetlands, patches of woodlands and ditches.

The south area is dominated by a large wetland complex owned by the city. The size and scale of the wetland make crossing by road or paved trails a costly proposition.

Based upon Anoka County plans, access from Radisson and Main Street will be more limited in the future, with full intersections at approximately half mile spacing. This limits the uses for the small fringe of dry land directly west of Lexington.

Transit is most easily accommodated along Lexington.

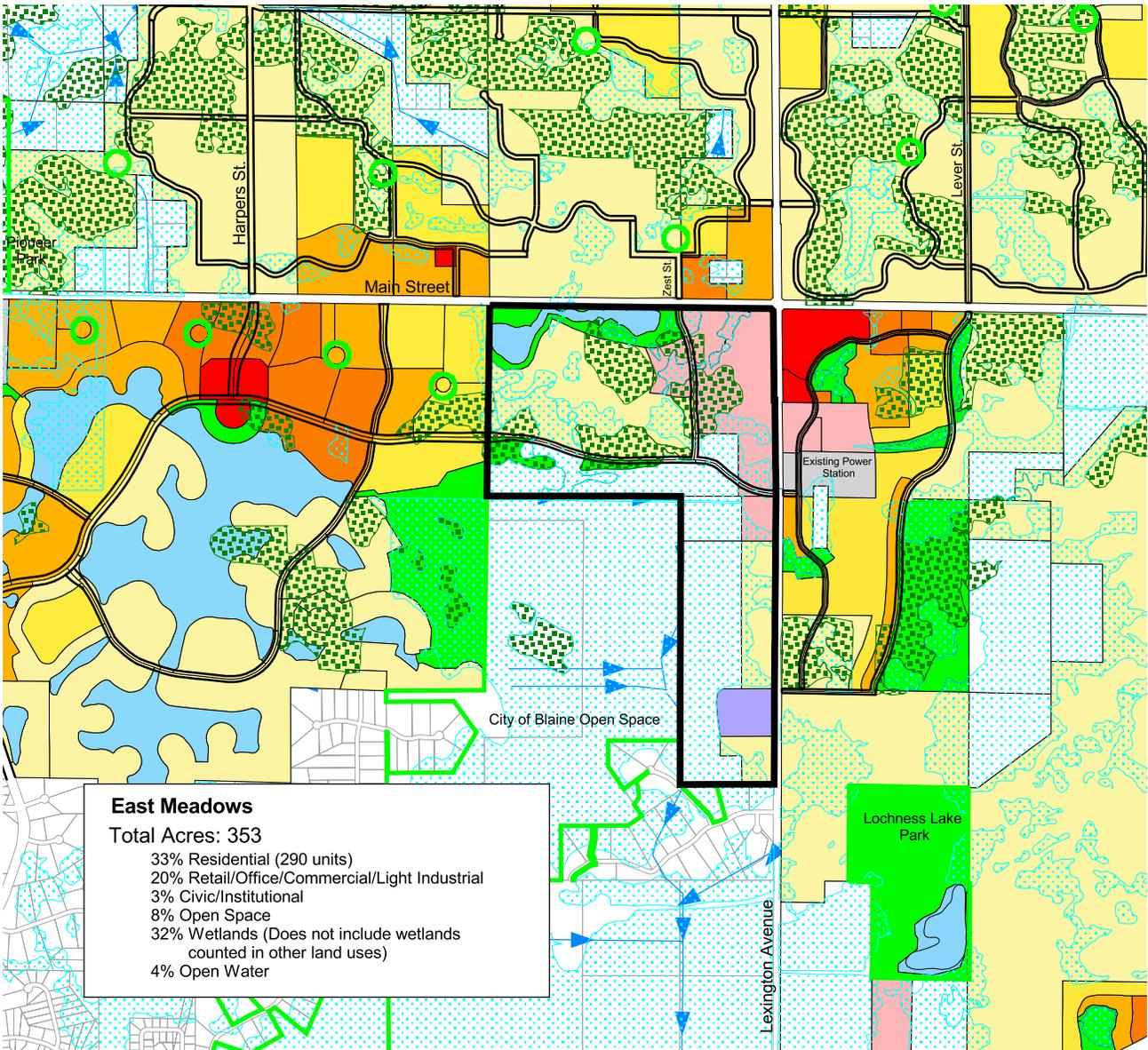
Design Assumptions:

Urban service will be extended to the area.

Urban services will be assessed only to property owners who choose to develop.

The area will contain a concentration of commercial/light industrial.

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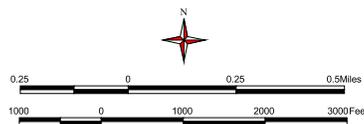


East Meadows
 Total Acres: 353
 33% Residential (290 units)
 20% Retail/Office/Commercial/Light Industrial
 3% Civic/Institutional
 8% Open Space
 32% Wetlands (Does not include wetlands counted in other land uses)
 4% Open Water

East Meadows Neighborhood Illustration

October 2002

Design Center for American Urban Landscape:
 Land use and road network plans for East Meadows, Lochness Lake, and North Woodlands Neighborhoods.
McCombs Frank Roos Associates, Inc.:
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Sources:
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Legend

- Land Uses**
- Condominiums and apartments (HDR)
 - Townhomes (MDR)
 - Single Family Residential (LDR) (1/5 to 1/4 acre lots)
 - Single Family Residential (LDR) (1/4 to 1/2 acre lots)
 - Retail
 - Mix of office, commercial and light industrial
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 - Parks, open space and potential open space
 - Potential neighborhood park
 - Lakes and Ponds
- Environmental Systems**
- Parcel Boundaries
 - County Ditches
 - Wooded Uplands
 - Wetlands

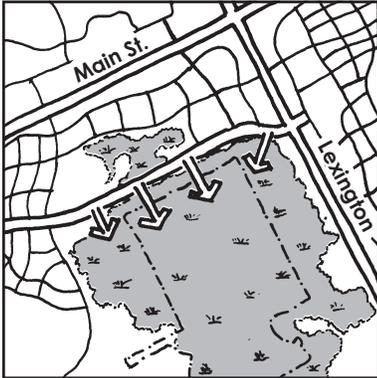
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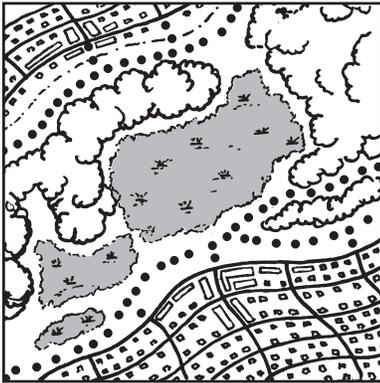
East Meadows Natural Features and Open Space

Goal: Design a connected system of preserved and created natural areas and parks throughout all land uses on the site that are accessible by trails linking to other existing open spaces.

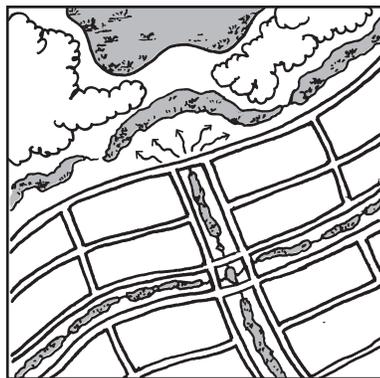
Design Principles:



Designing an east/west parkway adjacent to the city's open space allows views of and access to the public open space.



Trails located at the edge of the wetland complex provide neighborhood access with the least impacts to habitat and water regimes.



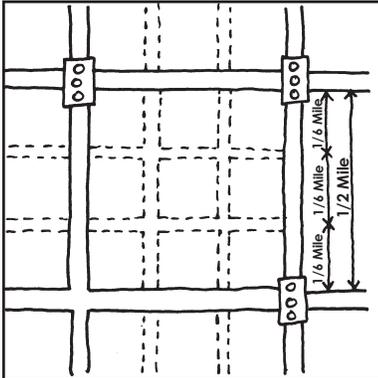
Surface flow of stormwater can be designed as a neighborhood amenity.

- **Align the East/West parkway along the city's large open space.**
Access spacing along Lexington Avenue allows signalized intersections approximately every 1/2 mile. This spacing places a full-access intersection for an east/west collector near the northern edge of the City's large wetland complex. Designing this collector street as a parkway along the open space will, with the addition of slightly more land, provide a public edge to this amenity. Views across this open space provide a signature neighborhood entry that sets the tone for future development.
- **Select a trail alignment around or through the wetland complex that minimizes impacts to the wetland system.**
The city's Greenway Corridor Plan calls for trail connections through or around the City's wetland complex southwest of the Lexington Avenue and Main Street intersection. The construction of the trail itself, or the use of the trail can threaten water quality as well as the vitality and sustainability of different plant and animal populations.
- **Design stormwater systems that help sustain and improve the health of the wetland complex.**
Development increases the amount of impervious surface, causing less water to infiltrate. Moreover, wetland plant communities are sensitive to frequent water fluctuations that often occur after development occurs in a watershed. A variety of conveyance systems and preservation of critical infiltration areas can help minimize these impacts. Stormwater systems that convey water above ground, extending connections from existing open spaces into neighborhoods, can create a framework for development.

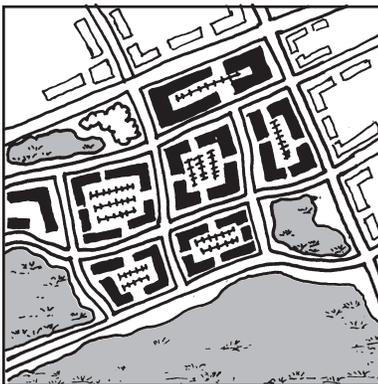
East Meadows Movement System

Goal: Create a hierarchy of circulation that interconnects neighborhood trails, parkways and collectors that support local traffic, provides access to parcels in a phased manner and creates amenable experiences while walking, cycling or driving.

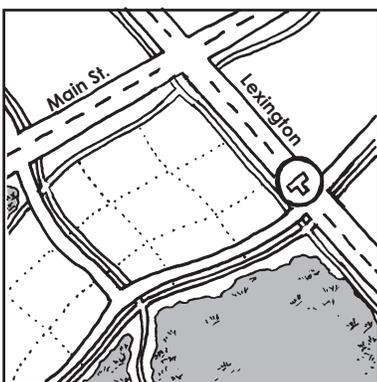
Design Principles:



Minimum spacing between full-access intersections on arterials, such as Lexington Avenue and Main Street, is one-half mile.



A well connected street system provides a healthy environment for businesses.



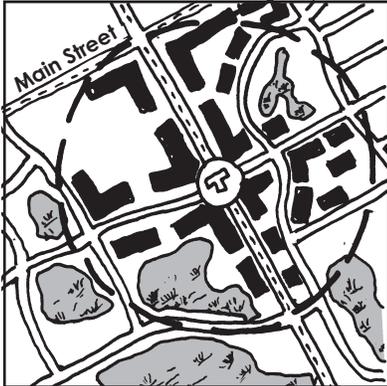
A system of sidewalks connected to a trail network provides a variety of pedestrian experiences and access to transit, shops, and parks.

- Provide more than one access to Lexington Avenue.**
 Providing more than one access to Lexington Avenue and Main Street in the East Meadows neighborhood provides greater connectivity to the neighborhood and avoids concentrating traffic on to one intersection and collector street. Neighborhood access must be balanced with safety and through-movement on Lexington Avenue.
- Create a system of interconnected streets through the commercial area, rather than cul-de-sacs.**
 A network of streets with few cul-de-sacs allows for greater neighborhood connectivity, providing multiple ways for automobiles, cyclists, and pedestrians (provided sidewalks are included) to reach local stores, commercial areas, and potential future transit. Providing services and maintaining streets is also facilitated by a more connected system.
- Make pedestrian access to Lexington and Main both continuous and amenable, to allow access to potential transit.**
- Build a network of trails along parkways and open space that creates a variety of short loops for lunch-hour walks.**
 For transit to be successful and well used, it must be easy for people to get between the stop to their destination. Strong and direct trail connections between transit stops and employment centers provide such convenience. Additional trail segments that employees can easily access for recreation are community assets that many business owners seek.

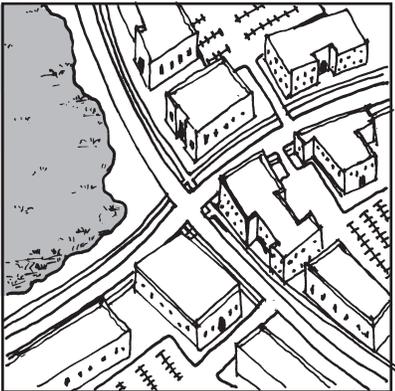
East Meadows Land Use Mix

Goal: Attract a mixture of businesses that add to the mixture of jobs and services available in Blaine and take advantage of the natural resource amenities in the vicinity.

Design Principles:



Locate a concentration of business and housing within a 5-minute walk of potential future transit.



Windows, articulated facades, and rear parking contribute to an active and attractive pedestrian-scaled street.

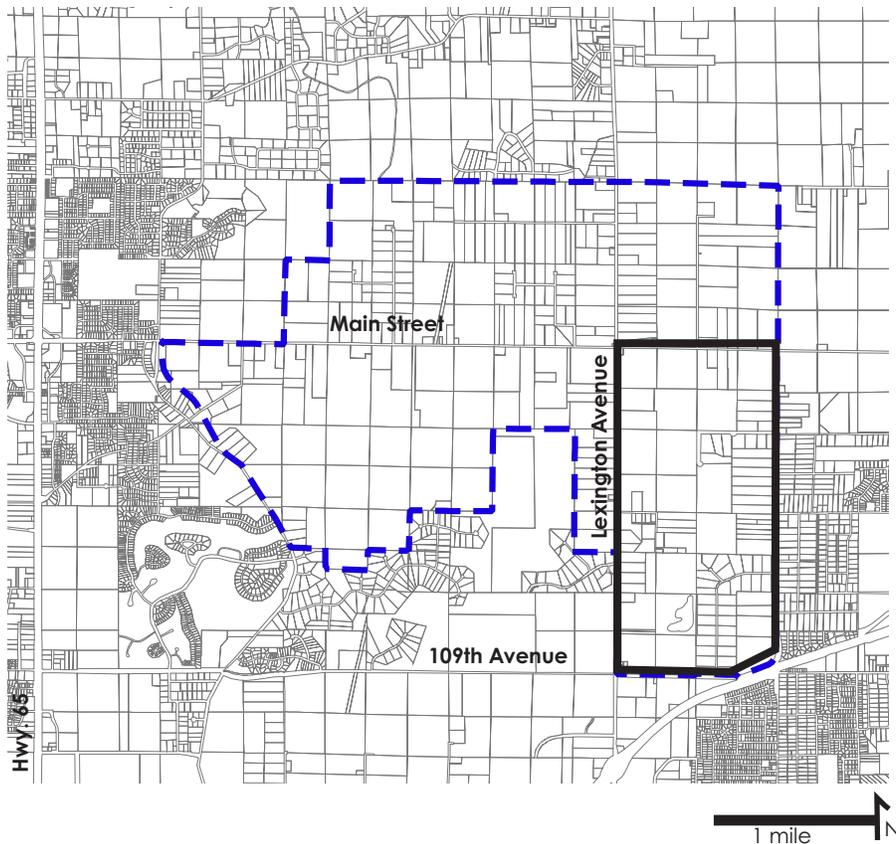


Larger lot homes properly sited protect wetland complexes and help provide a diversity of home types within a neighborhood.

- **Locate businesses within a quarter mile of Lexington and Main Street, to facilitate access to and provision of future transit services.**
Encourage transit supportive development within a comfortable walking distance—generally considered 1/4 mile (approximately a 5-minute walk)—of transit stops along Lexington Avenue. Metropolitan Council guidelines for transit oriented development call for diverse activities that maximize the number of workers, pedestrian-scale streetscapes, and an interconnected street and pedestrian system.
- **Encourage the fronts of or attractive facades of businesses to face the parkways and entry drives.**
Front doors, numerous windows, high quality building materials, and lush landscaping create an attractive and enjoyable streetscape. Bringing these elements close to the street, provides an environment that encourages walking and provides an intimate street setting that can also calm traffic.
- **Locate larger lot homes in areas where the smaller wetland complexes can be built around, rather than filled and mitigated.**
Preservation of wetlands need not rely solely on public ownership. With sensitive design of parcels and siting of structures, smaller wetland complexes can be preserved on private properties.

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Lochness Lake Neighborhood



Design Issues:

A large wetland complex goes through the center of the neighborhood.

The northwest corner contains large parcels of upland, some cropped, and large blocks of high quality woodlands, as identified in the city's natural resource inventory.

In the south corner, recently (1980s and 1990s) constructed homes on five acre lots occupy the east corner, while Lochness Lake Park and other city owned land occupies the west corner.

Based upon Anoka County plans, access from Lexington and Main Street will be more limited in the future, with full intersections at approximately half mile spacing.

Transit is most easily accommodated along Lexington.

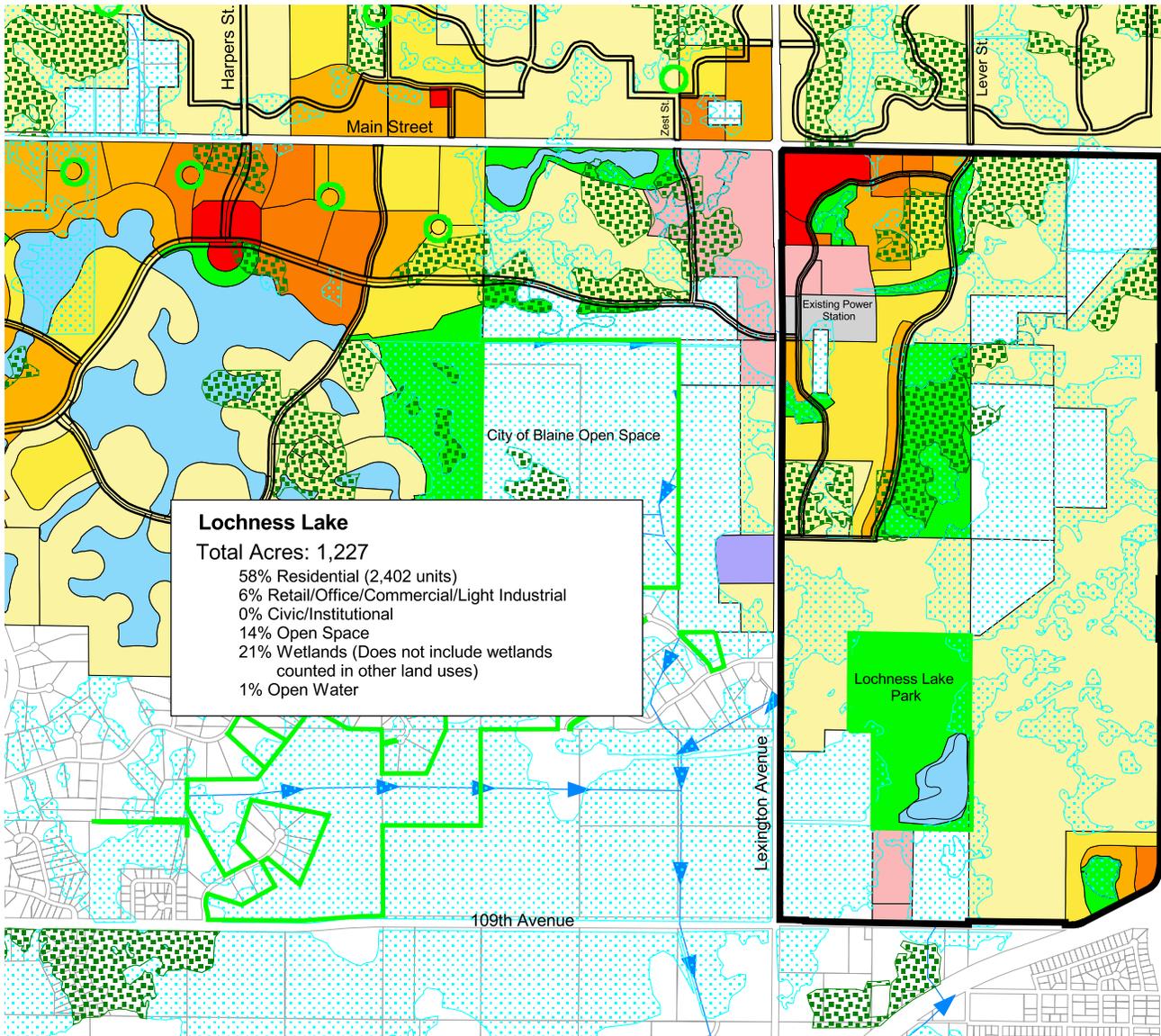
Design Assumptions:

Urban service will be extended to the area.

Urban services will be assessed only to property owners who choose to develop.

The area will be residential in character, with a variety of housing types and a focused area of neighborhood retail.

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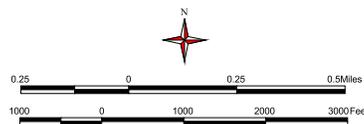


Lochness Lake Neighborhood Illustration

October 2002

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McCombs Frank Roos Associates, Inc.:
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Legend

- Land Uses**
- Condominiums and apartments (HDR)
 - Townhomes (MDR)
 - Single Family Residential (LDR) (1/5 to 1/4 acre lots)
 - Single Family Residential (LDR) (1/4 to 1/2 acre lots)
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 - Mix of office, commercial and light industrial
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 - Potential neighborhood park
 - Lakes and Ponds
- Environmental Systems**
- Parcel Boundaries
 - County Ditches
 - Wooded Uplands
 - Wetlands

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Lochness Lake Natural Features and Open Space

Goal: Build community around and define a preserved corridor of wetlands and uplands that form the center of the neighborhood.

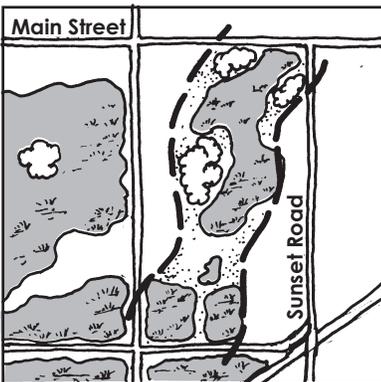
Design Principles:



Parkways are one successful way Twin Cities communities have defined public space.

- **Create a clear edge between preserved open space and residential neighborhood.**

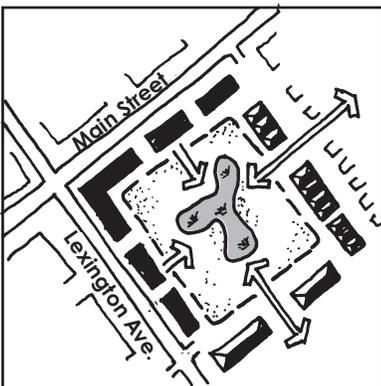
Providing a clear distinction between land that is privately held and that is public defines who belongs where. Fences, paths, signs, and parkways provide cues so that people do not feel that they are intruding on private property. Encroachment into natural areas is less likely to occur.



Quality uplands are found in the Lochness Lake Neighborhood; preserving uplands adjacent to wetland complexes builds a corridor of habitat diversity.

- **Preserve woodlands adjacent to wetland complex where possible.**

While a number of regulations and laws protect wetlands, uplands typically are afforded no such protections. Preserving uplands is important as they act as groundwater recharge areas; preserving them helps to maintain quality wetland complexes. In addition, the transition zone between uplands and wetlands is important for its habitat value. Some animals use these corridors for movement while other species require both wet and dry habitats to complete their life cycle.



Commercial and residential buildings front onto a parkway that surrounds a neighborhood wetland park.

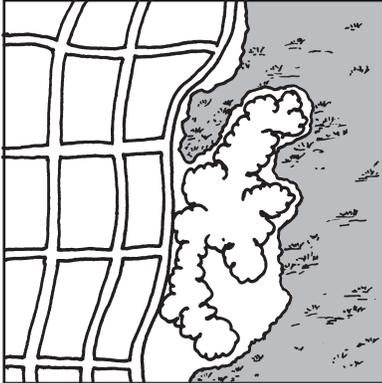
- **Create a neighborhood park around wetlands at the center of the new residential and retail area.**

Natural water features create an attractive view, destination, and focal point for a park as well as surrounding businesses. For instance, if preserved, an existing wetland near Lexington Avenue and Main Street could be part of a centrally located neighborhood park. Retail businesses and higher density housing could front onto this park.

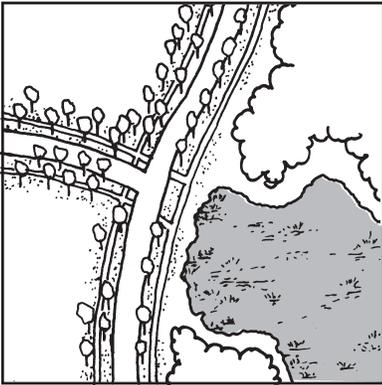
Lochness Lake Movement System

Goal: Create a hierarchy of circulation that interconnects neighborhood trails, parkways and collectors that support local traffic, provides access to parcels in a phased manner and creates amenable experiences while walking, cycling or driving.

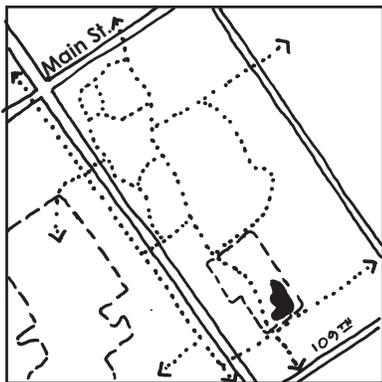
Design Principles:



The street network should respond to the landscape while providing multiple connections for neighborhood residents.



Existing tree groves and additional native boulevard trees shade road pavement and make the parkway an enjoyable place to walk and drive.



Off-site trails provide a safe and pleasant route for children and others to move through their neighborhood.

- **Create a “bent grid” road network of neighborhood streets and collectors. Minimize cul-de-sacs.**

Cul-de-sacs limit the number of travel choices, concentrating more traffic onto collector streets and longer routes than if the neighborhood streets are more thoroughly connected. A street network of connected blocks can be bent to respond to topography and landscape features such as wetlands, woodlands, and ditch alignments.

- **Make the north/south collectors parkway-like in character with shaded pathways that create a public edge and access to the central natural area.**

Public views of and access to open space create a shared neighborhood amenity that benefits properties nearby, including those not adjacent to the feature.

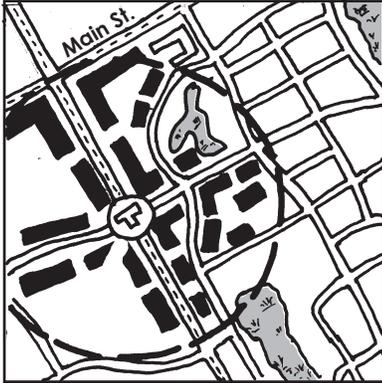
- **Build a network of trails along parkways and open space that creates loops and links throughout the neighborhood and to Lochness Lake Park.**

Trail users prefer looping trails because they provide a variety of travel experiences, short routes when time is limited and longer ones for leisurely strolling. Trail connections that link various land uses including residential, retail, commercial, industrial, and open space are valued.

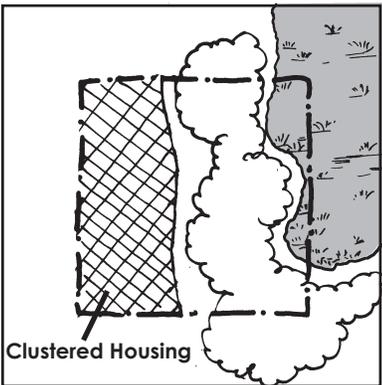
Lochness Lake Land Use Mix

Goal: Build a mixture of home types and neighborhood commercial in an arrangement that fosters potential bus service and walkability, while preserving large blocks of natural areas.

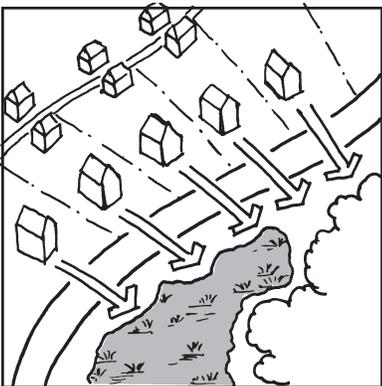
Design Principles:



Within a 5-minute walk neighborhood residents can access a community park, retail and commercial services, and transit.



By clustering housing, important natural features can be preserved as open space.



Parking lots and garages provide a monotonous streetscape and are best located away from active pedestrian areas wherever possible.

- **Locate an intensity of homes and service businesses within a quarter mile of Lexington Avenue to facilitate access to and provision of future transit services.**

Encourage transit supportive development within a comfortable walking distance—generally considered 1/4 mile (approximately a 5-minute walk)—of transit stops along Lexington Avenue. Metropolitan Council guidelines for transit oriented development call for housing densities of 12-20 units/acre, diverse activities that maximize the number of workers, pedestrian-scale streetscapes, and an interconnected street and pedestrian system.

- **In areas where high quality woodlands exist adjacent to the wetland complex, designate for higher density to offset costs of setting aside buildable land and building single-loaded road.**

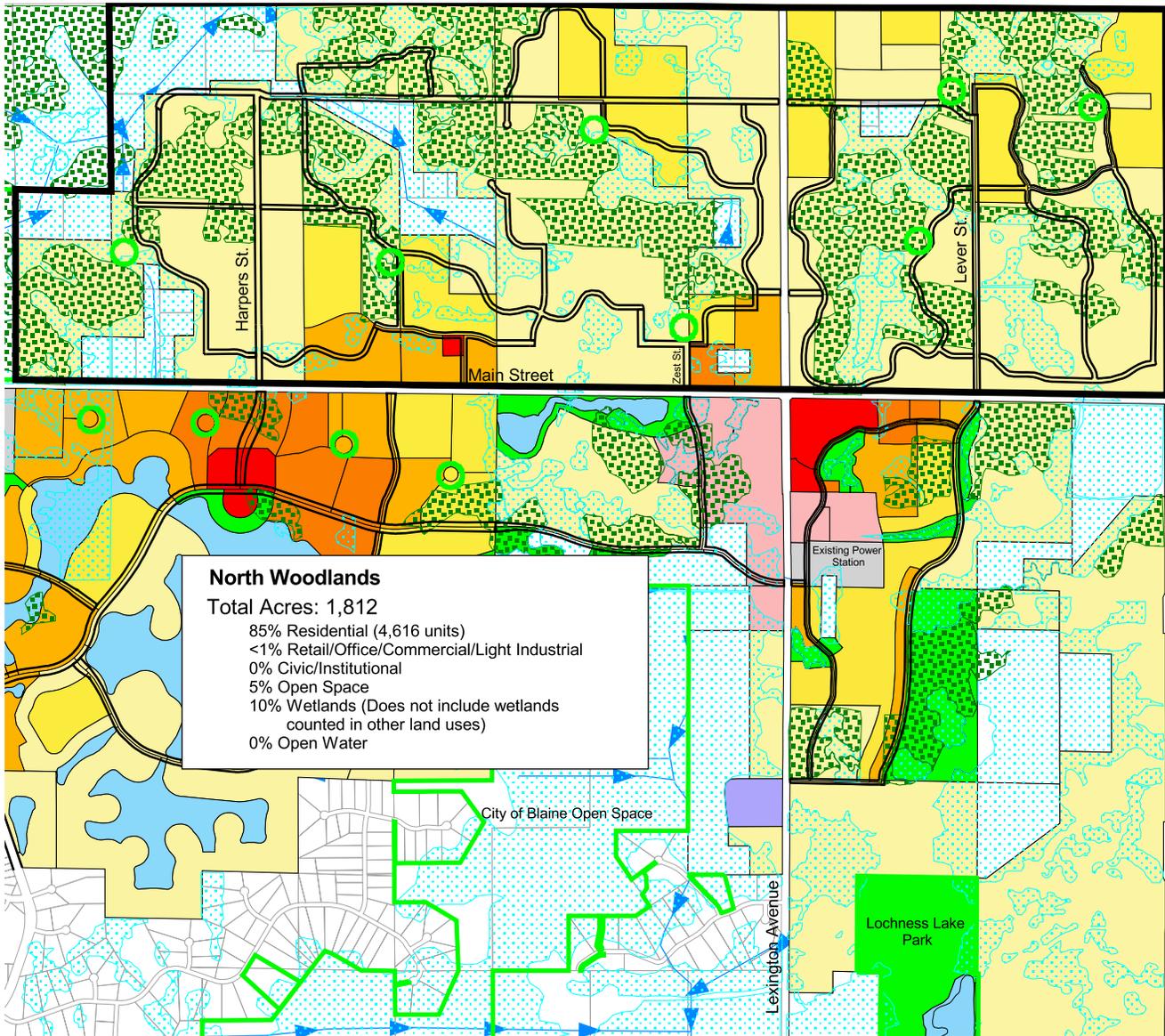
Trading densities within a development project allows the economic development of a site to be realized without sacrificing valuable natural resources.

- **Encourage the fronts of buildings, homes or businesses to face the collectors, by allowing the use of rear-alley access to parking and garages.**

Businesses and homes that front streets provide an attractive and lively street setting and encourage pedestrian activity. Parking lots and garages that front collectors provide little variety or curb-appeal and require curb cuts that interrupt sidewalks and paths along the street.

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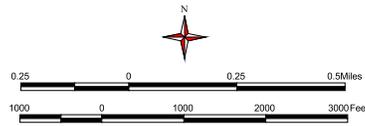
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North Woodlands Neighborhood Illustration

October 2002

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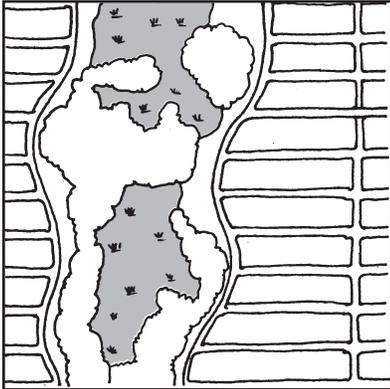
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- Environmental Systems**
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 - County Ditches
 - Wooded Uplands
 - Wetlands

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North Woodlands Natural Features and Open Space

Goal: Preserve highest quality natural resources so that they can continue to flourish in the future and provide a variety of active and passive recreational opportunities along this natural resource system.

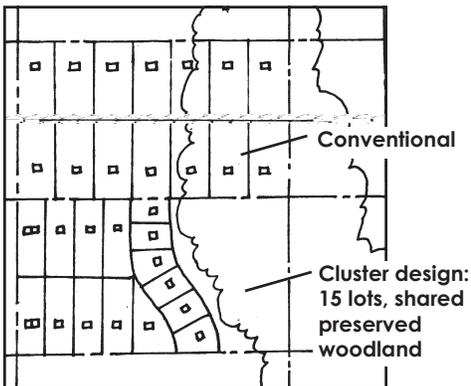
Design Principles:



Parkways highlight vistas of conservation areas.

- **Design parkways to frame, rather than bisect the highest quality resource areas.**

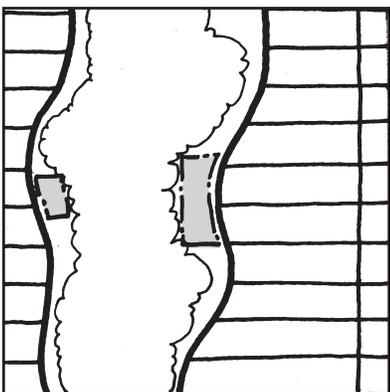
A number of high quality uplands in the North Woodlands neighborhood are identified in the City's natural resource inventory. Future subdivision of existing larger parcels could result in fragmentation of these resource areas and diminished habitat and recreational value. Care must be taken to ensure, to the extent possible, that necessary roads do not adversely affect these resources.



Clustering homes allows for the same (or even greater) number of lots but preserves natural features.

- **Encourage landowners to cluster development outside of these natural areas.**

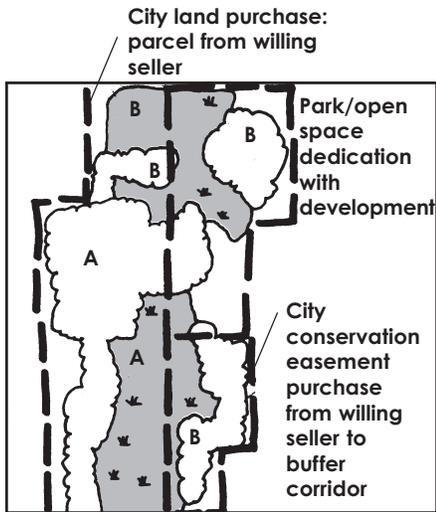
While clustering requires individual lots to be smaller, views of and access to larger open spaces extend the sense of open space, making subdivisions designed with views of open spaces feel less enclosed. In addition, studies have documented increased property values and faster appreciation for properties located near open space amenities, such as parks, trails, and greenway corridors.



Parks and adjacent natural areas are a neighborhood focal points, together providing a variety of experiences.

- **Locate new neighborhood parks along the parkway system; include dry areas for play.**

Parks located along parkways become part of a much larger and varied system of open spaces. Maintenance intensive facilities such as ball fields, picnic grounds and play areas can be clustered within a larger greenspace corridor, limiting maintenance costs, preserving native landscapes and creating an open space network that appeals to a diversity of residents.



Example scenario

A=Highest quality natural area

B=High quality natural area

A number of preservation tools are available and can be used in combination to preserve quality natural features.

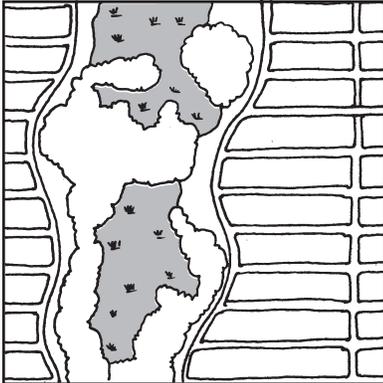
- **Work with the city’s Natural Resource Conservation Board to discuss easement or purchase options with willing sellers owning land in the highest concentration of quality natural areas.**

The City of Blaine Greenway Corridor System Report, May 2001, identifies a conceptual open space system that aligns along the existing ditch network. The Natural Resource Inventory, February 2000, identifies a number of high quality uplands in the North Woodlands neighborhood. Focusing preservation on areas with a concentration of high quality resources or that are strategically located, builds a quality greenway system.

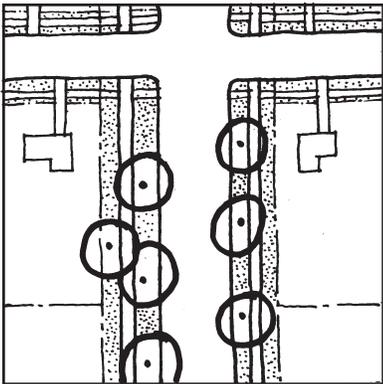
North Woodlands Movement System

Goal: Create a hierarchy of circulation that interconnects neighborhood trails, parkways and collectors that support local traffic, provides access to parcels in a phased manner and creates amenable experiences while walking, cycling or driving.

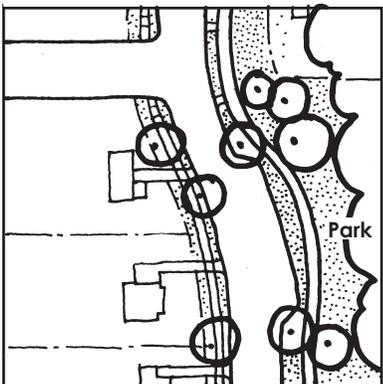
Design Principles:



Collector streets designed as parkways afford residents a pleasant drive home.

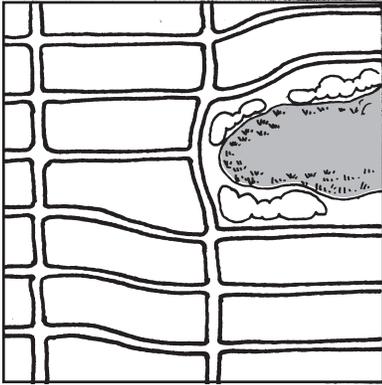


Paths and boulevard trees that shade the street pavement enhance busy collector streets.



By providing parking bays only where necessary, i.e., along the residential sides of the block, parkways can be narrowed, allowing for additional shade trees and open space.

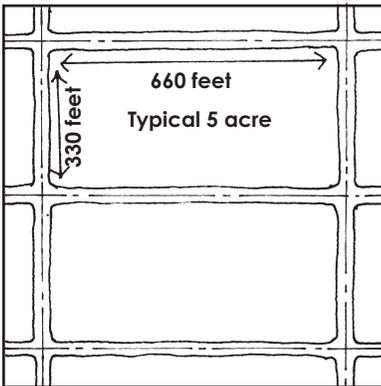
- **Shape roadways to avoid putting roads through wetlands and high-quality woodlands.**
Roads that cut through woodlands fragment these open spaces, diminishing their habitat quality for some species and desirability for recreation. Design roads to align along the periphery of these quality areas, framing them.
- **Carry traffic from arterials on collectors that have a wider right-of-way and a shaded path on at least one side of the street.**
Collector streets carry high volumes of traffic and must be sized accordingly. However, whenever possible the wider right-of-ways should be utilized to enhance these busy streets and provide amenities. Boulevard trees, shrubs, and native prairie grasses provide an amenable setting for multi-use trails.
- **Create a system of “greener” neighborhood parkways with a pathway one side, views of natural areas, shade trees where none exist and a narrower-than-typical section of pavement.**
To create a parkway that lives up to its name, the street needs to be greener than the typical local street or collector. An undulating pathway alignment also contributes to the sensation of a leisurely park experience.



The streets can be straight or curved—but mostly connected.

- **Create an interconnected, continuous grid where possible and avoid cul-de-sacs.**

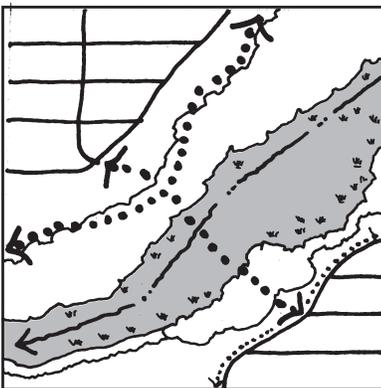
A connected block pattern provides easier access for emergency vehicles, allows multiple routes for residents running errands, and distributes traffic more evenly throughout the road network, limiting overloaded collectors.



Parcel patterns in the North Woodlands lend themselves to a 330 feet by 660 feet block pattern, typical for the Twin Cities.

- **For local streets, follow the typical 660 feet by 330 feet block structure, shaped as needed for access and resource protection.**

A block structure based on a 660 feet by 330 feet module balances connectivity with percentage of paved surface. Larger blocks limit neighborhood walkability as they increase the walking distance between destinations. Smaller blocks result in increased impervious surface, although, near transit stations the Metropolitan Council recommends smaller blocks. These short blocks, with a maximum 500 feet length, create a highly connected pattern that shortens walking distances.



This diagram shows a link across the narrows of an open space, connecting to local streets at either end.

- **As opportunities occur, add off-street trails along waterways, where needed to complete the pedestrian network but where a road is not feasible or appropriate.**

Trails provide neighborhood linkages where roads would negatively affect wetland and upland conservation areas.

North Woodlands Land Use Mix

Goal: Build upon the existing residential character of the place, with a predominance of single family residential that respects existing land use and natural resource patterns.

Design Principles:



Reducing the amount of impervious surface around small wetlands can help maintain their stability.

- **Locate lower-density single-family in areas with high quality resources to minimize impervious surface cover; allow clustering of those homes if it better preserves upland resources.**

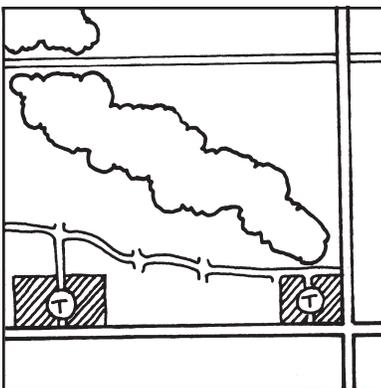
Larger lot residential properties that minimize mown turf and maximize indigenous plant species are affective tools for preserving natural resources. Homeowner Association agreements have been used in Twin Cities developments to limit alteration to the native landscapes. Wetlands and uplands that are too small to be included in the city’s open space network can be protected through sensitive parcel layout and structure siting.



Where homes exist today, larger lots may remain into the future.

- **In areas with existing homes on smaller parcels, assume lower density single family.**

Some of the north woodlands have established neighborhoods with a concentration of homes on five-acre lots. It is expected that these areas could remain that way, and would retain their existing character.



Higher residential densities near transit stops help support more frequent service.

- **Locate higher more compact residential in pockets near potential transit service.**

Higher residential densities near transit stops help support more frequent service. Housing types might include smaller lot residential, attached housing such as townhomes, and multi-family buildings.

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Handouts and Poster Boards:

Key background information and materials used as part of the Northeast Dialogue, 1999, and the Northeast Blaine Planning Study process, September 2000–October 2002.

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CITY OF BLAINE

RESOLUTION NO. 01-106

**DIRECTING STAFF TO CONTINUE COMPREHENSIVE PLANNING FOR THE
NORTHEAST AREA OF BLAINE**

WHEREAS, Minnesota law requires municipalities to prepare and periodically update comprehensive land-use plans and to submit such plans to the Metropolitan Council for review, and

WHEREAS, the Metropolitan Council has required an amendment to Blaine's latest comprehensive plan, which amendment will address prospective urbanization in the undeveloped, northeast portion of Blaine, and

WHEREAS, the Blaine City Council entered into a contract with the Urban Design Center of the University of Minnesota, in July 1999, for the purpose of preparing land use recommendations for the Northeast area utilizing an innovative and intensive process of land-owner involvement; and

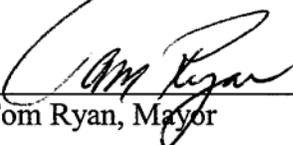
WHEREAS, continued progress of the Northeast Planning Study toward recommendations to be presented to the Blaine City Council is essential to the City Council as the Council works to reach a decision regarding a preferred development scenario for the northeast area,

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Blaine as follows:

1. The Blaine City Council believes that urbanization into the northeast area of the City of Blaine is inevitable, is appropriate for the Northeast study area, represents the long-term expectations of many Northeast area property owners and is in the best interests of the City of Blaine.
2. Such urbanization, will result in varied residential densities and will require the extension of City sewer and water improvements and should be guided by a comprehensive plan amendment that has continued, thoughtful input from the residents of Blaine and, most particularly, those who reside in the Northeast area.
3. The Planning Study should proceed with detailed study of the areas south of 125th Avenue, which would most likely represent the first stages of development. Even though development may be longer in coming north of 125th Avenue, a conceptual study of the area north of 125th Avenue should still be completed to incorporate the collector roadway system, suggested open space areas, and other necessary public facilities.

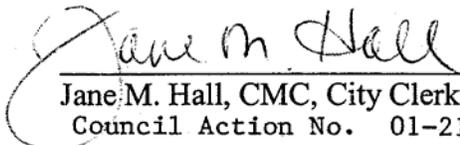
4. The City Council intends to amend its assessment policy such that costs of development will be paid by those property owners wishing to urbanize their property. Non-petitioners and property owners who do not develop their properties would not pay infrastructure assessments until they chose to develop their land and actual use of the infrastructure improvement occurs. This assessment policy will be further refined with formal approval of a Northeast Assessment Policy resolution.
5. It is also the Council's intention to re-evaluate their ordinances on connecting to City sewer and water systems or any other ordinances that affects development

PASSED by the City Council of the City of Blaine this 7th day of June 2001.



Tom Ryan, Mayor

ATTEST:



Jane M. Hall, CMC, City Clerk
Council Action No. 01-211

CITY OF BLAINE

RESOLUTION NO. 02-156

ADOPT NORTHEAST AREA ASSESSMENT POLICY

WHEREAS, the City of Blaine has initiated a comprehensive planning effort for the northeast area of the city to determine the future land uses which result in the highest and best use; and

WHEREAS, the planning process has concluded that the highest and best uses consistent with the Metropolitan Council Blueprint is urbanization of parts, of the area; and

WHEREAS, development of the Northeast Development Area will require installation of utilities and streets that may impose a financial liability on property owners; and

WHEREAS, existing property owners have expressed concern that infrastructure cost could have significant, personal, financial implications; and

WHEREAS, City Council has directed staff to prepare a policy which requires owners of developing property to assume all cost of development, which is detailed in the attached policy.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Blaine hereby adopts the attached Northeast Area Assessment Policy.

PASSED by the City Council of the City of Blaine this 5th day of September, 2002.

Tom Ryan, Mayor

ATTEST:

Jane M. Hall, CMC, City Clerk

NORTHEAST AREA ASSESSMENT POLICY

WHEREAS, the Northeast Area of Blaine is generally described as lying north of 109th Avenue and east of Radisson Road, except for those properties currently urbanizing and consisting generally of Quail Creek, Partridge Preserve, North Oaks West, Radisson Woods, South Oaks Pond, South Oaks, North Oaks, North Oaks Ponds East and North Oaks West 2nd Addition; and

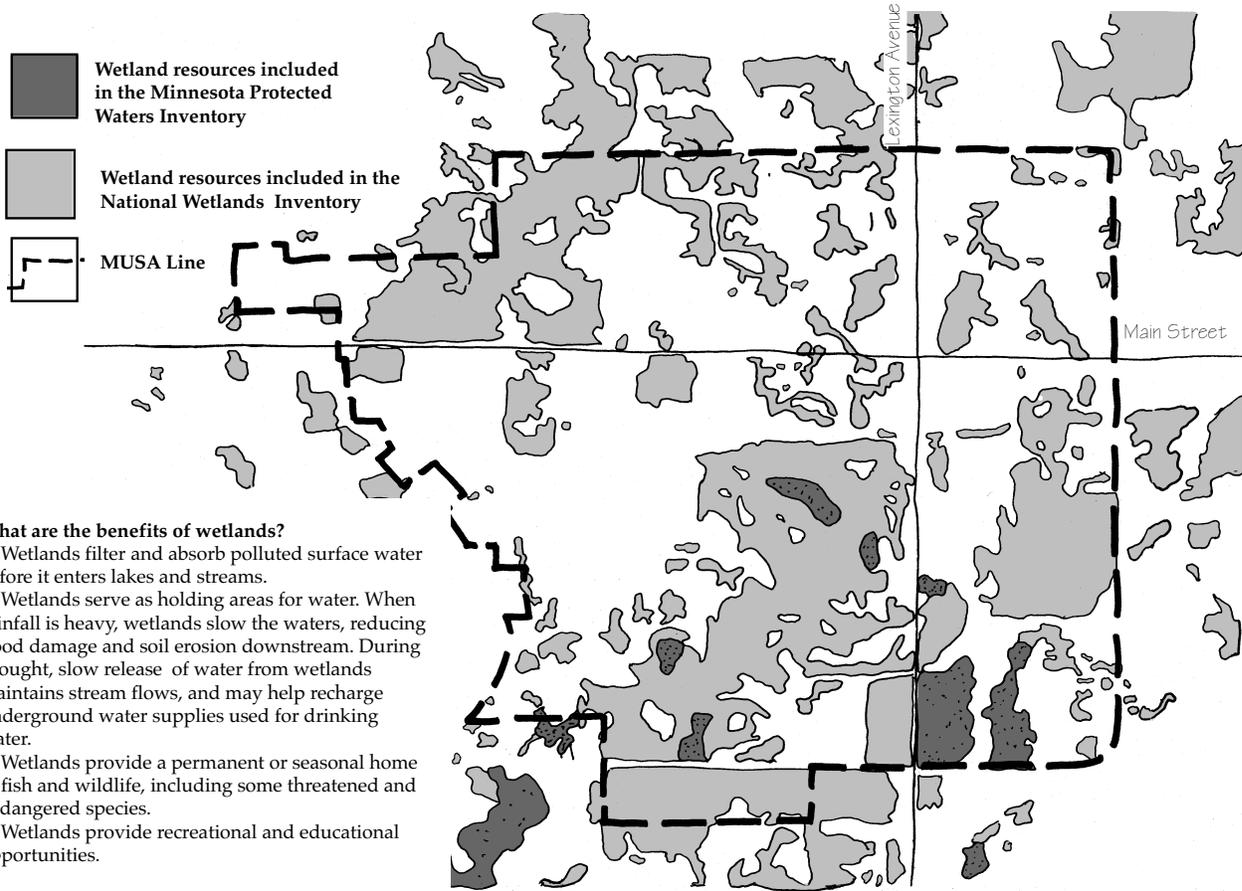
WHEREAS, the Northeast Area consists of a large amount of vacant lands and numerous existing residential homes located on various sized parcels, all of which inhibit a normal development process; and

WHEREAS, the City Council therefore finds it appropriate and necessary to adopt an assessment policy for the Northeast Area.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Blaine, that the following assessment policies shall be utilized for the Northeast Area:

- a. Water lateral, sewer lateral, storm sewer lateral and street improvements, typical of those improvements for individual service, shall be constructed and paid by each developer as development occurs, except that Municipal State Aid streets shall be constructed either at the developer's sole cost or by the City and assessed to the developers in accordance with current assessment policy.
- b. Trunk sanitary sewer, trunk storm sewer or trunk water main improvements, typical of those providing area-wide benefits, shall be constructed by the developer or as a City improvement project paid by those property owners petitioning for the improvements. Other non-petitioning property owners within the improvement district, if the project is initiated through the public improvement process, shall not be assessed any of the improvement cost.
- c. As property owners located in an area served by sanitary sewer, storm sewer or water main improvements that did not participate in the initial construction request connection to the above utilities, they shall pay connection charges (for _-acre typical residential lot, if single family home) as established specifically for the Northeast Area.
- d. For those properties (paragraph c above) that connect to City utility systems, the connection charges charged by the City shall be paid to a special fund servicing the petitioning area (reference paragraph b above) if those properties connect within 10 years of the date of the Council accepting the improvements for City maintenance.
- e. Property owners within the Metropolitan Urban Service Area (MUSA) whose septic system or well fails shall connect to City sewer and water unless the cost to connect exceeds the cost to construct a private well and/or sewer. Said right to repair or install shall apply to the current homeowners or future owners of existing homes.

Community Resources



What are the benefits of wetlands?

- Wetlands filter and absorb polluted surface water before it enters lakes and streams.
- Wetlands serve as holding areas for water. When rainfall is heavy, wetlands slow the waters, reducing flood damage and soil erosion downstream. During drought, slow release of water from wetlands maintains stream flows, and may help recharge underground water supplies used for drinking water.
- Wetlands provide a permanent or seasonal home to fish and wildlife, including some threatened and endangered species.
- Wetlands provide recreational and educational opportunities.

Because of these benefits wetlands are protected by a number of state and federal agencies.

What is a Wetland?

Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. Wetlands are characterized by the following attributes:

- They have mostly hydric soils. Hydric soils are soils that have formed in wet conditions and are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part.
- They are wet either above the ground or wet within 12 inches of the ground surface during all or part of the growing season.
- They have vegetation adapted to wetland soil conditions.

This description is a simplified version of the definitions used for the purposes of federal and state regulations. Alterations that meet these criteria are subject to Federal Clean Water Act and the Minnesota Wetland Conservation act, in some cases triggering a two-for-one replacement requirement.

What is the National Wetland Inventory?

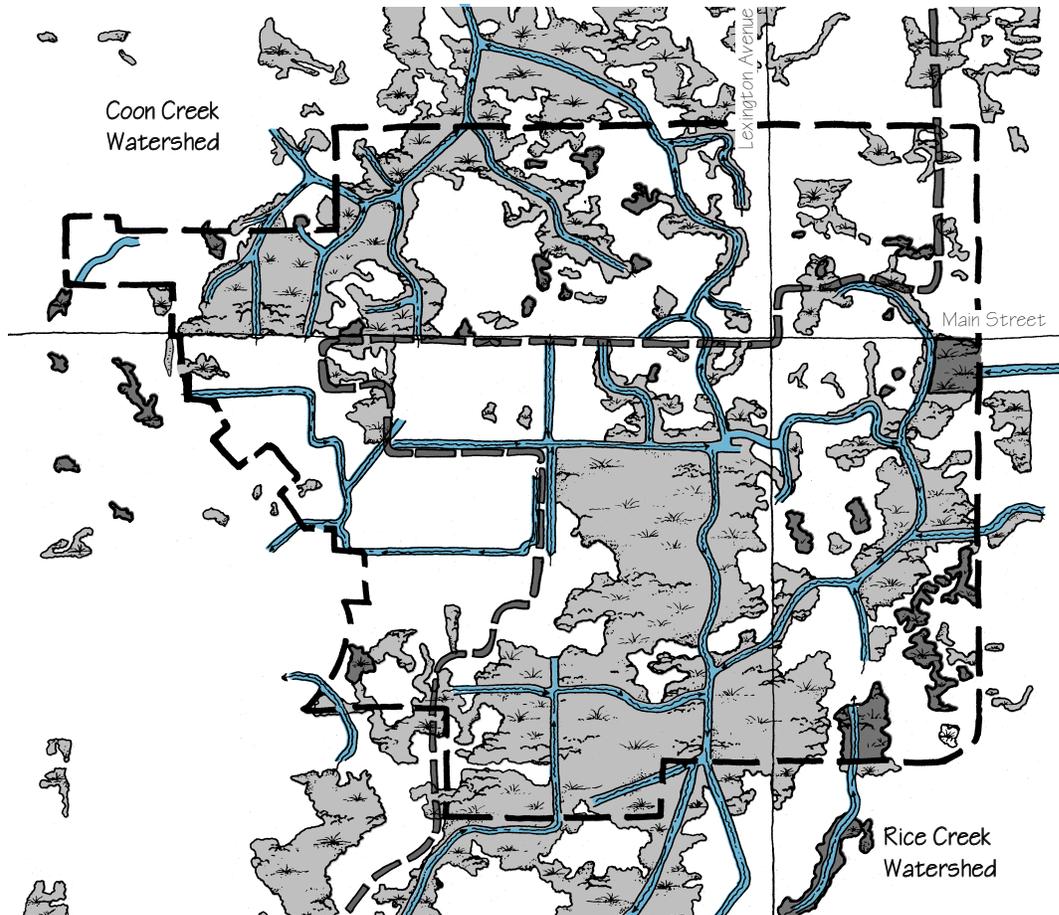
The National Wetlands Inventory is a U.S. Fish and Wildlife Service database, both in map and digital form, of wetlands throughout the United States and its territories. This inventory does not include farmed wetlands unless they are a pothole-like depression or a cranberry bog. The Inventory is produced through the use of high altitude aerial photography, selected field investigation, and review of existing information. National Wetland Inventory maps begin to identify the wetlands regulated under the federal Clean Water Act by the U.S. Army Corps of Engineers and the Minnesota Wetland Conservation Act by the Minnesota Board of Water and Soil Resources and local governments. Aerial photography reflects conditions during a specific year. On-site investigations may result in modifications of these maps.

What are Protected Waters and Wetlands.

Protected public wetlands are regulated by the DNR. Public waters and wetlands include all type 3, 4, and 5 wetlands. Type 3 wetlands are shallow marshes. The soil is usually waterlogged early in the spring and often covered with six or more inches of water. Type 4 wetlands are deep marshes. The soil is usually covered with water during the spring and summer—anywhere from six inches to three feet. Type 5 wetlands are open water wetlands including shallow ponds and reservoirs.

Information on this page is provided by Minnesota Board of Water & Soil Resources, Minnesota Department of Natural Resources, User's Guide to National Wetlands Inventory Maps, Board of Water and Soil Resources Wetland Conservation Act Rules Chapter 8420, and the City of Blaine.

Community Resources



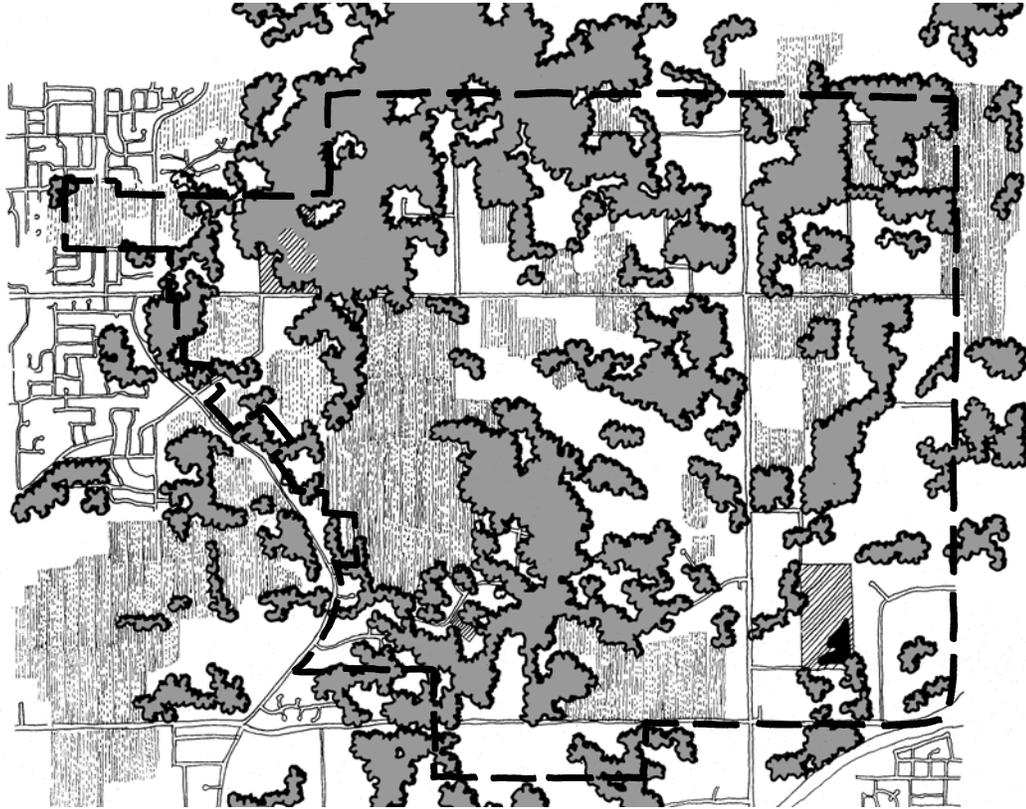
- | | | | |
|---|----------------------------|---|------------------------|
|  | Partially Drained Wetlands |  | Major Drainage Ditches |
|  | Undrained Wetlands |  | MUSA Line |
|  | Watershed Boundary | | |

Wetlands and Drainage Ditches

Tuesday, October 26, 1999

NE Blaine 

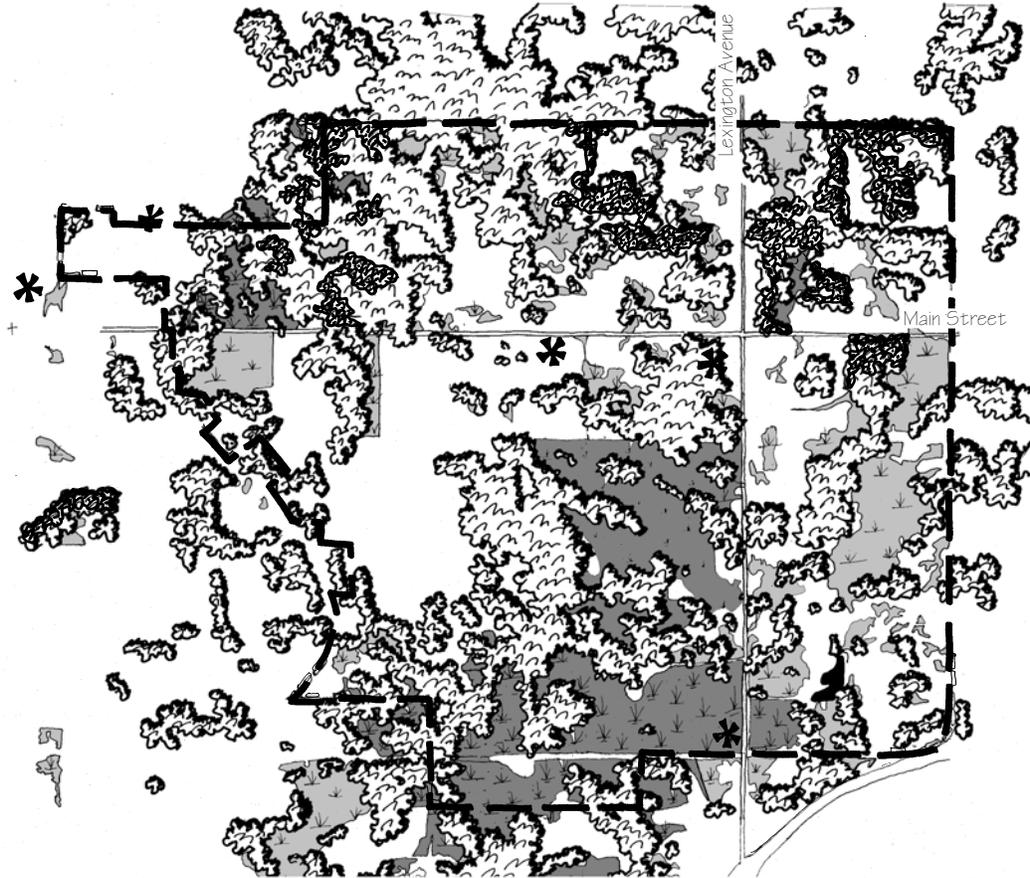
Community Resources



-  Tree Cover
-  Agricultural Land
-  Roads

Woodland and Large-Scale Cultural Features

Community Resources



Highest Quality Woodland Habitat



Other Woodland Habitat



Highest Quality Wetlands



Other Wetlands



Rare Species, Identified by County Biological Survey

Wildlife Habitat

Tuesday, October 26, 1999

NE Blaine



Discovering What May Be

The Fields of St. Croix, Lake Elmo



Construction begun: 1997

Total acres: 241

Mix of uses: single family residential

Range of lot sizes: 1/2 acre (80% of lots); 1/2 to 1 acre (20% of lots)

Number of residential units: 45 single family (Phase I); approx. 54 single family (Phase II); 14 single family attached twin homes

Range of housing prices: homes for \$250,000 to \$950,000; lots from \$44,500

Density: .45 units per acre

Natural features preserved: 60% of site permanent open space (farmland, tree nursery, horticultural gardens, wooded slopes, ponds, restored native prairie)

Notable development features:

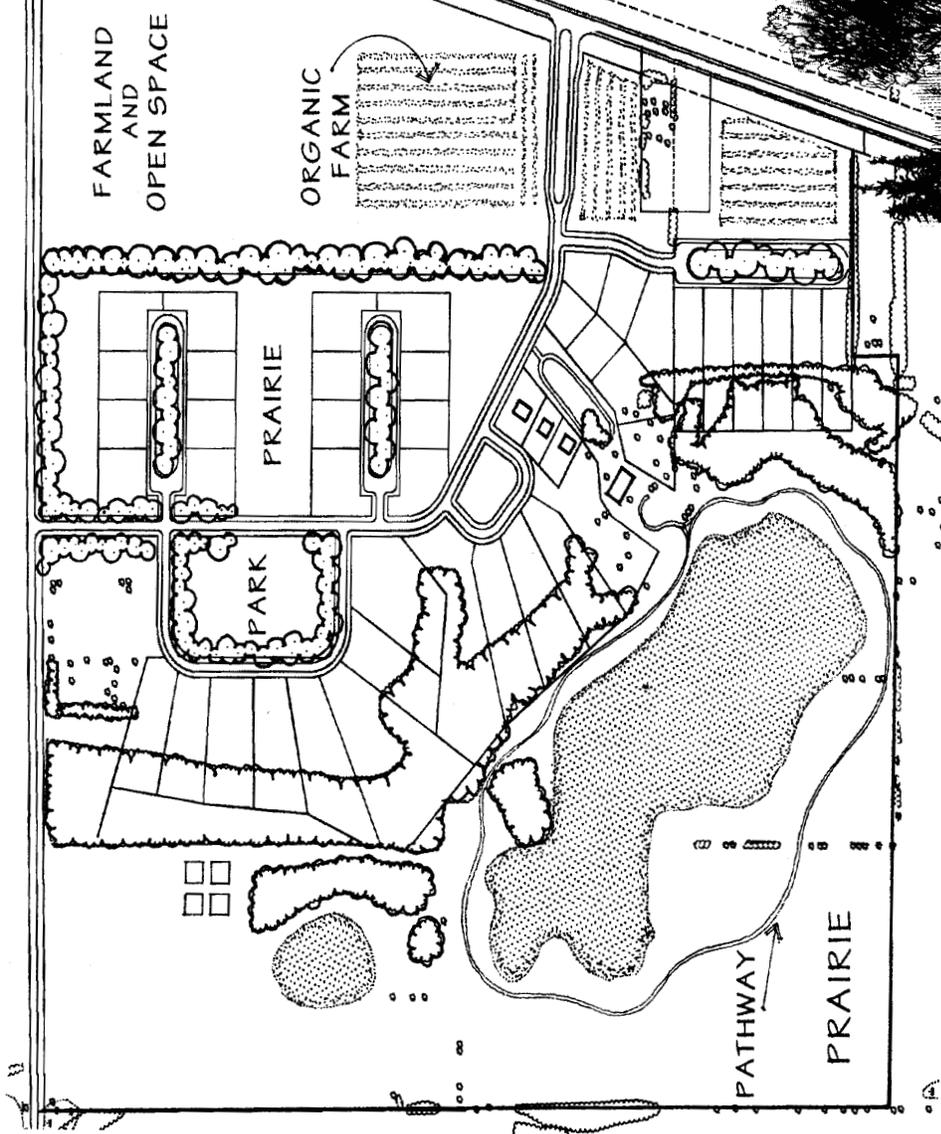
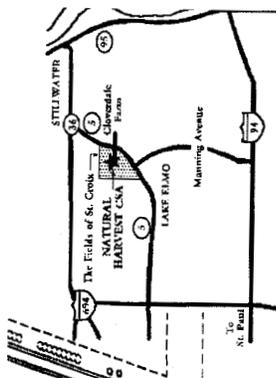
- conservation easement granted to Minnesota Land Trust
- wetland wastewater system (on-site treatment)
- restoration of Civil War-era barn for community center
- public transit stop at community entrance
- energy efficient homes
- 50 acres of prairie restoration featuring native plants

Developer: Robert Engstrom Companies



Discovering What May Be

The **FIELDS** of St. Croix
A Conservation Community



 NE Blaine

Tuesday, October 26, 1999

Discovering What May Be

Jackson Meadow, Marine on St. Croix



Construction begun: 1997

Total acres: 145

Mix of uses: single family residential

Range of lot sizes: 1/4 to 2 acre lots

Number of residential units: 64 single family

Range of housing prices: \$200,000 to \$400,000

Gross density: .44 units per acre

Net density: approx. 1.5 units per acre

Natural features preserved: 70% of site maintained as open space

Notable development features:

- cluster housing
- pedestrian ways connecting to over 5 miles of trails
- 170 adjacent acres of conservation land
- native plantings
- no individual septic systems – communal wetland filtration
- transfer of development rights

Developer: Harold Teasdale and Bob Durfey

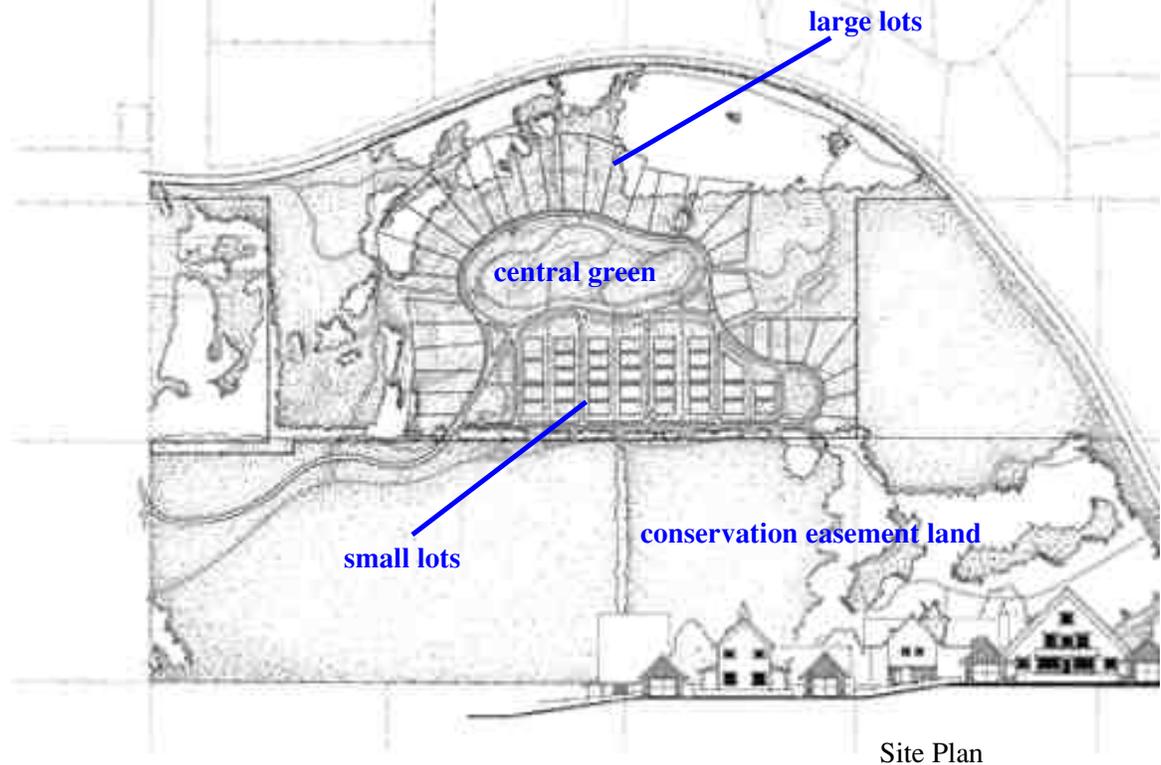


Tuesday, October 26, 1999

NE Blaine 

Discovering What May Be

Jackson Meadow



Discovering What May Be

Liberty on the Lake, Stillwater



Construction begun: 1998

Total acres: 147

Mix of uses: single and multi-family residential

Range of lot sizes: smallest are 1/3 acre

Number of residential units: 300 single family, approx. 50 multi-family including duplexes, attached town homes, and row houses

Range of housing prices: homes from mid \$250,000s; lots from \$51,000

Density: approx. 2.4 units per acre

Natural features preserved: “custom lots” left wooded for homeowners to build around

Notable development features:

- borders Long Lake; adjacent to Rutherford Elementary School
- “Village Greens” replace cul-de-sacs
- landscaping requirements, including residential tree planting
- some homes built using “traditional” development guidelines
- auxiliary dwellings allowed

Developer: Contractor Property Developers Co.



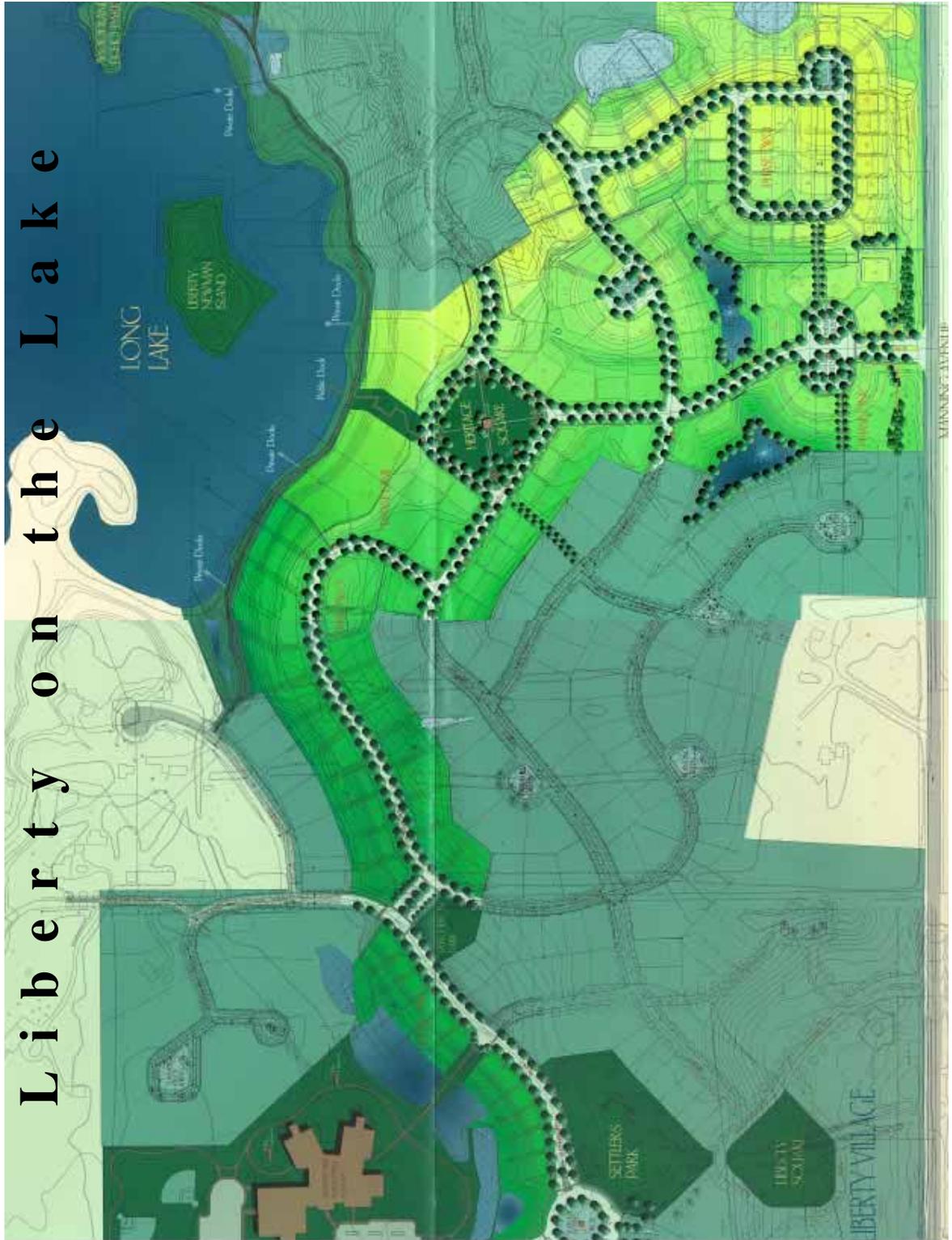
Tuesday, October 26, 1999 (Revised November 2002)

NE Blaine



Discovering What May Be

Liberty on the Lake



 NE Blaine

Tuesday, October 26, 1999

Discovering What May Be

Park Place, Farmington



Construction begun: 1993

Total acres: 210 through current phase

Mix of uses: single and multi-family residential

Range of lot sizes: 6,000 to 7,500 square feet

Number of residential units: 402 single family; multi-family planned for future phases

Range of housing prices: \$70,000 to \$115,000; lots in current phase priced between \$33,000 and \$35,000

Gross density: approx. 2 units per acre

Net density: approx. 3 units per acre

Natural features preserved: wetlands maintained or restored

Notable development features:

- “Prairie Waterway” designed to provide open space and manage stormwater
- new streets scaled to match older downtown streets
- neo-traditional features include front porches and central mailboxes
- interior-block parks help manage stormwater
- state highway to be rescaled to act as city street

Developer: Sienna Corporation



Tuesday, October 26, 1999

NE Blaine 

Discovering What May Be



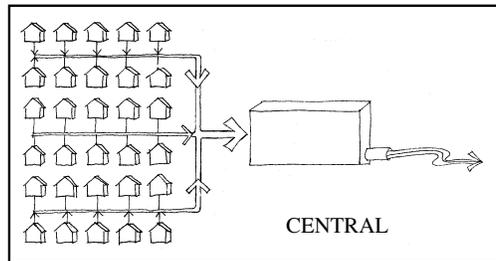
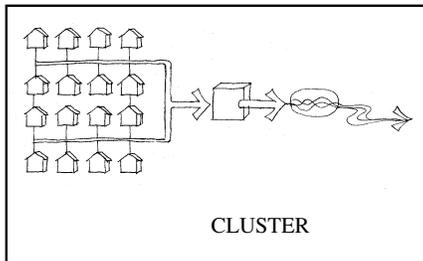
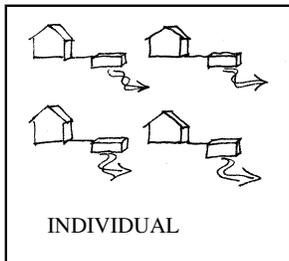
P a r k P l a c e

 NE Blaine

Tuesday, October 26, 1999

Wastewater Treatment Wetlands and Other Wastewater Alternatives

Three Scales of Wastewater Treatment



Individual home, on-site treatment The typical single-home septic tank releases partially decomposed effluent into soils. Potential problems include discharge of pollutants into groundwater due to incomplete breakdown of wastes in the soil. Individual homeowners are responsible for installation and maintenance; city retains oversight through permits and inspections.

Cluster or decentralized treatments: A variety of treatment systems that pipe wastewater from a number of housing units to a shared treatment source. Properly engineered cluster systems break down wastes more completely than individual septic systems before discharging water to the environment. A homeowners' association is mostly likely responsible for fee collection, installation and maintenance, with municipal oversight.

Central system Wastewater is transported via pipes to a remote centralized location for treatment. This is most often the typical regional and municipal sewage plant, with a large-scale plant designed to manage huge volumes of wastewater at a single location. However, such municipalities as Vermontville, Michigan, are relying on lower- cost alternative systems employing lagoons and treatment wetlands. The costs for installation and maintenance are recouped through property assessments.

Variations on Cluster Systems

Aerobic tanks. Like a septic system, these self-contained units settle solids, but, in addition, oxygenated water is circulated through wastes, consequently breaking them down more thoroughly before water is discharged. Aerobic tanks are above ground.

Package Plants. Consisting of an aeration tank, a separate settling tank, and often a pre-discharge disinfection process. These units, which can handle up to 1 million gallons a day, are generally economical only with for a community of about 100 units or more.

Soil Treatment Systems: These include below-ground community drain fields (which can be trenches or mounds) and surface systems. An example of a surface soil treatment is drip irrigation, which uses partially treated wastewater as fertilizer on agricultural land.

Constructed Wetlands. Although wetland wastewater technology is relatively new, natural wetlands have always employed the same basic process: breaking down nutrients into harmless substances. After solids are settled in a septic tank, wastewater is fed via gravity flow to artificial marshes where plants and, especially, the microorganisms that live on their roots, absorb and break down the wastes. Appropriate plants include cattail, bulrush and reeds.

Wastewater wetlands are among the more economical systems to build, although testing requirements and land acquisition can drive up costs. While occupying naturally low areas that may be inappropriate for other development, constructed wetlands can be an aesthetically pleasing open-space amenity. While they may not contain only native plants, these workhorse wetlands can provide significant wildlife habitat.

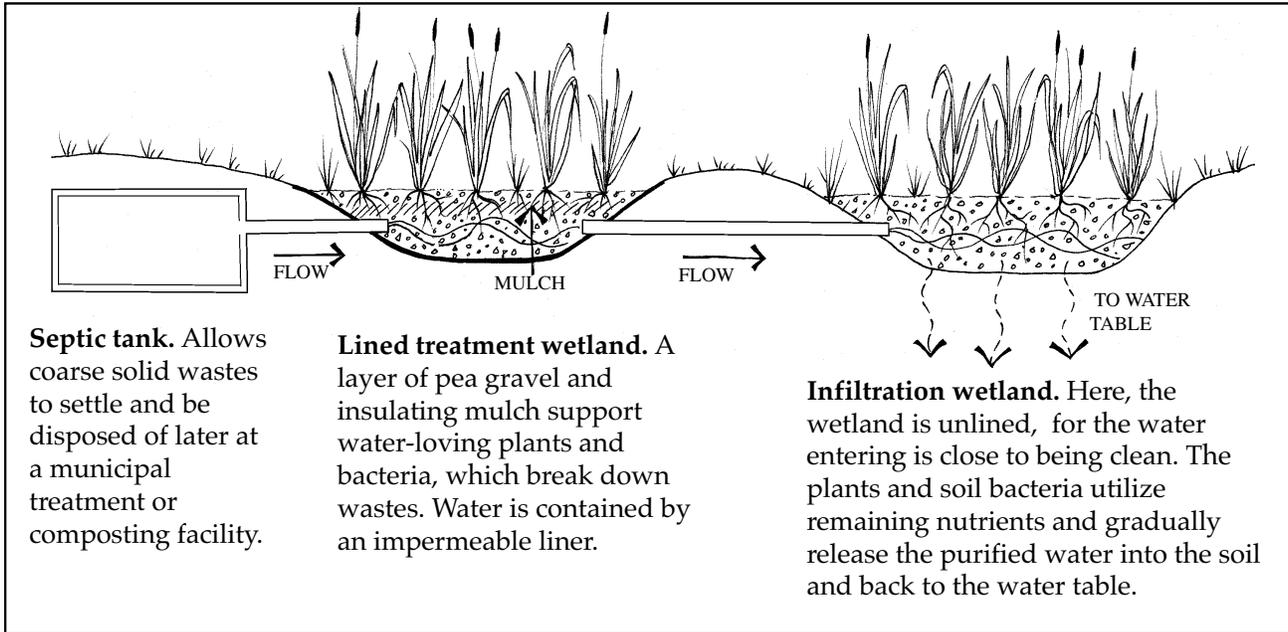


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An Example Wastewater Treatment Wetland

Systems vary widely due to differences in soils, climate, local regulations and areal extent. Furthermore, the technology is continually developing and research pours in new results. The example that follows is like the system being used for the new Jackson Meadows residential development in Marine-on-St.-Croix, where environmental and aesthetic concerns were both important.

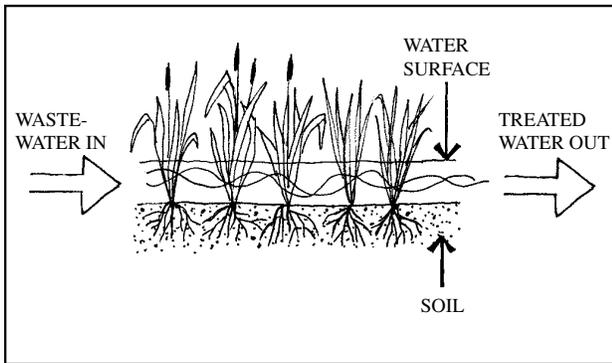


Septic tank. Allows coarse solid wastes to settle and be disposed of later at a municipal treatment or composting facility.

Lined treatment wetland. A layer of pea gravel and insulating mulch support water-loving plants and bacteria, which break down wastes. Water is contained by an impermeable liner.

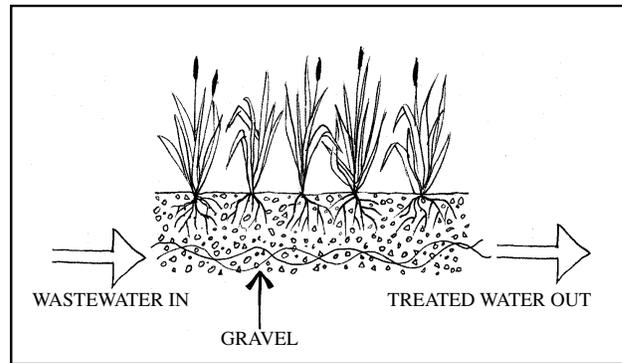
Infiltration wetland. Here, the wetland is unlined, for the water entering is close to being clean. The plants and soil bacteria utilize remaining nutrients and gradually release the purified water into the soil and back to the water table.

Types of Wetlands for Wastewater Treatment



Free Water Surface Systems

Pretreatment takes place in settling tanks or similar structures, then may move to aerated lagoons and eventually planted wetlands. Due to the presence of open water and more complex habitats, these systems may be more easily viewed as amenities. Some communities have even incorporated recreational parks into their wastewater treatment systems.



Subsurface Flow Systems

Water level is kept just high enough to support wetland plants. Pretreated wastewater flows through a permeable medium, such as gravel or sand, where it contacts plant roots and associated microorganisms. The systems are generally designed to maximize water quality, rather than accomplish other objectives such as creating habitat and open space, although they can still be attractive to look at. This system may be most feasible in cold climates.



Design Center for American Urban Landscape
College of Architecture and Landscape Architecture
University of Minnesota December 1999

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Wastewater Wetland FAQs

Where have they been used? Wastewater wetlands have been used for many years in Scandinavia, and are increasingly used across the U.S. Open water systems are currently being used in states such as Michigan and Illinois, while subsurface systems have been built outside Lincoln, Nebraska, and in Lake Elmo, Minnesota (see example above).

Why aren't they used more? It is a new technology, with complex and site-specific constraints. Among the considerations:

- Soil texture and permeability, which affects movement of water and nutrients.
- Water table elevation
- Available acreage and the lay of the land (sufficiently large low areas are necessary)
- Management, maintenance and testing oversight.
- Municipal regulations vary, and permitting can be complicated.

Do wastewater wetlands smell? According to reports from several sites, there is "little to no" odor associated with these systems. Several treatment wetlands have become popular recreation areas (as in Arcata, California and Cedar Rapids, Iowa).

How big are these systems?

They can be anywhere from a few to scores of acres, depending on flow volume (number of households being served) and soil texture (its ability handle water and nutrients). Some research recommends oversizing systems to avoid taxing the working organisms, to reduce needs for monitoring and make maintenance easier.

What about maintenance? Experts disagree whether it's necessary to harvest plants in order to maintain treatment efficiency (plants remove most nutrients when they are young) and to prevent undesirable effects from winter dieback and decomposition. As with any conventional septic systems, tanks must be cleaned out periodically.



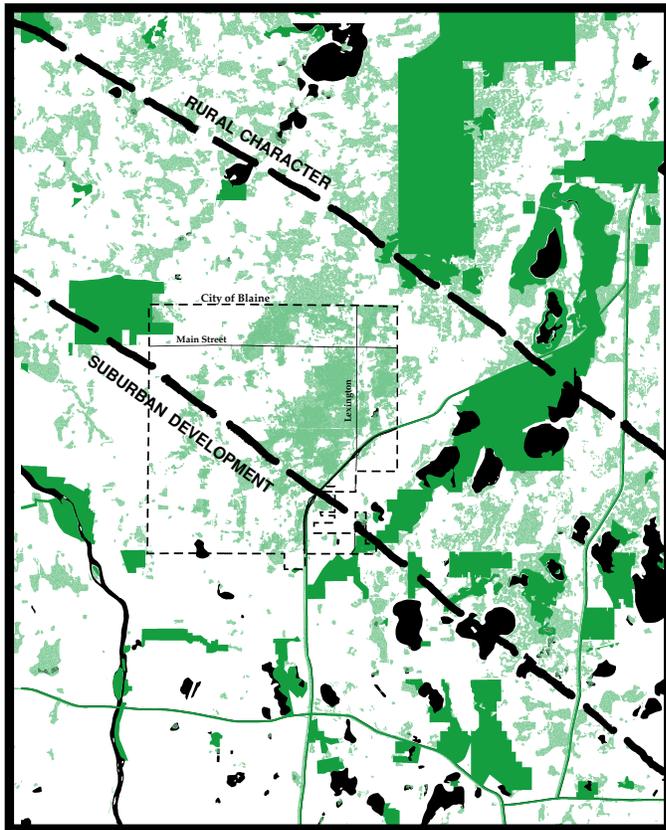
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Blaine Habitat Resources

Design and Planning Considerations



Source: Center for American Urban Landscape, Nov. 1996. Information from Peterson, Environmental Consulting and Management, Department of Natural Resources.

A birds-eye sketch of Blaine and surrounding landscape, showing habitat resources and connections. Blaine sits at the interface of the urban core and the expanding metropolitan edge. In such areas the ecological structure and cultural patterns will define how habitat resources are preserved.

0 3 6 Miles



Landscape Context

The northeast corner of Blaine was historically dominated by wet prairies, marshes and sloughs, with patches of scattered oak groves, brush and thickets. Although the area's wet character persists, most of the wetlands themselves have changed, in both hydrology and species composition.

In the 1880s, Blaine residents began to control the areas's surplus of water in the interests of improving transportation and agriculture. (Lexington Avenue, for example, was constructed by mounding earth from ditches dug on either side.) Extensive ditch systems fully or partially drained large areas, thus altering the types of plant and animal species along with the water level. Existing wetlands vary widely in their "quality," that is, diversity of native plant species, which affects their ability to support native wildlife.

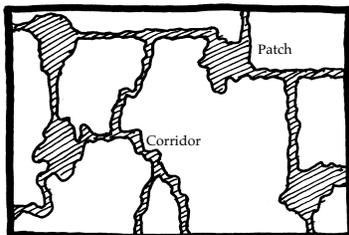
Among the typical residents of wet prairies are sedge wrens, song sparrows, red winged blackbirds, common yellowthroat, American goldfinch, meadow vole, meadow jumping mouse, tiger salamander, American toad, spring peeper, northern leopard frog and eastern garter snake. In addition, rare plant species such as lance-leaved violet have been identified in Blaine.

Development of residential properties on drier soils has reduced and fragmented upland habitat as well. As homes are built in these areas the understory (shrubs and small trees below tall canopy trees) is often removed for yards, gardens, and pasture. This loss of vertical layering contributes to a significant loss in habitat. Individual property owners can improve habitat quality by retaining or restoring layers of vertical vegetation. Limiting the amount of mown lawn and planting diverse native species in yards and gardens are a couple of ways to accomplish this.

Habitat Principles

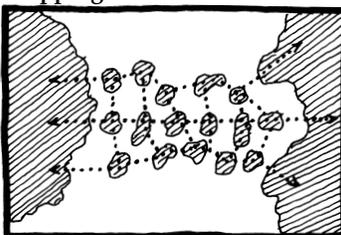
- **Bigger is better.** Large natural areas are increasingly rare in the metro area, and without them and the safe interior area they provide, certain species (such as migrant songbirds) cannot thrive.
- **Smaller patches are still valuable,** offering both habitat for the so-called "edge" species and "stepping stones" to larger habitat areas. (See diagrams below.)
- **Connectivity is key.** Along with various sized patches, linear corridors can help wildlife in search of food and shelter.
- **Patch shape matters.** Complex, convoluted patches may positively effect some species by increasing movement on the edges. However this also tends to reduce interior habitat. The optimal patch might have a rounded central core, with dispersal "fingers" extending outwards.
- **Complex habitat structure** can encourage a wider variety of wildlife. On a patch scale, this means vertical "layering" of trees, shrubs and ground-layer vegetation. Regionally, it means diversity of different types of plant communities.
- **Not all animals thrive with humans in close proximity.** So along with parks that welcome people, successful habitat areas need wild areas with limited access.

Patches and Corridors



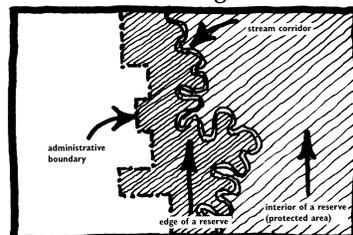
Wetlands, woodlands, and the corridors that connect them—for example, the Rice Creek Chain of Lakes—create a habitat and movement network for plants and animals.

Stepping Stones



Small patches of habitat—for example, parks, wetlands, and ecologically diverse home yards—provide stepping stones for species moving between habitat areas.

Boundaries and Edges



The area between development and protected habitat areas acts as a buffer zone, reducing the influence of the surroundings on the interior of the protected area.

Habitat diagrams excerpted from *Landscape Ecology Principles in Landscape Architecture and Land-use Planning* by Wenche E. Dramstad, James D. Olson, and Richard T. T. Forman, Copyright © 1996 by President and Fellows of Harvard College. Reprinted by permission of Island Press.

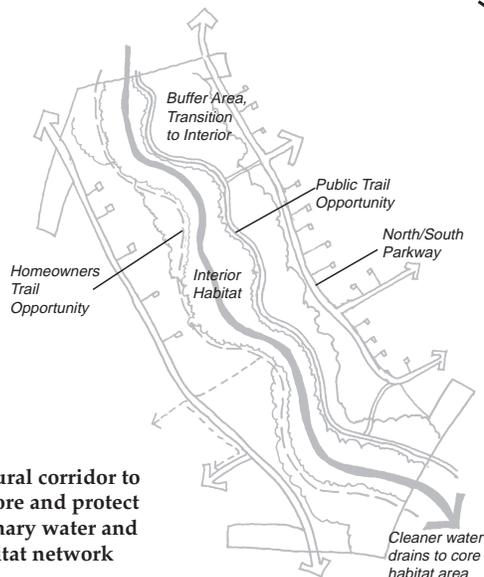
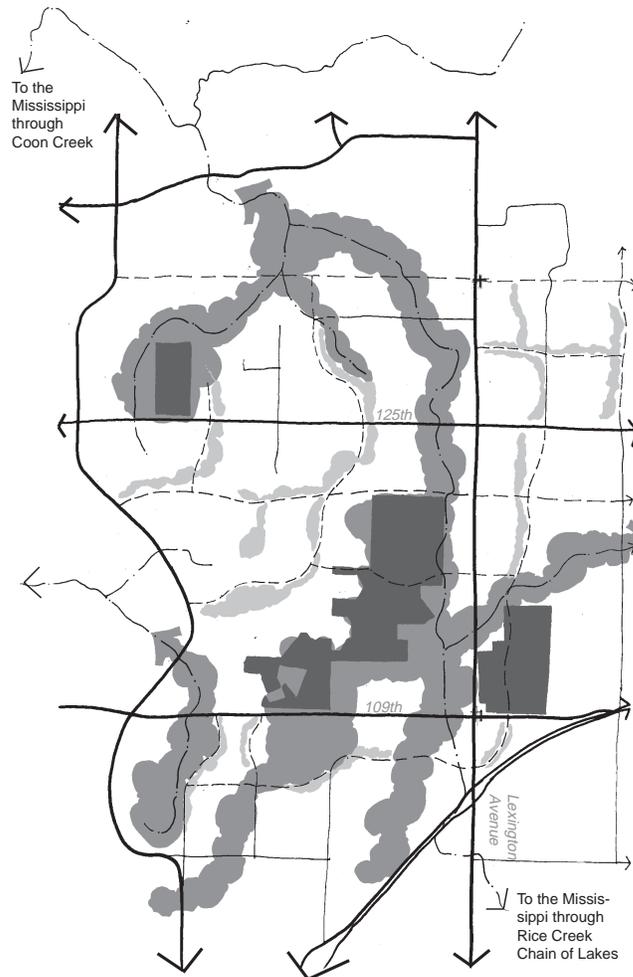
Open Space Scenario—Community Corridor

City-owned open space
This open space is primarily wetland. It is wide enough to create interior habitat. Protecting the quality of water that feeds this system is this scenario's focus.

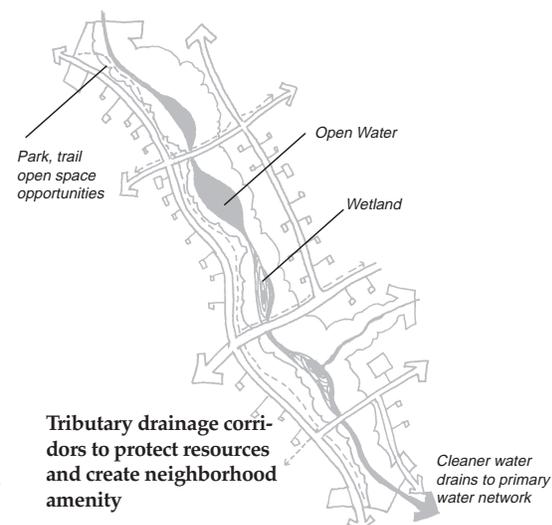
Natural corridor to restore and protect primary water and habitat network
This corridor is wide enough to be comfortable for larger species such as eagles. It could vary in width, but a minimum vegetation corridor of 500 feet would be best.

Tributary drainage corridors to protect resources and create neighborhood amenity
This corridor expands the width of the existing drainage ditches to accommodate constructed wetlands, open water areas, trails and small parks.

Proposed city circulation
(solid lines are existing roads)
County roads, such as 109th, 125th and Lexington Avenue serve the region. Proposed north-south Parkways serve as pleasant alternatives to the high-speed arterials.



Natural corridor to restore and protect primary water and habitat network



Tributary drainage corridors to protect resources and create neighborhood amenity



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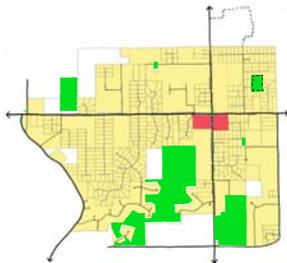
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Anticipating Future Growth in Blaine

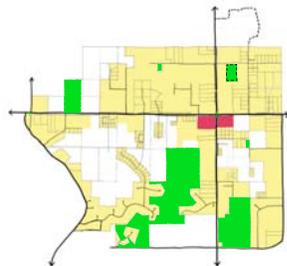
Future Growth

The following drawings lay out three different possible futures for the northeast corner of Blaine presented at our December workshop. These scenarios represent a range of residential densities and methods of land organization, reflecting the broad range of options regarding future growth.



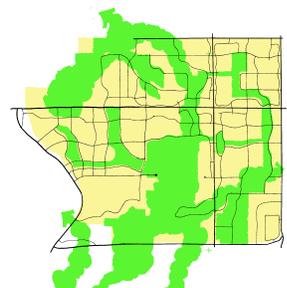
Scenario One: One Home on Four Acres

This scenario assumes land development as proposed in the City's draft comprehensive plan. Individual septic and water systems are maintained. The open space system consists of acreage already owned by the City with at least one community park. Internal circulation is minimal as most roads branch off of arterials which are slated to be upgraded to handle the increased traffic. As shown, approximately 450+ new units are added to the area.



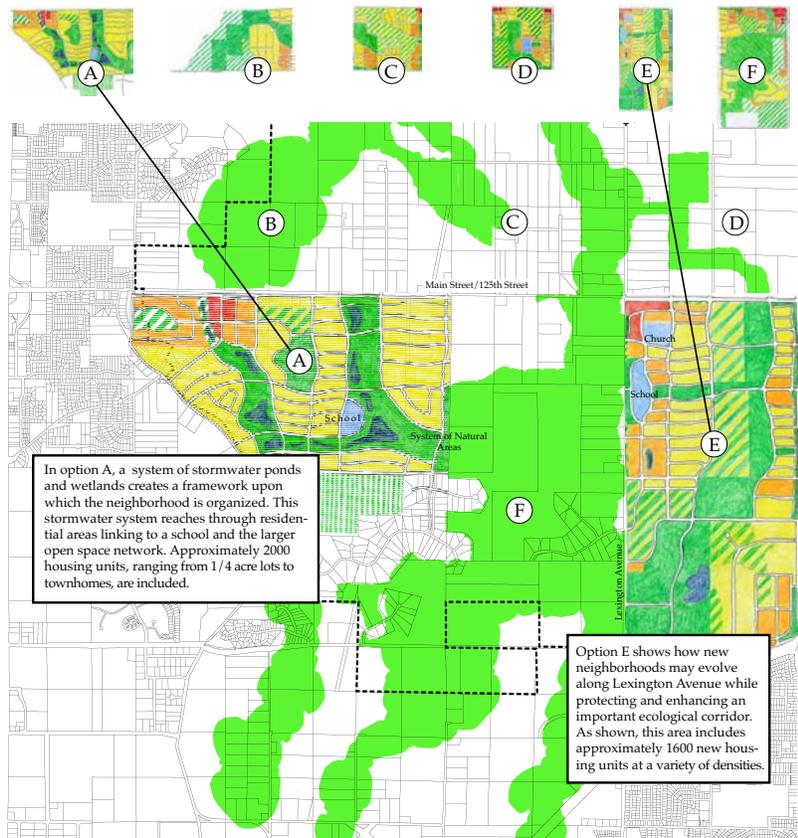
Scenario Two: One Home on Ten Acres

The northeast corner of Blaine falls within the Metropolitan Council's Urban Reserve. This scenario assumes that the City complies with the Urban Reserve strategy of keeping land in a rural condition for future urban development. Density is ideally one unit per 40 acres, but one unit per 10 acres is the minimum. Clustering is encouraged and rudimentary platting for future growth is incorporated into undeveloped parcels. Sewer and water are added as population growth warrants. The open space system is similar to scenario one. In this scenario approximately 200 new units are added to the area in the near future.



Scenario Three: Homes Clustered Along an Open Space Network

Future development is organized around a framework of connected natural areas and a hierarchical road network. Public water and sewer are provided to some higher sites. This scenario is detailed at right.



In option A, a system of stormwater ponds and wetlands creates a framework upon which the neighborhood is organized. This stormwater system reaches through residential areas linking to a school and the larger open space network. Approximately 2000 housing units, ranging from 1/4 acre lots to townhomes, are included.

Option E shows how new neighborhoods may evolve along Lexington Avenue while protecting and enhancing an important ecological corridor. As shown, this area includes approximately 1600 new housing units at a variety of densities.

A Variety of Neighborhood Options

As the population of the metropolitan region increases, land values will increase and pressure will be placed upon the northeast corner to develop. Highlighted above is the discussion tool used to illustrate in more detail how this area might accommodate future growth. Included in this investigation were a variety of densities and development types organized around a framework of connected natural areas and community streets. Overlays, showing one of many ways each area could develop, were created as a sampling of development options that could occur here. Two of these options are highlighted above. Whereas scenarios one and two show what might be when development is spread evenly across the landscape with a uniform planning strategy, the above investigation explores where growth could be accommodated with respect to existing neighborhood character, soil types, and high quality natural areas.



December 1999

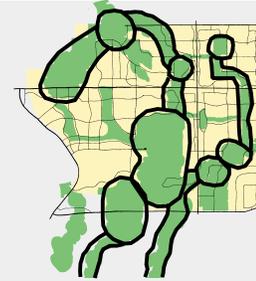


Habitat Principles

NE Blaine Planning Study 2000-01

During the series of workshops in northeast Blaine in 1999 residents expressed a strong desire to maintain the natural resources that many of them had moved to this area to enjoy. Additionally, residents expressed a preference for a connected open space system. Community residents recommended:

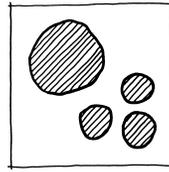
- Protect natural resource systems, especially ground water, wetlands, and high quality uplands.
- Build open space corridors that act as plant and animal habitat and serve as recreational areas.
- Keep stormwater in the northeast corner by keeping it out of pipes.



This diagram, from the final 1999 workshop, begins to show what homes clustered along an open space system in northeast Blaine could look like. This system would include habitat areas linked by corridors.

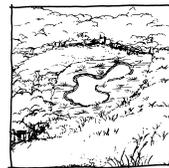
Protect natural resource systems, especially ground water, wetlands, and high quality uplands.

Bigger is better. Areas of habitat are frequently referred to as "patches". Often, species more tolerant of human presence are found at the edges of these patches with more reclusive species found within the interior. Small patches are disproportionately edge habitat; therefore, to provide both edge and interior habitat "bigger is better".



One bigger unfragmented patch is better than three small.

When preserving habitat it is important to consider not only the wetlands, that are so prevalent in Blaine, but also upland habitats. Preserving a mosaic of habitats is necessary because many animals require a variety of habitats for feeding, breeding, nesting and resting. For example, the Blanding's turtle requires both uplands and wetlands to complete its life cycle, living most of the time in shallow water with rich aquatic vegetation but traveling considerable distances to sandy uplands to lay its eggs.



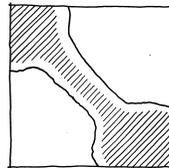
Preserve a mosaic of landscapes for a rich diversity of habitat types.



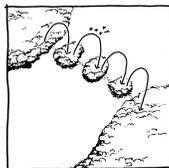
Structure of an Environmental Preserve

Build open space corridors that act as plant and animal habitat and serve as recreational areas.

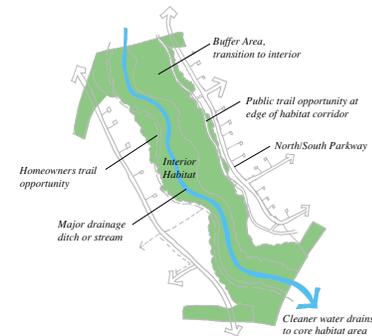
Corridors provide habitat for some animals and a travelway for others moving between larger habitat patches. The necessary width of these corridors to function as habitat for resident populations varies depending on the types of animals present. Studies have shown that pileated woodpeckers require a minimum forested corridor width of 165-200 feet, certain warblers require corridors 265 feet or wider and raptors such as red shouldered hawks and eagles show a disproportionate use of riparian (streamside) habitat within a 660' corridor centered on a river or creek.



For corridors, wider is better—you get more "interior habitat" rather than edge.



Islands of habitat can act as "stepping stones" for animal movement between larger habitat areas.

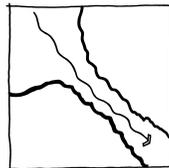


Natural resource corridor to restore and protect primary water and habitat network

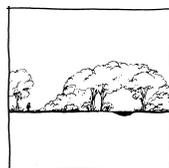
Keep stormwater in the northeast corner by keeping it out of pipes.

Maintaining the surface flow of stormwater is important to ensure the health of the wetland systems and to help recharge groundwater. New developments are required to collect and filter stormwater.

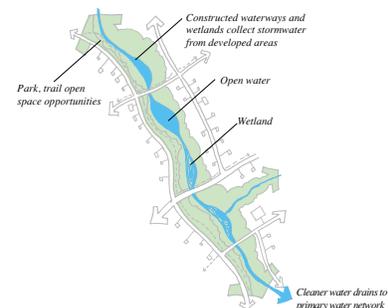
These stormwater systems can be a part of the corridor system, providing places for trails and an additional network of corridors for animal movement and habitat. Such a network of corridors provides options for animal movement.



Surface stormwater system offers more habitat opportunity than buried pipes.



Keep human activity areas, such as trails, to the edge of habitat corridors.



Tributary drainage corridors to protect resources and create neighborhood amenity

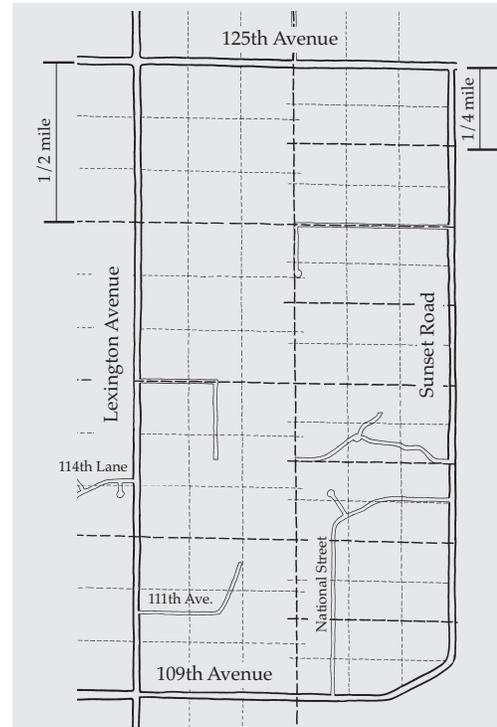
December 2000

NE Blaine Planning Study 2000–01

Design Scenario Exercise—Access to Arterials

Access along Arterials

To further describe the road network overlay and how a road system is designed, Design Center staff presented a poster illustrating how access is controlled along county roads. Controlling access is done to minimize the number of conflicts along a corridor, improve safety and increase speeds. On arterial roads such as 125th Avenue, Lexington Avenue and 109th Avenue full access is limited to every one-half mile. Full access means both left and right turns are permitted at the intersection. These intersections could be signalized, although the county's preference is to limit signals to every mile at most on these roads. Full access intersections that are not signalized would have stop signs for traffic entering onto the county road. For less-traveled collector streets, such as Sunset Road, full access is allowed every one quarter mile. Between full access points, intermediate access is provided. Intermediate access intersections allow only right turns in and right turns out. Access at these intersections is often limited by medians, as this will be the case when Lexington Avenue is rebuilt in the near future.



This diagram shows how an idealized access network would work. Possible locations for full access intersections are indicated by heavy dashed lines. Light dashed lines indicate the permitted frequency of limited access intersections. In real world situations, adjustments to this grid are made for existing roads, such as 114 Lane, 111 Ave. and National Street.

Conventional Street Classification

Conventional classification of streets is based upon vehicle movement (speed, volume and safety) and property access.

Principal arterials connect major metropolitan centers, regional business concentrations, such as shopping malls and business parks, and large institutional facilities. Principal arterials are designed with an emphasis on mobility with little or no direct access to adjacent land. Frontage roads often provide access to these roads. Interstate 35W, Highway 65 and 125th Avenue are examples of principal arterials.

Minor arterials provide additional connection to metropolitan centers and regional business concentrations. Minor arterials connect to principal arterials, other minor arterials, collector streets and some local streets. Mobility is emphasized with access limited to concentrations of commercial and industrial uses. Lexington Avenue and Raddison Road are local examples of minor arterial roads.

Collectors interconnect neighborhoods and small business nodes. As the name implies they are used to “collect” automobiles from local streets. Collectors equally emphasize mobility and land access with direct access limited to concentrations of businesses. Examples of collectors include Sunset Road and Cloverleaf Parkway.

Local streets interconnect residential neighborhoods and parcels within commercial and industrial areas. Direct access to residential land predominates.



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College of Architecture and Landscape Architecture
University of Minnesota January 2001

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DRAFT
NEIGHBORHOOD WORKSHOP SUMMARY

Finn Farm District

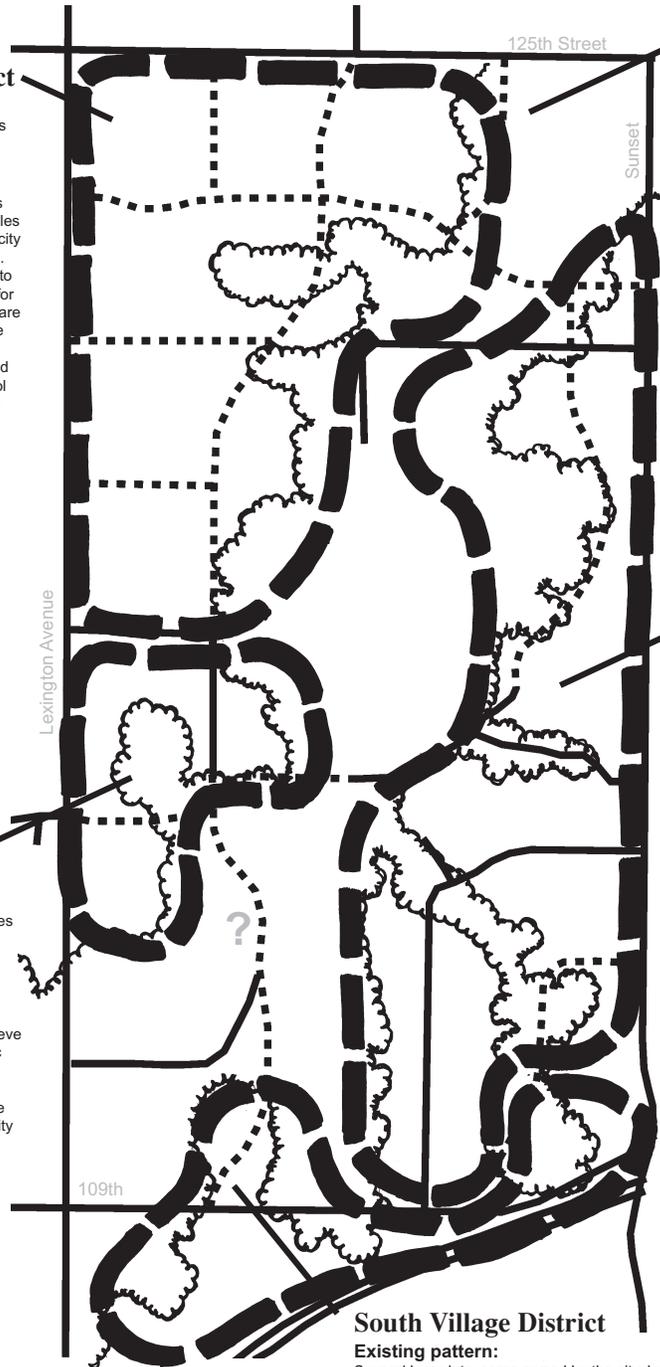
Existing pattern:
Sparsely populated farm land is held in larger parcels with predominantly high ground.

Future Cluster:
Master planned neighborhoods with a wide variety of home styles and sites are oriented along a city parkway and waterway system. Homes are clustered adjacent to upland natural areas, to allow for their preservation, and homes are more intensely clustered where adjacent to potential transit corridors. This neighborhood is a potential elementary school location and is served by small scale retail and commercial services.

Hupp Street Neighborhood

Existing pattern:
A diversity of home and lot styles are connected by local streets.

Future Cluster:
Building upon the diversity of character that exists, some additional clustering of homes occurs along Lexington to achieve bus service and maybe a traffic light. The neighborhood is connected to adjacent neighborhoods and open space by local streets and a community parkway.



Lochness Greenway System

Existing pattern:
A variety of wetlands and remnant woodlands within a landscape of agricultural fields and residential lawns.

Future Pattern:
A privately and publicly managed corridor of restored high quality wetlands and adjacent uplands large enough to allow preservation of native plant and animal communities. Wetlands are fed by a waterway system from adjacent neighborhoods that sustains or improves rather than degrades water quality.

Sunset District

Existing pattern:
Neighborhood of single family homes typically on five acre lots backing on to a natural resource corridor.

Future Cluster:
North end:
Flexible zoning, similar to North Oaks West allows for some smaller lots and preservation of an upland fringe, if septic can be safely accommodated. Dry land for building is limited.

South end:
More recently built homes here have no immediate need or desire for sewer hook-up, but have enough dry land and are laid out in such a way as to accommodate more intense development in the future along traditional block patterns. Connections adjacent open spaces are made primarily through trails and walkways, though some new local street could connect north to south.

South Village District

Existing pattern:
Several large lots, some owned by the city, have upland areas that are adjacent to new commercial development along 109th and to the intersection of Sunset and I-35 W.

Future Cluster:
Townhomes and apartments are sited to preserve and have views of natural areas, as well as access to park land, transit and commercial services. Explore improved alignment of 109th at Sunset.



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NE Blaine Planning Study 2000–01

Transportation Planning

Information Regarding Traffic within the Northeast Planning Area

Residents at the last meeting requested information about current levels of traffic and traffic impacts of different kinds of development. While an assessment of those impacts must wait until some kind of plan is proposed, the following information and rules of thumb are intended to give some base line information from existing documents and describe how traffic is forecasted and analyzed.

Transportation Planning, Forecasting

There are a variety of ways to forecast traffic conditions. For instance, Anoka County uses the Twin Cities Metropolitan Regional Travel Model that looks at the road network, demographic data and trip generation. Based upon county projections, the forecasted traffic levels for 2015 for the roads through this area will not have capacity deficiencies. (A deficiency is a level of service “D” or below on a scale of A-F. Level of service describes the relative traffic flow of the road.)*

The trip generation study can be applied to the site scale and is typically required by a developer as part of an Environmental Assessment Worksheet (EAW). Different land uses tend to produce a certain number of trips onto the community road network. For example, single family homes tend to generate 9.57 trips per dwelling unit per weekday. An apartment generates a rate of 6.63 trips per dwelling unit.** A townhouse is typically around 7 units per dwelling unit. Other land uses, such as office, retail, service and institutional uses all have different trip generation rates. These are typically tied to amount of square footage in the building. For example, a medical dental office generates approximately 36.13 trips per thousand square feet of building.

These raw numbers would only be one component of a trip generation study. They are based on typical suburban development patterns. Factors such as local patterns, mix of uses, availability of transit and degree of internal connections between land uses would alter these rates.

In cases where there is no site plan, a procedure for estimating trip generation for generalized land uses can be used. In such cases, “Users of this procedure are cautioned that the resulting estimates should be considered order-of-magnitude at best, and must be recalculated and the analysis redone once a specific land use and development size are known.”***

* Anoka County Transportation Plan, 1997

** From Most Used Trip generation Rates from the 6th Edition ITE Trip Generation Report, a

“spreadsheet developed as a convenience for the professional.” G. Sokolow, Fla DOT

*** Trip Generation Handbook: An ITE Proposed Recommended Practice, ITE, 1998

Lexington Ave. (otherwise known as County State Highway 17)

- Existing average daily traffic:
7100 (109th to Main)
6800 (Main to Bunker Lake Blvd.)
Source: City’s Comprehensive Plan, March 2000

- Forecasted 2015 average daily traffic:
10,000-15,000 109th to Main
10200-11,600 Main to Bunker Lake Blvd.
Source: Anoka County Transportation Plan, 1997

- Capacity of Four Lane Divided, typical:
32,000 (these are generalized numbers and some roadways may operate differently than noted.)
Source: Anoka County Transportation Plan, 1997

Radisson Road

- Existing average daily traffic:
5600 (109th to Fox Ridge Rd.)
4500 (Fox Ridge Rd. to Cloud Dr.)
Source: City’s Comprehensive Plan, March 2000

- Forecasted 2015 average daily traffic:
5900-8300 (109th-Main St.)
Source: Anoka County Transportation Plan, 1997

- Capacity of Two Lane, typical:
12,000 (these are generalized numbers and some roadways may operate differently than noted.)
Source: Anoka County Transportation Plan, 1997

Main St. (otherwise known as 125th or County State Highway 14)

- Existing average daily traffic:
6700 (Radisson to Harper)
5900 (Harper to Sunset)
Source: City’s Comprehensive Plan, March 2000

- Forecasted 2015 average daily traffic:
10,600-11,600 Radisson to Lexington
12,000-12,300 Lexington to Sunset
Source: Anoka County Transportation Plan, 1997

- Capacity of Four Lane Undivided, typical:
21,700 (these are generalized numbers and some roadways may operate differently than noted.)
Source: Anoka County Transportation Plan, 1997



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DISCUSSION DIAGRAM, 5/23/01: TIMING, LAND USE DESIGNATIONS

Limited interest in sewer and water and strong interest in maintaining 1 home in 4. Interest in some sewer development. Concept plans to be developed as part of this process. Land held in a rural condition until such time as it is included in the urban area.

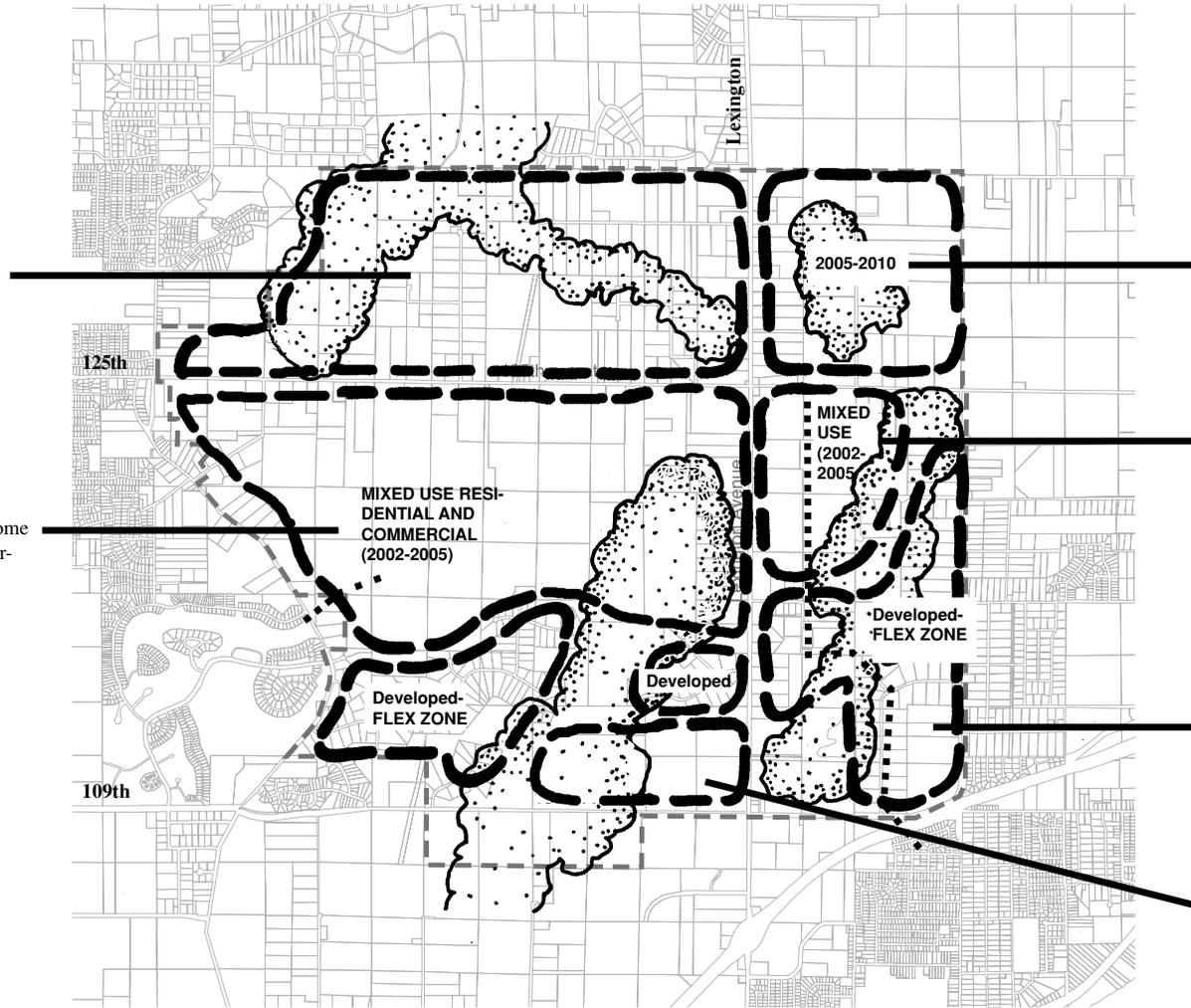
Variety of residential home types and lots. Commercial where appropriate. Environmental buffers/corridors/amenities.

Interest in some sewer development. Concept plans to be developed as part of this process. Land held in a rural condition until such time as it is included in the urban area.

Variety of residential home types and lots. Draft assessment policy in this area.

Draft assessment policy in this area. Flex zone as areas within urbanize.

Environmentally sensitive area with limited mixed-use development.



----- Potential trunk sewer-- location not exact

 Natural areas, upland and wetland-- locations not exact

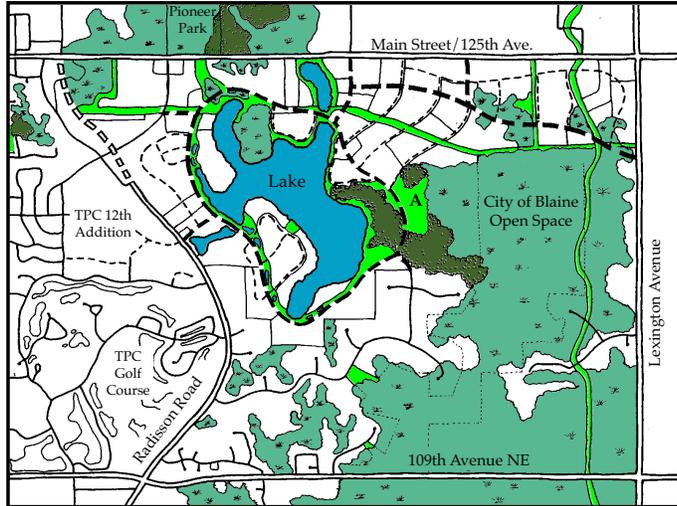


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West Meadows Neighborhood: Parkway Loop Scenario NE Blaine Planning Study 2000-01

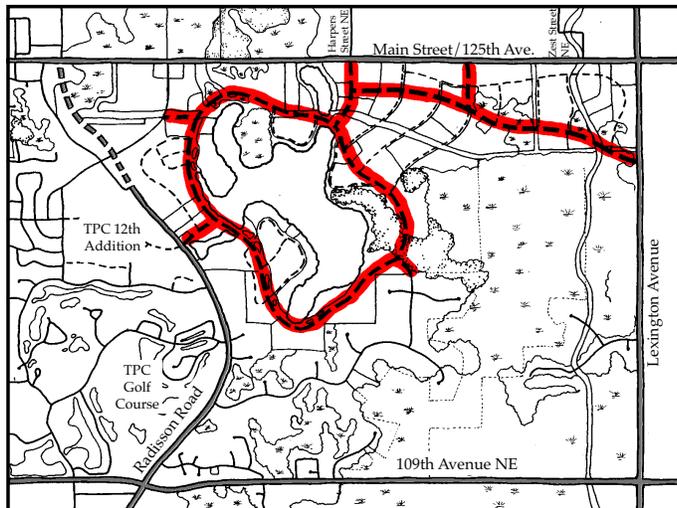


Natural Features and Open Space Theme: Central Community Gathering Area

Highlights

- A large neighborhood park and athletic facility (A) are located adjacent to the lake, existing woodlands, and City Open Space.
- Small neighborhood parks are located along trail corridors, parkways, and the lake.
- Existing utility easement serves as a trail corridor.
- Stormwater ponds for residential development are located along a parkway.

- New lake and stormwater ponds
- Parks, open space and potential trail corridors
- Wetlands
- Wooded uplands



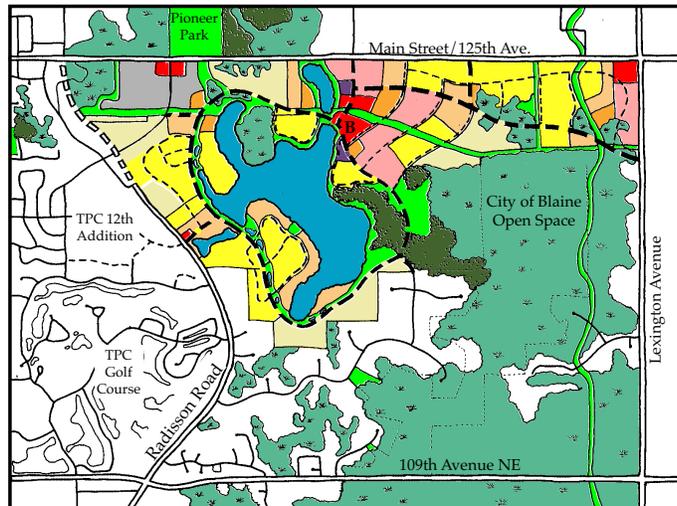
The Road System Theme: Roads Connect to Parkway Loop

Highlights

- Circular drive highlights the neighborhood's open space amenities.
- North-south and east-west connections provide access through the neighborhood but limit cut-through traffic.
- Transit potential: local circulator/mini bus system.
- Assumes discontinuous frontage roads, as needed for access of existing properties.

- Primary road network through new mixed use neighborhood

Note: The road network illustrated in the West Meadows Neighborhood includes collector streets and primary neighborhood streets. Roads which would define the individual blocks are not shown.



Land Use Theme: Mix of Uses Throughout

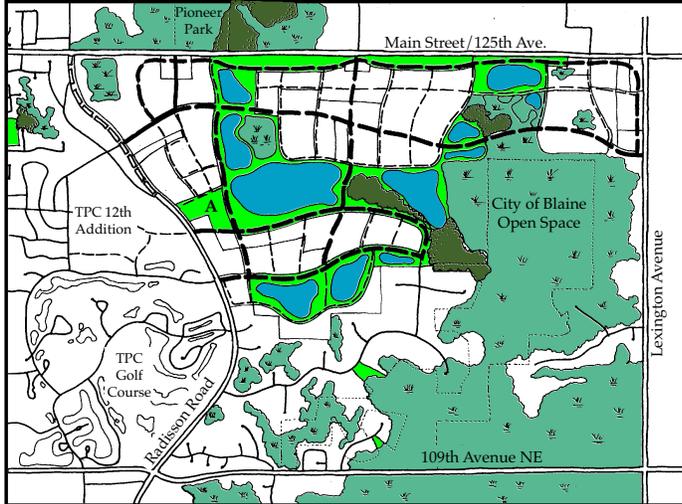
Highlights

- Pedestrian-friendly neighborhood center (B) featuring commercial, office and civic uses, such as churches, is centrally located within the neighborhood and adjacent to the lake.
- Neighborhood business and light industrial uses are located at key intersections along the arterial roadways.

- Retail
- Mix of office, commercial and light industrial
- Mix of office and light industrial
- Civic/Institutional (for example, churches)
- Condominiums and apartments
- Townhomes
- Single-family residential (1/5 acre to 1/2 acre lots)
- Single-family residential (1 acre to 2.5 acre lots)



West Meadows Neighborhood: Neighborhood Network Scenario NE Blaine Planning Study 2000-01

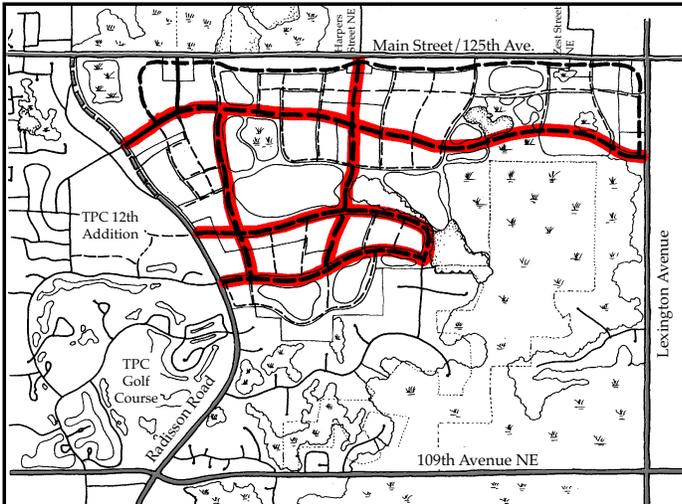


Natural Features and Open Space Theme: Recreation Corridors Between Residential Districts

Highlights

- Central corridor with primary trail connection between Pioneer Park and City Open Space.
- Recreation corridors contain a mix of trails, water, wetlands, play fields, tot lots and natural areas, as needed or where appropriate to buffer existing uses.
- Athletic facility located along Radisson (A).
- Evergreen greenbelt along 125th for sound buffering for new residential and to retain views of green along 125th.

- Open water features
- Parks, open space and potential trail corridors
- Wetlands
- Wooded uplands



Road System Theme:

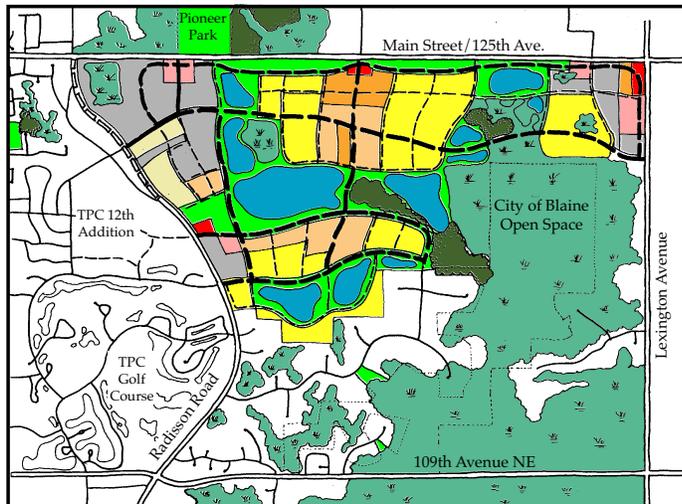
Multiple points of access and connection

Highlights

- Extends Blaine's traditional street and block pattern in the West Meadow area.
- Disperses east-west and north-south movements rather than concentrating traffic volumes.
- Network "broken" at various points to discourage non-local, cut-through traffic.
- Transit potential: assumed along 125th and Lexington.

- Primary road network through new mixed use neighborhood

Note: The road network illustrated in the West Meadows Neighborhood includes collector streets and primary neighborhood streets. Roads which would define the individual blocks are not shown.



Land Use Theme:

Businesses at the Corners

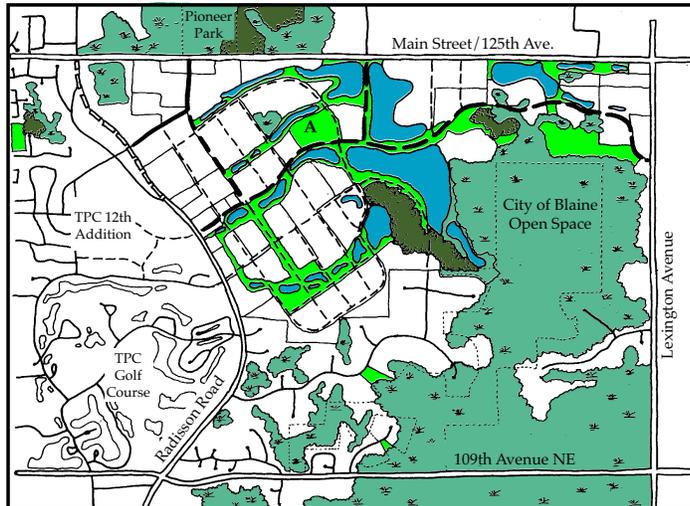
Highlights

- Residential districts are located centrally along 125th and Radisson. Each district has access to significant open space corridors.
- This scenario contains the largest percentage of businesses of the three scenarios.

- Retail
- Mix of office, commercial and light industrial
- Mix of office and light industrial
- Condominiums and apartments
- Townhomes
- Single-family residential (1/5 acre to 1/2 acre lots)
- Single-family residential (1 acre to 2.5 acre lots)



West Meadows Neighborhood: Connecting Parkway Scenario NE Blaine Planning Study 2000-01



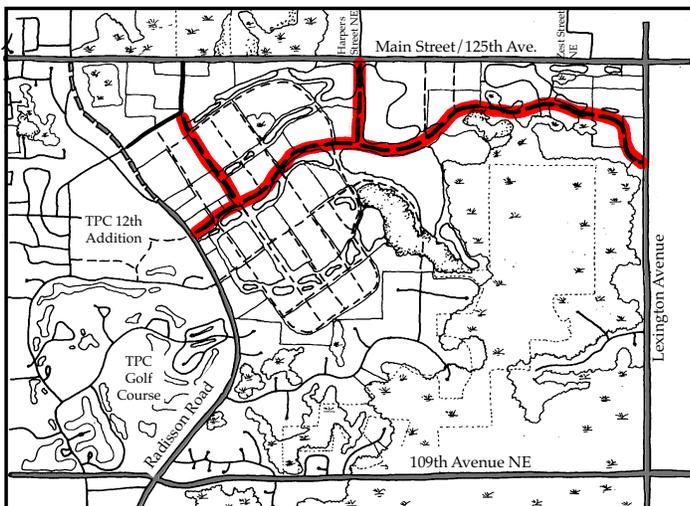
Natural Features and Open Space Theme:

Buffer and extend existing open space

Highlights

- Upland woodlands are added to wetland complex, with larger lots forming a buffer to the north (assumes a conservation-oriented design)
- Narrow fingers of open space extend into residential and office neighborhoods to provide access and location for wetland and open water features.
- A larger athletic facility (A) is located in the center of West Meadows. Smaller recreation areas and trails align along the parkway or green fingers.

- Open water features
- Parks, open space and potential trail corridors
- Wetlands
- Wooded uplands



Road System Theme:

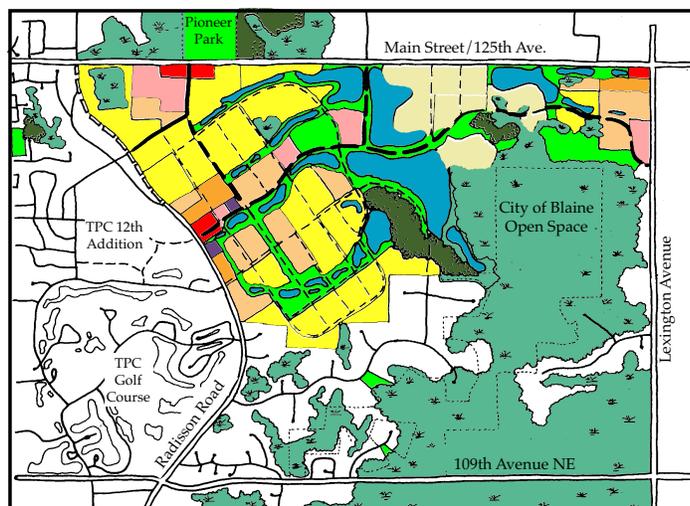
Parkway connects two residential districts

Highlights

- Each residential district is oriented toward potential transit connections—along Radisson and along Lexington Avenue.
- Discontinuous frontage roads provide access to existing properties along the arterials.
- Parkway is intentionally curvilinear to increase driving time and discourage non-local, cut-through traffic, as well as to highlight views of open space.

- Primary road network through new mixed use neighborhood

Note: The road network illustrated in the West Meadows Neighborhood includes collector streets and primary neighborhood streets. Roads which would define the individual blocks are not shown.



Land Use Themes:

Transit supportive arrangement and mix

Highlights

- Residences are arranged to approach the critical number of units within walking distance or quick drop-off to a transit stop. Located where complementary uses occur or a likely to occur on other side of arterials.
- Business uses are located either near existing businesses or dispersed in small areas throughout the neighborhood.

- Retail
- Mix of office, commercial and light industrial
- Mix of office and light industrial
- Civic/Institutional (for example, churches)
- Condominiums and apartments
- Townhomes
- Single-family residential (1/5 acre to 1/2 acre lots)
- Single-family residential (1 acre to 2.5 acre lots)

North East Blaine Study Area

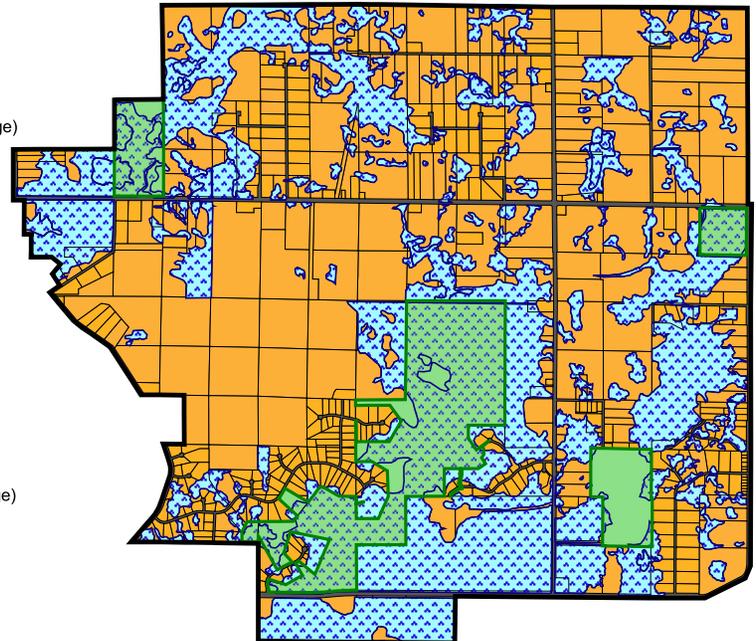
Analyzing Developable Acres: Showing Private Land Without Wetlands
& Showing Full Wetland Shapes on Public and Private Land

North Woods West
 Total Neighborhood Acreage 1390 Acres
 Total Private Parcel Acreage 1310 Acres
 Parks and Public Property 80 Acres
 Wetlands on Private Parcels 436 Acres
 Wetlands on Public Land 58 Acres
 Total Developable Land 874 Acres
 (Private Parcel Acreage minus Private Wetland Acreage)

North Woods East
 Total Neighborhood Acreage 622 Acres
 Total Private Parcel Acreage 622 Acres
 Parks and Public Property 0 Acres
 Wetlands on Private Parcels 108 Acres
 Wetlands on Public Land 0 Acres
 Total Developable Land 514 Acres
 (Private Parcel Acreage minus Private Wetland Acreage)

West Meadows
 Total Neighborhood Acreage 2854 Acres
 Total Private Parcel Acreage 2391 Acres
 Parks and Public Property 463 Acres
 Wetlands on Private Parcels 879 Acres
 Wetlands on Public Land 406 Acres
 Total Developable Land 1512 Acres
 (Private Parcel Acreage minus Private Wetland Acreage)

Lochness Lake
 Total Neighborhood Acreage 1209 Acres
 Total Private Parcel Acreage 1082 Acres
 Parks and Public Property 127 Acres
 Wetlands on Private Parcels 432 Acres
 Wetlands on Public Land 46 Acres
 Total Developable Land 650 Acres
 (Private Parcels Acreage minus Private Wetland Acreage)



All Four Neighborhoods in the North East Study Area

Total Neighborhood Acreage 6078 Acres
 Total Private Parcel Acreage 5408 Acres
 Parks and Public Property 670 Acres
 Wetlands on Public Land 510 Acres
 Wetlands on Private Parcels 1857 Acres
 Total Developable Land 3551 Acres
 (Private Parcels without Private Wetlands)

 Design Center for American Urban Landscape
 College of Architecture and Landscape Architecture
 University of Minnesota
 August 1, 2001

