CREATING ACCESS TO TRANSIT & DESTINATIONS IN THE I-394 TRANSIT CORRIDOR

CENTER FOR CHANGING LANDSCAPES, UNIVERSITY OF MINNESOTA 2008
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This study is dedicated to the memory of Ralph Rapson, designer, teacher, mentor, and colleague.

Funding for this planning study was provided by the U.S. Department of Transportation through the Federal Highway Administration (FHWA), under provisions of the Value Pricing Pilot Program as authorized under ISTEA, TEA-21 and SAFETEA-LU, and the Minnesota Department of Transportation under an 80-20 percent split.

This publication is available in alternative formats upon request. Direct requests to:

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Special thanks to:

Hennepin County:
Linda Koblick
Marthand Nookala
Blair Tremere

City of Golden Valley:
Mark Grimes

City of Minnetonka:
Julie Wischnack
Ron Rankin

City of Saint Louis Park:
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City of Plymouth:
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City of Wayzata:
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Federal Highway Administration:
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MnPASS Vision for the Future:
This design investigation, MnPASS, TRANSIT & COMMUNITY FORM is part of the larger interdisciplinary study I-394 MnPASS Phase II Planning Study: Vision for the Future funded by the Federal Highway Administration’s Value Pricing Pilot Program and the State of Minnesota and led by the Minnesota Department of Transportation. The study’s goals where to work with Metro Transit and the local communities to identify strategies for increasing capacity and transit use on the frequently congested Interstate 394. Included in the study’s team was an engineering firm that studied a number of engineering and design enhancements on the existing interstate to enhance capacity. Another consulting engineering firm analyzed current transit service and made recommendations to improve corridor transit performance and rider comfort. The State and Local Policy Program of the Hubert Humphrey Institute of Public Affairs University of Minnesota staffed the advisory committee, the study’s telecommuting portion, and led the community outreach efforts. The design team, the fourth group, produced this plan/design.

Project Approach:
This work seeks to harness the power of design to create opportunities and solve problems to increase the effectiveness of transit and promote its use in the auto-dominated, congested I-394 Corridor west of Minneapolis, Minnesota. A part of the MnPASS Phase II Project, it goes beyond the standard place-making approach: that is, making a transit station along a transit line, to look at the design implications of the proposed stations at the regional, community, district, and site scales. It recognizes that in designing a station, access is crucial, and that transit changes on I-394 impact both the interstate highway and the Twin Cities’ regional transit system. The work also recognizes that siting a station adds value to the surrounding land and concentrating development on underutilized land creates land use patterns that support transit by creating destinations. The work responds to the desire for better transit and addresses important environmental concerns in an area that has many of surface and ground water issues; issues that have long been articulated by citizens and local governments.

Project Background:
The MnPASS Phase II Planning Study seeks to integrate more effective transit on I-394 between the City of Wayzata and downtown Minneapolis in both the short term and the long term. The I-394 Corridor is an important and popular artery to downtown Minneapolis and the site of MnPASS, a successful congestion pricing initiative that creates more corridor capacity by managing traffic during periods of peak use. Because current plans do not call for the expansion of the number of its lanes, and the communities along the corridor have expressed a strong desire for better transit in the corridor, MnPASS II explores the opportunities to increase corridor capacity and increase transit use in the current corridor through an interdisciplinary effort that addresses highway configuration, current transit, transit needs assessment, land use planning, and community design.

Scope of Land Use/Community Design Work:
Because levels of transit use are influenced by the quality and frequency of access to the transit system and the type and quantity of destinations clustered along the system, this land use/community design portion of MnPASS II focuses on station location, access systems, and land uses that support transit use. It creates major transit stations along the corridor and access systems that make getting to the stations easier for drivers, bikers, and pedestrians. It also identifies land uses and building patterns that create intensified destinations along the route contiguous to the stations in order to promote transit and strengthen each station area as an important, appropriate, and memorable part of the community in which it is located.

Community Collaboration:
The planning/design team worked with the corridor communities of Wayzata, Plymouth, Minnetonka, Golden Valley, and Saint Louis Park to identify opportunities and constraints in each community with the goal of responding to the community’s needs and aspirations and influencing their comprehensive plans and future development decisions.

Land Use/Community Design Team:
The Center for Changing Landscapes team of architects, landscape architects, and urban designers worked on the planning/design work. The Center for Changing Landscapes is part of the College of Design and the College of Food, Agriculture, and Natural Sciences at the University of Minnesota.
**Introduction:**
The Western Metropolitan Area has been an area of rapid suburban growth since the end of World War II. Golden Valley, Saint Louis Park, and Minnetonka are fully developed, and only a few undeveloped areas remain in Plymouth. Wayzata is in the midst of redeveloping an important part of its core. As development continues to the west, traffic congestion grows and land becomes more valuable.

Although historically there has been rail line to Wayzata and the inner suburbs benefited from rail lines that served industrial development, West Metro development has been shaped by its roads. Highways 100 and 169, County Road 73, and Interstate 494 run north and south. Their intersections with I-394 are important. In order to accommodate the increased traffic and the increased traffic congestion, old Highway 12 has been transformed into I-394 with HOV lanes and subsequently, these lanes have been transformed into MnPASS congestion-pricing lanes. The I-394 Corridor passes through Wayzata, Minnetonka, Golden Valley, and Saint Louis Park, and bisects Minneapolis' Bryn Mawr neighborhood on its way to downtown Minneapolis.
Green Infrastructure:
The West Metro exists just outside of the core of the Grand Rounds/Chain of Lakes Parkway System designed by Horace W.S. Cleveland for the City of Minneapolis in the mid-nineteenth century. This important green parkway network ties together many lakes, parks, and the Mississippi River. Subsequent additions to the original network have created a comprehensive set of parkways, walkways, and bike paths that are often associated with the city’s existing hydrologic systems. This extensive green recreational network gives structure and organization to the urbanized environment, celebrates the character of the landscape, preserves the landscape’s environmental functioning, and provides safe pedestrian and bicycle pathways to a transit stop. The expanded network in this study area includes:

- The lakes themselves, channels connecting the lakes, and their trail networks,
- The Theodore Wirth Parkway and its associated park,
- The Cedar Lake Bike Trail, and
- Many local trails, greenways, and parkways.

Although the West Metro has a number of sidewalks and bicycle and pedestrian pathways, most are fragmented, especially near the I-394 corridor. Few are connected with each other to make a pathway system, and few provide transit access. Many communities are interested in or are in the process of developing a larger, more comprehensive pedestrian/bike pathway system.
**Hydrology & Water Connections:**

The hydrology and hydrography of any landscape forms the base of a system of complex natural interactions. The West Metro studied in this project has two watersheds that discharge into the Mississippi River: the Bassett Creek Watershed to the north and Minnehaha Creek Watershed to the south. The water from these two perennial streams contributes both water flow volumes and pollutants to the Mississippi River, and as such, impacts the overall water quality and quantity of the regional water supplies. The quality of the surface water of lakes, streams, and wetlands are also greatly impacted by the regional patterns of development and land uses. Impermeable surfaces created by development impact groundwater quality and quantity as well.

Because the land has many lakes, streams, and wetlands, development in the West Metro has been limited by the constraints imposed by the extensive networks of ground and surface water in the area. By directly incorporating these features into a connected system of green infrastructure, there is an opportunity to enhance corridor communities by providing non-motorized access to transit and creating a variety of recreational experiences while preserving and protecting these important resources.
Land Cover:
Land cover changes as the corridor moves west. Because much of the corridor’s development took place prior to regulations that protected wetlands, the older corridor communities have lost many of their natural features, but some still remain. The corridor’s eastern portion is heavily developed in the City of Minneapolis and in the first ring suburbs of Golden Valley and Saint Louis Park. Developed land thins as the corridor moves through the City of Minnetonka towards Wayzata. The many aquatic environments are concentrated in the eastern and western sections of the corridor. The area between County Road 73 and Highway 100 has less aquatic environments suggesting that because much of this land was developed before wetland regulations were put in place, lands were drained. Deciduous forested land is most prevalent in areas associated with aquatic environments, public recreational areas, protected lands, and more recently developed residential neighborhoods.
Land Use:
Commercial, retail, office, and industrial land uses dominate the parcels contiguous to the corridor. Green corridors of open space and parks that are bisected by the corridor are also characteristic. These occur in the eastern portion in Minneapolis/Golden Valley/Saint Louis Park, in the middle section in Golden Valley/Saint Louis Park, and again at the Ridgedale area in Minnetonka. Commercial uses buffer residential areas from I-394 in most places except in areas east of Highway 100 where the freeway bisects the Bryn Mawr Neighborhood and borders the Tyrol Hills Neighborhood of Golden Valley. Although there are some civic/institutional uses in the Ridgedale area, most of these uses are located on roads in other parts of the corridor communities at great distances from the corridor. Most of the lakes in the region are also located at a distance, but Crane Lake, Westwood Lake, and Brownie Lake are all located just south of the I-394.
Historical Development Patterns:
In 1957, the then Highway 12 Corridor connected the small City of Wayzata and other Lake Minnetonka communities to downtown Minneapolis. Grided networks of residential streets characterized the post World War II residential suburban neighborhoods in the first ring suburbs of Golden Valley and Saint Louis Park. Low density, auto-oriented commercial uses sprung up along the highway’s eastern portion while the western portion was largely undeveloped.

By 1987 much more auto-oriented development was located along the Highway 12 Corridor. Ridgedale, a regional shopping center, was built in spite of many environmental concerns about its impact on the hydrologic features of the area. Interstate 494 carried north and south traffic west of Ridgedale.

By 2005 Highway 12 had been converted to I-394 and its congested intersection with Highway 100 had been rebuilt to move traffic faster. In response to the desire for more transit from communities and citizens, park and ride facilities at Plymouth Road, Hopkins Crossroad, Louisiana Avenue, General Mills Blvd, and Park Place/Xenia were created along the freeway.
Current Visual Character:

Although there are natural areas of wetlands and lakes and areas of residential development, most of the corridor is lined with commercial uses. Office towers, hotels, corporate campuses, a regional shopping center, strip malls, and big box commercial are concentrated at some key access points along the I-394 corridor. Many auto dealerships are located on both the north and the south sides of I-394 on service roads that parallel the freeway.
Regional Shopping Center
Highway Infrastructure
Office Towers
Corporate Campuses
Big Box Commercial & Auto Dealerships

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Soils & Development Constraints:
The component soils maps from the United States Department of Agriculture Natural Resource Conservation Service (USDA NRCS) indicate much about the current corridor development and its future development/redevelopment potential. The boundary of urban composite soils is shown in brown. West of the urbanizing boundary, the distinctive stability and erosion rates of the existing native soils determine their suitability for development and redevelopment. Poorly drained soils are often hydric in nature making them less able to accept certain types of development or any kind of development at all. Well-drained soils that readily infiltrate water offer more potential for development and redevelopment because they are more stable and have less potential to contribute to flooding. There are many places in the corridor with wet or poorly drained soils as shown in the map.
Underutilized Land:
Although much of the I-394 Corridor is developed, many of the commercial, retail, and industrial areas on and near the corridor are underutilized. As the Twin Cities Metropolitan Area’s growth has accelerated, opportunities to redevelop the low-rise, low-use land along the corridor have increased. Although some parcels are currently being redeveloped west of Highway 100, there are many others that offer similar opportunities. Many are near places where transit lines intersect with I-394 and the locations of current or future park and ride facilities. Some towers already exist at these intersections. Adding more towers and bus stations at these key places would reinforce an existing pattern of use, utilize the valuable land more efficiently, increase the tax base of fully developed communities, and increase transit use by adding destinations and access points to the I-394 transit route and the routes that cross the freeway at these points.
Underutilized land (includes commercial/retail & industrial areas near the I-394 corridor and non-hydric undeveloped lands)
These are excerpts from recommendations made by URS Corporation:

This section outlines recommendations for transit improvements in the I-394 Corridor and reflects comments received during the course of the Study. Even though the I-394 Corridor is a well developed area, there may be environmental impacts associated with the recommendations which should be explored prior to any recommendation being acted on.

These recommendations are tied to the focus on identifying strategies which optimize transit service levels in the I-394 Corridor. The specific transit recommendations and associated benefits that support the overall goal of this study are:

- Introduce service along the south frontage road supported by a series of neighborhood feeder bus routes. Benefit: Provides easier connections and quicker service making transit choice more attractive.
- Create a transit station at Ridgedale with at least 500 park and ride spaces. Benefit: Fulfills unmet parking needs and creates opportunity for public/private partnership.
- Provide additional heated bus shelters. Benefit: Provides climate controlled shelter for transit patrons, making transit choice more attractive.
- Create a pedestrian bridge connecting the north and south park and ride lots at Hopkins Crossroads. Benefit: Provides convenient access for both parking lots which is expected to lead to greater utilization of north lot. Eliminates/reduces need to have buses stop at north parking lot.
- Install traffic signal priority for transit buses at Louisiana Avenue. Benefit: Provides quicker travel times for bus travel, making transit choice more attractive.
- Provide a grade separated roadway under Park Place/Xenia that creates a continuous connection for the south frontage road. Benefit: Provides quicker travel times for bus travel, making transit choice more attractive. If opened to all vehicle traffic, could serve to help mitigate traffic congestion in the area.

The transit team and the design team worked together to select the areas to site transit stations and stops.
Limited Stop Service (Eastbound Movements)
Limited Stop Service (East & Westbound Movements)
Alternative Routing for Limited Stop Service
Transit Center
Feeder Bus Routes

Transit Consulting Team Graphic
Corridor Analysis Conclusions:
The analysis of the corridor soils, hydrology, vegetation, ground and surface water systems, land uses, and transportation systems led to the following conclusions:

- The developed land in much of the corridor is underutilized. Many existing one-story older commercial and industrial buildings are on high-value lands adjacent to the I-394 corridor. Some of these old, one-story retail and office buildings, car dealerships, and big box retail that occupy in strategic locations could be redeveloped with higher density.
- Because very few undeveloped corridor areas are not wetlands, the corridor’s water and soil conditions facilitate concentrating development/redevelopment in a few key areas, a development pattern that utilizes the land efficiently and supports transit.
- Because neighborhood transit routes and north/south highways cross I-394 at key points, these areas are candidates for redevelopment and new or enhanced transit stations.
- Along the corridor there are high concentrations of use, including office towers, at key intersections. Repeating this pattern adds to the existing visual character of the corridor.
- Because of the prevalence of hydric soils and the many areas of impermeable surfaces in the corridor, development/redevelopment needs to address challenging storm water runoff quantities.
- Existing, planned, and proposed regional and local pedestrian and bicycle trail systems could be extended and augmented to provide safe, pleasant access to transit while continuing to be recreational assets in this automobile-dominated environment.
- Important ecosystems exist in close proximity to I-394 that offer the potential to link existing municipal and regional parks. These new green transit access corridors for pedestrians and cyclists could be important new green civic assets in the corridor communities.
- Existing automobile-oriented land use patterns are barriers to transit use. Areas around bus stops/stations need to be reconfigured to facilitate pedestrian access to destinations located there.
- The transit recommendation to create new off-peak service on the south frontage road creates additional development opportunities for areas on the south side of I-394 and creates the need for effective pedestrian connections across the freeway to areas on the north side.

Design Area Selection:
After analyzing the physical characteristics of the I-394 Corridor and the transit service recommendations, two areas were chosen for concentrated planning and design:

- Greater Ridgedale Study Area in Minnetonka and
- Louisiana Avenue and Park Place/Xenia Study Area in Saint Louis Park/Golden Valley.

These were chosen because they:

- Were identified as places for bus stops for the direct and frequent limited stop service, all-day bus service, the neighborhood feeder bus service, and a transit center,
- Had some existing relatively dense land uses that support transit use,
- Had the potential for additional transit-supportive development and redevelopment, and
- Like many sites along the I-394 Corridor, both of these sites lacked adequate pathways for pedestrian and bicycle access.
Greater Ridgedale Study Area, Minnetonka
Louisiana Avenue and Park Place/Xenia Study Area, Saint Louis Park and Golden Valley
**Land Use:**
Because currently much of the land along corridor north of I-394 between Highway 100 and Louisiana Avenue is underutilized, an opportunity exists for higher density, mixed use development that would buffer the residential neighborhood from the freeway, create transit access for residents, and transit destinations for transit users. Currently the land southwest of the intersection of I-394 and Highway 100 is being redeveloped which will create a destination for transit users. The site will eventually have a million square feet of office space.

**Area Character:**
The texture of this area is largely urbanized with distinctive natural or naturalized green corridors. Many, but not all residential areas, have a gridded street system, a street pattern that is good for neighborhood transit. Much of the open space in both cities is located in existing local and regional parks, wetland areas, storm water ponds, and along rail corridors.
Existing Conditions

Saint Louis Park

Golden Valley

Highway 100
Land Patterns:
Both Golden Valley and Saint Louis Park have multi-family and single-family residential areas that are within walking distance I-394. The commercial and institutional lands clustered both north and south of the freeway are underutilized. Golden Valley is in the process of rezoning some of this land for mixed use. The parcels southwest of Highway 100/I-394 are being redeveloped now with high-density commercial/retail/office towers. Most of the green areas surround storm water detention ponds that were required to handle storm water when this area was initially developed.

Blue/Green System:
A conceptual hydrological pattern of areas of hydric soils, open water, and wetlands connects Louisiana and Park Place/Xenia corridor land to Sweeney Lake, Theodore Wirth Lake and Park, and the Minneapolis Parkway System. This connection is a part of a linked trails and pathways system that provides transit stop access at both the Louisiana Avenue and Park Place/Xenia bus stops. Although suburban in character, the connection could be similar to the Minneapolis Parkway System because this green civic amenity system would link parks, lakes, ponds, and wetlands.

Paved Surfaces:
The auto-dominated character of the current development utilizes the land poorly because of the large areas currently needed for roads and parking lots. The impervious character of the paved surfaces that dominate the land on both sides of the freeway also provide design challenges because storm water runoff is a large redevelopment issue for the area.

Circulation Patterns:
Currently I-394 and Highway 100 carry heavy regional traffic. Louisiana Avenue and Park Place/Xenia provide access to I-394 from both Golden Valley and Saint Louis Park. An operational CPRail line crosses I-394. If the CP Rail line were abandoned in the future, the railroad right-of-way could be used for a segment of the Three Rivers Regional Network Trail. The current transit service on I-394 is fed from a variety of local MTC bus routes. The current pedestrian circulation system provides some, but not ideal access to the bus stops.
Paved Surfaces

Auto & Rail Circulation

Transit Routes

Pedestrian Circulation
Design Opportunities and Challenges:

*Potential Development/Redevelopment Areas:*

The present land uses in Golden Valley north of I-394 between Highway 100 and Louisiana Avenue make this underutilized area a prime development/redevelopment site along the corridor. Currently this area is being rezoned for mixed use to facilitate future redevelopment.

Development/redevelopment plans and the projects that are currently being constructed south of I-394 west of Highway 100 reflect Saint Louis Park’s interest in creating higher density uses that support transit in areas by the Park Place/Xenia transit stop. Other opportunities exist on the underutilized land by the Louisiana Avenue stop.
Design Strategy:
Currently both Golden Valley and Saint Louis Park are extending their trail systems. Besides being networks for recreational walking and biking, these systems offer the potential to be extended to provide access to the corridor’s transit. Water originally flowed from the southwest by Westwood Lake across the site of the current freeway, moved northeast in an arc to Sweeney Lake in the northeast and then headed south along Theodore Wirth Parkway to the Chain of Lakes in Minneapolis. As is indicated on the map in light blue, this flow moved from pond to pond and lake to lake. Urbanization has caused the natural flows to make turns to conform to road patterns. Reconnecting these natural flows where possible and reconnecting them symbolically where ever it is not possible, could create a new green civic amenity that adds value and enhances storm water runoff management.

Pedestrian/bicycle pathways are sited along the course of the original system in order to provide users a green, high-quality trail experience to the transit stations. This design strategy also provides an opportunity to improve storm water treatment by linking existing storm water ponds to create an enhanced storm water system. The new path system also serves a recreational function because it provides access to city parks and trails and links to the Luce Line Trail and Minneapolis’ Chain-of-Lakes park and parkways.
Saint Louis Park Design:
Incremental changes in the area south of I-394 and west of Highway 100 in Saint Louis Park offer opportunities that encourage increased transit use both by those that live in Saint Louis Park and commute to work elsewhere and by those that travel to the Saint Louis Park to work. A major parcel of land between Park Place/Xenia and Highway 100 is currently being redeveloped; Duke Development is building the first phase of a million square foot office complex. This complex will create a major destination along I-394. The transit stops at Park Place/Xenia and Louisiana will also provide access to transit for those leaving the area to work, shop, and play. Although some hotels occupy a portion of the land along the freeway west of the new development, other parcels are underutilized. Because the residential neighborhoods to the south and the west are separated from the Park Place/Xenia transit station by a large wetland complex, two rail lines, and a cluster of big box retail stores, there are few connections to the Louisiana Park and Ride Station. In order to enhance this area as a destination, provide neighborhood access to the transit stations at both Park Place/Xenia and Louisiana Avenue, and use valuable lands more efficiently, the proposed design for this part of Saint Louis Park:

- Creates pedestrian and bicycle pathways to the Park Place/Xenia and Louisiana Avenue transit stations,
- Creates amenities that support denser redevelopment in some areas,
- Suggests land use changes that add value to the city’s tax base, and
- Supports the current new transit-friendly development.
Proposed Overall Design
Saint Louis Park Design, Continued:
Features of the new plans/design are described below.

The New Green Heart: Creating a Major Amenity
The existing wetland is transformed into a “green heart” that gives identity to the area and organizes this part of the city by:
- Relocating the existing public works’ storage area for brush and other materials to an area south of the railroad track,
- Making pathways that encircle the wetland areas,
- Creating a water feature south of Cedar Lake Road that also treats storm water run off,
- Creating public viewing areas at the terminus of Zarthan Avenue and along the pathways, and
- Siting new multifamily housing in the southwest corner that overlooks the wetland.

The Green Arteries: Connecting the Community to the Transit Stations
Saint Louis Park has invested in a number of popular parks, but does not have a parkway or trail system. In the design/plan the separated “parts” of the northeast corner of the city are connected to encourage walking, biking, and transit use by creating a network of pedestrian/bike paths. This system:
- Goes though Dakota Park, crosses the Cedar Lake Trail and the Burlington Northern railroad and passes under the Canadian Pacific railroad,
- Goes through the Costco and Home Depot parking lot,
- Moves east and west between Park Place and the Blackstone neighborhood,
- Goes north and south along the wetland complex to connect to the Eliot and Eliot View neighborhoods, and
- Crosses the rail line at Dakota Park to connect the residential Bronx Park neighborhood south of the rail line with the paths around the large wetland, the health club, the new development, and the route to the transit station.

The Rail Line Opportunity: A New North/South Connector
Because Louisiana Avenue is a very busy street, there will probably be a future need for an additional north/south street in this part of Saint Louis Park. Parks and existing patterns of development and use make creating a new north/south street a challenge. Although the north/south CP rail line is currently operating, this plan suggests that if the rail line were to be discontinued, the right-of-way could be used for a bicycle/pedestrian trail or a north/south parkway with a bicycle/pedestrian trail.

Using/Reusing Valuable Land: Modifying Development Patterns
Although the large development project that is currently underway and I-394 & Highway 100 supports transit use, there are additional opportunities to enhance the potential for increased transit use by creating more dense development in the area. The design/plan suggests:
- Adding denser commercial development south of the freeway between the two station areas,
- Adding dense mixed-uses between Hampshire Avenue and Dakota Avenue that align with 14th Street to provide a buffer between the denser commercial to the north and the residential to the south, and
- Adding multi-family along the wetland’s edges with access provided by the new north/south parkway corridor described above.
Golden Valley Design:
On the land between Xenia Avenue South and Louisiana Avenue north of the
freeway in Golden Valley many of the existing industrial and small-scale commercial
uses are converted to larger scale commercial and multi-family housing. Parkland,
ponds, and a greenway are created to link to the larger regional greenway systems
in order to:
- Create uses that support transit,
- Use this valuable land more efficiently,
- Create amenities that support the redevelopment,
- Create access pathways to the Louisiana and Park Place/Xenia transit stations,
- and
- Add value to the city’s tax base.

A mix of land uses and changes in infrastructure are recommended; features of the
new plans/design are described below.

A Transit-Friendly Redevelopment Strategy
Land uses and the streets are changed:
- An office tower complex and corporate headquarters are located on Louisiana
  at I-394,
- New denser commercial is located along the northern edge of I-394 west of the
  Park Place/Xenia Station,
- Liberty Carton and the Speak the Word Church are relocated,
- The rail spur that served Liberty Carton is removed,
- Golden Hills Road is extended to Market Street to create a street for access to
  the new commercial development just north of I-394,
- Laurel Avenue is reconfigured at Louisiana Avenue to accommodate either the
  new corporate campus or alternatively, a multi-family housing complex, and
- Additional multi-family housing between Laurel Avenue and the extended
  Golden Hills Road supports the existing multi-family housing north of Laurel.

A Green Space System & A Green Pedestrian/Bicycle Network
The green space system responds to the need for addressing storm water issues
and creating development-supporting amenities. It builds on, enhances, and
extends the existing ponds and addresses storm water issues generated by the
redevelopment. The green pedestrian network follows the hydrologic system to
enhance and extend the existing pedestrian pathways and to link to large regional
green recreational systems. Its features include:
- A series of ponds on the multi-family housing campus serve as storm water
  ponds for the redeveloped lands between Laurel Parkway and I-394,
- Laurel Avenue is transformed into a parkway that provides a setting for a new
  corporate headquarters and for the existing church and school,
- Laurel Park, a new linear neighborhood park that serves both the new
development and the older, single-family residential neighborhood further to the
  north, is created north of Laurel Parkway to provide a green amenity transition
  between uses,
- As the signature feature of Laurel Park, a new pond is created on the Speak
  the Word Church site and linked to make the Laurel-Cortlawn-chain-of-ponds
  system,
- The chain-of-ponds amenity retains storm water runoff generated from the office
towers and corporate headquarters at Louisiana and Laurel Parkway and treats
it before the water continues to flow east and northward as part of the larger
storm water cleaning system that eventually flows to the Mississippi River,
- New pedestrian and bicycle paths are created to make a system that provides
  pedestrian and bicycle access from the single-family neighborhoods, the existing
  commercial, and the new developments to the transit stops at Louisiana and
  Park Place/Xenia, and
- The existing north-south rail line is converted to a bike pedestrian path that
  connects the redevelopment area to a larger greenway system linking the Luce
  Line Trail, Sweeney Lake, Theodore Wirth Lake, the Chain of Lakes, and the
  Mississippi River.
Crossing I-394: Louisiana and Park Place/Xenia

Because increased transit use requires good pedestrian access to areas both north and south of the freeway, enhanced pedestrian access across the I-394 is needed. Currently pedestrians can cross I-394 on sidewalks on the Louisiana and the Park Place/Xenia bridges and on a pedestrian bridge connecting Hampshire Avenue in Saint Louis Park to Florida Avenue in Golden Valley. Because none of these provide protection from rain, wind, or snow, the pedestrian environment is at its best less than ideal during good weather, and more than challenging during inclement weather when pedestrians can be buffeted by wind, rain, and snow, and passing cars can splash water and snow. The design/plan provides weather-protected pedestrian environments on all three of the existing bridges.

Park Place/Xenia Crossing
Louisiana Avenue Crossing

Housing

Covered Pedestrian/Bike Crossing

Housing or Corporate Campus Around Expanded Water Amenity

Park and Ride with Shelter on Frontage Road

Office/Commercial Around New Parking Ramps

Commercial

Housing
A Mix of Land Uses:
Although the Ridgedale Shopping Center dominates the Ridgedale Area, it is much more than a large regional retail mall. It has five banks, big box retail, a grocery store, senior housing, multi-family housing, an urgent care facility, a YMCA, the Hennepin County Government Service Center, a public library, a hotel, an office center, a strip mall, and other stores. It is not a well organized, cohesive place. Vast parking lots, busy roads, and great distances separate these uses. A car is needed to move from place to place which increases traffic within the area itself. It is an environment not conducive to walking, biking, or using transit. However, this variety of land uses creates an opportunity to make it a special place that is knit together with pedestrian and bikeways that facilitate movement within the area and provide access to transit.

Area Character:
The Ridgedale Study Area has a highly urbanized center dominated by a regional shopping mall that is surrounded with smaller-scale, fragmented commercial uses and a cluster of county buildings. I-394 bisects it on the north. Multi-family complexes and wetland complexes form a transitional outer ring that separates the area’s commercial heart from single-family housing to the north and the south.
Existing Conditions
**Land Patterns:**
Ridgedale Mall, a regional shopping destination, is sited south of I-394 in a sea of paved parking lots. Smaller scale commercial, strip malls, and big box retail are located to the west of the Mall and across I-394 on a ridge that overlooks the freeway. A government service center, a public library, and a YMCA are on Ridgedale Drive, south of the Mall while senior housing and a hotel are southeast of the Mall. Senior and multifamily housing are north of the freeway on the land between the commercial uses and single-family houses. Green areas edge Crane Lake and the storm water ponds that were built to manage runoff from the vast areas of paved surfaces associated with the Mall, the local roads, and the freeway.

**Blue/Green System:**
Although the regional shopping mall and the interstate highway have altered the hydrology in this environmentally sensitive area, a conceptual pattern of hydric soils, open water, and wetlands still transverse the study area. This environmental system can be used to inform the design of the area’s character while providing pedestrian and bicycle access from residential, commercial, and civic areas to the transit station.

**Paved Surfaces:**
Because automotive access drove the shopping mall’s design and the newer developments contiguous to the mall followed suit, the area is dominated by impervious surfaces. Roads encircle the original mall building and its vast parking lots. Roads and parking lots dominate the newer, smaller-scale commercial areas.

**Circulation Patterns:**
Currently the design of the area around Ridgedale Center creates difficulties for pedestrians and cyclists and contributes to traffic congestion. Because roads and the traffic on them dominate the area and the sidewalks and bicycle pathways are discontinuous, the existing roads, bike paths, and sidewalks do not support walking or biking to reach transit stop facilities. Ridgedale Drive and Plymouth Road are the access points to the Ridgedale area. Because there is no westbound access ramp to I-394 at Ridgedale Road, traffic is concentrated on the westbound access at Plymouth Road, a traffic pattern that contributes to heavy congestion on this segment of Plymouth Road. Traffic congestion is particularly a problem at the intersection of Cartway Lane and Plymouth Road because Cartway is the most-used Mall entrance/exit road. There are many transit stops in the area, but the pedestrian and bicycle circulation systems needed to reach them are very inadequate. The connections between the single-family residential areas, the multi-family housing, and the Ridgedale Area are very poor or non-existent. The pedestrian and bicycle systems facilitating movement between places within the area are also very inadequate.

**Interstate 394 Access:**
The congestion on Plymouth Road, the proposed 500 car park and ride, the proposed transit station, and the area’s redevelopment potentials provide an opportunity to create a new I-394 westbound access ramp at Ridgedale Drive. The new I-394 access ramp would be needed to reduce current congestion on Plymouth Road and to accommodate traffic generated by the area’s new transit facilities and the redevelopment.
GREATER RIDGEDALE ANALYSIS

Design Opportunities & Challenges:

Limited Developable Land, Increased Land Values, Under-Utilized Land, Older Commercial Buildings:

Because Minnetonka is a fully developed suburb with many beautiful wetlands, Minnehaha Creek, and other water features that are highly valued by its residents, the city has few places to site concentrated new development. This limits opportunities for the city to respond to new needs and opportunities and increase its tax base. Ridgedale is one area in the city that offers the potential to build on its current strength as a mixed-use area with a high profile regional shopping mall by further concentrating development there. Currently small-scale commercial uses on the north side of I-394 between Ridgedale Drive and Plymouth Road underutilize this valuable land. The high, dry land offers an opportunity to build an office tower complex, a use that repeats the pattern found in many key locations along the I-394 corridor. Besides using the land more efficiently and creating more tax revenue, this new use would support transit and buffer the multi-unit housing behind it from the interstate highway. Further redevelopment opportunities exist at the Ridgedale Mall site and the areas to the south and the west of the Mall. Structured parking could free up much of the land currently devoted to parking lots for building additions to the Ridgedale Mall. Older, small-scale commercial areas could be replaced with denser, more compact commercial development.

New Transit Station/Park and Ride Facility:

There are few areas in the corridor that are appropriate for siting park and ride facilities due to development patterns and soil and water conditions. In order to accommodate MTC’s need for additional park and ride spaces in the western part of the corridor, there is an opportunity to locate a transit station and a 500 park and ride ramp at Ridgedale as recommended by the transit improvement section of I-394 MnPASS Phase II Planning Study: Vision for the Future.

Pedestrian and Bicycle Circulation Patterns and Redevelopment:

Although current conditions make reaching the area by bicycle or on foot challenging, there is a potential to knit this disconnected area together with systems that facilitate movement within the area and provide access to transit. The automobile-dominated, auto-dependent nature of the Ridgedale Area creates difficulty for pedestrians and cyclists and increases traffic congestion as cars move from place to place within the area. The area’s mixed uses, increased land values, underutilized land, older buildings, and the proposed transit station/park and ride facility offer an opportunity to transform the area substantially and reconfigure current land uses to make it a special destination that is connected by pedestrian and bicycle pathways. Ridgedale Center’s current planning to substantially expand its retail space could contribute greatly to a transformative redevelopment effort. The current mix of residential, institutional, and commercial uses offers a great potential. New development/redevelopment on the vast paved areas that currently separate the area could reshape its character from a large shopping mall surrounded by distant peripheral buildings to an integrated whole. This significant regional commercial area could become a special mixed-use place that reflects the character and values of the City of Minnetonka.
Ridgedale Area looking east

Bix Box Commercial

Low-rise development

Impervious surface

Strip Malls

Underutilized land north of I-394

Wetland southwest of Ridgedale

Crane Lake, east of Ridgedale

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GREATER RIDGEDALE ANALYSIS

Design Opportunities & Challenges:

Environmental Concerns:
Like most of the sites along I-394, the Ridgedale Area has soil and water issues. When the former farmland was being considered for the site of the Ridgedale Mall, community members and environmentalists raised strong concerns about the Mall’s impact on Crane Lake’s water quality and the area’s hydrology. These same concerns were raised again when Highway 12 was converted to I-394. Storm water ponds were created to receive runoff from the massive amounts of imperious surfaces created by the Mall’s building, its parking lots, the service roads, and the freeway. In addition to Crane Lake east of the Mall, there are large wetland complexes northeast of the freeway and southwest of the Mall. As Ridgedale seeks to expand and the City of Minnetonka seeks to redevelop land in the area, environmental issues will need to be addressed. This provides an opportunity to integrate significant environmental strategies into future development/redevelopment efforts.

Open Space, Open Water, and Watersheds:
Minnetonka has many wetlands; they are part of the city’s identity as a desirable green place to live, work, and play. Because the city is a fully developed suburb, a significant number of wetland tracts compose a large portion of the undeveloped land in Minnetonka. The wetland complexes located in the northeast and southwest portions of the Ridgedale Study Area are underutilized and isolated amenities. Although the northeast complex is connected to the areas to the north, the freeway separates it from Crane Lake. The southwest complex is not visible because development shields it from view. Detention ponds receive storm water from the freeway and the Mall, but they do not function as amenities. New development has greatly changed the area’s hydrology. Currently the Ridgedale Study Area lies on the watershed boundary between Bassett Creek Watershed that flows from the northwest to the northeast and the Minnehaha Creek Watershed that flows southwest to the southeast to the south. The land on the Ridgedale Mall site may have connected the flow of the wetland complexes in the southwest to the wetlands in the northeast. Historical aerial photos indicate a change to the spatial extent of the wetland complex and depict the increased volumes of water that inundate the area with rain events. These wetlands provide an opportunity to develop green trails that could provide pedestrian and bicycle access pathways, make links that connect the Ridgedale Area together, provide an opportunity to transform the detention ponds into amenities, and enhance water flow patterns while protecting and improving the environmental quality of the whole Ridgedale Area. Creating such a green corridor along the original watercourses that are now Ridgedale Road could give the Ridgedale Area a restored green identity, reinforce the green identity of the city, and connect the wetland complexes symbolically to honor the historic connection that has been severed by development.
 GREATER RIDGEDALE DESIGNS

Ridgedale Area Design:
The Ridgedale Study Area in Minnetonka is transformed from a 20th century automobile-dependent collection of a regional shopping mall, big box and small scale retail, offices, senior housing, multi-family housing, and civic institutions that are separated by roads and parking lots into an integrated, more environmentally-sensitive, green transit-friendly place. Some land uses in strategic locations are changed to facilitate this transformation. Although some older, smaller scale buildings are removed and replaced, many of the existing ones are enhanced and supported by the new developments and the automobile, transit, bicycle, and pedestrian networks improve access, decrease the need to use a car to move from one place to another within the area, and support the area as both a transit access point and a transit destination.

The transformation strategy:
- Utilizes this valuable land more efficiently by increasing its density,
- Builds on the existing mix of uses to strengthen all of them; more retail, more office, more multi-unit housing are added,
- Increases and improves the civic realm,
- Adds to the city’s tax base, and
- Creates pathways within the area and to the Ridgedale Transit Station.

The Renovated Commercial Heart: Ridgedale Center
Features of the design/plan include:
- Four hundred and fifty thousand square feet of retail space is added to the Ridgedale Center shopping mall by extending all four of the arms of the original building and adding retail buildings on either side of Cartway,
- A new green roofed parking ramp added between the northern and western arm of Ridgedale Center,
- A new westbound I-394 access ramp added at Ridgedale Drive to relieve congestion at Plymouth Road.
- A new transit station is added at the eastern arm of the Ridgedale Center.
- A new 500 car park and ride ramp added to Ridgedale Center between the northern and eastern arms of the Ridgedale Center,
- New commercial is sited on the Center’s large storm water pond,
- The commercial uses on Plymouth Road south of Cartway Lane and the retail cluster north of Cartway are infilled to create a pedestrian street that extends towards the Hennepin County Regional Service Center, court, and library south of Ridgedale Drive,
- New multi-family housing is added on Ridgedale Drive opposite the hotel, and
- All of the new and the old buildings are knit together with a system of pedestrian pathways that facilitate walking within the area and to the transit station.

The Renovated Ring: Areas Surrounding Ridgedale Center
Changes to the areas surrounding the mall include:
- Relocating the retail uses in the strip malls southwest of Plymouth Road and those along the north side of I-394 between Ridgedale Drive and Plymouth Road,
- Locating multi-unit housing west of Plymouth Road and south of the grocery store, and
- Creating new office tower complex on the high ground overlooking I-394.

The Green Signature: Using an Environmental Strategy to Create Place
In order to accommodate new, denser higher use of this area, address environmental issues created by development in this sensitive area, and reinforce the signature of Minnetonka as a city of trees, wetlands, streams, and lakes; a number of green strategies were used to create a green signature for the area. In addition to making it less car-dependent and more pedestrian, bicycle, and transit friendly through land use designations, the siting of buildings, the creation of a transit station, and system of pathways within the area; numerous other strategies were used. These include using green building strategies, creating trails that connect the neighborhoods to the Ridgedale Area, and creating a green belt that stretches from the area’s southwestern wetland complex, moves along Ridgedale Drive on the south and east past Crane Lake, and connects to the northeastern wetland complex. Specifics of the green belt include:
- Removing the many acres of parking lots and stacking parking in green-roofed parking ramps,
- Retrofitting the southeastern parking lot with infiltration strips and trees,
- Planting trees and other plants along pedestrian corridors and paths,
- Extending Ridgedale Center’s large storm water pond and transforming it into an area amenity,
- Creating a civic green space that treats storm water as it flows into the southwestern wetland complex, and
- Buffering existing storm detention ponds with plant materials that protect the shoreline and clean the water.
Proposed Design

- Plymouth Road
- Trail Connection to Neighborhood
- Civic Plaza/Stormwater Filtration/Terraces Lead to Wetland Trail
- Green Pedestrian Street Extends from Hennepin County Service Center/Library
- Specialty Shops & Expanded Water Amenity
- Greenway Trail & Raingarden System
- Multi-unit Housing
- Transit Station Serving Local Routes & Express Route Westbound
- Parking Ramp Accommodates 500 Car Park & Ride
- Pedestrian Connection Uses Landform to Bridge Frontage Road
- Westbound Ramp to I-394
- Wetland Trail Connects to Meadow Park
- Trail Connection to Neighborhood
- Multi-unit Housing
- Commercial
- I-394
- Green Rooftops Reduce Stormwater Run-off into Wetlands
- Transit Station Serving Express Route Eastbound
- Office Complex
- Pedestrian Connection to Neighborhood
GREATER RIDGEDALE DESIGNS

Blue/Green System:
The 1970s era Ridgedale Area is “rebranded” by making environmental features center of its new identity. Wetlands, a lake, green buildings, pedestrian pathways, upgraded retention ponds, and an extensive tree network all knit together the environmental system that was previously severed by the construction of the highway and shopping mall.

Development/Redevelopment:
The proposed redevelopment uses land more efficiently and reinforces the variety of uses in the area; it:
- Extends the arms of the shopping mall to accommodate its planned expansion in a way that retains and extends the mall’s internal circulation system,
- Uses infill to more efficiently use the commercial land along Cartway,
- Opens up views and access to the wetland complex by adding a civic space and multi-unit housing, and
- Redevelops the underutilized, valuable, and rare redevelopable land in the city north of the freeway as an office tower park that reflects the pattern of office towers at important intersections along I-394 while also buffering the existing multi-unit housing from the freeway.

Pedestrian/Bicycle System:
The current fragmented and dangerous pedestrian and bicycle paths are upgraded and expanded to accommodate movement within the entire area and to make it accessible from transit and the neighborhoods to the north and south that bound the area.
Proposed Design Systems

Proposed Blue/Green System

Proposed New Development

Proposed Pedestrian System
GREATER RIDGEDALE DESIGNS

Ridgedale Civic Plaza Conceptual Design:
The design/plan also addressed the site scale. The space created by the civic plaza has several dimensions:

- It reinforces Minnetonka’s identity as a place of water and green open space and the Greater Ridgedale Area’s green signature by opening up its southwest corner to connect to the wetland complex beyond,
- It is an amenity to be enjoyed by those in the buildings that overlook it,
- Because it is a public space, it is a gathering place for groups enjoying a community event and a place for individuals to enjoy a quiet lunch hour or observe the wetland’s wildlife, and
- It also has an ecological function because its stepped raingarden terraces treat the storm water run off generated by the area’s many impermeable surfaces before the water enters the wetland.

Architectural Scale Design Concepts:
These conceptual designs address issues of building form.

- Although Ridgedale Center is a major destination, it has a very weak presence on the I-394 Corridor. It is easy to miss because its location below the freeway makes it hard to see. The “high-rise” sign atop the Ridgedale Center extends the current skylight over the center’s central court and makes it a beacon along the freeway.
- Massing high-rise, mid-rise, and low-rise housing units together creates a residential-scale building that has a variety of housing units.
- If the transit station were to be located in a freestanding mixed-use building, these building form alternatives give the station an identifiable presence.
Ridgedale Architectural Concept Designs

High-Rise Signage

Housing

Transit Station Concepts
RESOURCES

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Reports:


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